



HotPort® 7000 Wireless Mesh Nodes

Viability Alternative to Fiber

MIMO (multiple input, multiple output) infrastructure mesh technology from Firetide provides municipal, industrial and enterprise users with the bandwidth needed to expand the reach of their existing networks, while adding a variety of fixed and mobile applications: city-wide video surveillance, traffic management and intelligent transportation systems, Wi-Fi access for mobile city workers and wireless broadband for underserved areas. Firetide MIMO infrastructure mesh also makes possible high-bandwidth mobile applications, including voice, data and video, to enhance productivity of government workers and provide new capabilities to transportation and industrial networks.

Fiber-equivalent Performance

The HotPort® 7000 MIMO infrastructure mesh delivers best-in-class performance with throughput of up to 400 Mbps, exceeding that of current wired solutions like T1, Fast Ethernet and OC-3 fiber, and provides an alternative to fiber or leased lines. The HotPort 7000 mesh enables delivery of multiple high-speed services over wireless, including high-resolution real-time video surveillance, broadband access, HDTV, multiple voice streams over IP and high speed-infrastructure backhaul.



HotPort 7000 Indoor Mesh Node



HotPort 7000 Outdoor Mesh Node

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. Unlike a wired network, where a cut in the cable could take several days to resolve, the Firetide mesh routes the traffic immediately on an alternate link ensuring continuous service and network availability.

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 over an unlimited number of hops. This enables long linear topologies, such as when networking a railway line, and provides a sustained level of service to every node, which is also critical for large municipal networks.

Quality of Service

Firetide's patented AutoMesh™ flow based routing protocol 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.

Metro-scale Deployments

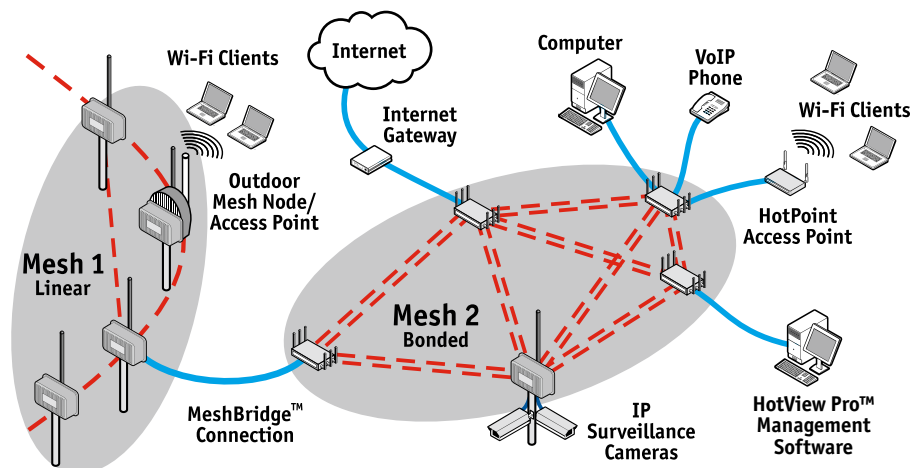
Firetide's MIMO network easily scales up to several hundreds of mesh nodes for city-wide deployment. Advanced features like MeshBridge™ and Gigabit EthernetDirect™ support mesh connectivity across multiple locations.

Multicast & Security

Firetide MIMO infrastructure provides reliable multicast capabilities critical for large-scale public safety and broadband access networks. Firetide mesh provides 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.

Flexible Configuration

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. HotPort 7000 mesh can utilize channel widths of 5, 10, 20 and 40 MHz, with 5 and 10 MHz channel widths only available on the 4.9 GHz band.



