

TEST REPORT

Reference No..... : WTS16S0961019E V1
FCC ID : 2AJVK-SP4514
Applicant..... : Foto Electric Supply Co., INC.
Address..... : 1 Rewe St. Brooklyn, New York, 11211, USA
Manufacturer : Foto Electric Supply Co., INC.
Address..... : 1 Rewe St. Brooklyn, New York, 11211, USA
Product Name..... : Smart Phone
Model No..... : SP4514, CBP4154
Brand..... : SLIDE, COBY
Standards : FCC PART15 SUBPART B: 2015
Date of Receipt sample : Sep. 19, 2016
Date of Test : Sep. 20, 2016 –Nov. 08, 2016
Date of Issue..... : Nov. 09, 2016
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

Waltek Services (Shenzhen) Co., Ltd.

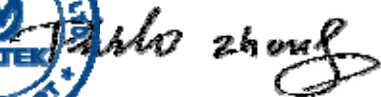
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2 Laboratories Introduction

Waltek Services Test Group Ltd is a professional third-party testing and certification organization with multi-year product testing and certification experience, established strictly in accordance with ISO/IEC 17025 requirements, and accredited by CNAS (China National Accreditation Service for Conformity Assessment) AQSIIQ, CMA and IECEE for CBTL. Meanwhile, Waltek has got recognition as registration and accreditation laboratory from EMSD (Electrical and Mechanical Services Department), and American Energy star, FCC(The Federal Communications Commission), CPSC(Consumer Product Safety Commission), CEC(California energy efficiency), IC(Industry Canada) and ELI(Efficient Lighting Initiative). It's the strategic partner and data recognition laboratory of international authoritative organizations, such as UL, Intertek(ETL-SEMKO), CSA, TÜV Rheinland, TÜV SÜD, etc.



Waltek Services Test Group Ltd. is one of the largest and the most comprehensive third party testing organizations in China, our headquarter located in Shenzhen and have branches in Foshan, Dongguan, Zhongshan, Suzhou, Ningbo and Hong Kong, Our test capability covered four large fields: safety test. ElectroMagnetic Compatibility(EMC), reliability and energy performance, Chemical test. As a professional, comprehensive, justice international test organization, we still keep the scientific and rigorous work attitude to help each client satisfy the international standards and assist their product enter into globe market smoothly.

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4 Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTS16S0961019E	Sep. 19, 2016	Sep. 20, 2016 –Nov. 08, 2016	Nov. 09, 2016	original	-	Replaced
WTS16S0961019E V1	Sep. 19, 2016	Sep. 20, 2016 –Nov. 08, 2016	Dec. 02, 2016	Version 1	Updated	Valid

5 General Information

5.1 General Description of E.U.T.

Product Name:	Smart Phone
Model No.:	SP4514, CBP4154
Model Description:	Only the model names and brand names are different.
GSM Band(s):	GSM 850/900/1800/1900MHz
GPRS/EGPRS Class:	12
WCDMA Band(s):	FDD Band II/ V
LTE Band(s):	FDD Band 2/4/5/7/17
Wi-Fi Specification:	2.4G-802.11b/g/n HT20/n HT40
Bluetooth Version:	Bluetooth v4.0 with BLE
GPS:	Support
NFC:	N/A
Hardware Version:	Y376_MB_V1
Software Version:	Y3764.DM.V345.US.V1.SMT.20160824
Highest frequency (Exclude Radio):	26MHz
Storage Location:	Internal Storage

Note: This EUT has two SIM card slots, and use same one RF module. We found that RF parameters are the same, when we insert the card 1 and card 2. So we usually performed the test under main card slot 1.

5.2 Details of E.U.T.

Technical Data:	Battery DC 3.7V, 1700mAh DC 5V, 1.0A, charging from adapter (Adapter Input: 100-240V~50/60Hz 0.2A)
Adapter:	Manufacture: XINYU EAGLETRON ELECTRONIC CO.LTD. Model No.: SWN006S050100U1

5.3 Standards Applicable for Testing

The tests were performed according to following standards:

FCC PART 15, SUBPART B: Electronic Code of Federal Regulations- Unintentional Radiators 2015

5.4 Test Facility

The test facility has a test site registered with the following organizations:

- **IC – Registration No.: 7760A-1**

Waltek Services (Shenzhen) Co., Ltd. has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files. Registration 7760A-1, October 15, 2015.

- **FCC Test Site 1#– Registration No.: 880581**

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 880581, April 29, 2014.

- **FCC Test Site 2#– Registration No.: 328995**

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 328995, December 3, 2014.

5.5 Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

Yes No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

5.6 Abnormalities from Standard Conditions

None.

