TEST REPORT

Application No.:	SZCR2309003206AT
Applicant:	Anzu Robotics LLC
Address of Applicant:	c/o Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801
Manufacturer:	Anzu Robotics LLC
Address of Manufacturer:	c/o Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801
Equipment Under Test (EUT):	
EUT Name:	Raptor Remote Controller
Model No.:	RRC01
FCC ID:	2BBYS-RRC01
Standard(s) :	47 CFR Part 15, Subpart E 15.407
Date of Receipt:	2023-09-28
Date of Test:	2023-10-25 to 2023-10-30
Date of Issue:	2023-11-08
Test Result:	**Pass***

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

Keny Xu
EMC Laboratory Manager

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2023-11-08		Original

Authorized for issue by:				
		Darren Yuan		
		Darren Yuan/Project Engineer		
		Eric Fu		
		Eric Fu/Reviewer		

2 Test Summary

Radio Spectrum Technical Requirement				
Item	**Standard**	**Method**	**Requirement**	**Result**
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Pass
Transmission in the Absence of Data		N/A	47 CFR Part 15, Subpart C 15.407 (c)	Pass

Radio Spectrum Matter Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)	Pass
Duty Cycle		KDB 789033 II B 1	KDB 789033 D02 II B 1	Pass
99% Bandwidth		KDB 789033 II D	N/A	Pass
26dB Emission bandwidth		KDB 789033 D02 II C 1	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band)		KDB 789033 D02 II C 2	47 CFR Part 15, Subpart E 15.407 (e)	Pass
Maximum Conducted output power		KDB 789033 D02 II E	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Peak Power spectrum density		KDB 789033 D02 II F	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Radiated Emissions (Below 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions (Above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions which fall in the restricted bands		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Frequency Stability		ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart E 15.407 (g)	Pass

Remark: KDB 789033 D02 is not accredited by A2LA

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply:	Powered by Lithium Ion Polymer Rechargeable Battery Battery information Model: WB4-5000mAh-7.2V Rated Voltage: 7.2V DC Rated Capacity: 5000mAh*2
Operation Frequency:	1.4MHz: 5728.5MHz-5846.5MHz 1.4MHz CA: 5730.12MHz-5848.12MHz 3MHz: 5727.5MHz-5844.5MHz 3MHz CA: 5730.2MHz-5847.2MHz 10MHz: 5730.5MHz-5844.5MHz 20MHz: 5735.5MHz-5839.5MHz 40MHz: 5745.5MHz-5829.5MHz
Modulation Type:	OFDM
Channel Spacing:	1.4MHz: 2MHz 1.4MHz CA: 2MHz 3MHz: 3MHz 3MHz CA: 3MHz 10MHz: 1MHz 20MHz: 1MHz 40MHz: 1MHz
Number of Channels:	1.4MHz: 60 1.4MHz CA: 60 3MHz: 40 3MHz CA: 40 10MHz: 115 20MHz: 105 40MHz: 85
Antenna Type:	PCB Antenna
Antenna Gain:	5.8G SDR: ANT0: 3.5dBi; ANT1: 4dBi
Cable Loss (for RF conducted test):	1.8 dB

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Power Adapter	HONOR	RUSBCPA01	N/A

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	± 3.1dB
Duty Cycle	± 0.37%
99% Bandwidth	± 3%
26dB Emission bandwidth	± 3%
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	± 3%
Maximum Conducted output power	± 0.75dB
Peak Power spectrum density	± 2.84dB
Radiated Emissions (Below 1GHz)	± 6.0dB for 3m; ± 5.0dB for 10m
Radiated Emissions (Above 1GHz)	± 4.6dB (1-18GHz);± 4.8dB (18-40GHz)
Radiated Emissions which fall in the restricted bands	± 6.0dB (below 1GHz); ± 4.6dB (above 1GHz);
Frequency Stability	± 7.25 x 10-8

Remark:
The U_{lab} (lab Uncertainty) is less than $U_{cispr/ETSI}$ (CISPR/ETSI 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., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.5 Test Facility

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

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2022-05-14	2025-05-13
EMI Test Receiver	Rohde&Schwarz	ESCI	SEM004-02	2023-03-20	2024-03-19
Matching Pad	N/A	N/A	SEM021-23	2023-03-22	2024-03-21
Matching Pad	N/A	N/A	SEM021-24	2023-03-22	2024-03-21
Measurement Software	AUDIX	e3 V8.2014-6-27a	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM024-01	2023-07-07	2024-07-06
LISN	Rohde&Schwarz	ENV216	SEM007-01	2023-09-19	2024-09-18
LISN	ETS-LINDGREN	3816/2	SEM007-02	2023-03-20	2024-03-19

Duty Cycle					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2023-10-19	2024-10-18
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2023-09-19	2024-09-18
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2023-07-07	2024-07-06
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2023-03-31	2024-03-30
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2023-03-21	2024-03-20

99% Bandwidth					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2023-10-19	2024-10-18
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2023-09-19	2024-09-18
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2023-07-07	2024-07-06
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2023-03-31	2024-03-30
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2023-03-21	2024-03-20

26dB Emission bandwidth					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2023-10-19	2024-10-18
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2023-09-19	2024-09-18
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2023-07-07	2024-07-06
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2023-03-31	2024-03-30
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2023-03-21	2024-03-20

Minimum 6 dB bandwidth (5.725-5.85 GHz band)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2023-10-19	2024-10-18
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2023-09-19	2024-09-18
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2023-07-07	2024-07-06
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2023-03-31	2024-03-30
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2023-03-21	2024-03-20

Maximum Conducted output power					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Power Sensor	TST PASS	TSPS2023R	SEM009-26	2023-04-01	2024-03-31
Power Sensor	KEYSIGHT	U2021XA	SEM009-16	2023-03-21	2024-03-20
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2023-10-19	2024-10-18
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2023-09-19	2024-09-18
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2023-07-07	2024-07-06
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2023-03-31	2024-03-30
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2023-03-21	2024-03-20

Peak Power spectrum density					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2023-10-19	2024-10-18
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2023-09-19	2024-09-18
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2023-07-07	2024-07-06
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2023-03-31	2024-03-30
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2023-03-21	2024-03-20

Radiated Emissions (Below 1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2021-11-30	2023-11-29
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2023-06-19	2026-06-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2023-10-19	2024-10-18
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2023-09-16	2025-09-15
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2023-03-20	2024-03-19
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2023-07-07	2024-07-06

Radiated Emissions (Above 1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2023-04-01	2026-03-31
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2023-03-20	2024-03-19
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2023-07-23	2025-07-22
Microwave system amplifier	Agilent	83017A	SEM005-25	2023-09-19	2024-09-18
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2023-07-07	2024-07-06
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	SEM003-15	2022-08-10	2024-08-09
Pre-Amplifier	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2023-03-20	2024-03-19

Radiated Emissions which fall in the restricted bands					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2023-04-01	2026-03-31
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2023-03-20	2024-03-19
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2023-07-23	2025-07-22
Microwave system amplifier	Agilent	83017A	SEM005-25	2023-09-19	2024-09-18
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2023-07-07	2024-07-06

Frequency Stability					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2023-10-19	2024-10-18
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2023-09-19	2024-09-18
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2023-07-07	2024-07-06
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2023-03-31	2024-03-30
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2023-03-21	2024-03-20

General used equipment					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Humidity/ Temperature Indicator	deli	8838	SEM002-32	2023-07-28	2024-07-27
Humidity/ Temperature Indicator	deli	8838	SEM002-33	2023-07-28	2024-07-27
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2023-03-23	2024-03-22

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

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 antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the Antennas are ANT0: 3.5dBi, ANT1: 4dBi; the directional gain is: 7.01dBi.

Antenna location: Refer to internal photo.

6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart E 15.407 (c)

6.2.2 Conclusion

Standard Requirement:

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals.

Applicants shall include in their application for equipment authorization a description of how this requirement is met.

EUT Details:

SDR chip support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.

7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency.		

7.1.1 E.U.T. Operation

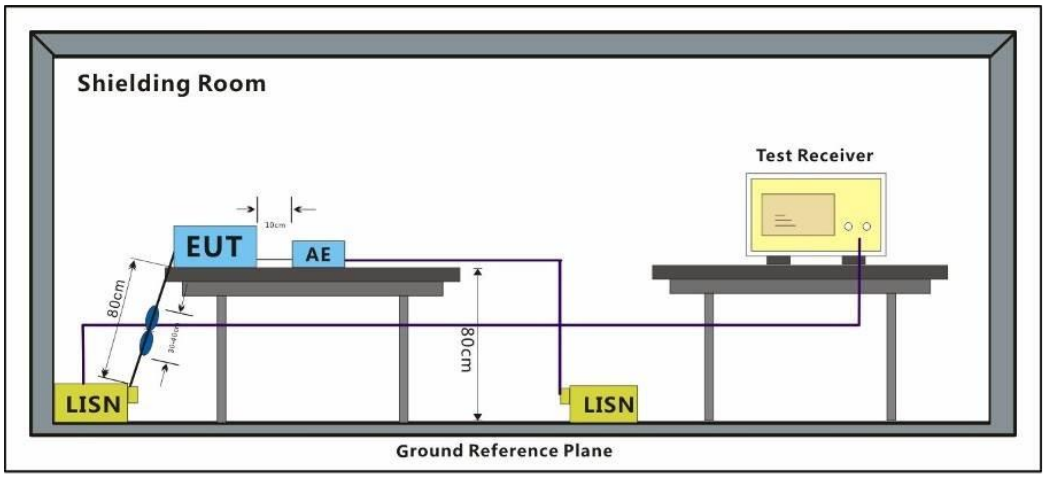
Operating Environment:

Temperature: 23.4 °C Humidity: 47.3 % RH Atmospheric Pressure: 1000 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	24	Charge + TX mode(5.8G SDR 1.4MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	26	Charge + TX mode(5.8G SDR 3MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	28	Charge + TX mode(5.8G SDR 10MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	30	Charge + TX mode(5.8G SDR 20MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	32	Charge + TX mode(5.8G SDR 40MHz)_Keep the EUT in charging and continuously transmitting mode.

7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

1) The mains terminal disturbance voltage test was conducted in a shielded room.

2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

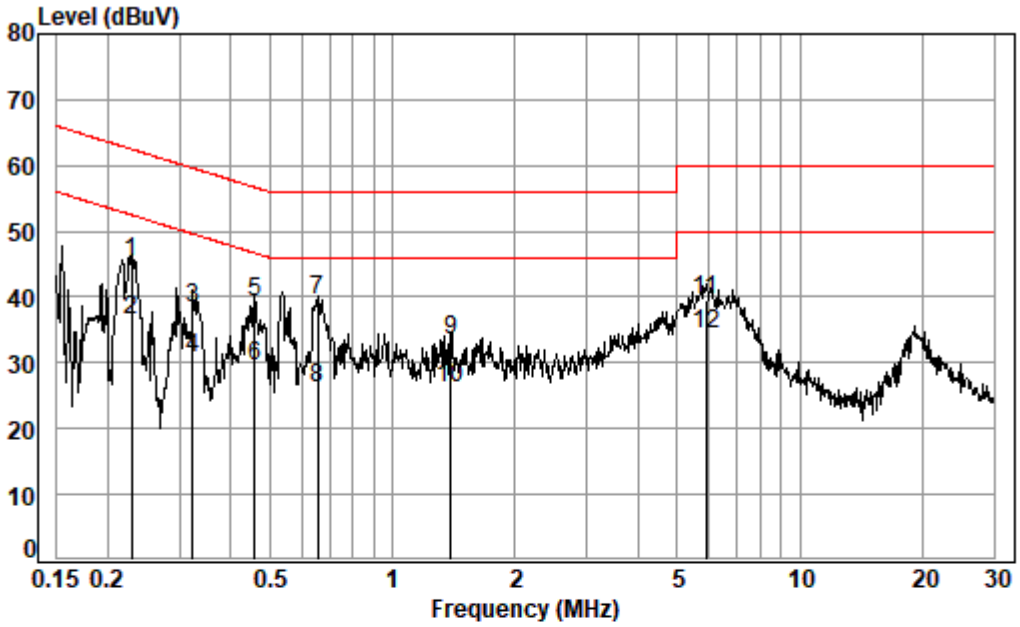
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor

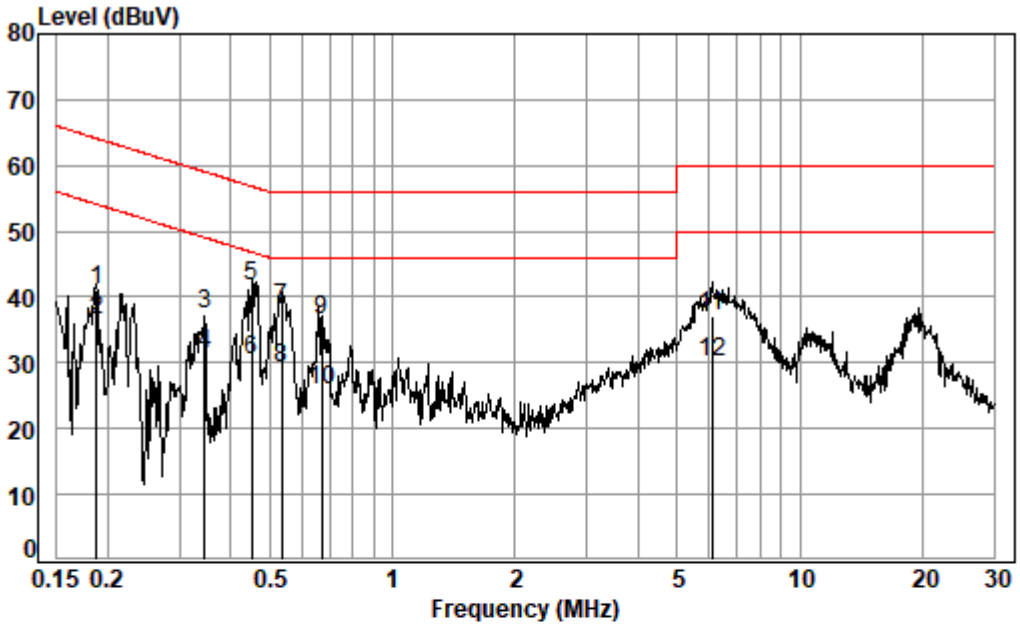
Test Mode: 24; Line: Live line



Site : Shielding Room
Condition: Line
Job No. : 03206AT
Test mode: 24

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.229	0.03	10.29	35.10	45.42	62.48	-17.06	QP
2	0.229	0.03	10.29	26.27	36.59	52.48	-15.89	Average
3	0.323	0.03	10.32	27.89	38.24	59.62	-21.38	QP
4	0.323	0.03	10.32	20.49	30.84	49.62	-18.78	Average
5	0.459	0.04	10.34	28.77	39.15	56.71	-17.56	QP
6	0.459	0.04	10.34	19.11	29.49	46.71	-17.22	Average
7 *	0.654	0.04	10.33	29.03	39.40	56.00	-16.60	QP
8	0.654	0.04	10.33	15.89	26.26	46.00	-19.74	Average
9	1.388	0.06	10.37	22.93	33.36	56.00	-22.64	QP
10	1.388	0.06	10.37	15.66	26.09	46.00	-19.91	Average
11	5.898	0.10	10.96	28.63	39.69	60.00	-20.31	QP
12 *	5.898	0.10	10.96	23.24	34.30	50.00	-15.70	Average

Test Mode: 24; Line: Neutral Line



Site : Shielding Room
Condition: Neutral
Job No. : 03206AT
Test mode: 24

		Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
		MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1		0.187	0.02	10.25	30.66	40.93	64.15	-23.22	QP
2		0.187	0.02	10.25	26.32	36.59	54.15	-17.56	Average
3		0.346	0.03	10.28	27.05	37.36	59.05	-21.69	QP
4		0.346	0.03	10.28	20.94	31.25	49.05	-17.80	Average
5	*	0.452	0.04	10.29	31.40	41.73	56.85	-15.12	QP
6	*	0.452	0.04	10.29	20.24	30.57	46.85	-16.28	Average
7		0.535	0.04	10.30	28.09	38.43	56.00	-17.57	QP
8		0.535	0.04	10.30	18.76	29.10	46.00	-16.90	Average
9		0.672	0.05	10.33	26.09	36.47	56.00	-19.53	QP
10		0.672	0.05	10.33	15.54	25.92	46.00	-20.08	Average
11		6.089	0.11	11.01	26.01	37.13	60.00	-22.87	QP
12		6.089	0.11	11.01	19.08	30.20	50.00	-19.80	Average

7.2 Duty Cycle

Test Requirement KDB 789033 D02 II B 1
Test Method: KDB 789033 II B 1

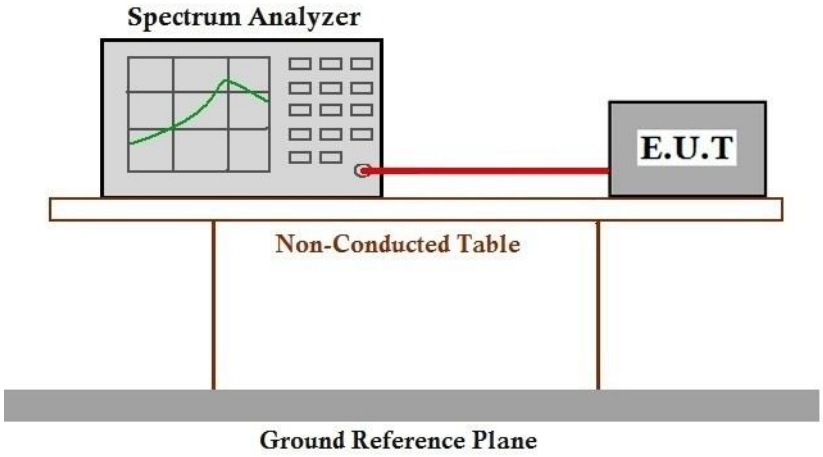
7.2.1 E.U.T. Operation

Operating Environment:
Temperature: 25.0 °C Humidity: 61.3 % RH Atmospheric Pressure: 1000 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	23	TX mode(5.8G SDR 1.4MHz)_Keep the EUT in continuously transmitting mode.
Final test	25	TX mode(5.8G SDR 3MHz)_Keep the EUT in continuously transmitting mode.
Final test	27	TX mode(5.8G SDR 10MHz)_Keep the EUT in continuously transmitting mode.
Final test	29	TX mode(5.8G SDR 20MHz)_Keep the EUT in continuously transmitting mode.
Final test	31	TX mode(5.8G SDR 40MHz)_Keep the EUT in continuously transmitting mode.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.3 99% Bandwidth

Test Requirement N/A
Test Method: KDB 789033 II D

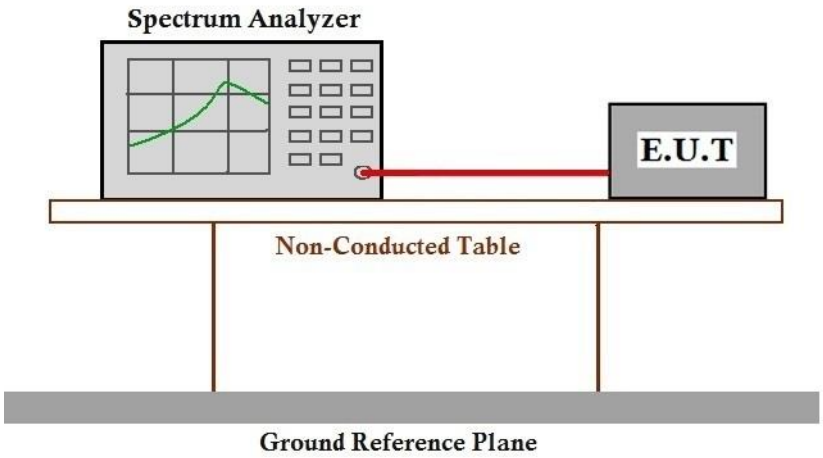
7.3.1 E.U.T. Operation

Operating Environment:
Temperature: 25.0 °C Humidity: 61.3 % RH Atmospheric Pressure: 1000 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	23	TX mode(5.8G SDR 1.4MHz)_Keep the EUT in continuously transmitting mode.
Final test	25	TX mode(5.8G SDR 3MHz)_Keep the EUT in continuously transmitting mode.
Final test	27	TX mode(5.8G SDR 10MHz)_Keep the EUT in continuously transmitting mode.
Final test	29	TX mode(5.8G SDR 20MHz)_Keep the EUT in continuously transmitting mode.
Final test	31	TX mode(5.8G SDR 40MHz)_Keep the EUT in continuously transmitting mode.

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.4 Minimum 6 dB bandwidth (5.725-5.85 GHz band)

Test Requirement 47 CFR Part 15, Subpart E 15.407 (e)
Test Method: KDB 789033 D02 II C 2

Limit:

Frequency band(MHz)	Limit
5725-5850	⩾500 kHz

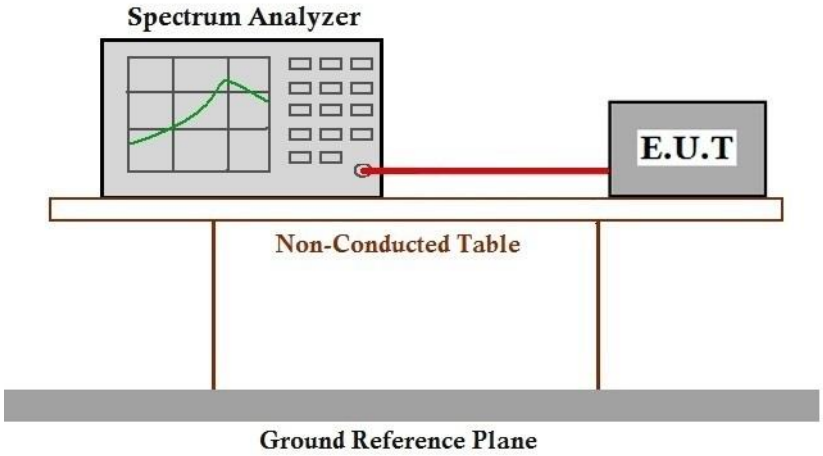
7.4.1 E.U.T. Operation

Operating Environment:
Temperature: 25.0 °C Humidity: 61.3 % RH Atmospheric Pressure: 1000 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	23	TX mode(5.8G SDR 1.4MHz)_Keep the EUT in continuously transmitting mode.
Final test	25	TX mode(5.8G SDR 3MHz)_Keep the EUT in continuously transmitting mode.
Final test	27	TX mode(5.8G SDR 10MHz)_Keep the EUT in continuously transmitting mode.
Final test	29	TX mode(5.8G SDR 20MHz)_Keep the EUT in continuously transmitting mode.
Final test	31	TX mode(5.8G SDR 40MHz)_Keep the EUT in continuously transmitting mode.

7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.5 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II E

Limit:

Frequency band(MHz)	Limit
5150-5250	≤1W(30dBm) for master device
	≤250mW(24dBm) for client device
5250-5350	≤250mW(24dBm) or 11dBm+10logB*
5470-5725	≤250mW(24dBm) or 11dBm+10logB*
5725-5850	≤1W(30dBm)
Remark:	* Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

7.5.1 E.U.T. Operation

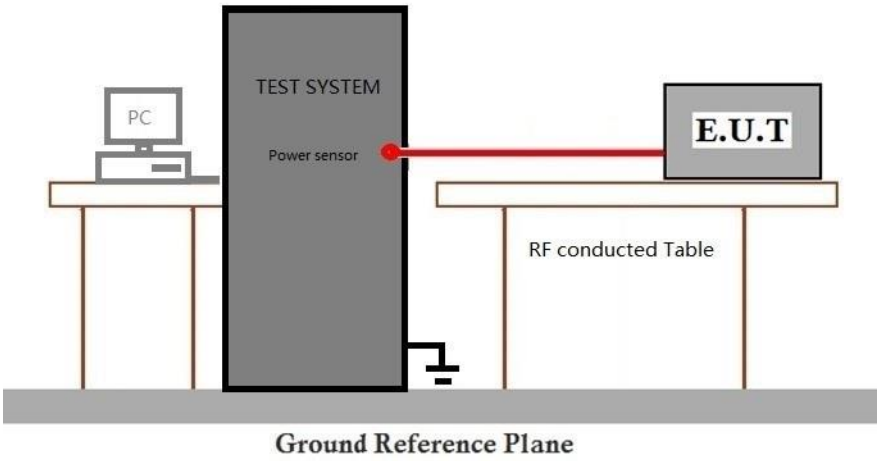
Operating Environment:

Temperature: 25.0 °C Humidity: 61.3 % RH Atmospheric Pressure: 1000 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	23	TX mode(5.8G SDR 1.4MHz)_Keep the EUT in continuously transmitting mode.
Final test	25	TX mode(5.8G SDR 3MHz)_Keep the EUT in continuously transmitting mode.
Final test	27	TX mode(5.8G SDR 10MHz)_Keep the EUT in continuously transmitting mode.
Final test	29	TX mode(5.8G SDR 20MHz)_Keep the EUT in continuously transmitting mode.
Final test	31	TX mode(5.8G SDR 40MHz)_Keep the EUT in continuously transmitting mode.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Please Refer to Appendix for Details

7.6 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)
Test Method: KDB 789033 D02 II F

Limit:

Frequency band(MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz for client device
5470-5725	≤11dBm in 1MHz for client device
5725-5850	≤30dBm in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.

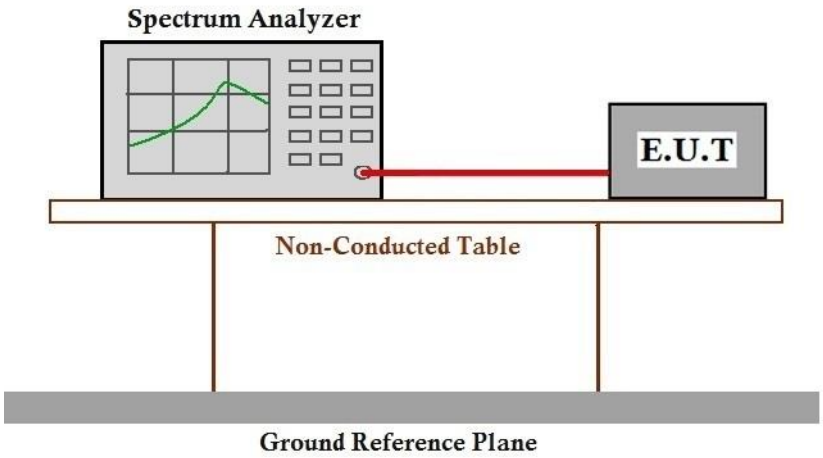
7.6.1 E.U.T. Operation

Operating Environment:
Temperature: 25.0 °C Humidity: 61.3 % RH Atmospheric Pressure: 1000 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	23	TX mode(5.8G SDR 1.4MHz)_Keep the EUT in continuously transmitting mode.
Final test	25	TX mode(5.8G SDR 3MHz)_Keep the EUT in continuously transmitting mode.
Final test	27	TX mode(5.8G SDR 10MHz)_Keep the EUT in continuously transmitting mode.
Final test	29	TX mode(5.8G SDR 20MHz)_Keep the EUT in continuously transmitting mode.
Final test	31	TX mode(5.8G SDR 40MHz)_Keep the EUT in continuously transmitting mode.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.7 Radiated Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)
Test Method: KDB 789033 D02 II G
Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

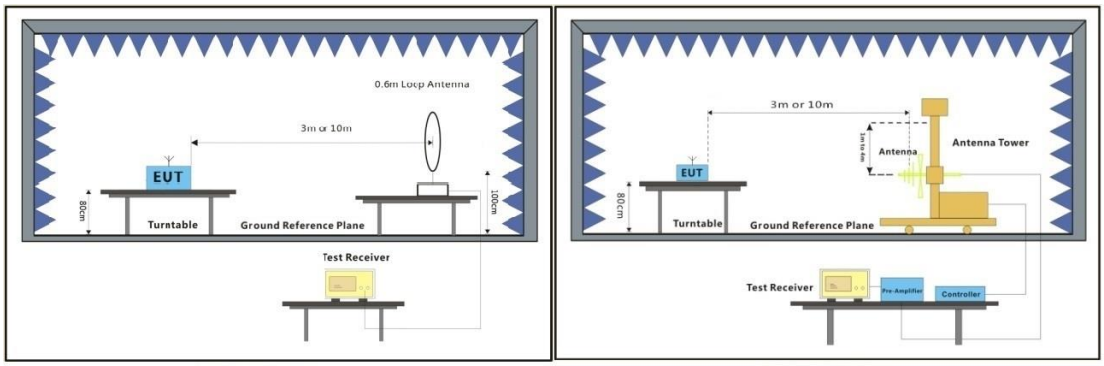
7.7.1 E.U.T. Operation

Operating Environment:
Temperature: 23.2 °C Humidity: 45.8 % RH Atmospheric Pressure: 1000 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	23	TX mode(5.8G SDR 1.4MHz)_Keep the EUT in continuously transmitting mode.
Final test	24	Charge + TX mode(5.8G SDR 1.4MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	25	TX mode(5.8G SDR 3MHz)_Keep the EUT in continuously transmitting mode.
Pre-scan	26	Charge + TX mode(5.8G SDR 3MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	27	TX mode(5.8G SDR 10MHz)_Keep the EUT in continuously transmitting mode.
Pre-scan	28	Charge + TX mode(5.8G SDR 10MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	29	TX mode(5.8G SDR 20MHz)_Keep the EUT in continuously transmitting mode.
Pre-scan	30	Charge + TX mode(5.8G SDR 20MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	31	TX mode(5.8G SDR 40MHz)_Keep the EUT in continuously transmitting mode.
Pre-scan	32	Charge + TX mode(5.8G SDR 40MHz)_Keep the EUT in charging and continuously transmitting mode.

