TEST REPORT

Application No.:	GZEM2002010454CR
Applicant:	GUANGZHOU BOSMA TECHNOLOGY CO., LTD
Address of Applicant:	FL.2&3, A5, NO.11 Kaiyuan Ave., Science City, Guangzhou, China
Manufacturer:	The same as applicant
Address of Manufacturer:	The same as applicant
Factory:	The same as applicant
Address of Factory:	The same as applicant
Equipment Under Test (EUT):	
EUT Name:	Smart Lock
Model No.:	AEGIS
Trade Mark:	BOSMA
Standard(s):	47 CFR Part 15, Subpart C 15.247
Date of Receipt:	2020-02-17
Date of Test:	2020-02-25 to 2020-09-01
Date of Issue:	2020-09-18
Test Result:	**Pass***

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

Kobe Jian
EMC Laboratory Manager

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2020-09-18		Original

Authorized for issue by:				
Tested By		 **Curry_Wu /Project Engineer**		2020-02-25 to 2020-09-01 **Date**
Checked By		 **Ricky_Liu /Reviewer**		2020-09-18 **Date**

2 Test Summary

Radio Spectrum Technical Requirement				
Item	**Standard**	**Method**	**Requirement**	**Result**
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(c)	Pass

Radio Spectrum Matter Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Minimum 6dB Bandwidth	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	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
Power Spectrum Density	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.10.2	47 CFR Part 15, Subpart C 15.247(e)	Pass
Conducted Band Edges Measurement	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.13.3.2	47 CFR Part 15, Subpart C 15.247(d)	Pass
Conducted Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
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 15.205 & 15.209	Pass**

**: The EUT passed the Radiated Spurious Emissions test after modification.

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4 General Information

4.1 Details of E.U.T.

Power Supply:	DC 6V = 4 X 1.5V with size 'AA' batteries
Test Voltage:	DC 6V
Antenna Gain	0dBi
Antenna Type	PCB antenna
Channel Spacing	2MHz
Modulation Type	GFSK
Number of Channels	40
Operation Frequency	2402MHz to 2480MHz
Power	1.57dBm
S/N	A1

4.2 Description of Support Units

Description	Remark
Software version	SL0001_BOSMA_V1.0
Hardware version	SL0001-MAIN-P4.1
Test Software	CyBluetool(power default)

4.3 Measurement Uncertainty

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

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4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,

198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

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.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Minimum 6dB Bandwidth					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Conducted Peak Output Power					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Power Spectrum Density					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Conducted Band Edges Measurement					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

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Conducted Spurious Emissions					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Radiated Emissions which fall in the restricted bands					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2020-01-10	2021-01-09
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2020-01-10	2021-01-09
Chamber cable	HangTianXing	N/A	EMC0542	2019-06-28	2021-06-27
Trilog Broadband Antenna 25MHz-1GHz	SCHWARZBECKMESS-ELEKTRONIK	VULB 9168	EMC2174	2018-09-06	2021-09-05
Bi-log Type Antenna	Schaffner Chase	CBL6143	EMC0519	2020-06-08	2023-06-07
Horn Antenna	SCHWARZBECKMESS-ELEKTRONIK	BBHA 9120D	EMC2016	2019-09-25	2022-09-24
Horn Antenna 1GHz-18GHz	Rohde & Schwarz	HF906	EMC0518	2018-09-02	2021-09-01
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2020-01-10	2021-01-09
Amplifier	HP	8447F	EMC2065	2020-05-26	2021-05-25
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2019-11-18	2020-11-17
Active Loop Antenna	EMCO	6502	EMC0523	2018-03-05	2021-03-04
High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2020-01-10	2021-01-09
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2020-01-10	2021-01-09
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	SCHWARZBECKMESS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

Radiated Spurious Emissions					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2020-01-10	2021-01-09
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2020-01-10	2021-01-09
Chamber cable	HangTianXing	N/A	EMC0542	2019-06-28	2021-06-27
Trilog Broadband Antenna 25MHz-1GHz	SCHWARZBECKMESS-ELEKTRONIK	VULB 9168	EMC2174	2018-09-06	2021-09-05
Bi-log Type Antenna	Schaffner Chase	CBL6143	EMC0519	2020-06-08	2023-06-07
Horn Antenna	SCHWARZBECKMESS-ELEKTRONIK	BBHA 9120D	EMC2016	2019-09-25	2022-09-24
Horn Antenna 1GHz-18GHz	Rohde & Schwarz	HF906	EMC0518	2018-09-02	2021-09-01
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2020-01-10	2021-01-09
Amplifier	HP	8447F	EMC2065	2020-05-26	2021-05-25
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2019-11-18	2020-11-17
Active Loop Antenna	EMCO	6502	EMC0523	2018-03-05	2021-03-04
High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2020-01-10	2021-01-09
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2020-01-10	2021-01-09
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	SCHWARZBECKMESS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

General used equipment					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
DMM	Fluke	73	EMC0006	2020-07-09	2021-07-08
DMM	Fluke	73	EMC0007	2020-07-09	2021-07-08

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6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(c)

6.1.2 Conclusion

Standard 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(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 0dBi.

Antenna photo please refer to Internal photo.

7 Radio Spectrum Matter Test Results

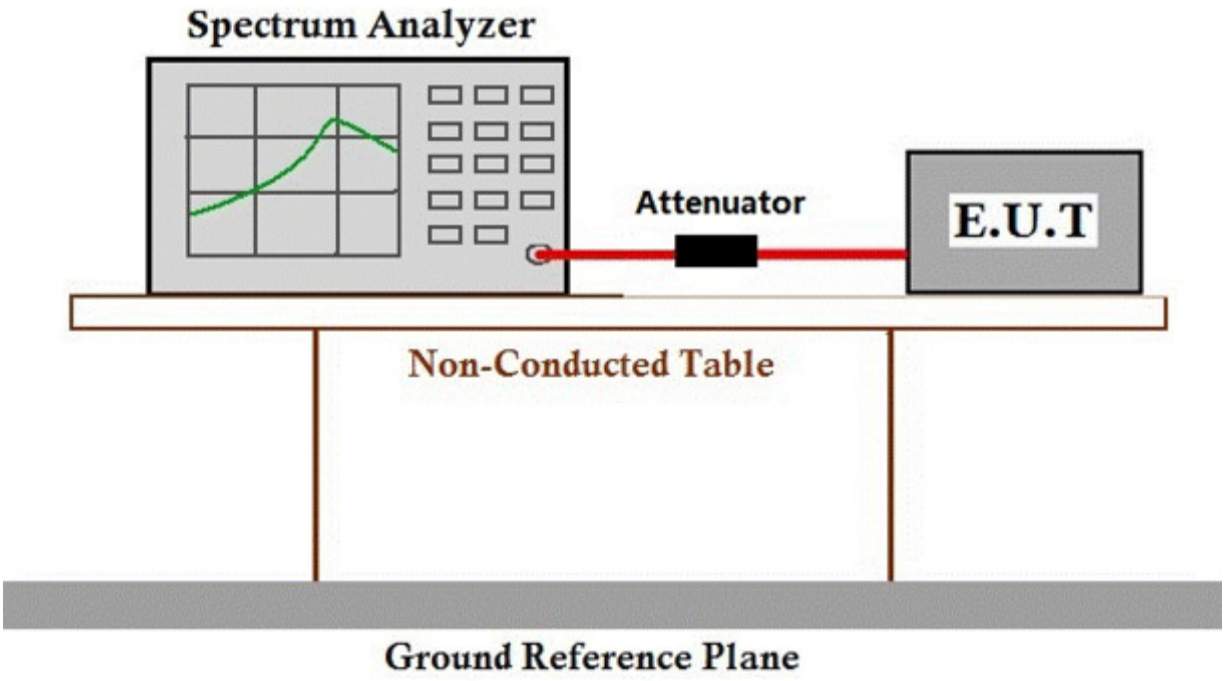
7.1 Minimum 6dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.247a(2)
Test Method: ANSI C63.10 (2013) Section 11.8.1
Limit: ≥500 kHz

7.1.1 E.U.T. Operation

Operating Environment:
Temperature: 25.9 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar
Test Mode: b: TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.1.2 Test Setup Diagram



7.1.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

7.2 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≤ 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

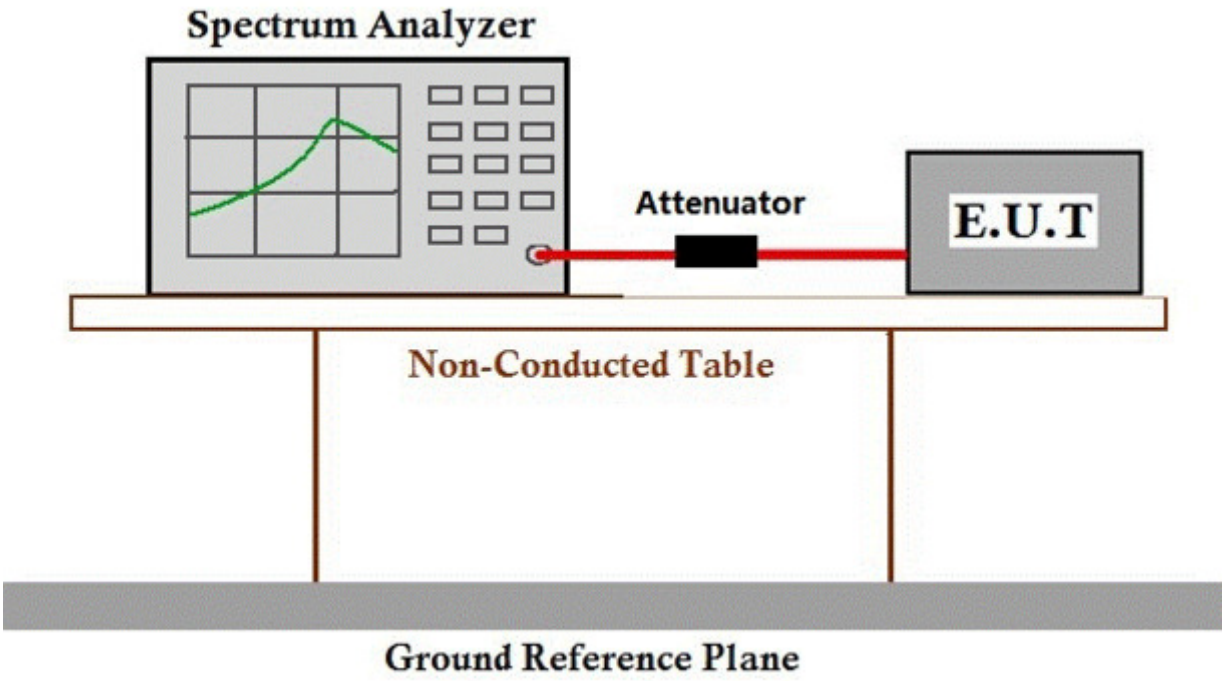
7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar

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

7.2.2 Test Setup Diagram



7.2.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

7.3 Power Spectrum Density

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

Test Method: ANSI C63.10 (2013) Section 11.10.2

Limit: ≤8dBm in any 3 kHz band during any time interval of continuous transmission

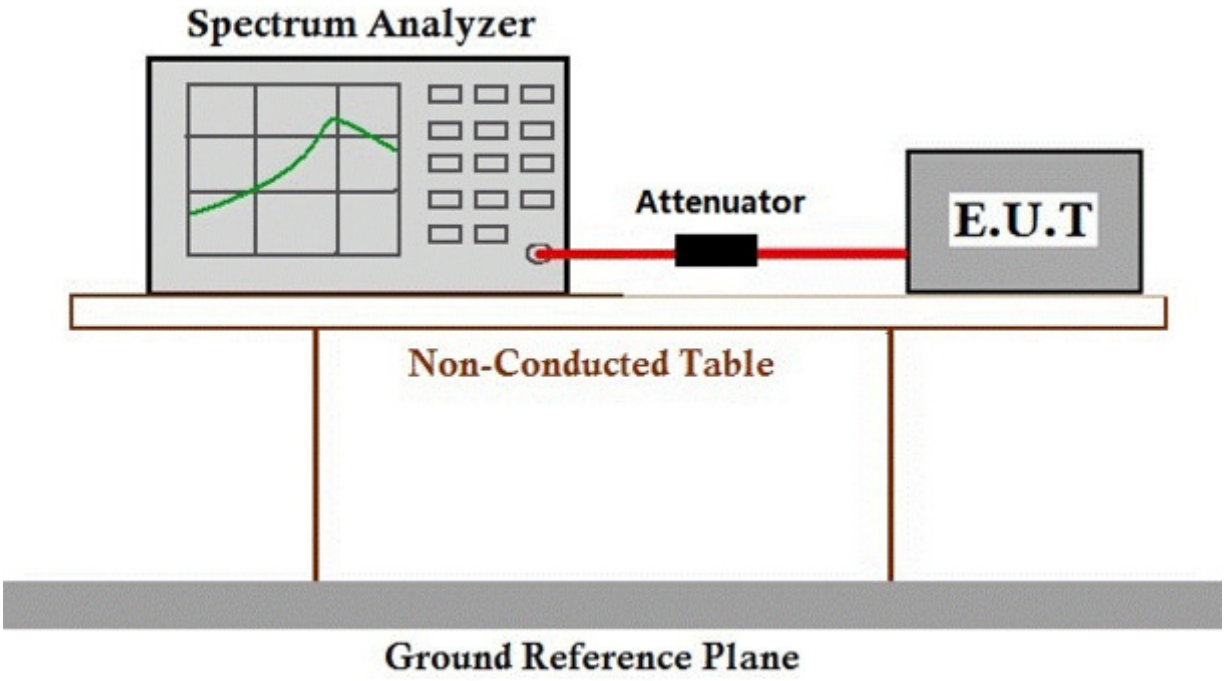
7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar

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

7.3.2 Test Setup Diagram



7.3.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

7.4 Conducted Band Edges Measurement

Test Requirement	47 CFR Part 15, Subpart C 15.247(d)
Test Method:	ANSI C63.10 (2013) Section 11.13.3.2
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)

