FCC TEST REPORT

According to

FCC Rules and Regulations Part 15 Subpart C

Applicant	:	Marson Technology Co., Ltd.
Address	:	9F., No.108-3, Mincyuan Rd., Sindian Dist., New Taipei City 231, Taiwan
Equipment	:	Mini Wireless RFID Reader
Model No.	:	MR10A7
Trade Name	:	Marson
FCC ID	:	IRJ-MR10A7

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of ***Cerpass Technology Corp***. the test report shall not be reproduced except in full.
- The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

Laboratory Accreditation

TAF Testing Laboratory 1439

NVLAP LAB CODE: 200954-0

Contents

History of this test report

■ ORIGINAL.

☐ Additional attachment as following record:

Attachment No.	Issue Date	Description

CERTIFICATE OF COMPLIANCE

According to

FCC Rules and Regulations Part 15 Subpart C

Applicant	:	Marson Technology Co., Ltd.
Address	:	9F., No.108-3, Mincyuan Rd., Sindian Dist., New Taipei City 231, Taiwan
Equipment	:	Mini Wireless RFID Reader
Model No.	:	MR10A7
FCC ID	:	IRJ-MR10A7

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4** The equipment was ***passed*** the test performed according to **FCC Rules and Regulations Part 15 Subpart C (2010).**
The sample was received on Dec. 10, 2014 and the testing was carried out on Dec. 10, 2014 at **Cerpass Technology Corp.**

Approved by:

Hill Chen
EMC/RF B.U. Assistant Manager

Tested by:

Dian
Engineer

1. Report of Measurements and Examinations

1.1 List of Measurements and Examinations

FCC Rule	. Description of Test	Result
15.207	. Conducted Emission	Pass
15.225(d)	. Radiated Emission	Pass
15.225(a)	. Peak Power Output	Pass
15.225(e)	. Frequency Stability	Pass

2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

RFID Specifications	Frequency	13.56 MHz
	Standard	Support ISO-15693 & ISO-14443
	Reading Distance	ISO-15693 0 ~ 5 cm / ISO-14443 0 ~ 2.5cm
Communications	Bluetooth	Version 2.1 Class 2 V2.0, support SPP & HID
	Wireless Range	10 m
	Operating Frequency	2.4 GHz – 2.48 GHz
	USB	Virtual COM Port or HID
Electrical	Battery	Rechargeable 3.7V Li-Polymer 1000 mAh
	Battery Life	>10,000 times (1 read/ 5 sec)
	Working Current	Typ.: 200 mA, Max.: 250 mA
	Standby Current	Typ.: 55 mA, Max.: 75 mA
	Idle Current	< 500 uA
Physical	Dimensions	L 102 x W 42.5 x H 21.5 mm
	Weight	Approx 70g
	Sealing	IP55
Environmental	Operating Temperature	0°C ~ 45°C (Lithium Polymer Battery Charge) 10°C ~ 50°C (Lithium Polymer Battery Discharge)
	Storage Temperature	-20°C ~ 60°C
	Humidity	0% RH~ 90% RH (Non Condensing)
Type of Antenna	Chip Antenna	
Antenna Gain	2.66 dBi	

2.2 Test Manner

a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
b. The complete test system included PC, Monitor, Keyboard, Mouse, Test Fixture and EUT for RF test.
c. An executive program, ”Blue test” under WIN XP was executed to transmit and receive data via Bluetooth.

2.3 Description of Test System

Device	Manufacturer	Model No.	Description
PC	DELL	D02M	Power Cable, Unshielding, 1.8m
Monitor	DELL	2408WFPb	Power Cable, Unshielding 1.8m VGA Cable, Shielding 1.35m
Keyboard	DELL	SK-8175	USB Cable, Shielding 1.85m
Mouse	DELL	M-UV83	USB Cable, Shielding 1.85m
Test Fixture	N/A	N/A	Lpt Cable, Shielding 1.5m

Use Cable:

Cable	Quantity	Description
Micro USB	1	Shielding, 1.8m

2.4 General Information of Test

Test Site :	Cerpass Technology Corporation Test Laboratory No.10, Lane 2, Lianfu Street, Luzhu Township, Taoyuan County 33848, Taiwan(R.O.C.)
Test Site Location :	No.68-1, Shihbachongsi, Shihding Township, New Taipei City 223, Taiwan, R.O.C.
FCC Registration Number :	☐ TW1079, ☐ TW1061, ☐ 390316, ☐ 228391, ☒ 641184
IC Registration Number :	☐ 4934B-1, ☐ 4934E-1, ☒ 4934E-2
VCCI Registration Number :	☐ T-2205 for Telecommunication Test ☒ C-4463 for Conducted emission test ☒ R-3428 for Radiated emission test ☒ G-812 for radiated disturbance above 1GHz ☐ G-813 for radiated disturbance above 1GHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.

3. Test of Conducted Emission

3.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

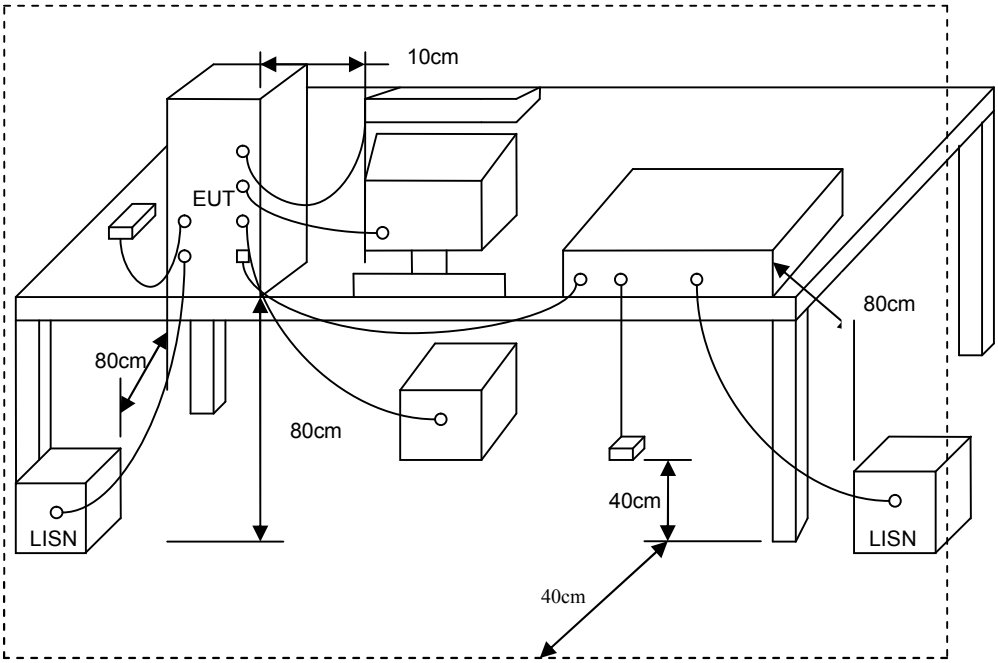
Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases with the logarithm of the frequency.

