



**SGS-CSTC Standards
Technical Services
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Report No.: SHEM120900130502
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TEST REPORT

Application No. : SHEM1209001305RF
Applicant: Kohler Co.
FCC ID: N82-KOHLER009
IC ID: 4554A-KOHLER009
Fundamental Frequency : 10.525GHz
Equipment Under Test (EUT):
Product Name: Numi upgrade Integrated toilet with bidet functionality
Model: K-3901
Brand Name: Kohler
Standards: FCC PART 15 SUBPART C, Section 15.245
RSS-210 Issue 8 (December 2010)
RSS-Gen Issue 3 (December 2010)
Date of Receipt: October 23, 2012
Date of Test: October 29, 2012 to February 05, 2013
Date of Issue: February 16, 2013
Test Result : **PASS ***

* In the configuration tested, the EUT complied with the standards specified above.

E&E Section Head
SGS-CSTC(Shanghai) Co., Ltd.

E&E EMC Engineer
SGS-CSTC(Shanghai) Co., Ltd.

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2 Test Summary

The customer requested FCC tests for 10.525GHz.			
Test	Test Requirement	Test Method	Result
Field strength of emissions from intentional radiators	FCC PART 15.245(b) RSS-210 issue 8	ANSI C 63.10: 2009 RSS-210 Annex 7	PASS
Field strength of emissions from harmonic & non-harmonic emission	FCC PART 15.245(b) & 15.209 RSS-210 Issue 8 RSS-Gen Issue 3	ANSI C 63.10: 2009 RSS-210 Annex 7 RSS-Gen table 2	PASS
Band Edges Measurement	Section 15.245 (b)(3) &15.205 RSS-Gen Issue 3 Clause 7.2.2	ANSI C63.10 (2009) RSS-Gen issue 3	PASS
Intentional Emission Band Occupancy	FCC PART 15.215(c) RSS-210 issue 8	ANSI C 63.10: 2009 RSS-Gen issue 3 Clause 4.6.1	PASS
AC Power Line Conducted Emission	FCC PART 15.207 RSS-Gen issue 3	ANSI C 63.10: 2009 RSS-Gen Table 4	PASS



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4 General Information

4.1 Client Information

Applicant : Kohler Co.
Applicant Address: 444 Highland Drive Kohler, WI 53044
Manufacturer: Shanghai KOHLER Electronics., Ltd.
Manufacturer Address: Building E, 18 Jindian Road, Pudong New Area, 201206 Shanghai, China

4.2 Details of E.U.T.

Name: Numi upgrade Integrated toilet with bidet functionality
Model No.: K-3901
Power Supply: 120VAC 60Hz
Power Cord: About 1.5m
Frequency Range 10.525GHz
Function Description: field disturbance sensors
Antenna of Wireless Integral
Detector Model: MC420S
Operating Frequency Band: 10.525GHz
Gain:8.0dBi
Remark: The EUT (Model No. K-3901) includes the following three wireless modules:
a, 2.4 GHz Zigbee communication module;
b, 10.525 GHz microwave detection module;
c, 2.4 GHz Bluetooth communication module.
The report is only covered 10.525 GHz microwave detection module.

4.3 Description of Support Units

None.

4.4 Test Location

Tests were performed at:
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
No.588 West Jindu Road, Songjiang District, Shanghai, China. 201612.
Tel: +86 21 6191 5666 Fax: +86 21 6191 5655



4.5 Other Information Requested by the Customer

None.

4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing. Date of expiry: 2014-07-26.

- **FCC – Registration No.: 402683**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files. Registration No.: 402683, Expiry Date: 2015-02-22.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A. Expiry Date: 2014-09-20.

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-3868 and C-4336 respectively. Date of Registration: 2012-05-29. Date of Expiry: 2015-05-28.



5 Test Results

5.1 Test Instruments

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due date
1	EMI test receiver	Rohde & Schwarz	ESU40	100109	2012-06-03	2013-06-01
2	Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-679	2012-06-03	2013-06-01
3	Horn Antenna	Rohde & Schwarz	HF906	100284	2012-06-03	2013-06-01
4	ANTENNA	SCHWARZBECK	VULB9168	9168-313	2012-06-03	2013-06-01
5	Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA91703 73	2012-03-15	2013-03-14
6	Ultra broadband antenna	Rohde & Schwarz	HL562	100227	2012-10-09	2013-10-08
7	Atmosphere pressure meter	Shanghai ZhongXuan Electronic Co.;Ltd	BY-2009P	--	2012-10-15	2013-10-14
8	CLAMP METER	FLUKE	316	86080010	2012-06-03	2013-06-01
9	Thermo-Hygrometer	ZHICHEN	ZC1-2	01050033	2012-10-14	2013-10-13
11	High-low temperature cabinet	Shanghai YuanZhen	GW2050	--	2012-06-17	2013-06-16
12	Tunable Notch Filter	Wainwright instruments Gmbh	WRCT1800.0/ 2000.0-0.2/40- 5SSK	11	2012-06-03	2013-06-01
13	Tunable Notch Filter	Wainwright instruments Gmbh	WRCT800.0/880 .0-0.2/40-5SSK	9	2012-06-03	2013-06-01
14	High pass Filter	FSCW	HP 12/2800- 5AA2	19A45-02	2012-06-03	2013-06-01
15	Low noise amplifier	TESEQ	LNA6900	70133	2012-07-05	2013-07-04
16	EMI test receiver	Rohde & Schwarz	ESCS30	100086	2012-06-04	2013-06-03
17	Line impedance stabilization network	SCHWARZBECK	NSLK8127	8127-490	2012-06-03	2013-06-01



5.2 E.U.T. Operation

Input voltage:	AC 120V, 60Hz
Operating Environment:	
Temperature:	20.0-25.0 °C
Humidity:	45-57 % RH
Atmospheric Pressure:	990-1018mbar
EUT Operation:	The EUT has been tested under operating condition.

