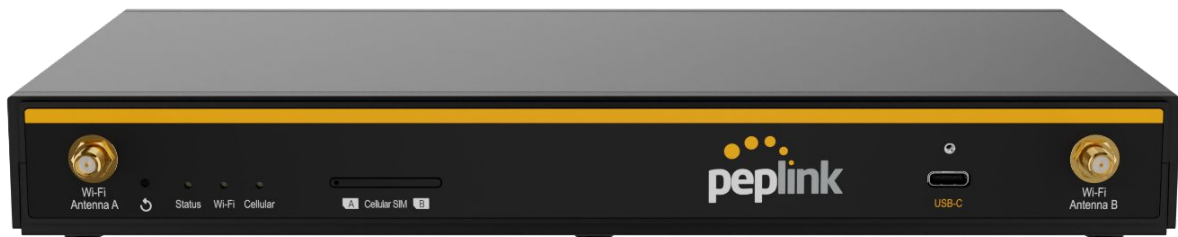


# B One 5G

5G Connectivity. Instant Reliability.



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## Is the B One 5G suitable for me?



### What is the B One 5G?

The B One 5G is a router designed to be used in branch offices, retail locations, small businesses, or homes. The device features a 5G cellular modem, 2 Ethernet WAN ports, 4 Ethernet LAN ports, and Wi-Fi WAN capabilities to increase its flexibility. It can also easily integrate with Starlink or Fixed Wireless Access technology such as the CPE modem from your internet service provider, USB dongle, or even your phone Wi-Fi hotspot by tethering. You can load balance between multiple WAN sources by leveraging Peplink's SpeedFusion technology to enhance network performance and reliability.



### How fast is the B One 5G?

The B One 5G has a rated throughput of 1Gbps. Its SpeedFusion VPN throughput with encryption and without encryption are 400Mbps and 200Mbps respectively.

For more information, the complete datasheet can be found [here](#).



### How many different ways can the B One 5G connect to the Internet?

The B One 5G has a built-in cellular modem with dual SIM slots. It can connect to the internet with a physical SIM or BYO eSIM provided by the mobile carrier. It can also utilize Ethernet, Wi-Fi WAN, and USB-WAN inputs. The USB port located on the front of the router can be used as a connection point for a USB cellular modem or a Peplink MAX Adapter. Additionally, the USB port can be used in conjunction with a USB-Ethernet adapter to establish a connection with an Ethernet cable. You can find a list of tested compatible modems [here](#), and Ethernet adapters that have been tested are discussed [here](#).



### Can I use Starlink with the B One 5G?

Absolutely. A Starlink antenna can be connected to the Ethernet WAN port with the use of a Starlink Ethernet adapter. If you have 2 Starlink antennas connected to the B One 5G, you can utilize SpeedFusion Bonding technology to enhance internet performance.



## How many concurrent connections to the Internet can the router make?

The B One 5G can use 2 Ethernet connections concurrently. Multiple WAN connections enable SpeedFusion, which is included in PrimeCare. When 2 WANs are active, users can leverage Peplink’s innovative SpeedFusion technologies such as Bandwidth Bonding to cater to bandwidth-intensive applications, or Forward Error Correction and Smoothing for minimal latency and unbreakable connectivity. To learn more about SpeedFusion and its amazing technology, click [here](#).



## What are the differences between the B One 5G and the Balance 20X?

	Balance 20X	B One 5G
<b>Quick Look</b>		
Router Throughput	1000Mbps	1Gbps
SpeedFusion VPN Throughput (No Encryption)	100Mbps	400Mbps
SpeedFusion VPN Throughput (256-bit AES)	60Mbps	200Mbps
Power Consumption	28W (max.)	19W (max.)
Cellular Modem Rate (Downlink/Uplink)	CAT-7: 300 Mbps / 150 Mbps CAT-6: 300 Mbps / 50 Mbps CAT-4: 150 Mbps / 50 Mbps	5G: 3.4 Gbps / 900 Mbps CAT-20: 1.6 Gbps/ 200 Mbps
<b>Interface</b>		
Ethernet LAN Port	4x 1000M Ethernet Port	4x 1000M Ethernet Port
Ethernet WAN Port	1x 1000M Ethernet Port	4x 1000M Ethernet Port
FlexModule	Yes	No
USB WAN	Yes	Yes (USB-C)
Power Input	DC Jack	4 Pin Molex Micro-Fit Connector
Wi-Fi	Wi-Fi 5	Wi-Fi 6
<b>Features</b>		
GPIO	No	Yes
Ignition Sensing	No	No
Wi-Fi WAN	Yes	Yes
Hot Failover	Yes #	Yes #
Smoothing	Yes #	Yes #
Bandwidth Bonding	Yes #	Yes #

# Requires a PrimeCare Subscription



## What is the best use case for the B One 5G?

The answer isn't set in stone. From Small Home to Branch Office applications, the B One 5G has got you covered. Click [here](#) and we can work out a cost-effective solution with the best overall performance together.

