

Balance 580X

A Proven Solution for Reliable Internet



FAQ

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FAQ - Balance 580X

Is the Balance 580X suitable for me?



What is the Balance 580X?

The Balance 580X is a high-performance, enterprise-grade SD-WAN router designed for reliable internet connectivity in demanding environments. It features multi-gigabit connectivity, including 10G and 2.5G ports, and high-power PoE++ output, making it a proven solution for branch offices or deployments requiring massive bandwidth. This is the evolutionary upgrade to our first Balance 580X model, offering significantly enhanced power and port flexibility.



What are the key features of the Balance 580X?

The Balance 580X offers a robust hardware set:

- **High-Speed Networking:** 1x 10G WAN port and 1x 10G LAN port
- **Flexible Ports:** 4x 2.5G ports that can be configured as WAN or LAN to match your topology
- **Power over Ethernet:** 8x 802.3bt Type 4 PoE++ ports with a massive **720W total budget**
- **Throughput:** 8 Gbps stateful firewall throughput
- **Edge Computing:** Built-in support for Docker with 8GB internal storage
- **Form Factor:** 1U rack-mountable chassis



How fast is the Balance 580X?

The Balance 580X is built for enterprise-scale traffic:

Router Throughput: Up to 8 Gbps

SpeedFusion VPN Throughput: Up to 1 Gbps (both unencrypted and with 256-bit AES encryption)

You can view the complete spec sheet [here](#).

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How many concurrent users can the Balance 580X handle?

The Balance 580X is recommended for **500 to 2000 users**, depending on traffic patterns and application usage.



Does the Balance 580X support edge computing?

Yes. The Balance 580X includes built-in edge computing support, enabling native applications and Docker containers to run directly on the router. This allows for localized processing, automation, and integration with external systems, improving performance and reducing dependency on cloud resources. Additionally, external storage via USB-C is available if you need more space than the internal 8GB.



How many ways can the Balance 580X connect to the Internet?

The Balance 580X supports versatile multi-WAN deployments. Out of the box, it supports one 10G Ethernet WAN port and up to four 2.5G Ethernet WAN ports. It also features two USB-C WAN interfaces for connecting adapters or dongles. Furthermore, you can add a cellular WAN connection via the FlexModule Mini slot. This enables seamless failover and bandwidth bonding across multiple high-speed wired and wireless connections.



Can I use satellite connections like Starlink with the Balance 580X?

Yes. The Balance 580X is an excellent companion for Starlink and other satellite internet services. You can connect Starlink terminals directly to any of the 2.5G or 10G WAN ports via Ethernet. Additionally, the router's SpeedFusion technology (specifically Smoothing and Bandwidth Bonding) is highly effective at stabilizing satellite connections. It can mask connection drops and aggregate bandwidth from multiple Starlink dishes or combine Starlink with Ethernet or 5G/LTE for unbreakable connectivity.

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What is the touch screen display used for?

The touch screen display provides local device monitoring and basic control functions, including:

- Live traffic monitoring (uplink and downlink)
- Display of device IP address
- WAN and LAN connection status
- Device information
- CPU load
- System uptime
- VPN connection status
- Device reboot
- Enabling RA for support



What certifications does the Balance 580X have?

The Balance 580X holds FCC, CE, ICES-003, UK (UKCA) and RoHS certifications.



What is the best use case for the Balance 580X?

The Balance 580X is ideal for:

- **Enterprise Branch Offices:** Locations requiring 10G connectivity and high user capacity
- **Surveillance & Physical Security:** Powering PTZ cameras via PoE++ and processing video data locally via edge computing
- **Complex Wireless Deployments:** Powering Wi-Fi 7 access points directly and managing cellular failover via the FlexModule.
- **Hybrid Networks:** combining Starlink, Fiber, and 5G.

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What are the physical dimensions and weight of the Balance 580X?

The Balance 580X has the following physical characteristics:

- **Dimensions:** 17.3 x 12.2 x 1.73 inches (440 x 310 x 44 mm)
- **Weight:** 9.39 lbs (4.26 kg)
- **Form factor:** 1U rack-mount metal chassis



Can I run custom applications on the Balance B580X?

Yes, thanks to its edge computing capabilities and 8GB of internal flash, you can run custom applications using Docker containers directly on the router. This is useful for running local network monitoring tools, IoT collectors, or custom automation scripts.

What is included with the Balance 580X?



What is included in the package with the Balance 580X?

What is included in the package with the Balance 580X? Along with the Balance 580X router, the package includes:

- 1x Power Cord*
- 4x Rubber Feet
- 1x Ear Rack Mount Kit with screws

* Compatible with the ACW-614 accessories.



Is a warranty included with the Balance 580X?

Yes, the Balance 580X comes with a **1-Year Limited Warranty**. You can extend the warranty by purchasing a **PrimeCare Plan J** or **PrimeCare+ Plan J**, available through Peplink Certified Partners or the Peplink eStore.

Available in 1-year, 2-year, and 4-year plans.

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What is the difference between PrimeCare Plan and PrimeCare+ Plan?

- **PrimeCare Plan:** Includes standard warranty services, firmware upgrades, and access to InControl 2 cloud management.
- **PrimeCare+ Plan:** Offers all the benefits of PrimeCare Plan, plus advanced hardware replacement and priority support.



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](#).



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

Easy. Look [here](#)!



Does the Balance 580X support SpeedFusion technology?

Yes. The Balance 580X supports Peplink's full SpeedFusion feature set, including:

- Hot Failover
- Smoothing
- Bandwidth Bonding



What if I need more SpeedFusion VPN Peers?

By default, the Balance 580X supports **100 SpeedFusion VPN Peers**. This capability can be expanded to **300 or 500 peers** by purchasing optional software licenses (SFN-LC-300 and SFN-LC-500).

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Using the Balance 580X



Can I use the Balance 580X to isolate IoT devices from a work computer?

Yes. The Balance 580X makes it easy to isolate IoT devices, which is especially useful as more people work remotely. You can create multiple VLANs and configure whether traffic is allowed to flow between them. Additionally, you can apply isolation on a per-port basis, enabling you to segment different types of devices and users as needed.



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

The nominal power consumption is 37W, and the maximum power consumption without PoE output is 39W. The total PoE output budget is 720W.



Can the Balance 580X be remotely managed?

Yes, the Balance 580X comes with a complimentary 1-year PrimeCare subscription, which includes InControl 2.

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

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FlexModule Mini



What is the application of the FlexModule Mini slot?

The FlexModule Mini slot is designed to provide future-proof flexibility, enabling you to customize the router with optional expansion modules based on your needs. It enhances the versatility of the Balance 580X by enabling hardware upgrades and additional functionality as requirements evolve.



How many types of the FlexModule Mini do Peplink offer?

You can find more details on the [FlexModule Mini datasheet](#).

Licenses and Accessories



How can I subscribe to InControl 2 services?

The Balance 580X comes with a 1-year subscription to **InControl 2** as part of the warranty package. Extending your **PrimeCare Plan** or upgrading to **PrimeCare+ Plan** will continue your access to InControl 2.



Can I connect the Balance 580X to an OpenVPN server from a commercial VPN provider (ExpressVPN, ProtonVPN, etc)?

Yes. The following optional license enables the OpenVPN WAN functionality.

- LIC-OPN-WAN
- LIC-2OPN-WAN
- LIC-3OPN-WAN
- LIC-4OPN-WAN

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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 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 the latter case, 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 Balance 580X. 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.