

User Manual

(H3C WA2612-AGN, WL-607)

Product Overview

Introduction

The H3C WA2600 Series Indoor WLAN Access Points (hereinafter referred to as the WA2600 indoor series) are one of the 802.11n access point (AP) product series developed by Hangzhou H3C Technologies Co., Ltd. (hereinafter referred to as H3C). The WA2600 indoor series can serve as fat APs for networking independently, and serve as fit APs to cooperate with wireless local area network (WLAN) switches or access controllers to provide wireless access for WLAN users.

Figure 1-1 shows a typical scenario of hotspot deployments using the WA2600 indoor series.

Figure 1-1 Typical networking using the WA2600 indoor series

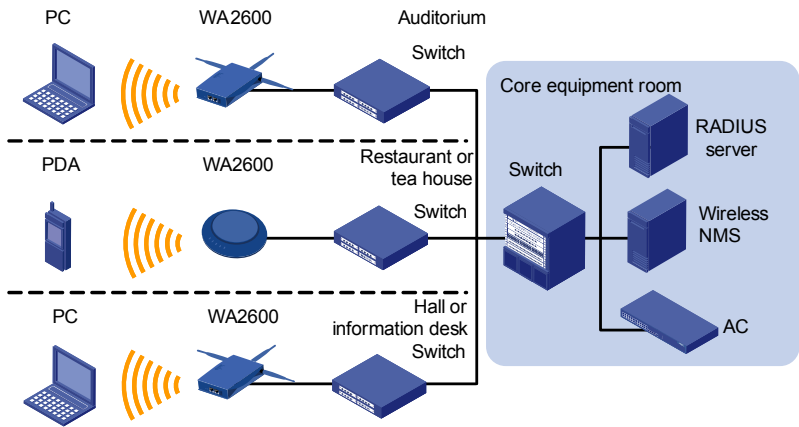


Figure 1-2 shows the appearance of the WA2600 indoor series.

Figure 1-2 Appearance of the WA2600 indoor series

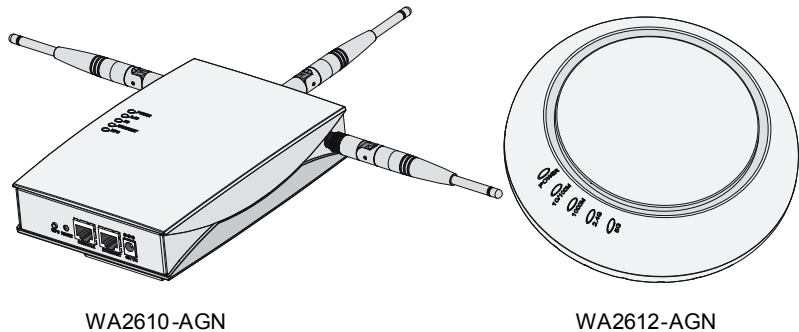


Table 1-1 Physical dimensions and weight of the WA2600 indoor series

Model	Physical dimensions	Weight
WA2610-AGN (H × W × D)	42 × 181 × 127 mm (1.65 × 7.13 × 5.00 in.)	1 kg (2.20 lb.)

Model	Physical dimensions	Weight
WA2612-AGN (diameter × thickness)	Φ190 × 60 mm (Φ7.48 × 2.36 in.)	0.5 kg (1.10 lb.)

Hardware Configuration

The WA2600 indoor series provide two models. Table 1-2 lists the basic configurations.

Table 1-2 Device basic configurations

Model	Protocols and chassis material	Antenna	Power consumption
WA2610-AGN	<ul style="list-style-type: none"> • IEEE 802.11a/b/g/n, • single-RF, sheet metal + plastic mold design 	External antenna: <ul style="list-style-type: none"> • 2.4 GHz, gain: 2 dBi • 5 GHz, gain: 3 dBi 	5.2 W to 6.5 W
WA2612-AGN	<ul style="list-style-type: none"> • IEEE 802.11a/b/g/n, • single-RF, plastic mold design 	Internal antenna: <ul style="list-style-type: none"> • 2.4 GHz, gain: 6 dBi • 5 GHz, gain: 7 dBi 	5.9 W to 6.5 W

The following describes the hardware configurations and functions of the WA2600 indoor series in detail.

