



Shenzhen HTT Technology Co., Ltd.

TEST REPORT

Application No.:	HTT202409755F05
FCC ID:	2BEMH-N172S
Applicant:	YEAHER INC.
Address of Applicant:	51 Steel Dr,Unit A, New Castle,Delaware,19720
Manufacturer:	Nimo Direct Inc.
Address of Manufacturer:	51 Steel Dr,Unit A, New Castle,Delaware,19720
Equipment Under Test (EUT):	
EUT Name:	Portable Computer
Model:	N172S
Listed Models:	N172L, N172B
Trade mark:	N/A
Standard(s):	47 CFR Part 15E
Date of Receipt:	Sep. 30, 2024
Date of Test:	Sep. 30, 2024 to Oct. 22, 2024
Date of Issue:	Oct. 22, 2024
Test Result:	Pass
In the configuration tested, the EUT complied with the standards specified above.	

2 Revision Record

Version No.	Date	Description
00	Oct. 22, 2024	Original

Tested/ Prepared By

Heber He

Date:

Oct. 22, 2024

Project Engineer

Check By:

Bruce Zhu

Date:

Oct. 22, 2024

Reviewer

Approved By :

Kevin Yang

Date:

Oct. 22, 2024

Authorized Signature



3 Summary

Item	Standard	Method	Requirement	Result
Duty Cycle	47 CFR Part 15E	ANSI C63.10-2013 section 12.2 (b)	/	Pass
Emission bandwidth and occupied bandwidth	47 CFR Part 15E	ANSI C63.10-2013, section 6.9 & 12.4	47 CFR Part 15.407(a)(10)	Pass
Maximum conducted output power	47 CFR Part 15E	ANSI C63.10-2013, section 12.3	47 CFR Part 15.407(a)(8)	Pass
Power spectral density	47 CFR Part 15E	ANSI C63.10-2013, section 12.5	47 CFR Part 15.407(a)(8)	Pass
Channel Mask	47 CFR Part 15E	KDB 987594 D02, Clause J	47 CFR Part 15.407(b)(7)	Pass
Contention Based Protocol	47 CFR Part 15E	KDB 987594 D02, Clause I (C)	47 CFR Part 15.407(d)(6)	Pass
AC Power Conducted Emission	47 CFR Part 15E	ANSI C63.10-2020, section 12.7.4, 12.7.6, 12.7.7	47 CFR Part 15.407(b)(6) 47 CFR Part 15.407(b)(10)	Pass
Undesirable emission limits (below 1GHz)	47 CFR Part 15E	ANSI C63.10-2020, section 12.7.4, 12.7.5	47 CFR Part 15.407(b)(9)	Pass
Undesirable emission limits (above 1GHz)	47 CFR Part 15E	ANSI C63.10-2020, section 12.7.4, 12.7.6, 12.7.7	47 CFR Part 15.407(b)(6) 47 CFR Part 15.407(b)(10)	Pass

4 Table of Contents

1	COVER PAGE.....	1
2	REVISION RECORD.....	2
3	SUMMARY	3
4	TABLE OF CONTENTS.....	4
5	GENERAL INFORMATION	5
5.1	DETAILS OF E.U.T.....	5
5.2	DESCRIPTION OF SUPPORT UNITS	5
5.3	TEST MODE	5
5.4	TEST STANDARDS	6
5.5	TEST LOCATION	6
5.6	DEVIATION FROM STANDARDS	6
5.7	ABNORMALITIES FROM STANDARD CONDITION	6
6	EQUIPMENT LIST	7
7	RADIO SPECTRUM MATTER TEST RESULTS (RF)	8
7.1	DUTY CYCLE.....	8
7.2	EMISSION BANDWIDTH AND OCCUPIED BANDWIDTH	9
7.3	MAXIMUM CONDUCTED OUTPUT POWER	11
7.4	POWER SPECTRAL DENSITY	12
7.5	CHANNEL MASK.....	13
7.6	CONTENTION BASED PROTOCOL.....	16
7.7	AC POWER CONDUCTED EMISSION.....	18
7.8	UNDESIRABLE EMISSION LIMITS (BELOW 1GHz).....	21
7.9	UNDESIRABLE EMISSION LIMITS (ABOVE 1GHz)	25
8	TEST SETUP PHOTOS	28
9	EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS).....	29

5 General Information

5.1 Details of E.U.T.

Product Description:	Portable Computer
Model:	N172S
Power Supply:	DC 11.4V From Battery and DC 20.0V From External Circuit
Adapter Information:	Model: A879-200500C-US1 Input: 100-240V~50/60Hz,2.5A Output: PD 5V---3A/9V---3A/12V---3A/15V---3A/20V---5A PPS 3.3-21V---5A 100W Max
Antenna Type:	FPC
Antenna Gain:	Band 5: Ant1: 2.83dBi, Ant2: 1.61dBi; Directional Gain: 5.84dBi Band 6: Ant1: 1.1dBi, Ant2: -2.02dBi; Directional Gain: 4.11dBi Band 7: Ant1: 0.52dBi, Ant2: 0.52dBi; Directional Gain: 3.53dBi Band 8: Ant1: 0.41dBi, Ant2: 0.41dBi; Directional Gain: 3.42dBi Note: Directional Gain = $G_{ANT\ MAX} + 10*\log(N_{ANT})$ $G_{ANT\ MAX}$ is the gain of the antenna having the highest gain (in dBi). N_{ANT} is the total number of antennas
testing sample ID:	HTT202409755-1# (Engineer sample), HTT202409755-2# (Normal sample)

5.2 Description of Support Units

The EUT was tested as an independent device.

5.3 Test Mode

No	Title	Description
TM1	802.11ax mode	Keep the EUT in continuously transmitting mode with 802.11ax modulation type at lowest, middle and highest channel. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

Test Channel List

Operation Band: 5925-6425 MHz

Bandwidth (MHz)	Lowest Channel (LCH) (MHz)	Middle Channel (MCH) (MHz)	Highest Channel (HCH) (MHz)
20	5955	6175	6415
40	5965	6165	6405
80	5985	6145	6385
160	6025	6185	6345

Operation Band: 6425-6525 MHz

Bandwidth (MHz)	Lowest Channel (LCH) (MHz)	Middle Channel (MCH) (MHz)	Highest Channel (HCH) (MHz)
20	6435	6475	6515
40	6445	6485	/
80	6465	/	/
160	/	/	/

Operation Band: 6525-6875 MHz

Bandwidth (MHz)	Lowest Channel (LCH) (MHz)	Middle Channel (MCH) (MHz)	Highest Channel (HCH) (MHz)
20	6535	6695	6855
40	6565	6685	6845
80	6625	6705	6785
160	/	6665	/

Operation Band: 6875-7125 MHz

Bandwidth (MHz)	Lowest Channel (LCH) (MHz)	Middle Channel (MCH) (MHz)	Highest Channel (HCH) (MHz)
20	6895	6995	7115

40	6925	7005	7085
80	6945	/	7025
160	/	6985	/

5.4 Test Standards

The tests were performed according to following standards:

47 CFR Part 15E: Unlicensed National Information Infrastructure Devices

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained.

5.5 Test Location

All tests were performed at:
Shenzhen HTT Technology Co.,Ltd. 1F, Building B, Huafeng International Robotics Industrial Park, Hangcheng Road,Nanchang Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China Tel: 0755-23595200 Fax: 0755-23595201
The test facility is recognized, certified, or accredited by the following organizations: FCC-Registration No.: 779513 Designation Number: CN1319 Shenzhen HTT Technology Co.,Ltd. has been accredited on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements. A2LA-Lab Cert. No.: 6435.01 Shenzhen HTT Technology Co.,Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement. The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

5.6 Deviation from Standards

None

5.7 Abnormalities from Standard Condition

None

6 Equipment List

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	Shenzhen C.R.T technology co., LTD	9*6*6	HTT-E028	Aug. 10 2024	Aug. 09 2027
2	Control Room	Shenzhen C.R.T technology co., LTD	4.8*3.5*3.0	HTT-E030	Aug. 10 2024	Aug. 09 2027
3	EMI Test Receiver	Rohde&Schwar	ESCI7	HTT-E022	Apr. 26 2024	Apr. 25 2025
4	Spectrum Analyzer	Rohde&Schwar	FSP	HTT-E037	Apr. 26 2024	Apr. 25 2025
5	Coaxial Cable	ZDecl	ZT26-NJ-NJ-0.6M	HTT-E018	Apr. 26 2024	Apr. 25 2025
6	Coaxial Cable	ZDecl	ZT26-NJ-SMAJ-2M	HTT-E019	Apr. 26 2024	Apr. 25 2025
7	Coaxial Cable	ZDecl	ZT26-NJ-SMAJ-0.6M	HTT-E020	Apr. 26 2024	Apr. 25 2025
8	Coaxial Cable	ZDecl	ZT26-NJ-SMAJ-8.5M	HTT-E021	Apr. 26 2024	Apr. 25 2025
9	Composite logarithmic antenna	Schwarzbeck	VULB 9168	HTT-E017	May. 21 2024	May. 20 2025
10	Horn Antenna	Schwarzbeck	BBHA9120D	HTT-E016	May. 20 2024	May. 19 2025
11	Loop Antenna	Zhinan	ZN30900C	HTT-E039	Apr. 26 2024	Apr. 25 2025
12	Horn Antenna	Beijing Hangwei Dayang	OBH100400	HTT-E040	Apr. 26 2024	Apr. 25 2025
13	low frequency Amplifier	Sonoma Instrument	310	HTT-E015	Apr. 26 2024	Apr. 25 2025
14	high-frequency Amplifier	HP	8449B	HTT-E014	Apr. 26 2024	Apr. 25 2025
15	Variable frequency power supply	Shenzhen Anbiao Instrument Co., Ltd	ANB-10VA	HTT-082	Apr. 26 2024	Apr. 25 2025
16	EMI Test Receiver	Rohde & Schwarz	ESCS30	HTT-E004	Apr. 26 2024	Apr. 25 2025
17	Artificial Mains	Rohde & Schwarz	ESH3-Z5	HTT-E006	May. 23 2024	May. 22 2025
18	Artificial Mains	Rohde & Schwarz	ENV-216	HTT-E038	May. 23 2024	May. 22 2025
19	Cable Line	Robinson	Z302S-NJ-BNCJ-1.5M	HTT-E001	Apr. 26 2024	Apr. 25 2025
20	Attenuator	Robinson	6810.17A	HTT-E007	Apr. 26 2024	Apr. 25 2025
21	Variable frequency power supply	Shenzhen Yanghong Electric Co., Ltd	YF-650 (5KVA)	HTT-E032	Apr. 26 2024	Apr. 25 2025
22	Control Room	Shenzhen C.R.T technology co., LTD	8*4*3.5	HTT-E029	Aug. 10 2024	Aug. 09 2027
23	DC power supply	Agilent	E3632A	HTT-E023	Apr. 26 2024	Apr. 25 2025
24	EMI Test Receiver	Agilent	N9020A	HTT-E024	Apr. 26 2024	Apr. 25 2025
25	Analog signal generator	Agilent	N5181A	HTT-E025	Apr. 26 2024	Apr. 25 2025
26	Vector signal generator	Agilent	N5182A	HTT-E026	Apr. 26 2024	Apr. 25 2025
27	Power sensor	Keysight	U2021XA	HTT-E027	Apr. 26 2024	Apr. 25 2025
28	Temperature and humidity meter	Shenzhen Anbiao Instrument Co., Ltd	TH10R	HTT-074	Apr. 28 2024	Apr. 27 2025
29	Radiated Emission Test Software	Farad	EZ-EMC	N/A	N/A	N/A
30	Conducted Emission Test Software	Farad	EZ-EMC	N/A	N/A	N/A
31	RF Test Software	panshanrf	TST	N/A	N/A	N/A

7 Radio Spectrum Matter Test Results (RF)

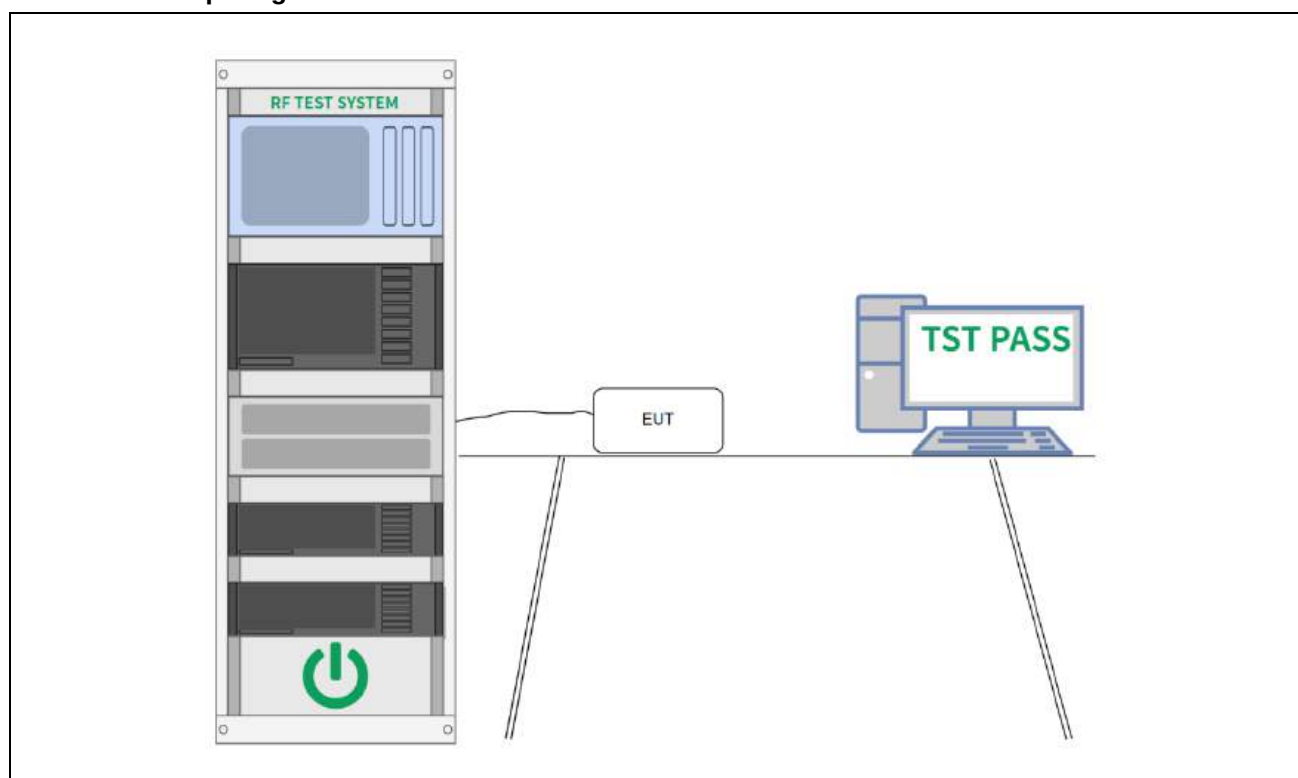
7.1 Duty Cycle

Test Requirement:	All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x , and maximum-power transmission duration, T , are required for each tested mode of operation.
Test Limit:	No limits, only for report use.
Test Method:	ANSI C63.10-2013 section 12.2 (b)
Procedure:	i) Set the center frequency of the instrument to the center frequency of the transmission. ii) Set RBW $\geq$ EBW if possible; otherwise, set RBW to the largest available value. iii) Set VBW $\geq$ RBW. iv) Set detector = peak. v) The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$, where T is defined in item a1) of 12.2, and the number of sweep points across duration T exceeds 100.

7.1.1 E.U.T. Operation:

Operating Environment:					
Temperature:	22.4 °C	Humidity:	55.6 %	Atmospheric Pressure:	1019 mbar
Pre test mode:	TM1				
Final test mode:	TM1				

7.1.2 Test Setup Diagram:



7.1.3 Test Data:

Please Refer to Appendix for Details.

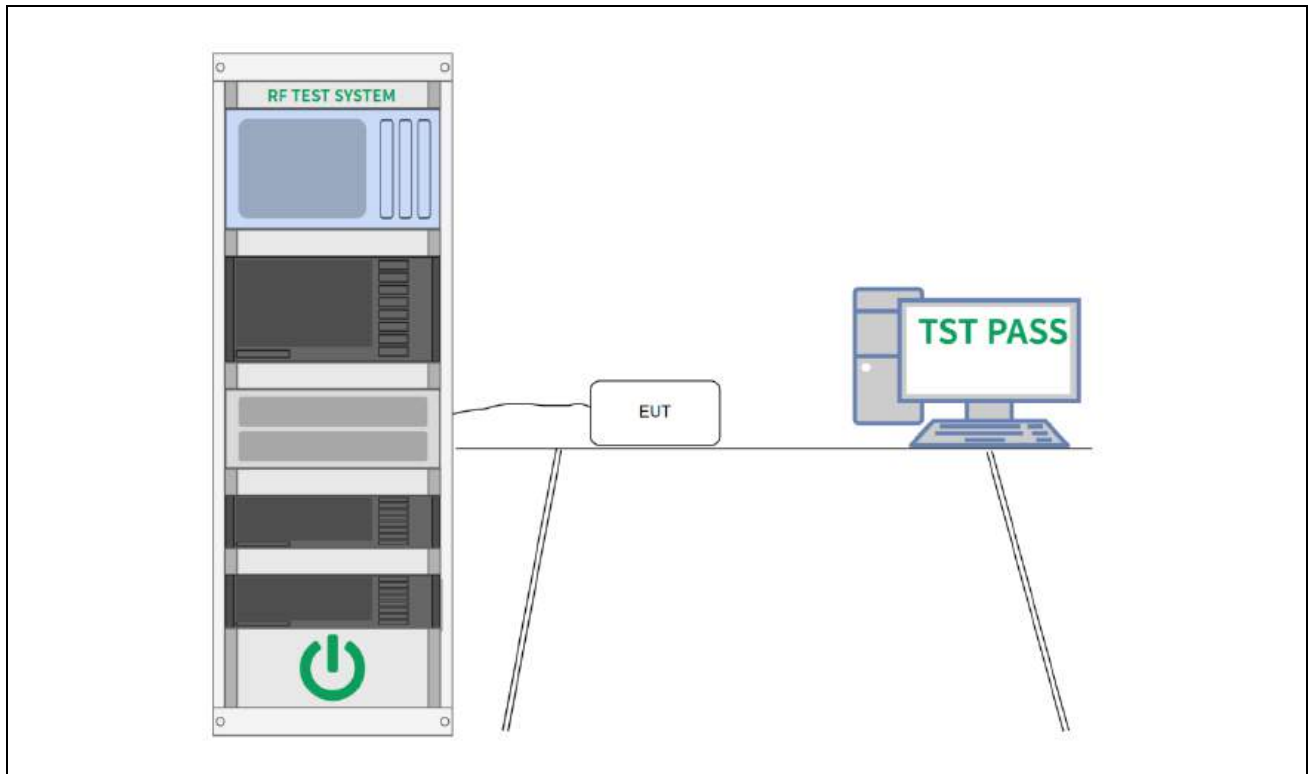
7.2 Emission bandwidth and occupied bandwidth

Test Requirement:	The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.
Test Limit:	The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.
Test Method:	ANSI C63.10-2013, section 6.9 & 12.4
Procedure:	Emission bandwidth: a) Set RBW = approximately 1% of the emission bandwidth. b) Set the VBW > RBW. c) Detector = peak. d) Trace mode = max hold. e) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%. Occupied bandwidth: a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW. b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement. c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (OBW/RBW)]$ below the reference level. Specific guidance is given in 4.1.5.2. d) Step a) through step c) might require iteration to adjust within the specified range. e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used. f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth. g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies. h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

7.2.1 E.U.T. Operation:

Operating Environment:					
Temperature:	22.4 °C	Humidity:	55.6 %	Atmospheric Pressure:	1019 mbar
Pre test mode:	TM1				
Final test mode:	TM1				

7.2.2 Test Setup Diagram:



7.2.3 Test Data:

Please Refer to Appendix for Details.

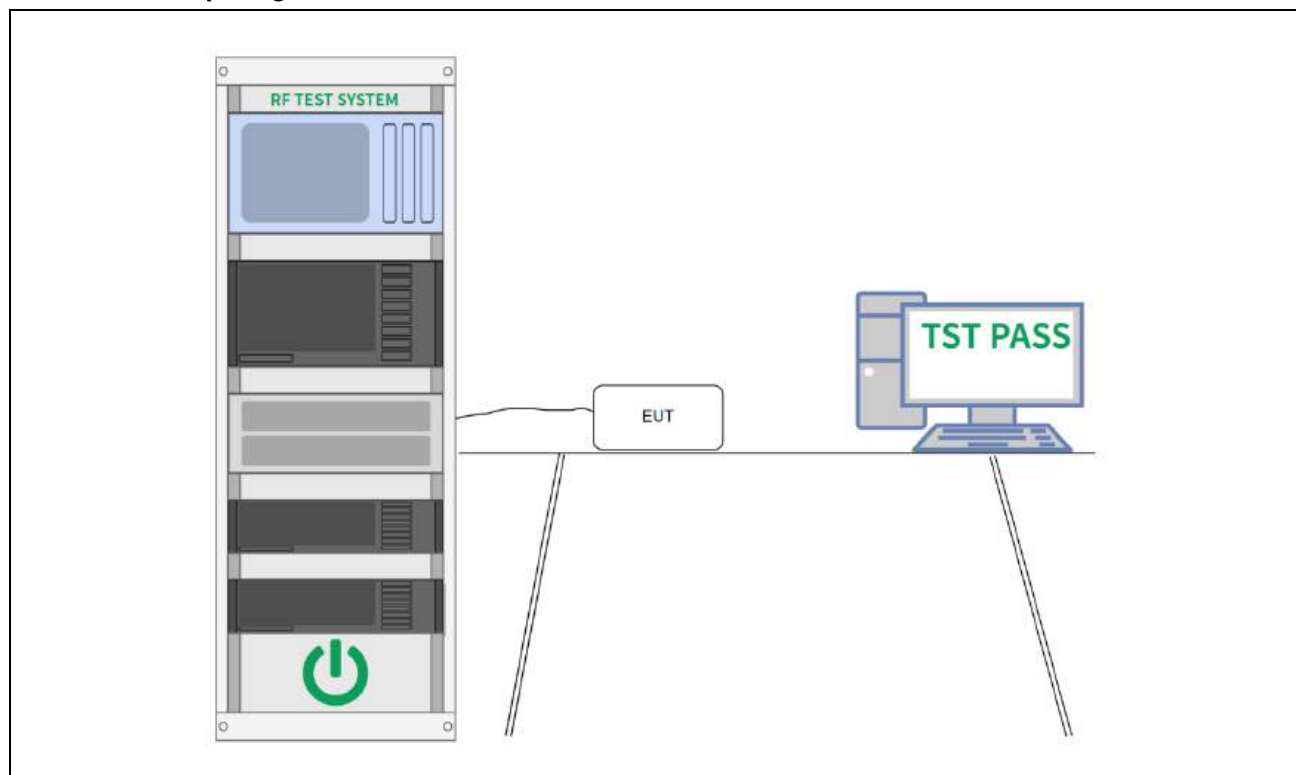
7.3 Maximum conducted output power

Test Requirement:	47 CFR Part 15.407(a)(8)
Test Limit:	For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum e.i.r.p. over the frequency band of operation must not exceed 24 dBm.
Test Method:	ANSI C63.10-2013, section 12.3
Procedure:	Refer to ANSI C63.10-2013 section 12.3

7.3.1 E.U.T. Operation:

Operating Environment:					
Temperature:	22.4 °C	Humidity:	55.6 %	Atmospheric Pressure:	1019 mbar
Pre test mode:	TM1				
Final test mode:	TM1				

7.3.2 Test Setup Diagram:



7.3.3 Test Data:

Please Refer to Appendix for Details.

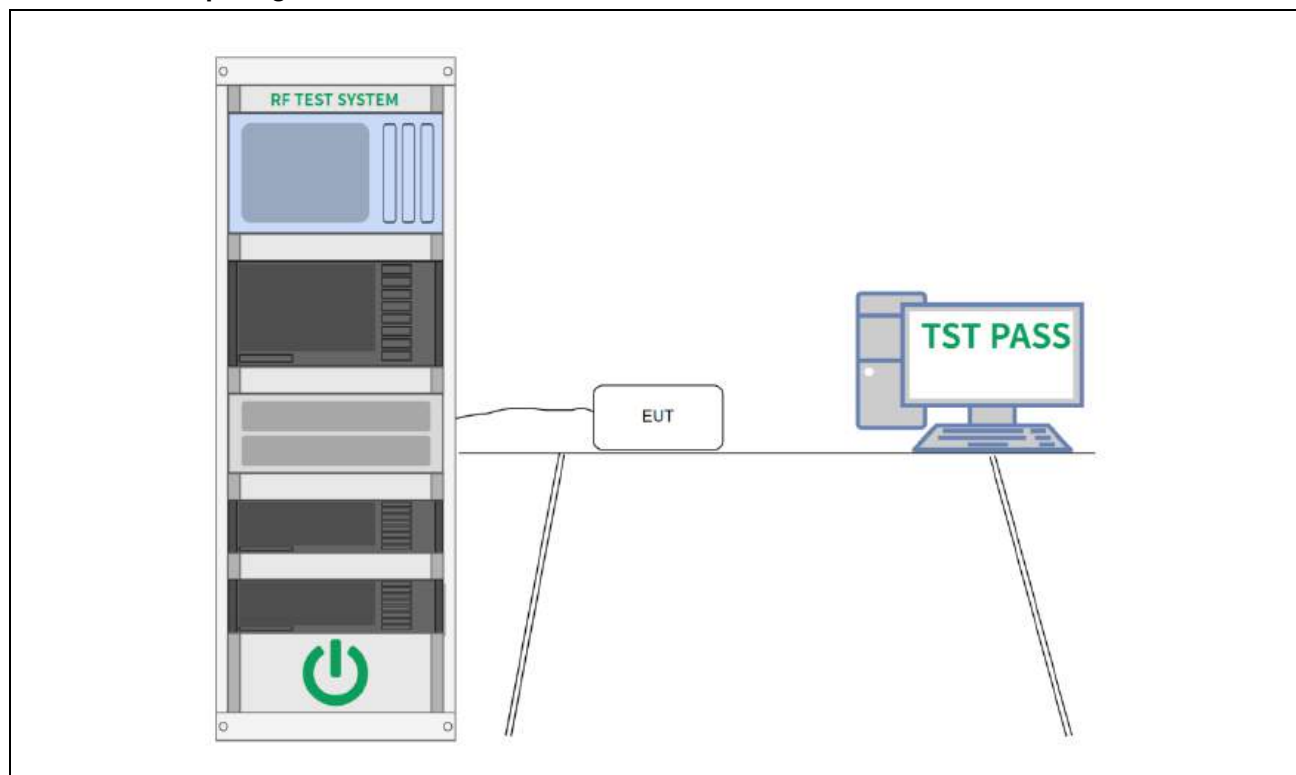
7.4 Power spectral density

Test Requirement:	47 CFR Part 15.407(a)(8)
Test Limit:	For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum power spectral density must not exceed -1 dBm e.i.r.p. in any 1-megahertz band.
Test Method:	ANSI C63.10-2013, section 12.5
Procedure:	Refer to ANSI C63.10-2013, section 12.5

7.4.1 E.U.T. Operation:

Operating Environment:					
Temperature:	22.4 °C	Humidity:	55.6 %	Atmospheric Pressure:	1019 mbar
Pre test mode:	TM1				
Final test mode:	TM1				

7.4.2 Test Setup Diagram:

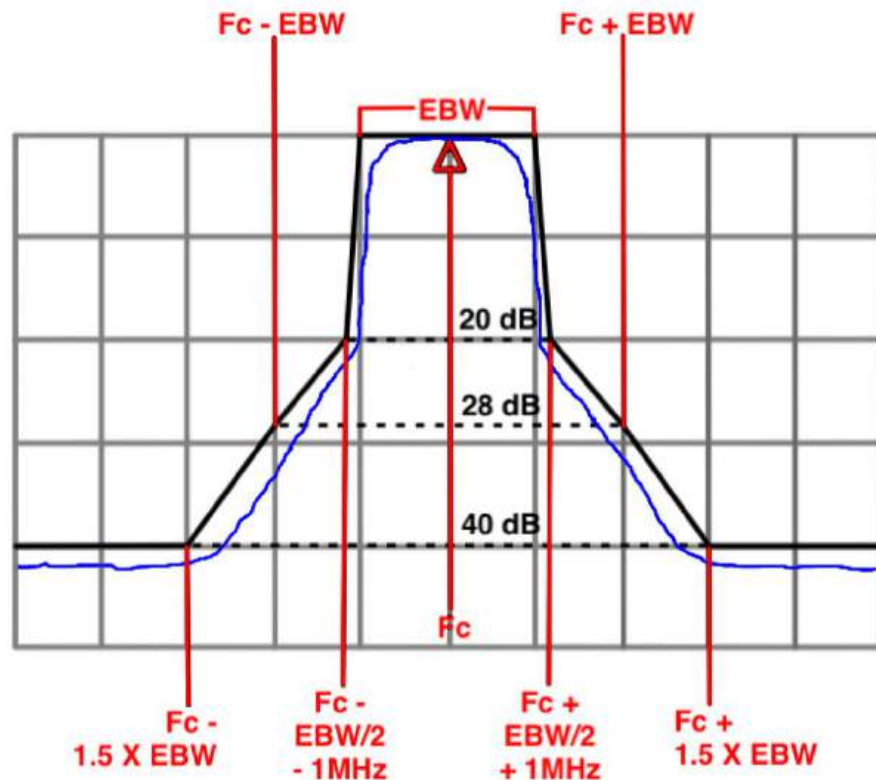


7.4.3 Test Data:

Please Refer to Appendix for Details.

7.5 Channel Mask

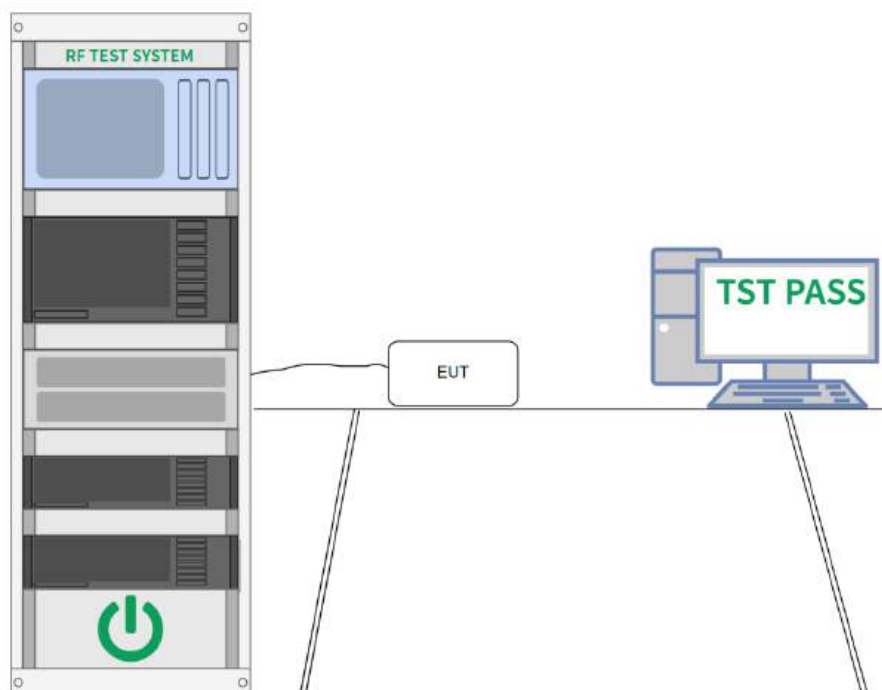
Test Requirement:	47 CFR Part 15.407(b)(7)
Test Limit:	For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.
Test Method:	KDB 987594 D02, Clause J
Procedure:	1. Connect output of the antenna port to a spectrum analyzer or EMI receiver, with appropriate attenuation, as to not damage the instrumentation. 2. Set the reference level of the measuring equipment in accordance with procedure 4.1.5.2 of ANSI C63.10-2013. 3. Measure the 26 dB EBW using the test procedure 12.4.1 of ANSI C63.10-2013. (This will be used to determine the channel edge.) 4. Measure the power spectral density (which will be used for emissions mask reference) using the following procedure: a) Set the span to encompass the entire 26 dB EBW of the signal. b) Set RBW = same RBW used for 26 dB EBW measurement. c) Set VBW $\geq 3 \times$ RBW d) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. e) Sweep time = auto. f) Detector = RMS (i.e., power averaging) g) Trace average at least 100 traces in power averaging (rms) mode. h) Use the peak search function on the instrument to find the peak of the spectrum. 5. For the purposes of developing the emission mask, the channel bandwidth is defined as the 26 dB EBW. 6. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows: a. Suppressed by 20 dB at 1 MHz outside of the channel edge. (The channel edge is defined as the 26-dB point on either side of the carrier center frequency.) b. Suppressed by 28 dB at one channel bandwidth from the channel center. c. Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center. 7. Adjust the span to encompass the entire mask as necessary. 8. Clear trace. 9. Trace average at least 100 traces in power averaging (rms) mode. 10. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask.



7.5.1 E.U.T. Operation:

Operating Environment:					
Temperature:	22.4 °C	Humidity:	55.6 %	Atmospheric Pressure:	1019 mbar
Pre test mode:	TM1				
Final test mode:	TM1				

7.5.2 Test Setup Diagram:



7.5.3 Test Data:

Please Refer to Appendix for Details.

