

TEST REPORT

Applicant:

Dongguan Anhong Electronic Technology Co., Ltd

Address of Applicant:Room 901, Building 8, No.95 Jiaoping Road, Tangxia Town,
Dongguan City, Guangdong Province, China**Manufacturer:**

Dongguan Anhong Electronic Technology Co., Ltd

**Address of
Manufacturer:**Room 901, Building 8, No.95 Jiaoping Road, Tangxia Town,
Dongguan City, Guangdong Province, China**Equipment Under Test (EUT)**

Product Name: Baby Monitor

Model No.: ABM900

Add. Model No.: ABM101,ABM100S,ABM109,ABM200S,ABM201,ABM201S,
ABM206,ABM209,ABM210,ABM210S,ABM300,ABM400,ABM500,
ABM510,ABM520,ABM520S,ABM530,ABM540,ABM540P,ABM550,
ABM560,ABM580,ABM590,ABM601,ABM605,ABM610,ABM609,
ABM640,ABM650,ABM670,ABM680,ABM690,ABM700,ABM703,
ABM710,ABM720,ABM721,ABM721S,ABM720S,ABM730,ABM740,
ABM780,ABM781,ABM781S,ABM791,ABM791S,ABM800,ABM806,
ABM808,ABM809,ABM810,ABM840,ABM906,ABM910,ABM950S

Trade Mark: N/A

FCC ID: 2AYKP-ABM900**Applicable standards:** FCC CFR Title 47 Part 15 Subpart C Section 15.247**Date of sample receipt:** 2025-05-09**Date of Test:** 2025-05-16 to 2025-06-11**Date of report issued:** 2025-07-01**Test Result :** PASS *

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

Authorized Signature:

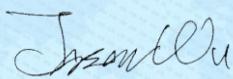
**Robinson Luo
Laboratory Manager**

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Report No.	Version No.	Date	Description
GTSL2025060140F01	00	2025-07-01	Original

Prepared By:



Date:

2025-07-01

Project Engineer

Check By:



Date:

2025-07-01

Reviewer

3 Contents

	Page
1 COVER PAGE	1
2 VERSION	2
3 CONTENTS	3
4 TEST SUMMARY	4
5 GENERAL INFORMATION	5
5.1 GENERAL DESCRIPTION OF EUT	5
5.2 TEST MODE	7
5.3 DESCRIPTION OF SUPPORT UNITS	7
5.4 DEVIATION FROM STANDARDS	7
5.5 ABNORMALITIES FROM STANDARD CONDITIONS	7
5.6 TEST FACILITY	7
5.7 TEST LOCATION	7
5.8 ADDITIONAL INSTRUCTIONS	7
6 TEST INSTRUMENTS LIST	8
7 TEST RESULTS AND MEASUREMENT DATA	10
7.1 ANTENNA REQUIREMENT	10
7.2 CONDUCTED PEAK OUTPUT POWER	11
7.3 CHANNEL BANDWIDTH & 99% OCCUPY BANDWIDTH	13
7.4 POWER SPECTRAL DENSITY	15
7.5 BAND EDGES	17
7.5.1 Conducted Emission Method	17
7.5.2 Radiated Emission Method	19
7.6 SPURIOUS EMISSION	24
7.6.1 Conducted Emission Method	24
7.6.2 Radiated Emission Method	26
8 TEST SETUP PHOTO	37
9 EUT CONSTRUCTIONAL DETAILS	37

4 Test Summary

Test Item	Section	Result
Antenna requirement	FCC part 15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	FCC part 15.207	N/A The EUT is DC power supply
Conducted Peak Output Power	FCC part 15.247 (b)(3)	Pass
Channel Bandwidth & 99% OCB	FCC part 15.247 (a)(2)	Pass
Power Spectral Density	FCC part 15.247 (e)	Pass
Band Edge	FCC part 15.247(d)	Pass
Spurious Emission	FCC part 15.205/15.209	Pass

Remark: Test according to ANSI C63.10:2013 and RSS-Gen

Pass: The EUT complies with the essential requirements in the standard.

N/A: In this whole report not applicable.

Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	1×10^{-7}
2	Duty Cycle	0.37%
3	Occupied Bandwidth	2.8dB
4	RF Conducted Power	0.75dB
5	RF Power Density	3dB
6	Conducted Spurious Emissions	2.58dB
7	AC Power Line Conducted Emission	3.44dB (0.15MHz ~ 30MHz)
8	Radiated Spurious Emission Test	3.1dB (9kHz-30MHz)
		3.8039dB (30MHz-200MHz)
		3.9679dB (200MHz-1GHz)
		4.29dB (1GHz-18GHz)
		3.30dB (18GHz-40GHz)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

5 General Information

5.1 General Description of EUT

Product Name:	Baby Monitor
Model No.:	ABM900
Add. Model No.:	ABM101,ABM100S,ABM109,ABM200S,ABM201,ABM201S, ABM206,ABM209,ABM210,ABM210S,ABM300,ABM400,ABM500, ABM510,ABM520,ABM520S,ABM530,ABM540,ABM540P,ABM550, ABM560,ABM580,ABM590,ABM601,ABM605,ABM610,ABM609, ABM640,ABM650,ABM670,ABM680,ABM690,ABM700,ABM703, ABM710,ABM720,ABM721,ABM721S,ABM720S,ABM730,ABM740, ABM780,ABM781,ABM781S,ABM791,ABM791S,ABM800,ABM806, ABM808,ABM809,ABM810,ABM840,ABM906,ABM910,ABM950S
Serial No.:	N/A
Hardware Version:	V1.0
Software Version:	V1.0
Test sample(s) ID:	GTSL2025060140-1
Sample(s) Status:	Engineer sample
Sample(s) Status	Engineer sample
Channel numbers:	13
Channel separation:	5MHz
Modulation technology:	FSK/GFSK
Antenna Type:	Cable Antenna
Antenna gain:	1.95 dBi
Power supply:	5Vdc 1A
<p>Note: The product (Baby Monitor) models (ABM900) and models (ABM101,ABM100S,ABM109,ABM200S,ABM201,ABM201S,ABM206,ABM209,ABM210,ABM210S,ABM300,ABM400,ABM500,ABM510,ABM520,ABM520S,ABM530,ABM540,ABM540P,ABM550,ABM560,ABM580,ABM590,ABM601,ABM605,ABM610,ABM609,ABM640,ABM650,ABM670,ABM680,ABM690,ABM700,ABM703,ABM710,ABM720,ABM721,ABM721S,ABM720S,ABM730,ABM740,ABM780,ABM781,ABM781S,ABM791,ABM791S,ABM800,ABM806,ABM808,ABM809,ABM810,ABM840,ABM906,ABM910,ABM950S) the difference is only the model name difference, and the circuit principle, safety structure and key parts are all the same.The differences do not affect the EMC performance.</p>	

Remark:

1. Antenna gain information provided by the customer
2. The relevant information of the sample is provided by the entrusting company, and the laboratory is not responsible for its authenticity.

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	5	2432MHz	9	2452 MHz	13	2472 MHz
2	2417MHz	6	2437MHz	10	2457MHz		
3	2422MHz	7	2441.5MHz	11	2462MHz		
4	2427MHz	8	2447MHz	12	2467 MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency (MHz)	Data Rate
	GFSK	4Mbps
Lowest channel	2412MHz	4Mbps
Middle channel	2441.5MHz	4Mbps
Highest channel	2472MHz	4Mbps

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode
<i>Remark: During the test, the dutycycle >98%, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.</i>	

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:
Pre-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	GFSK
Data rate	4Mbps

5.3 Description of Support Units

Manufacturer	Description	Model	Serial Number
Dongguan Anhong Electronic Technology Co., Ltd	SWITCHING ADAPTER	G006A0501000U	GLH2439

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

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

- **FCC—Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

- **ISED—Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing

- **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

5.8 Additional Instructions

Test Software	Special test command provided by manufacturer
Power level setup	Default