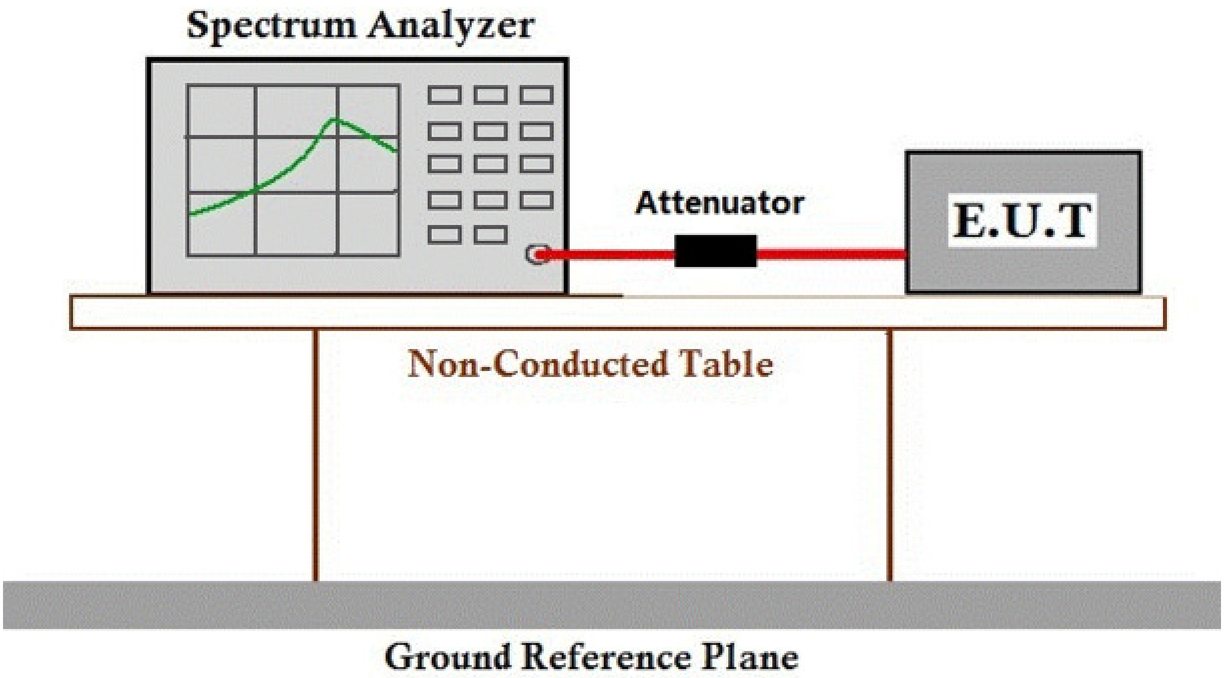
7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C Humidity: 51.9 % RH Atmospheric Pressure: 1020 mbar

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

7.4.2 Test Setup Diagram



7.4.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

7.5 Conducted Spurious Emissions

Test Requirement	47 CFR Part 15, Subpart C 15.247(d)
Test Method:	ANSI C63.10 (2013) Section 11.11
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)

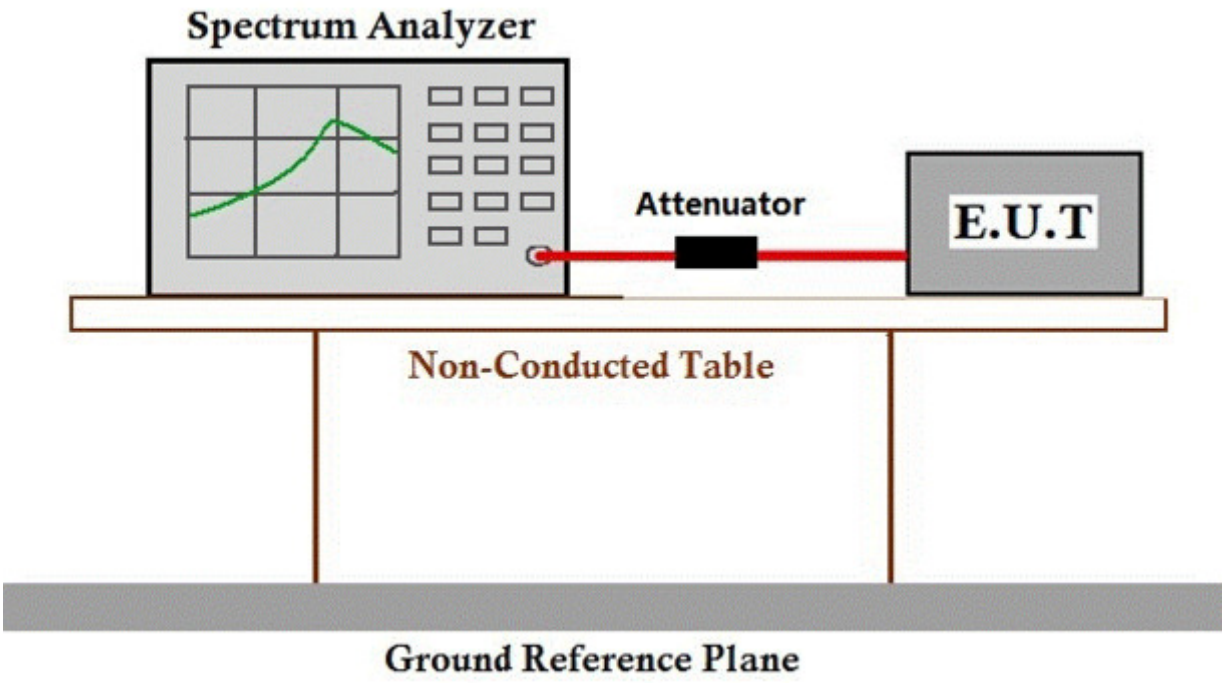
7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar

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

7.5.2 Test Setup Diagram



7.5.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

7.6 Radiated Emissions which fall in the restricted bands

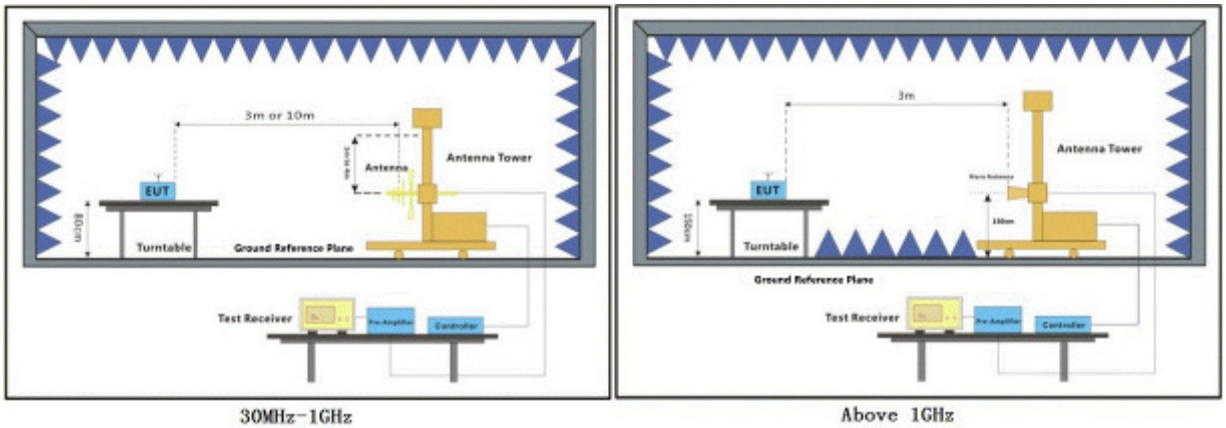
Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209
Test Method: ANSI C63.10 (2013) Section 6.10.5
Measurement Distance: 3m
Limit:

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.		

7.6.1 E.U.T. Operation

Operating Environment:
Temperature: 21 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar
Test Mode: b: TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.6.2 Test Setup Diagram



30MHz-1GHz Above 1GHz

7.6.3 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.

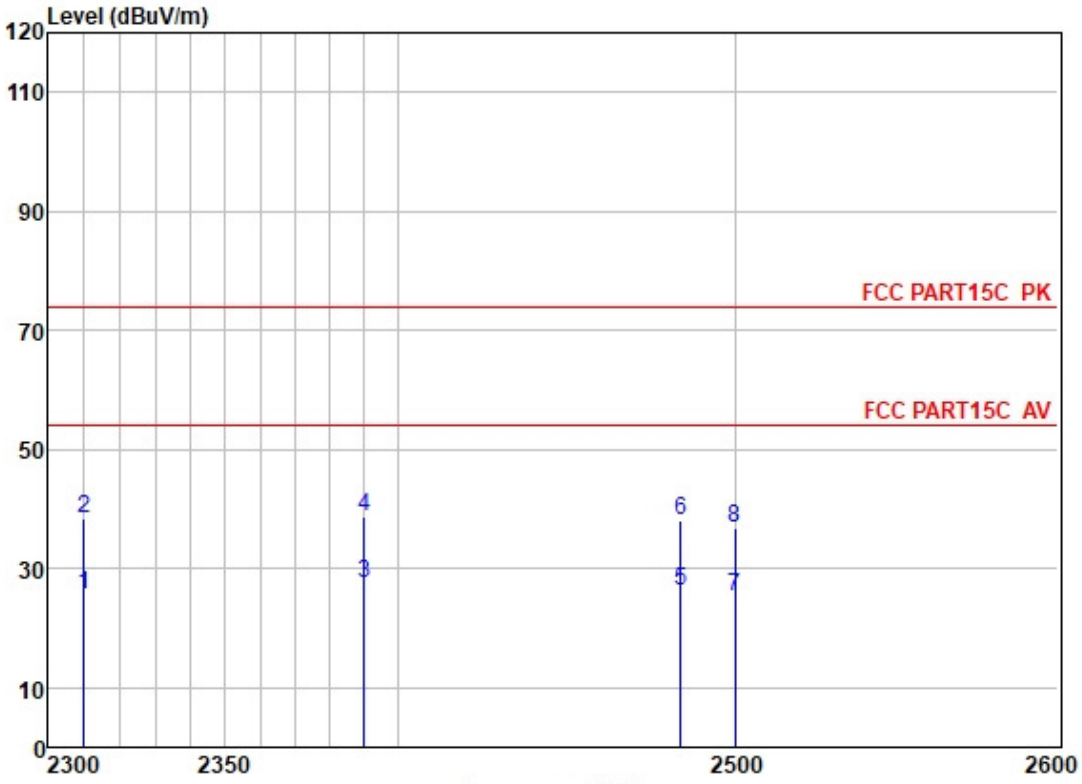
j. Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: 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 in the report.

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

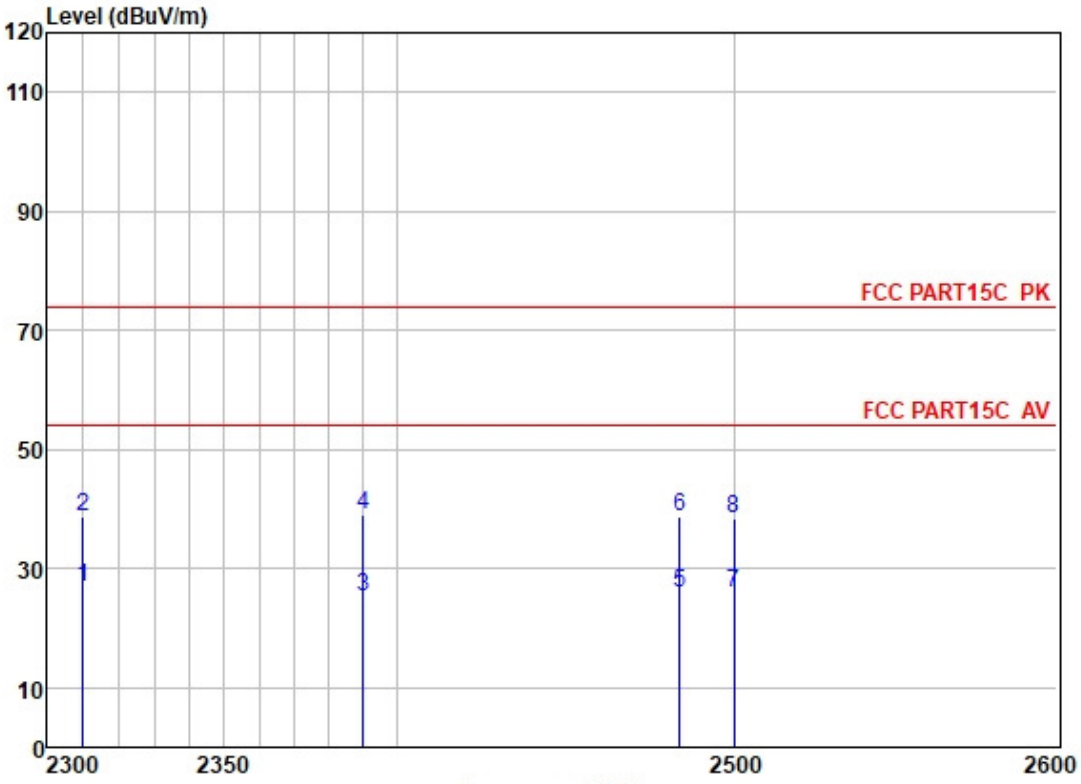
Mode:b; Polarization:Horizontal; Modulation:GFSK; ; Channel:Low



race: (Discrete)

	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	32.64	27.15	3.32	37.44	25.67	74.00	-48.33	HORIZONTAL	Average
2	2310.000	45.45	27.15	3.32	37.44	38.48	74.00	-35.52	HORIZONTAL	Peak
3	2390.000	34.16	27.33	3.48	37.42	27.55	74.00	-46.45	HORIZONTAL	Average
4	2390.000	45.43	27.33	3.48	37.42	38.82	74.00	-35.18	HORIZONTAL	Peak
5	2483.500	32.69	27.48	3.53	37.40	26.30	74.00	-47.70	HORIZONTAL	Average
6	2483.500	44.34	27.48	3.53	37.40	37.95	74.00	-36.05	HORIZONTAL	Peak
7	2500.000	31.86	27.50	3.40	37.39	25.37	74.00	-48.63	HORIZONTAL	Average
8	2500.000	43.35	27.50	3.40	37.39	36.86	74.00	-37.14	HORIZONTAL	Peak

