



TEST REPORT

Application No.: GZEM1911016932CR
Applicant: GREE Electric Appliances, Inc. of Zhuhai
Address of Applicant: West Jinji Rd, Qianshan, Zhuhai, Guangdong, China 519070
Manufacturer: GREE Electric Appliances, Inc. of Zhuhai
Address of Manufacturer: West Jinji Rd, Qianshan, Zhuhai, Guangdong, China 519070
Factory: GREE Electric Appliances, Inc. of Zhuhai
Address of Factory: West Jinji Rd, Qianshan, Zhuhai, Guangdong, China 519070
Equipment Under Test (EUT):
EUT Name: GREE CUBE CONTROLLER, GREE SCENE CUBE CONTROLLER
Model No.: LYMF-02, COB-02. □
□ Please refer to section 2 of this report for more details.
FCC ID: 2ADAP-LYMF-01
Trade Mark: GREE
Standard(s) : 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2019-11-11
Date of Test: 2019-11-13
Date of Issue: 2019-12-10 (for original report GZEM190701432701)
2020-01-14 (for the report GZEM190701432703)

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

Kobe Jian

EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2019-12-10		Original
02		2020-01-14		Copy report: Added new model.

Authorized for issue by:			
Tested By		2019-11-13 Date	
Checked By		2020-01-14 Date	



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2 Test Summary

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Radiated Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.9.1	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass

✧ Remark for the report GZEM190701432703:

This test report (Ref. No.: GZEM190701432703) is only valid with the original test report (Ref. No.: GZEM190701432701), only added new model.

According to the declaration from the applicant, the model COB-02 added in report GZEM190701432703 and model LYMF-02 in original report are identical, only difference being as below in the PCB layout.

1. Cancel Infrared transmitter circuit;
2. Cancel indicator light circuit;
3. Cancel 32.768KHz crystal oscillator circuit.

Considering the difference, Conducted Peak Output Power and Radiated Spurious Emissions test were performed on the model COB-02.

Therefore, only new data was kept in this report GZEM190701432703, for original data please refer to report GZEM190701432701.



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4 General Information

4.1 Details of E.U.T.

Power Supply:	DC 3V = 2 x DC 1.5V size of 'AAA' battery
Test Voltage:	DC3V
Antenna Gain	0dBi
Antenna Type	PCB antenna
Channel Spacing	2MHz
Modulation Type	GFSK
Number of Channels	40
Operation Frequency	2402MHz to 2480MHz

4.2 Description of Support Units

The EUT has been tested as an independent unit.

4.3 Measurement Uncertainty

RF

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 5.5 \times 10^{-8}$
2	Duty cycle	$\pm 0.57\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF Conducted power	$\pm 0.68\text{dB}$
5	RF Power Density	$\pm 1.50\text{dB}$
6	Conducted Spurious Emissions	$\pm 1.04\text{dB}$
7	RF Radiated Power	$\pm 4.5\text{dB}$ (below 1GHz)
		$\pm 4.8\text{dB}$ (above 1GHz)
8	Radiated Spurious Emission Test	$\pm 4.5\text{dB}$ (30MHz-1GHz)
		$\pm 4.8\text{dB}$ (1GHz-18GHz)
9	Temperature	$\pm 0.4^\circ\text{C}$
10	Humidity	$\pm 1.3\%$
11	Supply Voltages	$\pm 1.5\%$
12	Time	$\pm 3\%$

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,
Guangzhou, China 510663

Tel: +86 20 82155555

Fax: +86 20 82075059

No tests were sub-contracted.



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4.5 Test Facility

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

● **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

● **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.

● **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

● **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to

ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

● **FCC Recognized 2.948 Listed Test Firm(Registration No.: 282399)**

SGS-CSTC Standards Technical Services Co., Ltd., 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 our files. Registration 282399, May 31, 2002.

● **FCC Recognized Accredited Test Firm(Registration No.: 486818)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818, Jul 13, 2017.

● **Industry Canada (Registration No.: 4620B, CAB identifier: CN0052)**

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

● **VCCI (Registration No.: R-12460, C-12584, G-10449 and T-11179)**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-10449 and T-11179 respectively.

● **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2005, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.



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4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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5 Equipment List

Radiated Spurious Emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2019-01-20	2020-01-19
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2019-01-20	2020-01-19
Chamber cable	HangTianXing	N/A	EMC0542	2019-06-28	2021-06-27
Trilog Broadband Antenna 25MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	EMC2174	2018-09-06	2021-09-05
Bi-log Type Antenna	Schaffner -Chase	CBL6143	EMC0519	2017-05-04	2020-05-03
Horn Antenna 1GHz-18GHz	R& S	HF906	EMC0518	2018-09-02	2021-09-01
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2019-01-07	2020-01-08
Amplifier	HP	8447F	EMC2065	2019-05-29	2020-05-28
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2019-11-18	2020-11-17
Active Loop Antenna	EMCO	6502	EMC0523	2018-03-05	2020-03-04
High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2019-01-11	2020-01-10
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2019-01-11	2020-01-10
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2017-12-19	2020-12-18
MXE EMI Receiver	Keysight	N9038A	EMC2139	2019-11-18	2020-11-17
EXA Signal Analyzer	Keysight	N9010A	EMC2138	2019-11-18	2020-11-17
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

Conducted Peak Output Power					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2018-11-19	2019-11-18
6dB Attenuator	HP	8491A	EMC2062	2018-04-04	2020-04-03
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS	0.8M	EMC2136	2017-11-02	2019-11-01
MI CABLE	SGS	0.8M	EMC2137	2017-11-02	2019-11-01

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2019-07-16	2020-07-15
DMM	Fluke	73	EMC0007	2019-07-16	2020-07-15



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6 Radio Spectrum Matter Test Results

6.1 Radiated Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.247(d)
Test Method: ANSI C63.10 (2013) Section 6.4,6.5,6.6
Measurement Distance: 3m
Limit:

Frequency(MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.



