CRYSTAL VIDEO

SWIFT 800

Wireless HDMI Video Transmission

EU Environmental Protection

Waste electrical products should not be disposed of with household waste.Please recycle where facilities exist.Check with you local authority or retailer for recycling advice.

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PAP

USER MANUAL

This user manual applies to:
Transmitter: 7072
Receiver: 3072

Version: 1.0
2019.01.11

Important Information

Please read this user manual before you use this product, it contains all the notes and important things regarding operating this product. In accordance with the safety precautions and operating instructions listed on this user manual, our applies provided the product is handled properly for its intended use, but may not apply to below cases:

- Repairs or product modification and alterations have been executed by unauthorized personnel.
- The damages are caused by accidents including but not limited to lightning, fire, exposed to rain or water,and moisture.
- Do not use provided power adapter with specific power voltage which are not compliant with the rated voltage range in the attached label of the power adapter in package.
- The model label on the product has been modified or the warranty tag has been removed by unauthorized personnel.

Safety Precaution

Danger! High voltage	To reduce the risks of electricity, do not remove or open the cover. No user-serviceable parts are inside. Please return to original factory for maintenance
Beware of hot surfaces!	The high temperature in the process of operating the device may cause the high risk of scalding.
Caution!	Please use our standard power adapter.Detailed information Please refer to the rated voltage range showed on the label at the back of package's power adapter.

Danger: Be careful with electricity.

- As connecting any equipment (such as any player or TV , etc.), please turn off the power to the product before any operation is undertaken.
- Power outlet: To prevent electric shock or fire, short circuit, please make sure the type of electrical plug used on the receiver's and transmitter's power cord are compliant with the rated voltage range in the attached label of the power adapter in package.
- Power cord: Do not place any heavy articles above on the power cord. To avoid being stepped on or pinched by heavy items, the power cord should not be located on the place where people pass by frequently.
- Power overloading: Avoid overloading wall's electrical outlets and extension cord or other multi-socket; otherwise could result in electric shock or fire.
- Lightning: For protection from lightning or when the product is left unattended for a long period, please disconnect it from the power source.
- Please disconnect the power cord from the power outlet when you are not using the receiver and transmitter, this will reduce the risk of electric shock or fire.

Warning

- This product should not be exposed to dripping or splashing. Do not place any object filled with liquid on the product(eg. vases).
- To avoid electric shock, please do not block or stick anything on the air vent of product; do not remove the cover or put the object just like pins, steel wire into the gap of the air vent.
- Please place the receiver/ transmitter on a flat with hard and stable surface.
- Ventilation: please do not block the air vents on the receiver/transmitter or place any heavy object on top of them . Blocking the air flow can damage the product itself. Please make sure that there is adequate ventilation distance between the receiver and TV, and also put the product away from direct sunlight or any source of heat.
- Water Exposure: To reduce the risk of electric shock or fire , please do not expose the receiver/transmitter to rain or moisture.
- We assume no responsibility for any damage or result caused by using other adapters instead of our standard adapters

Special Notice

- Although the product has provided the function of data encryption when transmitting, you still need to pay attention to deliberate signal interception. There will be the Possibility of a third party intentionally intercept the transmission signal since the product adopt wireless communication. Please do not use the product on confidential and important communications, or life-related communications The main concern is that the content of wireless communication might be received by the third party's wireless devices deliberately or accidentally.
- The impact of radio waves (such as the following environment may cause the abnormal audio and video(blocked image, noise ...etc.).
  1) Transmit near the wall which is hard for the radio waves to get through.
  2) Quite close to the refrigerator, metal fitment and appliances, or next to the crowded situation.
- This product has been tested and manufactured to comply with national electrical safety rules, however, there will be noise caused by the interference with other machines in rare cases. If the interference is happened, please keep a certain distance away from other machines.
- The product is susceptible to interference from 5GHz wireless local area network or other wireless devices.
- Please do not set up the transmitter and receiver in metal shelf, or it will hinder the wireless communications.
- It will take 30~40 seconds to boot the system before wireless communication start, the media receiver can not be operated during this time.

