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AIRETOS® E20 Class Manual

Product: IEEE 802.11ax/ac/a/b/g/n WiFi6E with BT5.2 Module

ACB-QCA206x Chip-on-Board based modules integrating Qualcomm QCA206x wireless SoCs

OPERATION MANUAL

DCN: 09A-CPD24-B1

Release Date: March 23, 2023

APPLIES TO MODEL NUMBERS: ACB-QCA2066-0WI1, ACB-QCA2066-0WX1, ACB-QCA2066-5WI1, ACB-QCA2066-5WX1, ACB-QCA2066-0WI4, ACB-QCA2066-0WX4, ACB-QCA2066-5WI4, ACB-QCA2066-5WX4 being embedded as-is or on full exposure passive carriers.

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Revision History

Releases	Date	Notes
Version 1.0	March 2023	Initial Release

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1.   Document Conventions

TEXT CONVENTION		
	Bold	Bold type within paragraph text indicates commands, file names, directory names, paths, output, or returned values. Example: The DK_Client package will not function unless you use the wdreg_install batch file.
	Italic	Within commands, italics indicate a variable that the user must specify. Example: *mem_alloc size_in_bytes* Titles of manuals or other published documents are also set in italics.
	Courier	The Courier font indicates output or display. Example: `Error: Unable to allocate memory for transfer!`
	Menu	The Menu character tag is used for menu items. Example: Choose Edit > Copy.
	[ ]	Within commands, items enclosed in square brackets are optional parameters or values that the user can choose to specify or omit.
	{ }	Within commands, items enclosed in braces are options from which the user must choose.
	|	Within commands, the vertical bar separates options.
	…	An ellipsis indicates a repetition of the preceding parameter.
	>	The right angle bracket separates successive menu selections. Example: Start > Programs > DK > wdreg_install.
	" "	Within commend, items are in window menu selection.
NOTICES		**NOTE:** This message denotes neutral or positive information that calls out important points to the text. A note provides information that may apply only in special cases.

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2.   Introduction

Thank you for using the E20 high-speed SMD modules which offer a full implementation of the Wi-Fi 6E standard (IEEE 802.11ax extended to include the ISM 6Ghz bands). The E20B deploys the QCA206x wireless SoC processor family, with the QCA2066 as the flagship model and part of the FastConnect 6900 and Networking Pro architectures.

2.1 Product Description

Wi-Fi Key Features:

- Dual Band Simultaneous (DBS) with dual MAC, up to 3 Gbps dynamic data transfer rate at 2x2 (2.4GHz) + 2x2 (5GHz or 6GHz) 11ax DBS mode. Full 802.11ax/ac/abgn MU-MIMO two antenna Wi-Fi.
- 20/40 MHz channel bandwidth for 2.4 GHz and 20/40/80/160 MHz channel bandwidth for 5 GHz and 6 GHz
- Seamless antenna sharing with LTE, LTE-U and 5G
- Dynamic Frequency Selection (DFS)
- Offloading traffic for minimal host utilization at 11ac/ax speeds
- Low power PCIe (w/L1 sub-state) interface
- Integrated close-loop power detector

BT Key Features:
- Bluetooth 5.2+ with Class I mode, ANT+ and BLE. Backward-compatible to previous standards.
- Split ACL support for A2DP true stereo. Dual eSCO and dual A2DP streams.
- Flexible interface Slimbus/PCM/I2S/I2C for BT audio
- USB or UART and PCM/I2S management

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3.   System Requirements

Minimum Requirements:

- 32-bit PCI Express Bus
- RAM: 1 GB
- Processor 1 GHz
- Hard disk space: 16 GB for 32-bit OS or 20 GB for 64-bit OS
- Graphics card: DirectX 9 or later with WDDM 1.0 driver
- Display resolution: 800 x 600
- Operating System: Windows 10 or higher

4.   Preparation

This manual is demonstrating how to install the driver into a Windows 10 OS host. In this document, we will be using Windows 10 64bit version to demonstrate how to properly install the driver for the AIRETOS E20 Class.

4.1 Software

The latest drivers for Windows can be obtained directly from Microsoft by following the URL below:

https://www.catalog.update.microsoft.com/Search.aspx?q=Qualcomm%20WCN685x%20Wi-Fi%206E%20Dual%20Band%20Simultaneous%20

Make sure the driver package is fully downloaded and saved into a dedicated location (ex. **C:**).

