A.9   M3-EXT Auxiliary Modules

A.9.1 M3-EXT-PM1

Figure Error! No text of specified style in document.**-1: M3-EXT-PM1**

A.9.1.1 Description

The M3-EXT-PM1 is a router that provides Wired, Wi-Fi, and cellular connectivity. The module has integrated Pepwave MAX software providing maximum network reliability through automatic link failover and scalability. The M3-EXT-PM1 module provides the capability of combining a variety of wireless devices with multi-WAN load balancing and SpeedFusion™ bonding technology.

A.9.1.2 Physical Specifications

Figure Error! No text of specified style in document.**-2: M3-EXT-PM1 Dimensions**

Table Error! No text of specified style in document.**-1: M3-EXT-PM1 Specifications**

Specification	Description
Height	.87"
Width	4.40"
Depth	5.61"
Weight	.61 lbs
Power Input	10-30 VDC
Power Consumption	7 W Nominal/20 W Maximum (3 USB modems installed
Operational Temperature	0° C to +60° C
Storage Temperature	-20° C to 70° C

A.9.1.3 Indicators and Connectors

Figure Error! No text of specified style in document.**-3: M3-EXT-PM1 Indicators and Connectors**

ANT (2) – Provides connection for two (2) radio antennas.

ETH PORTS – Provides access to two (2) GE ports.

Provides access to 3 USB Ports (cellular modems 3G/4G).

RESET – Resets Pepwave software to factory default settings.

LED Color Information

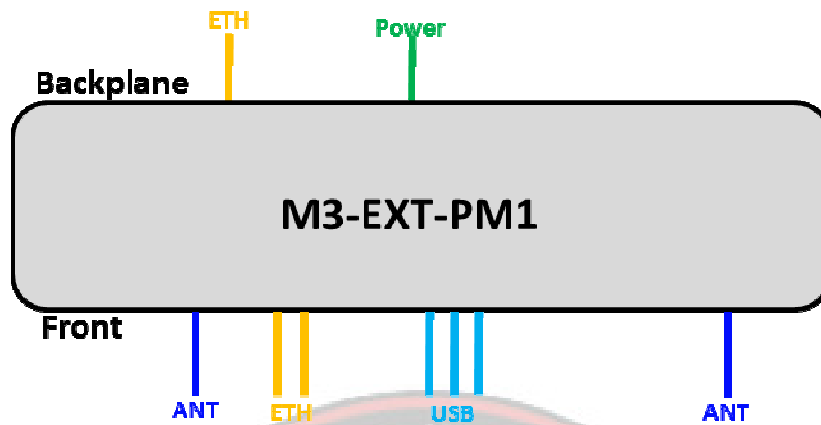| ETH PORTS	• **Blinks Green** = module is booting up • **Steady Green** = port is operational

A.9.1.4 Functional Diagram

Figure Error! No text of specified style in document.**-4: M3-EXT-PM1 Functional Diagram**

A.9.1.5 Setup Procedure

WARNING: The auxiliary modules use regulated power between 10-30 VDC. As with all electrical devices, incorrect power draw can pose a hazard to equipment and personnel.

WARNING: The M3-EXT generates waste heat. Allow sufficient clearance for heat dissipation. Do not stack with other electronic equipment.

WARNING: The auxiliary slot is considered "hot" when the unit has power applied from any external source. Care must be taken to not permit any foreign objects to come into contact with the auxiliary slot connectors. The M3-EXT should never be operated without a module or cover plate in the auxiliary slot.

To install an M3-EXT-PM1 module:

- Follow the M3-EXT Auxiliary Module Setup steps.

A.9.1.6 M3-EXT-PM1 Access

By default, all LAN interfaces have a DHCP server service running, therefore, your client devices should get an IP address of 192.168.50.X/24 if your NIC is setup for DHCP.

To connect to the Web Admin interface;

1   Connect your PC to the right front panel ETH port and connect to one of the switch ports on the M3-EXT. Assumes that the M3-EXT is properly configured to access the M3-EXT-PM1.
1. Start a web browser.
2. Ensure that your computer can ping 192.168.50.1. **NOTE:** To change the IP address: follow the Manually Set IP Address steps.
3. Enter http://192.168.50.1 in the address field of the web browser. **NOTE:** This is the default Pepwave MAX LAN IP address.

