



FCC RF TEST REPORT

47 CFR FCC Part 15 Subpart C § 15.249

APPLICANT : Lemobile Information Technology (Beijing) Co., Ltd
EQUIPMENT : mobile phone
BRAND NAME : Letv
MODEL NAME : Le 1 Pro
FCC ID : 2AFWMLE1PRO

The product was received on Aug. 25, 2015 and testing was completed on Sep. 26, 2015. We, SPORTON INTERNATIONAL (SHENZHEN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (SHENZHEN) INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL (SHENZHEN) INC.

1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town,
Nanshan District, Shenzhen, Guangdong, P. R. China



Table of Contents

1. SUMMARY OF THE TEST RESULT	4
2. GENERAL INFORMATION.....	5
2.1 Applicant.....	5
2.2 Manufacturer.....	5
2.3 Product Details	6
2.4 Table for Test Modes.....	7
2.5 Table for Testing Locations	8
2.6 Test Configurations.....	9
3. TEST RESULT	10
3.1 AC Power Line Conducted Emissions Measurement.....	10
3.2 20dB and & 99% Occupied Bandwidth.....	14
3.3 Field Strength of Fundamental Emissions and Radiated Spurious Emissions.....	17
3.4 Antenna Requirements	22
4. LIST OF MEASURING EQUIPMENT	23
APPENDIX A. RADIATED TEST RESULTS	
APPENDIX B. SETUP PHOTOGRAPHS	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR582501F	Rev. 01	Initial issue of report	Sep. 29, 2015

**1. SUMMARY OF THE TEST RESULT**

Applied Standard:				
Part	FCC Rule	Description of Test	Result	Under Limit
3.1	15.207	AC Power Line Conducted Emissions	Complies	9.34 dB at 0.520MHz
3.2	2.1049	20dB & 99% Occupied Bandwidth	Complies	-
3.3	15.249(a)	Field Strength of Fundamental Emissions	Complies	23.73 dB at 2441.000MHz
3.3	15.249(a)(d)	Radiated Spurious Emissions	Complies	5.21 dB at 34.850MHz
3.4	15.203	Antenna Requirements	Complies	-

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.3 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.9 dB
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2. GENERAL INFORMATION

2.1 Applicant

Lemobile Information Technology (Beijing) Co., Ltd

WENHUAYING NORTH (No.1, LINKONG 2nd St), GAOLIYING, SHUNYI DISTRICT, BEIJING.China

2.2 Manufacturer

Lemobile Information Technology (Beijing) Co., Ltd

WENHUAYING NORTH (No.1, LINKONG 2nd St), GAOLIYING, SHUNYI DISTRICT, BEIJING.China

2.3 Product Details

For more detailed features description, please refer to the manufacturer's specifications or user's manual.

Product Feature	
Equipment	mobile phone
Brand Name	Letv
Model Name	Le 1 Pro
FCC ID	2AFWMLE1PRO
EUT supports Radios application	CDMA/EV-DO/GSM/GPRS/EGPRS/WCDMA/HSPA/HSPA+(Downlink Only)/DC-HSDPA/LTE/ANT+ WLAN2.4GHz 802.11b/g/n HT20/HT40 WLAN5GHz 802.11a/n HT20/HT40 WLAN5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0+EDR/Bluetooth v4.1 LE
IMEI Code	Conducted: 868126020009142/868126020009159 Radiation: 868126020009670/868126020009662 Conduction: 868126020002824/868126020002832
HW Version	DVT3.2
SW Version	5.0.008S
EUT Stage	Identical Prototype

Items	Description
Modulation	GFSK
Channel Bandwidth (99%)	1.012MHz
Max. Field Strength (Peak)	90.27dB μ V/m
Max. Field Strength (Average)	68.33dB μ V/m
ANT+ Channel Number	79
ANT+ Frequency Range	2402-2480MHz



2.4 Table for Test Modes

Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode
AC Power Line Conducted Emissions	CTX
Field Strength of Fundamental Emissions	CTX
Bandwidth	CTX
Radiated Emissions	CTX

Note:

1. CTX=continuously transmitting.
2. The programmed RF utility, the engineering test program was provided and enabled to make EUT continuous transmit/receive.

**2.5 Table for Testing Locations**

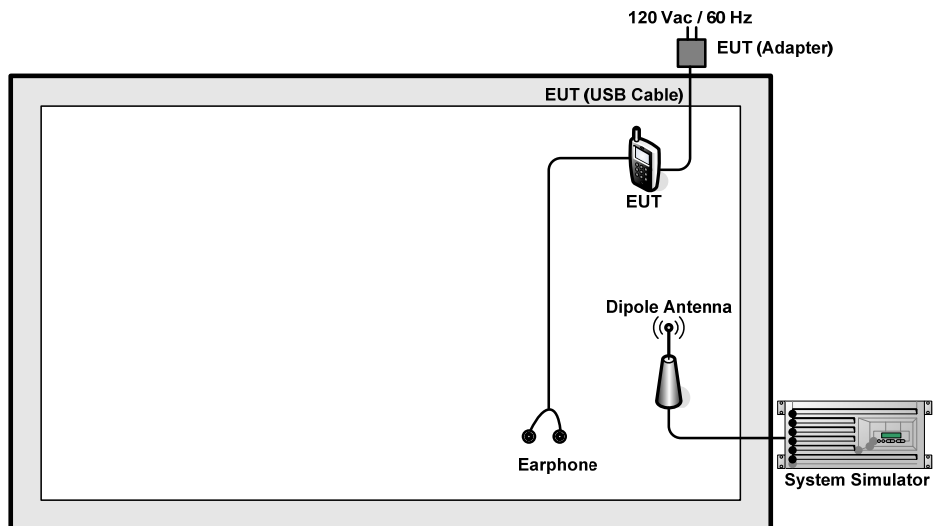
Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.	
Test Site Location	1F & 2F,Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595	
Test Site No.	Sporton Site No.	
	TH01-SZ	CO01-SZ