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Foreword

- Please read this manual carefully before you use this product and retain it properly for future reference
- If there is any doubt or difficulty in the process of product usage, please feel free to contact us or the dealer.
- The company reserves the authority to amend the specification.

Brief Introduction

With the increasing application of HD video equipment, many problems have arisen in the wiring process, such as high wire cost and short service life.
If the on-site protection is not enough, the trampling of the passing crowd may affect the performance of wire, and even cause a live broadcast accident.
This program provides a more convenient and safe solution for live video scenes. Its long-distance transmission multi-frequency channel support, coupled with the high-capacity lithium battery system, i.e., PNP configuration, can fully meet the needs of various indoor and outdoor shooting, especially the feature of free wiring, which will bring you a safer and more professional enjoyment.

Features

- Suitable for portable HD video equipment with HDMI output such as video cameras, cameras, etc.;
- Instant display of working status (transmit channel, network status, and video status);
- Support DC power supply: power adapter 12V, wide voltage range of emergency power supply (7V ~ 36V) or install lithium battery;
- (SONY NP-F970 and compatible series batteries), internal protection design to prevent reverse power connection;
- The back structure is a lithium battery card holder for installing SONY NP-F970 and compatible series batteries
- Support “Hot Shoe” and 1/4″ tapped hole mounting standard interface design for easy transmitter mounting and fixation;
- Internal and external audio switching, support for external microphone audio input;
- Wireless transmission distance up to 800ft;
- Support P frame / I frame adaptation to ensure ultra-low latency of video transmission;
- Support low-battery alarm function of the battery;
- Full hardware design, no need to install software, PNP, which is simple and convenient

Packing List

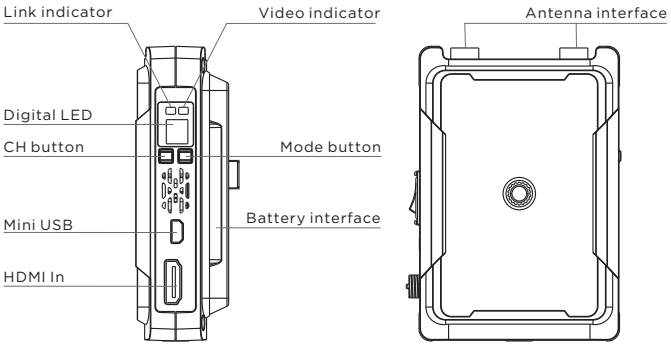
Please check the packing list carefully, if any parts is missed, please contact your dealer. Components of all models are subject to the following packing list.

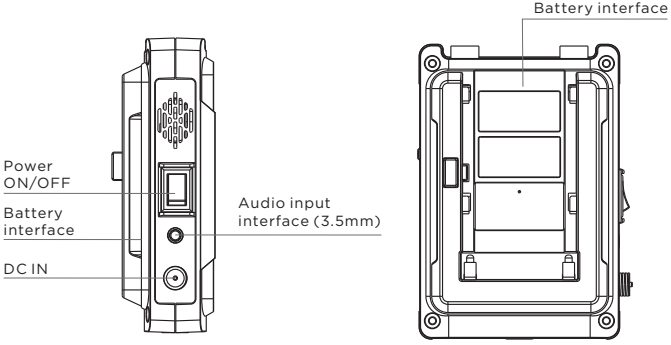
TX:7072	TX:7072 *1	Antenna * 2	HDMI Cable*1	Hot-shoe Stand*1
RX:3072	RX:3072 *1	Antenna * 2	DC Adapter (12V/2A) * 1	HDMI Cable*1

* The adaptor may vary according to certain conditions in different country/region.

