



# RF EXPOSURE REPORT

**REPORT NO.:** SA121224E05

**MODEL NO.:** MAX On-The-Go, MAX OTG,  
Pismo735, MAX Make-It, Balance,  
MAX, Device Connector, AP One, MAX  
Connector, Air Connector, Air Switch,  
Pismo935

**FCC ID:** U8G-P1375

**RECEIVED:** Feb. 02, 2013

**TESTED:** Dec. 20 to 24, 2013

**ISSUED:** Jan. 03, 2014

**APPLICANT:** Pismo Labs Technology Limited

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**ISSUED BY:** Bureau Veritas Consumer Products Services  
(H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA121224E05	Original release	Jan. 03, 2014

## 1. CERTIFICATION

**PRODUCT:** Pepwave / Peplink / Pismo Wireless Product

**BRAND NAME:** Peplink / Pepwave / Pismo

**MODEL NO.:** MAX On-The-Go, MAX OTG, Pismo735, MAX Make-It, Balance, MAX, Device Connector, AP One, MAX Connector, Air Connector, Air Switch, Pismo935

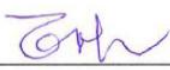
**TEST SAMPLE:** ENGINEERING SAMPLE

**APPLICANT:** Pismo Labs Technology Limited

**TESTED DATE:** Dec. 20 to 24, 2013

**STANDARDS:** FCC Part 2 (Section 2.1091)  
FCC OET Bulletin 65, Supplement C (01-01)  
IEEE C95.1

The above equipment (Model: MAX OTG) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY** :  , **DATE:** Jan. 03, 2014  
( Elsie Hsu, Specialist )

**APPROVED BY** :  , **DATE:** Jan. 03, 2014  
( May Chen, Manager )

## 2. RF EXPOSURE LIMIT

### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm <sup>2</sup> )	AVERAGE TIME (minutes)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 3. MPE CALCULATION FORMULA

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

r = distance between observation point and center of the radiator in cm

### 4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

This product could be applied with one USB Cellular Modem, and the safe distance is 65 cm for collocated radio.

## 1. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

For WLAN:

For 15.247(2.4GHz):

FREQUENCY- (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2412-2462	948.418	0.83	20	0.22842	1

FREQUENCY- (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2412-2462	948.418	0.83	65	0.02163	1

For 15.247(5GHz):

FREQUENCY (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
5745 ~ 5825	85.507	3.49	20	0.03800	1

FREQUENCY (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
5745 ~ 5825	85.507	3.49	65	0.00360	1

For 15.407(5GHz):

FREQUENCY (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
5180 ~ 5240	46.345	3.49	20	0.02059	1

**For USB Cellular Modem:**

DEVICE	MAX EIRP (mW)	MAX EIRP (dBm)	DISTANCE (cm)	POWER DENSITY (mW/ cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
USB Cellular Modem	7000	38.45	65	0.13184	0.55
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This product can operate with a plug-in 3G device which has maximum of 7W ERP(7000mW EIRP) output power.

**CONCLUSION:**

Both of the WLAN and plug-in device (USB Cellular Modem 3G) can transmit simultaneously, the formula of calculated the MPE is:

$$CPD_1 / LPD_1 + CPD_2 / LPD_2 + \dots \text{etc.} < 1$$

**CPD = Calculation power density**

**LPD = Limit of power density**

Therefore, the worst-case situation is  $0.02163 / 1 + 0.13184 / 0.55 + 0.13184 / 0.55 + 0.13184 / 0.55 + 0.13184 / 0.55 = 0.980$ , which is less than "1". This confirmed that the device comply with FCC 1.1310 MPE limit.

**--- END ---**