6 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Apr. 11, 2025	Apr. 10, 2026
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Apr. 12, 2025	Apr. 11, 2026
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	Apr. 12, 2025	Apr. 11, 2026
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	Apr. 11, 2025	Apr. 10, 2026
6	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	Jul. 02, 2024	Jul. 01, 2025
7	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov.16, 2024	Nov.15, 2025
8	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	Apr. 11, 2025	Apr. 10, 2026
9	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	Apr. 11, 2025	Apr. 10, 2026
10	Horn Antenna (18GHz-40GHz)	Schwarzbeck	BBHA 9170	GTS691	Apr. 11, 2025	Apr. 10, 2026
11	FSV-Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	Mar. 11, 2025	Mar. 10, 2026
12	Amplifier	/	LNA-1000-30S	GTS650	Apr. 11, 2025	Apr. 10, 2026
13	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS692	Nov. 13, 2024	Nov. 12, 2025
14	Wideband Amplifier	/	WDA-01004000-15P35	GTS602	Apr. 11, 2025	Apr. 10, 2026
15	Thermo meter	JINCHUANG	GSP-8A	GTS643	Apr. 15, 2025	Apr. 14, 2026
16	RE cable 1	GTS	N/A	GTS675	Jul. 02, 2024	Jul. 01, 2025
17	RE cable 2	GTS	N/A	GTS676	Jul. 02, 2024	Jul. 01, 2025
18	RE cable 3	GTS	N/A	GTS677	Jul. 02, 2024	Jul. 01, 2025
19	RE cable 4	GTS	N/A	GTS678	Jul. 02, 2024	Jul. 01, 2025
20	RE cable 5	GTS	N/A	GTS679	Jul. 02, 2024	Jul. 01, 2025
21	RE cable 6	GTS	N/A	GTS680	Jul. 02, 2024	Jul. 01, 2025
22	RE cable 7	GTS	N/A	GTS681	Jul. 05, 2024	Jul. 04, 2025
23	RE cable 8	GTS	N/A	GTS682	Jul. 05, 2024	Jul. 04, 2025
24	EMI Test Software	AUDIX	E3-6.100614a	GTS725	N/A	N/A

RF Conducted Test:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	Apr. 11, 2025	Apr. 10, 2026
2	EMI Test Receiver	R&S	ESCI 7	GTS552	Apr. 12, 2025	Apr. 11, 2026
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	Apr. 11, 2025	Apr. 10, 2026
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	Apr. 11, 2025	Apr. 10, 2026
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	Apr. 11, 2025	Apr. 10, 2026
6	Wideband Power Meter	Keysight	N1924A	GTS673	Apr. 11, 2025	Apr. 10, 2026
7	USB RF Power Sensor	DARE	RPR3006W	GTS569	Apr. 11, 2025	Apr. 10, 2026
8	RF Switch Box	Shongyi	RFSW3003328	GTS571	Apr. 11, 2025	Apr. 10, 2026
9	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	Apr. 11, 2025	Apr. 10, 2026
10	Thermo meter	JINCHUANG	GSP-8A	GTS641	Apr. 15, 2025	Apr. 14, 2026
11	EXA Signal Analyzer	Keysight	N9010B	MY60241168	Nov. 02, 2024	Nov. 01, 2025

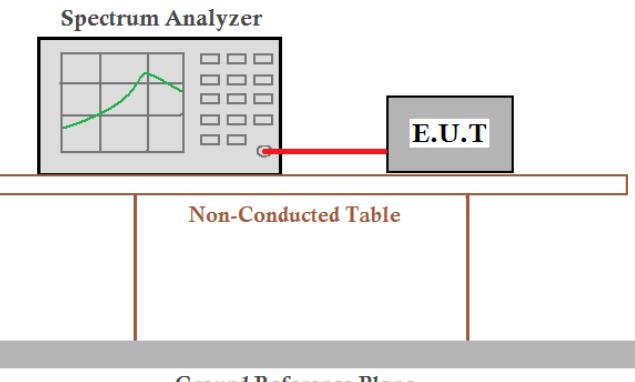
General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Barometer	KUMAO	SF132	GTS647	Aug. 17, 2024	Aug. 16, 2025

7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
15.203 requirement: 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, 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.	
15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.	
EUT Antenna: The antennas are Cable Antenna, the best case gain of the antennas are 1.95dBi, reference to the appendix III for details.	

7.2 Conducted Peak Output Power

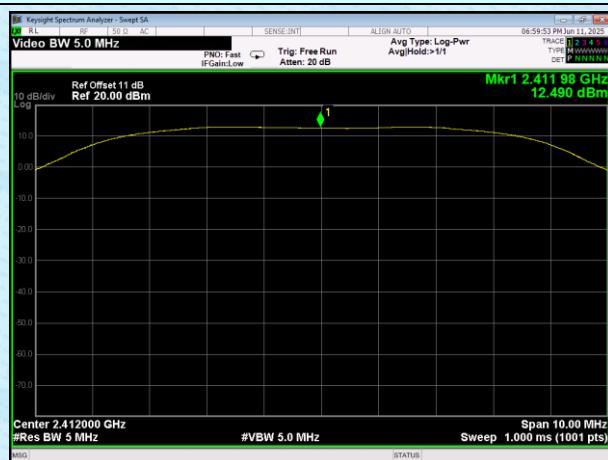
Test Requirement :	FCC Part15 C Section 15.247 (b)(3)
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	30dBm
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

Test CH	Peak Output Power (dBm)	Limit(dBm)	Result
	GFSK		
Lowest	12.490	30.00	Pass
Middle	12.649		
Highest	12.530		

Test plot as follows:

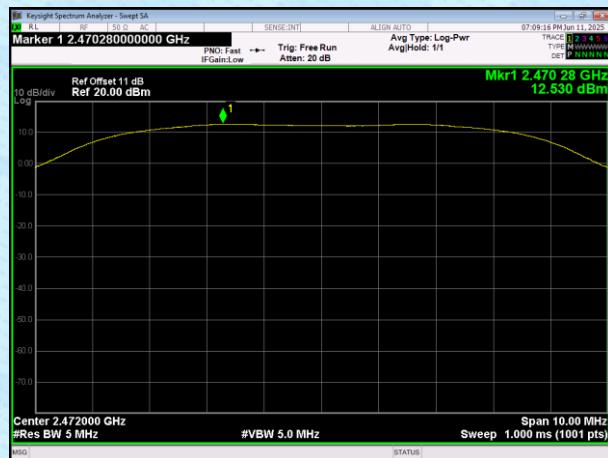
GFSK



Lowest channel

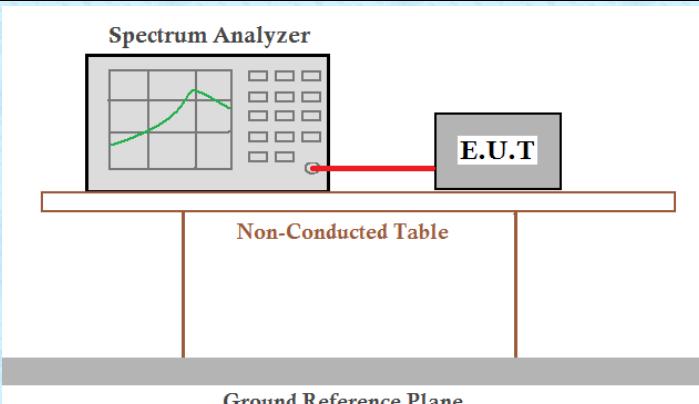


Middle channel



Highest channel

7.3 Channel Bandwidth & 99% Occupy Bandwidth

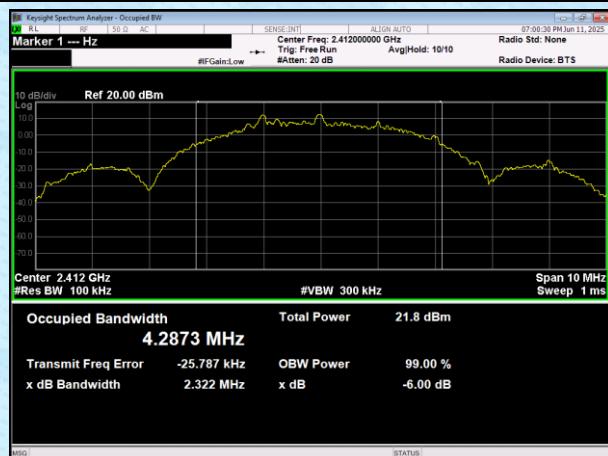
Test Requirement :	FCC Part15 C Section 15.247 (a)(2)
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	>500KHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

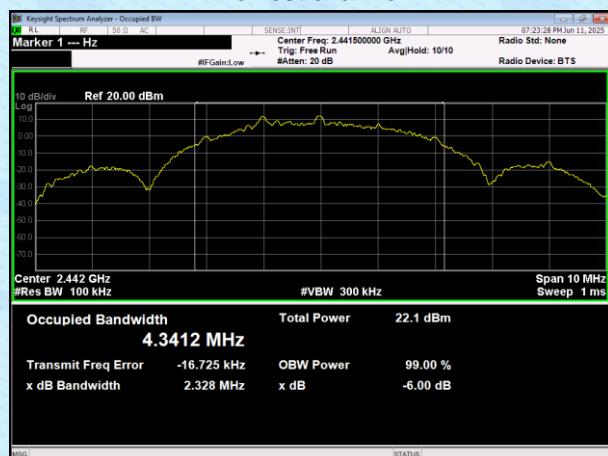
Test CH	Channel Bandwidth (MHz)	Limit(KHz)	Result
	GFSK		
Lowest	2.322	>500	Pass
Middle	2.328		
Highest	1.603		