6 Test Summary

Test Item	Test Requirement	Class	Test Method	Test Result
Power Line Conducted Emission (150kHz to 30MHz)	FCC PART 15, SUBPART B: 2015	Class B	ANSI C63.4: 2014	Pass
Radiated Emission 30MHz to 1GHz)	FCC PART 15, SUBPART B: 2015	Class B	ANSI C63.4: 2014	Pass
Radiated Emission (Above 1GHz)	FCC PART 15, SUBPART B: 2015	Class B	ANSI C63.4: 2014	Pass

Remark:

Pass Test item meets the requirement

Fail Test item does not meet the requirement

N/A Test case does not apply to the test object

7 Equipment Used during Test

7.1 Equipment List

Conducted Emissions Test Site 1#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMI Test Receiver	R&S	ESCI	100947	Sep.12,2016	Sep.11,2017
2.	LISN	R&S	ENV216	101215	Sep.12,2016	Sep.11,2017
3.	Cable	Top	TYPE16(3.5M)	-	Sep.12,2016	Sep.11,2017
Conducted Emissions Test Site 2#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMI Test Receiver	R&S	ESCI	101155	Sep.12,2016	Sep.11,2017
2.	LISN	SCHWARZBECK	NSLK 8128	8128-289	Sep.12,2016	Sep.11,2017
3.	Limiter	York	MTS-IMP-136	261115-001-0024	Sep.12,2016	Sep.11,2017
4.	Cable	LARGE	RF300	-	Sep.12,2016	Sep.11,2017
3m Semi-anechoic Chamber for Radiation Emissions Test site 1#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Spectrum Analyzer	R&S	FSP	100091	Apr.29, 2016	Apr.28, 2017
2	Active Loop Antenna	Beijing Dazhi	ZN30900A	-	Apr.09,2016	Apr.08,2017
3	Trilog Broadband Antenna	SCHWARZBECK	VULB9163	336	Apr.09,2016	Apr.08,2017
4	Coaxial Cable (below 1GHz)	Top	TYPE16(13M)	-	Sep.12,2016	Sep.11,2017
5	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	667	Apr.09,2016	Apr.08,2017
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9170	335	Apr.09,2016	Apr.08,2017
7	Broadband Preamplifier	COMPLIANCE DIRECTION	PAP-1G18	2004	Apr.13,2016	Apr.12,2017
8	Coaxial Cable (above 1GHz)	Top	1GHz-25GHz	EW02014-7	Apr.13,2016	Apr.12,2017
9	Universal Radio Communication Tester	R&S	CMU 200	112461	Apr.13,2016	Apr.12,2017
10	Signal Generator	R&S	SMR20	100046	Sep.12,2016	Sep.11,2017
11	Smart Antenna	SCHWARZBECK	HA08	-	Apr.09,2016	Apr.08,2017
12.	Universal Radio Communication Tester	R&S	CMW 500	127818	Apr.13,2016	Apr.12,2017
3m Semi-anechoic Chamber for Radiation Emissions Test site 2#						

Item	Equipment	Manufacturer	Model No.	Serial No	Last Calibration Date	Calibration Due Date
1	Test Receiver	R&S	ESCI	101296	Apr.13,2016	Apr.12,2017
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	Apr.09,2016	Apr.08,2017
3	Amplifier	Compliance pirection systems inc	PAP-0203	22024	Apr.13,2016	Apr.12,2017
4	Cable	HUBER+SUHNER	CBL2	525178	Apr.13,2016	Apr.12,2017

7.2 Description of Support Units

Equipment	Manufacturer	Model No.	Series No.
MacBook Air	APPLE	A1465	C17KTQDNF5N7
Power Supply	LPS DELTA ELECTRNICS UIANG CO.,LTD	ADP-45GD	-

7.3 Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Conduction disturbance	150kHz~30MHz	±3.64dB	(1)
Radiation Emission	30MHz~1000MHz	±5.03dB	(1)
	1GHz~18GHz	±5.47dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

8 Emission Test Results

8.1 Power Line Conducted Emission, 150kHz to 30MHz

Test Requirement : FCC PART 15, SUBPART B
 Test Method : ANSI C63.4 2014
 Test Result : Pass
 Frequency Range : 150kHz to 30MHz
 Class : Class B
 Limit :

Frequency (MHz)	Limit (dB μ V)	
	Quasi-peak	Average
0.15 to 0.5	66 to 56*	56 to 46*
0.5 to 5	56	60
5 to 30	60	50

8.1.1 E.U.T. Operation

Operating Environment:

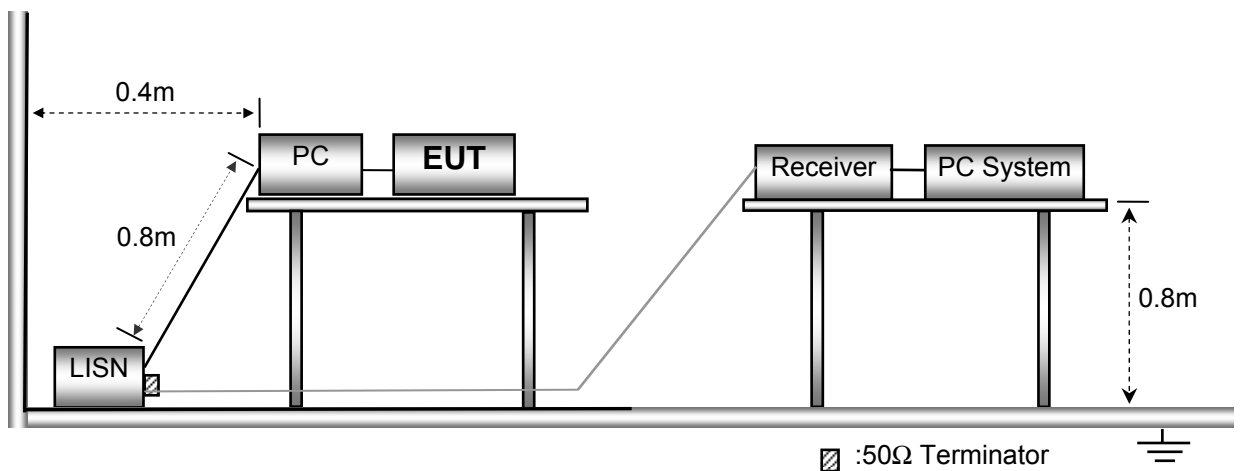
Temperature : 23°C
 Humidity : 53.6%RH
 Atmospheric Pressure : 101kPa

EUT Operation:

Input Voltage : DC 5V by PC
 Operating Mode : Data transmitting mode, Earphone mode, Adapter mode
 Remark : The worse case Data transmitting mode is under the condition of AC 120V/60Hz adapter input and the data is shown as follow.

