MAX BR1 Mini M2M

Reliability in a small package





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Is the MAX BR1 Mini M2M suitable for me?



What is the MAX BR1 Mini M2M?

The MAX BR1 Mini M2M features an RS-232/RS-485 serial port. With its small form factor, it is optimally suited for bringing connectivity to M2M/IoT devices such as quality sensors, smart meters, POS machines, surveillance cameras, and robotics.



How fast is this device?

The MAX BR1 Mini M2M has a rated throughput of 300Mbps.

The LTE (CAT-4) Modem of the MAX BR1 Mini M2M has a 150Mb/sec downlink data rate and a 50Mb/sec uplink data rate.

The complete datasheet can be found <u>here</u>.



Is it suitable for mobile use?

Certainly! Its rugged metal enclosure makes it suitable for mobile use. It can function in ambient temperatures ranging from -40 oF to +149 oF. There is an industrial Micro-Fit power connector for secure power installation in vehicles and extreme locations.



What certifications does the MAX BR1 Mini have?

The MAX BR1 Mini M2M has the following certifications

- FCC, IC
- C1D2
- PTCRB
- UL+CUL (60950-1 / 62368-1)





What is SpeedFusion Connect?

SpeedFusion Connect is an all-in-one solution offering access to not only SpeedFusion Cloud but also LTE data. With Speedfusion Connect, you can access on-demand data plans and only pay for what you need. Click here-to-learn-more.



What is the best use case for the MAX BR1 Mini M2M?

The answer isn't set in stone. From M2M/IoT to mobile applications, the MAX BR1 Mini M2M has got you covered. Click <u>here</u> and we can work out a cost-effective solution with the best overall performance together.

What is included with the MAX BR1 Mini M2M?



What's in the box?

Along with the router, there is a 12V2A power supply, 2x LTE antennas, 2x dual-band Wi-Fi antennas, and 1x GPS active antenna.



Is a warranty included with this product?

All products come with a one-year warranty which is extendable on a year-by-year basis.

Care plans can be purchased from our Certified Partners or directly from the Peplink eStore at the time of the sale or thereafter.

PrimeCare Model (SKU no. ending with -PRM)	PrimeCare		
MAX BR1 Mini M2M (CAT-4) - North America			
MAX-BR1-MINI-M2M-LTE-US-T-PRM			
MAX BR1 Mini M2M (CAT-4) - APAC/EMEA			
MAX-BR1-MINI-M2M-LTE-E-T-PRM	1-Year 2-Year 4-Year		
MAX BR1 Mini M2M (CAT-4) - APAC, Latin America, Malaysia, Indonesia			
MAX-BR1-MINI-M2M-LTE-MX-T-PRM			





What is PrimeCare?

PrimeCare makes SpeedFusion networks easier to build. It's a subscription that bundles InControl, a warranty, SpeedFusion license upgrades, and FusionHub licenses with standard RMA.



How do I know whether my router is a PrimeCare device?

If you look at the silver label underneath your device, the SKU of your product will have a -PRM suffix.



What is SpeedFusion Connect Protect?

SpeedFusion Connect Protect is Peplink's global network of SpeedFusion endpoints. With an active CarePlan or SpeedFusion Connect Protect data plan, you can utilize SpeedFusion wherever you are, eliminating the need for any additional hardware. Unsure of what you need? Check out this useful <u>post</u>.



Does the MAX BR1 Mini M2M employ Peplink's SpeedFusion technology or PepVPN?

PepVPN is included in all products. For the MAX BR1 Mini M2M, you can utilize the SpeedFusion technology, including Hot Failover, WAN Smoothing, and Bandwidth Bonding, with a feature pack add-on license or a valid CarePlan.



What is SpeedFusion technology?

Peplink's patented SpeedFusion technology is a powerful VPN tunnel equipped with a variety of technologies such as Hot Failover, WAN Smoothing, Bandwidth Bonding, and much more. This empowers users with the flexibility and tools required to achieve unbreakable connectivity in any vertical or scenario that they might find themselves in. Click here to learn more about SpeedFusion.





How can I purchase a license for SpeedFusion Connect Protect with higher traffic speed and additional usage?

Easy. Look here!

Using the MAX BR1 Mini M2M



What size should the SIMs be?

The MAX BR1 Mini M2M uses Nano-SIMs (4FF).



I see the unit has 2 SIM slots. Can they be used simultaneously?

The MAX BR1 Mini M2M is a single modem device with 2 SIM slots. You can load 2 SIMs and switch between them, but only 1 can be used at a time.



What voltage is required?

The router is furnished with a 12V2A 4-pin power supply. However, you can supply the router with 10-30V via a 4-pin Micro-Fit connector or 802.3at Power over Ethernet on LAN 1. You can use the 2 power inputs simultaneously for redundancy.



What is the typical power consumption and the maximum power consumption?

The typical power consumption is 13W and the maximum power consumption is 18W.



Is there a way to protect vehicle batteries from drainage by the MAX BR1 Mini M2M?

Yes. The MAX BR1 Mini M2M is equipped with a power port with ignition sensing. Ignition sensing is an electronic device's ability to be connected to a vehicle's ignition for sensing when it is turned on or off. This can be used to synchronize and automate the process of turning on electronic devices in vehicles such as dash-cams and radios.





How can I set up GPIO?

You can learn more about the GPIO setup from our <u>Ignition Sensing guide</u>.



Does it support Band 71?

As Band 71 is provided by American internet service provider T-Mobile, only the MAX BR1 Mini M2M version for the America Region (MAX-BR1-MINI-M2M-LTE-US-T-PRM) is able to use Band 71.



What is the DB9 pinout configuration for BR1 Mini M2M?

