VMM 4300

Vehicle Mounted Modem for Mobile Wireless Connectivity

The VMM 4300 enables any vehicle, train or bus to offer secure and reliable wireless broadband connectivity at highway speeds.

With Motorola's Mesh Wide Area Network (MWAN) technology users can access critical broadband applications virtually anytime and anywhere. The VMM 4300 supports broadband data rates while in motion.

Mixing Versatility and Mobility

Communications can be maintained while traveling at everyday driving speeds with the VMM 4300, which includes a 4.9 GHz, 5.4 GHz or 5.8 GHz radio that provides wireless backhaul connectivity. The compact and rugged VMM 4300 product is available in three different versions enabling global usage for a variety of different vertical markets. The 4.9 GHz version provides mobile connectivity for the public safety market while a 5.8 GHz version provides universal usage. Finally, a 5.4 GHz version supports certain international markets.

Proven Mesh Routing

With MeshConnex™ fast handoffs are not an issue for the VMM 4300. This vehicle mounted modem leverages the MeshConnex patented routing technology, using real-time congestion management and link control to automatically select the best data route on a per-request basis. This dramatically reduces hop latency, to better deliver real-time voice, data and multimedia services.

Robust Data Rates for Mobile Broadband

The VMM 4300 delivers broadband performance for voice, video, and data needs while traveling at highway speeds. There is an Ethernet port for in-vehicle connectivity. Access can be used for connectivity to the Internet, offloading DVR content, live streaming video, database access and other high bandwidth applications.

Best in Class Security

The VMM 4300 supports best in class security with Motorola's own Secure Mesh, which ensures the highest data security within the meshed WiFi network. Finally, user restrictions can be implemented through access lists, which can block particular clients from accessing the network.

Advanced Network Management

The VMM 4300 utilizes Motorola's One Point Wireless Manager for the overall management of the solution, which can be part of networks from small to large. Current as well as historical comprehensive statistics can be displayed via the One Point Wireless Manager and the historical statistics will be stored permanently on the server for future tracking purposes.

Quality of Service (QoS)

The VMM 4300 supports IEEE 802.11e based traffic prioritization, which enables flawless execution of video and voice applications. It constantly monitors congestion, and automatically tunes its QoS parameters to optimize route selections, to support such latency sensitive applications.

About Motorola Wireless Broadband

Motorola's Wireless Broadband and 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, Wi-Fi and WiMAX networks that support data, voice and video communications, enabling fixed and mobile applications for public and private systems.

Benefits

- Best-in-class radio performance
- Reliable coverage
- Best-in-class throughput
- Robust security

Specifications

IEEE 802.11a Radio	4.9GHz VMM = 4.940 to 4.990GHz,
	5.4GHz VMM = 5.470 to 5.7725GHz,
	5.8GHz VMM = 5.725 to 5.825GHZ
RF Modulation	OFDM (802.11a)
Transmit Power (Maximum)	34 dBm EIRP (802.11a) Settable in 1dB increments
Receive Sensitivity	802.11a: -77dBm @ 27 Mbps to -93dBm @ 3 Mbps
Antenna Type	4.9GHz VMM = 4.9 - 5.0 GHz 5.5 dBi Antenna
	5.4GHz VMM = 5.350 – 5.925 GHz 4 dBi Antenna
	5.8GHz VMM = 5.7 - 5.8 GHz 5.5 dBi Antenna

Routing

Technology	MeshConnex routing with Layer 1 situational-awareness
Protocol	Patented, Layer 2, hybrid proactive/reactive routing

Network

Network Management	OPWM for Linux or Windows OS, SNMPv1, v2c or secure SNMP v3
	Web Interface via HTTPS (SSL)
	Standard 802.11 MIBs and MWAN MIBs
Network Interface	Weatherized 10/100 Base-T Ethernet (RJ-45) port with surge suppression
Network Segmentation	16 VAPs (Multiple SSIDs with VLAN mapping)
Quality of Service (QoS)	802.11e, weighted fair queuing and IP precedence bits (ToS) supported via DSCP

Security

Intra-Mesh Encryption	Secure Mesh with AES
TCP/IP Filtering	Broadcast storm and port filtering

Power

Power Input	10.8-14VDC (2.5A Max)
Power Connector	Weatherized NEMA 5-15 power cord • 12 ft (3.66m) with in-line fuse
Power Consumption	15W

Physical

Dimensions	9"x 6"x 3.5" (23.1cm x 15.2cm x 8.9cm) • 189in3 (3097cm3)
Weight	4.5 lbs (2.04kg)
Packaging	Outdoor, all-weather enclosure (NEMA 4 / IP54)

Environmental & Regulatory

Temperature Range	-30 to 60 °C (-22 to 140 °F)
Humidity	0 to 95%, non-condensing at 50 °C (122 °F)
Regulatory Certifications	FCC Part 15 & 90, CE, MET Mark / CSA /
	UL60950-1, RoHS / CMM / WEEE,
	Industry Canada; DFS/TPC ETSI
	Standard EN301 893 v1.4.1 for the 5.4GHz radio
Vibration Certification	MIL Standard 810F, Method 514.5 Procedure 1, Category 24

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