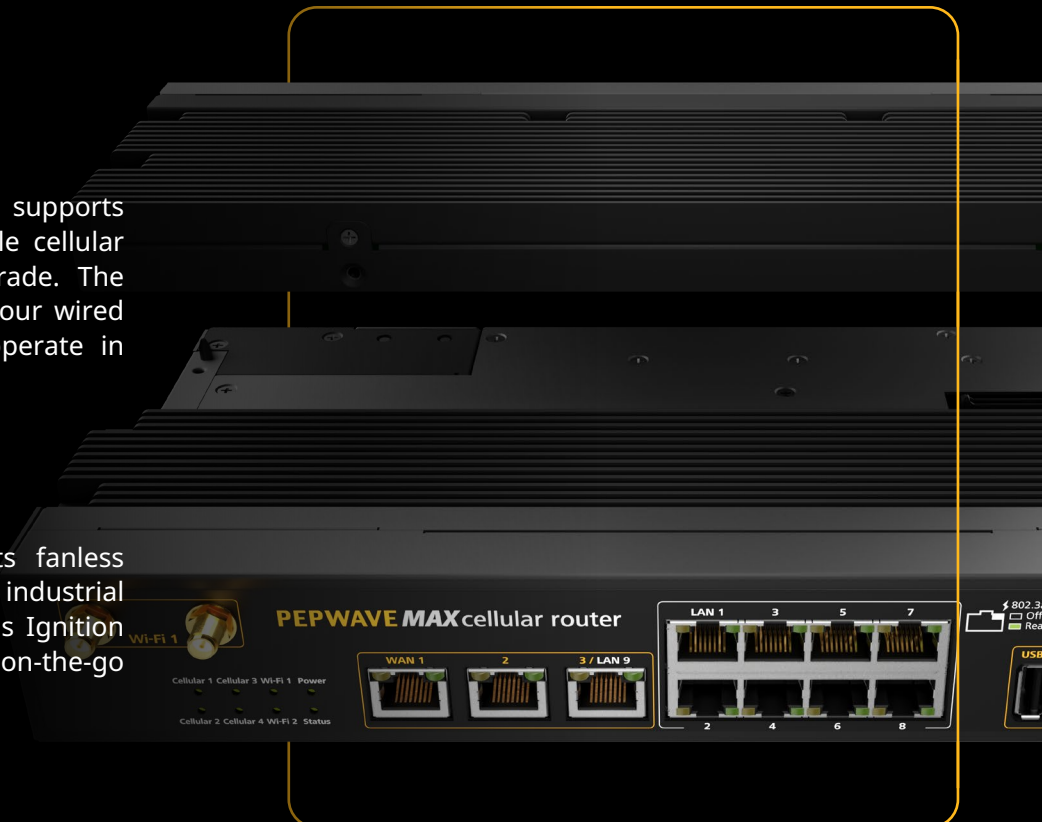# MBX

Multi Cellular Mobile Powerhouse

Upgradable Gigabit LTE

Right out of the box, the MBX supports Gigabit LTE. It futures a swappable cellular module when you need an upgrade. The MBX's 2.5Gbps throughput gives your wired connections plenty of room to operate in concert with wireless connections.

