

TEST REPORT

Applicant Name & : Foshan Shunde YA-IN Electric Appliance Manufacture Co., Ltd
Address : No. 8 Longxiao Road, Longyongkou, Ronggui Town, Shunde, Foshan
Guangdong 528305 China

Manufacturing Site : Same as applicant

Sample Description

Product	: Induction Cooktop
Model No.	: C74E-AAAA01, C74E-AABC01, C74E-ABBC01, C74E-BBCC01
Electrical Rating	: AC 240V~ 60Hz, 7400W
FCC ID	: ZFB-C74E-AABC

Date Received : 10 December 2015

Date Test Conducted : 10 December 2015-25 April 2016

Test standards : **FCC Part 18: 2014**

Test Result : Pass

Conclusion : The submitted samples complied with the above rules/standards.

Remark : None.

*****End of Page*****

Prepared and Checked By:



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Approved By:



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Intertek Guangzhou
11 May 2016 Date

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CONTENT

TEST REPORT	1
CONTENT	2
1 TEST RESULTS SUMMARY	3
2 TEST RESULTS CONCLUSION	4
3 LABORATORY MEASUREMENTS	5
4 TEST CONFIGURATION.....	6
5 TEST RESULTS	6
5.1 CONDUCTED EMISSION TEST	6
5.1.1 <i>Used Test Equipment</i>	6
5.1.2 <i>Block Diagram of Test Setup</i>	6
5.1.3 <i>Test Setup and Procedure</i>	7
5.1.4 <i>Test Data & Curve</i>	8
5.1.5 <i>Measurement Uncertainty</i>	14
5.2 RADIATED EMISSION(9KHZ - 30 MHz).....	14
5.2.1 <i>Used Test Equipment</i>	14
5.2.2 <i>Block Diagram of Test Setup</i>	14
5.2.3 <i>Test Setup and Procedure</i>	15
5.2.4 <i>Test Data & Curve</i>	16
5.2.5 <i>Measurement uncertainty</i>	22
5.3 RADIATED EMISSION (30 MHz- 1 GHz)	22
5.3.1 <i>Used Test Equipment</i>	22
5.3.2 <i>Block Diagram of Test Setup</i>	22
5.3.3 <i>Test Setup and Procedure</i>	23
5.3.4 <i>Test Data & Curve</i>	24
5.3.5 <i>Measurement uncertainty</i>	29

1**TEST RESULTS SUMMARY**

Test Item	Standard	Result
Conducted Emission (9 kHz-30 MHz)	FCC Part 18: 2014	Pass
Radiated Emission (9 kHz-30 MHz)	FCC Part 18: 2014	Pass
Radiated Emission (30 MHz-1 GHz)	FCC Part 18: 2014	Pass
Radiated Emission (above 1 GHz)	FCC Part 18: 2014	N/A

Remark: 1. The symbol “N/A” in above table means Not Applicable.

2. When determining the test results, measurement uncertainty of tests has been considered.

2**Test Results Conclusion**
(with Justification)

RE: EMC Testing Pursuant to FCC Part 18 performed on the Induction Cooktop, Models: C74E-AAAA01, C74E-AABC01, C74E-ABBC01 and C74E-BBCC01.

We tested the Induction Cooktop, Model: C74E-AABC01, to determine if it was in compliance with the relevant FCC rules as marked on the Test Results Summary. We found that the unit met the requirement of FCC Part 18 when tested as received. The worst case's test data was presented in this test report.

The submitted samples C74E-AAAA01, C74E-AABC01, C74E-ABBC01 and C74E-BBCC01 are Induction Hotplates for household use.

The power board and control board for the four models are exactly same, there're three burners called "A", "B", and "C" used in the four models, they are different size and power. The difference among the four models is the combination of the burner.

According to above information, all the tests are performed on C74E-AABC01.

Conclusion:

The sample as received complied with the FCC Part 18 requirement.

The production units are required to conform to the initial sample as received when the units are placed on the market.

3**LABORATORY MEASUREMENTS****Configuration Information****Equipment Under Test (EUT):** Induction Cooktop**Model:** C74E-AABC01**Serial No.:** Not Labeled**Support Equipment:** N/A**Rated Voltage:** AC 240V~ 60Hz,**Condition of Environment:** Temperature : 22~28°C
Relative Humidity: 35~60%
Atmosphere Pressure 86~106kPa**Notes:**

1. The EMI measurements had been made in the operating mode producing the largest emission in the frequency band being investigated consistent with normal applications.
An attempt had been made to maximize the emission by varying the configuration of the EUT.

2. Test Sites:

All of the tests are performed at:

Shenzhen EMTEK Co., Ltd.

Add: Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China.
This test facility and site measurement data have been fully placed on file with the FCC, test firm registration number is 406365.

4 Test Configuration

Cooking Vessel (provided by manufacturer):

Fill container with 80% of water.

Material: stainless steel

Contact surface diameter 18cm, Top surface diameter 23cm

The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Test the EUT in the lowest power level, middle level and the highest power level, the worst test data was presented in the report.

5 TEST RESULTS

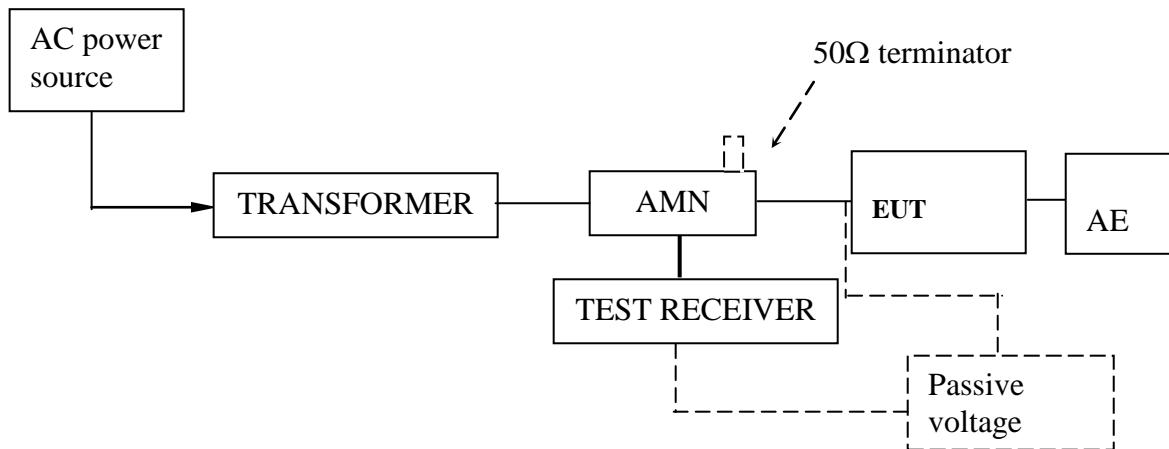
5.1 Conducted Emission Test

Test Result: Pass

5.1.1 Used Test Equipment

Equipment No.	Equipment	Model	Manufacturer	Last Cal.	Due Date
EE020	Test Receiver	ESCS30	Rohde & Schwarz	2015.5.17	2016.5.17
EE156	L.I.S.N.	NNLK8129	Schwarzbeck	2015.5.17	2016.5.17
EE020-3	50Ω Coaxial Switch	MP59B	Anritsu	2015.5.17	2016.5.17
EE020-1	Pulse Limiter	ESH3-Z2	Rohde & Schwarz	2015.5.17	2016.5.17

5.1.2 Block Diagram of Test Setup



5.1.3 Test Setup and Procedure

Test was performed according to FCC OST/ MP-5:1986. The EUT was set to achieve the maximum emission level. The mains terminal disturbance voltage was measured with the EUT in a shielded room. The EUT was connected to AC power source through an Artificial Mains Network which provides a 50Ω linear impedance Artificial hand is used if appropriate (for handheld apparatus). The load/control terminal disturbance voltage was measured with passive voltage probe if appropriate.

