FCC Radio Test Report

FCC ID: 2ABW2GX1301-NA

FCC 47 CFR Part 15 Subpart C

Product： Tablet Pc

Trade Name： N/A

Model Number： GX1301-NA

Issued for

Swisscom Hospitality Services

22710 Executive Drive, Dulles, VA 20166, U.S.A.

Issued by

Shenzhen STONE Testing Technology Co., Ltd.

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Website: www.stt-lab.org

TEST RESULT CERTIFICATION

Product ..... : Tablet Pc

Applicant..... : Swisscom Hospitality Services

Address ..... : 22710 Executive Drive, Dulles, VA 20166, U.S.A.

Manufacturer ..... : Swisscom Hospitality Services

Address ..... : 22710 Executive Drive, Dulles, VA 20166, U.S.A.

Model No. ..... : GX1301-NA

Standards ..... : FCC Part 15 Subpart C (15.249)

Test Method..... : ANSI C63.4: 2003

The above equipment has been tested by Shenzhen STONE Testing Technology Co., Ltd. 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.

Test ..... :

Date of receipt of test item 2014-02-10

Date(s) of performance of test..... 2014-02-10 to 2014-02-24

Test Result..... : Pass

Testing by	:	Linna Liu	Date	:	2014-02-24
		(Linna Liu)			
Check by	:	Andy Huang	Date	:	2014-02-25
		(Andy Huang)			
Approved by	:	Ethan Chen	Date	:	2014-02-26
		(Ethan Chen)			

Table of Contents **Page**

Table of Contents **Page**

1. TEST SUMMARY

Test procedures according to the technical standards:

FCC Part 15 Subpart C (15.249)			
Standard Section	Test Item	Judgment	Remark
15.207	AC Power Conducted Emission	PASS	
15.209	Radiated Emissions	PASS	
15.249	Radiated Spurious Emissions	PASS	
15.249	20dB Bandwidth	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

(2)The test results of this report relate only to the tested sample(s) identified in this report.

1.1 TEST FACILITY

Shenzhen STONE Testing Technology Co., Ltd.

Add. : F/6, Bldg.12, Zhongxing Industrial City, Chuangye Rd., Nanshan District, Shenzhen, Guangdong, China

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

FCC Registration No.: 323508

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**，where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**，providing a level of confidence of approximately **95** %.

A. Conducted Emission :

The measurement uncertainty is evaluated as ± 3.2 dB.

B. Radiated Measurement :

The measurement uncertainty is evaluated as ± 3.7 dB.

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Tablet Pc
Model Name	GX1301-NA
Additional Model Number(s)	N/A
Model Difference	N/A
Frequency Range	IEEE 802.11b/g/n(HT20): 2412~2462 MHz Bluetooth(Version: 3.0): 2402~2480 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g:OFDM IEEE 802.11n:OFDM Bluetooth: GFSK/ π /4-DQPSK/8-DPSK
RF Output Power	Bluetooth: 98.05 dBuV/m 3m (Peak) 97.87 dBuV/m 3m (Average)
Antenna Type	PCB Antenna (Gain: 0 dBi)
Power Source	DC power by Li-ion battery DC power from USB cable by host system
Power Rating	Li-ion battery: DC 3.7V 1000 mAh DC 5.0V from USB cable.
Remark	Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.

Note:

(1) This Test Report is FCC Part 15 Subpart C, 15.249 for Bluetooth.

(2) For 15B and 15C(802.11b/g/n) compliance please refer the 15B test report and WiFi radio test report.

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	AC Charging and BT TX Mode
Mode 2	BT TX (GFSK) Mode
Mode 3	BT TX(π /4-DQPSK)Mode
Mode 4	BT TX(8-DPSK) Mode

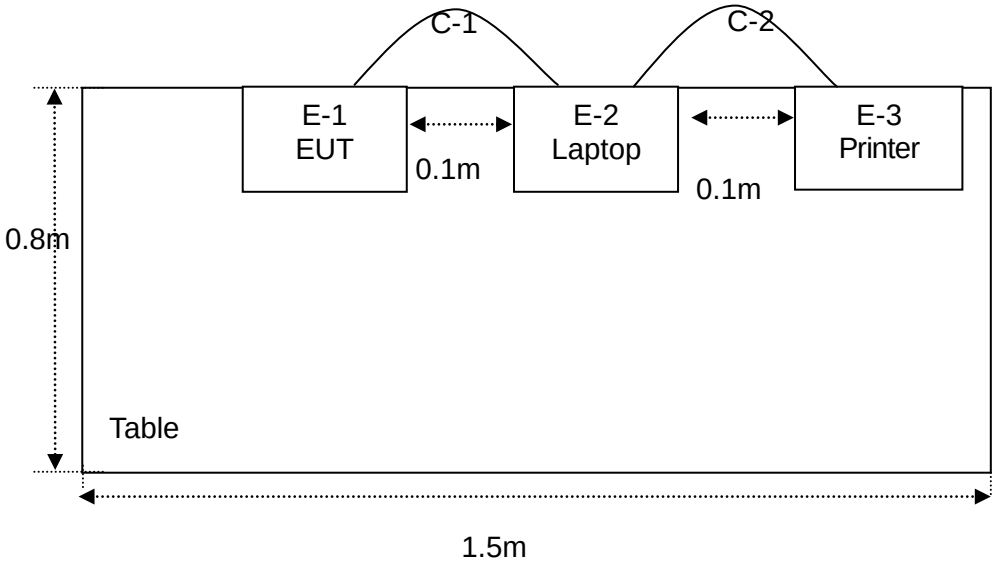
For Conducted Test	
Final Test Mode	Description
Mode 1	AC Charging and BT TX Mode