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.	
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755- 3320-2398	
Test Site No.	Sporton Site No.	FCC Registration No.
	03CH01-SZ	831040

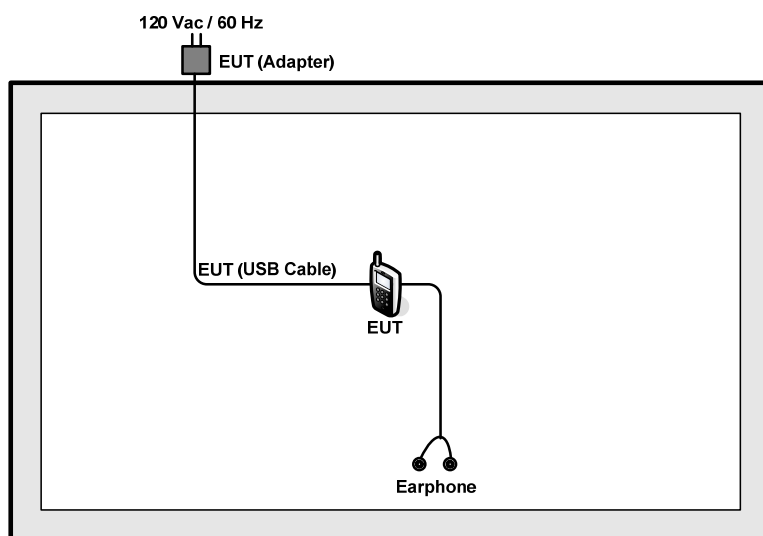
Note: The test site complies with ANSI C63.4 2009 requirement.

2.6 Test Configurations

<AC Conducted Emissions>



<Radiated Spurious Emissions>



3. TEST RESULT

3.1 AC Power Line Conducted Emissions Measurement

3.1.1 Limit

For a Low-power Radio-frequency device which is designed to be connected to the 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 below limits table.

Frequency (MHz)	QP Limit (dB μ V)	AV Limit (dB μ V)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

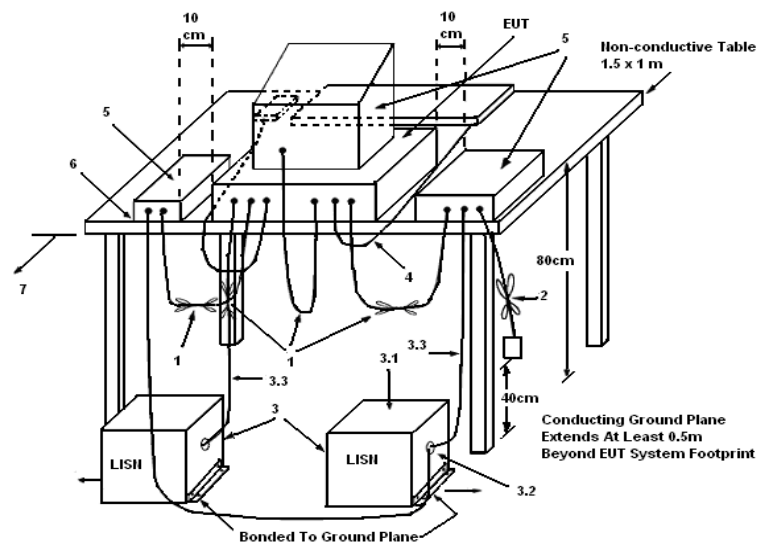
3.1.2 Measuring Instruments

Please refer to section 4 of equipment list in this report.

3.1.3 Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT or host of EUT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT or host of EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISNs. The LISN should provide 50uH/50ohms coupling impedance.
4. The frequency range from 150 kHz to 30 MHz was searched.
5. Set the test-receiver system to Peak Detect Function and Specified Bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.
6. The measurement has to be done between each power line and ground at the power terminal.

3.1.4 Test Setup Layout



LEGEND:

- (1) Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- (2) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- (3) EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω . LISN can be placed on top of, or immediately beneath, reference ground plane.
- (3.1) All other equipment powered from additional LISN(s).
- (3.2) Multiple outlet strip can be used for multiple power cords of non-EUT equipment.
- (3.3) LISN at least 80 cm from nearest part of EUT chassis.
- (4) Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use.
- (5) Non-EUT components of EUT system being tested.
- (6) Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.
- (7) Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

3.1.5 Test Deviation

There is no deviation with the original standard.