3.2 Test Procedures

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connecting to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 kHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

3.3 Typical Test Setup

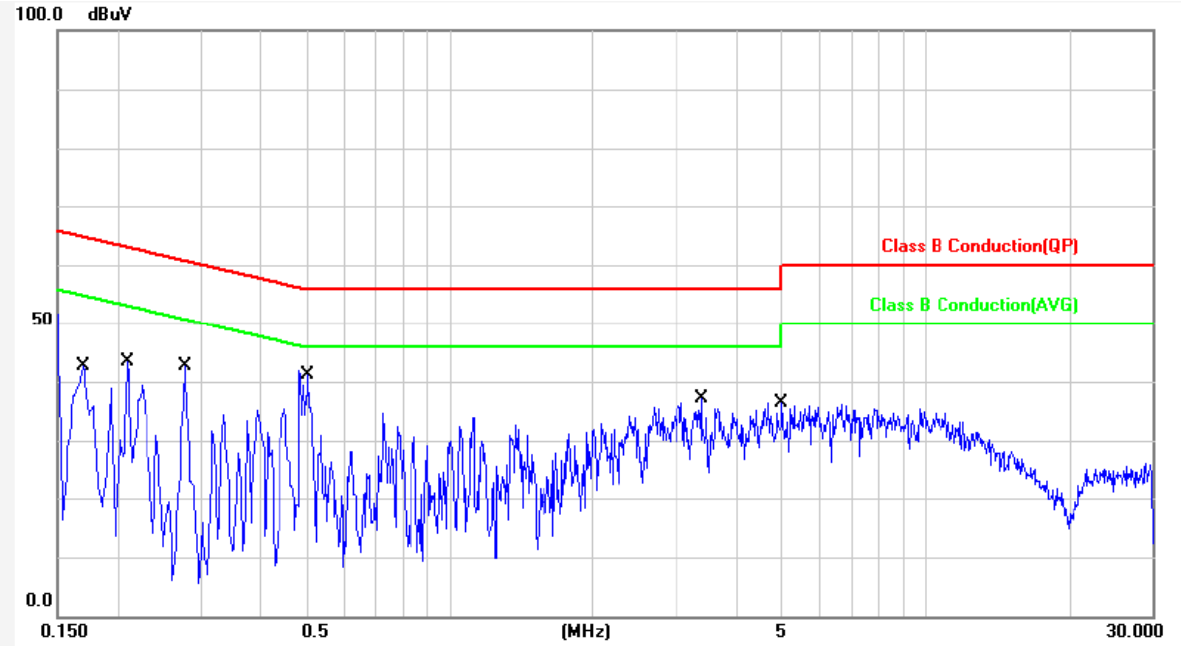


3.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	101423	2014/06/05	2015/06/04
LISN	Schwarzbeck	NSLK 8127	8127-740	2014/08/14	2015/08/13
LISN	Schwarzbeck	NSLK 8127	8127-516	2014/03/10	2015/03/09
Pulse Limiter	R&S	ESH3-Z2	101933	2014/08/12	2015/08/11
Software	Farad	Ez-EMC	ver.ct3a1	N/A	N/A

3.5 Test Result and Data

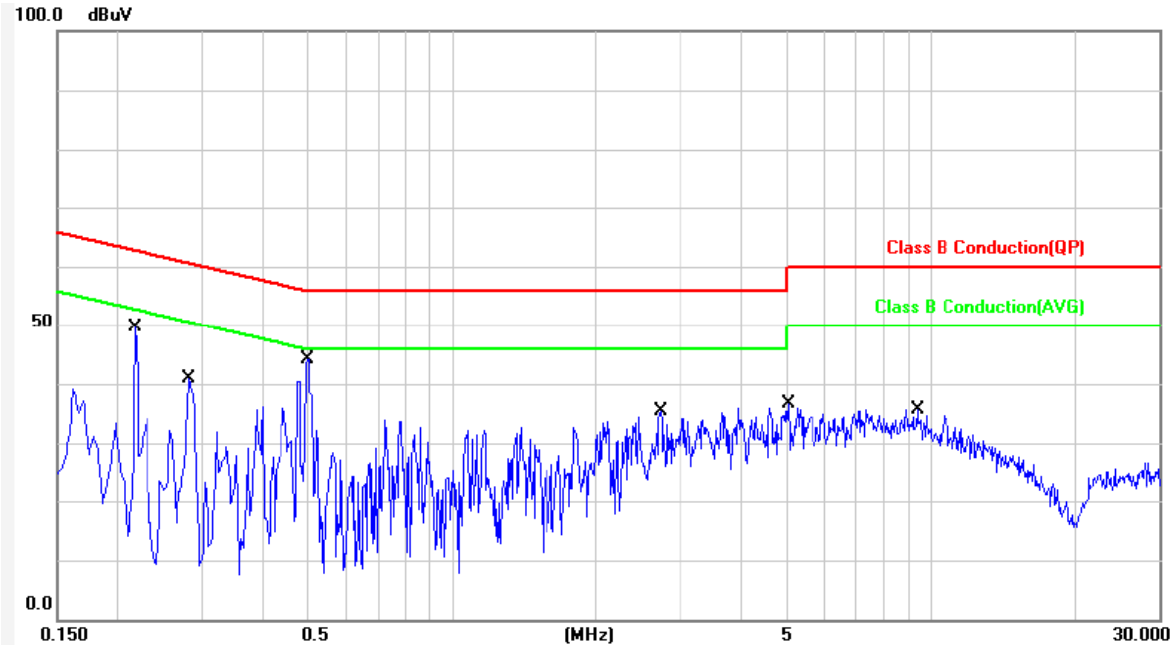
Power	:	From System	Pol/Phase	:	LINE
Test Mode 1	:	RFID	Temperature	:	26 °C
Test Date	:	Dec. 10, 2014	Humidity	:	48 %
Memo	:		Atmospheric Pressure	:	1008 hpa



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1700	9.89	46.09	55.98	64.96	-8.98	QP	P
2	0.1700	9.89	35.25	45.14	54.96	-9.82	AVG	P
3	0.2100	9.89	37.97	47.86	63.20	-15.34	QP	P
4	0.2100	9.89	14.80	24.69	53.20	-28.51	AVG	P
5	0.2779	9.89	32.27	42.16	60.88	-18.72	QP	P
6	0.2779	9.89	20.28	30.17	50.88	-20.71	AVG	P
7	0.5060	9.88	32.04	41.92	56.00	-14.08	QP	P
8	0.5060	9.88	27.90	37.78	46.00	-8.22	AVG	P
9	3.3900	9.94	22.36	32.30	56.00	-23.70	QP	P
10	3.3900	9.94	16.39	26.33	46.00	-19.67	AVG	P
11	5.0020	9.96	22.23	32.19	60.00	-27.81	QP	P
12	5.0020	9.96	16.85	26.81	50.00	-23.19	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor= (LISN or ISN or PLC or Current Probe) Factor + Cable Loss + Attenuator

Power	:	From System	Pol/Phase	:	NEUTRAL
Test Mode 1	:	RFID	Temperature	:	26 °C
Test Date	:	Dec. 10, 2014	Humidity	:	48 %
Memo	:		Atmospheric Pressure	:	1008 hpa

