



# Motorola CPEi 750 Series

Wave 2 ready, plug-and-play, high performance for data and Voice over IP.

2008 is the year of WiMAX Forum 802.16e Wave 2 certification. Motorola is proud to be offering a full portfolio of Wave 2 ready equipment and devices for residential and business users. Motorola's wi4 WiMAX CPEi 750 offers you another Wave 2 ready device option with voice and data features. Motorola's CPEi 750 features a balanced blend of integrated design, multiple data and voice access ports, high gain antennas with omni directional performance to offer best possible signal strength and a highly sensitive receiver that exceeds the WiMAX forum's specified receive sensitivity requirements across all modulation schemes.

This combination not only reduces the base station infrastructure requirements to the operators, but also offers to the subscribers better quality data and voice services (QoS), stretching the overall service level areas.

## Reliability

The CPEi 750 offers the high device reliability critical to ensure an optimal experience for the end user. It also ensures lower operating costs associated with device repair or replacement. Wi4 WiMAX device quality is governed by Motorola Networks Quality Standards and an established Quality Review Board. The quality process employs a system test plan developed and executed by Motorola's SEI Level 5 Test organization. You can count on the CPEi 750 to last the life of your network with Meantime Time Between Failure (MTBF) of 37 years.

## Performance

The CPEi 750 has unique design advantages which improve network performance and end-user experience as well as reduce the total cost of operations. Leveraging MIMO, switched diversity techniques, best-in-industry receiver sensitivity and Wi-Fi / WiMAX isolation, Motorola's fixed devices increase throughput, optimize utilization of system resources, and reduce the number of access points required to provide service.

## Control & Security

Motorola wi4 WiMAX CPEi 750 supports remote management capabilities allowing administration and health monitoring of the devices from a centralized network or element management system. Advanced security and authentication protocols protect the end-user and the operator from external threats.

## Plug & Play

With true Plug-and-Play capability, the CPEi 750 enables you to speed time to service and reduce operating costs associated with service turn-up. The WiMAX network automatically detects the CPEi 750 upon power up and performs the necessary authentication processes. CPEi 750 comes with all the device drivers pre-loaded. Subscribers do not need to perform any additional actions other than powering up the unit and connecting the device to their computer and voice handsets. An elegant and user-friendly graphical interface allows end-users to self-diagnose their connections and personalize their service.

## Cool Designs

Following the Motorola tradition of iconic designs, the CPEi 750 was designed by the same organizations designing next generation mobile devices and accessories. Strong design principles offer you an important marketing opportunity to inspire subscriber adoption.

## DATA SHEET

**MOTOWI<sup>4</sup>**

Motorola CPEi 750

### Stylish design – Superior performance

1. 802.16E WAVE 2 READY
2. STYLISH SLIM DESIGN
3. TRUE PLUG & PLAY: JUST POWER UP THE UNIT AND START YOUR MULTI-MEDIA WEB EXPERIENCE
4. ORIENTATION FREE PLUG & PLAY
5. INTUITIVE USER INTERFACE
6. 1 DATA & 2 VOIP ACCESS PORTS
7. INTEGRATED HIGH GAIN ANTENNAS
8. ADAPTIVE ANTENNA SWITCHING
9. MRC, MIMO A & B AND AAS BEAMFORMING
10. MULTIPLE FREQUENCY (3.5GHZ / 2.5GHZ) BAND & MULTIPLE CHANNEL BANDWIDTH (5MHZ / 7MHZ / 10MHZ) SUPPORT
11. OVER THE AIR (OTA) SW UPGRADES

### BENEFITS

- Best-in-class radio performance
- Reliable indoor coverage (MTBF of 37 years)
- Best-in-class throughput
- Five Quality of Services classes
- Robust security

### MOTOROLA CPEi 800 SERIES SPECIFICATIONS

Indoor Coverage	Up to 2 kilometers range; Exceptional RF performance
Radio Performance	Scaleable OFDMA employing Time-Division Duplex (TDD) mechanism; Diversity Combining: Maximum-Ratio Combining (MRC); Beamforming support; MIMO Matrix A and B; Convolutional Turbo Coding (CTC); Hybrid Automatic Repeat Request (HARQ)
Connectivity	1 Ethernet Ports; 2 Integrated ATA Ports (VoIP)
Certification & Channel & Modulation Scheme Support	WiMAX Forum Certification Wave 2; 5MHz, 7MHz & 10MHz Channel Bandwidths; QPSK, 16QAM, 64QAM, both up-link and downlink
Quality of Service Classes	BE (Best Effort); UGS (Unsolicited Grant Service); RTPS (Real Time Polling Service); NRTPS (Non Real Time Polling Service); ERTPS (Extended Real Time Polling Service)
Throughput	>5Mbps Down-Link > 2 Mbps Up-Link
Security	Device authentication based on X.509 digital certification; Authentication methods according to IEEE 802.16e, EAP-TLS and also EAP-TTLS; AES (128-bit CCM) Data Encryption and Authentication Firewall
Remote Configuration and Software Upgrade	OTA (Over The Air) field upgradeable; SNMP v3 Agent; TR-069 Agent; OMA Agent
OS Compatibility	Windows; Mac
RF Performance	Sensitivity: > 5dB better than WiMAX Forum Specifications across all modulation schemes; Antenna Gain: 7dBi; TX power out: 26dBm; EIRP: 33dBm; Noise Figure: 5 dB
Mechanical and Electrical	External Power: 100-250 Volts, 1A AC input; Operating Temp: 0°C to 40°C; Operating Humidity: 5% to 95%, non-condensing; US and International plug support
Environmental and Regulatory	North America; Europe; Asia; Latin America



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