

3GPP2 C.S0057-F

Version 1.0

Date: September 2015



3RD GENERATION
PARTNERSHIP
PROJECT 2
"3GPP2"

Band Class Specification for cdma2000 Spread Spectrum Systems

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| Revision | Description of Changes | Date |
|-----------------|---|----------------|
| Rev E v1.0 | L-band and S-band for xHRPD operation added. S-band for 1x and HRPD operation added | October 2010 |
| Rev F v1.0 | Mobile Satellite System Band for xHRPD added. | May 2015 |
| Rev F v1.0 | Re-publication text to fix editorial issues | September 2015 |

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FOREWORD**(This foreword is not part of this Standard)**

1
2 This Standard was prepared by Technical Specification Group C of the Third Generation
3 Partnership Project 2 (3GPP2). This Standard contains the band class specifications of the
4 IMT-2000 CDMA Multi-Carrier Mode. The IMT-2000 CDMA Multi-Carrier Mode consists of
5 cdma2000^{®1} Spread Spectrum Systems air interface specification [1], the CDMA High Rate
6 Packet Data Air Interface Specification [2], and the Ultra Mobile Broadband^{™2} Air Interface
7 Specification [10]. Other specifications are required to complete the air interface and the
8 rest of the system. Some of these specifications are listed in the References section.

9 Twenty different operating bands have been specified. Equipment built to this Standard
10 can be used in a band subject to allocation of the band and the rules and regulations of the
11 country to which the allocated band has been assigned.
12

¹ cdma2000[®] is the trademark for the technical nomenclature for certain specifications and standards of the Organizational Partners (OPs) of 3GPP2. Geographically (and as of the date of publication), cdma2000[®] is a registered trademark of the Telecommunications Industry Association (TIA-USA) in the United States.

² Ultra Mobile Broadband[™] and (UMB[™]) are trade and service marks owned by the CDMA Development Group (CDG).

FOREWORD

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2

NOTES

1 This volume defines the band classes of the CDMA Spreading Rate 1 and Spreading Rate 3
2 multi-carrier air interface standard for [1], all the band classes for [2], and all the band
3 classes for [10]. This volume consists of the following sections:

4 **1. General.** This section defines the terms and numeric indications used in this document.
5 This section also describes the tolerances used throughout the document.

6 **2. Requirements for Operation of [1].** This section describes the band classes for mobile
7 stations and base stations complying with [1]. This section also describes the open loop
8 output powers for the mobile stations operating in different band classes.

9 **3. Requirements for Operation of [2].** This section describes the band classes for access
10 terminals and access networks complying with [2]. This section also describes the open
11 loop output powers for the access terminals operating in different band classes.

12 **4. Requirements for Operation of [10].** This section describes the band classes for access
13 terminals and access networks complying with [10].
14

NOTES

- 1 1. Compatibility, as used in connection with this Standard, is understood to mean:
2 Any mobile station is able to place and receive calls. Conversely all base stations are
3 able to place and receive calls for any mobile station.
- 4 2. This compatibility Standard is based upon spectrum allocations that have been
5 defined by various governmental administrations.
- 6 3. Standards [3], [4], [5], [6], [11], and [12] provide specifications and measurement
7 methods for base stations and mobile stations.
- 8 4. Those wishing to deploy systems compliant with this standard should also take
9 notice of the requirement to be compliant with the applicable rules and regulations
10 of local administrations.
- 11 5. Those wishing to deploy systems compliant with this Standard should also take
12 notice of the electromagnetic exposure criteria for the general public and for radio
13 frequency carriers with low frequency amplitude modulation.
- 14 6. “Base station” refers to the functions performed on the land side, which are typically
15 distributed among a cell, a sector of a cell, and a mobile switching center.
- 16 7. “Shall” and “shall not” identify requirements to be followed strictly to conform to the
17 standard and from which no deviation is permitted. “Should” and “should not”
18 indicate that one of several possibilities is recommended as particularly suitable,
19 without mentioning or excluding others, that a certain course of action is preferred
20 but not necessarily required, or that (in the negative form) a certain possibility or
21 course of action is discouraged but not prohibited. “May” and “need not” indicate a
22 course of action permissible within the limits of the standard. “Can” and “cannot”
23 are used for statements of possibility and capability, whether material, physical, or
24 causal.
- 25 8. Footnotes appear at various points in this Standard to elaborate and further clarify
26 items discussed in the body of the Standard.
- 27 9. Unless indicated otherwise, this Standard presents numbers in decimal form.
28 Binary numbers are distinguished in the text by the use of single quotation marks.

29

1 GENERAL

1.1 Terms

Access Channel. A Reverse CDMA Channel used by mobile stations for communicating to the base station. The Access Channel is used for short signaling message exchanges, such as call originations, responses to pages, and registrations. The Access Channel is a slotted random access channel.

Access Network. The network equipment providing data connectivity between a packet switched data network (typically the Internet) and the access terminals. An access network is equivalent to a base station in [1].

Access Probe. A sequence of signaling transmitted by the Access Terminal to establish a connection to the Access Network.

Access Terminal. A device providing data connectivity to a user. An access terminal may be connected to a computing device such as a laptop personal computer or it may be a self-contained data device such as a personal digital assistant. An access terminal is equivalent to a mobile station in [1].

Band Class. A set of frequency channels and a numbering scheme for these channels.

Band Subclass. A set of frequency channels and a numbering scheme for these channels representing a subset of Band Class frequency coverage requirements.

Base Station. A fixed station used for communicating with mobile stations. Depending upon the context, the term base station may refer to a cell, a sector within a cell, an MSC, or other part of the wireless system. See also MSC.

CDMA. See Code Division Multiple Access.

CDMA Cellular System. The entire system supporting Domestic Public Cellular Service operation as embraced by this Standard.

CDMA Channel. The set of channels transmitted between the base station and the mobile stations within a given CDMA frequency assignment.

CDMA Channel Number. An 11-bit number corresponding to the center of the CDMA frequency assignment.

CDMA Chip Rate. For the base cdma2000 system [1], the chip rate is equivalent to the spreading rate and is either 1.2288 Mcps or 3.6864 Mcps. For the CDMA High Rate Packet Data Air Interface Specification [2], the chip rate is equivalent to the spreading rate of the channel and is 1.2288 Mcps.

CDMA Frequency Assignment. A 1.23 or 3.69 MHz segment of spectrum. The center of a CDMA frequency assignment is given by a CDMA Channel Number.

CDMA Preferred Set. The set of CDMA channel numbers in a CDMA system corresponding to frequency assignments that a mobile station will normally search to acquire a CDMA Pilot Channel. For CDMA cellular systems, the primary and secondary channels comprise the CDMA Preferred Set.

- 1 **Chip Rate.** See CDMA Chip Rate or UMB Chip Rate.
- 2 **Code Division Multiple Access (CDMA).** A technique for spread-spectrum multiple-access
3 digital communications that creates channels through the use of unique code sequences.
- 4 **Enhanced Access Channel.** A reverse channel used by the mobile for communicating to
5 the base station. The Enhanced Access Channel operates in the Basic Access Mode and the
6 Reservation Access Mode. It is used for transmission of short messages, such as signaling,
7 MAC messages, response to pages, and call originations. It can also be used to transmit
8 moderate-sized data packets.
- 9 **GHz.** Gigahertz (10^9 Hertz).
- 10 **Invalid Channel Number.** A channel number that shall not be mapped to a physical
11 frequency.
- 12 **MC.** See Multi-Carrier.
- 13 **Mcps.** Megachips per second (10^6 chips per second).
- 14 **Mean Output Power.** The total transmitted calorimetric power measured in a specified
15 bandwidth at the antenna connector when the transmitter is active.
- 16 **MHz.** Megahertz (10^6 Hertz).
- 17 **Mobile Station.** A station that communicates with the base station.
- 18 **Multi-Carrier.** A CDMA mode in the International Telecommunications Union IMT-2000
19 family of standards. The mode uses N ($N \geq 1$) adjacent 1.2288 Mcps direct-sequence spread
20 RF carriers on the Forward CDMA Channel and a single direct-sequence spread RF carrier
21 on the Reverse CDMA Channel.
- 22 **Orthogonal Frequency Division Multiple Access (OFDMA).** A multi-user version of the
23 OFDM digital modulation scheme. Multiple access is achieved in OFDMA by assigning subsets
24 of subcarriers to individual users.
- 25 **Orthogonal Frequency Division Multiplexing (OFDM).** A modulation technique that utilizes
26 multiplexing based on orthogonal complex harmonic basis functions together with a cyclic
27 prefix to allow multi-path resilience.
- 28 **PCS.** See Personal Communications Services.
- 29 **PCS System.** See Personal Communications Services System.
- 30 **Personal Communications Services System.** A configuration of equipment that provides
31 PCS radiotelephone services.
- 32 **Personal Communications Services (PCS).** A family of mobile and portable radio
33 communications services for individuals and businesses that may be integrated with a
34 variety of competing networks. Broadcasting is prohibited and fixed operations are to be
35 ancillary to mobile operations.
- 36 **Physical Layer.** The part of the communication protocol between the mobile station and
37 the base station that is responsible for the transmission and reception of data. The physical
38 layer in the transmitting station is presented a frame and transforms it into an over-the-air

1 waveform. The physical layer in the receiving station transforms the waveform back into a
2 frame.

3 **Primary CDMA Channel.** A pre-assigned channel in a CDMA Cellular System for
4 Spreading Rate 1 used by the mobile station for initial acquisition. See also Secondary
5 CDMA Channel.

6 **Radio Configuration.** A set of Forward Traffic Channel and Reverse Traffic Channel
7 transmission formats that are characterized by physical layer parameters such as data
8 rates, modulation characteristics, and spreading rate.

9 **RC.** See Radio Configuration.

10 **Reservation Access Mode.** A mode used on the Enhanced Access Channel and Reverse
11 Common Control Channel where a mobile station transmits an Enhanced Access preamble
12 and an Enhanced Access header in the Enhanced Access probe. The Enhanced Access data
13 is transmitted on a Reverse Common Control Channel using closed loop power control.

14 **Reverse Common Control Channel.** A portion of a Reverse CDMA Channel used for the
15 transmission of digital control information from one or more mobile stations to a base
16 station. The Reverse Common Control Channel can operate in the Reservation Access
17 Mode. It can be power controlled and may support soft handoff.

18 **Reverse Fundamental Channel.** A portion of a Reverse Traffic Channel which carries
19 higher-level data and control information from a mobile station to a base station.

20 **Reverse Supplemental Channel.** A portion of a Radio Configuration 3, 4, 5, 6, and 8
21 Reverse Traffic Channel which operates in conjunction with the Reverse Fundamental
22 Channel or the Reverse Dedicated Control Channel in that Reverse Traffic Channel to
23 provide higher data rate services, and on which higher-level data is transmitted.

24 **Reverse Supplemental Code Channel.** A portion of a Radio Configuration 1 and 2 Reverse
25 Traffic Channel which operates in conjunction with the Reverse Fundamental Channel in
26 that Reverse Traffic Channel, and (optionally) with other Reverse Supplemental Code
27 Channels to provide higher data rate services, and on which higher-level data is
28 transmitted.

29 **Reverse Traffic Channel.** A traffic channel on which data and signaling are transmitted
30 from a mobile station to a base station. For Radio Configurations 1 and 2, the Reverse
31 Traffic Channel is composed of a Reverse Fundamental Channel and up to seven Reverse
32 Supplemental Code Channels. For Radio Configurations 3 through 6, the Reverse Traffic
33 Channel is composed of a Reverse Fundamental Channel, a Reverse Dedicated Control
34 Channel, or both and up to two Reverse Supplemental Channels. For Radio Configuration
35 8, the Reverse Traffic Channel is composed of a Reverse Fundamental Channel or up to two
36 Reverse Supplemental Channels.

37 **Secondary CDMA Channel.** A pre-assigned channel in a CDMA Cellular System for
38 Spreading Rate 1 used by the mobile station for initial acquisition. See also Primary CDMA
39 Channel.

40 **Serving Frequency.** The CDMA frequency on which a mobile station is currently
41 communicating with one or more base stations.

1 **Spreading Rate.** The PN chip rate of the Forward CDMA Channel or the Reverse CDMA
2 Channel, defined as a multiple of 1.2288 Mcps.

3 **Spreading Rate 1.** Spreading Rate 1 is often referred to as “1X.” A Spreading Rate 1
4 Forward CDMA Channel uses a single direct-sequence spread carrier with a chip rate of
5 1.2288 Mcps. A Spreading Rate 1 Reverse CDMA Channel uses a single direct-sequence
6 spread carrier with a chip rate of 1.2288 Mcps.

7 **Spreading Rate 3.** Spreading Rate 3 is often referred to as “3X.” A Spreading Rate 3
8 Forward CDMA Channel uses three direct-sequence spread carriers (see Multiple-Carrier
9 Forward Channel) each with a chip rate of 1.2288 Mcps. A Spreading Rate 3 Reverse CDMA
10 Channel uses a single direct-sequence spread carrier with a chip rate of 3.6864 Mcps.

11 **SR. See Spreading Rate.**

12 **Sync Channel.** A code channel in the Forward CDMA Channel which transports the
13 synchronization message to the mobile station.

14 **UMB Channel Number.** An integer number from 0 to 65534 that is used to specify the center
15 frequency of a UMB channel.

16 **UMB Chip Rate.** The chip rate for the Ultra Mobile Broadband Air Interface Specification [10]
17 can be 1.2288 Mcps, 2.4576 Mcps, 4.9152 Mcps, 9.8304 Mcps, or 19.6608 Mcps.

18 **UMB Preferred Set.** The set of UMB channel numbers in a UMB system corresponding to
19 frequency assignments that a mobile station will normally search to acquire a UMB
20 superframe preamble.

21 **1.2 Numeric Information**

22 1.2.1 Mobile Station Stored Parameters

23 **1XRL_FREQ_OFFSET_s** – A 2-bit parameter indicating the offset between the Reverse Link
24 carrier frequency and the Forward Link carrier frequency when a Reverse Traffic Channel
25 with Radio Configuration 3, 4, or 8 is used with a Forward Traffic Channel with Radio
26 Configuration 6, 7, 8, 9, 11, or 12.

27 **CDMACH_s** – CDMA Channel number. The CDMA Channel number currently used by the
28 mobile station.

29 **EACH_INIT_PWR_s** – Initial power offset for the Enhanced Access Channel.

30 **EACH_PWR_STEP_s** – Power increment for successive Enhanced Access probes on the
31 Enhanced Access Channel, in units of 1.0 dB.

32 **INIT_PWR_s** – Initial power offset for Access Channel probes.

33 **NOM_PWR_s** – Nominal transmit power offset. A correction factor to be used by mobile
34 stations in the open loop power estimate, initially applied on the Access Channel.

35 **NOM_PWR_EXT_s** – Extended nominal transmit power offset. A correction factor to be used
36 by mobile stations in the open loop power estimate.

37 **PWR_STEP_s** – Power increment for successive Access probes on the Access Channel, in
38 units of 1.0 dB.

- 1 **RCCCH_INIT_PWR_s** – Initial power offset for the Reverse Common Control Channel.
- 2 **RCCCH_NOM_PWR_s** – Nominal transmit power offset. A correction factor to be used by
3 mobile stations in the open loop power estimate, initially applied on the Reverse Common
4 Control Channel.
- 5 **RLGAIN_ADJ_s** – Gain adjustment applied to the Traffic Channel output power relative to
6 the transmission power on the Access Channel, the Enhanced Access Channel, or the
7 Reverse Common Control Channel.
- 8 **RTC_NOM_PWR_s** – Reverse Traffic Channel Nominal Power. The nominal power to be used
9 by the mobile station for its initial transmission if the mobile station does not use the
10 Access Channel, the Enhanced Access Channel, or the Reverse Common Control Channel.

11 **1.3 Tolerances**

12 Unless otherwise specified, all values indicated are exact unless an explicit tolerance is
13 stated. Also refer to [3], [4], [5], [6], [11], and [12].

14 **1.4 System Selection Code**

15 Table 1.4-1 lists the band class values and the system selection codes for the various band
16 classes. See [7] (for Code) and [14] (for band class value and related standards) for more
17 details.³

18 **Table 1.4-1: System Selection Codes**

| Selected System | Band Class Value (Binary) | Code |
|------------------------|----------------------------------|-------------|
| Band Class 0, A-Band | 00000 | 00 |
| Band Class 0, B-Band | 00000 | 01 |
| Band Class 1, A Block | 00001 | 02 |
| Band Class 1, B Block | 00001 | 03 |
| Band Class 1, C Block | 00001 | 04 |
| Band Class 1, D Block | 00001 | 05 |
| Band Class 1, E Block | 00001 | 06 |
| Band Class 1, F Block | 00001 | 07 |
| Band Class 2, A-Band | 00010 | 08 |
| Band Class 2, B-Band | 00010 | 09 |
| Band Class 3, A-Band | 00011 | 10 |

³ Re-use of Codes 02 through 07 is permissible because the Band Class 14 A-Block through F-Block are exactly the same spectrum allocation as the Band Class 1 A-Block through F-Block.

| Selected System | Band Class Value (Binary) | Code |
|------------------------|----------------------------------|-------------|
| Band Class 3, B-Band | 00011 | 11 |
| Band Class 4, A-Band | 00100 | 12 |
| Band Class 4, B-Band | 00100 | 13 |
| Band Class 4, C-Band | 00100 | 14 |
| Band Class 5, A-Band | 00101 | 15 |
| Band Class 5, B-Band | 00101 | 16 |
| Band Class 5, C-Band | 00101 | 17 |
| Band Class 5, D-Band | 00101 | 18 |
| Band Class 5, E-Band | 00101 | 19 |
| Band Class 5, F-Band | 00101 | 20 |
| Band Class 5, G-Band | 00101 | 21 |
| Band Class 5, H-Band | 00101 | 22 |
| Band Class 6 | 00110 | 23 |
| Band Class 7, C-Band | 00111 | 24 |
| Band Class 8 | 01000 | 28 |
| Band Class 9 | 01001 | 29 |
| Band Class 10, A-Band | 01010 | 30 |
| Band Class 10, B-Band | 01010 | 31 |
| Band Class 10, C-Band | 01010 | 32 |
| Band Class 10, D-Band | 01010 | 33 |
| Band Class 10, E-Band | 01010 | 34 |
| Band Class 11, A-Band | 01011 | 35 |
| Band Class 11, B-Band | 01011 | 36 |
| Band Class 11, C-Band | 01011 | 37 |
| Band Class 11, D-Band | 01011 | 38 |
| Band Class 11, E-Band | 01011 | 39 |
| Band Class 11, F-Band | 01011 | 40 |
| Band Class 12, A-Band | 01100 | 41 |
| Band Class 12, B-Band | 01100 | 42 |
| Band Class 13, A-Band | 01101 | 43 |

| Selected System | Band Class Value (Binary) | Code |
|------------------------|----------------------------------|-------------|
| Band Class 13, B-Band | 01101 | 44 |
| Band Class 13, C-Band | 01101 | 45 |
| Band Class 13, D-Band | 01101 | 46 |
| Band Class 13, E-Band | 01101 | 47 |
| Band Class 13, F-Band | 01101 | 48 |
| Band Class 13, G-Band | 01101 | 49 |
| Band Class 13, H-Band | 01101 | 50 |
| Band Class 13, I-Band | 01101 | 51 |
| Band Class 13, J-Band | 01101 | 52 |
| Band Class 13, K-Band | 01101 | 53 |
| Band Class 13, L-Band | 01101 | 54 |
| Band Class 13, M-Band | 01101 | 55 |
| Band Class 13, N-Band | 01101 | 56 |
| Band Class 14, A-Band | 01110 | 02 |
| Band Class 14, B-Block | 01110 | 03 |
| Band Class 14, C-Block | 01110 | 04 |
| Band Class 14, D-Block | 01110 | 05 |
| Band Class 14, E-Block | 01110 | 06 |
| Band Class 14, F-Block | 01110 | 07 |
| Band Class 14, G-Block | 01110 | 57 |
| Band Class 15, A-Band | 01111 | 58 |
| Band Class 15, B-Band | 01111 | 59 |
| Band Class 15, C-Band | 01111 | 60 |
| Band Class 15, D-Band | 01111 | 61 |
| Band Class 15, E-Band | 01111 | 62 |
| Band Class 15, F-Band | 01111 | 63 |
| Band Class 16, A-Band | 10000 | 64 |
| Band Class 16, B-Band | 10000 | 65 |
| Band Class 16, C-Band | 10000 | 66 |
| Band Class 16, D-Band | 10000 | 67 |

| Selected System | Band Class Value (Binary) | Code |
|---|----------------------------------|---------------|
| Band Class 18, D-Band | 10001 | 68 |
| Band Class 18, Public Safety Broadband | 10001 | 69 |
| Band Class 19, A-Band | 10010 | 25 |
| Band Class 19, B-Band | 10010 | 26 |
| Band Class 19, C-Band | 10010 | 27 |
| Band Class 20 | 10011 | 70 |
| Band Class 21, A-Band | 10100 | 71 |
| Band Class 21, B-Band | 10100 | 72 |
| Band Class 22 | 10101 | 73 |
| Reserved | 10110-11110 | 74 through 99 |
| Band Class 31 | 11111 | Not Assigned |

1

2 **1.5 List of Band Classes**

3 Table 1.5-1 lists the band classes defined in this specification. The band classes are listed
4 in the order that they are used in the band class information record bit-map of [9].

1

Table 1.5-1: Band Class List

| Subfield (see [9]) | Subfield Description |
|---------------------------|----------------------------------|
| BAND_CLASS_0 | 800 MHz cellular band |
| BAND_CLASS_1 | 1.8 to 2.0 GHz PCS band |
| BAND_CLASS_2 | 872 to 960 MHz TACS band |
| BAND_CLASS_3 | 832 to 925 MHz JTACS band |
| BAND_CLASS_4 | 1.75 to 1.87 GHz Korean PCS band |
| BAND_CLASS_5 | 450 MHz NMT band |
| BAND_CLASS_6 | 2 GHz IMT-2000 band |
| BAND_CLASS_7 | Upper 700 MHz band |
| BAND_CLASS_8 | 1800 MHz band |
| BAND_CLASS_9 | 900 MHz band |
| BAND_CLASS_10 | Secondary 800 MHz band |
| BAND_CLASS_11 | 400 MHz European PAMR band |
| BAND_CLASS_12 | 800 MHz PAMR band |
| BAND_CLASS_13 | 2.5 GHz IMT-2000 Extension Band |
| BAND_CLASS_14 | US PCS 1.9GHz Band |
| BAND_CLASS_15 | AWS Band |
| BAND_CLASS_16 | US 2.5GHz Band |
| BAND_CLASS_17 | US 2.5GHz Forward Link Only Band |
| BAND_CLASS_18 | 700 MHz Public Safety Band |
| BAND_CLASS_19 | Lower 700 MHz Band |
| BAND_CLASS_20 | L-Band |
| BAND_CLASS_21 | S-Band |
| BAND_CLASS_22 | Mobile Satellite System Band |
| BAND_CLASS_31 | Wildcard Band Class |

2 **1.6 Wildcard Band Class**

3 BAND_CLASS_31 is defined as Wildcard Band Class.

4 If BAND_CLASS_31 is received, the mobile station shall consider the band class has not
5 been changed from the Band Class previously stored. Then, the mobile station shall store
6 BAND_CLASS_31 as the current band class.

7 If the mobile station receives a different band class while it stores BAND_CLASS_31, it shall
8 consider the band class has not been changed. Then, the mobile station shall store newly
9 received Band Class as the current band class.

1 BAND_CLASS_31 shall be used by other RAT that supports 1x interworking, e.g., [C.S0097].
2 It shall not be used in the 1x network.

3 **1.7 References**

4 **Normative References**

5 The following specifications contain provisions which, through reference in this text,
6 constitute provisions of this specification. At the time of publication, the editions indicated
7 were valid. If the specification version number is included, the reference is specific. Parties
8 implementing this Specification should use the specific versions of the indicated
9 specification. If the specification version number is not included, the reference is non-
10 specific. Parties implementing this Specification are encouraged to investigate the
11 possibility of applying the most recent editions of the indicated specifications.
12

1. C.S0002-F v2.0, *Physical Layer Standard for cdma2000 Spread Spectrum Systems*, March 2014.
2. C.S0024-200-C v2.0, *Physical Layer for cdma2000 High Rate Packet Data Air Interface Specification*, December 2011.
3. C.S0010-E v2.0, *Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Base Stations*, March 2014.
4. C.S0011-E v2.0, *Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Mobile Stations*, March 2014.
5. C.S0032-D v2.0, *Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Network*, March 2014.
6. C.S0033-D v2.0, *Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Terminal*, March 2014.
7. C.S0016-D v2.0, *Over-the-Air Service Provisioning of Mobile Stations in Spread Spectrum Standards*, April 2012.
8. Reserved.
9. C.S0005-F v2.0, *Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems*, May 2014.
10. C.S0084-001-0 v3.0, *Physical Layer for Ultra Mobile Broadband (UMB) Air Interface Specification*, August 2008.
11. C.S0088-0 v1.0, *Recommended Minimum Performance Standards for cdma2000 Ultra Mobile Broadband (UMB) Access Network*, April 2009.
12. C.S0089-0 v1.0, *Recommended Minimum Performance Standards for cdma2000 Ultra Mobile Broadband (UMB) Access Terminal*, April 2009.
13. C.S0024-A v3.0, *cdma2000 High Rate Packet Data Air Interface Specification*, Sept. 2006
15. C.S0098-200-A v1.0, *Physical Layer for cdma2000 Extended Cell High Rate Packet Data Air Interface Specification*, March 2015.
16. C.S0104-A v1.0, *Recommended Minimum Performance Standards for Extended Cell cdma2000 High Rate Packet Data Access Terminal*, May 2015.

1 **Informative References**

2 The following documents do not contain provisions of the Specification. They are listed to
3 aid in better understanding this Specification.

14. C.R1001-I v1.0, *Administration of Parameter Value Assignments for cdma2000 Spread Spectrum Standards*, January 2014.

4

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2 REQUIREMENTS FOR THE OPERATION OF THE “*PHYSICAL LAYER STANDARD FOR CDMA2000 SPREAD SPECTRUM SYSTEMS*”

This section defines requirements and operation for both the mobile station and the base station that are specific to cdma2000 equipment that conforms to [1]. A CDMA mobile station or base station may support operation in one or more band classes and spreading rates.

2.1 Channel Spacing and Designation

This section specifies the frequency parameters of the CDMA equipment conforming to [1] that support CDMA operation. Note that CDMA equipment in this section could be interpreted to mean a base station, a mobile station, or both.

2.1.1 Band Class 0 (800 MHz Band)

The Band Class 0 system designators for the CDMA equipment shall be as specified in Table 2.1.1-1. There are four band subclasses specified for Band Class 0. CDMA equipments supporting Band Class 0 shall support at least one band subclass belonging to Band Class 0. CDMA equipments supporting Band Class 0 shall be capable of transmitting in Band Class 0.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 0 shall be as specified in Table 2.1.1-2. CDMA equipments supporting Band Class 0 and Spreading Rate 1 shall support transmission on the valid channel numbers shown in Table 2.1.1-3.⁴ CDMA equipments supporting Band Class 0 and Spreading Rate 3 shall support transmission on the valid channel numbers shown in Table 2.1.1-4.⁵

Channel numbers for the Primary CDMA Channels and the Secondary CDMA Channels are given in Table 2.1.1-5.

A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given in Table 2.1.1-6.

If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s - 41$ if $1XRL_FREQ_OFFSET_s$ equals ‘00’, on the CDMA Channel designated by $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals ‘01’, or on the CDMA Channel designated by $CDMACH_s + 41$ if $1XRL_FREQ_OFFSET_s$ equals ‘10’.

⁴ Note that the Korean Cellular Band uses Band Subclass 1 and has additional valid channels that a Band Class 0 mobile station should support to permit roaming to Korea.

⁵ Note that the Korean Cellular Band uses Band Subclass 1 and has additional valid channels that a Band Class 0 mobile station should support to permit roaming to Korea.

1 If the mobile station is transmitting and receiving using the same spreading rate, the
 2 nominal mobile station transmit carrier frequency shall be 45.0 MHz lower than the
 3 frequency of the base station transmit signal as measured at the mobile station receiver. If
 4 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
 5 the nominal mobile station transmit carrier frequency shall be $45.0 - 1.23 \times$
 6 $(1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the carrier frequency of the center CDMA
 7 channel transmitted by the base station as measured at the mobile station receiver.

8 At the base station, if a Band Class 0 carrier operates with Spreading Rate 3, then all three
 9 carriers shall be separated by 41 CDMA Channels (1.23 MHz separation).

10 **Table 2.1.1-1. Band Class 0 System Frequency Correspondence**

| System Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|-------------------|-----------------|-------------------------------|-----------------|
| | | Mobile Station | Base Station |
| A | 0 | 824.025–835.005 | 869.025–880.005 |
| | | 844.995–846.495 | 889.995–891.495 |
| | 1 | 824.025–835.005 | 869.025–880.005 |
| | | 844.995–848.985 | 889.995–893.985 |
| 2 | 824.025–829.995 | 869.025–874.995 | |
| | 3 | 815.025–829.995 | 860.025–874.995 |
| B | 0 | 835.005–844.995 | 880.005–889.995 |
| | | 846.495–848.985 | 891.495–893.985 |
| | 1 | 835.005–844.995 | 880.005–889.995 |

11 **Table 2.1.1-2. CDMA Channel Number to CDMA Frequency**
 12 **Assignment Correspondence for Band Class 0**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|-------------------------|---|
| Mobile Station | $1 \leq N \leq 799$ | $0.030 N + 825.000$ |
| | $991 \leq N \leq 1023$ | $0.030 (N - 1023) + 825.000$ |
| | $1024 \leq N \leq 1323$ | $0.030 (N - 1024) + 815.040$ |
| Base Station | $1 \leq N \leq 799$ | $0.030 N + 870.000$ |
| | $991 \leq N \leq 1023$ | $0.030 (N - 1023) + 870.000$ |
| | $1024 \leq N \leq 1323$ | $0.030 (N - 1024) + 860.040$ |

**Table 2.1.1-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 0 and Spreading Rate 1**

| Band Subclass | System Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|---------------|-------------------|---------------------------------|-------------------------------|---|---|
| | | | | Mobile Station | Base Station |
| 0 | A'' (1 MHz) | Not Valid Valid | 991-1012 1013-1023 | 824.040-824.670 824.700-825.000 | 869.040-869.670 869.700-870.000 |
| | A (10 MHz) | Valid Not Valid | 1-311 312-333 | 825.030-834.330 834.360-834.990 | 870.030-879.330 879.360-879.990 |
| | B (10 MHz) | Not Valid Valid Not Valid | 334-355 356-644 645-666 | 835.020-835.650 835.680-844.320 844.350-844.980 | 880.020-880.650 880.680-889.320 889.350-889.980 |
| | A' (1.5 MHz) | Not Valid Valid Not Valid | 667-688 689-694 695-716 | 845.010-845.640 845.670-845.820 845.850-846.480 | 890.010-890.640 890.670-890.820 890.850-891.480 |
| | B' (2.5 MHz) | Not Valid Valid Not Valid | 717-738 739-777 778-799 | 846.510-847.140 847.170-848.310 848.340-848.970 | 891.510-892.140 892.170-893.310 893.340-893.970 |
| 1 | A'' (1 MHz) | Not Valid Valid | 991-1012 1013-1023 | 824.040-824.670 824.700-825.000 | 869.040-869.670 869.700-870.000 |
| | A (10 MHz) | Valid Not Valid | 1-311 312-333 | 825.030-834.330 834.360-834.990 | 870.030-879.330 879.360-879.990 |
| | B (10 MHz) | Not Valid Valid Not Valid | 334-355 356-644 645-666 | 835.020-835.650 835.680-844.320 844.350-844.980 | 880.020-880.650 880.680-889.320 889.350-889.980 |
| | A' (1.5 MHz) | Not Valid Valid | 667-688 689-716 | 845.010-845.640 845.670-846.480 | 890.010-890.640 890.670-891.480 |
| | A''' (2.5 MHz) | Valid Not Valid | 717-779 780-799 | 846.510-848.370 848.400-848.970 | 891.510-893.370 893.400-893.970 |
| 2 | A'' (1 MHz) | Valid | 991-1023 | 824.040-825.000 | 869.040-870.000 |
| | A (5 MHz) | Valid Not Valid | 1-142 143-166 | 825.030-829.260 829.290-829.980 | 870.030-874.260 874.290-874.980 |
| 3 | A'''' (9 MHz) | Not Valid Valid | 1024-1047 1048-1323 | 815.040-815.730 815.760-824.010 | 860.040-860.730 860.760-869.010 |
| | A'' (1 MHz) | Valid | 991-1023 | 824.040-825.000 | 869.040-870.000 |
| | A (5 MHz) | Valid Not Valid | 1-142 143-166 | 825.030-829.260 829.290-829.980 | 870.030-874.260 874.290-874.980 |

**Table 2.1.1-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 0 and Spreading Rate 3**

| Band Subclass | System Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|---------------|-------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | | Mobile Station | Base Station |
| 0 | A'' (1 MHz) | Not Valid | 991-1023 | 824.040-825.000 | 869.040-870.000 |
| | A (10 MHz) | Not Valid | 1-36 | 825.030-826.080 | 870.030-871.080 |
| | | Valid | 37-262 | 826.110-832.860 | 871.110-877.860 |
| | | Not Valid | 263-333 | 832.890-834.990 | 877.890-879.990 |
| | B (10 MHz) | Not Valid | 334-404 | 835.020-837.120 | 880.020-882.120 |
| Valid | | 405-595 | 837.150-842.850 | 882.150-887.850 | |
| | Not Valid | 596-666 | 842.880-844.980 | 887.880-889.980 | |
| | A' (1.5 MHz) | Not Valid | 667-716 | 845.010-846.480 | 890.010-891.480 |
| | B' (2.5 MHz) | Not Valid | 717-799 | 846.510-848.970 | 891.510-893.970 |
| 1 | A'' (1 MHz) | Not Valid | 991-1023 | 824.040-825.000 | 869.040-870.000 |
| | A (10 MHz) | Not Valid | 1-36 | 825.030-826.080 | 870.030-871.080 |
| | | Valid | 37-262 | 826.110-832.860 | 871.110-877.860 |
| | | Not Valid | 263-333 | 832.890-834.990 | 877.890-879.990 |
| | B (10 MHz) | Not Valid | 334-403 | 835.020-837.090 | 880.020-882.090 |
| Valid | | 404-595 | 837.120-842.850 | 882.120-887.850 | |
| | Not Valid | 596-666 | 842.880-844.980 | 887.880-889.980 | |
| | A' (1.5 MHz) | Not Valid | 667-716 | 845.010-846.480 | 890.010-891.480 |
| | A''' (2.5 MHz) | Not Valid | 717-737 | 846.510-847.110 | 891.510-892.110 |
| Valid | | 738 | 847.140 | 892.140 | |
| Not Valid | | 739-799 | 847.170-848.970 | 892.170-893.970 | |
| 2 | Not Specified | Not Specified | Not Specified | Not Specified | Not Specified |
| 3 | Not Specified | Not Specified | Not Specified | Not Specified | Not Specified |

1

Table 2.1.1-5. CDMA Preferred Set of Frequency Assignments for Band Class 0

| Band Subclass | System Designator | Spreading Rate | Preferred Set Channel Numbers |
|---------------|-------------------|----------------|--|
| 0 | A | 1 | 283 (Primary) and 691 (Secondary) |
| | | 3 | 37, 78, 119, 160, 201, 242 ⁶ |
| | B | 1 | 384 (Primary) and 777 (Secondary) |
| | | 3 | 425 ³ , 466, 507, 548, 589 |
| 1 | A | 1 | 779 (Primary) and 738 (Secondary) |
| | | 3 | 37, 78, 119, 160, 201, 242, 738 ⁷ |
| | B | 1 | 486 (Primary) and 568 (Secondary) |
| | | 3 | 404, 445, 486, 527, 568 ⁴ |
| 2 | A | 1 | 40 (Primary) and 1022 (Secondary) |
| | | 3 | Not Specified |
| 3 | A | 1 | 1273 (Primary) and 40 (Secondary) |
| | | 3 | Not Specified |

2

Table 2.1.1-6. Sync Channel Preferred Set of Frequency Assignments for Spreading Rate 3 for Band Class 0

3

| Band Subclass | System Designator | Preferred Set of Channel Numbers |
|---------------|-------------------|----------------------------------|
| 0 | A | 37, 160, 283 |
| | B | 384, 507, 630 |
| 1 | A | 37, 160, 283, 779 |
| | B | 363, 486, 609 |
| 2 | A | Not Specified |
| 3 | A | Not Specified |

⁶ The use of preferred channel numbers 242 or 425 for Spreading Rate 3 ensures that overlaid multi-channel Forward Link systems with 1.23 MHz inter-channel spacing will contain a Spreading Rate 1 Forward CDMA Channel that aligns with one of the Spreading Rate 1 preferred channel numbers.

⁷ The use of preferred channel numbers 738, 445, 486, 527, or 568 for Spreading Rate 3 ensures that overlaid multi-channel Forward Link systems with 1.23 MHz inter-channel spacing will contain a Spreading Rate 1 Forward CDMA Channel that aligns with one of the Spreading Rate 1 preferred channel numbers.

1 2.1.2 Band Class 1 (1900 MHz Band)

2 The Band Class 1 block designators for the CDMA equipment shall be as specified in Table
3 2.1.2-1. CDMA equipments supporting Band Class 1 shall be capable of transmitting in
4 Band Class 1.

5 The channel spacing, CDMA channel designations, and transmitter center frequencies of
6 Band Class 1 shall be as specified in Table 2.1.2-2. CDMA equipments supporting Band
7 Class 1 and Spreading Rate 1 shall support transmission on the valid and conditionally
8 valid channel numbers shown in Table 2.1.2-3. CDMA equipments supporting Band Class
9 1 and Spreading Rate 3 shall support transmission on the valid and conditionally valid
10 channel numbers shown in Table 2.1.2-4. Note that certain channel assignments are not
11 valid and others are conditionally valid. Transmission on conditionally valid channels is
12 permissible if the adjacent block is allocated to the same licensee or if other valid
13 authorization has been obtained.