7.6 Contention Based Protocol

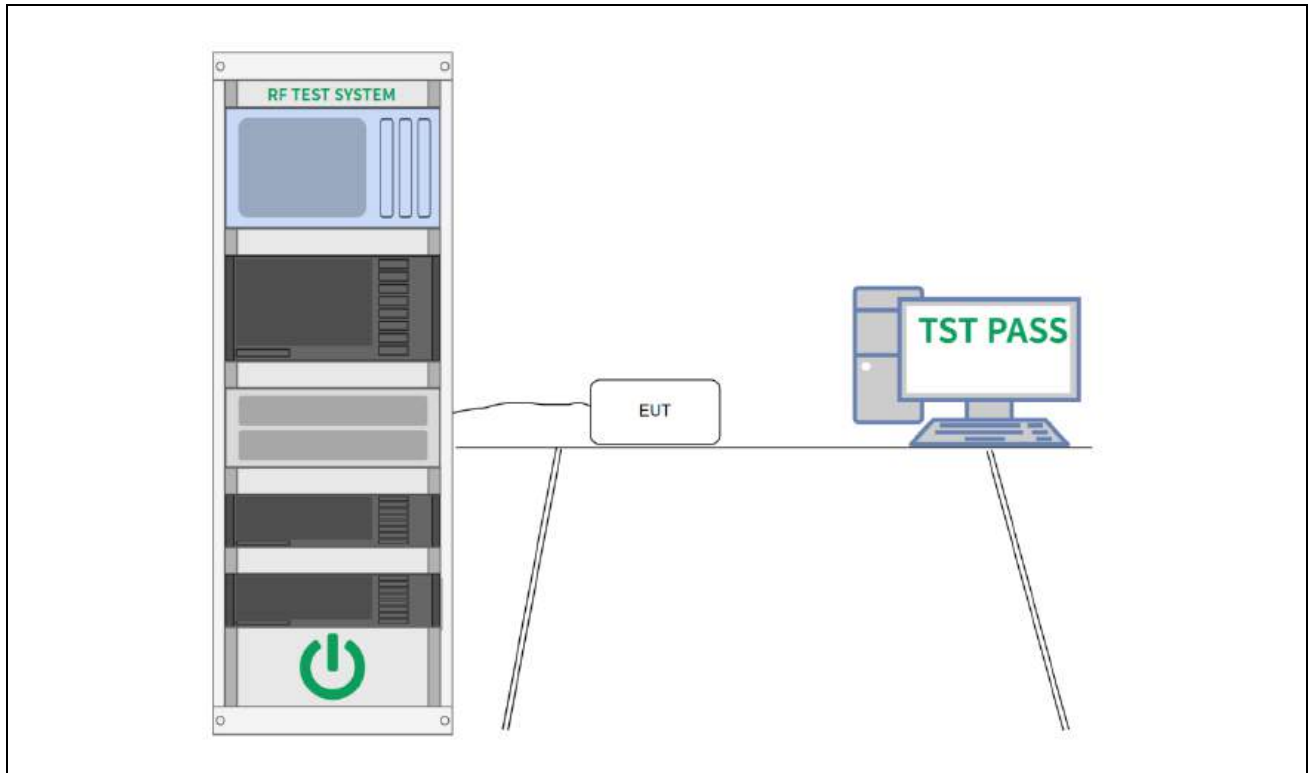
Test Requirement:	47 CFR Part 15.407(d)(6)															
Test Limit:	Unlicensed low-power indoor devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel (in which incumbent signal is transmitted) and stay off the incumbent channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm)1. The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain. Table 1. Criteria to determine number of times detection threshold test may be performed <table><tr><th>If</th><th>Number of Tests</th><th>Placement of Incumbent Transmission</th></tr><tr><td>$BW_{EUT} \leq BW_{Inc}$</td><td>Once</td><td>Tune incumbent and EUT transmissions ($f_{c1} = f_{c2}$)</td></tr><tr><td>$BW_{Inc} < BW_{EUT} \leq 2BW_{Inc}$</td><td>Once</td><td>Incumbent transmission is contained within BW_{EUT}</td></tr><tr><td>$2BW_{Inc} < BW_{EUT} \leq 4BW_{Inc}$</td><td>Twice. Incumbent transmission is contained within BW_{EUT}</td><td>Incumbent transmission is located as closely as possible to the lower edge and upper edge, respectively, of the EUT channel</td></tr><tr><td>$BW_{EUT} > 4BW_{Inc}$</td><td>Three times</td><td>Incumbent transmission is located as closely as possible to the lower edge of the EUT channel, in the middle of EUT channel, and as closely as possible to the upper edge of the EUT channel</td></tr></table>	If	Number of Tests	Placement of Incumbent Transmission	$BW_{EUT} \leq BW_{Inc}$	Once	Tune incumbent and EUT transmissions ($f_{c1} = f_{c2}$)	$BW_{Inc} < BW_{EUT} \leq 2BW_{Inc}$	Once	Incumbent transmission is contained within BW_{EUT}	$2BW_{Inc} < BW_{EUT} \leq 4BW_{Inc}$	Twice. Incumbent transmission is contained within BW_{EUT}	Incumbent transmission is located as closely as possible to the lower edge and upper edge, respectively, of the EUT channel	$BW_{EUT} > 4BW_{Inc}$	Three times	Incumbent transmission is located as closely as possible to the lower edge of the EUT channel, in the middle of EUT channel, and as closely as possible to the upper edge of the EUT channel
If	Number of Tests	Placement of Incumbent Transmission														
$BW_{EUT} \leq BW_{Inc}$	Once	Tune incumbent and EUT transmissions ($f_{c1} = f_{c2}$)														
$BW_{Inc} < BW_{EUT} \leq 2BW_{Inc}$	Once	Incumbent transmission is contained within BW_{EUT}														
$2BW_{Inc} < BW_{EUT} \leq 4BW_{Inc}$	Twice. Incumbent transmission is contained within BW_{EUT}	Incumbent transmission is located as closely as possible to the lower edge and upper edge, respectively, of the EUT channel														
$BW_{EUT} > 4BW_{Inc}$	Three times	Incumbent transmission is located as closely as possible to the lower edge of the EUT channel, in the middle of EUT channel, and as closely as possible to the upper edge of the EUT channel														
Test Method:	KDB 987594 D02, Clause I (C)															
Procedure:	1. Configure the EUT to transmit with a constant duty cycle. 2. Set the operating parameters of the EUT including power level, operating frequency, modulation and bandwidth. 3. Set the signal analyzer center frequency to the nominal EEUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2, as shown in Figure 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver. 4. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters set at step two. 5. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency. 6. Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT as shown in Figure 2. 7. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1. 8. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting. 9. (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty. 10. Refer to Table 1 to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 5, choose a different center frequency for the AWGN signal and repeat the process.															

7.6.1 E.U.T. Operation:

Operating Environment:

Temperature:	22.4 °C	Humidity:	55.6 %	Atmospheric Pressure:	1019 mbar
Pre test mode:	TM1				
Final test mode:	TM1				

7.6.2 Test Setup Diagram:



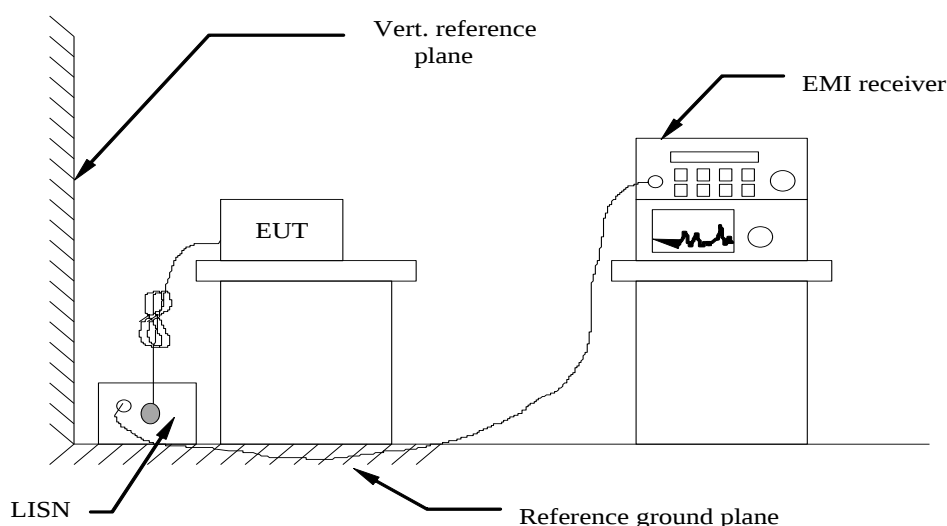
7.6.3 Test Data:

Please Refer to Appendix for Details.

7.7 AC Power Conducted Emission

Test Requirement:	47 CFR Part 15.407(b)(6) 47 CFR Part 15.407(b)(10)		
Test Limit:	For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following :		
	Frequency range (MHz)	Limit (dBu)	
		Quasi-peak	
	0.15-0.5	66 to 56*	
	0.5-5	56	
	5-30	60	
	* Decreases with the logarithm of the frequency.		
Test Method:	ANSI C63.10-2020, section 12.7.4, 12.7.6, 12.7.7		
Procedure:	1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10-2013. 2 Support equipment, if needed, was placed as per ANSI C63.10-2013 3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2013 4 The EUT received power from adapter, the adapter received AC120V/60Hz and AC 240V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane. 5 All support equipments received AC power from a second LISN, if any. 6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver. 7 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes. 8 During the above scans, the emissions were maximized by cable manipulation.		

7.7.1 Test Setup Diagram:



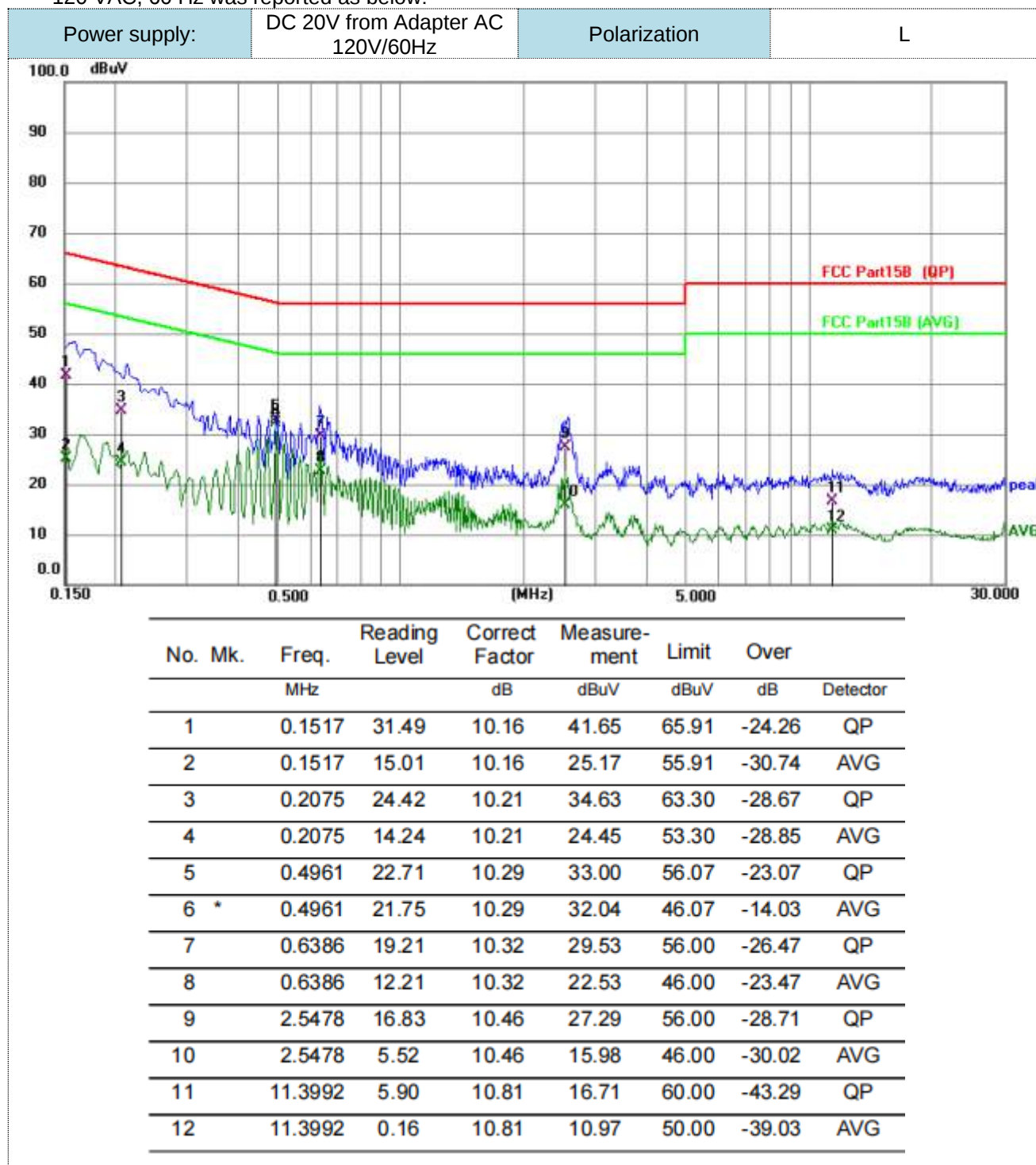
7.7.2 E.U.T. Operation:

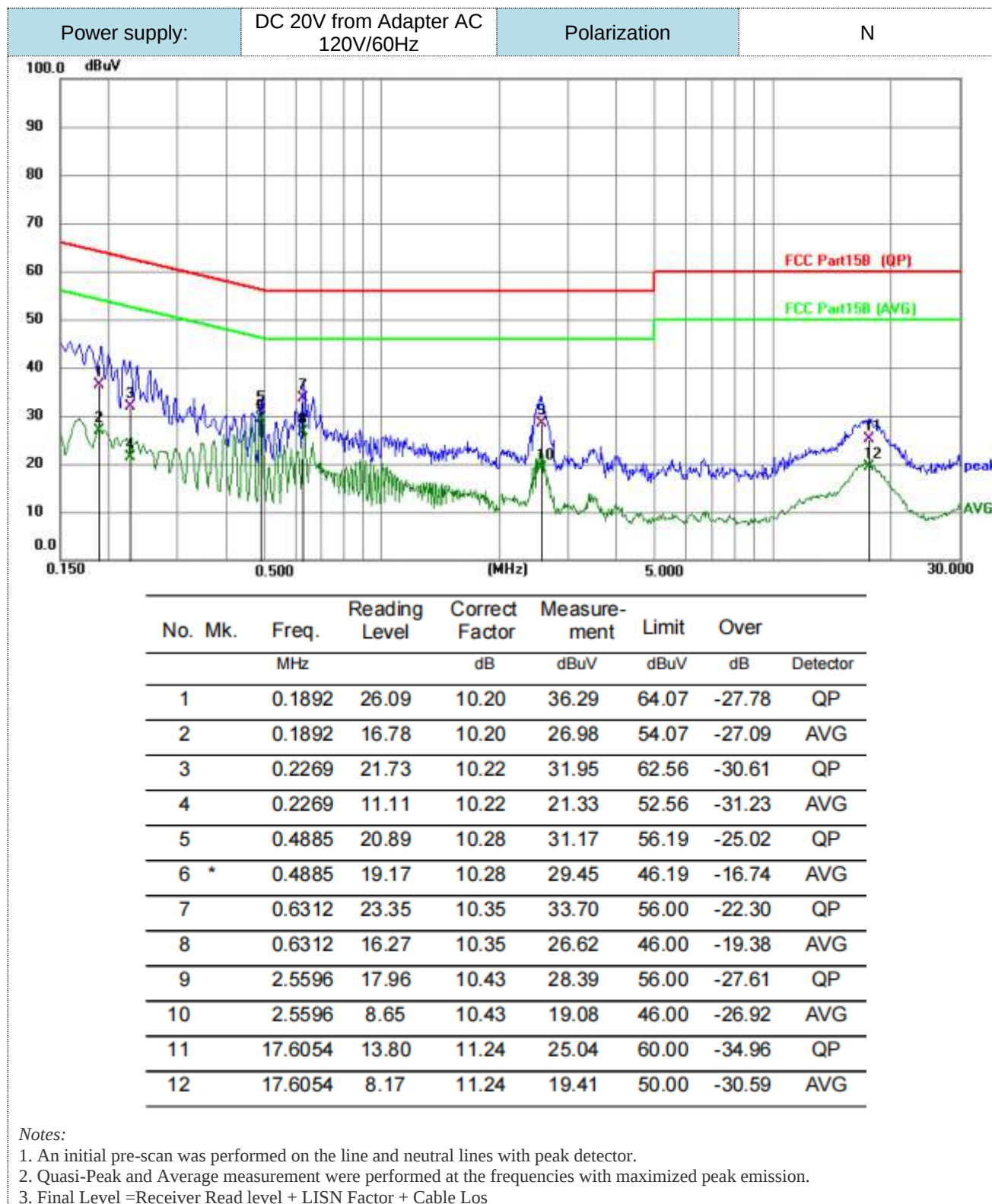
Operating Environment:					
Temperature:	22.4 °C	Humidity:	55.6 %	Atmospheric Pressure:	1019 mbar
Pre test mode:	TM1				
Final test mode:	TM1				

7.7.3 TESE Data

Remark:

1. All modes were tested at Low, Middle, and High channel; only the worst result of 802.11ac (HT20) low channel of Band 5925-6425 MHz was reported as below:
2. Both 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz power supply have been tested, only the worst result of 120 VAC, 60 Hz was reported as below:





7.8 Undesirable emission limits (below 1GHz)

Test Requirement:	47 CFR Part 15.407(b)(9)																									
Test Limit:	Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table: <table border="1"> <thead> <tr> <th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr> </thead> <tbody> <tr> <td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr> <tr> <td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr> <tr> <td>1.705-30.0</td><td>30</td><td>30</td></tr> <tr> <td>30-88</td><td>100 **</td><td>3</td></tr> <tr> <td>88-216</td><td>150 **</td><td>3</td></tr> <tr> <td>216-960</td><td>200 **</td><td>3</td></tr> <tr> <td>Above 960</td><td>500</td><td>3</td></tr> </tbody> </table> ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.		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
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																								
Test Method:	ANSI C63.10-2020, section 12.7.4, 12.7.5																									
Procedure:	Below 1GHz: - 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. - 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. - 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. - 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. - The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. - 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. - Test the EUT in the lowest channel, the middle channel, the Highest channel. - 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. - Repeat above procedures until all frequencies measured was complete. Remark: - Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor - 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.																									

	3. 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. Above 1GHz: 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.
--	--

7.8.1 E.U.T. Operation:

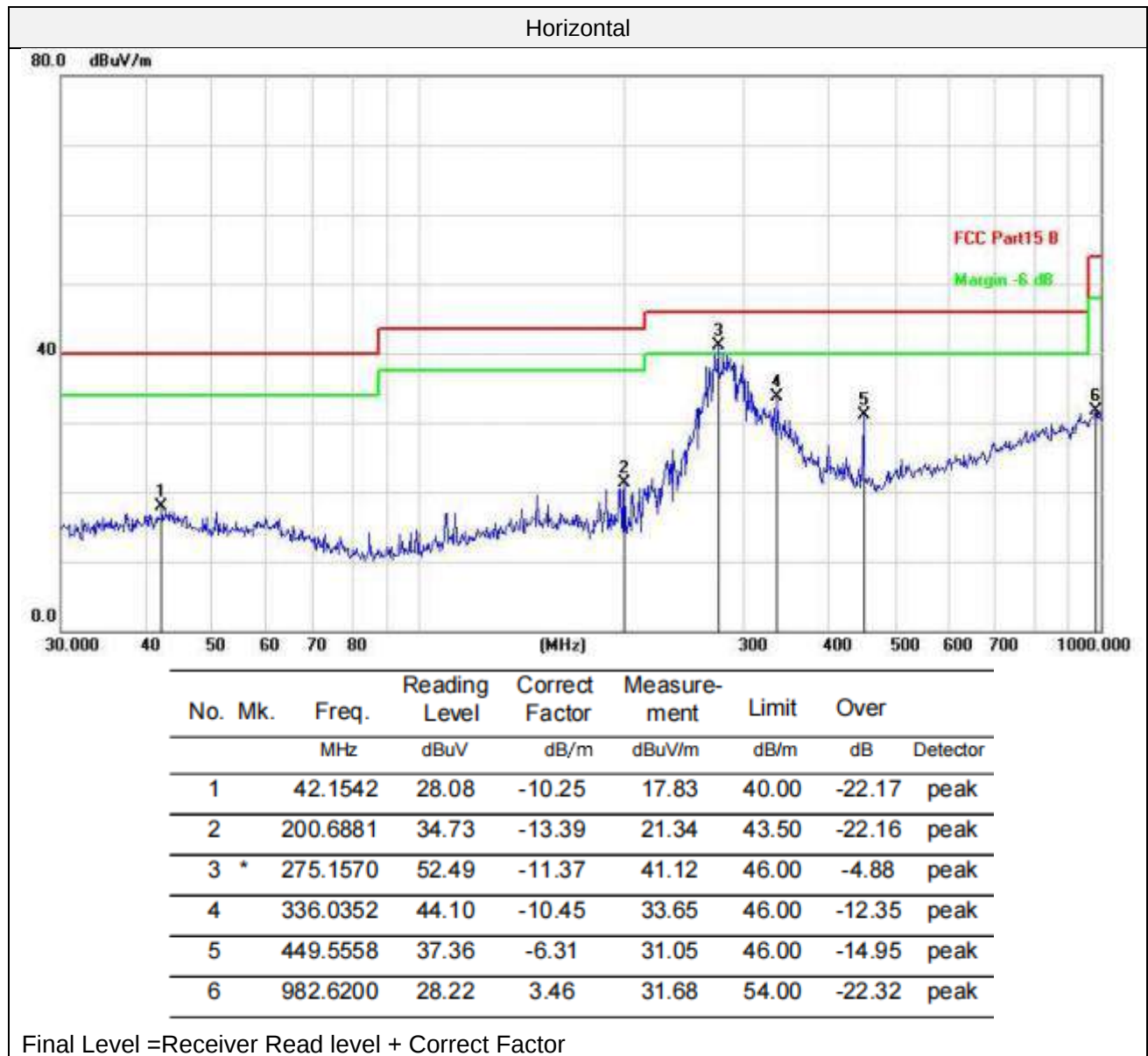
Operating Environment:					
Temperature:	22.4 °C	Humidity:	55.6 %	Atmospheric Pressure:	1019 mbar
Pre test mode:	TM1				
Final test mode:	TM1				

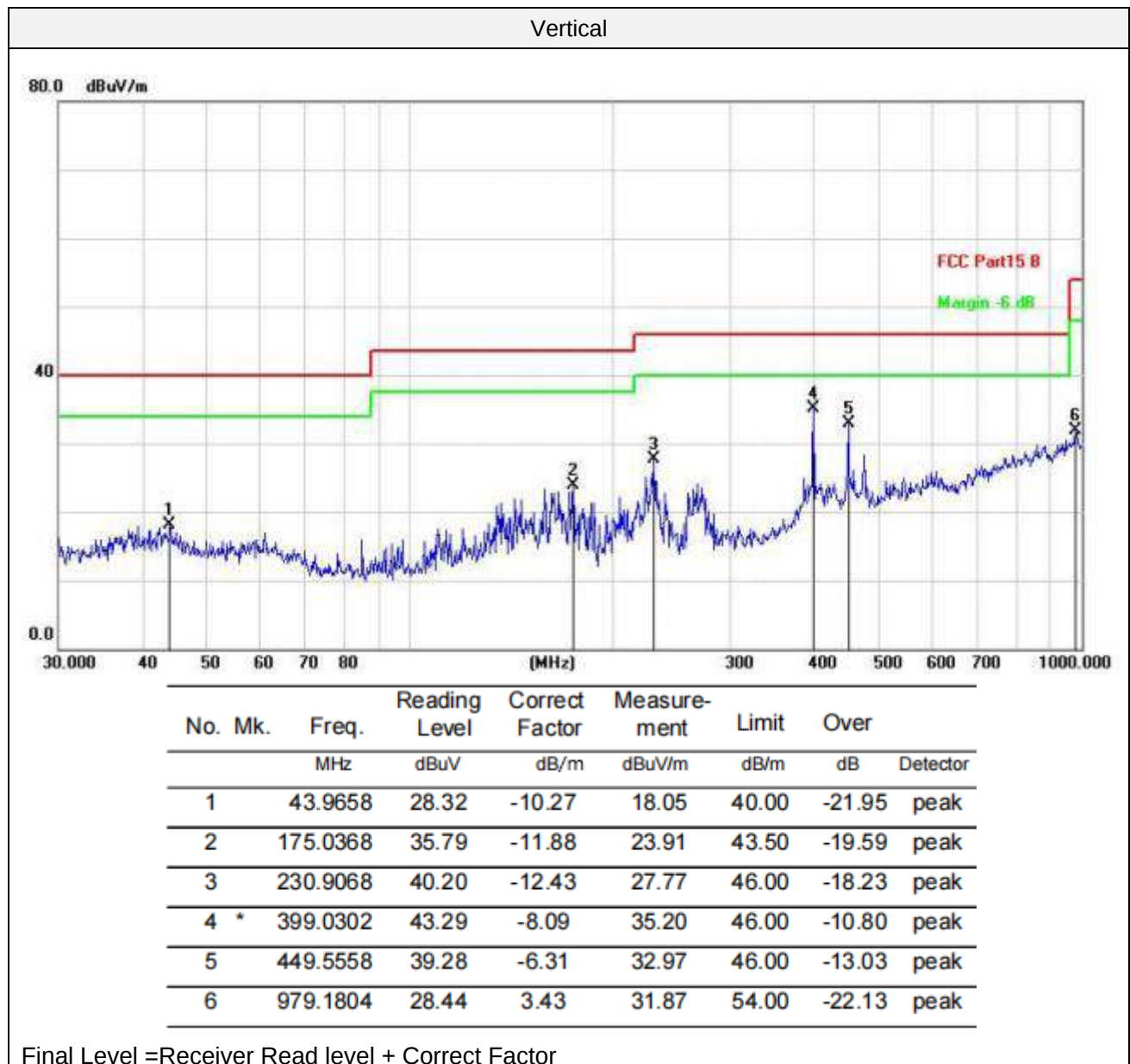
7.8.2 TEST Data

Remark:

1. This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.
2. All modes have been tested for below 1GHz test, only the worst case 802.11ac (HT20) low channel of Band 5925-6425 MHz was recorded.
3. All modes have been tested for above 1GHz test, only the worst case 802.11ac (HT20) was recorded.
4. Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.

For 30MHz-1GHz





7.9 Undesirable emission limits (above 1GHz)

Test Requirement:	47 CFR Part 15.407(b)(6) 47 CFR Part 15.407(b)(10)			
Test Limit:	For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.			
	MHz	MHz	MHz	GHz
	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
	¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
	2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
	4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
	6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
	6.31175-6.31225	123-138	2200-2300	14.47-14.5
	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
	8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
	12.57675-12.57725	322-335.4	3600-4400	(²)
	13.36-13.41			
	¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.			
	² Above 38.6			
	The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35 apply to these measurements.			
	Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:			
	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	
	** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.			
	In the emission table above, the tighter limit applies at the band edges.			
	The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90			

	kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
Test Method:	ANSI C63.10-2020, section 12.7.4, 12.7.6, 12.7.7
Procedure:	Above 1GHz: 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.

7.9.1 E.U.T. Operation:

Operating Environment:					
Temperature:	0 °C	Humidity:	0 %	Atmospheric Pressure:	0 mbar
Pre test mode:	TM1				
Final test mode:	TM1				

7.9.2 TEST Data

For 1GHz to 40GHz

Note: All modes have been tested for above 1GHz test, only the worst case 802.11ac (HT20) low channel of Band 5925-6425 MHz was recorded.

Band 5925-6425 MHz & 802.11ac (HT20) Mode (above 1GHz)

Tested Channel	Frequency (MHz)	Emission Level (dBuV/m)	Detector Mode	ANT Pol	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre amplifier (dB)	Correction Factor (dB/m)
1.00 (5955MHz)	5150.00	56.12	PK	H	68.20	12.08	47.45	32.8	6.97	31.1	8.67
	5150.00	50.33	AV	H	54.00	3.67	41.66	32.8	6.97	31.1	8.67
	11910.00	55.04	PK	H	68.20	13.16	38.83	38.8	10.45	29.9	19.35
	--	--	--	--	--	--	--	--	--	--	--
45.00 (6175MHz)	12350.00	53.12	PK	H	68.20	15.08	34.27	38.2	10.55	29.9	18.85
	--	--	--	--	--	--	--	--	--	--	--
93.00 (6415MHz)	5350.50	50.31	PK	H	68.20	17.89	40.64	33.2	7.47	31	9.67
	12830.00	54.29	PK	H	68.20	13.91	34.69	39.1	10.6	30.1	19.60
	--	--	--	--	--	--	--	--	--	--	--
Tested Channel	Frequency (MHz)	Emission Level (dBuV/m)	Detector Mode	ANT Pol	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre amplifier (dB)	Correction Factor (dB/m)
1.00 (5955MHz)	5150.00	54.19	PK	H	68.20	14.01	45.52	32.8	6.97	31.1	8.67
	5150.00	49.69	AV	H	54.00	4.31	41.02	32.8	6.97	31.1	8.67
	11910.00	55.14	PK	H	68.20	13.06	38.83	38.8	10.45	29.9	19.35
	--	--	--	--	--	--	--	--	--	--	--
45.00 (6175MHz)	12350.00	53.06	PK	H	68.20	15.14	34.21	38.2	10.55	29.9	18.85
	--	--	--	--	--	--	--	--	--	--	--
93.00 (6415MHz)	5350.50	50.96	PK	H	68.20	17.24	41.29	33.2	7.47	31	9.67
	12830.00	52.43	PK	H	68.20	15.77	32.83	39.1	10.6	30.1	19.60
	--	--	--	--	--	--	--	--	--	--	--

8 Test Setup Photos

Reference to the **appendix I** for details.

9 EUT Constructional Details (EUT Photos)

Reference to the **appendix II** for details.

Appendix

1. Duty Cycle

1.1 Test Result

1.1.1 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	RU	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11ax (HEW20)	MIMO	5955	SU	0.202	0.236	85.59	0.68	0.11
			6175	SU	0.202	0.236	85.59	0.68	0.34
			6415	SU	0.202	0.236	85.59	0.68	0.33
	802.11ax (HEW40)	MIMO	5965	SU	0.204	0.238	85.71	0.67	0.17
			6165	SU	0.204	0.238	85.71	0.67	0.20
			6405	SU	0.204	0.238	85.71	0.67	0.13
	802.11ax (HEW80)	MIMO	5985	SU	0.299	0.331	90.33	0.44	0.03
			6145	SU	0.299	0.331	90.33	0.44	0.09
			6385	SU	0.297	0.331	89.73	0.47	0.06
	802.11ax (HEW160)	MIMO	6025	SU	0.182	0.214	85.05	0.70	0.12
			6185	SU	0.182	0.214	85.05	0.70	0.13
			6345	SU	0.182	0.214	85.05	0.70	0.14

1.1.2 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	RU	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11ax (HEW20)	MIMO	6435	SU	0.202	0.236	85.59	0.68	0.08
			6475	SU	0.202	0.237	85.23	0.69	0.37
			6515	SU	0.202	0.236	85.59	0.68	0.28
	802.11ax (HEW40)	MIMO	6445	SU	0.205	0.238	86.13	0.65	0.16
			6485	SU	0.205	0.238	86.13	0.65	0.19
	802.11ax (HEW80)	MIMO	6465	SU	0.297	0.331	89.73	0.47	0.12

1.1.3 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	RU	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11ax (HEW20)	MIMO	6535	SU	0.202	0.236	85.59	0.68	0.25
			6695	SU	0.202	0.236	85.59	0.68	0.11
			6855	SU	0.202	0.236	85.59	0.68	0.08
	802.11ax (HEW40)	MIMO	6565	SU	0.204	0.238	85.71	0.67	0.14
			6685	SU	0.206	0.239	86.19	0.65	0.10
			6845	SU	0.205	0.238	86.13	0.65	0.10
	802.11ax (HEW80)	MIMO	6625	SU	0.299	0.331	90.33	0.44	0.12
			6705	SU	0.297	0.331	89.73	0.47	0.09
			6785	SU	0.298	0.331	90.03	0.46	0.09
	802.11ax (HEW160)	MIMO	6665	SU	0.182	0.214	85.05	0.70	0.15

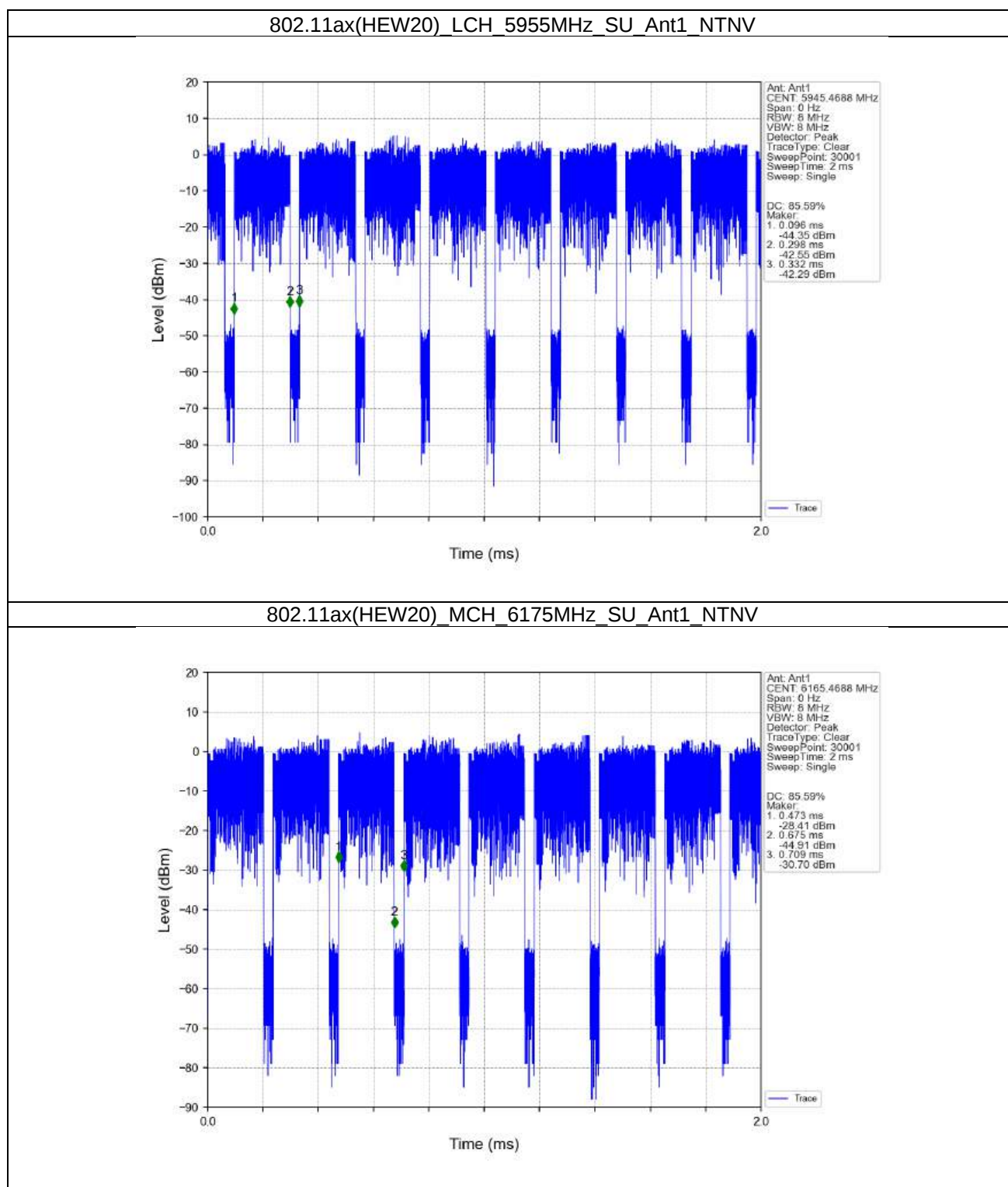
1.1.4 Ant1

Ant1									
------	--	--	--	--	--	--	--	--	--

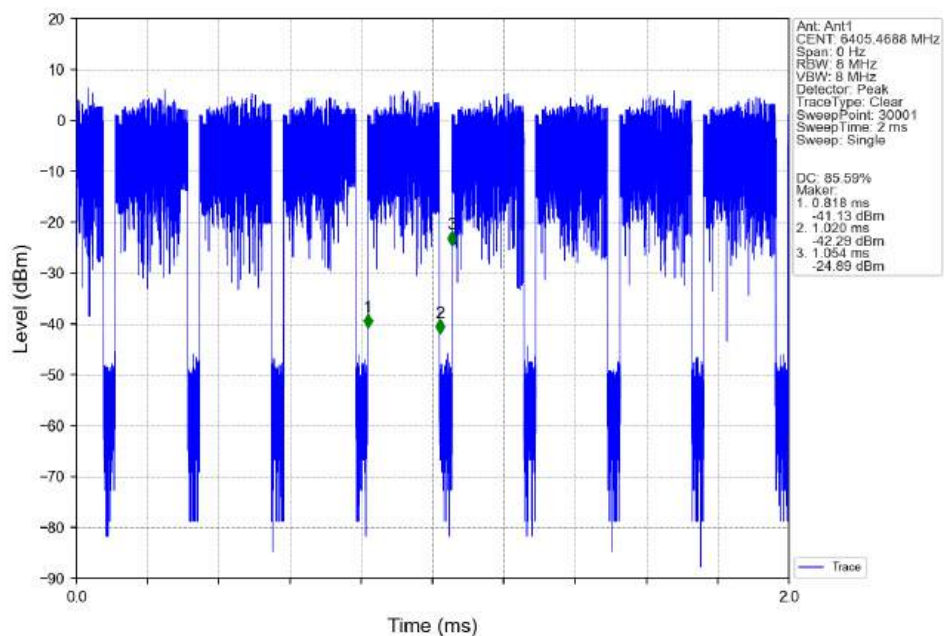
ENV	Mode	TX Type	Frequency (MHz)	RU	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11ax (HEW20)	MIMO	6895	SU	0.202	0.236	85.59	0.68	0.34
			6995	SU	0.202	0.237	85.23	0.69	0.37
			7115	SU	0.203	0.237	85.65	0.67	0.37
	802.11ax (HEW40)	MIMO	6925	SU	0.204	0.238	85.71	0.67	0.14
			7005	SU	0.204	0.238	85.71	0.67	0.11
			7085	SU	0.204	0.238	85.71	0.67	0.09
	802.11ax (HEW80)	MIMO	6945	SU	0.299	0.331	90.33	0.44	0.06
			7025	SU	0.297	0.331	89.73	0.47	0.16
	802.11ax (HEW160)	MIMO	6985	SU	0.182	0.214	85.05	0.70	0.09

