



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

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Report No.: GZEM191001665002  
Page: 1 of 189  
FCC ID: 2AT6N-B20

# TEST REPORT

**Application No.:** GZEM1910016650CR  
**Applicant:** AUSOUNDS INTELLIGENCE, LLC  
**Address of Applicant:** 929 108TH AVE NE STE 1200, BELLEVUE, WA, 98004, UNITED STATES OF AMERICA  
**Manufacturer:** AUSOUNDS INTELLIGENCE, LLC  
**Address of Manufacturer:** 929 108TH AVE NE STE 1200, BELLEVUE, WA, 98004, UNITED STATES OF AMERICA  
**Factory:** Risuntek Inc  
**Address of Factory:** JiuWei Industrial Zone, Qishi Town, Dongguan City Guangdong, China  
**Equipment Under Test (EUT):**  
**EUT Name:** AU-stream  
**Model No.:** AU-stream  
**Trade Mark:** Ausounds  
**Standard(s) :** 47 CFR Part 15, Subpart C 15.247  
**Date of Receipt:** 2019-10-28  
**Date of Test:** 2019-11-06 to 2019-12-02  
**Date of Issue:** 2019-12-13

<b>Test Result:</b>	<b>Pass*</b>
---------------------	--------------

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

Kobe Jian

EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

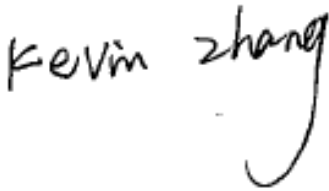



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2019-12-13		Original

Authorized for issue by:			
Tested By		2019-11-06 to 2019-12-02 Date	
Checked By		2019-12-13 Date	



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## 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
Other requirements Frequency Hopping Spread Spectrum System Hopping Sequence	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.247(a)(1),(g),(h)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.5	47 CFR Part 15, Subpart C 15.247(b)(1)	Pass
20dB Bandwidth	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.7	47 CFR Part 15, Subpart C 15.247(a)(1)	Pass
Carrier Frequencies Separation	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.2	47 CFR Part 15, Subpart C 15.247a(1)	Pass
Hopping Channel Number	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.3	47 CFR Part 15, Subpart C 15.247a(1)(iii)	Pass
Dwell Time	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.4	47 CFR Part 15, Subpart C 15.247a(1)(iii)	Pass
Conducted Band Edges Measurement	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.6	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 7.8.8	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**

Remark:

According to the declaration from the applicant, the electrical circuit design is identical for left and right earbud except for MIC function (the left has MIC function and the right doesn't), but the PCB layout is difference.

Therefore, all tests were performed on left and right earbuds and recorded in this report.

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



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## 4 General Information

### 4.1 Details of E.U.T.

Power Supply:	DC 5.0V for charging box charging. DC 3.7V for earbuds normal working.
Test Voltage:	DC 5.0V
Cable:	N/A
Modulation Type	GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channels	79
Operation Frequency	2402MHz to 2480MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum (FHSS)
Antenna Gain:	0dBi
Antenna Type:	PCB Antenna
Channel Spacing:	1MHz
Bluetooth Version:	V5.0 dual mode
	This report is for classic mode

### 4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Laptop	Lenovo	T430u	REF. No.SEA1800

### 4.3 Measurement Uncertainty

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	$\pm 3\%$



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#### 4.4 Test Location

All tests were performed at:

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 Guangzhou, China 510663

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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

Conducted Peak Output Power					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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	2019-11-02	2021-11-01
MI CABLE	SGS	0.8M	EMC2137	2019-11-02	2021-11-01

20dB Bandwidth					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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	2019-11-02	2021-11-01
MI CABLE	SGS	0.8M	EMC2137	2019-11-02	2021-11-01

Carrier Frequencies Separation					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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	2019-11-02	2021-11-01
MI CABLE	SGS	0.8M	EMC2137	2019-11-02	2021-11-01

Hopping Channel Number					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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	2019-11-02	2021-11-01
MI CABLE	SGS	0.8M	EMC2137	2019-11-02	2021-11-01



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Dwell Time					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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	2019-11-02	2021-11-01
MI CABLE	SGS	0.8M	EMC2137	2019-11-02	2021-11-01

Conducted Band Edges Measurement					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer	AgilentTechnologies	N9020A	SEM004-10	2019-02-24	2020-02-23
ESG Vector Signal Generator	Keysight	E4438C	SEM006-03	2019-04-05	2020-04-04
EXG Analog Signal Generator	AgilentTechnologies	N5171B	SEM006-04	2017-07-26	2020-07-25
Power Meter	AgilentTechnologies	U2021XA_Ch2	SEM009-02	2019-05-29	2020-05-28
Power Meter	AgilentTechnologies	U2021XA_Ch3	SEM009-03	2019-05-29	2020-05-28
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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	2019-11-02	2021-11-01
MI CABLE	SGS	0.8M	EMC2137	2019-11-02	2021-11-01

Conducted Spurious Emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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	2019-11-02	2021-11-01
MI CABLE	SGS	0.8M	EMC2137	2019-11-02	2021-11-01



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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	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	2019-12-18
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



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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	2019-12-18
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

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 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.

## 6.2 Other requirements Frequency Hopping Spread Spectrum System Hopping Sequence

### 6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.247(a)(1),(g),(h)

### 6.2.2 Conclusion

Standard Requirement:

The system shall hop to channel frequencies that are selected at the system hopping rate from a Pseudorandom ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. However, the system, consisting of both the transmitter and the receiver, must be designed to comply with all of the regulations in this section should the transmitter be presented with a continuous data (or information) stream. In addition, a system employing short transmission bursts must comply with the definition of a frequency hopping system and must distribute its transmissions over the minimum number of hopping channels specified in this section.

The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

Compliance for section 15.247(a)(1):

According to Technical Specification, the pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first ONE of 9 consecutive ONES; i.e. the shift register is initialized with nine ones.

> Number of shift register stages: 9

> Length of pseudo-random sequence:  $2^9 - 1 = 511$  bits

> Longest sequence of zeros: 8 (non-inverted signal)

Linear Feedback Shift Register for Generation of the PRBS sequence

An example of Pseudorandom Frequency Hopping Sequence as follow:

Each frequency used equally on the average by each transmitter.

According to Technical Specification, the receivers are designed to have input and IF bandwidths that match the hopping channel bandwidths of any transmitters and shift frequencies in synchronization with the transmitted signals.

Compliance for section 15.247(g):

According to Technical Specification, the system transmits the packet with the pseudorandom hopping frequency with a continuous data and the short burst transmission from the Bluetooth system is also transmitted under the frequency hopping system with the pseudorandom hopping frequency system.

Compliance for section 15.247(h):

According to Technical specification, the system incorporates with an adaptive system to detect other user within the spectrum bands



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## 7 Radio Spectrum Matter Test Results

### 7.1 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(1)

Test Method: ANSI C63.10 (2013) Section 7.8.5

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for $\geq 50$ hopping channels
	0.25 for $25 \leq$ hopping channels $< 50$
	1 for digital modulation
2400-2483.5	1 for $\geq 75$ 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

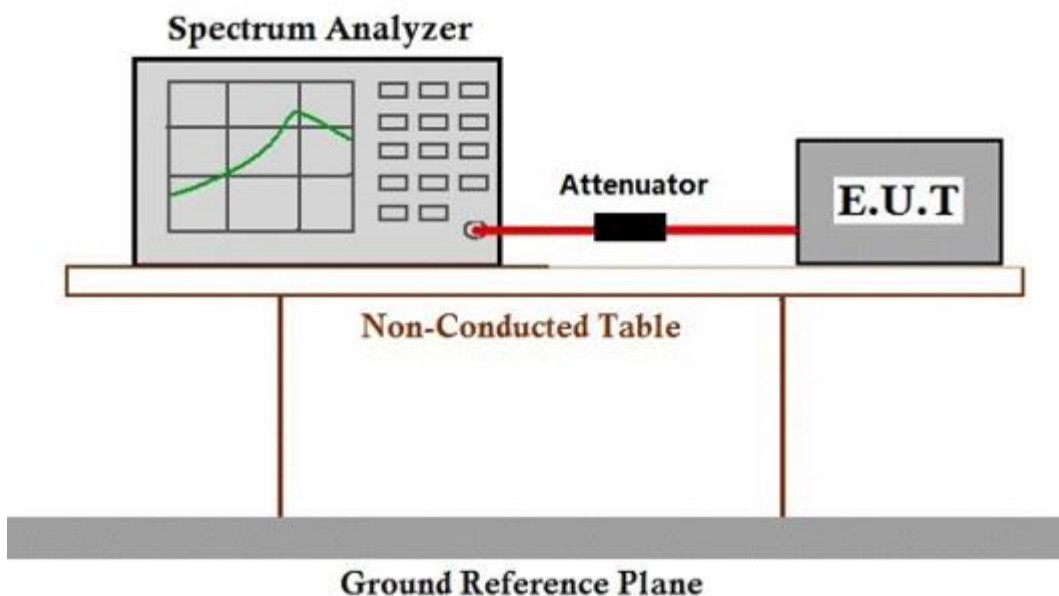
#### 7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C Humidity: 47.9 % RH Atmospheric Pressure: 1020 mbar

Test mode c: TX mode\_non-Hop mode\_Keep the EUT in continuously transmitting mode with GFSK modulation,  $\pi/4$ DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

#### 7.1.2 Test Setup Diagram



#### 7.1.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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## 7.2 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.247(a)(1)

Test Method: ANSI C63.10 (2013) Section 7.8.7

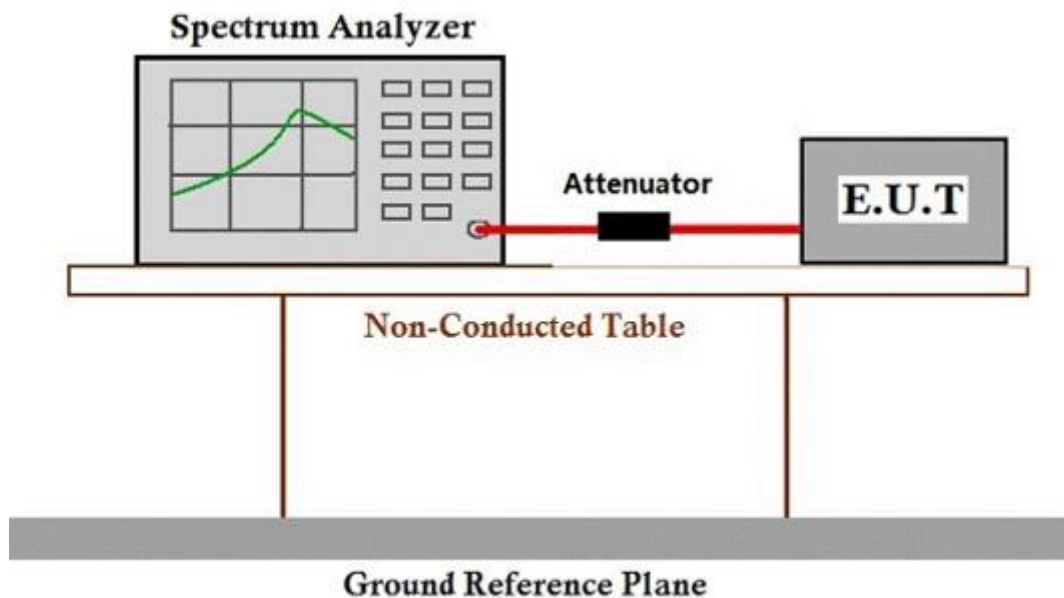
### 7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C Humidity: 47.9 % RH Atmospheric Pressure: 1020 mbar

Test mode c: TX mode\_non-Hop mode\_Keep the EUT in continuously transmitting mode with GFSK modulation,  $\pi/4$ DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

### 7.2.2 Test Setup Diagram



### 7.2.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

### 7.3 Carrier Frequencies Separation

Test Requirement 47 CFR Part 15, Subpart C 15.247a(1)  
 Test Method: ANSI C63.10 (2013) Section 7.8.2  
 Limit: 2/3 of the 20dB bandwidth base on the transmission power is less than 0.125W

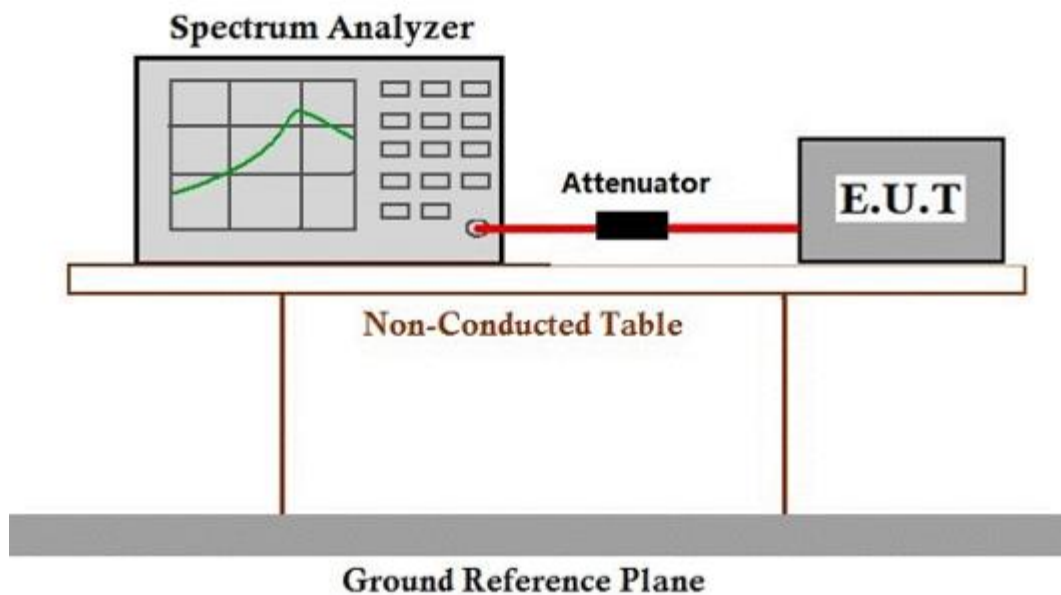
#### 7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C Humidity: 47.9 % RH Atmospheric Pressure: 1020 mbar

Test mode b: TX mode\_Hop mode\_Keep the EUT in frequency hopping mode with GFSK modulation,  $\pi/4$ QPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

#### 7.3.2 Test Setup Diagram



#### 7.3.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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## 7.4 Hopping Channel Number

Test Requirement 47 CFR Part 15, Subpart C 15.247a(1)(iii)

Test Method: ANSI C63.10 (2013) Section 7.8.3

Limit:

Frequency range(MHz)	Number of hopping channels (minimum)
902-928	50 for 20dB bandwidth <250kHz
	25 for 20dB bandwidth ≥250kHz
2400-2483.5	15
5725-5850	75

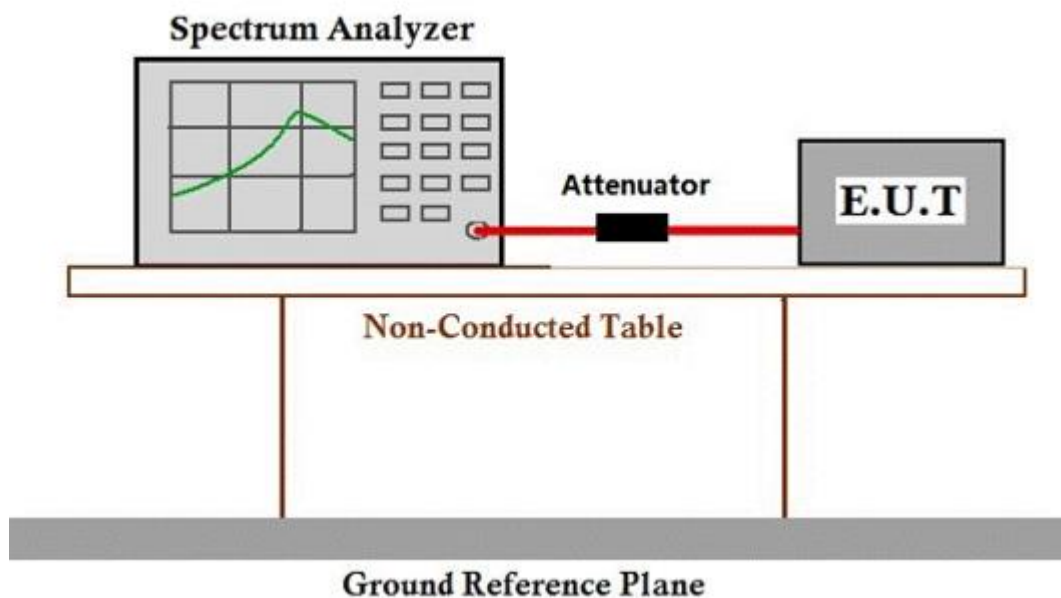
### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C Humidity: 47.9 % RH Atmospheric Pressure: 1020 mbar

Test mode b: TX mode\_Hop mode\_Keep the EUT in frequency hopping mode with GFSK modulation,  $\pi/4$ DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

### 7.4.2 Test Setup Diagram



### 7.4.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

## 7.5 Dwell Time

Test Requirement 47 CFR Part 15, Subpart C 15.247a(1)(iii)

Test Method: ANSI C63.10 (2013) Section 7.8.4

Limit:

Frequency(MHz)	Limit
902-928	0.4S within a 20S period(20dB bandwidth<250kHz)
	0.4S within a 10S period(20dB bandwidth≥250kHz)
2400-2483.5	0.4S within a period of 0.4S multiplied by the number of hopping channels
5725-5850	0.4S within a 30S period

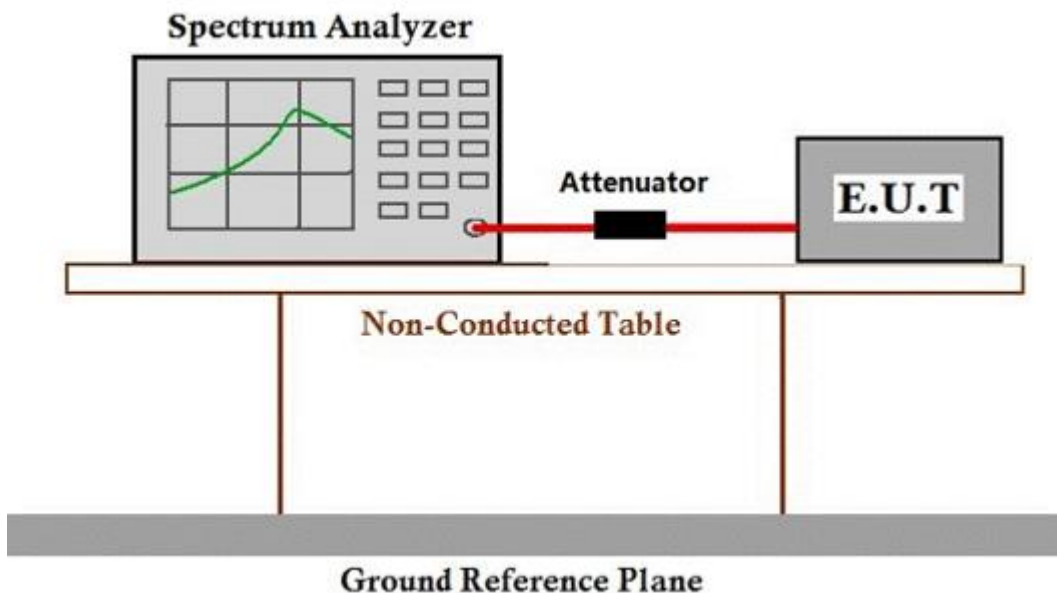
### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C Humidity: 47.9 % RH Atmospheric Pressure: 1020 mbar

Test mode b: TX mode\_Hop mode\_Keep the EUT in frequency hopping mode with GFSK modulation,  $\pi/4$ DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

### 7.5.2 Test Setup Diagram



### 7.5.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



## 7.6 Conducted Band Edges Measurement

Test Requirement	47 CFR Part 15, Subpart C 15.247(d)
Test Method:	ANSI C63.10 (2013) Section 7.8.6
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))

### 7.6.1 E.U.T. Operation

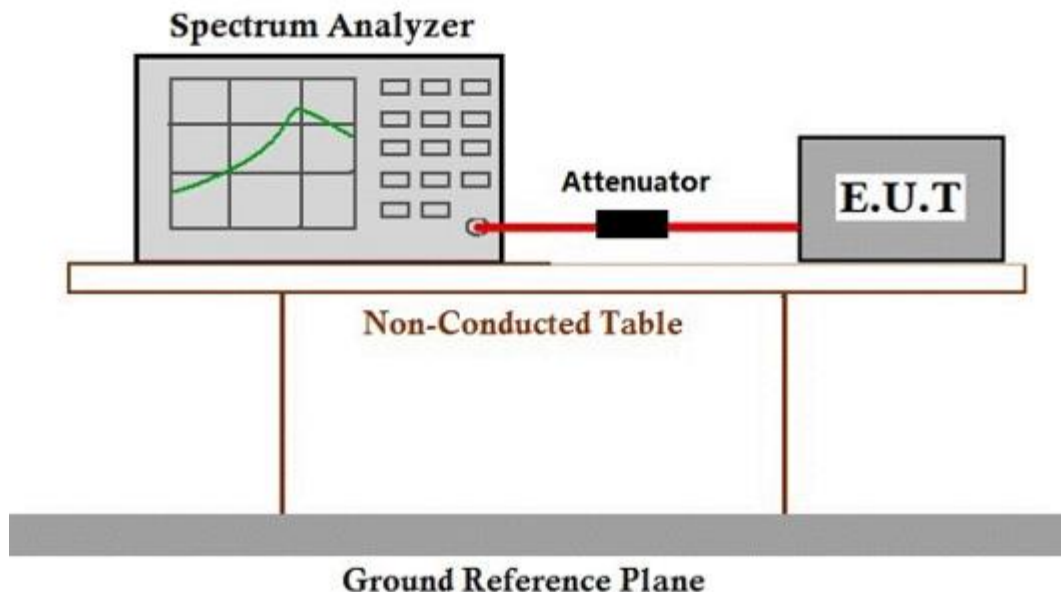
Operating Environment:					
Temperature:	25.4 °C	Humidity:	47.9 % RH	Atmospheric Pressure:	1020 mbar
Pretest these modes to find the worst case:	b: TX mode_Hop mode_Keep the EUT in frequency hopping mode with GFSK modulation, $\pi/4$ DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report. c: TX mode_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, $\pi/4$ DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.				
The worst case for final test:	b: TX mode_Hop mode_Keep the EUT in frequency hopping mode with GFSK modulation, $\pi/4$ DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.				



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## 7.6.2 Test Setup Diagram



## 7.6.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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## 7.7 Conducted Spurious Emissions

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

Test Method: ANSI C63.10 (2013) Section 7.8.8

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))

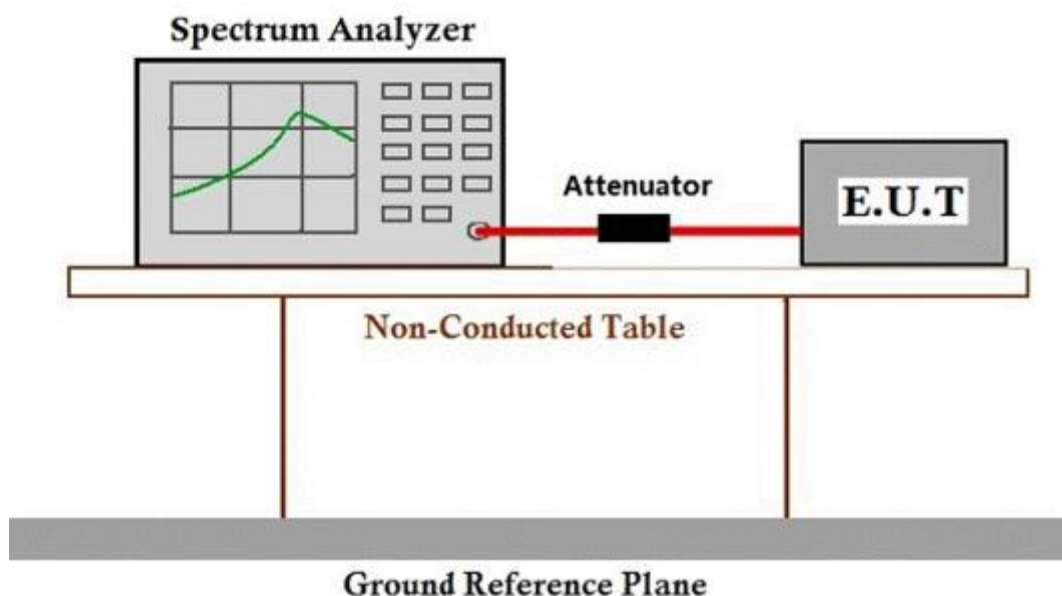
### 7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C Humidity: 47.9 % RH Atmospheric Pressure: 1020 mbar

Test mode c: TX mode\_non-Hop mode\_Keep the EUT in continuously transmitting mode with GFSK modulation,  $\pi/4$ DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

### 7.7.2 Test Setup Diagram



### 7.7.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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## 7.8 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.

