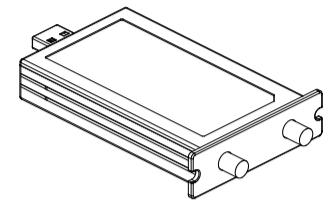
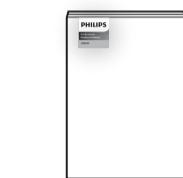




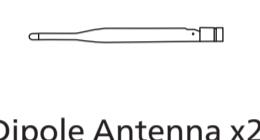
Contents 包裝內容



CRD22 Wi-Fi module
CRD22 Wi-Fi 無線模組

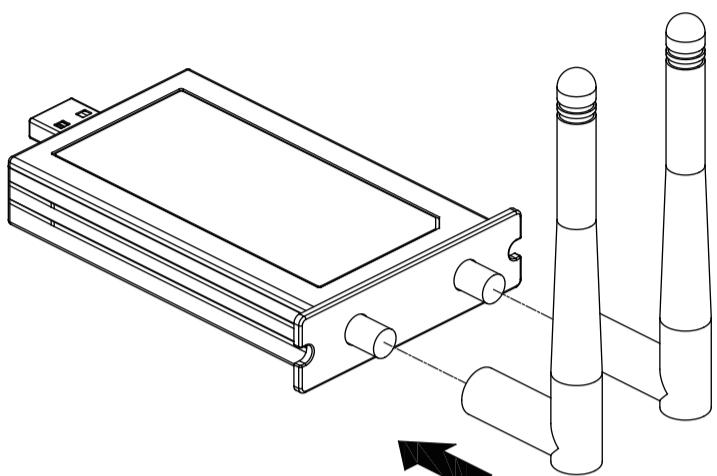


Quick start guide
快速安裝指南



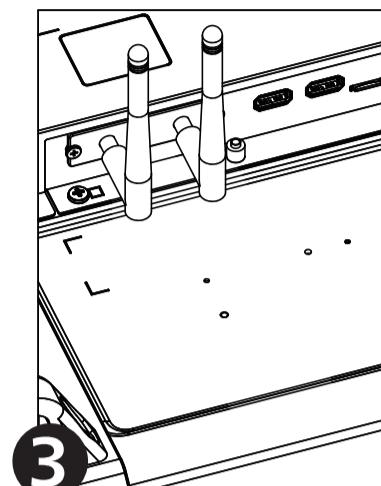
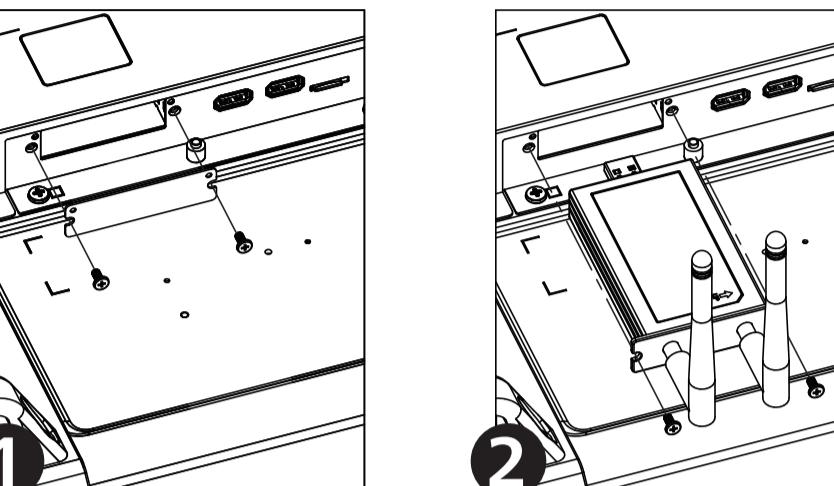
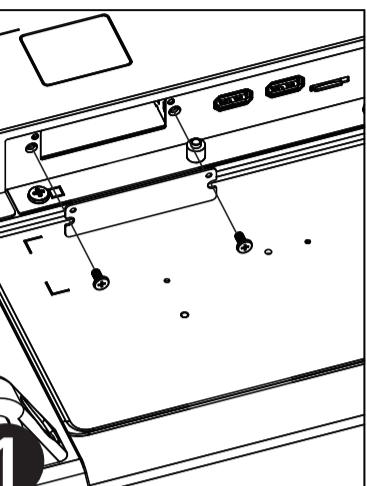
Dipole Antenna x2
外部天線 x2