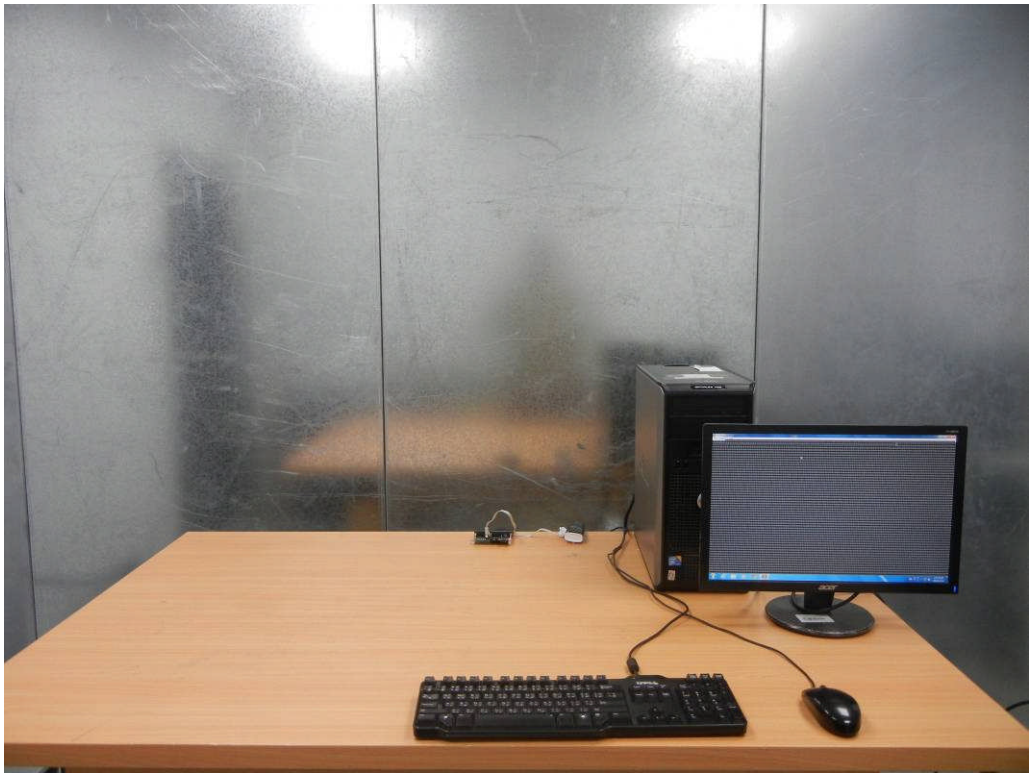


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2180	9.88	34.73	44.61	62.89	-18.28	QP	P
2	0.2180	9.88	20.87	30.75	52.89	-22.14	AVG	P
3	0.2819	9.88	31.33	41.21	60.76	-19.55	QP	P
4	0.2819	9.88	20.12	30.00	50.76	-20.76	AVG	P
5	0.5020	9.88	33.05	42.93	56.00	-13.07	QP	P
6	0.5020	9.88	28.40	38.28	46.00	-7.72	AVG	P
7	2.7220	9.94	21.98	31.92	56.00	-24.08	QP	P
8	2.7220	9.94	14.94	24.88	46.00	-21.12	AVG	P
9	5.0460	9.96	20.26	30.22	60.00	-29.78	QP	P
10	5.0460	9.96	14.37	24.33	50.00	-25.67	AVG	P
11	9.3900	10.03	20.90	30.93	60.00	-29.07	QP	P
12	9.3900	10.03	15.41	25.44	50.00	-24.56	AVG	P

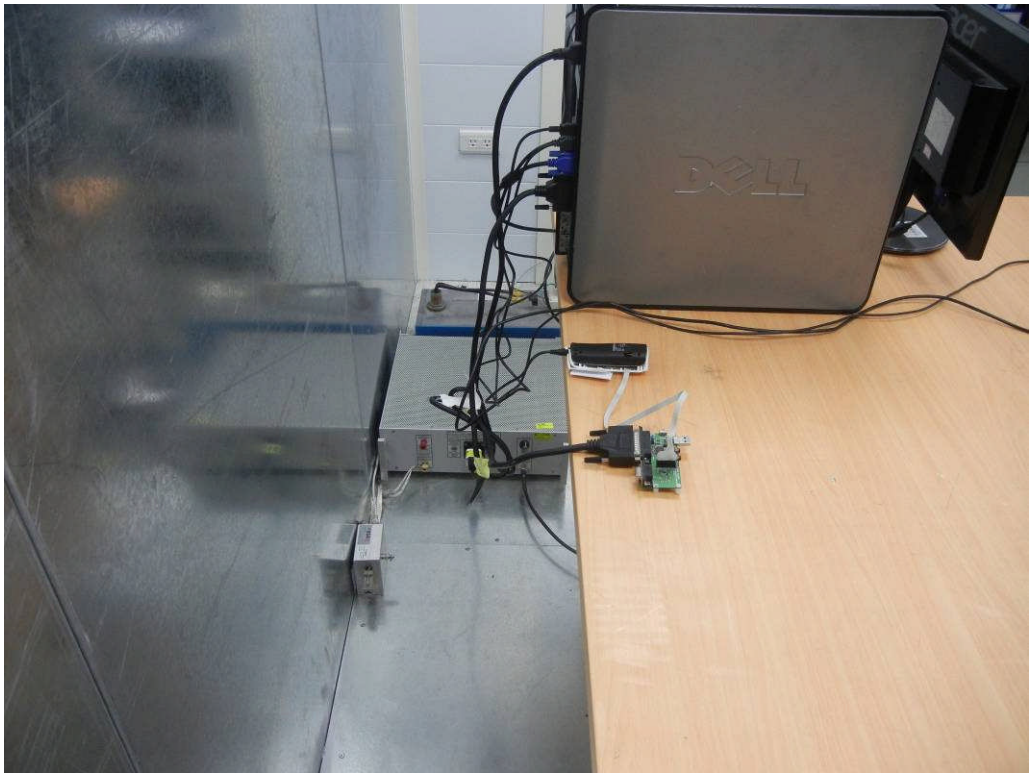
Note: Level = Reading + Factor
Margin = Level – Limit
Factor= (LISN or ISN or PLC or Current Probe) Factor + Cable Loss + Attenuator

3.6 Test Photographs

Front View



Rear View



4. Test of Radiated Emission

4.1 Test Limit

Radiated emissions from 13.553 MHz to 13.567 MHz were measured according to the 15.225(a), the field strength of any emissions within the band 13.553 – 13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
The filed strength of any emissions which appear outside of the 13.110 – 14.010 MHz band shall not exceed the general radiated emission limits in Section 15.209.

Frequency (MHz)	Distance Meters	Radiated (μ V / M)	Radiated (dB μ V/ M)
13.553-13.567	30	15848	84.0
13.410-13.553 13.567-13.710	30	334	50.5
13.110-13.410 13.710-14.010	30	106	40.5

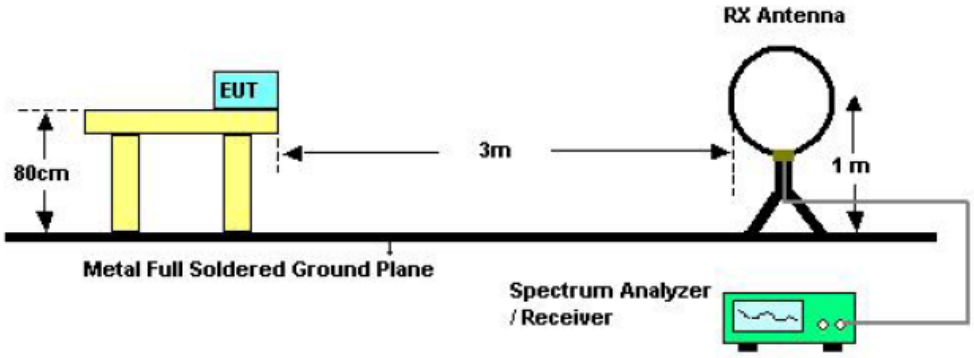
Frequency (MHz)	Distance Meters	Radiated (μ V / M)	Radiated (dB μ V/ M)
1.705 to 30	30	30	29.5
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0

