

# User Guidance for Module AXD-Y1

FCC ID: UFEAXD-Y1; IC: 6652A-AXDY1

## 1. Introduction

Module Model Name: AXD-Y1

This module AXD-Y1 is the dual-band 2.4GHz and 5GHz bands Wi-Fi module which is compliant with IEEE802.11a/b/g/n/ac specification.

Bluetooth (BT) compliant with the BT specification version 4.2 (BLE).

## 2. Electrical

Chipset: The module main chipset: APQ8009, PM8916, QCA6174A

Supply: The module source all required power from a 4.3V +/- 0.3V input supply.

## 3. Environmental

Operating Temperature: The module operate across the temperature range of -10°to 55°Celsius

## 4. OEM/Integrators Installation Manual:

- **Important Notice to OEM integrators**

1. This module is limited to OEM installation ONLY.
2. This module is limited to installation in mobile or fixed applications, according to Part 2.1091(b).
3. The separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and different antenna configurations
4. For FCC Part 15.31 (h) and (k): The host manufacturer is responsible for additional testing to verify compliance as a composite system. When testing the host device for compliance with Part 15 Subpart B, the host manufacturer is required to show compliance with Part 15 Subpart B while the transmitter module(s) are installed and operating. The modules should be transmitting and the evaluation should confirm that the module's intentional emissions are compliant (i.e. fundamental and out of band emissions). The host manufacturer must verify that there are no additional unintentional emissions other than what is permitted in Part 15 Subpart B or emissions are complaint with the transmitter(s) rule(s).

The Grantee will provide guidance to the host manufacturer for Part 15 B requirements if needed.

- **End Product Labeling**

When the module is installed in the host device, the FCC/IC ID label must be visible through a window on the final device or it must be visible when an access panel,

door or cover is easily re-moved. If not, a second label must be placed on the outside of the final device that contains the following text: “Contains FCC ID: UFEAXD-Y1”  
“Contains IC: 6652A-AXDY1 “

The FCC ID/IC ID can be used only when all FCC/IC compliance requirements are met.

- **Antenna Installation**

(1) The antenna must be installed such that 20 cm is maintained between the antenna and users,

(2) The transmitter module may not be co-located with any other transmitter or antenna.

(3) Only antennas of the same type and with equal or less gains as shown below may be used with this module. Other types of antennas and/or higher gain antennas may require additional authorization for operation.

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC/IC authorization is no longer considered valid and the FCC ID/IC ID cannot 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/IC authorization.

- **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.

## **5. Tested antenna information:**

Antenna No.	Brand	Model	Gain(dBi)	Antenna Type	Frequency Range (GHz to GHz)	Cable Length (mm)
1(External)	Laird	EMN2449A2S-16MHF1	3.15	PCB dipole antenna	2.4-2.4835	160
1(External)	Laird	EMN2449A2S-16MHF1	3.38	PCB dipole antenna	5.15-5.25	160
1(External)	Laird	EMN2449A2S-16MHF1	3.38	PCB dipole antenna	5.25-5.35	160

1(External)	Laird	EMN2449A2S-16MHF1	3.51	PCB dipole antenna	5.47-5.725	160
1(External)	Laird	EMN2449A2S-16MHF1	3.23	PCB dipole antenna	5.725-5.85	160
2(External)	Laird	EMN2449A2S-34MHF1	3.15	PCB dipole antenna	2.4-2.4835	340
2(External)	Laird	EMN2449A2S-34MHF1	3.38	PCB dipole antenna	5.15-5.25	340
2(External)	Laird	EMN2449A2S-34MHF1	3.38	PCB dipole antenna	5.25-5.35	340
2(External)	Laird	EMN2449A2S-34MHF1	3.51	PCB dipole antenna	5.47-5.725	340
2(External)	Laird	EMN2449A2S-34MHF1	3.23	PCB dipole antenna	5.725-5.85	340

## 6. Regulation information:

### • 6.1 USA—Federal Communications Commission (FCC)

#### Federal Communication Commission Interference Statement

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.

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.

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.

CAUTION: (this only applicable to 5GHz device)

High power radars are allocated as primary users of the 5.25 to 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.

System integrators must include the FCC ID on the end product.

## • **6.2 Canada - Industry Canada (IC)**

### **Industry Canada Statement**

This device complies with Industry Canada's licence-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, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."

The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure. Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.

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;

The maximum antenna gain permitted for devices in the bands 5250–5350 MHz and 5470–5725 MHz shall comply with the e.i.r.p. limit; and

The maximum antenna gain permitted for devices in the band 5725–5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point

operation as appropriate.

L'appareil peut interrompre automatiquement la transmission en cas d'absence d'informations à transmettre ou de panne opérationnelle. Notez que ceci n'est pas destiné à interdire la transmission d'informations de contrôle ou de signalisation ou l'utilisation de codes répétitifs lorsque cela est requis par la technologie.

Le dispositif utilisé dans la bande 5150-5250 MHz est réservé à une utilisation en intérieur afin de réduire le risque de brouillage préjudiciable aux systèmes mobiles par satellite dans le même canal;

Le gain d'antenne maximal autorisé pour les dispositifs dans les bandes 5250-5350 MHz et 5470-5725 MHz doit être conforme à la norme e.r.p. limite; et

Le gain d'antenne maximal autorisé pour les appareils de la bande 5725-5825 MHz doit être conforme à la norme e.i.r.p. les limites spécifiées pour un fonctionnement point à point et non point à point, selon le cas.

CAN ICES-3(B)/ NMB-3(B)

- **6.3 Radiation Exposure Statement**

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