

The firmware will now be applied to the router<sup>\*</sup>. The amount of time it takes for the firmware to upgrade will also depend on the router that's being upgraded.

Firmware Upgrade It may take up to 8 minutes.

Validation success... 9%

\*Upgrading the firmware will cause the router to reboot.

#### Web admin interface : install updates manually

In some cases, a special build may be provided via a ticket or it may be found in the forum. Upgrading to the special build can be done using this method, or using IC2 if you are using that to manage your firmware upgrades. A manual upgrade using the GA firmware posted on the site may also be recommended or required for a couple of reasons.

All of the Peplink/Pepwave GA firmware can be found <u>here</u> Navigate to the relevant product line (ie. Balance, Max, FusionHub, SOHO, etc). Some product lines may have a dropdown that lists all of the products in that product line. Here is a screenshot from the Balance line.

Balance							
Product	*						
					Search:		
Product	Hardware Revision	Firmware Version	\$ Download Link	¢	Release Notes	\$ User Manual	\$
Balance 1350	HW2	7.1.2	Download		PDF	PDF	
Balance 1350	HW1	6.3.4	Download		PDF	PDF	
Balance 20	HW1-6	7.1.2	Download		PDF	PDF	
Balance 210	HW4	7.1.2	Download		PDF	PDF	

If the device has more than one firmware version the current hardware revision will be required to know what firmware to download.

Navigate to System > Firmware and click the Choose File button under the Manual Firmware Upgrade section. Navigate to the location that the firmware was downloaded to select the ".img" file and click the Open button.

Click on the Manual Upgrade button to start the upgrade process.

Manual Firmware Upgra	de	0
Firmware Image	Choose File No file chosen	9
	Manual Upgrade	

A prompt will be displayed advising to download the Current Active Configuration. Please click on the underlined download text. After downloading the current config click the Ok button to start the upgrade process. The firmware will now be applied to the router<sup>\*</sup>. The amount of time it takes for the firmware to upgrade will depend on the router that's being upgraded.

Firmware Upgrade It may take up to 8 minutes.	
	9%
Validation success	

\*Upgrading the firmware will cause the router to reboot.

#### The InControl method

Described in this knowledgebase article on our forum.

#### 27.3 Time

**Time Settings** enables the system clock of the Pepwave router to be synchronized with a specified time server. Time settings are located at **System > Time**.

Time Zone	(GMT+08:00) Kuala Lumpur, Singapore	~
Time Sync	Time Server 🗸	
Time Server	0.pepwave.pool.ntp.org	

# Time Settings Time Zone This specifies the time zone (along with the corresponding Daylight Savings Time scheme). The Time Zone value affects the time stamps in the Pepwave router's event log and e-mail notifications. Check Show all to show all time zone options.



Time Sync	<ul> <li>This field allows to select your time sync mode, the available options are:</li> <li>Time Server</li> <li>GPS</li> <li>GPS with Time Server as fallback</li> </ul>
Time Server	This setting specifies the NTP network time server to be utilized by the Pepwave router.

#### 27.4 Schedule

Enable and disable different functions (such as WAN connections, outbound policy, and firewalls at different times, based on a user-scheduled configuration profile. The settings for this are located at **System > Schedule** 

Name	Time	Used by	
		Na schedule profiles defined	
		New Schedule	

Enable scheduling, and then click on your schedule name or on the **New Schedule** button to begin.

Edit schedule profile																																																
Schedule Settings																																																
Enable						Ţ	The schedule function of those associated features will be lost if profile is disabled.																																									
Name											1	Weekdays Only																																				
Schedule											ſ	W	Neekdays only																																			
Used by	Used by You may go to supported feature settings page and set this profile as scheduler.																																															
Schedule M	/la	P																																														
	Ν	lid	nig	gh	t				4	am	١			_			8	am	١	_	_	_			Noon				_	_		4p	m	m				_		8p		pm						
Sunday	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Monday	~	1	~	*	~	~	~	~	~	~	~	~	~	~	~	~	*	~	1	~	~	4	~	~	~	~	~	~	~	~	~	~	<b>~</b>	~	~	~	~	4	~	~	~	~	~	~	~	~	~	~
Tuesday	~	~	~	*	*	~	4	*	~	*	~	~	~	~	~	~	4	~	4	~	~	4	~	~	~	~	~	4	~	~	~	~	~	~	~	~	~	4	*	~	~	~	~	~	~	~	~	~
Wednesday	~	~	~	~	~	~	~	~	~	٨	~	~	~	~	~	~	~	~	٨	~	~	~	~	~	~	~	~	٨	~	~	~	~	~	~	~	~	~	4	~	~	~	~	~	~	~	~	~	~
Thursday	~	~	~	~	~	~	~	\$	۲	٨.	~	~	~	~	~	~	~	~	٨.	~	~	~	~	~	~	~	~	Ś	~	~	~	~	~	~	~	~	~	4	~	~	~	~	~	~	~	~	~	~
Friday	~	~	~	~	~	~	*	\$	۲	\$	~	~	~	~	~	~	~	~	ζ.	~	~	~	*	~	*	~	~	ζ.	~	~	~	~	~	~	~	~	~	1	~	~	~	~	~	~	~	~	~	~
Saturday	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
																																							0	5.2	ve			(	°a	nc	ام	
																																								Ja	VC			(	Jai	nu	eı	

	Edit Schedule Profile
Enabling	Click this checkbox to enable this schedule profile. Note that if this is disabled, then any associated features will also have their scheduling disabled.
Name	Enter your desired name for this particular schedule profile.
Schedule	Click the drop-down menu to choose pre-defined schedules as your starting point. Please note that upon selection, previous changes on the schedule map will be deleted.
Schedule Map	Click on the desired times to enable features at that time period. You can hold your mouse for faster entry.

### 27.5 Email Notification

Email notification functionality provides a system administrator with up-to-date information on network status. The settings for configuring email notifications are found at **System>Email Notification**.

Email Notification Setup										
Email Noefication	Z Enable									
SMTP Server	smtp.mycompany.com Require authentication									
Connection Security	SSL/TLS V (Note: any server certificate will be accepted)									
SMTT Port	465									
3MTR User liame	smtpuser									
SI ITT Passwort										
Confirm SMTP Password	•••••									
Sender's Email Address	admin@mycompany.com									
Recipient's Email Address	system@mycompany.com staff@mycompany.com									

Test Email Notification Save

#### **Email Notification Settings**

Email Notification This setting specifies whether or not to enable email notification. If **Enable** is checked, the Pepwave router will send email messages to system administrators when the WAN status changes or when new firmware is available. If **Enable** is not checked, email notification is disabled and the Pepwave router will not send email messages.



SMTP Server	This setting specifies the SMTP server to be used for sending email. If the server requires authentication, check <b>Require authentication</b> .
Connection Security	This setting specifies via a drop-down menu one of the following valid Connection Security: <ul> <li>None</li> <li>STARTTLS</li> <li>SSL/TLS</li> </ul>
SMTP Port	This field is for specifying the SMTP port number. By default, this is set to <b>25</b> . If Connection Security is selected " <b>STARTTLS</b> ", the default port number will be set to <b>587</b> . If Connection Security is selected " <b>SSL/TLS</b> ", the default port number will be set to <b>465</b> . You may customize the port number by editing this field.
SMTP User Name / Password	This setting specifies the SMTP username and password while sending email. These options are shown only if <b>Require authentication</b> is checked in the <b>SMTP</b> <b>Server</b> setting.
Confirm SMTP Password	This field allows you to verify and confirm the new administrator password.
Sender's Email Address	This setting specifies the email address the Pepwave router will use to send reports.
Recipient's Email Address	This setting specifies the email address(es) to which the Pepwave router will send email notifications. For multiple recipients, separate each email addresses using the enter key.

After you have finished setting up email notifications, you can click the **Test Email Notification** button to test the settings before saving. After **Test Email Notification** is clicked, you will see this screen to confirm the settings:

Test Email Notification	
SMTP Server	smtp.mycompany.com
SMTP Port	465
SMTP UserName	smtpuser
Sender's Email Address	admin@mycompany.com
Recipient's Email Address	system@mycompany.com staff@mycompany.com

Send Test Notification Cancel

Click **Send Test Notification** to confirm. In a few seconds, you will see a message with detailed test results.

#### Test email sent. (NOTE: Settings are not saved. To confirm the update, click 'Save' button.)

Email Notification Setup								
Email Notification	Enable							
SMTP Server	Require authentication							
Connection Security	SSL/TLS  (Note: any server certificate will be accepted)							
SMTP Port	465							
SMTP User Name								
SMTP Password	••••••							
Confirm SMTP Password								
Sender's Email Address								
Recipient's Email Address	<b>©</b>							

Test Email Notification Save

#### Test Result

[INFO] Try email through auto detected connection	*
[INFO] SMIP through SSL connected	
[<-] 220 smtp.gmail.com ESMTP h11sm3907691pjg.46 - gsmtp	
[->] EHLO balance.peplink.com	
[<-] 250-smtp.gmail.com at your service, [14.192.209.255]	
[<-] 250-SIZE 35882577	
[<-] 250-8BITMIME	
[<-] 250-AUTH LOGIN PLAIN XOAUTH2 PLAIN-CLIENTTOKEN OAUTHBEARER XOAUTH	
[<-] 250-ENHANCEDSTATUSCODES	
[<-] 250-PIPELINING	
[<-] 250-CHUNKING	
[<-] 250 SMTPUTF8	
[->] AUTH PLAIN AGdwc2dhbjk0QGdtYWlsLmNvbQBwdnJ6bWF6cGhtYXJpanpp	•



### 27.6 Event Log

Event log functionality enables event logging at a specified remote syslog server. The settings for configuring the remote system log can be found at **System > Event Log**.

Send Events to Remote Sys	log Server 🔞
Remote Syslog	
Remote Syslog Host	
	Port: 514
Source Network Address	Untagged LAN 🗸
Push Events to Mobile Devic	ces (7)
Push Events	
URL Leasting	
Enable	0
	3
Session Logging	
Enable	
	Save

Event Log Settings				
Remote Syslog	This setting specifies whether or not to log events at the specified remote syslog server.			
Remote Syslog Host	This setting specifies the IP address or hostname of the remote syslog server.			
Source Network Address	Via drop-down list, you may choose the LAN interface for Event Log, URL Logging, Sessions Logging and RADIUS.			
Push Events	The Pepwave router can also send push notifications to mobile devices that have our Mobile Router Utility installed. Check the box to activate this feature.			
URL Logging	This setting is to enable event logging at the specified log server.			
URL Logging Host	This setting specifies the IP address or hostname of the URL log server.			



Session Logging	This setting is to enable event logging at the specified log server.					
Session Logging Host	This setting specifies the IP address or hostname of the Session log server.					
peplink PEPWAVE	For more information on the Router Utility, go to: www.peplink.com/products/router-utility					

#### 27.7 SNMP

SNMP or simple network management protocol is an open standard that can be used to collect information about the Pepwave router. SNMP configuration is located at **System > SNMP**.

SNMP Settings					
SNMP Device Name	MAX_TST_3D8B				
Location	2				
SNMP Port	161 Default				
SNMPv1	C Enable				
SNMPv2c	🗆 Enable				
SNMPv3	💭 Enable				
SNMP Trap	C Enable				
SNMP Trap Community					
SNMP Trap Server					
SNMP Trap Port	162				
SNMP Trap Server Heartbeat	0				
	Save				
Community Name	Allowed Source Network Access Mode				
	No SNMPv1 / SNMPv2c Communities Defined				
	Add SNMP Community				
SNMPv3 User Name	Authentication / Privacy Access Mode				
	No SHMPv3 Users Defined				
	Add SNMP User				

	SNMP Settings
SNMP Device	This field shows the router name defined at <b>System &gt; Admin Security</b> .

Name					
SNMP Port	This option specifies the port which SNMP will use. The default port is <b>161</b> .				
SNMPv1	This option allows you to enable SNMP version 1.				
SNMPv2	This option allows you to enable SNMP version 2.				
SNMPv3	This option allows you to enable SNMP version 3.				
SNMP Trap	This option allows you to enable SNMP Trap. If enabled, the following entry fields will appear.				
SNMP Trap Community	This setting specifies the SNMP Trap community name.				
SNMP Trap Server	Enter the IP address of the SNMP Trap server.				
SNMP Trap Port	This option specifies the port which the SNMP Trap server will use. The default port is <b>162</b> .				
SNMP Trap Server Heartbeat	This option allows you to enable and configure the heartbeat interval for the SNMP Trap server.				

To add a community for either SNMPv1 or SNMPv2, click the **Add SNMP Community** button in the **Community Name** table, upon which the following screen is displayed:

Community Name	My Company	
Allowed Network	192.168.1.25 / 255.255.255.0 (/24) 🔹	

SNMP Community Settings			
Community Name	This setting specifies the SNMP community name.		
Allowed Source Subnet Address	This setting specifies a subnet from which access to the SNMP server is allowed. Enter subnet address here (e.g., <i>192.168.1.0</i> ) and select the appropriate subnet mask.		



To define a user name for SNMPv3, click **Add SNMP User** in the **SNMPv3 User Name** table, upon which the following screen is displayed:

SNMPv3 User	x		
User Name	SNMPUser		
Authentication	SHA v password		
Privacy	DES   privacypassword		
	Save Cancel		
SNMPv3 User Settings			

User Name	This setting specifies a user name to be used in SNMPv3.
Authentication Protocol	<ul> <li>This setting specifies via a drop-down menu one of the following valid authentication protocols:</li> <li>NONE</li> <li>MD5</li> <li>SHA</li> <li>When MD5 or SHA is selected, an entry field will appear for the password.</li> </ul>
Privacy Protocol	<ul> <li>This setting specifies via a drop-down menu one of the following valid privacy protocols:</li> <li>NONE</li> <li>DES</li> <li>When DES is selected, an entry field will appear for the password.</li> </ul>

#### 27.8 SMS Control

SMS Control allows the user to control the device using SMS even if the modem does not have a data connection. The settings for configuring the SMS Control can be found at **System > SMS Control**.

Supported Models

- Balance/MAX: \*-LTE-E, \*-LTEA-W, \*-LTEA-P, \*-LTE-MX
- **EPX**: \*-LW\*, \*-LP\*

SMS Control			
Enable	?		

When this box is checked, the device will be allowed to take actions according to received commands via SMS.

Make sure your mobile plan supports SMS, and note that some plans may incur additional charges for this.

SMS Control can reboot devices and configure cellular settings over signalling channels, even if the modem does not have a data connection.

For details of supported SMS command sets, please refer to our knowledge base.

Enable	?		
Password		Hide Characters	
White List	?	Phone Number	+

	SMS Control Settings
Enable	Click the checkbox to enable the SMS Control.
Password	This setting sets the password for authentication - maximum of 32 characters, which cannot include semicolon (;).
White List	Optionally, you can add phone number(s) to the whitelist. Only matching phone numbers are allowed to issue SMS commands. Phone numbers must be in the E.164 International Phone Numbers format.