3.1.6 EUT Operation during Test

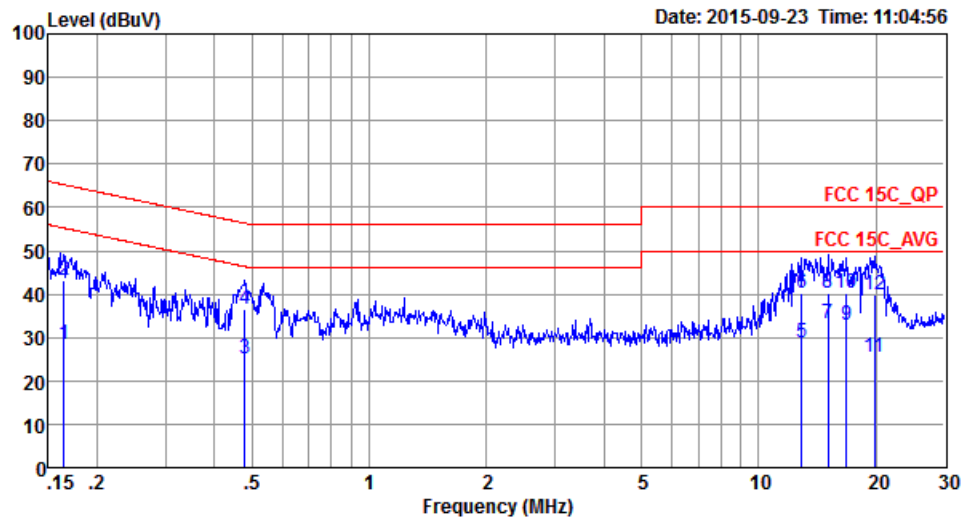
The EUT was placed on the test table and programmed in transmitting function.



3.1.7 Results of AC Power Line Conducted Emissions Measurement

Test Date	Sep. 23, 2015	Test Site No.	CO01-SZ
Temperature	21~23°C	Humidity	41~43%
Test Engineer	Jacky Yang	Configuration	ANT+ Transmitting Mode
Mode	GSM850 Link + USB Cable (Charging from Adapter) + Earphone + ANT+TX		

Line



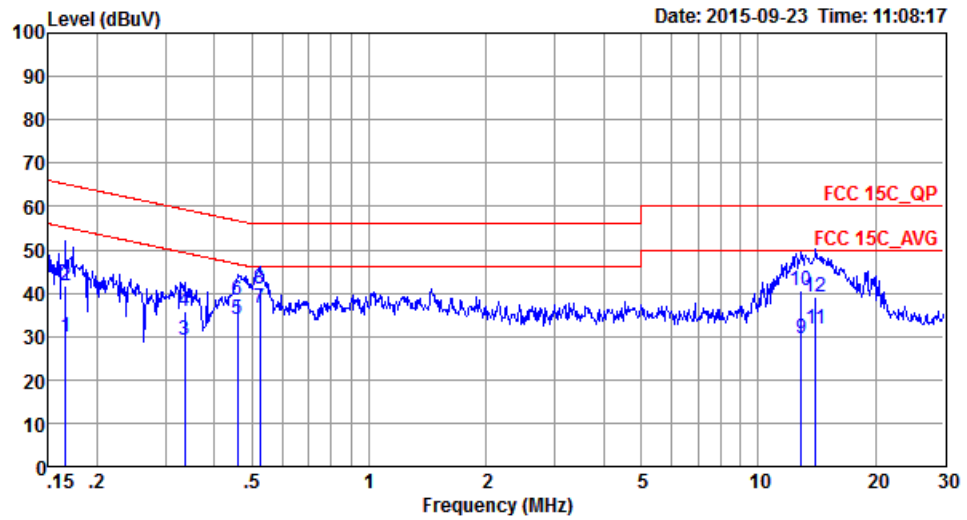
Site : CO01-SZ
Condition: FCC 15C_QP LISN_L 20150304 LINE

IMEI : 868126020002824/868126020002832

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	28.40	-26.85	55.25	17.60	0.46	10.34	Average
2	0.16	43.20	-22.05	65.25	32.40	0.46	10.34	QP
3	0.48	25.00	-21.36	46.36	14.19	0.65	10.16	Average
4	0.48	36.70	-19.66	56.36	25.89	0.65	10.16	QP
5	12.92	28.74	-21.26	50.00	17.60	0.69	10.45	Average
6	12.92	40.14	-19.86	60.00	29.00	0.69	10.45	QP
7 *	15.07	33.31	-16.69	50.00	22.00	0.78	10.53	Average
8	15.07	40.11	-19.89	60.00	28.80	0.78	10.53	QP
9	16.84	32.79	-17.21	50.00	21.40	0.82	10.57	Average
10	16.84	40.29	-19.71	60.00	28.90	0.82	10.57	QP
11	19.84	25.61	-24.39	50.00	14.10	0.88	10.63	Average
12	19.84	39.91	-20.09	60.00	28.40	0.88	10.63	QP



