WiMAX 802.16e Outdoor CPE

Your Fast Way to Deploy WiMAX Service
The best gateway between WiMAX and LAN

- IEEE 802.16e-2005 Mobile WiMAX
- MRC Support for Receiving Sensitivity
- Dual Polarization Antenna Deployment with Better Coverage
- 2.3/2.5/3.5GHz Frequency Band Support
- Combine Wi-Fi and VoIP Gateway
- Battery Backup Support
- SIM Card Support

OD200

The AWB OD200 is a WiMAX outdoor CPE with indoor and outdoor unit. Indoor unit integrates Wi-Fi (IEEE 802.11b/g), VoIP and Ethernet technology and provides internet connectivity through outdoor unit. Outdoor unit performs WiMAX modem, connecting to Indoor unit via PoE (power over Ethernet). AWB OD200 delivers the last mile broadband wireless access (BWA) for service provider in fixed or mobile applications. It performs as an alternative to wired DSL or cable modems with higher and wider transmitting speed and coverage.

Key Features

- IEEE 802.16e-2005 Wave 2 compliant
- A cost-effective replacement or substitute of DSL modem or cable modem
- High throughput over WiMAX
- Dual polarization antenna deployment provide better coverage and throughput
- MRC (Maximum Ratio Combining) technology utilizes dual receive antennas to enhance receiving signal quality
- MIMO (Multiple input, Multiple output) technology improves transmission speed and coverage
- Security features to protect against malicious hackers from internet
- SIP-based VoIP communication to provide low cost internet calls
- IEEE 802.11b/g allows users to also use existing WiFi devices for the ultimate mobility and convenience
- 2.3/2.5/3.5GHz frequency band supported
- Battery backup for carrier-class support (optional)
- SIM card support for user authentication (optional)
- Support external antenna port for user specific requirement

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ODU

Physical Interface

WAN	1 IEEE 802.16e-2005 WiMAX
Additional	1 PoE port connecting to IDU

WiMAX Specification

Standard Compliant	IEEE 802.16e-2005
Air Interface	Scalable OFDMA
Duplex Mode	TDD/5ms frame
Frequency Band	2.3-2.4GHz (OD200-2.3) 2.496-2.696GHz (OD200-2.5) 3.3-3.6GHz (OD200-3.5)
Channel Bandwidth	5, 7, 8.75 and 10MHz (Configurable)
Modulation	DL Modulation: QPSK, 16QAM, 64QAM UL Modulation: QPSK, 16QAM, 64QAM
MIMO	Matrix A (STC) & Matrix B
Transmit Power	24 dBm @ QAM 16, ¾ CTC
Receiving Sensitivity	-95dBm @ QPSK, ½ CTC
Max. Throughput	Downlink Peak Rate: > 20Mbps Uplink Peak Rate: > 7Mbps
Antenna	1Tx, 2Rx with MRC (Maximum Ratio Combining)
Antenna Gain	12 dBi for 2.3/2.5G 15 dBi for 3.5G
Security/Encryption	PKMv2 with 128bit AES/CCM
Authentication	EAP-AKA/SIM/TLS/TTLS Authentication
QoS Mechanism	Dynamic Service Flow Creation, Change, Deletion Scheduling: UGS, RT-VR, NRT-VR, ERT-VR and BE
HO (Hand-off)	Hard HO / Optimized Hard HO

Mechanical

Dimensions (H x W x D)	190x190x30 mm
Power Consumption	TBD
Operating Temperature	-40˚ – 55˚C
Radio	FCC Part 27
EMC	FCC Part15B Class B CE EN55022 Class B
Safety	CB60950-1
Environmental	ETS 300 019

IDU

Physical Interface

LAN (indoor unit)	4 10/100Base-T ports
Wireless (indoor unit)	1 802.11b/g Access Point
VoIP (indoor unit)	2 FXS ports, for SIP-Based VoIP
Additional	1 PoE port , 1 SIM Card Slot

VoIP Specification

Standard Compliant	SIP RFC3216
Voice Codec	G.711a/u, G.729a/b, G.722, G.722.1
Voice Quality	VAD (Voice Activity Detection) CNG (Comfort Noise Detection) Echo Cancellation G.165/G.168 Jitter Bug, DTMF, Configurable Cadence Rings
Call Features	Call Waiting, Call Transfer Call Forward, Fax (T.38) 3-way Conference Call

Wi-Fi Specification

Standard	IEEE 802.11b/g
WiFi Security	WPA/WPA2, WEP64/WEP128
Max. Throughput	22.4Mbps
Tx power	16dBm@11Mbps & 802.11 b 14dBm@54Mbps & 802.11 g
Rx sensitivity	-85dBm@11Mbps & 802.11 b -74dBm@54Mbps & 802.11 g

Networking

Network Management	Web-based configuration, Telnet SNMP v1, v2; TR069
Firewall	NAT and NAPT DoS attack protection SPI (Stateful Packet Inspection) DMZ control
Routing	Proxy ARP
ARQ	ARQ ACK type 1 & type 2
VPN Pass through	IPSec , PPTP, L2TP
Bridging	802.1D Self Learning Bridge
IP Protocol	Packet IPv4, Packet IPv6

Mechanical

Dimensions (H x W x D)	185 x 170 x 70 mm
Power Consumption	TBD
Operating Temp.	0˚ – 45˚C
Radio	FCC Part 15C (WiFi)
EMC	FCC Part15B Class B, CE EN55022 Class B
Safety	CB60950-1

• AWB reserves the right to make changes to product specifications without notices.

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