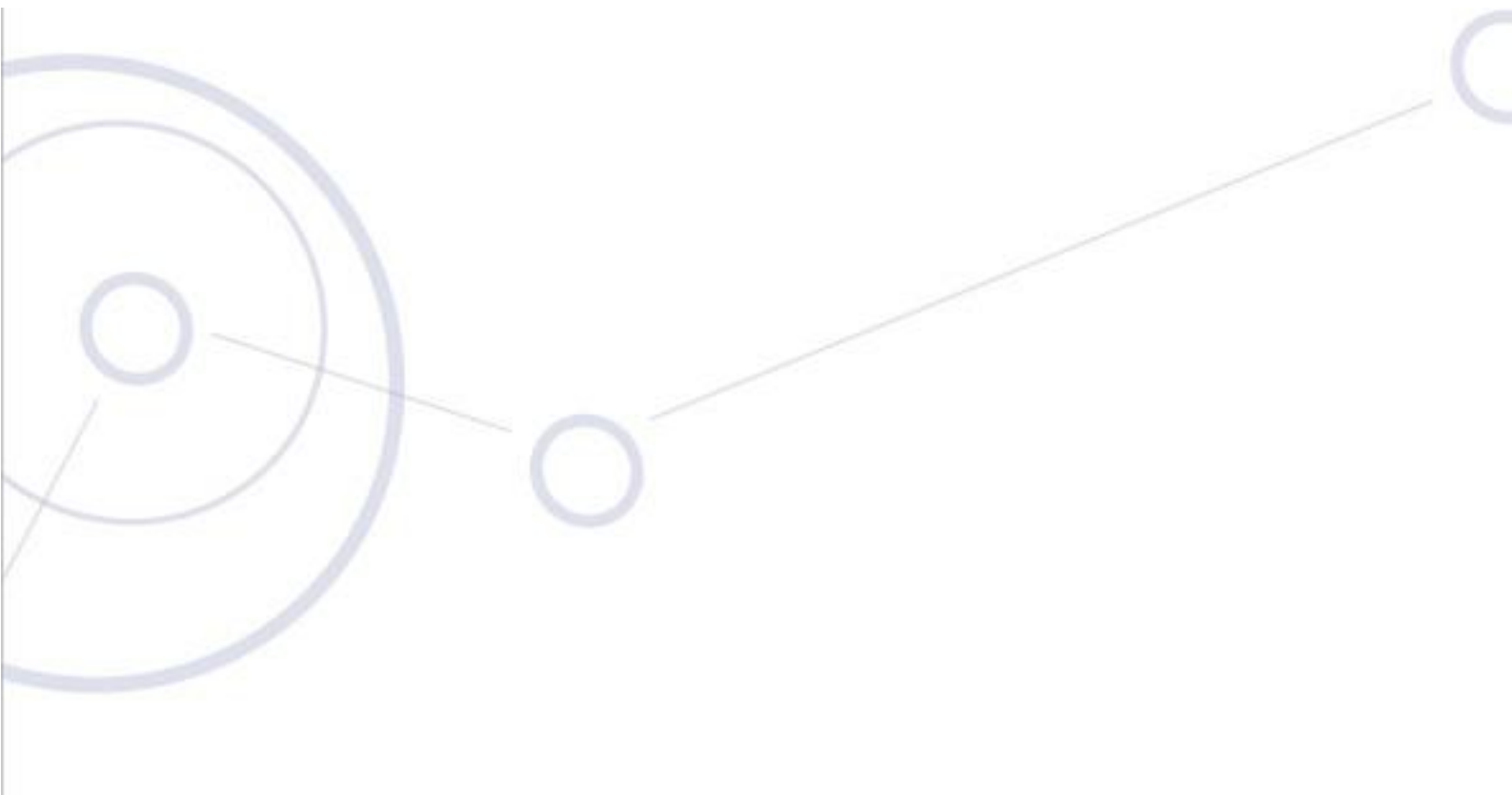


RADWIN

AP0260210

5 GHz MS RF Module

REFERENCE GUIDE



Regulatory Compliance

FCC/ISED - Compliance

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 and ISED RSS standards. 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.

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



Warning

It is the responsibility of the installer to ensure that when using the outdoor antenna kits, only those antennas certified with the product are used. The use of any antenna other than those certified with the product is expressly forbidden by FCC rules 47 CFR part 15.204 and ISED RSS standards.



Avertissement

Il est de la responsabilité de l'installateur de s'assurer que lorsque vous utilisez les kits d'antennes extérieures, seules les antennes certifiées avec le produit sont utilisés. L'utilisation d'une antenne autre que ceux qui sont certifiées avec le produit est expressément interdite par la réglementation FCC partie 47 CFR 15.204 et ISDE normes RSS.



Caution

Outdoor units and antennas should be installed ONLY by experienced installation professionals who are familiar with local building and safety codes and, wherever applicable, are licensed by the appropriate government regulatory authorities. Failure to do so may void the product warranty and may expose the end user or the service provider to legal and financial liabilities. Resellers or distributors of this equipment are not liable for injury, damage or violation of regulations associated with the installation of outdoor units or antennas. The installer should configure the output power level of antennas according to country regulations and antenna type.