The driver package contains one of the following installation files: qcwlan64.inf or driver-hub-install__28.exe
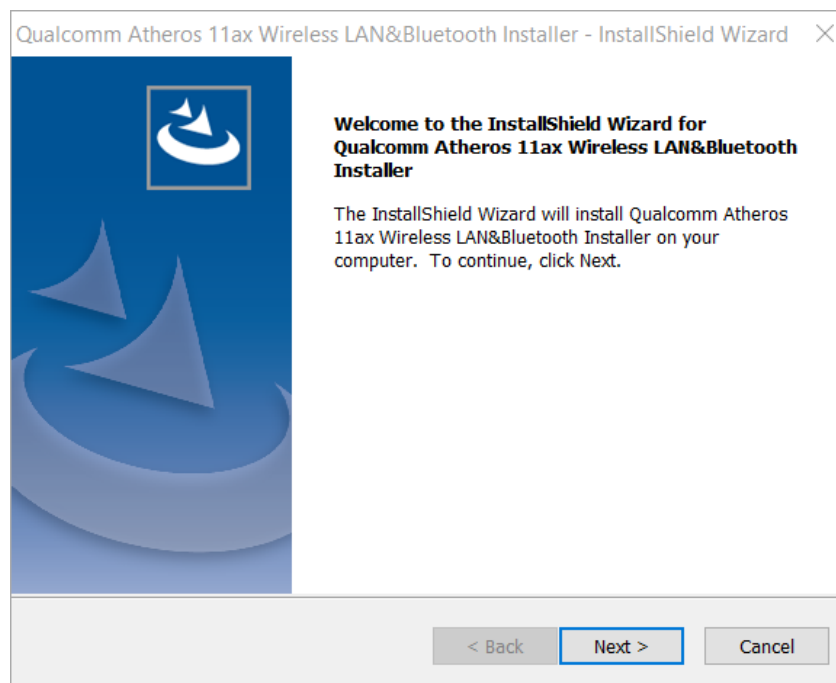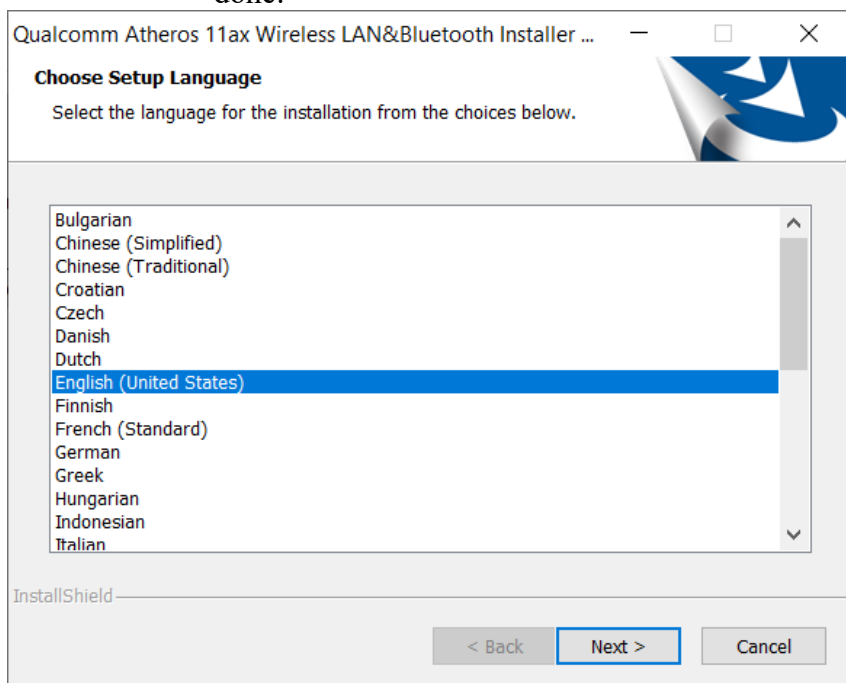
4.2 Hardware

Make sure that you have obtained the correct AIRETOS E20 adaptor for your system and ensure the product is not damaged. Install properly the adaptor at the system slot. Please do notice that you should turn off the computer before the hardware installation can begin. Once you have the hardware installed, then you can proceed with the diver installation.