1 Installation 安裝



2 Install CRD22 into display 安裝CRD22於顯示器內

- Please ask the professionals to install the CRD22 Wi-Fi module.
請專業人士協助安裝CRD22 Wi-Fi 無線模組。
- Ensure your display is powered off before installation.
安裝前請確認顯示器電源是關閉狀態。



Step 1: Remove the two screws from cover and keep them for Step 3.
卸除遮蔽蓋與其螺絲，螺絲請保留給Step 3。

Step 2: Install CRD22 Wi-Fi module. Please plug-in it to the slot slowly and carefully.
小心並適當的安裝Wi-Fi 無線模組。

Step 3: Use the screws in Step 1 to fix the Wi-Fi module.
使用Step1卸除的螺絲來固定Wi-Fi 無線模組。

3 Safety Instructions 安全說明

Safety precautions and maintenance

WARNING: Use of controls, adjustments or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards and/or mechanical hazards.



Read and follow these instructions when connecting and using your CRD22 Wi-Fi module:

Operation:

- Keep the CRD22 Wi-Fi module out of direct sunlight and away from stoves or any other heat sources.
- Keep the CRD22 Wi-Fi module away from oil, otherwise the plastic cover may be damaged.
- Remove any object that could fall into ventilation holes or prevent proper cooling of the CRD22 Wi-Fi module's electronics.
- Do not block the ventilation holes on the cabinet.
- Do not subject the CRD22 Wi-Fi module to severe vibration or high impact conditions during operation.
- Do not knock or drop the CRD22 Wi-Fi module during operation or transportation.
- For doors or covers intended to be removed by operator for installation of accessory devices. Instructions shall be provided for the correct removal and reinstallation of the door.

Maintenance:

- Unplug the CRD22 Wi-Fi module if you are not going to use it for an extensive period of time.
- Unplug the CRD22 Wi-Fi module if you need to clean it with a slightly damp cloth. The screen may be wiped with a dry cloth when the power is off. However, never use organic solvent, such as, alcohol, or ammonia-based liquids to clean your CRD22 Wi-Fi module.
- To avoid the risk of shock or permanent damage to the set, do not expose the CRD22 Wi-Fi module to dust, rain, water or an excessively moist environment.
- If your CRD22 Wi-Fi module becomes wet, wipe it with dry cloth as soon as possible.
- If a foreign substance or water gets in your CRD22 Wi-Fi module, turn the power off immediately and disconnect the power cord. Then remove the foreign substance or water, and send the unit to the maintenance center.
- Do not store or use the CRD22 Wi-Fi module in locations exposed to heat, direct sunlight or extreme cold.
- In order to maintain the best performance of your CRD22 Wi-Fi module and ensure a longer lifetime, we strongly recommend using the CRD22 Wi-Fi module in a location that falls within the following temperature and humidity ranges.

- Temperature: 0~40°C 32~104°F

- Humidity: 20~80% RH

Service:

- The casing cover should be opened only by qualified service personnel.
- If there is any need for repair or integration, please contact your local service center.
- Do not leave your CRD22 Wi-Fi module under direct sunlight.

If your CRD22 Wi-Fi module does not operate normally, having followed the instructions set out in this document, please contact a technician or your local service center.



Warning:

This equipment is compliant with Class A of EN55032/CISPR 32. In a residential environment this equipment may cause radio interference.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

3 Safety Instructions 安全說明

EU Declaration of Conformity / UK Declaration of Conformity

This device complies with the essential requirements of the Radio Equipment Directive (2014/53/EU) or Radio Equipment Regulations 2017(for UK).

The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the Radio Equipment Directive

Radiation Exposure Statement:

The equipment complies with CE radiation exposure limits set forth for an uncontrolled environment.

