

## RF Exposure Report

**Report No.:** SA150526D03

**FCC ID:** EMJCA1TX

**Test Model:** A1TX

**Received Date:** May 26, 2015

**Test Date:** Oct. 14, 2015

**Issued Date:** Oct. 20, 2015

**Applicant:** PRIMAX ELECTRONICS LTD.

**Address:** No. 669, Ruey Kuang Road, Neihu, Taipei, Taiwan, R.O.C.

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)



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### Release Control Record

Issue No.	Description	Date Issued
SA150526D03	Original release.	Oct. 20, 2015

## 1 Certificate of Conformity

**Product:** Wireless Power Changer(A4WP)

**Brand:** PRIMAX

**Test Model:** A1TX

**Sample Status:** Engineering sample

**Applicant:** PRIMAX ELECTRONICS LTD.

**Test Date:** Oct. 14, 2015

**Standards:** FCC Part 1 (Section 1.1307(b), 1.1310)

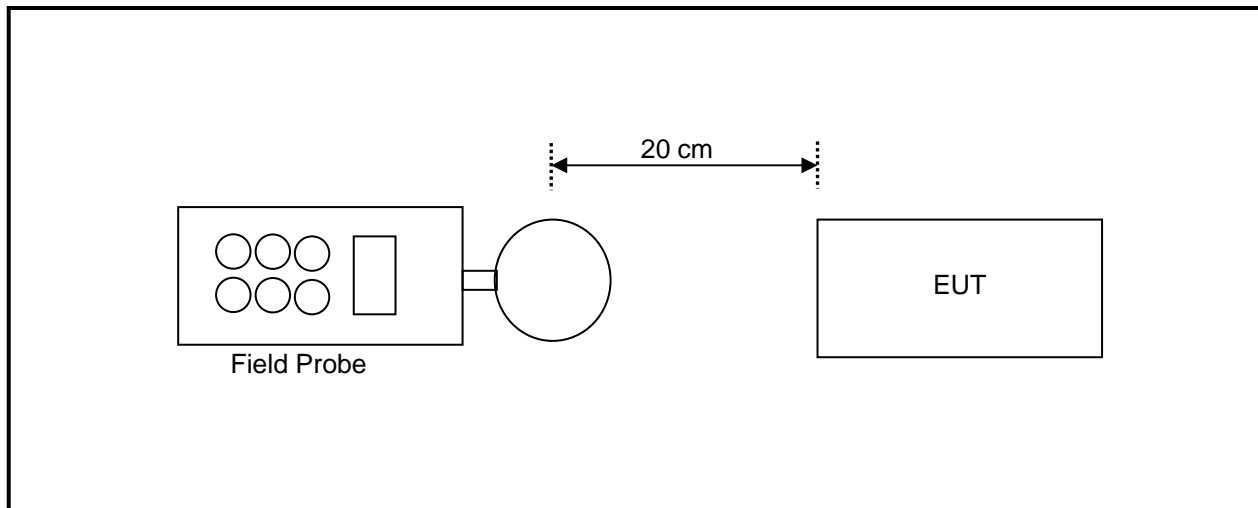
The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts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

**Prepared by :** Annie Chang , **Date:** Oct. 20, 2015  
Annie Chang / Senior Specialist

**Approved by :** Rex Lai , **Date:** Oct. 20, 2015  
Rex Lai / Assistant Manager

## 2 RF Exposure

### 2.1 Test Setup



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 20 cm measured from the center of the probe(s) to the edge of the device.

### 2.2 Test Instruments

Description	Brand	Model No.	Frequency Range	Calibrated Date	Calibrated Until
Broadband Field Meter	NARDA	NBM-550	-	Feb. 28, 2014	Feb. 27, 2016
Magnetic Field Meter	NARDA	ELT-400	1 – 400kHz	Feb. 26, 2014	Feb. 25, 2016
Magnetic Probe	NARDA	HF-3061	300kHz – 30MHz	Feb. 26, 2014	Feb. 25, 2016
Magnetic Probe	NARDA	HF-0191	27 – 1000MHz	Feb. 28, 2014	Feb. 27, 2016
Broadband Field Meter	NARDA	NBM-550	-	Feb. 28, 2014	Feb. 27, 2016
Electric Field Meter	COMBINOVA	EFM 200	5Hz – 400kHz	Oct. 14, 2015	Oct. 13, 2016
E-Field Probe	NARDA	EF-0391	100kHz – 3GHz	Mar. 6, 2014	Mar. 5, 2016
E-Field Probe	NARDA	EF-6091	100MHz – 60GHz	Feb. 28, 2014	Feb. 27, 2016

**NOTE:** 1. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to NML/ROC and NIST/USA.  
2. The test was performed in Chia Pau RF Chamber

## 2.3 Limits For Maximum Permissible Exposure (MPE)

§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radiofrequency(RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter.

