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.:	ABM600
Add. Model No.:	ABM100, ABM101, ABM100S, ABM109, ABM200, ABM200S, ABM201, ABM201S, ABM206, ABM209, ABM210, ABM210S, ABM201S, ABM300, ABM601, ABM605, ABM610, ABM609, ABM400, ABM500, ABM540, ABM540P, ABM501, ABM520, ABM510, ABM570, ABM560, ABM700, ABM720, ABM730, ABM806, ABM800, ABM808, ABM809, ABM810, ABM900, ABM906, ABM910, ABM160, ABM180, ABM190, ABm260, ABM280, ABM290, ABM330, ABM360, ABM390, ABM550, ABM580, ABM590, ABM660, ABm680, ABM690, ABM760, ABM780, ABM790, ABM860, ABM880, ABM890, ABM960, ABM980, ABM990, SM36PTZ, SM36YT, SM39PTZ, SM39YT
Trade Mark:	N/A
FCC ID:	2AYKP-ABM600
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.247
Date of sample receipt:	2024-01-19
Date of Test:	2024-01-19 to 2024-03-01
Date of report issued:	2025-07-21
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
GTSL2024020014F01	00	2024-03-01	Original
GTSL2025070383F01	01	2025-07-21	On the basis of the original report number GTSL2024020014F01, the factory, applicant, and manufacturer addresses will be corrected.

Prepared By: ***Date:*** 2025-07-21

Project Engineer

Check By: ***Date:*** 2025-07-21

Reviewer

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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	Pass
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.:	ABM600
Add. Model No.:	ABM100, ABM101, ABM100S, ABM109, ABM200, ABM200S, ABM201, ABM201S, ABM206, ABM209, ABM210, ABM210S, ABM201S, ABM300, ABM601, ABM605, ABM610, ABM609, ABM400, ABM500, ABM540, ABM540P, ABM501, ABM520, ABM510, ABM570, ABM560, ABM700, ABM720, ABM730, ABM806, ABM800, ABM808, ABM809, ABM810, ABM900, ABM906, ABM910, ABM160, ABM180, ABM190, ABm260, ABM280, ABM290, ABM330, ABM360, ABM390, ABM550, ABM580, ABM590, ABM660, ABm680, ABM690, ABM760, ABM780, ABM790, ABM860, ABM880, ABM890, ABM960, ABM980, ABM990, SM36PTZ, SM36YT, SM39PTZ, SM39YT
Serial No.:	N/A
Hardware Version:	V1.0
Software Version:	V1.0
Test sample(s) ID:	GTSL2024020014-1
Sample(s) Status:	Engineer sample
Sample(s) Status	Engineer sample
Channel numbers:	FSK/GFSK: 11
Channel separation:	6MHz
Modulation technology:	FSK/GFSK
Antenna Type:	Cable Antenna
Antenna gain:	2.09 dBi
Power supply:	5Vdc 1A
Note: The product (Baby Monitor) models (ABM600) and models (ABM100, ABM101, ABM100S, ABM109, ABM200, ABM200S, ABM201, ABM201S, ABM206, ABM209, ABM210, ABM210S, ABM201S, ABM300, ABM601, ABM605, ABM610, ABM609, ABM400, ABM500, ABM540, ABM540P, ABM501, ABM520, ABM510, ABM570, ABM560, ABM700, ABM720, ABM730, ABM806, ABM800, ABM808, ABM809, ABM810, ABM900, ABM906, ABM910, ABM160, ABM180, ABM190, ABm260, ABM280, ABM290, ABM330, ABM360, ABM390, ABM550, ABM580, ABM590, ABM660, ABm680, ABM690, ABM760, ABM780, ABM790, ABM860, ABM880, ABM890, ABM960, ABM980, ABM990, SM36PTZ, SM36YT, SM39PTZ, SM39YT) 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.	

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	2410MHz	4	2428MHz	7	2449MHz	10	2470MHz
2	2416MHz	5	2435MHz	8	2456MHz	11	2477MHz
3	2422MHz	6	2442MHz	9	2463MHz		

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)
	FSK/GFSK
Lowest channel	2410MHz
Middle channel	2442MHz
Highest channel	2477MHz

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode

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.

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	FSK/GFSK
Data rate	4Mbps

5.3 Description of Support Units

Manufacturer	Description	Model	Serial Number
Shenzhen Sorghumred Electronics Technology Co.,Ltd	SWITCHING ADAPTER	G006A0501000U	G L H 2 3 1 9

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	June 23, 2021	June 22, 2024
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	April 14, 2023	April 13, 2024
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 19, 2023	March 18, 2025
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	April 17, 2023	April 16, 2025
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 14, 2023	April 13, 2024
8	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 13, 2023	Nov.12, 2024
9	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 14, 2023	April 13, 2024
10	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	April 14, 2023	April 13, 2024
11	Horn Antenna (18-26.5GHz)	/	UG-598A/U	GTS664	Oct. 29, 2023	Oct. 28, 2024
12	Horn Antenna (26.5-40GHz)	A.H Systems	SAS-573	GTS665	Oct. 29, 2023	Oct. 28, 2024
13	FSV·Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	March 13, 2023	March 12, 2024
14	Amplifier	/	LNA-1000-30S	GTS650	April 14, 2023	April 13, 2024
15	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS692	Nov. 08, 2023	Nov.07, 2024
16	Wideband Amplifier	/	WDA-01004000-15P35	GTS602	April 14, 2023	April 13, 2024
17	Thermo meter	JINCHUANG	GSP-8A	GTS643	April 19, 2023	April 18, 2024
18	RE cable 1	GTS	N/A	GTS675	July 31. 2023	July 30. 2024
19	RE cable 2	GTS	N/A	GTS676	July 31. 2023	July 30. 2024
20	RE cable 3	GTS	N/A	GTS677	July 31. 2023	July 30. 2024
21	RE cable 4	GTS	N/A	GTS678	July 31. 2023	July 30. 2024
22	RE cable 5	GTS	N/A	GTS679	July 31. 2023	July 30. 2024
23	RE cable 6	GTS	N/A	GTS680	July 31. 2023	July 30. 2024
24	RE cable 7	GTS	N/A	GTS681	July 31. 2023	July 30. 2024
25	RE cable 8	GTS	N/A	GTS682	July 31. 2023	July 30. 2024

Conducted Emission						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	July 12, 2022	July 11, 2027
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 14, 2023	April 13, 2024
3	LISN	ROHDE & SCHWARZ	ENV216	GTS226	April 14, 2023	April 13, 2024
4	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
6	Thermo meter	JINCHUANG	GSP-8A	GTS642	April 19, 2023	April 18, 2024
7	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	April 14, 2023	April 13, 2024
8	ISN	SCHWARZBECK	NTFM 8158	GTS565	April 14, 2023	April 13, 2024
9	High voltage probe	SCHWARZBECK	TK9420	GTS537	April 14, 2023	April 13, 2024
10	Antenna end assembly	Weinschel	1870A	GTS560	April 14, 2023	April 13, 2024

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	April 14, 2023	April 13, 2024
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 14, 2023	April 13, 2024
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	April 14, 2023	April 13, 2024
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	April 14, 2023	April 13, 2024
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	April 14, 2023	April 13, 2024
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	April 14, 2023	April 13, 2024
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	April 14, 2023	April 13, 2024
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	April 14, 2023	April 13, 2024
9	Thermo meter	JINCHUANG	GSP-8A	GTS641	April 19, 2023	April 18, 2024

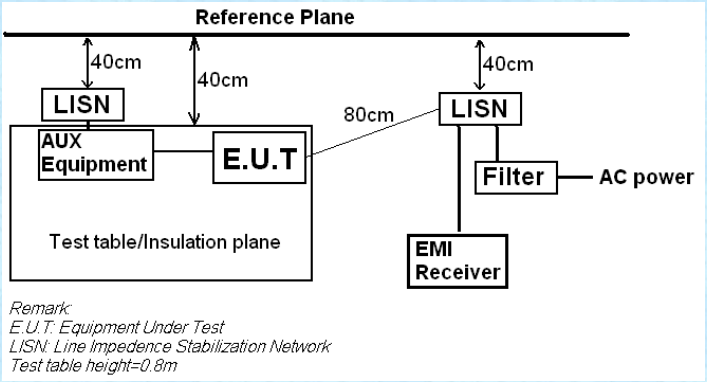
General used equipment:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Barometer	KUMAO	SF132	GTS647	April 19, 2023	April 18, 2024