7.7.3 Test Setup Diagram



Below 30MHz　　30MHz-1GHz

7.7.4 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 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 quasi-peak 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. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

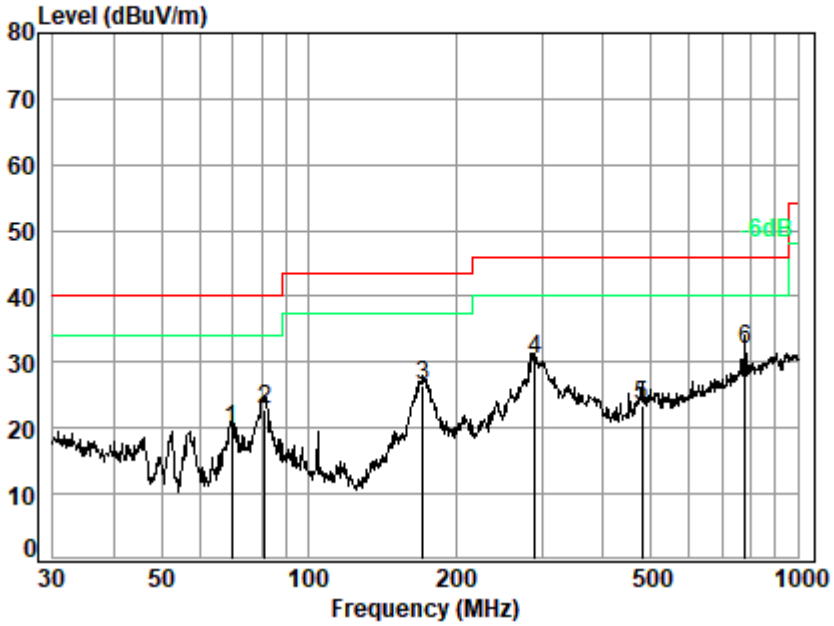
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.

3. Scan from 9kHz to 30MHz, 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.

4. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

5. 1.4MHz mode is the worst-case, only the worst-case test data were recorded in this report.

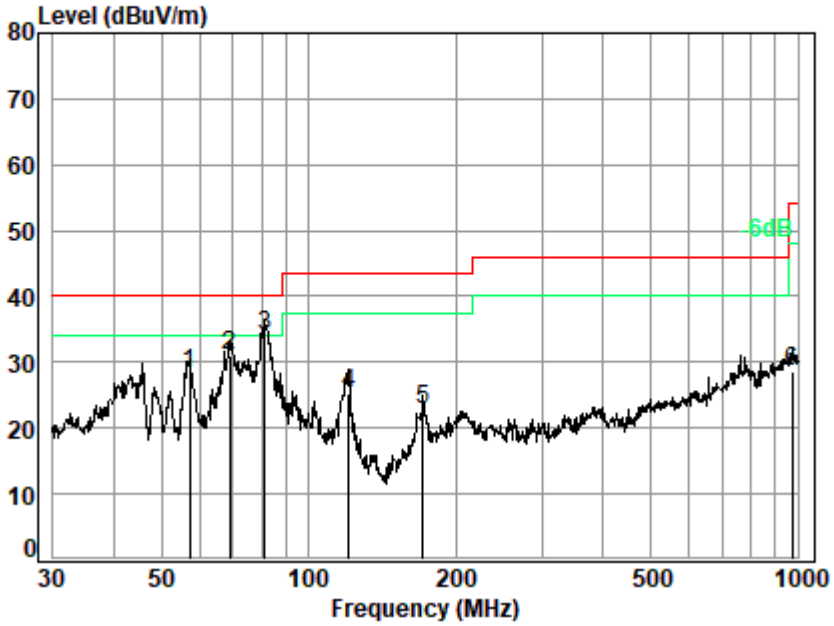
Test Mode: 24; Polarity: Horizontal; Modulation: OFDM; Channel: Middle



Site : chamber
Condition: 3m HORIZONTAL
Job No. : 03206AT
Test Mode: 24

	Freq	Ant Factor	Cable Loss	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	69.600	10.63	0.99	27.69	35.91	19.84	40.00	-20.16	QP
2	81.497	10.58	1.07	27.66	38.69	22.68	40.00	-17.32	QP
3	170.793	13.36	1.57	27.36	38.89	26.46	43.50	-17.04	QP
4	290.017	17.04	2.13	26.93	38.05	30.29	46.00	-15.71	QP
5	480.528	22.77	2.82	27.70	25.39	23.28	46.00	-22.72	QP
6 q	779.607	27.02	3.76	27.67	28.81	31.92	46.00	-14.08	QP

Test Mode: 24; Polarity: Vertical; Modulation: OFDM; Channel: Middle



Site : chamber
Condition: 3m VERTICAL
Job No. : 03206AT
Test Mode: 24

	Freq	Ant Factor	Cable Loss	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	56.991	11.77	0.89	27.73	43.39	28.32	40.00	-11.68	QP
2	68.872	10.67	0.98	27.70	47.04	30.99	40.00	-9.01	QP
3 q	81.497	10.58	1.07	27.66	49.97	33.96	40.00	-6.04	QP
4	120.699	11.07	1.30	27.54	40.45	25.28	43.50	-18.22	QP
5	171.393	13.42	1.58	27.35	35.10	22.75	43.50	-20.75	QP
6	972.337	28.16	4.28	26.78	23.04	28.70	54.00	-25.30	QP

7.8 Radiated Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)
Test Method: KDB 789033 D02 II G
Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1GHz	500	3

*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

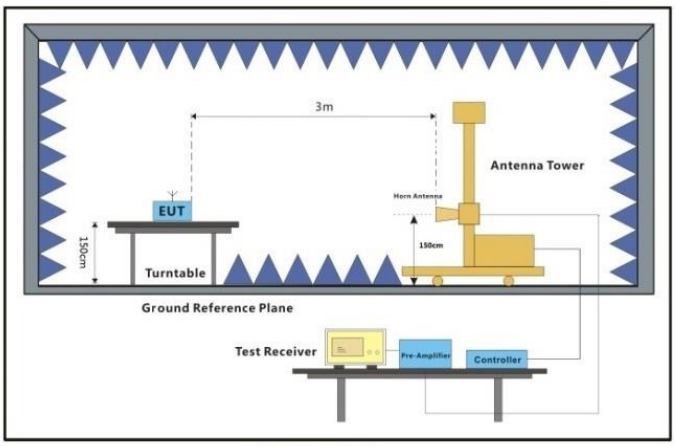
Operating Environment:

Temperature: 21.8 °C Humidity: 61.6 % RH Atmospheric Pressure: 1000 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	23	TX mode(5.8G SDR 1.4MHz)_Keep the EUT in continuously transmitting mode.
Final test	24	Charge + TX mode(5.8G SDR 1.4MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	25	TX mode(5.8G SDR 3MHz)_Keep the EUT in continuously transmitting mode.
Pre-scan	26	Charge + TX mode(5.8G SDR 3MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	27	TX mode(5.8G SDR 10MHz)_Keep the EUT in continuously transmitting mode.
Pre-scan	28	Charge + TX mode(5.8G SDR 10MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	29	TX mode(5.8G SDR 20MHz)_Keep the EUT in continuously transmitting mode.
Pre-scan	30	Charge + TX mode(5.8G SDR 20MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	31	TX mode(5.8G SDR 40MHz)_Keep the EUT in continuously transmitting mode.
Pre-scan	32	Charge + TX mode(5.8G SDR 40MHz)_Keep the EUT in charging and continuously transmitting mode.

7.8.3 Test Setup Diagram



Above 1GHz

7.8.4 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 (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 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. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

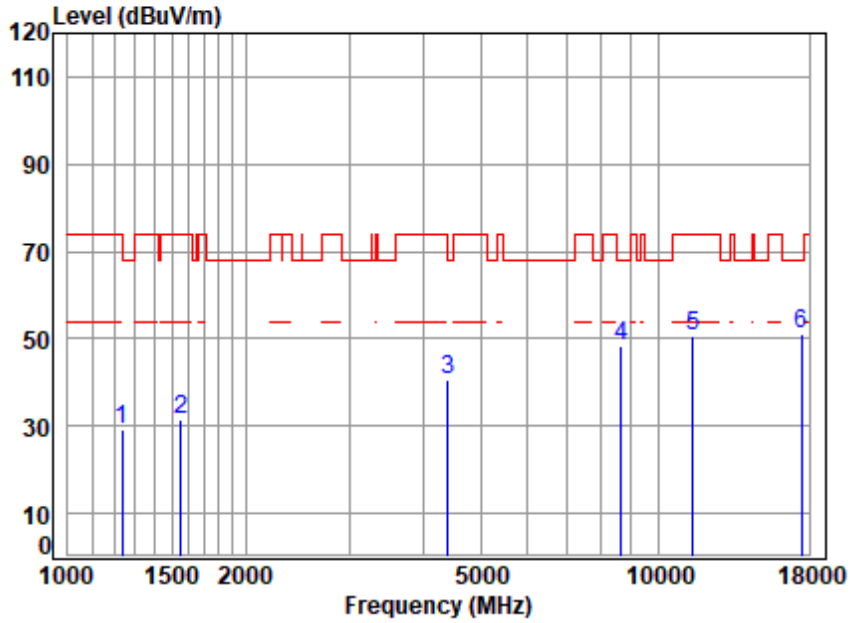
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

5. 1.4MHz mode is the worst-case, only the worst-case test data were recorded in this report.

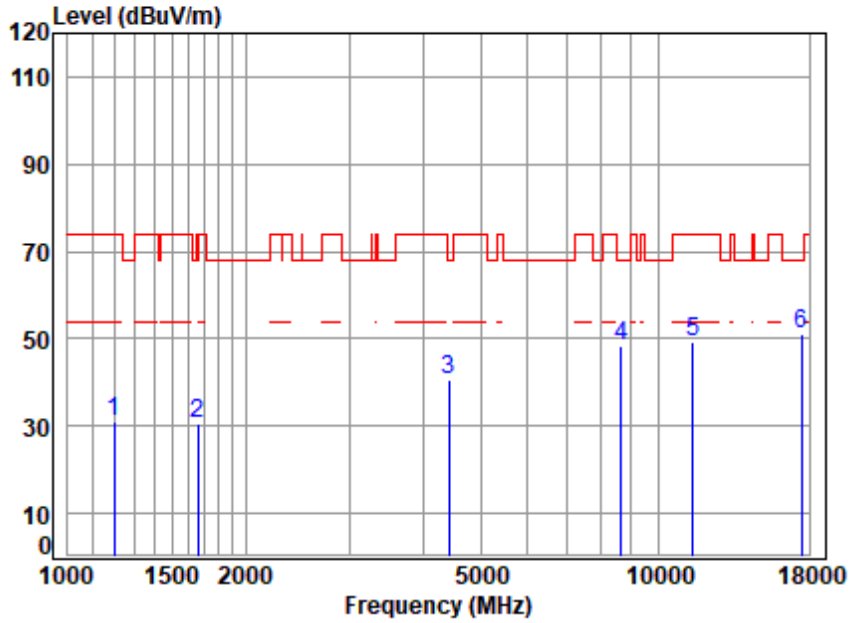
Test Mode: 24; Polarity: Horizontal; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5728.5 TX RSE
Note : 1.4M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1234.909	3.64	24.89	38.35	39.20	29.38	74.00	-44.62	peak
2	1551.677	4.13	26.99	38.40	38.99	31.71	74.00	-42.29	peak
3	4405.090	7.06	34.74	35.79	34.72	40.73	68.20	-27.47	peak
4	8663.404	11.33	36.90	37.27	37.28	48.24	68.20	-19.96	peak
5	11457.000	12.99	37.76	37.70	37.39	50.44	74.00	-23.56	peak
6	q17485.500	14.85	43.40	37.58	30.62	51.29	68.20	-16.91	peak

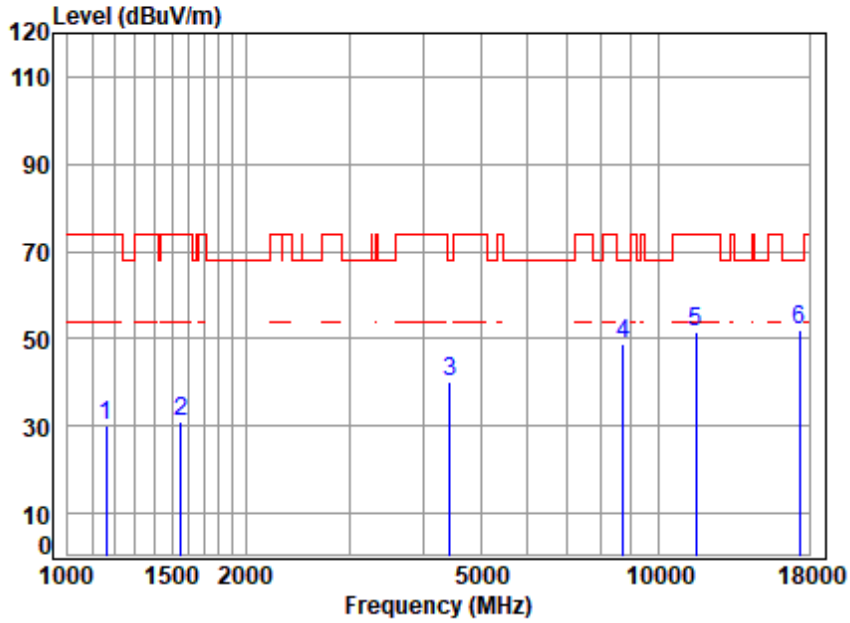
Test Mode: 24; Polarity: Vertical; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5728.5 TX RSE
Note : 1.4M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1199.726	3.58	24.40	38.34	41.57	31.21	74.00	-42.79	peak
2	1663.137	4.28	26.27	38.41	38.66	30.80	74.00	-43.20	peak
3	4417.841	7.07	34.59	35.78	34.73	40.61	68.20	-27.59	peak
4	8638.399	11.29	36.90	37.24	37.19	48.14	68.20	-20.06	peak
5	11457.000	12.99	37.76	37.70	36.24	49.29	74.00	-24.71	peak
6	q17485.500	14.85	43.40	37.58	30.48	51.15	68.20	-17.05	peak

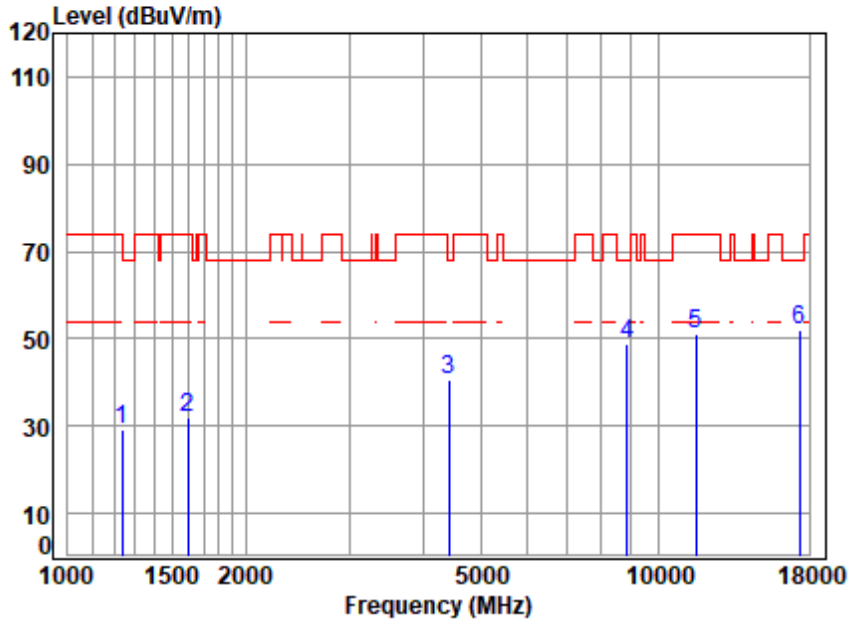
Test Mode: 24; Polarity: Horizontal; Modulation: OFDM; Channel: Middle



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5784.5 TX RSE
Note : 1.4M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1162.182	3.51	24.02	38.33	40.90	30.10	74.00	-43.90	peak
2	1556.169	4.14	26.98	38.40	38.43	31.15	74.00	-42.85	peak
3	4430.628	7.08	34.43	35.77	34.48	40.22	68.20	-27.98	peak
4	8713.630	11.42	36.90	37.32	37.86	48.86	68.20	-19.34	peak
5	11569.000	13.01	37.73	37.67	38.63	51.70	74.00	-22.30	peak
6	q17353.500	14.77	43.26	37.56	31.33	51.80	68.20	-16.40	peak

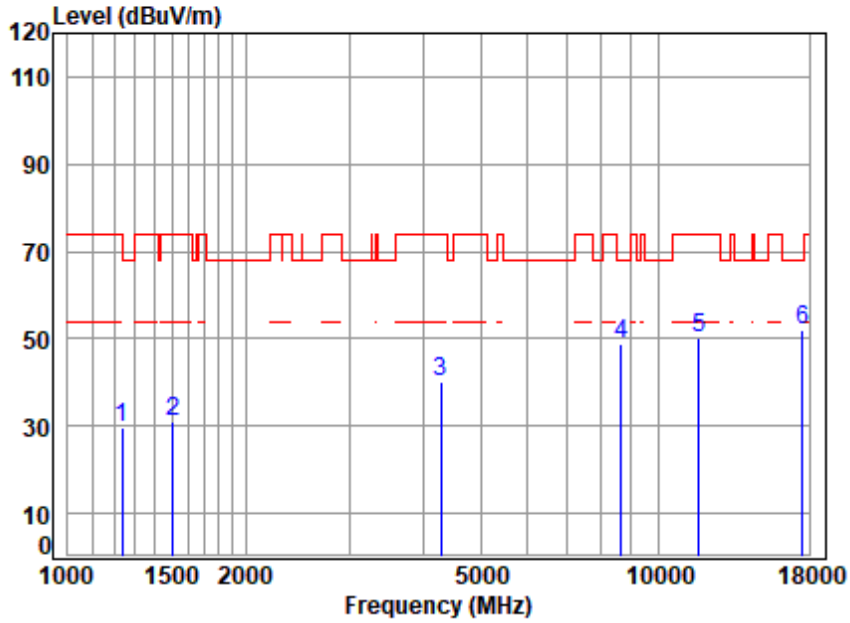
Test Mode: 24; Polarity: Vertical; Modulation: OFDM; Channel: Middle



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5784.5 TX RSE
Note : 1.4M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1234.909	3.64	24.89	38.35	39.16	29.34	74.00	-44.66	peak
2	1597.181	4.20	26.81	38.40	39.32	31.93	74.00	-42.07	peak
3	4417.841	7.07	34.59	35.78	34.52	40.40	68.20	-27.80	peak
4	8840.473	11.64	37.18	37.45	37.37	48.74	68.20	-19.46	peak
5	11569.000	13.01	37.73	37.67	37.90	50.97	74.00	-23.03	peak
6	q17353.500	14.77	43.26	37.56	31.55	52.02	68.20	-16.18	peak

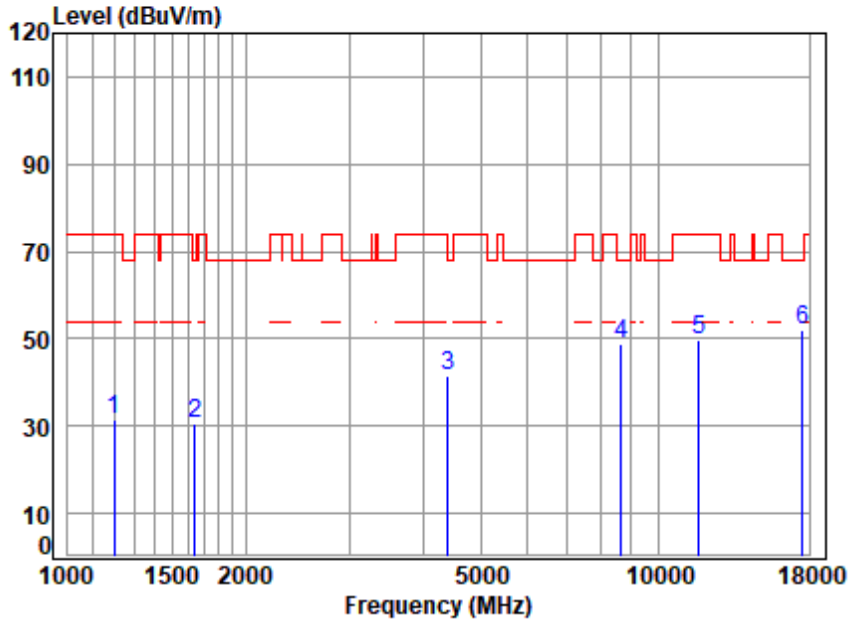
Test Mode: 24; Polarity: Horizontal; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5848.12 TX RSE
Note : 1.4M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1238.483	3.65	24.94	38.35	39.45	29.69	74.00	-44.31	peak
2	1507.470	4.07	26.83	38.39	38.60	31.11	74.00	-42.89	peak
3	4291.977	6.99	33.97	35.88	35.10	40.18	74.00	-33.82	peak
4	8663.404	11.33	36.90	37.27	38.05	49.01	68.20	-19.19	peak
5	11696.240	13.03	37.89	37.64	36.84	50.12	74.00	-23.88	peak
6	q17544.360	14.89	43.49	37.59	31.26	52.05	68.20	-16.15	peak

Test Mode: 24; Polarity: Vertical; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5848.12 TX RSE
Note : 1.4M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1199.726	3.58	24.40	38.34	41.87	31.51	74.00	-42.49	peak
2	1644.019	4.26	26.36	38.41	38.55	30.76	68.20	-37.44	peak
3	4405.090	7.06	34.74	35.79	35.32	41.33	68.20	-26.87	peak
4	8638.399	11.29	36.90	37.24	37.83	48.78	68.20	-19.42	peak
5	11696.240	13.03	37.89	37.64	36.62	49.90	74.00	-24.10	peak
6	q17544.360	14.89	43.49	37.59	31.25	52.04	68.20	-16.16	peak

7.9 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)
Test Method: KDB 789033 D02 II G
Measurement Distance: 3m

Limit:

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

*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

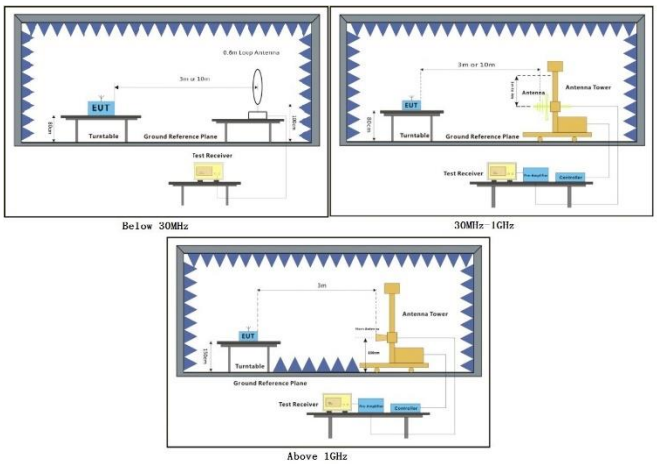
Operating Environment:

Temperature: 21.7 °C Humidity: 61.6 % RH Atmospheric Pressure: 1000 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	23	TX mode(5.8G SDR 1.4MHz)_Keep the EUT in continuously transmitting mode.
Final test	24	Charge + TX mode(5.8G SDR 1.4MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	25	TX mode(5.8G SDR 3MHz)_Keep the EUT in continuously transmitting mode.
Final test	26	Charge + TX mode(5.8G SDR 3MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	27	TX mode(5.8G SDR 10MHz)_Keep the EUT in continuously transmitting mode.
Final test	28	Charge + TX mode(5.8G SDR 10MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	29	TX mode(5.8G SDR 20MHz)_Keep the EUT in continuously transmitting mode.
Final test	30	Charge + TX mode(5.8G SDR 20MHz)_Keep the EUT in charging and continuously transmitting mode.
Pre-scan	31	TX mode(5.8G SDR 40MHz)_Keep the EUT in continuously transmitting mode.
Final test	32	Charge + TX mode(5.8G SDR 40MHz)_Keep the EUT in charging and continuously transmitting mode.

7.9.3 Test Setup Diagram



7.9.4 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. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

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

g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

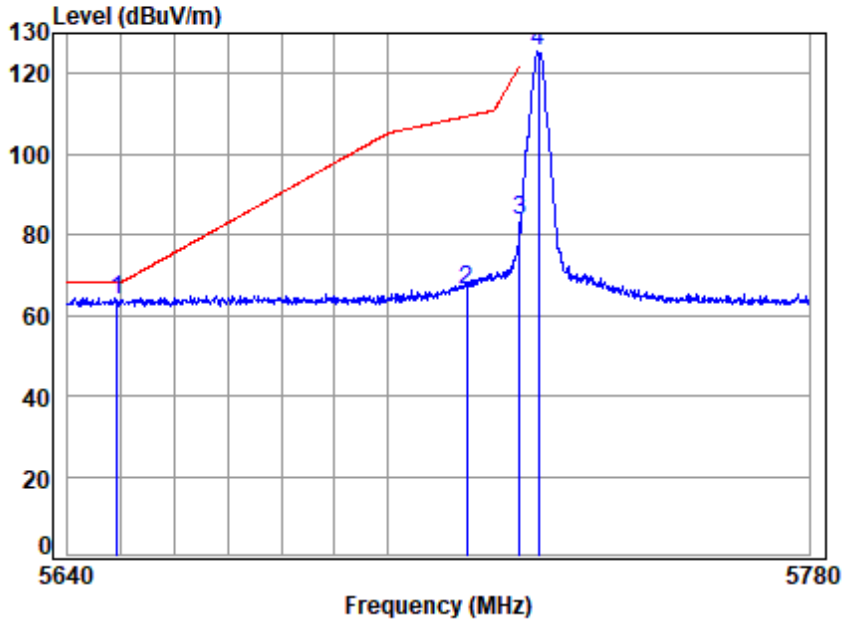
h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

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

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

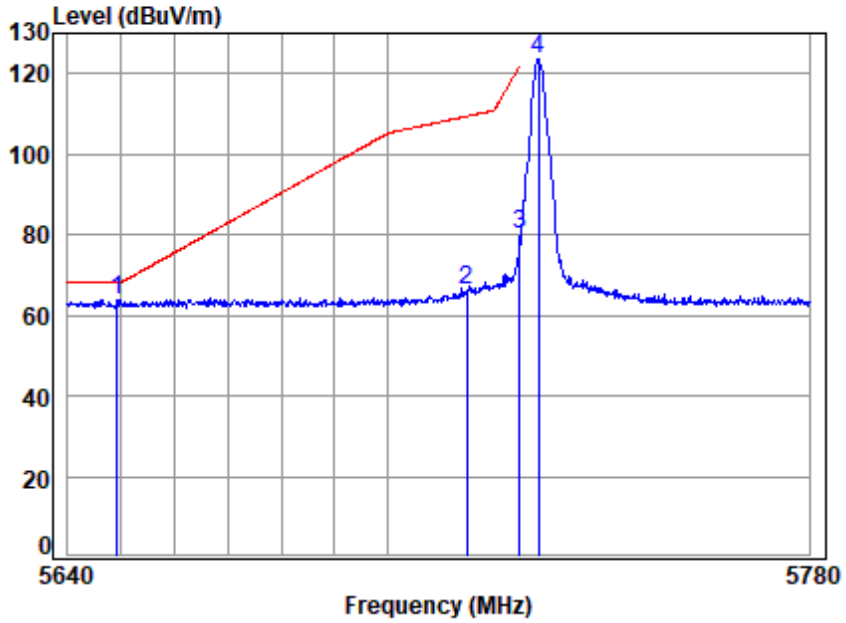
Test Mode: 24; Polarity: Horizontal; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5728.5 Band edge
: 1.4M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5649.135	7.93	34.41	35.06	56.41	63.69	68.20	-4.51	Peak
2	5715.000	7.97	34.27	35.03	59.02	66.23	109.40	-43.17	peak
3	5725.000	7.98	34.25	35.03	76.47	83.67	122.20	-38.53	peak
4	5728.500	7.98	34.24	35.02	118.39	125.59	------	------	peak

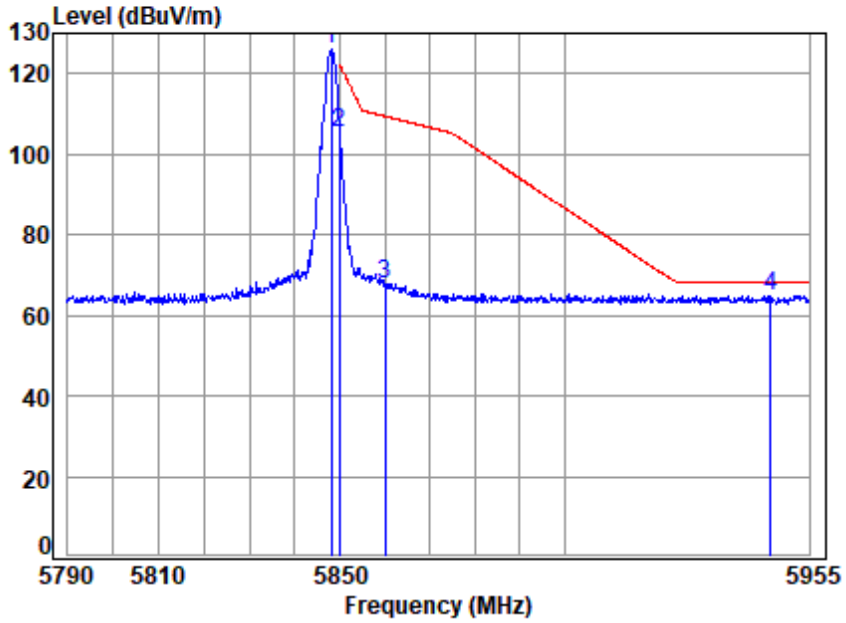
Test Mode: 24; Polarity: Vertical; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5728.5 Band edge
: 1.4M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5649.273	7.93	34.40	35.06	56.58	63.85	68.20	-4.35	Peak
2	5715.000	7.97	34.27	35.03	59.16	66.37	109.40	-43.03	peak
3	5725.000	7.98	34.25	35.03	73.05	80.25	122.20	-41.95	peak
4	5728.500	7.98	34.24	35.02	116.49	123.69	------	------	peak

