



FCC COMPLIANCE TEST REPORT

Technical Statement of Conformity
in accordance with 47 CFR Part 15 Subpart C

The product

Equipment Under Test : Wireless remote control
Model Number : 10585
Product Series : N/A
Report Number : HA130709-FD
Issue Date : 25-DEC-2013
Test Result : Compliance

is produced by

Trusty Products, Inc.

137 South 8th Ave., #D, City of Industry, California, United States



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SL2-IS-E-0023, SL2-R1-E-0023,
SL2-R2-E-0023, SL2-L1-E-0023

FCC Designation No.: TW1071
TAF Accreditation No.: 1163
VCCI Registration No.: R-2156, C-2329, T-219

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Test Result Certification

Applicant	: Trusty Products, Inc.
Address of Applicant	: 137 South 8 th Ave., #D, City of Industry, California, United States
Manufacturer	: KHAN'S ENTERPRISE CO., LTD.
Address of Manufacturer	: 1921 Chun Ri Road Taoyuan, Taiwan
Trade Name	: FORMAR
Equipment Under Test	: Wireless remote control
Model Number	: 10585
Product Series	: N/A
FCC ID	: 2AAWR10580
Filing Type	: Certification
Sample Received Date	: 14-NOV-2013
Test Standard	:

FCC Part 15 Subpart C §15.249

Deviations from standard test methods & any other specifications : NONE

Remark:

1. This report details the results of the test carried out on one sample.
2. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2009) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.203, 15.207, 15.209, 15.249.
3. This report applies to the above sample only and shall not be reproduced in part without written approval of HongAn Technology Co., Ltd..



Documented by:

2013-12-25

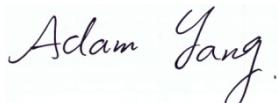
Furby Chin/ ADM. Dept Staff



Tested by:

2013-11-27

Ben Chen/ ENG. Dept. Staff



Approved by:

Date: 2013-12-25

Adam Yang / Section Manager

Summary of Test Result

	Test Item	Applicable Standard	Test Result
1	Antenna Requirement	FCC part 15 subpart C §203	Compliance
2	Conducted limits	FCC part 15 subpart C §207	N/A
3	Radiated emission limits	FCC part 15 subpart C §209	Compliance
4	Field Strength	FCC part 15 subpart C §249(a)	Compliance
5	Band-edge measurement	FCC part 15 subpart C §249(d)	Compliance

1 General Description

1.1 Description of EUT

Equipment Under Test	:	Wireless remote control
Model Number of EUT	:	10585
Product Series	:	N/A
Power Supply	:	DC : Input <u>12</u> Vdc A23 battery *1
Frequency Range	:	2410~2470 MHz
Transmit Power	:	90.27 dBuV
Number of Channels	:	7 Channels
Carrier Frequency of Each Channel	:	2410 MHz, 2420 MHz, 2430MHz, 2440 MHz, 2450 MHz, 2460 MHz, 2470 MHz
Antenna Specification	:	On Board Antenna/ Gain: 2 dBi
Modulation Technique	:	FSK GFSK
Transmit Data Rate	:	500 Kbps
Specification	:	Dimensions : 6 cm (L) X 10 cm (W) X 2 cm (H) Weight : 70 g Function : The EUT is a remote control. When operators use it to point at the Spot & Flood Light, signal will be transmitted to the RX on the Spot & Flood Light. ※For more detail specification, please refer to the User Manual.

1.2 Test Instruments

1.2.1. Instruments Used for Measurement

HA1

Instrument Name	Manufacture Mode	Model Number	Serial Number	Last Cal. Date	Next Cal. Date
RF Amplifier	AR	15S1G3	306578	11-AUG-2012	11-AUG-2013
EMI Receiver	R&S	ESCI	100615	03-MAR-2013	03-MAR-2014
Spectrum Analyzer	R&S	FSL6	100323	11-JUN-2012	11-JUN-2013
Spectrum Analyzer	Advantest	R3172	101202158	24-JUN-2012	24-JUN-2013
Preamplifier	WIRELESS	FPA-6592G	060009	09-JUL-2012	09-JUL-2013
Preamplifier	HD	HD17187	004	04-AUG-2012	04-AUG-2013
Bilog Antenna	TESEQ	CBL6111D	25769	03-MAR-2013	03-MAR-2014
Bilog Antenna	Schaffner	CBL6112B	2860	12-AUG-2012	12-AUG-2013
Double-Ridged Waveguide Horn	EMCO	3115	9912-5992	04-MAY-2013	04-MAY-2014
Temp. & Humidity Chamber	Giant Force	GTH-150-20-SP-AR	MMA0907-012	22-JUL-2012	22-JUL-2013

※ The test equipments used are calibrated and can be traced to National ITRI and International Standards.

1.3 Auxiliary Equipments

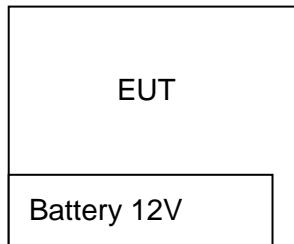
1.3.1. Provided by HongAn Technology Co., Ltd. for Emission Test.

N/A

1.3.2. Provided by the Manufacturer

N/A

1.4 EUT SETUP



Note: Main Test Sample: 10585

1.5 Identifying the Final Test Mode

1. TX mode 1: Transmitter set at CH1 (2410MHz), and transmitting. EUT in Horizontal Position.
2. TX mode 2: Transmitter set at CH4 (2440MHz), and transmitting. EUT in Horizontal Position.
3. TX mode 3: Transmitter set at CH7 (2470MHz), and transmitting. EUT in Horizontal Position.
4. TX mode 4: Transmitter set at CH1 (2410MHz), and transmitting. EUT in Vertical Position.
5. TX mode 5: Transmitter set at CH4 (2440MHz), and transmitting. EUT in Vertical Position.
6. TX mode 6: Transmitter set at CH7 (2470MHz), and transmitting. EUT in Vertical Position.
7. TX mode 7: Transmitter set at CH1 (2410MHz), and transmitting. EUT in Transverse Position.
8. TX mode 8: Transmitter set at CH4 (2440MHz), and transmitting. EUT in Transverse Position.
9. TX mode 9: Transmitter set at CH7 (2470MHz), and transmitting. EUT in Transverse Position.
10. Stand by mode

Note:

1. After pre-test, we identified that the TX Horizontal Position (the worst case) was most likely to cause maximum disturbance and most likely to be susceptible to disturbance. Therefore, the Final Assessment was performed for the worst case.
2. The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

3. Channel Low (2410MHz), Mid (2440MHz) and High (2470MHz) with higher data rate were chosen for full testing.
4. According to its specifications, the EUT must comply with the requirements of the Section 15.203, 15.207, 15.209 and 15.249 under the FCC Rules Part 15 Subpart C.

1.6 Final Test Mode

TX Mode 1, 2, 3

1.7 Condition of Power Supply

DC 12 V

1.8 EUT Configuration

1. Setup the EUT as shown in Sec.1.4 Block Diagram.
2. Turn on the power of all equipments.
3. Activate the selected Final Test Mode.

1.9 Test Methodology

The tests documented in this report were performed in accordance with ANSI C63.4 (2009) and FCC CFR 47 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057, 15.203, 15.207, 15.209 and 15.249.

1.10 General Test Procedures

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4 (2009) Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter(EUT) was rotated through three orthogonal axes according to the requirements in Section 13.1.4.1 of ANSI C 63.4 (2009).

1.11 Modification

N/A

1.12 FCC Part 15.205 restricted bands of operations

(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
8.37635-8.38675	156.7-156.9	2690-2900	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	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

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

² Above 38.6

(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 in 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.

1.13 Qualification of Test Facility

BSMI Certificate No.	: SL2-IS-E-0023, SL2-IN-E-0023, SL2-R1-E-0023, SL2-R2-E-0023, : SL2-A1-E-0023, SL2-L1-E-0023.
FCC Designation No.	: TW1071
TAF Accreditation No.	: 1163
VCCI Certificate No.	: R-2156, C-2329, T-219

2 Power Line Conducted Emission Measurement

2.1 Test Instruments

Refer to Sec. 1.2 Test Instruments.

2.2 Test Arrangement and Procedure

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

2.3 Limit (§ 15.207)

For an intentional radiator which 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 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency (MHz)	Limits (dBuV)	
	Q.P. (Quasi-Peak)	A.V. (Average)
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5.0	56	46
5.0 to 30	60	50

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

2.4 Test Result

N/A.