For Radiated Test	
Final Test Mode	Description
Mode 1	AC Charging and BT TX Mode
Mode 2	BT TX (GFSK) Mode
Mode 3	BT TX(π /4-DQPSK)Mode
Mode 4	BT TX(8-DPSK) Mode

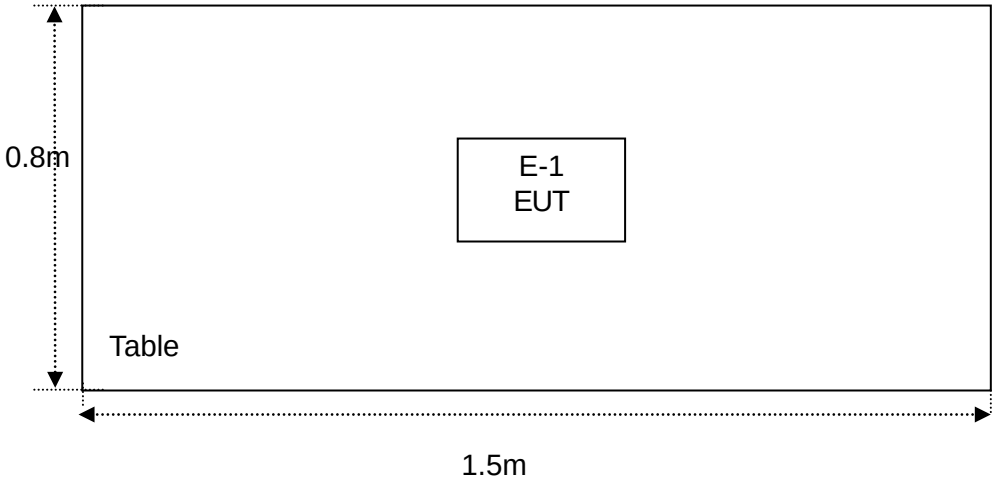
Note:
(1) Software used to control the EUT for staying in continuous transmitting mode was programmed. After verification, all tests were carried out with the worst case test modes as shown below.
(2) GFSK Mode:
Channel (2402/2441/2480 MHz) with DH1 data packet were chosen for full testing.
(3) 8-DPSK Mode:
Channel (2402/2441/2480 MHz) with DH1 data packet were chosen for full testing.
(4) By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that “X axis” position was the worst, then the final test was executed the worst condition and test data were recorded in this report.

2.3 DESCRIPTION OF TEST SETUP

USB Charging Mode



BT TX Mode



2.4 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	Tablet PC	/	GX1301-NA	N/A	EUT
E-2	Notebook	LENOVO	E430C	VDN33651J8	
E-3	Printer	HP	5015N	H5004E612	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	0.5m	USB Cable
C-2	YES	NO	1.5m	USB Cable

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.
(3) “YES” means “shielded” “with core”; “NO” means “unshielded” “without core”.

2.5 EUT Exercise Software

Test Software: Bluetool2.1.1.4.exe

GFSK Power Setting: Default
π/4-DQPSK Power Setting: Default
8-DPSK Power Setting: Default

3. CONDUCTED EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Quasi-peak	Average
	dBuV	dBuV
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

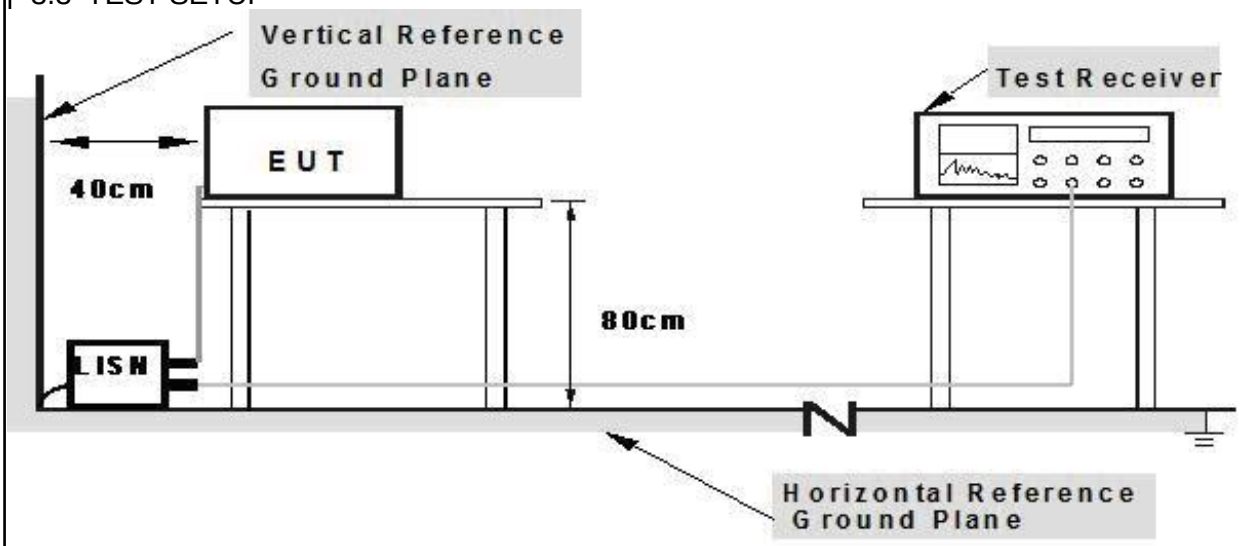
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

c. 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.

d. LISN at least 80 cm from nearest part of EUT chassis.

e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.3 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.4 TEST INSTRUMENTS

Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
LISN	R&S	NSLK81	8126466	Jul. 06, 2012	Jul. 05, 2014	1 year
LISN	R&S	NSLK81	8126487	Dec. 24, 2013	Dec. 23, 2014	1 year
50Ω Switch	ANRITSU CORP	MP59B	6200983704	Jul. 06, 2012	Jul. 05, 2014	1 year
Test Cable	N/A	C01	N/A	Jul. 06, 2012	Jul. 05, 2014	1 year
Test Cable	N/A	C02	N/A	Jul. 06, 2012	Jul. 05, 2014	1 year
Test Cable	N/A	C03	N/A	Jul. 06, 2012	Jul. 05, 2014	1 year
EMI Test Receiver	R&S	ESCI	1166.595	Jul. 06, 2012	Jul. 05, 2014	1 year
Passive Voltage Probe	ESH2-Z3	R&S	100196	Jul. 06, 2012	Jul. 05, 2014	1 year

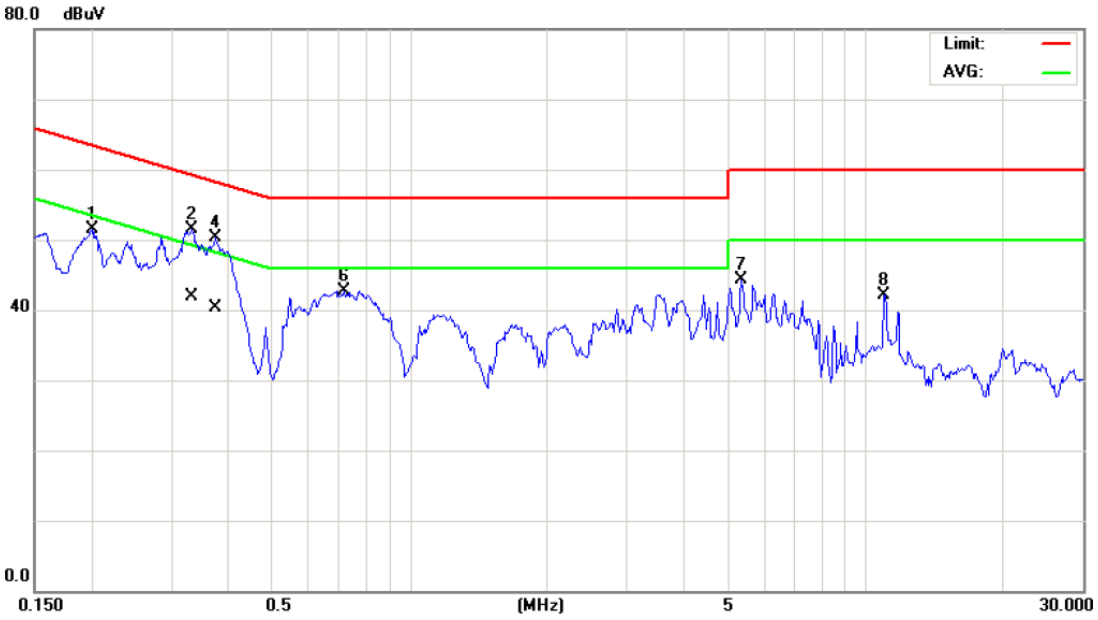
3.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

3.6 TEST RESULTS

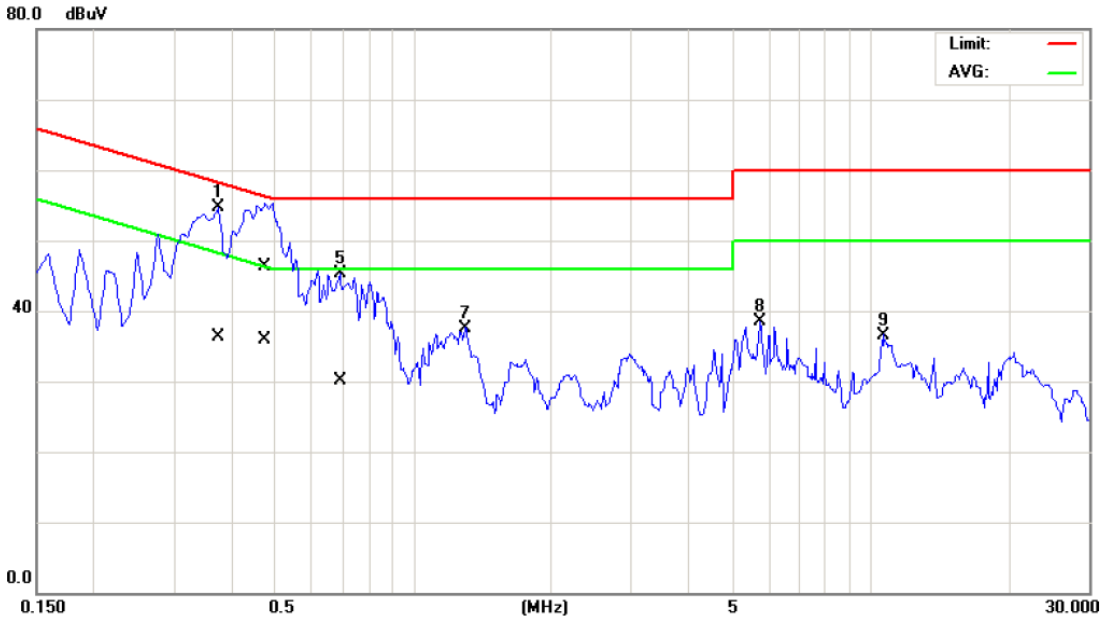
EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode：	Mode 2	Phase :	Line
Test Voltage ：	120V/ 60Hz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2006	41.82	9.68	51.50	63.59	-12.09	peak	
2		0.3321	41.76	9.70	51.46	59.40	-7.94	peak	
3	*	0.3321	32.25	9.70	41.95	49.40	-7.45	AVG	
4		0.3750	40.63	9.70	50.33	58.39	-8.06	peak	
5		0.3750	30.63	9.70	40.33	48.39	-8.06	AVG	
6		0.7170	33.03	9.71	42.74	56.00	-13.26	peak	
7		5.3610	34.29	9.96	44.25	60.00	-15.75	peak	
8		11.0040	31.97	10.21	42.18	60.00	-17.82	peak	



EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode：	Mode 2	Phase :	Neutral
Test Voltage ：	120V/ 60Hz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.3750	44.96	9.70	54.66	58.39	-3.73	peak	
2		0.3750	26.60	9.70	36.30	48.39	-12.09	AVG	
3		0.4740	36.70	9.70	46.40	56.44	-10.04	QP	
4		0.4740	26.20	9.70	35.90	46.44	-10.54	AVG	
5		0.6900	35.56	9.71	45.27	56.00	-10.73	peak	
6		0.6900	20.40	9.71	30.11	46.00	-15.89	AVG	
7		1.3020	27.82	9.78	37.60	56.00	-18.40	peak	
8		5.7300	28.48	9.97	38.45	60.00	-21.55	peak	
9		10.6198	26.41	10.19	36.60	60.00	-23.40	peak	



4. RADIATED EMISSION MEASUREMENT

4.1 RADIATED EMISSION LIMIT (Frequency Range 9KHz-1000MHz)

20 dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table bellow has to be followed.

FREQUENCY (MHz)	Field Strength (uV/m at 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

Harmonic emissions limits comply with below 54 dBuV/m at 3m, other emissions radiated outside of the specific frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or comply with the radiated emissions limits specified in section 154.209(a) limit in the table above has to be followed.

Limits of Fundamental and Spurious Emissions

FUNDAMENTAL		
FREQUENCY RANGE (MHz)	LIMITS (PEAK) dB(uV/m)	LIMITS (AVERAGE) dB(uV/m)
2400~2483.5	114	94
SPURIOUS EMISSION		
FREQUENCY RANGE (MHz)	LIMITS (PEAK) dB(uV/m)	LIMITS (AVERAGE) dB(uV/m)
Above 1000	74	54

Note:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(2) Emission Level(dBuV/m)=20log Emission Level(uV/m)

The following table is the setting of the receiver for test frequency below 1GHz:

Receiver Parameter	Setting
Attenuation	Auto
Start Frequency~ Stop Frequency	9kHz~150kHz/ RB 200Hz for QP
Start Frequency~ Stop Frequency	150kHz~30MHz/ RB 9kHz for QP
Start Frequency~ Stop Frequency	30MHz~1000MHz/ RB120kHz for QP

The following table is the setting of the spectrum for test frequency above 1GHz:

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB/ VB (emission in restricted band)	1MHz/ 3 MHz for Peak, 1MHz/ 10Hz for Average

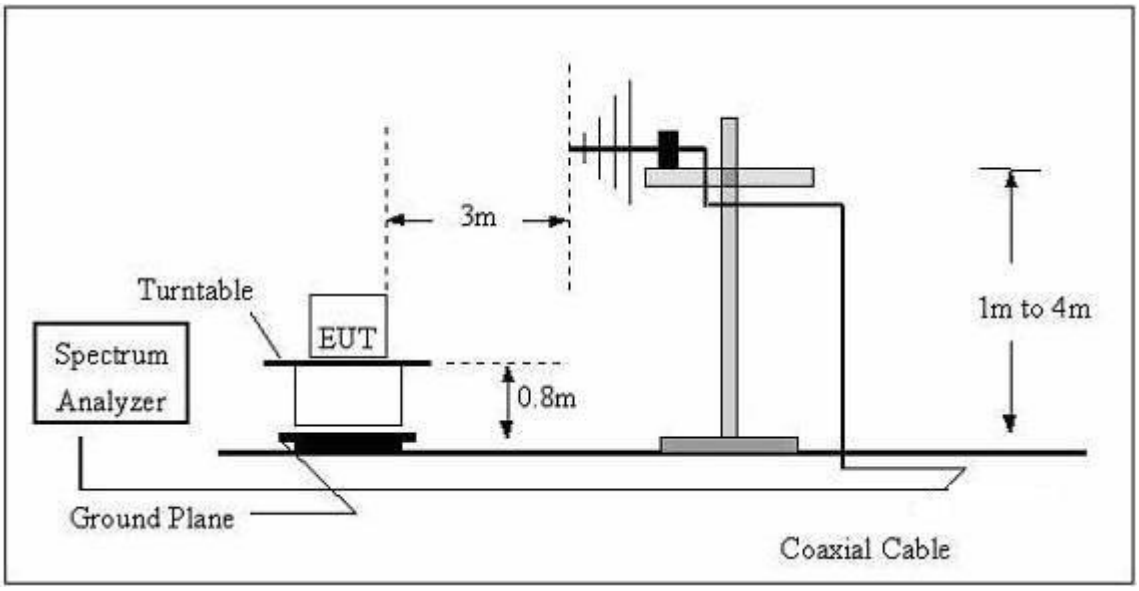
4.2 TEST PROCEDURE

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured, above 1G Average detector mode will be instead.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

