FCC Test Report

FCC ID	:	**L2BWB60**
Equipment	:	**CHI WB-60**
Model No.	:	**CHI WB-60**
Brand Name	:	**SHO-U**
Applicant	:	**Solid Year Co., Ltd.**
Address	:	**8F.-1, No.36, Hengyang Rd., Zhongzheng Dist., Taipei City**
Manufacturer	:	**DONGGUAN SOLIDTEK ELECTRONICS CO., LTD.**
Address	:	**Youyi Road Tianxin Industrial Area, Qiaotou, Dongguan, Guangdong, P.R. CHINA**
Standard	:	**47 CFR FCC Part 15.209**
Received Date	:	**May 29, 2015**
Tested Date	:	**Jul. 21 ~ Jul. 24, 2015**

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Approved & Reviewed by:

Gary Chang / Manager

Testing Laboratory 2732

Table of Contents

1 GENERAL DESCRIPTION 5

1.1 Information 5
1.2 Local Support Equipment List 5
1.3 Test Setup Chart 6
1.4 The Equipment List 7
1.5 Test Standards 8
1.6 Measurement Uncertainty 8

2 TEST CONFIGURATION 9

2.1 Testing Condition 9
2.2 The Worst Test Modes and Channel Details 9

3 TRANSMITTER TEST RESULTS 10

3.1 Conducted Emissions 10
3.2 Radiated Emissions 15

4 TEST LABORATORY INFORMATION 31

Release Record

Report No.	Version	Description	Issued Date
FR552902	Rev. 01	Initial issue	Oct. 13, 2015

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.407MHz 43.25 (Margin -14.45dB) - QP	Pass
15.209	Radiated Emissions	[dBuV/m at 3m]: 46.47MHz 38.91 (Margin -1.09dB) - QP	Pass

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information	
Frequency Range (MHz)	**Modulation**
0.110 – 0.205	ASK

1.1.2 Antenna Details

Ant. No.	Type	Gain (dBi)	Connector	Remark
1	Coil antenna	---	---	---

1.1.3 EUT Operational Condition

Type of power supply	Input DC5V/2A from host / adapter 3.7Vdc from internal rechargeable battery Output DC 5V/2A (DC 5V/1A for USB; DC 5V/1A for Wireless charging)

Note: When the device is connected to host or adapter, USB output power function will be disabled.

1.1.4 Accessories

Accessories		
No.	**Equipment**	**Description**
1	Li-Polymer Rechargeable Battery	Brand Name: N/A Model Name: AE5065110P Rating: 3.7Vdc, 4350mAh
2	Micro USB cable	0.2m shielded w/o core

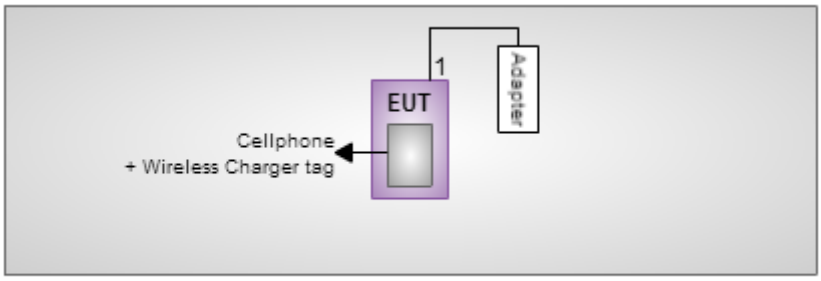
1.2 Local Support Equipment List

Support Equipment List						
No.	**Equipment**	**Brand**	**Model**	**S/N**	**FCC ID**	**Signal cable / Length (m)**
1	Cellphone	SAMSUNG	GT-N7100	---	A3LGTN7100	---
2	Wireless Tag	pqi	PB-114	---	---	---
3	USB cable	---	---	---	---	1m shielded with one core.
4	AC Adapter	Apple	A1357	---	---	---

Note:
1) No. 3 was provided by applicant.
2) Wireless tag is installed to cellphone to enable wireless charging function of cellphone.

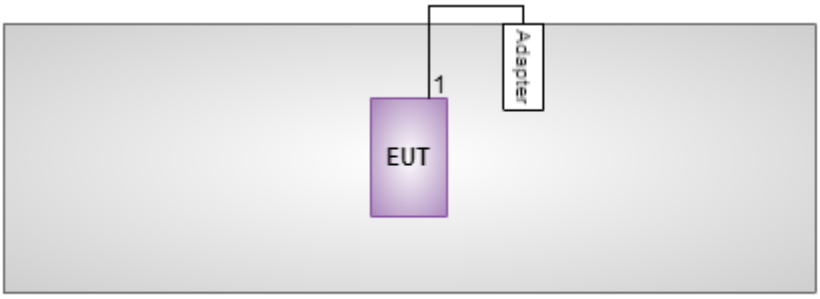
1.3 Test Setup Chart

Test Setup Diagram_ Charging Mode with Adapter



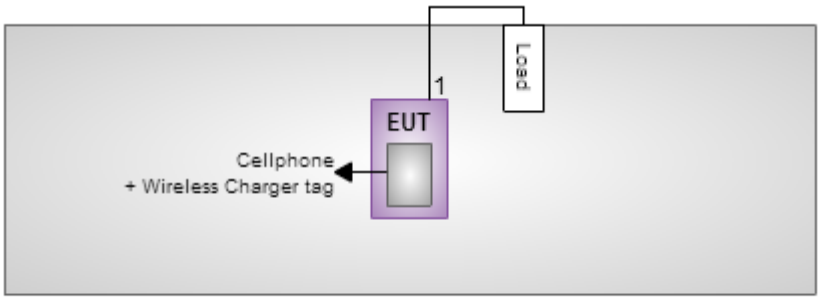
1. Micro USB, 0.2m shielded w/o core.

Test Setup Diagram_ Standby Mode with Adapter



1. Micro USB, 0.2m shielded w/o core.

Test Setup Diagram_ Charging Mode with Battery



1. USB, 1m shielded w/o core.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
EMC Receiver	R&S	ESCS 30	100169	Oct. 17, 2014	Oct. 16, 2015
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 17, 2014	Nov. 16, 2015
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 31, 2014	Dec. 30, 2015
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber 2 / (03CH02-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101499	Dec. 31, 2014	Dec. 30, 2015
Receiver	R&S	ESR3	101657	Jan. 15, 2015	Jan. 14, 2016
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-524	Oct. 16, 2014	Oct. 15, 2015
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1095	Oct. 14, 2014	Oct. 13, 2015
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 10, 2014	Nov. 09, 2015
Loop Antenna	R&S	HFH2-Z2	11900	Nov. 10, 2014	Nov. 09, 2015
Preamplifier	Burgeon	BPA-530	100218	Nov. 10, 2014	Nov. 09, 2015
Preamplifier	Agilent	83017A	MY39501309	Sep. 29, 2014	Sep. 28, 2015
Preamplifier	EMC	EMC184045B	980192	Aug. 26, 2014	Aug. 25, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16140/4	Dec. 16, 2014	Dec. 15, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16018/4	Dec. 16, 2014	Dec. 15, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16015/4	Dec. 16, 2014	Dec. 15, 2015
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-003	Dec. 16, 2014	Dec. 15, 2015
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-004	Dec. 16, 2014	Dec. 15, 2015
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

According to the specification of EUT, the EUT must comply with following standards and KDB documents.