Neutral



Site : CO01-SZ
Condition: FCC 15C_QP LISN_N_20150304 NEUTRAL

IMEI : 868126020002824/868126020002832

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17	29.71	-25.45	55.16	18.90	0.47	10.34	Average
2	0.17	41.81	-23.35	65.16	31.00	0.47	10.34	QP
3	0.34	29.16	-20.15	49.31	18.40	0.57	10.19	Average
4	0.34	35.96	-23.35	59.31	25.20	0.57	10.19	QP
5	0.46	33.85	-12.86	46.71	23.10	0.59	10.16	Average
6	0.46	38.45	-18.26	56.71	27.70	0.59	10.16	QP
7 *	0.52	36.66	-9.34	46.00	25.91	0.60	10.15	Average
8	0.52	40.86	-15.14	56.00	30.11	0.60	10.15	QP
9	12.92	29.66	-20.34	50.00	18.50	0.71	10.45	Average
10	12.92	40.66	-19.34	60.00	29.50	0.71	10.45	QP
11	14.06	31.71	-18.29	50.00	20.50	0.71	10.50	Average
12	14.06	39.21	-20.79	60.00	28.00	0.71	10.50	QP

3.2 20dB and & 99% Occupied Bandwidth

3.2.1 Limit

Intentional radiators must be designed to ensure that the 20 dB bandwidth of the emissions in the specific band.

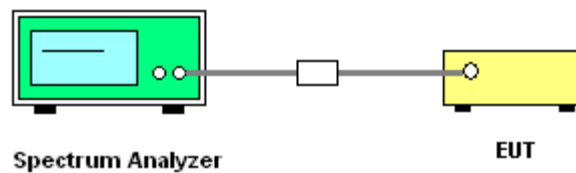
3.2.2 Measuring Instruments

Please refer to section 4 of equipment list in this report.

3.2.3 Test Procedures

1. The transmitter output port was connected to the spectrum analyzer.
2. Measured the spectrum width with highest power setting.

3.2.4 Test Setup Layout



3.2.5 Test Deviation

There is no deviation with the original standard.

3.2.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

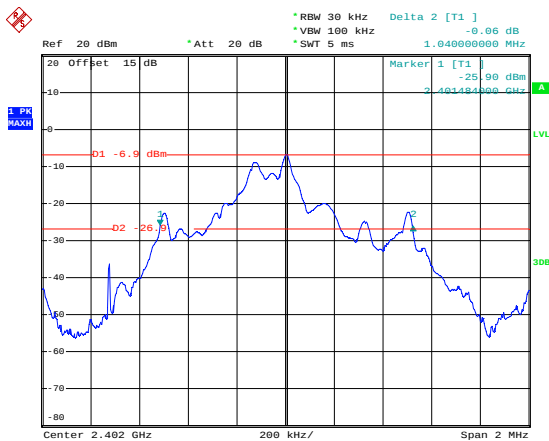


3.2.7 Test Result of 20dB Spectrum Bandwidth

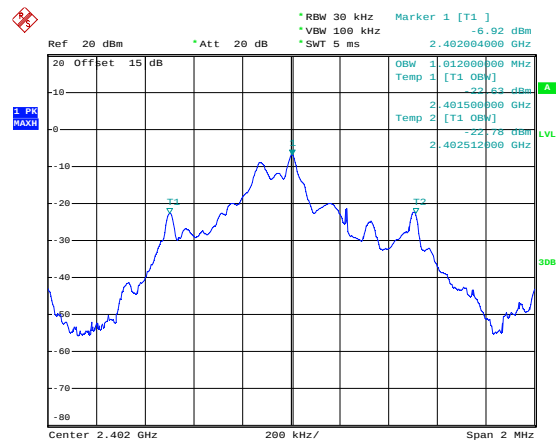
Test Date	Sep. 26, 2015	Test Site No.	TH01-SZ
Temperature	24~26°C	Humidity	50~53%
Test Engineer	Ting You		

Frequency	20dB BW (MHz)	99% OBW (MHz)
2402MHz	1.040	1.012
2441MHz	1.040	1.012
2480MHz	1.040	1.012

