

Pepwave MAX User Manual



MAX Series

User Manual

Pepwave Products:

MAX 700 / HD2 / HD2 IP67 / HD2 Mini / HD2 MBX 5G / HD2 MBX / HD Dome / HD Dome Pro / HD4 / HD4 MBX 5G / HD4 MBX / MBX Mini / HD4 IP67 / Transit / Transit Duo / Transit 5G / Transit Core / Transit Mini / Transit Pro E / Transit Duo Pro / BR1 Classic / BR1 MK2 / BR1 Slim / BR1 ENT / BR1 M2M / BR1 Mini (HW2) / BR1 Mini (HW3) / BR1 Mini 5G / BR1 Mini Core / BR1 Mini Core (HW3) / BR1 Mini M2M / BR1 ESN / BR1 Pro LTE / BR1 Pro (CAT-20) / BR1 Pro 5G / BR2 Pro / BR1 IP55 / BR1 IP67 / BR2 IP55 / On-The-Go / HD2 with MediaFast / HD4 with MediaFast / SpeedFusion Engine / UBR LTE / UBR Plus / PDX

Pepwave Firmware 8.4.0

January 2024

Introduction and Scope

Pepwave routers provide link aggregation and load balancing across multiple WAN connections, allowing a combination of technologies like 3G HSDPA, EVDO, 4G LTE, Wi-Fi, external WiMAX dongle, and satellite to be utilized to connect to the Internet.

The MAX wireless SD-WAN router series has a wide range of products suitable for many different deployments and markets. Entry level SD-WAN models such as the MAX BR1 are suitable for SMEs or branch offices. High-capacity SD-WAN routers such as the MAX HD2 are suitable for larger organizations and head offices.

This manual covers setting up Pepwave routers and provides an introduction to their features and usage.

Tips

Want to know more about Pepwave routers? Visit our YouTube Channel (<http://www.youtube.com/PeplinkChannel>) for a video introduction (<http://www.youtube.com/PeplinkChannel#p/u/1/1ste4dQV-V8>)!



<https://youtu.be/13M-JHRAICA> (<https://youtu.be/13M-JHRAICA>)

Glossary

The following terms, acronyms, and abbreviations are frequently used in this manual:

Term	Definition
3G	3rd generation standards for wireless communications (e.g., HSDPA)
4G	4th generation standards for wireless communications (e.g., LTE)
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name System
EVDO	Evolution-Data Optimized
FQDN	Fully Qualified Domain Name
HSDPA	High-Speed Downlink Packet Access
HTTP	Hyper-Text Transfer Protocol
ICMP	Internet Control Message Protocol
IP	Internet Protocol
LAN	Local Area Network
MAC Address	Media Access Control Address
MTU	Maximum Transmission Unit
MSS	Maximum Segment Size
NAT	Network Address Translation
PPPoE	Point to Point Protocol over Ethernet

QoS	Quality of Service
SNMP	Simple Network Management Protocol
TCP	Transmission Control Protocol
UDP	User Datagram Protocol
VPN	Virtual Private Network
VRRP	Virtual Router Redundancy Protocol
WAN	Wide Area Network
WINS	Windows Internet Name Service
WLAN	Wireless Local Area Network

Ch1. Product Features

Pepwave routers enable all LAN users to share broadband Internet connections, and they provide advanced features to enhance Internet access. Our Max BR wireless routers support multiple SIM cards. They can be configured to switch from using one SIM card to another SIM card according to different criteria, including wireless network reliability and data usage.

Our MAX HD series wireless routers are embedded with multiple 4G LTE modems, and allow simultaneous wireless Internet connections through multiple wireless networks. The wireless Internet connections can be bonded together using our SpeedFusion technology. This allows better reliability, larger bandwidth, and increased wireless coverage compared to use only one 4G LTE modem.

Below is a list of supported features on Pepwave routers. Features vary by model. For more information, please see peplink.com/products.

Supported Network Features

WAN

- Ethernet WAN connection in full/half duplex
- Static IP support for PPPoE
- Built-in cellular modems
- USB mobile connection(s)
- Wi-Fi WAN connection
- Network address translation (NAT)/port address translation (PAT)
- Inbound and outbound NAT mapping
- IPsec NAT-T and PPTP packet passthrough
- MAC address clone and passthrough
- Customizable MTU and MSS values
- WAN connection health check
- Dynamic DNS (supported service providers: changeip.com, dyndns.org, no-ip.org, tzo.com and [DNS-O-Matic](http://DNS-O-Matic.com))
- Ping, DNS lookup, and HTTP-based health check

LAN

- Wi-Fi AP
- Ethernet LAN ports

- DHCP server on LAN
- Extended DHCP option support
- Static routing rules
- VLAN on LAN support

VPN

- PepVPN with SpeedFusion™
- PepVPN performance analyzer
- X.509 certificate support
- VPN load balancing and failover among selected WAN connections
- Bandwidth bonding and failover among selected WAN connections
- IPsec VPN for network-to-network connections (works with Cisco and Juniper)
- Ability to route Internet traffic to a remote VPN peer
- Optional pre-shared key setting
- SpeedFusion™ throughput, ping, and traceroute tests
- PPTP server
- PPTP and IPsec passthrough