5.3 Test Procedure & Measurement Data

5.3.1 Field strength of emissions from intentional radiators, harmonic & non-harmonic emissions Test

Test Requirement:	FCC Part 15.245(b) & 15.209 RSS-210 Issue 8, RSS-Gen Issue 3
Test date:	Oct. 26, 2012 & February 05, 2013
Standard Applicable:	Harmonic emissions in the restricted bands below 17.7 GHz, as specified in § 15.205, shall not exceed the field strength limits shown in § 15.209. Harmonic emissions in the restricted bands at and above 17.7 GHz shall not exceed 7.5 mV/m. Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation. And according to section 15.33(a)(1), for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, which is lower. If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
Measurement Procedure:	<ol style="list-style-type: none">1. The EUT was placed on a turn table2. The turn table shall rotate 360 degrees to determine the position of maximum emission level.3. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.6. Repeat above procedures until all frequency measured were complete.



Measurement Distance: 3m

Test site/setup: Test instrumentation resolution bandwidth 120 kHz and Quasi-Peak detector applies (30 MHz - 1000 MHz).

For PK detector (above 1GHz):

RBW = 1 MHz;
VBW ≥ RBW; Sweep = auto
Detector function = peak
Trace = max hold

For AV detector (above 1GHz):

RBW = 1 MHz;
VBW = 10Hz; Sweep = auto
Detector function = peak
Trace = max hold

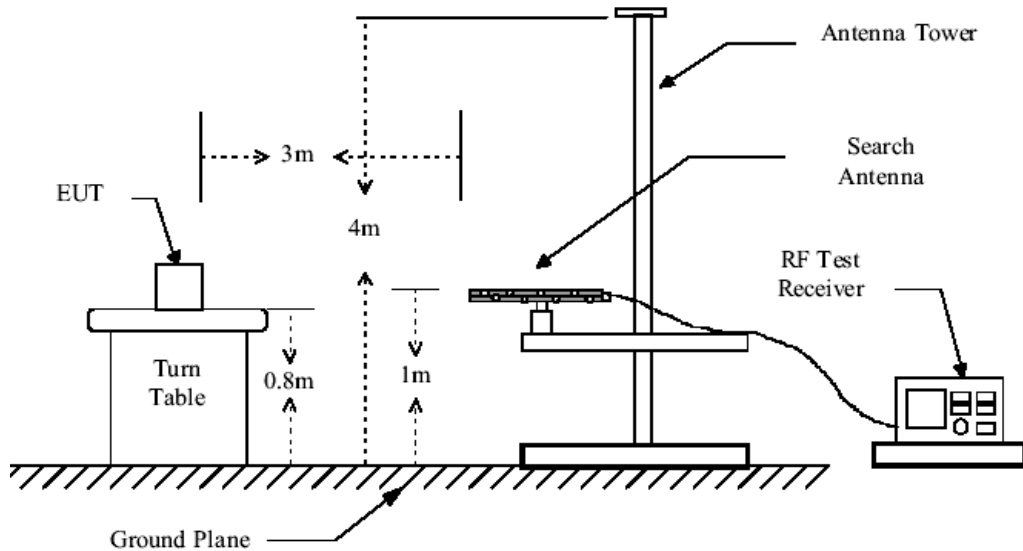
Receive antenna scan height 1 m - 4 m. polarization Vertical / Horizontal

Limits: according to FCC 15.245(b), 15.249, 15.35, RSS-210 Issue 8, RSS-Gen Issue 3

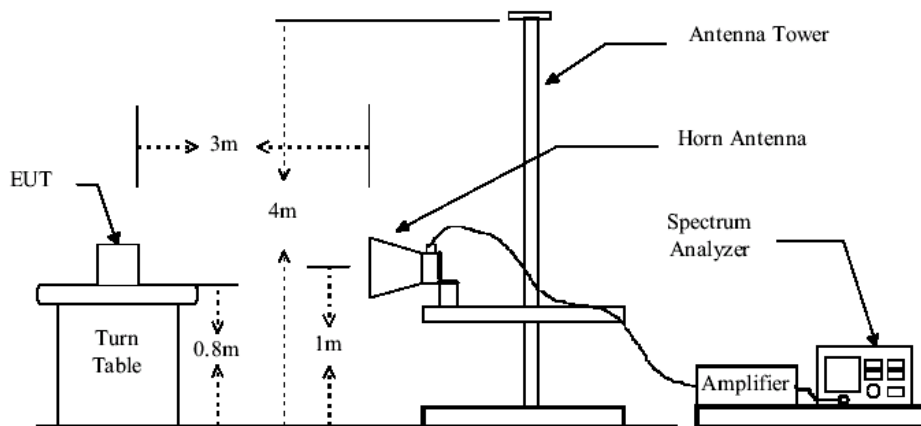
Frequency Range	Limits (dBuV/m)			Remark
	QP	AV	PK	
30MHz to 88MHz	40.0	N/A	N/A	Spurious Emission (Non-harmonic)
88MHz to 216MHz	43.5	N/A	N/A	
216MHz to 960MHz	46.0	N/A	N/A	
960MHz to 1GHz	54.0	N/A	N/A	
1GHz to 10.5GHz	N/A	54.0	74.0	
10.5GHz to 10.55GHz	N/A	128	148	Fundamental
10.55GHz to 21.0GHz	N/A	54.0	74.0	Spurious Emission (Non-harmonic)
21.0GHz to 21.1GHz	N/A	77.5	97.5	Harmonic Based on 15.245(b)(ii)
21.1GHz to 31.5GHz	N/A	54.0	74.0	Spurious Emission (Non-harmonic)
31.5GHz to 31.65GHz	N/A	77.5	97.5	Harmonic Based on 15.245(b)(ii)
Above 31.65GHz	N/A	54.0	74.0	Spurious Emission (Non-harmonic)

Radiated Test Set-up:

Radiated Emission Test Set-up, Frequency Below 1000MHz:



Radiated Emission Test Set-up Frequency Above 1GHz:



Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier.

