FCC 47 CFR PART 15 SUBPART C AND ANSI C63.4:2003 TEST REPORT

For

RF 2.4G wireless Keyboard

Model : KG1102

Data Applies To : KG1103 ; KG1104 ; KG1105 ; KG1106 ; KB100R ; KB101R ; KB102R ; KB103R ; KB104R

Trade Name : Maetay

Issued for

Maetay Plastic Co.,LTD

2-5 Shan Tzu Pine Rd., Tan Shui Dist.,
New Taipei City, Taiwan(R.O.C).

Issued by

Compliance Certification Services Inc.
Hsinchu Lab.
NO. 989-1 Wen Shan Rd., Shang Shan Village,
Qionglin Shiang Hsinchu County 30741, Taiwan, R.O.C
TEL: +886-3-5921698
FAX: +886-3-5921108

http://www.ccsrf.com
E-Mail : service@ccsrf.com

Issued Date: November 04, 2011

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	11/04/2011	Initial Issue	All Page 27	Winnie Chen

TABLE OF CONTENTS

TITLE PAGE NO.

1. TEST REPORT CERTIFICATION

Applicant	：	Maetay Plastic Co.,LTD
Address	：	2-5 Shan Tzu Pine Rd., Tan Shui Dist., New Taipei City, Taiwan(R.O.C).
Equipment Under Test	：	RF 2.4G wireless Keyboard
Model	：	KG1102
Data Applies To	：	KG1103 ; KG1104 ; KG1105 ; KG1106 ; KB100R ; KB101R ; KB102R ; KB103R ; KB104R
Trade Name	：	Maetay
Tested Date	：	October 05 ~ November 04, 2011

APPLICABLE STANDARD	
Standard	**Test Result**
FCC Part 15 Subpart C AND ANSI C63.4:2003	PASS

WE HEREBY CERTIFY THAT: The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Rex Liao
Deputy Section Manager

Reviewed by:

Jacky Chen
Deputy Section Manager

2. EUT DESCRIPTION

Product Name	RF 2.4G wireless Keyboard
Model Number	KG1102
Data Applies To	KG1103 ; KG1104 ; KG1105 ; KG1106 ; KB100R ; KB101R ; KB102R ; KB103R ; KB104R
Identify Number	T111005003
Received Date	October 05, 2011
Frequency Range	2403MHz, 2407 + 5nMHz (n=0~14)
Transmit Power	96.81dBμV/m @ 3m
Channel Spacing	5MHz
Channel Number	16 Channels
Transmit Data Rate	1Mbps
Type of Modulation	FSK
Power Source	1.5Vdc × 2 (Battery Powered)

Remark :

1. *The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.*
2. *For more details, please refer to the User's manual of the EUT.*
3. *This submittal(s) (test report) is intended for FCC ID: Z6D11XX-12XX filing to comply with Section 15.207, 15.209 and 15.249 of the FCC Part 15, Subpart C Rules.*
4. *The showed series model as the same except for difference with housing color.*
5. *The model KG1102 was considered the main model for testing.*

3. DESCRIPTION OF TEST MODES

The EUT (KG1102) had been tested under operating condition.

Radiated Emission (Below 1 GHz) and Conducted Emission Test:

1. The following test modes were scanned during the preliminary test:

No.	Pre-Test Mode
1	TX Operating

2. After the preliminary scan, the following test mode was found to produce the highest emission level.

Final Test Mode		
Emission	Radiated Emission	TX Operating
	Conducted Emission	N/A

Remark : *Then, the above highest emission mode of the configuration of the EUT and cable was chosen for all final test items.*

Radiated Emission Test (Above 1 GHz) :

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

Channel	Frequency (MHz)
Low	2403
Middle	2442
High	2477

Bandedge Measurement :

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

Channel	Frequency (MHz)
Low	2403
High	2477

4. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4: 2003 and FCC CFR 47, 15.207, 15.209 and 15.249.

5. FACILITIES AND ACCREDITATION

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

NO. 989-1 Wen Shan Rd., Shang Shan Village,
Qionglin Shiang Hsinchu County 30741, Taiwan, R.O.C

The sites are constructed in conformance with the requirements of ANSI C63.4:2003 and CISPR 22. All receiving equipment conforms to CISPR 16-1-1, CISPR 16-1-2, CISPR 16-1-3, CISPR 16-1-4, CISPR 16-1-5.

5.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Taiwan	TAF

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	INDUSTRY CANADA
Japan	VCCI
Taiwan	BSMI
USA	FCC MRA

Copies of granted accreditation certificates are available for downloading from our web site, http:///www.ccsrf.com

5.3 MEASUREMENT UNCERTAINTY

The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4-2.

PARAMETER	UNCERTAINTY
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 30 to 1000 MHz	+/- 3.5189
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 1 to 18GHz	+/- 2.5164
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 18 to 26 GHz	+/- 2.4967
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 26 to 40 GHz	+/- 2.7655
Conducted Emission (Mains Terminals), 9kHz to 30MHz	+/- 1.5923

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

Consistent with industry standard (e.g. CISPR 22: 2006, clause 11, Measurement Uncertainty) determining compliance with the limits shall be base on the results of the compliance measurement. Consequently the measure emissions being less than the maximum allowed emission result in this be a compliant test or passing test.