The table-top EUT was placed on a 0.8m high non-metallic table above earthed ground plane(Ground Reference Plane).And for floor standing EUT, was placed on a 0.1m high non-metallic supported on GRP. The EUT keeps a distance of at least 0.8m from any other of the metallic surface. The Artificial Mains Network is situated at a distance of 0.8m from the EUT.

During the test, mains lead of EUT excess 0.8m was folded back and forth parallel to the lead so as to form a horizontal bundle with a length between 0.3m and 0.4m.

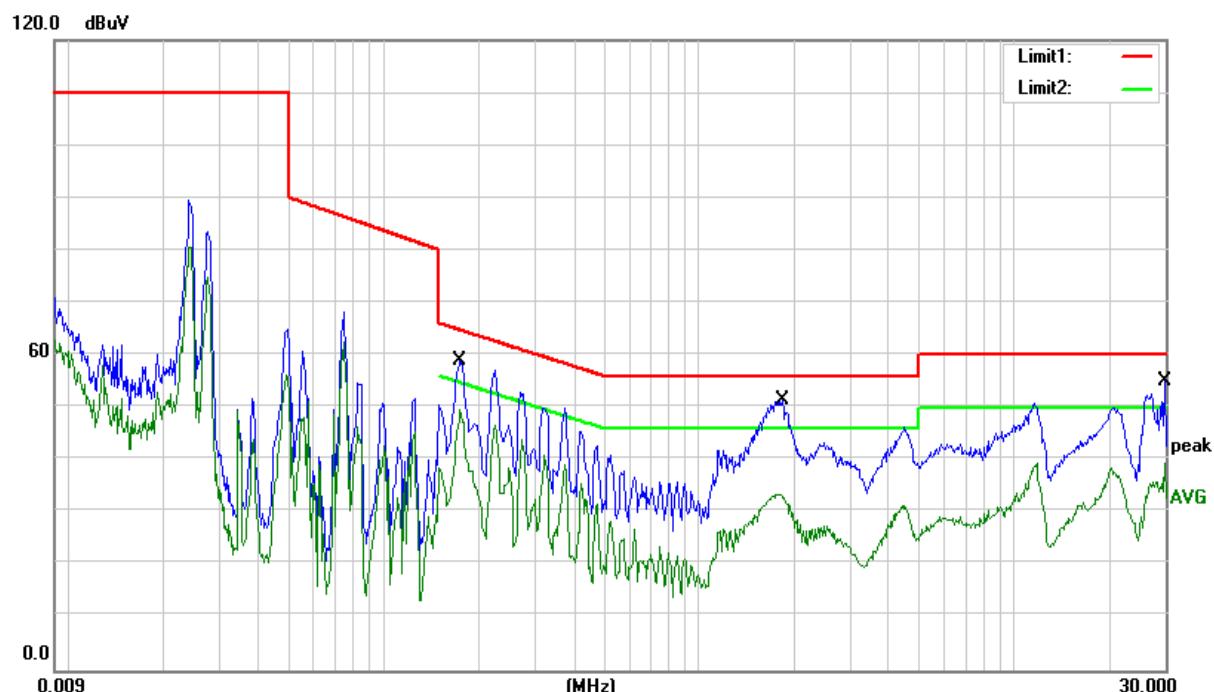
The bandwidth of test receiver was set at 9 kHz. The frequency range from 9 kHz to 30MHz was checked.

5.1.4 Test Data & Curve

At main terminal: Pass

Tested Wire: Live

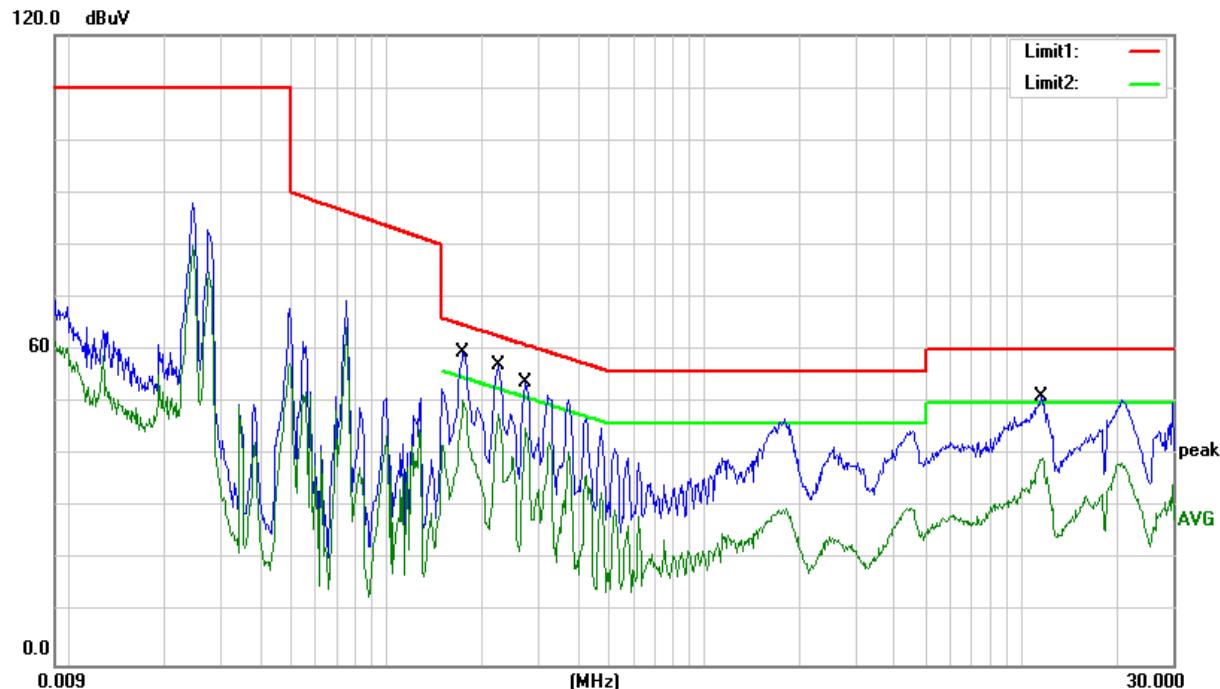
Operation Mode: the highest power



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1740	47.58	9.62	57.20	64.77	-7.57	QP	
2	*	0.1740	39.94	9.62	49.56	54.77	-5.21	AVG	
3		1.8300	35.35	9.85	45.20	56.00	-10.80	QP	
4		29.7820	34.04	15.96	50.00	60.00	-10.00	QP	
5		29.7820	23.51	15.96	39.47	50.00	-10.53	AVG	