Firewall

- Outbound (LAN to WAN) firewall rules
- Inbound (WAN to LAN) firewall rules per WAN connection
- Intrusion detection and prevention
- Specification of NAT mappings
- Outbound firewall rules can be defined by destination domain name

Captive Portal

- Splash screen of open networks, login page for secure networks
- Customizable built-in captive portal
- Supports linking to outside page for captive portal

Outbound Policy

- Link load distribution per TCP/UDP service
- Persistent routing for specified source and/or destination IP addresses per TCP/UDP service
- Traffic prioritization and DSL optimization
- Prioritize and route traffic to VPN tunnels with Priority and Enforced algorithms

AP Controller

- Configure and manage Pepwave AP devices
- Review the status of connected APs

QoS

- Quality of service for different applications and custom protocols
 - User group classification for different service levels
 - Bandwidth usage control and monitoring on group- and user-level
 - Application prioritization for custom protocols and DSL/cable optimization
-

Other Supported Features

- User-friendly web-based administration interface
- HTTP and HTTPS support for web admin interface (default redirection to HTTPS)
- Configurable web administration port and administrator password
- Firmware upgrades, configuration backups, ping, and traceroute via web admin interface
- Remote web-based configuration (via WAN and LAN interfaces)
- Time server synchronization
- SNMP
- Email notification
- Read-only user access for web admin
- Shared IP drop-in mode
- Authentication and accounting by RADIUS server for web admin
- Built-in WINS servers*
- Syslog
- SIP passthrough
- PPTP packet passthrough
- Event log
- Active sessions
- Client list
- WINS client list *
- UPnP / NAT-PMP
- Real-time, hourly, daily, and monthly bandwidth usage reports and charts
- IPv6 support
- Support USB tethering on Android 2.2+ phones

* Not supported on MAX Surf-On-The-Go, and BR1 variants

Ch2. Pepwave MAX Mobile Router Overview

MAX 700 (<https://manual.peplink.com/pepwave-max-user-manual/#1418>)

MAX HD2 (<https://manual.peplink.com/pepwave-max-user-manual/#1420>)

MAX HD2 IP67 (<https://manual.peplink.com/pepwave-max-user-manual/#1422>)

MAX HD2 mini (<https://manual.peplink.com/pepwave-max-user-manual/#1424>)

MAX HD Dome (<https://manual.peplink.com/pepwave-max-user-manual/#1426>)

MAX HD Dome Pro (<https://manual.peplink.com/pepwave-max-user-manual/#1429>)

MAX Transit / MAX Transit Duo (CAT-12) (<https://manual.peplink.com/pepwave-max-user-manual/#1433>)

MAX Transit (CAT-18) (<https://manual.peplink.com/pepwave-max-user-manual/#1435>)

MAX Transit 5G (<https://manual.peplink.com/pepwave-max-user-manual/#1437>)

MAX Transit Mini (<https://manual.peplink.com/pepwave-max-user-manual/#1441>)

MAX Transit Pro E (<https://manual.peplink.com/pepwave-max-user-manual/#1443>)

MAX Transit Core (<https://manual.peplink.com/pepwave-max-user-manual/#1447>)

MAX Transit Duo Pro (<https://manual.peplink.com/pepwave-max-user-manual/#1451>)

MAX BR1 ESN (<https://manual.peplink.com/pepwave-max-user-manual/#1454>)

MAX HD2 and HD4 with MediaFast (<https://manual.peplink.com/pepwave-max-user-manual/#1456>)

MAX HD4 (<https://manual.peplink.com/pepwave-max-user-manual/#1458>)

MAX HD4 MBX (CAT-12) (<https://manual.peplink.com/pepwave-max-user-manual/#1460>)

MAX HD2/4 MBX (CAT-20) (<https://manual.peplink.com/pepwave-max-user-manual/#1462>)

MAX HD2/4 MBX (5G) (<https://manual.peplink.com/pepwave-max-user-manual/#1464>)

MAX MBX Mini (<https://manual.peplink.com/pepwave-max-user-manual/#1467>)

MAX HD4 IP67 (<https://manual.peplink.com/pepwave-max-user-manual/#1469>)

MAX BR1 Classic (<https://manual.peplink.com/pepwave-max-user-manual/#1471>)

MAX BR1 MK2 (<https://manual.peplink.com/pepwave-max-user-manual/#1473>)

MAX BR1 Slim (<https://manual.peplink.com/pepwave-max-user-manual/#1475>)

MAX BR1 Mini (HW2) (<https://manual.peplink.com/pepwave-max-user-manual/#1477>)

MAX BR1 Mini (HW3) (<https://manual.peplink.com/pepwave-max-user-manual/#1479>)

MAX BR1 Mini 5G (<https://manual.peplink.com/pepwave-max-user-manual/#4186>)

MAX BR1 Mini Core (<https://manual.peplink.com/pepwave-max-user-manual/#1481>)

