

# HotPort™ 7010-900 Wireless Mesh Nodes



HotPort 7010-900  
Indoor Mesh Node

## HotPort™ 7010-900 – High-performance, self-forming wireless mesh—uniquely designed for the noisy 900 MHz spectrum.

### Ethernet Connectivity

HotPort 7010-900 mesh nodes provide reliable Ethernet connectivity over a high-performance, self-forming wireless mesh backbone—indoors, outdoors (outdoor enclosure required), or onboard moving vehicles. All HotPort nodes have multiple Ethernet ports for connecting network devices or other networks to the wireless mesh.

### Dual Radio for Different Frequencies

HotPort 7010-900 mesh features a dual radio solution with capability of operating in the 900 MHz spectrum on one radio, while concurrently operating in the 2.4 GHz, 4.9 GHz (U.S. public safety licensed band) or 5 GHz frequency ranges on the other.

### Near-Line-of-Sight Performance

With the new HotPort 7010-900, users with near-line-of-sight conditions can now deploy multi-hop, fully meshed networks and receive its benefits of redundancy and load balancing, thereby improving reliability of their networks. The product extends mesh reliability, performance and services into these difficult environments.

### 'Smart Adaptive' Mesh Technology

HotPort 7010-900 mesh is uniquely designed for the noisy 900 MHz spectrum and introduces FireTide's 'Smart Adaptive' mesh technology to mitigate the effects of interference that typically brings down wireless throughput and reliability in this band. FireTide's noise-aware data path and noise filtering algorithms enable mesh to handle interference from other 900 MHz devices, as well as from adjacent frequency bands taken up by cellular and 3G/4G traffic. Tools such as the spectrum analyzer,

which is integrated into the product, allow a network administrator to remotely monitor the health of the network and take actions to further optimize the network performance.

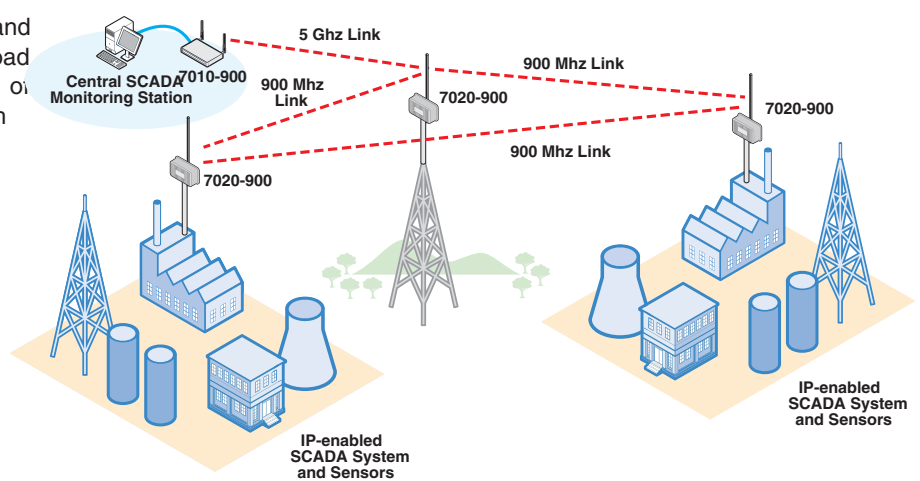
### Designed for Street-level Connectivity

Wireless mesh, especially in the 900 MHz spectrum, has emerged as a viable alternative to cellular and other types of communications for applications that require street-level connectivity, where buildings and foliage present a challenge. Wireless mesh is the best choice for critical applications, since it eliminates any single points of failure and provides multiple paths to ensure reliability and data integrity.

Near-line-of-sight FireTide HotPort 7010-900 mesh also meets the utilities' needs for reliable data communications in remote and rugged terrains, where it can increase the backhaul capacity of SCADA monitoring networks.

