



## HotPort® 5020-M mesh node

### Safety Information

Firetide® equipment must be installed by qualified personnel. Follow safe work practices and use approved non-conducting ladders, shoes, and other safety equipment. Make sure all equipment is in good condition. For more information about safety refer to the Firetide website.



**Warning!** Failure to comply with instructions marked with this symbol might expose you to non-insulated dangerous voltage that might be of sufficient magnitude to cause the risk of lethal electric shock to persons.



**Warning!** Failure to comply with instructions marked with this symbol might result in severe personal injury including electrical shock or permanent damage to equipment.



**Caution!** Failure to comply with instructions marked with this symbol might result in data loss or minor injuries.

### Documentation

This information is subject to change without notice. For the current version, visit Firetide Partner portal.

### Customer support

Contact your Firetide reseller or visit: <http://firetide.com/support/>

### Items to purchase

You need to purchase and install 50 Ohm terminators (Firetide P/N 7020-1002) on unused antenna connectors.

If you do not already have one, you need to purchase a HotView Pro™ management license and install it on the HotView Pro server.

### Required tools

- Administrator computer
- #2 Phillips screwdriver
- Small adjustable wrench
- Wire cutters to cut tie wraps on cables
- Weatherproofing kit with electrical tape and butyl mastic or silicon tape
- Plastic tie wraps (optional)
- Ladder

## 1 Unpack the mesh node and accessories.



### Box contents

- One HotPort 5020-M mesh node
- Two 5 dBi omni-directional antennas
- Two RP-SMA to type-N adapters
- One PoE+ injector
- One AC power cable (USA type)
- One DC power connector (field installable)
- One weatherized Ethernet RJ-45 connector (field installable)
- One Ethernet cable (shielded Cat5e)
- Mount kit
- Quick start sheet
- Warranty card

## 2 Connect to the mesh node.



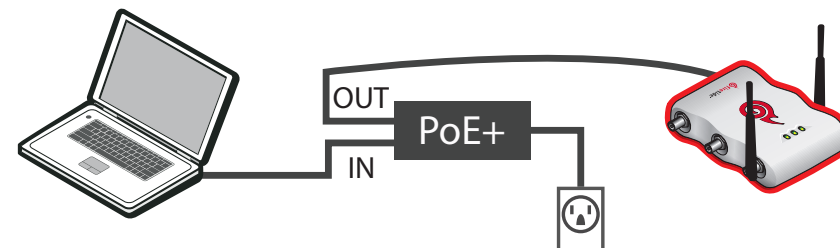
**Caution!** Do not use port 2 or port 3 of a DC HotPort 7020 mesh node to power a HotPort 5020 node. A HotPort 5020 node needs PoE+ or 802.3at, and the ports of a HotPort 7020 mesh node are PoE 802.3af-compliant only.



**Caution!** You cannot use a HotPort 7020 power source (12V) to power to a HotPort 5020-M mesh node, which requires 15V.

HotPort 5020-M mesh node connections:

- Attach the 5dBi omni-directional staging antennas to these connectors:
  - Radio 1/Antenna connector 1
  - Radio 2/ Antenna connector 1
- Attach the Ethernet cable from the computer to the mesh node
- Attach the HotPort 5020-M mesh node to the PoE+ injector
- Attach the PoE+ injector and AC cable to power



**Caution!** You must use the power cable that comes with the node. If you use a different power cable, you void the product warranty.

## 3 Log into the mesh node with a computer.

You need to connect your computer directly to the mesh node. To do this, you have to change the TCP/IP4 address of the computer to be an address on the 192.168.224.xxx subnet. 192.168.224.150 is the default IP address of nodes.

1. From the computer connected to the node, do one of the following:
  - Windows 7 users: go to **Start**, and then enter `View Network Connections` in the search box. Right-click on **Local Area Connection > Properties**. From the Networking tab, select **TCP/IP4**, and then click **Properties**.
  - Windows XP users: go to **Start > Connect To > Show all connections > right-click Local Area Connection** and select **Properties**. Select **Internet Protocol**, and then click **Properties**.
  - Windows 8 users: go to **Network and Internet > Network Connections > right-click Wired Ethernet Connection > Properties > Select Internet Protocol Version 4**, and then click **Properties**.
2. Enter an IP address for your computer of the format 192.168.224.xxx (where xxx is an address on the same subnet as the node), and then click **Apply**. Do not use 192.168.224.150.
3. From a command prompt window, start a continuous ping to verify connectivity.
 

```
ping 192.168.224.150 -t
```

## 4 Log into the HotView Pro server.

1. Start the HotView Pro Launcher.
2. Single-click to start the Quick Launch feature of HotView Pro, which starts the server and client software at the same time.
3. When prompted, enter:
  - User Name: hv\_admin
  - Password: firetide
4. Click **Log In**.



## 5 Load the mesh node into HotView Pro.

1. Go to **Mesh > Add Mesh > login** with the default information:
  - Mesh IP address: 192.168.224.150
  - User name: admin
  - Password: firetide
2. Click **Log In**. The node will appear in the HotView Pro interface within a minute.

