TEST REPORT

Application No.:	GZCR2108020887AT
Applicant:	Viloc nv
Address of Applicant:	Posthofbrug 6-8 5/106 Antwerp 2600 Belgium
Manufacturer:	Viloc nv
Address of Manufacturer:	Posthofbrug 6-8 5/106 Antwerp 2600 Belgium
Equipment Under Test (EUT):	
EUT Name:	Electronic tag
Model No.:	STABIL2
Trade Mark:	Viloc
Standard(s) :	47 CFR Part 15, Subpart C 15.247
Date of Receipt:	2021-08-22
Date of Test:	2021-08-25 to 2021-09-02
Date of Issue:	2021-09-07
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		*2021-09-07*		*Original*

Authorized for issue by				
		Curry Wu/Project Engineer		
		Ricky Liu /Reviewer		

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(b)(4)	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		ANSI C63.10 (2013) Section 7.8.7	47 CFR Part 15, Subpart C 15.247(a)(1)	Pass
Carrier Frequencies Separation		ANSI C63.10 (2013) Section 7.8.2	47 CFR Part 15, Subpart C 15.247a(1)	Pass
Hopping Channel Number		ANSI C63.10 (2013) Section 7.8.3	47 CFR Part 15, Subpart C 15.247a(1)(iii)	Pass
Dwell Time		ANSI C63.10 (2013) Section 7.8.4	47 CFR Part 15, Subpart C 15.247a(1)(iii)	Pass
Conducted Band Edges Measurement		ANSI C63.10 (2013) Section 7.8.6	47 CFR Part 15, Subpart C 15.247(d)	Pass
Conducted Spurious Emissions		ANSI C63.10 (2013) Section 7.8.8	47 CFR Part 15, Subpart C 15.247(d)	Pass
Radiated Spurious Emissions (Below 1GHz)		ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions (Above 1GHz)		ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

Declaration of End-product Grouping:

Model No.: STABIL2-NINEBOT-700-US, ST2-1200-A01, ST2-550-A01

Only the model STABIL2-NINEBOT-700-US was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components used and internal wiring and functions were identical for the above models, with only difference as below:

- STABIL2-NINEBOT-700-US = casing ST2-NINEBOT-700 + 700mAh battery + Module (STABIL2 + SMT Antenna ANT-A01)
- ST2-1200-A01 = casing ST2-1200 + 1200mAh battery + Module (STABIL2 + SMT Antenna ANT-A01)
- ST2-550-A01 = casing ST2-550 + 550mAh battery + Module (STABIL2 + SMT Antenna ANT-A01)

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply: DC 3.7V
Lithium Ion Battery: 3.7V 700mAh non-rechargeable battery for STABIL2-NINEBOT-700-US
Lithium Ion Battery: 3.7V 1200mAh non-rechargeable battery for ST2-1200-A01
Lithium Ion Battery: 3.7V 550mAh non-rechargeable battery for ST2-550-A01

Antenna Gain: 0dBi

Antenna Type: SMT Antenna

Modulation type: FSK

For 62KHz Bandwidth	
Channel Spacing:	0.5MHz
Number of Channels:	50
Operation Frequency:	903 MHz-927.5MHz
Technology Type:	Hopping
Test Channels:	903MHz, 915MHz, 927.5MHz
For 125KHz Bandwidth	
Channel Spacing:	0.5MHz
Number of Channels:	50
Operation Frequency:	903 MHz-927.5MHz
Technology Type:	Hopping
Test Channels:	903MHz, 915MHz, 927.5MHz
For 250KHz Bandwidth	
Channel Spacing:	0.5MHz
Number of Channels:	50
Operation Frequency:	903 MHz-927.5MHz
Technology Type:	Hopping
Test Channels:	903MHz, 915MHz, 927.5MHz
For 500KHz Bandwidth	
Channel Spacing:	1MHz
Number of Channels:	25
Operation Frequency:	903 MHz-927MHz
Technology Type:	Hopping
Test Channels:	903MHz, 915MHz, 927MHz

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
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The EUT has been tested as an independent unit.			

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Peak Output Power	± 0.75dB
20dB Bandwidth	± 3%
Carrier Frequencies Separation	± 7.25 x 10-8
Hopping Channel Number	± 7.25 x 10-8
Dwell Time	± 0.37%
Conducted Band Edges Measurement	± 0.75dB
Conducted Spurious Emissions	± 0.75dB
Radiated Emissions which fall in the restricted bands	±5.08dB (1GHz-6GHz);±5.14dB(above 6GHz)
Radiated Spurious Emissions (Below 1GHz)	±5.06dB (3m); ±4.46dB (10m)
Radiated Spurious Emissions (Above 1GHz)	±5.08dB (1GHz-6GHz);±5.14dB(above 6GHz)
Remark: The U_{lab} (lab Uncertainty) is less than U_{cispr} (CISPR Uncertainty), so the test results – compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit; – non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.	

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/New Zealand Regulatory Compliance Mark (RCM).

- **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 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.

- **ISED (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-20107 and T-11179)**

The 10m Semi-anechoic chamber, 966 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-20107 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 17025:2017, 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

Conducted Peak Output Power					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01

20dB Bandwidth					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01

Carrier Frequencies Separation					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01

Hopping Channel Number					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01

Dwell Time					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01

Conducted Band Edges Measurement					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14

MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01

Conducted Spurious Emissions					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
MI CABLE	SGS-EMC	0.8M	EMC2136	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(20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-01-08	2022-01-07
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-01-08	2022-01-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2020-11-13	2021-11-12
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2020-09-17	2021-09-16
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2020-09-09	2021-09-08

Radiated Spurious Emissions (Below 1GHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Chamber cable	HangTianXing	N/A	EMC0542	2020-09-09	2022-09-08
Trilog Broadband Antenna(25MHz-1GHz)-Lab	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Amplifier(9kHz-1.3GHz)	HP	8447F	EMC2065	2021-05-19	2022-05-18
Active Loop Antenna-RED	ETS-Lindgren	6502	EMC2190	2019-12-27	2021-12-26
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

EMI Test Receiver(1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2220	2021-05-26	2022-05-25

Radiated Spurious Emissions (Above 1GHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EMI Test Receiver(20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-01-08	2022-01-07
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-01-08	2022-01-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2020-11-13	2021-11-12
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2020-09-17	2021-09-16
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2020-09-09	2021-09-08

General used equipment					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
DMM	Fluke	73	EMC0006	2021-07-05	2022-07-05
DMM	Fluke	73	EMC0007	2021-07-05	2022-07-05

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)

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 0 dBi.

Please refer to internal photos.

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 ≥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

7.1.1 E.U.T. Operation

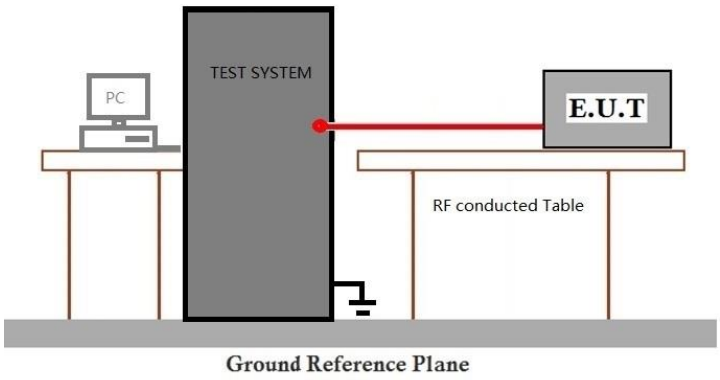
Operating Environment:

Temperature: 23.9 °C Humidity: 56.9 % RH Atmospheric Pressure: 995 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode(62KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	04	TX_non-Hop mode(125KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	06	TX_non-Hop mode(250KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	08	TX_non-Hop mode(500KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

cable loss=0.9dB

Please Refer to Appendix for Details

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

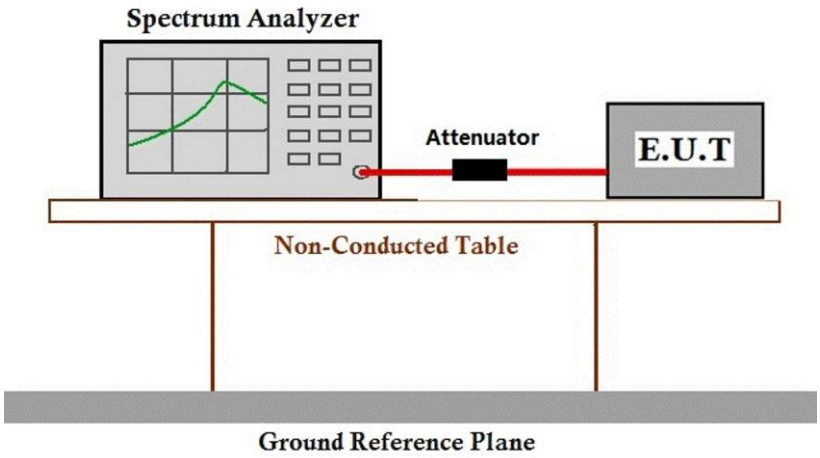
7.2.1 E.U.T. Operation

Operating Environment:
Temperature: 23.4 °C Humidity: 58.2 % RH Atmospheric Pressure: 995 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode(62KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	04	TX_non-Hop mode(125KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	06	TX_non-Hop mode(250KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	08	TX_non-Hop mode(500KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

cable loss=0.9dB

Please Refer to Appendix for Details

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

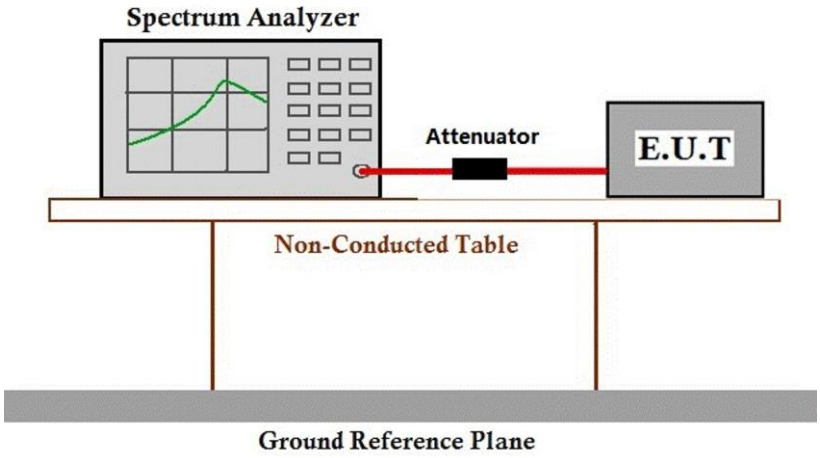
Operating Environment:

Temperature: 23.7 °C Humidity: 56.8 % RH Atmospheric Pressure: 995 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX_Hop mode(62KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	05	TX_Hop mode(125KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	07	TX_Hop mode(250KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	09	TX_Hop mode(500KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

cable loss=0.9dB

Please Refer to Appendix for Details

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

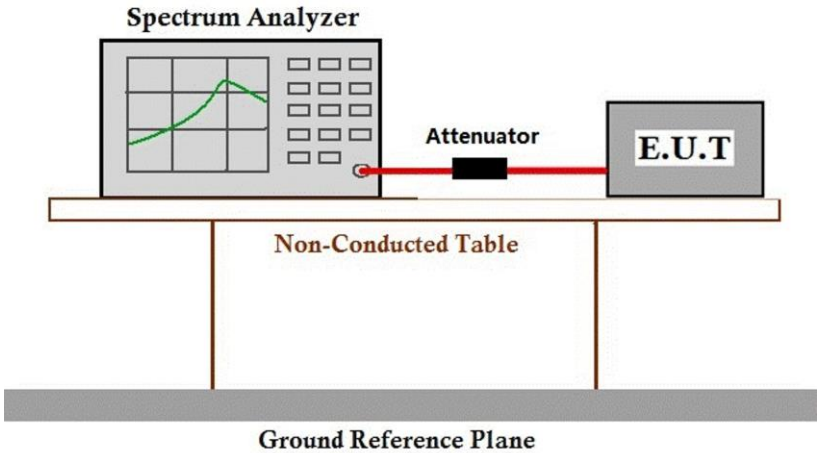
7.4.1 E.U.T. Operation

Operating Environment:
Temperature: 23.2 °C Humidity: 56.9 % RH Atmospheric Pressure: 995 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX_Hop mode(62KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	05	TX_Hop mode(125KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	07	TX_Hop mode(250KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	09	TX_Hop mode(500KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

cable loss=0.9dB

Please Refer to Appendix for Details

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

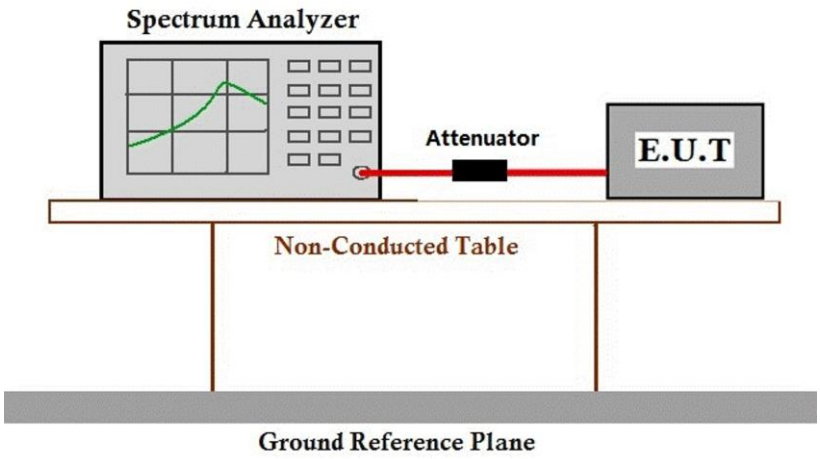
7.5.1 E.U.T. Operation

Operating Environment:
Temperature: 23.7 °C Humidity: 56.4 % RH Atmospheric Pressure: 995 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX_Hop mode(62KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	05	TX_Hop mode(125KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	07	TX_Hop mode(250KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	09	TX_Hop mode(500KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

cable loss=0.9dB

Please Refer to Appendix for Details

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

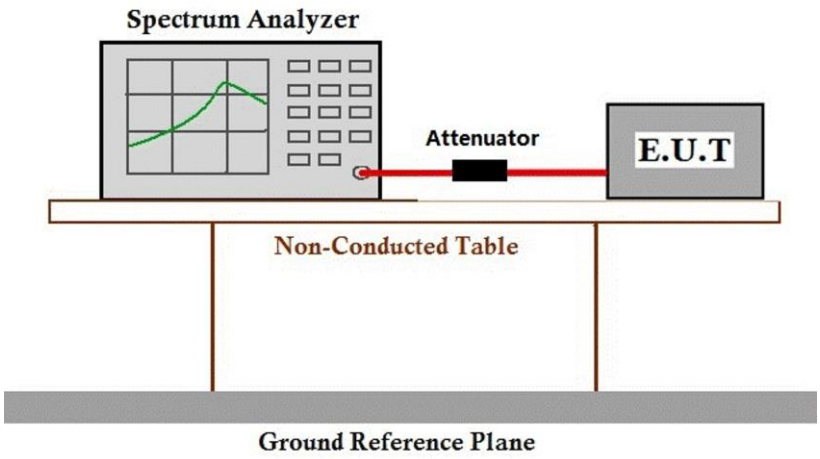
Operating Environment:

Temperature: 23.8 °C Humidity: 56.7 % RH Atmospheric Pressure: 995 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode(62KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	01	TX_Hop mode(62KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	04	TX_non-Hop mode(125KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	05	TX_Hop mode(125KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	07	TX_Hop mode(250KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	08	TX_non-Hop mode(500KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	09	TX_Hop mode(500KHz)_Keep the EUT in frequency hopping mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

cable loss=0.9dB

Please Refer to Appendix for Details

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

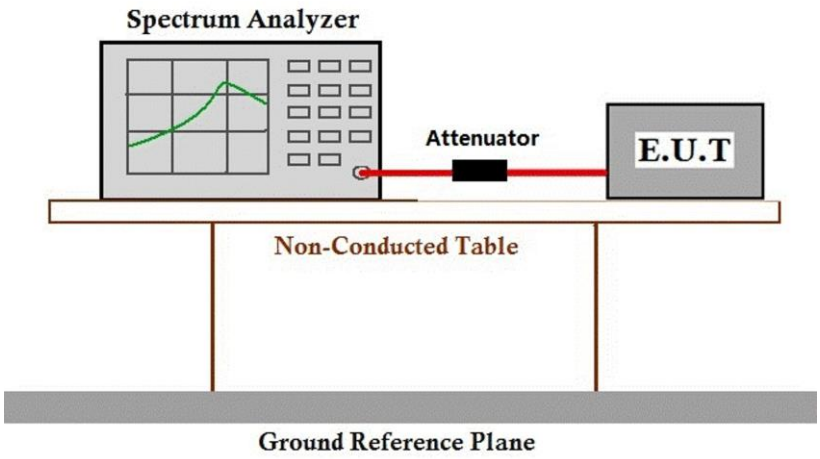
Operating Environment:

Temperature: 23.6 °C Humidity: 57.1 % RH Atmospheric Pressure: 995 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode(62KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	04	TX_non-Hop mode(125KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	06	TX_non-Hop mode(250KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	08	TX_non-Hop mode(500KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.7.3 Test Setup Diagram



7.7.4 Measurement Procedure and Data

cable loss=0.9dB

Please Refer to Appendix for Details

7.8 Radiated Spurious Emissions (Below 1GHz)

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

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

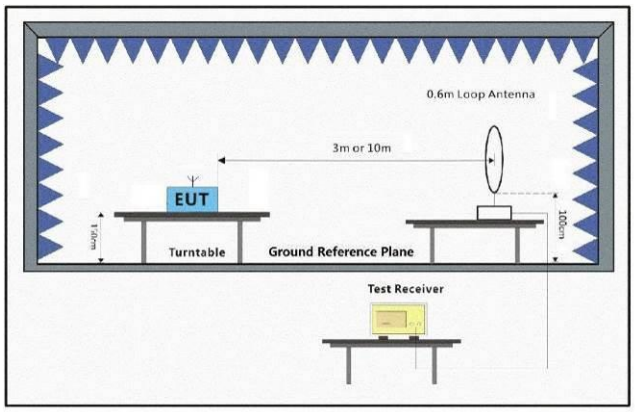
Operating Environment:

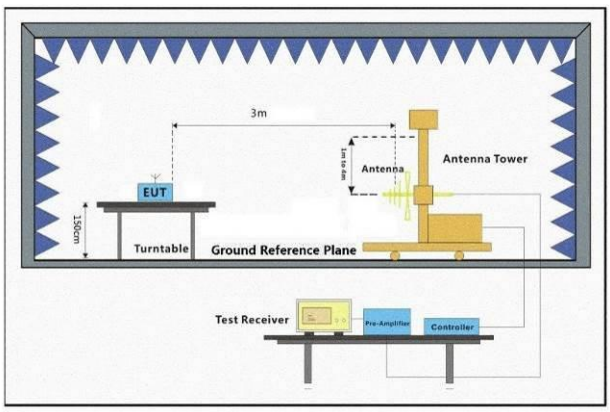
Temperature: 23.6 °C Humidity: 57.3 % RH Atmospheric Pressure: 995 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode(62KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	04	TX_non-Hop mode(125KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	06	TX_non-Hop mode(250KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	08	TX_non-Hop mode(500KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.8.3 Test Setup Diagram





7.8.4 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. 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.

c. 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.

d. 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.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. 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.

g. Test the EUT in the lowest channel, the middle channel, the Highest channel.

h. 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.

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

Remark:

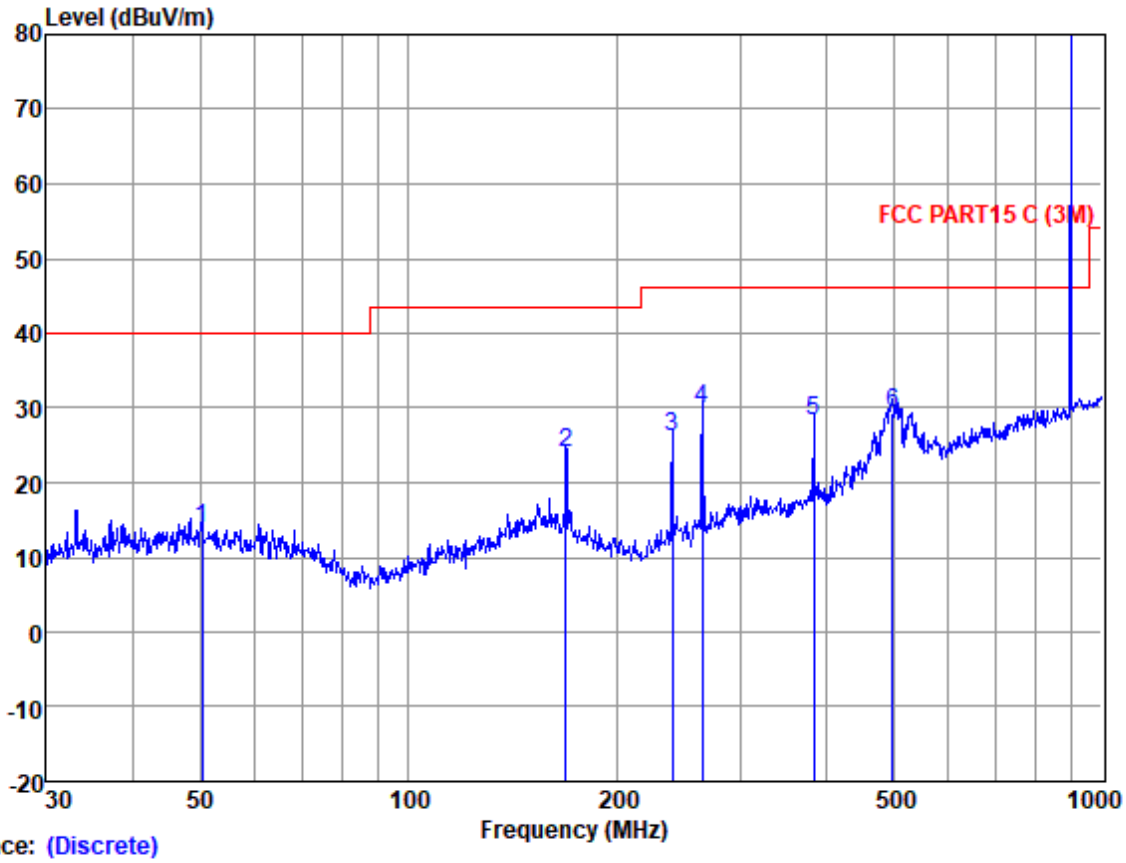
1) Through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.

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 1 GHz, the disturbance 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.

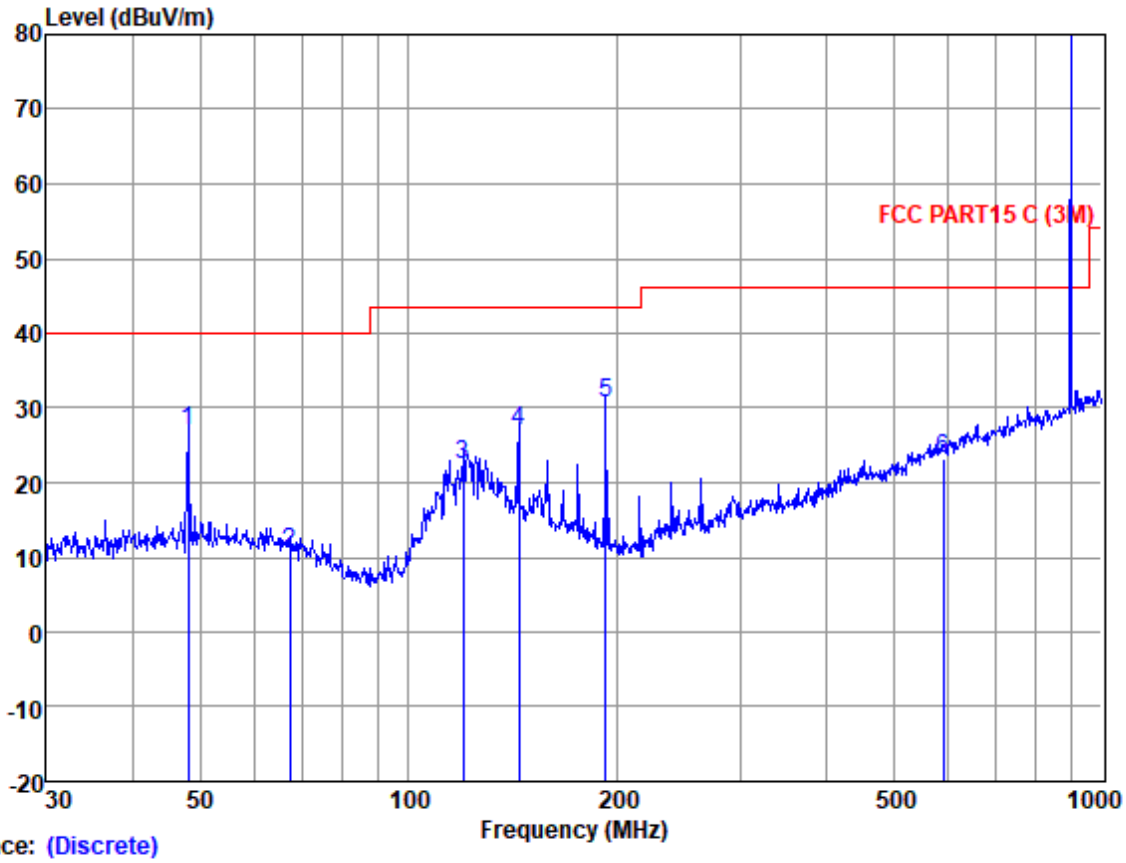
Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; ; Channel:Low



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	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	50.41	26.00	13.91	1.15	27.17	13.89	40.00	-26.11	HORIZONTAL	QP
2	168.41	35.05	13.25	2.39	26.77	23.92	43.50	-19.58	HORIZONTAL	QP
3	239.99	38.14	11.90	2.81	26.66	26.19	46.00	-19.81	HORIZONTAL	QP
4	264.75	41.02	12.40	3.02	26.59	29.85	46.00	-16.15	HORIZONTAL	QP
5	383.93	36.04	15.50	3.87	27.26	28.15	46.00	-17.85	HORIZONTAL	QP
6	497.68	34.91	17.90	4.39	27.97	29.23	46.00	-16.77	HORIZONTAL	QP

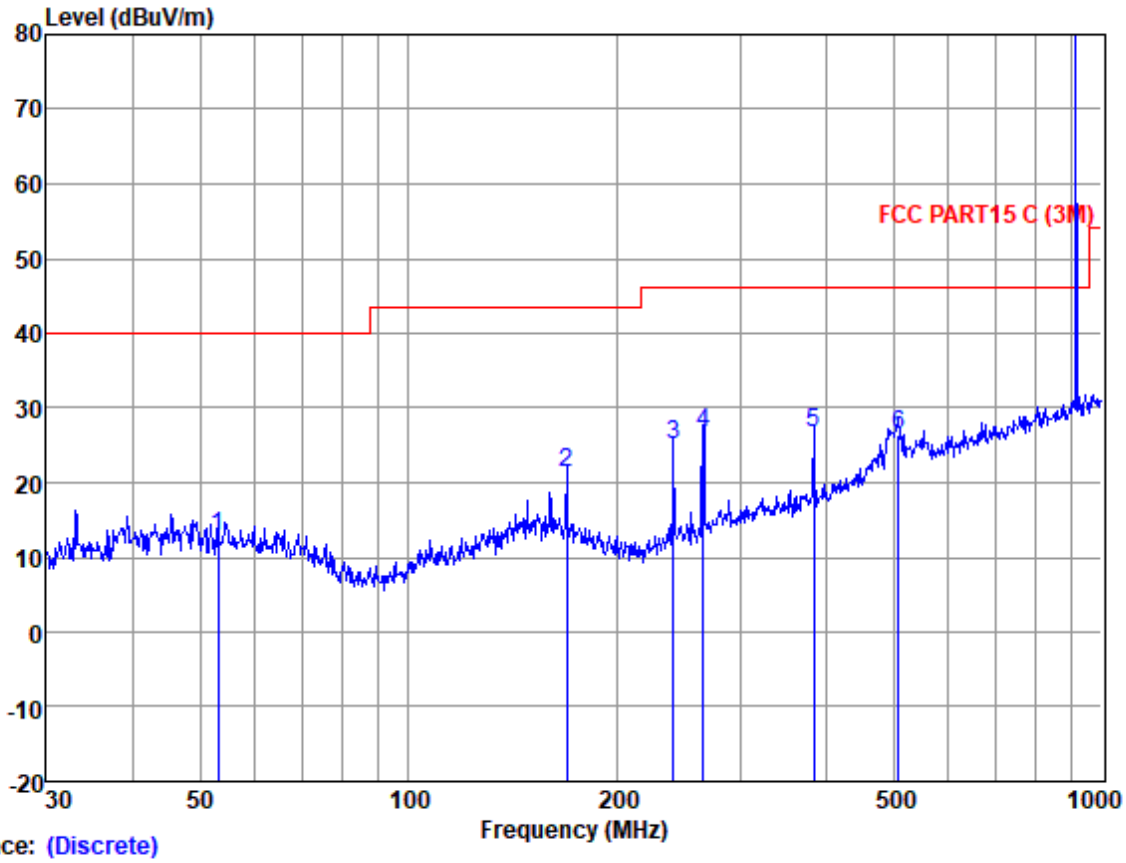
Test Mode: 00; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	47.99	38.90	14.00	1.13	27.17	26.86	40.00	-13.14	VERTICAL	QP
2	67.44	24.27	12.29	1.38	27.14	10.80	40.00	-29.20	VERTICAL	QP
3	119.86	36.66	10.90	1.86	27.03	22.39	43.50	-21.11	VERTICAL	QP
4	144.33	37.98	13.62	2.15	26.87	26.88	43.50	-16.62	VERTICAL	QP
5	192.42	44.08	10.87	2.50	26.74	30.71	43.50	-12.79	VERTICAL	QP
6	590.97	26.76	19.50	5.10	28.20	23.16	46.00	-22.84	VERTICAL	QP

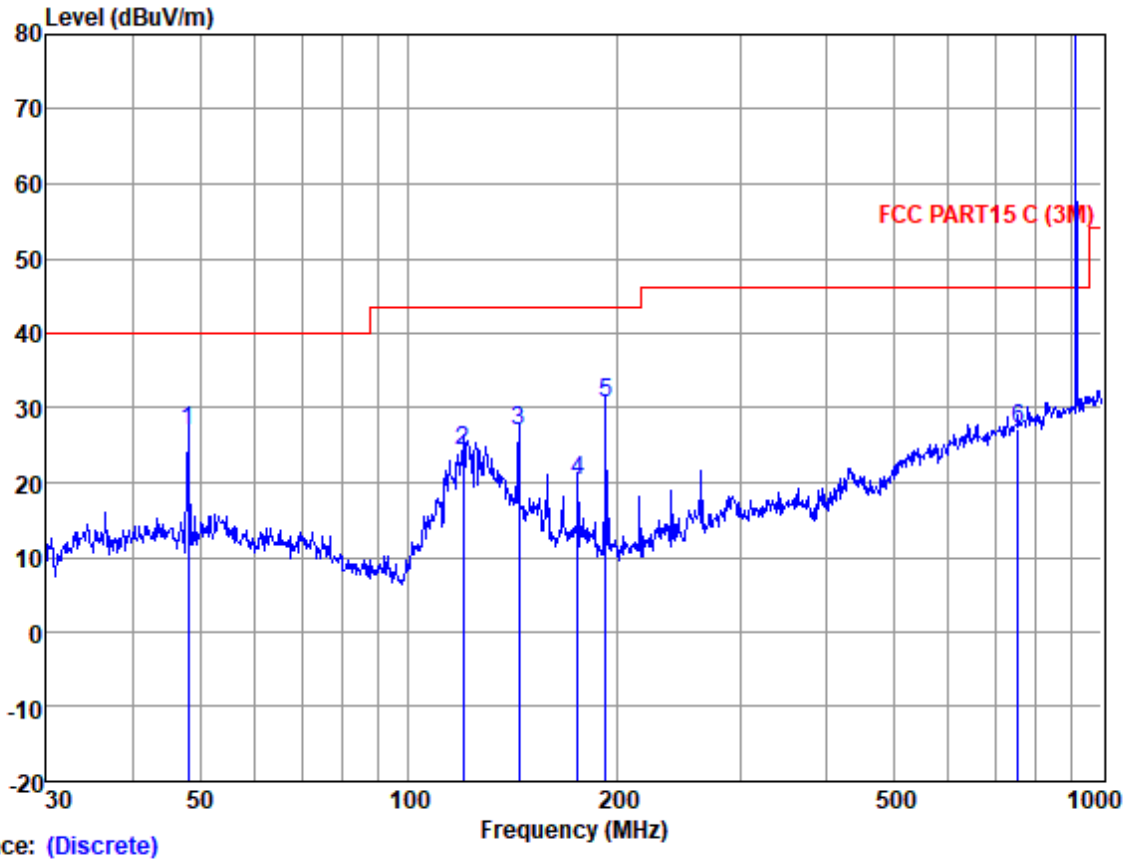
Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	53.13	24.95	13.88	1.17	27.17	12.83	40.00	-27.17	HORIZONTAL	QP
2	169.01	32.50	13.20	2.39	26.77	21.32	43.50	-22.18	HORIZONTAL	QP
3	240.83	36.91	11.92	2.81	26.66	24.98	46.00	-21.02	HORIZONTAL	QP
4	265.68	37.85	12.45	3.02	26.58	26.74	46.00	-19.26	HORIZONTAL	QP
5	383.93	34.56	15.50	3.87	27.26	26.67	46.00	-19.33	HORIZONTAL	QP
6	508.26	31.95	18.07	4.47	27.99	26.50	46.00	-19.50	HORIZONTAL	QP

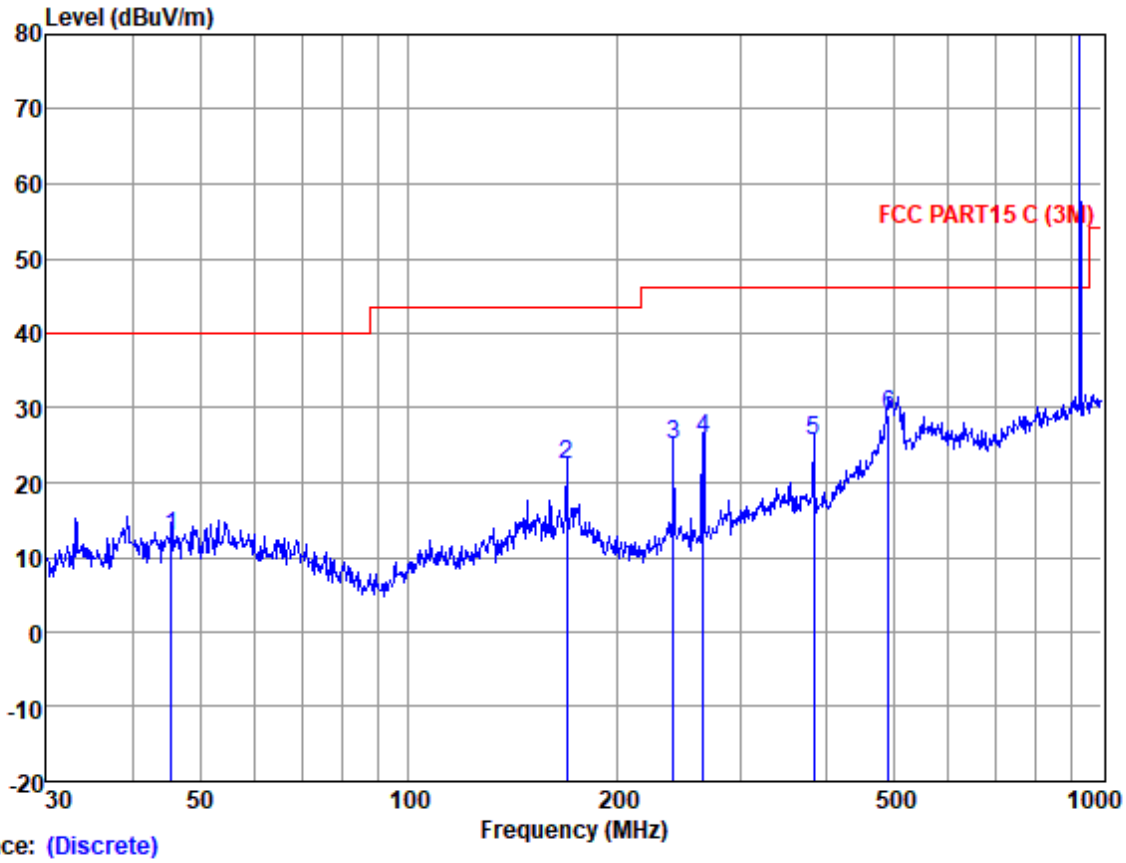
Test Mode: 00; Polarity: Vertical; Modulation:GFSK; ; Channel:middle



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	47.99	38.91	14.00	1.13	27.17	26.87	40.00	-13.13	VERTICAL	QP
2	119.86	38.66	10.90	1.86	27.03	24.39	43.50	-19.11	VERTICAL	QP
3	144.33	37.98	13.62	2.15	26.87	26.88	43.50	-16.62	VERTICAL	QP
4	175.04	32.06	12.60	2.42	26.76	20.32	43.50	-23.18	VERTICAL	QP
5	192.42	44.08	10.87	2.50	26.74	30.71	43.50	-12.79	VERTICAL	QP
6	755.39	27.00	22.20	6.01	28.08	27.13	46.00	-18.87	VERTICAL	QP

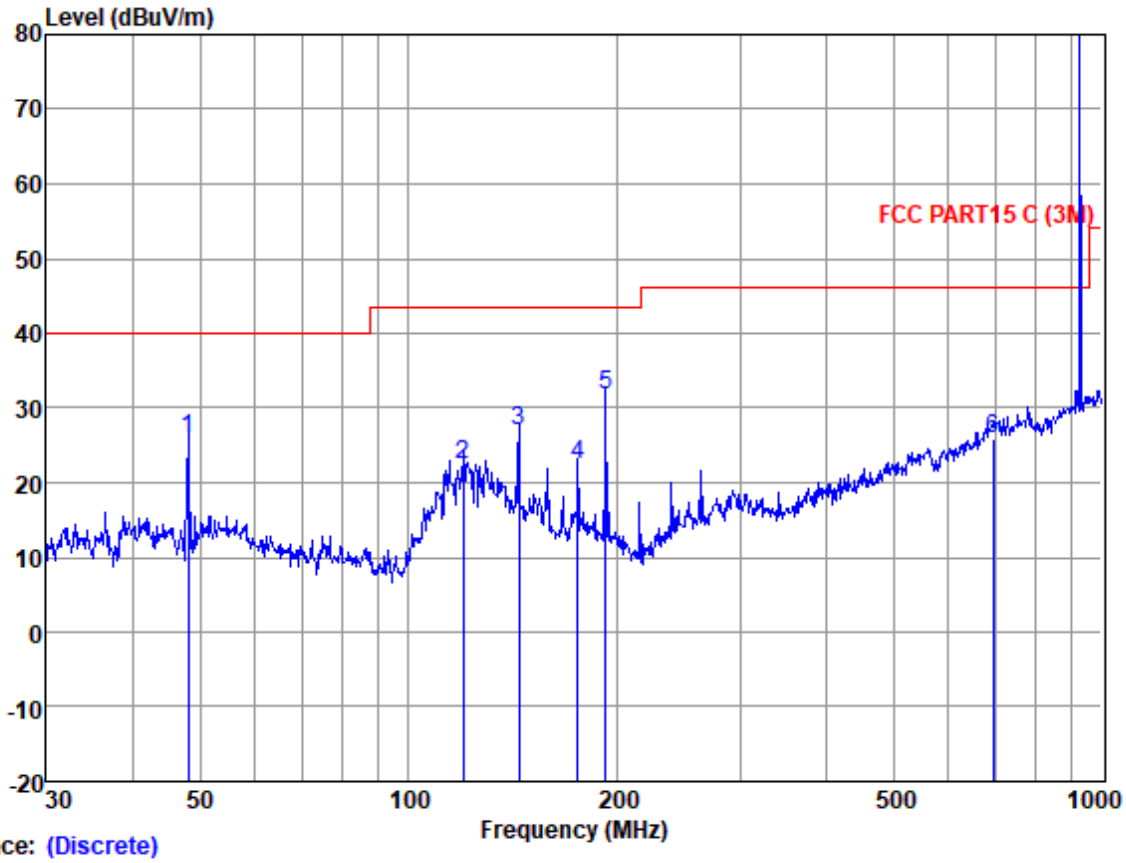
Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; ; Channel:High



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	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	45.38	24.90	13.87	1.12	27.17	12.72	40.00	-27.28	HORIZONTAL	QP
2	169.01	33.50	13.20	2.39	26.77	22.32	43.50	-21.18	HORIZONTAL	QP
3	240.83	36.91	11.92	2.81	26.66	24.98	46.00	-21.02	HORIZONTAL	QP
4	265.68	36.85	12.45	3.02	26.58	25.74	46.00	-20.26	HORIZONTAL	QP
5	383.93	33.56	15.50	3.87	27.26	25.67	46.00	-20.33	HORIZONTAL	QP
6	492.47	34.88	17.85	4.37	27.95	29.15	46.00	-16.85	HORIZONTAL	QP

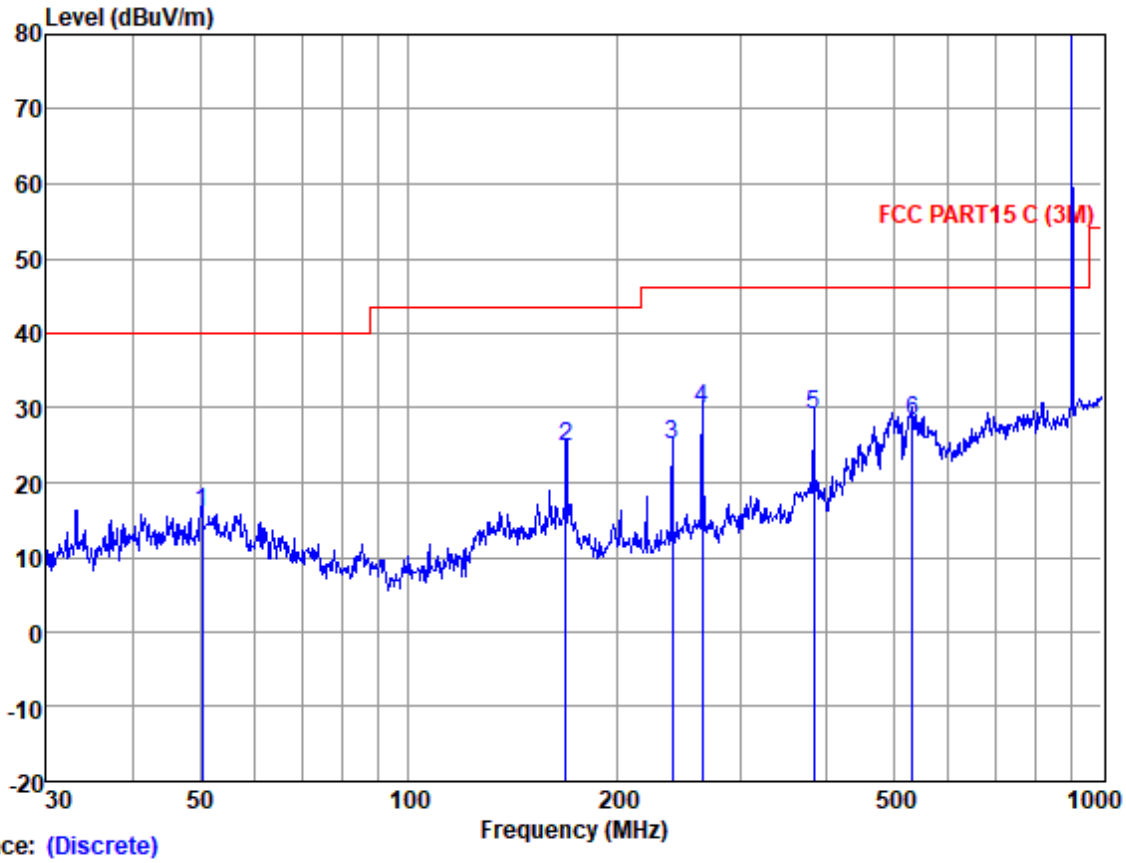
Test Mode: 00; Polarity: Vertical; Modulation:GFSK; ; Channel:High



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	47.99	37.90	14.00	1.13	27.17	25.86	40.00	-14.14	VERTICAL	QP
2	119.86	36.66	10.90	1.86	27.03	22.39	43.50	-21.11	VERTICAL	QP
3	144.33	37.98	13.62	2.15	26.87	26.88	43.50	-16.62	VERTICAL	QP
4	175.04	34.06	12.60	2.42	26.76	22.32	43.50	-21.18	VERTICAL	QP
5	192.42	45.08	10.87	2.50	26.74	31.71	43.50	-11.79	VERTICAL	QP
6	696.86	27.26	21.00	5.77	28.16	25.87	46.00	-20.13	VERTICAL	QP

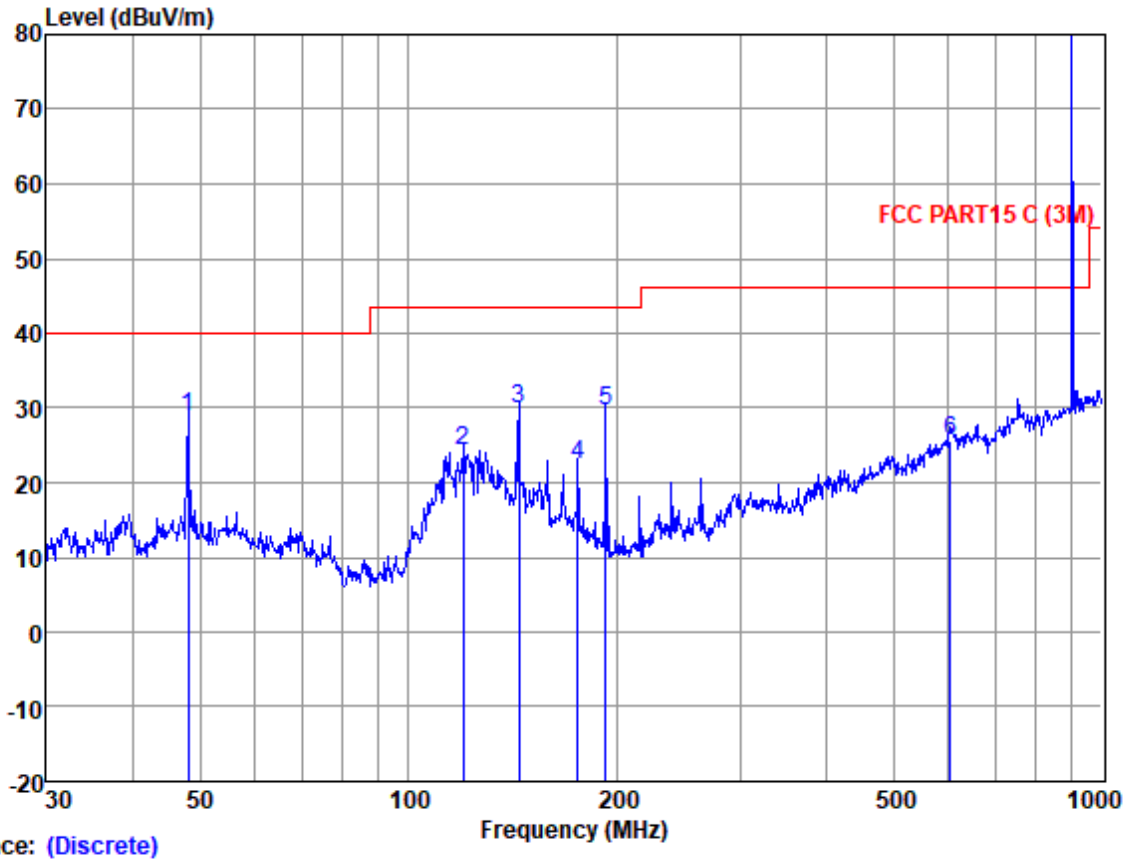
Test Mode: 04; Polarity: Horizontal; Modulation:GFSK; ; Channel:Low



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	50.41	28.00	13.91	1.15	27.17	15.89	40.00	-24.11	HORIZONTAL	QP
2	168.41	36.05	13.25	2.39	26.77	24.92	43.50	-18.58	HORIZONTAL	QP
3	239.99	37.14	11.90	2.81	26.66	25.19	46.00	-20.81	HORIZONTAL	QP
4	264.75	41.02	12.40	3.02	26.59	29.85	46.00	-16.15	HORIZONTAL	QP
5	383.93	37.04	15.50	3.87	27.26	29.15	46.00	-16.85	HORIZONTAL	QP
6	531.96	33.31	18.32	4.65	28.04	28.24	46.00	-17.76	HORIZONTAL	QP

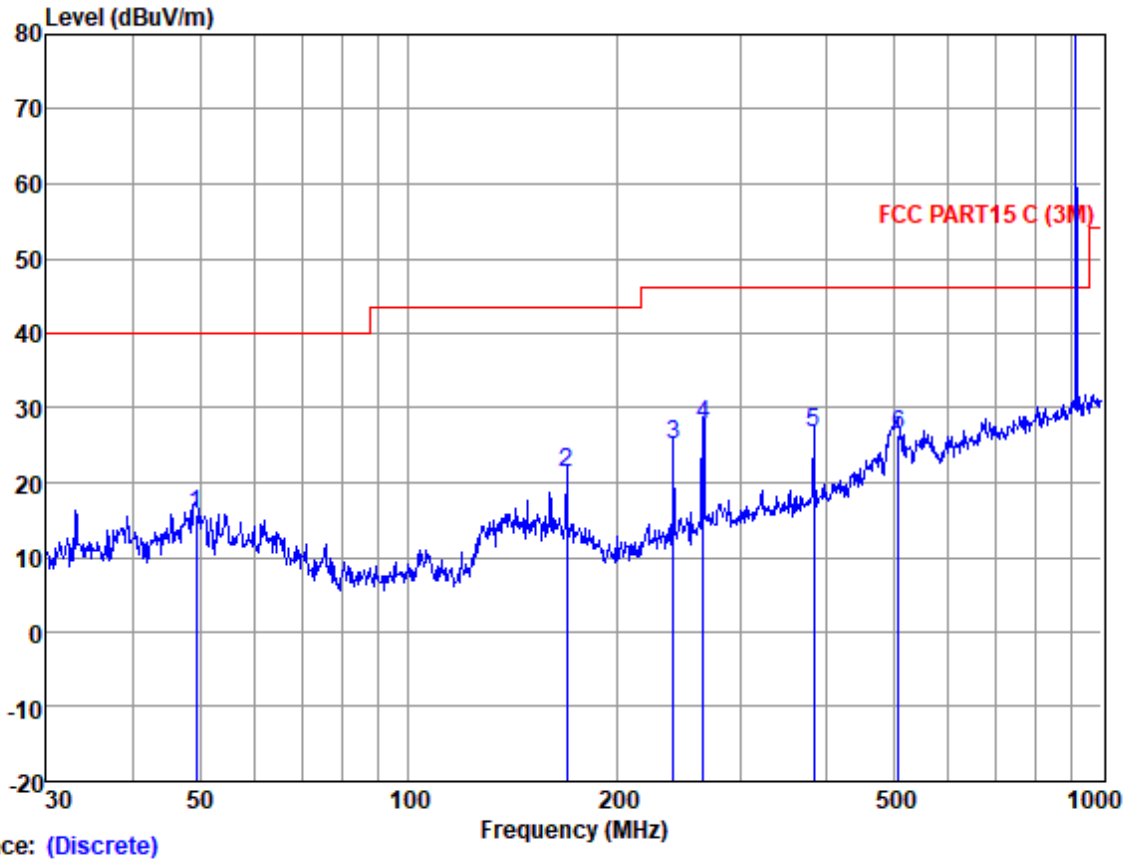
Test Mode: 04; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	47.99	40.82	14.00	1.13	27.17	28.78	40.00	-11.22	VERTICAL	QP
2	119.86	38.66	10.90	1.86	27.03	24.39	43.50	-19.11	VERTICAL	QP
3	144.33	40.98	13.62	2.15	26.87	29.88	43.50	-13.62	VERTICAL	QP
4	175.04	34.06	12.60	2.42	26.76	22.32	43.50	-21.18	VERTICAL	QP
5	192.42	43.08	10.87	2.50	26.74	29.71	43.50	-13.79	VERTICAL	QP
6	603.54	28.51	20.10	5.18	28.21	25.58	46.00	-20.42	VERTICAL	QP

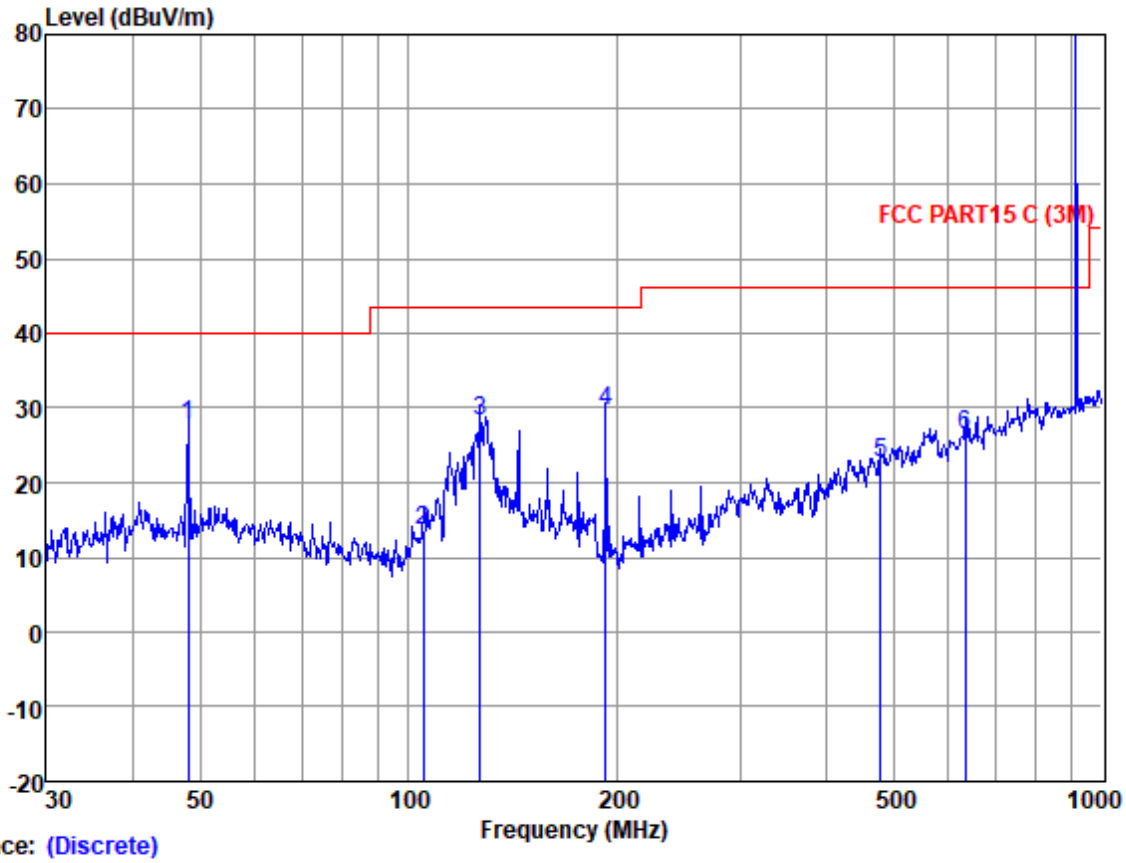
Test Mode: 04; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	49.36	27.74	13.93	1.14	27.17	15.64	40.00	-24.36	HORIZONTAL	QP
2	169.01	32.50	13.20	2.39	26.77	21.32	43.50	-22.18	HORIZONTAL	QP
3	240.83	36.91	11.92	2.81	26.66	24.98	46.00	-21.02	HORIZONTAL	QP
4	265.68	38.85	12.45	3.02	26.58	27.74	46.00	-18.26	HORIZONTAL	QP
5	383.93	34.56	15.50	3.87	27.26	26.67	46.00	-19.33	HORIZONTAL	QP
6	508.26	31.95	18.07	4.47	27.99	26.50	46.00	-19.50	HORIZONTAL	QP

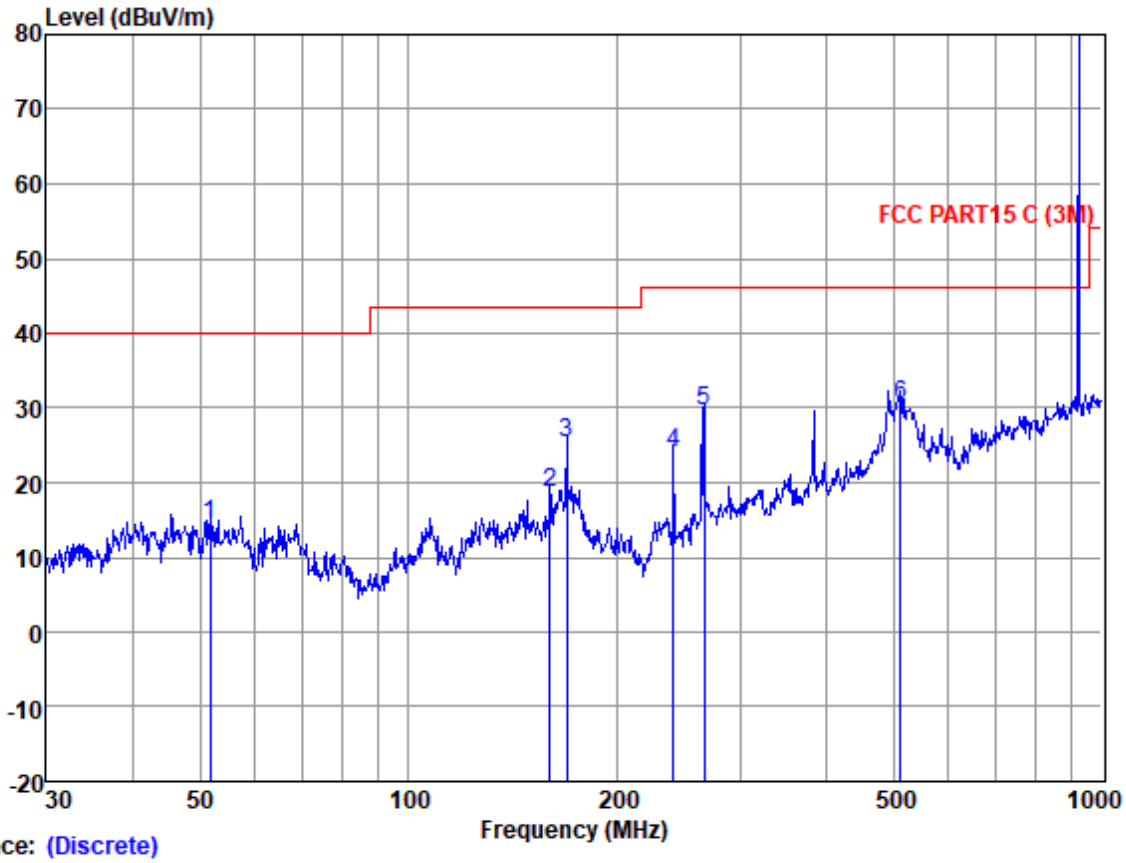
Test Mode: 04; Polarity: Vertical; Modulation:GFSK; ; Channel:middle



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	47.99	39.74	14.00	1.13	27.17	27.70	40.00	-12.30	VERTICAL	QP
2	104.90	29.08	9.86	1.76	27.07	13.63	43.50	-29.87	VERTICAL	QP
3	126.77	41.57	11.66	1.93	27.01	28.15	43.50	-15.35	VERTICAL	QP
4	192.42	42.88	10.87	2.50	26.74	29.51	43.50	-13.99	VERTICAL	QP
5	478.85	28.53	17.57	4.34	27.90	22.54	46.00	-23.46	VERTICAL	QP
6	633.91	28.83	20.40	5.39	28.20	26.42	46.00	-19.58	VERTICAL	QP

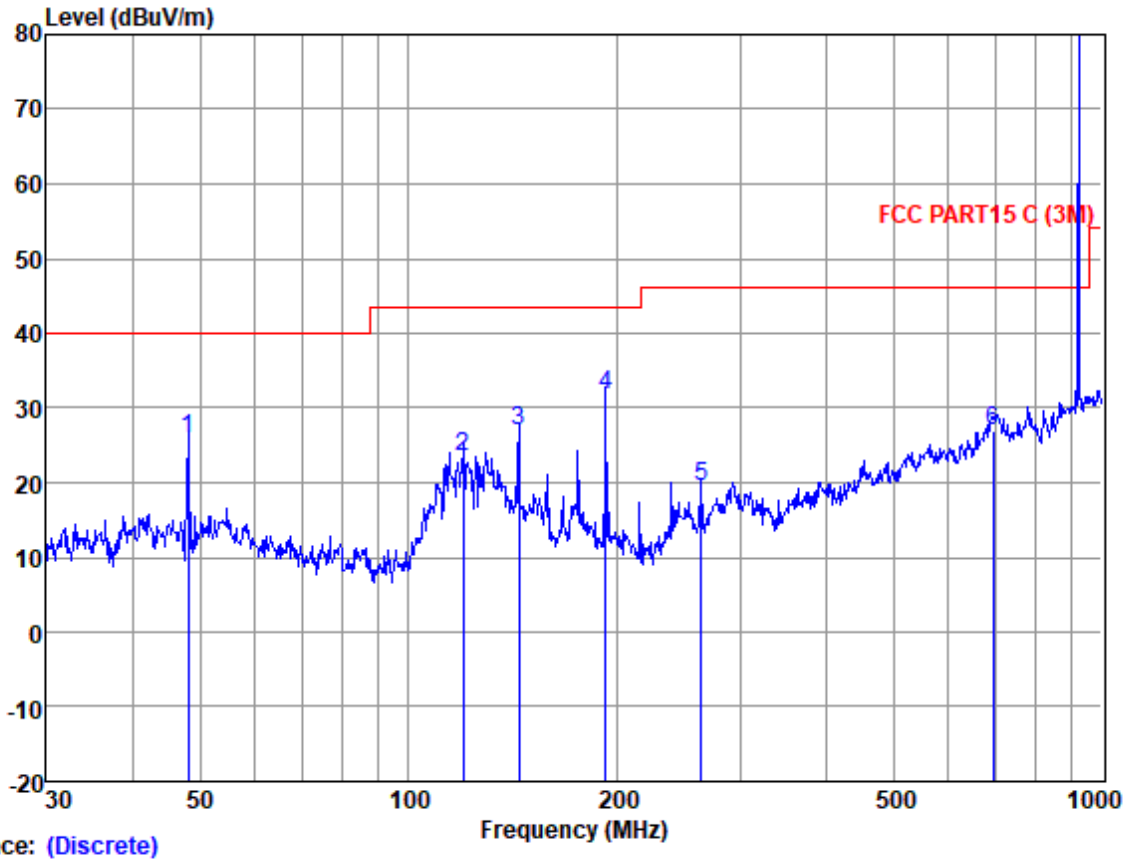
Test Mode: 04; Polarity: Horizontal; Modulation:GFSK; ; Channel:High



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	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	51.66	26.30	13.98	1.16	27.17	14.27	40.00	-25.73	HORIZONTAL	QP
2	159.78	29.49	13.60	2.33	26.80	18.62	43.50	-24.88	HORIZONTAL	QP
3	169.01	36.50	13.20	2.39	26.77	25.32	43.50	-18.18	HORIZONTAL	QP
4	240.83	35.91	11.92	2.81	26.66	23.98	46.00	-22.02	HORIZONTAL	QP
5	266.61	40.69	12.50	3.02	26.58	29.63	46.00	-16.37	HORIZONTAL	QP
6	511.84	35.78	18.12	4.47	28.00	30.37	46.00	-15.63	HORIZONTAL	QP

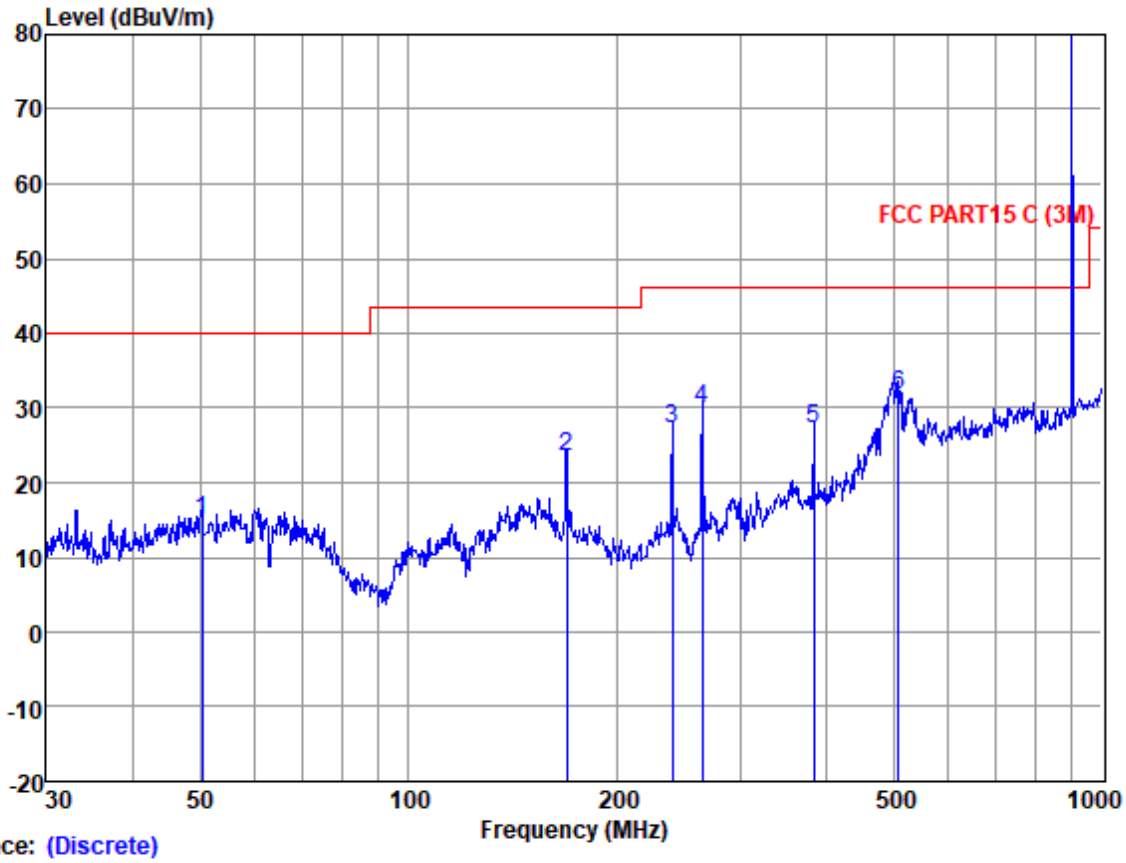
Test Mode: 04; Polarity: Vertical; Modulation:GFSK; ; Channel:High



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	47.99	37.77	14.00	1.13	27.17	25.73	40.00	-14.27	VERTICAL	QP
2	119.86	37.66	10.90	1.86	27.03	23.39	43.50	-20.11	VERTICAL	QP
3	144.33	37.98	13.62	2.15	26.87	26.88	43.50	-16.62	VERTICAL	QP
4	192.42	45.10	10.87	2.50	26.74	31.73	43.50	-11.77	VERTICAL	QP
5	263.82	30.79	12.37	3.00	26.59	19.57	46.00	-26.43	VERTICAL	QP
6	696.86	28.26	21.00	5.77	28.16	26.87	46.00	-19.13	VERTICAL	QP

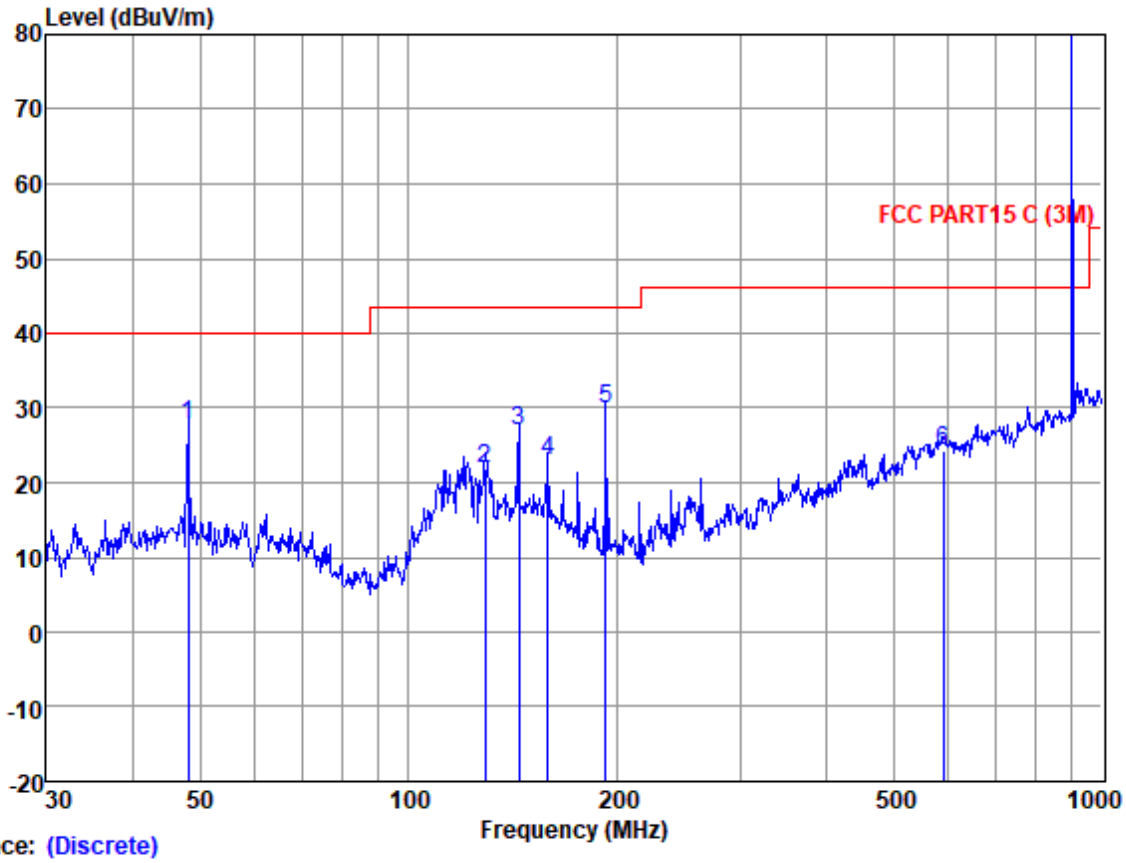
Test Mode: 06; Polarity: Horizontal; Modulation:GFSK; ; Channel:Low



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	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	50.41	27.00	13.91	1.15	27.17	14.89	40.00	-25.11	HORIZONTAL	QP
2	169.01	34.68	13.20	2.39	26.77	23.50	43.50	-20.00	HORIZONTAL	QP
3	239.99	39.15	11.90	2.81	26.66	27.20	46.00	-18.80	HORIZONTAL	QP
4	264.75	41.01	12.40	3.02	26.59	29.84	46.00	-16.16	HORIZONTAL	QP
5	383.93	35.05	15.50	3.87	27.26	27.16	46.00	-18.84	HORIZONTAL	QP
6	508.26	37.13	18.07	4.47	27.99	31.68	46.00	-14.32	HORIZONTAL	QP

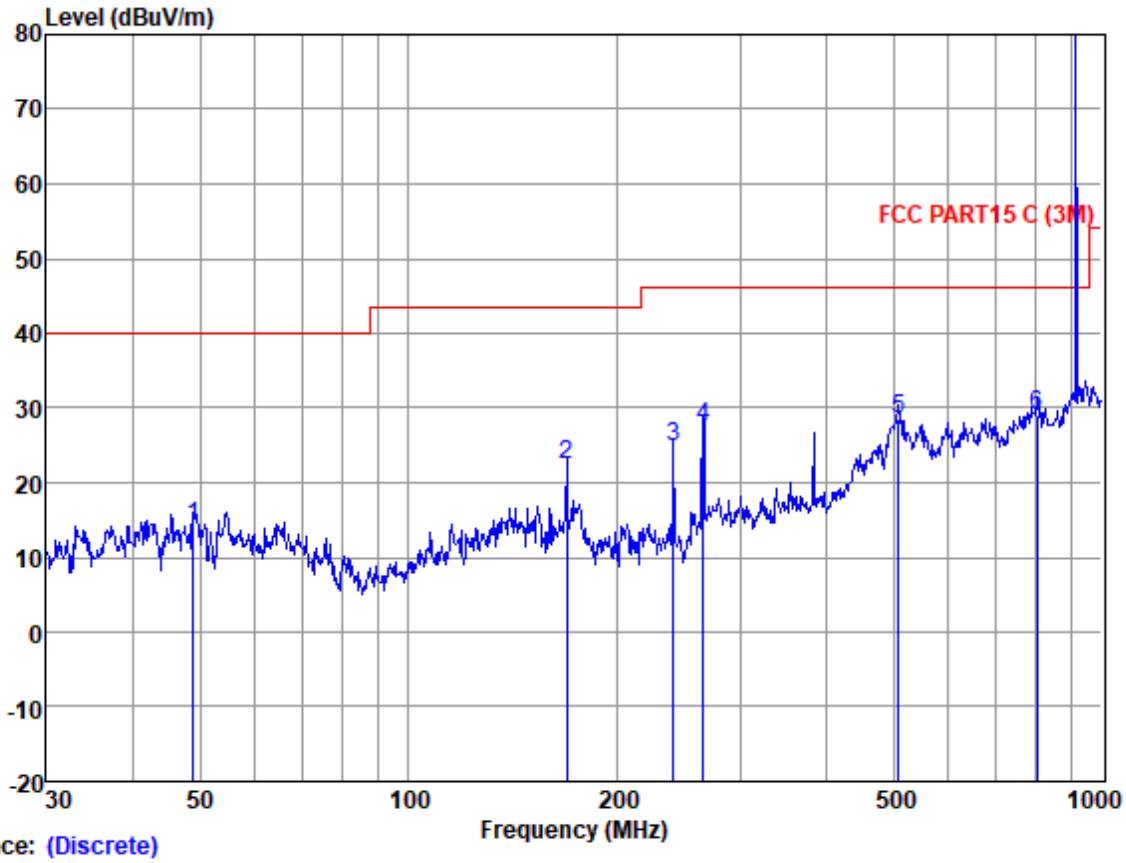
Test Mode: 06; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	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	47.99	39.80	14.00	1.13	27.17	27.76	40.00	-12.24	VERTICAL	QP
2	129.01	34.97	11.95	1.96	27.00	21.88	43.50	-21.62	VERTICAL	QP
3	144.33	37.94	13.62	2.15	26.87	26.84	43.50	-16.66	VERTICAL	QP
4	158.67	33.76	13.67	2.33	26.80	22.96	43.50	-20.54	VERTICAL	QP
5	192.42	43.13	10.87	2.50	26.74	29.76	43.50	-13.74	VERTICAL	QP
6	590.97	27.76	19.50	5.10	28.20	24.16	46.00	-21.84	VERTICAL	QP

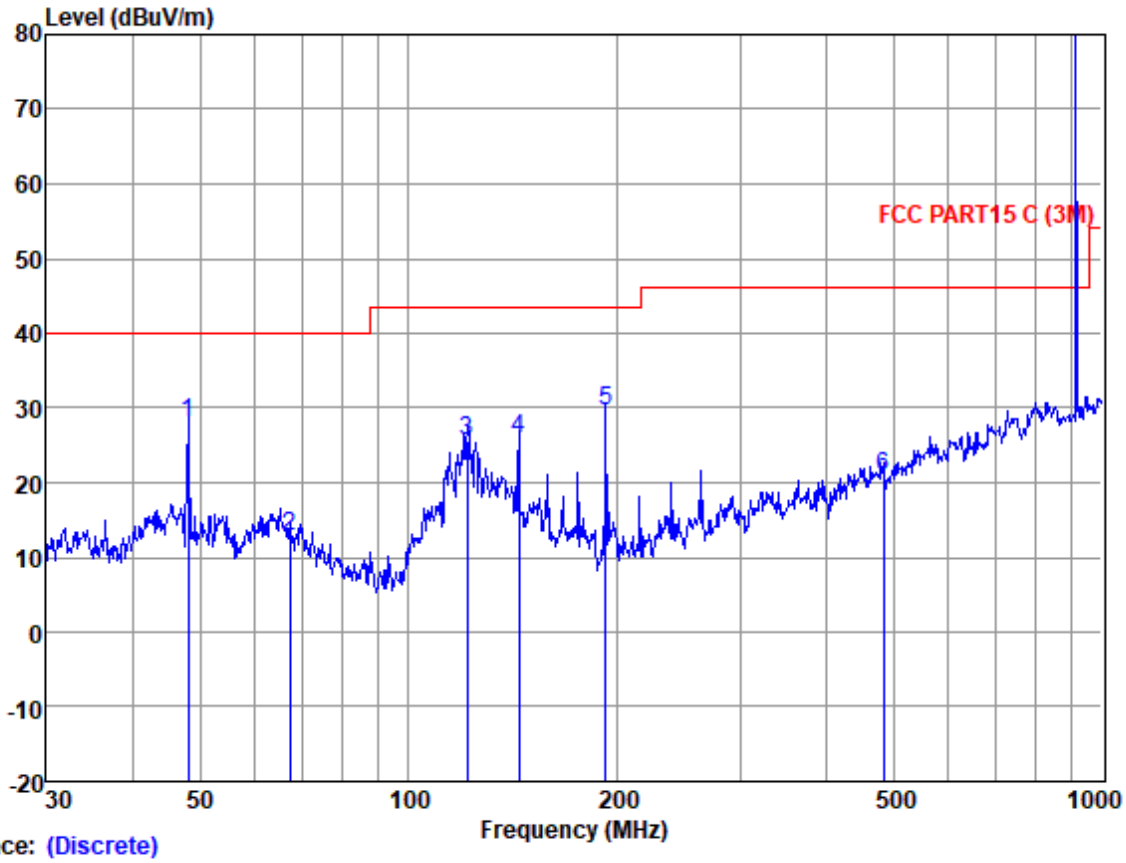
Test Mode: 06; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	48.84	26.13	13.96	1.14	27.17	14.06	40.00	-25.94	HORIZONTAL	QP
2	169.01	33.52	13.20	2.39	26.77	22.34	43.50	-21.16	HORIZONTAL	QP
3	240.83	36.79	11.92	2.81	26.66	24.86	46.00	-21.14	HORIZONTAL	QP
4	265.68	38.65	12.45	3.02	26.58	27.54	46.00	-18.46	HORIZONTAL	QP
5	508.26	33.95	18.07	4.47	27.99	28.50	46.00	-17.50	HORIZONTAL	QP
6	804.60	28.38	22.65	6.17	28.03	29.17	46.00	-16.83	HORIZONTAL	QP

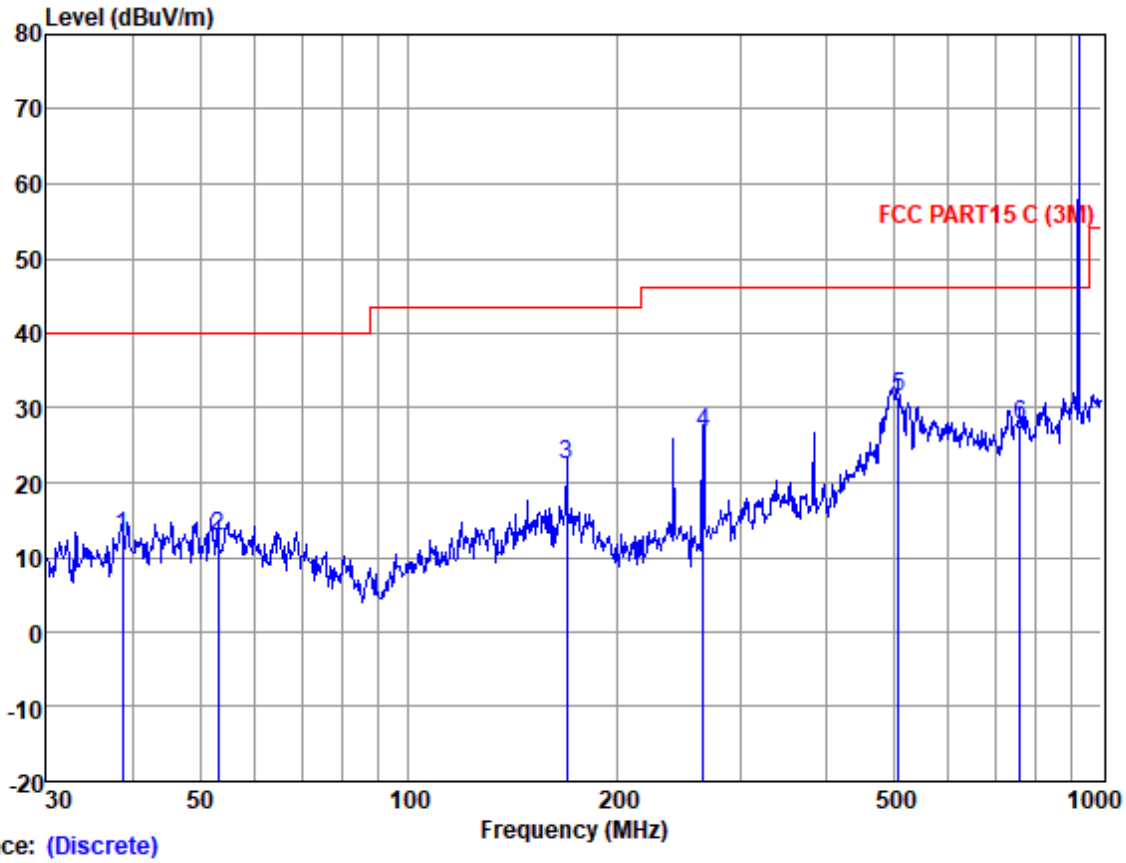
Test Mode: 06; Polarity: Vertical; Modulation:GFSK; ; Channel:middle



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	47.99	39.93	14.00	1.13	27.17	27.89	40.00	-12.11	VERTICAL	QP
2	67.44	26.27	12.29	1.38	27.14	12.80	40.00	-27.20	VERTICAL	QP
3	121.55	39.81	11.05	1.89	27.03	25.72	43.50	-17.78	VERTICAL	QP
4	144.33	36.89	13.62	2.15	26.87	25.79	43.50	-17.71	VERTICAL	QP
5	192.42	43.09	10.87	2.50	26.74	29.72	43.50	-13.78	VERTICAL	QP
6	483.91	26.59	17.67	4.36	27.92	20.70	46.00	-25.30	VERTICAL	QP

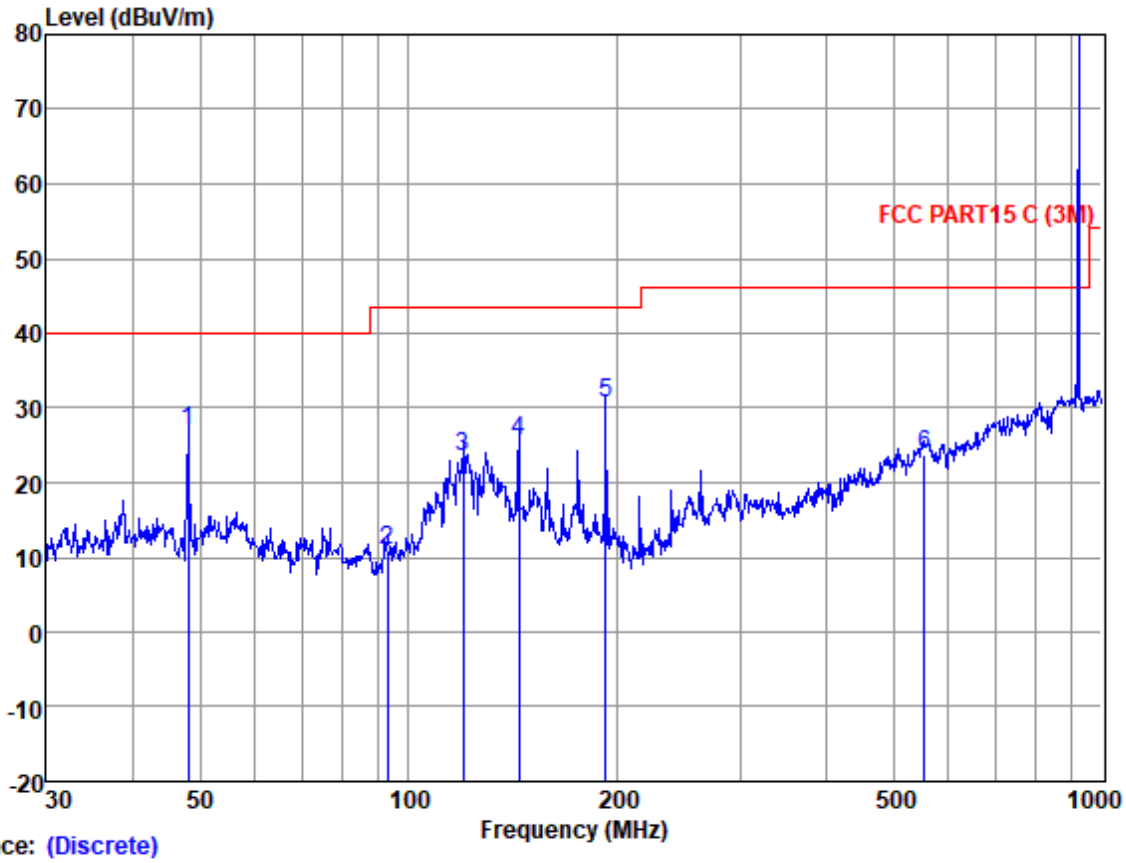
Test Mode: 06; Polarity: Horizontal; Modulation:GFSK; ; Channel:High



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	38.62	25.65	13.37	1.09	27.18	12.93	40.00	-27.07	HORIZONTAL	QP
2	53.13	24.95	13.88	1.17	27.17	12.83	40.00	-27.17	HORIZONTAL	QP
3	169.01	33.55	13.20	2.39	26.77	22.37	43.50	-21.13	HORIZONTAL	QP
4	265.68	37.88	12.45	3.02	26.58	26.77	46.00	-19.23	HORIZONTAL	QP
5	508.26	36.95	18.07	4.47	27.99	31.50	46.00	-14.50	HORIZONTAL	QP
6	760.70	27.61	22.20	6.01	28.07	27.75	46.00	-18.25	HORIZONTAL	QP

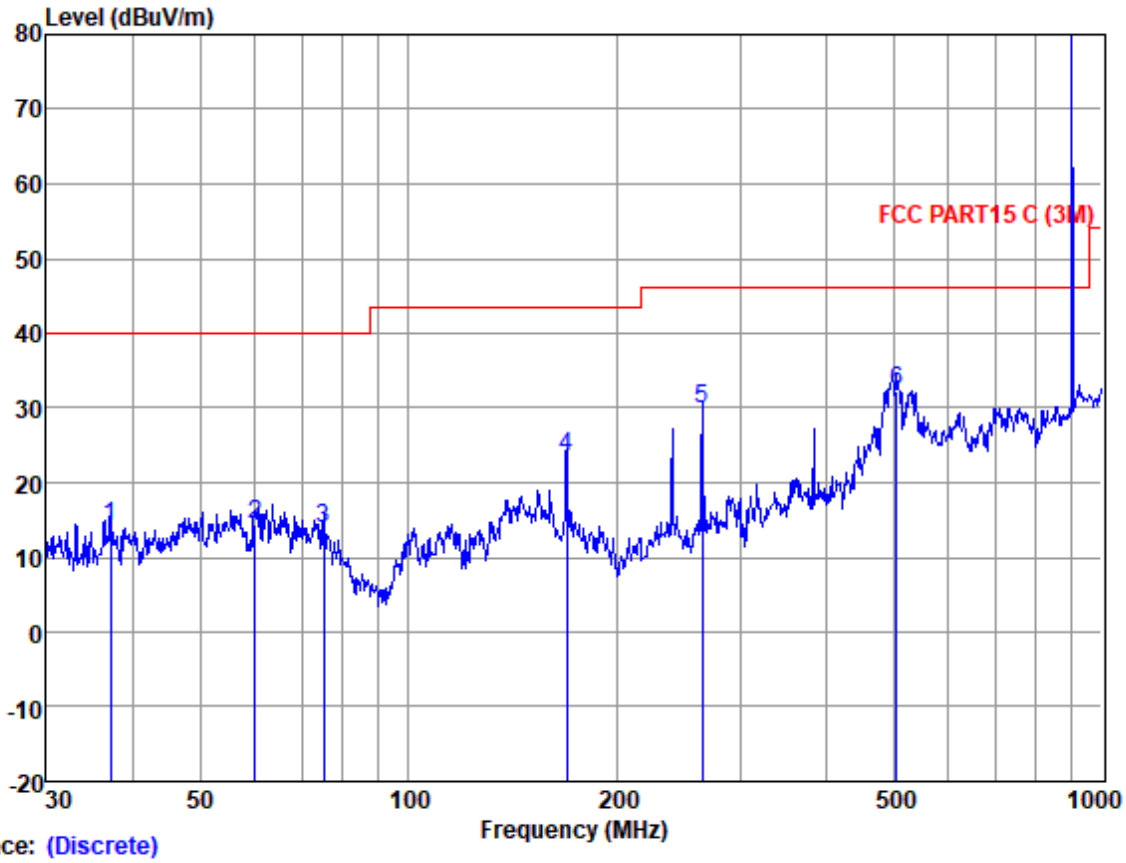
Test Mode: 06; Polarity: Vertical; Modulation:GFSK; ; Channel:High



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	47.99	38.93	14.00	1.13	27.17	26.89	40.00	-13.11	VERTICAL	QP
2	93.11	28.26	8.20	1.67	27.08	11.05	43.50	-32.45	VERTICAL	QP
3	119.86	37.66	10.90	1.86	27.03	23.39	43.50	-20.11	VERTICAL	QP
4	144.33	36.78	13.62	2.15	26.87	25.68	43.50	-17.82	VERTICAL	QP
5	192.42	44.15	10.87	2.50	26.74	30.78	43.50	-12.72	VERTICAL	QP
6	554.83	28.25	18.75	4.83	28.12	23.71	46.00	-22.29	VERTICAL	QP

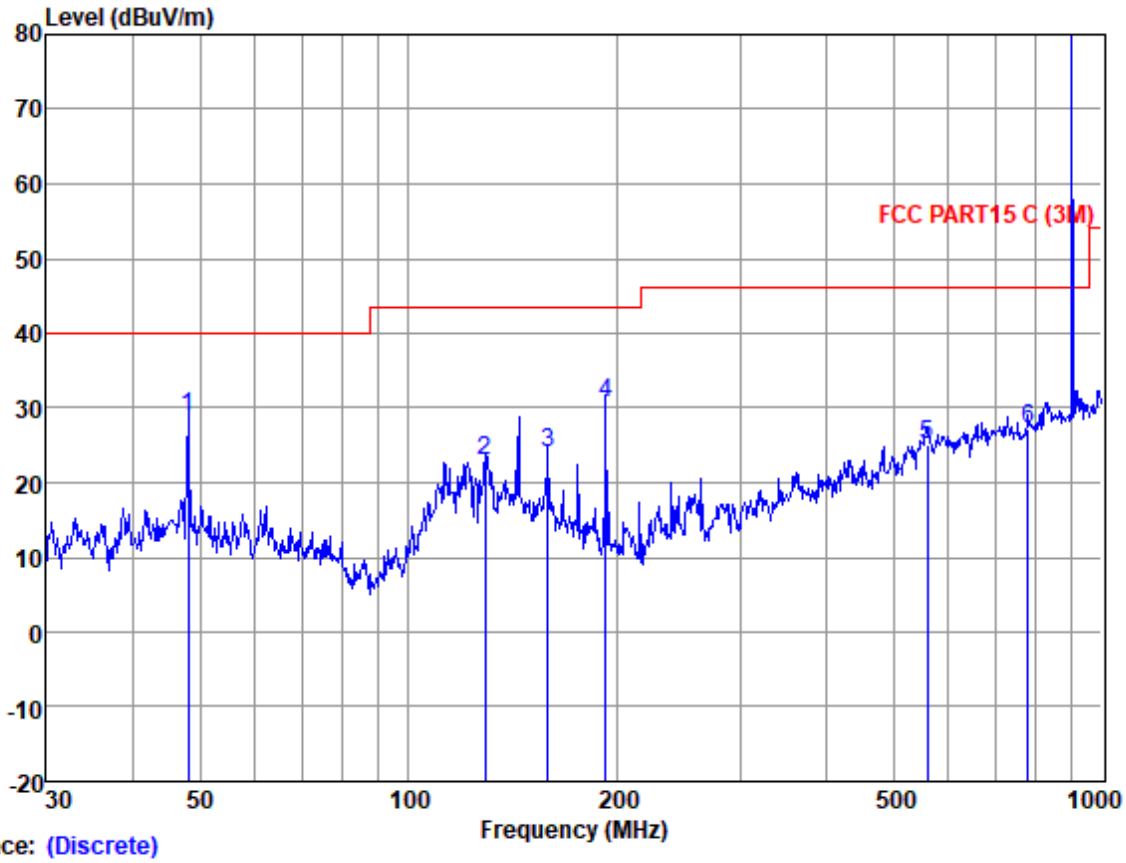
Test Mode: 08; Polarity: Horizontal; Modulation:GFSK; ; Channel:Low



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	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	37.15	26.96	13.18	1.08	27.18	14.04	40.00	-25.96	HORIZONTAL	QP
2	60.07	26.86	13.40	1.26	27.16	14.36	40.00	-25.64	HORIZONTAL	QP
3	75.45	29.15	10.44	1.45	27.11	13.93	40.00	-26.07	HORIZONTAL	QP
4	169.01	34.76	13.20	2.39	26.77	23.58	43.50	-19.92	HORIZONTAL	QP
5	264.75	41.00	12.40	3.02	26.59	29.83	46.00	-16.17	HORIZONTAL	QP
6	504.71	37.94	18.00	4.43	27.99	32.38	46.00	-13.62	HORIZONTAL	QP

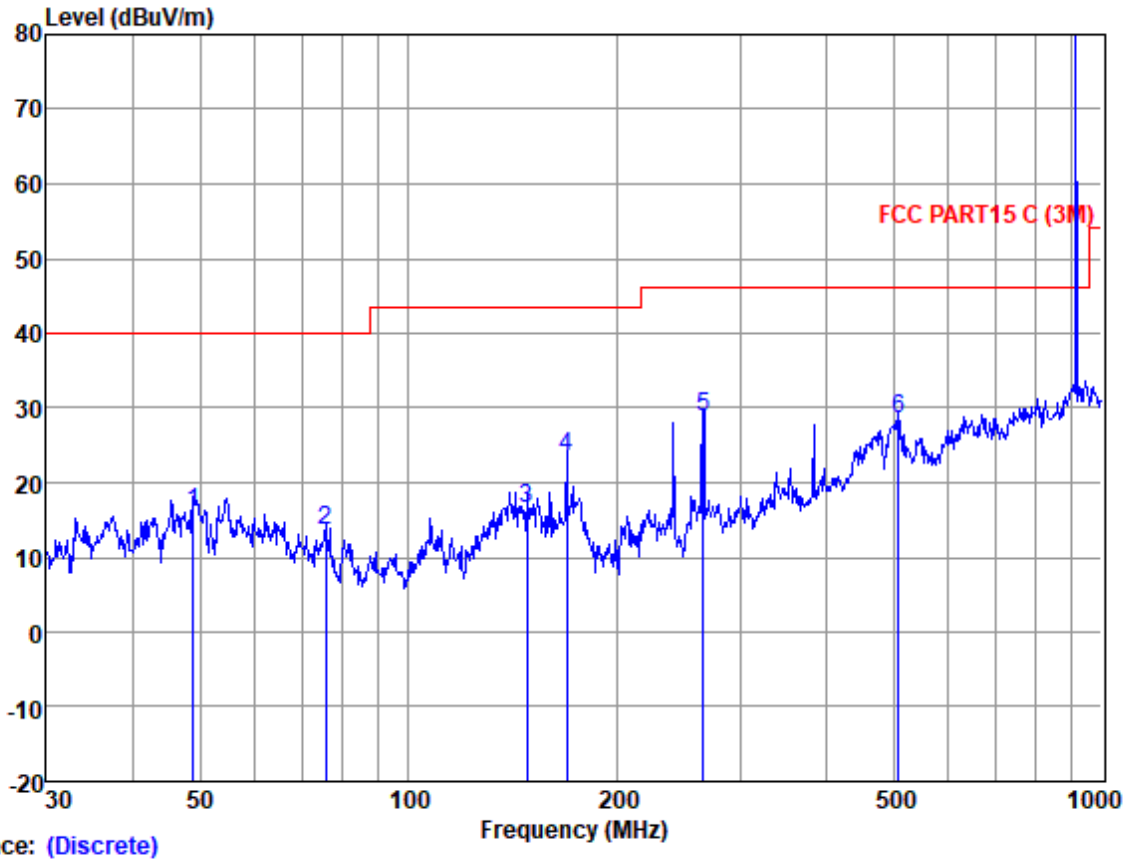
Test Mode: 08; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	47.99	40.80	14.00	1.13	27.17	28.76	40.00	-11.24	VERTICAL	QP
2	129.01	35.97	11.95	1.96	27.00	22.88	43.50	-20.62	VERTICAL	QP
3	158.67	34.77	13.67	2.33	26.80	23.97	43.50	-19.53	VERTICAL	QP
4	192.42	44.13	10.87	2.50	26.74	30.76	43.50	-12.74	VERTICAL	QP
5	558.73	29.66	18.78	4.88	28.13	25.19	46.00	-20.81	VERTICAL	QP
6	782.35	26.70	22.35	6.11	28.05	27.11	46.00	-18.89	VERTICAL	QP

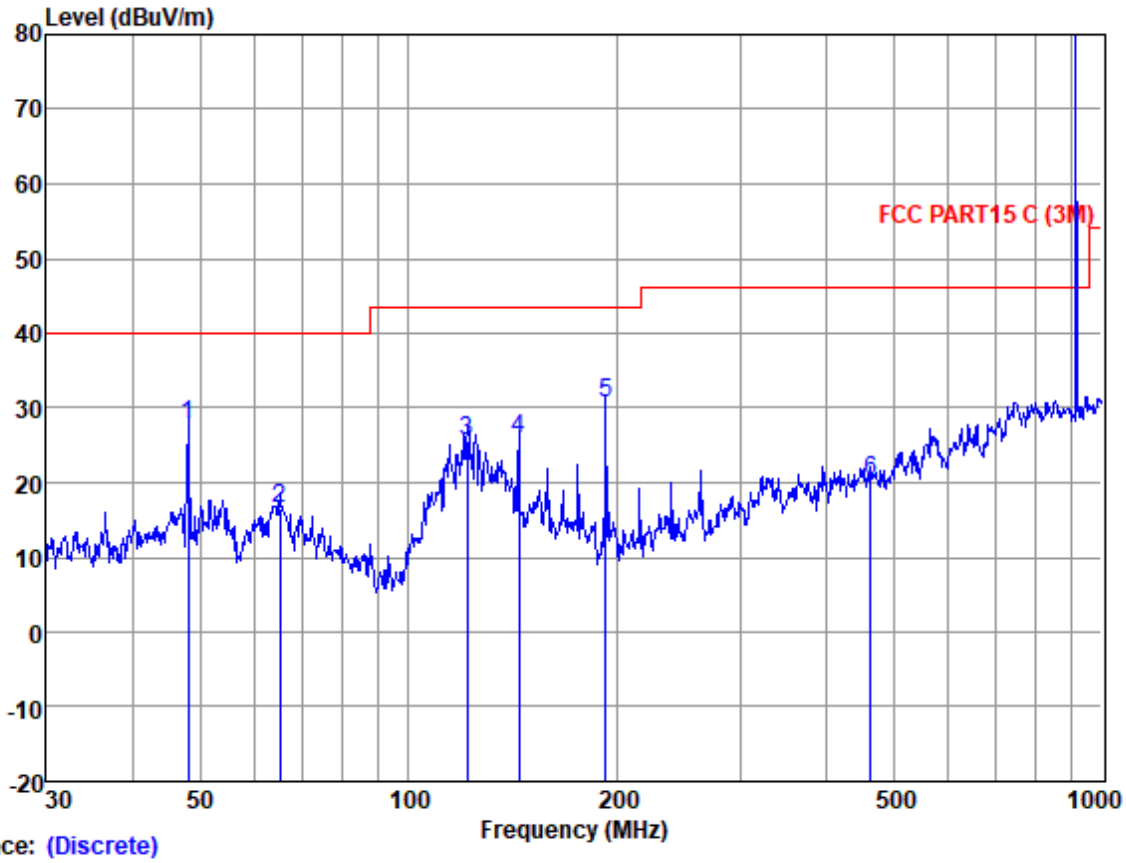
Test Mode: 08; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	48.84	28.13	13.96	1.14	27.17	16.06	40.00	-23.94	HORIZONTAL	QP
2	75.98	28.95	10.30	1.45	27.10	13.60	40.00	-26.40	HORIZONTAL	QP
3	147.92	27.53	13.70	2.22	26.85	16.60	43.50	-26.90	HORIZONTAL	QP
4	169.01	34.58	13.20	2.39	26.77	23.40	43.50	-20.10	HORIZONTAL	QP
5	265.68	39.82	12.45	3.02	26.58	28.71	46.00	-17.29	HORIZONTAL	QP
6	508.26	33.95	18.07	4.47	27.99	28.50	46.00	-17.50	HORIZONTAL	QP

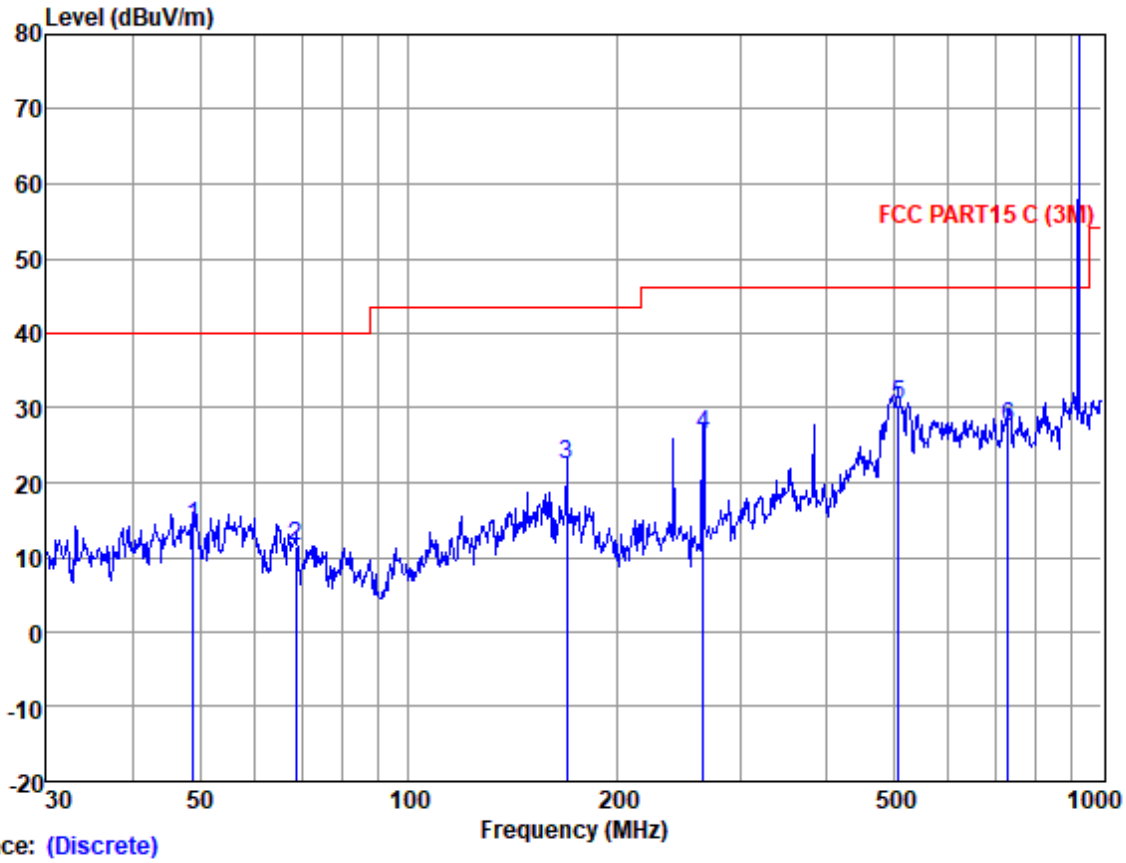
Test Mode: 08; Polarity: Vertical; Modulation:GFSK; ; Channel:middle



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	47.99	39.86	14.00	1.13	27.17	27.82	40.00	-12.18	VERTICAL	QP
2	65.11	29.74	12.71	1.35	27.15	16.65	40.00	-23.35	VERTICAL	QP
3	121.55	39.81	11.05	1.89	27.03	25.72	43.50	-17.78	VERTICAL	QP
4	144.33	36.84	13.62	2.15	26.87	25.74	43.50	-17.76	VERTICAL	QP
5	192.42	43.93	10.87	2.50	26.74	30.56	43.50	-12.94	VERTICAL	QP
6	463.97	26.35	17.43	4.27	27.82	20.23	46.00	-25.77	VERTICAL	QP

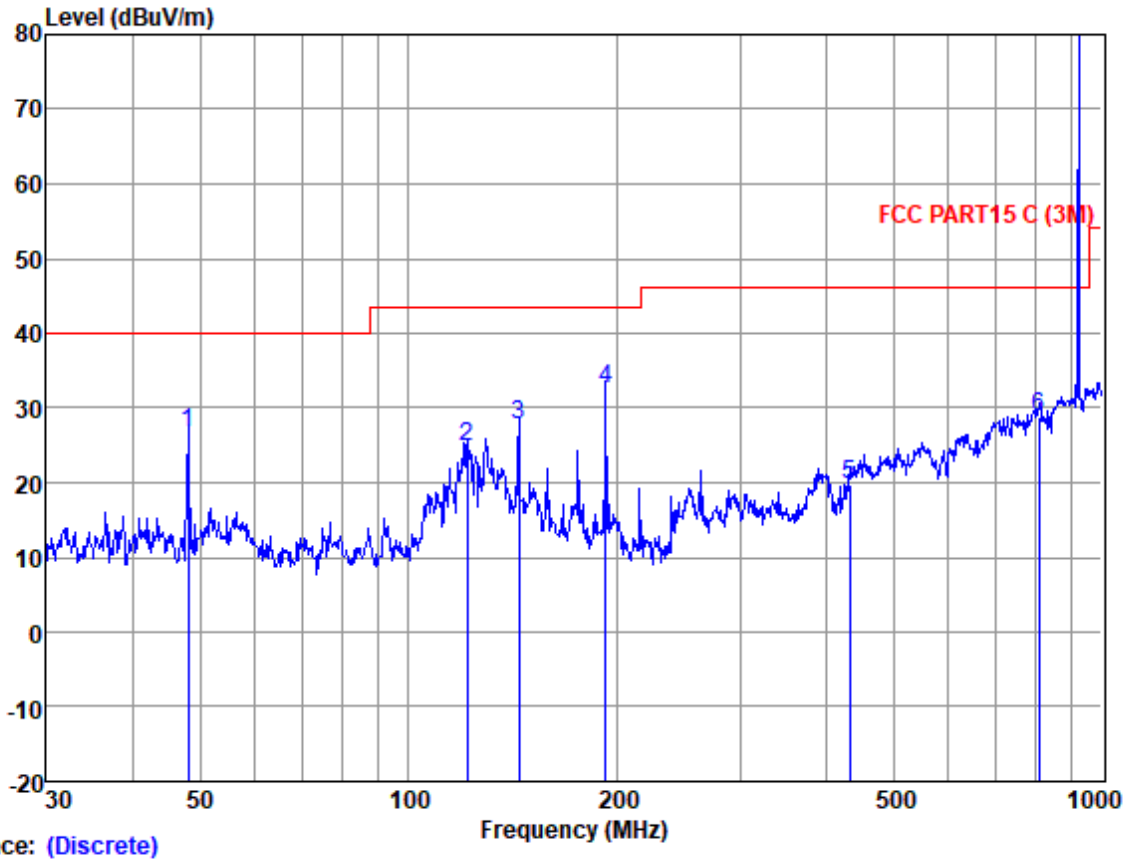
Test Mode: 08; Polarity: Horizontal; Modulation:GFSK; ; Channel:High



race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m HORIZONTAL
Job :
Model :
Power :
Test Mode:

	Freq	ReadAntenna Level	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	48.84	26.13	13.96	1.14	27.17	14.06	40.00	-25.94	HORIZONTAL	QP
2	68.63	24.97	12.12	1.39	27.14	11.34	40.00	-28.66	HORIZONTAL	QP
3	169.01	33.54	13.20	2.39	26.77	22.36	43.50	-21.14	HORIZONTAL	QP
4	265.68	37.45	12.45	3.02	26.58	26.34	46.00	-19.66	HORIZONTAL	QP
5	508.26	35.95	18.07	4.47	27.99	30.50	46.00	-15.50	HORIZONTAL	QP
6	731.92	27.91	21.85	5.89	28.13	27.52	46.00	-18.48	HORIZONTAL	QP

Test Mode: 08; Polarity: Vertical; Modulation:GFSK; ; Channel:High

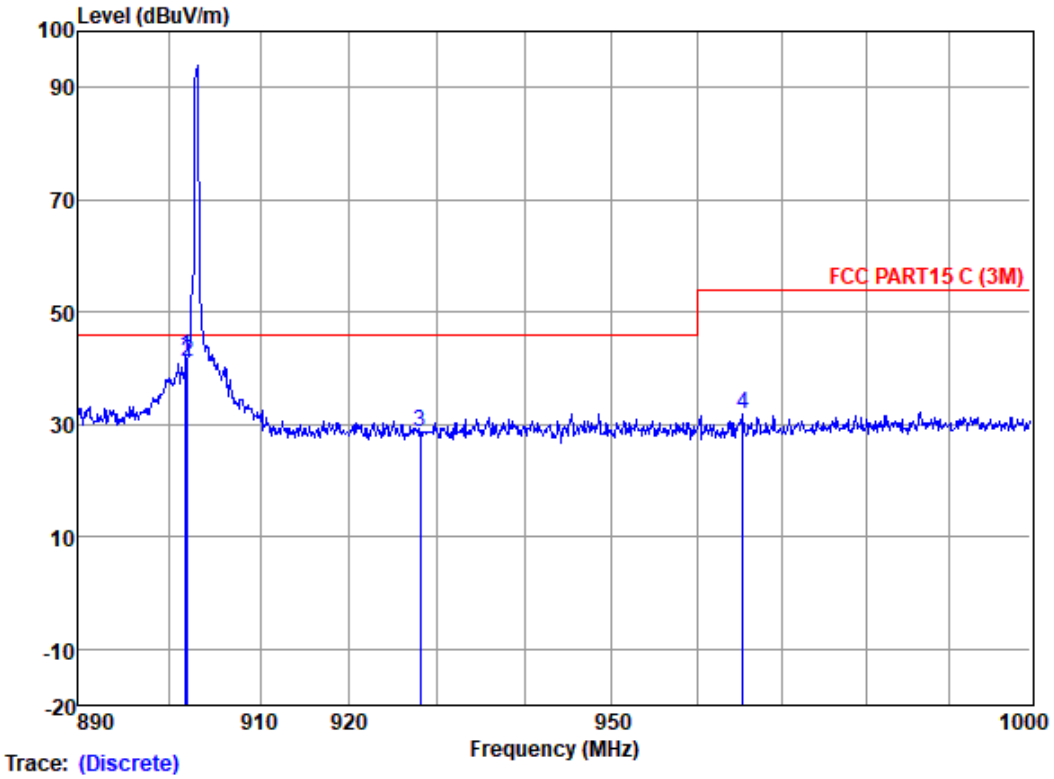


race: (Discrete)
Site : SGS
Condition: FCC PART15 C (3M) 3m VERTICAL
Job :
Model :
Power :
Test Mode:

	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	47.99	38.83	14.00	1.13	27.17	26.79	40.00	-13.21	VERTICAL	QP
2	121.55	38.81	11.05	1.89	27.03	24.72	43.50	-18.78	VERTICAL	QP
3	144.33	38.92	13.62	2.15	26.87	27.82	43.50	-15.68	VERTICAL	QP
4	192.42	45.78	10.87	2.50	26.74	32.41	43.50	-11.09	VERTICAL	QP
5	432.55	26.45	16.80	4.09	27.51	19.83	46.00	-26.17	VERTICAL	QP
6	810.27	27.82	22.70	6.23	28.02	28.73	46.00	-17.27	VERTICAL	QP

Detail test plots for frequency outside of 902~928MHz

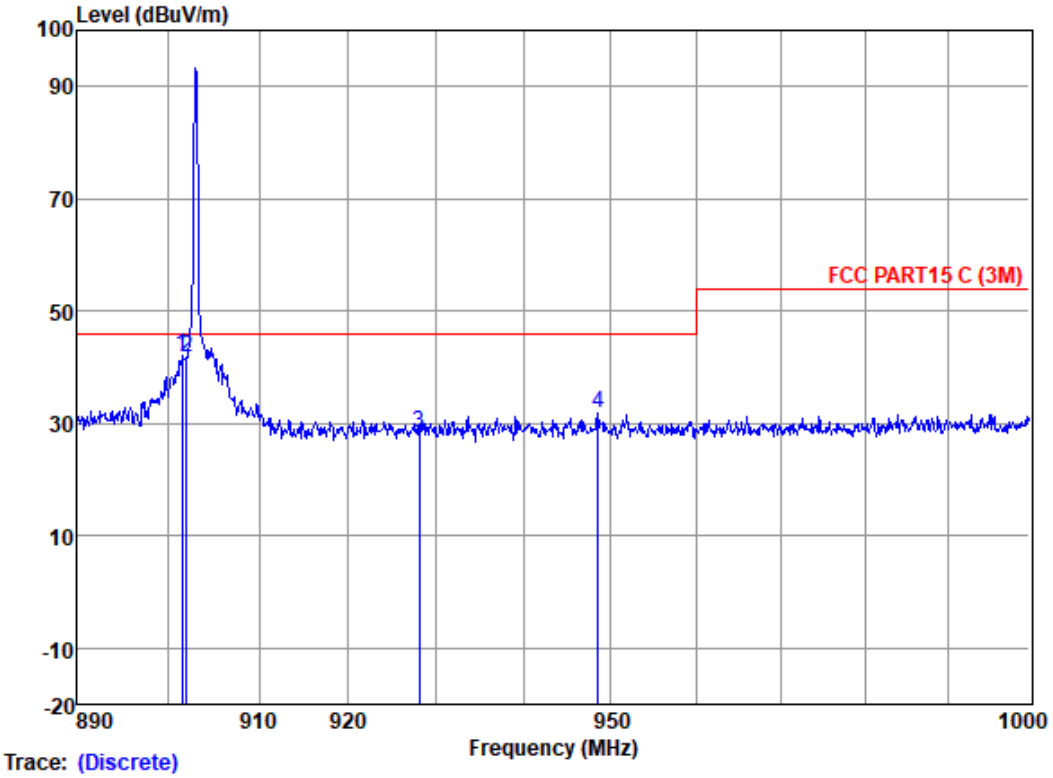
Test Mode: 08; Polarity: Horizontal; Modulation:GFSK; ; Channel:Low



Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dBuV		
1	901.80	39.65	23.33	6.92	27.84	42.06	46.00	-3.94	HORIZONTAL	QP
2	902.00	38.64	23.33	6.92	27.84	41.05	46.00	-4.95	HORIZONTAL	QP
3	928.00	25.55	23.80	7.06	27.80	28.61	46.00	-17.39	HORIZONTAL	QP
4	965.42	28.38	23.90	7.25	27.71	31.82	54.00	-22.18	HORIZONTAL	QP

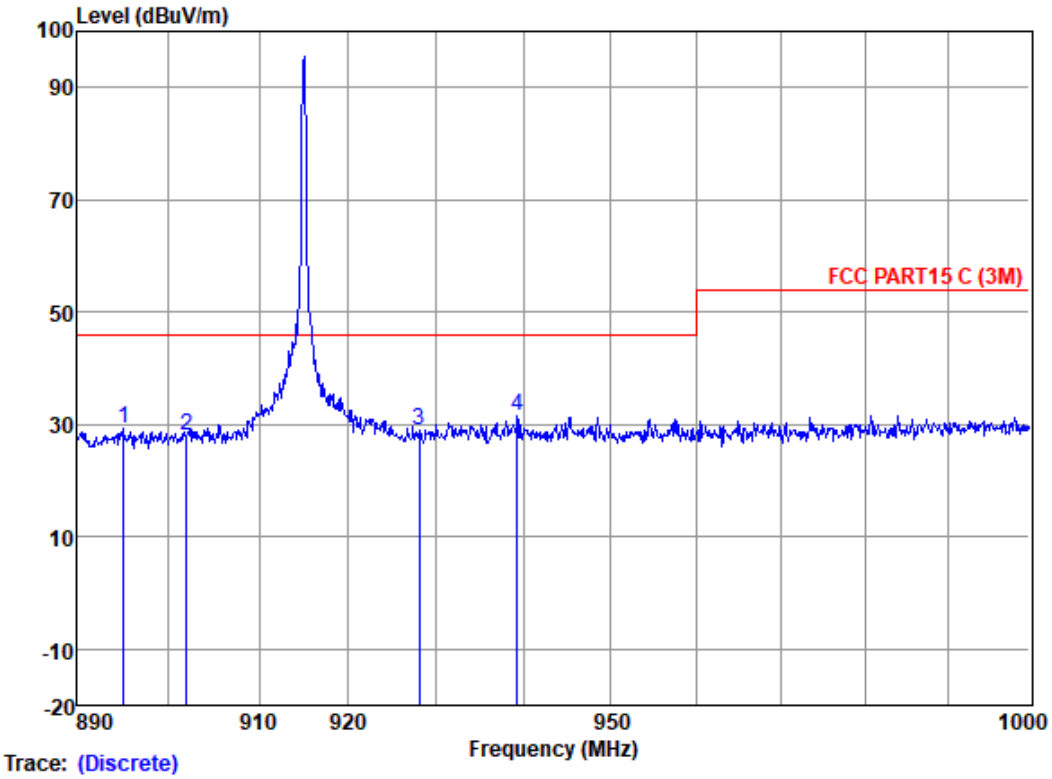
Test Mode: 08; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dBuV		
1	901.48	39.61	23.30	6.92	27.85	41.98	46.00	-4.02	VERTICAL	QP
2	902.00	39.32	23.33	6.92	27.84	41.73	46.00	-4.27	VERTICAL	QP
3	928.00	25.32	23.80	7.06	27.80	28.38	46.00	-17.62	VERTICAL	QP
4	948.58	28.59	23.90	7.12	27.74	31.87	46.00	-14.13	VERTICAL	QP

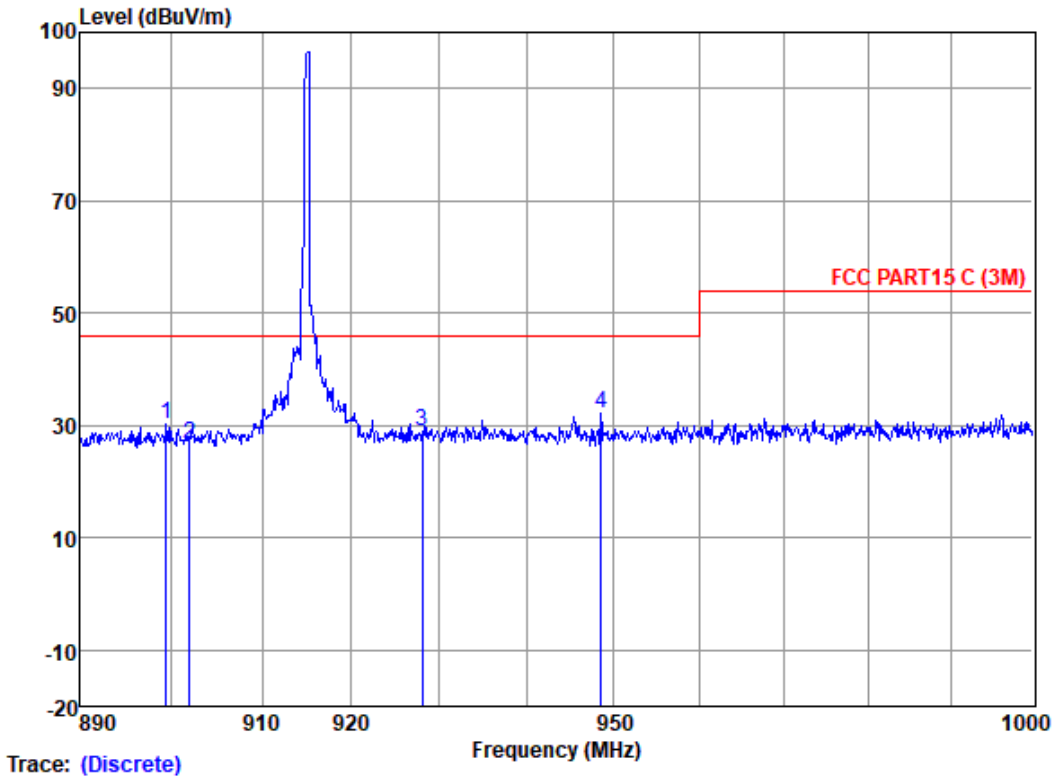
Test Mode: 08; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dBuV		
1	895.10	26.99	23.17	6.86	27.85	29.17	46.00	-16.83	HORIZONTAL	QP
2	902.00	25.54	23.33	6.92	27.84	27.95	46.00	-18.05	HORIZONTAL	QP
3	928.00	25.87	23.80	7.06	27.80	28.93	46.00	-17.07	HORIZONTAL	QP
4	939.23	28.35	23.80	7.12	27.78	31.49	46.00	-14.51	HORIZONTAL	QP

Test Mode: 08; Polarity: Vertical; Modulation:GFSK; ; Channel:middle

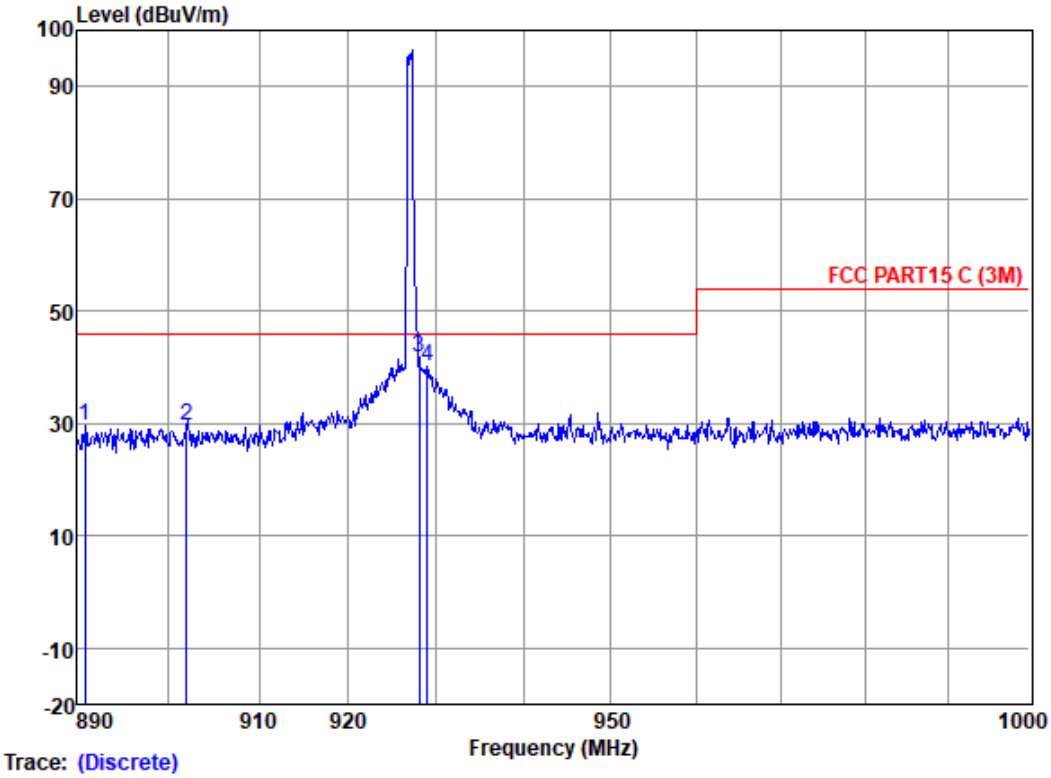


Trace: (Discrete)

Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dBuV		
1	899.38	28.01	23.30	6.92	27.85	30.38	46.00	-15.62	VERTICAL	QP
2	902.00	24.44	23.33	6.92	27.84	26.85	46.00	-19.15	VERTICAL	QP
3	928.00	25.82	23.80	7.06	27.80	28.88	46.00	-17.12	VERTICAL	QP
4	948.58	28.87	23.90	7.12	27.74	32.15	46.00	-13.85	VERTICAL	QP

Test Mode: 08; Polarity: Horizontal; Modulation:GFSK; ; Channel:High

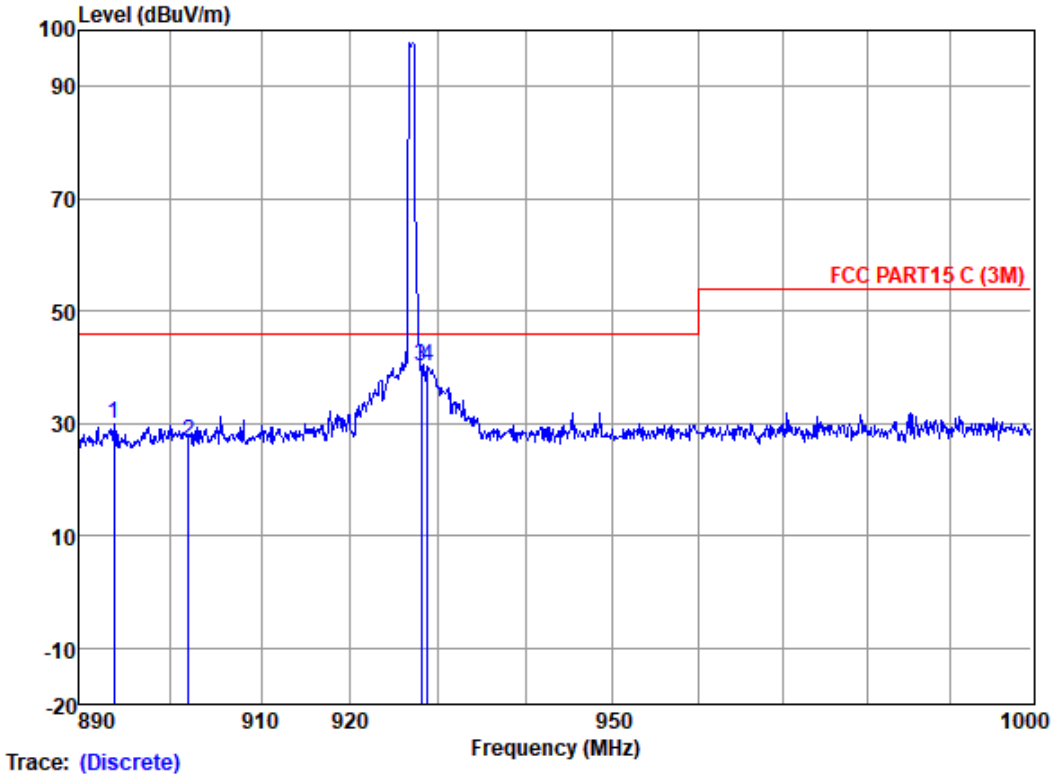


Trace: (Discrete)

Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dBuV		
1	890.83	27.36	23.10	6.86	27.86	29.46	46.00	-16.54	HORIZONTAL	QP
2	902.00	27.19	23.33	6.92	27.84	29.60	46.00	-16.40	HORIZONTAL	QP
3	928.00	38.60	23.80	7.06	27.80	41.66	46.00	-4.34	HORIZONTAL	QP
4	928.89	37.21	23.80	7.06	27.80	40.27	46.00	-5.73	HORIZONTAL	QP

Test Mode: 08; Polarity: Vertical; Modulation:GFSK; ; Channel:High



Trace: (Discrete)

Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dBuV		
1	893.74	27.60	23.17	6.86	27.86	29.77	46.00	-16.23	VERTICAL	QP
2	902.00	24.30	23.33	6.92	27.84	26.71	46.00	-19.29	VERTICAL	QP
3	928.00	37.09	23.80	7.06	27.80	40.15	46.00	-5.85	VERTICAL	QP
4	928.78	36.97	23.80	7.06	27.80	40.03	46.00	-5.97	VERTICAL	QP

Remark: all four bandwidths have been tested, and only the worst 500KHz bandwidth data is reflected in the report

7.9 Radiated Spurious Emissions (Above 1GHz)

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

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

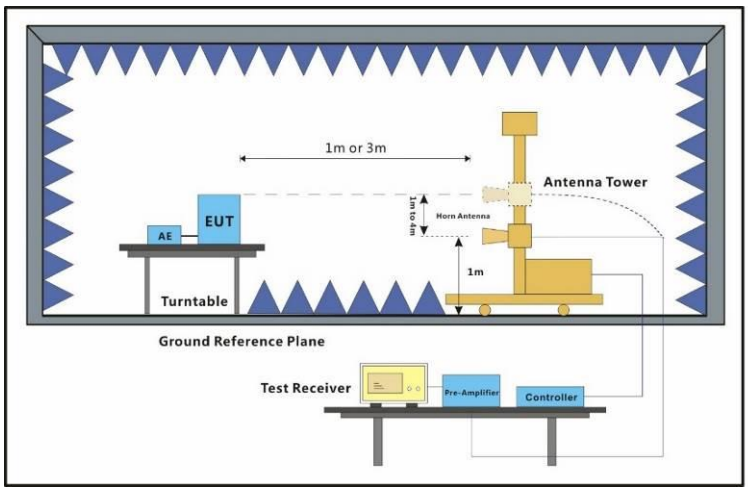
Operating Environment:

Temperature: 22.9 °C Humidity: 54.2 % RH Atmospheric Pressure: 995 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode(62KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	04	TX_non-Hop mode(125KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	06	TX_non-Hop mode(250KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	08	TX_non-Hop mode(500KHz)_Keep the EUT in continuously transmitting mode with FSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.9.3 Test Setup Diagram



7.9.4 Measurement Procedure and Data

a. 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.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. 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.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. 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.

g. Test the EUT in the lowest channel, the middle channel, the Highest channel.

h. 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.

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

Remark:

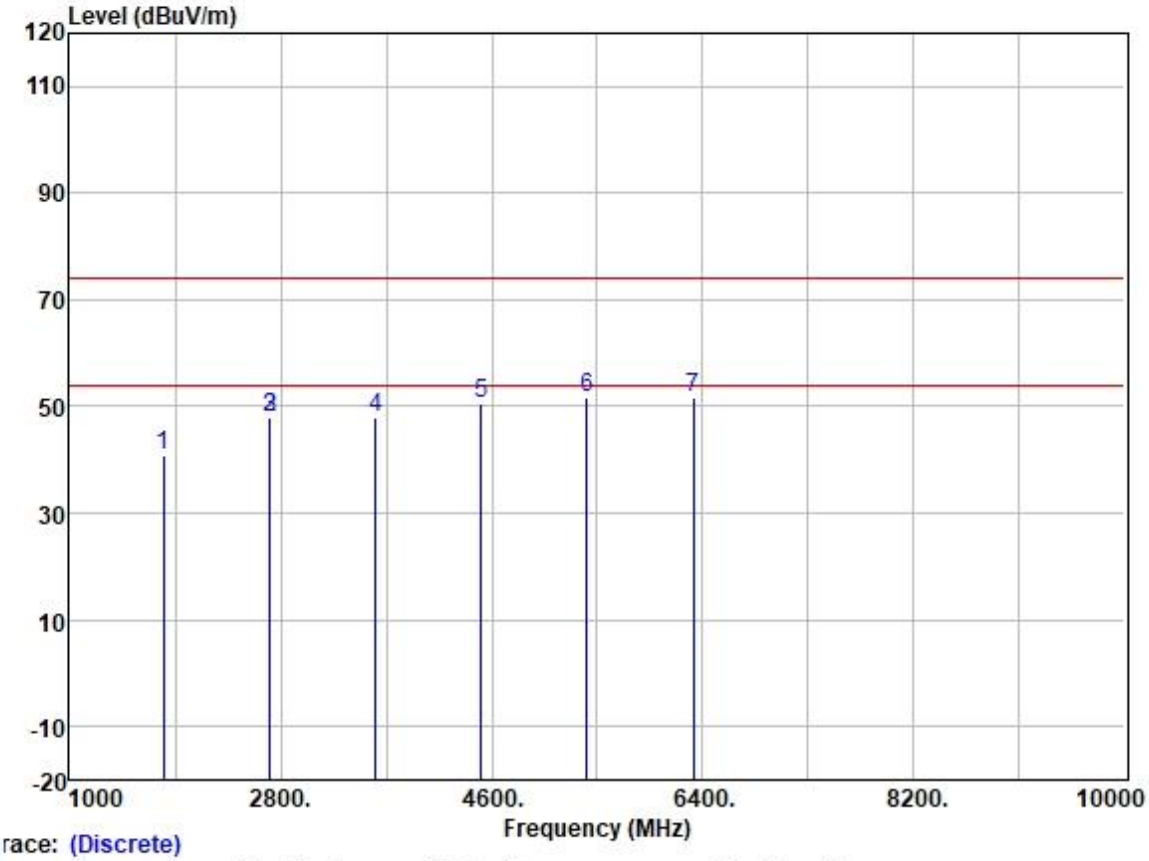
1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

2) Scan from 1GHz to 25GHz, the disturbance above 18GHz 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.

3) 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.

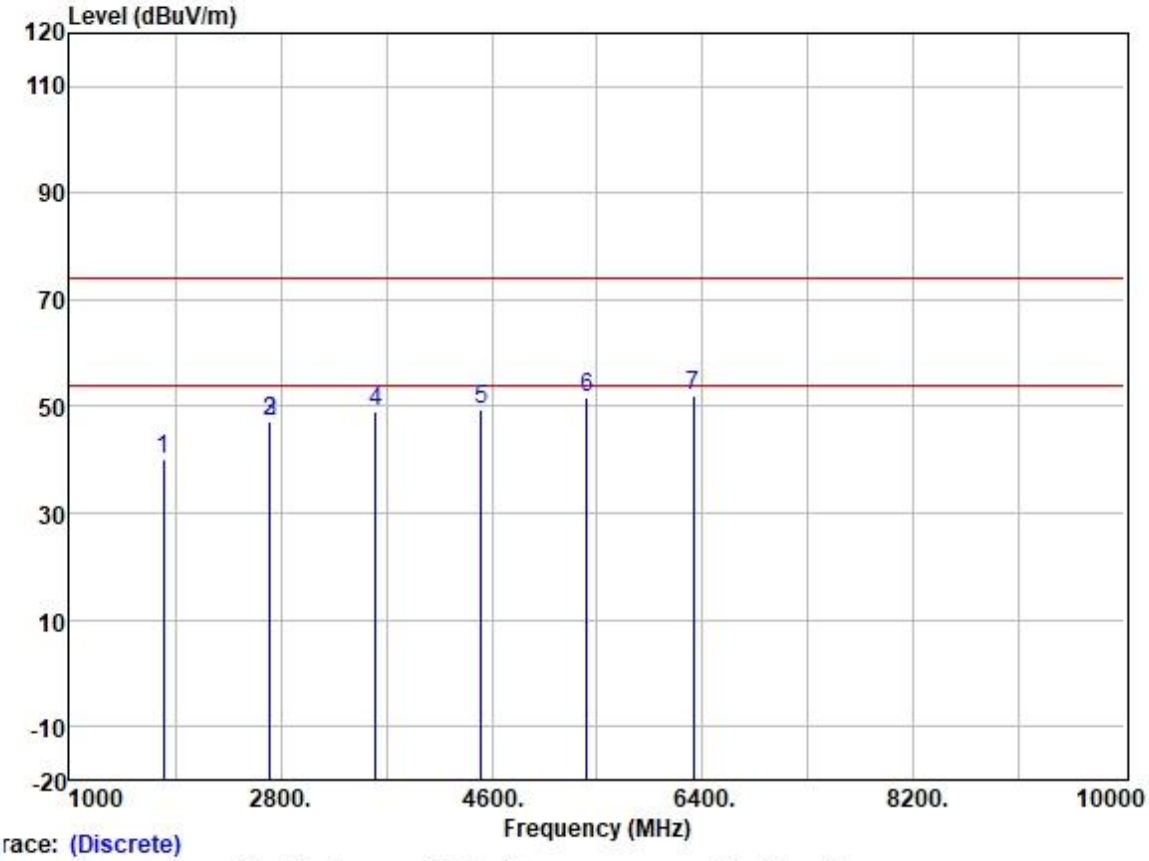
Test Mode: 04; Polarity: Horizontal; Modulation:GFSK; ; Channel:Low



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	1805.000	49.83	25.95	3.00	37.81	40.97	74.00	-33.03	HORIZONTAL	Peak
2	2707.500	53.84	27.87	3.61	37.47	47.85	54.00	-6.15	HORIZONTAL	Average
3	2707.500	53.84	27.87	3.61	37.47	47.85	74.00	-26.15	HORIZONTAL	Peak
4	3610.000	51.28	29.05	4.50	36.91	47.92	74.00	-26.08	HORIZONTAL	Peak
5	4512.500	51.27	30.82	5.11	36.82	50.38	74.00	-23.62	HORIZONTAL	Peak
6	5415.000	50.67	31.79	6.06	36.88	51.64	74.00	-22.36	HORIZONTAL	Peak
7	6317.500	49.09	33.51	5.95	36.97	51.58	74.00	-22.42	HORIZONTAL	Peak

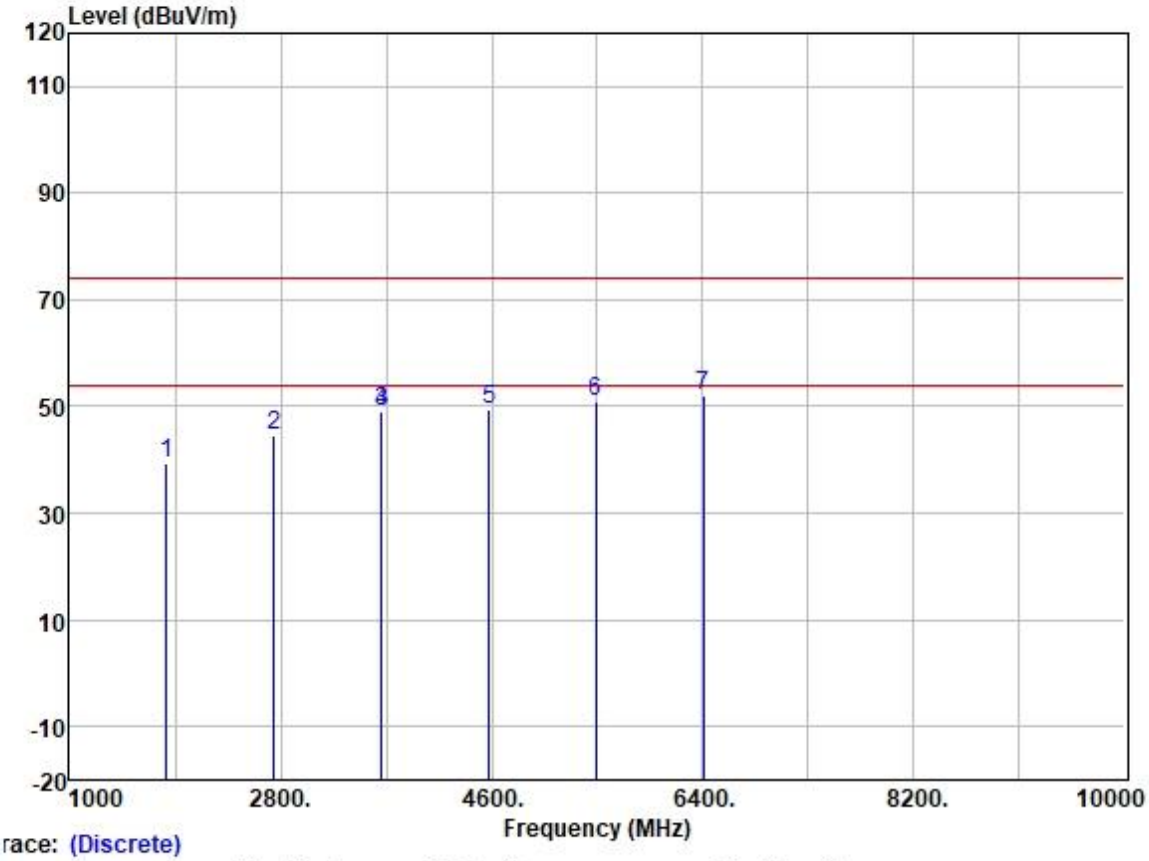
Test Mode: 04; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



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	1805.000	49.01	25.95	3.00	37.81	40.15	74.00	-33.85	VERTICAL	Peak
2	2707.500	53.29	27.87	3.61	37.47	47.30	54.00	-6.70	VERTICAL	Average
3	2707.500	53.29	27.87	3.61	37.47	47.30	74.00	-26.70	VERTICAL	Peak
4	3610.000	52.33	29.05	4.50	36.91	48.97	74.00	-25.03	VERTICAL	Peak
5	4512.500	50.16	30.82	5.11	36.82	49.27	74.00	-24.73	VERTICAL	Peak
6	5415.000	50.64	31.79	6.06	36.88	51.61	74.00	-22.39	VERTICAL	Peak
7	6317.500	49.38	33.51	5.95	36.97	51.87	74.00	-22.13	VERTICAL	Peak

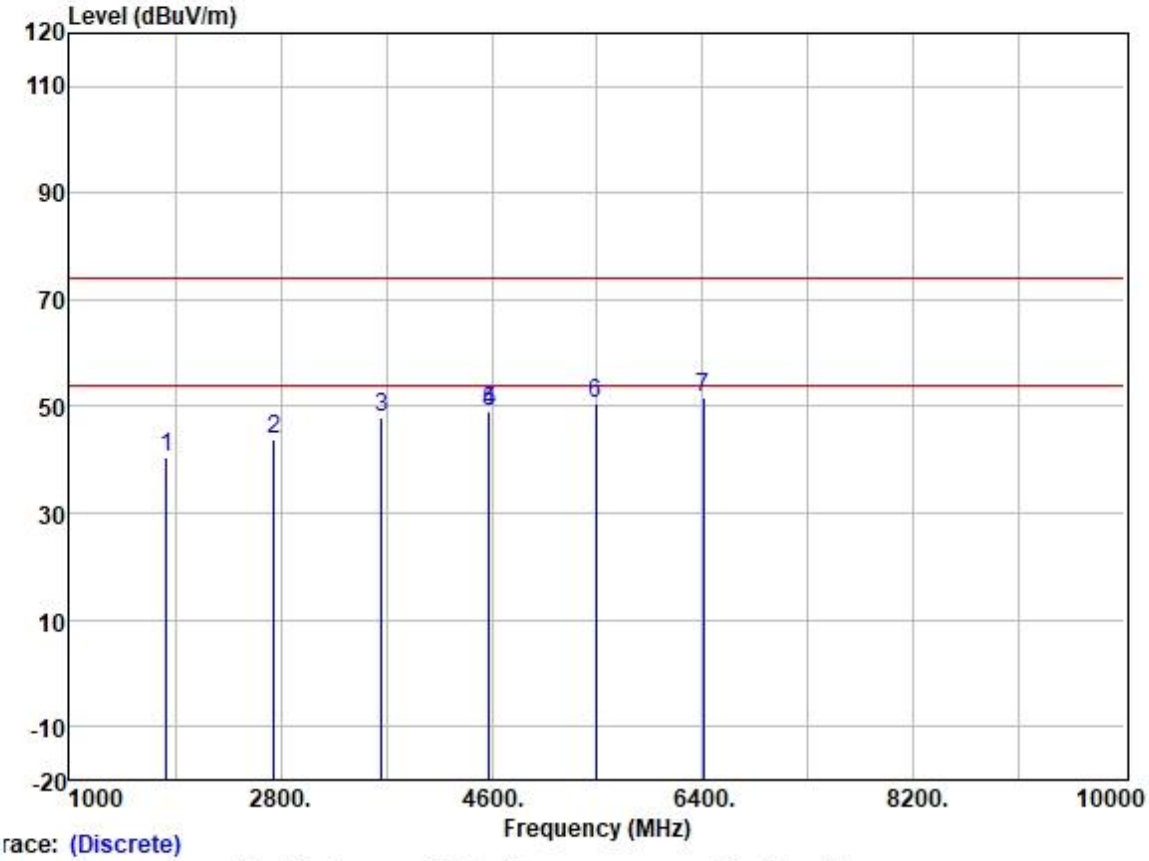
Test Mode: 04; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



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	1830.000	48.03	25.98	2.97	37.80	39.18	74.00	-34.82	HORIZONTAL	Peak
2	2745.000	50.52	27.98	3.64	37.44	44.70	74.00	-29.30	HORIZONTAL	Peak
3	3660.000	52.23	29.15	4.53	36.89	49.02	54.00	-4.98	HORIZONTAL	Average
4	3660.000	52.23	29.15	4.53	36.89	49.02	74.00	-24.98	HORIZONTAL	Peak
5	4575.000	49.93	30.91	5.33	36.82	49.35	74.00	-24.65	HORIZONTAL	Peak
6	5490.000	49.76	31.80	6.36	36.88	51.04	74.00	-22.96	HORIZONTAL	Peak
7	6405.000	49.36	33.79	5.89	36.98	52.06	74.00	-21.94	HORIZONTAL	Peak

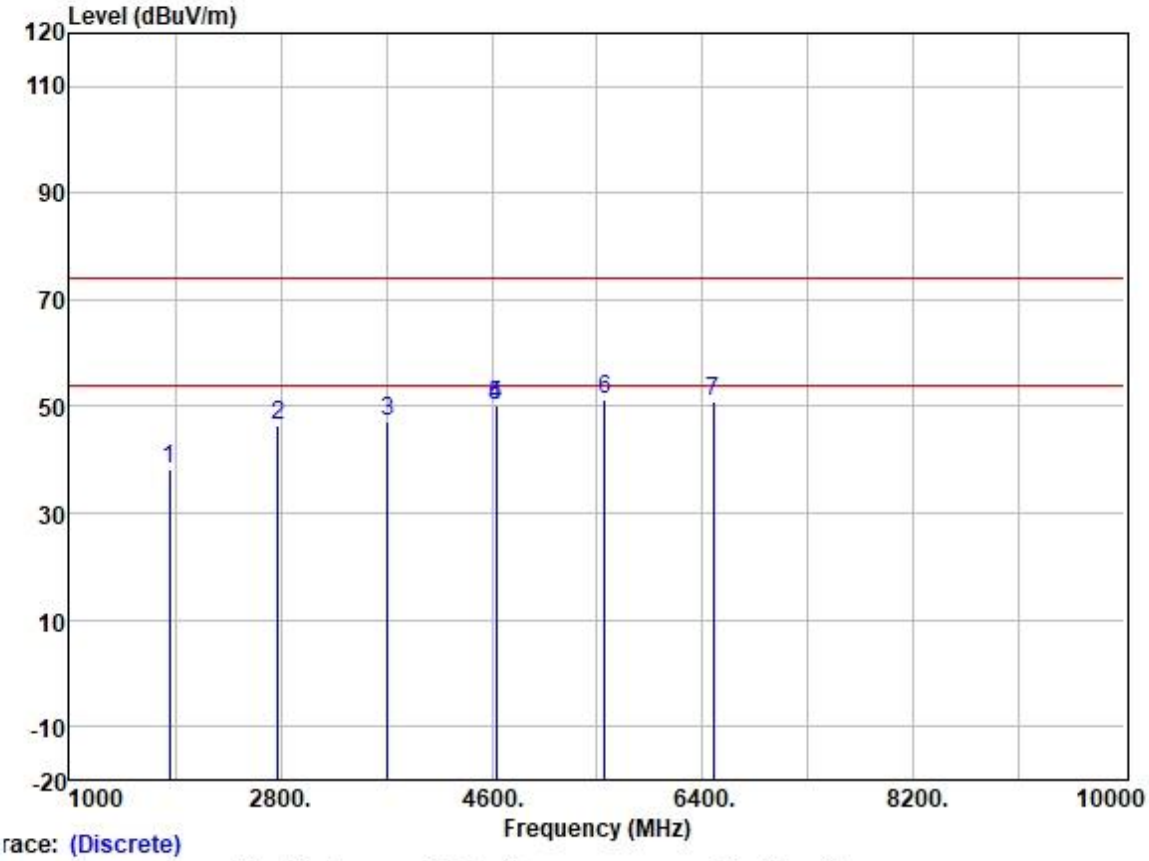
Test Mode: 04; Polarity: Vertical; Modulation:GFSK; ; Channel:middle



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	1830.000	49.29	25.98	2.97	37.80	40.44	74.00	-33.56	VERTICAL	Peak
2	2745.000	49.63	27.98	3.64	37.44	43.81	74.00	-30.19	VERTICAL	Peak
3	3660.000	51.11	29.15	4.53	36.89	47.90	74.00	-26.10	VERTICAL	Peak
4	4575.000	49.81	30.91	5.33	36.82	49.23	54.00	-4.77	VERTICAL	Average
5	4575.000	49.81	30.91	5.33	36.82	49.23	74.00	-24.77	VERTICAL	Peak
6	5490.000	49.46	31.80	6.36	36.88	50.74	74.00	-23.26	VERTICAL	Peak
7	6405.000	49.15	33.79	5.89	36.98	51.85	74.00	-22.15	VERTICAL	Peak

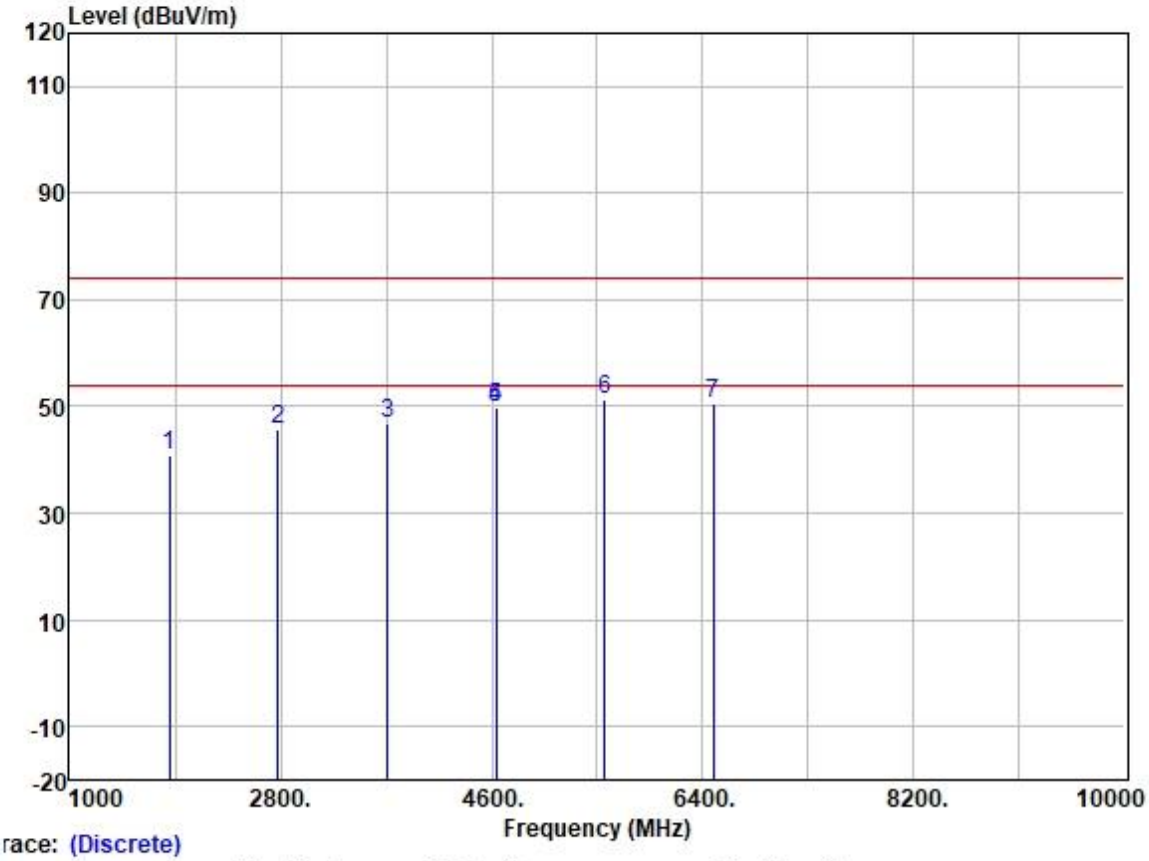
Test Mode: 04; Polarity: Horizontal; Modulation:GFSK; ; Channel:High



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	1855.000	47.09	26.00	2.94	37.78	38.25	74.00	-35.75	HORIZONTAL	Peak
2	2782.500	51.93	28.10	3.69	37.43	46.29	74.00	-27.71	HORIZONTAL	Peak
3	3710.000	50.10	29.28	4.56	36.88	47.06	74.00	-26.94	HORIZONTAL	Peak
4	4637.500	50.53	31.02	5.40	36.82	50.13	54.00	-3.87	HORIZONTAL	Average
5	4637.500	50.53	31.02	5.40	36.82	50.13	74.00	-23.87	HORIZONTAL	Peak
6	5565.000	50.04	31.86	6.33	36.89	51.34	74.00	-22.66	HORIZONTAL	Peak
7	6492.500	48.20	33.96	5.85	37.01	51.00	74.00	-23.00	HORIZONTAL	Peak

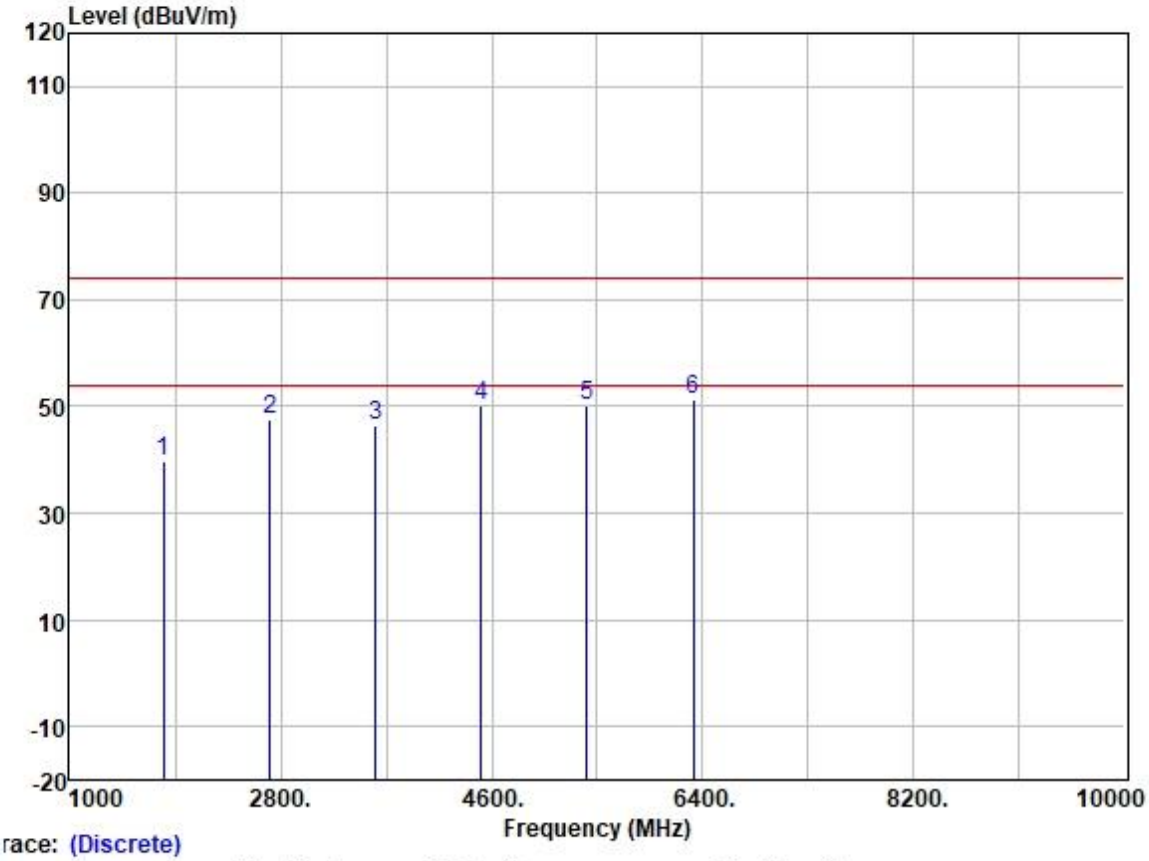
Test Mode: 04; Polarity: Vertical; Modulation:GFSK; ; Channel:High



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	1855.000	49.83	26.00	2.94	37.78	40.99	74.00	-33.01	VERTICAL	Peak
2	2782.500	51.25	28.10	3.69	37.43	45.61	74.00	-28.39	VERTICAL	Peak
3	3710.000	49.95	29.28	4.56	36.88	46.91	74.00	-27.09	VERTICAL	Peak
4	4637.500	50.39	31.02	5.40	36.82	49.99	54.00	-4.01	VERTICAL	Average
5	4637.500	50.39	31.02	5.40	36.82	49.99	74.00	-24.01	VERTICAL	Peak
6	5565.000	50.01	31.86	6.33	36.89	51.31	74.00	-22.69	VERTICAL	Peak
7	6492.500	47.86	33.96	5.85	37.01	50.66	74.00	-23.34	VERTICAL	Peak

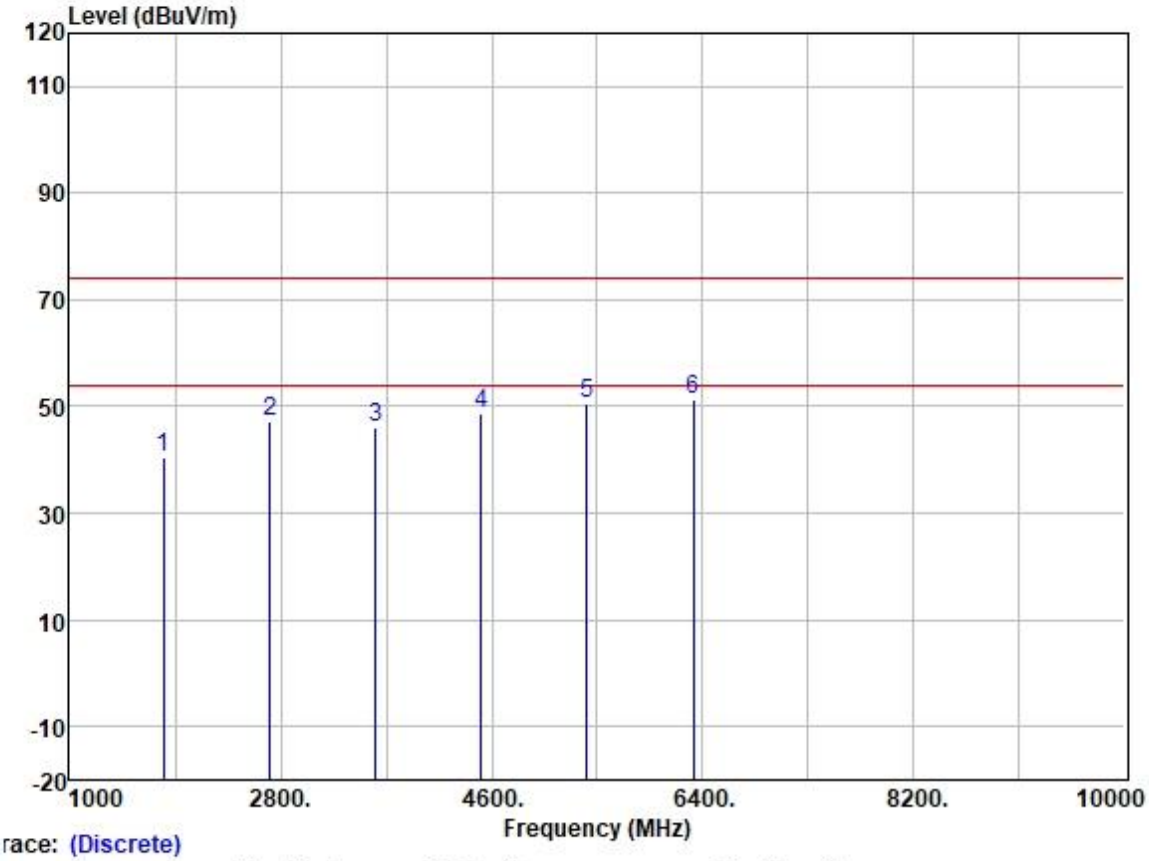
Test Mode: 06; Polarity: Horizontal; Modulation:GFSK; ; Channel:Low



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	1805.000	48.45	25.95	3.00	37.81	39.59	74.00	-34.41	HORIZONTAL	Peak
2	2707.500	53.66	27.87	3.61	37.47	47.67	74.00	-26.33	HORIZONTAL	Peak
3	3610.000	49.85	29.05	4.50	36.91	46.49	74.00	-27.51	HORIZONTAL	Peak
4	4512.500	51.22	30.82	5.11	36.82	50.33	74.00	-23.67	HORIZONTAL	Peak
5	5415.000	49.35	31.79	6.06	36.88	50.32	74.00	-23.68	HORIZONTAL	Peak
6	6317.500	48.99	33.51	5.95	36.97	51.48	74.00	-22.52	HORIZONTAL	Peak

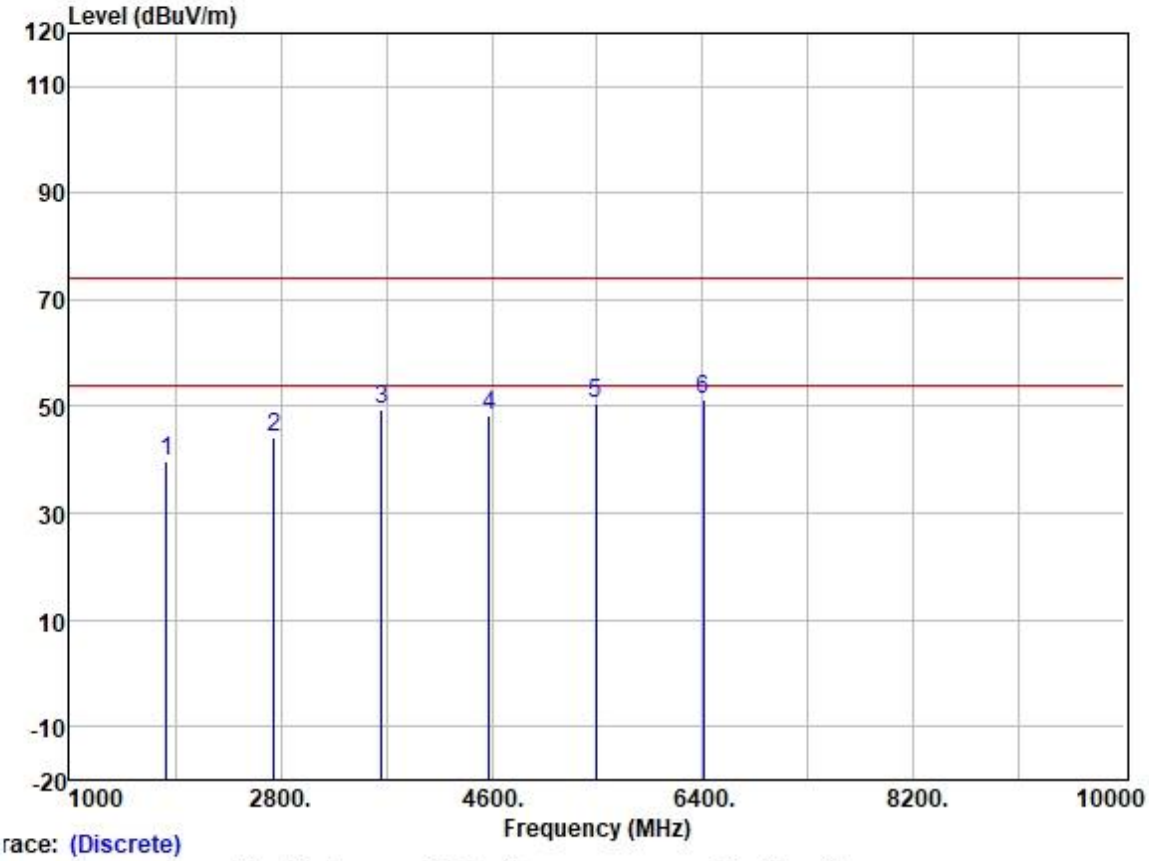
Test Mode: 06; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



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	1805.000	49.17	25.95	3.00	37.81	40.31	74.00	-33.69	VERTICAL	Peak
2	2707.500	53.26	27.87	3.61	37.47	47.27	74.00	-26.73	VERTICAL	Peak
3	3610.000	49.54	29.05	4.50	36.91	46.18	74.00	-27.82	VERTICAL	Peak
4	4512.500	49.40	30.82	5.11	36.82	48.51	74.00	-25.49	VERTICAL	Peak
5	5415.000	49.41	31.79	6.06	36.88	50.38	74.00	-23.62	VERTICAL	Peak
6	6317.500	48.80	33.51	5.95	36.97	51.29	74.00	-22.71	VERTICAL	Peak

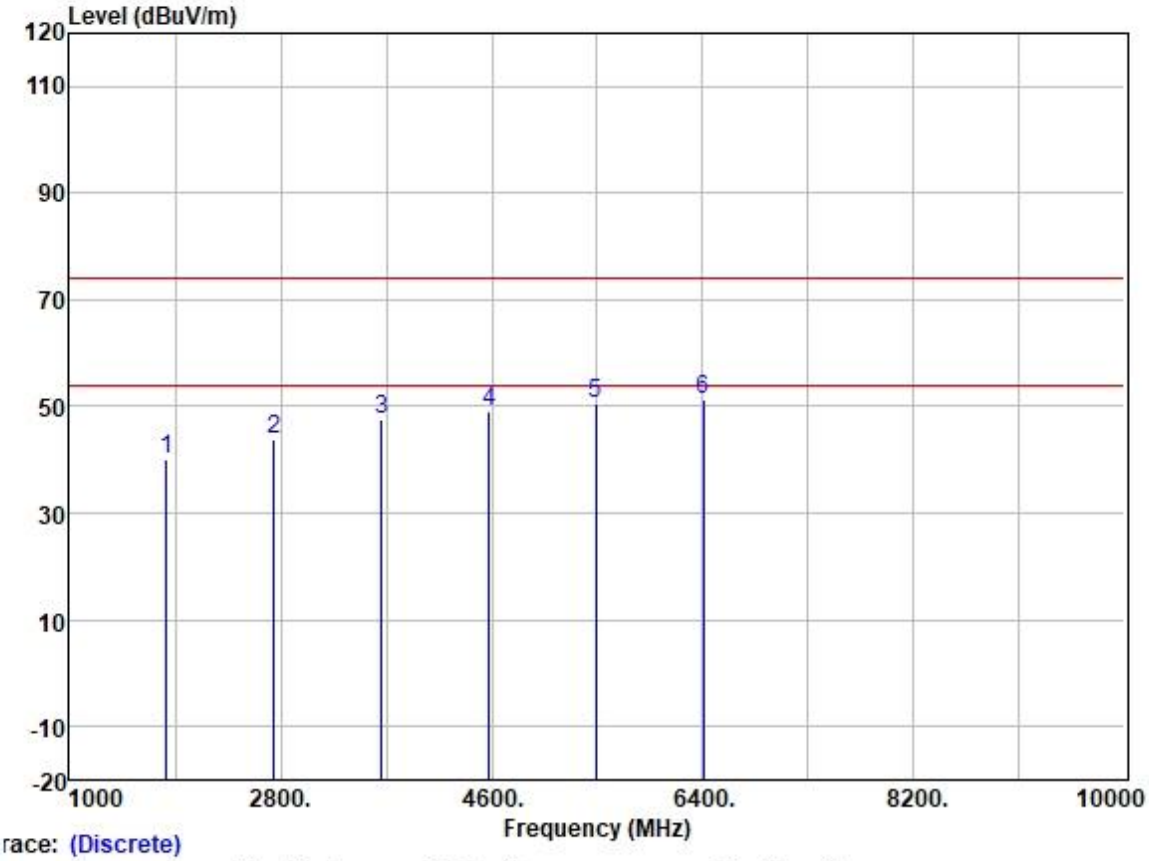
Test Mode: 06; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



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	1830.000	48.55	25.98	2.97	37.80	39.70	74.00	-34.30	HORIZONTAL	Peak
2	2745.000	50.15	27.98	3.64	37.44	44.33	74.00	-29.67	HORIZONTAL	Peak
3	3660.000	52.79	29.15	4.53	36.89	49.58	74.00	-24.42	HORIZONTAL	Peak
4	4575.000	48.77	30.91	5.33	36.82	48.19	74.00	-25.81	HORIZONTAL	Peak
5	5490.000	49.23	31.80	6.36	36.88	50.51	74.00	-23.49	HORIZONTAL	Peak
6	6405.000	48.56	33.79	5.89	36.98	51.26	74.00	-22.74	HORIZONTAL	Peak

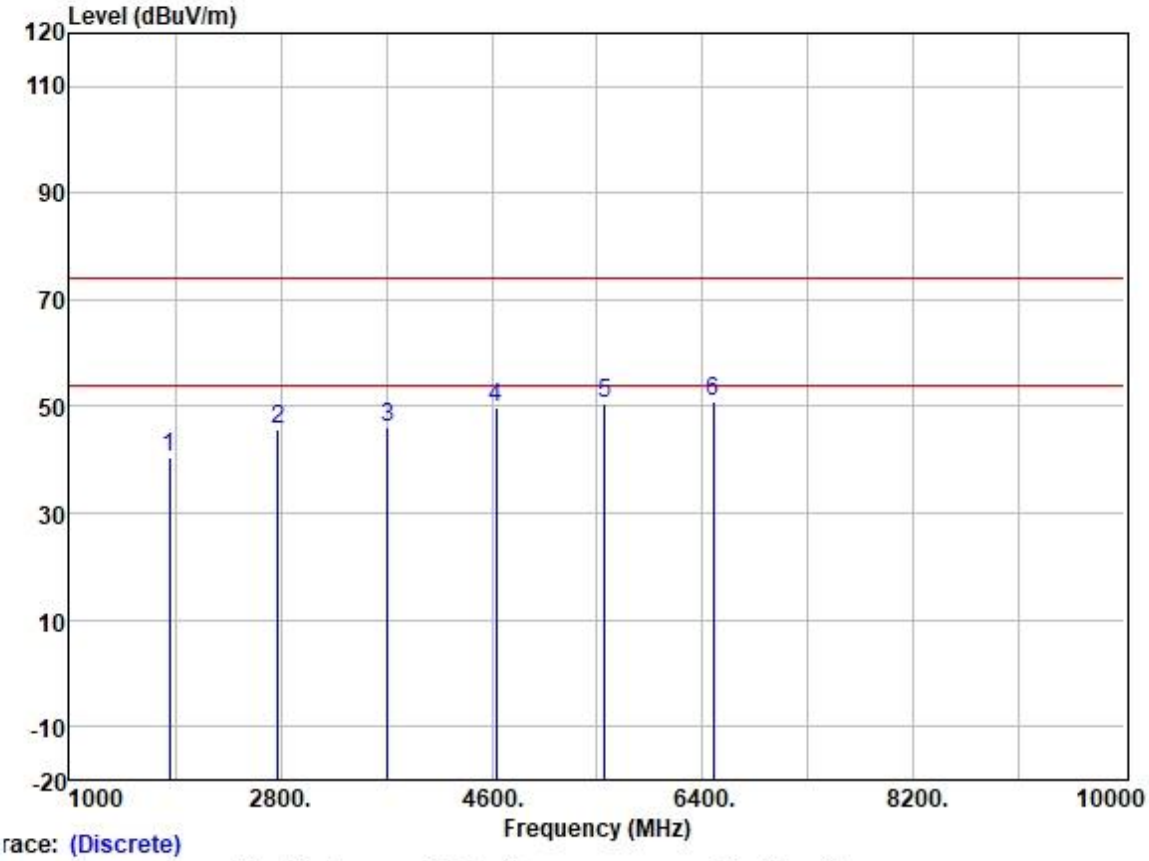
Test Mode: 06; Polarity: Vertical; Modulation:GFSK; ; Channel:middle



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	1830.000	48.79	25.98	2.97	37.80	39.94	74.00	-34.06	VERTICAL	Peak
2	2745.000	49.49	27.98	3.64	37.44	43.67	74.00	-30.33	VERTICAL	Peak
3	3660.000	50.87	29.15	4.53	36.89	47.66	74.00	-26.34	VERTICAL	Peak
4	4575.000	49.70	30.91	5.33	36.82	49.12	74.00	-24.88	VERTICAL	Peak
5	5490.000	49.13	31.80	6.36	36.88	50.41	74.00	-23.59	VERTICAL	Peak
6	6405.000	48.59	33.79	5.89	36.98	51.29	74.00	-22.71	VERTICAL	Peak

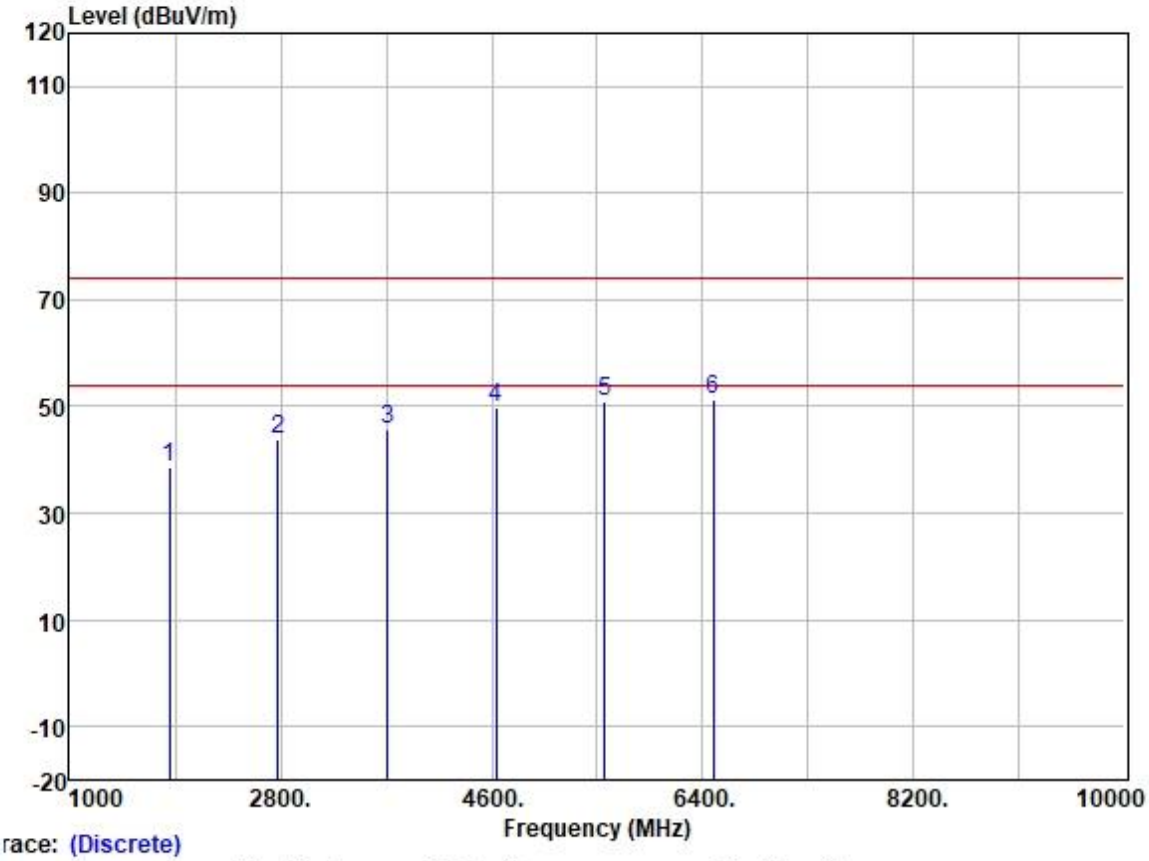
Test Mode: 06; Polarity: Horizontal; Modulation:GFSK; ; Channel:High



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	1855.000	49.22	26.00	2.94	37.78	40.38	74.00	-33.62	HORIZONTAL	Peak
2	2782.500	51.52	28.10	3.69	37.43	45.88	74.00	-28.12	HORIZONTAL	Peak
3	3710.000	49.07	29.28	4.56	36.88	46.03	74.00	-27.97	HORIZONTAL	Peak
4	4637.500	50.38	31.02	5.40	36.82	49.98	74.00	-24.02	HORIZONTAL	Peak
5	5565.000	49.31	31.86	6.33	36.89	50.61	74.00	-23.39	HORIZONTAL	Peak
6	6492.500	48.13	33.96	5.85	37.01	50.93	74.00	-23.07	HORIZONTAL	Peak

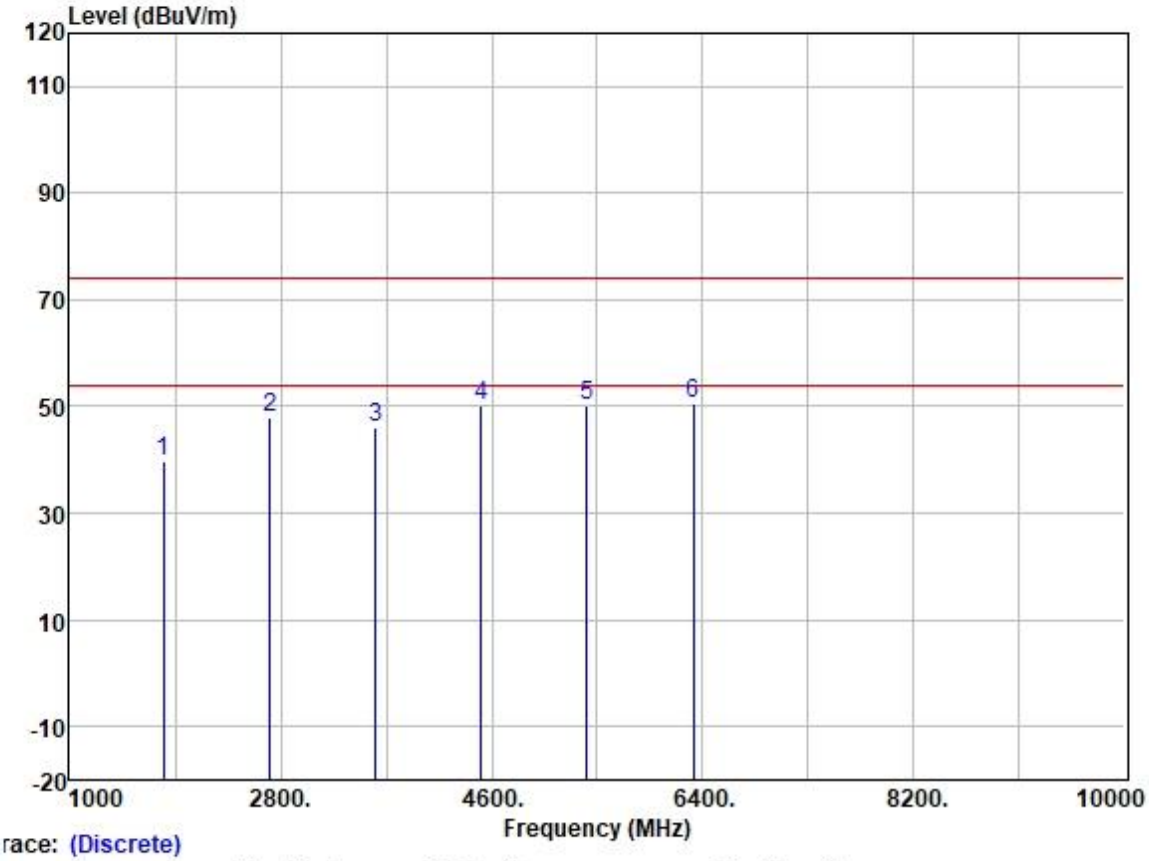
Test Mode: 06; Polarity: Vertical; Modulation:GFSK; ; Channel:High



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	1855.000	47.63	26.00	2.94	37.78	38.79	74.00	-35.21	VERTICAL	Peak
2	2782.500	49.63	28.10	3.69	37.43	43.99	74.00	-30.01	VERTICAL	Peak
3	3710.000	48.89	29.28	4.56	36.88	45.85	74.00	-28.15	VERTICAL	Peak
4	4637.500	50.07	31.02	5.40	36.82	49.67	74.00	-24.33	VERTICAL	Peak
5	5565.000	49.77	31.86	6.33	36.89	51.07	74.00	-22.93	VERTICAL	Peak
6	6492.500	48.48	33.96	5.85	37.01	51.28	74.00	-22.72	VERTICAL	Peak

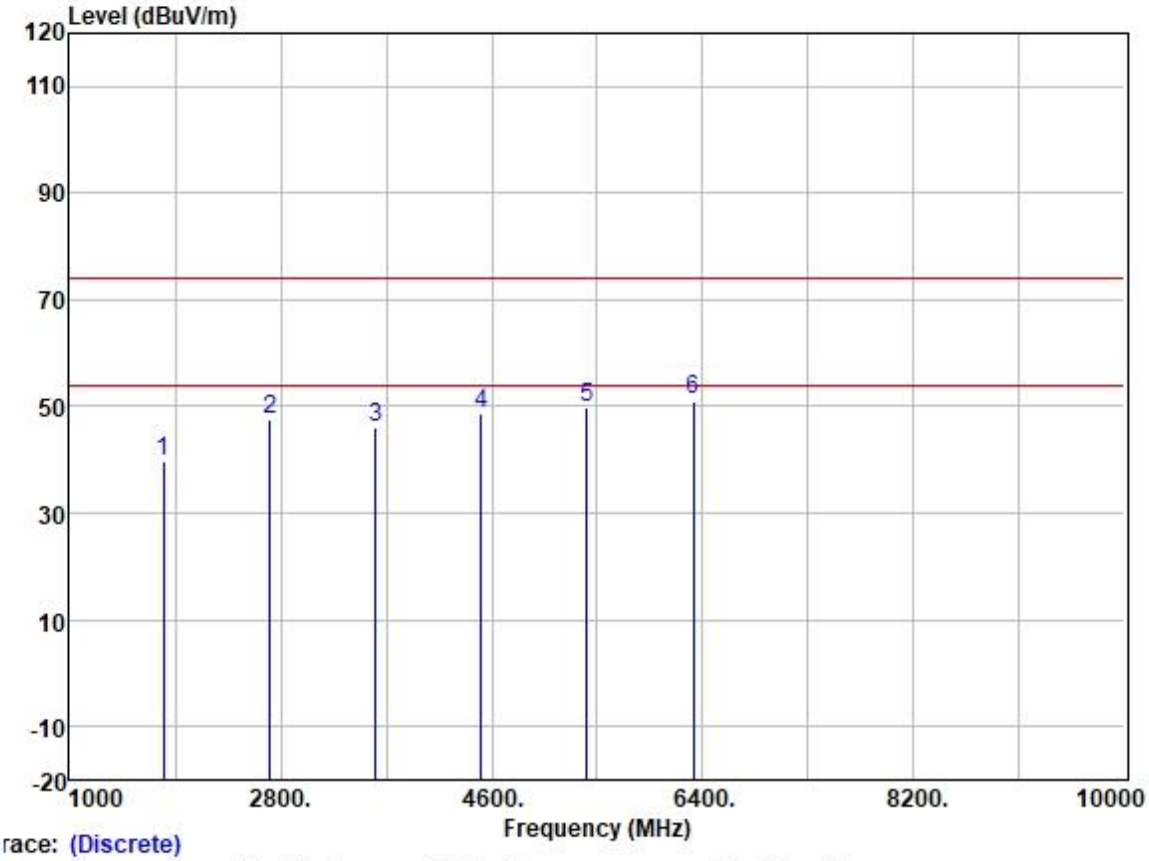
Test Mode: 08; Polarity: Horizontal; Modulation:GFSK; ; Channel:Low



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	1805.000	48.46	25.95	3.00	37.81	39.60	74.00	-34.40	HORIZONTAL	Peak
2	2707.500	53.77	27.87	3.61	37.47	47.78	74.00	-26.22	HORIZONTAL	Peak
3	3610.000	49.51	29.05	4.50	36.91	46.15	74.00	-27.85	HORIZONTAL	Peak
4	4512.500	51.20	30.82	5.11	36.82	50.31	74.00	-23.69	HORIZONTAL	Peak
5	5415.000	49.12	31.79	6.06	36.88	50.09	74.00	-23.91	HORIZONTAL	Peak
6	6317.500	48.19	33.51	5.95	36.97	50.68	74.00	-23.32	HORIZONTAL	Peak

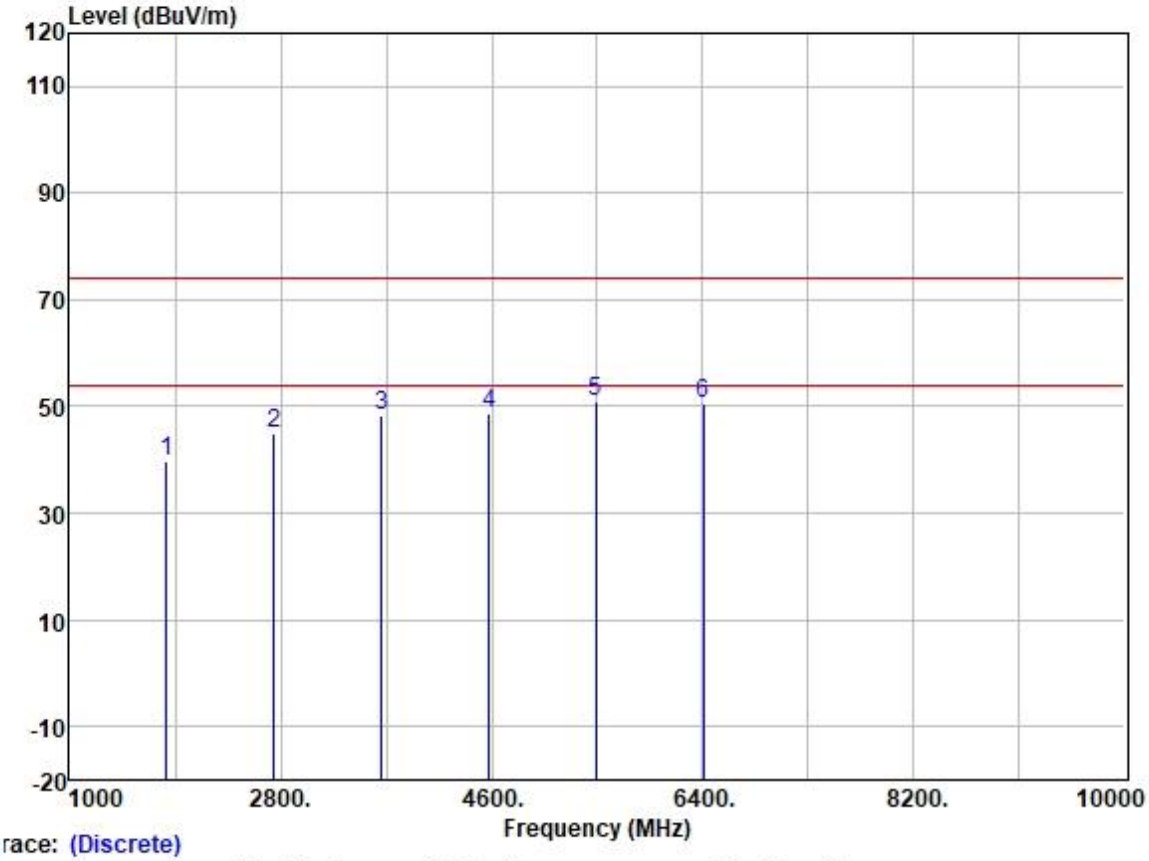
Test Mode: 08; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



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	1805.000	48.66	25.95	3.00	37.81	39.80	74.00	-34.20	VERTICAL	Peak
2	2707.500	53.71	27.87	3.61	37.47	47.72	74.00	-26.28	VERTICAL	Peak
3	3610.000	49.31	29.05	4.50	36.91	45.95	74.00	-28.05	VERTICAL	Peak
4	4512.500	49.64	30.82	5.11	36.82	48.75	74.00	-25.25	VERTICAL	Peak
5	5415.000	48.89	31.79	6.06	36.88	49.86	74.00	-24.14	VERTICAL	Peak
6	6317.500	48.63	33.51	5.95	36.97	51.12	74.00	-22.88	VERTICAL	Peak

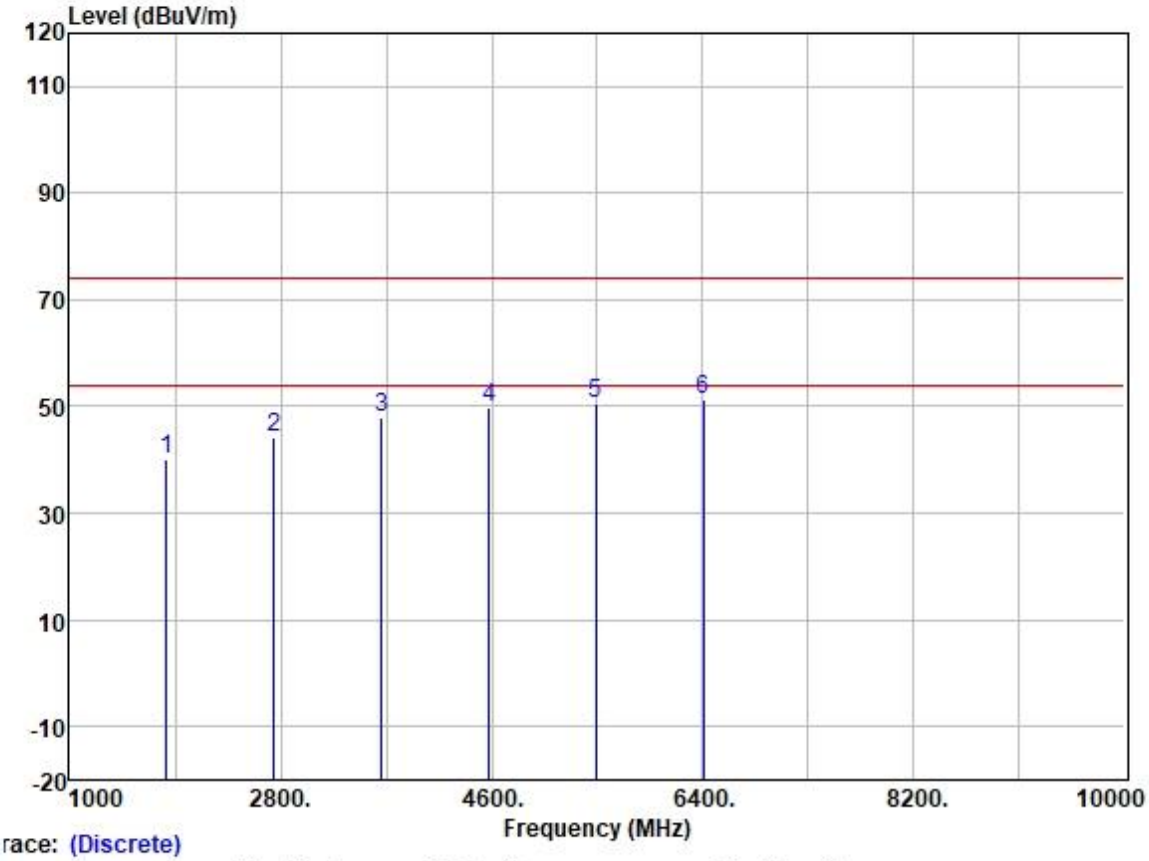
Test Mode: 08; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



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	1830.000	48.71	25.98	2.97	37.80	39.86	74.00	-34.14	HORIZONTAL	Peak
2	2745.000	50.67	27.98	3.64	37.44	44.85	74.00	-29.15	HORIZONTAL	Peak
3	3660.000	51.52	29.15	4.53	36.89	48.31	74.00	-25.69	HORIZONTAL	Peak
4	4575.000	49.41	30.91	5.33	36.82	48.83	74.00	-25.17	HORIZONTAL	Peak
5	5490.000	49.71	31.80	6.36	36.88	50.99	74.00	-23.01	HORIZONTAL	Peak
6	6405.000	47.86	33.79	5.89	36.98	50.56	74.00	-23.44	HORIZONTAL	Peak

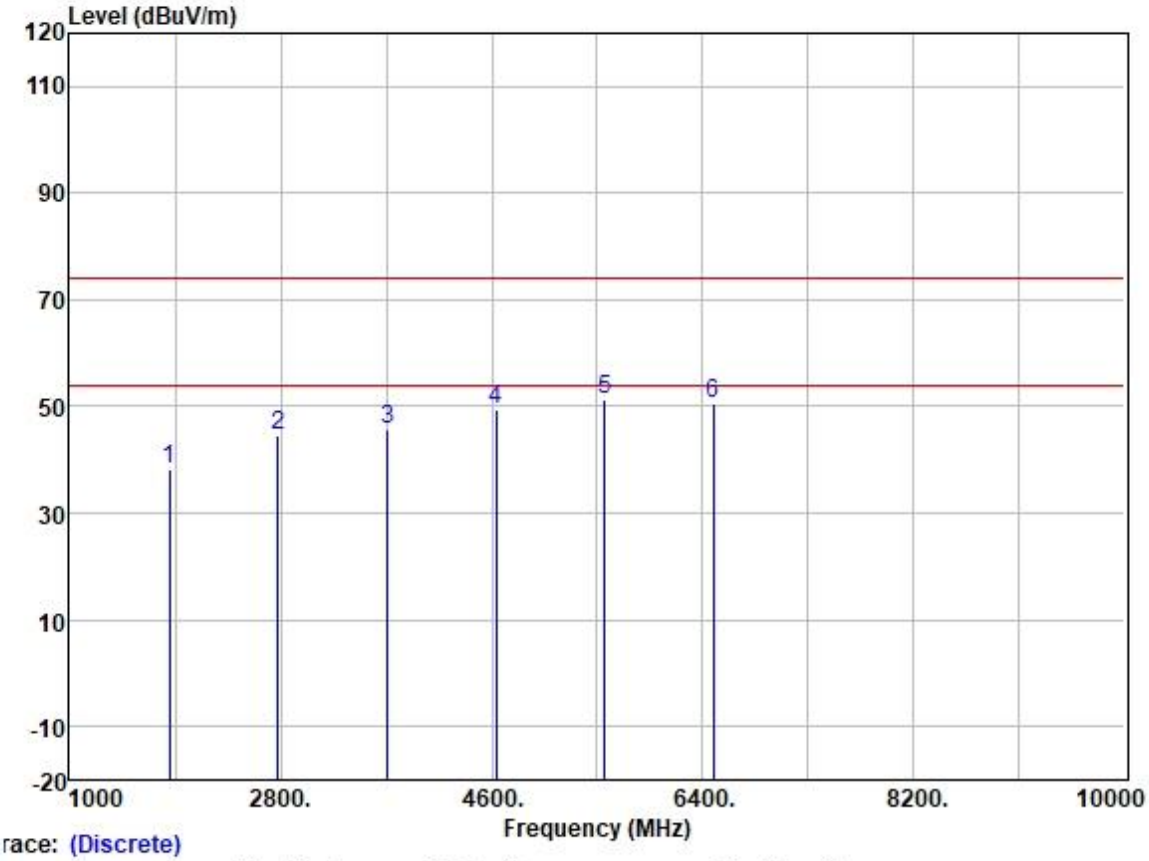
Test Mode: 08; Polarity: Vertical; Modulation:GFSK; ; Channel:middle



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	1830.000	48.96	25.98	2.97	37.80	40.11	74.00	-33.89	VERTICAL	Peak
2	2745.000	49.97	27.98	3.64	37.44	44.15	74.00	-29.85	VERTICAL	Peak
3	3660.000	51.11	29.15	4.53	36.89	47.90	74.00	-26.10	VERTICAL	Peak
4	4575.000	50.30	30.91	5.33	36.82	49.72	74.00	-24.28	VERTICAL	Peak
5	5490.000	49.35	31.80	6.36	36.88	50.63	74.00	-23.37	VERTICAL	Peak
6	6405.000	48.51	33.79	5.89	36.98	51.21	74.00	-22.79	VERTICAL	Peak

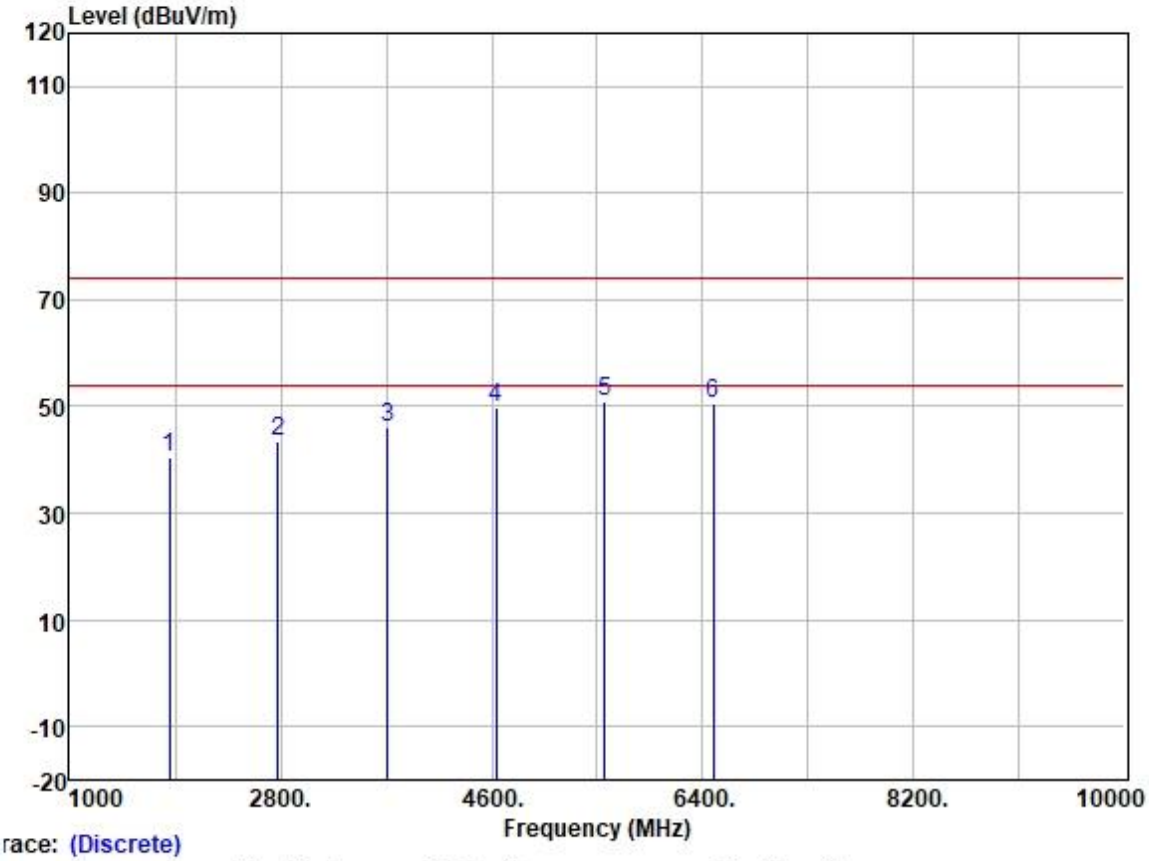
Test Mode: 08; Polarity: Horizontal; Modulation:GFSK; ; Channel:High



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	1855.000	47.24	26.00	2.94	37.78	38.40	74.00	-35.60	HORIZONTAL	Peak
2	2782.500	50.26	28.10	3.69	37.43	44.62	74.00	-29.38	HORIZONTAL	Peak
3	3710.000	48.59	29.28	4.56	36.88	45.55	74.00	-28.45	HORIZONTAL	Peak
4	4637.500	50.02	31.02	5.40	36.82	49.62	74.00	-24.38	HORIZONTAL	Peak
5	5565.000	49.98	31.86	6.33	36.89	51.28	74.00	-22.72	HORIZONTAL	Peak
6	6492.500	47.83	33.96	5.85	37.01	50.63	74.00	-23.37	HORIZONTAL	Peak

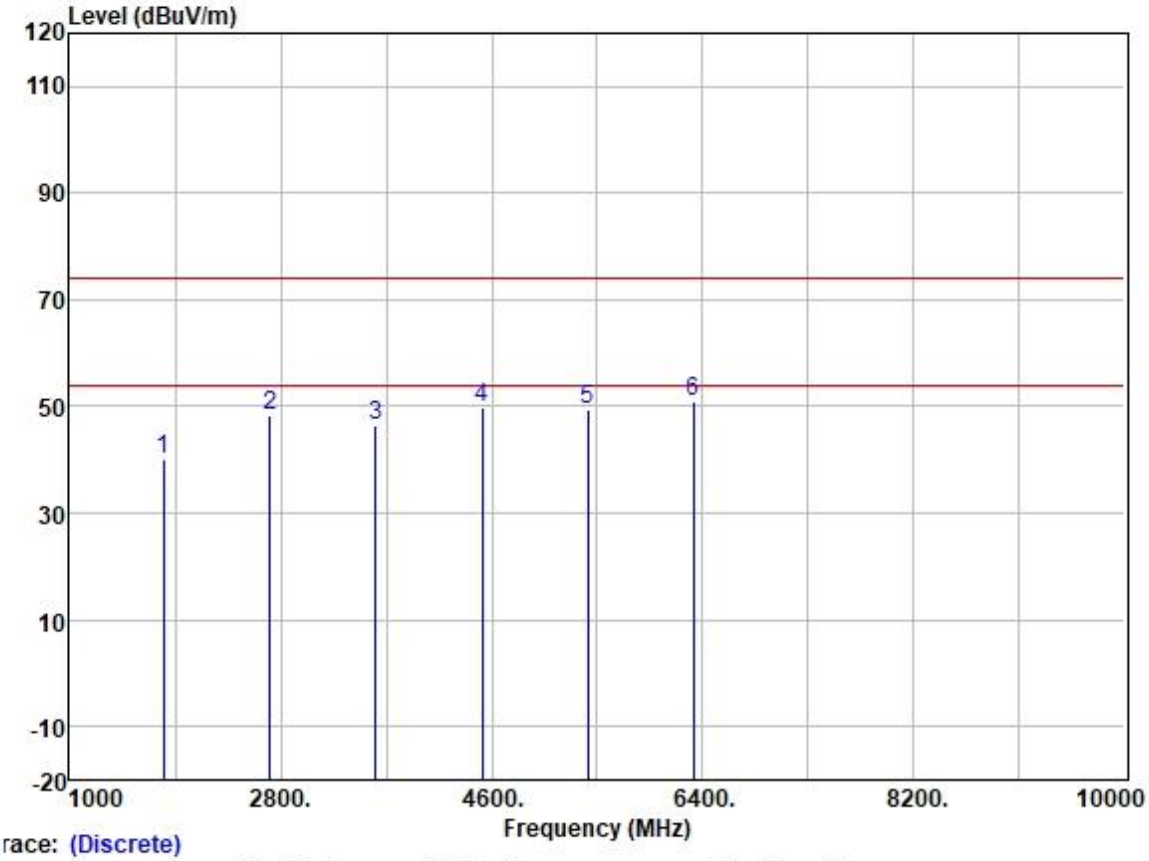
Test Mode: 08; Polarity: Vertical; Modulation:GFSK; ; Channel:High



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	1855.000	49.48	26.00	2.94	37.78	40.64	74.00	-33.36	VERTICAL	Peak
2	2782.500	49.10	28.10	3.69	37.43	43.46	74.00	-30.54	VERTICAL	Peak
3	3710.000	49.01	29.28	4.56	36.88	45.97	74.00	-28.03	VERTICAL	Peak
4	4637.500	50.37	31.02	5.40	36.82	49.97	74.00	-24.03	VERTICAL	Peak
5	5565.000	49.50	31.86	6.33	36.89	50.80	74.00	-23.20	VERTICAL	Peak
6	6492.500	47.77	33.96	5.85	37.01	50.57	74.00	-23.43	VERTICAL	Peak

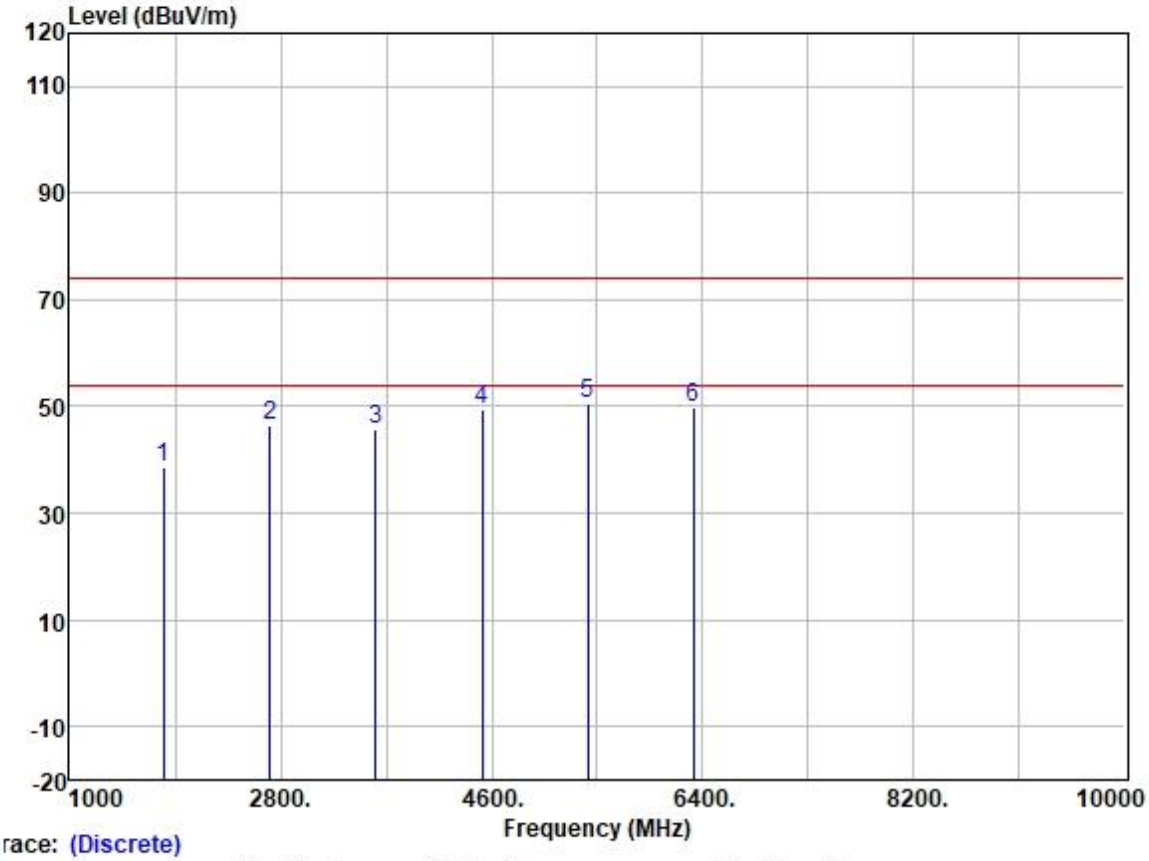
Test Mode: 10; Polarity: Horizontal; Modulation:GFSK; ; Channel:Low



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	1806.000	49.04	25.95	2.99	37.81	40.17	74.00	-33.83	HORIZONTAL	Peak
2	2709.000	54.24	27.87	3.61	37.47	48.25	74.00	-25.75	HORIZONTAL	Peak
3	3612.000	49.78	29.05	4.50	36.91	46.42	74.00	-27.58	HORIZONTAL	Peak
4	4515.000	50.63	30.83	5.16	36.82	49.80	74.00	-24.20	HORIZONTAL	Peak
5	5418.000	48.26	31.79	6.13	36.88	49.30	74.00	-24.70	HORIZONTAL	Peak
6	6321.000	48.61	33.51	5.95	36.97	51.10	74.00	-22.90	HORIZONTAL	Peak

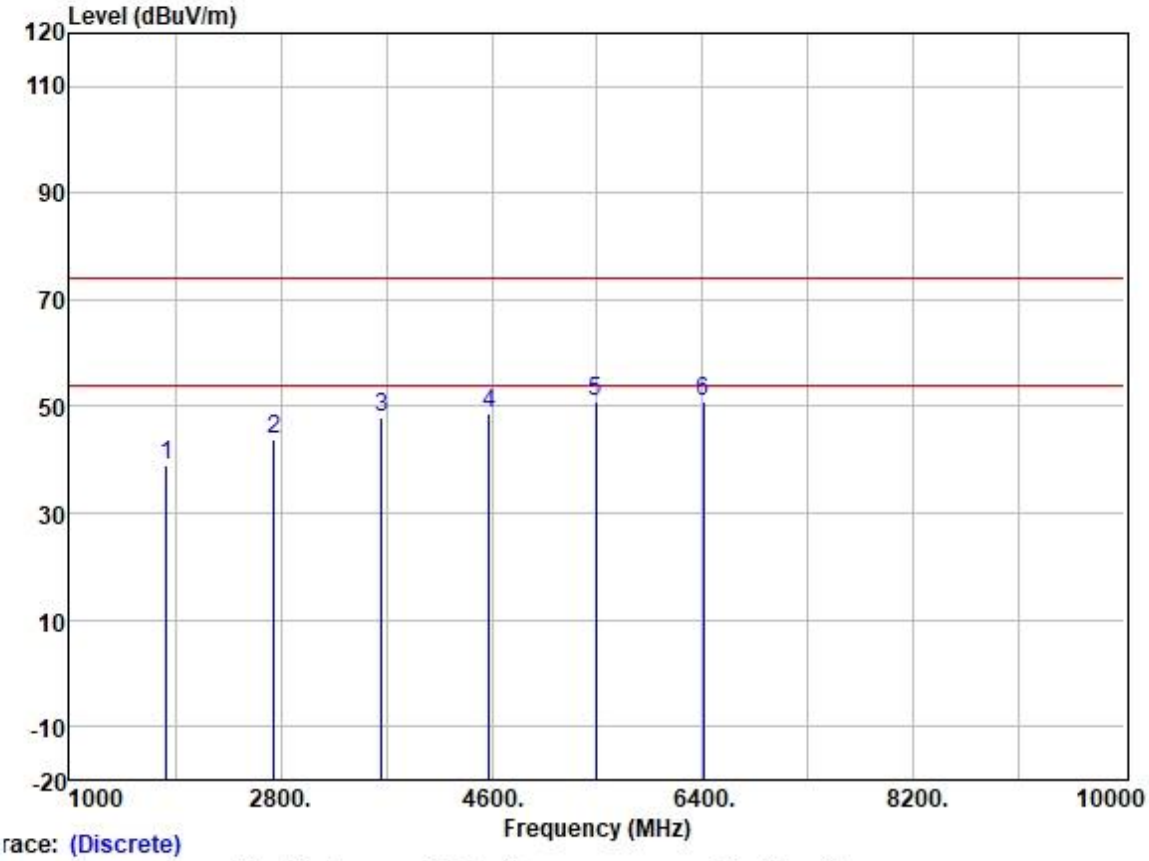
Test Mode: 10; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



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	1806.000	47.48	25.95	2.99	37.81	38.61	74.00	-35.39	VERTICAL	Peak
2	2709.000	52.28	27.87	3.61	37.47	46.29	74.00	-27.71	VERTICAL	Peak
3	3612.000	49.17	29.05	4.50	36.91	45.81	74.00	-28.19	VERTICAL	Peak
4	4515.000	50.39	30.83	5.16	36.82	49.56	74.00	-24.44	VERTICAL	Peak
5	5418.000	49.34	31.79	6.13	36.88	50.38	74.00	-23.62	VERTICAL	Peak
6	6321.000	47.50	33.51	5.95	36.97	49.99	74.00	-24.01	VERTICAL	Peak

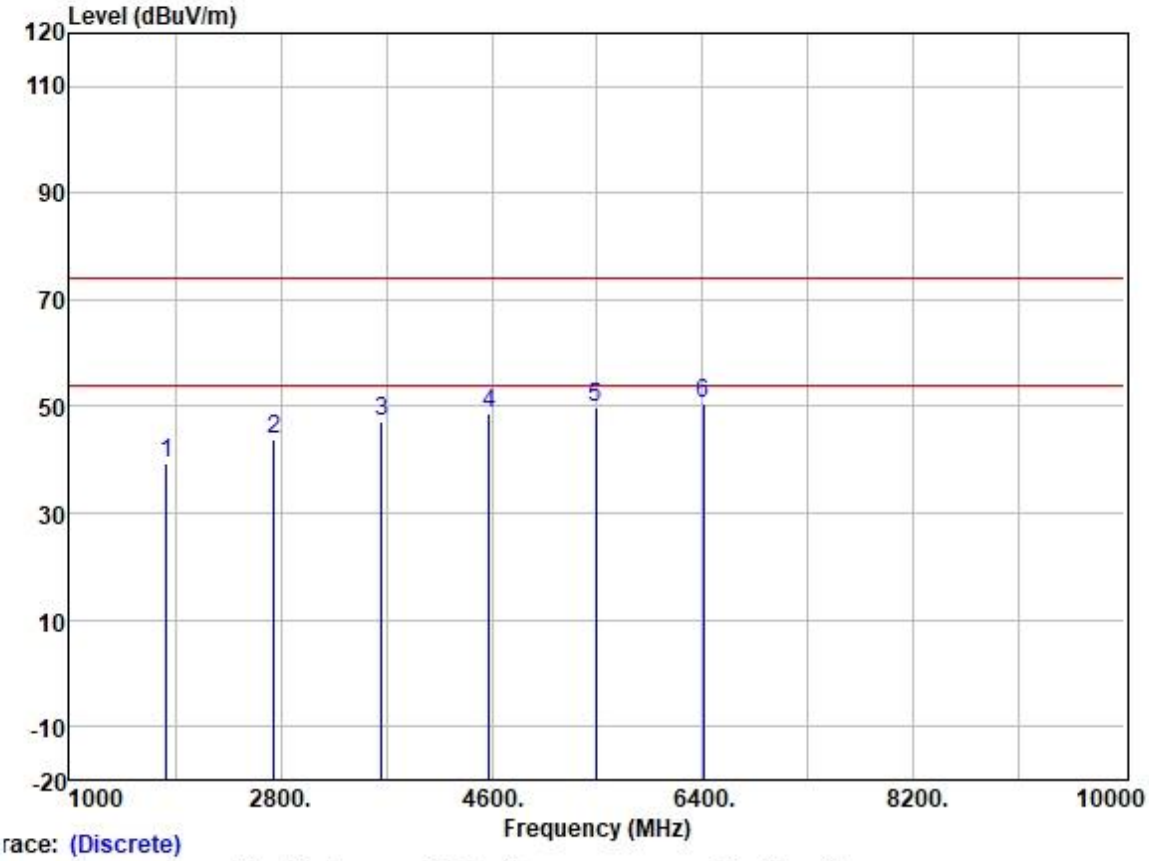
Test Mode: 10; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



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	1830.000	47.67	25.98	2.97	37.80	38.82	74.00	-35.18	HORIZONTAL	Peak
2	2745.000	49.74	27.98	3.64	37.44	43.92	74.00	-30.08	HORIZONTAL	Peak
3	3660.000	51.13	29.15	4.53	36.89	47.92	74.00	-26.08	HORIZONTAL	Peak
4	4575.000	49.44	30.91	5.33	36.82	48.86	74.00	-25.14	HORIZONTAL	Peak
5	5490.000	49.53	31.80	6.36	36.88	50.81	74.00	-23.19	HORIZONTAL	Peak
6	6405.000	48.13	33.79	5.89	36.98	50.83	74.00	-23.17	HORIZONTAL	Peak

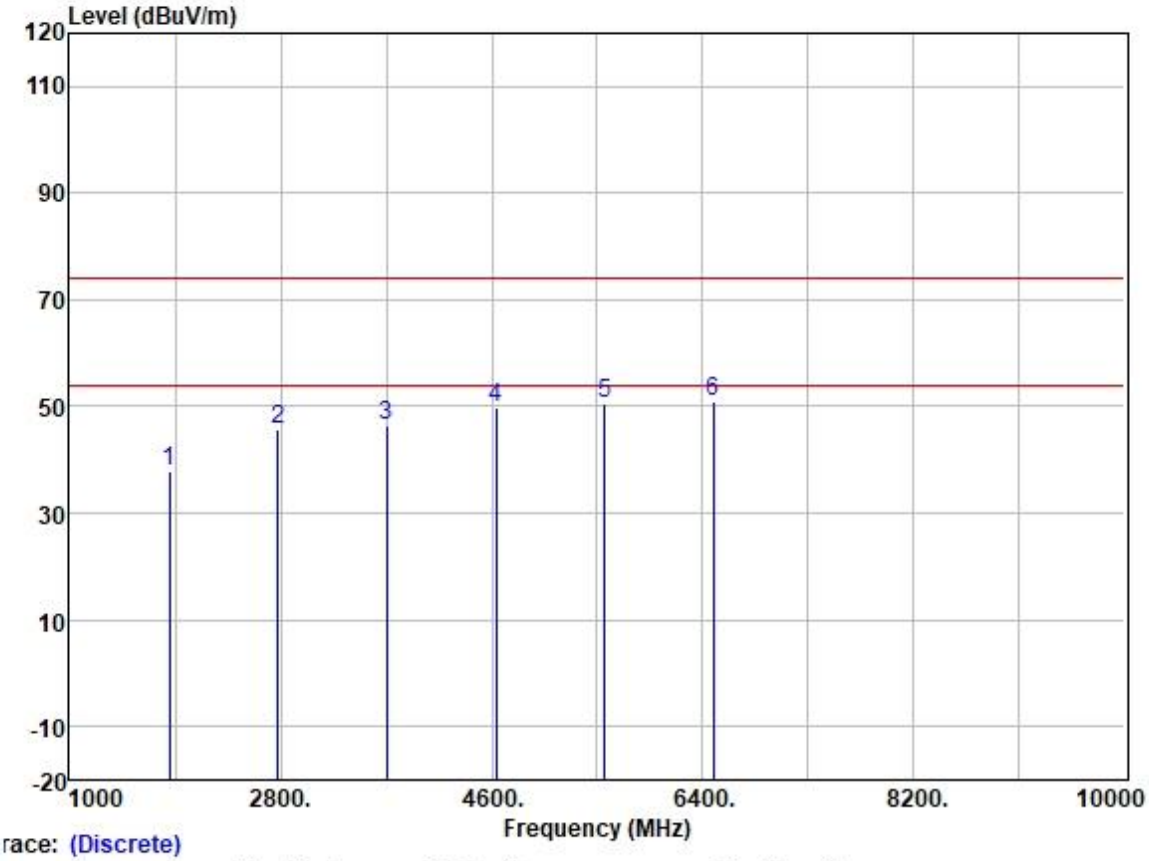
Test Mode: 10; Polarity: Vertical; Modulation:GFSK; ; Channel:middle



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	1830.000	48.29	25.98	2.97	37.80	39.44	74.00	-34.56	VERTICAL	Peak
2	2745.000	49.53	27.98	3.64	37.44	43.71	74.00	-30.29	VERTICAL	Peak
3	3660.000	50.51	29.15	4.53	36.89	47.30	74.00	-26.70	VERTICAL	Peak
4	4575.000	49.31	30.91	5.33	36.82	48.73	74.00	-25.27	VERTICAL	Peak
5	5490.000	48.59	31.80	6.36	36.88	49.87	74.00	-24.13	VERTICAL	Peak
6	6405.000	47.69	33.79	5.89	36.98	50.39	74.00	-23.61	VERTICAL	Peak

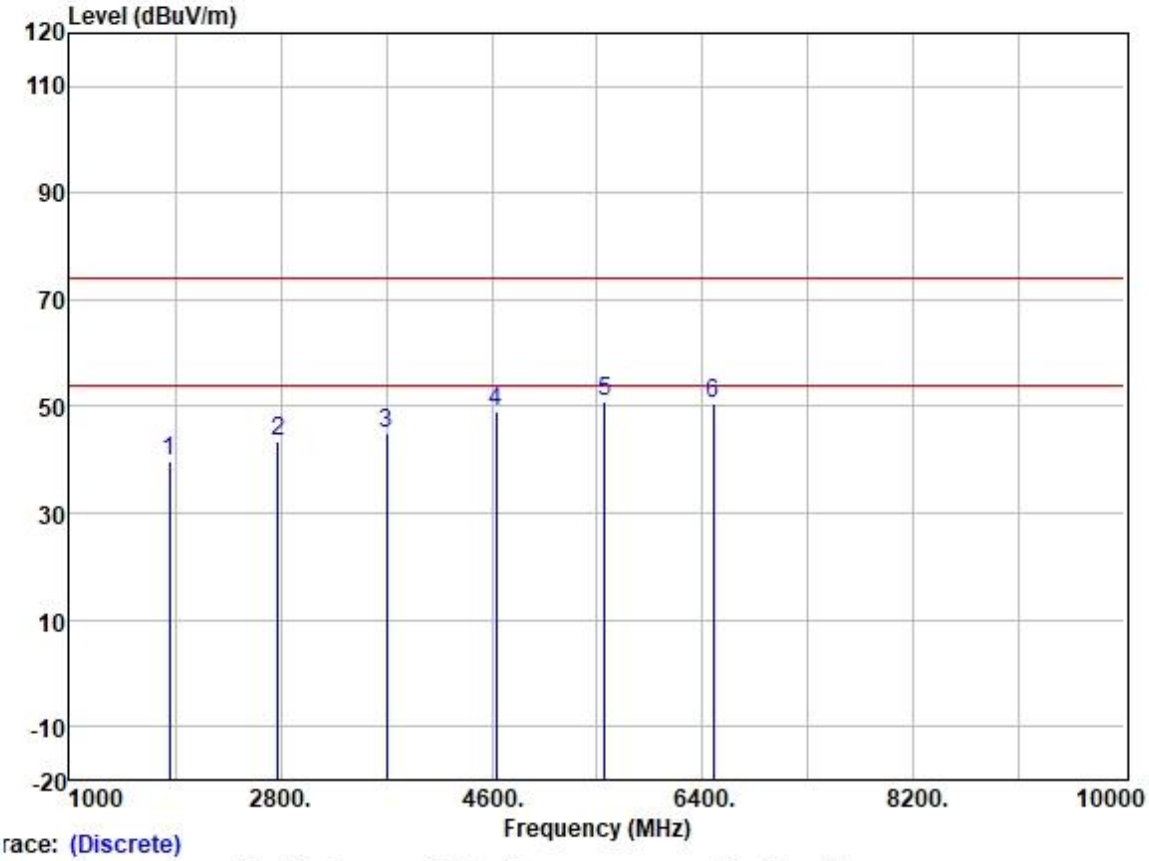
Test Mode: 10; Polarity: Horizontal; Modulation:GFSK; ; Channel:High



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	1854.000	46.88	26.00	2.94	37.78	38.04	74.00	-35.96	HORIZONTAL	Peak
2	2781.000	51.17	28.10	3.69	37.43	45.53	74.00	-28.47	HORIZONTAL	Peak
3	3708.000	49.58	29.25	4.56	36.88	46.51	74.00	-27.49	HORIZONTAL	Peak
4	4635.000	50.07	31.02	5.40	36.82	49.67	74.00	-24.33	HORIZONTAL	Peak
5	5562.000	49.21	31.86	6.33	36.89	50.51	74.00	-23.49	HORIZONTAL	Peak
6	6489.000	48.15	33.96	5.85	37.01	50.95	74.00	-23.05	HORIZONTAL	Peak

Test Mode: 10; Polarity: Vertical; Modulation:GFSK; ; Channel:High

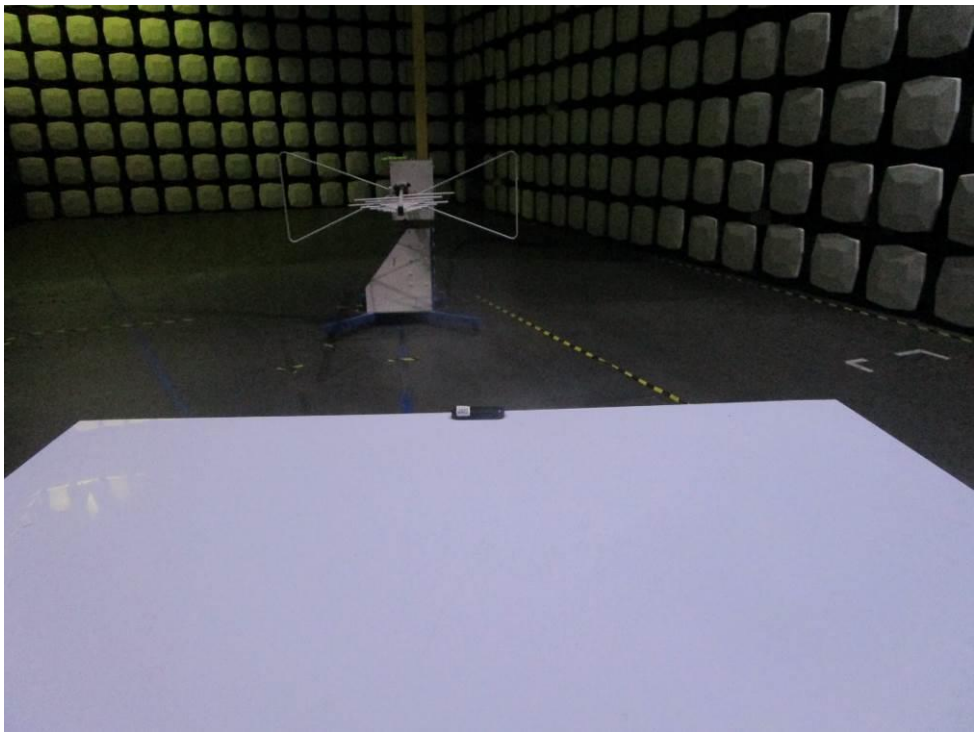


race: (Discrete)

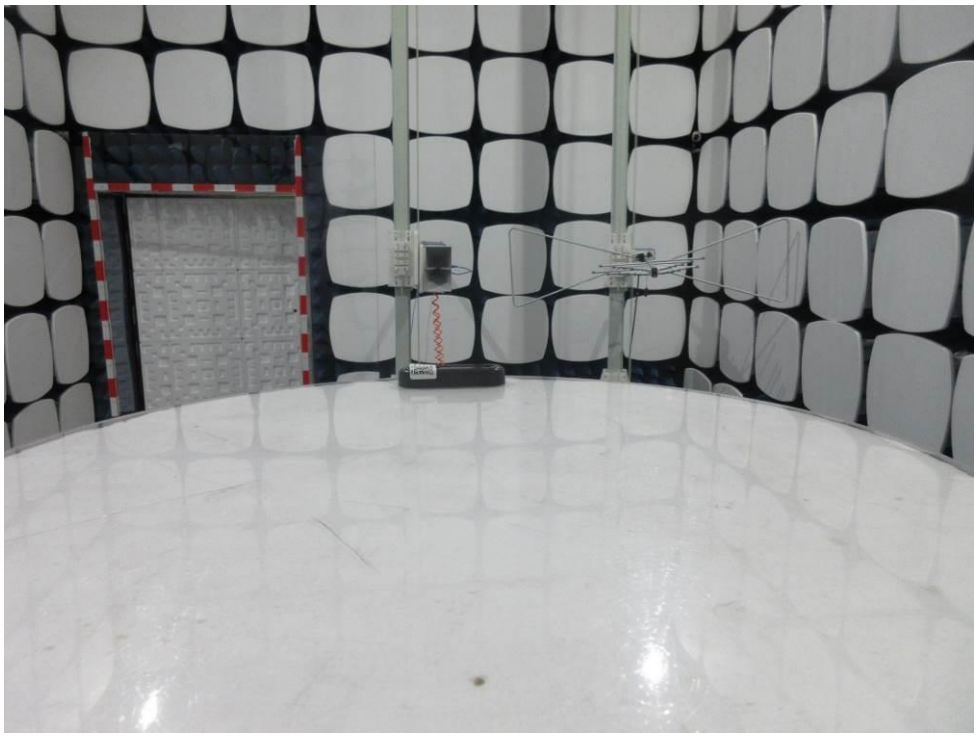
	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1854.000	48.44	26.00	2.94	37.78	39.60	74.00	-34.40	VERTICAL	Peak
2	2781.000	49.24	28.10	3.69	37.43	43.60	74.00	-30.40	VERTICAL	Peak
3	3708.000	48.00	29.25	4.56	36.88	44.93	74.00	-29.07	VERTICAL	Peak
4	4635.000	49.53	31.02	5.40	36.82	49.13	74.00	-24.87	VERTICAL	Peak
5	5562.000	49.61	31.86	6.33	36.89	50.91	74.00	-23.09	VERTICAL	Peak
6	6489.000	47.87	33.96	5.85	37.01	50.67	74.00	-23.33	VERTICAL	Peak

8 Test Setup Photo

Radiated Spurious Emissions (Below 1GHz)



Radiated Spurious Emissions (Above 1GHz)



9 EUT Constructional Details (EUT Photos)

Refer to Appendix - external and internal photos for GZCR2108020887AT

10 Appendix

1. Bandwidth

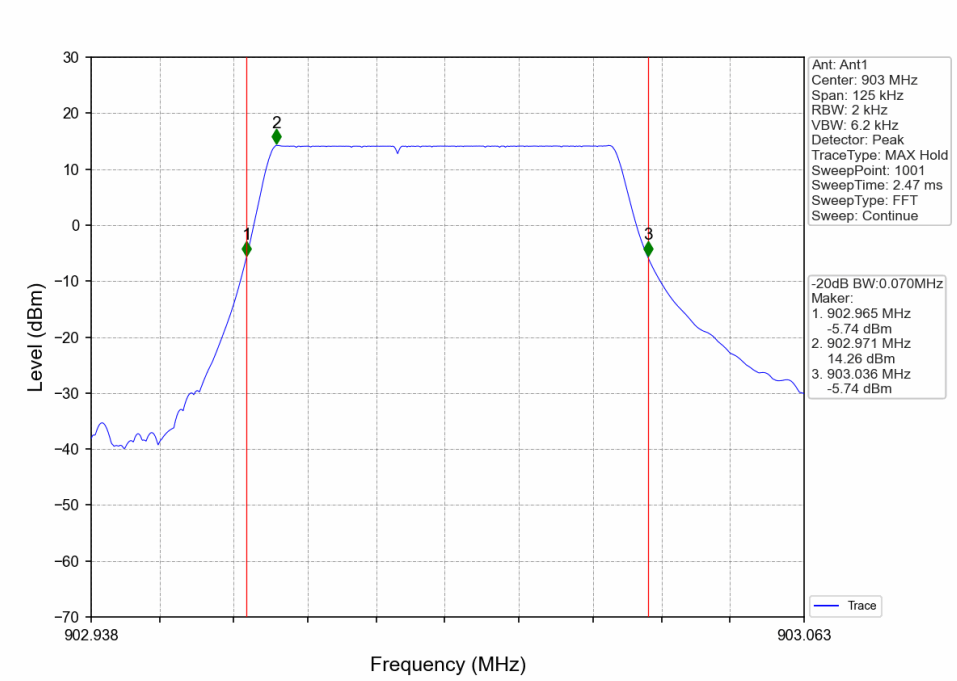
1.1 20dB BW

1.1.1 Test Result

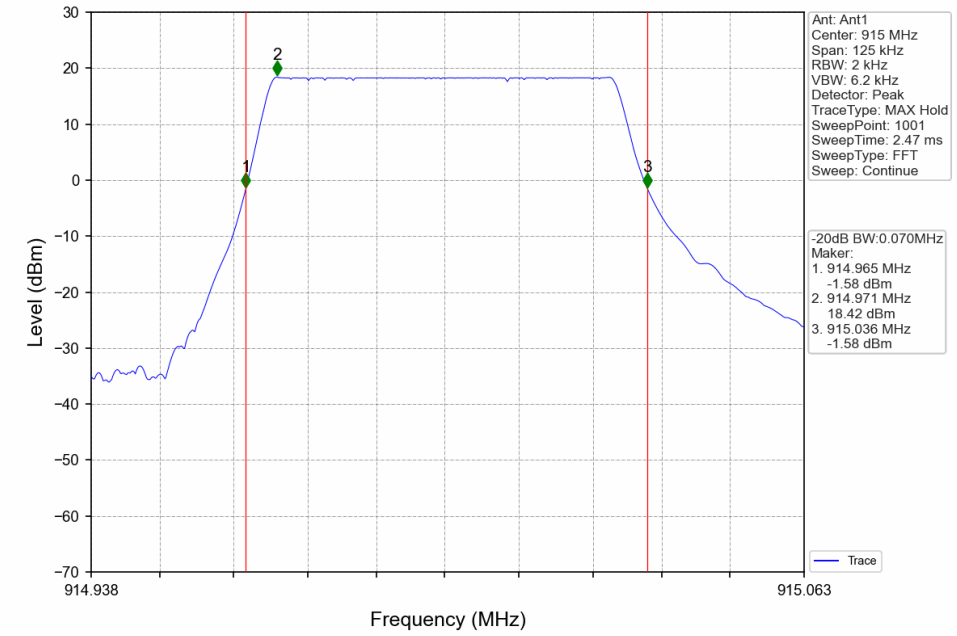
Mode	TX Type	Frequency (MHz)	Ant	20dB Bandwidth (MHz) Result	Verdict
00	SISO	903	1	0.070	Pass
		915	1	0.070	Pass
		927.5	1	0.070	Pass
04	SISO	903	1	0.143	Pass
		915	1	0.143	Pass
		927.5	1	0.143	Pass
06	SISO	903	1	0.294	Pass
		915	1	0.292	Pass
		927.5	1	0.293	Pass
08	SISO	903	1	0.566	Pass
		915	1	0.565	Pass
		927	1	0.566	Pass