### End-to-End Security

HotPort 7010-900 mesh nodes ensure maximum security and privacy of your data. They feature WPA2 encryption between nodes and 256-bit AES encryption from ingress to egress. All Layer 3 IP data is encapsulated and accessible only to FireTide mesh nodes. HotPort nodes support VLANs, segmenting traffic with secure access control, on same physical infrastructure.



Public utilities network backhaul using FireTide HotPort 7000-900

## Specifications

### Models

- HotPort 7010-900—Dual-radio Indoor Mesh Node

### Mesh Protocol

- Firetide AutoMesh™ Protocol

### Security and Encryption

- WPA/WPA2 Wireless encryption
- 128 bit / 256 bit end-to-end AES
- MAC address filtering
- Digitally signed firmware files
- Digital certificates on nodes

### Traffic Prioritization

- Quality of Service (QoS 802.1p)

### Wireless Interface

- IEEE 802.11a/b/g/n ad hoc
- Transmit power up to 400 mW for 2.4/5 Ghz radio & 500 mW for 900 MHz radio
- Frequency ranges
  - 902 – 928 MHz
  - 2.412 – 2.483 GHz
  - 4.94 – 4.99 GHz
  - 5.15 – 5.25 GHz
  - 5.25 – 5.35 GHz
  - 5.470 – 5.725 GHz
  - 5.725 – 5.825 GHz
- Receive sensitivity (typical)
  - 900 Mhz, OFDM
    - 6 Mbps: -91 dBm
    - 54 Mbps: -71 dBm
  - 2.4 GHz, DSSS
    - 1 Mbps: -95 dBm
    - 11 Mbps: -88 dBm
  - 2.4 GHz, OFDM
    - 6 Mbps: -90 dBm
    - 54 Mbps: -73 dBm
  - 5 GHz
    - 6 Mbps: -90 dBm
    - 54 Mbps: -73 dBm
- Dynamic Frequency Selection (DFS)
- Transmit Power Control (TPC)

### Management Software

- HotView Pro™ mesh management software (Separate purchase required)

### Regulatory Agency Certifications

- Contact your Firetide dealer for product availability and certifications for your country
- RoHS, FCC Part 15, CE, WEEE compliant

### Warranty

- Hardware: one year limited warranty, (Extended warranty available for purchase)
- Software: 90 days limited warranty

## Indoor Model—7010-900

### Network Ports

- Four GigE 10/100/1000 Mbps Ethernet ports with LEDs
- IEEE 802.3, 802.3u compliant
- CSMA/CD 10/100 autosense

### Enclosure

- System LEDs (power, status, mesh)
- Ethernet port LEDs (link, status, activity)
- Connectors: Six RPSMA female antenna, one power, four Ethernet (RJ-45)
- Reset button (recessed)
- Security slot for physical locking device
- Weight: 2 lb 14 oz (1.3 kg)
- Dimensions: 9.4"L X 5.9"W X 1.6"H

### Power

- DC Input: 12 VDC ± 1.5 % , 2 A
- Port 1 : IEEE 802.3at compliant PoE-PD

### Environmental Specifications

- Operating temperature: 0°C to +60°C
- Storage temperature: -20°C to +70°C
- Humidity (non-condensing): 10% to 90%
- Storage humidity (non-condensing): 5% to 95%
- Maximum altitude 15,000 feet (4600 meters)

### Included Accessories

- AC power adapter with cord (non-North America power cord is separate orderable item)
- Antennas: Three 2.4 GHz and three 5 GHz, 5 dBi, omnidirectional and, one 900 Mhz 3 dBi omnidirectional
- Terminations: SMA, reverse polarity to be connected to unused ports

### Optional Accessories

- Wall-mount bracket

## Firetide Products



### Mesh Nodes

HotPort Indoor, Outdoor and Edge Mesh Nodes



### Mobility

Firetide Mobility Controller



**Accessories** Antennas, Mounting Kits, Cables, etc.

### Access Points

HotPoint Indoor & Outdoor Access Points



### Software

HotView Pro Mesh Management Software