Balance and MediaFast

User Manual (Declaration)

Peplink Products:
One / One Core / Two / 20 / 20X / 30 LTE / 30 Pro / 210 / 310 / 310X / 310 5G / 310 Fiber 5G / 305 / 380 / 380X / 580 / 580X / 710 / 1350 / 2500 / 2500 EC/ EPX / SDX / SDX Pro / MediaFast 200 / 500 / 750

Peplink Balance Firmware 8.3.0
September 2023

Table of Contents

Introduction and Scope

Peplink Balance routers provide link aggregation and load balancing across multiple WAN connections. We develop products and technologies that can help you build SD-WAN networks with unbreakable connection resilience, unmatched deployment flexibility, and intuitive ease of use.

Our product and technology focus has always been on WAN virtualization and the intelligent use of multiple WAN links at the same time to increase reliability and bandwidth whilst reducing costs.
We have two key WAN virtualization technologies, Intelligent load balancing for Internet access and SpeedFusion VPN Bonding for secure branch to branch connectivity.

The Peplink MediaFast series are a range of routers capable of content caching.
Designed with education and entertainment in mind, MediaFast downloads and accelerates video, iTunes iOS updates, app downloads, and other content for uninterrupted learning and fun anytime.
The MediaFast can prefetch content during off-peak hours, saving connectivity costs and reducing network burden during busy times.

This manual applies to the following Peplink Balance products:

- Peplink Balance One
- Peplink Balance Two
- Peplink Balance 20
- Peplink Balance 20X
- Peplink Balance 30 LTE/Pro
- Peplink Balance 210
- Peplink Balance 310
- Peplink Balance 310X
- Peplink Balance 310 5G
- Peplink Balance 310 Fiber 5G
- Peplink Balance 380
- Peplink Balance 380X
- Peplink Balance 580
- Peplink Balance 580X
- Peplink Balance 710
- Peplink Balance 1350
- Peplink Balance 2500
- Peplink Balance 2500 EC
- Peplink MediaFast 200/500/750
- Peplink EPX
- Peplink SDX
- Peplink SDX Pro

The manual covers setting up your Peplink Balance or MediaFast and provides a collection of case studies detailing the advanced features of the Peplink Balance.

1 Glossary

The following terms, acronyms, and abbreviations are frequently used in this manual:

Term	Definition
3G	3rd generation standards for wireless communications (e.g., HSDPA)
4G	4th generation standards for wireless communications (e.g., LTE)
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name System
EVDO	Evolution-Data Optimized
FQDN	Fully Qualified Domain Name
HSDPA	High-Speed Downlink Packet Access
HTTP	Hyper-Text Transfer Protocol
ICMP	Internet Control Message Protocol
IP	Internet Protocol
LAN	Local Area Network
MAC Address	Media Access Control Address
MTU	Maximum Transmission Unit
MSS	Maximum Segment Size
NAT	Network Address Translation
PPPoE	Point to Point Protocol over Ethernet
QoS	Quality of Service
SNMP	Simple Network Management Protocol
TCP	Transmission Control Protocol
UDP	User Datagram Protocol
VPN	Virtual Private Network
VRF	Virtual Routing and Forwarding
VRRP	Virtual Router Redundancy Protocol
WAN	Wide Area Network
WINS	Windows Internet Name Service
WLAN	Wireless Local Area Network

210+	Refers to Peplink Balance 210/310/380/580/710/1350/2500/2500 EC
380+	Refers to Peplink Balance 380/580/710/1350/2500/2500 EC

2 Product Comparison Charts

2.1 Balance Routers (for Small Office / Branch)

	20	20X	30 LTE	30 PRO	ONE	TWO	210	310X
Product Code	**BPL-021**	**BPL-021X-LTE**	**BPL-031-LTE**	**BPL-031-LTEA**	**BPL-ONE**	**BPL-TWO**	**BPL-210**	**BPL-310X**
Capacity								
Ethernet WAN Ports	2 (GE) +	1 (GE)	2 (GE)	2 (GE)	2/5 (GE) #	2 (GE)	2 (GE) +	2 (GE)
LAN Ports	4 (GE)	4 (GE)	4 (GE)	4 (GE)	8/5 (GE) #	4 (GE)	7 (GE)	9 (GE)
Simultaneous Dual-Band 802.11ac/a/b/g/n Wi-Fi AP	No	Yes	No	Yes	Yes	No	No	No
Embedded 4G LTE	No	Yes	Yes	Yes	No	No	No	Yes
SIM Card Size	No	Mini-SIM (2FF)	Mini-SIM (2FF)	Mini-SIM (2FF)	No	No	No	Mini-SIM (2FF)
USB WAN Modem Port	1	1	1	1	1	1	1	2
Recommended Users	1-60	1-60	1-60	1-60	1-60	25-150	25-150	50-500
Stateful Firewall Throughput	150Mbps	900Mbps	200Mbps	400Mbps	600Mbps/ 400Mbps #	1Gbps	350Mbps	2.5Gbps

A full product comparison for Balance routers is available at:
http://www.peplink.com/products/balance/model-comparison/

2.2 Balance Routers (for for Enterprise / Headquarters)

	305	310X	380	380X	580	580X	710	1350	2500	2500 EC
Product Code	**BPL-305**	**BPL-310X**	**BPL-380**	**BPL-380X**	**BPL-580**	**BPL-580X**	**BPL-710**	**BPL-135**	**BPL-2500 ***	**BPL-2500-EC**
Capacity										
Ethernet WAN Ports	3 (GE)	2 (GE)	3 (GE)	3 (GE)	5 (GE)	5 (GE)	7 (GE)	13 (GE)	12 (GE)/4 (GE) & 2 (10G SFP+) *	Up to 16 (GE)* Up to 4x 10G SFP+*
LAN Ports	3 (GE)	9 (GE)	3 (GE)	3 (GE)	3 (GE)	3 (GE)	3 (GE)	3 (GE)	8 (GE)/ 2 (10G SFP+) *	Up to 16 (GE)* Up to 4x 10G SFP+*
Simultaneous Dual-Band 802.11ac/a/b/g/n Wi-Fi AP	No	No	No	No	No	No	No	No	No	No
Embedded 4G LTE	No	Yes	No	No	No	No	No	No	No	No
SIM Card Size	No	Yes	No	No	No	No	No	No	No	No
USB WAN Modem Port	1	2	1	1	1	1	1	1	1	1
Recommended Users	50-500	50-500	50-500	50-500	300-1000	300-1000	500-2000	1000-5000	5000-20000+	10000-20000+
Stateful Firewall Throughput	1Gbps	2.5Gbps	1Gbps	3Gbps	1.5Gbps	4Gbps1	2.5Gbps	5Gbps	8Gbps	30Gbps

A full product comparison for Balance routers is available at:
http://www.peplink.com/products/balance/model-comparison/

2.3 MediaFast Routers

	MediaFast 200	MediaFast 500	MediaFast 750
Product Code	MFA-200-W	MFA-500-B	MFA-750-B
WAN Interface	2x GE (Only WAN 1 is activated.)	5x GE	7x GE
Wi-Fi Interface	Simultaneous Dual-Band 802.11a/b/g/n Access Point	-	-
Embedded 3G/4G LTE	-	-	-
USB WAN Modem	1	1	1
LAN Interface	8x GE; 802.3at PoE Output	3x GE	3x GE
Recommended Users	25-150	300-1000	500-2000
Router Throughput	200Mbps	800Mbps	1.5Gbps
Disk Drive	120GB SSD	500GB SSD	1TB SSD
Load Balancing & Failover	Yes	Yes	Yes
PepVPN	Yes	Yes	Yes
SpeedFusion Hot Failover	Optional Feature	Yes	Yes
SpeedFusion WAN Smoothing	Optional Feature	Yes	Yes
SpeedFusion Bandwidth Bonding	Optional Feature	Yes	Yes
Number of PepVPN/SpeedFusion Peers	2	50	300
PepVPN/ SpeedFusion Throughput	50Mbps	200Mbps	400Mbps
Built-in AP Controller	Yes	Yes	Yes
Maximum Number of AP Support	50	100	250
PoE Input	-	-	-
PoE Output	8x 802.3at (optional feature)	-	-
Dimensions	292 x 177 x 44 mm	431 x 305 x 44 mm	426 x 365 x 44 mm
Gross Weight	2.8 kg	6.6 kg	5.5 kgs

A full product comparison for MediaFast routers is available at:
https://www.peplink.com/products/mediafast-specifications/

3 Product Features

Peplink Balance Series products enable all LAN users to share broadband Internet connections and provide advanced features to enhance Internet access. The following is a list of supported features:

3.1 WAN

- Multiple public IP support (DHCP, PPPoE, static IP address)
- Static IP support for PPPoE
- 10/100/1000Mbps Ethernet connection in full/half duplex
- Built-in HSPA and EVDO cellular modems
- USB mobile connection **(only one USB modem can be connected at a time)**
- Drop-in mode on selectable WAN port with MAC address passthrough **n**etwork address translation (NAT) / port address translation (PAT)
- Inbound and outbound NAT mapping
- Multiple static IP addresses per WAN connection
- MAC address clone
- Customizable MTU and MSS values
- WAN connection health check
- Dynamic DNS (supported service providers: changeip.com, dyndns.org, no-ip.org,tzo.com, and DNS-O-Matic)
- Ping, DNS lookup, and HTTP-based health check
- WAN throughput and consistency diagnosis
- WAN to WAN speed test
- USB Ethernet Adapter support

3.2 LAN

- DHCP server on LAN
- Extended DHCP option support
- Static routing rules
- Local DNS proxy server
- 802.1q VLANs
- Port-based VLANs
- Virtual Network Mapping

3.3 VPN

- Secure SpeedFusion™
- SpeedFusion performance analyzer
- X.509 certificate support
- Bandwidth bonding and failover among selected WAN connections
- Ability to route traffic to a remote VPN peer
- Optional pre-shared key setting
- Layer 2 bridging
- Layer 2 Peer Isolation
- SpeedFusion™ throughput, ping, and traceroute tests
- Built-in L2TP / PPTP / OpenVPN VPN server
- Authenticate L2TP / PPTP clients using RADIUS and LDAP servers
- Multi-Site PepVPN Profile
- IPsec VPN for network-to-network connections
- L2TP / PPTP and IPsec passthrough
- Simultaneous L2 & L3 VPN tunnel between the same pair of devices

3.4 Inbound Traffic Management

- TCP/UDP traffic redirection to dedicated LAN server(s)
- Inbound link load balancing by means of DNS

3.5 Outbound Policy

- Link load distribution per TCP/UDP service
- Persistent routing for specified source and/or destination IP addresses per TCP/UDP service
- Prioritize and route traffic to VPN tunnels with Priority and Enforced algorithms
- Time-based scheduling

3.6 AP Controller

- Configure and manage Pepwave AP devices
- Review the status of connected AP

3.7 QoS

- Quality of service for different applications and custom protocols

- User group classification for different service levels
- Bandwidth usage control and monitoring on group- and user-level
- Application prioritization for custom protocols and DSL optimization

3.8 Firewall

- Outbound (LAN to WAN) firewall rules
- Inbound (WAN to LAN) firewall rules per WAN connection
- Intrusion detection and prevention
- Specification of NAT mappings
- Web blocking
- Application blocking
- Time-based scheduling
- Outbound firewall rules can be defined by destination domain name

3.9 Captive Portal

- Social Wi-Fi Hotspot Support
- Splash screen of open networks, login page for secure networks
- Customizable built-in captive portal
- Supports linking to outside page for captive portal

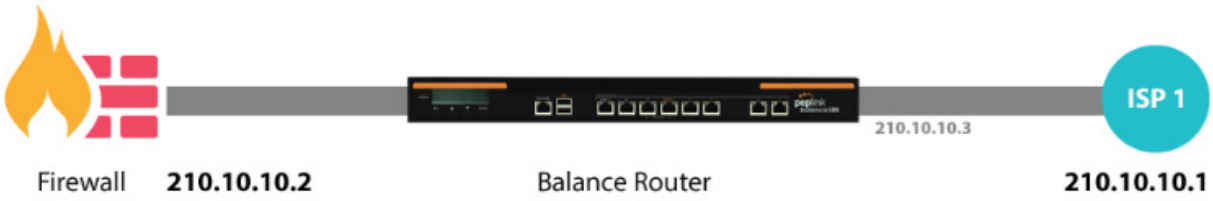
3.10 Other Supported Features

- Easy-to-use web administration interface
- HTTP and HTTPS support for web administration interface
- Configurable web administration port and administrator password
- Read-only user for web admin
- Shared-IP drop-in mode
- Authentication and accounting by RADIUS server for web admin
- Firmware upgrades, configuration backups, ping, and traceroute via web administration interface
- Remote web-based configuration (via WAN and LAN interfaces)
- Remote reporting to Peplink Balance reporting server
- Hardware high availability via VRRP, with automatic configuration synchronization
- Real-time, hourly, daily and monthly bandwidth usage reports and charts
- Hardware backup via LAN bypass
- Built-in WINS server
- Time server synchronization
- SNMP

- Email notification
- Syslog
- SIP passthrough
- PPTP packet passthrough
- Active sessions
- Active client list
- WINS client list
- UPnP / NAT-PMP
- Event log is persistent across reboots
- IPv6 support
- Support for USB tethering on Android phones

4 Advanced Feature Summary

4.1 Drop-in Mode and LAN Bypass: Transparent Deployment

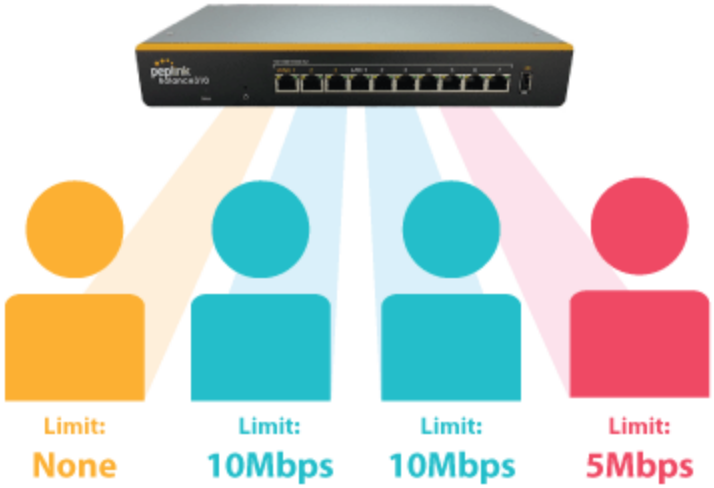


As your organization grows, it may require more bandwidth, but modifying your network can be tedious. In **Drop-in Mode**, you can conveniently install your Peplink router without making any changes to your network. For any reason your Peplink router looses power, the **LAN Bypass** will safely and automatically bypass the Peplink router to resume your original network connection.

4.2 QoS: Clearer VoIP

VoIP and videoconferencing are highly sensitive to latency. With QoS, Peplink routers can detect VoIP traffic and assign it the highest priority, giving you crystal-clear calls.

4.3 Per-User Bandwidth Control



With per-user bandwidth control, you can define bandwidth control policies for up to 3 groups of users to prevent network congestion. Define groups by IP address and subnet, and set bandwidth limits for every user in the group.

4.4 High Availability via VRRP

When your organization has a corporate requirement demanding the highest availability with no single point of failure, you can deploy two Peplink routers in High Availability mode. With High Availability mode, the second device will take over when needed.

4.5 USB Modem and Android Tethering

For increased WAN diversity, plug in a USB LTE modem as backup. Peplink routers are compatible with over 200 modem types. You can also tether to smartphones running Android 4.1.X and above.

By default, the USB port is “USB Modem” mode. If you need to use it to connect to USB Ethernet Adapter, you need to change it to “USB Ethernet” mode,
https://forum.peplink.com/t/can-i-use-ethernet-adapters-on-the-usb-wan/8327

4.6 Built-In Remote User VPN Support

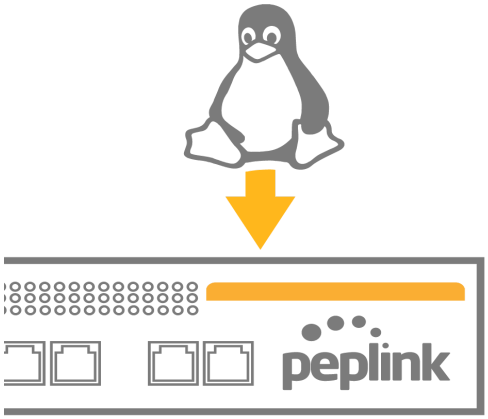
Use OpenVPN or L2TP with IPsec to safely and conveniently connect remote clients to your private network. L2TP with IPsec is supported by most devices, but legacy devices can also connect using PPTP.

Click here for the full instructions on setting up L2TP with IPsec.
Click here for the full instructions on setting up OpenVPN connections

4.7 LACP NIC Bonding

Use 802.3ad to combine multiple LAN connections into a virtual LAN connection. This virtual connection has higher throughput and redundancy in case any single link fails.

4.8 KVM Virtualization



KVM is a virtualisation module that allows administrators using our routers to host a large range of virtual machines. KVM is now supported by some of the MediaFast / ContentHub routers.

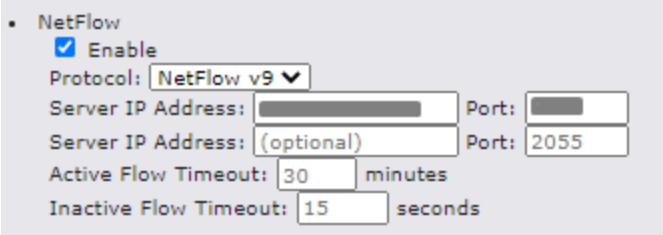
Click here for the full instructions on how to set up KVM
Click here for the full instructions on how to set up KVM with USB Storage

4.9 DPI Engine

The DPI report written in the updated KB article will show further information on InControl2 through breaking down application categories into subcategories.
https://forum.peplink.com/t/ic2-deep-packet-inspection-dpi-reports-and-everything-you-need-to-know-about-it/10151/

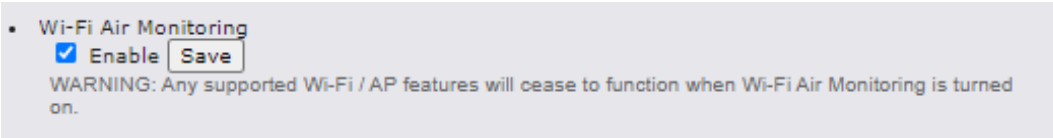
4.10 NetFlow

NetFlow protocol is used to track network traffic. Tracking information from NetFlow can be sent to the NetFlow collector, which analyzes data and generates reports for review.
Note: To enable this feature, go to https://<Device's IP>/cgi-bin/MANGA/support.cgi



4.11 Wi-Fi Air Monitoring

Peplink routers support Wi-Fi “Air Monitoring Mode” which is used to troubleshoot remotely and proactively monitor Wi-Fi and WAN performance. After enabling Wi-Fi Air Monitoring, reports can be viewed under **InControl 2** > **Reports** > **AirProbe Reports**.
Note: To enable this feature, go to https://<Device's IP>/cgi-bin/MANGA/support.cgi



4.12 SP Default Configuration

The SP Default Configuration feature written in the updated KB article allows for the provisioning of custom made settings (a.k.a. InControl2 configuration) via the Ethernet LAN port and is ideal for those wanting to do a bulk deployment of many Peplink devices.
Note: If you would like to use this feature, please contact your purchase point (Eg.VAD).