The acceptable measurement uncertainty value without requiring revision of the compliance statement is base on conducted and radiated emissions being less than U_{CISPR} which is 3.6dB and 5.2dB respectively. CCS values (called U_{Lab} in CISPR 16-4-2) is less than U_{CISPR} as shown in the table above. Therefore, MU need not be considered for compliance.

6. SETUP OF EQUIPMENT UNDER TEST

SUPPORT EQUIPMENT

N/A

SETUP DIAGRAM FOR TESTS

EUT & peripherals setup diagram is shown in appendix setup photos.

EUT OPERATING CONDITION

1. Set up whole system for test as shown on diagram.
2. Press and hold Switch.
3. Power on.
4. Press Switch to selected Channel.
   Channel 1 (2403)
   Channel 9 (2442)
   Channel 16 (2477)
5. Start Test.

7. FCC PART 15.249 REQUIREMENTS

7.1 DUTY CYCLE CORRECTION FACTOR

LIMITS

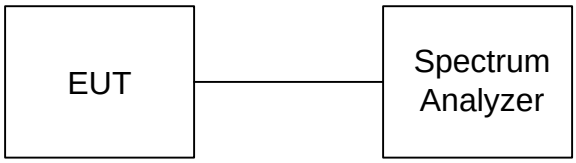
Nil (No dedicated limit specified in the Rules).

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	AGILENT	E4446A	MY46180323	04/24/2012

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP



TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set center frequency of spectrum analyzer = operating frequency.
4. Set the spectrum analyzer as RBW, VBW=1MHz, Span = 0Hz,
5. Repeat above procedures until all frequency measured were complete.

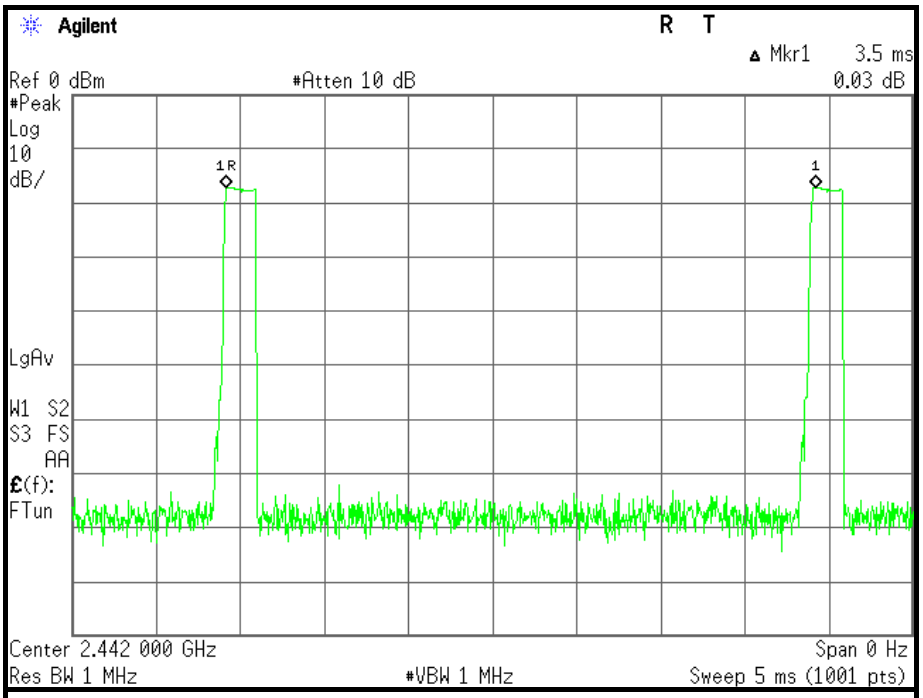
TEST RESULTS

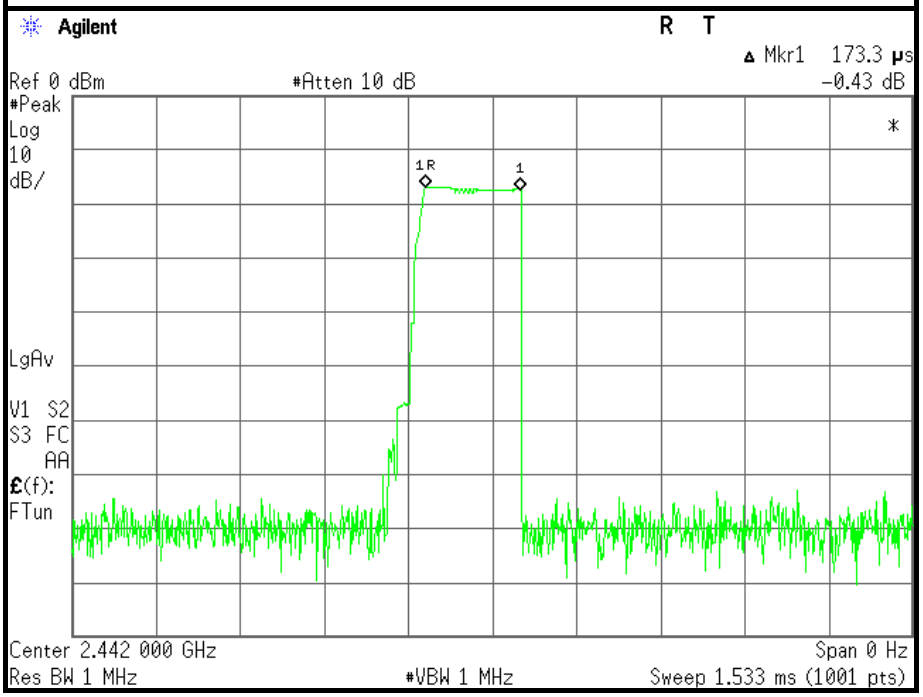
Tp = 3.5(ms)

