

# RF Exposure Requirements and Limits and Warnings

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## Radio Frequency Exposure

NETGEAR products have been tested and meet applicable limits for Radio Frequency (RF) exposure for the country where they are intended to operate.

Products intended for use 20cm or more from the body meet limits for Maximum Permissible Exposure (MPE) and the minimum safe distance is identified in this document. Products intended to be used at distances less than 20 cm from the body meet limits for Specific Absorption Rate (SAR).

Specific Absorption Rate (SAR) refers to the rate at which the body absorbs RF energy. SAR limits are 1.6 Watts per kilogram (over a volume containing a mass of 1 gram of tissue) in countries that follow the United States FCC limit and 2.0 W/kg (averaged over 10 grams of tissue) in countries that follow the Council of the European Union limit. During testing, radios are set to their highest transmission levels and placed in positions that simulate use near the body, with 10mm separation.

## **FCC Requirements for Operation in the United States**

NETGEAR products have been evaluated under FCC Bulletin OET 65C (01-01) and found to be compliant to the requirements as set forth in CFR 47 Sections, 2.1093, and 15.247 (b) (4) addressing RF exposure from radio frequency devices. NETGEAR products meet the applicable government requirements for exposure to radio frequency waves.

## **FCC RF Radiation Exposure and SAR Statements**

The information in this section applies to products that transmit data or communicate wirelessly.

### **FCC Guidelines for SAR Compliance and Warning**

The information in this section applies to NETGEAR wireless products that are intended to be operated close to human body.

NETGEAR products that are intended to be operated close to the human body are tested for body-worn Specific Absorption Rate (SAR) compliance. The SAR limit set by the FCC is 1.6 W/kg when averaged over 1g of tissue. Products emitting frequencies above 6GHz are tested for body-worn specific density (PD) compliance, see Table 1. The PD limit set by the FCC is 10 W/m<sup>2</sup> when averaged over 4cm<sup>2</sup>.

When carrying the product or using it while worn on your body, maintain a distance of 10mm from the body to ensure compliance with RF exposure requirements.

NETGEAR products comply with ANSI/IEEE C95.1-1999 and are tested in accordance with the measurement methods and procedures specified in OET Bulletin 65 Supplement C.

NETGEAR products that are installed in USB ports demonstrate SAR compliance using a typical laptop computer with a USB port. Other applications, such as handheld computers or similar devices, have not been verified and might not compliance with related RF exposure rule and such use is prohibited.

The Specific Absorption Rate (SAR) measured at 10mm and averaged over 1g of tissue for each product and the Power Density averaged over 4cm<sup>2</sup> (> 6GHz) are listed in table 1 below

Table 1. Specific Absorption Rate (SAR) values for Netgear Products averaged over 1g

Product	SAR averaged over 1g of tissue (W/kg)	PD Averaged over 4cm <sup>2</sup> (W/m <sup>2</sup> )	Absorbed Power Density (W/m <sup>2</sup> )
A6100	1.17	-	
A6150	1.18	-	
A6210	1.17	-	
A7000	1.11	-	
A8000	1.19	9.78	9.35
MR1100	1.39	-	
MR5100/MR5200	1.19	-	
WNA3100M	1.18	-	
MR6110	1.44	-	
MR6150, MR6400	1.43	1.88	0.55
MR6500	1.43	4.21	
WNDA3100v3	1.19	-	
AC797	1.37	-	
MR6550	1.45		

Note: Products may not be available in some markets

### FCC Guidelines for Human Exposure

The information in this section applies to NETGEAR wireless products that are not intended to be operated close to human body.

The NETGEAR product complies with FCC radiation exposure limits set forth for an uncontrolled environment when installed and operated with minimum distance of 20cm between the radiator and your body, except as stated in table 2 below.

Table 2. Products and Minimum Distance Between Device and Body (- 表 2).