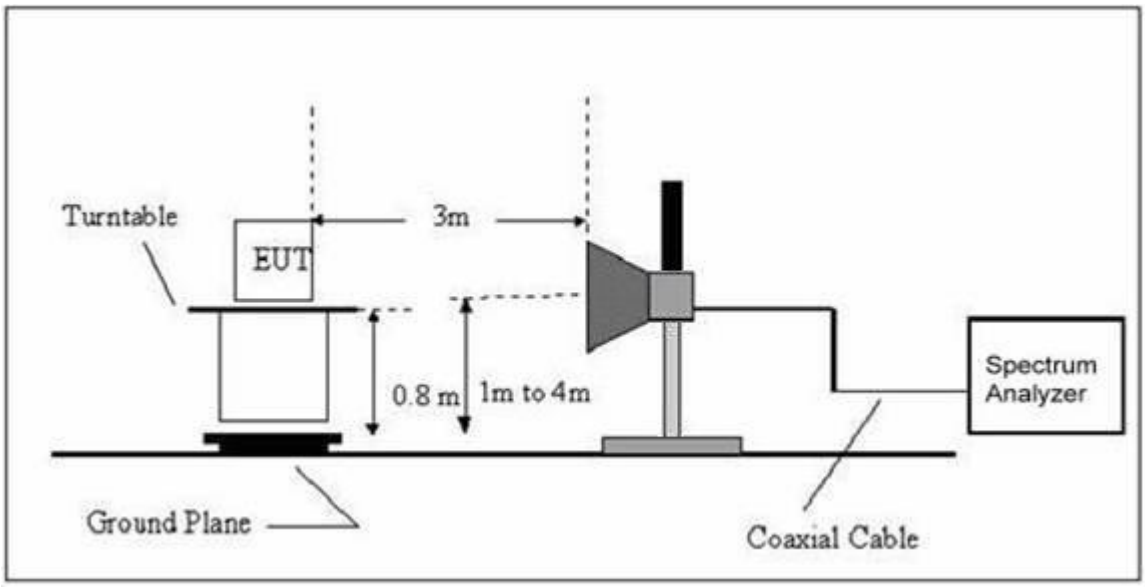
Note:
Both horizontal and vertical antenna polarities were tested.
And performed pretest to three orthogonal axis. The worst case emissions were reported.

4.3 TEST SETUP

(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(B) Radiated Emission Test Set-Up Frequency Above 1GHz



4.4 TEST INSTRUMENTS

Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
Broadband Antenna	R&S	VULB 9168	VULB 9168-456	Jul. 06, 2012	Jul. 05, 2014	1 year
Test Cable	N/A	R-01	N/A	Dec. 24, 2013	Dec. 23, 2014	1 year
Test Cable	N/A	R-02	N/A	Dec. 24, 2013	Dec. 23, 2014	1 year
EMI Test Receiver	R&S	ESCI	101324	Jul. 06, 2012	Jul. 05, 2014	1 year
Antenna Mast	EM	SC100_1	N/A	N/A	N/A	N/A
Turn Table	EM	SC100	060531	N/A	N/A	N/A
50Ω Switch	Anritsu Corp	MP59B	6200983705	Jul. 06, 2012	Jul. 05, 2014	1 year
Spectrum Analyzer	R&S	FSP40	100154	Jul. 06, 2012	Jul. 05. 2014	1 year
Horn Antenna	R&S	HF906	10029	Jul. 06, 2012	Jul. 05. 2014	1 year
Amplifier	EM	EM-30180	060538	Jul. 06, 2012	Jul. 05. 2014	1 year

4.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

4.6 TEST RESULTS

4.6.1 TEST RESULTS (Bellow 1GHz)

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	BT TX Mode	Polarization :	Horizontal
Test Power ：	AC 120V/60 Hz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		98.7400	52.47	-13.17	39.30	43.50	-4.20	peak
2		169.5200	56.23	-16.58	39.65	43.50	-3.85	peak
3		358.7400	51.46	-10.11	41.35	46.00	-4.65	peak
4		468.2100	50.39	-8.51	41.88	46.00	-4.12	peak
5		620.4500	46.49	-5.60	40.89	46.00	-5.11	peak
6	*	678.4200	47.55	-5.25	42.30	46.00	-3.70	peak

Remark:
Factor = Antenna Factor + Cable Loss.

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	BT TX Mode	Polarization :	Vertical
Test Power ：	AC 120V/60 Hz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	30.0000	50.10	-13.65	36.45	40.00	-3.55	peak
2		98.6200	51.69	-13.18	38.51	43.50	-4.99	peak
3		247.3600	54.25	-12.80	41.45	46.00	-4.55	peak
4		364.1800	51.49	-10.05	41.44	46.00	-4.56	peak
5		620.4500	46.19	-5.60	40.59	46.00	-5.41	peak
6		680.4700	45.62	-5.23	40.39	46.00	-5.61	peak

Remark:
Factor = Antenna Factor + Cable Loss.

4.6.2 TEST RESULTS (Above 1GHz)

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	GFSK TX 2402MHz	Polarization :	Horizontal
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4804.060	43.93	6.76	50.69	74.00	-23.31	peak	
2	*	4804.060	37.81	6.76	44.57	54.00	-9.43	AVG	

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	GFSK TX 2402MHz	Polarization :	Vertical
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4804.060	39.32	8.77	48.09	74.00	-25.91	peak	
2	*	4804.060	33.99	8.77	42.76	54.00	-11.24	AVG	

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	GFSK TX 2441MHz	Polarization :	Horizontal
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4882.050	44.09	6.79	50.88	74.00	-23.12	peak	
2	*	4882.050	38.30	6.79	45.09	54.00	-8.91	AVG	

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	GFSK TX 2441MHz	Polarization :	Vertical
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4882.050	39.46	8.79	48.25	74.00	-25.75	peak	
2	*	4882.050	33.62	8.79	42.41	54.00	-11.59	AVG	

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	GFSK TX 2480MHz	Polarization :	Horizontal
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4960.050	44.20	6.82	51.02	74.00	-22.98	peak	
2	*	4960.050	38.78	6.82	45.60	54.00	-8.40	AVG	