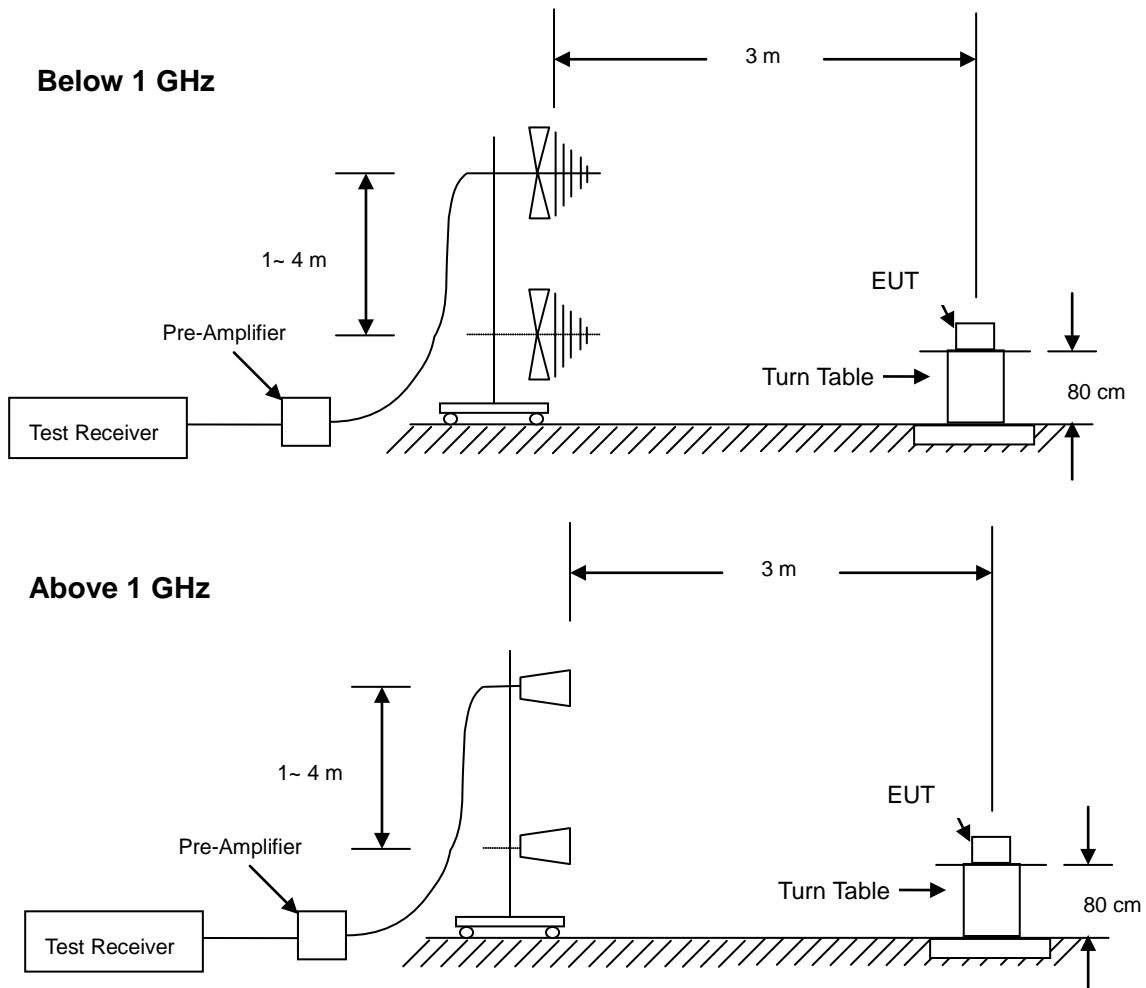
The EUT applied a A23 battery, therefore, no conducted emission measurement is required.

3 Radiated Emission Test

3.1 Test Instruments

Refer to Sec. 1.2 Test Instruments.

3.2 Test Arrangement and Procedure



1. The EUT is placed on a turntable, which is 0.8 m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3 m away from the receiving antenna, which is varied from 1 m to 4 m 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. Set the spectrum analyzer in the following setting as:
 - (a) Below 1 GHz: RBW =100 kHz/ VBW = 1 MHz/ Sweep = AUTO.
 - (b) Above 1 GHz: Peak: RBW = VBW = 1MHz/ Sweep = AUTO; Average: RBW = 1MHz/ VBW = 10Hz/ Sweep = AUTO.
7. Repeat above procedures until the measurements for all frequencies are complete.

3.3 Limit of Field Strength of Fundamental (§ 15.249)

The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency (MHz)	Field strength of fundamental (microvolts/ meter)	Field strength of harmonics (meters)
902-928	50	500
2400-2483.5	50	500
5725-5875	50	500
24000-24250	250	2500

Note:

1. Field strength limits are specified at a distance of 3 meters.
2. For frequencies above 1000 MHz, the field strength limits in above table 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.

3.4 Limit of Spurious Emission (§ 15.209)

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 § 15.209, whichever is lesser attenuation.

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

** 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. §§ 15.231 and 15.241.

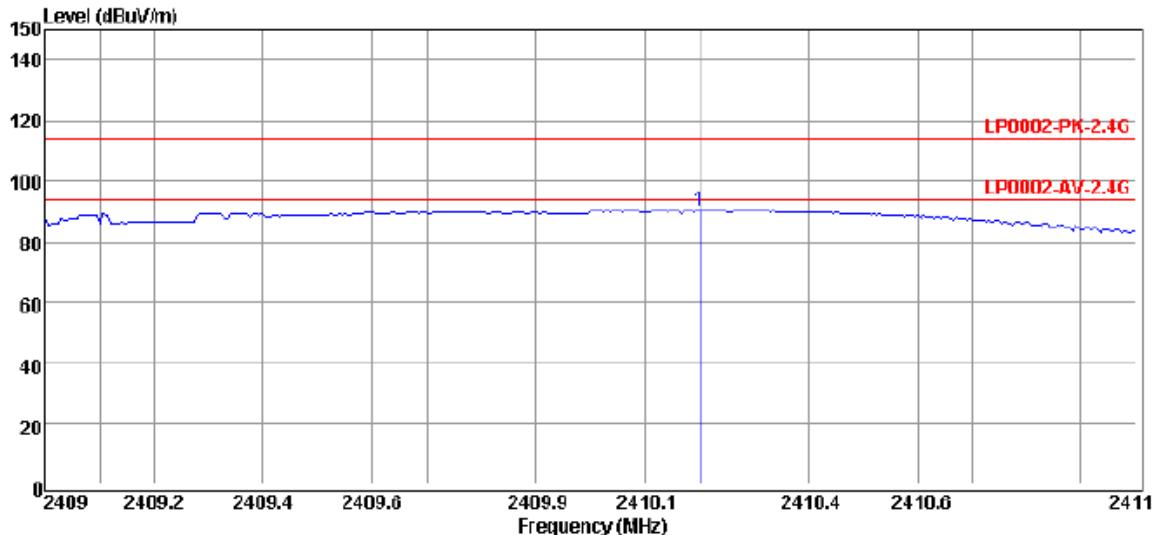
3.5 Test Result

Compliance

The final test data are shown on the following page(s).

Radiated Emission Test Data (Field Strength of Fundamental)

Temperature	: 21°C	Humidity	: 50%
Test Date	: 25-Nov-2013	Tested by	: Ben Chen
Polarization	: Horizontal	Channel	: CH01 (2410MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	2410.20	95.73	-5.46	90.27	114.00	-23.73	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preampl gain .

Note 2. Margin = Result - Limit ; Result = Reading + C.F .

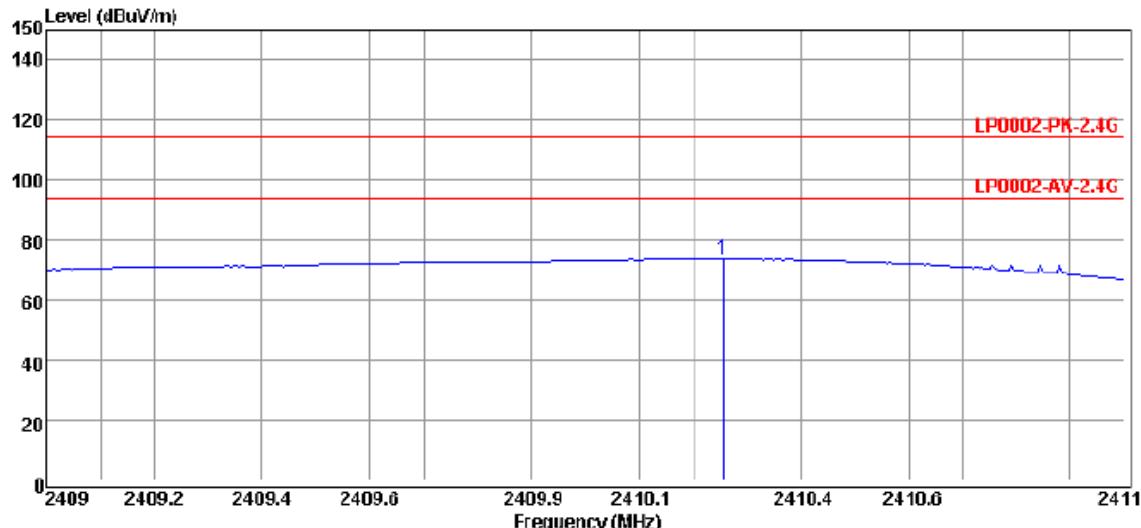
Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (b) Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Field Strength of Fundamental)

Temperature : 21°C
Test Date : 25-Nov-2013
Polarization : Vertical
EUT Position : Horizontal

Humidity : 50%
Tested by : Ben Chen
Channel : CH01 (2410MHz)



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	2410.26	79.10	-5.46	73.64	114.00	-40.36	VERTICAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