### 27.9 InControl

<b>Controller Management Se</b>	tings
Controller	InControl V D Restricted to Status Reporting Only
Privately Host InControl	
InControl Host	Primary: Backup: Fail over to InControl in the cloud.

InControl is a cloud-based service which allows you to manage all of your Peplink and Pepwave devices with one unified system. With it, you can generate reports, gather statistics, and



configure your devices automatically. All of this is now possible with InControl.

When this check box is checked, the device's status information will be sent to the Peplink InControl system. This device's usage data and configuration will be sent to the system if you enable the features in the system.

Alternatively, you can also privately host InControl. Simply check the "Privately Host InControl" box and enter the IP Address of your InControl Host. If you have multiple hosts, you may enter the primary and backup IP addresses for the InControl Host and tick the "Fail over to InControl in the cloud" box. The device will connect to either the primary InControl Host or the secondary/backup ICA/IC2.

You can sign up for an InControl account at https://incontrol2.peplink.com/. You can register your devices under the account, monitor their status, see their usage reports, and receive offline notifications.

#### 27.10Configuration

Backing up Pepwave router settings immediately after successful completion of initial setup is strongly recommended. The functionality to download and upload Pepwave router settings is found at **System > Configuration**. Note that available options vary by model.

<b>Restore Configuration to Factory</b>	/ Settings
	Restore Factory Settings
Download Active Configurations	3
Downood Active configurations	Download
Upload Configurations	······································
Configuration File	Browse_ No file selected.
	Upload
Upload Configurations from High	Availability Pair
Configuration File	Browse_ No file selected.
	Upload
	Configuration
Restore The Resto onfiguration to default se	<b>STE Factory Settings</b> button is to reset the configuration to factor tings. After clicking the button, you will need to click the <b>Appl</b>

С



Factory Settings	Changes button on the top right corner to make the settings effective.
Download Active Configurations	Click <b>Download</b> to backup the current active settings.
Upload Configurations	To restore or change settings based on a configuration file, click <b>Choose File</b> to locate the configuration file on the local computer, and then click <b>Upload</b> . The new settings can then be applied by clicking the <b>Apply Changes</b> button on the page header, or you can cancel the procedure by pressing <b>discard</b> on the main page of the web admin interface.
Upload Configurations from High Availability Pair	In a high availability (HA) configuration, a Pepwave router can quickly load the configuration of its HA counterpart. To do so, click the <b>Upload</b> button. After loading the settings, configure the LAN IP address of the Pepwave router so that it is different from the HA counterpart.

#### 27.11 Feature Add-ons

Some Pepwave routers have features that can be activated upon purchase. Once the purchase is complete, you will receive an activation key. Enter the key in the **Activation Key** field, click **Activate**, and then click **Apply Changes**.

Feature Activation	
Activation Key	

#### 27.12Reboot

This page provides a reboot button for restarting the system. For maximum reliability, the Pepwave router can equip with two copies of firmware. Each copy can be a different version. You can select the firmware version you would like to reboot the device with. The firmware marked with **(Running)** is the current system boot up firmware.

Please note that a firmware upgrade will always replace the inactive firmware partition.

Reboot System
Select the firmware you want to use to start up this device:
Firmware 1: 6.2.1 build 2977 (Running)
○ Firmware 2: 6.2.1b01 build 2949
Reboot

### 28 Tools

#### 28.1 Ping

The ping test tool sends pings through a specific Ethernet interface or a SpeedFusion<sup>TM</sup> VPN connection. You can specify the number of pings in the field **Number of times**, to a maximum number of 10 times. **Packet Size** can be set to a maximum of 1472 bytes. The ping utility is located at **System > Tools > Ping**, illustrated below:

Ping	
Connection	WAN 1 V
Destination	10.10.10.1
Packet Size	56
Number of times	Times 5
	Start Stop
Results	Clear Log
PING 10.10.10.1 (10.10.10.1) from 10.88.3	3.158 56(84) bytes of data.
64 bytes from 10.10.10.1: icmp_req=1 ttl=	=62 time=27.6 ms
64 bytes from 10.10.10.1: icmp_req=2 ttl=	=62 time=26.5 ms
64 bytes from 10.10.10.1: icmp_req=3 ttl=	=62 time=28.9 ms
64 bytes from 10.10.10.1: icmp_req=4 ttl=	=62 time=28.3 ms
64 bytes from 10.10.10.1: icmp_req=5 ttl=	=62 time=27.7 ms
10.10.10.1 ping statistics	
5 packets transmitted, 5 received, 0% pack	et loss, time 4005ms
rtt min/avg/max/mdev = 26.516/27.855/2	8.933/0.814 ms

Tip

A system administrator can use the ping utility to manually check the connectivity of a particular LAN/WAN connection.



#### 28.2 Traceroute Test

The traceroute test tool traces the routing path to the destination through a particular Ethernet interface or a SpeedFusion<sup>™</sup> connection. The traceroute test utility is located at **System > Tools > Traceroute**.

Traceroute	
Connection	WAN 1
Destination	64.233.189.99
	Start Ston
Results	Clear Los
1 march 10 million 200, 200, 200	H 202 (2R RV) 32 Fault Plan, RF 5/19 (activity)
1 (0.4) (0.1) (0.4) (0.4) (0.1)	Ni 1.789 (m. 4.475 (m. 4.487 (m.
3 10.00 10.00 10.00 10.00	10.002 Hp 1.000 Hp 1.040 Hp
Transferrer ( the left de la la	13 vay 1 202 vay 1 462 vay
100001200002000	re 6,301 m 6,000 m
I COLUMN AND A COMPANY	UNCLUMENT AND ADDRESS OF COMPANY AND ADDRESS
1 (HE 11 HE 10 HE 11 HE 11 HE	NO 1-200 Per 100 00-201-00 (200 NO 200 40) 1-200 Per 1-200 Per
2 000-100-1-100-1208-1208-1	80. 4. 300 Per 1. 646 Pei 1. 646 Pei
A COLUMN DALLAR CONTENT	THE RELEASE NOT THE CONTRACT CONTRACT AND AN INC. IN CONTRACT, THE PERSON AND ADDRESS.
1 TO COLUMN TWO COLORS	The Address Faces (Multi-Address) and and and and any data (Address) and Address Address
10 To 14 201-09 275-04-201	IS NAME AND TAK AND AND AND AND AND AND A REPT AND TAK AN ADDRESS OF THE ANALYSIS AND A RANK AND
to the activity of the second	to in the year of the second state of the seco
12 208-00.2012/07/0208-012	Loss 1470 m 2640 Jul 201 201 48 Jul 201 4 201 m 1 201
OF THE JOB OF THE JOB OF	47 8.86 ma * 1,86 ma.
(*************************************	THE R P. W.

A system administrator can use the traceroute utility to analyze the connection path of a LAN/WAN connection.

#### 28.3 Wake-on-LAN

Pepwane routers can send special "magic packets" to any client specified from the Web UI. To access this feature, navigate to **System > Tools > Wake-on-LAN** 

ake-on-LAN
ake-on-LAN Target Surf_SOHO (00:90:0B:36:3C:8C) Send

Select a client from the drop-down list and click Send to send a "magic packet"



#### 28.4 WAN Analysis

The WAN Analysis feature allows you to run a WAN to WAN speed test between 2 Peplink devices .

You can set a device up as a **Server** or a **Client**. One device must be set up as a server to run the speed tests and the server must have a public IP address.

WAN I Check your poin	Performance Analysis
	As a server For the peer who has public IP addresses to accept connection.
<b>&gt;&gt;</b>	As a client For the peer to initiate connection.

The default port is 6000 and can be changed if required. The IP address of the WAN interface will be shown in the **WAN Connection Status** section.

Server Settings	
Status	Listening (Control Port: 6000)
Control Port	6000
	Apply Stop
WAN Connection Status WAN 1	<b>10.22.1.182</b>
WAN Connection Status 1 WAN 1 2 WAN 2	<ul> <li>10.22.1.182</li> <li>Disabled</li> </ul>
WAN Connection Status 1 WAN 1 2 WAN 2 3 WAN 3	<ul> <li>10.22.1.182</li> <li>Disabled</li> <li>Disabled</li> </ul>
WAN Connection Status 1 WAN 1 2 WAN 2 3 WAN 3 4 WAN 4	<ul> <li>10.22.1.182</li> <li>Disabled</li> <li>Disabled</li> <li>Disabled</li> <li>Disabled</li> </ul>
WAN Connection Status WAN 1 WAN 2 WAN 2 WAN 3 WAN 4 WAN 5	<ul> <li>10.22.1.182</li> <li>Disabled</li> <li>Disabled</li> <li>Disabled</li> <li>Disabled</li> <li>Disabled</li> </ul>



The client side has a few more settings that can be changed. Make sure that the **Control Port** matches what's been entered on the server side. Select the WAN(s) that will be used for testing and enter the Servers WAN IP address. Once all of the options have been set, click the **Start Test** button.

WAN Performan	ce Analysis	
Client Settings		
Control Port	6000	
Data Port	57280 - 57287	
Туре	● TCP ○ UDP	
Direction	● Upload ○ Download	
Duration	20 seconds (5 - 600)	
Data Streams		
Local WAN Connection		Remote IP Address
1 Not Used	T	
2 Not Used	¥	
2 Not Used 3 Not Used	• •	
2 Not Used 3 Not Used 4 Not Used	۲ ۲ ۲	
2 Not Used 3 Not Used 4 Not Used 5 Not Used	• • • •	
2 Not Used 3 Not Used 4 Not Used 5 Not Used 6 Not Used	* * * * *	
2.       Not Used         3.       Not Used         4.       Not Used         5.       Not Used         6.       Not Used         7.       Not Used	۲   	
2 Not Used 3 Not Used 4 Not Used 5 Not Used 6 Not Used 7 Not Used 8 Not Used	* * * * * * * *	



The test output will show the **Data Streams Parameters**, the **Throughput** as a graph, and the **Results**.



The test can be run again once it's complete by clicking the **Start** button or you can click **Close** and change the parameters for the test.



#### 28.5 CLI (Command Line Interface Support)

The CLI (command line interface) can be accessed via SSH. This field enables CLI support. The below settings specify which TCP port and which interface(s) should accept remote SSH CLI access. The user name and password used for remote SSH CLI access are the same as those used for web admin access.

Putty						×
login as: admin admin@192.168.1.1's pa Last login: Mon Nov 7 > get	aaword: 19:03:59	2011 from	192.163.1.	100		
bandwidth clientlist system uptime > system debugmode reboot >	cpuload Wan	eventlog	'na	323vpn	session	

### 29 Status

#### 29.1 Device

System information is located at **Status > Device**.

System Information	
Device Name	
Model	Pepwave MAX BR1 Pro 5G
Product Code	
Hardware Revision	1
Serial Number	
Firmware	8.3.0 build 5229
SpeedFusion VPN Version	9.2.0
Host Name	
Uptime	2 minutes
System Time	Mon Feb 20 11:25:42 +08 2023
GPS File 🕜	2023-02-03 V Download
Diagnostic Report	Download
Remote Assistance	Turn On for 7 days
MAC Address	
LAN	
WAN	
Wi-Fi WAN on 5 GHz	
PepVPN NAT Mode	
a Legal	

	System Information
Device Name	This is the name specified in the <b>Device Name</b> field located at <b>System &gt; Admin Security</b> .
Model	This shows the model name and number of this device.
Product Code	If your model uses a product code, it will appear here.
Hardware Revision	This shows the hardware version of this device.

Serial Number	This shows the serial number of this device.
Firmware	This shows the firmware version this device is currently running.
SpeedFusion VPN Version	This shows the current SpeedFusion VPN version.
Modem Support Version	This shows the modem support version. For a list of supported modems, click <b>Modem Support List</b> .
InControl Managed Configuration	InControl Managed Configurations (firmware, VLAN, Captive Portal, etcetera)
Host Name	The host name assigned to the Pepwave router appears here.
Uptime	This shows the length of time since the device has been rebooted.
System Time	This shows the current system time.
OpenVPN Client Profile	Link to download OpenVpn Client profile when this is enabled in Remote User Access
Diagnostic Report	The <b>Download</b> link is for exporting a diagnostic report file required for system investigation.
Remote Assistance	This option is to <b>Turn on</b> remote assistance with the time duration.

The second table shows the MAC address of each LAN/WAN interface connected. To view your device's End User License Agreement (EULA), click 🙅 Legal.



#### 29.2 GPS Data

GPX File ?	2019-03-22 (Today) ▼	Download
Diagnostic Report	2019-03-22 (Today) 2019-03-21	
Remote Assistance	2019-03-20	
	2019-03-19	
MAC Address	2019-03-18	
MAC Address	2019-03-17	944444444444
LAN	2019-03-16	

GPS enabled models automatically store up to seven days of GPS location data in GPS eXchange format (GPX). To review this data using third-party applications, click **Status > Device** and then download your GPX file.

The Pepwave GPS enabled devices export real-time location data in NMEA format through the LAN IP address at TCP port 60660. It is accessible from the LAN or over a SpeedFusion connection. To access the data via a virtual serial port, install a virtual serial port driver. Visit http://www.peplink.com/index.php?view=faq&id=294 to download the driver.

#### 29.3 Active Sessions

Information on active sessions can be found at **Status > Active Sessions > Overview**.

Service	Inbound Sessions	Outbound Sessions
AIM/ICQ	0	1
Bittorrent	0	32
DNS	0	51
Flash	0	1
HTTPS	0	76
Jabber	0	5
MSN	0	11
NTP	0	4
00	0	1
Remote Desktop	0	3
SSH	0	12
SSL	0	64
XMPP	0	4
Yahoo	0	1
Interface	Inbound Sessions	Outbound Sessions
WAN 1	0	176
WAN 2	0	32
Wi-Fi WAN	0	51
Cellular 1	0	64
Cellular 2	0	0
USB	0	0
	Top Clients	
Client IP Address	Total Sessions	
10.9.66.66	1069	
10.9.98.144	147	
10.9.2.18	63	
10.9.66.14	56	
10.9.2.26	33	

This screen displays the number of sessions initiated by each application. Click on each service listing for additional information. This screen also indicates the number of sessions initiated by each WAN port. In addition, you can see which clients are initiating the most sessions.

You can also perform a filtered search for specific sessions. You can filter by subnet, port, protocol, and interface. To perform a search, navigate to **Status > Active Sessions > Search**.

