

NEPTUNE RADIO HARDWARE



Overview

- Modular architecture
- Flexible
- Supports all Ondas Software Applications
- Interoperable

Neptune Features

- Compact enclosure
- Robust for extreme environments
- IP65 compliant
- Passive cooling



RADIO SPECIFICATIONS

Modular Architecture	RF Modules to support different frequency ranges
Frequency Range	70 MHz to 6 GHz
Channel Sizes	12.5 kHz to 10 MHz
TX Power	Up to 4 watts @ antenna port
Rx Sensitivity	As low as -117 dBm

CONNECTORS / INTERFACES

RF 50Ω	Type N Female
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PHYSICAL CHARACTERISTICS

DC Power Input	12 VDC
Construction	Anodized Aluminum
Packaging	Freestanding unit with modular fixing options
Dimensions	6" x 5" x 4" (152mm x 127mm x 102mm)
Weight	3 lbs 12 oz (1.7 kg)
Operating Temp	-40°C to +70°C
Cooling	Passive
Compliance	IP65

The versatile **Neptune Radio Hardware Platform** is capable of operating all Ondas Radio Software Applications including the IEEE 802.16s and 802.16e air interface protocols and operation as a Base Station, Fixed Remote or Mobile Remote Radio.

Neptune, with its IP65 compliance and compact size, is ideal for extreme and constrained environmental installations.

Neptune's compact anodized aluminum enclosure hosts two state-of-the-art PCB Boards including a powerful Communications Baseband Board (CBB) and a Radio Frequency Module (RFM) board.

**IP65 Compliant, Compact form factor
Functions as Base Station, Fixed or Mobile Remote
Security includes AES 256 VLAN AAA Radius**

Neptune's modular hardware can be configured with an RFM board that supports any frequency band from as low as 70 MHz up to 6 GHz. Furthermore, the Neptune Radio Hardware supports flexible channel sizes ranging from as narrow as 25 kHz up to 10 MHz. Neptune' ability to operate a variety of software applications combined with its frequency and channel size independence minimizes future obsolesce allowing the operator to plan for a minimum 15-year life cycle.

The Neptune Radio supports transmit power up to 4 Watts at the antenna port (before antenna gain) with industry leading radio receiver sensitivity as low as -117 dBm. The combination of TX power, excellent receiver sensitivity, flexible channel sizes and frequencies, leads to exceptional range in a point-to-multipoint wireless data system with 30+ mile non-line-of-sight of connectivity.

Neptune' passive cooling design (no fans) supports operation in extreme temperatures from -40°C to +70°C.

**Complies with new IEEE 802.16s and
IEEE 802.16e standards**