7 Test results and Measurement Data

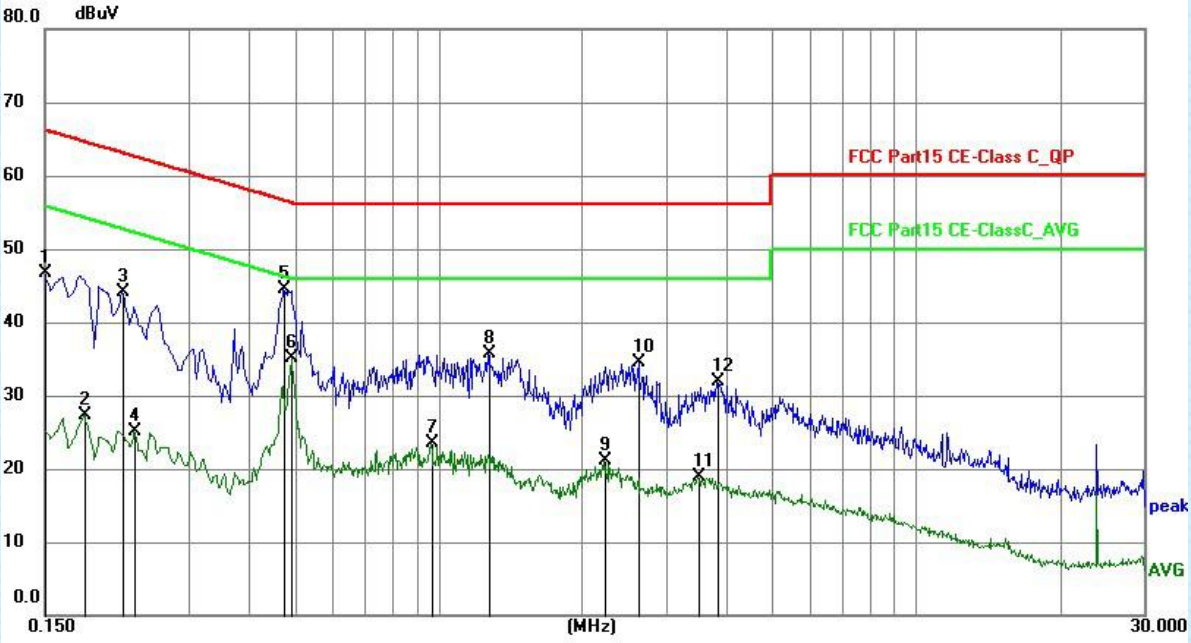
7.1 Antenna requirement

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 2.09dBi, reference to the appendix III for details	

7.2 Conducted Emissions

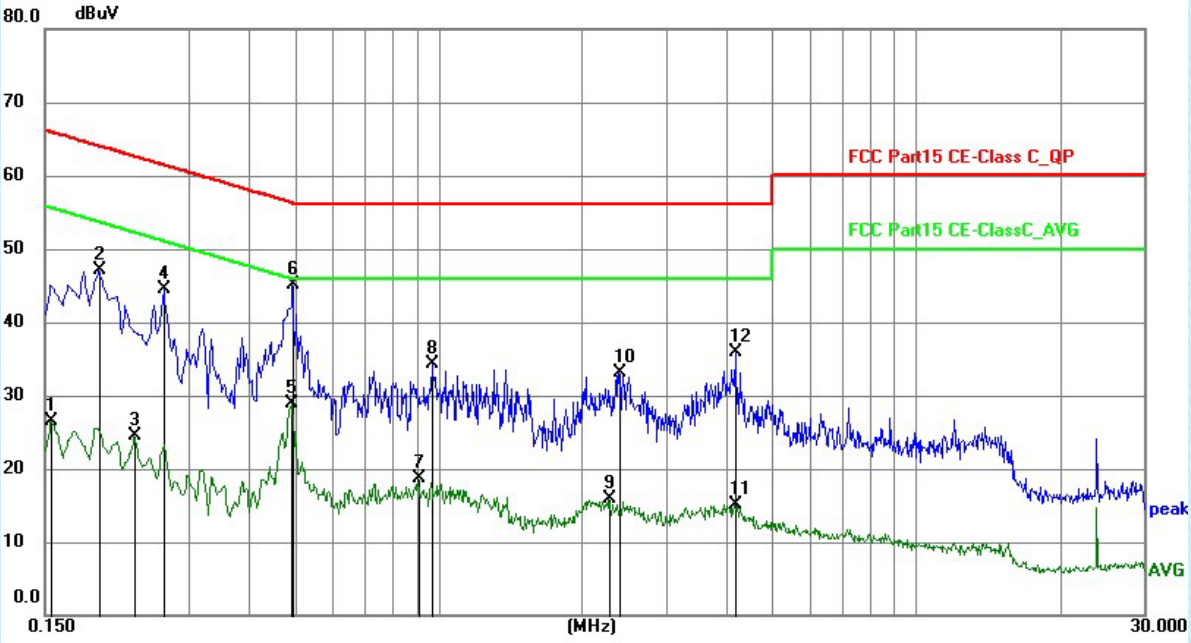
Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto
Limit:	Frequency range (MHz) / Limit (dBuV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 5-30: 60 / 50 * Decreases with the logarithm of the frequency.
Test setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test environment:	Temp.: 23°C / Humid.: 49% / Press.: 1010mbar
Test voltage:	120V/60Hz
Test results:	Pass

Measurement data
Line:



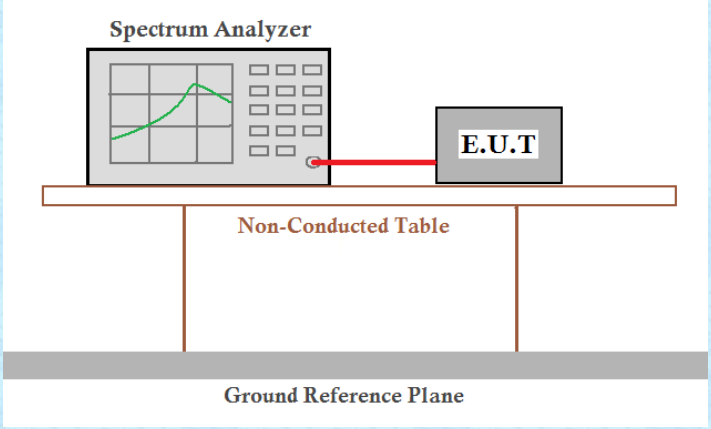
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1500	36.84	9.81	46.65	66.00	-19.35	QP	P
2	0.1815	17.46	9.77	27.23	54.42	-27.19	AVG	P
3	0.2175	34.42	9.75	44.17	62.91	-18.74	QP	P
4	0.2310	15.36	9.75	25.11	52.41	-27.30	AVG	P
5	0.4740	34.75	9.71	44.46	56.44	-11.98	QP	P
6	0.4920	25.35	9.71	35.06	46.13	-11.07	AVG	P
7	0.9645	13.78	9.65	23.43	46.00	-22.57	AVG	P
8	1.2750	26.14	9.66	35.80	56.00	-20.20	QP	P
9	2.2335	11.30	9.72	21.02	46.00	-24.98	AVG	P
10	2.6340	24.70	9.71	34.41	56.00	-21.59	QP	P
11	3.5070	9.12	9.72	18.84	46.00	-27.16	AVG	P
12	3.8310	22.21	9.72	31.93	56.00	-24.07	QP	P

Neutral:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1544	16.74	9.82	26.56	55.76	-29.20	AVG	P
2	0.1949	37.24	9.77	47.01	63.83	-16.82	QP	P
3	0.2310	14.83	9.76	24.59	52.41	-27.82	AVG	P
4	0.2670	34.82	9.74	44.56	61.21	-16.65	QP	P
5	0.4920	19.23	9.71	28.94	46.13	-17.19	AVG	P
6	0.4965	35.31	9.71	45.02	56.06	-11.04	QP	P
7	0.9059	9.06	9.66	18.72	46.00	-27.28	AVG	P
8	0.9690	24.62	9.65	34.27	56.00	-21.73	QP	P
9	2.2783	6.24	9.72	15.96	46.00	-30.04	AVG	P
10	2.3909	23.43	9.72	33.15	56.00	-22.85	QP	P
11	4.1595	5.43	9.72	15.15	46.00	-30.85	AVG	P
12	4.1955	26.13	9.72	35.85	56.00	-20.15	QP	P

7.3 Conducted Peak Output Power

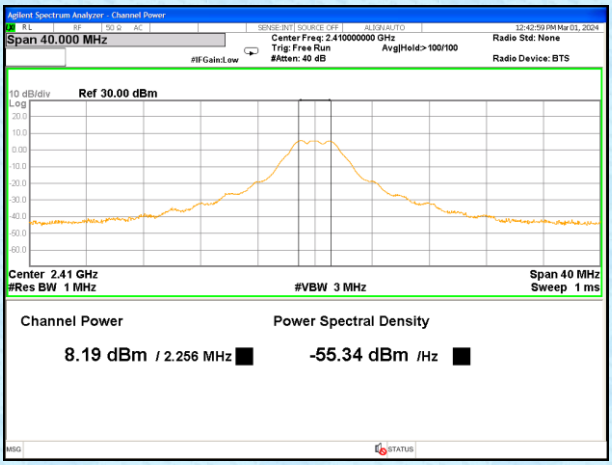
Test Requirement :	FCC Part15 C Section 15.247 (b)(3)
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	30dBm
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

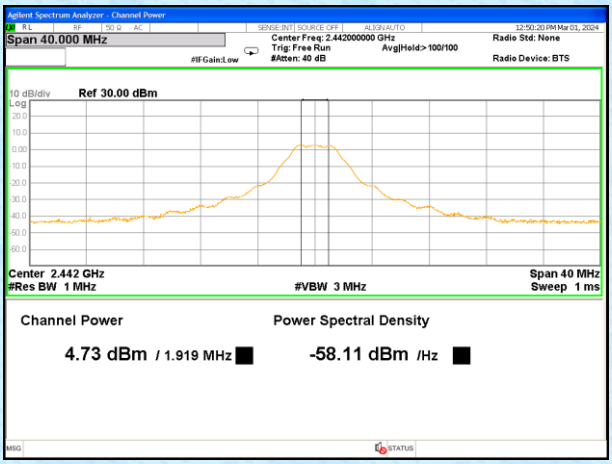
Test CH	Peak Output Power (dBm)	Limit(dBm)	Result
	FSK/GFSK		
Lowest	8.19	30.00	Pass
Middle	4.73		
Highest	3.79		