Test plot as follows:

GFSK



Lowest channel

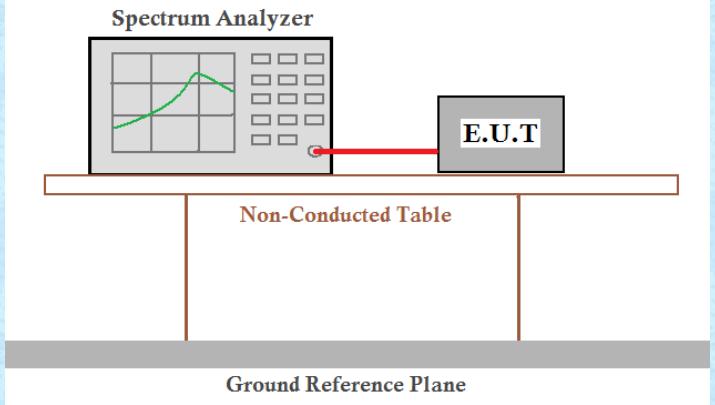


Middle channel



Highest channel

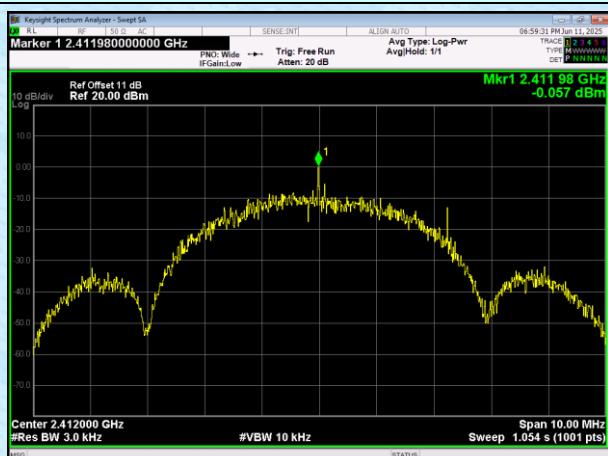
7.4 Power Spectral Density

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	8dBm/3kHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

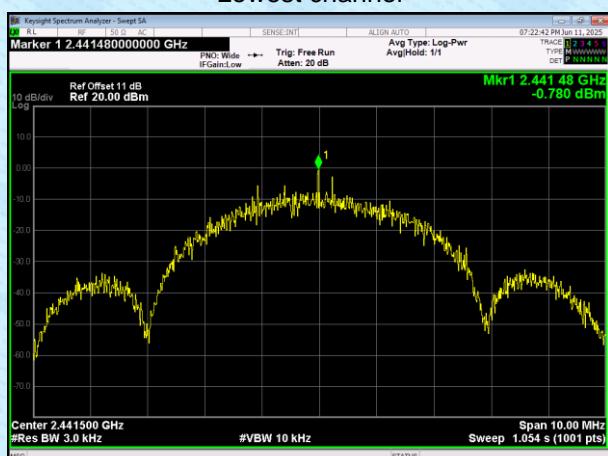
Measurement Data

Test CH	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
	GFSK		
Lowest	-0.057		
Middle	-0.780	8.00	Pass
Highest	0.835		

Test plot as follows:



Lowest channel



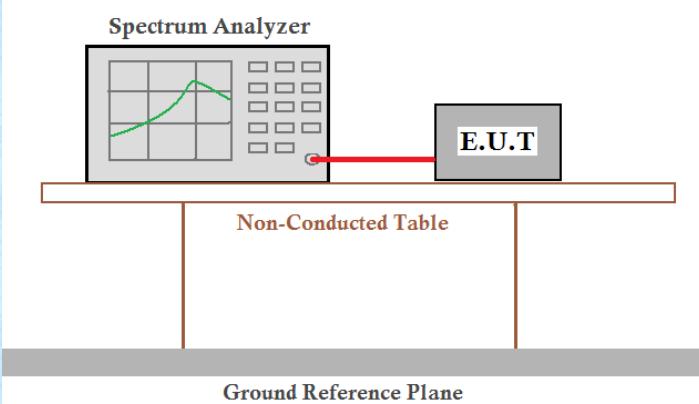
Middle channel



Highest channel

7.5 Band edges

7.5.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	 <p>The diagram illustrates the test setup for conducted emission measurement. A Spectrum Analyzer is connected to the E.U.T (Equipment Under Test) via a cable. The E.U.T is placed on a Non-Conducted Table. The entire setup is positioned above a Ground Reference Plane.</p>
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Test plot as follows:

GFSK

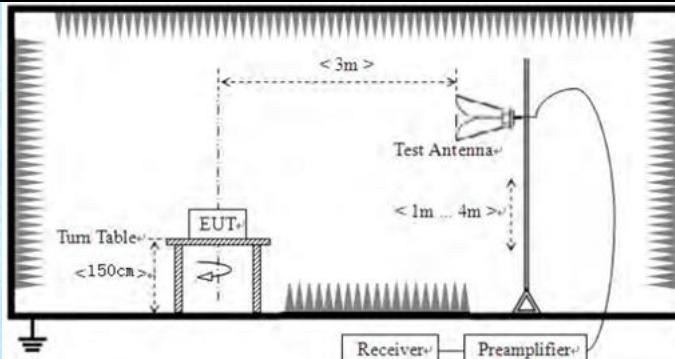


Lowest channel



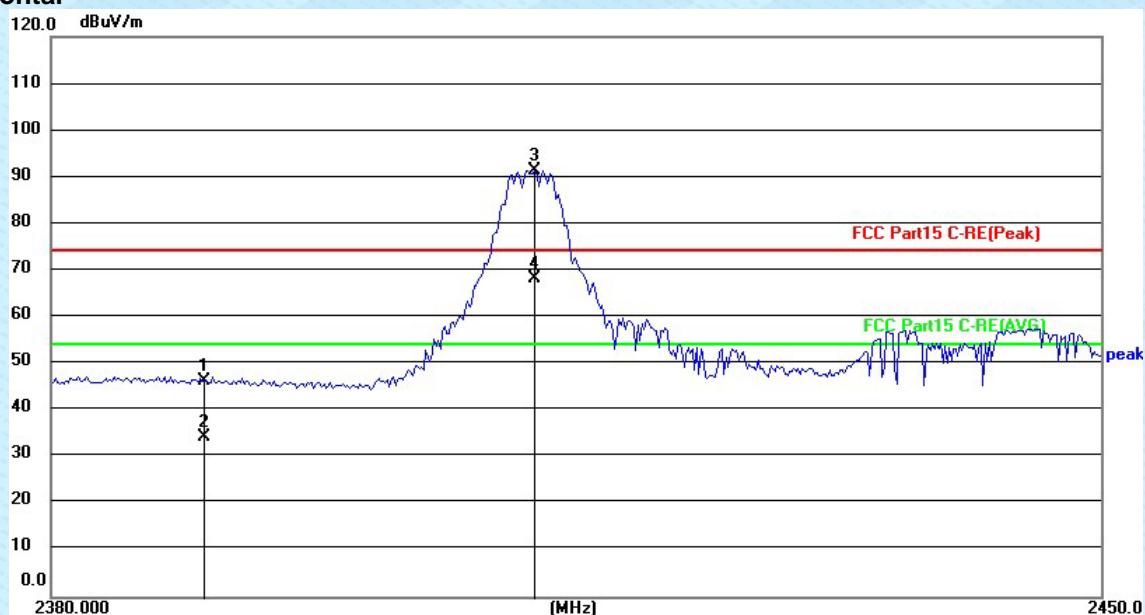
Highest channel

7.5.2 Radiated Emission Method

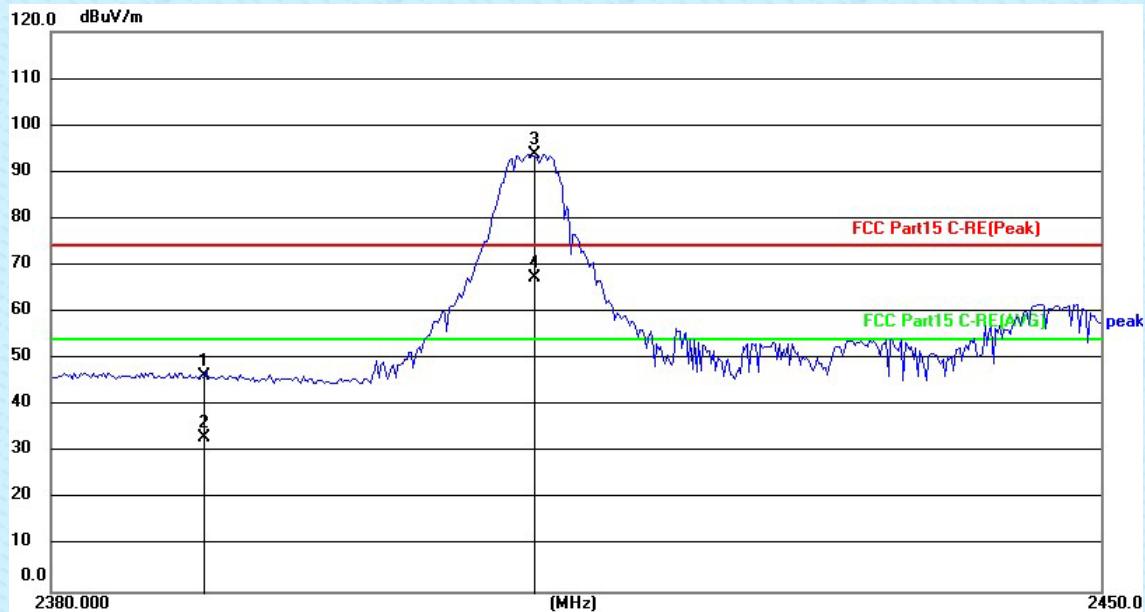
Test Requirement:	FCC Part15 C Section 15.209 and 15.205						
Test Method:	ANSI C63.10: 2013						
Test Frequency Range:	All of the restrict bands were tested, only the worst band's (2310MHz to 2500MHz) data was showed.						
Test site:	Measurement Distance: 3m						
Receiver setup:	Frequency	Detector	RBW	VBW	Value		
	Above 1GHz	Peak	1MHz	3MHz	Peak		
		Average	1MHz	3MHz	Average		
Limit:	Frequency		Limit (dBuV/m @3m)		Value		
	Above 1GHz		54.00		Average		
	Above 1GHz		74.00		Peak		
Test setup:							
Test Procedure:	<ol style="list-style-type: none"> The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. The radiation measurements are performed in X, Y, Z axis positioning. And found the Y axis positioning which it is worse case, only the test worst case mode is recorded in the report. 						
Test Instruments:	Refer to section 6.0 for details						
Test mode:	Refer to section 5.2 for details						
Test results:	Pass						

Measurement data:

Test mode:	GFSK 2412Hz	Test channel:	Lowest
------------	-------------	---------------	--------

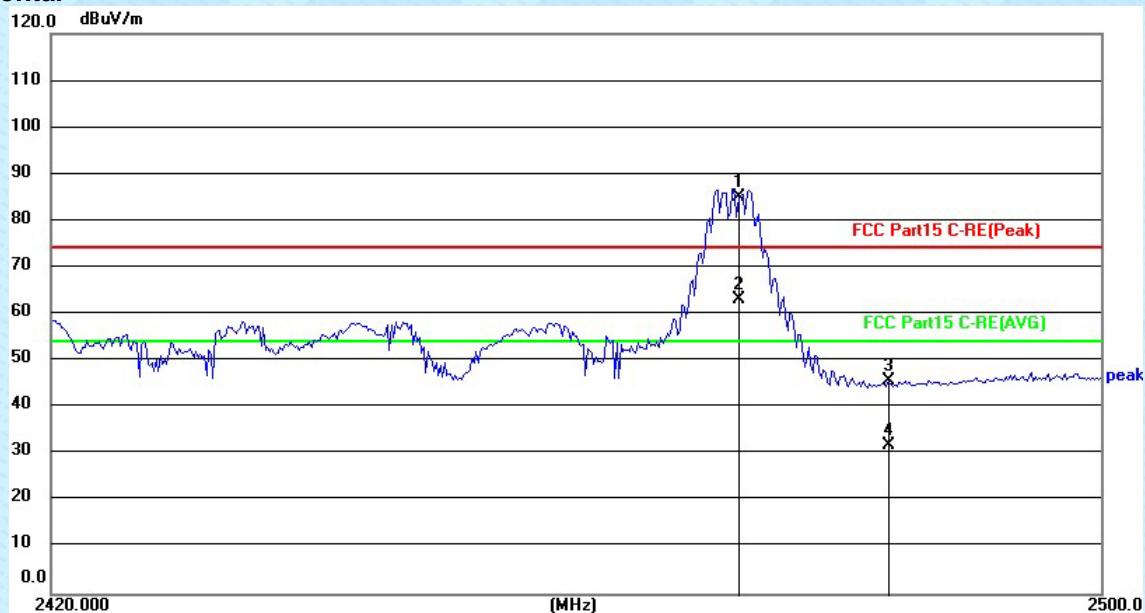
Horizontal


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	20.10	26.32	46.42	74.00	-27.58	peak
2	2390.000	7.97	26.32	34.29	54.00	-19.71	AVG
3	2412.000	65.05	26.36	91.41	74.00	17.41	peak
4	2412.000	41.78	26.36	68.14	54.00	14.14	AVG

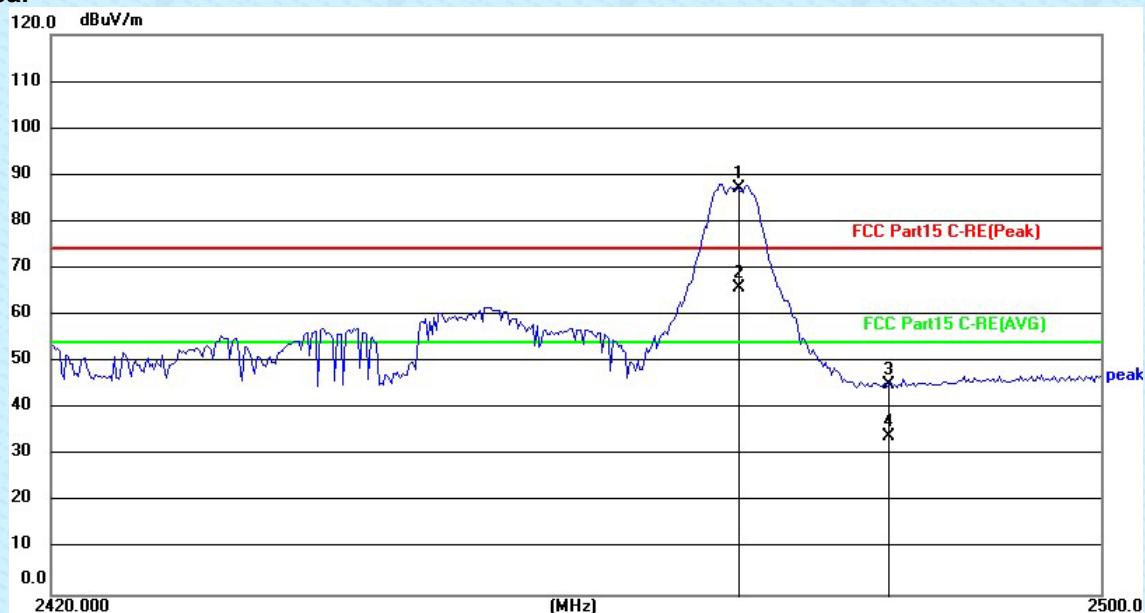
Vertical


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	19.89	26.32	46.21	74.00	-27.79	peak
2	2390.000	6.85	26.32	33.17	54.00	-20.83	AVG
3	2412.000	67.30	26.36	93.66	74.00	19.66	peak
4	2412.000	40.89	26.36	67.25	54.00	13.25	AVG

Test mode:	GFSK 2472Hz	Test channel:	Highest
------------	-------------	---------------	---------

Horizontal


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2472.000	58.49	26.46	84.95	74.00	10.95	peak
2	2472.000	36.62	26.46	63.08	54.00	9.08	AVG
3	2483.500	19.22	26.47	45.69	74.00	-28.31	peak
4	2483.500	5.37	26.47	31.84	54.00	-22.16	AVG

Vertical


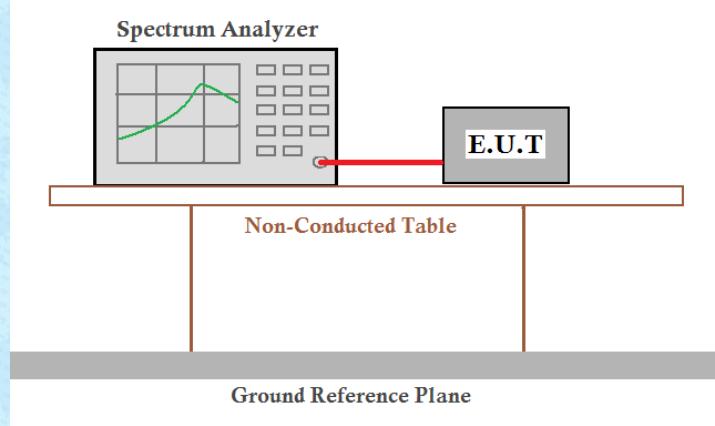
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2472.000	60.82	26.46	87.28	74.00	13.28	peak
2	2472.000	39.41	26.46	65.87	54.00	11.87	AVG
3	2483.500	18.63	26.47	45.10	74.00	-28.90	peak
4	2483.500	7.62	26.47	34.09	54.00	-19.91	AVG

Remarks:

- Only the worst case Main Antenna test data.
- The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest frequencies) data was showed.
- Final Level =Receiver Read level + Antenna Factor
- The emission levels of other frequencies are very lower than the limit and not show in test report.