4.13 Peplink Relay

Cloud Service Providers often restrict access to certain applications. With SFC Relay, you can route traffic before going out to the Internet, allowing access to previously restricted applications experienced with the public SpeedFusion Cloud nodes. Available as an add-on for your home router or as an upgradable license to your Peplink router, SFC Relay is sure to impress you and any peers you give access to.
https://forum.peplink.com/t/configure-speedfusion-cloud-relay-server-and-client/6215ca9b017e48e0f3ff2479/

4.14 DNS over HTTPS (DoH)

DoH provides the benefits of communicating DNS information over a secure HTTPS connection in an encrypted manner. The protocol offers increased privacy and confidentiality by preventing data interception and man-in-the-middle attacks.

4.15 Peplink InTouch

InTouch is Peplink's zero-touch remote network management solution, leveraging InControl 2 and a SpeedFusion Connect (formerly known as SpeedFusion Cloud) data plan. This service extends a network administrator's ability to reach any device UI backed by a Peplink/Pepwave router. To configure InTouch, all you need is a valid InControl 2 subscription, a SpeedFusion Connect data plan, and a Peplink/Pepwave router (which requires the latest 8.2.0 firmware).

To watch a demonstration and read the FAQ, visit
https://www.peplink.com/enterprise-solutions/intouch/

Or learn to configure InTouch at https://youtu.be/zg0iavHGkJw

4.16 Synergy Mode

Synergy mode is a cascade multiple devices and combine the number of WANs to a single device virtually. All the WANs on the Synergized Device will appear as native WAN interfaces at the Synergy Controller and it can be managed like the built-in WAN interfaces.
https://forum.peplink.com/t/synergy-mode-(firmware-8.3.0)/639be7d8af8c71a6f3050323/

4.17 Virtual WAN on VLAN

The Virtual WAN Activation License allows you to create 1 x virtual WAN on a particular VLAN, on either WAN or LAN interface. This means that you can create a virtual WAN on VLAN for a WAN port, or a virtual WAN on VLAN for a LAN port.
https://forum.peplink.com/t/b20x-virtual-wan-activation-license-faq/6204bac7d90b9e6355e96e8d/1

5 Package Contents

The contents of Peplink Balance product packages are as follows:

5.1 Peplink Balance One/Two

- Peplink Balance One/Two
- Power adapter
- Information slip

5.2 Peplink Balance 20/30/30 LTE/30 Pro/50

- Peplink Balance 20/30/30 LTE/30 Pro/50
- Power adapter
- Information slip

5.3 Peplink Balance 20X

- Peplink Balance 20X
- 2x LTE Antenna, 1x GPS Antenna, 2x Wi-Fi Antenna
- Power adapter
- Information slip

5.4 Peplink Balance 210/310

- Peplink Balance 210/310
- Power adapter
- Information slip
- Rackmount kit

5.5 Peplink Balance 310X

- Peplink Balance 310X
- 2x LTE Antenna, 1x GPS Antenna
- Power adapter
- Ear L-Mounts kit
- Power cord

5.6 Peplink Balance 310 5G

- Balance 310 5G
- Power adapter
- Power cord
- 4x Rubber foot
- 6x Cellular Antenna

5.7 Peplink Balance 310 Fiber 5G

- Balance 310 Fiber 5G
- Power adapter
- Power cord
- 4x Rubber foot
- 4x Cellular Antenna
- 4x Wi-Fi Antenna

5.8 Peplink Balance 305/380/580/710/1350/2500/2500 EC

- Peplink Balance 305/380/580/710/1350/2500/ 2500 EC
- Power cord
- Information slip
- Rackmount kit

5.9 Peplink Balance 380X/580X

- Peplink 380X/580X
- Power cord
- 1 Pair of Mounting Brackets

5.10 Peplink MediaFast 200

- Peplink MediaFast 200
- Power adapter
- Information slip

5.11 Peplink MediaFast 500

- Peplink MediaFast 500
- Power cord
- Information slip
- Rackmount kit

5.12 Peplink EPX

- Wireless SD-WAN Powerhouse
- EPX Chassis with OLD
- Optional x LTE-A modules
- Optional x Copper ETH module
- Optional x Fiber ETH module
- Rack mounting kit with brackets and slide

5.13 Peplink SDX

- SDX Base Chassis
- 1U 19″ Rackmount Chassis

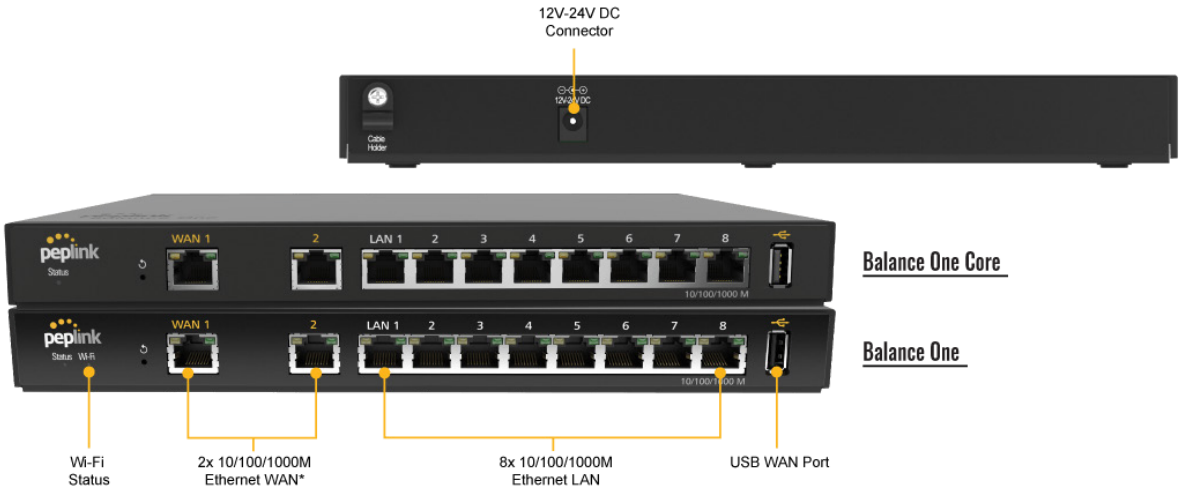
5.14 Peplink SDX Pro

- SDX Pro Base Chassis
- 1U 19″ Rack-mount Chassis
- 1x Rubber Foot Pack
- 2x Power Cords
- 1x L-mount Set

6 Peplink Balance Overview

6.1 Peplink Balance One

6.1.1 Panel Appearance



*If the WAN Activation License (BPL-ONE-LC-5WAN) is activated, router throughput will be changed to 400Mbps, both number of WAN and LAN will become 5.

6.1.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error
	Green – Ready

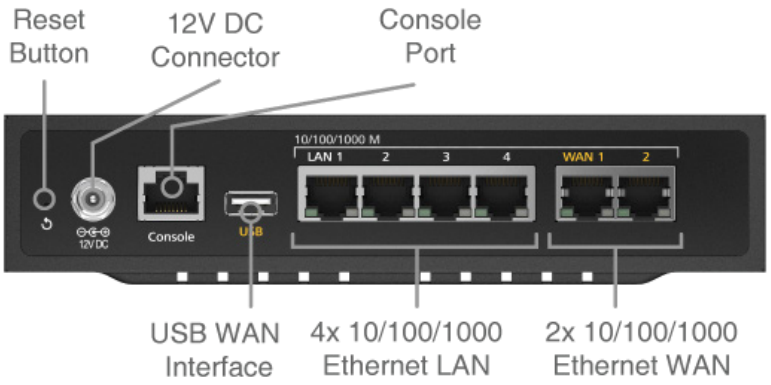
LAN and WAN Ports	
Green LED	ON – 1000 Mbps OFF – 10 / 100 Mbps or port is not connected
Orange LED	Blinking – Data is transferring
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

Wi-Fi Indicators		
Wi-Fi	OFF	Disabled
	Green	Ready

USB Port	
USB Ports	For future functionality

6.2 Peplink Balance Two

6.2.1 Panel Appearance



6.2.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

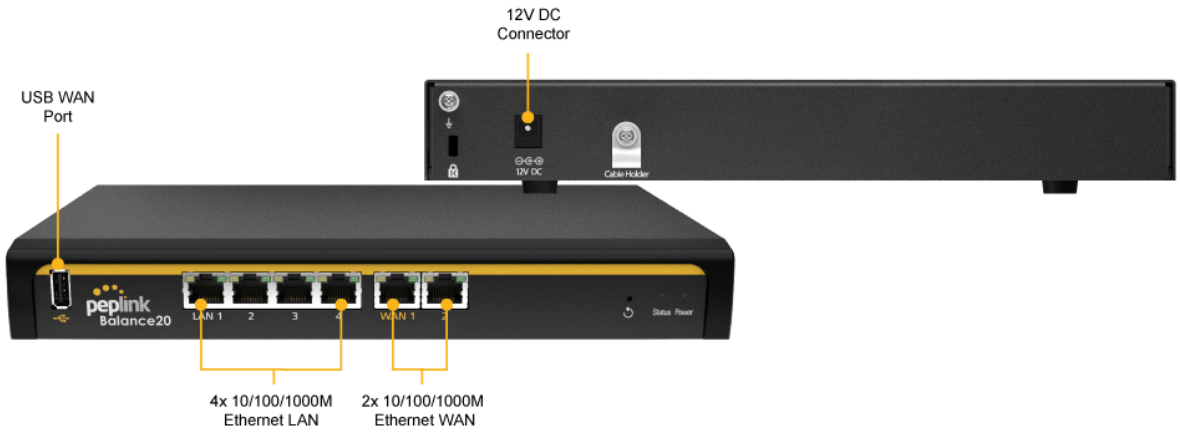
Power and Status Indicators	
Power	OFF – Power off
	Green – Power on
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error
	Green – Ready

LAN and WAN Ports	
Green LED	ON – 1000 Mbps OFF –10 / 100 Mbps or port is not connected
Orange LED	Blinking – Data is transferring
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.3 Peplink Balance 20

6.3.1 Panel Appearance



6.3.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

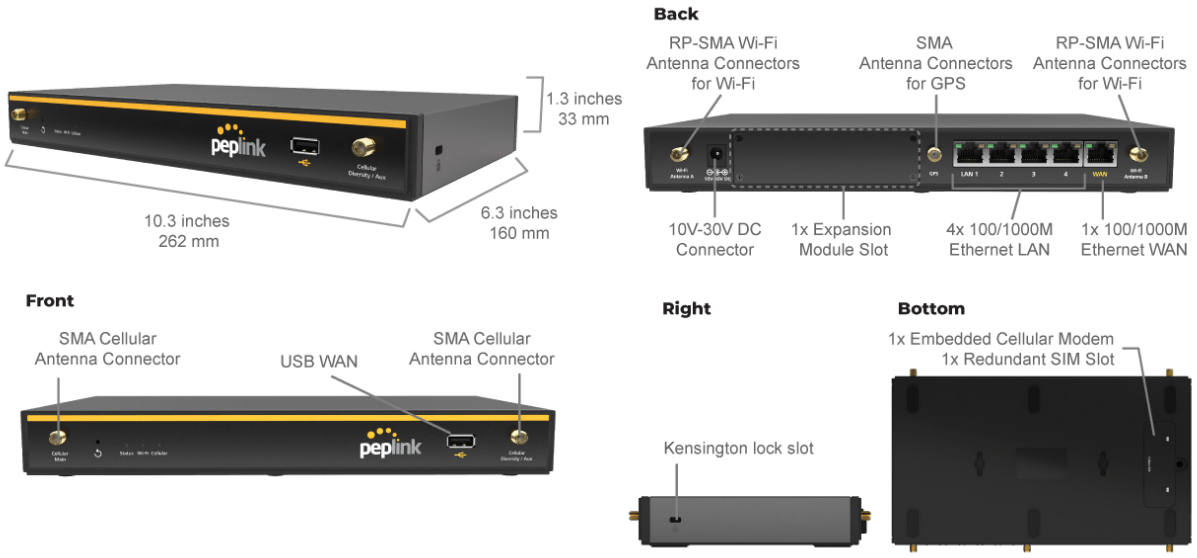
Power and Status Indicators	
Power	OFF – Power off
	Green – Power on
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error
	Green – Ready

LAN and WAN Ports	
Green LED	ON – 10 / 100 / 1000 Mbps
Orange LED	Blinking – Data is transferring
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.4 Peplink Balance 20X

6.4.1 Panel Appearance



6.4.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error
	Green – Ready

LAN and WAN Ports	
Green LED	ON – 1000 Mbps OFF – 10 / 100 Mbps or port is not connected
Orange LED	Blinking – Data is transferring
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

Wi-Fi AP Indicators		
Wi-Fi AP	OFF	Disabled
	ON	Enabled

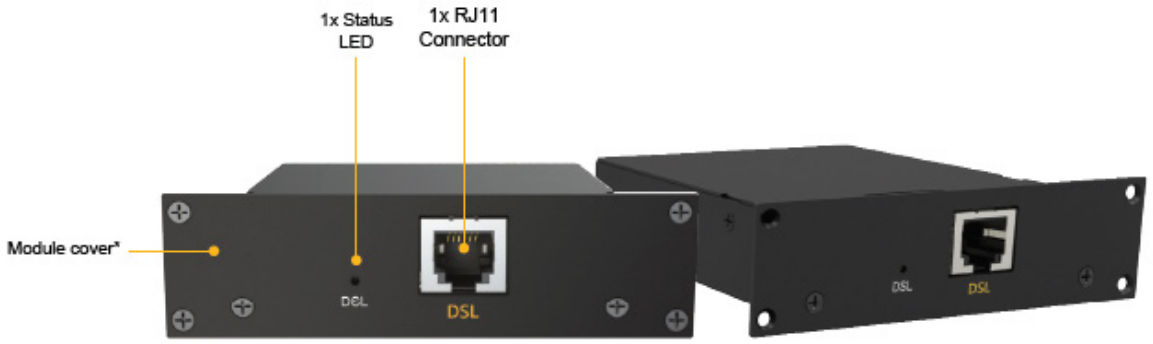
USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.4.3 Flex Module Mini

1x LTE-A Module	
Interface	1x Embedded LTE-A Cellular Modems with Redundant SIM Slots
Antenna Connectors	2x SMA Cellular Antenna Connectors
Downlink / Uplink Datarate	300Mbps/50Mbps (CAT-6) 600Mbps/150Mbps (CAT-12)
Power Consumption	10W
Weight	0.83 pounds | 375 grams

1xLTE-A Module	
Interface	1x Embedded LTE-A Cellular Modems with Redundant SIM Slots
Antenna Connectors	4x SMA Cellular Antenna Connectors

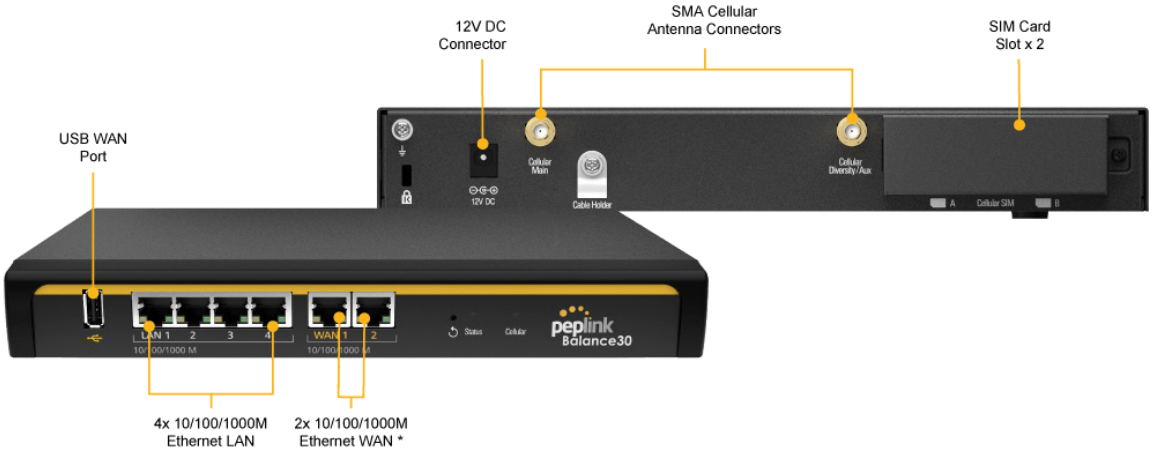
Downlink / Uplink Datarate	1.2 Gbps/150 Mbps (CAT-18)
Power Consumption	10W
Weight	0.83 pounds | 375 grams



1x VDSL Module	
Interface	1x RJ11 Connector, 1x Status LED
Power Consumption	9W
Weight	0.44 pounds | 200 grams

6.5 Peplink Balance 30 LTE

6.5.1 Panel Appearance



* WAN ports can act as a LAN port if needed.