Ready to Move

Its compact form paired with its fanless design allows it to be deployed for industrial applications, while features such as Ignition Sensing make it ready for on-the-go deployments.
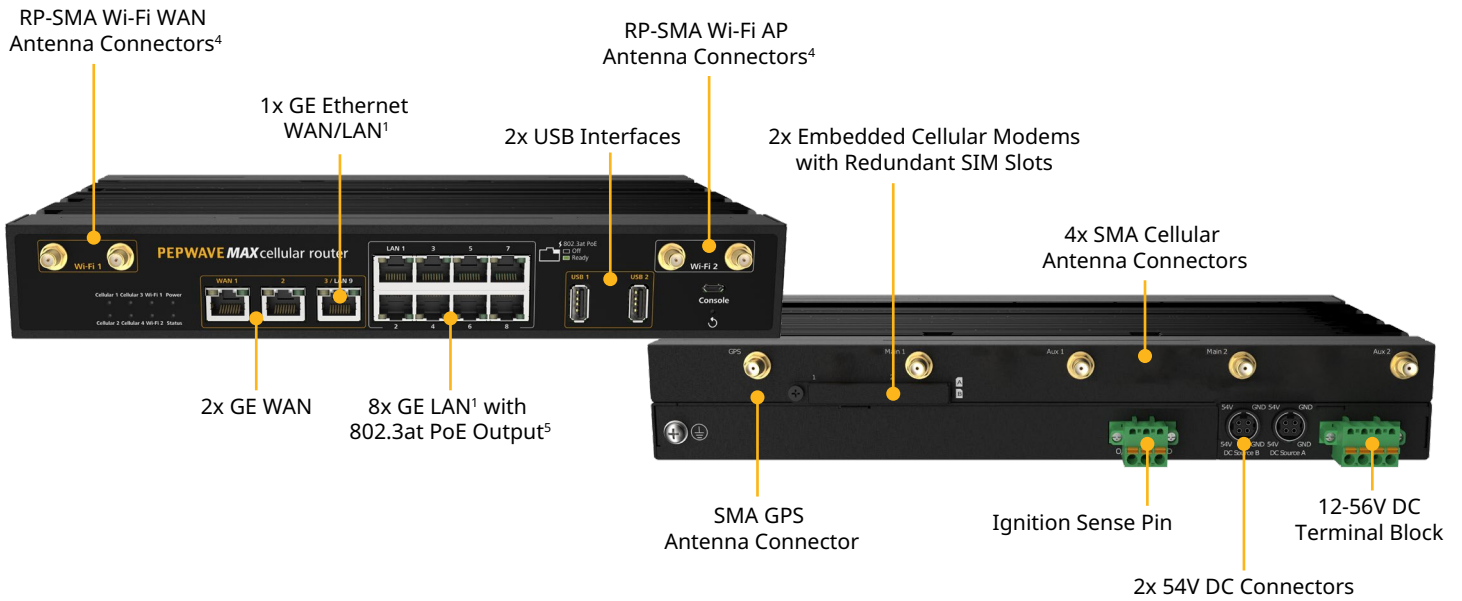
Multi Cellular Bandwidth Bonding

The MBX is a multi cellular mobile powerhouse with redundant SIM slots and multi-radio capabilities providing speed, reliability, and coverage by connecting to a maximum of 8 different cellular providers.

Compatible with SIM injector

Throw in the SIM Injector to add room for another 8 SIMs that can be managed up to 100m away. Eliminate spotty coverage with up to 16 different connectivity channels.

HD2 MBX (CAT-12)

peplink

RP-SMA Wi-Fi WAN
Antenna Connectors[4]

1x GE Ethernet
WAN/LAN[1]

2x USB Interfaces

RP-SMA Wi-Fi AP
Antenna Connectors[4]

2x Embedded Cellular Modems
with Redundant SIM Slots

4x SMA Cellular
Antenna Connectors

2x GE WAN

8x GE LAN[1] with
802.3at PoE Output[5]

SMA GPS
Antenna Connector

Ignition Sense Pin

2x 54V DC Connectors

12-56V DC
Terminal Block

Specifications

WAN Interface	3x 10/100/1000M Ethernet [1] 2x Embedded Cellular Modems with Redundant SIM Slots 2x USB Interface	**Power Input**	Power Port: 12V – 56V DC AC Adapter: AC Input 100V–240V / DC Output 12V Terminal Block: 12V – 56V DC
LAN Interface	9x 10/100/1000M Ethernet [1]	**Power Output**	Up to 8x 802.3at PoE Outputs [5]
Wi-Fi Interface	Simultaneous Dual-Band (2.4GHz / 5GHz) Wi-Fi 5 2x2 MIMO Wi-Fi WAN and/or AP	**Power Consumption**	55W (max.)
		Dimensions	1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm
SpeedFusion Features	Hot Failover, Smoothing, Bandwidth Bonding	**Weight**	7.28 pounds / 3.3 kg
Number of PepVPN SpeedFusion Peers	3 / 20 [2]	**Operating Temperature**	-40° – 149°F / -40° – 65°C
		Humidity	15% – 95% (non-condensing)
Features	Ignition Sensing	**Certifications**	FCC, CE, RoHS, RCM, E-Mark, PTCRB, EN61373 Shock and Vibration Resistance EN50155 Railway Applications - Electronic Equipment used on Rolling Stock EN61000 Electromagnetic Compatibility
Router Throughput	2.5 Gbps		
SpeedFusion Throughput (No Encryption)	600 Mbps		
SpeedFusion Throughput (256-bit AES)	500 Mbps	**Package Content**	1x MAX HD2 MBX 4x LTE Antennas (ACW-813) 4x Dual Band Wi-Fi Antennas (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 1x Pair of Mounting Brackets (ACW-513)
Recommended Users	50-500		
Cellular Data Rate [3] (Downlink / Uplink)	CAT-12: 600 Mbps / 150 Mbps		
Antenna Connectors	4x SMA Cellular Antenna Connectors 4x RP-SMA Wi-Fi Antenna Connectors [4] 1x SMA GPS Antenna Connector	**SIM Options**	Mini-SIM (2FF) Peplink eSIM BYO eSIM (2 profiles) Remote SIM from SIM Injector FusionSIM
		Warranty	1-Year Limited Warranty