The basic equation with a sample calculation is as follows:

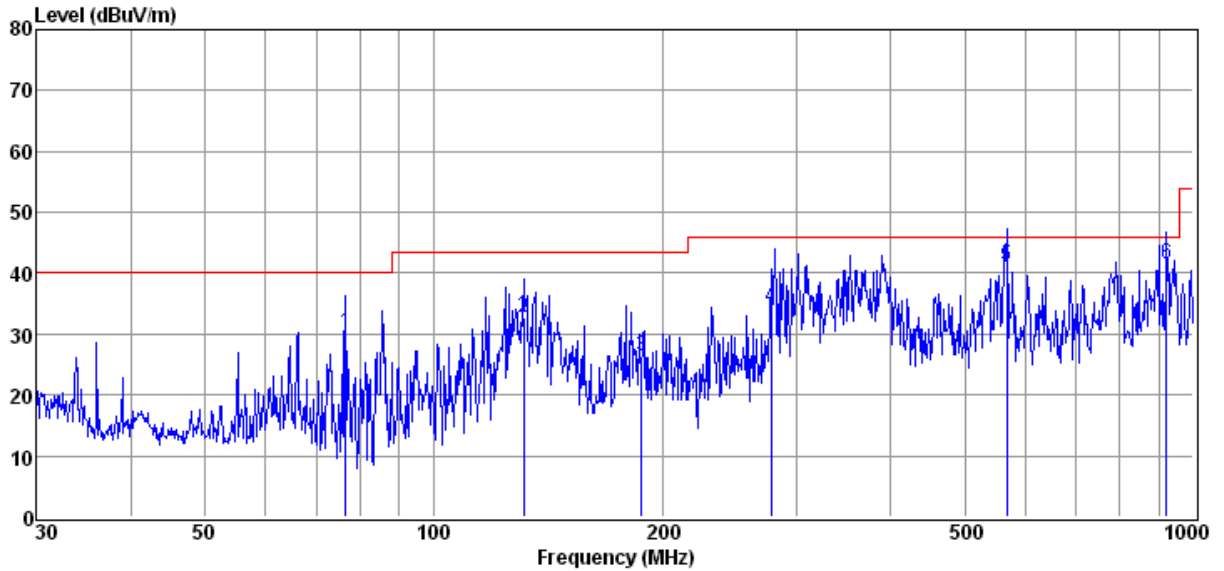
$$\text{Final Test Level (Result Level)} = \text{Reading Level} + \text{Antenna Factor} + \text{Cable Loss} - \text{Preamplifier Factor}.$$



Measurement Result:

30MHz~1GHz Spurious Emission,Quasi-Peak Measurement

Horizontal

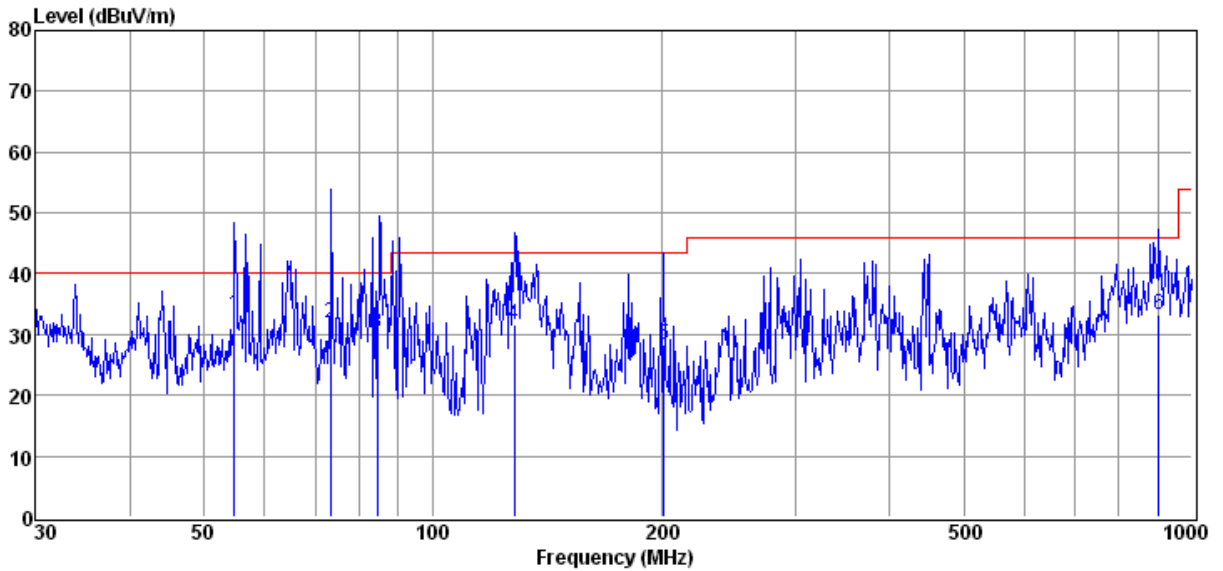


Item (Mark)	Freq. (MHz)	Reading Level (dB μ V)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Result Level (dB μ V/m)	Limit Line (dB μ V/m)	Over Limit (dB)	Detector	Polarization
1	76.52	44.54	9.50	24.70	0.85	30.19	40.00	-9.81	QP	HORIZONTAL
2	131.25	44.57	11.66	24.70	1.19	32.72	43.50	-10.78	QP	HORIZONTAL
3	187.56	39.63	10.04	24.60	1.45	26.52	43.50	-16.98	QP	HORIZONTAL
4	278.31	45.32	11.79	24.50	1.85	34.46	46.00	-11.54	QP	HORIZONTAL
5	568.61	44.26	18.42	24.23	2.81	41.26	46.00	-4.74	QP	HORIZONTAL
6	922.53	38.21	23.35	23.80	3.71	41.47	46.00	-4.53	QP	HORIZONTAL

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30MHz~1GHz Spurious Emission,Quasi-Peak Measurement

Vertical



Item (Mark)	Freq. (MHz)	Reading Level (dBµV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	54.84	44.87	12.51	24.70	0.69	33.37	40.00	-6.63	QP	VERTICAL
2	73.25	45.63	10.15	24.70	0.82	31.90	40.00	-8.10	QP	VERTICAL
3	84.58	45.37	8.66	24.70	0.91	30.24	40.00	-9.76	QP	VERTICAL
4	128.11	44.71	10.52	24.70	1.17	31.70	43.50	-11.80	QP	VERTICAL
5	201.39	42.22	9.29	24.60	1.52	28.43	43.50	-15.07	QP	VERTICAL
6	903.31	30.38	22.97	23.80	3.66	33.21	46.00	-12.79	QP	VERTICAL



