

# MBX 5G



## 5G Quad Cellular Mobile Powerhouse



### Best of Both Worlds

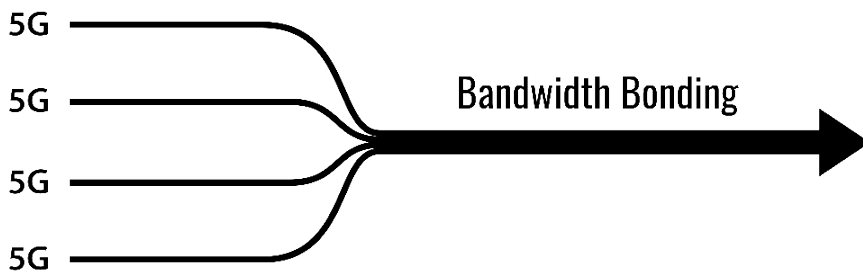
MBX 5G is a quad cellular mobile powerhouse with redundant SIM slots and multi-radio capabilities providing speed, reliability, and coverage by combining the best of 5G and LTE.

### 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

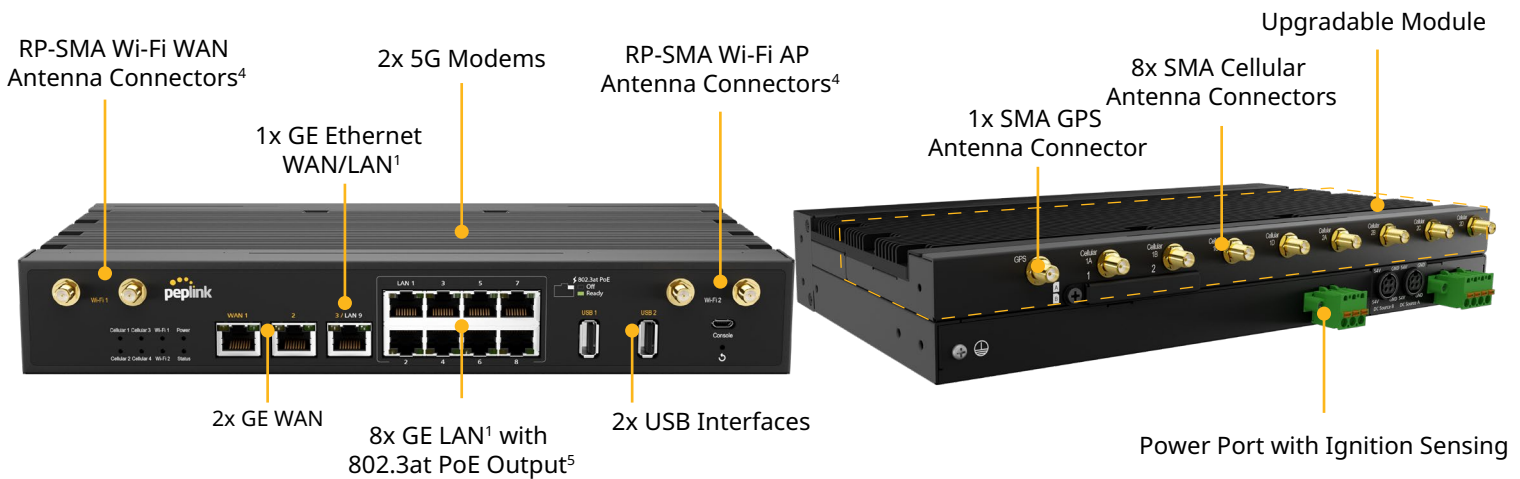
Its compatibility allows for upgradable modules for further customization to suit any deployment needs.