20 dB Bandwidth Plot on 2402MHz



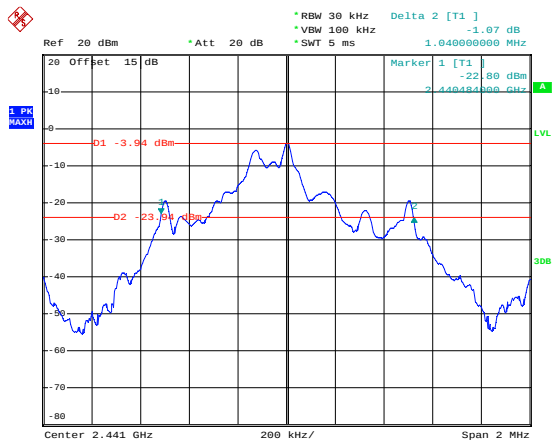
99% Bandwidth Plot on 2402MHz



Date: 26.SEP.2015 00:12:44

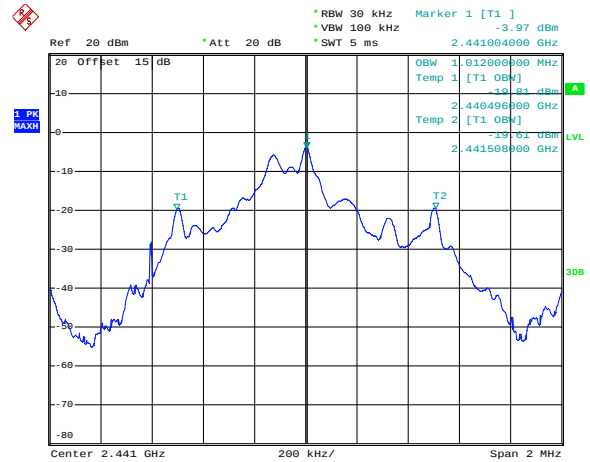


20 dB Bandwidth Plot on 2441MHz



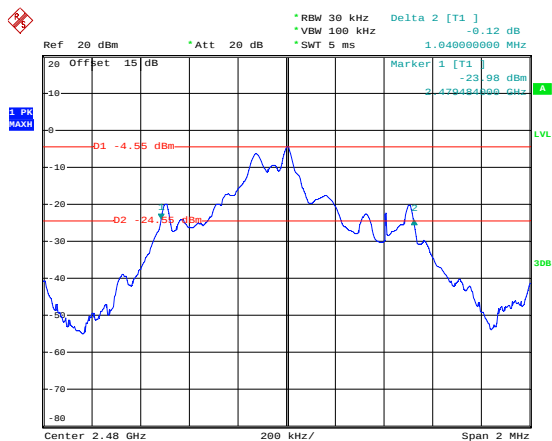
Date: 26.SEP.2015 00:19:06

99% Bandwidth Plot on 2441MHz



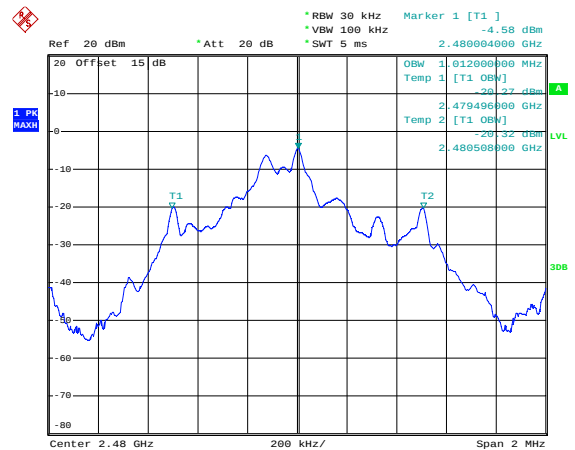
Date: 26.SEP.2015 00:14:14

20 dB Bandwidth Plot on 2480MHz



Date: 26.SEP.2015 00:17:25

99% Bandwidth Plot on 2480MHz



Date: 26.SEP.2015 00:15:25

3.3 Field Strength of Fundamental Emissions and Radiated Spurious Emissions

3.3.1 Limit

The field strength measured at 3 meters shall not exceed the limits in the following table:

Fundamental Frequencies(MHz)	Field Strength(millivolts/m)	
	Fundamental	Harmonics
902~928	50	0.5
2400~2483.5	50	0.5
5725~5875	50	0.5

Note: The limits shown in the above table are based on measurements using an average detector, except for the fundamental emission in the frequency band 902-928 MHz, which is based on measurements using a CISPR quasi-peak detector.

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 field strength limits listed in 15.209 as below, whichever is less stringent.

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



3.3.2 Measuring Instruments

Please refer to section 4 of equipment list in this report.

3.3.3 Test Procedures

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
4. Set to the maximum power setting and enable the EUT transmit continuously.

Remark:

1. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
2. For average measurement: use duty cycle correction factor method per 15.35(c).

Duty cycle = On time/100 milliseconds

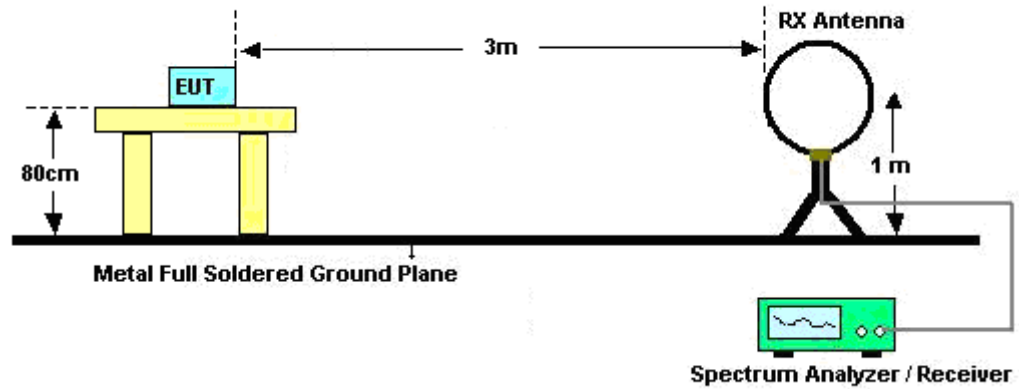
On time = $N1 \cdot L1 + N2 \cdot L2 + \dots + Nn-1 \cdot L_{Nn-1} + Nn \cdot Ln$

Where N1 is number of type 1 pulses, L1 is length of type 1 pulses, etc.

