

TEST REPORT

FCC ID. :	2AQRM-S67L	
Test Report No..... :	TCT250305E028	
Date of issue..... :	Apr. 23, 2025	
Testing laboratory	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name..... :	FOXX Development Inc.	
Address..... :	3480 Preston Ridge Road, Suite500, Alpharetta, GA 30005, USA	
Manufacturer's name ... :	FOXX Development Inc.	
Address..... :	3480 Preston Ridge Road, Suite500, Alpharetta, GA 30005, USA	
Standard(s)	FCC CFR Title 47 Part 15 Subpart E Section 15.407 KDB 662911 D01 Multiple Transmitter Output v02r01 KDB 789033 D02 General U-NII Test Procedures New Rules v02r01	
Product Name..... :	Smart Phone	
Trade Mark	MIRO, FOXX, FOXXD, AIRVOICE, FOXXD HTH	
Model/Type reference..... :	S67L	
Rating(s)..... :	Power supply: DC 5V from adaptor or DC 3.87V from battery Adapter Information: Model: HJ-0502000W2-US Input: AC 100-240V, 50/60Hz, 0.3A Output: DC 5.0V, 2.0A, 10.0W	
Date of receipt of test item	Mar. 05, 2025	
Date (s) of performance of test..... :	Mar. 06, 2025 ~ Apr. 22, 2025	
Tested by (+signature) ... :	Brews XU	
Check by (+signature).... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	

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TABLE OF CONTENTS

1. General Product Information	3
1.1. EUT description	3
1.2. Model(s) list.....	3
1.3. Test Frequency	4
2. Test Result Summary	5
3. General Information.....	6
3.1. Test environment and mode.....	6
3.2. Description of Support Units.....	7
4. Facilities and Accreditations	8
4.1. Facilities	8
4.2. Location	8
4.3. Measurement Uncertainty.....	8
5. Test Results and Measurement Data	9
5.1. Antenna requirement	9
5.2. Conducted Emission.....	10
5.3. Maximum Conducted Output Power	14
5.4. 6dB Emission Bandwidth.....	16
5.5. 26dB Bandwidth and 99% Occupied Bandwidth	17
5.6. Power Spectral Density.....	18
5.7. Band edge	19
5.8. Unwanted Emissions	25
5.9. Frequency Stability Measurement	34
Appendix A: Test Result of Conducted Test	36
Appendix B: Photographs of Test Setup	206
Appendix C: Photographs of EUT	206

1. General Product Information

1.1. EUT description

Product Name.....:	Smart Phone
Model/Type reference.....:	S67L
Sample Number.....:	TCT250305E025-0101
Operation Frequency	Band 1: 5180 MHz~5240 MHz Band 2A: 5260 MHz~5320 MHz Band 2C: 5500 MHz~5700 MHz Band 3: 5745 MHz~5825 MHz
Channel Bandwidth.....:	802.11a: 20MHz 802.11n: 20MHz, 40MHz 802.11ac: 20MHz, 40MHz, 80MHz
Modulation Technology	Orthogonal Frequency Division Multiplexing (OFDM)
Modulation Type	256QAM, 64QAM, 16QAM, BPSK, QPSK
Antenna Type.....:	Internal Antenna
Antenna Gain.....:	1.80dBi
Rating(s).....:	Power supply: DC 5V from adaptor or DC 3.87V from battery Adaptor Information: Model: HJ-0502000W2-US Input: AC 100-240V, 50/60Hz, 0.3A Output: DC 5.0V, 2.0A, 10.0W

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

None.

1.3. Test Frequency

Band 1

20MHz		40MHz		80MHz	
Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180	38	5190	42	5210
40	5200	46	5230		
48	5240				

Band 2A

20MHz		40MHz		80MHz	
Channel	Frequency	Channel	Frequency	Channel	Frequency
52	5260	54	5270	58	5290
60	5300	62	5310		
64	5320				

Band 2C

20MHz		40MHz		80MHz	
Channel	Frequency	Channel	Frequency	Channel	Frequency
100	5500	102	5510	106	5530
120	5600	118	5590	122	5610
140	5700	134	5670		

Band 3

20MHz		40MHz		80MHz	
Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745	151	5755	155	5775
157	5785	159	5795		
165	5825				

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

2. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Maximum Conducted Output Power	§15.407(a)	PASS
6dB Emission Bandwidth	§15.407(a)	PASS
26dB Emission Bandwidth& 99% Occupied Bandwidth	§15.407(a)	PASS
Power Spectral Density	§15.407(a)	PASS
Restricted Bands around fundamental frequency	§15.407(b)	PASS
Radiated Emission	§15.407(b)	PASS
Frequency Stability	§15.407(g)	PASS

Note:

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.
5. For the band 5.15-5.25GHz, EUT meet the requirements of 15.407(a)(ii).

3. General Information

3.1. Test environment and mode

Operating Environment:	
Temperature:	25.5 °C
Humidity:	53 % RH
Atmospheric Pressure:	1010 mbar
Test voltage	Conducted Emission: AC 120V/60Hz
	Radiated Spurious Emission: DC 3.87V
	RF Conducted Test: DC 3.87V
Test Software:	
Software Information:	Engineering mode
Power Level:	14
Test Mode:	
Engineering mode:	Keep the EUT in continuous transmitting by select channel and modulations with max. duty cycle.
The sample was placed 0.8m/1.5m for blow/above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.	

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	Data rate
802.11a(SISO)	6 Mbps
802.11n(HT20) (MIMO)	6.5 Mbps
802.11n(HT40) (MIMO)	13.5 Mbps
802.11ac(VHT20) (MIMO)	6.5 Mbps

802.11ac(VHT40) (MIMO)	13.5 Mbps
802.11ac(VHT80) (MIMO)	29.3 Mbps
Final Test Mode:	
Operation mode:	Keep the EUT in continuous transmitting with modulation

3.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
/	/	/	/	/

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
3. For conducted measurements (Output Power, Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

4. Facilities and Accreditations

4.1. Facilities

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

- FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Innovation, Science and Economic Development Canada for radio equipment testing.

4.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

4.3. Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	± 3.10 dB
2	RF power, conducted	± 0.12 dB
3	Spurious emissions, conducted	± 0.11 dB
4	All emissions, radiated(<1 GHz)	± 4.56 dB
5	All emissions, radiated(1 GHz - 18 GHz)	± 4.22 dB
6	All emissions, radiated(18 GHz- 40 GHz)	± 4.36 dB

5. Test Results and Measurement Data

5.1. Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
15.203 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.	
E.U.T Antenna:	
The EUT antenna is internal antenna which permanently attached, and the best case gain of the antenna is 1.80dBi.	
	

5.2. Conducted Emission

5.2.1. Test Specification

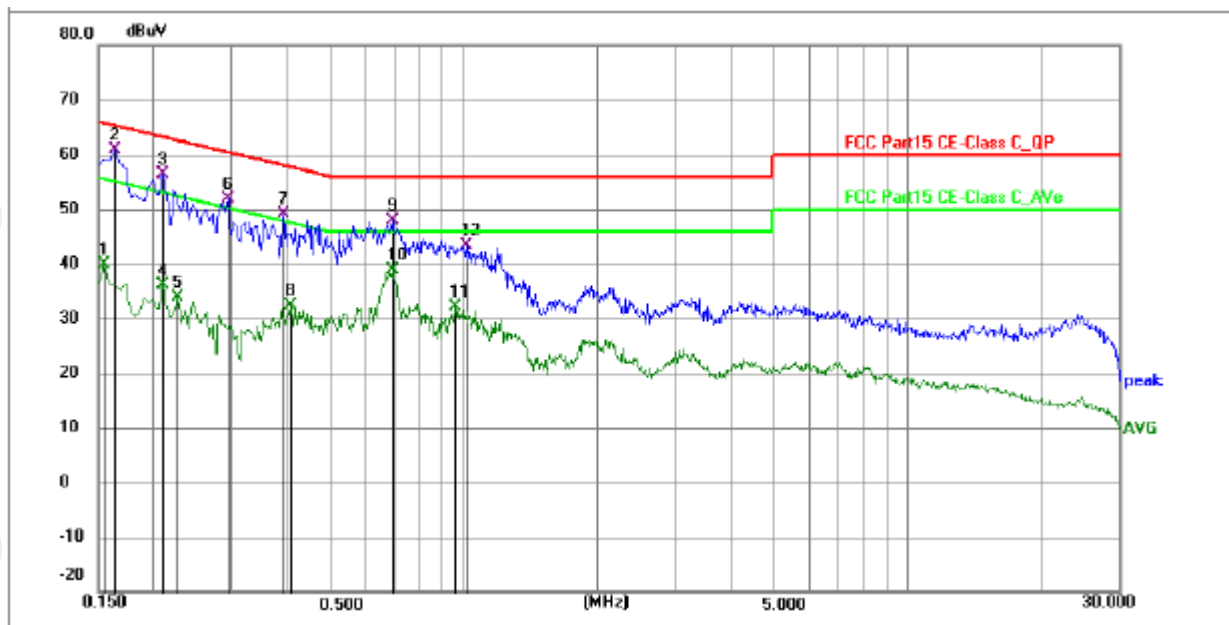
Test Requirement:	FCC Part15 C Section 15.207														
Test Method:	ANSI C63.10:2020														
Frequency Range:	150 kHz to 30 MHz														
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto														
Limits:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBuV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													
Test Setup:	Reference Plane 40cm Test table/Insulation plane 80cm EMI Receiver Filter AC power Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m														
Test Mode:	Charging + Transmitting Mode														
Test Procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. 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: 2020 on conducted measurement.														
Test Result:	PASS														

5.2.2. Test Instruments

Conducted Emission Shielding Room Test Site (843)					
Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
EMI Test Receiver	R&S	ESCI3	100898	Jun. 27, 2024	Jun. 26, 2025
LISN	Schwarzbeck	NSLK 8126	8126453	Jan. 21, 2025	Jan. 20, 2026
Attenuator	N/A	10dB	164080	Jun. 27, 2024	Jun. 26, 2025
Line-5	TCT	CE-05	/	Jun. 27, 2024	Jun. 26, 2025
EMI Test Software	EZ EMC	EMEC-3A1	1.1.4.2	/	/

5.2.3. Test data

Please refer to following diagram for individual
Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV)	Limit (dBμV)	Margin (dB)	Detector	P/F	Remark
1	0.1544	29.22	10.56	39.78	55.76	-15.98	AVG	P	
2 *	0.1635	50.25	10.58	60.83	65.28	-4.45	QP	P	
3	0.2084	45.61	10.66	56.27	63.27	-7.00	QP	P	
4	0.2084	25.52	10.66	36.18	53.27	-17.09	AVG	P	
5	0.2265	23.31	10.66	33.97	52.58	-18.61	AVG	P	
6	0.2940	41.11	10.66	51.77	60.41	-8.64	QP	P	
7	0.3930	38.57	10.67	49.24	58.00	-8.76	QP	P	
8	0.4062	21.74	10.67	32.41	47.73	-15.32	AVG	P	
9	0.6900	37.33	10.58	47.91	56.00	-8.09	QP	P	
10	0.6900	28.21	10.58	38.79	46.00	-7.21	AVG	P	
11	0.9600	21.25	10.83	32.08	46.00	-13.92	AVG	P	
12	1.0140	32.63	10.86	43.49	56.00	-12.51	QP	P	

Note:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

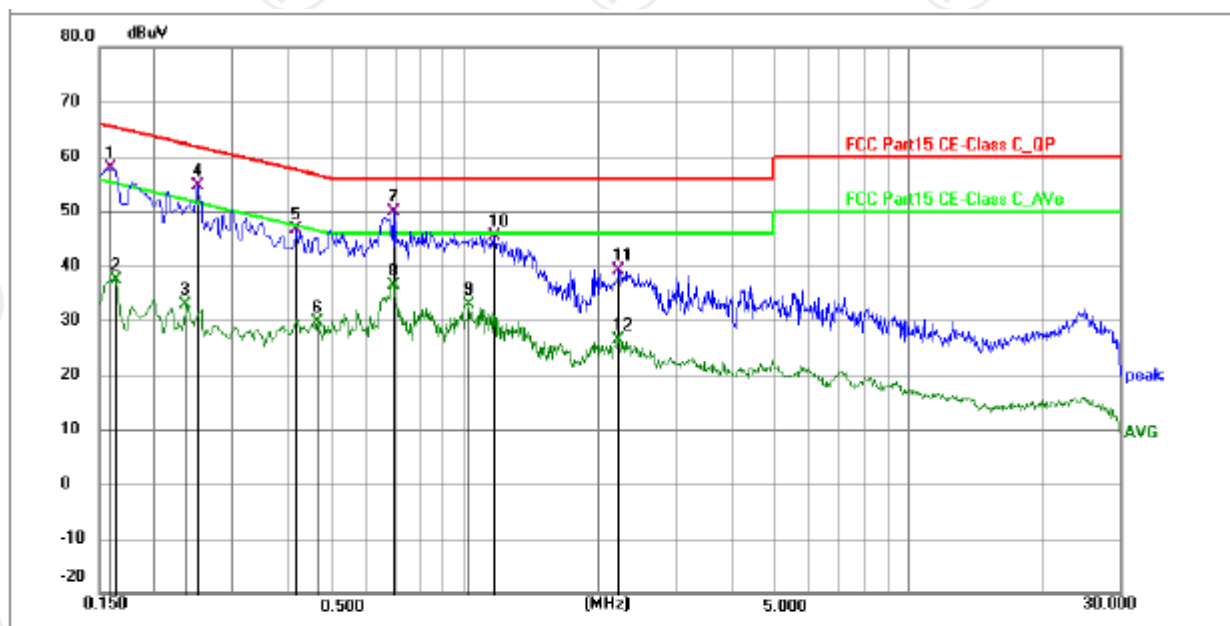
Margin (dB) = Measurement (dBμV) – Limits (dBμV)

Q.P. =Quasi-Peak

AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV)	Limit (dBμV)	Margin (dB)	Detector	P/F	Remark
1	0.1590	47.25	10.55	57.80	65.52	-7.72	QP	P	
2	0.1635	26.76	10.55	37.31	55.28	-17.97	AVG	P	
3	0.2353	22.19	10.58	32.77	52.26	-19.49	AVG	P	
4	0.2490	44.09	10.59	54.68	61.79	-7.11	QP	P	
5	0.4153	35.82	10.71	46.53	57.54	-11.01	QP	P	
6	0.4650	18.88	10.75	29.63	46.60	-16.97	AVG	P	
7 *	0.6900	38.93	10.88	49.81	56.00	-6.19	QP	P	
8	0.6900	25.41	10.88	36.29	46.00	-9.71	AVG	P	
9	1.0230	21.93	10.86	32.79	46.00	-13.21	AVG	P	
10	1.1670	34.55	10.88	45.43	56.00	-10.57	QP	P	
11	2.2334	28.05	10.97	39.02	56.00	-16.98	QP	P	
12	2.2334	15.37	10.97	26.34	46.00	-19.66	AVG	P	

Note: 1. Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

Margin (dB) = Measurement (dBμV) – Limits (dBμV)

Q.P. =Quasi-Peak

AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

2. Measurements were conducted in all three channels (high, middle, low) and all modulation (802.11a, 802.11n(HT20), 802.11n(HT40), 802.11ac(VHT20), 802.11ac(VHT40), 802.11ac(VHT80)) and the worst case Mode (Middle channel and 802.11a) was submitted only.

5.3. Maximum Conducted Output Power

5.3.1. Test Specification

Test Requirement:	FCC Part15 E Section 15.407(a)& Part 2 J Section 2.1046										
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section E										
Limit:	<table> <tr> <th>Frequency Band (MHz)</th><th>Limit</th></tr> <tr> <td>5180 - 5240</td><td>24dBm(250mW) for client device</td></tr> <tr> <td>5260 - 5320</td><td>24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz</td></tr> <tr> <td>5470 - 5725</td><td>24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz</td></tr> <tr> <td>5745 - 5825</td><td>30dBm(1W)</td></tr> </table>	Frequency Band (MHz)	Limit	5180 - 5240	24dBm(250mW) for client device	5260 - 5320	24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz	5470 - 5725	24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz	5745 - 5825	30dBm(1W)
Frequency Band (MHz)	Limit										
5180 - 5240	24dBm(250mW) for client device										
5260 - 5320	24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz										
5470 - 5725	24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz										
5745 - 5825	30dBm(1W)										
Test Setup:	 The diagram illustrates the test setup. On the left is a green rectangular device labeled 'Power meter'. A black line representing an RF cable connects it to a yellow rectangular device on the right labeled 'EUT'.										
Test Mode:	Transmitting mode with modulation										
Test Procedure:	1. The testing follows the Measurement Procedure of KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section E, 3, a 2. The RF output of EUT was connected to the power meter by RF cable. The path loss was compensated to the results for each measurement. 3. Set to the maximum power setting and enable the EUT transmit continuously. 5. Measure the conducted output power and record the results in the test report.										
Test Result:	PASS										

5.3.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	Agilent	N9020A	MY50101018	Jun. 27, 2024	Jun. 26, 2025
Power Meter	Agilent	E4418B	MY45100357	Jun. 27, 2024	Jun. 26, 2025
Power Sensor	Agilent	8184A	MY41096530	Jun. 27, 2024	Jun. 26, 2025
Test Software	TST Pass	/	/	/	/

5.4. 6dB Emission Bandwidth

5.4.1. Test Specification

Test Requirement:	FCC CFR47 Part 15 Section 15.407(e)& Part 2 J Section 2.1049
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C
Limit:	>500kHz
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6dB bandwidth must be greater than 500 kHz. 4. Measure and record the results in the test report.
Test Result:	PASS

5.4.2. Test Instruments

Equipment	Manufacturer	Model No.	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	Agilent	N9020A	MY50101018	Jun. 27, 2024	Jun. 26, 2025
Test Software	TST Pass	/	/	/	/

5.5. 26dB Bandwidth and 99% Occupied Bandwidth

5.5.1. Test Specification

Test Requirement:	47 CFR Part 15C Section 15.407 (a)& Part 2 J Section 2.1049
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section D
Limit:	No restriction limits
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section D 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 1% to 5% of the OBW. Set the Video bandwidth (VBW) = 3 *RBW. In order to make an accurate measurement. 4. Measure and record the results in the test report.
Test Result:	PASS

5.5.2. Test Instruments

Equipment	Manufacturer	Model No.	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	Agilent	N9020A	MY50101018	Jun. 27, 2024	Jun. 26, 2025
Test Software	TST Pass	/	/	/	/

