HotPort® 7000-900 Wireless Mesh Nodes

HotPort 7000-900 mesh nodes provide reliable Ethernet connectivity over a high-performance, self-forming wireless mesh backbone—indoors, outdoors, or onboard moving vehicles. All HotPort nodes have multiple Ethernet ports for connecting network devices or other networks to the wireless mesh. HotPort 7000-900 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.

HotPort 7000 mesh can utilize channel widths of 5, 10, 20 and 40 MHz (Mimo only), with 5 and 10 MHz channel widths only available on the 4.9 GHz and 900 MHz.

Reliable Connectivity Anywhere™

Designed for seamless indoor and outdoor operation, the HotPort mesh network securely handles concurrent video, voice, and data applications, making it ideal for municipal, public safety, and industrial networks. The mesh's self-forming and self-healing properties enable rapid deployment and dependable operation. Firetide's AutoMesh™ routing protocol manages network load and traffic congestion to optimize mesh-wide performance and capacity.

Firetide's end-to-end solution includes HotPort nodes for mesh infrastructure, HotPoint® access points for wireless access, HotView™ software for a complete management system, and HotView Controller™ for mesh and client mobility.

HotPort 7010-900 Indoor Mesh Node

HotPort 7020-900 Outdoor Mesh Node

Near-Line-of-Sight Performance

With the new HotPort 7000-900, users with near-line-of-sight locations 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 enables bandwidth intensive applications such as video surveillance and broadband access traffic and extends mesh reliability, performance and services into these difficult environments.

'Smart Adaptive' Mesh Technology

HotPort 7000-900 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 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.

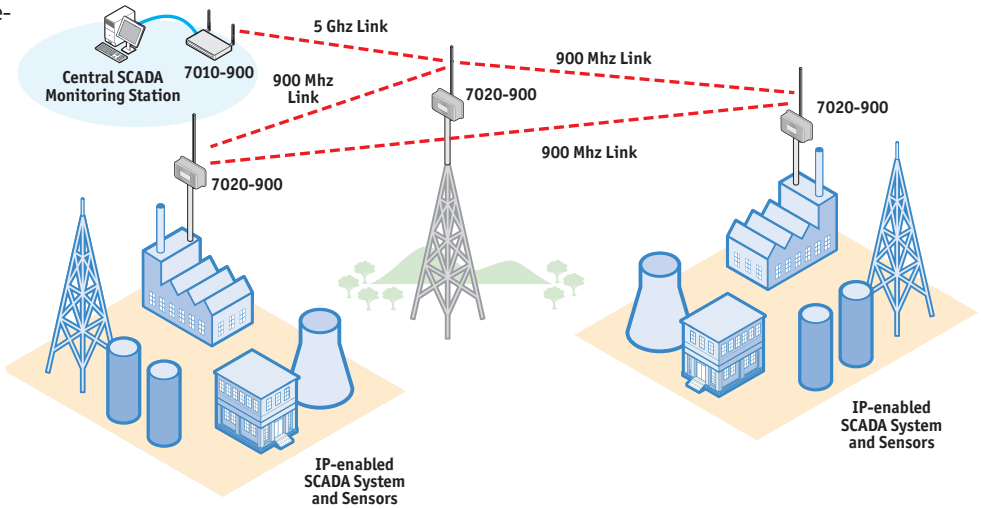
Designed for Street-level Connectivity

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 often 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 integrity of data.

Near-line-of-sight Firetide HotPort 7000-900 mesh also meets the utilities' needs for reliable, high-bandwidth communications in remote and rugged terrains where it can increase the backhaul capacity of SCADA monitoring networks and also be used for security and surveillance.

End-to-End Security

HotPort 7000-900 mesh nodes ensure maximum security and privacy of your data. They feature WEP and 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

HotPort® 7000-900 Wireless Mesh Nodes

Specifications

Models
- HotPort 7010-900
  —Dual-radio Indoor Mesh Node
- HotPort 7020-900
  —Dual-radio Outdoor 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 (Indoor Use Only)
  - 5.25 – 5.35 GHz
  - 5.470 – 5.725 GHz
  - 5.725 – 5.825 GHz
- Receive sensitivity (typical)
  - 900 Mhz, DSSS
    - 1 Mbps: -94 dBm
    - 11 Mbps: -89 dBm
  - 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

HotPort 7020 Outdoor Connectors

HotPort 7010 Indoor Connectors

Outdoor Model—7020-900

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
- Six type-N female antenna connectors
- Two weatherproof power connectors
- Three weatherproof Ethernet connectors
- System LEDs (power, status, mesh)
- Weight: 12 lbs (5.4 Kg) with bracket and sunshield
- Dimensions: 11.6"L X 8.1"W X 4.1"H

Power
- AC Input: 100-240 VAC, 50-60 Hz, 0.9 A
- DC Input: 12 VDC ±10%, 1.7 A
- Power Consumption:
  20 W Typical without PoE
- Ports 2 and 3: IEEE 802.3af compliant PoE (PSE) consumption (17 W Max per port)

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: Six dual-band 2.4 GHz & 5 GHz, 3 dBi, indoor-rated omnidirectional and, one 900 MHz 3 dBi omnidirectional (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
- Three weatherized Ethernet transition cable with watertight RJ-45 coupling
- Terminations: N Type, standard for unused ports

Optional Accessories
- Outdoor weatherized Ethernet transition cables, for use with HotPoint® access points
- Luminaire photocell socket power
- Single detachable, high gain, spectrum-specific, omnidirectional and directional antennas (see Antenna Guide)

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 V ±10%, 1.7 A
- Port 1: IEEE 802.3at compliant PoE (PD)
- External power supply: 100-240 VAC, 50/60 Hz
- Power consumption: 20 W Typical

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

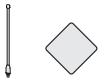
Optional Accessories
- Wall-mount bracket

Other Firetide Products

Access Points
HotPoint Indoor & Outdoor Access Points

CPE
HotClient Indoor Customer Premises Equipment

Software
HotView Pro Network Management Software



Accessories
Antennas, Mounting Kits, Cables, etc.

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