

# ESN Series

ESN Certified Routers for Emergency Services

## Approved for UK Public Safety

Peplink has three routers certified for use in UK's Emergency Services Network (ESN): the HD2 MBX, the HD4 MBX and the BR1 ESN. These routers have been approved for use in the country's fleet of first responder and emergency service vehicles.



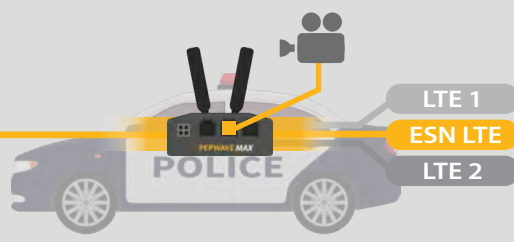
## Achieve Unbreakable Connectivity

Use our patented SpeedFusion technology to combine ESN and commercial links into an unbreakable VPN connection that stays up even if a link goes down. As traffic goes from one WAN to the next, your session will continue streaming without any interruption. SpeedFusion also has greater coverage and bandwidth than that of a single cellular link.

## Videos/DVRs



Datacenter FusionHub

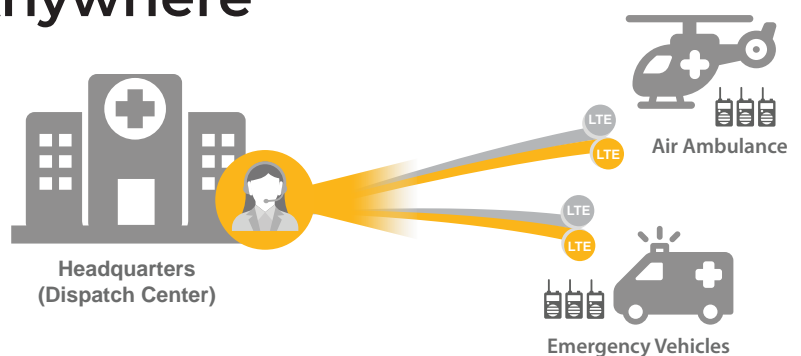


Police Car / ESN Devices

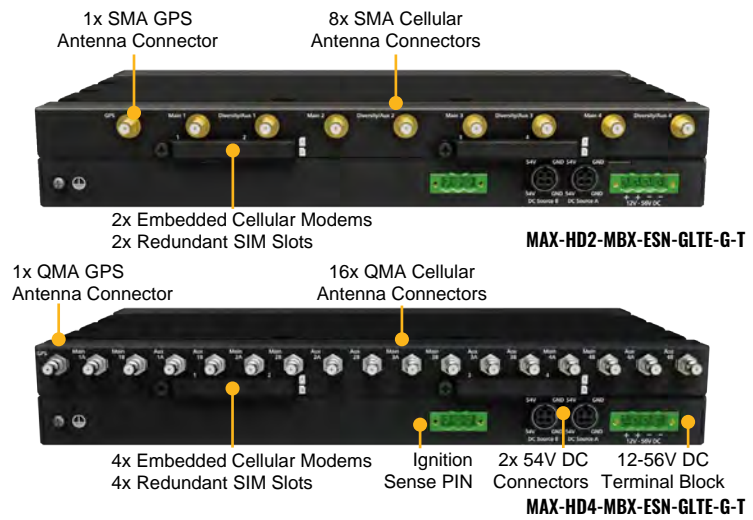
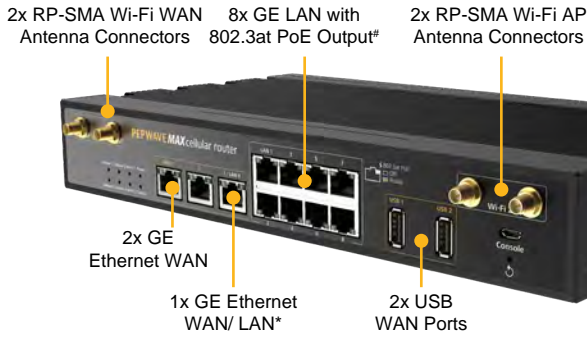
Currently, first responders can only record video on site; live streaming remains a challenge. Use SpeedFusion to bond multiple cellular links into a powerful VPN connection that can stream HD video back to headquarters. WAN Smoothing technology ensures that your video stream remains consistent and uninterrupted even as traffic moves between different WAN links.