Ton = 0.1733 (ms)

Duty Cycle Correction Factor = 20* log (Ton / Tp)

= 20* log (0.1733 /3.5) = -26.11





7.2 RADIATED EMISSION

LIMITS

(1) According to § 15.205 (a) Except as shown in paragraph (d) 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 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3338	36.43 - 36.5
12.57675 - 12.57725	322 -335.4	3600 - 4400	([2])
13.36 - 13.41			

Remark:
1. [1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
2. [2] Above 38.6

(2) According to § 15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown is Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

(3) According to § 15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table :

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(KHz)	300
0.490 - 1.705	24000/F(KHz)	30
1.705 - 30.0	30	30
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

Remark: ***Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.*

(4) According to § 15.209 (b) In the emission table above, the tighter limit applies at the band edges.

(5) According to § 15.249 (a) Except as provided in paragraph (b) of this section, the field strength of emission from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental (millivolts/meter)	Measurement Distance of Harmonics (microvolts/meter)
902 - 928	50	500
2400 - 2483.5	50	500
5725 - 5875	50	500
24000 - 24250	250	2500

TEST EQUIPMENT

966Chamber_B

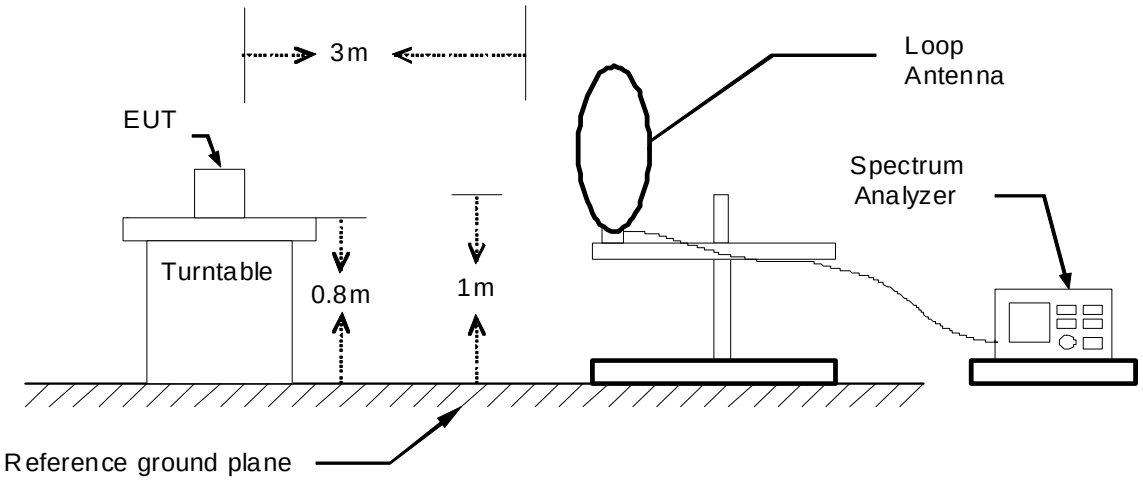
Name of Equipment	Manufacture	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360132	06/19/2012
EMI Receiver	ROHDE & SCHWARZ	ESCI	101131	01/13/2012
Broadband Hybrid Bi-Log Antenna	Sunol Sciences	JB1	A100209-4	10/05/2012
Double-Ridged Waveguide Horn	ETS-LINDGREN	3117	00078732	07/03/2012
Horn Antenna	COM-POWER	AH-840	03077	12/12/2011
Pre-Amplifier	Agilent	8447D	2944A10052	07/19/2012
Pre-Amplifier	Agilent	8449B	3008A01916	09/18/2012
LOOP Antenna	EMCO	6502	8905-2356	06/10/2012
Notch Filters Band Reject	Micro-Tronics	BRM05702-01	026	N.C.R

Remark: *1. Each piece of equipment is scheduled for calibration once a year.*
2. N.C.R = No Calibration Request.