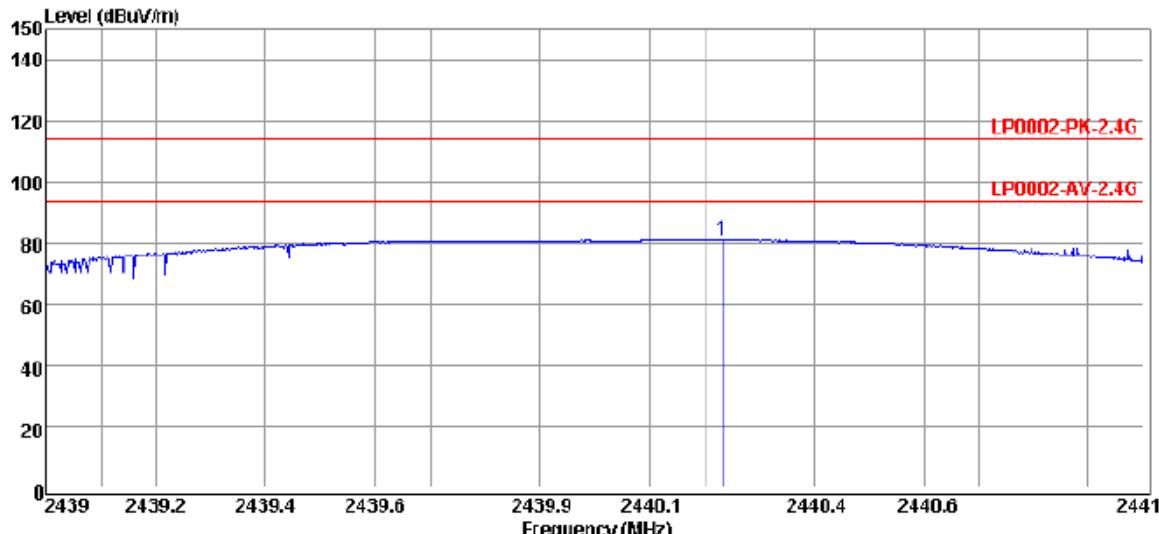
Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (b) Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Field Strength of Fundamental)

Temperature : 21°C Humidity : 50%
Test Date : 25-Nov-2013 Tested by : Ben Chen
Polarization : Horizontal Channel : CH04 (2440MHz)
EUT Position : Horizontal



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	2440.23	86.03	-5.16	80.87	114.00	-33.13	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

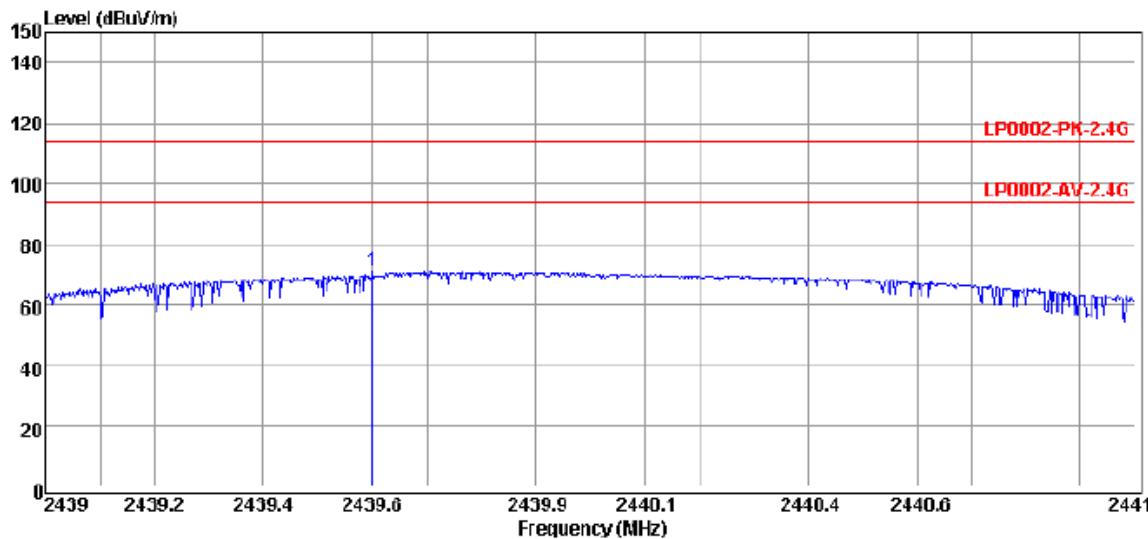
Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (b) Average Setting 1GHz to 10th harmonics of fundamental,: RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Field Strength of Fundamental)

Temperature	: 21°C	Humidity	: 50%
Test Date	: 25-Nov-2013	Tested by	: Ben Chen
Polarization	: Vertical	Channel	: CH4 (2440MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	2439.60	76.31	-5.16	71.15	114.00	-42.85	VERTICAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

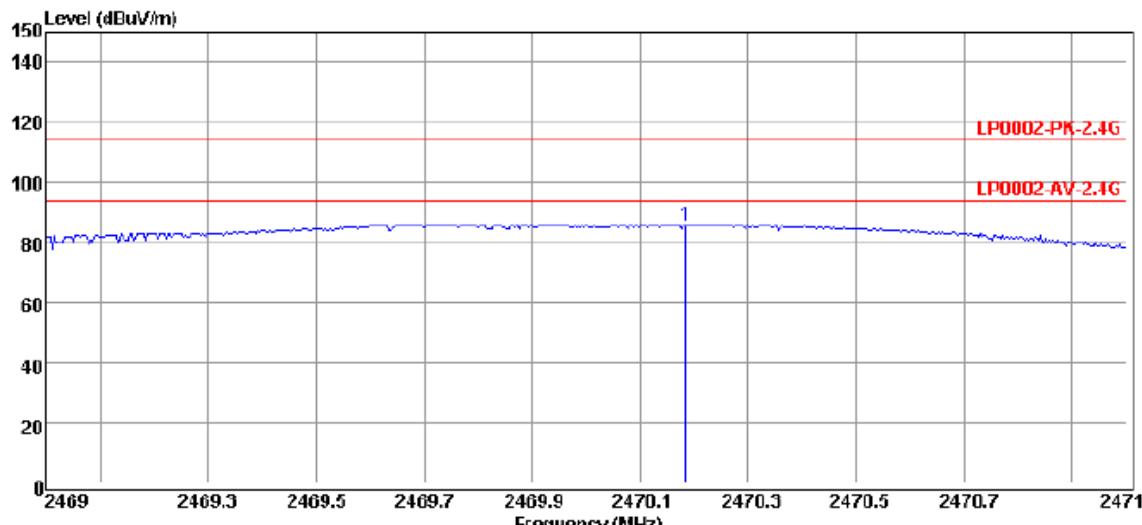
Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (c) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (d) Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Field Strength of Fundamental)

Temperature	: 21°C	Humidity	: 50%
Test Date	: 25-Nov-2013	Tested by	: Ben Chen
Polarization	: Horizontal	Channel	: CH7 (2470MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	2470.18	90.60	-4.93	85.67	114.00	-28.33	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

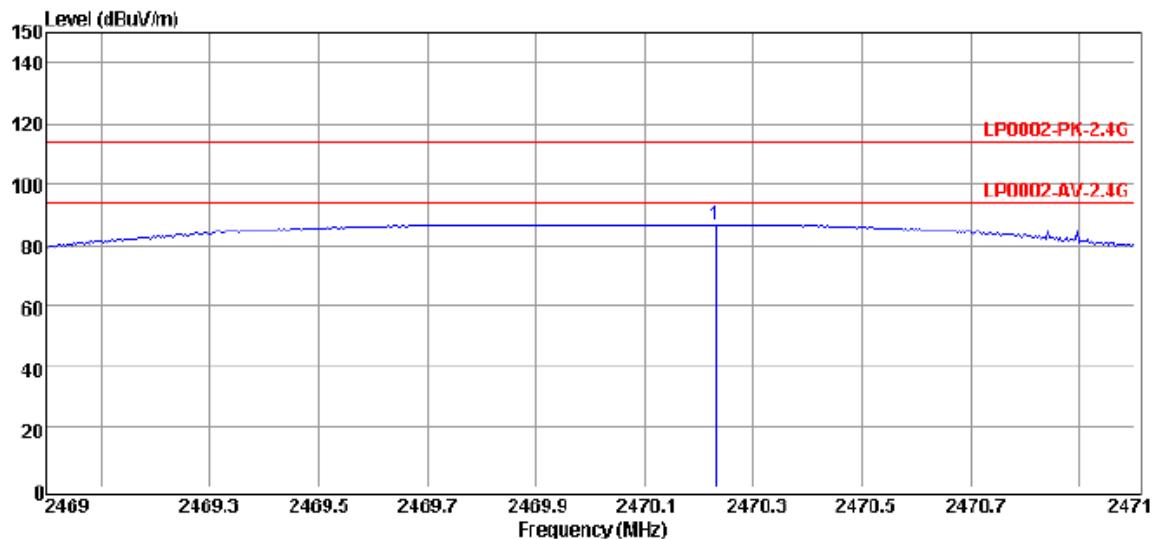
Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (b) Average Setting 1GHz to 10th harmonics of fundamental,: RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Field Strength of Fundamental)