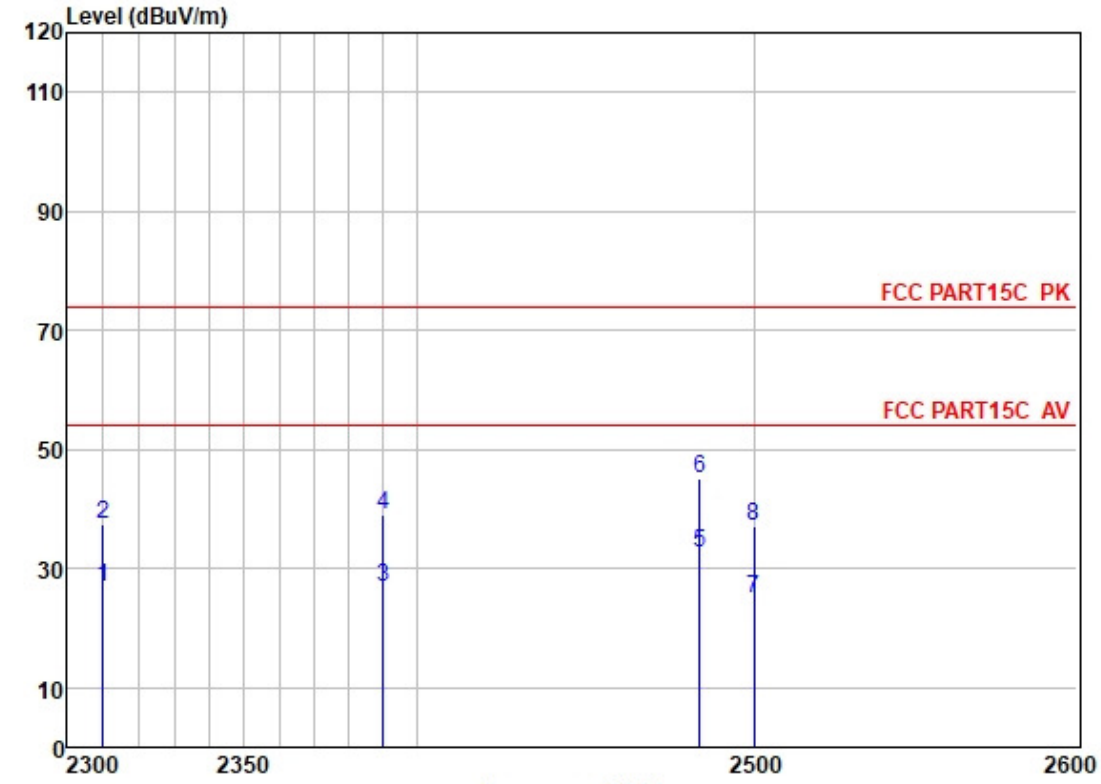
Mode:b; Polarization:Vertical; Modulation:GFSK; ; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	33.91	27.15	3.32	37.44	26.94	54.00	-27.06	VERTICAL	Average
2	2310.000	45.76	27.15	3.32	37.44	38.79	74.00	-35.21	VERTICAL	Peak
3	2390.000	31.79	27.33	3.48	37.42	25.18	54.00	-28.82	VERTICAL	Average
4	2390.000	45.68	27.33	3.48	37.42	39.07	74.00	-34.93	VERTICAL	Peak
5	2483.500	32.22	27.48	3.53	37.40	25.83	54.00	-28.17	VERTICAL	Average
6	2483.500	45.07	27.48	3.53	37.40	38.68	74.00	-35.32	VERTICAL	Peak
7	2500.000	32.43	27.50	3.40	37.39	25.94	54.00	-28.06	VERTICAL	Average
8	2500.000	44.99	27.50	3.40	37.39	38.50	74.00	-35.50	VERTICAL	Peak

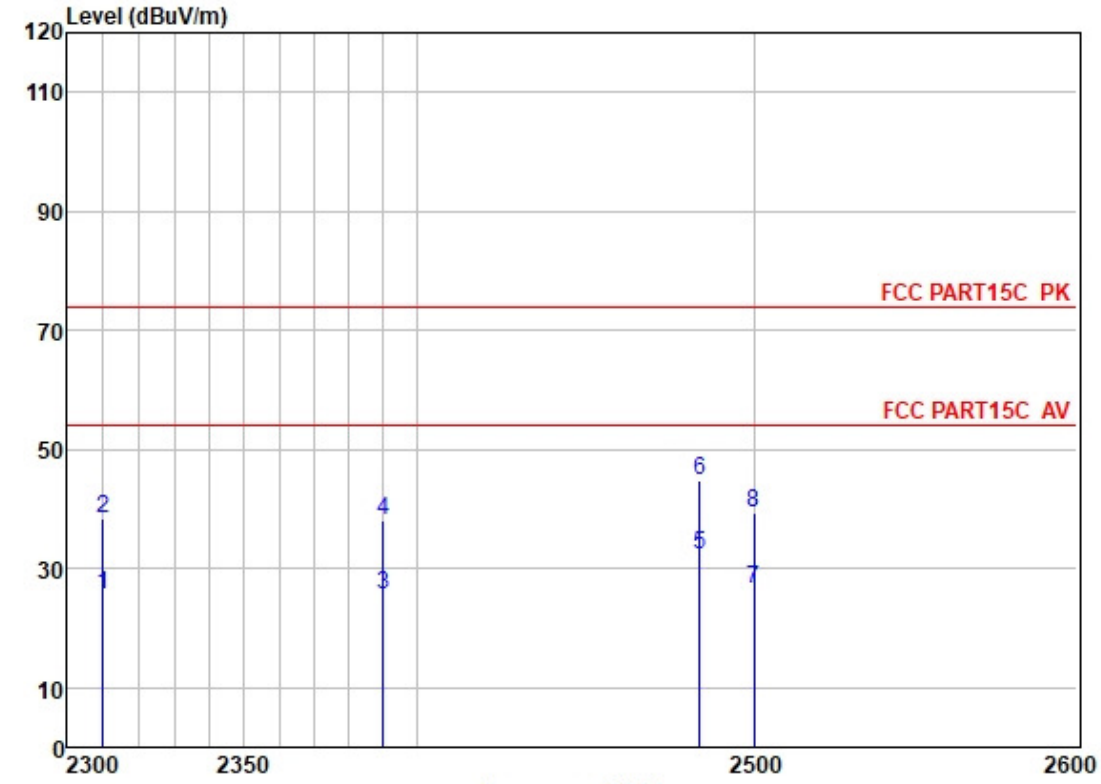
Mode:b; Polarization:Horizontal; Modulation:GFSK; ; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	33.84	27.15	3.32	37.44	26.87	54.00	-27.13	HORIZONTAL	Average
2	2310.000	44.55	27.15	3.32	37.44	37.58	74.00	-36.42	HORIZONTAL	Peak
3	2390.000	33.46	27.33	3.48	37.42	26.85	54.00	-27.15	HORIZONTAL	Average
4	2390.000	45.73	27.33	3.48	37.42	39.12	74.00	-34.88	HORIZONTAL	Peak
5	2483.500	39.16	27.48	3.53	37.40	32.77	54.00	-21.23	HORIZONTAL	Average
6	2483.500	51.46	27.48	3.53	37.40	45.07	74.00	-28.93	HORIZONTAL	Peak
7	2500.000	31.60	27.50	3.40	37.39	25.11	54.00	-28.89	HORIZONTAL	Average
8	2500.000	43.60	27.50	3.40	37.39	37.11	74.00	-36.89	HORIZONTAL	Peak

Mode:b; Polarization:Vertical; Modulation:GFSK; ; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	32.61	27.15	3.32	37.44	25.64	54.00	-28.36	VERTICAL	Average
2	2310.000	45.22	27.15	3.32	37.44	38.25	74.00	-35.75	VERTICAL	Peak
3	2390.000	32.06	27.33	3.48	37.42	25.45	54.00	-28.55	VERTICAL	Average
4	2390.000	44.74	27.33	3.48	37.42	38.13	74.00	-35.87	VERTICAL	Peak
5	2483.500	38.56	27.48	3.53	37.40	32.17	54.00	-21.83	VERTICAL	Average
6	2483.500	51.33	27.48	3.53	37.40	44.94	74.00	-29.06	VERTICAL	Peak
7	2500.000	33.04	27.50	3.40	37.39	26.55	54.00	-27.45	VERTICAL	Average
8	2500.000	45.71	27.50	3.40	37.39	39.22	74.00	-34.78	VERTICAL	Peak

7.7 Radiated Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209
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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中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

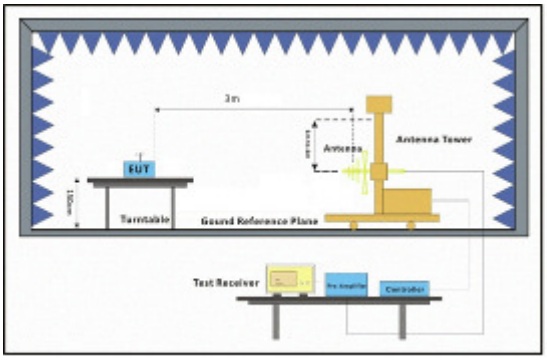
7.7.1 E.U.T. Operation

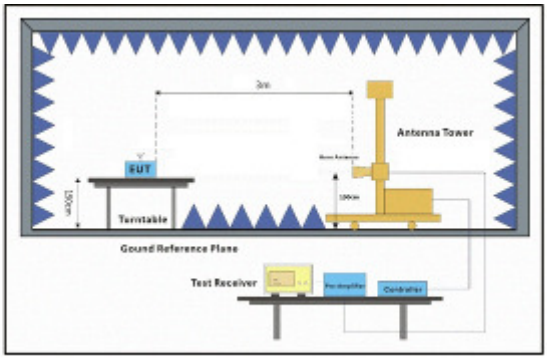
Operating Environment:

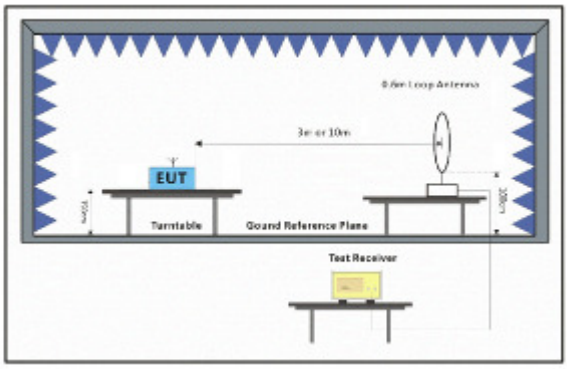
Temperature: 21 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar

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

7.7.2 Test Setup Diagram







7.7.3 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.

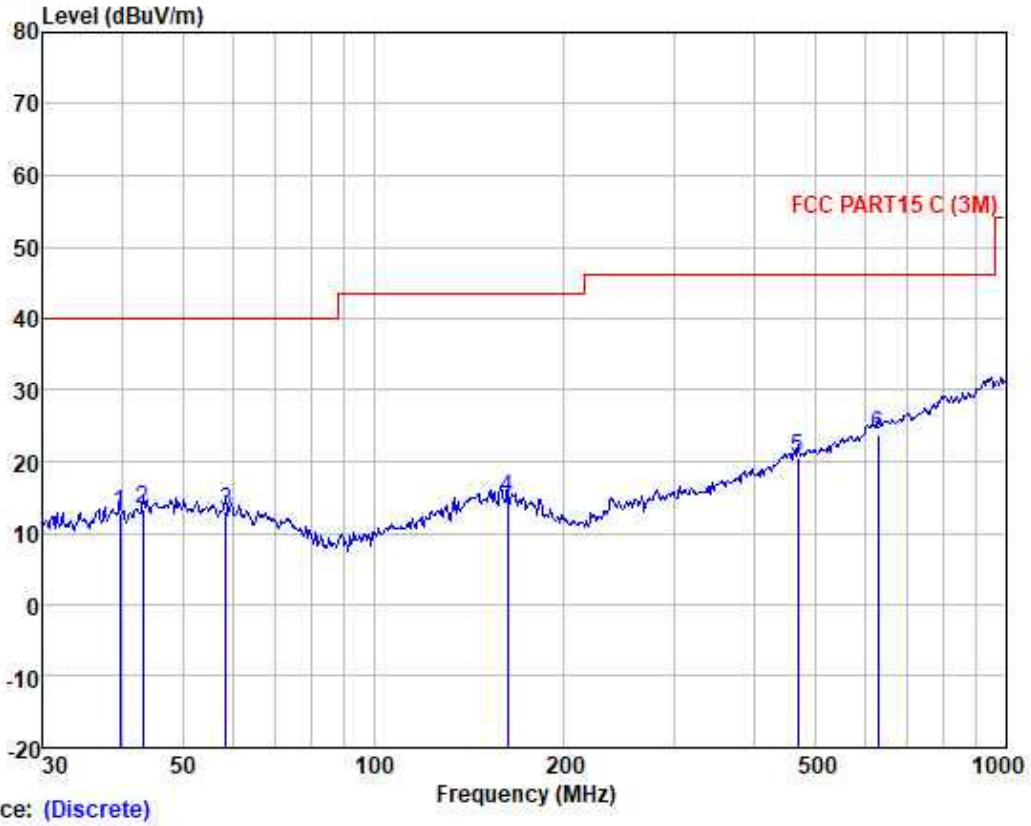
2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