5.6. Power Spectral Density

5.6.1. Test Specification

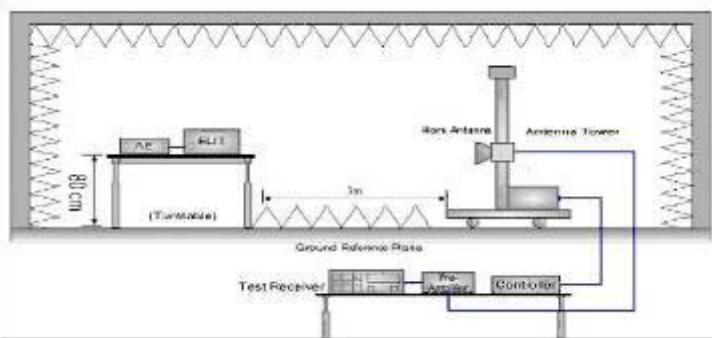
Test Requirement:	FCC Part15 E Section 15.407 (a)
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section F
Limit:	$\leq 11.00\text{dBm/MHz}$ for Band 1 5150MHz-5250MHz(client device) $\leq 11.00\text{dBm/MHz}$ for Band 2A&2C 5250-5350&5470-5725 $\leq 30.00\text{dBm/500KHz}$ for Band 3 5725MHz-5850MHz The e.i.r.p spectral density for Band 1 5150MHz – 5250 MHz should not exceed 10dBm/MHz
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth. 1. Set RBW = 510 kHz/1 MHz, VBW $\geq 3 \times$ RBW, Sweep time = Auto, Detector = RMS. 2. Allow the sweeps to continue until the trace stabilizes. 3. Use the peak marker function to determine the maximum amplitude level. 4. The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.
Test Result:	PASS

5.6.2. Test Instruments

Equipment	Manufacturer	Model No.	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	Agilent	N9020A	MY50101018	Jun. 27, 2024	Jun. 26, 2025
Test Software	TST Pass	/	/	/	/

5.7. Band edge

5.7.1. Test Specification

Test Requirement:	FCC CFR47 Part 15E Section 15.407			
Test Method:	ANSI C63.10:2020			
Limit:	In un-restricted band: For Band 1&2A&2C: -27dBm/MHz For Band 3:			
	Frequency (MHz)	Limit (dBm/MHz)	Frequency (MHz)	Limit (dBm/MHz)
	< 650	-27	5850~5855	27~15.6
	5650~5700	-27~10	5855~5875	15.6~10
	5700~5720	10~15.6	5875~5925	10~-27
	5720~5725	15.6~27	> 5925	-27
	E[dBμV/m] = EIRP[dBm] + 95.2 @3m In restricted band:			
Detector		Limit@3m		
Peak		74dBμV/m		
AVG		54dBμV/m		
Test Setup:				
Test Mode:	Transmitting mode with modulation			
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. 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. 4. 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 rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold			

	Mode. 6. 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.
Test Result:	PASS

5.7.2. Test Instruments

Radiated Emission Test Site (966)					
Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
EMI Test Receiver	R&S	ESCI7	100529	Jan. 21, 2025	Jan. 20, 2026
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 27, 2024	Jun. 26, 2025
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Jan. 21, 2025	Jan. 20, 2026
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Jan. 21, 2025	Jan. 20, 2026
Pre-amplifier	HP	8447D	2727A05017	Jun. 27, 2024	Jun. 26, 2025
Loop antenna	Schwarzbeck	FMZB1519B	00191	Jun. 27, 2024	Jun. 26, 2025
Broadband Antenna	Schwarzbeck	VULB9163	340	Jun. 29, 2024	Jun. 28, 2025
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jun. 29, 2024	Jun. 28, 2025
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Jan. 23, 2025	Jan. 22, 2026
Coaxial cable	SKET	RE-03-D	/	Jun. 27, 2024	Jun. 26, 2025
Coaxial cable	SKET	RE-03-M	/	Jun. 27, 2024	Jun. 26, 2025
Coaxial cable	SKET	RE-03-L	/	Jun. 27, 2024	Jun. 26, 2025
Coaxial cable	SKET	RE-04-D	/	Jun. 27, 2024	Jun. 26, 2025
Coaxial cable	SKET	RE-04-M	/	Jun. 27, 2024	Jun. 26, 2025
Coaxial cable	SKET	RE-04-L	/	Jun. 27, 2024	Jun. 26, 2025
Antenna Mast	Keleto	RE-AM	/	/	/
EMI Test Software	EZ EMC	FA-03A2 RE+	1.1.4.2	/	/

5.7.3. Test Data

Band 1&2A: 5180 MHz - 5320 MHz, Test Mode: 802.11a

Test Channel: Lowest channel, Test Polarization: Vertical

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5106.678	40.58	5.28	45.86	74.00	-28.14	Peak	Pass
2	5106.678	29.71	5.28	34.99	54.00	-19.01	AV	Pass
3	5150.000	43.52	5.33	48.85	74.00	-25.15	Peak	Pass
4	5150.000	34.04	5.33	39.37	54.00	-14.63	AV	Pass

Test Channel: Lowest channel, Test Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5073.679	41.33	5.35	46.68	74.00	-27.32	Peak	Pass
2	5073.679	32.33	5.35	37.68	54.00	-16.32	AV	Pass
3	5150.000	44.00	5.33	49.33	74.00	-24.67	Peak	Pass
4	5150.000	34.13	5.33	39.46	54.00	-14.54	AV	Pass

Test Channel: Highest channel, Test Polarization: Vertical

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5350.000	41.82	5.45	47.27	74.00	-26.73	Peak	Pass
2	5350.000	30.69	5.45	36.14	54.00	-17.86	AV	Pass
3	5460.000	44.44	5.52	49.96	74.00	-24.04	Peak	Pass
4	5460.000	35.53	5.52	41.05	54.00	-12.95	AV	Pass

Test Channel: Highest channel, Test Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5350.000	40.93	5.45	46.38	74.00	-27.62	Peak	Pass
2	5350.000	32.37	5.45	37.82	54.00	-16.18	AV	Pass
3	5460.000	45.56	5.52	51.08	74.00	-22.92	Peak	Pass
4	5460.000	36.26	5.52	41.78	54.00	-12.22	AV	Pass

Remark: Test frequency up to 40GHz and the emission levels of other frequencies are lower than the limit 20dB, not show in test report.

Band 2C: 5500 MHz -5720 MHz, Test Mode: 802.11a

Test Channel: Lowest channel, Test Polarization: Vertical

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5350.000	42.60	5.49	48.09	74.00	-25.91	Peak	Pass
2	5350.000	43.63	5.49	49.12	54.00	-4.88	AV	Pass
3	5460.000	46.77	5.56	52.33	74.00	-21.67	Peak	Pass
4	5460.000	47.26	5.56	52.82	54.00	-1.18	AV	Pass

Test Channel: Lowest channel, Test Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5350.000	43.45	5.49	48.94	74.00	-25.06	Peak	Pass
2	5350.000	34.70	5.49	40.19	54.00	-13.81	AV	Pass
3	5460.000	47.56	5.56	53.12	74.00	-20.88	Peak	Pass
4	5460.000	48.22	5.56	53.78	54.00	-0.22	AV	Pass

Test Channel: Highest channel, Test Polarization: Vertical

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5725.000	45.25	5.53	50.78	68.20	-17.42	Peak	Pass
2	5725.000	37.03	5.53	42.56	48.20	-5.64	AV	Pass
3	5730.000	42.08	5.59	47.67	68.20	-20.53	Peak	Pass
4	5730.000	34.22	5.59	39.81	48.20	-8.39	AV	Pass

Test Channel: Highest channel, Test Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5725.000	45.37	5.53	50.90	68.20	-17.30	Peak	Pass
2	5725.000	37.03	5.53	42.56	48.20	-5.64	AV	Pass
3	5730.000	42.03	5.59	47.62	68.20	-20.58	Peak	Pass
4	5730.000	33.13	5.59	38.72	48.20	-9.48	AV	Pass

Remark: Test frequency up to 40GHz and the emission levels of other frequencies are lower than the limit 20dB, not show in test report.

Band 3: 5745 MHz - 5825 MHz, Test Mode: 802.11a

Test Channel: Lowest channel, Test Polarization: Vertical

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5650.000	40.89	5.63	46.52	68.20	-21.68	Peak	Pass
2	5700.000	43.92	5.70	49.62	105.20	-55.58	Peak	Pass
3	5720.000	45.45	5.66	51.11	110.80	-59.69	Peak	Pass
3	5725.000	47.45	5.66	53.11	122.20	-69.09	Peak	Pass

Test Channel: Lowest channel, Test Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5650.000	41.67	5.63	47.30	68.20	-20.90	Peak	Pass
2	5700.000	44.37	5.70	50.07	105.20	-55.13	Peak	Pass
3	5720.000	44.97	5.66	50.63	110.80	-60.17	Peak	Pass
3	5725.000	46.97	5.66	52.63	122.20	-69.57	Peak	Pass

Test Channel: Highest channel, Test Polarization: Vertical

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5850.000	47.03	5.73	52.76	122.2	-69.44	Peak	Pass
2	5855.000	45.03	5.72	50.75	110.8	-60.05	Peak	Pass
3	5875.000	44.27	5.70	49.97	105.2	-55.23	Peak	Pass
4	5925.000	40.72	5.66	46.38	68.2	-21.82	Peak	Pass

Test Channel: Highest channel, Test Polarization: Horizontal

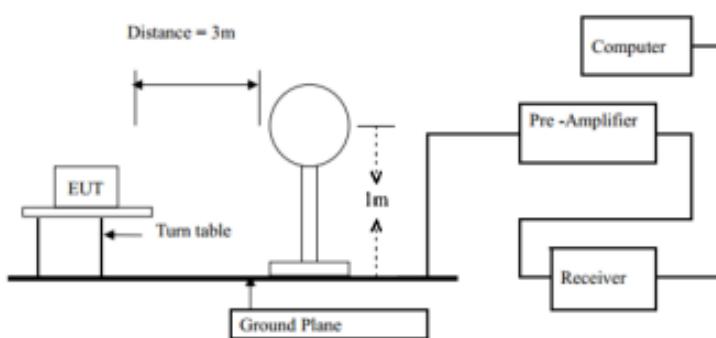
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
1	5850.000	47.31	5.73	53.04	122.20	-69.16	Peak	Pass
2	5855.000	45.31	5.72	51.03	110.80	-59.77	Peak	Pass
3	5875.000	45.16	5.70	50.86	105.20	-54.34	Peak	Pass
4	5925.000	40.76	5.66	46.42	68.20	-21.78	Peak	Pass

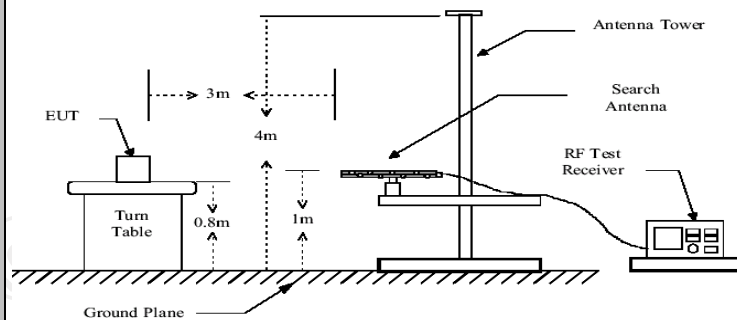
Remark: Test frequency up to 40GHz, and the emission levels of other frequencies are lower than the limit 20dB, not show in test report.

Note: All modulation (802.11a, 802.11n, 802.11ac,) have been tested, only the worst case in 802.11a be reported.

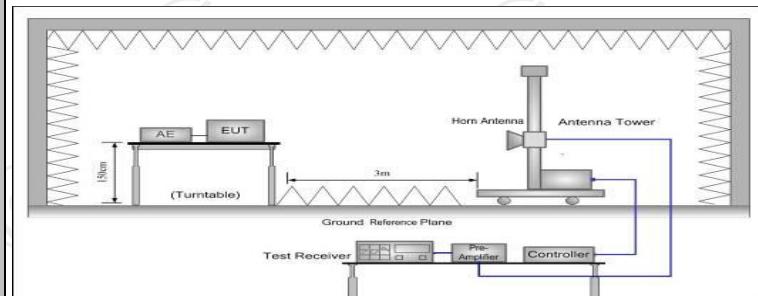
5.8. Unwanted Emissions

5.8.1. Test Specification

Test Requirement:	FCC CFR47 Part 15 Section 15.407 & 15.209 & 15.205				
Test Method:	KDB 789033 D02 v02r01				
Frequency Range:	9kHz to 40GHz				
Measurement Distance:	3 m				
Antenna Polarization:	Horizontal & Vertical				
Operation mode:	Transmitting mode with modulation				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit:	Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table, In restricted bands:				
	Frequency	Detector	Limit@3m		
	Above 1G	Peak	74dBµV/m		
		AVG	54dBµV/m		
	Frequency	Field Strength (microvolts/meter)	Measurement Distance (meters)		
	0.009-0.490	2400/F(KHz)	300		
	0.490-1.705	24000/F(KHz)	3		
	1.705-30	30	30		
	30-88	100	3		
	88-216	150	3		
	216-960	200	3		
	Above 960	500	3		
	In un-restricted bands: 68.2dBuV/m				
Test setup:	For radiated emissions below 30MHz				
					
	30MHz to 1GHz				



Above 1GHz



Test Procedure:

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. 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.
4. 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 was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. 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.

Test results:

PASS

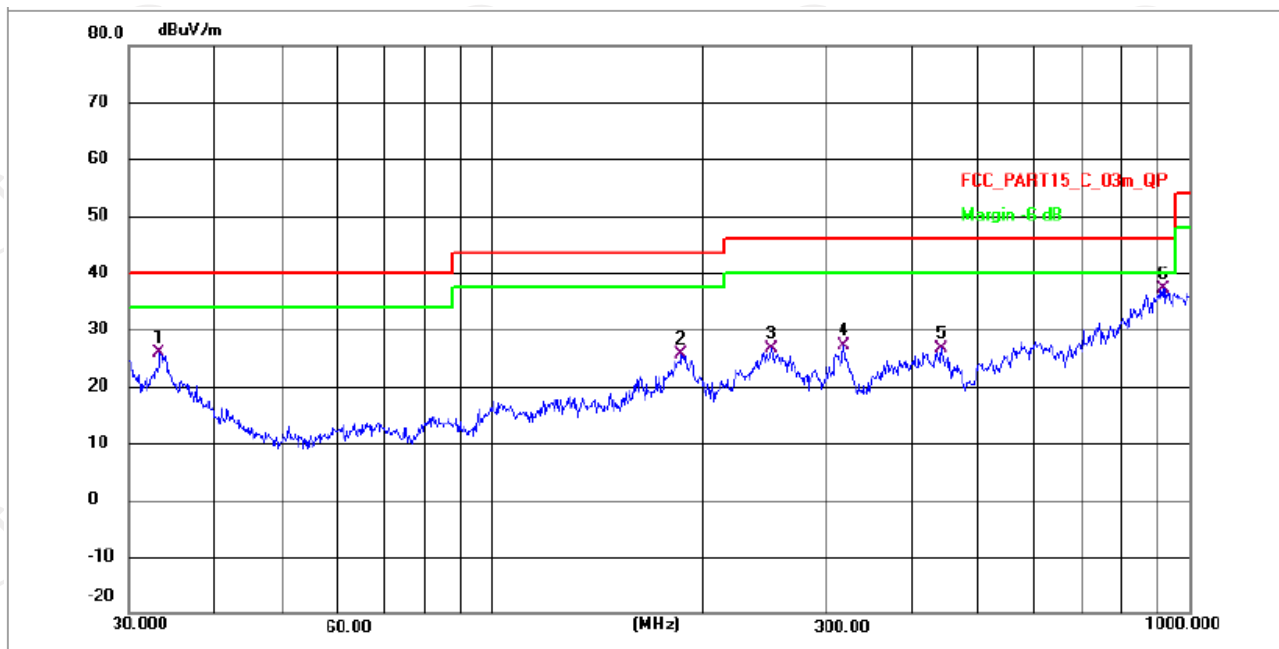
5.8.2. Test Instruments

Radiated Emission Test Site (966)					
Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
EMI Test Receiver	R&S	ESCI7	100529	Jan. 21, 2025	Jan. 20, 2026
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 27, 2024	Jun. 26, 2025
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Jan. 21, 2025	Jan. 20, 2026
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Jan. 21, 2025	Jan. 20, 2026
Pre-amplifier	HP	8447D	2727A05017	Jun. 27, 2024	Jun. 26, 2025
Loop antenna	Schwarzbeck	FMZB1519B	00191	Jun. 27, 2024	Jun. 26, 2025
Broadband Antenna	Schwarzbeck	VULB9163	340	Jun. 29, 2024	Jun. 28, 2025
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jun. 29, 2024	Jun. 28, 2025
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Jan. 23, 2025	Jan. 22, 2026
Coaxial cable	SKET	RE-03-D	/	Jun. 27, 2024	Jun. 26, 2025
Coaxial cable	SKET	RE-03-M	/	Jun. 27, 2024	Jun. 26, 2025
Coaxial cable	SKET	RE-03-L	/	Jun. 27, 2024	Jun. 26, 2025
Coaxial cable	SKET	RE-04-D	/	Jun. 27, 2024	Jun. 26, 2025
Coaxial cable	SKET	RE-04-M	/	Jun. 27, 2024	Jun. 26, 2025
Coaxial cable	SKET	RE-04-L	/	Jun. 27, 2024	Jun. 26, 2025
Antenna Mast	Keleto	RE-AM	/	/	/
EMI Test Software	EZ EMC	FA-03A2 RE+	1.1.4.2	/	/

5.8.3. Test Data

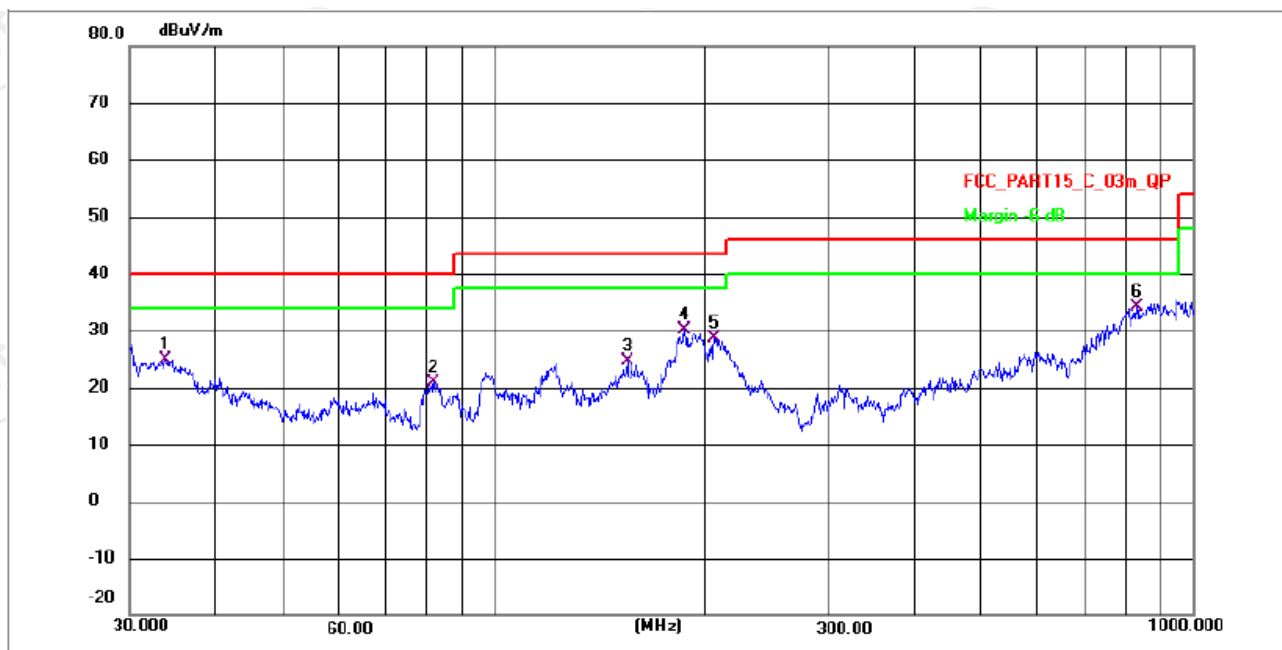
Please refer to following diagram for individual
Below 1GHz

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	33.2693	35.57	-9.68	25.89	40.00	-14.11	QP	P
2	187.0954	47.41	-21.67	25.74	43.50	-17.76	QP	P
3	251.6211	47.68	-21.04	26.64	46.00	-19.36	QP	P
4	319.9370	47.61	-20.46	27.15	46.00	-18.85	QP	P
5	441.7425	46.04	-19.48	26.56	46.00	-19.44	QP	P
6 *	917.6761	53.19	-16.11	37.08	46.00	-8.92	QP	P

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	33.8580	34.66	-9.68	24.98	40.00	-15.02	QP	P
2	81.7831	30.26	-9.33	20.93	40.00	-19.07	QP	P
3	155.0920	46.55	-21.96	24.59	43.50	-18.91	QP	P
4	187.7530	51.70	-21.66	30.04	43.50	-13.46	QP	P
5	206.7597	50.09	-21.47	28.62	43.50	-14.88	QP	P
6 *	830.4000	51.48	-17.36	34.12	46.00	-11.88	QP	P

- Note:**
1. The low frequency, which started from 9KHz~30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported
 2. Measurements were conducted in all three channels (high, middle, low) and all modulation (802.11a, 802.11n(HT20), 802.11n(HT40), 802.11ac(VHT20), 802.11ac(VHT40), 802.11ac(VHT80) and the worst case Mode (Middle channel and 802.11a) was submitted only.
 3. Measurement (dBuV) = Reading level + Correction Factor, correction Factor= Antenna Factor + Cable loss – Pre-amplifier.

