

JUPITER RADIO HARDWARE

ONDAS
NETWORKS

Overview

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

Jupiter Features

- High performance, High Transmit Power Radio
- MIMO 2x2
- Improves range
- Improves capacity
- Diversity / Multipath

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 per antenna port |
| Rx Sensitivity | As low as -117 dBm |

CONNECTORS / INTERFACES

| | |
|----------------|--------------------|
| DC Input | Phoenix 1776508 |
| Grounding Post | 10x32 Threaded |
| Console | RJ45 Cisco Serial |
| Serial Data | RJ45 RS232 / RS449 |
| Ethernet (x2) | RJ45 10/100 Mb |
| RF 50Ω (x2) | Type N Female |
| GPS Antenna | SMA Female |
| LCD Display | 16x2 Backlit |

PHYSICAL CHARACTERISTICS

| | |
|-------------------|--|
| DC Power Input | 18 to 75 VDC |
| Power Consumption | No Load: 15 watts @ 48 VDC Peak Load: 30 watts @ 48 VDC |
| Construction | Anodized Aluminum |
| Packaging | Freestanding with modular fixings or 19" rackmount |
| Dimensions | 12" x 5.5" x 3.5" (305mm x 165mm x 89mm) |
| Weight | 6 lbs 8 oz (2.9 kg) |
| Operating Temp | -40°C to +70°C |
| Cooling | Passive |
| Compliance | IEEE 1613 Class 1 Division 2 |



The versatile, high performance **Jupiter 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.

Jupiter, with transmit power up to 2 x 36 dBm (Equivalent TX power in STC mode: 39 dBm. TX power in spatial multiplexing mode: 36 dBm) and MIMO 2x2 capabilities, offers the network operator many advantages including greater range and capacity and improved performance under multi-path conditions.

Jupiter's anodized aluminum enclosure, available in a freestanding compact unit or 19" rack mount, hosts three state-of-the-art PCB Boards including a powerful **Communications Baseband Board (CBB)**, a wide-ranging **DC Power Supply Unit (PSU)** and MIMO 2x2 enabled **Radio Frequency Module (RFM)** board.

Tx Power 4 Watts per antenna port
Receive diversity
MIMO 2x2 Option for NLoS and multipath resiliency
Security includes AES 256 VLAN AAA Radius

Jupiter's modular hardware architecture allows us to supply **RFM** boards to support any frequency band from as low as 70 MHz up to 6 GHz. Furthermore, the Jupiter Radio Hardware supports flexible channel sizes ranging from as narrow as 12.5 kHz up to 10 MHz. Jupiter's ability to operate a variety of software applications combined with its frequency and channel size independence minimizes future obsolescence allowing the operator to plan for a minimum 15-year life cycle.

The Jupiter Radio supports transmit power up to 10 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.

Jupiter's passive cooling design (no fans) supports operation in extreme temperatures from -40°C to +70°C. The hardware is designed to IEEE1613 compliance for operation in harsh conditions including severe EMI and power substations. Jupiter Radio Hardware is also compliant with Class 1, Division 2.

Complies with new IEEE 802.16s and IEEE 802.16e standards