4.2 Test Procedures

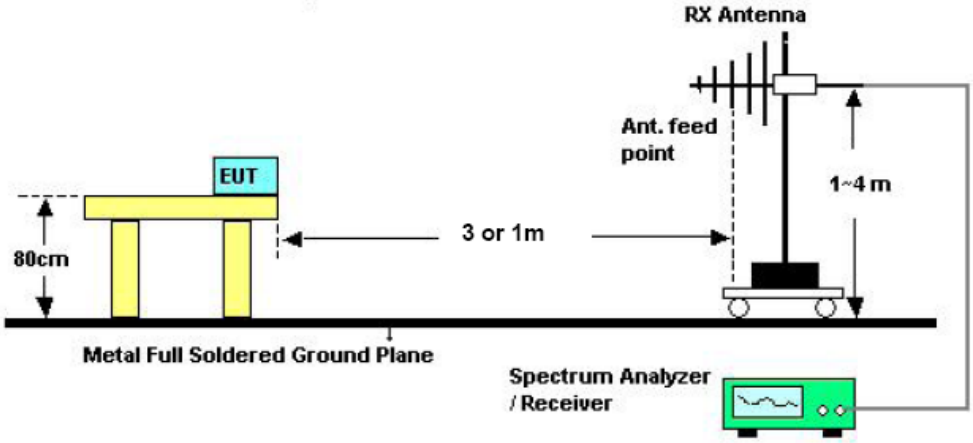
a. The EUT was placed on a rotatable table top 0.8 meter above ground.
b. The EUT was set 30 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
c. The table was rotated 360 degrees to determine the position of the highest radiation.
d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

4.3 Typical Test Setup

For radiated emissions below 30MHz



For radiated emissions above 30MHz



Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.
Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1m]) (dB);
Limit line = specific limits (dBuV) + distance extrapolation factor [9.54 dB].

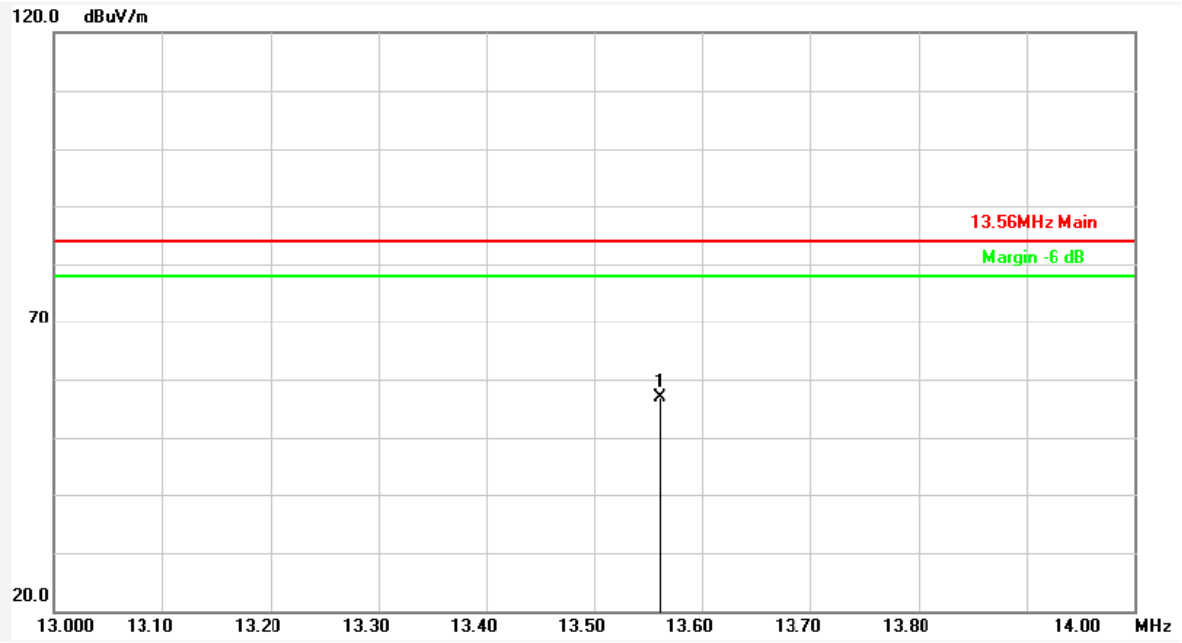
4.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	100443	2014/04/09	2015/04/08
Bilog Antenna	Schwarzbeck	VULB 9168	275	2014/09/18	2015/09/17
Amplifier	QuieTek	AP/0100A	CHM0906075	2014/09/17	2015/09/16
Loop Antenna	EMCO	6507	40855	2013/09/30	2014/09/29
Software	Farad	Ez-EMC	ver.ct3a1	N/A	N/A

4.5 Test Result and Data

4.5.1 Test Result of Fundamental Emission

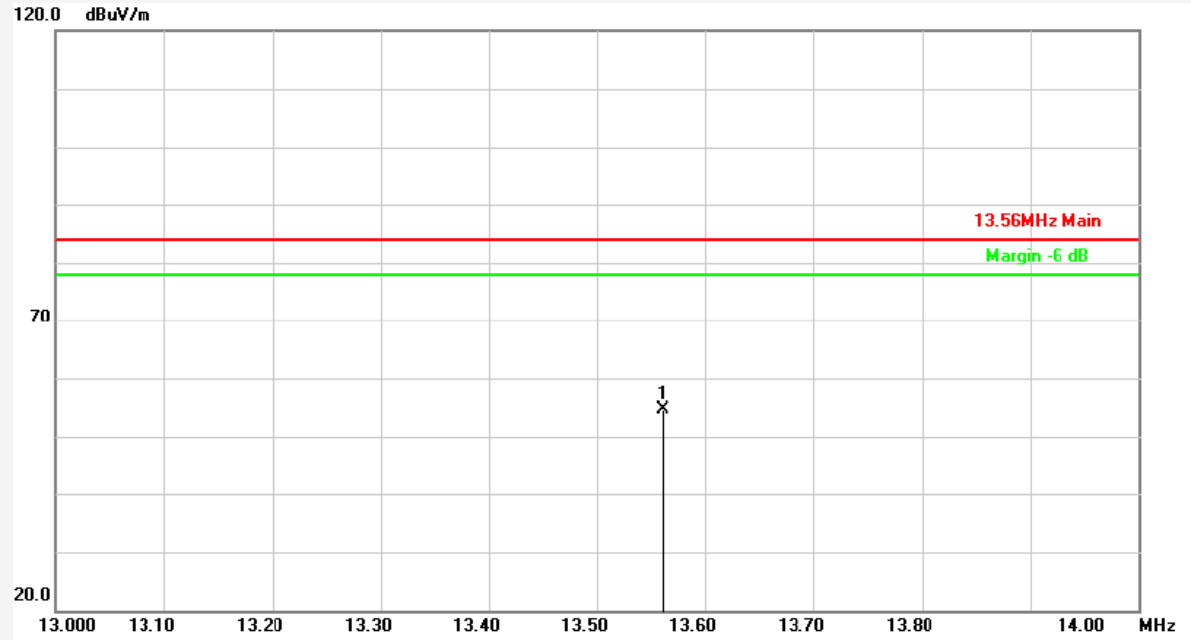
Power	:	From System	Pol/Phase	:	VERTICAL
Test Mode 1	:	RFID	Temperature	:	22 °C
Test Date	:	Dec. 10, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1010 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	13.5600	-0.22	56.99	56.77	84.00	-27.23	peak	100	0	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor= Antenna Factor + Cable Loss - Amplifier Factor