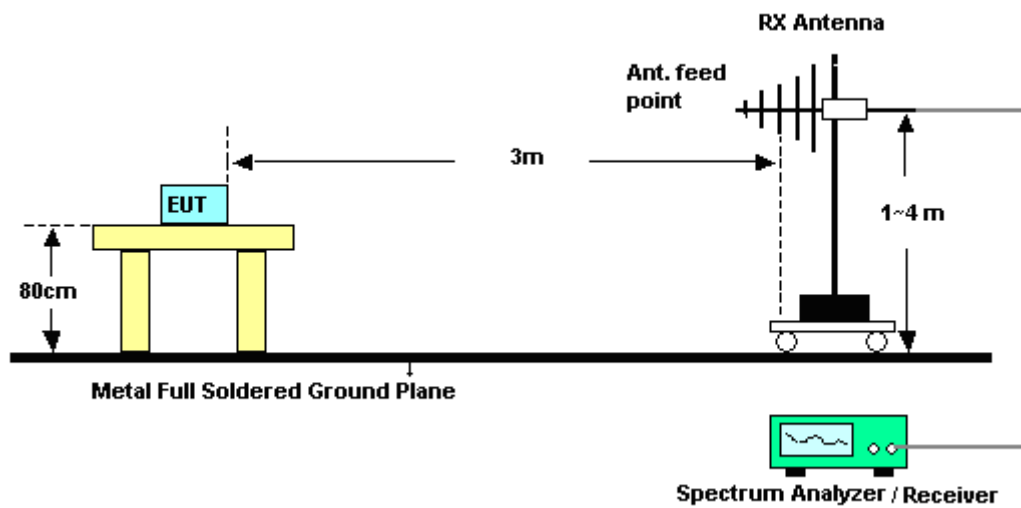
Average Emission Level = Peak Emission Level + $20 \cdot \log(\text{Duty cycle})$

3.3.4 Test Setup Layout

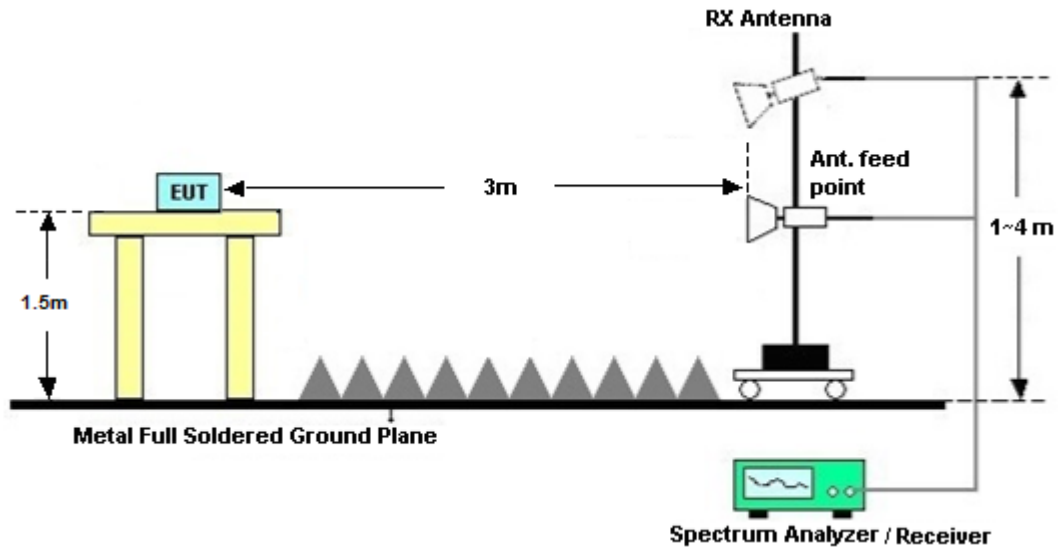
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.3.5 Test Deviation

There is no deviation with the original standard.

3.3.6 EUT Operation during Test

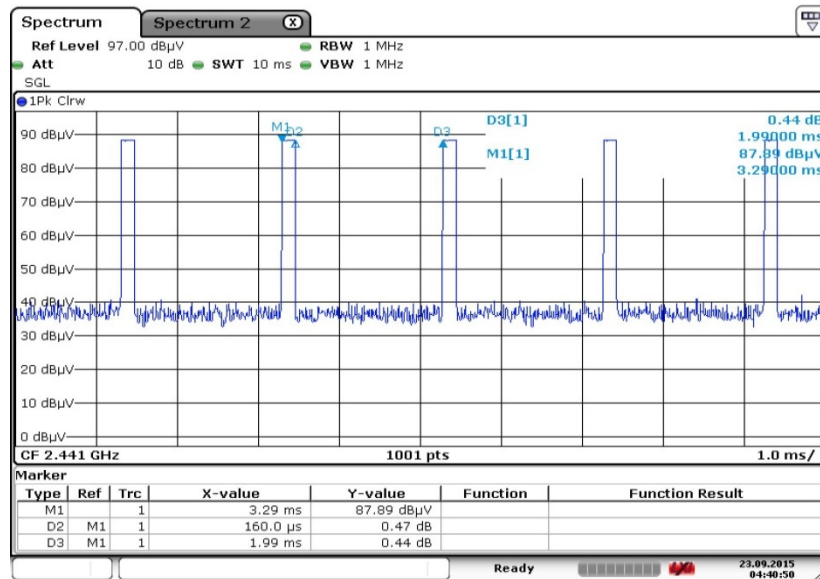
The EUT was programmed to be in continuously transmitting mode.