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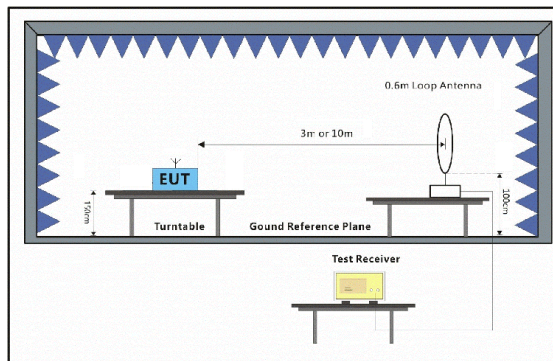
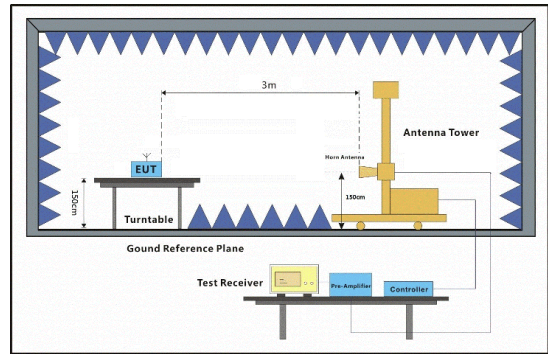
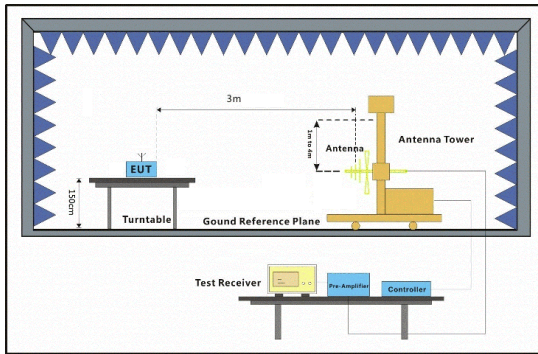
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 21 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar

Test mode c:TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation

6.1.2 Test Setup Diagram



6.1.3 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. 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.
- e. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. 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.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

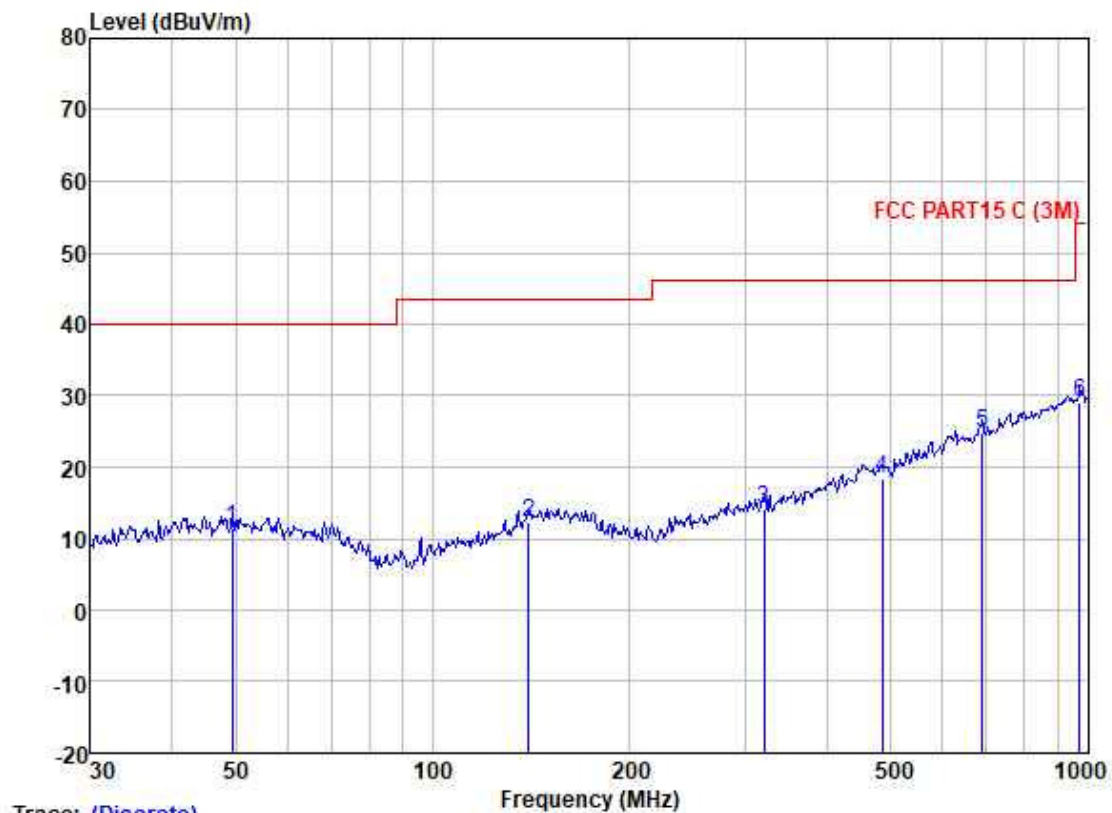
Remark:

- 1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor
- 3) Scan from 9kHz to 25GHz, the disturbance above 18GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 4) For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown



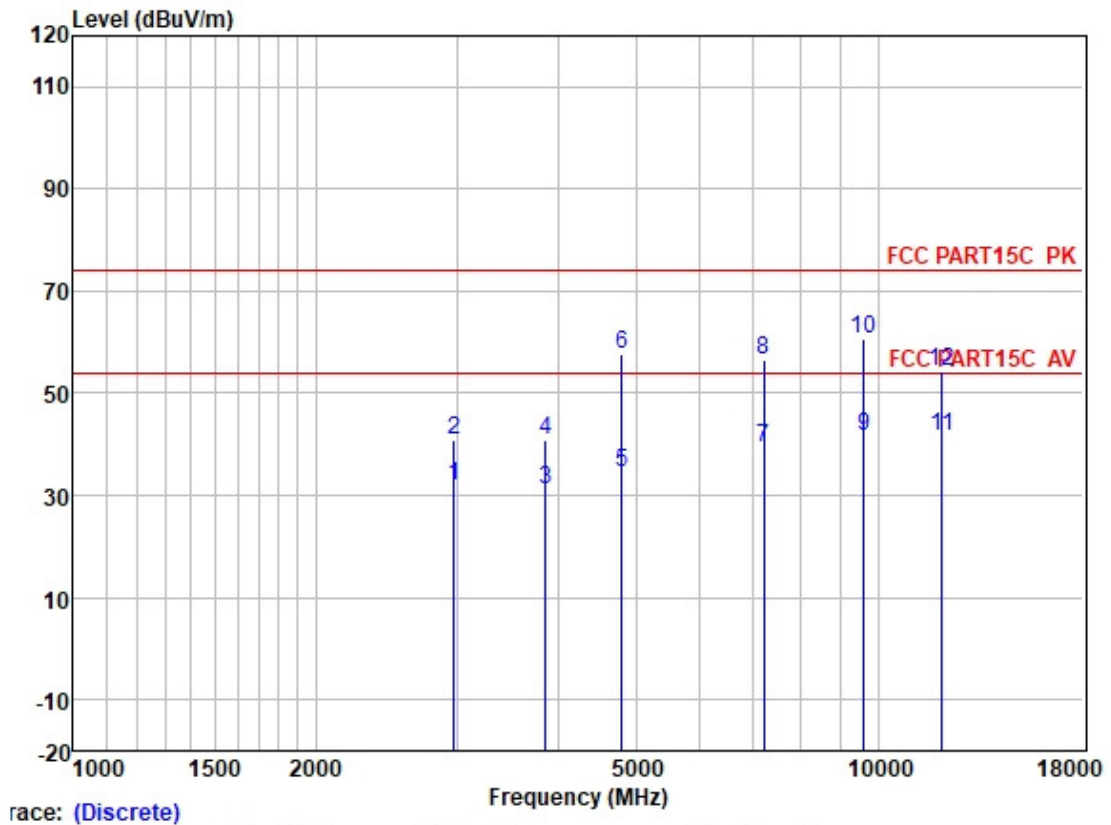
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Mode:c; Polarization:Horizontal; Modulation:GFSK; ; Channel:Low