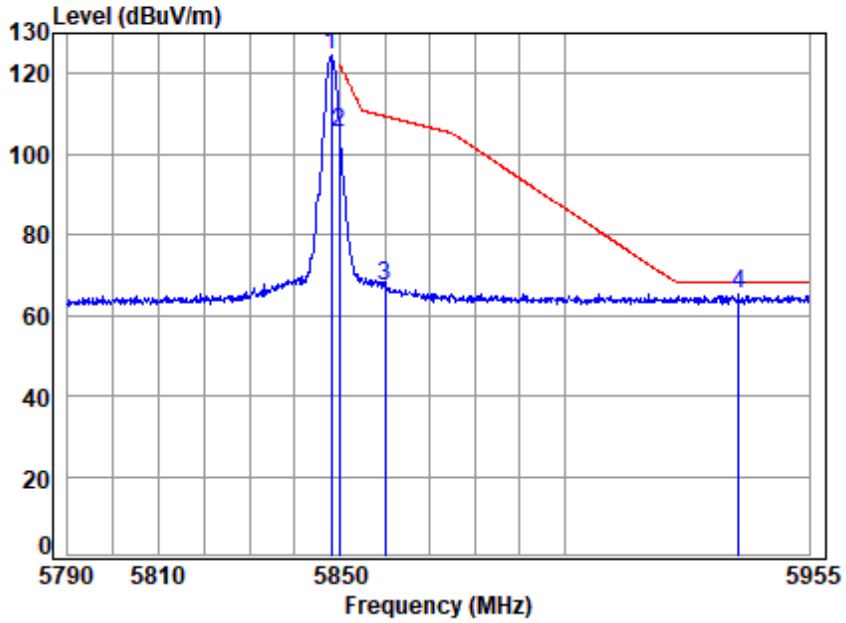
Test Mode: 24; Polarity: Horizontal; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5848.12 Band edge
: 1.4M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5848.120	8.07	34.40	34.97	118.47	125.97	------	------	peak
2	5850.000	8.07	34.40	34.97	97.92	105.42	122.20	-16.78	peak
3	5860.000	8.07	34.44	34.96	60.15	67.70	109.40	-41.70	peak
4 q	5946.305	8.13	34.69	34.92	56.95	64.85	68.20	-3.35	peak

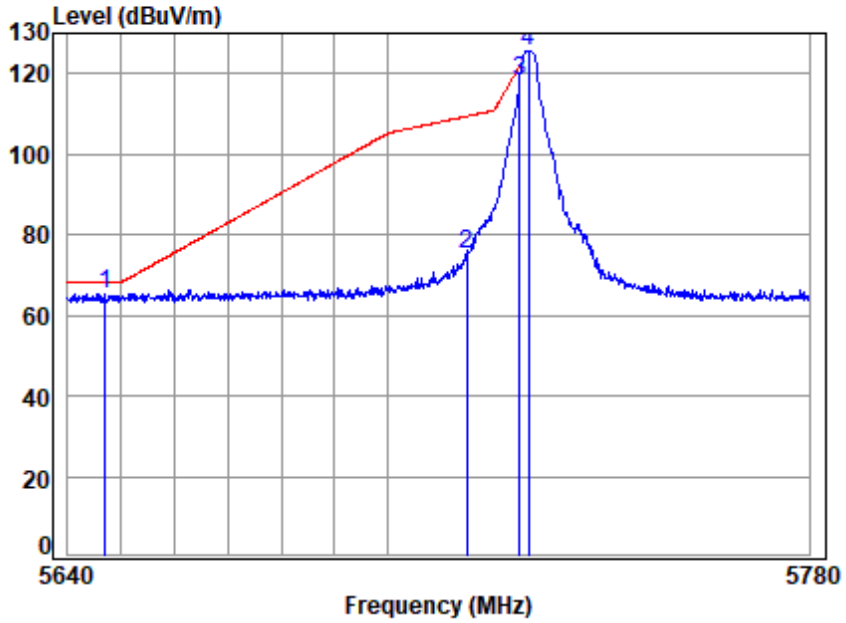
Test Mode: 24; Polarity: Vertical; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5848.12 Band edge
: 1.4M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5848.120	8.07	34.40	34.97	116.93	124.43	------	------	peak
2	5850.000	8.07	34.40	34.97	97.93	105.43	122.20	-16.77	peak
3	5860.000	8.07	34.44	34.96	59.77	67.32	109.40	-42.08	peak
4 q	5939.125	8.13	34.68	34.93	57.25	65.13	68.20	-3.07	peak

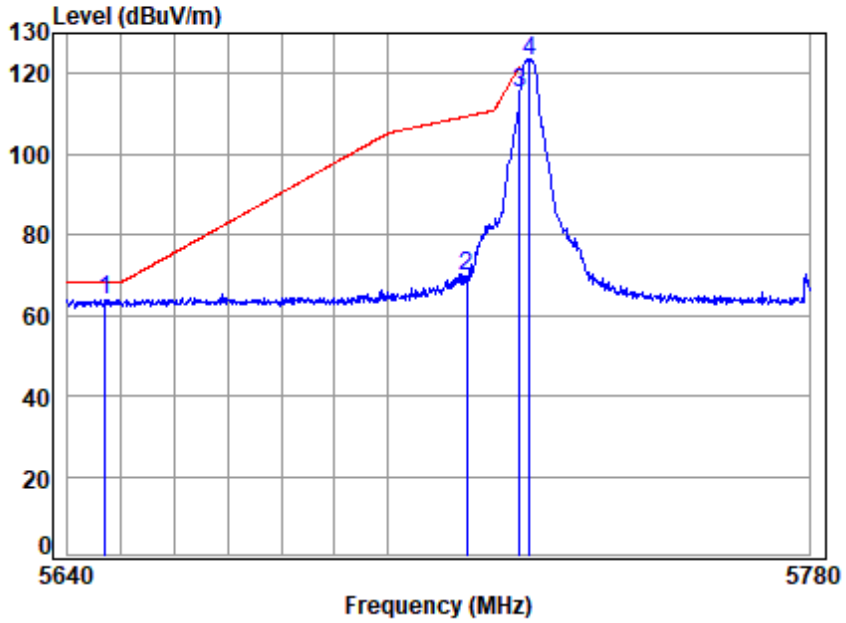
Test Mode: 26; Polarity: Horizontal; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5727.5 Band edge
: 3M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5647.057	7.92	34.42	35.06	57.98	65.26	68.20	-2.94	peak
2	5715.000	7.97	34.27	35.03	67.79	75.00	109.40	-34.40	peak
3	5725.000	7.98	34.25	35.03	110.89	118.09	122.20	-4.11	peak
4	5726.536	7.98	34.25	35.03	118.40	125.60	------	------	Peak

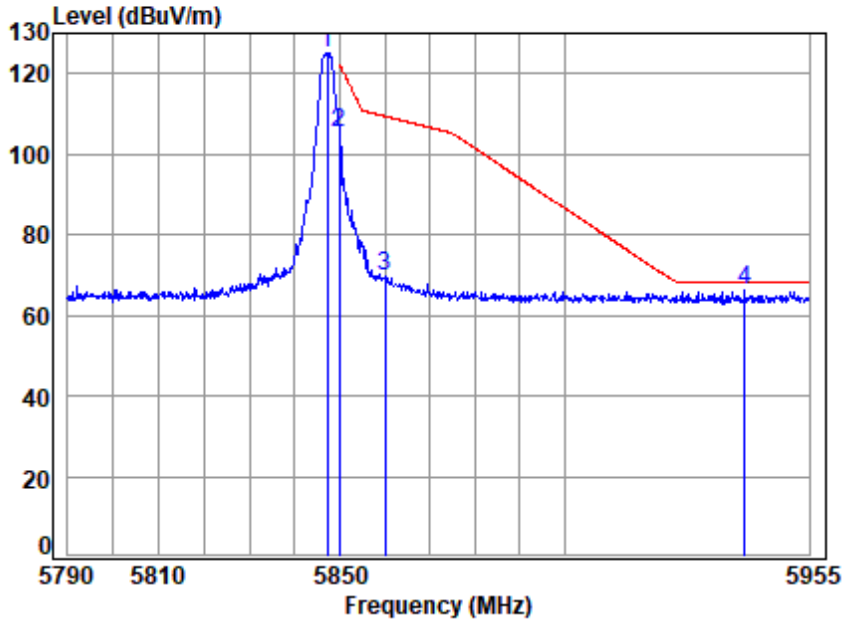
Test Mode: 26; Polarity: Vertical; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5727.5 Band edge
: 3M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5646.919	7.92	34.42	35.06	56.73	64.01	68.20	-4.19	peak
2	5715.000	7.97	34.27	35.03	62.67	69.88	109.40	-39.52	peak
3	5725.000	7.98	34.25	35.03	107.79	114.99	122.20	-7.21	peak
4	5726.816	7.98	34.25	35.03	115.73	122.93	------	------	Peak

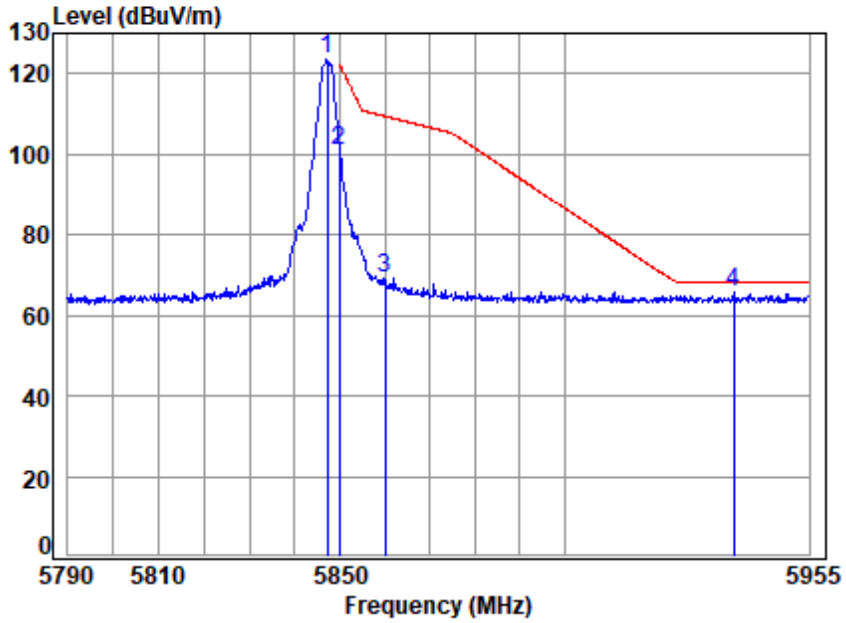
Test Mode: 26; Polarity: Horizontal; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5847.2 Band edge
: 3M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5847.200	8.07	34.39	34.97	117.79	125.28	------	------	peak
2	5850.000	8.07	34.40	34.97	97.68	105.18	122.20	-17.02	peak
3	5860.000	8.07	34.44	34.96	62.15	69.70	109.40	-39.70	peak
4 q	5940.460	8.13	34.68	34.93	58.12	66.00	68.20	-2.20	peak

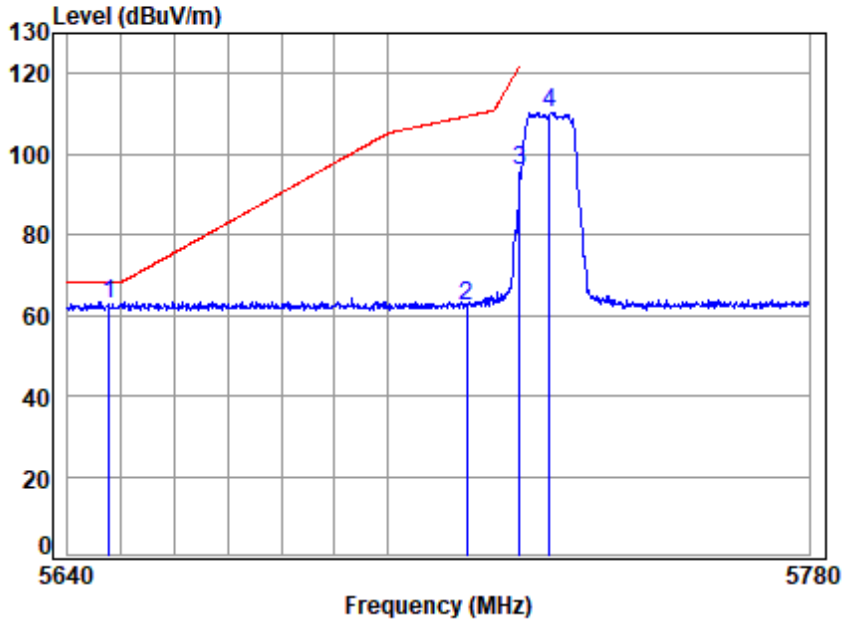
Test Mode: 26; Polarity: Vertical; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5847.2 Band edge
: 3M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5847.200	8.07	34.39	34.97	115.92	123.41	------	------	peak
2	5850.000	8.07	34.40	34.97	93.32	100.82	122.20	-21.38	peak
3	5860.000	8.07	34.44	34.96	61.57	69.12	109.40	-40.28	peak
4	q 5937.957	8.13	34.68	34.93	57.95	65.83	68.20	-2.37	peak

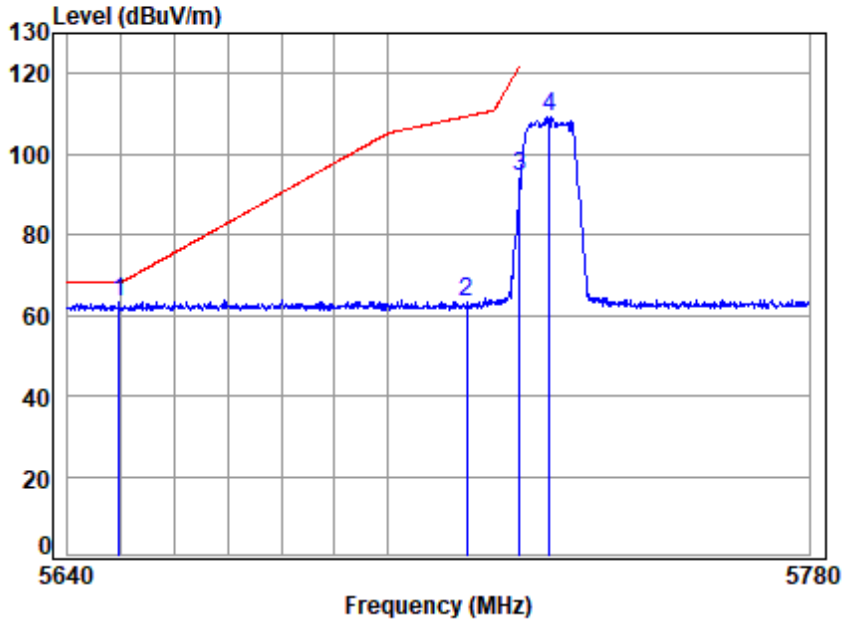
Test Mode: 28; Polarity: Horizontal; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5730.5 Band edge
: 10M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5647.750	7.92	34.41	35.06	55.48	62.75	68.20	-5.45	Peak
2	5715.000	7.97	34.27	35.03	54.85	62.06	109.40	-47.34	peak
3	5725.000	7.98	34.25	35.03	88.76	95.96	122.20	-26.24	peak
4	5730.500	7.98	34.24	35.02	103.25	110.45	------	------	peak

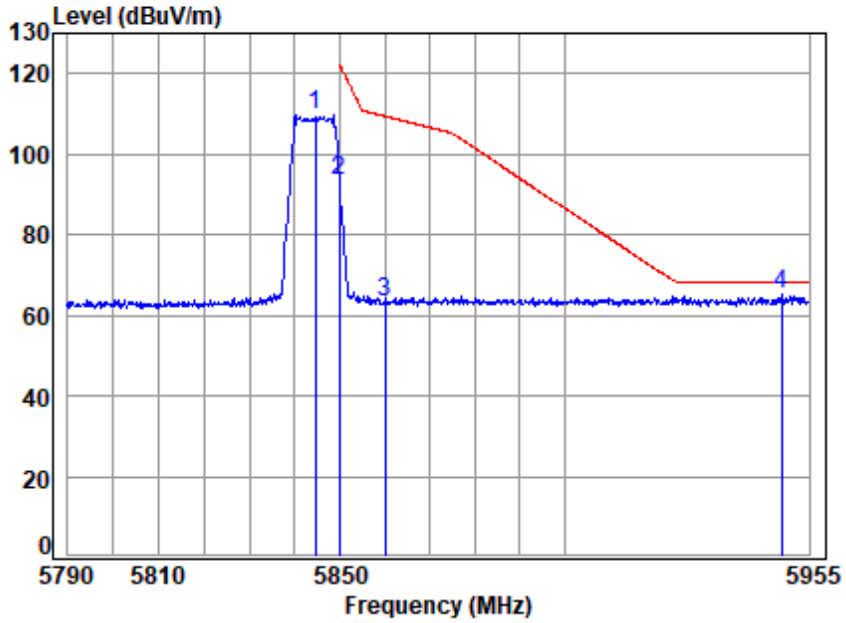
Test Mode: 28; Polarity: Vertical; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5730.5 Band edge
: 10M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5649.550	7.93	34.40	35.06	55.98	63.25	68.20	-4.95	Peak
2	5715.000	7.97	34.27	35.03	55.93	63.14	109.40	-46.26	peak
3	5725.000	7.98	34.25	35.03	87.40	94.60	122.20	-27.60	peak
4	5730.500	7.98	34.24	35.02	102.15	109.35	------	------	peak

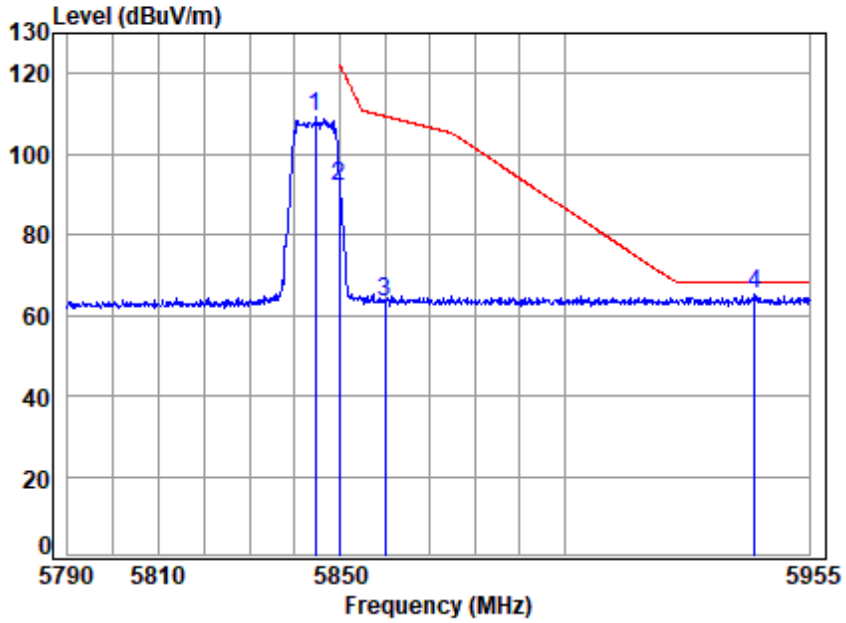
Test Mode: 28; Polarity: Horizontal; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5844.5 Band edge
: 10M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5844.500	8.06	34.39	34.97	102.13	109.61	------	------	peak
2	5850.000	8.07	34.40	34.97	86.05	93.55	122.20	-28.65	peak
3	5860.000	8.07	34.44	34.96	55.85	63.40	109.40	-46.00	peak
4 q	5948.812	8.14	34.70	34.92	57.37	65.29	68.20	-2.91	peak

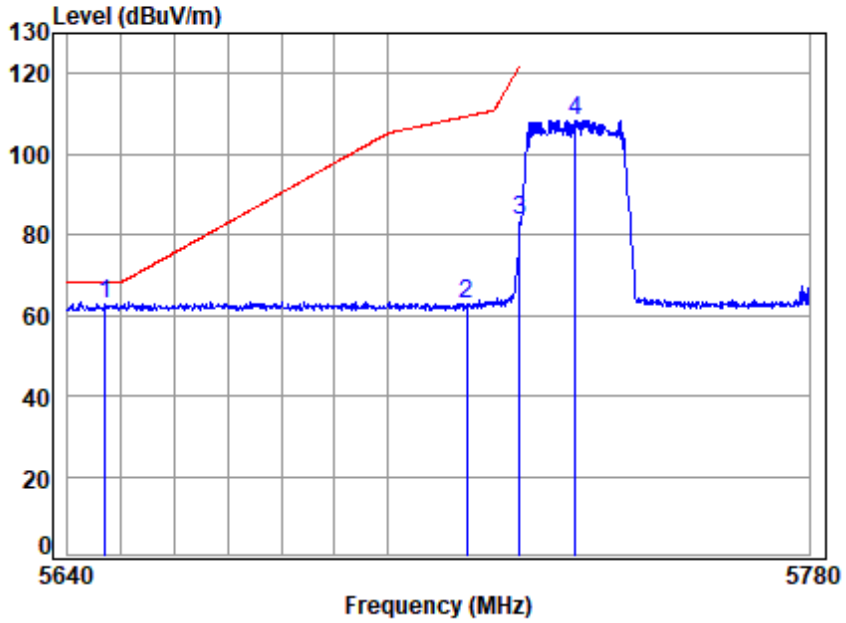
Test Mode: 28; Polarity: Vertical; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5844.5 Band edge
: 10M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5844.500	8.06	34.39	34.97	101.65	109.13	------	------	peak
2	5850.000	8.07	34.40	34.97	84.37	91.87	122.20	-30.33	peak
3	5860.000	8.07	34.44	34.96	55.67	63.22	109.40	-46.18	peak
4 q	5942.630	8.13	34.69	34.93	57.18	65.07	68.20	-3.13	peak

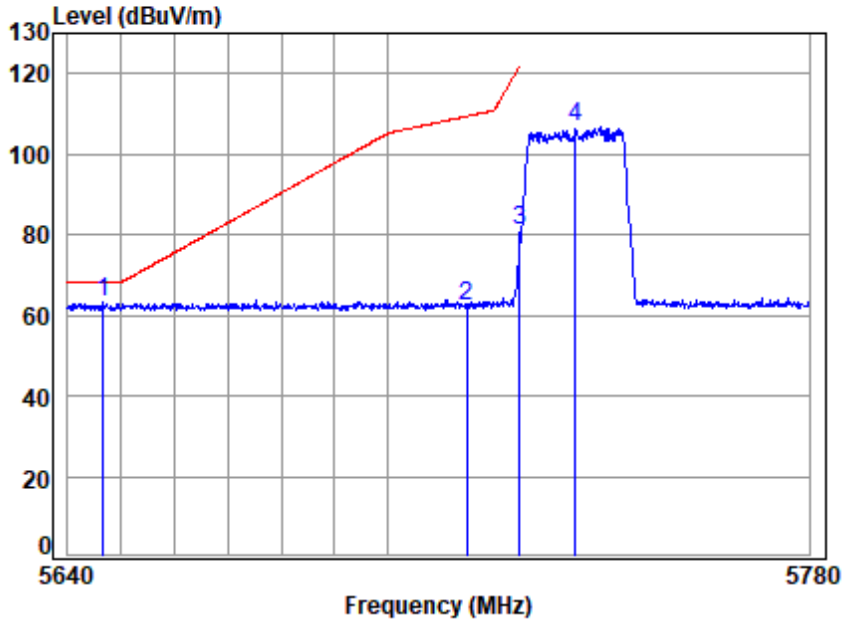
Test Mode: 30; Polarity: Horizontal; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5735.5 Band edge
: 20M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5647.057	7.92	34.42	35.06	55.56	62.84	68.20	-5.36	Peak
2	5715.000	7.97	34.27	35.03	55.37	62.58	109.40	-46.82	peak
3	5725.000	7.98	34.25	35.03	76.14	83.34	122.20	-38.86	peak
4	5735.500	7.99	34.23	35.02	101.26	108.46	------	------	peak

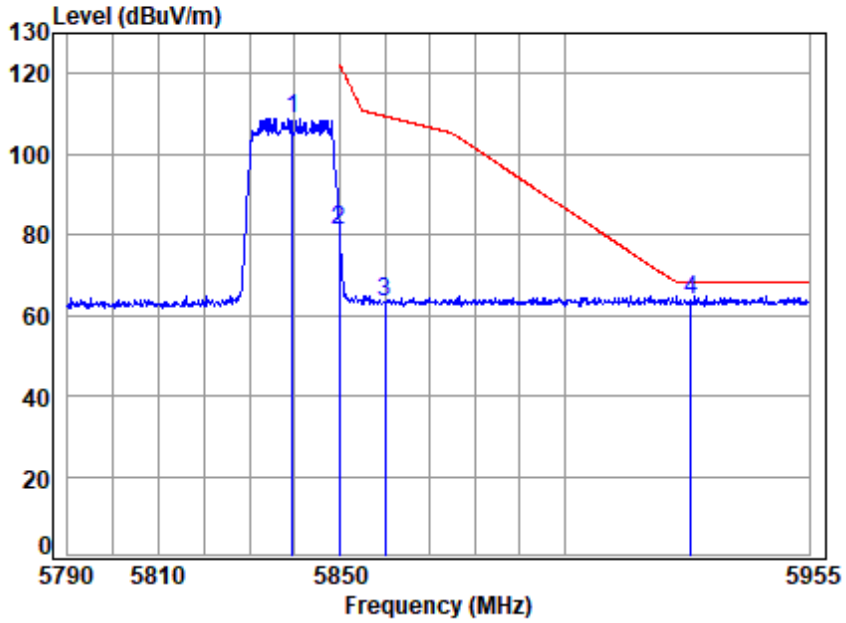
Test Mode: 30; Polarity: Vertical; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5735.5 Band edge
: 20M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5646.642	7.92	34.42	35.06	55.78	63.06	68.20	-5.14	Peak
2	5715.000	7.97	34.27	35.03	55.00	62.21	109.40	-47.19	peak
3	5725.000	7.98	34.25	35.03	74.09	81.29	122.20	-40.91	peak
4	5735.500	7.99	34.23	35.02	99.38	106.58	------	------	peak

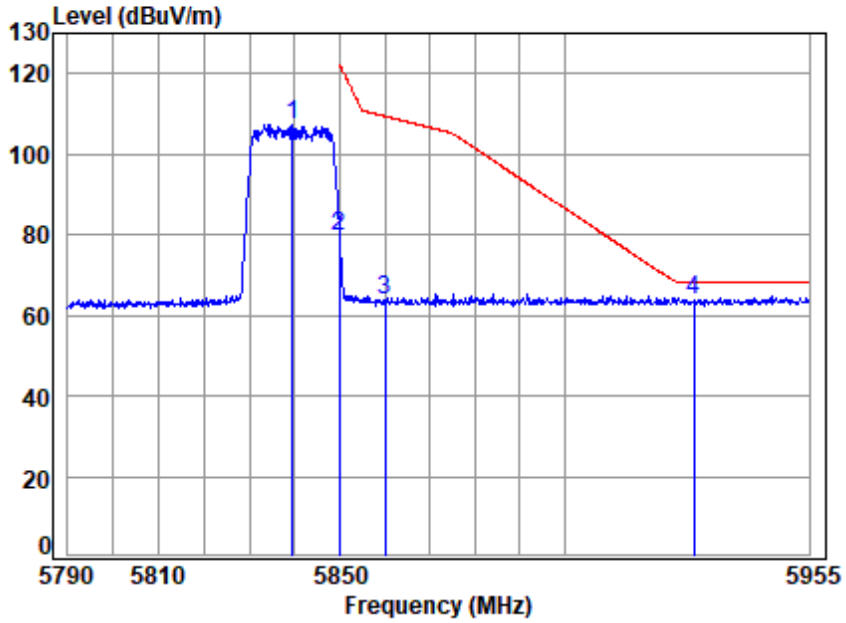
Test Mode: 30; Polarity: Horizontal; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5839.5 Band edge
: 20M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5839.500	8.06	34.38	34.97	101.13	108.60	------	------	peak
2	5850.000	8.07	34.40	34.97	73.51	81.01	122.20	-41.19	peak
3	5860.000	8.07	34.44	34.96	55.56	63.11	109.40	-46.29	peak
4 q	5928.288	8.12	34.66	34.93	55.89	63.74	68.20	-4.46	Peak

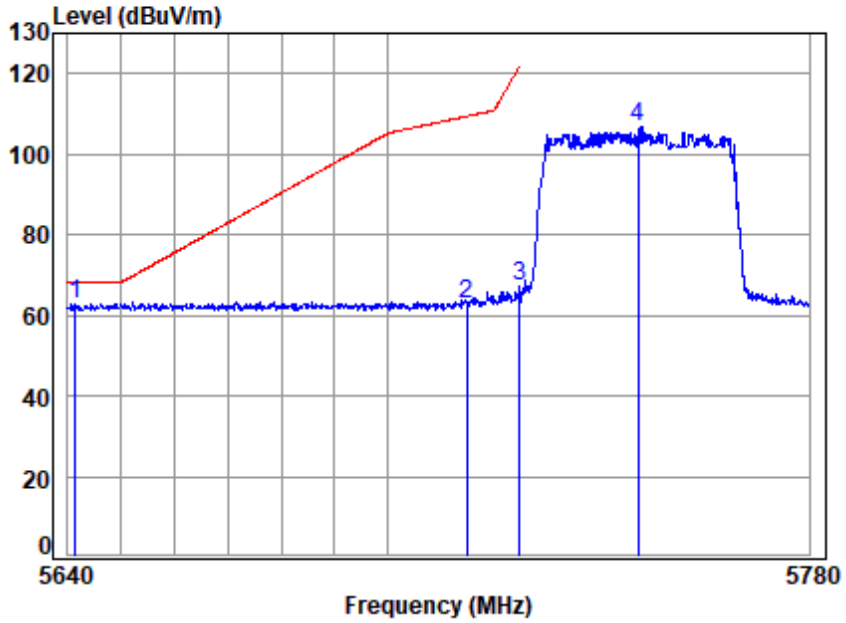
Test Mode: 30; Polarity: Vertical; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5839.5 Band edge
: 20M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5839.500	8.06	34.38	34.97	100.00	107.47	------	------	peak
2	5850.000	8.07	34.40	34.97	71.87	79.37	122.20	-42.83	peak
3	5860.000	8.07	34.44	34.96	56.08	63.63	109.40	-45.77	peak
4	q 5929.121	8.12	34.66	34.93	56.00	63.85	68.20	-4.35	Peak

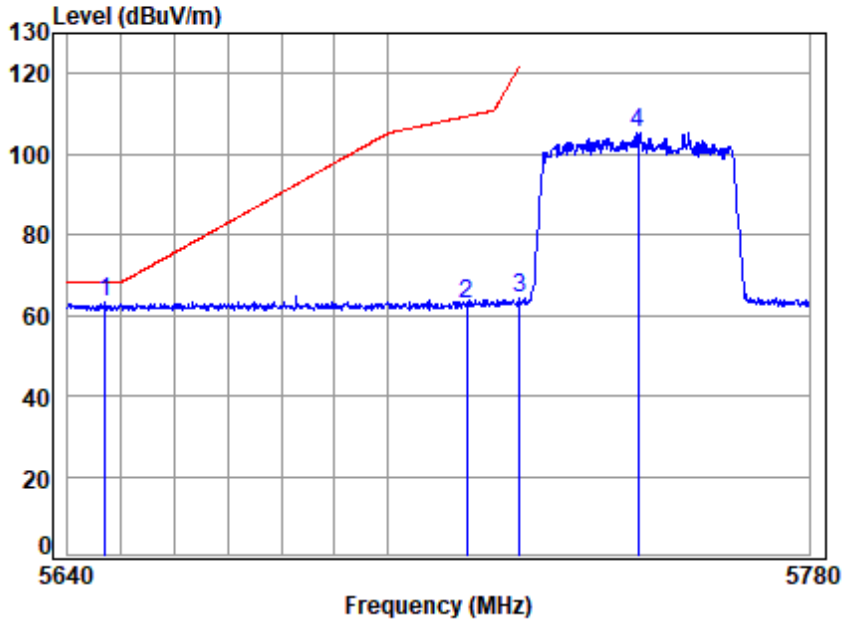
Test Mode: 32; Polarity: Horizontal; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5747.5 Band edge
: 40M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5641.383	7.92	34.45	35.07	55.60	62.90	68.20	-5.30	peak
2	5715.000	7.97	34.27	35.03	55.46	62.67	109.40	-46.73	peak
3	5725.000	7.98	34.25	35.03	60.07	67.27	122.20	-54.93	peak
4	5747.500	8.00	34.21	35.02	99.56	106.75	------	------	peak

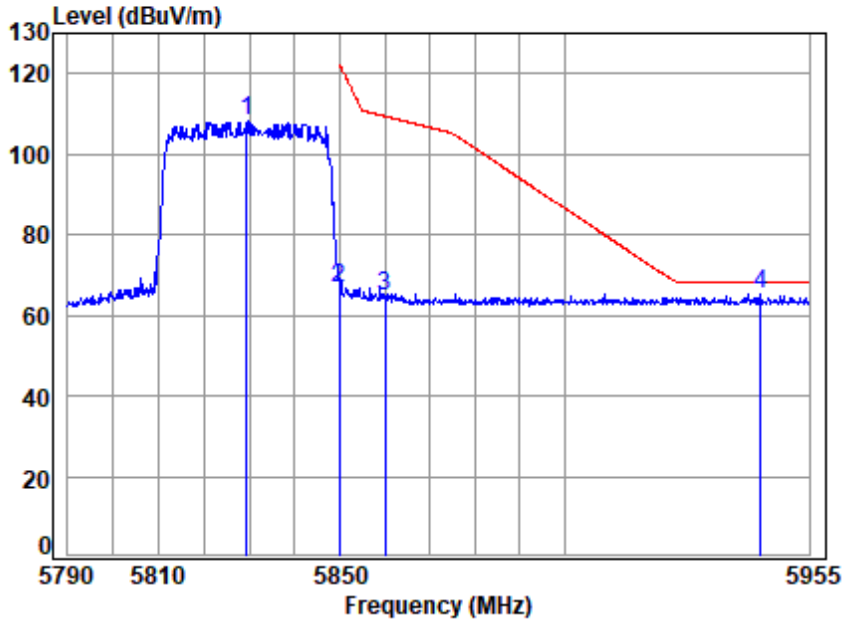
Test Mode: 32; Polarity: Vertical; Modulation: OFDM; Channel: Low



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5747.5 Band edge
: 40M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5646.919	7.92	34.42	35.06	55.78	63.06	68.20	-5.14	peak
2	5715.000	7.97	34.27	35.03	55.47	62.68	109.40	-46.72	peak
3	5725.000	7.98	34.25	35.03	57.02	64.22	122.20	-57.98	peak
4	5747.500	8.00	34.21	35.02	98.19	105.38	------	------	peak

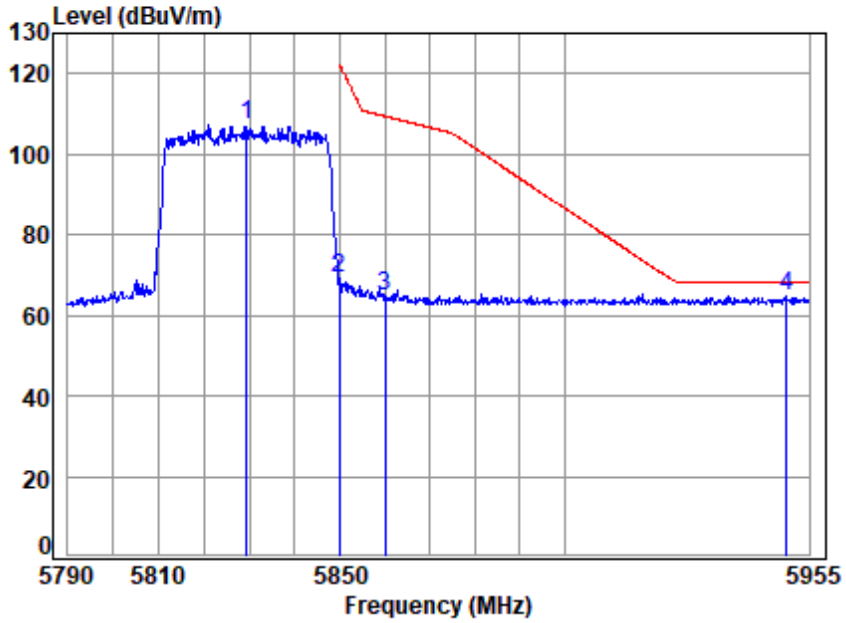
Test Mode: 32; Polarity: Horizontal; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 03206AT\03207AT
Mode : 5829.5 Band edge
: 40M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5829.500	8.05	34.36	34.98	101.03	108.46	------	------	peak
2	5850.000	8.07	34.40	34.97	59.41	66.91	122.20	-55.29	peak
3	5860.000	8.07	34.44	34.96	57.09	64.64	109.40	-44.76	peak
4 q	5944.133	8.13	34.69	34.93	57.28	65.17	68.20	-3.03	peak

Test Mode: 32; Polarity: Vertical; Modulation: OFDM; Channel: High



Site : chamber
Condition: 3m VERTICAL
Job No : 03206AT\03207AT
Mode : 5829.5 Band edge
: 40M

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5829.500	8.05	34.36	34.98	99.93	107.36	------	------	peak
2	5850.000	8.07	34.40	34.97	61.80	69.30	122.20	-52.90	peak
3	5860.000	8.07	34.44	34.96	57.34	64.89	109.40	-44.51	peak
4 q	5949.815	8.14	34.70	34.92	56.88	64.80	68.20	-3.40	peak

7.10 Frequency Stability

Test Requirement 47 CFR Part 15, Subpart E 15.407 (g)
Test Method: ANSI C63.10 (2013) Section 6.8

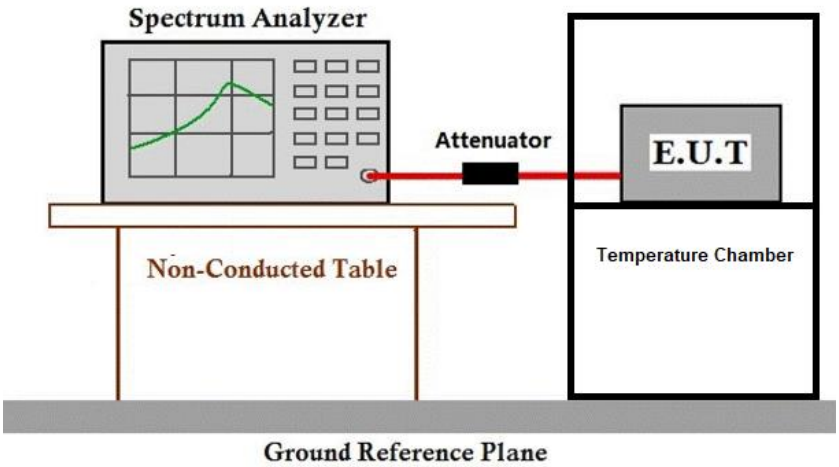
7.10.1 E.U.T. Operation

Operating Environment:
Temperature: 25.0 °C Humidity: 61.3 % RH Atmospheric Pressure: 1000 mbar

7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	23	TX mode(5.8G SDR 1.4MHz)_Keep the EUT in continuously transmitting mode.
Final test	25	TX mode(5.8G SDR 3MHz)_Keep the EUT in continuously transmitting mode.
Final test	27	TX mode(5.8G SDR 10MHz)_Keep the EUT in continuously transmitting mode.
Final test	29	TX mode(5.8G SDR 20MHz)_Keep the EUT in continuously transmitting mode.
Final test	31	TX mode(5.8G SDR 40MHz)_Keep the EUT in continuously transmitting mode.

7.10.3 Test Setup Diagram



7.10.4 Measurement Procedure and Data

Please Refer to Appendix for Details

8 Test Setup Photo

Refer to Setup Photo for SZCR2309003206AT

9 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for SZCR2309003206AT

10 Appendix

Note: Both 1.4MHz bandwidth and 3MHz bandwidth were selected the lowest, middle and highest frequency to test, among these modes, only the operation frequency is different, modulation type and target power are the same.

5.8G SDR SISO Mode

1. Duty Cycle

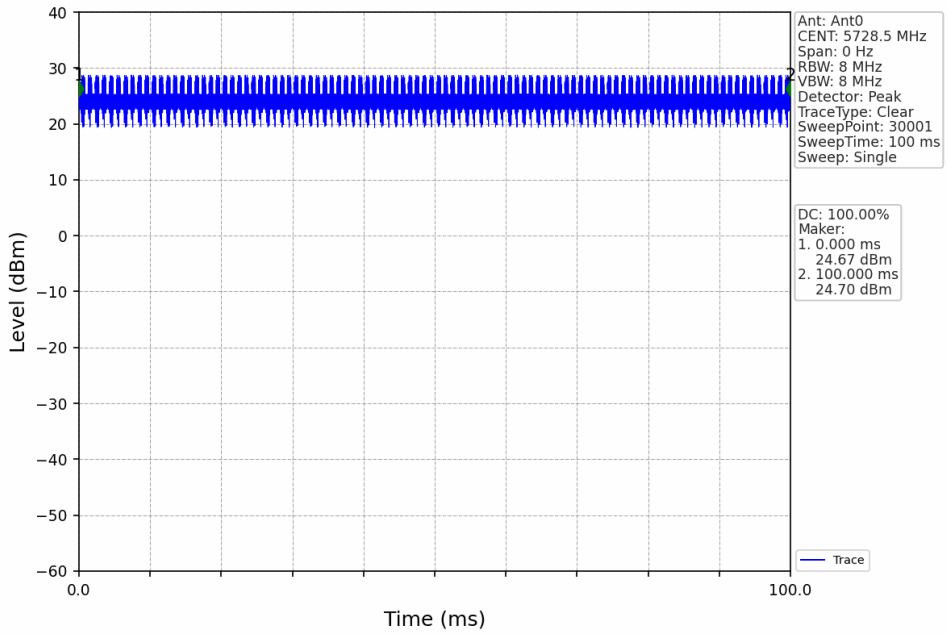
1.1 Ant0

1.1.1 Test Result

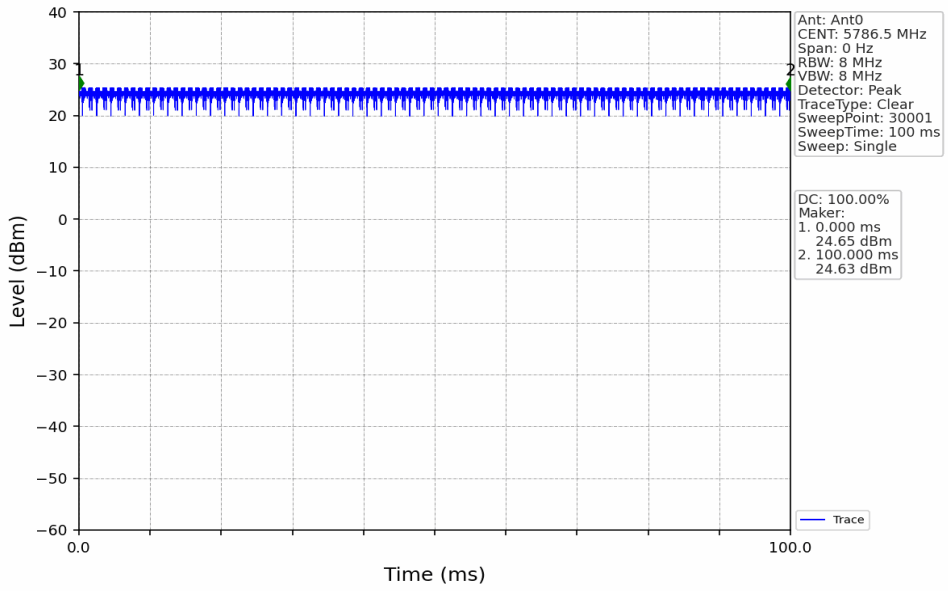
Ant0							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1.4M	SISO	5728.5	100.000	100.000	100.00	0.00	0.00
		5786.5	100.000	100.000	100.00	0.00	0.00
		5848.12	100.000	100.000	100.00	0.00	0.00
3M	SISO	5727.5	100.000	100.000	100.00	0.00	0.00
		5784.5	100.000	100.000	100.00	0.00	0.00
		5847.2	100.000	100.000	100.00	0.00	0.00
10M	SISO	5730.5	100.000	100.000	100.00	0.00	0.00
		5787.5	100.000	100.000	100.00	0.00	0.00
		5844.5	100.000	100.000	100.00	0.00	0.00
20M	SISO	5735.5	100.000	100.000	100.00	0.00	0.00
		5787.5	100.000	100.000	100.00	0.00	0.00
		5839.5	100.000	100.000	100.00	0.00	0.00
40M	SISO	5745.5	100.000	100.000	100.00	0.00	0.00
		5787.5	100.000	100.000	100.00	0.00	0.00
		5829.5	100.000	100.000	100.00	0.00	0.00

1.1.2 Test Graph

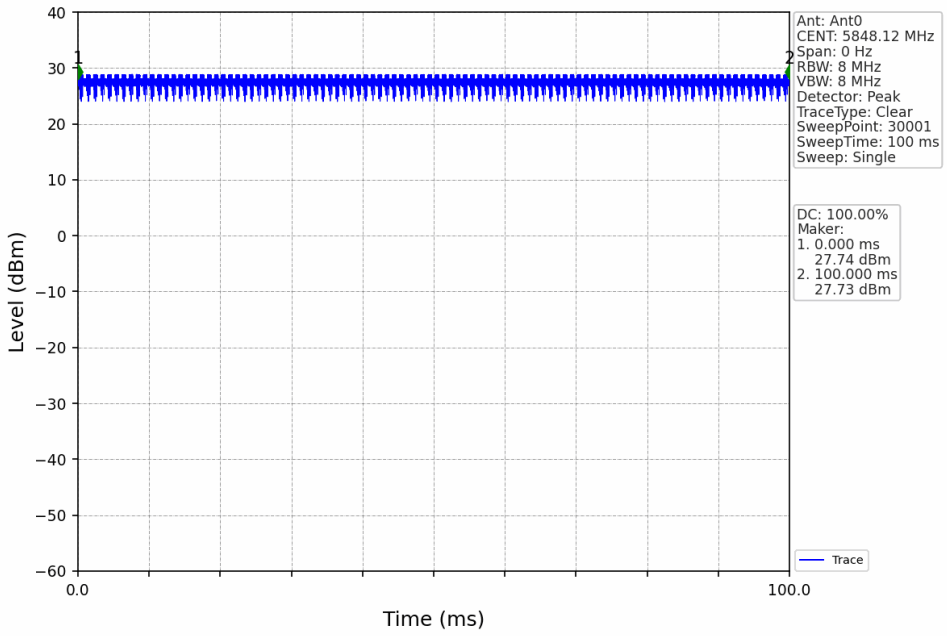
1.4M_LCH_5728.5MHz_Ant0_NTNV



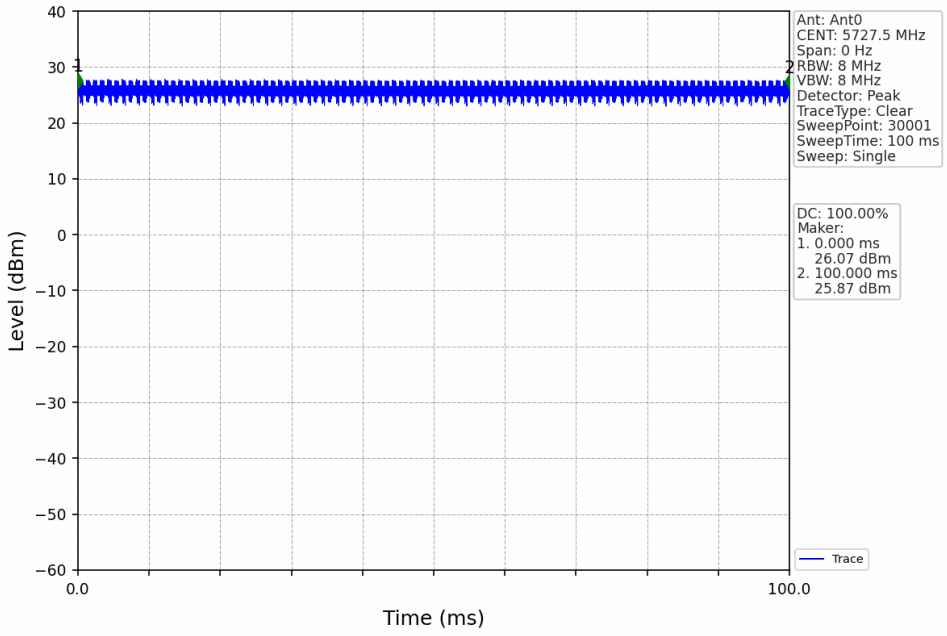
1.4M_MCH_5786.5MHz_Ant0_NTNV



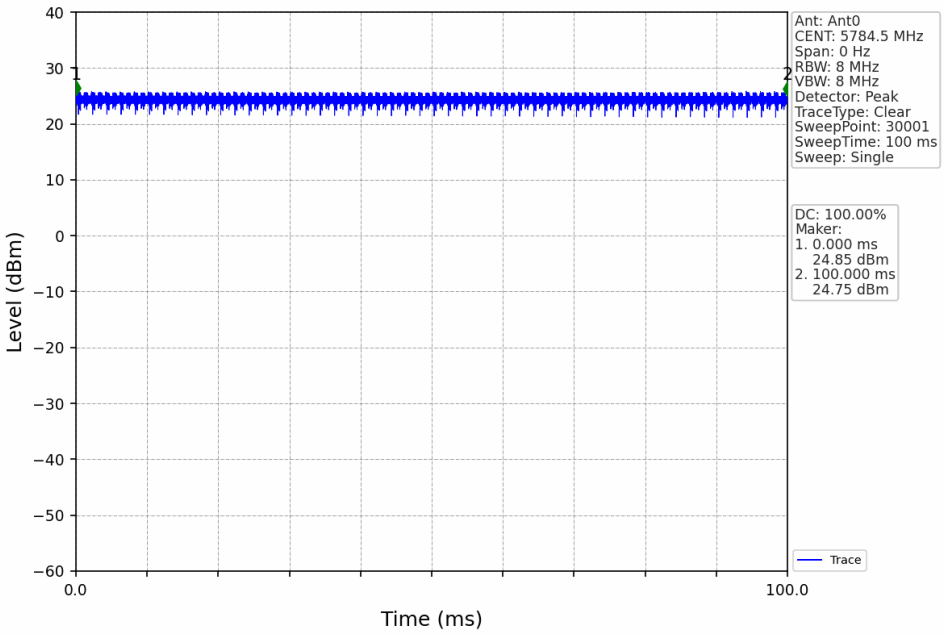
1.4M_HCH_5848.12MHz_Ant0_NTNV



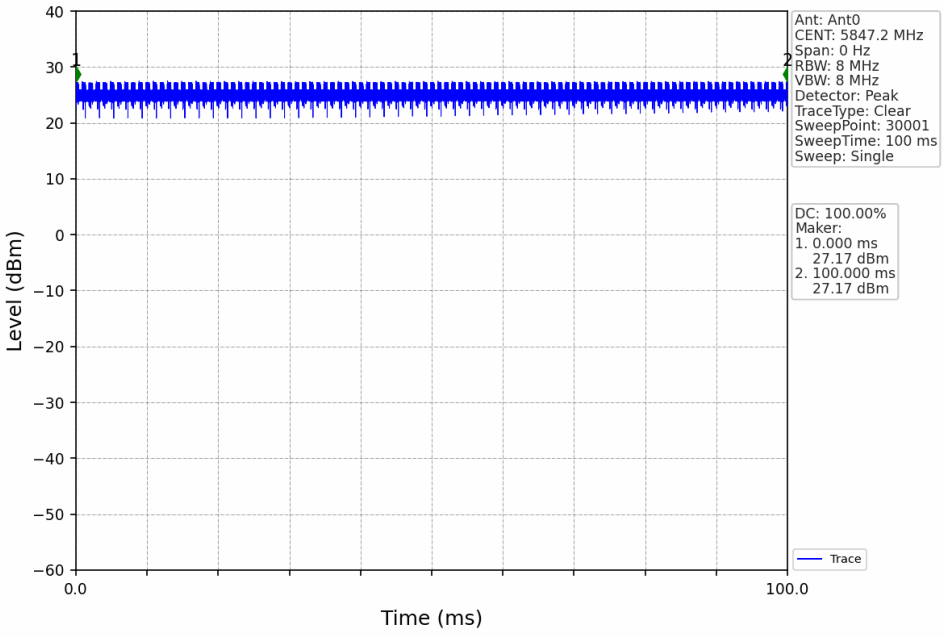
3M_LCH_5727.5MHz_Ant0_NTNV



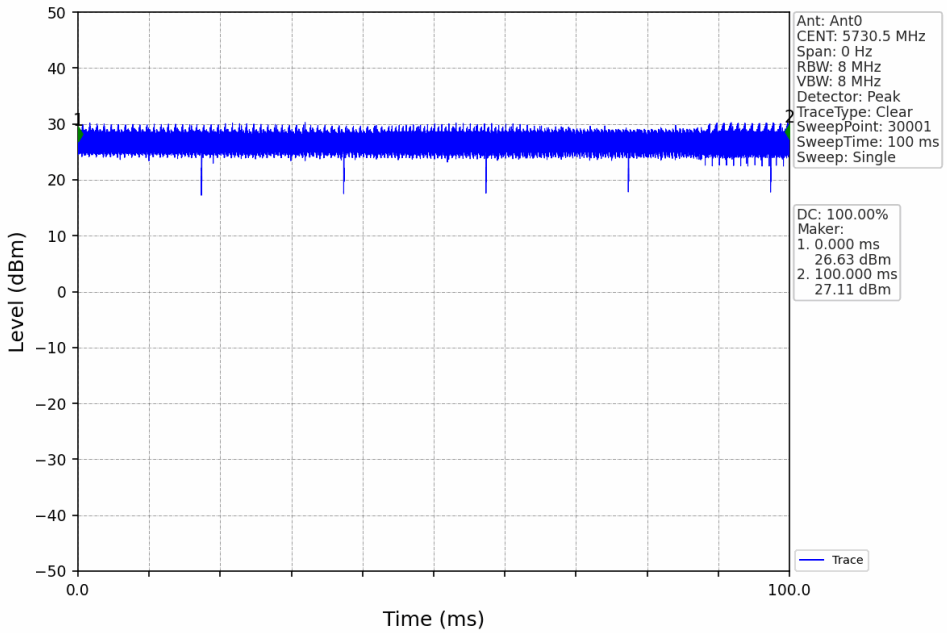
3M_MCH_5784.5MHz_Ant0_NTNV



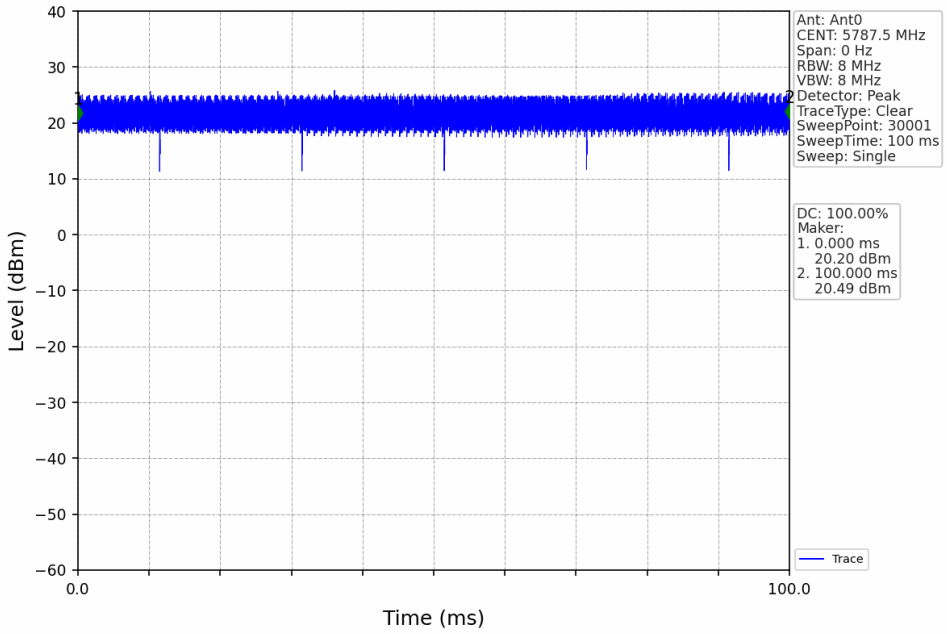
3M_HCH_5847.2MHz_Ant0_NTNV



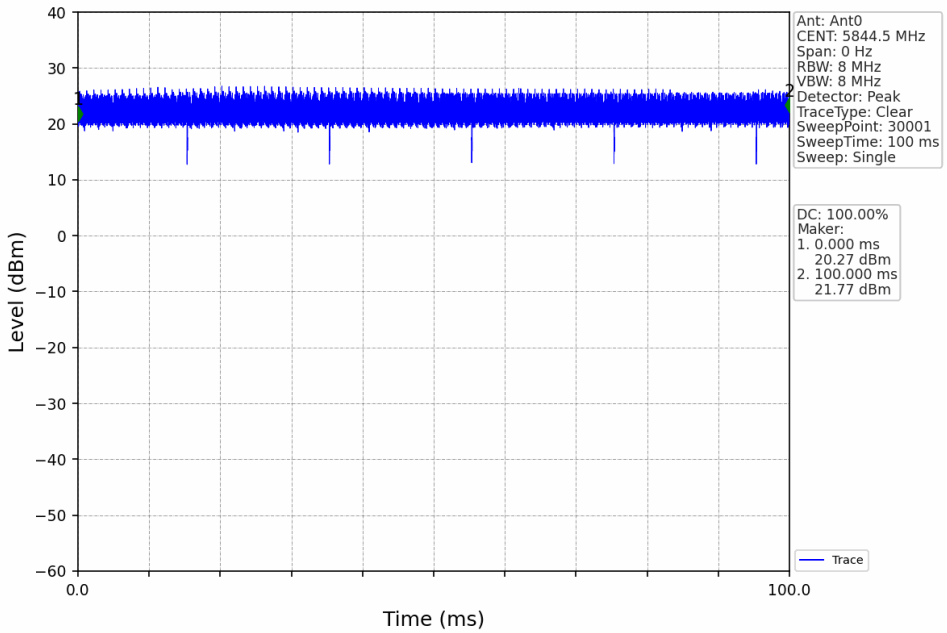
10M_LCH_5730.5MHz_Ant0_NTNV



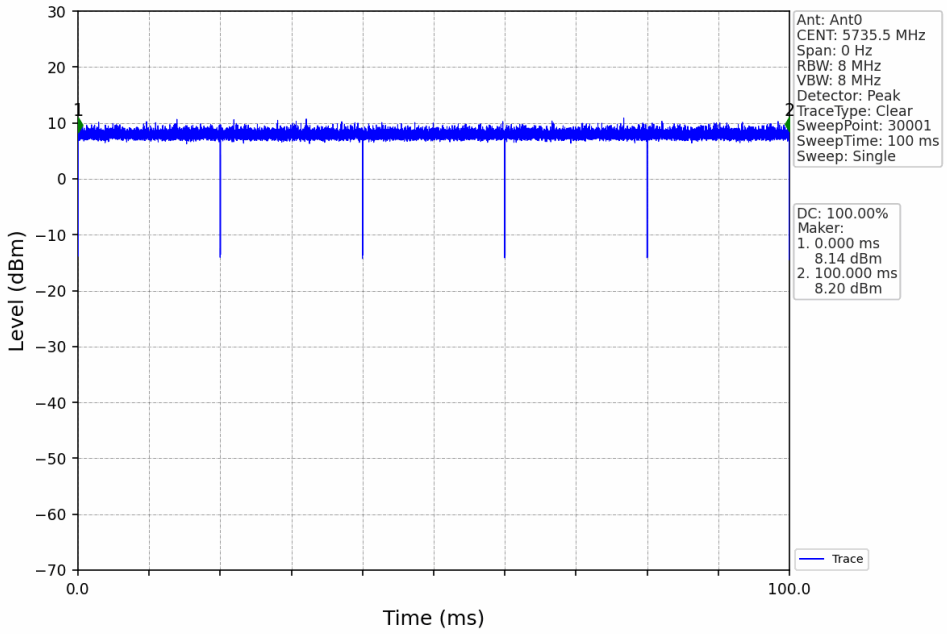
10M_MCH_5787.5MHz_Ant0_NTNV



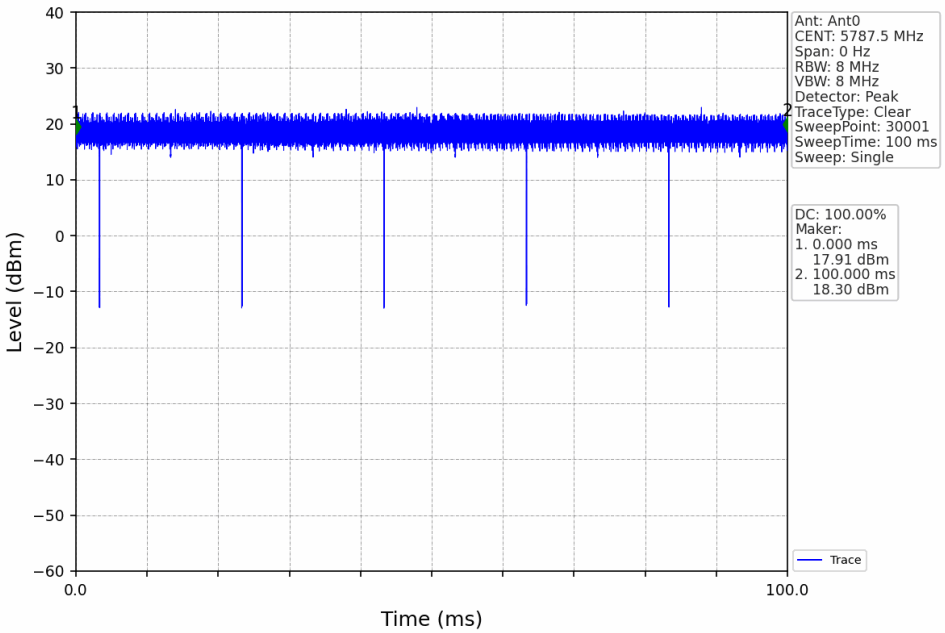
10M_HCH_5844.5MHz_Ant0_NTNV



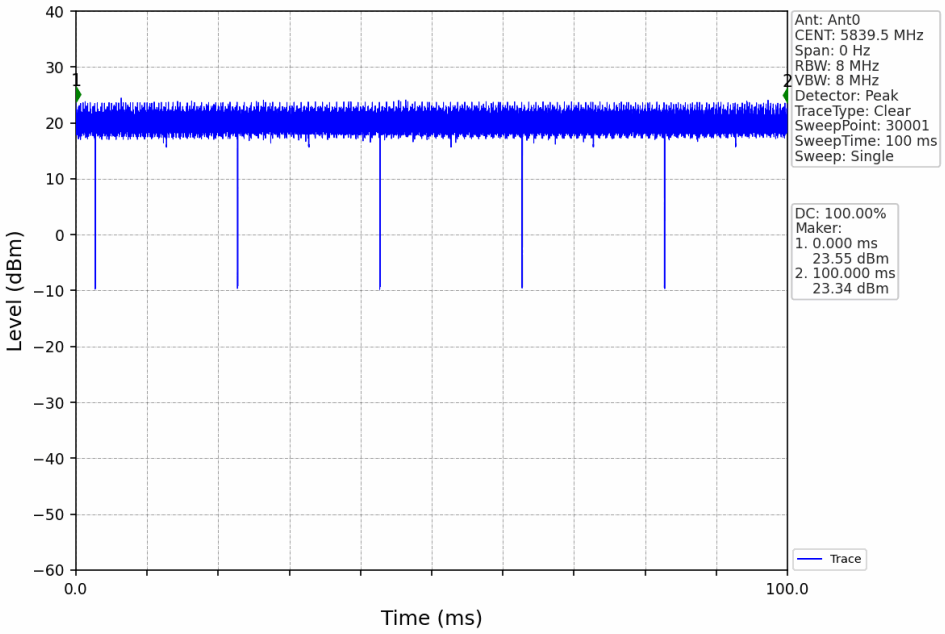
20M_LCH_5735.5MHz_Ant0_NTNV



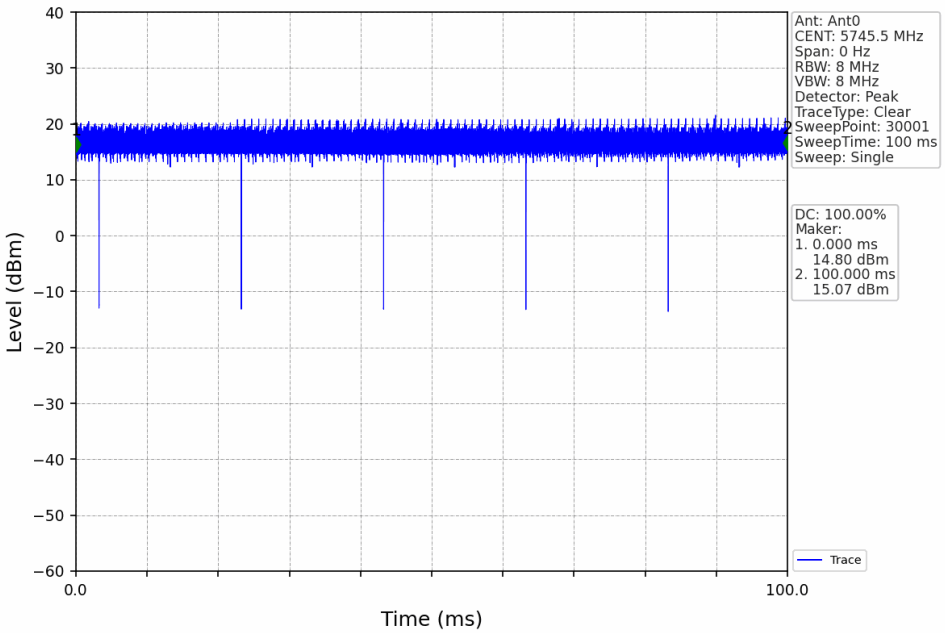
20M_MCH_5787.5MHz_Ant0_NTNV



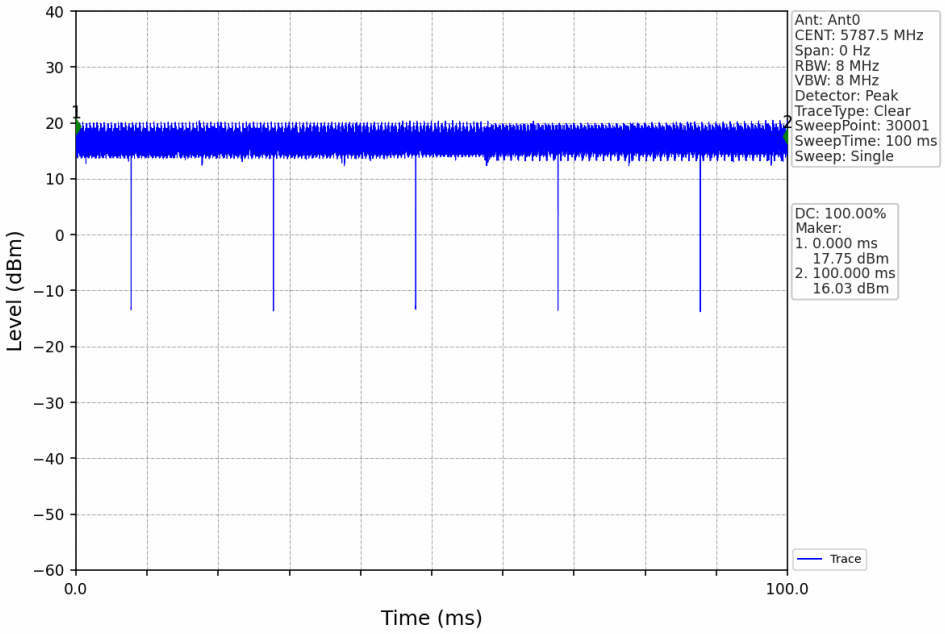
20M_HCH_5839.5MHz_Ant0_NTNV



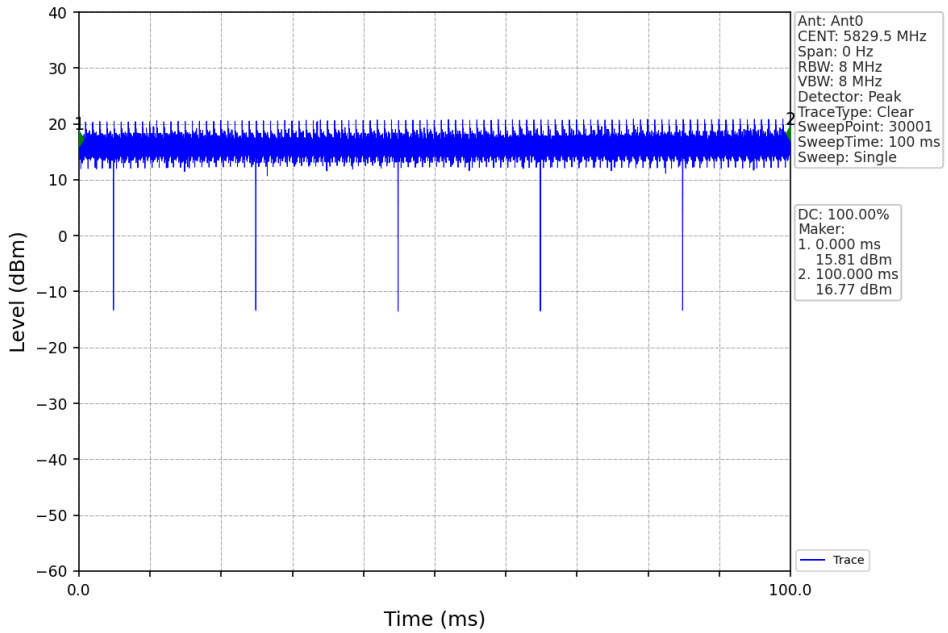
40M_LCH_5745.5MHz_Ant0_NTNV



40M_MCH_5787.5MHz_Ant0_NTNV



40M_HCH_5829.5MHz_Ant0_NTNV



2. Bandwidth

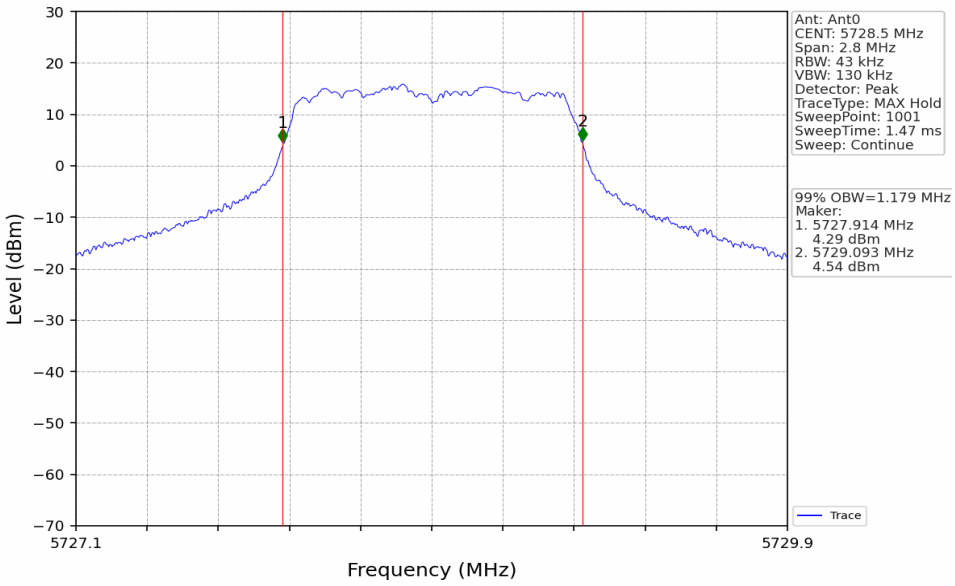
2.1 OBW

2.1.1 Test Result

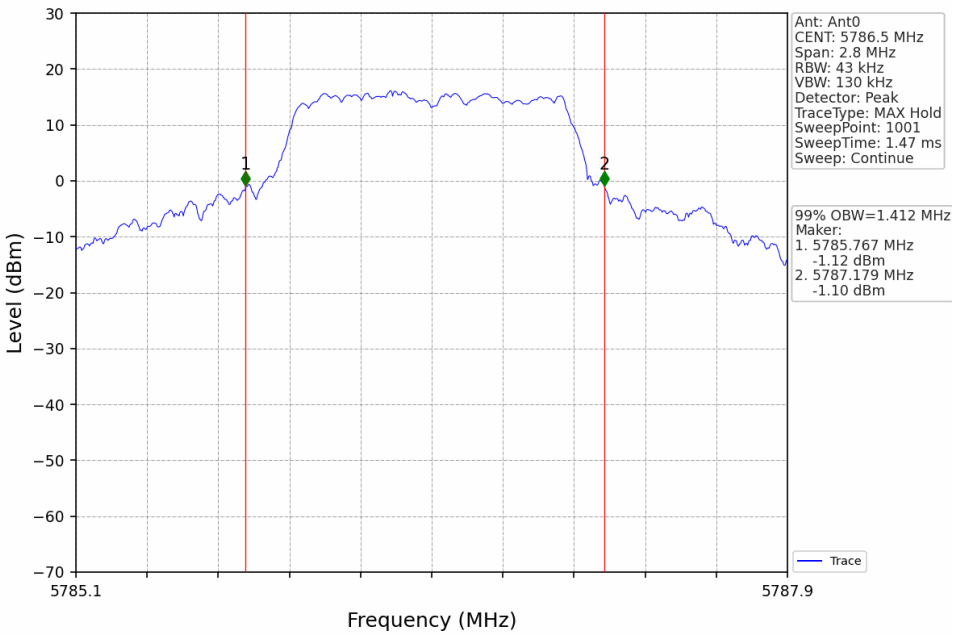
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz) Result	Verdict
1.4M	SISO	5728.5	0	1.179	Pass
		5786.5	0	1.412	Pass
		5848.12	0	1.240	Pass
3M	SISO	5727.5	0	2.424	Pass
		5784.5	0	2.637	Pass
		5847.2	0	2.350	Pass
10M	SISO	5730.5	0	9.035	Pass
		5787.5	0	9.019	Pass
		5844.5	0	9.024	Pass
20M	SISO	5735.5	0	17.839	Pass
		5787.5	0	18.083	Pass
		5839.5	0	17.965	Pass
40M	SISO	5745.5	0	36.243	Pass
		5787.5	0	35.988	Pass
		5829.5	0	35.987	Pass

2.1.2 Test Graph

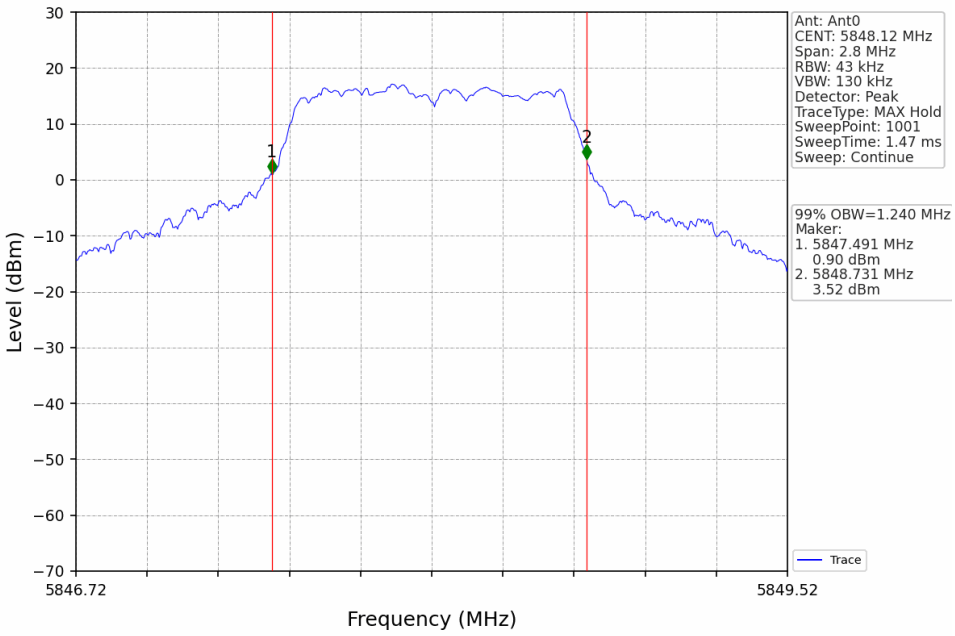
1.4M_LCH_5728.5MHz_Ant0_NTNV



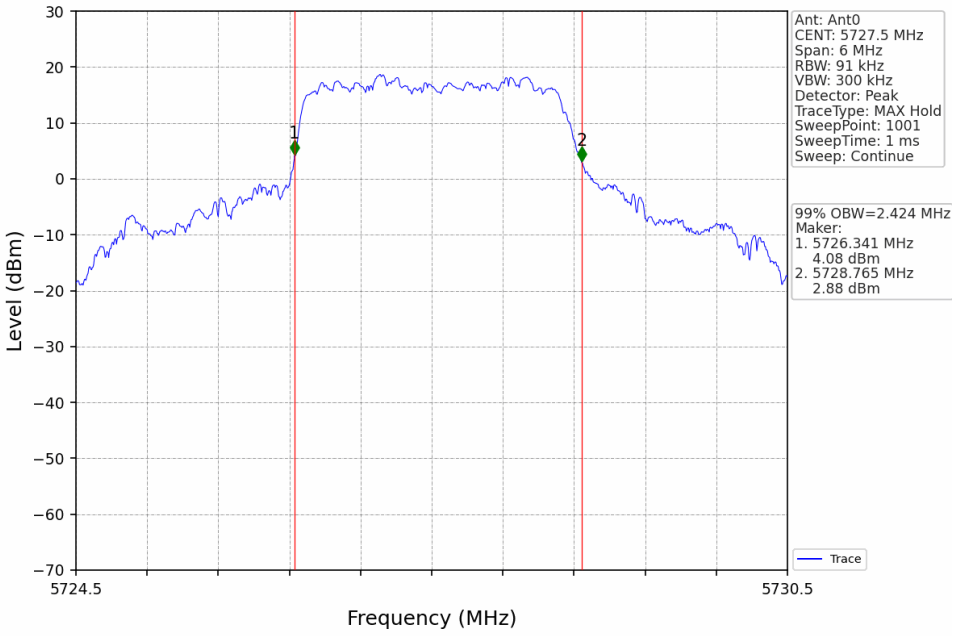
1.4M_MCH_5786.5MHz_Ant0_NTNV



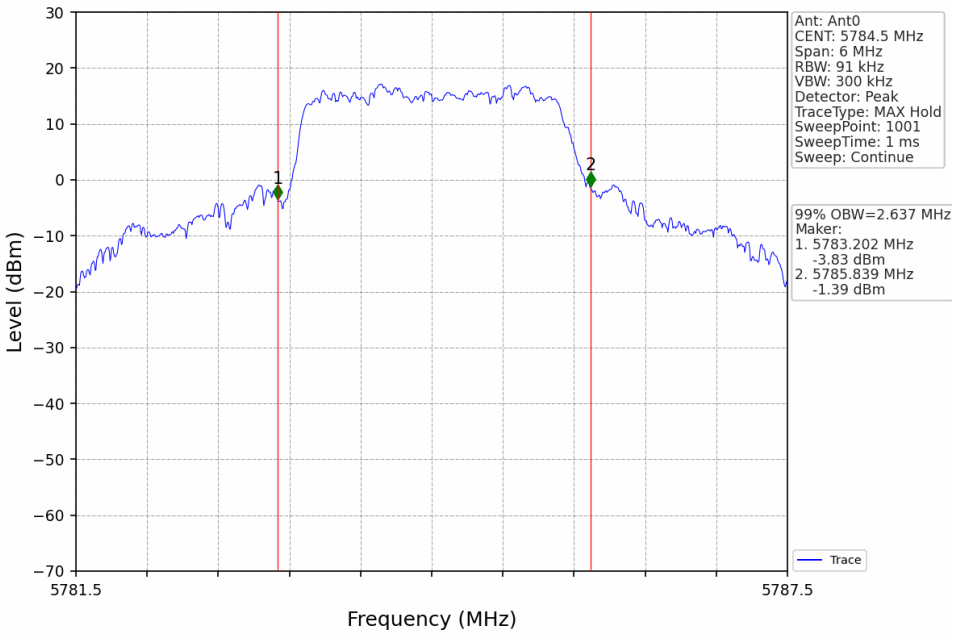
1.4M_HCH_5848.12MHz_Ant0_NTNV



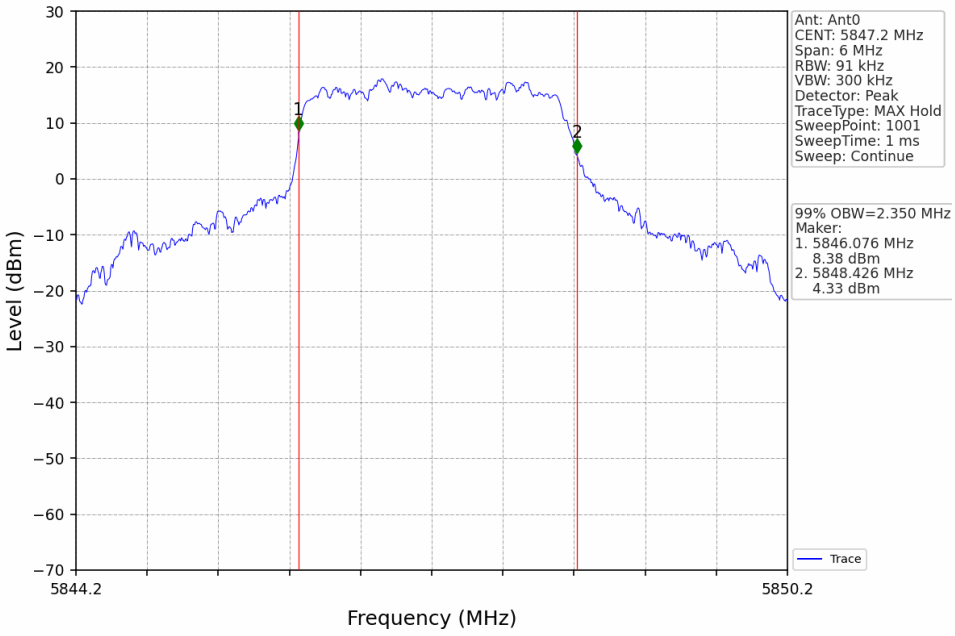
3M_LCH_5727.5MHz_Ant0_NTNV



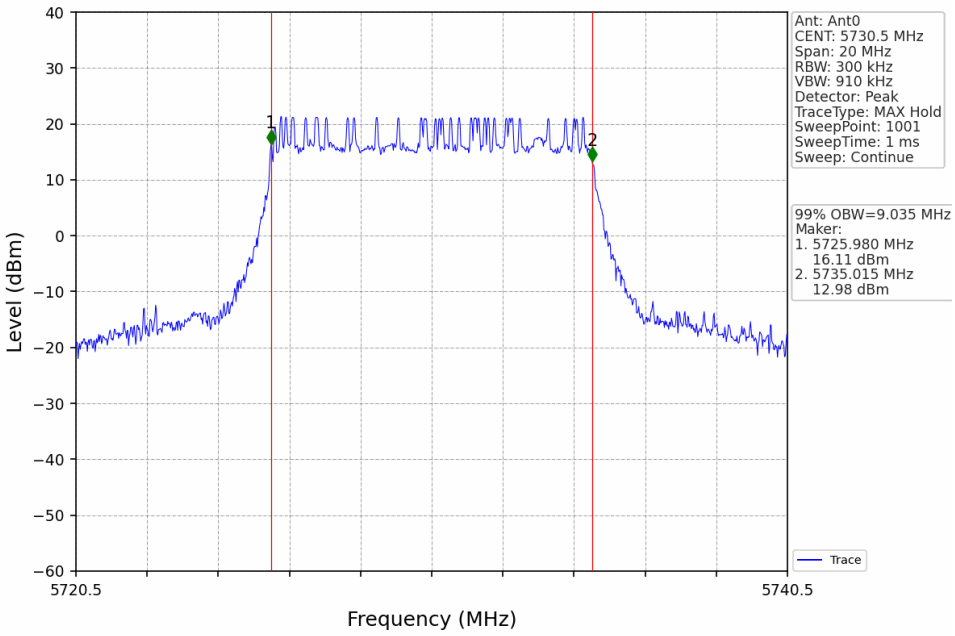
3M_MCH_5784.5MHz_Ant0_NTNV



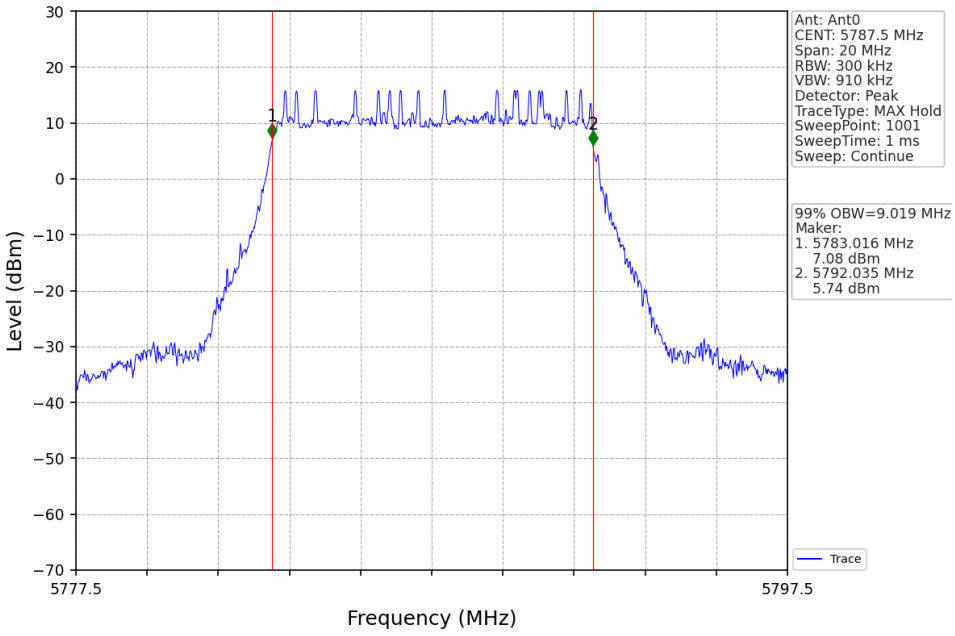
3M_HCH_5847.2MHz_Ant0_NTNV



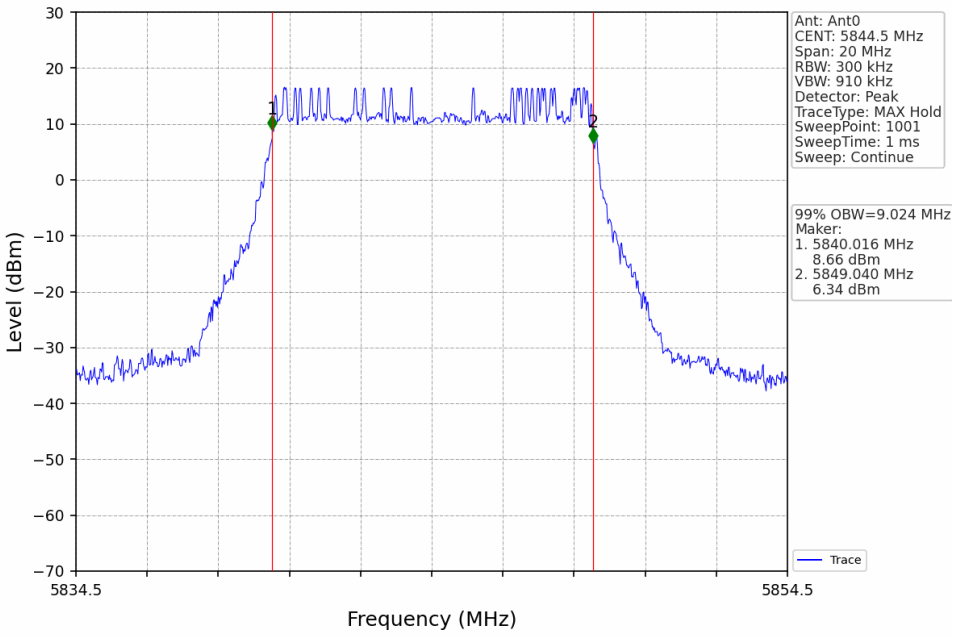
10M_LCH_5730.5MHz_Ant0_NTNV



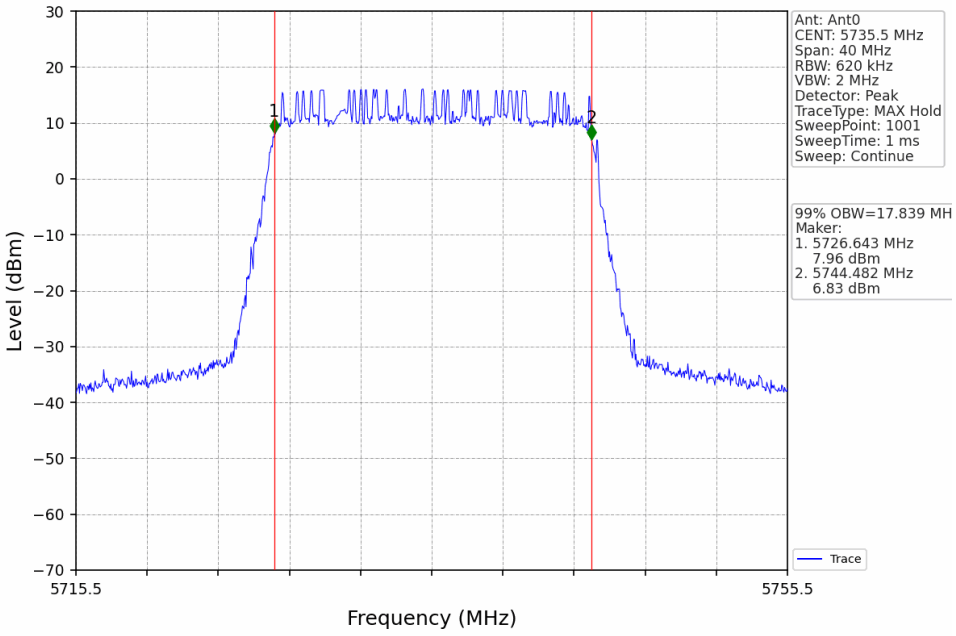
10M_MCH_5787.5MHz_Ant0_NTNV



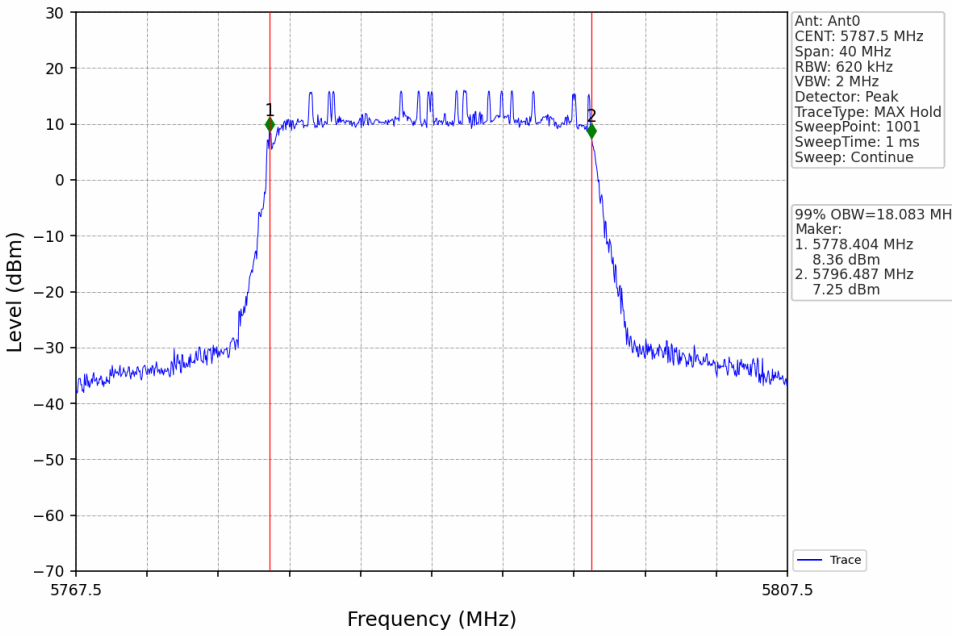
10M_HCH_5844.5MHz_Ant0_NTNV



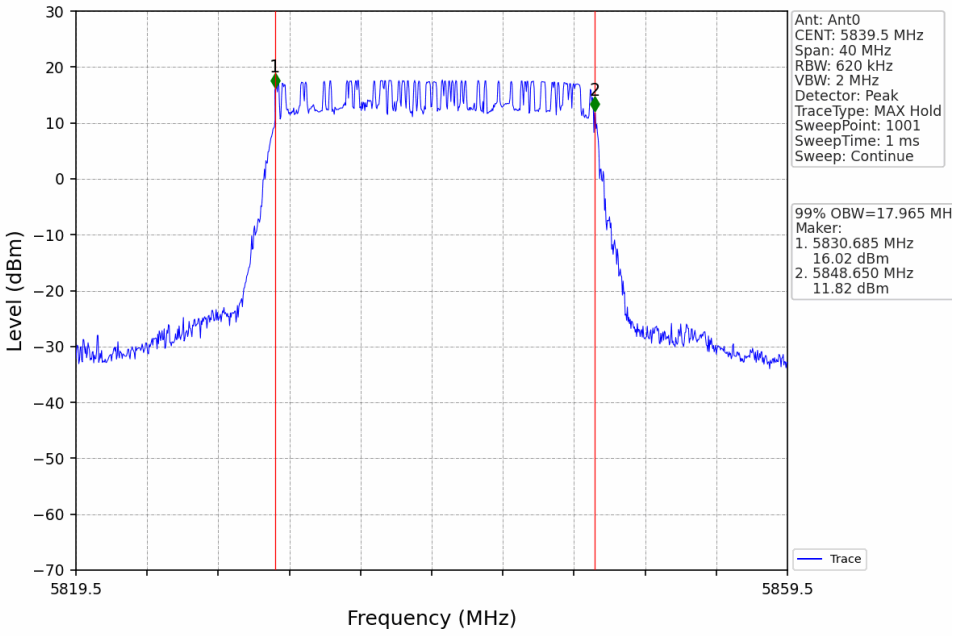
20M_LCH_5735.5MHz_Ant0_NTNV



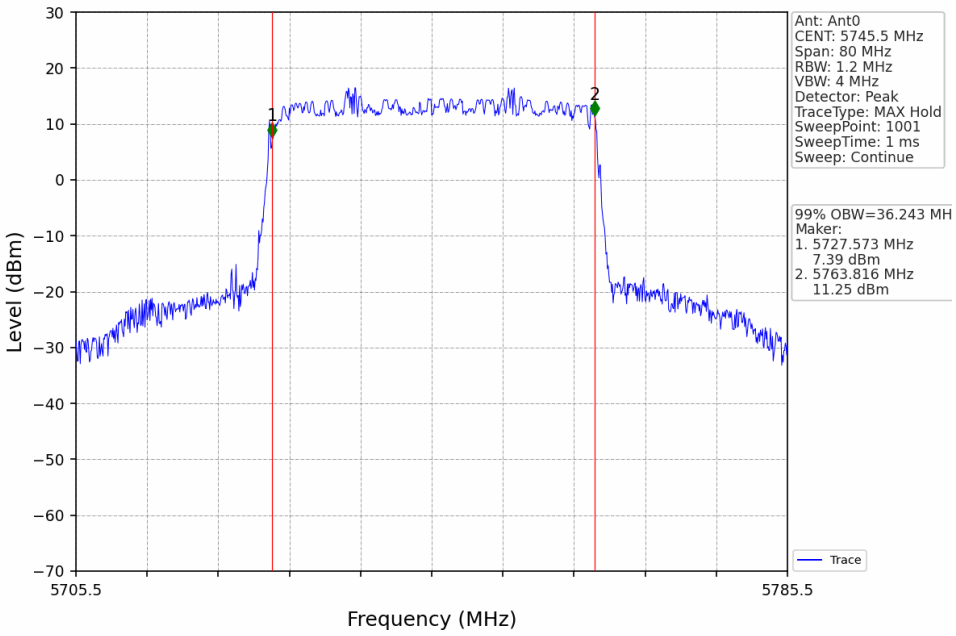
20M_MCH_5787.5MHz_Ant0_NTNV



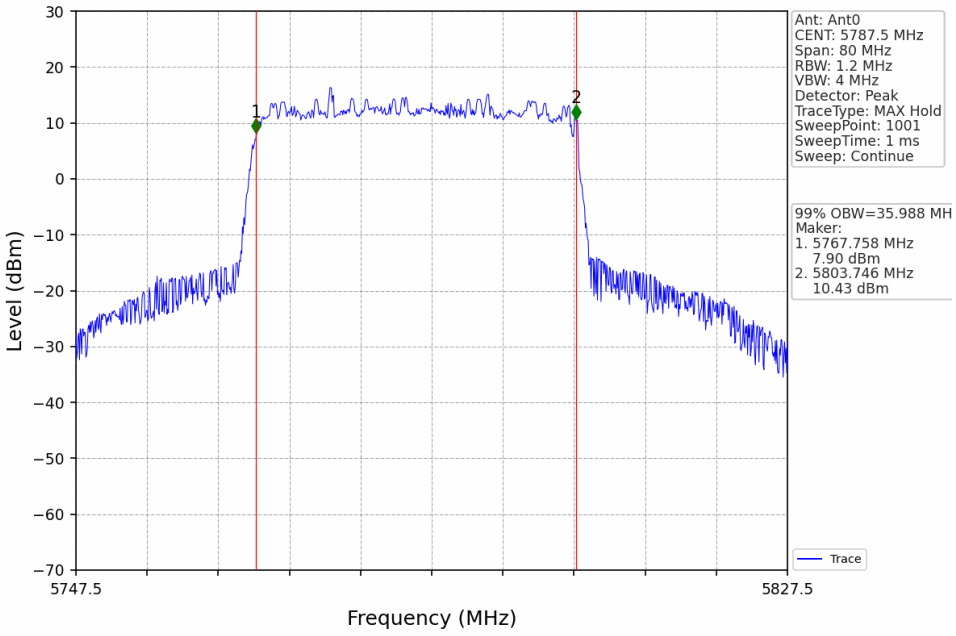
20M_HCH_5839.5MHz_Ant0_NTNV



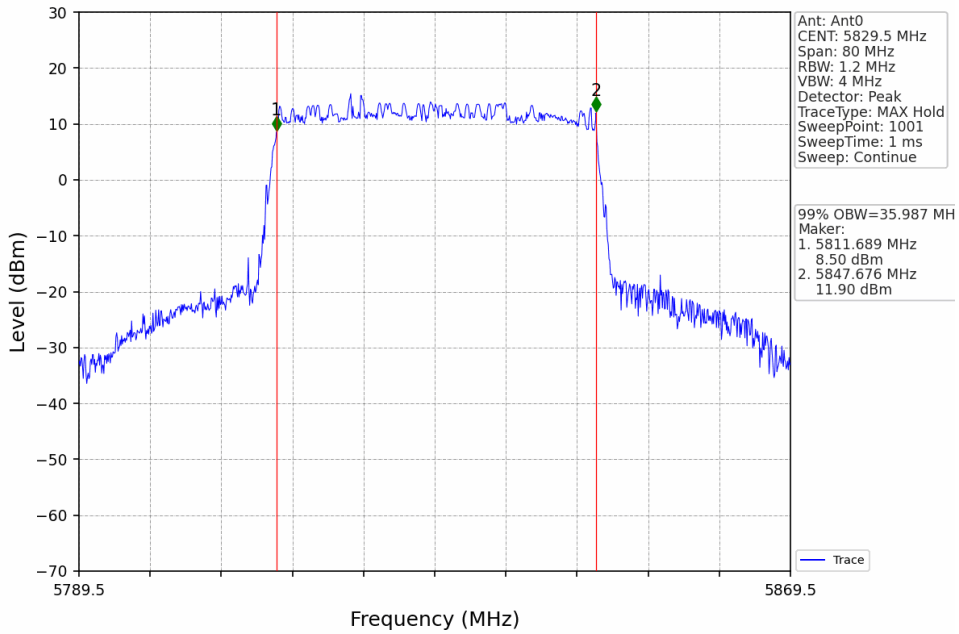
40M_LCH_5745.5MHz_Ant0_NTNV



40M_MCH_5787.5MHz_Ant0_NTNV



40M_HCH_5829.5MHz_Ant0_NTNV



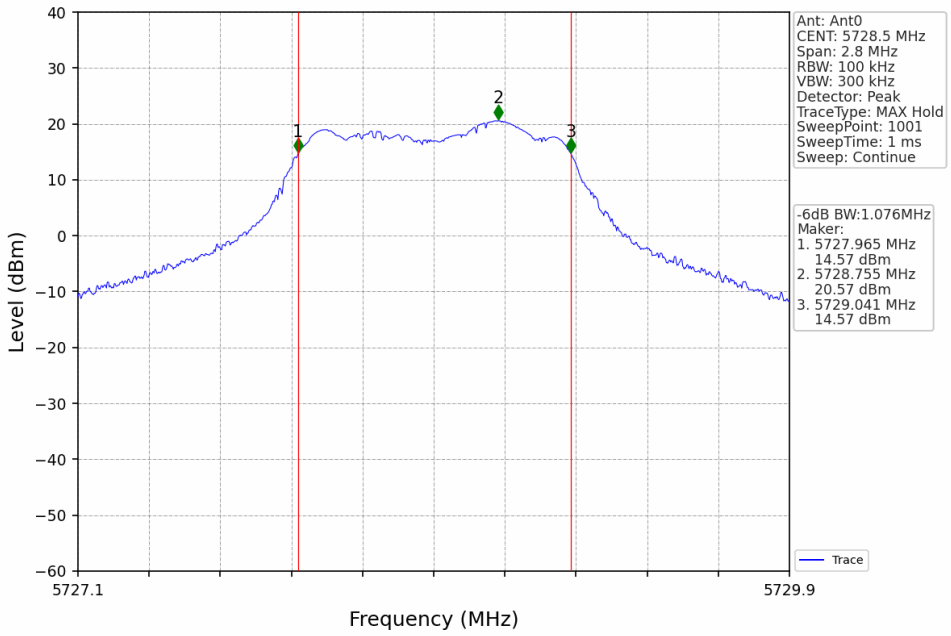
2.2 6dB BW

2.2.1 Test Result

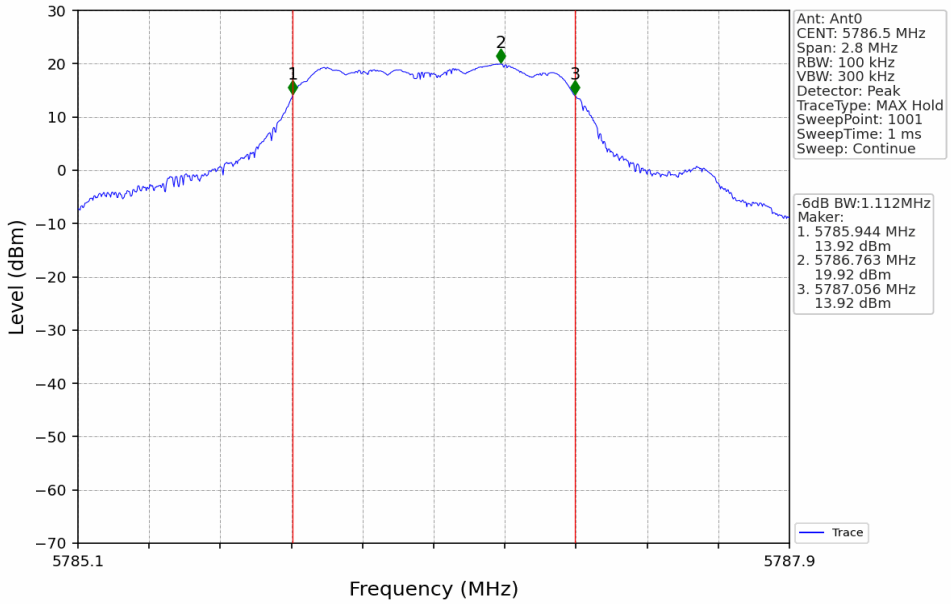
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1.4M	SISO	5728.5	0	1.076	>=0.5	Pass
		5786.5	0	1.112	>=0.5	Pass
		5848.12	0	1.101	>=0.5	Pass
3M	SISO	5727.5	0	2.198	>=0.5	Pass
		5784.5	0	2.196	>=0.5	Pass
		5847.2	0	2.189	>=0.5	Pass
10M	SISO	5730.5	0	8.992	>=0.5	Pass
		5787.5	0	8.932	>=0.5	Pass
		5844.5	0	9.000	>=0.5	Pass
20M	SISO	5735.5	0	17.981	>=0.5	Pass
		5787.5	0	17.976	>=0.5	Pass
		5839.5	0	17.988	>=0.5	Pass
40M	SISO	5745.5	0	35.902	>=0.5	Pass
		5787.5	0	35.910	>=0.5	Pass
		5829.5	0	35.892	>=0.5	Pass

2.2.2 Test Graph

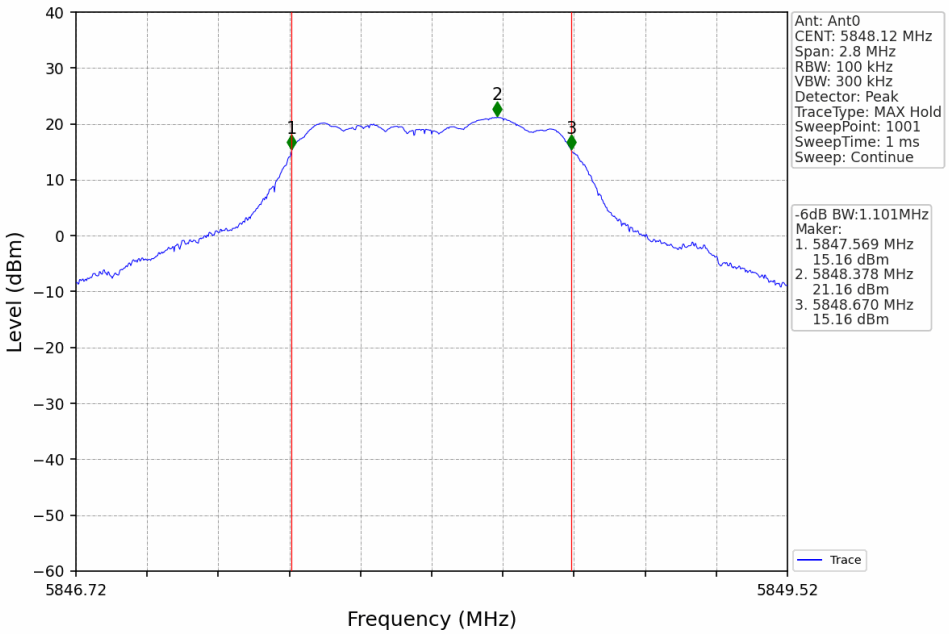
1.4M_LCH_5728.5MHz_Ant0_NTNV



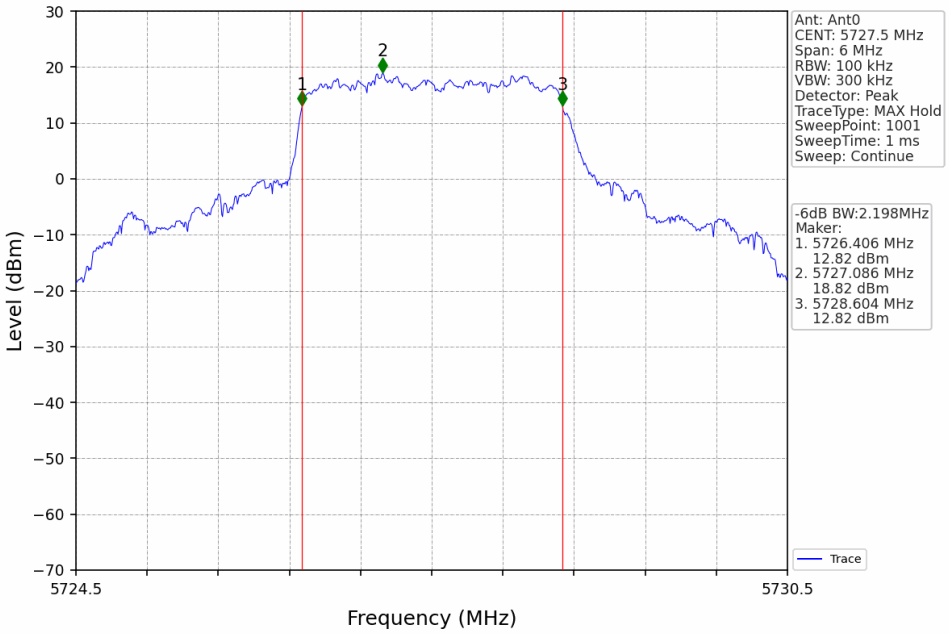
1.4M_MCH_5786.5MHz_Ant0_NTNV



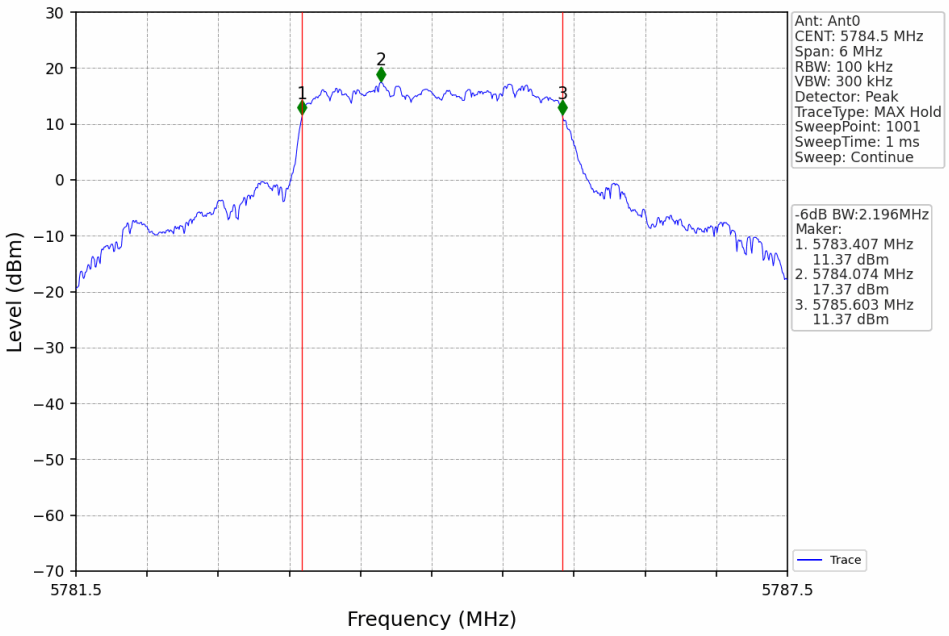
1.4M_HCH_5848.12MHz_Ant0_NTNV



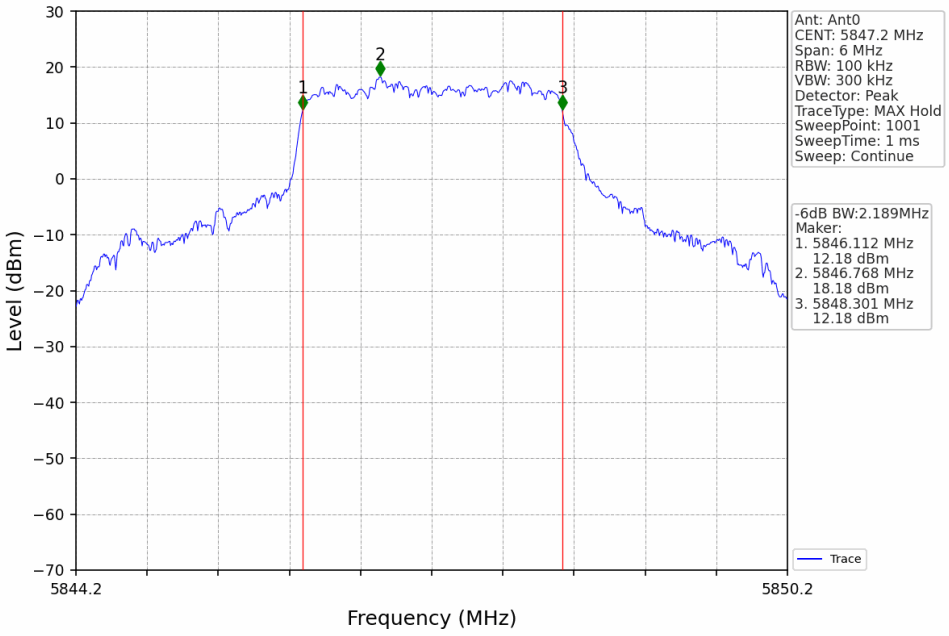
3M_LCH_5727.5MHz_Ant0_NTNV



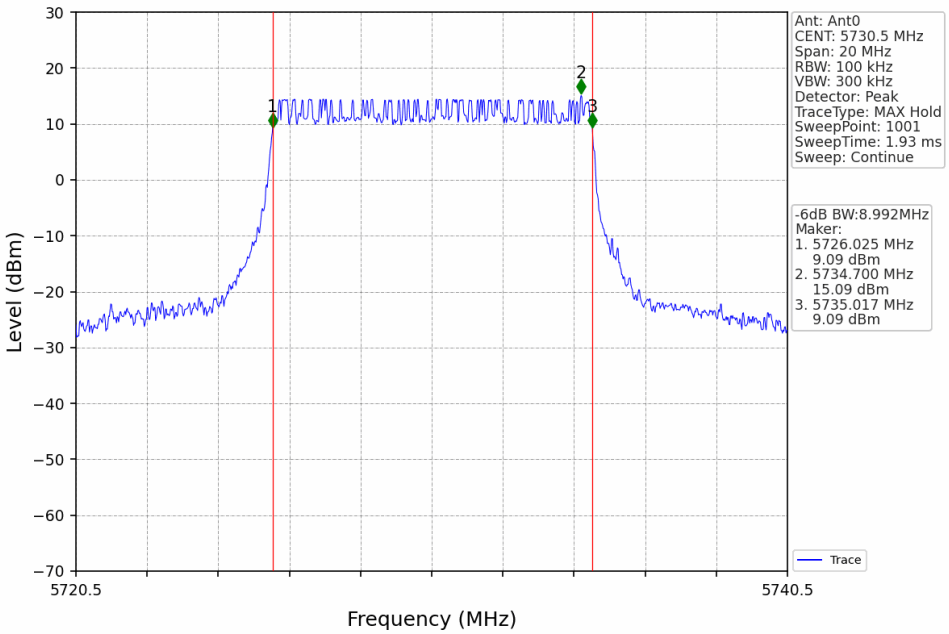
3M_MCH_5784.5MHz_Ant0_NTNV



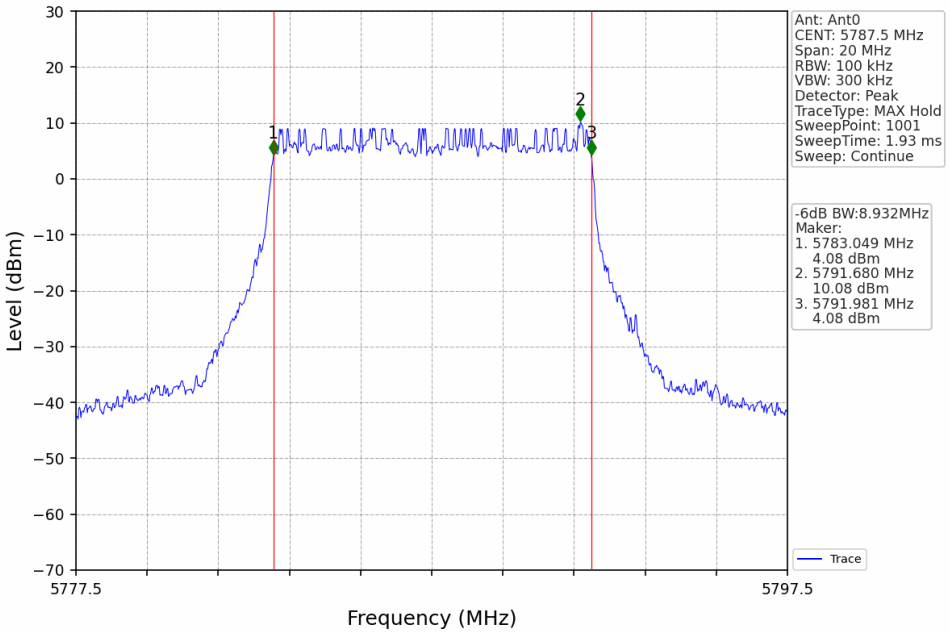
3M_HCH_5847.2MHz_Ant0_NTNV



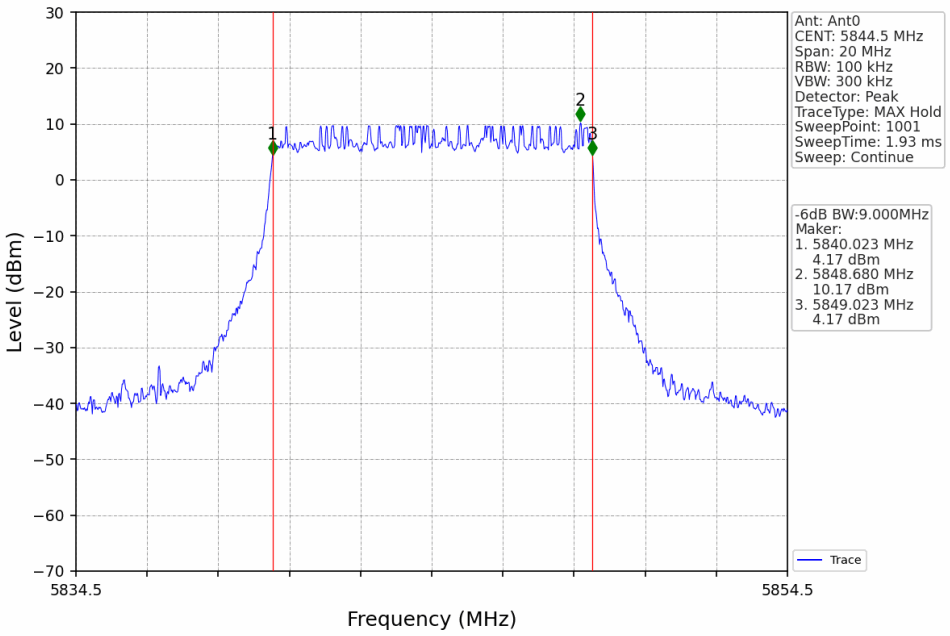
10M_LCH_5730.5MHz_Ant0_NTNV



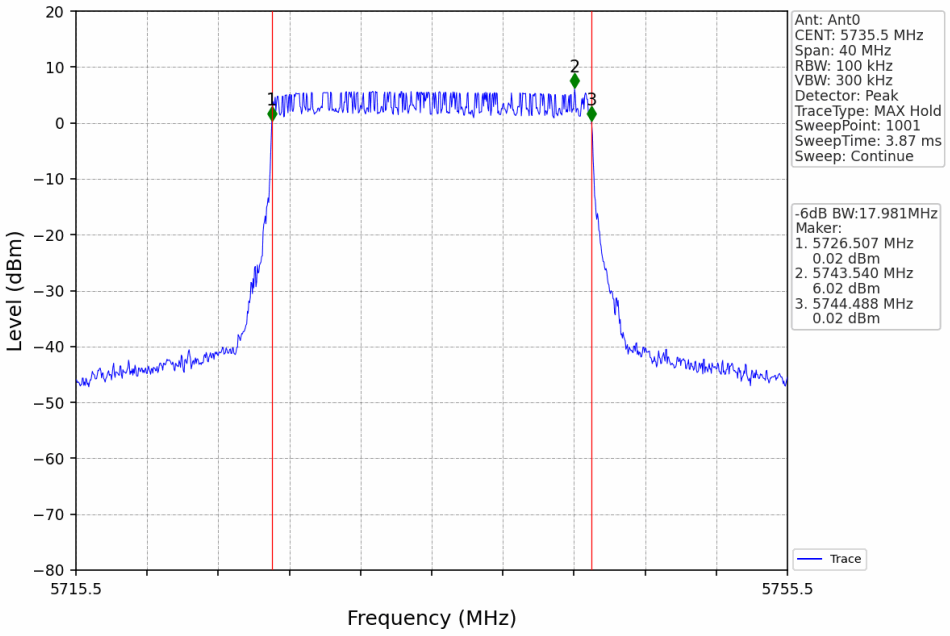
10M_MCH_5787.5MHz_Ant0_NTNV



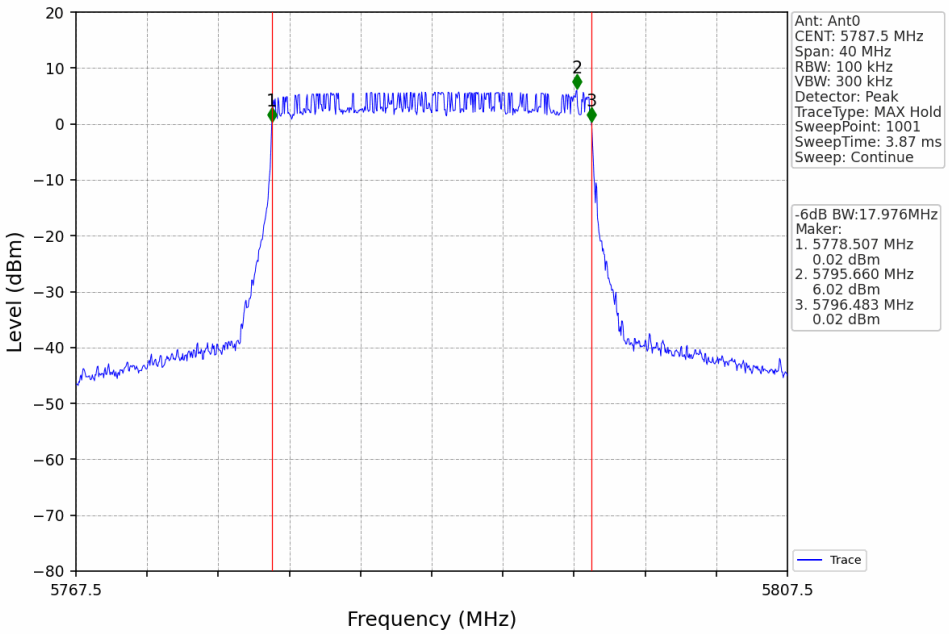
10M_HCH_5844.5MHz_Ant0_NTNV



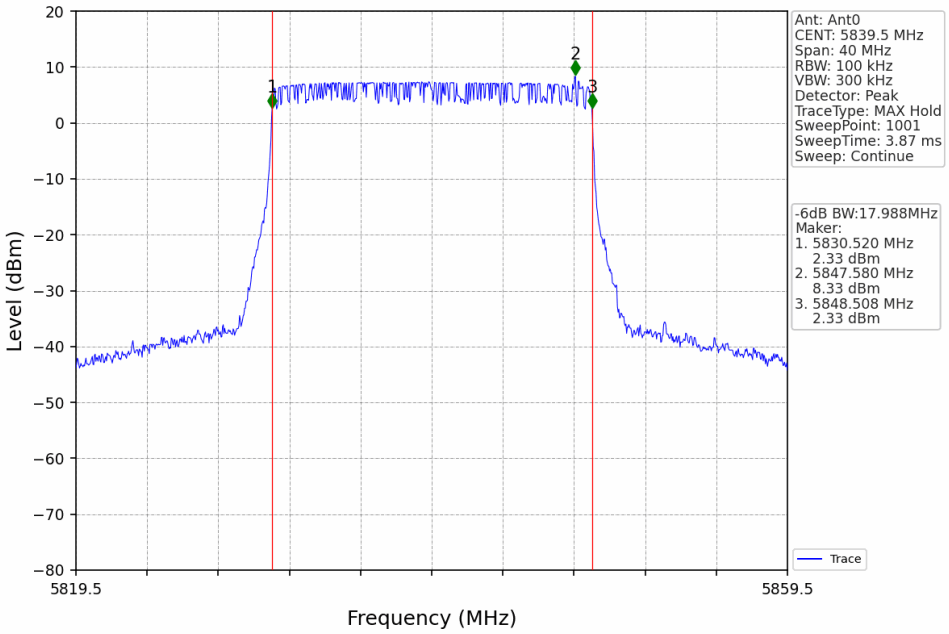
20M_LCH_5735.5MHz_Ant0_NTNV



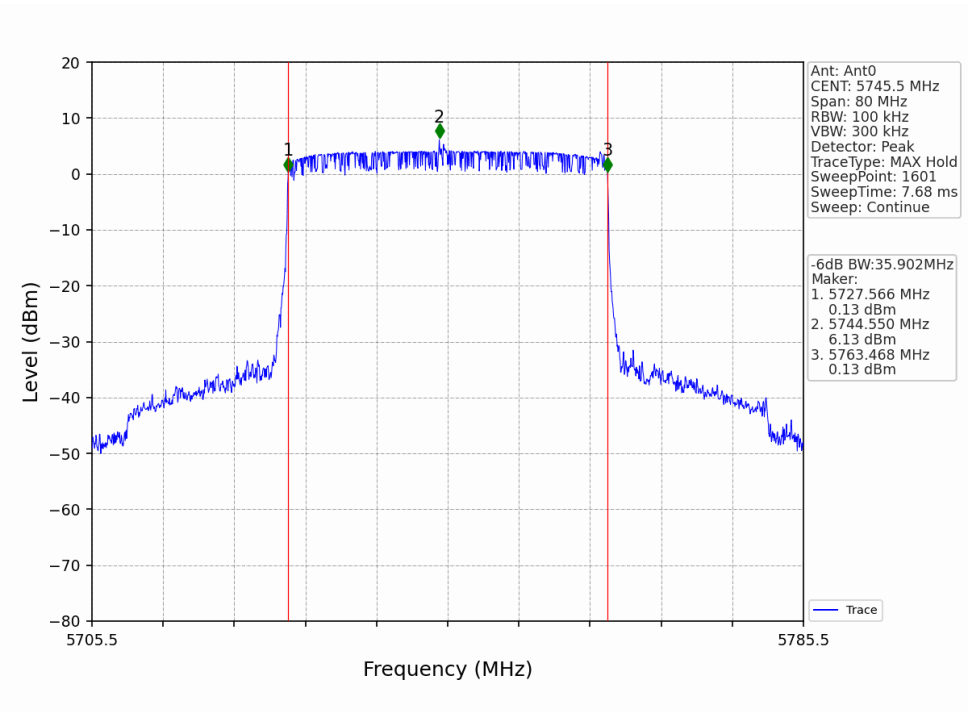
20M_MCH_5787.5MHz_Ant0_NTNV



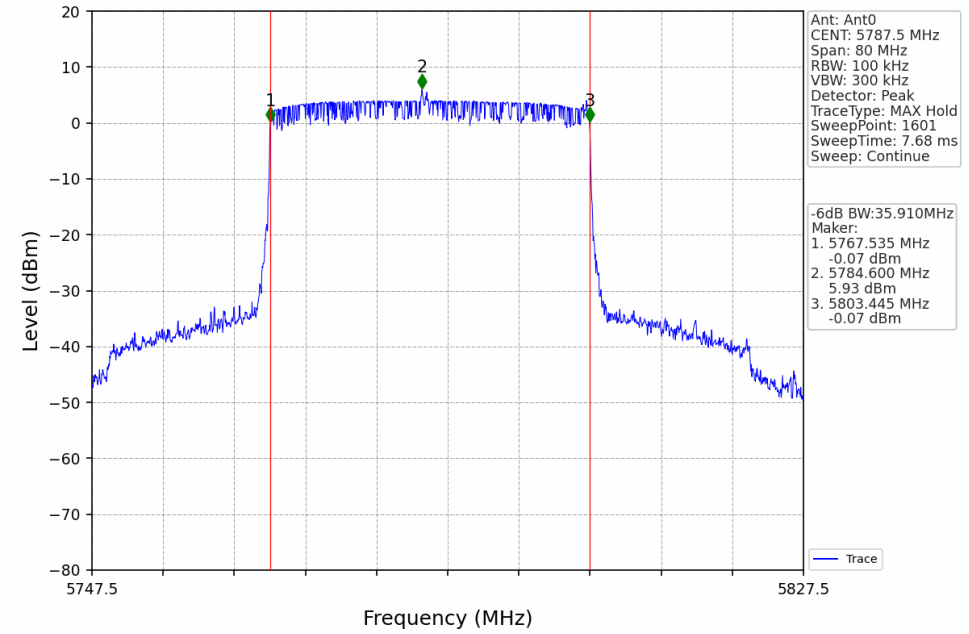
20M_HCH_5839.5MHz_Ant0_NTNV



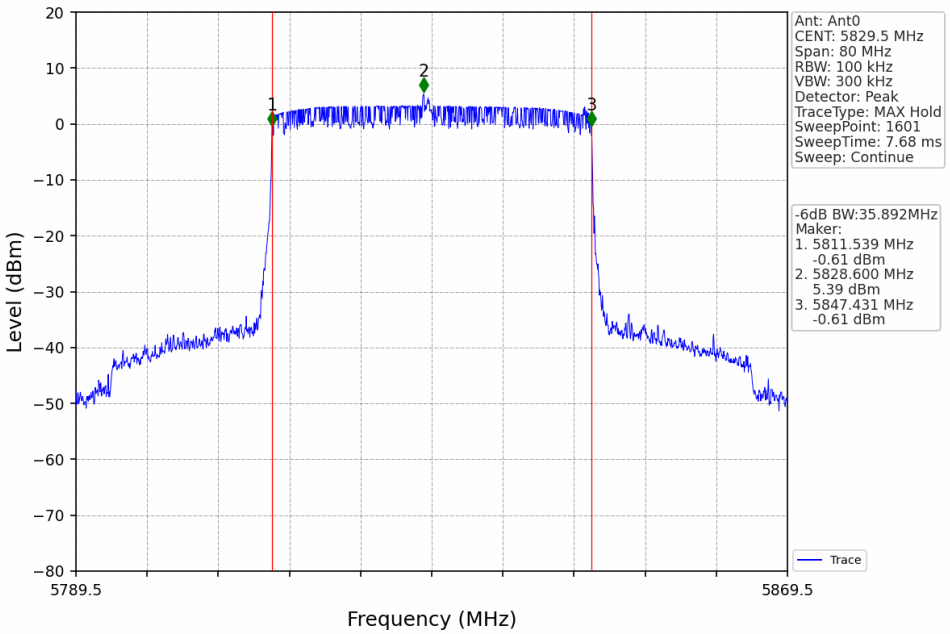
40M_LCH_5745.5MHz_Ant0_NTNV



40M_MCH_5787.5MHz_Ant0_NTNV



40M_HCH_5829.5MHz_Ant0_NTNV



3. Maximum Conducted Output Power

3.1 Power

3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)			Verdict
			ANT0	ANT1	Limit	
1.4M	SISO	5728.5	26.83	26.78	<=30	Pass
		5786.5	27.18	26.88	<=30	Pass
		5848.12	26.50	26.63	<=30	Pass
3M	SISO	5727.5	25.65	25.02	<=30	Pass
		5784.5	25.48	25.33	<=30	Pass
		5847.2	25.87	25.05	<=30	Pass
10M	SISO	5730.5	16.47	16.57	<=30	Pass
		5787.5	16.18	16.70	<=30	Pass
		5844.5	16.74	16.76	<=30	Pass
20M	SISO	5735.5	16.62	16.58	<=30	Pass
		5787.5	16.75	16.82	<=30	Pass
		5839.5	17.25	16.93	<=30	Pass
40M	SISO	5745.5	16.94	16.61	<=30	Pass
		5787.5	16.79	16.54	<=30	Pass
		5829.5	16.22	16.05	<=30	Pass
Note1: Antenna Gain: Ant0: 3.5dBi; Ant1: 4dBi;						

4. Maximum Power Spectral Density

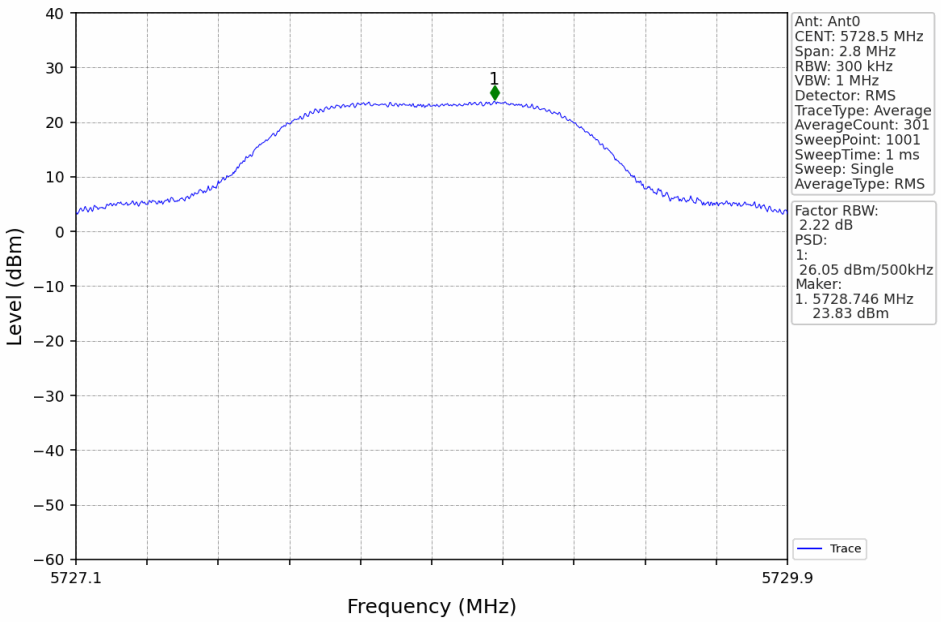
4.1 PSD-Band3

4.1.1 Test Result

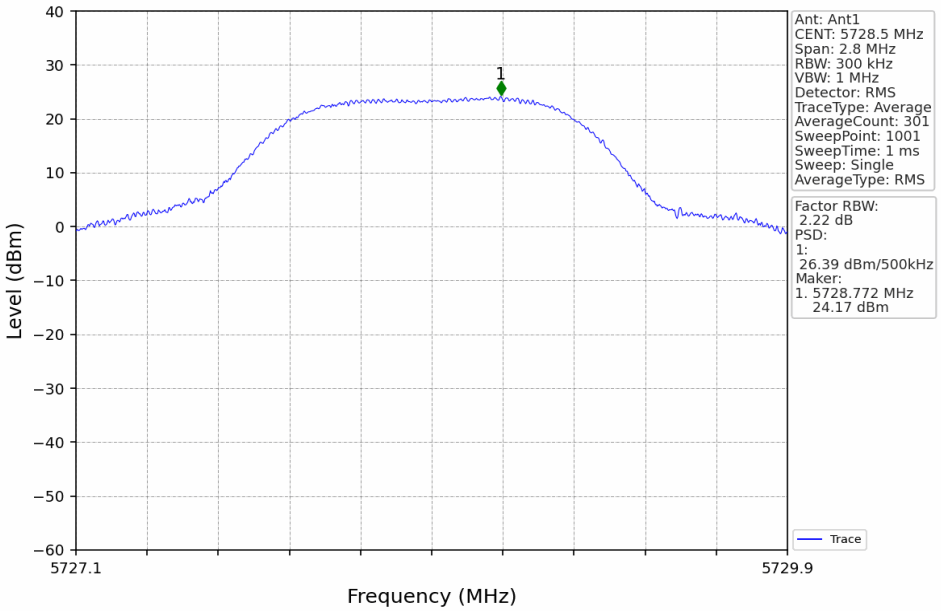
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/500kHz)			Verdict
			ANT0	ANT1	Limit	
1.4M	SISO	5728.5	26.05	26.39	<=30	Pass
		5786.5	24.71	24.26	<=30	Pass
		5848.12	24.15	24.40	<=30	Pass
3M	SISO	5727.5	20.66	20.25	<=30	Pass
		5784.5	19.88	19.89	<=30	Pass
		5847.2	19.99	19.36	<=30	Pass
10M	SISO	5730.5	5.02	5.10	<=30	Pass
		5787.5	4.71	5.11	<=30	Pass
		5844.5	5.26	5.52	<=30	Pass
20M	SISO	5735.5	2.25	2.35	<=30	Pass
		5787.5	2.22	2.43	<=30	Pass
		5839.5	2.75	1.40	<=30	Pass
40M	SISO	5745.5	-0.45	-2.60	<=30	Pass
		5787.5	-0.46	-2.15	<=30	Pass
		5829.5	-1.21	-3.46	<=30	Pass

4.1.2 Test Graph

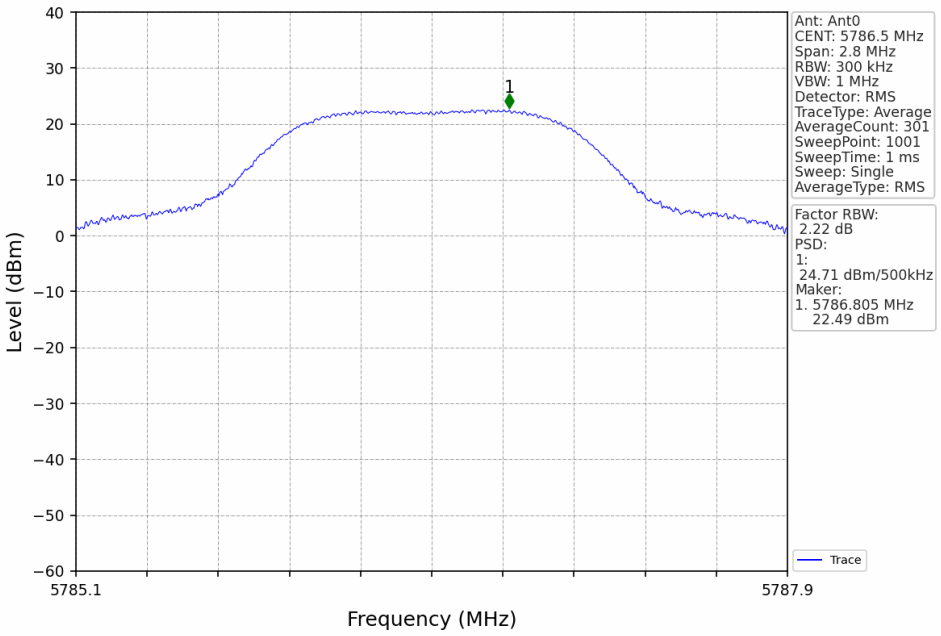
1.4M_LCH_5728.5MHz_Ant0_NTNV



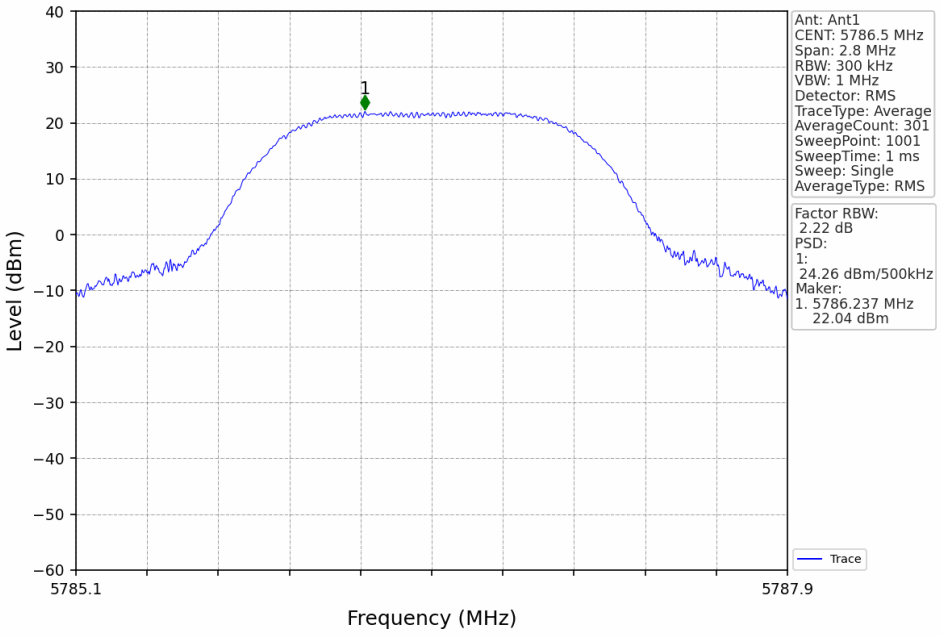
1.4M_LCH_5728.5MHz_Ant1_NTNV



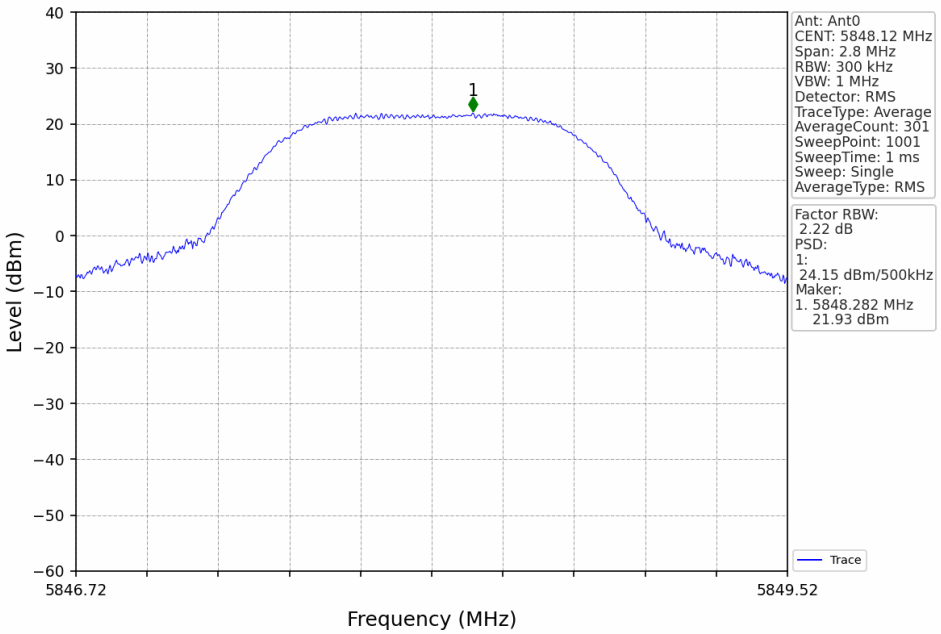
1.4M_MCH_5786.5MHz_Ant0_NTNV



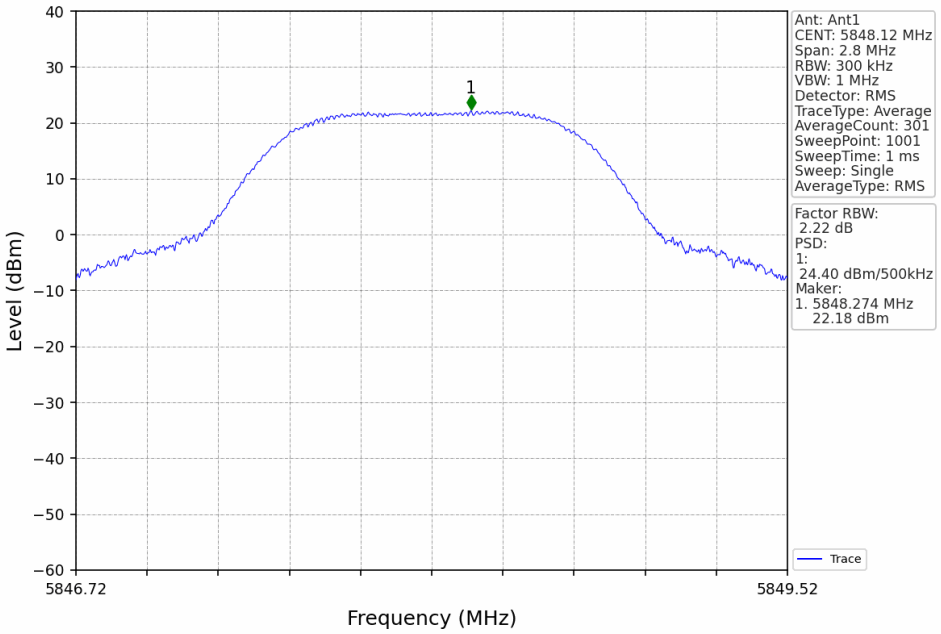
1.4M_MCH_5786.5MHz_Ant1_NTNV



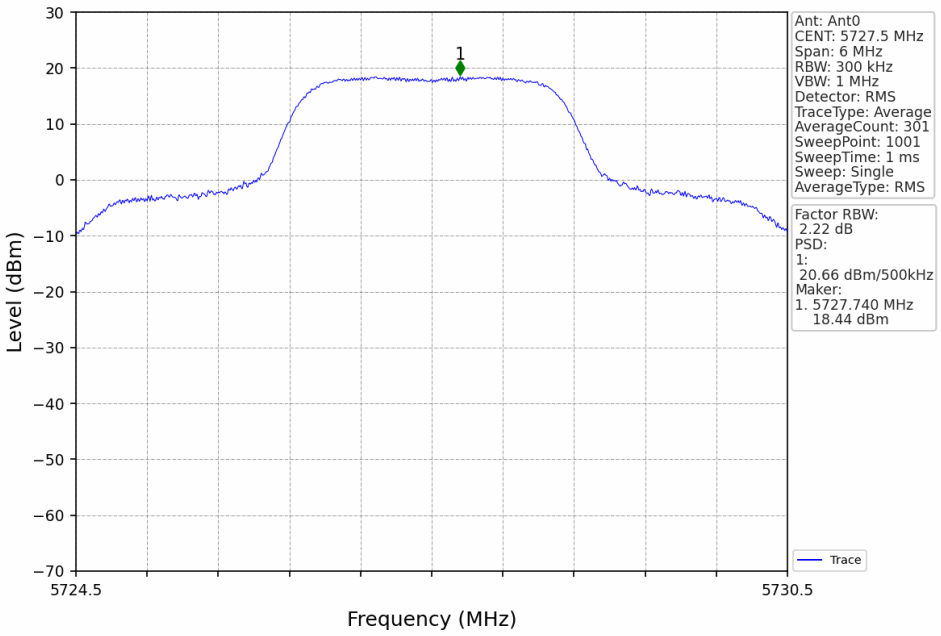
1.4M_HCH_5848.12MHz_Ant0_NTNV



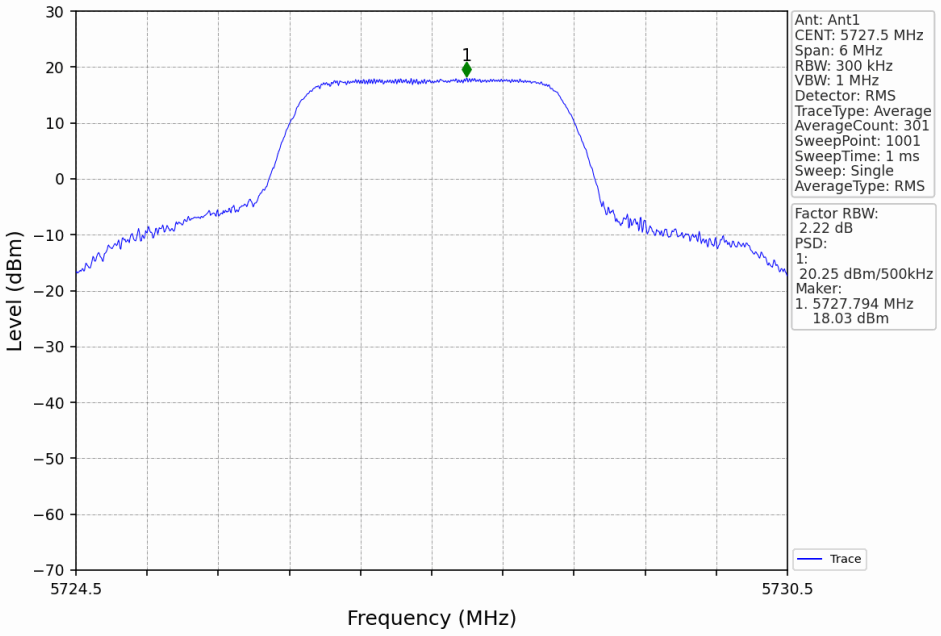
1.4M_HCH_5848.12MHz_Ant1_NTNV



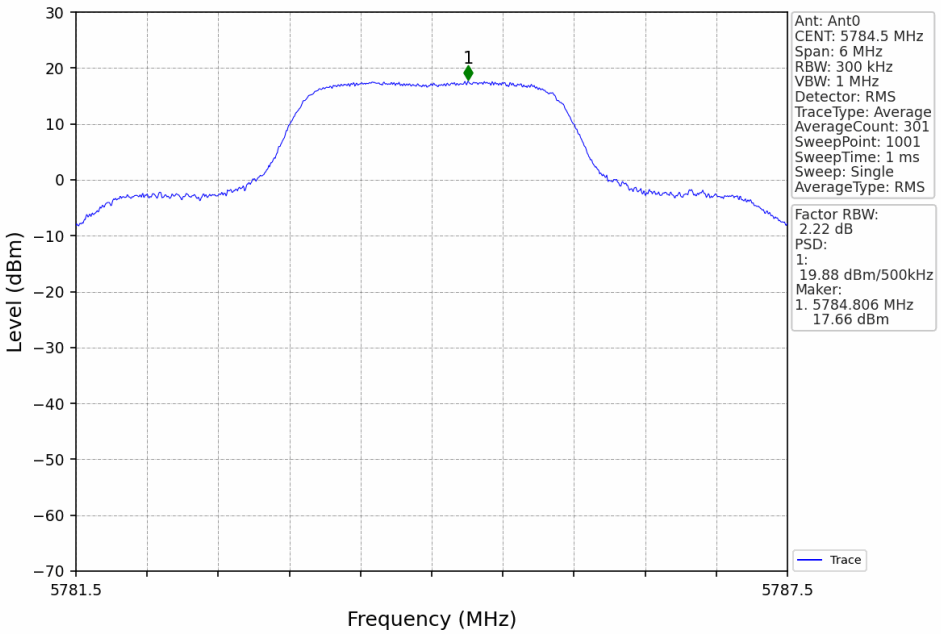
3M_LCH_5727.5MHz_Ant0_NTNV



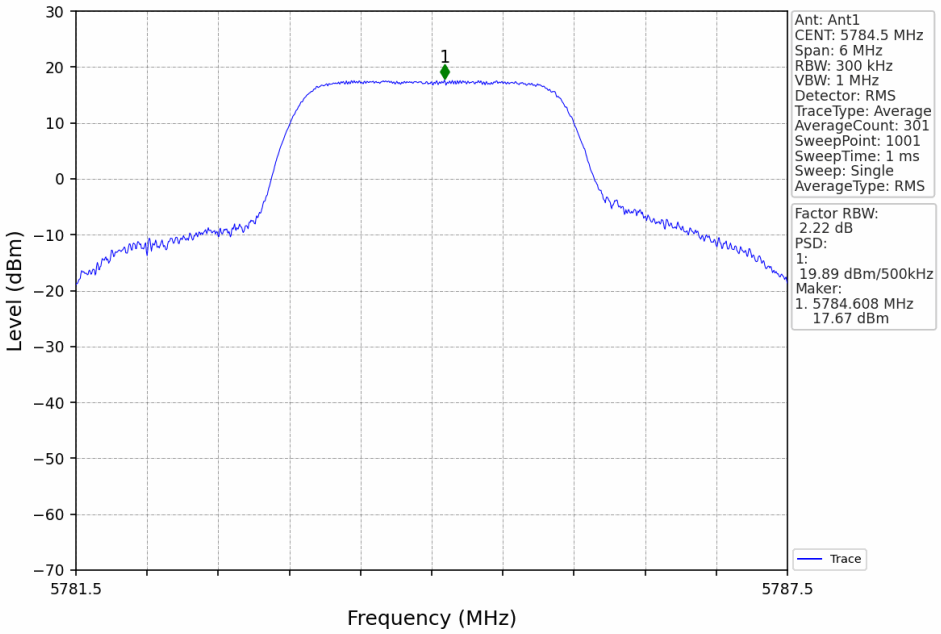
3M_LCH_5727.5MHz_Ant1_NTNV



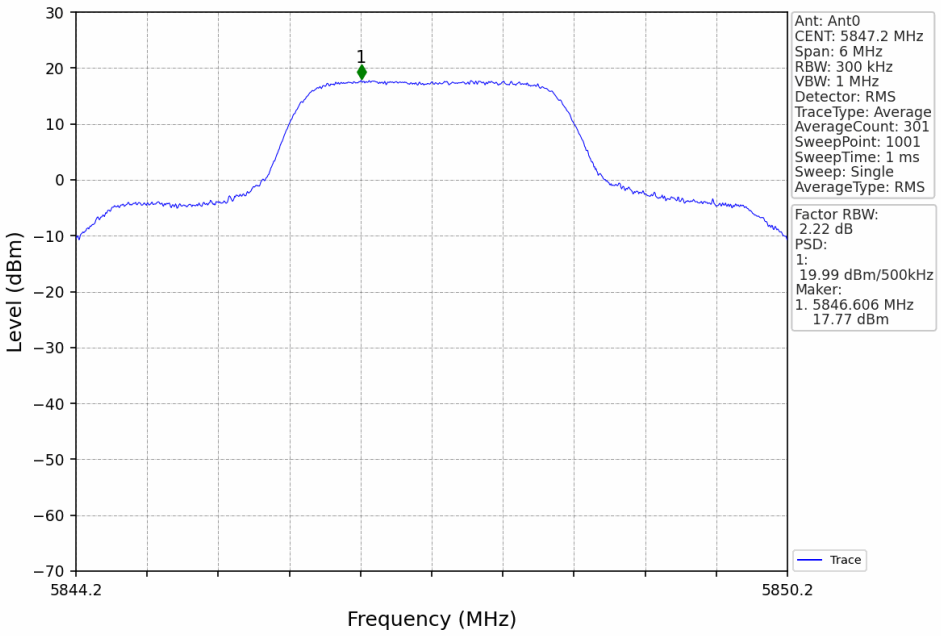
3M_MCH_5784.5MHz_Ant0_NTNV



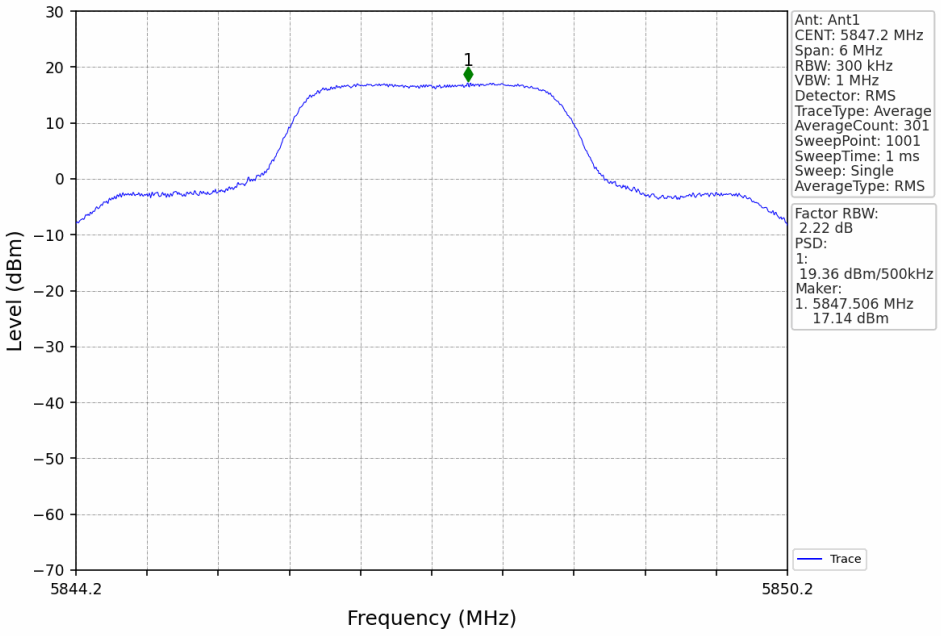
3M_MCH_5784.5MHz_Ant1_NTNV



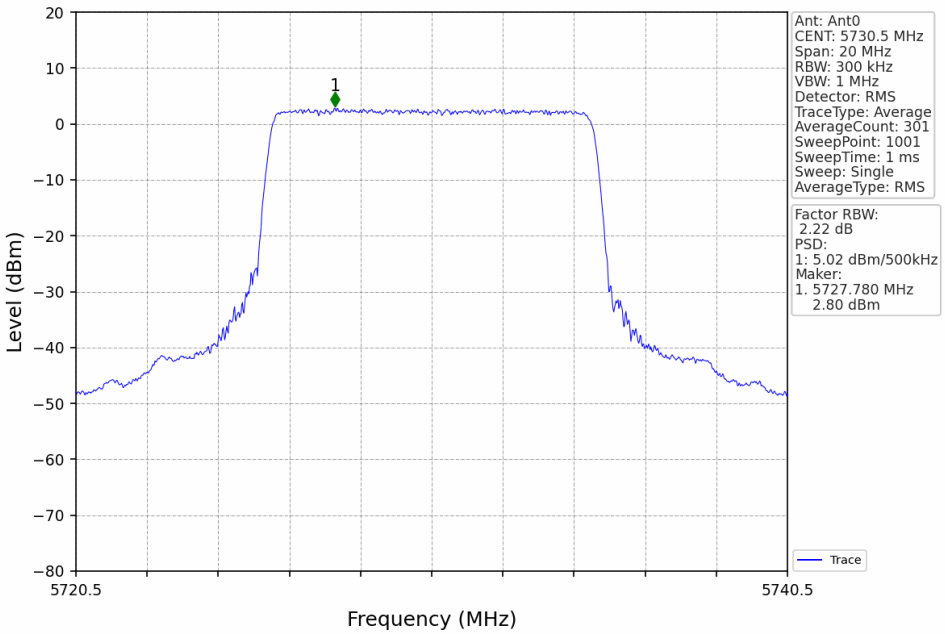
3M_HCH_5847.2MHz_Ant0_NTNV



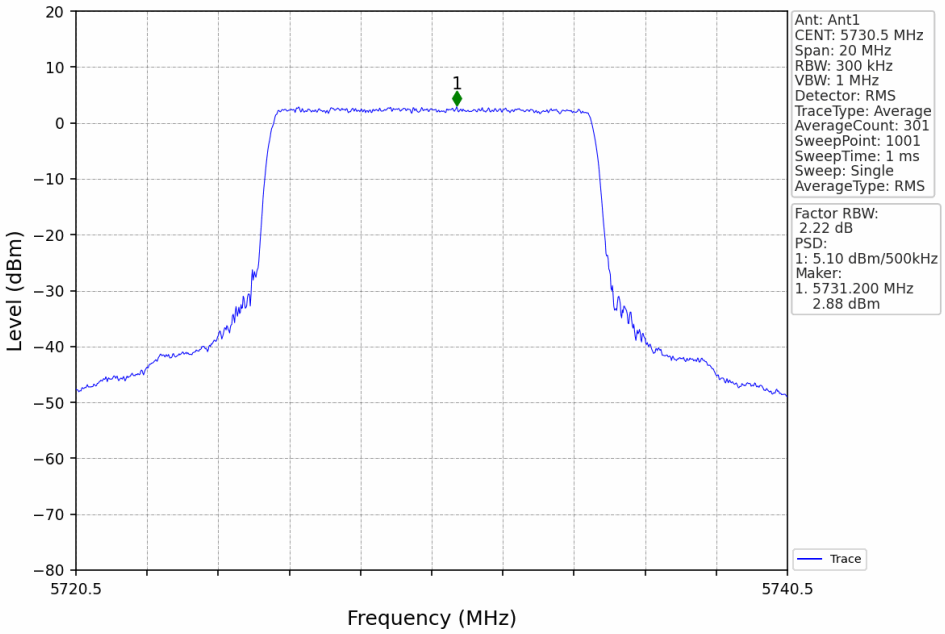
3M_HCH_5847.2MHz_Ant1_NTNV



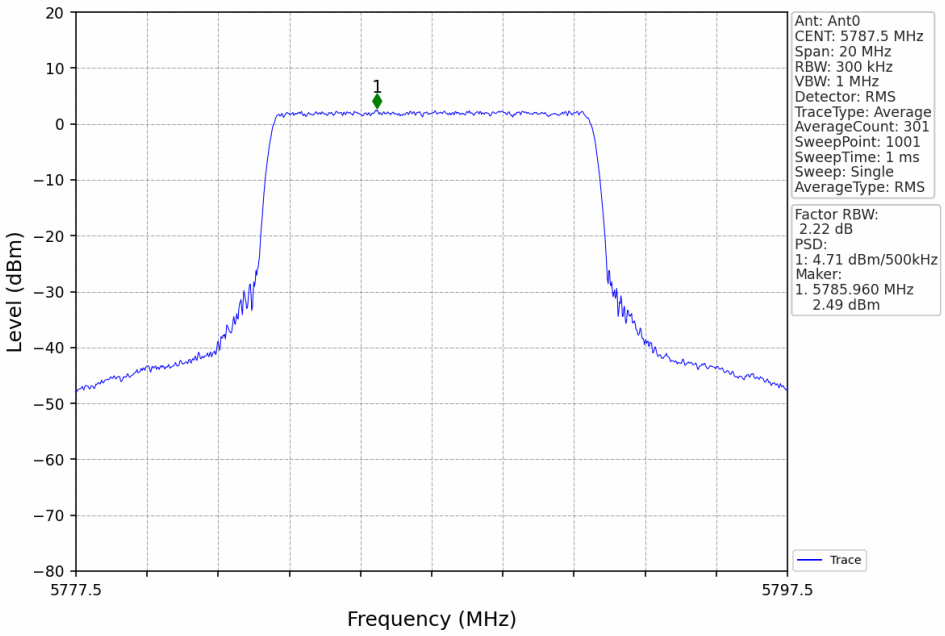
10M_LCH_5730.5MHz_Ant0_NTNV



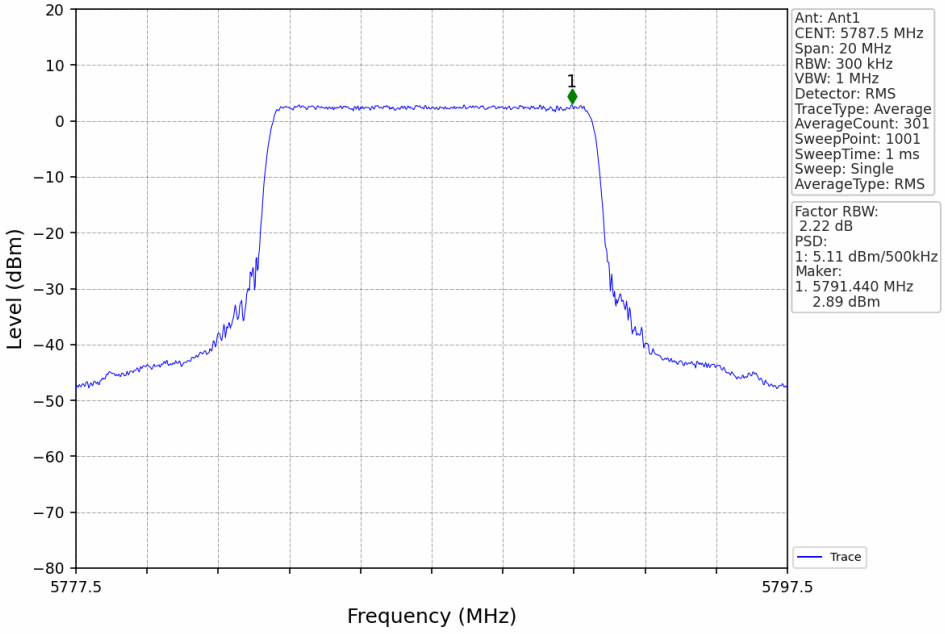
10M_LCH_5730.5MHz_Ant1_NTNV



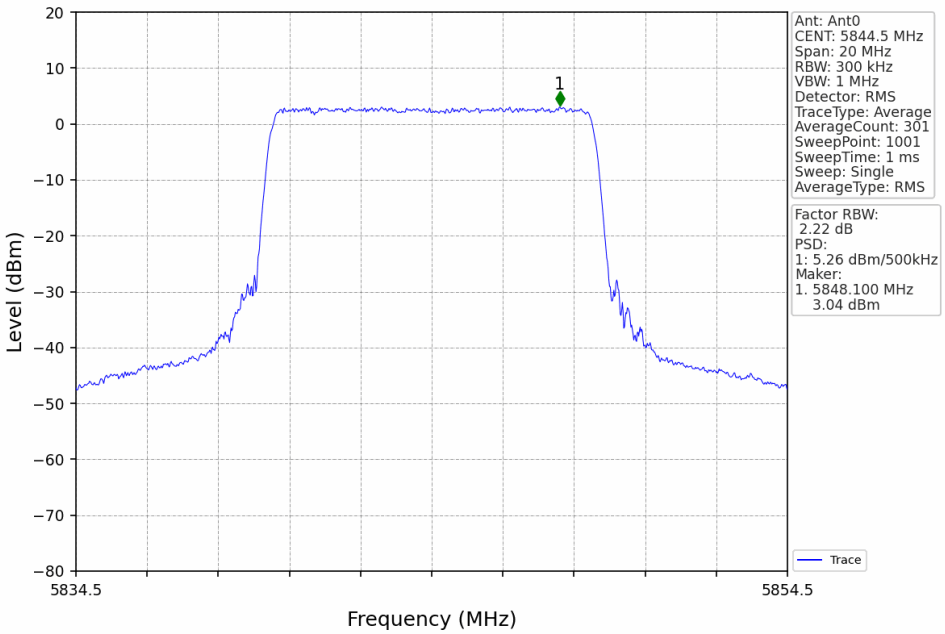
10M_MCH_5787.5MHz_Ant0_NTNV



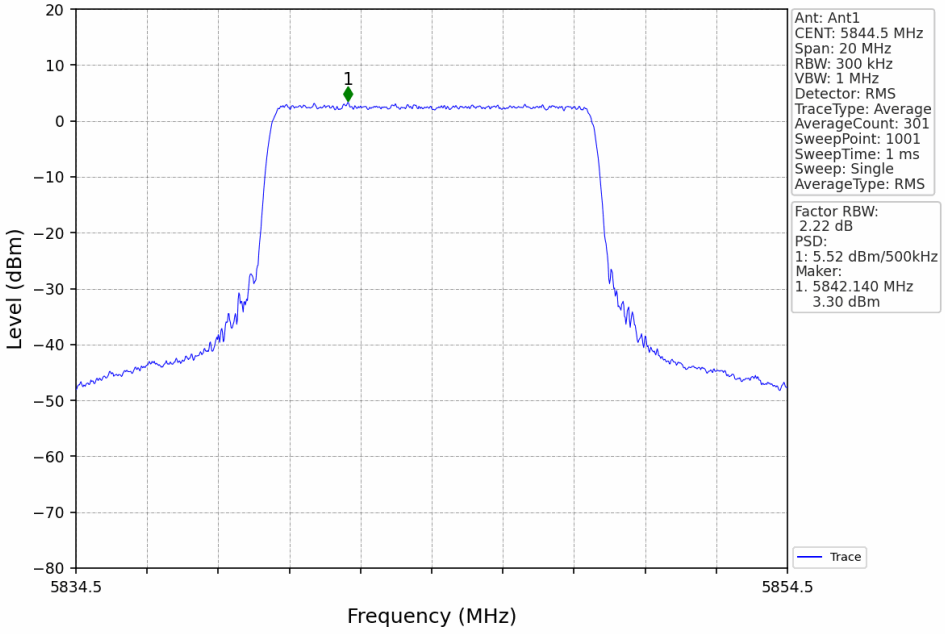
10M_MCH_5787.5MHz_Ant1_NTNV



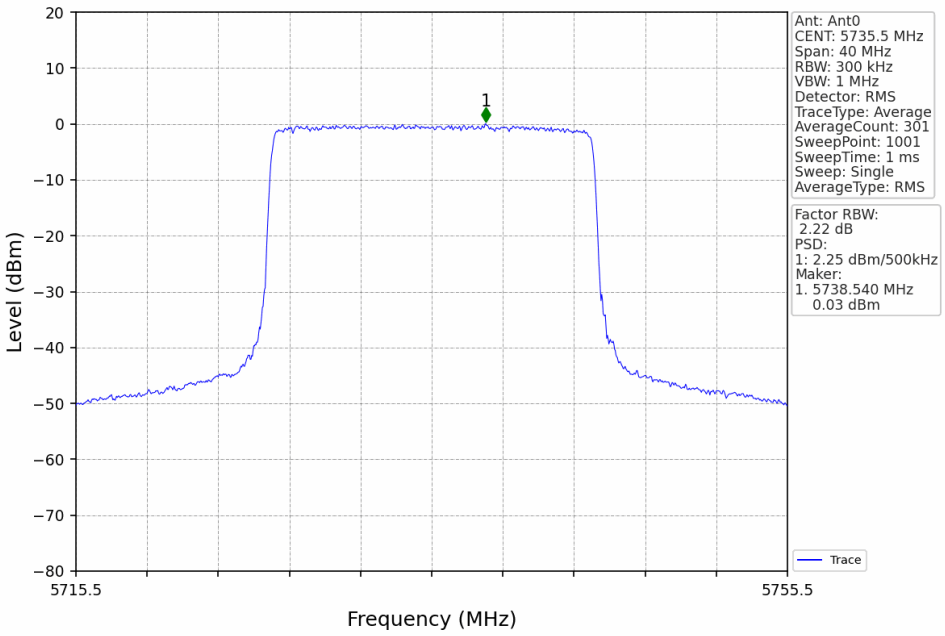
10M_HCH_5844.5MHz_Ant0_NTNV



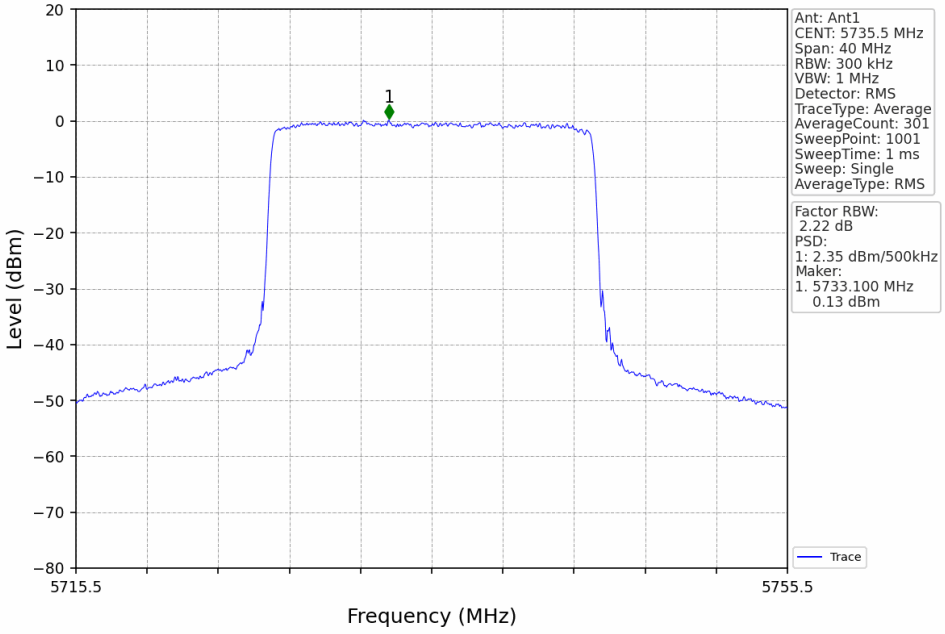
10M_HCH_5844.5MHz_Ant1_NTNV



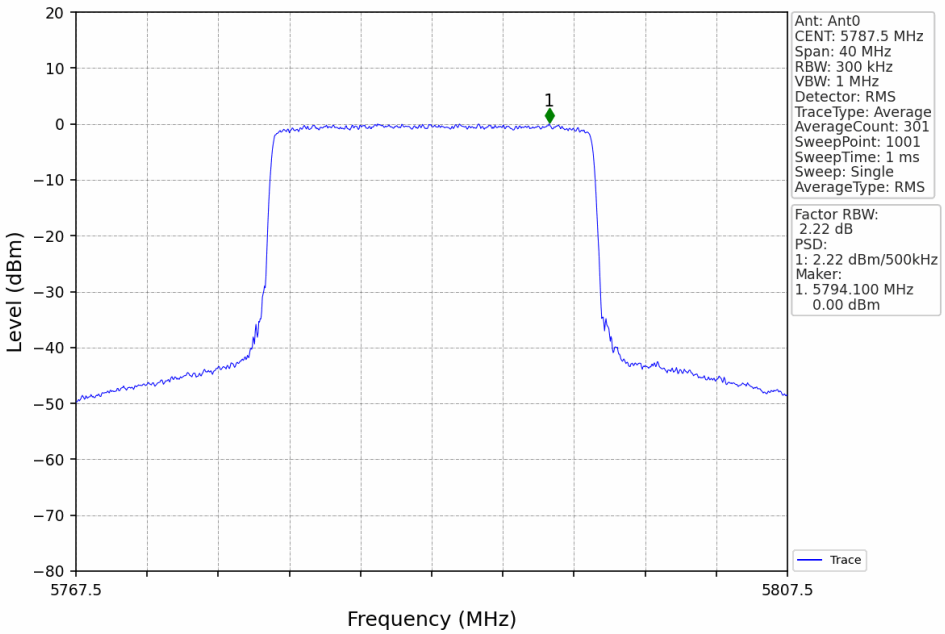
20M_LCH_5735.5MHz_Ant0_NTNV



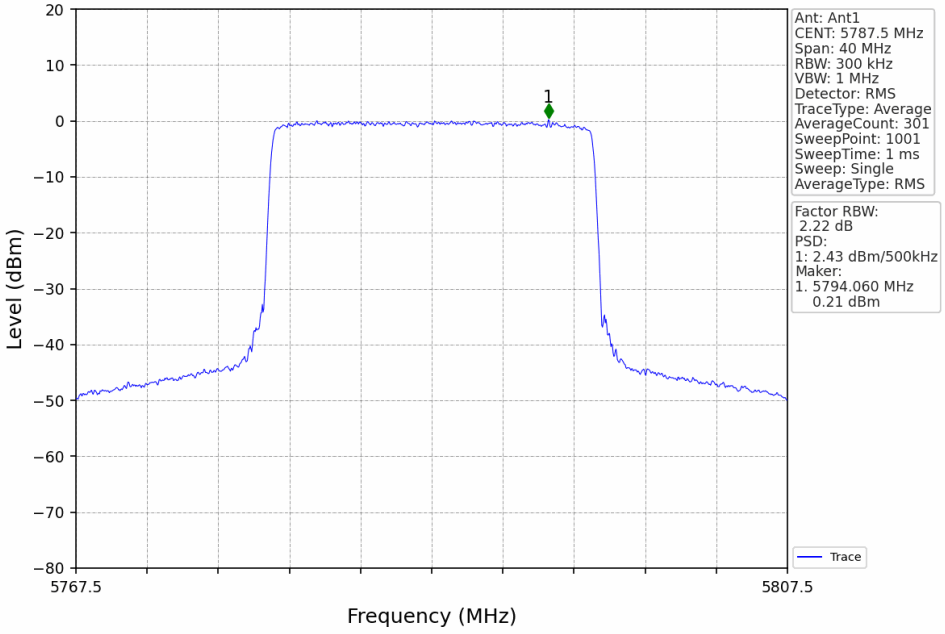
20M_LCH_5735.5MHz_Ant1_NTNV



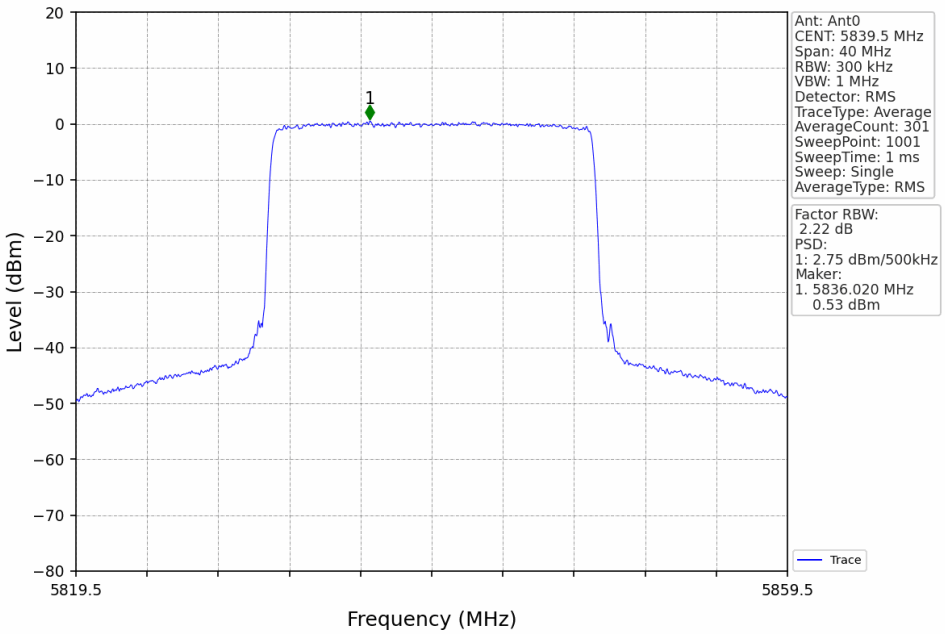
20M_MCH_5787.5MHz_Ant0_NTNV



20M_MCH_5787.5MHz_Ant1_NTNV



20M_HCH_5839.5MHz_Ant0_NTNV



20M_HCH_5839.5MHz_Ant1_NTNV