### Optimize Your Traffic

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





## Specifications

<b>WAN Interface</b>	3x 10/100/1000M Ethernet <sup>1</sup> 2x Embedded Cellular Modems with Redundant SIM Slots 2x USB Interface	<b>Antenna Connectors</b>	8x SMA Cellular Antenna Connectors 4x RP-SMA Wi-Fi Antenna Connectors <sup>4</sup> 1x SMA GPS Antenna Connector
<b>LAN Interface</b>	9x 10/100/1000M Ethernet <sup>1</sup>	<b>Power Input</b>	Power Port: 12V – 56V DC Terminal Block: 12V – 56V DC
<b>Wi-Fi Interface</b>	Simultaneous Dual-Band (2.4GHz / 5GHz) Wi-Fi 5 2x2 MIMO Wi-Fi WAN and/or AP	<b>Power Output</b>	Up to Eight 802.3at PoE Outputs <sup>5</sup>
<b>SpeedFusion Features</b>	Hot Failover, Smoothing, Bandwidth Bonding	<b>Power Consumption</b>	55W (max.)
<b>Number of SpeedFusion VPN Peers</b>	3 / 20 <sup>2</sup>	<b>Dimensions</b>	1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm
<b>Features</b>	Ignition Sensing	<b>Weight</b>	7.28 pounds / 3.3 kg
<b>Router Throughput</b>	2.5Gbps	<b>Operating Temperature</b>	-40° – 149°F / -40° – 65°C
<b>SpeedFusion Throughput (No Encryption)</b>	600 Mbps	<b>Humidity</b>	15% – 95% (non-condensing)
<b>SpeedFusion Throughput (256-bit AES)</b>	500 Mbps	<b>Certifications</b>	FCC, CE, RoHS E-Mark EN61373 Shock and Vibration Resistance EN50155 Railway Applications - Electronic Equipment used on Rolling Stock EN61000 Electromagnetic Compatibility
<b>Recommended Users</b>	50-500	<b>Package Content</b>	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 AC/DC power supply, 180W (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)
<b>Cellular Data Rate <sup>3</sup> (Downlink / Uplink)</b>	5G: 3.4 Gbps / 900 Mbps CAT-20: 1.6 Gbps / 200 Mbps	<b>SIM Options</b>	Mini-SIM (2FF) Peplink eSIM BYO eSIM (2 profiles) <sup>6</sup> Remote SIM from SIM Injector FusionSIM
		<b>Warranty</b>	1-Year Limited Warranty

<sup>1</sup> WAN 3 is configured as a LAN port by default, configuration is changeable on the Web Admin.

<sup>2</sup> 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)

<sup>3</sup> Maximum theoretical data rates.

<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> Available with Firmware 8.4.0 or above.