Temperature	: 21°C	Humidity	: 50%
Test Date	: 25-Nov-2013	Tested by	: Ben Chen
Polarization	: Vertical	Channel	: CH7 (2470MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	2470.23	91.82	-4.93	86.89	114.00	-27.11	VERTICAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

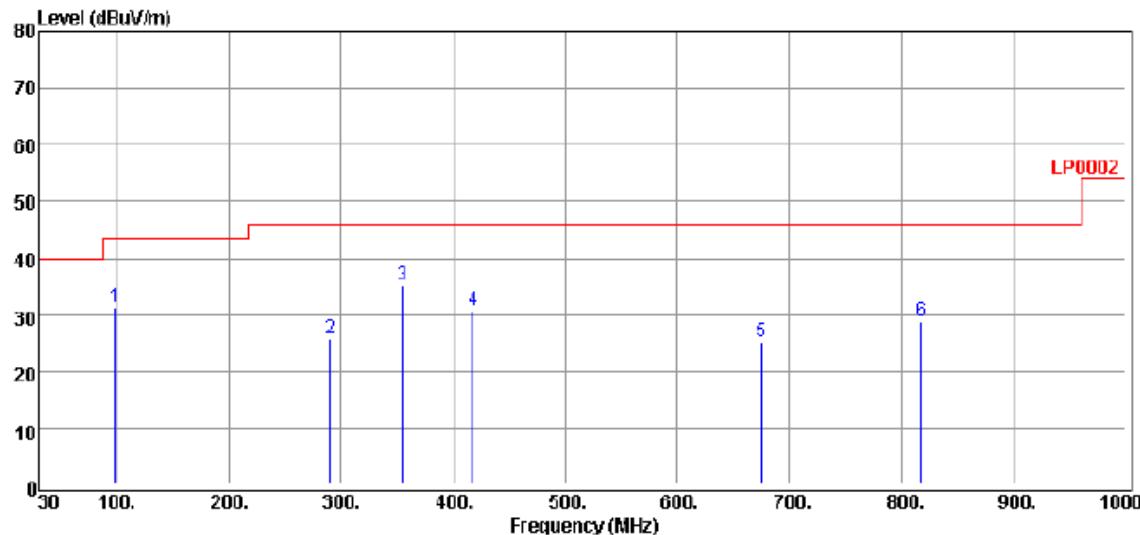
Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (e) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (f) Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Below 1 GHz)

Temperature	: 24°C	Humidity	: 50%
Test Date	: 27-Nov-2013	Tested by	: Ben Chen
Polarization	: Horizontal	Channel	: CH1 (2410MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	97.90	56.92	-25.68	31.24	43.50	-12.26	HORIZONTAL	Peak
2	289.96	42.73	-16.95	25.78	46.00	-20.22	HORIZONTAL	Peak
3	354.95	49.69	-14.48	35.21	46.00	-10.79	HORIZONTAL	Peak
4	418.00	43.77	-13.10	30.67	46.00	-15.33	HORIZONTAL	Peak
5	675.05	31.02	-5.79	25.23	46.00	-20.77	HORIZONTAL	Peak
6	817.64	30.55	-1.84	28.71	46.00	-17.29	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

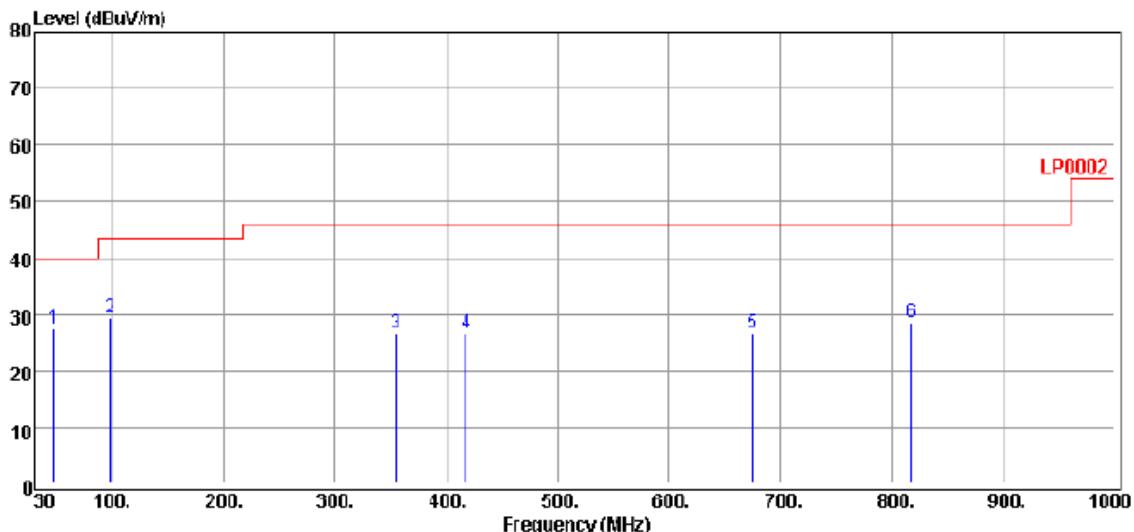
Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

1. Measuring frequencies from 30 MHz to 1 GHz.
2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode.
3. Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
4. All readings are Peak values. None of the peak value reading exceeds the Q.P. limit. Hence, Q.P. reading was not measured.
5. The IF bandwidth of SPA between 30 MHz to 1 GHz was 100 kHz.

Radiated Emission Test Data (Below 1 GHz)

Temperature : 24°C Humidity : 50%
Test Date : 27-Nov-2013 Tested by : Ben Chen
Polarization : Vertical Channel : CH1 (2410MHz)
EUT Position : Horizontal



No.	Freq MHz	Reading dB μ V	C.F. dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	47.46	53.28	-25.84	27.44	40.00	-12.56	VERTICAL	Peak
2	97.90	51.95	-22.64	29.31	43.50	-14.19	VERTICAL	Peak
3	354.95	43.66	-17.01	26.65	46.00	-19.35	VERTICAL	Peak
4	418.00	41.51	-14.83	26.68	46.00	-19.32	VERTICAL	Peak
5	675.05	32.21	-5.61	26.60	46.00	-19.40	VERTICAL	Peak
6	817.64	33.59	-5.18	28.41	46.00	-17.59	VERTICAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

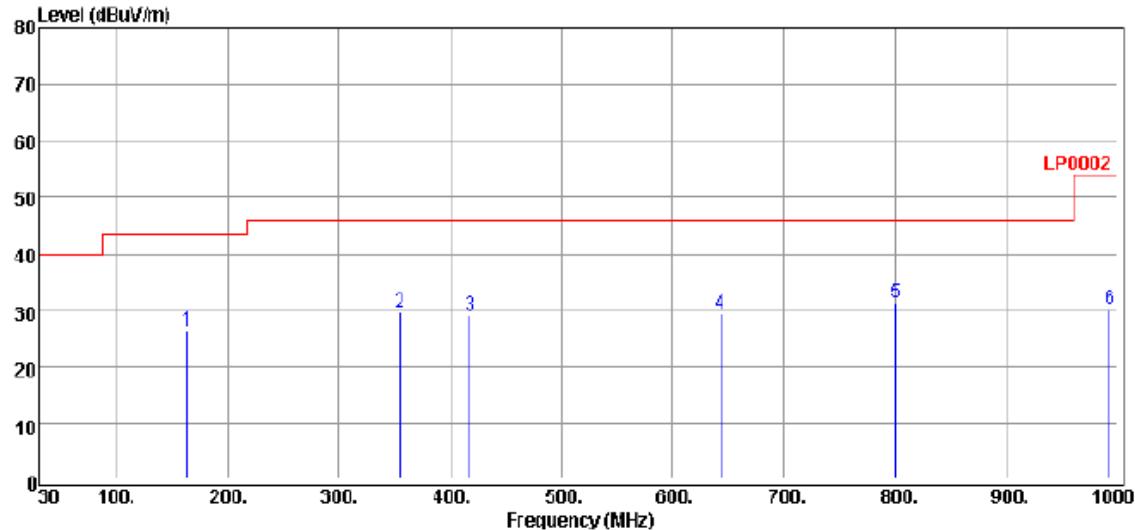
Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

1. Measuring frequencies from 30 MHz to 1 GHz.
2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode.
3. Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
4. All readings are Peak values. None of the peak value reading exceeds the Q.P. limit. Hence, Q.P. reading was not measured.
5. The IF bandwidth of SPA between 30 MHz to 1 GHz was 100 kHz.

Radiated Emission Test Data (Below 1 GHz)

Temperature	: 24°C	Humidity	: 50%
Test Date	: 27-Nov-2013	Tested by	: Ben Chen
Polarization	: Horizontal	Channel	: CH4 (2440MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	163.86	50.54	-24.17	26.37	43.50	-17.13	HORIZONTAL	Peak
2	354.95	44.17	-14.48	29.69	46.00	-16.31	HORIZONTAL	Peak
3	418.00	42.15	-13.10	29.05	46.00	-16.95	HORIZONTAL	Peak
4	643.04	36.23	-6.75	29.48	46.00	-16.52	HORIZONTAL	Peak
5	801.15	33.10	-1.75	31.35	46.00	-14.65	HORIZONTAL	Peak
6	993.21	29.28	0.79	30.07	54.00	-23.93	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain.

