Balance 310 5G

Fixed and Advanced Wireless Broadband SD-WAN Router





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Is the Balance 310 5G right for me?



What is the Balance 310 5G?

The Balance 310 5G is a 5G-Hybrid enterprise branch router. With both 4G and 5G cellular radios and an Ethernet WAN port, it ensures connectivity whether you use 5G as the primary connection or as a high-quality failover.



How fast is this device?

The Balance 310 5G has a rated throughput of 1Gb/sec.

The Balance 310 5G's modem has a 4Gb/sec downlink data rate and a 700Mb/sec uplink data rate. You'll be able to receive LTE CAT-20 network with a 2Gb/sec downlink data rate and 150Mb/sec uplink data rate when a 5G network is not available.

The LTE CAT-12 modem has a 600Mb/sec downlink data rate and a 150Mb/sec uplink data rate.

You can view the complete spec sheet <u>here</u>.



What certifications does the Balance 310 5G have?

The Balance 310 5G has FCC, CE, and RoHS certifications.



How do I choose between the Balance 310 5G, Balance 310X 5G, and Balance 310 Fiber 5G?

	Balance 310 5G	Balance 310X 5G	Balance 310 Fiber 5G
Cellular Standard	5G/LTE CAT-12	5G	5G
Downlink Data Rate	4Gbps/600Mbps	4Gbps	4Gbps
Uplink Data Rate	700Mbps/150Mbps	700Mbps	700Mbps
SIM Slots	4	2	2
Wi-Fi Interface	N/A	N/A	Wi-Fi 5 AP 2x2 MIMO Simultaneous Dual-band
Router Throughput	1Gbps	2.5Gbps	1Gbps
WAN Interface	1 x Ethernet	2 x Ethernet	1 x Ethernet 1 x SFP
LAN Interface	5 x Ethernet 2 x SFP	9 x Ethernet	5 x Ethernet 1 x SFP
Suitable for	5G network that requires 4G LTE for backup	Requires 2 Ethernet WANs from different ISP	SFP WAN for accessing gigabit fiber optic internet



Choose the **Balance 310 5G** if your setup is using or planning to use a 5G network that requires 4G LTE for backup.

Choose the **Balance 310X 5G** if your setup requires 2 Ethernet cables from different internet service providers and 5G as a failover.

Choose the **Balance 310 Fiber 5G** if your setup uses or plans to use SFP WAN for accessing gigabit fiber optic internet and requires dual-band Wi-Fi to provide a wireless local area network.



How many ways can it connect to the internet?

It can connect via Ethernet WAN, 5G cellular, and an LTE CAT-12 cellular. The USB port on the front of the router can be used as a connection point for a USB cellular modem or a USB-Ethernet adapter (<u>show tested Compatible MODEMS</u>). The Ethernet adapters we have tested are discussed <u>here</u>.



What is the best use case for the Balance 310 5G?

The answer isn't set in stone. From broadcasting to building a high-performance and agile branch network, the Balance 310 5G has got you covered. Click here, and together we'll work out a cost-effective solution with the best overall performance. We'll always make it work.



What are the 2 SFP LAN ports used for?

In the enterprise or campus network, the distance between each building and department is often longer than 100m. Using fiber can give you a longer transmission distance from point to point, which is something copper cable cannot handle. Additionally, its properties make it a more reliable and safer connection.

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FAQ - Balance 310 5G

What is included with the Balance 310 5G?



What's in the box?

Along with the router, you'll find 1 x 12V5A power supply, 1 x power cord, 6 x LTE/5G antennas, and 1 x set of rubber foot pads.



Is a warranty included with this product?

All products come with a 1-year warranty which is extendable on a year-by-year basis.

You can purchase care plans from our Certified Partners or directly from the Peplink eStore at the time of the sale or at any time thereafter.

PrimeCare Model (SKU no. ending with -PRM)	PrimeCare
Balance 310 5G (Global) Balance 310 5G (America) Balance 310 5G (Australia)	<u>1-Year</u> <u>2-Year</u> <u>4-Year</u>



What is PrimeCare?

PrimeCare is a subscription that bundles InControl, Warranty, SpeedFusion license upgrades, and FusionHub Licenses with standard RMA, making SpeedFusion networks easier to build.





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

If you look at the silver label underneath your device, your product's SKU 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 Balance 310 5G employ Peplink's SpeedFusion technology or SpeedFusion VPN?

SpeedFusion VPN is included in all products.

For the Balance 310 5G, you can fully utilize the SpeedFusion technology—including Hot Failover, WAN Smoothing, and Bandwidth Bonding—without purchasing additional licenses.