## Extend 2-Way Radios Anywhere

Previously, 2-way radios such as LMR, P.25, TETRA, NXDN, and DMR only worked with other radios connected to the same repeater. With SpeedFusion, they become a single unbreakable network. This extends the reach of existing 2-way radio networks to anywhere an LTE or other IP network is available.



# HD2/HD4 MBX



## Specifications

<b>WAN Interface</b>	2x USB Interface 3x GE* HD2 MBX: 2x Embedded LTE-A Pro Modems with Redundant SIM Slots HD4 MBX: 4x Embedded LTE-A Pro Modems with Redundant SIM Slots	<b>Dimensions</b>	2.0 x 11.5 x 7.0 inches / 50 x 292 x 177 mm
<b>LAN Interface</b>	9x GE*	<b>Weight</b>	3.3 kg / 7.28 pounds
<b>Wi-Fi Interface</b>	802.11ac/a/b/g/n, 1166 Mbps 2x2 MIMO Wi-Fi WAN and/or AP Simultaneous Dual-Band	<b>Operating Temperature</b>	-40°– 149 °F / -40°– 65°C
<b>Router Throughput</b>	2.5 Gbps	<b>Humidity</b>	15%–95% (non-condensing)
<b>PepVPN Throughput (No Encryption)</b>	600 Mbps	<b>Certifications</b>	FCC, CE, RoHS, E-Mark, PTCRB, Shock and Vibration Resistance: EN 61373:1999 IEC 61373:1999 Railway Applications: EN 50155 Electromagnetic Compatibility: EN 61000 ESN (Emergency Services Network)
<b>PepVPN Throughput (256-bit AES)</b>	500 Mbps	<b>Warranty</b>	1-Year Limited Warranty
<b>LTE Cellular Data Rate (Downlink / Uplink)</b>	1.2 Gbps / 150 Mbps	<b>Package Content MAX HD2 MBX (CAT-18)</b>	MAX HD2 MBX 1x PSU 180W (ACW-630) 4x Wi-Fi Dual Band Antenna (ACW-341) 1x GPS Antenna (ACW-232) 8x LTE/5G Antennas (ACW-234) 1 Pair of Mounting Brackets (ACW-513) 3pin Terminal Block Connector (Ignition sense) 4pin Terminal Block Connector (Power supply) Grounding cable Rubber Foot Pad set
<b>Recommended Users</b>	50-500	<b>Package Content MAX HD4 MBX (CAT-18)</b>	MAX HD4 MBX 1x PSU 180W (ACW-630) 1x QMA to SMA Adaptor (for GPS) 1x GPS Antenna (ACW-232) 1 Pair of Mounting Brackets (ACW-513) 4x Wi-Fi Dual Band Antenna (ACW-341) 3pin Terminal Block Connector (Ignition sense) 4pin Terminal Block Connector (Power supply) Grounding cable Rubber Foot Pad set
<b>Antenna Connectors</b>	HD2 MBX: 8x SMA Antenna Connectors + 1x SMA GPS Antenna Connector HD4 MBX: 16x QMA Antenna Connectors + 1x QMA GPS Antenna Connector 4x RP-SMA Wi-Fi Antenna Connectors		
<b>Power Input</b>	DC Jack / Terminal Block: 12-56 V#		
<b>Power Output</b>	Up to Eight 802.3at PoE Outputs#		
<b>Power Consumption</b>	HD2 MBX: Max.: 45W(w/o PoE), Nominal: 17W HD4 MBX: Max.: 55W(w/o PoE), Nominal: 19W		

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

# 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

Product Code	Carrier/ Categories	Embedded Modems	LTE Bands	3G Bands
MAX-HD2-MBX-ESN-GLTE-G-T	Global / ESN / CAT-18	2	B1, B3, B25(B2), B66(B4), B26(B5/B18/B19), B7, B8, B12(17), B13, B14, B20, B28, B29, B30, B32, B71, B38, B39, B40, B41, B42, B43, B46, B48	B1, B2, B4, B5(B19), B8
MAX-HD4-MBX-ESN-GLTE-G-T	Global / ESN / CAT-18	4	B1, B3, B25(B2), B66(B4), B26(B5/B18/B19), B7, B8, B12(17), B13, B14, B20, B28, B29, B30, B32, B71, B38, B39, B40, B41, B42, B43, B46, B48	B1, B2, B4, B5(B19), B8