7.6 Spurious Emission

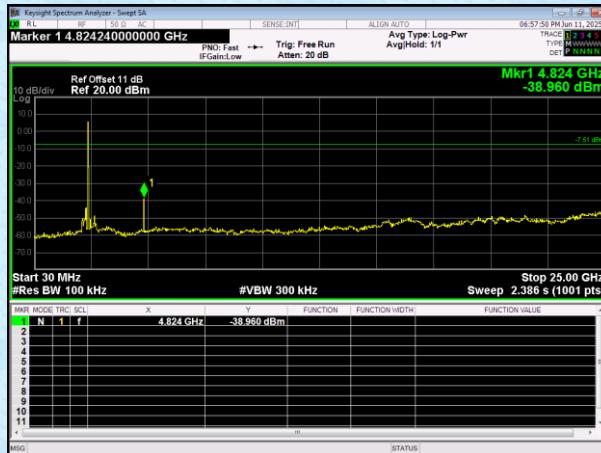
7.6.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Test plot as follows:

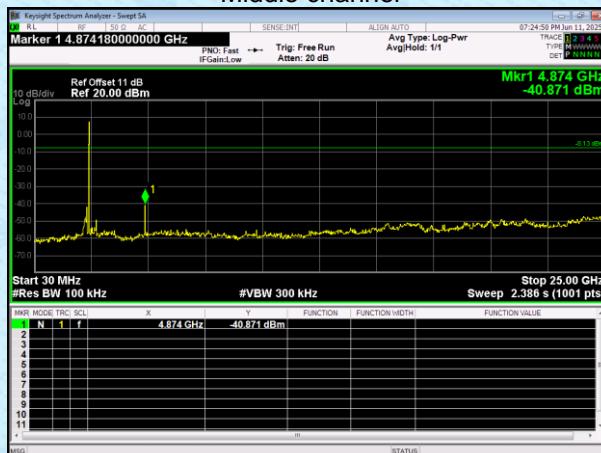
GFSK

Lowest channel



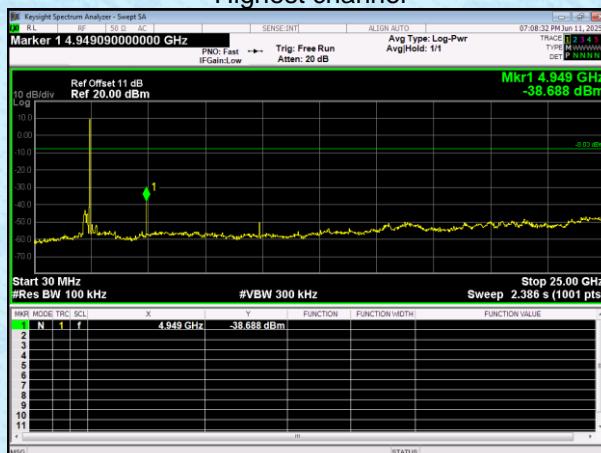
30MHz~25GHz

Middle channel



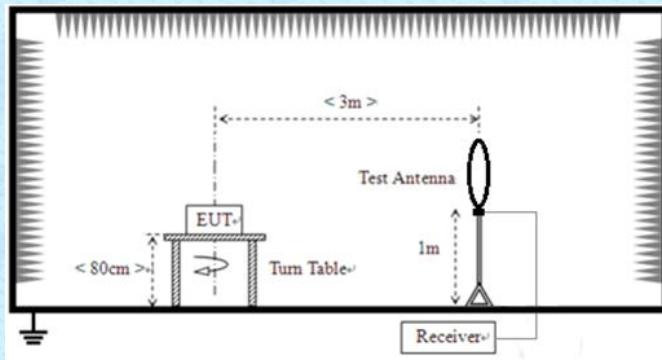
30MHz~25GHz

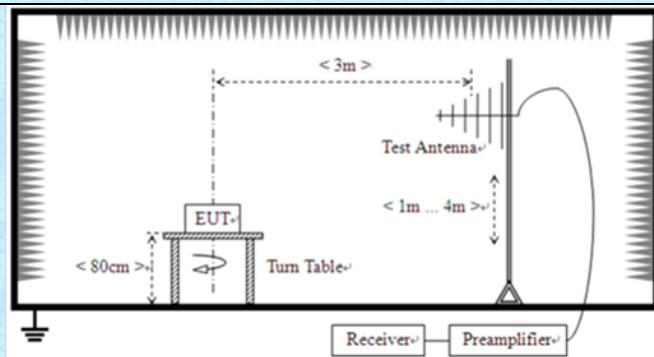
Highest channel



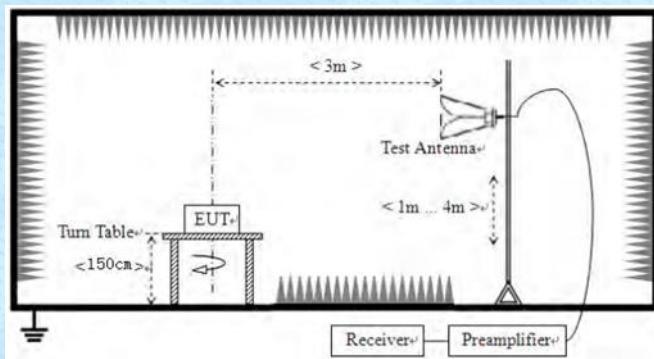
30MHz~25GHz

7.6.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209						
Test Method:	ANSI C63.10: 2013						
Test Frequency Range:	9kHz to 25GHz						
Test site:	Measurement Distance: 3m						
Receiver setup:	Frequency	Detector	RBW	VBW	Value		
	9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak		
	150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak		
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak		
	Above 1GHz	Peak	1MHz	3MHz	Peak		
		Peak	1MHz	10Hz	Average		
Limit:	Frequency	Limit (uV/m)	Value	Measurement Distance			
	0.009MHz-0.490MHz	2400/F(KHz)	QP	300m			
	0.490MHz-1.705MHz	24000/F(KHz)	QP	300m			
	1.705MHz-30MHz	30	QP	30m			
	30MHz-88MHz	100	QP	3m			
	88MHz-216MHz	150	QP				
	216MHz-960MHz	200	QP				
	960MHz-1GHz	500	QP				
	Above 1GHz	500	Average				
		5000	Peak				
Test setup:	For radiated emissions from 9kHz to 30MHz						
							
	For radiated emissions from 30MHz to 1GHz						



For radiated emissions above 1GHz



Test Procedure:

1. The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Test Instruments:

Refer to section 6.0 for details

Test mode:

Refer to section 5.2 for details

Test voltage:

AC120V 60Hz

Test environment:

Temp.:	24°C	Humid.:	50%	Press.:	1010mbar
--------	------	---------	-----	---------	----------

Test voltage:	5Vdc 1A
Test results:	Pass

Remarks:

1. Only the worst case Main Antenna test data.
2. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

Measurement data:

■ **9kHz~30MHz**

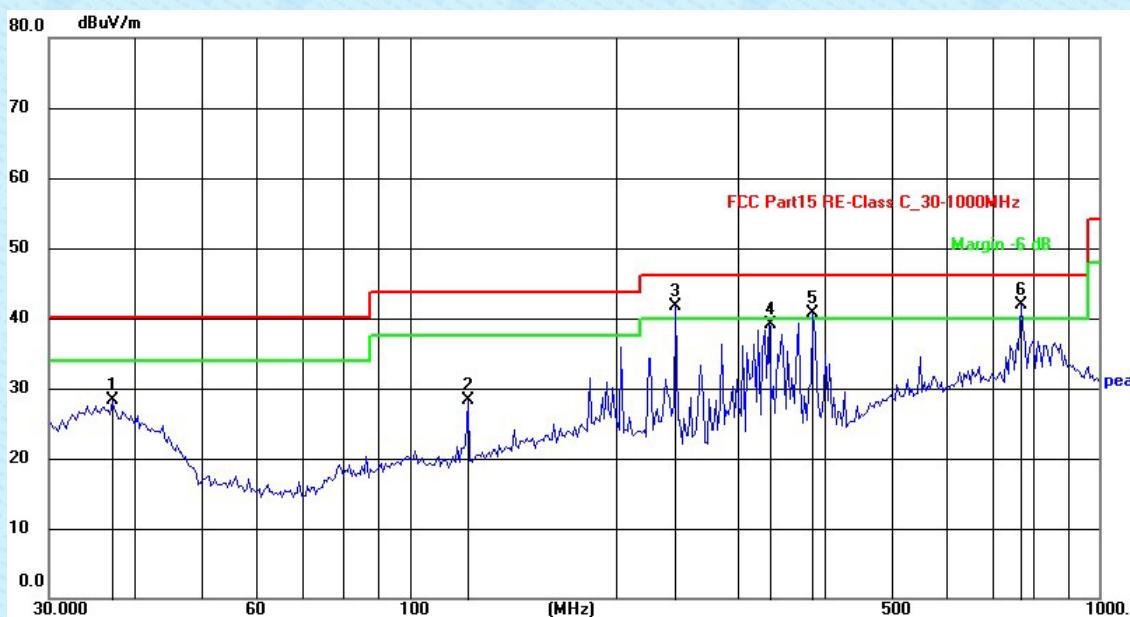
The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o) & RSS-Gen 6.13, the test result no need to reported.

■ **Above 18GHz**

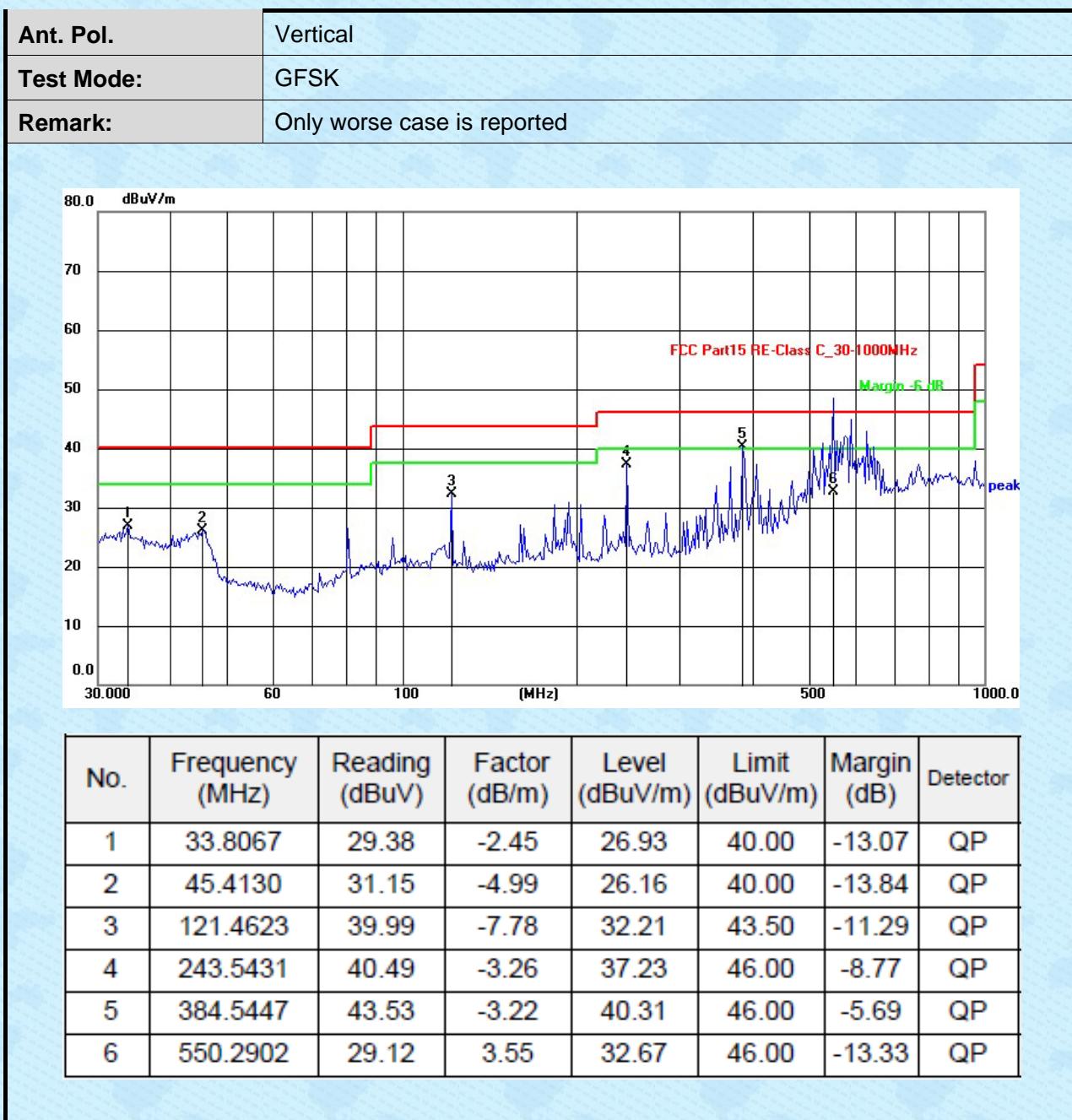
The emission from Above 18GHz was pre-tested and found the result was 20dB lower than the limit, the test result no need to reported.

Below 1GHz

Ant. Pol.	Horizontal
Test Mode:	GFSK
Remark:	Only worse case is reported

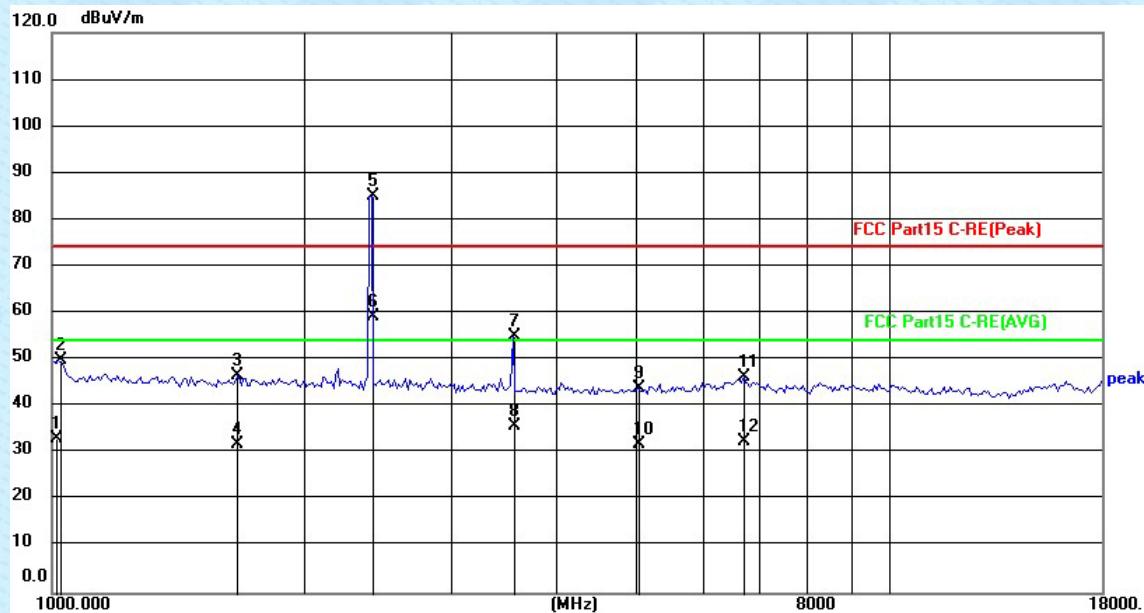


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	37.0405	28.74	-0.44	28.30	40.00	-11.70	QP
2	121.4623	35.76	-7.37	28.39	43.50	-15.11	QP
3	243.5431	45.06	-3.35	41.71	46.00	-4.29	QP
4	331.7858	42.82	-3.62	39.20	46.00	-6.80	QP
5	384.5447	44.17	-3.42	40.75	46.00	-5.25	QP
6	771.0475	37.89	3.96	41.85	46.00	-4.15	QP

