

Peplink Balance Multi-WAN Bonding Routers

User Manual

For Model ONE/20/30/30 LTE/210/310/305/380/580/710/1350/2500

Peplink Balance Firmware 6.1



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1 Introduction and Scope

The Peplink Balance series provides link aggregation and load balancing across up to thirteen WAN connections.

The Peplink Balance 20/30/30 LTE provides a cost-effective solution suitable for power users and home offices.

The Peplink Balance 210/310 provides advanced features for small business.

The Peplink Balance 380, 580, 710, 1350, and 2500 come with a suite of advanced enterprise-class features. They are ideal single-box solutions for medium to large-sized business environments, and they allow service providers to enable highly available multi-network services.

This manual applies to the following Peplink Balance products:

- Peplink Balance 20/30 (firmware version v6.1.x)
- Peplink Balance 30 LTE (firmware version v6.1.x)
- Peplink Balance 210/310 (firmware version v6.1.x)
- Peplink Balance 380 (firmware version v6.1.x)
- Peplink Balance 580 (firmware version v6.1.x)
- Peplink Balance 710 (firmware version v6.1.x)
- Peplink Balance 1350 (firmware version v6.1.x)
- Peplink Balance 2500 (firmware version v6.1.x)

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

Important Note to Users Upgrading from Firmware 4.7 or below

If your current firmware version is 4.7 or below, please upgrade to Firmware 4.8.2 before upgrading to Firmware 6.1.

Important Note to Users of the Peplink Balance 30 (Classic Edition)

Firmware 5.0 or above is NOT applicable to the Peplink Balance 30 (Classic Edition). For more information on identifying the generation of your Peplink Balance 30, please visit our knowledge base at <http://www.peplink.com/index.php?view=faq&id=231&path=16>.

2 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., WiMAX, 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
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
380+	Refers to Peplink Balance 380/580/710/1350/2500

3 Product Comparison Chart

Features	20	30	30 LTE	210	310	380	580	710	1350	2500
Capacity										
WAN Ports (GbE) / Internet Links	2	3	2	2	3	3	5	7	13	12
USB WAN Modem Port	1	1	1	1	1	1	1	1	1	1
Embedded LTE Modem	X	X	1	X	X	X	X	X	X	X
Recommended Users	1-25	1-25	1-25	1-50	1-50	50-500	300-1000	500-2000+	1000-5000+	5000-20000+
Router Throughput	100M	100M	100M	100M	100M	200M	400M	800M	1500M	8Gbps
Core Functionality										
Load Balancing & Failover	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Load Balancing	5	5	5	7	7	7	7	7	7	7
● Weighted	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
● Enforced	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
● Persistence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
● Priority	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
● Overflow	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
● Least Used	X	X	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes

● Lowest Latency	X	X	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Drop-In Mode	X	X	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Inbound Load Balancing	X	X	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4G/3G Modem Support	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VPN Functionality										
SpeedFusion™	X	X	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of ...	X	X	X	2	2	20	50	300	800	4000
Bonded VPN Throughput	X	X	X	30M	30M	60M	80M	150M	350M	2Gbps
PPTP VPN Server	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recommended PPTP	3	3	3	15	15	50	100	200	500	1000
RADIUS / LDAP Support for PPTP	X	X	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IPsec VPN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of IPsec Tunnel	2	2	2	2	2	20	50	150	400	800
WLAN Control										
Manage Pepwave AP	X	X	X	X	X	Yes	Yes	Yes	Yes	Yes
Access Point	X	X	X	X	X	Yes	Yes	Yes	Yes	Yes
AP Firmware Update	X	X	X	X	X	Yes	Yes	Yes	Yes	Yes
Number of AP Support	X	X	X	X	X	50*	100*	250*	500*	Yes
Advanced QoS										
Bandwidth Usage Monitor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
QoS for VoIP and E-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Application Prioritization	X	X	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Application Prioritization	X	X	X	X	X	Yes	Yes	Yes	Yes	Yes
User Group Bandwidth	X	X	X	X	X	Yes	Yes	Yes	Yes	Yes
Individual Bandwidth Limit	X	X	X	X	X	Yes	Yes	Yes	Yes	Yes
Networking Functionality										
NAT and IP Forwarding	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Static Routes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Port Forwarding	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Many to One, One to One	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NAT Pool	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SIP ALG, H.323 ALG	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UPnP, NAT-PMP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WINS Server	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dynamic DNS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Web Blocking	X	X	X	X	X	Yes	Yes	Yes	Yes	Yes
Device										
Web Administrative	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Email Notification	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Active Client List	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Active Session List	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bandwidth Usage	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Web Reporting Services	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Email Notification	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Syslog	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
SNMP v1, v2c and v3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Hardware Features											
LAN Ports (GbE)	4	4	4	4	4	1	1	1	1	8/ 2(10GbE SFP+)	
Power Input	9-16V DC	9-16V DC	9-16V DC	9-16V AC DC	9-16VDC	100V to 240V	100V to 240V AC	100V to 240V AC	100V to 240V AC	100V to 240V AC	
Power Consumption	15W	15W	15W	15W	15W	50W	50W	70W	70W	230W	
1U Rackmount	X	X	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
High Availability	X	X	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
LAN Bypass	X	X	X	X	X	X	Yes	Yes	Yes	Yes	
Dimension (H x W x D)	3.5cm x 26cm x 13.3cm			3.5cm x 26cm x 13.3cm			1U x 37.9cm		1U x 39.8cm		1U x 55cm
Weight	1.0kg	1.0kg	1.0kg	1.2kg	1.2kg	3.5kg	5.5kg	5.5kg	6.5kg	12kg	

4 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:

4.1 Supported Network Features

4.1.1 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 (**Available on Peplink Balance 30 LTE**)
- USB mobile connection (**only one USB modem can be connected at a time**)
- Drop-in Modeon selectable WAN port with MAC address passthrough (**available on Peplink Balance 210+**)
- Network 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

4.1.2 LAN

- DHCP server on LAN
- Extended DHCP option support
- Static routing rules
- Local DNS proxy server
- VLAN on LAN support

4.1.3 VPN

- Secure SpeedFusion™ (**available on Peplink Balance 210+**)
- SpeedFusion performance analyzer
- X.509 certificate support (**feature activation required on Peplink Balance 20/30/30 LTE; included on Peplink Balance 210+**)
- 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
- SpeedFusion™ throughput, ping, and traceroute tests
- Built-in PPTP VPN server
- Authenticate PPTP clients using RADIUS and LDAP servers (**Available on Peplink Balance 210+**)
- IPsec VPN for network-to-network connections (Works with Cisco and Juniper only)
- PPTP and IPsec passthrough

4.1.4 Inbound Traffic Management

- TCP/UDP traffic redirection to dedicated LAN server(s)
- Inbound link load balancing by means of DNS(**available on Peplink Balance 210+**)

4.1.5 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

4.1.6 AP Controller

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

4.1.7 QoS(Available on Peplink Balance 210+)

- Quality of Service for different applications and custom protocols
- User Group classification for different service levels (**Available on Peplink Balance 380+**)
- Bandwidth usage control and monitoring on group- and user- level (**Available on Peplink Balance 380+**)
- Application Prioritization for custom protocols and DSL optimization

4.1.8 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 (**Available on Peplink Balance 380+**)
- Outbound firewall rules can be defined by destination domain name

4.1.9 Captive Portal

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

4.2 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 (**Available on the Peplink Balance 20, 30 and 30 LTE upon feature activation, available on Peplink Balance 210+**)
- Authentication and Accounting by RADIUS server for Web Admin(**Available on Peplink Balance 210+**)
- 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 (**Available on Peplink Balance 210+**)
- Real-Time, Hourly, Daily and Monthly Bandwidth Usage reports and charts
- Hardware backup via LAN bypass (**Available on Peplink Balance 580, 710, 1350 and 2500**)
- 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
- Improved Active Sessions Page
- Event Log is persistent across reboots
- IPv6 support
- Support USB tethering on Android 2.2+ phones

5 Package Contents

The contents of Peplink Balance product packages are as follows:

5.1 Peplink Balance One

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

5.2 Peplink Balance 20 / 30 / 30 LTE

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

5.3 Peplink Balance 210 / 310

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

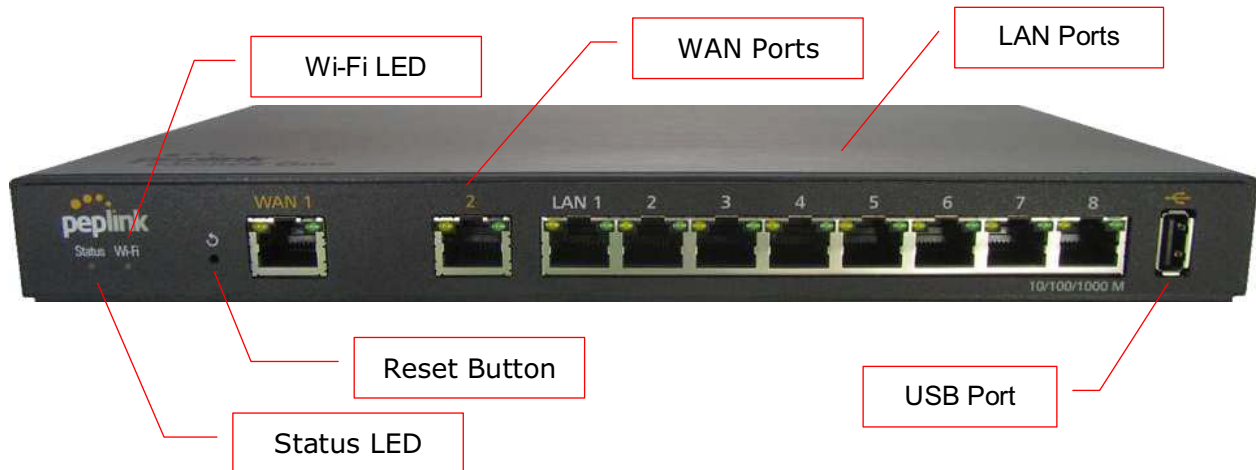
5.4 Peplink Balance305 / 380 / 580 / 710 / 1350 / 2500

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

6 Peplink Balance Overview

6.1 Peplink Balance One

6.1.1 Front Panel Appearance



6.1.2 LED Indicators

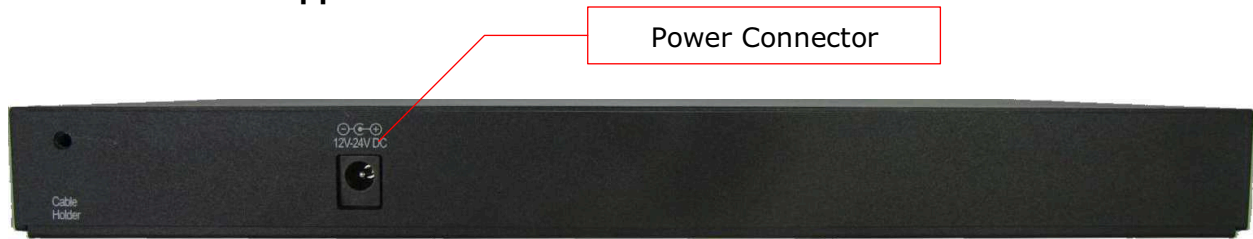
The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Wi-Fi	OFF – Wi-Fi is off
	Green – Ready
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 future functionalities.

6.1.3 Rear Panel Appearance

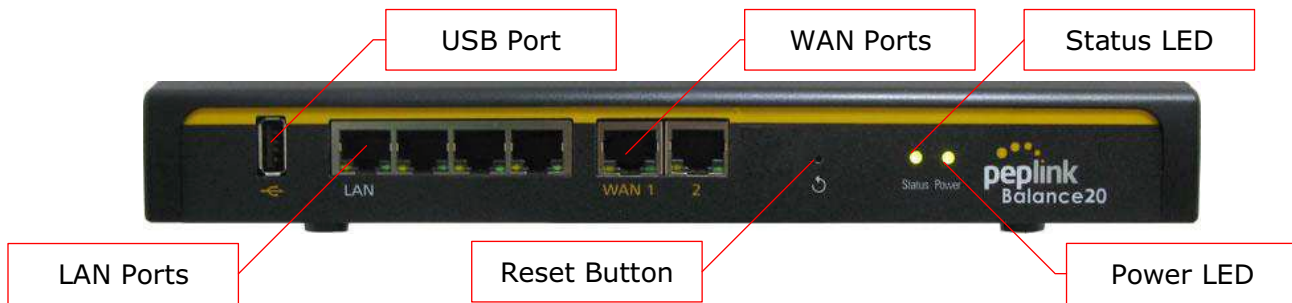


6.1.4 Product Label



6.2 Peplink Balance 20

6.2.1 Front 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

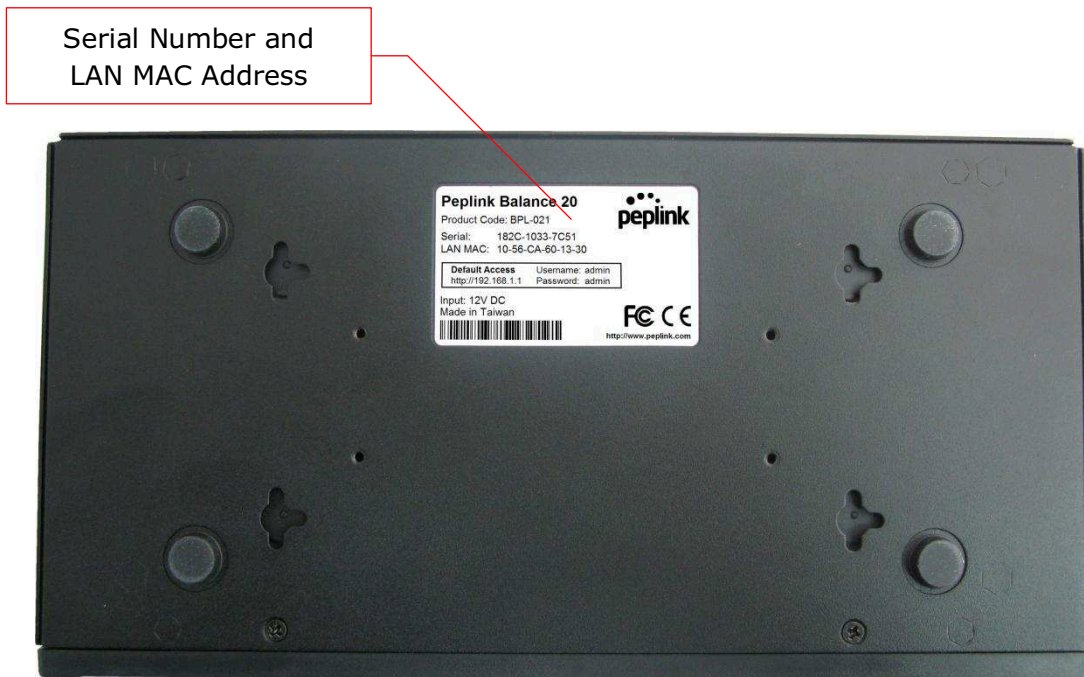
LAN and WAN Ports	
Green LED	ON – 10 / 100 / 1000 Mbps
Orange LED	Blinking – Data is transferring
	OFF – No data is being transferred or port is not connected
Port Type	Auto MDI/MDI-X ports