The equipment should be installed and operated with minimum distance 20cm between the radiator & body.

The frequency, mode and the maximum transmitted power are listed below:

- 2400-2483MHz: < 20 dBm (EIRP) (for 2.4G product only)
- 5150-5250MHz: < 23 dBm (EIRP)
- 5250-5350MHz: < 23 dBm (EIRP)
- 5470-5725MHz: < 30 dBm (EIRP)
- 5725-5875MHz: < 13.98 dBm (EIRP)

The device is restricted to indoor use only when operating in the 5150 to 5350MHz frequency range. (for 5G product only)



FCC/ISED/CE-RED Caution:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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

Operations in the 5GHz products are restricted to indoor usage only.

Radiation Exposure Statement:

This equipment complies with FCC/ISED/CE-RED 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 aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé.

Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Thailand



3 Safety Instructions 安全說明

North Europe (Nordic Countries) Information

Placering/Ventilation

VARNING:
FÖRSÄKRA DIG OM ATT HUVUDBRYTARE OCH UTTAG ÄR LÄTTÅKOMLIGA, NÄR DU STÄLLER DIN UTRUSTNING PÅPLATS.

Placering/Ventilation

ADVARSEL:
SØRG VED PLACERINGEN FOR, AT NETLEDNINGENS STIK OG STIKKONTAKT ER Nemt tilgængelige.

Paikka/Illminkero

VAROITUS:
SUJOITA LAITE SITEN, ETTÄ VERKKOJOHTO VOIDAAN TARVITTAESSA HELPOSTI IRROTTAA PISTORASIASTA.

Plassering/Ventilasjon

ADVARSEL:
NÅR DETTE UTSTYRET PLESSERES, MÅ DU PASSE PÅ AT KONTAKTENE FOR STØMTILFØRELSE ER LETTE Å NÅ.

China RoHS

根据中国大陆《电器电子产品有害物质限制使用管理办法》，以下部分列出了本产品中可能包含的有害物质的名称和含量。

部件名称	有害物质					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
外壳	O	O	O	O	O	O
电路板组件*	X	O	O	O	O	O
其它线材	X	O	O	O	O	O

本表格依据SJ/T 11364 的规定编制。

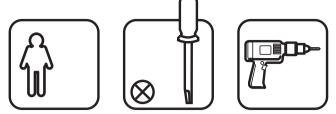
*: 电路板组件包括印刷电路板及其构成的零部件，如电阻、电容、集成电路、连接器等。

O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。

上表中打“X”的部件，功能需要，部分有害物质含量超出GB/T 26572规定的限量要求，但符合欧盟RoHS法规要求（属于豁免部分）。

备注：上表仅做为范例，实际标示时应依照各产品的实际部件及所含有害物质进行标示。



3 Safety Instructions 安全說明



环保使用期限

此标识指期限(十年)，电子电气产品中含有的有害物质在正常使用的条件下不会发生外泄或突变，电子电气产品用户使用该电子电气产品不会对环境造成严重污染或对其人身、财产造成严重损害的期限。

《废弃电器电子产品回收处理管理条例》提示性说明

为了更好地关爱及保护地球，当用户不再需要此产品或产品寿命终止时，请遵守国家废弃电器电子产品回收处理相关法律法规，将其交给当地具有国家认可的回收资质的厂商进行回收处理，不当利用或者处置可能会对环境和人类健康造成影响。

臺灣RoHS

單元	限用物質及其化學符號					
	鉛(Pb)	汞(Hg)	镉(Cd)	六價鉻(Cr(VI))	多溴聯苯(PBB)	多溴二苯醚(PBDE)
塑膠機構件	○	○	○	○	○	○
線材及連接頭	—	○	○	○	○	○
電路板總成	—	○	○	○	○	○
天線	—	○	○	○	○	○

備考1. “超出0.1 wt %” 及 “超出0.01 wt %” 係指限用物質之百分比含量超出百分比含量基準值。

備考2. “○” 係指該項限用物質之百分比含量未超出百分比含量基準值。

備考3. “—” 係指該項限用物質為排除項目。

警告：為避免電磁干擾，本產品不應安裝或使用於住宅環境。

Turkey RoHS:

Türkçe Cumhuriyeti: EEE Yönetmeliğine Uygundur

Ukraine RoHS:

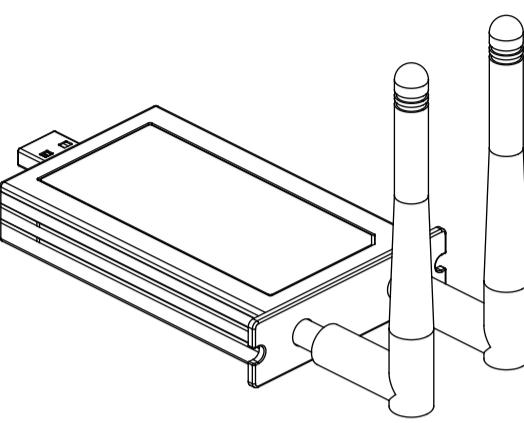
Обладання відповідає вимогам Технічного регламенту щодо обмеження використання деяких небезпечних речовин в електричному та електронному обладнанні, затвердженого постановою Кабінету Міністрів України від 3 грудня 2008 № 1057

End-of-Life Disposal

Your new Public Information Display contains materials that can be recycled and reused. Specialized companies can recycle your product to increase the amount of reusable materials and to minimize the amount to be disposed of.

Please find out about the local regulations on how to dispose of your old CRD22 Wi-Fi module from your local Philips dealer. (For customers in Canada and U.S.A.)

This product may contain lead and/or mercury. Dispose of in accordance to local-state and federal regulations. For additional information on recycling contact www.eia.org (Consumer Education Initiative)



Quick start



3 Safety Instructions 安全說明

Waste Electrical and Electronic Equipment-WEEE

Attention users in European Union private households

This marking on the product or on its packaging illustrates that, under European Directive 2012/19/EU governing used electrical and electronic appliances, this product may not be disposed of with normal household waste. You are responsible for disposal of this equipment through a designated waste electrical and electronic equipment collection. To determine the locations for dropping off such waste electrical and electronic, contact your local government office, the waste disposal organization that serves your household or the store at which you purchased the product.

Taiwan:

低功率電波輻射性電機管理辦法

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

NCC 警語：

1. 避免影響附近雷達系統之操作。

2. 高增益指向性天線只得應用於固定式點對點系統。

本器材須經專業工程人員安裝及設定，始得設置使用，且不得直接販售給一般消費者。

3 Safety Instructions 安全說明

Federal Communication Commission Interference 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 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.

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

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

This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

FOR MOBILE DEVICE USAGE (>20cm/low power)

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 & your body.

This module is intended for OEM integrators only. Per FCC KDB 996369 D03 OEM Manual v01 guidance, the following conditions must be strictly followed when using this certified module:

KDB 996369 D03 OEM Manual v01 rule sections:

1. List of applicable FCC rules

This module has been tested for compliance to FCC Part 15

2. Summarize the specific operational use conditions

The module is tested for standalone mobile RF exposure use condition. Any other usage conditions such as co-location with other transmitter(s) or being used in a portable condition will need a separate reassessment through a class II permissive change application or new certification.

3. Limited module procedures

Not applicable.

4. Trace antenna designs

Not applicable.

5. RF exposure considerations

This equipment complies with FCC mobile radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. If the module is installed in a portable host, a separate SAR evaluation is required to confirm compliance with relevant FCC portable RF exposure rules.

6. Antennas

The following antennas have been certified for use with this module; antennas of the same type with equal or lower gain may also be used with this module. The antenna must be installed such that 20 cm can be maintained between the antenna and users.

3 Safety Instructions 安全說明

7. Label and compliance information

The final end product must be labeled in a visible area with the following: "Contains FCC ID: ARS-CRD22". The grantee's FCC ID can be used only when all FCC compliance requirements are met.

8. Information on test modes and additional testing requirements

This transmitter is tested in a standalone mobile RF exposure condition and any co-located or simultaneous transmission with other transmitter(s) or portable use will require a separate class II permissive change re-evaluation or new certification.