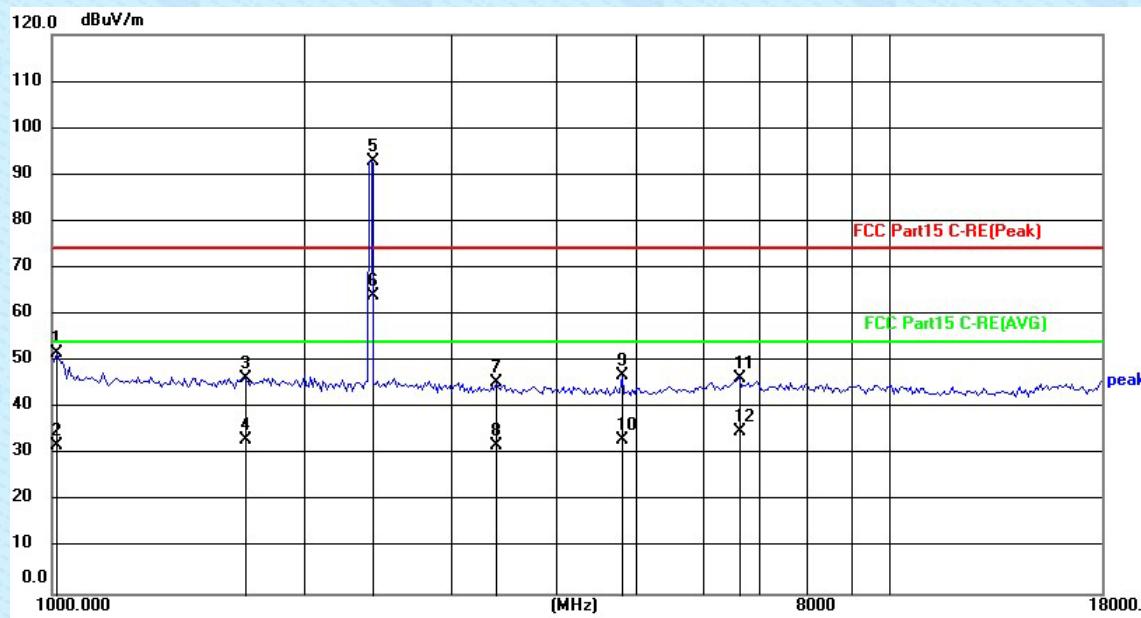


Above 1GHz

Test mode:	GFSK 2412z	Test channel:	Lowest
------------	------------	---------------	--------

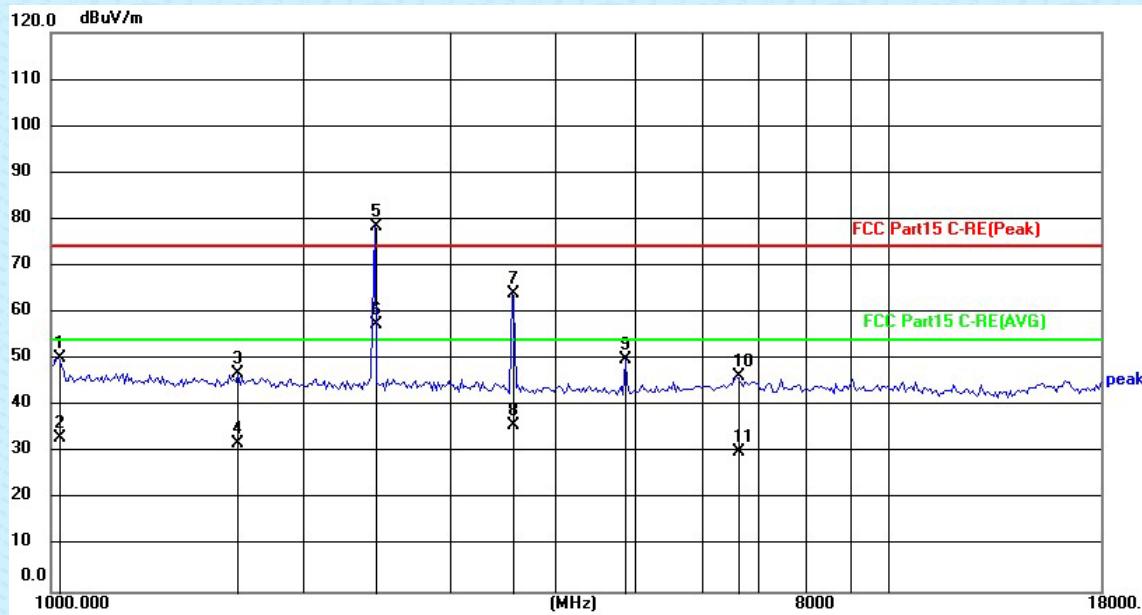
Horizontal:


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	31.51	1.58	33.09	54.00	-20.91	AVG
2	1017.529	48.20	1.67	49.87	74.00	-24.13	peak
3	1664.833	22.02	24.69	46.71	74.00	-27.29	peak
4	1664.833	7.15	24.69	31.84	54.00	-22.16	AVG
5	2412.000	58.58	26.36	84.94	74.00	10.94	peak
6	2412.000	32.81	26.36	59.17	54.00	5.17	AVG
7	3555.586	26.74	28.37	55.11	74.00	-18.89	peak
8	3555.586	7.40	28.37	35.77	54.00	-18.23	AVG
9	5033.218	13.44	30.55	43.99	74.00	-30.01	peak
10	5033.218	1.33	30.55	31.88	54.00	-22.12	AVG
11	6723.951	11.58	34.92	46.50	74.00	-27.50	peak
12	6723.951	-2.47	34.92	32.45	54.00	-21.55	AVG

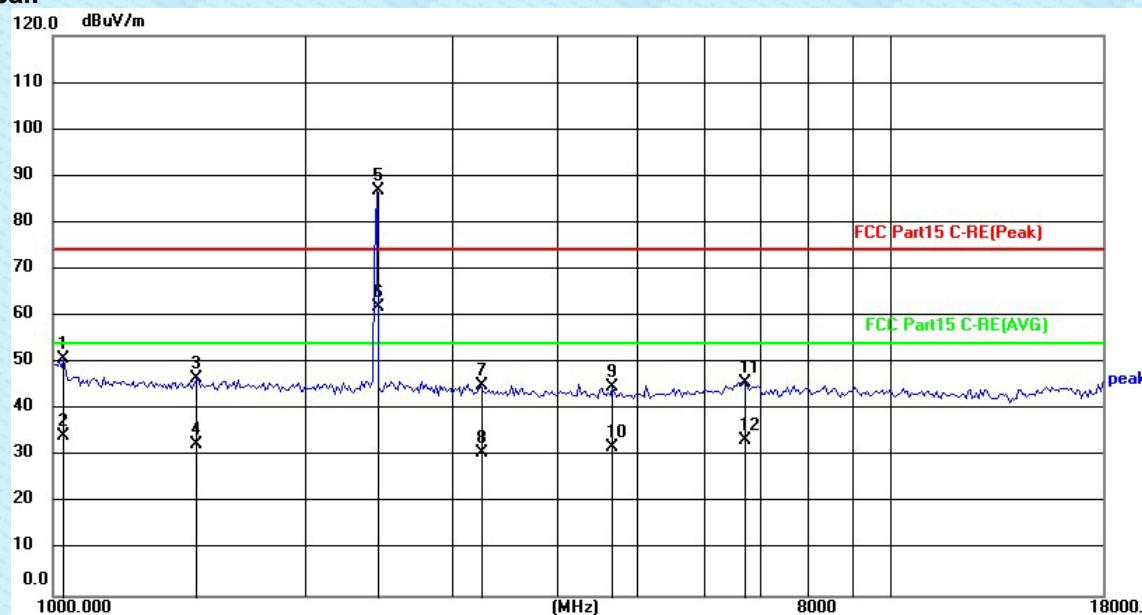
Vertical:


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	50.23	1.58	51.81	74.00	-22.19	peak
2	1011.652	30.26	1.58	31.84	54.00	-22.16	AVG
3	1703.856	21.59	24.81	46.40	74.00	-27.60	peak
4	1703.856	8.48	24.81	33.29	54.00	-20.71	AVG
5	2412.000	66.39	26.36	92.75	74.00	18.75	peak
6	2412.000	37.72	26.36	64.08	54.00	10.08	AVG
7	3394.584	17.31	28.11	45.42	74.00	-28.58	peak
8	3394.584	3.85	28.11	31.96	54.00	-22.04	AVG
9	4805.307	16.75	30.07	46.82	74.00	-27.18	peak
10	4805.307	3.20	30.07	33.27	54.00	-20.73	AVG
11	6646.506	11.53	34.67	46.20	74.00	-27.80	peak
12	6646.506	0.20	34.67	34.87	54.00	-19.13	AVG