- RS232 Single: This mode utilizes standard RS232 communication with a single channel, allowing only one device to communicate with another.
- RS232 Dual: This dual-channel mode allows the connector to manage two separate RS232 communication channels simultaneously.
- RS485 Full Duplex Single: A single communication channel capable of sending and receiving data simultaneously using four wires.
- RS485 Full Duplex Dual: Dual communication channels, each capable of sending and receiving data simultaneously, doubling connectivity.
- RS485 Half Duplex Single: A single communication channel where the device can either send or receive data at a time.
- RS485 Half Duplex Dual: Similar to the single mode, but with two separate channels capable of half-duplex transmission.

The pinout diagram in the following indicates the exact pin assignments for each of these configurations, ensuring proper setup and functionality.

DB9 female Pin	RS232 single	RS232 Dual	RS485 Full Duplex single	RS485 Full Duplex Dual	RS485 Half Duplex single	RS485 Half Duplex Dual
1	-	No.2 CTS	-	No.2 Rx-	-	-
2	No.1 TXD	No.1 TXD	No.1 TX-	No.1 TX-	No.1 Data-	No.1 Data-
3	No.1 RXD	No.1 RXD	No.1 RX+	No.1 RX+	-	-
4	-	No.2 RXD	1	No.2 RX+	-	-
5	GND	GND	GND	GND	-	-
6	-	No.2 TXD	1	No.2 TX-	-	No.2 Data-
7	No.1 RTS	No.1 RTS	No.1 TX+	No.1 TX+	No.1 Data+	No.1 Data+
8	No.1 CTS	No.1 CTS	No.1 Rx-	No.1 Rx-	-	-
9	-	No.2 RTS	-	No.2 TX+	-	No.2 Data+

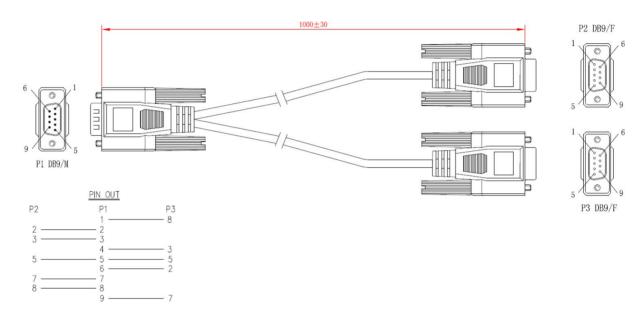


Licenses and Accessories



What is the Dual Serial Y-Cable (ACW-790) pinout configuration?

The pin-out diagram for the dual serial Y-Cable is as follows:





What is a feature pack?

A feature pack offers you the experience of an array of advanced features for a fraction of the cost. There are a total of 6 technologies that will give you a professional-grade user experience:

- Wi-Fi WAN Picks up on a known Wi-Fi and uses it as the WAN source
- WAN Activation Enables the WAN interface on LAN 3
- Hot Failover Protects your connections with seamless failover
- WAN Smoothing Minimizes latency and reduces the impact of packet loss
- Bandwidth Bonding Aggregates bandwidth of multiple links to enhance internet speed
- Ignition Sensing Allows the router to start-up or shut down as the engine of the vehicle is turned on or off
- GPIO Handles both incoming and outgoing digital signals

We intend to allow you to acquire the router at a very reasonable cost and add only these options found to be necessary to meet your requirements. For more details, click here.





Where can I get the InControl 2 license?

Every MAX BR1 Mini M2M comes with a year's subscription to InControl 2 (IC2) with a valid CarePlan warranty, so additional purchase is not required.

PrimeCare devices (SKU no. ending with -PRM) will need to be under an active PrimeCare subscription in order to use InControl 2.

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MAX BR1 Mini M2M (CAT-4) - North America	
MAX-BR1-MINI-M2M-LTE-US-T-PRM	
MAX BR1 Mini M2M (CAT-4) - APAC/EMEA	
MAX-BR1-MINI-M2M-LTE-E-T-PRM	<u>1-Year</u> <u>2-Year</u> <u>4-Year</u>
MAX BR1 Mini M2M (CAT-4) - APAC, Latin America, Malaysia, Indonesia	
MAX-BR1-MINI-M2M-LTE-MX-T-PRM	



Can it connect to an OpenVPN server from a commercial VPN provider (ExpressVPN, ProtonVPN, etc)?

Yes. An optional license (<u>LIC-OPN-WAN</u>) will enable the OpenVPN WAN functionality.



What if I need more than 2 PepVPNs/SpeedFusion Peers?

The MAX BR1 Mini M2M has the capability for 2 PepVPNs/SpeedFusion Peers "built-in." 5 PepVPN/SpeedFusion Peers are enabled with a PrimeCare subscription.





Can I connect PrimeCare devices to my existing FusionHubs?

Yes, you can. PrimeCare devices will not count towards the peer limit of any FusionHub that it is connected to. For example, a FusionHub 20 normally supports up to 20 peers. This is particularly useful for connecting numerous sites that require little bandwidth such as POS Terminals.

What can I do if I need support?



Does Peplink offer support for this product? What if I have difficulties setting it up?

First, Peplink Partners provide support to the users of the products they have sold, so always reach out to the place of purchase first.

For those who prefer self-service, Peplink has a very active <u>forum</u>. Among the regular forum users are Peplink Partners, Peplink employees and many very knowledgeable users. Generally, folks with questions get answers rather quickly. In the unlikely event of a suspected hardware or firmware issue, you can enter a <u>support ticket</u> with Peplink directly. In the latter case, you will receive attention from some of the best engineers! Peplink supports its users like no other.



I can't access the Internet via the MAX BR1 Mini M2M. What can I do?

Visit this link (troubleshooting section) for a basic software walkthrough and troubleshooting guide. If that doesn't work, reach out on our forum and the team will get you online.