

MBX 5G



5G Quad Cellular Mobile Powerhouse

Best of Both Worlds

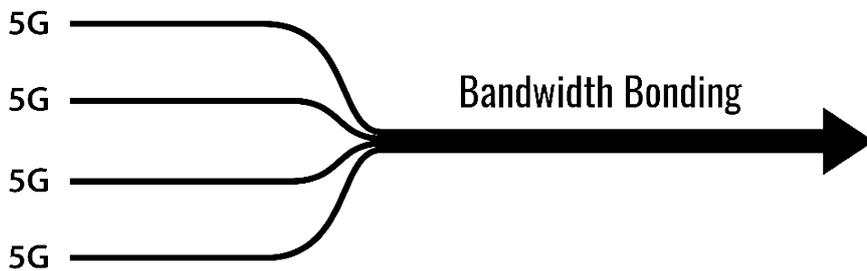
MBX 5G is a quad cellular mobile powerhouse with redundant SIM slots and multi-radio capabilities providing speed, reliability, and coverage by combining the best of 5G and LTE.

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

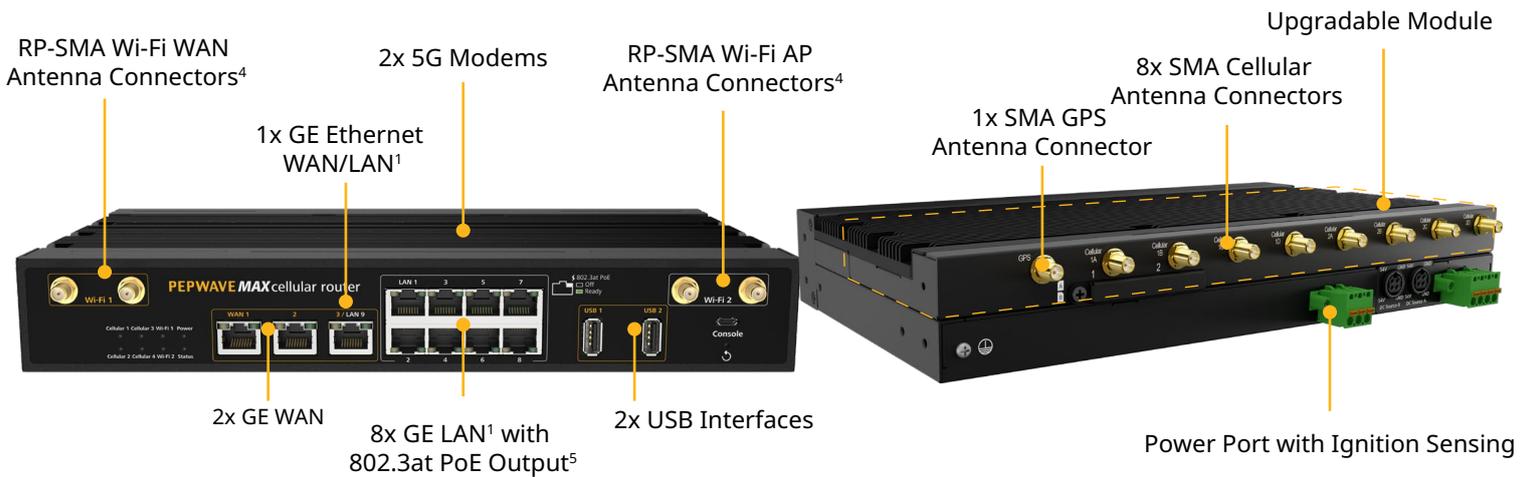
Its compatibility allows for upgradable modules for further customization to suit any deployment needs.