14 A preferred set of CDMA frequency assignments is given in Table 2.1.2-5.

15 A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given
16 in Table 2.1.2-6.

17 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
18 Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA
19 Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the
20 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
21 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
22 $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
23 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
24 $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

25 If the mobile station is transmitting and receiving using the same spreading rate, the
26 nominal mobile station transmit carrier frequency shall be 80.0 MHz lower than the
27 frequency of the base station transmit signal as measured at the mobile station receiver. If
28 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
29 the nominal mobile station transmit carrier frequency shall be $80.0 - 1.25 \times$
30 $(1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the center CDMA
31 channel transmitted by the base station as measured at the mobile station receiver.

32 At the base station, if a Band Class 1 carrier operates with Spreading Rate 3, then all three
33 carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

1

Table 2.1.2-1. Band Class 1 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|-------------------------|--------------------------------------|---------------------|
| | Mobile Station | Base Station |
| A | 1850–1865 | 1930–1945 |
| D | 1865–1870 | 1945–1950 |
| B | 1870–1885 | 1950–1965 |
| E | 1885–1890 | 1965–1970 |
| F | 1890–1895 | 1970–1975 |
| C | 1895–1910 | 1975–1990 |

2

Table 2.1.2-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 1

3

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Mobile Station | $0 \leq N \leq 1199$ | $1850.000 + 0.050 N$ |
| Base Station | $0 \leq N \leq 1199$ | $1930.000 + 0.050 N$ |

1
2

**Table 2.1.2-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 1 and Spreading Rate 1**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (15 MHz) | Not Valid | 0–24 | 1850.000–1851.200 | 1930.000–1931.200 |
| | Valid | 25–275 | 1851.250–1863.750 | 1931.250–1943.750 |
| | Cond. Valid | 276–299 | 1863.800–1864.950 | 1943.800–1944.950 |
| D (5 MHz) | Cond. Valid | 300–324 | 1865.000–1866.200 | 1945.000–1946.200 |
| | Valid | 325–375 | 1866.250–1868.750 | 1946.250–1948.750 |
| | Cond. Valid | 376–399 | 1868.800–1869.950 | 1948.800–1949.950 |
| B (15 MHz) | Cond. Valid | 400–424 | 1870.000–1871.200 | 1950.000–1951.200 |
| | Valid | 425–675 | 1871.250–1883.750 | 1951.250–1963.750 |
| | Cond. Valid | 676–699 | 1883.800–1884.950 | 1963.800–1964.950 |
| E (5 MHz) | Cond. Valid | 700–724 | 1885.000–1886.200 | 1965.000–1966.200 |
| | Valid | 725–775 | 1886.250–1888.750 | 1966.250–1968.750 |
| | Cond. Valid | 776–799 | 1888.800–1889.950 | 1968.800–1969.950 |
| F (5 MHz) | Cond. Valid | 800–824 | 1890.000–1891.200 | 1970.000–1971.200 |
| | Valid | 825–875 | 1891.250–1893.750 | 1971.250–1973.750 |
| | Cond. Valid | 876–899 | 1893.800–1894.950 | 1973.800–1974.950 |
| C (15 MHz) | Cond. Valid | 900–924 | 1895.000–1896.200 | 1975.000–1976.200 |
| | Valid | 925–1175 | 1896.250–1908.750 | 1976.250–1988.750 |
| | Not Valid | 1176–1199 | 1908.800–1909.950 | 1988.800–1989.950 |

**Table 2.1.2-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 1 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (15 MHz) | Not Valid | 0–49 | 1850.000–1852.450 | 1930.000–1932.450 |
| | Valid | 50–250 | 1852.500–1862.500 | 1932.500–1942.500 |
| | Cond. Valid | 251–299 | 1862.550–1864.950 | 1942.550–1944.950 |
| D (5 MHz) | Cond. Valid | 300–349 | 1865.000–1867.450 | 1945.000–1947.450 |
| | Valid | 350 | 1867.500 | 1947.500 |
| | Cond. Valid | 351–399 | 1867.550–1869.950 | 1947.550–1949.950 |
| B (15 MHz) | Cond. Valid | 400–449 | 1870.000–1872.450 | 1950.000–1952.450 |
| | Valid | 450–650 | 1872.500–1882.500 | 1952.500–1962.500 |
| | Cond. Valid | 651–699 | 1882.550–1884.950 | 1962.550–1964.950 |
| E (5 MHz) | Cond. Valid | 700–749 | 1885.000–1887.450 | 1965.000–1967.450 |
| | Valid | 750 | 1887.500 | 1967.500 |
| | Cond. Valid | 751–799 | 1887.550–1889.950 | 1967.550–1969.950 |
| F (5 MHz) | Cond. Valid | 800–849 | 1890.000–1892.450 | 1970.000–1972.450 |
| | Valid | 850 | 1892.500 | 1972.500 |
| | Cond. Valid | 851–899 | 1892.550–1894.950 | 1972.550–1974.950 |
| C (15 MHz) | Cond. Valid | 900–949 | 1895.000–1897.450 | 1975.000–1977.450 |
| | Valid | 950–1150 | 1897.500–1907.500 | 1977.500–1987.500 |
| | Not Valid | 1151–1199 | 1907.550–1909.950 | 1987.550–1989.950 |

Table 2.1.2-5. CDMA Preferred Set of Frequency Assignments for Band Class 1

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|-------------------------|-----------------------|---|
| A | 1 | 25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275 |
| | 3 | 50, 75, 100, 125, 150, 175, 200, 225, 250 |
| D | 1 | 325, 350, 375 |
| | 3 | 350 |
| B | 1 | 425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675 |
| | 3 | 450, 475, 500, 525, 550, 575, 600, 625, 650 |
| E | 1 | 725, 750, 775 |
| | 3 | 750 |
| F | 1 | 825, 850, 875 |
| | 3 | 850 |
| C | 1 | 925, 950, 975, 1000, 1025, 1050, 1075, 1100, 1125, 1150, 1175 |
| | 3 | 950, 975, 1000, 1025, 1050, 1075, 1100, 1125, 1150 |

Table 2.1.2-6. Sync Channel Preferred Set of Frequency Assignments for Spreading Rate 3 for Band Class 1

| Block Designator | Preferred Set of Channel Numbers |
|-------------------------|---|
| A | 75, 150, 225 |
| D | 350 |
| B | 475, 550, 625 |
| E | 750 |
| F | 850 |
| C | 975, 1050, 1125 |

2.1.3 Band Class 2 (TACS Band)

The Band Class 2 block designators for the CDMA equipment shall be as specified in Table 2.1.3-1. CDMA equipments supporting Band Class 2 shall be capable of transmitting in Band Class 2 using at least one band subclass. The band subclasses for Band Class 2 are specified in Table 2.1.3-2.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 2 shall be as specified in Table 2.1.3-3. CDMA equipments supporting Band Class 2 and Spreading Rate 1 shall support transmission on the valid channel numbers

1 shown in Table 2.1.3-4. CDMA equipments supporting Band Class 2 and Spreading Rate 3
2 shall support transmission on the valid channel numbers shown in Table 2.1.3-5.

3 A preferred set of CDMA frequency assignments is given in Table 2.1.3-6.

4 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
5 Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA
6 Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the
7 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
8 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
9 $CDMACH_s - 50$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
10 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
11 $CDMACH_s + 50$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

12 For CDMA equipment supporting band subclasses 0, 1, and 2, if the mobile station is
13 transmitting and receiving using the same spreading rate, the nominal mobile station
14 transmit carrier frequency shall be 45.0 MHz lower than the frequency of the base station
15 transmit signal as measured at the mobile station receiver. If the mobile station is
16 transmitting on Spreading Rate 1 and receiving on Spreading Rate 3, the nominal mobile
17 station transmit carrier frequency shall be $45.0 - 1.25 \times (1XRL_FREQ_OFFSET_s - 1)$ MHz
18 lower than the center frequency of the center CDMA channel transmitted by the base
19 station as measured at the mobile station receiver. For CDMA equipment supporting band
20 subclass 3, only Spreading Rate 1 shall be supported, and the nominal mobile station
21 transmit carrier frequency shall be 45.0 MHz higher than the frequency of the base station
22 transmit signal as measured at the mobile station receiver.

23 At the base station, if a Band Class 2 carrier operates with Spreading Rate 3, then all three
24 carriers shall be separated by 50 CDMA Channels (1.25 MHz separation).

25 **Table 2.1.3-1. Band Class 2 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|-------------------|
| | Mobile Station | Base Station |
| A | 872.0125–879.9875 | 917.0125–924.9875 |
| | 890.0125–897.4875 | 935.0125–942.4875 |
| | 905.0125–908.9875 | 950.0125–953.9875 |
| B | 880.0125–887.9875 | 925.0125–932.9875 |
| | 897.5125–904.9875 | 942.5125–949.9875 |
| | 909.0125–914.9875 | 954.0125–959.9875 |
| ATG | 894.000–895.500 | 849.000–850.500 |

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1

Table 2.1.3-2. Band Class 2 Band Subclasses

| Band Subclass | Number of Channels Covered | Channels Covered |
|----------------------|-----------------------------------|---------------------------|
| 0 | 600 | 1-600 |
| 1 | 1000 | 1-1000 |
| 2 | 1320 | 1329-2047 and 0-600 |
| 3 | 61 | 2048-2108 |

2

Table 2.1.3-3. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 2

3

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Mobile Station | $0 \leq N \leq 1000$ | $0.025 N + 889.9875$ |
| | $1329 \leq N \leq 2047$ | $0.025 (N - 1328) + 871.9875$ |
| | $2048 \leq N \leq 2108$ | $0.025 (N - 2048) + 894.000$ |
| Base Station | $0 \leq N \leq 1000$ | $0.025 N + 934.9875$ |
| | $1329 \leq N \leq 2047$ | $0.025 (N - 1328) + 916.9875$ |
| | $2048 \leq N \leq 2108$ | $0.025 (N - 2048) + 849.000$ |

4

**Table 2.1.3-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 2 and Spreading Rate 1**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|-------------------------------------|-------------------------------------|---|---|
| | | | Mobile Station | Base Station |
| A ETACS (8 MHz) | Not Valid Valid-1320 | 1329–1355 1356–1648 | 872.0125–872.6625 872.6875–879.9875 | 917.0125–917.6625 917.6875–924.9875 |
| B ETACS (8 MHz) | Valid-1320 | 1649–1941 | 880.0125–887.3125 | 925.0125–932.3125 |
| Unassigned (2 MHz) | Cond. Valid-1320 | 1969–2047 0 | 888.0125–889.9625 889.9875 | 933.0125–934.9625 934.9875 |
| A (7.5 MHz) | Cond. Valid-1320 Valid | 1–28 29–300 | 890.0125–890.6875 890.7125–897.4875 | 935.0125–935.6875 935.7125–942.4875 |
| B (7.5 MHz) | Valid Cond. Valid-1000 | 301–573 574–600 | 897.5125–904.3125 904.3375–904.9875 | 942.5125–949.3125 949.3375–949.9875 |
| A' (4 MHz) | Valid-1000 | 601–760 | 905.0125–908.9875 | 950.0125–953.9875 |
| B' (6 MHz) | Valid-1000 Not Valid | 761–973 974–1000 | 909.0125–914.3125 914.3375–914.9875 | 954.0125–959.3125 959.3375–959.9875 |
| ATG (1.5 MHz) | Not Valid Valid-ATG Not Valid | 2048–2072 2073–2083 2084–2108 | 894.000–894.600 894.625–894.875 894.900–895.500 | 849.000–849.600 849.625–849.875 849.900–850.500 |

Valid refers to 600, 1000, and 1320 channel mobile stations. Valid-1000 refers to 1000 channel mobile stations. Valid-1320 refers to 1320 channel mobile stations. Valid-ATG refers to Air-To-Ground mobile stations.

**Table 2.1.3-5. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 2 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|-------------------------|--|---|---|
| | | | Mobile Station | Base Station |
| A ETACS (8 MHz) | Not Valid Valid-1320 | 1329- Not specified Not specified- 1648 | 872.0125-Not specified Not specified- 879.9875 | 917.0125-Not specified Not specified- 924.9875 |
| B ETACS (8 MHz) | Valid-1320 | 1649–1941 | 880.0125–887.3125 | 925.0125–932.3125 |
| Unassigned (2 MHz) | Cond. Valid- 1320 | 1969–2047 0 | 888.0125–889.9625 889.9875 | 933.0125–934.9625 934.9875 |

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|---------------------------|---|--|--|
| | | | Mobile Station | Base Station |
| A (7.5 MHz) | Cond. Valid-1320 Valid | 1-Not specified Not specified-300 | 890.0125-Not specified Not specified-897.4875 | 935.0125-Not specified Not specified-942.4875 |
| B (7.5 MHz) | Valid Cond. Valid-1000 | 301-573 Not specified-600 | 897.5125-904.3125 Not specified-904.9875 | 942.5125-949.3125 Not specified-949.9875 |
| A' (4 MHz) | Valid-1000 | 601-760 | 905.0125-908.9875 | 950.0125-953.9875 |
| B' (6 MHz) | Valid-1000 Not Valid | 761-Not specified Not specified-1000 | 909.0125-Not specified Not specified-914.9875 | 954.0125-Not specified Not specified-959.9875 |
| ATG (1.5 MHz) | Not specified | Not specified | Not specified | Not specified |

Valid refers to 600, 1000, and 1320 channel mobile stations. Valid-1000 refers to 1000 channel mobile stations. Valid-1320 refers to 1320 channel mobile stations.

Table 2.1.3-6. CDMA Preferred Set of Frequency Assignments for Band Class 2

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|------------------|----------------|-------------------------------|
| A | 1 | 79, 679, or 1365 |
| | 3 | Not specified |
| B | 1 | 379, 947, or 1932 |
| | 3 | Not specified |
| ATG | 1 | 2078 |
| | 3 | Not specified |

2.1.4 Band Class 3 (JTACS Band)

The Band Class 3 system designators for the CDMA equipment shall be as specified in Table 2.1.4-1. CDMA equipments supporting Band Class 3 shall be capable of transmitting in Band Class 3.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 3 shall be as specified in

1 Table 2.1.4-2. CDMA equipments supporting Band Class 3 and Spreading Rate 1 shall
 2 support transmission on the valid and conditionally valid channel numbers shown in Table
 3 2.1.4-3. Note that certain channel assignments are not valid and others are conditionally
 4 valid. Transmission on conditionally valid channels is permissible if the adjacent block is
 5 allocated to the same licensee or if other valid authorization has been obtained.

6 Channel numbers for the Primary CDMA Channels and the Secondary CDMA Channels are
 7 given in Table 2.1.4-4.

8 If the mobile station uses Spreading Rate 1 for both Forward and Reverse Traffic Channel,
 9 then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
 10 CDMACH_S.

11 If the mobile station is transmitting and receiving using the same spreading rate, the
 12 nominal mobile station transmit carrier frequency shall be 55.0 MHz higher than the
 13 frequency of the base station transmit signal as measured at the mobile station receiver.

14 At the base station, if a Band Class 3 carrier operates with Spreading Rate 3, then all three
 15 carriers shall be separated by 50 CDMA Channels (1.25 MHz separation).

16 **Table 2.1.4-1. Band Class 3 System Frequency Correspondence**

| System Designator | Transmit Frequency Band (MHz) | |
|--------------------------|--------------------------------------|---------------------|
| | Mobile Station | Base Station |
| A | 887.0125–888.9875 | 832.0125–833.9875 |
| | 893.0125–898.0000 | 838.0125–843.0000 |
| | 898.0125–900.9875 | 843.0125–845.9875 |
| | 915.0125–924.9875 | 860.0125–869.9875 |
| B | Not specified | Not specified |

17

**Table 2.1.4-2. CDMA Channel Number to CDMA Frequency
Assignment Correspondence for Band Class 3**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Mobile Station | $1 \leq N \leq 799$ | $0.0125 N + 915.000$ |
| | $801 \leq N \leq 1039$ | $0.0125 (N - 800) + 898.000$ |
| | $1041 \leq N \leq 1199$ | $0.0125 (N - 1040) + 887.000$ |
| | $1201 \leq N \leq 1600$ | $0.0125 (N - 1200) + 893.000$ |
| Base Station | $1 \leq N \leq 799$ | $0.0125 N + 860.000$ |
| | $801 \leq N \leq 1039$ | $0.0125 (N - 800) + 843.000$ |
| | $1041 \leq N \leq 1199$ | $0.0125 (N - 1040) + 832.000$ |
| | $1201 \leq N \leq 1600$ | $0.0125 (N - 1200) + 838.000$ |

In this table, only even-valued N values are valid.

**Table 2.1.4-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 3 and Spreading Rate 1**

| System Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------------------|--------------------------------------|------------------------------------|--------------------------------------|---------------------|
| | | | Mobile Station | Base Station |
| A1 (2 MHz) | Not Valid | 1041-1099 | 887.0125-887.7375 | 832.0125-832.7375 |
| | Valid | 1100-1140 | 887.7500-888.2500 | 832.7500-833.2500 |
| | Not Valid | 1141-1199 | 888.2625-888.9875 | 833.2625-833.9875 |
| A3 (5 MHz) | Not Valid | 1201-1259 | 893.0125-893.7375 | 838.0125-838.7375 |
| | Valid | 1260-1540 | 893.7500-897.2500 | 838.7500-842.2500 |
| | Cond. Valid | 1541-1600 | 897.2625-898.0000 | 842.2625-843.0000 |
| A2 (3 MHz) | Cond. Valid | 801-859 | 898.0125-898.7375 | 843.0125-843.7375 |
| | Valid | 860-980 | 898.7500-900.2500 | 843.7500-845.2500 |
| | Not Valid | 981-1039 | 900.2625-900.9875 | 845.2625-845.9875 |
| A (10 MHz) | Not Valid | 1-59 | 915.0125-915.7375 | 860.0125-860.7375 |
| | Valid | 60-740 | 915.7500-924.2500 | 860.7500-869.2500 |
| | Not Valid | 741-799 | 924.2625-924.9875 | 869.2625-869.9875 |
| B | Not specified | Not specified | Not specified | Not specified |

Table 2.1.4-4. CDMA Preferred Set of Frequency Assignments for Band Class 3

| System Designator | Spreading Rate | Preferred Set Channel Numbers |
|--------------------------|-----------------------|--------------------------------------|
| A | 1 | 76 (Primary) and 872 (Secondary) |
| B | 1 | Not specified |

2.1.5 Band Class 4 (Korean PCS Band)

The Band Class 4 block designators for the CDMA equipment shall be as specified in Table 2.1.5-1. CDMA equipments supporting Band Class 4 shall be capable of transmitting in Band Class 4.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 4 shall be as specified in Table 2.1.5-2. CDMA equipments supporting Band Class 4 and Spreading Rate 1 shall support transmission on the valid channel numbers shown in Table 2.1.5-3. CDMA equipments supporting Band Class 4 and Spreading Rate 3 shall support transmission on the valid channel numbers shown in Table 2.1.5-4.

A preferred set of CDMA frequency assignments is given in Table 2.1.5-5.

A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given in Table 2.1.5-6.

If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

If the mobile station is transmitting and receiving using the same spreading rate, the nominal mobile station transmit carrier frequency shall be 90.0 MHz lower than the frequency of the base station transmit signal as measured at the mobile station receiver. If the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3, the nominal mobile station transmit carrier frequency shall be $90.0 - 1.25 \times (1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the center CDMA channel transmitted by the base station as measured at the mobile station receiver.

At the base station, if a Band Class 4 carrier operates with Spreading Rate 3, then all three carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

1 **Table 2.1.5-1. Band Class 4 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|--------------|
| | Mobile Station | Base Station |
| A | 1750–1760 | 1840–1850 |
| B | 1760–1770 | 1850–1860 |
| C | 1770–1780 | 1860–1870 |

2 **Table 2.1.5-2. CDMA Channel Number to CDMA Frequency**
 3 **Assignment Correspondence for Band Class 4**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|---------------------|---|
| Mobile Station | $0 \leq N \leq 599$ | $0.050 N + 1750.000$ |
| Base Station | $0 \leq N \leq 599$ | $0.050 N + 1840.000$ |

4
 5 **Table 2.1.5-3. CDMA Channel Numbers and Corresponding Frequencies**
 6 **for Band Class 4 and Spreading Rate 1**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (10 MHz) | Not Valid | 0–24 | 1750.000–1751.200 | 1840.000–1841.200 |
| | Valid | 25–175 | 1751.250–1758.750 | 1841.250–1848.750 |
| | Cond. Valid | 176–199 | 1758.800–1759.950 | 1848.800–1849.950 |
| B (10 MHz) | Cond. Valid | 200–224 | 1760.000–1761.200 | 1850.000–1851.200 |
| | Valid | 225–375 | 1761.250–1768.750 | 1851.250–1858.750 |
| | Cond. Valid | 376–399 | 1768.800–1769.950 | 1858.800–1859.950 |
| C (10 MHz) | Cond. Valid | 400–424 | 1770.000–1771.200 | 1860.000–1861.200 |
| | Valid | 425–575 | 1771.250–1778.750 | 1861.250–1868.750 |
| | Not Valid | 576–599 | 1778.800–1779.950 | 1868.800–1869.950 |

**Table 2.1.5-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 4 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (10 MHz) | Not Valid | 0–49 | 1750.000–1752.450 | 1840.000–1842.450 |
| | Valid | 50–150 | 1752.500–1757.500 | 1842.500–1847.500 |
| | Cond. Valid | 151–199 | 1757.550–1759.950 | 1847.550–1849.950 |
| B (10 MHz) | Cond. Valid | 200–249 | 1760.000–1762.450 | 1850.000–1852.450 |
| | Valid | 250–350 | 1762.500–1767.500 | 1852.500–1857.500 |
| | Cond. Valid | 351–399 | 1767.550–1769.950 | 1857.550–1859.950 |
| C (10 MHz) | Cond. Valid | 400–449 | 1770.000–1772.450 | 1860.000–1862.450 |
| | Valid | 450–550 | 1772.500–1777.500 | 1862.500–1867.500 |
| | Not Valid | 551–599 | 1777.550–1779.950 | 1867.550–1869.950 |

Table 2.1.5-5. CDMA Preferred Set of Frequency Assignments for Band Class 4

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|------------------|----------------|-----------------------------------|
| A | 1 | 25, 50, 75, 100, 125, 150, 175 |
| | 3 | 50, 75, 100, 125, 150 |
| B | 1 | 225, 250, 275, 300, 325, 350, 375 |
| | 3 | 250, 275, 300, 325, 350 |
| C | 1 | 425, 450, 475, 500, 525, 550, 575 |
| | 3 | 450, 475, 500, 525, 550 |

**Table 2.1.5-6. Sync Channel Preferred Set of Frequency Assignments
for Spreading Rate 3 for Band Class 4**

| Block Designator | Preferred Set of Channel Numbers |
|------------------|----------------------------------|
| A | 75, 150 |
| B | 275, 350 |
| C | 475, 550 |

1 2.1.6 Band Class 5 (450 MHz Band)

2 The Band Class 5 block designators for the CDMA equipment shall be as specified in Table
 3 2.1.6-1. There are fourteen band subclasses⁸ specified for Band Class 5. Each band
 4 subclass corresponds to a specific block designator (see Table 2.1.6-1). Each band subclass
 5 includes all the channels designated for that block. CDMA equipments supporting Band
 6 Class 5 shall be capable of transmitting in at least one band subclass belonging to Band
 7 Class 5. For CDMA equipments capable of transmitting in more than one band subclass
 8 belonging to Band Class 5, one band subclass shall be designated as the Primary Band
 9 Subclass, which is the band subclass used by the CDMA equipment's home system.

10 The channel spacing, CDMA channel designations, and transmitter center frequencies of
 11 Band Class 5 shall be as specified in Table 2.1.6-2. Note that certain channel assignments
 12 are not valid and others are conditionally valid. Mobile stations supporting Band Class 5
 13 and Spreading Rate 1 shall support operations on the valid and conditionally valid channel
 14 numbers of the supported blocks shown in Table 2.1.6-3. Base stations supporting Band
 15 Class 5 and Spreading Rate 1 shall support operations on the valid and may support
 16 operations on the conditionally valid channel numbers of the supported blocks shown in
 17 Table 2.1.6-3. Transmission on conditionally valid channels is permissible if the adjacent
 18 block is allocated to the same licensee or if other valid authorization has been obtained.
 19 CDMA equipments supporting Band Class 5 and Spreading Rate 3 shall support operation
 20 on the valid channel numbers of the supported blocks shown in Table 2.1.6-4.

21 A preferred set of CDMA frequency assignments is given in Table 2.1.6-5.

22 A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given
 23 in Table 2.1.6-6.

24 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
 25 Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA
 26 Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the
 27 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel and is
 28 operating in block A, B, C, E, I, J, K, or L, then it shall transmit the Reverse Traffic Channel
 29 on the CDMA Channel designated by $CDMACH_s - 50$ if $1XRL_FREQ_OFFSET_s$ equals '00',
 30 on the CDMA Channel designated by $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on
 31 the CDMA Channel designated by $CDMACH_s + 50$ if $1XRL_FREQ_OFFSET_s$ equals '10'. If
 32 the mobile station uses Spreading Rate 3 for the Forward Traffic Channel and uses
 33 Spreading Rate 1 for the Reverse Traffic Channel and is operating in block F, G, or H; then
 34 it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
 35 $CDMACH_s - 62$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
 36 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
 37 $CDMACH_s + 62$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

⁸ Blocks I, J and K occupy the same frequency band as blocks H, G and F respectively. Channel spacing is 20 kHz for blocks F, G and H, while channel spacing is 25 kHz for blocks I, J and K. Blocks I, J or K should be used for new deployments instead of blocks H, G or F respectively.

1 If the mobile station is transmitting and receiving using the same spreading rate and is
2 operating in blocks A, B, C, D, E, F, G, H, I, J, K, and L, the nominal mobile station
3 transmit carrier frequency shall be 10.0 MHz lower than the frequency of the base station
4 transmit signal as measured at the mobile station receiver. If the mobile station is
5 transmitting and receiving using spreading rate 1 and is operating in blocks M and N, the
6 nominal mobile station transmit carrier frequency shall be at least 10.0 MHz lower than the
7 frequency of the base station transmit signal as measured at the mobile station receiver.
8 Spreading rate 3 is not supported for mobile stations operating in blocks M and N. If the
9 mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3 and
10 is operating in block A, B, C, E, I, J, K, or L, the nominal mobile station transmit carrier
11 frequency shall be $10.0 - 1.25 \times (1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the frequency
12 of the base station transmit signal as measured at the mobile station receiver. If the mobile
13 station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3 and is
14 operating in block F, G, or H, the nominal mobile station transmit carrier frequency shall
15 be $10.0 - 1.24 \times (1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the
16 center CDMA channel transmitted by the base station as measured at the mobile station
17 receiver.

18 At the base station, if a Band Class 5 carrier operates with Spreading Rate 3 in block A, B,
19 C, E, I, J, or K, then all three carriers shall be separated by 50 CDMA Channels (1.25 MHz
20 separation). If a Band Class 5 carrier operates with Spreading Rate 3 in block F, G, or H,
21 then all three carriers shall be separated by 62 CDMA Channels (1.24 MHz separation).

1
2

**Table 2.1.6-1. Band Class 5 Block Frequency
Correspondence and Band Subclasses**

| Block Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|-------------------------|----------------------|--------------------------------------|---------------------|
| | | Mobile Station | Base Station |
| A | 0 | 452.500–457.475 | 462.500–467.475 |
| B | 1 | 452.000–456.475 | 462.000–466.475 |
| C | 2 | 450.000–454.800 | 460.000–464.800 |
| D | 3 | 411.675–415.850 | 421.675–425.850 |
| E | 4 | 415.500–419.975 | 425.500–429.975 |
| F | 5 | 479.000–483.480 | 489.000–493.480 |
| G | 6 | 455.230–459.990 | 465.230–469.990 |
| H | 7 | 451.310–455.730 | 461.310–465.730 |
| I | 8 | 451.325–455.725 | 461.325–465.725 |
| J | 9 | 455.250–459.975 | 465.250–469.975 |
| K | 10 | 479.000–483.475 | 489.000–493.475 |
| L | 11 | 410.000–414.975 | 420.000–424.975 |
| M | 12 | 450.000–457.475 | 461.250–469.975 |
| N | 13 | 450.000–457.475 | 460.000–469.975 |

3

Table 2.1.6-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 5

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|-------------------------|---|
| Mobile Station | $1 \leq N \leq 400$ | $0.025(N - 1) + 450.000$ |
| | $472 \leq N \leq 871$ | $0.025(N - 472) + 410.000$ |
| | $1039 \leq N \leq 1473$ | $0.020(N - 1024) + 451.010$ |
| | $1536 \leq N \leq 1715$ | $0.025(N - 1536) + 479.000$ |
| | $1792 \leq N \leq 2016$ | $0.020(N - 1792) + 479.000$ |
| | $N = 2017$ | 451.150 |
| | $N = 2018$ | 451.475 |
| Base Station | $1 \leq N \leq 400$ | $0.025(N - 1) + 460.000$ |
| | $472 \leq N \leq 871$ | $0.025(N - 472) + 420.000$ |
| | $1039 \leq N \leq 1473$ | $0.020(N - 1024) + 461.010$ |
| | $1536 \leq N \leq 1715$ | $0.025(N - 1536) + 489.000$ |
| | $1792 \leq N \leq 2016$ | $0.020(N - 1792) + 489.000$ |
| | $N = 2017$ | 467.725 |
| | $N = 2018$ | 467.725 |

Table 2.1.6-3. CDMA Channel Numbers and Corresponding Frequencies for Band Class 5 and Spreading Rate 1

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| A (4.5 MHz) | Not Valid | 121–125 | 453.000–453.100 | 463.000–463.100 |
| | Cond. Valid | 126–145 | 453.125–453.600 | 463.125–463.600 |
| | Valid | 146–275 | 453.625–456.850 | 463.625–466.850 |
| | Not Valid | 276–300 | 456.875–457.475 | 466.875–467.475 |
| A' (0.5 MHz) | Not Valid | 101–120 | 452.500–452.975 | 462.500–462.975 |
| B (4.5 MHz) | Not Valid | 81–105 | 452.000–452.600 | 462.000–462.600 |
| | Valid | 106–235 | 452.625–455.850 | 462.625–465.850 |
| | Not Valid | 236–260 | 455.875–456.475 | 465.875–466.475 |
| C (4.8 MHz) | Not Valid | 1–25 | 450.000–450.600 | 460.000–460.600 |
| | Valid | 26–168 | 450.625–454.175 | 460.625–464.175 |
| | Not Valid | 169–193 | 454.200–454.800 | 464.200–464.800 |

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|--|--|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| D (4.2 MHz) | Not Valid | 539–563 | 411.675–412.275 | 421.675–422.275 |
| | Valid | 564–681 | 412.300–415.225 | 422.300–425.225 |
| | Not Valid | 682–706 | 415.250–415.850 | 425.250–425.850 |
| E (4.5 MHz) | Not Valid | 692–716 | 415.500–416.100 | 425.500–426.100 |
| | Valid | 717–846 | 416.125–419.350 | 426.125–429.350 |
| | Not Valid | 847–871 | 419.375–419.975 | 429.375–429.975 |
| F (4.5 MHz) | Not Valid | 1792–1822 | 479.000–479.600 | 489.000–489.600 |
| | Valid | 1823–1985 | 479.620–482.860 | 489.620–492.860 |
| | Not Valid | 1986–2016 | 482.880–483.480 | 492.880–493.480 |
| G (4.78 MHz) | Not Valid | 1235–1265 | 455.230–455.830 | 465.230–465.830 |
| | Valid | 1266–1442 | 455.850–459.370 | 465.850–469.370 |
| | Not Valid | 1443–1473 | 459.390–459.990 | 469.390–469.990 |
| H (4.44 MHz) | Not Valid | 1039–1069 | 451.310–451.910 | 461.310–461.910 |
| | Valid | 1070–1229 | 451.930–455.110 | 461.930–465.110 |
| | Not Valid | 1230–1260 | 455.130–455.730 | 465.130–465.730 |
| I (4.425 MHz) | Not Valid | 54-78 | 451.325-451.925 | 461.325-461.925 |
| | Valid | 79-205 | 451.950-455.100 | 461.950-465.100 |
| | Not Valid | 206-230 | 455.125-455.725 | 465.125-465.725 |
| J (4.75 MHz) | Not Valid | 211–234 | 455.250–455.825 | 465.250–465.825 |
| | Valid | 235–376 | 455.850–459.375 | 465.850–469.375 |
| | Not Valid | 377–400 | 459.400–459.975 | 469.400–469.975 |
| K (4.5 MHz) | Not Valid | 1536–1560 | 479.000–479.600 | 489.000–489.600 |
| | Valid | 1561–1690 | 479.625–482.850 | 489.625–492.850 |
| | Not Valid | 1691–1715 | 482.875–483.475 | 492.875–493.475 |
| L (4.5 MHz) | Not Valid | 472–504 | 410.000–410.800 | 420.000–420.800 |
| | Valid | 505–646 | 410.825–414.350 | 420.825–424.350 |
| | Not Valid | 647–671 | 414.375–414.975 | 424.375–424.975 |
| M (7.5 MHz Mobile Station Transmit, 8.75 MHz Base Station Transmit) | Not Valid | 1–96 | 450.000–452.375 | 460.000–462.375 |
| | Valid | 97–275 | 452.400–456.850 | 462.400–466.850 |
| | Valid for Base Station Transmit Only | 276–375 | 456.875–459.350 | 466.875–469.350 |
| | Not Valid | 376–400 | 459.375–459.975 | 469.375–469.975 |
| | Valid | 2017 | 451.150 | 467.725 |
| Valid | 2018 | 451.475 | 467.725 | |

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|--|--------------------------------------|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| N (7.5 MHz Mobile Station Transmit, 10 MHz Base Station Transmit) | Not Valid | 1–25 | 450.000–450.600 | 460.000–460.600 |
| | Valid | 26–275 | 450.625–456.850 | 460.625–466.850 |
| | Valid for Base Station Transmit Only | 276–375 | 456.875–459.350 | 466.875–469.350 |
| | Not Valid | 376–400 | 459.375–459.975 | 469.375–469.975 |
| | Valid | 2017 | 451.150 | 467.725 |
| | Valid | 2018 | 451.475 | 467.725 |

Table 2.1.6-4. CDMA Channel Numbers and Corresponding Frequencies for Band Class 5 and Spreading Rate 3

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| A (4.5 MHz) | Not Valid | 121–209 | 453.000–455.200 | 463.000–465.200 |
| | Valid | 210 | 455.225 | 465.225 |
| | Not Valid | 211–300 | 455.250–457.475 | 465.250–467.475 |
| A' (0.5 MHz) | Not Valid | 101–120 | 452.500–452.975 | 462.500–462.975 |
| B (4.5 MHz) | Not Valid | 81–169 | 452.000–454.200 | 462.000–464.200 |
| | Valid | 170 | 454.225 | 464.225 |
| | Not Valid | 171–260 | 454.250–456.475 | 464.250–466.475 |
| C (4.8 MHz) | Not Valid | 1–96 | 450.000–452.375 | 460.000–462.375 |
| | Valid | 97 | 452.400 | 462.400 |
| | Not Valid | 98–193 | 452.425–454.800 | 462.425–464.800 |
| D (4.2 MHz) | Not Valid | 539–706 | 411.675–415.850 | 421.675–425.850 |
| E (4.5 MHz) | Not Valid | 692–780 | 415.500–417.700 | 425.500–427.700 |
| | Valid | 781 | 417.725 | 427.725 |
| | Not Valid | 782–871 | 417.750–419.975 | 427.750–429.975 |
| F (4.5 MHz) | Not Valid | 1792–1903 | 479.000–481.220 | 489.000–491.220 |
| | Valid | 1904 | 481.240 | 491.240 |
| | Not Valid | 1905–2016 | 481.260–483.480 | 491.260–493.480 |
| G (4.78 MHz) | Not Valid | 1235–1353 | 455.230–457.590 | 465.230–467.590 |
| | Valid | 1354 | 457.610 | 467.610 |
| | Not Valid | 1355–1473 | 457.630–459.990 | 467.630–469.990 |

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|--|---------------------------------|--------------------------------|---|---|
| | | | Mobile Station | Base Station |
| H (4.44 MHz) | Not Valid Valid Not Valid | 1039–1149 1150 1151–1260 | 451.310–453.510 453.530 453.550–455.730 | 461.310–463.510 463.530 463.550–465.730 |
| I (4.425 MHz) | Not Valid Valid Not Valid | 54–141 142 143–230 | 451.325–453.500 453.525 453.550–455.725 | 461.325–463.500 463.525 463.550–465.725 |
| J (4.75 MHz) | Not Valid Valid Not Valid | 211–304 305 306–400 | 455.250–457.575 457.600 457.625–459.975 | 465.250–467.575 467.600 467.625–469.975 |
| K (4.5 MHz) | Not Valid Valid Not Valid | 1536–1624 1625 1626–1715 | 479.000–481.200 481.225 481.250–483.475 | 489.000–491.200 491.225 491.250–493.475 |
| L (4.5 MHz) | Not Valid | 472–671 | 410.000–414.975 | 420.000–424.975 |
| M (7.5 MHz Mobile Station Transmit, 8.75 MHz Base Station Transmit) | Not Valid | 1–2018 | 450.000–457.475 | 461.250–469.975 |
| N (7.5 MHz Mobile Station Transmit, 10 MHz Base Station Transmit) | Not Valid | 1–2018 | 450.000–457.475 | 460.000–469.975 |

1

Table 2.1.6-5. CDMA Preferred Set of Frequency Assignments for Band Class 5

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--|
| A | 160, 210*, 260 |
| B | 120, 170, 220* |
| C | 47, 97, 147* |
| D | 573, 623, 673* |
| E | 731*, 781, 831 |
| F | 1841*, 1903, 1965 |
| G | 1291*, 1353, 1415 |
| H | 1089, 1151, 1213* |
| I | 92, 142, 192* |
| J | 255*, 305, 355 |
| K | 1575*, 1625, 1675 |
| L | Not Specified |
| M | 97, 110, 147, 160, 210*, 260, 2017, 2018 |
| N | 47, 97, 110, 147, 160, 210*, 260, 2017, 2018 |

* CDMA frequency assignments that support inter-block roaming

2

**Table 2.1.6-6. Sync Channel Preferred Set of Frequency Assignments
for Spreading Rate 3 for Band Class 5**

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--------------------------------------|
| A | 210 |
| B | 220 |
| C | 147 |
| E | 731 |
| F | 1841 |
| G | 1291 |
| H | 1213 |
| I | 192 |
| J | 255 |
| K | 1575 |
| L | Not Specified |
| M | Not Specified |
| N | Not Specified |

2.1.7 Band Class 6 (2 GHz Band)

The Band Class 6 block designators for the CDMA equipment are not specified, since licensee allocations vary by regulatory body. CDMA equipments supporting Band Class 6 shall be capable of transmitting in Band Class 6.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 6 shall be as specified in Table 2.1.7-1. CDMA equipments supporting Band Class 6 and Spreading Rate 1 shall support transmission on the valid channel numbers shown in Table 2.1.7-2. CDMA equipments supporting Band Class 6 and Spreading Rate 3 shall support transmission on the valid channel numbers shown in Table 2.1.7-3.