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

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

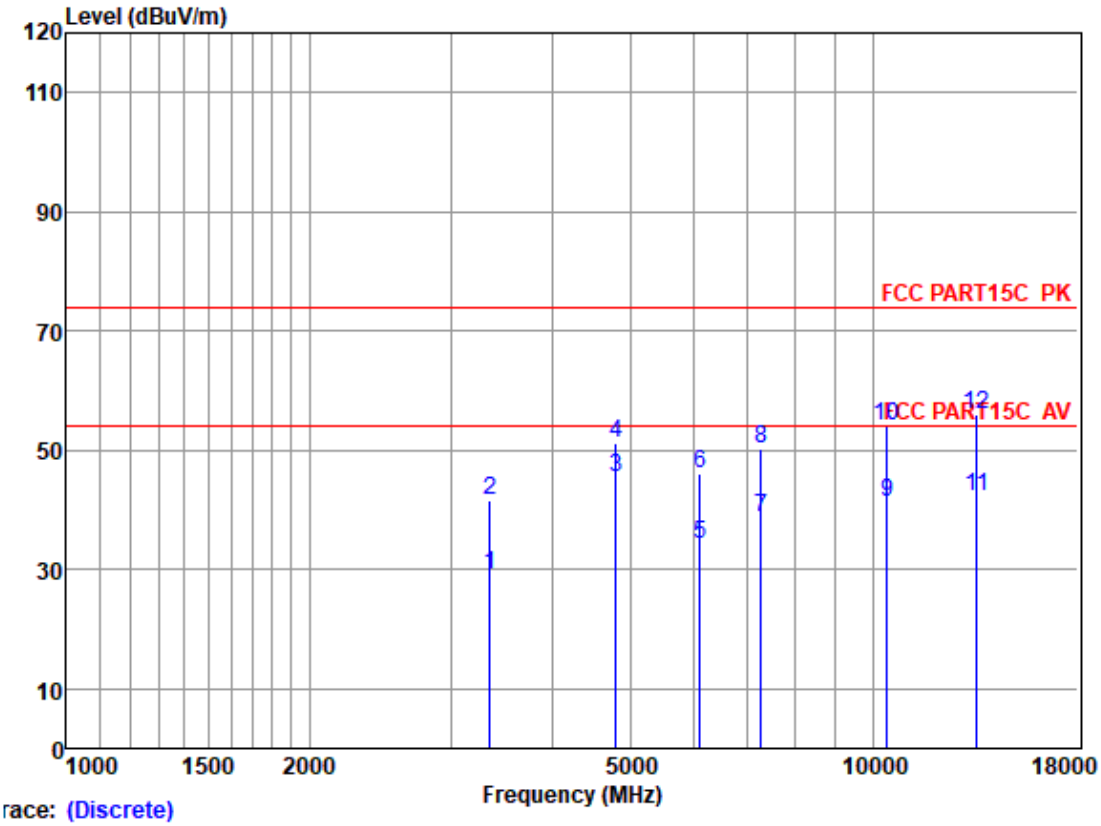


Trace: (Discrete)

Site : SGS
Condition : FCC PART15 C (3M) 3m HORIZONTAL
Job :
Application:
Test Mode : RT
Product :
Model :
Engineer :
Remark : Level=Read Level + Cable loss
: + Antenna Factor - Preamp factor
AC Power :
Memo: :

	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	39.715	25.55	13.48	1.06	27.18	12.91	40.00	-27.09	HORIZONTAL	QP
2	43.202	25.45	13.77	1.15	27.17	13.20	40.00	-26.80	HORIZONTAL	QP
3	58.407	25.34	13.56	1.32	27.16	13.06	40.00	-26.94	HORIZONTAL	QP
4	163.182	26.00	13.53	2.17	26.84	14.86	43.50	-28.64	HORIZONTAL	QP
5	468.876	26.87	17.47	4.13	28.01	20.46	46.00	-25.54	HORIZONTAL	QP
6	629.477	26.54	20.40	4.94	28.08	23.80	46.00	-22.20	HORIZONTAL	QP

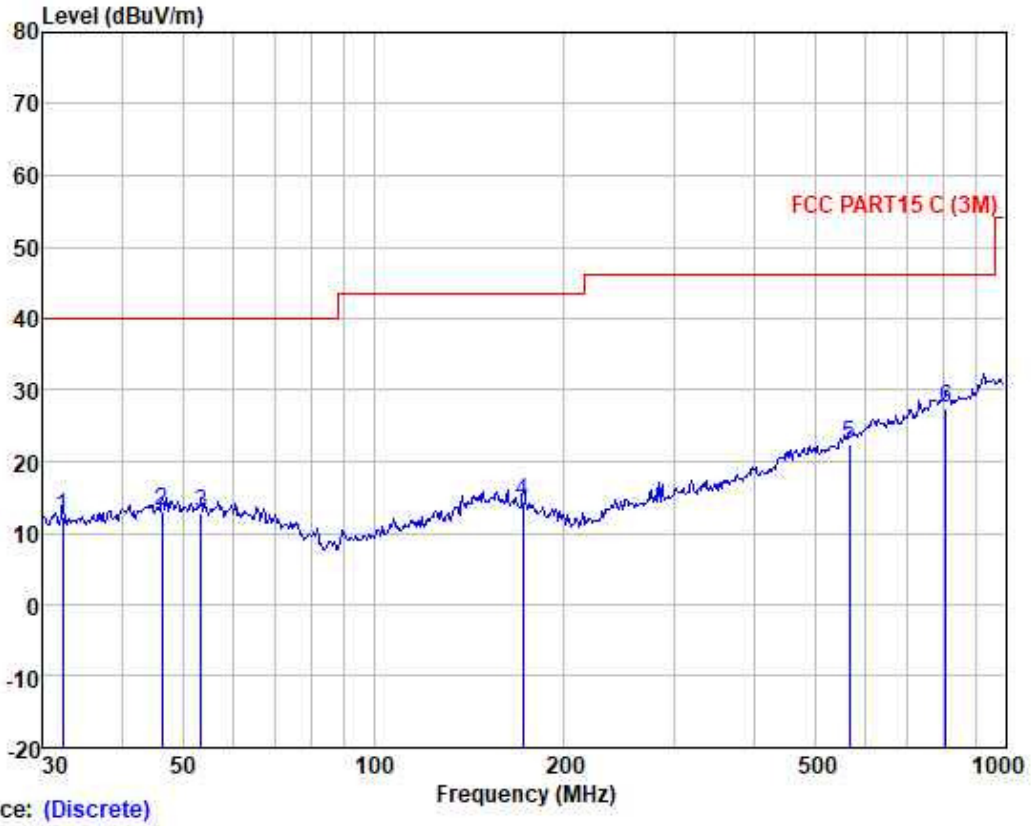
Mode:b; Polarization:Horizontal; Modulation:GFSK; ; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	3347.371	33.08	28.80	4.08	36.98	28.98	54.00	-25.02	HORIZONTAL	Average
2	3347.371	45.71	28.80	4.08	36.98	41.61	74.00	-32.39	HORIZONTAL	Peak
3	4804.419	45.43	31.42	5.40	36.94	45.31	54.00	-8.69	HORIZONTAL	Average
4	4804.419	51.26	31.42	5.40	36.94	51.14	74.00	-22.86	HORIZONTAL	Peak
5	6106.616	32.38	32.66	6.14	37.00	34.18	54.00	-19.82	HORIZONTAL	Average
6	6106.616	44.20	32.66	6.14	37.00	46.00	74.00	-28.00	HORIZONTAL	Peak
7	7263.015	33.89	35.78	6.06	36.92	38.81	54.00	-15.19	HORIZONTAL	Average
8	7263.015	45.47	35.78	6.06	36.92	50.39	74.00	-23.61	HORIZONTAL	Peak
9	10423.800	31.72	39.38	7.35	37.11	41.34	54.00	-12.66	HORIZONTAL	Average
10	10423.800	44.56	39.38	7.35	37.11	54.18	74.00	-19.82	HORIZONTAL	Peak
11	13481.720	29.30	40.00	8.35	35.56	42.09	54.00	-11.91	HORIZONTAL	Average
12	13481.720	43.32	40.00	8.35	35.56	56.11	74.00	-17.89	HORIZONTAL	Peak

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

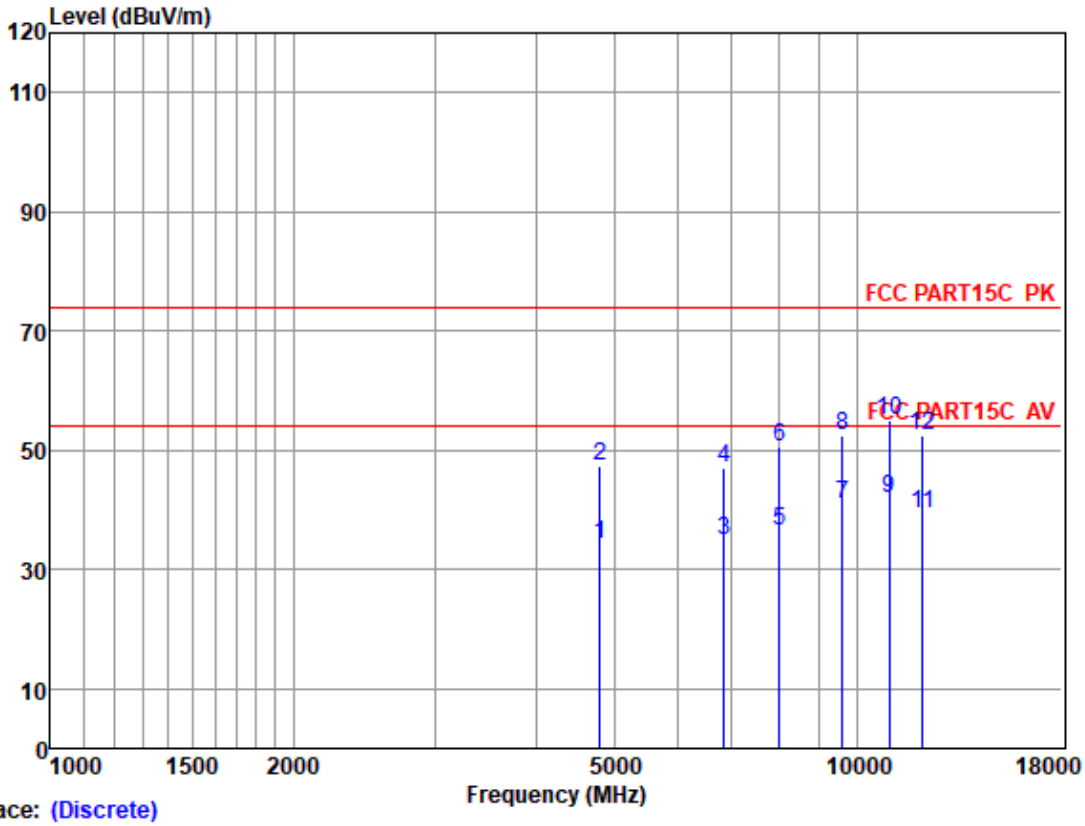


Trace: (Discrete)

Site : SGS
Condition : FCC PART15 C (3M) 3m VERTICAL
Job :
Application:
Test Mode : RT
Product :
Model :
Engineer :
Remark : Level=Read Level + Cable loss
: + Antenna Factor - Preamp factor
AC Power :
Memo: :

	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	32.179	25.78	12.71	1.01	27.19	12.31	40.00	-27.69	VERTICAL	QP
2	46.340	25.04	13.91	1.19	27.17	12.97	40.00	-27.03	VERTICAL	QP
3	53.318	24.95	13.86	1.25	27.17	12.89	40.00	-27.11	VERTICAL	QP
4	172.599	25.98	12.90	2.28	26.82	14.34	43.50	-29.16	VERTICAL	QP
5	566.622	26.98	18.85	4.60	28.06	22.37	46.00	-23.63	VERTICAL	QP
6	804.603	27.03	22.65	5.99	28.12	27.55	46.00	-18.45	VERTICAL	QP

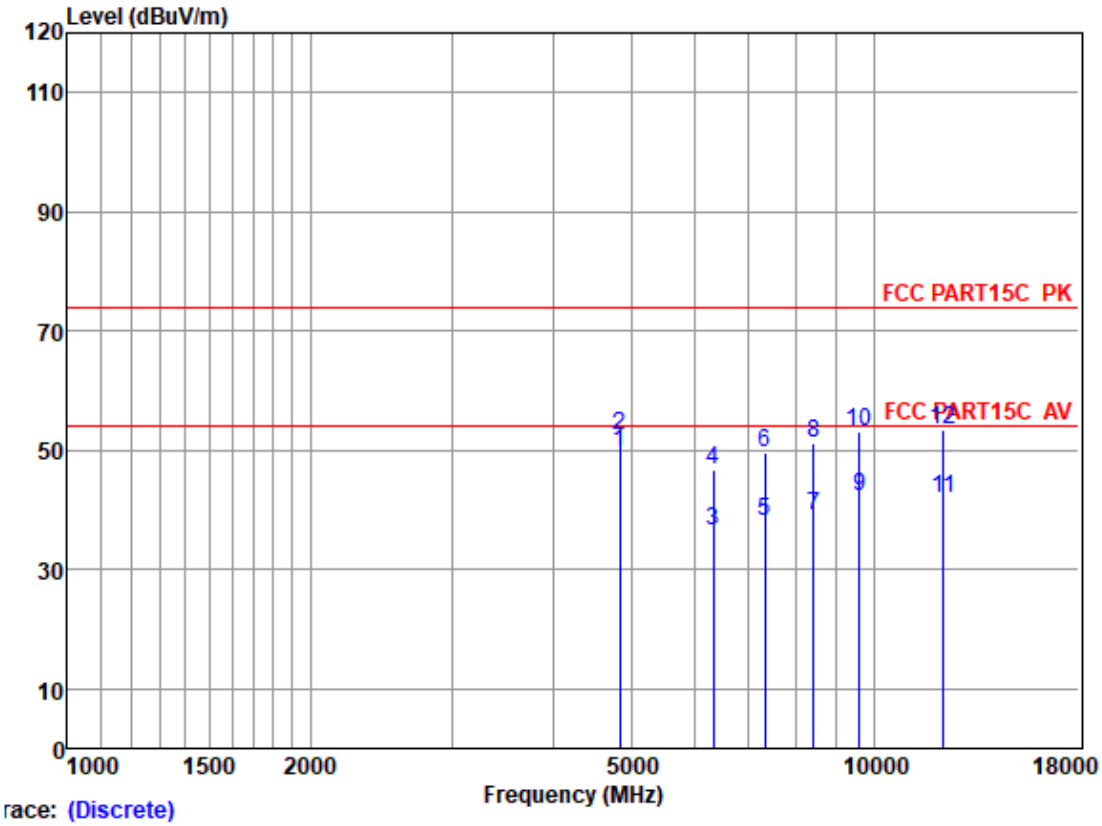
Mode:b; Polarization:Vertical; Modulation:GFSK; ; Channel:Low



race: (Discrete)