Above 1GHz

Modulation Type: Band 1									
802.11a CH36:5180MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10360	H	43.00	---	1.78	44.78	---	68.2	---	-23.42
15540	H	41.06	---	5.21	46.27	---	74	54	-7.73
---	H	---	---	---	---	---	---	---	---
10360	V	43.40	---	1.78	45.18	---	68.2	---	-23.02
15540	V	42.16	---	5.21	47.37	---	74	54	-6.63
---	V	---	---	---	---	---	---	---	---

802.11a CH40:5200MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10400	H	42.33	---	1.83	44.16	---	68.2	---	-24.04
15600	H	41.03	---	5.23	46.26	---	74	54	-7.74
---	H	---	---	---	---	---	---	---	---
10400	V	42.63	---	1.83	44.46	---	68.2	---	-23.74
15600	V	41.64	---	5.23	46.87	---	74	54	-7.13
---	V	---	---	---	---	---	---	---	---

802.11a CH48:5240MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10480	H	43.07	---	1.85	44.92	---	68.2	---	-23.28
15720	H	41.97	---	5.25	47.22	---	74	54	-6.78
---	H	---	---	---	---	---	---	---	---
10480	V	44.44	---	1.85	46.29	---	68.2	---	-21.91
15720	V	40.76	---	5.25	46.01	---	74	54	-7.99
---	V	---	---	---	---	---	---	---	---

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
2. Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency. The highest test frequency is 40GHz.
5. Data of measurement shown “---“in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.
6. All modulation (802.11a, 802.11n, 802.11ac) have been tested, only the worst case in 802.11a be reported.

Modulation Type: Band 2A									
802.11a CH52:5260MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10520	H	42.60	---	1.87	44.47	---	68.2	---	-23.73
15780	H	40.66	---	5.01	45.67	---	74	54	-8.33
---	H	---	---	---	---	---	---	---	---
10520	V	43.00	---	1.87	44.87	---	68.2	---	-23.33
15780	V	41.76	---	5.01	46.77	---	74	54	-7.23
---	V	---	---	---	---	---	---	---	---

802.11a CH60:5300MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10600	H	41.93	---	1.89	43.82	---	74	54	-10.18
15900	H	40.63	---	4.93	45.56	---	74	54	-8.44
---	H	---	---	---	---	---	---	---	---
10600	V	42.23	---	1.89	44.12	---	74	54	-9.88
15900	V	41.24	---	4.93	46.17	---	74	54	-7.83
---	V	---	---	---	---	---	---	---	---

802.11a CH64:5320MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10640	H	42.67	---	1.94	44.61	---	74	54	-9.39
15960	H	41.57	---	4.83	46.40	---	74	54	-7.60
---	H	---	---	---	---	---	---	---	---
10640	V	44.04	---	1.94	45.98	---	74	54	-8.02
15960	V	40.36	---	4.83	45.19	---	74	54	-8.81
---	V	---	---	---	---	---	---	---	---

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
2. Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency. The highest test frequency is 40GHz.
5. Data of measurement shown "—" in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.
6. All modulation (802.11a, 802.11n, 802.11ac) have been tested, only the worst case in 802.11a be reported.

Modulation Type: Band 2C									
802.11a CH100:5500MHz									
Frequency (MHz)	Ant. Pol.H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11000	H	41.61	---	2.21	43.82	---	74	54	-10.18
16500	H	39.67	---	5.32	44.99	---	68.2	---	-23.21
---	H	---	---	---	---	---	---	---	---
11000	V	42.01	---	2.21	44.22	---	74	54	-9.78
16500	V	40.77	---	5.32	46.09	---	68.2	---	-22.11
---	V	---	---	---	---	---	---	---	---

802.11a CH120:5600MHz									
Frequency (MHz)	Ant. Pol.H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11200	H	40.94	---	2.34	43.28	---	74	54	-10.72
16800	H	39.64	---	5.62	45.26	---	68.2	---	-22.94
---	H	---	---	---	---	---	---	---	---
11200	V	41.24	---	2.34	43.58	---	74	54	-10.42
16800	V	40.25	---	5.62	45.87	---	68.2	---	-22.33
---	V	---	---	---	---	---	---	---	---

802.11a CH140:5700MHz									
Frequency (MHz)	Ant. Pol.H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11400	H	41.68	---	2.47	44.15	---	74	54	-9.85
17100	H	40.58	---	6.00	46.58	---	68.2	---	-21.62
---	H	---	---	---	---	---	---	---	---
11400	V	43.05	---	2.47	45.52	---	74	54	-8.48
17100	V	39.37	---	6.00	45.37	---	68.2	---	-22.83
---	V	---	---	---	---	---	---	---	---

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
2. Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency. The highest test frequency is 40GHz.
5. Data of measurement shown “---“in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.
6. All modulation (802.11a, 802.11n, 802.11ac) have been tested, only the worst case in 802.11a be reported.

Modulation Type: Band 3									
802.11a CH149:5745MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11490	H	43.61	---	2.48	46.09	---	74	54	-7.91
17235	H	41.67	---	6.50	48.17	---	68.2	---	-20.03
---	H	---	---	---	---	---	---	---	---
11490	V	44.01	---	2.48	46.49	---	74	54	-7.51
17235	V	42.77	---	6.50	49.27	---	68.2	---	-18.93
---	V	---	---	---	---	---	---	---	---

802.11a CH120:5785MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11570	H	42.94	---	2.42	45.36	---	74	54	-8.64
17355	H	41.64	---	7.03	48.67	---	68.2	---	-19.53
---	H	---	---	---	---	---	---	---	---
11570	V	43.24	---	2.42	45.66	---	74	54	-8.34
17355	V	42.25	---	7.03	49.28	---	68.2	---	-18.92
---	V	---	---	---	---	---	---	---	---

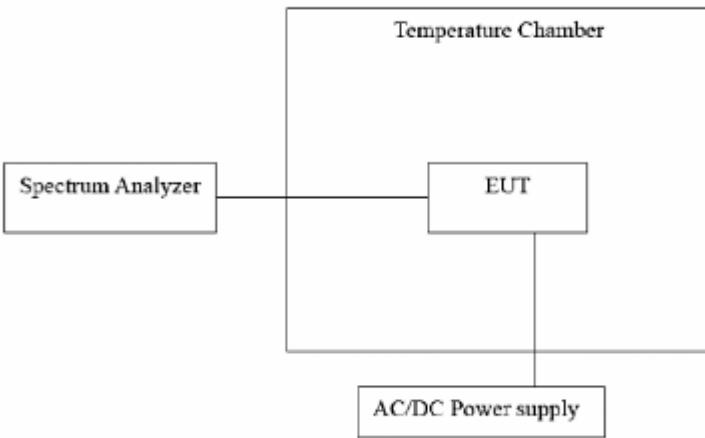
802.11a CH140:5825MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11650	H	43.68	---	2.41	46.09	---	74	54	-7.91
17475	H	42.58	---	7.41	49.99	---	68.2	---	-18.21
---	H	---	---	---	---	---	---	---	---
11650	V	45.05	---	2.41	47.46	---	74	54	-6.54
17475	V	41.37	---	7.41	48.78	---	68.2	---	-19.42
---	V	---	---	---	---	---	---	---	---

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
2. Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency. The highest test frequency is 40GHz.
5. Data of measurement shown “---“in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.
6. All modulation (802.11a, 802.11n, 802.11ac) have been tested, only the worst case in 802.11a be reported.

5.9. Frequency Stability Measurement

5.9.1. Test Specification

Test Requirement:	FCC Part15 Section 15.407(g) &Part2 J Section 2.1055
Test Method:	ANSI C63.10:2020
Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of 0 degrees to 45 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.
Test Setup:	 <pre> graph LR SA[Spectrum Analyzer] --- EUT[EUT] subgraph TC [Temperature Chamber] EUT end EUT --- P[AC/DC Power supply] </pre>
Test Procedure:	The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage. b. Turn the EUT on and couple its output to a spectrum analyzer. c. Turn the EUT off and set the chamber to the highest temperature specified. d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature. f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
Test Result:	PASS

5.9.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	Agilent	N9020A	MY50101018	Jun. 27, 2025	Jun. 26, 2025
DC power supply	Kingrang	KR3005K	/	Jun. 27, 2024	Jun. 26, 2025
Programable tempratuce and humidity chamber	JQ	JQ-2000	510101234	Jun. 27, 2024	Jun. 26, 2025

Appendix A: Test Result of Conducted Test

1. Duty Cycle

1.1 Test Result

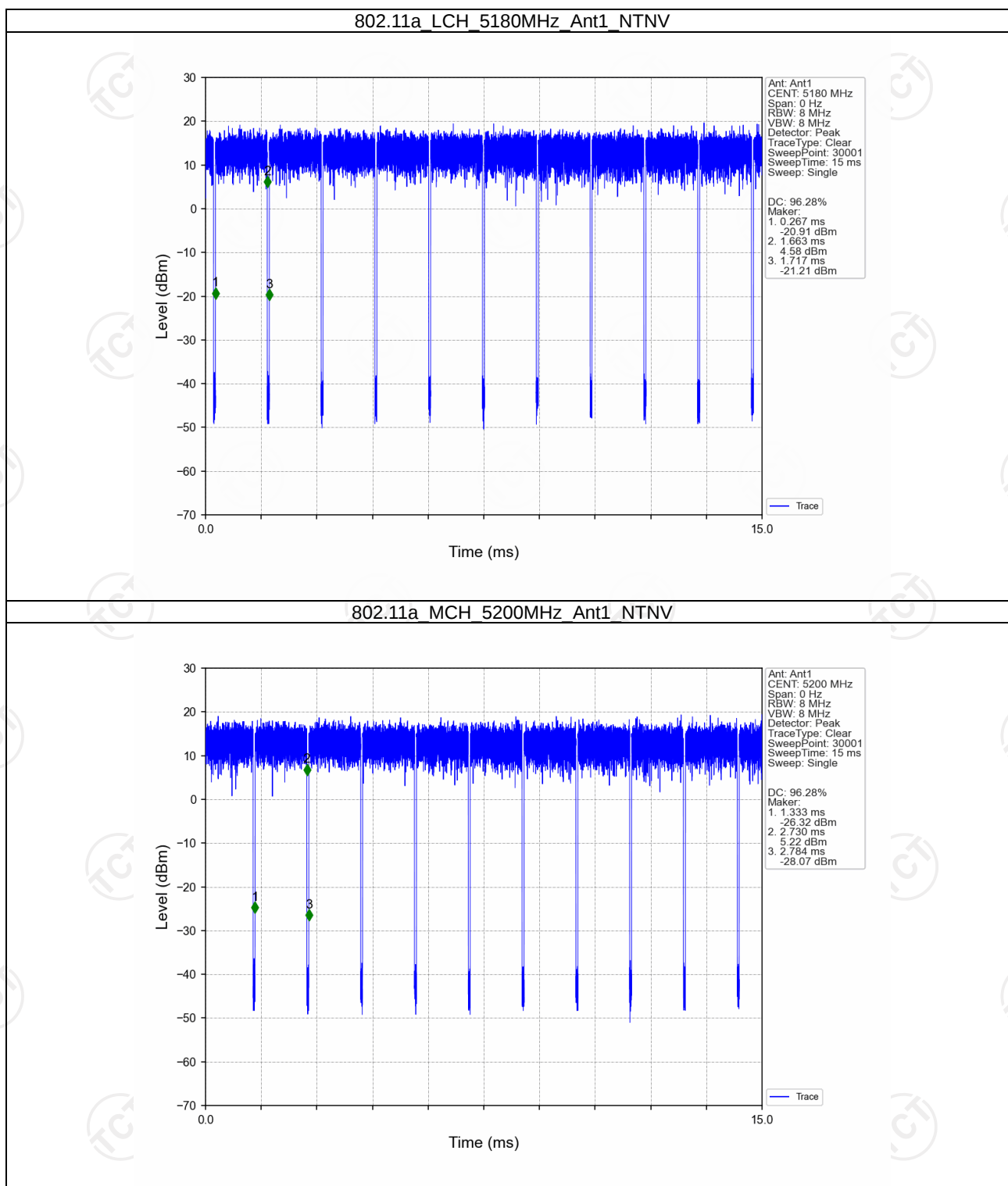
1.1.1 Ant1

Ant1							
Mode	Tx Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	1.396	1.450	96.28	0.16	0.03
		5200	1.397	1.451	96.28	0.16	0.00
		5240	1.397	1.451	96.28	0.16	0.03
		5260	1.396	1.450	96.28	0.16	0.03
		5300	1.397	1.450	96.34	0.16	0.03
		5320	1.396	1.458	95.75	0.19	0.60
		5500	1.397	1.450	96.34	0.16	0.00
		5580	1.397	1.450	96.34	0.16	0.03
		5700	1.396	1.450	96.28	0.16	0.03
		5745	1.396	1.450	96.28	0.16	0.03
		5785	1.397	1.451	96.28	0.16	0.03
		5825	1.396	1.450	96.28	0.16	0.03
802.11n (HT20)	SISO	5180	1.181	1.235	95.63	0.19	0.04
		5200	1.181	1.235	95.63	0.19	0.04
		5240	1.181	1.235	95.63	0.19	0.04
		5260	1.182	1.235	95.71	0.19	0.04
		5300	1.181	1.235	95.63	0.19	0.04
		5320	1.181	1.235	95.63	0.19	0.04
		5500	1.181	1.235	95.63	0.19	0.04
		5580	1.181	1.235	95.63	0.19	0.04
		5700	1.181	1.235	95.63	0.19	0.04
		5745	1.181	1.235	95.63	0.19	0.04
		5785	1.182	1.235	95.71	0.19	0.04
		5825	1.181	1.235	95.63	0.19	0.04
802.11n (HT40)	SISO	5190	0.587	0.640	91.72	0.38	0.03
		5230	0.587	0.640	91.72	0.38	0.03
		5270	0.587	0.640	91.72	0.38	0.06
		5310	0.587	0.640	91.72	0.38	0.03
		5510	0.587	0.640	91.72	0.38	0.03
		5550	0.588	0.640	91.87	0.37	0.03
		5670	0.587	0.640	91.72	0.38	0.03
		5755	0.587	0.640	91.72	0.38	0.03
		5795	0.588	0.640	91.87	0.37	0.00
802.11ac (VHT20)	SISO	5180	1.189	1.242	95.73	0.19	0.03
		5200	1.189	1.243	95.66	0.19	0.03
		5240	1.188	1.242	95.65	0.19	0.03
		5260	1.189	1.242	95.73	0.19	0.03
		5300	1.189	1.242	95.73	0.19	0.04
		5320	1.189	1.242	95.73	0.19	0.03
		5500	1.188	1.242	95.65	0.19	0.03
		5580	1.189	1.242	95.73	0.19	0.03
		5700	1.188	1.241	95.73	0.19	0.03
		5745	1.188	1.242	95.65	0.19	0.03
802.11ac (VHT40)	SISO	5785	1.189	1.242	95.73	0.19	0.07
		5825	1.188	1.242	95.65	0.19	0.03
		5190	0.595	0.648	91.82	0.37	1.29
		5230	0.595	0.648	91.82	0.37	0.00
		5270	0.594	0.648	91.67	0.38	0.04
		5310	0.595	0.648	91.82	0.37	0.03
	SISO	5510	0.594	0.647	91.81	0.37	0.04
		5550	0.595	0.648	91.82	0.37	0.06

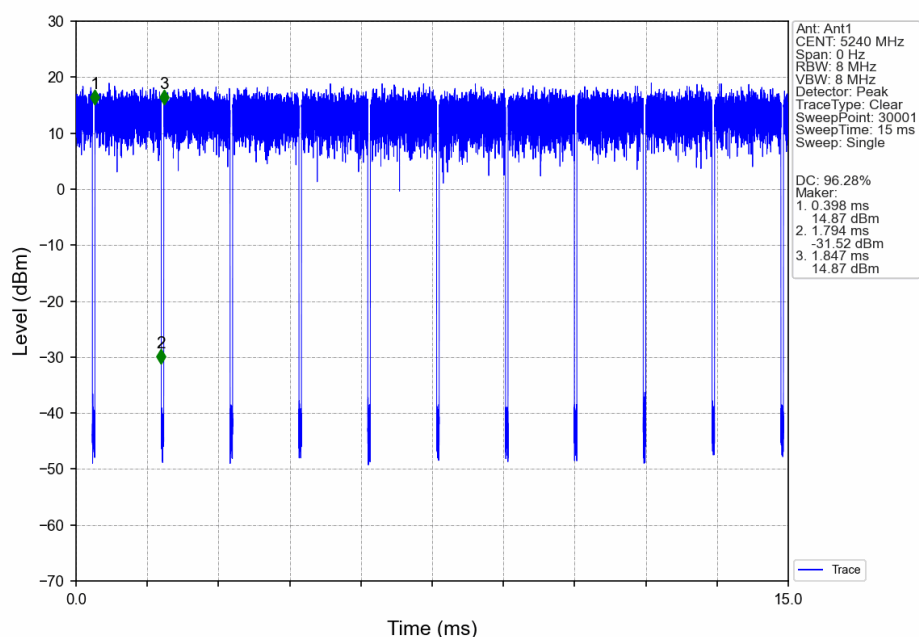
802.11ac (VHT80)	SISO	5670	0.595	0.648	91.82	0.37	1.34
		5755	0.595	0.648	91.82	0.37	1.34
		5795	0.595	0.648	91.82	0.37	0.04
		5210	0.296	0.349	84.81	0.72	0.06
		5290	0.298	0.349	85.39	0.69	0.05
		5530	0.296	0.349	84.81	0.72	0.08
		5610	0.296	0.349	84.81	0.72	0.05
		5775	0.296	0.349	84.81	0.72	0.03