6.5.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Power	OFF – Power off
	Green – Power on
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error
	Green – Ready

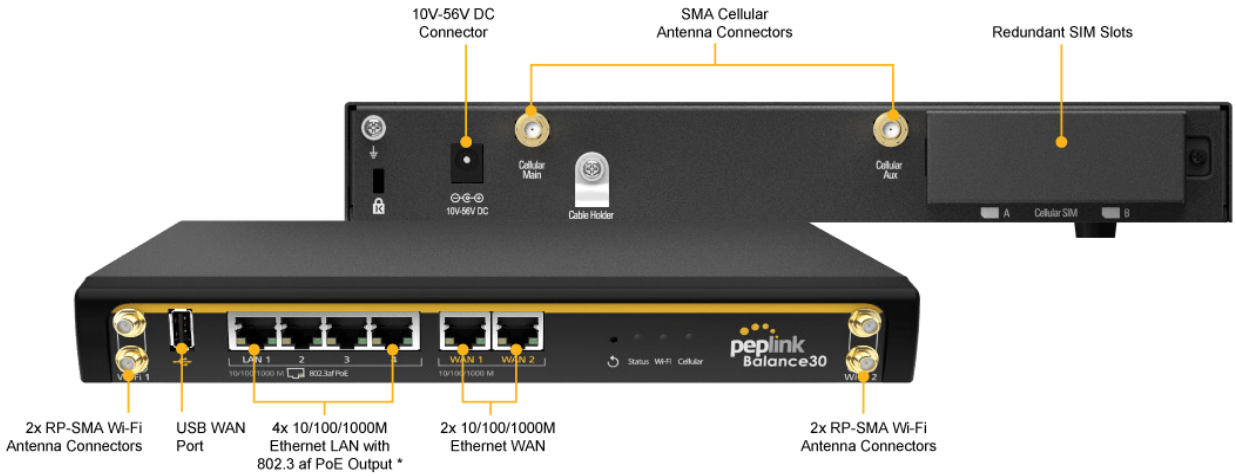
LAN and WAN Ports	
Green LED	ON – 10 / 100 /1000 Mbps
Orange LED	Blinking – Data is transferring
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

Cellular WAN Indicators		
Cellular	OFF	Disabled
	Blinking slowly	Connecting to wireless network
	ON	Connected to wireless network

USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.6 Peplink Balance 30 Pro

6.6.1 Panel Appearance



* PoE Activation Kit is available separately, needs at least 48V of input for PoE output

6.6.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Power	OFF – Power off
	Green – Power on
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error

	Green – Ready

WAN Ports	
Green LED	ON – 1000 Mbps OFF -10 / 100 Mbps or port is not connected
Orange LED	Blinking – Data is transferring
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

LAN Ports	
Green LED	ON – POE Enabled OFF - POE Disabled
Orange LED	Blinking – 10 / 100 / 1000 Mbps with activity
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

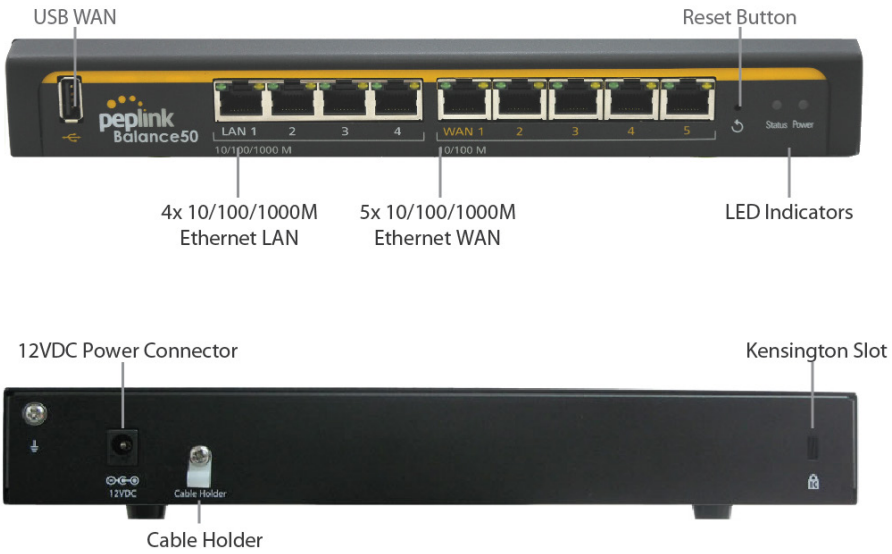
Wi-Fi AP Indicators		
Wi-Fi AP	OFF	Disabled
	ON	Enabled

Cellular WAN Indicators		
Cellular	OFF	Disabled
	Blinking slowly	Connecting to wireless network
	ON	Connected to wireless network

USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.7 Peplink Balance 50

6.7.1 Front Panel Appearance



6.7.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

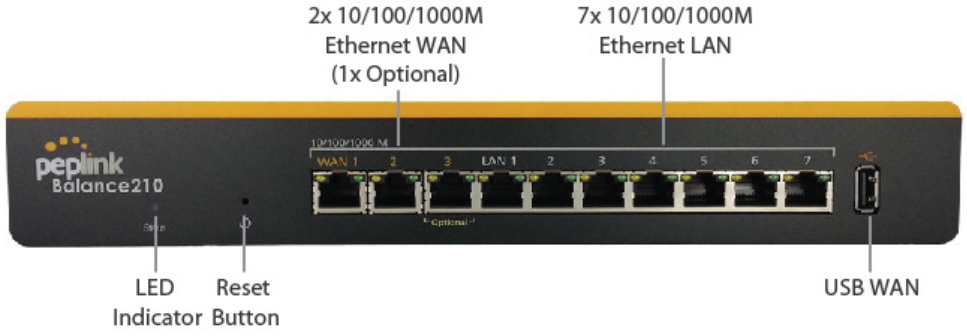
Power and Status Indicators	
Power	OFF – Power off
	Green – Power on
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error
	Green – Ready

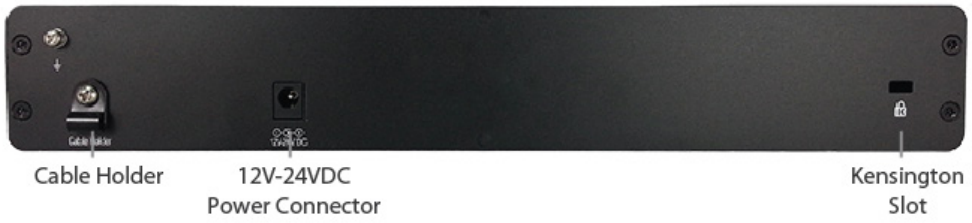
LAN and WAN Ports	
Green LED	ON – 10 / 100 /1000 Mbps
Orange LED	Blinking – Data is transferring
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.8 Peplink Balance 210

6.8.1 Front Panel Appearance





6.8.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

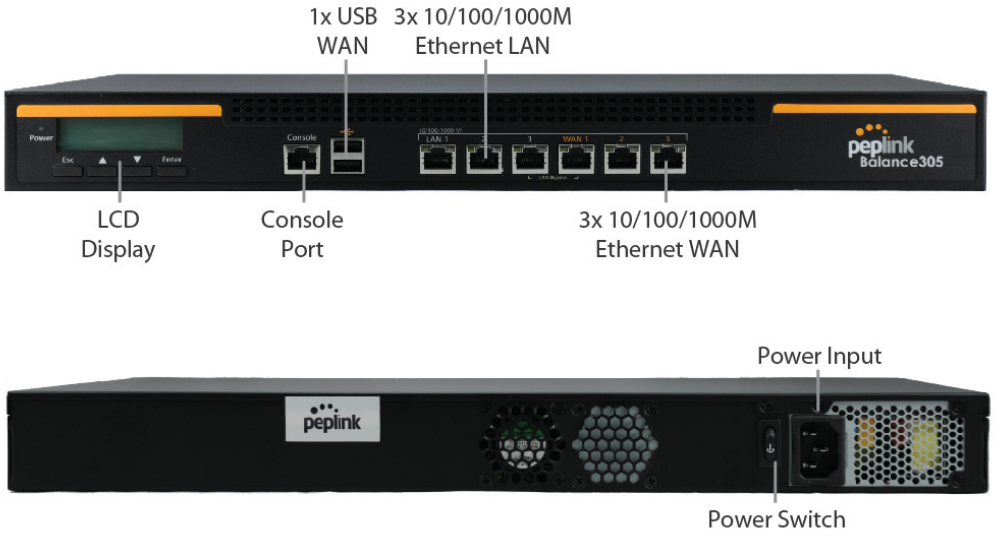
Power and Status Indicators	
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error
	Green – Ready

LAN and WAN Ports	
Green LED	ON – 10 / 100 / 1000 Mbps
Orange LED	Blinking – Data is transferring
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.9 Peplink Balance 305

6.9.1 Front Panel Appearance



6.9.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

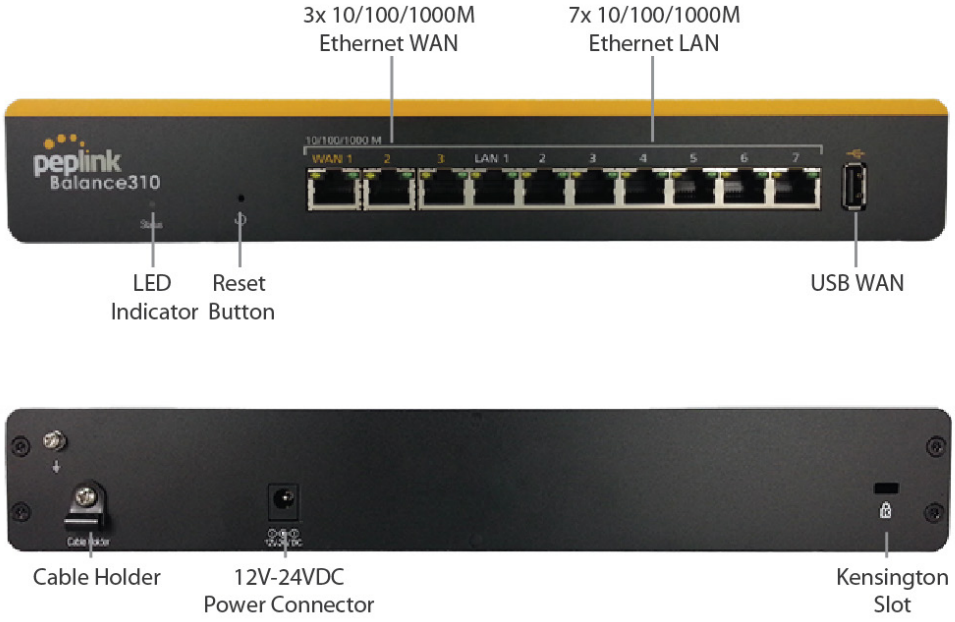
Power and Status Indicators	
Power LED	OFF – Power off
	GREEN – Power on

LAN Port, WAN 1 – 3 Ports	
Right LED	ORANGE – 1000 Mbps
	GREEN – 100 Mbps
	OFF – 10 Mbps
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console and USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.10 Peplink Balance 310

6.10.1 Front Panel Appearance



6.10.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error
	Green – Ready

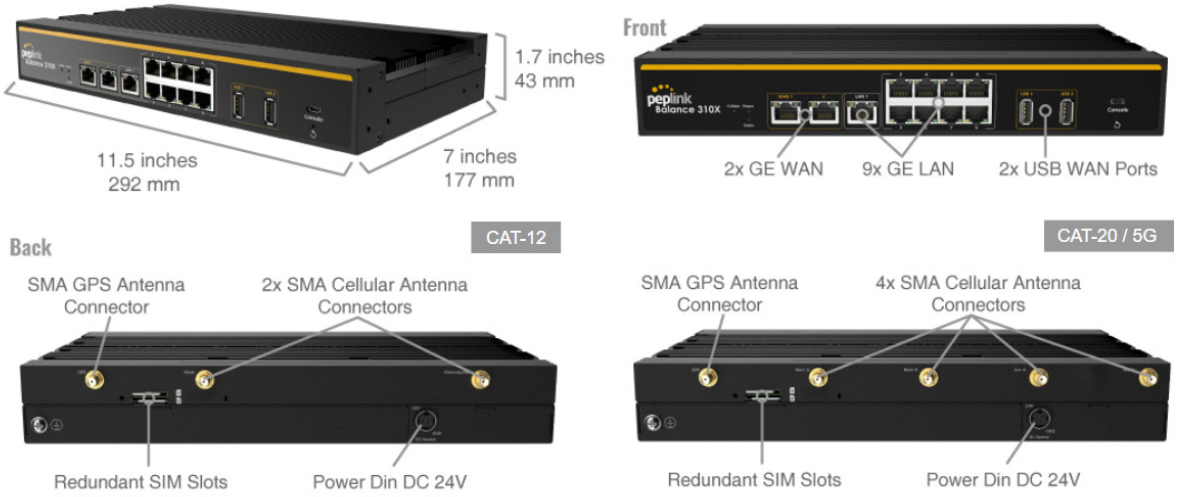
LAN and WAN Ports	
Green LED	ON – 10 / 100 / 1000 Mbps
Orange LED	Blinking – Data is transferring

	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.11 Peplink Balance 310X

6.11.1 Front Panel Appearance



6.11.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Power	OFF – Power off
	Green – Power on
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error
	Green – Ready

WAN Ports	
Green LED	ON - 1000 Mbps OFF – 10 / 100 Mbps or port is not connected
Orange LED	Blinking – Data is transferring
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

LAN Ports	
Green LED	ON – 1000 Mbps OFF – 10 / 100 Mbps or port is not connected
Orange LED	Blinking – 10 / 100 / 1000 Mbps with activity
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

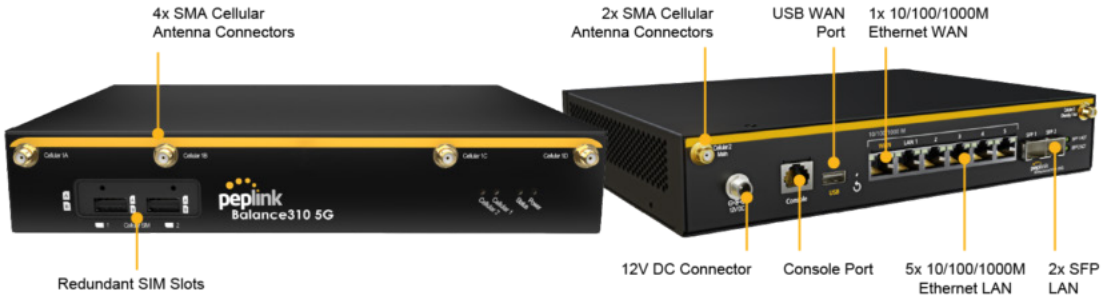
Cellular WAN Indicators		
Cellular	OFF	Disabled
	Blinking slowly	Connecting to wireless network
	ON	Connected to wireless network

Wi-Fi AP Indicators		
Wi-Fi AP	OFF	Disabled
	ON	Enabled

USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.12 Peplink Balance 310 5G

6.12.1 Front Panel Appearance



6.12.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Power	OFF – Power off
	Green – Power on
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error
	Green – Ready

WAN Port	
Right LED	GREEN - 1000 Mbps ORANGE - 100 Mbps OFF – 10 Mbps or port is not connected
Left LED	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

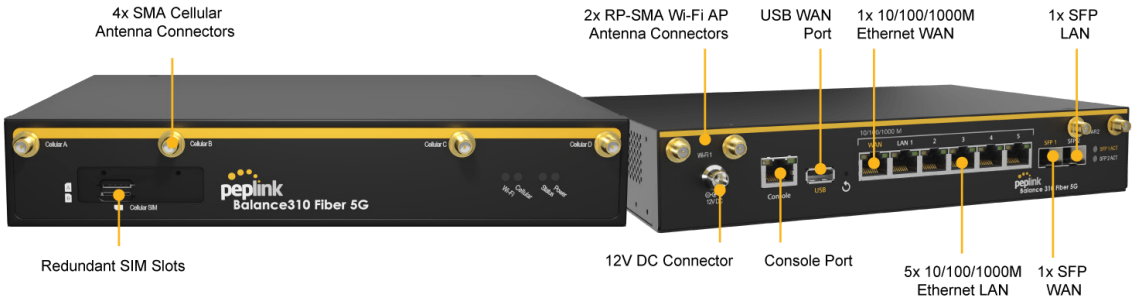
LAN Ports	
Right LED	GREEN – 1000 Mbps ORANGE - 100 Mbps OFF – 10 Mbps or port is not connected
Left LED	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Cellular WAN Indicators		
Cellular	OFF	Disabled
	Blinking slowly	Connecting to wireless network
	ON	Connected to wireless network

USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.13 Peplink Balance 310 Fiber 5G

6.13.1 Front Panel Appearance



6.13.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Power	OFF – Power off
	Green – Power on
Status	OFF – Upgrading firmware
	Red – Booting up or busy
	Blinking red – Boot up error

	Green – Ready

WAN Port	
Right LED	Green - 1000 Mbps Orange - 100 Mbps OFF – 10 Mbps or port is not connected
Left LED	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

LAN Ports	
Right LED	Green – 1000 Mbps Orange - 100 Mbps OFF – 10 Mbps or port is not connected
Left LED	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

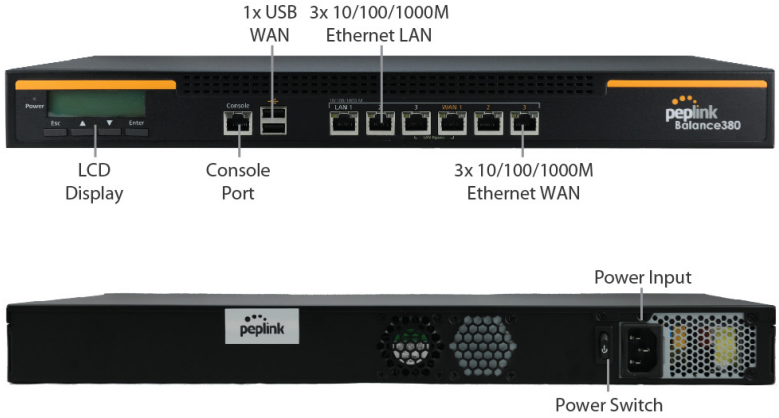
Cellular WAN Indicators		
Cellular	OFF	Disabled
	Blinking slowly	Connecting to wireless network
	ON	Connected to wireless network

