

# 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	-	-
A7500	1.19	9.78	9.35
A8000	1.19	9.78	9.35
A8500	1.1	8.75	2.79
A9000	1.1	8.75	2.79
AC797	1.37	-	-
MH7150	1.25	-	-
MR1100	1.39	-	-
MR5100	1.58	-	-
MR5200	1.37	-	-
MR6110	1.44	-	-
MR6150	1.4	-	-
MR6400	1.29	1.88	0.55
MR6550(G), MR6520(G)	1.45	-	-
MR7400	1.28	2.47	1.12

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

Product	Minimum distance between device and person or animal (cm)
EX7300, WAX625, WAX628	21
MR70, MS70, RAX120, RAX120v2, WAC505, WAX608Y, WAX610Y, WAX615, WAX618, WAX630E, WAX638E	22
EX7500, R6400v2, RAX35v2, RAX38v2, RAX40v2, RAX41v2, RAX42v2, RAX43v2, RAX49, RAX50v2, RAX54v2, RAXE290, RAXE300, RBR350, RBS350, RBW30, SXR30, SXS30, XR1000v2, XR300	23
C6250, EX8000, MR80, MS80, R6900P, R7000P, RAX28, RAX29, RAX30, RAX35, RAX38, RAX40, RAX80, WAX630	24

C6300v2, C7100V, C7500, D7000, EAX11, EAX14, EAX15, LBR20, R6350, RAX15, RAX20, RAX41, RAX42, RAX43, RAX45, RAX48, RAX50, RAX54, RBR50v2, RBS50v2, WAC124, WAC720, WAC730, XR1000	25
D7000v2, EX6400, EX6400v2, EX7300v2, LAX20, R6850, WAX206	26
CAX30, EX6250v2, EX6400v3, EX7000, RBS50Y, SRC60, WAC540, WAC564	27
EAX18, EAX20, R7500, R8900, R9000, RAX70, RAX78, RBR50, RBS50, SRS60, SRR60, XR700	28
C7000v2, D7800, R7800, XR450, XR500	29
C7000, NBR750, R6700, R6700v2, R6900v2, RBR660, RBS660, RBR750, RBS750, RBR760, RBS760, SXR50, SXS50	30
EAX80, RBR40, RBS40	31
CAX80, CBR40, CBR750, RAXE450, RAXE500, RBR860, RBS860, RBS40V	32
R6400, RBR840, RBS840, RBR850, RBS850	33
R7000, R7900P, R7960P, R8000P, RBRE950, RBSE950, RBRE960, RBSE960	34
R7200	35
SXR80, SXS80	36
R6800, RAX200, WAC740	37
C7800	40
R8500	43

Note 1: Products may not be available in some markets.

## Canada Radiation Exposure Statements / Déclarations sur la radioexposition au Canada

### ISED RSS-102 SAR Compliance and Warning / ISDE CNR-102 Conformité et avertissement par rapport au DAS

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

Les renseignements contenus dans cette section s'appliquent aux produits sans fil NETGEAR destinés à être utilisés près du corps humain.

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.

Les produits NETGEAR sont conformes au DAS pour la population générale et les limites d'exposition non contrôlées dans IC CNR-102 et ont été testés conformément aux méthodes et procédures de mesure spécifiées dans la norme IEEE 1528. Pour les conditions de port sur le corps, maintenez une distance d'au moins 10 mm.

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.

Les produits NETGEAR sont conformes à la limite d'exposition aux radiofréquences portables du Canada établie pour un environnement non contrôlé et sont sécuritaires pour le fonctionnement prévu, comme décrit dans leur manuel. Une réduction plus importante de l'exposition aux radiofréquences peut être obtenue en gardant le produit aussi loin que possible de votre corps ou en réglant l'appareil à une puissance de sortie plus faible 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

Un tableau présentant le débit d'absorption spécifique (DAS) moyen sur 1g, la densité de puissance et la densité de puissance absorbée (> 6 GHz) de chaque produit est présenté dans le tableau 1 de la section FCC.

**ISED RSS-102 RF Exposure Compliance and Warning / ISDE CNR-102 Conformité et avertissement par rapport à l'exposition aux radiofréquences**

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

Les renseignements contenus dans cette section s'appliquent aux produits sans fil NETGEAR qui ne sont pas destinés à être utilisés à proximité du corps humain.

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.

Le produit NETGEAR est conforme aux limites d'exposition aux radiofréquences d'IC établies pour un environnement non contrôlé lorsqu'il est installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps, sauf comme indiqué dans le tableau 3 ci-dessous lorsque de plus grandes distances sont nécessaires.

*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, RAX10v2, RAX36, RS100, WAX204, WAX610	21
RS150, RS200	22
EAX12, EAX15v2, EXS18, EXS25, EXS27, WAC510, WAX202	23
DC112A, WAX214v2, WAX625, WAX628	24
EX3700, EX6120, EX6130, EX6400v2, EX7300, EX7300v2, MR60, MS60, R6260, R6350, R6400v2, RS150v2, RS500, WAC720, XR300	25

MR70, MS70, RAXE300, RBE371, RBE370, RBR50v2, RBS50v2, RS200v2, WAC505, WAX630E	26
BE17000, MR80, MS80, RAX50v2, RS600, WAX615, WAX618, XR1000v2	27
BE9300, EX6400, EX7500, LBR20, R7000P, RAX35v2, RAX40, RAX40v2, RAX43, RAX45, RAX48, RAX50, RAX70, RAX80, RBR350, RBS350, RBR50, RBS50, RBW30, RS280, RS300, SRS60, SRR60, SXR30, SXS30, XR1000	28
RAX20, RAX30, RBR40, RBS40	29
R6850, WAC124, WAC730, WAX630	30
LAX20, NBR750, RBR760, RBS760, RBR860, RBS860, SXR50, SXS50	31
EX6250v2,	32
EAX20, R9000, RBS40V	33
RBR840, RBS840, RBR850, RBS850, RBRE960, RBSE960, XR500	34
R6700v2, R6800, R6900v2, R7200, RBR750, RBS750, SXR80, SXS80	35
R8000P	36
RAXE500	38
RAX200	39
R7000	40
EX6150	46
WAC740	47

