

MAM7700

700MHz

Full-Duplex Mobile Mesh
Wireless Access Point

Reliable, Intelligent, High Performance Mesh Network

- Patent pending, auto-discovery, auto-configure, real-time routing, and auto-healing POP (Predictable Optimum Path) mesh routing algorithm
- Real-time mesh routing based on monitoring current environment
- Multiple wireless path design eliminates adjacent MAM7700 signal interference and provides zero performance degradation
- Best network throughput via layer 2 fast switching and bridging from MAM7700 to MAM7700 to support real time video, voice, and data applications
- Transparent to layer 3 and up protocols, fully compatible with existing network equipment

Management and Security

- Supports Web Based browser & SNMP*
- Supports WEP/WPA/WPA2 encryption security across wireless mesh network
- Mesh network protection with user defined Mesh ID
- WPA/WPA2 Security protection for the backhaul network.

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ArrowSpan's MAM7700 will automatically discover its neighboring MAM700s and interconnect all the MAM700s together to form an instant coverage mobile wireless network.

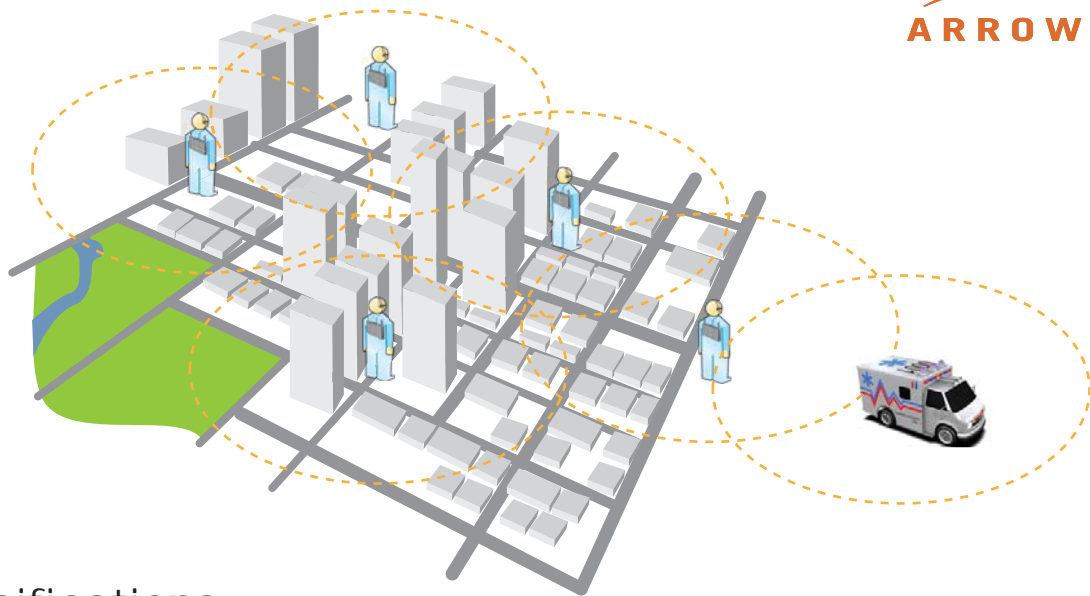
MAM7700 implements Layer 2.5 mesh routing which provides excellent network performance and is fully compatible with existing network equipment and applications. The MAM7700 is able to support high-bandwidth and low latency applications like real-time video and voice.

Predictable Optimum Path (POP) routing algorithm creates a MAM7700 based mesh network with the best throughput, reliable mesh link, and auto-discovery/auto-configuration/auto-healing benefits. The algorithm is like human intelligence; it examines the network and makes appropriate connections among MAM700s in real time. The algorithm also re-establishes a new network when obstacles, individual node problems, new nodes or internet access events occur.

High throughput Mesh Network is achieved by non-blocking and no-interference for client and backhaul traffic. MAM7700 multi-radio and multi-channel design eliminates wireless signal interference and traffic conflict problems that exist on many other mesh network products.

The web-based management interface enables both professional and non-technical users to easily handle network management and maintenance tasks for the MAM700 units. The "Point and Click" browser interface permits users to monitor node condition, link quality, traffic flow, and event logs of the MAM700 units on the mesh network. The web-based Topology function also allows Network administrators to easily configure, update, and monitor every MAM700 station on the mesh network.

MAM7700 is highly secured through full support of wireless Advanced 128-bit AES encryption on both backhaul and user traffic. The multi-level administration password control provides MAM700 users with the highest security guard for all services and applications.



Specifications

Wireless	
Frequency	700 – 721MHz, 760 – 781MHz
Modulation	Orthogonal Frequency Division Multiplexing (OFDM)
Throughput	Up to 5Mbps throughput at 5th hop count
Tx Power	Up to 1W
Receiving Sensitivity	Typical -75dBm
Antenna	0dBi 700MHz mono-pole antenna
Operating Range	Node-to-node Distance Up to 500m non-line-of-sight (Transmission speed may vary according to the environment)
Predictable Optimum Path (POP)	Automatically discovers and configures the interconnect mesh link between nodes
Fast Switching	Layer 2.5 enable fast-packet switching wireless
Full Compatibility Structure	Data packets transparent to Layer 3 and higher protocols
Multi-Radio Full-Duplex Design	Multiple radios provide up link and down link
Auto Association	Automatic select the favorable uplink based on signal quality and hop count
Active Scan - Site Survey	Constant monitoring the mesh network for mesh link optimization
QoS	Support for multimedia applications: streaming video, video teleconferencing and voice over IP (VoIP)
GPS (Optional)	Topology displaying users' positions with GPS coordinate position
Security & Encryption	Advanced 128-bit AES Encryption (Hardware Accelerated)
Management	Web based (HTML) Management
Diagnostic	
Mesh Link quality	Link Speed, SNR, Noise Floor, Various Packet Counts
Topology Change Log	Time, Topology Map
Radio Self-Test	Uplink / Downlink Radio Test
Traffic Log	Packet Count
Ethernet	Tx / Rx Packet Count
Network Port	(1x) 10/100Mbps Auto Cross-over Ethernet RJ45
Power	Battery 14.8V, 10.2Ah, and 150Wh
Maximum power consumption	18W
Environment Conditions	
Operating Temperature:	-40°F to 131°F (-40°C to 55°C)
Storage Temperature:	-50°F to 158°F (-58°C to 70°C)
Humidity:	95% maximum relative humidity, non-condensing
Physical Specifications	
Dimension:	(w)27cm x (h)24cm x (d)7cm
Weight:	3.5kg