



VCom® Inc.

VistaMAX OBR3500

3.5 GHz Base Station Transceiver

The **VistaMAX OBR3500** is a WiMAX / IEEE 802.16-2004 outdoor base station. The OBR3500 is contained in a weatherproof, sealed housing with integrated 60, 90 or 120 degree antennas to offer a single box solution for WiMAX applications in the 3300 to 3800 MHz band. External antennas can be accommodated with an optional N female connector. The OBR3500 offers a direct bridged 100BaseT Ethernet connection to the base station network. The only equipment inside the base station premises is an Ethernet switch with Power over Ethernet capability (VCom WES800) to supply power and provide Ethernet connectivity to the OBR3500.

Supported Applications

- *Tiered Residential Internet Access*
- *Voice over IP*
- *Cellular Backhaul*
- *Enterprise Data Access*



Features

- **802.16-2004 OFDM Compliant PHY & MAC** → Standards based radio
- **Software selectable channel bandwidths of 1.75, 3.5 and 7 MHz** → Support high data rate & penetration with no hardware changes
- **Time Division Duplexing (TDD)** → Maximum spectrum efficiency & lowest cost
- **Fast adaptive modulation** → Maximizes range & capacity
- **Power over Ethernet** → Convenient single cable connection
- **Integrated GPS timing** → Automatic base station synchronization
- **Integrated multi-strike lightning protection** → Reduced downtime and maintenance costs

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RF

RF Frequency	3300 to 3400 MHz (M1 Version) 3400 to 3650 MHz (M2 Version) 3600 to 3800 MHz (M3 Version)
RF Frequency Step Size	250 kHz
Duplexing Mode	TDD
Channel Bandwidth	1.75, 3.5, 7 MHz (software selectable)
Modulation Types	IEEE 802.16-2004, OFDM256, burst by burst adaptive BPSK-1/2 QPSK-1/2, QPSK-3/4 16QAM-1/2, 16QAM-3/4 64QAM-2/3, 64QAM-3/4
Maximum Rated Output Power	+46 dBm EIRP (60 deg integrated antenna) +44 dBm EIRP (90 deg integrated antenna) +43 dBm EIRP (120 deg integrated antenna) +29 dBm at external antenna connector (optional)
Output Power Control Range	15 dB
Spectral Mask Compliance	Industry Canada RSS-192 ETSI EN 301 021 v1.6.1
Minimum Sensitivity, 1.75 MHz	-97 dBm
Minimum Sensitivity, 3.5 MHz	-94 dBm
Minimum Sensitivity, 7 MHz	-91 dBm
Integrated Antenna Options	17 dBi, 60 deg 15 dBi, 90 deg 14 dBi, 120 deg

Network

LAN Interface	10/100BaseT 802.3 Ethernet
Bridged MAC Addresses Supported	Up to 2048
Management/Monitoring Interfaces	SNMP (WiMAX Forum MIBs + VCom extensions) Built-in HTTPS web server Telnet/SSH CLI Syslog

Operational Parameters

EMC/EMI	ETSI EN 301 489-1
Lightning Protection	Multi-strike protection built-in
Power Supply	56 VDC Power over Ethernet
Power Consumption	45 W maximum

Mechanical

Operating Temperature	-45°C to +55°C
Physical	20" x 8" x 5" (50.8cm x 20cm x 12.7cm) maximum
Mounting	Pole mount (2.5" to 4.5" diameter pole)
Weight	20 lbs. (9 kg) maximum
Weatherproofing	NEMA 4X/IP66