Wi-Fi AP Indicators		
Wi-Fi AP	OFF	Disabled
	ON	Enabled

USB Port	
USB Ports	For connecting a 4G/3G USB modem

6.14 Peplink Balance 380

6.14.1 Panel Appearance



6.14.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

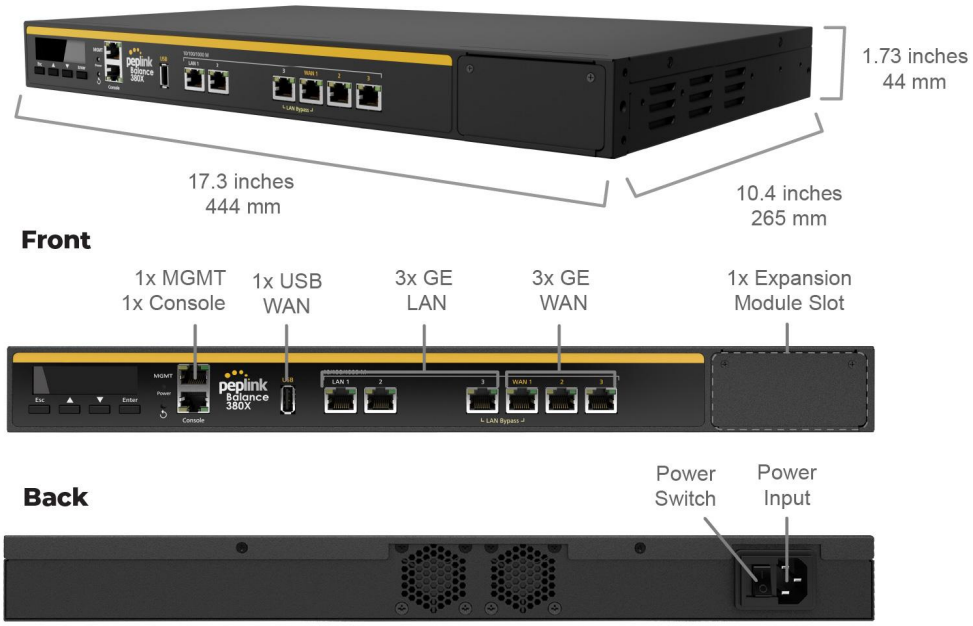
Power and Status Indicators	
Power LED	OFF – Power off
	Green – Power on

LAN Port, WAN 1 – 3 Ports	
Right LED	Orange – 1000 Mbps
	Green – 100 Mbps
	OFF – 10 Mbps
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console and USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.15 Peplink Balance 380X

6.15.1 Panel Appearance



6.15.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Power LED	OFF – Power off
	Green – Power on

LAN Port, WAN 1 – 3 Ports	
Right LED	Green – 1000 Mbps
	OFF – 10 / 100 Mbps
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console and USB Ports	
Console Port	Reserved for engineering use

USB Ports	For connecting a 4G/3G USB modem

6.15.3 Flex Module Mini

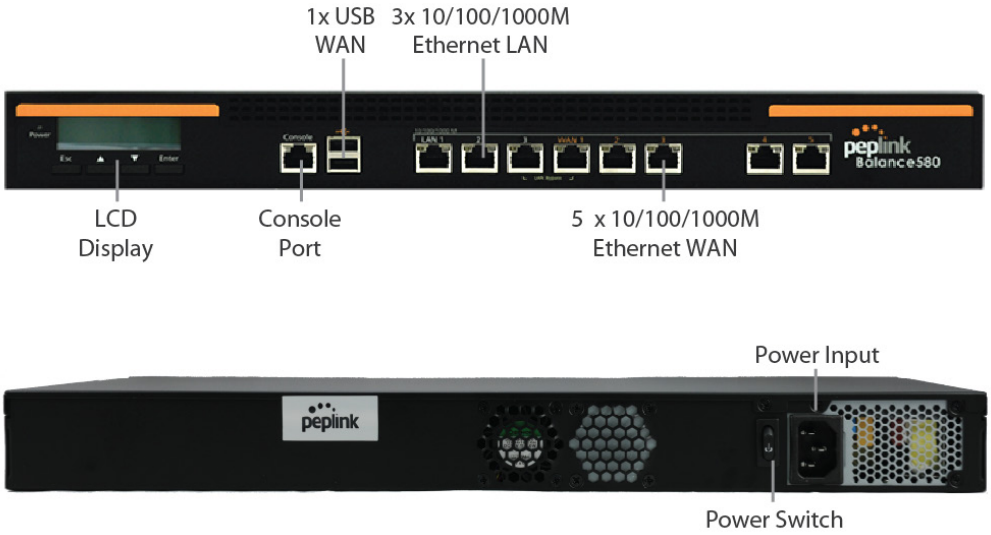
1x LTE-A Module	
Interface	1x Embedded LTE-A Cellular Modems with Redundant SIM Slots
Antenna Connectors	2x SMA Cellular Antenna Connectors
Downlink / Uplink Datarate	300Mbps/50Mbps (CAT-6) 600Mbps/150Mbps (CAT-12)
Power Consumption	10W
Weight	0.83 pounds | 375 grams

1xLTE-A Module	
Interface	1x Embedded LTE-A Cellular Modems with Redundant SIM Slots
Antenna Connectors	4x SMA Cellular Antenna Connectors
Downlink / Uplink Datarate	1.2 Gbps/150 Mbps (CAT-18)
Power Consumption	10W

Weight	0.83 pounds | 375 grams

6.16 Peplink Balance 580

6.16.1 Panel Appearance



6.16.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

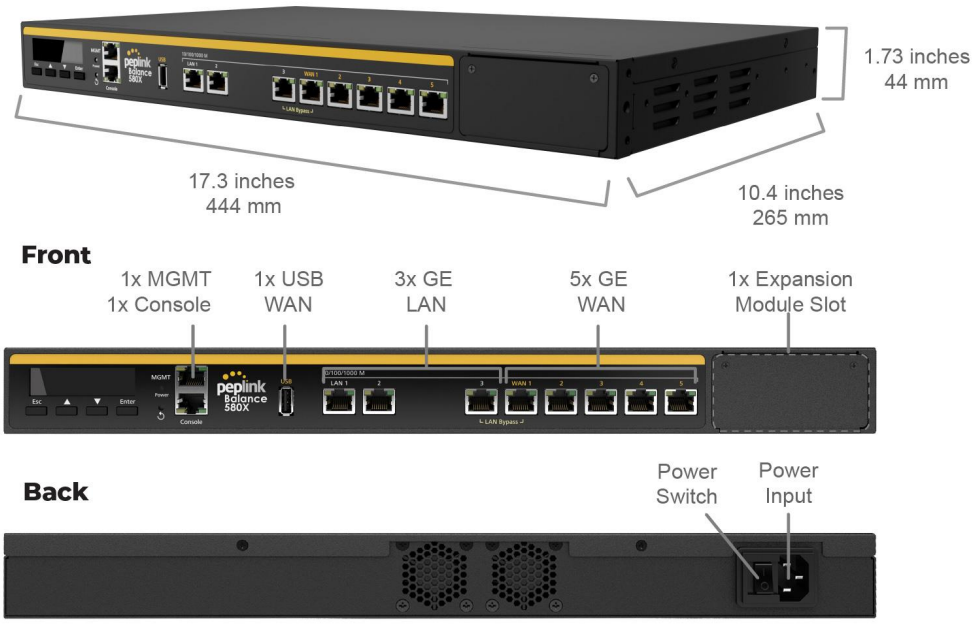
Power and Status Indicators	
Power LED	OFF – Power off
	Green – Power on

LAN Port, WAN 1 – 5 Ports	
Right LED	Orange – 1000 Mbps
	Green – 100 Mbps
	OFF – 10 Mbps
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console and USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.17 Peplink Balance 580X

6.17.1 Panel Appearance



6.17.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Power LED	OFF – Power off
	Green – Power on

LAN Port, WAN 1 – 5 Ports	
Right LED	Green – 1000 Mbps
	OFF – 10 / 100 Mbps

Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console and USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

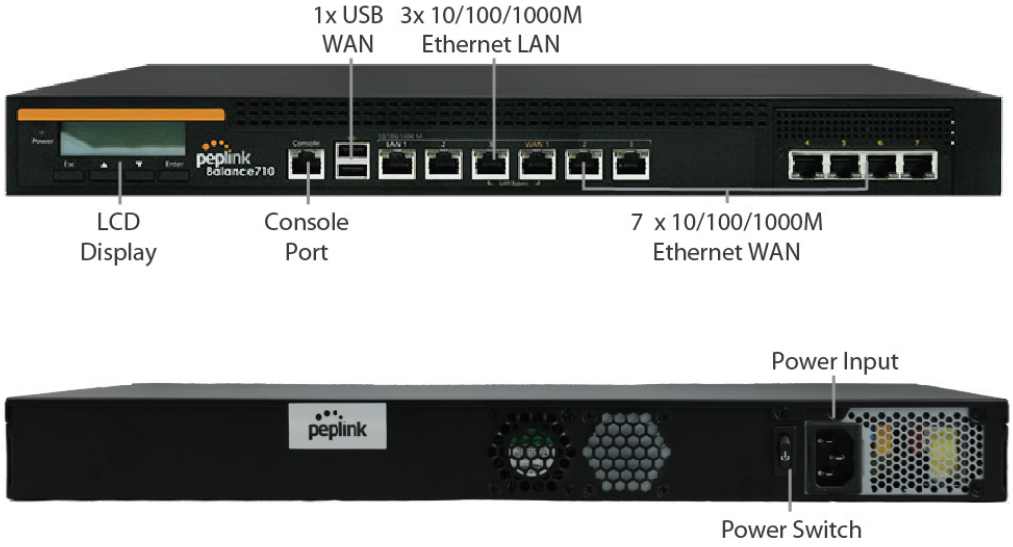
6.17.3 Flex Module Mini

1x LTEA Module	
Interface	1x Embedded LTE-A Cellular Modems with Redundant SIM Slots
Antenna Connectors	2x SMA Cellular Antenna Connectors
Downlink / Uplink Datarate	300Mbps/50Mbps (CAT-6) 600Mbps/150Mbps (CAT-12)
Power Consumption	10W
Weight	0.83 pounds | 375 grams

1xLTEA Module	
Interface	1x Embedded LTE-A Cellular Modems with Redundant SIM Slots
Antenna Connectors	4x SMA Cellular Antenna Connectors
Downlink / Uplink Datarate	1.2 Gbps/150 Mbps (CAT-18)
Power Consumption	10W
Weight	0.83 pounds | 375 grams

6.18 Peplink Balance 710

6.18.1 Front Panel Appearance



6.18.2 LED Indicators

Status indicated in the front panel is as follows:

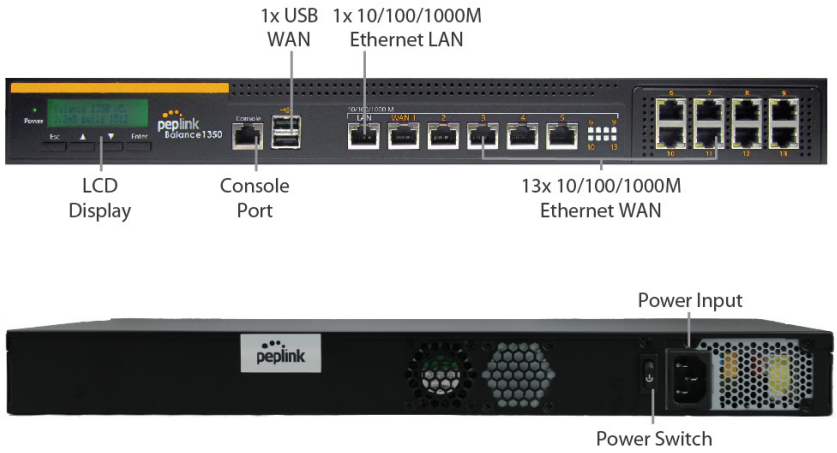
LED Indicator	
Power LED	OFF – Power off
	Green – Power on

LAN Port, WAN 1 – 7 Ports	
Green LED	Orange – 1000 Mbps
	Green – 100 Mbps
	OFF – 10 Mbps
Orange LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console & USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.19 Peplink Balance 1350

6.19.1 Panel Appearance



6.19.2 LED Indicators

Status indicated in the front panel is as follows:

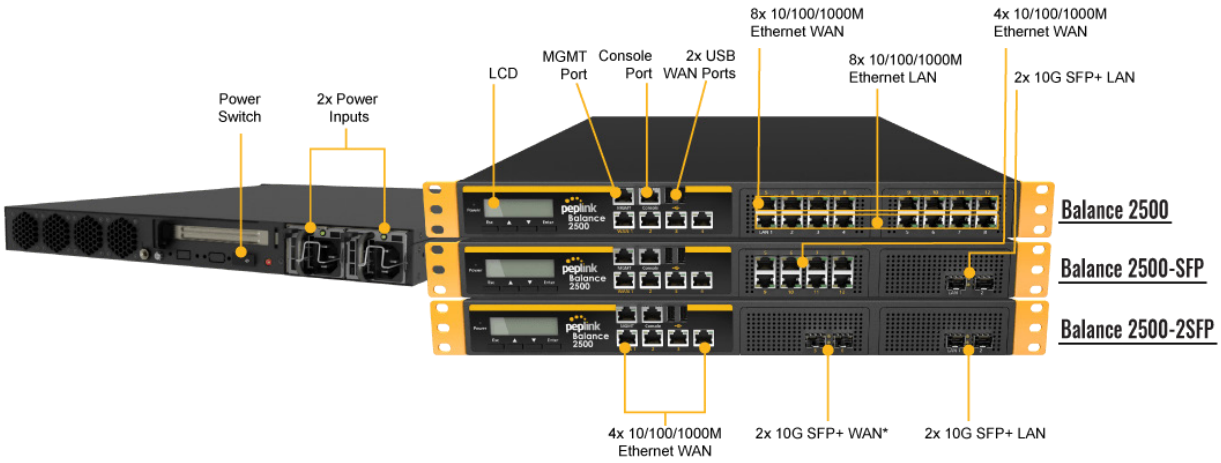
LED Indicator	
Power LED	OFF – Power off
	Green – Power on

LAN Port, WAN 1 – 13 Ports	
Right LED	Orange – 1000 Mbps
	Green – 100 Mbps
	OFF – 10 Mbps
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console & USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.20 Peplink Balance 2500

6.20.1 Panel Appearance



*Balance 2500 is available in two configurations with different LAN interfaces.

6.20.2 LED Indicators

Status indicated in the front panel is as follows:

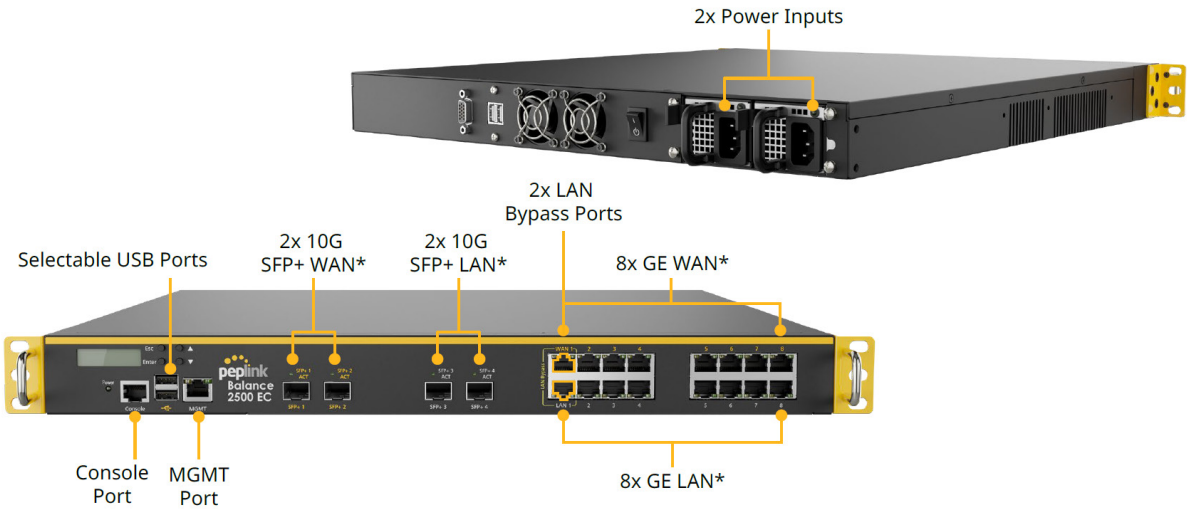
LED Indicator	
Power LED	OFF – Power off
	Green – Power on

LAN and WAN Ports	
Right LED	Orange – 1000 Mbps
	Green – 100 Mbps
	OFF – 10 Mbps
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console & USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.21 Peplink Balance 2500 EC

6.21.1 Panel Appearance



6.21.2 LED Indicators

Status indicated in the front panel is as follows:

LED Indicator	
Power LED	OFF – Power off
	Green – Power on

LAN and WAN Ports	
Right LED	Orange – 1000 Mbps
	Green – 100 Mbps
	OFF – 10 Mbps
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected

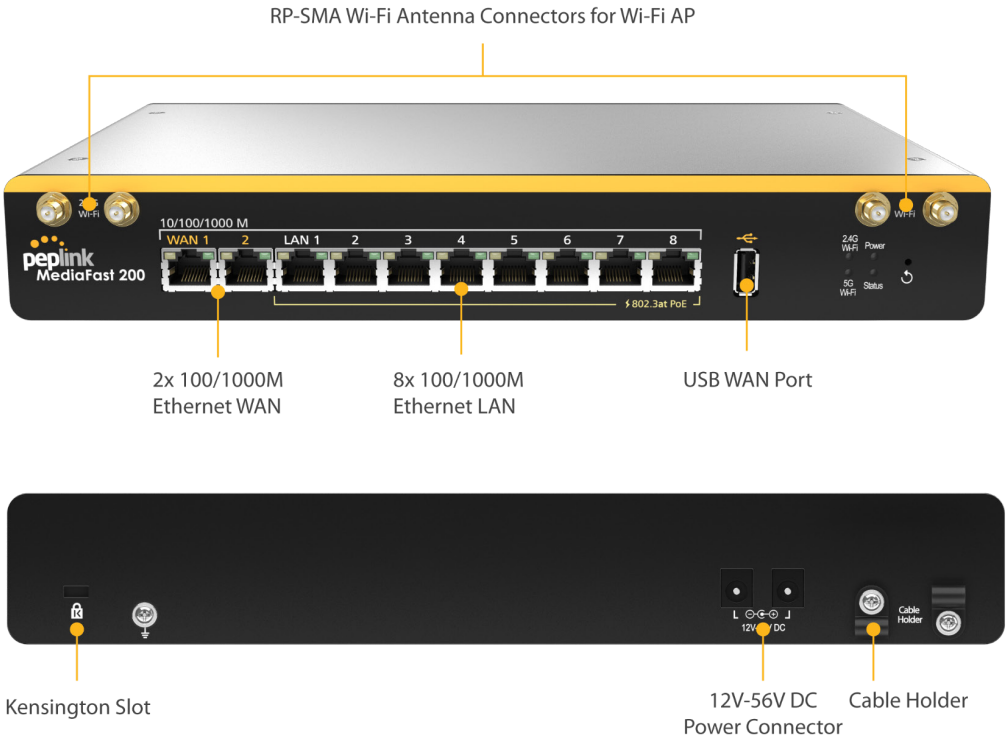
Port Type	Auto MDI/MDI-X ports

Console & USB Ports	
USB Ports	For connecting a 4G/3G USB modem

7 Peplink MediaFast Overview

7.1 Peplink MediaFast 200

7.1.1 Panel Appearance



7.1.2 LED Indicators

Status indicated in the front panel is as follows:

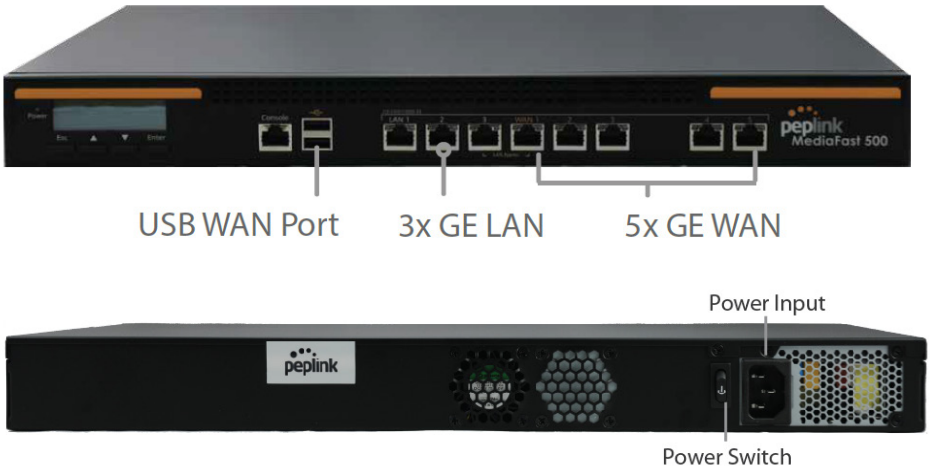
LED Indicator	
Power LED	OFF – Power off
	Green – Power on

LAN 1-3 Ports, WAN 1-5 Ports	
Right LED	Orange – 1000 Mbps
	Green – 100 Mbps
	OFF – 10 Mbps
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console & USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting 4G/3G USB modems

7.2 Peplink MediaFast 500

7.2.1 Panel Appearance



7.2.2 LED Indicators

Status indicated in the front panel is as follows:

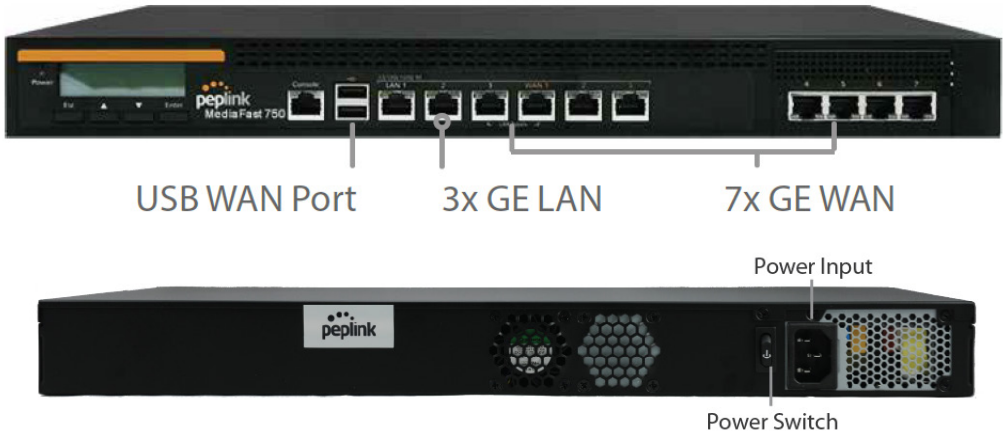
LED Indicator	
Power LED	OFF – Power off
	Green – Power on

LAN 1-3 Ports, WAN 1-5 Ports	
Right LED	Orange – 1000 Mbps
	Green – 100 Mbps
	OFF – 10 Mbps
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console & USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting 4G/3G USB modems

7.3 Peplink MediaFast 750

7.3.1 Panel Appearance



7.3.2 LED Indicators

Status indicated in the front panel is as follows:

LED Indicator	
Power LED	OFF – Power off
	Green – Power on

LAN 1-3 Ports, WAN 1-5 Ports	
Right LED	Orange – 1000 Mbps
	Green – 100 Mbps
	OFF – 10 Mbps
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console & USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting 4G/3G USB modems

8 Peplink Flex-Module Supported Models

8.1 Peplink EPX

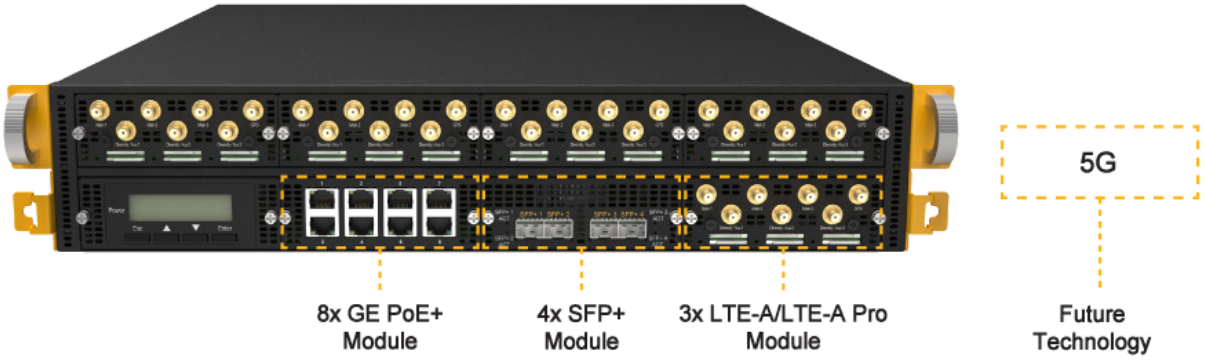
The EPX is a rapidly deployable, powerful, and versatile SD-WAN router that connects a wide range of WAN options from LTE-A, satellite modems, to fixed line networks this can be used simultaneously to allow bonding using our SpeedFusion technology.
With its modular construction, the EPX is suitable for any deployment.

8.1.1 Main Chassis

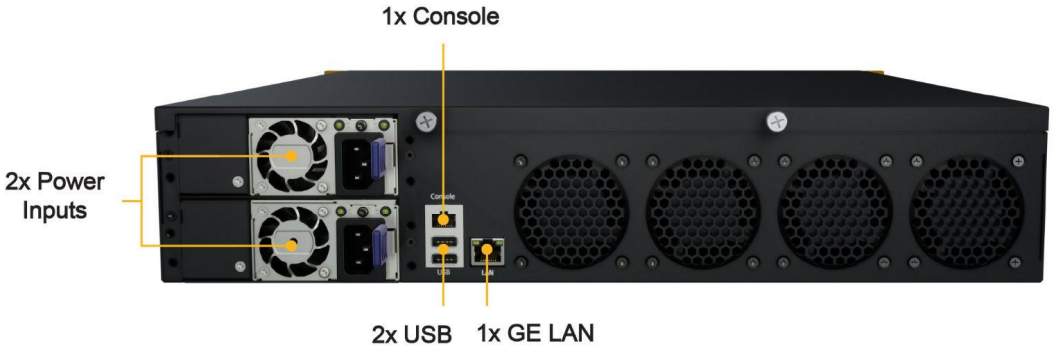
EPX Main Chassis	
Power Input	AC Input 100V - 240V
Power Consumption (Main Chassis only)	215W
Throughput	30Gbps
PepVPN/SpeedFusion Throughput (256-bit AES)	2Gbps
Dimensions	18.9 x 21.7 x 3.6 inches - 480 x 550 x 90 mm
Weight (No Modules)	31.3 pounds - 14.2 kilograms
Operating Temperature	32° – 113°F (0° – 45°C)
Humidity	5% – 90% (non-condensing)
Certifications	FCC, IC, CE-RED EN 50155: Railway Applications EN 61373:1999 IEC 61373:1999 : Shock and Vibration Resistance EN 50121: Rolling Stock EMC, Signalling and Telecom Apparatus
Warranty	1-Year Limited Warranty

8.1.2 Panel Appearance

Front



Back



8.1.3 LED Indicators

Status indicated in the LAN/WAN port module is as follows:
Note: some EPX configurations are not shipped with this module

LED Indicator	
Power LED	OFF – Power off
	Green – Power on

LAN Port, WAN Ports	
Right LED	Orange – Enabled as WAN port
	Green – PoE enabled
	OFF – PoE is disabled
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console & USB Ports	
Console Port	CLI Console connection
USB Ports	For connecting a 4G/3G USB modem

8.2 Peplink SDX

The SDX is a Modular Enterprise Grade Router. In addition to popular features such as SpeedFusion SD-WAN and InControl centralized management, the SDX has an expandable module that you can change according to your needs.
The SDX includes two integrated SFP+ WAN Ports, as well as eight PoE-enabled LAN Ports. These ports are available no matter which module you use.

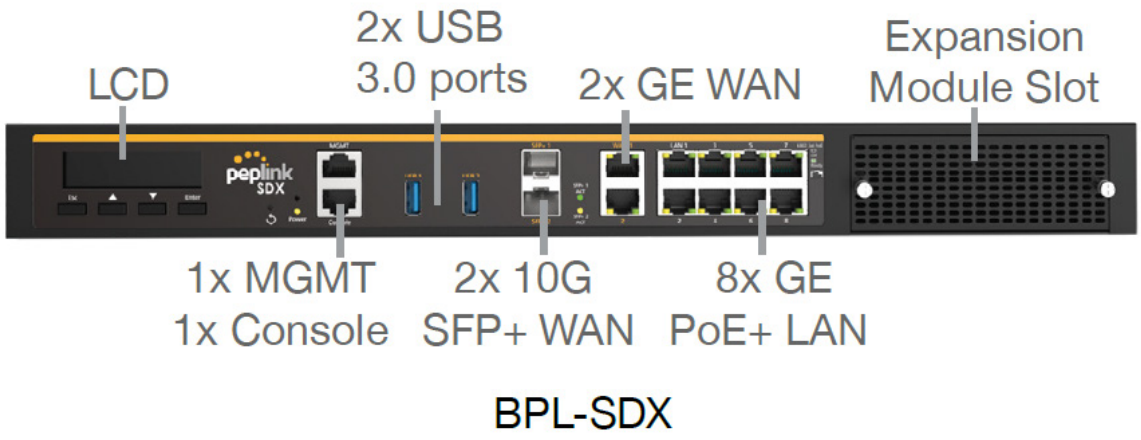
8.2.1 Main Chassis

SDX Main Chassis	
Power Input	AC Input 100V - 240V
Power Consumption	80W System* , 330W PoE+ Power Budget
Throughput	12 Gbps
PepVPN/SpeedFusion Throughput	No Encryption: 1 Gbps 256-bit AES: 600 Mbps
Dimensions	17.2 x 13.3 x 1.7 inches - 438 x 340 x 44 mm
Weight (No Modules)	11.7 pounds - 5.3 kilograms
Operating Temperature	32° – 104°F (0° – 40°C)
Humidity	5% – 90% (non-condensing)
Certifications	FCC, IC, CE

* 80W consumption for the main chassis, 20W consumption for the optional module.

8.2.2 Panel Appearance

Front:



Back:

8.2.3 LED Indicators

LED Indicator	
Power LED	OFF – Power off
	Green – Power on

WAN Ports	
Right LED	Green – 1000 Mbps
	OFF – 10 Mbps / 100 Mbps or the port is not connected
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring

	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

LAN Ports	
Right LED	Green – PoE enabled
	OFF – PoE is disabled
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console, MGMT & USB Ports	
Console Port	CLI console connection
USB Ports	For connecting 4G/3G USB modems for additional WAN connections
MGMT Port	Management port

8.3 Peplink SDX Pro

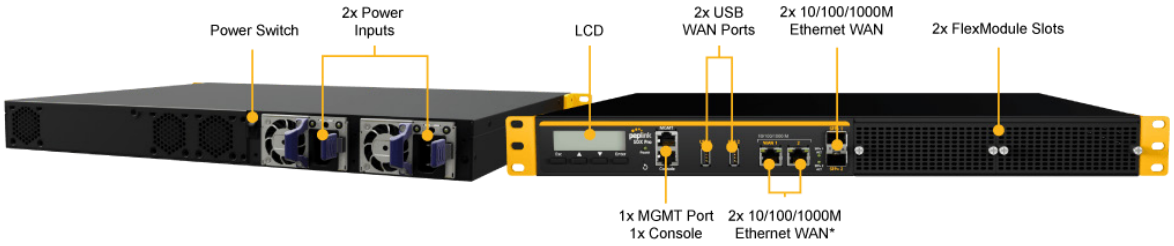
In addition to the power of the SDX, the SDX Pro offers greater flexibility and functionality. It has two FlexModule slots, enabling you to customize the device with different modules to suit any deployment. It supports edge computing so it can deliver websites, applications, and docker containers to connected devices.

8.3.1 Main Chassis

SDX Pro Main Chassis	
Power Input	AC Input 100V - 240V
Power Consumption	140W System* , 420W PoE+ Power Budget
Throughput	24 Gbps
PepVPN/SpeedFusion Throughput	No Encryption: 1 Gbps 256-bit AES: 600 Mbps
Dimensions	17.2 x 13.8 x 1.7 inches - 438 x 350 x 44 mm
Weight (No Modules)	15.9 pounds - 7.2 kilograms
Operating Temperature	32° – 104°F (0° – 40°C)
Humidity	10% – 85% (non-condensing)
Certifications	FCC, IC, CE

* 140W consumption for the main chassis, 20W consumption for the optional module.

8.3.2 Panel Appearance



* WAN ports are configured as a LAN ports by default, configuration is changeable on the Web Admin

8.3.3 LED Indicators

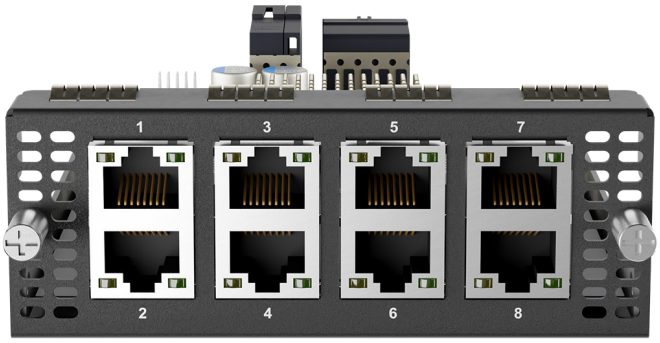
LED Indicator	
Power LED	OFF – Power off
	Green – Power on

WAN Ports	
Right LED	Green – 1000 Mbps
	OFF – 10 Mbps / 100 Mbps or port is not connected
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

Console, MGMT & USB Ports	
Console Port	CLI console connection
USB Ports	For connecting 4G/3G USB modems for additional WAN connections
MGMT Port	Management port

8.4 Flex Module Expansion Modules

8.4.1 8x GE PoE+ Module (EXM-8C)



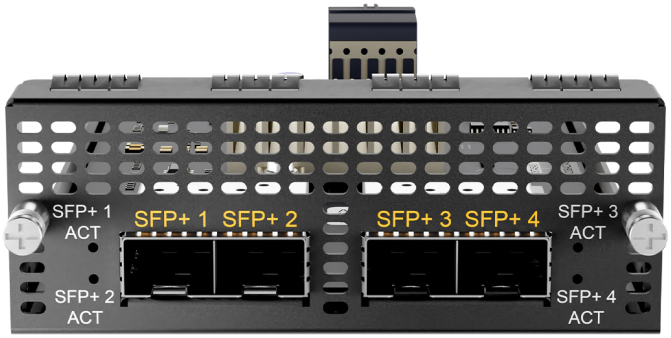
8x GE PoE Module	
Interface	8x 10/100/1000M Ethernet Ports * Capable of PoE+
Power Consumption	15W (255W max. with 802.3at/af PoE+ Output)
Dimensions	4.1 x 7.4 x 1.5 inches 103 x 188 x 38 mm
Weight	1.1 pounds (475 grams)

* Module can be configured with LAN or WAN ports as needed.