	Source or Destination V	/ 255.2	55.255.255 (/32) 🔻
Port	Source or Destination •		
Protocol / Service	ТСР	•	
Interface	<ul> <li>1 WAN 1</li> <li>1 Cellular 1</li> <li>WPN</li> </ul>	2 WAN 2     T2 Cellular 2	💷 🐟 Wi-Fi WAN 💷 🔮 USB
Search			
Outbound			
Protocol Source IP	Destination IP	Service Interface No sessions	: Idle Time
Total searched res	ults: 0		
Inbound			
Protocol Source IP	Destination IP	Service Interface No sessions	: Idle Time
	ults: 0		
Total searched res			
Total searched res Transit			

This **Active Sessions** section displays the active inbound/outbound sessions of each WAN connection on the Pepwave router. A filter is available to sort active session information. Enter a keyword in the field or check one of the WAN connection boxes for filtering.



#### 29.4 Client List

The client list table is located at **Status > Client List**. It lists DHCP and online client IP addresses, names (retrieved from the DHCP reservation table or defined by users), current download and upload rate, and MAC address.

Clients can be imported into the DHCP reservation table by clicking the **button** on the right. You can update the record after import by going to **Network > LAN**.

Filt	er		Onli DH0	ine Clients C CP Clients O	Dnly nly				
Cli	ent List	_	_	_	-			-	?
	IP Address 🗕	Туре	Name	Download (kbps)	Upload (kbps)	MAC Address	Network Name (SSID)	Signai (dBm)	
•	192.168.50.10	Ģ	LAPTOP-	32	8	5	PEPWAVE_	<b>atl</b> -57	•
몲	192.168.50.12		max-hd2-	0	(* * * *)	3			۲
			<u></u>				Scale	: 🔍 kbps	O Mbr

If the PPTP server (see **Section 19.2**), SpeedFusion<sup>™</sup> (see **Section 12.1**), or AP controller (see **Section 20**) is enabled, you may see the corresponding connection name listed in the **Name** field.

In the client list table, there is a "Ban Client" feature which is used to disconnect the Wi-Fi and Remote User Access clients by clicking the button on the right.

Filt	er		Onli DHC	ne Clients C CP Clients O	Dnly nly				
Cli	ent List	_		_	_			_	?
	IP Address 🔺	Туре	Name	Download (kbps)	Upload (kbps)	MAC Address	Network Name (SSID)	Signal (dBm)	
•	192.168.50.10	<b>P</b>	LAPTOP-	279	1	4 (	PEPWAVE_	<b>all</b> -52	•
몲	192.168.50.12	(î-	max-hd2-	0		0			۲
							Scale	: 🔘 kbps	O Mbp

There is a blocklist on the same page after you banned the Wi-Fi or Remote User Access clients.

Filter		<ul> <li>Online Clients Only</li> <li>DHCP Clients Only</li> </ul>				
			Access restriction	in action, some clients	are currently	banned.
Client List	_			_	_	?
IP Address 🔺	Name	Download Upload (kbps) (kbps)	MAC Address	Network Name (SSID)	Signal (dBm)	



You may also unblock the Wi-Fi or Remote User Access clients when the client devices need to

the button on the right

**\***+

Prohibited Client Access			
Service	Client	Blockes	
Wì-Fi	MAC address: B8:C3:85:41:	1 minute ago	
		Close	

#### 29.5 UPnP / NAT-PMP

reconnect the network by clicking

The table that shows the forwarded ports under UPnP and NAT-PMP protocols is located at **Status > UPnP/NAT-PMP**. This section appears only if you have enabled UPnP / NAT-PMP as mentioned in **Section 16.1.1**.

Forwarde	d Ports				
External 🔺	Internal	Internal Address	Туре	Protocol	Description
47453	3392	192.168.1.100	UPnP	UDP	Application 031
35892	11265	192.168.1.50	NAT-PMP	ТСР	NAT-PMP 58
4500	3560	192.168.1.20	UPnP	TCP	Application 013
5921	236	192.168.1.30	UPnP	ТСР	Application 047
22409	8943	192.168.1.70	NAT-PMP	UDP	NAT-PMP 97
2388	27549	192.168.1.40	UPnP	ТСР	Application 004
					Delete All

Click **X** to delete a single UPnP / NAT-PMP record in its corresponding row. To delete all records, click **Delete All** on the right-hand side below the table.

#### Important Note

UPnP / NAT-PMP records will be deleted immediately after clicking the button in the button or **Delete All**, without the need to click **Save** or **Confirm**.

### 29.6 OSPF & RIPv2

The table shows status of OSPF and RIPv2.

peplink	Dashboard	Setup Wizard	Network	AP	System	Status	Apply Changes
Status							
Device	OSPF & I	RIPv2		-			
<ul> <li>Active Sessions</li> </ul>	Area		Re	mote N	letworks		
Client List	▼ 0.0.0.0 PepVPN		10	0.0.2.0/	/24 10.0.3.0/2	24 192.168.63.0/24 10.0.100	.0/24 192.168.100.0/24 192.168.162.0/24
OSPF & RIPv2							
BGP	· · · · · ·						

### 29.7 BGP

The table shows status of BGP

peplink	Dashboard	Setup Wizard	Network	АР	System	Status	Apply Changes
Status							
<ul> <li>Device</li> </ul>	BGP						
<ul> <li>Active Sessions</li> </ul>		Profile				Neighbor	
<ul> <li>Client List</li> </ul>					No i	nformation	
OSPF & RIPv2							
BGP							

### 29.8 SpeedFusion VPN

Current SpeedFusion VPN status information is located at **Status > SpeedFusion VPN**. Details about SpeedFusion VPN connection peers appears as below:

SpeedFusion VPN - Remote Peer		Show all profiles			
Search			4		
Remote Peer +	Profile	Information	-		
FSH-B987 (FusionHub_SG)	FusionHub_SG (1)				
FSH-B987 (FusionHub_SG)	FusionHub_SG (2 - Tunn	and the second se			
SFC-SIN-H018 (SFC-SIN-H018)	SFH-SHARE-SIN	and the second s			



Click on the corresponding peer name to explore the WAN connection(s) status and subnet information of each VPN peer.

Sp	eedFusion VPN - Remote Peer		_			Show all	profiles
Sea	arch						
	Remote Peer 🔺	Profile		Information			
۵	<ul> <li>FSH-B987 (FusionHub_SG)</li> </ul>	FusionHub	_SG (1)			Lai	)
	WAN	Rx:	< 1 kbps Tx:	< 1 kbps Loss rate:	0.0 pkt/s	Latency:	11 ms
	Cellular			Not available - WAN dow	/n	-	
	Wi-Fi WAN			Not available - WAN disab	led		
	Total	Rx:	< 1 kbps Tx:	< 1 kbps Loss rate:	0.0 pkt/s		
	FSH-B987 (FusionHub_SG)	FusionHub	_SG (2 - Tunn		•	EM .	
	SFC-SIN-H018 (SFC-SIN-H018)	SFH-SHAR	E-SIN			Last .	>

Click the

ılıl

button for a SpeedFusion chart displaying real-time throughput, latency, and drop-rate information for each WAN connection.



hen pressing the	button, the following	menu will appear:		
SpeedFusion VPN Detai	ils 🕡			
Connection Information		-	More in	nformatio
Profile	FusionHub_SG (1)			
Remote ID	FusionHub_SG			
Device Name				
Serial Number				
WAN Statistics				[Jii
Remote Connections	Show remote connect	ions		
WAN Label	WAN Name O IP Add	dress and Port		-
WAN Cellular Wi-Fi WAN Total	Rx: < 1 kbps Tx:	< 1 kbps Loss rate: Not available - WAN bo Not available - WAN disa < 1 kbps Loss rate:	0.0 pkt/s Latency: wm bled 0.0 pkt/s	11 m:
SpeedFusion VPN Test Cr	onfiguration	_		
Гуре	TCP O UDP			
Streams	4 🗸			
Direction	Upload O Download			
Duration	20 seconds (5 - 60	0)		
SpeedFusion VPN Test Re	esulta			_
	No elores	(= 1)		

The **connection information** shows the details of the selected SpeedFusion VPN profile, consisting of the Profile name, **Router ID**, **Router Name** and **Serial Number** of the remote router

Advanced features for the SpeedFusion VPN profile will also be shown when the **More Information** checkbox is selected.

The **WAN statistics** show information about the local and remote WAN connections (when **show Remote connections**) is selected.

The available details are **WAN Name, IP address** and **port** used for the Speedfusion connection. **Rx and Tx rates, Loss rate and Latency**.

Connections can be temporarily disabled by sliding the switch button next to a WAN connection to the left.

The wan-to-wan connection disabled by the switch is temporary and will be re-enabled after 15



minutes without any action.

This can be used when testing the SpeedFusion VPN's speed between two locations to see if there is interference or network congestion between certain WAN connections.

WAN Statistics		in the second		htter		
Remote Connections	🗹 S	Show remote connections				
WAN Label		$\odot$ WAN Name $\bigcirc$ IP Address and Port				
BT						
C S WAN	Rx:	< 1 kbps Tx:	< 1 kbps Loss rate:	0.0 pkt/s Latency:	17 ms	
Virgin Media			Not available - WAN disa	bled		

The SpeedFusion VPN test configuration allows us to configure and perform thorough tests. This is usually done after the initial installation of the routers and in case there are problems with aggregation.

SpeedFusion VPN Test Configuration				
Туре	CP O UDP			
Streams	4 🗸			
Direction	Upload O Download	Start		
Duration	20 seconds (5 - 600)			

Press the Start button to perform throughput test according to the configured options.

If TCP is selected, 4 parallel streams will be generated to get the optimal results by default. This can be customized by selecting a different value of streams.

Using more streams will typically get better results if the latency of the tunnel is high.

SpeedFusi	ion VPN Test Re	sults	
1.0s:	16.2527 Mbps	0 retrans /	306 KB cwnd
2.0s:	20.4445 Mbps	0 retrans /	306 KB cwnd
3.0s:	18.3526 Mbps	0 retrans /	306 KB cwnd
4.0s:	17.8258 Mbps	0 retrans /	306 KB cwnd
5.0s:	17.3014 Mbps	0 retrans /	306 KB cwnd
6.0s:	14.1558 Mbps	0 retrans /	306 KB cwnd
7.0s:	18.3500 Mbps	0 retrans /	306 KB cwnd
8.0s:	15.7252 Mbps	0 retrans /	306 KB cwnd
9.0s:	17.2932 Mbps	0 retrans /	306 KB cwnd
10.0s:	20.4591 Mbps	0 retrans /	306 KB cwnd
11.0s:	11.5347 Mbps	0 retrans /	306 KB cwnd
12.0s:	15.2043 Mbps	0 retrans /	306 KB cwnd
13.0s:	12.0584 Mbps	0 retrans /	306 KB cwnd
14.0s:	13.1074 Mbps	0 retrans /	306 KB cwnd
15.0s:	10.4849 Mbps	0 retrans /	306 KB cwnd
16.0s:	12.5838 Mbps	0 retrans /	306 KB cwnd
17.0s:	15.2043 Mbps	0 retrans /	306 KB cwnd
18.0s:	16.2486 Mbps	0 retrans /	306 KB cwnd
19.0s:	18.8789 Mbps	0 retrans /	306 KB cwnd
20.0s:	18,3491 Mbps	0 retrans /	306 KB cwnd
Stream 1:	3.9913 Mbps	0 retrans /	78 KB cwnd
Stream 2:	3.9728 Mbps	0 retrans /	74 KB cwnd
Stream 3:	3.9879 Mbps	0 retrans /	75 KB cwnd
Stream 4:	4.0044 Mbps	0 retrans /	79 KB cwnd
Overall:	15.9564 Mbps	0 retrans /	306 KB cwnd

Peplink also published a whitepaper about Speedfusion which can be downloaded from the following url:

http://download.peplink.com/resources/whitepaper-speedfusion-and-best-practices-2019.pdf

#### 29.9 Event Log

Event log information is located at **Status > Event Log**.

#### 29.9.1 Device Event Log

Device Fire	wall SpeedFusion VPN	
Device Event I		
Device Event I		
Dec 30 10:43:07		1
Dec 29 16:59:31		
Dec 29 16:57:13		
Dec 29 16:56:47	System: Time synchronization successful (0.pepwave.pool.ntp.org)	
Dec 29 16:56:28	SpeedFusion: SpeedFusion Cloud license expired	
Dec 29 16:56:23	System: Time synchronization successful (InControl)	
Jan 01 08:03:50	System: Wi-Fi AP Normal Mode	
Jan 01 08:03:36		
Jan 01 08:02:46	System: Time synchronization fail	
Jan 01 08:01:56	System: Started up (8.3.0 build 5244)	
Jan 01 08:01:50	System: Started up (8.2.1 build 5195)	
Jan 01 08:01:45	System: Started up (8.3.0 build 5234)	
Dec 29 16:23:11	System: Reboot from Web	
Dec 29 16:21:15		
Dec 29 16:17:54		
Dec 29 12:13:01		
Dec 29 12:12:51		
Dec 29 11:36:31		
Dec 29 11:36:14		
Dec 29 09:52:15		-

The log section displays a list of events that has taken place on the Pepwave router. Click the to refresh log entries automatically. Click the button to clear the log.

#### 29.9.2 Firewall Event log

Device Firev	wall SpeedFusion VPN	
Firewall Event	Log	0
	[82937.373922] Firewall: Denied	-
Nov 15 02:48:07	PROTO=TCP SPT=55887 DPT=32015 WINDOW=5840 RES=0x00 SYN URGP=0 MARK=0x1	
Nov. 15,02,40,04	[82934.377179] Firewall: Denied Control of the second se	
NOV 15 02:48:04	PROTO=TCP SPT=55887 DPT=32015 WINDOW=5840 RES=0x00 SYN URGP=0 MARK=0x1	
Nev 15 02:47:07	[82877.028738] Firewall: Denied	
100/15/02:47:07	PROTO=TCP SPT=55873 DPT=32015 WINDOW=5840 RES=0x00 SYN URGP=0 MARK=0x1	
New 15 02:47:04	[82874.033025] Firewall: Denied	
Nov 15 02:47:04	PROTO=TCP SPT=55873 DPT=32015 WINDOW=5840 RES=0x00 SYN URGP=0 MARK=0x1	
Nov 15 02:46:07	[82817.043526] Firewall: Denied @	
10 02:40:07	PROTO=TCP SPT=55843 DPT=32015 WINDOW=5840 RES=0x00 SYN URGP=0 MARK=0x1	
Nov 15 02:46:04	[82814.047141] Firewall: Denied	
101 10 02140104	PROTO=TCP SPT=55843 DPT=32015 WINDOW=5840 RES=0x00 SYN URGP=0 MARK=0x1	

This section displays a list of events that have taken place within a firewall. Click the button and the log will be refreshed.