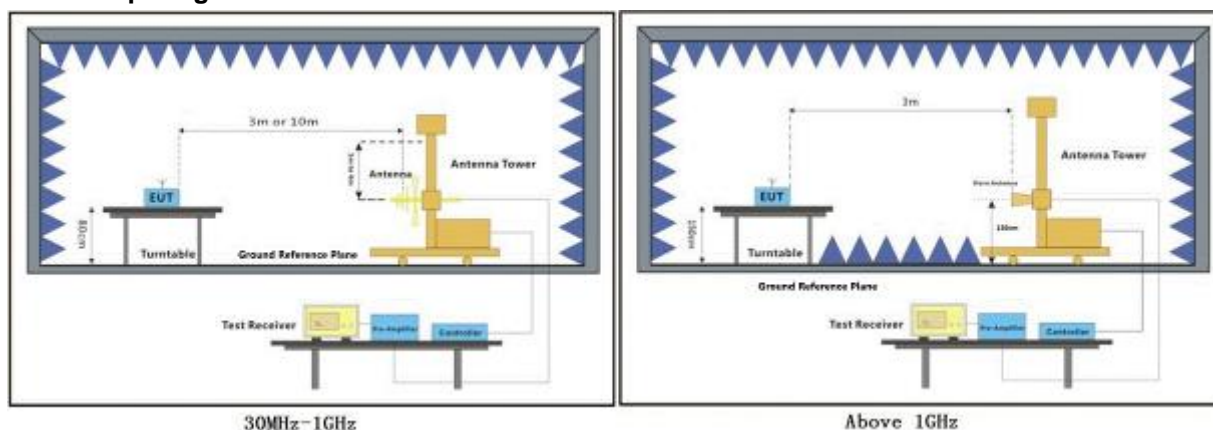
### 7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 23 °C Humidity: 55 % RH Atmospheric Pressure: 1020 mbar

Test mode c: TX mode\_non-Hop mode\_Keep the EUT in continuously transmitting mode with GFSK modulation,  $\pi/4$ DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

### 7.8.2 Test Setup Diagram



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### 7.8.3 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

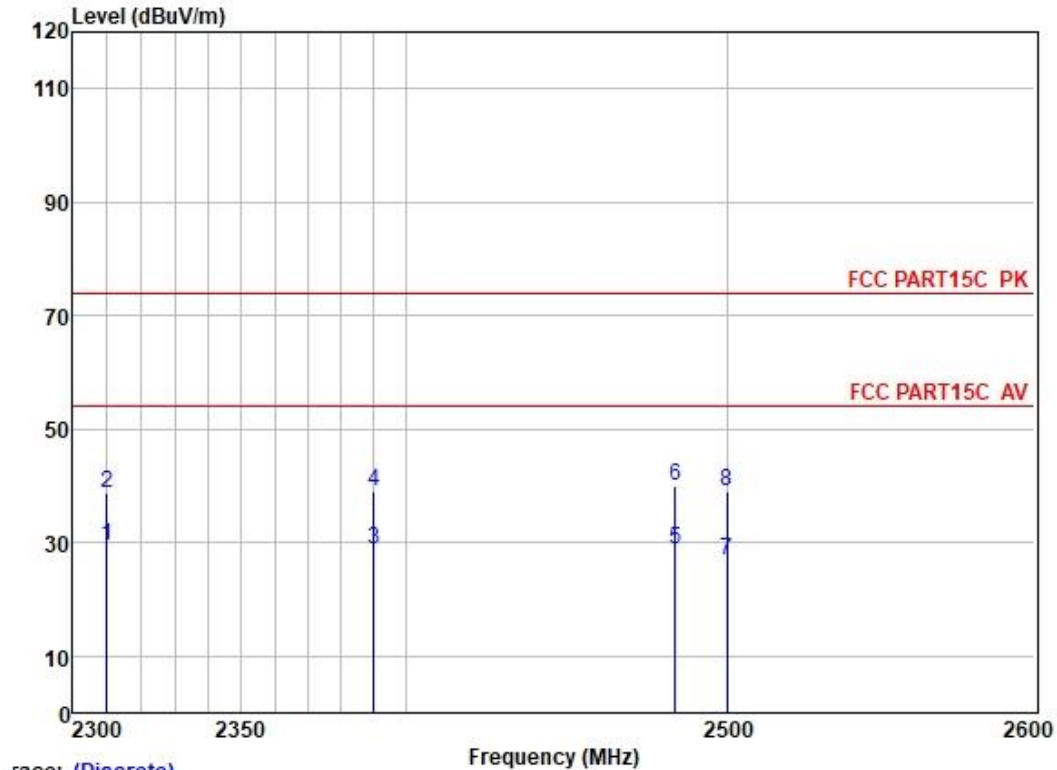


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For left earbud

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



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	35.48	26.25	5.03	37.44	29.32	54.00	-24.68	HORIZONTAL Average
2	2310.000	44.95	26.25	5.03	37.44	38.79	74.00	-35.21	HORIZONTAL Peak
3	2390.000	34.80	26.43	4.88	37.42	28.69	54.00	-25.31	HORIZONTAL Average
4	2390.000	45.22	26.43	4.88	37.42	39.11	74.00	-34.89	HORIZONTAL Peak
5	2483.500	34.37	26.58	5.23	37.40	28.78	54.00	-25.22	HORIZONTAL Average
6	2483.500	45.52	26.58	5.23	37.40	39.93	74.00	-34.07	HORIZONTAL Peak
7	2500.000	32.86	26.60	4.95	37.39	27.02	54.00	-26.98	HORIZONTAL Average
8	2500.000	44.82	26.60	4.95	37.39	38.98	74.00	-35.02	HORIZONTAL Peak



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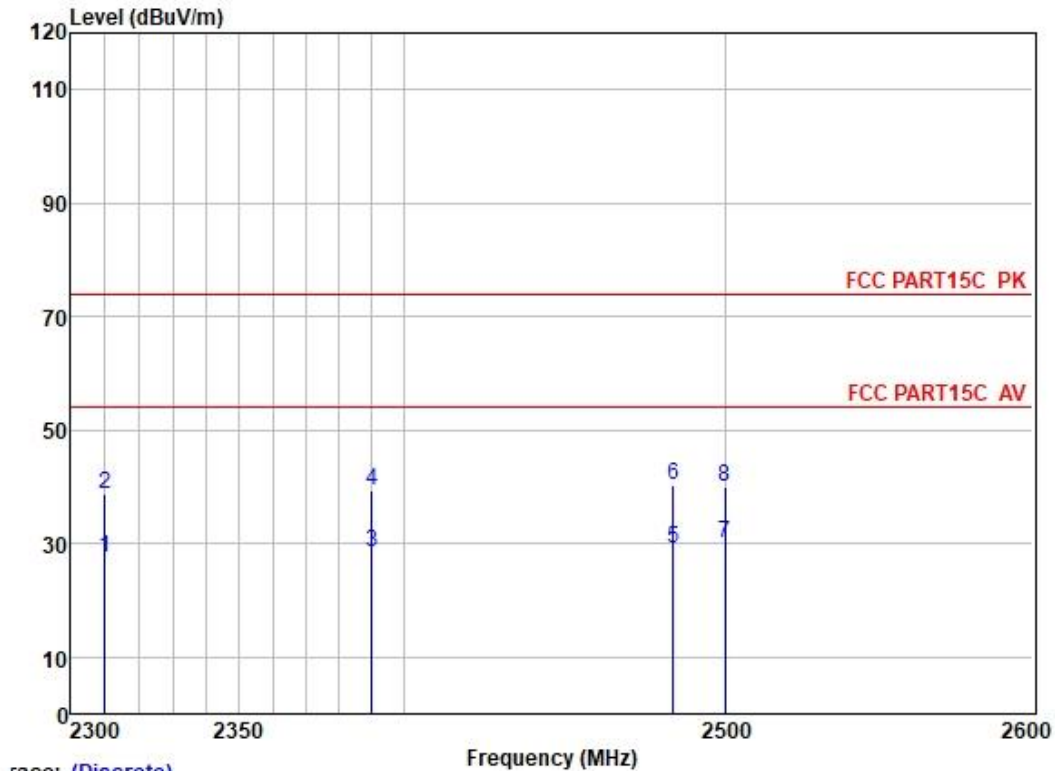
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Mode:c; Polarization:Vertical; Modulation:GFSK; Channel:Low;



Trace: (Discrete)

		ReadAntenna	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	2310.000	33.71	26.25	5.03	37.44	27.55	54.00	-26.45	VERTICAL	Average
2	2310.000	45.02	26.25	5.03	37.44	38.86	74.00	-35.14	VERTICAL	Peak
3	2390.000	34.70	26.43	4.88	37.42	28.59	54.00	-25.41	VERTICAL	Average
4	2390.000	45.49	26.43	4.88	37.42	39.38	74.00	-34.62	VERTICAL	Peak
5	2483.500	34.58	26.58	5.23	37.40	28.99	54.00	-25.01	VERTICAL	Average
6	2483.500	45.86	26.58	5.23	37.40	40.27	74.00	-33.73	VERTICAL	Peak
7	2500.000	35.84	26.60	4.95	37.39	30.00	54.00	-24.00	VERTICAL	Average
8	2500.000	45.99	26.60	4.95	37.39	40.15	74.00	-33.85	VERTICAL	Peak



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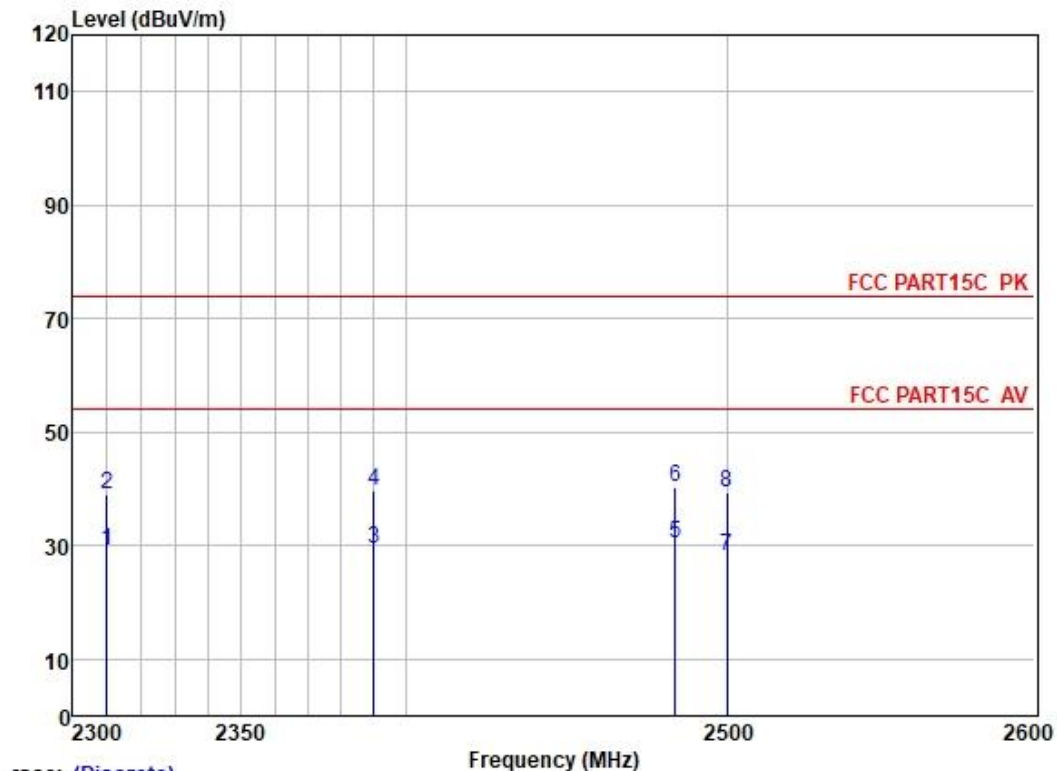
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Mode:c; Polarization:Horizontal; Modulation:GFSK; Channel:High;



	ReadAntenna	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	2310.000	35.24	26.25	5.03	37.44	29.08	54.00	-24.92	HORIZONTAL Average
2	2310.000	45.22	26.25	5.03	37.44	39.06	74.00	-34.94	HORIZONTAL Peak
3	2390.000	35.64	26.43	4.88	37.42	29.53	54.00	-24.47	HORIZONTAL Average
4	2390.000	45.70	26.43	4.88	37.42	39.59	74.00	-34.41	HORIZONTAL Peak
5	2483.500	35.88	26.58	5.23	37.40	30.29	54.00	-23.71	HORIZONTAL Average
6	2483.500	45.88	26.58	5.23	37.40	40.29	74.00	-33.71	HORIZONTAL Peak
7	2500.000	34.02	26.60	4.95	37.39	28.18	54.00	-25.82	HORIZONTAL Average
8	2500.000	45.17	26.60	4.95	37.39	39.33	74.00	-34.67	HORIZONTAL Peak

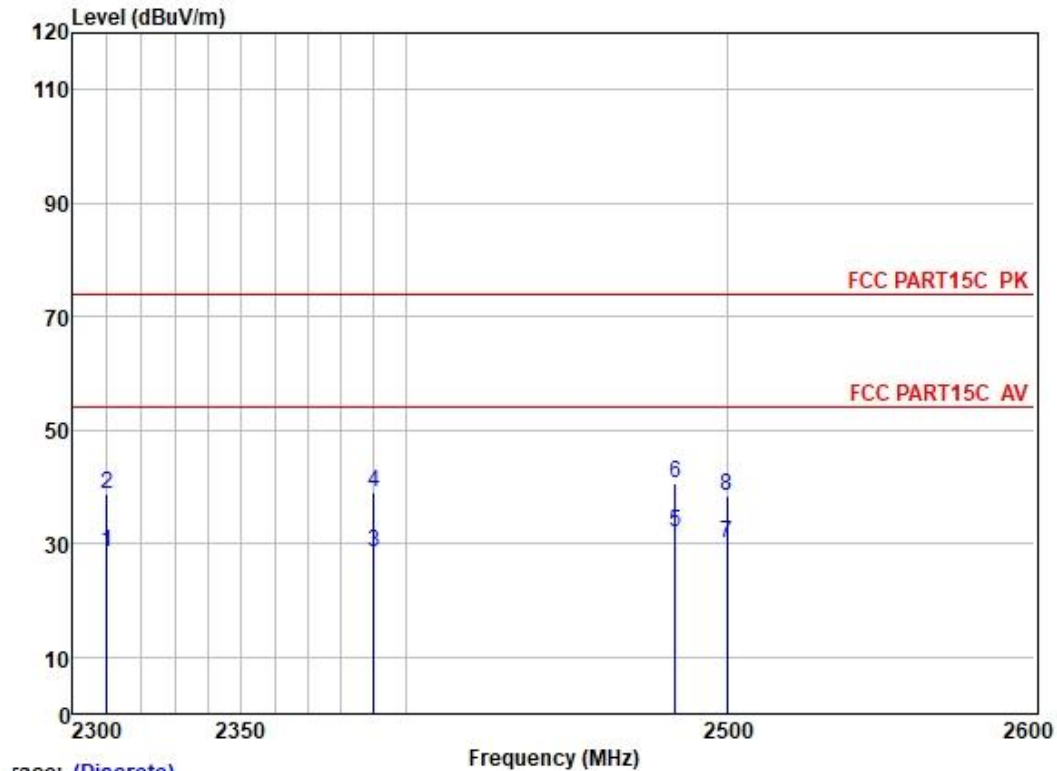


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Mode:c; Polarization:Vertical; Modulation:GFSK; Channel:High;



	ReadAntenna	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	2310.000	34.62	26.25	5.03	37.44	28.46	54.00	-25.54	VERTICAL
2	2310.000	45.03	26.25	5.03	37.44	38.87	74.00	-35.13	VERTICAL
3	2390.000	34.70	26.43	4.88	37.42	28.59	54.00	-25.41	VERTICAL
4	2390.000	45.26	26.43	4.88	37.42	39.15	74.00	-34.85	VERTICAL
5	2483.500	37.59	26.58	5.23	37.40	32.00	54.00	-22.00	VERTICAL
6	2483.500	46.16	26.58	5.23	37.40	40.57	74.00	-33.43	VERTICAL
7	2500.000	35.93	26.60	4.95	37.39	30.09	54.00	-23.91	VERTICAL
8	2500.000	44.36	26.60	4.95	37.39	38.52	74.00	-35.48	VERTICAL

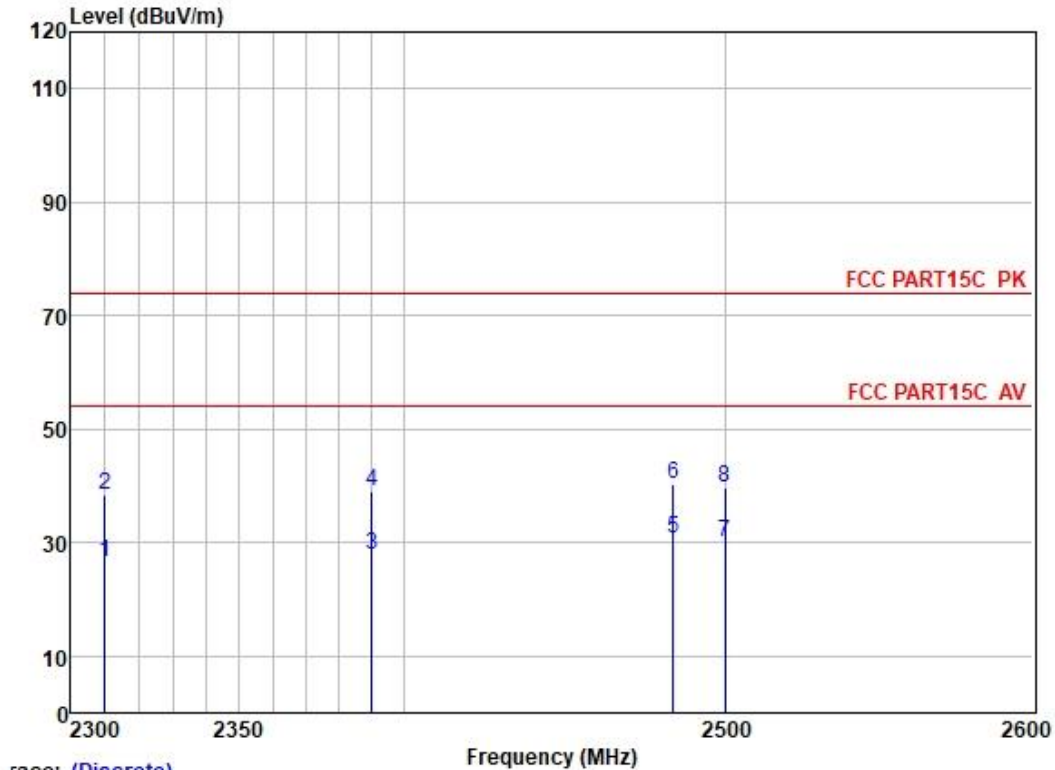


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For right earbud

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



Trace: (Discrete)

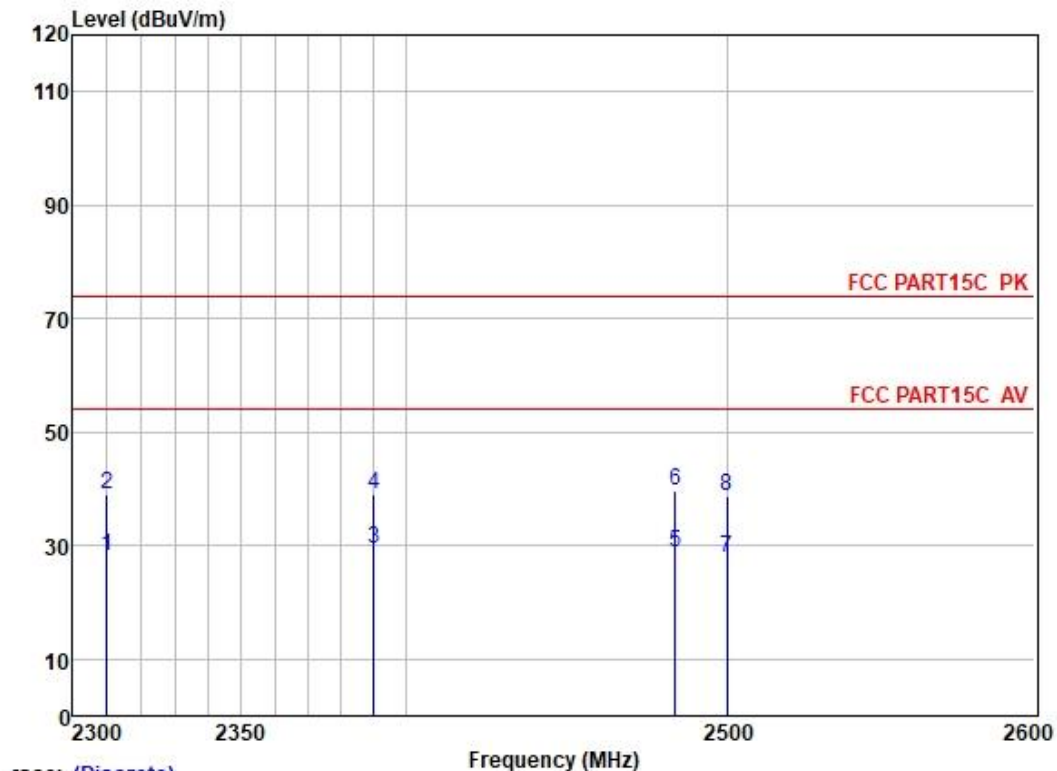
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	32.60	26.25	5.03	37.44	26.44	54.00	-27.56	HORIZONTAL Average
2	2310.000	44.62	26.25	5.03	37.44	38.46	74.00	-35.54	HORIZONTAL Peak
3	2390.000	34.02	26.43	4.88	37.42	27.91	54.00	-26.09	HORIZONTAL Average
4	2390.000	45.22	26.43	4.88	37.42	39.11	74.00	-34.89	HORIZONTAL Peak
5	2483.500	36.37	26.58	5.23	37.40	30.78	54.00	-23.22	HORIZONTAL Average
6	2483.500	45.81	26.58	5.23	37.40	40.22	74.00	-33.78	HORIZONTAL Peak
7	2500.000	35.91	26.60	4.95	37.39	30.07	54.00	-23.93	HORIZONTAL Average
8	2500.000	45.43	26.60	4.95	37.39	39.59	74.00	-34.41	HORIZONTAL Peak



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



	ReadAntenna	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	2310.000	34.47	26.25	5.03	37.44	28.31	54.00	-25.69	VERTICAL
2	2310.000	45.14	26.25	5.03	37.44	38.98	74.00	-35.02	VERTICAL
3	2390.000	35.50	26.43	4.88	37.42	29.39	54.00	-24.61	VERTICAL
4	2390.000	45.17	26.43	4.88	37.42	39.06	74.00	-34.94	VERTICAL
5	2483.500	34.26	26.58	5.23	37.40	28.67	54.00	-25.33	VERTICAL
6	2483.500	45.40	26.58	5.23	37.40	39.81	74.00	-34.19	VERTICAL
7	2500.000	33.64	26.60	4.95	37.39	27.80	54.00	-26.20	VERTICAL
8	2500.000	44.44	26.60	4.95	37.39	38.60	74.00	-35.40	VERTICAL

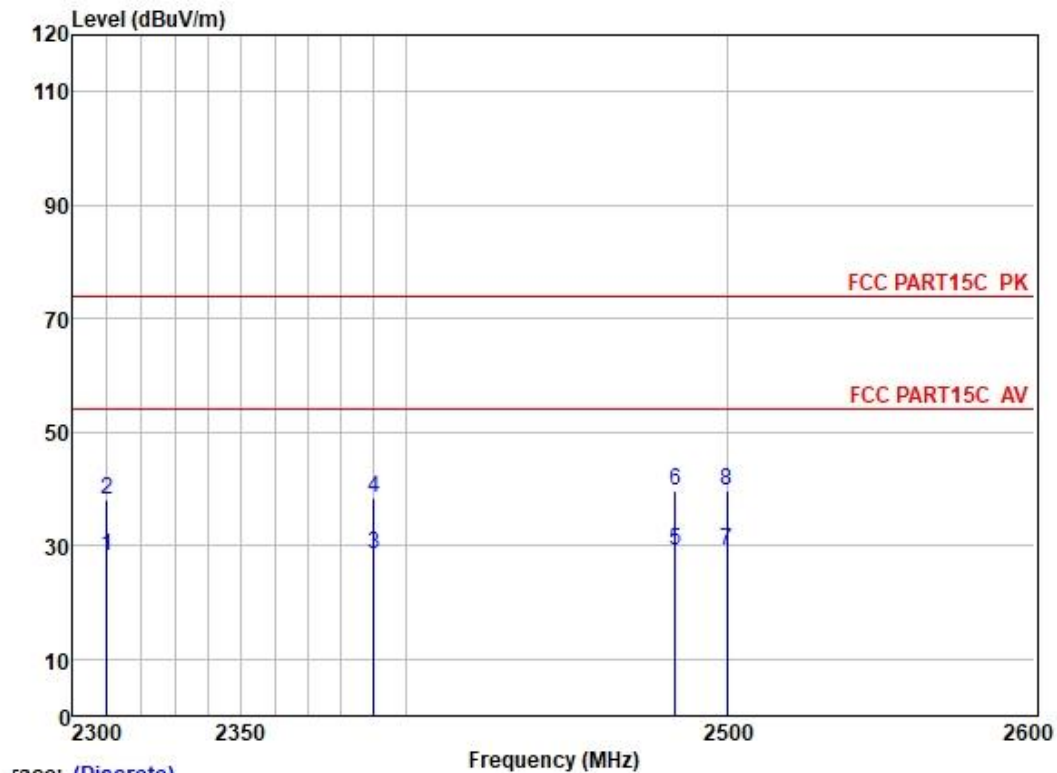


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Mode:c; Polarization:Horizontal; Modulation:GFSK; Channel:High;



Trace: (Discrete)

	ReadAntenna	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	2310.000	34.30	26.25	5.03	37.44	28.14	54.00	-25.86	HORIZONTAL Average
2	2310.000	44.28	26.25	5.03	37.44	38.12	74.00	-35.88	HORIZONTAL Peak
3	2390.000	34.66	26.43	4.88	37.42	28.55	54.00	-25.45	HORIZONTAL Average
4	2390.000	44.50	26.43	4.88	37.42	38.39	74.00	-35.61	HORIZONTAL Peak
5	2483.500	34.59	26.58	5.23	37.40	29.00	54.00	-25.00	HORIZONTAL Average
6	2483.500	45.19	26.58	5.23	37.40	39.60	74.00	-34.40	HORIZONTAL Peak
7	2500.000	34.92	26.60	4.95	37.39	29.08	54.00	-24.92	HORIZONTAL Average
8	2500.000	45.50	26.60	4.95	37.39	39.66	74.00	-34.34	HORIZONTAL Peak



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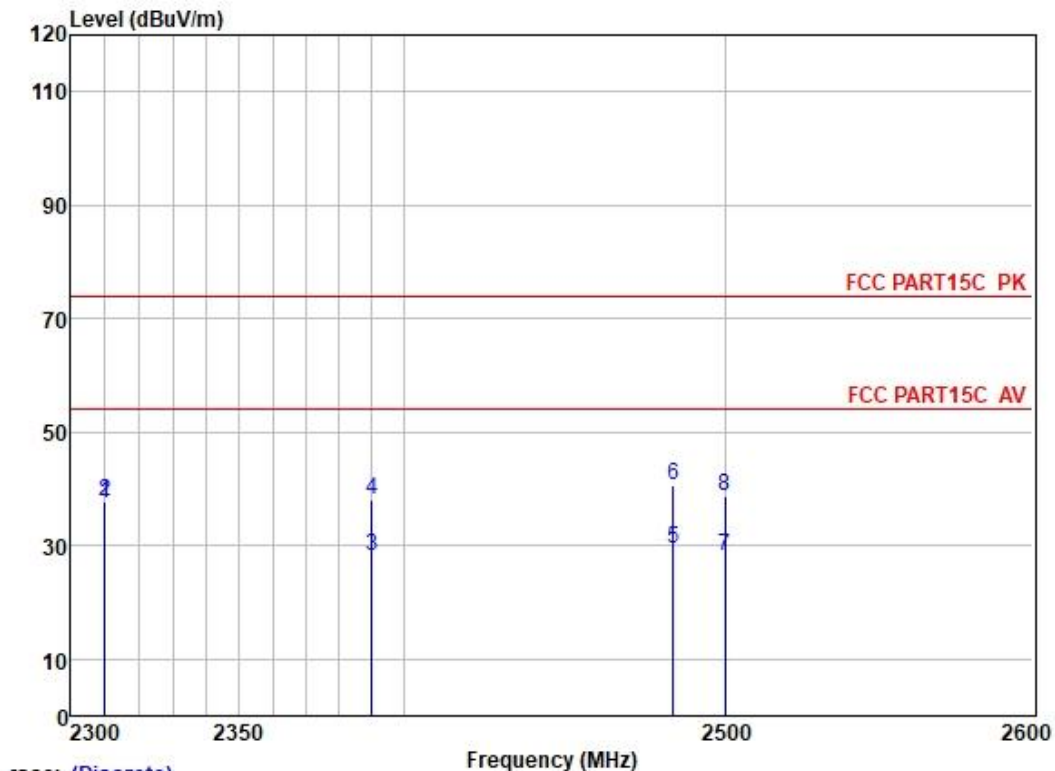
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Mode:c; Polarization:Vertical; Modulation:GFSK; Channel:High;



Trace: (Discrete)

	ReadAntenna	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	2310.000	43.61	26.25	5.03	37.44	37.45	54.00	-16.55	VERTICAL
2	2310.000	43.95	26.25	5.03	37.44	37.79	74.00	-36.21	VERTICAL
3	2390.000	34.36	26.43	4.88	37.42	28.25	54.00	-25.75	VERTICAL
4	2390.000	44.30	26.43	4.88	37.42	38.19	74.00	-35.81	VERTICAL
5	2483.500	35.04	26.58	5.23	37.40	29.45	54.00	-24.55	VERTICAL
6	2483.500	46.20	26.58	5.23	37.40	40.61	74.00	-33.39	VERTICAL
7	2500.000	33.96	26.60	4.95	37.39	28.12	54.00	-25.88	VERTICAL
8	2500.000	44.66	26.60	4.95	37.39	38.82	74.00	-35.18	VERTICAL



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## 7.9 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.