47 CFR FCC Part 15.209
ANSI C63.10-2013

1.6 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Measurement Uncertainty	
Parameters	**Uncertainty**
AC conducted emission	±2.92 dB
Radiated emission ≤ 1GHz	±3.62 dB
Radiated emission > 1GHz	±5.60 dB

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	21°C / 61%	Kevin Ma
Radiated Emissions	03CH02-WS	21-23°C / 61-62%	Warren Lee Anderson Hong

- FCC site registration No.: 657002
- IC site registration No.: 10807A-2

2.2 The Worst Test Modes and Channel Details

Test item	Mode	Test Configuration
AC Conducted Emissions	ASK	1, 2
Radiated Emissions	ASK	1, 2, 3

NOTE: The EUT had been tested by following test configurations.

1) Configuration 1 : AC Adapter Mode
2) Configuration 2 : Standby Mode
3) Configuration 3: Battery

3 Transmitter Test Results

3.1 Conducted Emissions

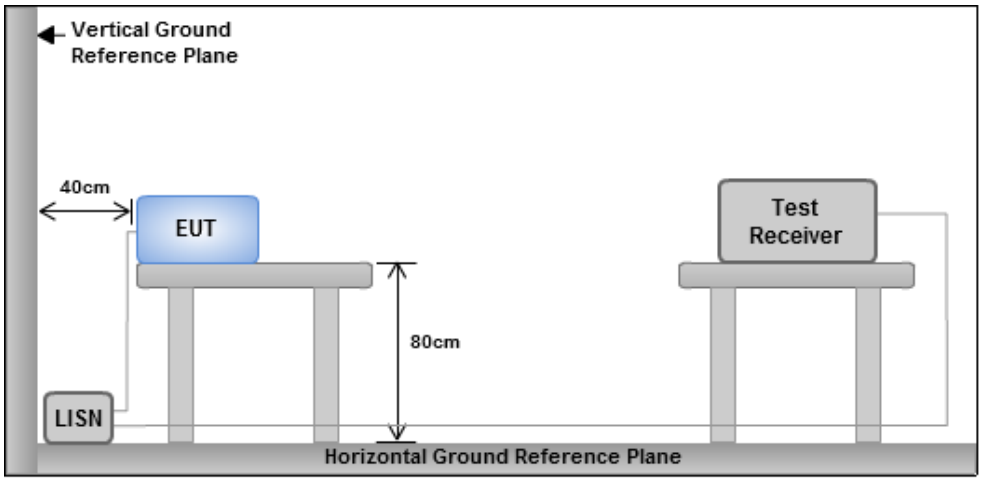
3.1.1 Limit of Conducted Emissions

Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V / 60Hz.

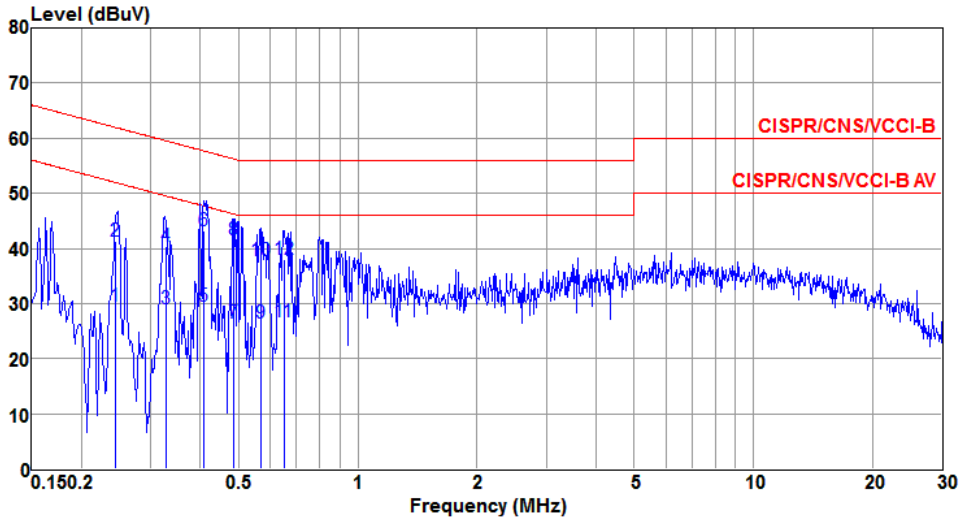
3.1.3 Test Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

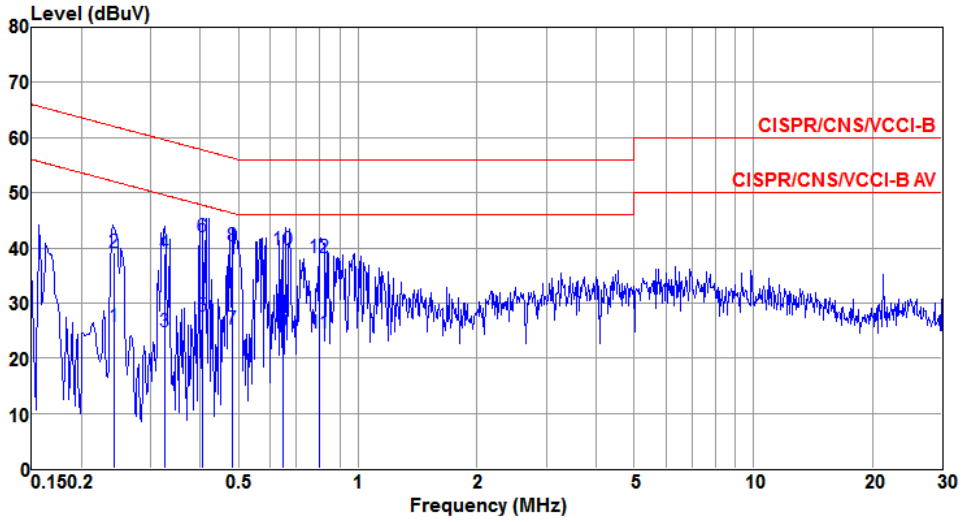
Power Phase	Line	Test Freq. (MHz)	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.244	29.47	51.97	-22.50	29.14	0.23	0.10	Average
2	0.244	41.32	61.97	-20.65	40.99	0.23	0.10	QP
3	0.326	29.02	49.54	-20.52	28.72	0.20	0.10	Average
4	0.326	40.38	59.54	-19.16	40.08	0.20	0.10	QP
5	0.407	29.42	47.70	-18.28	29.13	0.18	0.11	Average
6*	0.407	43.25	57.70	-14.45	42.96	0.18	0.11	QP
7	0.486	26.41	46.23	-19.82	26.13	0.16	0.12	Average
8	0.486	41.46	56.23	-14.77	41.18	0.16	0.12	QP
9	0.568	26.49	46.00	-19.51	26.21	0.15	0.13	Average
10	0.568	37.80	56.00	-18.20	37.52	0.15	0.13	QP
11	0.651	26.71	46.00	-19.29	26.44	0.13	0.14	Average
12	0.651	38.07	56.00	-17.93	37.80	0.13	0.14	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV)