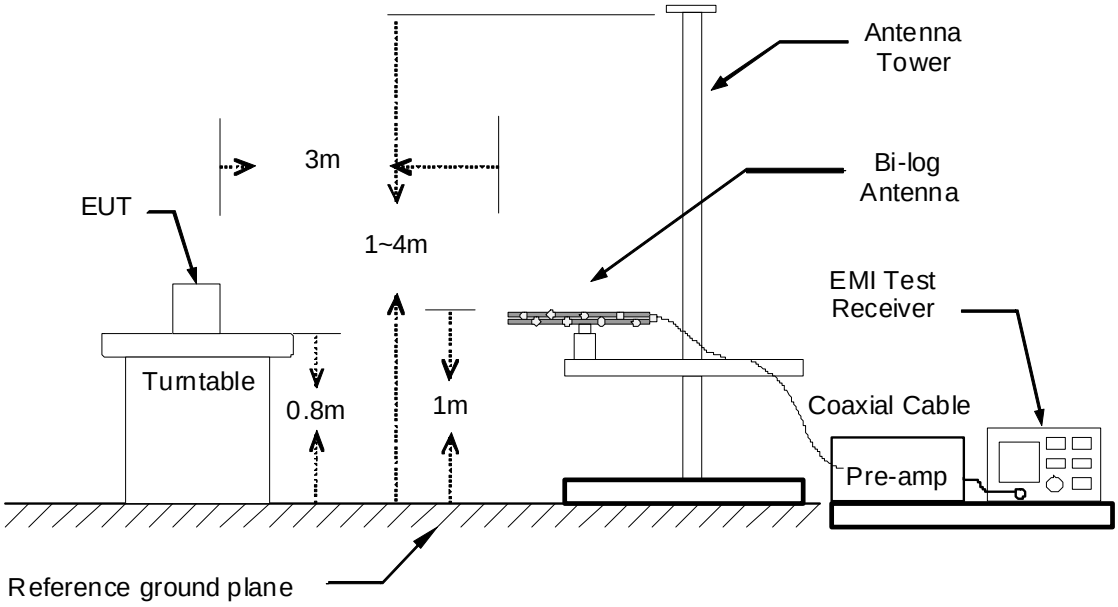
TEST SETUP

The diagram below shows the test setup that is utilized to make the measurements for emission from below 1GHz.

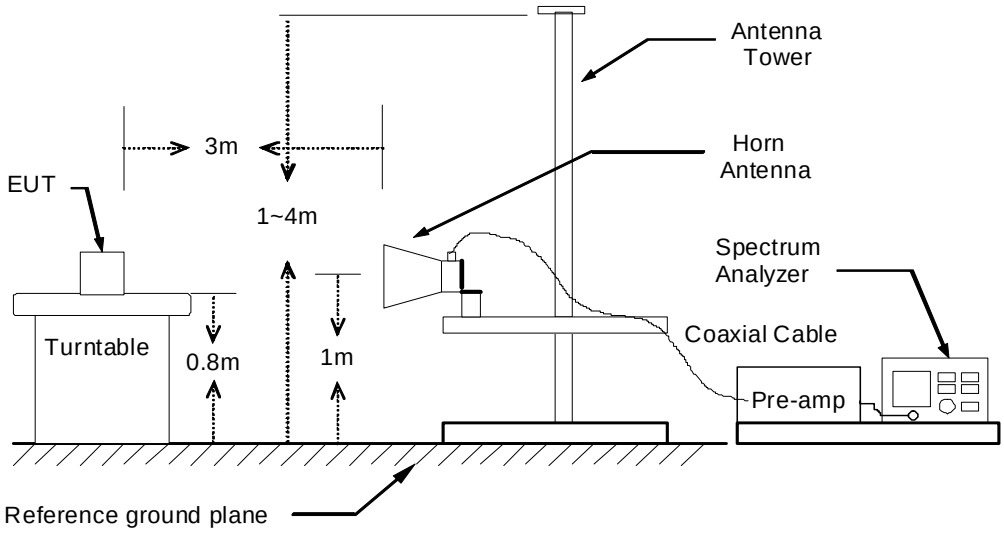
9kHz ~ 30MHz



30MHz ~ 1GHz



The diagram below shows the test setup that is utilized to make the measurements for emission above 1GHz.



TEST PROCEDURE

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
2. While measuring the radiated emission below 1GHz, the EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. While measuring the radiated emission above 1GHz, the EUT was set 3 meters away from the interference-receiving antenna.
3. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarization of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Remark：

1. *The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.*
2. *The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection and frequency above 1GHz.*
3. *The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.*

TEST RESULTS

Below 1 GHz (9kHz ~ 30MHz)

No emission found between lowest internal used/generated frequency to 30MHz.

Below 1 GHz (30MHz ~ 1GHz)

Product Name	KG1102	Test By	Bell Huang
Test Model	KG1102	Test Date	2011/10/31
Test Mode	TX Operating	TEMP & Humidity	24°C, 57%

966 Chamber_B at 3Meter / Horizontal						
Frequency (MHz)	Reading (dBμV)	Correction Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
81.41	47.80	-19.64	28.16	40.00	-11.84	Peak
158.04	38.91	-14.49	24.42	43.50	-19.08	Peak
243.40	42.15	-13.81	28.34	46.00	-17.66	Peak
405.39	39.52	-9.89	29.62	46.00	-16.38	Peak
458.74	33.95	-9.02	24.93	46.00	-21.07	Peak
649.83	32.29	-5.90	26.39	46.00	-19.61	Peak