9. Additional testing, Part 15 Subpart B disclaimer

This transmitter module is tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The final host will still need to be reassessed for compliance to this portion of rule requirements if applicable.

As long as all conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID/IC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC/Canada authorization.

NOTE IMPORTANTE: Dans le cas où ces conditions ne peuvent être satisfaites (par exemple pour certaines configurations d'ordinateur portable ou de certaines co-localisation avec un autre émetteur), l'autorisation du Canada n'est plus considérée comme valide et l'ID FCC/ID IC ne peut pas être utilisé sur le produit final. Dans ces circonstances, l'intégrateur OEM sera chargé de réévaluer le produit final (y compris l'émetteur) et l'obtention d'une autorisation distincte au Canada.

Manual Information To the End User

The OEM integrator has to be aware to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

Manuel d'information à l'utilisateur final

L'intégrateur OEM doit être conscient de ne pas fournir des informations à l'utilisateur final quant à la façon d'installer ou de supprimer ce module RF dans le manuel de l'utilisateur du produit final qui intègre ce module.

Le manuel de l'utilisateur final doit inclure toutes les informations réglementaires requises et avertissements comme indiqué dans ce manuel.

OEM/Host manufacturer responsibilities

OEM/Host manufacturers are ultimately responsible for the compliance of the Host and Module. The final product must be reassessed against all the essential requirements of the FCC rule such as FCC Part 15 Subpart B before it can be placed on the US market. This includes reassessing the transmitter module for compliance with the Radio and EMF essential requirements of the FCC rules. This module must not be incorporated into any other device or system without retesting for compliance as multi-radio and combined equipment.

Professional installation instruction

1. Installation personnel
This product is designed for specific application and needs to be installed by a qualified person who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

2. Installation location
The product shall be installed at a location where the radiating antenna can be kept 20 cm from nearby person in normal operation condition to meet regulatory RF exposure requirement.

3. External antenna
Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power which may lead to the violation of FCC/ISED limit and is prohibited.

4. Installation procedure
Please refer to user's manual for the detail.

5. Warning
Please carefully select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penalty.

This device is intended only for OEM integrators under the following conditions: (For module device use)

1) The transmitter module may not be co-located with any other transmitter or antenna.
As long as 1 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

Cet appareil est conçu uniquement pour les intégrateurs OEM dans les conditions suivantes: (Pour utilisation de dispositif module)

1) Le module émetteur peut ne pas être co-placé avec un autre émetteur ou antenne.
Tant que les 1 conditions ci-dessus sont remplies, des essais complémentaires sur l'émetteur ne seront pas nécessaires. Toutefois, l'intégrateur OEM est toujours responsable des essais sur son produit final pour toutes exigences de conformité supplémentaires requis pour ce module installé.

End Product Labeling FOR MOBILE DEVICE USAGE (>20cm/low power)

This transmitter module is authorized only for use in device where the antenna may be installed and operated with greater than 20cm between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains IC: 9190A-CRD22".

Plaque signalétique du produit final
Ce module émetteur est autorisé uniquement pour une utilisation dans un appareil où l'antenne peut être installée et utilisée à plus de 20 cm entre l'antenne et les utilisateurs. Le produit final doit être étiqueté dans un endroit visible avec l'inscription suivante: "Contient des IC: 9190A-CRD22".

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 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;

(iv) where applicable, antenna type(s), antenna model(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 clearly be indicated.

Avertissement:
Le guide d'utilisation des dispositifs pour réseaux locaux doit inclure des instructions précises sur les restrictions susmentionnées, notamment :
(i) les dispositifs fonctionnant dans la bande 5150-5250 MHz 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 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

DETACHABLE ANTENNA USAGE

This radio transmitter [IC: 9190A-CRD22] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio [IC: 9190A-CRD22] a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

