BR1 Mini 5G

Affordable 5G for Mass IoT





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Is the BR1 Mini 5G suitable for me?



What is the BR1 Mini 5G?

The BR1 Mini 5G is a small form-factor, affordable, and long-lasting 5G device, ideally suited for mass deployments such as M2M, IoT, or mobile applications. It can also serve as a convenient, full-featured router for higher-bandwidth applications. Some customers even use it in their homes. If you already have an existing network, you can add the BR1 Mini 5G as a 5G adapter. It can function as a gateway or router for multiple WANs.

The BR1 Mini 5G is designed with strict security compliance in mind. We have specifically tailored the device to exclude Wi-Fi and GPS functionality, making it an excellent choice for networks that require a highly secure connection. For scenarios that require wireless connectivity, the BR1 Mini 5G (HW2) variant includes integrated Wi-Fi capability for connecting wireless devices.



How fast is this device?

The BR1 Mini 5G has a rated throughput of 300 Mbps.

The 5G modem of the BR1 Mini 5G has a 3.4 Gbps downlink data rate and a 900 Mbps uplink data rate.

If 5G service is not available in the region, the BR1 Mini 5G also supports LTE (CAT-20), with a cellular data rate of 1.6 Gbps for downlink and 200 Mbps for uplink.

The complete datasheet can be found here.



Is it suitable for mobile use?

Certainly! The BR1 Mini 5G's rugged metal enclosure makes it suitable for mobile use. It can operate in ambient temperatures ranging from -40 oF to +149 oF. It is also equipped with an industrial-grade Micro-Fit power connector for secure power installation in vehicles and extreme locations. The BR1 Mini 5G (HW2) includes Wi-Fi functionality, which is handy for connecting wireless devices.



What certifications does the BR1 Mini 5G have?

The BR1 Mini 5G holds FCC, CE, and RoHS certifications. It is also certified for Electromagnetic Compatibility (EN 61000) and Fire Protection in Railway Applications (EN 45545-2).

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Does the BR1 Mini 5G support Wi-Fi?

The BR1 Mini 5G (HW1) does not support Wi-Fi. However, the HW2 version supports Wi-Fi AP and if subscribing to PrimeCare, Wi-Fi WAN is also activated.



What are the differences between the MAX Adapter and the BR1 Mini 5G?

Here is a general comparison between the MAX Adapter and the BR1 Mini 5G.

MAX Adapter	BR1 Mini 5G
CAT-4: 150 Mbps/50 Mbps	5G: 3.4Gbps / 900Mbps CAT-20: 1.6Gbps / 200 Mbps
2x 1000M Ethernet LAN Port	Up to 1x 1000M Ethernet WAN port Up to 3x 1000M Ethernet LAN Port
No	Wi-Fi 5 (HW2+)
Yes	Yes
802.3at PoE	802.3at PoE
Yes	Yes
No	Yes
No	Yes (HW2+) [#]
No	Yes [#]
No	Yes [#]
No	Yes [#]
Yes (1 profile)	Yes (2 profiles)
	CAT-4: 150 Mbps/50 Mbps

Requires a PrimeCare Subscription or a Feature Pack add-on-license (MAX-BR1-MINI-LC-FS)





What is the Peplink eSIM Data Plan?

With Peplink eSIM Data Plan, you can access on-demand data plans and only pay for what you need. The Peplink eSIM Data Plan is an all-in-one solution, offering access not only to SpeedFusion Connect but also to cellular data. Click <u>here</u> to learn more.



What is the best use case for the BR1 Mini 5G?

The answer isn't set in stone. From M2M/IoT to mobile applications, the BR1 Mini 5G has 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 BR1 Mini 5G?



What's in the package?

Along with the router, the package includes a 12V2A 4-pin power supply (ACW-632) and 4x LTE/5G Antennas (ACW-235).

For the BR1 Mini 5G (HW2) that comes with Wi-Fi function, 2x Dual Band Wi-Fi Antennas (ACW-342) are also included.



Is a warranty included with this product?

All products come with a one-year PrimeCare plan, which provides warranty services. The CarePlan can be extended on a year-by-year basis.

CarePlan offerings 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+	PrimeCare
BR1 Mini 5G <i>MAX-BR1-MINI-5GN-T-M-PRM</i>	<u>1-Year 2-Year 4-Year</u>	<u>1-Year 2-Year 4-Year</u>
BR1 Mini 5G MAX-BR1-MINI-5GN-T-PRM	<u>1-Year 2-Year 4-Year</u>	<u>1-Year 2-Year 4-Year</u>

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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.