5.   Windows Driver Installation / Uninstallation

5.1 Windows Driver Installation

1. Double click on the installer executable file (exe file) or the driver information file (inf file) to launch the installer.
2. Walk through the installation process:
   - Choose preferred setup language, click next and wait for the InstallShield Wizard to prepare for setup. Click Next when done:

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- After the preparation, the InstallShield Wizard is ready to install the driver. Click next and wait for the completion of the installation. Once done press on "Finish" to complete the installation.
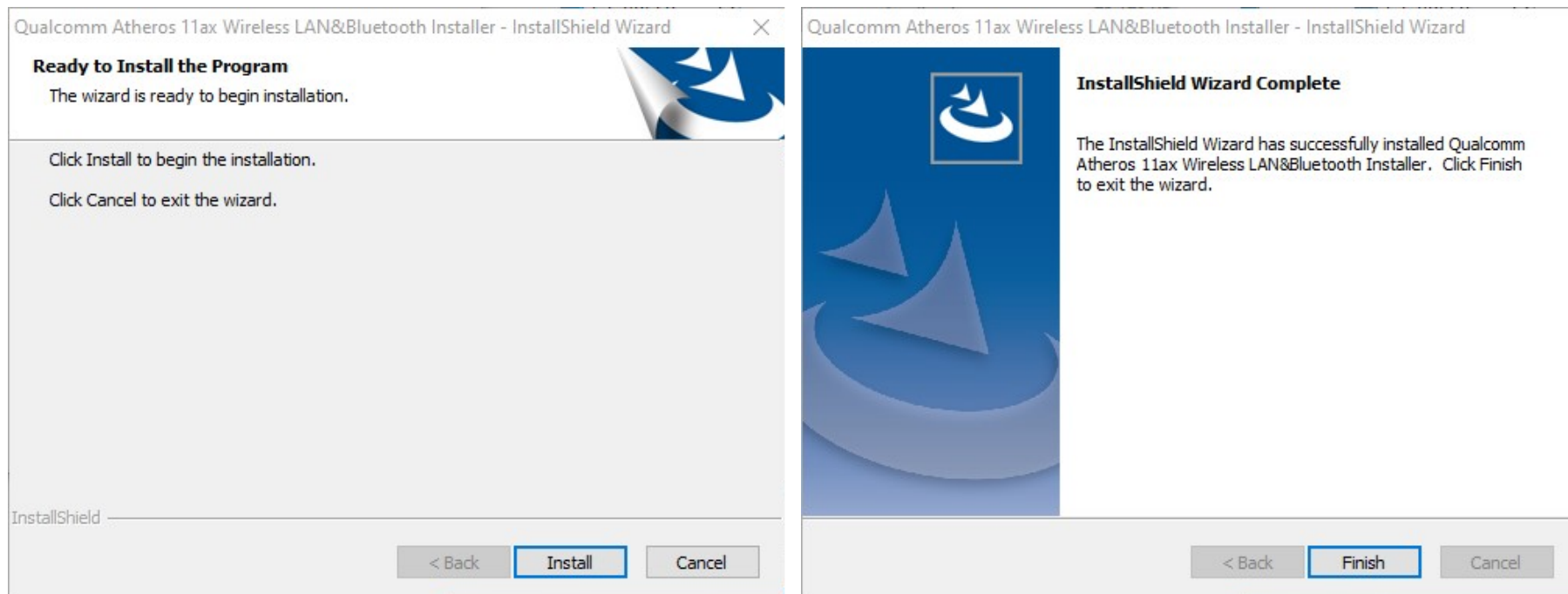
3. Restart your computer to apply changes.

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6. Driver Uninstallation

This section guides on how to uninstall the driver from your system.