1.2 Test Graph

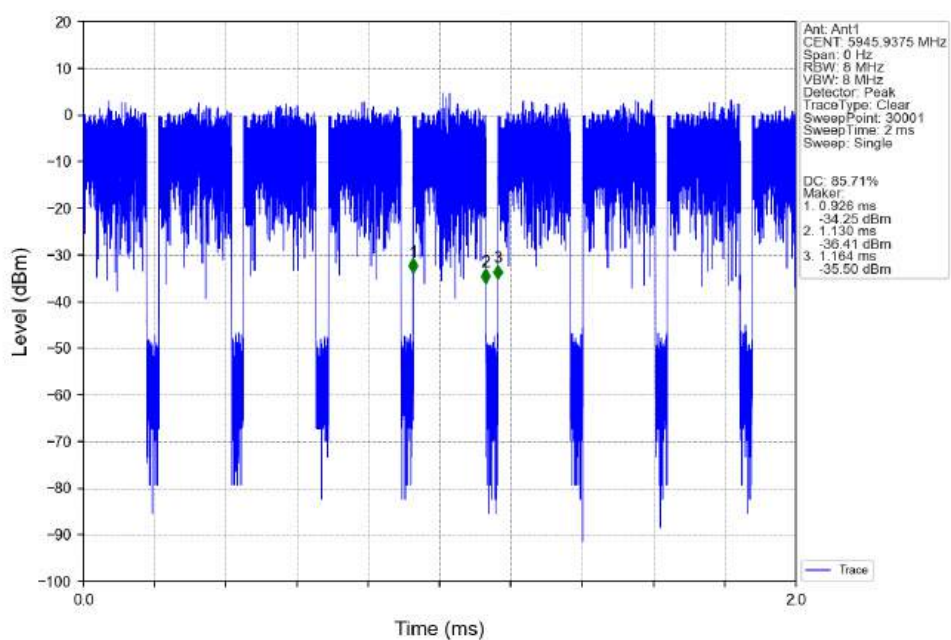
1.2.1 Ant1



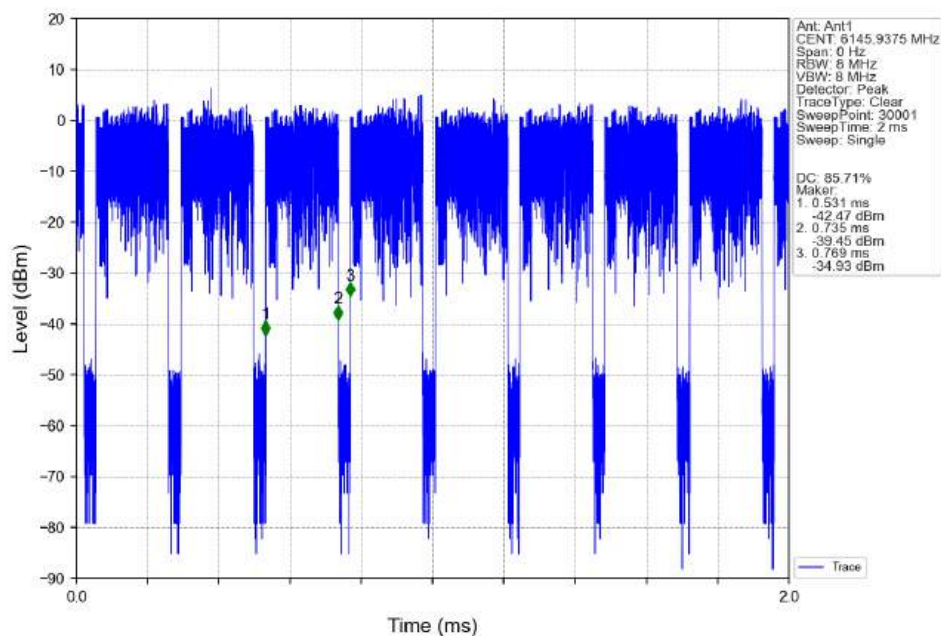
802.11ax(HEW20)_HCH_6415MHz_SU_Ant1_NTNV



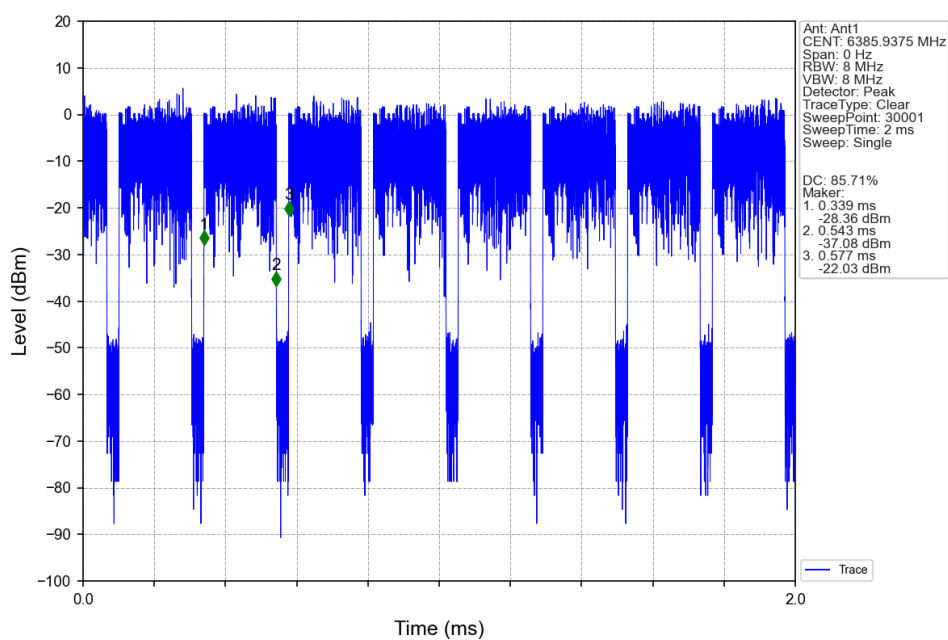
802.11ax(HEW40)_LCH_5965MHz_SU_Ant1_NTNV



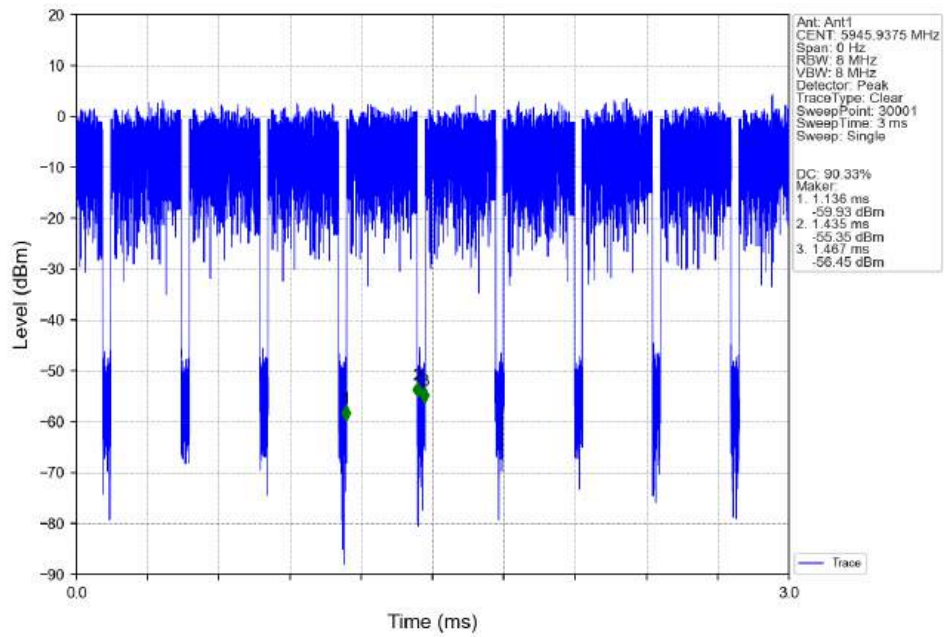
802.11ax(HEW40)_MCH_6165MHz_SU_Ant1_NTNV



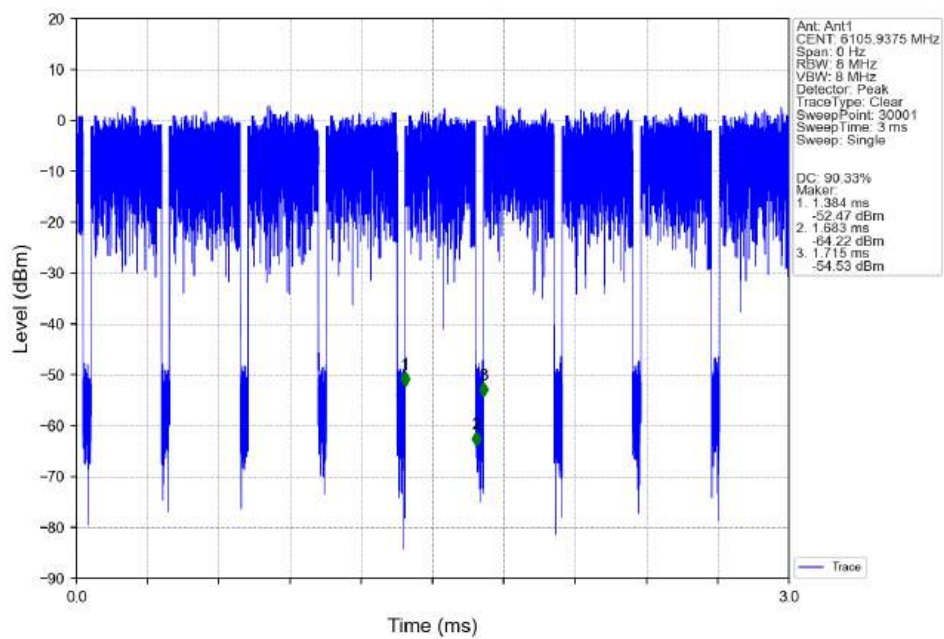
802.11ax(HEW40)_HCH_6405MHz_SU_Ant1_NTNV



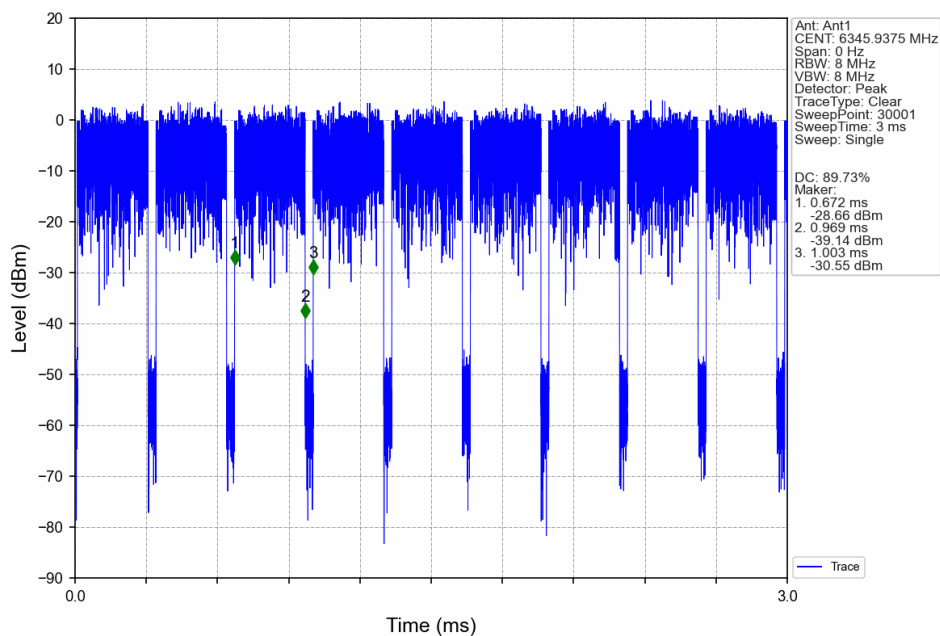
802.11ax(HEW80) LCH_5985MHz_SU_Ant1_NTNV



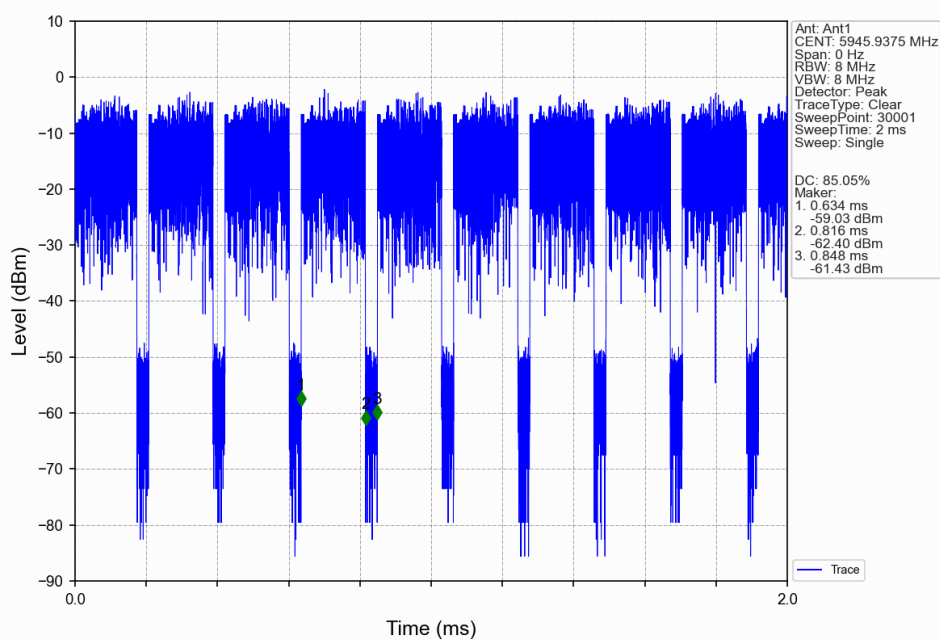
802.11ax(HEW80) MCH_6145MHz_SU_Ant1_NTNV



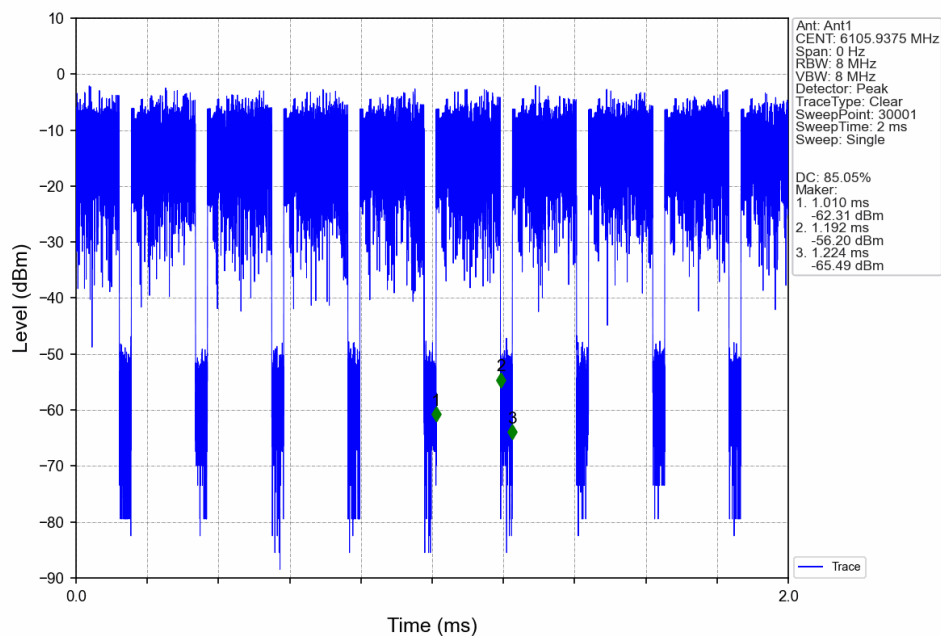
802.11ax(HEW80)_HCH_6385MHz_SU_Ant1_NTNV



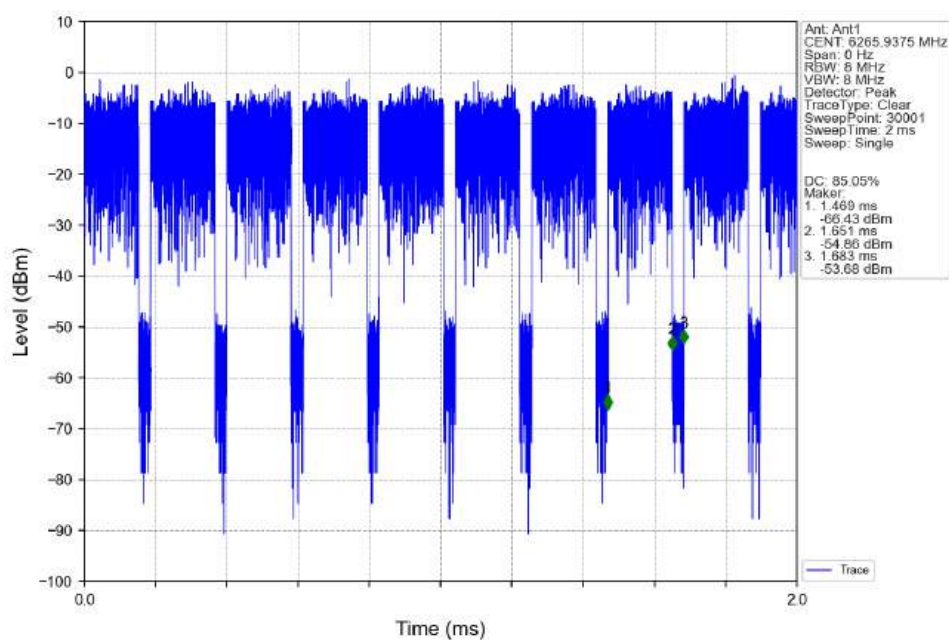
802.11ax(HEW160)_LCH_6025MHz_SU_Ant1_NTNV



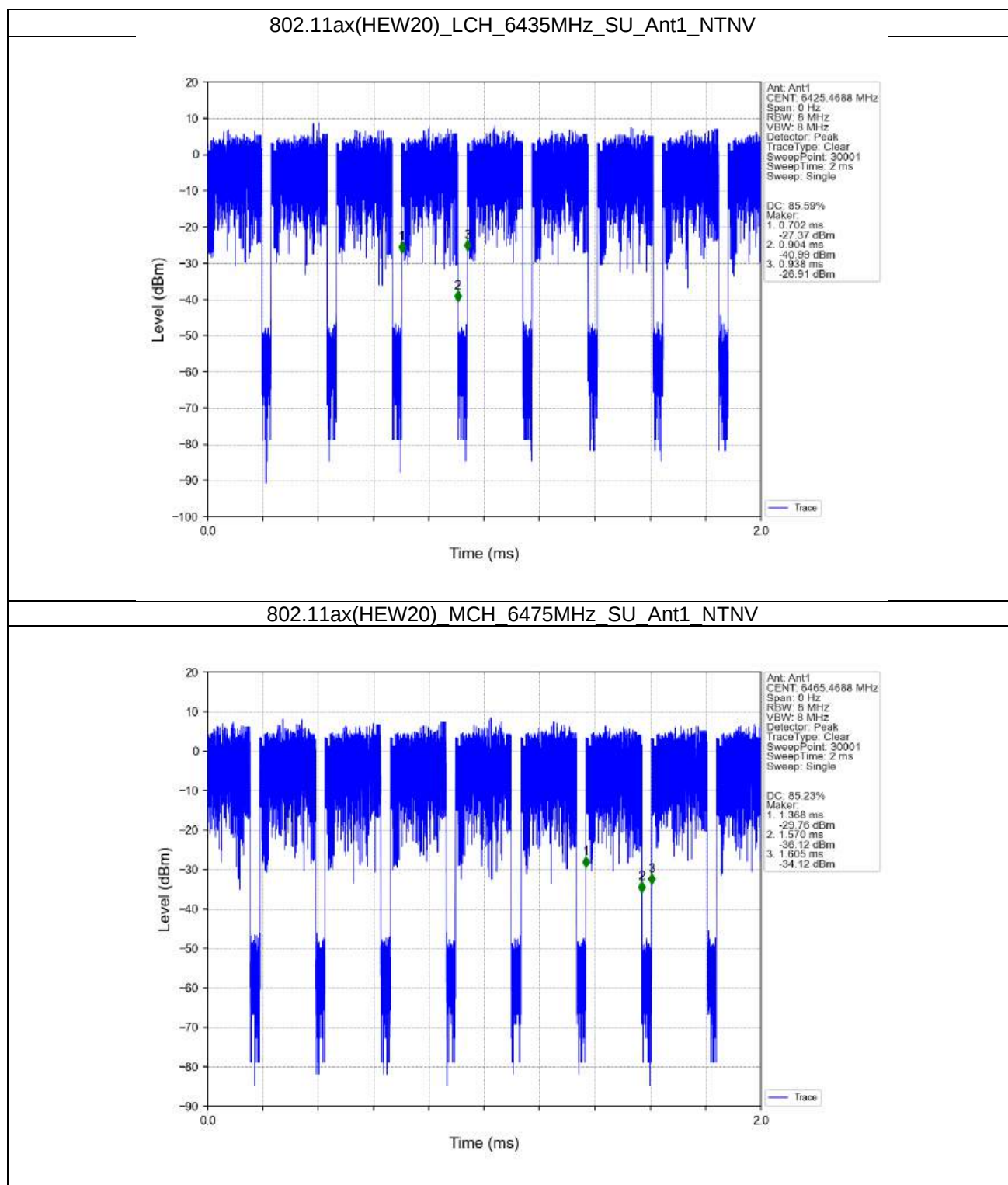
802.11ax(HEW160)_MCH_6185MHz_SU_Ant1_NTNV



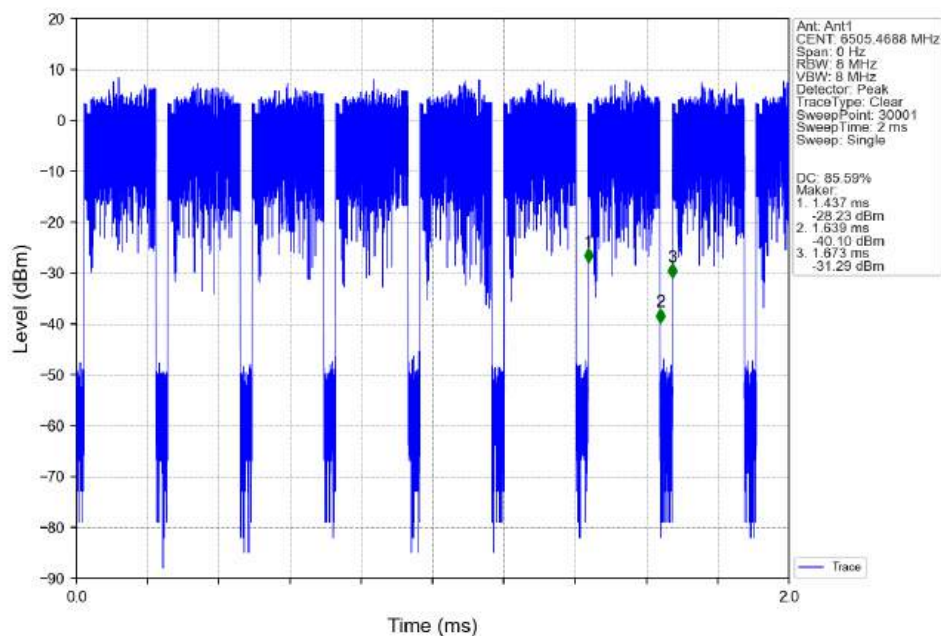
802.11ax(HEW160)_HCH_6345MHz_SU_Ant1_NTNV



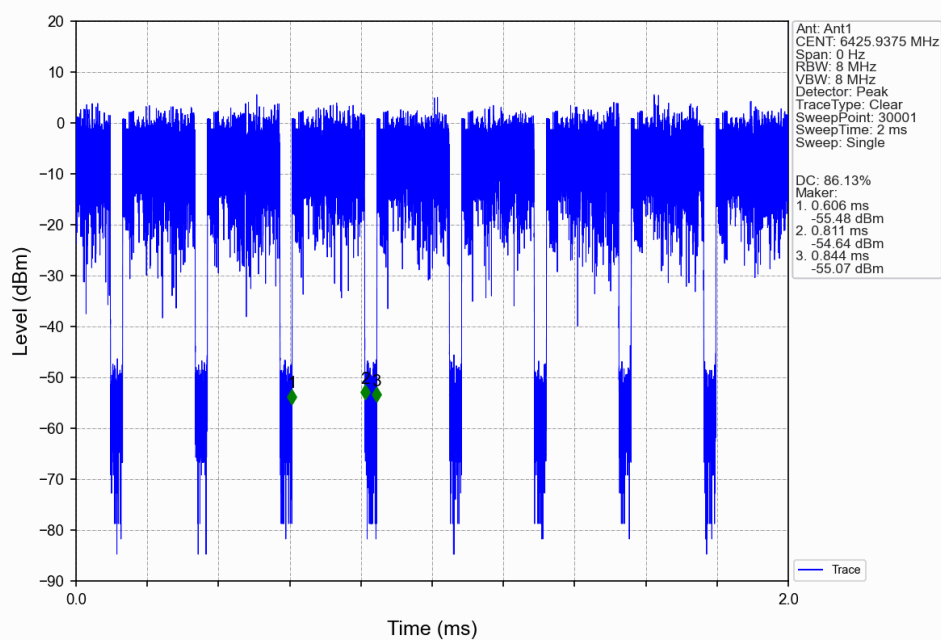
1.2.2 Ant1

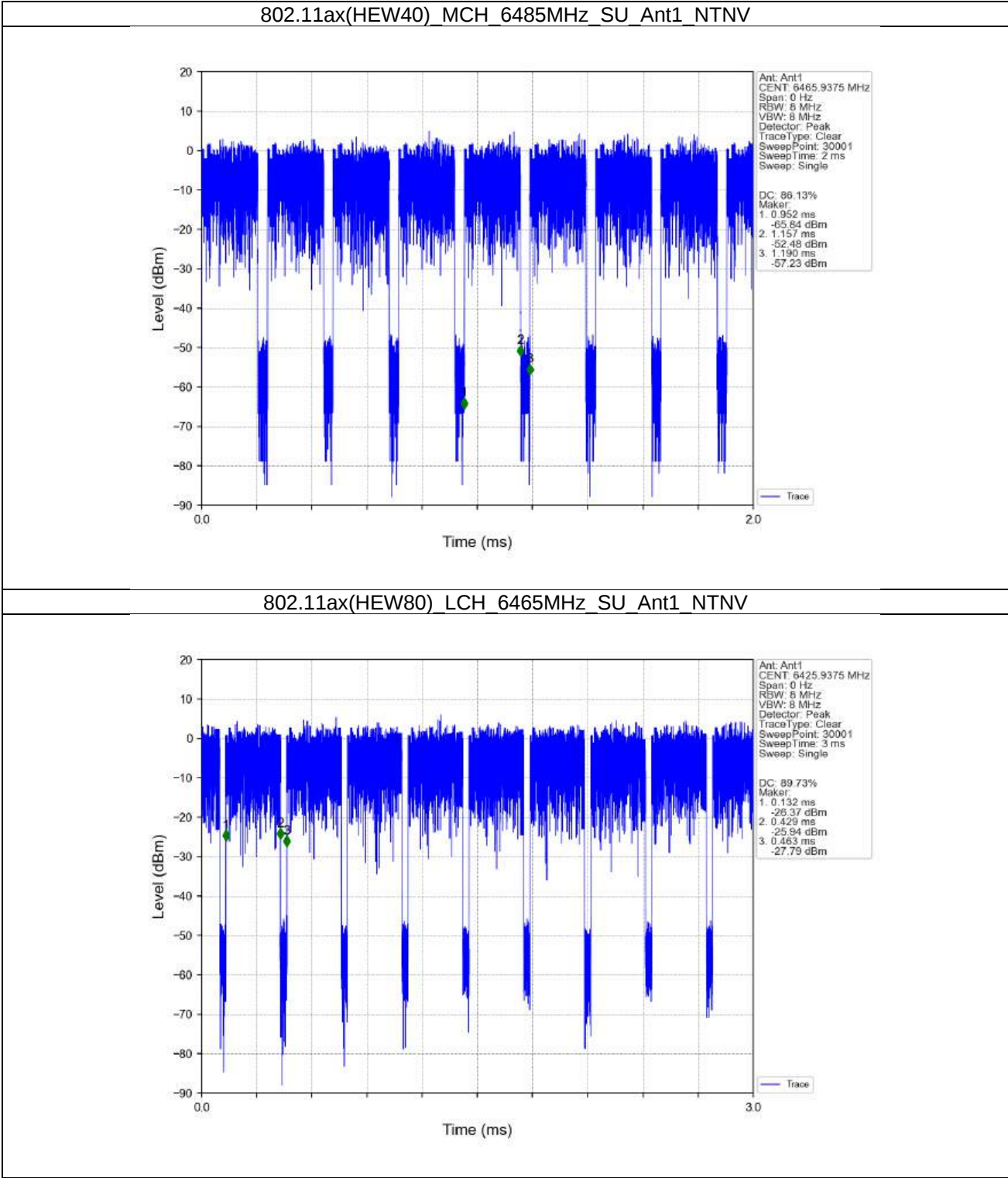


802.11ax(HEW20)_HCH_6515MHz_SU_Ant1_NTNV



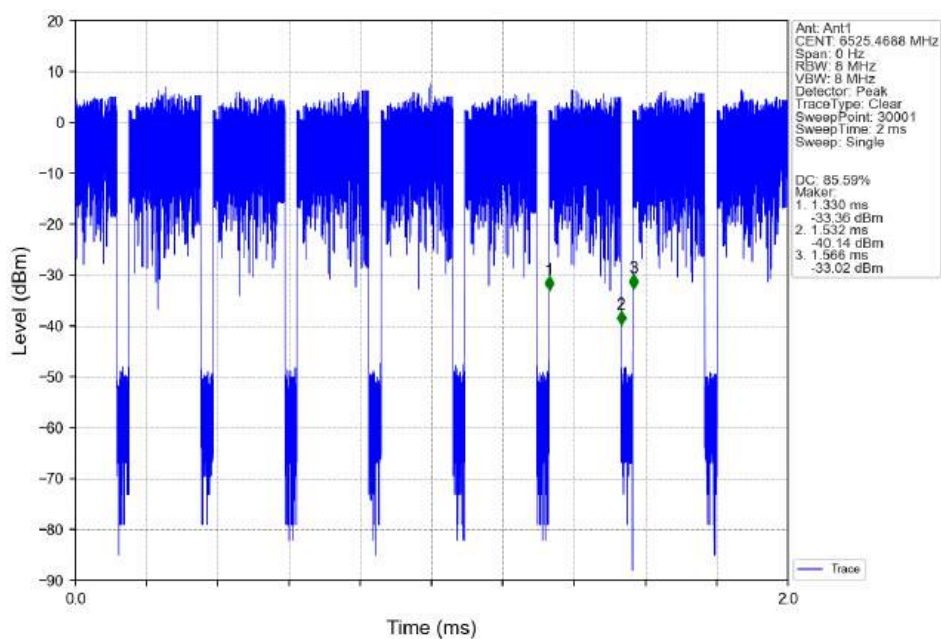
802.11ax(HEW40)_LCH_6445MHz_SU_Ant1_NTNV



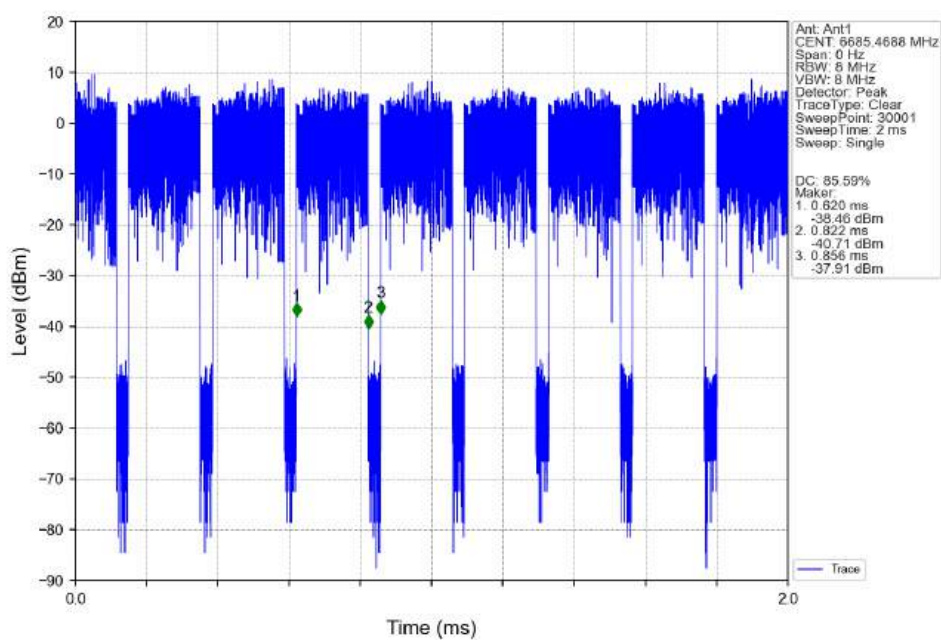


1.2.3 Ant1

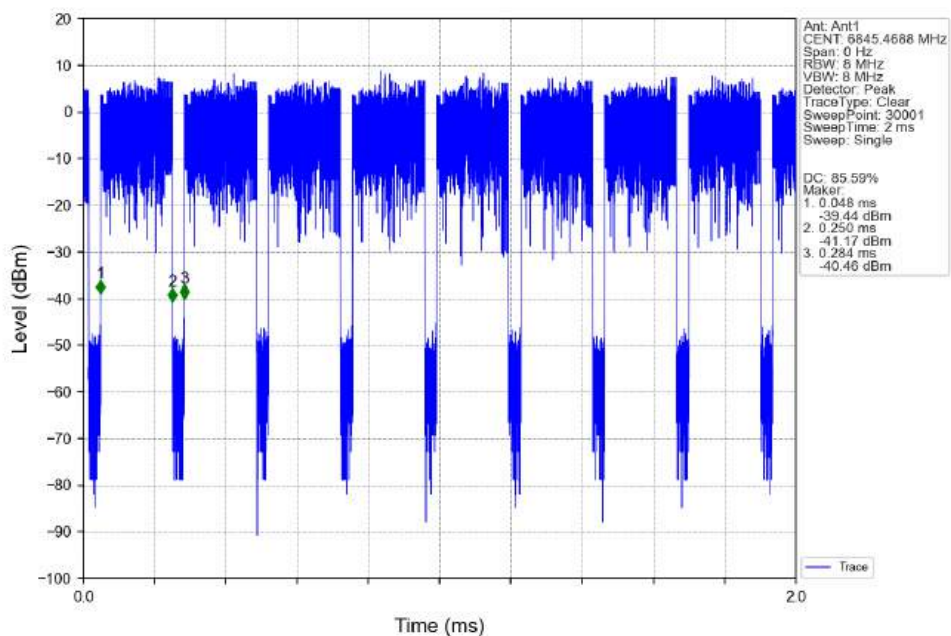
802.11ax(HEW20) LCH_6535MHz_SU_Ant1_NTNV



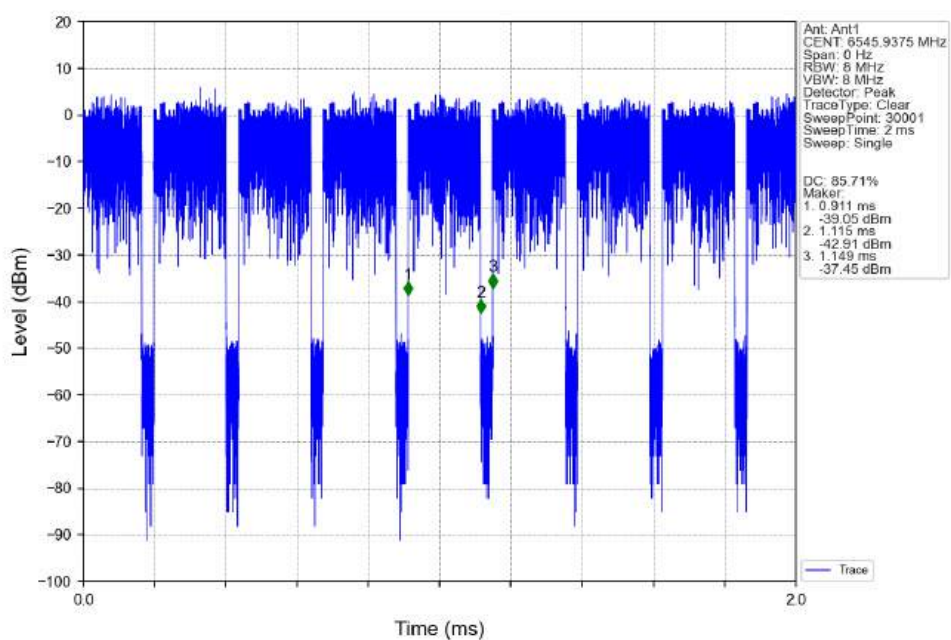
802.11ax(HEW20) MCH_6695MHz_SU_Ant1_NTNV