Above 1GHz Spurious Emission (Non-harmonics), AV & PK Measurement

Horizontal

Freq. (MHz)	Reading Level (dBuV)	Detector	Corrected Factor (dB/m)	Result Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)
7570.62	25.08	AV	7.73	32.81	54.0	-21.19
7577.20	38.72	PK	7.73	46.45	74.0	-27.55
9522.42	23.01	AV	11.88	34.89	54.0	-19.11
9530.20	36.86	PK	11.86	48.72	74.0	-25.28
15566.80	44.84	PK	10.74	55.58	74.0	-18.42
15572.36	29.64	AV	10.75	40.39	54.0	-13.61
17804.84	30.79	AV	16.77	47.56	54.0	-6.44
17810.80	45.28	PK	16.82	62.10	74.0	-11.90
18215.56	31.73	AV	17.26	48.99	54.0	-5.01
18216.00	46.30	PK	17.26	63.56	74.0	-10.44
23006.70	31.39	AV	19.01	50.40	54.0	-3.60
23016.00	46.62	PK	19.01	65.63	74.0	-8.37
28816.30	30.99	AV	19.77	50.76	54.0	-3.24
28824.00	46.59	PK	19.77	66.36	74.0	-7.64

Above 1GHz Spurious Emission (Non-harmonics), AV & PK Measurement

Vertical

Freq. (MHz)	Reading Level (dBuV)	Detector	Corrected Factor (dB/m)	Result Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)
7615.00	54.00	PK	7.74	61.74	74.0	-12.26
7619.54	41.57	AV	7.73	49.30	54.0	-4.70
9369.00	38.15	AV	11.40	49.55	54.0	-4.45
9379.00	52.04	PK	11.44	63.48	74.0	-10.52
15572.02	29.71	AV	10.75	40.46	54.0	-13.54
15580.00	42.75	PK	10.78	53.53	74.0	-20.47
17938.40	44.15	PK	17.78	61.93	74.0	-12.07
17946.78	31.10	AV	17.84	48.94	54.0	-5.06
19464.00	44.91	PK	17.83	62.74	74.0	-11.26
19465.88	30.11	AV	17.83	47.94	54.0	-6.06
24420.00	49.26	PK	19.26	68.52	74.0	-5.48
24420.62	31.45	AV	19.26	50.71	54.0	-3.29
29523.22	31.10	AV	19.75	50.85	54.0	-3.15
29532.00	47.18	PK	19.76	66.94	74.0	-7.06

Remark: Corrected Factor = Antenna Factor + Cable Loss – Pre-amplifier Factor.



Fundamental & Harmonics Emission, AV & PK Measurement

Horizontal

Freq. (MHz)	Reading Level (dBuV)	Detector	Corrected Factor (dB/m)	Result Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Remark
10533.66	58.96	AV	10.53	69.49	128.0	-58.51	Fundamental
10536.20	61.89	PK	10.53	72.42	148.0	-75.58	Fundamental
21067.06	41.21	AV	17.20	58.41	77.5	-19.09	Harmonic
21072.00	48.87	PK	17.20	66.07	97.5	-31.43	Harmonic
31605.00	45.85	PK	22.00	67.85	97.5	-29.65	Harmonic
31605.00	43.74	AV	22.00	65.74	77.5	-11.76	Harmonic

Fundamental & Harmonics Emission, AV & PK Measurement

Vertical

Freq. (MHz)	Reading Level (dBuV)	Detector	Corrected Factor (dB/m)	Result Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Remark
10533.12	60.64	AV	10.53	71.17	128.0	-56.83	Fundamental
10536.20	63.17	PK	10.53	73.70	148.0	-74.30	Fundamental
21067.96	41.25	AV	17.20	58.45	77.5	-19.05	Harmonic
21072.00	55.34	PK	17.20	72.54	97.5	-24.96	Harmonic
31607.85	47.16	PK	22.00	69.16	97.5	-28.34	Harmonic
31606.74	45.54	AV	22.00	67.54	77.5	-9.96	Harmonic

Remark 1: Corrected Factor = Antenna Factor + Cable Loss – Pre-amplifier Factor.

Remark 2: No other radiation has been found. Emissions radiated outside of the specified frequency bands, except for harmonics are subjected to the general radiated emission limits in §15.209.



5.3.2 Band Edge Measurement

Test Requirement: Section 15.245 (b)(3)&15.205,
RSS-Gen Issue 3 Clause 7.2.2

Test date: February 05, 2013

Test methods: ANSI C 63.10: 2009
RSS-Gen issue 3

Measurement Distance: 3m

Test Status: Test in fixing operating frequency

Limit: 54.0 dB μ V/m (PK) & 74.0 dB μ V/m (AV) above 960MHz.

Detector: For PK detector (above 1GHz):
RBW = 1 MHz;
VBW \geq RBW; Sweep = auto
Detector function = peak
Trace = max hold
For AV detector (above 1GHz):
RBW = 1 MHz;
VBW =10Hz; Sweep = auto
Detector function = peak
Trace = max hold

Test Result: The EUT does meet the FCC requirements.

According to section,15.35(b) for frequencies above 1000 MHz. the above field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.