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	GFSK TX 2480MHz	Polarization :	Vertical
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4960.050	40.24	8.81	49.05	74.00	-24.95	peak	
2	*	4960.050	33.35	8.81	42.16	54.00	-11.84	AVG	

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	8DPSK TX 2402MHz	Polarization :	Horizontal
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4860.210	41.99	6.78	48.77	74.00	-25.23	peak	
2	*	4860.210	35.01	6.78	41.79	54.00	-12.21	AVG	

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	8DPSK TX 2402MHz	Polarization :	Vertical
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4860.210	37.27	8.78	46.05	74.00	-27.95	peak	
2	*	4860.210	30.69	8.78	39.47	54.00	-14.53	AVG	

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	8DPSK TX 2441MHz	Polarization :	Horizontal
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4882.490	39.32	6.79	46.11	74.00	-27.89	peak	
2	*	4882.490	32.58	6.79	39.37	54.00	-14.63	AVG	

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	8DPSK TX 2441MHz	Polarization :	Vertical
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4882.490	39.83	8.79	48.62	74.00	-25.38	peak	
2	*	4882.490	32.77	8.79	41.56	54.00	-12.44	AVG	

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	8DPSK TX 2480MHz	Polarization :	Horizontal
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4960.120	49.58	4.96	54.54	74.00	-19.46	peak
2	*	4960.120	35.36	4.96	40.32	54.00	-13.68	AVG

EUT：	Tablet Pc	Model Name. ：	GX1301-NA
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Test Date :	2014-02-24
Test Mode ：	8DPSK TX 2480MHz	Polarization :	Vertical
Test Power ：	DC 3.7V		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4960.120	51.16	4.96	56.12	74.00	-17.88	peak
2	*	4960.120	37.13	4.96	42.09	54.00	-11.91	AVG

4.6.3 FUNDAMENTAL AND BAND EDGE

GFSK TX Mode					
Fundamental					
Frequency (MHz)	**Polarization (H/V)**	**Emission (dBuV/m)**		**Limit (dBuV/m)**	
		PEAK	**AVERAGE**	**PEAK**	**AVERAGE**
2402	**H**	**98.05**	**97.87**	**114**	**94**
	V	**91.24**	**91.02**		
2441	**H**	**97.41**	**97.14**		
	V	**90.56**	**90.37**		
2480	**H**	**97.91**	**97.56**		
	V	**91.02**	**90.81**		
Band Edge					
Frequency (MHz)	**Polarization (H/V)**	**Emission (dBuV/m)**		**Limit (dBuV/m)**	
		PEAK	**AVERAGE**	**PEAK**	**AVERAGE**
2390	**H**	**53.77**	**44.18**	**74**	**54**
	V	**50.79**	**41.47**		
2483.5	**H**	**55.88**	**45.87**		
	V	**52.85**	**43.19**		

8-DPSK TX Mode					
Fundamental					
Frequency (MHz)	**Polarization (H/V)**	**Emission (dBuV/m)**		**Limit (dBuV/m)**	
		PEAK	**AVERAGE**	**PEAK**	**AVERAGE**
2402	**H**	**96.05**	**95.76**	**114**	**94**
	V	**88.93**	**88.55**		
2441	**H**	**95.71**	**95.30**		
	V	**88.44**	**88.02**		
2480	**H**	**95.86**	**95.11**		
	V	**88.69**	**88.34**		
Band Edge					
Frequency (MHz)	**Polarization (H/V)**	**Emission (dBuV/m)**		**Limit (dBuV/m)**	
		PEAK	**AVERAGE**	**PEAK**	**AVERAGE**
2390	**H**	**53.05**	**44.29**	**74**	**54**
	V	**50.20**	**41.38**		
2483.5	**H**	**54.98**	**45.21**		
	V	**52.19**	**43.28**		

5. 20DB BANDWIDTH MEASUREMENT

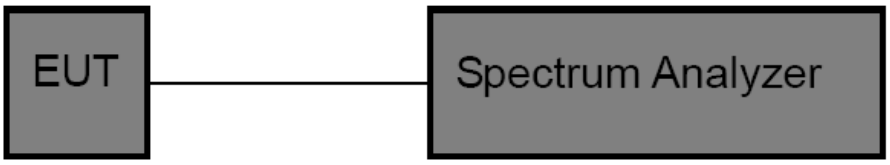
5.1 LIMITS

20dB Bandwidth	N/A
99% Occupied Bandwidth	N/A

5.2 TEST PROCEDURE

The EUT was directly connected to the power meter and antenna output port as show in the block diagram as bellow.

5.3 TEST SETUP



5.4 TEST INSTRUMENTS

Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
Spectrum Analyzer	R&S	FSP40	100154	Jul. 06, 2012	Jul. 05. 2014	1 year