### 7.9.1 E.U.T. Operation

Operating Environment:

Temperature: 23.1 °C Humidity: 55.1 % RH Atmospheric Pressure: 1020 mbar

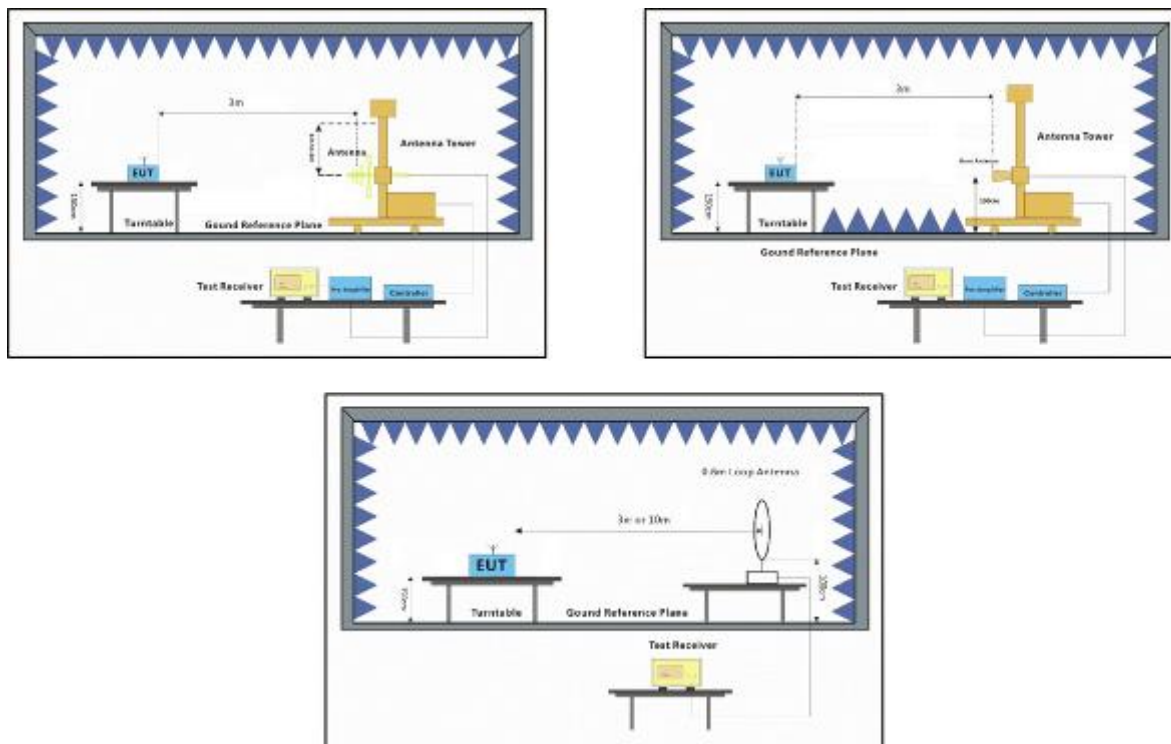
Test mode c: TX mode\_non-Hop mode\_Keep the EUT in continuously transmitting mode with GFSK modulation,  $\pi/4$ DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.



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## 7.9.2 Test Setup Diagram





### 7.9.3 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:

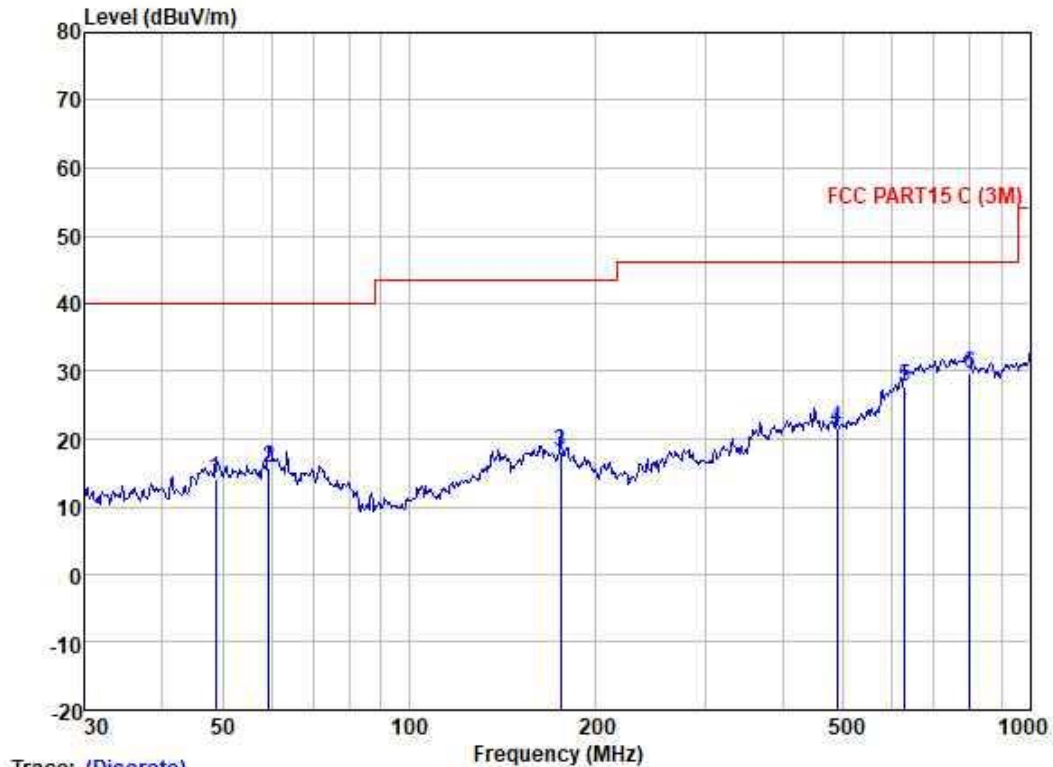
- 1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:  
 Final 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





For left earbud

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



Trace: (Discrete)

	ReadAntenna	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	48.672	26.06	13.97	1.19	27.17	14.05	40.00	-25.95	HORIZONTAL QP
2	59.441	28.11	13.46	1.32	27.16	15.73	40.00	-24.27	HORIZONTAL QP
3	175.037	29.93	12.60	2.31	26.82	18.02	43.50	-25.48	HORIZONTAL QP
4	489.027	27.73	17.77	4.06	28.04	21.52	46.00	-24.48	HORIZONTAL QP
5	629.477	30.45	20.40	4.94	28.08	27.71	46.00	-18.29	HORIZONTAL QP
6	798.980	29.00	22.60	5.99	28.12	29.47	46.00	-16.53	HORIZONTAL QP



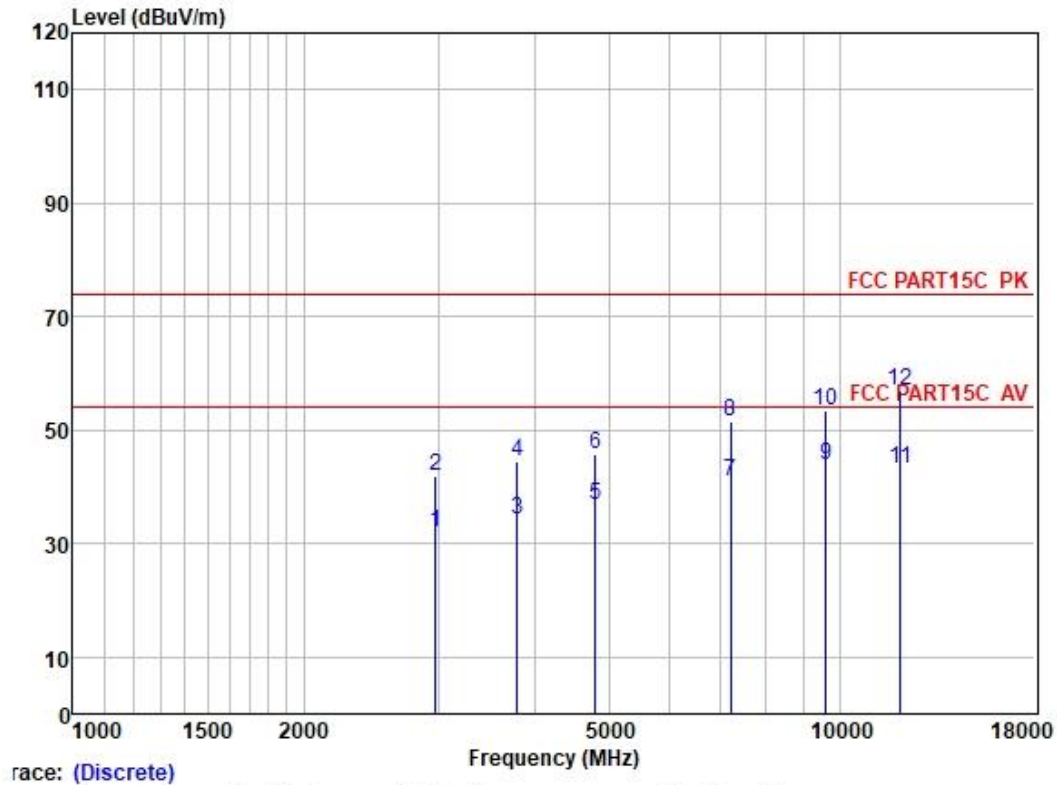
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Mode:c; Polarization:Horizontal; Modulation:GFSK; Channel:Low;



Trace: (Discrete)

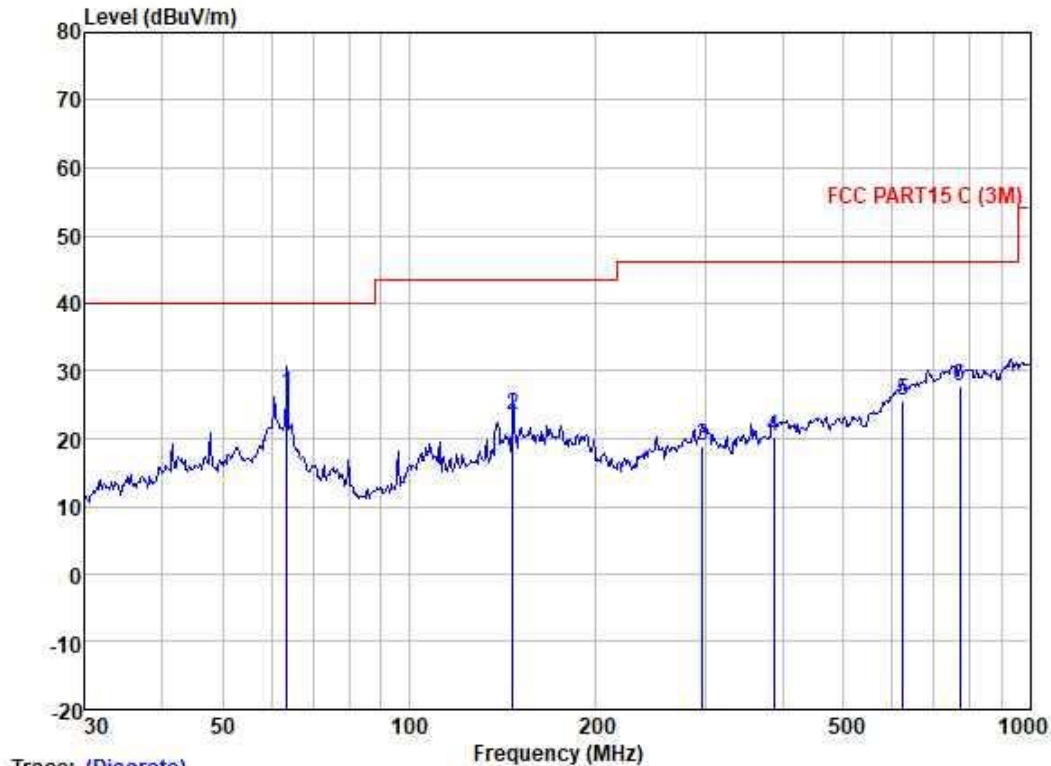
	ReadAntenna	Cable	Preamp	Limit	Over				
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2973.293	36.54	27.87	4.67	37.09	31.99	54.00	-22.01	HORIZONTAL Average
2	2973.293	46.37	27.87	4.67	37.09	41.82	74.00	-32.18	HORIZONTAL Peak
3	3801.333	34.28	29.01	7.89	36.92	34.26	54.00	-19.74	HORIZONTAL Average
4	3801.333	44.45	29.01	7.89	36.92	44.43	74.00	-29.57	HORIZONTAL Peak
5	4804.721	36.95	30.79	5.87	36.94	36.67	54.00	-17.33	HORIZONTAL Average
6	4804.721	46.02	30.79	5.87	36.94	45.74	74.00	-28.26	HORIZONTAL Peak
7	7206.888	35.15	35.45	7.34	36.93	41.01	54.00	-12.99	HORIZONTAL Average
8	7206.888	45.52	35.45	7.34	36.93	51.38	74.00	-22.62	HORIZONTAL Peak
9	9608.603	35.28	37.51	8.15	37.08	43.86	54.00	-10.14	HORIZONTAL Average
10	9608.603	44.97	37.51	8.15	37.08	53.55	74.00	-20.45	HORIZONTAL Peak
11	12010.270	30.09	39.50	10.67	37.20	43.06	54.00	-10.94	HORIZONTAL Average
12	12010.270	43.85	39.50	10.67	37.20	56.82	74.00	-17.18	HORIZONTAL Peak



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



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	63.536	39.54	12.95	1.30	27.16	26.63	40.00	-13.37	VERTICAL	QP
2	146.888	34.73	13.70	2.03	26.90	23.56	43.50	-19.94	VERTICAL	QP
3	296.184	29.53	13.52	2.94	27.17	18.82	46.00	-27.18	VERTICAL	QP
4	386.634	29.07	15.53	3.57	27.87	20.30	46.00	-25.70	VERTICAL	QP
5	625.078	28.39	20.40	4.94	28.08	25.65	46.00	-20.35	VERTICAL	QP
6	771.449	28.18	22.22	5.37	28.12	27.65	46.00	-18.35	VERTICAL	QP

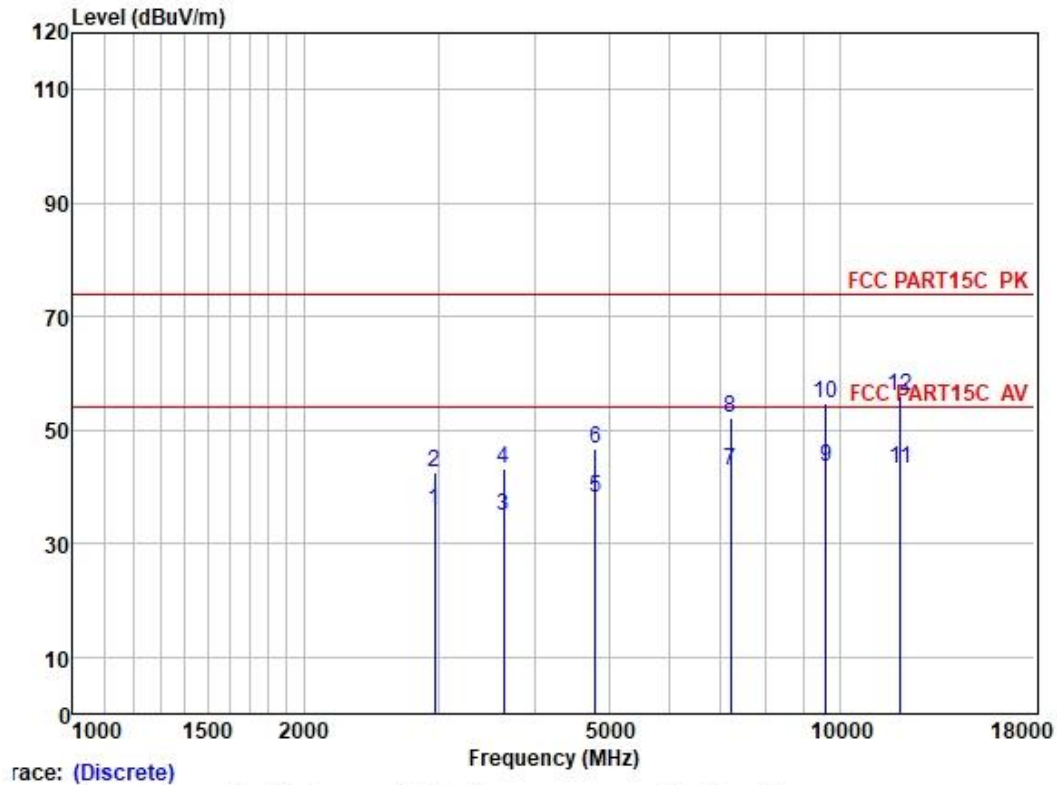


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Mode:c; Polarization:Vertical; Modulation:GFSK; Channel:Low;



Trace: (Discrete)

	ReadAntenna	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	2964.712	40.28	27.85	4.69	37.09	35.73	54.00	-18.27	VERTICAL
2	2964.712	47.13	27.85	4.69	37.09	42.58	74.00	-31.42	VERTICAL
3	3650.582	36.90	28.31	6.75	36.93	35.03	54.00	-18.97	VERTICAL
4	3650.582	45.06	28.31	6.75	36.93	43.19	74.00	-30.81	VERTICAL
5	4804.490	38.42	30.79	5.87	36.94	38.14	54.00	-15.86	VERTICAL
6	4804.490	47.07	30.79	5.87	36.94	46.79	74.00	-27.21	VERTICAL
7	7206.034	36.97	35.45	7.34	36.93	42.83	54.00	-11.17	VERTICAL
8	7206.034	46.34	35.45	7.34	36.93	52.20	74.00	-21.80	VERTICAL
9	9608.820	35.04	37.51	8.15	37.08	43.62	54.00	-10.38	VERTICAL
10	9608.820	46.25	37.51	8.15	37.08	54.83	74.00	-19.17	VERTICAL
11	12010.130	30.17	39.50	10.67	37.20	43.14	54.00	-10.86	VERTICAL
12	12010.130	43.02	39.50	10.67	37.20	55.99	74.00	-18.01	VERTICAL

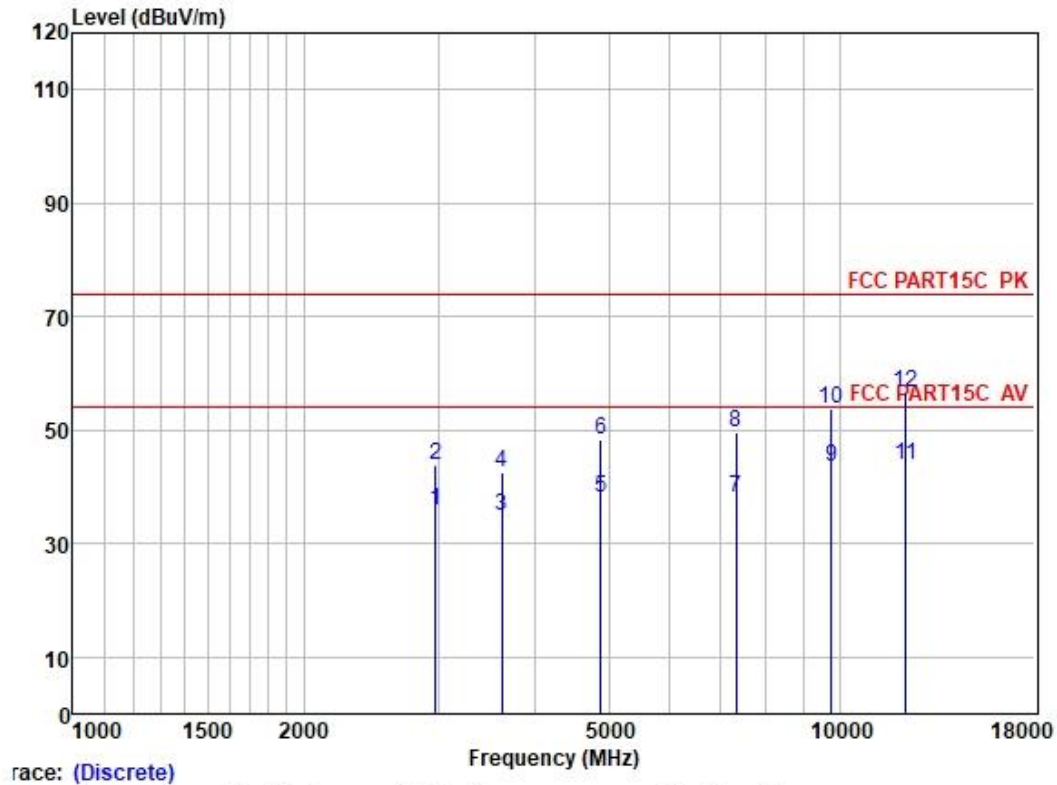


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Mode:c; Polarization:Horizontal; Modulation:GFSK; Channel:middle;



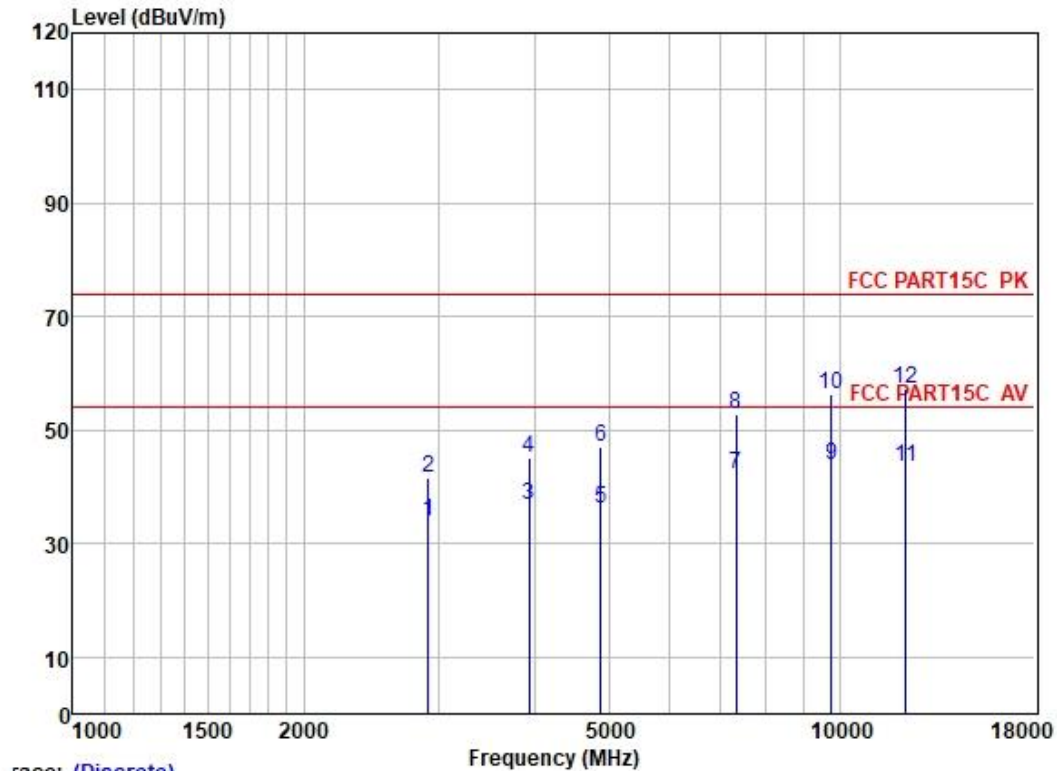
	ReadAntenna	Cable	Preamp	Limit	Over				
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2973.293	40.36	27.87	4.67	37.09	35.81	54.00	-18.19	VERTICAL
2	2973.293	48.43	27.87	4.67	37.09	43.88	74.00	-30.12	VERTICAL
3	3629.540	36.96	28.24	6.59	36.94	34.85	54.00	-19.15	VERTICAL
4	3629.540	44.66	28.24	6.59	36.94	42.55	74.00	-31.45	VERTICAL
5	4882.151	37.14	30.95	6.86	36.95	38.00	54.00	-16.00	VERTICAL
6	4882.151	47.61	30.95	6.86	36.95	48.47	74.00	-25.53	VERTICAL
7	7323.172	32.02	35.74	7.39	36.92	38.23	54.00	-15.77	VERTICAL
8	7323.172	43.45	35.74	7.39	36.92	49.66	74.00	-24.34	VERTICAL
9	9764.151	34.71	37.70	8.33	37.09	43.65	54.00	-10.35	VERTICAL
10	9764.151	44.82	37.70	8.33	37.09	53.76	74.00	-20.24	VERTICAL
11	12205.280	30.55	39.21	10.98	37.06	43.68	54.00	-10.32	VERTICAL
12	12205.280	43.64	39.21	10.98	37.06	56.77	74.00	-17.23	VERTICAL



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



Trace: (Discrete)

	ReadAntenna	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	2905.331	38.55	27.76	4.85	37.13	34.03	54.00	-19.97	HORIZONTAL Average
2	2905.331	46.11	27.76	4.85	37.13	41.59	74.00	-32.41	HORIZONTAL Peak
3	3935.493	36.95	29.37	7.43	36.90	36.85	54.00	-17.15	HORIZONTAL Average
4	3935.493	45.29	29.37	7.43	36.90	45.19	74.00	-28.81	HORIZONTAL Peak
5	4882.200	35.15	30.95	6.86	36.95	36.01	54.00	-17.99	HORIZONTAL Average
6	4882.200	46.08	30.95	6.86	36.95	46.94	74.00	-27.06	HORIZONTAL Peak
7	7323.020	36.02	35.74	7.39	36.92	42.23	54.00	-11.77	HORIZONTAL Average
8	7323.020	46.50	35.74	7.39	36.92	52.71	74.00	-21.29	HORIZONTAL Peak
9	9764.710	35.05	37.70	8.33	37.09	43.99	54.00	-10.01	HORIZONTAL Average
10	9764.710	47.28	37.70	8.33	37.09	56.22	74.00	-17.78	HORIZONTAL Peak
11	12205.420	30.33	39.21	10.98	37.06	43.46	54.00	-10.54	HORIZONTAL Average
12	12205.420	44.13	39.21	10.98	37.06	57.26	74.00	-16.74	HORIZONTAL Peak

