**firetide**®

# HotPoint® 4100/4200 Wireless Access Points

## Firetide HotPoint Wireless Access Points

Firetide HotPoint wireless access points deliver a modular access solution for large scale, indoor and outdoor wireless mesh networks. Modular design enables full network and software integration of the access points with a Firetide wireless mesh network while at the same time permitting independent physical placement of the hardware to provide optimal accessibility for Wi-Fi® clients.

## Seamless Outdoor and Indoor Operation

Outdoor HotPoint 4200 access points have ruggedized enclosures and have one weather proof connector for attaching to a Firetide wireless mesh node or a conventional Ethernet port. These units support high gain antennas and can receive power directly from a connected mesh node eliminating the need for an external power supply. Indoor HotPoint 4100 access points provide wireless access within buildings and moving vehicles. Each indoor access point has a plastic enclosure and an RJ-45 connector for attaching to a Firetide wireless mesh node or a conventional Ethernet port.

## Single-point Network Management for Mesh and Access

Whether connected directly to a Firetide wireless mesh network or to a wired infrastructure, the HotPoint access points are fully integrated and managed with the same HotView™ software used to manage Firetide mesh nodes. HotView provides remote management from a centralized location and users can manage all mesh and access traffic from a single console.

## Advanced Security and Performance Features

HotPoint access points operate in the 2.4 GHz band and feature WPA2 and WEP encryption, up to 4 SSIDs, industry compliant QoS, and durable enclosures. High-power radios with up to 400 mW provide extended reach and outstanding penetration.

## Access On or Off the Mesh

HotPoint wireless access points can be connected to a Firetide mesh node to provide Wi-Fi access to any indoor or outdoor location without the need for backhaul cabling. HotPoint access points can also connect directly to a conventional wired infrastruc-

*Indoor HotPoint 4100*

*Outdoor HotPoint 4200*

ture eliminating the need to install a mesh node in locations where wired connectivity is readily available.

## Modularity for Flexible Placement

Unlike conventional mesh networks that combine mesh backhaul and Wi-Fi access in the same enclosure, Firetide mesh nodes and access points can be physically separated allowing system integrators to optimize RF separately for both the mesh backhaul as well as client access.

For example, in a multi-building mesh network, mesh nodes should be placed in areas that enable the best connectivity between buildings which is typically at higher locations. However the best locations for the access points tend to be lower to provide the best connectivity for Wi-Fi clients inside a building. Because the access points and mesh nodes are kept in separate enclosures, they

can be independently positioned for optimal RF connectivity.

## Designed for Hot Spots

Layered service levels can be enabled through Virtual APs (VAPs). Virtual AP Groups are supported with controller. Each HotPoint AP supports up to 4 VAPs, creating different logical networks with varying levels of security, access, and performance. Additional Hot Spot features include user-based rate limiting and intracell blocking.

## Designed for Enterprise Networks

The 4100/4200 Access Point can be seamlessly integrated with the existing enterprise L2/L3 networks. Seamless wireless Client mobility across L2/L3 domains and centralized policy management support can be achieved when the access point is managed through Firetide WLAN or Firetide Mobility controllers.
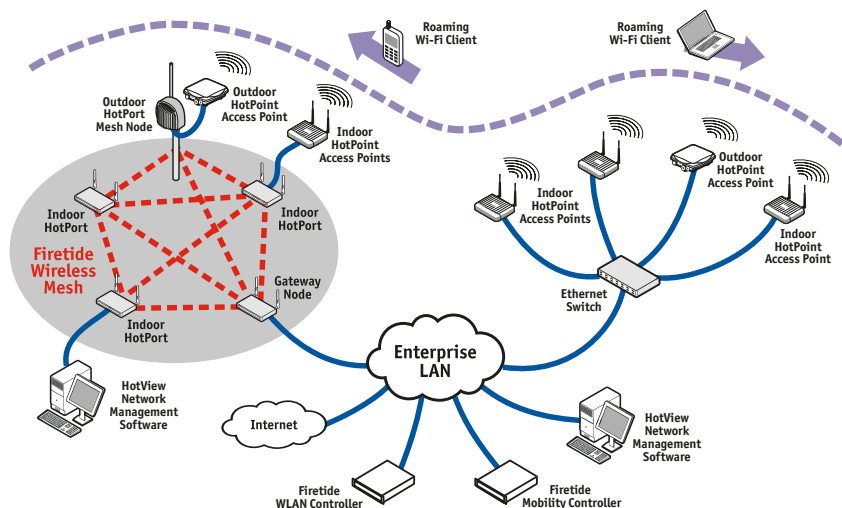
*HotPoint 4100/4200 deployment scenario*