Structure & Interface

Transmitter:7072





Transmitter 7072 Interface Introduction

1. Link indicator:
Used to indicate the network working status of the product.

2. Video indicator:
Used to indicate the video transmission working status of the product.

3. Digital LED:
Used to display the current working status and working channel of the transmitter.

4. CH button:
a: Short press to switch the frequency(channels) channel;
b: Press and hold (3s) to turn on / off the fan.

5. Mode button:
Short press for audio switch; press and hold (3s) for code pairing.

6. Mini USB:
Software Upgrading

7. HDMI interface:
Connect to a HD source device that supports HDMI output.

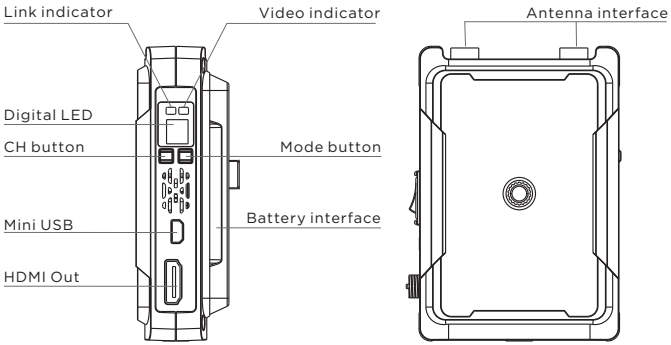
8. Battery interface:
SONY NP-F970 and compatible battery series

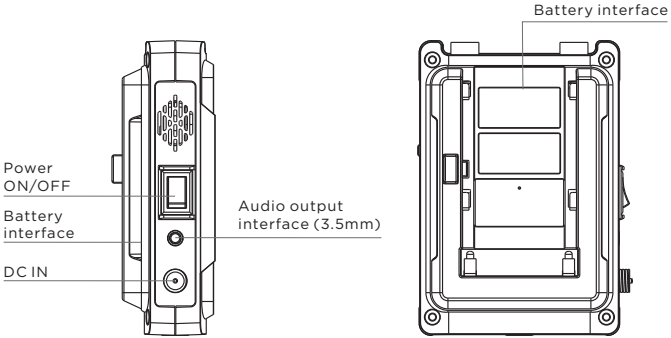
9. Power switch:
ON / OFF

10. Audio input interface (3.5mm):
Connect to an active microphone.

11. DC IN:
This port is connected to a power adapter or other DC power sources (such as battery pack, etc.).(SPEC: 5.5mm ⊖—◉—⊕)

Receiver:3072





Receiver 3072 Interface Introduction

1. Link indicator:
Used to indicate the network working status of the product.

2. Video indicator:
Used to indicate the video transmission working status of the product.

3. Digital LED:
Used to display the current working channel of the receiver.

4. CH button:
a: Short press to switch the frequency channel;
b: Press and hold (3s) to turn on / off the fan.

5. Mode button:
Press and hold (3s) for code pairing.

6. Mini USB:
Software Upgrading

7. HDMI Out:
Connect to HD source devices that support HDMI input (HDTV, and projector)

8. Battery interface:
SONY NP-F970 and compatible battery series.

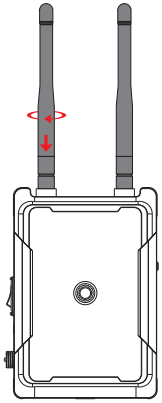
9.Power switch:
ON / OFF

10.DC IN:
This port is connected to a power adapter or other DC power sources (such as battery pack, etc.).(SPEC:5.5mm ⊖—◉—⊕)

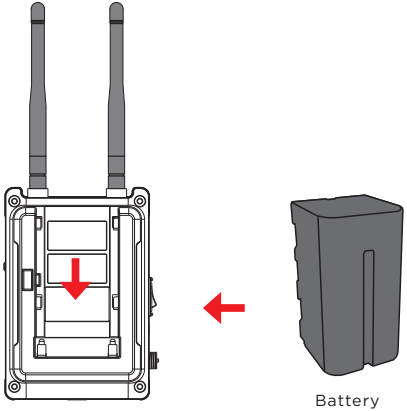
Product Installation

7072 Wireless HD Transmitter Installation Instructions

1. Install the antennas on the transmitter, turn it clockwise, and tighten the antennas. Adjust the direction of the transmitter antenna to assume an upright parallel state (as shown in the figure).