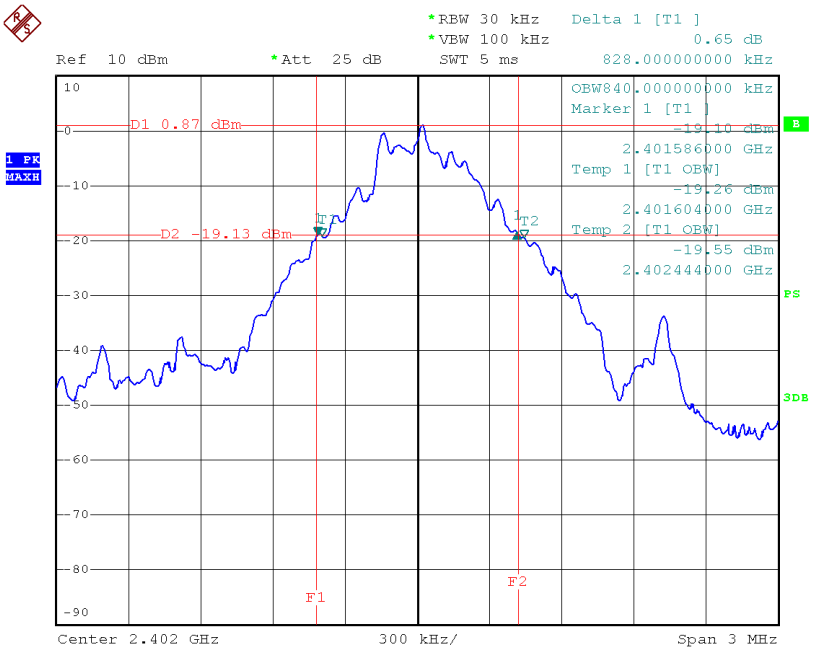
5.5 EUT OPERATING CONDITIONS

The EUT was set to continuously transmitting in the maximum power during the test.

5.6 TEST RESULTS

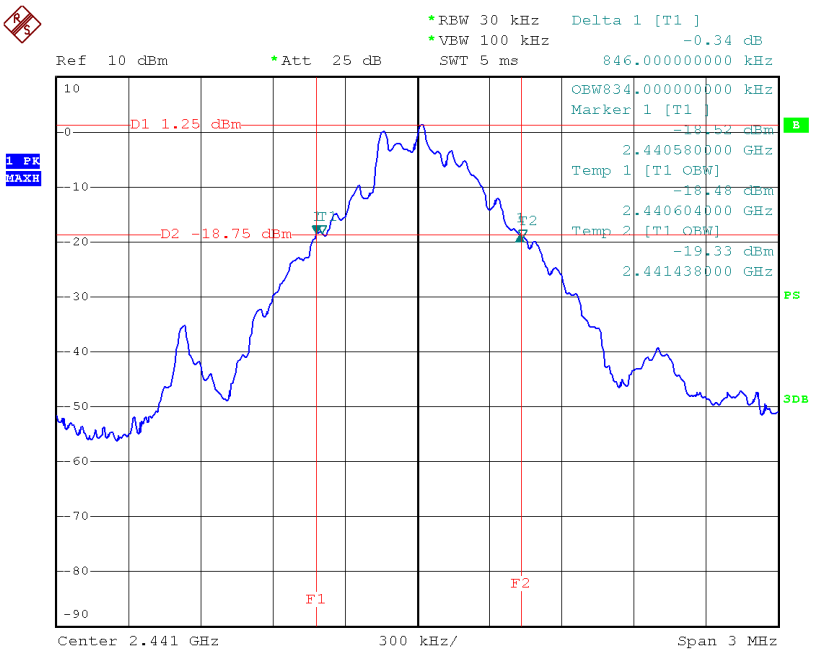
GFSK Mode (1Mbps)			
Frequency (MHz)	**20dB Bandwidth (kHz)**	**99% OBW (kHz)**	**Limit**
2402	828.00	840.00	N/A
2441	846.00	834.00	
2480	846.00	834.00	
8-DPSK Mode (3Mbps)			
Frequency (MHz)	**20dB Bandwidth (kHz)**	**99% OBW (kHz)**	**Limit**
2402	1206.00	1152.00	N/A
2441	1212.00	1152.00	
2480	1206.00	1146.00	
Note: Test plots please refer following pages.			