	Read	Antenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	49.359	23.45	13.93	1.19	27.17	11.40	40.00	-28.60	HORIZONTAL QP
2	139.851	23.85	13.30	1.97	26.96	12.16	43.50	-31.34	HORIZONTAL QP
3	319.937	24.32	14.30	3.01	27.49	14.14	46.00	-31.86	HORIZONTAL QP
4	485.609	24.62	17.70	4.06	28.03	18.35	46.00	-27.65	HORIZONTAL QP
5	689.565	26.63	21.00	5.18	28.11	24.70	46.00	-21.30	HORIZONTAL QP
6	972.337	26.29	23.97	6.68	27.82	29.12	54.00	-24.88	HORIZONTAL QP

Mode:c; Polarization:Horizontal; Modulation:GFSK; ; Channel:Low



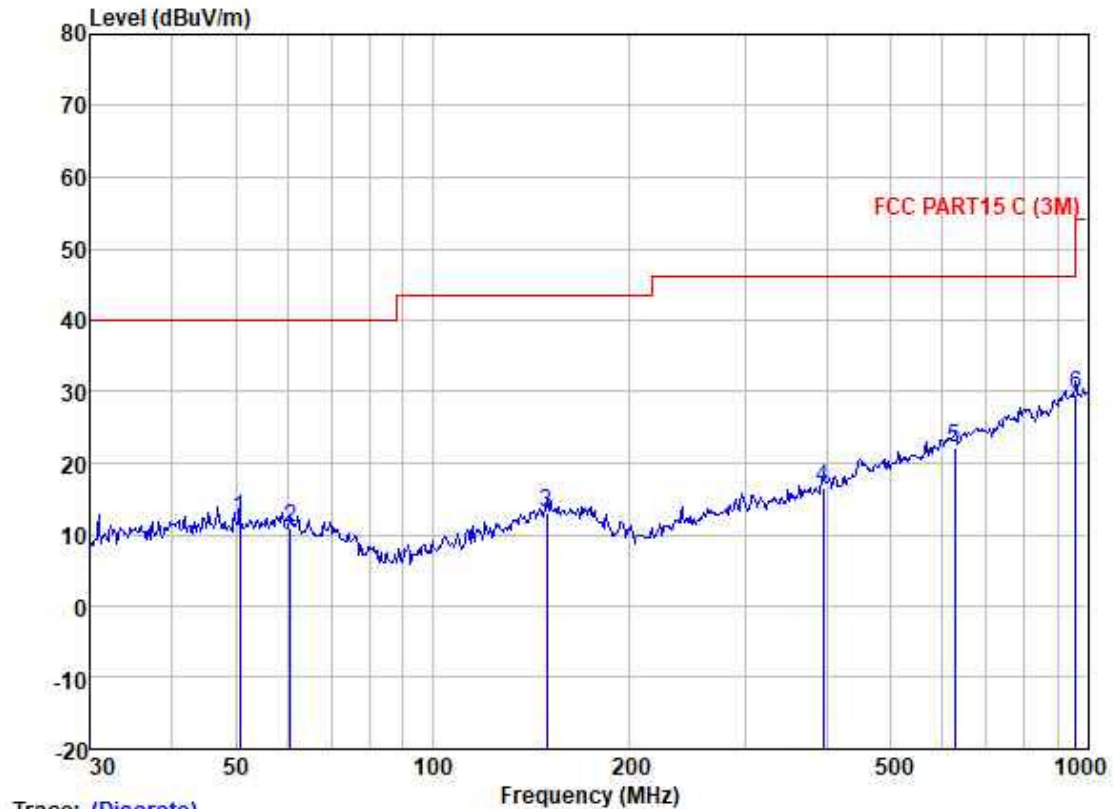
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2973.293	37.48	27.87	3.78	37.09	32.04	54.00	-21.96	HORIZONTAL Average
2	2973.293	46.26	27.87	3.78	37.09	40.82	74.00	-33.18	HORIZONTAL Peak
3	3856.668	34.14	29.19	4.60	36.91	31.02	54.00	-22.98	HORIZONTAL Average
4	3856.668	44.14	29.19	4.60	36.91	41.02	74.00	-32.98	HORIZONTAL Peak
5	4804.751	35.14	30.79	5.40	36.94	34.39	54.00	-19.61	HORIZONTAL Average
6	4804.751	58.55	30.79	5.40	36.94	57.80	74.00	-16.20	HORIZONTAL Peak
7	7206.461	34.80	35.45	5.98	36.93	39.30	54.00	-14.70	HORIZONTAL Average
8	7206.461	52.00	35.45	5.98	36.93	56.50	74.00	-17.50	HORIZONTAL Peak
9	9608.909	34.02	37.51	7.07	37.08	41.52	54.00	-12.48	HORIZONTAL Average
10	9608.909	53.03	37.51	7.07	37.08	60.53	74.00	-13.47	HORIZONTAL Peak
11	12010.600	30.96	39.50	8.19	37.20	41.45	54.00	-12.55	HORIZONTAL Average
12	12010.600	43.74	39.50	8.19	37.20	54.23	74.00	-19.77	HORIZONTAL Peak