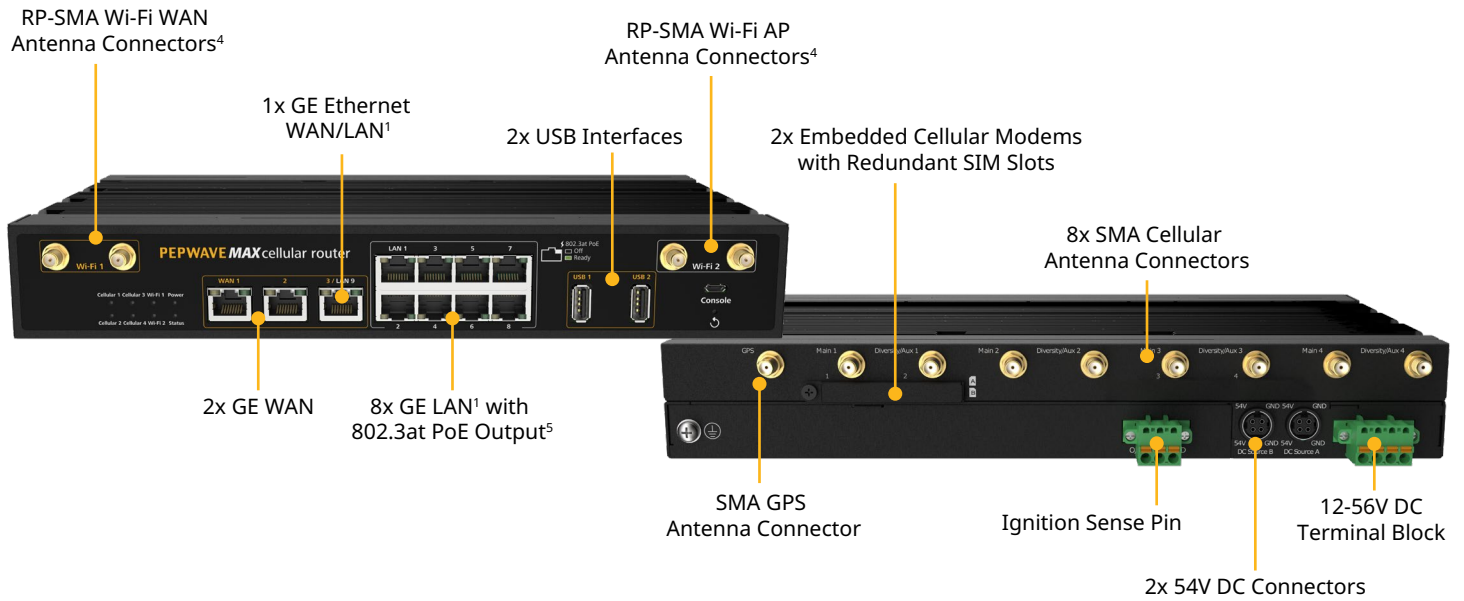[1] WAN 3 is configured as a LAN port by default, configuration is changeable on the Web Admin.
[2] With purchase of optional SpeedFusion License (MAX-HD-020-SPF) can connect to up to 20 SpeedFusion peers
[3] Maximum theoretical data rates.
[4] For proper Wi-Fi performance and operations, please ensure 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.