8.1.2 Block Diagram of Test Setup

The Mains Terminals Disturbance Voltage tests were performed in accordance with the ANSI C63.4.

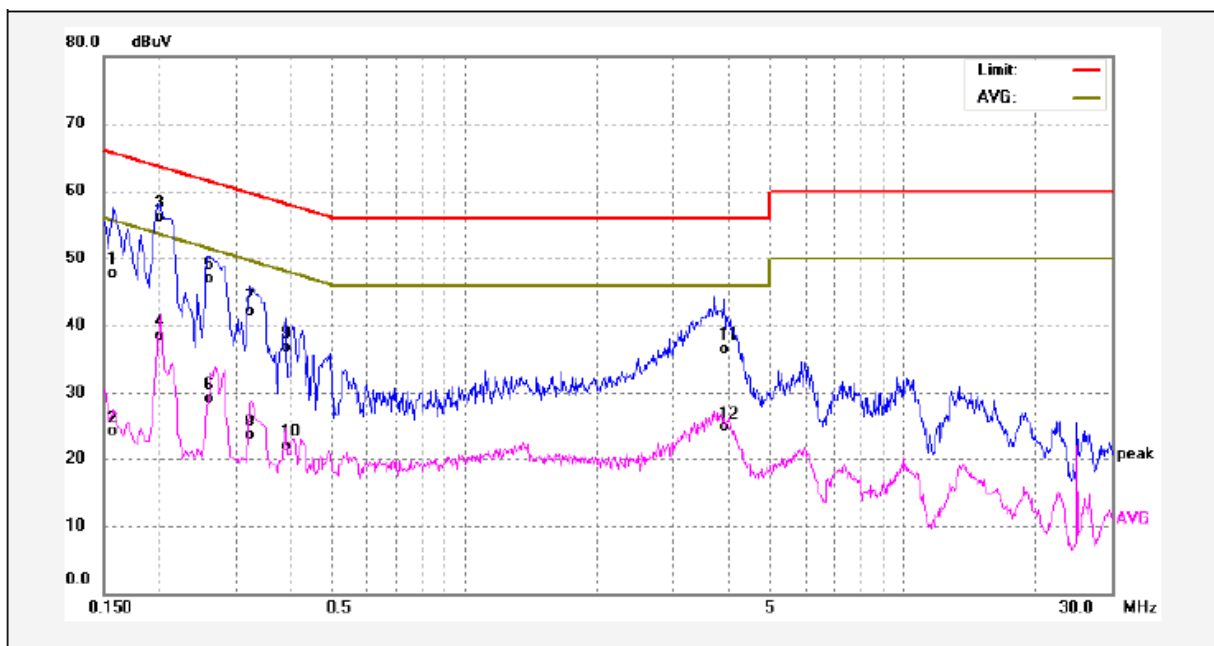


8.1.3 Measurement Data

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line. According to the data in below section 6.1.4, the EUT complied with the FCC PART 15, SUBPART B standards.

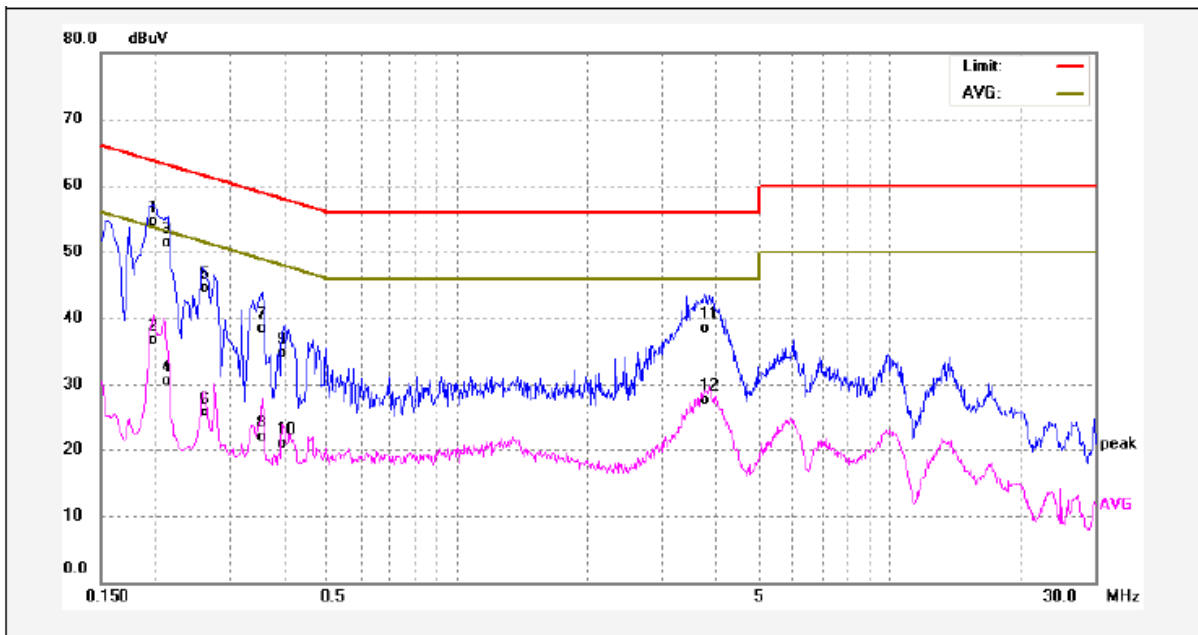
8.1.4 Power Line Conducted Emission Test Data

