

## Motorola Wireless Broadband

# Point-to-Multipoint CSM 09130 Subscriber Module



CSM 09130  
Integrated

The Motorola Wireless Broadband Point-to-Multipoint (PMP) CSM 09130 Subscriber Module is the ideal solution for developing, enhancing and extending advanced broadband networks to provide cost effective near Line of Sight (nLOS) and Non Line of Sight (NLOS) connectivity for residential broadband access.

Motorola Wireless Broadband products combine field-proven toughness with exceptional performance, security, ease-of-use and cost effectiveness. CSM 09130 modules are available with total throughputs up to 4 Mbps for data, video and voice applications. Available as connectorized, with an integrated antenna, with optional bandpass filters, and as an indoor unit, CSM 09130 Subscriber Modules are the right choice for building or extending residential broadband connectivity.

### Why Motorola Wireless Access Network Solutions are Superior

- **Industry Leading Interference Tolerance** – Motorola access network solutions provide an industry leading Carrier to Interference (C to I) ratio and utilize GPS synchronization to mitigate self interference.
- **Fast, Simple Installation** – 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.
- **Reliable Hardware Performance Over Time** – Motorola access network solutions perform in harsh weather conditions including heat, cold and moisture. Designed without heaters or cooling fans, Motorola equipment performs with high availability and reliability over time.
- **Proven Throughput Performance** – Performance specifications are statements of actual field performance, not performance in an indoor noise free lab environment.
- **Scalable as Subscriber Base Grows** – GPS synchronization enables operators to build networks that grow with demand as new subscribers are added and network density increases or as operators expand the network into new geography.



CSM 09130  
Connectorized

### PMP Access and Distribution Network



**SPECIFICATION SHEET**  
**Point-to-Multipoint CSM 09130 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 09130 Subscriber  
Modules are  
compatible with CAP  
09130 Access Points**

**CSM 09130**

<b>FREQUENCY</b>	<b>900 MHz</b>
<b>PERFORMANCE</b>	
Signaling Rate	6 Mbps
Typical Aggregate Useful Throughput	4 Mbps
Latency	<15 msec
Mean Time Between Failure	Greater than 40 years
Modulation Type	High Index 2-level and 4-level Frequency Shift Keying (FSK) optimized for interference rejection
Access Method	Time Division Duplexing/Time Division Multiple Access (TDD/TDMA)
<b>SPECTRUM</b>	
Frequency Range of Band	902-928 MHz
Channel Width	8 MHz
Non-Overlapping Channels	3
Channel Spacing	1 MHz
<b>SECURITY</b>	
Encryption	DES, AES Optional FIPS 197 Certified
<b>LINK BUDGET</b>	
Carrier to Interference Ratio (C/I)	-3dB
Nominal Receiver Sensitivity (dBm typical)	-90 dBm
Antenna Gain (dBi)	12 dBi (integrated), also available as a connectorized version with N Type connector
EIRP (dBm)	36 dBm
DC Power (typical)	9 W
<b>ANTENNA</b>	
Antenna Beam Width	60 degree beam width azimuth and 35 degree elevation ~12.5 dBi
Polarization	Horizontal, connectorized version available
<b>PHYSICAL</b>	
Temperature	-40° F to +131° F (-40° C to +55° C)
Wind Survival	118 miles/hr (190 km/hr)
Dimensions	Integrated: 19.5 in H x 12 in W x 4.75 in D (50 cm H x 30 cm W x 12 cm D) Connectorized: 11.75 in H x 3.4 in W x 3.4 in D (29.9 cm H x 8.6 cm W x 8.6 cm D)
Weight	Integrated: 13.5 lb (6.1 kg) Connectorized: 1 lb (.45 kg)
<b>INTERFACE</b>	
Interface	10/100 Base T, half/full duplex. Rate auto negotiated (802.3 compliant)
Protocols Used	IPV4, UDP, TCP, ICMP, Telnet, HTTP, FTP, SNMP, PPPoE
Network Management	HTTP, TELNET, FTP, SNMP Version 2c
VLAN	802.1Q with 802.1p Priority
<b>CERTIFICATIONS</b>	
FCC ID	ABZ89FC5809
Industry Canada Certification Number	109W-9000



**MOTOROLA**

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