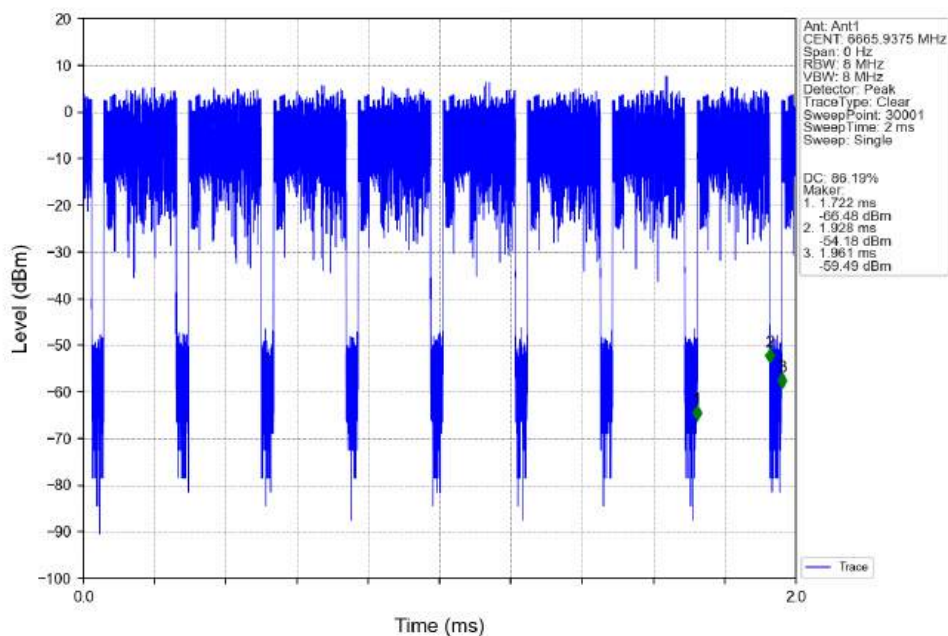
802.11ax(HEW20)_HCH_6855MHz_SU_Ant1_NTNV



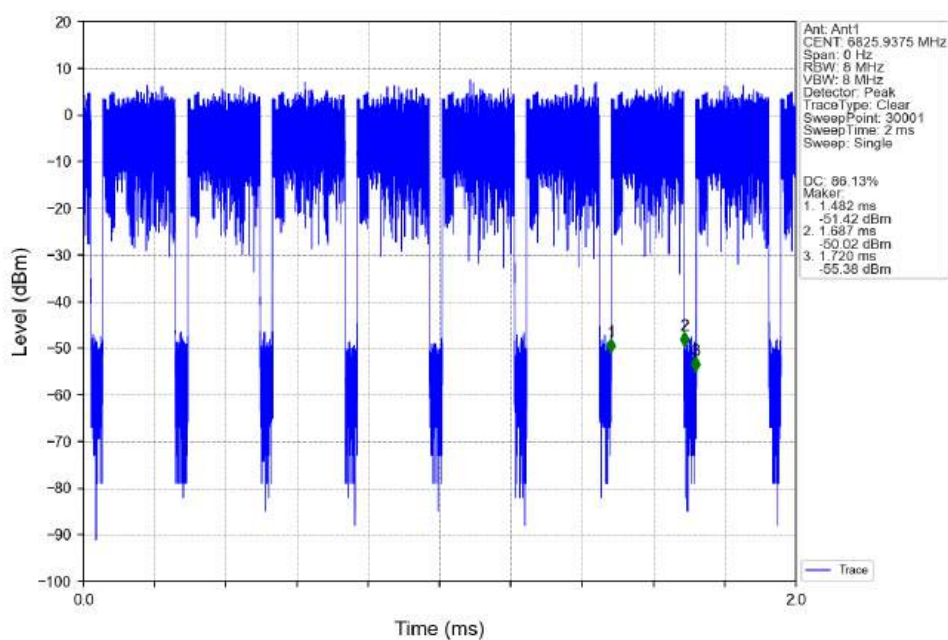
802.11ax(HEW40)_LCH_6565MHz_SU_Ant1_NTNV



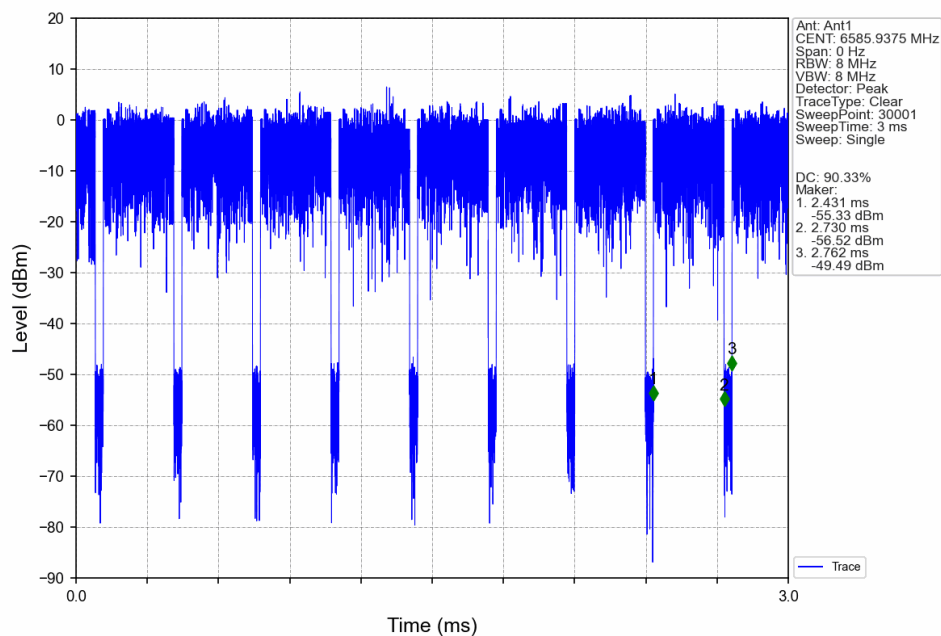
802.11ax(HEW40)_MCH_6685MHz_SU_Ant1_NTNV



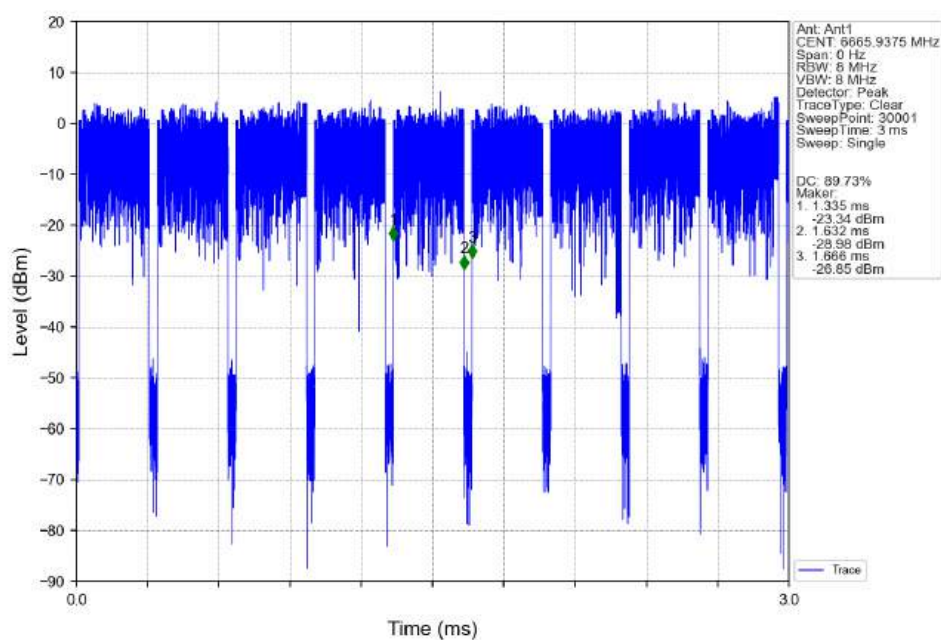
802.11ax(HEW40)_HCH_6845MHz_SU_Ant1_NTNV



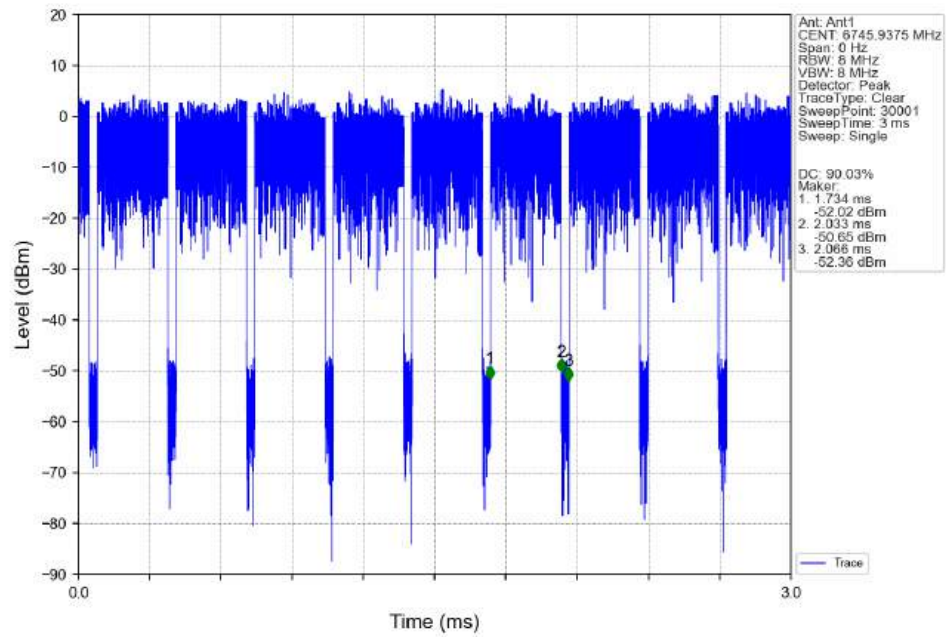
802.11ax(HEW80) LCH_6625MHz_SU_Ant1_NTNV



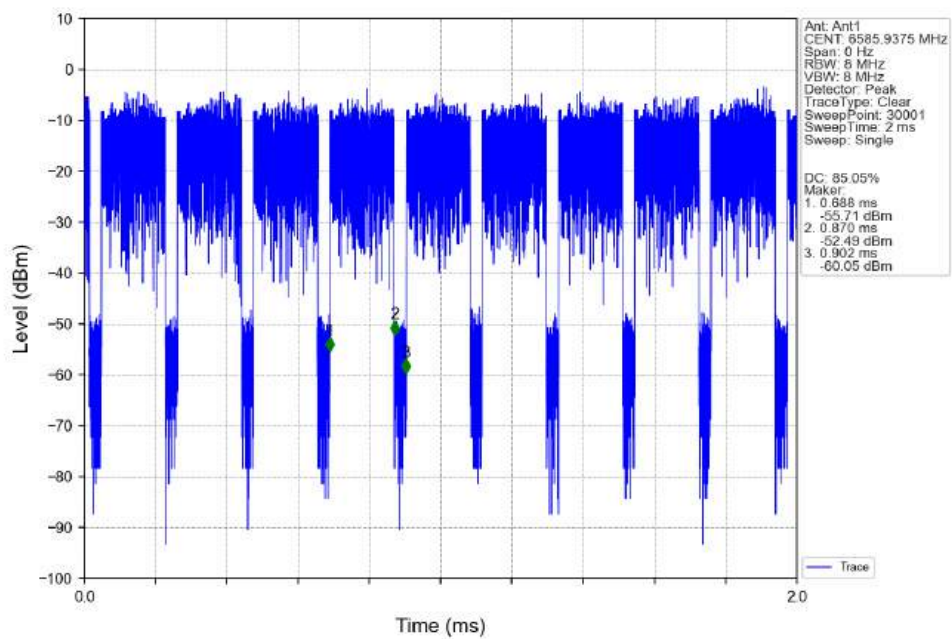
802.11ax(HEW80) MCH_6705MHz_SU_Ant1_NTNV



802.11ax(HEW80)_HCH_6785MHz_SU_Ant1_NTNV

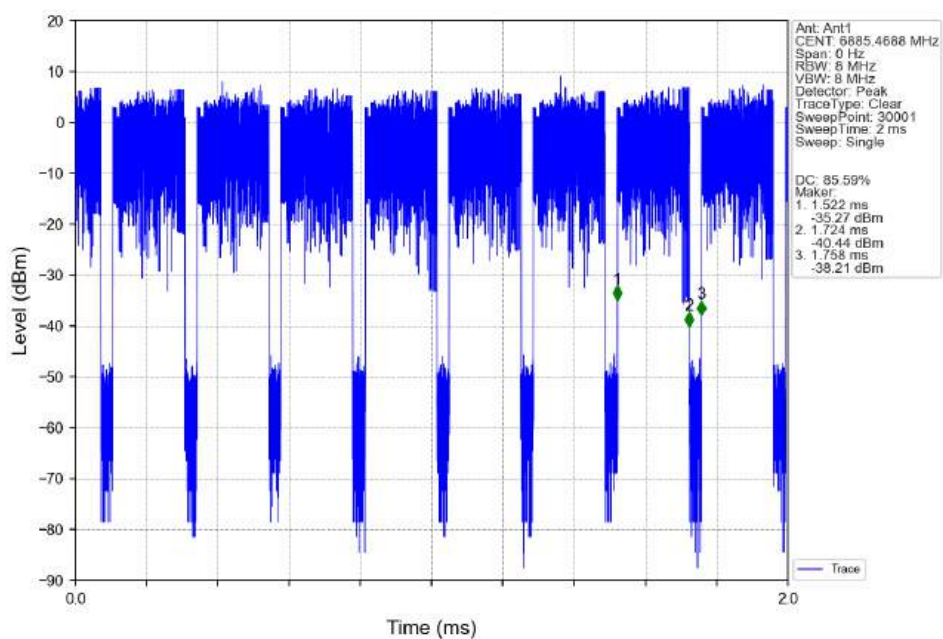


802.11ax(HEW160)_MCH_6665MHz_SU_Ant1_NTNV

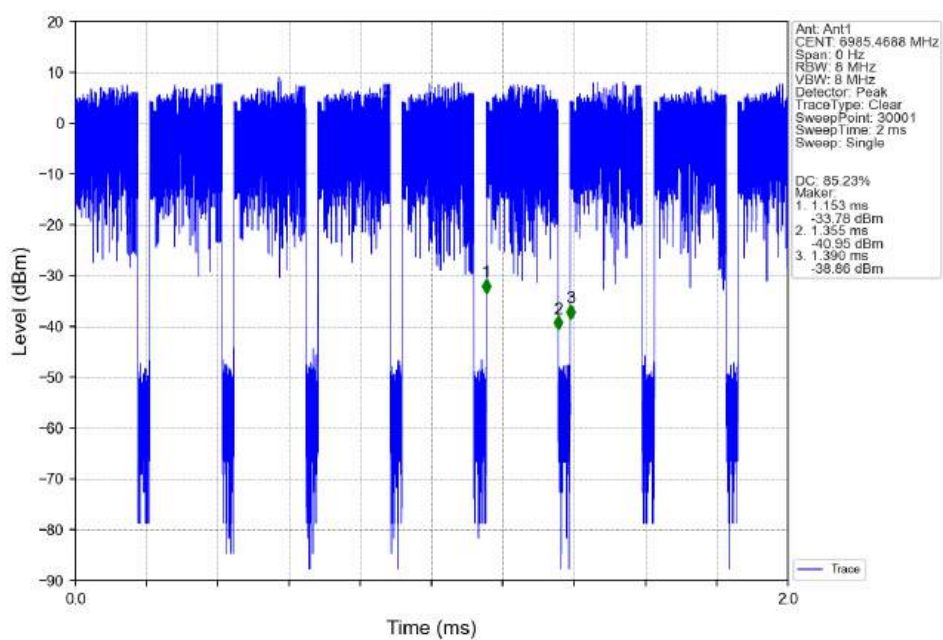


1.2.4 Ant1

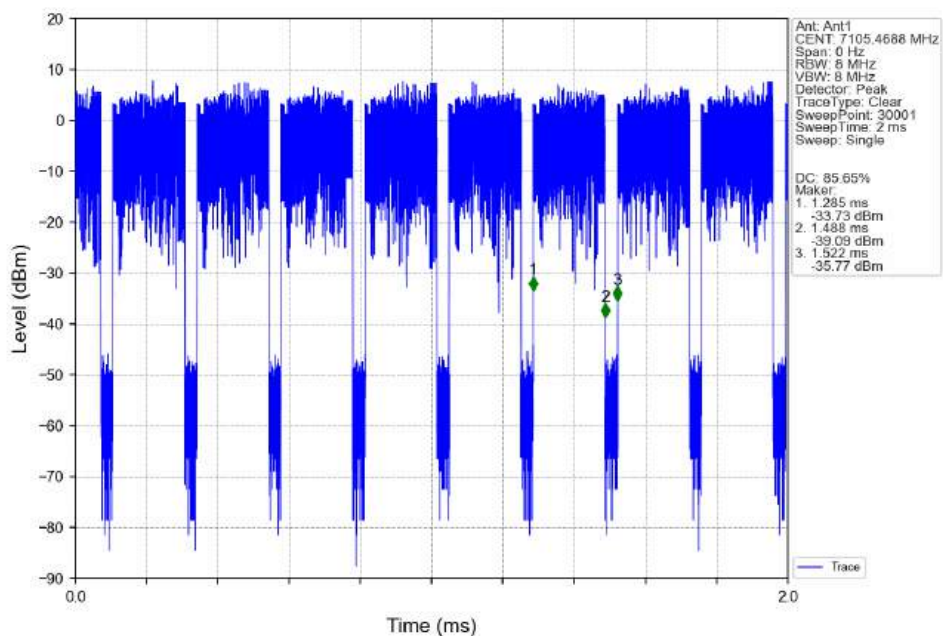
802.11ax(HEW20) LCH_6895MHz_SU_Ant1_NTNV



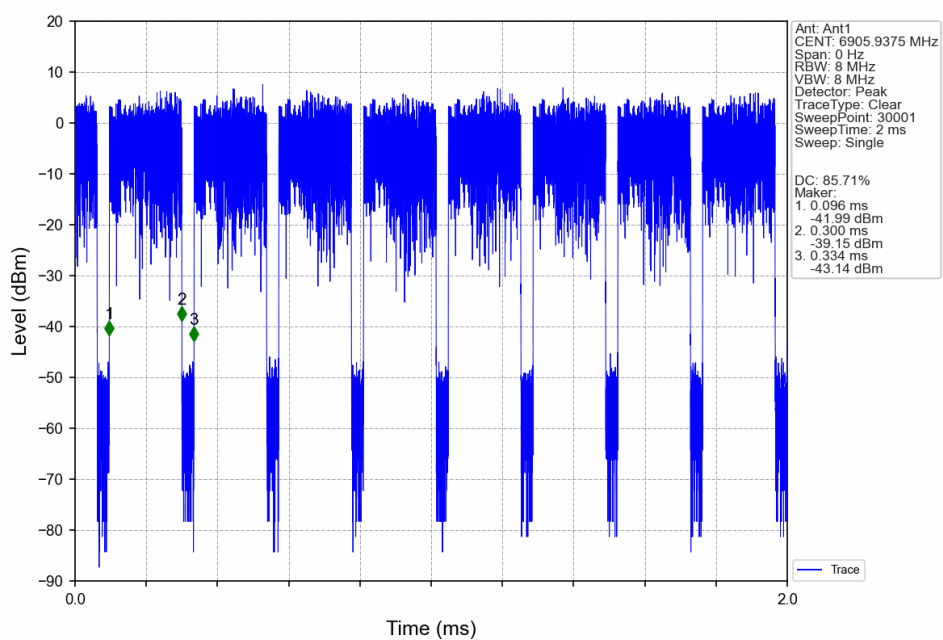
802.11ax(HEW20) MCH_6995MHz_SU_Ant1_NTNV



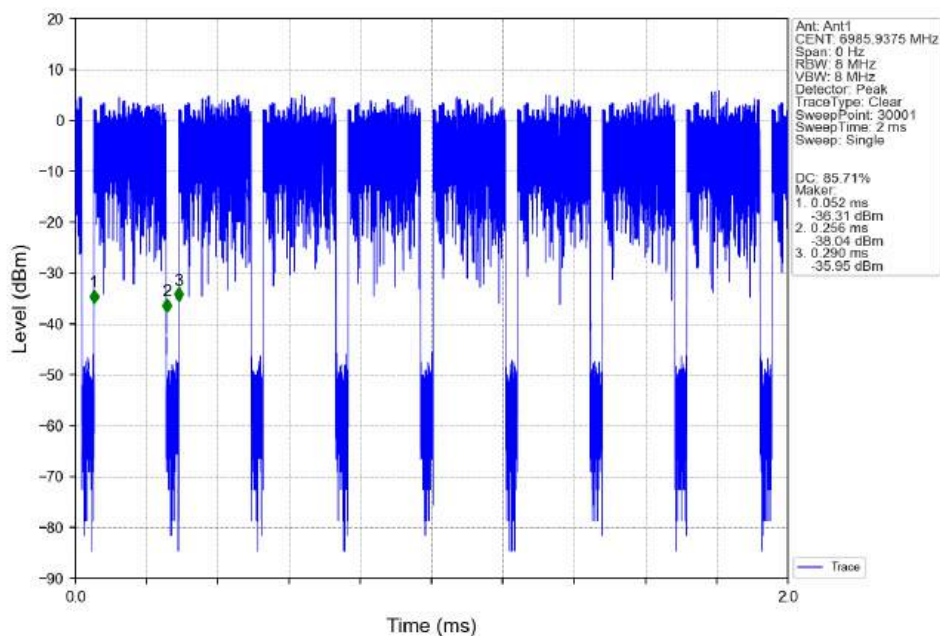
802.11ax(HEW20)_HCH_7115MHz_SU_Ant1_NTNV



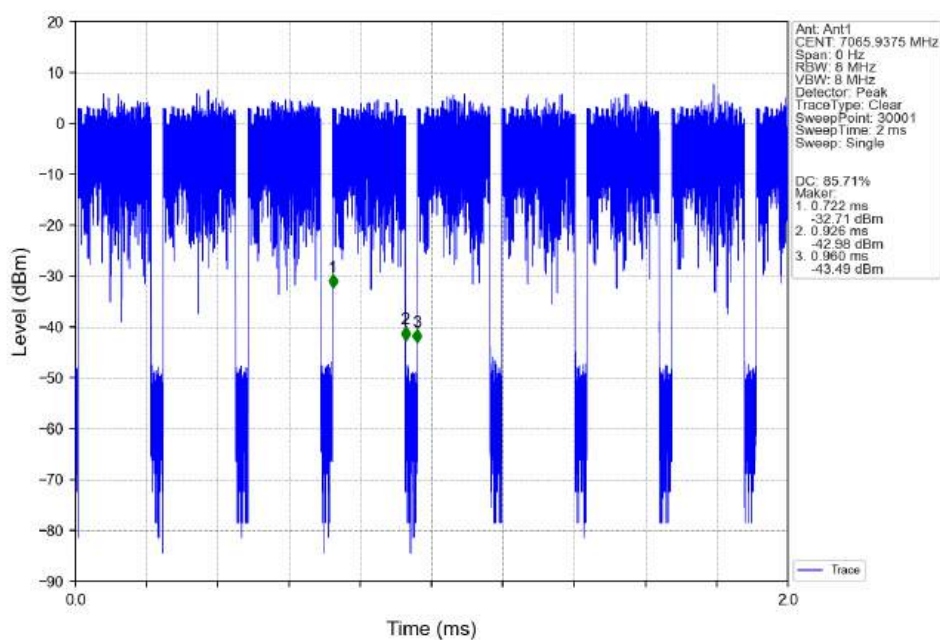
802.11ax(HEW40)_LCH_6925MHz_SU_Ant1_NTNV



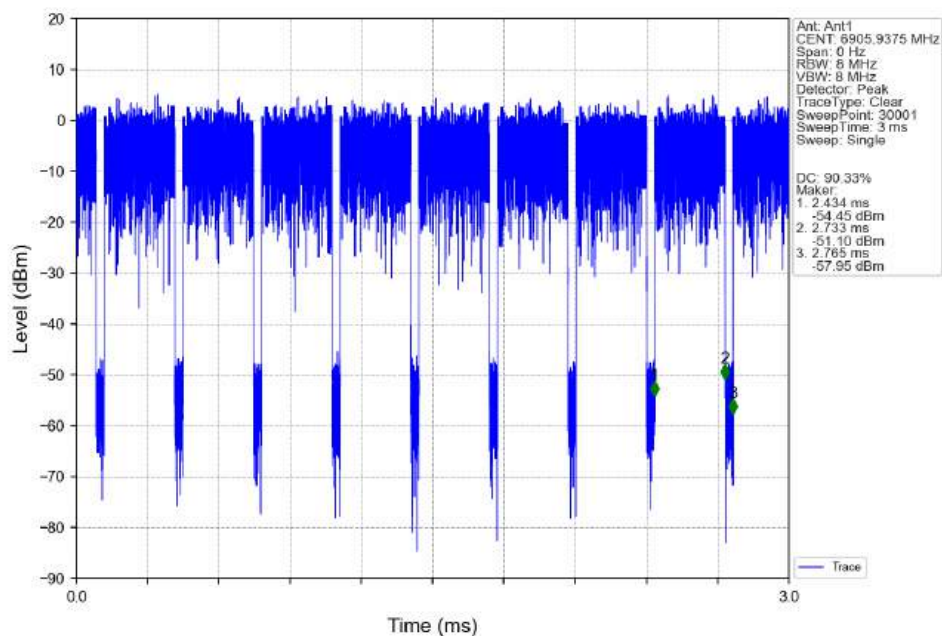
802.11ax(HEW40)_MCH_7005MHz_SU_Ant1_NTNV



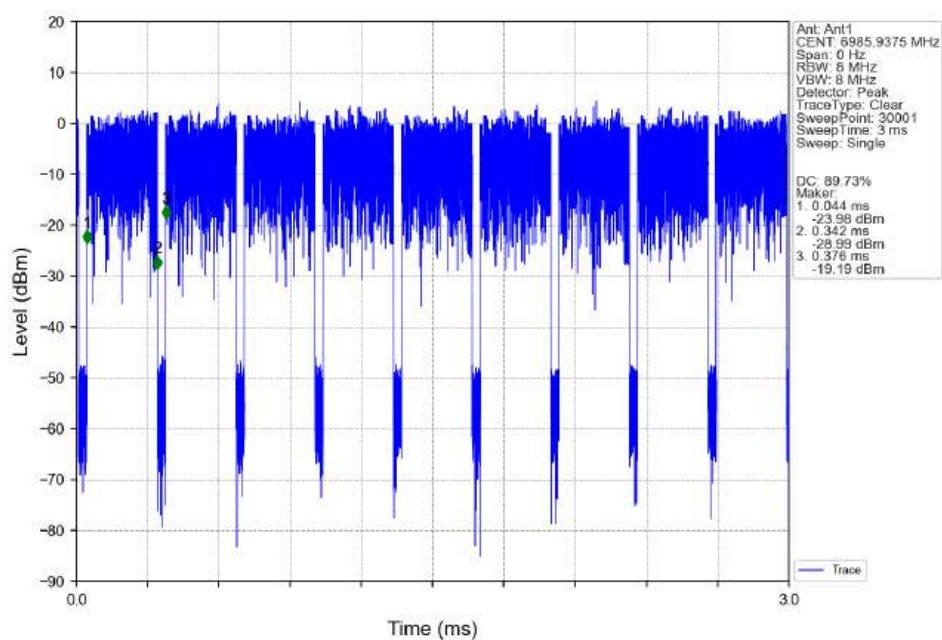
802.11ax(HEW40)_HCH_7085MHz_SU_Ant1_NTNV

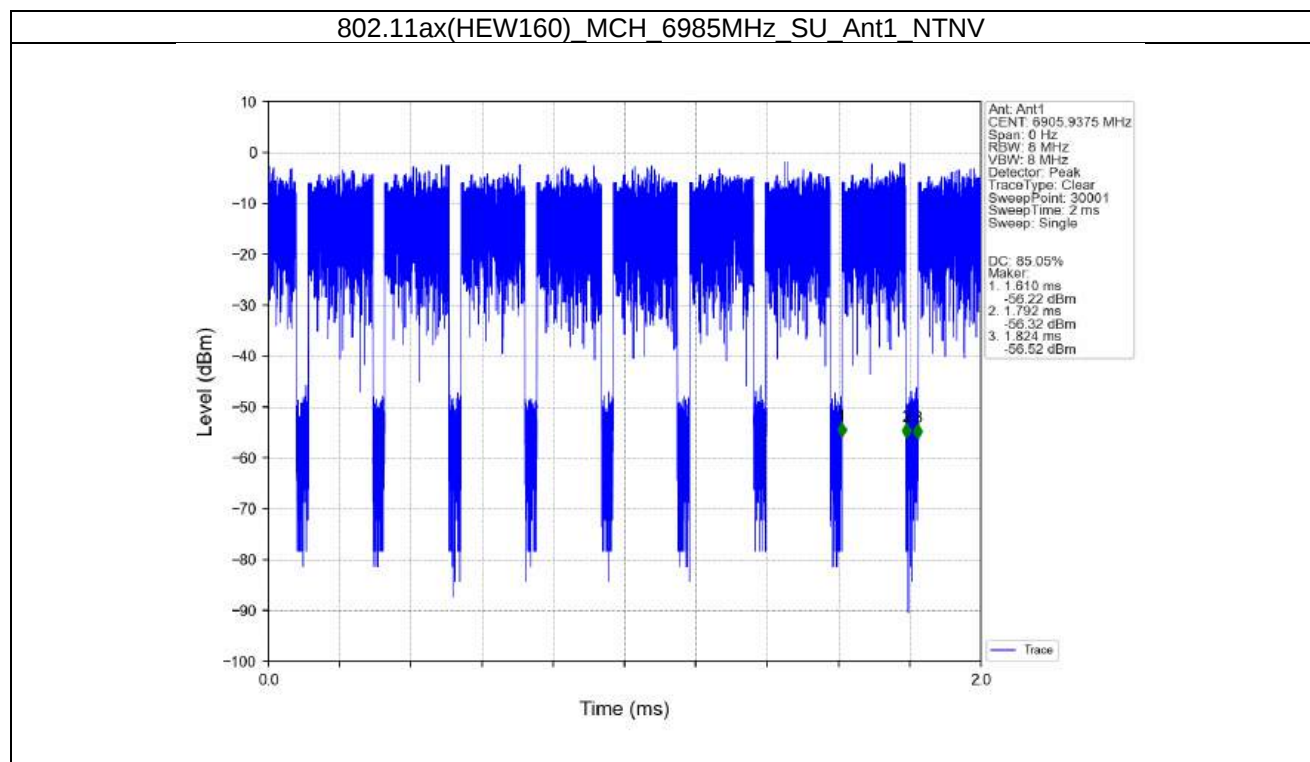


802.11ax(HEW80) LCH_6945MHz_SU_Ant1_NTNV



802.11ax(HEW80) HCH_7025MHz_SU_Ant1_NTNV





2. Bandwidth

2.1 Test Result

2.1.1 OBW

ENV	Mode	TX Type	Frequency (MHz)	RU	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
NTNV	802.11ax (HEW20)	MIMO	5955	SU	1	19.369	<=320	Pass
			6175	SU	1	19.164	<=320	Pass
			6415	SU	1	19.199	<=320	Pass
	802.11ax (HEW40)	MIMO	5965	SU	1	38.206	<=320	Pass
			6165	SU	1	37.902	<=320	Pass
			6405	SU	1	37.568	<=320	Pass
	802.11ax (HEW80)	MIMO	5985	SU	1	77.493	<=320	Pass
			6145	SU	1	77.110	<=320	Pass
			6385	SU	1	77.264	<=320	Pass
	802.11ax (HEW160)	MIMO	6025	SU	1	155.310	<=320	Pass
			6185	SU	1	154.981	<=320	Pass
			6345	SU	1	155.551	<=320	Pass

2.1.2 26dB BW

ENV	Mode	TX Type	Frequency (MHz)	RU	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
NTNV	802.11ax (HEW20)	MIMO	5955	SU	1	27.299	<=320	Pass
			6175	SU	1	20.862	<=320	Pass
			6415	SU	1	21.262	<=320	Pass
	802.11ax (HEW40)	MIMO	5965	SU	1	47.534	<=320	Pass
			6165	SU	1	39.335	<=320	Pass
			6405	SU	1	39.329	<=320	Pass
	802.11ax (HEW80)	MIMO	5985	SU	1	91.441	<=320	Pass
			6145	SU	1	79.896	<=320	Pass
			6385	SU	1	80.104	<=320	Pass
	802.11ax (HEW160)	MIMO	6025	SU	1	161.486	<=320	Pass
			6185	SU	1	161.623	<=320	Pass
			6345	SU	1	161.459	<=320	Pass

2.1.3 OBW

ENV	Mode	TX Type	Frequency (MHz)	RU	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
NTNV	802.11ax (HEW20)	MIMO	6435	SU	1	19.166	<=320	Pass
			6475	SU	1	19.129	<=320	Pass
			6515	SU	1	19.217	<=320	Pass
	802.11ax (HEW40)	MIMO	6445	SU	1	37.666	<=320	Pass
			6485	SU	1	37.730	<=320	Pass
	802.11ax (HEW80)	MIMO	6465	SU	1	77.141	<=320	Pass

2.1.4 26dB BW

ENV	Mode	TX Type	Frequency (MHz)	RU	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
NTNV	802.11ax (HEW20)	MIMO	6435	SU	1	21.306	<=320	Pass
			6475	SU	1	21.075	<=320	Pass
			6515	SU	1	21.346	<=320	Pass
	802.11ax (HEW40)	MIMO	6445	SU	1	39.240	<=320	Pass
			6485	SU	1	39.341	<=320	Pass

	802.11ax (HEW80)	MIMO	6465	SU	1	79.937	<=320	Pass
--	---------------------	------	------	----	---	--------	-------	------

2.1.5 OBW

ENV	Mode	TX Type	Frequency (MHz)	RU	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
NTNV	802.11ax (HEW20)	MIMO	6535	SU	1	19.159	<=320	Pass
			6695	SU	1	19.179	<=320	Pass
			6855	SU	1	19.162	<=320	Pass
	802.11ax (HEW40)	MIMO	6565	SU	1	37.647	<=320	Pass
			6685	SU	1	37.679	<=320	Pass
			6845	SU	1	37.702	<=320	Pass
	802.11ax (HEW80)	MIMO	6625	SU	1	77.082	<=320	Pass
			6705	SU	1	77.097	<=320	Pass
			6785	SU	1	76.969	<=320	Pass
	802.11ax (HEW160)	MIMO	6665	SU	1	154.811	<=320	Pass

2.1.6 26dB BW

ENV	Mode	TX Type	Frequency (MHz)	RU	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
NTNV	802.11ax (HEW20)	MIMO	6535	SU	1	21.813	<=320	Pass
			6695	SU	1	21.329	<=320	Pass
			6855	SU	1	21.352	<=320	Pass
	802.11ax (HEW40)	MIMO	6565	SU	1	39.465	<=320	Pass
			6685	SU	1	39.306	<=320	Pass
			6845	SU	1	39.313	<=320	Pass
	802.11ax (HEW80)	MIMO	6625	SU	1	79.956	<=320	Pass
			6705	SU	1	80.067	<=320	Pass
			6785	SU	1	79.917	<=320	Pass
	802.11ax (HEW160)	MIMO	6665	SU	1	161.754	<=320	Pass

