

The **VistaMAX OSR5000** is a WiMAX / IEEE 802.16-2004 outdoor subscriber station. The OSR5000 is contained in a weatherproof, sealed housing with integrated antenna to offer a single box solution for WiMAX applications in the 5.15 to 5.875 GHz band. External antennas can be accommodated with an optional N female connector. The OSR5000 offers a direct bridged 100BaseT Ethernet connection to the subscriber station network. The only equipment inside the subscriber premises is a midspan Power over Ethernet power injector to supply power and provide Ethernet connectivity to the OSR5000.



Supported Applications

- *Tiered Residential Internet Access*
- *Voice over IP*
- *Cellular Backhaul*
- *Enterprise Data Access*
- *Video Backhaul*
- *SCADA & Site Monitoring*

Features

- 802.16-2004 OFDM Compliant PHY & MAC → Standards based radio
- Time Division Duplexing (TDD) → Maximum spectrum efficiency & lowest cost
- Fast adaptive modulation → Maximizes range & capacity
- Power over Ethernet → Convenient single cable connection
- Integrated lightning protection → Reduced downtime and maintenance costs

Radio

Product Operation	LOS, NLOS Point-to-Multipoint Subscriber Unit
RF Band	5.15 to 5.875 GHz
Channel Bandwidth	10 MHz
Frequency Resolution	250 KHz steps
Spectral Efficiency	5 bits/sec/Hz (64-QAM unencoded)
Receive Sensitivity typical at BER 10^{-6}	Burst Type 10 MHz
	BPSK $\frac{1}{2}$ -90
	QPSK $\frac{1}{2}$ -88
	QPSK $\frac{3}{4}$ -86
	16-QAM $\frac{1}{2}$ -83
	16-QAM $\frac{3}{4}$ -80
	64-QAM $\frac{2}{3}$ -75
	64-QAM $\frac{3}{4}$ -73
Modulation	OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
Radio Access Method	TDD
RF Output Power	+17 dBm max
RF Output Dynamic Range	30 dB
Antenna	Optional 20 dBi or 24 dBi flat panel antenna

Data Communications

RF	IEEE 802.16-2004
Data	IEEE 802.3 CSMA/CD
VLAN support	IEEE 802.1Q
Error Control Coding	Concatenated Reed-Solomon Convolutional Code
Polarization	Horizontal or Vertical
Throughput	Up to 50 Mbps

Management

LED Display	Link / status / signal strength / power
Network Protocol	TCP/IP
Encryption Protocol	DES-CBC, AES-CCM
Subscriber Unit monitoring	SNMP, Web-based GUI, Telnet, SSH
Subscriber Unit management	Web-based GUI
Ethernet Connector	10/100Base-T (water tight RJ-45)

Physical and Environmental

Dimensions	10 $\frac{3}{8}$ " x 8 $\frac{5}{8}$ " x 2 $\frac{1}{4}$ " (264mm x 219mm x 57mm)
Weight	3lbs (1.35kg)
Operating Temperature	-45°C to +55°C
Power requirement	IEEE 802.3 (PoE) and Auxiliary PoE

Standards and Regulations

CE/Industry Canada EN 302-502, EN301-489, EN55022, IP67

Ordering Information

OSR5000C/NIA+	CPE, WiMAX, Outdoor, 5GHz, NoAnt, ROHS
OSR5000C/20+	CPE, WiMAX, Outdoor, 5GHz, 20dBi, ROHS
OSR5000C/24+	CPE, WiMAX, Outdoor, 5GHz, 24dBi, ROHS



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