



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 band. 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 36320 KEY FEATURES

- **Rapid Installation of Connectivity:** Subscriber Modules have easy to use alignment tools and are rapidly deployed.
- **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 3.65 GHz licensed spectrum.
- **High Throughput:** Each CAP 320 is capable of up to 45 Mbps in a 10 MHz channel per sector. A four-sector tower can provide 180 Mbps maximum capacity using just two 10MHz channels.
- **Coverage and Performance:** The CAP 320 uses OFDMA and MIMO technology which provides near-line of sight (nLOS) and some non-line of sight (NLOS) coverage especially in multi-path environments.

MOTOROLA WIRELESS NETWORK SOLUTIONS

Motorola delivers seamless connectivity that puts real-time information in the hands of users, giving customers the agility they need to grow their business or better protect and serve the public. Working seamlessly together with its world-class devices, Motorola's unrivaled wireless network solutions include indoor WLAN, outdoor wireless mesh, point-to multipoint, point-to-point networks and voice over WLAN solutions. Combined with powerful software for wireless network design, security, management and troubleshooting, Motorola's solutions deliver trusted networking and anywhere access to organizations across the globe.



CAP 320 Access Points are compatible with CSM 320 Subscriber Modules

CAP 320

FREQUENCY	3.3 – 3.4 GHz (CAP 33320)	3.4 – 3.6 GHz (CAP 35320)	3.6 – 3.8 GHz (CAP 36320)
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PERFORMANCE

Physical Layer	802.16e-2005 (5 MHz channel: 512 FFT; 7/10MHz channel: 1024FFT)		
MAC layer	802.16e-2005		
Maximum Transmission Power	2 x 25 dBm		
Maximum EIRP	Integrated: 2 x 41.5 dBm Connectorized: Antenna Dependent		
Maximum Throughput (75/25 DL/UL ratio)	Up to 45Mbps total aggregate per sector Downlink: up to 43Mbps Uplink: up to 5Mbps Up to 65,000		
Packets per Second	Up to 65,000		
Latency	40 to 60 ms round trip		
Maximum LoS Range	Up to 40km with future extended range feature		

SPECTRUM

Frequency Range of Band	3.3 – 3.4 GHz	3.4 – 3.6 GHz	3.6 – 3.8 GHz
Channel Width	Configurable to 3.5/5/7/10 MHz		

SECURITY

Encryption	EAP-TTLS/PKMv2 authentication over RADIUS, AES over-the-air encryption		
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LINK BUDGET

Receive Sensitivity (10 MHz channel)	CTC-QPSK(1/2): -93 dBm CTC-QPSK (3/4): - 87 dBm CTC-16QAM(1/2): -84 dBm CTC-16QAM (3/4): - 81 dBm CTC-64QAM(1/2): - 78 dBm CTC-64QAM (2/3): - 77 dBm CTC-64QAM(3/4): - 75 dBm CTC-64QAM (5/6): - 73 dBm		
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ANTENNA

Antenna Gain	16.5 dBi gain Dual Polarity +/- 45 degree 4 sector application (actual 3 dB antenna pattern: 60° horizontal 8° elevation)		
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PHYSICAL

Power Consumption	< 25 Watts		
Temperature	-40° F to +131° F (-40° C to +55° C)		
Weight	Integrated: 12 lbs. (5.5 kg) Connectorized: 4.85 lbs. (2.2 kg)		
Wind Survival	118 miles/hr (190 km/hr)		
Wind Loading	81 lbs. (37kg) at 118 miles / hr (190 km/hr)		
Dimensions (LxWxD)	Integrated: 28 x 7.7 x 9.5 inches (~711 x 195 x 240mm) Connectorized: 13 x 7.7 x 5.5 inches (~330 x 195 x 140mm)		

INTERFACE

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; SNMP		

CERTIFICATIONS

FCC ID	n/a	n/a	ABZ89FT7632
Industry Canada Certification Number	n/a	109W-3530APC	109W-3630APC
CE	"CE" marked & compliant to EN300 328. DoCs are available at http://motorola.wirelessbroadbandsupport.com/doc.php		



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