2.1.7 OBW

ENV	Mode	TX Type	Frequency (MHz)	RU	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
NTNV	802.11ax (HEW20)	MIMO	6895	SU	1	19.030	<=320	Pass
			6995	SU	1	19.106	<=320	Pass
			7115	SU	1	19.183	<=320	Pass
	802.11ax (HEW40)	MIMO	6925	SU	1	37.722	<=320	Pass
			7005	SU	1	37.615	<=320	Pass
			7085	SU	1	38.039	<=320	Pass
	802.11ax (HEW80)	MIMO	6945	SU	1	77.287	<=320	Pass
			7025	SU	1	77.928	<=320	Pass
	802.11ax (HEW160)	MIMO	6985	SU	1	155.433	<=320	Pass

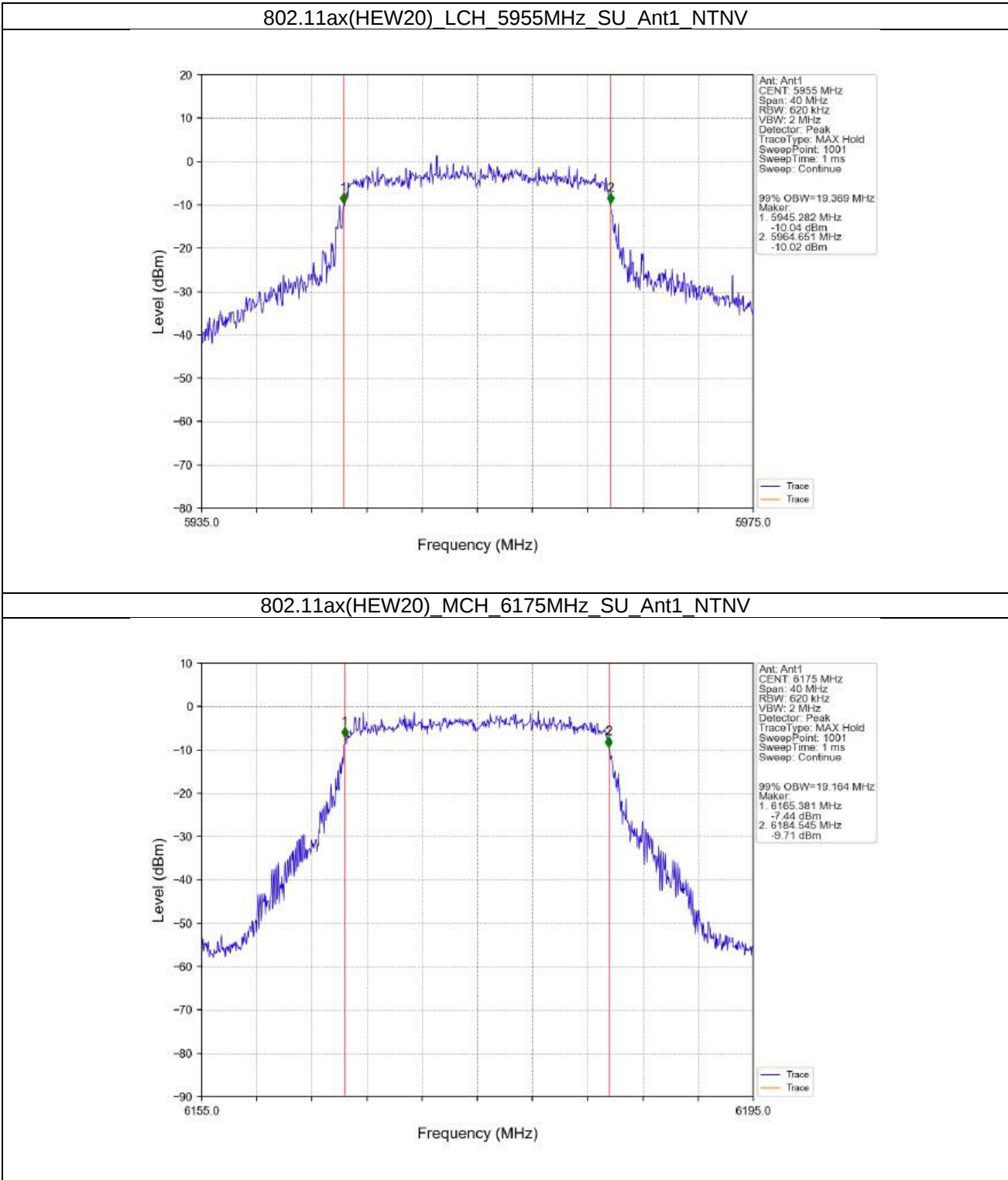
2.1.8 26dB BW

ENV	Mode	TX Type	Frequency (MHz)	RU	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
NTNV	802.11ax (HEW20)	MIMO	6895	SU	1	21.176	<=320	Pass
			6995	SU	1	22.146	<=320	Pass
			7115	SU	1	21.498	<=320	Pass
	802.11ax (HEW40)	MIMO	6925	SU	1	39.465	<=320	Pass
			7005	SU	1	39.361	<=320	Pass
			7085	SU	1	48.553	<=320	Pass

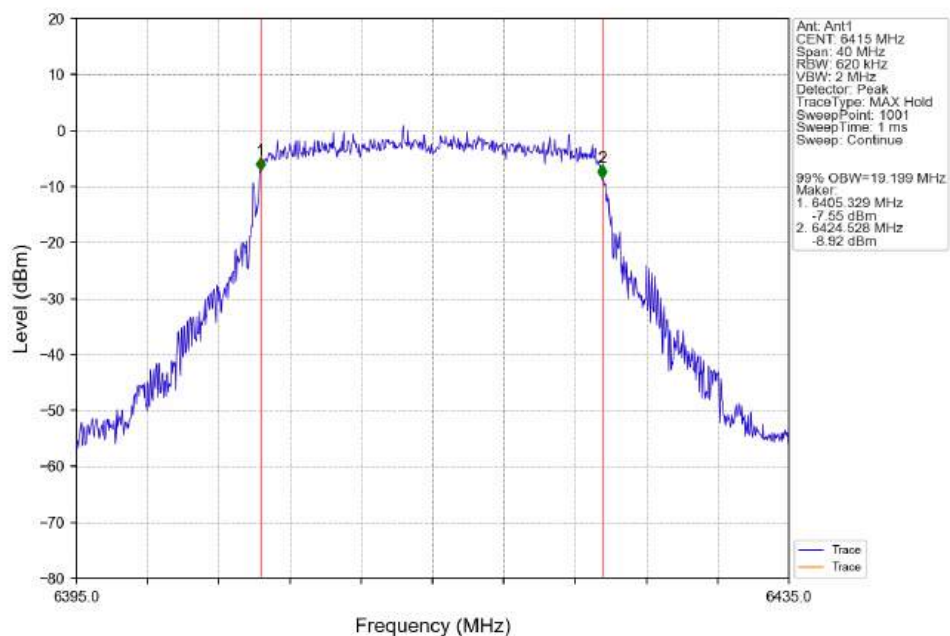
	802.11ax (HEW80)	MIMO	6945	SU	1	79.990	<=320	Pass
			7025	SU	1	108.800	<=320	Pass
	802.11ax (HEW160)	MIMO	6985	SU	1	161.635	<=320	Pass

2.2 Test Graph

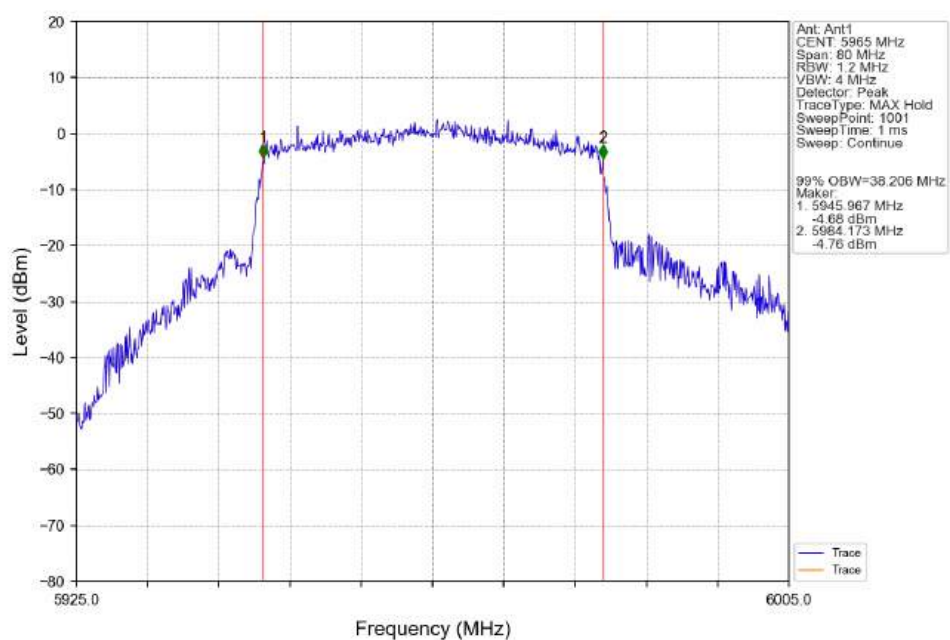
2.2.1 OBW



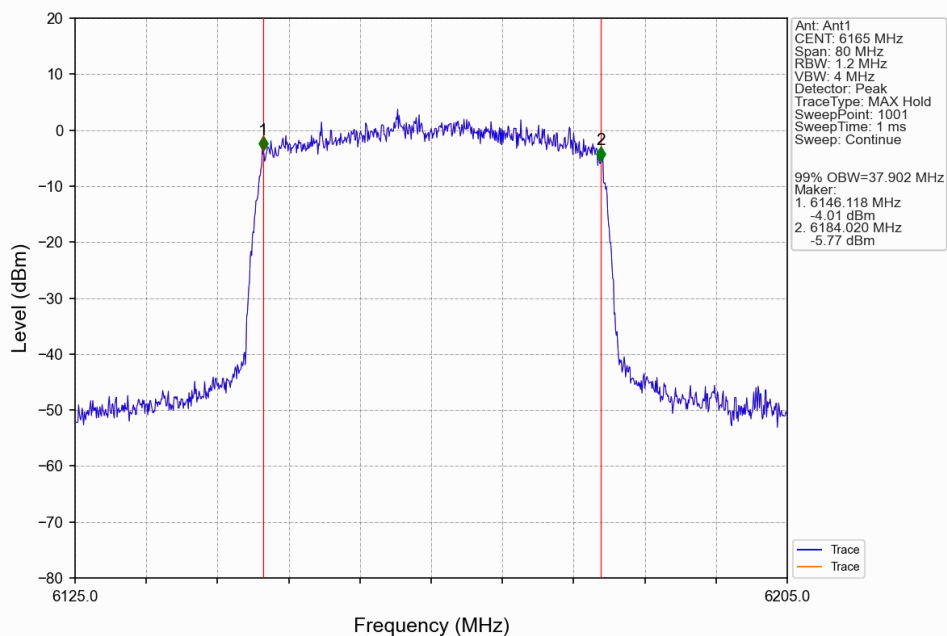
802.11ax(HEW20)_HCH_6415MHz_SU_Ant1_NTNV



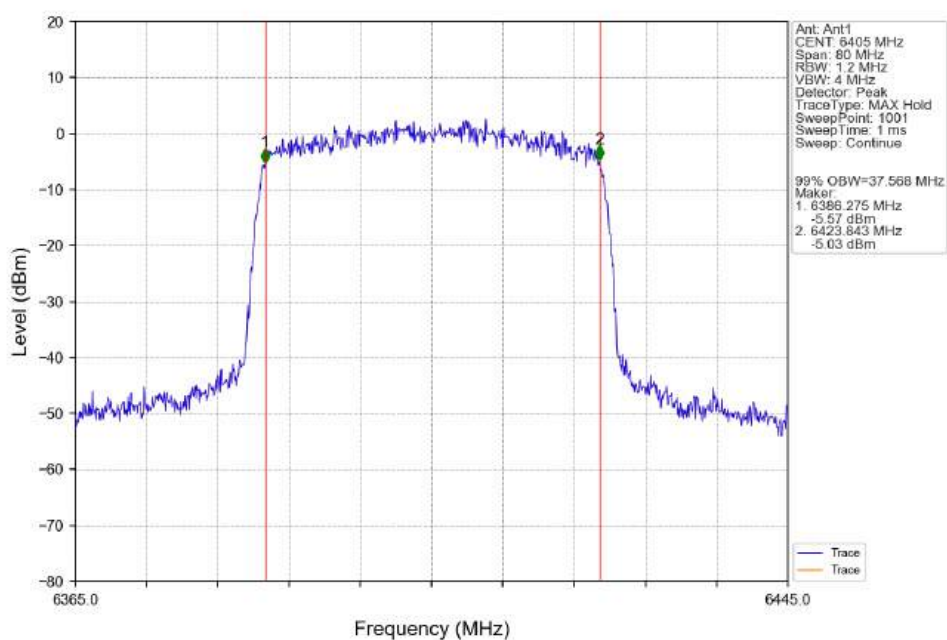
802.11ax(HEW40)_LCH_5965MHz_SU_Ant1_NTNV



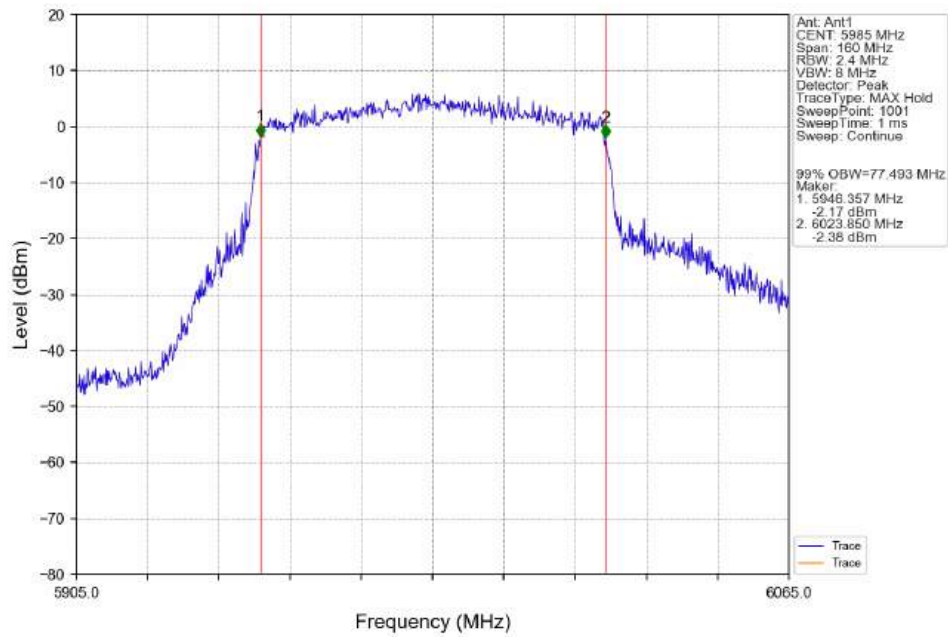
802.11ax(HEW40)_MCH_6165MHz_SU_Ant1_NTNV



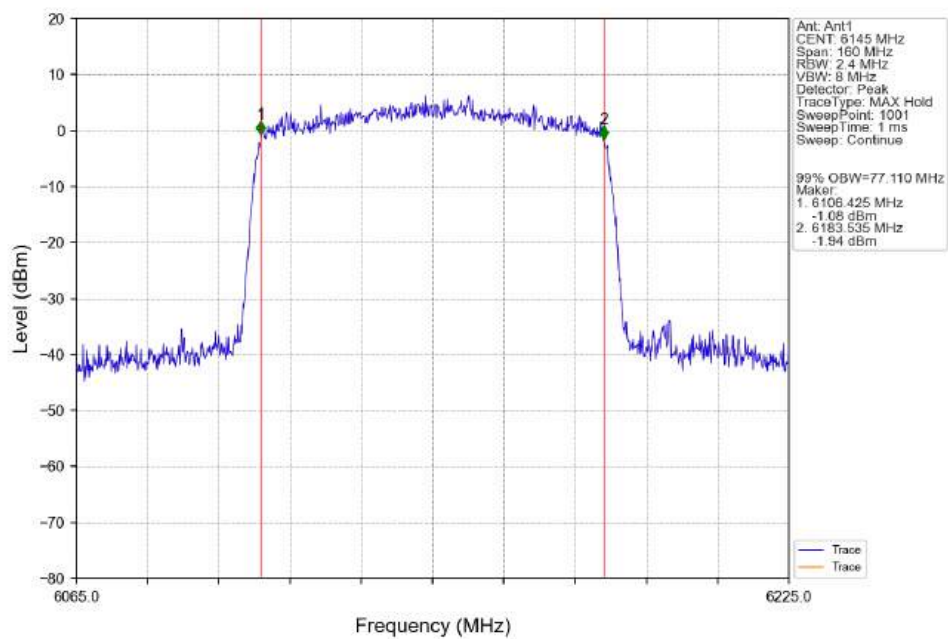
802.11ax(HEW40)_HCH_6405MHz_SU_Ant1_NTNV



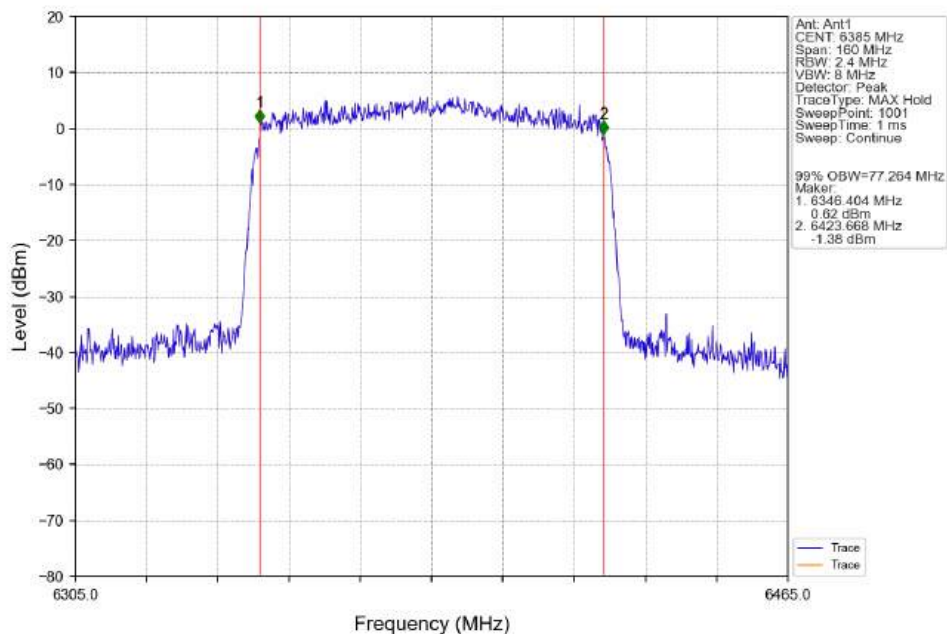
802.11ax(HEW80) LCH_5985MHz_SU_Ant1_NTNV



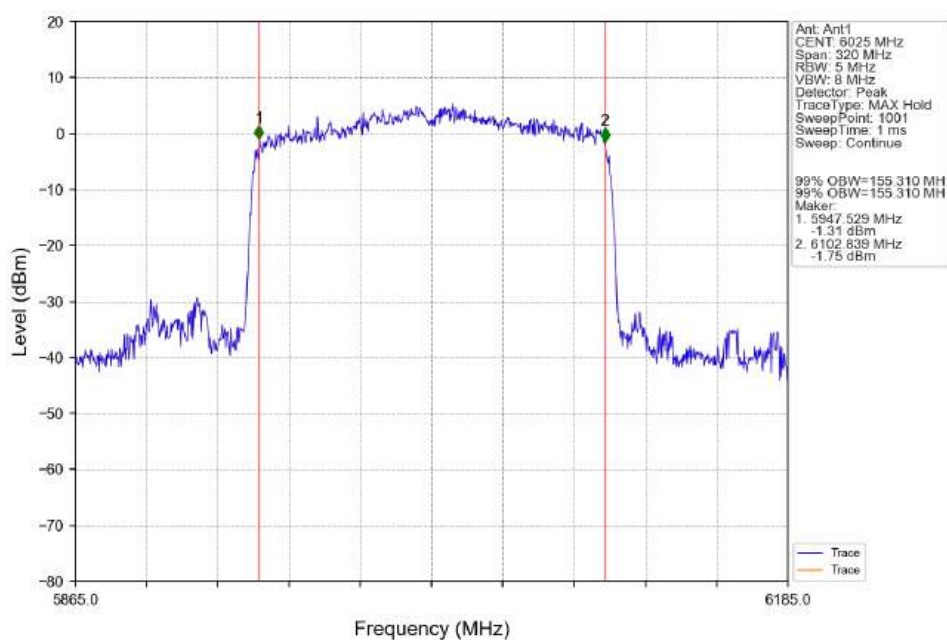
802.11ax(HEW80) MCH_6145MHz_SU_Ant1_NTNV



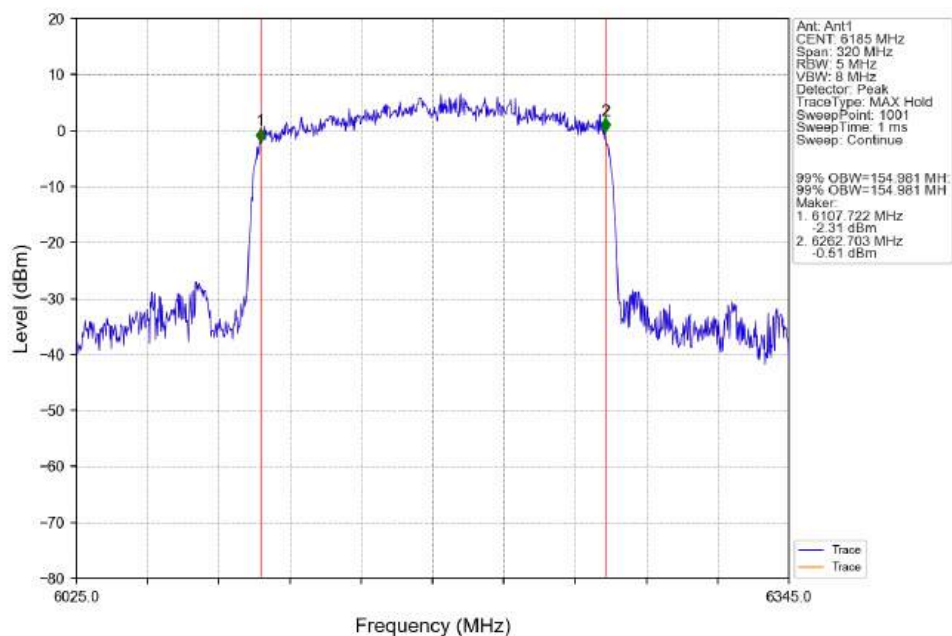
802.11ax(HEW80)_HCH_6385MHz_SU_Ant1_NTNV



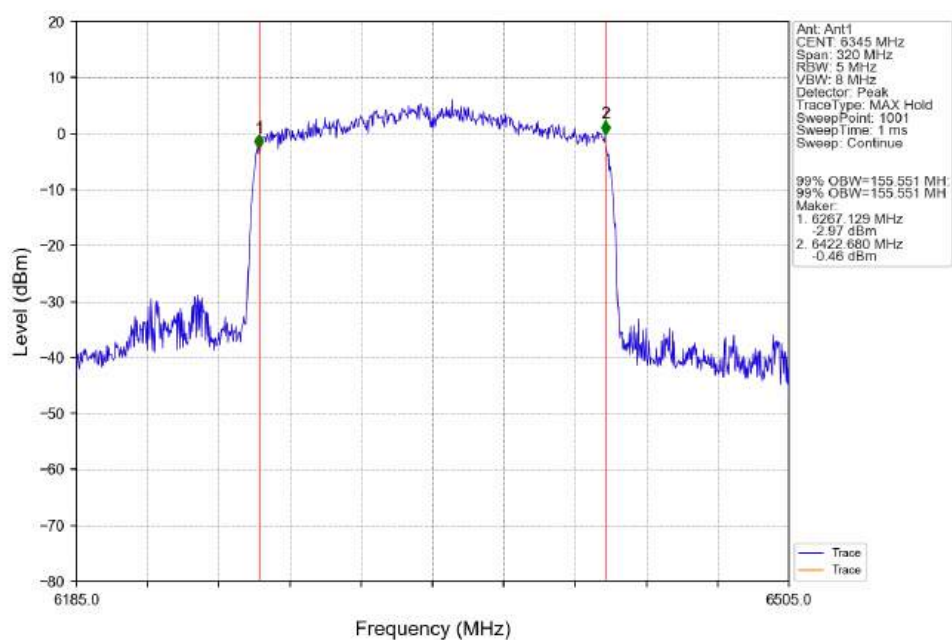
802.11ax(HEW160)_LCH_6025MHz_SU_Ant1_NTNV



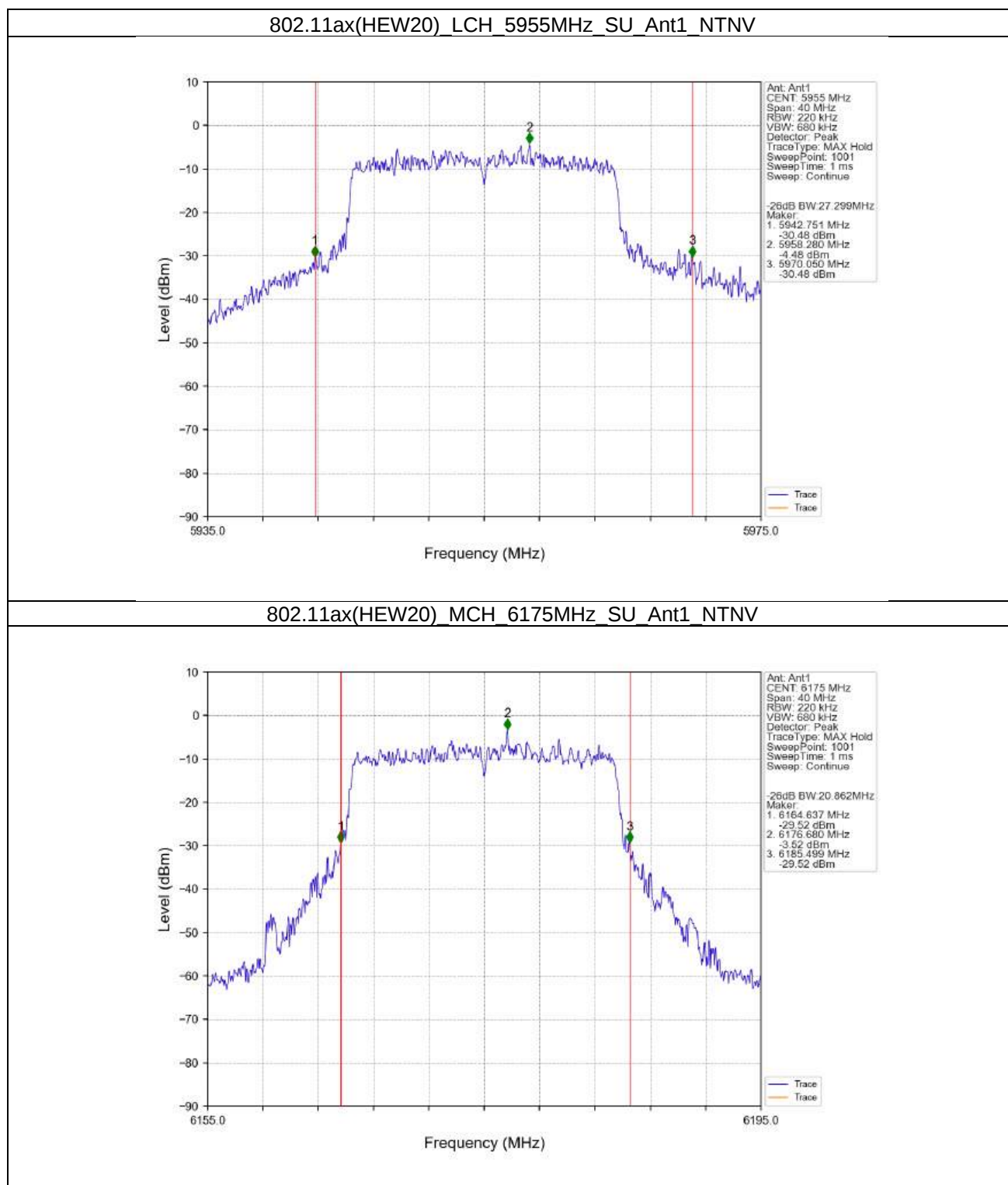
802.11ax(HEW160)_MCH_6185MHz_SU_Ant1_NTNV



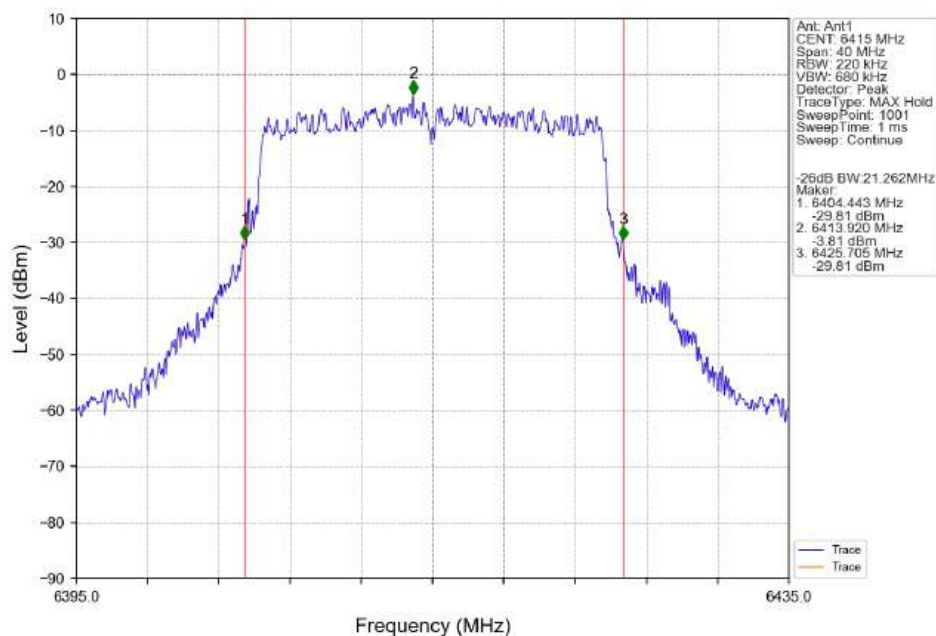
802.11ax(HEW160)_HCH_6345MHz_SU_Ant1_NTNV



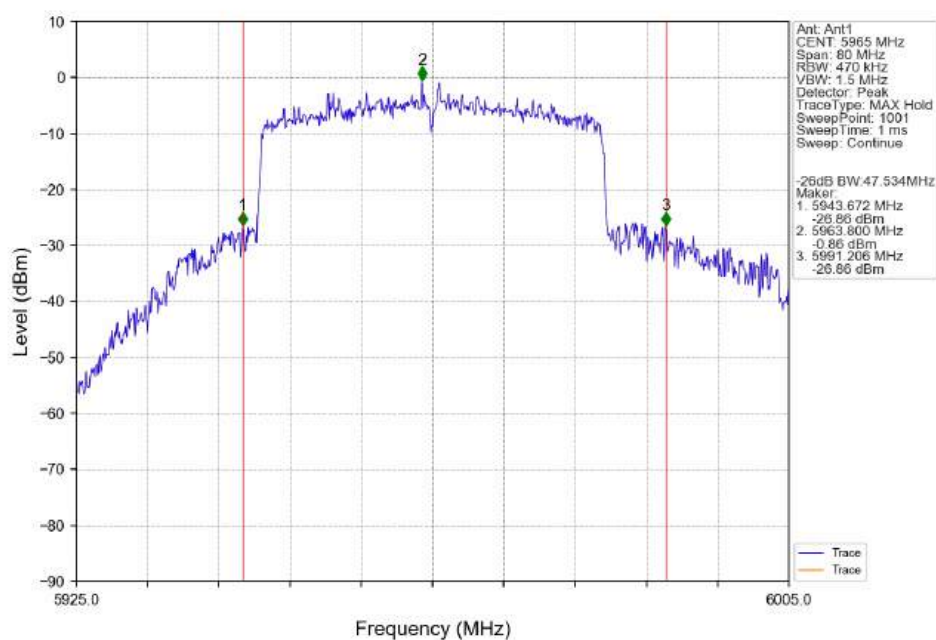
2.2.2 26dB BW



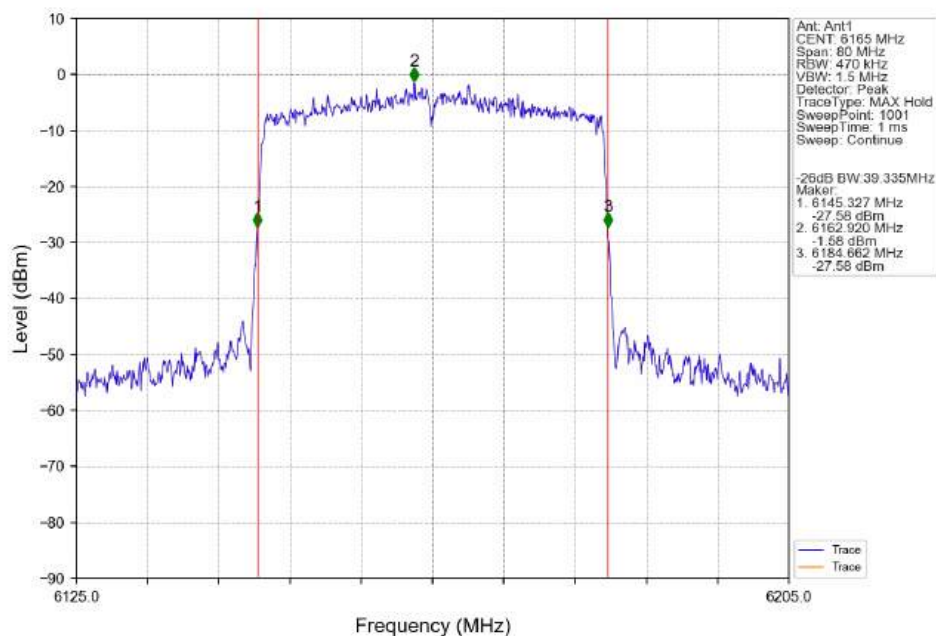
802.11ax(HEW20)_HCH_6415MHz_SU_Ant1_NTNV



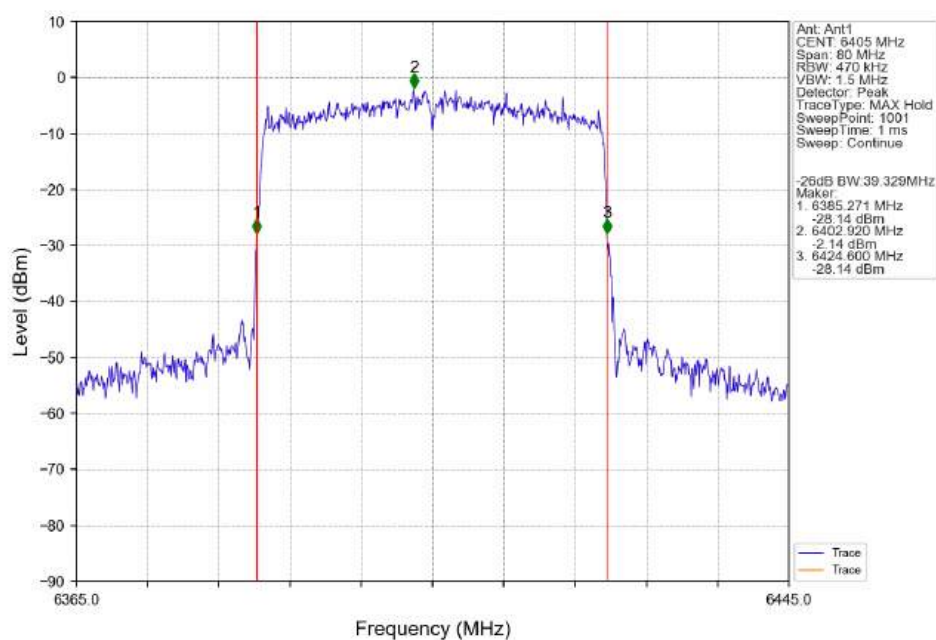
802.11ax(HEW40)_LCH_5965MHz_SU_Ant1_NTNV