Prudence

Les unités extérieures et les antennes doivent être installés que par des professionnels expérimentés d'installation qui sont familiers avec les normes locales et les codes de sécurité et, si applicable, sont agréées par les autorités gouvernementales de réglementation compétents. Ne pas le faire peut annuler la garantie du produit et peuvent exposer l'utilisateur final ou le fournisseur de services d'obligations juridiques et financiers. Revendeurs ou distributeurs de ces équipements ne sont pas responsables des blessures, des dommages ou violation des règlements liés à l'installation des unités extérieures ou des antennes. L'installateur doit configurer le niveau de puissance de sortie des antennes conformément aux réglementations nationales et le type d'antenne.



Warning

The antennas used for this transmitter must be installed to provide a separation distance of at least 201 cm from all persons



Avertissement

Les antennes utilisées pour cet émetteur doivent être installées de manière à fournir une distance de séparation d'au moins 145 cm par rapport à toutes les personnes



Warning

The module is granted to operate under FCC certification in the 5.1/5.8 GHz bands.



Avertissement

Le module est autorisé à fonctionner sous certification ISDE dans les bandes 5,8 GHz.

This device complies with Part 15 of the FCC rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme la norme d'Industrie Canada exempts de licence RSS (s). Son fonctionnement est soumis aux deux conditions suivantes:

1. Cet appareil ne peut pas causer d'interférences, et
2. Cet appareil doit accepter toute 3nterference, y compris les 3nterferences qui peuvent causer un mauvais fonctionnement de l'appareil.

This Class B digital apparatus complies with Canadian ICES-003.

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

Overview

The AP0260210 is an RF module operating in the 5.1 and 5.8 GHz frequency bands. It is a TDD OFDM radio supporting 20 MHz, 40 MHz and 80 MHz channel bandwidths. It is a 2x2 MIMO transceiver, with two RF interfaces capable of toggling between them.

The MS RF module cannot work as a stand-alone device. It can operate and be controlled only when installed in a host enclosure manufactured by RADWIN.

The MS RF module is certified as a limited modular approval type under the FCC ID: Q3K-5XACMODMS. It is also certified under IC: 5100A-5XACMODMS for 5.8 GHz band.

Condition of Use

The AP0260210 MS RF module is a proprietary radio interface and can only be connected to digital boards manufactured by RADWIN. The MS RF module is not for sale to the general public or for installation in hosts not manufactured by RADWIN.

FCC rules and ISED Regulation Restrictions

The host firmware is factory programmed to operate under the FCC rules and ISED regulation restrictions. The firmware is locked and inaccessible by any third party. As a result of the above the user interface allows both the installer and the user to control the host only within the boundaries of the regional restrictions.

Antennas

The AP0260210 MS RF module is certified with a wide range of antenna types covering both Point-to-Point and Point-to-Multipoint systems up to 31 dBi gain.

Antennas

Following is the list of antennas supported by the AP0260210 5 GHz MS RF Module:

Antenna Type	Manufacturer	Model Number	Antenna Max Gain (dBi)	
			5.1 GHz	5.8 GHz
Sector Dual Pole Integrated 90 Deg	RADWIN	Integrated	14	16
Flat Panel Dual Pole Integrated	RADWIN	MT0105940	16	16.5
Sector Dual Pole 90 Deg External	RADWIN	RW-9061-5001	13	13
Sector Dual Pole 60 Deg External	RADWIN	RW-9061-5002	14	14
Sector Dual Pole 120 Deg External	RADWIN	RW-9061-5004	10	10
Sector Dual Pole 90 Deg External	RADWIN	RW-9061-5010	13	15
Flat Panel Dual Pole External	RADWIN	RW-9105-4958	15	15
Flat Panel Dual Pole External	RADWIN	RW-9105-5158	18	18
Flat Panel Dual Pole External	RADWIN	RW-9613-4960	22	22
Flat Panel Dual Pole External	RADWIN	RW-9622-5001	27	27
Dual Pole Dish	RADWIN	RW-9721-5158	27	27
Dual Pole Dish	RADWIN	RW-9732-4958	31	31

Maximum Output Power

5725 – 5850 MHz band – FCC Part 15 Subpart E, RSS 247

The maximum output power can be set as follows, when operating in the 5.8 GHz band, under FCC and ISSED regulations. The power values are for PtP systems with 10 dBi antenna gain and PtMP systems with 15 dBi antenna gain. For PtMP systems the total EIRP is limited to 36 dBm.

The highest conducted output power shall be limited to 30 dBm in all channel bandwidths

P-P	P-MP
20 MHz: 29.0 dBm	20 MHz: 26.0 dBm
40 MHz: 29.0 dBm	40 MHz: 26.0 dBm
80 MHz: 29.0 dBm	80 MHz: 26.0 dBm

5150 – 5250 MHz band – FCC Part 15 Subpart E

The maximum output power can be set as follows when transmitting in the 5.1 GHz band, under FCC regulations.

The total EIRP limit for PtP applications is 53 dBm.

The total EIRP limit for PtMP applications is 36 dBm.

The total EIRP limit for PtMP applications when transmitting at elevations above 30° relative to the horizon is 21 dBm.

P-P	P-MP
20 MHz: 29.0 dBm	20 MHz: 26.0 dBm
40 MHz: 29.0 dBm	40 MHz: 26.0 dBm
80 MHz: 29.0 dBm	80 MHz: 11.0 dBm

Labelling Requirements

The module is labeled with the identification numbers as follows:

FCC ID: Q3K-5XACMODMS
IC: 5100A-5XACMODMS

The host into which the module is assembled is labeled as follows:

Contains FCC ID: Q3K-5XACMODMS
Contains IC: 5100A-5XACMODMS