LEDs

WA2610-AGN

Figure 1-3 LEDs on the WA2610-AGN

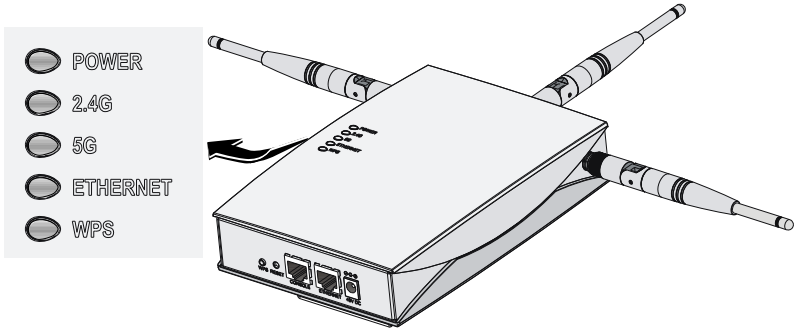


Table 1-3 Description of the LEDs on the WA2610-AGN

LED	Color	QTY	Meaning
POWER	Green	1	Displays the power supply status: <ul style="list-style-type: none">Steady on: The power supply is normal.Off/blinking: The power supply is not well connected or the device works abnormally.
2.4G (Wireless link LED)	Green	1	Displays the 2.4 GHz wireless link status: <ul style="list-style-type: none">Off: The wireless link is not initialized or the link is faulty.Blinking slowly: The wireless link works normally.Blinking rapidly: Data is being transmitted or received.

LED	Color	QTY	Meaning
5G (Wireless link LED)	Green	1	Displays the 5 GHz wireless link status: <ul style="list-style-type: none"> • Off: The wireless link is not initialized or the link is faulty. • Blinking slowly: The wireless link works normally. • Blinking rapidly: Data is being transmitted or received.
ETHERNET (Ethernet interface LED)	Yellow/ green	1	Displays the status of the Ethernet interface: <ul style="list-style-type: none"> • Steady on (green): The 1000 M Ethernet interface is in the link-up state. • Blinking (green): Data is being transmitted or received at 1000 Mbps. • Steady on (yellow): The 10/100 Mbps Ethernet interface is in the link-up state. • Blinking (yellow): Data is being transmitted or received at 10/100 Mbps. • Off: The Ethernet interface is in the link-down state.
WPS	Yellow/ green	1	Reserved for expansion use

WA2612-AGN

Figure 1-4 LEDs on the WA2612-AGN

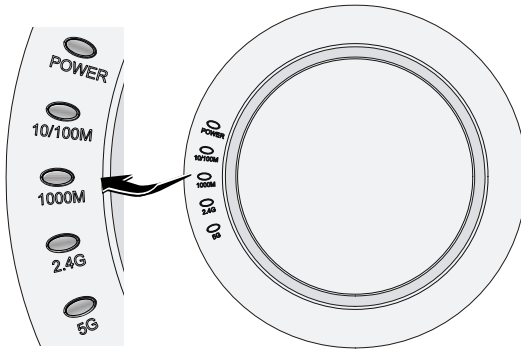


Table 1-4 Description of the LEDs on the WA2612-AGN

LED	Color	QTY	Meaning
POWER	Green	1	Displays the power supply status: <ul style="list-style-type: none">Steady on: The power supply is normal.Off/blinking: The power supply is not well connected or works abnormally.
10/100M (Ethernet interface LED)	Yellow	1	Displays the status of the Ethernet interface: <ul style="list-style-type: none">Steady on: The Ethernet interface is in the link-up state.Off: The Ethernet interface is in the link-down state.Blinking: Data is being transmitted or received at 10/100 Mbps.

