

User Guidance for DiLink 3.0F

Product name: DiLink

Model Name: DiLink 3.0F

Manufacturer: BYD Auto Industry Company Limited

1. Basic Specification

Chipset: Qualcomm SM6125

Operating system: Android 10

Supply: 12V rated voltage, 9V-16V input supply.

Operating Temperature: -30°to 70°Celsius

2. Function

Image Center

- Camera
- Photo album
- Driving recorder
- Panoramic image

Multimedia Center

- Music player
- Video player
- Karaoke

System control

- Air conditioning control
- volume control

Connection

- BT 5.0
- WIFI 2.4G/5G 802.11a/g/b/n/ac
- 2G/3G/4G

GNSS

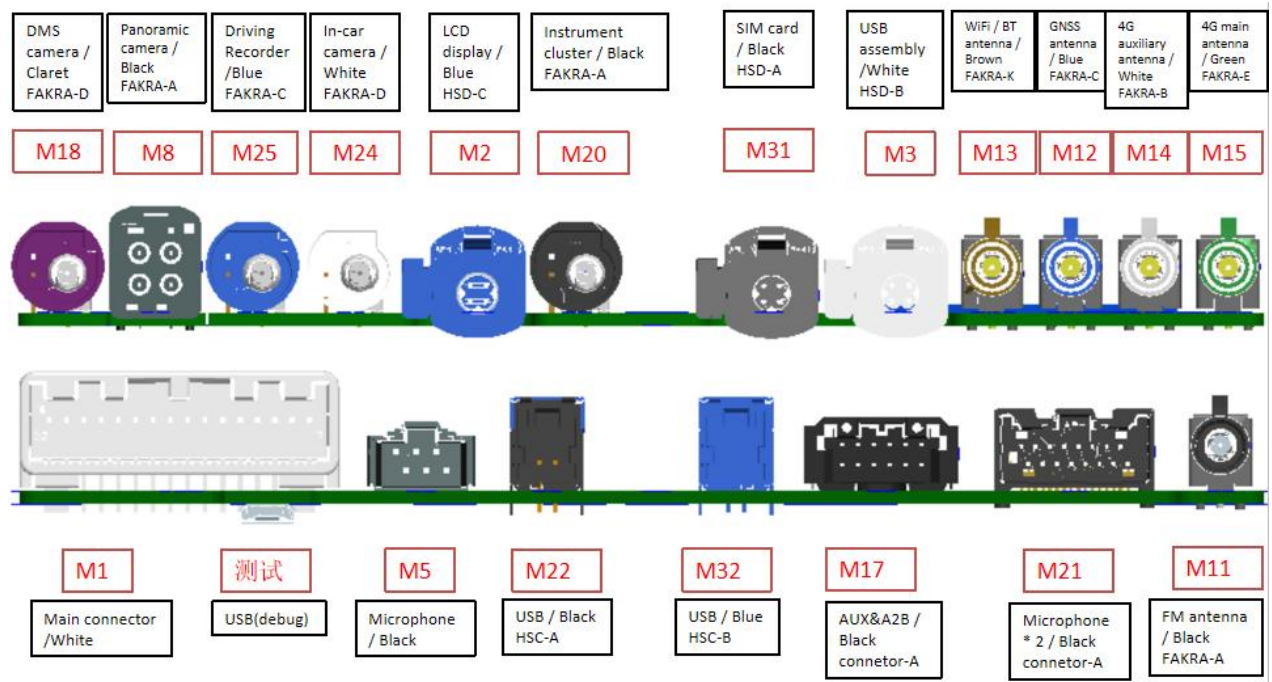
- GPS
- GLNASS
- GALILEO

Others

- Intelligent voice
- Tire pressure monitoring
- Bluetooth phone
- IVI Internet of vehicle
- Application Market

3. Connector

The following table shows the headunit connectors with signal information and description