HotPort® 7000 Wireless Mesh Nodes

Specifications

Models

- HotPort 7100—Dual-radio Indoor Mesh Node*
- HotPort 7200—Dual-radio Outdoor Mesh Node*

* Purchase of radio license required for dual-radio functionality

Mesh Protocol

- Firetide AutoMesh™ Protocol

Security and Encryption

- 40 bit, 104 bit WEP keys
- 128 bit, 256 bit AES keys (WPA2, end-to-end data)
- 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/h/n ad hoc
- 3X3 MIMO with 2 streams
- Transmit power up to 400 mW per stream
- Frequency ranges
 - 2.412 – 2.483 GHz
 - 4.94 – 4.99 GHz (US public safety band)
 - 5.15 – 5.25 GHz
 - 5.25 – 5.35 GHz
 - 5.470 – 5.725 GHz
 - 5.725 – 5.825 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
 - 6 Mbps: -90 dBm
 - 54 Mbps: -73 dBm
- Ability to configure 5, 10, 20 and 40 Mhz channel bandwidth
- Dynamic Frequency Selection (DFS)
- Transmit Power Control (TPC)

Mesh Management Software

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

Mobility Controller Software

- Firetide Mobility Controller client and infrastructure software (bundled with HotView Pro)

Regulatory Agency Certifications

- Contact your Firetide dealer for product availability and certifications for your country
- RoHS and WEEE compliant

Warranty

- Hardware: one year limited warranty
- Software: 90 days limited warranty



HotPort 7200 connectors

Outdoor Model—7200

Network Ports

- Three GigE 10/100/1000 Mbps Ethernet ports with weatherproof connectors, LED activity indicator
- IEEE 802.3, 802.3u compliant
- CSMA/CD 10/100 autosense
- Ports 2, 3 PSE Power over Ethernet per 802.3af

Enclosure

- Cast aluminum NEMA-4X/IP66 enclosure
- Two N-type antenna connectors
- One weatherproof power connector
- Three weatherproof Ethernet connectors
- System LEDs (power, status, mesh)
- Weight: 12 lbs (5.4 kg) with bracket and sunshield
- Dimensions: 11.6" X 8.1" X 4.1"

Power

- AC Input: 100–240 VAC, 50–60 Hz, 0.9 A
- DC Input: 12 VDC ±15%, 5 A
- Ports 2 and 3: IEEE 802.3af compliant PoE (PSE), consumption

Environmental Specifications

- Operating temperature: -40°C to +60°C
- Storage temperature: -40°C to +85°C
- Humidity (non-condensing): 10% to 90%
- Storage humidity (non-condensing): 5% to 95%
- Maximum altitude 15,000 feet (4600 meters)

Included Accessories

- Antennas: two pairs, 2.4 GHz and 5 GHz, 5 dBi, omni directional (included for network staging only)
- Bracket for pole and wall mounting
- External AC power cord (non-North America power cord is separate orderable item)
- Removable sunshield
- One weatherized Ethernet transition cable with watertight RJ-45 coupling

Optional Accessories

- Outdoor weatherized Ethernet cables, for use with HotPoint® access points
- Luminaire photocell socket power
- Integrated 3 x 3 omni, directional & panel antennas (Please see Antenna Guide)



HotPort 7100 connectors

Indoor Model—7100

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: two 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 9-3/8" X 5-7/8" X 1-5/8"
- Plenum-rated UL2043

Power

- DC Input: 12 VDC, 2.5 A
- External power supply: 100–240 VAC, 50/60 Hz

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: 2 pairs (3 each for each radio) 2.4 GHz and 5 GHz, 5 dBi, omni directional

Optional Accessories

- Wall or cubicle-mount bracket
- Integrated 3 x 3 omni, directional & panel antennas (Please see Antenna Guide)

Other Firetide Products



Access Points

HotPoint Indoor & Outdoor Access Points



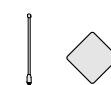
CPE

HotClient Indoor & Outdoor Customer Premises Equipment



Software

HotView & HotView Pro Network Management Software, Firetide Mobility and WLAN Controller



Accessories

Antennas, Mounting Kits, Cables, etc.



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