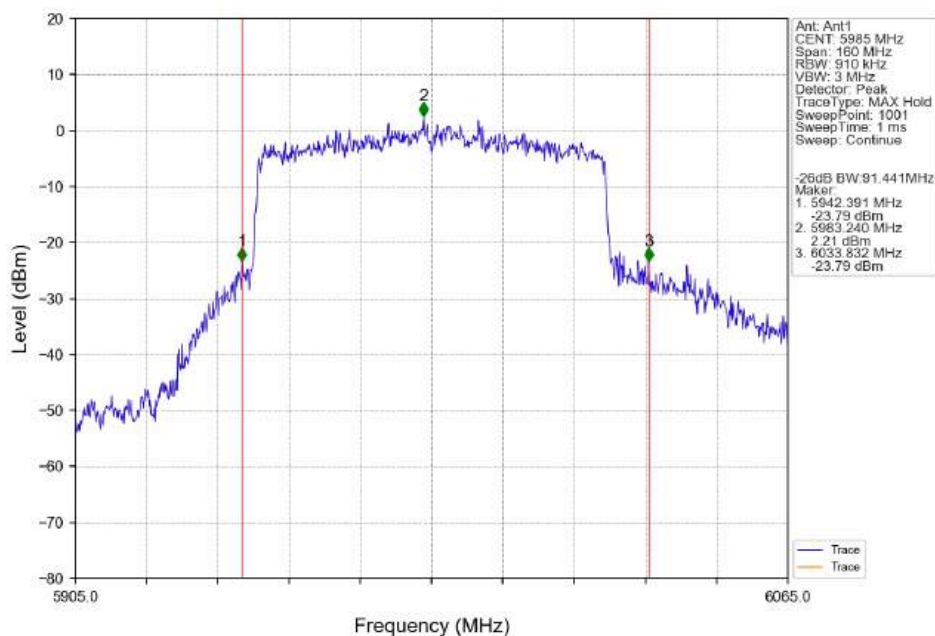
802.11ax(HEW40)_MCH_6165MHz_SU_Ant1_NTNV



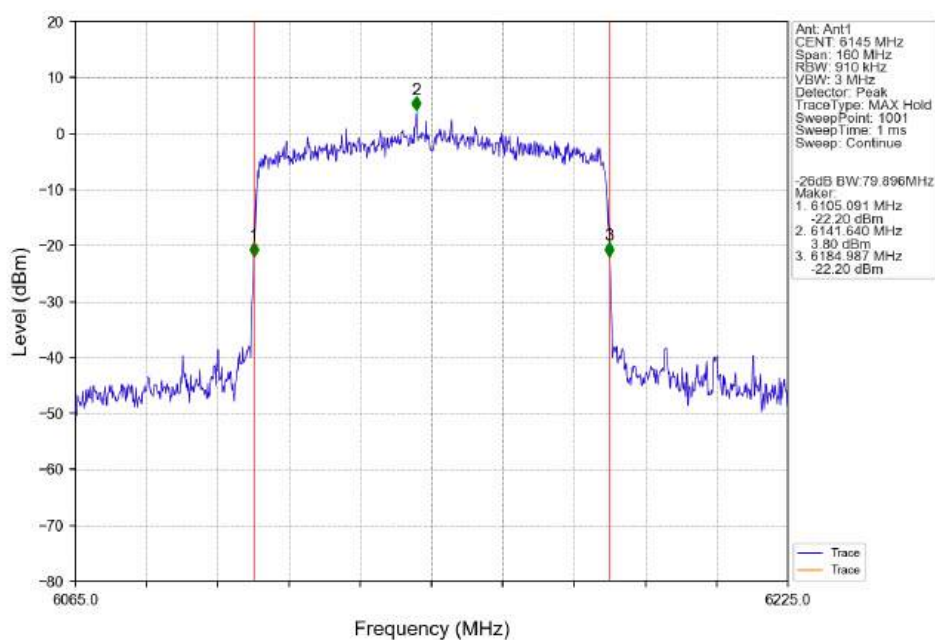
802.11ax(HEW40)_HCH_6405MHz_SU_Ant1_NTNV



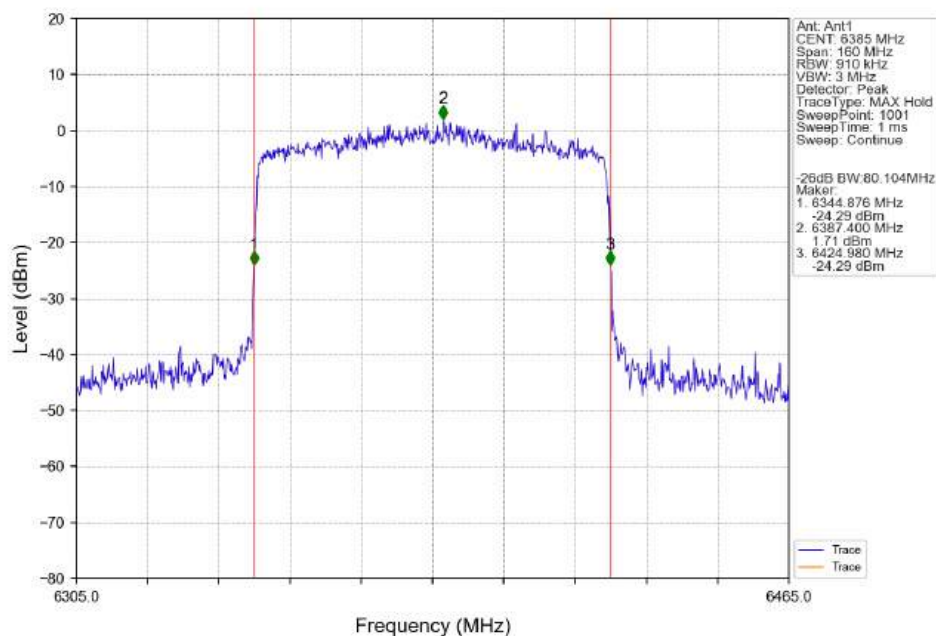
802.11ax(HEW80) LCH_5985MHz_SU_Ant1_NTNV



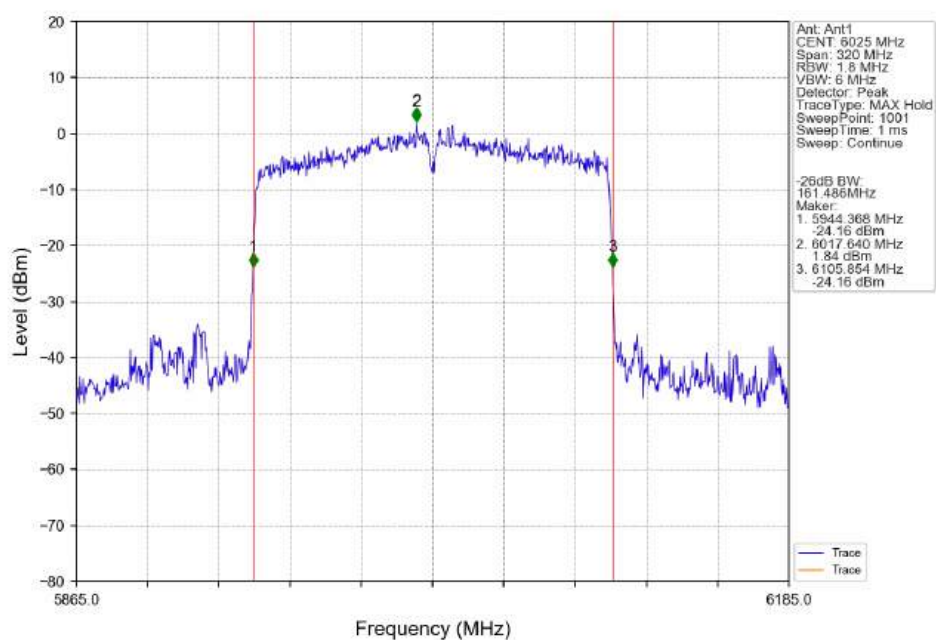
802.11ax(HEW80) MCH_6145MHz_SU_Ant1_NTNV



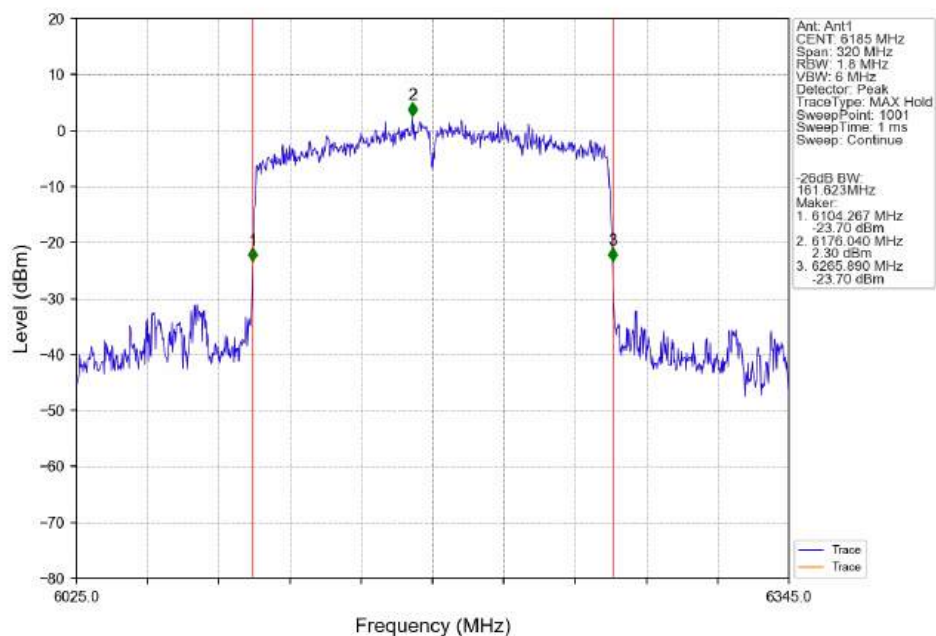
802.11ax(HEW80)_HCH_6385MHz_SU_Ant1_NTNV



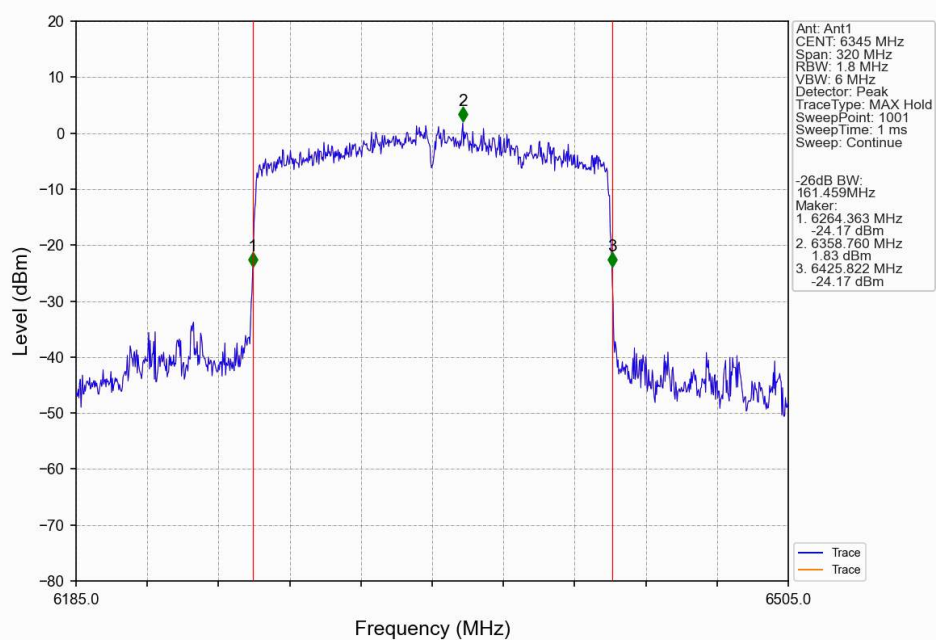
802.11ax(HEW160)_LCH_6025MHz_SU_Ant1_NTNV



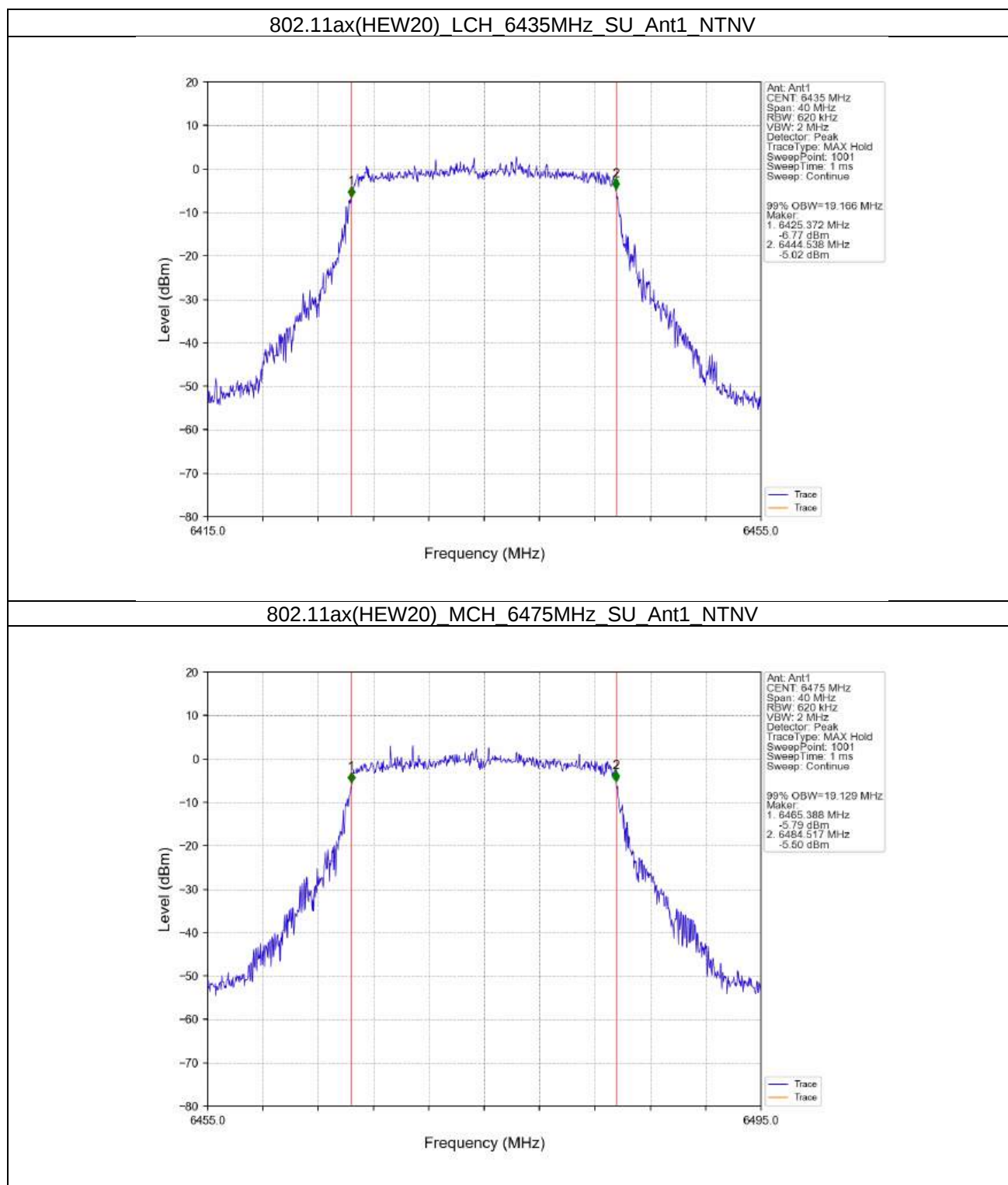
802.11ax(HEW160)_MCH_6185MHz_SU_Ant1_NTNV



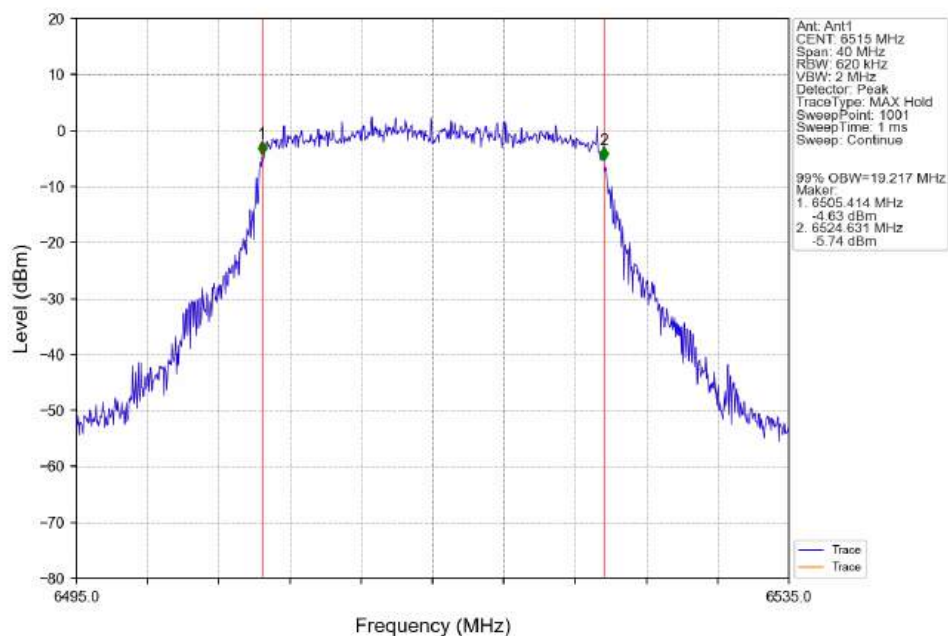
802.11ax(HEW160)_HCH_6345MHz_SU_Ant1_NTNV



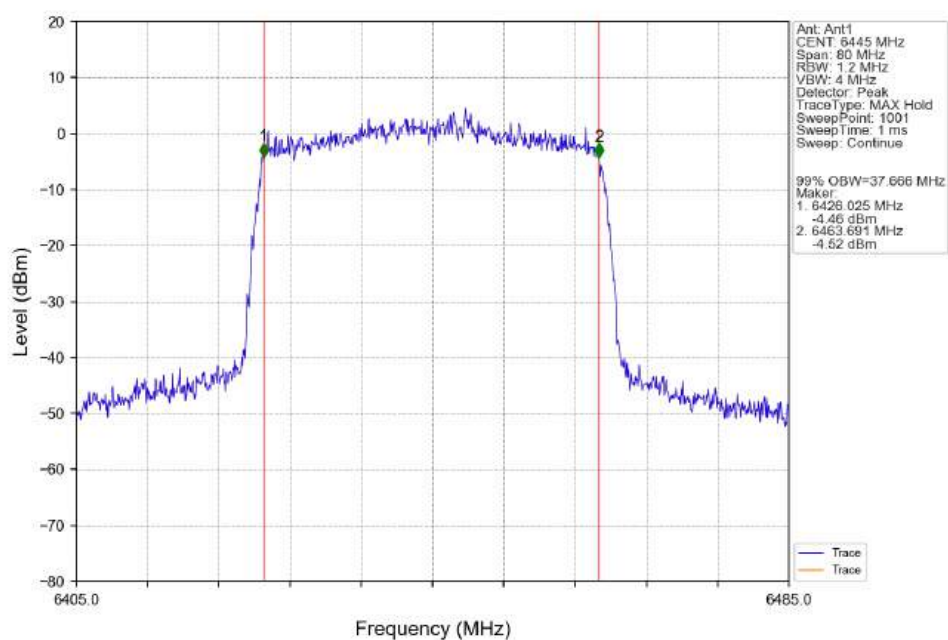
2.2.3 OBW



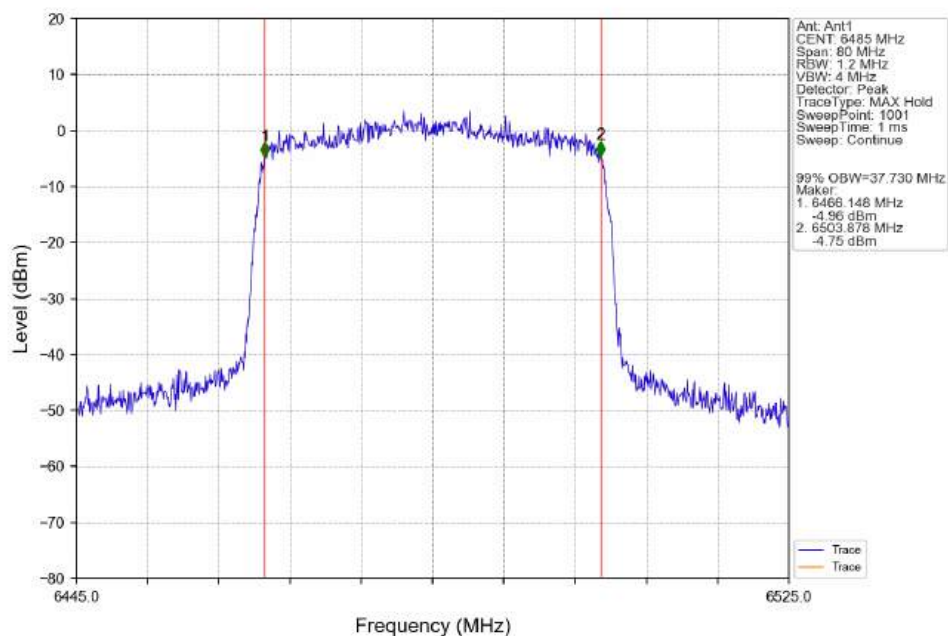
802.11ax(HEW20)_HCH_6515MHz_SU_Ant1_NTNV



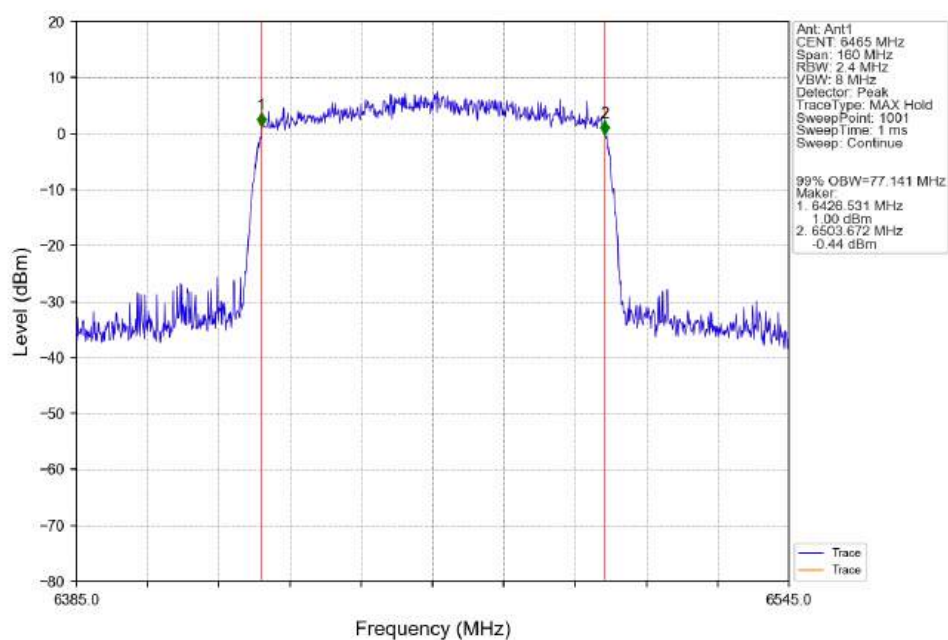
802.11ax(HEW40)_LCH_6445MHz_SU_Ant1_NTNV



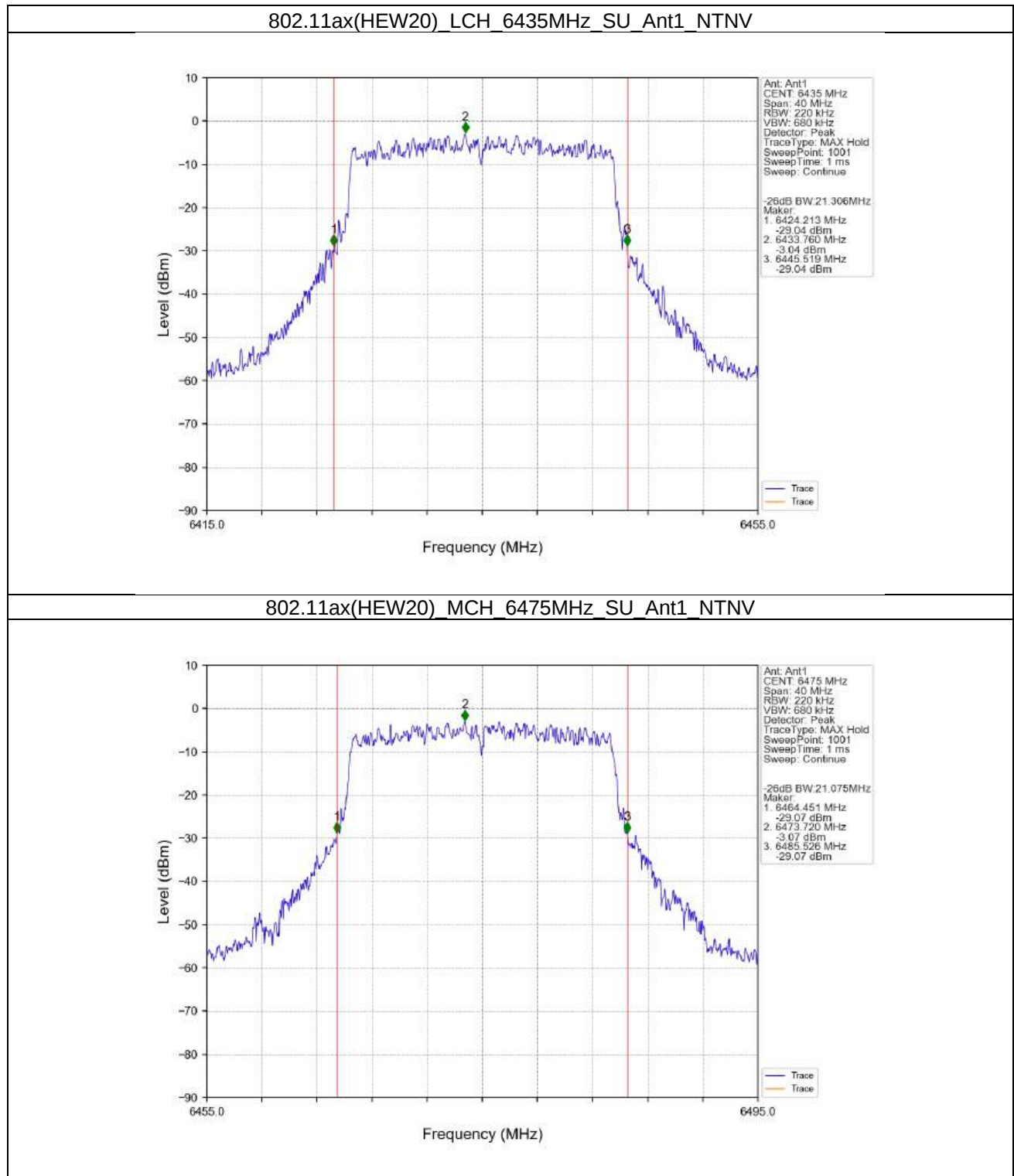
802.11ax(HEW40)_MCH_6485MHz_SU_Ant1_NTNV



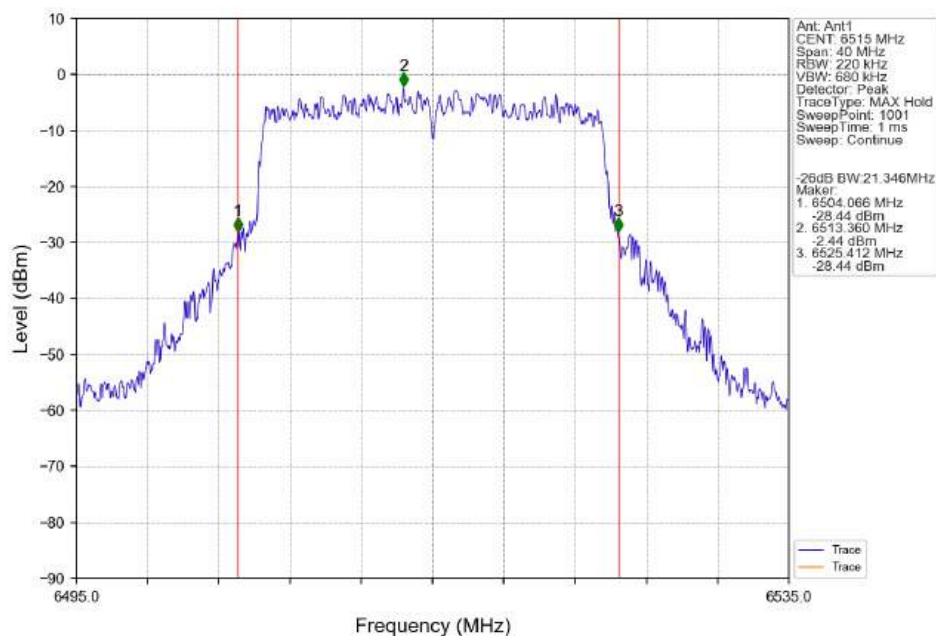
802.11ax(HEW80)_LCH_6465MHz_SU_Ant1_NTNV



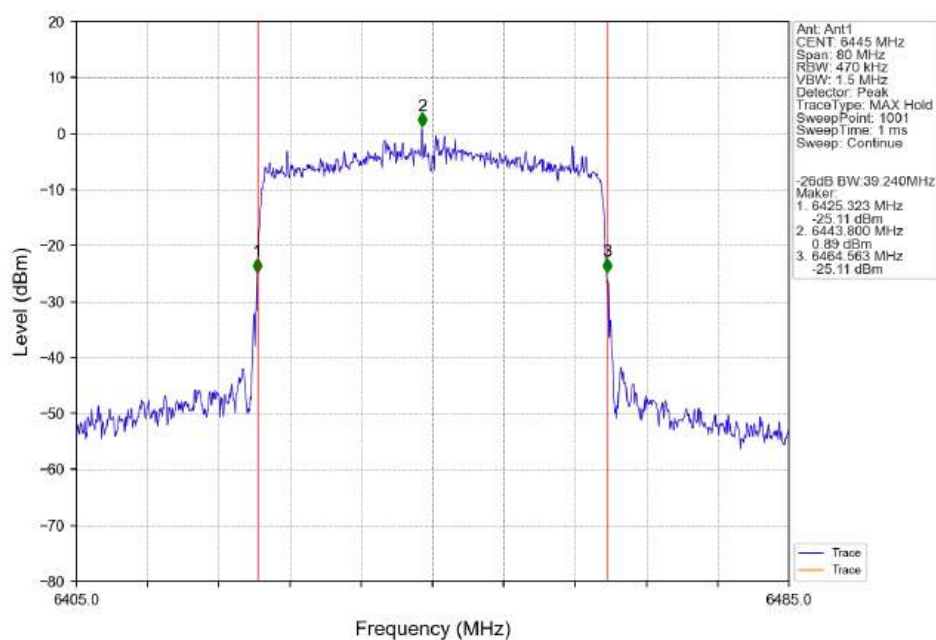
2.2.4 26dB BW



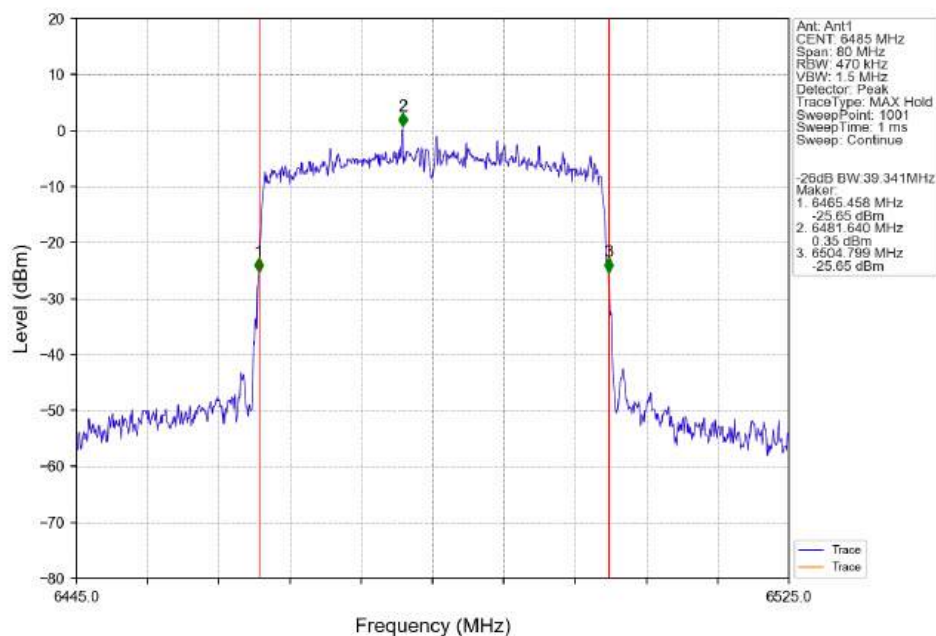
802.11ax(HEW20)_HCH_6515MHz_SU_Ant1_NTNV



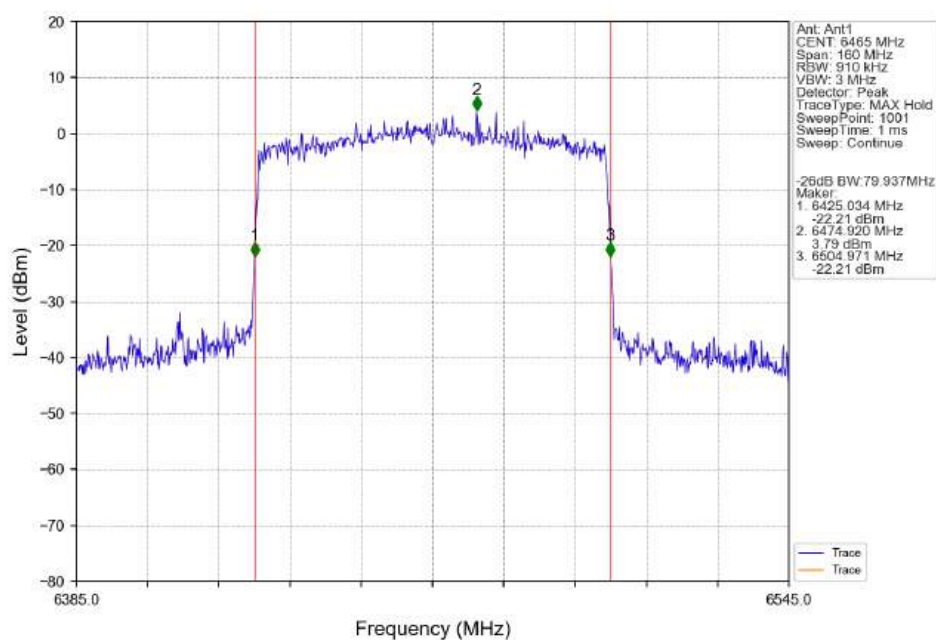
802.11ax(HEW40)_LCH_6445MHz_SU_Ant1_NTNV



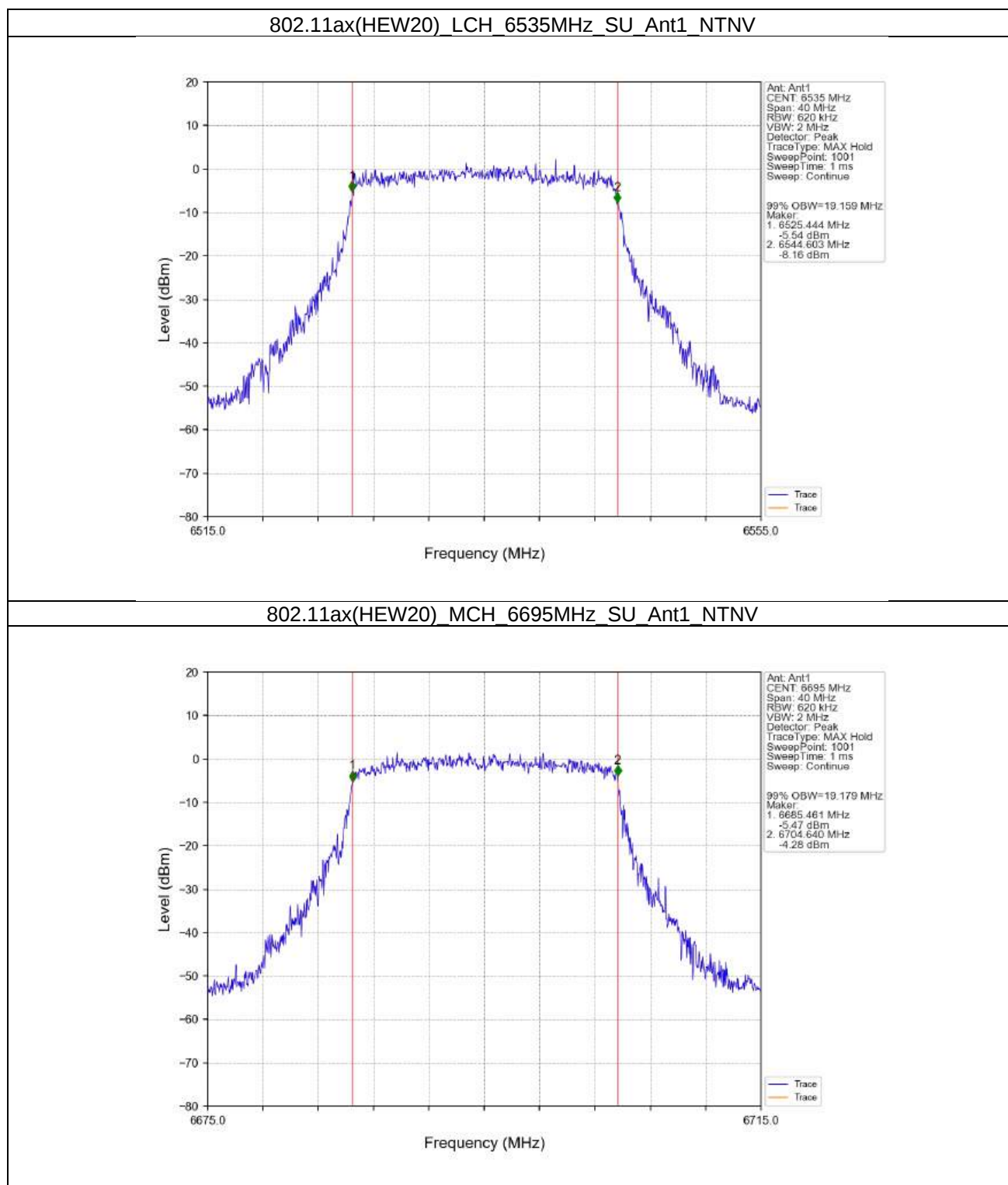
802.11ax(HEW40)_MCH_6485MHz_SU_Ant1_NTNV



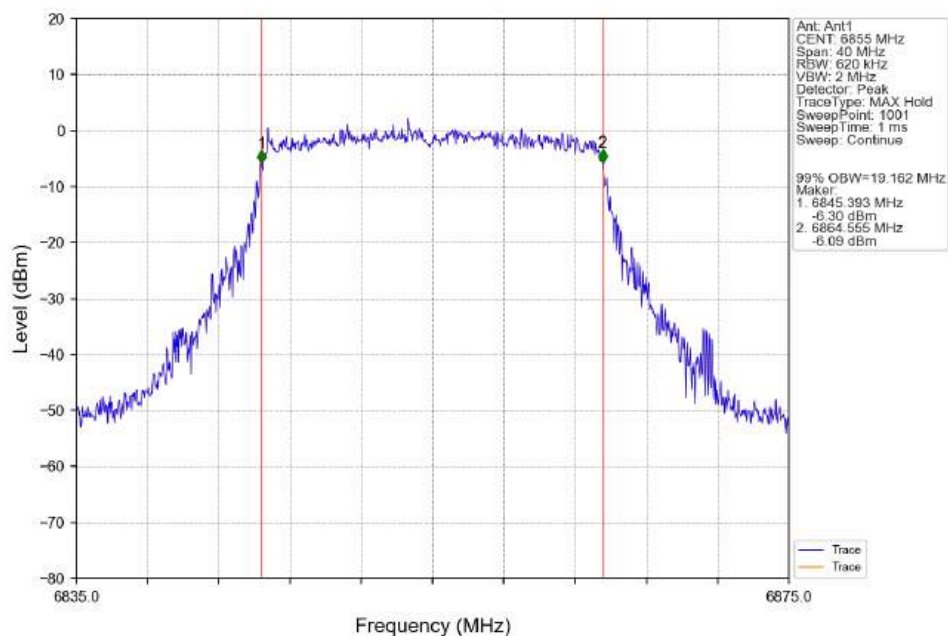
802.11ax(HEW80)_LCH_6465MHz_SU_Ant1_NTNV



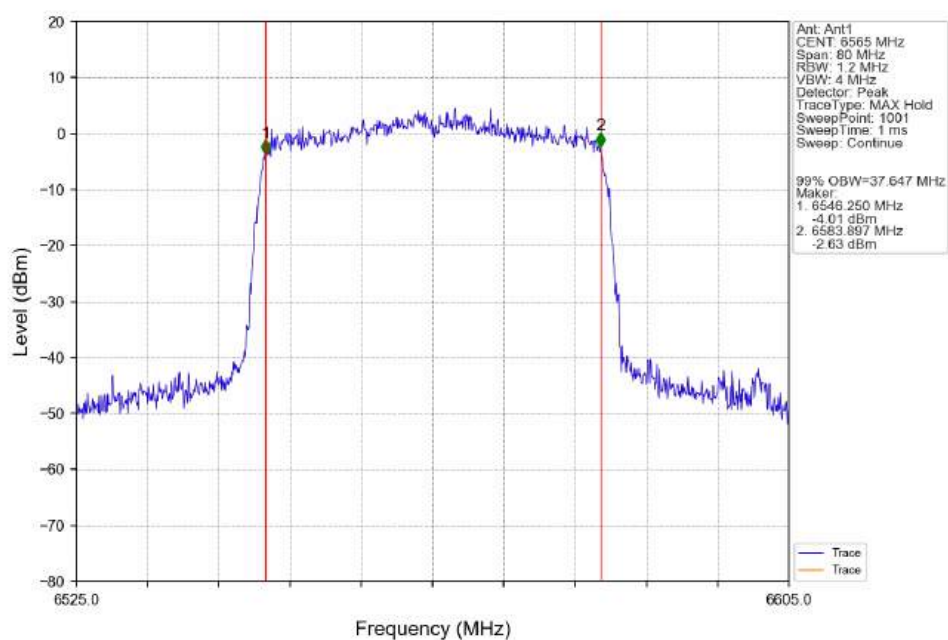
2.2.5 OBW



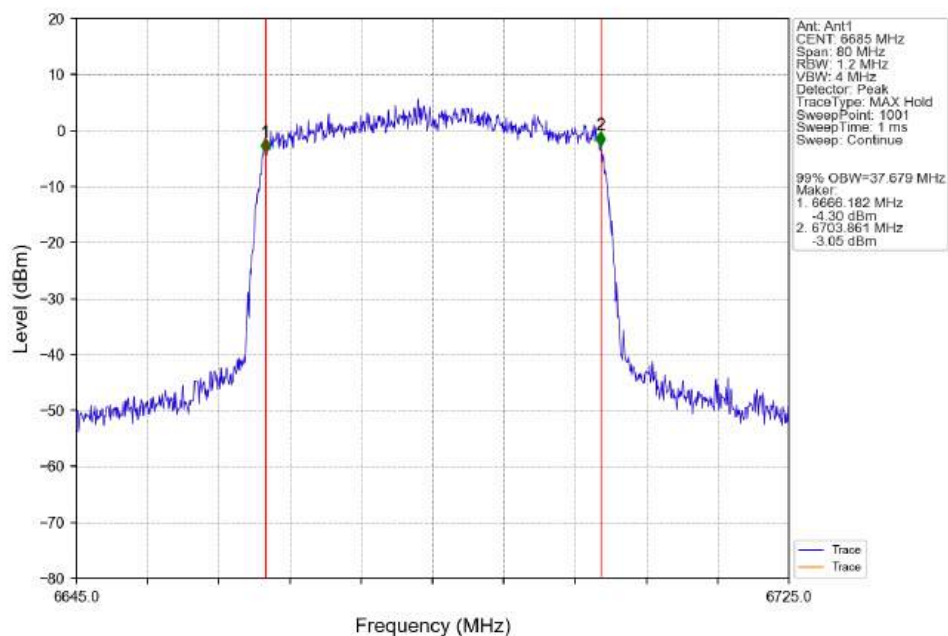
802.11ax(HEW20)_HCH_6855MHz_SU_Ant1_NTNV



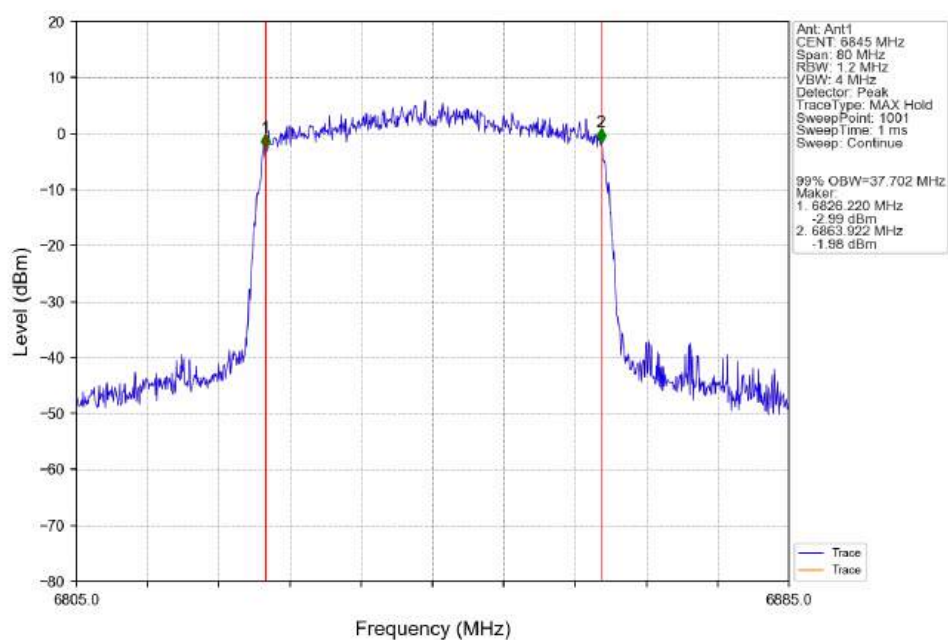
802.11ax(HEW40)_LCH_6565MHz_SU_Ant1_NTNV



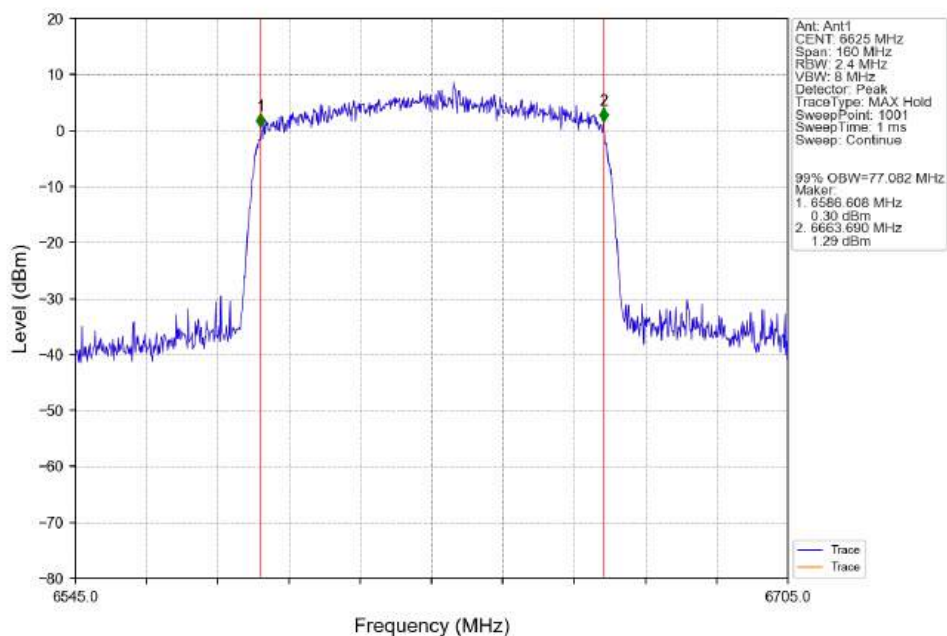
802.11ax(HEW40)_MCH_6685MHz_SU_Ant1_NTNV



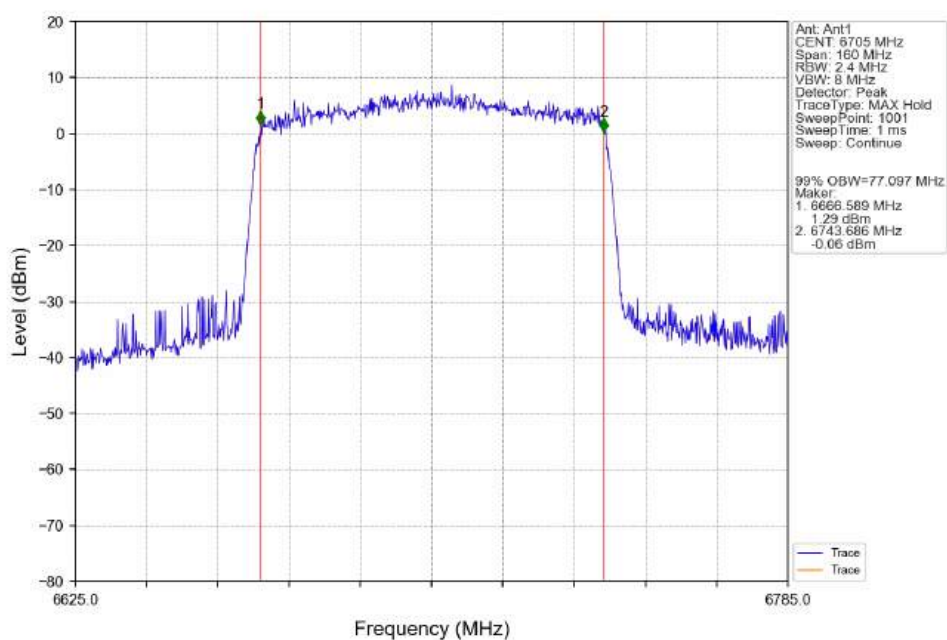
802.11ax(HEW40)_HCH_6845MHz_SU_Ant1_NTNV



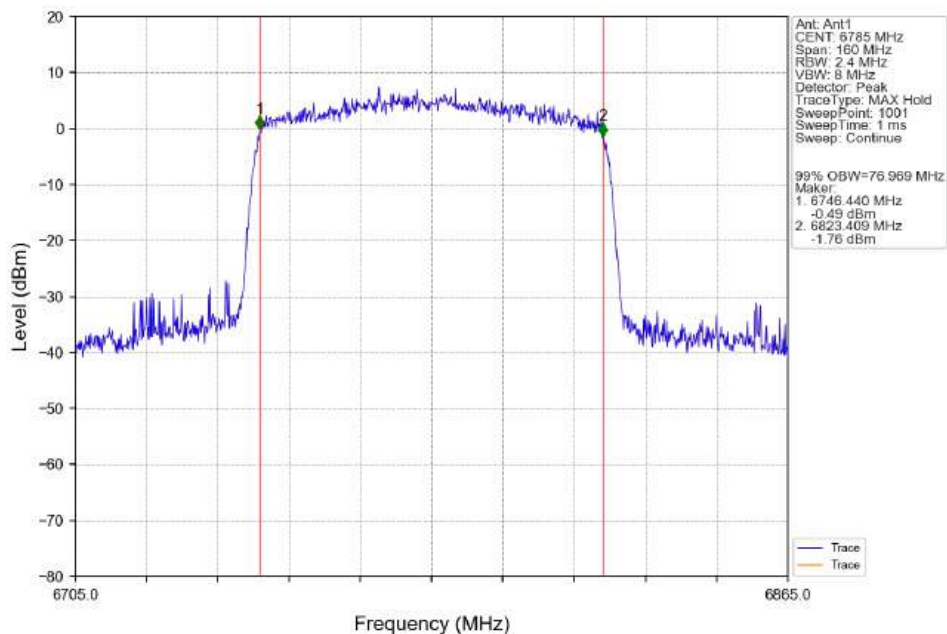
802.11ax(HEW80) LCH_6625MHz_SU_Ant1_NTNV



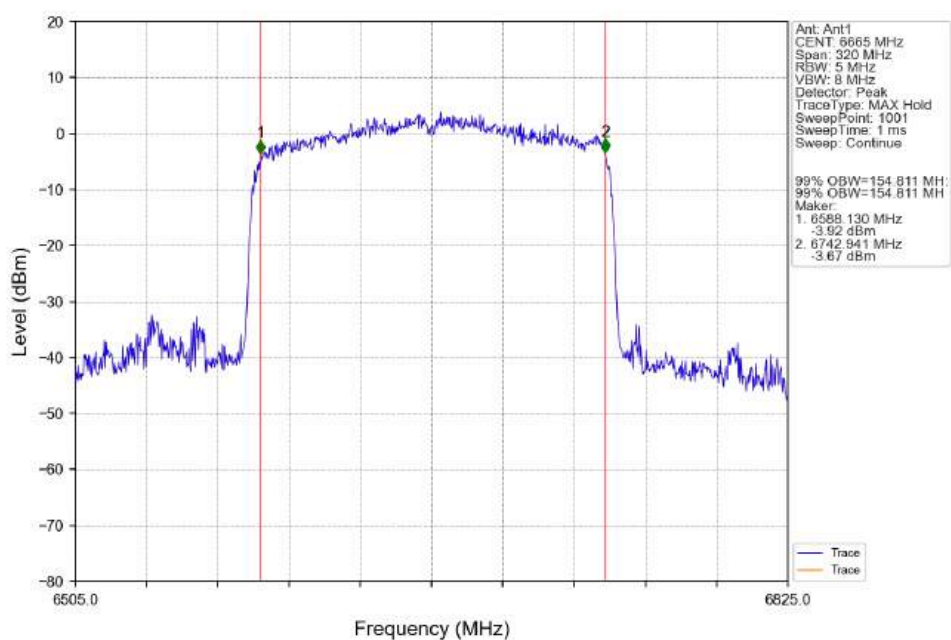
802.11ax(HEW80) MCH_6705MHz_SU_Ant1_NTNV



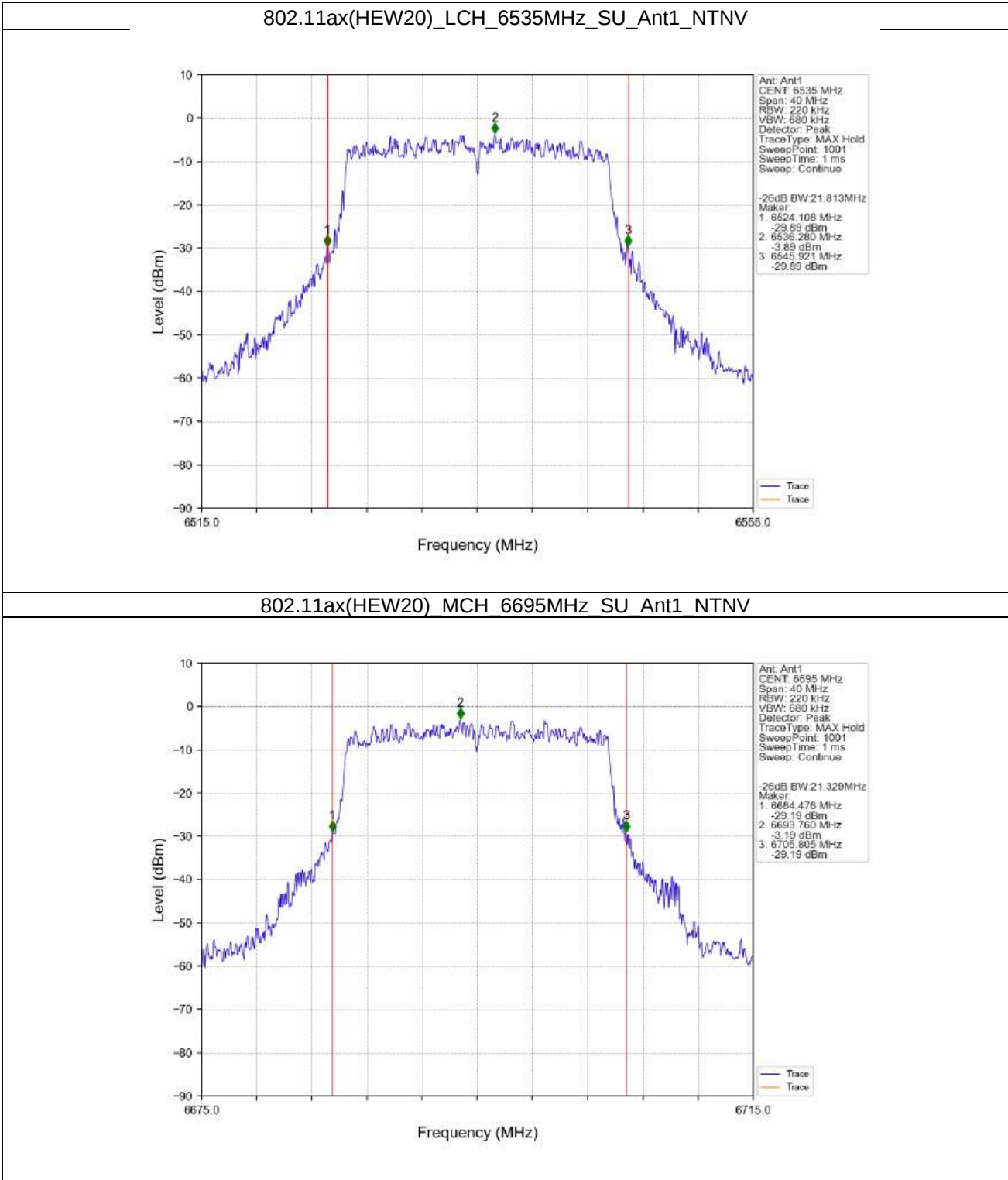
802.11ax(HEW80)_HCH_6785MHz_SU_Ant1_NTNV



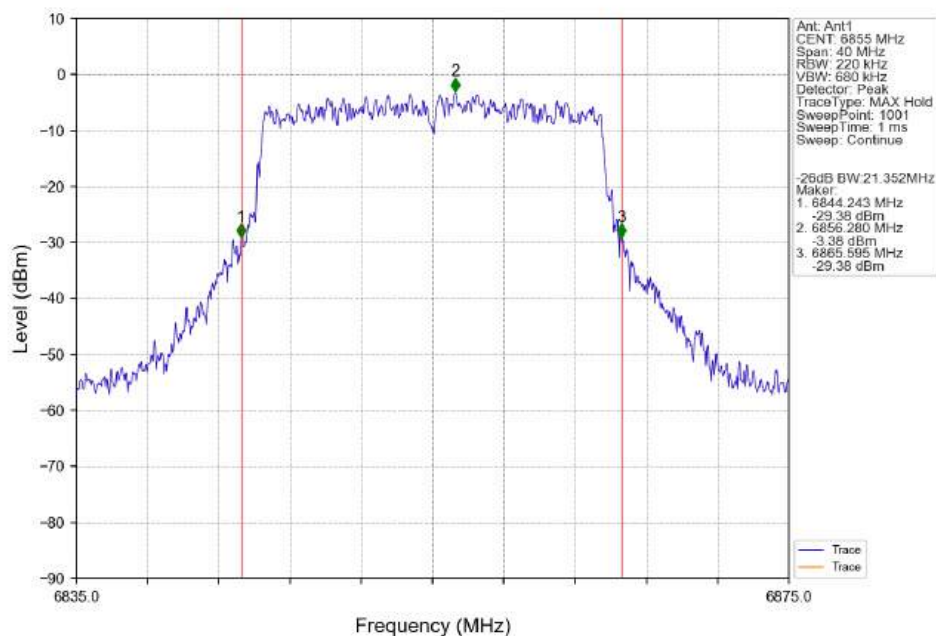
802.11ax(HEW160)_MCH_6665MHz_SU_Ant1_NTNV



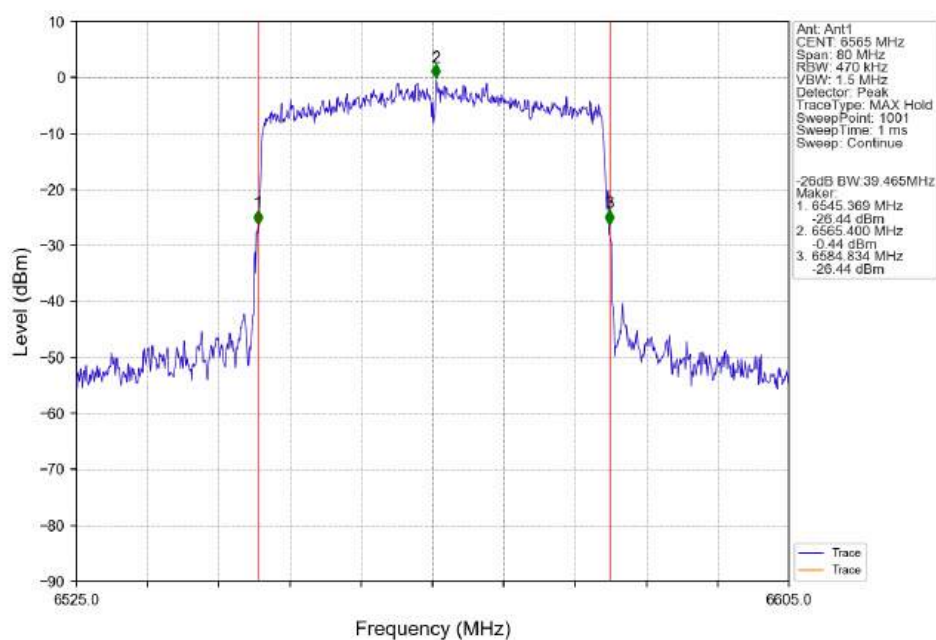
2.2.6 26dB BW



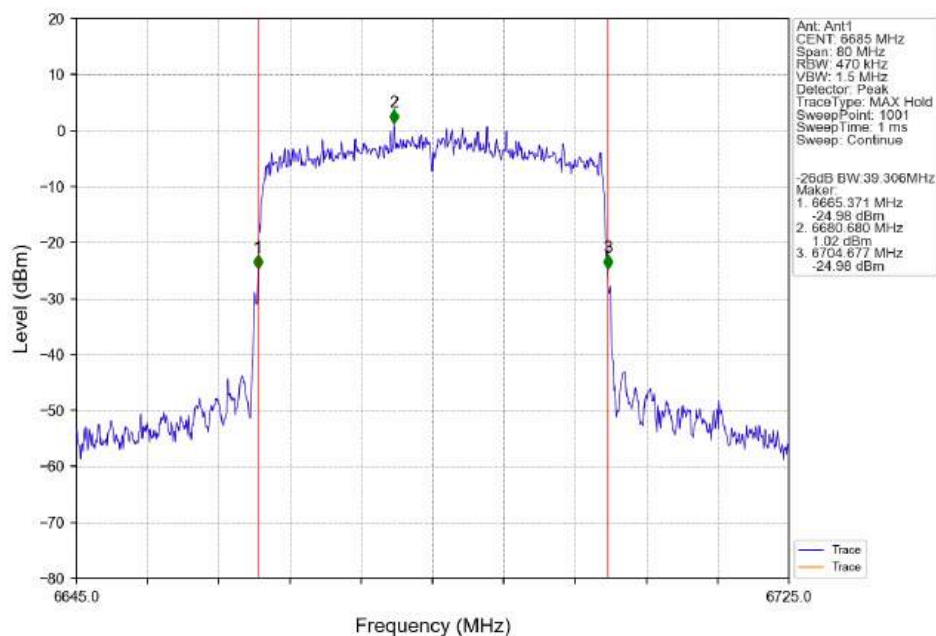
802.11ax(HEW20)_HCH_6855MHz_SU_Ant1_NTNV



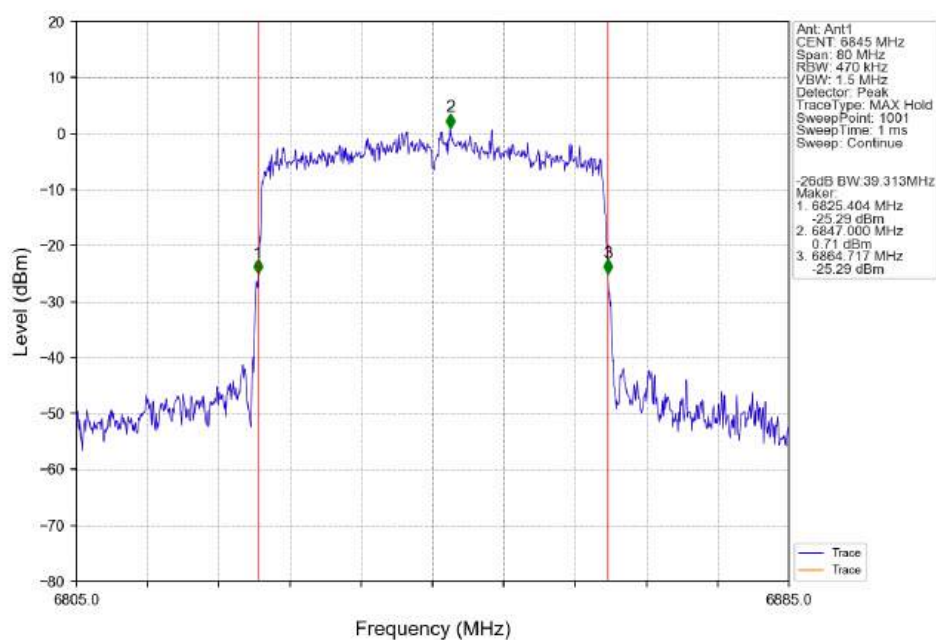
802.11ax(HEW40)_LCH_6565MHz_SU_Ant1_NTNV



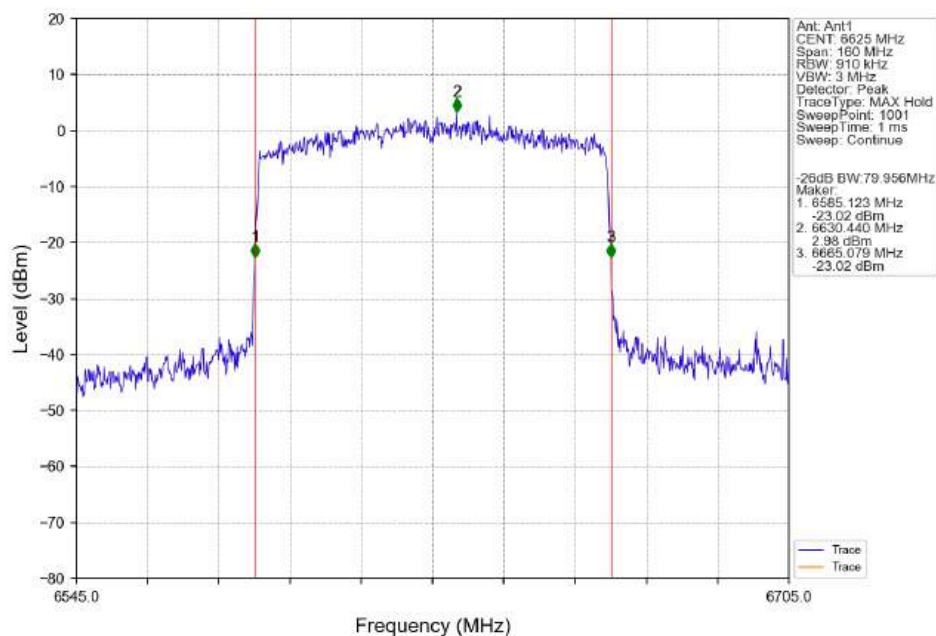
802.11ax(HEW40)_MCH_6685MHz_SU_Ant1_NTNV



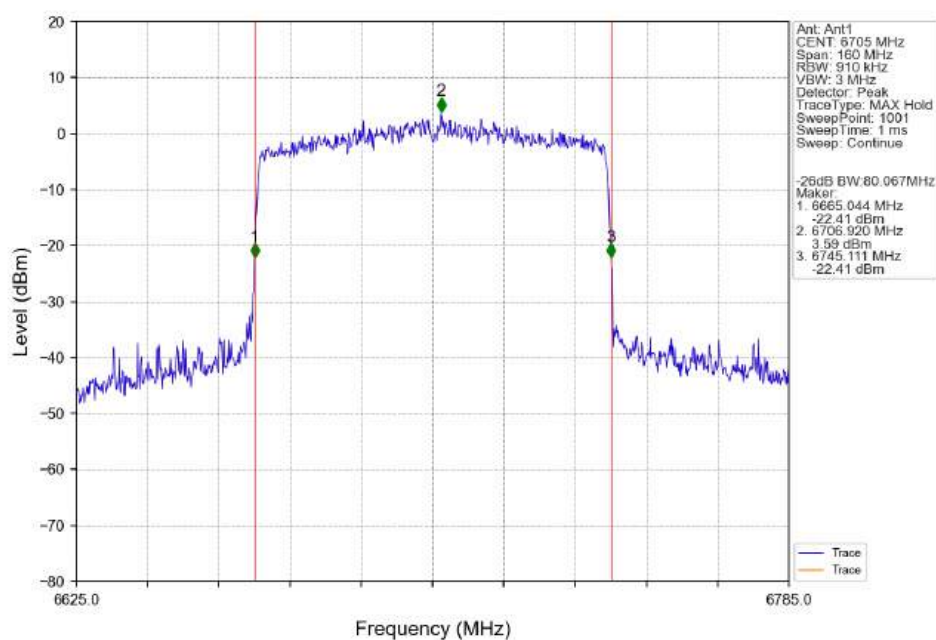
802.11ax(HEW40)_HCH_6845MHz_SU_Ant1_NTNV



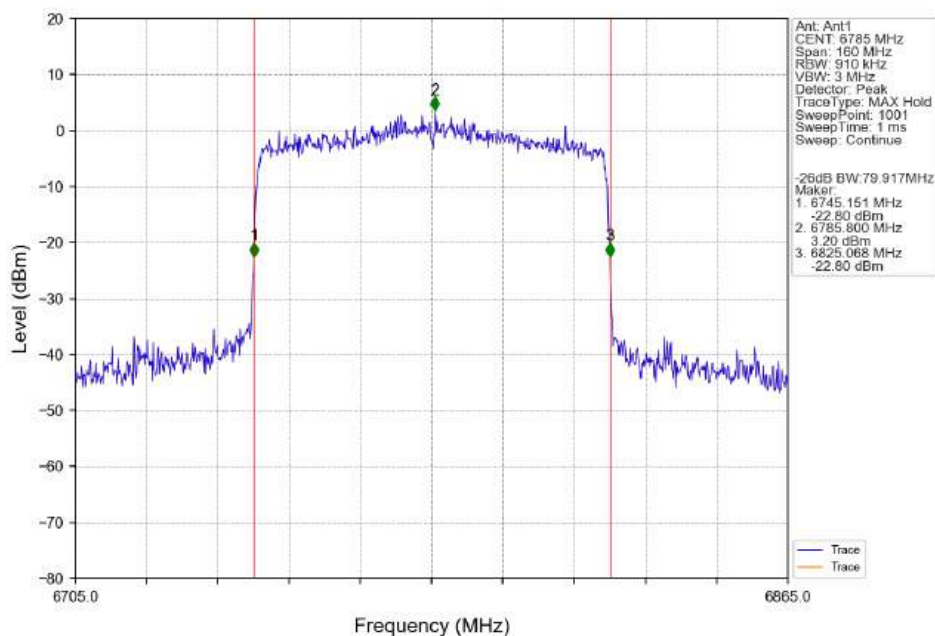
802.11ax(HEW80) LCH_6625MHz_SU_Ant1_NTNV



