

ExcelMax™ Access Point

Point to Multipoint

Key Features

- WiMax-2004 Compliant - NLOS operation
- Low CAPEX allows excellent ROI for operators
- Supports Full Duplex FDD, Half Duplex FDD and TDD operation
- Comprehensive Quality of Service (CIR, PIR, Priority) and VLAN support

Benefits

- Maximizes revenues (high spectral efficiency with aggressive re-use)
- Minimized CAPEX (low cost, easy to deploy)
- Robust, field proven platform

Applications

- Data applications (High speed Internet Access, VPN, VLAN, Video Conferencing)
- VoIP applications (SIP, CAC)
- Video Broadcast (IGMP)



AXXCELERA BROADBAND

Axxcelera Broadband Wireless is a data networking Solutions Company developing leading-edge technology for the deployment of broadband wireless communications over the Internet. The ExcelMax™ fixed wireless broadband platform bridges the last mile, currently replacing the local loop for corporate and small business subscribers and migrating to the residential market and will be certified WiMax compliant. Axxcelera is a principal member of the WiMax Forum.

EXCELMAX ACCESS POINT OVERVIEW

The ExcelMAX Access Point is a Point to Multipoint (PMP) base station product designed to operate in the 3.3-3.8 GHz spectrum and supports 3 different Duplex architectures - Full Duplex FDD (Frequency Division Duplex), Half Duplex FDD, TDD (Time Division Duplex). The WiMAX-2004 compliant Non Line of Site (NLOS) platform supports a strong suite of Quality of Service (QoS) features and multiple services, which allow a service provider to offer different Service Level Agreements (SLAs) to hundreds of residential, SoHo, MDU and SME users from a single Access Point location.

REASONS TO BUY EXCELMAX ACCESS POINT

ExcelMAX Access Point offers service providers an excellent return on investment. Its low cost, easy to deploy architecture allows service providers to generate revenues with a minimum investment in CAPEX and OPEX. Service providers can offer reliable, high quality, revenue generating applications (data, voice and video services) using specialized protocols such as Call Admission Control (CAC), SIP, and IGMP. The Access Point communicates with different ExcelMax CPEs (Outdoor and Indoor) installed in business and residential premises. The mature platform has been deployed in large data, voice and video networks and ensures reliable operations in the field. Axxcelera provides a suite of management, installation, provisioning and configuration tools, which make the installation, and maintenance of the Access Point extremely simple.



RF SPECIFICATIONS

Frequency Band	3.3-3.8 GHz
Air Interface Standard	802.16-2004 (D5)
Architecture	Point to Multipoint (PMP)
Duplex Scheme	Full Duplex FDD Half Duplex FDD TDD
Downlink/Uplink Traffic Ratio	Dynamic Adaptive
RF Channel Sizes	14 MHz, 10 MHz, 7 MHz, 3.5 MHz and 1.75 MHz
Modulation Types	Dynamic Adaptive: 64QAM, 16QAM, QPSK, BPSK
Coding Rates	1/2, 2/3 and 3/4
Sectorization	1 to 6 sectors
Net Channel Throughput	18 Mbps (7 MHz, TDD) 35 Mbps (7 MHz, FDD)
Frequency Re-use Factor	3 (only 2 RF channels needed in site with 6 Access Points)
Net Channel Spectral Efficiency	2.8 bps/Hz/Access Point 8.5 bps/Hz/Base Station (using co-located 6 Access Points)
Transmit Power	+20 dBm +27 dBm (optional)
Receive Sensitivity	-100 dBm -112 dBm (Uplink Sub-channelization)
Antenna Gain	16.5 dBi (60 degree), 14 dBi (90 degree), 10 dBi (Omni)

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature	-33°C to +55°C (outdoor unit) -5°C to +40°C (indoor power supply)
Operating Humidity	10-100% condensing (outdoor unit) 10-90% non-condensing (indoor power supply)
Power supply	120-240 VAC 50-60 Hz or -40 to -60 VDC
Power consumption	30 Watts, nominal
Dimensions	14" x 14" x 5" (outdoor unit)
Weight	12 lbs (outdoor unit)

STANDARDS SUPPORTED

Air Interface	IEEE 802.16-2004 (D5)
Prioritization	IEEE802.1p (8 different prioritization levels)
VLAN	IEEE 802.1Q
VoIP	SIP, MGCP, H.323, Call Admission Controller
Security/Encryption	BS and SS authentication via x.509 certificates, CBC-Mode 56-bit DES, AES-CCM mode
Interfaces	10/100 Base T Full Duplex; External (Fiber, ATM, and E1/T1)
Network Management	SNMP
International Standards	Wireless performance ETSI EN 301 753 and EN 301 021 Antenna performance ETSI EN 302 085 CE Compliance via European R&TTE Directive Annex IV Self-Declaratory process Emissions: EN55022 (CISPR 22) to Class B; EN61000-3-2 and EN61000-3-3 Susceptibility: EN300 489 (includes EN61000 series) EN60950 (IEC 950): Including amendments 1-4
EMC	
Safety	



Axxcelera
B R O A D B A N D W I R E L E S S

a **Moseley** company.

111 Castilian Dr. Santa Barbara CA 93117 USA
tel 408-894-0160 fax 408-894-9831
e-mail: sales@axxcelera.com
web site: www.axxcelera.com

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