



## Motorola Wireless Broadband

# Point-to-Multipoint CAP 320 Access Point



Service providers need to deliver reliable, high-quality broadband service at a low investment to succeed in today's competitive marketplace. The CAP 320 is an 802.16e standard fixed, outdoor solution that provides reliable, cost-effective fixed connectivity in the 3 GHz licensed bands. Motorola's wireless broadband access network solution provides carriers, service providers and enterprise network operators a robust wireless broadband portfolio of products to deliver cost-effective, scalable, secure broadband access exactly when and where it is needed. Licensed and unlicensed solutions can be deployed at the same tower location, leveraging infrastructure costs and reducing the total cost of ownership.

### Applications

- **Green Field** - Extend licensed coverage into new areas that are currently unserved.
- **Leverage Existing License** - Maintain the operator license by offering wireless broadband connectivity in the licensed band.
- **Network Edge** - Extend connectivity into low density areas on the edge of deployed mobile WiMAX coverage areas.



### CAP 320 Key Features

- **Rapid Installation of Connectivity** Access Points and Subscriber Modules have easy to use alignment tools and do not require an equipment room or environment controlled area at the AP tower location.
- **Low Cost Infrastructure** The CAP 320 does not require ASN gateways or specialized CSN servers. The system efficiently runs over a wireless backhaul by performing local peer-to-peer routing at the base station.
- **802.16e WiMAX CPE Compatibility:** The CAP 320 uses an 802.16e air interface and is capable of interoperating with WiMAX certified CPEs.
- **Licensed Spectrum:** CAP 320 products are available in the 3.3 – 3.8 GHz spectrum.
- **High Throughput:** Each CAP 320 is capable of up to 23 Mbps in a 10 MHz channel per sector. A four-sector tower can provide 92 Mbps maximum capacity using just two 10MHz channels.
- **Coverage and Performance:** The CAP 320 uses OFDM and MIMO technology which provides near-line of sight (nLOS) and some non-line of sight (NLOS) coverage especially in multi-path environments.



# SPECIFICATION SHEET

## Point-to-Multipoint CAP 320 Access Point

### Motorola Wireless Broadband Solutions

Motorola's comprehensive portfolio of reliable and cost-effective wireless broadband solutions together with our WLAN solutions provide and extend coverage both indoors and outdoors. The Motorola Wireless Broadband portfolio offers high-speed Point-to-Point, Point-to-Multipoint, Mesh, WiFi and WiMAX networks that support data, voice and video communications, enabling a broad range of fixed and mobile applications for public and private systems. With Motorola's innovative software solutions, customers can design, deploy and manage a broadband network, maximizing uptime and reliability while lowering installation costs.

**CAP 320 Access Points are compatible with CSM 320 Subscriber Modules**

### CAP 320

FREQUENCY	3.3 – 3.4 GHz (CAP 33320)	3.4 – 3.5 GHz (CAP 35320)	3.6 – 3.8 GHz (CAP 36320)
<b>PERFORMANCE</b>			
Physical Layer	802.16e-2005 (5 MHz channel: 512 FFT; 7/10MHz channel: 1024FFT)		
MAC layer	802.16e-2005		
Maximum Transmission Power	2 x 24 dBm		
Maximum EIRP	Integrated: 2 x 40.5 dBm Connectorized: Antenna Dependant		
<b>SPECTRUM</b>			
Frequency Range of Band	3.3 – 3.4 GHz	3.4 – 3.6 GHz	3.6 – 3.8 GHz
Channel Width	Configurable to 5/7/10 MHz		
<b>SECURITY</b>			
Encryption	EAP-TTLS/PKMv2 authentication over RADIUS, AES over-the-air encryption		
<b>LINK BUDGET</b>			
Receive Sensitivity (10 MHz channel); based on MRCT method	CTC-QPSK(1/2): -103 dBm CTC-QPSK (3/4): -102 dBm CTC-16QAM(1/2): -101 dBm CTC-16QAM (3/4): - 97 dBm CTC-64QAM(1/2): - 96 dBm CTC-64QAM (2/3): - 92 dBm CTC-64QAM(3/4): - 91 dBm CTC-64QAM (5/6): - 89 dBm		
<b>ANTENNA</b>			
Antenna Beam Width	16.5 dBi gain Dual Polarity +/- 45 degree 4 sector application (actual 3 dB antenna pattern: 60° horizontal 8° elevation)		
<b>PHYSICAL</b>			
Temperature	-40° F to +131° F (-40° C to +55° C)		
Wind Survival	118 miles/hr (190 km/hr)		
Dimensions (LxWxD)	Integrated: ~711 x 195 x 240mm Connectorized: ~330 x 195 x 140mm		
Weight	Integrated: 5.5 kg Connectorized: 2.2 kg		
<b>INTERFACE</b>			
Interface	10/100 Base T, half/full duplex. Rate auto negotiated (802.3 compliant)		
Protocols Used	IPv4, UDP, TCP, IP, ICMP, SNMP, HTTP, FTP, RIP, DHCP Relay		
Network Management	HTTP; SNMPv2c		
<b>CERTIFICATIONS</b>			
FCC ID	n/a	n/a	TBD
Industry Canada Certification Number	Applied for	Applied for	TBD
CE	"CE" marked & compliant to EN300 328. DoCs are available at <a href="http://motorola.motowi4solutions.com/doc.php">http://motorola.motowi4solutions.com/doc.php</a>		



**MOTOROLA**

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