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

6.2.3 Rear Panel Appearance

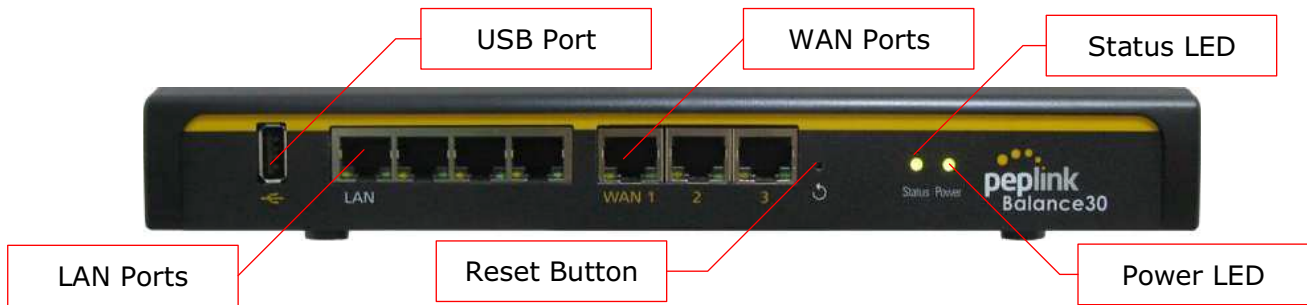


6.2.4 Unit Base Appearance



6.3 Peplink Balance 30

6.3.1 Front Panel Appearance



6.3.2 LED Indicators

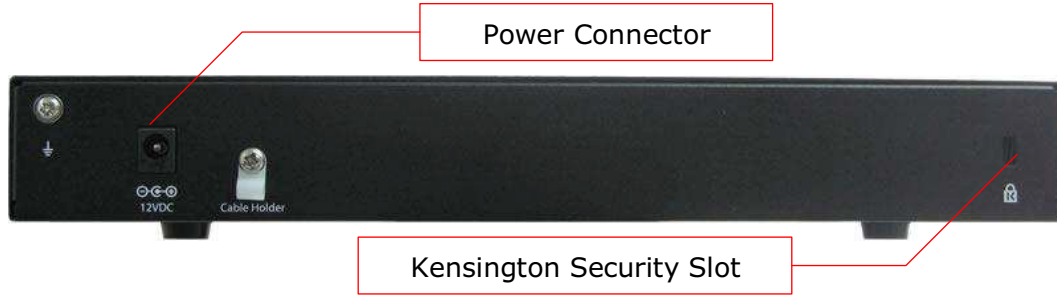
The statuses indicated by the front panel LEDs are as follows:

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

6.3.3 Rear Panel Appearance

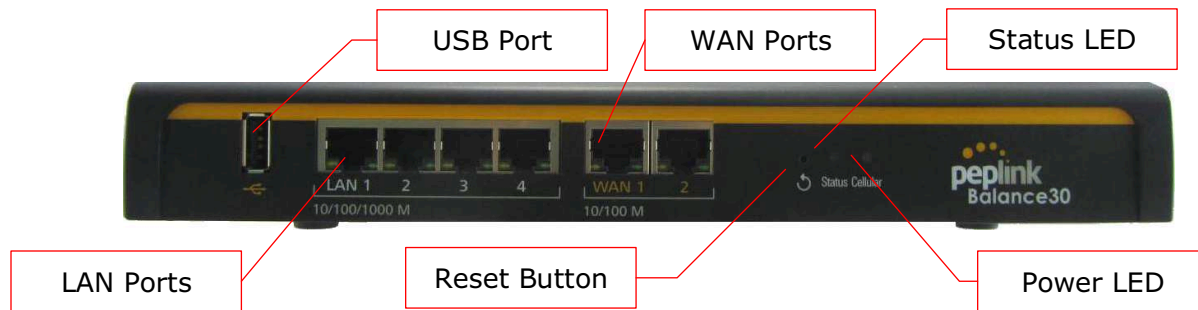


6.3.4 Unit Base Appearance



6.4 Peplink Balance 30 LTE

6.4.1 Front Panel Appearance



6.4.2 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

6.4.3 Rear Panel Appearance

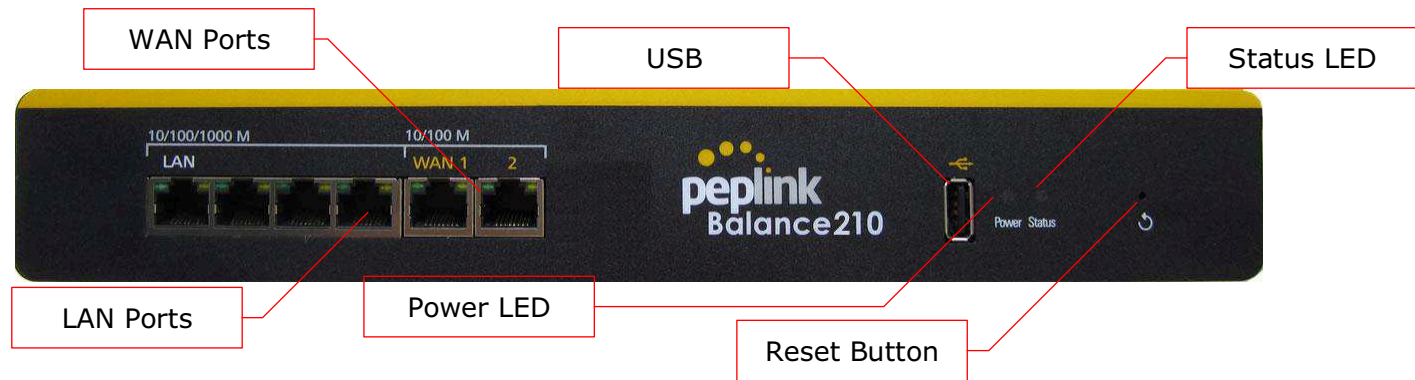


6.4.4 Unit Base Appearance



6.5 Peplink Balance 210

6.5.1 Front Panel Appearance



6.5.2 LED Indicators

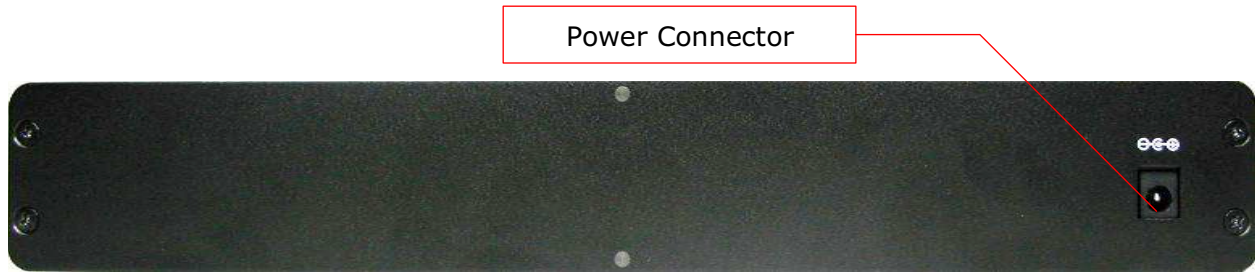
The statuses indicated by the front panel LEDs are as follows:

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

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

6.5.3 Rear Panel Appearance

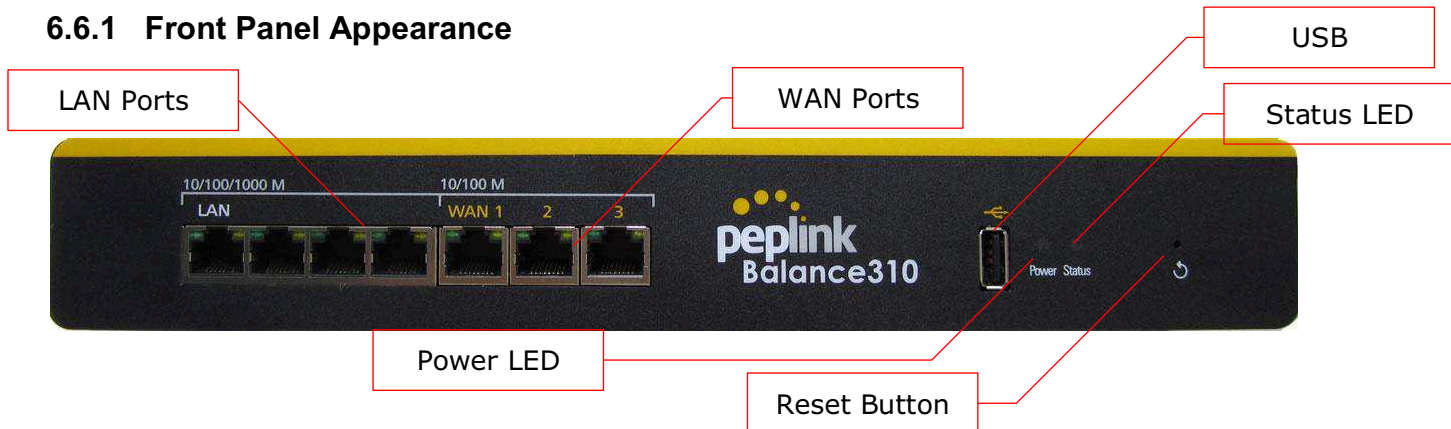


6.5.4 Unit Base Appearance



6.6 Peplink Balance 310

6.6.1 Front Panel Appearance



6.6.2 LED Indicators

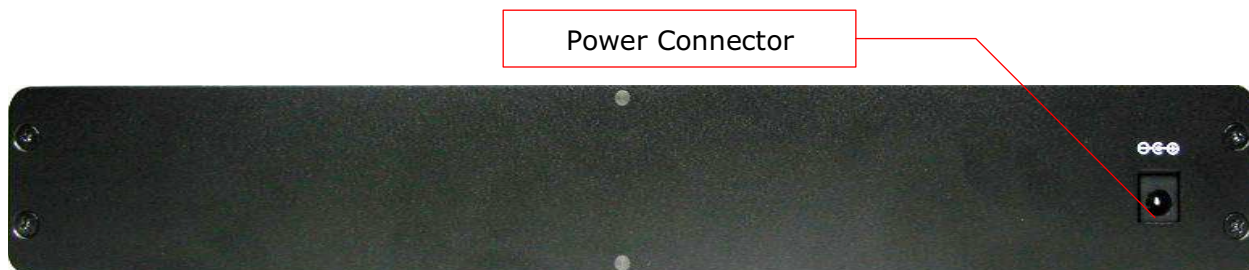
The statuses indicated by the front panel LEDs are as follows:

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

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

6.6.3 Rear Panel Appearance

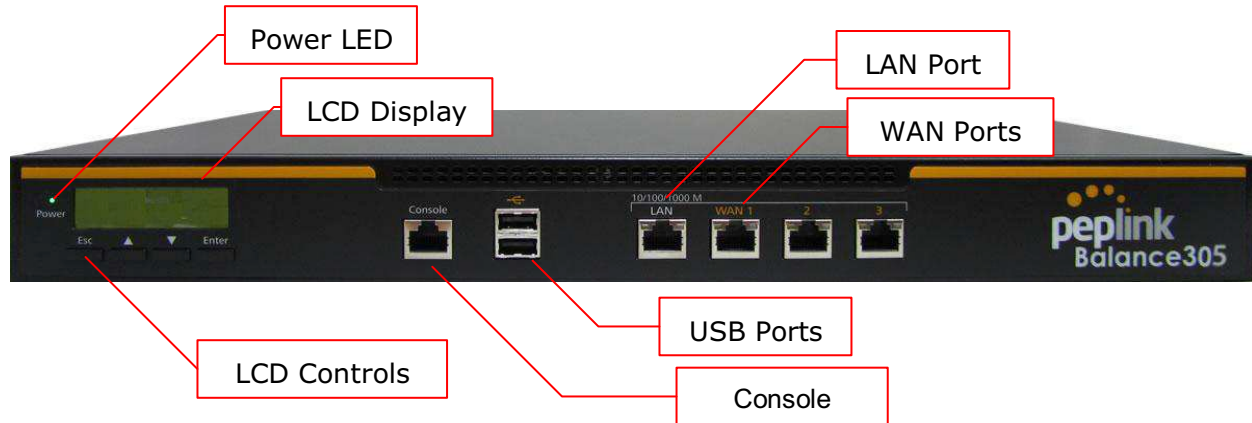


6.6.4 Unit Base Appearance



6.7 Peplink Balance 305

6.7.1 Front Panel Appearance



6.7.2 LED Indicators

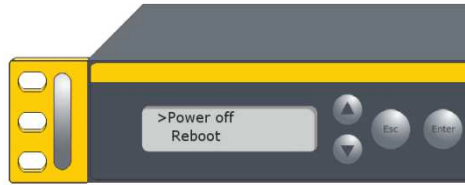
The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
Power 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

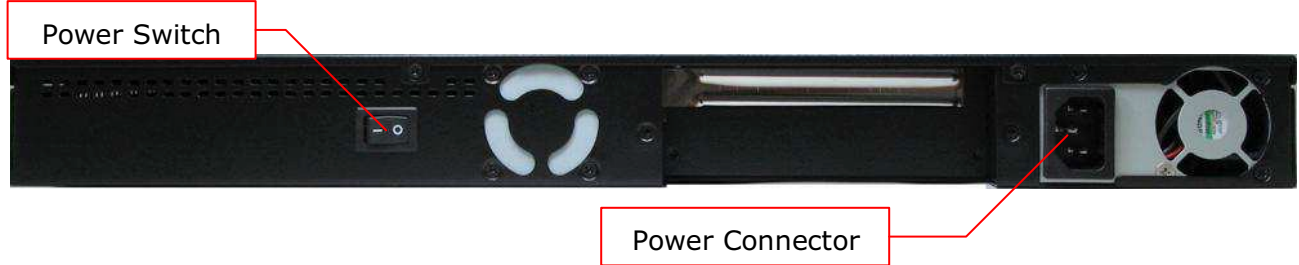
Console and USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.7.3 LCD 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 up time (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 Transfer'd (shows volume transferred since last reboot in MB)
 - > WAN1
 - > WAN2
 - > WAN3
- > Maintenance
 - > Reboot (to reboot the unit)
 - > Factory default (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

6.7.4 Rear Panel Appearance



Connector Ports	
Power Connector	AC input 110/220V

Switch	
Power Switch	Pressing and holding the key for 4 seconds will power down the unit. When the unit is powered off, press it will power on the unit

6.7.5 Unit Label Appearance

Peplink Balance 305


Product Code: BPL-305

Serial: 1824-A94A-3A4D

LAN MAC: 10-56-CA-07-3F-78

Default Access	Username: admin
http://192.168.1.1	Password: admin

Input: 100V-240V AC
Made in Taiwan



peplink

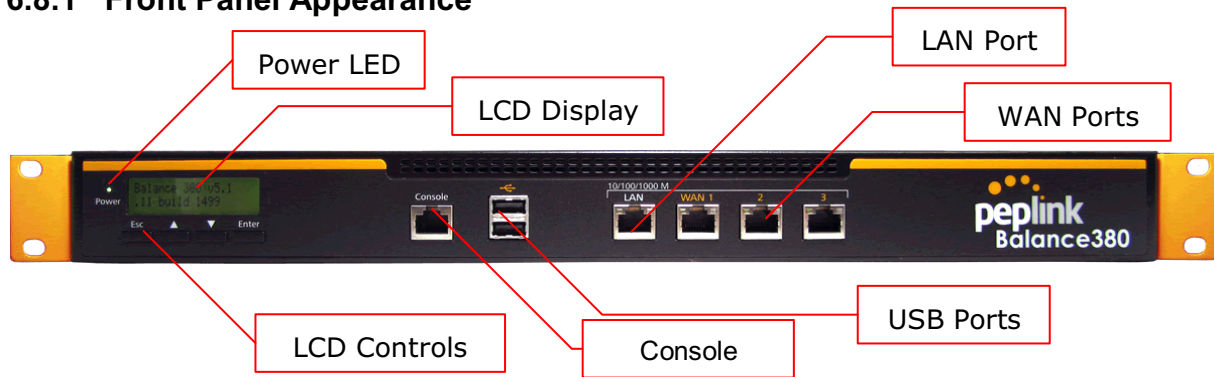
FC CE

<http://www.peplink.com>

Serial Number and LAN MAC Address

6.8 Peplink Balance 380

6.8.1 Front Panel Appearance



6.8.2 LED Indicators

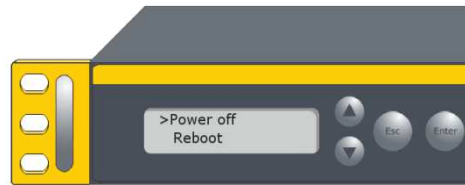
The statuses indicated by the front panel LEDs are as follows:

Power and Status Indicators	
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