Live Line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1580	37.33	10.28	47.61	65.56	-17.95	QP	
2	0.1580	13.80	10.28	24.08	55.56	-31.48	AVG	
3	0.2007	45.79	10.26	56.05	63.58	-7.53	QP	
4	0.2007	28.15	10.26	38.41	53.58	-15.17	AVG	
5	0.2630	36.65	10.27	46.92	61.33	-14.41	QP	
6	0.2630	18.75	10.27	29.02	51.33	-22.31	AVG	
7	0.3220	31.73	10.28	42.01	59.65	-17.64	QP	
8	0.3220	13.32	10.28	23.60	49.65	-26.05	AVG	
9	0.3899	26.52	10.27	36.79	58.06	-21.27	QP	
10	0.3899	11.54	10.27	21.81	48.06	-26.25	AVG	
11	3.9220	25.99	10.51	36.50	56.00	-19.50	QP	
12	3.9220	14.22	10.51	24.73	46.00	-21.27	AVG	

Neutral Line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1980	44.32	10.26	54.58	63.69	-9.11	QP	
2	0.1980	26.36	10.26	36.62	53.69	-17.07	AVG	
3	0.2140	40.99	10.26	51.25	63.04	-11.79	QP	
4	0.2140	20.22	10.26	30.48	53.04	-22.56	AVG	
5	0.2580	34.20	10.26	44.46	61.49	-17.03	QP	
6	0.2580	15.50	10.26	25.76	51.49	-25.73	AVG	
7	0.3540	28.24	10.29	38.53	58.87	-20.34	QP	
8	0.3540	11.64	10.29	21.93	48.87	-26.94	AVG	
9	0.3980	24.53	10.27	34.80	57.89	-23.09	QP	
10	0.3980	10.60	10.27	20.87	47.89	-27.02	AVG	
11	3.7500	27.95	10.51	38.46	56.00	-17.54	QP	
12	3.7500	17.26	10.51	27.77	46.00	-18.23	AVG	

8.2 Radiation Emission, 30MHz to 1000MHz

Test Requirement : FCC PART 15, SUBPART B
 Test Method : ANSI C63.4 2014
 Test Result : Pass
 Frequency Range : 30MHz to 1000MHz
 Class. : Class B
 Limit..... :

Frequency (MHz)	Distance (Meter)	Limit (dB μ V/m)
		Quas -peak
30 to 88		40
88 to 216	3	43.5
216 to 960	3	46
960 to 100	3	54

8.2.1 E.U.T. Operation

Operating Environment:

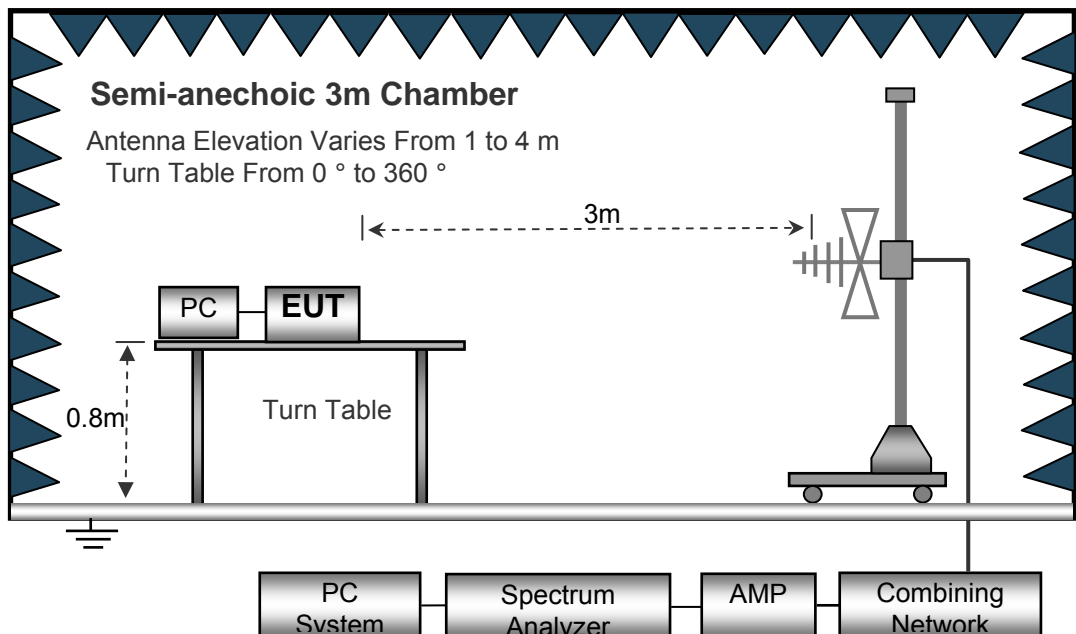
Temperature : 22.5°C
 Humidity : 52.6%RH
 Atmospheric Pressure : 101.2kPa

EUT Operation:

Input Voltage : DC 5V by PC
 Operating Mode : Data transmitting with PC mode, Earphone mode, Adapter mode
 Remark : The worse case Data transmitting with PC mode is under the condition of AC 120V/60Hz adapter input and the data is shown as follow.