966 Chamber_B at 3Meter / Vertical						
Frequency (MHz)	Reading (dBμV)	Correction Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
40.67	43.77	-13.57	30.20	40.00	-9.80	Peak
81.41	50.17	-19.64	30.52	40.00	-9.48	Peak
134.76	39.95	-13.50	26.45	43.50	-17.05	Peak
240.49	38.53	-13.91	24.61	46.00	-21.39	Peak
405.39	39.76	-9.89	29.86	46.00	-16.14	Peak
799.21	31.94	-3.73	28.22	46.00	-17.78	Peak

Remark:

1. *Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – PreAmp.Gain (dB)*
4. *Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)*
5. *Margin (dB) = Remark result (dBuV/m) - Quasi-peak limit (dBuV/m).*

Above 1 GHz

Product Name	KG1102	Test By	Bell Huang
Test Model	KG1102	Test Date	2011/10/31
Test Mode	TX / CH Low	TEMP & Humidity	24°C, 57%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Duty Cycle Correction Factor (dB)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1224.00	45.92	---	-3.25		42.67	---	74.00	54.00	-11.33	Peak
1998.00	43.18	---	2.30		45.48	---	74.00	54.00	-8.52	Peak
* 2403.08	93.41	---	3.40	-26.11	96.81	70.70	114.00	94.00	-23.30	AVG
2668.00	42.92	---	4.21		47.13	---	74.00	54.00	-6.87	Peak
4245.00	40.54	---	8.07		48.61	---	74.00	54.00	-5.39	Peak
4800.00	45.76	---	9.39	-26.11	55.15	29.04	74.00	54.00	-24.96	AVG
5745.00	39.69	---	11.37		51.06	---	74.00	54.00	-2.94	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Duty Cycle Correction Factor (dB)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1858.00	43.90	---	0.96		44.86	---	74.00	54.00	-9.14	Peak
2070.00	43.30	---	2.51		45.81	---	74.00	54.00	-8.19	Peak
2290.00	43.47	---	3.10		46.57	---	74.00	54.00	-7.43	Peak
* 2403.05	84.03	---	3.40	-26.11	87.43	61.32	114.00	94.00	-32.68	AVG
4800.00	46.08	---	9.39	-26.11	55.47	29.36	74.00	54.00	-24.64	AVG
6255.00	39.06	---	12.20		51.26	---	74.00	54.00	-2.74	Peak
7545.00	39.75	---	13.51		53.26	---	74.00	54.00	-0.74	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)
6. *" * " Fundamental*

Product Name	KG1102	Test By	Bell Huang
Test Model	KG1102	Test Date	2011/10/31
Test Mode	TX / CH Middle	TEMP & Humidity	24°C, 57%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Duty Cycle Correction Factor (dB)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
2028.00	43.12	---	2.40		45.52	---	74.00	54.00	-8.48	Peak
2270.00	43.76	---	3.04		46.80	---	74.00	54.00	-7.20	Peak
* 2442.06	92.55	---	3.50	-26.11	96.05	69.94	114.00	94.00	-24.06	AVG
2884.00	42.64	---	4.93		47.57	---	74.00	54.00	-6.43	Peak
4890.00	48.23	---	9.45	-26.11	57.68	31.57	74.00	54.00	-22.43	AVG
6015.00	39.55	---	12.02		51.57	---	74.00	54.00	-2.43	Peak
7320.00	40.56	---	13.11		53.67	---	74.00	54.00	-0.33	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Duty Cycle Correction Factor (dB)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
2162.00	43.68	---	2.75		46.43	---	74.00	54.00	-7.57	Peak
* 2442.04	84.75	---	3.50	-26.11	88.25	62.14	114.00	94.00	-31.86	AVG
2696.00	42.96	---	4.31		47.27	---	74.00	54.00	-6.73	Peak
2860.00	42.98	---	4.85		47.83	---	74.00	54.00	-6.17	Peak
4890.00	47.95	---	9.45	-26.11	57.40	31.29	74.00	54.00	-22.71	AVG
5670.00	39.58	---	11.18		50.76	---	74.00	54.00	-3.24	Peak
7410.00	38.89	---	13.31		52.20	---	74.00	54.00	-1.80	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)
6. *" * " Fundamental*

Product Name	KG1102	Test By	Bell Huang
Test Model	KG1102	Test Date	2011/10/31
Test Mode	TX / CH High	TEMP & Humidity	24°C, 57%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Duty Cycle Correction Factor (dB)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
2228.00	43.05	---	2.93		45.98	---	74.00	54.00	-8.02	Peak
* 2477.04	91.47	---	3.60	-26.11	95.07	68.96	114.00	94.00	-25.04	AVG
2634.00	42.72	---	4.10		46.82	---	74.00	54.00	-7.18	Peak
2762.00	42.00	---	4.52		46.52	---	74.00	54.00	-7.48	Peak
3195.00	41.86	---	5.52		47.38	---	74.00	54.00	-6.62	Peak
4950.00	50.32	---	9.49	-26.11	59.81	33.70	74.00	54.00	-20.30	AVG
7515.00	39.22	---	13.51		52.73	---	74.00	54.00	-1.27	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Duty Cycle Correction Factor (dB)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1892.00	43.66	---	1.29		44.95	---	74.00	54.00	-9.05	Peak
2154.00	43.45	---	2.73		46.18	---	74.00	54.00	-7.82	Peak
* 2477.08	85.82	---	3.60	-26.11	89.42	63.31	114.00	94.00	-30.69	AVG
2760.00	42.14	---	4.52		46.66	---	74.00	54.00	-7.34	Peak
4950.00	49.81	---	9.49	-26.11	59.30	33.19	74.00	54.00	-20.81	AVG
5730.00	39.34	---	11.33		50.67	---	74.00	54.00	-3.33	Peak
8025.00	39.26	---	13.50		52.76	---	74.00	54.00	-1.24	Peak