Test plot as follows:

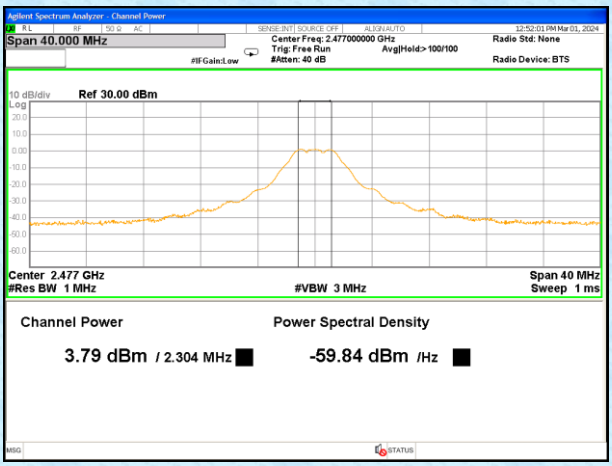
FSK/GFSK



Lowest channel

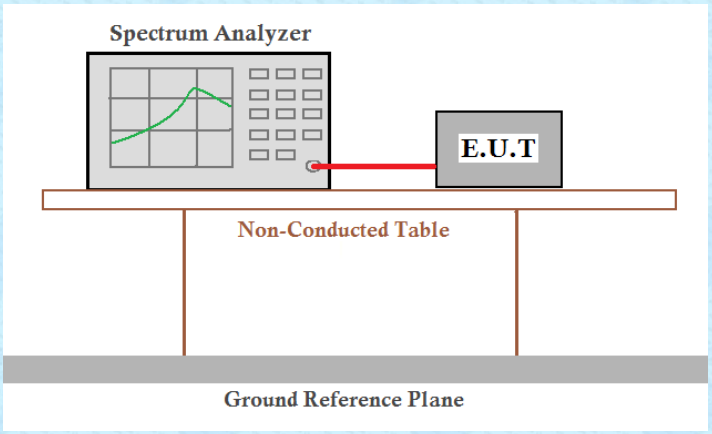


Middle channel



Highest channel

7.4 Channel Bandwidth & 99% Occupy Bandwidth

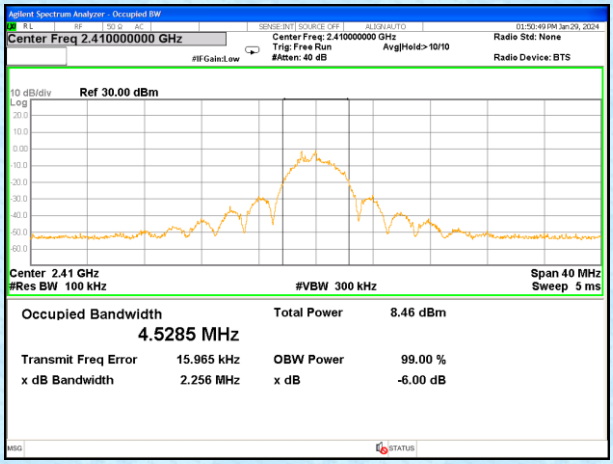
Test Requirement :	FCC Part15 C Section 15.247 (a)(2)
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	>500KHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

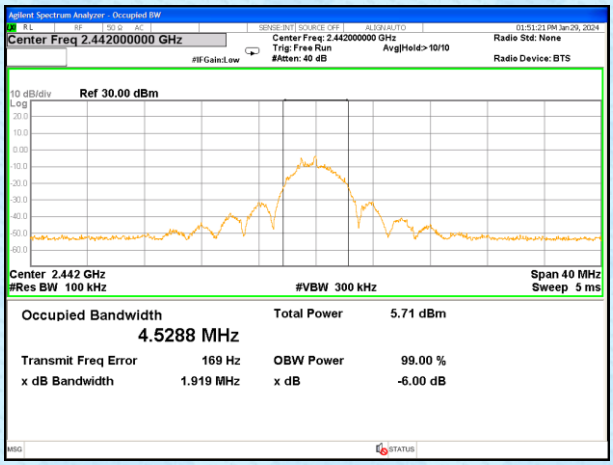
Test CH	Channel Bandwidth (MHz)	Limit(KHz)	Result
	FSK/GFSK		
Lowest	2.256	>500	Pass
Middle	1.919		
Highest	2.304		

Test plot as follows:

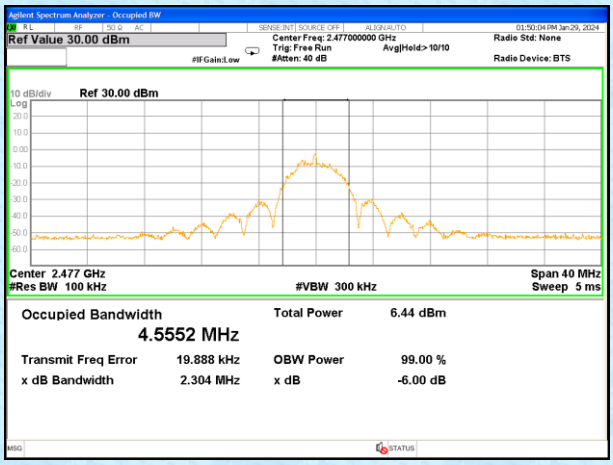
FSK/GFSK



Lowest channel

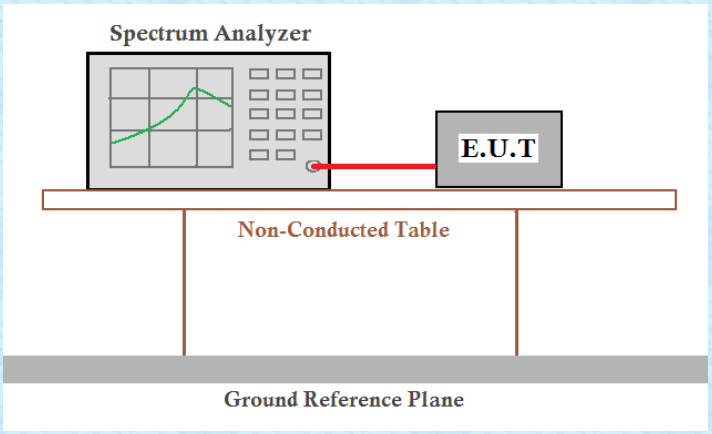


Middle channel



Highest channel

7.5 Power Spectral Density

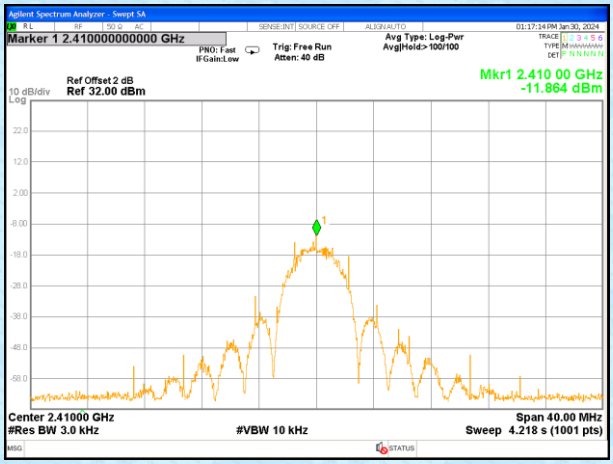
Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	8dBm/3kHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

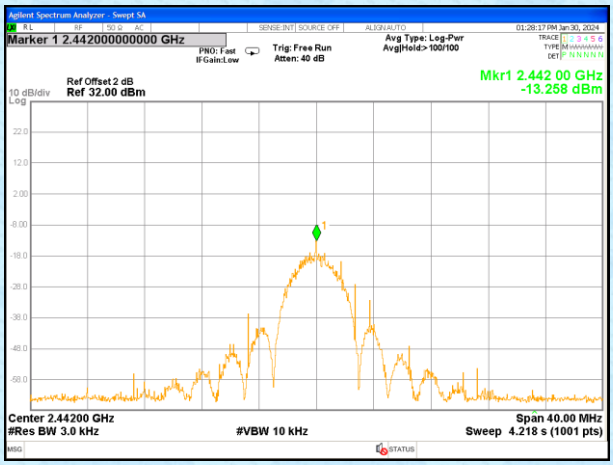
Test CH	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
	FSK/GFSK		
Lowest	-11.864	8.00	Pass
Middle	-13.258		
Highest	-15.485		

Test plot as follows:

FSK/GFSK



Lowest channel

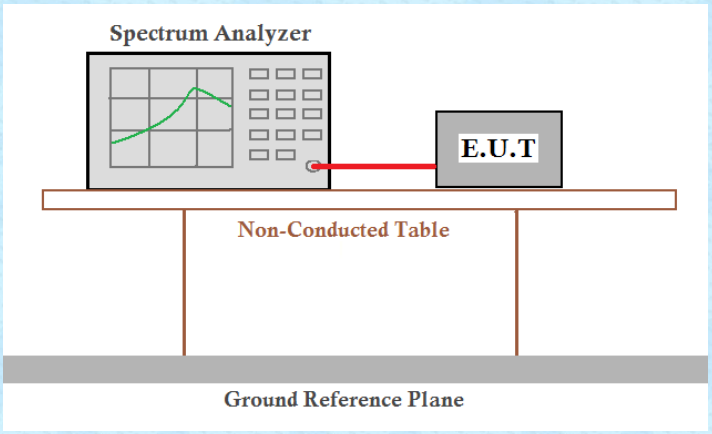


Middle channel

Highest channel

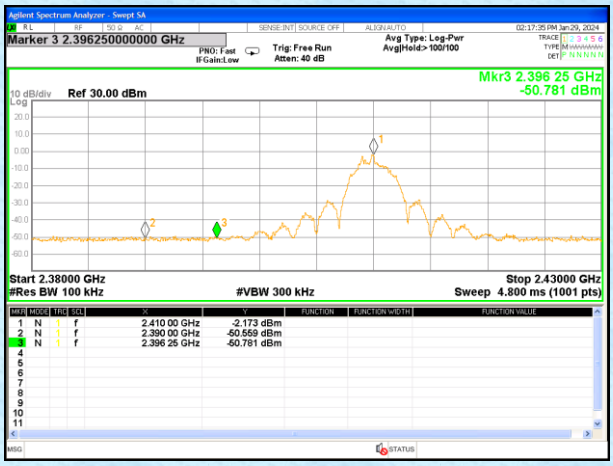
7.6 Band edges

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:

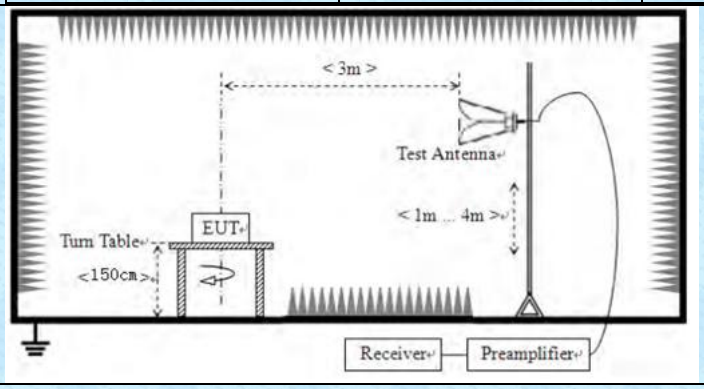
FSK/GFSK



Lowest channel

Highest channel

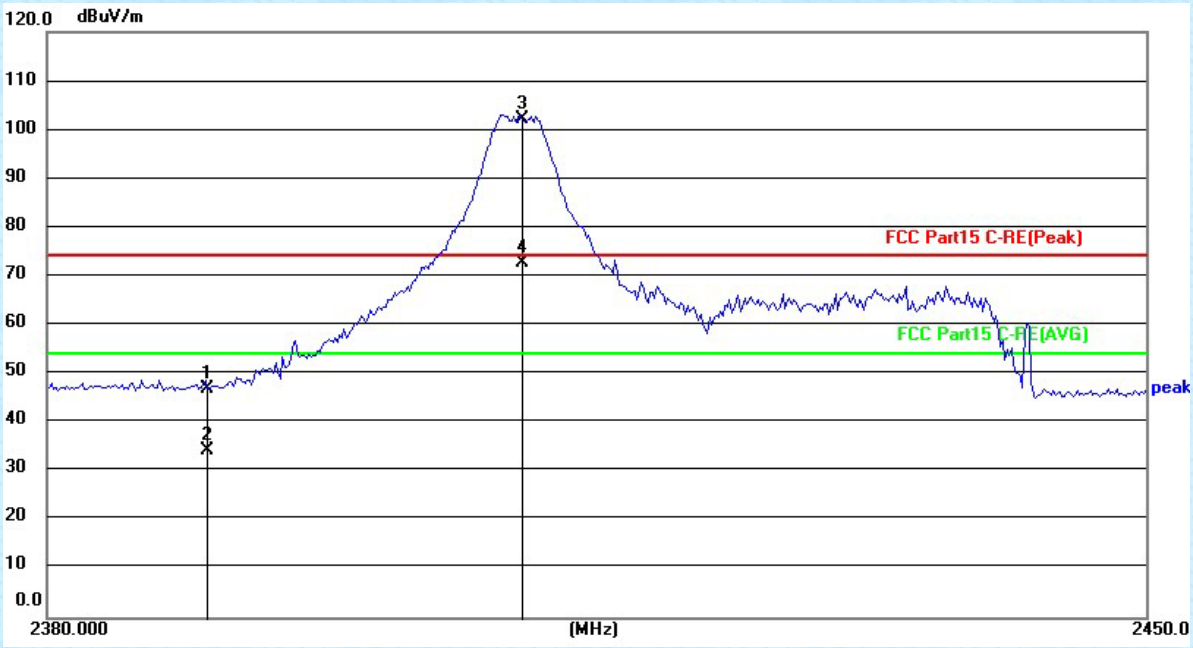
7.6.2 Radiated Emission Method

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 Above 1GHz / 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:	1. 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. 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. 7. 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:

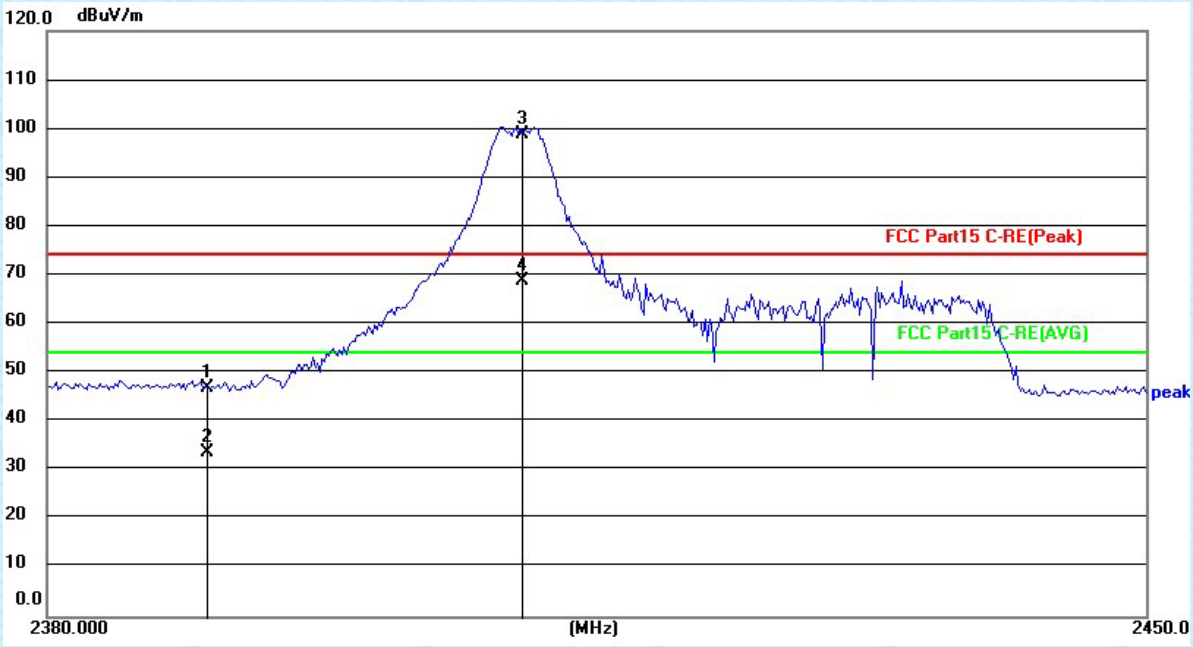
Test mode:	FSK/GFSK 2410MHz	Test channel:	Lowest

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	20.68	26.32	47.00	74.00	-27.00	peak
2	2390.000	7.93	26.32	34.25	54.00	-19.75	AVG
3	2410.000	75.84	26.36	102.20	74.00	28.20	peak
4	2410.000	46.49	26.36	72.85	54.00	18.85	AVG

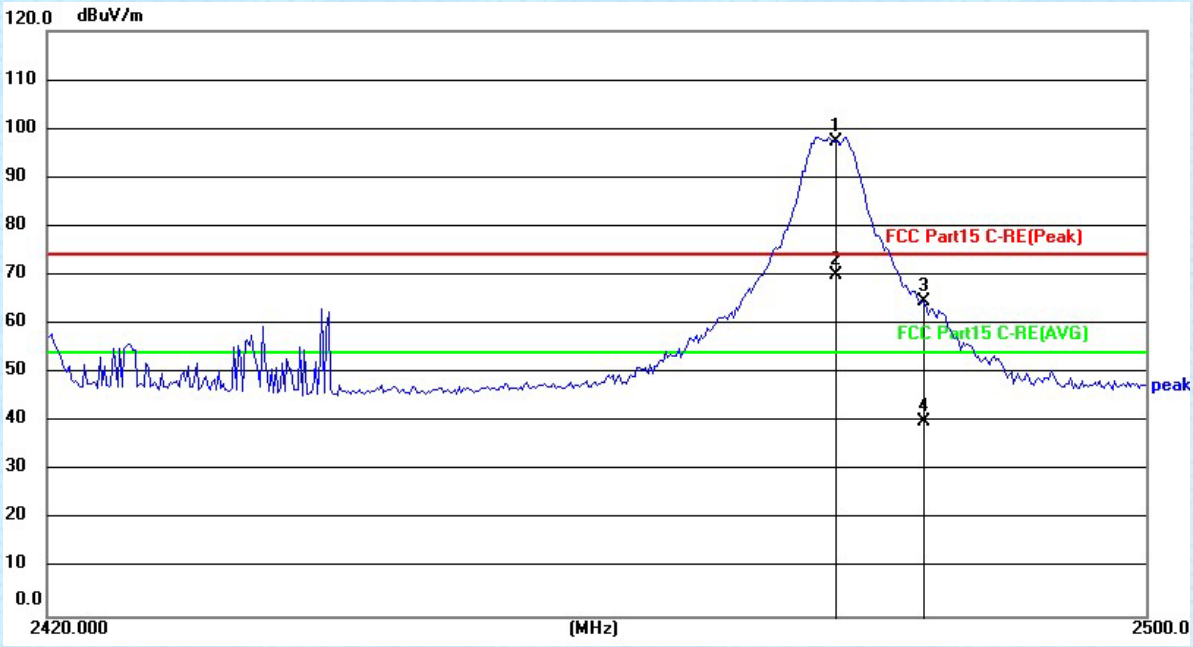
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	20.53	26.32	46.85	74.00	-27.15	peak
2	2390.000	7.57	26.32	33.89	54.00	-20.11	AVG
3	2410.000	72.58	26.36	98.94	74.00	24.94	peak
4	2410.000	42.36	26.36	68.72	54.00	14.72	AVG