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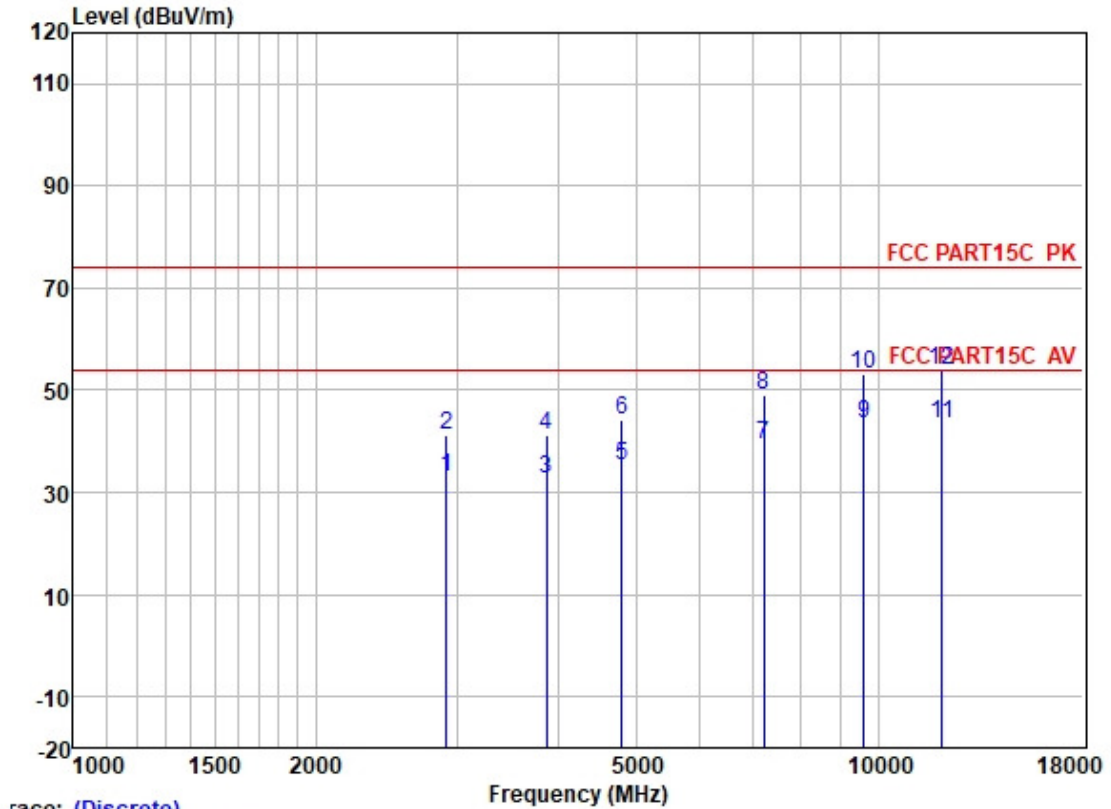
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Mode:c; Polarization:Vertical; Modulation:GFSK; ; Channel:Low



	Read	Antenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	50.764	24.40	13.93	1.20	27.17	12.36	40.00	-27.64	VERTICAL QP
2	60.492	23.31	13.33	1.32	27.16	10.80	40.00	-29.20	VERTICAL QP
3	148.963	24.22	13.75	2.05	26.89	13.13	43.50	-30.37	VERTICAL QP
4	394.855	25.05	15.60	3.82	27.89	16.58	46.00	-29.42	VERTICAL QP
5	627.274	24.80	20.40	4.94	28.08	22.06	46.00	-23.94	VERTICAL QP
6	958.794	26.93	23.90	6.52	27.84	29.51	46.00	-16.49	VERTICAL QP

Mode:c; Polarization:Vertical; Modulation:GFSK; ; Channel:Low



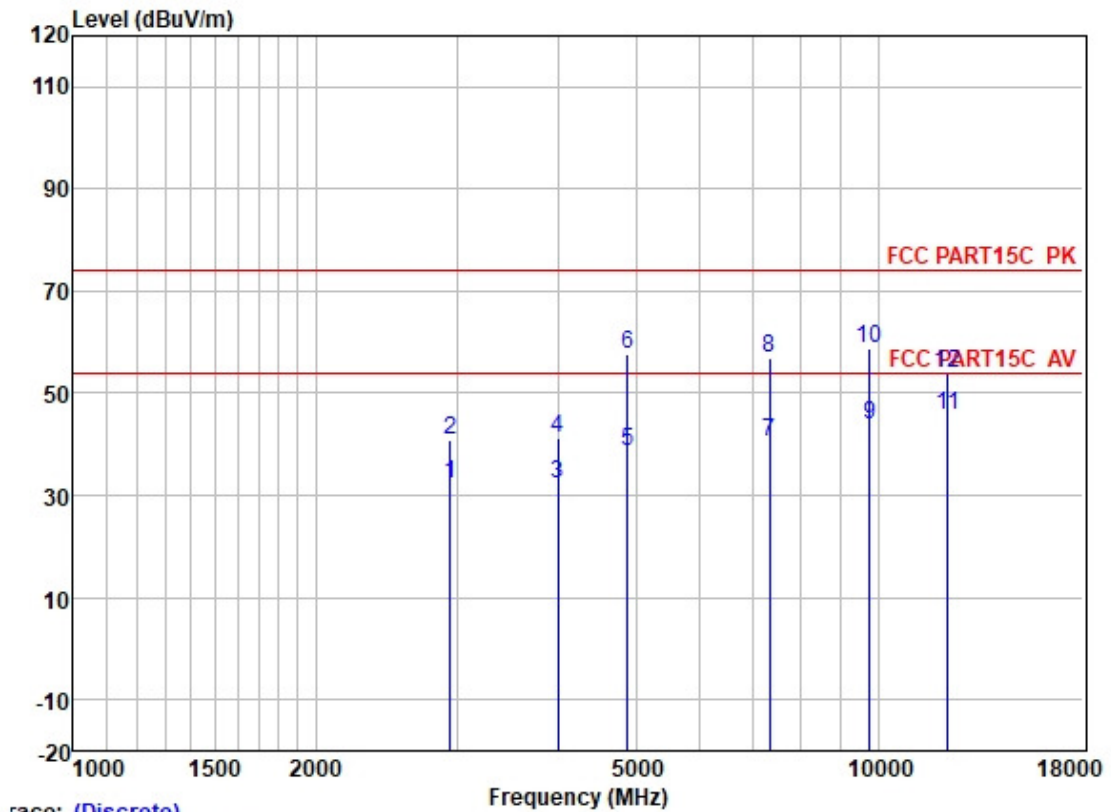
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
		dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2905.331	38.52	27.76	3.71	37.13	32.86	54.00	-21.14	VERTICAL Average
2	2905.331	46.74	27.76	3.71	37.13	41.08	74.00	-32.92	VERTICAL Peak
3	3867.831	35.78	29.22	4.60	36.91	32.69	54.00	-21.31	VERTICAL Average
4	3867.831	44.26	29.22	4.60	36.91	41.17	74.00	-32.83	VERTICAL Peak
5	4804.419	36.02	30.79	5.40	36.94	35.27	54.00	-18.73	VERTICAL Average
6	4804.419	45.08	30.79	5.40	36.94	44.33	74.00	-29.67	VERTICAL Peak
7	7206.015	34.81	35.45	5.98	36.93	39.31	54.00	-14.69	VERTICAL Average
8	7206.015	44.62	35.45	5.98	36.93	49.12	74.00	-24.88	VERTICAL Peak
9	9608.430	36.02	37.51	7.07	37.08	43.52	54.00	-10.48	VERTICAL Average
10	9608.430	45.77	37.51	7.07	37.08	53.27	74.00	-20.73	VERTICAL Peak
11	12010.580	33.05	39.50	8.19	37.20	43.54	54.00	-10.46	VERTICAL Average
12	12010.580	43.44	39.50	8.19	37.20	53.93	74.00	-20.07	VERTICAL Peak



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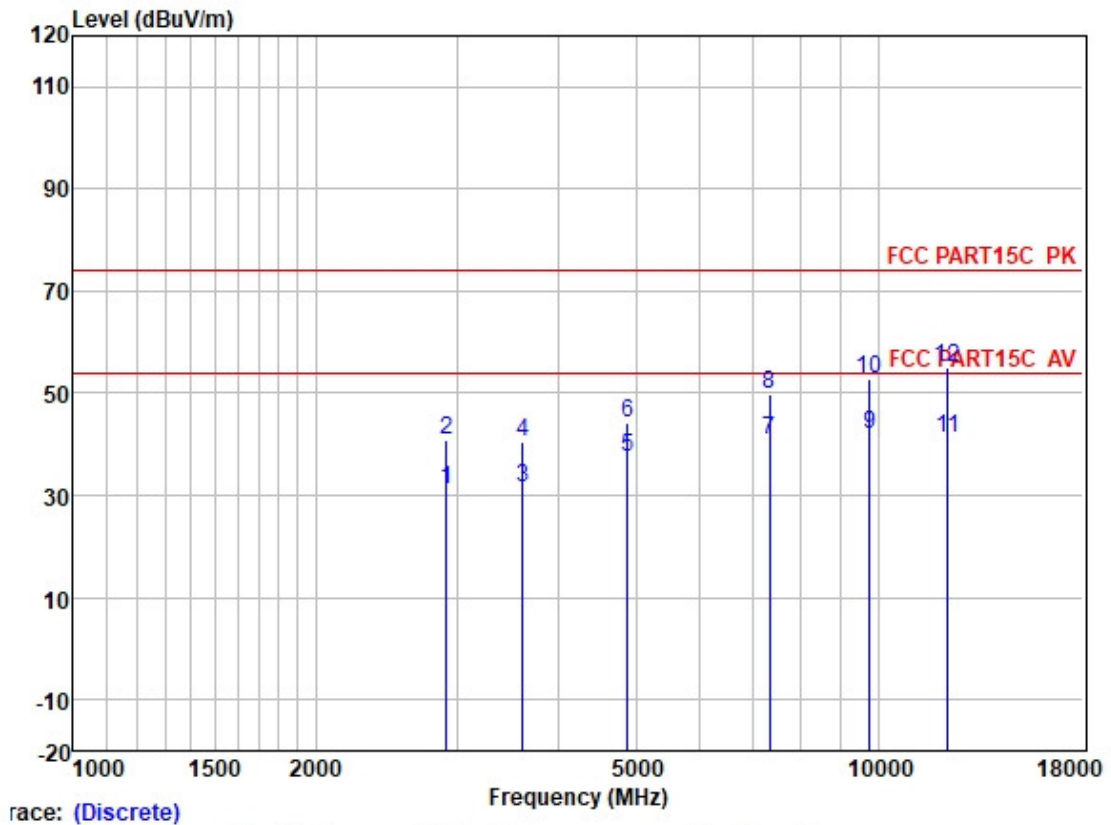
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Mode:c; Polarization:Horizontal; Modulation:GFSK; ; Channel:middle



	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2939.115	37.94	27.82	3.74	37.10	32.40	54.00	-21.60	HORIZONTAL Average
2	2939.115	46.56	27.82	3.74	37.10	41.02	74.00	-32.98	HORIZONTAL Peak
3	4004.339	35.14	29.50	4.60	36.90	32.34	54.00	-21.66	HORIZONTAL Average
4	4004.339	43.99	29.50	4.60	36.90	41.19	74.00	-32.81	HORIZONTAL Peak
5	4884.153	38.97	30.95	5.52	36.95	38.49	54.00	-15.51	HORIZONTAL Average
6	4884.153	58.24	30.95	5.52	36.95	57.76	74.00	-16.24	HORIZONTAL Peak
7	7326.062	35.41	35.74	6.13	36.92	40.36	54.00	-13.64	HORIZONTAL Average
8	7326.062	51.82	35.74	6.13	36.92	56.77	74.00	-17.23	HORIZONTAL Peak
9	9768.160	36.09	37.74	7.01	37.09	43.75	54.00	-10.25	HORIZONTAL Average
10	9768.160	51.03	37.74	7.01	37.09	58.69	74.00	-15.31	HORIZONTAL Peak
11	12210.750	35.56	39.21	8.08	37.06	45.79	54.00	-8.21	HORIZONTAL Average
12	12210.750	43.66	39.21	8.08	37.06	53.89	74.00	-20.11	HORIZONTAL Peak

Mode:c; Polarization:Vertical; Modulation:GFSK; ; Channel:middle



Trace: (Discrete)

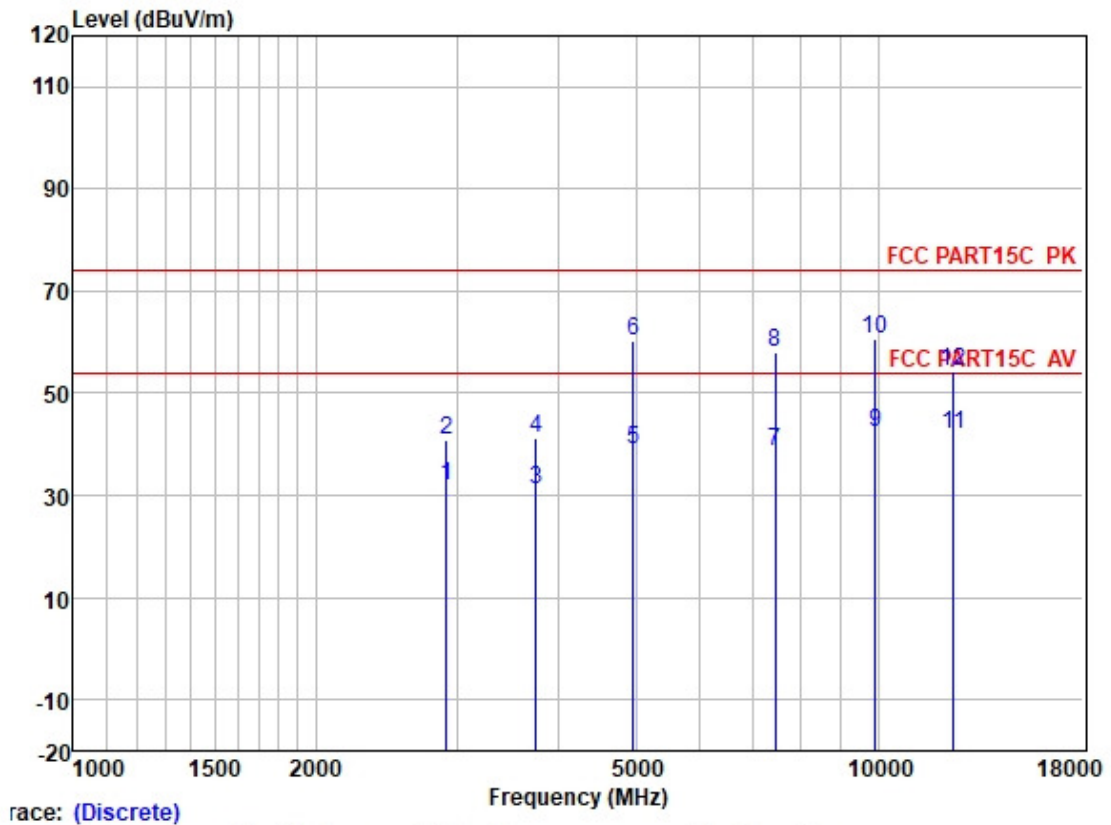
	Freq	ReadAntenna Level Factor	Cable Preamp Loss Factor	Limit Line	Over Limit	Pol/Phase	Remark			
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2905.331	36.94	27.76	3.71	37.13	31.28	54.00	-22.72	VERTICAL	Average
2	2905.331	46.48	27.76	3.71	37.13	40.82	74.00	-33.18	VERTICAL	Peak
3	3619.064	35.87	28.20	4.51	36.94	31.64	54.00	-22.36	VERTICAL	Average
4	3619.064	44.79	28.20	4.51	36.94	40.56	74.00	-33.44	VERTICAL	Peak
5	4884.592	38.11	30.95	5.52	36.95	37.63	54.00	-16.37	VERTICAL	Average
6	4884.592	44.68	30.95	5.52	36.95	44.20	74.00	-29.80	VERTICAL	Peak
7	7326.006	35.81	35.74	6.13	36.92	40.76	54.00	-13.24	VERTICAL	Average
8	7326.006	44.87	35.74	6.13	36.92	49.82	74.00	-24.18	VERTICAL	Peak
9	9768.588	34.16	37.74	7.01	37.09	41.82	54.00	-12.18	VERTICAL	Average
10	9768.588	44.99	37.74	7.01	37.09	52.65	74.00	-21.35	VERTICAL	Peak
11	12210.760	31.05	39.21	8.08	37.06	41.28	54.00	-12.72	VERTICAL	Average
12	12210.760	44.74	39.21	8.08	37.06	54.97	74.00	-19.03	VERTICAL	Peak



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Mode:c; Polarization:Horizontal; Modulation:GFSK; ; Channel:High



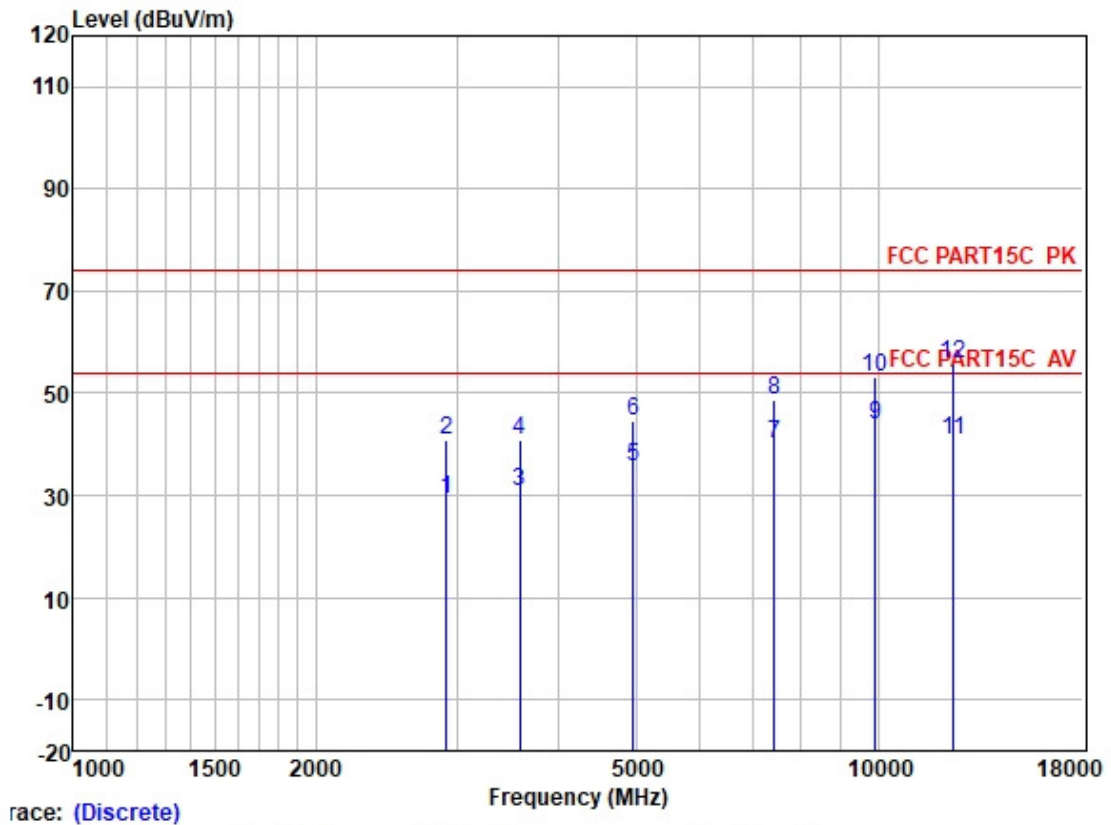
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
		dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2905.331	37.48	27.76	3.71	37.13	31.82	54.00	-22.18	HORIZONTAL Average
2	2905.331	46.54	27.76	3.71	37.13	40.88	74.00	-33.12	HORIZONTAL Peak
3	3757.637	34.61	28.82	4.58	36.92	31.09	54.00	-22.91	HORIZONTAL Average
4	3757.637	44.86	28.82	4.58	36.92	41.34	74.00	-32.66	HORIZONTAL Peak
5	4960.993	39.22	31.05	5.65	36.96	38.96	54.00	-15.04	HORIZONTAL Average
6	4960.993	60.65	31.05	5.65	36.96	60.39	74.00	-13.61	HORIZONTAL Peak
7	7440.741	33.52	35.92	6.22	36.92	38.74	54.00	-15.26	HORIZONTAL Average
8	7440.741	52.73	35.92	6.22	36.92	57.95	74.00	-16.05	HORIZONTAL Peak
9	9920.540	34.59	37.92	6.96	37.10	42.37	54.00	-11.63	HORIZONTAL Average
10	9920.540	52.68	37.92	6.96	37.10	60.46	74.00	-13.54	HORIZONTAL Peak
11	12400.270	32.01	38.93	7.97	36.90	42.01	54.00	-11.99	HORIZONTAL Average
12	12400.270	44.42	38.93	7.97	36.90	54.42	74.00	-19.58	HORIZONTAL Peak



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Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2905.331	34.76	27.76	3.71	37.13	29.10	54.00	-24.90	VERTICAL Average
2	2905.331	46.42	27.76	3.71	37.13	40.76	74.00	-33.24	VERTICAL Peak
3	3587.818	35.11	28.11	4.49	36.94	30.77	54.00	-23.23	VERTICAL Average
4	3587.818	45.23	28.11	4.49	36.94	40.89	74.00	-33.11	VERTICAL Peak
5	4960.151	35.94	31.05	5.65	36.96	35.68	54.00	-18.32	VERTICAL Average
6	4960.151	44.77	31.05	5.65	36.96	44.51	74.00	-29.49	VERTICAL Peak
7	7440.144	35.05	35.92	6.22	36.92	40.27	54.00	-13.73	VERTICAL Average
8	7440.144	43.45	35.92	6.22	36.92	48.67	74.00	-25.33	VERTICAL Peak
9	9920.151	36.19	37.92	6.96	37.10	43.97	54.00	-10.03	VERTICAL Average
10	9920.151	45.30	37.92	6.96	37.10	53.08	74.00	-20.92	VERTICAL Peak
11	12400.070	31.00	38.93	7.97	36.90	41.00	54.00	-13.00	VERTICAL Average
12	12400.070	45.88	38.93	7.97	36.90	55.88	74.00	-18.12	VERTICAL Peak



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6.2 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)

Test Method: ANSI C63.10 (2013) Section 11.9.1

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for ≥ 50 hopping channels
	0.25 for $25 \leq$ hopping channels < 50
	1 for digital modulation
2400-2483.5	1 for ≥ 75 non-overlapping hopping channels
	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

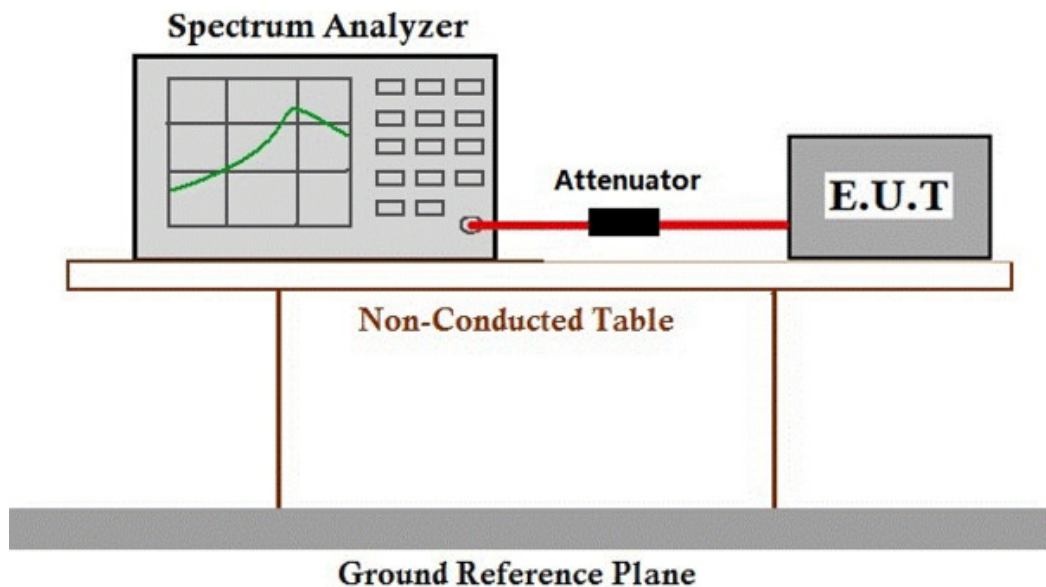
6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 49.7 % RH Atmospheric Pressure: 1020 mbar

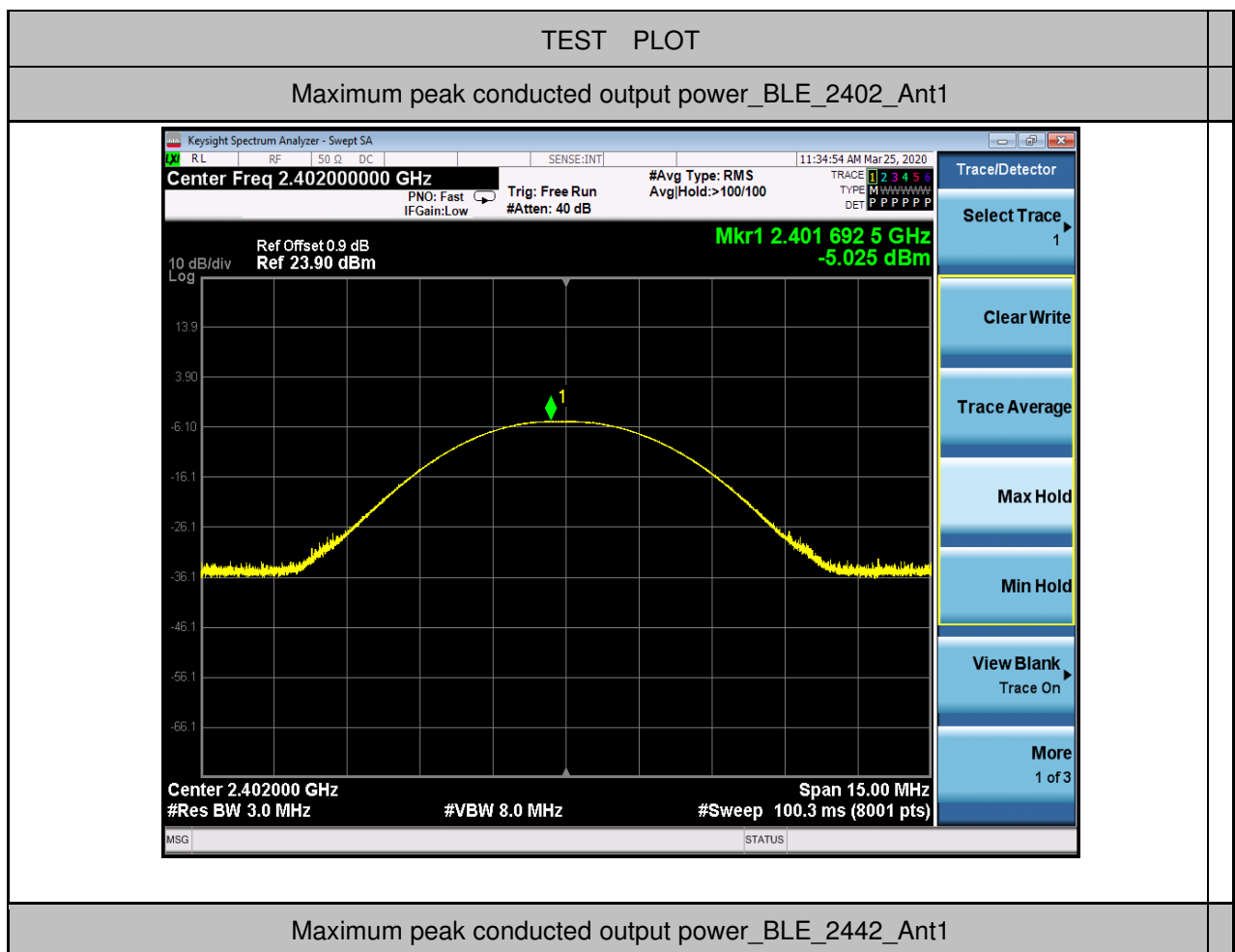
Test mode b: TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation

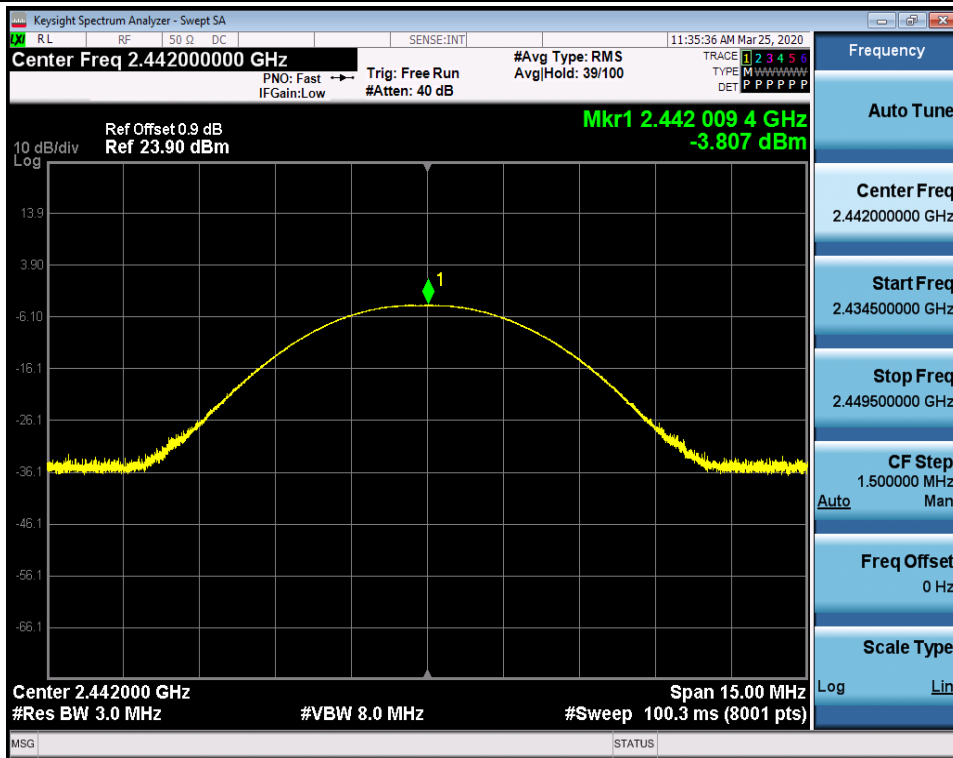
6.2.2 Test Setup Diagram



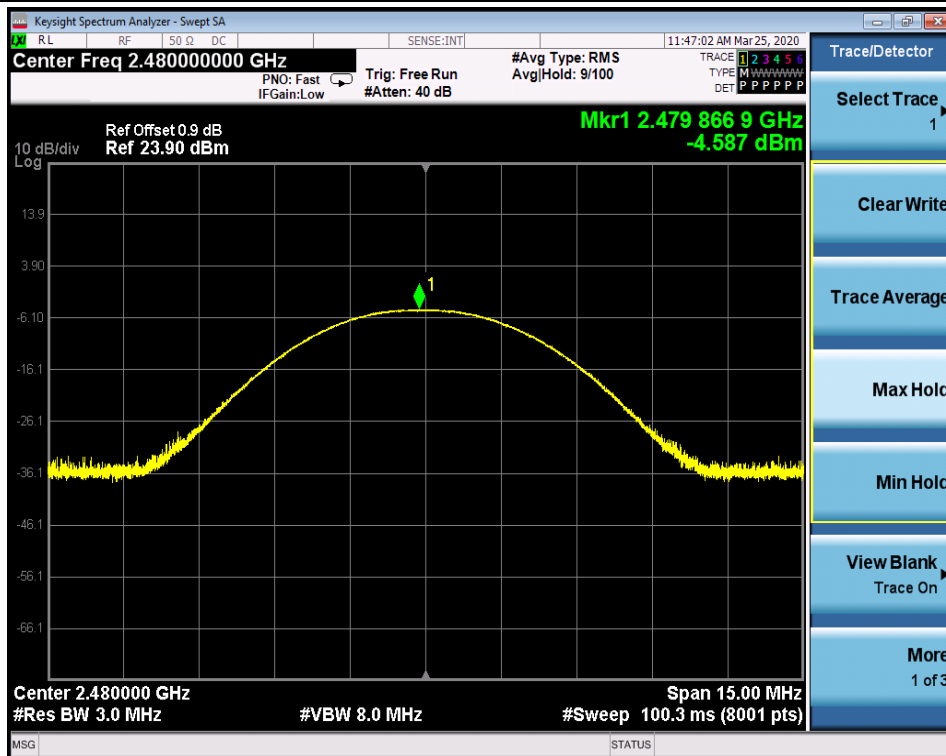
6.2.3 Measurement Procedure and Data

Test Mode	Test Channel	Ant	Power[dBm]	Limit[dBm]	Verdict
BLE	2402	Ant1	-5.025	30	PASS
BLE	2442	Ant1	-3.807	30	PASS
BLE	2480	Ant1	-4.587	30	PASS





Maximum peak conducted output power_BLE_2480_Ant1



--End of Report--



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