

## HotPort™ 7000 7010 / 7010(W)



HotPort 7010 Indoor Mesh Node



HotPort 7010(W)  
(HotPort 7010 Weatherized)

### HotPort™ 7000 – A cost-effective, viable alternative to fiber and the key to creating the fastest, most reliable and secure private wireless broadband network.

#### Expand Your Existing Networks

With HotPort 7000 series, you can expand the reach of your existing networks while adding a variety of fixed and mobile applications:

- City-wide video surveillance
- Traffic management and intelligent transportation systems
- Mobile Network Infrastructure for mobile city workers
- Wireless broadband for underserved areas

#### Easier Deployments & Network Management

Unlike wired networks, where deployment is cumbersome, the self-forming nature of the FireTide mesh network ensures rapid deployment of large-scale networks. The HotPort 7000 mesh features integrated spectrum analysis, network capacity planning and antenna alignment tools for easier deployments and network management.

#### Higher Reliability

The HotPort 7000 nodes form a multi-point to multi-point ad hoc wireless mesh network with no single point of failure. HotPort 7000 supports the ethernet direct feature, which creates a mesh routable link over Ethernet between two HotPort 7000 nodes for higher reliability.

#### Dual-radio Performance

To maximize performance, dual-radio HotPort 7000 nodes support two radio modes. In the “bonded” mode, both radios are combined to operate as a single unit that provides double the bandwidth of a single radio equivalent.

In the “linear” mode, both radios operate independently enabling sustained bandwidth levels at very low latency of around 1 ms per hop. This enables long linear topologies, such as when networking a railway line.

#### Quality of Service

FireTide’s patented AutoMesh™ technology supports advanced load balancing and congestion control mechanisms for optimal routing within the mesh network. The HotPort 7000 mesh infrastructure also provides extensive VLAN capabilities critical for deploying a multi-service network on a large scale. It enables true multi-service simultaneous transmission of video, voice and data over the same network.

#### Metro-scale Deployments

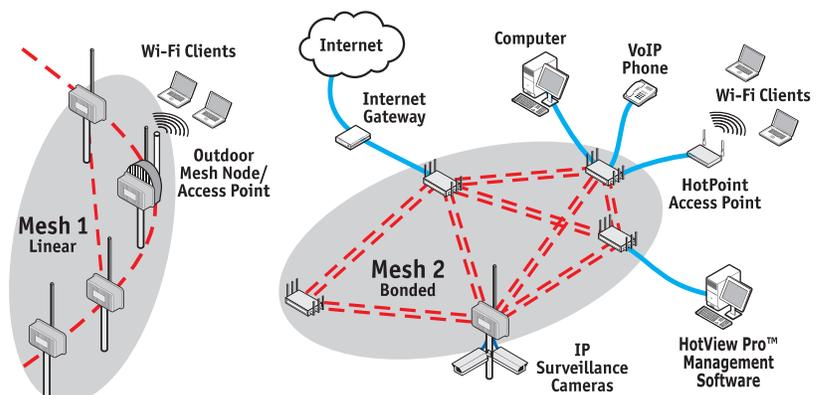
FireTide’s network easily scales up to several hundreds of mesh nodes for city-wide deployment. Indoor and outdoor HotPort 7000 nodes feature dual or single configurable radios in the 2.4, 4.9 (U.S. public safety licensed band) and 5 GHz frequency ranges.

#### Multicast & Security

FireTide mesh provides reliable multicast capabilities, advanced security, including 802.11i support, dual-layer of FIPS140-2 certifiable 256-bit AES encryption, digital certificates on network elements, digitally signed firmware files, MAC based access control lists and VLAN based access control lists.

#### Convenient Upgrade Paths

HotPort 7000 mesh nodes ship as 802.11a/b/g/n dual-radio capable hardware, with enhanced functionality enabled through software licenses. Projects that do not require 802.11n MIMO (multiple input, multiple output) capacity or dual-radio capability can start with 802.11a/b/g-enabled single-radio configuration. Dual-radio functionality can easily be enabled through a software license at an additional cost. Similarly, a separate software license can enable MIMO functionality for operation in 40 MHz channels to take advantage of 802.11n technology and throughput of up to 150 Mbps per link and 300 Mbps on a bonded dual radio link on the wireless network.



