

# MeshAP 3800-A9 Outdoor Tri 900MHz Single 2.4GHz Full-Duplex Mesh Network Access Point



## Reliable, Intelligent, High Performance Mesh Network

- Patent pending, auto-discovery, auto-configure, and auto-healing POP (Predictable Optimum Path) mesh routing algorithm
- Multiple wireless path design for both backhaul and user traffic eliminates adjacent AP signal interference and provides zero performance degradation
- Best network throughput via layer 2 fast switching and bridging from AP to AP to support real time video, voice, and data applications
- Up to 16 separate SSID/VLAN with different authentication and encryption algorithms simultaneously

## Fully Compatible with Existing Access Servers, Routers, and Gateways

- Transparent to layer 3 and up protocols, fully compatible with existing network equipment
- Directly connects to existing Routers, Gateways, or APs through 10/100 Ethernet

## Management and Security

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

**Providing Wi-Fi access** to any community with heavy foliage coverage like camp site, RV park, city park, and campus. The MeshAP 3800-A9 provides users with a dependable flexible network, and at the same time improves community productivity, and encourages economic development. ArrowSpan's MeshAP 3800-A9 provides Wi-Fi access using wireless mesh technology with plug-n-play easy installation, and allows carriers and service providers to deliver a true wireless network over large geographical areas or other locations where wiring is too difficult or expensive to install.

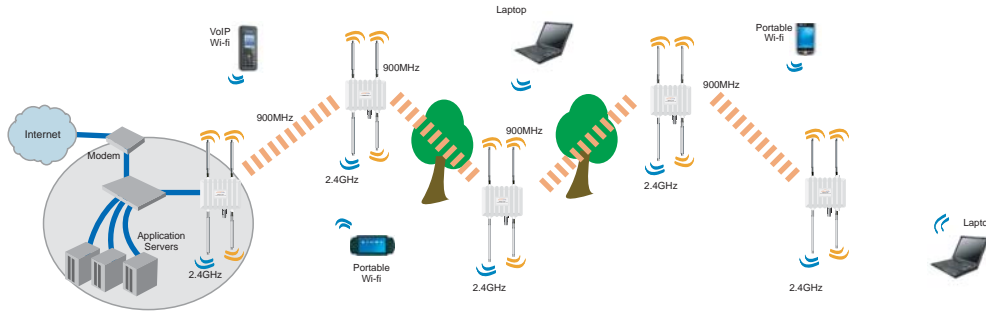
**A Mesh Link is a true wireless connection** between any two MeshAP units. ArrowSpan MeshAP 3800-A9 will automatically discover its neighboring MeshAP 3800-A9 and interconnect all the MeshAP units together to form a large coverage wireless network.

**MeshAP 3800-A9 implements Layer 2 mesh routing** which provides excellent network performance and is fully compatible with existing network equipment and applications. The MeshAP 3800-A9 is able to support high-bandwidth and low latency applications like real-time video and voice.

**Predictable Optimum Path (POP)** routing algorithm creates a MeshAP 3800-A9 based Wi-Fi mesh network with the best throughput, reliable mesh link, and self-discovery/self-configuration/self-healing benefits. The algorithm's human-like intelligence examines the network and makes appropriate connections among MeshAPs in real time. It 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 a non-blocking and no-interference design for client and backhaul traffic. The MeshAP 3800-A9 multi-radio and multi-channel architecture eliminates the wireless signal interference and traffic conflict problems that exist on many other mesh network products.

**The web-based (HTML) management interface and SNMP** enables both professional and non-technical users to easily handle network management and maintenance tasks for the MeshAP units. The "Point and Click" browser interface permits users to monitor node condition, link quality, traffic flow, and event logs of the MeshAP units on the mesh network. The web-based Topology function also allows Network administrators to easily configure, update, and monitor every MeshAP station on the mesh network. SNMP private MIBs are available for advanced users preferring to manage through their own network manager.



## Specifications

### MESH NETWORK PERFORMANCE

Up to 6Mbps\* backhaul throughput

\*(Transmission speed may vary according to the interference of the environment)

### OPERATING RANGE

**Backhaul:** \*Based on 5dBi Antenna  
Node-to-node Distance: up to 1km with open space

**Access Point:** Based on 8dbi Antenna  
500m @54Mbps with high power CPE

### Wireless

#### BACKHAUL RADIOS

Number of Radio: 3  
Media Access Protocol: CSMA/CA with ACK  
Frequency: 902MHz - 928MHz

**MODULATION**  
OFDM (64-QAM, 16-QAM, QPSK, BPSK)

**DATA RATES**  
13.5 Mbps

**CHANNEL WIDTH**  
5MHz

**TX POWER**  
up to 1W (average)

**RECEIVING SENSITIVITY**  
-72dBm

#### ACCESS POINT RADIO

Number of Radio: 1  
Standards: IEEE 802.11g, 802.11b  
Media Access Protocol: CSMA/CA with ACK  
Frequency: 2.4GHz ISM radio band

**MODULATION**  
802.11g: OFDM(64-QAM, 16-QAM, QPSK, BPSK)  
802.11b: CCK(11, 5.5MHz), DQPSK(2Mbps), DQPSK(1Mbps)

**DATA RATES**  
802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps  
802.11b: 1, 2, 5.5, 11Mbps

**TX POWER**  
802.11b/g: up to 400mW

**CHANNELS**  
802.11b/g: USA, Canada: 11

#### ANTENNA (Not included in package)

**Backhaul:** (3x) 5dBi 900MHz omni directional antenna  
**Access Point:** (1x) 8dbi 2.4GHz omni directional antenna

### Software Feature

#### SECURITY & ENCRYPTION

64bit, 128bit WEP encryption (Hardware Accelerated)  
WPA/WPA-2 (Hardware Accelerated)  
Mesh operator username/password  
Mesh ID protection  
Software RESET button to factory default

#### MULTIPLE SSID/VLAN

support up-to 16 separate SSID/VLAN with different authentication and encryption simultaneously

#### RF CONTROL

Tx Power Control - Settable Tx levels to adjust coverage cell size  
Automatic / Manual Channel Selection  
Automatic / Manual Mesh node selection  
Self-forming / self-healing Mesh Link

#### MANAGEMENT

Web based (HTML) Management  
SNMP\*

### Hardware Specifications

#### NETWORK PORT

(1x) 10/100Mbps auto crossover Ethernet WAN Port  
(For connecting to Router or Gateway)

#### POWER

Power Interface: POE  
Input: 48VDC 380mA

#### ENVIRONMENTAL 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: 23.4cm x 17cm x 6.3cm  
Weight: 1.5kg

#### ENCLOSURE

Rating: IP66 water proof  
Antenna Connector: (3x) weatherproof antenna connectors  
Power Connector: (1x) weatherproof Power/Data connector

#### REGULATORY COMPLIANCE

Certification: FCC Part 15  
(Please contact ArrowSpan for other Certifications)

### Ordering Information

Part Number	Product Description
MA3800-A9	US Version
ANT-ODA905	890-960 MHz 5dBi Omnidirectional Antenna with N Connector
ANT-ODA2408	2.4GHz 8dBi Omnidirectional Antenna with N Connector
PE-35-48	Outdoor PoE Injector
POE-40W	40W PoE Injector

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