



Motorola CPEo 400 Series

Cost effective fixed and nomadic broadband services

The outdoor CPEo 400 Series Customer Premises Equipment (CPE) lets operators extend critical broadband coverage and enhance service to end-users in both dense urban areas and remote regions.

The cost effective, easy-to-deploy, and easy to manage CPEo 400 meets the market need for standards based, fixed broadband wireless access in licensed spectrum. Based on 802.16e technology, the CPEo 400 delivers cost-effective, high-performing broadband wireless access. The outdoor mounted CPEo 400 provides significant improvement in the coverage and capacity capabilities of the network, reducing the number of base sites required to address a given geography and boosting the bandwidth available to end-users.

PERFORMANCE

Motorola's outdoor CPEo 400 offers end users superior performance over indoor CPEs since the WiMAX reception is not impeded by concrete and brick walls or RF blocking glass and steel in building structures.

Subscribers may also deploy the CPEo 400 to maximize reception via a line of sight connection to the base station which is not possible with an indoor unit. The CPEo 400's outdoor antenna is highly directional and can point precisely to the base-station with no path loss.

CONTROL

The CPEo 400 supports remote management capability and allows management and health monitoring of the devices from a centralized network or element management system. Built on a flexible hardware platform, the CPEo 400 supports no-touch, remote software upgrades for easy installation of product updates, new features and enhancements.

MIMO

All Motorola CPE products employ Multiple Antenna Technology, which delivers increased range and higher throughput when compared to products with single antenna solutions. When used with Motorola's dual-antenna solutions, WAP 400 Series Access Point with diversity, both uplink and downlink performance are significantly enhanced by advanced signal processing techniques, including: Maximal Ratio Combining (MRC), Cyclic Shift Transmit Diversity (CSTD), MIMO Matrix A, and MIMO Matrix B. Select combinations of these algorithms are combined in each Motorola CPE product in order to deliver high performance in a small physical footprint.

TOTAL BUILDING COVERAGE

The outdoor CPEo 400 is well suited to service a multi-dwelling building. A CPEo 400 positioned on a rooftop can provide broadband access to multiple tenants in a single building.

Similarly an enterprise can use the outdoor CPEo 400 to offer broadband service and VPN connection from field offices back to the main corporate network, acting as the WiMAX gateway.

CPEo 400 FEATURE SUMMARY

- Delivering the best economics and advanced wireless solution for fixed broadband access
- Operating at 2.3GHz, 2.5GHz or 3.5GHz with Orthogonal Frequency Division Multiplexing (OFDM) non-line-of-sight (NLOS) technology helps to overcome common urban obstacles
- Integrated with 802.3af Power over Ethernet(PoE) support making it easy and fast to install
- Built-in antenna and waterproof design for Outdoor application
- Lower total cost of Point to Multipoint wireless access system
- SNMP and AAA (Authentication, Administration and Authorization) support for operation and maintenance

DATA SHEET

CPEo 400 CUSTOMER PREMISES EQUIPMENT

Delivering cost-effective fixed and nomadic broadband services

MOTOROLA and MOTOwi4™

The CPEo 400 product suite is part of the MOTOwi4 portfolio of broadband wireless access technologies, a comprehensive platform of wireless broadband solutions and services. MOTOwi4 is extending the reach and capabilities of operator networks, from basic connections in unserved regions to high-speed, mobile access in dense metro markets. MOTOwi4 solutions help people access information and share content wherever they might be.

Motorola is committed to leading the industry with end-to-end WiMAX solutions addressing the full scope of the operator's deployment needs including access, core, devices, network management and services.

MOTOROLA CPEo 400 SERIES SPECIFICATIONS

Application	Stationary and nomadic only
Frequency band	3.400 - 3.600 GHz ; 2.300 – 2.400 GHz ; 2.496 – 2.700 GHz
Channel Bandwidth	5 and 7MHz for 3.400 - 3.600GHz 5 and 10MHz for 2.300 – 2.400 GHz, 2.496 – 2.700 GHz
Air Interface	OFDMA
Architecture	802.16e
Configurability	Remote configuration/software upgradeable
Physical Dimensions	203 x 203 x 70 mm
Weight	1.6 kg
Operating Temperature	-40°C to 55°C
Maximum Output Power (PA and Antenna)	40 dBm EIRP (at 2.3GHz and 2.5GHz)= 26dBm + 14dBi (30 degree internal ant.) (PA and Antenna) 42 dBm EIRP (at 3.5GHz) = 27 dBm + 15 dBi (25 degree internal ant.) Actual EIRP may vary as a function of government regulation and spectral mask requirements (country specific)
Antenna	Integrated, 3 dB beam width of 30 degrees Azimuth and degrees elevation, 14 dBi Gain (at 2.3GHz and 2.5GHz) Integrated, 3 dB beam width of 25 degrees Azimuth and degrees elevation, 15 dBi Gain (at 3.5GHz)
Polarization	Vertical
Power Requirements	90 to 264 VAC/ 50-60 Hz
Power consumption	55 VDC / 45 Watts
Power Management	Automatic transmit power control (Up to -20 dB)
Protocol Support	IPv4, TCP, UDP, HTTP, SNMP
QOS	5 levels
Security	DES and AES (optional), FIPS Compliant (for AES)
LAN Interface	IEEE 802.3 (10/100BASE-T Ethernet)
VLAN Support	IEEE 802.1Q
Firewall	Built in Firewall supporting 253 LAN clients
NAT Functionality	NAT, DMZ Host
VPN	IPSec, PPTP & L2TP Pass-Through
DHCP	Built-in DHCP server for LAN clients, DHCP client for WAN
Regulatory Compliance	Mandatory applicable requirements. For example: ETSI EN302 021,753; RoHS/WEEE. Optional Surge Suppressors, where required



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