MAX BR1 Mini M2M (<https://manual.peplink.com/pepwave-max-user-manual/#4122>)

MAX BR1 M2M (<https://manual.peplink.com/pepwave-max-user-manual/#1484>)

MAX BR1 ENT (<https://manual.peplink.com/pepwave-max-user-manual/#1486>)

MAX BR1 Pro (<https://manual.peplink.com/pepwave-max-user-manual/#1488>)

MAX BR1 Pro (CAT-20) (<https://manual.peplink.com/pepwave-max-user-manual/#1490>)

MAX BR1 Pro 5G (<https://manual.peplink.com/pepwave-max-user-manual/#1492>)

MAX BR2 Pro (<https://manual.peplink.com/pepwave-max-user-manual/#1494>)

MAX Hotspot (<https://manual.peplink.com/pepwave-max-user-manual/#1496>)

MAX BR1 IP55 (<https://manual.peplink.com/pepwave-max-user-manual/#1499>)

MAX BR2 IP55 (<https://manual.peplink.com/pepwave-max-user-manual/#1503>)

MAX BR1 IP67 (<https://manual.peplink.com/pepwave-max-user-manual/#1505>)

MAX On-The-Go (<https://manual.peplink.com/pepwave-max-user-manual/#1507>)

SpeedFusion Engine (<https://manual.peplink.com/pepwave-max-user-manual/#1509>)

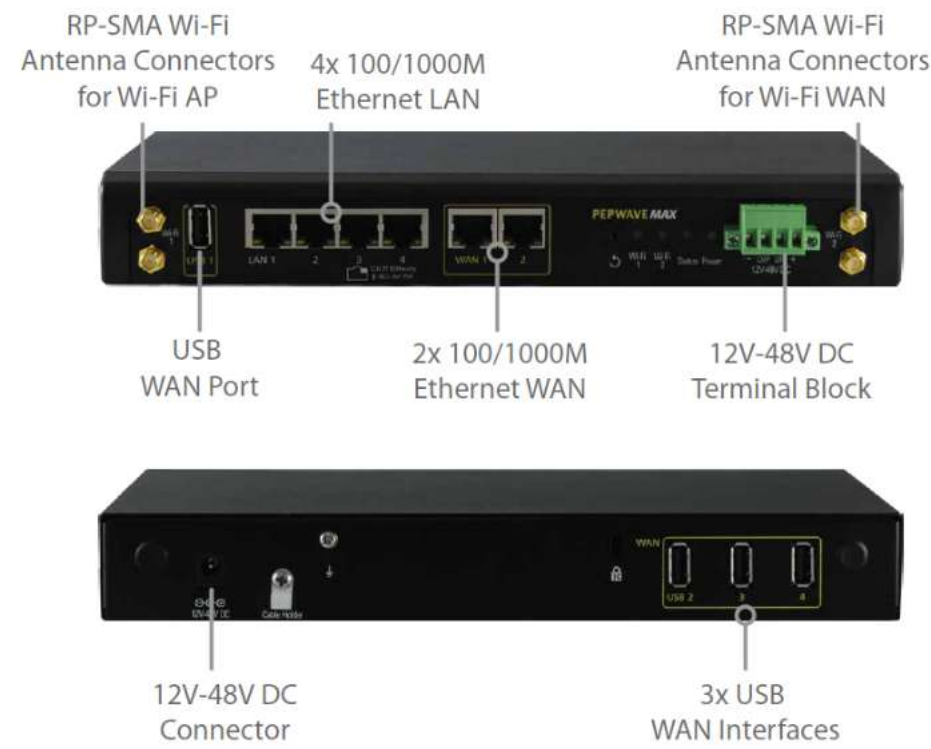
UBR LTE (<https://manual.peplink.com/pepwave-max-user-manual/#1511>)

UBR Plus (<https://manual.peplink.com/pepwave-max-user-manual/#1513>)

PDX (<https://manual.peplink.com/pepwave-max-user-manual/#1515>)

MAX 700

Panel Appearance



Note:

- For proper Wi-Fi performance and operations, please ensure all 4 Wi-Fi antenna connectors (labeled Wi-Fi 1 and Wi-Fi 2) have antennas attached.
- The LED indicators of Wi-Fi 1 & 2 shown as below is referring to the default settings of Wi-Fi Operation mode is WAN + AP under the AP.