#### 29.9.3 SpeedFusion VPN Event log

Device Firev	vall SpeedFusion VPN
SpeedFusion V	PN Event Log
Dec 29 16:57:17	SpeedFusion: SFC-SIN-H018 (Construction of the Construction of the
Dec 29 16:56:43	SpeedFusion: SFH-SHARE-SIN failed to establish connection
Dec 29 16:56:42	SpeedFusion:
Dec 29 16:56:38	SpeedFusion: SFC-SIN-H018 (Ink failure detected)
Jan 01 08:04:00	SpeedFusion: FusionHub_SG (Child Content in Child Content
Jan 01 08:03:53	SpeedFusion: Charles and Charl
Jan 01 08:03:51	SpeedFusion: Texteration
Jan 01 08:03:48	SpeedFusion: Sharehouse (Concernent)
Jan 01 08:03:43	SpeedFusion: 1 TLS_AES_256_GCM_SHA384

This section displays a list of events that have taken place within a SpeedFusion VPN connection. Click the C button and the log will be refreshed.

### 30 WAN Quality



The **Status > WAN Quality** allow to show detailed information about each connected WAN connection.

For cellular connections it shows signal strength, quality, throughput and latency for the past hour.



### 31 Usage Reports

This section shows bandwidth usage statistics and is located at **Status > Usage Reports** Bandwidth usage at the LAN while the device is switched off (e.g., LAN bypass) is neither recorded nor shown.

#### 31.1 Real-Time

The **Data transferred since installation** table indicates how much network traffic has been processed by the device since the first bootup. The **Data transferred since last reboot** table indicates how much network traffic has been processed by the device since the last bootup.





#### 31.2 Hourly

This page shows the hourly bandwidth usage for all WAN connections, with the option of viewing each individual connection. Select the desired connection to check from the drop-down menu.




## 31.3 Daily

This page shows the daily bandwidth usage for all WAN connections, with the option of viewing each individual connection.

Select the connection to check from the drop-down menu. If you have enabled the **Bandwidth Monitoring** feature, the **Current Billing Cycle** table for that WAN connection will be displayed.

Click on a date to view the client bandwidth usage of that specific date. This feature is not available if you have selected to view the bandwidth usage of only a particular WAN connection. The scale of the graph can be set to display megabytes (**MB**) or gigabytes (**GB**).



All WAN Daily Bandwidth Usage



## 31.4 Monthly

This page shows the monthly bandwidth usage for each WAN connection. If you have enabled the **Bandwidth Monitoring** feature, you can check the usage of each particular connection and view the information by **Billing Cycle** or by **Calendar Month**.

Click the first two rows to view the client bandwidth usage in the last two months. This feature is not available if you have chosen to view the bandwidth of an individual WAN connection. The scale of the graph can be set to display megabytes (**MB**) or gigabytes (**GB**).



All WAN Monthly Bandwidth Usage



Ethernet WAN Monthly Bandwidth Usage

By default, the scale of data size is in **MB**. 1GB equals 1024MB.

## **Appendix A: Restoration of Factory Defaults**

To restore the factory default settings on a Pepwave router, follow the steps below:

- 1. Locate the reset button on the front or back panel of the Pepwave router.
- 2. With a paperclip, press and keep the reset button pressed.

Hold for approximately 20 seconds for factory reset (Note: The LED status light shows in RED, all WAN/LAN port lights start blinking, and release the button)

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





## **Appendix B: FusionSIM Manual**

Peplink has developed a unique technology called FusionSIM, which allows SIM cards to remotely link to a cellular router. This can be done via cloud or within the same physical network. There are a few key scenarios to fit certain applications.

The purpose of this manual is to provide an introduction on where to start and how to set up for the most common scenarios and uses.

## **Requirements**

- 1. A Cellular router that supports FusionSIM technology
- 2. SIM Injector
- 3. SIM card

Notes:

- Always check for the latest <u>Firmware version</u> for both the cellular router and the SIM Injector. You can also check for the latest Firmware version on the device's WEB configuration page.
- A list of products that support FusionSIM can be found on the SIM Injector <u>WEB page</u>. Please check under the section **Supported models**.

## SIM Injector reset and login details

How to reset a SIM Injector:

- Hold the reset button for 5-10 seconds. Once the LED status light turns RED, the reset button can be released. SIM Injector will reboot and start with the factory default settings.

The default WEB login settings:

- User: admin
- Password: admin
- IP address: the device only has a DHCP client and no fallback IP address. Therefore, it is advised to check every time what IP address is assigned to the SIM Injector.

Notes:

- The SIM Injector can be monitored via InControl 2. Configuration is not supported.

# Scenario 1: SIM Injector in LAN of Cellular Router

## Setup topology



#### **SIM Injector**

This is the most basic scenario in which the SIM Injector is connected directly to the cellular router's LAN port via an ethernet cable. This allows for the cellular router to be positioned for the best possible signal. Meanwhile, the SIM cards can be conveniently located in other locations such as the office, passenger area, or the bridge of a ship. The SIM Injector allows for easily swapping SIM cards without needing to access a cellular router.

IMPORTANT: Cellular WAN will not fallback to the local SIM if it is configured to use the SIM Injector.

### **Configuring the SIM Injector**

- 1. Connect the SIM Injector to the LAN port of the cellular router.
- 2. Insert SIM cards into the SIM Injector. The SIM cards will be automatically detected.

#### IMPORTANT: SIM cards inserted into SIM Injector must not have a PIN code.

**Note 1:** The SIM Injector gets its IP address via DHCP and doesn't have a static IP address. To find it's address, please check the DHCP lease on the cellular router.

### **Configuring the Cellular Router**

Step 1. Enable the SIM Injector communication protocol.

- 1a. If you are using a Balance cellular router, go to the **Network** tab (top navigation bar).
- 1b. If you are using a MAX cellular router, go to the **Advanced** tab (top navigation bar).
- 2. Under Misc. settings (left navigation bar) find Remote SIM Management.
- 3. In Remote SIM Management, click on the edit icon next to Remote SIM is Disabled.

Remote SIM Host	
Remote SIM is disabled	C

4. Check the Auto LAN discovery checkbox and click Save and Apply Changes.

Auto LAN Discovery	-
Remote SIM Host	

5. Click Save and then Apply Changes.

Step 2. Enable RemoteSIM for the selected Cellular interface.

1. Go to **Network** (top navigation bar), then **WAN** (left navigation bar) and click **Details** for a selected cellular WAN. This will open the WAN Connection Settings page.

Tellular 1	No SIM Card Detected Reload SIM	Details
------------	---------------------------------	---------

2. Scroll down to **Cellular settings**.

3. In the SIM Card section, select Use Remote SIM Only.

Cellular Settings		0
SIM Card	Both SIMs SIM A Only SIM B Only Alternate periodically between SIM A Only and SIM B Only Use Remote SIM Only	
Remote SIM Settings	Control by Fusion SIM Cloud	
	Scan nearby remote SIM server	

4. Enter configuration settings in **Remote SIM Settings** section. Click on **Scan nearby remote SIM server** to show the serial number(s) of the connected SIM Injector(s). Available configuration options for cellular interface are shown below:

- A. Defining SIM Injector(s)
  - Format: <S/N>
  - Example 1: 1111-2222-3333
  - Example 2: 1111-2222-3333 4444-5555-6666
- B. Defining SIM Injector(s) SIM slot(s):
  - Format: <S/N:slot number>
  - Example 1: 1111-2222-3333:7,5 (the Cellular Interface will use SIM in slot 7, then 5)

- Example 2: 1111-2222-3333:1,2 1111-2222-3333:3,4 (the cellular Interface will use SIM in slot 1, then in 2 from the first SIM Injector, and then it will use 3 and 4 from the second SIM Injector).

Cellular Settings			
SIM Card Both SIMs SIM A Only SIM B Only Alternate periodically between SIM A Only and SIM B Only Use Remote SIM Only			
Remote SIM Settings	1111-2222-3333:1,2 1111-2222-3333:3,4		
	Scan nearby remote SIM server		

Note: It is recommended to use different SIM slots for each cellular interface.

#### 5. Click Save and Apply Changes.

Step 3. (Optional) Custom SIM cards settings.

1a. For a Balance router, go to the **Network** (Top tab).



1b. For a MAX router, go to the **Advanced** (Top tab).

2. Under Misc. settings (Left-side tab) find Remote SIM Management.

3. Click on the **Add Remote SIM** button, fill in all the required info and click **Save**. This section allows defining custom requirements for a SIM card located in a certain SIM slot:

- Enable/Disable roaming (by default roaming is disabled).
- Add Custom mobile operator settings (APN, user name, password).
- 4. Repeat configuration for all SIM cards which need custom settings.
- 5. Click Apply Changes to take effect.

# Scenario 2: SIM Injector in WAN of main Router and multiple Cellular Routers



In this scenario, each HD Dome creates a WAN connection to the main router. A single SIM Injector is used to provide SIM cards for each HD Dome. The HD Dome can be replaced with any Peplink cellular router supporting RemoteSIM technology.

# This scenario requires the completion of the configuration steps shown in Scenario 1 in addition to the configuration steps explained below.

### **Additional configurations for Cellular Routers**

**Step 1.** Disable the DHCP server.

- HD Dome 1 should act as a DHCP server.
- HD Dome 2 should be configured to have a static IP address with DHCP disabled.
- Both routers should be in the same subnet (e.g. 192.168.50.1 and 192.168.50.2).

1. Go to **Network** (Top tab), then **Network Settings** (Left-side tab), and click on **Untagged LAN**. This will open up the LAN settings page.

- 2. Change the IP address to 192.168.50.2.
- 3. In the **DHCP Server** section, uncheck the checkbox to disable DHCP Server.
- 4. Click Save and Apply Changes.

Step 2. Ethernet port configuration

The Ethernet port must be set to **ACCESS** mode for each HD Dome. To do this, dummy VLANs need to be created first.

- 1. Go to **Network** (Top tab), then **Network Settings** (Left-side tab), and click on **New LAN**. This will open the settings page to create a dummy VLAN.
- 2. The image below shows the values that need to be changed to create a new VLAN:

LAN				×
IP Settings				
IP Address	192.168.10.1	255.255.255.0 (	(24)	
Network Settings				?
Name	VLAN10			
VLAN ID	10			
Inter-VLAN routing				
Captive Portal				
DHCP Server				
DHCP Server	C Enable			
DHCP Server Logging				
IP Range		-	255.255.255.0 (/24)	

Note: set different IP addresses for each HD dome (e.g. 192.168.10.1 and 192.168.10.2).



- 3. Click Save and Apply Changes.
- 4. Go to **Network** (Top tab), then **Port Settings** (Left-side tab).
- 5. Set the Port Type to Access and set VLAN to Untagged LAN (see picture below).

PEPWAVE	Dashboa	rd SpeedFusion Cloud	Network	Advan	ed AF	System	Status		Apply Changes
LAN Network Settings	Port S	lettings							
Port Settings		Name	Ena	able Spe	ed		Advertise	Port Type	VLAN
Captive Portal							speed	-	
WAN	1	LAN Port		Au	to	0	~	Access 🙂	Untagged L 😒
Logout					Save				Untagged LAN

6. Click Save and Apply Changes.

### **Configuration requirements for the main Router**

Requirements for the main router are:

- Configure **WAN 1** as a DHCP client.
- WAN 1 will automatically get the Gateway IP address from HD Dome 1.
- Configure **WAN 2** as a Static IP and set it to 192.168.50.12.
- Configure **WAN 2** Gateway to 192.168.50.2. Same as the HD Dome 2's IP address.



# Scenario 3: SIM Injector in LAN of main Router and multiple Cellular Routers

**Setup topology** 



In this scenario, SIMs are provided to the HD Domes via the main router. In this example, the **Remote SIM Proxy** functionality needs to be enabled on the main router.

Notes:

- HD Dome can be replaced with any other cellular router that supports RemoteSIM.
- It is recommended to use Peplink <u>Balance series</u> or <u>X series</u> routers as the main router.



This scenario requires the completion of the configuration steps for the cellular router and the SIM Injector as in Scenario 1. The configuration for the main router is explained below.

### Main Router configuration

IMPORTANT: Main router LAN side and Cellular Routers must be configured using different subnets, e.g. 192.168.**50**.1/24 and 192.168.**100**.1/24.

**Note**: please make sure the Peplink router is running Firmware 8.1.0 or above.

1. Open the main router WEB interface and change: From <IP address>/cgi-bin/MANGA/**index.cgi** to <IP address>/cgi-bin/MANGA/**support.cgi**.

This will open the support.cgi page.

•••	< >	•	ttps://1	92.168.50.1/cg	i-bin/MANGA <mark>/</mark> ir	ndex.c	gi?	C	نې ل	+ 0
PEPWAVE	Dashboard	SpeedFus	ion Cloud	Network	Advanced	АР	System	Status	MAX_HD2 Apply Changes	_39C9_GM
	WAN Co Priority 1	nnection Sta	itus						0	
	T Cel	lular 1	ati 🗖	Connected	to Telia LT 🛄				Details	

2. Scroll down to find **Remote SIM Proxy** and click on **[click to configure]** that is located next to it.

- 3. Check the **Enable** checkbox.
- 4. Click on Save.
- 5. Go back to the index.cgi page and click on Apply Changes.

# **Scenario 4: SIM Injector in a remote location**

## Setup topology



Requirements for installing a SIM Injector in a remote location:

- Cellular router communicates with the SIM Injector via UDP port 50000. Therefore this port must be reachable via public IP over the Internet.
- The one way latency between the cellular router and the SIM Injector should be **up to 250 ms.** A higher latency may lead to stability issues.
- The cellular router must have Internet connection to connect to the SIM Injector. It can be another Internet connection via Ethernet or Fiber if possible, or a secondary cellular interface with a local SIM (Ignite SIM).
- Due to its high latency, it is not recommended to use satellite WAN for connecting to a SIM Injector in remote locations.

SIM Injector configuration is the same as in Scenario 1.

### **Cellular Router configuration**

**Step 1.** Enable the SIM Injector communication protocol.

1a. For a Balance cellular router, go to the **Network** (Top tab).

1b. For a MAX cellular router, go to the **Advanced** (Top tab).



- 2. Under Misc. settings (Left-side tab), find Remote SIM Management.
- 3. In **Remote SIM Management**, click on the edit icon next to **Remote SIM is Disabled**.
- 4. Enter the public IP of the SIM Injector and click **Save** and **Apply Changes**.

igs
-
84.199.92.62

Notes:

- Do NOT check Auto LAN Discovery.
- Do NOT add a SIM Injector serial number to the Remote SIM Host field.

**Step 2.** RemoteSIM and custom SIM card settings configurations are the same as in Scenario 1.



# How to check if a Pepwave Cellular Router supports Remote SIM

1. Go to **Network** (Top tab), then **WAN** (Left-side tab), and click **Details** on any cellular WAN. This will open the WAN Connection Settings page.

2. Scroll down to **Cellular settings**.

If you can see the **Remote SIM Settings** section, then the cellular router supports Remote SIMs.

Cellular Settings				
SIM Card	Both SIMs SIM A Only SIM B Only Alternate periodically between SIM A Only and SIM B Only Use Remote SIM Only			
Remote SIM Settings	Control by Fusion SIM Cloud			
	Scan nearby remote SIM server			

## Monitor the status of the Remote SIM

1. Go to **Network** (Top tab), then **WAN** (Left-side tab), and click **Details** on the cellular WAN which was configured to use RemoteSIM.