A preferred set of CDMA frequency assignments is given in Table 2.1.7-4.

If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

If the mobile station is transmitting and receiving using the same spreading rate, the nominal mobile station transmit carrier frequency shall be 190.0 MHz lower than the frequency of the base station transmit signal as measured at the mobile station receiver. If

1 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
 2 the nominal mobile station transmit carrier frequency shall be $190.0 - 1.25 \times$
 3 $(1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the center CDMA
 4 channel transmitted by the base station as measured at the mobile station receiver.

5 At the base station, if a Band Class 6 carrier operates with Spreading Rate 3, then all three
 6 carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

7 **Table 2.1.7-1. CDMA Channel Number to CDMA Frequency**
 8 **Assignment Correspondence for Band Class 6**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Mobile Station | $0 \leq N \leq 1199$ | $1920.000 + 0.050 N$ |
| Base Station | $0 \leq N \leq 1199$ | $2110.000 + 0.050 N$ |

**Table 2.1.7-2. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 6 and Spreading Rate 1**

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Mobile Station | Base Station |
| Not Valid | 0-24 | 1920.000-1921.200 | 2110.000-2111.200 |
| Valid | 25-1175 | 1921.250-1978.750 | 2111.250-2168.750 |
| Not Valid | 1176-1199 | 1978.800-1979.950 | 2168.800-2169.950 |

Channel numbers less than 1.25 MHz from the licensee's band edge are not valid.

**Table 2.1.7-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 6 and Spreading Rate 3**

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Mobile Station | Base Station |
| Not Valid | 0-49 | 1920.000-1922.450 | 2110.000-2112.450 |
| Valid | 50-1150 | 1922.500-1977.500 | 2112.500-2167.500 |
| Not Valid | 1151-1199 | 1977.550-1979.950 | 2167.550-2169.950 |

Channel numbers less than 2.5 MHz from the licensee's band edge are not valid.

Table 2.1.7-4. CDMA Preferred Set of Frequency Assignments for Band Class 6

| Spreading Rate | Preferred Set Channel Numbers |
|----------------|-------------------------------|
| 1 | 25, 50,..., 1150, 1175 |
| 3 | 50, 75,..., 1125, 1150 |

2.1.8 Band Class 7 (Upper 700 MHz Band)

The Band Class 7 block designators for the CDMA equipment shall be as specified in Table 2.1.8-1. CDMA equipments supporting Band Class 7 shall be capable of transmitting in Band Class 7.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 7 shall be as specified in Table 2.1.8-2. CDMA equipments supporting Band Class 7 and Spreading Rate 1 shall support operations on the valid and conditionally valid channel numbers shown in Table 2.1.8-3. CDMA equipments supporting Band Class 7 and Spreading Rate 3 shall support operations on the valid and conditionally valid channel numbers shown in Table 2.1.8-4. Note that certain channel assignments are not valid and others are conditionally valid. Transmission on conditionally valid channels is permissible

1 if the adjacent block is allocated to the same licensee or if other valid authorization has
 2 been obtained.

3 A preferred set of CDMA frequency assignments is given in Table 2.1.8-5.

4 A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given
 5 in Table 2.1.8-6.

6 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
 7 Reverse Traffic Channels, then it shall transmit the Reverse Traffic Channel on the CDMA
 8 Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the
 9 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
 10 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
 11 $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
 12 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
 13 $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

14 If the mobile station is transmitting and receiving using the same spreading rate, the
 15 nominal mobile station transmit carrier frequency shall be 30.0 MHz higher than the
 16 frequency of the base station transmit signal as measured at the mobile station receiver. If
 17 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
 18 the nominal mobile station transmit carrier frequency shall be $30.0 + 1.25 \times$
 19 $(1XRL_FREQ_OFFSET_s - 1)$ MHz higher than the center frequency of the center CDMA
 20 channel transmitted by the base station as measured at the mobile station receiver.

21 At the base station, if a Band Class 7 carrier operates with Spreading Rate 3, then all three
 22 carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

23 **Table 2.1.8-1. Band Class 7 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|--------------|
| | Mobile Station | Base Station |
| C | 776-787 | 746-757 |
| A | 787-788 | 757-758 |

24 **Table 2.1.8-2. CDMA Channel Number to CDMA Frequency**
 25 **Assignment Correspondence for Band Class 7**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|---------------------|---|
| Mobile Station | $0 \leq N \leq 240$ | $776.000 + 0.050 N$ |
| Base Station | $0 \leq N \leq 240$ | $746.000 + 0.050 N$ |

26

**Table 2.1.8-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 7 and Spreading Rate 1**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| C (11 MHz) | Not Valid | 0-22 | 776.000-777.100 | 746.000-747.100 |
| | Valid | 23-198 | 777.150-785.900 | 747.150-755.900 |
| | Not Valid | 199-219 | 785.950-786.950 | 755.950-756.950 |
| A (1 MHz) | Not Valid | 220-240 | 787.000-788.000 | 757.000-758.000 |

**Table 2.1.8-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 7 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| C (11 MHz) | Not Valid | 0-47 | 776.000-778.350 | 746.000-748.350 |
| | Valid | 48-173 | 778.400-784.650 | 748.400-754.650 |
| | Not Valid | 174-219 | 784.700-786.950 | 754.700-756.950 |
| A (1 MHz) | Not Valid | 220-240 | 787.000-788.000 | 757.000-758.000 |

Table 2.1.8-5. CDMA Preferred Set of Frequency Assignments for Band Class 7

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|------------------|----------------|------------------------------------|
| C | 1 | 23, 48, 73, 98, 123, 148, 173, 198 |
| | 3 | 48, 73, 98, 123, 148, 173 |
| A | N/A | None |

**Table 2.1.8-6. Sync Channel Preferred Set of Frequency Assignments
for Spreading Rate 3 for Band Class 7**

| Block Designator | Preferred Set of Channel Numbers |
|------------------|----------------------------------|
| C | 73, 148 |
| A | None |

1 2.1.9 Band Class 8 (1800 MHz Band)

2 The Band Class 8 block designators for the CDMA equipment are not specified. CDMA
3 equipments supporting Band Class 8 shall be capable of transmitting in Band Class 8.

4 The channel spacing, CDMA channel designations, and transmitter center frequencies of
5 Band Class 8 shall be as specified in Table 2.1.9-1. CDMA equipments supporting Band
6 Class 8 and Spreading Rate 1 shall support transmission on the valid channel numbers
7 shown in Table 2.1.9-2. CDMA equipments supporting Band Class 8 and Spreading Rate 3
8 shall support transmission on the valid channel numbers shown in Table 2.1.9-3.

9 A preferred set of CDMA frequency assignments is given in Table 2.1.9-4.

10 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
11 Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA
12 Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the
13 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
14 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
15 $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
16 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
17 $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

18 If the mobile station is transmitting and receiving using the same spreading rate, the
19 nominal mobile station transmit carrier frequency shall be 95.0 MHz lower than the
20 frequency of the base station transmit signal as measured at the mobile station receiver. If
21 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
22 the nominal mobile station transmit carrier frequency shall be $95.0 - 1.25 \times$
23 $(1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the center CDMA
24 channel transmitted by the base station as measured at the mobile station receiver.

25 At the base station, if a Band Class 8 carrier operates with Spreading Rate 3, then all three
26 carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

27 **Table 2.1.9-1. CDMA Channel Number to CDMA Frequency**
28 **Assignment Correspondence for Band Class 8**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Mobile Station | $0 \leq N \leq 1499$ | $1710.000 + 0.050 N$ |
| Base Station | $0 \leq N \leq 1499$ | $1805.000 + 0.050 N$ |

**Table 2.1.9-2. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 8 and Spreading Rate 1**

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Mobile Station | Base Station |
| Not Valid | 0–24 | 1710.000–1711.200 | 1805.000–1806.200 |
| Valid | 25–1475 | 1711.250–1783.750 | 1806.250–1878.750 |
| Not Valid | 1476–1499 | 1783.800–1784.950 | 1878.800–1879.950 |

Channel numbers less than 1.25 MHz from the licensee's band edge are not valid.

**Table 2.1.9-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 8 and Spreading Rate 3**

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Mobile Station | Base Station |
| Not Valid | 0–49 | 1710.000–1712.450 | 1805.000–1807.450 |
| Valid | 50–1450 | 1712.500–1782.500 | 1807.500–1877.500 |
| Not Valid | 1451–1499 | 1782.550–1784.950 | 1877.550–1879.950 |

Channel numbers less than 2.5 MHz from the licensee's band edge are not valid.

Table 2.1.9-4. CDMA Preferred Set of Frequency Assignments for Band Class 8

| Spreading Rate | Preferred Set Channel Numbers |
|----------------|-------------------------------|
| 1 | 25, 50, ..., 1450, 1475 |
| 3 | 50, 75, ..., 1425, 1450 |

2.1.10 Band Class 9 (900 MHz Band)

The Band Class 9 block designators for the CDMA equipment are not specified. CDMA equipments supporting Band Class 9 shall be capable of transmitting in Band Class 9.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 9 shall be as specified in Table 2.1.10-1. CDMA equipments supporting Band Class 9 and Spreading Rate 1 shall support transmission on the valid channel numbers shown in Table 2.1.10-2. CDMA equipments supporting Band Class 9 and Spreading Rate 3 shall support transmission on the valid channel numbers shown in Table 2.1.10-3.

A preferred set of CDMA frequency assignments is given in Table 2.1.10-4.

If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA

1 Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the
 2 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
 3 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
 4 $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
 5 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
 6 $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

7 If the mobile station is transmitting and receiving using the same spreading rate, the
 8 nominal mobile station transmit carrier frequency shall be 45.0 MHz lower than the
 9 frequency of the base station transmit signal as measured at the mobile station receiver. If
 10 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
 11 the nominal mobile station transmit carrier frequency shall be $45.0 - 1.25 \times$
 12 $(1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the center CDMA
 13 channel transmitted by the base station as measured at the mobile station receiver.

14 At the base station, if a Band Class 9 carrier operates with Spreading Rate 3, then all three
 15 carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

16 **Table 2.1.10-1. CDMA Channel Number to CDMA Frequency**
 17 **Assignment Correspondence for Band Class 9**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|---------------------|---|
| Mobile Station | $0 \leq N \leq 699$ | $880.000 + 0.050 N$ |
| Base Station | $0 \leq N \leq 699$ | $925.000 + 0.050 N$ |

18 **Table 2.1.10-2. CDMA Channel Numbers and Corresponding Frequencies**
 19 **for Band Class 9 and Spreading Rate 1**

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-----------------|
| | | Mobile Station | Base Station |
| Not Valid | 0-24 | 880.000-881.200 | 925.000-926.200 |
| Valid | 25-675 | 881.250-913.750 | 926.250-958.750 |
| Not Valid | 676-699 | 913.800-914.950 | 958.800-959.950 |

Channel numbers less than 1.25 MHz from the licensee's band edge are not valid.

20

Table 2.1.10-3. CDMA Channel Numbers and Corresponding Frequencies for Band Class 9 and Spreading Rate 3

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-----------------|
| | | Mobile Station | Base Station |
| Not Valid | 0–49 | 880.000–882.450 | 925.000–927.450 |
| Valid | 50–650 | 882.500–912.500 | 927.500–957.500 |
| Not Valid | 651–699 | 912.550–914.950 | 957.550–959.950 |

Channel numbers less than 2.5 MHz from the licensee's band edge are not valid.

Table 2.1.10-4. CDMA Preferred Set of Frequency Assignments for Band Class 9

| Spreading Rate | Preferred Set Channel Numbers |
|----------------|-------------------------------|
| 1 | 25, 50,..., 650, 675 |
| 3 | 50, 75,..., 625, 650 |

2.1.11 Band Class 10 (Secondary 800 MHz Band)

The Band Class 10 system designators for the CDMA equipment shall be as specified in Table 2.1.11-1. There are five band subclasses specified for Band Class 10. CDMA equipments supporting Band Class 10 shall support at least one band subclass belonging to Band Class 10. CDMA equipments supporting Band Class 10 shall be capable of transmitting in Band Class 10.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 10 shall be as specified in Table 2.1.11-2. CDMA equipments supporting Band Class 10 and Spreading Rate 1 shall support transmission on the valid channel numbers shown in Table 2.1.11-3. CDMA equipments supporting Band Class 10 and Spreading Rate 3 shall support operations on the valid channel numbers shown in Table 2.1.11-4.

A preferred set of CDMA frequency assignments is given in Table 2.1.11-5.

A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given in Table 2.1.11-6.

If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s - 50$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by $CDMACH_s + 50$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

1 If the mobile station is transmitting and receiving using the same spreading rate, the
 2 nominal mobile station transmit carrier frequency shall be 45.0 MHz (Band Subclasses 0,
 3 1, 2, and 3) or 39.0 MHz (Band Subclass 4) lower than the frequency of the base station
 4 transmit signal as measured at the mobile station receiver. If the mobile station is
 5 transmitting on Spreading Rate 1 and receiving on Spreading Rate 3, the nominal mobile
 6 station transmit carrier frequency shall be $45.0 - 1.25 \times (1XRL_FREQ_OFFSET_s - 1)$ MHz
 7 (Band Subclass 0, 1, and 2) or $39.0 - 1.25 \times (1XRL_FREQ_OFFSET_s - 1)$ MHz (Band
 8 Subclass 3) lower than the carrier frequency of the center CDMA channel transmitted by
 9 the base station as measured at the mobile station receiver.

10 At the base station, if a Band Class 10 carrier operates with Spreading Rate 3, then all
 11 three carriers shall be separated by 50 CDMA Channels (1.25 MHz separation).

12 **Table 2.1.11-1. Band Class 10 System Frequency Correspondence**

| System Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|-------------------|---------------|-------------------------------|-----------------|
| | | Mobile Station | Base Station |
| A | 0 | 806.000–810.975 | 851.000–855.975 |
| B | 1 | 811.000–815.975 | 856.000–860.975 |
| C | 2 | 816.000–820.975 | 861.000–865.975 |
| D | 3 | 821.000–823.975 | 866.000–868.975 |
| E | 4 | 896.000–900.975 | 935.000–939.975 |

13 **Table 2.1.11-2. CDMA Channel Number to CDMA Frequency**
 14 **Assignment Correspondence for Band Class 10**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|-----------------------|---|
| Mobile Station | $0 \leq N \leq 719$ | $0.025 N + 806.000$ |
| | $720 \leq N \leq 919$ | $0.025 (N - 720) + 896.000$ |
| Base Station | $0 \leq N \leq 719$ | $0.025 N + 851.000$ |
| | $720 \leq N \leq 919$ | $0.025 (N - 720) + 935.000$ |

15

**Table 2.1.11-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 10 and Spreading Rate 1**

| Band Subclass | System Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|---------------|-------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | | Mobile Station | Base Station |
| 0 | A | Not Valid | 0-49 | 806.000-807.225 | 851.000-852.225 |
| | | Valid | 50-150 | 807.250-809.750 | 852.250-854.750 |
| | | Cond. Valid | 151-199 | 809.775-810.975 | 854.775-855.975 |
| 1 | B | Cond. Valid | 200-249 | 811.000-812.225 | 856.000-857.225 |
| | | Valid | 250-350 | 812.250-814.750 | 857.250-859.750 |
| | | Cond. Valid | 351-399 | 814.775-815.975 | 859.775-860.975 |
| 2 | C | Cond. Valid | 400-449 | 816.000-817.225 | 861.000-862.225 |
| | | Valid | 450-550 | 817.250-819.750 | 862.250-864.750 |
| | | Cond. Valid | 551-599 | 819.775-820.975 | 864.775-865.975 |
| 3 | D | Cond. Valid | 600-649 | 821.000-822.225 | 866.000-867.225 |
| | | Valid | 650-670 | 822.250-822.750 | 867.250-867.750 |
| | | Not Valid | 671-719 | 822.775-823.975 | 867.775-868.975 |
| 4 | E | Not Valid | 720-769 | 896.000-897.225 | 935.000-936.225 |
| | | Valid | 770-870 | 897.250-899.750 | 936.250-938.750 |
| | | Not Valid | 871-919 | 899.775-900.975 | 938.775-939.975 |

**Table 2.1.11-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 10 and Spreading Rate 3**

| Band Subclass | System Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|---------------|-------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | | Mobile Station | Base Station |
| 0 | A | Not Valid | 0-99 | 806.000-808.475 | 851.000-853.475 |
| | | Valid | 100 | 808.500 | 853.500 |
| | | Cond. Valid | 101-199 | 808.525-810.975 | 853.525-855.975 |
| 1 | B | Cond. Valid | 200-299 | 811.000-813.475 | 856.000-858.475 |
| | | Valid | 300 | 813.500 | 858.500 |
| | | Cond. Valid | 301-399 | 813.525-815.975 | 858.525-860.975 |
| 2 | C | Cond. Valid | 400-499 | 816.000-818.475 | 861.000-863.475 |
| | | Valid | 500 | 818.500 | 863.500 |
| | | Cond. Valid | 501-599 | 818.525-820.975 | 863.525-865.975 |
| 3 | D | Cond. Valid | 600-620 | 821.000-821.500 | 866.000-866.500 |
| | | Not Valid | 621-719 | 821.525-823.975 | 866.525-868.975 |
| 4 | E | Not Valid | 720-769 | 896.000-897.225 | 935.000-936.225 |
| | | Valid | 770-870 | 897.250-99.750 | 936.250-938.750 |
| | | Not Valid | 871-919 | 899.775-900.975 | 938.775-939.975 |

Table 2.1.11-5. CDMA Preferred Set of Frequency Assignments for Band Class 10

| Band Subclass | System Designator | Spreading Rate | Preferred Set Channel Numbers |
|---------------|-------------------|----------------|-------------------------------|
| 0 | A | 1 | 50, 100, 150 |
| | | 3 | 100 |
| 1 | B | 1 | 250, 300, 350 |
| | | 3 | 300 |
| 2 | C | 1 | 450, 500, 550 |
| | | 3 | 500 |
| 3 | D | 1 | 650, 670 |
| | | 3 | Not applicable |
| 4 | E | 1 | 770, 820, 870 |
| | | 3 | 820 |

Table 2.1.11-6. Sync Channel Preferred Set of Frequency Assignments for Spreading Rate 3 for Band Class 10

| Band Subclass | System Designator | Preferred Set of Channel Numbers |
|---------------|-------------------|----------------------------------|
| 0 | A | 150 |
| 1 | B | 300 |
| 2 | C | 450, 500 |
| 3 | D | Not applicable |
| 4 | E | 820 |

2.1.12 Band Class 11 (400 MHz European PAMR Band)

The Band Class 11 block designators for the CDMA equipment shall be as specified in Table 2.1.12-1. There are twelve band subclasses specified for Band Class 11. Each band subclass corresponds to a specific block designator (see Table 2.1.12-1). Each band subclass includes all the channels designated for that block. CDMA equipments supporting Band Class 11 shall be capable of transmitting in at least one band subclass belonging to Band Class 11. For CDMA equipments capable of transmitting in more than one band subclass belonging to Band Class 11, one band subclass shall be designated as the Primary Band Subclass, which is the band subclass used by the CDMA equipment's home system.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 11 shall be as specified in Table 2.1.12-2. Note that certain channel assignments are not valid and others are conditionally valid. Mobile stations supporting

1 Band Class 11 and Spreading Rate 1 shall support operations on the valid and
2 conditionally valid channel numbers of the supported blocks shown in Table
3 2.1.12-3. Base stations supporting Band Class 11 and Spreading Rate 1 shall support
4 operations on the valid and may support operations on the conditionally valid channel
5 numbers of the supported blocks shown in Table 2.1.12-3. Transmission on conditionally
6 valid channels is permissible if the adjacent block is allocated to the same licensee or if
7 other valid authorization has been obtained. CDMA equipments supporting Band Class 11
8 and Spreading Rate 3 shall support operation on the valid channel numbers of the
9 supported blocks shown in Table 2.1.12-4.

10 A preferred set of CDMA frequency assignments is given in Table 2.1.12-5.

11 A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given
12 in Table 2.1.12-6.

13 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
14 Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA
15 Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the
16 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
17 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
18 $CDMACH_s - 50$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
19 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
20 $CDMACH_s + 50$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

21 If the mobile station is transmitting and receiving using the same spreading rate, the
22 nominal mobile station transmit carrier frequency shall be 10.0 MHz lower than the
23 frequency of the base station transmit signal as measured at the mobile station receiver. If
24 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
25 the nominal mobile station transmit carrier frequency shall be $10.0 - 1.25 \times$
26 $(1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the frequency of the base station transmit
27 signal as measured at the mobile station receiver.

28 At the base station, if a Band Class 11 carrier operates with Spreading Rate 3, then all
29 three carriers shall be separated by 50 CDMA Channels (1.25 MHz separation).

Table 2.1.12-1. Band Class 11 Block Frequency Correspondence and Band Subclasses

| Block Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|------------------|---------------|-------------------------------|-----------------|
| | | Mobile Station | Base Station |
| A | 0 | 452.500–457.475 | 462.500–467.475 |
| B | 1 | 452.000–456.475 | 462.000–466.475 |
| C | 2 | 450.000–454.800 | 460.000–464.800 |
| D | 3 | 411.675–415.850 | 421.675–425.850 |
| E | 4 | 415.500–419.975 | 425.500–429.975 |
| F | 5 | Not specified | Not specified |
| G | 6 | Not specified | Not specified |
| H | 7 | Not specified | Not specified |
| I | 8 | 451.325–455.725 | 461.325–465.725 |
| J | 9 | 455.250–459.975 | 465.250–469.975 |
| K | 10 | 479.000–483.475 | 489.000–493.475 |
| L | 11 | 410.000–414.975 | 420.000–424.975 |

Table 2.1.12-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 11

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|-------------------------|---|
| Mobile Station | $1 \leq N \leq 400$ | $0.025(N - 1) + 450.000$ |
| | $472 \leq N \leq 871$ | $0.025(N - 472) + 410.000$ |
| | $1039 \leq N \leq 1473$ | Reserved |
| | $1536 \leq N \leq 1715$ | $0.025(N - 1536) + 479.000$ |
| | $1792 \leq N \leq 2016$ | Reserved |
| Base Station | $1 \leq N \leq 400$ | $0.025(N - 1) + 460.000$ |
| | $472 \leq N \leq 871$ | $0.025(N - 472) + 420.000$ |
| | $1039 \leq N \leq 1473$ | Reserved |
| | $1536 \leq N \leq 1715$ | $0.025(N - 1536) + 489.000$ |
| | $1792 \leq N \leq 2016$ | Reserved |

**Table 2.1.12-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 11 and Spreading Rate 1**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| A (4.5 MHz) | Not Valid | 121–125 | 453.000–453.100 | 463.000–463.100 |
| | Cond. Valid | 126–145 | 453.125–453.600 | 463.125–463.600 |
| | Valid | 146–275 | 453.625–456.850 | 463.625–466.850 |
| | Not Valid | 276–300 | 456.875–457.475 | 466.875–467.475 |
| A' (0.5 MHz) | Not Valid | 101–120 | 452.500–452.975 | 462.500–462.975 |
| B (4.5 MHz) | Not Valid | 81–105 | 452.000–452.600 | 462.000–462.600 |
| | Valid | 106–235 | 452.625–455.850 | 462.625–465.850 |
| | Not Valid | 236–260 | 455.875–456.475 | 465.875–466.475 |
| C (4.8 MHz) | Not Valid | 1–25 | 450.000–450.600 | 460.000–460.600 |
| | Valid | 26–168 | 450.625–454.175 | 460.625–464.175 |
| | Not Valid | 169–193 | 454.200–454.800 | 464.200–464.800 |
| D (4.2 MHz) | Not Valid | 539–563 | 411.675–412.275 | 421.675–422.275 |
| | Valid | 564–681 | 412.300–415.225 | 422.300–425.225 |
| | Not Valid | 682–706 | 415.250–415.850 | 425.250–425.850 |
| E (4.5 MHz) | Not Valid | 692–716 | 415.500–416.100 | 425.500–426.100 |
| | Valid | 717–846 | 416.125–419.350 | 426.125–429.350 |
| | Not Valid | 847–871 | 419.375–419.975 | 429.375–429.975 |
| F | Not specified | Not specified | Not specified | Not specified |
| G | Not specified | Not specified | Not specified | Not specified |
| H | Not specified | Not specified | Not specified | Not specified |
| I (4.425 MHz) | Not Valid | 54–78 | 451.325–451.925 | 461.325–461.925 |
| | Valid | 79–205 | 451.950–455.100 | 461.950–465.100 |
| | Not Valid | 206–230 | 455.125–455.725 | 465.125–465.725 |
| J (4.75 MHz) | Not Valid | 211–234 | 455.250–455.825 | 465.250–465.825 |
| | Valid | 235–376 | 455.850–459.375 | 465.850–469.375 |
| | Not Valid | 377–400 | 459.400–459.975 | 469.400–469.975 |
| K (4.5 MHz) | Not Valid | 1536–1560 | 479.000–479.600 | 489.000–489.600 |
| | Valid | 1561–1690 | 479.625–482.850 | 489.625–492.850 |
| | Not Valid | 1691–1715 | 482.875–483.475 | 492.875–493.475 |
| L (4.5 MHz) | Not Valid | 472–504 | 410.000–410.800 | 420.000–420.800 |
| | Valid | 505–646 | 410.825–414.350 | 420.825–424.350 |
| | Not Valid | 647–671 | 414.375–414.975 | 424.375–424.975 |

1
2

**Table 2.1.12-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 11 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| A (4.5 MHz) | Not Valid | 121–209 | 453.000–455.200 | 463.000–465.200 |
| | Valid | 210 | 455.225 | 465.225 |
| | Not Valid | 211–300 | 455.250–457.475 | 465.250–467.475 |
| A' (0.5 MHz) | Not Valid | 101–120 | 452.500–452.975 | 462.500–462.975 |
| B (4.5 MHz) | Not Valid | 81–169 | 452.000–454.200 | 462.000–464.200 |
| | Valid | 170 | 454.225 | 464.225 |
| | Not Valid | 171–260 | 454.250–456.475 | 464.250–466.475 |
| C (4.8 MHz) | Not Valid | 1–96 | 450.000–452.375 | 460.000–462.375 |
| | Valid | 97 | 452.400 | 462.400 |
| | Not Valid | 98–193 | 452.425–454.800 | 462.425–464.800 |
| D (4.2 MHz) | Not Valid | 539–706 | 411.675–415.850 | 421.675–425.850 |
| E (4.5 MHz) | Not Valid | 692–780 | 415.500–417.700 | 425.500–427.700 |
| | Valid | 781 | 417.725 | 427.725 |
| | Not Valid | 782–871 | 417.750–419.975 | 427.750–429.975 |
| F | Not specified | Not specified | Not specified | Not specified |
| G | Not specified | Not specified | Not specified | Not specified |
| H | Not specified | Not specified | Not specified | Not specified |
| I (4.425 MHz) | Not Valid | 54–141 | 451.325–453.500 | 461.325–463.500 |
| | Valid | 142 | 453.525 | 463.525 |
| | Not Valid | 143–230 | 453.550–455.725 | 463.550–465.725 |
| J (4.75 MHz) | Not Valid | 211–304 | 455.250–457.575 | 465.250–467.575 |
| | Valid | 305 | 457.600 | 467.600 |
| | Not Valid | 306–400 | 457.625–459.975 | 467.625–469.975 |
| K (4.5 MHz) | Not Valid | 1536–1624 | 479.000–481.200 | 489.000–491.200 |
| | Valid | 1625 | 481.225 | 491.225 |
| | Not Valid | 1626–1715 | 481.250–483.475 | 491.250–493.475 |
| L (4.5 MHz) | Not Valid | 472–671 | 410.000–414.975 | 420.000–424.975 |

3

1 **Table 2.1.12-5. CDMA Preferred Set of Frequency Assignments for Band Class 11**

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--------------------------------------|
| A | 160, 210*, 260 |
| B | 120, 170, 220* |
| C | 47, 97, 147* |
| D | 573, 623, 673* |
| E | 731*, 781, 831 |
| F | Not specified |
| G | Not specified |
| H | Not specified |
| I | 92, 142, 192* |
| J | 255*, 305, 355 |
| K | 1575*, 1625, 1675 |
| L | Not Specified |

* CDMA frequency assignments that support inter-block roaming

2 **Table 2.1.12-6. Sync Channel Preferred Set of Frequency Assignments**
3 **for Spreading Rate 3 for Band Class 11**

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--------------------------------------|
| A | 210 |
| B | 220 |
| C | 147 |
| E | 731 |
| F | Not specified |
| G | Not specified |
| H | Not specified |
| I | 192 |
| J | 255 |
| K | 1575 |
| L | Not Specified |

4

2.1.13 Band Class 12 (800 MHz PAMR Band)

The Band Class 12 block designators for the CDMA equipment shall be as specified in Table 2.1.13-1. There are three band subclasses specified for Band Class 12. Each band subclass corresponds to a specific block designator (see Table 2.1.13-1). Each band subclass includes all the channels designated for that block. CDMA equipments supporting Band Class 12 shall be capable of transmitting in at least one band subclass belonging to Band Class 12. For CDMA equipments capable of transmitting in more than one band subclass belonging to Band Class 12, one band subclass shall be designated as the Primary Band Subclass, which is the band subclass used by the CDMA equipment's home system.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 12 shall be as specified in Table 2.1.13-2. Note that certain channel assignments are not valid and others are conditionally valid. Mobile stations supporting Band Class 12 and Spreading Rate 1 shall support operations on the valid and conditionally valid channel numbers shown in Table 2.1.13-3. Base stations supporting Band Class 12 and Spreading Rate 1 shall support operations on the valid and may support operations on the conditionally valid channel numbers shown in Table 2.1.13-3. Mobile stations supporting Band Class 12 and Spreading Rate 3 shall support operations on the valid and conditionally valid channel numbers shown in Table 2.1.13-4. Base stations supporting Band Class 12 and Spreading Rate 3 shall support operations on the valid and may support operations on the conditionally valid channel numbers shown in Table 2.1.13-4. Transmission on conditionally valid channels is permissible if the adjacent block is allocated to the same licensee or if other valid authorization has been obtained.

A preferred set of CDMA frequency assignments is given in Table 2.1.13-5.

If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s - 50$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by $CDMACH_s + 50$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

If the mobile station is transmitting and receiving using the same spreading rate, the nominal mobile station transmit carrier frequency shall be 45.0 MHz lower than the frequency of the base station transmit signal as measured at the mobile station receiver. If the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3, the nominal mobile station transmit carrier frequency shall be $45.0 - 1.25 \times (1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the center CDMA channel transmitted by the base station as measured at the mobile station receiver.

At the base station, if a Band Class 12 carrier operates with Spreading Rate 3, then all three carriers shall be separated by 50 CDMA Channels (1.25 MHz separation).

1 **Table 2.1.13-1. Band Class 12 Block Frequency Correspondence and Band Subclasses**

| Block Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|------------------|---------------|-------------------------------|-------------------|
| | | Mobile Station | Base Station |
| A | 0 | 870.0125–875.9875 | 915.0125–920.9875 |
| B | 1 | 871.5125–874.4875 | 916.5125–919.4875 |
| C | 2 | 870.0125–875.9875 | 915.0125–920.9875 |

2 **Table 2.1.13-2. CDMA Channel Number to CDMA Frequency**
3 **Assignment Correspondence for Band Class 12**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|---------------------|---|
| Mobile Station | $0 \leq N \leq 239$ | $870.0125 + 0.025 N$ |
| Base Station | $0 \leq N \leq 239$ | $915.0125 + 0.025 N$ |

4 **Table 2.1.13-3. CDMA Channel Numbers and Corresponding Frequencies**
5 **for Band Class 12 and Spreading Rate 1**

| Block Designator | Valid CDMA Frequency Assignment | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|---------------------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (6MHz) | Not Valid | 0–64 | 870.0125–871.6125 | 915.0125–916.6125 |
| | Valid | 65–214 | 871.6375–875.3625 | 916.6375–920.3625 |
| | Not Valid | 215–239 | 875.3875–875.9875 | 920.3875–920.9875 |
| B (3 MHz) | Not Valid | 60–93 | 871.5125–872.3375 | 916.5125–917.3375 |
| | Valid | 94–144 | 872.3625–873.6125 | 917.3625–918.6125 |
| | Not Valid | 145–179 | 873.6375–874.4875 | 918.6375–919.4875 |
| C (6MHz) | Not Valid | 0–24 | 870.0125–870.6125 | 915.0125–915.6125 |
| | Cond. Valid | 25–104 | 870.6375–872.6125 | 915.6375–917.6125 |
| | Valid | 105–206 | 872.6375–875.1625 | 917.6375–920.1625 |
| | Cond. Valid | 207–214 | 875.1875–875.3625 | 920.1875–920.3625 |
| | Not Valid | 215–239 | 875.3875–875.9875 | 920.3875–920.9875 |

6

1 **Table 2.1.13-4. CDMA Channel Numbers and Corresponding Frequencies**
 2 **for Band Class 12 and Spreading Rate 3**

| Block Designator | Valid CDMA Frequency Assignment | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|---------------------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (6MHz) | Not Valid | 0-138 | 870.0125-873.4625 | 915.0125-918.4625 |
| | Valid | 139 | 873.4875 | 918.4875 |
| | Not Valid | 140-239 | 873.5125-875.9875 | 918.5125-920.9875 |
| B (3 MHz) | Not Valid | 60-179 | 871.5125-874.4875 | 916.5125-919.4875 |
| C (6 MHz) | Not Valid | 0-98 | 870.0125-872.4625 | 915.0125-917.4625 |
| | Cond. Valid | 99-155 | 872.4875-873.8875 | 917.4875-918.8875 |
| | Valid | 156 | 873.9125 | 918.9125 |
| | Not Valid | 157-239 | 873.9375-875.9875 | 918.9375-920.9875 |

3 **Table 2.1.13-5. CDMA Preferred Set of Frequency Assignments for Band Class 12**

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|------------------|----------------|-------------------------------|
| A | 1 | 89, 139, 189 |
| | 3 | 139 |
| B | 1 | 94, 144 |
| | 3 | None |
| C | 1 | 106, 156, 206 |
| | 3 | 156 |

4 2.1.14 Band Class 13 (2.5 GHz IMT-2000 Extension Band)

5 The Band Class 13 block designators for the CDMA equipment shall be as specified in
 6 Table 2.1.14-1.

7 The channel spacing, CDMA channel designations, and transmitter center frequencies of
 8 Band Class 13 shall be as specified in Table 2.1.14-2. CDMA equipment supporting Band
 9 Class 13 and Spreading Rate 1 shall support transmission on the valid and conditionally
 10 valid channel numbers shown in Table 2.1.14-3. CDMA equipment supporting Band Class
 11 13 and Spreading Rate 3 shall support transmission on the valid and conditionally valid
 12 channel numbers shown in Table 2.1.14-4. Note that certain channel assignments are not
 13 valid and others are conditionally valid. Transmission on conditionally valid channels is
 14 permissible if the adjacent block is allocated to the same licensee or if other valid
 15 authorization has been obtained.

16 A preferred set of CDMA frequency assignments is given in Table 2.1.14-5. Preferred Sync
 17 Channel frequency assignments for the multi-carrier mode are given in Table 2.1.14-6.

1 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
 2 Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA
 3 Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the
 4 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
 5 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
 6 $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
 7 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
 8 $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

9 If the mobile station is transmitting and receiving using the same spreading rate, the
 10 nominal mobile station transmit carrier frequency shall be 120.0 MHz lower than the
 11 frequency of the base station transmit signal as measured at the mobile station receiver. If
 12 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
 13 the nominal mobile station transmit carrier frequency shall be $120.0 - 1.25 \times$
 14 $(1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the center CDMA
 15 channel transmitted by the base station as measured at the mobile station receiver.