4. Enter the following to access the Web Admin Interface.

    - **Username**: admin
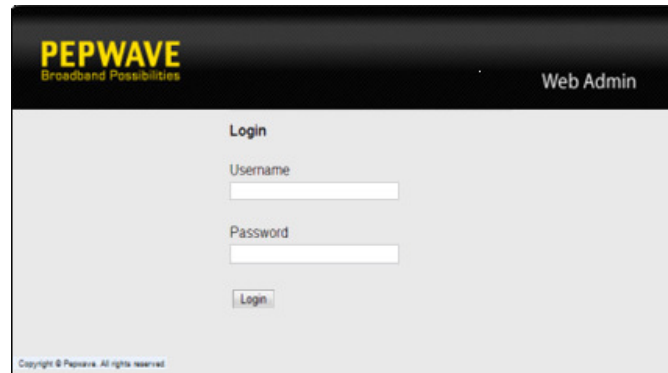   - **Password**: admin

NOTE: This is the default Username and Password of Pepwave MAX. The Admin and Read-only User Password can be changed at System>Admin Securityof the Web Admin Interface.
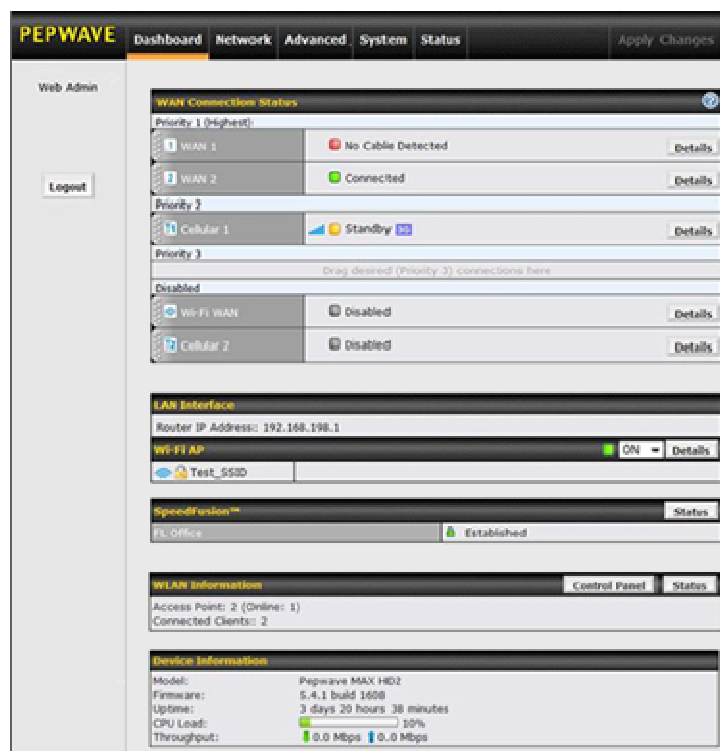
After successful login, the Dashboard of Web Admin Interface displays.

NOTE: By default, the M3-EXT-PM1 is configured to NAT from all inside (LAN) interfaces to all outside (WAN) interfaces. All WAN interfaces are setup for DHCP client, by default.

5. From the dashboard drag and drop your WAN priority preference.

NOTE: For additional information, refer to the Pepwave MAX User Manual found at http://www.pepwave.com/

IMPORTANT: By default, the left front panel ETH port is a defined as the WAN1 port within Pepwave.

The right front panel ETH port is a LAN port but, can be user configured as the WAN2 port within the Pepwave GUI.

The backplane ETH port is a LAN port.

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

1. 20cm minimum when the product is operated alone without co-transmitting with a plug-in 3G USB dongle device.

2. 40cm minimum when the product is operated with 1 plug-in 3G USB device which has maximum of 7W ERP output power.

3. 50cm minimum when the product is operated with 2 plug-in 3G USB device which has maximum of 7W ERP output power.

4. 60cm minimum when the product is operated with 3 plug-in 3G USB device which has maximum of 7W ERP output power.
5. For co-transmission scenario which is not covered above, please consult the RF technician or device supplier.

This device is intended only for OEM integrators under the following conditions:

1. The transmitter module may not be co-located with any other transmitter or antenna.

2. Module approval valid only when the module is installed in the tested host or compatible series of host which have similar RF exposure characteristic with equal or larger antenna separation distance.

As long as 2 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

End Product Labeling

The product can be kept as far as possible from the user body or set the device to lower output power if such function is available. The final end product must be labeled in a visible area with the following: "Contains FCC ID: 2AG56001". The grantee's FCC ID can be used only when all FCC compliance requirements are met.

Manual Information To the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.

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