



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

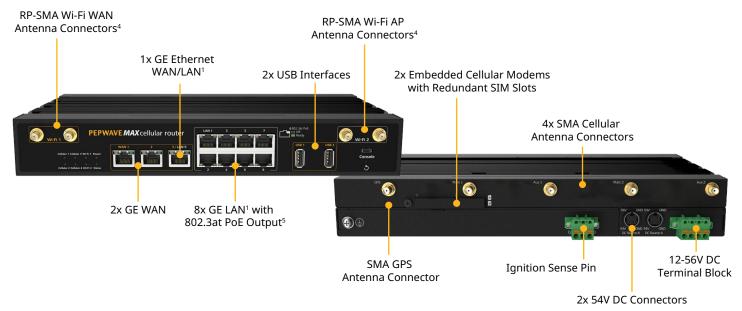
The MBX is a multi cellular mobile powerhouse with redundant SIM slots and multi-radio capabilities providing speed, reliability, and coverage by connecting to a maximum of 8 different cellular providers.

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)





Specifications

WAN Interface	3x 10/100/1000M Ethernet ¹	Power Input	Power Port: 12V – 56V DC
	2x Embaddad Callular Madama with		AC Adaptor: AC Input 1001/

AC Adapter: AC Input 100V-240V / DC Output 12V 2x Embedded Cellular Modems with Redundant SIM Slots

Terminal Block: 12V - 56V DC

Power Output Up to 8x 802.3at PoE Outputs 5 9x 10/100/1000M Ethernet 1 **LAN Interface**

Power Consumption 55W (max.) Wi-Fi Interface Simultaneous Dual-Band (2.4GHz / 5GHz)

Wi-Fi 5 2x2 MIMO **Dimensions** 1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm Wi-Fi WAN and/or AP

Weight 7.28 pounds / 3.3 kg Hot Failover, WAN Smoothing, SpeedFusion Features

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

Number of PepVPN 2/202 Humidity 15% - 95% (non-condensing) **SpeedFusion Peers**

Certifications FCC, CE, RoHS, RCM, E-Mark, PTCRB, **Features Ignition Sensing** EN61373 Shock and Vibration Resistance

EN50155 Railway Applications -

Router Throughput 2.5 Gbps Electronic Equipment used on Rolling Stock

EN61000 Electromagnetic Compatibility SpeedFusion Throughput 600 Mbps

(No Encryption) **Package Content** 1x MAX HD2 MBX 4x LTE Antennas (ACW-813)

SpeedFusion Throughput 500 Mbps 4x Dual Band Wi-Fi Antennas (ACW-341)

(256-bit AES) 1x GPS Active Antenna (ACW-232) 1x Power Supply (ACW-630)

Recommended Users 1x 3pin Terminal Block Connector (Ignition sense) 50-500

1x 4pin Terminal Block Connector (Power supply) Cellular Data Rate ³ CAT-12: 600 Mbps / 150 Mbps 1x Grounding Cable & Rubber Foot Pad Set (Downlink / Uplink) 1x Pair of Mounting Brackets (ACW-513)

Antenna Connectors 4x SMA Cellular Antenna Connectors 1-Year Limited Warranty Warrantv

4x RP-SMA Wi-Fi Antenna Connectors 4

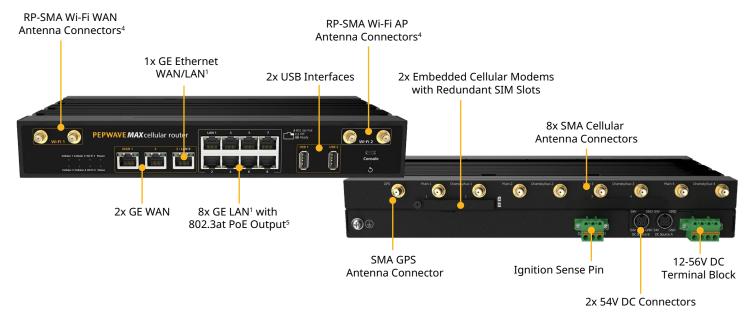
2x USB Interface

1x SMA GPS Antenna Connector

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)





Specifications

WAN Interface	3x 10/100/1000M Ethernet ¹	Power Input
WAIN THECHACE	3x 10/100/1000W Ethernet	i owei input

2x 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

Hot Failover, WAN Smoothing, SpeedFusion Features

Bandwidth Bonding

Number of PepVPN **SpeedFusion Peers**

2 / 20 / 50 2

Features Ignition Sensing

Router Throughput 2.5 Gbps

SpeedFusion Throughput

(No Encryption)

600 Mbps

SpeedFusion Throughput

(256-bit AES)

500 Mbps

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

Power Port: 12V - 56V DC t

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

Terminal Block: 12V - 56V DC

Power Output Up to 8x 802.3at PoE Outputs 5

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, 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)

1x MAX HD2 MBX **Package Content**

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)

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.