Power	:	From System	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	RFID	Temperature	:	22 °C
Test Date	:	Dec. 10, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1010 hpa

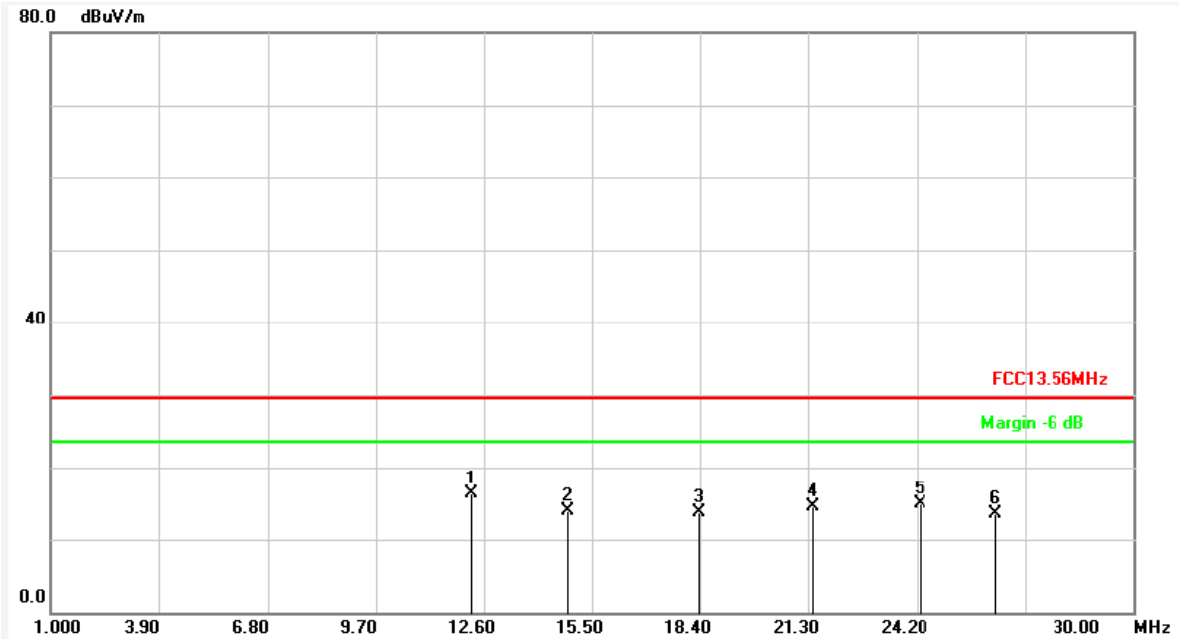


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	13.5600	-0.22	54.79	54.57	84.00	-29.43	peak	100	0	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor= Antenna Factor + Cable Loss - Amplifier Factor

4.5.2 Test Result of Spurious emission

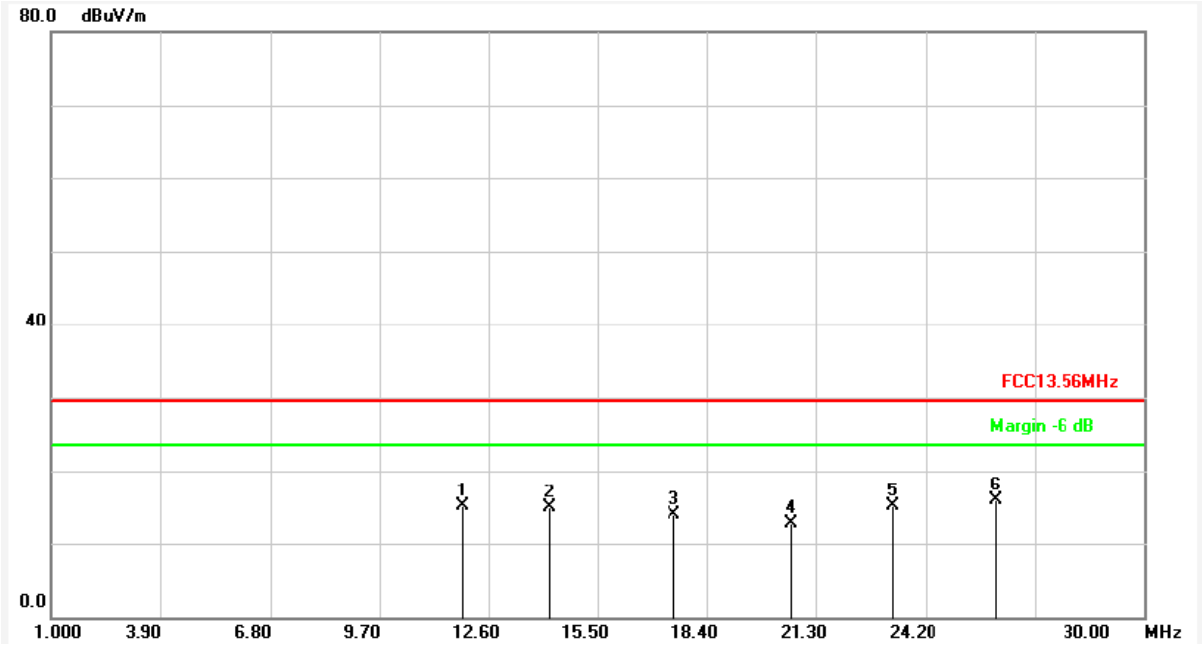
Power	:	From System	Pol/Phase	:	VERTICAL
Test Mode 1	:	RFID	Temperature	:	22 °C
Test Date	:	Dec. 10, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1010 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	12.2810	-15.19	31.40	16.21	29.50	-13.29	peak	100	0	P
2	14.8620	-15.46	29.40	13.94	29.50	-15.56	peak	100	0	P
3	18.3710	-15.82	29.57	13.75	29.50	-15.75	peak	100	0	P
4	21.4450	-16.15	30.57	14.42	29.50	-15.08	peak	100	0	P
5	24.2870	-16.44	31.28	14.84	29.50	-14.66	peak	100	0	P
6	26.3170	-16.65	30.23	13.58	29.50	-15.92	peak	100	0	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor= Antenna Factor + Cable Loss - Amplifier Factor