1.2 Test Graph

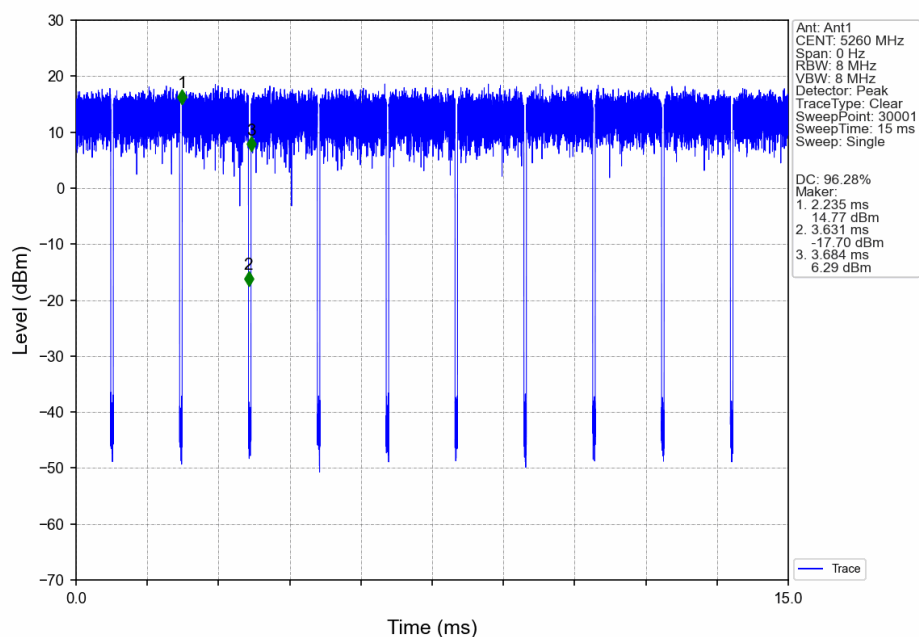
1.2.1 Ant1



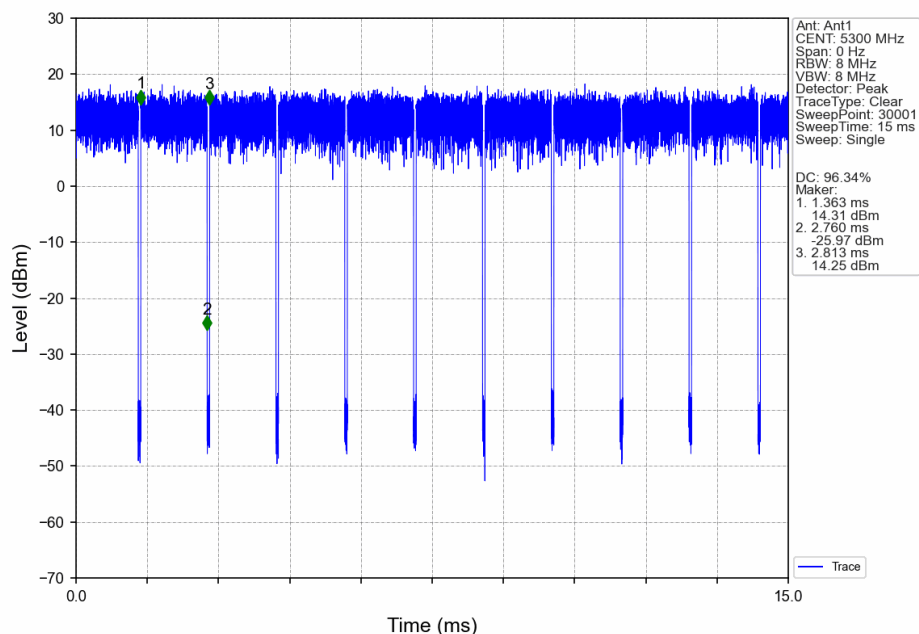
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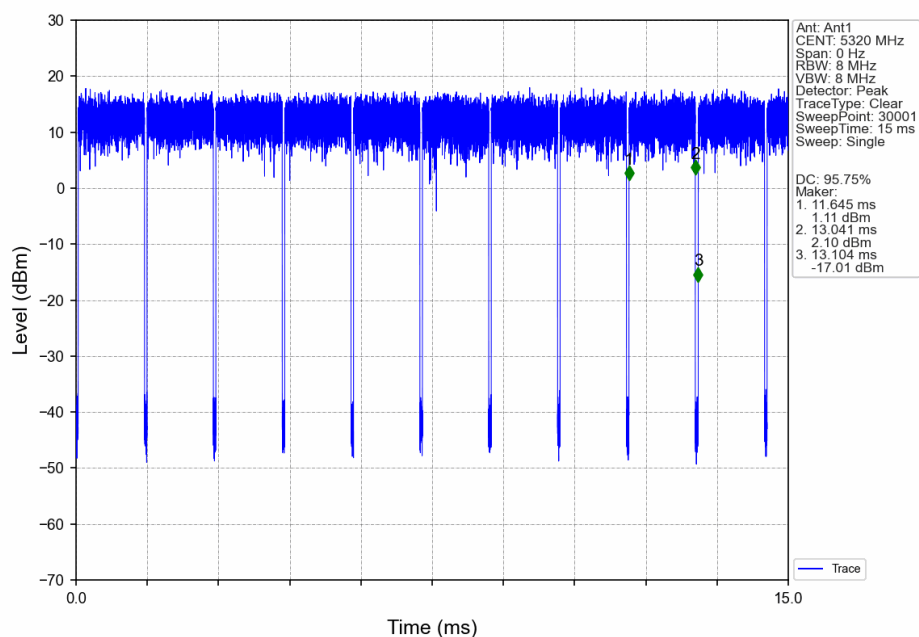
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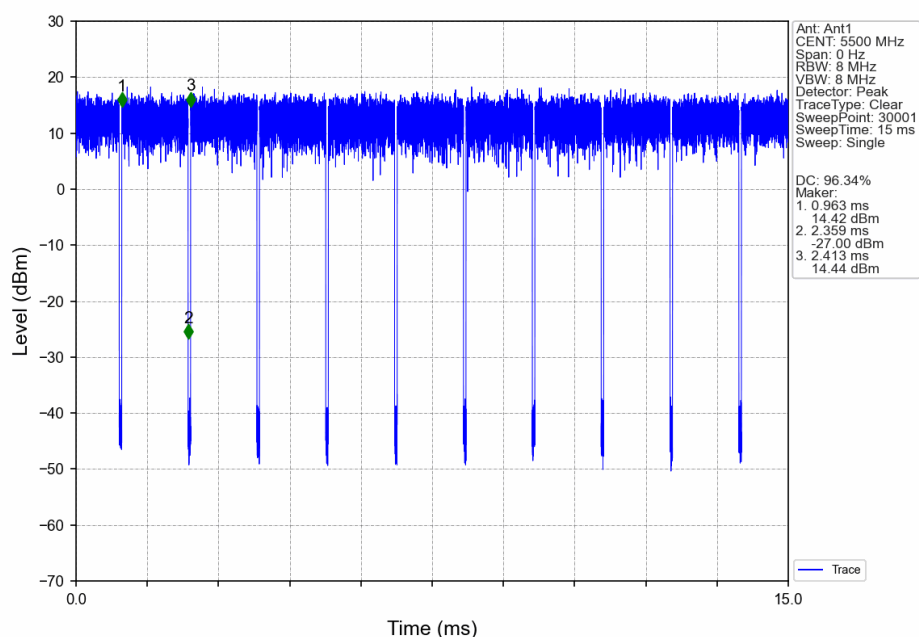
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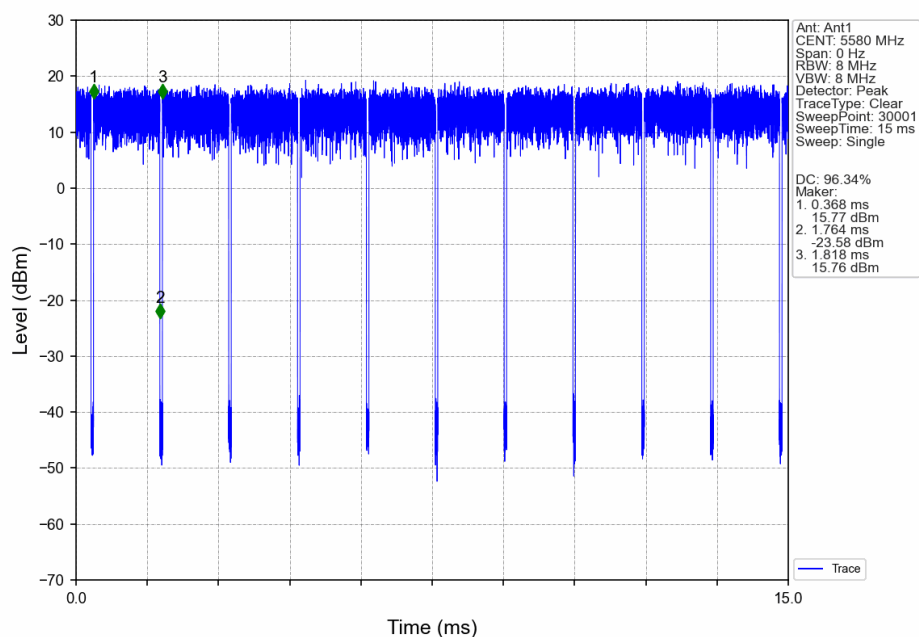
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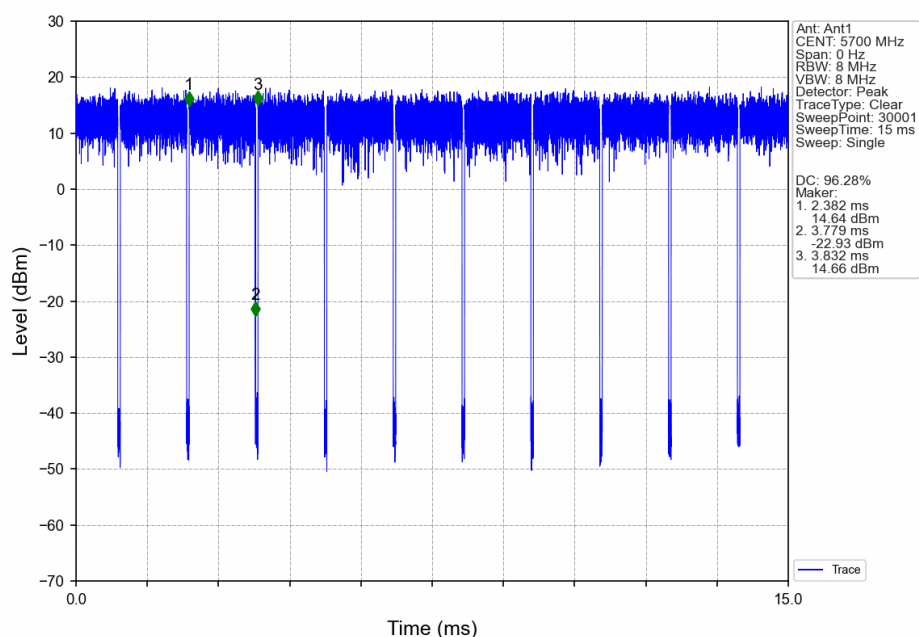
802.11a_LCH_5500MHz_Ant1_NTNV



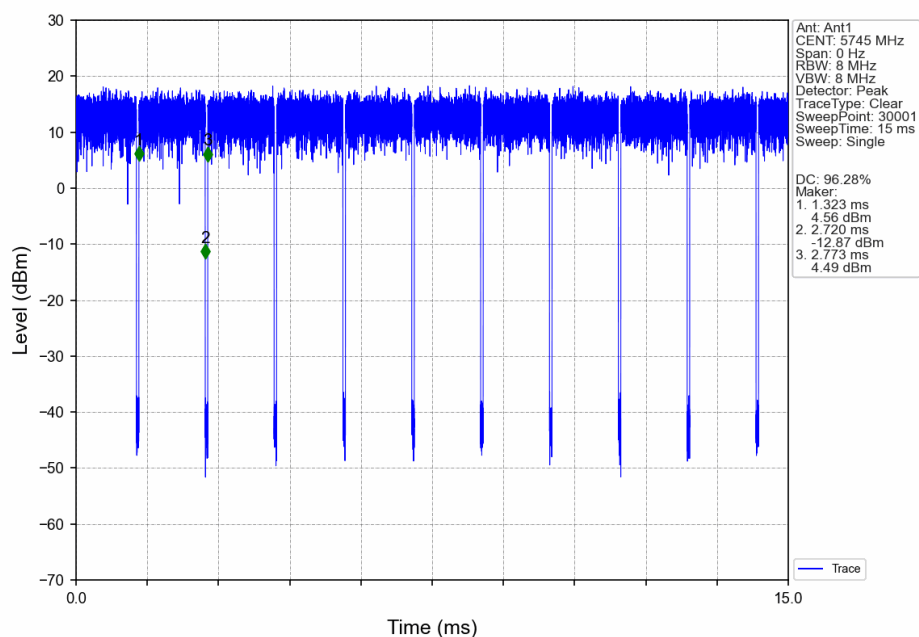
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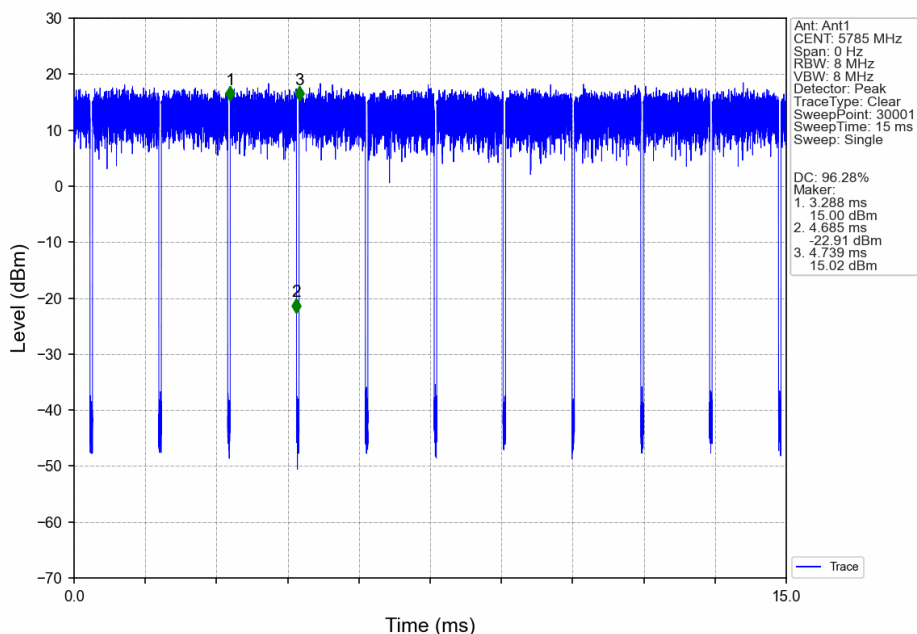
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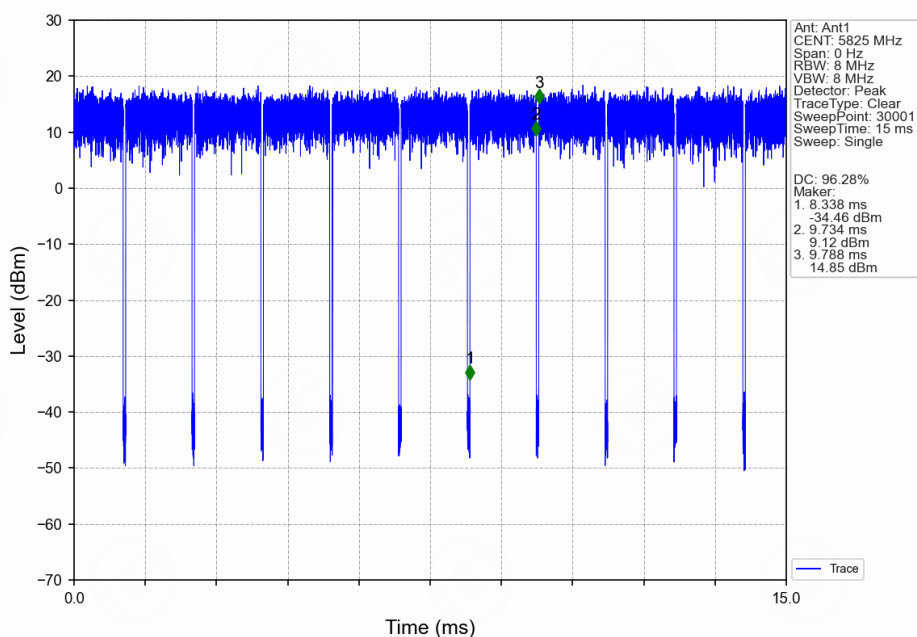
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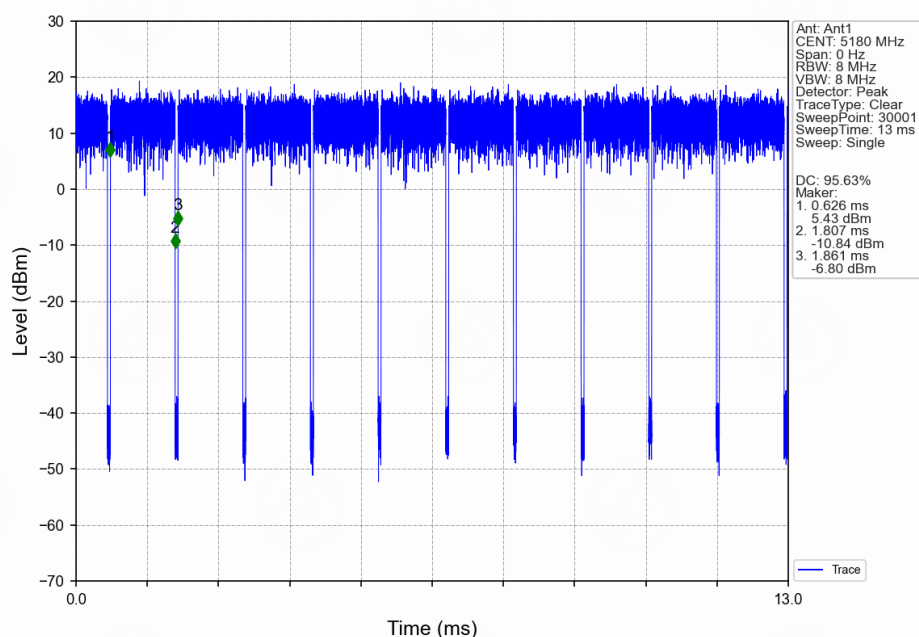
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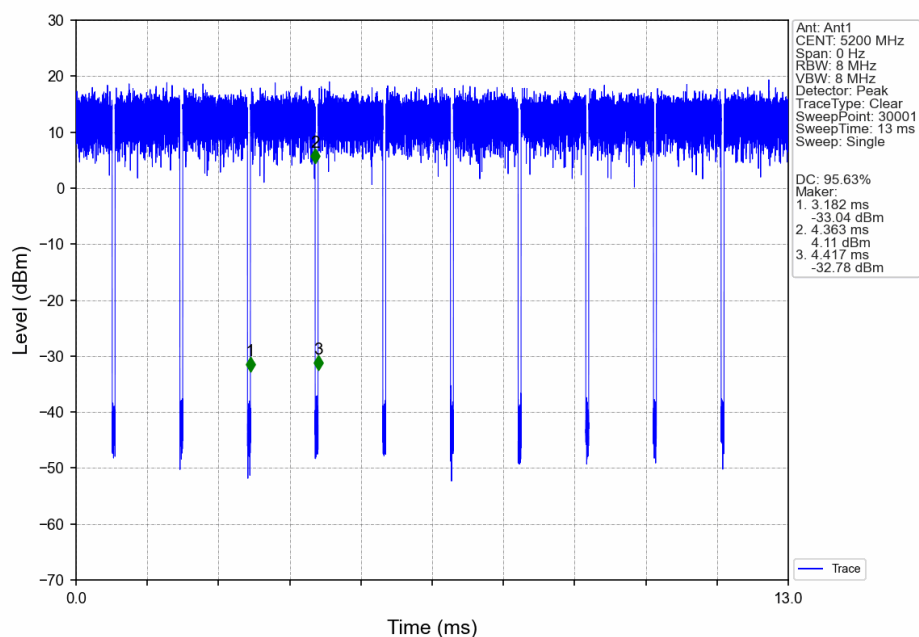
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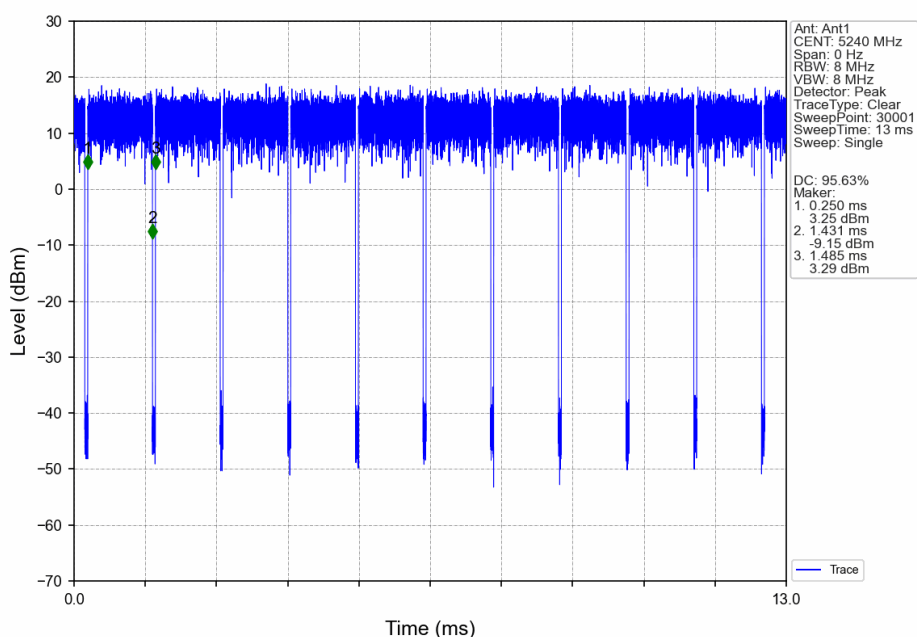
802.11n(HT20) LCH 5180MHz_Ant1_NTNV