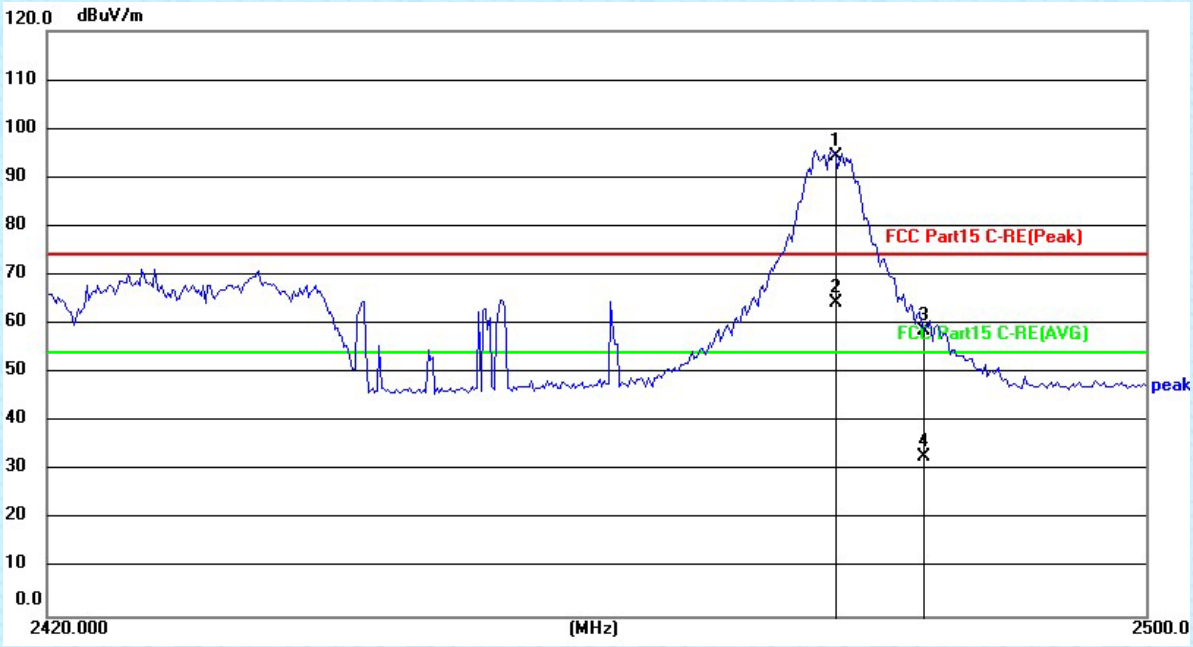
Test mode:	FSK/GFSK 2477MHz	Test channel:	Highest

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2477.000	71.02	26.46	97.48	74.00	23.48	peak
2	2477.000	43.70	26.46	70.16	54.00	16.16	AVG
3	2483.500	38.08	26.47	64.55	74.00	-9.45	peak
4	2483.500	13.44	26.47	39.91	54.00	-14.09	AVG

Vertical



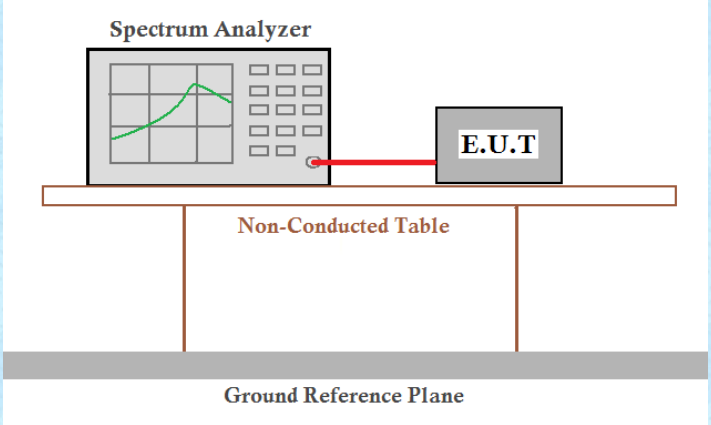
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2477.000	67.88	26.46	94.34	74.00	20.34	peak
2	2477.000	37.80	26.46	64.26	54.00	10.26	AVG
3	2483.500	32.33	26.47	58.80	74.00	-15.20	peak
4	2483.500	6.47	26.47	32.94	54.00	-21.06	AVG

Remarks:

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

7.7 Spurious Emission

7.7.1 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

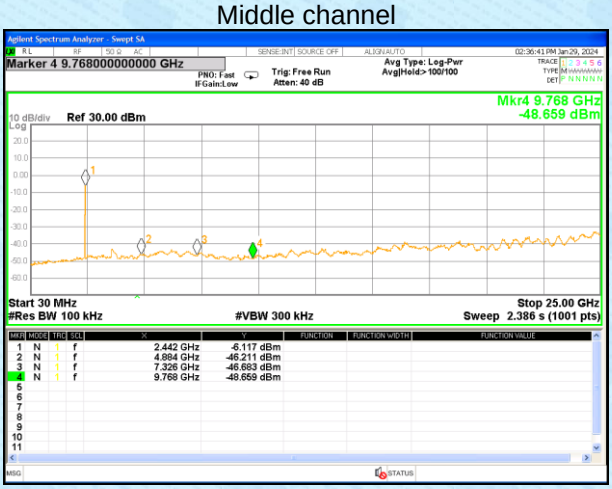
Test plot as follows:

FSK/GFSK

Lowest channel

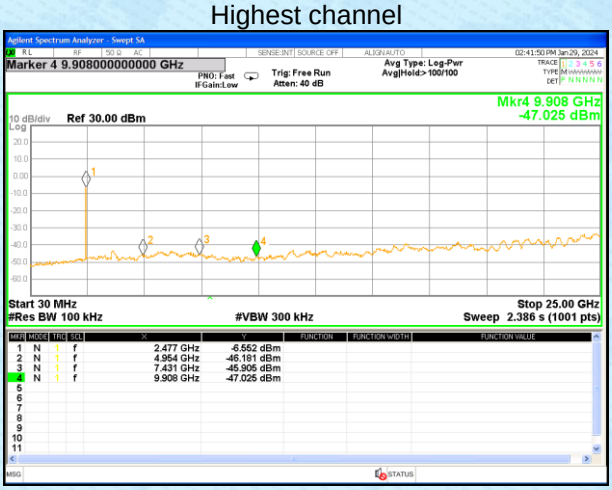
30MHz~25GHz

Middle channel



30MHz~25GHz

Highest channel



30MHz~25GHz

7.7.2 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:

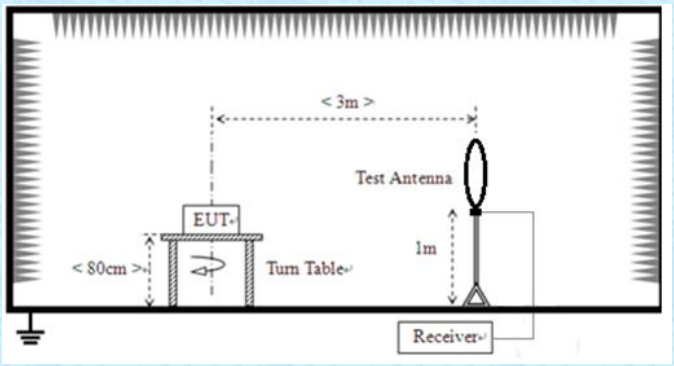
Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Limit:

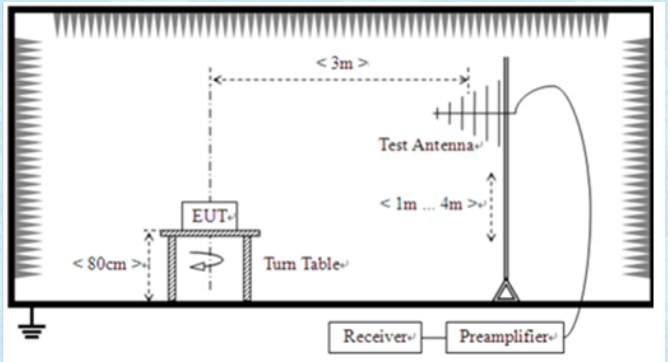
Frequency	Limit (uV/m)	Value	Measurement Distance
0.009MHz-0.490MHz	2400/F(KHz)	QP	300m
0.490MHz-1.705MHz	24000/F(KHz)	QP	300m
1.705MHz-30MHz	30	QP	30m
30MHz-88MHz	100	QP	3m
88MHz-216MHz	150	QP	
216MHz-960MHz	200	QP	
960MHz-1GHz	500	QP	
Above 1GHz	500	Average	
	5000	Peak	