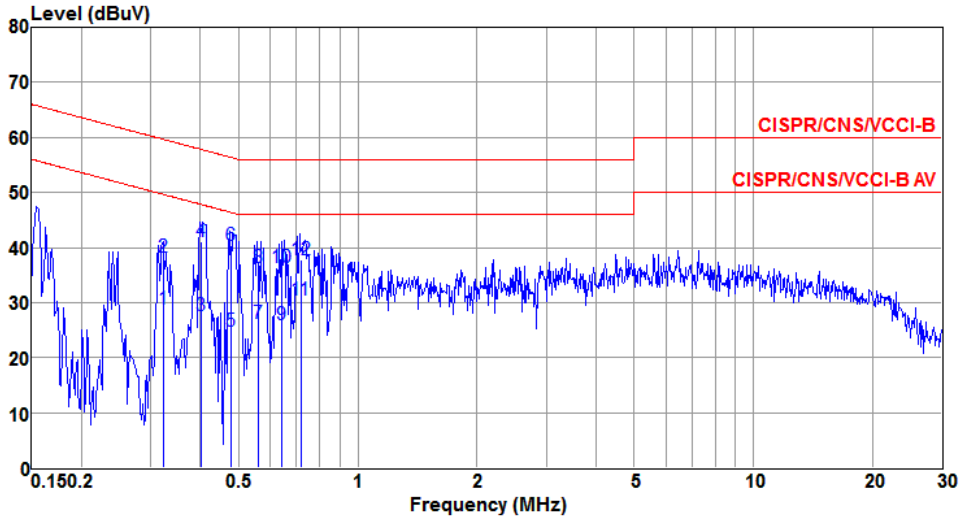
Power Phase	Neutral	Test Freq. (MHz)	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.242	25.62	52.04	-26.42	25.31	0.21	0.10	Average
2	0.242	39.18	62.04	-22.86	38.87	0.21	0.10	QP
3	0.325	24.81	49.57	-24.76	24.55	0.16	0.10	Average
4	0.325	39.04	59.57	-20.53	38.78	0.16	0.10	QP
5	0.404	27.69	47.76	-20.07	27.45	0.13	0.11	Average
6*	0.404	41.99	57.76	-15.77	41.75	0.13	0.11	QP
7	0.482	25.21	46.30	-21.09	24.93	0.16	0.12	Average
8	0.482	40.33	56.30	-15.97	40.05	0.16	0.12	QP
9	0.649	24.76	46.00	-21.24	24.42	0.20	0.14	Average
10	0.649	39.61	56.00	-16.39	39.27	0.20	0.14	QP
11	0.802	24.54	46.00	-21.46	24.15	0.24	0.15	Average
12	0.802	38.26	56.00	-17.74	37.87	0.24	0.15	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV)

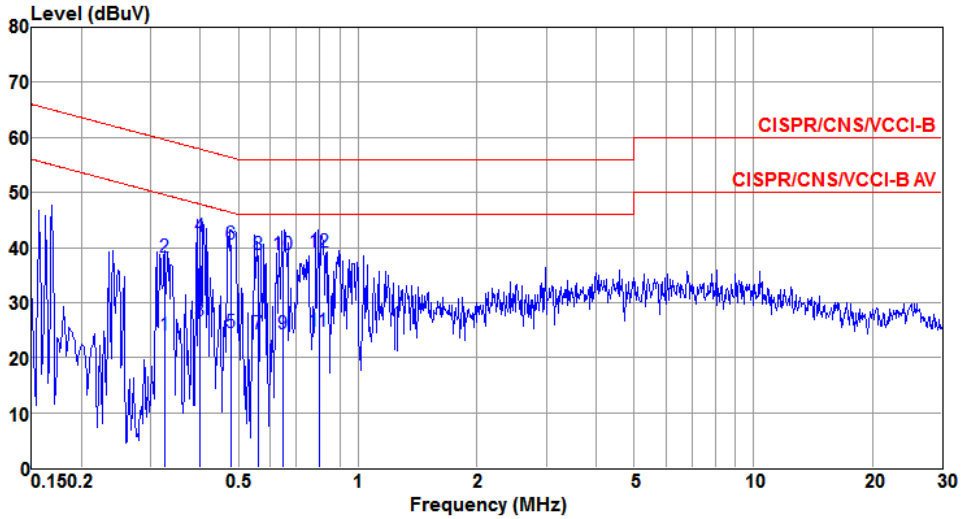
Power Phase	Line	Test Freq. (MHz)	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.322	28.90	49.66	-20.76	28.60	0.20	0.10	Average
2	0.322	38.28	59.66	-21.38	37.98	0.20	0.10	QP
3	0.402	27.70	47.82	-20.12	27.41	0.18	0.11	Average
4	0.402	41.12	57.82	-16.70	40.83	0.18	0.11	QP
5	0.478	24.69	46.38	-21.69	24.41	0.16	0.12	Average
6	0.478	40.25	56.38	-16.13	39.97	0.16	0.12	QP
7	0.560	26.16	46.00	-19.84	25.88	0.15	0.13	Average
8	0.560	36.30	56.00	-19.70	36.02	0.15	0.13	QP
9	0.642	25.86	46.00	-20.14	25.59	0.13	0.14	Average
10	0.642	36.26	56.00	-19.74	35.99	0.13	0.14	QP
11*	0.717	30.56	46.00	-15.44	30.30	0.12	0.14	Average
12	0.717	37.68	56.00	-18.32	37.42	0.12	0.14	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV)

Power Phase	Neutral	Test Freq. (MHz)	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.324	24.12	49.61	-25.49	23.86	0.16	0.10	Average
2	0.324	38.15	59.61	-21.46	37.89	0.16	0.10	QP
3	0.399	26.74	47.87	-21.13	26.50	0.13	0.11	Average
4*	0.399	42.10	57.87	-15.77	41.86	0.13	0.11	QP
5	0.478	24.44	46.38	-21.94	24.16	0.16	0.12	Average
6	0.478	40.51	56.38	-15.87	40.23	0.16	0.12	QP
7	0.558	24.25	46.00	-21.75	23.94	0.18	0.13	Average
8	0.558	38.63	56.00	-17.37	38.32	0.18	0.13	QP
9	0.644	24.25	46.00	-21.75	23.91	0.20	0.14	Average
10	0.644	38.67	56.00	-17.33	38.33	0.20	0.14	QP
11	0.797	24.75	46.00	-21.25	24.36	0.24	0.15	Average
12	0.797	39.11	56.00	-16.89	38.72	0.24	0.15	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV)