## Accessories / Feature Add-on

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
SIM-BK8-4E-56V	SIM Injector, 8x SIM cards capacity, 4x 10/100/1000 LAN ports, 56V DC

# MAX BR1 ESN



## Specifications

<b>Cellular WAN Interfaces</b>	Single LTE Modem	<b>Power Input</b>	Passive PoE Input (WAN Port, 12V – 28V DC) / Power + GPIO
<b>Redundant SIM Slot</b>	Yes	<b>Power Consumption</b>	12W (max.)
<b>SpeedFusion Hot Failover</b>	Yes ^	<b>Dimensions</b>	4.1 x 4.3 x 1.2 inches / 105 x 110 x 30 mm
<b>WAN Interface</b>	1x 10/100M Ethernet Port #	<b>Weight</b>	0.54 pound / 244 grams
<b>LAN Interface</b>	3x 10/100M Ethernet Port # (1x WAN Port shared with LAN Interface) (1x Serial Port shared with LAN Interface)	<b>Operating Temperature</b>	-40° – 149°F / -40° – 65°C
<b>Load Balancing/Failover</b>	Yes	<b>Humidity</b>	15% – 95% (non-condensing)
<b>Stateful Firewall Throughput</b>	100 Mbps	<b>Warranty</b>	1-Year Limited Warranty
<b>Wi-Fi Interface</b>	802.11b/g/n Wi-Fi WAN or AP Simultaneous Dual-Band	<b>Certifications</b>	CE, ROHS, ESN
<b>LTE Cellular Data Rate (Downlink / Uplink)</b>	600 Mbps / 150 Mbps	<b>Package Content</b>	MAX BR1 ESN 12V2A Power Supply (ACW-632) 1x Wi-Fi 2.4G Antenna (ACW-304) 1x GPS Antenna (ACW-232) 2x LTE/5G Antennas (ACW-234)
<b>Recommended Users</b>	60		
<b>Antenna Connectors</b>	2x SMA Antenna Connectors 1x SMA GPS Antenna Connector 1x RP-SMA Wi-Fi Antenna Connector		

^ Failover software license is required to activate SpeedFusion Failover feature and enable Ethernet and Wi-Fi WAN.  
# 2 PepVPN Peers are enabled by default. Can be increased to 5 Peers using license PVN-LC-05.

## Ordering information

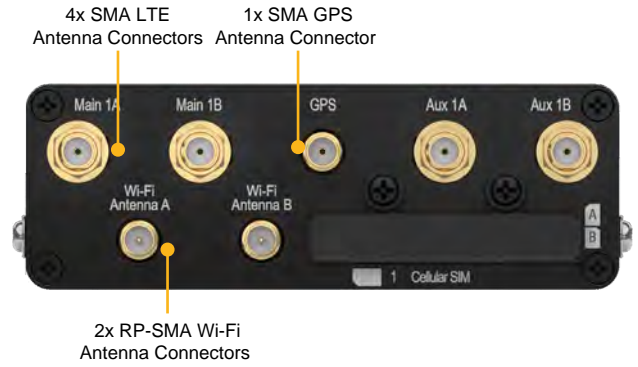
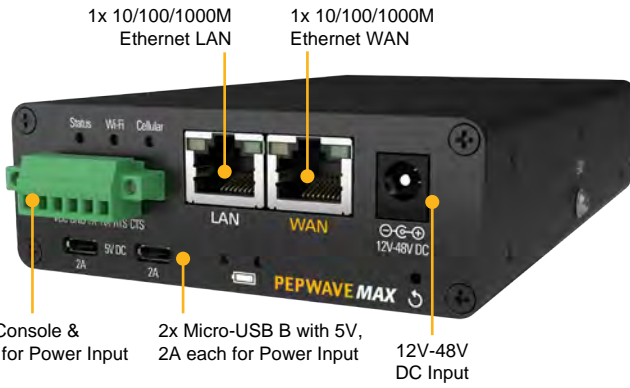
Product Code	Carrier/ Categories	Embedded Modems	LTE Bands	3G Bands
MAX-BR1-ESN-LTEA-K-T	Global* / ESN / CAT-12	1	B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B18, B19, B20, B26, B28, B29, B30, B32, B41, B42, B43, B46, B48, B66	HSPA+: B1, B2, B4, B5, B6, B8, B9, B19

\* China & HK TD LTE are excluded.