LED Indicator:

Ethernet Ports	
Right LED	Orange – Enabled as WAN port
	Green – PoE enabled
	OFF – PoE is disabled
Left LED	Solid – Port is connected without traffic
	Blinking – Data is transferring
	OFF – Port is not connected
Port Type	Auto MDI/MDI-X ports

8.4.2 4x SFP+ Module (EXM-4F)



4x SFP+ Module	
Interface	4x SFP+ Ports *
Power Consumption	11W
Dimensions	4.1 x 7.4 x 1.5 inches 103 x 188 x 38 mm
Weight	0.83 pounds (375 grams)

8.4.3 3x LTE-A Module (EXM-3LTEA)

3x LTE-A Module	
Interface	3x Embedded LTE-A Cellular Modems with Redundant SIM Slots
Antenna Connectors	6x SMA Cellular Antenna Connectors 1x SMA GPS Antenna Connector
Power Consumption	20W
Dimensions	4.1 x 7.4 x 1.5 inches 103 x 188 x 38 mm
Weight	0.83 pounds (375 grams)

8.4.4 4x LTE-A Module (EXM-4LTEA)

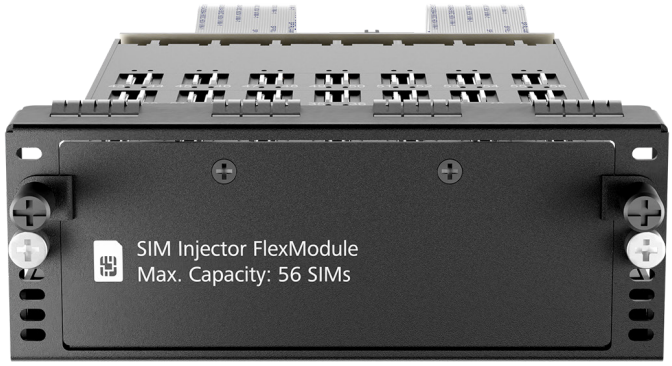
3x LTE-A Module	
Interface	4x Embedded LTE-A Cellular Modems with Redundant SIM Slots
Antenna Connectors	8x SMA Cellular Antenna Connectors 1x SMA GPS Antenna Connector
Power Consumption	20W
Dimensions	4.1 x 7.4 x 1.5 inches 103 x 188 x 38 mm
Weight	0.83 pounds (375 grams)

8.4.5 CAT-18. 2x LTE-A Module (EXM-2GLTE-G)

2x LTE-A Module	
Interface	2x Embedded LTE-A Cellular Modems with Redundant 4FF Nano SIM Slots
Antenna Connectors	8x SMA Cellular Antenna Connectors 1x SMA GPS Antenna Connector
Power Consumption	20W
Dimensions	4.1 x 7.4 x 1.5 inches 103 x 188 x 38 mm
Weight	0.83 pounds (375 grams)

8.4.6 SIM Injector FlexModule (EXM-SIM-BK56)

*** Compatible with EPX, SDX Pro**



SIM Injector FlexModule	
SIM Slot Capacity	56 4FF Nano SIM Cards
Power Consumption	15W
Dimensions	4.1 x 7.4 x 1.5 inches 103 x 188 x 38 mm
Weight	1.30 pounds (600 grams)

8.4.7 2x 5G Module (EXM-2X5GD)

2x 5G Module	
Interface	2x Embedded Cellular Modems with Redundant 4FF Nano SIM Slots
Antenna Connectors	8x SMA Cellular Antenna Connectors 1x SMA GPS Antenna Connector
Power Consumption	20W
Dimensions	4.1 x 7.4 x 1.5 inches 103 x 188 x 38 mm
Weight	0.83 pounds (375 grams)

9 OLED Display Menu

> HA State: Master/Slave
>> > LAN IP
>> > VIP

> System Status
>> > System
>>> > Firmware ver. (shows firmware version)
>>> > Serial number (shows serial number)
>>> > System time (shows current time)
>>> > System uptime (shows system uptime since last reboot)
>>> > CPU load (shows current CPU loading, 0-100%)
>>> > LAN
>>>> > Status (shows LAN port physical status)
>>>> > IP address (shows LAN IP address)
>>>> > Subnet mask (shows LAN subnet mask)
>> > Link status (shows Connected/Disconnected, IP address list)
>>> > WAN1
>>> > WAN2
>>> > WAN3*
>> > VPN status (shows Connected/Disconnected)
>>> >*VPN Profile 1*
>>> >*VPN Profile 2*
>>> >…
>>> >*VPN Profile n*
>> > Link usage
>>> > Throughput in (shows transfer rate in Kbps)
>>>> > WAN1
>>>> > WAN2
>>>> > WAN3*
>>> > Throughput out (shows transfer rate in Kbps)
>>>> > WAN1
>>>> > WAN2
>>>> > WAN3*
>> > Data Transfered (shows volume transferred since last reboot in MB)
>>> > WAN1
>>> > WAN2
>>> > WAN3*

> Maintenance
>> > Reboot > Reboot? (Yes/No) (to reboot the unit)
>> > Factory default > Factory default? (Yes/No) (to restore factory defaults)

> LAN config
>> > Port speed (shows port speed: Auto, 10baseT-FD, 10baseT-HD, 100baseTx-FD, 100baseTx-HD, 1000baseTx-FD)
>>> > LAN
>>> > WAN1
>>> > WAN2
>>> > WAN3*

*Layout continues as such for all available WAN ports

10 Installation

The following section details connecting the Peplink Balance to your network:

10.1 Preparation

Before installing your Peplink Balance, please prepare the following:

- At least one Internet/WAN access account
- For each network connection, one 10/100BaseT UTP cable with RJ45 connector, one 1000BaseT Cat5E UTP cable for the Gigabit port, or one USB modem for the USB WAN port
- A computer with the TCP/IP network protocol and a web browser installed— Supported browsers include Microsoft Internet Explorer 11 or above, Mozilla Firefox 24 or above, Apple Safari 7 or above, and Google Chrome 18 or above.

10.2 Constructing the Network

At the high level, construct the network according to the following steps:

1. With an Ethernet cable, connect a computer to one of the LAN ports on the Peplink Balance. For Peplink Balance models that support multiple connections, repeat with different cables connect up to 4 computers.
2. With another Ethernet cable, connect the WAN/broadband modem to one of the WAN ports on the Peplink Balance. Repeat using different cables to connect from two to 13 WAN/broadband connections or connect a USB modem to the USB WAN port.
3. Connect the provided power adapter or cord to the power connector on the Peplink Balance, and then plug the power adapter into a power outlet.

11 Basic Configuration

Please refer to this link for more information on how to connect to the Web Admin interface and how to configure using the Setup Wizard.

12 Network Tab

Please refer to this link.

13 System Tab

Please refer to this link.

14 Status Tab

Please refer to this link.

Appendix A. Restoration of Factory Defaults

To restore the factory default settings on a Peplink Balance unit, perform the following:

For Balance models with a reset button:

1. Locate the reset button on the Peplink Balance unit.
2. With a paperclip, press and keep the reset button pressed.

Hold for approximately 10 seconds for factory reset (Note: The LED status light shows in RED, until the status light off and release the button)

After the Peplink Balance router finishes rebooting, the factory default settings will be restored.

For Balance/MediaFast models with an OLED menu:

- Use the buttons on the front panel to control the OLED menu to go to **Maintenance>Factory Defaults**, and then choose **Yes** to confirm.

Afterwards, the factory default settings will be restored.

Important Note
All previous configurations and bandwidth usage data will be lost after restoring factory default settings. Regular backup of configuration settings is strongly recommended.

Appendix B. Routing under DHCP, Static IP, and PPPoE

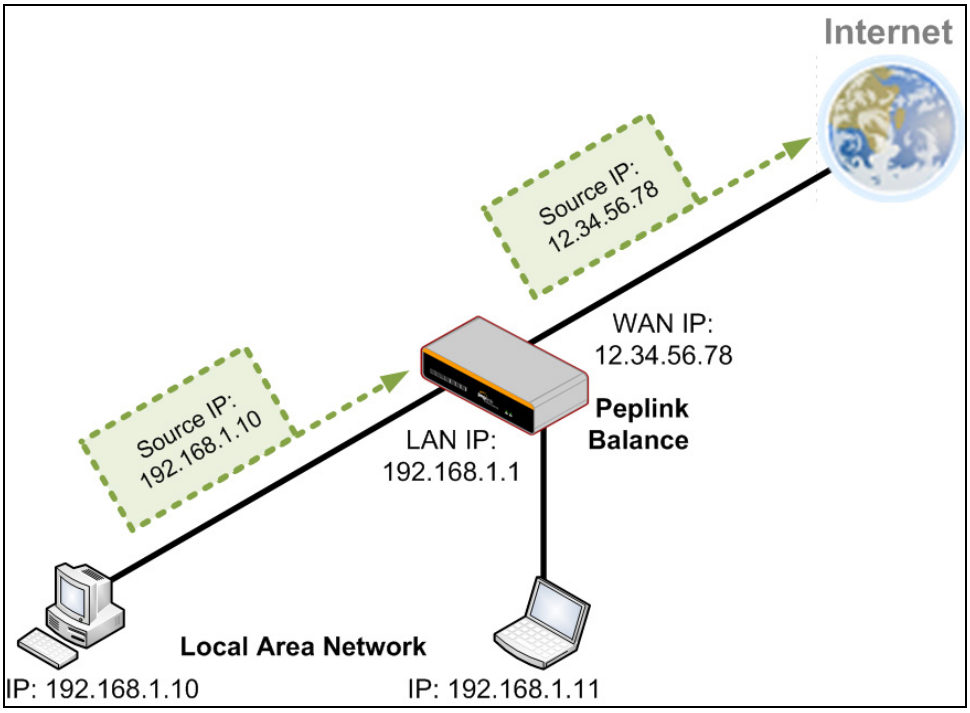
The information in this appendix applies only to situations where the Peplink Balance operates a WAN connection under DHCP, Static IP, or PPPoE.

B.1 Routing Via Network Address Translation (NAT)

When the Peplink Balance is operating under NAT mode, the source IP addresses of outgoing IP packets are translated to the WAN IP address of the Peplink Balance. With NAT, all LAN devices share the same WAN IP address to access the Internet (i.e., the WAN IP address of the Peplink Balance).

Operating the Peplink Balance in NAT mode requires only one WAN (Internet) IP address. In addition, operating in NAT mode also has security advantages because LAN devices are hidden behind the Peplink Balance. They are not directly accessible from the Internet and hence less vulnerable to attacks.

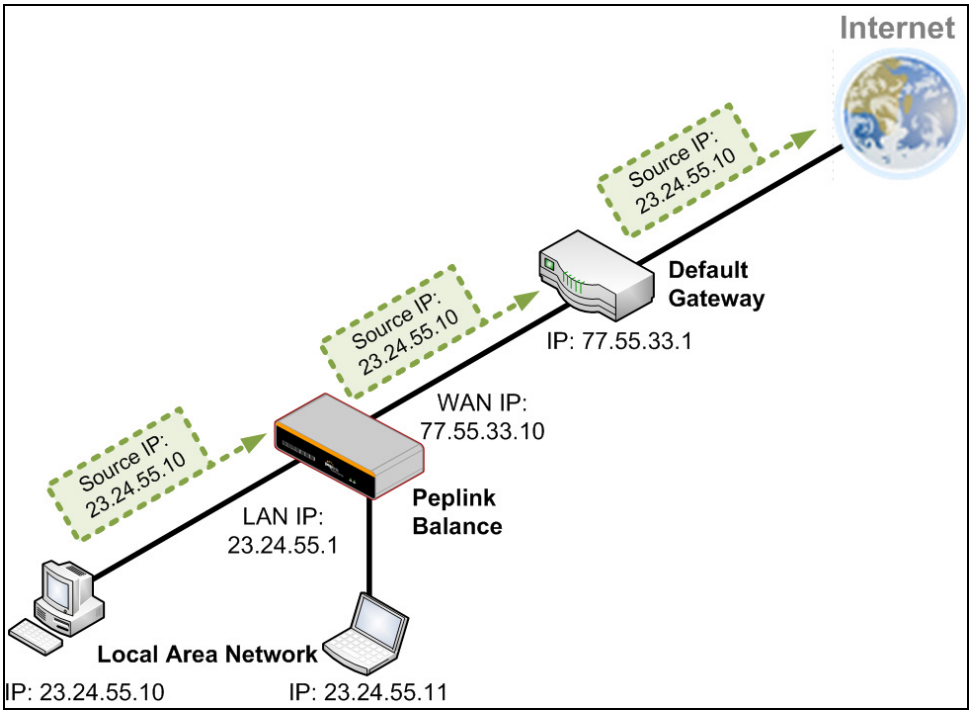
The following figure shows the packet flow in NAT mode:



B.2 Routing Via IP Forwarding

When the Peplink Balance is operating under IP forwarding mode, the IP addresses of IP packets are unchanged; the Peplink Balance forwards both inbound and outbound IP packets without changing their IP addresses.

The following figure shows the packet flow in IP forwarding mode:



Appendix C. FusionSIM Manual

Please refer to this link for details of the FusionSIM manual including various application scenarios.

Appendix D. Case studies

Please follow this link for details on various case studies using Peplink routers.

Appendix E. Overview of ports used by Peplink SD-WAN routers and other Peplink services

Default Port Number	Usage	Service	Inbound/Outbound	Default Status
UDP 5246	Data flow	InControl	Outbound	Enabled
TCP 443	HTTPS service	InControl	Outbound	Enabled
TCP 5246	Optional, used when TCP 443 is not responding	InControl	Outbound	Enabled
TCP 5246	Remote Web Admin	InControl Virtual Appliance	Outbound	Enabled
TCP 4500	VPN Data (TCP Mode)	PepVPN / SpeedFusion	Inbound / Outbound*	Disabled
TCP 32015	VPN handshake	PepVPN / SpeedFusion	Inbound / Outbound*	Disabled
UDP 4500	VPN Data	PepVPN / SpeedFusion	Inbound / Outbound*	Disabled
UDP 32015º	VPN Data (alternative)	PepVPN / SpeedFusion	Inbound / Outbound*	Disabled
TCP/UDP 4500+N-1^	VPN Sub-Tunnels Data	PepVPN / SpeedFusion	Inbound / Outbound*	Disabled
UDP 32015+N-1^	VPN Sub-Tunnels Data (alternative)	PepVPN / SpeedFusion	Inbound / Outbound*	Disabled
UDP 4500	VPN Data	IPsec	Inbound / Outbound*	Disabled

UDP 500	VPN initiation	IPsec	Inbound / Outbound*	Disabled
UDP 500	L2TP	Remote User Access	Inbound	Disabled
UDP 1701	L2TP	Remote User Access	Inbound	Disabled
UDP 4500	L2TP	Remote User Access	Inbound	Disabled
UDP 1194	OpenVPN	Remote User Access	Inbound	Disabled
IP 47	PPTP (GRE)	Remote User Access	Inbound	Disabled
TCP 2222	Remote Assistance Direct connection	Peplink Troubleshooting Assistance	Outbound	Enabled
TCP 80	HTTP traffic	Web Admin Interface access	Inbound	Enabled
TCP 443	HTTPS traffic	Web Admin Interface access (secure)	Inbound	Enabled
TCP 8822	SSH	SSH	Inbound	Disabled
UDP 161	SNMP Get	SNMP monitoring	Inbound	Disabled
UDP 162	SNMP Trap	SNMP monitoring	Outbound	Disabled
TCP, UDP 1812	Radius Authentication	Radius	Outbound	Disabled
TCP, UDP 1813	Radius Accounting	Radius	Outbound	Disabled
UDP 123	Network Time Protocol	NTP	Inbound Outbound	Disabled Enabled
TCP 60660	Real-time location data in NMEA format	GPS	Outbound	Disabled

Disclaimer:

- By default, only TCP 32015 and UDP 4500 are needed for PepVPN / SpeedFusion.
- Inbound / Outbound* - Inbound = For Server mode; Outbound = For Client mode
- UDP 32015º - If IPsec VPN or L2TP/IPsec RUA is enabled, the UDP 4500 is occupied, so PepVPN / SpeedFusion will automatically switch to UPD 32015 as VPN data port .
- UDP 32015+N-1^ / TCP/UDP 4500+N-1^ - When using Sub-Tunnels, multiple ports are in use (1 for each Sub-Tunnel profile).
- The default UDP data ports used when using (N number of Sub-Tunnel profiles) are: 4500…4500+N-1, or (when port 4500 is in use by IPsec or L2TP/IPsec) 32015… 32015+N-1".

Appendix F. Troubleshooting

Problem 1

Outbound load is only distributed over one WAN connection.

Solution

Outbound load balancing can only be distribute traffic evenly between available WAN connections if many outbound connections are made. If there is only one user on the LAN and only one download session is made from his/her browser, the WAN connections cannot be fully utilized.

For a single user, download management applications are recommended. The applications can split a file into pieces and download the pieces simultaneously. Examples include: DownThemAll (Firefox Extension), iGetter (Mac), etc.

If the outbound traffic is going across the SpeedFusion™ tunnel, (i.e., transferring a file to a VPN peer) the bandwidth of all WAN connections will be bonded. In this case, all bandwidth will be utilized and a file will be transferred across all available WAN connections.

For additional details, please refer to this FAQ:

https://forum.peplink.com/t/speed-test-tool-for-combined-download-speed-in-multi-wan-environment/8457

Problem 2

I am using a download manager program (e.g., Download Accelerator Plus, DownThemAll, etc.). Why is the download speed still only that of a single link?

Solution

First, check whether all WAN connections are up. Second, ensure your download manager application has split the file into 3 parts or more. It is also possible that all of 2 or even 3 download sessions were being distributed to the same link by chance.

Problem 3

I am using some websites to look up my public IP address, e.g., www.whatismyip.com. When I press the browser's Refresh button, the server almost always returns the same address. Isn't the IP address supposed to be changing for every refresh?

Solution

The web server has enabled the **Keep Alive** function, which ensures that you use the same TCP session to query the server. Try to test with a website that does not enable **Keep Alive**.

Problem 4

What can I do if I suspect a problem on my LAN connection?

Solution

You can test the LAN connection using ping. For example, if you are using DOS/Windows, at the command prompt, type *ping 192.168.1.1.* This pings the Peplink Balance device (provided

that Peplink Balance's IP is 192.168.1.1) to test whether the connection to the Peplink Balance is OK.

Problem 5

What can I do if I suspect a problem on my Internet/WAN connection?

Solution

You can test the WAN connection using ping, as in the solution to Problem 4. As we want to isolate the problems from the LAN, ping will be performed from the Peplink Balance. By using **Ping**/**Traceroute** under the **Status** tab of the Peplink Balance, you may able to find the source of problem.

Problem 6

When I upload files to a server via FTP, the transfer stalls after a few kilobytes of data are sent. What should I do?

Solution

The maximum transmission unit (MTU) or MSS setting may need to be adjusted. By default, the MTU is set at 1440. Choose **Auto** for all of your WAN connections. If that does not solve the problem, you can try the MTU 1492 if a connection is DSL. If problem still persists, change the size to progressive smaller values until your problem is resolved (e.g., 1462, 1440, 1420, 1400, etc).

Additional troubleshooting resources:

Peplink Community Forums: https://forum.peplink.com/

Appendix G. Declaration

FCC Requirements for Operation in the United States
Federal Communications Commission (FCC) Compliance Notice:

For Balance 30 Pro

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Radiation Exposure Statement :
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 49 cm between the radiator and your body.

Note The country code selection is for non-US models only and is not available to all US models. Per FCC regulation, all WiFi products marketed in US must fixed to US operation channels only.

Battery Caution Statement
Risk of explosion if the battery replaced by an incorrect type, place the battery into fire, a hot oven, extremely high temperature or low air pressure surrounding environment, the leakage of flammable liquid or gas, and mechanically crushing or cutting of the battery.

CE Statement for Pepwave Routers (Balance 30 Pro)

DECLARATION OF CONFORMITY

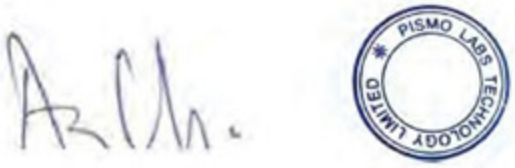
We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial Building Phase 6, 481 Castle Peak Road Cheung Sha Wan Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Peplink Balance 30 Pro BPL-031-LTEA-W-T Balance 30 Pro Pismo 811AC B30 Pro
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 300 328 V2.1.1
EN 301 893 V2.1.1
EN 301908-1 V11.1.1
EN 301 489-1 V2.2.1
Draft EN 301 489-17 V3.2.0
Draft EN 301 489-52 V1.1.0
EN 55032: 2015 + AC:2016
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 55024: 2010 + A1 :2015
EN 62311 : 2008
EN 62368-1:2014/AC:2015

Yours sincerely,



Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

2.4GHz (2412 - 2472 MHz) : 19.93 dBm

5GHz (5150 - 5250 MHz) : 22.88 dBm

WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

Table 4-6: Conducted Tx (Transmit) Power Tolerances

Parameter	Conducted transmit power	Notes
LTE		
LTE Band 1,3,8,20	+23 dBm ± 1 dB	
LTE Band 7	+22 dBm ± 1 dB	
UMTS		
Band 1 (IMT 2100 12.2 kbps) Band 3 (UMTS 1800 12.2 kbps) Band 8 (UMTS 900 12.2 kbps)	+23 dBm ± 1 dB	Connectorized (Class 3)

This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

This equipment is restricted to indoor use only when operating in the 5150 to 5250 MHz frequency range in above countries.

Contact as: https://www.peplink.com/

FCC Requirements for Operation in the United States
Federal Communications Commission (FCC) Compliance Notice:

For Balance One

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Industry Canada Statement (Balance One)

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications.

Le présent produit est conforme aux spécifications techniques applicables d'Innovation, Sciences et Développement économique Canada.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired opera- tion of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio ex- empts de licence. L'exploitation est autorisee aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en

(i) The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potent for harmful interference to co-channel mobile satellite systems

(ii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate and
The high-power radars are allocated as primary users (i.e. priority users) of the band 5725-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

(i) Le dispositif fonctionnant dans la bande 5150-5250 MHz est reserve uniquement pour
utilisation a l'interieur afin de reduire les risques de brouillage prejudiciable aux systemes de satellites mobiles utilisant les memes canaux

(ii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisan bande 5725-5850 MHz doit se conformer a la limitation P.I.R.E specifiee pour l'exploitation point a point et non point a point, selon le cas.
En outre, les utilisateurs devraient aussi etre avises que les utilisateurs de radars de haute puissance sont designes utilisateurs principaux (c.-a-d., qu'ils ont la priorite) pour les bande 5725-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Radiation Exposure Statement

This device complies with the ISED radiation exposure limit set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet equipement est conforme avec l'exposition aux radiations ISED definies pour un environnement non controle. Cet equipement doit etre installe et utilise a une distance minimum de 20 cm entre le radiateur et votre corps.

Battery Caution Statement (Balance One)

Risk of explosion if the battery replaced by an incorrect type, place the battery into fire, a hot oven, extremely high temperature or low air pressure surrounding environment, the leakage of flammable liquid or gas, and mechanically crushing or cutting of the battery.

CE Statement for Pepwave Routers (Balance One)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	Pismo Labs Technology Limited
Contact information of the manufacturer	Unit A5, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	Peplink / Pepwave / Pismo wireless product
Model name of the appliance	Balance One Balance One AC, Balance One Core
Trade name of the appliance	Pepwave / Peplink / Pismo

The construction of the appliance is in accordance with the following standards:

EN 55032:2015
EN 55024:2010+A1:2015
EN 61000-3-2:2014
EN 61000-3-3:2013
EN 301 489-1 V2.1.1
EN 301 489-3 V2.1.1
EN 301 489-17 V3.1.1
EN 300 328 V2.1.1
EN 301 893 V2.1.1
EN 300 440 V2.1.1
EN 50385:2017
EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

Yours sincerely,

Keith Chau
General Manager
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

2.4GHz (2412 - 2472 MHz) : 16.59 dBm
5GHz (5150 - 5250 MHz) : 21.38 dBm
5GHz (5725 - 5850 MHz) : 13.25 dBm

This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

This equipment is restricted to indoor use only when operating in the 5150 to 5250 MHz frequency range in above countries.

Contact as: https://www.peplink.com/

For Balance One Core, Balance 20, Balance 30 LTE, Balance 210, Balance 310X, Balance 310X 5G, Balance 310 5G, Balance 310 Fiber 5G, Balance 305, Balance 380, Balance 580, Balance 710, Balance 1350, Balance 2500, Balance 2500 EC, EPX, Balance SDX, MediaFast 500, MediaFast 750

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Radiation Exposure Statement (Balance 30 LTE, Balance 310X, Balance 310X 5G, Balance 310 5G, Balance 310 Fiber 5G)

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

Industry Canada Statement (Balance One Core, Balance 20, Balance 30 LTE, Balance 310X, Balance 310X 5G, Balance 310 5G, Balance 310 Fiber 5G, Balance 305, Balance 380, Balance 580, Balance 710, Balance 1350, Balance 2500, Balance 2500 EC, EPX, Balance SDX, MediaFast 500, MediaFast 750)

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications.

Le present produit est conforme aux specifications techniques applicables d'Innovation, Sciences et Developpement economique Canada.

For Balance 30 LTE, Balance 310X, Balance 310X 5G, Balance 310 5G, Balance 310 Fiber 5G

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en

Radiation Exposure Statement (Balance 30 LTE, Balance 310X, Balance 310X 5G, Balance 310 5G, Balance 310 Fiber 5G)

This device complies with the ISED radiation exposure limit set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement est conforme avec l'exposition aux radiations ISED définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimum de 20 cm entre le radiateur et votre corps.

Battery Caution Statement (Balance 30 LTE, Balance 210, Balance 310 5G, Balance 310X, Balance 310X 5G, Balance 310 Fiber 5G, Balance SDX, EPX, Balance One Core, Balance 305, Balance 380, Balance 580, Balance 710, Balance 1350, Balance 2500, Balance 2500 EC)

Risk of explosion if the battery replaced by an incorrect type, place the battery into fire, a hot oven, extremely high temperature or low air pressure surrounding environment, the leakage of flammable liquid or gas, and mechanically crushing or cutting of the battery.

Safety Statement (Balance SDX, EPX)

Class I Equipment. This equipment must be earthed. The power plug must be connected to a properly wired earth ground socket outlet. An improperly wired socket outlet could place hazardous voltages on accessible metal parts.

All Ethernet cables are designed for intra-building connection to other equipment. Do not connect these ports directly to communication wiring or other wiring that exits the building where the appliance is located.

FCC Requirements for Operation in the United States
Federal Communications Commission (FCC) Compliance Notice:

For Balance Two

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Battery Caution Statement

Risk of explosion if the battery replaced by an incorrect type, place the battery into fire, a hot oven, extremely high temperature or low air pressure surrounding environment, the leakage of flammable liquid or gas, and mechanically crushing or cutting of the battery.

FCC Requirements for Operation in the United States
Federal Communications Commission (FCC) Compliance Notice:

For Balance 20X

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Industry Canada Statement (Balance 20X)

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications.

Le présent produit est conforme aux spécifications techniques applicables d'Innovation, Sciences et Développement économique Canada.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired opera- tion of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio ex- empts de licence. L'exploitation est autorisee aux deux conditions suivantes:

(1) l’appareil ne doit pas produire de brouillage, et
(2) l’utilisateur de l’appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d’en

(i) The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potent for harmful interference to co-channel mobile satellite systems

(ii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate and
The high-power radars are allocated as primary users (i.e. priority users) of the band 5725-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

(i) Le dispositif fonctionnant dans la bande 5150-5250 MHz est reserve uniquement pour utilisation a l'interieur afin de reduire les risques de brouillage prejudiciable aux systemes de satellites mobiles utilisant les memes canaux

(ii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisan bande 5725-5850 MHz doit se conformer a la limitation P.I.R.E specifiee pour l'exploitation point a point et non point a point, selon le cas.
En outre, les utilisateurs devraient aussi etre avises que les utilisateurs de radars de haute puissance sont designes utilisateurs principaux (c.-a-d., qu'ils ont la priorite) pour les bande 5725-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Radiation Exposure Statement

This device complies with the ISED radiation exposure limit set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet equipement est conforme avec l'exposition aux radiations ISED definies pour un environnement non controle. Cet equipement doit etre installe et utilise a une distance minimum de 20 cm entre le radiateur et votre corps.

Battery Caution Statement

Risk of explosion if the battery replaced by an incorrect type, place the battery into fire, a hot oven, extremely high temperature or low air pressure surrounding environment, the leakage of flammable liquid or gas, and mechanically crushing or cutting of the battery.

CE Statement for Pepwave Routers (Balance One Core)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	Pismo Labs Technology Limited
Contact information of the manufacturer	Unit A5, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	Peplink / Pepwave / Pismo wireless product
Model name of the appliance	Balance One Core
Trade name of the appliance	Pepwave / Peplink / Pismo

The construction of the appliance is in accordance with the following standards:

EN 55032:2015
EN 55024:2010+A1:2015
EN 61000-3-2:2014
EN 61000-3-3:2013
EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

Yours sincerely,

Keith Chau
General Manager
Peplink International Limited

CE Statement for Pepwave Routers (Balance Two)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Electromagnetic Compatibility Directive 2014/30/EU, and Low Voltage Directive 2014/35/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial Building, Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Balance Product Dual-WAN Router
Model name of the appliance	Balance Two BPL-TWO PismoX09A
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 55032: 2015 + AC:2016
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 55035: 2017
IEC 62368-1:2014 (Second Edition) and/or EN 62368-1:2014

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

UK Statement for Pepwave Routers (Balance Two)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial. Building., Phase 6, 481 Castle Peak Road, Cheung Sha Wan,Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance Two BPL-TWO
Trade name of the appliance	PEPWAVE / PEPLINK

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

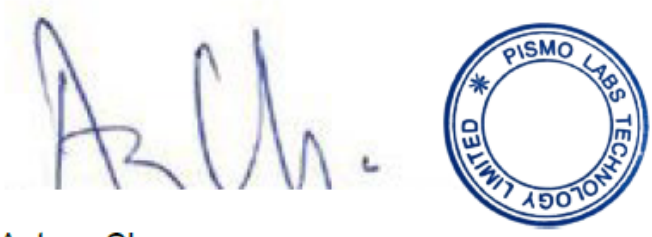
UK legislation

Electromagnetic Compatibility Regulations 2016
Electrical Equipment (Safety) Regulations 2016

UK Designed Standard

EN 55032: 2015 + AC:2016
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 55035: 2017
IEC 62368-1:2014 (Second Edition) and/or EN 62368-1:2014

Yours sincerely,



Antony Chong
Director of Hardware Engineering
Peplink International Limited

CE Statement for Pepwave Routers (Balance 710)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Electromagnetic Compatibility Directive 2014/30/EU, and Low Voltage Directive 2014/35/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	Peplink Pepwave Balance Product
Model name of the appliance	Balance 710 BPL-710
Trade name of the appliance	peplink PEPWAVE

The construction of the appliance is in accordance with the following standards:

EN 55032: 2015 / A1:2020
EN 55035: 2017 / A11:2020
EN IEC 61000-3-2: 2019 / A1:2021
EN 61000-3-3: 2013 / A2:2021
EN IEC 62368-1:2020+A11:2020

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

contact as: https://www.peplink.com/

UK Statement for Pepwave Routers (Balance 710)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	Peplink Pepwave Balance Product
Model name of the appliance	Balance 710 BPL-710
Trade name of the appliance	peplink PEPWAVE

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

UK legislation

Electromagnetic Compatibility Regulations 2016
Electrical Equipment (Safety) Regulations 2016

UK Designed Standard

EN 55032: 2015 + A1:2020
EN 55035: 2017 + A11:2020
EN IEC 61000-3-2: 2019 + A1:2021
EN 61000-3-3: 2013 + A2:2021
EN IEC 62368-1:2020+A11:2020

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

CE Statement for Pepwave Routers (Balance 2500 EC)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	Peplink Pepwave Balance Product
Model name of the appliance	Balance 2500 EC
Trade name of the appliance	peplink PEPWAVE

The construction of the appliance is in accordance with the following standards:

EN 55032: 2015 + A11:2020
EN 55035: 2017 + A11:2020
EN 61000-3-2:2014
EN IEC 61000-3-2: 2019 + A1:2021
EN 61000-3-3: 2013 + A2:2021
EN 62368-1:2014 + A11:2017

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

contact as: https://www.peplink.com/

UK Statement for Pepwave Routers (Balance 2500 EC)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	Peplink Pepwave Balance Product
Model name of the appliance	Balance 2500 EC
Trade name of the appliance	peplink PEPWAVE

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

UK legislation

Electromagnetic Compatibility Regulations 2016
Electrical Equipment (Safety) Regulations 2016

UK Designed Standard

EN 55032: 2015 + A11:2020
EN 55035: 2017 + A11:2020
EN 61000-3-2:2014
EN IEC 61000-3-2: 2019 + A1:2021
EN 61000-3-3: 2013 + A2:2021
EN 62368-1:2014 + A11:2017

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

CE Statement for Pepwave Routers (Balance 20X for EC25-E)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial Building Phase 6, 481 Castle Peak Road Cheung Sha Wan Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 20X BPL-021X-LTE-E-T-PRM
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 301 908-1 V15.1.1
Draft EN 301 489-1 V2.2.1
Draft EN 301 489-17 V3.2.0
Draft EN 301 489-52 V1.1.0
EN 55032: 2015 + AC:2016-07
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 55035: 2017
EN 62311 : 2008
EN 62368-1:2014/A11:2017
EN 303 413 V1.1.1
EN 301 489-19 V2.1.1

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

2.4GHz (2412 - 2472 MHz) : 19.84 dBm
5GHz (5150 - 5250 MHz) : 22.89 dBm
WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

Output Power	Class 3 (23dBm±2dB) for LTE FDD Class 3 (23dBm±2dB) for LTE TDD Class 3 (24dBm +1/-3dB) for TD-SCDMA Class 3 (24dBm +1/-3dB) for UMTS Class E2 (27dBm ±3dB) for EDGE 850/900MHz Class E2 (26dBm +3/-4dB) for EDGE 1800/1900MHz Class 4 (33dBm ±2dB) for GSM 850/900MHz Class 1 (30dBm ±2dB) for GSM 1800/1900MHz

This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

This equipment is restricted to indoor use only when operating in the 5150 to 5250 MHz frequency range in above countries.

contact as: https://www.peplink.com/

UK Statement for Pepwave Routers (Balance 20X for EC25-E)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 20X BPL-021X-LTE-E-T-PRM
Trade name of the appliance	PEPWAVE / PEPLINK

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

UK legislation

Radio Equipment Regulations 2017

UK Designed Standard

EN 301 908-1 V15.1.1
EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 303 413 V1.1.1

Other Standards Applied

EN 62311: 2008
Draft EN 301 489-1 V2.2.1
Draft EN 301 489-17 V3.2.0
EN 301 489-19 V2.1.1
Draft EN 301 489-52 V1.1.0
EN 55032: 2015 + AC:2016-07
EN 55035: 2017
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 62368-1:2014/A11:2017

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

CE Statement for Pepwave Routers (Balance 20X for LN920A6-WW)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial. Building., Phase 6, 481 Castle Peak Road, Cheung Sha Wan,Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPLINK PEPWAVE Wireless Product
Model name of the appliance	Balance 20X BPL-021X-LTEA-B-T-PRM
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 301 908-1 V15.1.1
EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 303 413 V1.2.1
EN 62311: 2020
EN 301 489-1 V2.2.3
EN 301 489-17 V3.2.4
EN 301 489-52 V1.2.1
Draft EN 301 489-19 V2.2.0
EN 55032: 2015 + A11:2020
EN 55035: 2017 + A11:2020
EN 61000-3-2: 2019 + A1:2021
EN 61000-3-3: 2013 + A1:2019
EN 62368-1:2020 + A11:2020

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

2.4GHz (2412 - 2472 MHz) : 19.84 dBm
5GHz (5150 - 5250 MHz) : 22.89 dBm
WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

Band	Power class
3G WCDMA	Class 3 (0.2W)
LTE All Bands (except B41)	Class 3 (0.2W)
LTE Band41 (HPUE support)	Class 2 (0.4W)

This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

This equipment is restricted to indoor use only when operating in the 5150 to 5250 MHz frequency range in above countries.

contact as: https://www.peplink.com/

UK Statement for Pepwave Routers (Balance 20X for LN920A6-WW)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPLINK PEPWAVE Wireless Product
Model name of the appliance	Balance 20X BPL-021X-LTEA-B-T-PRM
Trade name of the appliance	PEPWAVE / PEPLINK

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

UK legislation

Radio Equipment Regulations 2017

UK Designed Standard

EN 301 908-1 V15.1.1
EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 303 413 V1.2.1

Other Standards Applied

EN 62311: 2020
EN 301 489-1 V2.2.3
EN 301 489-17 V3.2.4
EN 301 489-52 V1.2.1
Draft EN 301 489-19 V2.2.0
EN 55032: 2015 + A11:2020
EN 55035: 2017 + A11:2020
EN 61000-3-2: 2019 + A1:2021
EN 61000-3-3: 2013 + A1:2019
EN 62368-1:2020 + A11:2020

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

NCC statement

For Balance 20X

減少電磁波影響，請妥適使用。

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
低功率射頻器材之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前述合法通信，指依電信管理法規定作業之無線電通信。
低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

應避免影響附近雷達系統之操作。

高增益指向性天線只得應用於固定式點對點系統。

電波功率密度 MPE標準值: 1.0 mW/cm2，送測產品實測值: 0.114 mW/cm2，建議使用時設備天線至少距離人體20公分。

分頻雙工(FDD):
本設備- WCDMA 2100 (Band 1) FDD支援LTE上行1920MHz -1980MHz \ 下行2110MHz -2170MHz。
本設備- WCDMA 900 (Band 8) FDD支援LTE上行1885MHz -915MHz \ 下行930MHz -960MHz。
本設備- LTE 2100 (Band 1) FDD支援LTE上行1920MHz -1980MHz \ 下行2110MHz -2170MHz。
本設備- LTE 1800 (Band 3) FDD支援LTE上行1710MHz -1770MHz \ 下行1805MHz -1865MHz。
本設備- LTE 2600 (Band 7) FDD支援LTE上行2500MHz～2570MHz \ 下行2620MHz～2690MHz。
本設備- LTE 900 (Band 8) FDD支援LTE上行885MHz -915MHz \ 下行930MHz -960MHz。
本設備- LTE 700 (Band 28) FDD支援LTE上行703MHz -748MHz \ 下行758MHz -803MHz。

分時雙工(TDD):
本設備- LTE 2600 (Band 38) TDD支援頻段(2570MHz～2620MHz)。
本設備- LTE 2600 (Band 41) TDD支援頻段(2500MHz～2690MHz)。