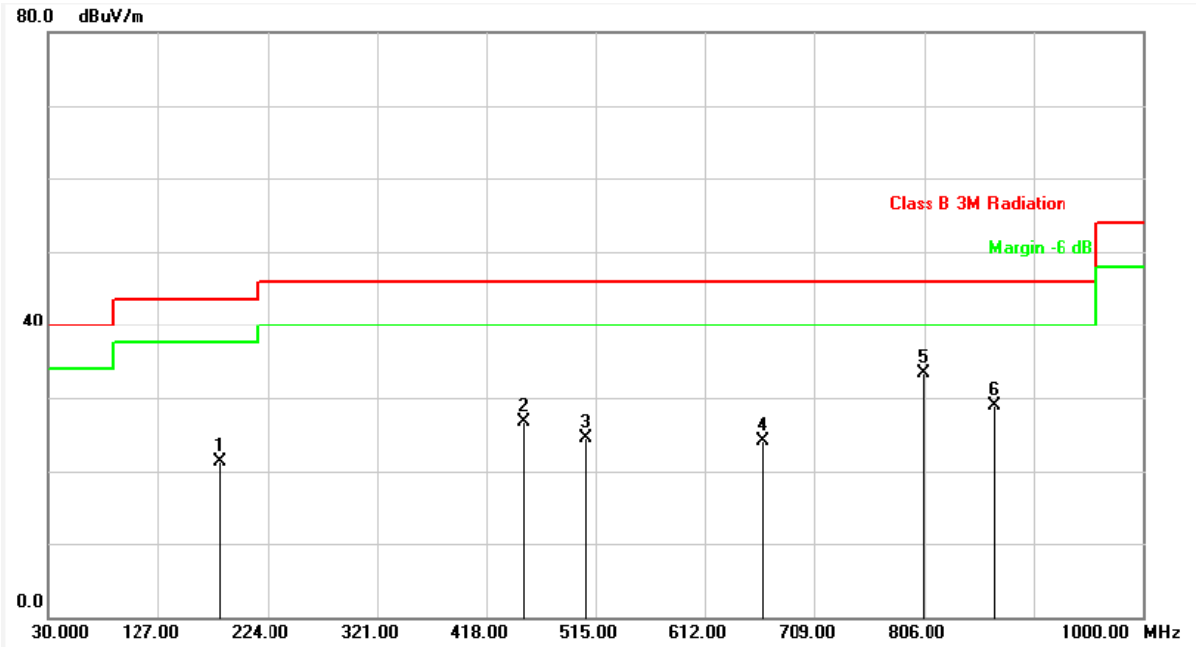
Power	:	From System	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	RFID	Temperature	:	22 °C
Test Date	:	Dec. 10, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1010 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	11.9330	-15.16	30.21	15.05	29.50	-14.45	peak	100	0	P
2	14.2530	-15.40	30.33	14.93	29.50	-14.57	peak	100	0	P
3	17.5300	-15.73	29.57	13.84	29.50	-15.66	peak	100	0	P
4	20.6330	-16.06	28.83	12.77	29.50	-16.73	peak	100	0	P
5	23.3300	-16.34	31.54	15.20	29.50	-14.30	peak	100	0	P
6	26.0849	-16.63	32.60	15.97	29.50	-13.53	peak	100	0	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor= Antenna Factor + Cable Loss - Amplifier Factor

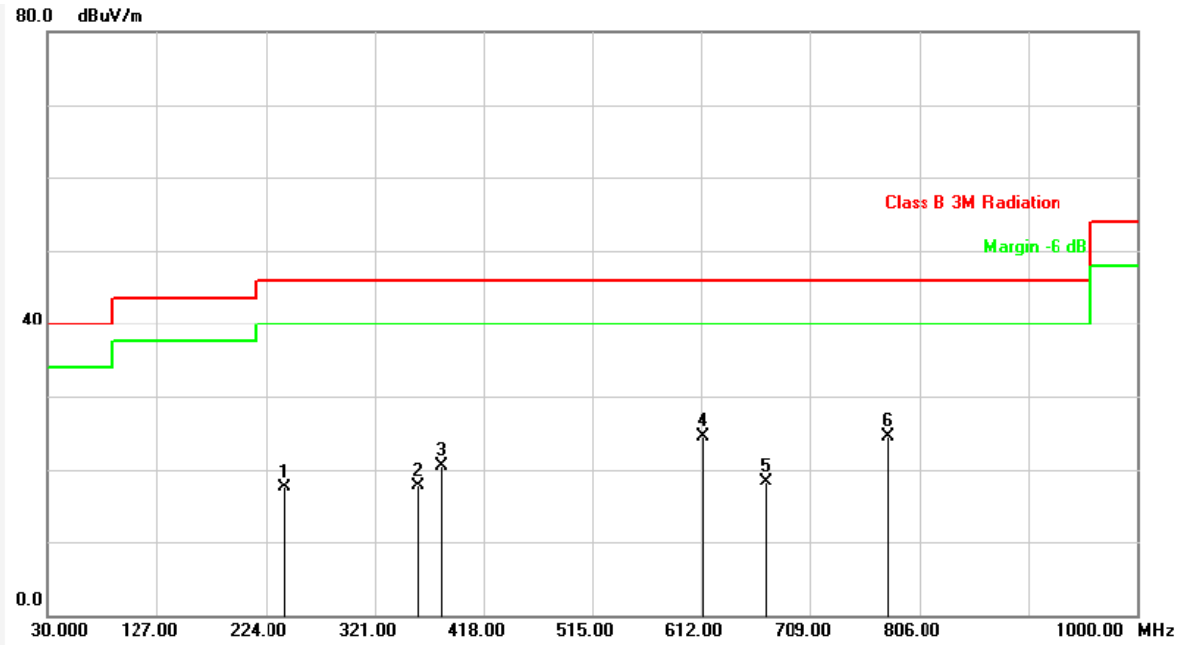
Power	:	From System	Pol/Phase	:	VERTICAL
Test Mode 1	:	RFID	Temperature	:	22 °C
Test Date	:	Dec. 10, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1010 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	182.2899	-20.21	41.53	21.32	43.50	-22.18	peak	100	0	P
2	450.9800	-13.65	40.28	26.63	46.00	-19.37	peak	100	0	P
3	506.2700	-12.62	37.18	24.56	46.00	-21.44	peak	100	0	P
4	663.4099	-9.47	33.54	24.07	46.00	-21.93	peak	100	0	P
5	805.0300	-6.89	40.10	33.21	46.00	-12.79	peak	100	0	P
6	869.0500	-5.68	34.55	28.87	46.00	-17.13	peak	100	0	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor= Antenna Factor + Cable Loss - Amplifier Factor

Power	:	From System	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	RFID	Temperature	:	22 °C
Test Date	:	Dec. 10, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1010 hpa