Test setup:

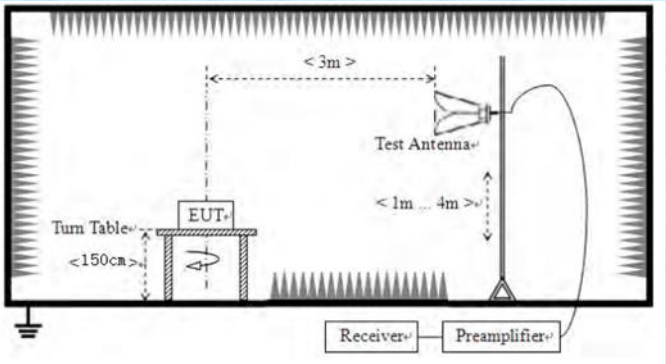
For radiated emissions from 9kHz to 30MHz



For radiated emissions from 30MHz to1GHz



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**

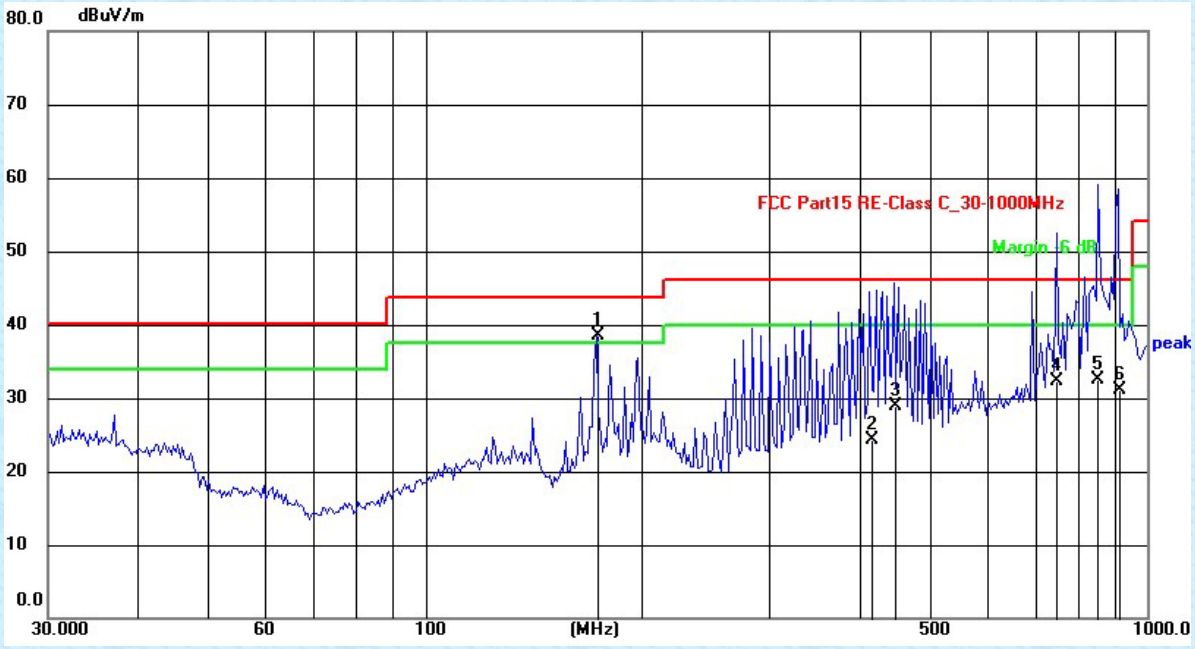
  The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o) & RSS-Gen 6.13, the test result no need to reported.

- **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.

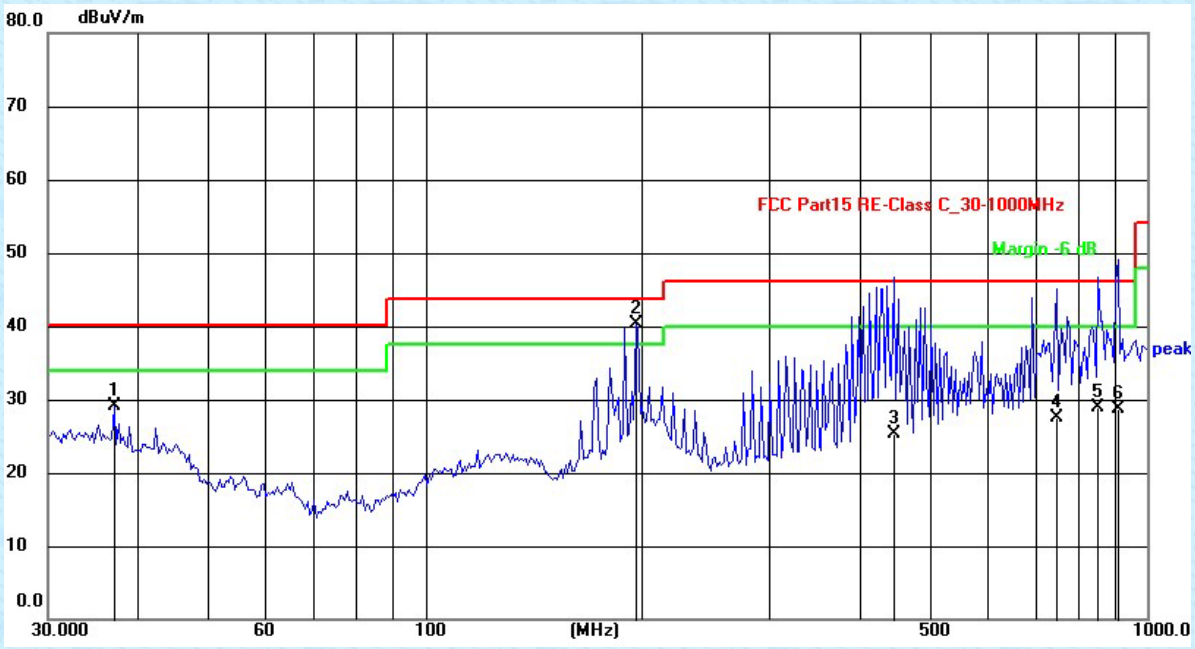
Below 1GHz

Ant. Pol.	Horizontal
Test Mode:	FSK/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	172.5976	44.98	-6.39	38.59	43.50	-4.91	QP
2	412.5395	28.44	-4.20	24.24	46.00	-21.76	QP
3	445.6932	31.38	-2.55	28.83	46.00	-17.17	QP
4	749.6761	30.02	2.23	32.25	46.00	-13.75	QP
5	856.7597	28.81	3.60	32.41	46.00	-13.59	QP
6	912.6953	26.20	4.82	31.02	46.00	-14.98	QP

Ant. Pol.	Vertical
Test Mode:	FSK/GFSK
Remark:	Only worse case is reported

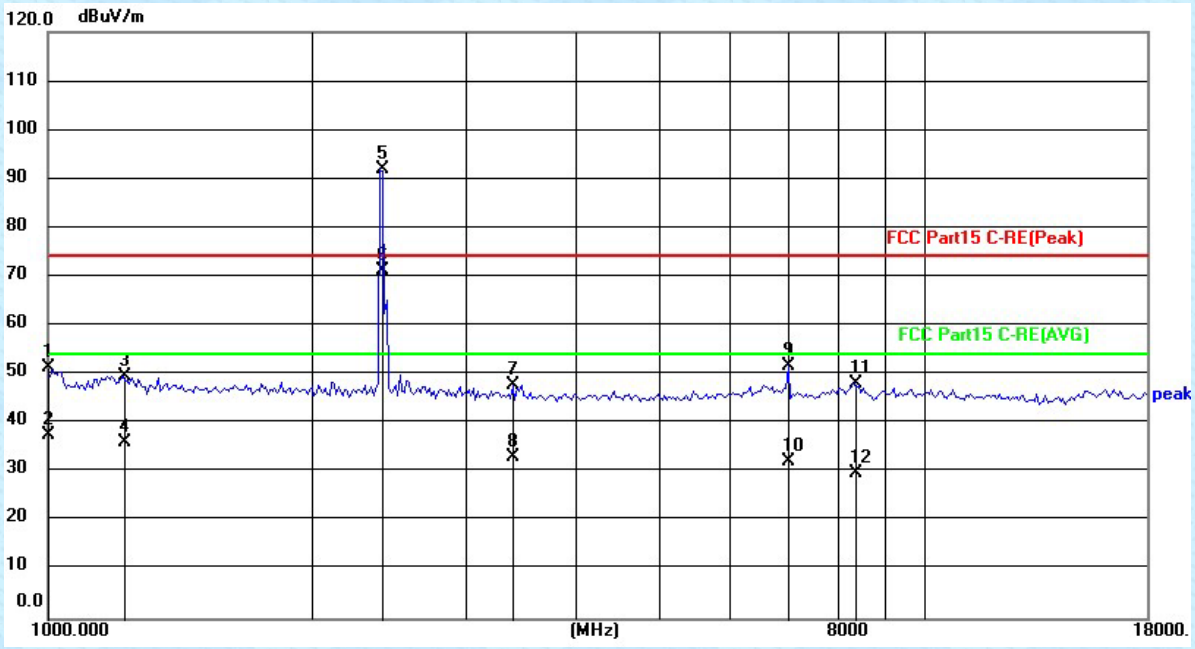


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	37.0405	32.14	-2.96	29.18	40.00	-10.82	QP
2	195.8701	42.10	-1.85	40.25	43.50	-3.25	QP
3	445.6931	27.59	-2.38	25.21	46.00	-20.79	QP
4	749.6761	25.25	2.23	27.48	46.00	-18.52	QP
5	856.7597	25.23	3.60	28.83	46.00	-17.17	QP
6	912.6952	23.93	4.80	28.73	46.00	-17.27	QP