3.2 Radiated Emissions

3.2.1 Limit of Radiated Emissions

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29.54	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit
Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

3.2.2 Test Procedures

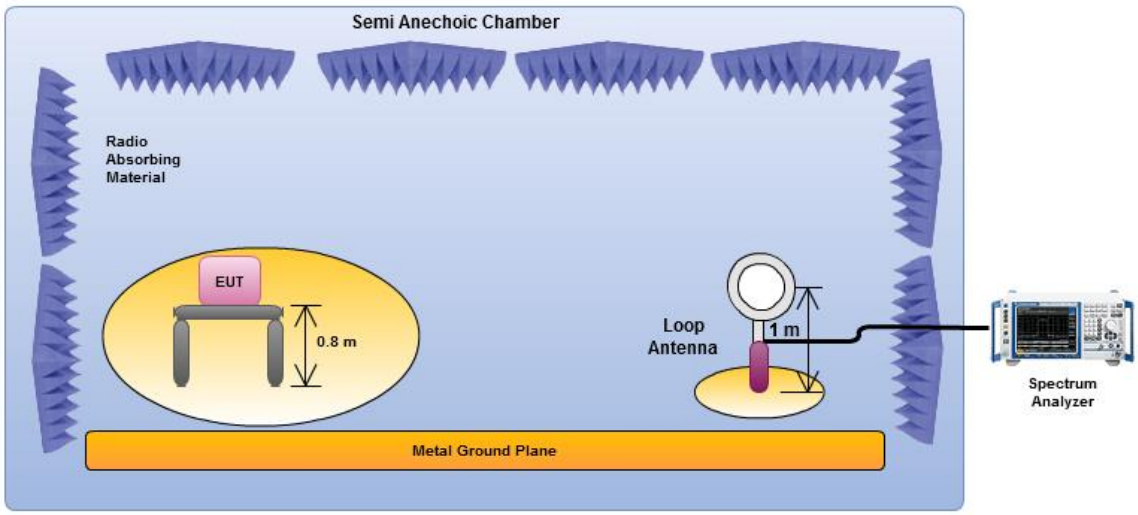
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at a height of 0.8 m test table above the ground plane.
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission above 30 MHz.
2. 9 kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission within 490kHz ~ 30 MHz
3. 9 kHz measurement bandwidth of test receiver and Peak/Average detector is for radiated emission below 490 kHz

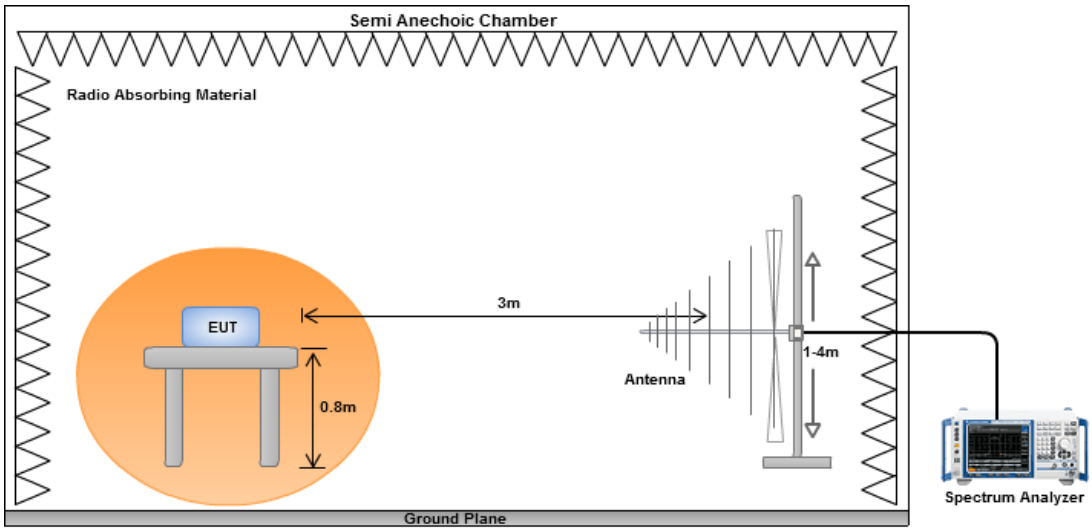
3.2.3 Test Setup

Radiated Emissions below 30MHz



Note: Test distance is 3m

Radiated Emissions above 30 MHz



3.2.4 Transmitter Radiated Unwanted Emissions (9kHz ~ 490kHz)

Polarization		Loop Open					
Mode		1					
	Frequency (MHz)	Level dBuV/m	Limit (dBuV/m)	Margin (dB)	Reading (dBuV/m)	Factor	Remark
1	0.16	84.88	103.52	-18.64	65.32	19.56	Average
2	0.16	85.18	123.52	-38.34	65.62	19.56	Peak
3	0.31	46.18	97.78	-51.60	26.68	19.5	Average
4	0.31	46.65	117.78	-71.13	27.15	19.5	Peak
5	0.47	60.31	94.16	-33.85	40.81	19.5	Average
6	0.47	60.73	114.16	-53.43	41.23	19.5	Peak

Polarization		Loop Close					
Mode		1					
	Frequency (MHz)	Level dBuV/m	Limit (dBuV/m)	Margin (dB)	Reading (dBuV/m)	Factor	Remark
1	0.16	79.48	103.52	-24.04	59.92	19.56	Average
2	0.16	79.69	123.52	-43.83	60.13	19.56	Peak
3	0.31	43.78	97.78	-54.00	24.28	19.5	Average
4	0.31	44.28	117.78	-73.50	24.78	19.5	Peak
5	0.47	55.15	94.16	-39.01	35.65	19.5	Average
6	0.47	55.43	114.16	-58.73	35.93	19.5	Peak

Polarization		Loop Open					
Mode		2					
	Frequency (MHz)	Level dBuV/m	Limit (dBuV/m)	Margin (dB)	Reading (dBuV/m)	Factor	Remark
1	0.18	67.85	102.5	-34.65	48.3	19.55	Average
2	0.18	70.65	122.5	-51.85	51.1	19.55	Peak
3	0.24	42.21	100	-57.79	22.69	19.52	Average
4	0.24	42.88	120	-77.12	23.36	19.52	Peak
5	0.36	37.47	96.48	-59.01	17.97	19.5	Average
6	0.36	38.07	116.48	-78.41	18.57	19.5	Peak