## Accessories / Feature Add-on

Product Code	Description
MAX-BR1-ADV	Advanced Feature Package includes a software license key for X.509 Certificate Support (SpeedFusion and IPsec)
PVN-LC-05	PepVPN License Key, enables up to 5 PepVPN peers
MAX-LC-DIM	Activate the Drop-in Mode for the MAX BR1 Series
MAX-BR1-MINI-LC-FS	Failover software license and related feature set for BR1MINI and BR1 ESN, enables Ethernet and Wi-Fi WAN

# Transit



## Specifications

<b>Cellular WAN Interface</b>	Single LTE-A Pro Modem	<b>Transmit Power (2.4GHz / 5GHz)</b>	19 dBm / 21 dBm
<b>SpeedFusion Hot Failover</b>	Yes ^	<b>Antenna Connectors</b>	4x SMA Cellular Connectors 1x SMA GPS Antenna Connector 2x RP-SMA Wi-Fi Antenna Connectors
<b>SpeedFusion WAN Smoothing</b>	Yes ^	<b>Power Input</b>	Device: 12V – 48V DC AC Adapter: AC Input 100V–240V / DC Output 12V Terminal Block: 12V – 48V DC
<b>SpeedFusion Bandwidth Bonding</b>	Yes ^	<b>Power Output</b>	Power over Ethernet 802.3at
<b>Number of PepVPN SpeedFusion Peers</b>	2 / 5 #	<b>Power Consumption</b>	Max.: 18W, Nominal: 6.5W
<b>WAN Interface</b>	1x 10/100/1000M Ethernet +	<b>Dimensions</b>	6.3 x 3.8 x 1.3 inches / 160 x 97 x 33.5 mm
<b>LAN Interface</b>	1x 10/100/1000M Ethernet	<b>Weight</b>	1.3 pounds / 590 grams
<b>USB LAN Port</b>	Micro-USB B	<b>Operating Temperature</b>	-40° – 149°F / -40° – 65°C
<b>Load Balancing/Failover</b>	Yes	<b>Humidity</b>	15% – 95% (non-condensing)
<b>Router Throughput</b>	400 Mbps	<b>Warranty</b>	1-Year Limited Warranty
<b>SpeedFusion Throughput (No Encryption)</b>	100 Mbps	<b>Package Content</b>	MAX Transit 12V2A Power Supply (ACW-601) 2x Dual Band Wi-Fi Antennas (ACW-341) 1x GPS Active Antenna (ACW-232) 4x LTE Antennas (ACW-813 or ACW-234) 1 Pair of Mounting Brackets (ACW-724) 6pin Terminal Block Connector
<b>SpeedFusion Throughput (256-bit AES)</b>	60 Mbps		
<b>Recommended Users</b>	150		
<b>LTE Cellular Data Rate (Downlink / Uplink)</b>	1.2 Gbps / 150 Mbps		
<b>Wi-Fi Interface</b>	AP Simultaneous Dual-Band (2.4GHz / 5GHz) Wi-Fi 5, 2X2 MIMO		

^ Requires PrimeCare Subscription, complementary for the first year.

# 2 PepVPN Peers are enabled by default. 5 PepVPN Peers are enabled for PrimeCare models which requires PrimeCare Subscription, complementary for the first year.

+ The WAN port can act as a LAN port if needed.

## Ordering information

Product Code	Embedded Modems	Carrier/ Categories	LTE Bands	3G Bands
MAX-TST-ESN-GLTE-G-T-PRM	1	Global / ESN / CAT-18	B1, B3, B25(B2), B66(B4), B26(B5/B18/B19), B7, B8, B12(17), B13, B14, B20, B28, B29, B30, B32, B71, B38, B39, B40, B41, B42, B43, B46, B48	B1, B2, B4, B5(B19), B8

## Accessories / Feature Add-on

Product Code	Description
ACW-DIN-TST	DIN Rail Mount