What is PrimeCare+?

PrimeCare+ is an upgrade to PrimeCare. It includes everything offered in PrimeCare and adds advanced hardware replacement RMA and 24x7 ticket support.



Which PrimeCare Plan should I buy for the BR1 Mini 5G?

PrimeCare Plan A is suitable for the BR1 Mini 5G.



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 should have a -PRM suffix.



What is SpeedFusion Connect?

SpeedFusion Connect is Peplink's global network of SpeedFusion endpoints. With an active CarePlan or SpeedFusion Connect Usage 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 BR1 Mini 5G employ Peplink's SpeedFusion technology or SpeedFusion VPN?

SpeedFusion VPN is included in all products. For the BR1 Mini 5G, SpeedFusion technology—including Hot Failover, WAN Smoothing, and Bandwidth Bonding—can be utilized with a feature pack add-on license or a PrimeCare or PrimeCare+ subscription.





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 <u>here</u> to learn more about SpeedFusion.



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

Easy. Look here!

Using the BR1 Mini 5G



What size should the SIMs be?

The BR1 Mini 5G uses Nano-SIMs (4FF).



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

The BR1 Mini 5G is a single-modem device with 2 SIM slots. You can load 2 SIMs and switch between them, but only one can be used at a time.



What SIM options are available?

The BR1 Mini 5G supports physical SIM, Peplink eSIM, and BYO eSIM (2 profiles).

For the BR1 Mini 5G (HW2), it also supports FusionSIM and RemoteSIM from the SIM Injector in addition to the above options.



How do I activate BYO eSIM?

You can activate BYO eSIM on InControl. You can find more details here.



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What voltage is required?

The router comes with a 12V2A 4-pin power supply. However, it can also be powered using 10-30V via a 4-pin Micro-Fit connector or 802.3at Power over Ethernet on LAN 1. Both power inputs can be used simultaneously for redundancy.



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

For the BR1 Mini 5G HW1 (non Wi-Fi version), the typical power consumption is 11W and the maximum power consumption is 13W.

For the BR1 Mini 5G HW2 (Wi-Fi version), the typical power consumption is 13W and the maximum power consumption is 18W.



Is there a way to protect vehicle batteries from drainage caused by the BR1 Mini 5G?

Yes. The BR1 Mini 5G is equipped with a power port featuring ignition sensing capabilities. This allows the device to connect to a vehicle's ignition system, detecting when the vehicle is turned on or off. This feature can synchronize and automate the activation of electronic devices in vehicles, such as dash cams and radios.



How can I set up GPIO?

You can learn more about GPIO setup from our Ignition Sensing Guide.



Does the BR1 Mini 5G support Band 71?

Yes, it supports Band 71, which is provided by the American internet service provider T-Mobile.



Licenses and Accessories



What is the BR1 Mini Feature Pack?

SKU: MAX-BR1-MINI-LC-FP

The feature pack provides access to a range of advanced features at a fraction of the cost. It includes 5 technologies designed to deliver a professional-grade user experience:

- Ethernet WAN activation Enables the WAN interface on LAN 3
- Hot Failover Protects your connections with seamless failover
- Smoothing Minimizes latency and reduces the impact of packet loss
- Bandwidth Bonding Aggregates multiple WANs to enhance bandwidth
- Wi-Fi WAN Enables Wi-Fi as one of the WAN sources
- SpeedFusion VPN Peer Increases the number of peers from 2 to 5
- SpeedFusion VPN Throughput (256-bit AES encryption): Increases throughput from 20 Mbps to 60 Mbps

We intend to allow you to acquire the router at a very reasonable cost and add only the necessary options that meet your specific requirements. For more details, click <u>here</u>.



Where can I get the InControl license?

Every BR1 Mini 5G router comes with a year's subscription to InControl (IC2) with a valid PrimeCare, so additional purchase is not required.



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 VPN Peers?

The BR1 Mini 5G supports 2 PepVPN/SpeedFusion VPN Peers by default. With a PrimeCare subscription or the BR1 Mini Feature Pack, this can be increased to 5 peers.





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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 only 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 such cases, you will receive attention from some of our best engineers! Peplink supports its users like no other.



I can't access the Internet via the BR1 Mini 5G. What can I do?

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