# HotPoint® 4100/4200 Wireless Access Points

## Specifications

### Models
- HotPoint 4100 Indoor Access Point
- HotPoint 4200 Outdoor Access Point

### Wireless interface
- IEEE 802.11b/g
- Frequency range: 2.400 – 2.484 GHz
- Transmit power up to 400 mW
- Manual Transmit Power Control
- 802.11d (Auto Channel Select)
- Typical RX sensitivity:
  - 2.4 GHz, DSSS
    - 1 Mbps: -96 dBm
    - 11 Mbps: -90 dBm
  - 2.4 GHz, OFDM
    - 6 Mbps: -93 dBm
    - 54 Mbps: -74 dBm
- Media Access Protocol: CSMA/CA with ACK
- Range up to 1000 meters depending on client configuration and environment

### Networking
- Up to 4 SSIDs & 4 VLANs per HotPoint
- DHCP client/server, separate DHCP range per SSID

### Security, Authentication and Encryption
- 802.11i, WPA2
- 40 bit, 104 bit WEP keys
- 128 bit, 256 bit AES keys
- 802.1x, RADIUS authentication
- SSID suppression
- Firewall
- MAC access control
- NAT

### Seamless L2/L3 Mobility
- Supported with WLAN/Mobility Controller

### Rich Enterprise Ready Features
- Auto Channel allocation
- Coverage Gap Detection

### Management and Configuration
- Integrated mesh and access management
- Multiple user interface options:
  Centralized management via HotView or HotView Pro
- Built-in web-based management
- Remote firmware upgrade
- Physical AP grouping

### Hot Spot Services
- Virtual AP Grouping in controller mode
- User-based rate limiting
- Intercell/intracell blocking

### Client Access Features
- Up to 32 concurrent users simultaneously per HotPoint
- Fast handoff enabled
- WMM (Quality of Service)

### Network Ports
- One 10/100 autosense Base-T port
- IEEE 802.3,802.3u compliant

### HotPoint Management Software
- HotView™ mesh management software (bundled)
- HotView Pro™ mesh management software (optional)

### Regulatory Agency Certifications
- FCC Part 15
- CE

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

## Outdoor Model

### Enclosure
- Cast aluminum NEMA-4/IP66 enclosure
- One built-in antenna, one N-type antenna connector for optional antenna
- One Ethernet port with weatherized watertight RJ-45 coupling
- System indicator LEDs (power, status, align)
- Weight: 2 lbs (0.9 Kg) without bracket
- Dimensions: 7.8" X 8.3" X 2.4" (198 X 210 X 60 mm)

### Power
- Unit power is via 802.3af Power-over-Ethernet
- PoE PSE module: AC Input 90 – 240 VAC, 50 – 60 Hz, 0.15 A
- Unit power dissipation <9W

### Environmental Specifications
- Operating temperature: -40°C to +60°C
- Storage temperature: -40°C to +70°C
- Humidity (non-condensing): 10% to 90%
- Storage humidity (non-condensing): 5% to 95%
- Maximum altitude 15,000 feet (4,572 meters)

### Included Accessories
- Power-feed unit (AC power to PoE)
- Bracket for pole mounting

### Optional Accessories
- Bracket for wall mounting
- Single detachable, high gain, spectrum-specific, omni directional or directional antenna (see Antenna Guide)

## Indoor Model

### Enclosure
- Plastic enclosure
- Two RP-SMA antenna connectors
- One DC power connector
- One Ethernet connector
- System indicator LEDs (power, status)
- Weight: 10 oz (280 g)
- Dimensions: 6" X 4.75" x 1" (150 X 120 X 25 mm)

### Power
- DC Input: 9 – 15 VDC 0.7 A at 12 VDC
- AC power adapter: 100 – 240 VAC, 50/60 Hz input; 12 VDC, 1.5 A rated output

### Environmental Specifications
- Operating temperature: 0°C to +60°C
- Storage temperature: -40°C to +70°C
- Humidity (non-condensing): 10% to 90%
- Storage humidity (non-condensing): 5% to 95%
- Maximum altitude 15,000 feet (4,572 meters)

### Included Accessories
- AC power adapter with interchangeable plug inserts (US, Europe, UK, Australia)
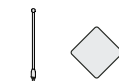- Antennas: one pair of 5 dBi, 2.4 GHz

## Other Firetide Products
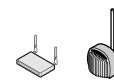
**Mesh Nodes**
HotPort Indoor & Outdoor Mesh Nodes

**CPE**
HotClient Indoor & Outdoor Customer Premises Equipment

**Software**
HotView & HotView Pro, Firetide Mobility Controller, Firetide WLAN Controller

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