2. Check the **WAN Connection Status** section. Within the cell WAN details, there is a section for **Remote SIM** (SIM card IMSI, SIM Injector serial number and SIM slot).

WAN Connection Settings						
WAN Connection Stat	us	0				
10 m	SIM Card A	SIM Card B				
IMSI	(No SIM Card Detected)	(No SIM Card Detected)				
ICCID	-	-				
MTN	-	-				
Remote SIM	IMSI: 246012102883787 Serial Number: 392C-03F2-9158 Slot: 1	E				
MEID	HEX: 35907206546976 DEC: 089865882205532022					
TRATET	350072065460765					



# Appendix C: 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)	SpeedFusion VPN / SpeedFusion	Inbound / Outbound*	Disabled
TCP 32015	VPN handshake	SpeedFusion VPN / SpeedFusion	Inbound / Outbound*	Disabled
UDP 4500	VPN Data	SpeedFusion VPN / SpeedFusion	Inbound / Outbound*	Disabled
UDP 32015°	VPN Data (alternative)	SpeedFusion VPN / SpeedFusion	Inbound / Outbound*	Disabled
TCP/UDP 4500+N-1^	VPN Sub-Tunnels Data	SpeedFusion VPN / SpeedFusion	Inbound / Outbound*	Disabled
UDP 32015+N-1^	VPN Sub-Tunnels Data (alternative)	SpeedFusion VPN / 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
102 80	HI I P traffic	vveb Aamin	Indouna	Enabled



		Interface access		
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 SpeedFusion VPN / SpeedFusion.
- Inbound / Outbound\* Inbound = For Server mode; Outbound = For Client mode
- UDP 32015° If IPsec VPN or L2TP/IPsec RUA is enabled, the UDP 4500 is occupied, so SpeedFusion VPN / 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 D: Declaration**

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

#### For MAX BR1 Mini

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. IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 through 11.

#### FCC Radiation Exposure Statement (for MAX BR1 mini)

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



## CE Statement for Pepwave Routers (MAX BR1 Mini 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.

PISMO LABS TECHNOLOGY LIMITED
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
PEPWAVE / PEPLINK Wireless Product
MAX BR1 Mini MAX BR1 Mini LTE Pismo930 Lite
PEPWAVE / PEPLINK



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

EN 301 908-1 V13.1.1 EN 300 328 V2.2.2 EN 303 413 V1.1.1 EN 50385 : 2017 EN 301 489-1 V2.2.3 EN 301 489-17 V3.1.1 EN 301 489-19 V2.1.1 Draft EN 301 489-52 V1.1.0 EN 55032: 2015 + AC:2016 EN 55035: 2017 EN IEC 61000-3-2: 2019 EN 61000-3-3:2013 + A1:2019 EN 62368-1:2014 + A11:2017 (Second Edition)

Yours sincerely,

Antony Chong Director of Hardware Engineering Peplink International Limited



AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

#### <u>2.4GHz (2412 – 2472 MHz) : 16.38 dBm</u> WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

	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
Output Power	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 (MAX BR1 Mini for MC7455)

## 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	MAX BR1 Mini MAX BR1 Mini LTEA Pepwave MAX BR1 Mini Pepwave MAX BR1 Mini LTEA Peplink MAX BR1 Mini Peplink MAX BR1 Mini LTEA MAX-BR1-MINI-LTEA-W-T Pismo930 Lite
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 EN 300 328 V2.2.2 EN 303 413 V1.1.1 EN 62311 : 2008 EN 301 489-1 V2.2.3 EN 301 489-17 V3.1.1 EN 301 489-19 V2.1.1 Draft EN 301 489-52 V1.1.0 EN 55032: 2015 + AC:2016 EN 55035: 2017 EN 61000-3-2: 2014 EN 61000-3-3: 2013 EN 62368-1:2014 + A11:2017 (Second Edition)

Yours sincerely,

SMO

Antony Chong Director of Hardware Engineering Peplink International Limited

AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

#### <u>2.4GHz ( 2412 – 2472 MHz ) : 16.38 dBm</u>

#### 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 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.

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

#### Industry Canada Statement (for MAX BR1 Mini)

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions (1) this device may not cause interference, and (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 compromettre le fonctionnement.

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 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.



# FCC & IC Requirements for Operation in the United States and Canada (for MAX BR1 Mini)

#### FCC ID : U8G-P1930LITER6

**FCC 15.21:** The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**RF exposure warning:** This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

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.

#### IC Warning:

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 radioelect rique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.



Informations concernant l'exposition aux frequences radio (RF)

Cet equipement est conforme avec l'exposition aux radiations IC definies pour un environnement noncontrole.

Cet equipement doit etre installe et utilise a une distance minimum de 20 cm entre le radiateuret votre corps.

Cet emetteur ne doit pas etre co-localisees ou operant en conjonction avec une autreantenne ou transmetteur.

Les utilisateurs finaux et les installateurs doivent etre informes des instructions d'installation de l'antenne et des conditions de fonctionnement de l'emetteur afin de satisfaire a la conformite d'exposition RF.

This radio transmitter IC 20682-P1930LITER6 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le present emetteur radio 20682-P1930LITER6 a ete approuve par Innovation, Sciences et Developpement economique Canada pour fonctionner avec les types d'antenne enumeres ci dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est superieur au gain maximal indique pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'emetteur.

antenna type Omni-directional antenna gain 5.33



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

#### For MAX BR1 MK2

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.

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 minimum distance 24cm between the radiator & your body.

#### Industry Canada Statement (For MAX BR1 MK2)

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 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

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

(ii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the 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 réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas.

En outre, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) 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 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.



### CE Statement for Pepwave Routers (MAX BR1 MK2)

# 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	Pepwave / Peplink / Pismo Wireless Product
Model name of the appliance	MAX BR1 MK2
Trade name of the appliance	Pepwave / Peplink / Pismo



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 303 413 V1.1.1 EN 301 908-1 V13.1.1 EN 301 489-1 V2.2.3 EN 301 489-17 V3.1.1 EN 301 489-19 V2.1.1 Draft EN 301 489-52 V1.1.0 EN 55032:2015 +A11:2020 EN 61000-3-2: 2019 EN 61000-3-3: 2019 EN 62311:2008 EN 62368-1:2014+A11:2017 (Second Edition) EN 55035:2017

Yours sincerely.

Keith Chau General Manager Peplink International Limited

AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

### <u>2.4GHz (2412 – 2472 MHz) : 19.95 dBm</u> <u>5GHz (5150 - 5250 MHz) : 22.73 dBm</u> <u>WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)</u>

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		0
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 MAX BR1 Classic

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.

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

#### FCC Radiation Exposure Statement (for MAX BR1 Classic)

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



#### Industry Canada Statement ( for MAX BR1 Classic )

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions (1) This device may not cause interference; and(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 compromettre le fonctionnement.

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.

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.



### CE Statement for Pepwave Routers (MAX BR1 Classic for MC7455)

## 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	MAX BR1 ESN MAX BR1 ESN LTEA Pepwave MAX BR1 ESN Pepwave MAX BR1 ESN LTEA Peplink MAX BR1 ESN LTEA Pismo930 Lite MAX-BR1-ESN-LTEA-W-T MAX BR1 Classic MAX BR1 Classic LTEA Pepwave MAX BR1 Classic LTEA Pepwave MAX BR1 Classic LTEA Peplink MAX BR1 Classic LTEA Peplink MAX BR1 Classic LTEA MAX-BR1-LTEA-W-T MAX BR1 MAX BR1 LTEA Pepwave MAX BR1 Pepwave MAX BR1 LTEA
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 300 328 V2.2.2 EN 303 413 V1.1.1 EN 62311 : 2008 EN 301 489-1 V2.2.3 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

Antony Chong Director of Hardware Engineering Peplink International Limited



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IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

## <u>2.4GHz (2412 – 2472 MHz) : 19.78 dBm</u> 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	

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/



# <u>CE Statement for Pepwave Routers (MAX BR1 Classic for EC25-E)</u>

# 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	MAX BR1 Classic Pismo930 Lite MAX BR1 MAX BR1 MAX BR1 LTE MAX-BR1-LTE-E-T MAX BR1 Classic LTE MAX BR1 ESN MAX BR1 ESN LTE MAX-BR1-ESN-LTE-E-T Pepwave MAX BR1 Pepwave MAX BR1 Classic Pepwave MAX BR1 Classic LTE Pepwave MAX BR1 Classic LTE Pepwave MAX BR1 ESN Pepwave MAX BR1 ESN LTE Peplink MAX BR1 Classic Peplink MAX BR1 Classic LTE Peplink MAX BR1 Classic LTE Peplink MAX BR1 Classic LTE Peplink MAX BR1 ESN Peplink MAX BR1 ESN LTE
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 EN 300 328 V2.2.2 EN 303 413 V1.1.1 EN 62311 : 2008 EN 301 489-1 V2.2.3 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

Antony Chong Director of Hardware Engineering Peplink International Limited



AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

### <u>2.4GHz (2412 – 2472 MHz) : 19.78 dBm</u> WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

	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
Output Power	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/



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

### For MAX HD4 MBX, MAX HD2 MBX, MAX HD4 MBX 5G, MAX HD2 MBX 5G

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.

#### **IMPORTANT NOTE**

FCC 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 minimum distance 20cm between the radiator & your body.

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

#### **ISED Warning Statement For MAX HD4 MBX**

Industry Canada Statement

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions (1) This device may not cause interference; and(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 compromettre le fonctionnement.

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.

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

(ii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the 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 réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas.

En outre, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bande 5725-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

#### **IC Radiation Exposure Statement**

This equipment complies with Innovation, Science and Economic Development Canada RF exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated to ensure a minimum of 20 cm spacing to any person at all times.

Declaration d'exposition aux radiations Cet equipement est conforme aux limites d'exposition aux rayonnements IC etablies pour un environnement non controle. Cet equipement doit etre installe et utilise avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

This radio transmitter 20682-P1MBX has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

WIFI Antenna type Replacement Antenna WIFI Antenna gain 2.4GHz / 2.44 dBi , 5GH / 4.73 dBi LTE Antenna type Replacement Antenna LTE Antenna gain 4.38 dBi



# Battery Caution Statement (MAX HD4 MBX, MAX HD2 MBX, MAX HD4 MBX 5G, MAX HD2 MBX 5G)

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 (MAX HD4 MBX For EM7565)

# 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	MAX HD4 MBX MAX-HD4-MBX-LTEA-K-T HD4 MBX MBX MAX HD4 MBX LTEA EXM-T4-LTEA-R Peplink Balance 310X Balance 310X BPL-310X-LTE-E-T
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 303 413 V1.1.1 EN 301908-1 V13.1.1 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 61000-3-2: 2014 EN 61000-3-3: 2013 EN 55035 : 2017 EN 62311 : 2008 EN 62368-1:2014 + A11:2017 EN 301 489-19 V2.1.1 EN 301 893 V2.1.1



Antony Chong Director of Hardware Engineering Peplink International Limited

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## <u>2.4GHz (2412 – 2472 MHz) : 19.6 dBm</u> <u>5GHz (5150 - 5250 MHz) : 19.4 dBm</u> <u>WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)</u>

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

Bands	Conducted Tx power	Notes		
LTE				
LTE bands 1,3,8,20	+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)		

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 (MAX HD4 MBX For EM7565)

# **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	MAX HD4 MBX MAX-HD4-MBX-LTEA-K-T HD4 MBX MBX MAX HD4 MBX LTEA EXM-T4-LTEA-R Peplink Balance 310X Balance 310X BPL-310X-LTE-E-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 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

Antony Chong Director of Hardware Engineering Peplink International Limited





# CE Statement for Pepwave Routers (MAX HD2 MBX / MAX HD4 MBX For LM960A18)

# 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	MAX HD4 MBX MAX HD4 MBX LTEA MAX HD2 MBX MAX HD2 MBX LTEA MBX MAX-HD4-MBX-GLTE-G MAX-HD2-MBX-GLTE-G EXM-MBX-T4-GLTE-G EXM-MBX-T2-GLTE-G Pepwave MAX HD4 MBX Pepwave MAX HD4 MBX Pepwave MAX HD2 MBX Pepwave MAX HD2 MBX LTEA Peplink MAX HD4 MBX Peplink MAX HD4 MBX Peplink MAX HD4 MBX LTEA Peplink MAX HD4 MBX LTEA
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 300 328 V2.2.2 EN 301 893 V2.1.1 EN 303 413 V1.1.1 EN 62311 : 2008 EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 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

Antony Chong Director of Hardware Engineering Peplink International Limited



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IT	LV	LT	LU	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

<u>2.4GHz (2412 – 2472 MHz) : 19.6 dBm</u> <u>5GHz (5150 - 5250 MHz) : 19.4 dBm</u> <u>WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)</u>

Band	Power class
3G WCDMA	Class 3 (0.2W)
LTE All Bands	Class 3 (0.2W)

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 (MAX HD2 MBX / MAX HD4 MBX For LM960A18)

# **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	MAX HD4 MBX MAX HD4 MBX LTEA MAX HD2 MBX MAX HD2 MBX LTEA MBX MAX-HD4-MBX-GLTE-G MAX-HD2-MBX-GLTE-G EXM-MBX-T4-GLTE-G EXM-MBX-T2-GLTE-G Pepwave MAX HD4 MBX Pepwave MAX HD4 MBX Pepwave MAX HD2 MBX LTEA Peplink MAX HD4 MBX Peplink MAX HD4 MBX Peplink MAX HD4 MBX LTEA Peplink MAX HD4 MBX LTEA
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 EN 303 413 V1.1.1

#### **Other Standards Applied**

EN 62311: 2008 EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 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

Antony Chong Director of Hardware Engineering Peplink International Limited





## CE Statement for Pepwave Routers (MAX HD2 MBX 5G / MAX HD4 MBX 5G For MV31-W)

# 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	MAX HD2 MBX 5G MAX-HD2-MBX-5GD-T MAX HD4 MBX 5G MAX-HD4-MBX-5GD-T Balance 310X Balance 310X 5G BPL-310X-5GD-T MBX Expansion Module Expansion Module with 1x 5G modems EXM-310X-5GD Expansion Module with 4x 5G modems EXM-MBX-T4-5GD Expansion Module with 2x 5G modules EXM-MBX-T2-5GD
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 300 328 V2.2.2 EN 301 893 V2.1.1 EN 303 413 V1.1.1 EN 62311: 2020 EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 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

Antony Chong Director of Hardware Engineering Peplink International Limited



AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

## <u>2.4GHz ( 2412 – 2472 MHz ) : 19.6 dBm</u>

<u>5GHz ( 5150 - 5250 MHz ) : 19.4 dBm</u>

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

	Bands	FR1 (Sub 6G): FDD: n28 TDD: n78
	Band combinations	For supported E-UTRAN New Radio Dual Connectivity (EN-DC) see Sec- tion 6.2
0	4x4 MIMO	n78
5	DSS	n28
	Category	3GPP Rel 15
	Output Power	FR1 (Sub 6G): n78: 26dBm +2/-3dB all other bands: 23dBm ±2dB
	Bands	FDD: B1, B3, B7, B8, B20, B28 TDD: B38, B40
	Band combinations	For supported carrier aggregations (CA) see Section 6.1
4G	4x4 MIMO	B1, B3, B7, B40, B38
1	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
	Bands	Bd.I, Bd.VIII
	RX Diversity	all 3G bands
3G	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 (MAX HD2 MBX 5G / MAX HD4 MBX 5G For MV31-W)

# **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	MAX HD2 MBX 5G MAX-HD2-MBX-5GD-T MAX HD4 MBX 5G MAX-HD4-MBX-5GD-T Balance 310X Balance 310X 5G BPL-310X-5GD-T MBX Expansion Module Expansion Module with 1x 5G modems EXM-310X-5GD Expansion Module with 4x 5G modems EXM-MBX-T4-5GD Expansion Module with 2x 5G modules EXM-MBX-T2-5GD
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 300 328 V2.2.2 EN 301 893 V2.1.1 EN 303 413 V1.1.1

#### Other Standards Applied

EN 62311: 2020 EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 Draft EN 301 489-19 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

Antony Chong Director of Hardware Engineering Peplink International Limited





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

## For MAX HD2

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.