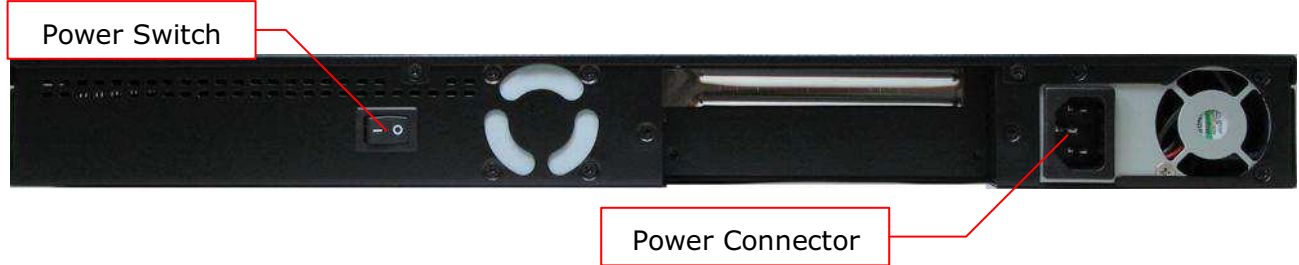
Console and USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.8.3 LCD 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 up time (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 Transfer'd (shows volume transferred since last reboot in MB)
 - > WAN1
 - > WAN2
 - > WAN3
- > Maintenance
 - > Reboot (to reboot the unit)
 - > Factory default (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

6.8.4 Rear Panel Appearance



Connector Ports	
Power Connector	AC input 110/220V


Switch	
Power Switch	To hold pressing the key for 4 seconds will power down the unit When the unit is powered off, press it will power on the unit



6.8.5 Unit Label Appearance

Peplink Balance 380
 Product Code: BPL-380
 Serial: 1824-6144-F2A7
 LAN MAC: 10-56-CA-03-DF-30

Default Access Username: admin
 http://192.168.1.1 Password: admin

Made in Taiwan

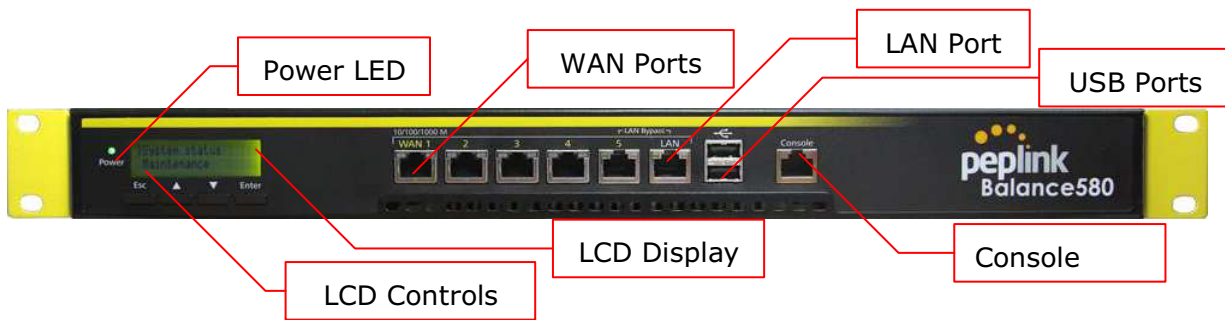




<http://www.peplink.com>

Serial Number and LAN MAC Address

6.9 Peplink Balance 580

6.9.1 Front Panel Appearance



6.9.2 LED Indicators

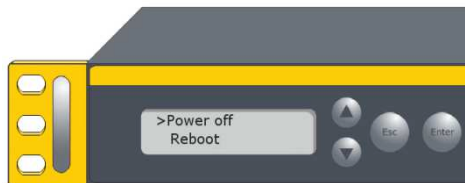
The statuses indicated by the front panel LEDs are as follows:

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

LAN Port, WAN 1 – 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

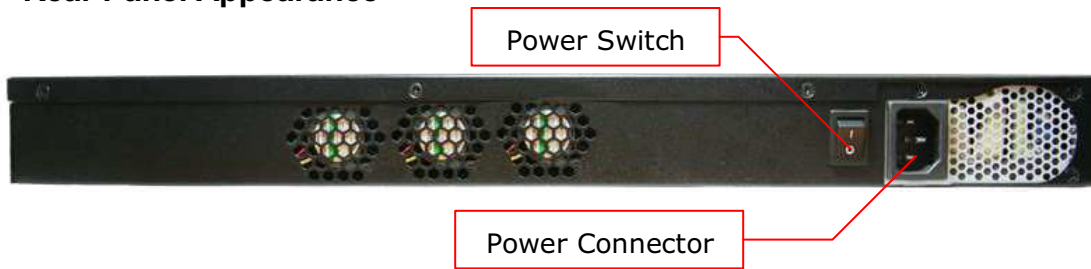
Console and USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.9.3 LCD 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 up time (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
 - > ...
 - > WAN5
 - > 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
 - > ...
 - > WAN5
 - > Throughput out (shows transfer rate in Kbps)
 - > WAN1
 - > WAN2
 - > ...
 - > WAN5
 - > Data Transfer'd (shows volume transferred since last reboot in MB)
 - > WAN1
 - > WAN2
 - > ...
 - > WAN5
- > 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
 - > ...
 - > WAN5

6.9.4 Rear Panel Appearance



Connector Ports	
Power Connector	AC input 110/220V

Switch	
Power Switch	To hold pressing the key for 4 seconds will power down the unit When the unit is powered off, press it will power on the unit

6.9.5 Unit Label Appearance

Peplink Balance 580


Product Code: BPL-580



Serial: 1824-61DE-6B04

LAN MAC: 10-56-CA-03-E6-68

Default Access Username: admin
http://192.168.1.1 Password: admin

Made in Taiwan



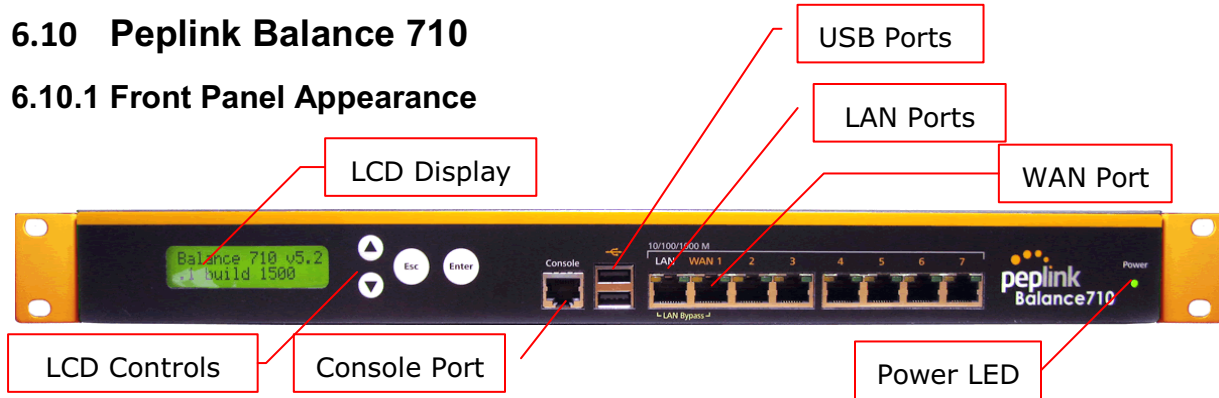



<http://www.peplink.com>

Serial Number and LAN MAC Address

6.10 Peplink Balance 710

6.10.1 Front Panel Appearance



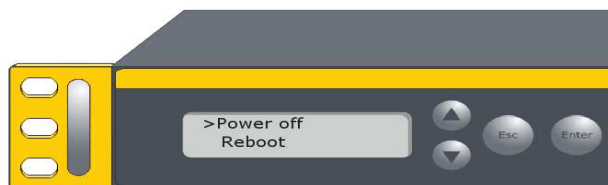
Status indicated in the front panel is as follows:

LED Indicator	
Power LED	OFF – Power off
	GREEN – Power on

LAN Port, WAN 1 – 7Ports	
Green LED	ON – 1000 Mbps
	OFF – 100/10 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