1. To remove the driver from the OS, go to Device Manager, by clicking the search bar at the bottom left-hand side corner and type in "**Device manager**".
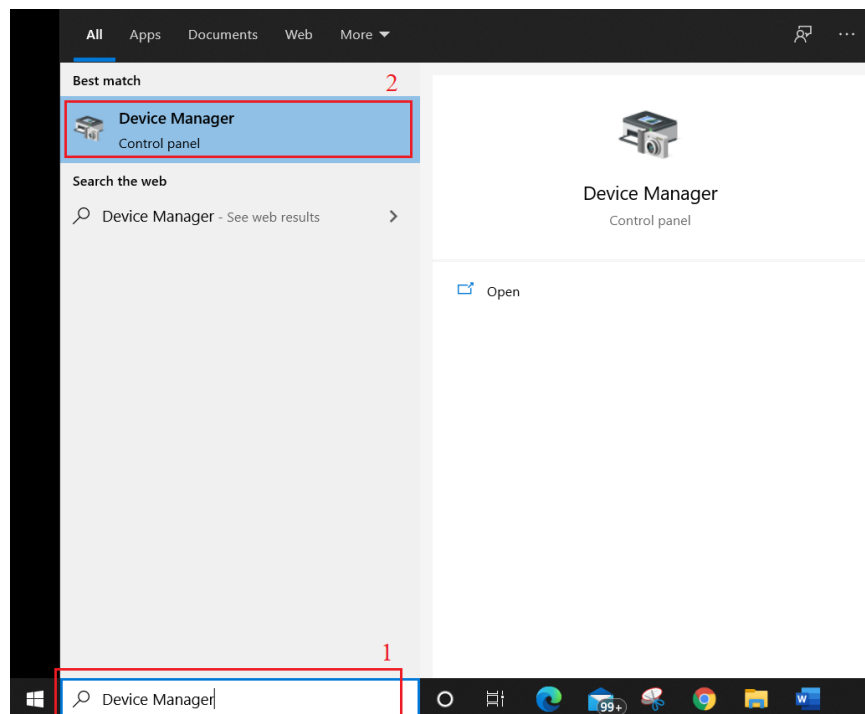
2. Locate and right-click on the Qualcomm Wi-Fi 6 Dual Band Simultaneous (DBS) Network and choose Uninstall. Alternatively, the driver can be uninstalled in the properties window, also by a right click on the correct device line.

3. Click OK to uninstall the device

7.   Connect to the internet

If the previous steps were successful then the device is now ready to set up a connection. In infrastructure (access point (AP)) mode, the wireless network adapter participates in a basic service set (BSS) as a station, and communicates with the other stations through an AP, as illustrated below:
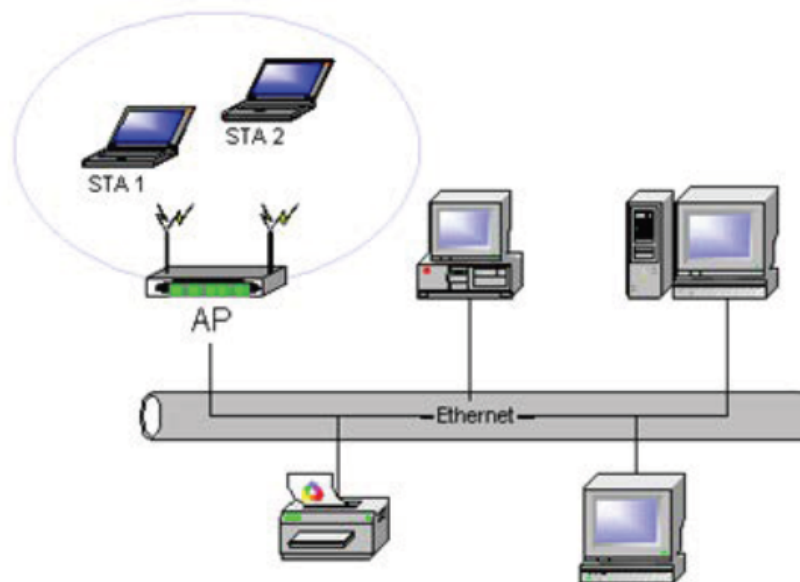
- When the installation of the device is completed, the wireless network adaptor will appear.

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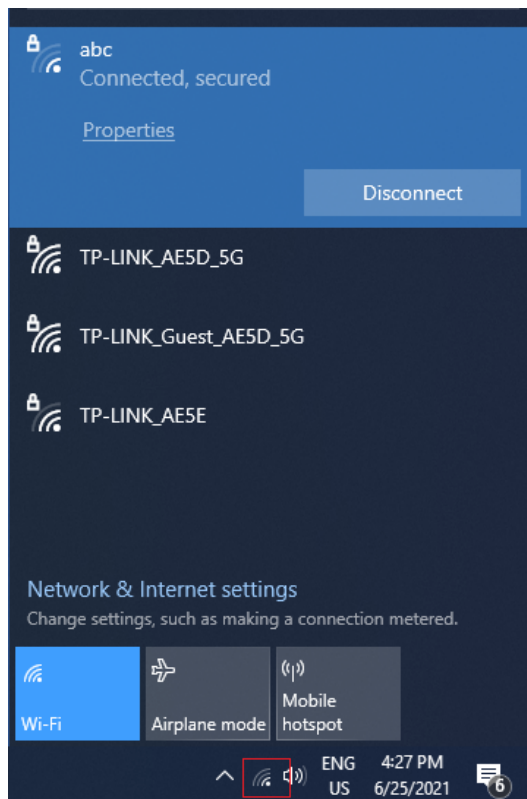Regional offices in California (USA) — Oxfordshire (UK) — Hong Kong and Taiwan R.O.C.
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- Connect to a wireless network; click on the Wi-Fi symbol which is located at the bottom right-hand side of the screen. Then select and connect to the desired access point.