Tested Wire: Neutral

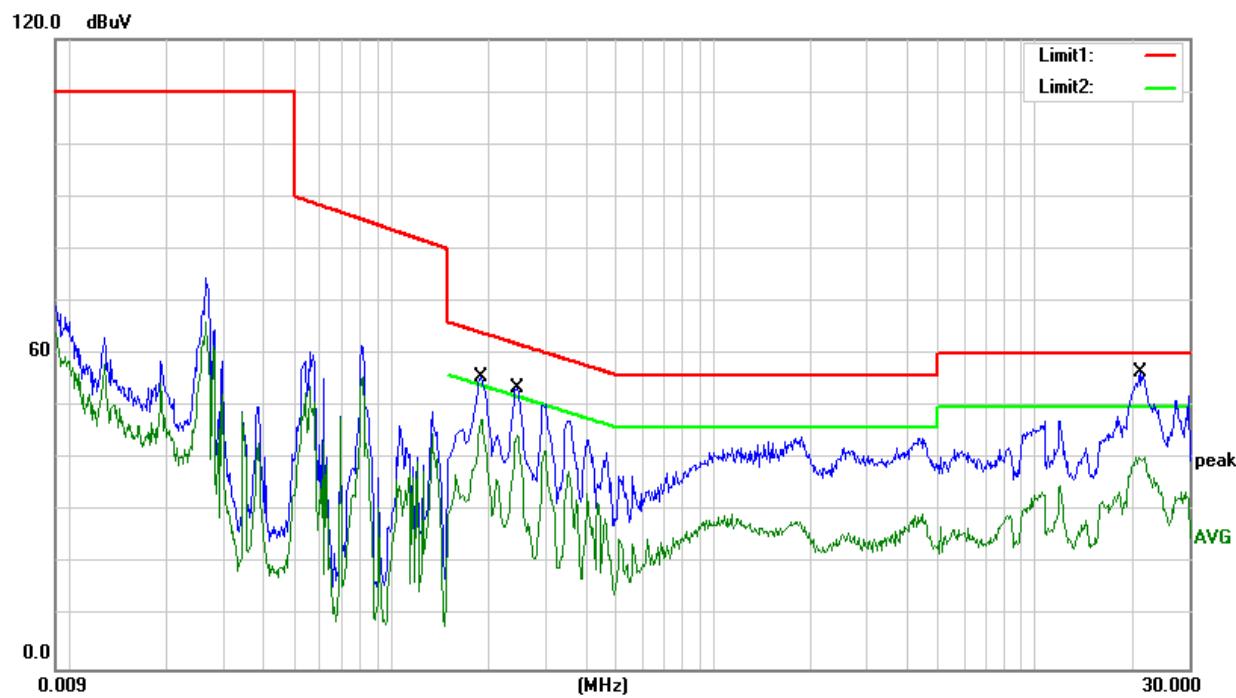
Operation Mode: the highest power



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		0.1740	47.68	9.62	57.30	64.77	-7.47	QP	
2	*	0.1740	40.89	9.62	50.51	54.77	-4.26	AVG	
3		0.2260	44.66	9.64	54.30	62.60	-8.30	QP	
4		0.2260	38.16	9.64	47.80	52.60	-4.80	AVG	
5		0.2740	41.95	9.65	51.60	61.00	-9.40	QP	
6		0.2740	35.65	9.65	45.30	51.00	-5.70	AVG	
7		11.6100	33.18	12.32	45.50	60.00	-14.50	QP	
8		11.6420	27.04	12.33	39.37	50.00	-10.63	AVG	

Tested Wire: Live

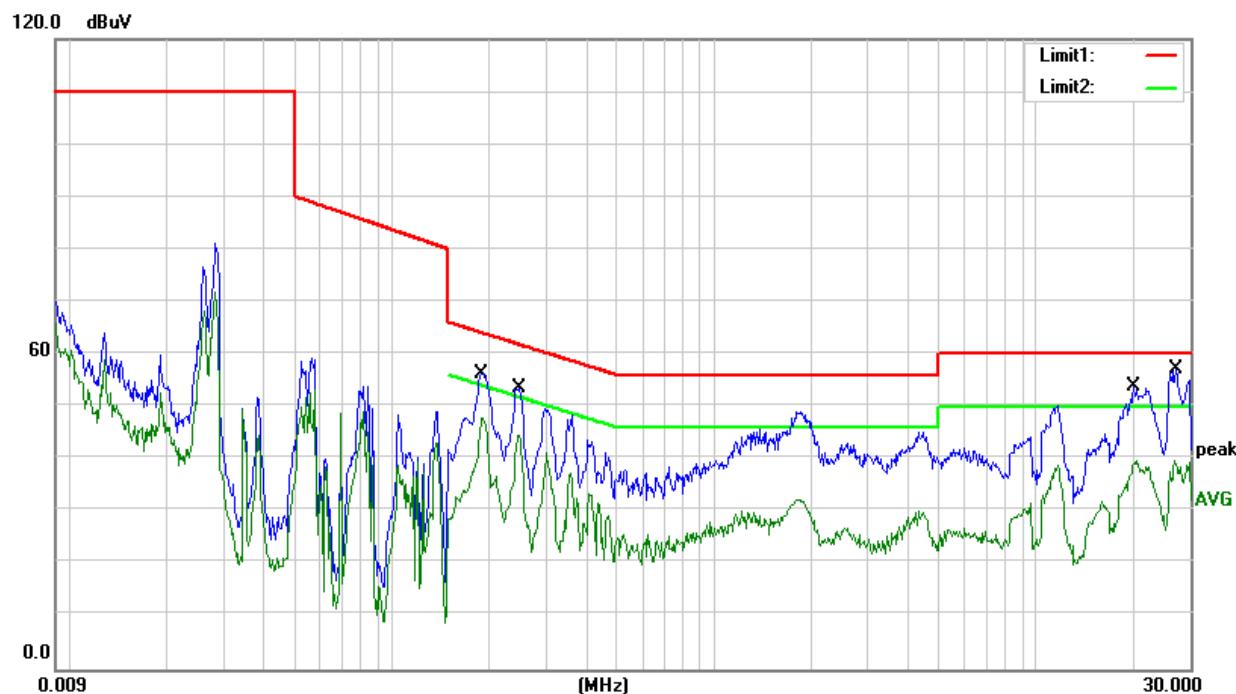
Operation Mode: Middle power



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1900	46.07	9.63	55.70	64.04	-8.34	QP	
2	*	0.1900	37.97	9.63	47.60	54.04	-6.44	AVG	
3		0.2460	43.80	9.64	53.44	61.89	-8.45	QP	
4		0.2460	34.81	9.64	44.45	51.89	-7.44	AVG	
5		20.8980	26.20	14.18	40.38	50.00	-9.62	AVG	
6		21.0900	32.98	14.22	47.20	60.00	-12.80	QP	

Tested Wire: Neutral

Operation Mode: Middle power



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dB	Over	Detector	Comment
1		0.1900	44.07	9.63	53.70	54.04	-10.34	QP	
2	*	0.1900	38.34	9.63	47.97	54.04	-6.07	AVG	
3		0.2460	34.94	9.64	44.58	51.89	-7.31	AVG	
4		20.1540	33.47	14.03	47.50	60.00	-12.50	QP	
5		27.1820	32.56	15.44	48.00	60.00	-12.00	QP	