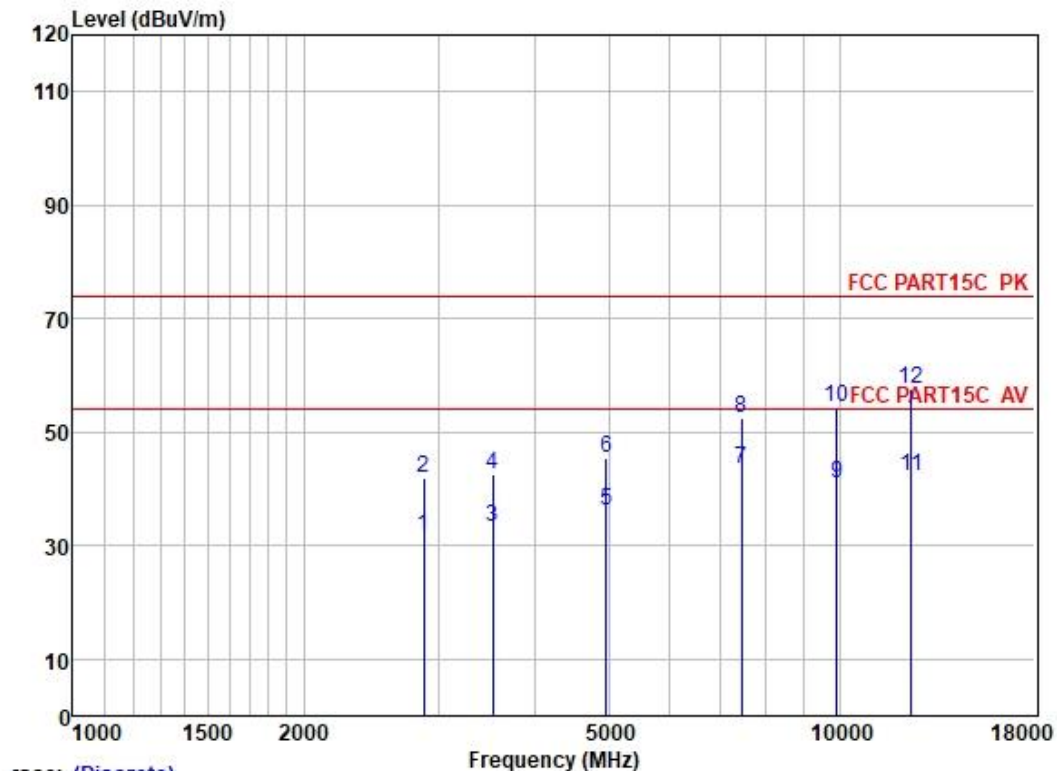


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Mode:c; Polarization:Horizontal; Modulation:GFSK; Channel:High;



Trace: (Discrete)

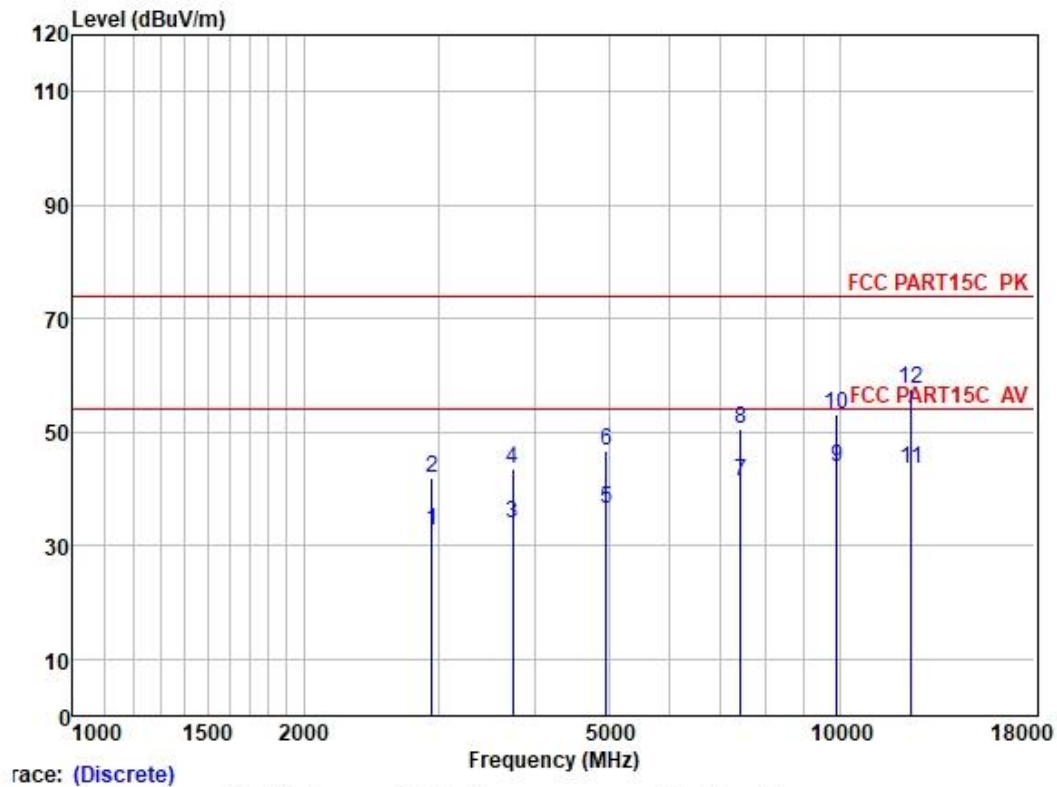
	ReadAntenna	Cable	Preamp	Limit	Over				
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2871.934	36.28	27.70	4.83	37.15	31.66	54.00	-22.34	HORIZONTAL Average
2	2871.934	46.40	27.70	4.83	37.15	41.78	74.00	-32.22	HORIZONTAL Peak
3	3526.134	36.25	27.96	6.11	36.95	33.37	54.00	-20.63	HORIZONTAL Average
4	3526.134	45.57	27.96	6.11	36.95	42.69	74.00	-31.31	HORIZONTAL Peak
5	4960.339	34.18	31.05	7.84	36.96	36.11	54.00	-17.89	HORIZONTAL Average
6	4960.339	43.63	31.05	7.84	36.96	45.56	74.00	-28.44	HORIZONTAL Peak
7	7440.914	36.99	35.92	7.43	36.92	43.42	54.00	-10.58	HORIZONTAL Average
8	7440.914	46.19	35.92	7.43	36.92	52.62	74.00	-21.38	HORIZONTAL Peak
9	9920.151	31.58	37.92	8.63	37.10	41.03	54.00	-12.97	HORIZONTAL Average
10	9920.151	44.89	37.92	8.63	37.10	54.34	74.00	-19.66	HORIZONTAL Peak
11	12400.070	29.11	38.93	11.17	36.90	42.31	54.00	-11.69	HORIZONTAL Average
12	12400.070	44.33	38.93	11.17	36.90	57.53	74.00	-16.47	HORIZONTAL Peak



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



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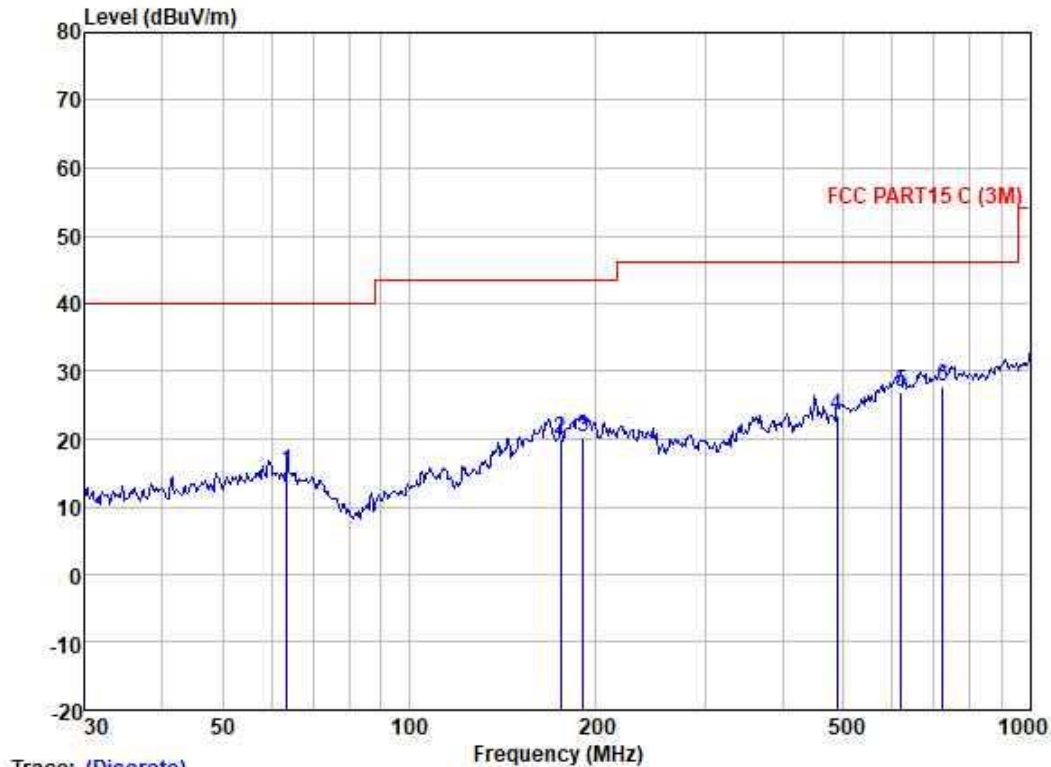
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Guangzhou Branch, Inspection & Testing Services

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中国·广州·经济技术开发区科学城科珠路196号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



For right earbud

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



Trace: (Discrete)

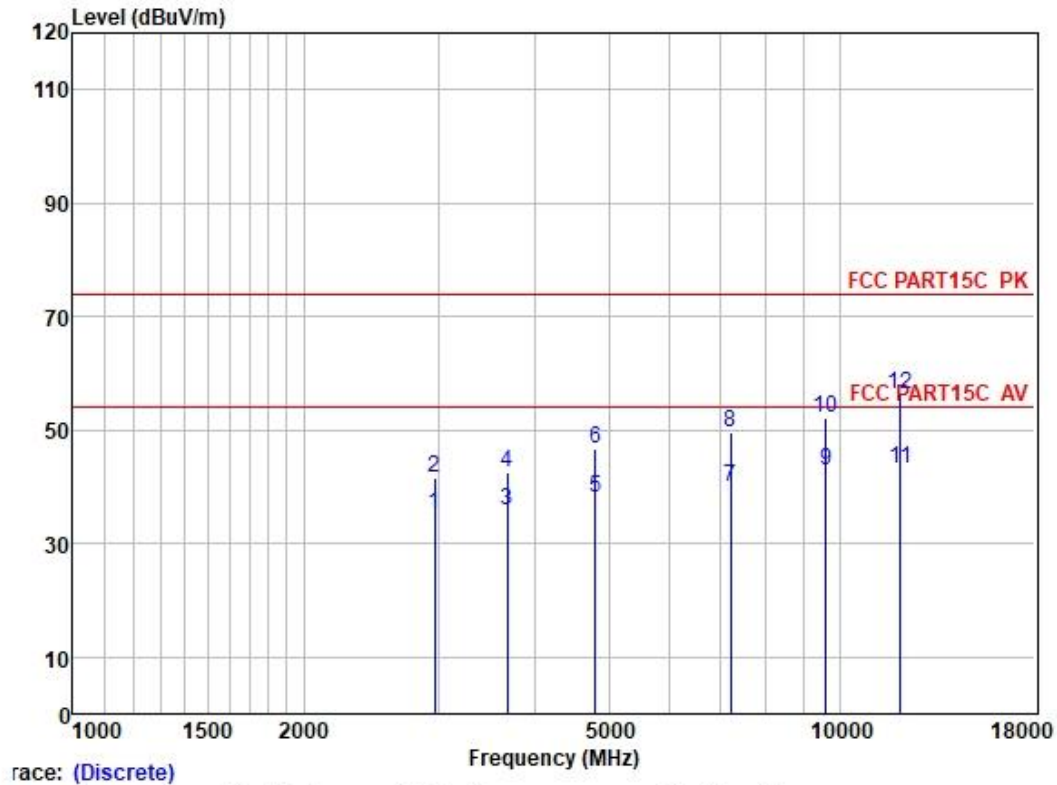
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	63.536	28.05	12.95	1.30	27.16	15.14	40.00	-24.86	HORIZONTAL	QP
2	175.037	31.93	12.60	2.31	26.82	20.02	43.50	-23.48	HORIZONTAL	QP
3	190.405	33.69	10.97	2.44	26.80	20.30	43.50	-23.20	HORIZONTAL	QP
4	489.027	29.73	17.77	4.06	28.04	23.52	46.00	-22.48	HORIZONTAL	QP
5	620.710	29.73	20.40	4.91	28.08	26.96	46.00	-19.04	HORIZONTAL	QP
6	724.261	29.14	21.65	5.16	28.11	27.84	46.00	-18.16	HORIZONTAL	QP



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



Trace: (Discrete)

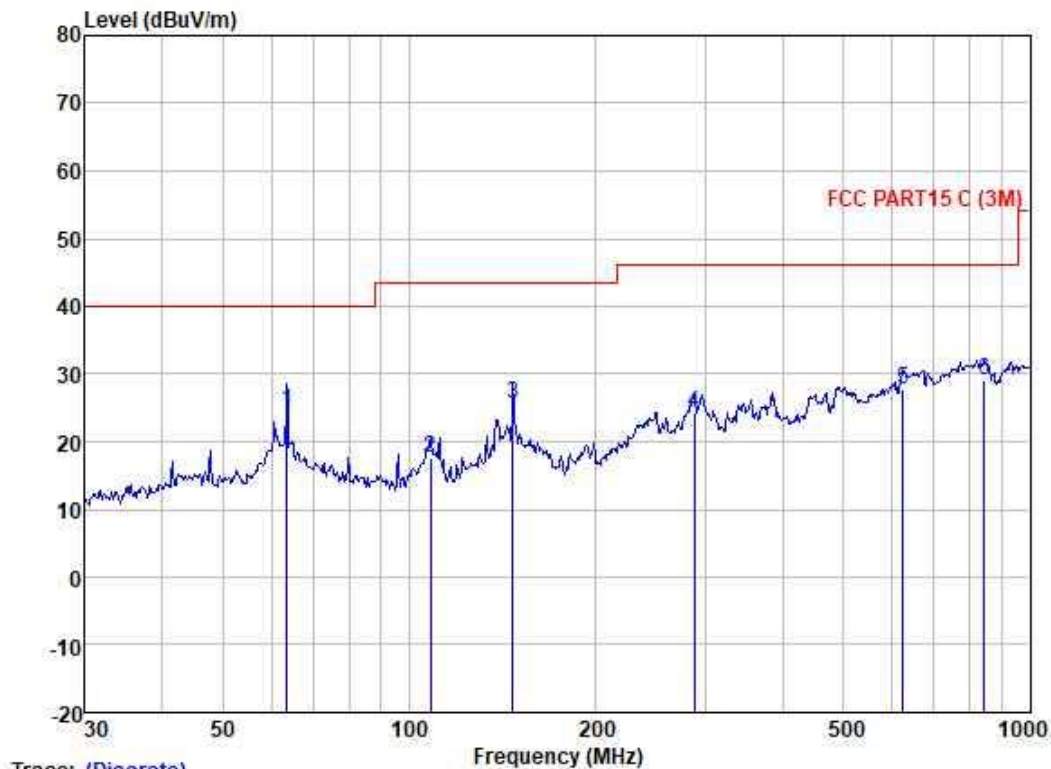
	ReadAntenna	Cable	Preamp	Limit	Over				
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2964.712	39.65	27.85	4.69	37.09	35.10	54.00	-18.90	HORIZONTAL Average
2	2964.712	46.29	27.85	4.69	37.09	41.74	74.00	-32.26	HORIZONTAL Peak
3	3682.374	37.45	28.43	7.03	36.93	35.98	54.00	-18.02	HORIZONTAL Average
4	3682.374	44.12	28.43	7.03	36.93	42.65	74.00	-31.35	HORIZONTAL Peak
5	4804.499	38.50	30.79	5.87	36.94	38.22	54.00	-15.78	HORIZONTAL Average
6	4804.499	46.99	30.79	5.87	36.94	46.71	74.00	-27.29	HORIZONTAL Peak
7	7206.144	34.21	35.45	7.34	36.93	40.07	54.00	-13.93	HORIZONTAL Average
8	7206.144	43.62	35.45	7.34	36.93	49.48	74.00	-24.52	HORIZONTAL Peak
9	9608.972	34.20	37.51	8.15	37.08	42.78	54.00	-11.22	HORIZONTAL Average
10	9608.972	43.52	37.51	8.15	37.08	52.10	74.00	-21.90	HORIZONTAL Peak
11	12010.390	30.25	39.50	10.67	37.20	43.22	54.00	-10.78	HORIZONTAL Average
12	12010.390	43.44	39.50	10.67	37.20	56.41	74.00	-17.59	HORIZONTAL Peak



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



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preampl		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	63.536	37.54	12.95	1.30	27.16	24.63	40.00	-15.37	VERTICAL	QP
2	108.267	32.58	10.32	1.70	27.08	17.52	43.50	-25.98	VERTICAL	QP
3	146.888	36.73	13.70	2.03	26.90	25.56	43.50	-17.94	VERTICAL	QP
4	287.990	35.10	13.37	2.88	27.12	24.23	46.00	-21.77	VERTICAL	QP
5	625.078	30.39	20.40	4.94	28.08	27.65	46.00	-18.35	VERTICAL	QP
6	845.088	28.68	22.75	5.83	28.07	29.19	46.00	-16.81	VERTICAL	QP

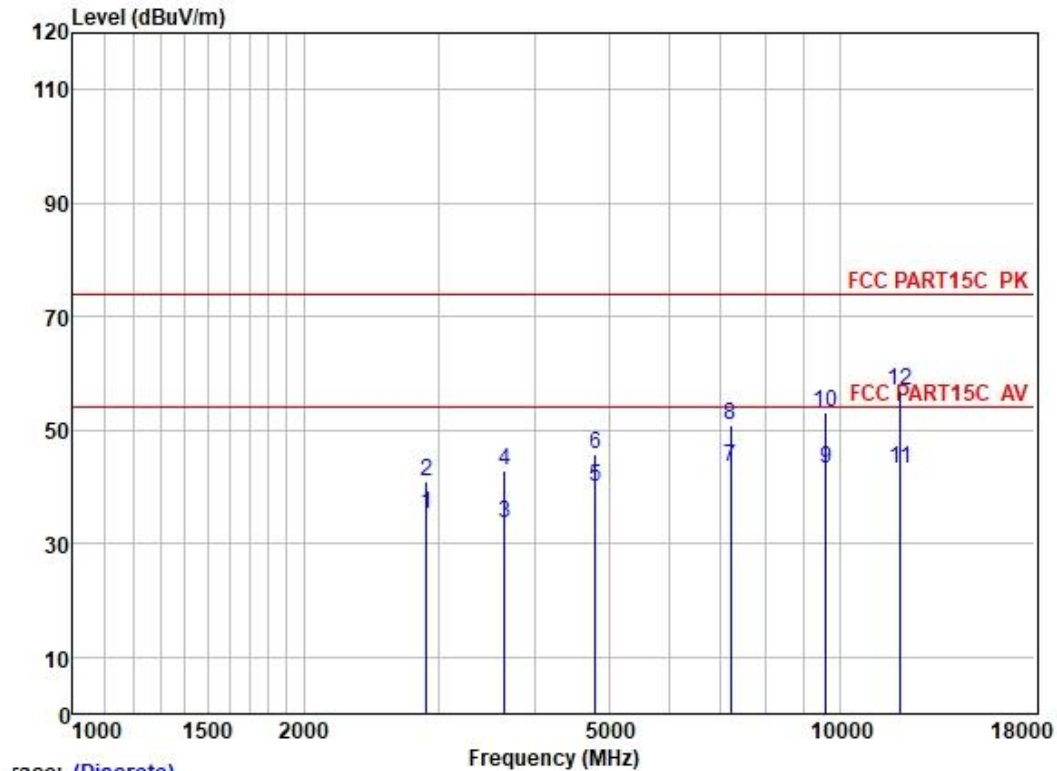


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Mode:c; Polarization:Vertical; Modulation:GFSK; Channel:Low;



	ReadAntenna	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	2888.584	39.65	27.73	4.86	37.14	35.10	54.00	-18.90	VERTICAL
2	2888.584	45.66	27.73	4.86	37.14	41.11	74.00	-32.89	VERTICAL
3	3661.149	35.29	28.34	6.83	36.93	33.53	54.00	-20.47	VERTICAL
4	3661.149	44.72	28.34	6.83	36.93	42.96	74.00	-31.04	VERTICAL
5	4804.993	40.13	30.79	5.87	36.94	39.85	54.00	-14.15	VERTICAL
6	4804.993	46.10	30.79	5.87	36.94	45.82	74.00	-28.18	VERTICAL
7	7206.015	37.65	35.45	7.34	36.93	43.51	54.00	-10.49	VERTICAL
8	7206.015	45.07	35.45	7.34	36.93	50.93	74.00	-23.07	VERTICAL
9	9608.710	34.52	37.51	8.15	37.08	43.10	54.00	-10.90	VERTICAL
10	9608.710	44.58	37.51	8.15	37.08	53.16	74.00	-20.84	VERTICAL
11	12010.760	30.22	39.50	10.67	37.20	43.19	54.00	-10.81	VERTICAL
12	12010.760	44.14	39.50	10.67	37.20	57.11	74.00	-16.89	VERTICAL



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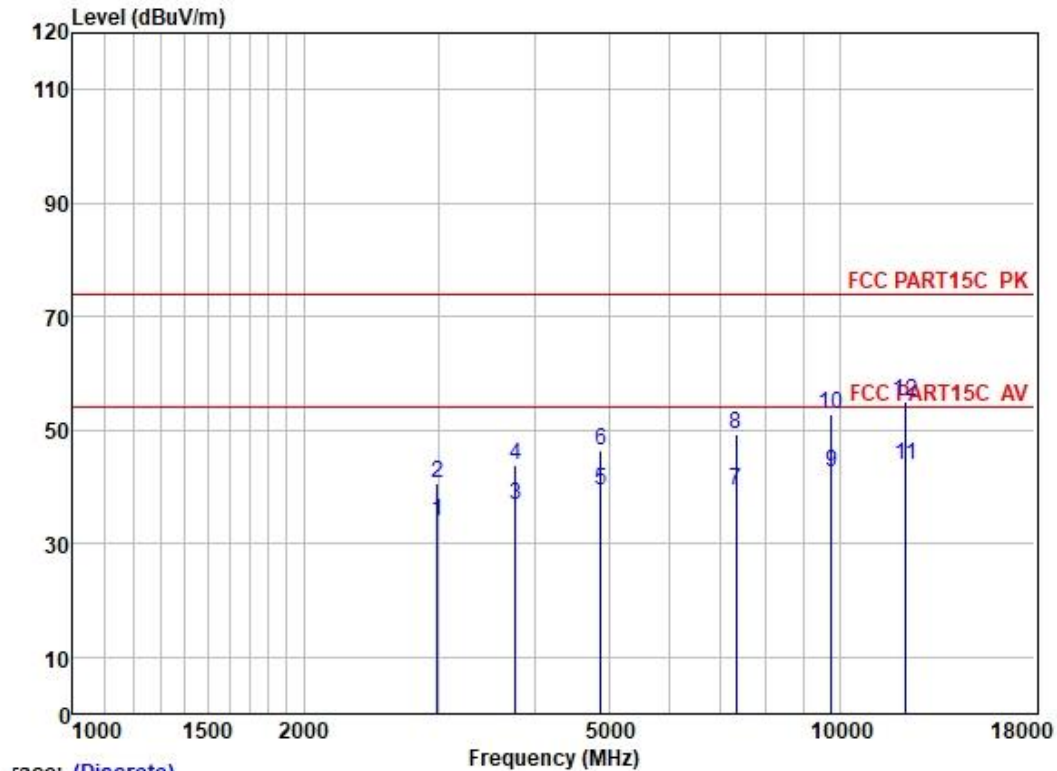
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Mode:c; Polarization:Horizontal; Modulation:GFSK; Channel:middle;



	ReadAntenna	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	2990.531	38.54	27.89	4.63	37.08	33.98	54.00	-20.02	HORIZONTAL Average
2	2990.531	45.32	27.89	4.63	37.08	40.76	74.00	-33.24	HORIZONTAL Peak
3	3779.422	36.96	28.92	7.78	36.92	36.74	54.00	-17.26	HORIZONTAL Average
4	3779.422	44.19	28.92	7.78	36.92	43.97	74.00	-30.03	HORIZONTAL Peak
5	4882.197	38.51	30.95	6.86	36.95	39.37	54.00	-14.63	HORIZONTAL Average
6	4882.197	45.46	30.95	6.86	36.95	46.32	74.00	-27.68	HORIZONTAL Peak
7	7323.542	33.22	35.74	7.39	36.92	39.43	54.00	-14.57	HORIZONTAL Average
8	7323.542	42.92	35.74	7.39	36.92	49.13	74.00	-24.87	HORIZONTAL Peak
9	9764.577	33.59	37.70	8.33	37.09	42.53	54.00	-11.47	HORIZONTAL Average
10	9764.577	43.71	37.70	8.33	37.09	52.65	74.00	-21.35	HORIZONTAL Peak
11	12205.480	30.82	39.21	10.98	37.06	43.95	54.00	-10.05	HORIZONTAL Average
12	12205.480	41.99	39.21	10.98	37.06	55.12	74.00	-18.88	HORIZONTAL Peak