Polarization		Loop Close					
Mode		2					
	Frequency (MHz)	Level dBuV/m	Limit (dBuV/m)	Margin (dB)	Reading (dBuV/m)	Factor	Remark
1	0.18	55.15	102.5	-47.35	35.6	19.55	Average
2	0.18	57.85	122.5	-64.65	38.3	19.55	Peak
3	0.24	42.23	100	-57.77	22.71	19.52	Average
4	0.24	42.98	120	-77.02	23.46	19.52	Peak
5	0.36	37.92	96.48	-58.56	18.42	19.5	Average
6	0.36	38.77	116.48	-77.71	19.27	19.5	Peak

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor and cable loss
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

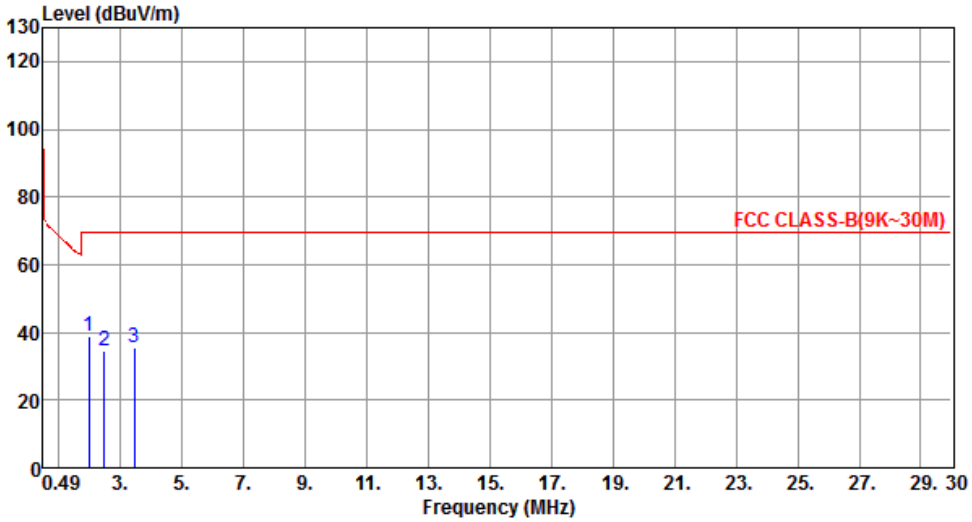
Polarization		Loop Open					
Mode		3					
	Frequency (MHz)	Level dBuV/m	Limit (dBuV/m)	Margin (dB)	Reading (dBuV/m)	Factor	Remark
1	0.16	85.9	103.52	-17.62	66.34	19.56	Average
2	0.16	86.31	123.52	-37.21	66.75	19.56	Peak
3	0.31	44.94	97.78	-52.84	25.44	19.5	Average
4	0.31	45.58	117.78	-72.20	26.08	19.5	Peak
5	0.47	60.56	94.16	-33.60	41.06	19.5	Average
6	0.47	60.84	114.16	-53.32	41.34	19.5	Peak

Polarization		Loop Close					
Mode		3					
	Frequency (MHz)	Level dBuV/m	Limit (dBuV/m)	Margin (dB)	Reading (dBuV/m)	Factor	Remark
1	0.16	79.96	103.52	-23.56	60.4	19.56	Average
2	0.16	80.28	123.52	-43.24	60.72	19.56	Peak
3	0.31	43.74	97.78	-54.04	24.24	19.5	Average
4	0.31	44.4	117.78	-73.38	24.9	19.5	Peak
5	0.47	55.22	94.16	-38.94	35.72	19.5	Average
6	0.47	55.53	114.16	-58.63	36.03	19.5	Peak

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor and cable loss
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.2.5 Transmitter Radiated Unwanted Emissions (490kHz~30MHz)

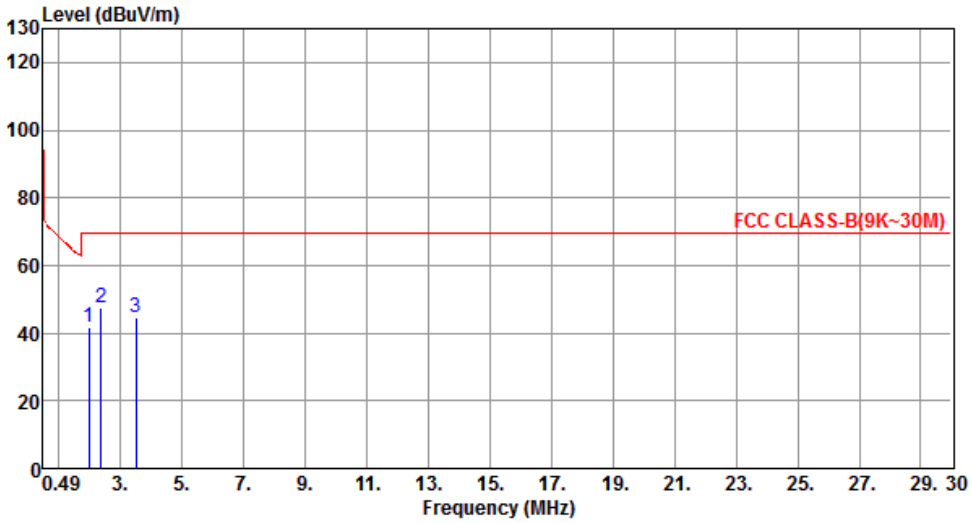
Polarization	Loop Open	Test Mode	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1.99	38.85	69.54	-30.69	38.85	0.00	QP	---	---
2	2.47	34.36	69.54	-35.18	14.91	19.45	QP	---	---
3	3.46	35.74	69.54	-33.80	35.74	0.00	QP	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor and cable loss
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

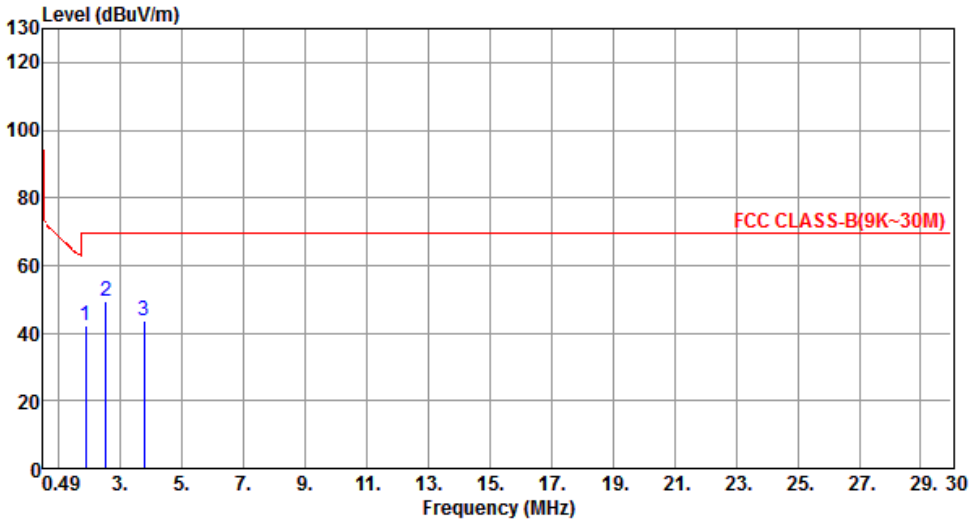
Polarization	Loop Close	Test Mode	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1.98	41.57	69.54	-27.97	41.57	0.00	QP	---	---
2	2.38	47.63	69.54	-21.91	28.17	19.46	QP	---	---
3	3.50	44.42	69.54	-25.12	25.05	19.37	QP	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor and cable loss
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