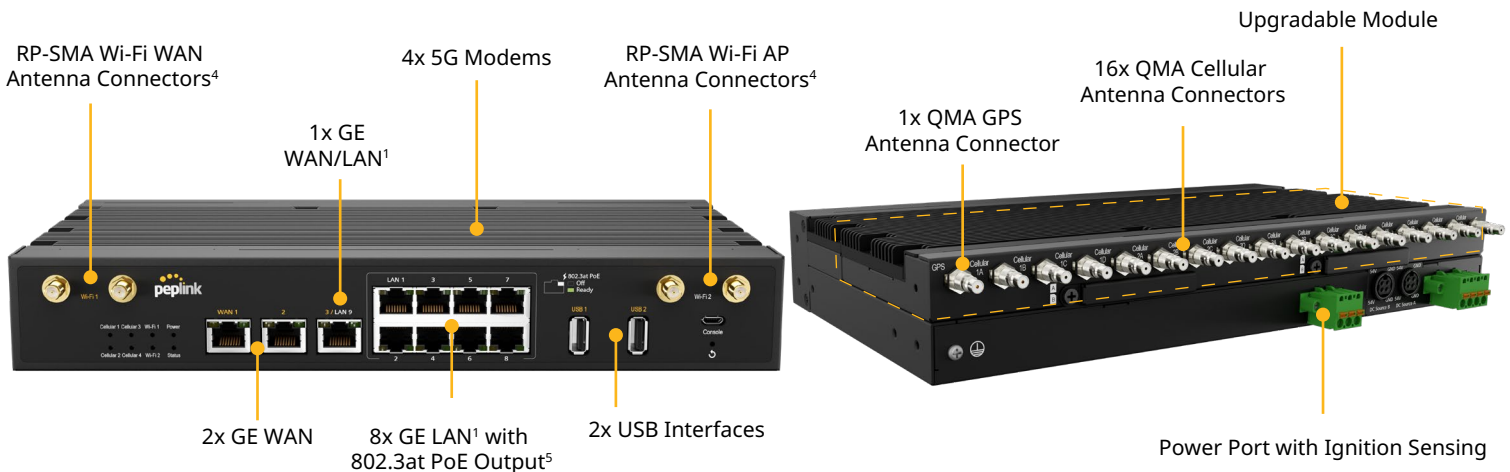
## Ordering Information

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)	<b>5G (NSA) Sub 6Ghz:</b> 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	<b>5G (NSA &amp; SA) Sub 6Ghz:</b> 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	<b>5G (NSA &amp; SA) Sub 6Ghz:</b> 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)
ACW-674	1x 54V/5.56A 300W Power Supply Unit
ACW-675	1x 54V/7.41A 400W Power Supply Unit
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)

# HD4 MBX 5G



## Specifications

<b>WAN Interface</b>	3x 10/100/1000M Ethernet <sup>1</sup> 4x Embedded Cellular Modems with Redundant SIM Slots 2x USB Interface	<b>Antenna Connectors</b>	16x QMA Cellular Antenna Connectors 4x RP-SMA Wi-Fi Antenna Connectors <sup>4</sup> 1x QMA GPS Antenna Connector
<b>LAN Interface</b>	9x 10/100/1000M Ethernet <sup>1</sup>	<b>Power Input</b>	Power Port: 12V – 56V DC Terminal Block: 12V – 56V DC
<b>Wi-Fi Interface</b>	Simultaneous Dual-Band (2.4GHz / 5GHz) Wi-Fi 5 2x2 MIMO Wi-Fi WAN and/or AP	<b>Power Output</b>	Up to Eight 802.3at PoE Outputs <sup>5</sup>
<b>SpeedFusion Features</b>	Hot Failover, Smoothing, Bandwidth Bonding	<b>Power Consumption</b>	55W (max.)
<b>Number of SpeedFusion VPN Peers</b>	3 / 20 <sup>2</sup>	<b>Dimensions</b>	1.7 x 11.5 x 7.0 inches / 43 x 292 x 177 mm
<b>Features</b>	Ignition Sensing	<b>Weight</b>	7.28 pounds / 3.3 kg
<b>Router Throughput</b>	2.5Gbps	<b>Operating Temperature</b>	-40° – 149°F / -40° – 65°C
<b>SpeedFusion Throughput (No Encryption)</b>	600 Mbps	<b>Humidity</b>	15% – 95% (non-condensing)
<b>SpeedFusion Throughput (256-bit AES)</b>	500 Mbps	<b>Certifications</b>	FCC, CE, RoHS E-Mark EN61373 Shock and Vibration Resistance EN50155 Railway Applications - Electronic Equipment used on Rolling Stock EN61000 Electromagnetic Compatibility
<b>Recommended Users</b>	50-500	<b>Package Content</b> <sup>6</sup>	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 AC/DC power supply, 180W (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)
<b>Cellular Data Rate</b> <sup>3</sup> (Downlink / Uplink)	5G: 4.1 Gbps / 900 Mbps CAT-20: 2 Gbps / 211 Mbps	<b>SIM Options</b>	Mini-SIM (2FF) Peplink eSIM BYO eSIM (2 profiles) Remote SIM from SIM Injector FusionSIM
		<b>Warranty</b>	1-Year Limited Warranty

<sup>1</sup> WAN 3 is configured as a LAN port by default, configuration is changeable on the Web Admin.

<sup>2</sup> 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)

<sup>3</sup> Maximum theoretical data rates.

