RADWIN

NEO, NEO DUO

Single, 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.

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

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

Avertissement

Les antennes utilisées pour cet émetteur doivent être installées de manière à fournir une distance de séparation d'au moins 20 cm par rapport à toutes les personnes

Warning

The device is granted to operate under FCC Rules in the 5.2 / 5.3 / 5.4 / 5.8 GHz bands.

Le module est autorisé à fonctionner sous certification ISDE dans les bandes 5,3 / 5,4 / 5,8 GHz.

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 NEO, NEO DUO is a single or 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 NEO incorporates a beamforming antenna coupled with a radio with software capability to toggle between wide and narrow operating modes.
The NEO DUO incorporates an independent beamforming antenna for each radio with software capability to toggle between wide and narrow beamwidths operating modes.
The NEO, NEO DUO is powered by a PoE device and has a LAN port option. The NEO, NEO is certified under the identification numbers FCC ID: Q3K-NEO5X and IC: 5100A-NEO5X.

* Only supported under FCC Rules

Condition of Use

The NEO, NEO DUO 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 NEO, NEO DUO is certified with a beamforming crossed dual pole antenna type. The antenna is capable to operate in two modes configurable by software: wide angle (90deg) and narrow angle (30deg).

Certified Antenna

Following is the antennas certified for use with the NEO, NEO DUO:

Antenna Type	Manufacturer	Model Number	Antenna Max Gain (dBi)	Dir BW (deg)
Integrated	RADWIN Ltd.	MR0269440	10 @ 5.1-5.4 GHz 11 @ 5.8 GHz	90
Integrated	RADWIN Ltd.	MR0269440	16 @ 5.1-5.4 GHz 17 @ 5.8 GHz	30

Maximum Output Power

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

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 90deg configuration is 25 dBm.
Conducted output power in 30deg configuration is 19 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 47 CFR Part 15.407 New Rules and regulations.
Total EIRP is limited to 36 dBm.
Conducted output power in 90deg configuration is 26 dBm.
Conducted output power in 30deg configuration is 20 dBm.

5250 – 5350 MHz band – FCC Part 15 Subpart E, ISED RSS 247

The maximum output power is set as follows, under FCC and ISED regulations. Total EIRP is limited to 30 dBm.
Conducted output power in 90deg configuration is 20 dBm.
Conducted output power in 30deg configuration is 14 dBm.

5470 – 5725 MHz band – FCC Part 15 Subpart E, ISED RSS 247

The maximum output power is set as follows, under FCC and ISED regulations. Total EIRP is limited to 30 dBm.
Conducted output power in 90deg configuration is 20 dBm.
Conducted output power in 30deg configuration is 14 dBm

Radio parameters accessed by end-user

The following parameters can be accessed by user:

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