1.1.2 Test Graph

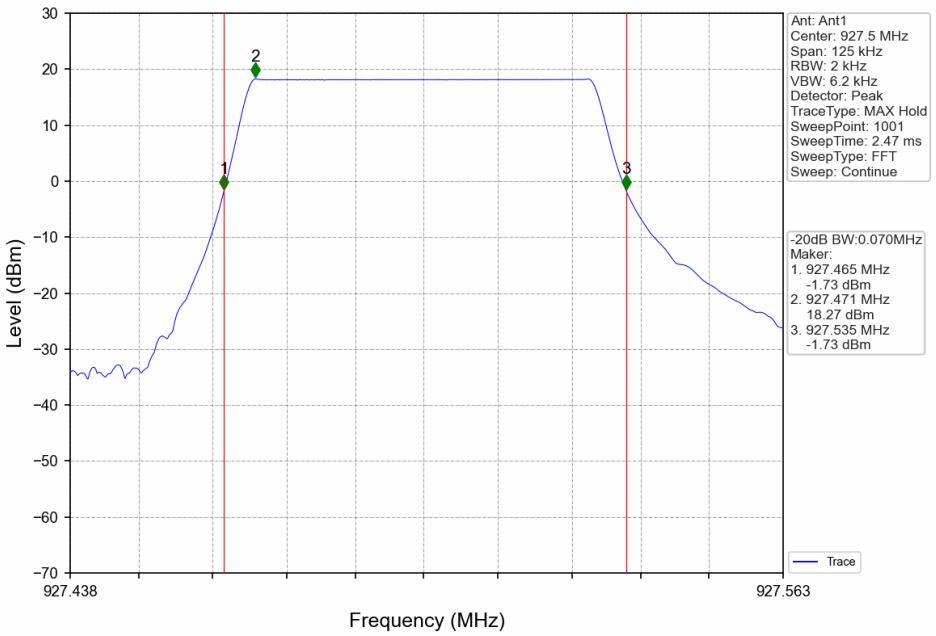
00_LCH_903MHz_Ant1_NTNV



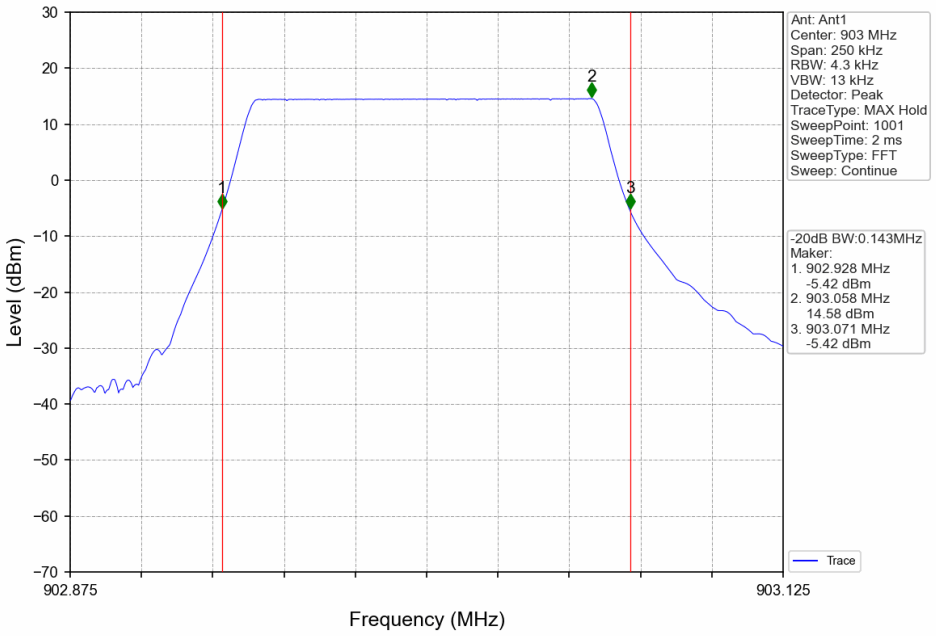
00_MCH_915MHz_Ant1_NTNV



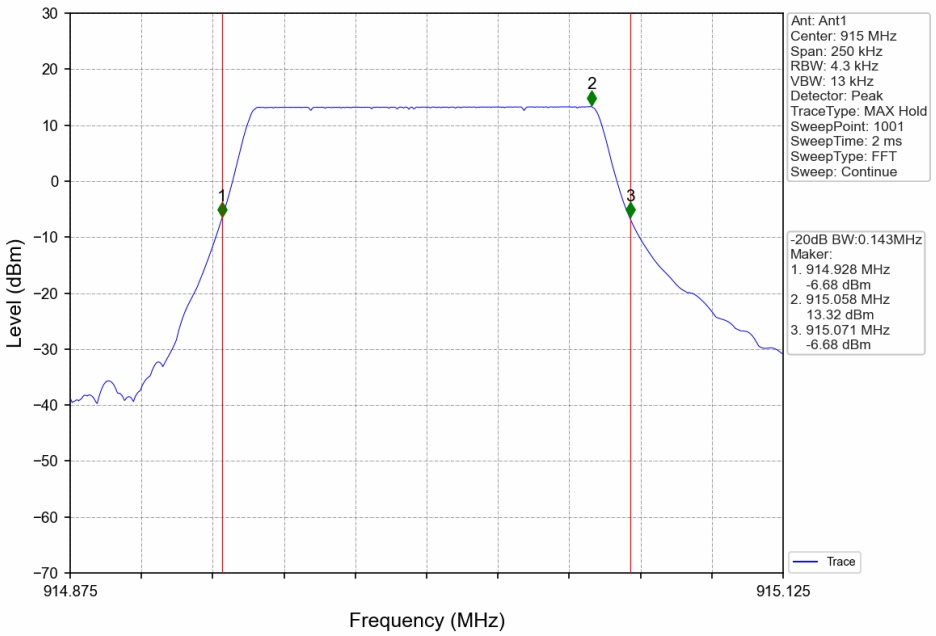
00_HCH_927.5MHz_Ant1_NTNV



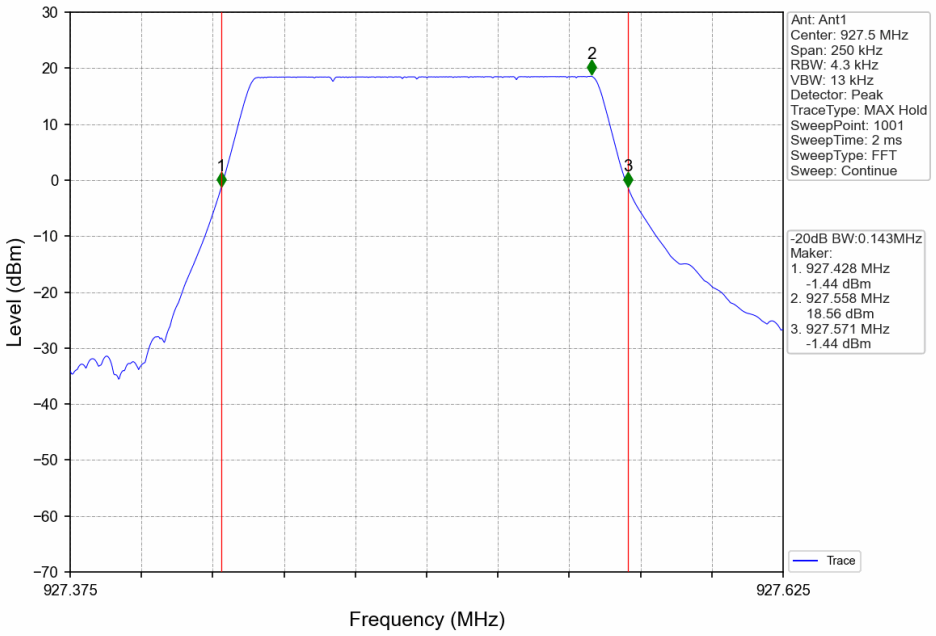
04_LCH_903MHz_Ant1_NTNV



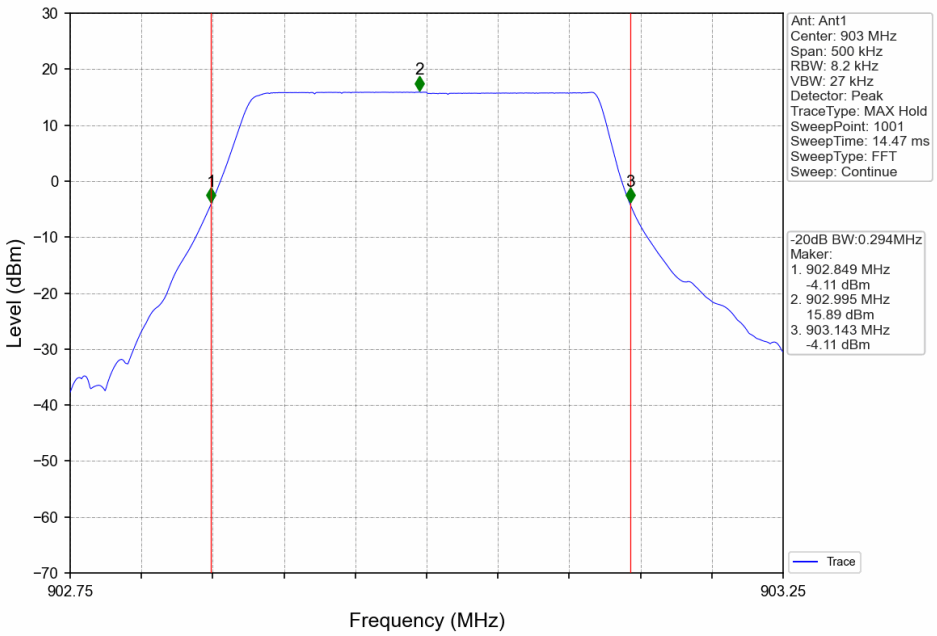
04_MCH_915MHz_Ant1_NTNV



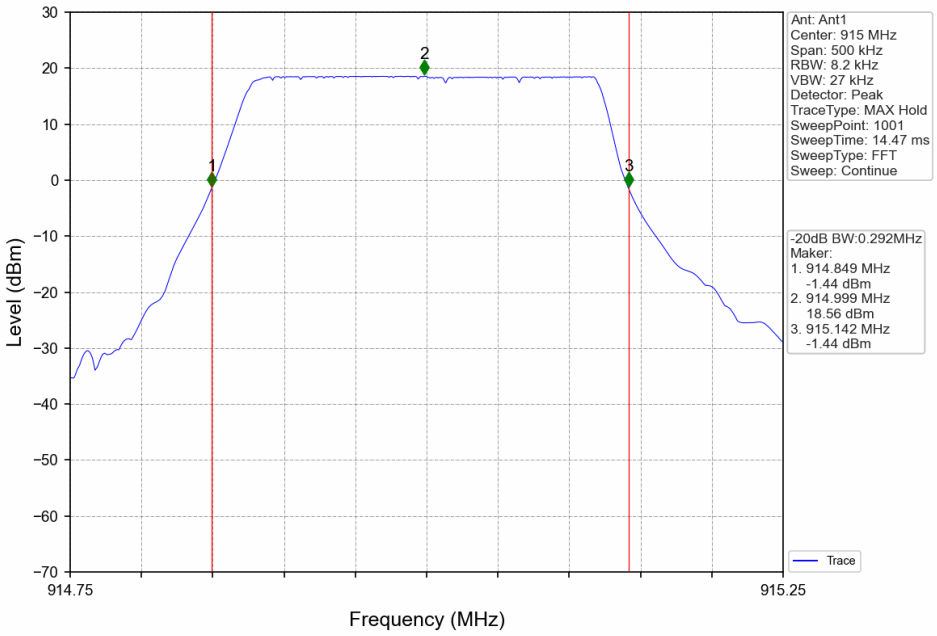
04_HCH_927.5MHz_Ant1_NTNV



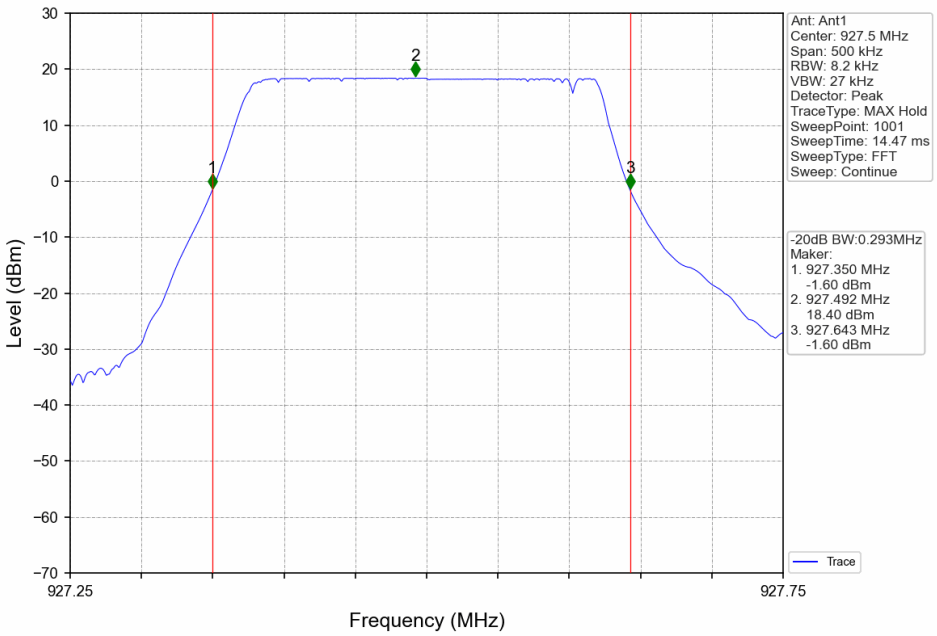
06_LCH_903MHz_Ant1_NTNV



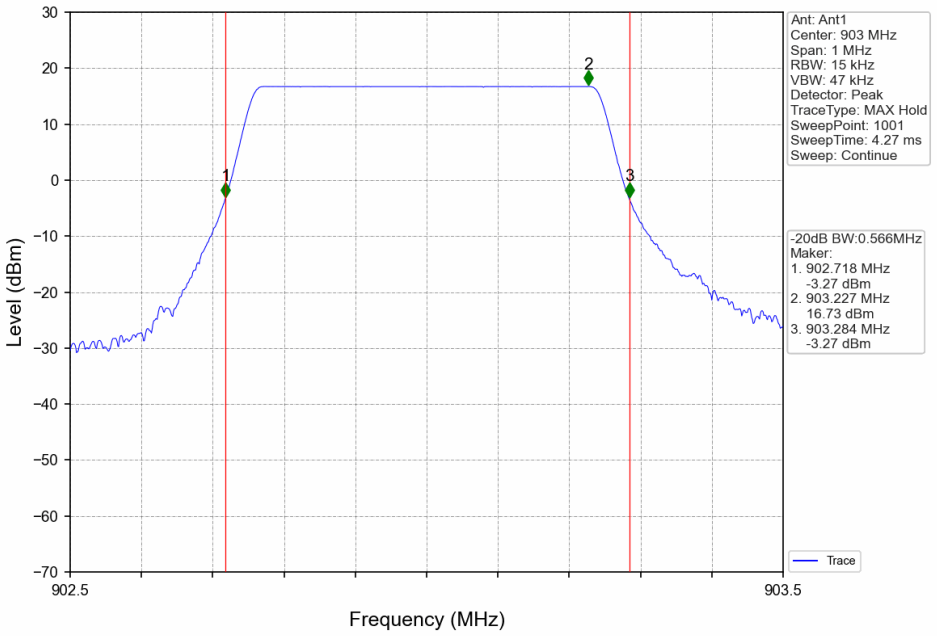
06_MCH_915MHz_Ant1_NTNV



06_HCH_927.5MHz_Ant1_NTNV



08_LCH_903MHz_Ant1_NTNV



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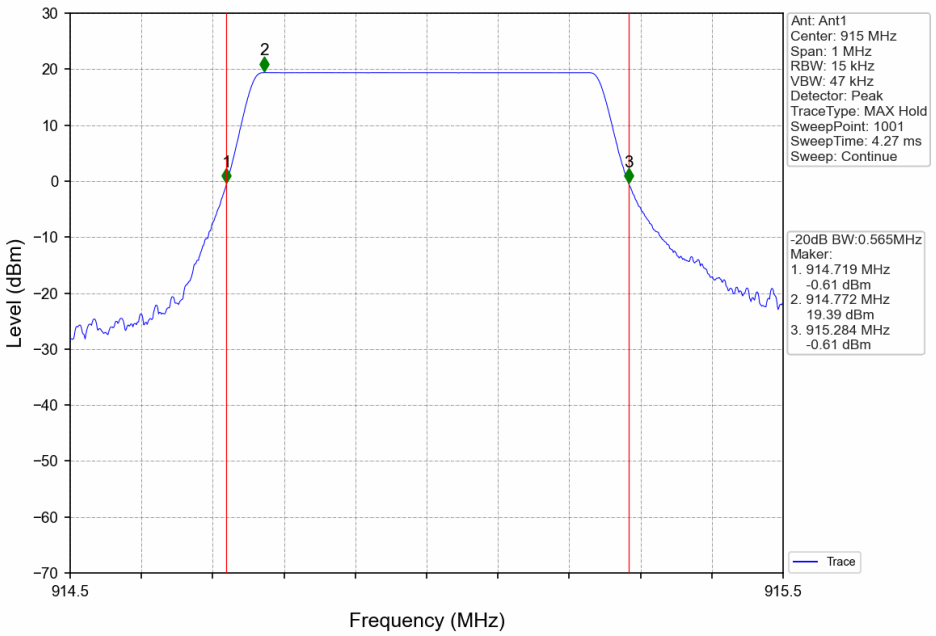
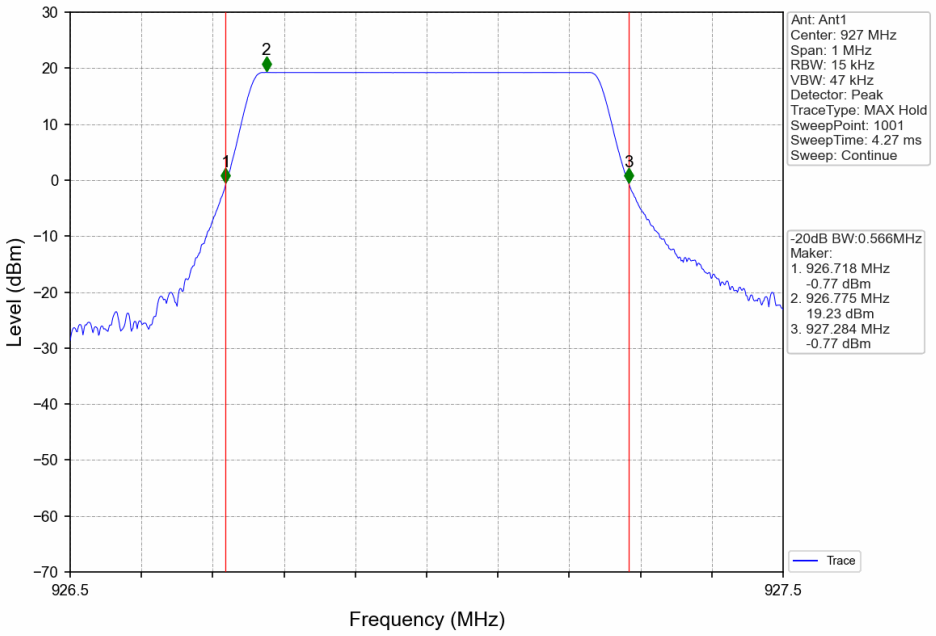
08_MCH_915MHz_Ant1_NTNV



08_HCH_927MHz_Ant1_NTNV



2. Maximum Conducted Output Power

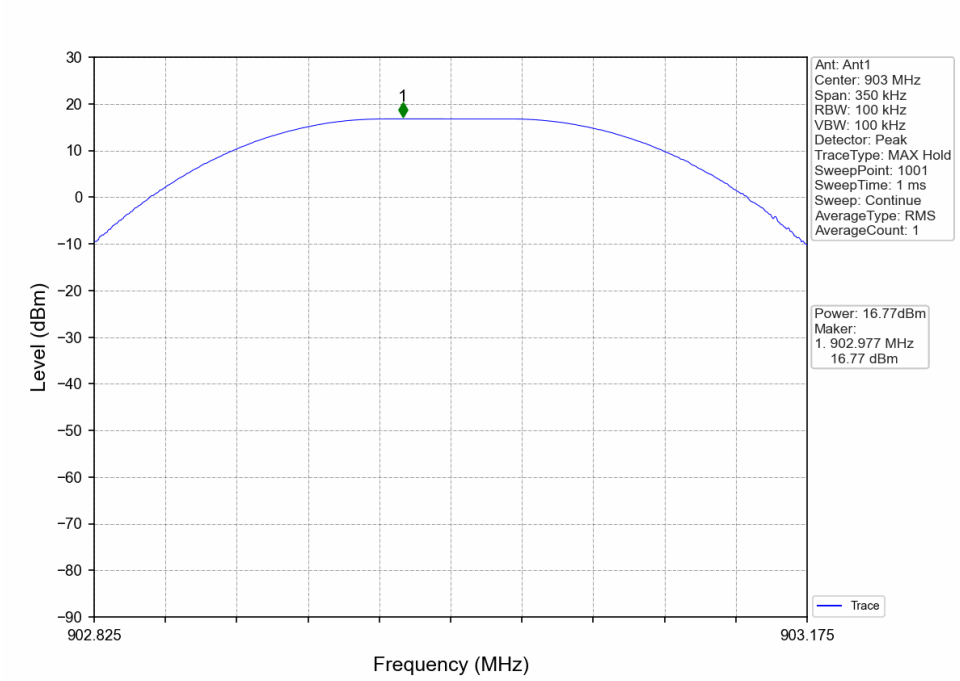
2.1 Power

2.1.1 Test Result

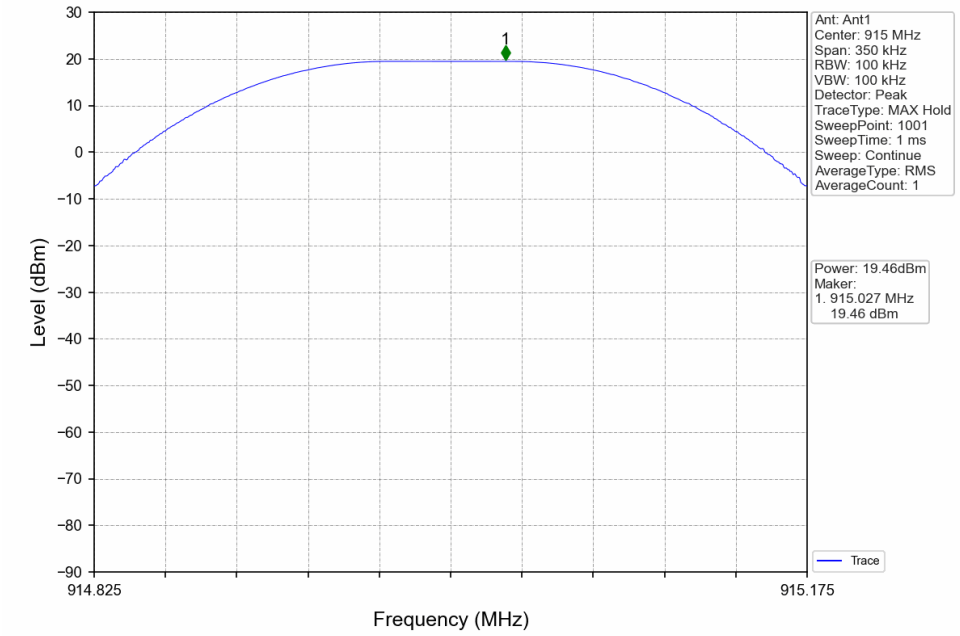
Mode	TX Type	Frequency (MHz)	Maximum Conducted Output Power (dBm)		Verdict
			Ant1	Limit	
00	SISO	903	16.77	<=30	Pass
		915	19.46	<=30	Pass
		927.5	19.31	<=30	Pass
04	SISO	903	16.79	<=30	Pass
		915	19.49	<=30	Pass
		927.5	19.34	<=30	Pass
06	SISO	903	16.82	<=30	Pass
		915	19.50	<=30	Pass
		927.5	19.34	<=30	Pass
08	SISO	903	16.83	<=23.98	Pass
		915	19.48	<=23.98	Pass
		927	19.34	<=23.98	Pass
Note1: Antenna Gain: Ant1: 0.00dBi;					

2.1.2 Test Graph

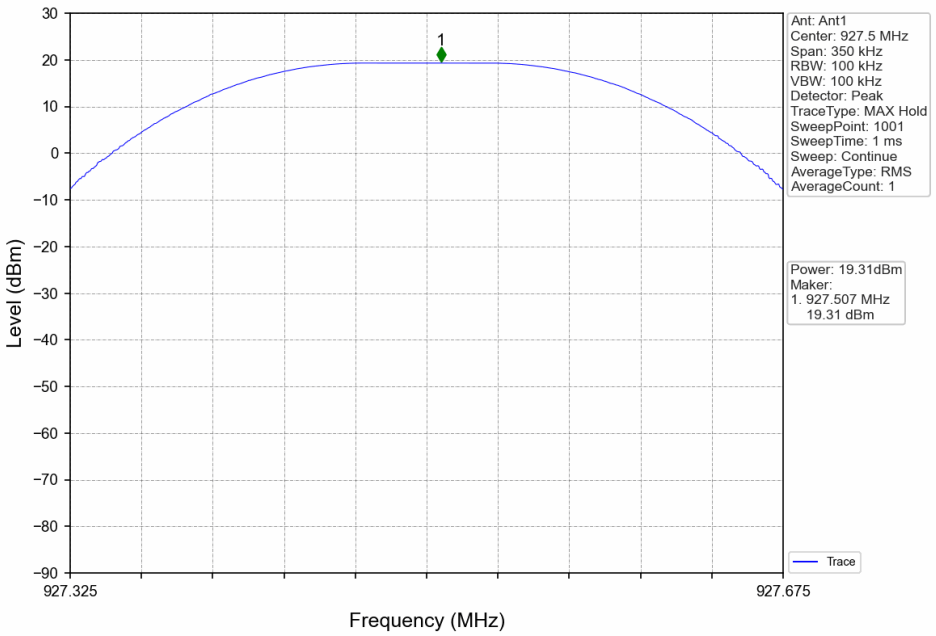
00_LCH_903MHz_Ant1_NTNV



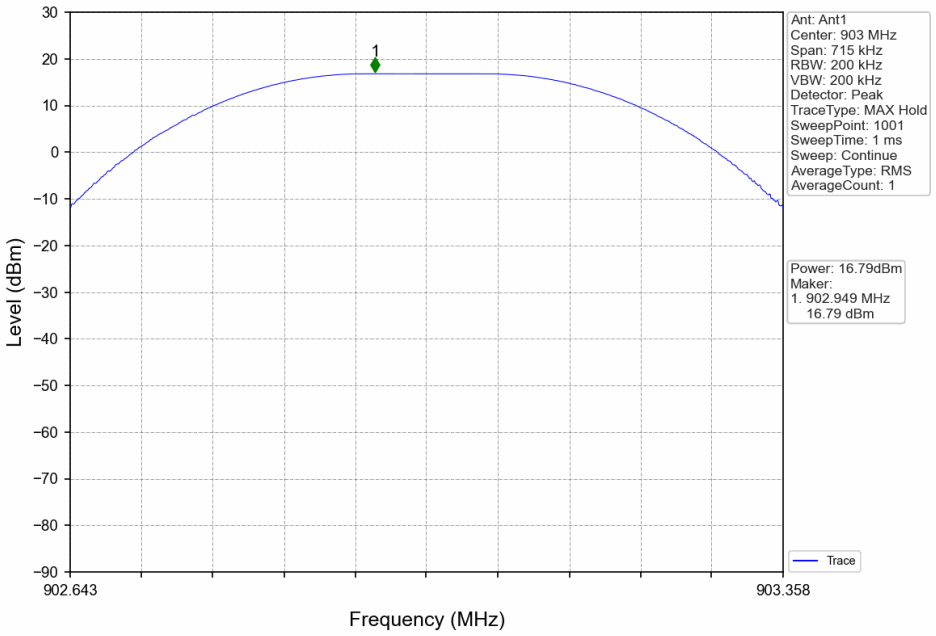
00_MCH_915MHz_Ant1_NTNV



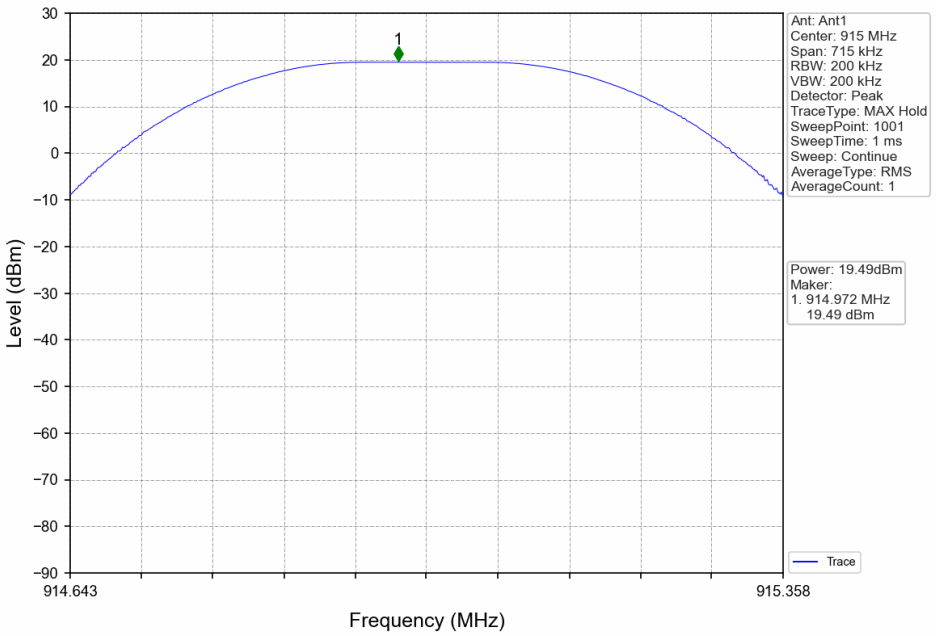
00_HCH_927.5MHz_Ant1_NTNV



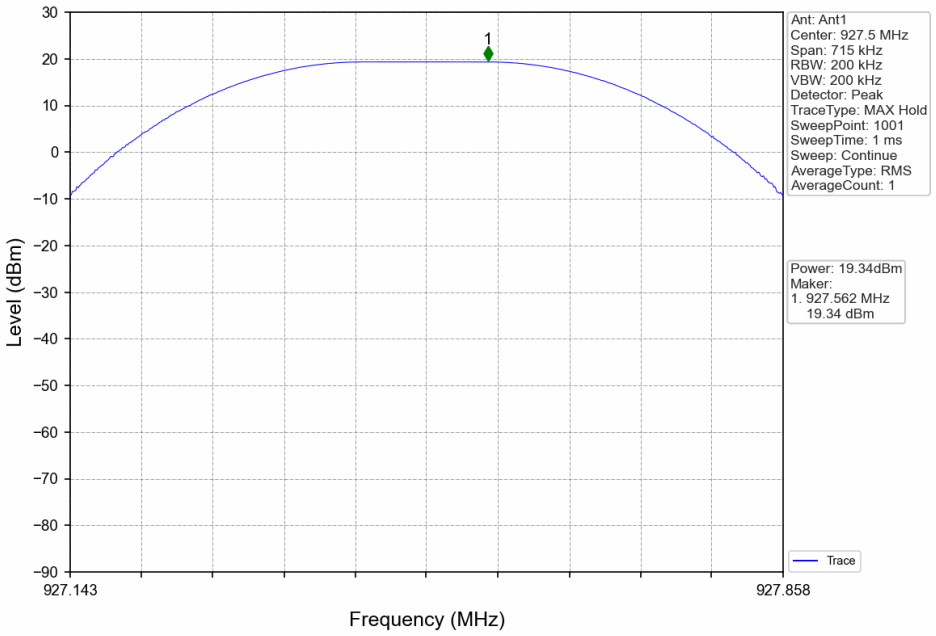
04_LCH_903MHz_Ant1_NTNV



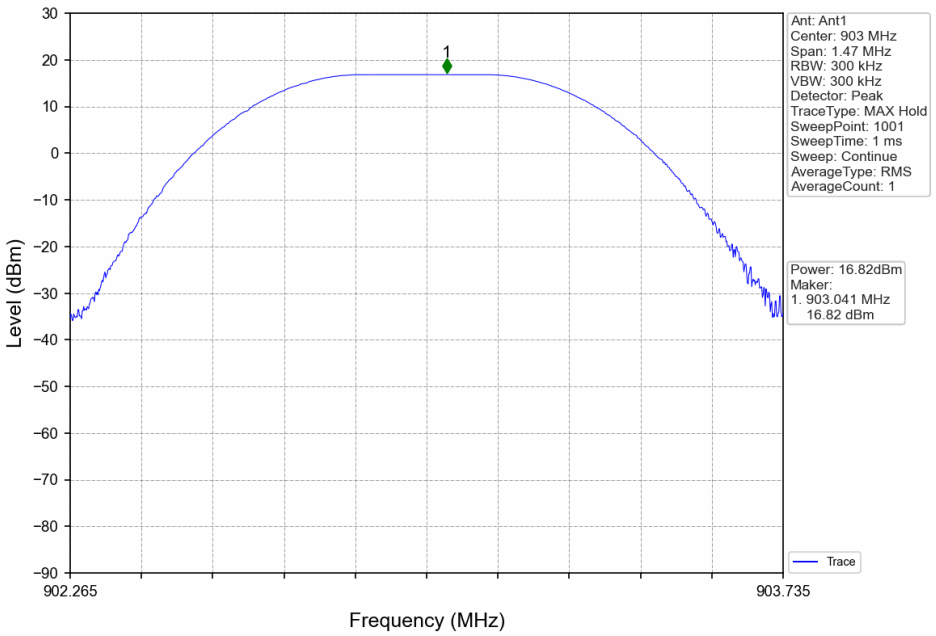
04_MCH_915MHz_Ant1_NTNV



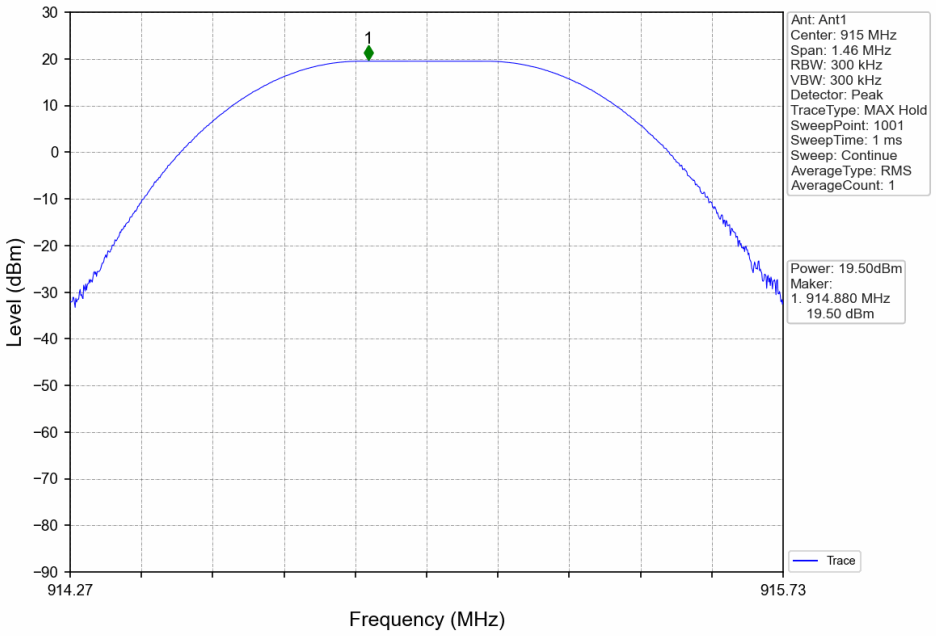
04_HCH_927.5MHz_Ant1_NTNV



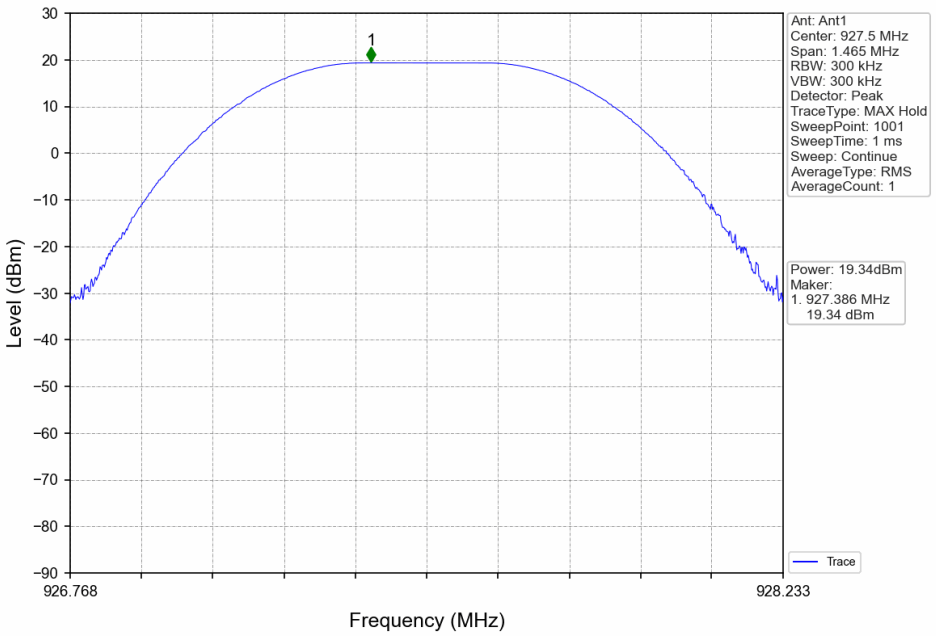
06_LCH_903MHz_Ant1_NTNV



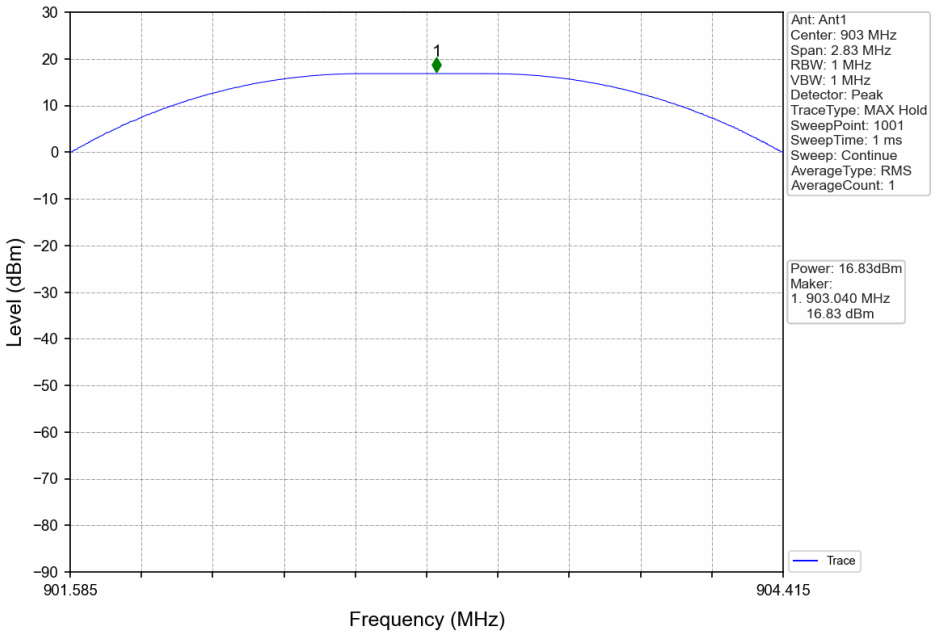
06_MCH_915MHz_Ant1_NTNV



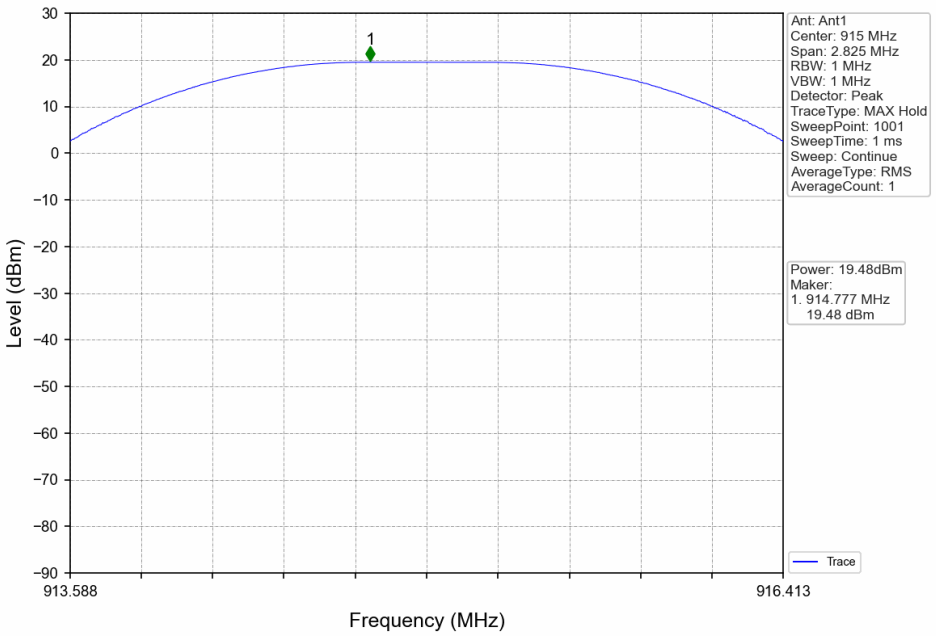
06_HCH_927.5MHz_Ant1_NTNV



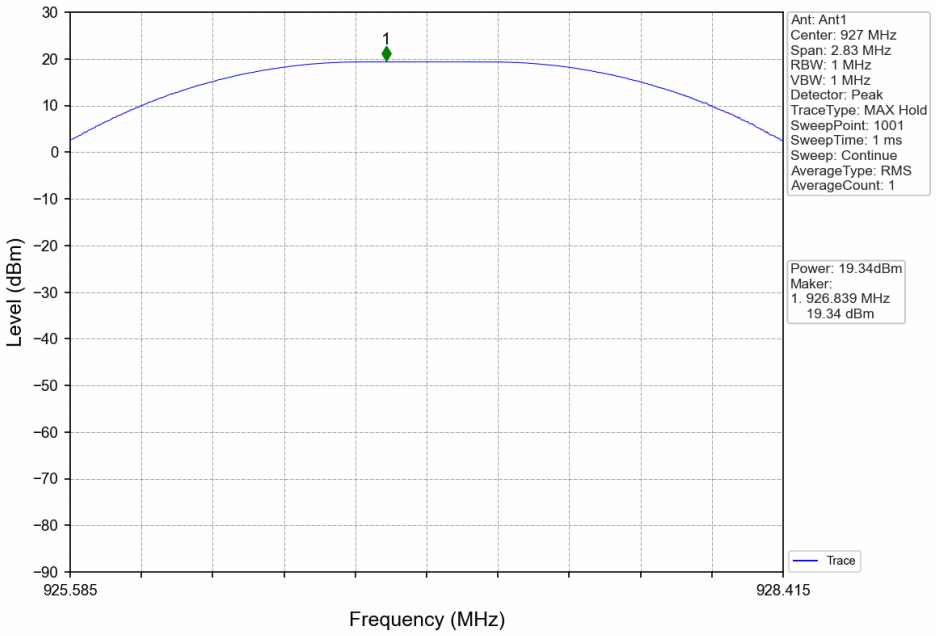
08_LCH_903MHz_Ant1_NTNV



08_MCH_915MHz_Ant1_NTNV



08_HCH_927MHz_Ant1_NTNV



3. Carrier Frequency Separation

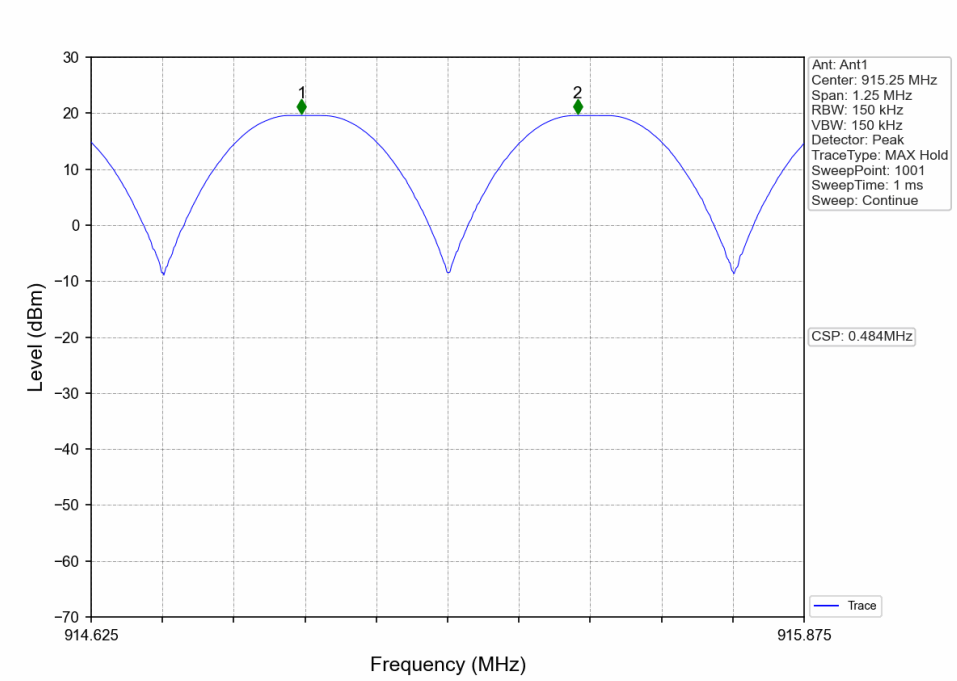
3.1 Ant1

3.1.1 Test Result

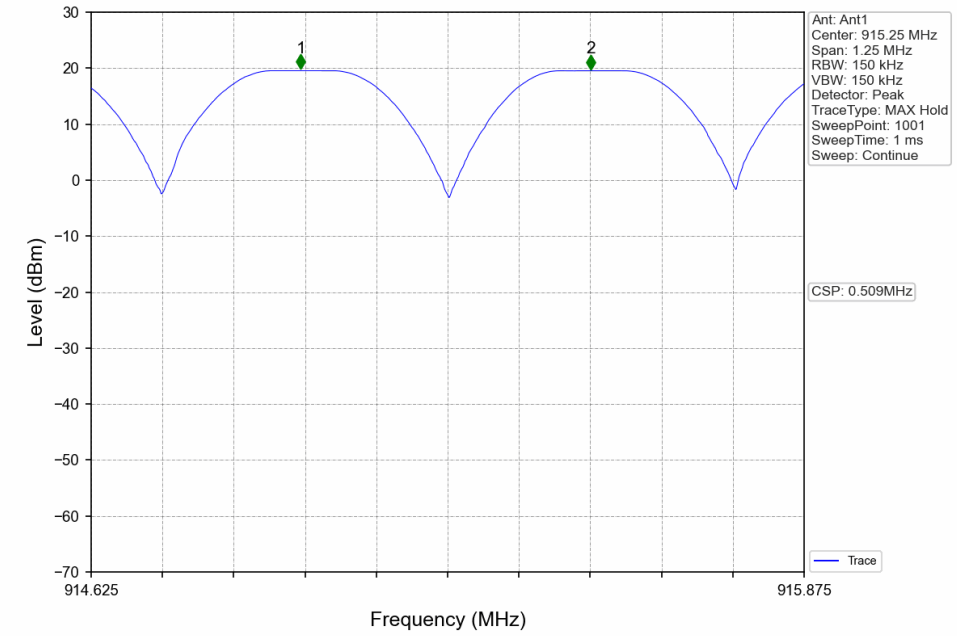
Ant1						
Mode	TX Type	Frequency (MHz)	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
00	SISO	HOPP	0.484	0.070	>=0.07	Pass
04	SISO	HOPP	0.509	0.143	>=0.143	Pass
06	SISO	HOPP	0.500	0.294	>=0.294	Pass
08	SISO	HOPP	1.010	0.566	>=0.566	Pass