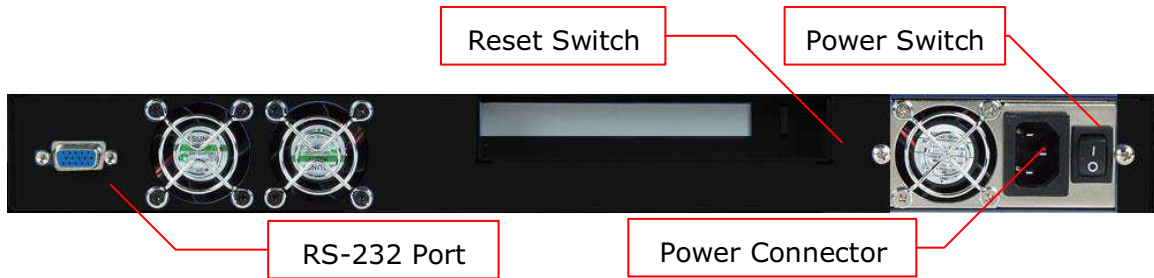
Console & USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.10.2 LCD 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 up time (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
 - > ...
 - > WAN7
 - > 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
 - > ...
 - > WAN7
 - > Throughput out (shows transfer rate in Kbps)
 - > WAN1
 - > WAN2
 - > ...
 - > WAN7
 - > Data Transfer'd (shows volume transferred since last reboot in MB)
 - > WAN1
 - > WAN2
 - > ...
 - > WAN7
- > 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
 - > ...
 - > WAN7

6.10.3 Rear Panel Appearance



Connector Ports	
RS-232 Port	Reserved for engineering use
Power Connector	AC input 110/220V

Switches	
Power Switch	To hold pressing the key for 4 seconds will power down the unit When the unit is powered off, press it will power on the unit
Reset Switch	Press and release once to reset the system

6.10.4 Unit Label Appearance

Peplink Balance 710


Product Code: BPL-710


Serial: 182C-1033-7C51

LAN MAC: 10-56-CA-60-13-30


Default Access Username: admin
http://192.168.1.1 Password: admin

Made in Taiwan





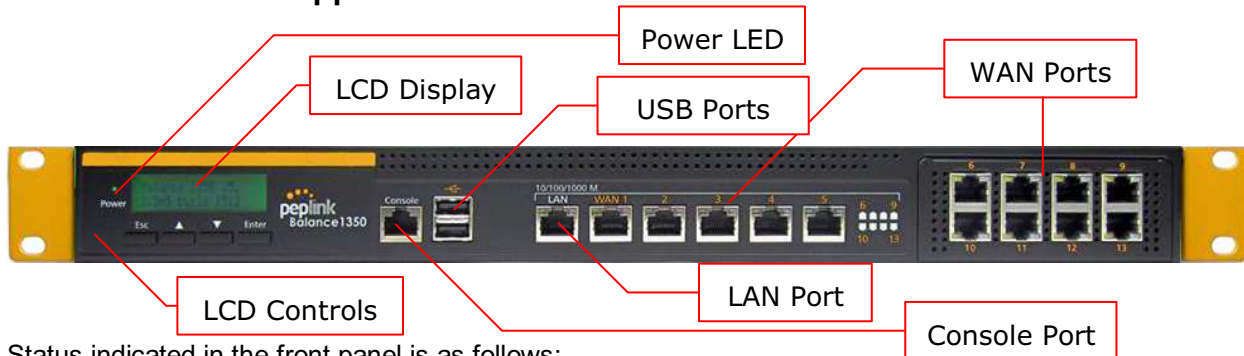
Serial Number and LAN MAC Address



<http://www.peplink.com>

6.11 Peplink Balance 1350

6.11.1 Front Panel Appearance



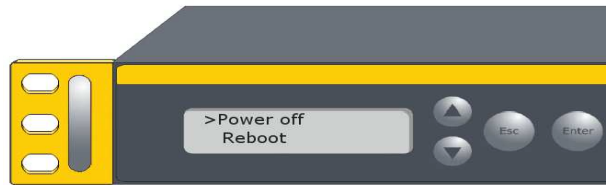
Status indicated in the front panel is as follows:

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

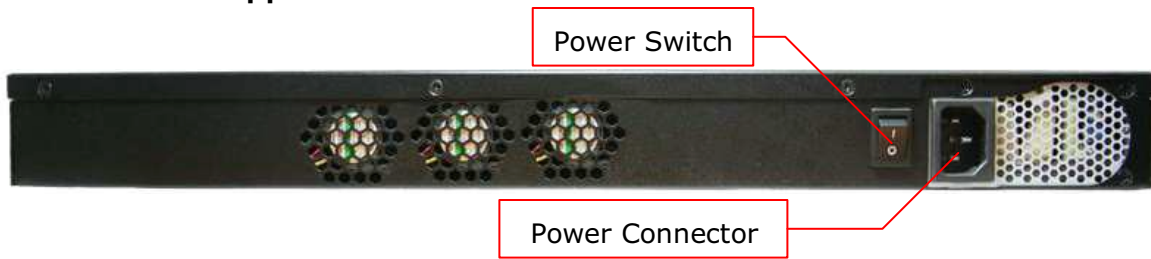
Console & USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.11.2 LCD 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 up time (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
 - > WAN1
 - > WAN2
 - > ...
 - > WAN13 (shows Connected/Disconnected, IP address list)
 - > 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
 - > ...
 - > WAN13
 - > Throughput out (shows transfer rate in Kbps)
 - > WAN1
 - > WAN2
 - > ...
 - > WAN13
 - > Data Transfer'd (shows volume transferred since last reboot in MB)
 - > WAN1
 - > WAN2
 - > ...
 - > WAN13
- > 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
 - > ...
 - > WAN13

6.11.3 Rear Panel Appearance




Connector Ports

Power Connector	AC input 110/220V
------------------------	-------------------

Switches

Power Switch	To hold pressing the key for 4 seconds will power down the unit When the unit is powered off, press it will power on the unit
---------------------	--