LED	Color	QTY	Meaning
1000M (Ethernet interface LED)	Green	1	<p>Displays the status of the 1000 M Ethernet interface:</p> <ul style="list-style-type: none"> • Steady on: The Ethernet interface is in the link-up state. • Off: The Ethernet interface is in the link-down state. • Blinking: Data is being transmitted or received at 1000 Mbps.
2.4G (Wireless link LED)	Green	1	<p>Displays the 2.4 GHz wireless link status:</p> <ul style="list-style-type: none"> • Off: The wireless link is not initialized or the link is faulty. • Blinking slowly: The wireless link works normally. • Blinking rapidly: Data is being transmitted or received.
5G (Wireless link LED)	Green	1	<p>Displays the 5 GHz wireless link status:</p> <ul style="list-style-type: none"> • Off: The wireless link is not initialized or the link is faulty. • Blinking slowly: The wireless link works normally. • Blinking rapidly: Data is being transmitted or received.

Interfaces

Interfaces provided by the WA2610-AGN

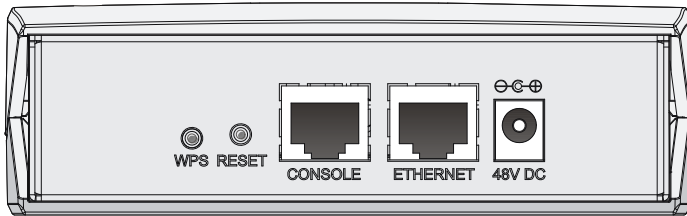
The WA2610-AGN provides the following interfaces:

- A console interface
- An Ethernet interface
- A power supply interface

 **Note**

In addition, the WA2610-AGN provides a reset button, a WPS button (reserved for expansion use) and a security slot.

Figure 1-5 Interfaces on the WA2610-AGN



Interfaces provided by the WA2612-AGN

The WA2612-AGN provides the following interfaces:

- A console interface
- An Ethernet interface

 **Note**

In addition, the WA2612-AGN provides a reset button and a security slot.

Figure 1-6 Interfaces on the WA2612-AGN

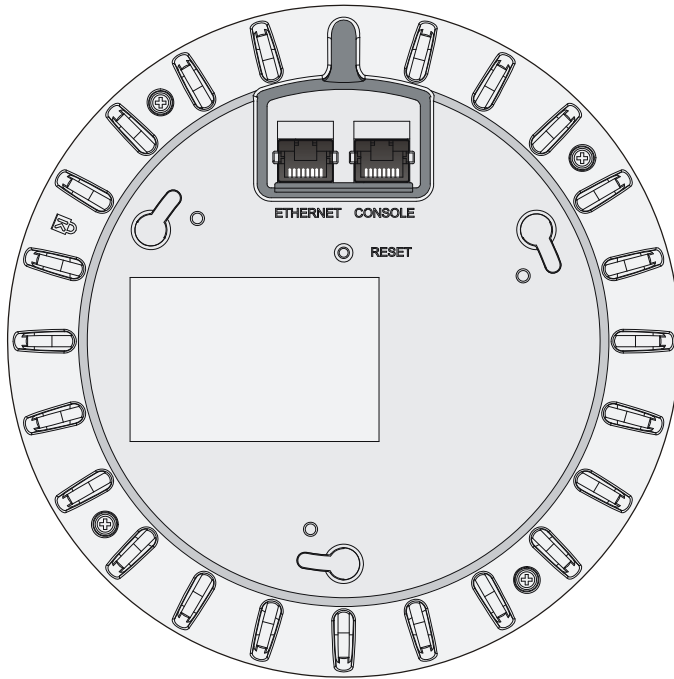


Table 1-5 describes the interfaces provided by each model.

Table 1-5 Descriptions of interfaces on the WA2610-AGN/WA2612-AGN

Interface silkscreen	Standards and protocols	Description
CONSOLE	RS/EIA-232	The console interface is used for device configuration and management.

Interface silkscreen	Standards and protocols	Description
ETHERNET	<ul style="list-style-type: none"><li data-bbox="396 236 557 261">• IEEE802.3<li data-bbox="396 272 575 298">• IEEE802.3u<li data-bbox="396 309 583 335">• IEEE802.3af	The Ethernet interface can serve as an uplink interface to access the Internet or MAN, and as a PoE interface at the same time.



Caution

When connecting a cable to an interface, pay attention to the interface silkscreen to avoid connection mistakes.