16 At the base station, if a Band Class 13 carrier operates with Spreading Rate 3, then all
 17 three carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

18 **Table 2.1.14-1. Band Class 13 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|--------------|
| | Mobile Station | Base Station |
| A | 2500–2505 | 2620–2625 |
| B | 2505–2510 | 2625–2630 |
| C | 2510–2515 | 2630–2635 |
| D | 2515–2520 | 2635–2640 |
| E | 2520–2525 | 2640–2645 |
| F | 2525–2530 | 2645–2650 |
| G | 2530–2535 | 2650–2655 |
| H | 2535–2540 | 2655–2660 |
| I | 2540–2545 | 2660–2665 |
| J | 2545–2550 | 2665–2670 |
| K | 2550–2555 | 2670–2675 |
| L | 2555–2560 | 2675–2680 |
| M | 2560–2565 | 2680–2685 |
| N | 2565–2570 | 2685–2690 |

Table 2.1.14-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 13

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|----------------------|---|
| Mobile Station | $0 \leq N \leq 1399$ | $2500.000 + 0.050 N$ |
| Base Station | $0 \leq N \leq 1399$ | $2620.000 + 0.050 N$ |

Table 2.1.14-3. CDMA Channel Numbers and Corresponding Frequencies for Band Class 13 and Spreading Rate 1

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (5 MHz) | Not Valid | 0–24 | 2500.000–2501.200 | 2620.000–2621.200 |
| | Valid | 25–75 | 2501.250–2503.750 | 2621.250–2623.750 |
| | Cond. Valid | 76–99 | 2503.800–2504.950 | 2623.800–2624.950 |
| B (5 MHz) | Cond. Valid | 100–124 | 2505.000–2506.200 | 2625.000–2626.200 |
| | Valid | 125–175 | 2506.250–2508.750 | 2626.250–2628.750 |
| | Cond. Valid | 176–199 | 2508.800–2509.950 | 2628.800–2629.950 |
| C (5 MHz) | Cond. Valid | 200–224 | 2510.000–2511.200 | 2630.000–2631.200 |
| | Valid | 225–275 | 2511.250–2513.750 | 2631.250–2633.750 |
| | Cond. Valid | 276–299 | 2513.800–2514.950 | 2633.800–2634.950 |
| D (5 MHz) | Cond. Valid | 300–324 | 2515.000–2516.200 | 2635.000–2636.200 |
| | Valid | 325–375 | 2516.250–2518.750 | 2636.250–2638.750 |
| | Cond. Valid | 376–399 | 2518.800–2519.950 | 2638.800–2639.950 |
| E (5 MHz) | Cond. Valid | 400–424 | 2520.000–2521.200 | 2640.000–2641.200 |
| | Valid | 425–475 | 2521.250–2523.750 | 2641.250–2643.750 |
| | Cond. Valid | 476–499 | 2523.800–2524.950 | 2643.800–2644.950 |
| F (5 MHz) | Cond. Valid | 500–524 | 2525.000–2526.200 | 2645.000–2646.200 |
| | Valid | 525–575 | 2526.250–2528.750 | 2646.250–2648.750 |
| | Cond. Valid | 576–599 | 2528.800–2529.950 | 2648.800–2649.950 |
| G (5 MHz) | Cond. Valid | 600–624 | 2530.000–2531.200 | 2650.000–2651.200 |
| | Valid | 625–675 | 2531.250–2533.750 | 2651.250–2653.750 |
| | Cond. Valid | 676–699 | 2533.800–2534.950 | 2653.800–2654.950 |
| H (5 MHz) | Cond. Valid | 700–724 | 2535.000–2536.200 | 2655.000–2656.200 |
| | Valid | 725–775 | 2536.250–2538.750 | 2656.250–2658.750 |
| | Cond. Valid | 776–799 | 2538.800–2539.950 | 2658.800–2659.950 |
| I (5 MHz) | Cond. Valid | 800–824 | 2540.000–2541.200 | 2660.000–2661.200 |
| | Valid | 825–875 | 2541.250–2543.750 | 2661.250–2663.750 |
| | Cond. Valid | 876–899 | 2543.800–2544.950 | 2663.800–2664.950 |

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| J (5 MHz) | Cond. Valid | 900-924 | 2545.000-2546.200 | 2665.000-2666.200 |
| | Valid | 925-975 | 2546.250-2548.750 | 2666.250-2668.750 |
| | Cond. Valid | 976-999 | 2548.800-2549.950 | 2668.800-2669.950 |
| K (5 MHz) | Cond. Valid | 1000-1024 | 2550.000-2551.200 | 2670.000-2671.200 |
| | Valid | 1025-1075 | 2551.250-2553.750 | 2671.250-2673.750 |
| | Cond. Valid | 1076-1099 | 2553.800-2554.950 | 2673.800-2674.950 |
| L (5 MHz) | Cond. Valid | 1100-1124 | 2555.000-2556.200 | 2675.000-2676.200 |
| | Valid | 1125-1175 | 2556.250-2558.750 | 2676.250-2678.750 |
| | Cond. Valid | 1176-1199 | 2558.800-2559.950 | 2678.800-2679.950 |
| M (5 MHz) | Cond. Valid | 1200-1224 | 2560.000-2561.200 | 2680.000-2681.200 |
| | Valid | 1225-1275 | 2561.250-2563.750 | 2681.250-2683.750 |
| | Cond. Valid | 1276-1299 | 2563.800-2564.950 | 2683.800-2684.950 |
| N (5 MHz) | Cond. Valid | 1300-1324 | 2565.000-2566.200 | 2685.000-2686.200 |
| | Valid | 1325-1375 | 2566.250-2568.750 | 2686.250-2688.750 |
| | Not Valid | 1376-1399 | 2568.800-2569.950 | 2688.800-2689.950 |

**Table 2.1.14-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 13 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (5 MHz) | Not Valid | 0-49 | 2500.000-2502.450 | 2620.000-2622.450 |
| | Valid | 50 | 2502.500 | 2622.500 |
| | Cond. Valid | 51-99 | 2502.550-2504.950 | 2622.550-2624.950 |
| B (5 MHz) | Cond. Valid | 100-149 | 2505.000-2507.450 | 2625.000-2627.450 |
| | Valid | 150 | 2507.500 | 2627.500 |
| | Cond. Valid | 151-199 | 2507.550-2509.950 | 2627.550-2629.950 |
| C (5 MHz) | Cond. Valid | 200-249 | 2510.000-2512.450 | 2630.000-2632.450 |
| | Valid | 250 | 2512.500 | 2632.500 |
| | Cond. Valid | 251-299 | 2512.550-2514.950 | 2632.550-2634.950 |
| D (5 MHz) | Cond. Valid | 300-349 | 2515.000-2517.450 | 2635.000-2637.450 |
| | Valid | 350 | 2517.500 | 2637.500 |
| | Cond. Valid | 351-399 | 2517.550-2519.950 | 2637.550-2639.950 |
| E (5 MHz) | Cond. Valid | 400-449 | 2520.000-2522.450 | 2640.000-2642.450 |
| | Valid | 450 | 2522.500 | 2642.500 |
| | Cond. Valid | 451-499 | 2522.550-2524.950 | 2642.550-2644.950 |

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| F (5 MHz) | Cond. Valid | 500–549 | 2525.000–2527.450 | 2645.000–2647.450 |
| | Valid | 550 | 2527.500 | 2647.500 |
| | Cond. Valid | 551–599 | 2527.550–2529.950 | 2647.550–2649.950 |
| G (5 MHz) | Cond. Valid | 600–649 | 2530.000–2532.450 | 2650.000–2652.450 |
| | Valid | 650 | 2532.500 | 2652.500 |
| | Cond. Valid | 651–699 | 2532.550–2534.950 | 2652.550–2654.950 |
| H (5 MHz) | Cond. Valid | 700–749 | 2535.000–2537.450 | 2655.000–2657.450 |
| | Valid | 750 | 2537.500 | 2657.500 |
| | Cond. Valid | 751–799 | 2537.550–2539.950 | 2657.550–2659.950 |
| I (5 MHz) | Cond. Valid | 800–849 | 2540.000–2542.450 | 2660.000–2662.450 |
| | Valid | 850 | 2542.500 | 2662.500 |
| | Cond. Valid | 851–899 | 2542.550–2544.950 | 2662.550–2664.950 |
| J (5 MHz) | Cond. Valid | 900–949 | 2545.000–2547.450 | 2665.000–2667.450 |
| | Valid | 950 | 2547.500 | 2667.500 |
| | Cond. Valid | 951–999 | 2547.550–2549.950 | 2667.550–2669.950 |
| K (5 MHz) | Cond. Valid | 1000–1049 | 2550.000–2552.450 | 2670.000–2672.450 |
| | Valid | 1050 | 2552.500 | 2672.500 |
| | Cond. Valid | 1051–1099 | 2552.550–2554.950 | 2672.550–2674.950 |
| L (5 MHz) | Cond. Valid | 1100–1149 | 2555.000–2557.450 | 2675.000–2677.450 |
| | Valid | 1150 | 2557.500 | 2677.500 |
| | Cond. Valid | 1151–1199 | 2557.550–2559.950 | 2677.550–2679.950 |
| M (5 MHz) | Cond. Valid | 1200–1249 | 2560.000–2562.450 | 2680.000–2682.450 |
| | Valid | 1250 | 2562.500 | 2682.500 |
| | Cond. Valid | 1251–1299 | 2562.550–2564.950 | 2682.550–2684.950 |
| N (5 MHz) | Cond. Valid | 1300–1349 | 2565.000–2567.450 | 2685.000–2687.450 |
| | Valid | 1350 | 2567.500 | 2687.500 |
| | Not Valid | 1351–1399 | 2567.550–2569.950 | 2687.550–2689.950 |

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1 **Table 2.1.14-5. CDMA Preferred Set of Frequency Assignments for Band Class 13**

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|-------------------------|-----------------------|--------------------------------------|
| A | 1 | 25, 50, 75 |
| | 3 | 50 |
| B | 1 | 125, 150, 175 |
| | 3 | 150 |
| C | 1 | 225, 250, 275 |
| | 3 | 250 |
| D | 1 | 325, 350, 375 |
| | 3 | 350 |
| E | 1 | 425, 450, 475 |
| | 3 | 450 |
| F | 1 | 525, 550, 575 |
| | 3 | 550 |
| G | 1 | 625, 650, 675 |
| | 3 | 650 |
| H | 1 | 725, 750, 775 |
| | 3 | 750 |
| I | 1 | 825, 850, 875 |
| | 3 | 850 |
| J | 1 | 925, 950, 975 |
| | 3 | 950 |
| K | 1 | 1025, 1050, 1075 |
| | 3 | 1050 |
| L | 1 | 1125, 1150, 1175 |
| | 3 | 1150 |
| M | 1 | 1225, 1250, 1275 |
| | 3 | 1250 |
| N | 1 | 1325, 1350, 1375 |
| | 3 | 1350 |

**Table 2.1.14-6. Sync Channel Preferred Frequency Assignments
for Spreading Rate 3 for Band Class 13**

| Block Designator | Sync Channel Preferred Channel Numbers |
|-------------------------|---|
| A | 50 |
| B | 150 |
| C | 250 |
| D | 350 |
| E | 450 |
| F | 550 |
| G | 650 |
| H | 750 |
| I | 850 |
| J | 950 |
| K | 1050 |
| L | 1150 |
| M | 1250 |
| N | 1350 |

2.1.15 Band Class 14 (US PCS 1.9GHz Band)

The Band Class 14 block designators for the CDMA equipment shall be as specified in Table 2.1.15-1.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 14 shall be as specified in Table 2.1.15-2. CDMA equipment supporting Band Class 14 and Spreading Rate 1 shall support transmission on the valid and conditionally valid channel numbers shown in Table 2.1.15-3. CDMA equipment supporting Band Class 14 and Spreading Rate 3 shall support transmission on the valid and conditionally valid channel numbers shown in Table 2.1.15-4. Note that certain channel assignments are not valid and others are conditionally valid. Transmission on conditionally valid channels is permissible if the adjacent block is allocated to the same licensee or if other valid authorization has been obtained.

A preferred set of CDMA frequency assignments is given in Table 2.1.15-5.

Preferred Sync Channel frequency assignments for the multi-carrier mode are given in Table 2.1.15-6.

If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by CDMACH_s. If the mobile station uses Spreading Rate 3 for the Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it

1 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
 2 $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
 3 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
 4 $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

5 If the mobile station is transmitting and receiving using the same spreading rate, the
 6 nominal mobile station transmit carrier frequency shall be 80.0 MHz lower than the
 7 frequency of the base station transmit signal as measured at the mobile station receiver. If
 8 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
 9 the nominal mobile station transmit carrier frequency shall be $120.0 - 1.25 \times$
 10 $(1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the center CDMA
 11 channel transmitted by the base station as measured at the mobile station receiver.

12 At the base station, if a Band Class 14 carrier operates with Spreading Rate 3, then all
 13 three carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

14 **Table 2.1.15-1. Band Class 14 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|--------------|
| | Mobile Station | Base Station |
| A | 1850–1865 | 1930–1945 |
| D | 1865–1870 | 1945–1950 |
| B | 1870–1885 | 1950–1965 |
| E | 1885–1890 | 1965–1970 |
| F | 1890–1895 | 1970–1975 |
| C | 1895–1910 | 1975–1990 |
| G | 1910–1915 | 1990–1995 |

15 **Table 2.1.15-2. CDMA Channel Number to CDMA Frequency**
 16 **Assignment Correspondence for Band Class 14**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|----------------------|---|
| Mobile Station | $0 \leq N \leq 1299$ | $1850.000 + 0.050 N$ |
| Base Station | $0 \leq N \leq 1299$ | $1930.000 + 0.050 N$ |

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**Table 2.1.15-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 14 and Spreading Rate 1**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (15 MHz) | Not Valid | 0–24 | 1850.000–1851.200 | 1930.000–1931.200 |
| | Valid | 25–275 | 1851.250–1863.750 | 1931.250–1943.750 |
| | Cond. Valid | 276–299 | 1863.800–1864.950 | 1943.800–1944.950 |
| D (5 MHz) | Cond. Valid | 300–324 | 1865.000–1866.200 | 1945.000–1946.200 |
| | Valid | 325–375 | 1866.250–1868.750 | 1946.250–1948.750 |
| | Cond. Valid | 376–399 | 1868.800–1869.950 | 1948.800–1949.950 |
| B (15 MHz) | Cond. Valid | 400–424 | 1870.000–1871.200 | 1950.000–1951.200 |
| | Valid | 425–675 | 1871.250–1883.750 | 1951.250–1963.750 |
| | Cond. Valid | 676–699 | 1883.800–1884.950 | 1963.800–1964.950 |
| E (5 MHz) | Cond. Valid | 700–724 | 1885.000–1886.200 | 1965.000–1966.200 |
| | Valid | 725–775 | 1886.250–1888.750 | 1966.250–1968.750 |
| | Cond. Valid | 776–799 | 1888.800–1889.950 | 1968.800–1969.950 |
| F (5 MHz) | Cond. Valid | 800–824 | 1890.000–1891.200 | 1970.000–1971.200 |
| | Valid | 825–875 | 1891.250–1893.750 | 1971.250–1973.750 |
| | Cond. Valid | 876–899 | 1893.800–1894.950 | 1973.800–1974.950 |
| C (15 MHz) | Cond. Valid | 900–924 | 1895.000–1896.200 | 1975.000–1976.200 |
| | Valid | 925–1175 | 1896.250–1908.750 | 1976.250–1988.750 |
| | Cond. Valid | 1176–1199 | 1908.800–1909.950 | 1988.800–1989.950 |
| G (5 MHz) | Cond. Valid | 1200–1224 | 1910.000–1911.200 | 1990.000–1991.200 |
| | Valid | 1225–1275 | 1911.250–1913.750 | 1991.250–1993.750 |
| | Not Valid | 1276–1299 | 1913.800–1914.950 | 1993.800–1994.950 |

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**Table 2.1.15-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 14 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (15 MHz) | Not Valid | 0–49 | 1850.000–1852.450 | 1930.000–1932.450 |
| | Valid | 50–250 | 1852.500–1862.500 | 1932.500–1942.500 |
| | Cond. Valid | 251–299 | 1862.550–1864.950 | 1942.550–1944.950 |
| D (5 MHz) | Cond. Valid | 300–349 | 1865.000–1867.450 | 1945.000–1947.450 |
| | Valid | 350 | 1867.500 | 1947.500 |
| | Cond. Valid | 351–399 | 1867.550–1869.950 | 1947.550–1949.950 |
| B (15 MHz) | Cond. Valid | 400–449 | 1870.000–1872.450 | 1950.000–1952.450 |
| | Valid | 450–650 | 1872.500–1882.500 | 1952.500–1962.500 |
| | Cond. Valid | 651–699 | 1882.550–1884.950 | 1962.550–1964.950 |
| E (5 MHz) | Cond. Valid | 700–749 | 1885.000–1887.450 | 1965.000–1967.450 |
| | Valid | 750 | 1887.500 | 1967.500 |
| | Cond. Valid | 751–799 | 1887.550–1889.950 | 1967.550–1969.950 |
| F (5 MHz) | Cond. Valid | 800–849 | 1890.000–1892.450 | 1970.000–1972.450 |
| | Valid | 850 | 1892.500 | 1972.500 |
| | Cond. Valid | 851–899 | 1892.550–1894.950 | 1972.550–1974.950 |
| C (15 MHz) | Cond. Valid | 900–949 | 1895.000–1897.450 | 1975.000–1977.450 |
| | Valid | 950–1150 | 1897.500–1907.500 | 1977.500–1987.500 |
| | Cond. Valid | 1151–1199 | 1907.550–1909.950 | 1987.550–1989.950 |
| G (5 MHz) | Cond. Valid | 1200–1249 | 1910.000–1912.450 | 1990.000–1992.450 |
| | Valid | 1250 | 1912.500 | 1992.500 |
| | Not Valid | 1251–1299 | 1912.550–1914.950 | 1992.550–1994.950 |

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4

1 **Table 2.1.15-5. CDMA Preferred Set of Frequency Assignments for Band Class 14**

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|-------------------------|-----------------------|---|
| A | 1 | 25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275 |
| | 3 | 50, 75, 100, 125, 150, 175, 200, 225, 250 |
| D | 1 | 325, 350, 375 |
| | 3 | 350 |
| B | 1 | 425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675 |
| | 3 | 450, 475, 500, 525, 550, 575, 600, 625, 650 |
| E | 1 | 725, 750, 775 |
| | 3 | 750 |
| F | 1 | 825, 850, 875 |
| | 3 | 850 |
| C | 1 | 925, 950, 975, 1000, 1025, 1050, 1075, 1100, 1125, 1150, 1175 |
| | 3 | 950, 975, 1000, 1025, 1050, 1075, 1100, 1125, 1150 |
| G | 1 | 1225, 1250, 1275 |
| | 3 | 1250 |

2 **Table 2.1.15-6. Sync Channel Preferred Frequency Assignments**
 3 **for Spreading Rate 3 for Band Class 14**

| Block Designator | Preferred Set of Channel Numbers |
|-------------------------|---|
| A | 75, 150, 225 |
| D | 350 |
| B | 475, 550, 625 |
| E | 750 |
| F | 850 |
| C | 975, 1050, 1125 |
| G | 1250 |

4

1 2.1.16 Band Class 15 (AWS Band)

2 The Band Class 15 block designators for the CDMA equipment shall be as specified in
3 Table 2.1.16-1.

4 The channel spacing, CDMA channel designations, and transmitter center frequencies of
5 Band Class 15 shall be as specified in Table 2.1.16-2. CDMA equipment supporting Band
6 Class 15 and Spreading Rate 1 shall support transmission on the valid and conditionally
7 valid channel numbers shown in Table 2.1.16-3. CDMA equipment supporting Band Class
8 15 and Spreading Rate 3 shall support transmission on the valid and conditionally valid
9 channel numbers shown in Table 2.1.16-4. Note that certain channel assignments are not
10 valid and others are conditionally valid. Transmission on conditionally valid channels is
11 permissible if the adjacent block is allocated to the same licensee or if other valid
12 authorization has been obtained.

13 A preferred set of CDMA frequency assignments is given in Table 2.1.16-5.

14 Preferred Sync Channel frequency assignments for the multi-carrier mode are given in
15 Table 2.1.16-6.

16 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
17 Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA
18 Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the
19 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
20 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
21 $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
22 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
23 $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

24 If the mobile station is transmitting and receiving using the same spreading rate, the
25 nominal mobile station transmit carrier frequency shall be 400.0 MHz lower than the
26 frequency of the base station transmit signal as measured at the mobile station receiver. If
27 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
28 the nominal mobile station transmit carrier frequency shall be $400.0 - 1.25 \times$
29 $(1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the center CDMA
30 channel transmitted by the base station as measured at the mobile station receiver.

31 At the base station, if a Band Class 15 carrier operates with Spreading Rate 3, then all
32 three carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

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Table 2.1.16-1. Band Class 15 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|-------------------------|--------------------------------------|---------------------|
| | Mobile Station | Base Station |
| A | 1710–1720 | 2110–2120 |
| B | 1720–1730 | 2120–2130 |
| C | 1730–1735 | 2130–2135 |
| D | 1735–1740 | 2135–2140 |
| E | 1740–1745 | 2140–2145 |
| F | 1745–1755 | 2145–2155 |

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Table 2.1.16-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 15

3

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Mobile Station | $0 \leq N \leq 899$ | $1710.000 + 0.050 N$ |
| Base Station | $0 \leq N \leq 899$ | $2110.000 + 0.050 N$ |

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**Table 2.1.16-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 15 and Spreading Rate 1**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (10 MHz) | Not Valid | 0–24 | 1710.000–1711.200 | 2110.000–2111.200 |
| | Valid | 25–175 | 1711.250–1718.750 | 2111.250–2118.750 |
| | Cond. Valid | 176–199 | 1718.800–1719.950 | 2118.800–2119.950 |
| B (10 MHz) | Cond. Valid | 200–224 | 1720.000–1721.200 | 2120.000–2121.200 |
| | Valid | 225–375 | 1721.250–1728.750 | 2121.250–2128.750 |
| | Cond. Valid | 376–399 | 1728.800–1729.950 | 2128.800–2129.950 |
| C (5 MHz) | Cond. Valid | 400–424 | 1730.000–1731.200 | 2130.000–2131.200 |
| | Valid | 425–475 | 1731.250–1733.750 | 2131.250–2133.750 |
| | Cond. Valid | 476–499 | 1733.800–1734.950 | 2133.800–2134.950 |
| D (5 MHz) | Cond. Valid | 500–524 | 1735.000–1736.200 | 2135.000–2136.200 |
| | Valid | 525–575 | 1736.250–1738.750 | 2136.250–2138.750 |
| | Cond. Valid | 576–599 | 1738.800–1739.950 | 2138.800–2139.950 |
| E (5 MHz) | Cond. Valid | 600–624 | 1740.000–1741.200 | 2140.000–2141.200 |
| | Valid | 625–675 | 1741.250–1743.750 | 2141.250–2143.750 |
| | Cond. Valid | 676–699 | 1743.800–1744.950 | 2143.800–2144.950 |
| F (10 MHz) | Cond. Valid | 700–724 | 1745.000–1746.200 | 2145.000–2146.200 |
| | Valid | 725–875 | 1746.250–1753.750 | 2146.250–2153.750 |
| | Not Valid | 876–899 | 1753.800–1754.950 | 2153.800–2154.950 |

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**Table 2.1.16-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 15 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (10 MHz) | Not Valid | 0–49 | 1710.000–1712.450 | 2110.000–2112.450 |
| | Valid | 50–150 | 1712.500–1717.500 | 2112.500–2117.500 |
| | Cond. Valid | 151–199 | 1717.550–1719.950 | 2117.550–2119.950 |
| B (10 MHz) | Cond. Valid | 200–249 | 1720.000–1722.450 | 2120.000–2122.450 |
| | Valid | 250–350 | 1722.500–1727.500 | 2122.500–2127.500 |
| | Cond. Valid | 351–399 | 1727.550–1729.950 | 2127.550–2129.950 |
| C (5 MHz) | Cond. Valid | 400–449 | 1730.000–1732.450 | 2130.000–2132.450 |
| | Valid | 450 | 1732.500 | 2132.500 |
| | Cond. Valid | 451–499 | 1732.550–1734.950 | 2132.550–2134.950 |
| D (5 MHz) | Cond. Valid | 500–549 | 1735.000–1737.450 | 2135.000–2137.450 |
| | Valid | 550 | 1737.500 | 2137.500 |
| | Cond. Valid | 551–599 | 1737.550–1739.950 | 2137.550–2139.950 |
| E (5 MHz) | Cond. Valid | 600–649 | 1740.000–1742.450 | 2140.000–2142.450 |
| | Valid | 650 | 1742.500 | 2142.500 |
| | Cond. Valid | 651–699 | 1742.550–1744.950 | 2142.550–2144.950 |
| F (10 MHz) | Cond. Valid | 700–749 | 1745.000–1747.450 | 2145.000–2147.450 |
| | Valid | 750–850 | 1747.500–1752.500 | 2147.500–2152.500 |
| | Not Valid | 851–899 | 1752.550–1754.950 | 2152.550–2154.950 |

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1 **Table 2.1.16-5. CDMA Preferred Set of Frequency Assignments for Band Class 15**

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|-------------------------|-----------------------|--------------------------------------|
| A | 1 | 25, 50, 75, 100, 125, 150, 175 |
| | 3 | 50, 75, 100, 125, 150 |
| B | 1 | 225, 250, 275, 300, 325, 350, 375 |
| | 3 | 250, 275, 300, 325, 350 |
| C | 1 | 425, 450, 475 |
| | 3 | 450 |
| D | 1 | 525, 550, 575 |
| | 3 | 550 |
| E | 1 | 625, 650, 675 |
| | 3 | 650 |
| F | 1 | 725, 750, 775, 800, 825, 850, 875 |
| | 3 | 750, 775, 800, 825, 850 |

2 **Table 2.1.16-6. Sync Channel Preferred Frequency Assignments**
 3 **for Spreading Rate 3 for Band Class 15**

| Block Designator | Sync Channel Preferred Channel Numbers |
|-------------------------|---|
| A | 75, 150 |
| B | 275, 350 |
| C | 450 |
| D | 550 |
| E | 650 |
| F | 775, 850 |

4 2.1.17 Band Class 16 (US 2.5GHz Band)

5 The Band Class 16 block designators for the CDMA equipment shall be as specified in
 6 Table 2.1.17-1. CDMA equipments supporting Band Class 16 shall be capable of
 7 transmitting in Band Class 16.

8 The channel spacing, CDMA channel designations, and transmitter center frequencies of
 9 Band Class 16 shall be as specified in Table 2.1.17-2. CDMA equipment supporting Band
 10 Class 16 and Spreading Rate 1 shall support transmission on the valid and conditionally
 11 valid channel numbers shown in Table 2.1.17-3. CDMA equipment supporting Band Class
 12 16 and Spreading Rate 3 shall support transmission on the valid and conditionally valid

1 channel numbers shown in Table 2.1.17-4. Note that certain channel assignments are not
 2 valid and others are conditionally valid. Transmission on conditionally valid channels is
 3 permissible if the adjacent block is allocated to the same licensee or if other valid
 4 authorization has been obtained.

5 A preferred set of CDMA frequency assignments is given in Table 2.1.17-5.

6 A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given
 7 in Table 2.1.17-6.

8 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
 9 Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA
 10 Channel designated by CDMACH_S. If the mobile station uses Spreading Rate 3 for the
 11 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
 12 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
 13 CDMACH_S - 25 if 1XRL_FREQ_OFFSET_S equals '00', on the CDMA Channel designated by
 14 CDMACH_S if 1XRL_FREQ_OFFSET_S equals '01', or on the CDMA Channel designated by
 15 CDMACH_S + 25 if 1XRL_FREQ_OFFSET_S equals '10'.

16 If the mobile station is transmitting and receiving using the same spreading rate, the
 17 nominal mobile station transmit carrier frequency shall be 122.0 MHz lower than the
 18 frequency of the base station transmit signal as measured at the mobile station receiver. If
 19 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
 20 the nominal mobile station transmit carrier frequency shall be 122.0 - 1.25 ×
 21 (1XRL_FREQ_OFFSET_S - 1) MHz lower than the center frequency of the center CDMA
 22 channel transmitted by the base station as measured at the mobile station receiver.

23 At the base station, if a Band Class 16 carrier operates with Spreading Rate 3, then all
 24 three carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

25 **Table 2.1.17-1. Band Class 16 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|--------------|
| | Mobile Station | Base Station |
| A | 2502-2518.5 | 2624-2640.5 |
| B | 2518.5-2535 | 2640.5-2657 |
| C | 2535-2551.5 | 2657-2673.5 |
| D | 2551.5-2568 | 2673.5-2690 |

26 **Table 2.1.17-2. CDMA Channel Number to CDMA Frequency**
 27 **Assignment Correspondence for Band Class 16**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|---------------------|---|
| Mobile Station | 140 ≤ M ≤ 1459 | 2495.000 + 0.050 M |
| Base Station | 140 ≤ N ≤ 1459 | 2617.000 + 0.050 N |

**Table 2.1.17-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 16 and Spreading Rate 1**

| Block Designator | CDMA Channel Validity | Mobile Station CDMA Channel Number (M) | Mobile Station Transmit Frequency Band (MHz) | Base Station CDMA Channel Number (N) | Base Station Transmit Frequency Band (MHz) |
|-------------------------|------------------------------|---|---|---|---|
| A (16.5 MHz) | Not Valid | 140–164 | 2502.000–2503.200 | 140–164 | 2624.000–2625.200 |
| | Valid | 165–445 | 2503.250–2517.250 | 165–445 | 2625.250–2639.250 |
| | Cond. Valid | 446–459 | 2517.300–2518.450 | 446–459 | 2639.300–2640.450 |
| B (16.5 MHz) | Cond. Valid | 470–494 | 2518.500–2519.700 | 470–494 | 2640.500–2641.700 |
| | Valid | 495–775 | 2519.750–2533.750 | 495–775 | 2641.750–2655.750 |
| | Cond. Valid | 776–799 | 2533.800–2534.950 | 776–799 | 2655.800–2656.950 |
| C (16.5 MHz) | Cond. Valid | 800–824 | 2535.000–2536.200 | 800–824 | 2657.000–2658.200 |
| | Valid | 825–1105 | 2536.250–2550.250 | 825–1105 | 2658.250–2672.250 |
| | Cond. Valid | 1106–1129 | 2550.300–2551.450 | 1106–1129 | 2672.300–2673.450 |
| D (16.5 MHz) | Cond. Valid | 1130–1154 | 2551.500–2552.700 | 1130–1154 | 2673.500–2674.700 |
| | Valid | 1155–1435 | 2552.750–2566.750 | 1155–1435 | 2674.750–2688.750 |
| | Not Valid | 1436–1459 | 2566.800–2567.950 | 1436–1459 | 2688.800–2689.950 |
| | | | | | |

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1 **Table 2.1.17-4. CDMA Channel Numbers and Corresponding Frequencies**
 2 **for Band Class 16 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | Mobile Station CDMA Channel Number (M) | Mobile Station Transmit Frequency Band (MHz) | Base Station CDMA Channel Number (N) | Base Station Transmit Frequency Band (MHz) |
|-------------------------|------------------------------|---|---|---|---|
| A (16.5 MHz) | Not Valid | 140–289 | 2502.000-2504.450 | 140–289 | 2624.000-2626.450 |
| | Valid | 190–420 | 2504.500-2516.000 | 190–420 | 2626.500-2638.000 |
| | Cond. Valid | 421–469 | 2516.050-2518.450 | 421–469 | 2638.050-2640.450 |
| B (16.5 MHz) | Cond. Valid | 470-519 | 2518.500-2520.950 | 470-519 | 2640.500-2642.950 |
| | Valid | 520-750 | 2521.000-2532.500 | 520-750 | 2643.000-2654.500 |
| | Cond. Valid | 751-799 | 2532.550-2534.950 | 751-799 | 2654.550-2656.950 |
| C (16.5 MHz) | Cond. Valid | 800-849 | 2535.000-2537.450 | 800-849 | 2657.000-2659.450 |
| | Valid | 850-1080 | 2537.500-2549.000 | 850-1080 | 2659.500-2671.000 |
| | Cond. Valid | 1081-1129 | 2549.050-2551.450 | 1081-1129 | 2671.050-2673.450 |
| D (16.5 MHz) | Cond. Valid | 1130–1179 | 2551.500-2553.950 | 1130–1179 | 2673.500-2675.950 |
| | Valid | 1180–1410 | 2554.000-2565.500 | 1180–1410 | 2676.000-2687.500 |
| | Not Valid | 1411–1459 | 2565.550-2567.950 | 1411–1459 | 2687.550-2689.950 |
| | | | | | |

1 **Table 2.1.17-5. CDMA Preferred Set of Frequency Assignments for Band Class 16**

| Block Designator | Spreading Rate | Mobile Station Preferred Set Channel Numbers |
|-------------------------|-----------------------|--|
| A | 1 | 165, 190, 215, 240, 265, 290, 315, 340, 365, 390, 415, 440 |
| | 3 | 190, 215, 240, 265, 290, 315, 340, 365, 390, 415 |
| B | 1 | 495, 520, 545, 570, 595, 620, 645, 670, 695, 720, 745, 770 |
| | 3 | 520, 545, 570, 595, 620, 645, 670, 695, 720, 745 |
| C | 1 | 825, 850, 875, 900, 925, 950, 975, 1000, 1025, 1050, 1075, 1100 |
| | 3 | 850, 875, 900, 925, 950, 975, 1000, 1025, 1050, 1075 |
| D | 1 | 1155, 1180, 1205, 1230, 1255, 1280, 1305, 1330, 1355, 1380, 1405, 1430 |
| | 3 | 1180, 1205, 1230, 1255, 1280, 1305, 1330, 1355, 1380, 1405 |

2 **Table 2.1.17-6. Sync Channel Preferred Frequency Assignments**
 3 **for Spreading Rate 3 for Band Class 16**

| Block Designator | Preferred Set of Channel Numbers |
|-------------------------|---|
| A | 215, 290, 365, 470 |
| B | 555, 620, 695, 770 |
| C | 875, 950, 1025, 1100 |
| D | 1205, 1280, 1355, 1430 |

4 2.1.18 Band Class 17 (US 2.5GHz Forward Link Only Band)

5 Not specified.

6 2.1.19 Band Class 18 (700 MHz Public Safety Band)

7 The Band Class 18 block designators for the CDMA equipment shall be as specified in
 8 Table 2.1.19-1. CDMA equipments supporting Band Class 18 shall be capable of
 9 transmitting in Band Class 18.

10 The channel spacing, CDMA channel designations, and transmitter center frequencies of
 11 Band Class 18 shall be as specified in Table 2.1.19-2. CDMA equipments supporting Band
 12 Class 18 and Spreading Rate 1 shall support operations on the valid and conditionally valid
 13 channel numbers shown in Table 2.1.19-3. CDMA equipments supporting Band Class 18
 14 and Spreading Rate 3 shall support operations on the valid and conditionally valid channel

1 numbers shown in Table 2.1.19-4. Note that certain channel assignments are not valid and
 2 others are conditionally valid. Transmission on conditionally valid channels is permissible
 3 if the adjacent block is allocated to the same licensee or if other valid authorization has
 4 been obtained.

5 A preferred set of CDMA frequency assignments is given in Table 2.1.19-5.

6 A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given
 7 in Table 2.1.19-6.

8 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
 9 Reverse Traffic Channels, then it shall transmit the Reverse Traffic Channel on the CDMA
 10 Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the
 11 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
 12 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
 13 $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by
 14 $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by
 15 $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

16 If the mobile station is transmitting and receiving using the same spreading rate, the
 17 nominal mobile station transmit carrier frequency shall be 30.0 MHz higher than the
 18 frequency of the base station transmit signal as measured at the mobile station receiver. If
 19 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
 20 the nominal mobile station transmit carrier frequency shall be $30.0 + 1.25 \times$
 21 $(1XRL_FREQ_OFFSET_s - 1)$ MHz higher than the center frequency of the center CDMA
 22 channel transmitted by the base station as measured at the mobile station receiver.

23 At the base station, if a Band Class 18 carrier operates with Spreading Rate 3, then all
 24 three carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

25 **Table 2.1.19-1. Band Class 18 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|--------------------------|-------------------------------|--------------|
| | Mobile Station | Base Station |
| A | 787-788 | 757-758 |
| D | 788-793 | 758-763 |
| Public Safety Broadband | 793-798 | 763-768 |
| Public Safety Guard Band | 798-799 | 768-769 |

Table 2.1.19-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 18

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Access Terminal | $0 \leq N \leq 240$ | $787.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 240$ | $757.000 + 0.050 N$ |

Table 2.1.19-3. CDMA Channel Numbers and Corresponding Frequencies for Band Class 18 and Spreading Rate 1

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|--|------------------------------|----------------------------|--------------------------------------|-----------------------|
| | | | Mobile Station | Mobile Station |
| A (1 MHz) | Not Valid | 0-19 | 787.000-787.950 | 757.000-757.950 |
| D (5 MHz) | Not Valid | 20-44 | 788.000-789.200 | 758.000-759.200 |
| | Valid | 45-95 | 789.250-791.750 | 759.250-761.750 |
| | Cond. Valid | 96-119 | 791.800-792.950 | 761.800-762.950 |
| Public Safety Broadband (5 MHz) | Cond. Valid | 120-144 | 793.000-794.200 | 763.000-764.200 |
| | Valid | 145-195 | 794.250-796.750 | 764.250-766.750 |
| | Not Valid | 196-219 | 796.800-797.950 | 766.800-767.950 |
| Public Safety Guard Band (1 MHz) | Not Valid | 220-240 | 798.000-799.000 | 768.000-769.000 |

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Table 2.1.19-4. CDMA Channel Numbers and Corresponding Frequencies for Band Class 18 and Spreading Rate 3

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|--|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| A (1 MHz) | Not Valid | 0-19 | 787.000-787.950 | 757.000-757.950 |
| D (5 MHz) | Not Valid | 20-69 | 788.000-790.450 | 758.000-760.450 |
| | Valid | 70 | 790.500 | 760.500 |
| | Cond. Valid | 71-119 | 790.550-792.950 | 760.550-762.950 |
| Public Safety Broadband (5 MHz) | Cond. Valid | 120-169 | 793.000-795.450 | 763.000-765.450 |
| | Valid | 170 | 795.500 | 765.500 |
| | Not Valid | 171-219 | 795.550-797.950 | 765.550-767.950 |
| Public Safety Guard Band (1 MHz) | Not Valid | 220-240 | 798.000-799.000 | 768.000-769.000 |

3

Table 2.1.19-5. CDMA Preferred Set of Frequency Assignments for Band Class 18

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|-----------------------------|----------------|-------------------------------|
| A | N/A | None |
| D | 1 | 45, 70, 95 |
| | 3 | 70 |
| Public Safety Broadband | 1 | 145, 170, 195 |
| | 3 | 170 |
| Public Safety Guard Band | N/A | None |

4

**Table 2.1.19-6. Sync Channel Preferred Set of Frequency Assignments
for Spreading Rate 3 for Band Class 18**

| Block Designator | Preferred Set of Channel Numbers |
|-----------------------------|---|
| A | None |
| D | 70 |
| Public Safety Broadband | 170 |
| Public Safety Guard Band | None |

2.1.20 Band Class 19 (Lower 700 MHz Band)

The Band Class 19 block designators for the CDMA equipment shall be as specified in Table 2.1.20-1. CDMA equipments supporting Band Class 19 shall be capable of transmitting in Band Class 19.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 19 shall be as specified in Table 2.1.20-2. CDMA equipments supporting Band Class 19 and Spreading Rate 1 shall support operations on the valid and conditionally valid channel numbers shown in Table 2.1.20-3. CDMA equipments supporting Band Class 19 and Spreading Rate 3 shall support operations on the valid and conditionally valid channel numbers shown in Table 2.1.20-4. Note that certain channel assignments are not valid and others are conditionally valid. Transmission on conditionally valid channels is permissible if the adjacent block is allocated to the same licensee or if other valid authorization has been obtained.

A preferred set of CDMA frequency assignments is given in Table 2.1.20-5.

A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given in Table 2.1.20-6.

If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and Reverse Traffic Channels, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

If the mobile station is transmitting and receiving using the same spreading rate, the nominal mobile station transmit carrier frequency shall be 30.0 MHz higher than the frequency of the base station transmit signal as measured at the mobile station receiver. If the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3, the nominal mobile station transmit carrier frequency shall be $30.0 + 1.25 \times$

1 (1XRL_FREQ_OFFSET_s - 1) MHz higher than the center frequency of the center CDMA
2 channel transmitted by the base station as measured at the mobile station receiver.