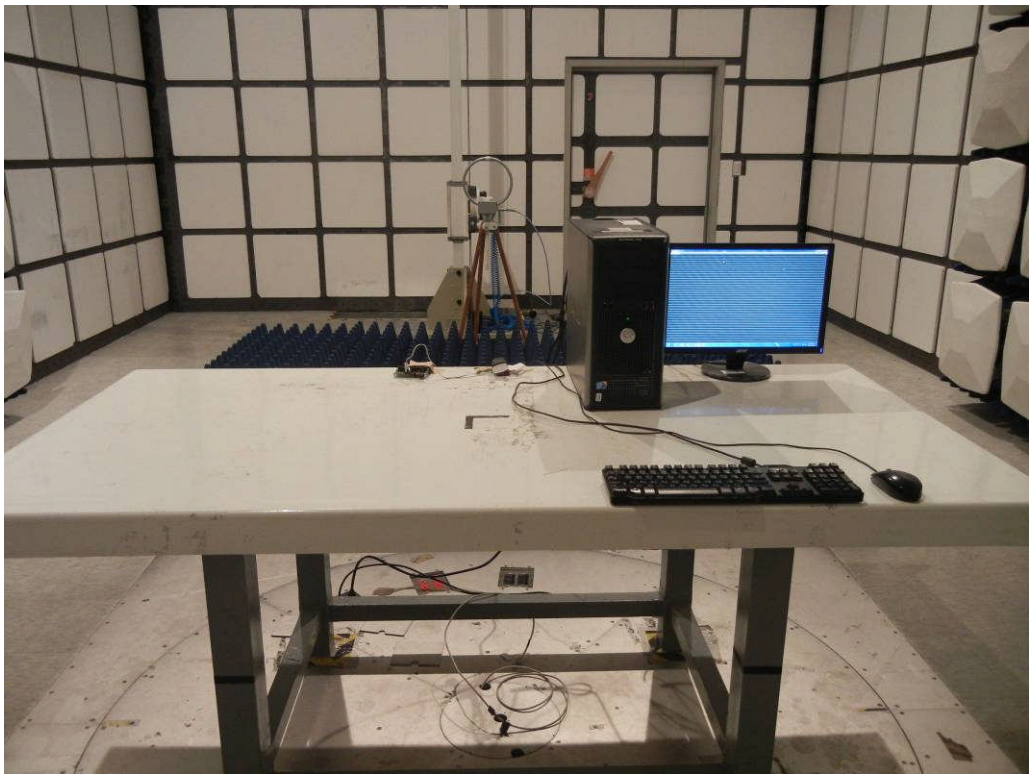


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	241.4600	-19.96	37.54	17.58	46.00	-28.42	peak	100	0	P
2	360.7700	-16.15	33.89	17.74	46.00	-28.26	peak	100	0	P
3	381.1400	-15.54	36.12	20.58	46.00	-25.42	peak	100	0	P
4	613.9400	-10.14	34.55	24.41	46.00	-21.59	peak	100	0	P
5	669.2300	-9.36	27.69	18.33	46.00	-27.67	peak	100	0	P
6	777.8700	-7.33	31.80	24.47	46.00	-21.53	peak	100	0	P

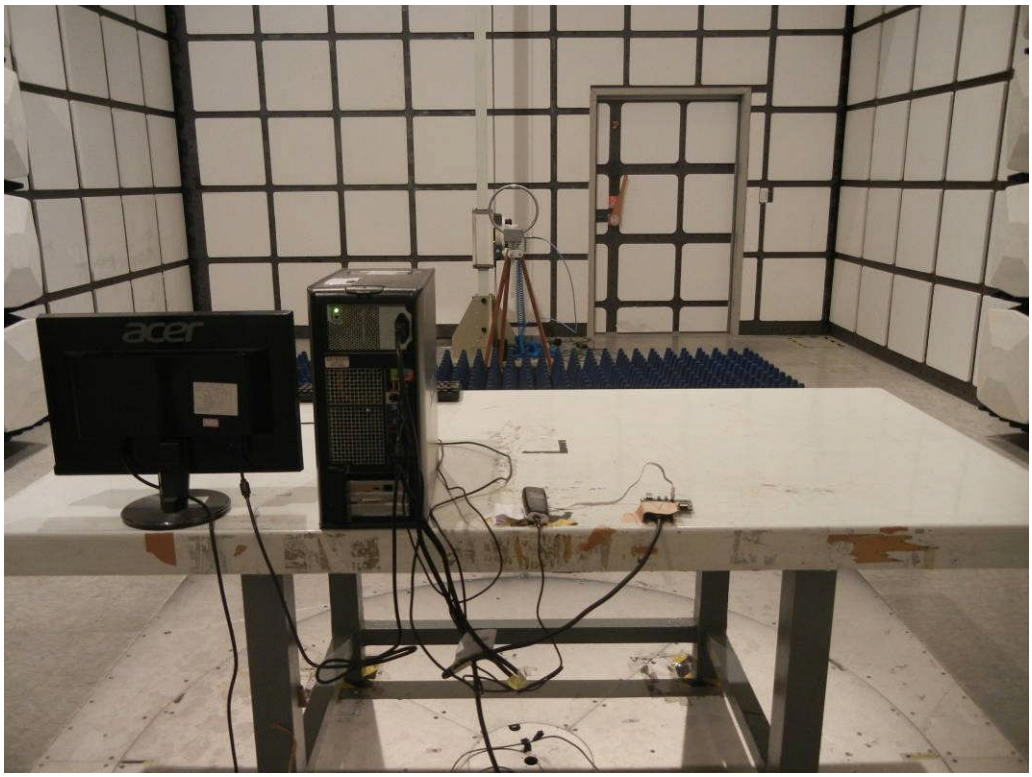
Note: Level = Reading + Factor
Margin = Level – Limit
Factor= Antenna Factor + Cable Loss - Amplifier Factor