User Manual

(H3C WA2612-AGN, WL-607)

Table of Contents

Appendix A Regulatory Compliance Information.....	A-1
Regulatory compliance standards.....	A-1
Support Antennas & Accessories information.....	A-2
EU Compliance information.....	A-2
CE Marking.....	A-2
EU Country Restriction in 2.4GHz band.....	A-7
EU Country Restriction in 5GHz band.....	A-7
WEEE Directive–2002/96/EC.....	A-8
USA Compliance information.....	A-9
US Federal Communications Commission statement.....	A-9
RF Requirements.....	A-10
Antennas.....	A-10
Industry Canada.....	A-11
RF Compliance.....	A-11
Brazil RF Compliance.....	A-13
Korea RF Compliance.....	A-13
Taiwan regulatory statement.....	A-13

Appendix A Regulatory Compliance Information

Regulatory compliance standards

Table A-1 Regulatory compliance standards

Discipline	Standards
EMC & RF	FCC Part 15.207 & 15.209 & 15.247& 15.205 & 15.407 FCC Bulletin OET-65C IC RSS 210 ETSI EN 300 328 ETSI EN 301 893 EN 61000-3-2 EN 61000-3-3 ETSI EN 301 489-1 ETSI EN 301 489-17
Safety	UL 60950-1 CAN/CSA C22.2 No 60950-1 IEC 60950-1 EN 60950-1/A11

Support Antennas & Accessories information

This product can only be used with the supplied antenna(s).

This product does not contain any user serviceable components. Any unauthorized product changes or modifications will invalidate the warranty and all applicable regulatory certifications and approvals.

This product must be installed by a professional technician/installer.

EU Compliance information

CE Marking



Equipment may be operated in the following country:

AT	BE	CY	CZ	DK	EE	FI	FR
DE	GR	HU	IE	IT	LV	LT	LU
MT	NL	PL	PT	SK	SI	ES	SE
GB	IS	LI	NO	CH	BG	RO	TR

- 1) Select the country in which the product is installed to ensure product operation is in compliance with local regulations. For

information on how to select the country, refer to the “Wireless Configuration Command” module in H3C Wireless Control Manager Command Manual.

- 2) Intended use: IEEE 802.11a/b/g and 802.11n Draft 2.0.
- 3) This product must maintain a minimum body to antenna distance of 20cm. Under these conditions this product will meet the Basic Restriction limits of 1999/519/EC (Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0Hz-300GHz)).

R&TTE declaration statements:

<p>Česky [Czech]</p>	<p>H3C Coporation tímto prohlašuje, že tento <i>RLAN device</i> je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.</p>
<p>Dansk [Danish]</p>	<p>Undertegnede H3C Corporation erklærer herved, at følgende udstyr <i>RLAN device</i> overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.</p>
<p>Deutsch [German]</p>	<p>Hiermit erkläre H3C Corporation, dass sich das Gerät <i>RLAN device</i> in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.</p>
<p>Eesti [Estonian]</p>	<p>Käesolevaga kinnitab H3C Corporation seadme <i>RLAN device</i> vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.</p>
<p>English</p>	<p>Hereby, H3C Corporation, declares that this <i>RLAN device</i> is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.</p>

Español [Spanish]	Por medio de la presente H3C Corporation declara que el <i>RLAN device</i> cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Η3C Corporation ΔΗΛΩΝΕΙ ΟΤΙ <i>RLAN device</i> ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
Français [French]	Par la présente H3C Corporation déclare que l'appareil <i>RLAN device</i> est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Italiano [Italian]	Con la presente H3C Corporation dichiara che questo <i>RLAN device</i> è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo H3C Corporation deklarē, ka <i>RLAN device</i> atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo H3C Corporation deklaruoja, kad šis <i>RLAN device</i> atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart H3C Corporation dat het toestel <i>RLAN device</i> in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]	Hawnhekk, H3C Corporation, jiddikjara li dan <i>RLAN device</i> jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fid-Dirrettiva 1999/5/EC.