3 At the base station, if a Band Class 19 carrier operates with Spreading Rate 3, then all
4 three carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

5 **Table 2.1.20-1. Band Class 19 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|--------------|
| | Mobile Station | Base Station |
| A | 698-704 | 728-734 |
| B | 704-710 | 734-740 |
| C | 710-716 | 740-746 |

6 **Table 2.1.20-2. CDMA Channel Number to CDMA Frequency**
7 **Assignment Correspondence for Band Class 19**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|---------------------|---|
| Access Terminal | $0 \leq N \leq 360$ | $698.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 360$ | $728.000 + 0.050 N$ |

8 **Table 2.1.20-3. CDMA Channel Numbers and Corresponding Frequencies**
9 **for Band Class 19 and Spreading Rate 1**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| A (6 MHz) | Not Valid | 0-22 | 698.000-699.100 | 728.000-729.100 |
| | Valid | 23-98 | 699.150-702.900 | 729.150-732.900 |
| | Cond. Valid | 99-119 | 702.950-703.950 | 732.950-733.950 |
| B (6 MHz) | Cond. Valid | 120-142 | 704.000-705.100 | 734.000-735.100 |
| | Valid | 143-218 | 705.150-708.900 | 735.150-738.900 |
| | Cond. Valid | 219-239 | 708.950-709.950 | 738.950-739.950 |
| C (6 MHz) | Cond. Valid | 240-262 | 710.000-711.100 | 740.000-741.100 |
| | Valid | 263-338 | 711.150-714.900 | 741.150-744.900 |
| | Not Valid | 339-360 | 714.950-716.000 | 744.950-746.000 |

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11

**Table 2.1.20-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 19 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Mobile Station | Base Station |
| A (6 MHz) | Not Valid | 0-47 | 698.000-700.350 | 728.000-730.350 |
| | Valid | 48-73 | 700.400-701.650 | 730.400-731.650 |
| | Cond. Valid | 74-119 | 701.700-703.950 | 731.700-733.950 |
| B (6 MHz) | Cond. Valid | 120-167 | 704.000-706.350 | 734.000-736.350 |
| | Valid | 168-193 | 706.400-707.650 | 736.400-737.650 |
| | Cond. Valid | 194-239 | 707.700-709.950 | 737.700-739.950 |
| C (6 MHz) | Cond. Valid | 240-287 | 710.000-712.350 | 740.000-742.350 |
| | Valid | 288-313 | 712.400-713.650 | 742.400-743.650 |
| | Not Valid | 314-360 | 713.700-716.000 | 743.700-746.000 |

Table 2.1.20-5. CDMA Preferred Set of Frequency Assignments for Band Class 19

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|------------------|----------------|-------------------------------|
| A | 1 | 23, 48, 73, 98 |
| | 3 | 48, 73 |
| B | 1 | 143, 168, 193, 218 |
| | 3 | 168, 193 |
| C | 1 | 263, 288, 313, 338 |
| | 3 | 288, 313 |

**Table 2.1.20-6. Sync Channel Preferred Set of Frequency Assignments
for Spreading Rate 3 for Band Class 19**

| Block Designator | Preferred Set of Channel Numbers |
|------------------|----------------------------------|
| A | 73 |
| B | 193 |
| C | 288 |

2.1.21 Band Class 20 (L-Band)

The Band Class 20 block designators for the CDMA equipment are not specified. CDMA equipments supporting Band Class 20 shall be capable of transmitting in Band Class 20.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 20 shall be as specified in Table 2.1.21-1. CDMA equipments supporting Band

1 Class 20 and Spreading Rate 1 shall support transmission on the valid channel numbers
 2 shown in Table 2.1.21-2. CDMA equipments supporting Band Class 20 and Spreading Rate
 3 3 shall support transmission on the valid channel numbers shown in Table 2.1.21-3.

4 A preferred set of CDMA frequency assignments is given in Table 2.1.21-4.

5 If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and
 6 Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA
 7 Channel designated by CDMACH_s. If the mobile station uses Spreading Rate 3 for the
 8 Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it
 9 shall transmit the Reverse Traffic Channel on the CDMA Channel designated by
 10 CDMACH_s - 25 if 1XRL_FREQ_OFFSET_s equals '00', on the CDMA Channel designated by
 11 CDMACH_s if 1XRL_FREQ_OFFSET_s equals '01', or on the CDMA Channel designated by
 12 CDMACH_s + 25 if 1XRL_FREQ_OFFSET_s equals '10'.

13 If the mobile station is transmitting and receiving using the same spreading rate, the
 14 nominal mobile station transmit carrier frequency shall be 101.5 MHz higher than the
 15 frequency of the base station transmit signal as measured at the mobile station receiver. If
 16 the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3,
 17 the nominal mobile station transmit carrier frequency shall be 101.5 - 1.25 ×
 18 (1XRL_FREQ_OFFSET_s - 1) MHz higher than the center frequency of the center CDMA
 19 channel transmitted by the base station as measured at the mobile station receiver.

20 At the base station, if a Band Class 20 carrier operates with Spreading Rate 3, then all
 21 three carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

22 **Table 2.1.21-1. CDMA Channel Number to CDMA Frequency**
 23 **Assignment Correspondence for Band Class 20**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|----------------|---------------------|---|
| Mobile Station | 0 ≤ N ≤ 680 | 1626.500 + 0.050 N |
| Base Station | 0 ≤ N ≤ 680 | 1525.000 + 0.050 N |

24 **Table 2.1.21-2. CDMA Channel Numbers and Corresponding Frequencies**
 25 **for Band Class 20 and Spreading Rate 1**

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Mobile Station | Base Station |
| Not Valid | 0-12 | 1626.500-1627.100 | 1525.000-1525.600 |
| Valid | 13-667 | 1627.150-1659.850 | 1525.650-1558.350 |
| Not Valid | 668-680 | 1659.900-1660.500 | 1558.400-1559.000 |

26

Table 2.1.21-3. CDMA Channel Numbers and Corresponding Frequencies for Band Class 20 and Spreading Rate 3

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Mobile Station | Base Station |
| Not Valid | 0–37 | 1626.500–1628.350 | 1525.000–1526.850 |
| Valid | 38–642 | 1628.400–1658.600 | 1526.900–1557.100 |
| Not Valid | 643–680 | 1658.650–1660.500 | 1557.150–1559.000 |

Table 2.1.21-4. CDMA Preferred Set of Frequency Assignments for Band Class 20

| Spreading Rate | Preferred Set Channel Numbers |
|----------------|-------------------------------|
| 1 | 25, 50, ..., 625, 650 |
| 3 | 50, 75, ..., 600, 625 |

2.1.22 Band Class 21 (S-Band)

The Band Class 21 block designators for the CDMA equipment shall be as specified in Table 2.1.20-1. CDMA equipments supporting Band Class 21 shall be capable of transmitting in Band Class 21.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 21 shall be as specified in Table 2.1.20-2. CDMA equipments supporting Band Class 21 and Spreading Rate 1 shall support operations on the valid channel numbers shown in Table 2.1.20-3. CDMA equipments supporting Band Class 21 and Spreading Rate 3 shall support operations on the valid channel numbers shown in Table 2.1.20-4.

A preferred set of CDMA frequency assignments is given in Table 2.1.20-5.

A preferred set of Sync Channel frequency assignments for the multi-carrier mode is given in Table 2.1.20-6.

If the mobile station uses Spreading Rate 1 or Spreading Rate 3 for both Forward and Reverse Traffic Channels, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s$. If the mobile station uses Spreading Rate 3 for the Forward Traffic Channel and uses Spreading Rate 1 for the Reverse Traffic Channel, then it shall transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s - 25$ if $1XRL_FREQ_OFFSET_s$ equals '00', on the CDMA Channel designated by $CDMACH_s$ if $1XRL_FREQ_OFFSET_s$ equals '01', or on the CDMA Channel designated by $CDMACH_s + 25$ if $1XRL_FREQ_OFFSET_s$ equals '10'.

For a mobile station operation in block A, if the mobile station is transmitting and receiving using the same spreading rate, the nominal mobile station transmit carrier frequency shall be 190.0 MHz lower than the frequency of the base station transmit signal as measured at the mobile station receiver. If the mobile station is transmitting on Spreading Rate 1 and receiving on Spreading Rate 3, the nominal mobile station transmit carrier frequency shall

1 be $190.0 + 1.25 \times (1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the
 2 center CDMA channel transmitted by the base station as measured at the mobile station
 3 receiver.

4 For a mobile station operation in block B, if the mobile station is transmitting and receiving
 5 using the same spreading rate, the nominal mobile station transmit carrier frequency shall
 6 be 170.0 MHz lower than the frequency of the base station transmit signal as measured at
 7 the mobile station receiver. If the mobile station is transmitting on Spreading Rate 1 and
 8 receiving on Spreading Rate 3, the nominal mobile station transmit carrier frequency shall
 9 be $170.0 + 1.25 \times (1XRL_FREQ_OFFSET_s - 1)$ MHz lower than the center frequency of the
 10 center CDMA channel transmitted by the base station as measured at the mobile station
 11 receiver.

12 At the base station, if a Band Class 21 carrier operates with Spreading Rate 3, then all
 13 three carriers shall be separated by 25 CDMA Channels (1.25 MHz separation).

14 **Table 2.1.22-1. Band Class 21 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|--------------|
| | Mobile Station | Base Station |
| A | 2000-2010 | 2190-2200 |
| B | 2010-2020 | 2180-2190 |

15 **Table 2.1.22-2. CDMA Channel Number to CDMA Frequency**
 16 **Assignment Correspondence for Band Class 21**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|-----------------------|---|
| Access Terminal | $0 \leq N \leq 200$ | $2000.000 + 0.050 N$ |
| | $201 \leq N \leq 399$ | $2010.000 + 0.050 (N - 200)$ |
| Access Network | $0 \leq N \leq 200$ | $2190.000 + 0.050 N$ |
| | $201 \leq N \leq 399$ | $2180.000 + 0.050 (N - 200)$ |

**Table 2.1.22-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 21 and Spreading Rate 1**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (10 MHz) | Not Valid | 0-24 | 2000.000-2001.200 | 2190.000-2191.200 |
| | Valid | 25-175 | 2001.250-2008.750 | 2191.250-2198.750 |
| | Not Valid | 176-200 | 2008.800-2010.000 | 2198.800-2200.000 |
| B (10 MHz) | Not Valid | 201-224 | 2010.050-2011.200 | 2180.050-2181.200 |
| | Valid | 225-375 | 2011.250-2018.750 | 2181.250-2188.750 |
| | Not Valid | 376-399 | 2018.800-2019.950 | 2188.800-2189.950 |

**Table 2.1.22-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 21 and Spreading Rate 3**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Mobile Station | Base Station |
| A (10 MHz) | Not Valid | 0-49 | 2000.000-2002.450 | 2190.000-2192.450 |
| | Valid | 50-150 | 2002.500-2007.500 | 2192.500-2197.500 |
| | Not Valid | 151-200 | 2007.550-2010.000 | 2197.550-2200.000 |
| B (10 MHz) | Not Valid | 201-249 | 2010.050-2012.450 | 2180.050-2182.450 |
| | Valid | 250-350 | 2012.500-2017.500 | 2182.500-2187.500 |
| | Not Valid | 351-399 | 2017.550-2019.950 | 2187.550-2189.950 |

Table 2.1.22-5. CDMA Preferred Set of Frequency Assignments for Band Class 21

| Block Designator | Spreading Rate | Preferred Set Channel Numbers |
|------------------|----------------|-----------------------------------|
| A | 1 | 25, 50, 75, 100, 125, 150, 175 |
| | 3 | 50, 75, 100, 125, 150 |
| B | 1 | 225, 250, 275, 300, 325, 350, 375 |
| | 3 | 250, 275, 300, 325, 350 |

**Table 2.1.22-6. Sync Channel Preferred Set of Frequency Assignments
for Spreading Rate 3 for Band Class 21**

| Block Designator | Preferred Set of Channel Numbers |
|-------------------------|---|
| A | 50, 75, 100, 125, 150 |
| B | 250, 275, 300, 325, 350 |

2.1.23 Band Class 22 (Mobile Satellite System Band)

Not specified.

2.2 Frequency Tolerance

The mobile station shall meet the requirements of the current version of [4]. The base station transmit carrier frequency shall be maintained within $\pm 5 \times 10^{-8}$ of the CDMA frequency assignment (± 0.05 ppm).

2.3 Power Output Characteristics: Controlled Output Power

All power levels are referenced to the mobile station antenna connector unless otherwise specified. The mobile station shall provide three independent means of output power adjustment: an open loop estimation performed by the mobile station, a closed loop correction involving both the mobile station and the base station, and possible code channel attribute adjustments for certain channels and radio configurations.

2.3.1 Open Loop Output Power for Reverse Link Channels

In Table 2.3.1-1, the mean power is referenced to the nominal CDMA Channel bandwidth of 1.23 MHz for Spreading Rate 1 or 3.69 MHz for Spreading Rate 3. The estimated open loop output power for the various Reverse Link Channels is summarized in Table 2.3.1-1. For simplicity, in Table 2.3.1-1, the Offset Power constants are expressed without units. For example, -73 is equal to $10 \times \log_{10} (10^{-7.3} \text{ mW}^2)$.

1

Table 2.3.1-1. Open Loop Power Offsets

| Band Class | Forward Spreading Rate | Reverse Spreading Rate | Reverse Channels | Offset Power |
|--|-------------------------------|-------------------------------|--|---------------------|
| 0, 2, 3, 5, 7, 9, 10, 11, 12, 18, and 19 | 1 | 1 | Access Channel Reverse Traffic Channel (RC = 1 or 2) | -73 |
| | | | Enhanced Access Channel Reverse Common Control Channel Reverse Traffic Channel (RC = 3, 4, or 8) Reverse Packet Data Channel (RC = 7) | -81.5 |
| | 3 | 1 | Reverse Traffic Channel (RC = 3 or 4) | -76.5 |
| | | 3 | Enhanced Access Channel Reverse Common Control Channel Reverse Traffic Channel (RC = 5 or 6) | -76.5 |
| 1, 4, 6, 8, 13, 14, 15, 16, and 20 | 1 | 1 | Access Channel Reverse Traffic Channel (RC = 1 or 2) | -76 |
| | | | Enhanced Access Channel Reverse Common Control Channel Reverse Traffic Channel (RC = 3, 4, or 8) Reverse Packet Data Channel (RC = 7) | -84.5 |
| | 3 | 1 | Reverse Traffic Channel (RC = 3 or 4) | -79.5 |
| | | 3 | Enhanced Access Channel Reverse Common Control Channel Reverse Traffic Channel (RC = 5 or 6) | -79.5 |

2 The open loop output power when transmitting the access probe on the Reverse Access
3 Channel is summarized in Table 2.3.1-2. Note that the term CORRECTION in Table 2.3.1-2
4 refers to $NOM_PWR_S - 16 \times NOM_PWR_EXT_S$.

5

Table 2.3.1-2. Access Probe Open Loop Power on the Reverse Access Channel

| Parameter | Band Class | Value |
|----------------------|---|--------------|
| Range of CORRECTIONS | 1,2,4,5,6,7,8,9,10,11,12,13,14, 15, 16, 18, 19, and 20 | -24 to +7 dB |
| | 0 and 3 | -8 to +7 dB |

6 The open loop output power when transmitting on the various Reverse Link Channels are
7 summarized in Table 2.3.1-3. The supported range of combined corrections refers to a
8 number of different parameters for the different Reverse Link Channels, and are
9 summarized below Table 2.3.1-3.

1

2

Table 2.3.1-3. Open Loop Output Power

| Channel | Band Class | Supported Combined Range of Corrections |
|--|-----------------------------------|--|
| Access Channel | 0,2,3,5,7,9,10,11, 12, 18, and 19 | At least ± 32 dB |
| | 1,4,6, 8,13,14,15, 16, and 20 | At least ± 40 dB |
| Enhanced Access Channel | 0,2,3,5,7,9,10,11, 12, 18, and 19 | At least ± 32 dB |
| | 1,4,6,8,13,14,15, 16, and 20 | At least ± 40 dB |
| Common Control Channel | 0,2,3,5,7,9,10,11, 12, 18, and 19 | At least ± 32 dB |
| | 1,4,6,8,13,14,15, 16, and 20 | At least ± 40 dB |
| Reverse Traffic Channel (RC 1 or 2) | 0,2,3,5,7,9,10,11, 12, 18, and 19 | At least ± 32 dB |
| | 1,4,6,8,13,14,15, 16, and 20 | At least ± 40 dB |
| Reverse Traffic Channel (RC 3, 4, 5, 6, or 7) | 0,2,3,5,7,9,10,11, 12, 18, and 19 | At least ± 32 dB |
| | 1,4,6,8,13,14,15, 16, and 20 | At least ± 40 dB |

3 For the Reverse Access Channel, the term “Supported Combined Range of Corrections”
4 refers to a total combined range of interference correction, NOM_PWR_S , $NOM_PWR_EXT_S$,
5 $INIT_PWR_S$, and $PWR_STEP_S \times PWR_LVL$ (see [1]).

6 For the Reverse Enhanced Access Channel, the term “Supported Combined Range of
7 Corrections” refers to a total combined range of interference correction, $EACH_NOM_PWR_S$,
8 $EACH_INIT_PWR_S$, $PWR_LVL \times EACH_PWR_STEP_S$, and closed loop power control
9 corrections (if applicable).

10 For the Reverse Common Control Channel, the term “Supported Combined Range of
11 Corrections” refers to a total combined range of interference correction,
12 $RCCCH_NOM_PWR_S$, $RCCCH_INIT_PWR_S$, $PREV_CORRECTIONS$ (see [1]), and closed loop
13 power control corrections.

14 For the Reverse Traffic Channel operating with Radio Configuration 1 or 2, the term
15 “Supported Combined Range of Corrections” refers to a total combined range of
16 interference correction, $ACC_CORRECTIONS$ (see [1]), $RLGAIN_ADJ_S$, and closed loop
17 power control corrections.

1 For the Reverse Traffic Channel operating with Radio Configuration 3, 4, 5, 6, or 7, the
2 term “Supported Combined Range of Corrections” refers to a total combined range of
3 interference correction, ACC_CORRECTIONS, RLGAIN_ADJ_s, RTC_NOM_PWR_s, and closed
4 loop power control corrections.

5

3 REQUIREMENTS FOR THE OPERATION OF THE “CDMA2000 HIGH RATE PACKET DATA AIR INTERFACE”

This section defines requirements and operation for both the access terminal and the access network that are specific to CDMA High Rate Packet Data Equipment conforming to [2]. A CDMA access terminal or access network may support operation in one or more band classes.

3.1 Channel Spacing and Designation

This section specifies the frequency parameters of the CDMA equipment conforming to [2] that support CDMA operation. Note that CDMA equipment in this section could be interpreted to mean an access network, an access terminal, or both.

3.1.1 Band Class 0 (800-MHz Band)

The Band Class 0 system designators for the access terminal and access network shall be as specified in Table 3.1.1-1.

There are four band subclasses specified for Band Class 0. Access terminals supporting Band Class 0 shall support at least one band subclass belonging to Band Class 0.

Access terminals supporting Band Class 0 shall be capable of transmitting in Band Class 0.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 0 shall be as specified in Table 3.1.1-2. Access terminals supporting Band Class 0 shall support transmission on the valid channel numbers shown in Table 3.1.1-3.⁹

For CDMA equipment conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 45.0 MHz lower than the frequency of the access network transmit signal as measured at the access terminal receiver.

⁹ Note that the Korean Cellular Band uses Band Subclass 1 and has additional valid channels that a Band Class 0 access terminal should support to permit roaming to Korea.

1

Table 3.1.1-1. Band Class 0 System Frequency Correspondence

| System Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|-------------------|-----------------|-------------------------------|-----------------|
| | | Access Terminal | Access Network |
| A | 0 | 824.025–835.005 | 869.025–880.005 |
| | | 844.995–846.495 | 889.995–891.495 |
| | 1 | 824.025–835.005 | 869.025–880.005 |
| | | 844.995–848.985 | 889.995–893.985 |
| 2 | 824.025–829.995 | 869.025–874.995 | |
| | 3 | 815.025–829.995 | 860.025–874.995 |
| B | 0 | 835.005–844.995 | 880.005–889.995 |
| | | 846.495–848.985 | 891.495–893.985 |
| | 1 | 835.005–844.995 | 880.005–889.995 |

2

Table 3.1.1-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 0

3

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|-------------------------|---|
| Access Terminal | $1 \leq N \leq 799$ | $0.030 N + 825.000$ |
| | $991 \leq N \leq 1023$ | $0.030 (N - 1023) + 825.000$ |
| | $1024 \leq N \leq 1323$ | $0.030 (N - 1024) + 815.040$ |
| Access Network | $1 \leq N \leq 799$ | $0.030 N + 870.000$ |
| | $991 \leq N \leq 1023$ | $0.030 (N - 1023) + 870.000$ |
| | $1024 \leq N \leq 1323$ | $0.030 (N - 1024) + 860.040$ |

4

5

**Table 3.1.1-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 0**

| Band Subclass | System Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|---------------|-------------------|---------------------------------|-------------------------------|---|---|
| | | | | Access Terminal | Access Network |
| 0 | A" (1 MHz) | Not Valid Valid | 991-1012 1013-1023 | 824.040-824.670 824.700-825.000 | 869.040-869.670 869.700-870.000 |
| | A (10 MHz) | Valid Not Valid | 1-311 312-333 | 825.030-834.330 834.360-834.990 | 870.030-879.330 879.360-879.990 |
| | B (10 MHz) | Not Valid Valid Not Valid | 334-355 356-644 645-666 | 835.020-835.650 835.680-844.320 844.350-844.980 | 880.020-880.650 880.680-889.320 889.350-889.980 |
| | A' (1.5 MHz) | Not Valid Valid Not Valid | 667-688 689-694 695-716 | 845.010-845.640 845.670-845.820 845.850-846.480 | 890.010-890.640 890.670-890.820 890.850-891.480 |
| | B' (2.5 MHz) | Not Valid Valid Not Valid | 717-738 739-777 778-799 | 846.510-847.140 847.170-848.310 848.340-848.970 | 891.510-892.140 892.170-893.310 893.340-893.970 |
| 1 | A" (1 MHz) | Not Valid Valid | 991-1012 1013-1023 | 824.040-824.670 824.700-825.000 | 869.040-869.670 869.700-870.000 |
| | A (10 MHz) | Valid Not Valid | 1-311 312-333 | 825.030-834.330 834.360-834.990 | 870.030-879.330 879.360-879.990 |
| | B (10 MHz) | Not Valid Valid Not Valid | 334-355 356-644 645-666 | 835.020-835.650 835.680-844.320 844.350-844.980 | 880.020-880.650 880.680-889.320 889.350-889.980 |
| | A' (1.5 MHz) | Not Valid Valid | 667-688 689-716 | 845.010-845.640 845.670-846.480 | 890.010-890.640 890.670-891.480 |
| | A''' (2.5 MHz) | Valid Not Valid | 717-779 780-799 | 846.510-848.370 848.400-848.970 | 891.510-893.370 893.400-893.970 |
| 2 | A" (1 MHz) | Valid | 991-1023 | 824.040-825.000 | 869.040-870.000 |
| | A (5 MHz) | Valid Not Valid | 1-142 143-166 | 825.030-829.260 829.290-829.980 | 870.030-874.260 874.290-874.980 |
| 3 | A'''' (9 MHz) | Not Valid Valid | 1024-1047 1048-1323 | 815.040-815.730 815.760-824.010 | 860.040-860.730 860.760-869.010 |
| | A" (1 MHz) | Valid | 991-1023 | 824.040-825.000 | 869.040-870.000 |
| | A (5 MHz) | Valid Not Valid | 1-142 143-166 | 825.030-829.260 829.290-829.980 | 870.030-874.260 874.290-874.980 |

1 3.1.2 Band Class 1 (1900-MHz Band)

2 The Band Class 1 block designators for the access terminal and access network shall be as
3 specified in Table 3.1.2-1.

4 Access terminals supporting Band Class 1 shall be capable of transmitting in Band Class
5 1.

6 The channel spacing, CDMA channel designations, and transmitter center frequencies of
7 Band Class 1 shall be as specified in Table 3.1.2-2. Access terminals supporting Band
8 Class 1 shall support transmission on the valid and conditionally valid channel numbers
9 shown in Table 3.1.2-3. Note that certain channel assignments are not valid and others are
10 conditionally valid. Transmission on conditionally valid channels is permissible if the
11 adjacent block is allocated to the same licensee or if other valid authorization has been
12 obtained.

13 For CDMA equipment conforming to [13], or its older versions, the nominal access terminal
14 transmit carrier frequency shall be 80.0 MHz lower than the frequency of the access
15 network transmit signal as measured at the access terminal receiver.

16 **Table 3.1.2-1. Band Class 1 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 1850–1865 | 1930–1945 |
| D | 1865–1870 | 1945–1950 |
| B | 1870–1885 | 1950–1965 |
| E | 1885–1890 | 1965–1970 |
| F | 1890–1895 | 1970–1975 |
| C | 1895–1910 | 1975–1990 |

17 **Table 3.1.2-2. CDMA Channel Number to CDMA Frequency**
18 **Assignment Correspondence for Band Class 1**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|----------------------|---|
| Access Terminal | $0 \leq N \leq 1199$ | $1850.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 1199$ | $1930.000 + 0.050 N$ |

**Table 3.1.2-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 1**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Access Terminal | Access Network |
| A (15 MHz) | Not Valid | 0–24 | 1850.000–1851.200 | 1930.000–1931.200 |
| | Valid | 25–275 | 1851.250–1863.750 | 1931.250–1943.750 |
| | Cond. Valid | 276–299 | 1863.800–1864.950 | 1943.800–1944.950 |
| D (5 MHz) | Cond. Valid | 300–324 | 1865.000–1866.200 | 1945.000–1946.200 |
| | Valid | 325–375 | 1866.250–1868.750 | 1946.250–1948.750 |
| | Cond. Valid | 376–399 | 1868.800–1869.950 | 1948.800–1949.950 |
| B (15 MHz) | Cond. Valid | 400–424 | 1870.000–1871.200 | 1950.000–1951.200 |
| | Valid | 425–675 | 1871.250–1883.750 | 1951.250–1963.750 |
| | Cond. Valid | 676–699 | 1883.800–1884.950 | 1963.800–1964.950 |
| E (5 MHz) | Cond. Valid | 700–724 | 1885.000–1886.200 | 1965.000–1966.200 |
| | Valid | 725–775 | 1886.250–1888.750 | 1966.250–1968.750 |
| | Cond. Valid | 776–799 | 1888.800–1889.950 | 1968.800–1969.950 |
| F (5 MHz) | Cond. Valid | 800–824 | 1890.000–1891.200 | 1970.000–1971.200 |
| | Valid | 825–875 | 1891.250–1893.750 | 1971.250–1973.750 |
| | Cond. Valid | 876–899 | 1893.800–1894.950 | 1973.800–1974.950 |
| C (15 MHz) | Cond. Valid | 900–924 | 1895.000–1896.200 | 1975.000–1976.200 |
| | Valid | 925–1175 | 1896.250–1908.750 | 1976.250–1988.750 |
| | Not Valid | 1176–1199 | 1908.800–1909.950 | 1988.800–1989.950 |

3.1.3 Band Class 2 (TACS Band)

The Band Class 2 block designators for the access terminal and access network shall be as specified in Table 3.1.3-1.

Access terminals supporting Band Class 2 shall be capable of transmitting in Band Class 2 using at least one band subclass. The band subclasses for Band Class 2 are specified in Table 3.1.3-2.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 2 shall be as specified in Table 3.1.3-3. Access terminals supporting Band Class 2 shall support transmission on the valid and conditionally valid channel numbers shown in Table 3.1.3-4. Transmission on the conditionally valid channels is permissible if valid authorization has been obtained.

For CDMA equipment supporting band subclass 0, 1, and 2 and conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 45.0 MHz lower than the frequency of the access network transmit signal as measured at the access terminal receiver. For CDMA equipment supporting band subclass 3 and conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 45.0 MHz higher than the frequency of the access network transmit signal as measured at the access terminal receiver.

1

Table 3.1.3-1. Band Class 2 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|---|---|
| | Access Terminal | Access Network |
| A | 872.0125–879.9875 890.0125–897.4875 905.0125–908.9875 | 917.0125–924.9875 935.0125–942.4875 950.0125–953.9875 |
| B | 880.0125–887.9875 897.5125–904.9875 909.0125–914.9875 | 925.0125–932.9875 942.5125–949.9875 954.0125–959.9875 |
| ATG | 894.000-895.500 | 849.000-850.500 |

2

Table 3.1.3-2. Band Class 2 Band Subclasses

| Band Subclass | Number of Channels Covered | Channels Covered |
|---------------|----------------------------|---------------------------|
| 0 | 600 | 1–600 |
| 1 | 1000 | 1–1000 |
| 2 | 1320 | 1329–2047 and 0–600 |
| 3 | 61 | 2048–2108 |

3

Table 3.1.3-3. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 2

4

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|-------------------------|---|
| Access Terminal | $0 \leq N \leq 1000$ | $0.025 N + 889.9875$ |
| | $1329 \leq N \leq 2047$ | $0.025 (N - 1328) + 871.9875$ |
| | $2048 \leq N \leq 2108$ | $0.025 (N - 2048) + 894.000$ |
| Access Network | $0 \leq N \leq 1000$ | $0.025 N + 934.9875$ |
| | $1329 \leq N \leq 2047$ | $0.025 (N - 1328) + 916.9875$ |
| | $2048 \leq N \leq 2108$ | $0.025 (N - 2048) + 849.000$ |

5

**Table 3.1.3-4. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 2**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|-------------------------------------|-------------------------------------|---|---|
| | | | Access Terminal | Access Network |
| A ETACS (8 MHz) | Not Valid Valid-1320 | 1329–1355 1356–1648 | 872.0125–872.6625 872.6875–879.9875 | 917.0125–917.6625 917.6875–924.9875 |
| B ETACS (8 MHz) | Valid-1320 Cond. Valid- 1320 | 1649–1941 1942–1968 | 880.0125–887.3125 887.3375–887.9875 | 925.0125–932.3125 932.3375–932.9875 |
| Unassigned (2 MHz) | Cond. Valid- 1320 | 1969–2047 0 | 888.0125–889.9625 889.9875 | 933.0125–934.9625 934.9875 |
| A (7.5 MHz) | Cond. Valid- 1320 Valid | 1–27 28–300 | 890.0125–890.6625 890.6875–897.4875 | 935.0125–935.6625 935.6875–942.4875 |
| B (7.5 MHz) | Valid Valid-1000 | 301–573 574–600 | 897.5125–904.3125 904.3375–904.9875 | 942.5125–949.3125 949.3375–949.9875 |
| A' (4 MHz) | Valid-1000 | 601–760 | 905.0125–908.9875 | 950.0125–953.9875 |
| B' (6 MHz) | Valid-1000 Not Valid | 761–973 974–1000 | 909.0125–914.3125 914.3375–914.9875 | 954.0125–959.3125 959.3375–959.9875 |
| ATG (1.5 MHz) | Not Valid Valid-ATG Not Valid | 2048–2072 2073–2083 2084–2108 | 894.000-894.600 894.625-894.875 894.900-895.500 | 849.000-849.600 849.625-849.875 849.900-850.500 |

Valid and Not Valid apply to the channels for the access terminals of all three band subclasses. Valid-1000 means that the channels are only valid for the access terminals of band subclass 1. Valid-1320 means that the channels are only valid for the access terminals of band subclass 2. Valid-ATG means that the channels are only valid for the access terminals of band subclass 3. Cond. Valid-1320 means that the channels are conditionally valid for the access terminals of band subclass 2, and that they are not valid for the access terminals of band subclasses 0 and 1.

3.1.4 Band Class 3 (JTACS Band)

The Band Class 3 system designators for the access terminal and access network shall be as specified in Table 3.1.4-1.

Access terminals supporting Band Class 3 shall be capable of transmitting in Band Class 3.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 3 shall be as specified in Table 3.1.4-2. Access terminals supporting Band Class 3 shall support transmission on the valid channel numbers shown in Table 3.1.4-3.

1 For CDMA equipment conforming to [13], or its older versions, the nominal access terminal
 2 transmit carrier frequency shall be 55.0 MHz higher than the frequency of the access
 3 network transmit signal as measured at the access terminal receiver.

4 **Table 3.1.4-1. Band Class 3 System Frequency Correspondence**

| System Designator | Transmit Frequency Band (MHz) | |
|-------------------|-------------------------------|-------------------|
| | Access Terminal | Access Network |
| A | 887.0125–888.9875 | 832.0125–833.9875 |
| | 893.0125–898.0000 | 838.0125–843.0000 |
| | 898.0125–900.9875 | 843.0125–845.9875 |
| | 915.0125–924.9875 | 860.0125–869.9875 |
| B | Not specified | Not specified |

5 **Table 3.1.4-2. CDMA Channel Number to CDMA Frequency**
 6 **Assignment Correspondence for Band Class 3**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|-------------------------|---|
| Access Terminal | $1 \leq N \leq 799$ | $0.0125 N + 915.000$ |
| | $801 \leq N \leq 1039$ | $0.0125 (N - 800) + 898.000$ |
| | $1041 \leq N \leq 1199$ | $0.0125 (N - 1040) + 887.000$ |
| | $1201 \leq N \leq 1600$ | $0.0125 (N - 1200) + 893.000$ |
| Access Network | $1 \leq N \leq 799$ | $0.0125 N + 860.000$ |
| | $801 \leq N \leq 1039$ | $0.0125 (N - 800) + 843.000$ |
| | $1041 \leq N \leq 1199$ | $0.0125 (N - 1040) + 832.000$ |
| | $1201 \leq N \leq 1600$ | $0.0125 (N - 1200) + 838.000$ |

In this table, only even-valued N values are valid.

7

**Table 3.1.4-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 3**

| System Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Access Terminal | Access Network |
| A1 (2 MHz) | Not Valid | 1041–1099 | 887.0125–887.7375 | 832.0125–832.7375 |
| | Valid | 1100–1140 | 887.7500–888.2500 | 832.7500–833.2500 |
| | Not Valid | 1141–1199 | 888.2625–888.9875 | 833.2625–833.9875 |
| A3 (5 MHz) | Not Valid | 1201–1259 | 893.0125–893.7375 | 838.0125–838.7375 |
| | Valid | 1260–1540 | 893.7500–897.2500 | 838.7500–842.2500 |
| | Cond. Valid | 1541–1600 | 897.2625–898.0000 | 842.2625–843.0000 |
| A2 (3 MHz) | Cond. Valid | 801–859 | 898.0125–898.7375 | 843.0125–843.7375 |
| | Valid | 860–980 | 898.7500–900.2500 | 843.7500–845.2500 |
| | Not Valid | 981–1039 | 900.2625–900.9875 | 845.2625–845.9875 |
| A (10 MHz) | Not Valid | 1–59 | 915.0125–915.7375 | 860.0125–860.7375 |
| | Valid | 60–740 | 915.7500–924.2500 | 860.7500–869.2500 |
| | Not Valid | 741–799 | 924.2625–924.9875 | 869.2625–869.9875 |
| B | Not specified | Not specified | Not specified | Not specified |

3.1.5 Band Class 4 (Korean PCS Band)

The Band Class 4 block designators for the access terminal and access network shall be as specified in Table 3.1.5-1.

Access terminals supporting Band Class 4 shall be capable of transmitting in Band Class 4.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 4 shall be as specified in Table 3.1.5-2. Access terminals supporting Band Class 4 shall support transmission on the valid and conditionally valid channel numbers shown in Table 3.1.5-3. Transmission on conditionally valid channels is permissible if the adjacent block is allocated to the same licensee or if other valid authorization has been obtained.

For CDMA equipment conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 90.0 MHz lower than the frequency of the access network transmit signal as measured at the access terminal receiver.

Table 3.1.5-1. Band Class 4 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 1750–1760 | 1840–1850 |
| B | 1760–1770 | 1850–1860 |
| C | 1770–1780 | 1860–1870 |

Table 3.1.5-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 4

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Access Terminal | $0 \leq N \leq 599$ | $0.050 N + 1750.000$ |
| Access Network | $0 \leq N \leq 599$ | $0.050 N + 1840.000$ |

Table 3.1.5-3. CDMA Channel Numbers and Corresponding Frequencies for Band Class 4

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-------------------------|------------------------------|----------------------------|--------------------------------------|-----------------------|
| | | | Access Terminal | Access Network |
| A (10 MHz) | Not Valid | 0–24 | 1750.000–1751.200 | 1840.000–1841.200 |
| | Valid | 25–175 | 1751.250–1758.750 | 1841.250–1848.750 |
| | Cond. Valid | 176–199 | 1758.800–1759.950 | 1848.800–1849.950 |
| B (10 MHz) | Cond. Valid | 200–224 | 1760.000–1761.200 | 1850.000–1851.200 |
| | Valid | 225–375 | 1761.250–1768.750 | 1851.250–1858.750 |
| | Cond. Valid | 376–399 | 1768.800–1769.950 | 1858.800–1859.950 |
| C (10 MHz) | Cond. Valid | 400–424 | 1770.000–1771.200 | 1860.000–1861.200 |
| | Valid | 425–575 | 1771.250–1778.750 | 1861.250–1868.750 |
| | Not Valid | 576–599 | 1778.800–1779.950 | 1868.800–1869.950 |

3.1.6 Band Class 5 (450-MHz Band)

The Band Class 5 block designators for the access terminal and access network shall be as specified in Table 3.1.6-1.

There are fourteen band subclasses¹⁰ specified for Band Class 5. Each band subclass corresponds to a specific block designator (see Table 3.1.6-1). Each band subclass includes all the channels designated for that system. Access terminals supporting Band Class 5 shall be capable of transmitting in at least one band subclass belonging to Band Class 5. For access terminals capable of transmitting in more than one band subclass belonging to Band Class 5, one band subclass shall be designated as the Primary Band Subclass, which is the band subclass used by the access terminal's home system.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 5 shall be as specified in Table 3.1.6-2. Note that certain channel assignments are not valid and others are conditionally valid. Access terminals supporting Band Class 5 shall support operations on the valid and conditionally valid channel numbers of the supported blocks shown in Table 3.1.6-3. Access networks supporting Band Class 5 shall

¹⁰ Blocks I, J and K are occupy the same frequency band as blocks H, G and F, respectively. Channel spacing is 20 kHz for blocks F, G and H, while channel spacing is 25 kHz for blocks I, J and K. Blocks I, J or K should be used for new deployments instead of blocks H, G or F respectively.

1 support operations on the valid and may support operations on the conditionally valid
 2 channel numbers of the supported blocks shown in Table 3.1.6-3. Transmission on
 3 conditionally valid channels is permissible if the adjacent block is allocated to the same
 4 licensee or if other valid authorization has been obtained.