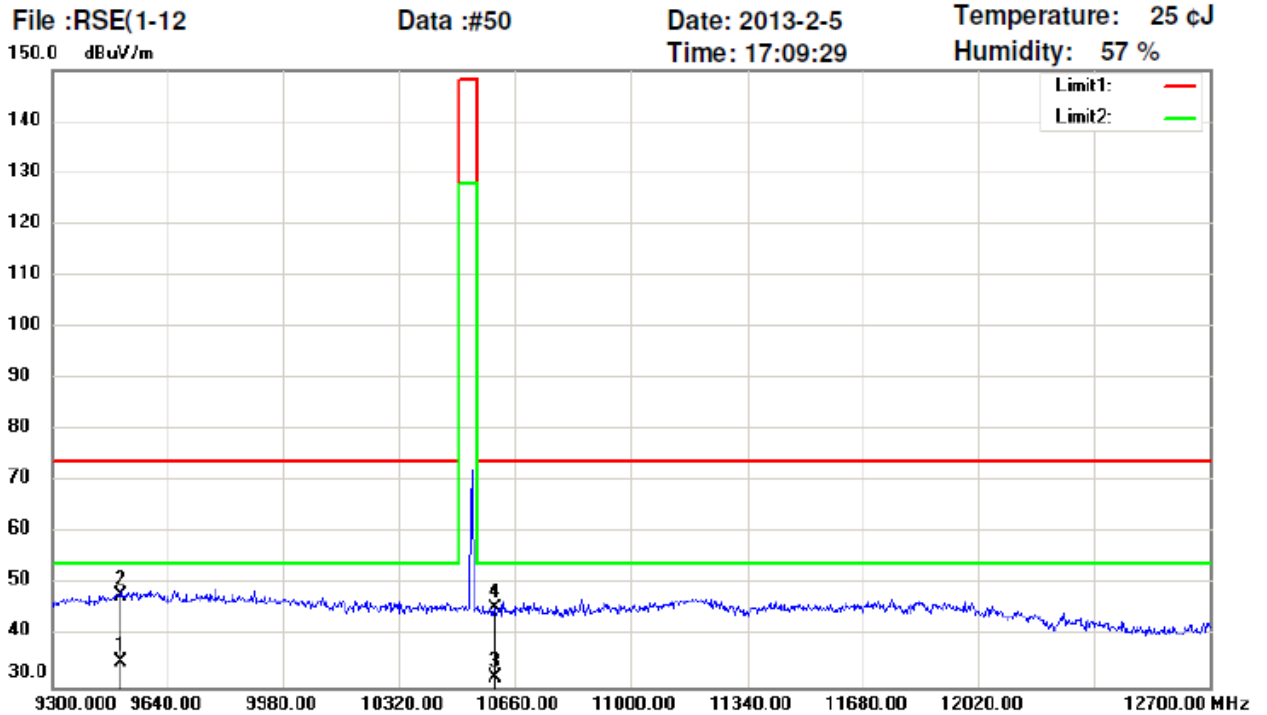
Except as shown in paragraph of this section. only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	
13.36 - 13.41	322 - 335.4		



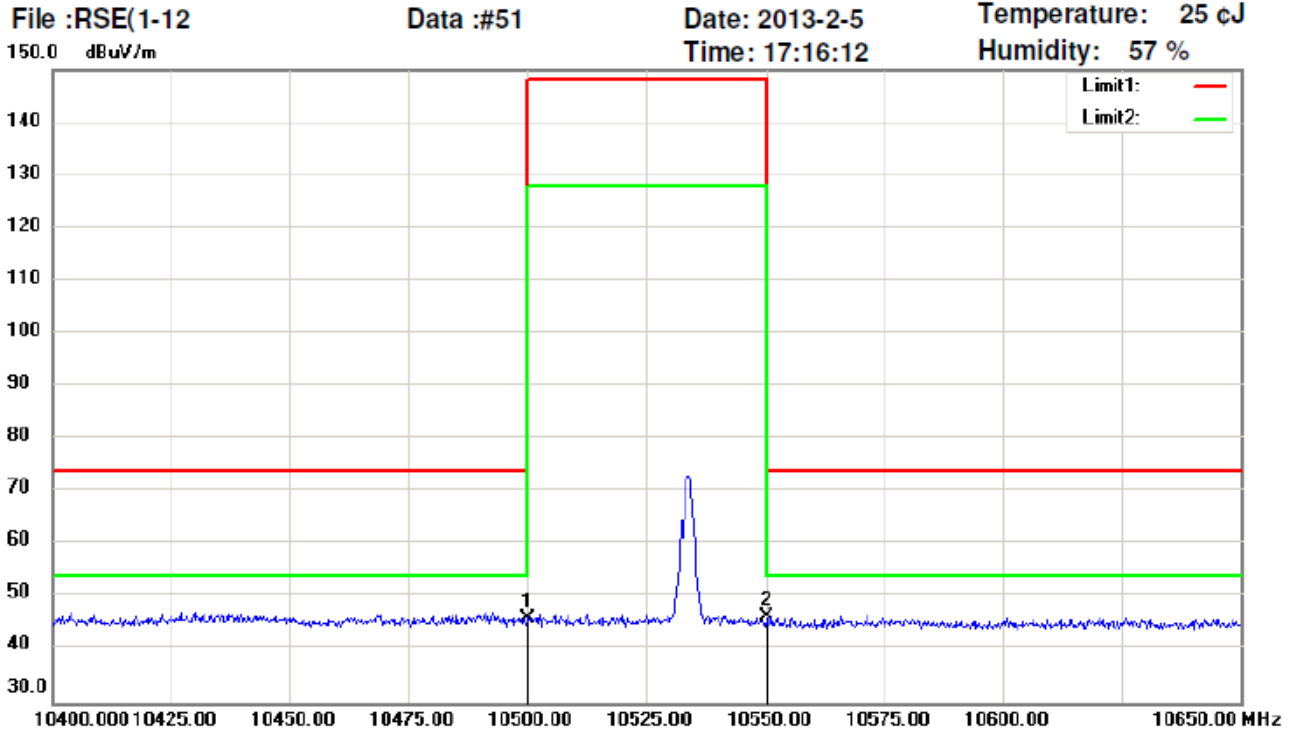
Measurement Result:

Horizontal (9.3GHz to 12.7GHz)



Mk.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	9500.200	22.98	AVG	11.91	34.89	54.00	-19.11
2	9500.400	36.00	peak	11.91	47.91	74.00	-26.09
3	10601.140	21.50	AVG	10.46	31.96	54.00	-22.04
4	10602.200	35.10	peak	10.45	45.55	74.00	-28.45