Version: V1.01 2022-12-23

TPV USA Corp
6525 Carnegie Blvd #200
Charlotte, NC 28211
USA

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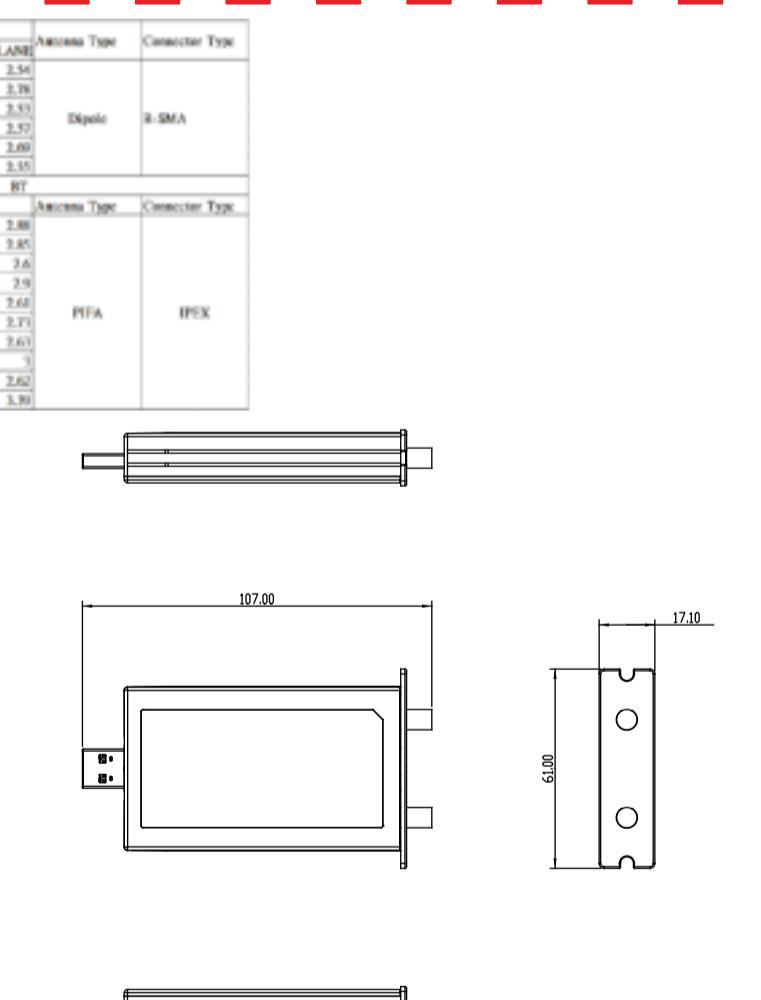
This product has been manufactured by and is sold under the responsibility of Top Victory Investments Ltd., and Top Victory Investments Ltd. is the warrantor in relation to this product. Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. and are used under license.

Specifications are subject to change without notice.

4 Technical Specifications 技術規格

Item 項目	Specification 規格
Main Chip 主晶片	MT7921AU
Front end I/O 輸入/輸出	Input Signal 輸入訊號: USB 3.0 Output Signal 輸出訊號: USB 3.0
Power supply 電源	Type 型式: On board connector for Mainboard Input voltage 輸入電壓: 5V Rating 輸入電源: 5V == 0.9A Power consumption 耗電量: 4.5W Input connector 輸入插孔: USB 3.0
Operational Environment 操作環境	Temperature 溫度: 60°C Humidity 濕度: 20 - 80% (without condensation)
Storage Environment 存放環境	Temperature 溫度: -40 - 80°C Humidity 濕度: 10 - 90% (without condensation) 90-3.5x(Temp-40°C) % regarding over 40°C
Dimension(W x H x D) 尺寸 [寬 x 高 x 深]	Net 尺寸: 107mm x 61mm x 17.1mm Gross 總尺寸: 138mm x 110mm x 32mm
Weight 重量	Net(Kg) 淨重: 0.047 Kg/公斤 Gross(Kg) 毛重: 0.130 Kg/公斤
Media Access Protocol 媒體存取協定	CSMA/CA with ACK

Note:
1: The WLAN operation supports 20MHz, 40MHz and 80MHz channels for data rates up to 1201Mbps.
2: It can be used to provide up to 54Mbps for IEEE 802.11a and IEEE 802.11g, 11Mbps for IEEE 802.11b and 300Mbps for IEEE802.11n.
3: The Bluetooth part supports latest Bluetooth 5.2.



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