RF EXPOSURE REPORT

REPORT NO.:	SA110328E01
MODEL NO.:	Pismo 315, Surf series, AP series, Mesh Connector series, MAX series
FCC ID:	U8G-P1213
ACCORDING:	FCC Guidelines for Human Exposure
	IEEE C95.1
APPLICANT:	Pismo Labs Technology Limited
ADDRESS:	1703A, 17/F, Park Building 476 Castle Peak Road, Cheung Sha Wan, Kowloon, 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

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA110328E01	Original release	May 09, 2011

1. CERTIFICATION

PRODUCT:	Pepwave Wireless Product
BRAND NAME:	Pepwave
MODEL NO.:	Pismo 315, Surf series, AP series, Mesh Connector series, MAX series
TEST SAMPLE:	R&D SAMPLE
APPLICANT:	Pismo Labs Technology Limited
STANDARDS:	IEEE C95.1

The above equipment 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:** *May 09, 2011*
(Claire Kuan, Specialist)

APPROVED BY : _____ , **DATE:** *May 09, 2011*
(May Chen, Deputy Manager)

1. 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^2)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

2. MPE CALCULATION FORMULA

Pd = (Pout*G) / (4*pi*r2)

where

Pd = power density in mW/cm2

Pout = 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

3. 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**.

4. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

For 15.247(2.4GHz):

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm^2)	LIMIT (mW/cm^2)
2412-2462	281.8	3	20	0.112	1.00

For 15.247(5GHz):

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm^2)	LIMIT (mW/cm^2)
5745-5825	173.8	6	20	0.138	1.00

For 15.407(5GHz):

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm^2)	LIMIT (mW/cm^2)
5180-5240	46.8	5.5	20	0.033	1.00

For 3G Card: E169u

FREQUENCY BAND (MHz)	MAX POWER (mW)	DISTANCE (cm)	POWER DENSITY (mW/ cm^2)	LIMIT (mW/cm^2)
836.5	1210.598	20	0.241	0.5577

NOTE: Limit of power density = 836.5 (MHz) / 1500 = 0.5577

For 3G Card: DWM-156

FREQUENCY BAND (MHz)	MAX POWER (mW)	DISTANCE (cm)	POWER DENSITY (mW/ cm^2)	LIMIT (mW/cm^2)
1880	826.038	20	0.164	1.00

For 3G Card: DWM-152

FREQUENCY BAND (MHz)	MAX POWER (mW)	DISTANCE (cm)	POWER DENSITY (mW/ cm^2)	LIMIT (mW/cm^2)
824.7	255.270	20	0.051	0.5498

NOTE: Limit of power density = 824.7 (MHz) / 1500 = 0.5498

CONCLUSION:

Both of the WLAN and 3G card can transmit simultaneously, the formula of calculated the MPE is:

$CPD_1 / LPD_1 + CPD_2 / LPD_2$ + ……etc. < 1

CPD = Calculation power density

LPD = Limit of power density

For 2.4GHz with 3G Card:

Therefore, the worst-case situation is 0.112 / 1 + 0.241 / 0.5577= 0.544, which is less than “1”. This confirmed that the device comply with FCC 1.1310 MPE limit.

For 5GHz with 3G Card:

Therefore, the worst-case situation is 0.138 / 1 + 0.241 / 0.5577= 0.570, which is less than “1”. This confirmed that the device comply with FCC 1.1310 MPE limit.

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