*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 4 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> )	Absorbed Power Density (W/m <sup>2</sup> )
A6100	0.99	-	-
A6150	0.54	-	-
A6210	1.96	-	-
A7000	1.43	-	-
A7500	1.58	-	-
A8000	1.58	-	-
A8500	0.67	-	-
A9000	0.67	-	-
AC797	1.72	-	-
AC810s	1.26	-	-
MH7110	1.7	-	-
MH7150	1.7	-	-
MR1100	1.96	-	-
MR2100	1.97	-	-
MR5100	1.98	-	-
MR6110	1.803	-	-
MR6150	1.8	-	-
MR6450	1.992	-	-
MR6500	1.803	-	-
MR6550(G), MR6520(G)	1.803	-	-
MR7450	1.61	-	-
MR7500	1.41	-	1.69

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**

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

### **Australia 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 measured at 5mm and averaged over 10g of tissue and for products utilizing millimeter wave technology are tested for body-worn specific density (PD) compliance, averaged over 4cm<sup>2</sup>, see Table 6.

When carrying the product or using it while worn on your body, maintain a distance of 5mm from the body to ensure compliance with RF exposure requirements.

Do not use the device near fuel or chemicals or in any areas such as service stations, refineries, hospitals, or aircraft. Obey all warning signs where posted.

The product, and in combination with accessories, conforms with the essential requirements of the Radio Communications Standard (Electromagnetic IC Radiation Human Exposure) 2003 and the Australian Communications and Media Authority Section 376 of the Telecommunications Act 1997 when used at not less than 5mm from the body.

*Table 6. SAR values for Netgear Products averaged over 10g*

<b>Product</b>	<b>SAR averaged over 10g of tissue (W/kg)</b>	<b>PD Averaged over 4cm<sup>2</sup> (W/m<sup>2</sup>)</b>
MH7110	1.7	-
MH7150	1.7	-
MR6110	1.803	-
MR6500	1.803	-
MR7500	1.41	-

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

### **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

For devices other than mobile hotspots and USB modems, to meet Australia 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 7 below when greater distances are needed.

Table 7. Products and Minimum Distance Between Device and Body

Product	Minimum distance between device and body of person or animal (cm)
D7000v2, EAX12, EAX15v2, EX7700, RAX30, RBE771, RBE770, RBR20, RBS20, RBR50, RBS50, RBR50v2, RBS50v2, RS100, SRC60, SRS60, SRR60, WAC540, WAC564, XR450, XR500	21
EX7000, LBR20, RBR750, RBS750, RBS50Y, RS150, RS150v2, RS200, RS200v2, RS280, RS300	22
R6400, RAX120, RBE371, RBE370, RBR760, RBS760, RS500, RS600, SXR50, SXS50	23
R6900P, R7000P	24
D7000, MR70, MS70, RAX20, RAXE300, RBE971, RBE970, RBS40V, SXR80, SXS80, WAX630	25
EAX80, R7900P, R7960P, R8000P, R8500, RAX200, RAX40, RAX40v2, RAX50, RAX70, RAX80, RBR850, RBS850, RBR860, RBS860, RS700S, RS700	26
EAX20, RAX43, XR1000	27
LAX20	29
RAXE500, RBRE960, RBSE960	30
R6020, R6120	32
R9000, XR700	36

Note: Products may not be available in some markets.

## Taiwan RF Radiation Exposure and SAR Statement

### NCC SAR Compliance and Warning

The information in this section applies to NETGEAR wireless products intended to be operated close to the human body within Taiwan.

According to the meeting conclusion of the NCC Conformity Assessment Coordination Meeting (Proposal No. 10910464), using the head as the reference point: when the distance between the RF source and the human head is  $\geq 20$  cm, an MPE assessment is required; when the distance is  $< 20$  cm, SAR evaluation would ordinarily apply under international practice. However, since the current LP0002 technical specification does not mandate SAR for low-power RF equipment, SAR evaluation is presently not required.

### NCC 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, to meet NCC 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 8 below when greater distances are needed.

Table 8. Products and Minimum Distance Between Device and Body

<b>Product</b>	<b>Minimum distance between device and body of person or animal (cm)</b>
WAX214v2, WAX220, WAX625, WAX628	21
RAX120, WAX618, RS300, RS600, RBE371, RBE370,	22
R7000, RBW30, R6400v2, R6700v3, XR300, RBR350, RBS350, SXR30, SXS30, RAX50v2, WBE710, WBE718, EX3700	23
RS400, RAX80, RAX40, RBE771, RBE770	24
WAC730, R6850, R6350, RBR50v2, RBS50v2, WAC564, RAX50, RAX43, RBE971, RBE970	25
RBS50Y, WAC540, SRC60, MR80,MS80	27
RBS50, RBR50, R9000, XR700, EAX20, RAX70	28
RBR40, RBS40, XR500, R7800	29
R6800, R7450, RBR750, RBS750, RBR760, RBS760, SXS50, SXR50	30
EAX80	31
RBR860, RBS860	32
R6400, RBR850, RBS850	33
R8000P, R7000	34
SXR80, SXS80	36
RAX200, WAC740	37
R8500	43

Note: Products may not be available in some markets.