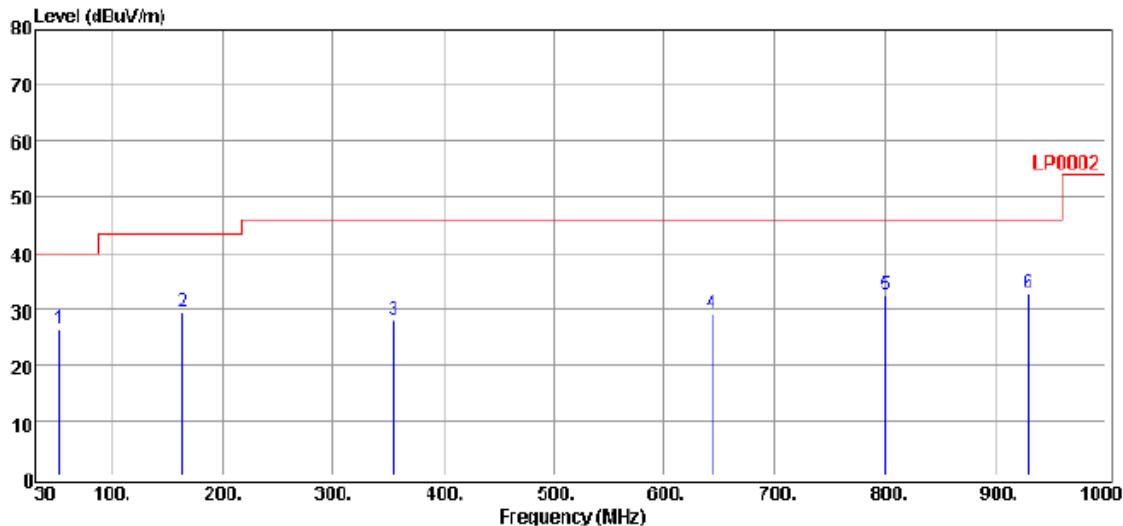
Note 2. Margin = Result - Limit ; Result = Reading + C.F.

Remark :

1. Measuring frequencies from 30 MHz to 1 GHz.
2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode.
3. Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
4. All readings are Peak values. None of the peak value reading exceeds the Q.P. limit. Hence, Q.P. reading was not measured.
5. The IF bandwidth of SPA between 30 MHz to 1 GHz was 100 kHz.

Radiated Emission Test Data (Below 1 GHz)

Temperature	: 24°C	Humidity	: 50%
Test Date	: 27-Nov-2013	Tested by	: Ben Chen
Polarization	: Vertical	Channel	: CH4 (2440MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	51.34	52.45	-26.04	26.41	40.00	-13.59	VERTICAL	Peak
2	163.86	48.05	-18.81	29.24	43.50	-14.26	VERTICAL	Peak
3	354.95	45.07	-17.01	28.06	46.00	-17.94	VERTICAL	Peak
4	643.04	35.66	-6.48	29.18	46.00	-16.82	VERTICAL	Peak
5	801.15	37.68	-5.27	32.41	46.00	-13.59	VERTICAL	Peak
6	930.16	35.95	-3.35	32.60	46.00	-13.40	VERTICAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

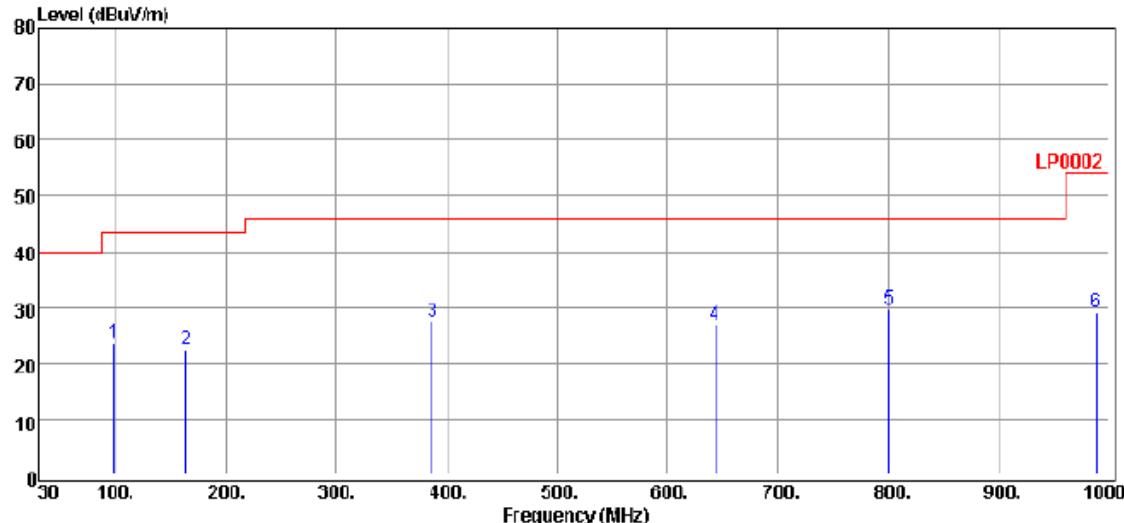
Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

1. Measuring frequencies from 30 MHz to 1 GHz.
2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode.
3. Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
4. All readings are Peak values. None of the peak value reading exceeds the Q.P. limit. Hence, Q.P. reading was not measured.
5. The IF bandwidth of SPA between 30 MHz to 1 GHz was 100 kHz.

Radiated Emission Test Data (Below 1 GHz)

Temperature	: 24°C	Humidity	: 50%
Test Date	: 27-Nov-2013	Tested by	: Ben Chen
Polarization	: Horizontal	Channel	: CH7 (2470MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	97.90	49.28	-25.68	23.60	43.50	-19.90	HORIZONTAL	Peak
2	163.86	46.69	-24.17	22.52	43.50	-20.98	HORIZONTAL	Peak
3	386.96	40.75	-13.33	27.42	46.00	-18.58	HORIZONTAL	Peak
4	643.04	33.56	-6.75	26.81	46.00	-19.19	HORIZONTAL	Peak
5	801.15	31.32	-1.75	29.57	46.00	-16.43	HORIZONTAL	Peak
6	988.36	28.43	0.65	29.08	54.00	-24.92	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

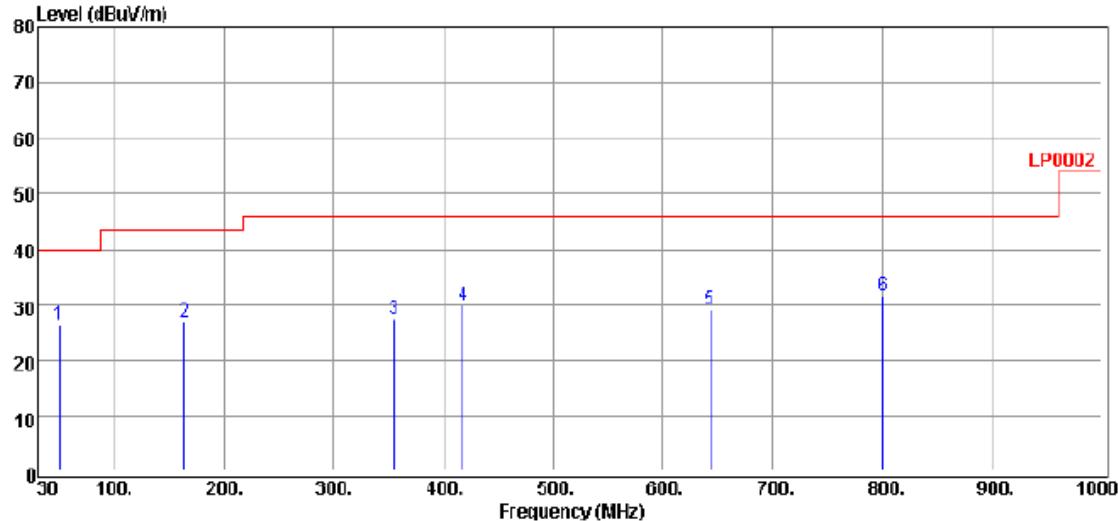
Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

1. Measuring frequencies from 30 MHz to 1 GHz.
2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode.
3. Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
4. All readings are Peak values. None of the peak value reading exceeds the Q.P. limit. Hence, Q.P. reading was not measured.
5. The IF bandwidth of SPA between 30 MHz to 1 GHz was 100 kHz.

Radiated Emission Test Data (Below 1 GHz)

Temperature	: 24°C	Humidity	: 50%
Test Date	: 27-Nov-2013	Tested by	: Ben Chen
Polarization	: Vertical	Channel	: CH7 (2470MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	49.40	52.57	-26.16	26.41	40.00	-13.59	VERTICAL	Peak
2	163.86	45.61	-18.81	26.80	43.50	-16.70	VERTICAL	Peak
3	354.95	44.28	-17.01	27.27	46.00	-18.73	VERTICAL	Peak
4	418.00	44.80	-14.83	29.97	46.00	-16.03	VERTICAL	Peak
5	643.04	35.64	-6.48	29.16	46.00	-16.84	VERTICAL	Peak
6	801.15	36.86	-5.27	31.59	46.00	-14.41	VERTICAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

Note 2. Margin = Result - Limit ; Result = Reading + C.F .