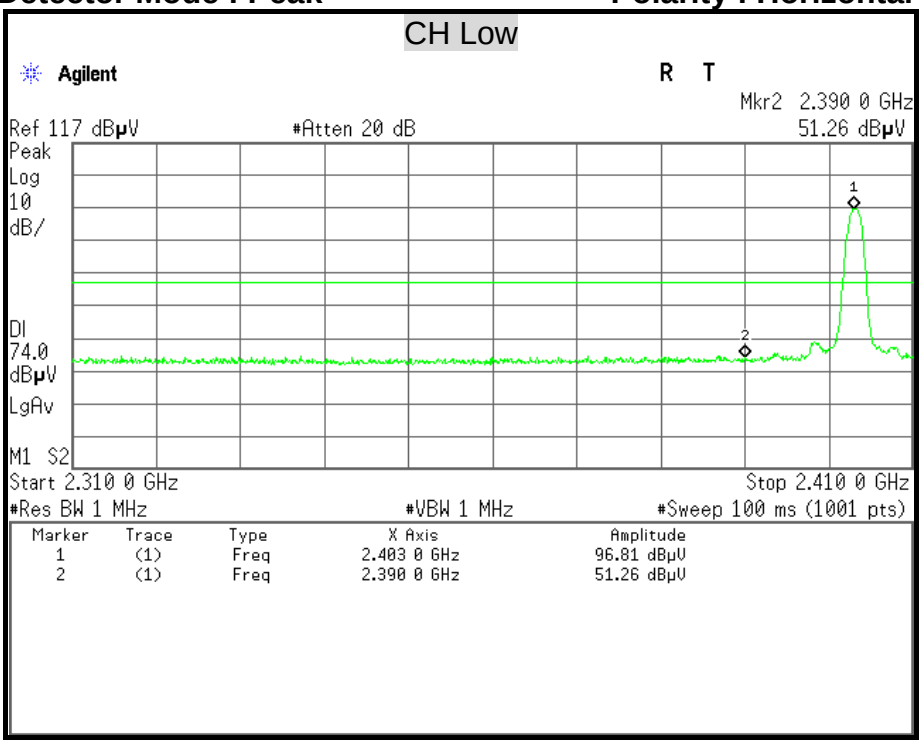
Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)
6. *" * " Fundamental*

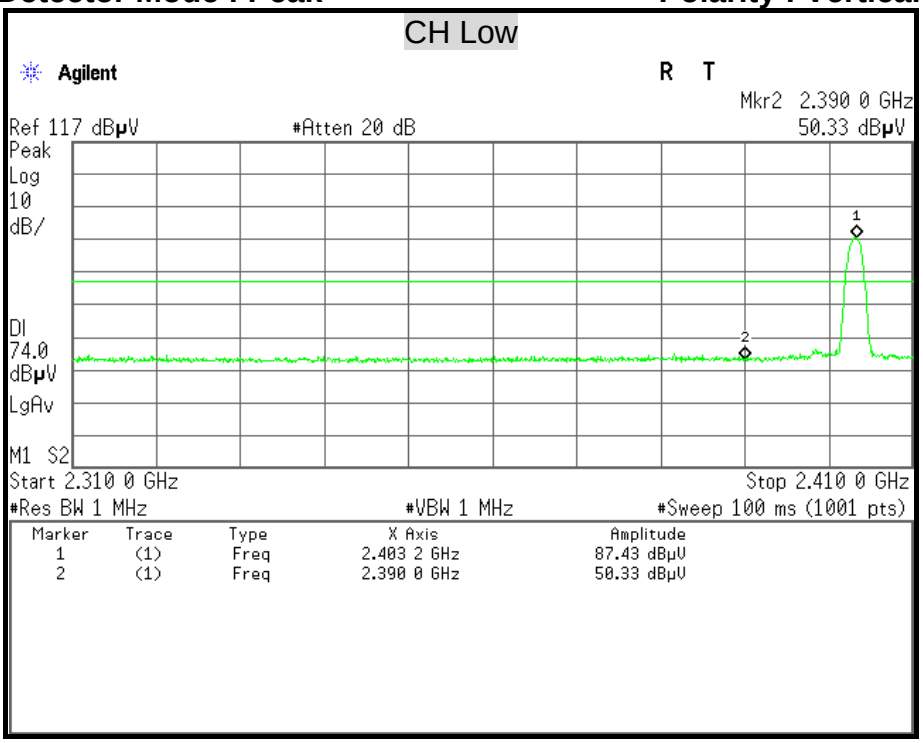
Restricted Band Edges

Channel	Measurement Freq. Band (MHz)	Polarity	Detector	The Max. Field Strength in Restrict Band (dBuV/m)	Limit @3 m (dBuV/m)	Margin (dB)
Low	2403	Horizontal	Peak	96.81	114	-17.19
			Average	70.70	94	-23.30
		Vertical	Peak	87.43	114	-26.57
			Average	61.32	94	-32.68
	2310-2390	Horizontal	Peak	51.26	74	-22.74
			Average	25.15	54	-28.85
		Vertical	Peak	50.33	74	-23.67
			Average	24.22	54	-29.78
High	2477	Horizontal	Peak	95.07	114	-18.93
			Average	68.96	94	-25.04
		Vertical	Peak	89.44	114	-24.56
			Average	63.33	94	-30.67
	2483.5-2500	Horizontal	Peak	51.41	74	-22.59
			Average	25.30	54	-28.70
		Vertical	Peak	50.28	74	-23.72
			Average	24.17	54	-29.83