5 For CDMA equipment operating in blocks A, B, C, D, E, F, G, H, I, J, K, and L, and
 6 conforming to [13], or its older versions, the nominal access terminal transmit carrier
 7 frequency shall be 10.0 MHz lower than the frequency of the access network transmit
 8 signal as measured at the access terminal receiver. For CDMA equipment operating in
 9 blocks M and N, the nominal access terminal transmit carrier frequency shall be at least
 10 10.0 MHz lower than the frequency of the access network transmit signal as measured at
 11 the mobile station receiver.

12 **Table 3.1.6-1. Band Class 5 Block Frequency Correspondence and Band Subclasses**

| Block Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|------------------|---------------|-------------------------------|-----------------|
| | | Access Terminal | Access Network |
| A | 0 | 452.500–457.475 | 462.500–467.475 |
| B | 1 | 452.000–456.475 | 462.000–466.475 |
| C | 2 | 450.000–454.800 | 460.000–464.800 |
| D | 3 | 411.675–415.850 | 421.675–425.850 |
| E | 4 | 415.500–419.975 | 425.500–429.975 |
| F | 5 | 479.000–483.480 | 489.000–493.480 |
| G | 6 | 455.230–459.990 | 465.230–469.990 |
| H | 7 | 451.310–455.730 | 461.310–465.730 |
| I | 8 | 451.325–455.725 | 461.325–465.725 |
| J | 9 | 455.250–459.975 | 465.250–469.975 |
| K | 10 | 479.000–483.475 | 489.000–493.475 |
| L | 11 | 410.000–414.975 | 420.000–424.975 |
| M | 12 | 450.000–457.475 | 461.250–469.975 |
| N | 13 | 450.000–457.475 | 460.000–469.975 |

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**Table 3.1.6-2. CDMA Channel Number to CDMA Frequency
Assignment Correspondence for Band Class 5**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Access Terminal | $1 \leq N \leq 400$ | $0.025 (N - 1) + 450.000$ |
| | $472 \leq N \leq 871$ | $0.025 (N - 472) + 410.000$ |
| | $1039 \leq N \leq 1473$ | $0.020 (N - 1024) + 451.010$ |
| | $1536 \leq N \leq 1715$ | $0.025 (N - 1536) + 479.000$ |
| | $1792 \leq N \leq 2016$ | $0.020 (N - 1792) + 479.000$ |
| | $N = 2017$ | 451.150 |
| | $N = 2018$ | 451.475 |
| Access Network | $1 \leq N \leq 400$ | $0.025 (N - 1) + 460.000$ |
| | $472 \leq N \leq 871$ | $0.025 (N - 472) + 420.000$ |
| | $1039 \leq N \leq 1473$ | $0.020 (N - 1024) + 461.010$ |
| | $1536 \leq N \leq 1715$ | $0.025 (N - 1536) + 489.000$ |
| | $1792 \leq N \leq 2016$ | $0.020 (N - 1792) + 489.000$ |
| | $N = 2017$ | 467.725 |
| | $N = 2018$ | 467.725 |

3

**Table 3.1.6-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 5**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Access Terminal | Access Network |
| A (4.5 MHz) | Not Valid | 121–125 | 453.000–453.100 | 463.000–463.100 |
| | Cond. Valid | 126–145 | 453.125–453.600 | 463.125–463.600 |
| | Valid | 146–275 | 453.625–456.850 | 463.625–466.850 |
| | Not Valid | 276–300 | 456.875–457.475 | 466.875–467.475 |
| A' (0.5 MHz) | Not Valid | 101–120 | 452.500–452.975 | 462.500–462.975 |
| B (4.5 MHz) | Not Valid | 81–105 | 452.000–452.600 | 462.000–462.600 |
| | Valid | 106–235 | 452.625–455.850 | 462.625–465.850 |
| | Not Valid | 236–260 | 455.875–456.475 | 465.875–466.475 |
| C (4.8 MHz) | Not Valid | 1–25 | 450.000–450.600 | 460.000–460.600 |
| | Valid | 26–168 | 450.625–454.175 | 460.625–464.175 |
| | Not Valid | 169–193 | 454.200–454.800 | 464.200–464.800 |
| D (4.2 MHz) | Not Valid | 539–563 | 411.675–412.275 | 421.675–422.275 |
| | Valid | 564–681 | 412.300–415.225 | 422.300–425.225 |
| | Not Valid | 682–706 | 415.250–415.850 | 425.250–425.850 |
| E (4.5 MHz) | Not Valid | 692–716 | 415.500–416.100 | 425.500–426.100 |
| | Valid | 717–846 | 416.125–419.350 | 426.125–429.350 |
| | Not Valid | 847–871 | 419.375–419.975 | 429.375–429.975 |
| F (4.5 MHz) | Not Valid | 1792–1822 | 479.000–479.600 | 489.000–489.600 |
| | Valid | 1823–1985 | 479.620–482.860 | 489.620–492.860 |
| | Not Valid | 1986–2016 | 482.880–483.480 | 492.880–493.480 |
| G (4.78 MHz) | Not Valid | 1235–1265 | 455.230–455.830 | 465.230–465.830 |
| | Valid | 1266–1442 | 455.850–459.370 | 465.850–469.370 |
| | Not Valid | 1443–1473 | 459.390–459.990 | 469.390–469.990 |
| H (4.44 MHz) | Not Valid | 1039–1069 | 451.310–451.910 | 461.310–461.910 |
| | Valid | 1070–1229 | 451.930–455.110 | 461.930–465.110 |
| | Not Valid | 1230–1260 | 455.130–455.730 | 465.130–465.730 |
| I (4.425 MHz) | Not Valid | 54–78 | 451.325–451.925 | 461.325–461.925 |
| | Valid | 79–205 | 451.950–455.100 | 461.950–465.100 |
| | Not Valid | 206–230 | 455.125–455.725 | 465.125–465.725 |
| J (4.75 MHz) | Not Valid | 211–234 | 455.250–455.825 | 465.250–465.825 |
| | Valid | 235–376 | 455.850–459.375 | 465.850–469.375 |
| | Not Valid | 377–400 | 459.400–459.975 | 469.400–469.975 |
| K (4.5 MHz) | Not Valid | 1536–1560 | 479.000–479.600 | 489.000–489.600 |
| | Valid | 1561–1690 | 479.625–482.850 | 489.625–492.850 |
| | Not Valid | 1691–1715 | 482.875–483.475 | 492.875–493.475 |

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|--|--|---------------------|-------------------------------|-----------------|
| | | | Access Terminal | Access Network |
| L (4.5 MHz) | Not Valid | 472–504 | 410.000–410.800 | 420.000–420.800 |
| | Valid | 505–646 | 410.825–414.350 | 420.825–424.375 |
| | Not Valid | 647–671 | 414.375–414.975 | 423.875–424.975 |
| M (7.5 MHz Mobile Station Transmit, 8.75 MHz Base Station Transmit) | Not Valid | 1–96 | 450.000–452.375 | 460.000–462.375 |
| | Valid | 97–275 | 452.400–456.850 | 462.400–466.850 |
| | Valid for Base Station Transmit Only | 276–375 | 456.875–459.350 | 466.875–469.350 |
| | Not Valid | 376–400 | 459.375–459.975 | 469.375–469.975 |
| | Valid | 2017 | 451.150 | 467.725 |
| Valid | 2018 | 451.475 | 467.725 | |
| N (7.5 MHz Mobile Station Transmit, 10 MHz Base Station Transmit) | Not Valid | 1–25 | 450.000–450.600 | 460.000–460.600 |
| | Valid | 26–275 | 450.625–456.850 | 460.625–466.850 |
| | Valid for Base Station Transmit Only | 276–375 | 456.875–459.350 | 466.875–469.350 |
| | Not Valid | 376–400 | 459.375–459.975 | 469.375–469.975 |
| | Valid | 2017 | 451.150 | 467.725 |
| Valid | 2018 | 451.475 | 467.725 | |

1 3.1.7 Band Class 6 (2-GHz Band)

2 The Band Class 6 block designators for the access terminal and access network are not
3 specified, since licensee allocations vary by regulatory body.

4 Access terminals supporting Band Class 6 shall be capable of transmitting in Band Class
5 6.

6 The channel spacing, CDMA channel designations, and transmitter center frequencies of
7 Band Class 6 shall be as specified in Table 3.1.7-1. Access terminals supporting Band
8 Class 6 shall support transmission on the valid channel numbers shown in Table 3.1.7-2.

9 For CDMA equipment conforming to [13], or its older versions, the nominal access terminal
10 transmit carrier frequency shall be 190.0 MHz lower than the frequency of the access
11 network transmit signal as measured at the access terminal receiver.

12 **Table 3.1.7-1. CDMA Channel Number to CDMA Frequency**
13 **Assignment Correspondence for Band Class 6**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|----------------------|---|
| Access Terminal | $0 \leq N \leq 1199$ | $1920.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 1199$ | $2110.000 + 0.050 N$ |

Table 3.1.7-2. CDMA Channel Numbers and Corresponding Frequencies for Band Class 6

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Access Terminal | Access Network |
| Not Valid | 0-24 | 1920.000-1921.200 | 2110.000-2111.200 |
| Valid | 25-1175 | 1921.250-1978.750 | 2111.250-2168.750 |
| Not Valid | 1176-1199 | 1978.800-1979.950 | 2168.800-2169.950 |

Channel numbers less than 1.25 MHz from the licensee’s band edge are not valid.

3.1.8 Band Class 7 (Upper 700-MHz Band)

The Band Class 7 block designators for the access terminal and access network shall be as specified in Table 3.1.8-1.

Access terminals supporting Band Class 7 shall be capable of transmitting in Band Class 7.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 7 shall be as specified in Table 3.1.8-2. Access terminals supporting Band Class 7 shall support operations on the valid and conditionally valid channel numbers shown in Table 3.1.8-3. Note that certain channel assignments are not valid and others are conditionally valid. Transmission on conditionally valid channels is permissible if the adjacent block is allocated to the same licensee or if other valid authorization has been obtained.

For CDMA equipment conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 30.0 MHz higher than the frequency of the access network transmit signal as measured at the access terminal receiver.

Table 3.1.8-1. Band Class 7 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| C | 776-787 | 746-757 |
| A | 787-788 | 757-758 |

Table 3.1.8-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 7

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|---------------------|---|
| Access Terminal | $0 \leq N \leq 240$ | $776.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 240$ | $746.000 + 0.050 N$ |

**Table 3.1.8-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 7**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Access Terminal | Access Network |
| C (11 MHz) | Not Valid | 0–22 | 776.000–777.100 | 746.000–747.100 |
| | Valid | 23–198 | 777.150–785.900 | 747.150–755.900 |
| | Not Valid | 199–219 | 785.950–786.950 | 755.950–756.950 |
| A (1 MHz) | Not Valid | 220–240 | 787.000–788.000 | 757.000–758.000 |

3.1.9 Band Class 8 (1800-MHz Band)

The Band Class 8 block designators for the access terminal and the access network are not specified.

Access terminals supporting Band Class 8 shall be capable of transmitting in Band Class 8.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 8 shall be as specified in Table 3.1.9-1. Access terminals supporting Band Class 8 shall support transmission on the valid channel numbers shown in Table 3.1.9-2.

For CDMA equipment conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 95.0 MHz lower than the frequency of the access network transmit signal as measured at the access terminal receiver.

**Table 3.1.9-1. CDMA Channel Number to CDMA Frequency
Assignment Correspondence for Band Class 8**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|----------------------|---|
| Access Terminal | $0 \leq N \leq 1499$ | $1710.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 1499$ | $1805.000 + 0.050 N$ |

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Table 3.1.9-2. CDMA Channel Numbers and Corresponding Frequencies for Band Class 8

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Access Terminal | Access Network |
| Not Valid | 0-24 | 1710.000-1711.200 | 1805.000-1806.200 |
| Valid | 25-1475 | 1711.250-1783.750 | 1806.250-1878.750 |
| Not Valid | 1476-1499 | 1783.800-1784.950 | 1878.800-1879.950 |

Channel numbers less than 1.25 MHz from the licensee’s band edge are not valid.

3 3.1.10 Band Class 9 (900-MHz Band)

4 The Band Class 9 block designators for the access terminal and the access network are not
5 specified.

6 Access terminals supporting Band Class 9 shall be capable of transmitting in Band Class
7 9.

8 The channel spacing, CDMA channel designations, and transmitter center frequencies of
9 Band Class 9 shall be as specified in Table 3.1.10-1. Access terminals supporting Band
10 Class 9 shall support transmission on the valid channel numbers shown Table 3.1.10-2.

11 For CDMA equipment conforming to [13], or its older versions, the nominal access terminal
12 transmit carrier frequency shall be 45.0 MHz lower than the frequency of the access
13 network transmit signal as measured at the access terminal receiver.

14
15

Table 3.1.10-1. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 9

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|---------------------|---|
| Access Terminal | $0 \leq N \leq 699$ | $880.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 699$ | $925.000 + 0.050 N$ |

Table 3.1.10-2. CDMA Channel Numbers and Corresponding Frequencies for Band Class 9

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-----------------|
| | | Access Terminal | Access Network |
| Not Valid | 0–24 | 880.000–881.200 | 925.000-926.200 |
| Valid | 25–675 | 881.250-913.750 | 926.250-958.750 |
| Not Valid | 676–699 | 913.800-914.950 | 958.800-959.950 |

Channel numbers less than 1.25 MHz from the licensee's band edge are not valid.

3.1.11 Band Class 10 (Secondary 800 MHz Band)

The Band Class 10 system designators for the CDMA equipment shall be as specified in Table 3.1.11-1. There are five band subclasses specified for Band Class 10. CDMA equipments supporting Band Class 10 shall support at least one band subclass belonging to Band Class 10. CDMA equipments supporting Band Class 10 shall be capable of transmitting in Band Class 10.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 10 shall be as specified in Table 3.1.11-2. CDMA equipments supporting Band Class 10 shall support transmission on the valid channel numbers shown in Table 3.1.11-3.

For CDMA equipment conforming to [13], or its older versions, the access terminal shall transmit the Reverse Traffic Channel on the CDMA Channel designated by CDMACH_s, and the nominal access terminal transmit carrier frequency shall be 45.0 MHz (Band Subclasses 0, 1, 2, and 3) or 39.0 MHz (Band Subclass 4) lower than the frequency of the access network transmit signal as measured at the access terminal receiver.

1 **Table 3.1.11-1. Band Class 10 System Frequency Correspondence**

| System Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|-------------------|---------------|-------------------------------|-----------------|
| | | Access Terminal | Access Network |
| A | 0 | 806.000–810.975 | 851.000–855.975 |
| B | 1 | 811.000–815.975 | 856.000–860.975 |
| C | 2 | 816.000–820.975 | 861.000–865.975 |
| D | 3 | 821.000–823.975 | 866.000–868.975 |
| E | 4 | 896.000–900.975 | 935.000–939.975 |

2 **Table 3.1.11-2. CDMA Channel Number to CDMA Frequency**
 3 **Assignment Correspondence for Band Class 10**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|-----------------------|---|
| Access Terminal | $0 \leq N \leq 719$ | $0.025 N + 806.000$ |
| | $720 \leq N \leq 919$ | $0.025 (N - 720) + 896.000$ |
| Access Network | $0 \leq N \leq 719$ | $0.025 N + 851.000$ |
| | $720 \leq N \leq 919$ | $0.025 (N - 720) + 935.000$ |

4 **Table 3.1.11-3. CDMA Channel Numbers and Corresponding Frequencies**
 5 **for Band Class 10**

| Band Subclass | System Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|---------------|-------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | | Access Terminal | Access Network |
| 0 | A | Not Valid | 0–49 | 806.000–807.225 | 851.000–852.225 |
| | | Valid | 50–150 | 807.250–809.750 | 852.250–854.750 |
| | | Cond. Valid | 151–199 | 809.775–810.975 | 854.775–855.975 |
| 1 | B | Cond. Valid | 200–249 | 811.000–812.225 | 856.000–857.225 |
| | | Valid | 250–350 | 812.250–814.750 | 857.250–859.750 |
| | | Cond. Valid | 351–399 | 814.775–815.975 | 859.775–860.975 |
| 2 | C | Cond. Valid | 400–449 | 816.000–817.225 | 861.000–862.225 |
| | | Valid | 450–550 | 817.250–819.750 | 862.250–864.750 |
| | | Cond. Valid | 551–599 | 819.775–820.975 | 864.775–865.975 |
| 3 | D | Cond. Valid | 600–649 | 821.000–822.225 | 866.000–867.225 |
| | | Valid | 650–670 | 822.250–822.750 | 867.250–867.750 |
| | | Not Valid | 671–719 | 822.775–823.975 | 867.775–868.975 |
| 4 | E | Not Valid | 720–769 | 896.000–897.225 | 935.000–936.225 |
| | | Valid | 770–870 | 897.250–899.750 | 936.250–938.750 |
| | | Not Valid | 871–919 | 899.775–900.975 | 938.775–939.975 |

1 3.1.12 Band Class 11 (400 MHz European PAMR Band)

2 The Band Class 11 block designators for the CDMA equipment shall be as specified in
3 Table 3.1.12-1. There are twelve band subclasses specified for Band Class 11. Each band
4 subclass corresponds to a specific block designator (see Table 3.1.12-1). Each band
5 subclass includes all the channels designated for that block. CDMA equipments supporting
6 Band Class 11 shall be capable of transmitting in at least one band subclass belonging to
7 Band Class 11. For CDMA equipments capable of transmitting in more than one band
8 subclass belonging to Band Class 11, one band subclass shall be designated as the
9 Primary Band Subclass, which is the band subclass used by the access terminal's home
10 system.

11 The channel spacing, CDMA channel designations, and transmitter center frequencies of
12 Band Class 11 shall be as specified in Table 3.1.12-2. Note that certain channel
13 assignments are not valid and others are conditionally valid. Access terminals supporting
14 Band Class 11 shall support operations on the valid and conditionally valid channel
15 numbers of the supported blocks shown in Table 3.1.12-3. Access networks supporting
16 Band Class 11 shall support operations on the valid and may support operations on the
17 conditionally valid channel numbers of the supported blocks shown in Table
18 3.1.12-3. Transmission on conditionally valid channels is permissible if the adjacent
19 block is allocated to the same licensee or if other valid authorization has been obtained.

20 For CDMA equipment conforming to [13], or its older versions, the access terminal shall
21 transmit the Reverse Traffic Channel on the CDMA Channel designated by $CDMACH_s$, and
22 the nominal access terminal transmit carrier frequency shall be 10.0 MHz lower than the
23 frequency of the access network transmit signal as measured at the access terminal
24 receiver.

1 **Table 3.1.12-1. Band Class 11 Block Frequency Correspondence and Band Subclasses**

| Block Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|------------------|---------------|-------------------------------|-----------------|
| | | Access Terminal | Access Network |
| A | 0 | 452.500–457.475 | 462.500–467.475 |
| B | 1 | 452.000–456.475 | 462.000–466.475 |
| C | 2 | 450.000–454.800 | 460.000–464.800 |
| D | 3 | 411.675–415.850 | 421.675–425.850 |
| E | 4 | 415.500–419.975 | 425.500–429.975 |
| F | 5 | Not specified | Not specified |
| G | 6 | Not specified | Not specified |
| H | 7 | Not specified | Not specified |
| I | 8 | 451.325–455.725 | 461.325–465.725 |
| J | 9 | 455.250–459.975 | 465.250–469.975 |
| K | 10 | 479.000–483.475 | 489.000–493.475 |
| L | 11 | 410.000–414.975 | 420.000–424.975 |

2 **Table 3.1.12-2. CDMA Channel Number to CDMA Frequency**
 3 **Assignment Correspondence for Band Class 11**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|-------------------------|---|
| Access Terminal | $1 \leq N \leq 400$ | $0.025 (N - 1) + 450.000$ |
| | $472 \leq N \leq 871$ | $0.025 (N - 472) + 410.000$ |
| | $1039 \leq N \leq 1473$ | Reserved |
| | $1536 \leq N \leq 1715$ | $0.025 (N - 1536) + 479.000$ |
| | $1792 \leq N \leq 2016$ | Reserved |
| Access Network | $1 \leq N \leq 400$ | $0.025 (N - 1) + 460.000$ |
| | $472 \leq N \leq 871$ | $0.025 (N - 472) + 420.000$ |
| | $1039 \leq N \leq 1473$ | Reserved |
| | $1536 \leq N \leq 1715$ | $0.025 (N - 1536) + 489.000$ |
| | $1792 \leq N \leq 2016$ | Reserved |

4

**Table 3.1.12-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 11**

| Block Designator | Valid CDMA Frequency Assignments | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|----------------------------------|---------------------|-------------------------------|-----------------|
| | | | Access Terminal | Access Network |
| A (4.5 MHz) | Not Valid | 121–125 | 453.000–453.100 | 463.000–463.100 |
| | Cond. Valid | 126–145 | 453.125–453.600 | 463.125–463.600 |
| | Valid | 146–275 | 453.625–456.850 | 463.625–466.850 |
| | Not Valid | 276–300 | 456.875–457.475 | 466.875–467.475 |
| A' (0.5 MHz) | Not Valid | 101–120 | 452.500–452.975 | 462.500–462.975 |
| B (4.5 MHz) | Not Valid | 81–105 | 452.000–452.600 | 462.000–462.600 |
| | Valid | 106–235 | 452.625–455.850 | 462.625–465.850 |
| | Not Valid | 236–260 | 455.875–456.475 | 465.875–466.475 |
| C (4.8 MHz) | Not Valid | 1–25 | 450.000–450.600 | 460.000–460.600 |
| | Valid | 26–168 | 450.625–454.175 | 460.625–464.175 |
| | Not Valid | 169–193 | 454.200–454.800 | 464.200–464.800 |
| D (4.2 MHz) | Not Valid | 539–563 | 411.675–412.275 | 421.675–422.275 |
| | Valid | 564–681 | 412.300–415.225 | 422.300–425.225 |
| | Not Valid | 682–706 | 415.250–415.850 | 425.250–425.850 |
| E (4.5 MHz) | Not Valid | 692–716 | 415.500–416.100 | 425.500–426.100 |
| | Valid | 717–846 | 416.125–419.350 | 426.125–429.350 |
| | Not Valid | 847–871 | 419.375–419.975 | 429.375–429.975 |
| F | Not specified | Not specified | Not specified | Not specified |
| G | Not specified | Not specified | Not specified | Not specified |
| H | Not specified | Not specified | Not specified | Not specified |
| I (4.425 MHz) | Not Valid | 54–78 | 451.325–451.925 | 461.325–461.925 |
| | Valid | 79–205 | 451.950–455.100 | 461.950–465.100 |
| | Not Valid | 206–230 | 455.125–455.725 | 465.125–465.725 |
| J (4.75 MHz) | Not Valid | 211–234 | 455.250–455.825 | 465.250–465.825 |
| | Valid | 235–376 | 455.850–459.375 | 465.850–469.375 |
| | Not Valid | 377–400 | 459.400–459.975 | 469.400–469.975 |
| K (4.5 MHz) | Not Valid | 1536–1560 | 479.000–479.600 | 489.000–489.600 |
| | Valid | 1561–1690 | 479.625–482.850 | 489.625–492.850 |
| | Not Valid | 1691–1715 | 482.875–483.475 | 492.875–493.475 |
| L (4.5 MHz) | Not Valid | 472–504 | 410.000–410.800 | 420.000–420.800 |
| | Valid | 505–646 | 410.825–414.350 | 420.825–424.350 |
| | Not Valid | 647–671 | 414.375–414.975 | 424.375–424.975 |

1 3.1.13 Band Class 12 (800 MHz PAMR Band)

2 The Band Class 12 block designators for the CDMA equipment shall be as specified in
 3 Table 3.1.13-1. There are three band subclasses specified for Band Class 12. Each band
 4 subclass corresponds to a specific block designator (see Table 3.1.13-1). Each band
 5 subclass includes all the channels designated for that block. CDMA equipments supporting
 6 Band Class 12 shall be capable of transmitting in at least one band subclass belonging to
 7 Band Class 12. For CDMA equipments capable of transmitting in more than one band
 8 subclass belonging to Band Class 12, one band subclass shall be designated as the
 9 Primary Band Subclass, which is the band subclass used by the access terminal's home
 10 system.

11 The channel spacing, CDMA channel designations, and transmitter center frequencies of
 12 Band Class 12 shall be as specified in Table 3.1.13-2. Note that certain channel
 13 assignments are not valid and others are conditionally valid. Access terminals supporting
 14 Band Class 12 shall support operations on the valid and conditionally valid channel
 15 numbers of the supported blocks shown in Table 3.1.13-3. Access networks supporting
 16 Band Class 12 shall support operations on the valid and may support operations on the
 17 conditionally valid channel numbers of the supported blocks shown in Table
 18 3.1.13-3. Transmission on conditionally valid channels is permissible if the adjacent
 19 block is allocated to the same licensee or if other valid authorization has been obtained.

20 For CDMA equipment conforming to [13], or its older versions, the access terminal shall
 21 transmit the Reverse Traffic Channel on the CDMA Channel designated by CDMACH_s, and
 22 the nominal access terminal transmit carrier frequency shall be 45.0 MHz lower than the
 23 frequency of the access network transmit signal as measured at the access terminal
 24 receiver.

25 **Table 3.1.13-1. Band Class 12 Block Frequency Correspondence and Band Subclasses**

| Block Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|------------------|---------------|-------------------------------|-------------------|
| | | Access Terminal | Access Network |
| A | 0 | 870.0125–875.9875 | 915.0125–920.9875 |
| B | 1 | 871.5125–874.4875 | 916.5125–919.4875 |
| C | 2 | 870.0125–875.9875 | 915.0125–920.9875 |

26 **Table 3.1.13-2. CDMA Channel Number to CDMA Frequency**
 27 **Assignment Correspondence for Band Class 12**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|---------------------|---|
| Access Terminal | $0 \leq N \leq 239$ | $870.0125 + 0.025 N$ |
| Access Network | $0 \leq N \leq 239$ | $915.0125 + 0.025 N$ |

**Table 3.1.13-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 12**

| Block Designator | Valid CDMA Frequency Assignment | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|---------------------------------|---------------------|-------------------------------|-------------------|
| | | | Access Terminal | Access Network |
| A (6MHz) | Not Valid | 0–64 | 870.0125–871.6125 | 915.0125–916.6125 |
| | Valid | 65–214 | 871.6375–875.3625 | 916.6375–920.3625 |
| | Not Valid | 215–239 | 875.3875–875.9875 | 920.3875–920.9875 |
| B (3 MHz) | Not Valid | 60–93 | 871.5125–872.3375 | 916.5125–917.3375 |
| | Valid | 94–144 | 872.3625–873.6125 | 917.3625–918.6125 |
| | Not Valid | 145–179 | 873.6375–874.4875 | 918.6375–919.4875 |
| C (6MHz) | Not Valid | 0–24 | 870.0125–870.6125 | 915.0125–915.6125 |
| | Cond. Valid | 25–104 | 870.6375–872.6125 | 915.6375–917.6125 |
| | Valid | 105–206 | 872.6375–875.1625 | 917.6375–920.1625 |
| | Cond. Valid | 207–214 | 875.1875–875.3625 | 920.1875–920.3625 |
| | Not Valid | 215–239 | 875.3875–875.9875 | 920.3875–920.9875 |

3.1.14 Band Class 13 (2.5 GHz IMT-2000 Extension Band)

The Band Class 13 block designators for the access terminal and access network shall be as specified in Table 3.1.14-1.

Access terminals supporting Band Class 13 shall be capable of transmitting in Band Class 13.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 13 shall be as specified in Table 3.1.14-2. Access terminals supporting Band Class 13 shall support transmission on the valid and conditionally valid channel numbers shown in Table 3.1.14-3. Note that certain channel assignments are not valid and others are conditionally valid. Transmission on conditionally valid channels is permissible if the adjacent block is allocated to the same licensee or if other valid authorization has been obtained.

For CDMA equipment conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 120.0 MHz lower than the frequency of the access network transmit signal as measured at the access terminal receiver.

1

Table 3.1.14-1. Band Class 13 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|-------------------------|--------------------------------------|-----------------------|
| | Access Terminal | Access Network |
| A | 2500–2505 | 2620–2625 |
| B | 2505–2510 | 2625–2630 |
| C | 2510–2515 | 2630–2635 |
| D | 2515–2520 | 2635–2640 |
| E | 2520–2525 | 2640–2645 |
| F | 2525–2530 | 2645–2650 |
| G | 2530–2535 | 2650–2655 |
| H | 2535–2540 | 2655–2660 |
| I | 2540–2545 | 2660–2665 |
| J | 2545–2550 | 2665–2670 |
| K | 2550–2555 | 2670–2675 |
| L | 2555–2560 | 2675–2680 |
| M | 2560–2565 | 2680–2685 |
| N | 2565–2570 | 2685–2690 |

2

Table 3.1.14-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 13

3

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Access Terminal | $0 \leq N \leq 1399$ | $2500.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 1399$ | $2620.000 + 0.050 N$ |

**Table 3.1.14-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 13**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Access Terminal | Access Network |
| A (5 MHz) | Not Valid | 0–24 | 2500.000–2501.200 | 2620.000–2621.200 |
| | Valid | 25–75 | 2501.250–2503.750 | 2621.250–2623.750 |
| | Cond. Valid | 76–99 | 2503.800–2504.950 | 2623.800–2624.950 |
| B (5 MHz) | Cond. Valid | 100–124 | 2505.000–2506.200 | 2625.000–2626.200 |
| | Valid | 125–175 | 2506.250–2508.750 | 2626.250–2628.750 |
| | Cond. Valid | 176–199 | 2508.800–2509.950 | 2628.800–2629.950 |
| C (5 MHz) | Cond. Valid | 200–224 | 2510.000–2511.200 | 2630.000–2631.200 |
| | Valid | 225–275 | 2511.250–2513.750 | 2631.250–2633.750 |
| | Cond. Valid | 276–299 | 2513.800–2514.950 | 2633.800–2634.950 |
| D (5 MHz) | Cond. Valid | 300–324 | 2515.000–2516.200 | 2635.000–2636.200 |
| | Valid | 325–375 | 2516.250–2518.750 | 2636.250–2638.750 |
| | Cond. Valid | 376–399 | 2518.800–2519.950 | 2638.800–2639.950 |
| E (5 MHz) | Cond. Valid | 400–424 | 2520.000–2521.200 | 2640.000–2641.200 |
| | Valid | 425–475 | 2521.250–2523.750 | 2641.250–2643.750 |
| | Cond. Valid | 476–499 | 2523.800–2524.950 | 2643.800–2644.950 |
| F (5 MHz) | Cond. Valid | 500–524 | 2525.000–2526.200 | 2645.000–2646.200 |
| | Valid | 525–575 | 2526.250–2528.750 | 2646.250–2648.750 |
| | Cond. Valid | 576–599 | 2528.800–2529.950 | 2648.800–2649.950 |
| G (5 MHz) | Cond. Valid | 600–624 | 2530.000–2531.200 | 2650.000–2651.200 |
| | Valid | 625–675 | 2531.250–2533.750 | 2651.250–2653.750 |
| | Cond. Valid | 676–699 | 2533.800–2534.950 | 2653.800–2654.950 |
| H (5 MHz) | Cond. Valid | 700–724 | 2535.000–2536.200 | 2655.000–2656.200 |
| | Valid | 725–775 | 2536.250–2538.750 | 2656.250–2658.750 |
| | Cond. Valid | 776–799 | 2538.800–2539.950 | 2658.800–2659.950 |
| I (5 MHz) | Cond. Valid | 800–824 | 2540.000–2541.200 | 2660.000–2661.200 |
| | Valid | 825–875 | 2541.250–2543.750 | 2661.250–2663.750 |
| | Cond. Valid | 876–899 | 2543.800–2544.950 | 2663.800–2664.950 |
| J (5 MHz) | Cond. Valid | 900–924 | 2545.000–2546.200 | 2665.000–2666.200 |
| | Valid | 925–975 | 2546.250–2548.750 | 2666.250–2668.750 |
| | Cond. Valid | 976–999 | 2548.800–2549.950 | 2668.800–2669.950 |
| K (5 MHz) | Cond. Valid | 1000–1024 | 2550.000–2551.200 | 2670.000–2671.200 |
| | Valid | 1025–1075 | 2551.250–2553.750 | 2671.250–2673.750 |
| | Cond. Valid | 1076–1099 | 2553.800–2554.950 | 2673.800–2674.950 |
| L (5 MHz) | Cond. Valid | 1100–1124 | 2555.000–2556.200 | 2675.000–2676.200 |
| | Valid | 1125–1175 | 2556.250–2558.750 | 2676.250–2678.750 |
| | Cond. Valid | 1176–1199 | 2558.800–2559.950 | 2678.800–2679.950 |

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Access Terminal | Access Network |
| M (5 MHz) | Cond. Valid | 1200–1224 | 2560.000–2561.200 | 2680.000–2681.200 |
| | Valid | 1225–1275 | 2561.250–2563.750 | 2681.250–2683.750 |
| | Cond. Valid | 1276–1299 | 2563.800–2564.950 | 2683.800–2684.950 |
| N (5 MHz) | Cond. Valid | 1300–1324 | 2565.000–2566.200 | 2685.000–2686.200 |
| | Valid | 1325–1375 | 2566.250–2568.750 | 2686.250–2688.750 |
| | Not Valid | 1376–1399 | 2568.800–2569.950 | 2688.800–2689.950 |

1 3.1.15 Band Class 14 (US PCS 1.9GHz Band)

2 The Band Class 14 block designators for the access terminal and access network shall be
3 as specified in Table 3.1.15-1.

4 Access terminals supporting Band Class 14 shall be capable of transmitting in Band Class
5 14.

6 The channel spacing, CDMA channel designations, and transmitter center frequencies of
7 Band Class 14 shall be as specified in Table 3.1.15-2. Access terminals supporting Band
8 Class 14 shall support transmission on the valid and conditionally valid channel numbers
9 shown in Table 3.1.15-3. Note that certain channel assignments are not valid and others
10 are conditionally valid. Transmission on conditionally valid channels is permissible if the
11 adjacent block is allocated to the same licensee or if other valid authorization has been
12 obtained.

13 For CDMA equipment conforming to [13], or its older versions, the nominal access terminal
14 transmit carrier frequency shall be 80.0 MHz lower than the frequency of the access
15 network transmit signal as measured at the access terminal receiver.

16 **Table 3.1.15-1. Band Class 14 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 1850–1865 | 1930–1945 |
| D | 1865–1870 | 1945–1950 |
| B | 1870–1885 | 1950–1965 |
| E | 1885–1890 | 1965–1970 |
| F | 1890–1895 | 1970–1975 |
| C | 1895–1910 | 1975–1990 |
| G | 1910–1915 | 1990–1995 |

**Table 3.1.15-2. CDMA Channel Number to CDMA Frequency
Assignment Correspondence for Band Class 14**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|----------------------|---|
| Access Terminal | $0 \leq N \leq 1299$ | $1850.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 1299$ | $1930.000 + 0.050 N$ |

**Table 3.1.15-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 14**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Access Terminal | Access Network |
| A (15 MHz) | Not Valid | 0–24 | 1850.000–1851.200 | 1930.000–1931.200 |
| | Valid | 25–275 | 1851.250–1863.750 | 1931.250–1943.750 |
| | Cond. Valid | 276–299 | 1863.800–1864.950 | 1943.800–1944.950 |
| D (5 MHz) | Cond. Valid | 300–324 | 1865.000–1866.200 | 1945.000–1946.200 |
| | Valid | 325–375 | 1866.250–1868.750 | 1946.250–1948.750 |
| | Cond. Valid | 376–399 | 1868.800–1869.950 | 1948.800–1949.950 |
| B (15 MHz) | Cond. Valid | 400–424 | 1870.000–1871.200 | 1950.000–1951.200 |
| | Valid | 425–675 | 1871.250–1883.750 | 1951.250–1963.750 |
| | Cond. Valid | 676–699 | 1883.800–1884.950 | 1963.800–1964.950 |
| E (5 MHz) | Cond. Valid | 700–724 | 1885.000–1886.200 | 1965.000–1966.200 |
| | Valid | 725–775 | 1886.250–1888.750 | 1966.250–1968.750 |
| | Cond. Valid | 776–799 | 1888.800–1889.950 | 1968.800–1969.950 |
| F (5 MHz) | Cond. Valid | 800–824 | 1890.000–1891.200 | 1970.000–1971.200 |
| | Valid | 825–875 | 1891.250–1893.750 | 1971.250–1973.750 |
| | Cond. Valid | 876–899 | 1893.800–1894.950 | 1973.800–1974.950 |
| C (15 MHz) | Cond. Valid | 900–924 | 1895.000–1896.200 | 1975.000–1976.200 |
| | Valid | 925–1175 | 1896.250–1908.750 | 1976.250–1988.750 |
| | Cond. Valid | 1176–1199 | 1908.800–1909.950 | 1988.800–1989.950 |
| G (5 MHz) | Cond. Valid | 1200–1224 | 1910.000–1911.200 | 1990.000–1991.200 |
| | Valid | 1225–1275 | 1911.250–1913.750 | 1991.250–1993.750 |
| | Not Valid | 1276–1299 | 1913.800–1914.950 | 1993.800–1994.950 |

3.1.16 Band Class 15 (AWS Band)

The Band Class 15 block designators for the access terminal and access network shall be as specified in Table 3.1.16-1.

Access terminals supporting Band Class 15 shall be capable of transmitting in Band Class 15.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 15 shall be as specified in Table 3.1.16-2. Access terminals supporting Band

1 Class 15 shall support transmission on the valid and conditionally valid channel numbers
 2 shown in Table 3.1.16-3. Note that certain channel assignments are not valid and others
 3 are conditionally valid. Transmission on conditionally valid channels is permissible if the
 4 adjacent block is allocated to the same licensee or if other valid authorization has been
 5 obtained.

6 For CDMA equipment conforming to [13], or its older versions, the nominal access terminal
 7 transmit carrier frequency shall be 400.0 MHz lower than the frequency of the access
 8 network transmit signal as measured at the access terminal receiver.