LED Indicators

The statuses indicated by the front panel LEDs are as follows:

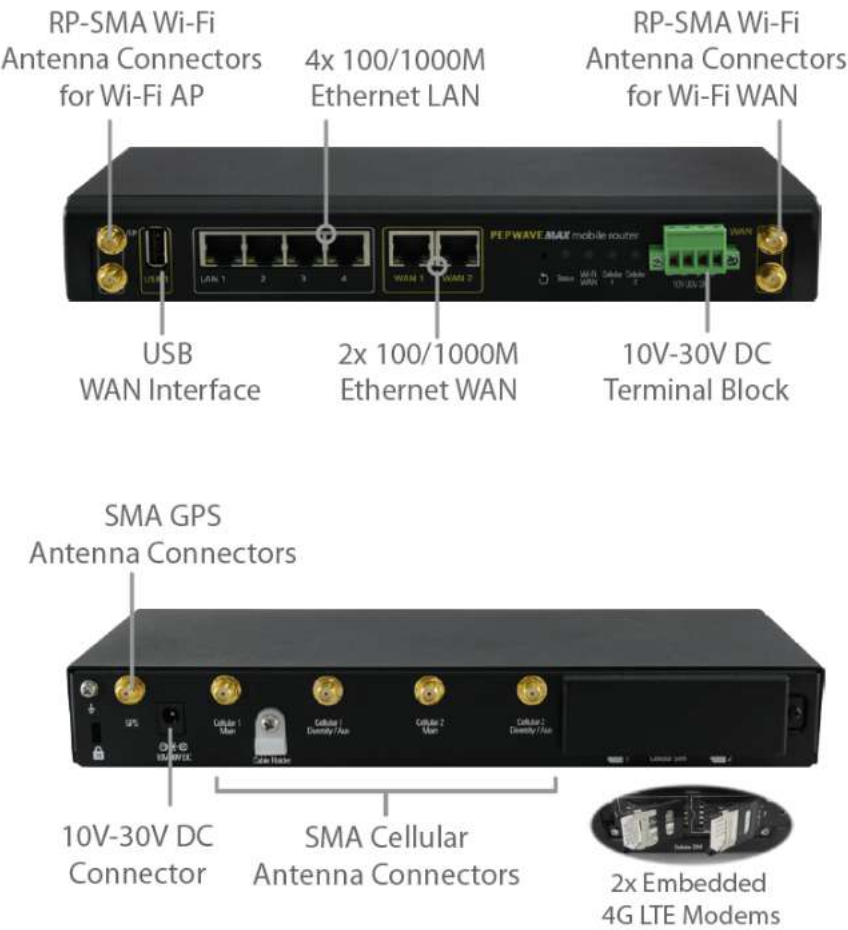
Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Wi-Fi AP Indicators		
Wi-Fi 1	OFF	WiFi AP is disabled.
	ON	WiFi AP is enabled.

Wi-Fi WAN Indicators		
Wi-Fi 2	OFF	Disabled Intermittent
	Blinking slowly	Connecting to wireless network(s)
	Blinking	Connected to wireless network(s) with traffic
	ON	Connected to wireless network(s) without traffic
LAN and Ethernet WAN Ports		
Green LED	ON	10 / 100/ 1000 Mbps
Orange LED	Blinking	Data is transferring
	OFF	No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports	

MAX HD2

Panel Appearance



LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Wi-Fi WAN Indicators		
Wi-Fi WAN	OFF	Disabled Intermittent
	Blinking slowly	Connecting to wireless network(s)
	Blinking	Connected to wireless network(s) with traffic
	ON	Connected to wireless network(s) without traffic

Cellular Indicators		
Cellular 1 / Cellular 2	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)

LAN and Ethernet WAN Ports		
Green LED	ON	1000 Mbps
	OFF	10 Mbps / 100 Mbps or port is not connected
Orange LED	ON	Port is connected without traffic
	Blinking	Data is transferring
	OFF	Port is not connected
Port Type	Auto MDI/MDI-X ports	

MAX HD2 IP67

Panel Appearance



LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators

Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

MAX HD2 mini

Panel Appearance



* With 48V DC power, all 3 Ethernet ports can act as 802.3af PoE or 24V Passive PoE outputs

LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready
Cellular Indicators		
Cellular 1 / Cellular 2	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)
LAN and Ethernet WAN Ports		
Green LED	ON	POE Enabled
	OFF	POE Disabled
Orange LED	Blinking	10 / 100 / 1000 Mbps and Data is transferring
	OFF	No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports	