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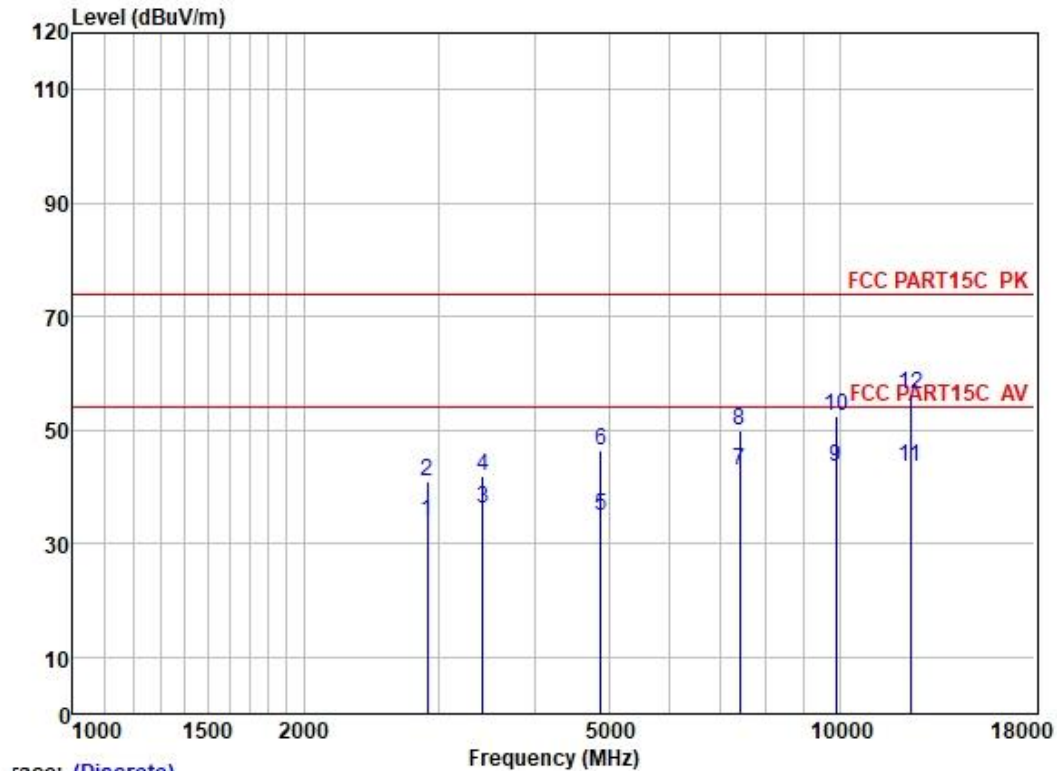
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Mode:c; Polarization:Vertical; Modulation:GFSK; Channel:middle;



Trace: (Discrete)

	ReadAntenna	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	2896.945	38.51	27.75	4.87	37.14	33.99	54.00	-20.01	VERTICAL
2	2896.945	45.62	27.75	4.87	37.14	41.10	74.00	-32.90	VERTICAL
3	3425.675	39.58	27.90	5.59	36.96	36.11	54.00	-17.89	VERTICAL
4	3425.675	45.50	27.90	5.59	36.96	42.03	74.00	-31.97	VERTICAL
5	4882.307	34.16	30.95	6.86	36.95	35.02	54.00	-18.98	VERTICAL
6	4882.307	45.39	30.95	6.86	36.95	46.25	74.00	-27.75	VERTICAL
7	7416.122	36.52	35.89	7.42	36.92	42.91	54.00	-11.09	VERTICAL
8	7416.122	43.43	35.89	7.42	36.92	49.82	74.00	-24.18	VERTICAL
9	9888.221	34.18	37.89	8.57	37.09	43.55	54.00	-10.45	VERTICAL
10	9888.221	43.19	37.89	8.57	37.09	52.56	74.00	-21.44	VERTICAL
11	12360.930	30.30	38.98	11.13	36.93	43.48	54.00	-10.52	VERTICAL
12	12360.930	43.21	38.98	11.13	36.93	56.39	74.00	-17.61	VERTICAL

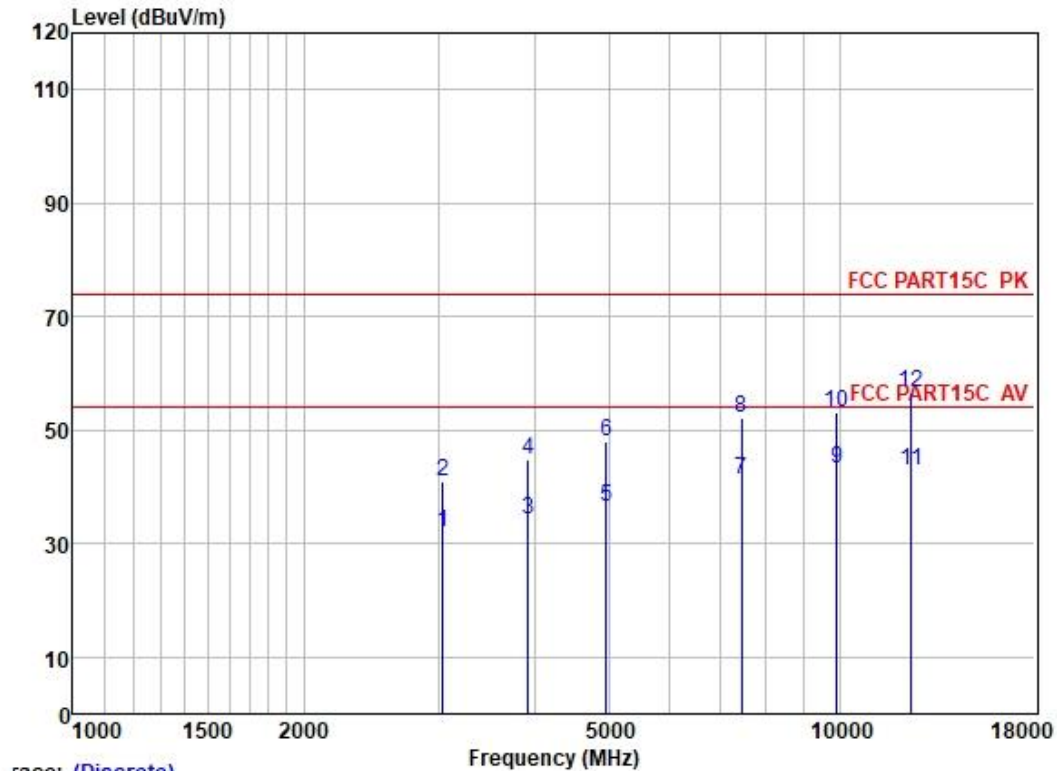


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Mode:c; Polarization:Horizontal; Modulation:GFSK; Channel:High;



	ReadAntenna	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	3034.063	36.28	27.90	4.80	37.06	31.92	54.00	-22.08	HORIZONTAL Average
2	3034.063	45.47	27.90	4.80	37.06	41.11	74.00	-32.89	HORIZONTAL Peak
3	3924.135	34.42	29.35	7.47	36.91	34.33	54.00	-19.67	HORIZONTAL Average
4	3924.135	44.89	29.35	7.47	36.91	44.80	74.00	-29.20	HORIZONTAL Peak
5	4960.993	34.68	31.05	7.84	36.96	36.61	54.00	-17.39	HORIZONTAL Average
6	4960.993	46.06	31.05	7.84	36.96	47.99	74.00	-26.01	HORIZONTAL Peak
7	7440.788	34.72	35.92	7.43	36.92	41.15	54.00	-12.85	HORIZONTAL Average
8	7440.788	45.63	35.92	7.43	36.92	52.06	74.00	-21.94	HORIZONTAL Peak
9	9920.221	33.63	37.92	8.63	37.10	43.08	54.00	-10.92	HORIZONTAL Average
10	9920.221	43.78	37.92	8.63	37.10	53.23	74.00	-20.77	HORIZONTAL Peak
11	12400.850	29.72	38.93	11.17	36.90	42.92	54.00	-11.08	HORIZONTAL Average
12	12400.850	43.58	38.93	11.17	36.90	56.78	74.00	-17.22	HORIZONTAL Peak



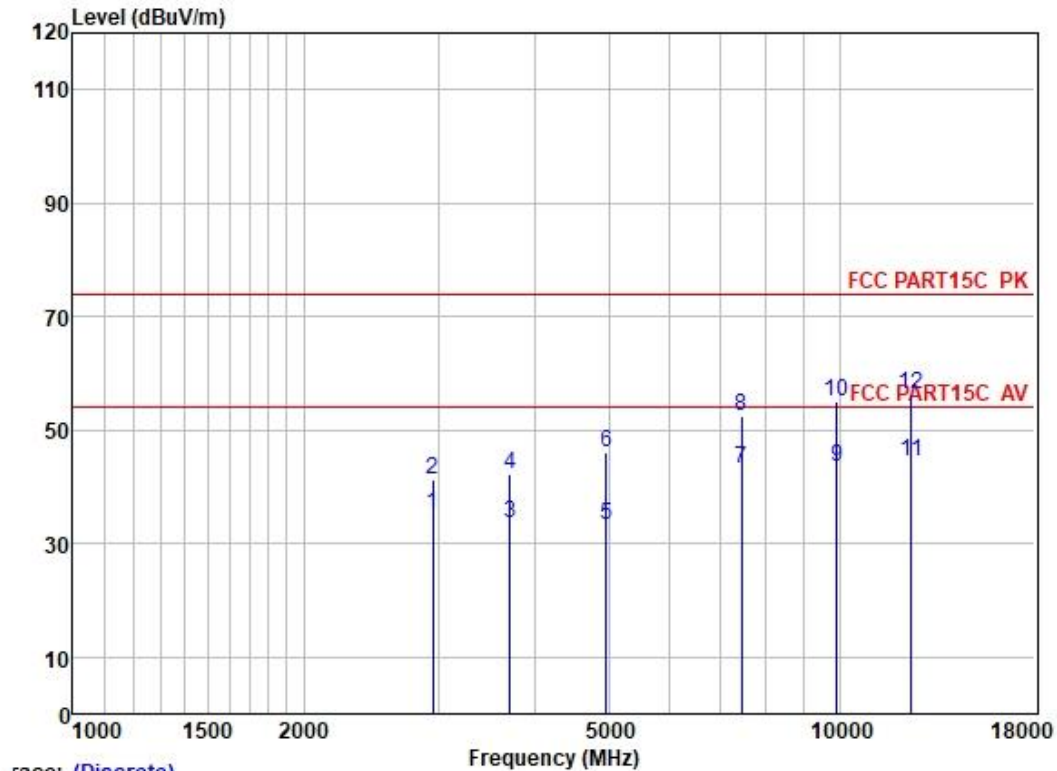
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Mode:c; Polarization:Vertical; Modulation:GFSK; Channel:High;



Trace: (Discrete)

	ReadAntenna	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	2947.623	39.57	27.83	4.74	37.10	35.04	54.00	-18.96	VERTICAL
2	2947.623	45.77	27.83	4.74	37.10	41.24	74.00	-32.76	VERTICAL
3	3714.443	34.76	28.58	7.34	36.93	33.75	54.00	-20.25	VERTICAL
4	3714.443	43.17	28.58	7.34	36.93	42.16	74.00	-31.84	VERTICAL
5	4960.993	31.22	31.05	7.84	36.96	33.15	54.00	-20.85	VERTICAL
6	4960.993	44.09	31.05	7.84	36.96	46.02	74.00	-27.98	VERTICAL
7	7440.857	36.68	35.92	7.43	36.92	43.11	54.00	-10.89	VERTICAL
8	7440.857	46.13	35.92	7.43	36.92	52.56	74.00	-21.44	VERTICAL
9	9920.497	34.01	37.92	8.63	37.10	43.46	54.00	-10.54	VERTICAL
10	9920.497	45.70	37.92	8.63	37.10	55.15	74.00	-18.85	VERTICAL
11	12400.870	31.26	38.93	11.17	36.90	44.46	54.00	-9.54	VERTICAL
12	12400.870	43.05	38.93	11.17	36.90	56.25	74.00	-17.75	VERTICAL



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## 8 Appendix

### 8.1 Appendix 15.247

For Left earbud

1. 20 dB Bandwidth

Test Mode	Test Channel	OBW[MHz]	EBW[MHz]	Limit[MHz]	Verdict
DH5	2402	0.87285	0.9597	---	PASS
DH5	2441	0.87259	0.9620	---	PASS
DH5	2480	0.87654	0.9616	---	PASS
2DH5	2402	1.1635	1.281	---	PASS
2DH5	2441	1.1637	1.280	---	PASS
2DH5	2480	1.1642	1.282	---	PASS
3DH5	2402	1.1725	1.301	---	PASS
3DH5	2441	1.1739	1.300	---	PASS
3DH5	2480	1.1733	1.302	---	PASS



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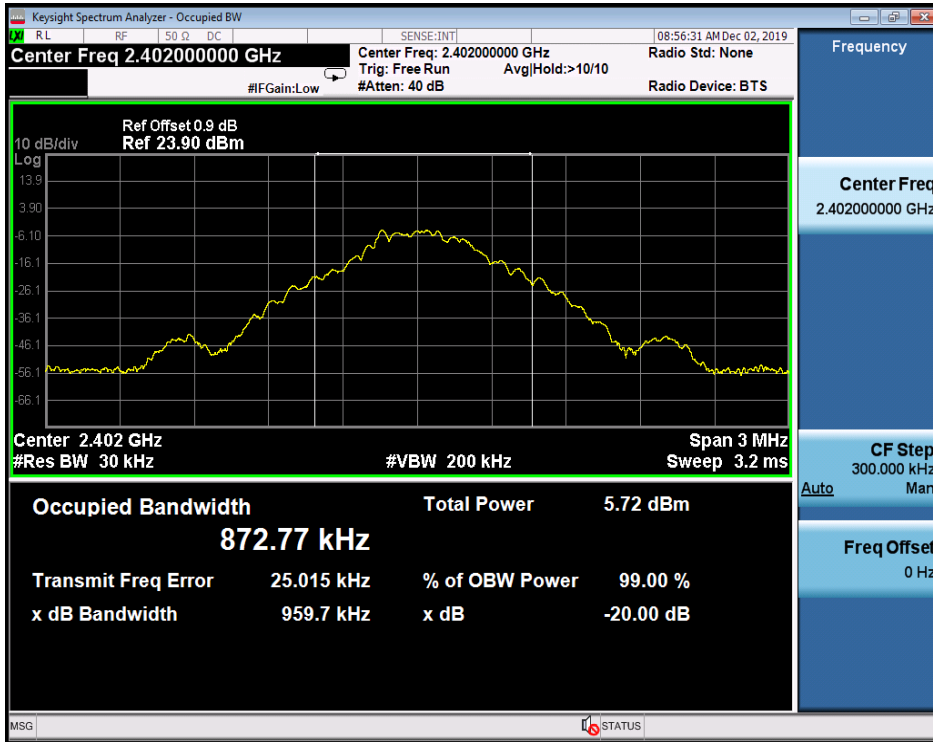
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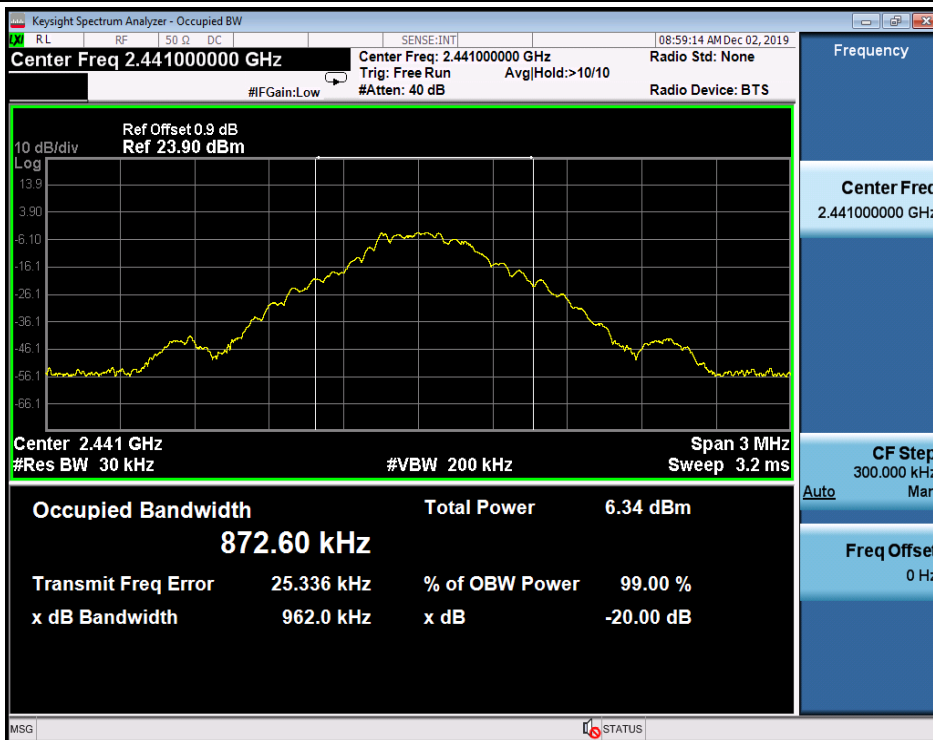
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## TEST PLOT

### 20 dB Bandwidth\_DH5\_2402



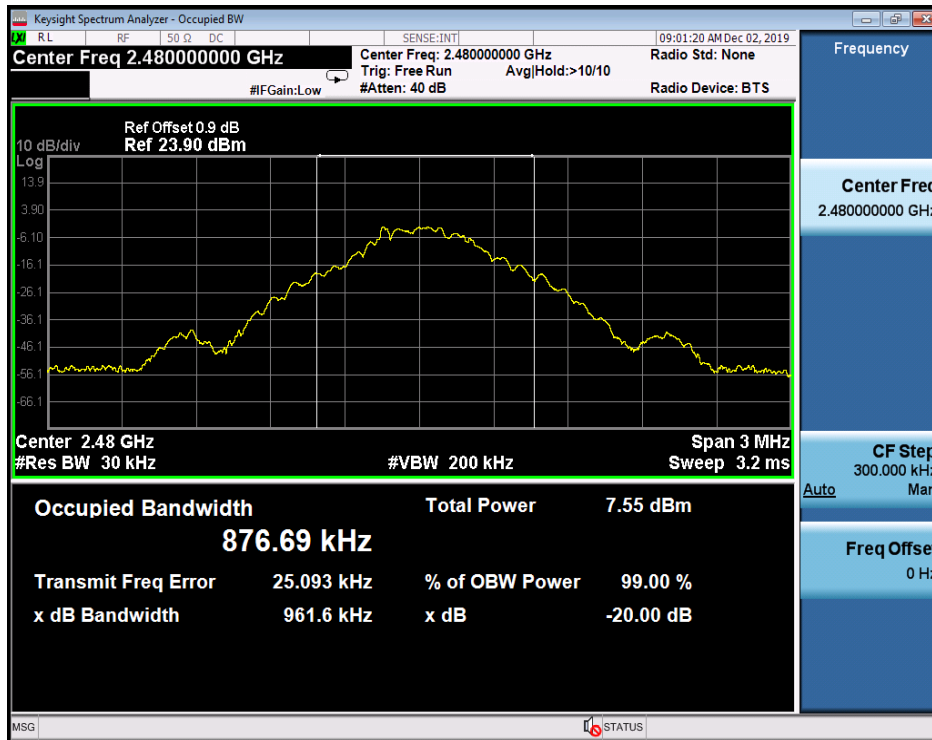
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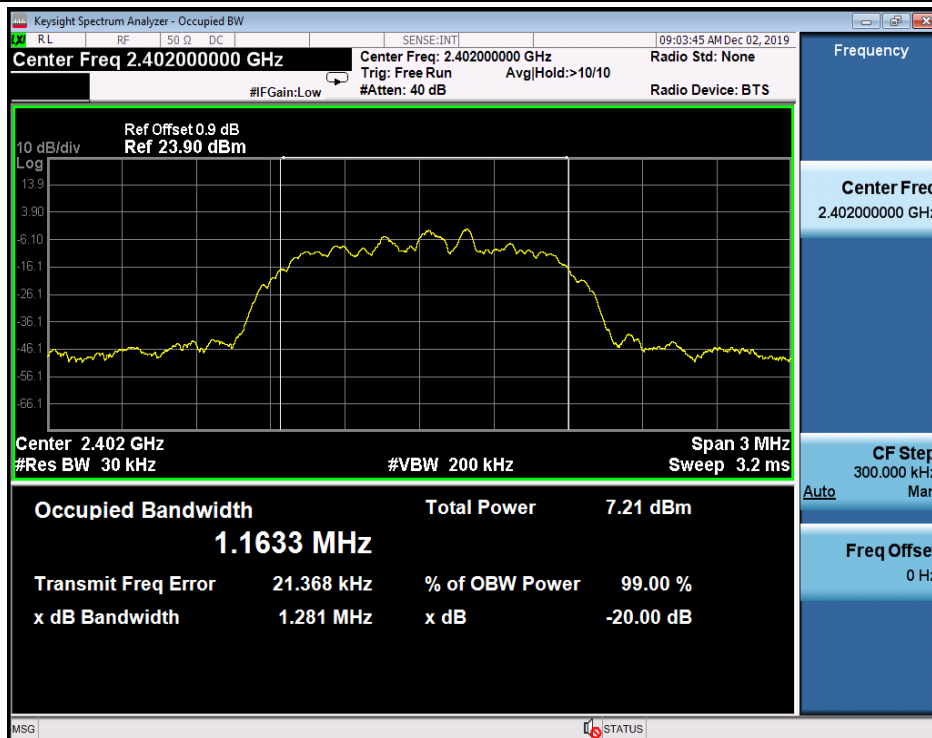
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## 20 dB Bandwidth\_DH5\_2480



## 20 dB Bandwidth\_2DH5\_2402



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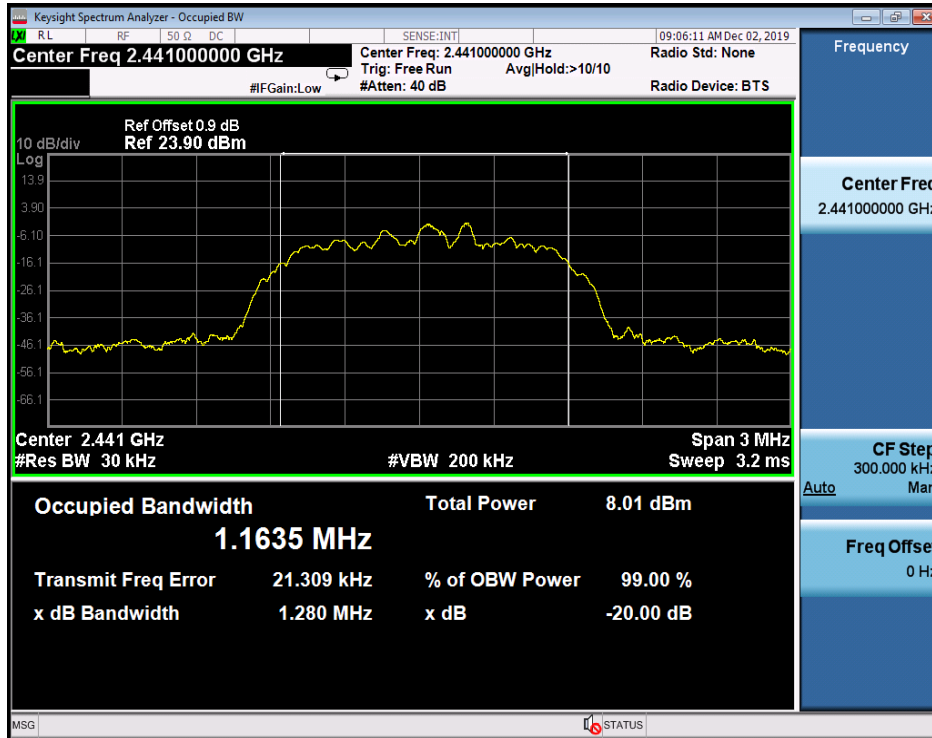
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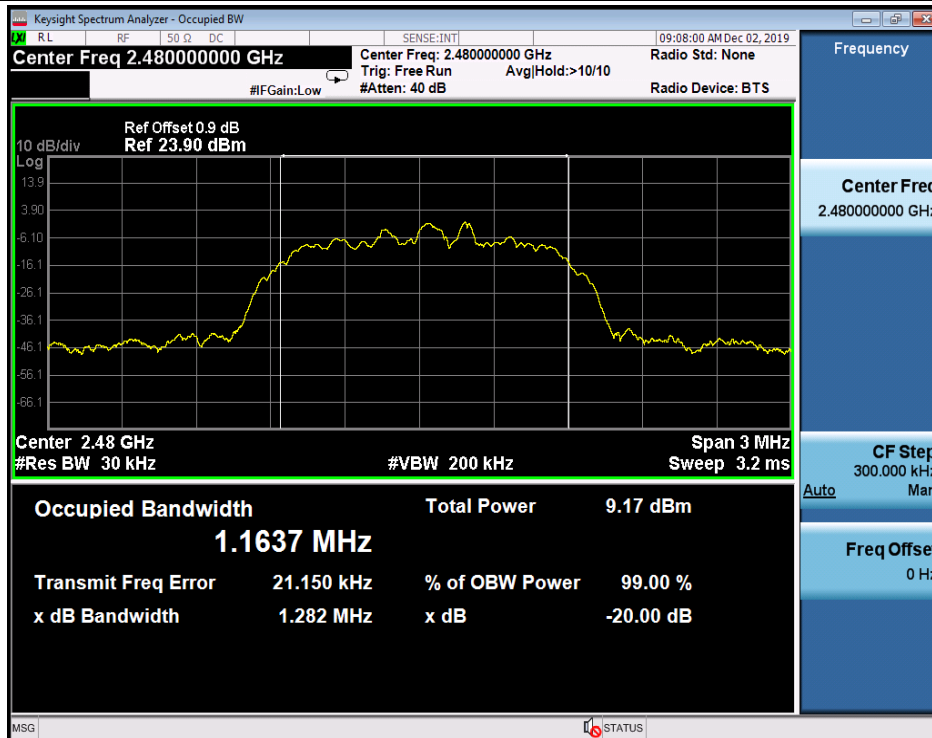
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## 20 dB Bandwidth\_2DH5\_2441



## 20 dB Bandwidth\_2DH5\_2480



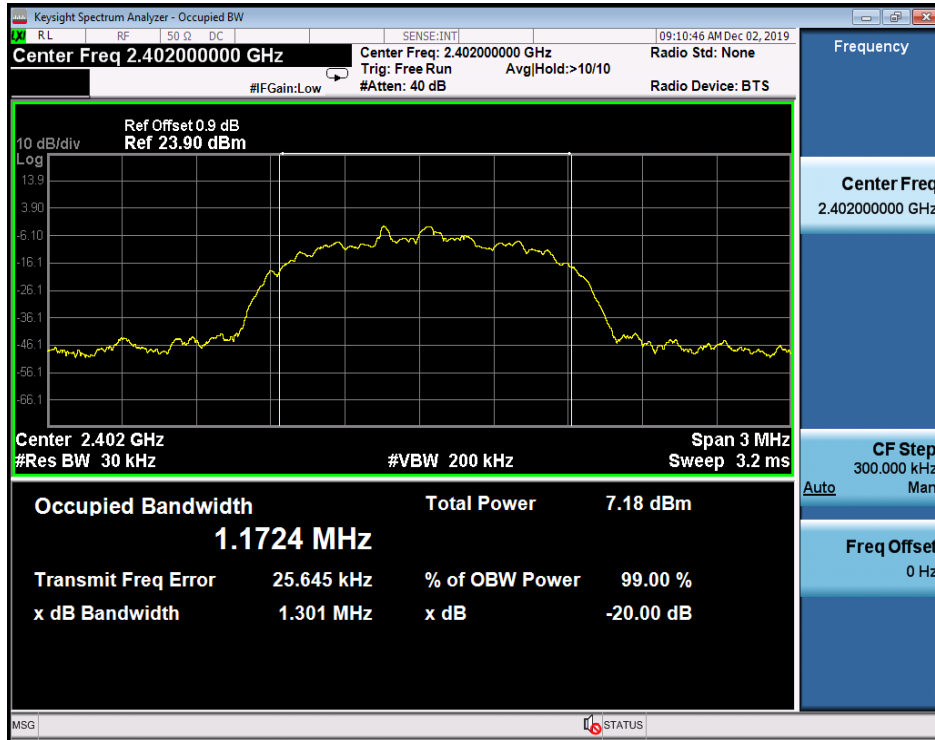
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## 20 dB Bandwidth\_3DH5\_2402