HD2 MBX (CAT-20)

peplink

RP-SMA Wi-Fi WAN
Antenna Connectors[4]

1x GE Ethernet
WAN/LAN[1]

2x USB Interfaces

RP-SMA Wi-Fi AP
Antenna Connectors[4]

2x Embedded Cellular Modems
with Redundant SIM Slots

8x SMA Cellular
Antenna Connectors

2x GE WAN

8x GE LAN[1] with
802.3at PoE Output[5]

SMA GPS
Antenna Connector

Ignition Sense Pin

2x 54V DC Connectors

12-56V DC
Terminal Block

Specifications

WAN Interface	3x 10/100/1000M Ethernet [1] 2x Embedded Cellular Modems with Redundant SIM Slots 2x USB Interface	**Power Input**	Power Port: 12V – 56V DC AC Adapter: AC Input 100V–240V / DC Output 12V Terminal Block: 12V – 56V DC
LAN Interface	9x 10/100/1000M Ethernet [1]	**Power Output**	Up to 8x 802.3at PoE Outputs [5]
Wi-Fi Interface	Simultaneous Dual-Band (2.4GHz / 5GHz) Wi-Fi 5 2x2 MIMO Wi-Fi WAN and/or AP	**Power Consumption**	55W (max.)
		Dimensions	1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm
SpeedFusion Features	Hot Failover, Smoothing, Bandwidth Bonding	**Weight**	7.28 pounds / 3.3 kg
Number of PepVPN SpeedFusion Peers	3 / 20 / 50 [2]	**Operating Temperature**	-40° – 149°F / -40° – 65°C
		Humidity	15% – 95% (non-condensing)
Features	Ignition Sensing	**Certifications**	FCC, CE, RoHS, RCM, E-Mark, PTCRB, EN61373 Shock and Vibration Resistance EN50155 Railway Applications - Electronic Equipment used on Rolling Stock EN61000 Electromagnetic Compatibility ESN (Emergency Services Network)
Router Throughput	2.5 Gbps		
SpeedFusion Throughput (No Encryption)	600 Mbps		
SpeedFusion Throughput (256-bit AES)	500 Mbps	**Package Content**	1x MAX HD2 MBX 8x LTE Antennas (ACW-234) 4x Dual Band Wi-Fi Antennas (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 1x Pair of Mounting Brackets (ACW-513)
Recommended Users	50-500		
Cellular Data Rate [3] (Downlink / Uplink)	2 Gbps / 211 Mbps		
Antenna Connectors	8x SMA Cellular Antenna Connectors 4x RP-SMA Wi-Fi Antenna Connectors [4] 1x SMA GPS Antenna Connector	**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] With purchase of optional SpeedFusion License (MAX-HD-020-SPF/ SFN-LC-50) can connect to up to 20/50 SpeedFusion peers respectively.
[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.

HD2 MBX

Ordering Information (CAT-12)