8.2.2 Block Diagram of Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4.

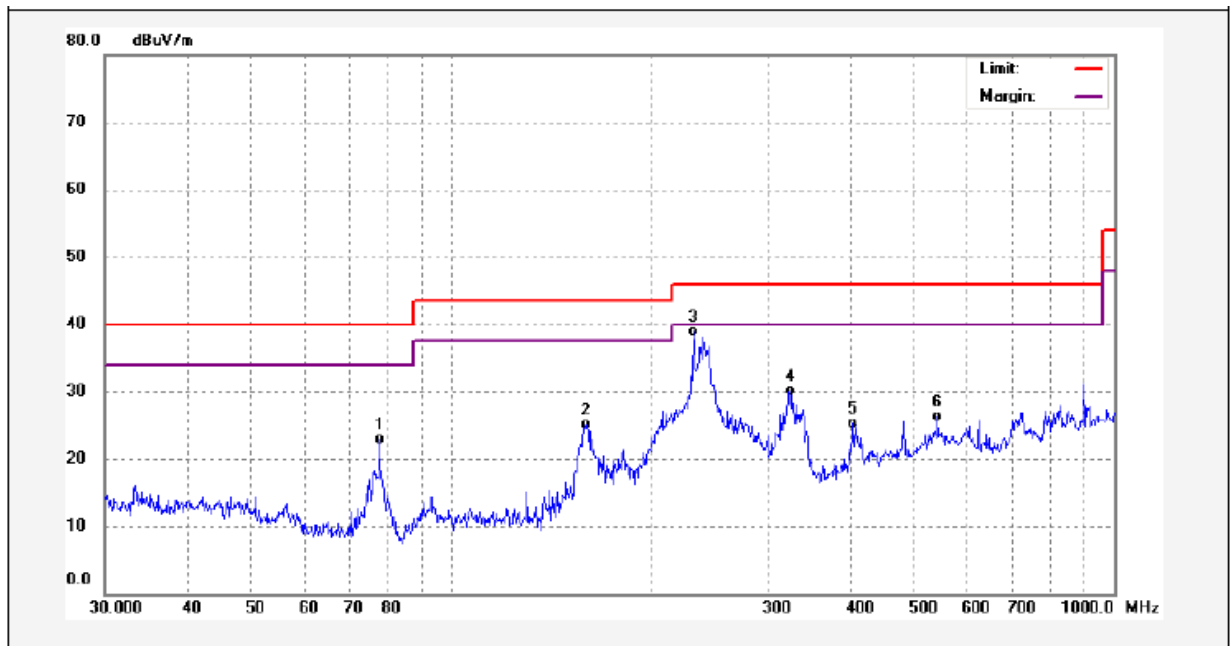


8.2.3 Measurement Data

The maximised peak emissions from the EUT was scanned and measured for both the Antenna Vertical Polarization and Antenna Horizontal Polarization. Quasi-peak measurements were performed if peak emissions were within 6dB of the Quasi-peak limit line.