Tested Wire: Live

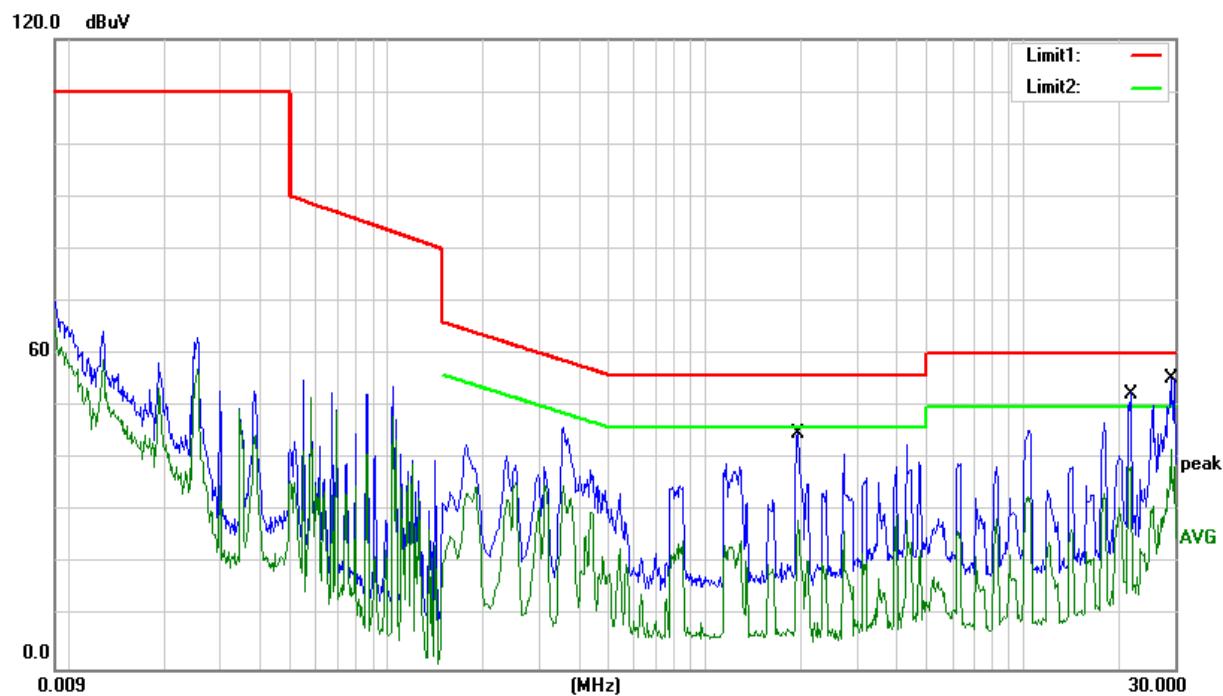
Operation Mode: the lowest power



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1780	47.01	9.63	56.64	64.58	-7.94	QP	
2	*	0.1780	41.22	9.63	50.85	54.58	-3.73	AVG	
3		0.2460	36.13	9.64	45.77	51.89	-6.12	AVG	
4		0.2500	42.69	9.65	52.34	61.76	-9.42	QP	
5		20.2700	38.64	14.05	52.69	60.00	-7.31	QP	
6		20.2700	26.49	14.05	40.54	50.00	-9.46	AVG	
7		24.0300	33.43	14.81	48.24	60.00	-11.76	QP	
8		24.0300	23.36	14.81	38.17	50.00	-11.83	AVG	

Tested Wire: Neutral

Operation Mode: the lowest power



No.	Mk.	Freq. MHz	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level dBuV	Factor dB	ment dBuV				
1		1.9500	35.03	9.85	44.88	56.00	-11.12	QP	
2		1.9500	18.47	9.85	28.32	46.00	-17.68	AVG	
3		21.5100	24.34	14.30	38.64	50.00	-11.36	AVG	
4		29.0460	29.69	15.81	45.50	60.00	-14.50	QP	
5	*	29.0460	26.07	15.81	41.88	50.00	-8.12	AVG	

5.1.5 Measurement Uncertainty

Uncertainty: 2.61 dB for frequency rang 9 kHz-150 kHz and 2.58 dB for frequency rang 150 kHz-30 MHz at a level of confidence of 95%.

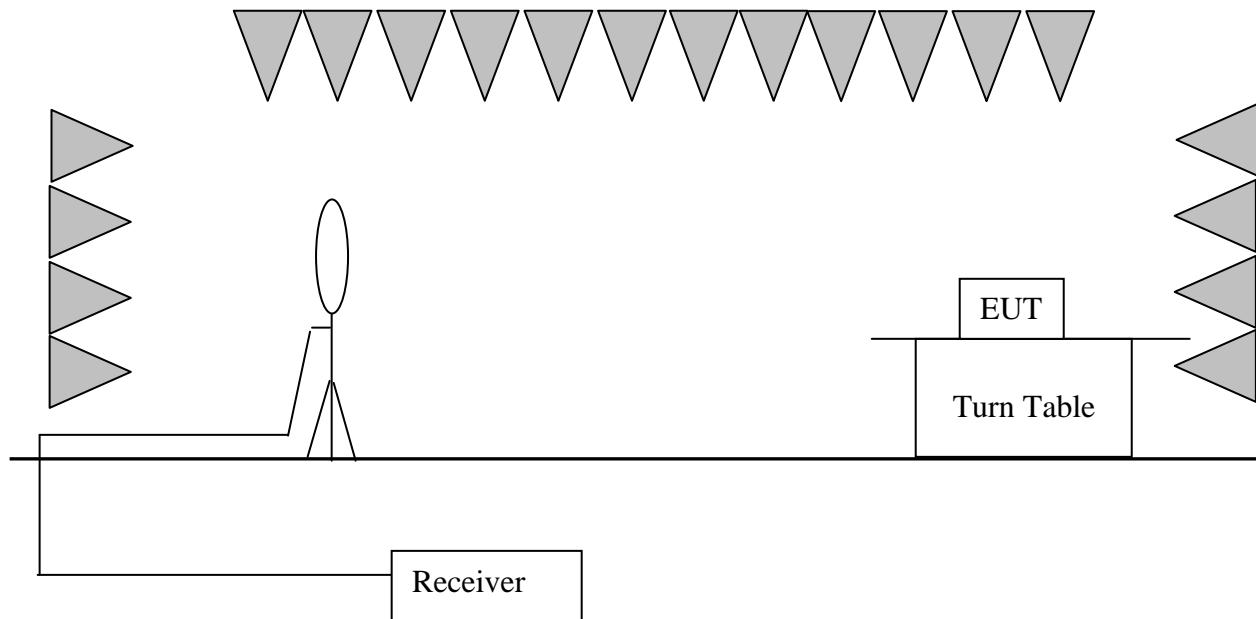
5.2 Radiated Emission(9kHz - 30 MHz)

Test Result: PASS

5.2.1 Used Test Equipment

Equipment No.	Equipment	Model	Manufacturer	Last Cal.	Due Date
EE226	EMI Test Receiver	ESR3	Rohde & Schwarz	2015.5.17	2016.5.17
EE249	EMI Test Receiver	ESR3	Rohde & Schwarz	2015.5.17	2016.5.17
1029	Loop Antenna	ARA	PLA-1030/B	2015.5.29	2016.5.29

5.2.2 Block Diagram of Test Setup



5.2.3 Test Setup and Procedure

The measurement was applied in a semi-anechoic chamber. The EUT were placed on a 1 m high wooden turntable above the horizontal metal ground plane. The turn table rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on an antenna tripod.

Loop antenna was used as receiving antenna. The antenna was supported in the vertical plane and was rotatable about a vertical axis to obtain the maximum emission. The antenna height of was set at 2 m above ground level.

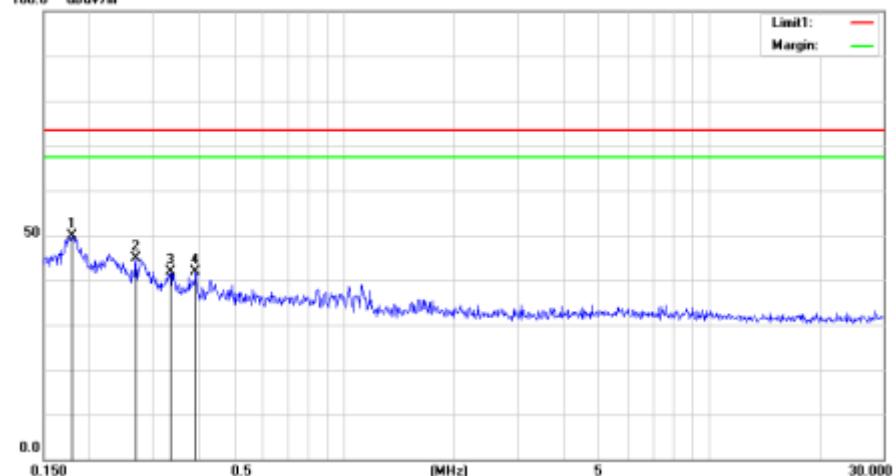
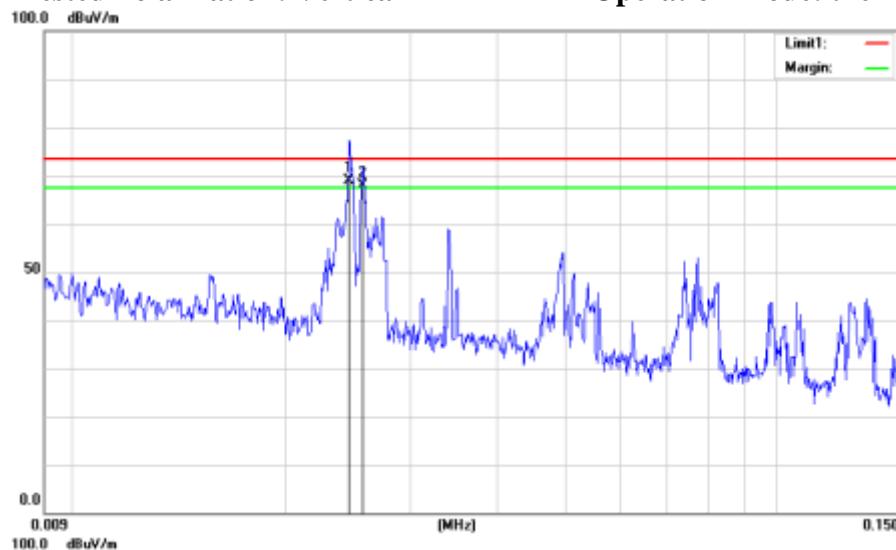
The bandwidth setting on Receiver was 9 kHz. The frequency range from 9 kHz to 30MHz was checked.