為避免電磁干擾，本產品不應安裝或使用於住宅環境。

如果更換不正確之電池型式會有爆炸的風險，請依製造商說明書處理用過之電池。

CE Statement for Pepwave Routers (Balance 30 LTE)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial Building, Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Peplink Balance 30 LTE BPL-031-LTE-E-T Balance 30 LTE Pismo 811AC B30 LTE Peplink Balance 30
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 301 908-1 V11.1.1
Draft EN 301 489-1 V2.2.0
Draft EN 301 489-52 V1.1.0
EN 55032: 2015 + AC:2016
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 55035 : 2017
EN 62311 : 2008
EN 62368-1:2014/AC:2015

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

Output Power	Class 3 (23dBm±2dB) for LTE FDD Class 3 (23dBm±2dB) for LTE TDD Class 3 (24dBm +1/-3dB) for TD-SCDMA Class 3 (24dBm +1/-3dB) for UMTS Class E2 (27dBm ±3dB) for EDGE 850/900MHz Class E2 (26dBm +3/-4dB) for EDGE 1800/1900MHz Class 4 (33dBm ±2dB) for GSM 850/900MHz Class 1 (30dBm ±2dB) for GSM 1800/1900MHz

This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

contact as: https://www.peplink.com/

CE Statement for Pepwave Routers (Balance 210)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Electromagnetic Compatibility Directive 2014/30/EU, and Low Voltage Directive 2014/35/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial Building Phase 6, 481 Castle Peak Road Cheung Sha Wan Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 210 Peplink 210 BPL-210 Peplink Balance Router 210 Peplink Balance SD-WAN Router Peplink Balance 210 Pismo 809
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 55032: 2015 + AC:2016-07
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 55035: 2017
EN 62368-1:2014/A11:2017

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

CE Statement for Pepwave Routers (Balance 310 5G)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial. Building., Phase 6, 481 Castle Peak Road, Cheung Sha Wan,Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 310 5G BPL-310-5GD-K-T BPL-310-5GH-K-T
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 301 908-1 V13.1.1
EN 301 489-1 V2.2.3
Draft ETSI EN 301 489-52 V1.1.0
EN 55032 : 2015 / A11:2020
EN 55035 : 2017 / A11:2020
EN 61000-3-2 : 2019
EN 61000-3-3 : 2013/A1:2019
EN 62311:2020
IEC 62368-1:2018
EN IEC 62368-1:2020+A11:2020
BS EN IEC 62368-1:2020+A11:2020
EN IEC 62368-3:2020

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

EM7565 module:

Table 3-6: Conducted Tx (Transmit) Power Tolerances

Bands	Conducted Tx power	Notes
LTE		
LTE bands 1,3,8,20,28	+23 dBm ± 1 dB	
LTE bands 7	Single cell: +22 dBm ± 1 dB UL CA: +22.8 dBm ± 1 dB	0.8 dB offset for UL CA hardcoded by chipset manufacturer
UMTS		
Band 1 (IMT 2100 12.2 kbps) Band 8 (UMTS 900 12.2 kbps)	+23 dBm ± 1 dB	Connectorized (Class 3)

EM9191 module:

Table 4-11: Conducted Maximum Tx (Transmit) Power[a] Tolerances

Bands	Conducted Tx Power	Notes
5G		
FR1 Sub-6G Bands	+23 dBm ± 1.5 dB	Power Class 3
LTE		
LTE B7, B38, B42	+23 dBm +1.8 dB/-1.0 dB	Power Class 3
LTE all other bands	+23 dBm ± 1 dB	Power Class 3
UMTS		
All bands (12.2 kbps)	+23.5 dBm ± 1 dB	Connectorized (Power Class 3)

a. Tx Power is based on no maximum power reduction (MPR) configuration as 3GPP defined. For configurations that require MPR or additional MPR, refer to 3GPP for the power reduction.

MV31-W module:

5G	Bands	FR1 (Sub 6G): FDD: n1, n3, n28 TDD: n41, n77, n78
	Band combinations	For supported E-UTRAN New Radio Dual Connectivity (EN-DC) see [2]
	4x4 MIMO	n1, n3, n41, n77, n78
	DSS	n1, n3, n28
	Category	3GPP Rel 15 256 QAM UL/DL
	Output Power	FR1 (Sub 6G): n41, n77, n78: 25.5dBm +1.5/-1dB (HPUE) All other bands: 23dBm ±1dB
4G	Bands	FDD: B1, B3, B7, B8, B20, B28 TDD: B34, B38, B40, B42
	Band combinations	For supported carrier aggregations (CA) see [2]
	4x4 MIMO	B1, B3, B7, B38, B40, B42
	RX Diversity	All LTE bands
	Category	UE Cat. 13 (UL: 150Mbps) + UE Cat. 20 (DL: 2Gbps); 7xDL CA, 3xUL CA (Intra-band), 5xDL CA+4X4 MIMO (Up to UE Cat20) 256 QAM UL/DL
	Output Power	B42: 21 ±1dBm for US region B1, B3, B7, B34, B38, B40: 23dBm ±1dBm B8, B20, B28: 23.5dBm ±1dBm

This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 21cm between the radiator & your body.

contact as: https://www.peplink.com/

UK Statement for Pepwave Routers (Balance 310 5G)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 310 5G BPL-310-5GD-K-T BPL-310-5GH-K-T
Trade name of the appliance	PEPWAVE / PEPLINK

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

UK legislation

Radio Equipment Regulations 2017

UK Designed Standard

EN 301 908-1 V13.1.1

Other Standards Applied

EN 62311: 2020
EN 301 489-1 V2.2.3
Draft ETSI EN 301 489-52 V1.1.0
EN 55032: 2015 + A11:2020
EN 55035: 2017 + A11:2020
EN 61000-3-2: 2019
EN 61000-3-3: 2013 + A1:2019
IEC 62368-1:2018
EN IEC 62368-1:2020+A11:2020
BS EN IEC 62368-1:2020+A11:2020
EN IEC 62368-3:2020

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

CE Statement for Pepwave Routers (Balance 310X 5G)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial. Building., Phase 6, 481 Castle Peak Road, Cheung Sha Wan,Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 310X Balance 310X 5G BPL-310X-5GD-T MBX Expansion Module Expansion Module with 1x 5G modems EXM-310X-5GD
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 301 908-1 V13.1.1
EN 303 413 V1.1.1
EN 62311: 2020
EN 301 489-1 V2.2.3
Draft EN 301 489-19 V2.2.0
Draft EN 301 489-52 V1.1.2
EN 55032: 2015 / A11: 2020
EN 55035: 2017 / A11: 2020
EN 61000-3-2: 2014
EN 61000-3-3: 2013 / A1:2019
EN 62368-1:2020 + A11:2020

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

5G	Bands	FR1 (Sub 6G): FDD: n28 TDD: n78
	Band combinations	For supported E-UTRAN New Radio Dual Connectivity (EN-DC) see Section 6.2
	4x4 MIMO	n78
	DSS	n28
	Category	3GPP Rel 15
	Output Power	FR1 (Sub 6G): n78: 26dBm +2/-3dB all other bands: 23dBm ±2dB
4G	Bands	FDD: B1, B3, B7, B8, B20, B28 TDD: B38, B40
	Band combinations	For supported carrier aggregations (CA) see Section 6.1
	4x4 MIMO	B1, B3, B7, B40, B38
	RX Diversity	all LTE bands
	Category	UE Cat. 13 (UL: 150Mbps) + UE Cat. 20 (DL: 2Gbps); 7xDL CA, 3xUL CA (Intra-band), 5xDL CA+4X4 MIMO (Up to UE Cat20)
	Output Power	23dBm ±2dB
3G	Bands	Bd.I, Bd.VIII
	RX Diversity	all 3G bands
	Category	DC-HSPA+ – DL Cat. 24 (42Mbps) / UL Cat. 6 (11Mbps) HSUPA – UL 5.76Mbps Compressed mode (CM) supported according to 3GPP TS25.212
	Output Power	all bands: 24dBm +1.7/-3.7dB

This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

contact as: https://www.peplink.com/

UK Statement for Pepwave Routers (Balance 310X 5G)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 310X Balance 310X 5G BPL-310X-5GD-T MBX Expansion Module Expansion Module with 1x 5G modems EXM-310X-5GD
Trade name of the appliance	PEPWAVE / PEPLINK

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

UK legislation

Radio Equipment Regulations 2017

UK Designed Standard

EN 301 908-1 V13.1.1
EN 303 413 V1.1.1

Other Standards Applied

EN 62311: 2020
EN 301 489-1 V2.2.3
Draft EN 301 489-19 V2.2.0
Draft EN 301 489-52 V1.1.2
EN 55032: 2015 / A11: 2020
EN 55035: 2017 / A11: 2020
EN 61000-3-2: 2014
EN 61000-3-3: 2013 / A1:2019
EN 62368-1: 2020 + A11:2020

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

CE Statement for Pepwave Routers (Balance 310 Fiber 5G)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial. Building., Phase 6, 481 Castle Peak Road, Cheung Sha Wan,Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 310 Fiber 5G BPL-310-FBR-5GD-T-PRM
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 301 908-1 V13.1.1
EN 62311: 2020
EN 301 489-1 V2.2.3
EN 301 489-17 V3.2.4
Draft EN 301 489-52 V1.1.2
EN 55032: 2015 / A11:2020
EN 55035: 2017 / A11:2020
EN 61000-3-2: 2014
EN 61000-3-3: 2013 / A1:2019
EN 62368-1:2020 + A11:2020

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

2.4GHz (2412 – 2472 MHz) : 19.94 dBm

5GHz (5150 - 5250 MHz) : 22.76 dBm

WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

5G	Bands	FR1 (Sub 6G): FDD: n28 TDD: n78
	Band combinations	For supported E-UTRAN New Radio Dual Connectivity (EN-DC) see Section 6.2
	4x4 MIMO	n78
	DSS	n28
	Category	3GPP Rel 15
	Output Power	FR1 (Sub 6G): n78: 26dBm +2/-3dB all other bands: 23dBm ±2dB
4G	Bands	FDD: B1, B3, B7, B8, B20, B28 TDD: B38, B40
	Band combinations	For supported carrier aggregations (CA) see Section 6.1
	4x4 MIMO	B1, B3, B7, B40, B38
	RX Diversity	all LTE bands
	Category	UE Cat. 13 (UL: 150Mbps) + UE Cat. 20 (DL: 2Gbps); 7xDL CA, 3xUL CA (Intra-band), 5xDL CA+4X4 MIMO (Up to UE Cat20)
	Output Power	23dBm ±2dB
3G	Bands	Bd.I, Bd.VIII
	RX Diversity	all 3G bands
	Category	DC-HSPA+ – DL Cat. 24 (42Mbps) / UL Cat. 6 (11Mbps) HSUPA – UL 5.76Mbps Compressed mode (CM) supported according to 3GPP TS25.212
	Output Power	all bands: 24dBm +1.7/-3.7dB

This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

This equipment is restricted to indoor use only when operating in the 5150 to 5250 MHz frequency range in above countries.

contact as: https://www.peplink.com/

UK Statement for Pepwave Routers (Balance 310 Fiber 5G)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 310 Fiber 5G BPL-310-FBR-5GD-T-PRM
Trade name of the appliance	PEPWAVE / PEPLINK

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

UK legislation

Radio Equipment Regulations 2017

UK Designed Standard

EN 301 908-1 V13.1.1
EN 300 328 V2.2.2
EN 301 893 V2.1.1

Other Standards Applied

EN 62311: 2020
EN 301 489-1 V2.2.3
EN 301 489-17 V3.2.4
Draft EN 301 489-52 V1.2.1
EN 55032: 2015 + A11:2020
EN 55035: 2017 + A11:2020
EN 61000-3-2: 2014
EN 61000-3-3: 2013 + A1:2019
EN 62368-1:2020 + A11:2020

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

CE Statement for Pepwave Routers (Balance SDX)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial Building, Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Peplink Balance SDX SDX Main Chassis (BPL-SDX) SDX Main Chassis (BPL-SDX-F1) SDX Main Chassis (BPL-SDX-C1) BPL-SDX BPL-SDX-F1 BPL-SDX-C1
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 55032: 2015 + AC:2016
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 55035 : 2017
EN 62368-1:2014+A11:2017

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

contact as: https://www.peplink.com/

UK Statement for Pepwave Routers (Balance SDX)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Peplink Balance SDX SDX Main Chassis (BPL-SDX) SDX Main Chassis (BPL-SDX-F1) SDX Main Chassis (BPL-SDX-C1) BPL-SDX BPL-SDX-F1 BPL-SDX-C1
Trade name of the appliance	PEPWAVE / PEPLINK

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

UK legislation

Electromagnetic Compatibility Regulations 2016
Electrical Equipment (Safety) Regulations 2016

UK Designed Standard

EN 55032: 2015 + AC:2016
EN 55035: 2017
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 62368-1: 2014+A11:2017

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

CE Statement for Pepwave Routers (EPX)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	SD-WAN Router
Model name of the appliance (or selective Product Codes)	EPX EPX-M8
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 55032: 2015 +AC: 2016

EN 61000-3-2: 2014
EN 61000-3-3: 2013

EN 61000-4-2: 2009
EN 61000-4-3: 2006 +A1: 2008 + A2: 2010
EN 61000-4-4: 2012
EN 61000-4-5: 2014
EN 61000-4-6:2014
EN 61000-4-11:2004

EN 301 489-1 V2.1.1
EN 62368-1:2014+A11:2017

Yours sincerely,

Keith Chau
General Manager
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

contact as: https://www.peplink.com/

FCC Requirements for Operation in the United States

Federal Communications Commission (FCC) Compliance Notice:

For Balance SDX Pro

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

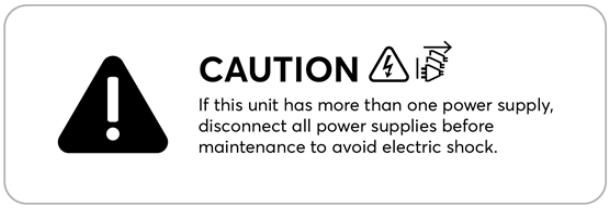
Industry Canada Statement (Balance SDX Pro)

This product meets the applicable Innovation, Science and Economic Development Canada technical Specifications.

Le présent produit est conforme aux spécifications techniques applicables d'Innovation, Sciences et Développement économique Canada.

Battery Caution Statement (Balance SDX Pro)

Risk of explosion if the battery replaced by an incorrect type, place the battery into fire, a hot oven, extremely high temperature or low air pressure surrounding environment, the leakage of flammable liquid or gas, and mechanically crushing or cutting of the battery.



This caution label show on bottom of device for Balance SDX Pro and EPX models, and near power supply position.

CE Statement for Pepwave Routers (Balance SDX Pro)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial. Building., Phase 6, 481 Castle Peak Road, Cheung Sha Wan,Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Balance Product
Model name of the appliance	Balance SDX Pro BPL-SDX-PRO-M2 BPL-SDX-PRO-M2-1TB BPL-SDX-PRO-M2-2TB Peplink Balance SDX Pro
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 55032: 2015 + A11:2020
EN 55035: 2017 + A11:2020
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 62368-1:2014 + A11:2017

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

contact as: https://www.peplink.com/

UK Statement for Pepwave Routers (Balance SDX Pro)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Balance Product
Model name of the appliance	Balance SDX Pro BPL-SDX-PRO-M2 BPL-SDX-PRO-M2-1TB BPL-SDX-PRO-M2-2TB Peplink Balance SDX Pro
Trade name of the appliance	PEPWAVE / PEPLINK

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

UK legislation

Electromagnetic Compatibility Regulations 2016
Electrical Equipment (Safety) Regulations 2016

UK Designed Standard

EN 55032: 2015 + A11:2020
EN 55035: 2017 + A11:2020
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 62368-1:2014 + A11:2017

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

FCC Requirements for Operation in the United States

Federal Communications Commission (FCC) Compliance Notice:

For Balance 380X, Balance 580X

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Industry Canada Statement (Balance 380X, Balance 580X)

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications.

Ce produit répond aux spécifications techniques applicables à l'innovation, Science et Développement économique Canada.

Battery Caution Statement (Balance 380X, Balance 580X)

Risk of explosion if the battery replaced by an incorrect type, place the battery into fire, a hot oven, extremely high temperature or low air pressure surrounding environment, the leakage of flammable liquid or gas, and mechanically crushing or cutting of the battery.

CE Statement for Pepwave Routers (Balance 380X / Balance 580X)

DECLARATION OF CONFORMITY

We affirm the electrical equipment manufactured by us fulfils the requirements of the Radio Equipment Directive 2014/53/EU.

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Industrial. Building., Phase 6, 481 Castle Peak Road, Cheung Sha Wan,Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 380X Balance 580X Peplink Balance 380X Peplink Balance 580X BPL-380X BPL-580X
Trade name of the appliance	PEPWAVE / PEPLINK

The construction of the appliance is in accordance with the following standards:

EN 55032: 2015 + A11:2020
EN 55035: 2017 + A11:2020
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 62368-1:2014 + A11:2017

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK(NI)

contact as: https://www.peplink.com/

UK Statement for Pepwave Routers (Balance 380X / Balance 580X)

UK DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED
Contact information of the manufacturer	A8, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong tel. (852) 2990 7600, fax. (852) 3007 0588 e-mail: cs@peplink.com
Description of the appliance	PEPWAVE / PEPLINK Wireless Product
Model name of the appliance	Balance 380X Balance 580X Peplink Balance 380X Peplink Balance 580X BPL-380X BPL-580X
Trade name of the appliance	PEPWAVE / PEPLINK

We declare under sole responsibilities that the above product conforms to the applicable requirements of following relevant UK legislation and designed standards.

UK legislation

Electromagnetic Compatibility Regulations 2016
Electrical Equipment (Safety) Regulations 2016

UK Designed Standard

EN 55032: 2015 + A11:2020
EN 55035: 2017 + A11:2020
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 62368-1:2014 + A11:2017

Yours sincerely,

Antony Chong
Director of Hardware Engineering
Peplink International Limited

USB WAN Modem Port Specification

Balance Series

	20X	30 LTE	30 Pro	ONE	TWO	210
Output Rating	5V DC, 2A	5V DC, 2A	5V DC, 2A	5V DC, 2A	5V DC, 1A	5V DC, 1A

	310X	380	380X	580	580X	710	1350	2500	2500 EC
Output Rating	5V DC, 2A	5V DC, 0.5A	5V DC, 1A	5V DC, 0.5A	5V DC, 1A	5V DC, 2.5A	5V DC, 2.5A	5V DC, 2.5A	5V DC, 2.5A