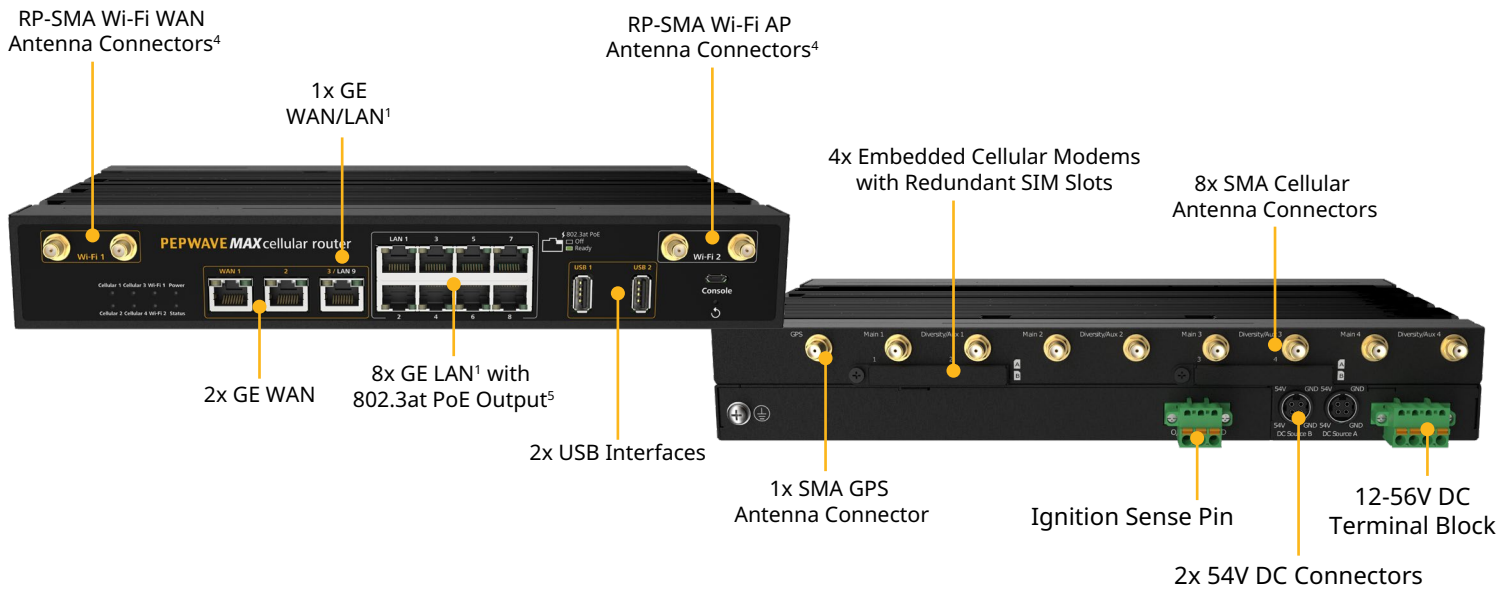| Product Code	Regions	LTE Bands	3G Bands
MAX-HD2-MBX-LTEA-R-T Embedded Modem(s): **2x LTE-A Pro (CAT-12)**	Primary: North America Compatibility: Global	B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B18, B19, B20, B26, B29, B30, B32, B41, B42, B43, B46, B48, B66	B1, B2, B4, B5, B6, B8, B9, B19
MAX-HD2-MBX-LTEA-D-T Embedded Modem(s): **2x LTE-A Pro (CAT-12)**	APAC / EMEA	B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B17, B18, B19, B20, B21, B25, B26, B28, B29, B30, B32, B38, B39, B40, B41, B66	B1, B2, B3, B4, B5, B8, B9, B19
MAX-HD2-MBX-LTEA-Q-T Embedded Modem(s): **2x LTE-A Pro (CAT-12)**	APAC / EMEA	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B38, B39, B40, B41, B42, B43, B48, B66, B71	B1, B2, B4, B5, B8, B9, B19

Ordering Information (CAT-20)

Product Code	Regions	LTE Bands	3G Bands
MAX-HD2-MBX-GLTE-S-T Embedded Modem(s): **2x LTE-A Pro (CAT-20)**	Global	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 (LAA), B48, B66, B71	HSPA+/WCDMA: B1, B2, B3, B4, B5, B6, B8, B9, B19

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 PepVPN/SpeedFusion 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 (CAT-12)

peplink

RP-SMA Wi-Fi WAN
Antenna Connectors[4]

1x GE
WAN/LAN[1]

RP-SMA Wi-Fi AP
Antenna Connectors[4]

4x Embedded Cellular Modems
with Redundant SIM Slots

8x SMA Cellular
Antenna Connectors

2x GE WAN

8x GE LAN[1] with
802.3at PoE Output[5]

2x USB Interfaces

1x SMA GPS
Antenna Connector

Ignition Sense Pin

2x 54V DC Connectors

12-56V DC
Terminal Block

Specifications

WAN Interface	3x 10/100/1000M Ethernet [1] 4x Embedded Cellular Modems with Redundant SIM Slots 2x USB Interface	**Power Input**	Power Port: 12V – 56V DC AC Adapter: AC Input 100V–240V / DC Output 12V Terminal Block: 12V – 56V DC
LAN Interface	9x 10/100/1000M Ethernet [1]	**Power Output**	Up to 8x 802.3at PoE Outputs [5]
Wi-Fi Interface	Simultaneous Dual-Band (2.4GHz / 5GHz) Wi-Fi 5 2x2 MIMO Wi-Fi WAN and/or AP	**Power Consumption**	55W (max.)
		Dimensions	1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm
SpeedFusion Features	Hot Failover, Smoothing, Bandwidth Bonding	**Weight**	7.28 pounds / 3.3 kg
Number of PepVPN SpeedFusion Peers	3 / 20 / 50 [2]	**Operating Temperature**	-40° – 149°F / -40° – 65°C
Features	Ignition Sensing	**Humidity**	15% – 95% (non-condensing)
Router Throughput	2.5Gbps	**Certifications**	FCC, CE, RoHS, RCM, E-Mark, PTCRB EN61373 Shock and Vibration Resistance EN50155 Railway Applications - Electronic Equipment used on Rolling Stock EN61000 Electromagnetic Compatibility
SpeedFusion Throughput (No Encryption)	600 Mbps		
SpeedFusion Throughput (256-bit AES)	500 Mbps	**Package Content**	1x MAX HD4 MBX 8x LTE/5G Antennas (ACW-234) 4x Wi-Fi Dual Band Antennas (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)
Recommended Users	50-500		
Cellular Data Rate [3] (Downlink / Uplink)	600 Mbps / 150 Mbps		
Antenna Connectors	8x SMA Cellular Antenna Connectors 4x RP-SMA Wi-Fi Antenna Connectors [4] 1x SMA GPS Antenna Connector	**SIM Options**	Mini-SIM (2FF) Peplink eSIM BYO eSIM (2 profiles) Remote SIM from SIM Injector FusionSIM
		Warranty	1-Year Limited Warranty