An initial pre-scan was performed in the 10m chamber using the spectrum analyzer in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by a 0.6m loop antenna.

5.2.4 Test Data & Curve

Tested Polarization: Vertical

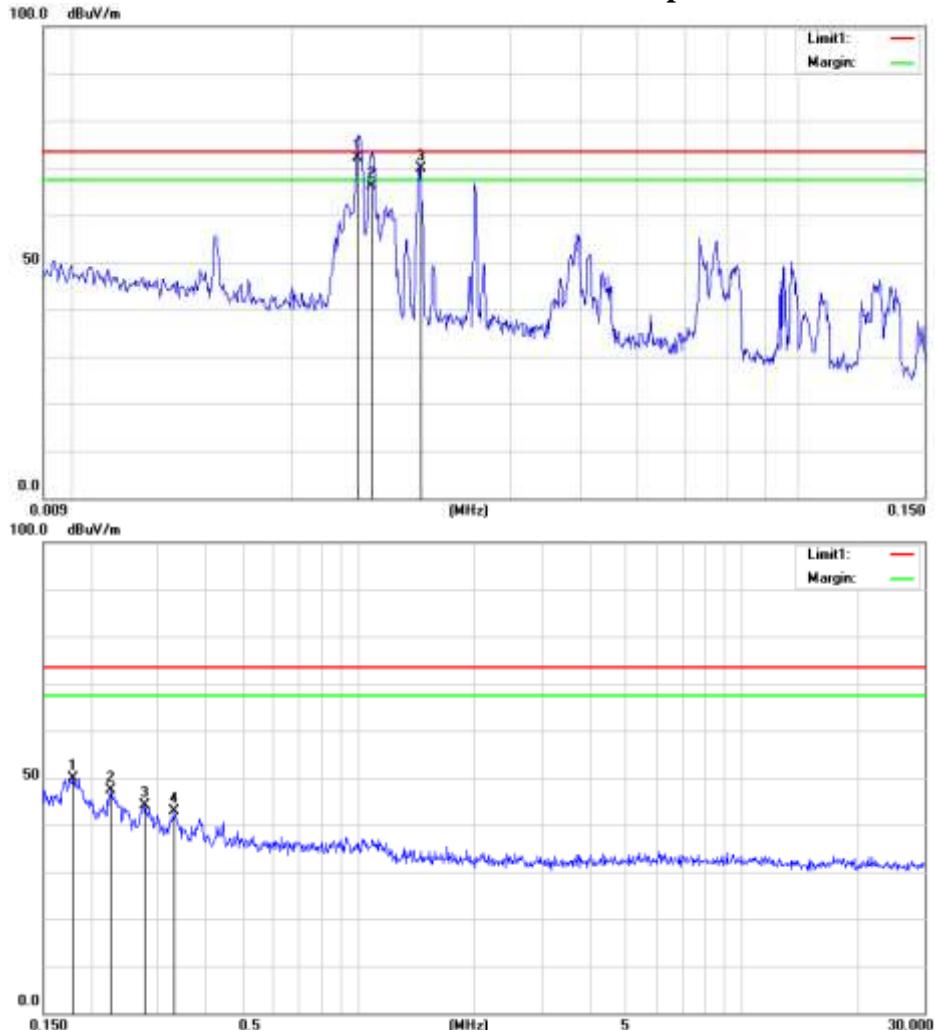
Operation Mode: the highest power



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	0.0246	47.99	20.91	68.90	73.50	-4.60	AVG
2		0.0257	47.08	20.92	68.00	73.50	-5.50	AVG
<hr/>								
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	0.1796	28.50	21.30	49.80	73.50	-23.70	AVG
2		0.2686	23.38	21.44	44.82	73.50	-28.68	AVG
3		0.3338	20.49	21.43	41.92	73.50	-31.58	AVG
4		0.3914	20.38	21.41	41.79	73.50	-31.71	AVG

Tested Polarization: Horizontal

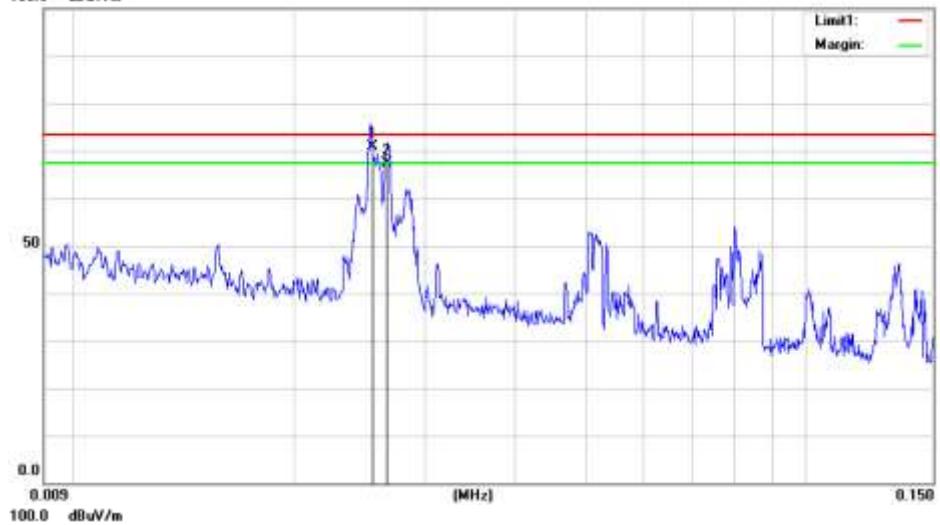
Operation Mode: the highest power



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	*	0.0246	51.19	20.91	72.10	73.50	-1.40
2		0.0257	45.18	20.92	66.10	73.50	-7.40
3		0.0300	48.79	21.01	69.80	73.50	-3.70
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	*	0.1796	28.60	21.30	49.90	73.50	-23.60
2		0.2256	26.02	21.40	47.42	73.50	-26.08
3		0.2760	22.67	21.44	44.11	73.50	-29.39
4		0.3303	21.50	21.43	42.93	73.50	-30.57

