



Motorola CPEi 800

Plug & Play Wireless Broadband Modem for Rapid Market Entry

Motorola's 4th generation CPE platform, CPEi 800 series Customer Premise Equipment (CPE) provides high-performing, orientation-free wireless broadband access to meet your end-users' home networking needs.

Highlights

- Plug & Play installation
- High performance radio
- Omni-directional antenna performance
- Front panel, easy-to-read operational status LEDs for radio signal quality, data and voice status
- 10/100Base-T Ethernet (RJ-45) for high speed data access
- Over The Air (OTA) upgrades
- Standards based device management (HTTPS, OMA & TR069)
- Intuitive, built-in self diagnostics for quick and easy troubleshooting



Dimensions: 183mm(h) x 160mm(d) x 60mm(w)

CONVENIENT, EFFICIENT & RELIABLE

The CPE/800 wireless broadband modem is based on Motorola's proven WiMAX CPE experience. This power packed fourth generation WiMAX CPE platform focuses on improved uplink performance, network operations & management and self-diagnostics, while including all of the advanced features and functionality of the previous generation product.

The CPE/800 has one data access port. It also features a firewall for security, providing an effective solution for basic residential broadband data service needs.

Easy-to-read signal strength indicators are clearly visible on the front of the CPE/800, making it intuitive for users to check the status of the device at any time. Operators can control the number of LEDs lit on the device by setting the thresholds of each LED per their network RF plans. This offers a unique way of delivering committable service levels to end-users.

In addition, facility to wall-mount the device with optional accessory enables end users to fix the device at the best possible location and not have to worry about orienting the device post initial installation. This feature eliminates the need to buy expensive remote antennas and also offers a more efficient way to overcome any potential additional indoor penetration losses.

The CPE/800 is built of components with very high mean time between failure (MTBF) specifications. This ensures that the operator will be able to keep the device in service for several years with minimal repair and return overheads.

IMPROVED PERFORMANCE

The radio design in the CPE/800 incorporates extensive lessons learned by Motorola from network deployments in over 40 countries, with over two million WiMAX CPEs and devices sold. Motorola understands that the measure for radio performance of any device is not just the effective radiated power (EIRP) which is typically used in the network planning tools for setting cell boundaries. Antenna beam width limitations, orientation losses of the device and selection of optimal antenna transmit position at any particular moment, also have major impacts on the service level areas and overall network capacity.

The CPE/800 comes with a highly sensitive receiver, omni directional antenna performance, high power output and high gain, orthogonally polarized antennas with switched transmit diversity for improved radio performance. These factors stretch the service level areas of the network, improve cell edge performance and also reduce uplink overheads on the access points. Together these factors not only improve the end-user experience, but also enhance the overall site capacity.

REDUCE OPERATIONS & MAINTENANCE (O&M) OVERHEADS

The Motorola CPE/800 series supports remote management capability, allowing management and health monitoring of the devices from a standards based centralized device management server such as OMA or TR069 platforms or even a simple HTTPS server based platform. While TR069 is the Broadband Forum's recommended device management standard for fixed modem management, operators can also choose to use OMA device management platform. Customers may further benefit from using Motorola's NBBS device management solution that supports both OMA & TR069 standards on the same platform.

The CPE/800 also supports unique features such as self-diagnostics, modular upgrades and enhanced statistics to reduce the operator's overall operations & maintenance (O&M) overheads and to ensure consistent optimal performance of the devices. In addition, advanced security and authentication protocols protect the end-user and the operator from external threats.

MOTOROLA CPE/800 SERIES SPECIFICATIONS	
Connectivity	1 Ethernet port
Radio Performance	Peak EIRP: 32dBm (2.5GHz & 3.5GHz) 31.5dBm (2.3GHz)
	Antenna gain: 2.5GHz / 3.5GHz band products 5dBi 2.3GHz products 4.5dBi
	Omni-directional performance & orthogonally polarized antennas
	Adaptive transmit antenna switching for improved uplink performance
	Highly sensitive receiver that exceeds the RCT specifications
	Two branch Maximum Ratio Combining diversity (MRC)
	Convolution Turbo Coding (CTC)
	Hybrid Automatic Repeat Request (HARQ)
Frequency Band	CPEi 23800 (2300 - 2400 MHz) CPEi 25800 (2496 - 2690 MHz) CPEi 35800 (3400 - 3600 MHz)
Channel Bandwidth Support & Modulation Schemes	5MHz & 10MHz channel support in 2.3GHz & 2.5GHz bands 5MHz, 7MHz & 10MHz channel support in 3.5GHz band
	QPSK, 16QAM, 64QAM
CODEC & Quality of Service Classes Supported	BE (Best Effort)
	UGS (Unsolicited Grant Service)
	RTPS (Real Time Polling Service)
	NRTPS (Non Real Time Polling Service)
	ERTPS (Extended Real Time Polling Service)
Security	Authentication methods according to IEEE 802.16e, EAP-TLS and EAP-TTLS
	AES (128-bit CCM) data encryption and authentication
	Residential firewall
Remote Configuration and Management	OTA (Over The Air) field upgradeable
	HTTPS agent
	TR-069 agent
	OMA agent
OS Compatibility	Windows
	Mac
	LINUX

MOTOROLA CPE/800 SERIES SPECIFICATIONS (Continued)	
Mechanical and Electrical	Dimensions: 183mm(h) x 160mm(d) x 60mm(w)
	External power: 100-240 volts AC 50Hz-60Hz input / 12V DC output to device
	Power consumption: 12W (maximum)
	Operating temp: 0°C to 40°C
	Operating humidity: 5% to 95%, non-condensing
	International plug support (per specific country's requirements)
Environmental and Regulatory	North America, Europe, Asia , Latin America

MOTOROLA AND WiMAX

The Motorola WiMAX CPE/800 series is part of the Motorola WiMAX comprehensive portfolio of solutions and services needed to plan, launch and manage a WiMAX network. Designed to complement and complete operator networks, Motorola solutions address a broad range of applications across operator segments. Our WiMAX CPEs and devices demonstrate exceptional ability to overcome the harsh conditions of the radio propagation environment. So they'll not only deliver excellent performance for your subscribers, but also lower costs and higher returns to you.



MOTOROLA

motorola.com