9 **Table 3.1.16-1. Band Class 15 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|-------------------------|--------------------------------------|-----------------------|
| | Access Terminal | Access Network |
| A | 1710–1720 | 2110–2120 |
| B | 1720–1730 | 2120–2130 |
| C | 1730–1735 | 2130–2135 |
| D | 1735–1740 | 2135–2140 |
| E | 1740–1745 | 2140–2145 |
| F | 1745–1755 | 2145–2155 |

10 **Table 3.1.16-2. CDMA Channel Number to CDMA Frequency**
 11 **Assignment Correspondence for Band Class 15**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Access Terminal | $0 \leq N \leq 899$ | $1710.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 899$ | $2110.000 + 0.050 N$ |

**Table 3.1.16-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 15**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Access Terminal | Access Network |
| A (10 MHz) | Not Valid | 0–24 | 1710.000–1711.200 | 2110.000–2111.200 |
| | Valid | 25–175 | 1711.250–1718.750 | 2111.250–2118.750 |
| | Cond. Valid | 176–199 | 1718.800–1719.950 | 2118.800–2119.950 |
| B (10 MHz) | Cond. Valid | 200–224 | 1720.000–1721.200 | 2120.000–2121.200 |
| | Valid | 225–375 | 1721.250–1728.750 | 2121.250–2128.750 |
| | Cond. Valid | 376–399 | 1728.800–1729.950 | 2128.800–2129.950 |
| C (5 MHz) | Cond. Valid | 400–424 | 1730.000–1731.200 | 2130.000–2131.200 |
| | Valid | 425–475 | 1731.250–1733.750 | 2131.250–2133.750 |
| | Cond. Valid | 476–499 | 1733.800–1734.950 | 2133.800–2134.950 |
| D (5 MHz) | Cond. Valid | 500–524 | 1735.000–1736.200 | 2135.000–2136.200 |
| | Valid | 525–575 | 1736.250–1738.750 | 2136.250–2138.750 |
| | Cond. Valid | 576–599 | 1738.800–1739.950 | 2138.800–2139.950 |
| E (5 MHz) | Cond. Valid | 600–624 | 1740.000–1741.200 | 2140.000–2141.200 |
| | Valid | 625–675 | 1741.250–1743.750 | 2141.250–2143.750 |
| | Cond. Valid | 676–699 | 1743.800–1744.950 | 2143.800–2144.950 |
| F (10 MHz) | Cond. Valid | 700–724 | 1745.000–1746.200 | 2145.000–2146.200 |
| | Valid | 725–875 | 1746.250–1753.750 | 2146.250–2153.750 |
| | Not Valid | 876–899 | 1753.800–1754.950 | 2153.800–2154.950 |

3.1.17 Band Class 16 (US 2.5GHz Band)

The Band Class 16 block designators for the access terminal and access network shall be as specified in Table 3.1.17-1.

Access terminals supporting Band Class 16 shall be capable of transmitting in Band Class 16.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 16 shall be as specified in Table 3.1.17-2. Access terminals supporting Band Class 16 shall support transmission on the valid and conditionally valid channel numbers shown in Table 3.1.17-3. Note that certain channel assignments are not valid and others are conditionally valid. Transmission on conditionally valid channels is permissible if the adjacent block is allocated to the same licensee or if other valid authorization has been obtained.

For CDMA equipment conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 122.0 MHz lower than the frequency of the access network transmit signal as measured at the access terminal receiver.

1 **Table 3.1.17-1. Band Class 16 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 2502–2518.5 | 2624–2640.5 |
| B | 2518.5–2535 | 2640.5–2657 |
| C | 2535–2551.5 | 2657–2673.5 |
| D | 2551.5–2568 | 2673.5–2690 |

2 **Table 3.1.17-2. CDMA Channel Number to CDMA Frequency**
3 **Assignment Correspondence for Band Class 16**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|------------------------|---|
| Access Terminal | $140 \leq M \leq 1459$ | $2495.000 + 0.050 M$ |
| Access Network | $140 \leq N \leq 1459$ | $2617.000 + 0.050 N$ |

4 **Table 3.1.17-3. CDMA Channel Numbers and Corresponding Frequencies**
5 **for Band Class 16**

| Block Designator | CDMA Channel Validity | Access Terminal CDMA Channel Number (M) | Access Terminal Transmit Frequency Band (MHz) | Access Network CDMA Channel Number (N) | Access Network Transmit Frequency Band (MHz) |
|------------------|-----------------------|---|---|--|--|
| A (16.5 MHz) | Not Valid | 140–164 | 2502.000–2503.200 | 140–164 | 2624.000–2625.200 |
| | Valid | 165–445 | 2503.250–2517.250 | 165–445 | 2625.250–2639.250 |
| | Cond. Valid | 446–459 | 2517.300–2518.450 | 446–459 | 2639.300–2640.450 |
| B (16.5 MHz) | Cond. Valid | 470–494 | 2518.500–2519.700 | 470–494 | 2640.500–2641.700 |
| | Valid | 495–775 | 2519.750–2533.750 | 495–775 | 2641.750–2655.750 |
| | Cond. Valid | 776–799 | 2533.800–2534.950 | 776–799 | 2655.800–2656.950 |
| C (16.5 MHz) | Cond. Valid | 800–824 | 2535.000–2536.200 | 800–824 | 2657.000–2658.200 |
| | Valid | 825–1105 | 2536.250–2550.250 | 825–1105 | 2658.250–2672.250 |
| | Cond. Valid | 1106–1129 | 2550.300–2551.450 | 1106–1129 | 2672.300–2673.450 |
| D (16.5 MHz) | Cond. Valid | 1130–1154 | 2551.500–2552.700 | 1130–1154 | 2673.500–2674.700 |
| | Valid | 1155–1435 | 2552.750–2566.750 | 1155–1435 | 2674.750–2688.750 |
| | Not Valid | 1436–1459 | 2566.800–2567.950 | 1436–1459 | 2688.800–2689.950 |

6 3.1.18 Band Class 17 (US 2.5GHz Forward Link Only Band)

7 The Band Class 17 block designators for the access network shall be as specified in Table
8 3.1.18-1.

1 The channel spacing, CDMA channel designations, and transmitter center frequencies of
 2 Band Class 17 shall be as specified in Table 3.1.18-2. The valid and conditionally valid
 3 channel numbers are shown in Table 3.1.18-3. Note that certain channel assignments are
 4 not valid and others are conditionally valid. Transmission on conditionally valid channels is
 5 permissible if the adjacent block is allocated to the same licensee or if other valid
 6 authorization has been obtained.

7 CDMA equipment conforming to [13] or older shall not transmit on Band Class 17.

8 **Table 3.1.18-1. Band Class 17 Block Frequency Correspondence**

| Block Designator | Access Network Transmit Frequency Band (MHz) |
|-------------------------|---|
| A | 2624-2640.5 |
| B | 2640.5-2657 |
| C | 2657-2673.5 |
| D | 2673.5-2690 |

9 **Table 3.1.18-2. CDMA Channel Number to CDMA Frequency**
 10 **Assignment Correspondence for Band Class 17**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Access Network | $140 \leq N \leq 1459$ | $2617.000 + 0.050 N$ |

11 **Table 3.1.18-3. CDMA Channel Numbers and Corresponding Frequencies**
 12 **for Band Class 17**

| Block Designator | CDMA Channel Validity | Access Network CDMA Channel Number (N) | Access Network Transmit Frequency Band (MHz) |
|-------------------------|------------------------------|---|---|
| A (16.5 MHz) | Not Valid | 140–1644 | 2624.000-2625.200 |
| | Valid | 165–445 | 2625.250-2639.250 |
| | Cond. Valid | 446–469 | 2639.300-2640.450 |
| B (16.5 MHz) | Cond. Valid | 470–494 | 2640.500-2641.700 |
| | Valid | 495–775 | 2641.750-2655.750 |
| | Cond. Valid | 776–799 | 2655.800-2656.950 |
| C (16.5 MHz) | Cond. Valid | 800–824 | 2657.000-2658.200 |
| | Valid | 825–1105 | 2658.250-2672.250 |
| | Cond. Valid | 1106–1129 | 2672.300-2673.450 |

| Block Designator | CDMA Channel Validity | Access Network CDMA Channel Number (N) | Access Network Transmit Frequency Band (MHz) |
|-------------------------|-----------------------------------|---|---|
| D (16.5 MHz) | Cond. Valid Valid Not Valid | 1130–1254 1155–1435 1436–1459 | 2673.500-2674.700 2674.750-2688.750 2688.800-2689.950 |

- 1 3.1.19 Band Class 18 (700 MHz Public Safety Band)
- 2 The Band Class 18 block designators for the access terminal and access network shall be
3 as specified in Table 3.1.19-1.
- 4 Access terminals supporting Band Class 18 shall be capable of transmitting in Band Class
5 18.
- 6 The channel spacing, CDMA channel designations, and transmitter center frequencies of
7 Band Class 18 shall be as specified in Table 3.1.19-2. Access terminals supporting Band
8 Class 18 shall support operations on the valid and conditionally valid channel numbers
9 shown in Table 3.1.19-3. Note that certain channel assignments are not valid and others
10 are conditionally valid. Transmission on conditionally valid channels is permissible if the
11 adjacent block is allocated to the same licensee or if other valid authorization has been
12 obtained.
- 13 For CDMA equipment conforming to [13], or its older versions, the nominal access terminal
14 transmit carrier frequency shall be 30.0 MHz higher than the frequency of the access
15 network transmit signal as measured at the access terminal receiver.

1 **Table 3.1.19-1. Band Class 18 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|--------------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 787-788 | 757-758 |
| D | 788-793 | 758-763 |
| Public Safety Broadband | 793-798 | 763-768 |
| Public Safety Guard Band | 798-799 | 768-769 |

2 **Table 3.1.19-2. CDMA Channel Number to CDMA Frequency**
3 **Assignment Correspondence for Band Class 18**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|---------------------|---|
| Access Terminal | $0 \leq N \leq 240$ | $787.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 240$ | $757.000 + 0.050 N$ |

4 **Table 3.1.19-3. CDMA Channel Numbers and Corresponding Frequencies**
5 **for Band Class 18**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-------------------------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Access Terminal | Access Network |
| A (1 MHz) | Not Valid | 0-19 | 787.000-787.950 | 757.000-757.950 |
| D (5 MHz) | Not Valid | 20-44 | 788.000-789.200 | 758.000-759.200 |
| | Valid | 45-95 | 789.250-791.750 | 759.250-761.750 |
| | Cond. Valid | 96-119 | 791.800-792.950 | 761.800-762.950 |
| Public Safety Broadband (5 MHz) | Cond. Valid | 120-144 | 793.000-794.200 | 763.000-764.200 |
| | Valid | 145-195 | 794.250-796.750 | 764.250-766.750 |
| | Not Valid | 196-219 | 796.800-797.950 | 766.800-767.950 |
| Public Safety Guard Band (1 MHz) | Not Valid | 220-240 | 798.000-799.000 | 768.000-769.000 |

6 3.1.20 Band Class 19 (Lower 700 MHz Band)

7 The Band Class 19 block designators for the access terminal and access network shall be
8 as specified in Table 3.1.20-1.

1 Access terminals supporting Band Class 19 shall be capable of transmitting in Band Class
 2 19.

3 The channel spacing, CDMA channel designations, and transmitter center frequencies of
 4 Band Class 19 shall be as specified in Table 3.1.20-2. Access terminals supporting Band
 5 Class 19 shall support operations on the valid and conditionally valid channel numbers
 6 shown in Table 3.1.20-3. Note that certain channel assignments are not valid and others
 7 are conditionally valid. Transmission on conditionally valid channels is permissible if the
 8 adjacent block is allocated to the same licensee or if other valid authorization has been
 9 obtained.

10 For CDMA equipment conforming to [13], or its older versions, the nominal access terminal
 11 transmit carrier frequency shall be 30.0 MHz higher than the frequency of the access
 12 network transmit signal as measured at the access terminal receiver.

13 **Table 3.1.20-1. Band Class 19 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|-------------------------|--------------------------------------|-----------------------|
| | Access Terminal | Access Network |
| A | 698-704 | 728-734 |
| B | 704-710 | 734-740 |
| C | 710-716 | 740-746 |

14 **Table 3.1.20-2. CDMA Channel Number to CDMA Frequency**
 15 **Assignment Correspondence for Band Class 19**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|--------------------|----------------------------|--|
| Access Terminal | $0 \leq N \leq 360$ | $698.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 360$ | $728.000 + 0.050 N$ |

**Table 3.1.20-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 19**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-----------------|
| | | | Access Terminal | Access Network |
| A (6 MHz) | Not Valid | 0–22 | 698.000–699.100 | 728.000–729.100 |
| | Valid | 23–98 | 699.150–702.900 | 729.150–732.900 |
| | Cond. Valid | 99–119 | 702.950–703.950 | 732.950–733.950 |
| B (6 MHz) | Cond. Valid | 120–142 | 704.000–705.100 | 734.000–735.100 |
| | Valid | 143–218 | 705.150–708.900 | 735.150–738.900 |
| | Cond. Valid | 219–239 | 708.950–709.950 | 738.950–739.950 |
| C (6 MHz) | Cond. Valid | 240–262 | 710.000–711.100 | 740.000–741.100 |
| | Valid | 263–338 | 711.150–714.900 | 741.150–744.900 |
| | Not Valid | 339–360 | 714.950–716.000 | 744.950–746.000 |

3.1.21 Band Class 20 (L-Band)

The Band Class 20 block designators for the access terminal and the access network are not specified.

Access terminals supporting Band Class 20 shall be capable of transmitting in Band Class 20.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 20 shall be as specified in Table 3.1.21-1. Access terminals supporting Band Class 20 shall support transmission on the valid channel numbers shown in Table 3.1.21-2.

For CDMA equipment conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 101.5 MHz higher than the frequency of the access network transmit signal as measured at the access terminal receiver.

**Table 3.1.21-1. CDMA Channel Number to CDMA Frequency
Assignment Correspondence for Band Class 20**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|---------------------|---|
| Access Terminal | $0 \leq N \leq 680$ | $1626.500 + 0.050 N$ |
| Access Network | $0 \leq N \leq 680$ | $1525.000 + 0.050 N$ |

Table 3.1.21-2. CDMA Channel Numbers and Corresponding Frequencies for Band Class 20

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Access Terminal | Access Network |
| Not Valid | 0-12 | 1626.500-1627.100 | 1525.000-1525.600 |
| Valid | 13-667668-6 | 1627.150-1659.850 | 1525.650-1558.350 |
| Not Valid | 80 | 1659.900-1660.500 | 1558.400-1559.000 |

3.1.22 Band Class 21 (S-Band)

The Band Class 21 block designators for the access terminal and access network shall be as specified in Table 3.1.20-1.

Access terminals supporting Band Class 21 shall be capable of transmitting in Band Class 21.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 21 shall be as specified in Table 3.1.20-2. Access terminals supporting Band Class 21 shall support operations on the valid channel numbers shown in Table 3.1.20-3.

For CDMA equipment conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 190.0 MHz lower than the frequency of the access network transmit signal as measured at the access terminal receiver, if the CDMA channel is in block A. For CDMA equipment conforming to [13], or its older versions, the nominal access terminal transmit carrier frequency shall be 170.0 MHz lower than the frequency of the access network transmit signal as measured at the access terminal receiver, if the CDMA channel is in block B.

Table 3.1.22-1. Band Class 21 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 2000-2010 | 2190-2200 |
| B | 2010-2020 | 2180-2190 |

Table 3.1.22-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 21

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|-----------------------|---|
| Access Terminal | $0 \leq N \leq 200$ | $2000.000 + 0.050 N$ |
| | $201 \leq N \leq 399$ | $2010.000 + 0.050 (N - 200)$ |
| Access Network | $0 \leq N \leq 200$ | $2190.000 + 0.050 N$ |
| | $201 \leq N \leq 399$ | $2180.000 + 0.050 (N - 200)$ |

**Table 3.1.22-3. CDMA Channel Numbers and Corresponding Frequencies
for Band Class 21**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Access Terminal | Access Network |
| A (10 MHz) | Not Valid | 0-24 | 2000.000-2001.200 | 2190.000-2191.200 |
| | Valid | 25-175 | 2001.250-2008.750 | 2191.250-2198.750 |
| | Not Valid | 176-200 | 2008.800-2010.000 | 2198.800-2200.000 |
| B (10 MHz) | Not Valid | 201-224 | 2010.050-2011.200 | 2180.050-2181.200 |
| | Valid | 225-375 | 2011.250-2018.750 | 2181.250-2188.750 |
| | Not Valid | 376-399 | 2018.800-2019.950 | 2188.800-2189.950 |

3.1.23 Band Class 22 (Mobile Satellite System Band)

Not specified.

3.2 Frequency Tolerance

The access terminal shall meet the requirements of the current version of [6]. The access network transmit carrier frequency shall be maintained within $\pm 5 \times 10^{-8}$ of the CDMA frequency assignment (± 0.05 ppm).

3.3 Power Output Characteristics: Controlled Output Power

All power levels are referenced to the access terminal antenna connector unless otherwise specified. The access terminal shall provide three independent means of output power adjustment: an open loop estimation performed by the access terminal, a closed loop correction involving both the access terminal and the access network, and possible code channel attribute adjustments for certain channels.

3.3.1 Estimated Open Loop Output Power for Reverse Link Channels

The access terminal shall support a total combined range of initial offset parameters, access probe corrections, and closed-loop power control corrections, of at least ± 32 dB for access terminals operating in Band Classes 0, 2, 3, 5, 7, 9, 10, 11, 12, 18, and 19 and ± 40 dB for access terminals operating in Band Classes 1, 4, 6, 8, 13, 14, 15, 16, and 20.

While transmitting the first access probe in an access sequence, the open loop power offset is from -81 to -66 dB for Band Classes 0, 2, 3, 5, 7, 9, 10, 11, 12, 18 and 19 and from -100 to -69 dB for Band Classes 1, 4, 6, 8, 13, 14, 15, 16, and 20.

1 **4 REQUIREMENTS FOR THE OPERATION OF THE “ULTRA MOBILE BROADBAND AIR** 2 **INTERFACE”**

3 This section defines requirements and operation for both the access terminal and the
4 access network that are specific to Ultra Mobile Broadband (UMB) Air Interface conforming
5 to [10]. A UMB access terminal or access network may support operation in one or more
6 band classes.

7 **4.1 Channel Spacing and Designation**

8 This section specifies the frequency parameters of the UMB equipment conforming to [10]
9 that support UMB operation. Note that UMB equipment in this section could be interpreted
10 to mean an access network, an access terminal, or both.

11 The UMB channel numbers specified in this section are integer numbers from 0 to 65534.

12 Note that since UMB is a variable bandwidth system, the channel number only determines
13 the center frequency of the transmission bandwidth. The actual bandwidth of operation is
14 determined by other parameters defined in [10] such as the FFT size and the number of
15 guard subcarriers.

16 4.1.1 Band Class 0 (800-MHz Band)

17 The Band Class 0 system designators for the access terminal and access network shall be
18 as specified in Table 4.1.1-1 There are four band subclasses specified for Band Class 0.
19 Each band subclass includes all the channels designated for that band subclass. UMB
20 equipments supporting Band Class 0 shall be capable of transmitting in at least one band
21 subclass belonging to Band Class 0. For UMB equipments capable of transmitting in more
22 than one band subclass belonging to Band Class 0, one band subclass shall be designated
23 as the Primary Band Subclass, which is the band subclass used by the access terminal's
24 home system.

25 The channel spacing, UMB channel designations, and transmitter center frequencies of
26 Band Class 0 shall be as specified in Table 4.1.1-2. Transmission on a valid channel
27 number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is
28 permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator.
29 Transmission is also permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$
30 spans multiple block designators, if all the relevant blocks are allocated to the same
31 licensee or if other valid authorization has been obtained. The notion of Occupied
32 Bandwidth is related to the emissions requirements and is as specified in [11,12].

33 For UMB equipment conforming to [10], the default reverse channel number corresponding
34 to forward channel number i shall be given by $i+8192$. Note that the reverse channel
35 number may also be specified explicitly, in which case it overrides the default reverse
36 channel number.

37 A preferred set of UMB frequency assignments is given in Table 4.1.1-3

1

Table 4.1.1-1. Band Class 0 Block Frequency Correspondence

| System Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|-------------------|---------------|-------------------------------|-----------------|
| | | Access Terminal | Access Network |
| A | 0 | 824.000–835.000 | 869.000–880.000 |
| | | 845.000–846.500 | 890.000–891.500 |
| B | | 835.000–845.000 | 880.000–890.000 |
| | | 846.500–849.000 | 891.500–894.000 |
| A | 1 | 824.000–835.000 | 869.000–880.000 |
| | | 845.000–849.000 | 890.000–894.000 |
| B | | 835.000–845.000 | 880.000–890.000 |
| A | 2 | 824.000–830.000 | 869.000–875.000 |
| A | 3 | 815.000–830.000 | 860.000–875.000 |

2

Table 4.1.1-2. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 0

3

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|---|-------------------------|---|
| Access Terminal | $8193 \leq N \leq 8991$ | $\lfloor (0.030(N - 8192))/0.0096 + 0.5 \rfloor * 0.0096 + 825.0384$ |
| | $9183 \leq N \leq 9215$ | $\lfloor (0.030(N - 9215))/0.0096 + 0.5 \rfloor * 0.0096 + 825.0384$ |
| | $9216 \leq N \leq 9515$ | $\lfloor (0.030(N - 9216) - 9.96)/0.0096 + 0.5 \rfloor * 0.0096 + 825.0384$ |
| Access Network | $1 \leq N \leq 799$ | $\lfloor (0.030 N)/0.0096 + 0.5 \rfloor * 0.0096 + 870.0384$ |
| | $991 \leq N \leq 1023$ | $\lfloor (0.030(N - 1023))/0.0096 + 0.5 \rfloor * 0.0096 + 870.0384$ |
| | $1024 \leq N \leq 1323$ | $\lfloor (0.030(N - 1024) - 9.96)/0.0096 + 0.5 \rfloor * 0.0096 + 870.0384$ |
| Channel numbers 0, 800-990, 1324-8192, 8992-9182, and 9516-65534 are invalid and are reserved for future use. | | |

4

Table 4.1.1-3 UMB Preferred Set of Frequency Assignments for Band Class 0

| System Designator | Band Subclass | Preferred Set Channel Numbers |
|--------------------------|----------------------|---|
| A | 0 | 37, 78, 119, 160, 201, 242, 283, 691 |
| B | | 384, 425, 466, 507, 548, 589, 777 |
| A | 1 | 37, 78, 119, 160, 201, 242, 283, 738, 779 |
| B | | 404, 445, 486, 527, 568 |
| A | 2 | 40, 81, 122, 1022 |
| A | 3 | 40, 81, 122, 1022, 1068, 1109, 1150, 1191, 1232, 1273, 1314 |

4.1.2 Band Class 1 (1900-MHz Band)

The Band Class 1 block designators for the access terminal and access network shall be as specified in Table 4.1.2-1.

Access terminals supporting Band Class 1 shall be capable of transmitting in Band Class 1.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 1 shall be as specified in Table 4.1.2-2. Access terminals supporting Band Class 1 shall support transmission on all the channel numbers in the band class. Transmission on a valid channel number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator. Transmission is also permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are allocated to the same licensee or if other valid authorization has been obtained. The notion of Occupied Bandwidth is related to the emissions requirements and is as specified in [11,12].

For UMB equipment conforming to [10], the default reverse channel number corresponding to forward channel number i shall be given by $i+8192$. Note that the reverse channel number may also be specified explicitly, in which case it overrides the default reverse channel number.

A preferred set of UMB frequency assignments is given in Table 4.1.2-3.

Table 4.1.2-1. Band Class 1 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|-------------------------|--------------------------------------|-----------------------|
| | Access Terminal | Access Network |
| A | 1850–1865 | 1930–1945 |
| D | 1865–1870 | 1945–1950 |
| B | 1870–1885 | 1950–1965 |
| E | 1885–1890 | 1965–1970 |

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| F | 1890–1895 | 1970–1975 |
| C | 1895–1910 | 1975–1990 |

Table 4.1.2-2. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 1

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|---|-------------------------|---|
| Access Terminal | $8192 \leq N \leq 9391$ | $\lfloor (0.050(N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096 + 1850.0384$ |
| Access Network | $0 \leq N \leq 1199$ | $\lfloor (0.050 N) / 0.0096 + 0.5 \rfloor * 0.0096 + 1930.0384$ |
| Channel numbers 1200-8191 and 9392-65534 are invalid and are reserved for future use. | | |

Table 4.1.2-3 UMB Preferred Set of Frequency Assignments for Band Class 1

| Block Designator | Preferred Set Channel Numbers |
|------------------|--|
| A | 25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275 |
| D | 300, 325, 350, 375 |
| B | 400, 425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675 |
| E | 700, 725, 750, 775 |
| F | 800, 825, 850, 875 |
| C | 900, 925, 950, 975, 1000, 1025, 1050, 1075, 1100, 1125, 1150, 1175 |

4.1.3 Band Class 2 (TACS Band)

The Band Class 2 block designators for the access terminal and access network shall be as specified in Table 4.1.3-1. There are four band subclasses specified for Band Class 2. Each band subclass includes all the channels designated for that band subclass. The channels supported in each band subclass are listed in Table 4.1.3-2. UMB equipments supporting Band Class 2 shall be capable of transmitting in at least one band subclass belonging to Band Class 2.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 2 shall be as specified in

1 Table **4.1.3-3**. Access terminals supporting Band Class 2 shall support transmission on all
 2 the channel numbers in the band class. Transmission on a valid channel number with
 3 transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is permissible if the range
 4 $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator. Transmission is also
 5 permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block
 6 designators, if all the relevant blocks are allocated to the same licensee or if other valid
 7 authorization has been obtained. The notion of Occupied Bandwidth is related to the
 8 emissions requirements and is as specified in [11,12].

9 For UMB equipment conforming to [10], the default reverse channel number corresponding
 10 to forward channel number i shall be given by $i+8192$. Note that the reverse channel
 11 number may also be specified explicitly, in which case it overrides the default reverse
 12 channel number.

13 A preferred set of UMB frequency assignments is given in Table 4.1.3-4.

14 **Table 4.1.3-1. Band Class 2 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|-------------------|
| | Access Terminal | Access Network |
| A | 872.0125–879.9875 | 917.0125–924.9875 |
| | 890.0125–897.4875 | 935.0125–942.4875 |
| | 905.0125–908.9875 | 950.0125–953.9875 |
| B | 880.0125–887.9875 | 925.0125–932.9875 |
| | 897.5125–904.9875 | 942.5125–949.9875 |
| | 909.0125–914.9875 | 954.0125–959.9875 |
| ATG | 894.000-895.500 | 849.000-850.500 |

15 **Table 4.1.3-2. Band Class 2 Band Subclasses**

| Number of Channels Covered | Band Subclass | FL Channels Covered | RL Channels Covered |
|----------------------------|---------------|---------------------------|--------------------------------|
| 600 | 0 | 1–600 | 8193–8792 |
| 1000 | 1 | 1–1000 | 8193–9192 |
| 1320 | 2 | 1329–2047 and 0–600 | 9521–10293 and 8192–8792 |
| 61 | 3 | 2048–2108 | 10240–10300 |

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Table 4.1.3-3. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 2

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|--------------------|---------------------------|---|
| Access Terminal | $8192 \leq N \leq 9192$ | $\lfloor (0.025(N - 8192))/0.0096 + 0.5 \rfloor * 0.0096 + 890.0259$ |
| | $9521 \leq N \leq 10239$ | $\lfloor (0.025(N - 9520))/0.0096 + 0.5 \rfloor * 0.0096 + 872.0259$ |
| | $10240 \leq N \leq 10300$ | $\lfloor (0.025(N - 10240))/0.0096 + 0.5 \rfloor * 0.0096 + 894.0384$ |
| Access Network | $0 \leq N \leq 1000$ | $\lfloor (0.025 N)/0.0096 + 0.5 \rfloor * 0.0096 + 935.0259$ |
| | $1329 \leq N \leq 2047$ | $\lfloor (0.025(N - 1328))/0.0096 + 0.5 \rfloor * 0.0096 + 917.0259$ |
| | $2048 \leq N \leq 2108$ | $\lfloor (0.025(N - 2048))/0.0096 + 0.5 \rfloor * 0.0096 + 849.0384$ |

Table 4.1.3-4. UMB Preferred Set of Frequency Assignments for Band Class 2

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--------------------------------------|
| A | 79, 679, or 1365 |
| B | 379, 947, or 1932 |
| ATG | 2078 |

4.1.4 Band Class 3 (JTACS Band)

Not specified

4.1.5 Band Class 4 (Korean PCS Band)

The Band Class 4 block designators for the access terminal and access network shall be as specified in Table 4.1.5-1.

Access terminals supporting Band Class 4 shall be capable of transmitting in Band Class 4.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 4 shall be as specified in Table 4.1.5-2. Access terminals supporting Band Class 4 shall support transmission on all the channel numbers in the band class. Transmission on a valid channel number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator. Transmission is also permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are allocated to the same licensee or if other valid authorization has been obtained. The notion

of Occupied Bandwidth is related to the emissions requirements and is as specified in [11,12].

For UMB equipment conforming to [10], the default reverse channel number corresponding to forward channel number i shall be given by $i+8192$. Note that the reverse channel number may also be specified explicitly, in which case it overrides the default reverse channel number.

A preferred set of UMB frequency assignments is given in Table 4.1.5-3.

Table 4.1.5-1. Band Class 4 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 1750–1760 | 1840–1850 |
| B | 1760–1770 | 1850–1860 |
| C | 1770–1780 | 1860–1870 |

Table 4.1.5-2. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 4

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|--|-------------------------|---|
| Access Terminal | $8192 \leq N \leq 8791$ | $\lfloor (0.050(N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096 + 1750.0384$ |
| Access Network | $0 \leq N \leq 599$ | $\lfloor (0.050 N) / 0.0096 + 0.5 \rfloor * 0.0096 + 1840.0384$ |
| Channel numbers 600-8191 and 8792-65534 are invalid and are reserved for future use. | | |

Table 4.1.5-3 UMB Preferred Set of Frequency Assignments for Band Class 4

| Block Designator | Preferred Set Channel Numbers |
|------------------|--|
| A | 25, 50, 75, 100, 125, 150, 175 |
| B | 200, 225, 250, 275, 300, 325, 350, 375 |
| C | 400, 425, 450, 475, 500, 525, 550, 575 |

4.1.6 Band Class 5 (450-MHz Band)

The Band Class 5 block designators for the access terminal and access network shall be as specified in Table 4.1.6-1. There are twelve band subclasses specified for Band Class 5. Each band subclass corresponds to a specific block designator (see Table 4.1.6-1). Each band subclass includes all the channels designated for that block. UMB equipments supporting Band Class 5 shall be capable of transmitting in at least one band subclass

1 belonging to Band Class 5. For UMB equipments capable of transmitting in more than one
 2 band subclass belonging to Band Class 5, one band subclass shall be designated as the
 3 Primary Band Subclass, which is the band subclass used by the access terminal's home
 4 system.

5 The channel spacing, UMB channel designations, and transmitter center frequencies of
 6 Band Class 5 shall be as specified in Table 4.1.6-2. Transmission on a valid channel
 7 number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is
 8 permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator.
 9 Transmission is also permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$
 10 spans multiple block designators, if all the relevant blocks are allocated to the same
 11 licensee or if other valid authorization has been obtained. The notion of Occupied
 12 Bandwidth is related to the emissions requirements and is as specified in [11,12].

13 For UMB equipment conforming to [10], the default reverse channel number corresponding
 14 to forward channel number i shall be given by $i+8192$. Note that the reverse channel
 15 number may also be specified explicitly, in which case it overrides the default reverse
 16 channel number.

17 A preferred set of UMB frequency assignments is given in Table 4.1.6-3.

18 **Table 4.1.6-1. Band Class 5 Block Frequency Correspondence and Band Subclasses**

| Block Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|------------------|---------------|-------------------------------|-----------------|
| | | Access Terminal | Access Network |
| A | 0 | 452.500–457.475 | 462.500–467.475 |
| B | 1 | 452.000–456.475 | 462.000–466.475 |
| C | 2 | 450.000–454.800 | 460.000–464.800 |
| D | 3 | 411.675–415.850 | 421.675–425.850 |
| E | 4 | 415.500–419.975 | 425.500–429.975 |
| F | 5 | Not specified | Not specified |
| G | 6 | Not specified | Not specified |
| H | 7 | Not specified | Not specified |
| I | 8 | 451.325–455.725 | 461.325–465.725 |
| J | 9 | 455.250–459.975 | 465.250–469.975 |
| K | 10 | 479.000–483.475 | 489.000–493.475 |
| L | 11 | 410.000–414.975 | 420.000–424.975 |

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Table 4.1.6-2. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 5

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|---|---------------------------|--|
| Access Terminal | $8193 \leq N \leq 8592$ | $\lfloor (0.025(N - 8193))/0.0096 + 0.5 \rfloor * 0.0096 + 450.0384$ |
| | $8664 \leq N \leq 9063$ | $\lfloor (0.025(N - 8664))/0.0096 + 0.5 \rfloor * 0.0096 + 410.0384$ |
| | $9231 \leq N \leq 9665$ | Reserved |
| | $9728 \leq N \leq 9907$ | $\lfloor (0.025(N - 9728))/0.0096 + 0.5 \rfloor * 0.0096 + 479.0384$ |
| | $9984 \leq N \leq 10208$ | Reserved |
| Access Network | $1 \leq N \leq 400$ | $\lfloor (0.025(N - 1))/0.0096 + 0.5 \rfloor * 0.0096 + 460.0384$ |
| | $472 \leq N \leq 871$ | $\lfloor (0.025(N - 472))/0.0096 + 0.5 \rfloor * 0.0096 + 420.0384$ |
| | $1039 \leq N \leq 1473$ | Reserved |
| | $1536 \leq N \leq 1715$ | $\lfloor (0.025(N - 1536))/0.0096 + 0.5 \rfloor * 0.0096 + 489.0384$ |
| | $1792 \leq N \leq 2016$ | Reserved |
| Channel numbers 0, 401-471, 872-1038, 1474-1535, 1716-1791, 2017-8192, 8593-8663, 9064-9230, 9666-9727, 9908-9983, and 10209-65534 are invalid and are reserved for future use. | | |

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1 **Table 4.1.6-3 UMB Preferred Set of Frequency Assignments for Band Class 5**

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--------------------------------------|
| A | 160, 210, 260 |
| B | 120, 170, 220 |
| C | 47, 97, 147 |
| D | 573, 623, 673 |
| E | 731, 781, 831 |
| F | Not specified |
| G | Not specified |
| H | Not specified |
| I | 92, 142, 192 |
| J | 255, 305, 355 |
| K | 1575, 1625, 1675 |
| L | 522, 572, 622 |

2 4.1.7 Band Class 6 (2-GHz IMT2000 Band)

3 The Band Class 6 block designator for the access terminal and access network are not
4 specified, since licensee allocations vary by regulatory body.

5 The channel spacing, UMB channel designations, and transmitter center frequencies of
6 Band Class 6 shall be as specified in Table 4.1.7-1. Access terminals supporting Band
7 Class 6 shall support transmission on all the channel numbers in the band class.
8 Transmission on a valid channel number with transmit center frequency F_c and an
9 Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within
10 the band class. The notion of Occupied Bandwidth is related to the emissions requirements
11 and is as specified in [11,12].

12 For UMB equipment conforming to [10], the default reverse channel number corresponding
13 to forward channel number i shall be given by $i+8192$. Note that the reverse channel
14 number may also be specified explicitly, in which case it overrides the default reverse
15 channel number.

16 A preferred set of UMB frequency assignments is given in Table 4.1.7-2.

**Table 4.1.7-1. UMB Channel Number to UMB Frequency
Assignment Correspondence for Band Class 6**

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|---|---------------------------|--|
| Access Terminal | $8192 \leq N \leq 9391$ | $1920.0384 + \lfloor (0.050 (N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $0 \leq N \leq 1199$ | $2110.0384 + \lfloor (0.050 N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 1200-8191 and 9392-65534 are invalid and are reserved for future use. | | |

Table 4.1.7-2 UMB Preferred Set of Frequency Assignments for Band Class 6

| Preferred Set Channel Numbers |
|--|
| 25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275, 300, 325, 350, 375, 400, 425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675, 700, 725, 750, 775, 800, 825, 850, 875, 900, 925, 950, 975, 1000, 1025, 1050, 1075, 1100, 1125, 1150, 1175 |

4.1.8 Band Class 7 (Upper 700-MHz Band)

The Band Class 7 block designators for the access terminal and access network shall be as specified in Table 4.1.8-1.

Access terminals supporting Band Class 7 shall be capable of transmitting in Band Class 7.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 7 shall be as specified in Table 4.1.8-2. Access terminals supporting Band Class 7 shall support transmission on all the channel numbers in the band class. Transmission on a valid channel number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator. Transmission is also permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are allocated to the same licensee or if other valid authorization has been obtained. The notion of Occupied Bandwidth is related to the emissions requirements and is as specified in [11,12].

For UMB equipment conforming to [10], the default reverse channel number corresponding to forward channel number i shall be given by $i+8192$. Note that the reverse channel number may also be specified explicitly, in which case it overrides the default reverse channel number.

A preferred set of UMB frequency assignments is given in Table 4.1.8-3.

Table 4.1.8-1. Band Class 7 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| C | 776-787 | 746-757 |
| A | 787-788 | 757-758 |

Table 4.1.8-2. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 7

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|--|-------------------------|--|
| Access Terminal | $8192 \leq N \leq 8432$ | $776.0384 + \lfloor (0.050(N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $0 \leq N \leq 240$ | $746.0384 + \lfloor (0.050N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 241-8191 and 8433-65534 are invalid and are reserved for future use. | | |

Table 4.1.8-3 UMB Preferred Set of Frequency Assignments for Band Class 7

| Block Designator | Preferred Set Channel Numbers |
|------------------|--|
| C | 23, 48, 55, 73, 98, 110, 123, 148, 165, 173, 198 |
| A | Not specified |

4.1.9 Band Class 8 (1800-MHz Band)

The Band Class 8 block designator for the access terminal and access network are not specified.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 8 shall be as specified in Table 4.1.9-1. Access terminals supporting Band Class 8 shall support transmission on all the channel numbers in the band class. Transmission on a valid channel number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within the band class. The notion of Occupied Bandwidth is related to the emissions requirements and is as specified in [11,12].

For UMB equipment conforming to [10], the default reverse channel number corresponding to forward channel number i shall be given by $i+8192$. Note that the reverse channel number may also be specified explicitly, in which case it overrides the default reverse channel number.

A preferred set of UMB frequency assignments is given in Table 4.1.9-2.