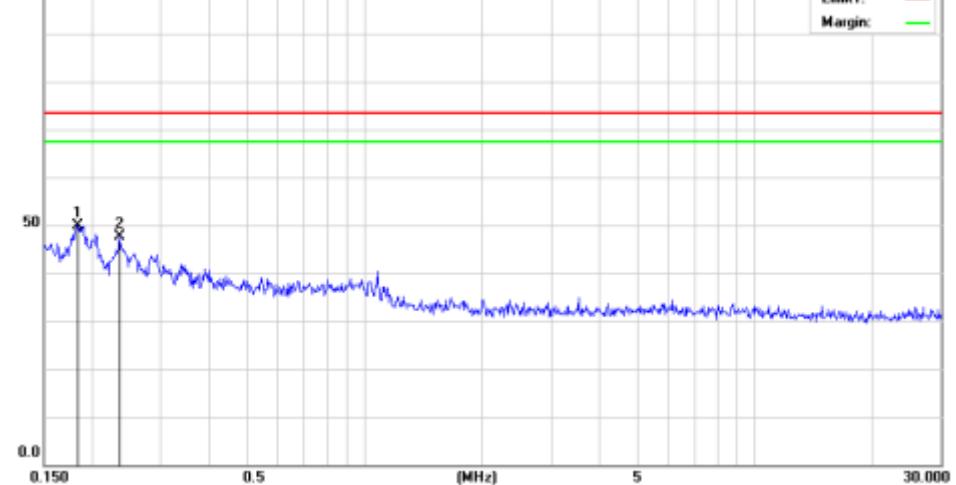
Tested Polarization: Vertical

100.0 dBuV/m



Operation Mode: Middle power

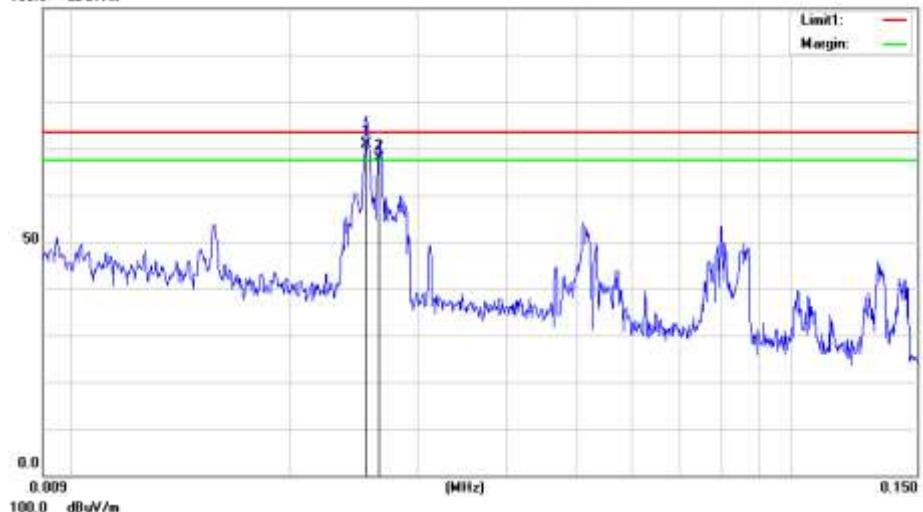
100.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
MHz dBuV dB dBuV/m dB dB Detector								
1	*	0.0253	49.88	20.92	70.80	73.50	-2.70	AVG
2		0.0267	46.56	20.94	67.50	73.50	-6.00	AVG
MHz dBuV dB dBuV/m dB dB Detector								
1	*	0.1835	28.69	21.31	50.00	73.50	-23.50	AVG
2		0.2341	26.33	21.42	47.75	73.50	-25.75	AVG

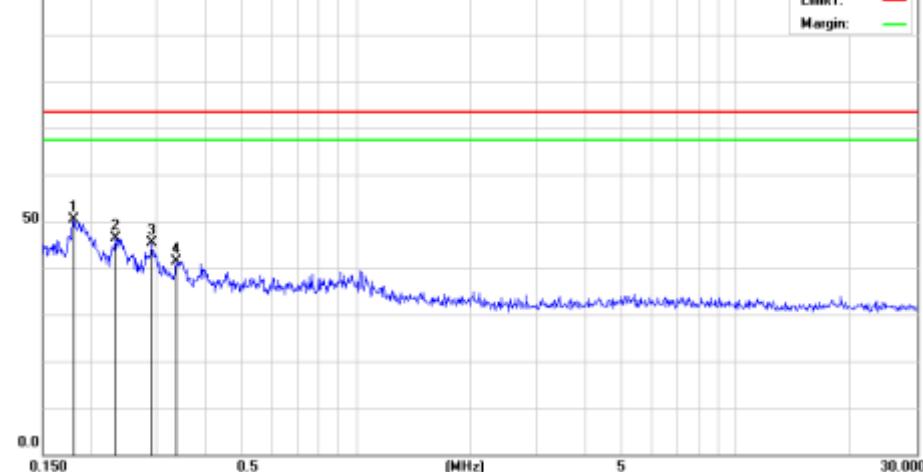
Tested Polarization: Horizontal

100.0 dBuV/m



Operation Mode: Middle power

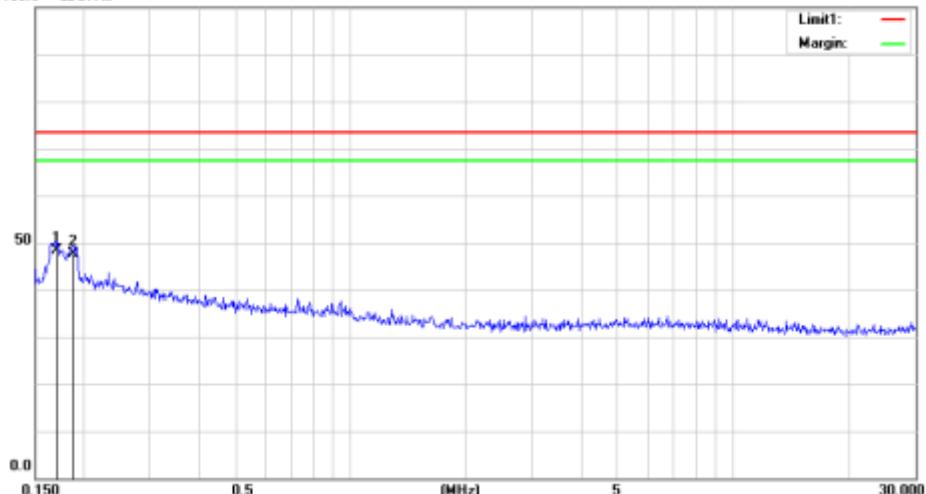
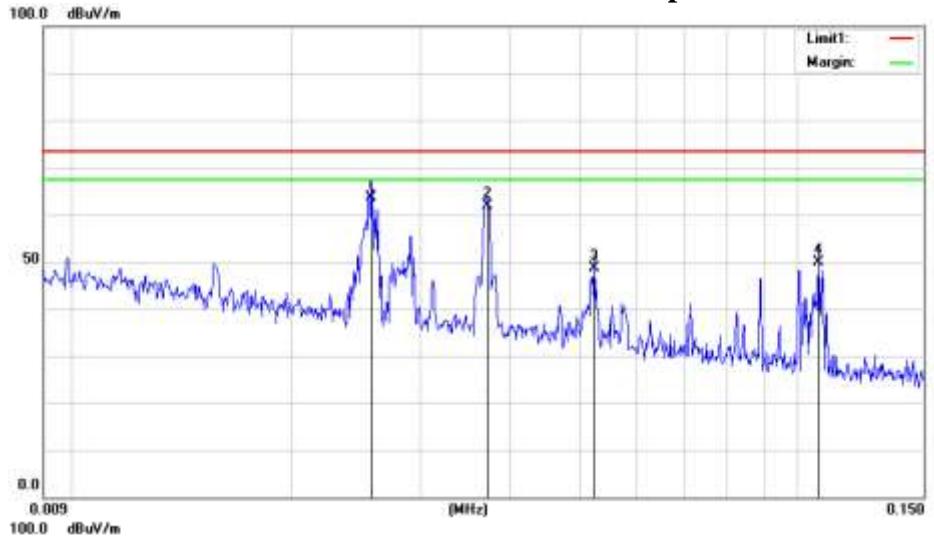
100.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
MHz dBuV dB dBuV/m dBuV/m dB Detector								
1	*	0.0253	50.08	20.92	71.00	73.50	-2.50	AVG
2		0.0265	46.86	20.94	67.80	73.50	-5.70	AVG
MHz dBuV dB dBuV/m dBuV/m dB Detector								
1	*	0.1806	29.02	21.30	50.32	73.50	-23.18	AVG
2		0.2330	25.00	21.42	46.42	73.50	-27.08	AVG
3		0.2910	23.87	21.44	45.31	73.50	-28.19	AVG
4		0.3356	19.95	21.43	41.38	73.50	-32.12	AVG