Optimize Your Traffic

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





Specifications

WAN Interface	3x 10/100/1000M Ethernet ¹ 2x Embedded Cellular Modems with Redundant SIM Slots 2x USB Interface	Antenna Connectors	8x SMA Cellular Antenna Connectors 4x RP-SMA Wi-Fi Antenna Connectors ⁴ 1x SMA GPS Antenna Connector
LAN Interface	9x 10/100/1000M Ethernet ¹	Power Input	Power Port: 12V – 56V DC AC Adapter: AC Input 100V–240V / DC Output 12V Terminal Block: 12V – 56V DC
Wi-Fi Interface	Simultaneous Dual-Band (2.4GHz / 5GHz) Wi-Fi 5 2x2 MIMO Wi-Fi WAN and/or AP	Power Output	Up to Eight 802.3at PoE Outputs ⁵
SpeedFusion Features	Hot Failover, Smoothing, Bandwidth Bonding	Power Consumption	55W (max.)
Number of SpeedFusion VPN Peers	3 / 20 ²	Dimensions	1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm
Features	Ignition Sensing	Weight	7.28 pounds / 3.3 kg
Router Throughput	2.5Gbps	Operating Temperature	-40° – 149°F / -40° – 65°C
SpeedFusion Throughput (No Encryption)	600 Mbps	Humidity	15% – 95% (non-condensing)
SpeedFusion Throughput (256-bit AES)	500 Mbps	Certifications	FCC, CE, RoHS E-Mark EN61373 Shock and Vibration Resistance EN50155 Railway Applications - Electronic Equipment used on Rolling Stock EN61000 Electromagnetic Compatibility
Recommended Users	50-500	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)
Cellular Data Rate ³ (Downlink / Uplink)	5G: 3.4 Gbps / 900 Mbps CAT-20: 1.6 Gbps / 200 Mbps	SIM Options	Mini-SIM (2FF) Peplink eSIM BYO eSIM (2 profiles) ⁶ Remote SIM from SIM Injector FusionSIM
		Warranty	1-Year Limited Warranty

¹ 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 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.

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.

⁶ Available with Firmware 8.4.0 or above.

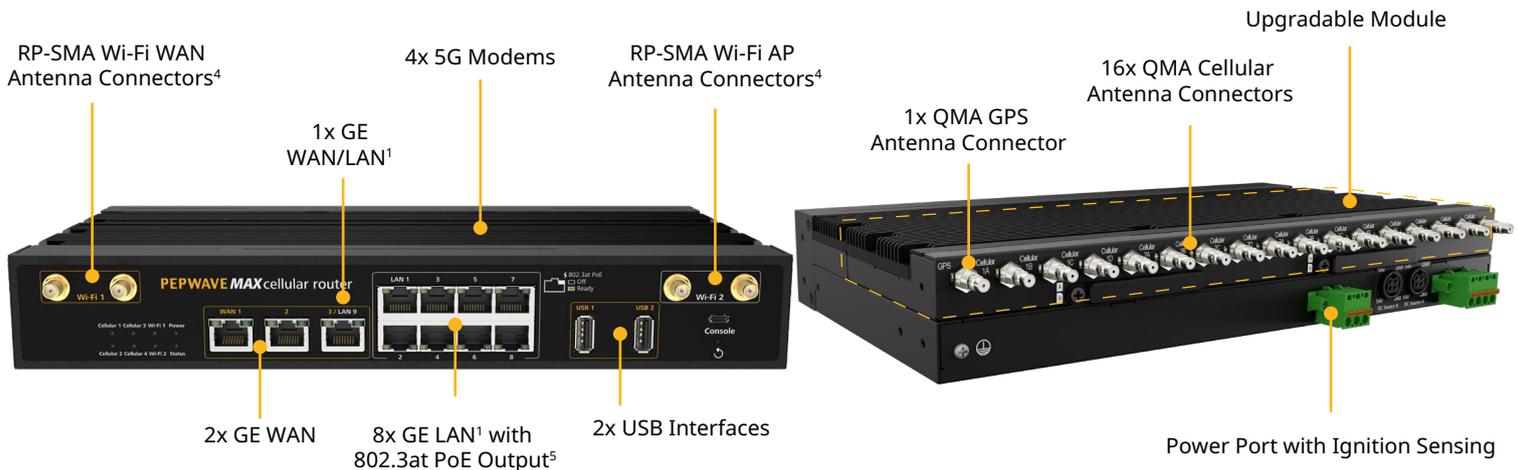
Ordering Information

Product Code	Regions	5G Bands	LTE Bands
MAX-HD2-MBX-5GD-T 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
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