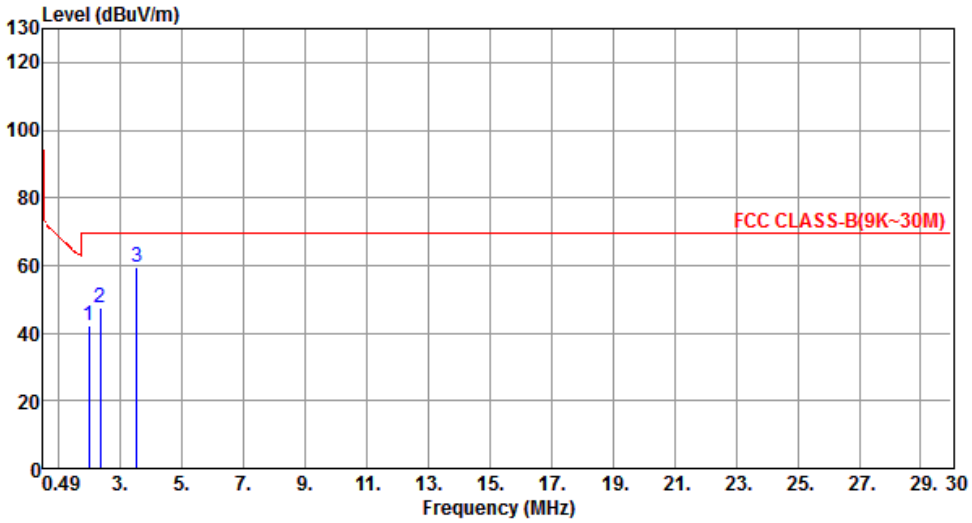
Polarization	Loop Open	Test Mode	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1.87	41.99	69.54	-27.55	41.99	0.00	QP	---	---
2	2.52	49.61	69.54	-19.93	49.61	0.00	QP	---	---
3	3.77	43.69	69.54	-25.85	24.33	19.36	QP	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor and cable loss
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

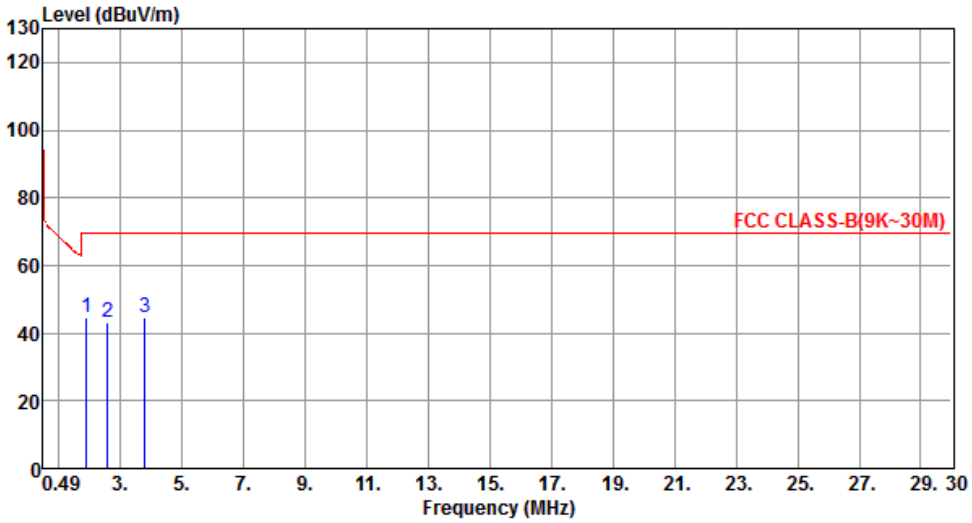
Polarization	Loop Close	Test Mode	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1.97	42.35	69.54	-27.19	42.35	0.00	QP	---	---
2	2.35	47.43	69.54	-22.11	27.96	19.47	QP	---	---
3	3.53	59.32	69.54	-10.22	39.95	19.37	QP	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor and cable loss
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

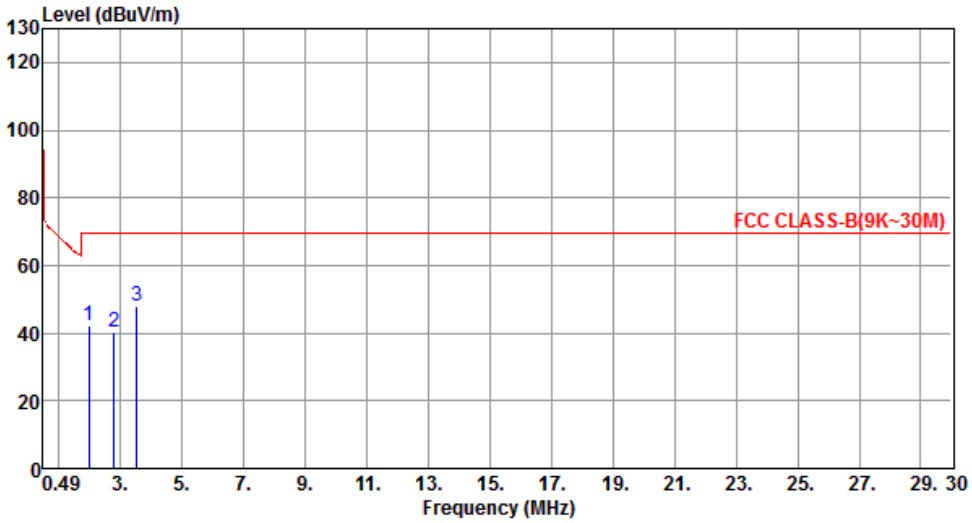
Polarization	Loop Open	Test Mode	3



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1.89	44.58	69.54	-24.96	44.58	0.00	QP	---	---
2	2.58	43.10	69.54	-26.44	43.10	0.00	QP	---	---
3	3.80	44.61	69.54	-24.93	25.26	19.35	QP	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor and cable loss
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Polarization	Loop Close	Test Mode	3