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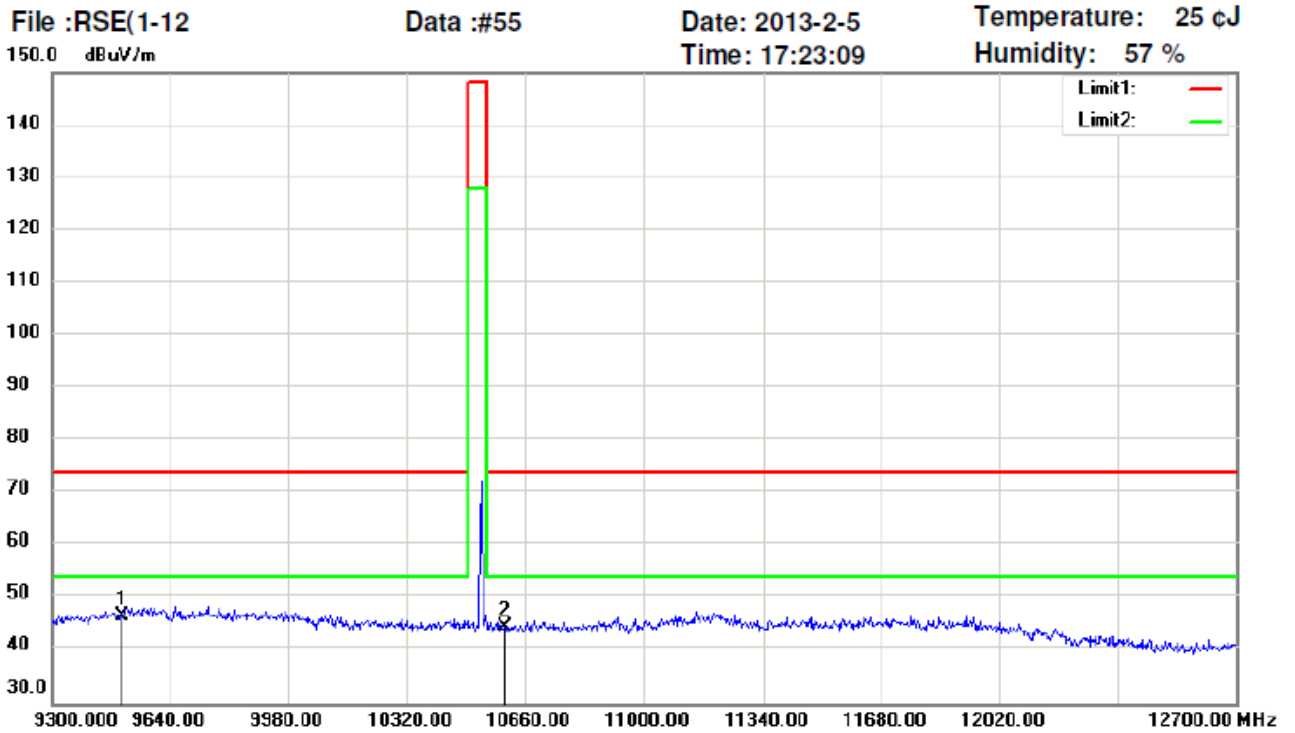


Mk.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	10500.000	35.58	peak	10.57	46.15	74.00	-27.85
2	10550.000	35.93	peak	10.52	46.45	74.00	-27.55

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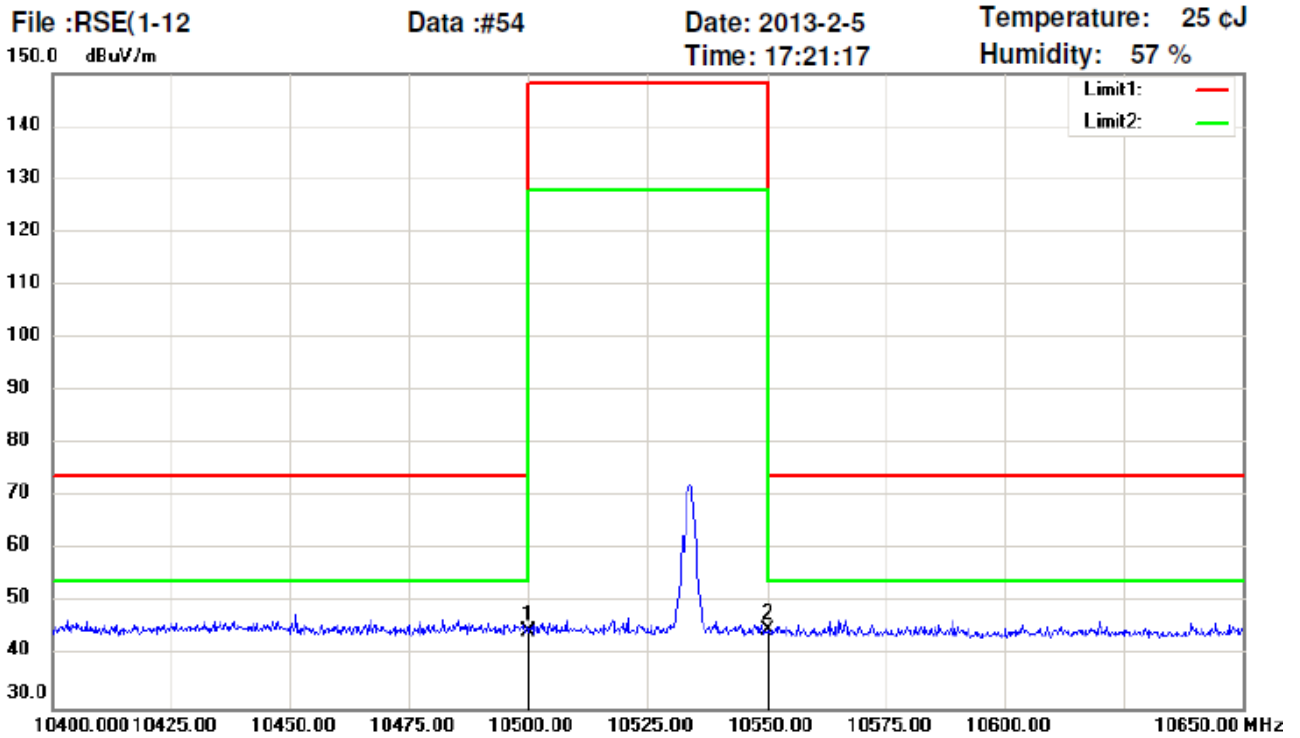


Vertical (9.3GHz to 12.7GHz)



Mk.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	9500.600	34.68	peak	11.91	46.59	74.00	-27.41
2	10600.200	34.03	peak	10.46	44.49	74.00	-29.51

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Mk.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	10500.000	34.12	peak	10.57	44.69	74.00	-29.31
2	10550.250	34.46	peak	10.51	44.97	74.00	-29.03

Remark: No any other emission which fall in restricted bands can be detected and be reported.

Corrected factor (dB) = Antenna Factor (dB/m) + Cable Loss(dB) - Preamplifier Factor (dB)

Result (dBuV/m) = Reading + Corrected factor

All frequencies within the “Restricted bands” have been evaluated to compliance. Section 15.205 Restricted bands of operation.