3.3.7 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

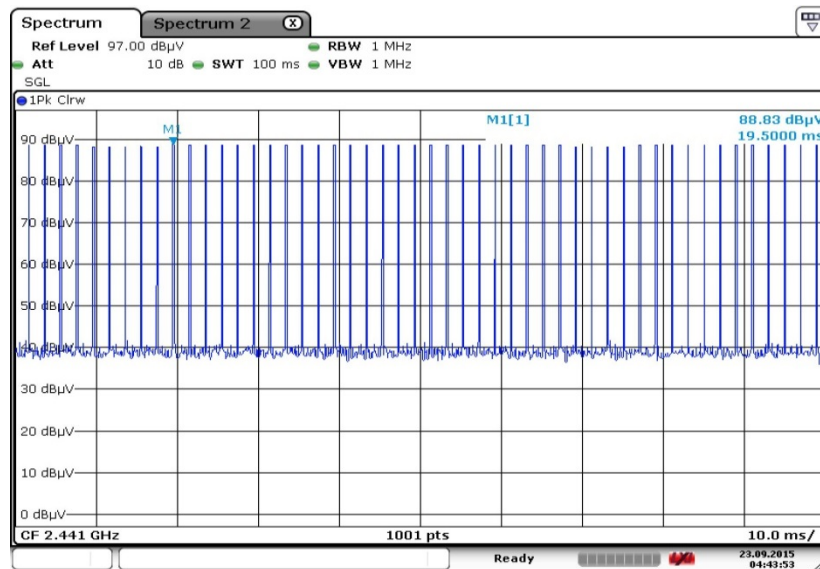
3.3.8 Duty cycle correction factor for average measurement

On time (One Pulse) Plot on 2441MHz



Date: 23.SEP.2015 04:40:51

On time (Count Pulses) Plot on 2441MHz



Date: 23.SEP.2015 04:43:53

Note:

1. Worst case Duty cycle = on time/100 milliseconds = $2 * 0.16 / 100 = 8.00 \%$
2. Worst case Duty cycle correction factor = $20 * \log(\text{Duty cycle}) = -21.94 \text{ dB}$

3.3.9 Test Result of Field Strength of Fundamental Emissions and Spurious Emissions

Please refer to Appendix A.



3.4 Antenna Requirements

3.4.1 Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. 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 the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited.

3.4.2 Antenna Connector Construction

Embedded in Antenna.

**4. LIST OF MEASURING EQUIPMENT**

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP30	101400	9kHz~30GHz	Jan. 28, 2015	Sep. 26, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1207253	30MHz~40GHz	Jan. 28, 2015	Sep. 26, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Jan. 28, 2015	Sep. 26, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May 26, 2015	Sep. 23, 2015	May 25, 2016	Radiation (03CH01-SZ)
Spectrum Analyzer	R&S	FSV40	101041	10kHz~40GHz; Max 30dBm	Sep. 25, 2014	Sep. 23, 2015	Sep. 24, 2015	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 06, 2015	Sep. 23, 2015	May 05, 2016	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	23188	30MHz~2GHz	Nov. 07, 2014	Sep. 23, 2015	Nov. 06, 2015	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Oct. 15, 2014	Sep. 23, 2015	Oct. 14, 2015	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Aug.19, 2015	Sep. 23, 2015	Aug. 18, 2016	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz / 30 dB	Jan. 28, 2015	Sep. 23, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	May 05, 2015	Sep. 23, 2015	May 04, 2016	Radiation (03CH01-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5G Hz	Jan. 28, 2015	Sep. 23, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Sep. 23, 2015	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Sep. 23, 2015	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Sep. 23, 2015	NCR	Radiation (03CH01-SZ)
EMI Receiver	R&S	ESCI7	100724	9kHz~3GHz;	Jan. 28, 2015	Sep. 23, 2015	Jan. 27, 2016	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	103892	9kHz~30MHz	Feb. 02, 2015	Sep. 23, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	MessTec	AN3016	16850	9kHz~30MHz	Feb. 02, 2015	Sep. 23, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Aug. 07, 2015	Sep. 23, 2015	Aug. 06, 2016	Conduction (CO01-SZ)
Pulse Limiter	COM-POWER	LIT-153 Transient Limiter	53139	150kHz~30MHz	Oct. 24, 2014	Sep. 23, 2015	Oct. 23, 2015	Conduction (CO01-SZ)

Note: Test equipment calibration is traceable to the procedure of ISO17025.



Appendix A. Radiated Spurious Emission

15C 2.4GHz 2400~2483.5MHz

ANT+ (Band Edge @ 3m)