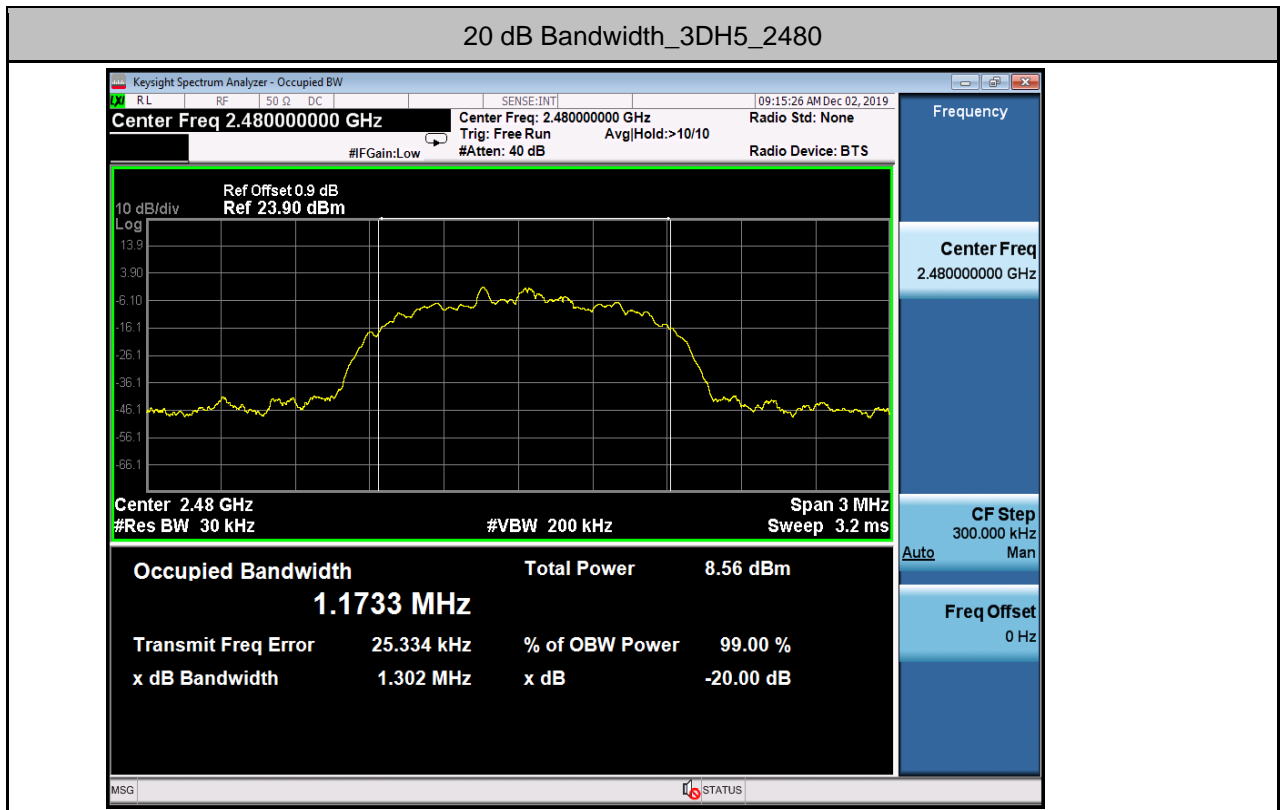


## 20 dB Bandwidth\_3DH5\_2441



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## 2. Conducted Peak Output Power

Test Mode	Test Channel	Power[dBm]	Limit[dBm]	Verdict
DH5	2402	-1.606	20.9	PASS
DH5	2441	-0.813	20.9	PASS
DH5	2480	0.337	20.9	PASS
2DH5	2402	0.553	20.9	PASS
2DH5	2441	2.209	20.9	PASS
2DH5	2480	3.011	20.9	PASS
3DH5	2402	1.43	20.9	PASS
3DH5	2441	2.165	20.9	PASS
3DH5	2480	2.76	20.9	PASS

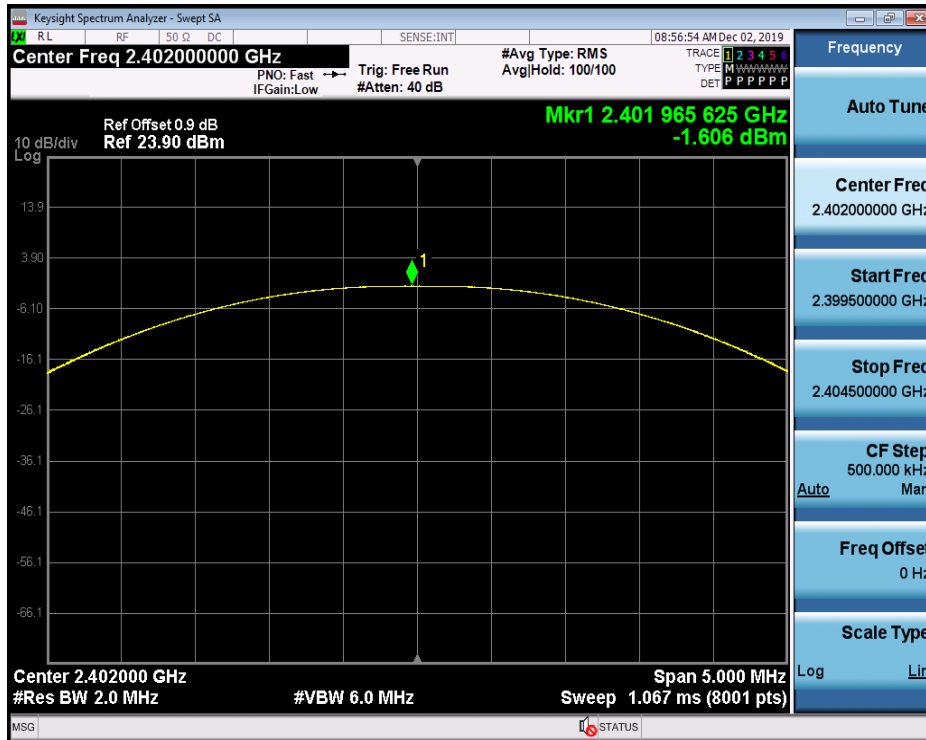


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## TEST PLOT

### Conducted Peak Output Power\_DH5\_2402



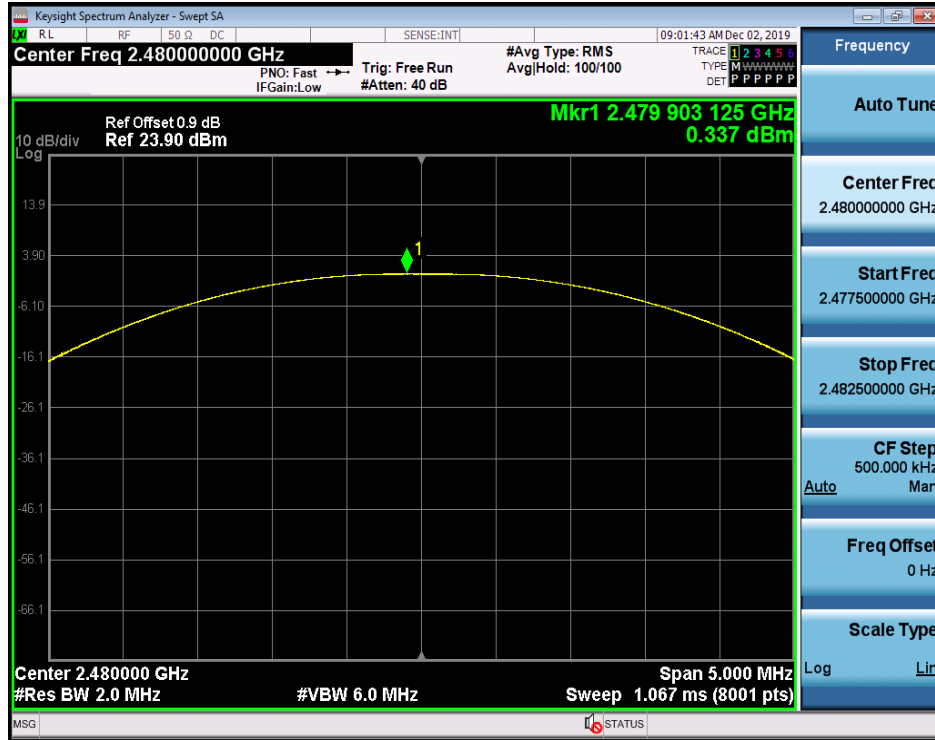
### Conducted Peak Output Power\_DH5\_2441



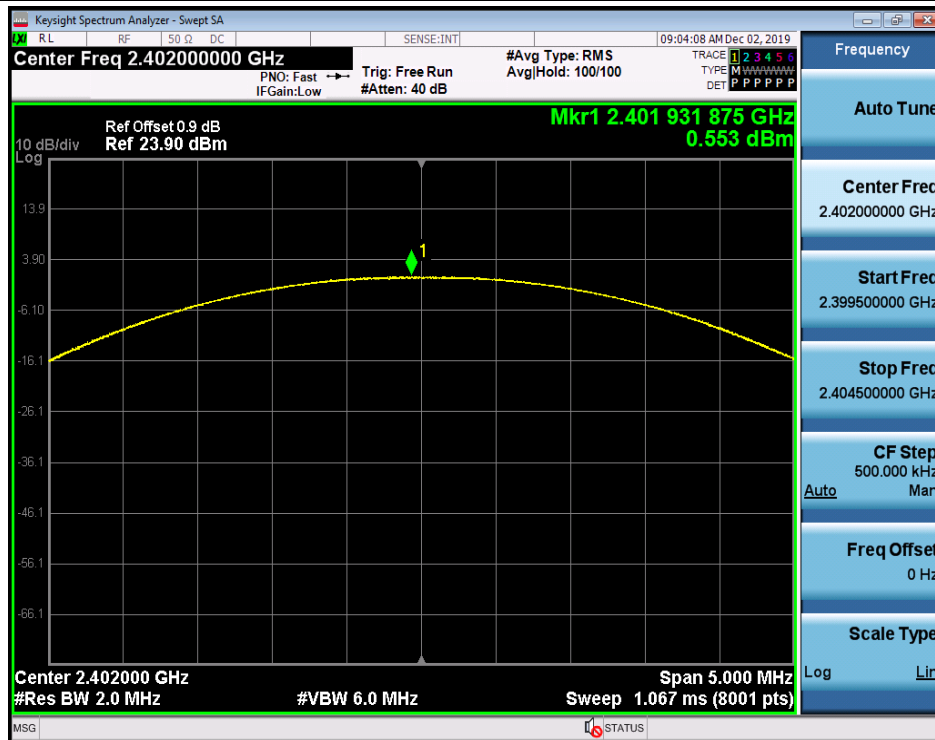
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## Conducted Peak Output Power\_DH5\_2480



## Conducted Peak Output Power\_2DH5\_2402



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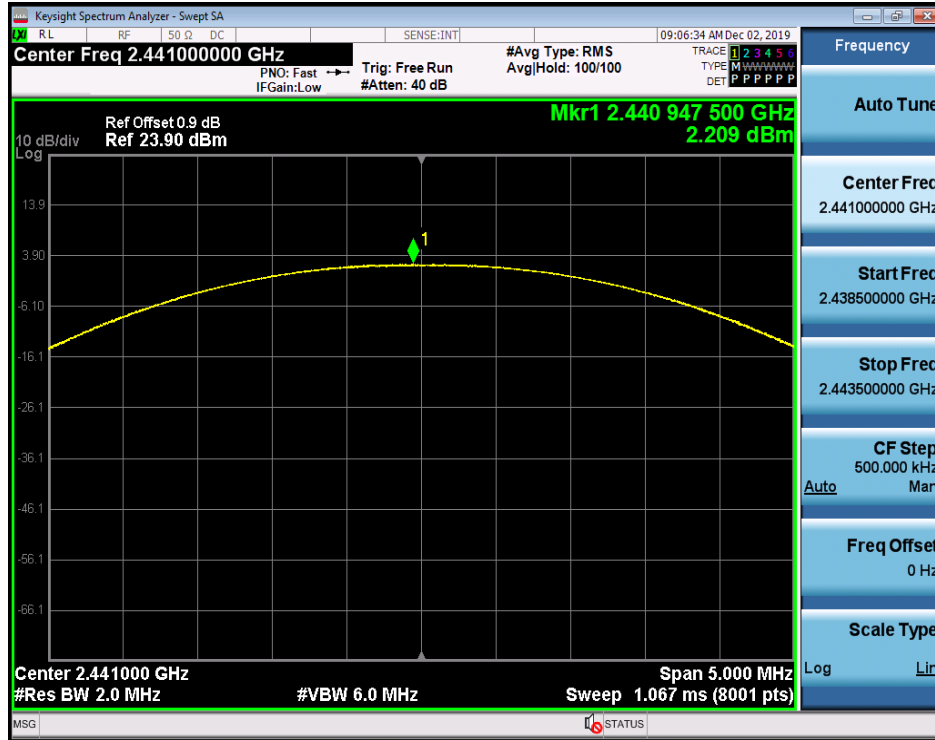
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## Conducted Peak Output Power\_2DH5\_2441



## Conducted Peak Output Power\_2DH5\_2480



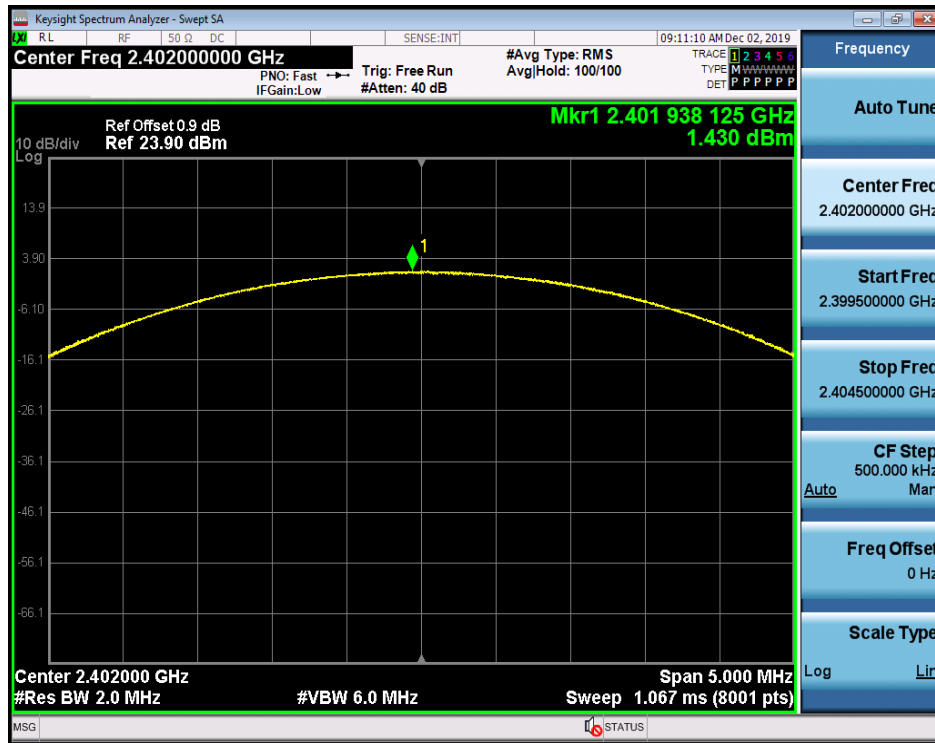
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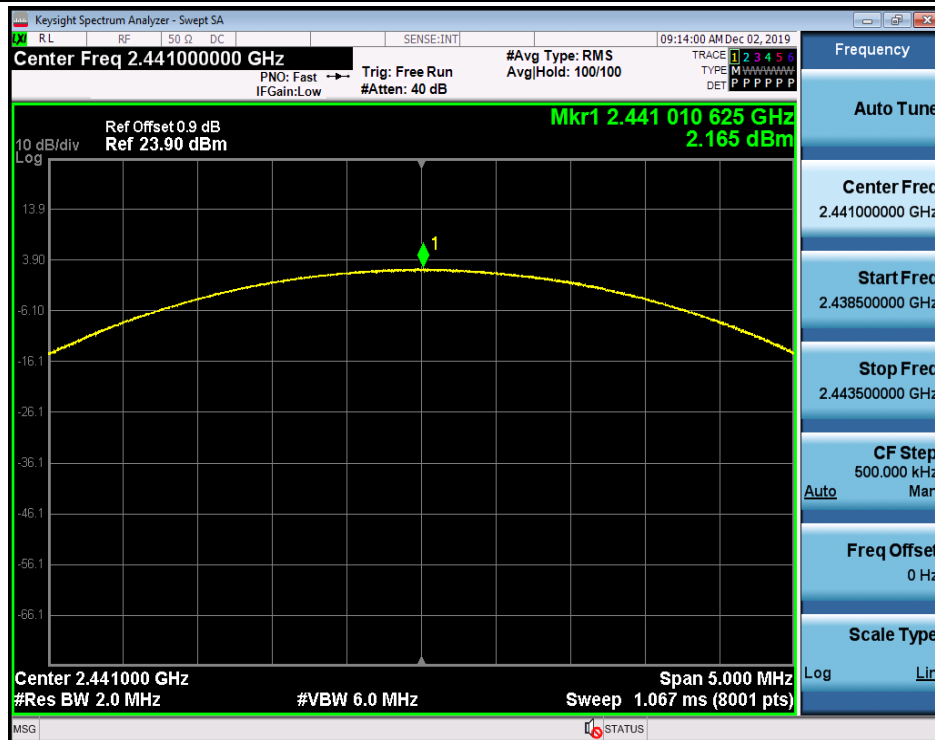
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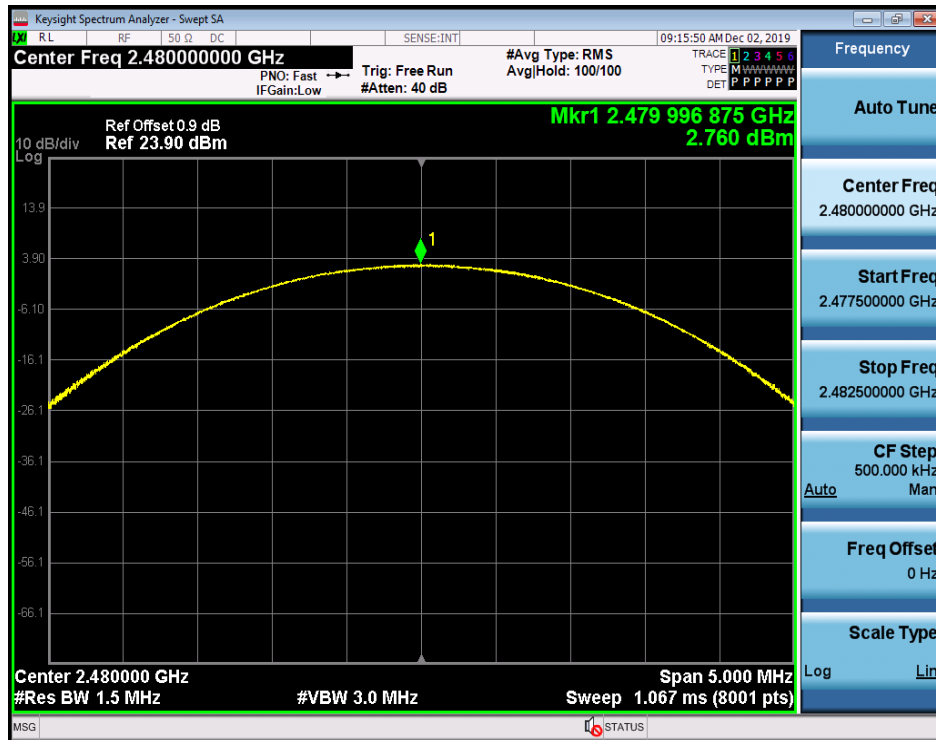
## Conducted Peak Output Power\_3DH5\_2402



## Conducted Peak Output Power\_3DH5\_2441



## Conducted Peak Output Power\_3DH5\_2480



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### 3.Carrier Frequency Separation

Test Mode	Test Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	2402	1.019	0.58	PASS
DH5	2441	1.001	0.58	PASS
DH5	2480	0.955	0.58	PASS



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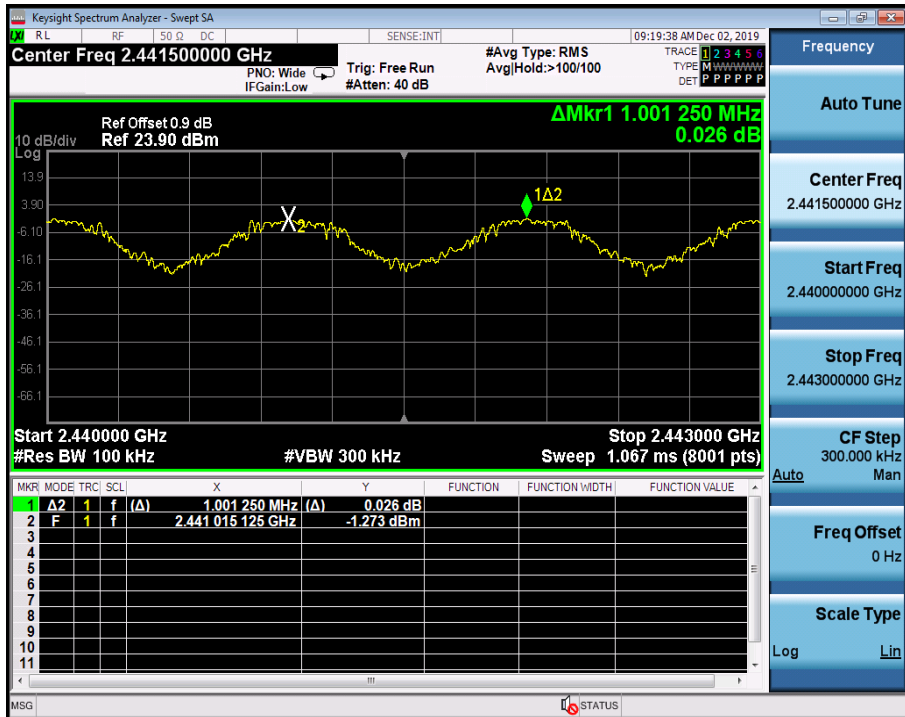
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## TEST PLOT

### Carrier Frequency Separation\_DH5\_2402

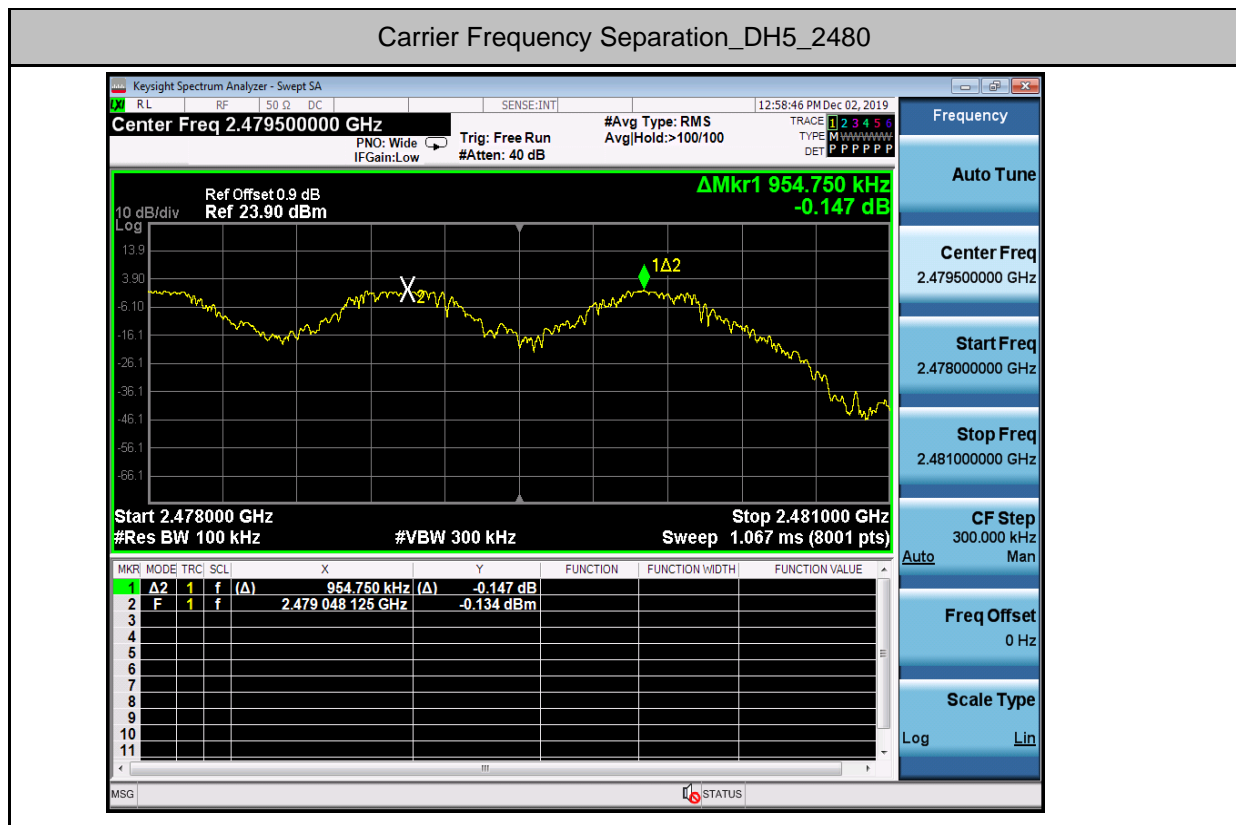


### Carrier Frequency Separation\_DH5\_2441



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#### 4.Dwell Time

Test Mode	Test Channel	Burst Width[ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit[s]	Verdict
DH1	2402	0.38	300	0.11	0.4	PASS
DH1	2441	0.38	320	0.12	0.4	PASS
DH1	2480	0.38	320	0.12	0.4	PASS
DH3	2402	1.64	140	0.23	0.4	PASS
DH3	2441	1.64	160	0.26	0.4	PASS
DH3	2480	1.64	130	0.21	0.4	PASS
DH5	2402	2.88	90	0.26	0.4	PASS
DH5	2441	2.88	120	0.35	0.4	PASS
DH5	2480	2.88	120	0.35	0.4	PASS
2DH1	2402	0.39	320	0.12	0.4	PASS
2DH1	2441	0.39	310	0.12	0.4	PASS
2DH1	2480	0.39	320	0.12	0.4	PASS