**TABLE 1—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> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3–3.0 .....	614	1.63	*(100)	6
3.0–30 .....	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30–300 .....	61.4	0.163	1.0	6
300–1500 .....	.....	.....	f/300	6
1500–100,000 .....	.....	.....	5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3–1.34 .....	614	1.63	*(100)	30
1.34–30 .....	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300 .....	27.5	0.073	0.2	30
300–1500 .....	.....	.....	f/1500	30
1500–100,000 .....	.....	.....	1.0	30

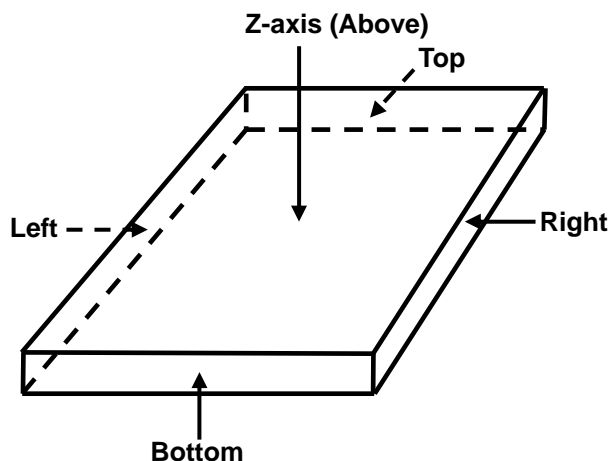
f = frequency in MHz

\* = Plane-wave equivalent power density

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

## 2.4 Test Point Description



### 3 Calculation Result Of Maximum Conducted Power

#### 10% Load with iPhone

E-Field Measurement (20cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max E-field (V/m)	8.24	9.24	8.06	3.97	5.73
Limit 824/f (V/m)	121.50	121.50	121.50	121.50	121.50
Margin (V/m)	-113.26	-112.26	-113.44	-117.53	-115.77

H-Field Measurement (20cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max H-field (A/m)	0.074	0.063	0.057	0.042	0.134
Limit 2.19/f (A/m)	0.323	0.323	0.323	0.323	0.323
Margin (A/m)	-0.249	-0.26	-0.266	-0.281	-0.189

Measurements was made from all sides and the top of the primary/client pair, with the 20 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

#### 50% Load with iPhone

E-Field Measurement (20cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max E-field (V/m)	10.29	10.48	11.83	3.61	7.68
Limit 824/f (V/m)	121.50	121.50	121.50	121.50	121.50
Margin (V/m)	-111.21	-111.02	-109.67	-117.89	-113.82

H-Field Measurement (20cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max H-field (A/m)	0.072	0.067	0.064	0.046	0.178
Limit 2.19/f (A/m)	0.323	0.323	0.323	0.323	0.323
Margin (A/m)	-0.251	-0.256	-0.259	-0.277	-0.145

Measurements was made from all sides and the top of the primary/client pair, with the 20 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

# 90% Load with iPhone

E-Field Measurement (20cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max E-field (V/m)	7.40	8.43	9.27	3.44	5.98
Limit 824/f (V/m)	121.50	121.50	121.50	121.50	121.50
Margin (V/m)	-114.10	-113.07	-112.23	-118.06	-115.52

H-Field Measurement (20cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max H-field (A/m)	0.079	0.078	0.061	0.047	0.167
Limit 2.19/f (A/m)	0.323	0.323	0.323	0.323	0.323
Margin (A/m)	-0.244	-0.245	-0.262	-0.276	-0.156

Measurements was made from all sides and the top of the primary/client pair, with the 20 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



#### 4 Photographs of the Test Configuration



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