	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	4804.419	34.40	31.42	5.40	36.94	34.28	54.00	-19.72	VERTICAL	Average
2	4804.419	47.38	31.42	5.40	36.94	47.26	74.00	-26.74	VERTICAL	Peak
3	6855.063	31.09	34.78	5.82	36.96	34.73	54.00	-19.27	VERTICAL	Average
4	6855.063	43.54	34.78	5.82	36.96	47.18	74.00	-26.82	VERTICAL	Peak
5	8013.020	30.14	36.91	6.17	36.90	36.32	54.00	-17.68	VERTICAL	Average
6	8013.020	44.30	36.91	6.17	36.90	50.48	74.00	-23.52	VERTICAL	Peak
7	9608.460	32.54	38.37	7.07	37.08	40.90	54.00	-13.10	VERTICAL	Average
8	9608.460	44.05	38.37	7.07	37.08	52.41	74.00	-21.59	VERTICAL	Peak
9	10980.470	31.46	40.07	7.70	37.15	42.08	54.00	-11.92	VERTICAL	Average
10	10980.470	44.47	40.07	7.70	37.15	55.09	74.00	-18.91	VERTICAL	Peak
11	12060.010	29.42	38.88	8.17	37.17	39.30	54.00	-14.70	VERTICAL	Average
12	12060.010	42.44	38.88	8.17	37.17	52.32	74.00	-21.68	VERTICAL	Peak

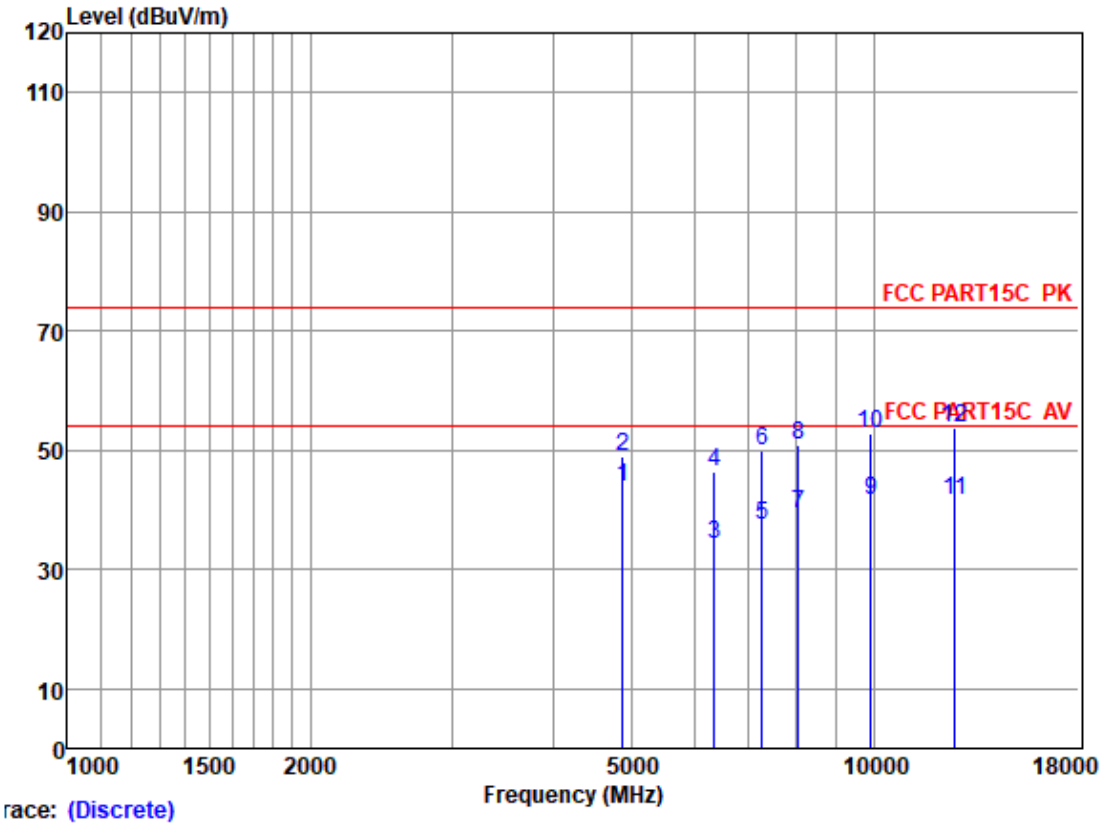
Mode:b; Polarization:Horizontal; Modulation:GFSK; ; Channel:middle



race: (Discrete)

	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	4845.948	49.46	31.50	5.45	36.94	49.47	54.00	-4.53	HORIZONTAL	Average
2	4845.948	52.57	31.50	5.45	36.94	52.58	74.00	-21.42	HORIZONTAL	Peak
3	6322.136	33.89	33.51	5.95	36.99	36.36	54.00	-17.64	HORIZONTAL	Average
4	6322.136	44.27	33.51	5.95	36.99	46.74	74.00	-27.26	HORIZONTAL	Peak
5	7326.006	32.78	36.00	6.13	36.92	37.99	54.00	-16.01	HORIZONTAL	Average
6	7326.006	44.32	36.00	6.13	36.92	49.53	74.00	-24.47	HORIZONTAL	Peak
7	8416.584	32.13	37.09	6.64	36.93	38.93	54.00	-15.07	HORIZONTAL	Average
8	8416.584	44.29	37.09	6.64	36.93	51.09	74.00	-22.91	HORIZONTAL	Peak
9	9613.430	33.75	38.37	7.07	37.08	42.11	54.00	-11.89	HORIZONTAL	Average
10	9613.430	44.66	38.37	7.07	37.08	53.02	74.00	-20.98	HORIZONTAL	Peak
11	12210.750	32.12	38.74	8.08	37.06	41.88	54.00	-12.12	HORIZONTAL	Average
12	12210.750	43.69	38.74	8.08	37.06	53.45	74.00	-20.55	HORIZONTAL	Peak

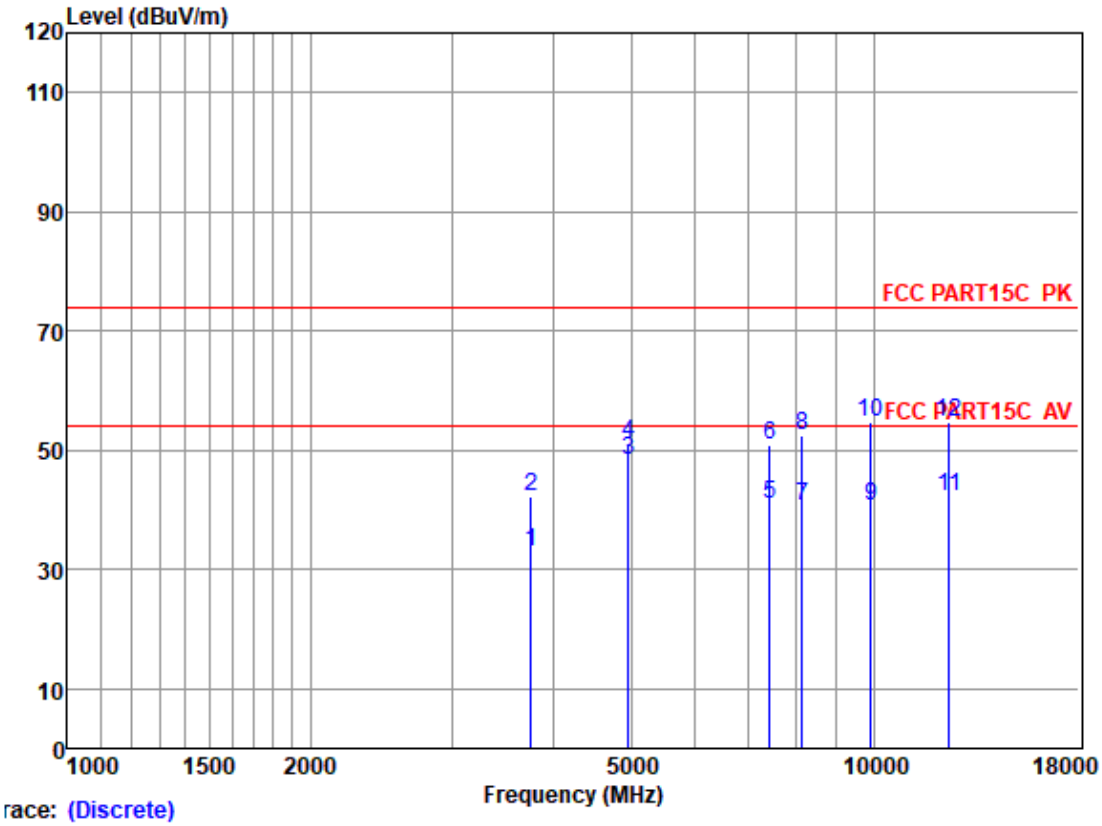
Mode:b; Polarization:Vertical; Modulation:GFSK; ; Channel:middle



race: (Discrete)

	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	4884.151	43.72	31.56	5.52	36.95	43.85	54.00	-10.15	VERTICAL	Average
2	4884.151	48.99	31.56	5.52	36.95	49.12	74.00	-24.88	VERTICAL	Peak
3	6340.436	31.68	33.57	5.94	36.99	34.20	54.00	-19.80	VERTICAL	Average
4	6340.436	43.78	33.57	5.94	36.99	46.30	74.00	-27.70	VERTICAL	Peak
5	7263.015	32.45	35.78	6.06	36.92	37.37	54.00	-16.63	VERTICAL	Average
6	7263.015	44.97	35.78	6.06	36.92	49.89	74.00	-24.11	VERTICAL	Peak
7	8059.475	33.24	36.92	6.21	36.90	39.47	54.00	-14.53	VERTICAL	Average
8	8059.475	44.72	36.92	6.21	36.90	50.95	74.00	-23.05	VERTICAL	Peak
9	9923.991	33.08	38.65	6.96	37.10	41.59	54.00	-12.41	VERTICAL	Average
10	9923.991	44.38	38.65	6.96	37.10	52.89	74.00	-21.11	VERTICAL	Peak
11	12614.610	31.68	38.65	8.06	36.69	41.70	54.00	-12.30	VERTICAL	Average
12	12614.610	43.90	38.65	8.06	36.69	53.92	74.00	-20.08	VERTICAL	Peak

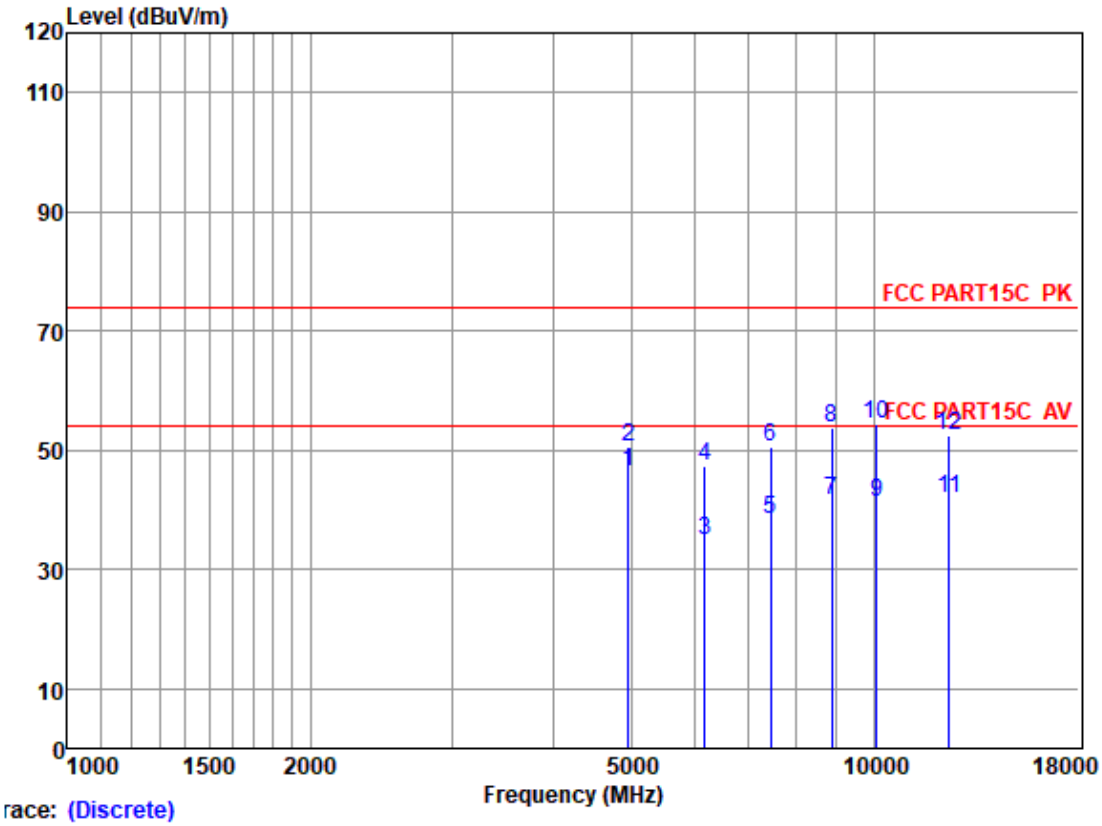
Mode:b; Polarization:Horizontal; Modulation:GFSK; ; Channel:High



race: (Discrete)

	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	3757.637	35.92	29.42	4.58	36.92	33.00	54.00	-21.00	HORIZONTAL	Average
2	3757.637	45.13	29.42	4.58	36.92	42.21	74.00	-31.79	HORIZONTAL	Peak
3	4960.993	47.86	31.65	5.65	36.96	48.20	54.00	-5.80	HORIZONTAL	Average
4	4960.993	50.94	31.65	5.65	36.96	51.28	74.00	-22.72	HORIZONTAL	Peak
5	7440.461	35.44	36.27	6.22	36.92	41.01	54.00	-12.99	HORIZONTAL	Average
6	7440.461	45.28	36.27	6.22	36.92	50.85	74.00	-23.15	HORIZONTAL	Peak
7	8153.195	34.27	36.96	6.30	36.91	40.62	54.00	-13.38	HORIZONTAL	Average
8	8153.195	46.06	36.96	6.30	36.91	52.41	74.00	-21.59	HORIZONTAL	Peak
9	9920.432	32.07	38.65	6.96	37.10	40.58	54.00	-13.42	HORIZONTAL	Average
10	9920.432	46.09	38.65	6.96	37.10	54.60	74.00	-19.40	HORIZONTAL	Peak
11	12400.420	32.48	38.57	7.97	36.90	42.12	54.00	-11.88	HORIZONTAL	Average
12	12400.420	45.05	38.57	7.97	36.90	54.69	74.00	-19.31	HORIZONTAL	Peak