BT	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
Ant+ CH00 2402MHz		2400	47.64	-26.36	74	48.3	27.25	9.32	37.23	156	278	P	H
		2400	25.7	-28.3	54	-	-	-	-	156	278	A	H
	*	2402	83.95	-30.05	114	84.61	27.25	9.32	37.23	156	278	P	H
	*	2402	62.01	-31.99	94	-	-	-	-	156	278	A	H
		2400	49.68	-24.32	74	50.34	27.25	9.32	37.23	160	247	P	V
		2400	27.74	-26.26	54	-	-	-	-	160	247	A	V
	*	2402	86.35	-27.65	114	87.01	27.25	9.32	37.23	160	247	P	V
	*	2402	64.41	-29.59	94	-	-	-	-	160	247	A	V
Ant+ CH 39 2441MHz		2400	42.15	-31.85	74	42.81	27.25	9.32	37.23	155	247	P	H
		2400	20.21	-33.79	54	-	-	-	-	155	247	A	H
	*	2441	86.58	-27.42	114	87	27.42	9.43	37.27	155	247	P	H
	*	2441	64.64	-29.36	94	-	-	-	-	155	247	A	H
		2483.5	42.63	-31.37	74	42.84	27.54	9.55	37.3	155	247	P	H
		2483.5	20.69	-33.31	54	-	-	-	-	155	247	A	H
		2400	42.32	-31.68	74	42.98	27.25	9.32	37.23	157	183	P	V
		2400	20.38	-33.62	54	-	-	-	-	157	183	A	V
	*	2441	90.27	-23.73	114	90.69	27.42	9.43	37.27	157	183	P	V
	*	2441	68.33	-25.67	94	-	-	-	-	157	183	A	V
		2483.5	42.35	-31.65	74	42.56	27.54	9.55	37.3	157	183	P	V
		2483.5	20.41	-33.59	54	-	-	-	-	157	183	A	V



Ant+ CH 78 2480MHz	*	2480	84.21	-29.79	114	84.42	27.54	9.55	37.3	168	247	P	H
	*	2480	62.27	-31.73	94	-	-	-	-	168	247	A	H
		2483.5	43.3	-30.7	74	43.51	27.54	9.55	37.3	168	247	P	H
		2483.5	21.36	-32.64	54	-	-	-	-	168	247	A	H
	*	2480	88.49	-25.51	114	88.7	27.54	9.55	37.3	164	267	P	V
	*	2480	66.55	-27.45	94	-	-	-	-	164	267	A	V
		2483.5	43.49	-30.51	74	43.7	27.54	9.55	37.3	164	267	P	V
		2483.5	21.55	-32.45	54	-	-	-	-	164	267	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

ANT+ (Harmonic @ 3m)

BT	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
Ant+ CH 00 2402MHz		4804	33.22	-40.78	74	47.03	31.22	13.27	58.3	151	219	P	H
		4804	11.28	-42.72	54	-	-	-	-	151	219	A	H
		4804	33.29	-40.71	74	47.1	31.22	13.27	58.3	151	219	P	V
		4804	11.35	-42.65	54	-	-	-	-	151	219	A	V
Ant+ CH 39 2441MHz		4882	31.79	-42.21	74	45.61	31.36	13.48	58.66	115	258	P	H
		4882	9.85	-44.15	54	-	-	-	-	115	258	A	H
		7323	33.19	-40.81	74	39.22	35.98	16.59	58.6	152	309	P	H
		7323	11.25	-42.75	54	-	-	-	-	152	309	A	H
		4882	31.9	-42.1	74	45.72	31.36	13.48	58.66	115	258	P	V
		4882	9.96	-44.04	54	-	-	-	-	115	258	A	V
		7323	33.76	-40.24	74	39.79	35.98	16.59	58.6	152	309	P	V
		7323	11.82	-42.18	54	-	-	-	-	152	309	A	V
Ant+ CH 78 2480MHz		4960	32.73	-41.27	74	45.81	31.53	13.69	58.3	118	289	P	H
		4960	10.79	-43.21	54	-	-	-	-	118	289	A	H
		7440	33.56	-40.44	74	39.15	36.16	16.7	58.45	158	273	P	H
		7440	11.62	-42.38	54	-	-	-	-	158	273	A	H
		4960	33.37	-40.63	74	46.45	31.53	13.69	58.3	118	289	P	V
		4960	11.43	-42.57	54	-	-	-	-	118	289	A	V
		7440	34.01	-39.99	74	39.6	36.16	16.7	58.45	158	273	P	V
		7440	12.07	-41.93	54	-	-	-	-	158	273	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

ANT+ (LF)

BT	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz Ant+ LF		30	23.41	-16.59	40	34.48	18.2	1.22	30.49	-	-	P	H
		97.9	33.75	-9.75	43.5	50.28	11.98	2.01	30.52	-	-	P	H
		151.25	36.21	-7.29	43.5	52.25	12.1	2.33	30.47	147	258	P	H
		273.47	27.12	-18.88	46	40.71	13.67	3.06	30.32	-	-	P	H
		599.39	28.59	-17.41	46	34.63	19.18	4.55	29.77	-	-	P	H
		800.18	32.57	-13.43	46	35.8	20.9	5.29	29.42	-	-	P	H
		34.85	34.79	-5.21	40	48.65	15.55	1.22	30.63	124	344	P	V
		96.93	30.46	-13.04	43.5	47.1	11.87	2.01	30.52	-	-	P	V
		151.25	29.51	-13.99	43.5	45.55	12.1	2.33	30.47	-	-	P	V
		260.86	20.54	-25.46	46	34.99	12.82	3.06	30.33	-	-	P	V
		542.16	20.34	-25.66	46	27.24	18.55	4.42	29.87	-	-	P	V
		800.18	25.77	-20.23	46	29	20.9	5.29	29.42	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

**Note symbol**

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency per 15.249(c).
!	Test result is over limit line.
P/A	P eak or A verage
H/V	H orizontal or V ertical



A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.