Product	Minimum distance between device and person or animal (cm)
WNDR4300, EX6400, EX7300	21cm
WAC505, WAX610Y, WAX620E, WAX630E, MR70, MS70, WAX615	22cm
EX7500, RBW30, WNDAP620, WNDAP660, R6400v2, R6700v3, XR300, RAX35v2, RAX38v2, RAX40v2, RAX49, RAX54v2, SXR30, SXS30, RBR350, RBS350, RAXE300	23cm
C6250, R6900P, R7000P, RBW30, EX8000, RAX28, RAX29, RAX30, RAX38, RAX40, RAX80, WAX630	24cm
C6300XB3, C7100V, C7500, D7000, WAC104, WAC124, WAC720, WAC730, WNDR4500, WNR2000, RAX20, RAX42, RAX43, RAX45, RAX48, RAX50, RAX50S, XR1000, EAX11, EAX14, EAX15, LBR20	25cm
D7000v2, EX6400, R6350, R6850, RBS50, RBS50Y, WAC730, WND930, LAX20, WAX206	26cm

EX7000, WNDAP360, WAC564, RBS50Y, SRC60, WAC540, CAX30, MR80, MS80, EX6250v2, EX6400v3	27cm
R7500, R8900, R9000, RBR50, RBS50, SRS60, SRR60, WND930, XR700, EAX20, RAX70, RAX78, EAX18	28cm
C7000v2, D7800, EX7300, R7800, RBR40, RBS40, XR450, XR500	29cm
C7000, EX3700, R6700v1, R6700v2, R6900, RBR40, RBR750, RBS750, RBR760, RBS760, NBR750, SXR50, SXS50	30cm
XR700, EAX80, RBR40, RBS40	31cm
CBR40, CAX80, CBR750, RBS40V, RBS40Vv2, RAXE450, RAXE500	32cm
R6400v1, RBR840, RBS840, RBR850, RBS850	33cm
R7900P, R8000P, R7000, R7960P, RBRE960, RBSE960, RBRE950, RBSE950	34cm
C6300BD	35cm
SXR80, SXS80	36cm
C7800, R6800, WAC740, RAX200	37cm
C7800	40cm
WNDAP350	41cm
R8500	43cm

*Note: Products may not be available in some markets*

## Canada Radiation Exposure Statements / Exposition Humaine aux RF

### ISED RSS-102 SAR Compliance and Warning / CNR-102-avertissements

The information in this section applies to NETGEAR wireless products that are intended to be operated close to human body.

Les informations de cette section s'appliquent aux Netgear émetteur-récepteur sans fil normalement utilisé près du corps.

NETGEAR products are compliant with SAR for general population/uncontrolled exposure limits in IC RSS-102 and has been tested in accordance with the measurement methods and procedures specified in IEEE 1528. Maintain at least 10mm distance for body-worn condition.

NETGEAR est le respect de SAR pour la population générale / limites d'exposition incontrôlée de CNR-102 et a été testé en conformité avec les méthodes et procédures de mesure spécifiées dans la norme IEEE 1528. Maintenir au moins 10mm à distance pour la condition physique-garde.

NETGEAR products comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in its manual. Further RF exposure reduction can be achieved by keeping the product as far as possible from your body or by setting the device to a lower output power if such a function is available.

Produits NETGEAR sont conformes à la limite d'exposition aux RF portable Canada établies pour un environnement non contrôlé et sont sans danger pour le fonctionnement prévu comme décrit dans le manuel. Poursuite de la réduction de l'exposition aux RF peut être réalisé en gardant le produit autant que possible de votre corps ou par le réglage du dispositif à une puissance de sortie inférieure si une telle fonction est disponible

A table with the Specific Absorption Rate (SAR) averaged over 1g, the power density and the absorbed power density (>6GHz) for each product can be seen in the FCC section table 1

Données précises en vue des mesures du DAS est dans le tableau 1

**ISED RSS-102 RF Exposure Compliance and Warning / Déclaration d'exposition aux RF**

The information in this section applies to NETGEAR wireless products that are not intended to be operated close to human body.

Les informations de cette section s'appliquent aux produits sans fil NETGEAR qui sont destinés à être utilisés à au moins 20 cm du corps.

The NETGEAR product complies with IC radiation exposure limits set forth for an uncontrolled environment when installed and operated with minimum distance of 20cm between the radiator and your body, except as stated in table 3 below when greater distances are needed.