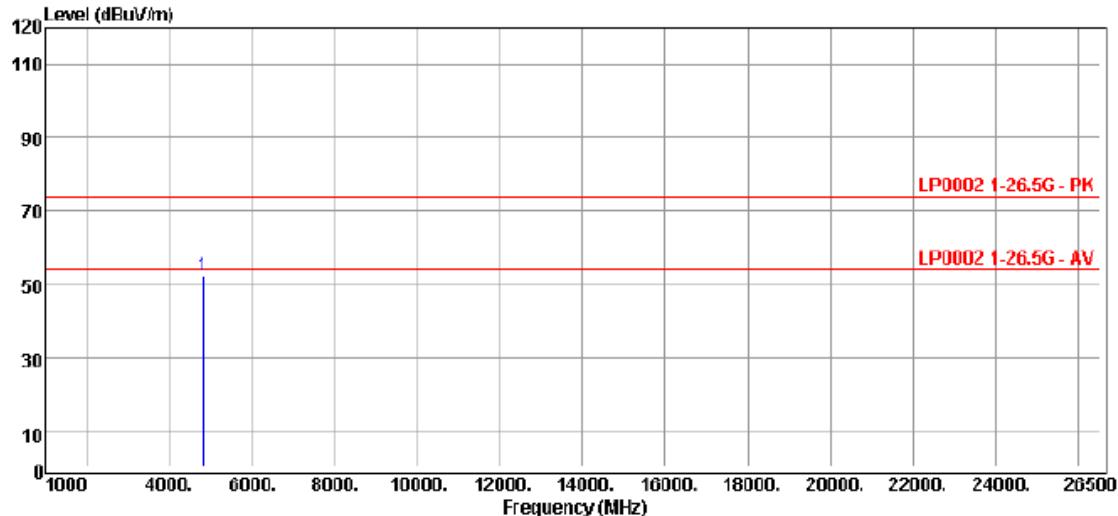
Remark :

1. Measuring frequencies from 30 MHz to 1 GHz.
2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode.
3. Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
4. All readings are Peak values. None of the peak value reading exceeds the Q.P. limit. Hence, Q.P. reading was not measured.
5. The IF bandwidth of SPA between 30 MHz to 1 GHz was 100 kHz.

Radiated Emission Test Data (Above and Field Strength to 10th Harmonic)

Temperature : 24°C
Test Date : 27-Nov-2013
Polarization : Horizontal
EUT Position : Horizontal

Humidity : 50%
Tested by : Ben Chen
Channel : CH1 (2410MHz)



No.	Freq MHz	Reading dBµV	C.F. dB	Result dBµV/m	Limit dBµV/m	Margin dB	Antenna Pol.	Remark
1	4825.00	53.24	-0.93	52.31	74.00	-21.69	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

Note 2. Margin = Result - Limit ; Result = Reading + C.F .

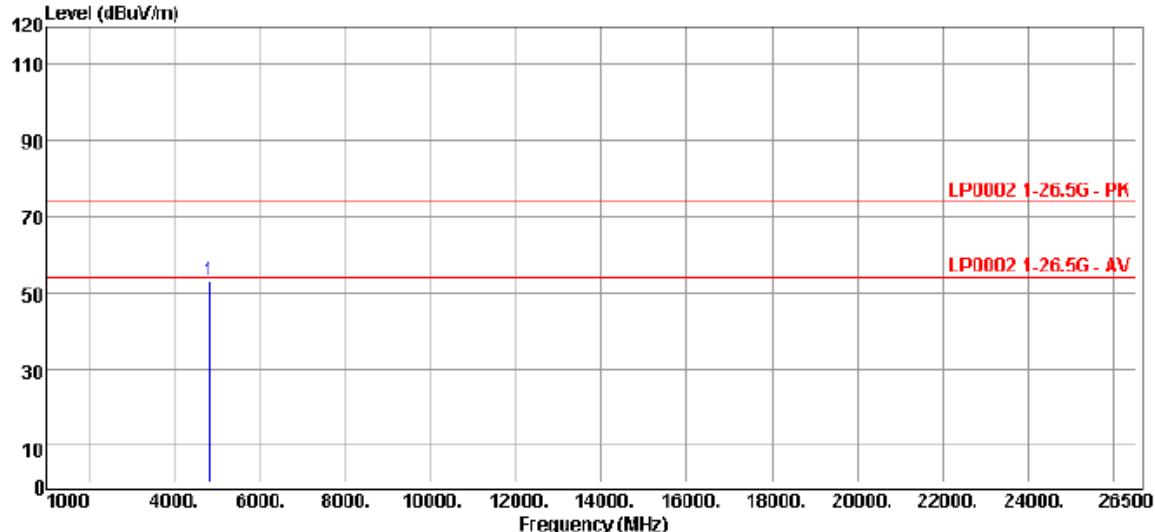
Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (b) Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Above and Field Strength to 10th Harmonic)

Temperature : 24°C
Test Date : 27-Nov-2013
Polarization : Vertical
EUT Position : Horizontal

Humidity : 50%
Tested by : Ben Chen
Channel : CH1 (2410MHz)



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	4825.00	54.25	-0.93	53.32	74.00	-20.68	VERTICAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

Note 2. Margin = Result - Limit ; Result = Reading + C.F .

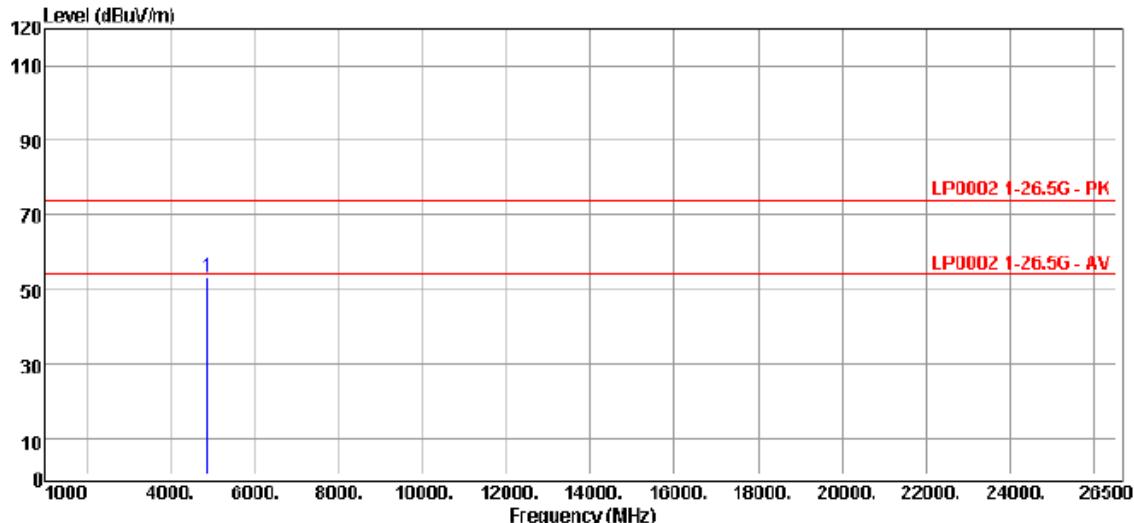
Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.

Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Above and Field Strength to 10th Harmonic)

Temperature	: 24°C	Humidity	: 50%
Test Date	: 27-Nov-2013	Tested by	: Ben Chen
Polarization	: Horizontal	Channel	: CH4 (2440MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	4885.00	53.86	-0.81	53.05	74.00	-20.95	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

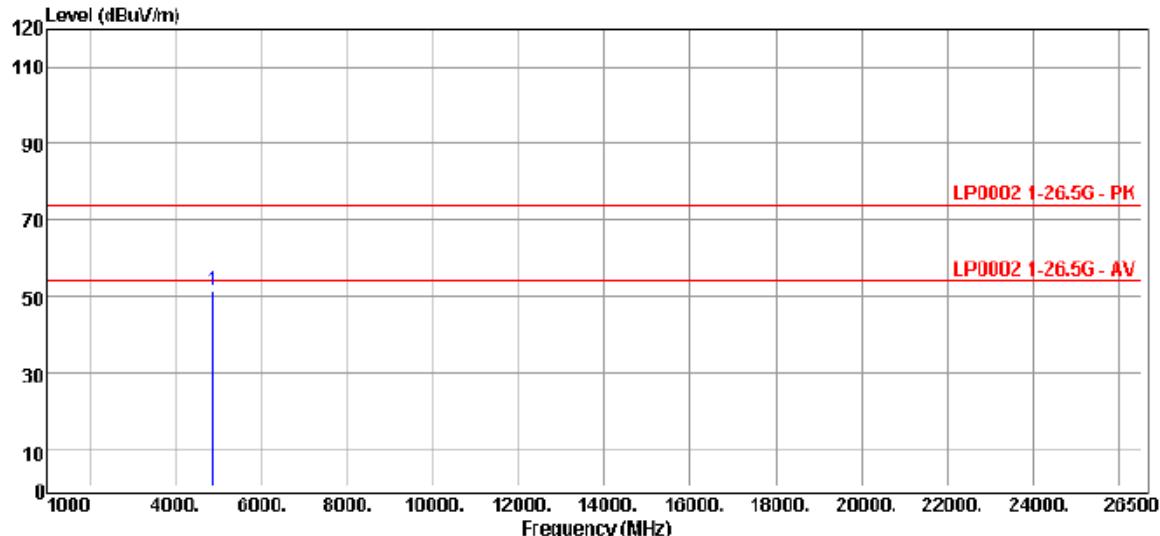
1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.

Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Above and Field Strength to 10th Harmonic)

Temperature : 24°C
Test Date : 27-Nov-2013
Polarization : Vertical
EUT Position : Horizontal

Humidity : 50%
Tested by : Ben Chen
Channel : CH4 (2440MHz)



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	4885.00	52.17	-0.81	51.36	74.00	-22.64	VERTICAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain ▶

Note 2. Margin = Result - Limit ; Result = Reading + C.F ▶

Remark :

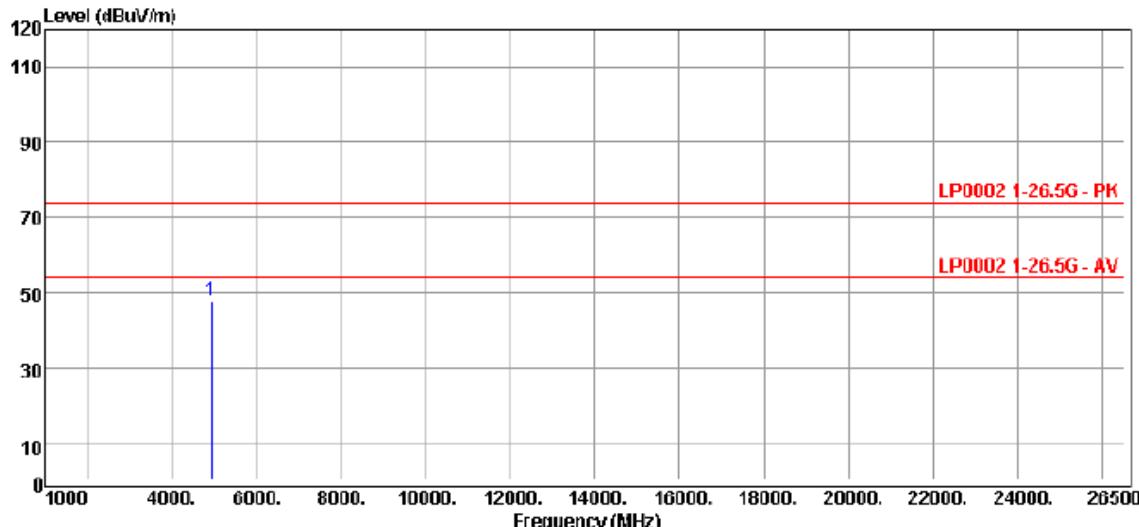
1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.

Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Above and Field Strength to 10th Harmonic)

Temperature : 24°C
Test Date : 27-Nov-2013
Polarization : Horizontal
EUT Position : Horizontal

Humidity : 50%
Tested by : Ben Chen
Channel : CH7 (2470MHz)



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	4945.00	48.58	-0.70	47.88	74.00	-26.12	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

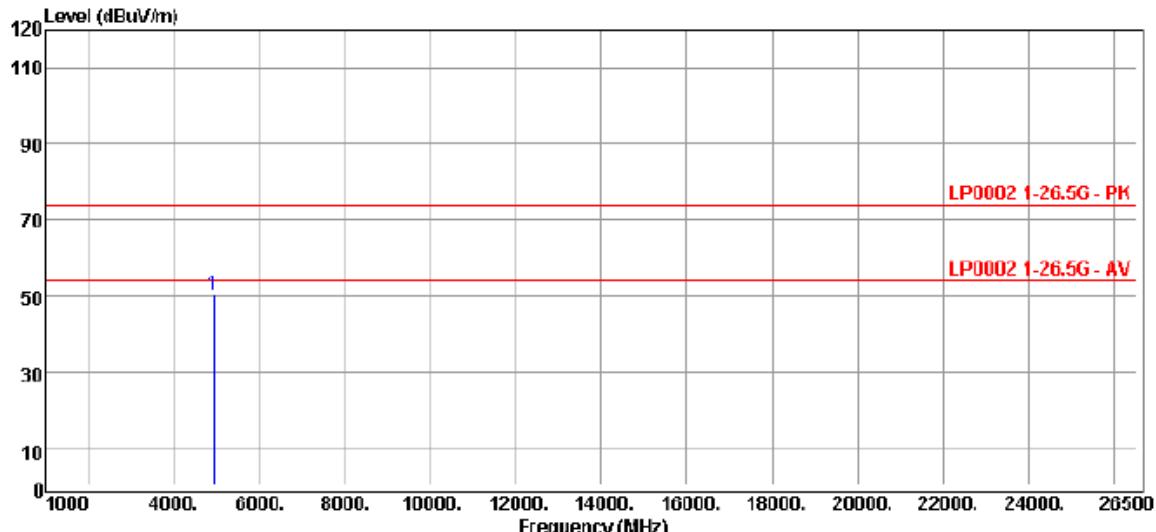
1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.

Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Radiated Emission Test Data (Above and Field Strength to 10th Harmonic)

Temperature : 24°C
Test Date : 27-Nov-2013
Polarization : Vertical
EUT Position : Horizontal

Humidity : 50%
Tested by : Ben Chen
Channel : CH7 (2470MHz)



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	4945.00	50.98	-0.70	50.28	74.00	-23.72	VERTICAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain.

Note 2. Margin = Result - Limit ; Result = Reading + C.F.

Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.

Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

4 Out of Band Emission Test

4.1 Test Instruments

Refer to Sec. 1.2 Test Instruments.

4.2 Test Arrangement and Procedure

Refer to Sec. 3.2.

4.3 Limit of Field Strength of Fundamental (§ 15.249(d))

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 § 15.209, whichever is the lesser attenuation.

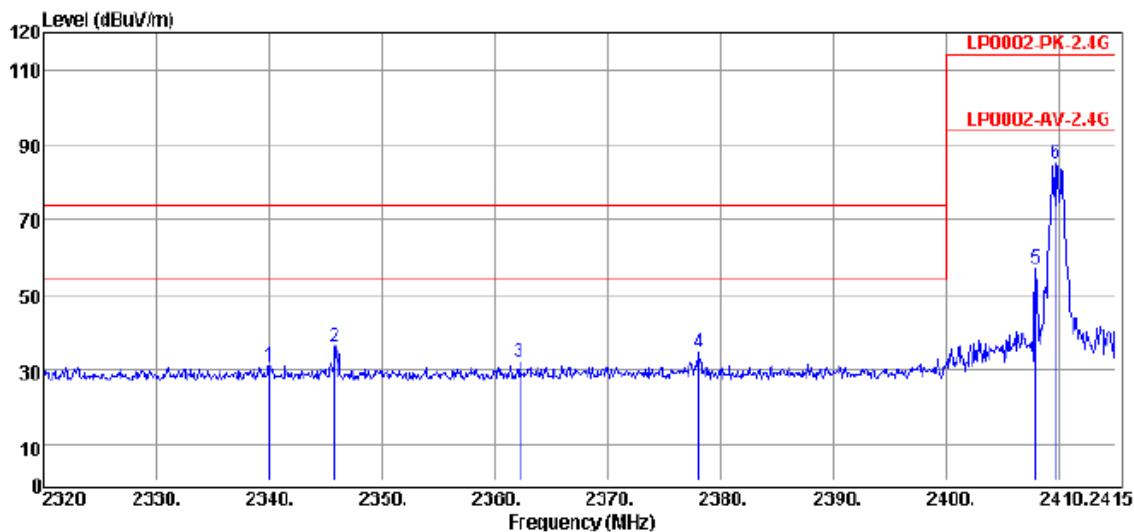
4.4 Test Result

Compliance

The final test data are shown on the following page(s).

Band-Edge Test Data (Lower Edge)

Temperature	: 24°C	Humidity	: 50%
Test Date	: 27-Nov-2013	Tested by	: Ben Chen
Polarization	: Horizontal	Channel	: CH1 (2410MHz)
EUT Position	: Horizontal		



No.	Freq MHz	Reading dB μ V	C.F. dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	2339.95	36.82	-6.05	30.77	74.00	-43.23	HORIZONTAL	Peak
2	2345.75	42.29	-5.99	36.30	74.00	-37.70	HORIZONTAL	Peak
3	2362.18	37.68	-5.88	31.80	74.00	-42.20	HORIZONTAL	Peak
4	2378.05	40.35	-5.69	34.66	74.00	-39.34	HORIZONTAL	Peak
5	2407.88	62.22	-5.46	56.76	114.00	-57.24	HORIZONTAL	Peak
6	2409.78	90.51	-5.46	85.05	114.00	-28.95	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

Note 2. Margin = Result - Limit ; Result = Reading + C.F .