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 RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 50 centimeters between the radiator and your body.

### Industry Canada Statement (MAX HD2)

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 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



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

(ii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the 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 réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas.

En outre, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) 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 37cm between the radiator & your body. 70 cm minimum distance for the device operate with plug-in USB cellular device which has maximum of 7W(ERP) output power.

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 37 cm entre le radiateur et votre corps. Distance minimale de 70 cm pour que l'appareil fonctionne avec un appareil cellulaire USB enfichable qui a une puissance de sortie maximale de 7 W (ERP).

#### **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.

			For WL	AN				
Antenna No.	Brand	Model	Ánteona Net Gain(dBi)	Frequency range	Antenna Type	Connel Type	cter e	Cable Length (mm)
WAN(2.4G)-1	SmartAnt	SAA06-220690	3	2400 - 2500 MHz	Dipole	R-SN	IA.	150
WAN(2.4G)-2	SmartAnt	SAA06-220690	3	2400 - 2500 MHz	Dipole	R-SM	IA.	150
SPUT COL	Course to a		5.5	5150 - 5350 MHz	Electric	10 00		260
AP(DG)-1	SmartAns	SAA06-220690	8	5350 - 5875 MHz	Dipole	R-SN	tA.	260
ADVICE D	000000		5.5	5150 - 5350 MHz	-			260
AP(5G)-2	SmartAnt	SAA06-220690	6	5350 - 5875 MHz	Lipoie	R-SN	tA.	260
			For GP	5				-
Antenna No.	Brand	Model	Antenna Net Gain(dBi)	Frequency range	Antenna	Туре	Con	mecter Type
4	MASTER WAVE TECHNOLOGY CO., LTD	98335KSAF000	4.5 ±0.5	1575 42 MHz	Magnetic		SMA	
			For WWAN	(LTE)		_		
Antenna No.	Brand	Model	Antenna Net Gain(dBi)	Frequency range	Antenna	Туре	Con	necter Type
Cellular 1 Main			1.99	699-960 MHz	_			
Cellular 1 Diversity/Aux	Aar 1 MASTER ty/Aux WAVE 2 Main TECHNOLOGY CO., LTD	006107849096	4	1575~2170 MHz	Dipole SM		AMA	
Celiular 2 Main		9801925AA025	· · · · ·	2300-2320 MHz			Samp.	
Cellular 1 Diversity/Aux			2.8	2325~2690 MHz				



## <u>CE Statement for Pepwave Routers (MAX HD2 For MC7455)</u>

# 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	MAX HD2, MAX HD2 LTE, MAX HD2 LTEA Pismo 811AC
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 V11.1.1 Draft EN 301 489-1 V2.2.0 Draft EN 301 489-19 V2.1.0 Draft EN 301 489-52 V1.1.0 Draft EN 301 489-52 V1.1.0 Draft EN 301 489-17 V3.2.0 EN 55032:2015 +AC: 2016 EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 55024:2010+A1:2015 EN 62311:2008 EN 60950-1:2006+A11: 2009+A1:2010+A12:2011+A2:2013 EN 303 413 V1.1.1

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	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

### 2.4GHz ( 2412 – 2472 MHz ) : 19.90 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	2
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/



# CE Statement for Pepwave Routers (MAX HD2 For EM7565)

# 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	MAX HD2 MAX HD1 MAX HD2 LTEA MAX HD1 LTEA MAX-HD1 LTEA MAX-HD1-LTEA-K-T MAX-HD1-LTEA-K-T Pepwave MAX HD2 Pepwave MAX HD2 Pepwave MAX HD1 Pepwave MAX HD1 LTEA Peplink MAX HD2 Peplink MAX HD1 Peplink MAX HD1 Peplink MAX HD1 Peplink MAX HD1 LTEA Pismo 811AC Pismo 811ac with 4SIMs piggy
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 EN 300 328 V2.2.2 EN 301 893 V2.1.1 EN 303 413 V1.1.1 EN 62311 : 2008 EN 301 489-1 V2.2.3 EN 301 489-17 V3.1.1 EN 301 489-19 V2.1.1 Draft EN 301 489-52 V1.1.0 EN 55032: 2015 + AC:2016 EN 55035: 2017 EN 61000-3-2: 2014 EN 61000-3-3: 2013 EN 62368-1:2014 + A11:2017 ( Second Edition )

Antony Chong Director of Hardware Engineering Peplink International Limited



AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

<u>2.4GHz (2412 – 2472 MHz) : 19.86 dBm</u> <u>5GHz (5150 - 5250 MHz) : 22.68 dBm</u> <u>WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)</u>

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

Bands	Conducted Tx power	Notes
LTE		
LTE bands 1,3,8,20	+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

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/

# Mounting the Unit

## Wall Mount

Some devices can be wall mounted using screws. After adding the screw on the wall, slide in the screw hole socket as indicated below. Recommended screw specification M3.5 x 20mm, head diameter 6mm, head thickness 2.4mm.

For type 1, the device requires four screws for wall mounting.



For type 2, the device requires two screws for wall mounting.





### (For MAX BR1 Classic CB IEC 62368-1)

Output of the external power source shall complied with ES1 and ES2 requirements, output rating 10-30 Vdc, minimum 12W ( DC Jack or POE injector ), with minimum ambient temperature 65  $^{\circ}$ C, altitude = 5000m, and evaluated in accordance to UL/EN/IEC 60950-1 and / or UL/EN/IEC 62368-1

Ensure to connect the power cord of power adapter to a socket-outlet with earthing.

### (For MAX BR1 Mini HW3 CB IEC 62368-1)

Output of the external power source shall complied with ES1 and PS2 requirements, input rating 10-30 Vdc, maximum 18W ( DC Power Port) or 802.3at PoE, with minimum ambient temperature 65  $^{\circ}$ C, altitude = 5000m, and evaluated in accordance to UL/EN/IEC 60950-1 and / or UL/EN/IEC 62368-1.

Ensure to connect the power cord of power adapter to a socket-outlet with earthing.

The MAX BR1 Mini is investigated to IEC TR 62102 as SELV (ES1) circuits and only connected to PoE without routing to the outside plant, including campus environment.



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

### For MAX BR1 Pro 5G

FCC 15.21

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

#### RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 23 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

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.

### Industry Canada Statement (MAX BR1 Pro 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

compromettre le fonctionnement. Informations concernant l'exposition aux frequences radio (RF)

Cet equipement est conforme avec l'exposition aux radiations IC definies pour un environnement noncontrole.

Cet equipement doit etre installe et utilise a une distance minimum de 23 cm entre le radiateuret votre corps.

Cet emetteur ne doit pas etre co-localisees ou operant en conjonction avec une autreantenne ou transmetteur.

Les utilisateurs finaux et les installateurs doivent etre informes des instructions d'installation de l'antenne et des

conditions de fonctionnement de l'emetteur afin de satisfaire a la conformite d'exposition RF.

This radio transmitter IC 20682-P1AX02 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

antenna type Omni-directional

antenna gain for 2.4GHz 2.44 dBi


antenna gain for 5GHz ( 5150 ~ 5250 MHz ) 4.10 dBi

antenna gain for 5GHz ( 5725 ~ 5850 MHz ) 4.73 dBi

#### **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 (MAX BR1 Pro 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	MAX BR1 5G MAX-BR1-5GD-T MAX BR1 Pro 5G MAX-BR1-PRO-5GD-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 V13.1.1 EN 300 328 V2.2.2 EN 301 893 V2.1.1 EN 303 413 V1.1.1 EN 62311 : 2020 EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 Draft EN 301 489-19 V2.2.0 Draft EN 301 489-52 V1.1.2 EN 55032: 2015 / A11:2020 EN 55035: 2017 EN 61000-3-2: 2014 EN 61000-3-3: 2013 / A1:2019 EN 62368-1:2020+A11:2020

Antony Chong Director of Hardware Engineering Peplink International Limited



AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

### <u>2.4GHz (2412 – 2472 MHz) : 19.74 dBm</u> <u>5GHz (5150 - 5250 MHz) : 22.66 dBm</u> <u>WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)</u>

	Bands	FR1 (Sub 6G): FDD: n28 TDD: n78	
	Band combinations	For supported E-UTRAN New Radio Dual Connectivity (EN-DC) see Sec- tion 6.2	
0	4x4 MIMO	n78	
0	DSS	n28	
	Category	3GPP Rel 15	
	Output Power	FR1 (Sub 6G): n78: 26dBm +2/-3dB all other bands: 23dBm ±2dB	
	Bands	FDD: B1, B3, B7, B8, B20, B28 TDD: B38, B40	
	Band combinations	For supported carrier aggregations (CA) see Section 6.1	
40	4x4 MIMO	B1, B3, B7, 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	all bands: 23dBm ±2dB	

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 (MAX BR1 Pro 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	MAX BR1 5G MAX-BR1-5GD-T MAX BR1 Pro 5G MAX-BR1-PRO-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 EN 303 413 V1.1.1

#### Other Standards Applied

EN 62311: 2020 EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 Draft EN 301 489-19 V2.2.0 Draft EN 301 489-52 V1.1.2 EN 55032: 2015 + A11:2020 EN 55035: 2017 EN 61000-3-2: 2014 EN 61000-3-3: 2013 + A1:2019 EN 62368-1:2020 + A11:2020

Yours sincerely,



SMO

Antony Chong Director of Hardware Engineering Peplink International Limited



### CE Statement for Pepwave Routers (MAX BR1 Pro LTEA for EM7690)

# **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	MAX BR1 Pro LTEA MAX-BR1-PRO-GLTE-S-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 V1.1.1 EN 62311: 2020 EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 Draft EN 301 489-19 V2.2.0 EN 301 489-52 V1.2.1 EN 55032: 2015 + A11:2020 EN 55035: 2017 EN 55035: 2017 + A11:2020 EN 61000-3-2: 2014 EN 61000-3-2: 2019+A1:2021 EN 61000-3-3: 2013 EN 61000-3-3: 2013 + A1:2019 EN 62368-1:2020+A11:2020

Antony Chong Director of Hardware Engineering Peplink International Limited





### <u>2.4GHz (2412 – 2472 MHz) : 19.74 dBm</u> <u>5GHz (5150 - 5250 MHz) : 22.66 dBm</u> <u>WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)</u>

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

Bands	Conducted Tx power	Notes
LTE		
LTE bands 1, 3	22.5 dBm $\pm$ 1 dB	
LTE bands 7, 38, 40	$22 \text{ dBm} \pm 1 \text{ dB}$	
LTE bands 8, 20, 28	23 dBm $\pm$ 1 dB	

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 (MAX BR1 Pro LTEA for EM7690)

## **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	MAX BR1 Pro LTEA MAX-BR1-PRO-GLTE-S-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: 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: 2014 EN 61000-3-2: 2019 + A1:2021 EN 61000-3-3: 2013 EN 61000-3-3: 2013 + A1:2019 EN 62368-1:2020 + A11:2020

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 MAX BR1 Mini Core

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.

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference and

(2) this device must accept any interference received, including interference that may cause undesired operation.

#### **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 (MAX BR1 Mini Core)

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

Le present produit est conforme aux specifications techniques applicables a l'innovation, Science et Developpement economique 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 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**

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.



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

#### For MAX BR1 Mini HW3 (FCC ID: U8G-P1MT01)

#### **Federal Communication Commission Interference Statement**

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

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, 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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference and

(2) this device must accept any interference received, including interference that may cause undesired operation.

#### **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 (MAX BR1 Mini, IC: 20682-P1MT01)

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 operation 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 the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate; (detachable antenna only); 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.

(iii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the 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.

(i) Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii)Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas.

En outre, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5725-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

(iii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation



point à point et non point à point.

#### **Radiation Exposure Statement**

This equipment complies with ISED 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.

Cet appareil doit être installé et utilisé avec une distance minimale de 20cm entre l'émetteuret votre corps. Cet appareil et sa ou ses antennes ne doivent pas être co-localisés ou fonctionner en conjonction avec tout autre antenne ou transmetteur.

This radio transmitter IC: 20682-P1MT01 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

WIFI Antenna type: Omni-directional WIFI Antenna gain: 2.4GHz / 3.15 dBi 5150 ~ 5250 MHz / 3.29 dBi 5725 ~ 5850 MHz / 4.76 dBi

Cet émetteur radio IC : 20682-P1MT01 a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antennes répertoriés ci-dessous, avec le gain maximal autorisé indiqué. Les types d'antenne non inclus dans cette liste qui ont un gain supérieur au gain maximum indiqué pour tout type répertorié sont strictement interdits pour une utilisation avec cet appareil.