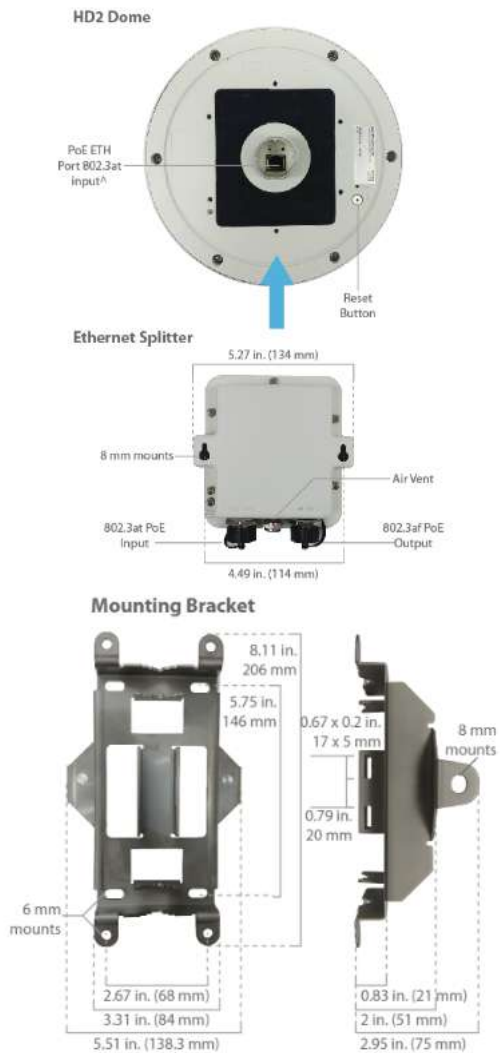
MAX HD Dome

Panel Appearance



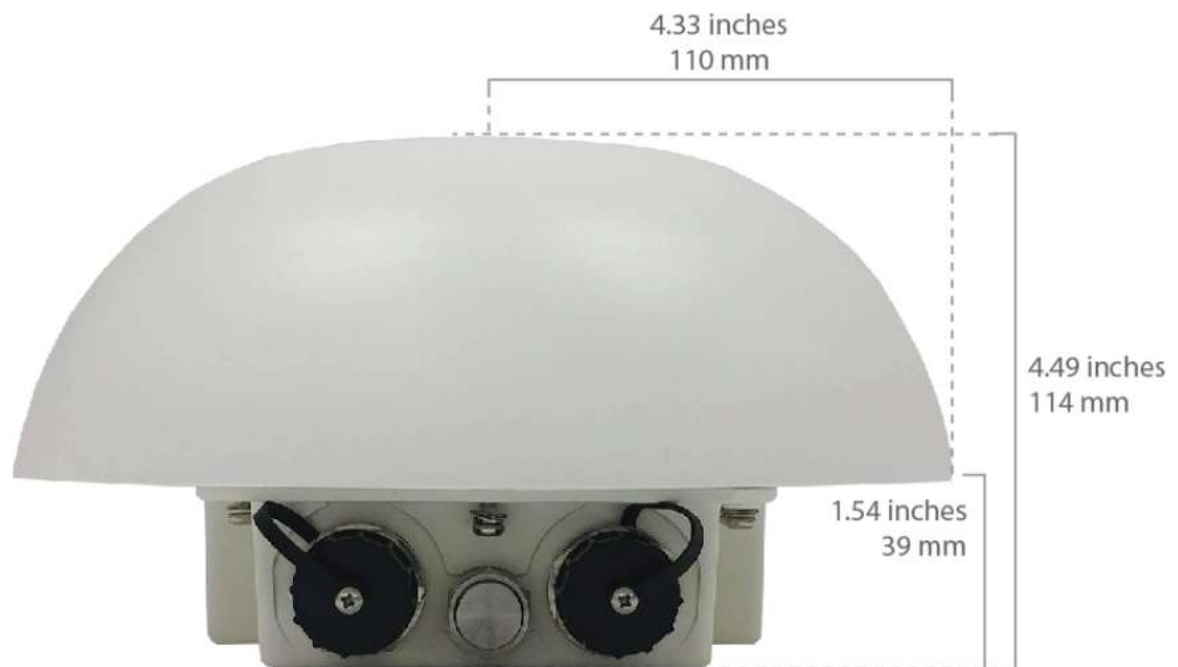
#SIM Injector is available separately

*Ethernet LAN port can be split into two LAN ports using the included splitter (1x LAN 802.3af PoE out, 1x LAN PoE in)

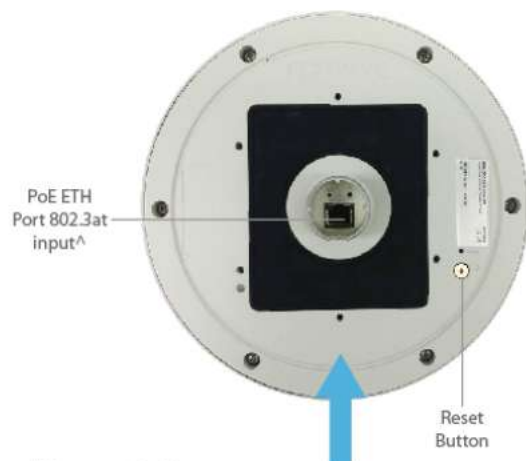


MAX HD Dome Pro

Panel Appearance



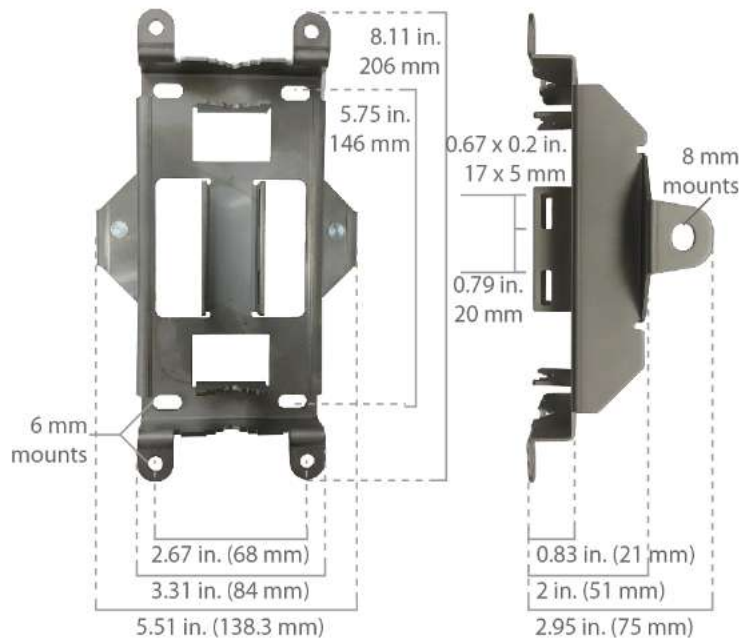
#SIM Injector is available separately
 ^Ethernet LAN port can be split into two LAN ports
 using the included splitter (1x LAN 802.3af PoE out, 1x LAN PoE in)



Ethernet Splitter



Mounting Bracket



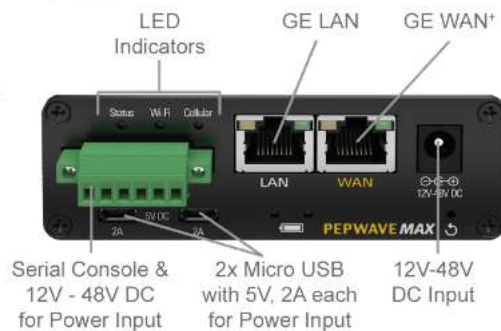
MAX Transit / MAX Transit Duo (CAT-12)

Panel Appearance

MAX-TST / MAX-TST-DUO (CAT-12)

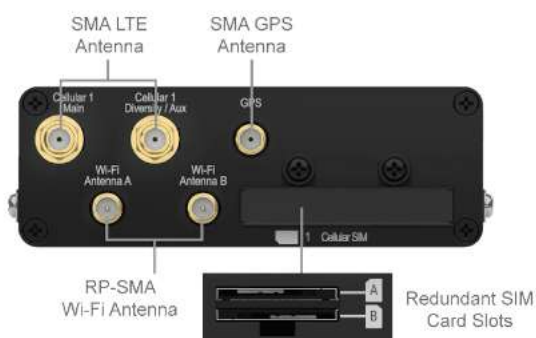


Front

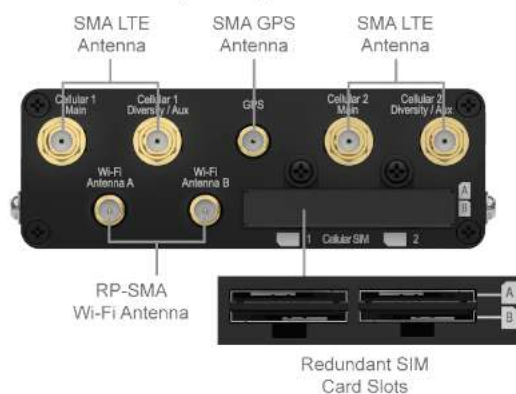


Back

MAX-TST (CAT-12)



MAX-TST-DUO (CAT-12)



LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Cellular Indicators		
Cellular 1 / Cellular 2*	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)

* For MAX-TST_DUO

Wi-Fi Indicators		
Wi-Fi	OFF	Wi-Fi AP is turn off
	Blinking	Wi-Fi AP is turn on

LAN and Ethernet WAN Ports		
Green LED	ON	1000 Mbps
	OFF	10 Mbps / 100 Mbps or port is not connected
Orange LED	ON	Port is connected without traffic
	Blinking	Data is transferring
	OFF	Port is not connected
Port Type	Auto MDI/MDI-X ports	

MAX Transit (CAT-18)

Panel Appearance

MAX-TST (CAT-18)



LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Cellular Indicators		
Cellular 1 / Cellular 2*	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)

* For MAX-TST_DUO

Wi-Fi Indicators

Wi-Fi	OFF	Wi-Fi AP is turn off
	Blinking	Wi-Fi AP is turn on

LAN and Ethernet WAN Ports		
Green LED	ON	1000 Mbps
	OFF	10 Mbps / 100 Mbps or port is not connected
Orange LED	ON	Port is connected without traffic
	Blinking	Data is transferring
	OFF	Port is not connected
Port Type	Auto MDI/MDI-X ports	

MAX Transit 5G

Panel Appearance



LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Cellular Indicators		
Cellular 1 / Status	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)
Wi-Fi Indicators		
Wi-Fi	OFF	Wi-Fi AP is turn off
	Blinking	Wi-Fi AP is turn on
LAN and Ethernet WAN Ports		
Green LED	ON	1000 Mbps
	OFF	10 Mbps / 100 Mbps or port is not connected
Orange LED	ON	Port is connected without traffic
	Blinking	Data is transferring
	OFF	Port is not connected
Port Type	Auto MDI/MDI-X ports	

MAX Transit Mini

Panel Appearance



LED indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators

Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Wi-Fi Indicators

Wi-Fi	OFF	Disabled intermittent
	Blinking slowly	Connecting to wireless network(s)
	Blinking	Connected to wireless network(s) with traffic
	ON	Connected to wireless network(s) without traffic

Cellular Indicators

Cellular	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)

MAX Transit Pro E

Panel Appearance



LED indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators

Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

LAN 1 Port		
Green LED	ON	POE Enabled
	OFF	POE Disabled
Orange LED	Blinking	10 / 100 / 1000 Mbps and Data is transferring
	OFF	No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports	

LAN 2-3 Port and Ethernet WAN Port		
Green LED	ON	1000 Mbps
	OFF	10 Mbps / 100 Mbps or port is not connected
Orange LED	ON	Port is connected without traffic
	Blinking	Data is transferring
	OFF	Port is not connected
Port Type	Auto MDI/MDI-X ports	

Cellular Indicators		
Cellular	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)

MAX Transit Core

Panel Appearance



LED indicators

Status indicated in the front panel is as follows:

LED Indicator	
Power LED	OFF – Power off
	GREEN – Power on
LAN 1 Port	
Green LED	ON – POE Enabled
	OFF – POE Disabled
Orange LED	Blinking – 10 / 100 / 1000 Mbps with activity
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports
LAN 2-3 Ports, WAN Port	
Right LED	GREEN – 1000 Mbps
	OFF – 10 / 100 Mbps or ports are not connected
Left LED	ORANGE – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports
Console & USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting 4G/3G USB modems

MAX Transit Duo Pro

Panel Appearance



LED indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Cellular Indicators		
Cellular 1 / Cellular 2*	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)

Wi-Fi Indicators		
Wi-Fi	OFF	Wi-Fi AP is turn off
	Blinking	Wi-Fi AP is turn on

LAN and Ethernet WAN Ports		
Green LED	ON	1000 Mbps
	OFF	10 Mbps / 100 Mbps or port is not connected
Orange LED	ON	Port is connected without traffic
	Blinking	Data is transferring
	OFF	Port is not connected
Port Type	Auto MDI/MDI-X ports	

MAX BR1 ESN

Panel Appearance



LED indicators

The statuses indicated by the front panel LEDs are as follows:

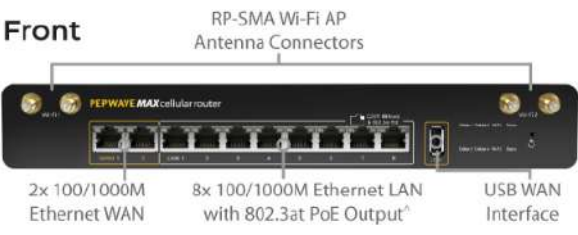
Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Wi-Fi Indicators		
Wi-Fi	OFF	Disabled intermittent
	Blinking slowly	Connecting to wireless network(s)
	Blinking	Connected to wireless network(s) with traffic
	ON	Connected to wireless network(s) without traffic

Cellular Indicators		
Cellular	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)

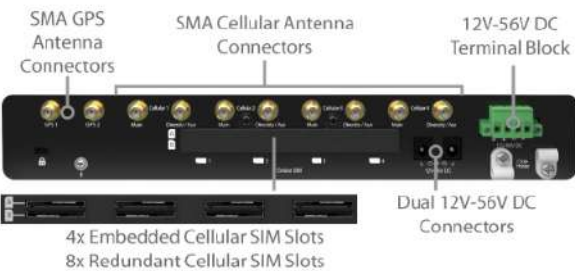
MAX HD2 and HD4 with MediaFast

Panel Appearance



Back

HD4 with MediaFast



HD2 with MediaFast



Note:

- For proper Wi-Fi performance and operations, please ensure all 4 Wi-Fi antenna connectors (labeled Wi-Fi 1 and Wi-Fi 2) have antennas attached.
- The LED indicators of Wi-Fi 1 & 2 shown as below is referring to the default settings of Wi-Fi Operation mode is WAN + AP under the AP. For more details, please refer to the section 25.4.

LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Wi-Fi WAN Indicators		
Wi-Fi 1	OFF	Disabled Intermittent
	Blinking slowly	Connecting to wireless network(s)
	Blinking	Connected to wireless network(s) with traffic
	ON	Connected to wireless network(s) without traffic
Wi-Fi AP Indicators		
Wi-Fi 2	OFF	WiFi AP is disabled.
	ON	WiFi AP is enabled.
Cellular Indicators		
Cellular 1 / 2 / 3 / 4	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)
LAN Ports		
Green LED	ON	POE Enabled
	OFF	POE Disabled
Orange LED	Blinking	10 / 100 / 1000 Mbps and Data is transferring
	OFF	No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports	
Ethernet WAN Ports		
Green LED	ON	1000 Mbps
	OFF	10 Mbps / 100 Mbps or port is not connected
Orange LED	ON	Port is connected without traffic
	Blinking	Data is transferring
	OFF	Port is not connected
Port Type	Auto MDI/MDI-X ports	

MAX HD4

Panel Appearance



Note:

- For proper Wi-Fi performance and operations, please ensure all 4 Wi-Fi antenna connectors (labeled Wi-Fi 1 and Wi-Fi 2) have antennas attached.
- The LED indicators of Wi-Fi 1 & 2 shown as below is referring to the default settings of Wi-Fi Operation mode is WAN + AP under the AP. For more details, please refer to the section 25.4

LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Wi-Fi WAN Indicators		
Wi-Fi 1	OFF	Disabled Intermittent
	Blinking slowly	Connecting to wireless network(s)
	Blinking	Connected to wireless network(s) with traffic
	ON	Connected to wireless network(s) without traffic

Wi-Fi AP Indicators		
Wi-Fi 2	OFF	WiFi AP is disabled.
	ON	WiFi AP is enabled.

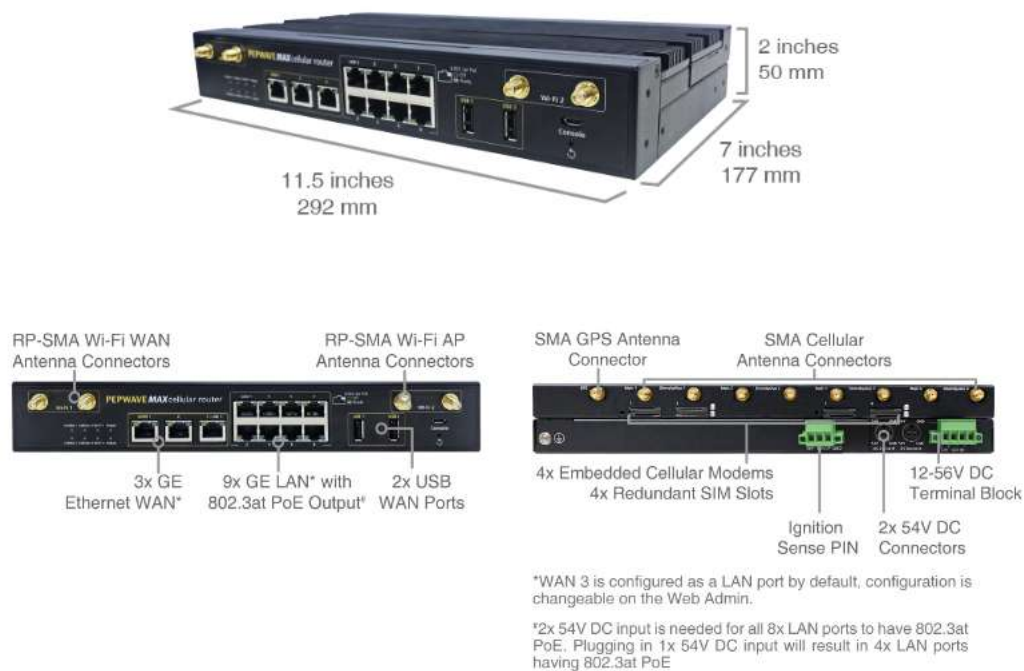
Cellular Indicators		
Cellular 1 / 2 / 3 / 4	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)

LAN Ports		
Green LED	ON	POE Enabled
	OFF	POE Disabled
Orange LED	Blinking	10 / 100 / 1000 Mbps and Data is transferring
	OFF	No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports	

Ethernet WAN Ports		
Green LED	ON	1000 Mbps
	OFF	10 Mbps / 100 Mbps or port is not connected
Orange LED	ON	Port is connected without traffic
	Blinking	Data is transferring
	OFF	Port is not connected
Port Type	Auto MDI/MDI-X ports	

MAX HD4 MBX (CAT-12)

Panel Appearance



Note:

- For proper Wi-Fi performance and operations, please ensure all 4 Wi-Fi antenna connectors (labeled Wi-Fi 1 and Wi-Fi 2) have antennas attached.
- The LED indicators of Wi-Fi 1 & 2 shown as below is referring to the default settings of Wi-Fi Operation mode is WAN + AP under the AP. For more details, please refer to the section 25.4

LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Status Indicators		
Status	OFF	System initializing
	Red	Booting up or busy
	Blinking red	Boot up error
	Green	Ready

Wi-Fi WAN Indicators	
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Wi-Fi 1	OFF	Disabled Intermittent
	Blinking slowly	Connecting to network(s)
	Blinking	Connected to network(s) with traffic
	ON	Connected to network(s) without traffic

Wi-Fi AP Indicators		
Wi-Fi 2	OFF	WiFi AP is disabled.
	ON	WiFi AP is enabled.

Cellular Indicators		
Cellular 1 / 2 / 3 / 4	OFF	Disabled or no SIM card inserted
	Blinking slowly	Connecting to network(s)
	Green	Connected to network(s)

Ethernet WAN Ports		
Right Green	OFF	Port is not connected or slowed than 1000 Mbps
	ON	Gigabit speed
Left Orange	OFF	Port is not connected
	Blinking	Data is transferring
	ON	Port is connected without traffic

Ethernet LAN Ports		
Right Green	OFF	PoE disabled
	ON	PoE enabled
Left Orange	OFF	Port is not connected
	Blinking	Data is transferring
	ON	Port is connected without traffic