M1 Main Connector/Power

Antenna

M2 LCD

M17 AUX&A2B

M3 USB Assembly

M18 DMS Camera

M5 Microphone

M20 Instrumentation

M8 Panoramic Camera

Interface

M9 Driving Recorder

M21 Void

M10 In-vehicle Camera

M22 Void

M11 FM Antenna

M31 SIM

M12 GNSS Antenna

M32 DAB

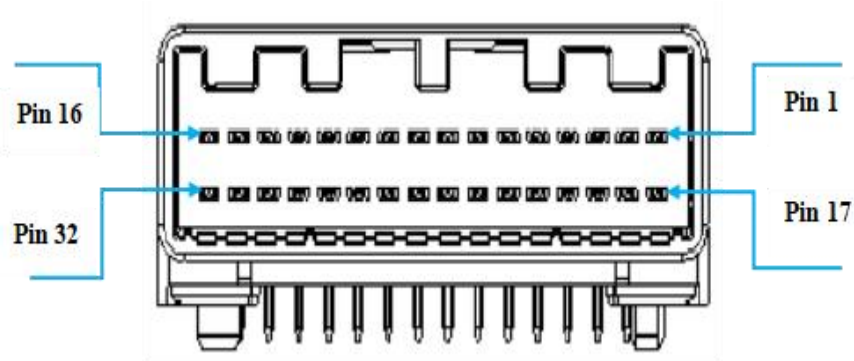
M13 BT/Wi-Fi Antenna

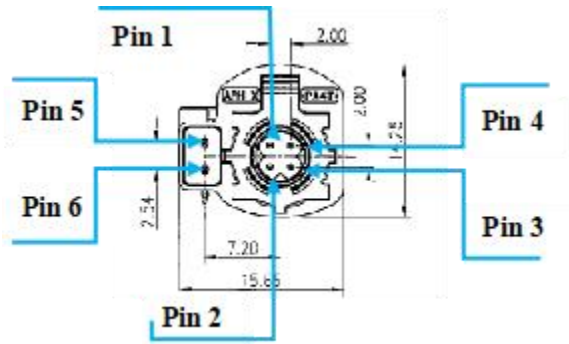
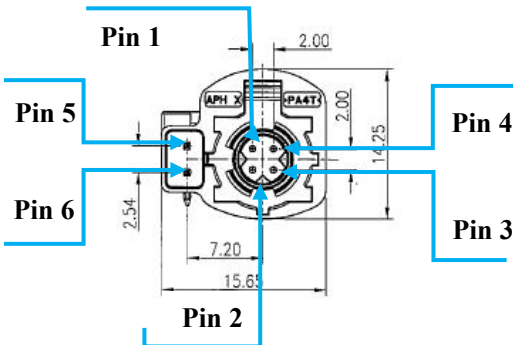
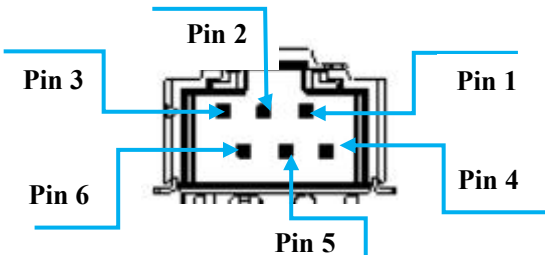
Text USB(Debug)

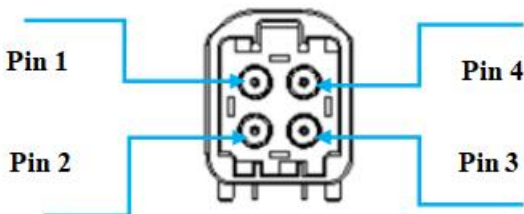
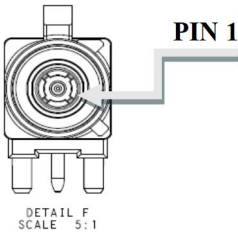
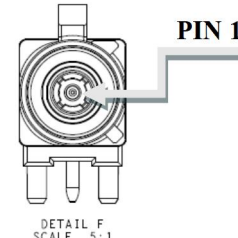
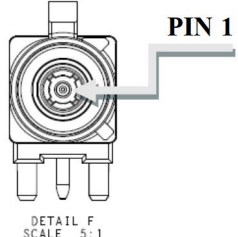
M14 WCDMA/LTE

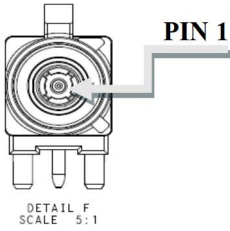
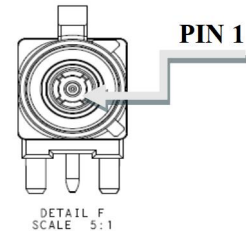
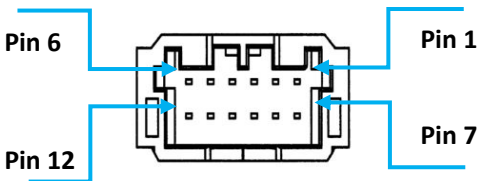
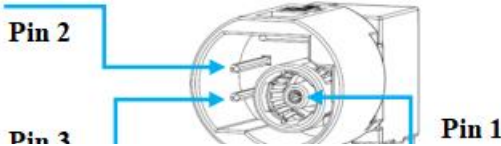
Antenna