8.2.4 Radiated Emission Test Data, 30MHz to 1000MHz

Antenna Polarization: Vertical

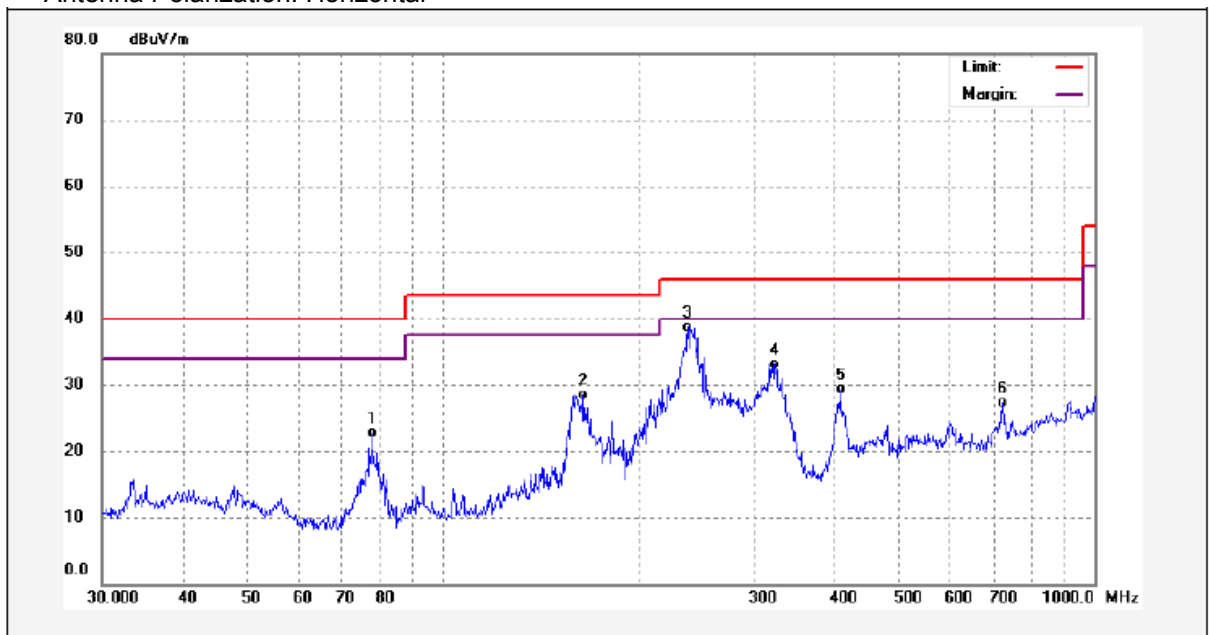


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	77.8654	43.87	-20.99	22.88	40.00	-17.12	QP	
2	159.7844	44.16	-19.11	25.05	43.50	-18.45	QP	
3	231.7179	55.08	-16.27	38.81	46.00	-7.19	QP	
4	324.4561	45.05	-14.86	30.19	46.00	-15.81	QP	
5	403.2500	37.58	-12.27	25.31	46.00	-20.69	QP	
6	541.3725	36.99	-10.76	26.23	46.00	-19.77	QP	

Factor= antenna factor + cable loss - preamplifier factor

Result = Reading + Factor

Antenna Polarization: Horizontal



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	77.8654	43.65	-20.99	22.66	40.00	-17.34	QP	
2	164.3301	47.48	-18.88	28.60	43.50	-14.90	QP	
3	237.4760	54.94	-16.26	38.68	46.00	-7.32	QP	
4	323.3204	48.11	-14.92	33.19	46.00	-12.81	QP	
5	407.5145	41.88	-12.53	29.35	46.00	-16.65	QP	
6	721.7259	34.77	-7.45	27.32	46.00	-18.68	QP	

Factor= antenna factor + cable loss - preamplifier factor

Result = Reading + Factor

8.3 Radiation Emission, Above 1000MHz

Test Requirement : FCC PART 15, SUBPART B
 Test Method : ANSI C63.4 2014
 Test Result : Pass
 Frequency Range : 1GHz~18GHz
 Class. : Class B
 Limit. :

Frequency Range (MHz)	Distance (Meter)	Average Limit dB(uV/m)	Peak Limit (dBUV/m)
Above 1GHz	3	54	74

8.3.1 E.U.T. Operation

Operating Environment:

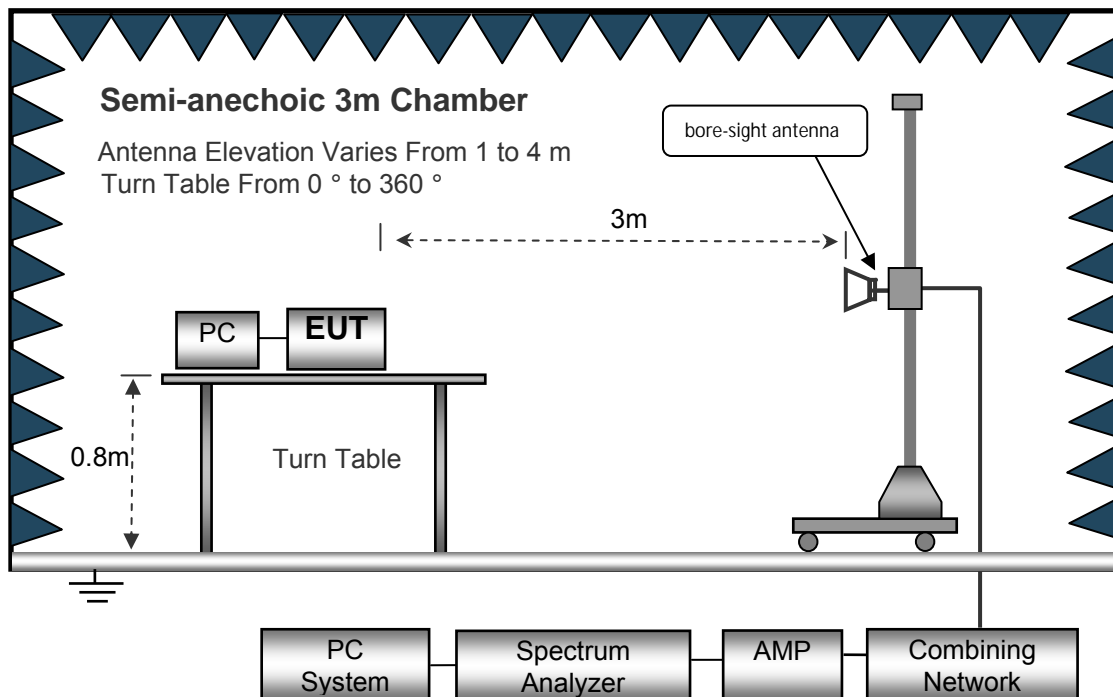
Temperature : 22.4°C
 Humidity : 52.3%RH
 Atmospheric Pressure : 101.3kPa

EUT Operation:

Input Voltage : DC 5V by PC
 Operating Mode : Data transmitting with PC mode, Earphone mode, Adapter mode
 Remark : The worse case Data transmitting mode is under the condition of AC 120V/60Hz adapter input and the data is shown as follow.