3.1.2 Test Graph

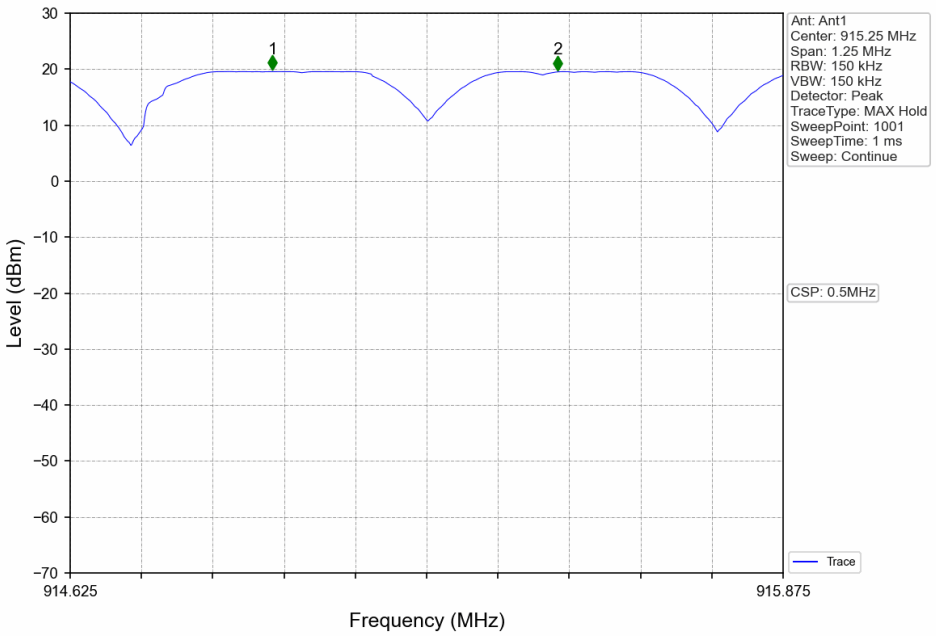
00_HOPP_Ant1_NTNV



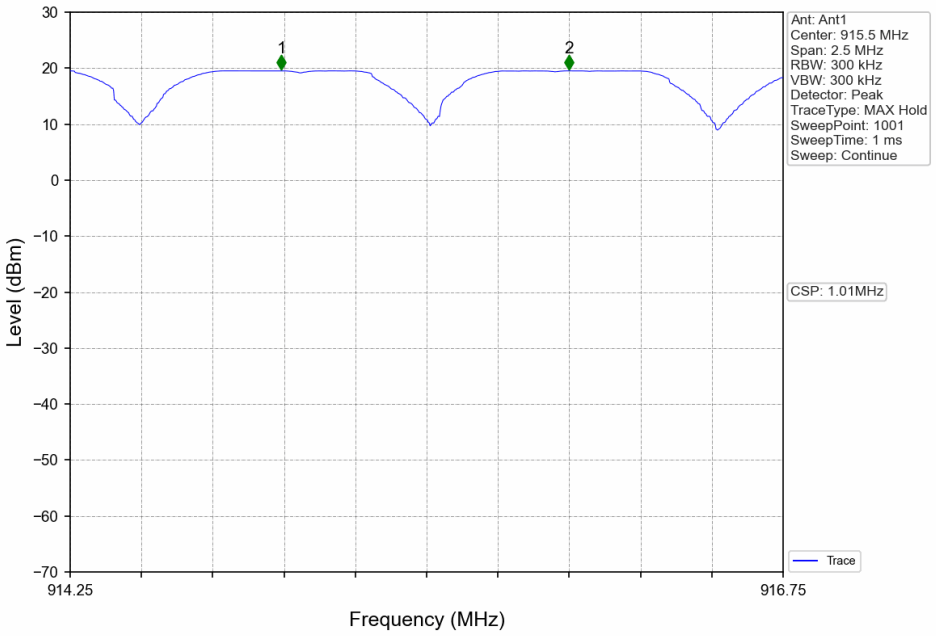
04_HOPP_Ant1_NTNV



06_HOPP_Ant1_NTNV



08_HOPP_Ant1_NTNV



4. Number of Hopping Frequencies

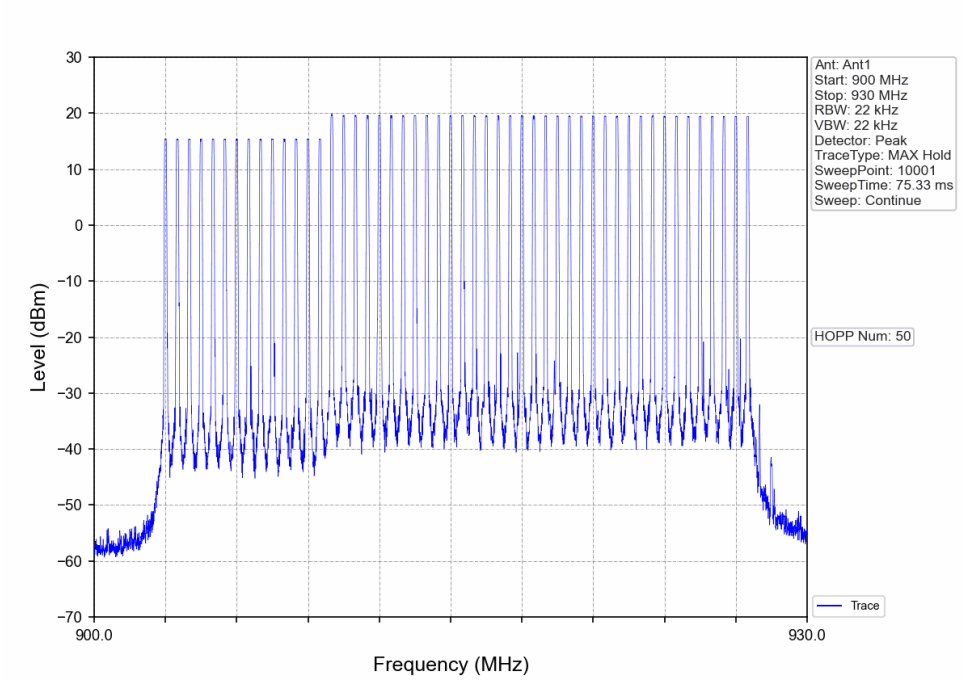
4.1 HoppNum

4.1.1 Test Result

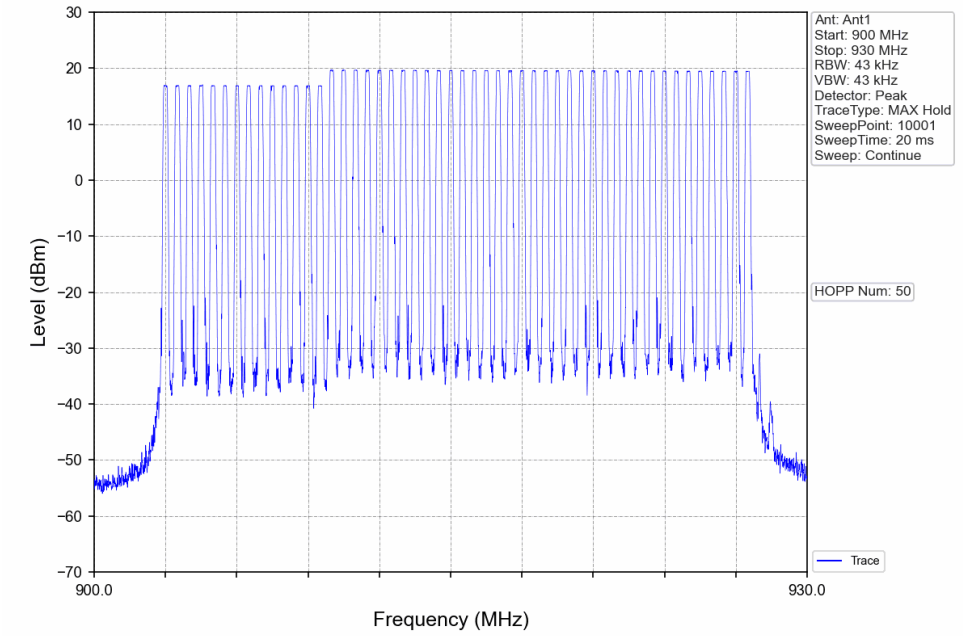
Mode	TX Type	Frequency (MHz)	Num of Hopping Frequencies		Verdict
			Ant1	Limit	
00	SISO	HOPP	50	>=50	Pass
04	SISO	HOPP	50	>=50	Pass
06	SISO	HOPP	50	>=25	Pass
08	SISO	HOPP	25	>=25	Pass

4.1.2 Test Graph

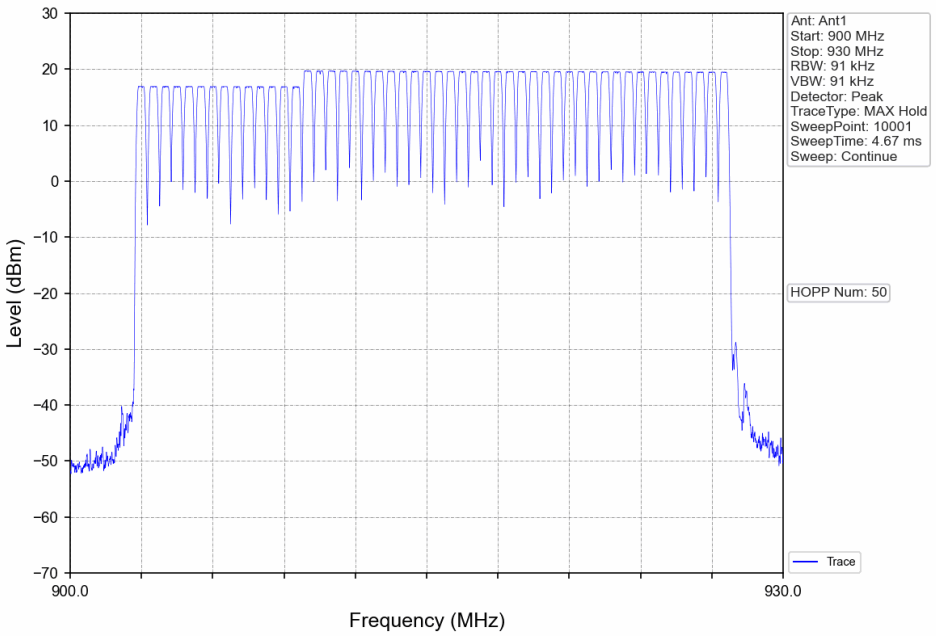
00_HOPP_Ant1_NTNV



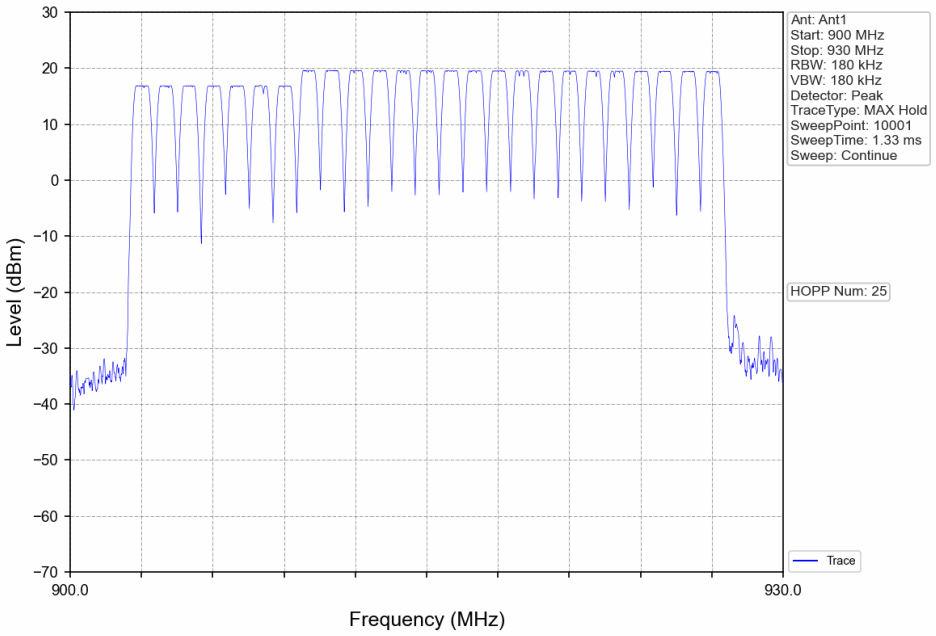
04_HOPP_Ant1_NTNV



06_HOPP_Ant1_NTNV



08_HOPP_Ant1_NTNV



5. Time of Occupancy (Dwell Time)

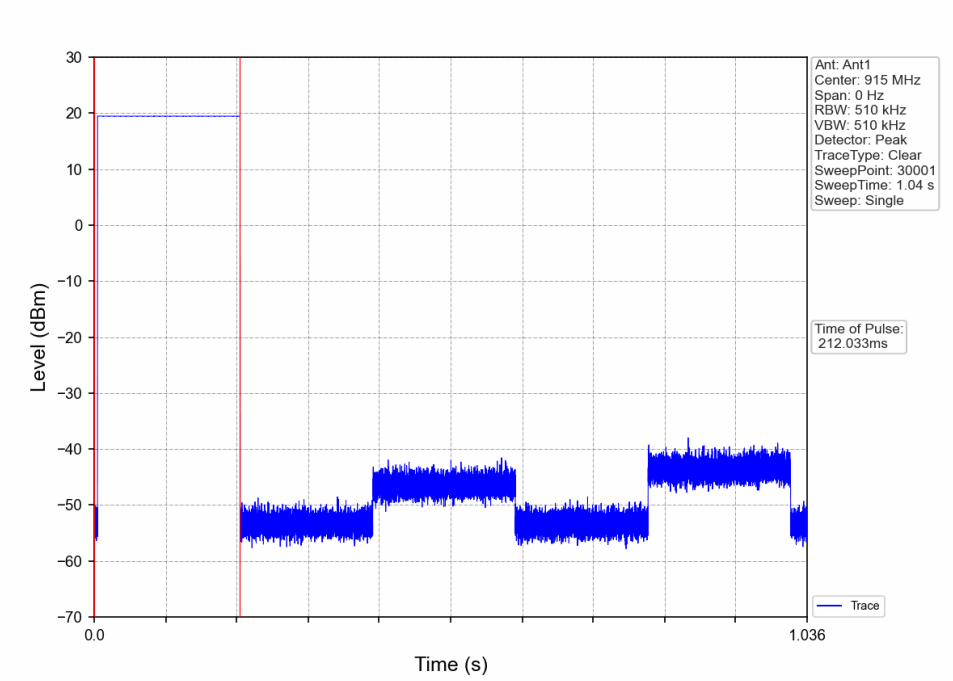
5.1 Ant1

5.1.1 Test Result

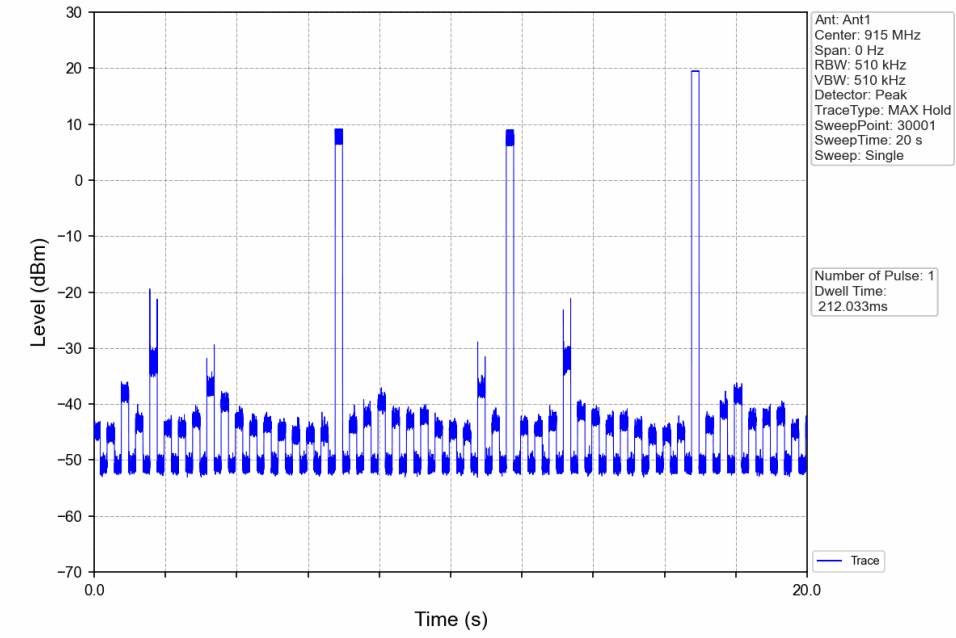
Ant1								
Mode	TX Type	Frequency (MHz)	Duration of Single Pulse (ms)	Observation Period (s)	Num of Pulse in Observation Period	Dwell Time (ms)	Limit (ms)	Verdict
00	SISO	HOPP	212.033	20.000	1	212.033	<=400	Pass
04	SISO	HOPP	103.617	20.000	1	103.617	<=400	Pass
06	SISO	HOPP	51.967	10.000	1	51.967	<=400	Pass
08	SISO	HOPP	26.035	10.000	1	26.035	<=400	Pass

5.1.2 Test Graph

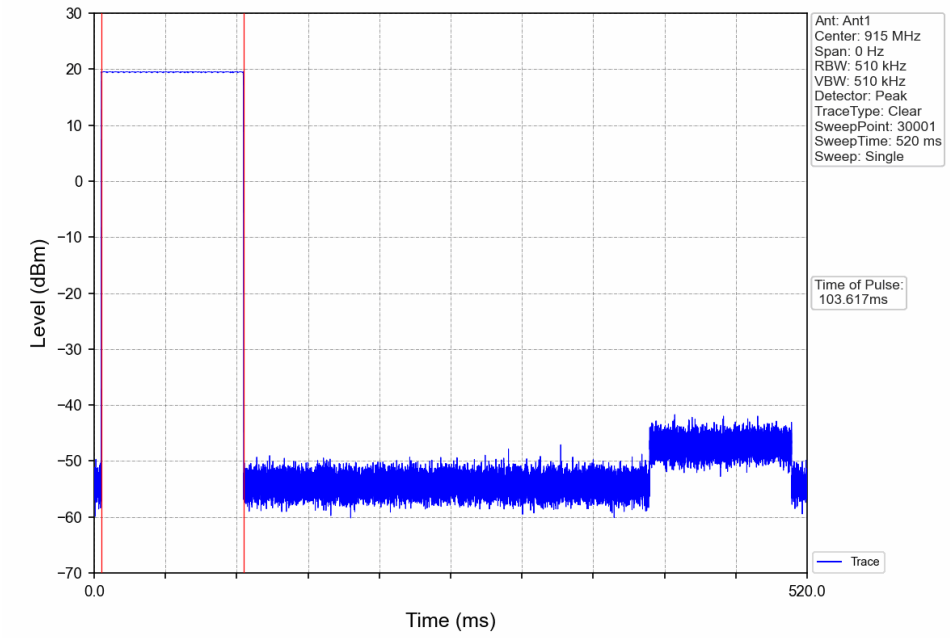
00_HOPP_Ant1_NTNV



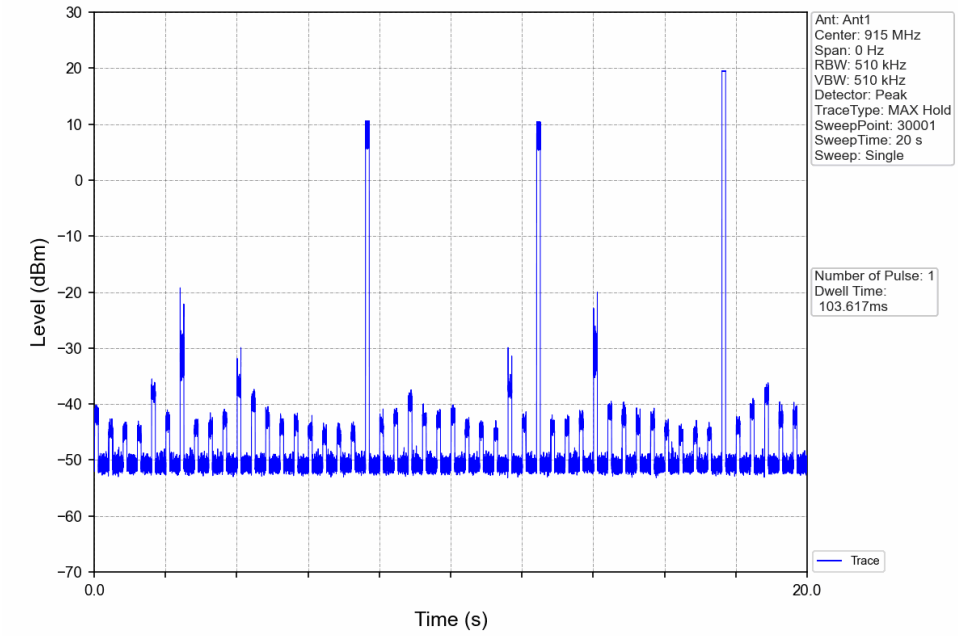
00_HOPP_Ant1_NTNV



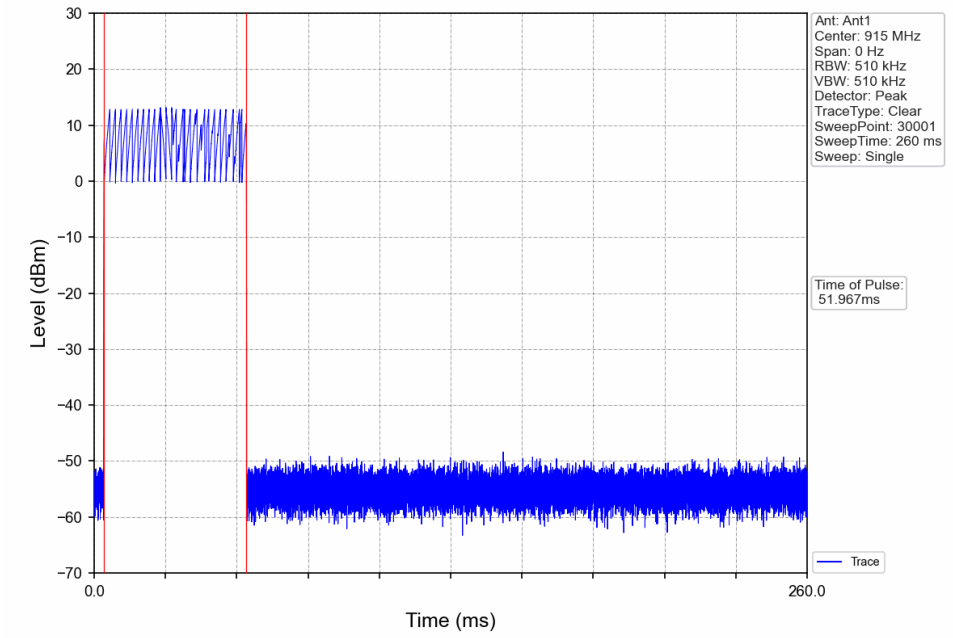
04_HOPP_Ant1_NTNV



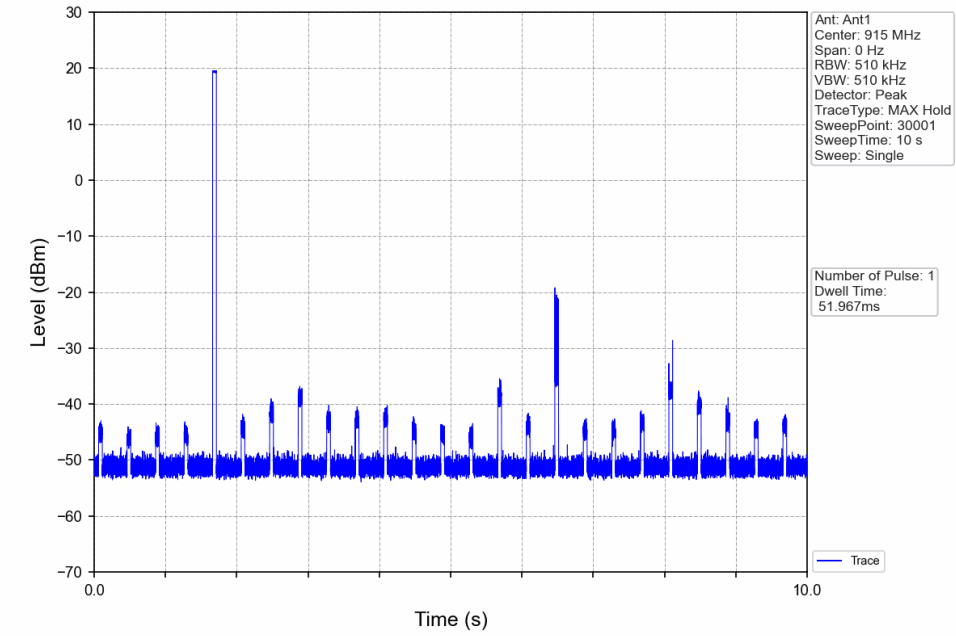
04_HOPP_Ant1_NTNV



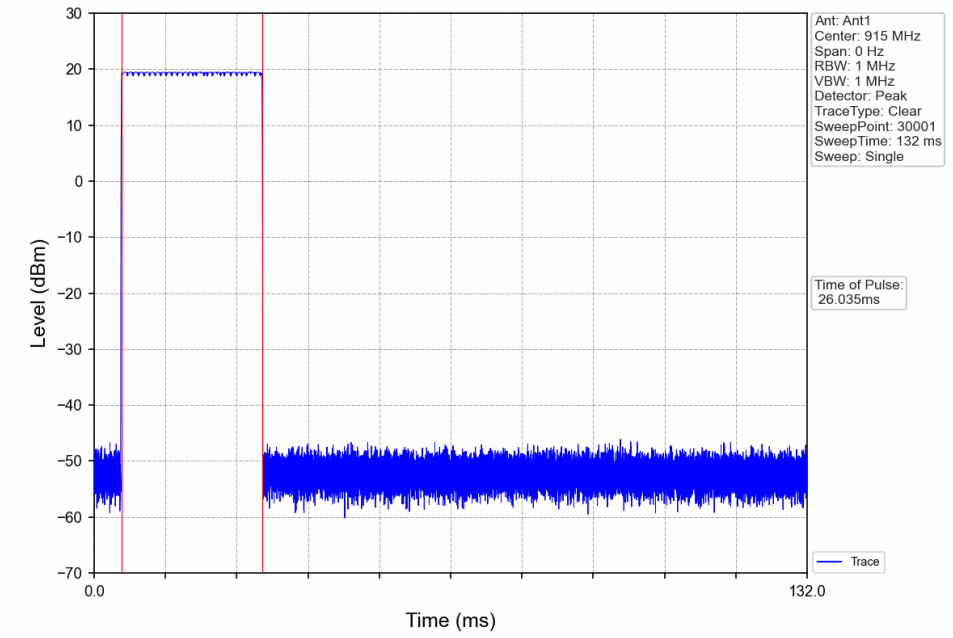
06_HOPP_Ant1_NTNV



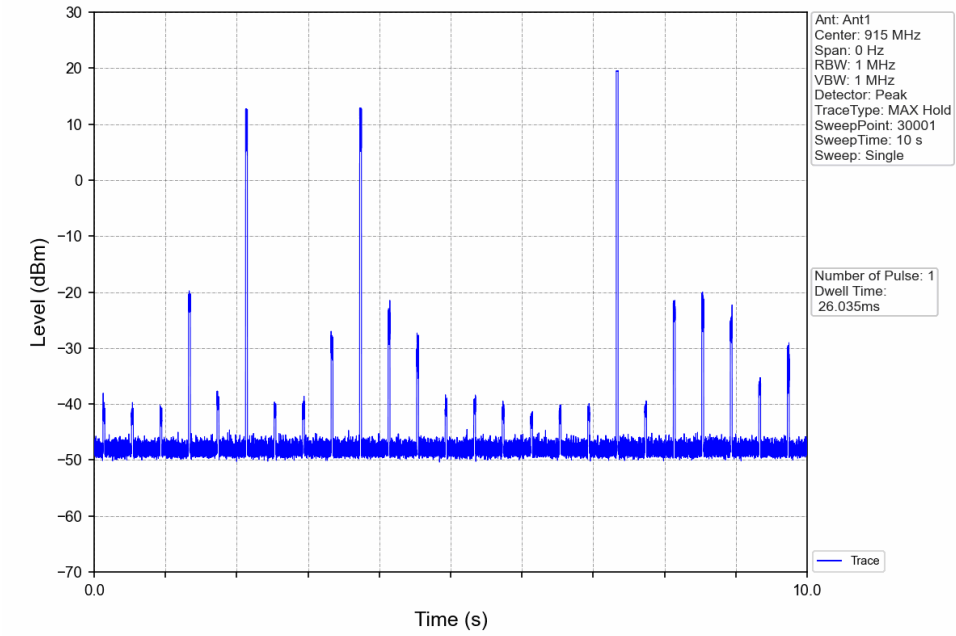
06_HOPP_Ant1_NTNV



08_HOPP_Ant1_NTNV



08_HOPP_Ant1_NTNV



6. Unwanted Emissions In Non-restricted Frequency Bands

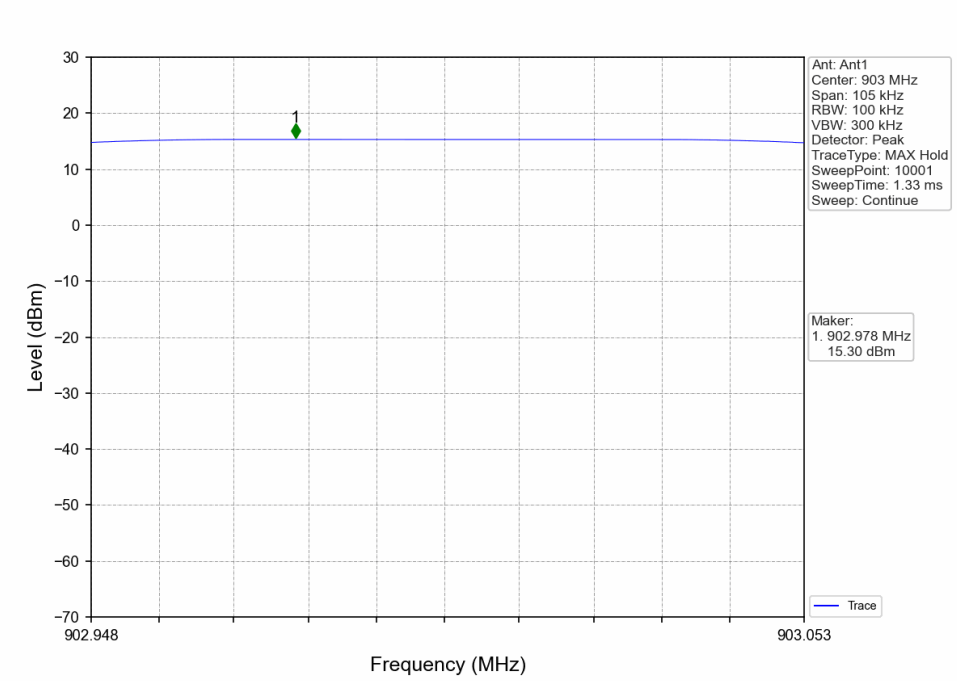
6.1 Ref

6.1.1 Test Result

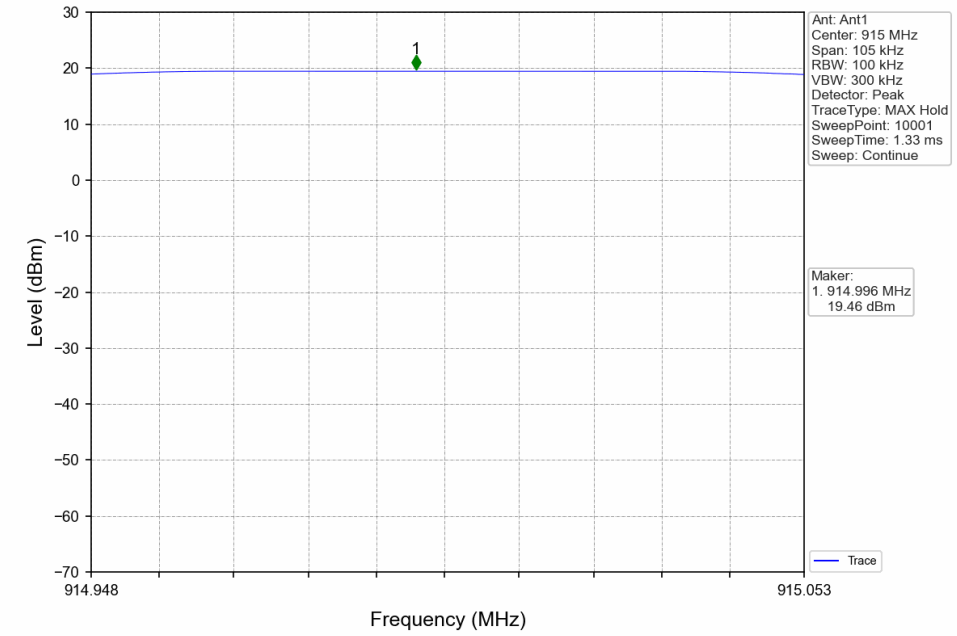
Mode	TX Type	Frequency (MHz)	Ant	Level of Reference (dBm)
00	SISO	903	1	15.30
		915	1	**19.46**
		927.5	1	19.31
04	SISO	903	1	15.37
		915	1	14.13
		927.5	1	**19.35**
06	SISO	903	1	16.83
		915	1	**19.51**
		927.5	1	19.35
08	SISO	903	1	16.84
		915	1	**19.50**
		927	1	19.35
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.				

6.1.2 Test Graph

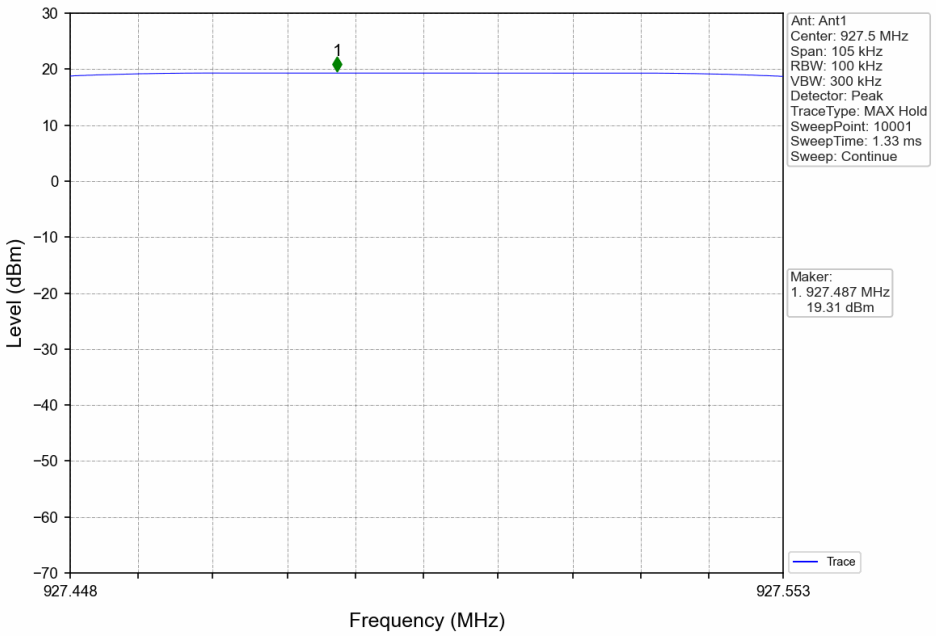
00_LCH_903MHz_Ant1_NTNV



00_MCH_915MHz_Ant1_NTNV



00_HCH_927.5MHz_Ant1_NTNV



04_LCH_903MHz_Ant1_NTNV