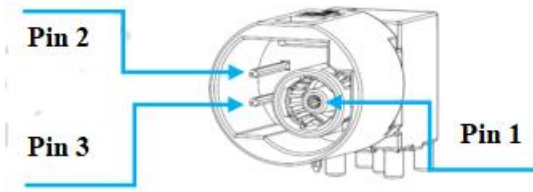
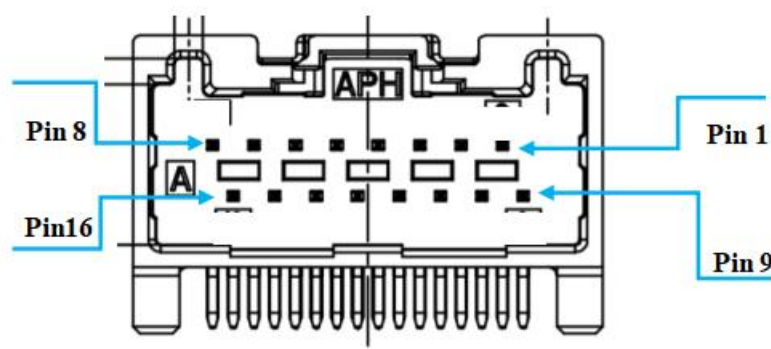
M15 WCDMA/LTE

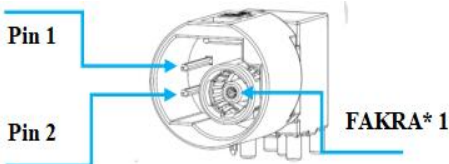
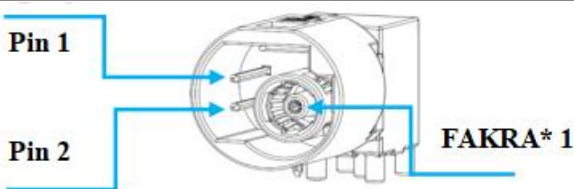
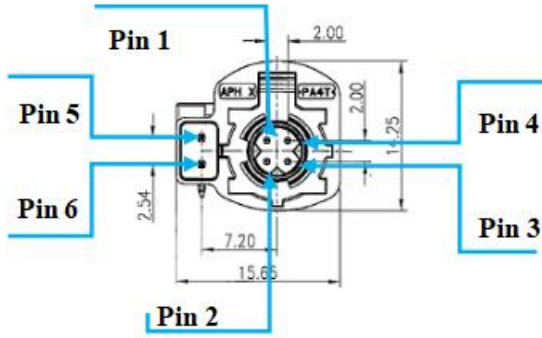
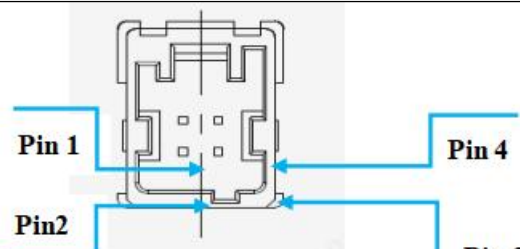
Connectors		F002-HU
M1	Coding color	White
	M1-1	CAN0_FD_L
	M1-2	CAN1_L
	M1-3	CAN2_L
	M1-4	NC
	M1-5	CP07_12V
	M1-6	AMP_PWR_EN
	M1-7	GND
	M1-8	GND
	M1-9	KEY_SPINA
	M1-10	KEY_SPINB
	M1-11	KEY_POWER
	M1-12	BATT_VCC
	M1-13	BATT_VCC
	M1-14	BATT_VCC
	M1-15	BATT_VCC
	M1-16	BATT_VCC
	M1-17	CAN0_FD_H
	M1-18	CAN1_H
	M1-19	CAN2_H
	M1-20	NC
	M1-21	GND
	M1-22	B_CALL
	M1-23	E_CALL
	M1-24	KEY_AD0
	M1-25	KEY_AD1
	M1-26	GND
	M1-27	ANT_PWR
	M1-28	GND
	M1-29	GND
	M1-30	GND
	M1-31	GND