<sup>4</sup> For the best performance and reliability, all 4 RF connectors must be connected to the same type and performance antennas.

<sup>5</sup> 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.

<sup>6</sup> 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	<b>5G (NSA &amp; SA) Sub 6Ghz:</b> 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	<b>5G (NSA &amp; SA) Sub 6Ghz:</b> 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)
ACW-674	1x 54V/5.56A 300W Power Supply Unit
ACW-675	1x 54V/7.41A 400W Power Supply Unit
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-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



## Specifications

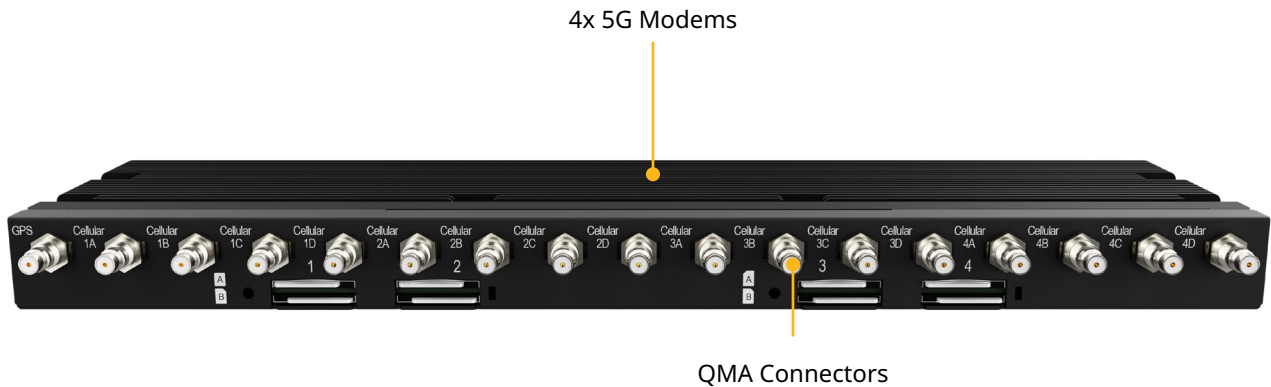
<b>Interface</b>	2x Embedded Cellular Modems with Redundant SIM Slots	<b>Dimensions</b>	0.9 x 11.5 x 3.5 inches / 22 x 292 x 88 mm
<b>Antenna Connectors</b>	8x SMA Antenna Connectors 1x SMA GPS Antenna Connectors	<b>Weight</b>	2.2 pounds / 1 kg
<b>Cellular Data Rate <sup>1</sup> (Downlink / Uplink)</b>	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	<b>5G (NSA) Sub 6Ghz:</b> 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	<b>5G (NSA) Sub 6Ghz:</b> 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	<b>5G (NSA &amp; SA) Sub 6Ghz:</b> 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

<sup>1</sup> Maximum theoretical data rates.

# Expansion Module for HD4 MBX



## Specifications

<b>Interface</b>	4x Embedded Cellular Modems with Redundant SIM Slots	<b>Dimensions</b>	0.9 x 11.5 x 3.5 inches / 22 x 292 x 88 mm
<b>Antenna Connectors</b>	16x QMA Antenna Connectors 1x QMA GPS Antenna Connectors	<b>Weight</b>	2.2 pounds / 1 kg
<b>Cellular Data Rate <sup>1</sup> (Downlink / Uplink)</b>	5G: 4.1 Gbps / 900 Mbps CAT-20: 2 Gbps / 211 Mbps		

## Ordering Information

Product Code	Regions	5G Bands	LTE Bands
EXM-MBX-T4-5GD Embedded Modem(s): 4x 5G	Global	<b>5G (NSA) Sub 6Ghz:</b> 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	<b>5G (NSA) Sub 6Ghz:</b> 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	<b>5G (NSA &amp; SA) Sub 6Ghz:</b> 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	<b>5G (NSA &amp; SA) Sub 6Ghz:</b> 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