## What is included with the B One 5G?



### What's in the package?

Along with the router, there is a 12V3A 4-pin power supply, 4x LTE/5G antennas (ACW-235), and 2x dual-band Wi-Fi antennas.



### 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
B One 5G <i>B-ONE-5GN-T-PRM</i>	<a href="#">1-Year</a>   <a href="#">2-Year</a>   <a href="#">4-Year</a>	<a href="#">1-Year</a>   <a href="#">2-Year</a>   <a href="#">4-Year</a>



### What is PrimeCare?

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



## What is PrimeCare+?

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



## Which PrimeCare Plan should I buy for the B One 5G?

PrimeCare Plan B is suitable for the B One 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 [post](#).



## Does the B One 5G employ Peplink's SpeedFusion technology or SpeedFusionVPN?

SpeedFusionVPN is included in all products. For the B One 5G, you can utilize the SpeedFusion technology, including Hot Failover, WAN Smoothing, and Bandwidth Bonding, with 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, 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 with higher traffic speed and additional usage?**

Easy. Look [here](#)!

## Using the B One 5G



**What size should the SIMs be?**

The B One 5G uses Nano-SIMs (4FF).



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

The B One 5G is a single 5G modem device with 2 SIM slots. You can load 2 SIMs and switch between them, but you can only use 1 SIM at a time. Peplink has other products which have 2 or more active modems.



**Can the B One 5G use Band 71?**

Yes. The B One 5G can use Band 71. Band 71 is a band frequency provided by T-Mobile, it operates at a 600MHz frequency that travels twice as far, and it works 4 times better in buildings than conventional LTE bands. You can insert your T-Mobile SIM into any B One 5G cellular slot in order to use Band 71.



**What is FirstNet Ready? Does the B One 5G support FirstNet?**

FirstNet is the only network where Public Safety can take advantage of the highest power class signaling available across the United States with FirstNet MegaRange, the High Power User Equipment solution exclusively available on Band 14.

The B One 5G is FirstNet Ready, providing additional coverage as the situation demands.

Click [here](#) to learn more about how Peplink technology works with FirstNet.



## Can the B One 5G isolate IoT devices from computers used for work?

Yes. This feature is incredibly useful, especially as remote work becomes increasingly common. The router allows you to establish multiple VLANs, giving the administrator control over the flow of traffic between them. Additionally, this can be achieved on a "port basis," providing further flexibility. With this capability, you can effectively create partitions between different types of devices and users, ensuring a secure and organized network environment.



## Why would I use SpeedFusion VPN?

SpeedFusion VPN is a built-in capability of the B One 5G, enabling users to create a VPN tunnel between Peplink devices. This tunnel can be configured as either unencrypted or encrypted with AES-256 encryption. For example, if you have a B One 5G at home and a Peplink router at your workplace or another location, you can establish a connection between these locations, facilitating the transfer of resources from one place to another. It is possible to construct either a Layer 2 or Layer 3 tunnel for this purpose.



## Is there a means to provide remote access?

Certainly, you have the option of using either L2TP or OpenVPN.



## How do I set up Wi-Fi mesh?

Here's a [detailed video](#) explaining how to do so.



## What voltage is required?

The router is furnished with a 12V3A 4-pin power supply. However, you can supply the router with 10-30V via a 4-pin Micro-Fit connector.



## What is the power consumption of the B One 5G?

The maximum power consumption is 19W.



## How can I set up GPIO?

You can learn more about the GPIO setup from our [Ignition Sensing Guide](#).



## What is a Captive Portal?

Captive Portal is a configuration under InControl. With captive portals, you can easily offer internet to your guests while controlling connection time and speed as well as data usage limits. By doing so, you can set up a social Wi-Fi hotspot to collect users' demographic data.

## Licenses and Accessories



## Can I manage the B One 5G remotely?

Yes, you can manage the B One 5G remotely with InControl. The B One 5G comes with a 1-year subscription to PrimeCare, which includes InControl functionality. You can extend PrimeCare beyond the first year for a nominal cost.



## Where can I get the InControl license?

Every B One 5G router comes with a year's subscription to InControl (IC2) with a PrimeCare subscription, 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 ([LIC-OPN-WAN](#)) will enable the OpenVPN WAN functionality.



## Can I use cellular WAN for the B One 5G?

Certainly. B One 5G comes with a built-in 5G cellular modem.



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

The B One 5G has the capability for 2 PepVPNs/SpeedFusion Peers “built-in”. 5 PepVPN/SpeedFusion Peers are enabled with a PrimeCare subscription. 10 and 20 SpeedFusion VPN can be enabled with software licence (PVN-LC-10 and PVN-LC-20).



## 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.



## Does the B One 5G support Docker?

With the LIC-DOC license and Firmware 8.5.2 or above, the B One 5G can run Docker containers using external storage.



## 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 [forum](#). 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 [support ticket](#) with Peplink directly. In such cases, 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 B One 5G. 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.