2402 MHz (GFSK)



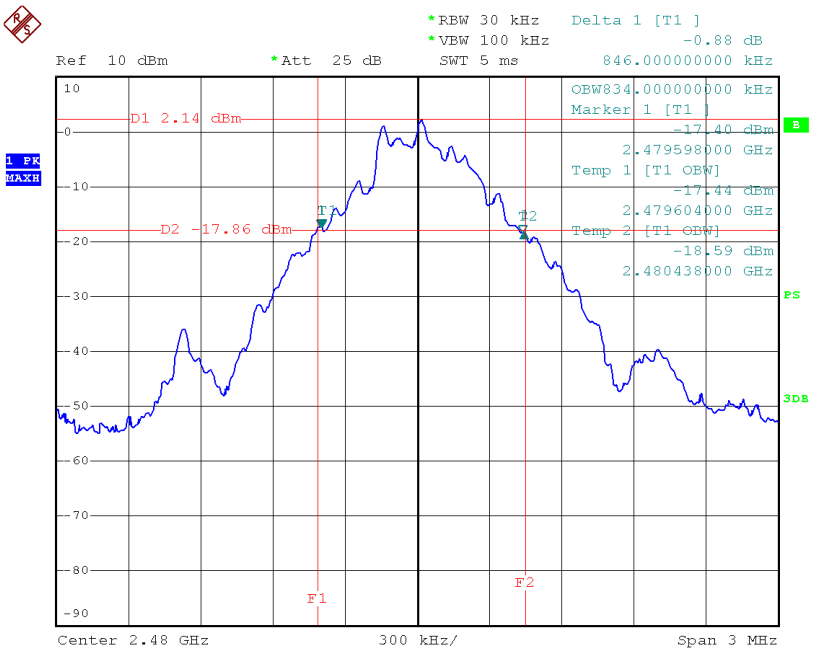
Date: 16.AUG.2013 13:43:58

2441 MHz (GFSK)



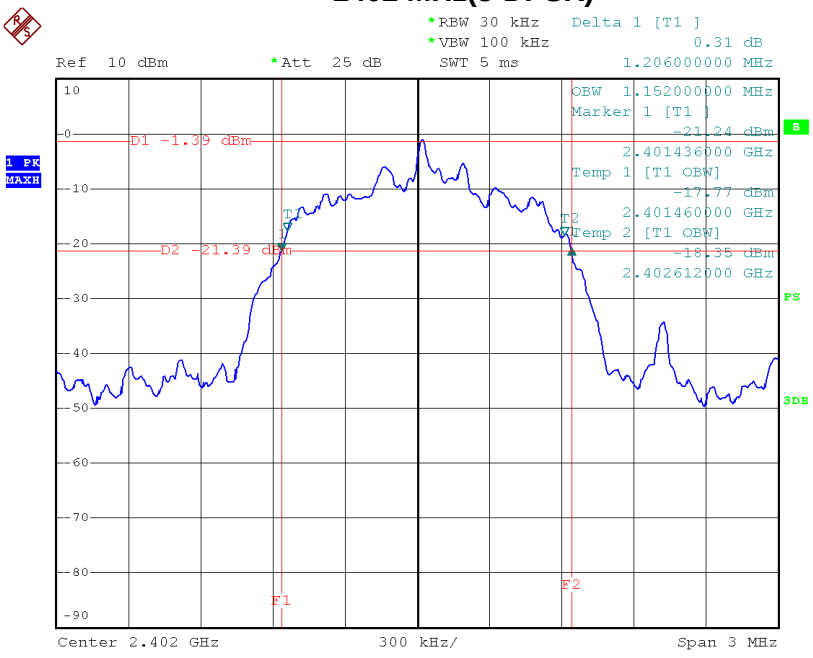
Date: 21.FEB.2014 13:46:19

2480 MHz (GFSK)



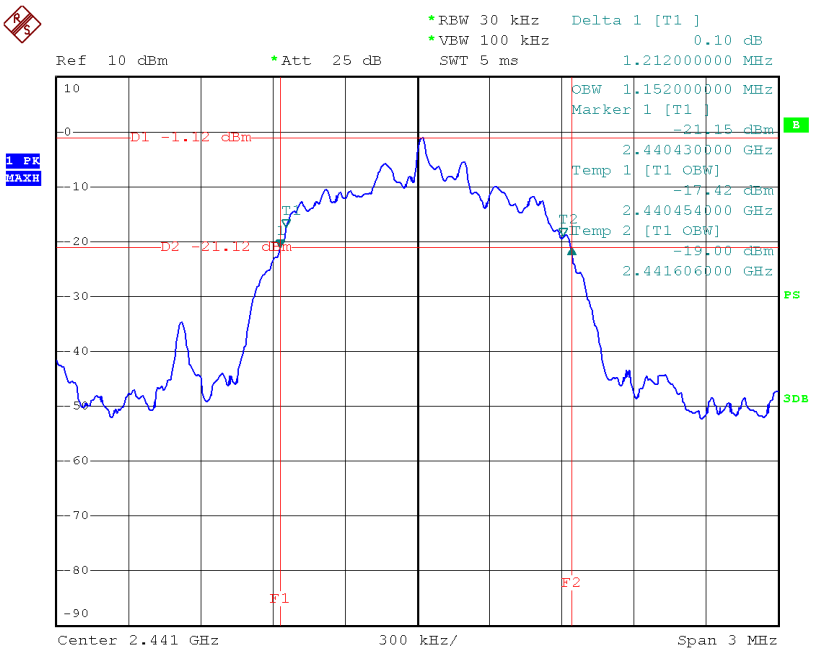
Date: 16.AUG.2013 13:47:27

2402 MHz(8-DPSK)



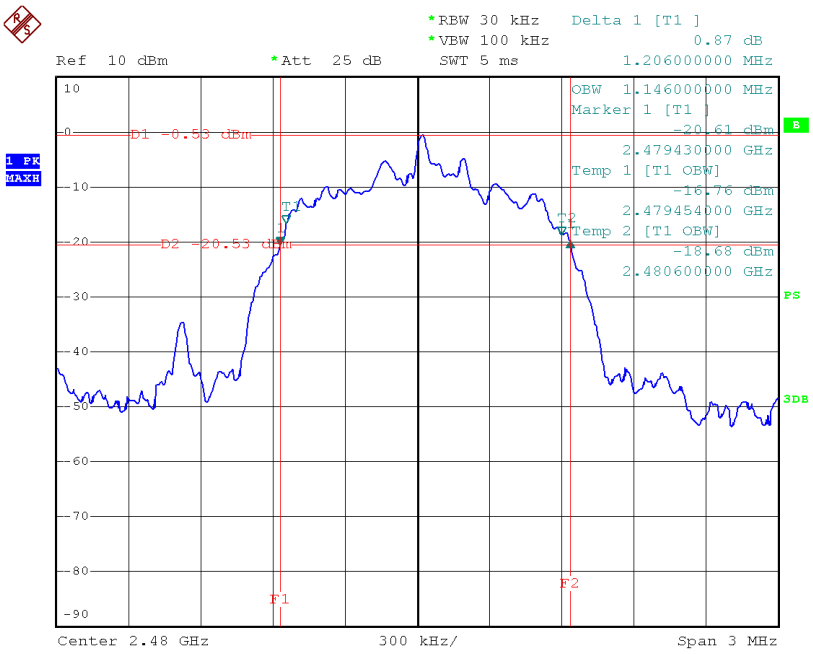
Date: 21.FEB.2014 14:06:07

2441 MHz (8-DPSK)



Date: 21.FEB.2014 14:12:26

2480 MHz (8-DPSK)



Date: 21.FEB.2014 14:02:06

6. ANTENNA REQUIREMENT

6.1 REQUIREMENT

Antenna Requirement (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.

6.2 ANTENNA CONNECTOR CONSTRUCTION

The EUT antenna is a PIFA Antenna. And the maximum gain of this antenna is 0 dBi.
It complies with the standard requirement.