Above 1GHz

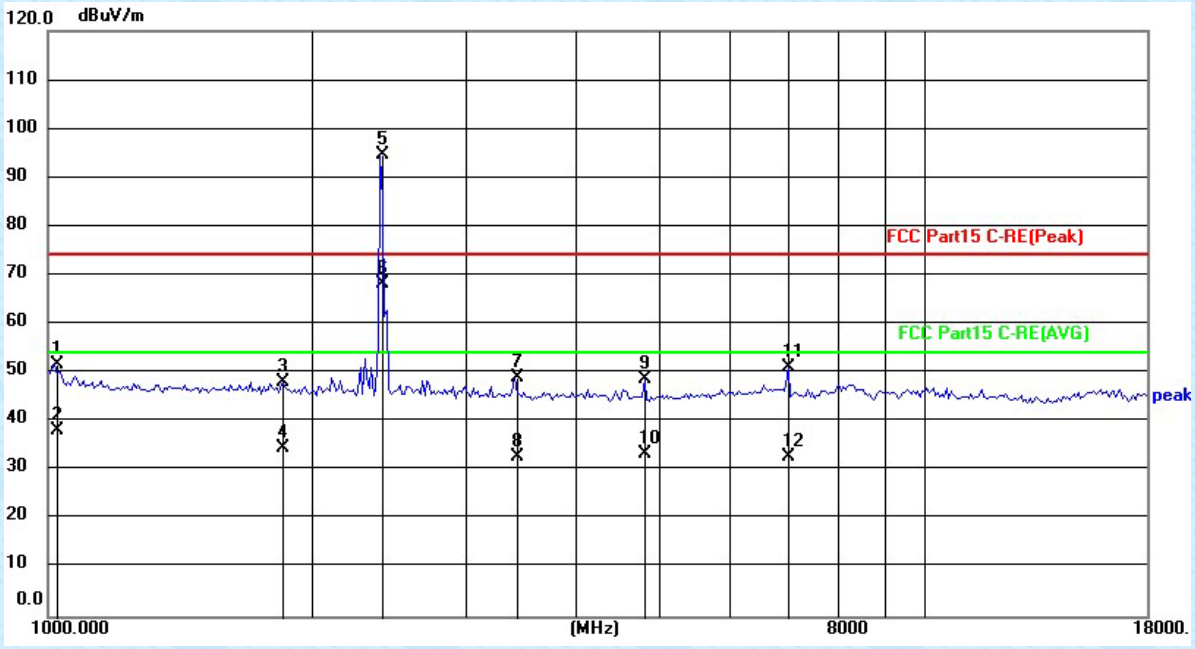
Test mode:	FSK/GFSK 2410MHz	Test channel:	Lowest

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1000.0000	50.02	1.40	51.42	74.00	-22.58	peak
2	1000.0000	36.12	1.40	37.52	54.00	-16.48	AVG
3	1217.670	25.50	24.12	49.62	74.00	-24.38	peak
4	1217.670	11.99	24.12	36.11	54.00	-17.89	AVG
5	2410.000	65.68	26.36	92.04	74.00	18.04	peak
6	2410.000	44.93	26.36	71.29	54.00	17.29	AVG
7	3394.584	19.74	28.11	47.85	74.00	-26.15	peak
8	3394.584	4.97	28.11	33.08	54.00	-20.92	AVG
9	7002.185	15.85	35.80	51.65	74.00	-22.35	peak
10	7002.185	-3.64	35.80	32.16	54.00	-21.84	AVG
11	8331.072	11.28	36.73	48.01	74.00	-25.99	peak
12	8331.072	-6.75	36.73	29.98	54.00	-24.02	AVG

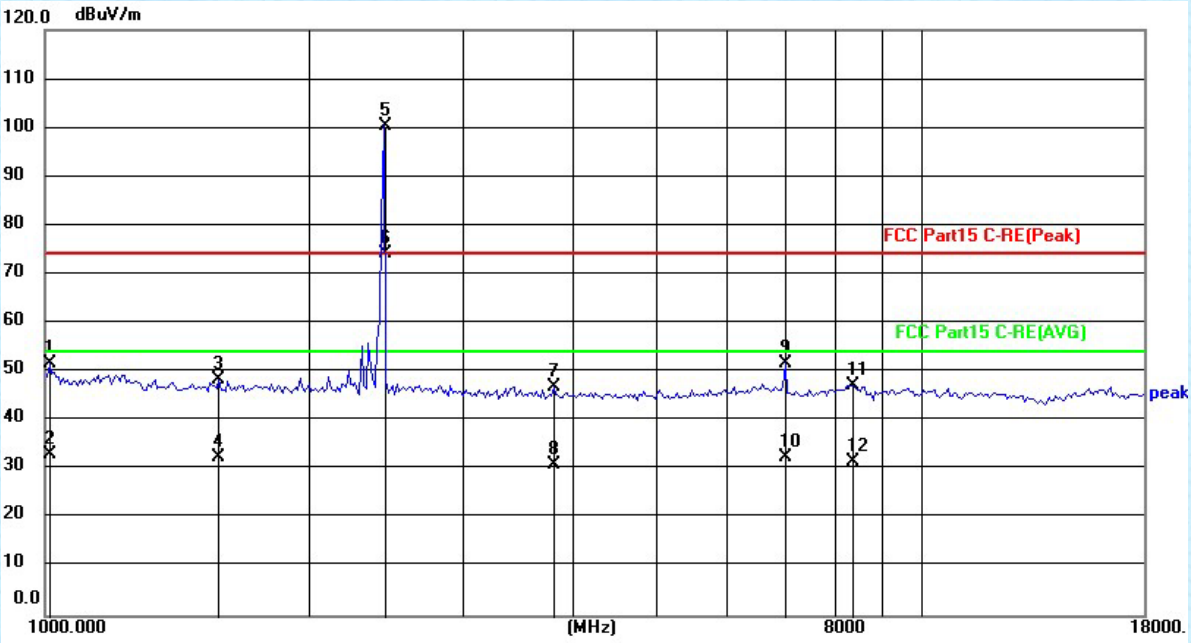
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1017.529	50.02	1.67	51.69	74.00	-22.31	peak
2	1017.529	36.64	1.67	38.31	54.00	-15.69	AVG
3	1858.517	22.88	25.28	48.16	74.00	-25.84	peak
4	1858.517	9.29	25.28	34.57	54.00	-19.43	AVG
5	2410.000	68.30	26.36	94.66	74.00	20.66	peak
6	2410.000	41.89	26.36	68.25	54.00	14.25	AVG
7	3414.304	20.88	28.15	49.03	74.00	-24.97	peak
8	3414.304	4.57	28.15	32.72	54.00	-21.28	AVG
9	4805.307	18.54	30.07	48.61	74.00	-25.39	peak
10	4805.307	3.49	30.07	33.56	54.00	-20.44	AVG
11	7002.185	15.36	35.80	51.16	74.00	-22.84	peak
12	7002.185	-3.09	35.80	32.71	54.00	-21.29	AVG

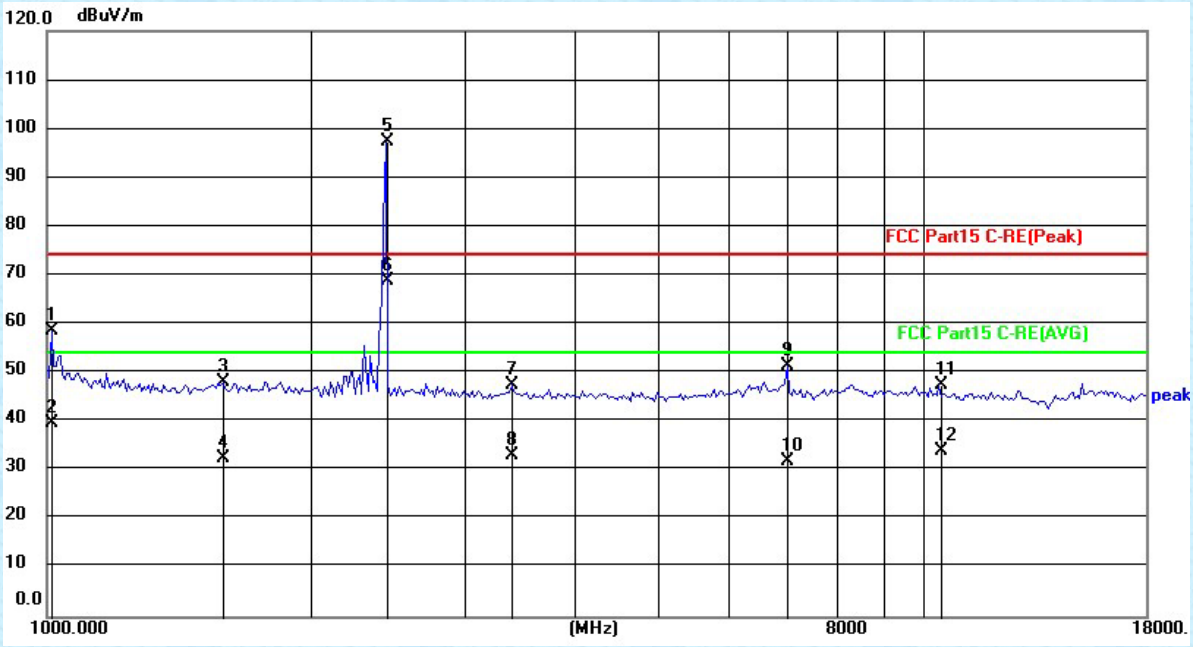
Test mode:	FSK/GFSK 2442MHz	Test channel:	Middle