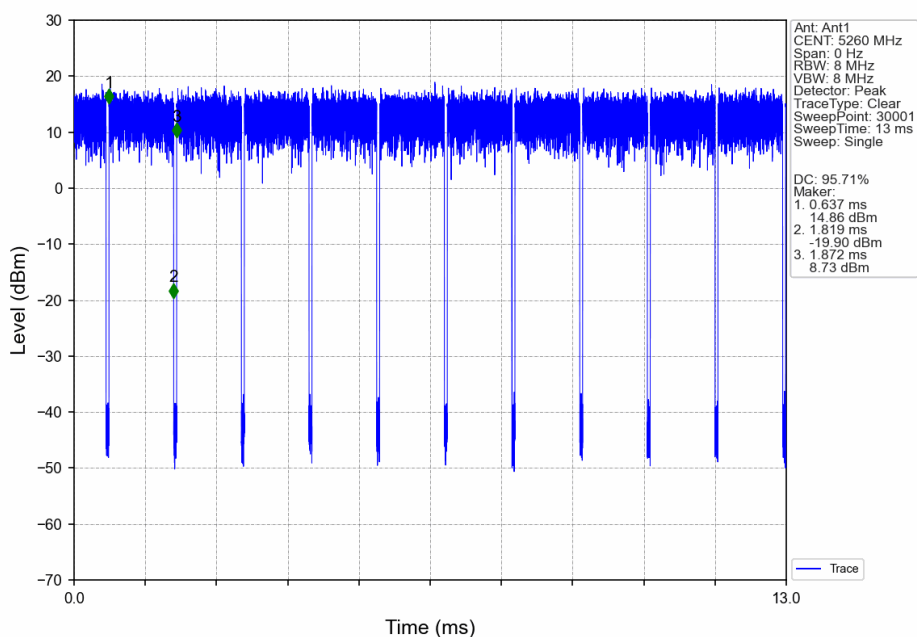
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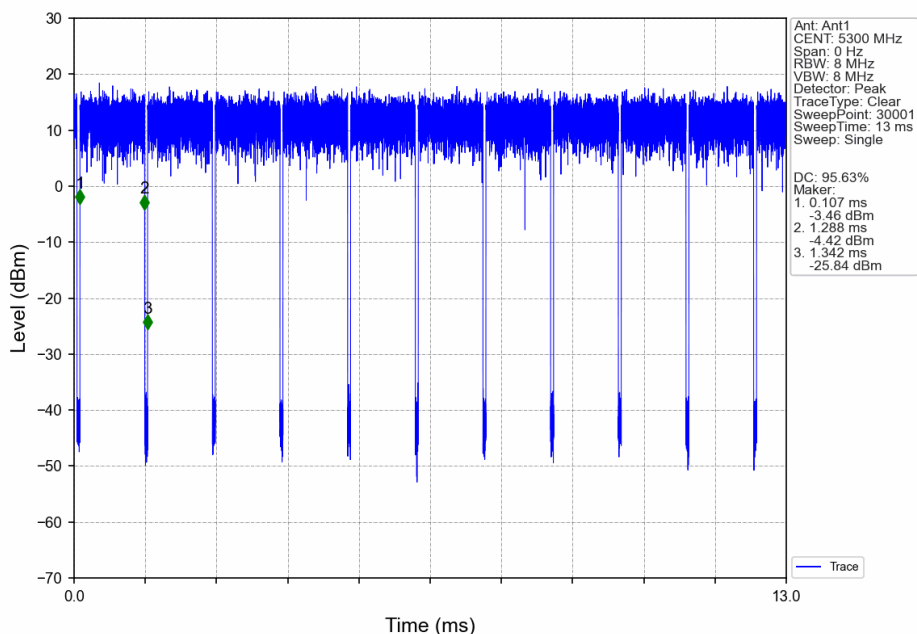
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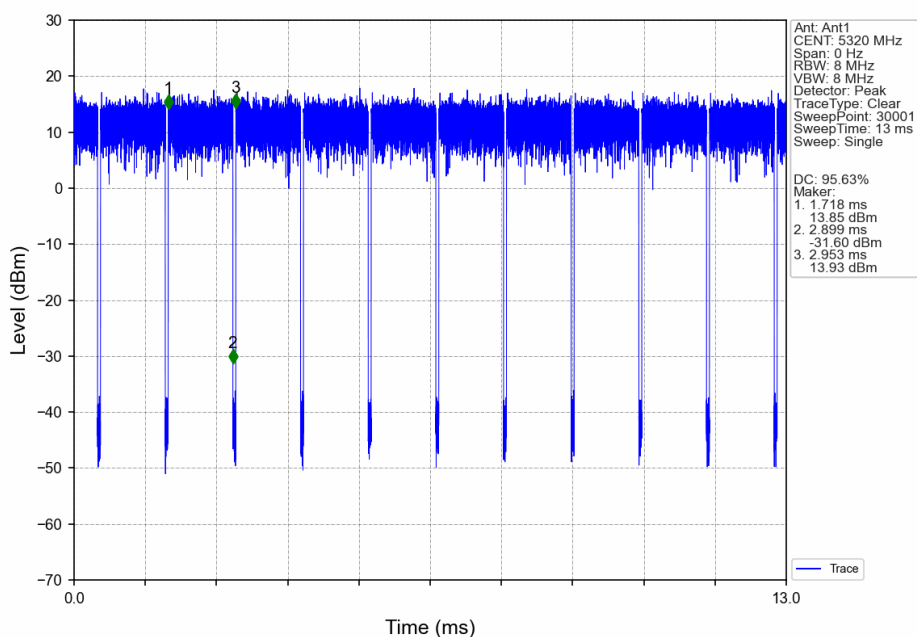
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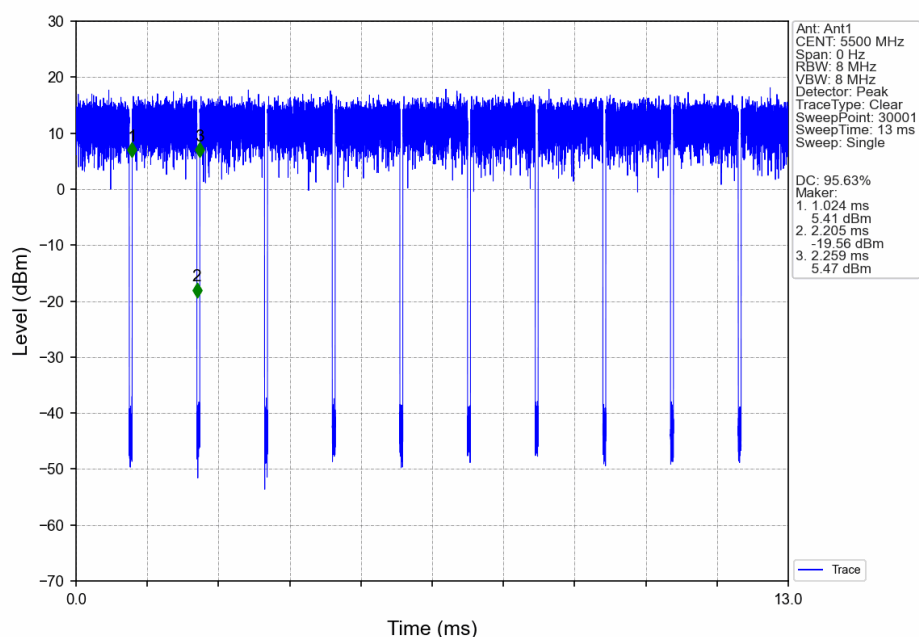
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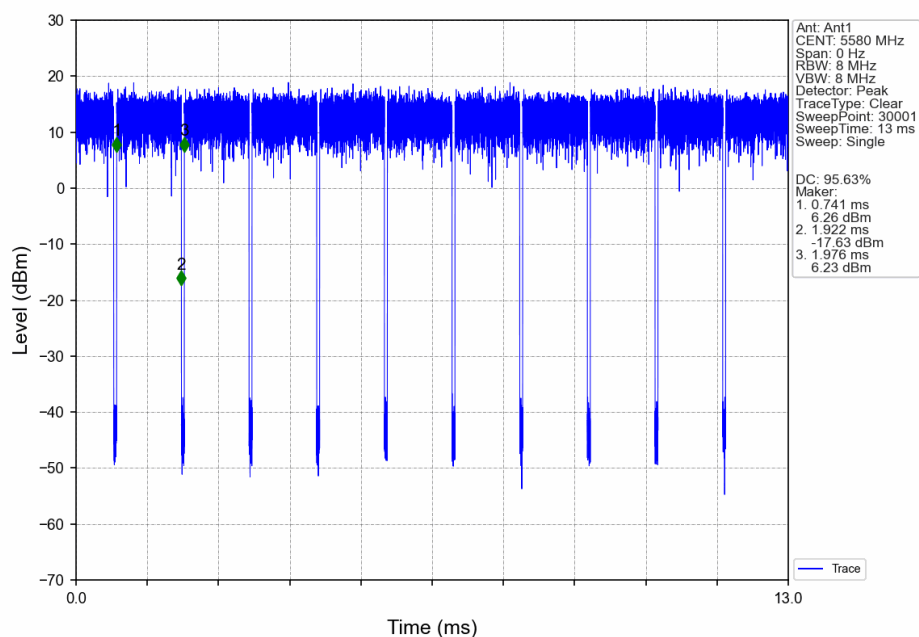
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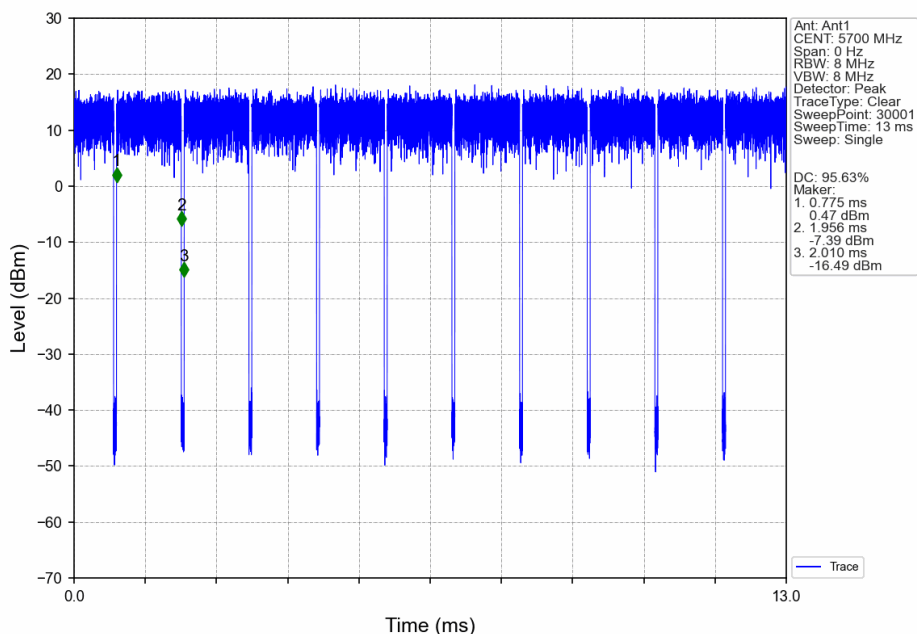
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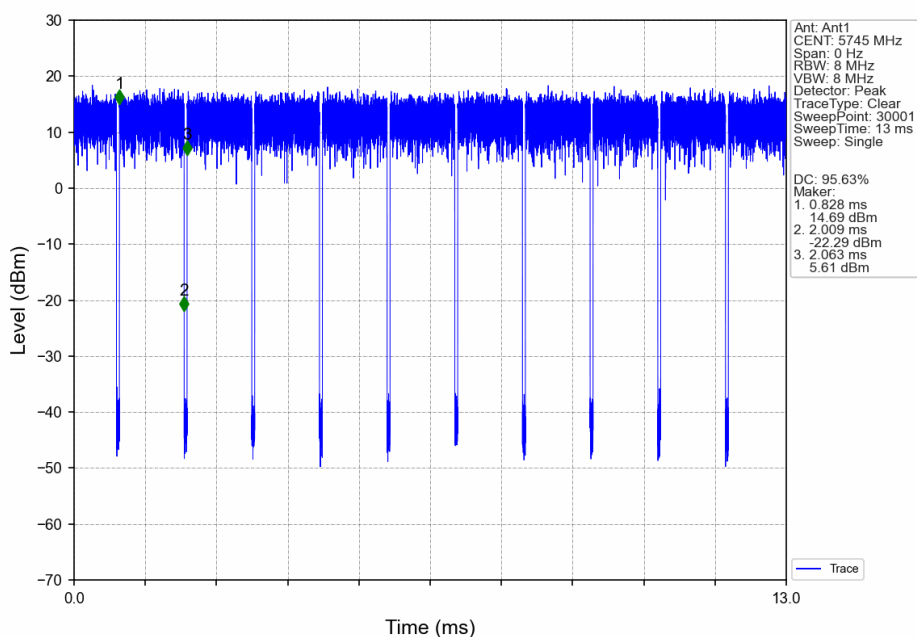
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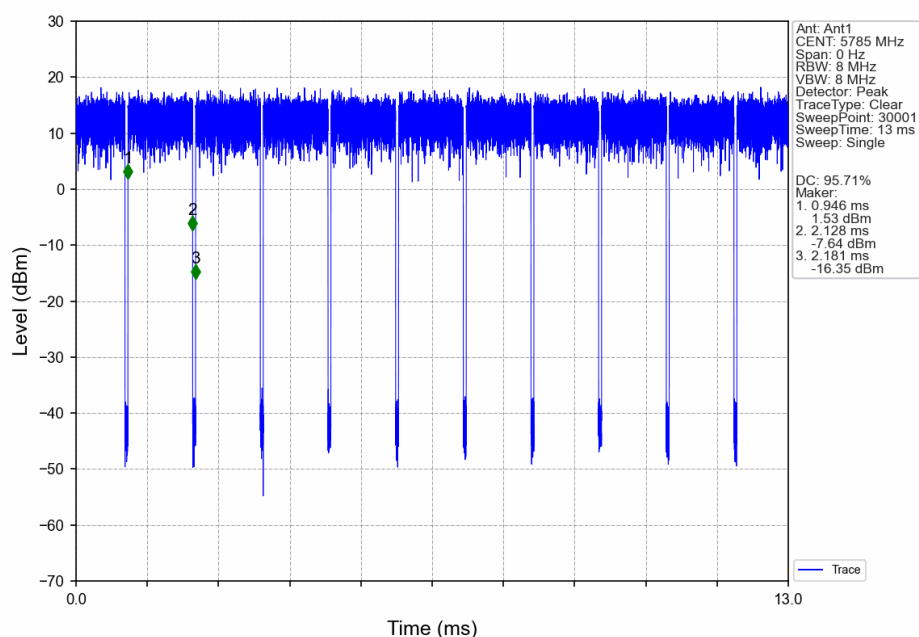
802.11n(HT20) HCH 5700MHz_Ant1_NTNV