Mode:b; Polarization:Vertical; Modulation:GFSK; ; Channel:High



race: (Discrete)

	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	4960.993	45.97	31.65	5.65	36.96	46.31	54.00	-7.69	VERTICAL	Average
2	4960.993	50.16	31.65	5.65	36.96	50.50	74.00	-23.50	VERTICAL	Peak
3	6177.627	32.92	32.89	6.09	36.99	34.91	54.00	-19.09	VERTICAL	Average
4	6177.627	45.49	32.89	6.09	36.99	47.48	74.00	-26.52	VERTICAL	Peak
5	7440.788	32.86	36.27	6.22	36.92	38.43	54.00	-15.57	VERTICAL	Average
6	7440.788	45.14	36.27	6.22	36.92	50.71	74.00	-23.29	VERTICAL	Peak
7	8866.062	33.73	37.36	7.38	36.99	41.48	54.00	-12.52	VERTICAL	Average
8	8866.062	46.10	37.36	7.38	36.99	53.85	74.00	-20.15	VERTICAL	Peak
9	10097.600	32.61	38.81	7.00	37.10	41.32	54.00	-12.68	VERTICAL	Average
10	10097.600	45.66	38.81	7.00	37.10	54.37	74.00	-19.63	VERTICAL	Peak
11	12400.690	32.15	38.57	7.97	36.90	41.79	54.00	-12.21	VERTICAL	Average
12	12400.690	42.91	38.57	7.97	36.90	52.55	74.00	-21.45	VERTICAL	Peak

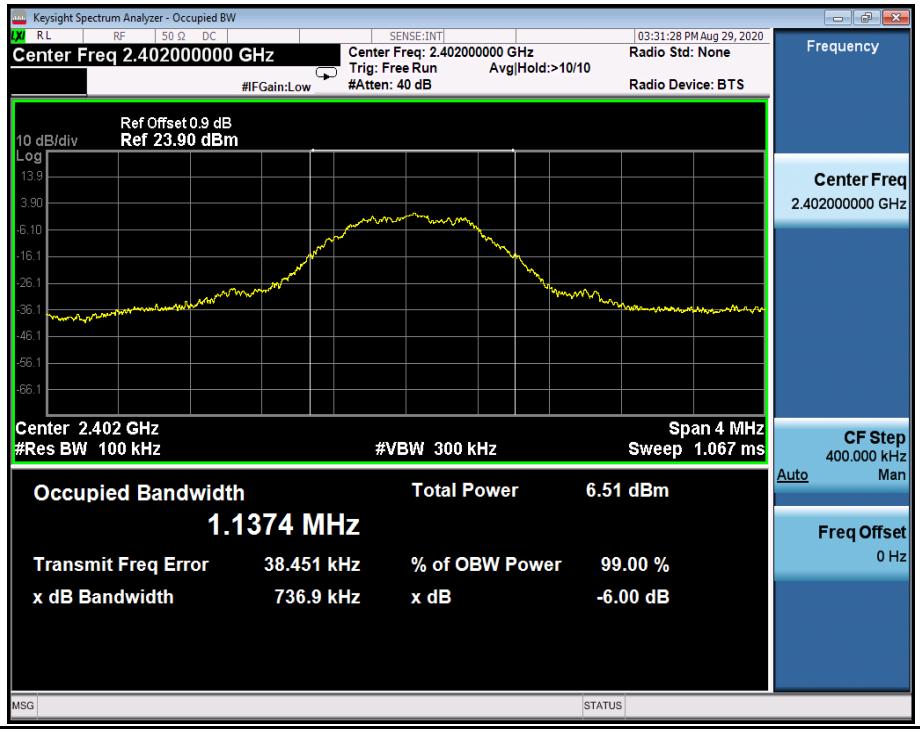
8 Appendix(Cable loss=0.9dB)

8.1 Appendix 15.247

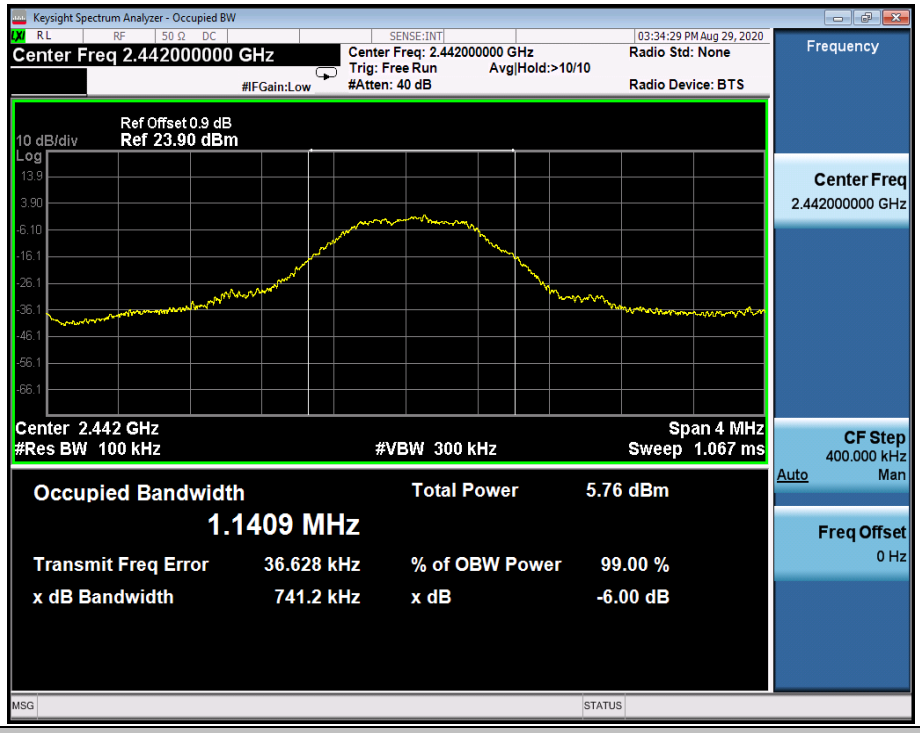
1. 6dB Bandwidth

Test Mode	Test Channel	Ant	OBW[MHz]	EBW[MHz]	Limit	Verdict
BLE	2402	Ant1	1.1375	0.7369	>=0.5	PASS
BLE	2442	Ant1	1.1403	0.7412	>=0.5	PASS
BLE	2480	Ant1	1.2012	0.7909	>=0.5	PASS

TEST PLOT
6dB Bandwidth_BLE_2402_Ant1



6dB Bandwidth_BLE_2442_Ant1

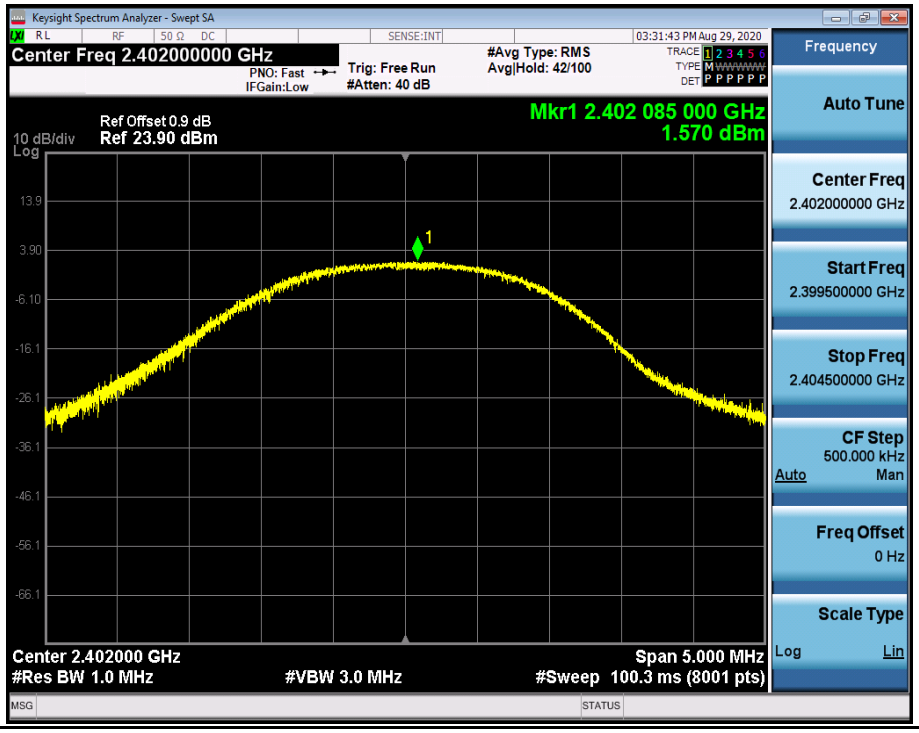


6dB Bandwidth_BLE_2480_Ant1

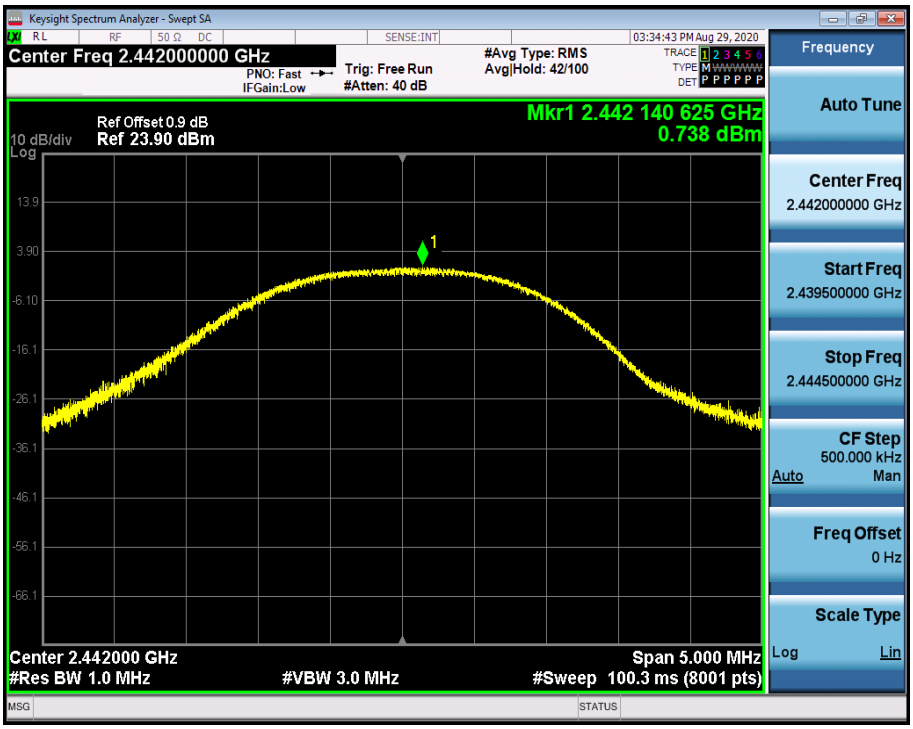
2.Maximum peak conducted output power

Test Mode	Test Channel	Ant	Power[dBm]	Limit[dBm]	Verdict
BLE	2402	Ant1	1.57	<30	PASS
BLE	2442	Ant1	0.738	<30	PASS
BLE	2480	Ant1	0.098	<30	PASS

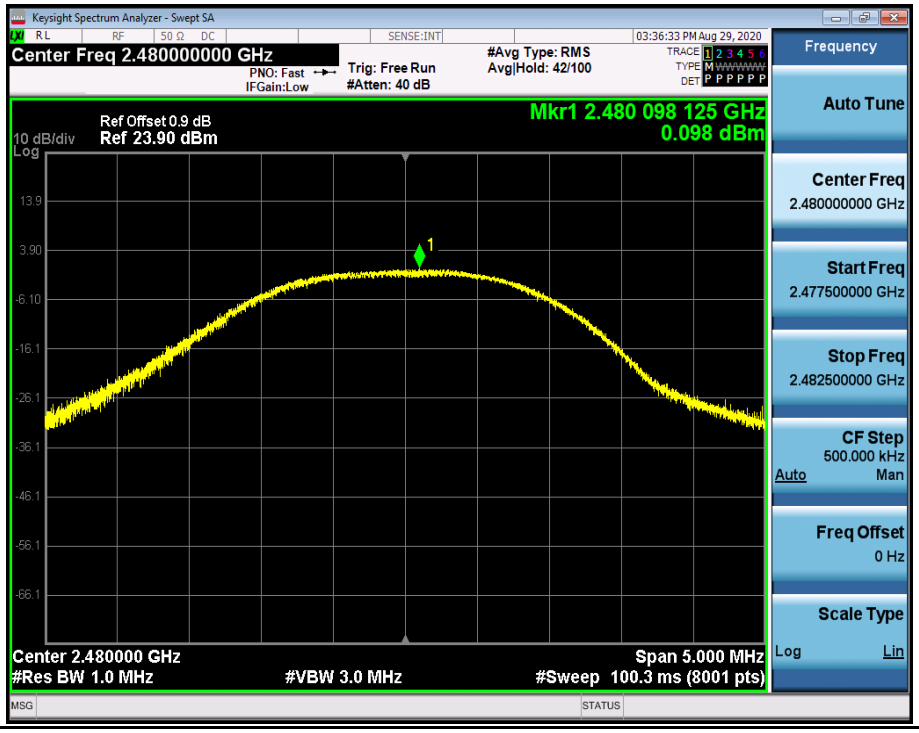
TEST PLOT
Maximum peak conducted output power_BLE_2402_Ant1