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	50.19	1.58	51.77	74.00	-22.23	peak
2	1011.652	31.68	1.58	33.26	54.00	-20.74	AVG
3	1580.267	23.92	24.48	48.40	74.00	-25.60	peak
4	1580.267	8.02	24.48	32.50	54.00	-21.50	AVG
5	2442.000	74.05	26.41	100.46	74.00	26.46	peak
6	2442.000	47.95	26.41	74.36	54.00	20.36	AVG
7	3811.519	18.32	28.67	46.99	74.00	-27.01	peak
8	3811.519	2.40	28.67	31.07	54.00	-22.93	AVG
9	7002.185	16.00	35.80	51.80	74.00	-22.20	peak
10	7002.185	-3.23	35.80	32.57	54.00	-21.43	AVG
11	8379.468	10.63	36.74	47.37	74.00	-26.63	peak
12	8379.468	-5.00	36.74	31.74	54.00	-22.26	AVG

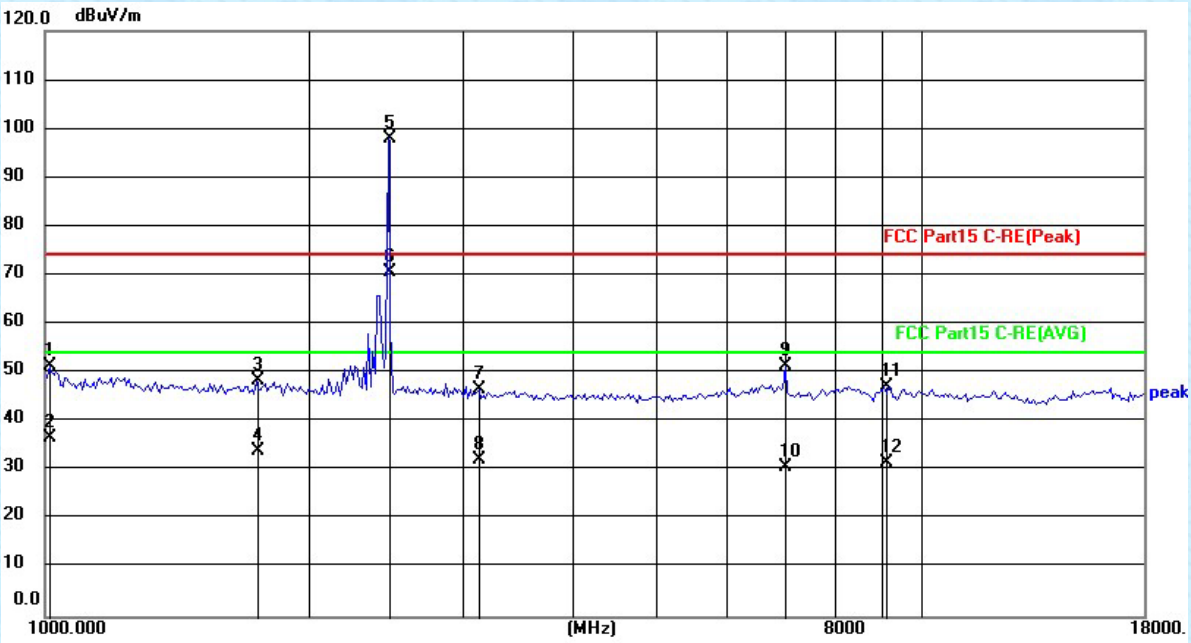
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	56.99	1.58	58.57	74.00	-15.43	peak
2	1011.652	38.08	1.58	39.66	54.00	-14.34	AVG
3	1589.447	23.80	24.49	48.29	74.00	-25.71	peak
4	1589.447	8.03	24.49	32.52	54.00	-21.48	AVG
5	2442.000	70.92	26.41	97.33	74.00	23.33	peak
6	2442.000	42.44	26.41	68.85	54.00	14.85	AVG
7	3394.584	19.39	28.11	47.50	74.00	-26.50	peak
8	3394.584	5.17	28.11	33.28	54.00	-20.72	AVG
9	7002.185	15.60	35.80	51.40	74.00	-22.60	peak
10	7002.185	-3.76	35.80	32.04	54.00	-21.96	AVG
11	10442.593	7.97	39.51	47.48	74.00	-26.52	peak
12	10442.593	-5.40	39.51	34.11	54.00	-19.89	AVG

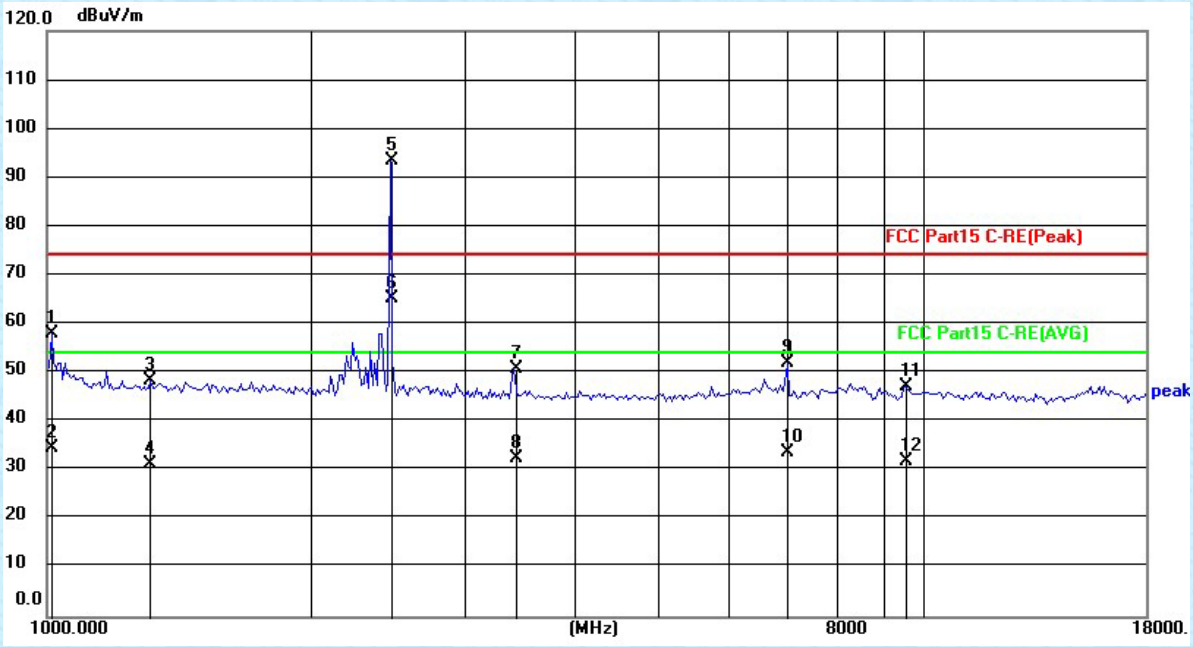
Test mode:	FSK/GFSK 2477MHz	Test channel:	Highest

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	49.79	1.58	51.37	74.00	-22.63	peak
2	1011.652	35.25	1.58	36.83	54.00	-17.17	AVG
3	1743.795	23.42	24.93	48.35	74.00	-25.65	peak
4	1743.795	9.22	24.93	34.15	54.00	-19.85	AVG
5	2477.000	71.59	26.46	98.05	74.00	24.05	peak
6	2477.000	44.20	26.46	70.66	54.00	16.66	AVG
7	3130.174	18.98	27.63	46.61	74.00	-27.39	peak
8	3130.174	4.71	27.63	32.34	54.00	-21.66	AVG
9	7002.185	15.51	35.80	51.31	74.00	-22.69	peak
10	7002.185	-5.05	35.80	30.75	54.00	-23.25	AVG
11	9087.293	10.10	37.01	47.11	74.00	-26.89	peak
12	9087.293	-5.33	37.01	31.68	54.00	-22.32	AVG

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	56.41	1.58	57.99	74.00	-16.01	peak
2	1011.652	32.94	1.58	34.52	54.00	-19.48	AVG
3	1312.901	24.18	24.21	48.39	74.00	-25.61	peak
4	1312.901	7.06	24.21	31.27	54.00	-22.73	AVG
5	2477.000	67.08	26.46	93.54	74.00	19.54	peak
6	2477.000	38.91	26.46	65.37	54.00	11.37	AVG
7	3414.304	22.67	28.15	50.82	74.00	-23.18	peak
8	3414.304	4.44	28.15	32.59	54.00	-21.41	AVG
9	7002.185	16.21	35.80	52.01	74.00	-21.99	peak
10	7002.185	-2.00	35.80	33.80	54.00	-20.20	AVG
11	9573.587	9.09	38.18	47.27	74.00	-26.73	peak
12	9573.587	-6.10	38.18	32.08	54.00	-21.92	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------