6.11.4 Unit Label Appearance

Peplink Balance 1350 


Product Code: BPL-135


Serial: 182C-1065-2932

LAN MAC: 10-56-CA-60-16-50

Default Access Username: admin
http://192.168.1.1 Password: admin

Made in Taiwan



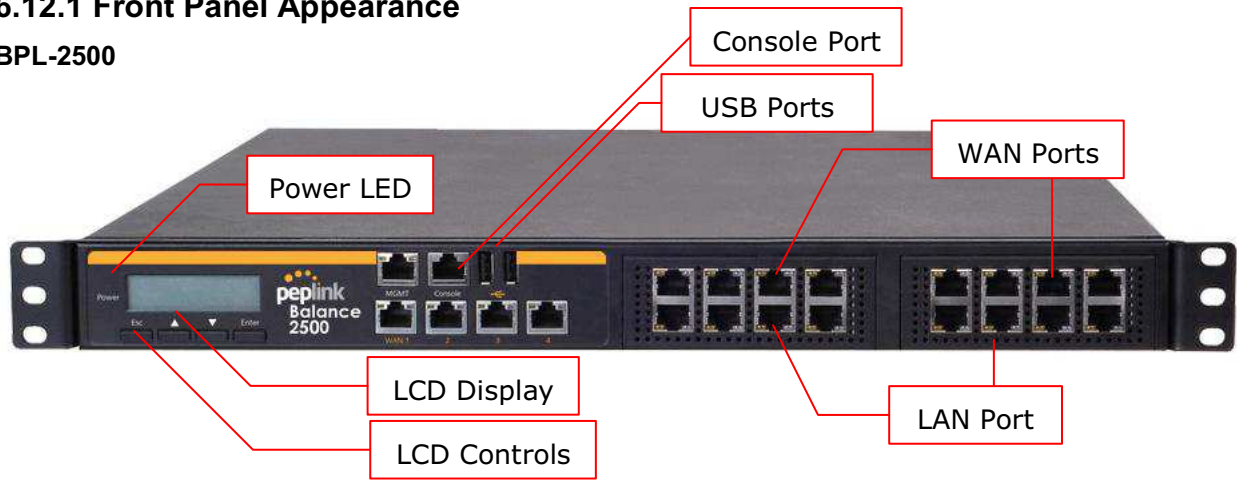

<http://www.peplink.com>

Serial Number and LAN MAC Address

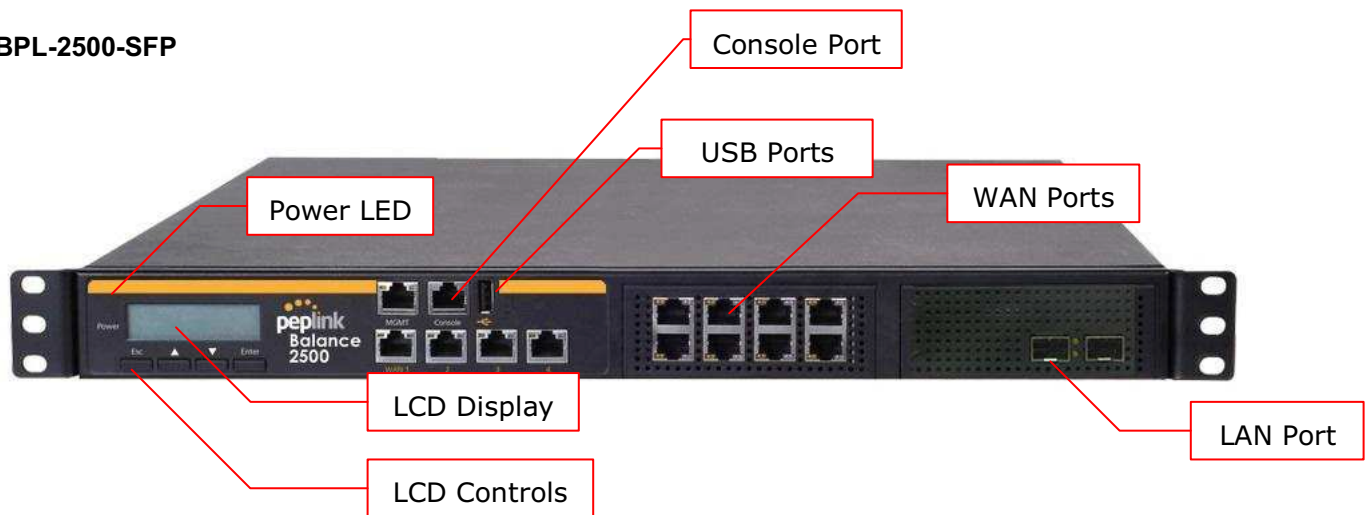
6.12 Peplink Balance 2500

6.12.1 Front Panel Appearance

BPL-2500



BPL-2500-SFP



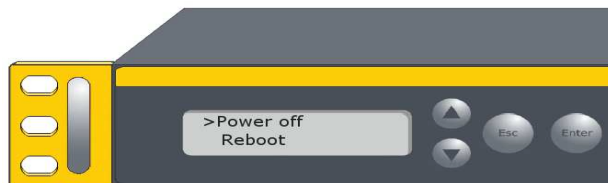
Status indicated in the front panel is as follows:

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

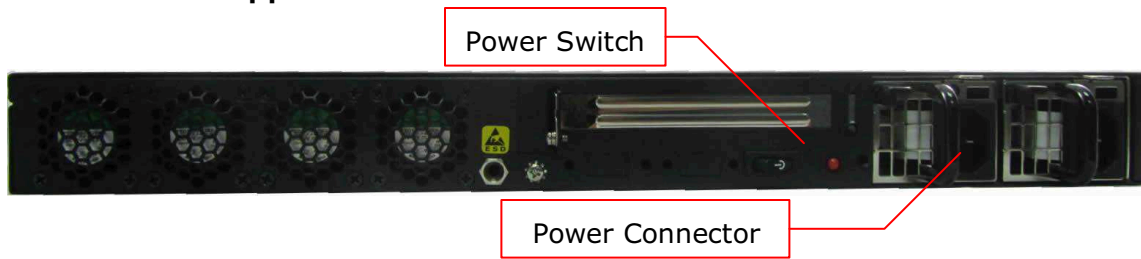
Console & USB Ports	
Console Port	Reserved for engineering use
USB Ports	For connecting a 4G/3G USB modem

6.12.2 LCD 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 up time (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
 - > WAN1
 - > WAN2
 - > ...
 - > WAN13 (shows Connected/Disconnected, IP address list)
 - > 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
 - > ...
 - > WAN13
 - > Throughput out (shows transfer rate in Kbps)
 - > WAN1
 - > WAN2
 - > ...
 - > WAN13
 - > Data Transfer'd (shows volume transferred since last reboot in MB)
 - > WAN1
 - > WAN2
 - > ...
 - > WAN13
- > 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
 - > ...
 - > WAN13

6.12.3 Rear Panel Appearance

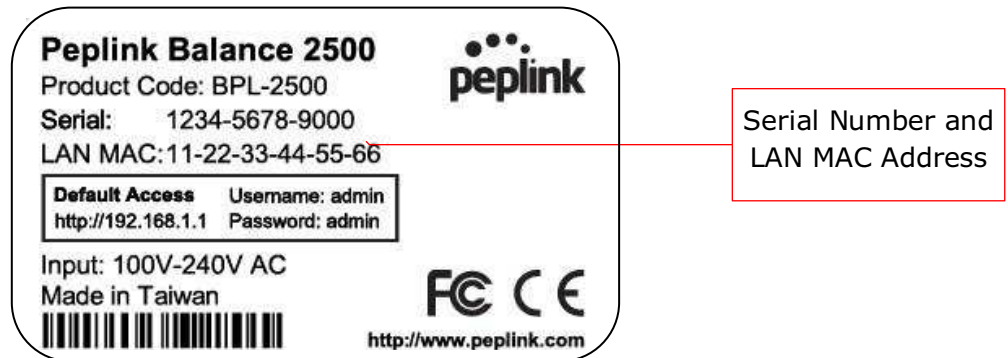


Connector Ports	
Power Connector	AC input 100-240V

Switches	
Power Switch	To hold pressing the key for 4 seconds will power down the unit When the unit is powered off, press it will power on the unit

6.12.4 Unit Label Appearance

BPL-2500

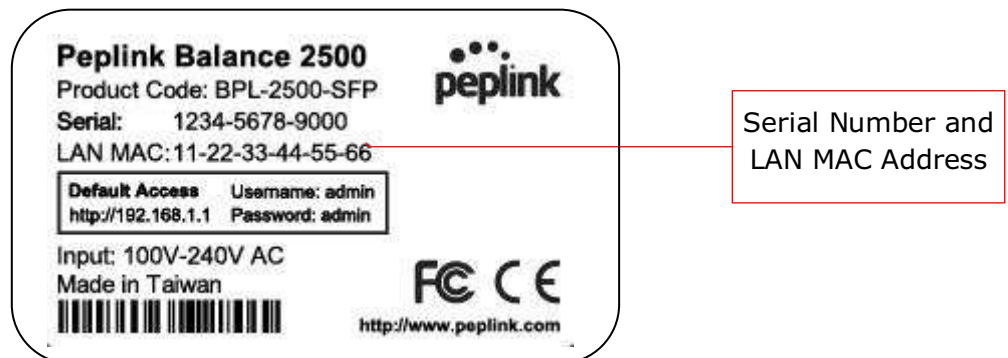


The image shows the unit label for the BPL-2500. The label contains the following information:

- Peplink Balance 2500**
- Product Code: BPL-2500
- Serial: 1234-5678-9000
- LAN MAC: 11-22-33-44-55-66
- Default Access** Username: admin
http://192.168.1.1 Password: admin
- Input: 100V-240V AC
- Made in Taiwan
- Barcode
- FC CE
- http://www.peplink.com

A red box with a line pointing to the Serial and LAN MAC information is labeled 'Serial Number and LAN MAC Address'.

BPL-2500-SFP



The image shows the unit label for the BPL-2500-SFP. The label contains the following information:

- Peplink Balance 2500**
- Product Code: BPL-2500-SFP
- Serial: 1234-5678-9000
- LAN MAC: 11-22-33-44-55-66
- Default Access** Username: admin
http://192.168.1.1 Password: admin
- Input: 100V-240V AC
- Made in Taiwan
- Barcode
- FC CE
- http://www.peplink.com

A red box with a line pointing to the Serial and LAN MAC information is labeled 'Serial Number and LAN MAC Address'.