Type d'antenne WIFI : omnidirectionnelle Gain de l'antenne Wi-Fi : 2.4 GHz / 3.15 dBi 5150 ~ 5250 MHz / 3.29 dBi 5725 ~ 5850 MHz / 4.76 dBi



## CE Statement for Pepwave Routers (MAX BR1 Mini HW3 for EC25-E & 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	MAX BR1 Mini MAX-BR1-MINI-LTE-E-T-PRM MAX-BR1-MINI-LTEA-B-T-PRM MAX-BR1-MINI-LTE-E-DC-T-PRM MAX-BR1-MINI-LTEA-B-DC-T-PRM
Trade name of the appliance	<b>peplink</b> PEPWAVE



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



Antony Chong Director of Hardware Engineering Peplink International Limited



#### <u>2.4GHz (2412 - 2472 MHz) : 19.95 dBm</u> 5GHz (5150 - 5250 MHz) : 22.65 dBm

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

#### EC25-E module:

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
	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

#### LN920A6-WW module:

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 (MAX BR1 Mini HW3 for EC25-E & LN920A6-WW)

# **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	Peplink Pepwave Wireless Product
Model name of the appliance	MAX BR1 Mini MAX-BR1-MINI-LTE-E-T-PRM MAX-BR1-MINI-LTEA-B-T-PRM MAX-BR1-MINI-LTE-E-DC-T-PRM MAX-BR1-MINI-LTEA-B-DC-T-PRM
Trade name of the appliance	<b>peplink</b> 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

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

Antony Chong Director of Hardware Engineering Peplink International Limited



#### **NCC statement**

#### For MAX BR1 Mini (HW3)

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: 0.9 mW/cm2 · 送測產品實測值: 0.118 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。



#### FCC Requirements for Operation in the United States

Federal Communications Commission (FCC) Compliance Notice:

#### For MAX 700

#### **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 22 centimeters between the radiator and your body.



#### For MAX HD2 IP67, MAX HD2 Mini, MAX HD2 Dome, MAX HD4 IP67, MAX

#### BR1 ENT, MAX BR1 M2M, SpeedFusion Engine

#### **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 (MAX HD2 IP67, MAX HD2 Mini, MAX HD2 Dome, MAX HD4 IP67, MAX BR1 ENT, MAX BR1 M2M, SpeedFusion Engine)

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.

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**

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 (MAX HD2 IP67, MAX HD2 Mini, MAX HD1 Dome, MAX HD2 Dome, MAX HD4 IP67, MAX BR1 ENT)

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 (MAX HD2 IP67)

## 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	MAX HD2 IP67 HD2 IP67 MAX HD2 LTEA IP67 OM2 Pismo 807 MAX-HD2-M-LTEA-W-RM-IP67 MAX HD2 LTE IP67 Pepwave MAX HD2 IP67
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 EN 303 413 V1.1.1 Draft ETSI EN 301 489-1 V2.2.0 Draft ETSI EN 301 489-52 V1.1.0 ETSI EN 301 489-19 V2.1.1 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+A11:2017

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Antony Chong Director of Hardware Engineering Peplink International Limited



#### 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.

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



## CE Statement for Pepwave Routers (MAX HD1 Dome)

## 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	Pepwave MAX HD1 Dome MAX HD1 Dome MAX HD1 Dome LTEA Pepwave MAX HD1 Dome LTEA MAX-HD1-DOM-M-GLTE-G
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 : 2008 EN 301 489-1 V2.2.3 EN 301 489-19 V2.1.1 Draft EN 301 489-52 V1.1.0 EN 55032: 2015 + A11:2020 EN 55035: 2017 EN 61000-3-2: 2019 EN 61000-3-2: 2019 EN 62368-1:2014 + A11:2017 (Second Edition) IEC 60950-22(ed.2)

Antony Chong Director of Hardware Engineering Peplink International Limited



AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

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

Band	Power class
3G WCDMA	Class 3 (0.2W)
LTE All Bands	Class 3 (0.2W)

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 (MAX HD1 Dome)

# 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	Pepwave MAX HD1 Dome MAX HD1 Dome MAX HD1 Dome LTEA Pepwave MAX HD1 Dome LTEA MAX-HD1-DOM-M-GLTE-G
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: 2008 EN 301 489-1 V2.2.3 EN 301 489-19 V2.1.1 Draft EN 301 489-52 V1.1.0 EN 55032: 2015 + A11:2020 EN 55035: 2017 EN 61000-3-2: 2019 EN 61000-3-3: 2013 + A1:2019 EN 62368-1:2014 + A11:2017 (Second Edition) IEC 60950-22(ed.2)

Antony Chong Director of Hardware Engineering Peplink International Limited





## CE Statement for Pepwave Routers (MAX HD2 Dome)

## 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	Pepwave MAX HD1 Dome MAX HD1 Dome Peplink MAX HD1 Dome MAX HD1 Dome LTEA Pepwave MAX HD1 Dome LTEA Peplink MAX HD1 Dome LTEA MAX HD2 Dome Pepwave MAX HD2 Dome Peplink MAX HD2 Dome MAX HD2 Dome LTEA MAX-HD2-DOM-M-LTEA-K Peplink MAX HD2 Dome LTEA Pepwave MAX HD2 Dome LTEA Pismo825
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 : 2008 EN 301 489-1 V2.2.3 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: 2019 EN 61000-3-3: 2019 EN 62368-1:2014 + A11:2017 IEC 60950-22(ed.2)

Antony Chong Director of Hardware Engineering Peplink International Limited



AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

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

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

Bands	Conducted Tx power	Notes		
LTE		5		
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		

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 (MAX BR1 ESN)

## 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	MAX BR1 ESN MAX BR1 ESN LTEA Pepwave MAX BR1 ESN Pepwave MAX BR1 ESN LTEA Peplink MAX BR1 ESN Peplink MAX BR1 ESN LTEA MAX-BR1-ESN-LTEA-K-T
Trade name of the appliance	PEPWAVE / PEPLINK



EN 301 908-1 V11.1.1 EN 300 328 V2.2.2 EN 303 413 V1.1.1 EN 62311 : 2008 EN 301 489-1 V2.2.3 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

Antony Chong Director of Hardware Engineering Peplink International Limited



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IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

### 2.4GHz ( 2412 - 2472 MHz ) : 19.78 dBm

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

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

Bands	Conducted Tx power	Notes
LTE		
LTE bands 1,3,20	+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

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.



### FCC Requirements for Operation in the United States

### Federal Communications Commission (FCC) Compliance Notice:

### For MAX HD4

#### **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 40 centimeters between the radiator and your body.

### Industry Canada Statement (MAX HD4)

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.

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 potential for harmful interference to co-channel mobile satellite systems;

(ii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the 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 une 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) utilisant la 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 40cm 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 40 cm entre le radiateur et votre corps.

### **Battery Caution Statement (MAX HD4)**

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.

peplink PEPWAVE



### CE Statement for Pepwave Routers (MAX HD4)

## 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 / Pismo Wireless Product
Model name of the appliance	MAX HD4, MAX HD4 LTE, MAX HD4 LTEA PISMO803AC
Trade name of the appliance	Pepwave / Peplink / Pismo



EN 300 328 V2.1.1 EN 301 893 V2.1.1 EN 301908-1 V11.1.1 EN 300 440 V2.1.1 EN 303 413 V1.1.1 EN 301 489-1 V2.1.1 Final Draft EN 301 489-3 V2.1.1 EN 301 489-17 V3.1.1 Draft EN 301 489-52 V1.1.0 EN 55032:2015 EN 61000-3-2: 2014 EN 61000-3-3: 2013 EN 55024:2010+A1:2015 EN 50385:2017 EN 60950-1:2006+A11: 2009+A1:2010+A12:2011+A2:2013

Keith Chau General Manager Peplink International Limited

# peplink PEPWAVE

AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

### <u>2.4GHz (2412 - 2472 MHz) : 18.87 dBm</u> <u>5GHz (5150 - 5250 MHz & 5725 - 5850 MHz) : 19.13 dBm</u>

### 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 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.



### CE Statement for Pepwave Routers (MAX HD4 IP67)

## DECLARATION OF CONFORMITY

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	Pepwave / Peplink / Pismo Wireless Product
Model name of the appliance	MAX HD4 IP67, MAX HD4 LTE IP67, MAX HD4 LTEA IP67
Trade name of the appliance	Pepwave / Peplink / Pismo



EN 301908-1 V11.1.1 EN 303 413 V1.1.1 EN 301 489-1 V2.1.1 EN 301 489-19 V2.1.0 EN 301 489-52 V1.1.0 EN 55032:2015 EN 61000-3-2: 2014 EN 61000-3-3: 2013 EN 55024:2010+A1:2015 EN 50385:2017 EN 60950-1:2006+A11: 2009+A1:2010+A12:2011+A2:2013

Keith Chau General Manager Peplink International Limited

# **peplink** | PEPWAVE

AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

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

|--|

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 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.



### <u>CE Statement for Pepwave Routers (SpeedFusion Engine)</u>

## 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 / Pismo Labs Wireless Product
Model name of the appliance	SpeedFusion Engine, SpeedFusion Engine ET, SpeedFusion Engine ST
Trade name of the appliance	Pepwave / Peplink / Pismo



EN 301 908-1 V11.1.1 EN 303 413 V1.1.1 Draft EN 301 489-1 V2.2.0 Draft EN 301 489-19 V2.1.0 Draft EN 301 489-52 V1.1.0 EN 62311:2008 EN 60950-1:2006 +A11: 2009+A1:2010+A12:2011+A2:2013

Keith Chau General Manager Peplink International Limited

# **peplink** | PEPWAVE

AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
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### WWAN : Refer 3GPP TS 36.521 -1 (UE Power class )

### MC7455 module:

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 8 (UMTS 900 12.2 kbps)	+23 dBm ± 1 dB	Connectorized (Class 3)

### EC25-E module:

	Class 3 (23dBm±2dB) for LTE FDD Class 3 (23dBm±2dB) for LTE TDD Class 3 (24dBm±2dB) for LTE TDD
	Class 3 (24dBm + 1/-3dB) for UMTS
Output Power	Class E2 (27dBm ±3dB) for EDGE 850/900MHz
	Class E2 (260Bm +3/-40B) 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.



### FCC Requirements for Operation in the United States

### Federal Communications Commission (FCC) Compliance Notice:

### For MAX Transit, MAX Transit Duo

### 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.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

### **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 24 centimeters between the radiator and your body.

### Industry Canada Statement (MAX Transit, MAX Transit Duo)

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

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 potential for harmful interference to co-channel mobile satellite systems;

(ii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the 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 une 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) utilisant la 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 30cm 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 30 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 (MAX Transit / MAX Transit Duo For EM7565)

## 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	MAX Transit MAX-TST-LTEA-K-T MAX-TST-LTEA-K-T-PRM MAX Transit LTEA Pepwave MAX Transit Pepwave MAX Transit LTEA MAX Transit Duo MAX Transit Duo MAX Transit Duo MAX-TST-DUO-LTEA-K-T MAX-TST-DUO-LTEA-K-T-PRM Pepwave MAX Transit Duo Pepwave MAX Transit Duo
Trade name of the appliance	PEPWAVE / PEPLINK



EN 300 328 V2.2.2 EN 301 893 V2.1.1 EN 301 908-1 V13.1.1 EN 301 489-1 V2.2.3 EN 301 489-19 V2.1.1 EN 301 489-17 V3.1.1 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+A11:2017 (Second Edition) EN 303 413 V1.1.1



Antony Chong Director of Hardware Engineering Peplink International Limited

# **peplink** | PEPWAVE

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IT	LV	LT	LU	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

### <u>2.4GHz (2412 - 2472 MHz) : 18.68 dBm</u> <u>5GHz (5150 - 5250 MHz) : 18.19 dBm</u>

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

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			

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.



### <u>CE Statement for Pepwave Routers (MAX Transit For LM960A18)</u>

## 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	MAX Transit Pepwave MAX Transit MAX-TST-GLTE-G-T-PRM
Trade name of the appliance	PEPWAVE / PEPLINK



EN 300 328 V2.2.2 EN 301 893 V2.1.1 EN 301 908-1 V13.1.1 EN 301 489-1 V2.2.3 EN 301 489-19 V2.1.1 EN 301 489-17 V3.1.1 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+A11:2017 (Second Edition) EN 303 413 V1.1.1



Antony Chong Director of Hardware Engineering Peplink International Limited

# **peplink** | PEPWAVE

AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

### <u>2.4GHz (2412 - 2472 MHz) : 18.68 dBm</u> <u>5GHz (5150 - 5250 MHz) : 18.19 dBm</u>

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

Band	Power class			
3G WCDMA	Class 3 (0.2W)			
LTE All Bands	Class 3 (0.2W)			

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.



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

### For MAX Transit Mini

### **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 (MAX Transit Mini)

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.

### **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 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.



This radio transmitter has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Antenna types Replacement Antenna Antenna gain (in dBi) 5.33 dBi

Innovation, Sciences et Developpement economique Canada a approuve l'utilisation de ce transmetteur radio avec les types d'antenne enumeres ci-dessous, le gain maximal admissible etant indique. Les types d'antennes non inclus dans cette liste qui ont un gain superieur au gain maximal indique pour tout type liste sont strictement interdits pour une utilisation avec cet appareil.

Types d'antennes Replacement Antenna Gain d'antenne (en dBi) 5.33 dBi



CE Statement for Pepwave Routers (MAX Transit Mini)

## 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 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	MAX Transit Mini MAX TST Mini MAX-TST-MINI-LTE-E-T MAX TST MINI LTE MAX Transit Mini LTE Pismo930 Lite MAX Transit Mini Lte MAX-Transit Mini LTE Pismo930LITER5 Pismo 930LITER5 Max transit mini MAX Transit Mini LTEA MAX-TST-MINI-LTEA-W-T
Trade name of the appliance	PEPWAVE / PEPLINK



EN 300 328 V2.2.2 EN 303 413 V1.1.1 EN 301908-1 V11.1.1 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 301 489-19 V2.1.1



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### <u>2.4GHz (2412 - 2472 MHz): 19.78 dBm</u> WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

	Class 3 (23dBm±2dB) for LTE FDD Class 3 (23dBm±2dB) for LTE TDD
	Class 3 (240Bm +1/-30B) for TD-SCDMA Class 3 (240Bm +1/-30B) for UMTS
Output Power	Class E2 (27dBm ±3dB) for EDGE 850/900MHz Class E2 (26dBm +3/-4dB) for EDGE
	Class 4 (33dBm ±2dB) for GSM 850/900MHz
	Class 1 (300Bm ±20B) 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 20 cm between the radiator & your body.



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

### For MAX BR1 PRO, UBR LTE

### **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 23 centimeters between the radiator and your body.

### Industry Canada Statement (MAX BR1 PRO, UBR LTE)

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



For licence exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter 20682-P1941 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

WIFI Antenna type: Replacement Antenna WIFI Antenna gain: 2.4GHz I 2.44 dBi , 5GHz I 4.73 dBi LTE Antenna type: Replacement Antenna (04-410055-00) LTE Antenna gain: 4 dBi LTE Antenna type: Replacement Antenna (04-410093-01) LTE Antenna gain: 4.38 dBi

(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 the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate; (detachable antenna only); 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.

(iii) where applicable, antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.

(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) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas. (antenne détachable uniquement)

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.

(iii) 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



#### **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 23 cm 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 23 cm entre le radiateur et votre corps.