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2DH3	2402	1.64	190	0.31	0.4	PASS
2DH3	2441	1.64	160	0.26	0.4	PASS
2DH3	2480	1.64	140	0.23	0.4	PASS
2DH5	2402	2.89	100	0.29	0.4	PASS
2DH5	2441	2.89	130	0.38	0.4	PASS
2DH5	2480	2.89	110	0.32	0.4	PASS
3DH1	2402	0.39	320	0.12	0.4	PASS
3DH1	2441	0.39	320	0.12	0.4	PASS
3DH1	2480	0.39	320	0.12	0.4	PASS
3DH3	2402	1.64	130	0.21	0.4	PASS
3DH3	2441	1.64	160	0.26	0.4	PASS
3DH3	2480	1.64	180	0.30	0.4	PASS
3DH5	2402	2.89	90	0.26	0.4	PASS
3DH5	2441	2.89	120	0.35	0.4	PASS
3DH5	2480	2.89	120	0.35	0.4	PASS

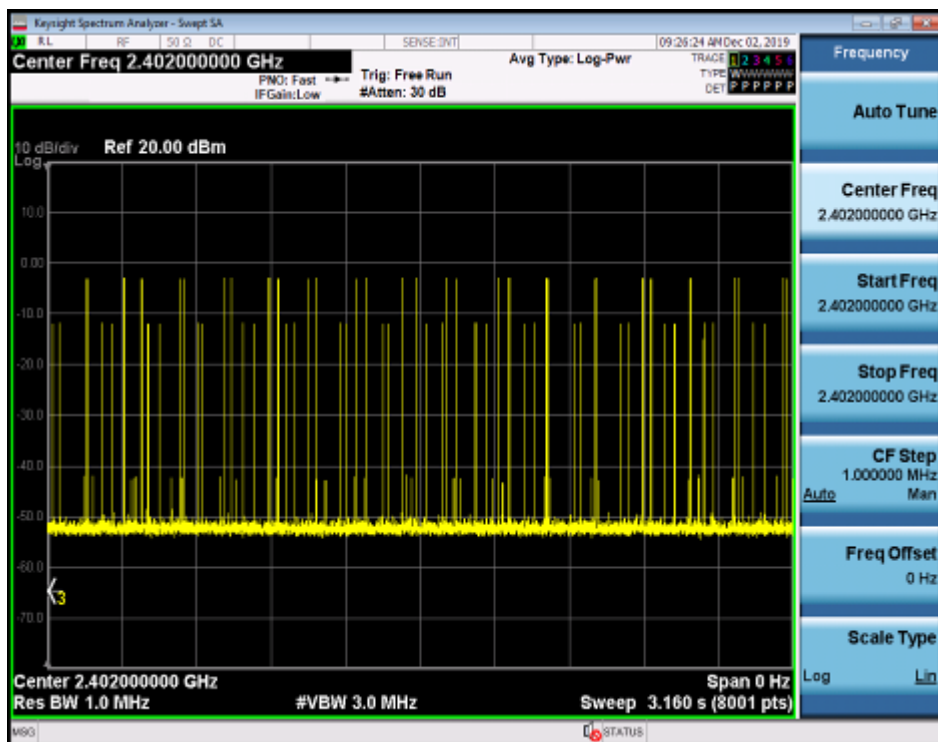
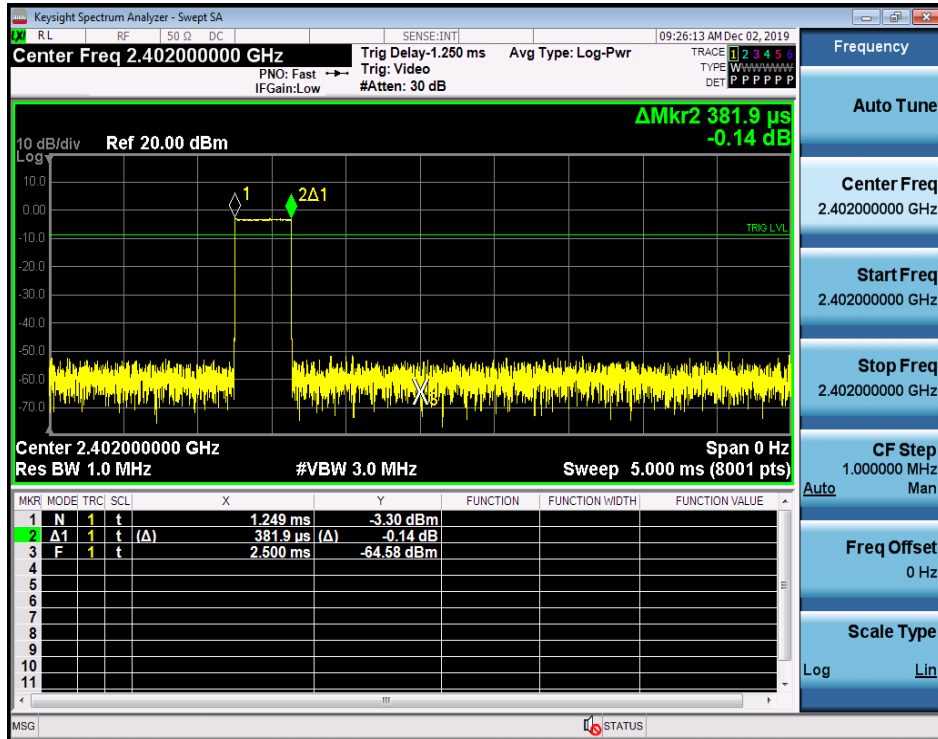


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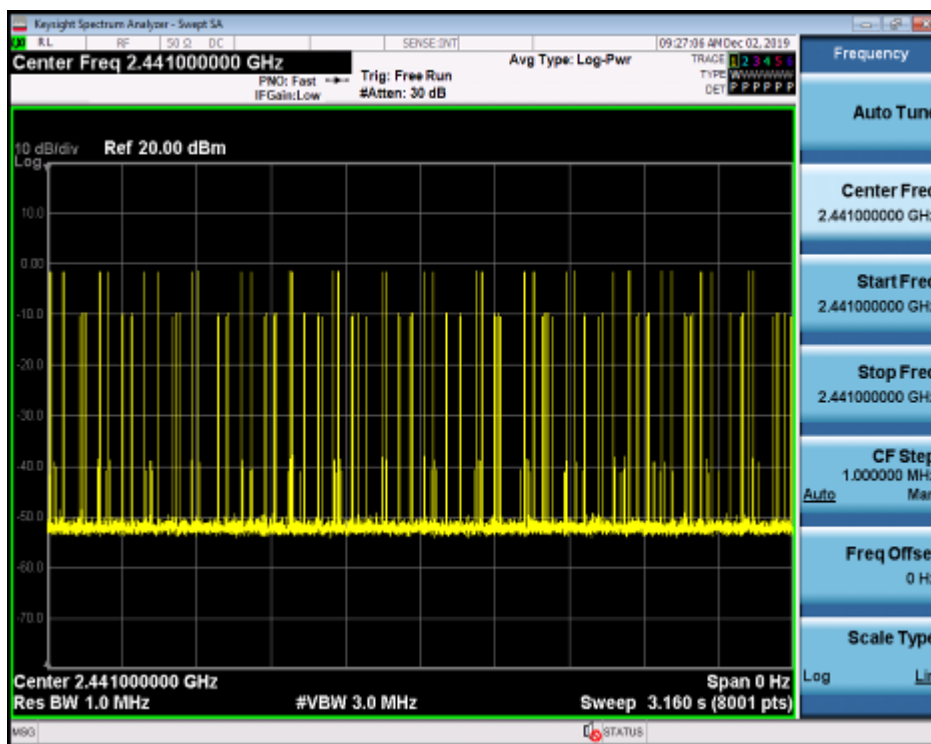
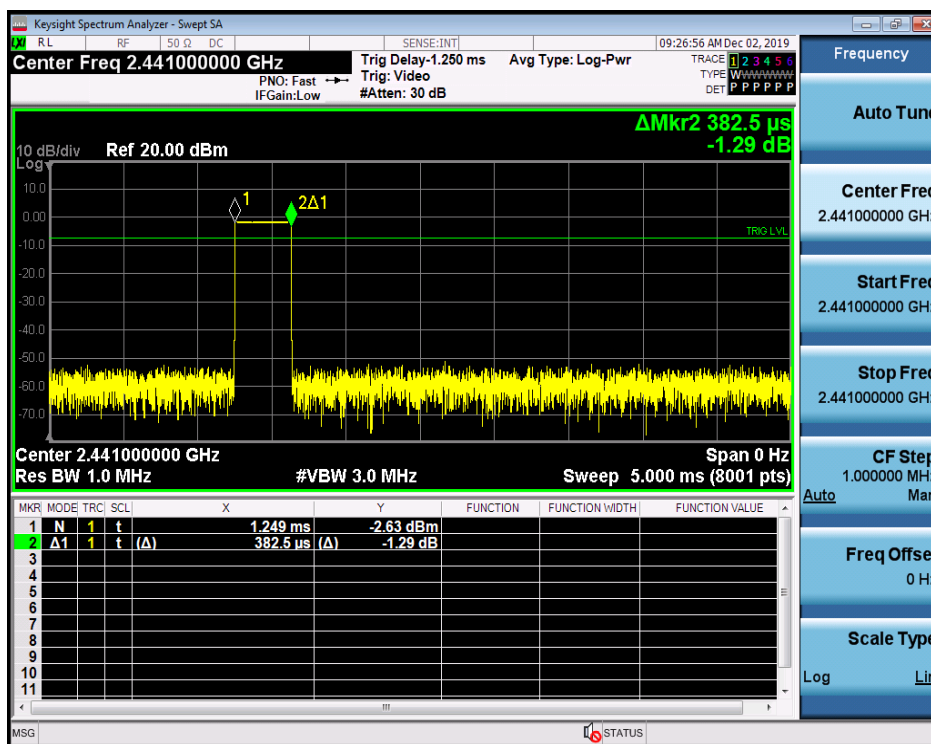
Dwell Time\_DH1\_2402



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## Dwell Time\_DH1\_2441

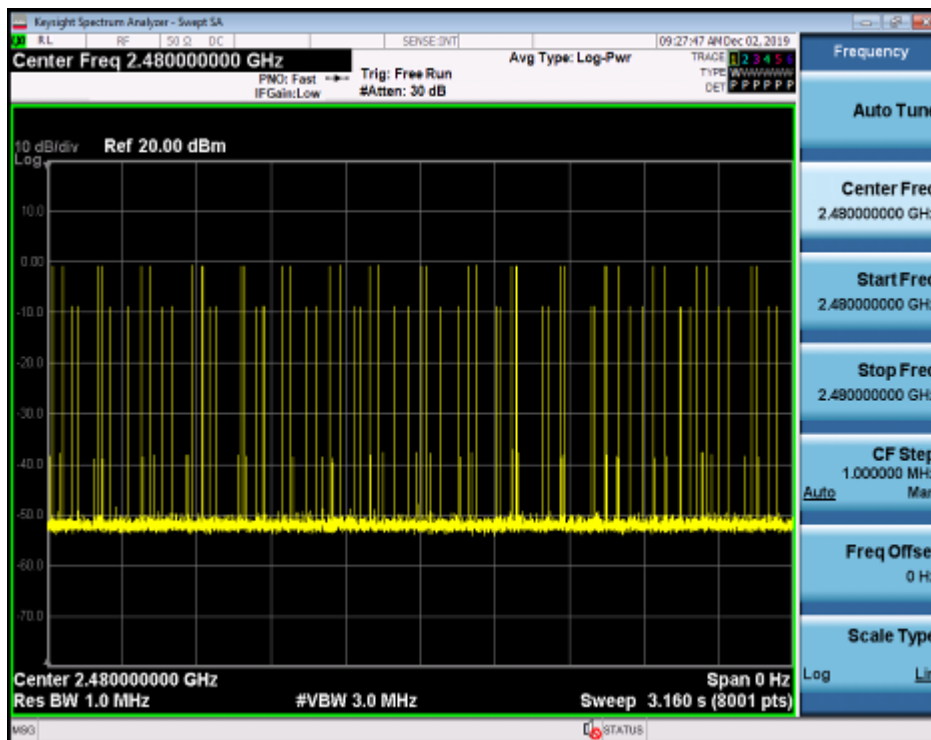
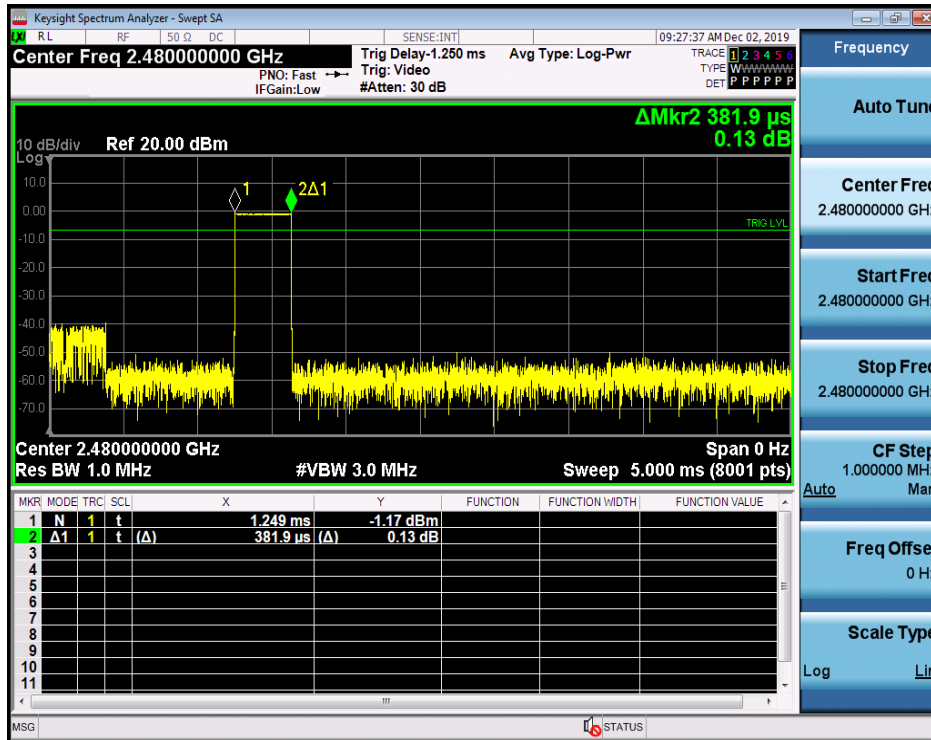


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## Dwell Time\_DH1\_2480

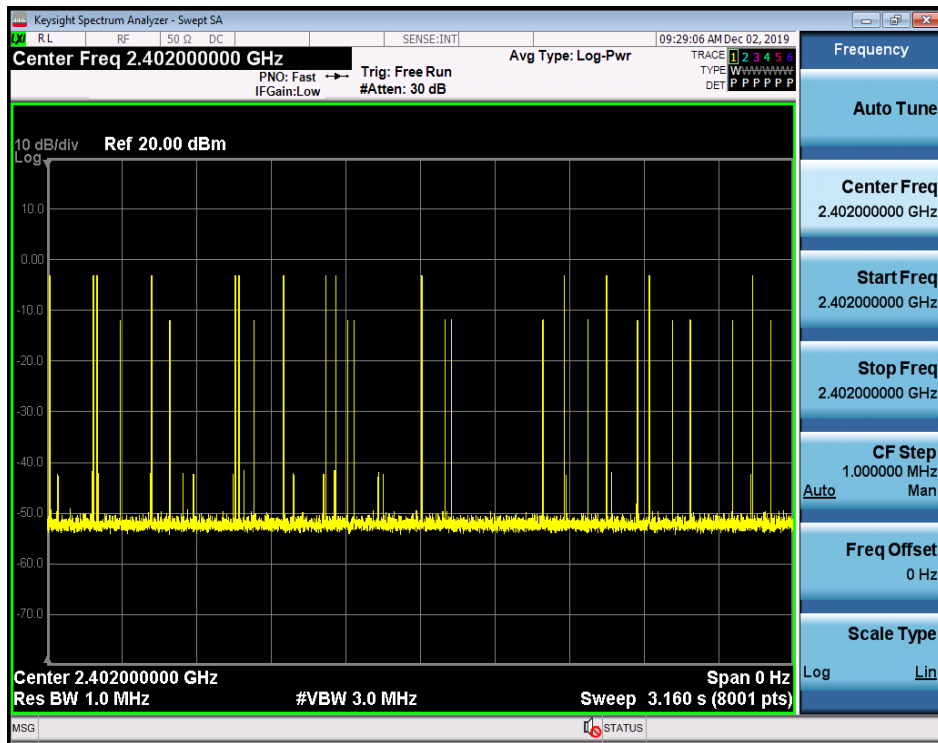
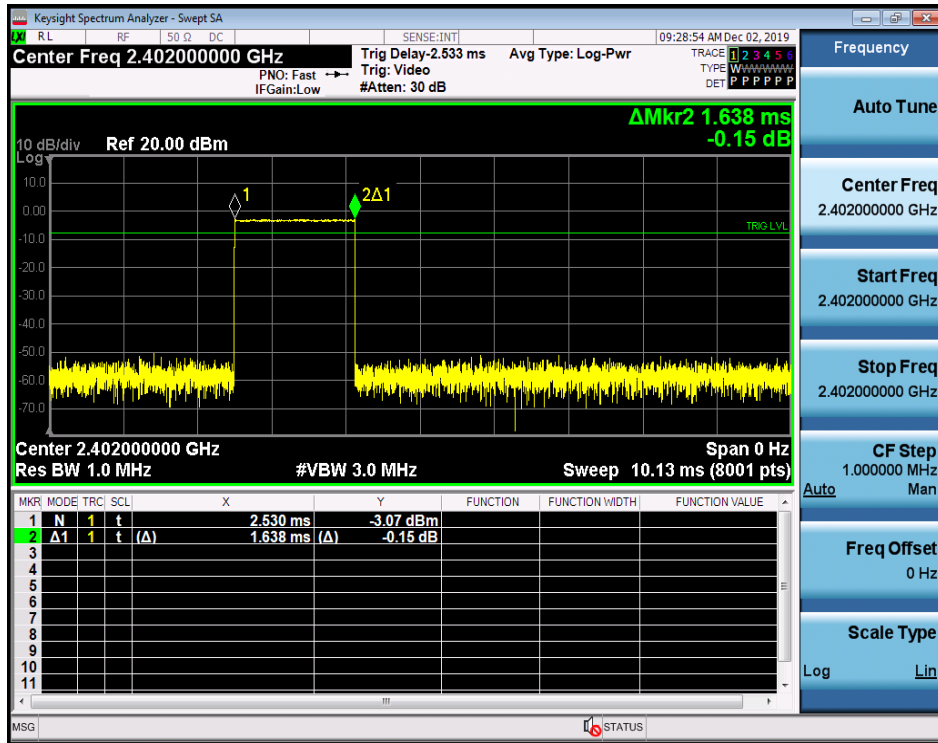


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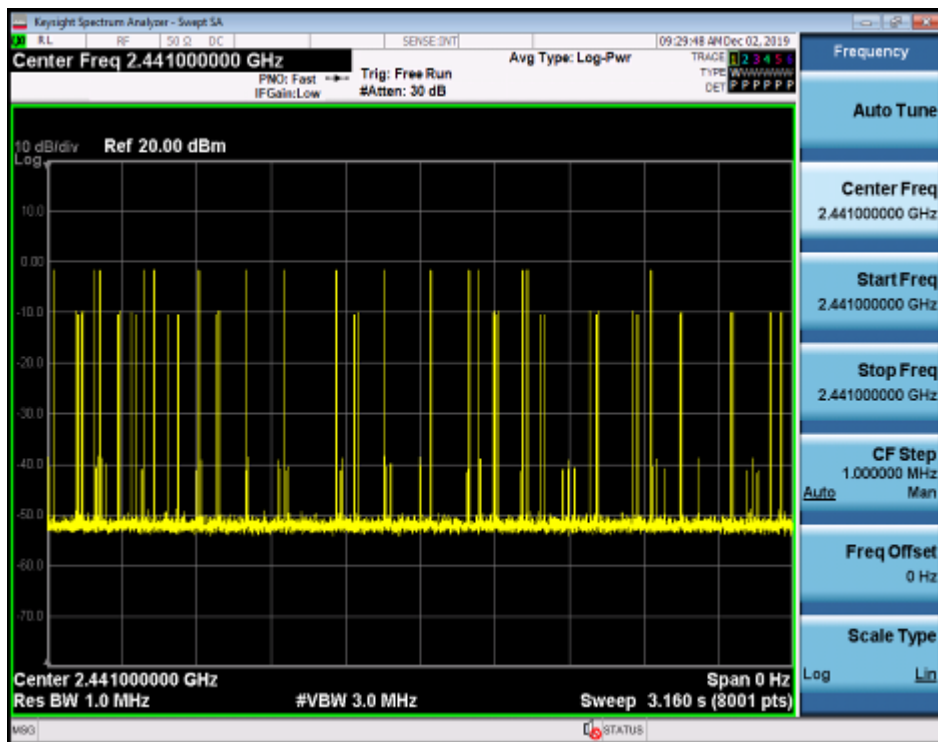
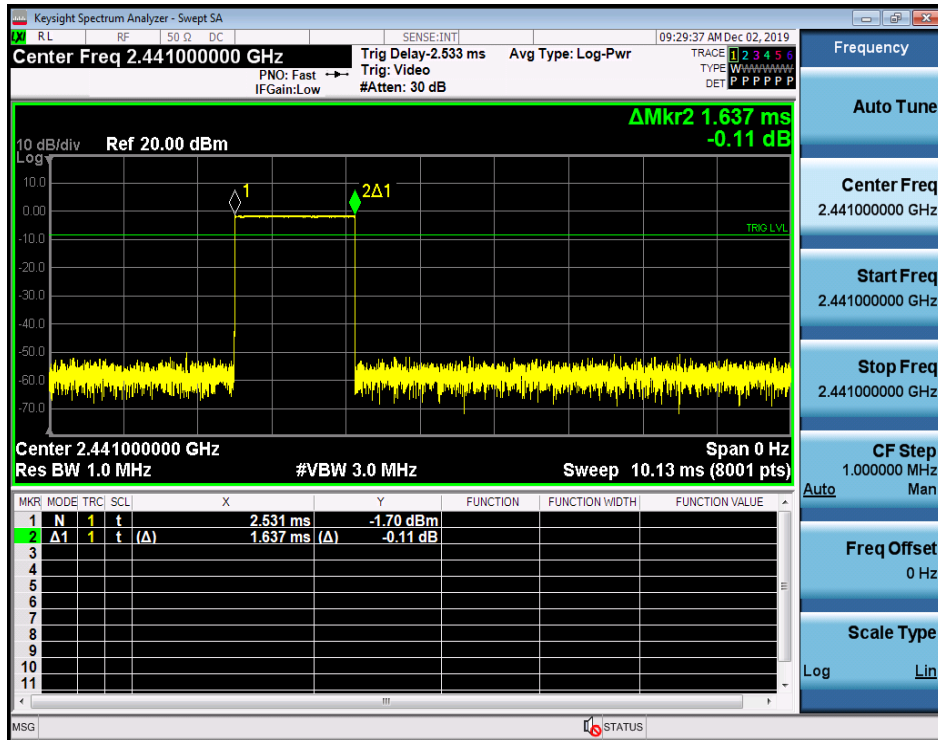
## Dwell Time\_DH3\_2402