As long as the device remains in PrimeCare, SpeedFusion functionality will remain.



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 technology empowers users with the flexibility and tools required to achieve unbreakable connectivity in any vertical or scenario in which they might find themselves. Click here to learn more about SpeedFusion.





Why would I need SpeedFusion if the Balance 310 5G can utilize this super-fast 5G?

Click <u>here</u> to check out how we maximize the potential of your **5G** connectivity with our integrated SpeedFusion Technology.



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

It's easy. Look here!

Using the Balance 310 5G?



What size should the SIMs be?

The Balance 310 5G uses Nano-SIMs (4FF).



I see the unit has 4 SIM slots. Can they be used simultaneously?

With 2 cellular modems, you can load 4 SIMs and switch between them, but only 2 can be used at a time.

As different carriers will have slightly different coverage maps, you can use up to 4 different cellular providers for better network coverage and stability. You can also benefit from bandwidth bonding, data overage protection, or eliminating blind spots with the 4 available SIMs.



What voltage is required?

You can power it with a 12V DC Connector.





What is its typical power consumption and maximum power consumption?

The typical power consumption is 17W and the maximum power consumption is 40W.



Can the Balance 310 5G be remotely managed?

The Balance 310 5G comes with a 1-year PrimeCare subscription, which includes InControl 2.

InControl 2 has helped thousands of people save configuration time, minimize truck rolls, stay on top of the network status, and proactively resolve any emerging problems with speed and precision.



The Balance 310 5G has 2 active modems, can we bond 5G and LTE WANs together?

The SpeedFusion VPN bonding isn't a simple 1+1=2 equation.

While we can configure the VPN to use LTE and 5G together, we don't recommend doing so, due to the differences in latency and bandwidth.

If you choose to do so, you may need to fine-tune the settings to find the best setting for maximizing the VPN throughput.

Again, we strongly recommend using WANs with the same or similar bandwidth/speed for SpeedFusion VPN bonding.





If LTE and 5G are not recommended to bond with each other, why does the B310 5G come with both 5G and LTE modems?

You can make good use of Peplink's SpeedFusion technology— such as Bandwidth Overflow and Traffic Steering—with Peplink's 5G routers, which are equipped with modems that have differences in latency and bandwidth.

Bandwidth Overflow monitors network bandwidth usage and switches to the most suitable connection as bandwidth usage changes, allowing network users to access high bandwidth connections or switch to less-costly connections when bandwidth usage is low.

Traffic Steering gives you granular control of how different kinds of traffic travels within your network. You can give priority to certain kinds of traffic while throttling or even blocking others depending on your deployment.



We have collected some of the most common questions you might ask about 5G.

- Q: What is 5G?
- Q: Do Peplink 5G devices support Sub-6 or mmWave?
- Q: How many Peplink products support 5G technology?
- Q: Why can't I feel the latency difference between 5G and LTE?

Click <u>here</u> to find all the answers to these questions, from basic to advanced.

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FAQ - Balance 310 5G

Licenses and Accessories



Where can I get the InControl2 license?

The Balance 310 5G comes with a year's subscription to InControl 2 (IC2). With a valid warranty, additional purchase is not required.

PrimeCare devices (SKU no. ending with -PRM) will need to be in PrimeCare in order for you to use InControl.

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

Yes. An optional license (LIC-OPN-WAN) will enable OpenVPN WAN functionality.



What if I need more than two SpeedFusion VPN Peers?

The Balance 310 5G has the capability for 2 SpeedFusion VPN Peers built in.

30 SpeedFusion VPN 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 to which it is connected. For example, a FusionHub 20 normally supports up to 20 peers, which is particularly useful for connecting numerous sites that require little bandwidth such as PoS terminals.



Which antenna is right for the Balance 310 5G?

Peplink's <u>loT</u>, <u>Maritime</u>, and <u>Mobility</u> antennas are all 5G ready, and they can be used with any Peplink router, as the antennas are router-independent. Therefore, you can choose the antenna based on your application.

The Balance 310 5G has 4 SMA connectors for the 5G cellular modem and 2 SMA connectors for the LTE CAT-12 modem. Be sure to connect all 6 of them. We do not recommend using splitters, as they will affect the performance.

Click <u>here</u> for a complete antenna and connectors selection guide.



What can I do if I need support?



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

Peplink Partners are always happy to provide support to their product users, so 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, people 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 our best engineers! Peplink supports its users like no one else in the business.



I can't access the Internet via the Balance 310 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.