- Select the **"connect"** option and it will try to connect to the access point that has been selected.
- A hand-shake process will take place between the wireless adaptor and the access point.
- The connection between the computer and the access point will be established once the authentication and authorization have been confirmed.

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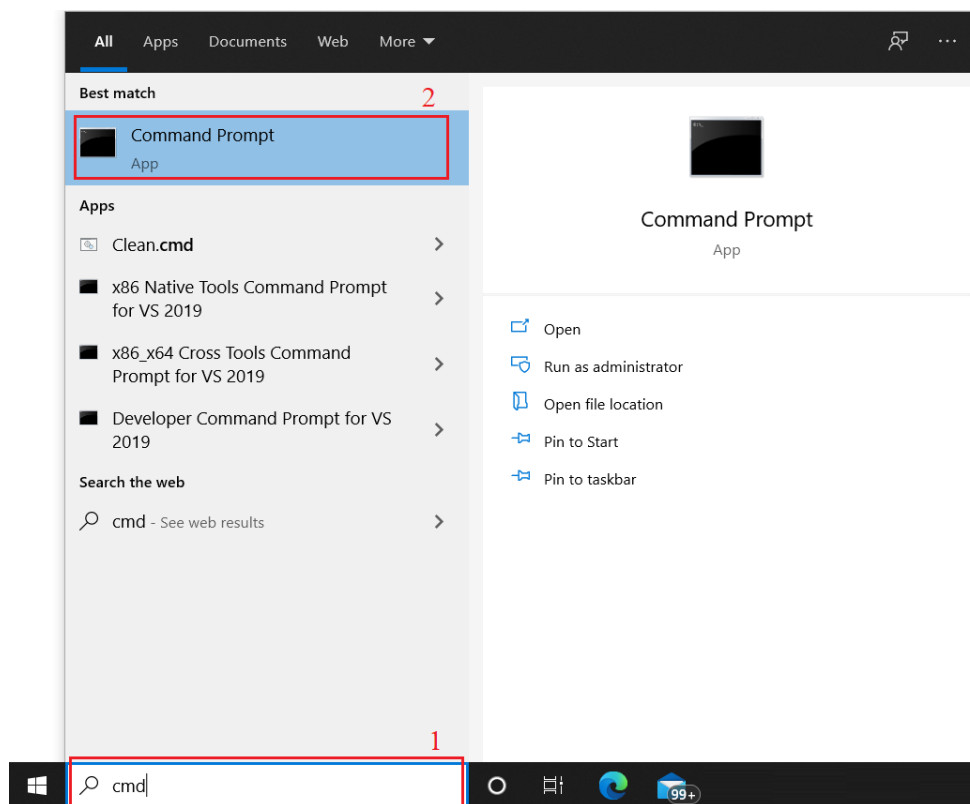## 8.   Connection verification

The device should have a connection with the access point. You can now connect to the internet cloud. Ping can be used for testing the physical link. For example, you can ping google IP using command prompt.

Using ping to test the physical link

- Type "**CMD**" into the search bar located at the bottom left corner on Windows 10 and click on "**Command Prompt**":

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- Ping 8.8.8.8 in the CMD window to ping the Googles server by typing "*ping 8.8.8.8*".

- The physical link connection is established between the device and the Google server if the ping has a reply from 8.8.8.8.

The wireless network adaptor now is set up completely and working properly. Your device should be able to connect now.

9.   Regulatory Compliance Notice

9.1 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 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 your authority to operate the equipment.

RF exposure statements

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

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 24 centimeters between the radiator and your body or nearby persons.

CFR 47 FCC PART 15 SUBPART C (15.247) and SUBPART E (15.407) has been investigated. It is applicable to the modular transmitter.

