

# RF EXPOSURE REPORT

**REPORT NO.:** SA120730E04

**MODEL NO.:** MAX BR1, MAX, Surf Pro, AP One, AP Pro, Device  
Connector, Express, Balance, Pismo 730

**FCC ID:** U8G-P1710

**RECEIVED:** July 30, 2012

**TESTED:** Aug. 13, 2012

**ISSUED:** Aug. 28, 2012

**APPLICANT:** Pismo Labs Technology Limited

**ADDRESS:** 1703A, 17/F, Park Building 476 Castle Peak Road  
Cheung Sha Wan Hong Kong

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

**LAB ADDRESS:** No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung  
Lin Hsiang, Hsin Chu Hsien 307, Taiwan, R.O.C.

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA120730E04	Original release	Aug. 28, 2012

## 1. CERTIFICATION

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

**BRAND NAME:** Pepwave, Peplink, Pismo

**MODEL NO.:** MAX BR1, MAX, Surf Pro, AP One, AP Pro, Device Connector, Express, Balance, Pismo 730

**TEST SAMPLE:** R&D SAMPLE

**APPLICANT:** Pismo Labs Technology Limited

**TESTED DATE:** Aug. 13, 2012

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

The above equipment (Model: MAX BR1) 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** : Phoenix Huang , **DATE:** Aug. 28, 2012  
( Phoenix Huang, Specialist )

**APPROVED BY** : May Chen , **DATE:** Aug. 28, 2012  
( May Chen, Deputy 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)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 3. MPE CALCULATION FORMULA

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

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**.

## 5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

### For WiFi :

Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	Power Density (mW/cm <sup>2</sup> )	Limit of Power Density (mW/cm <sup>2</sup> )
6	2437	977.237	5.1	20	0.62911	1.00

### For LTE module: FCC ID (N7NMC7700)

Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	Power Density (mW/cm <sup>2</sup> )	Limit of Power Density (mW/cm <sup>2</sup> )
190	836.6	501.187	2	20	0.15803	0.5577

Note: 1. Limit of Electric field=F/1500

2. The LTE output power is frame average power.

## CONCLUSION:

The WiFi and LTE module 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  $0.62911 / 1 + 0.15803 / 0.5577 = 0.912$ , which is less than "1". This confirmed that the device comply with FCC 1.1310 MPE limit.

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