4.6 Test Photographs

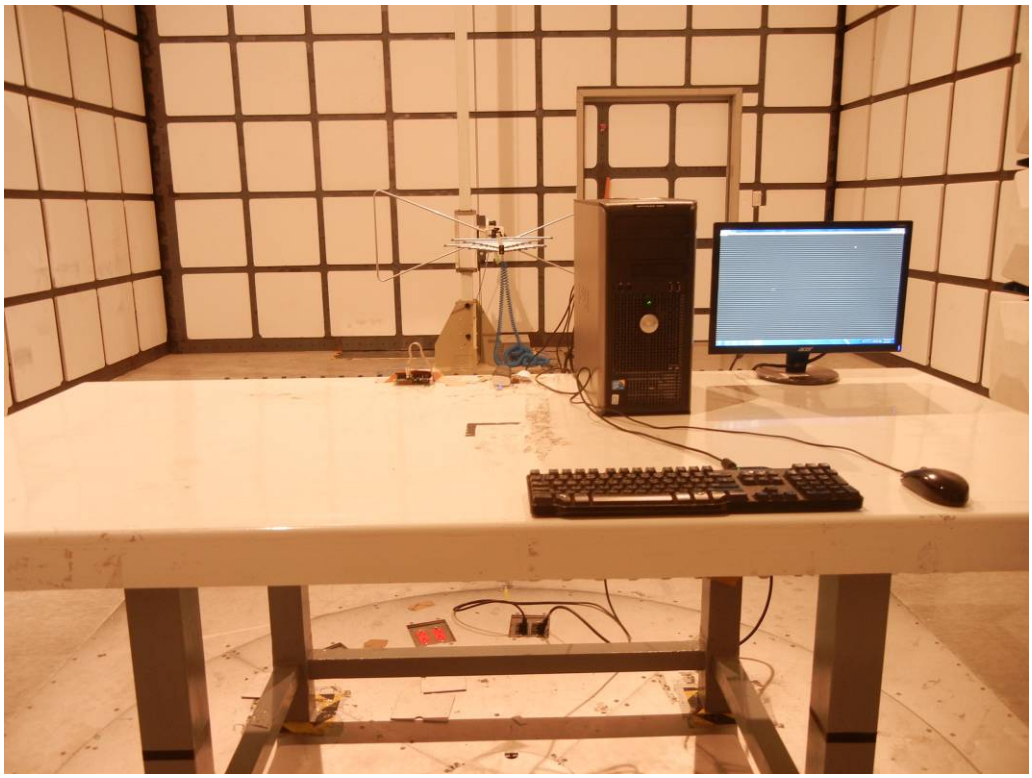
Front View



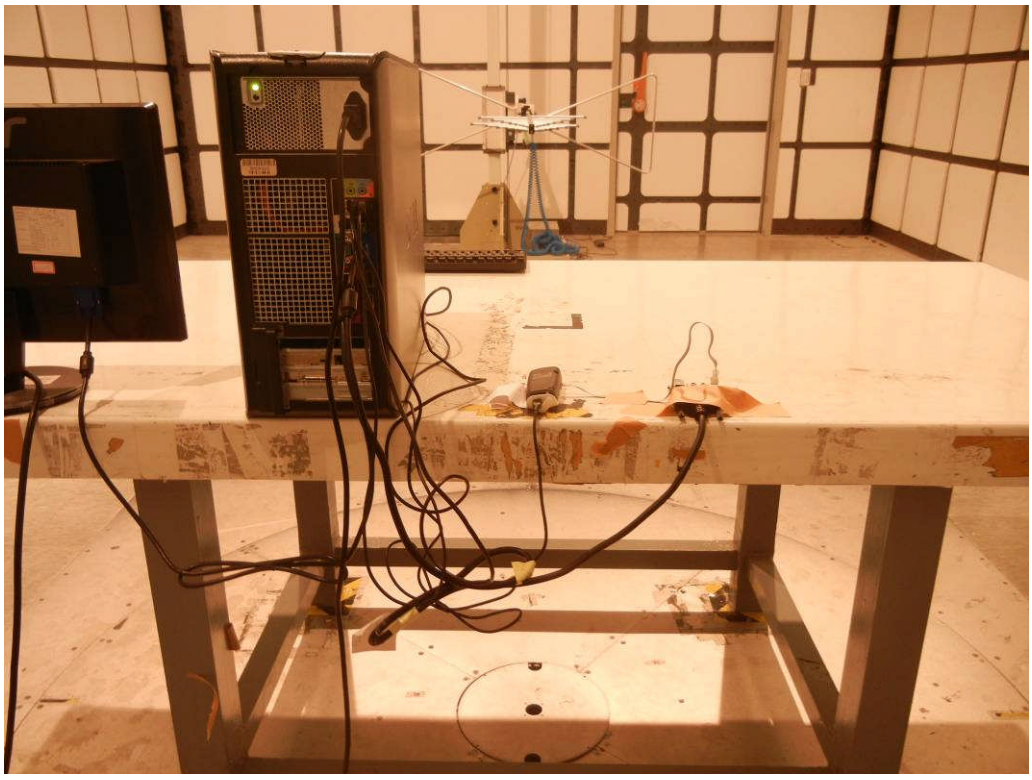
Rear View



Front View



Rear View



5. Frequency Stability

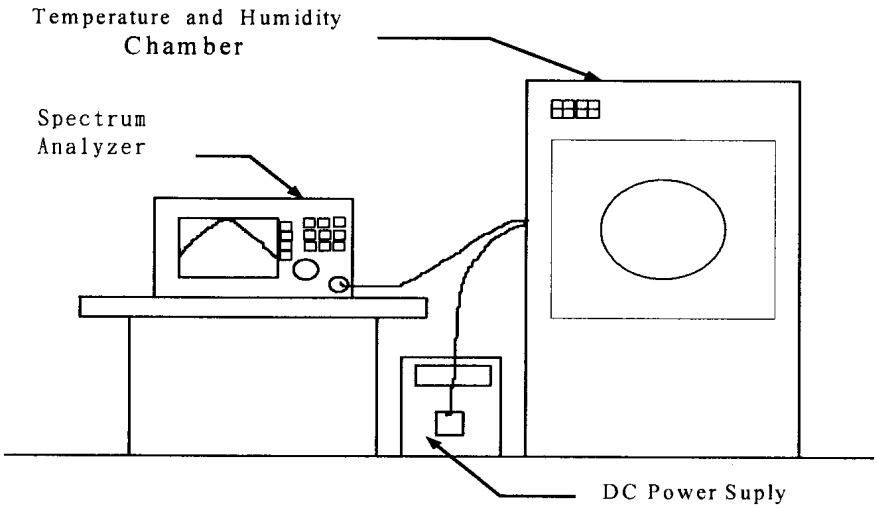
5.1 Test Limit

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of -20 °C to +50 °C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20°C. For battery operated equipment, the equipment tests shall be performed using a new battery.

5.2 Test Procedure

1. The EUT was placed inside the Temperature and Humidity chamber.
2. The transmitter output was connected to spectrum analyzer.
3. Turn the EUT on and couple its output to a spectrum analyzer.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
6. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
7. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

5.3 Test Setup Layout



5.4 Measurement equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100047	2014/03/27	2015/03/26
Temperature Chamber	TERCHY	MHK-120NK	1010407	2014/04/22	2015/04/21
DC Power Supply	GPD-3030	GM	7020936	N/A	N/A
AC Power Converter	AFC-11005	APC	F103120008	N/A	N/A

5.5 Test Result and Data

Operating frequency: 13.56 MHz					
Temperature (°C)	Power supply (V)	Observe Time	Read Frequency (MHz)	Tolerance (%)	Limit
70	120	Start	13.56119	0.008776	±0.01 %
		2 minute	13.56087	0.006416	±0.01 %
		5 minute	13.56099	0.007301	±0.01 %
		10 minute	13.56120	0.008850	±0.01 %
60	120	Start	13.56077	0.005678	±0.01 %
		2 minute	13.56124	0.009145	±0.01 %
		5 minute	13.56100	0.007375	±0.01 %
		10 minute	13.56119	0.008776	±0.01 %
50	120	Start	13.56120	0.008850	±0.01 %
		2 minute	13.56085	0.006268	±0.01 %
		5 minute	13.56079	0.005826	±0.01 %
		10 minute	13.56089	0.006563	±0.01 %
40	120	Start	13.56105	0.007743	±0.01 %
		2 minute	13.56088	0.006490	±0.01 %
		5 minute	13.56122	0.008997	±0.01 %
		10 minute	13.56074	0.005457	±0.01 %
30	120	Start	13.56119	0.008776	±0.01 %
		2 minute	13.56087	0.006416	±0.01 %
		5 minute	13.56133	0.009808	±0.01 %
		10 minute	13.56089	0.006563	±0.01 %
20	120	Start	13.56099	0.007301	±0.01 %
		2 minute	13.56120	0.008850	±0.01 %
		5 minute	13.56085	0.006268	±0.01 %
		10 minute	13.56079	0.005826	±0.01 %
20	102	Start	13.56089	0.006563	±0.01 %
		2 minute	13.56124	0.009145	±0.01 %
		5 minute	13.56122	0.008997	±0.01 %
		10 minute	13.56105	0.007743	±0.01 %
20	138	Start	13.56124	0.009145	±0.01 %
		2 minute	13.56100	0.007375	±0.01 %
		5 minute	13.56124	0.009145	±0.01 %
		10 minute	13.56100	0.007375	±0.01 %
10	120	Start	13.56089	0.006563	±0.01 %
		2 minute	13.56124	0.009145	±0.01 %
		5 minute	13.56133	0.009808	±0.01 %
		10 minute	13.56099	0.007301	±0.01 %
0	120	Start	13.56120	0.008850	±0.01 %
		2 minute	13.56085	0.006268	±0.01 %
		5 minute	13.56079	0.005826	±0.01 %
		10 minute	13.56077	0.005678	±0.01 %

6. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.250
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

**: Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

6.1 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.