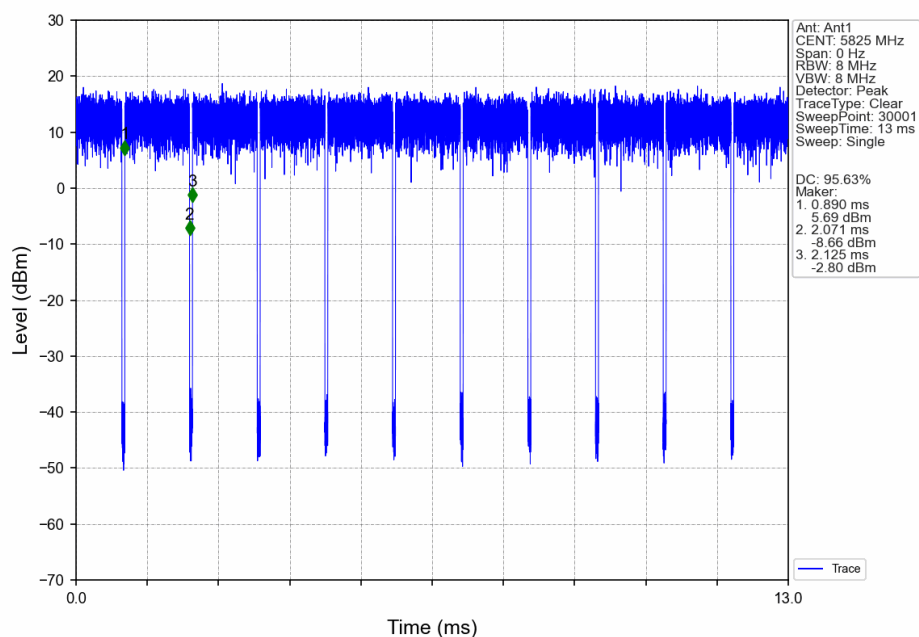
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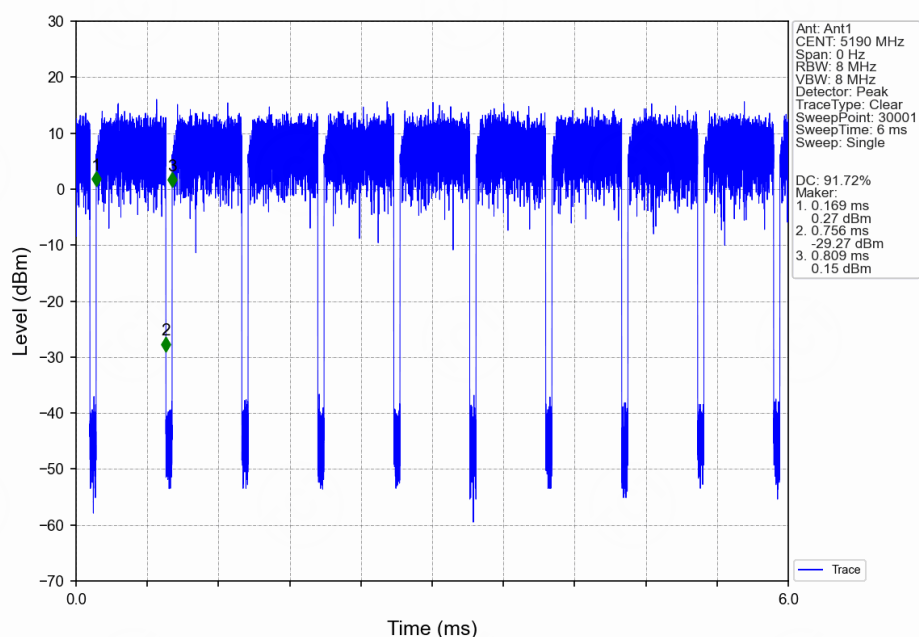
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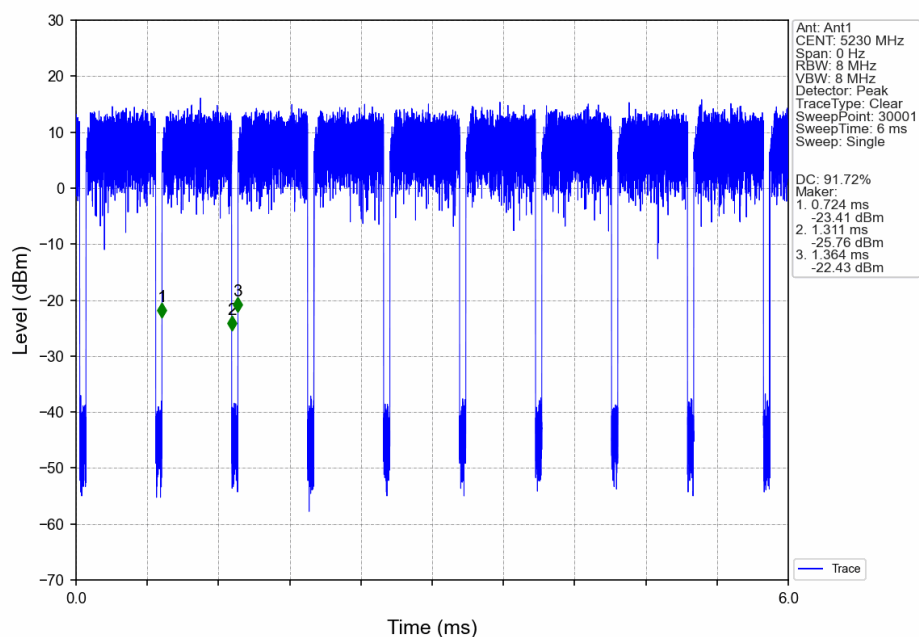
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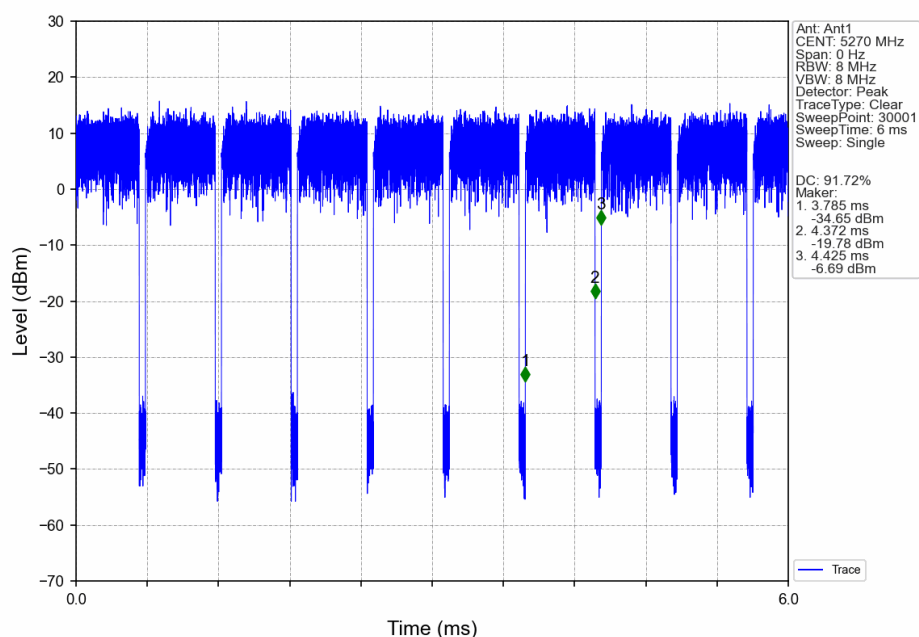
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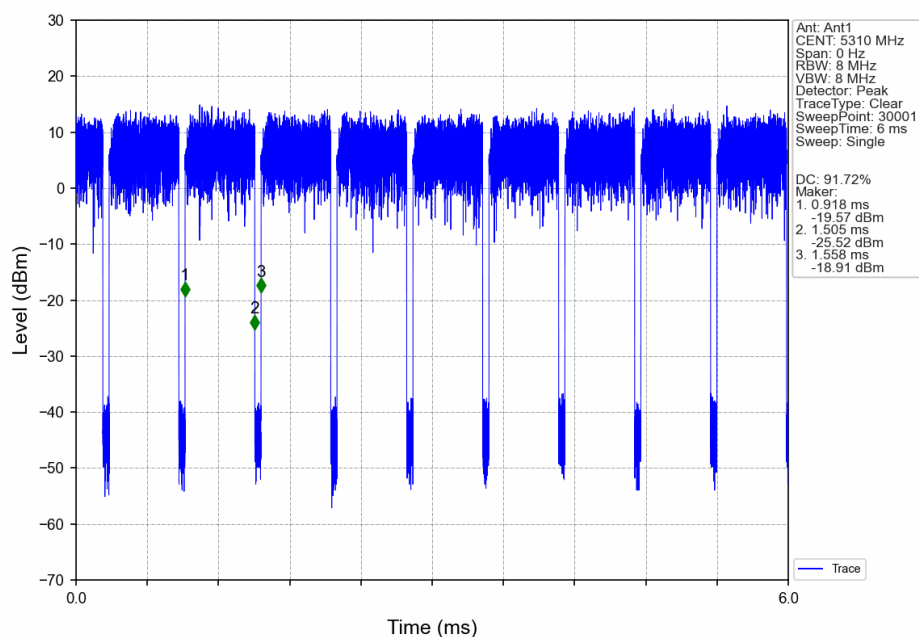
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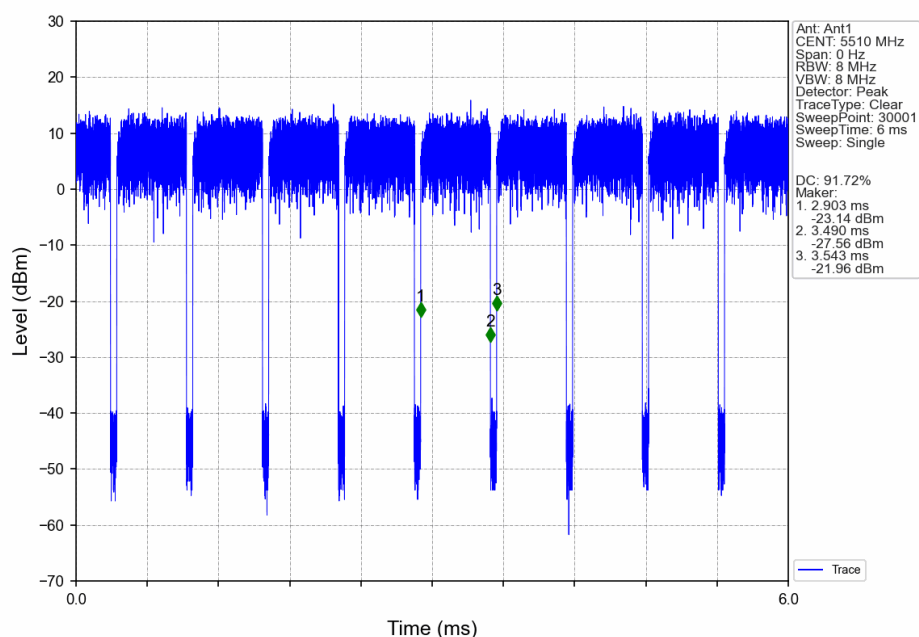
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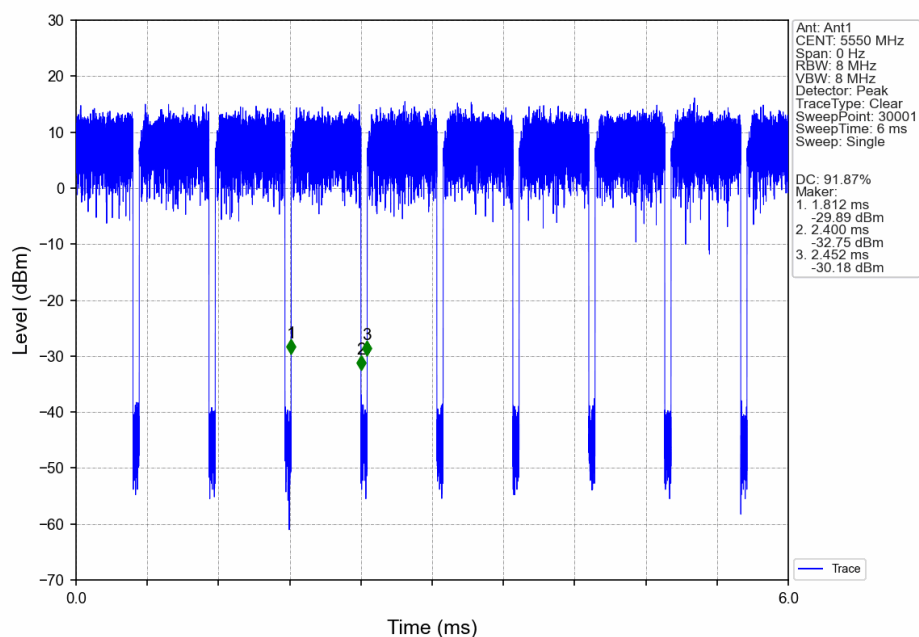
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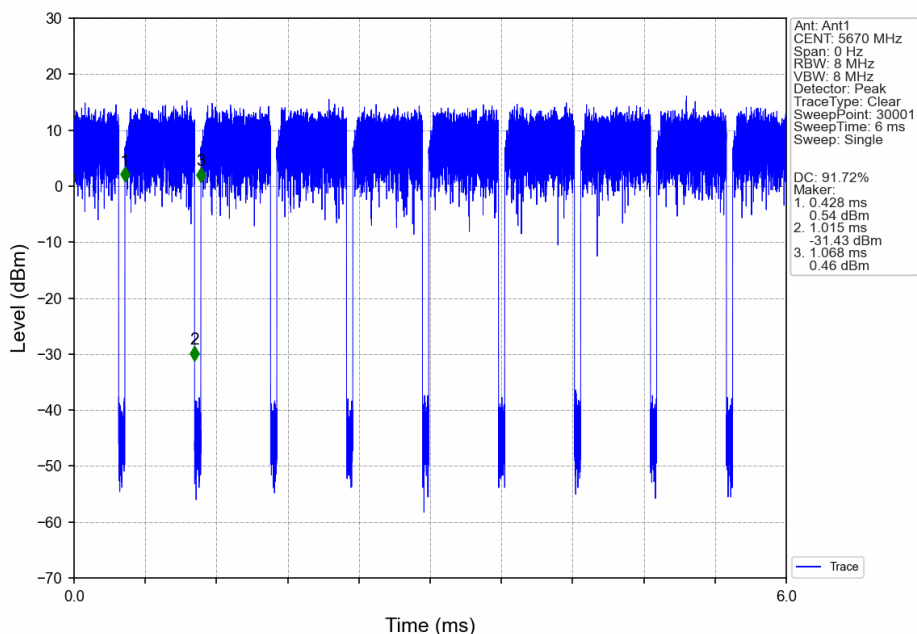
802.11n(HT40) LCH 5510MHz Ant1 NTN



