

MARS RADIO HARDWARE



Overview

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

Mars Features

- Very High Transmit Power
- Very long range
- High order modulation
- Noise abatement



The versatile, high performance **Mars 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.

100 Watt Tx Power, 19" 2U Rack Mount, Forced Air Functions as Base Station, Fixed or Mobile Remote Security includes AES 256 VLAN AAA Radius

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 100 watts @ antenna port
Rx Sensitivity	As low as -117 dBm
CONNECTORS / INTERFACES	
DC Input	Phoenix 1777989
Grounding Post	10x32 Threaded
Console	RJ45 Cisco Serial
Serial Data	RJ45 RS232 / RS449
Ethernet (x2)	RJ45 10/100 Mb
RF 50Ω	Type N Female
GPS Antenna	SMA Female
LCD Display	16x2 Backlit
PHYSICAL CHARACTERISTICS	
DC Power Source	48 VDC ± 25%, 350W
Construction	5053 AL, Gray Powder Coat Finish
Packaging	19" 2U Rackmount
Dimensions	19" x 3.5" x 16" (483mm x 89mm x 407mm)
Weight	15 lbs 14 oz (7.2 kg)
Operating Temp	-40°C to +70°C
Cooling	Forced Air (front to back)

Mars, with transmit power up to 100 watts at the antenna port, offers the network operator many advantages including significantly greater range and capacity and improved performance. Mars can be especially useful in high noise environments.

Mars supports any frequency band from as low as 70 MHz up to 6 GHz. Furthermore, the Mars Radio Hardware supports flexible channel sizes ranging from as narrow as 12.5 kHz up to 10 MHz.

Mars' 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 Mars Radio supports transmit power up to 100 Watts at the antenna port (before antenna gain) with industry leading radio receiver sensitivity as low as -117 dBm. The combination of 100 Watt 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.

Mars uses front to back forced air cooling in order to operate within a wide temperature range from -40°C to +70°C.

Complies with new IEEE 802.16s and IEEE 802.16e standards