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	7-in-1 Cellular and Wi-Fi Antenna System with GPS Receiver (Black)
ANT-MB-42G-S-W-6	7-in-1 Cellular and Wi-Fi Antenna System with GPS Receiver (White)

HD4 MBX 5G



Specifications

WAN Interface	3x 10/100/1000M Ethernet ¹ 4x Embedded Cellular Modems with Redundant SIM Slots 2x USB Interface	Antenna Connectors	16x QMA Cellular Antenna Connectors 4x RP-SMA Wi-Fi Antenna Connectors ⁴ 1x QMA GPS Antenna Connector
LAN Interface	9x 10/100/1000M Ethernet ¹	Power Input	Power Port: 12V – 56V DC AC Adapter: AC Input 100V–240V / DC Output 12V Terminal Block: 12V – 56V DC
Wi-Fi Interface	Simultaneous Dual-Band (2.4GHz / 5GHz) Wi-Fi 5 2x2 MIMO Wi-Fi WAN and/or AP	Power Output	Up to Eight 802.3at PoE Outputs ⁵
SpeedFusion Features	Hot Failover, Smoothing, Bandwidth Bonding	Power Consumption	55W (max.)
Number of SpeedFusion VPN Peers	3 / 20 ²	Dimensions	1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm
Features	Ignition Sensing	Weight	7.28 pounds / 3.3 kg
Router Throughput	2.5Gbps	Operating Temperature	-40° – 149°F / -40° – 65°C
SpeedFusion Throughput (No Encryption)	600 Mbps	Humidity	15% – 95% (non-condensing)
SpeedFusion Throughput (256-bit AES)	500 Mbps	Certifications	FCC, CE, RoHS E-Mark EN61373 Shock and Vibration Resistance EN50155 Railway Applications - Electronic Equipment used on Rolling Stock EN61000 Electromagnetic Compatibility
Recommended Users	50-500	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)
Cellular Data Rate ³ (Downlink / Uplink)	5G: 3.4 Gbps / 900 Mbps CAT-20: 1.6 Gbps / 200 Mbps	SIM Options	Mini-SIM (2FF) Peplink eSIM BYO eSIM (2 profiles) Remote SIM from SIM Injector FusionSIM
		Warranty	1-Year Limited Warranty

¹ 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.

⁶ Cellular antennas not included. To enhance the MBX, Peplink antennas are recommended.

Ordering Information

Product Code	Regions	5G Bands	LTE Bands
MAX-HD4-MBX-5GD-T 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
MAX-HD4-MBX-5GN-T Embedded Modem(s): 4x 5G	Global* <small>*US Carrier Certifications: AT&T, T-Mobile, Verizon (C-Band), FirstNet</small>	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

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	7-in-1 Cellular and Wi-Fi Antenna System with GPS Receiver (Black)
ANT-MB-42G-S-W-6	7-in-1 Cellular and Wi-Fi Antenna System with GPS Receiver (White)

Expansion Module for HD2 MBX



Specifications

Interface	2x Embedded Cellular Modems with Redundant SIM Slots	Dimensions	0.9 x 11.5 x 3.5 inches / 22 x 292 x 88 mm
Antenna Connectors	8x SMA Antenna Connectors 1x SMA GPS Antenna Connectors	Weight	2.2 pounds / 1 kg
Cellular Data Rate ¹ (Downlink / Uplink)	5G: 3.4 Gbps / 900 Mbps CAT-20: 1.6 Gbps / 200 Mbps		

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



Specifications

Interface	4x Embedded Cellular Modems with Redundant SIM Slots	Dimensions	0.9 x 11.5 x 3.5 inches / 22 x 292 x 88 mm
Antenna Connectors	16x QMA Antenna Connectors 1x QMA GPS Antenna Connectors	Weight	2.2 pounds / 1 kg
Cellular Data Rate ¹ (Downlink / Uplink)	5G: 3.4 Gbps / 900 Mbps CAT-20: 1.6 Gbps / 200 Mbps		

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

¹ Maximum theoretical data rates.