5.3.3 Intentional Emission Band Occupancy

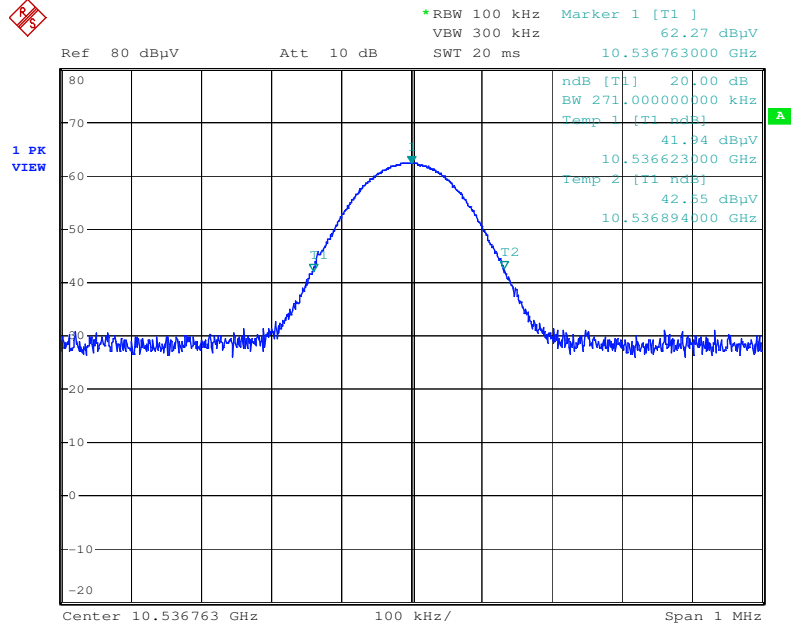
- Test Requirement:** FCC Part 15.215(c)
RSS-210 issue 8
- Test date:** February 05, 2013
- Test methods:** ANSI C 63.10: 2009
RSS-Gen issue 3 Clause 4.6.1
- Test Status:** Test in fixing operating frequency
- Measurement Procedure:**
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
 2. Set the spectrum analyzer: Span = approximately 2 to 3 times the 20dB bandwidth, centered on the hopping channel;
 3. Set the spectrum analyzer: RBW >= 1% of the bandwidth (set 100kHz). VBW >= RBW. Sweep = auto; Detector Function = Peak. Trace = Max Hold.
 4. Mark the peak frequency and -20dB points. (99% emission bandwidth).

Test Result:

Item	Nom Freq. (GHz)	Bandwidth Level (kHz)	Limits	Result
20 dB bandwidth	10.525	271	10.505 to 10.545GHz (80% of permitted band)	Pass
99% emission bandwidth	10.525	294	N/A	N/A

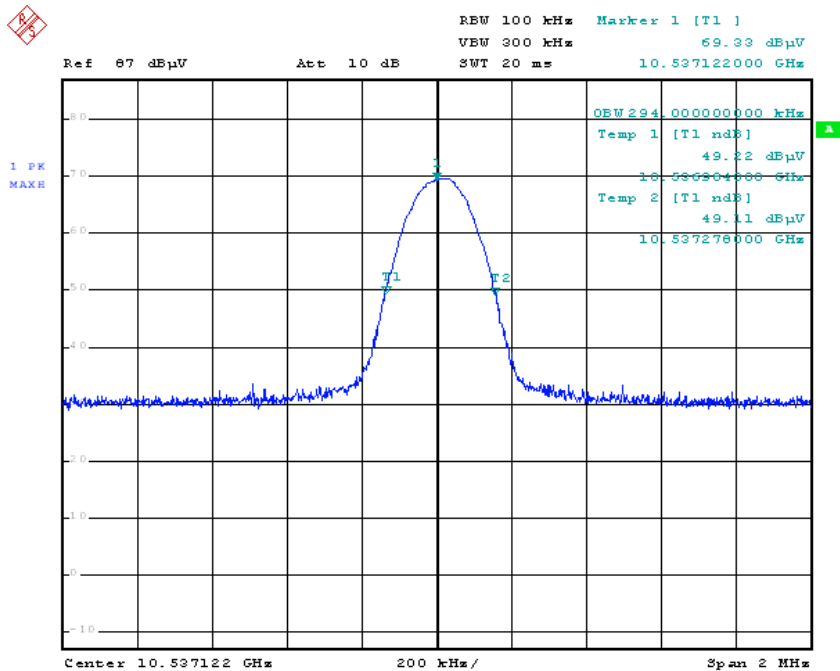


Test data:



Date: 5.FEB.2013 14:15:38

20 dB bandwidth = 271KHz



Date: 5.FEB.2013 14:07:49

99% emission bandwidth = 294KHz

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5.3.4 Conducted Emission Test

Test Requirement: FCC Part 15.207
RS-GEN issue 3

Test date: Oct. 31, 2013

Test methods: ANSI C 63.10: 2009
RSS-Gen Table 4

Limits: According to section 15.207, frequency 150KHz to 30MHz shall not exceed the limit table as blew.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

Measurement Procedure:

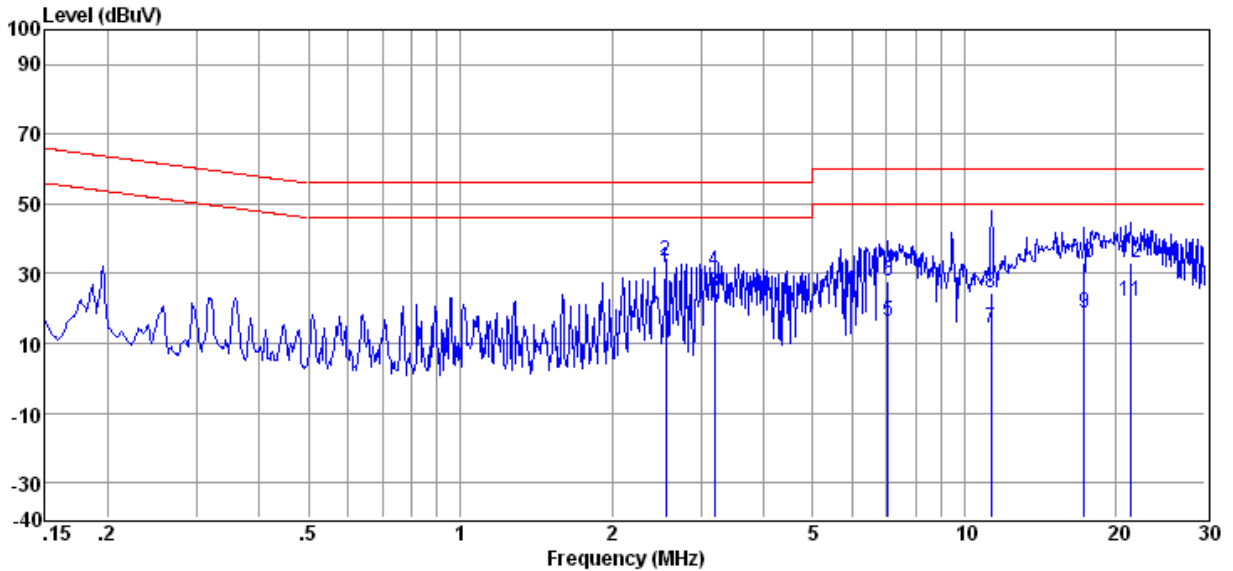
1. The conducted emission tests were performed in the test site,using the setup in accordance with the ANSI C63.10-2009.
2. EUT is charged with PC.The AC Power adaptor of PC was plug-in LISN.The rear of the EUT and periphearals were placed flushed with the rear of the tabletop.
3. The LISN was connected with 120V AC/60Hz power source.