### CE Statement for Pepwave Routers (MAX BR1 PR0 / UBR LTE)

## DECLARATION OF CONFORMITY

Name of manufacturer	PISMO LABS TECHNOLOGY LIMITED 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							
Contact information of the manufacturer								
Description of the appliance	PEPWAVE / PEPLINK Wireless Product							
Model name of the appliance	UBR MAX-BR2-PRO-LTE-E-T UBR LTE MAX-BR1-PRO-LTE-E-T UBR-LTE UBR-LTE-E-T CX2 Min MAX UBR LTE MAX BR1 Pro LTE MAX UBR MAX BR1 Pro MAX BR2 Pro BR2 PRO MAX BR2 Pro LTE Pismo 941 MAX-CX2-Mini MAX CX2 Mini							
Trade name of the appliance	PEPWAVE / PEPLINK							



EN 300 328 V2.1.1 EN 301 893 V2.1.1 EN 303 413 V1.1.1 EN 301 908-1 V11.1.1 EN 301 489-1 V2.1.1 EN 301 489-19 V2.1.1 EN 301 489-17 V3.1.1 Draft EN 301 489-52 V1.1.0 EN 55032: 2015 + AC:2016 EN 61000-3-3: 2013 EN 61000-3-2: 2014 EN 55035 : 2017 EN 62311 : 2008 EN 62368-1:2014/A11:2017



Antony Chong Director of Hardware Engineering Peplink International Limited

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### <u>2.4GHz (2412 - 2472 MHz): 19.94 dBm</u> <u>5GHz (5150 - 5250 MHz): 20.34 dBm</u> <u>WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)</u>

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
	Cidas I (Soubili 220b) for Com Toddi I Soumine

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.



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

### For MAX BR1 IP55, MAX BR2 IP55

### **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.



### CE Statement for Pepwave Routers (MAX BR1 IP55)

## 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	MAX BR1 IP55 MAX BR1 LTE IP55 MAX BR1 LTEA IP55
Trade name of the appliance	PEPWAVE / PEPLINK



EN 55032:2015 EN 55024:2010+A1:2015 EN 61000-3-2: 2014 EN 61000-3-3: 2013 Draft EN 301 489-1 V2.2.0 Draft EN 301 489-17 V3.2.0 Draft EN 301 489-52 V1.1.0 EN 300 328 V2.1.1 EN 301 893 V2.1.1 EN 301 908-1 V11.1.1 EN 301 908-1 V11.1.1 EN 300 440 V2.1.1 EN 62311: 2008 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

Keith Chau General Manager Peplink International Limited
AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

<u>2.4GHz (2412 - 2472 MHz) : 18.16 dBm</u> <u>5GHz (5150 - 5250 MHz) : 20.32 dBm</u> <u>5GHz (5725 - 5850 MHz) : 13.00 dBm</u> <u>WWAN : Refer 3GPP TS 36.521 -1 (UE Power class )</u>

#### 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 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 50cm 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/



## CE Statement for Pepwave Routers (MAX BR2 IP55)

# 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	Pepwave / Peplink / Pismo Wireless Product
Model name of the appliance	MAX BR2 IP55, MAX BR2 LTE IP55
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 V2.2.0 EN 301 489-17 V3.2.0 EN 301 489-52 V1.1.0 EN 300 328 V2.1.1 EN 301 893 V2.1.1 EN 301 908-1 V11.1.1 EN 301 908-1 V11.1.1 EN 300 440 V2.1.1 EN 62311: 2008 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	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

## <u>2.4GHz (2412 - 2472 MHz) : 18.99 dBm</u> <u>5GHz (5150 - 5250 MHz) : 22.95 dBm</u> <u>5GHz (5725 - 5850 MHz) : 12.80 dBm</u>

#### 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 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 50cm 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.

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

#### For MAX Transit Pro E / MAX Transit LTEA (FCC ID: U8G-P1835)

#### FCC 15.21:

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

#### FCC 15.105

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, 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.

#### **RF** exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.



#### **ICES Statement**

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 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

#### **RF** exposure warning

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. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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. Cet émetteur ne doit pas être colocalisées ou opérant en conjonction avec une autre antenne ou transmetteur.

This radio transmitter IC: 20682-P1835 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Antenna Type WLAN: Omni-directional Antenna							
	Antenna infor	mation					
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	<ant. 0="">: 2.44 <ant. 1="">: 2.44</ant.></ant.>					

Antenna Type	WLAN: Omni-directional Antenn

Antenna information								
5150 MHz ~ 5250 MHz	Peak Gain (dBi)	<ant. 0="">: 4.10 <ant. 1="">: 4.10</ant.></ant.>						
5250 MHz ~ 5350 MHz	Peak Gain (dBi)	<ant. 0="">: 4.41 <ant. 1="">: 4.41</ant.></ant.>	Y I					
5470 MHz ~ 5725 MHz	Peak Gain (dBi)	<ant. 0="">: 4.41 <ant. 1="">: 4.41</ant.></ant.>						

Antenna Type WLAN: Omni-directional Antenna							
	Antenna infor	mation					
5725 MHz ~ 5850 MHz	Peak Gain (dBi)	<ant. 0="">: 4.73 <ant. 1="">: 4.73</ant.></ant.>					

Cet émetteur radio IC : 20682-P1835 a été approuvé par Innovation, Sciences et Développement économique Canada doit fonctionner avec les types d'antennes énumérés ci-dessous, avec le gain maximal admissible indiqué. Les types d'antenne non inclus dans cette liste qui ont un gain supérieur au gain maximum indiqué pour tout type répertorié sont strictement interdits pour une utilisation avec cet appareil.

ype d'antenne WLAN: Omni-directionnelle Antenne									
And and a second se	Informations s	ur l'antenne							
2400 MHz ~ 2483.5 MHz	Gain de crête(dBi)	<ant. 0="">: 2.44 <ant. 1="">: 2.44</ant.></ant.>							
Type d'antenne	WLAN: Omni-dire	ctionnelle Antenne							
	Informations s	ur l'antenne							
5150 MHz ~ 5250 MHz	Gain de crête(dBi)	<ant. 0="">: 4.10 <ant. 1="">: 4.10</ant.></ant.>							
5250 MHz ~ 5350 MHz	Gain de crête(dBi)	<ant. 0="">: 4.41 <ant. 1="">: 4.41</ant.></ant.>							
5470 MHz ~ 5725 MHz	Gain de crête(dBi)	<ant. 0="">: 4.41 <ant. 1="">: 4.41</ant.></ant.>							
Type d'antenne	WLAN: Omni-dire	ctionnelle Antenne							
	Informations s	ur l'antenne	-						
5725 MHz ~ 5850 MHz	Gain de crête(dBi)	<ant. 0="">: 4.73 <ant. 1="">: 4.73</ant.></ant.>							

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

#### For MAX Transit Pro E (FCC ID: U8G-P1AX09)

#### Federal Communication Commission Interference Statement

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

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, 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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference and

(2) this device must accept any interference received, including interference that may cause undesired operation.

#### **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 (MAX Transit Pro E, IC: 20682-P1AX09)

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 operation 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 the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate; (detachable antenna only); 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.

(iii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the 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.

(i) Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas.

En outre, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5725-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

(iii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation



point à point et non point à point.

#### **Radiation Exposure Statement**

This equipment complies with ISED 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.

Cet appareil doit être installé et utilisé avec une distance minimale de 20cm entre l'émetteuret votre corps. Cet appareil et sa ou ses antennes ne doivent pas être co-localisés ou fonctionner en conjonction avec tout autre antenne ou transmetteur.

This radio transmitter IC: 20682-P1AX09 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

WIFI Antenna type: Omni-directional WIFI Antenna gain: 2.4GHz / 2.44 dBi 5150 ~ 5250 MHz / 4.10 dBi 5725 ~ 5850 MHz / 4.73 dBi

Cet émetteur radio IC : 20682-P1AX09 a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antennes répertoriés ci-dessous, avec le gain maximal autorisé indiqué. Les types d'antenne non inclus dans cette liste qui ont un gain supérieur au gain maximum indiqué pour tout type répertorié sont strictement interdits pour une utilisation avec cet appareil.

Type d'antenne WIFI : omnidirectionnelle Gain de l'antenne Wi-Fi : 2.4 GHz / 2.44 dBi 5150 ~ 5250 MHz / 4.10 dBi 5725 ~ 5850 MHz / 4.73 dBi



### CE Statement for Pepwave Routers (MAX Transit Pro E for LN920A12-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	MAX Transit Pro E MAX-TST-PROE-DUO-LTEA-Q-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 + A1:2020 EN 55035: 2017 + A11:2020 EN 61000-3-2: 2014 EN 61000-3-3: 2013 EN 62368-1:2020 + A11:2020

Yours sincerely,

Antony Chong Director of Hardware Engineering Peplink International Limited

AT	BE	BG	HR	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

### <u>2.4GHz (2412 - 2472 MHz) : 19.97 dBm</u> <u>5GHz (5150 - 5250 MHz) : 22.99 dBm</u>

#### LN920A12-WW: 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/



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

#### For MAX Transit Duo Pro

#### **Federal Communication Commission Interference Statement**

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

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, 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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference and

(2) this device must accept any interference received, including interference that may cause undesired operation.

#### **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 (MAX Transit Duo 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.

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 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 the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate; (detachable antenna only); 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.

(iii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the 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.

(i) Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas.

En outre, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5725-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

(iii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation



point à point et non point à point.

#### **Radiation Exposure Statement**

This equipment complies with ISED 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.

Cet appareil doit être installé et utilisé avec une distance minimale de 20cm entre l'émetteuret votre corps. Cet appareil et sa ou ses antennes ne doivent pas être co-localisés ou fonctionner en conjonction avec tout autre antenne ou transmetteur.

This radio transmitter IC: 20682-P1AX11 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

WIFI Antenna type: Omni-directional WIFI Antenna gain: 2.4GHz / 2.44 dBi 5150 ~ 5250 MHz / 4.1 dBi 5725 ~ 5850 MHz / 4.73 dBi

Cet émetteur radio IC : 20682-P1AX11 a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antennes répertoriés ci-dessous, avec le gain maximal autorisé indiqué. Les types d'antenne non inclus dans cette liste qui ont un gain supérieur au gain maximum indiqué pour tout type répertorié sont strictement interdits pour une utilisation avec cet appareil.

Type d'antenne WIFI : omnidirectionnelle Gain de l'antenne Wi-Fi : 2.4 GHz / 2.44 dBi 5150 ~ 5250 MHz / 4.1 dBi 5725 ~ 5850 MHz / 4.73 dBi



## <u>CE Statement for Pepwave Routers (MAX Transit Duo Pro for EM7421 & EM12-G )</u>

# **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	MAX Transit Duo Pro MAX Transit Pro MAX-TST-PRO-DUO-LTEA-E-T-PRM MAX-TST-PRO-DUO-LTEA-D-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 V13.1.1 EN 300 328 V2.2.2 EN 301 893 V2.1.1 EN 303 413 V1.1.1 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	СҮ	cz	DK	EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	мт	NL	PL	РТ	RO	sĸ	SI	ES	SE	UK(NI)

## <u>2.4GHz ( 2412 - 2472 MHz ) : 19.74 dBm</u> <u>5GHz ( 5150 - 5250 MHz ) : 22.88 dBm</u>

#### EM7421: WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

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

Bands	Conducted Tx power	Notes			
LTE					
LTE bands 1, 3	22.5 dBm ± 1 dB				
LTE bands 7, 38, 40, 42, 43	22 dBm ± 1 dB				
LTE bands 8, 20, 28	23 dBm ± 1 dB				
UMTS					
Band 1 (IMT 2100 12.2 kbps)	23 dBm ± 1 dB	Connectorized			
Band 8 (UMTS 900 12.2 kbps)	23 dBm ± 1 dB	(Class 3)			

### EM12-G: WWAN : Refer 3GPP TS 36.521 -1 (UE Power class)

Class 3 (23 dBm ±2 dB) for LTE FDD Bands Class 3 (23 dBm ±2 dB) for LTE TDD Bands Class 3 (24 dBm +1/-3 dB) for WCDMA Bands

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 (MAX Transit Duo Pro for EM7421 & EM12-G)

# **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	MAX Transit Pro MAX-TST-PRO-DUO-LTEA-E-T-PRM MAX-TST-PRO-DUO-LTEA-D-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: 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





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

#### For MAX BR2 Pro

#### Federal Communication Commission Interference Statement

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

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, 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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference and

(2) this device must accept any interference received, including interference that may cause undesired operation.

#### **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 (MAX BR2 Pro, IC: 20682-P1AX203)

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 operation 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 the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate; (detachable antenna only); 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.

(iii) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the 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.

(i) Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas.

En outre, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5725-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

(iii) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation



point à point et non point à point.

#### **Radiation Exposure Statement**

This equipment complies with ISED 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.

Cet appareil doit être installé et utilisé avec une distance minimale de 20cm entre l'émetteuret votre corps. Cet appareil et sa ou ses antennes ne doivent pas être co-localisés ou fonctionner en conjonction avec tout autre antenne ou transmetteur.

This radio transmitter IC: 20682-P1AX203 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

WIFI Antenna type: Omni-directional WIFI Antenna gain: 2.4GHz / 2.44 dBi 5150 ~ 5250 MHz / 4.1 dBi 5725 ~ 5850 MHz / 4.73 dBi

Cet émetteur radio IC : 20682-P1AX203 a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antennes répertoriés ci-dessous, avec le gain maximal autorisé indiqué. Les types d'antenne non inclus dans cette liste qui ont un gain supérieur au gain maximum indiqué pour tout type répertorié sont strictement interdits pour une utilisation avec cet appareil.

Type d'antenne WIFI : omnidirectionnelle Gain de l'antenne Wi-Fi : 2.4 GHz / 2.44 dBi 5150 ~ 5250 MHz / 4.1 dBi 5725 ~ 5850 MHz / 4.73 dBi



## CE Statement for Pepwave Routers (MAX BR2 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 Wireless Product
Model name of the appliance	MAX BR2 Pro MAX-BR2-PRO-5GD-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 301 489-17 V3.2.4 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: 2014 EN 61000-3-3: 2013 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	мт	NL	PL	РТ	RO	SK	SI	ES	SE	UK(NI)

#### <u>2.4GHz ( 2412 - 2472 MHz ) : 19.94 dBm</u>

5GHz ( 5150 - 5250 MHz ) : 22.96 dBm

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

	Bands	FR1 (Sub 6G): TDD: n78
	Band combinations	For supported E-UTRAN New Radio Dual Connectivity (EN-DC) see [2]
	4x4 MIMO	n78
56	Category	3GPP Rel 15 256 QAM UL/DL
	Output Power	FR1 (Sub 6G): n78: 25.5dBm +1.5/-1dB (HPUE)
	Bands	FDD: B1, B3, B7, B8, B20, B28 TDD: B38, B40
	Band combinations	For supported carrier aggregations (CA) see [2]
	4x4 MIMO	B1, B3, B7, B38, B40
U	RX Diversity	All LTE bands
4	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	B1, B3, B7, 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 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/