

# WSM6300 WIRELESS SERIAL MODEM

## GENERAL DESCRIPTION

The Wireless Serial Modem (WSM) leverages the Mesh Enabled Architecture (MEA) mobile broadband network to bring several new and powerful advantages to conventional, wireless, sensor networks.

The WSM provides the means for effectively managing and accessing serial data in critical sensor applications. Industrial manufacturing, environmental monitoring, traffic control, security and other remote data gathering applications can be monitored quickly and wirelessly.

A MEA network provides an easily deployed, cost effective, and high bandwidth solution for hard-to-wire or RF-hostile environments. Multi-Hopping technology provides non-line-of-sight connectivity, enhancing the range and performance of the entire wireless network. Burst data rates of up to 6 Mbps allow the sensor network to carry other data streams, and can form the backbone of a broadband mobile data network for technicians or other workers. A robust over-the-air modulation scheme and communications protocol provides outstanding performance - especially in noisy RF environments.

## FEATURES AND BENEFITS

### Scalability

The network can be expanded and easily modified, without the constraints found in conventional wired or point-to-multipoint wireless networks. Multi-Hopping technology allows coverage to be extended by adding additional Wireless Serial Modems or Mesh Wireless Routers to the system.

### Easy to Install and Deploy

The simple product design, combined with MeshManager EZ software, reduces installation time significantly. No special training is needed. The WSM automatically powers-up, and seamlessly integrates into the network using auto-add and auto-provisioning mechanisms.

### MeshManager EZ Network Management

Running on Windows® XP, MeshManager EZ provides fast and simple provisioning services for installation and expansion of the sensor network. This software also supports remote sensor interface configuration and over-the-air software upgrades.



### Mesh Sensor Monitor

The Mesh Sensor Monitor application is a tool for sensor network development, testing and integration. A Mesh Sensor API is available for third party development of custom sensor management applications.

### End-to-End Industry Standard IP Support

MEA networks support end-to-end, standards-based Internet Protocol (IP). Any IP based application works seamlessly in the MEA network, enabling sensor data to be accessed and monitored wirelessly.

### Built in Position Location Capabilities

The QDMA protocol used in all MEA products measures radio signal Time of Flight (TOF), enabling the underground or in-building tracking and location of remote, unmanned, or specialized equipment.

## CONTACT INFORMATION

PHONE (407) 659-5300  
FAX (407) 659-5301  
EMAIL [info@meshnetworks.com](mailto:info@meshnetworks.com)

MAILING ADDRESS Motorola  
P.O. Box 948133  
Maitland, FL 32794-8133

WEB SITE [www.Motorola.com](http://www.Motorola.com)

mobile broadband  
network solutions



**MOTOROLA**

# PRODUCT SPECIFICATIONS

## GENERAL INFORMATION

<b>Data Rate</b>	1.5 to 6 Mbps burst, depending on configuration
<b>Certifications (All Pending)</b>	US-FCC Part 15 RSS-210
<b>Safety Certifications</b>	IEC 60950 EN 60950 EN 60215 CSA C22.2 No. 60950-00010
<b>CE Mark</b>	ETSI EN 300 328 V 141 ETSI EN 301 489-1 ETSI EN 301 489-17 EN 55022:1998 EN 55024:1998
<b>Power Consumption</b>	5W Maximum
<b>Power Requirements</b>	5.0 to 14V DC
<b>Power/Serial Interface</b>	6-pin weatherproof connector included

## NETWORK INFORMATION

<b>Network Management</b>	MeshManager EZ via SNMP (available for Windows™ XP, Solaris 8 or Linux)
<b>Network Interface</b>	RS-485, or RS-232 serial with General Purpose I/O pin
<b>IP Addressing Network Devices</b>	Source & destination of sensor data specified using existing network IP addressing scheme.

## RADIO

<b>Output Power</b>	Up to 25 dBm
<b>RF Modulation</b>	QDMA
<b>Operating Frequency</b>	2.4 GHz - 2nd ISM band
<b>Antenna Type</b>	Omnidirectional, up to 8 dBi
<b>Antenna Connector</b>	N-Type

## PHYSICAL

<b>Dimensions (without antenna)</b>	4.5" x 3.5" x 1.25" (11.4cm x 9cm x 3.5cm)
<b>Weight</b>	8.0 oz (227g)
<b>Packaging</b>	NEMA 4 environmental enclosure for indoor or outdoor deployment

## ENVIRONMENTAL

<b>Temperature Range</b>	-35 to 55 °C
<b>Humidity</b>	0-100%

## AVAILABLE OPTIONS

**Antenna** Ask your sales representative for other antenna options

Mesh Enabled Architecture, MEA, Mesh Scalable Routing, MSR, MeshManager, Mobile Internet Switching Controller, MiSC, QDMA, and Multi-Hopping are trademarks or registered trademarks of Motorola, Inc. MOTOROLA and the Stylized M Logo are registered in the US Patent & Trademark Office. All other product or service names are the property of their respective owners.

mobile broadband  
network solutions



**MOTOROLA**