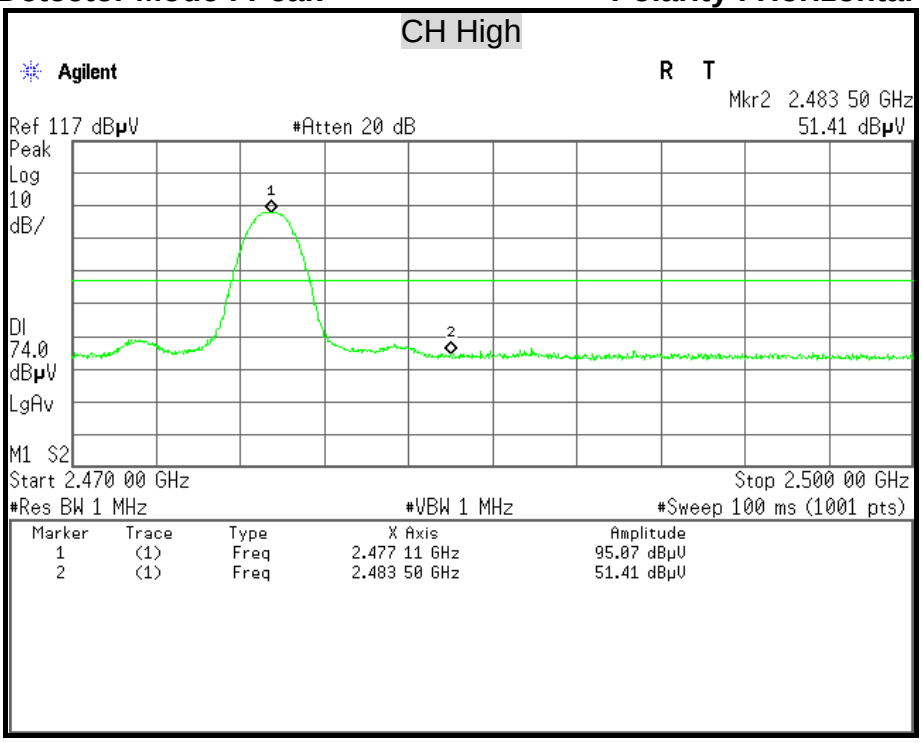
Detector Mode : Peak **Polarity : Horizontal**



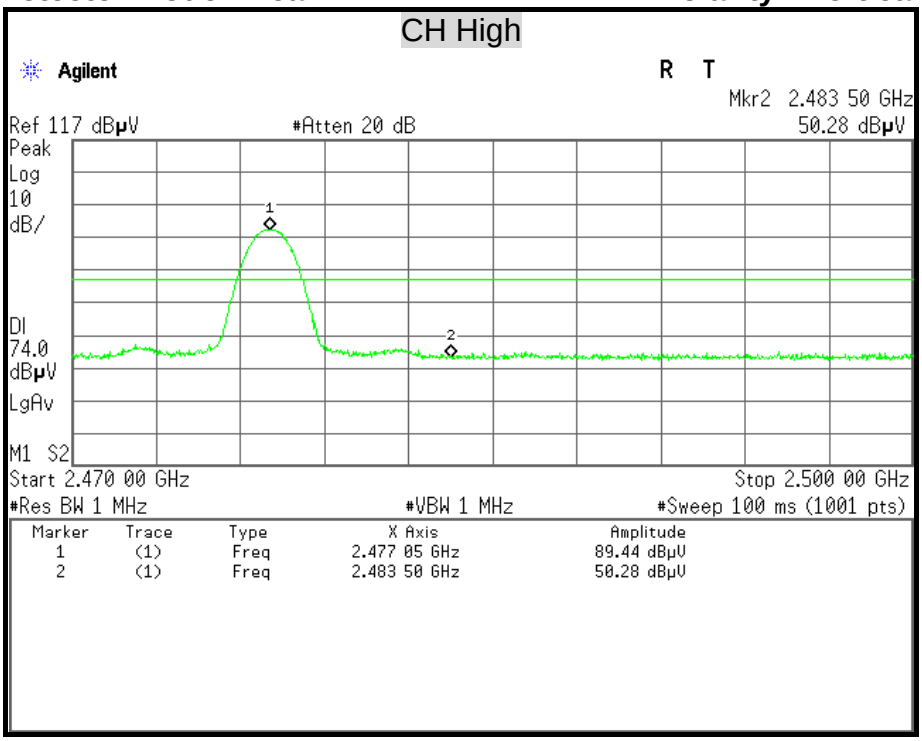
Detector Mode : Peak **Polarity : Vertical**