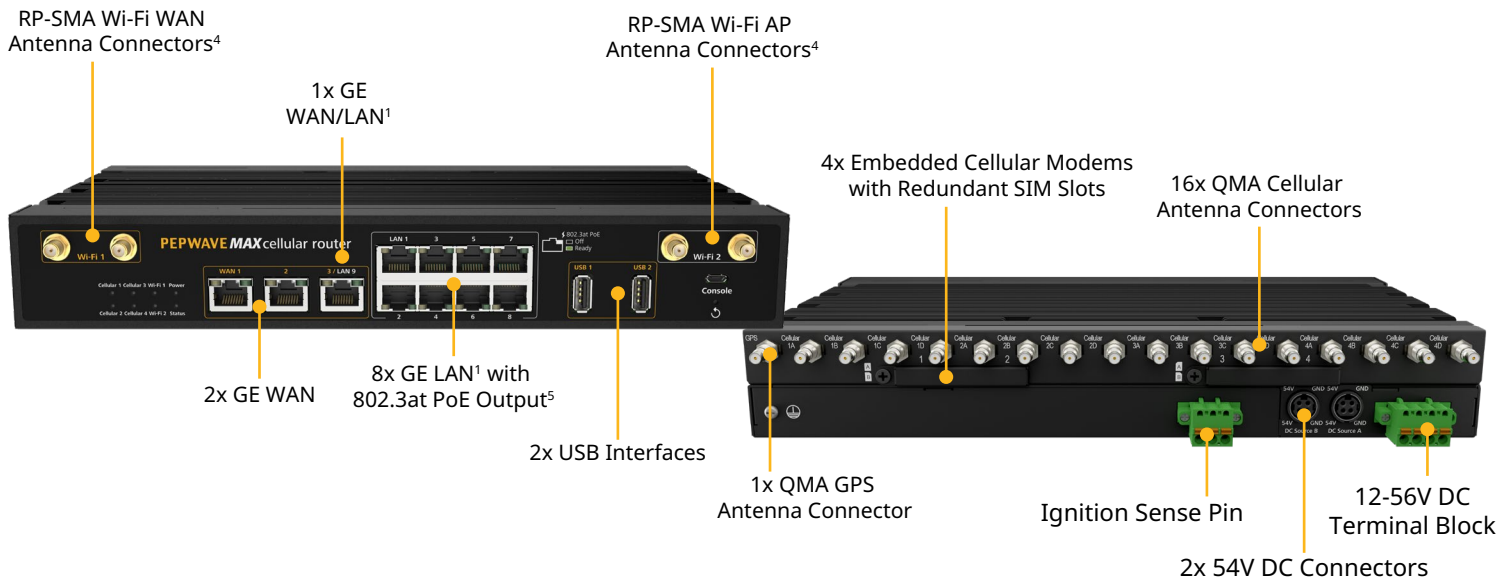[1] WAN 3 is configured as a LAN port by default, configuration is changeable on the Web Admin.
[2] With purchase of optional SpeedFusion License (MAX-HD-020-SPF/SFN-LC-50) can connect to up to 20/50 SpeedFusion peers respectively.
[3] Maximum theoretical data rates.
[4] For the best performance and 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.