	M1-32	GND
M2	Coding color	Blue
	M2-1	SIOAP
	M2-2	SIOBN
	M2-3	SIOAN
	M2-4	SIOBP
	M2-5	12V
	M2-6	GND
M3	Coding color	White
	M3-1	TypeC_USB_D M
	M3-2	TF_USB_DP
	M3-3	TypeC_USB_D P
	M3-4	TF_USB_DM
	M3-5	USB_12V
	M3-6	GND
M5	Coding color	Black
	M5-1	MIC_F_R_N
	M5-2	MIC_F_L_AGN D
	M5-3	MIC_F_L_P
	M5-4	MIC_F_R_AG ND
	M5-5	MIC_F_R_P
	M5-6	MIC_F_L_N
M8	Coding color	Black

	M8-1	COAX_L
	M8-2	COAX_B
	M8-3	COAX_F
	M8-4	COAX_R
M11	Coding color	Black
	M13-1	FM_ANT
M12	Coding color	Blue
	M14-1	GPS_ANT
M13	Coding color	Curry
	M15-1	WIFI_ANT
M14	Coding color	White

	M14-1	4G-auxiliary
M15	Coding color	green
	M15-1	4G-main
M17	Coding color	Black
	M17-1	shield_GND
	M17-2	AUX2_L
	M17-3	shield_GND
	M17-4	AUX1_L
	M17-5	
	M17-6	A2B_B_N
	M17-7	AUX2_GND
	M17-8	AUX2_R
	M17-9	AUX1_GND
	M17-10	AUX1_R
	M17-11	shield_GND
	M17-12	A2B_B_P
M18	Coding color	Claret
	M18-1	DMS_LVDS_P
	M18-2	DMS_CAM-P WR

		M18-3	GND
M20		Coding color	Black
	M20-1	SIOAN2/SIOA	
	M20-2	12V	
	M20-3	GND	
M21		Coding color	Black
	M21-1	NC	
	M21-2	NC	
	M21-3	MIC_RB_AGN D	
	M21-4	MIC_RB_N	
	M21-5	MIC_RB_P	
	M21-6	MIC_LB_AGN D	
	M21-7	MIC_LB_N	
	M21-8	MIC_LB_P	
	M21-9	NC	
	M21-10	NC	
	M21-11	NC	
	M21-12	NC	
	M21-13	NC	
	M21-14	NC	
	M21-15	NC	
	M21-16	NC	
M22		Coding color	Black
	M22-1	GND	

		M22-2	UHF_USB_DP
		M22-3	UHF_USB_DM
		M22-4	UHF_5V
M24		Coding color	White
	FAKRA*1	VINB	
	M24-1	IN_CAMERA_PWR	
	M24-2	GND	
M25		Coding color	Blue
	FAKRA*1	VINA	
	M25-1	RECORDER_PWR	
	M25-2	GND	
M31		Coding color	Black
	M31-1	UIM2_CLK	
	M31-2	UIM2_RST	
	M31-3	UIM2_DATA	
	M31-4	UIM2_DET	
	M31-5	UIM2_VDD	
	M31-6	GND	
M32		Coding color	Blue
	M32-1	GND	
	M32-2	DAB_USB_DP	
	M32-3	DAB_USB_DM	

4. General Information

Temperature ranges

Component	T_{uL}	T_{uB}	T_{oB}	T_{oL}	T_R
Head unit	-40°C	-30°C	+70°C	+85°C	+23°C

T_{oL}	Maximum storage temperature
T_R	Room temperature
T_{uL}	Minimum storage temperature
T_{oB}	Maximum operating temperature for components with overload protection/low-temperature protection
T_{uB}	Minimum operating temperature for components with overload protection/over-temperature protection

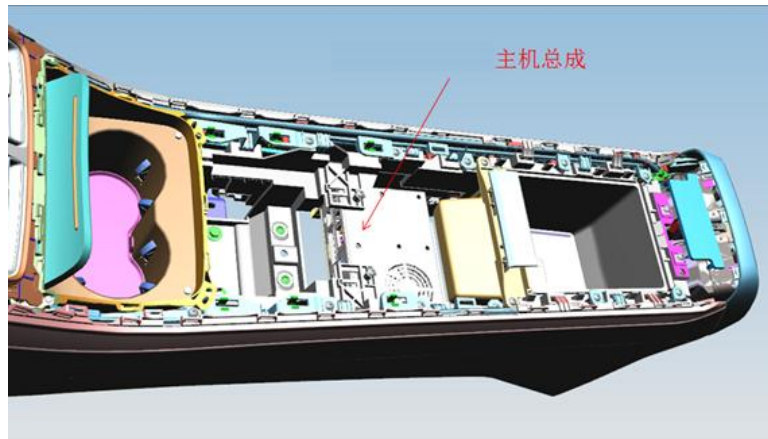
Voltage ranges

Component	U_{Bmin}	$U_{B,max}$	U_B	Spec
Head unit	+9.0V	+16V	+12V	For functions that retain their performance.