The devices must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

This radio transmitter 2AE3B-ACB-QCA206X has been approved by Federal Communications Commission 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.

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Unique antenna connector must be used on the Part 15 authorized transmitters used in the host product.

Antenna Type	Brand	Antenna Model	Maximum Gain (dBi)	
			2.4 GHz	5GHz
Omni	OXFORDTEC	WANT-4DBI-SMA	3.5 dBi	3.8 dBi

Length of RF cable:150mm

Connector type of RF cable: I-PEX/MHF1 to RP-SMA(F)

If the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains Transmitter Module FCC ID:2AE3B-ACB-QCA206X" Or "Contains FCC ID:2AE3B-ACB-QCA206X"

The modular transmitter is only FCC authorized for the specific rule parts (i.e., FCC transmitter rules) listed on the grant, and the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. The final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.

9.2 Industry Canada statement:

This device complies with Industry Canada license-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d'Industrie 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'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

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Caution:

1) 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;

2) 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;

3) 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 specified for point-to-point and non-point-to-point operation as appropriate; and

Avertissement:

1) Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

2) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la imitation P.I.R.E.;

3) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas.

Radiation Exposure Statement:

This equipment complies with IC 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 IC 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.

This radio transmitter (IC: 20662-ACBQCA206X has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

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Antenna Type	Brand	Antenna Model	Maximum Gain (dBi)	
			2.4 GHz	5GHz
Omni	OXFORDTEC	WANT-4DBI-SMA	3.5 dBi	3.8 dBi

Le présent émetteur radio (IC: 20662-ACBQCA206X a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés cidessous 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, sont strictement interdits pour l'exploitation de l'émetteur.

If the ISED certification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains IC: 20662-ACBQCA206X".

Si le numéro de certification ISDE n'est pas visible lorsque le module est installé à l'intérieur d'un autre appareil, alors l'extérieur de l'appareil dans lequel le module est installé doit également afficher une étiquette faisant référence au module inclus. Cette étiquette extérieure peut utiliser un libellé comme celui-ci: " Contient IC: 20662-ACBQCA206X".

Plaque signalétique du produit final:
Le produit final doit être étiqueté dans un endroit visible avec l'inscription suivante: "Contient des IC: 20662-ACBQCA206X ".

Manual Information To the End User:
The OEM integrator has to be aware not 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.
The end user manual shall include all required regulatory information/warning as show in this manual.

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 manue

Must use the device only in host devices that meet the FCC/ISED RF exposure category of mobile, which means the device is installed and used at distances of at least 20cm from persons.
The end user manual shall include FCC Part 15 /ISED RSS GEN compliance statements related to the transmitter as show in this manual.
Host manufacturer is responsible for compliance of the host system with module installed with all other applicable requirements for the system such as Part 15 B, ICES 003.

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Host manufacturer is strongly recommended to confirm compliance with FCC/ISED requirements for the transmitter when the module is installed in the host.
Must have on the host device a label showing Contains FCC ID: 20662-ACBQCA206X, Contains IC: 20662-ACBQCA206X
The use condition limitations extend to professional users, then instructions must state that this information also extends to the host manufacturer's instruction manual.

If the end product will involve the Multiple simultaneously transmitting condition or different operational conditions for a stand-alone modular transmitter in a host, host manufacturer have to consult with module manufacturer for the installation method in end system.

l'hôte doit utiliser l'instrument uniquement dans des dispositifs qui répondent à la fcc / (catégorie d'exposition rf mobile, ce qui signifie le dispositif est installé et utilisé à une distance d'au moins 20 cm de personnes.
le manuel de l'utilisateur final doit inclure la partie 15 / (fac rss gen déclarations de conformité relatives à l'émetteur que de montrer dans ce manuel.
le fabricant est responsable de la conformité de l'hôte, le système d'accueil avec le module installé avec toutes les autres exigences applicables du système comme la partie 15 b, ices - 003. accueillir le fabricant est fortement recommandé de confirmer la conformité avec les exigences de la fcc / (émetteur lorsque le module est installé dans l'hôte.
le dispositif d'accueil doivent avoir une étiquette indiquant contient FCC ID:2AE3B-ACB-QCA206X, contient IC : 20662-ACBQCA206X

9.3 EU Statement

EU DECLARATION OF CONFORMITY

1. Radio equipment (product, type, batch or serial number)

2. Name and address of the manufacturer or his authorised representative:

3. This declaration of conformity is issued under the sole responsibility of the manufacturer.

4. Object of the declaration (identification of product allowing traceability. It may include a colour image of sufficient clarity to enable the identification of the radio equipment)

5. The object of the declaration described in point 4 is in conformity with the relevant Union harmonisation legislation: Directive 204/53/EU Other Union harmonization legislation where applicable.