Maximum peak conducted output power_BLE_2442_Ant1



Maximum peak conducted output power_BLE_2480_Ant1



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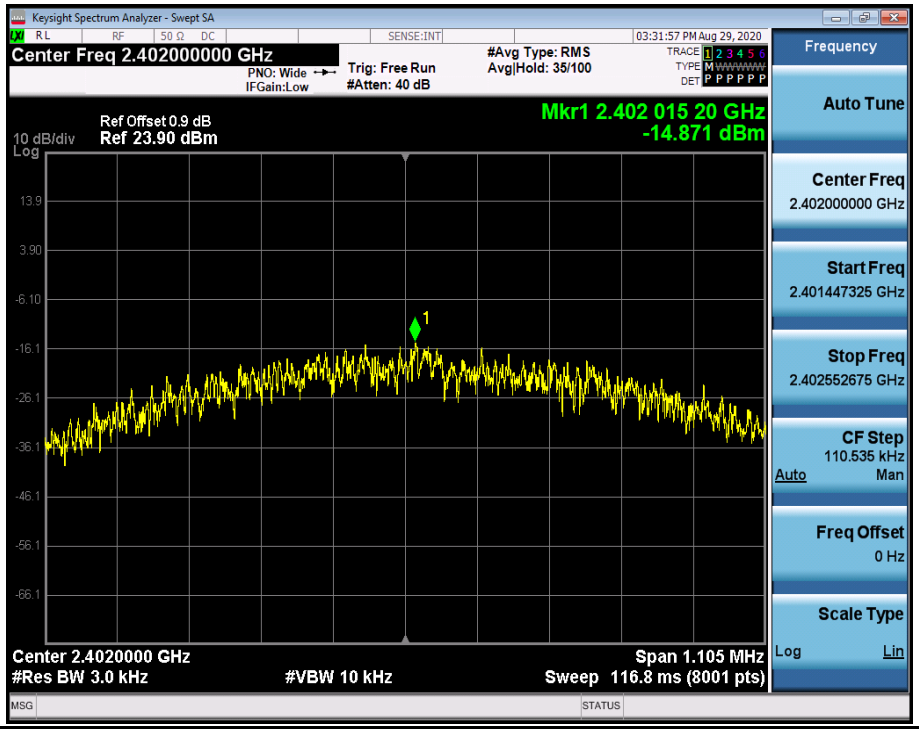
3.Maximum Peak power spectral density

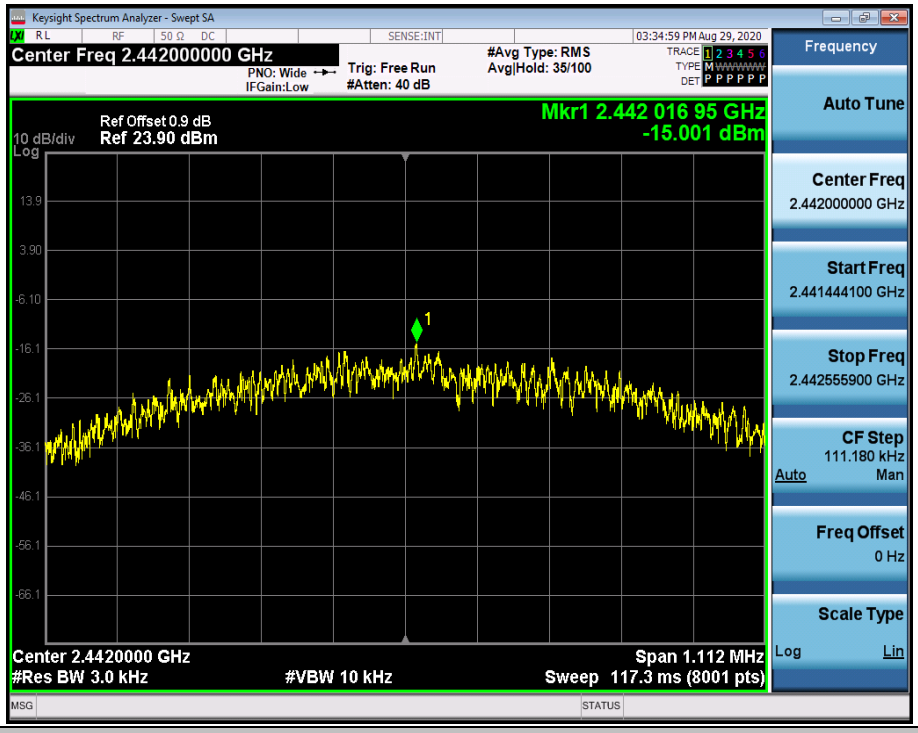
Test Mode	Test Channel	Ant	Result	Limit[dBm/3kHz]	Verdict
BLE	2402	Ant1	-14.871	<=8.00	PASS
BLE	2442	Ant1	-15.001	<=8.00	PASS
BLE	2480	Ant1	-16.441	<=8.00	PASS

TEST PLOT

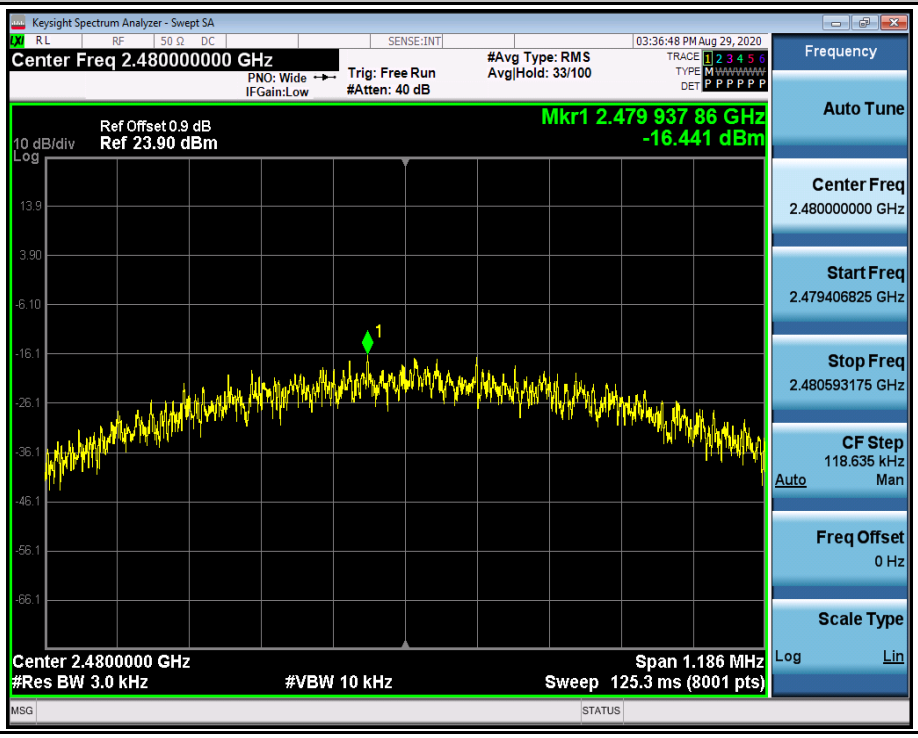
Maximum Peak power spectral density_BLE_2402_Ant1



Maximum Peak power spectral density_BLE_2442_Ant1



Maximum Peak power spectral density_BLE_2480_Ant1



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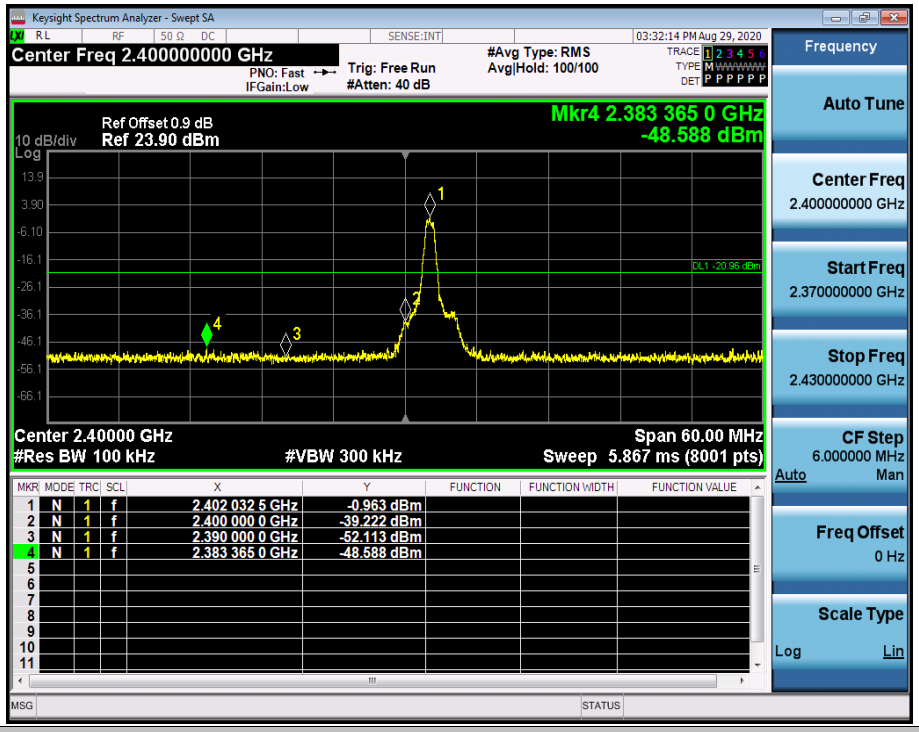
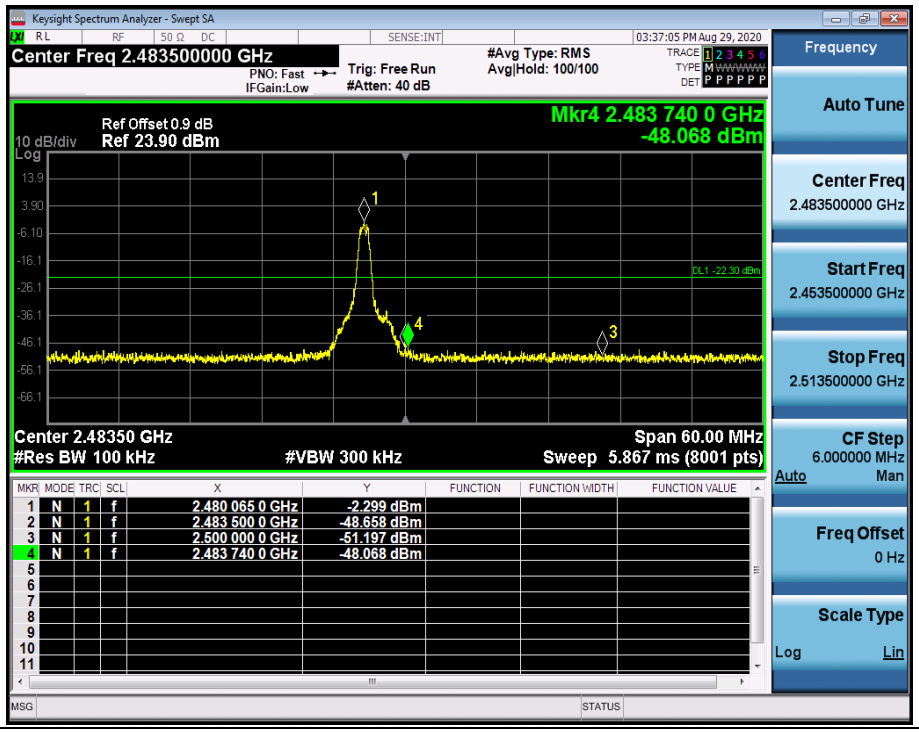
4.Band-edge for RF Conducted Emissions

Test Mode	Test Channel	Ant	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit [dBm]	Verdict
BLE	2402	Ant1	-0.963	-48.588	<=-20.96	PASS
BLE	2480	Ant1	-2.299	-48.068	<=-22.3	PASS

TEST PLOT
Band-edge for RF Conducted Emissions_BLE_2402_Ant1



Band-edge for RF Conducted Emissions_BLE_2480_Ant1



5.RF Conducted Spurious Emissions

Test Mode	Test Channel	Ant	StartFre [MHz]	StopFre [MHz]	RBW [kHz]	VBW [kHz]	Pref[dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BLE	2402	Ant1	30	10000	100	300	0.289	-39.860	<-19.711	PASS
BLE	2402	Ant1	10000	26000	100	300	0.289	-51.655	<-19.711	PASS
BLE	2442	Ant1	30	10000	100	300	-1.105	-41.417	<-21.105	PASS
BLE	2442	Ant1	10000	26000	100	300	-1.105	-52.014	<-21.105	PASS
BLE	2480	Ant1	30	10000	100	300	-2.101	-39.823	<-22.101	PASS
BLE	2480	Ant1	10000	26000	100	300	-2.101	-52.019	<-22.101	PASS