Test Status: Test in fixing operating frequency.



Test Data:

L line:



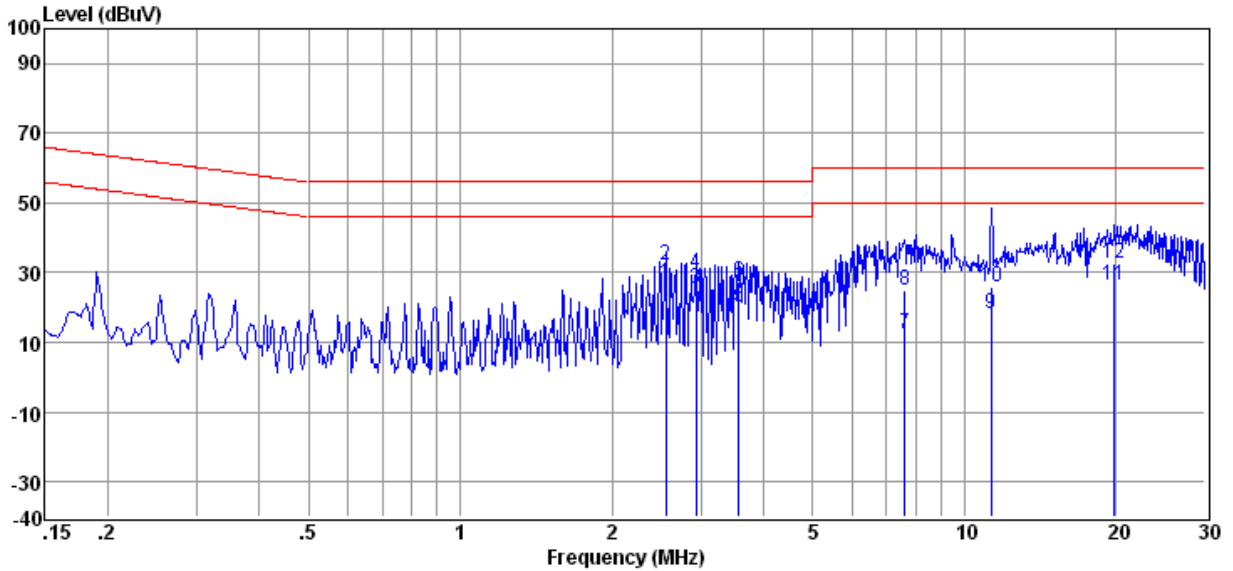
Note: Level = Read Level + LISN Factor + Cable loss

Item (Mark)	Freq (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	2.554	31.29	0.30	0.12	31.71	46.00	-14.29	Average	LINE
2	2.554	33.05	0.30	0.12	33.47	56.00	-22.53	QP	LINE
3	3.190	23.85	0.30	0.14	24.29	46.00	-21.71	Average	LINE
4	3.190	30.38	0.30	0.14	30.82	56.00	-25.18	QP	LINE
5	7.062	15.58	0.31	0.20	16.09	50.00	-33.91	Average	LINE
6	7.062	27.24	0.31	0.20	27.75	60.00	-32.25	QP	LINE
7	11.317	13.72	0.60	0.10	14.42	50.00	-35.58	Average	LINE
8	11.317	23.92	0.60	0.10	24.62	60.00	-35.38	QP	LINE
9	17.291	17.88	0.60	0.15	18.63	50.00	-31.37	Average	LINE
10	17.291	32.20	0.60	0.15	32.95	60.00	-27.05	QP	LINE
11	21.372	21.29	0.65	0.20	22.14	50.00	-27.86	Average	LINE
12	21.372	32.36	0.65	0.20	33.21	60.00	-26.79	QP	LINE

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N line:



Note: Level = Read Level + LISN Factor + Cable loss

Item (Mark)	Freq (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	2.554	26.23	0.30	0.12	26.65	46.00	-19.35	Average	NEUTRAL
2	2.554	31.57	0.30	0.12	31.99	56.00	-24.01	QP	NEUTRAL
3	2.931	25.16	0.30	0.13	25.59	46.00	-20.41	Average	NEUTRAL
4	2.931	29.18	0.30	0.13	29.61	56.00	-26.39	QP	NEUTRAL
5	3.565	19.88	0.30	0.15	20.33	46.00	-25.67	Average	NEUTRAL
6	3.565	27.00	0.30	0.15	27.45	56.00	-28.55	QP	NEUTRAL
7	7.606	12.01	0.36	0.18	12.55	50.00	-37.45	Average	NEUTRAL
8	7.606	24.19	0.36	0.18	24.73	60.00	-35.27	QP	NEUTRAL
9	11.317	17.51	0.60	0.10	18.21	50.00	-31.79	Average	NEUTRAL
10	11.317	25.42	0.60	0.10	26.12	60.00	-33.88	QP	NEUTRAL
11	19.845	25.82	0.60	0.20	26.62	50.00	-23.38	Average	NEUTRAL
12	19.845	31.79	0.60	0.20	32.59	60.00	-27.41	QP	NEUTRAL

-- THE END --

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