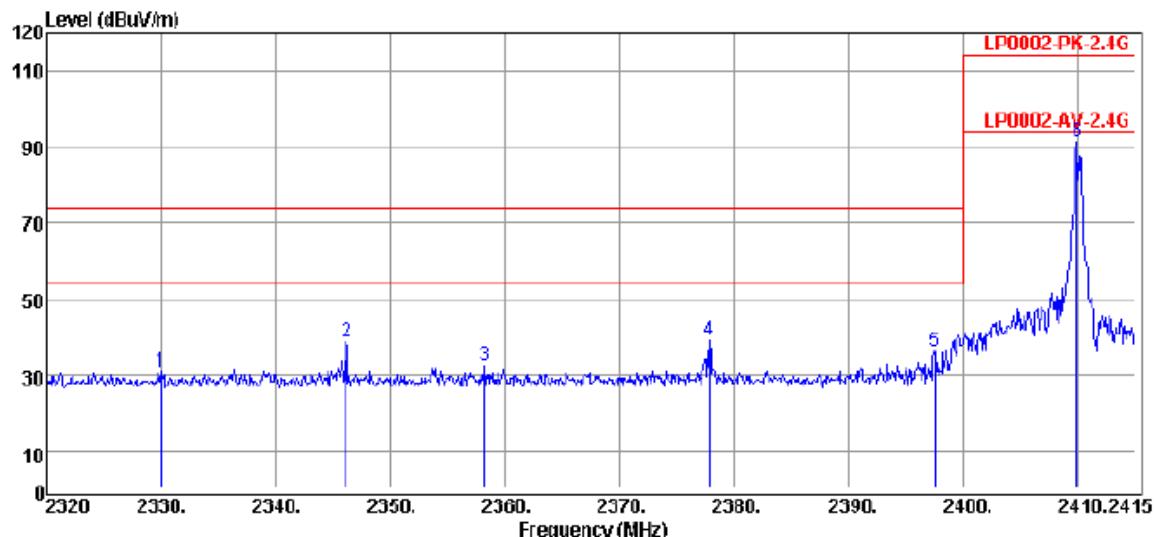
Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (b) Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Band-Edge Test Data (Lower Edge)

Temperature : 24°C
Test Date : 27-Nov-2013
Polarization : Horizontal
EUT Position : Horizontal

Humidity : 50%
Tested by : Ben Chen
Channel : CH1 (2410MHz)



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	2329.98	36.86	-6.11	30.75	74.00	-43.25	VERTICAL	Peak
2	2346.13	44.41	-5.99	38.42	74.00	-35.58	VERTICAL	Peak
3	2358.29	38.22	-5.88	32.34	74.00	-41.66	VERTICAL	Peak
4	2377.86	44.60	-5.69	38.91	74.00	-35.09	VERTICAL	Peak
5	2397.52	41.77	-5.52	36.25	74.00	-37.75	VERTICAL	Peak
6	2409.97	96.77	-5.46	91.31	114.00	-22.69	VERTICAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

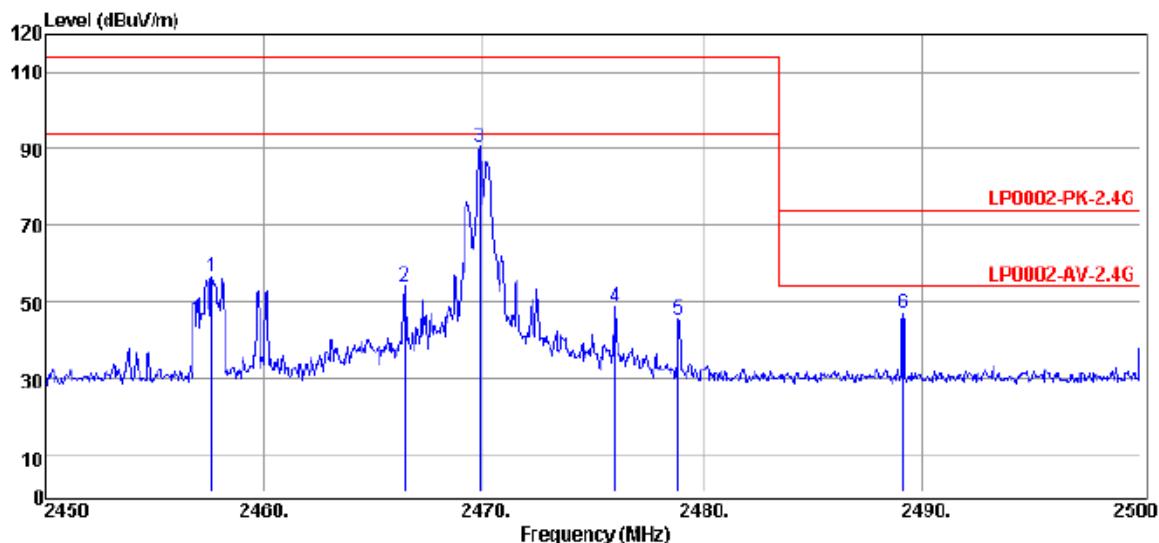
Note 2. Margin = Result - Limit , Result = Reading + C.F .

Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (b) Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Band-Edge Test Data (Upper Edge)

Temperature	:	24°C	Humidity	:	50%
Test Date	:	27-Nov-2013	Tested by	:	Ben Chen
Polarization	:	Horizontal	Channel	:	CH7 (2470MHz)
EUT Position	:	Horizontal			



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	2457.60	61.45	-5.04	56.41	114.00	-57.59	HORIZONTAL	Peak
2	2466.40	59.01	-4.98	54.03	114.00	-59.97	HORIZONTAL	Peak
3	2469.80	95.53	-4.93	90.60	114.00	-23.40	HORIZONTAL	Peak
4	2476.00	53.43	-4.86	48.57	114.00	-65.43	HORIZONTAL	Peak
5	2478.90	50.02	-4.86	45.16	114.00	-68.84	HORIZONTAL	Peak
6	2489.15	51.52	-4.74	46.78	74.00	-27.22	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

Note 2. Margin = Result - Limit ; Result = Reading + C.F .

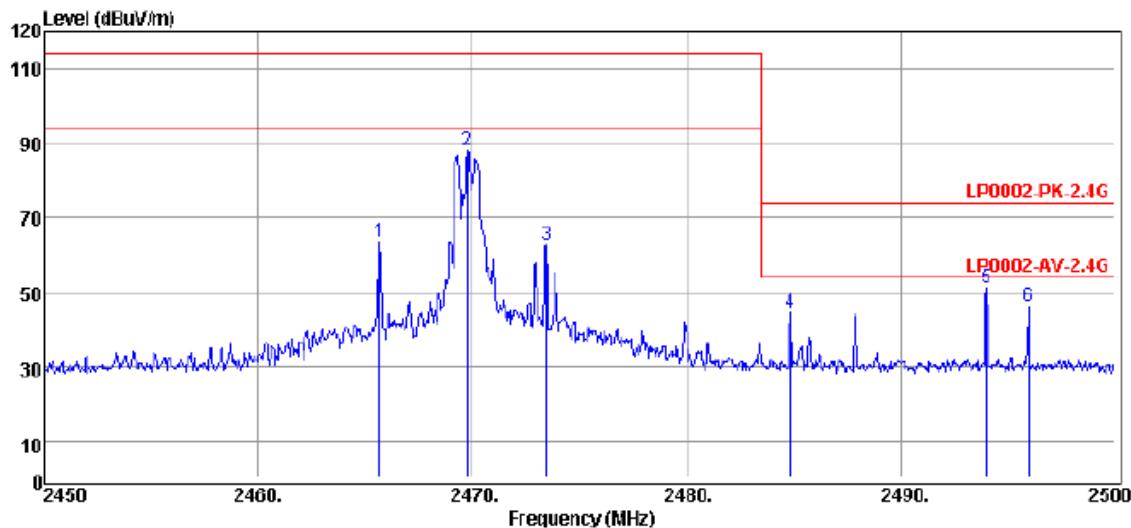
Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (b) Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO.

Band-Edge Test Data (Lower Edge)

Temperature : 24°C
Test Date : 27-Nov-2013
Polarization : Vertical
EUT Position : Horizontal

Humidity : 50%
Tested by : Ben Chen
Channel : CH7 (2470MHz)



No.	Freq MHz	Reading dB μ V	C.F dB	Result dB μ V/m	Limit dB μ V/m	Margin dB	Antenna Pol.	Remark
1	2465.65	68.34	-4.98	63.36	114.00	-50.64	HORIZONTAL	Peak
2	2469.75	92.92	-4.93	87.99	114.00	-26.01	HORIZONTAL	Peak
3	2473.45	67.68	-4.92	62.76	114.00	-51.24	HORIZONTAL	Peak
4	2484.85	49.12	-4.81	44.31	74.00	-29.69	HORIZONTAL	Peak
5	2494.00	55.68	-4.74	50.94	74.00	-23.06	HORIZONTAL	Peak
6	2496.00	50.85	-4.74	46.11	74.00	-27.89	HORIZONTAL	Peak

Note 1. C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain .

Note 2. Margin = Result - Limit ; Result = Reading + C.F .

Remark :

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser 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.
3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. All readings are Peak values. None of the peak value reading exceeds the A.V. limit. Hence, A.V. reading was not measured.
5. Spectrum setting:
 - (a) Peak Setting 1GHz to 10th harmonics of fundamental, RBW = VBW = 1MHz, Sweep = AUTO.
 - (b) Average Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep = AUTO..

5 Antenna requirement

5.1 Limit (§ 15.203)

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

5.2 Test Result

Compliance.

The EUT applies a fixed PCB antenna.