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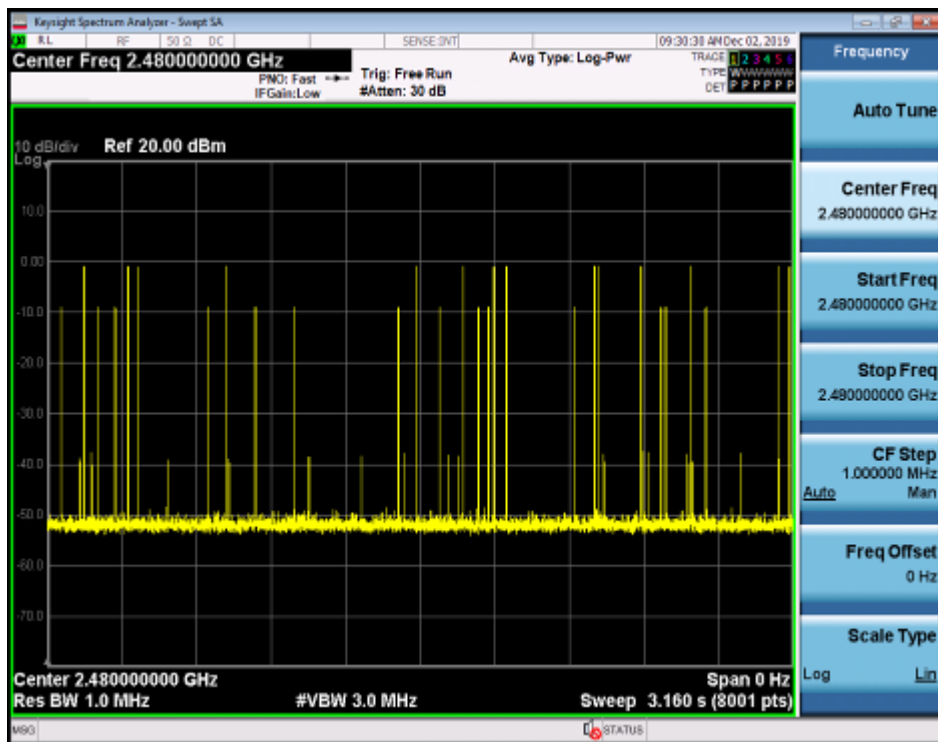
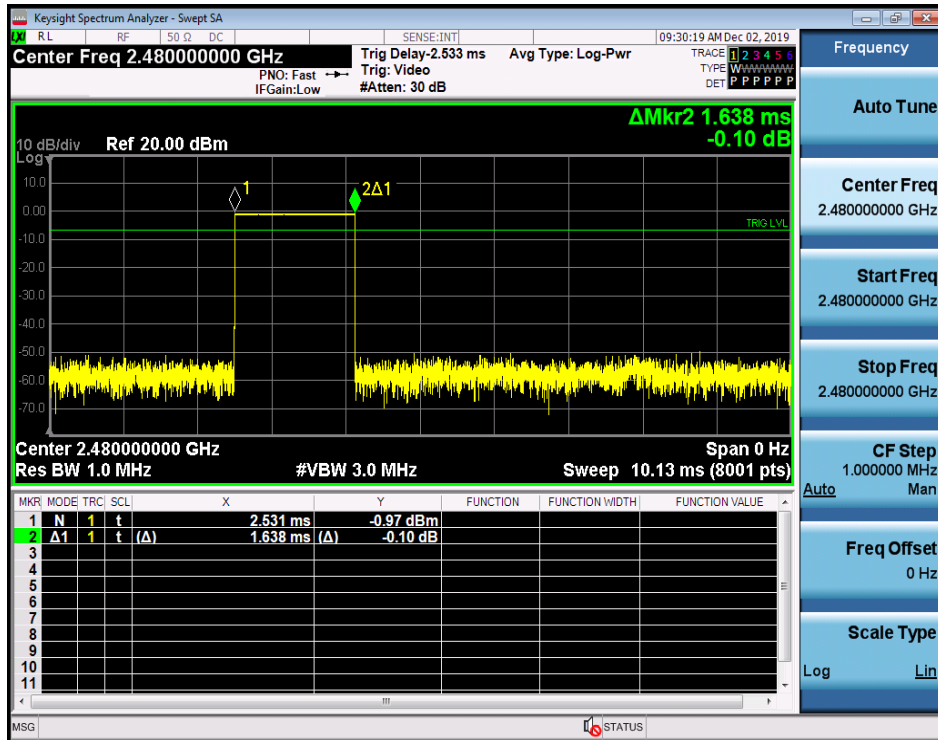
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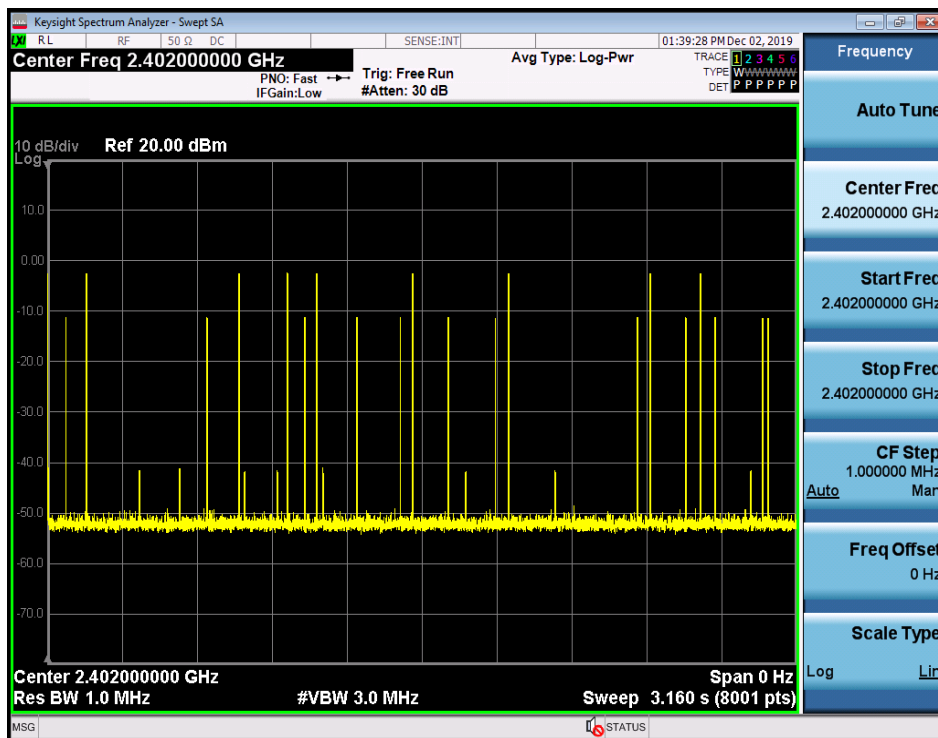
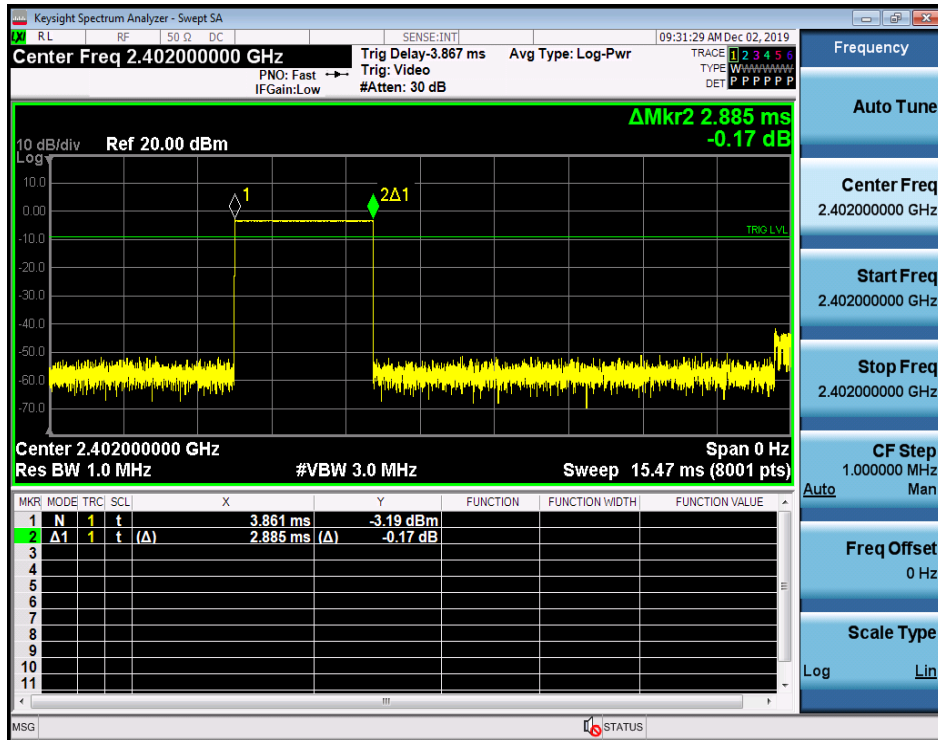
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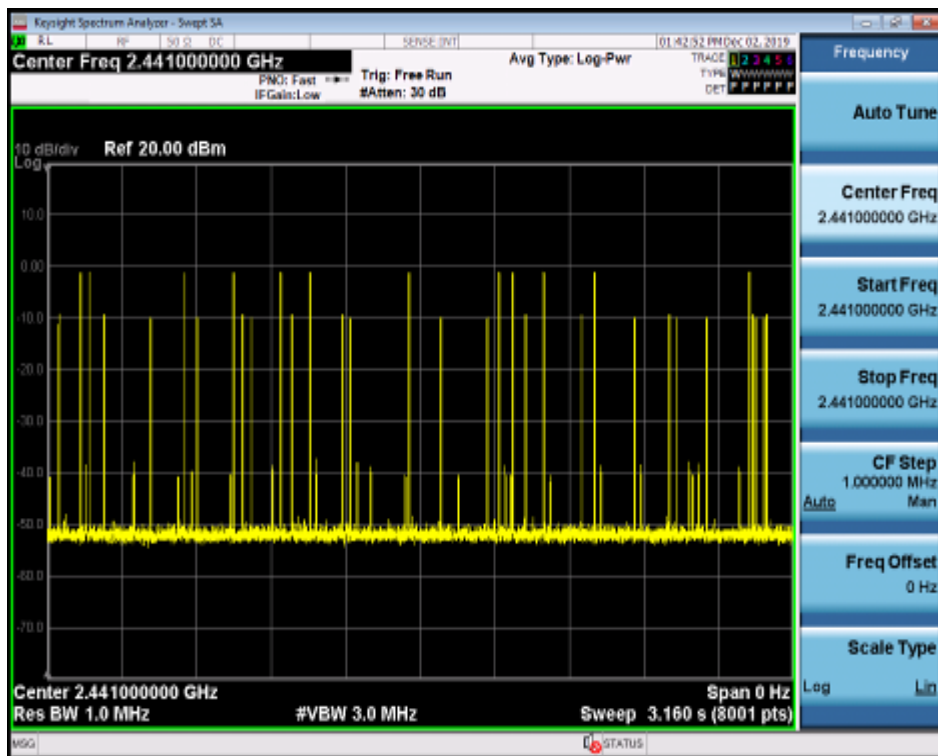
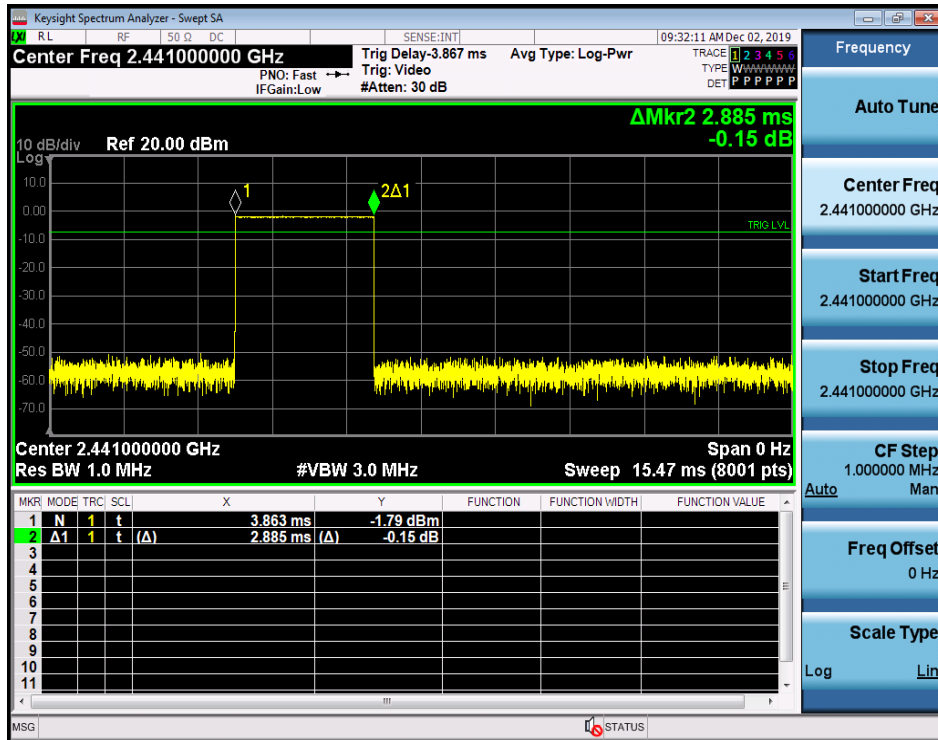
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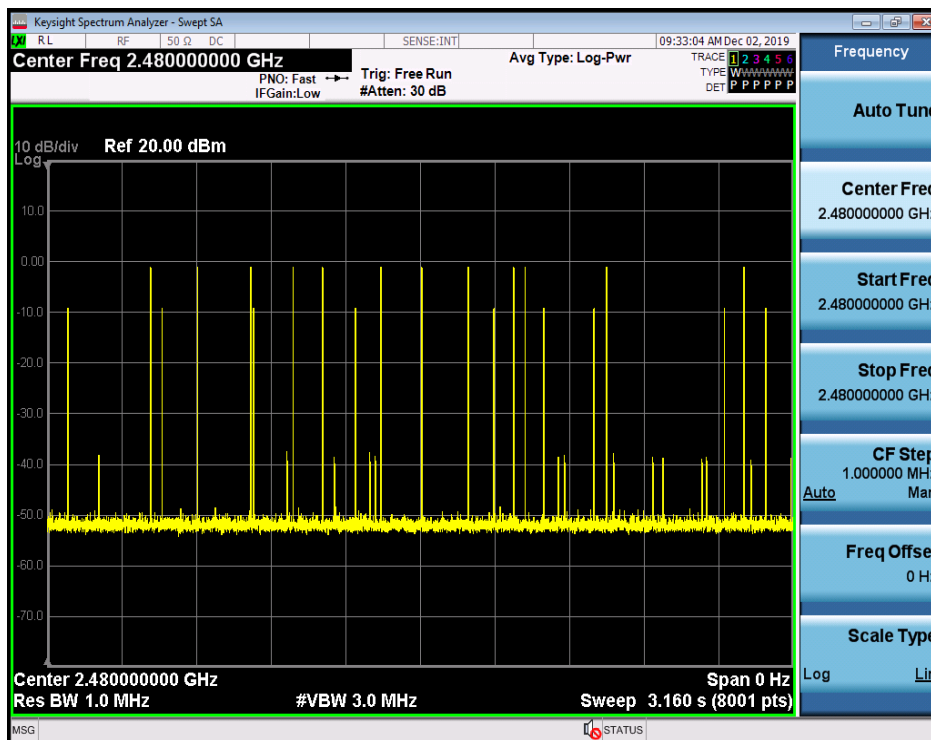
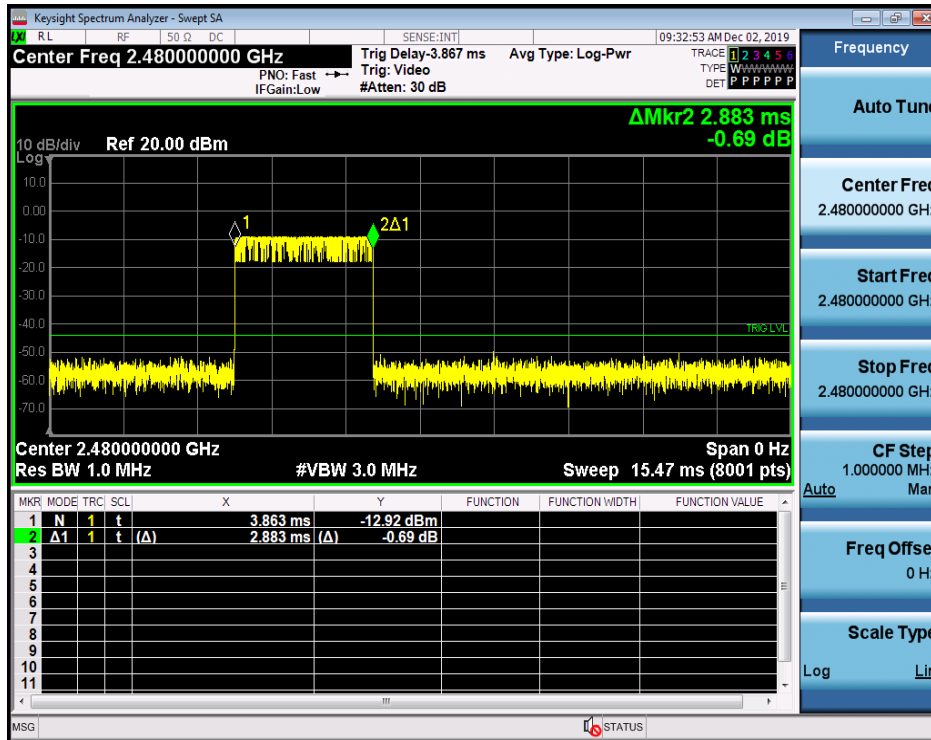
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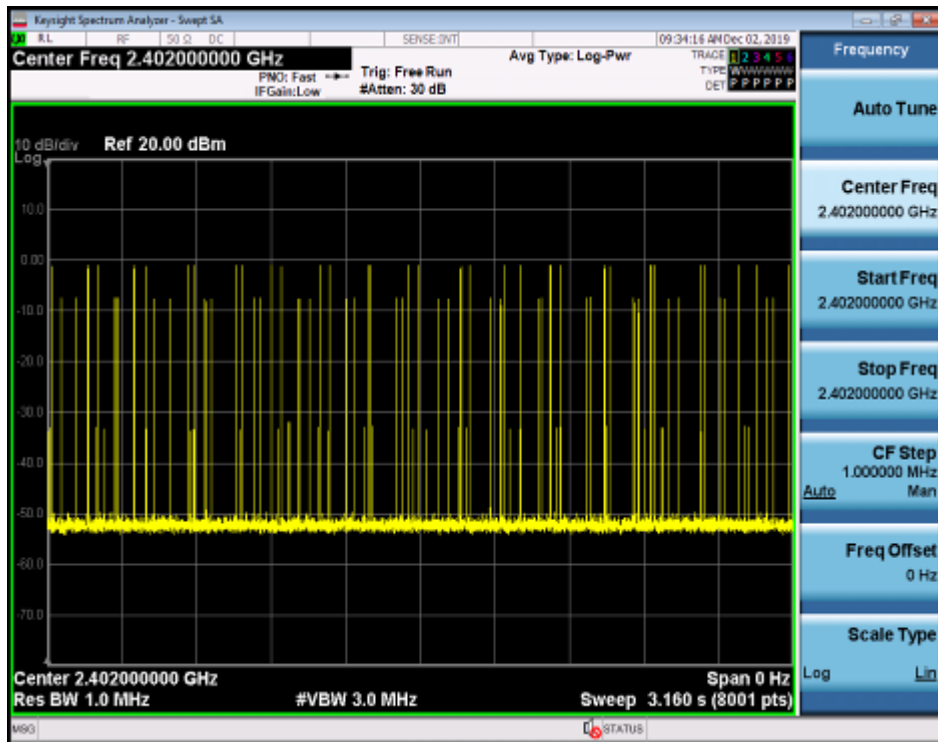
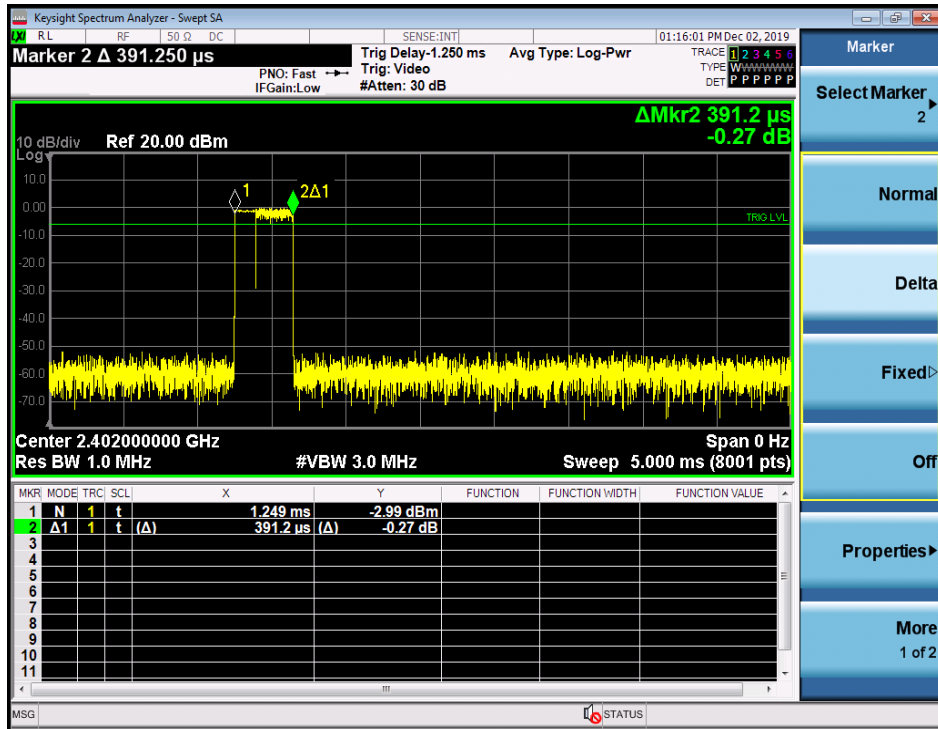
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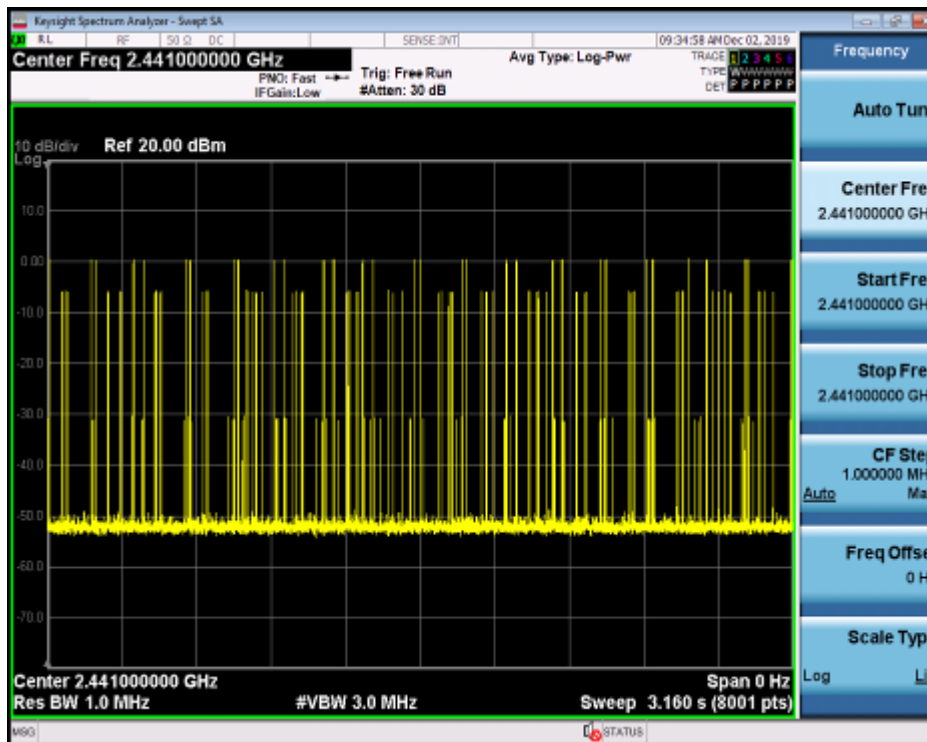
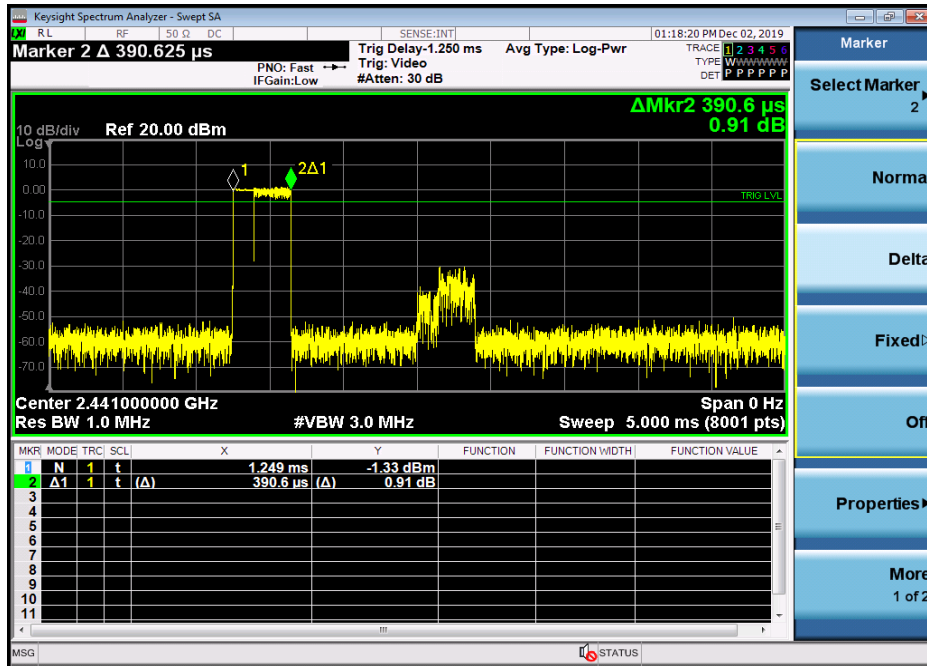
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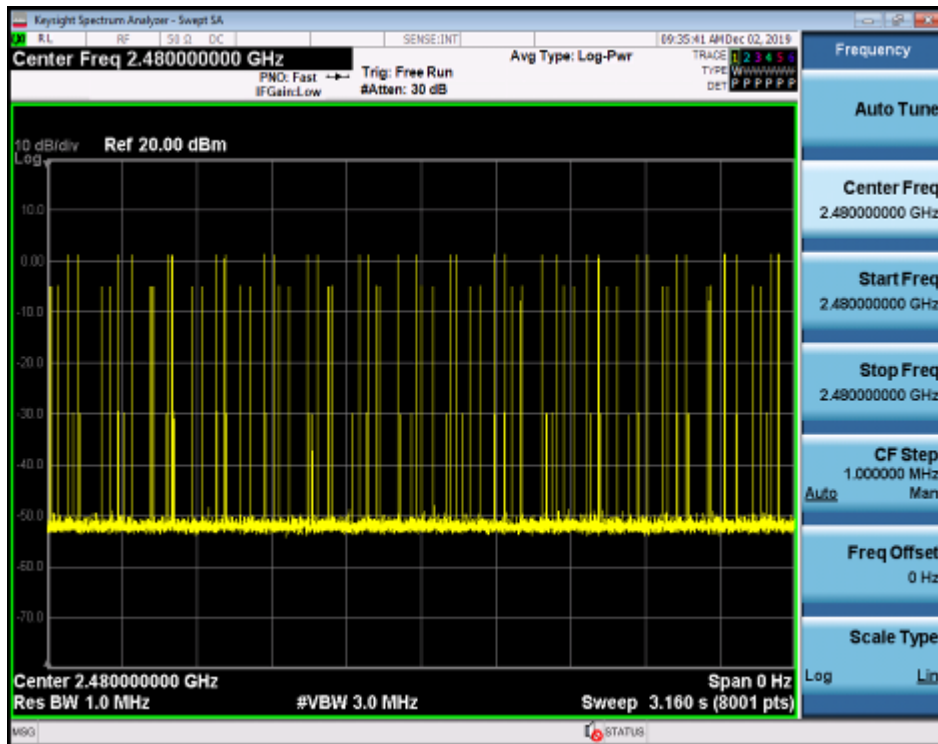
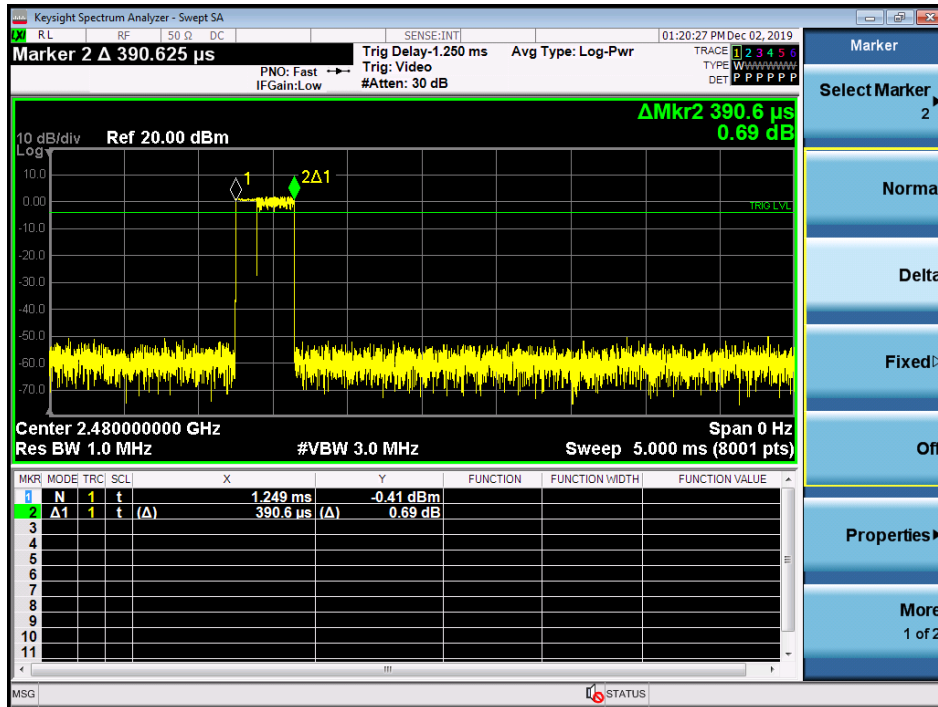


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