



Motorola Wireless Broadband

Point-to-Multipoint CSM 320 Subscriber Module



Service providers need to deliver reliable, high-quality broadband service at a low investment to succeed in today's competitive marketplace. The CSM 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.

CSM 320 Key Features

- **Rapid Installation of Connectivity:** Subscriber Modules have easy to use alignment tools and are rapidly deployed.
- **Licensed Spectrum:** CSM 320 products are available in the 3.3 – 3.8 GHz spectrum.
- **Coverage and Performance:** The CSM 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 CSM 320 Subscriber Module

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.

CSM 320			
FREQUENCY	3.3 – 3.4 GHz (CSM 33320)	3.4 – 3.6 GHz (CSM 35320)	3.6 – 3.8 GHz (CSM 36320)
PERFORMANCE			
Physical Layer	802.16e-2005 (5 MHz channel: 512 FFT; 7/10MHz channel: 1024FFT)		
MAC layer	802.16e-2005		
Maximum Transmission Power	27 dBm		
Maximum EIRP	41.5 dBm		
SPECTRUM			
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		
SECURITY			
Encryption	EAP-TTLS/PKMv2 authentication over RADIUS, AES over-the-air encryption		
LINK BUDGET			
Receive Sensitivity (10 MHz channel); based on MRCT method	CTC-QPSK(1/2): -91 dBm CTC-QPSK (3/4): -88 dBm CTC-16QAM(1/2): -85 dBm CTC-16QAM (3/4): -81 dBm CTC-64QAM(1/2): -80 dBm CTC-64QAM (2/3): -77 dBm CTC-64QAM(3/4): -76 dBm CTC-64QAM (5/6): -74 dBm		
ANTENNA			
Antenna Beam Width	14.5 dBi gain		
PHYSICAL			
Temperature	-40° F to +131° F (-40° C to +55° C)		
Wind Survival	118 miles/hr (190 km/hr)		
Dimensions (LxWxD)	~200 x 200 x 80mm		
Weight	1.4 kg		
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; SNMPv2c		
CERTIFICATIONS			
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 http://motorola.motowi4solutions.com/doc.php		



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