## Specifications

### Models

- HotPort 7010—Indoor Mesh Node (802.11n MIMO and dual-radio licenses not included)
- HotPort 7010(W) (HotPort 7010 Weatherized, dual radio license included)

### 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; 3X3 MIMO with 2 streams
- Purchase of software license required for 802.11n MIMO functionality
- Supported frequencies\*
  - 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 – 5.850 GHz
  - 5.850 -5.925 GHz
- Receive sensitivity (typical)
  - 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, OFDM
    - 6 Mbps: -90 dBm
    - 54 Mbps: -73 dBm
- Ability to configure 5,10, 20 and 40 MHz (MIMO only) channel bandwidth\*
- Maximum transmit power 400mW\*
- Transmit Power Control (TPC)
- Dynamic Frequency Selection (DFS)

\* Maximum transmit power, supported frequencies and channel bandwidth shall vary based on country / region of operation

### Management Software

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

### Warranty

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

## 7010 - Indoor Model

### Network Ports

- Four GigE 10/100/1000 Mbps Ethernet ports, LED activity indicator
- 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 DC Power Jack, four Ethernet (RJ-45)
- Reset button (recessed)
- Weight: 2 lb 14 oz (1.3 kg)
- Dimensions: 9.4”L X 5.9”W X 1.6”H
- Security slot for physical locking device

### Power Input

- 12 VDC ± 1.5 % , 3.3 A
- Port 1: IEEE 802.3at compliant PoE-PD

### Environmental Specifications

- Operating temperature: 0°C to +60°C
- AC/DC power adapter: 0°C to +40°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 m)

### Included Accessories

- AC power adapter w/ cord (non-North America power cord is a separate orderable item)
- Antennas: Six Dualband 2.4 GHz and 5 GHz, 3 dBi, omnidirectional

### Optional Accessories

- Wall-mount bracket

## 7010(W) - Outdoor Model

### Network Ports

- Four GigE 10/100/1000 Mbps Ethernet ports with weatherproof-connectors, LED activity indicator
- IEEE 802.3, 802.3u compliant
- CSMA/CD 10/100/1000 autosense

### Enclosure

- Extruded aluminum NEMA-4X/ IP66 enclosure
- Four type-N female antenna connectors (Two per radio)
- One weatherproof power connector
- Four weatherproof Ethernet connector
- System LEDs (power, status, mesh)
- Reset (breather valve)
- Weight: 17.8 lbs (8.07 kg) (with bracket and sunshield)
- Dimensions: 13.4”L X 9.3”W X 4.7”H

### Power Input

- 100-240 VAC , 50-60 Hz, 0.8 A
- Port 1: IEEE 802.3at compliant PoE-PD

### Environmental Specifications

- Operating temperature: -20°C to +60°C
- Storage temperature: -30°C to +70°C
- Humidity (non-condensing): 10% to 90%
- Storage humidity (non-condensing): 5% to 95%
- Maximum altitude 15,000 feet (4600 m)

### Included Accessories

- Antennas: Six dual-band 2.4 GHz & 5 GHz, 3 dBi, indoor-rated omnidirectional (included for network staging only)
- Bracket for pole and wall mounting
- Field installable AC power connector (Power cable not included)
- Removable sunshield
- Two N-type to SMA-type connectors
- Antennas: Six Dualband 2.4 GHz and 5 GHz, 3 dBi, omnidirectional
- One Ethernet cable gland for watertight RJ-45 coupling (Additional Ethernet cable glands can be ordered using PartNo. SP-7200-06)

### Optional Accessories

- Omni-directional & panel antennas

## Regulatory Compliance for 7010 & 7010(W)

### **Safety**

- IEC/EN 60950-22
- UL60950-1/CSA22.2 60950-1
- UL/CSA 60950-22
- IEC/EN 60950-1

### **EMC Standards**

#### **United States**

- FCC Part 15.107 (class B) and 15.109 (class A)

#### **Canada**

- Industry Canada ICES-003

#### **European Union**

- EN 301 489-1 and -17

### **Radio Compliance**

#### **United States**

- FCC Part 15.247,15.407
- FCC Part 15.207 and 15.209
- FCC Part 15.403
- FCC Part 90 Y

#### **Canada**

- RSS-210
- RSS-111

#### **European Union**

- EN 300 328
- EN 301 893
- EN 302 502

## Additional Regulatory Compliance for 7010(W)

### **Environmental Standards**

- IP66, IEC60529

### **Radio Compliance**

#### **United States**

- FCC Part 90 M

#### **Canada**

- RSS-247