## 6 Configure the mesh node.

After you log into the node:

Apply a saved configuration file compatible with your network settings

—OR—

Set the country code and manually configure the wireless settings  
**Best practice:** Copy a configuration file from a HotPort 7000 series mesh node already in your network. You can use a Network Gateway Interface (NGI) or Gateway Server (GWS) but those settings do not copy to HotPort 5020-M mesh nodes.

### Applying a saved configuration

1. Right-click the HotPort 5020-M mesh node.
2. Select **Apply Mesh Configuration**.

## Setting the country code

The system periodically prompts you until the country code is set. When the country code is set, the node operates at full radio strength and the channels are appropriate for the country of operation.

**Caution!** Make sure you configure the node for the correct country of operation.

1. When the system prompts you to set the country code, select **Set Country Code Now**.
2. Select the country of operation from the drop-down list.
3. Click **Apply**.

## Configuring the radios

Each mesh node has two radios.

1. Go to **Configuration > Wireless**
2. Set the Mesh ID and ESSID.
3. Set the wireless mode and channel for Radio 1 and Radio 2.
4. Set the wireless and end to end security if needed.
5. Click **Apply**.



## 7 Do indoor testing.

Send data from the administrator computer connected to one mesh node to another computer connected to another mesh node. After you finish the tests, remove the staging antennas and Ethernet cable and disconnect from power.

## 8 Prepare the node for outdoor installation.

**Warning!** Use appropriately rated antennas for outdoor applications.

**Warning!** Failure to comply with these installation instructions might result in severe personal injury including electrical shock or permanent damage to equipment.

**Warning!** Make sure that all safety equipment is in good condition. Do not use broken or damaged tools or equipment. Always use safe work practices and obey all local and national guidance for earth ground requirements and electricity.

**Note:** Collect all tools before you install the node.

1. Attach antennas rated for outdoor use.
2. Attach 50 Ohm terminators to unused antenna connectors.
3. To a pole that you can install at a permanent outdoor site, attach these items:
  - C-bracket
  - Antennas
4. Attach the node to the bracket.
5. (Optional) Attach a PoE injector.

**Note:** The PoE+ injector is not weatherproof. Do not expose it to rain or direct sunlight.

## 9 Check the outdoor environment for safety.

Do not install this product on a windy or rainy day.

## 10 Install the mesh node in its permanent location.

**Note:** Refer to the *Firetide Best Practices Guide* for detailed instructions.

1. Use the correct safety equipment to install the node in its permanent outdoor location:
  - Install a lightning suppressor.
  - Use shielded Cat5e cable and connect to earth ground at both ends.
  - Install all grounding equipment.
  - Make all cable connections weatherproof.
2. (Optional) Attach the PoE+ assembly to power the device.

**Caution!** Do not use port 2 or port 3 of a HotPort 7020 mesh node to power a HotPort 5020 mesh node. A HotPort 5020 mesh node needs PoE+ or 802.3at, and the ports of a HotPort 7020 mesh node are PoE 802.3af-compliant only.

3. (Optional) Use plastic tie wraps to keep the cables tidy.
4. Supply power to the node.
5. Ping the IP address of the node to make sure it works.

## Resetting the node to the factory default settings

Do a reset when you remove a device from the field or when communication with a device is lost. The reset button is behind the pressure relief valve on the left side of the port connector.

**Caution!** When a HotPort 5020-M mesh node is reset, configuration information is erased. The system does not erase the USA (840) country code.

For this procedure you need:

- Paper clip, stiff wire, or thin piece of plastic or wood
- Computer with HotView Pro
- Ethernet cable
- #2 Phillips screwdriver

To reset a HotPort 5020-M mesh node:

1. Supply power to the node.  
Wait until the power LED comes on. After one minute, the node is ready to be reset.
2. Remove the pressure relief valve, and put it in a safe place.
3. Press and hold for 20 seconds the reset button with the paper clip or other tool. The Radio 1 LED blinks to indicate that the software is rebooting, and you can stop pressing the reset button.
4. Wait one minute, and then log in with HotView Pro.
5. Configure the node or apply a previously saved configuration file.
6. Replace the pressure relief valve that covers the reset button.



## Upgrading the firmware

By default, the system uses the configuration in cache for multiple upgrades.

**Best practice:** Upgrade the image two times because you want the backup image and primary images to be the same.

By default, the scheduler activates the firmware immediately.

If you select the Activate Later check box, the scheduler copies the firmware image to the node but does not activate the firmware.

1. Go to **Network > Upgrade Firmware**  
The upgrade scheduler appears.
2. Click **New Scheduler**.
3. Select **Upgrade**.
4. (Optional) Select the time: Later. Use the calendar to a future date and time.
5. Click the tab to select a device type (HotPort Nodes for a mesh network), and then select the mesh by ID or name.

**Note:** The system selects all nodes within a mesh for simultaneous upgrade because all of the nodes have to run the same firmware. If a node should not receive the upgrade image, you can remove the mark from the upgrade check box.

6. (Optional) Select **Activate Later**.
7. Select the upgrade image.
8. Click **OK**.

The “upgrade complete” message means that the image file is on the node and is valid. You can then activate a few nodes at a time until all of the nodes are running the same firmware version. After the system activates the firmware, the node automatically reboots.

## End User License Agreement

Visit the Firetide website to download a copy of the End User License Agreement (EULA).



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