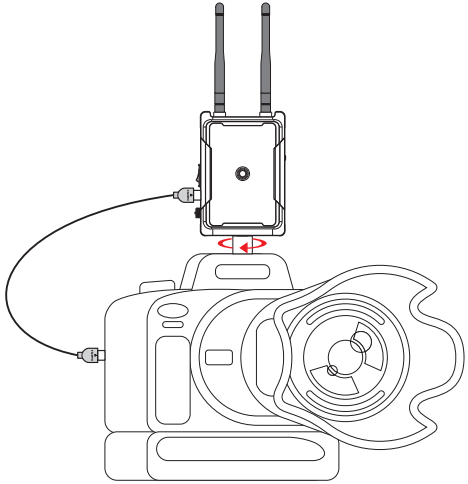


2. The transmitter is equipped with a battery (as shown in the figures)



3. The transmitter is mounted on a SLR camera and rotated clockwise. Connect the HDMI interface of the transmitter to the HDMI interface of the SLR camera via the HDMI cable (as shown in the figure).

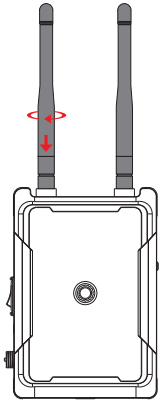
4. Turn on (SLR camera, and transmitter) the power.



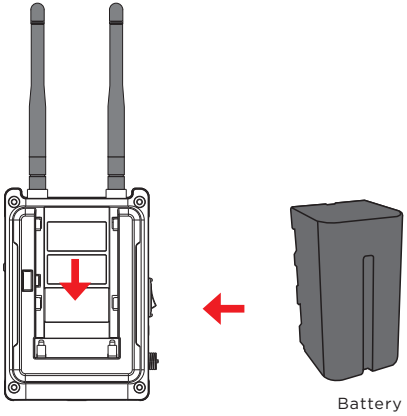
Warning: When the device is not in use, remove the battery.

3072 Wireless HD Receiver Installation Instructions

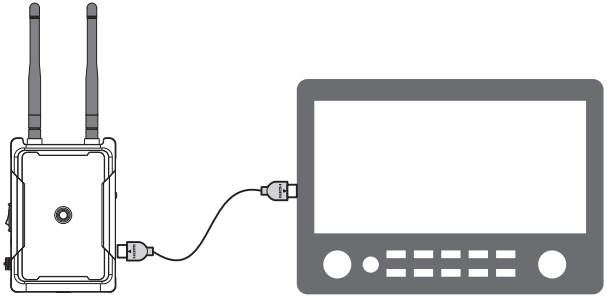
1. Install the antennas on the receiver, turn it clockwise, and tighten the antennas. Adjust the direction of the receiver antennas to assume an upright parallel state (as shown in the figure).



2. The receiver is equipped with a battery (as shown in the figures).



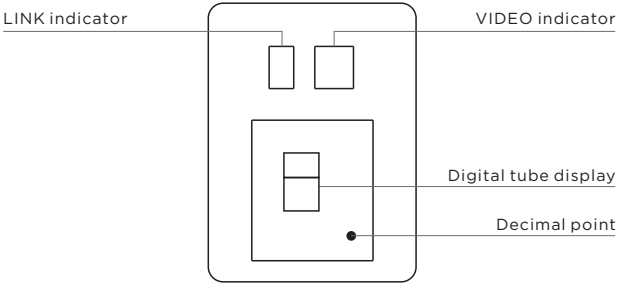
3. Install the receiver on the monitor. Connect the HDMI cable. Turn on the power (receiver and monitor power).



Warning: When the device is not in use, remove the battery.

Digital Tube Status Indication

Transmitter / Receiver Digital Tube Status



Transmitter

Digital tube display: Channel: 1-9, A, b

VIDEO indicator: There is video input, the green indicator is always on;
no video, flashing

LINK indicator: Network connection is OK, red indicator is always on;
network is not connected, flashing

The LINK / VIDEO indicator flashes red, indicating that the supply voltage is low.

