RADWIN

RADWIN JET DUO 5.x/5.x GHz

Dual Carrier 5 GHz Base Station with Beamforming Antenna

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.

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.

Warning

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Warning

The device is granted to operate under FCC Rules in the 5.1 / 5.8 GHz bands.

Warning

The device is granted to operate under ISED Standards in the 5.8 GHz band.

This device complies with Part 15 of the FCC rules and with ISED 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.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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

Overview

The RADWIN JET DUO 5.x/5.x GHz is a dual carrier base station radio device. It encapsulates two 5.x GHz radio modules as well as independent beamforming antenna for each individual radio. The unit is designed to deliver up to 2 x 1500Mbps. It supports 10, 20, 40 80 MHz channel bandwidths in the frequency range 5150 – 5250 MHz*, 5725 - 5850 MHz. It is using OFDM transmission technique in TDD Duplexing method.
The modulation supported is BPSK, QPSK, 16QAM, 64QAM, 256QAM OFDM
The RADWIN JET DUO 5.x/5.x GHz incorporates an independent beamforming antenna for each radio with software capability to toggle between wide and narrow operating modes.
The RADWIN JET DUO 5.x/5.x GHz is powered by a PoE device and has a LAN port option.
The RADWIN JET DUO 5.x/5.x GHz is certified under the identification numbers FCC ID: Q3K-JETDC5X5X and IC: 5100A-JETDC5X5X.

* Only supported under FCC Rules

Condition of Use

The RADWIN JET DUO 5.x/5.x GHz is a proprietary radio device and can only be deployed and maintained by RADWIN professional installers or its authorized subcontractors

FCC Rules and ISED Regulation Restrictions

The ODU 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 ODU only within the boundaries of the regional restrictions.

Antenna

The RADWIN JET DUO 5.x/5.x GHz is certified with a beamforming crossed dual pole antenna type. The antenna is capable to operate in two modes configurable by software: wide angle (80deg) and narrow angle (18deg and 19deg).

Certified Antenna

Following is the antennas certified for use with the RADWIN JET DUO 5.x/5.x GHz:

Antenna Type	Manufacturer	Model Number	Antenna Max Gain (dBi)	Dir BW (deg)
Integrated	RADWIN Ltd.	AP0200600	7 @ 5.1 GHz 9 @ 5.8 GHz	80
Integrated	RADWIN Ltd.	AP0200600	17 @ 5.1 GHz 19 @ 5.8 GHz	18 19

Maximum Output Power

5725 – 5850 MHz band - FCC/ ISED

The maximum output power can be set as follows, when operating in the 5.8 GHz band, under FCC 47 CFR Part 15.407 New Rules and ISED RSS-247 regulations.
Total EIRP is limited to 36 dBm.
Conducted output power in 80deg configuration is 27 dBm.
Conducted output power in 19deg configuration is 17 dBm.

5150 – 5250 MHz band – FCC

The maximum output power can be set as follows when transmitting in the 5.1 GHz band, under FCC 47 CFR Part 15.407 New Rules and regulations.
Total EIRP is limited to 36 dBm.
Conducted output power in 80deg configuration is 29 dBm.
Conducted output power in 18deg configuration is 19 dBm.

Radio parameters accessed by end-user

The following parameters can be accessed by user:

1. Output Power
2. Frequency channel
3. Channel bandwidth

Channel Bandwidths and Carrier Frequency Ranges

Channel BW [MHz]	Center Freq. Range [MHz]
10	5175 - 5245
20	5180 - 5240
40	5190 - 5230
80	5210
10	5730 - 5845
20	5735 - 5840
40	5745 - 5830
80	5765 - 5810