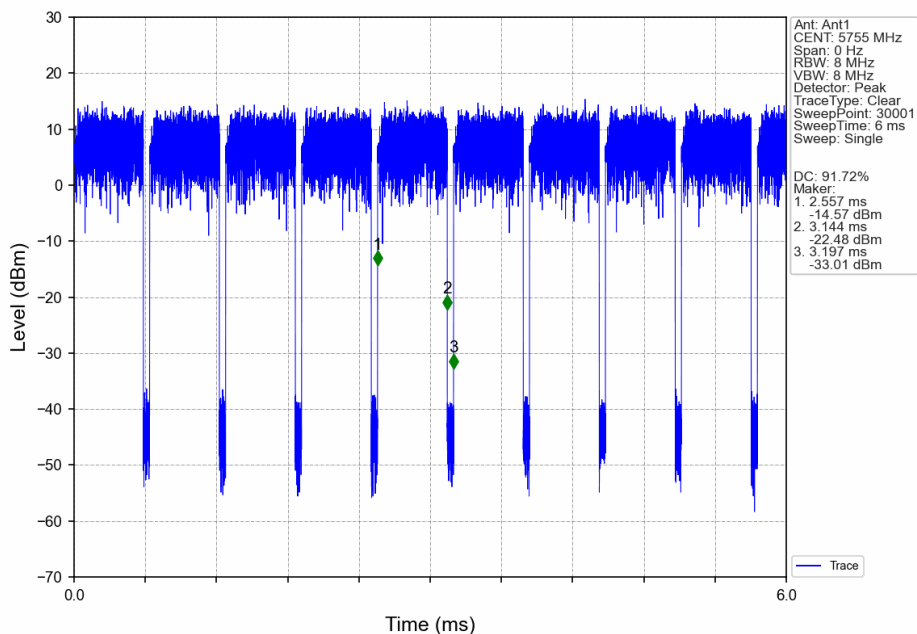
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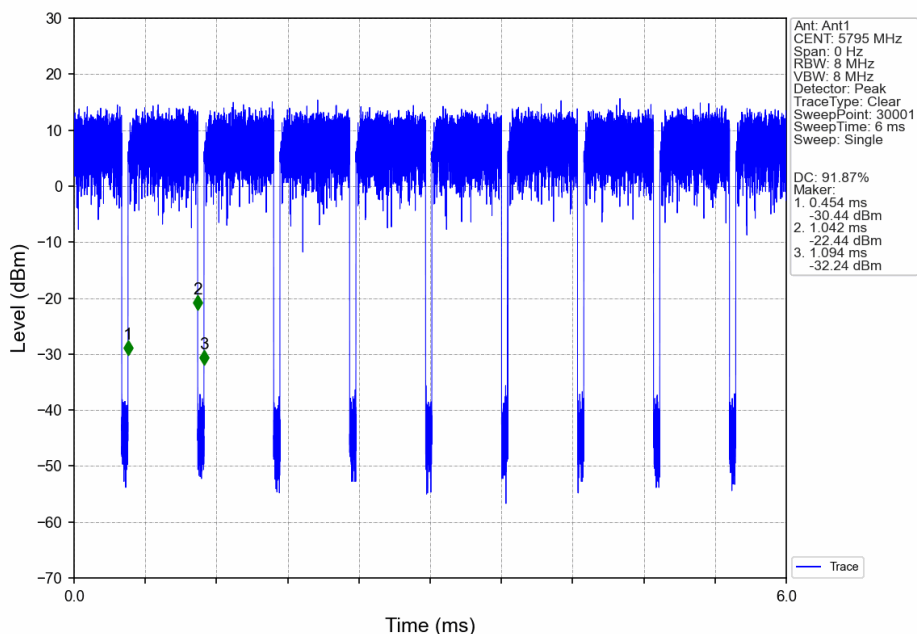
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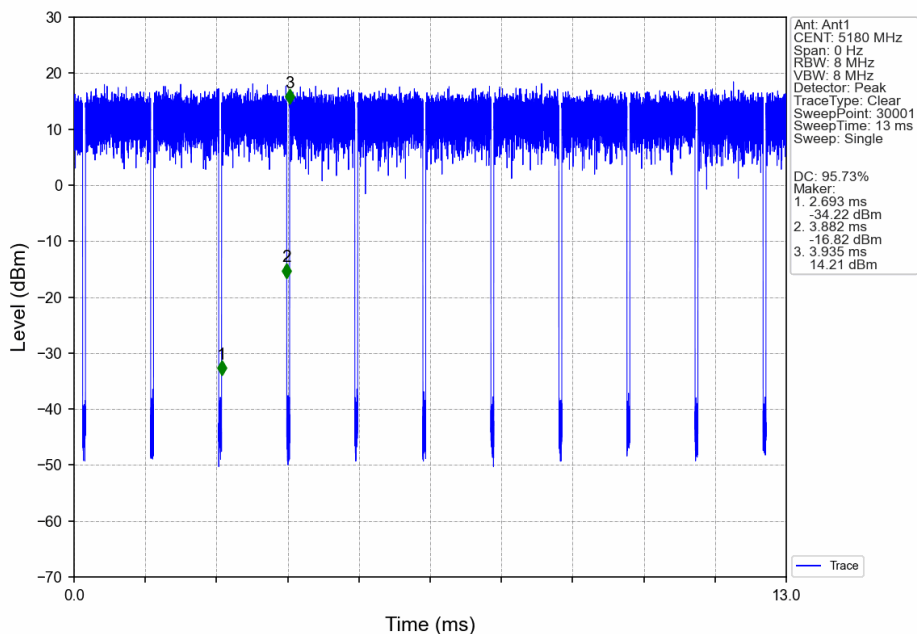
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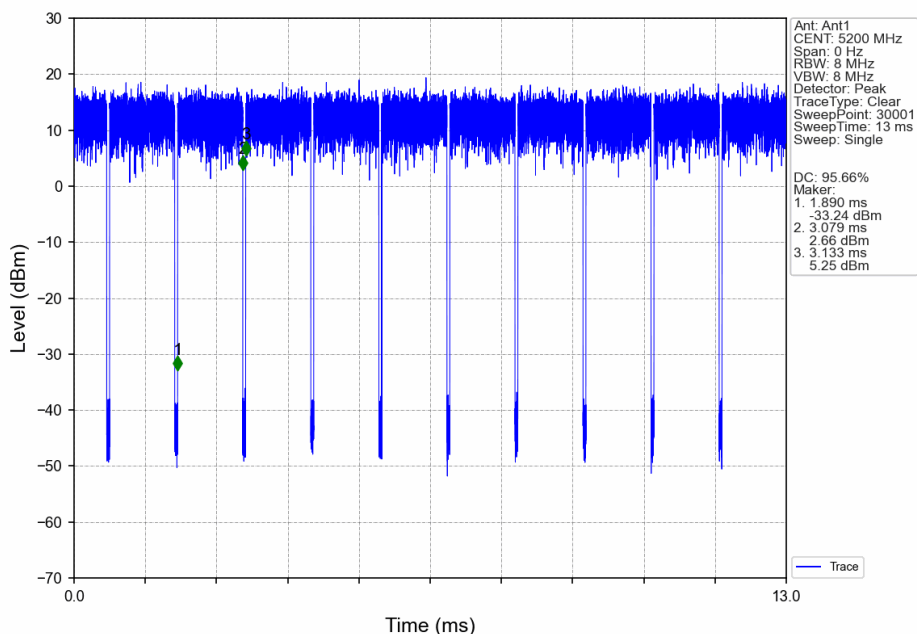
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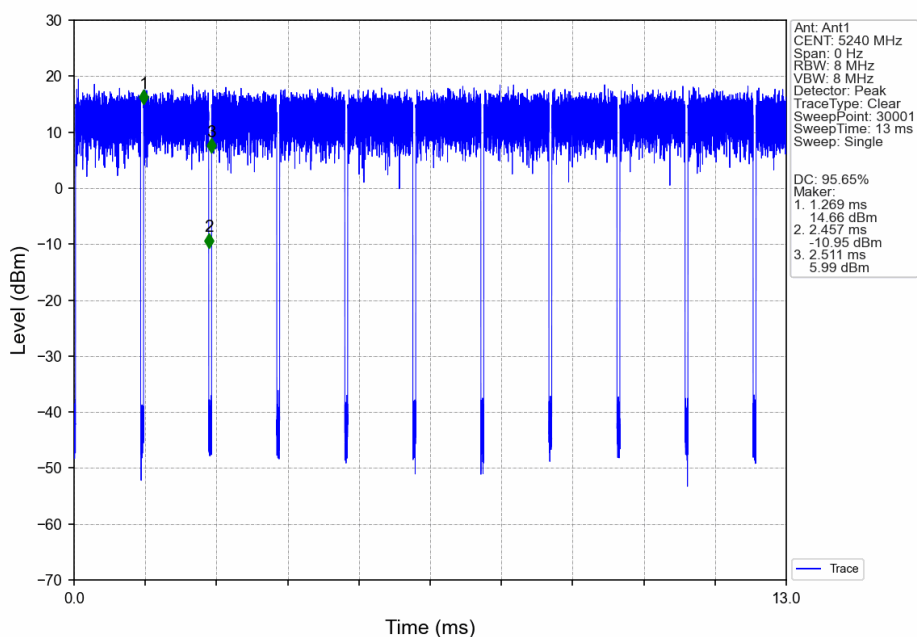
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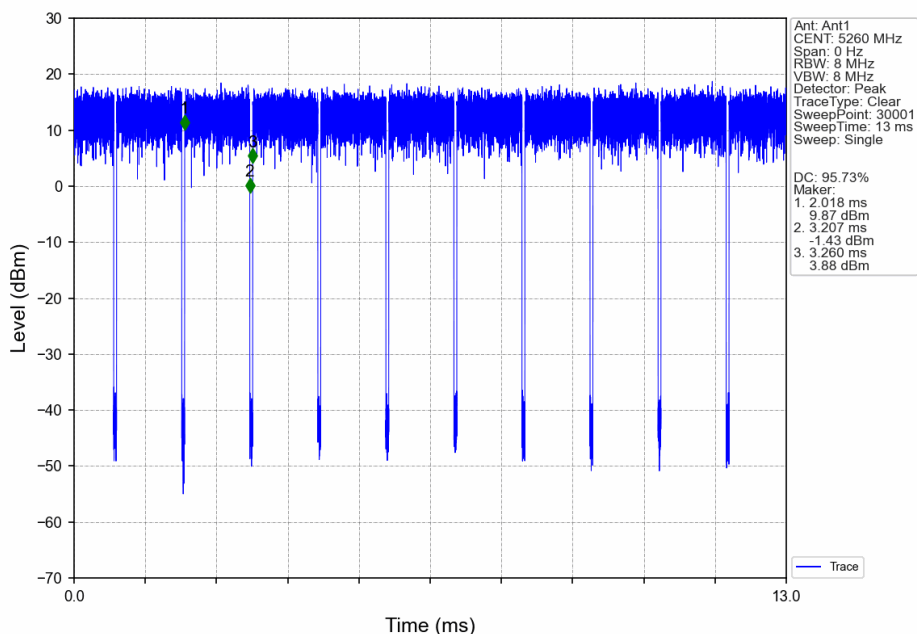
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



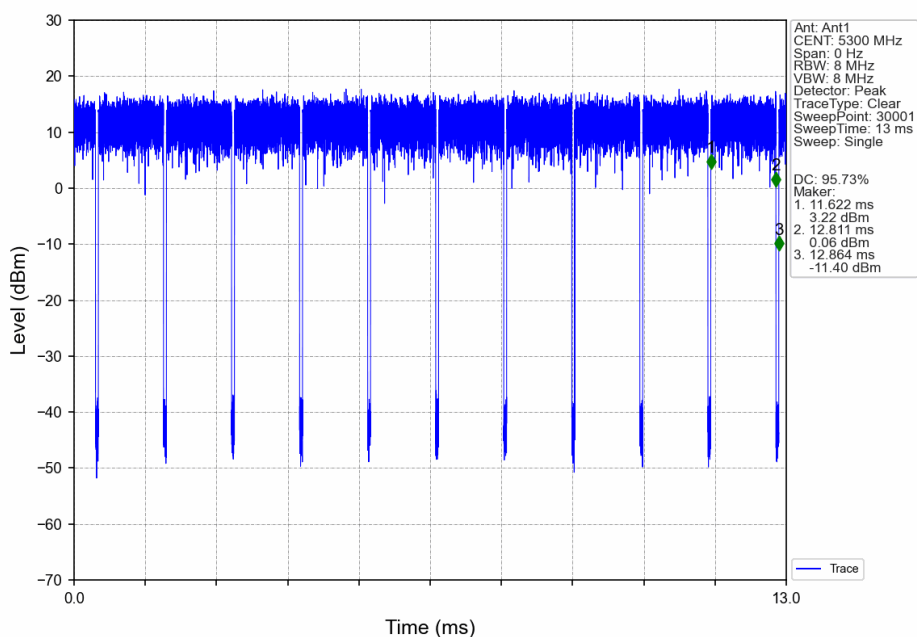
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



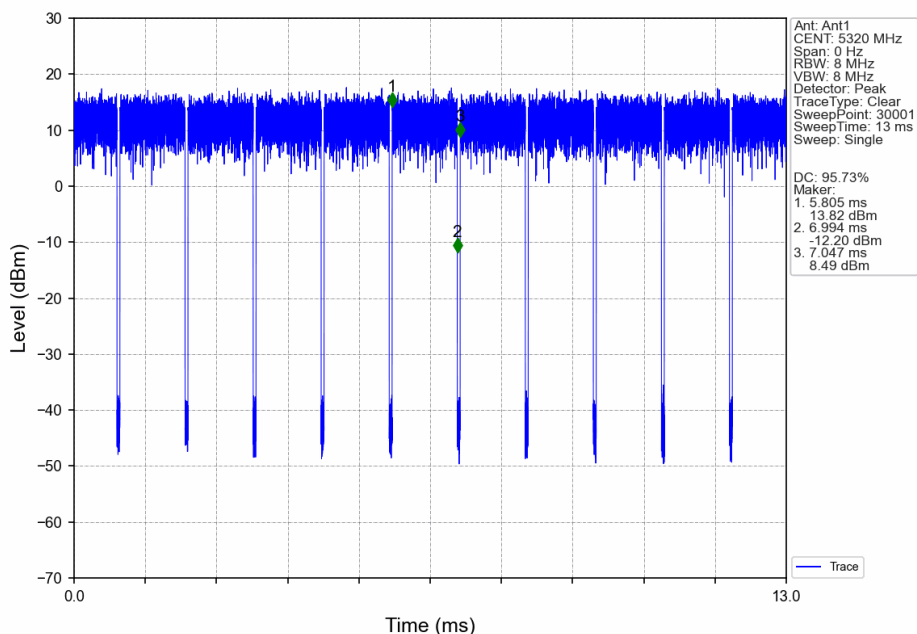
802.11ac(VHT20) LCH 5260MHz Ant1 NTN



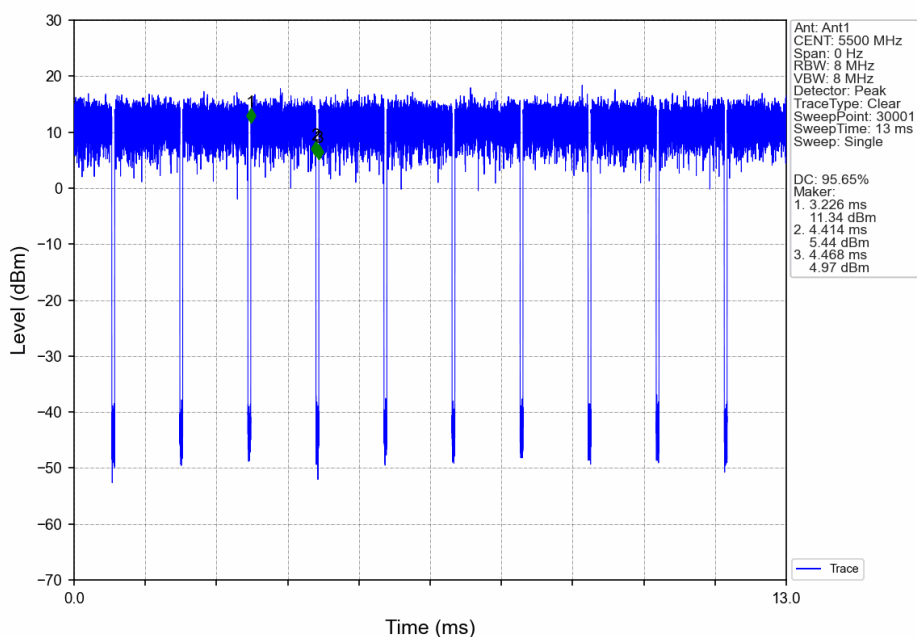
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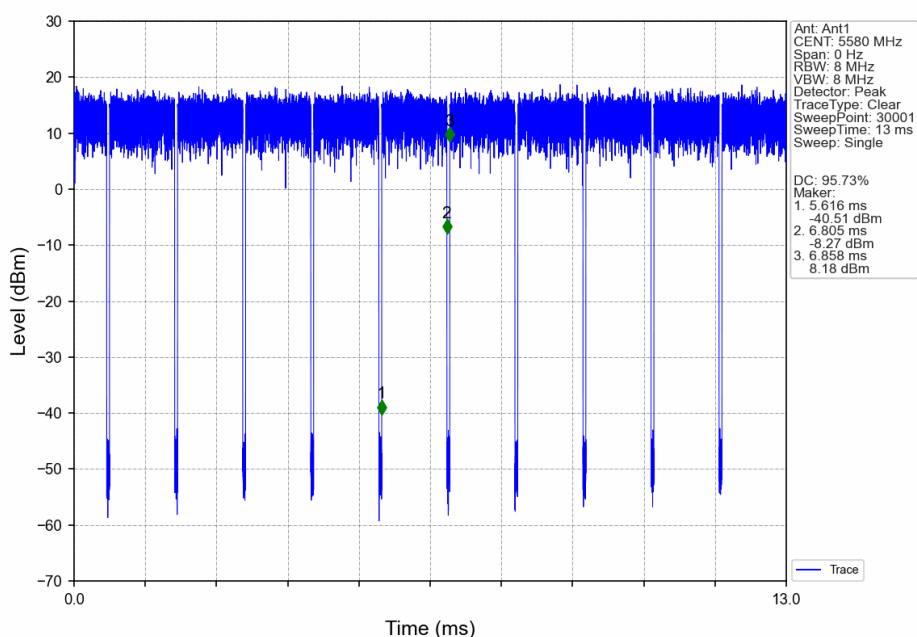
802.11ac(VHT20)_HCH_5320MHz_Ant1_NTNV