Receiver

Digital tube display: Channel: 1-9, A, b

VIDEO indicator: There is video input, the green indicator is always on;
no video, flashing

LINK indicator: Network connection is OK, red indicator is always on;
network is not connected, flashing

The LINK / VIDEO indicator flashes red, indicating that the supply voltage is low.

Operating Instructions

1. Button function definition:

Channel button (CH): channel switching function

Mode button (Mode): Mode switching function

2. Operating instructions:

Frequency channel setting, short press CH button to switch the operating frequency channel;

Fan ON/OFF, press and hold the CH button (3s) to turn on / off the fan.

3. Code pairing operation:

Press and hold the Mode button, the transmitter / receiver enters the code pairing status, and the red and green LED indicators flash quickly at the same time.

4. Audio switching (transmitter only):

Short press the Mode button, and the VIDEO green LED flashes; switch to external audio input, and the decimal channel of the digital tube is on.

Short press the Mode button again to switch to HDMI audio, and the decimal channel of the digital tube is off.

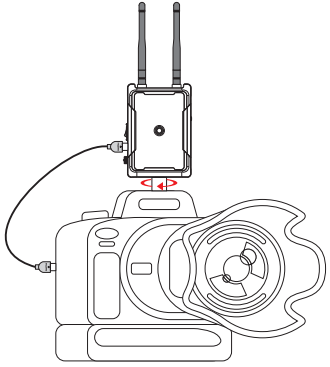
Note:
All operations are performed after the product has started normally.

Application Case

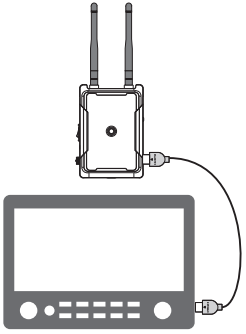
1. Set the transmitter and receiver to the same frequency channel.

2. The transmitter and HD source device are connected and powered by the HDMI cable.

3. The receiver and monitor are connected via an HDMI cable.

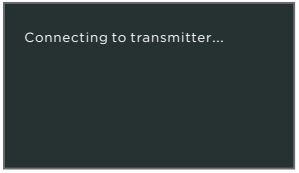


TX: SLR camera + 7072



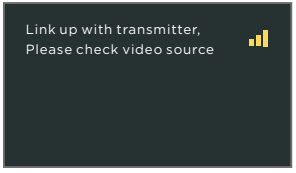
RX: Monitor + 3072

4. Turn on the receiver and monitor power, and the receiver will automatically connect to the last successfully connected transmitter. The TV OSD displays the following figure:



OSD display

5. Wait 25-35 seconds, the receiver's network indicator and video indicator are always on, and the monitor displays the camera's monitor screen. The OSD display is shown in the figure below.



OSD display

6. Wait for the successful connection of video, the video light will always be on, and the monitor will normally display the pictures taken by the camera

Product Specifications

Item	7072	3072
Frequency	5.190-5.23 0/ 5.755-5.795 (GHz)	
Modulation mode	OFDM	
Channel bandwidth	40MHz	
HDMI protocol	HDMI 1.4	
Power consumption	5.5W	4.8W
System Latency	70ms	
Antenna mode	2T2R	
Transmission range	800ft	
Operating voltage	DC (7-36V) Battery: SONY NP-F970 or compatible series	
Dimensions	100 x 68 x 22.5 (mm)	
Video Formats Supported	1080p, 1080i, 720p	
Audio Formats Supported	PCM	
Temperature	0-50℃ (Operating) -40℃ - 80℃ (Storage)	

* The Company continues to improve product performance.
  Design and specifications are subject to change without prior notice.