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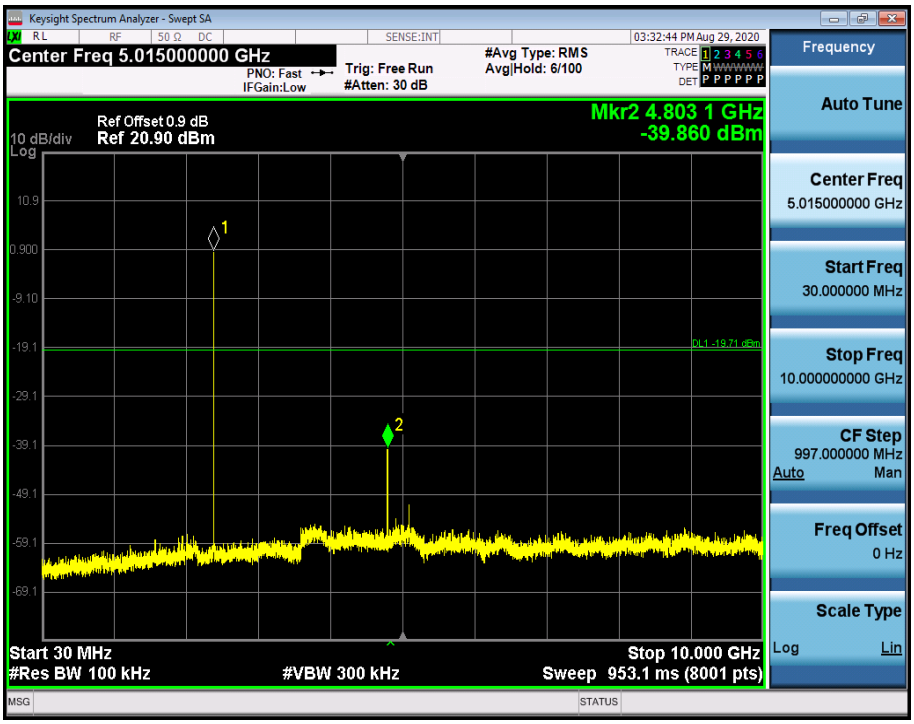
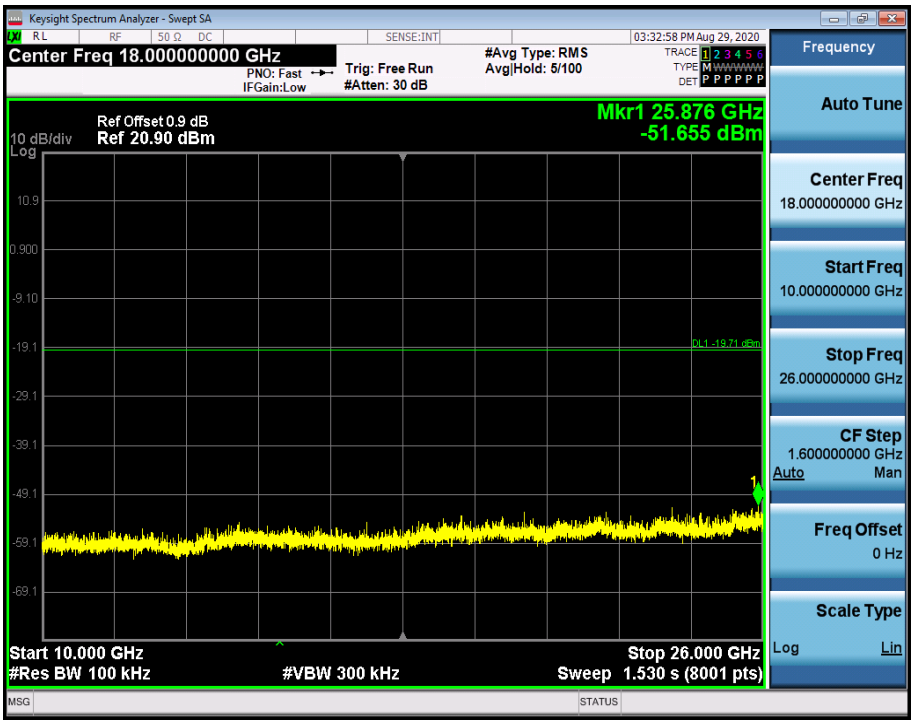
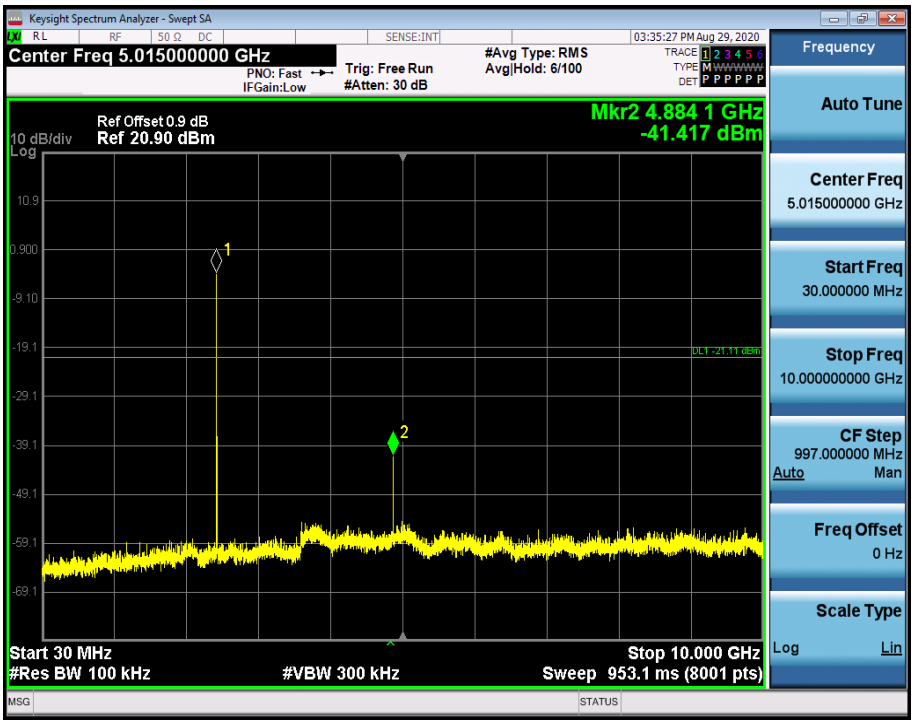
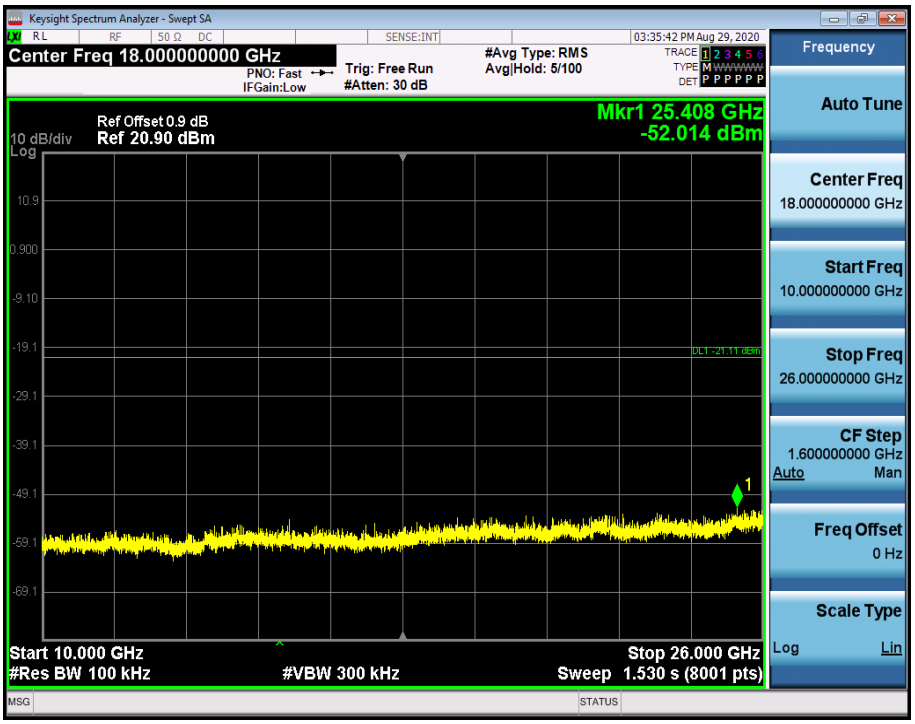
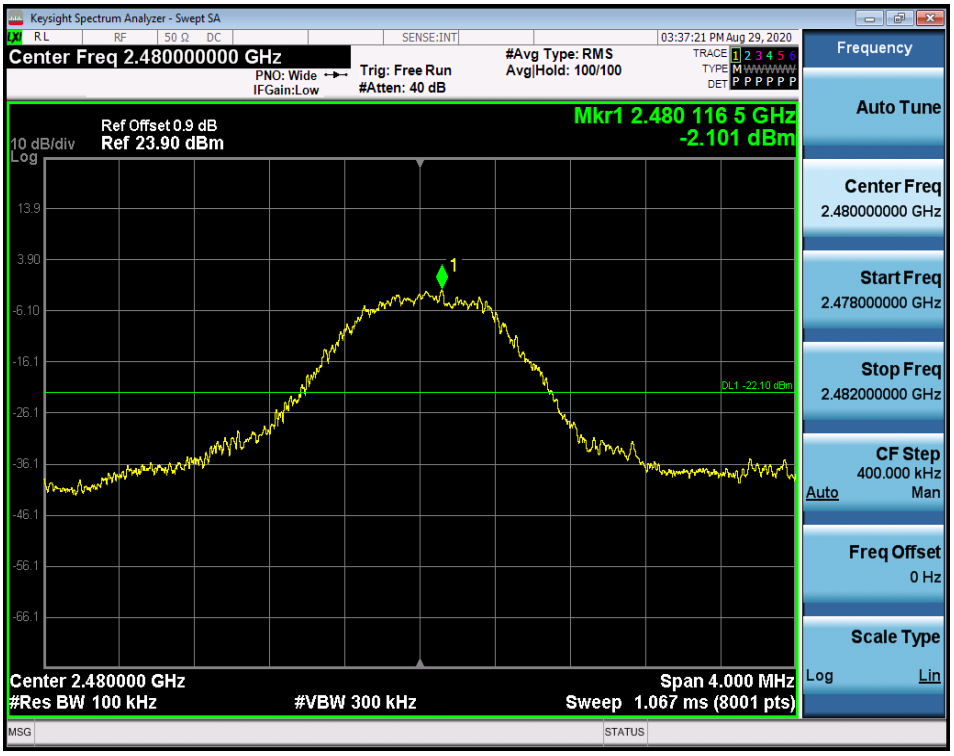
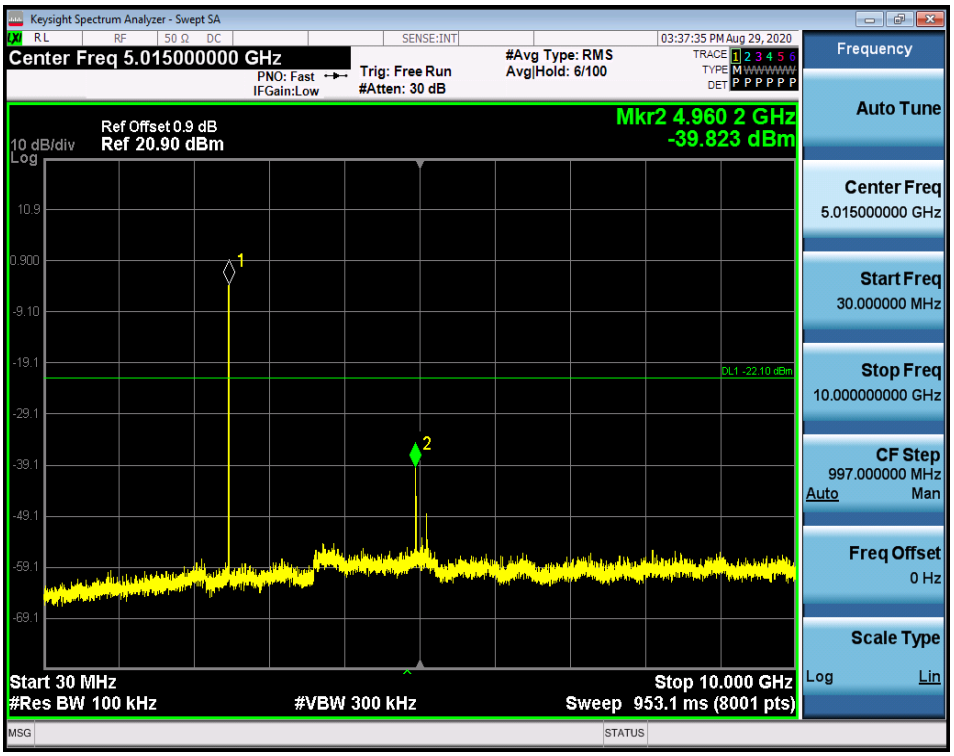
TEST PLOT	
RF Conducted Spurious Emissions_BLE_2402_Ant1	
Pref	
CSE_1	

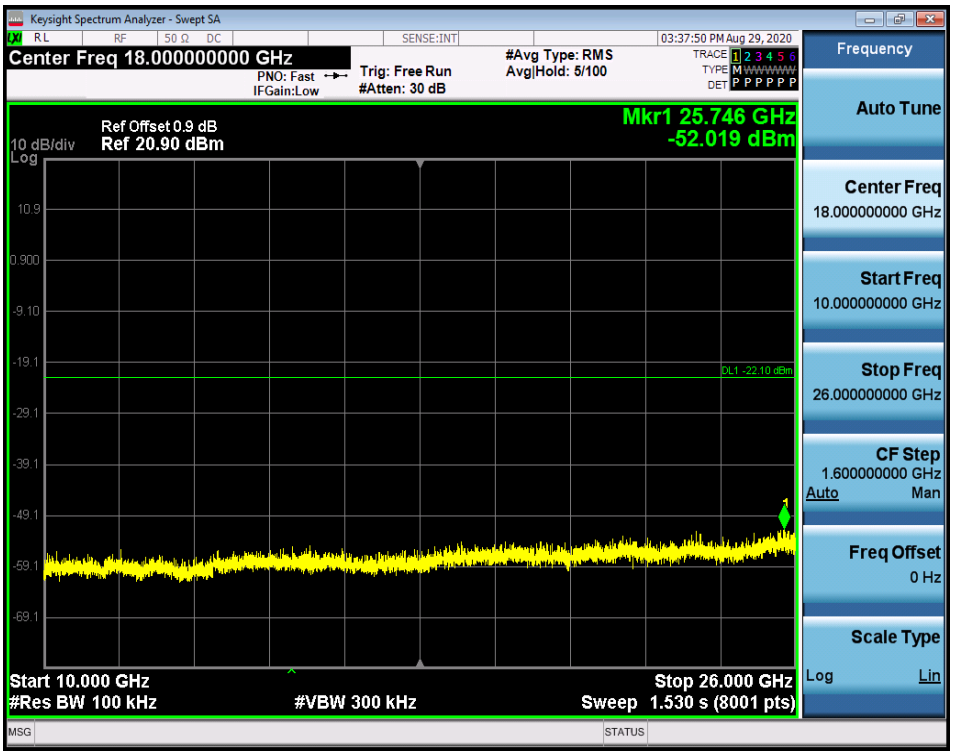
CSE_2	

RF Conducted Spurious Emissions_BLE_2442_Ant1

Pref	

CSE_1	
CSE_2	

RF Conducted Spurious Emissions_BLE_2480_Ant1	
Pref	
CSE_1	

CSE_2	

--End of Report--