Detector Mode : Peak **Polarity : Horizontal**



Detector Mode : Peak **Polarity : Vertical**



7.3 CONDUCTED EMISSION

LIMITS

§ 15.207 (a) Except as shown in paragraph (b) and (c) this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

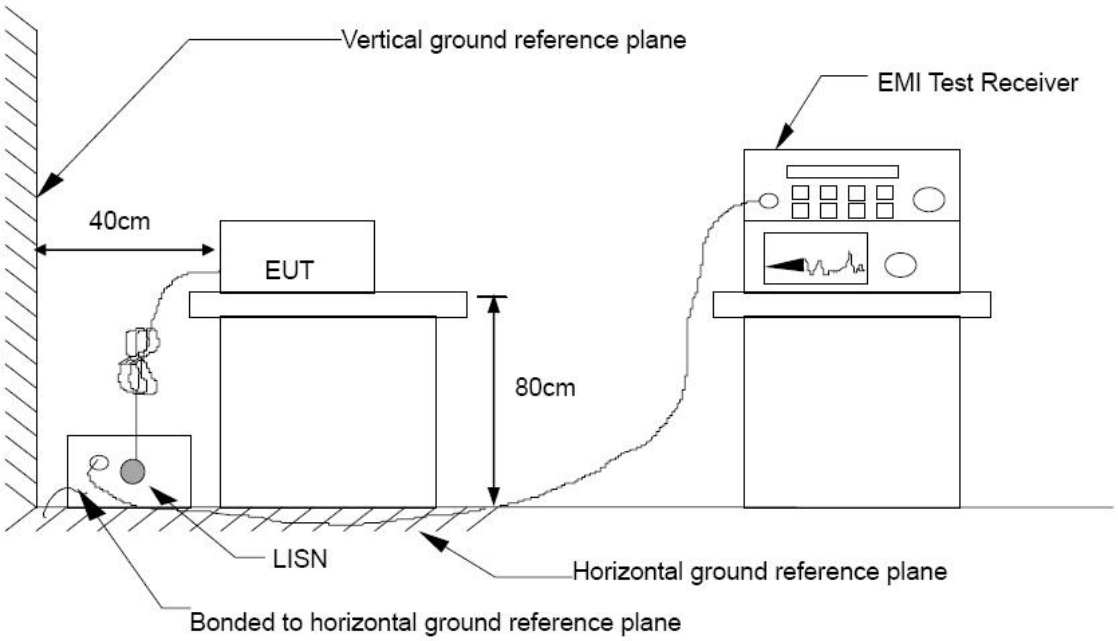
Frequency Range (MHz)	Conducted Limit (dBμv)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5.00	56	46
5.00 - 30.0	60	50

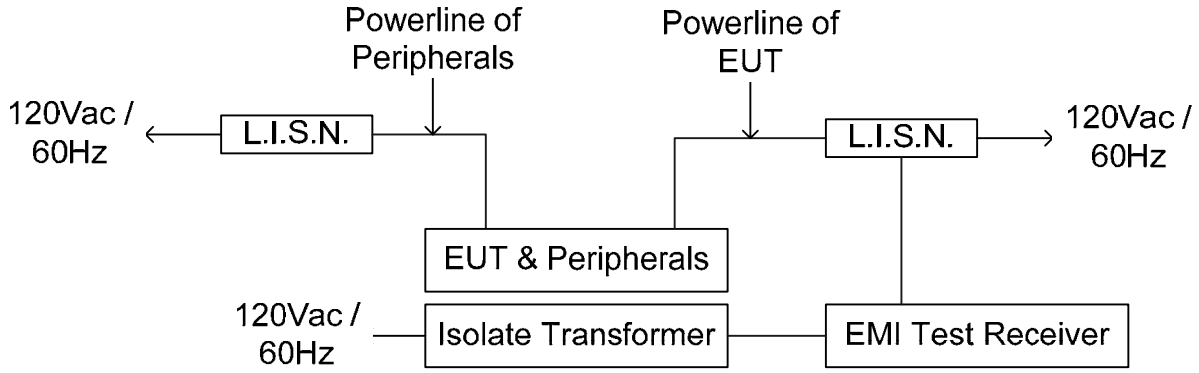
TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-465	08/09/2012
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-473	03/14/2012
EMI Receiver	ROHDE & SCHWARZ	ESCS 30	835418/008	10/20/2012
Pulse Limit	ROHDE & SCHWARZ	ESH3-Z2	100117	09/14/2012

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP





TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4:2003.

The test procedure is performed in a 4m × 3m × 2.4m (L×W×H) shielded room.

The EUT along with its peripherals were placed on a 1.0m (W) × 1.5m (L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.

The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.

The EUT was located so that the distance between the boundary of the EUT and the closest surface of the LISN is 0.8 m. Where a mains flexible cord was provided by the manufacturer shall be 1 m long, or if in excess of 1 m, the excess cable was folded back and forth as far as possible so as to form a bundle not exceeding 0.4 m in length.

TEST RESULTS

Since the EUT is powered by Battery Powered, this test item is not applicable.