8.3.2 Block Diagram of Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4.

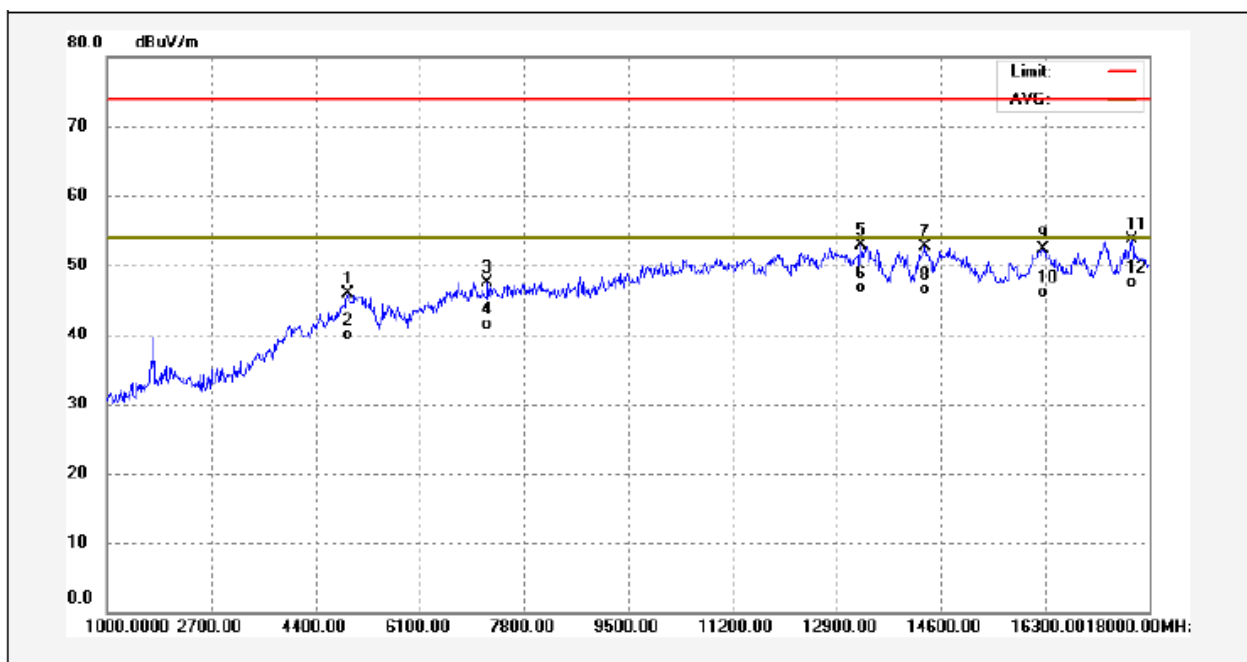


8.3.3 Measurement Data

The maximised peak emissions from the EUT was scanned and measured for both the Antenna Vertical Polarization and Antenna Horizontal Polarization. Average measurements were performed if peak emissions were within 6dB of the average limit line

