

WiMAX 802.16e Indoor CPE

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

- IEEE 802.16e-2005 Mobile WiMAX
- Zero Installation, Plug-and-Play
- Switched-Beam Antenna with Better Coverage
- MRC Support for Receiving Sensitivity
- 2.3/2.5/3.5GHz Frequency Band Support
- Combine with Wi-Fi and VoIP Gateway
- Battery Backup Support
- SIM Card Support



RG230

The AWB RG230 is a WiMAX indoor IAD. It integrates Wi-Fi (IEEE 802.11b/g), VoIP and Ethernet technology and provides internet connectivity through WiMAX. Compliant with IEEE 802.16e WiMAX standard, the AWB RG230 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
- Self installable & self configurable
- High throughput over WiMAX
- Switched-Beam antenna deployment provides 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
- Gateway functions between LAN and WiMAX
- 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 support
- 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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Physical Interface	
WAN	1 IEEE 802.16e-2005 WiMAX
LAN	4 10/100Base-T ports
Wireless	1 802.11b/g Access Point
VoIP	2 FXS ports, for SIP-Based VoIP
Additional	USB port (optional) 1 SIM Card Slot

WiMAX Specification	
Standard Compliant	IEEE 802.16e-2005
Air Interface	Scalable OFDMA
Duplex Mode	TDD/5ms frame
Frequency Band	2.3-2.4 GHz (RG230-2.3) 2.496-2.696GHz (RG230-2.5) 3.3-3.6GHz (RG230-3.5)
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	26 dBm @ QAM 16, ¼ CTC
Receiving Sensitivity	-94dBm @ QPSK, ½ CTC
Max. Throughput	Downlink Peak Rate: > 20Mbps Uplink Peak Rate: > 7Mbps
Antenna	1 Tx, 2 Rx with MRC (Maximum Ratio Combining)
Antenna Gain	Three types of antenna options: -. Internal Switch-Beam Antenna 6 dBi for 2.5G, 7 dBi for 3.5G -. Internal Omni Antenna (6dBi) -. External detachable antenna
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

VoIP Specification	
Standard Compliant	SIP RFC3216 compliant
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 (for Tone detection and generation) Configurable Cadence Rings
Call Features	Call Waiting Call Transfer Call Forward 3-way Conference Call Fax (T.38)

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 SNMP v1, v2 Telnet CPE WAN Management Protocol (CWMP) - TR069
Firewall	NAT and NAPT DoS attack protection SPI (Stateful Packet Inspection) DMZ control
Routing	Proxy ARP
ARQ	ARQ ACK type 1 – Cumulative ACK ARQ ACK type 2 – Cumulative with selective ACK Entry
VPN Pass through	IPSec PPTP L2TP
Bridging	802.1D Self Learning Bridge
IP Protocol	Packet IPv6 Packet IPv4

Mechanical	
Dimensions (H x W x D)	185 x 170 x 70 mm
Power Consumption	< 13W
Operating Temperature	0° – 45°C
Radio	FCC Part 27 (WiMAX), Part 15C (WiFi)
EMC	FCC Part15B Class B, CE EN55022 Class B
Safety	CB60950-1
Environment	ETS 300 019



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