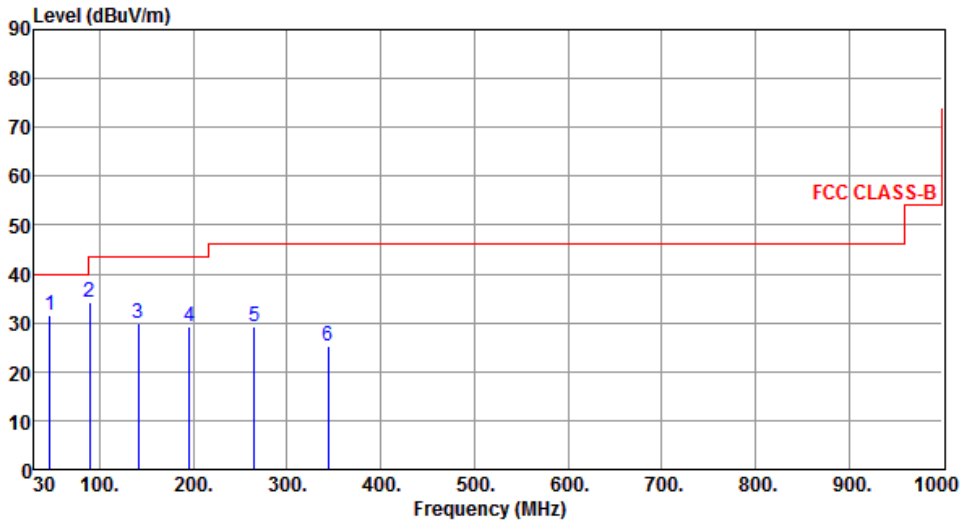


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1.98	42.44	69.54	-27.10	42.44	0.00	QP	---	---
2	2.79	40.53	69.54	-29.01	40.53	0.00	QP	---	---
3	3.53	47.96	69.54	-21.58	28.59	19.37	QP	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor and cable loss
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.2.6 Transmitter Radiated Unwanted Emissions (Above 30MHz)

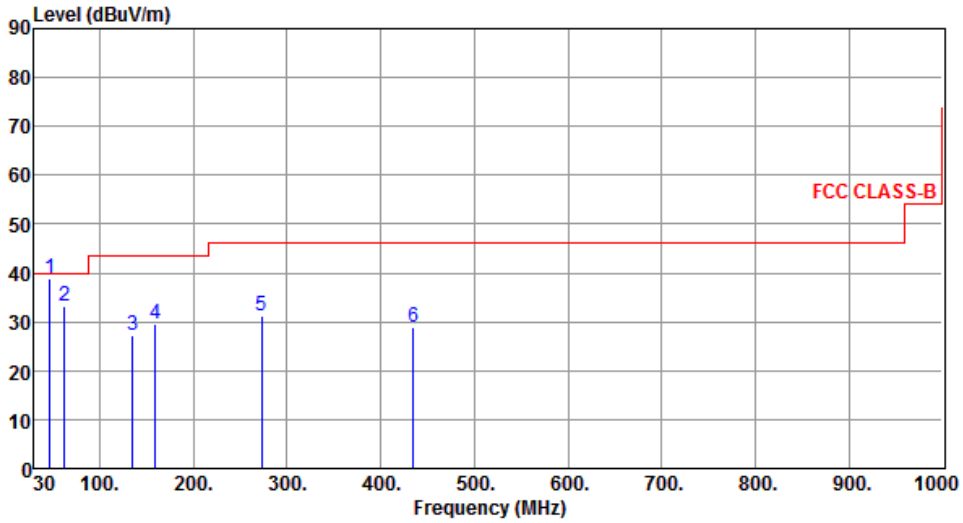
Polarization	Horizontal	Test Mode	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	46.49	31.38	40.00	-8.62	48.07	-16.69	Peak	---	---
2	89.17	34.27	43.50	-9.23	57.43	-23.16	Peak	---	---
3	141.55	29.75	43.50	-13.75	47.10	-17.35	Peak	---	---
4	195.87	29.39	43.50	-14.11	48.96	-19.57	Peak	---	---
5	264.74	29.23	46.00	-16.77	46.60	-17.37	Peak	---	---
6	344.28	25.36	46.00	-20.64	40.46	-15.10	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

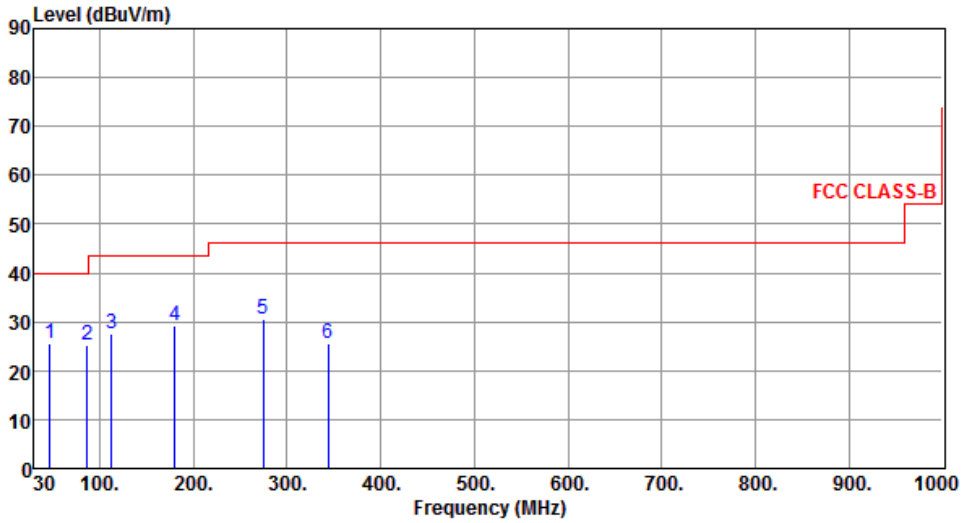
Polarization	Vertical	Test Mode	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	46.47	38.91	40.00	-1.09	55.60	-16.69	QP	---	---
2	62.01	33.05	40.00	-6.95	50.44	-17.39	Peak	---	---
3	134.76	27.18	43.50	-16.32	45.22	-18.04	Peak	---	---
4	159.01	29.52	43.50	-13.98	46.46	-16.94	Peak	---	---
5	272.50	31.38	46.00	-14.62	48.46	-17.08	Peak	---	---
6	434.49	28.75	46.00	-17.25	41.60	-12.85	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