Magyar [Hungarian]	Alulírott, H3C Corporation nyilatkozom, hogy a <i>RLAN device</i> megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Polski [Polish]	Niniejszym H3C Corporation oświadcza, że <i>RLAN device</i> jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	H3C Corporation declara que este <i>RLAN device</i> está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]	H3C Corporation izjavlja, da je ta <i>RLAN device</i> v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	H3C Corporation týmto vyhlasuje, že <i>RLAN device</i> spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]	H3C Corporation vakuuttaa täten että <i>RLAN device</i> tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar H3C Corporation att denna <i>RLAN device</i> står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Íslenska [Icelandic]	Hér með lýsir H3C Corporation yfir því að <i>RLAN device</i> er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.

Norsk [Norwegian]	H3C Corporation erklærer herved at utstyret <i>RLAN device</i> er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.
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A copy of the signed Declaration of Conformity can be downloaded from:

http://www.h3c.com/portal/Technical_Documents

http://support.3com.com/doc/H3C_WA2612-AGN_EU_DOC.pdf

Table A-2 Overview of Regulatory Requirements for Wireless LANs

Frequency Band (MHz)	Max Power Level	(EIRP) (mW) Indoor ONLY	Indoor and Outdoor
2400–2483.5	100 mW		X
5150–5350	200 mW	X	
5470–5725	1000 mW		X



Note

Dynamic Frequency Selection and Transmit Power Control are required in the 5250- to 5350-MHz and 5470- to 5725-MHz frequency range.

EU Country Restriction in 2.4GHz band

This device may be used indoors or outdoors in all countries of the European Community using the 2.4GHz band: Channel 1-13, except where noted below.

- 1) In France, the output power is restricted to 10 mW EIRP when the product is used outdoors in the band 2454 - 2483.5 MHz. There are no restrictions when used in other parts of the 2.4 GHz band.

EU Country Restriction in 5GHz band

- 1) In Italy the end-user must apply for a license from the national spectrum authority to operate this device outdoors.
- 2) To remain in conformance with European spectrum usage laws for Wireless LAN operation, the above 2.4GHz and 5GHz channel limitations apply. The user should check the current channel of operation. If operation is occurring outside of the allowable frequencies as listed above, the user must cease operating the H3C WA2612-AGN at that location and consult the local technical support staff responsible for the wireless network.
- 3) This device must be used with the radar detection feature required for European Community operation in the 5GHz bands. This device will avoid operating on a channel occupied by any radar system in the area. The presence of nearby radar operation may result in temporary interruption in communications of this device. The Access Point's radar detection feature will automatically restart operation on a channel free of radar. You may consult with the local technical support staff responsible for the wireless network to ensure the Access Point device(s) are properly configured for European Community operation.

Europe-Restrictions for Use of 5GHz Frequencies in European Community Countries

Allowed Frequency Bands	Allowed Channel Numbers	Countries
5.15-5.35& 5.470-5.725G Hz	36,38,40,44,4 6,48,52,54,56, 60,62,64,100, 102,104,108,1 10,112,116,11 8,120,124,126 ,128,132,134, 136,140	Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, U.K.

WEEE Directive–2002/96/EC



The products this manual refers to are covered by the Waste Electrical & Electronic Equipment (WEEE) Directive and must be disposed of in a responsible manner.

USA Compliance information

US Federal Communications Commission statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

RF Requirements

RF exposure Hazard Warning

This device generates and radiates radio-frequency energy. In order to comply with FCC radio-frequency exposure guidelines for an uncontrolled environment, this equipment must be installed and operated while maintaining a minimum body to antenna distance of 20 cm (approximately 8 in.)

RF Frequency Requirements

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other unauthorized antenna or transmitter.

This device is for indoor use only when using channels 36, 38, 40, 44, 46 or 48 in the 5.15 to 5.25 GHz frequency range.

High power radars are allocated as primary users of the 5.25 to 5.35 GHz; 5.47 to 5.725 GHz bands. These radar stations can cause interference with and/or damage this device.

Note: Frequency range from 5600 to 5650MHz is not available in USA.

Antennas

Only use the supplied antenna. Unauthorized antennas, modifications or change to the antennas could violate FCC regulations and void the user's authority to operate the equipment.

Industry Canada

RF Compliance

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with RSS 210 of Industry Canada.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

L' utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l' utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication. To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to