Troubleshooting

Issue		Troubles & Possible Reasons	Solution
TV OSD Display	connecting to transmitter	The transmitter is not powered.	Turn on the transmitter power.
		The transmitter or receiver is not placed upright.	Insert the transmitter or receiver into the base and keep it upright.
		The distance between the receiver and the transmitter is too far.	Move the receiver to a position closer to the transmitter.
		The receiver and transmitter are separated by multiple solid walls.	Reduce the number of solid walls between the receiver and the transmitter.
		There are too many obstacles between the receiver and the transmitter.	Move the receiver to a position closer to the transmitter.
		Receiver and transmitter are not paired	Please re-pair the code.
		There are other transmitters working near the receiver.	Turn off other unrelated transmitters or place the receiver away from other sources of interference.
		Different operating modes	Set the transmitter and receiver to the same mode.
		Different operating frequency channel.	Set the transmitter and receiver to the same frequency channel.
	Link up with transmitter Please check video soucre	The transmitter and player are not connected.	Connect the transmitter to the player via the HDMI cable.
		The player is not turned on.	Turn on the power of the player.
		The player has not switched to the HDMI output.	Switch the player to the HDMI output.
		The transmitter's HDMI cable is not well connected.	Please re-plug the HDMI cable of the transmitter.
		The transmitter is working abnormally.	Restart the transmitter power.
		There is a problem with the HDMI cable between the transmitter and the player.	Replace the HDMI cable.
		The current player's output resolution is not supported.	Switch the player output resolution to another mode.
Image	TV has no signal input	Receiver power is not turned on.	Turn on the receiver.
		The receiver is not connected to the TV.	Connect the receiver to the TV via an HDMI cable.
		TV does not switch to HDMI input.	Switch the TV to the HDMI input.
		The HDMI cable of the receiver or TV is not in good contact.	Re-plug the HDMI cable of the receiver or TV.
		The TV goes into standby.	Switch the TV to normal operation.
		The receiver is working abnormally.	Restart the receiver power.
	TV has blank screen without any display	The HDMI cable of the receiver or TV is not in good contact.	Re-plug the HDMI cable of the receiver or TV.
		The receiver is working abnormally.	Restart the receiver power.
		Receiver failure	Please contact your dealer.
	TV screen color is abnormal	The HDMI cable of the receiver or TV is not in good contact.	Re-plug the HDMI cable of the receiver or TV.
		The HDMI cable of the transmitter or player is not in good contact.	Re-plug the HDMI cable of the transmitter or player.
		The transmitter or receiver is working abnormally.	Restart the transmitter and receiver power.

Issue		Troubles & Possible Reasons	Solution
Image	TV images are not clear, with noisy point or mosaic	The transmitter or receiver is not placed upright.	Insert the transmitter or receiver into the base and keep it upright.
		The distance between the receiver and the transmitter is too far.	Move the receiver to a position closer to the transmitter..
		The receiver and transmitter are separated by multiple solid walls.	Reduce the number of solid walls between the receiver and the transmitter.
		There are too many obstacles between the receiver and the transmitter.	Move the receiver to a position closer to the transmitter.
Sound	TV has images but no sound	The player or TV is silenced.	Turn on the sound of the player or TV.
		The volume of the player or TV is too small.	Increase the sound of the player or TV.
		The sound format currently output by the player is not supported.	Switch the sound format of the player output.
		The transmitter or receiver is working abnormally.	Restart the transmitter and receiver power.

FCC Statement

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. To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example use only shielded interface cables when connecting to computer or peripheral devices).

FCC 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.

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, includinginterference that may cause undesired operation.

ISED Statement

English: This device complies with Industry Canada license - exempt RSS standard(s).
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 the device.
The digital apparatus complies with Canadian CAN ICES - 3 (B)/NMB - 3(B).

- French: Le présentappareilestconforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitationestautorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareildoit accepter tout brouillageradioélectriquesubi, mêmesi le brouillageest susceptible d'encompromettre le fonctionnement.

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

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.

Déclaration d'exposition aux radiations

Cet équipement est conforme Canada 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.

Caution:

(i) The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

(ii) 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 EIRP limits specified for point-to-point and non-point-to-point operation as appropriate; and

Avertissement:

(i) les dispositifs fonctionnant dans la bande de 5150 à 5250MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5725 à 5850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas;