MBX 5G



5G Quad Cellular Mobile Powerhouse



Best of Both Worlds

MBX 5G is a quad cellular mobile powerhouse with redundant SIM slots and multi-radio capabilities providing speed, reliability, and coverage by combining the best of 5G and LTE.

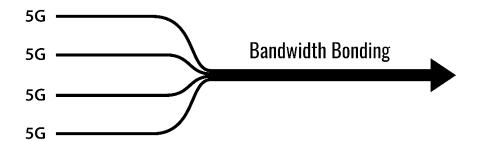
Portability

Its compact form allows it to be deployed in a wide variety of situations such as vehicles, vessels, and branch networks.

Compatibility with SIM Injector

Its compatibility allows for upgradable modules for further customization to suit any deployment needs.





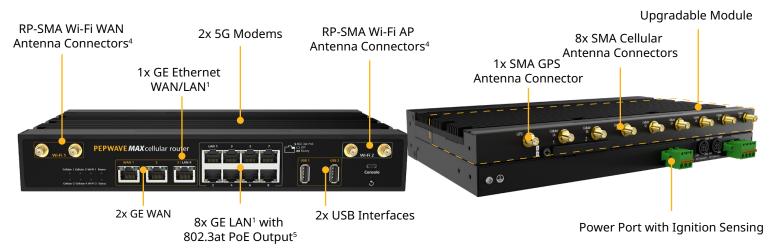
Optimize Your Traffic

Whether you need speed or costeffectiveness, use Traffic Steering to guide each packet to the most suitable connection.



HD2 MBX 5G





Specifications

WAN Interface 3x 10/100/1000M Ethernet 1

2x Embedded Cellular Modems with

Redundant SIM Slots 2x USB Interface

9x 10/100/1000M Ethernet 1 I AN Interface

Simultaneous Dual-Band (2.4GHz / 5GHz) Wi-Fi Interface

Wi-Fi 5 2x2 MIMO Wi-Fi WAN and/or AP

SpeedFusion Features Hot Failover, Smoothing,

Bandwidth Bonding

Number of $3/20^{2}$

SpeedFusion VPN

Peers

Features Ignition Sensing

Router Throughput 2.5Gbps

SpeedFusion Throughput

(No Encryption)

600 Mbps

SpeedFusion Throughput

(256-bit AES)

500 Mbps

Recommended Users 50-500

Cellular Data Rate³ (Downlink / Uplink) 5G: 3.4 Gbps / 900 Mbps CAT-20: 1.6 Gbps / 200 Mbps **Antenna Connectors**

8x SMA Cellular Antenna Connectors 4x RP-SMA Wi-Fi Antenna Connectors 4 1x SMA GPS Antenna Connector

Power Input Power Port: 12V - 56V DC

AC Adapter: AC Input 100V-240V / DC Output 12V

Terminal Block: 12V - 56V DC

Power Output Up to Eight 802.3at PoE Outputs⁵

Power Consumption 55W (max.)

Dimensions 1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm

Weight 7.28 pounds / 3.3 kg

-40° - 149°F / -40° - 65°C **Operating Temperature**

Humidity 15% - 95% (non-condensing)

Certifications FCC, CE, RoHS

E-Mark

EN61373 Shock and Vibration Resistance

EN50155 Railway Applications -

Electronic Equipment used on Rolling Stock **EN61000 Electromagnetic Compatibility**

Package Content 1x MAX HD2 MBX 5G

8x Cellular Antennas (ACW-813) 4x Wi-Fi Dual Band Antenna (ACW-341) 1x GPS Active Antenna (ACW-232) 1x Power Supply (ACW-630)

1x 3pin Terminal Block Connector (Ignition sense) 1x 4pin Terminal Block Connector (Power supply) 1x Grounding Cable & Rubber Foot Pad Set 1 Pair of Mounting Brackets (ACW-513)

SIM Options Mini-SIM (2FF)

Peplink eSIM

BYO eSIM (2 profiles) 6 Remote SIM from SIM Injector

FusionSIM

1-Year Limited Warranty Warranty

WAN 3 is configured as a LAN port by default, configuration is changeable on the Web Admin.

² 2 SpeedFusion VPN Peers are enabled by default. Requires a license to increase the maximum number of SpeedFusion VPN Peers. Several options are available based on the model 5, 10 or 20 peers (PVN-LC-05, PVN-LC-10, PVN-LC-20)

Maximum theoretical data rates

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.

²x 54V DC input is needed for all 8x LAN ports to have 802.3at PoE. Plugging in 1x 54V DC input will result in 4x LAN ports having 802.3at PoE

⁶ Available with Firmware 8.4.0 or above



Ordering Information

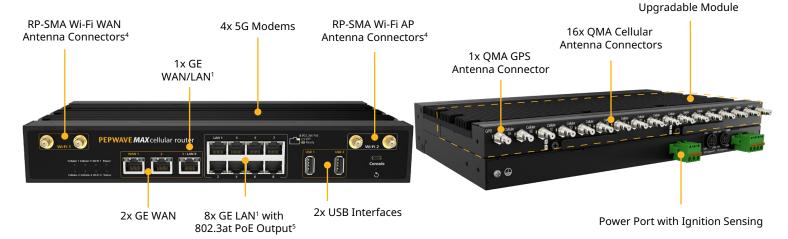
Product Code	Regions	5G Bands	LTE Bands
MAX-HD2-MBX-5GH-T Embedded Modem(s): 2x 5G	Global* *US Carrier Certifications: T-Mobile, AT&T, Verizon (C-Band), FirstNet (Pending)	5G (NSA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n20, n25 n28, n38, n40, n41, n66, n71, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B46, B48, B66, B71
MAX-HD2-MBX-5GN-T Embedded Modem(s): 2x 5G	Global	5G (NSA & SA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n70, n71, n75, n76, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71
MAX-HD2-MBX-5GK-T Embedded Modem(s): 2x 5G	Australia* *RCM Certified	5G (NSA & SA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n71, n75, n76, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71

Featured Add-ons

Product Code	Description
ACW-630	Includes 1x 54V, 3.34A Power Supply Enable 4x LAN with 802.3at PoE output (PoE License automatically applied after kit purchase)
ACW-633	Includes 2x 54V, 3.34A Power Supply Enables 8x LAN with 802.3at PoE output (PoE License automatically applied after kit purchase)
MAX-HD-020-SPF	Supports up to 20 SpeedFusion VPN Peers
SFN-LC-50	Up to 50 SpeedFusion Bonding License Key for MAX HD2/HD4 MBX 5G
SIM-BK8-4E-56V	SIM Injector, 8x SIM cards capacity, 4x 10/100/1000 LAN ports, 56V DC
ANT-MB-42G-S-B-6	Mobility 42G - 4x4 MIMO 5G Ready Cellular and Wi-Fi Antenna System with GPS (Black)
ANT-MB-42G-S-W-6	Mobility 42G - 4x4 MIMO 5G Ready Cellular and Wi-Fi Antenna System with GPS (White)
ANT-MB-82G-S-B-6	Mobility 82G - 8x8 MIMO 5G Ready Cellular and Wi-Fi Antenna System with GPS (Black)

HD4 MBX 5G





Specifications

WAN Interface 3x 10/100/1000M Ethernet 1

4x Embedded Cellular Modems with

Redundant SIM Slots 2x USB Interface

9x 10/100/1000M Ethernet 1 **LAN Interface**

Wi-Fi Interface Simultaneous Dual-Band (2.4GHz / 5GHz)

Wi-Fi 5 2x2 MIMO Wi-Fi WAN and/or AP

SpeedFusion Features Hot Failover, Smoothing,

Bandwidth Bonding

Number of 3 / 20 2

SpeedFusion VPN

Peers

Features Ignition Sensing

Router Throughput 2.5Gbps

SpeedFusion Throughput

(No Encryption)

600 Mbps

SpeedFusion Throughput

(256-bit AES)

500 Mbps

Recommended Users 50-500

Cellular Data Rate 3 (Downlink / Uplink) 5G: 4.1 Gbps / 900 Mbps CAT-20: 2 Gbps / 211 Mbps **Antenna Connectors** 16x QMA Cellular Antenna Connectors

4x RP-SMA Wi-Fi Antenna Connectors 4 1x QMA GPS Antenna Connector

Power Input Power Port: 12V - 56V DC

AC Adapter: AC Input 100V-240V / DC Output 12V

Terminal Block: 12V - 56V DC

Up to Eight 802.3at PoE Outputs 5 **Power Output**

Power Consumption 55W (max.)

Dimensions 1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm

Weight 7.28 pounds / 3.3 kg

Operating Temperature -40° - 149°F / -40° - 65°C

Humidity 15% – 95% (non-condensing)

Certifications FCC. CE. RoHS

E-Mark

EN61373 Shock and Vibration Resistance

EN50155 Railway Applications -

Electronic Equipment used on Rolling Stock **EN61000 Electromagnetic Compatibility**

Package Content 6 1x MAX HD4 MBX 5G

> 4x Wi-Fi Dual Band Antennas (ACW-341) 1x QMA to SMA Adapter (For GPS) 1x GPS Active Antenna (ACW-232)

1x Power Supply (ACW-630)

1x 3pin Terminal Block Connector (Ignition sense) 1x 4pin Terminal Block Connector (Power supply) 1x Grounding Cable & Rubber Foot Pad Set 1 Pair of Mounting Brackets (ACW-513)

SIM Options Mini-SIM (2FF)

Peplink eSIM BYO eSIM (2 profiles) Remote SIM from SIM Injector

FusionSIM

Warranty 1-Year Limited Warranty

WAN 3 is configured as a LAN port by default, configuration is changeable on the Web Admin.

² 2 SpeedFusion VPN Peers are enabled by default. Requires a license to increase the maximum number of SpeedFusion VPN Peers. Several options are available based on the model 5, 10 or 20 peers (PVN-LC-05, PVN-LC-10, PVN-LC-20)

³ Maximum theoretical data rates.

⁴ For the best performance and reliability, all 4 RF connectors must be connected to the same type and performance antennas. ⁵ 2x 54V DC input is needed for all 8x LAN ports to have 802.3at PoE. Plugging in 1x 54V DC input will result in 4x LAN ports having 802.3at PoE. ⁵ Cellular antennas not included. To enhance the MBX, Peplink antennas are recommended.



Ordering Information

Product Code	Regions	5G Bands	LTE Bands
MAX-HD4-MBX-5GN-T Embedded Modem(s): 4x 5G	Global* *US Carrier Certifications: AT&T, T-Mobile, Verizon (C-Band), FirstNet	5G (NSA & SA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n70, n71, n75, n76, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71
MAX-HD4-MBX-5GK-T Embedded Modem(s): 4x 5G	Global (Project Based)* *US Carrier Certifications: AT&T, T-Mobile, Verizon (C-Band), FirstNet *RCM Certified	5G (NSA & SA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n71, n75, n76, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71

Featured Add-ons

Product Code	Description
ACW-630	Includes 1x 54V, 3.34A Power Supply Enable 4x LAN with 802.3at PoE output (PoE License automatically applied after kit purchase)
ACW-633	Includes 2x 54V, 3.34A Power Supply Enables 8x LAN with 802.3at PoE output (PoE License automatically applied after kit purchase)
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SFN-LC-50	Up to 50 SpeedFusion Bonding License Key for MAX HD2/HD4 MBX 5G
SIM-BK8-4E-56V	SIM Injector, 8x SIM cards capacity, 4x 10/100/1000 LAN ports, 56V DC
ANT-MB-42G-Q-B-6	Mobility 42G - 4x4 MIMO 5G Ready Cellular and Wi-Fi Antenna System with GPS (Black)
ANT-MB-42G-Q-W-6	Mobility 42G - 4x4 MIMO 5G Ready Cellular and Wi-Fi Antenna System with GPS (White)
ANT-MB-82G-Q-W-6	Mobility 82G - 8x8 MIMO 5G Ready Cellular and Wi-Fi Antenna System with GPS (White)

Expansion Module for HD2 MBX





SMA Connectors

Specifications

Interface 2x Embedded Cellular Modems with

Redundant SIM Slots

Antenna Connectors 8x SMA Antenna Connectors

1x SMA GPS Antenna Connectors

Cellular Data Rate ¹ 5G: 3.4 Gbps / 900 Mbps (Downlink / Uplink) CAT-20: 1.6 Gbps / 200 Mbps

Dimensions 0.9 x 11.5 x 3.5 inches / 22 x 292 x 88 mm

Weight 2.2 pounds / 1 kg

Ordering Information

Product Code	Regions	5G Bands	LTE Bands
EXM-MBX-T2-5GD Embedded Modem(s): 2x 5G	Global	5G (NSA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n20, n28, n38, n41, n66, n71, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B46, B48, B66, B71
EXM-MBX-T2-5GH Embedded Modem(s): 2x 5G	Global	5G (NSA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n20, n25 n28, n38, n40, n41, n66, n71, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B46, B48, B66, B71
EXM-MBX-T2-5GN Embedded Modem(s): 2x 5G	Global	5G (NSA & SA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n70, n71, n75, n76, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71

¹ Maximum theoretical data rates.

Expansion Module for HD4 MBX





QMA Connectors

Specifications

Interface 4x Embedded Cellular Modems with

Redundant SIM Slots

Antenna Connectors 16x QMA Antenna Connectors

1x QMA GPS Antenna Connectors

Cellular Data Rate ¹ 5G: 4.1 Gbps / 900 Mbps (Downlink / Uplink) CAT-20: 2 Gbps / 211 Mbps

Dimensions 0.9 x 11.5 x 3.5 inches / 22 x 292 x 88 mm

Weight 2.2 pounds / 1 kg

Ordering Information

Product Code	Regions	5G Bands	LTE Bands
EXM-MBX-T4-5GD Embedded Modem(s): 4x 5G	Global	5G (NSA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n20, n28, n38, n41, n66, n71, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13 B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B46, B48, B66, B71
EXM-MBX-T4-5GH Embedded Modem(s): 4x 5G	Global	5G (NSA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n20, n25 n28, n38, n40, n41, n66, n71, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B46, B48, B66, B71
EXM-MBX-T4-5GN Embedded Modem(s): 4x 5G	Global	5G (NSA & SA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n70, n71, n75, n76, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13 B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71
EXM-MBX-T4-5GK Embedded Modem(s): 4x 5G	North America	5G (NSA & SA) Sub 6Ghz: n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n71, n75, n76, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71