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#### **Declarations under Rule** 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(U))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(Hi))

[Continued on next page]

(54) Title: SYSTEMS, METHODS, AND APPARATUS FOR WIDEBAND ENCODING AND DECODING OF ACTIVE FRAMES

## speech signal first frame second frame (active) (active) T110 T120 second speech first speech packet burst packet T130 T140 second encoded first encoded frame frame

(57) **Abstract:** Applications of dim-and-burst techniques to coding of wideband speech signals are described. Reconstruction of a highband portion of a frame of a wideband speech signal using information from a previous frame is also described.



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International application No PCT/US2007/074868

#### A. CLASSIFICATION OF SUBJECT MATTER INV. G10L19/06 G10L19/14 610L21/02 According to International Patent Classification (IPC) or to both national classification and IPC **B. RELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) **GIOL** Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal , WPI Data, INSPEC C. DOCUMENTS CONSIDERED TO BE RELEVANT Category Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X WO 2005/101372 A (NOKIA CORP [FI]; OJALA 1-4,9,10PASI [FI]; MAEKINEN JARI [FI]; LAKANIEMI ARI [F) 27 October 2005 (2005-10-27) Y abstract 5-8,11 page 1, lines 12-14 page 12, line 23 - page 13, line 21 page 14, lines 20-24 Y US 6 738 391 Bl (KIM ET AL) 5-8,11 18 May 2004 (2004-05-18) column 2, lines 7-13 figure 2a -/--X ΧI Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents : <sup>1</sup>T<sup>1</sup> later document published after the international filing date or priority date and not in conflict with the application but document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the invention 'E' earlier document but published on or after the international 'X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date L1 document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another involve an inventive step when the document is taken alone 'Y' document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docu-<sup>1</sup>O<sup>1</sup> document referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled in the art. 'P\* document published prior to the international filing date but later than the priority date claimed '&' document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 11 June 2008 24/06/2008 Authorized officer Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2

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International application No PCT/US2007/074868

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International application No PCT/US2007/074868

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# International application No. PCT/US2007/074868

## INTERNATIONAL SEARCH REPORT

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. [ ] Claims NOS.: because they relate to subject matter not required to be searched by this Authority, namely:
Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
1. IY As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. I As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest
The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
I No protest accompanied the payment of additional search fees.

#### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. cl aims : 1-11

Transmission of a data burst together with speech data

2. claims: 12-33

Reconstruction of missing spectral components in decoded speech

3. claims: 34-35

Determining criteria for bandwidth mode selection

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Information on patent family members

International application No
PCT/US2007/074868

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