6. References to the relevant harmonised standards used, or references to the other specifications in relation to which conformity is declared.

7. Where applicable: the notified body ... (name, number)… performed … (description of intervention)… and issued EU-type examination certificate:

8. Where a[[;ocan;e, description of accessories and components, including software, which allow the radio equipment to operate as intended and covered by the EU declaration of conformity.

9. Additional information: Signed for and on behalf of:(place and date of issue)(name, function)(signature)

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References to the relevant harmonized standards used or references to the specifications in relation to which conformity is declared(with versions or year indication):

- RF
- EN300 328 V2.2.2
- EN301 893 V2.1.1
- EN 303 687 V1.1.1
- EMC
- ETSI EN 301 489-1 V2.2.3
- ETSI EN 301 489-17 V3.2.4
- Health
- EN62311:2008
- EN 62368-1:2014/A11:2017

Declaration of Conformity with regard to the RE Directive 2014/53/EU.

Declaration of Conformity with regard to the RoHS Directive 2011/65/EU

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Address: 299, Leof. Kifisias 14561 – Kifisia, Athens GREECE

RF Exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

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Antenna list

Antenna Type	Brand	Antenna Model	Maximum Gain (dBi)	
			2.4 GHz	5GHz
Omni	OXFORDTEC	WANT-4DBI-SMA	3.5 dBi	3.8 dBi

All operational modes:

Technologies	Frequency range (MHz)	Max. Transmit Power	Note
BT 2.4 GHz	2402-2480 MHz	8dBm	EIRP
WiFi 2.4 GHz	2412-2472 MHz	20.5dBm	EIRP
WiFi 5GHz	5180-5240MHz 5260-5320 MHz 5550-5700 MHz	19.5dBm	EIRP
WiFi 6GHz	5955-6415 MHz	19.5dBm	EIRP

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

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應避免影響附近雷達系統之操作。

高增益指向性天線只得應用於固定式點對點系統。

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10. Appendix

At the time of this document being released the following versions are valid. Later releases are by rule backwards compatible.

- HW: 1.05
- FW: 1.0.0.1456

10.1 Specifications

SOLUTION DESIGN	**Chipset**	Qualcomm QCA2066-0 for BT via UART or QCA2066-5 for BT via USB as the main high-availability and low effective lead-time ASIC choices. • optional use of the respective QCA2065, QCA2064 or QCA2062 chip variants • the WCN685x family and the QCA6898 IC are also supported
	Standard	IEEE 802.11ax Wi-Fi6E plus Bluetooth 5.2 Combo, full backwards compatibility to previous standards
	Industrial Reference	Based on Qualcomm Verona reference design; hardware compatible also to Hastings-Prime reference design
APPEARANCE	**Communications Interface**	LGA-type solder pads: WLAN: via PCI Express Standard 3.0 host I/O BT: via UART (with QCA206x-0 SoCs). or via USB 1.1 (with QCA206x-5 SoCs) BT Audio: via selectable Slimbus/PCM/I2S
	Form Factor	SMD, Chip-on-Board, Soldered, Stamp down, 112 each of Land Grid Array (LGA) type pins, 23.0 x 25.0 mm
ANTENNA	**Configuration**	WLAN: Two Streams (2 chains), 2x2, 2 Connectors, MU-MIMO BT: One Stream (1 chain), 1x1, 1 Connector
	Type	MHF1 Connectors with option for MHF4：2 each (one of which provides co-existence to Bluetooth with WLAN)
WIRELESS PARAMETERS	**Frequency Bands**	WLAN: 2.4 GHz ISM Bands 2.412-2.472 GHz, 2.484 GHz up to a max of 2.496 GHz 4.9 GHz (optional band support for Japan only) 5.15-5.25 GHz (FCC UNII-low band) for US/Canada, Japan and Europe 5.25-5.35 GHz (FCC UNII-middle band) for US/Canada and Europe 5.47-5.725 GHz for Europe 5.725-5.825 GHz (FCC UNII-high band) for US/Canada 5.850–5.925 GHz (optional band support for U-NII-4 DSRC/ITS) 5.925–6.425 GHz (U-NII-5) [implemented with QCA2066 and QCA2065 only] 6.425–6.525 GHz (U-NII-6) [implemented with QCA2066 and QCA2065 only] 6.525–6.875 GHz (U-NII-7) [implemented with QCA2066 and QCA2065 only] 6.875–7.125GHz (U-NII-8) [implemented with QCA2066 and QCA2065 only] BT: 2402MHz~2480MHz