Table 4.1.9-1. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 8

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|---|---------------------------|---|
| Access Terminal | $8192 \leq N \leq 9691$ | $1710.0384 + \lfloor (0.050 (N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $0 \leq N \leq 1499$ | $1805.0384 + \lfloor (0.050 N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 1500-8191 and 9692-65534 are invalid and are reserved for future use. | | |

Table 4.1.9-2 UMB Preferred Set of Frequency Assignments for Band Class 8

| Preferred Set Channel Numbers |
|--|
| 25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275, 300, 325, 350, 375, 400, 425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675, 700, 725, 750, 775, 800, 825, 850, 875, 900, 925, 950, 975, 1000, 1025, 1050, 1075, 1100, 1125, 1150, 1175, 1200, 1225, 1250, 1275, 1300, 1325, 1350, 1375, 1400, 1425, 1450, 1475 |

4.1.10 Band Class 9 (900-MHz Band)

The Band Class 9 block designator for the access terminal and access network are not specified.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 9 shall be as specified in Table 4.1.10-1. Access terminals supporting Band Class 9 shall support transmission on all the channel numbers in the band class. Transmission on a valid channel number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within the band class. The notion of Occupied Bandwidth is related to the emissions requirements and is as specified in [11,12].

For UMB equipment conforming to [10], the default reverse channel number corresponding to forward channel number i shall be given by $i+8192$. Note that the reverse channel number may also be specified explicitly, in which case it overrides the default reverse channel number.

A preferred set of UMB frequency assignments is given in Table 4.1.10-2.

Table 4.1.10-1. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 9

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|--|---------------------------|--|
| Access Terminal | $8192 \leq N \leq 8891$ | $880.0384 + \lfloor (0.050 (N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $0 \leq N \leq 699$ | $925.0384 + \lfloor (0.050 N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 700-8191 and 8892-65534 are invalid and are reserved for future use. | | |

Table 4.1.10-2 UMB Preferred Set of Frequency Assignments for Band Class 9

| Preferred Set Channel Numbers |
|--|
| 25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275, 300, 325, 350, 375, 400, 425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675 |

4.1.11 Band Class 10 (Secondary 800 MHz Band)

The Band Class 10 system designators for the access terminal and access network shall be as specified in Table 4.1.11-1. There are five band subclasses specified for Band Class 10. Each band subclass corresponds to a specific block designator (see Table 4.1.11-1). Each band subclass includes all the channels designated for that block. UMB equipments supporting Band Class 10 shall be capable of transmitting in at least one band subclass belonging to Band Class 10. For UMB equipments capable of transmitting in more than one band subclass belonging to Band Class 10, one band subclass shall be designated as the Primary Band Subclass, which is the band subclass used by the access terminal's home system.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 10 shall be as specified in Table 4.1.11-2. Transmission on a valid channel number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator. Transmission is also permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are allocated to the same licensee or if other valid authorization has been obtained. The notion of Occupied Bandwidth is related to the emissions requirements and is as specified in [11,12].

For UMB equipment conforming to [10], the default reverse channel number corresponding to forward channel number i shall be given by $i+8192$. Note that the reverse channel number may also be specified explicitly, in which case it overrides the default reverse channel number.

A preferred set of UMB frequency assignments is given in Table 4.1.11-3.

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Table 4.1.11-1. Band Class 10 Block Frequency Correspondence

| System Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|-------------------|---------------|-------------------------------|-----------------|
| | | Access Terminal | Access Network |
| A | 0 | 806.000–811.000 | 851.000–856.000 |
| B | 1 | 811.000–816.000 | 856.000–861.000 |
| C | 2 | 816.000–821.000 | 861.000–866.000 |
| D | 3 | 821.000–824.000 | 866.000–869.000 |
| E | 4 | 896.000–901.000 | 935.000–940.000 |

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Table 4.1.11-2. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 10

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| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|--|-------------------------|---|
| Access Terminal | $8192 \leq N \leq 8911$ | $\lfloor (0.025 (N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096 + 806.0384$ |
| | $8912 \leq N \leq 9111$ | $\lfloor (0.025 (N - 8912)) / 0.0096 + 0.5 \rfloor * 0.0096 + 896.0384$ |
| Access Terminal | $0 \leq N \leq 719$ | $\lfloor (0.025 N) / 0.0096 + 0.5 \rfloor * 0.0096 + 851.0384$ |
| | $720 \leq N \leq 919$ | $\lfloor (0.025 (N - 720)) / 0.0096 + 0.5 \rfloor * 0.0096 + 935.0384$ |
| Channel numbers 920-8191 and 9112-65534 are invalid and are reserved for future use. | | |

4

Table 4.1.11-3 UMB Preferred Set of Frequency Assignments for Band Class 10

| Block Designator | Preferred Set Channel Numbers |
|------------------|-------------------------------|
| A | 50, 100, 150 |
| B | 200, 250, 300, 350 |
| C | 400, 450, 500, 550 |
| D | 600, 650, 670 |
| E | 770, 820, 870 |

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4.1.12 Band Class 11 (400 MHz European PAMR Band)

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The Band Class 11 block designators for the access terminal and access network shall be as specified in Table 4.1.12-1. There are twelve band subclasses specified for Band Class 11. Each band subclass corresponds to a specific block designator (see Table 4.1.12-1). Each band subclass includes all the channels designated for that block. UMB equipments supporting Band Class 11 shall be capable of transmitting in at least one band subclass

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1 belonging to Band Class 11. For UMB equipments capable of transmitting in more than one
 2 band subclass belonging to Band Class 11, one band subclass shall be designated as the
 3 Primary Band Subclass, which is the band subclass used by the access terminal's home
 4 system.

5 The channel spacing, UMB channel designations, and transmitter center frequencies of
 6 Band Class 11 shall be as specified in Table 4.1.12-2. Transmission on a valid channel
 7 number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is
 8 permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator.
 9 Transmission is also permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$
 10 spans multiple block designators, if all the relevant blocks are allocated to the same
 11 licensee or if other valid authorization has been obtained. The notion of Occupied
 12 Bandwidth is related to the emissions requirements and is as specified in [11,12].

13 For UMB equipment conforming to [10], the default reverse channel number corresponding
 14 to forward channel number i shall be given by $i+8192$. Note that the reverse channel
 15 number may also be specified explicitly, in which case it overrides the default reverse
 16 channel number.

17 A preferred set of UMB frequency assignments is given in Table 4.1.12-3.

18 **Table 4.1.12-1. Band Class 11 Block Frequency Correspondence and Band Subclasses**

| Block Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|------------------|---------------|-------------------------------|-----------------|
| | | Access Terminal | Access Network |
| A | 0 | 452.500–457.475 | 462.500–467.475 |
| B | 1 | 452.000–456.475 | 462.000–466.475 |
| C | 2 | 450.000–454.800 | 460.000–464.800 |
| D | 3 | 411.675–415.850 | 421.675–425.850 |
| E | 4 | 415.500–419.975 | 425.500–429.975 |
| F | 5 | Not specified | Not specified |
| G | 6 | Not specified | Not specified |
| H | 7 | Not specified | Not specified |
| I | 8 | 451.325–455.725 | 461.325–465.725 |
| J | 9 | 455.250–459.975 | 465.250–469.975 |
| K | 10 | 479.000–483.475 | 489.000–493.475 |
| L | 11 | 410.000–414.975 | 420.000–424.975 |

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**Table 4.1.12-2. UMB Channel Number to UMB Frequency
Assignment Correspondence for Band Class 11**

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|---|---------------------------|--|
| Access Terminal | $8193 \leq N \leq 8592$ | $\lfloor (0.025(N - 8193))/0.0096 + 0.5 \rfloor * 0.0096 + 450.0384$ |
| | $8664 \leq N \leq 9063$ | $\lfloor (0.025(N - 8664))/0.0096 + 0.5 \rfloor * 0.0096 + 410.0384$ |
| | $9231 \leq N \leq 9665$ | Reserved |
| | $9728 \leq N \leq 9907$ | $\lfloor (0.025(N - 9728))/0.0096 + 0.5 \rfloor * 0.0096 + 479.0384$ |
| | $9984 \leq N \leq 10208$ | Reserved |
| Access Network | $1 \leq N \leq 400$ | $\lfloor (0.025(N - 1))/0.0096 + 0.5 \rfloor * 0.0096 + 460.0384$ |
| | $472 \leq N \leq 871$ | $\lfloor (0.025(N - 472))/0.0096 + 0.5 \rfloor * 0.0096 + 420.0384$ |
| | $1039 \leq N \leq 1473$ | Reserved |
| | $1536 \leq N \leq 1715$ | $\lfloor (0.025(N - 1536))/0.0096 + 0.5 \rfloor * 0.0096 + 489.0384$ |
| | $1792 \leq N \leq 2016$ | Reserved |
| Channel numbers 0, 401-471, 872-1038, 1474-1535, 1716-1791, 2017-8192, 8593-8663, 9064-9230, 9666-9727, 9908-9983, and 10209-65534 are invalid and are reserved for future use. | | |

3

1 **Table 4.1.12-3 UMB Preferred Set of Frequency Assignments for Band Class 11**

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--------------------------------------|
| A | 160, 210, 260 |
| B | 120, 170, 220 |
| C | 47, 97, 147 |
| D | 573, 623, 673 |
| E | 731, 781, 831 |
| F | Not specified |
| G | Not specified |
| H | Not specified |
| I | 92, 142, 192 |
| J | 255, 305, 355 |
| K | 1575, 1625, 1675 |
| L | 522, 572, 622 |

2 4.1.13 Band Class 12 (800 MHz PAMR Band)

3 The Band Class 12 block designators for the access terminal and access network shall be
 4 as specified in Table 4.1.13-1. There are three band subclasses specified for Band Class 12.
 5 Each band subclass corresponds to a specific block designator (see Table 4.1.13-1). Each
 6 band subclass includes all the channels designated for that block. UMB equipments
 7 supporting Band Class 12 shall be capable of transmitting in at least one band subclass
 8 belonging to Band Class 12. For UMB equipments capable of transmitting in more than one
 9 band subclass belonging to Band Class 12, one band subclass shall be designated as the
 10 Primary Band Subclass, which is the band subclass used by the access terminal's home
 11 system.

12 The channel spacing, UMB channel designations, and transmitter center frequencies of
 13 Band Class 12 shall be as specified in Table 4.1.13-2. Access terminals supporting Band
 14 Class 12 shall support transmission on all the channel numbers in the band class.
 15 Transmission on a valid channel number with transmit center frequency F_c and an
 16 Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a
 17 single block designator. Transmission is also permissible for the case when the range $(F_c -$
 18 $BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are
 19 allocated to the same licensee or if other valid authorization has been obtained. The notion
 20 of Occupied Bandwidth is related to the emissions requirements and is as specified in
 21 [11,12].

22 For UMB equipment conforming to [10], the default reverse channel number corresponding
 23 to forward channel number i shall be given by $i+8192$. Note that the reverse channel
 24 number may also be specified explicitly, in which case it overrides the default reverse
 25 channel number.

26 A preferred set of UMB frequency assignments is given in Table 4.1.13-3.

1 **Table 4.1.13-1. Band Class 12 Block Frequency Correspondence and Band Subclasses**

| Block Designator | Band Subclass | Transmit Frequency Band (MHz) | |
|------------------|---------------|-------------------------------|-------------------|
| | | Access Terminal | Access Network |
| A | 0 | 870.0000–876.0000 | 915.0000–921.0000 |
| B | 1 | 871.5000–874.5000 | 916.5000–919.5000 |
| C | 2 | 870.0000–876.0000 | 915.0000–921.0000 |

2 **Table 4.1.13-2. UMB Channel Number to UMB Frequency**
 3 **Assignment Correspondence for Band Class 12**

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|--|-------------------------|---|
| Access Terminal | $8192 \leq N \leq 8431$ | $870.0509 + \lfloor (0.025 (N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $0 \leq N \leq 239$ | $915.0509 + \lfloor (0.025 N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 240-8191 and 8432-65534 are invalid and are reserved for future use. | | |

4 **Table 4.1.13-3 UMB Preferred Set of Frequency Assignments for Band Class 12**

| Block Designator | Preferred Set Channel Numbers |
|------------------|-------------------------------|
| A | 89, 120, 139, 189 |
| B | 94, 120, 144 |
| C | 106, 120, 156, 206 |

5 4.1.14 Band Class 13 (2.5 GHz IMT-2000 Extension Band)

6 The Band Class 13 block designators for the access terminal and access network shall be
 7 as specified in Table 4.1.14-1.

8 Access terminals supporting Band Class 13 shall be capable of transmitting in Band Class
 9 13.

10 The channel spacing, UMB channel designations, and transmitter center frequencies of
 11 Band Class 13 shall be as specified in Table 4.1.14-2. Access terminals supporting Band
 12 Class 13 shall support transmission on all the channel numbers in the band class.
 13 Transmission on a valid channel number with transmit center frequency F_c and an
 14 Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a
 15 single block designator. Transmission is also permissible for the case when the range $(F_c -$
 16 $BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are
 17 allocated to the same licensee or if other valid authorization has been obtained. The notion
 18 of Occupied Bandwidth is related to the emissions requirements and is as specified in
 19 [11,12].

- 1 For UMB equipment conforming to [10], the default reverse channel number corresponding
 2 to forward channel number i shall be given by $i+8192$. Note that the reverse channel
 3 number may also be specified explicitly, in which case it overrides the default reverse
 4 channel number.
- 5 A preferred set of UMB frequency assignments is given in Table 4.1.14-3.

6 **Table 4.1.14-1. Band Class 13 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|-------------------------|--------------------------------------|-----------------------|
| | Access Terminal | Access Network |
| A | 2500–2505 | 2620–2625 |
| B | 2505–2510 | 2625–2630 |
| C | 2510–2515 | 2630–2635 |
| D | 2515–2520 | 2635–2640 |
| E | 2520–2525 | 2640–2645 |
| F | 2525–2530 | 2645–2650 |
| G | 2530–2535 | 2650–2655 |
| H | 2535–2540 | 2655–2660 |
| I | 2540–2545 | 2660–2665 |
| J | 2545–2550 | 2665–2670 |
| K | 2550–2555 | 2670–2675 |
| L | 2555–2560 | 2675–2680 |
| M | 2560–2565 | 2680–2685 |
| N | 2565–2570 | 2685–2690 |

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8

Table 4.1.14-2. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 13

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|---|---------------------------|---|
| Access Terminal | $8192 \leq N \leq 9591$ | $2500.0384 + \lfloor (0.050(N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $0 \leq N \leq 1399$ | $2620.0384 + \lfloor (0.050N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 1400-8191 and 9592-65534 are invalid and are reserved for future use. | | |

Table 4.1.14-3 UMB Preferred Set of Frequency Assignments for Band Class 13

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--------------------------------------|
| A | 25, 50, 75 |
| B | 100, 125, 150, 175 |
| C | 200, 225, 250, 275 |
| D | 300, 325, 350, 375 |
| E | 400, 425, 450, 475 |
| F | 500, 525, 550, 575 |
| G | 600, 625, 650, 675 |
| H | 700, 725, 750, 775 |
| I | 800, 825, 850, 875 |
| J | 900, 925, 950, 975 |
| K | 1000, 1025, 1050, 1075 |
| L | 1100, 1125, 1150, 1175 |
| M | 1200, 1225, 1250, 1275 |
| N | 1300, 1325, 1350, 1375 |

4.1.15 Band Class 14 (US PCS 1.9GHz Band)

The Band Class 14 block designators for the access terminal and access network shall be as specified in Table 4.1.15-1.

Access terminals supporting Band Class 14 shall be capable of transmitting in Band Class 14.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 14 shall be as specified in Table 4.1.15-2. Access terminals supporting Band

1 Class 14 shall support transmission on all the channel numbers in the band class.
 2 Transmission on a valid channel number with transmit center frequency F_c and an
 3 Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a
 4 single block designator. Transmission is also permissible for the case when the range $(F_c -$
 5 $BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are
 6 allocated to the same licensee or if other valid authorization has been obtained. The notion
 7 of Occupied Bandwidth is related to the emissions requirements and is as specified in
 8 [11,12].

9 For UMB equipment conforming to [10], the default reverse channel number corresponding
 10 to forward channel number i shall be given by $i+8192$. Note that the reverse channel
 11 number may also be specified explicitly, in which case it overrides the default reverse
 12 channel number.

13 A preferred set of UMB frequency assignments is given in Table 4.1.15-3.

14 **Table 4.1.15-1. Band Class 14 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 1850–1865 | 1930–1945 |
| D | 1865–1870 | 1945–1950 |
| B | 1870–1885 | 1950–1965 |
| E | 1885–1890 | 1965–1970 |
| F | 1890–1895 | 1970–1975 |
| C | 1895–1910 | 1975–1990 |
| G | 1910–1915 | 1990–1995 |

15 **Table 4.1.15-2. UMB Channel Number to UMB Frequency**
 16 **Assignment Correspondence for Band Class 14**

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|---|-------------------------|--|
| Access Terminal | $8192 \leq N \leq 9491$ | $1850.0384 + \lfloor (0.050 (N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $0 \leq N \leq 1299$ | $1930.0384 + \lfloor (0.050 N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 1300-8191 and 9492-65534 are invalid and are reserved for future use. | | |

Table 4.1.15-3 UMB Preferred Set of Frequency Assignments for Band Class 14

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--|
| A | 25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275 |
| D | 300, 325, 350, 375 |
| B | 400, 425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675 |
| E | 700, 725, 750, 775 |
| F | 800, 825, 850, 875 |
| C | 900, 925, 950, 975, 1000, 1025, 1050, 1075, 1100, 1125, 1150, 1175 |
| G | 1200, 1225, 1250, 1275 |

4.1.16 Band Class 15 (AWS Band)

The Band Class 15 block designators for the access terminal and access network shall be as specified in Table 4.1.16-1.

Access terminals supporting Band Class 15 shall be capable of transmitting in Band Class 15.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 15 shall be as specified in Table 4.1.16-2. Access terminals supporting Band Class 15 shall support transmission on all the channel numbers in the band class. Transmission on a valid channel number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator. Transmission is also permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are allocated to the same licensee or if other valid authorization has been obtained. The notion of Occupied Bandwidth is related to the emissions requirements and is as specified in [11,12].

For UMB equipment conforming to [10], the default reverse channel number corresponding to forward channel number i shall be given by $i+8192$. Note that the reverse channel number may also be specified explicitly, in which case it overrides the default reverse channel number.

A preferred set of UMB frequency assignments is given in Table 4.1.16-3.

Table 4.1.16-1. Band Class 15 Block Frequency Correspondence

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 1710–1720 | 2110–2120 |
| B | 1720–1730 | 2120–2130 |
| C | 1730–1735 | 2130–2135 |
| D | 1735–1740 | 2135–2140 |
| E | 1740–1745 | 2140–2145 |
| F | 1745–1755 | 2145–2155 |

Table 4.1.16-2. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 15

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|--|-------------------------|--|
| Access Terminal | $8192 \leq N \leq 9091$ | $1710.0384 + \lfloor (0.050 (N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $0 \leq N \leq 899$ | $2110.0384 + \lfloor (0.050 N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 900-8191 and 9092-65534 are invalid and are reserved for future use. | | |

Table 4.1.16-3 UMB Preferred Set of Frequency Assignments for Band Class 15

| Block Designator | Preferred Set Channel Numbers |
|------------------|--|
| A | 25, 50, 75, 100, 125, 150, 175 |
| B | 200, 225, 250, 275, 300, 325, 350, 375 |
| C | 400, 425, 450, 475 |
| D | 500, 525, 550, 575 |
| E | 600, 625, 650, 675 |
| F | 700, 725, 750, 775, 800, 825, 850, 875 |

4.1.17 Band Class 16 (US 2.5GHz Band)

The Band Class 16 block designators for the access terminal and access network shall be as specified in Table 4.1.17-1.

1 Access terminals supporting Band Class 16 shall be capable of transmitting in Band Class
2 16.

3 The channel spacing, UMB channel designations, and transmitter center frequencies of
4 Band Class 16 shall be as specified in Table 4.1.17-2. Access terminals supporting Band
5 Class 16 shall support transmission on all the valid channel numbers in the band class.
6 Transmission on a valid channel number with transmit center frequency F_c and an
7 Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a
8 single block designator. Transmission is also permissible for the case when the range $(F_c -$
9 $BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are
10 allocated to the same licensee or if other valid authorization has been obtained. The notion
11 of Occupied Bandwidth is related to the emissions requirements and is as specified in
12 [11,12].

13 For UMB equipment conforming to [10], the default reverse channel number corresponding
14 to forward channel number i shall be given by $i + 8192$. Note that the reverse channel
15 number may also be specified explicitly, in which case it overrides the default reverse
16 channel number.

17 A preferred set of UMB frequency assignments is given in
18 Table 4.1.17-3.

19 **Table 4.1.17-1. Band Class 16 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 2502-2518.5 | 2624-2640.5 |
| B | 2518.5-2535 | 2640.5-2657 |
| C | 2535-2551.5 | 2657-2673.5 |
| D | 2551.5-2568 | 2673.5-2690 |

20 **Table 4.1.17-2. UMB Channel Number to UMB Frequency**
21 **Assignment Correspondence for Band Class 16**

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|---|-------------------------|--|
| Access Terminal | $8332 \leq N \leq 9651$ | $2495.0384 + \lfloor (0.050 (N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $140 \leq N \leq 1459$ | $2617.0384 + \lfloor (0.050 N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 0-139, 1460-8331, and 9652-65534 are invalid and are reserved for future use. | | |

22

Table 4.1.17-3 UMB Preferred Set of Frequency Assignments for Band Class 16

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--|
| A | 165, 190, 215, 240, 265, 290, 305, 315, 340, 365, 390, 415, 440 |
| B | 495, 520, 545, 570, 595, 620, 635, 645, 670, 695, 720, 745, 770 |
| C | 825, 850, 875, 900, 925, 950, 965, 975, 1000, 1025, 1050, 1075, 1100 |
| D | 1155, 1180, 1205, 1230, 1255, 1280, 1295, 1305, 1330, 1355, 1380, 1405, 1430 |

4.1.18 Band Class 17 (US 2.5GHz Forward Link Only Band)

The Band Class 17 block designators for the access terminal and access network shall be as specified in Table 4.1.18-1.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 17 shall be as specified in Table 4.1.18-2. Access networks supporting Band Class 17 shall support transmission on all the valid channel numbers in the band class. Transmission on a valid channel number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator. Transmission is also permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are allocated to the same licensee or if other valid authorization has been obtained. The notion of Occupied Bandwidth is related to the emissions requirements and is as specified in [11,12].

A preferred set of UMB frequency assignments is given in Table 4.1.18-3.

Table 4.1.18-1. Band Class 17 Block Frequency Correspondence

| Block Designator | Access Network Transmit Frequency Band (MHz) |
|-------------------------|---|
| A | 2624-2640.5 |
| B | 2640.5-2657 |
| C | 2657-2673.5 |
| D | 2673.5-2690 |

Table 4.1.18-2. UMB Channel Number to UMB Frequency Assignment Correspondence for Band Class 17

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|---|---------------------------|---|
| Base Station | $140 \leq N \leq 1459$ | $2617.0384 + \lfloor (0.050 N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 0-139 and 1460-65534 are invalid and are reserved for future use. | | |

Table 4.1.18-3 UMB Preferred Set of Frequency Assignments for Band Class 17

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--|
| A | 165, 190, 215, 240, 265, 290, 305, 315, 340, 365, 390, 415, 440 |
| B | 495, 520, 545, 570, 595, 620, 635, 645, 670, 695, 720, 745, 770 |
| C | 825, 850, 875, 900, 925, 950, 965, 975, 1000, 1025, 1050, 1075, 1100 |
| D | 1155, 1180, 1205, 1230, 1255, 1280, 1295, 1305, 1330, 1355, 1380, 1405, 1430 |

4.1.19 Band Class 18 (700 MHz Public Safety Band)

The Band Class 18 block designators for the access terminal and access network shall be as specified in Table 4.1.19-1.

Access terminals supporting Band Class 18 shall be capable of transmitting in Band Class 18.

The channel spacing, UMB channel designations, and transmitter center frequencies of Band Class 18 shall be as specified in Table 4.1.19-2. Access terminals supporting Band Class 18 shall support transmission on all the channel numbers in the band class. Transmission on a valid channel number with transmit center frequency F_c and an Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a single block designator. Transmission is also permissible for the case when the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are allocated to the same licensee or if other valid authorization has been obtained. The notion of Occupied Bandwidth is related to the emissions requirements and is as specified in [11,12]

For UMB equipment conforming to [10], the default reverse channel number corresponding to forward channel number i shall be given by $i+8192$. Note that the reverse channel

- 1 number may also be specified explicitly, in which case it overrides the default reverse
 2 channel number.
- 3 A preferred set of UMB frequency assignments is given in Table 4.1.19-3.

4 **Table 4.1.19-1. Band Class 18 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|--------------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 787-788 | 757-758 |
| D | 788-793 | 758-763 |
| Public Safety Broadband | 793-798 | 763-768 |
| Public Safety Guard Band | 798-799 | 768-769 |

5 **Table 4.1.19-2. UMB Channel Number to UMB Frequency**
 6 **Assignment Correspondence for Band Class 18**

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|--|-------------------------|--|
| Access Terminal | $8192 \leq N \leq 8432$ | $787.0384 + \lfloor (0.050(N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $0 \leq N \leq 240$ | $757.0384 + \lfloor (0.050N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 241-8191 and 8433-65534 are invalid and are reserved for future use. | | |

7 **Table 4.1.19-3 UMB Preferred Set of Frequency Assignments for Band Class 18**

| Block Designator | Preferred Set Channel Numbers |
|--------------------------|-------------------------------|
| A | Not specified |
| D | 45, 70, 95 |
| Public Safety Broadband | 120, 145, 170, 195 |
| Public Safety Guard Band | Not specified |

- 8 4.1.20 Band Class 19 (Lower 700-MHz Band)
- 9 The Band Class 19 block designators for the access terminal and access network shall be
 10 as specified in Table 4.1.20-1.

1 Access terminals supporting Band Class 19 shall be capable of transmitting in Band Class
2 19.

3 The channel spacing, UMB channel designations, and transmitter center frequencies of
4 Band Class 19 shall be as specified in Table 4.1.20-2. Access terminals supporting Band
5 Class 19 shall support transmission on all the channel numbers in the band class.
6 Transmission on a valid channel number with transmit center frequency F_c and an
7 Occupied Bandwidth BW_{occ} is permissible if the range $(F_c - BW_{occ}/2, F_c + BW_{occ}/2)$ lies within a
8 single block designator. Transmission is also permissible for the case when the range $(F_c -$
9 $BW_{occ}/2, F_c + BW_{occ}/2)$ spans multiple block designators, if all the relevant blocks are
10 allocated to the same licensee or if other valid authorization has been obtained. The notion
11 of Occupied Bandwidth is related to the emissions requirements and is as specified in
12 [11,12].

13 For UMB equipment conforming to [10], the default reverse channel number corresponding
14 to forward channel number i shall be given by $i+8192$. Note that the reverse channel
15 number may also be specified explicitly, in which case it overrides the default reverse
16 channel number.

17 A preferred set of UMB frequency assignments is given in Table 4.1.20-3.

18 **Table 4.1.20-1. Band Class 19 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 698-704 | 728-734 |
| B | 704-710 | 734-740 |
| C | 710-716 | 740-746 |

19 **Table 4.1.20-2. UMB Channel Number to UMB Frequency**
20 **Assignment Correspondence for Band Class 19**

| Transmitter | UMB Channel Number | Center Frequency for UMB Channel (MHz) |
|--|-------------------------|---|
| Access Terminal | $8192 \leq N \leq 8552$ | $698.0384 + \lfloor (0.050 (N - 8192)) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Access Network | $0 \leq N \leq 360$ | $728.0384 + \lfloor (0.050 N) / 0.0096 + 0.5 \rfloor * 0.0096$ |
| Channel numbers 361-8191 and 8553-65534 are invalid and are reserved for future use. | | |

1 **Table 4.1.20-3 UMB Preferred Set of Frequency Assignments for Band Class 19**

| Block Designator | Preferred Set Channel Numbers |
|-------------------------|--------------------------------------|
| A | 23, 48, 60, 73, 98 |
| B | 143, 168, 180, 193, 218 |
| C | 263, 288, 300, 313, 338 |

2

3 4.1.21 Band Class 20 (L-Band)

4 Not specified.

5 4.1.22 Band Class 21 (S-Band)

6 Not specified.

7 4.1.23 Band Class 22 (Mobile Satellite System Band)

8 Not specified.

9

1 **5 REQUIREMENTS FOR THE OPERATION OF THE “CDMA2000 EXTENDED CELL**
2 **HIGH RATE PACKET DATA AIR INTERFACE”**

3 This section defines requirements and operation for both the access terminal and the
4 access network that are specific to cdma2000 Extended Cell High Rate Packet Data
5 Equipment conforming to [15]. A CDMA access terminal or access network may support
6 operation in one or more band classes.

7 **5.1 Channel Spacing and Designation**

8 This section specifies the frequency parameters of the CDMA equipment conforming to
9 [15] that support CDMA operation. Note that CDMA equipment in this section could be
10 interpreted to mean an access network, an access terminal, or both.

11 5.1.1 Band Class 0 (800-MHz Band)

12 Not specified.

13 5.1.2 Band Class 1 (1900-MHz Band)

14 Not specified.

15 5.1.3 Band Class 2 (TACS Band)

16 Not specified.

17 5.1.4 Band Class 3 (JTACS Band)

18 Not specified.

19 5.1.5 Band Class 4 (Korean PCS Band)

20 Not specified.

21 5.1.6 Band Class 5 (450-MHz Band)

22 Not specified.

23 5.1.7 Band Class 6 (2-GHz IMT2000 Band)

24 Not specified.

25 5.1.8 Band Class 7 (Upper 700-MHz Band)

26 Not specified.

27 5.1.9 Band Class 8 (1800-MHz Band)

28 Not specified.

29 5.1.10 Band Class 9 (900-MHz Band)

30 Not specified.

1 5.1.11 Band Class 10 (Secondary 800 MHz Band)

2 Not specified.

3 5.1.12 Band Class 11 (400 MHz European PAMR Band)

4 Not specified.

5 5.1.13 Band Class 12 (800 MHz PAMR Band)

6 Not specified.

7 5.1.14 Band Class 13 (2.5 GHz IMT-2000 Extension Band)

8 Not specified.

9 5.1.15 Band Class 14 (US PCS 1.9GHz Band)

10 Not specified.

11 5.1.16 Band Class 15 (AWS Band)

12 Not specified.

13 5.1.17 Band Class 16 (US 2.5GHz Band)

14 Not specified.

15 5.1.18 Band Class 17 (US 2.5GHz Forward Link Only Band)

16 Not specified.

17 5.1.19 Band Class 18 (700 MHz Public Safety Band)

18 Not specified.

19 5.1.20 Band Class 19 (Lower 700-MHz Band)

20 Not specified.

21 5.1.21 Band Class 20 (L-Band)

22 The Band Class 20 block designators for the access terminal and the access network
23 are not specified.

24 Access terminals supporting Band Class 20 shall be capable of transmitting in Band
25 Class 20.

26 The channel spacing, CDMA channel designations, and CDMA channel center
27 frequencies of Band Class 20 shall be as specified in Table 3.1.21-1. Each reverse link
28 CDMA Channel is further divided into 192 non-overlapping assignment units, each
29 with a bandwidth of 6.4 KHz. An access terminal can be assigned a narrow band
30 channel consists of K continuous 6.4 KHz units for CDMA operation with a total
31 bandwidth of $6.4 \times K$ KHz. The center frequency of the narrow band channel is

32
$$f_{\text{NarrowBand, center}} = f_{\text{CDMAChannel, center}} + (i - 0.5 \times (192 - K)) \times 0.0064,$$

where $f_{\text{CDMAChannel, center}}$ is access terminal CDMA channel center frequency as specified in Table 5.1.21-1, $i = 0, \dots, 191$ is the index to the first 6.4 KHz assignment unit assigned to the access terminal, and K is the number of continuous 6.4 KHz assignment units assigned to the access terminal.

Access terminals supporting Band Class 20 shall support transmission on the valid channel numbers shown in Table 3.1.21-2.

Table 5.1.21-1. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 20

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|---------------------|---|
| Access Terminal | $0 \leq N \leq 680$ | $1626.500 + 0.050 N$ |
| Access Network | $0 \leq N \leq 680$ | $1525.000 + 0.050 N$ |

Table 5.1.21-2. CDMA Channel Numbers and Corresponding Frequencies for Band Class 20

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Access Terminal | Access Network |
| Not Valid | 0–12 | 1626.500–1627.100 | 1525.000–1525.600 |
| Valid | 13–667 | 1627.150–1659.850 | 1525.650–1558.350 |
| Not Valid | 668–680 | 1659.900–1660.500 | 1558.400–1559.000 |

5.1.22 Band Class 21 (S-Band)

The Band Class 21 block designators for the access terminal and access network shall be as specified in Table 5.1.22-1.

Access terminals supporting Band Class 21 shall be capable of transmitting in Band Class 21.

The channel spacing, CDMA channel designations, and transmitter center frequencies of Band Class 21 shall be as specified in Table 5.1.22-2. Each reverse link CDMA Channel is further divided into 192 non-overlapping assignment units, each with a bandwidth of 6.4 KHz. An access terminal can be assigned a narrow band channel consists of K continuous 6.4 KHz units for CDMA operation with a total bandwidth of $6.4 \times K$ KHz. The center frequency of the narrow band channel is

$$f_{\text{NarrowBand, center}} = f_{\text{CDMAChannel, center}} + (i - 0.5 \times (192 - K)) \times 0.0064,$$

where $f_{\text{CDMAChannel, center}}$ is access terminal CDMA channel center frequency as specified in Table 5.1.22-2, $i = 0, \dots, 191$ is the index to the first 6.4 KHz assignment unit assigned to the access terminal, and K is the number of continuous 6.4 KHz assignment units assigned to the access terminal.

1 Access terminals supporting Band Class 21 shall support operations on the valid
 2 channel numbers shown in Table 5.1.22-3.

3 **Table 5.1.22-1. Band Class 21 Block Frequency Correspondence**

| Block Designator | Transmit Frequency Band (MHz) | |
|------------------|-------------------------------|----------------|
| | Access Terminal | Access Network |
| A | 2000-2010 | 2190-2200 |
| B | 2010-2020 | 2180-2190 |

4 **Table 5.1.22-2. CDMA Channel Number to CDMA Frequency**
 5 **Assignment Correspondence for Band Class 21**

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|-----------------------|---|
| Access Terminal | $0 \leq N \leq 200$ | $2000.000 + 0.050 N$ |
| | $201 \leq N \leq 399$ | $2010.000 + 0.050 (N - 200)$ |
| Access Network | $0 \leq N \leq 200$ | $2190.000 + 0.050 N$ |
| | $201 \leq N \leq 399$ | $2180.000 + 0.050 (N - 200)$ |

6 **Table 5.1.22-3. CDMA Channel Numbers and Corresponding Frequencies**
 7 **for Band Class 21**

| Block Designator | CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|------------------|-----------------------|---------------------|-------------------------------|-------------------|
| | | | Access Terminal | Access Network |
| A (10 MHz) | Not Valid | 0-24 | 2000.000-2001.200 | 2190.000-2191.200 |
| | Valid | 25-175 | 2001.250-2008.750 | 2191.250-2198.750 |
| | Not Valid | 176-200 | 2008.800-2010.000 | 2198.800-2200.000 |
| B (10 MHz) | Not Valid | 201-224 | 2010.050-2011.200 | 2180.050-2181.200 |
| | Valid | 225-375 | 2011.250-2018.750 | 2181.250-2188.750 |
| | Not Valid | 376-399 | 2018.800-2019.950 | 2188.800-2189.950 |

8

9 5.1.23 Band Class 22 (Mobile Satellite Band)

10 The Band Class 22 block designators for the access terminal and the access network
 11 are not specified.

12 Access terminals supporting Band Class 22 shall be capable of transmitting in Band
 13 Class 22.

The channel spacing, CDMA channel designations, and CDMA channel center frequencies of Band Class 22 shall be as specified in Table 5.1.23-1. Each reverse link CDMA Channel is further divided into 192 non-overlapping assignment units, each with a bandwidth of 6.4 KHz. An access terminal can be assigned a narrow band channel consists of K continuous 6.4 KHz units for CDMA operation with a total bandwidth of 6.4 × K KHz. The center frequency of the narrow band channel is

$$f_{\text{NarrowBand, center}} = f_{\text{CDMAChannel, center}} + (i - 0.5 \times (192 - K)) \times 0.0064,$$

where $f_{\text{CDMAChannel, center}}$ is access terminal CDMA channel center frequency as specified in Table A, $i = 0, \dots, 191$ is the index to the first 6.4 KHz assignment unit assigned to the access terminal, and K is the number of continuous 6.4 KHz assignment units assigned to the access terminal.

Access terminals supporting Band Class 22 shall support transmission on the valid channel numbers shown in Table 5.1.23-2.

Table 5.1.23-1. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 22

| Transmitter | CDMA Channel Number | Center Frequency for CDMA Channel (MHz) |
|-----------------|---------------------|---|
| Access Terminal | $0 \leq N \leq 599$ | $1980.000 + 0.050 N$ |
| Access Network | $0 \leq N \leq 599$ | $2170.000 + 0.050 N$ |

Table 5.1.23-2. CDMA Channel Numbers and Corresponding Frequencies for Band Class 22

| CDMA Channel Validity | CDMA Channel Number | Transmit Frequency Band (MHz) | |
|-----------------------|---------------------|-------------------------------|-------------------|
| | | Access Terminal | Access Network |
| Not Valid | 0–24 | 1980.000–1981.200 | 2170.000–2171.200 |
| Valid | 25–575 | 1981.250–2008.750 | 2171.250–2198.750 |
| Not Valid | 576–599 | 2008.800–2009.950 | 2198.800–2199.950 |

5.2 Frequency Tolerance

The access terminal shall meet the requirements of the current version of [16]. The access network shall meet the requirements of the current version of [16].

5.3 Power Output Characteristics: Controlled Output Power

All power levels are referenced to the access terminal antenna connector unless otherwise specified. The access terminal shall provide two independent means of output

1 power adjustment: an open loop estimation performed by the access terminal, a closed
2 loop correction involving both the access terminal and the access network.

3 5.3.1 Estimated Open Loop Output Power for Reverse Link Channels

4 The access terminal shall support a total combined range of initial offset parameters,
5 access probe corrections, and closed-loop power control corrections, of at least ± 40 dB
6 for access terminals operating in Band Class 20.

7 While transmitting the first access probe in an access sequence, the open loop power
8 offset is from -100 to -69 dB for Band Class 20.

9