HD4 MBX (CAT-20)

peplink

RP-SMA Wi-Fi WAN
Antenna Connectors[4]

1x GE
WAN/LAN[1]

RP-SMA Wi-Fi AP
Antenna Connectors[4]

4x Embedded Cellular Modems
with Redundant SIM Slots

16x QMA Cellular
Antenna Connectors

2x GE WAN

8x GE LAN[1] with
802.3at PoE Output[5]

2x USB Interfaces

1x QMA GPS
Antenna Connector

Ignition Sense Pin

12-56V DC
Terminal Block

2x 54V DC Connectors

Specifications

WAN Interface	3x 10/100/1000M Ethernet [1] 4x Embedded Cellular Modems with Redundant SIM Slots 2x USB Interface	**Power Input**	Power Port: 12V – 56V DC AC Adapter: AC Input 100V–240V / DC Output 12V Terminal Block: 12V – 56V DC
LAN Interface	9x 10/100/1000M Ethernet [1]	**Power Output**	Up to 8x 802.3at PoE Outputs [5]
Wi-Fi Interface	Simultaneous Dual-Band (2.4GHz / 5GHz) Wi-Fi 5 2x2 MIMO Wi-Fi WAN and/or AP	**Power Consumption**	55W (max.)
		Dimensions	1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm
SpeedFusion Features	Hot Failover, Smoothing, Bandwidth Bonding	**Weight**	7.28 pounds / 3.3 kg
Number of PepVPN SpeedFusion Peers	3 / 20 / 50 [2]	**Operating Temperature**	-40° – 149°F / -40° – 65°C
Features	Ignition Sensing	**Humidity**	15% – 95% (non-condensing)
Router Throughput	2.5Gbps	**Certifications**	FCC, CE, RoHS, E-Mark, PTCRB EN61373 Shock and Vibration Resistance EN50155 Railway Applications - Electronic Equipment used on Rolling Stock EN61000 Electromagnetic Compatibility ESN (Emergency Services Network)
SpeedFusion Throughput (No Encryption)	600 Mbps		
SpeedFusion Throughput (256-bit AES)	500 Mbps	**Package Content** [6]	1x MAX HD4 MBX 4x Wi-Fi Dual Band Antennas (ACW-341) 1x GPS Active Antenna (ACW-232) 1x QMA to SMA Adaptor (for GPS) 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)
Recommended Users	50-500		
Cellular Data Rate [3] **(Downlink / Uplink)**	2 Gbps / 211 Mbps		
Antenna Connectors	16x QMA Cellular Antenna Connectors 4x RP-SMA Wi-Fi Antenna Connectors [4] 1x QMA GPS Antenna Connector	**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] With purchase of optional SpeedFusion License (MAX-HD-020-SPF/SFN-LC-50) can connect to up to 20/50 SpeedFusion peers respectively.
[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.

HD4 MBX

Ordering Information (CAT-12)

Product Code	Regions	LTE Bands	3G Bands
MAX-HD4-MBX-LTEA-R-T Embedded Modem(s): **4x LTE-A Pro (CAT-12)**	Primary: North America Compatibility: Global US Carrier Certifications: **FirstNet, AT&T, US Cellular, Verizon**	B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14 , B18, B19, B20, B26, B29, B30, B32, B41, B42, B43, B46, B48, B66	B1, B2, B4, B5, B6, B8, B9, B19
MAX-HD4-MBX-LTEA-D-T Embedded Modem(s): **4x LTE-A Pro (CAT-12)**	APAC / EMEA	B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B17, B18, B19, B20, B21, B25, B26, B28, B29, B30, B32, B38, B39, B40, B41, B66	B1, B2, B3, B4, B5, B8, B9, B19
MAX-HD4-MBX-LTEA-Q-T Embedded Modem(s): **4x LTE-A Pro (CAT-12)**	APAC / EMEA	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B38, B39, B40, B41, B42, B43, B48, B66, B71	B1, B2, B4, B5, B8, B9, B19

Ordering Information (CAT-20)

Product Code	Regions	LTE Bands	3G Bands
MAX-HD4-MBX-GLTE-S-T Embedded Modem(s): **4x LTE-A Pro (CAT-20)**	Primary: Global	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 (LAA), B48, B66, B71	HSPA+/WCDMA: B1, B2, B3, B4, B5, B6, B8, B9, B19

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 PepVPN/SpeedFusion 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-40G-Q-B-6	5-in-1 Cellular Antenna System with GPS Receiver (Black)
ANT-MB-40G-Q-W-6	5-in-1 Cellular Antenna System with GPS Receiver (White)