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Data Transfer Rates	WLAN:	802.11ax: Up to 3000Mbps (dynamic) 802.11ac: Up to 867Mbps (dynamic) 802.11n: Up to 300Mbps (dynamic) 802.11a/g: Up to 54Mbps (dynamic) 802.11b: Up to 11Mbps (dynamic)
	BT:	GFSK at 1Mbp π/4-DQPSK at 2Mpbs 8DPSK at 3Mpbs
Media Access Control	CSMA/CA with ACK	
Channels	2.4GHz: 1-13 (14 only for Japan) 5GHz: 36-64, 100-165 6GHz: 191-423 (depending on operating domain, with QCA2066 and QCA2065 chips only)	
Channel Spacing	5MHz, 10MHz, 20 MHz, 40Mhz selectable for 2.4Ghz band. 80Mhz and 160MHz* are also selectable for 5Ghz and 6Ghz spectrums. * 160Mhz is implemented with QCA2066 and QCA2065 chips only.	
Spreading / Modulation	WLAN:	802.11ax: OFDMA (BPSK, adds 1024-QAM on MCS10 and MCS11) 802.11ac/g/n: OFDM (BPSK, DSSS-OFDM, QPSK,16-QAM,64-QAM, 256-QAM), MRC, STBC, LDPC, ML Demodulation 802.11b: CCK (11, 5.5Mbps), DQPSK (2Mbps), BPSK (1Mbps)
	BT:	GFSK, π/4-DQPSK, 8DPSK
Operating Range	Open Space: ~300 m; Indoor: :~100 m (Coverage vary according to environment, antenna and topography)	
Wireless Security	WEP 64-bit and 128-bit encryption WPA/WPA2/WPA3 UL/DL (Wi-Fi Protected Access)	
MODALITIES	Infrastructure, AP/STA, Client, Bridge, Mixed-mode, P2P/Ad-hoc, EasyMesh. DBS & NON-DBS (SCC & MCC)	
SAFETY & REGULATORY	Compliant with FCC, IC ISED , CE RED and more. Compliant with RoHS3.	
IEEE WLAN Network	IEEE 802.11a/b/g/n/ac/ax (Wi-Fi6E), IEEE 802.11d, e, h, i, j, k, r, u, v, w, z, ae	
Other Standards	Bluetooth 5.2 Milan & advanced features: Errata ,Advertisement Extensions, Channel selection, LE2M, LELR, High Duty Cycle non-connectable advertisements, BT 5.1, ESR11 & ESR12, Minor Functional Enhancements, Advertisement channel, Index, Periodic Advertisement Sync Transfer, Control Length Extension, HID over GATT Profile, SPP Over BR/EDR, A2DP Source, A2DP Sink, AVRCP	
Industry Standards		

PROTOCOLS

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HOST SYSTEM REQUIREMENTS	**Operating System**	Android/Linux Closed Source, Android/Linux Open Source, Qualcomm Embedded Platform, Windows, MacOS * Host supporting PCIe 32 or single MSI interrupts is required for some setups. ** 50+ MB memory (RAM) is recommended for best performance.
ENVIRONMENTAL	**Operating Temperature**	-40° ~ +85° Celsius
	Storage Temperature	-40° ~ +125° Celsius
	Operating Humidity	10% ~ 90% non-condensing
	Storage Humidity	5% ~ 90% non-condensing
	Moisture Sensitivity Level	MSL3 based on IPC/JEDEC J-STD-020D. Standard for handling see IPC/JEDEC J-STD-033C
ELECTRICAL	**I/O Voltage**	3.3V +/-5%
	Power Consumption	max 2.45W on CTx @ 2.4GHz max 2.75W on CTx @ 5GHz max 3.55W on CTx @ 6GHz
MECHANICAL	**Dimensions**	23.0mm x 25.0mm x 2.5mm (with shielding)
	Weight	3.6 g
PACKAGING	**Packing style**	Tape & Reel, stored sealed under vacuum
	Package Contents	Module only