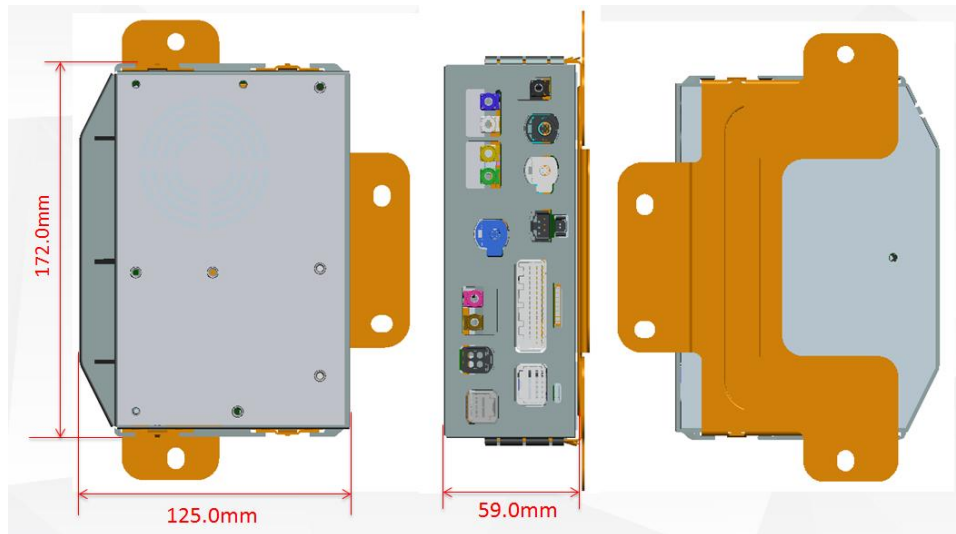
U_{Bmin}	Lower operating voltage limit
U_B	Nominal Operating voltage
U_{Bmax}	Upper operating voltage limit