8.3.4 Radiated Emission Test Data, Above 1000MHz

Antenna Polarization: Vertical

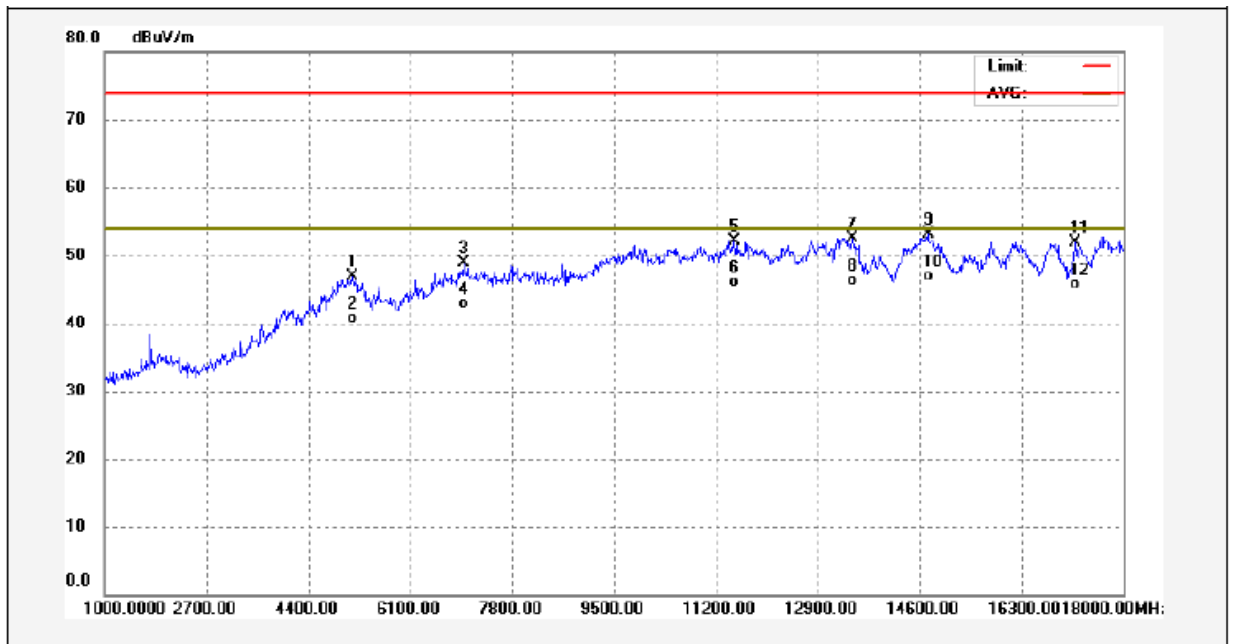


No.	Freq. (MHz)	Reading (dBUV/m)	Factor (dB)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector	Remark
1	4927.000	47.19	-1.21	45.98	74.00	-28.02	peak	
2	4927.000	41.06	-1.21	39.85	54.00	-14.15	AVG	
3	7205.000	45.86	1.70	47.56	74.00	-26.44	peak	
4	7205.000	39.72	1.70	41.42	54.00	-12.58	AVG	
5	13291.000	45.25	7.66	52.91	74.00	-21.09	peak	
6	13291.000	39.11	7.66	46.77	54.00	-7.23	AVG	
7	14345.000	43.49	9.14	52.63	74.00	-21.37	peak	
8	14345.000	37.34	9.14	46.48	54.00	-7.52	AVG	
9	16266.000	42.94	9.32	52.26	74.00	-21.74	peak	
10	16266.000	36.79	9.32	46.11	54.00	-7.89	AVG	
11	17711.000	39.47	14.18	53.65	74.00	-20.35	peak	
12	17711.000	33.33	14.18	47.51	54.00	-6.49	AVG	

Factor= antenna factor + cable loss - preamplifier factor

Result = Reading + Factor

Antenna Polarization: Horizontal



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	5131.000	48.09	-1.22	46.87	74.00	-27.13	peak	
2	5131.000	41.95	-1.22	40.73	54.00	-13.27	AVG	
3	7001.000	47.03	1.96	48.99	74.00	-25.01	peak	
4	7001.000	40.89	1.96	42.85	54.00	-11.15	AVG	
5	11506.000	47.02	5.14	52.16	74.00	-21.84	peak	
6	11506.000	40.89	5.14	46.03	54.00	-7.97	AVG	
7	13478.000	44.48	8.04	52.52	74.00	-21.48	peak	
8	13478.000	38.33	8.04	46.37	54.00	-7.63	AVG	
9	14736.000	43.58	9.43	53.01	74.00	-20.99	peak	
10	14736.000	37.45	9.43	46.88	54.00	-7.12	AVG	
11	17201.000	39.63	12.30	51.93	74.00	-22.07	peak	
12	17201.000	33.47	12.30	45.77	54.00	-8.23	AVG	

Factor= antenna factor + cable loss - preamplifier factor

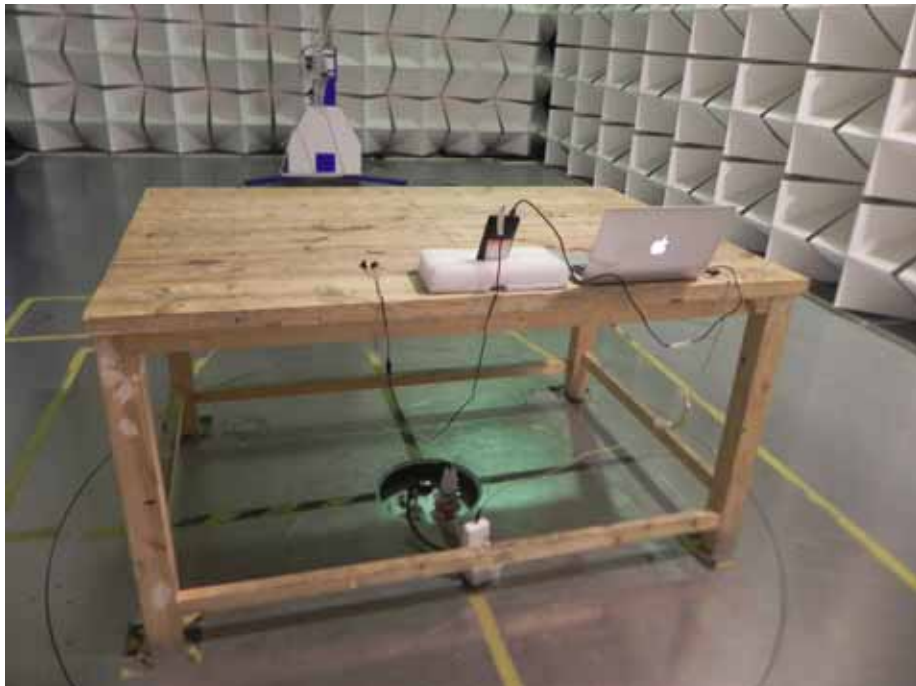
Result = Reading + Factor

9 Photographs – Test Setup FCC ID 2AJVK-SP4514

9.1 Photograph –Power Line Conducted Emission Test Setup at Test Site 1#



9.2 Photograph – Radiated Emission Test Setup for 30~1000MHz at Test Site 2#



9.3 Photograph – Radiated Emission Test Setup for Above 1GHz at Test Site 1#



====End of Report====