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):	Primary: APAC / EMEA	B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B17, B18, B19, B20, B21,	B1, B2, B3, B4, B5, B8, B9, B19
2x LTE-A Pro (CAT-12)		B25, B26, B28, B29, B30, B32, B38, B39, B40, B41, B66	

Ordering Information (CAT-20)

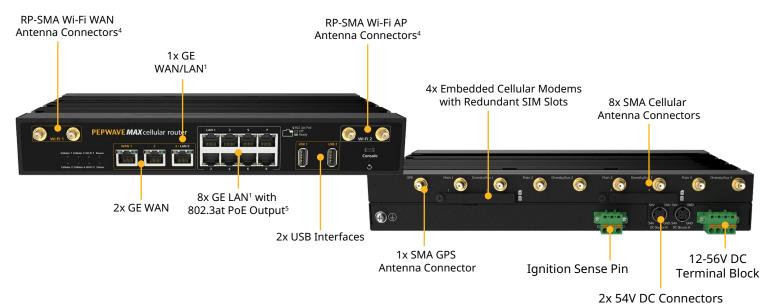
Product Code	Regions	LTE Bands	3G Bands
MAX-HD2-MBX-GLTE-S-T Embedded Modem(s): 2x LTE-A Pro (CAT-20)	Primary: Global	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B46 (LAA), B48, B66, B71	HSPA+/WCDMA: B1, B2, B3, B4, B5, B6, 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-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)





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	Power Consumption Dimensions	55W (max.) 1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm
SpeedFusion Features	Wi-Fi WAN and/or AP Hot Failover, WAN Smoothing,	Weight	7.28 pounds / 3.3 kg
	Bandwidth Bonding	Operating Temperature	-40° – 149°F / -40° – 65°C
Number of PepVPN SpeedFusion Peers	2/20/50 ²	Humidity Certifications	15% – 95% (non-condensing) FCC, CE, RoHS, RCM, E-Mark, PTCRB
Features	Ignition Sensing	Certifications	EN61373 Shock and Vibration Resistance EN50155 Railway Applications -
Router Throughput	2.5Gbps		Electronic Equipment used on Rolling Stock EN61000 Electromagnetic Compatibility
SpeedFusion Throughput (No Encryption)	600 Mbps	Package Content	1x MAX HD4 MBX

Package Content

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)

Warranty 1-Year Limited Warranty

50-500

600 Mbps / 150 Mbps

8x SMA Cellular Antenna Connectors 4x RP-SMA Wi-Fi Antenna Connectors 4

1x SMA GPS Antenna Connector

SpeedFusion Throughput 500 Mbps

(256-bit AES)

Recommended Users

Cellular Data Rate ³

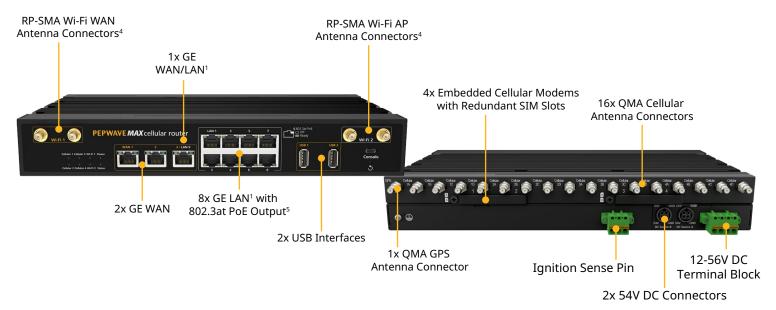
(Downlink / Uplink)

Antenna Connectors

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)





Specifications

SpeedFusion Peers

Router Throughput

Recommended Users

Cellular Data Rate ³

(Downlink / Uplink)

(No Encryption)

(256-bit AES)

SpeedFusion Throughput 600 Mbps

SpeedFusion Throughput 500 Mbps

WAN Interface	3x 10/100/1000M Ethernet 1	Power Input	Power Port: 12V – 56V DC

4x Embedded Cellular Modems with AC Adapter: AC Input 100V-240V / DC Output 12V

Redundant SIM Slots Terminal Block: 12V - 56V DC 2x USB Interface

Power Output Up to 8x 802.3at PoE Outputs 5 **LAN Interface** 9x 10/100/1000M Ethernet 1

Power Consumption 55W (max.) Wi-Fi Interface Simultaneous Dual-Band (2.4GHz / 5GHz)

Wi-Fi 5 2x2 MIMO 1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm **Dimensions** Wi-Fi WAN and/or AP

Weight 7.28 pounds / 3.3 kg **SpeedFusion Features** Hot Failover, WAN Smoothing,

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

Number of PepVPN 2/20/502 Humidity 15% - 95% (non-condensing)

Certifications FCC, CE, RoHS, E-Mark, PTCRB

EN61373 Shock and Vibration Resistance **Features Ignition Sensing**

EN50155 Railway Applications -

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

ESN (Emergency Services Network)

1x MAX HD4 MBX Package Content 6

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)

Antenna Connectors 16x QMA Cellular Antenna Connectors

2 Gbps / 211 Mbps

4x RP-SMA Wi-Fi Antenna Connectors 4 Warranty 1-Year Limited Warranty

2.5Gbps

50-500

¹x QMA GPS Antenna Connector

WAN 3 is configured as a LAN port by default, configuration is changeable on the Web Admin.
With purchase of optional SpeedFusion License (MAX-HD-020-SPF/SFN-LC-50) can connect to up to 20/50 SpeedFusion peers respectively.

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

9 With purchase of optional SpeedFusion License (MAX-HD-020-SPF/SFN-LC-50) can connect to up to 20/50 SpeedFusion peers respectively.

9 Maximum theoretical data rates.

1 For the best performance and reliability, all 4 RF connectors must be connected to the same type and performance antennas.

2 X 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 (CAT-12)

Product Code Regions **LTE 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,

3G Bands

B1, B2, B4, B5, B6, B8, B9, B19

MAX-HD4-MBX-LTEA-D-T

Embedded Modem(s): 4x LTE-A Pro (CAT-12) Primary: 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

Ordering Information (CAT-20)

Product Code

MAX-HD4-MBX-GI TF-S-T Embedded Modem(s): 4x LTE-A Pro (CAT-20)

Regions

Primary: Global

US Carrier Certifications: FirstNet, AT&T, T-Mobile, Verizon **LTE Bands**

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,

3G Bands

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)

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