5. Installation

Installation location



Space size requirements

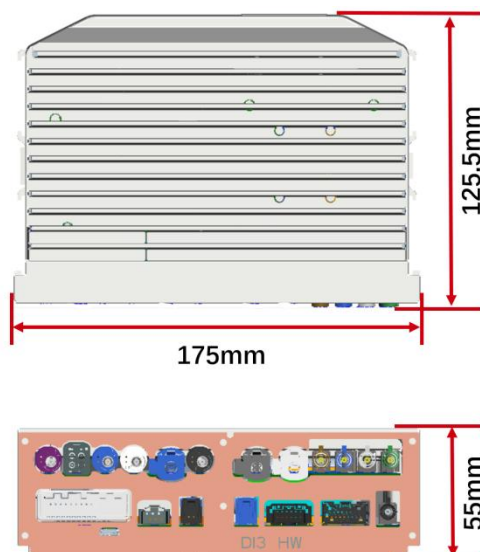


6. Pictures head unit

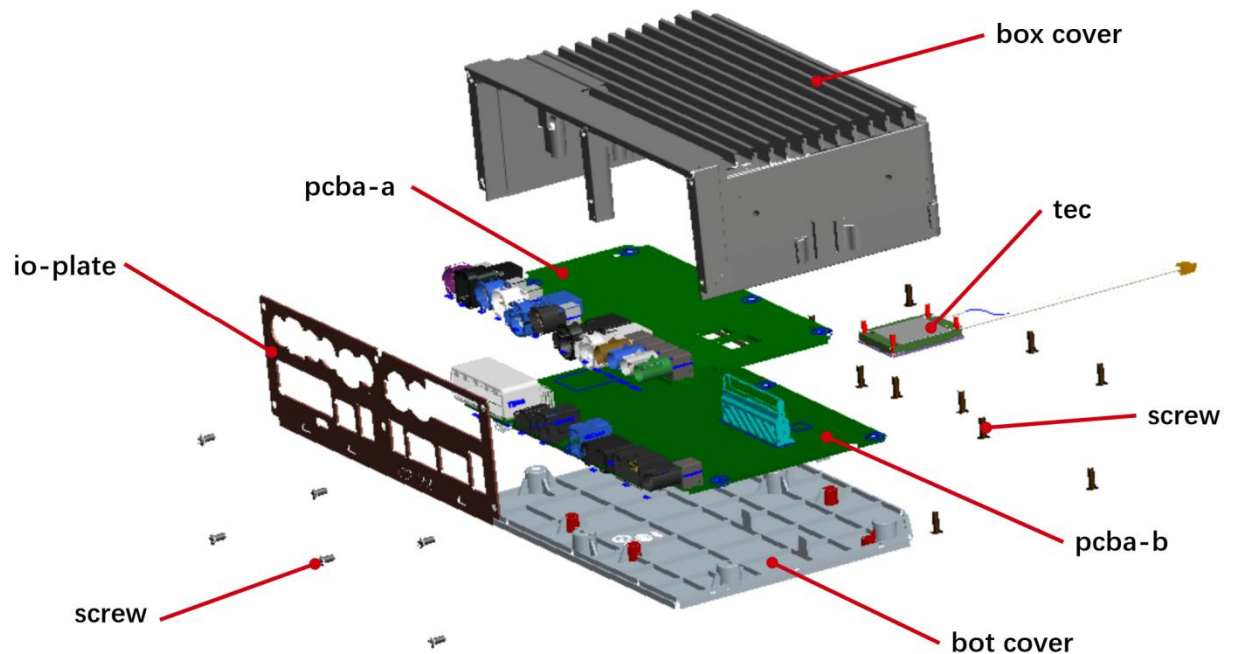
The following picture shows the explosions view of the headunit.

Dimension

Package size:



Explosion View



7. Regulation information:

Hereby, BYD Auto Industry Company Limited declare that the radio equipment type DiLink has the following operating frequency range.

Operating Frequency Range	The maximum RF Output Power
FDD-LTE Band 2/4/5/7/12(17)/13	FDD-LTE Band 2: 23.0 dBm±2dB
	FDD-LTE Band 4: 23.0 dBm±2dB
	FDD-LTE Band 5: 23.0 dBm±2dB
	FDD-LTE Band 7: 23.0 dBm±2dB
	FDD-LTE Band 12(17): 23.0 dBm± 2dB
	FDD-LTE Band 13: 23.0 dBm±2dB

TDD-LTE Band 38/41	TDD-LTE Band 38: 23.7 dBm±2dB TDD-LTE Band 41: 23.0 dBm±2dB
WCDMA Band 2/4/5	Band 2: 23.0 dBm±2dB Band 4: 23.0 dBm±2dB Band 5: 23.0 dBm±2dB
GSM 850/1900 MHz	GSM 850: 32.5dBm±3dB GSM 1900: 29.3 dBm±3dB
Bluetooth 2402 - 2480 MHz	7 dBm±3dB
WiFi 2412 - 2462 MHz	15 dBm±3dB
5.170 GHz ~ 5.250GHz 5.250 GHz ~ 5.350GHz 5470MHz-5725MHz	14dBm±3dB 14dBm±3dB 14 dBm±3dB
5725MHz-5835MHz	14 dBm±3dB
GPS 1575.42 MHz±1.023 MHz	/
FM 87.5MHz-108MHz	/
AM 522KHz-1620KHz	/
DAB 174MHz-240MHz	/

For FCC&IC, 5.2G is used for indoors only.

FCC Statement

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

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the 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 important announcement

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

IC Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts

de licence. L'exploitation est autorisée aux deux conditions suivantes : 1) L'appareil ne doit pas produire de brouillage; 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with Industry Canada radiation exposure limits set forth for an uncontrolled environment.

Cet équipement est conforme à l'exposition aux rayonnements Industry Canada limites établies pour un environnement non contrôlé.

Radiation Exposure Statement

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux radiations dans un environnement non contrôlé. Cet équipement doit être installé et utilisé à distance minimum de 20cm entre le radiateur et votre corps.

The user manual for LE-LAN devices shall contain instructions related to the restrictions mentioned in the above sections, namely that:

- ii. for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
- iii. for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate; and
- iv. where applicable, antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.

- ii. pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis pour les dispositifs utilisant les bandes de 5 250 à 5 350 MHz et de 5 470 à 5 725 MHz doit être conforme à la limite de la p.i.r.e;
- iii. pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5 725 à 5 850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée, selon le cas;
- iv. lorsqu'il y a lieu, les types d'antennes (s'il y en a plusieurs), les numéros de modèle de l'antenne et les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, énoncée à la section 6.2.2.3, doivent être clairement indiqués.