Tested Polarization: Vertical

Operation Mode: the lowest power

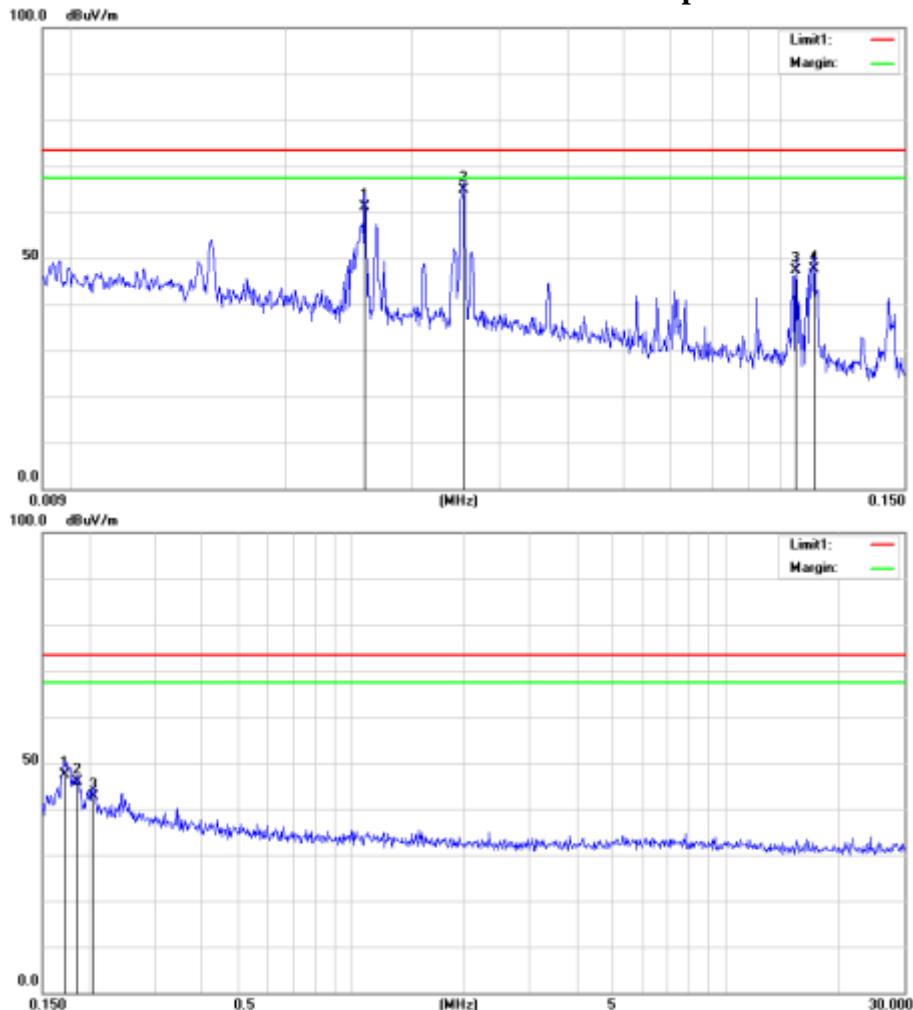


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
MHz dBuV dB dBuV/m dBuV/m dB Detector								
1	*	0.0257	42.78	20.92	63.70	73.50	-9.80	AVG
2		0.0372	40.76	21.14	61.90	73.50	-11.60	AVG
3		0.0524	27.31	21.29	48.60	73.50	-24.90	AVG
4		0.1073	28.73	21.17	49.90	73.50	-23.60	AVG

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
MHz dBuV dB dBuV/m dBuV/m dB Detector								
1	*	0.1712	27.02	21.28	48.30	73.50	-25.20	AVG
2		0.1884	26.38	21.32	47.70	73.50	-25.80	AVG

Tested Polarization: Horizontal

Operation Mode: the lowest power



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over
			Level	Factor	ment		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1		0.0258	40.17	20.93	61.10	73.50	-12.40
2	*	0.0355	43.69	21.11	64.80	73.50	-8.70
3		0.1052	26.14	21.16	47.30	73.50	-26.20
4		0.1116	26.43	21.17	47.60	73.50	-25.90

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over
			Level	Factor	ment		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	*	0.1722	26.22	21.28	47.50	73.50	-26.00
2		0.1853	24.59	21.31	45.90	73.50	-27.60
3		0.2050	21.34	21.36	42.70	73.50	-30.80

5.2.5 Measurement uncertainty

The measurement uncertainty for magnetic field radiated emission test is under consideration.

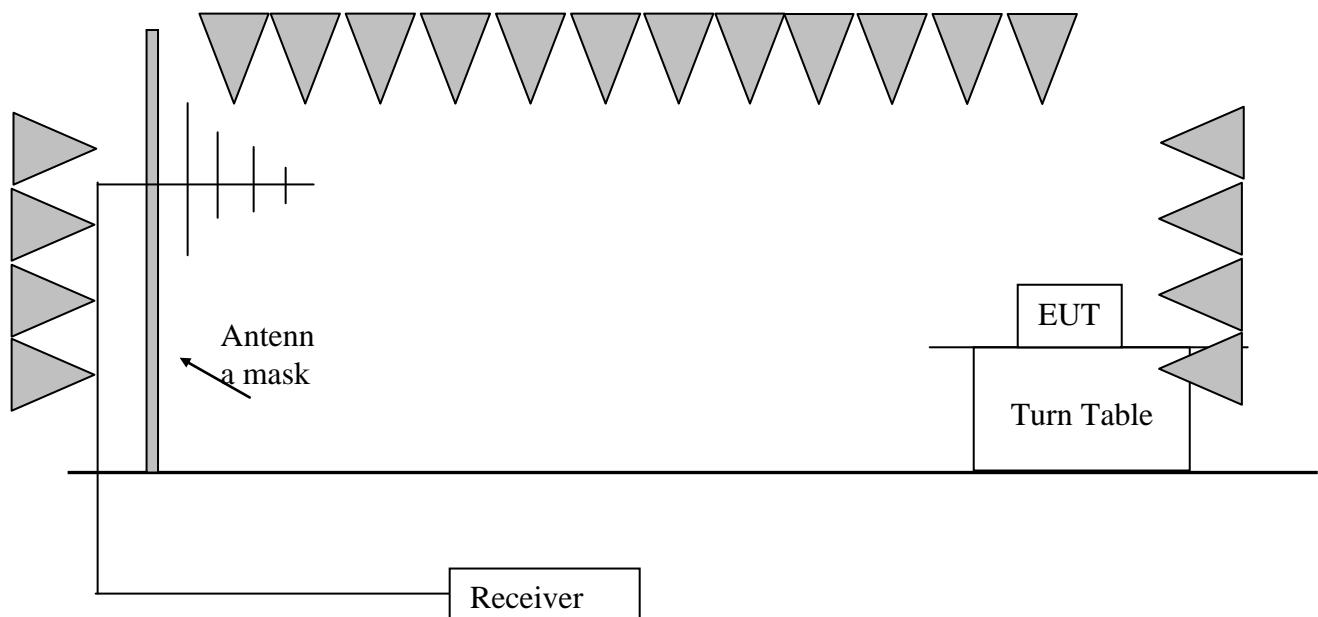
5.3 Radiated Emission (30 MHz- 1 GHz)

Test Result: Pass

5.3.1 Used Test Equipment

Equip. No.	Equipment	Model	Manufacturer	Last Cal.	Due Date
EE226	EMI Test Receiver	ESR3	Rohde & Schwarz	2015.5.17	2016.5.17
EE249	EMI Test Receiver	ESR3	Rohde & Schwarz	2015.5.17	2016.5.17
EE264	Pre-Amplifier	LNA10M1G-40	Lunar EM	2015.5.29	2016.5.29
EE263	Pre-Amplifier	LNA10M1G-40	Lunar EM	2015.5.17	2016.5.17
EE231	Bilog Antenna	VULB9163	Schwarzbeck	2015.5.29	2016.5.29
EE246	Bilog Antenna	VULB9163	Schwarzbeck	2015.5.17	2016.5.17

5.3.2 Block Diagram of Test Setup



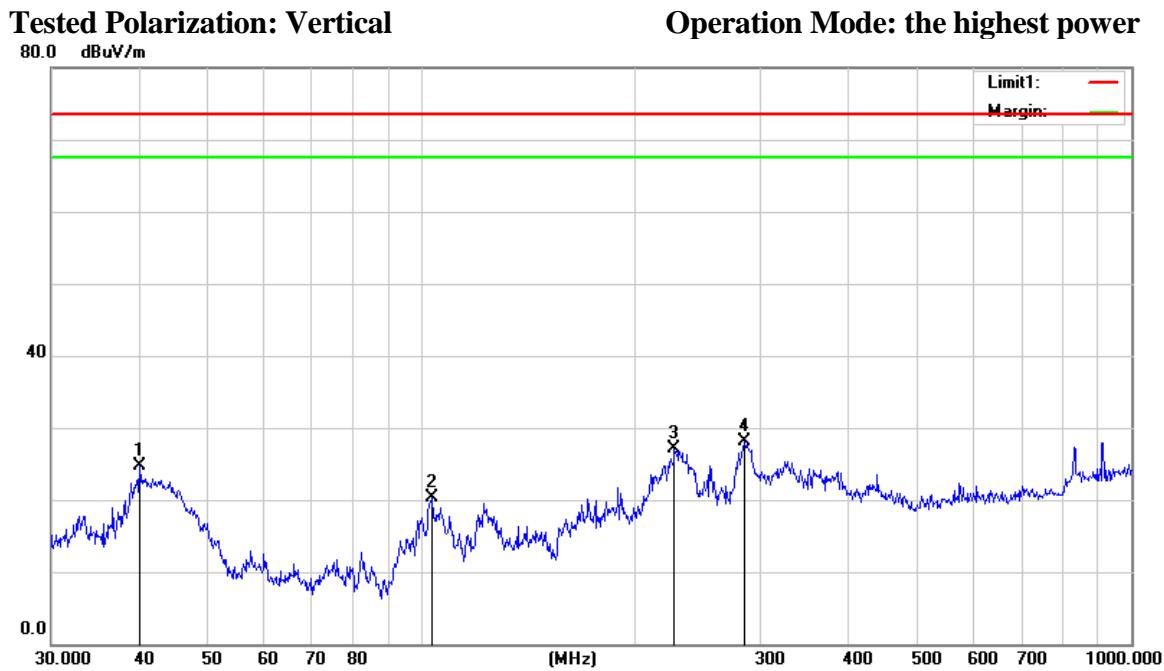
5.3.3 Test Setup and Procedure

The measurement was applied in a 3 m semi-anechoic chamber. The EUT and simulators were placed on a 1 m high wooden turntable above the horizontal metal ground plane. The turn table rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on an antenna mask. The antenna moved up and down between from 1meter to 4 meters to find out the maximum emission level.

Broadband antenna was used as receiving antenna. Both horizontal and vertical polarization of the antenna was set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to FCC OST/ MP-5:1986 requirement during radiated test. The bandwidth setting on Test Receiver was 120 kHz. The frequency range from 30 MHz to 1 GHz was checked.

An initial pre-scan was performed in the 10m chamber using the spectrum analyzer in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph.

5.3.4 Test Data & Curve



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over
		MHz	dBuV	dB	dBuV/m	dB	Detector
1		39.9942	54.49	-29.85	24.64	73.50	-48.86
2		103.0800	51.07	-30.82	20.25	73.50	-53.25
3		226.8936	56.73	-29.55	27.18	73.50	-46.32
4	*	284.9767	55.39	-27.25	28.14	73.50	-45.36

Tested Polarization: Horizontal

Operation Mode: the highest power



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over
		MHz	dBuV	dB	dBuV/m	dB	Detector
1		39.5757	61.35	-29.88	31.47	73.50	-42.03
2	*	46.0164	60.81	-29.17	31.64	73.50	-41.86
3		106.7587	54.70	-30.19	24.51	73.50	-48.99
4		218.3085	50.23	-28.76	21.47	73.50	-52.03

Tested Polarization: Vertical

80.0 dBuV/m



Operation Mode: Middle power

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over Detector
1		43.3534	73.61	-29.50	44.11	73.50	-29.39
2		124.1330	76.25	-33.18	43.07	73.50	-30.43
3	*	169.5990	80.18	-32.92	47.26	73.50	-26.24
4		543.2742	56.26	-20.36	35.90	73.50	-37.60

Tested Polarization: Horizontal

80.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	*	46.5030	71.74	-29.11	42.63	73.50	-30.87
2		106.0126	67.75	-30.20	37.55	73.50	-35.95
3		203.5228	66.91	-29.10	37.81	73.50	-35.69

Tested Polarization: Vertical

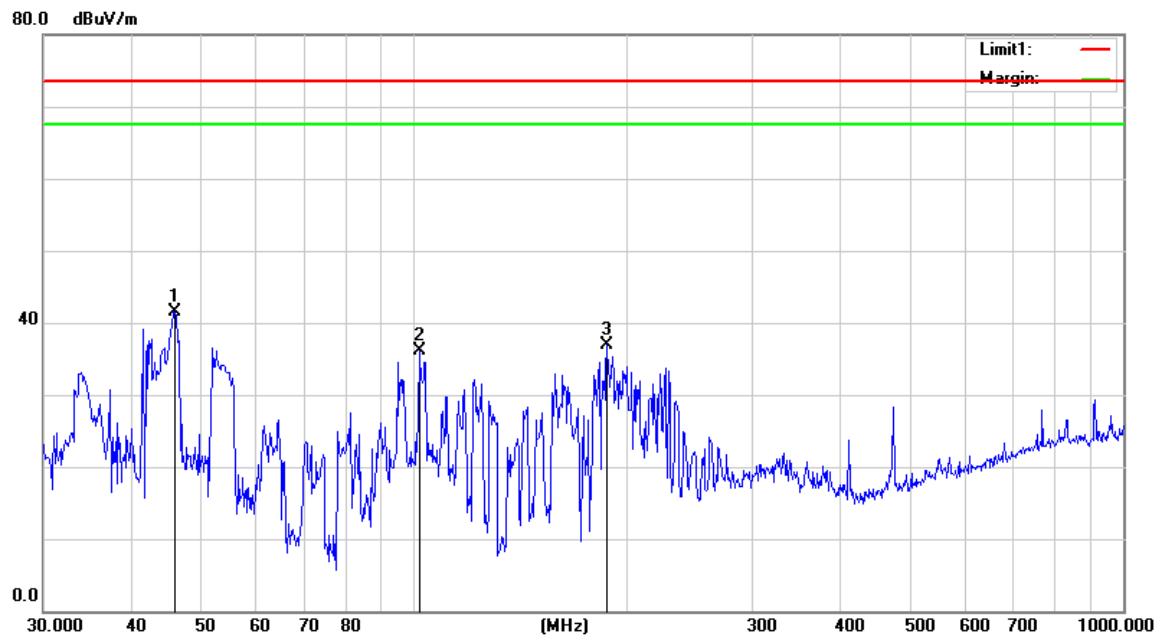
80.0 dBuV/m



No.	Mk.	Freq. MHz	Reading dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		47.1600	71.24	-29.11	42.13	73.50	-31.37	AVG
2		124.5690	73.97	-33.23	40.74	73.50	-32.76	AVG
3	*	178.7584	78.58	-32.51	46.07	73.50	-27.43	AVG
4		550.9480	52.30	-20.11	32.19	73.50	-41.31	AVG

Tested Polarization: Horizontal

Operation Mode: the lowest power



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
			Level	Factor	ment			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	46.0164	70.69	-29.17	41.52	73.50	-31.98	AVG
2		101.6443	66.40	-30.27	36.13	73.50	-37.37	AVG
3		187.0958	67.93	-31.07	36.86	73.50	-36.64	AVG

5.3.5 Measurement uncertainty

Uncertainty: 4.87 dB in the frequency range of 30-1000 MHz at a level of confidence of 95%