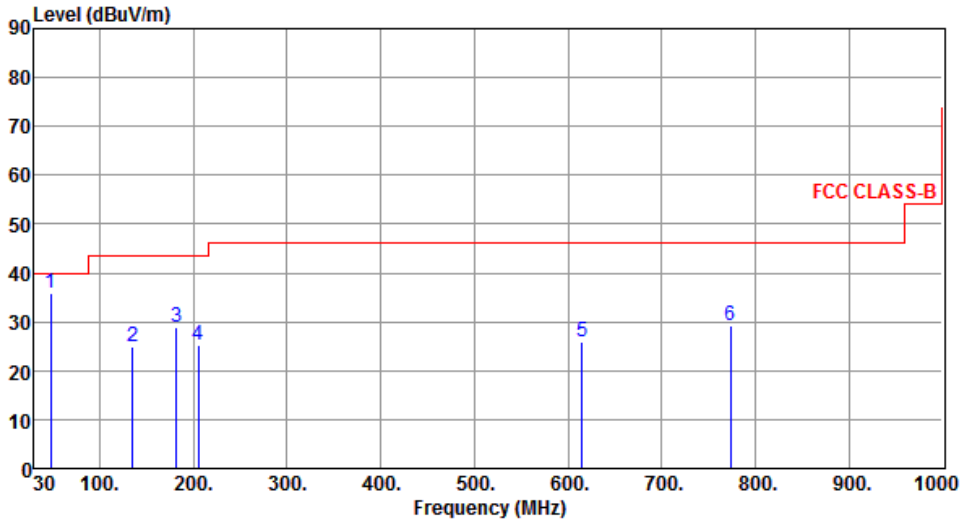
Polarization	Horizontal	Test Mode	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	46.49	25.44	40.00	-14.56	42.13	-16.69	Peak	---	---
2	86.26	25.09	40.00	-14.91	47.88	-22.79	Peak	---	---
3	112.45	27.72	43.50	-15.78	48.00	-20.28	Peak	---	---
4	180.35	29.27	43.50	-14.23	47.88	-18.61	Peak	---	---
5	274.44	30.58	46.00	-15.42	47.57	-16.99	Peak	---	---
6	344.16	25.71	46.00	-20.29	40.82	-15.11	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

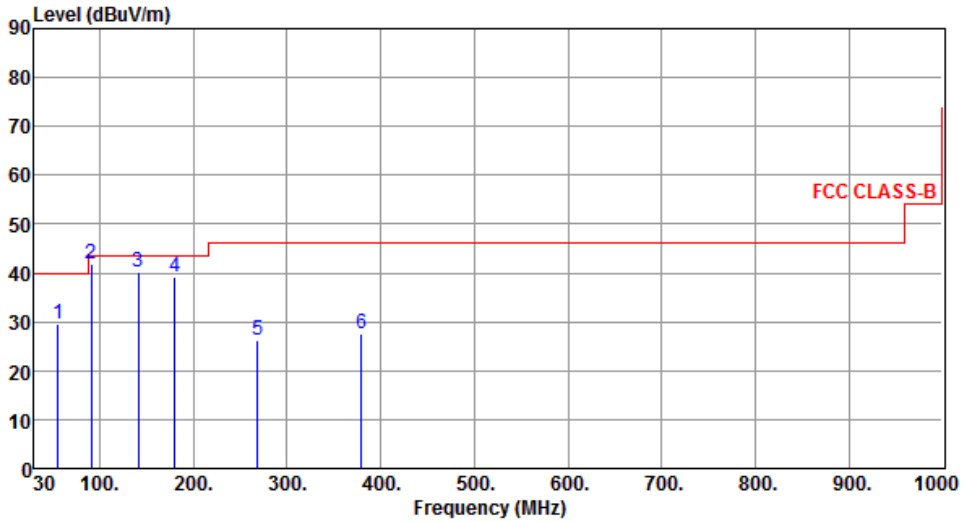
Polarization	Vertical	Test Mode	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	47.46	36.02	40.00	-3.98	52.65	-16.63	Peak	---	---
2	134.76	25.02	43.50	-18.48	43.06	-18.04	Peak	---	---
3	182.29	29.00	43.50	-14.50	47.76	-18.76	Peak	---	---
4	205.57	25.24	43.50	-18.26	44.79	-19.55	Peak	---	---
5	614.91	26.01	46.00	-19.99	35.37	-9.36	Peak	---	---
6	773.99	29.32	46.00	-16.68	36.44	-7.12	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

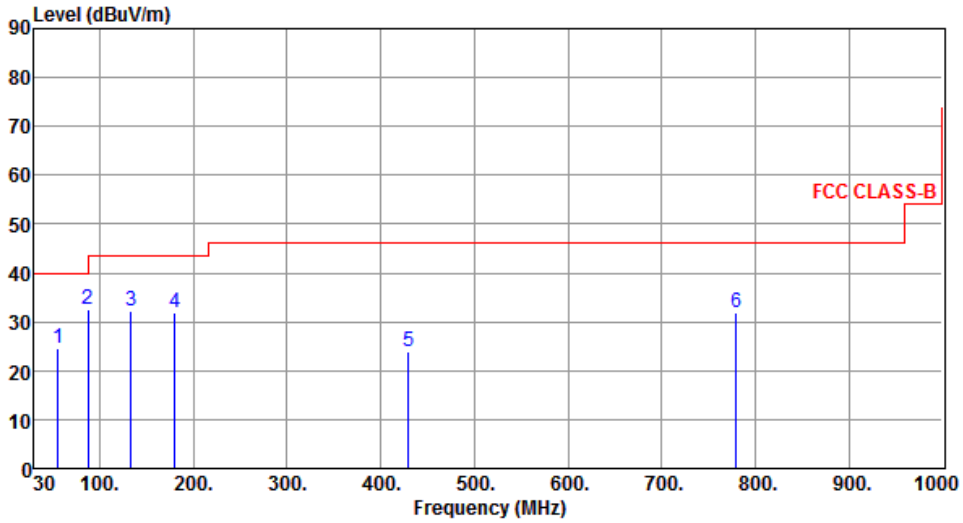
Polarization	Horizontal	Test Mode	3



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	55.22	29.62	40.00	-10.38	46.32	-16.70	Peak	---	---
2	90.95	41.76	43.50	-1.74	64.91	-23.15	QP	---	---
3	141.55	40.12	43.50	-3.38	57.47	-17.35	Peak	---	---
4	180.30	39.08	43.50	-4.42	57.68	-18.60	QP	---	---
5	268.62	26.19	46.00	-19.81	43.42	-17.23	Peak	---	---
6	379.20	27.61	46.00	-18.39	41.82	-14.21	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Polarization	Vertical	Test Mode	3



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	55.22	24.66	40.00	-15.34	41.36	-16.70	Peak	---	---
2	87.23	32.62	40.00	-7.38	55.53	-22.91	Peak	---	---
3	133.79	32.15	43.50	-11.35	50.30	-18.15	Peak	---	---
4	180.35	31.92	43.50	-11.58	50.53	-18.61	Peak	---	---
5	429.64	23.92	46.00	-22.08	36.89	-12.97	Peak	---	---
6	779.81	31.88	46.00	-14.12	38.95	-7.07	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp, it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan Hsiang. Location map can be found on our website http://www.icertifi.com.tw.

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information

Tel: 886-3-271-8666
Fax: 886-3-318-0155
Email: ICC_Service@icertifi.com.tw

═END═