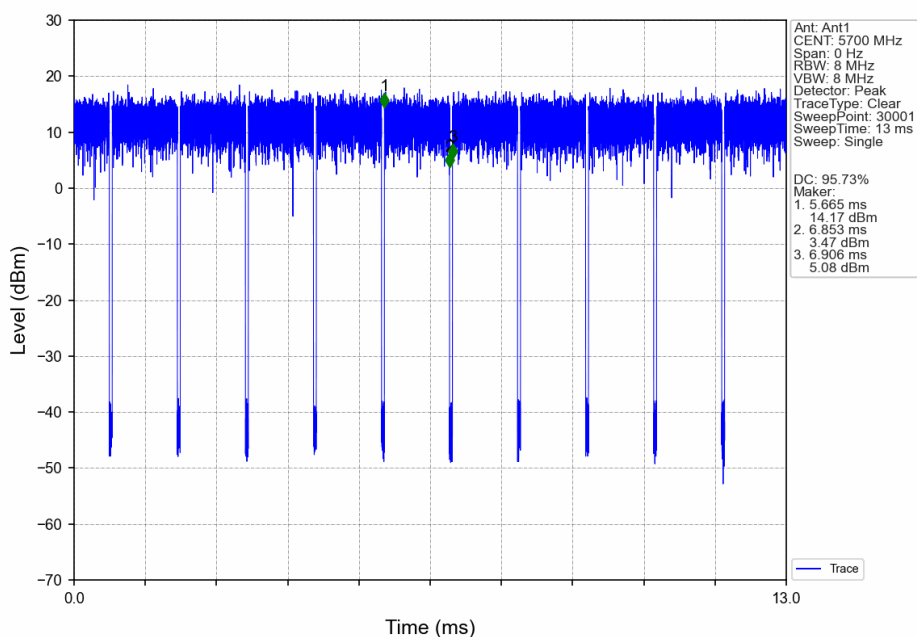
802.11ac(VHT20)_LCH_5500MHz_Ant1_NTNV



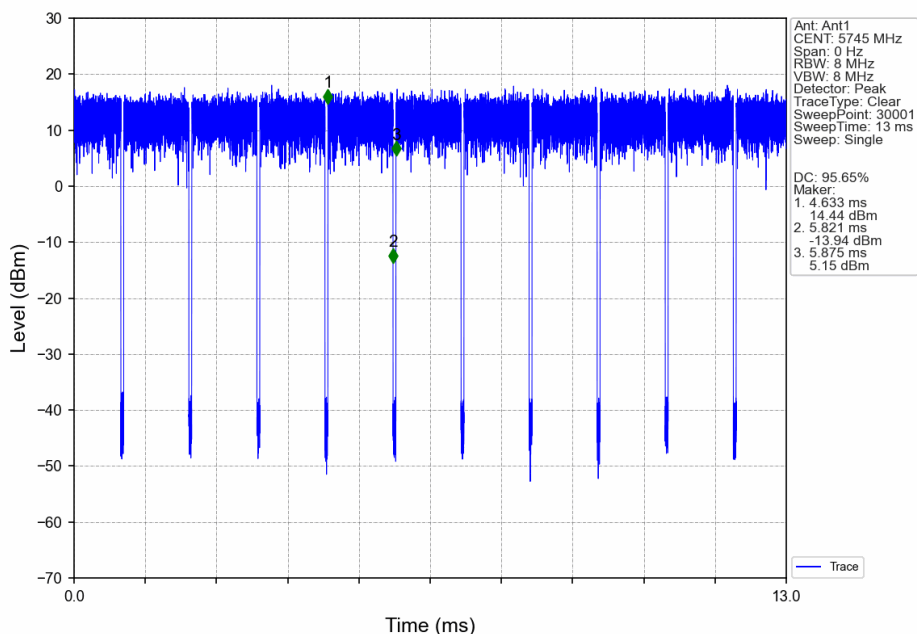
802.11ac(VHT20)_MCH_5580MHz_Ant1_NTNV



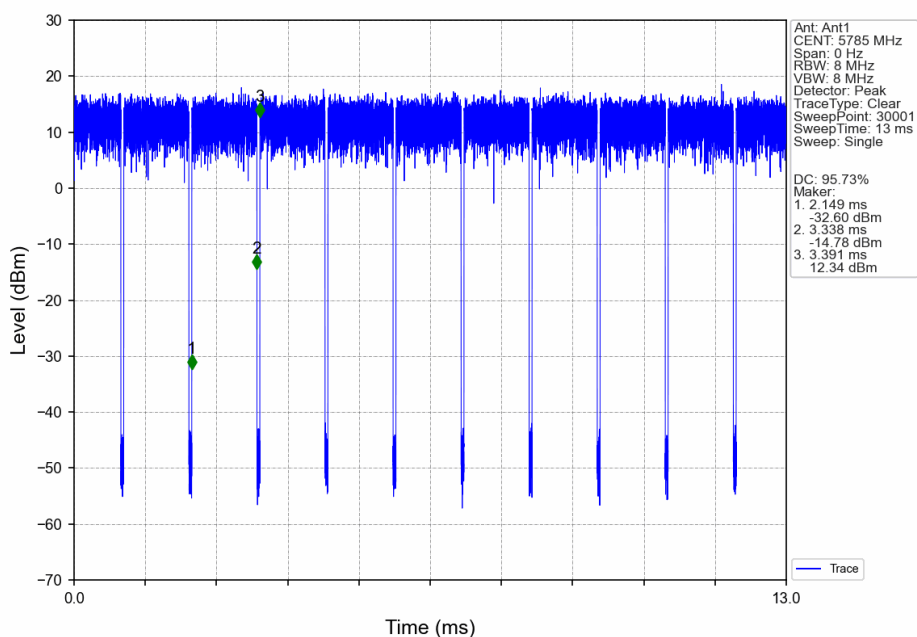
802.11ac(VHT20)_HCH_5700MHz_Ant1_NTNV



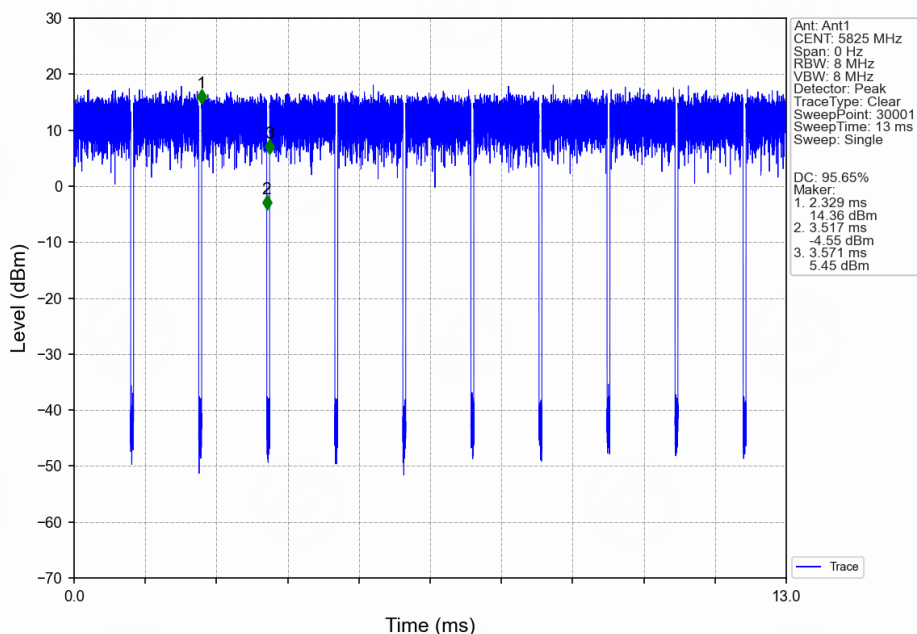
802.11ac(VHT20) LCH 5745MHz Ant1 NTN



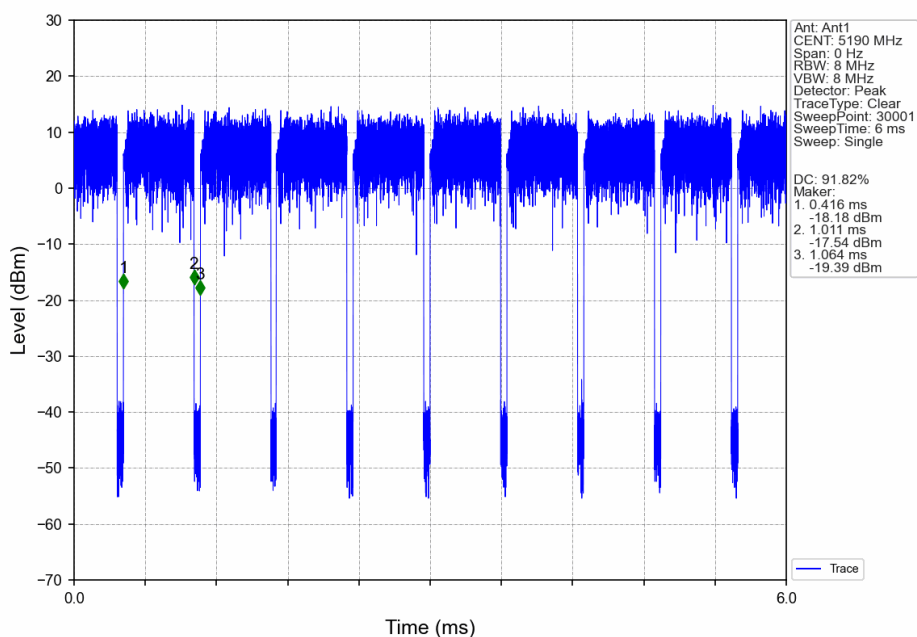
802.11ac(VHT20) MCH 5785MHz Ant1 NTN



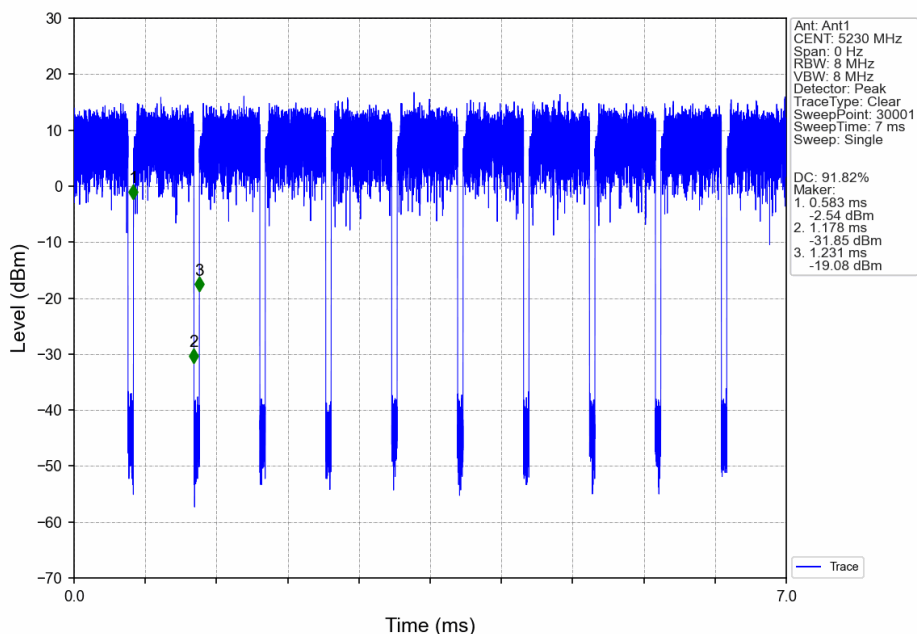
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



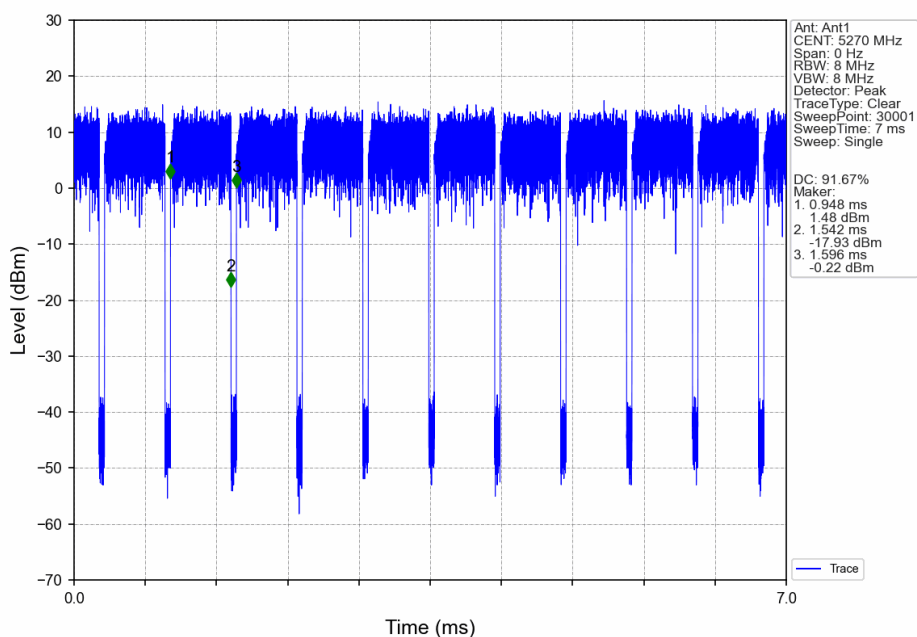
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



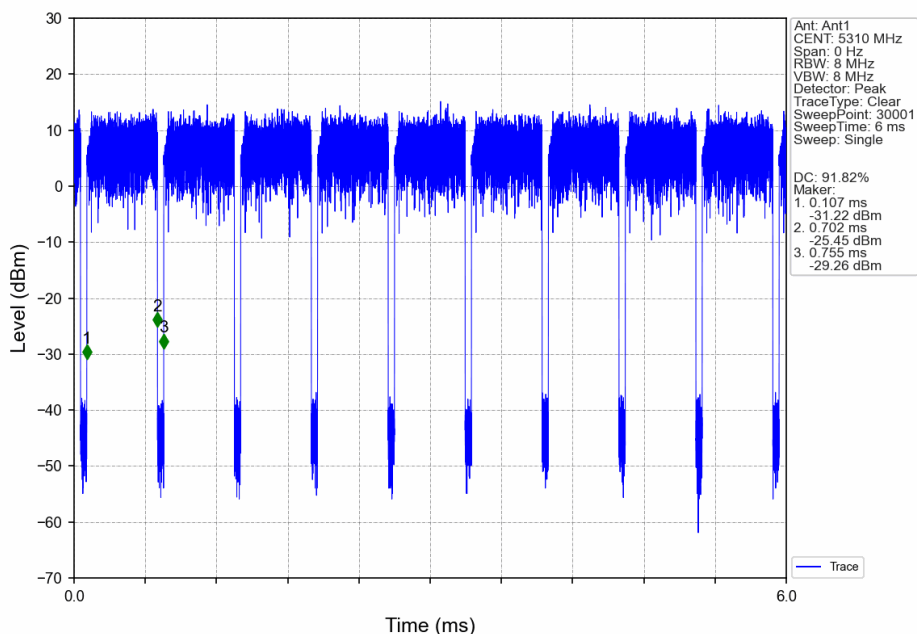
802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



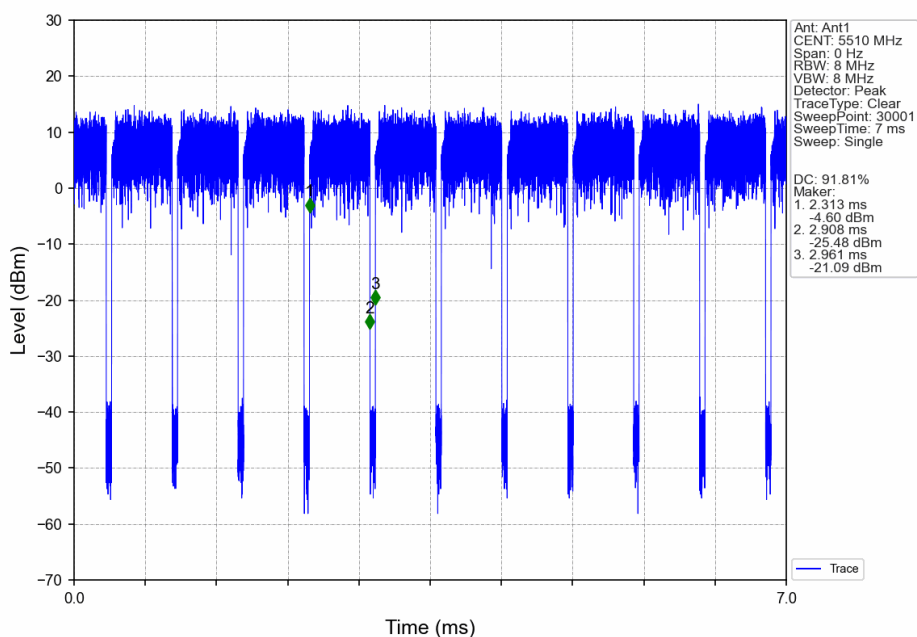
802.11ac(VHT40)_LCH_5270MHz_Ant1_NTNV



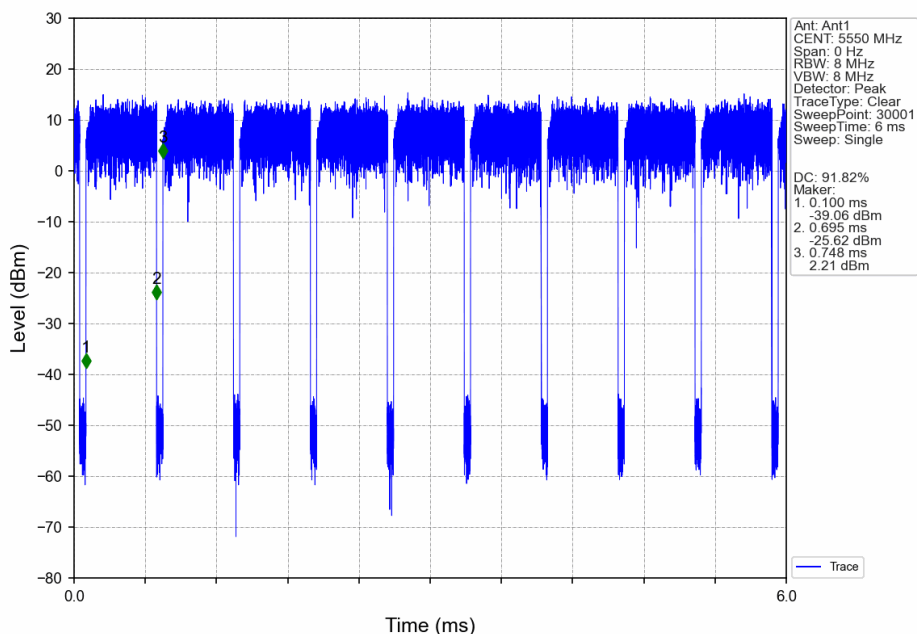
802.11ac(VHT40)_HCH_5310MHz_Ant1_NTNV



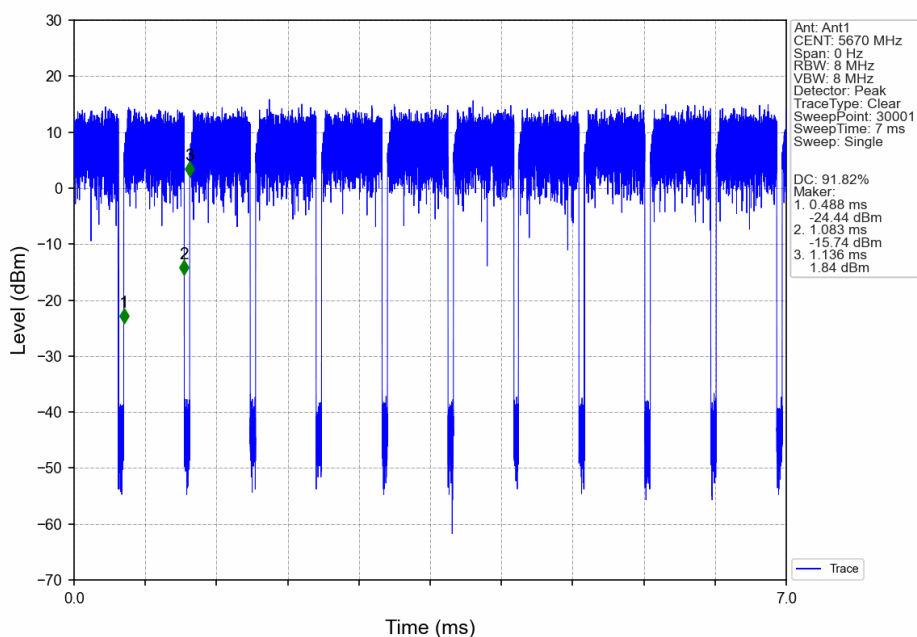
802.11ac(VHT40)_LCH_5510MHz_Ant1_NTNV



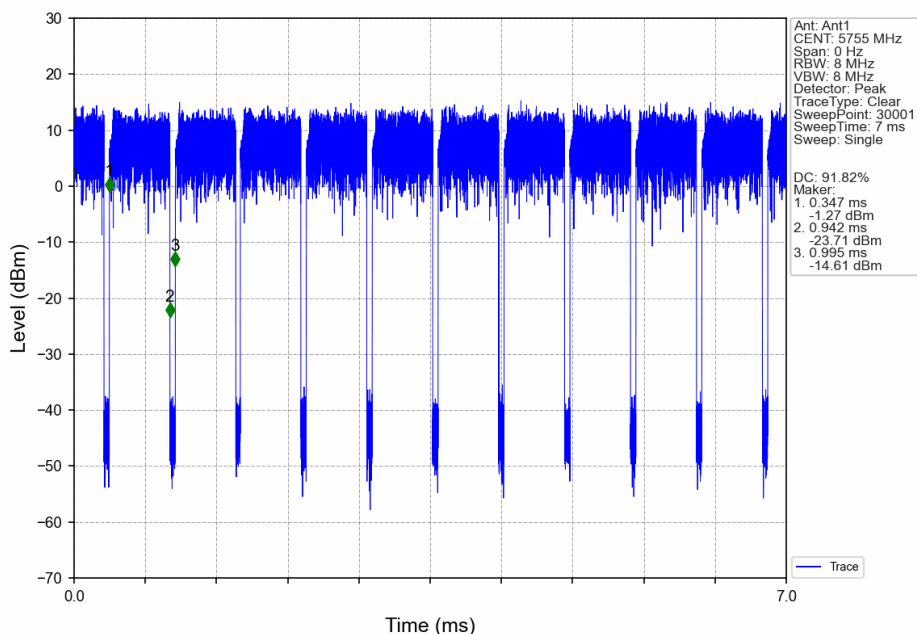
802.11ac(VHT40)_MCH_5550MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5670MHz_Ant1_NTNV



802.11ac(VHT40) LCH 5755MHz Ant1 NTN



802.11ac(VHT40) HCH 5795MHz Ant1 NTN