7 Installation

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

7.1 Preparation

Before installing your Peplink Balance, please prepare the following:

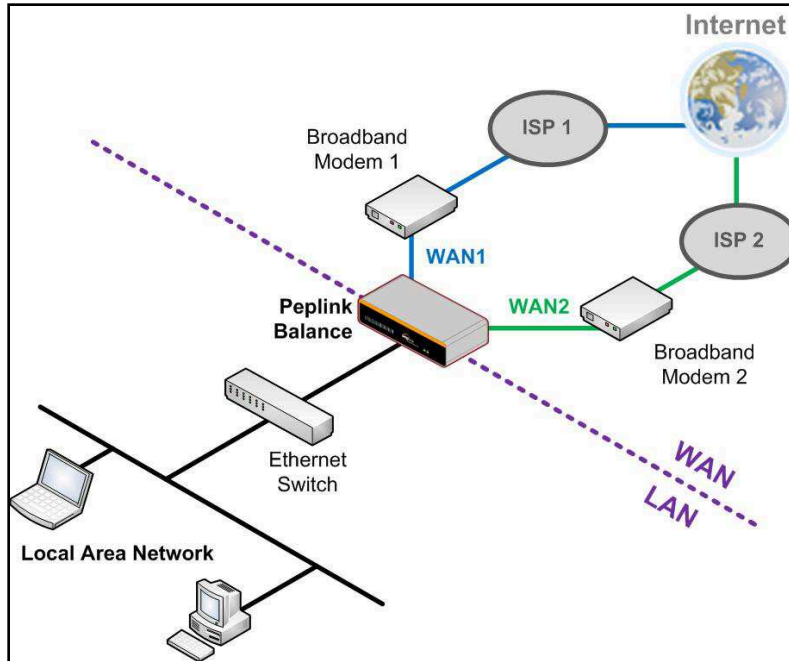
- At least one Internet/WAN access account
- For each network connection, one 10/100BaseT UTP cable with RJ45 connector, or one 1000BaseT Cat5E UTP cable for the Gigabit port on the Balance 580/710/1350/2500, or one USB modem for the USB WAN port on the Balance 305/380/580/710/1350/2500
- A computer with the TCP/IP network protocol and a Web browser installed. Supported browsers include Microsoft Internet Explorer 8.0 and above, Mozilla Firefox 10.0 and above, Apple Safari 5.1 and above, and Google Chrome 18 and above.

7.2 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 the Peplink Balance 20, 30, 30 LTE, 210 and 310, repeat with different cables for up to 4 computers to be connected.
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 up to 2, 3, 5, 7, 13 or 12 WAN/broadband connections with the Peplink Balance 20, 30, 30 LTE, 210, 310, 305, 380, 580, 710, 1350 and 2500, respectively, or connect a USB modem to the USB WAN port on the Peplink Balance 20/30/30 LTE/380/580/710/1350/2500.
3. For the Peplink Balance 20, 30, 30 LTE, 210, and 310, connect the provided power adapter to the power connector on the Peplink Balance, and then plug the power adapter into a power outlet. For the Peplink Balance 305, 380, 580, 710, 1350 and 2500, connect the provided power cord to the AC power connector on the Peplink Balance, and then plug the power cord into a power outlet.

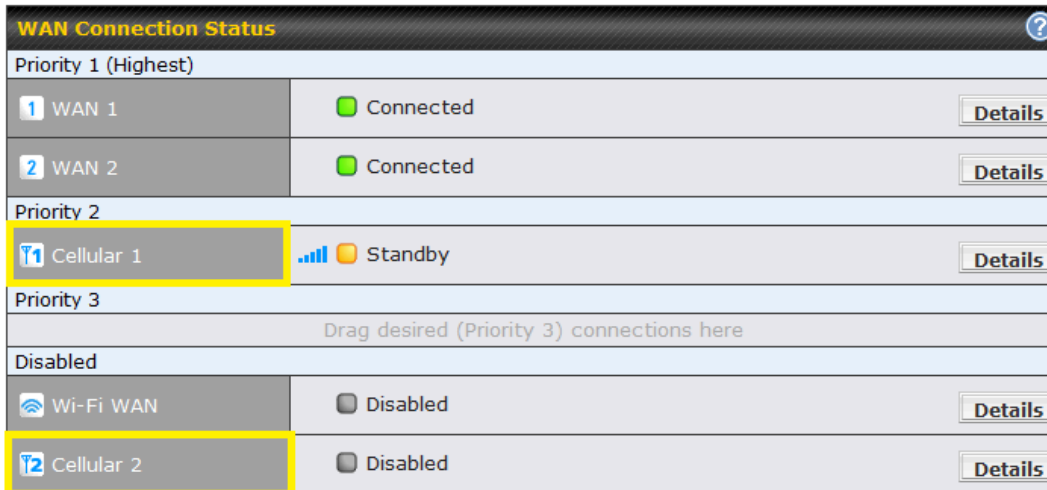
The following figure schematically illustrates the resulting configuration:



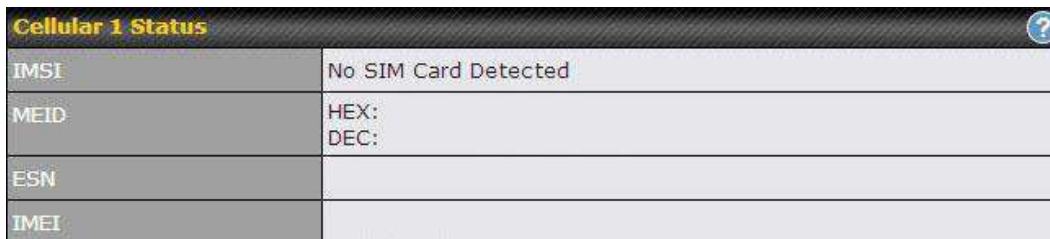
7.3 Configuring the Network Environment

To ensure that your Peplink Balance works properly in the LAN environment and can access the Internet via the WAN connections, please refer to the following setup procedures:

- LAN Configuration
For basic configuration, refer to Section , **Basic Configuration**.
- For advanced configuration, refer to Section , **Cellular WAN**
- **Network>WAN> Click on Detail** [Details](#)





(Available on the Peplink 30 LTE only)




Cellular Status	
IMSI	This is the International Mobile Subscriber Identity which uniquely identifies the SIM card. This is applicable to 3G modems only.
MEID	The Pepwave MAX supports both HSPA and EV-DO. For Sprint or Verizon Wireless EV-DO users, a unique MEID identifier code (in hexadecimal format) is used by the carrier to associate the EV-DO device with the user. This information is presented in hex and decimal format.
ESN	This serves the same purpose as MEID HEX but uses an older format.
IMEI	This is the unique ID for identifying the modem in GSM/HSPA mode.

WAN Connection Settings	
WAN Connection Name	Cellular 1 Default
Network Mode	<input checked="" type="radio"/> HSPA <input type="radio"/> Sprint,EV-DO <input type="radio"/> Verizon Wireless,EV-DO
Routing Mode	<input checked="" type="radio"/> NAT <input type="radio"/> IP Forwarding

WAN Connection Settings	
WAN Connection Name	This field is for defining a name to represent this WAN connection.
Network Mode	Users have to specify the Network they are on accordingly.
Routing Mode	This option allows you to select the routing method to be used in routing IP frames via the WAN connection. The mode can be either NAT (Network Address Translation) or IP Forwarding. Click the  button to enable IP Forwarding.

Cellular Settings	
3G/2G 	Auto
Authentication	Auto
Data Roaming	<input type="checkbox"/>
Operator Settings	<input checked="" type="radio"/> Auto <input type="radio"/> Custom
APN	
Username	
Password	
SIM PIN (Optional)	

Cellular Settings	
3G/2G	Band selection to restrict cellular on particular band. Click on the  button to enable the selection of specific bands.
Data Roaming	This checkbox enables data roaming on this particular SIM card. Please check your service provider's data roaming policy before proceeding.
Operator Settings	This setting applies to 3G / EDGE / GPRS modem only. It does not apply to EVDO / EVDO Rev. A modem. This allows you to configure the APN settings of your connection. If Auto is selected, the mobile operator should be detected automatically. The connected device will be configured and connection will be made automatically afterwards. If there is any difficulty in making connection, you may select Custom to enter your carrier's APN, Login, Password, and Dial Number settings manually. The correct values can be obtained from