Test mode:	GFSK 2441.5MHz	Test channel:	Middle
------------	----------------	---------------	--------

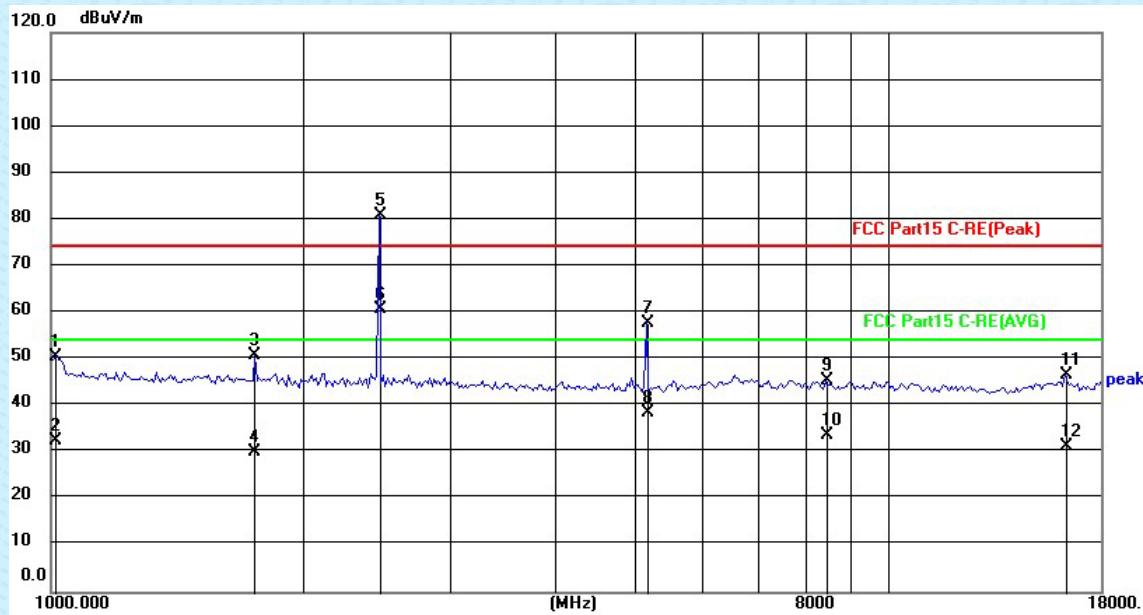
Horizontal:


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1017.529	48.64	1.67	50.31	74.00	-23.69	peak
2	1017.529	31.59	1.67	33.26	54.00	-20.74	AVG
3	1674.504	22.27	24.72	46.99	74.00	-27.01	peak
4	1674.504	7.22	24.72	31.94	54.00	-22.06	AVG
5	2442.000	51.93	26.41	78.34	74.00	4.34	peak
6	2442.000	30.98	26.41	57.39	54.00	3.39	AVG
7	3555.586	35.74	28.37	64.11	74.00	-9.89	peak
8	3555.586	7.50	28.37	35.87	54.00	-18.13	AVG
9	4861.298	19.90	30.19	50.09	74.00	-23.91	peak
10	6608.119	11.91	34.55	46.46	74.00	-27.54	peak
11	6608.119	-4.38	34.55	30.17	54.00	-23.83	AVG

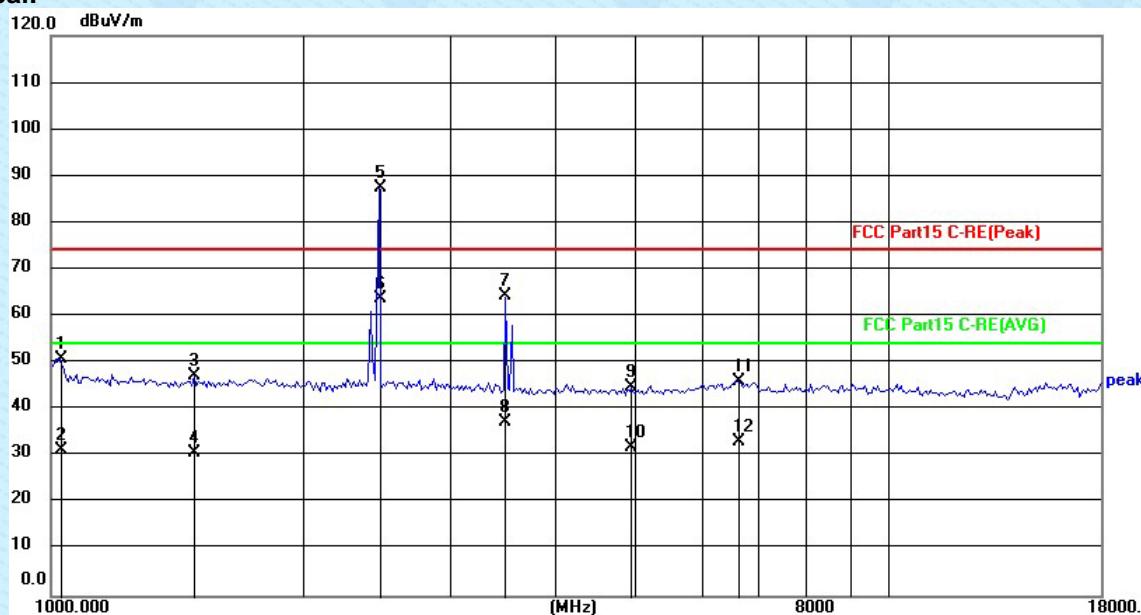
Vertical:


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1029.385	48.95	1.86	50.81	74.00	-23.19	peak
2	1029.385	32.42	1.86	34.28	54.00	-19.72	AVG
3	1482.720	22.35	24.38	46.73	74.00	-27.27	peak
4	1482.720	8.31	24.38	32.69	54.00	-21.31	AVG
5	2442.000	60.46	26.41	86.87	74.00	12.87	peak
6	2442.000	35.44	26.41	61.85	54.00	7.85	AVG
7	3240.873	17.20	27.83	45.03	74.00	-28.97	peak
8	3240.873	2.79	27.83	30.62	54.00	-23.38	AVG
9	4668.133	14.99	29.77	44.76	74.00	-29.24	peak
10	4668.133	2.26	29.77	32.03	54.00	-21.97	AVG
11	6723.951	10.91	34.92	45.83	74.00	-28.17	peak
12	6723.951	-1.47	34.92	33.45	54.00	-20.55	AVG

Test mode:	GFSK 2472Hz	Test channel:	Highest
------------	-------------	---------------	---------

Horizontal:


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	49.05	1.58	50.63	74.00	-23.37	peak
2	1011.652	31.00	1.58	32.58	54.00	-21.42	AVG
3	1753.924	25.79	24.96	50.75	74.00	-23.25	peak
4	1753.924	5.13	24.96	30.09	54.00	-23.91	AVG
5	2472.000	54.32	26.46	80.78	74.00	6.78	peak
6	2472.000	34.28	26.46	60.74	54.00	6.74	AVG
7	5151.196	27.13	30.71	57.84	74.00	-16.16	peak
8	5151.196	7.76	30.71	38.47	54.00	-15.53	AVG
9	8428.146	8.79	36.74	45.53	74.00	-28.47	peak
10	8428.146	-3.10	36.74	33.64	54.00	-20.36	AVG
11	16312.019	8.41	38.22	46.63	74.00	-27.37	peak
12	16312.019	-6.75	38.22	31.47	54.00	-22.53	AVG

Vertical:


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1023.440	49.08	1.76	50.84	74.00	-23.16	peak
2	1023.440	29.49	1.76	31.25	54.00	-22.75	AVG
3	1482.720	22.75	24.38	47.13	74.00	-26.87	peak
4	1482.720	6.23	24.38	30.61	54.00	-23.39	AVG
5	2472.000	61.05	26.46	87.51	74.00	13.51	peak
6	2472.000	37.28	26.46	63.74	54.00	9.74	AVG
7	3494.334	35.91	28.29	64.20	74.00	-9.80	peak
8	3494.334	9.19	28.29	37.48	54.00	-16.52	AVG
9	4946.511	14.52	30.38	44.90	74.00	-29.10	peak
10	4946.511	1.48	30.38	31.86	54.00	-22.14	AVG
11	6608.119	11.61	34.55	46.16	74.00	-27.84	peak
12	6608.119	-1.46	34.55	33.09	54.00	-20.91	AVG

Remark:

- 1 Final Level = Receiver Read level + Antenna Factor
- 2 **, means this data is the too weak instrument of signal is unable to test.

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** and **appendix III** for details.

-----End-----