Produits NETGEAR sont conformes aux limites IC d'exposition aux rayonnements définies pour un environnement non contrôlé. Produits NETGEAR doivent être installés et utilisés avec distance minimum de 20cm entre le radiateur et votre corps sauf comme indiqué dans le tableau 3

*Table 3. Products and Minimum Distance Between Device and Body*

<b>Product</b>	<b>Minimum distance between device and body of person or animal (cm)</b>
RAX10, WAX610	21cm
WAC510, EAX12, WAX202	23cm
DC112A	24cm
R6260, R6400v2, MR60, MS60, EX3700, EX6120, EX6400, EX7300, R6700v3, XR300, WAC720	25cm
WAC505, WAC564, RBR50, RBS50	26cm
MR80, MS80, WAX615	27cm
R7000P, EX7500, RBR50, RBS50, RBW30, RAX40, RAX45, RAX48, RAX50, RAX80, SRR60, SRS60, XR1000, RAX35v2, RAX70, SXR30, SXS30, RBR350, RBS350, LBR20	28cm
RBR40, RBS40, RAX20, RAX30	29cm
R6350, R6850, WAC124, WAC730, WAX630	30cm
LAX20, NBR750, SXR50, SXS50, RBR760, RBS760	31cm
EX6250v2	32cm
EX7300, R9000, EAX20, RBS40V, RBS40v2	33cm
XR500, RBR850, RBS850, RBRE960, RBSE960	34cm

R68000, RBR750, RBS750, SXR80, SXS80	35cm
R8000P	36cm
RAXE500	38cm
RAX200	39cm
R7000	40cm
WNDAP350	41cm
EX6150	46cm
WAC740	47cm
EX3700, EX6120, R6260, R6350, R6700v3, R6850	50cm
WAC505	52cm
RBW30	56cm
RBR40, RBS40	58cm
C7000, D7800, R6700v2, WAC730	70cm

Note: Products may not be available in some markets

## Europe RF Radiation Exposure and SAR Statements

The information in this section applies to products that transmit data or communicate wirelessly.

### EU SAR Compliance and Warning:

The information in this section applies to NETGEAR wireless products that are intended to be operated close to human body.

NETGEAR products that are intended to be operated close to the human body are tested for body-worn Specific Absorption Rate (SAR) compliance, see Table 4. Products utilizing millimeter wave technology are tested for body-worn specific density (PD) compliance, see Table 4

When carrying the product or using it while worn on your body, maintain a distance of 10mm from the body to ensure compliance with RF exposure requirements.

NETGEAR products that are installed in USB ports demonstrate SAR compliance using a typical laptop computer with a USB port. Other applications, such as handheld computers or similar devices, have not been verified and might not compliance with related RF exposure rule and such use is prohibited.

The Specific Absorption Rate (SAR) measured at 5mm and averaged over 10g of tissue for each product and the power density averaged over 4cm<sup>2</sup> (>6 GHz) are listed in table 1 below.

Table 4. SAR values for Netgear Products averaged over 10g

Product	SAR averaged over 10g of tissue (W/kg)	PD Averaged over 4cm <sup>2</sup> (W/m <sup>2</sup> )
A61000	0.99	-
A6150	0.54	-
A6210	1.96	-
A7000	1.43	-
A8000	1.58	-
AC790S	1.39	-

AC797S	1.72	-
AC810s	1.26	-
MR1100	1.96	-
MR2100	1.97	-
MR5100, MR5200	1.74	-
MR6110	1.79	
MR6150	1.80	
MR6450	1.99	
MR6500	1.80	16.9
WNA3100M	0.31	-
WNDA3100v3	1.64	-

Note: Products may not be available in some markets

### EU RF Exposure Compliance and Warning

The information in this section applies to NETGEAR wireless products that are **not** intended to be operated close to the body.

For devices other than mobile hotspots and USB modems, to meet EU Maximum Permissible Exposure (MPE) conditions, ensure that at least 20cm separation distance is maintained between the NETGEAR wireless device and the body of the user or other people or animals, except as stated in table 5 below when greater distances are needed.

Table 5. Products and Minimum Distance Between Device and Body in EU countries

Product	Minimum distance between device and body of person or animal (cm)
R9000, XR700	31cm

Note: Products may not be available in some markets

### Australia RF Radiation Exposure and SAR Statements

#### Australia RF Exposure Compliance and Warning

The information in this section applies to NETGEAR wireless products that are **not** intended to be operated close to the body.

Table 6. Products and Minimum Distance Between Device and Body

Product	Minimum distance between device and body of person or animal (cm)
LM1200	20 cm