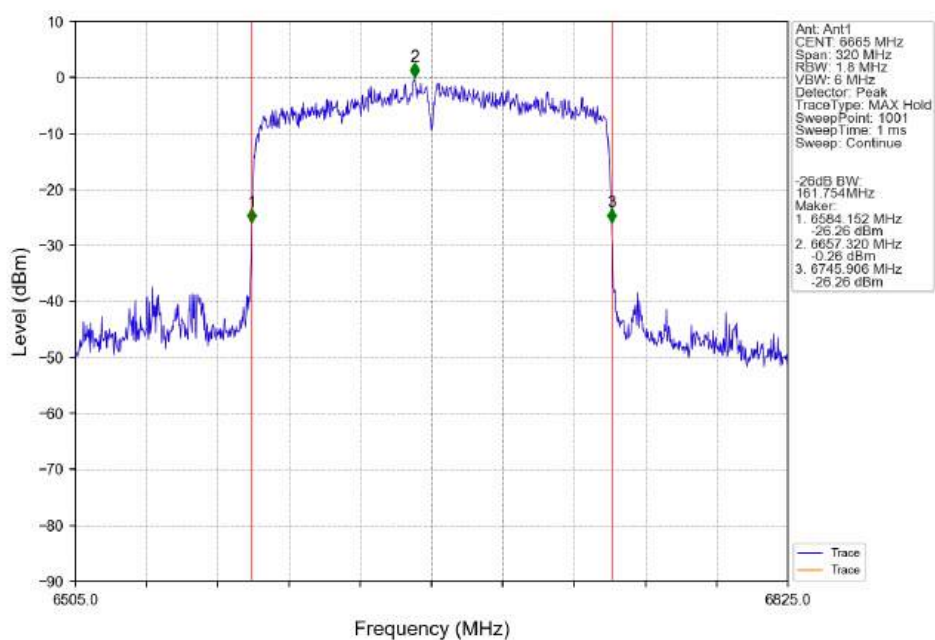
802.11ax(HEW80) MCH_6705MHz_SU_Ant1_NTNV



802.11ax(HEW80)_HCH_6785MHz_SU_Ant1_NTNV

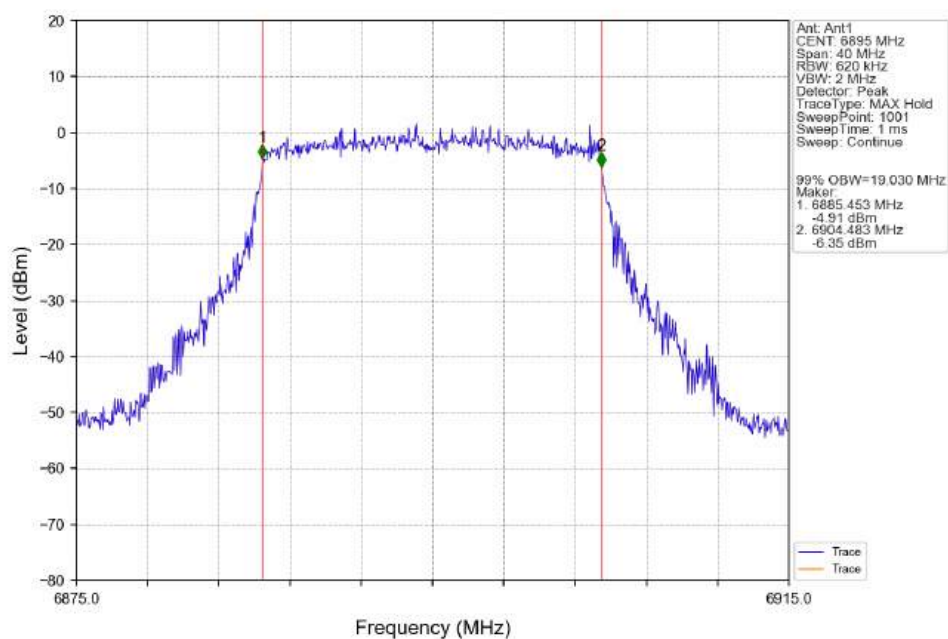


802.11ax(HEW160)_MCH_6665MHz_SU_Ant1_NTNV

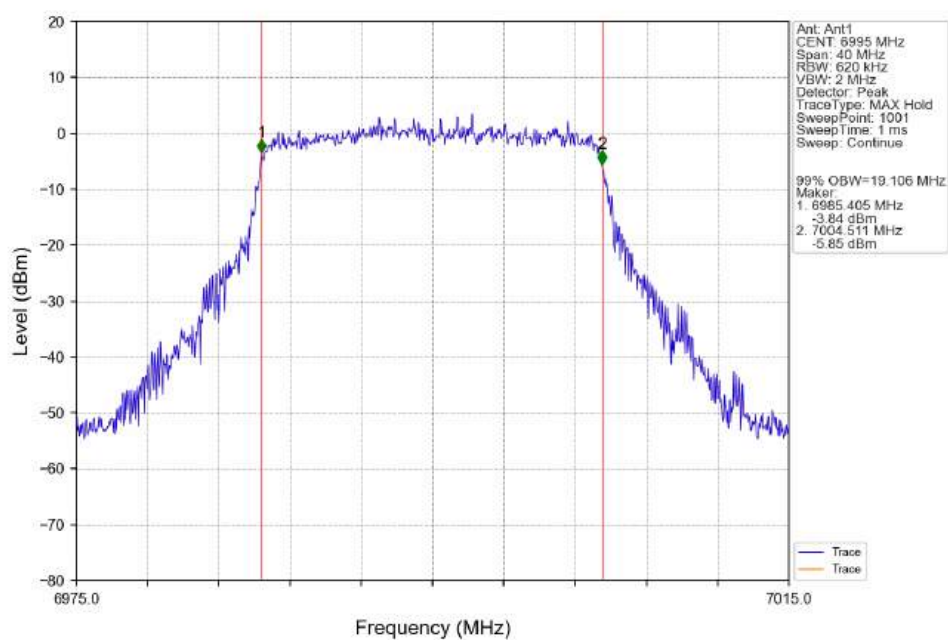


2.2.7 OBW

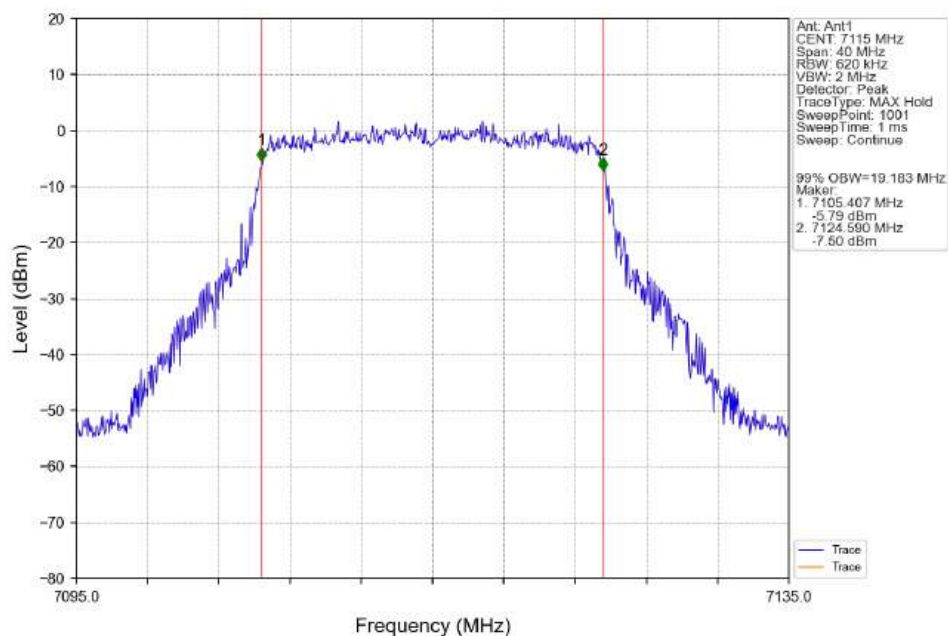
802.11ax(HEW20) LCH_6895MHz_SU_Ant1_NTNV



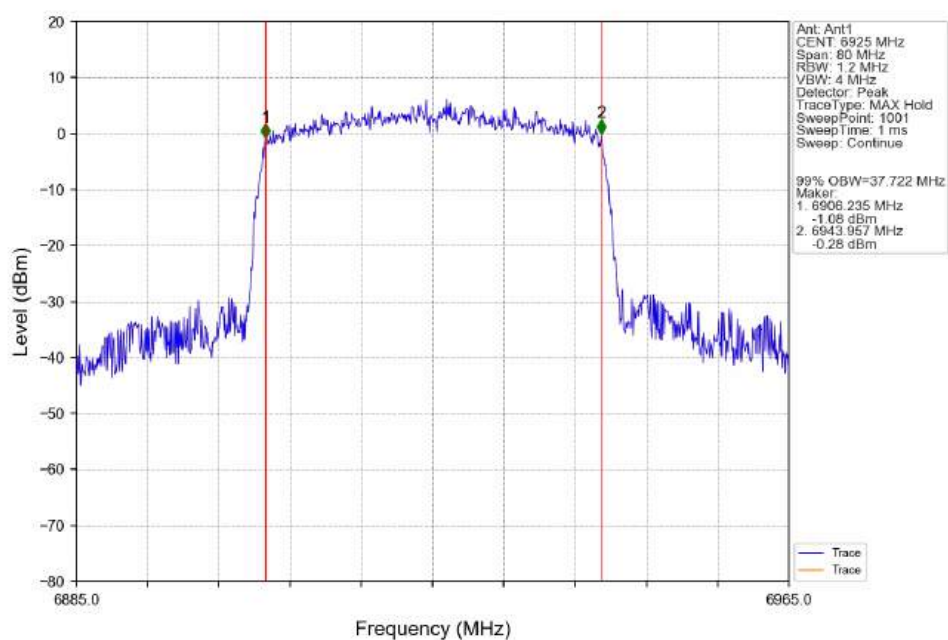
802.11ax(HEW20) MCH_6995MHz_SU_Ant1_NTNV



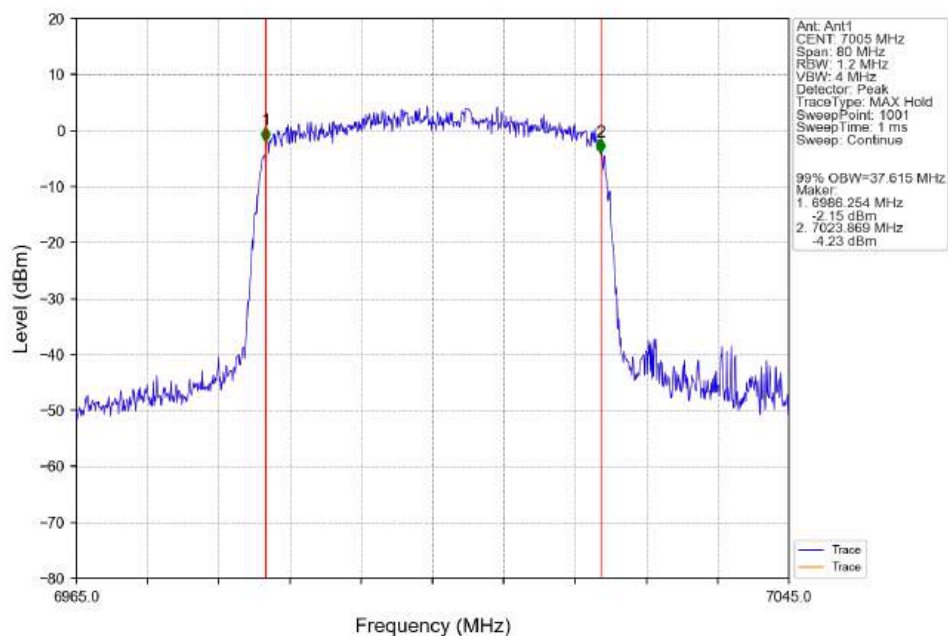
802.11ax(HEW20)_HCH_7115MHz_SU_Ant1_NTNV



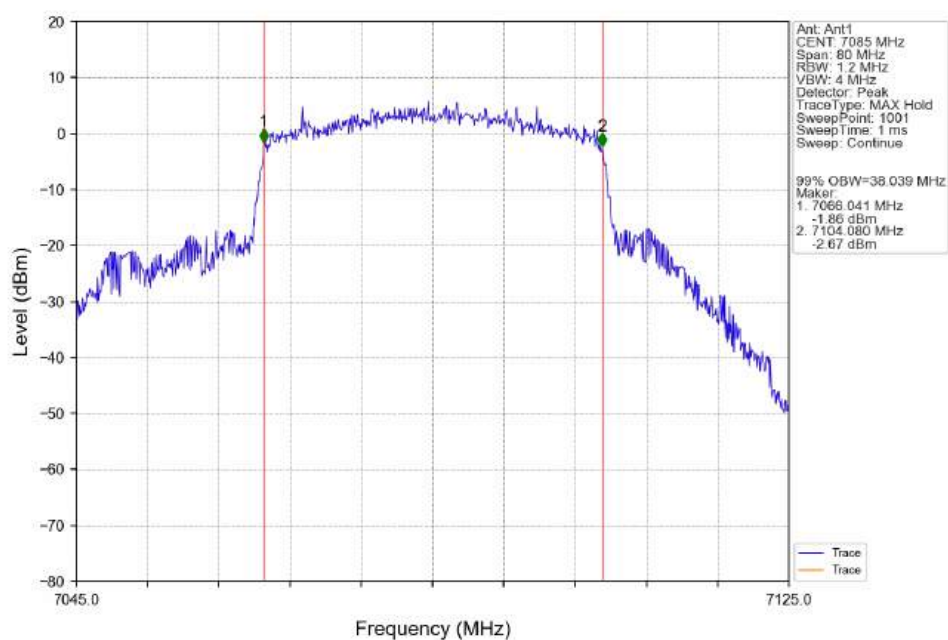
802.11ax(HEW40)_LCH_6925MHz_SU_Ant1_NTNV



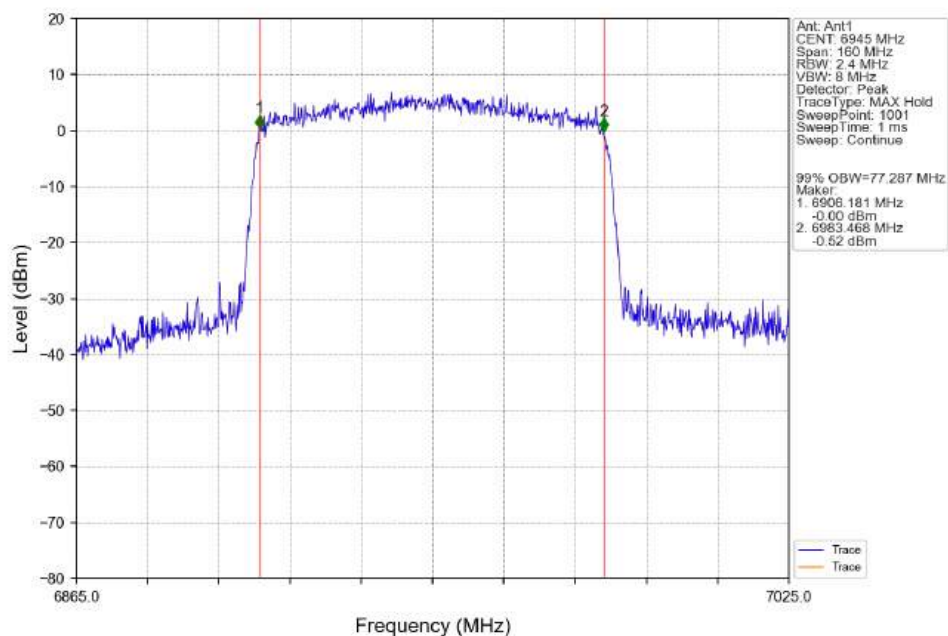
802.11ax(HEW40)_MCH_7005MHz_SU_Ant1_NTNV



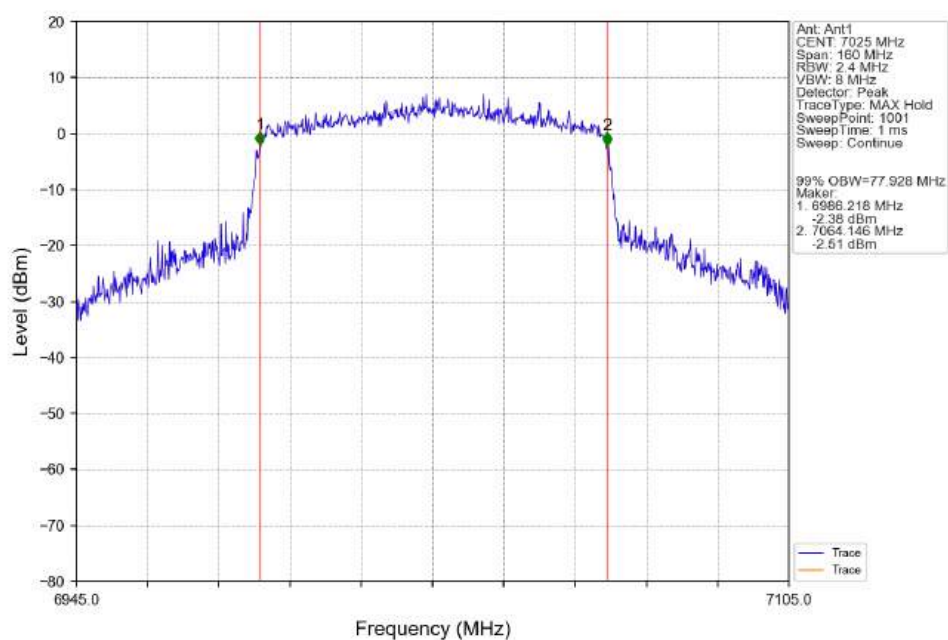
802.11ax(HEW40)_HCH_7085MHz_SU_Ant1_NTNV

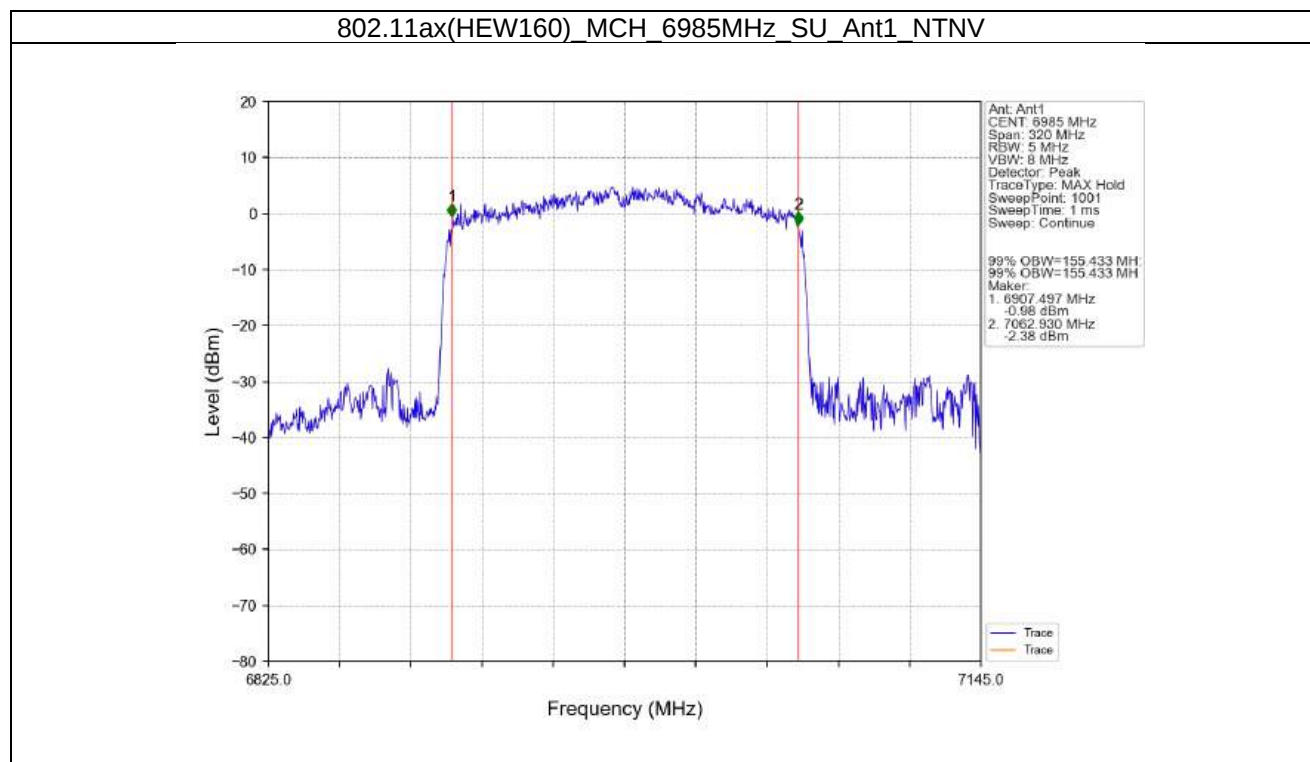


802.11ax(HEW80) LCH_6945MHz_SU_Ant1_NTNV



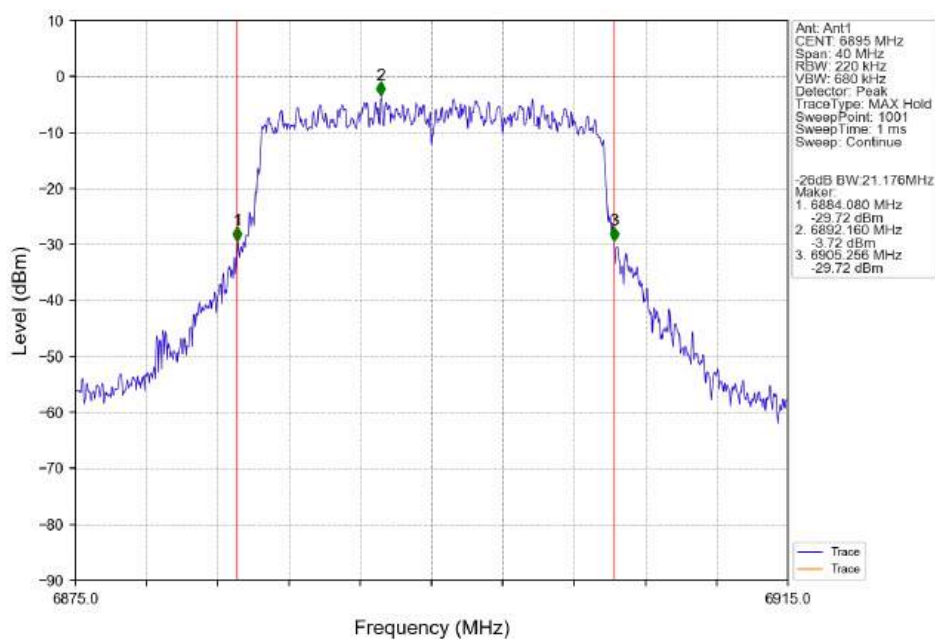
802.11ax(HEW80) HCH_7025MHz_SU_Ant1_NTNV



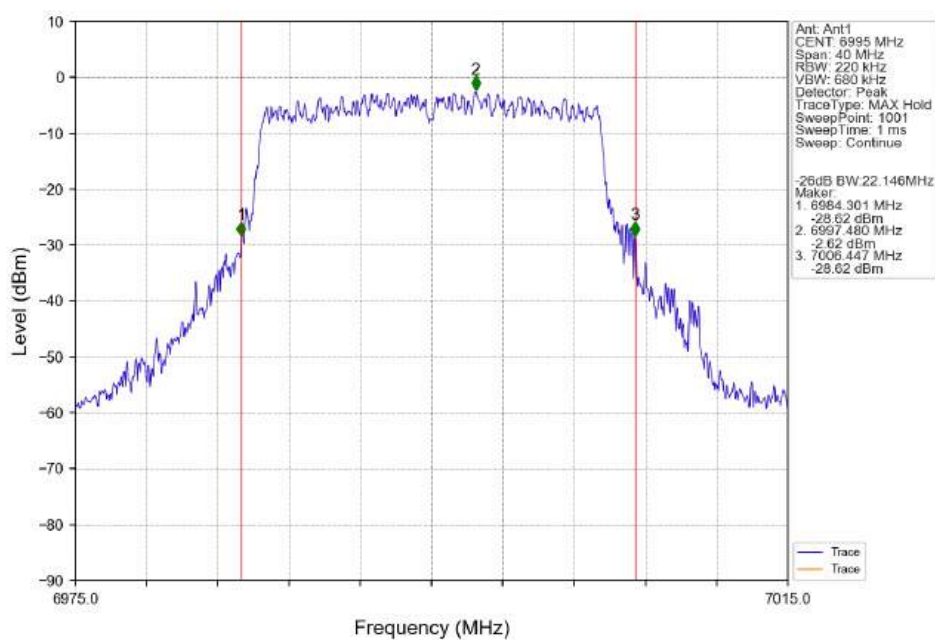


2.2.8 26dB BW

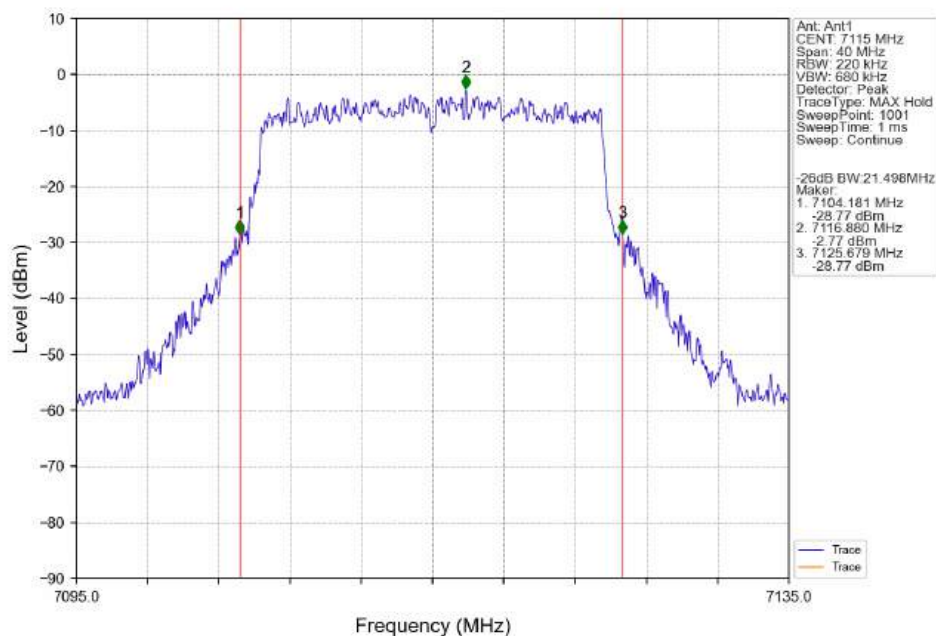
802.11ax(HEW20) LCH_6895MHz_SU_Ant1_NTNV



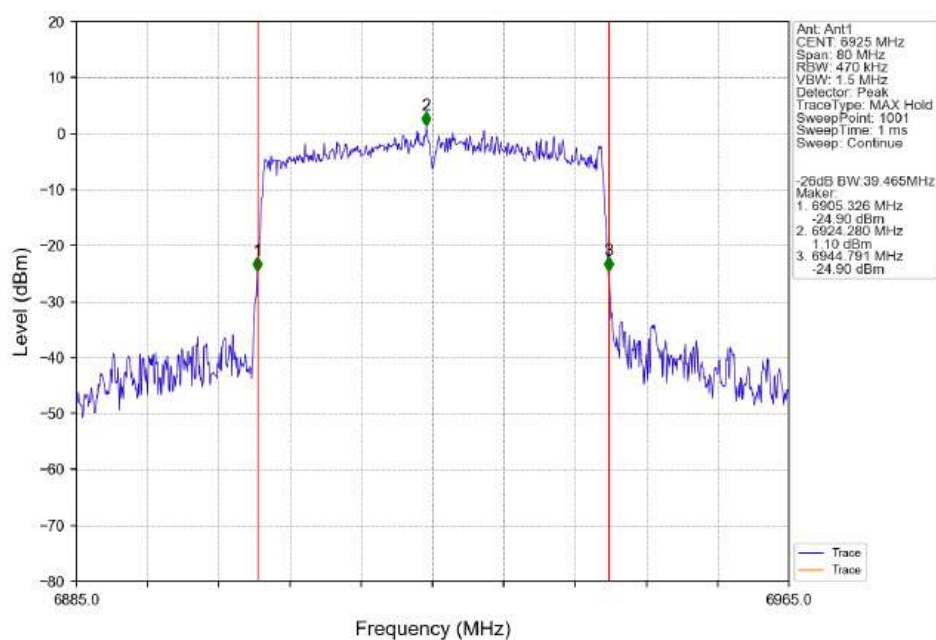
802.11ax(HEW20) MCH_6995MHz_SU_Ant1_NTNV



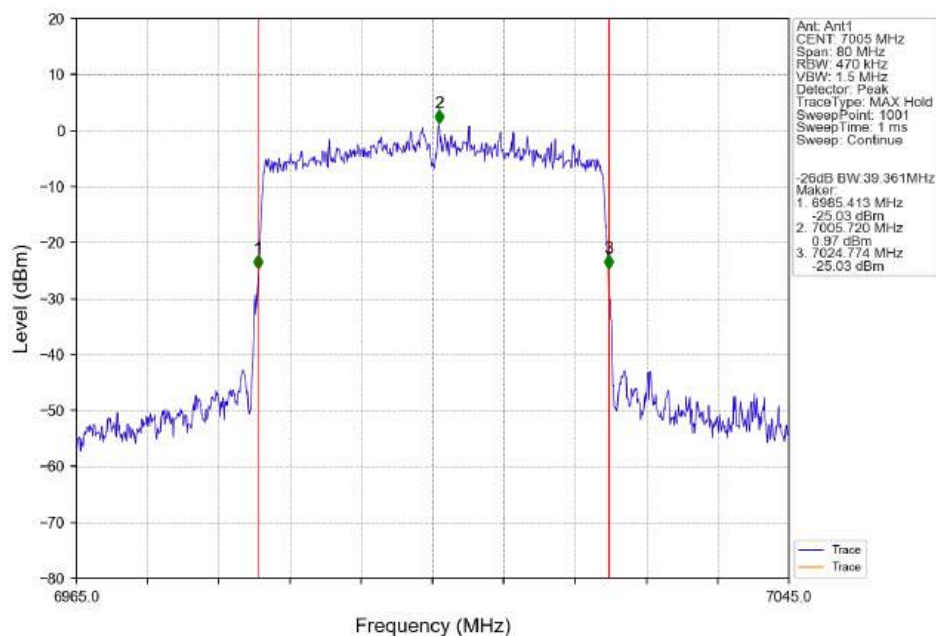
802.11ax(HEW20)_HCH_7115MHz_SU_Ant1_NTNV



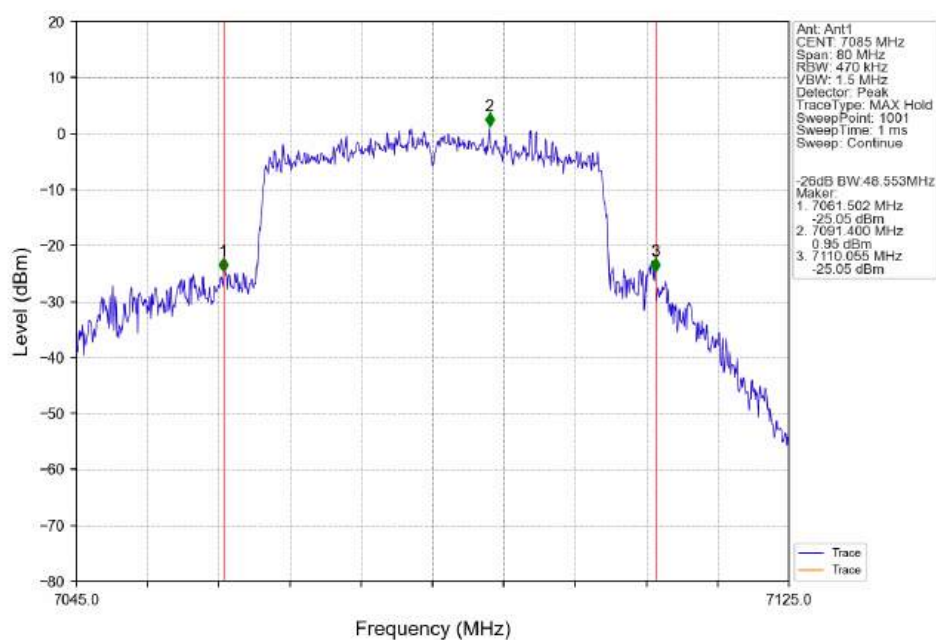
802.11ax(HEW40)_LCH_6925MHz_SU_Ant1_NTNV



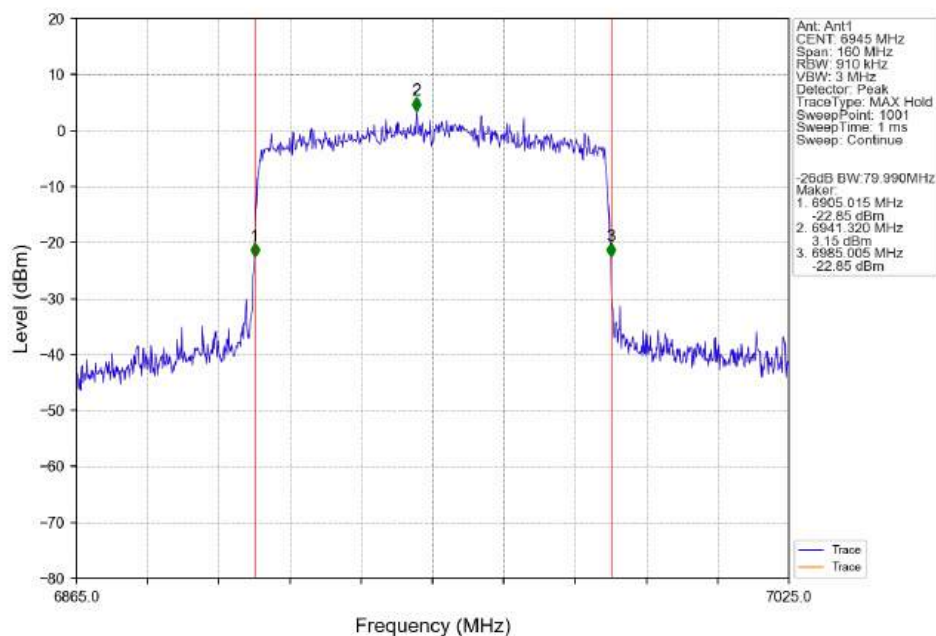
802.11ax(HEW40)_MCH_7005MHz_SU_Ant1_NTNV



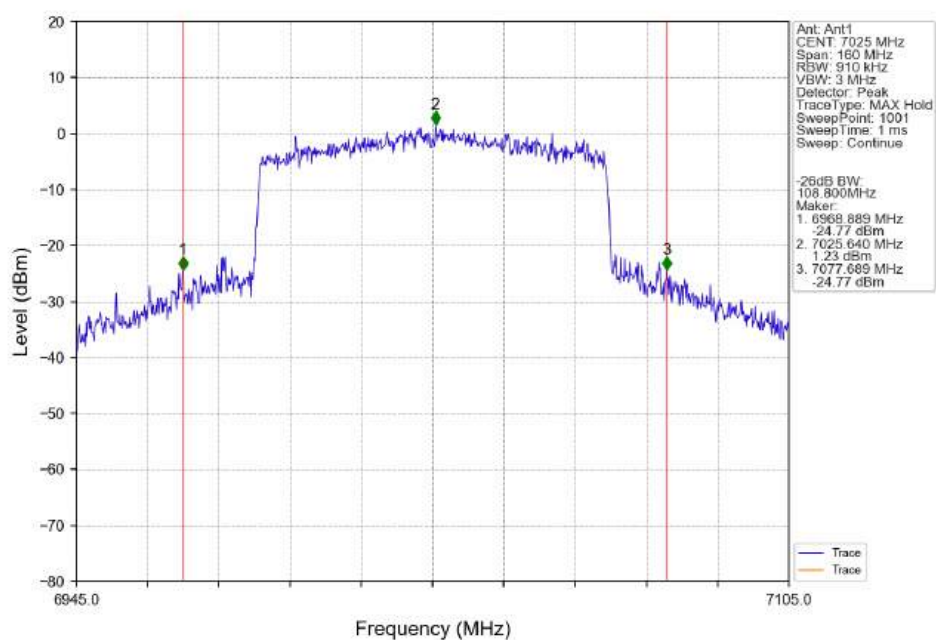
802.11ax(HEW40)_HCH_7085MHz_SU_Ant1_NTNV

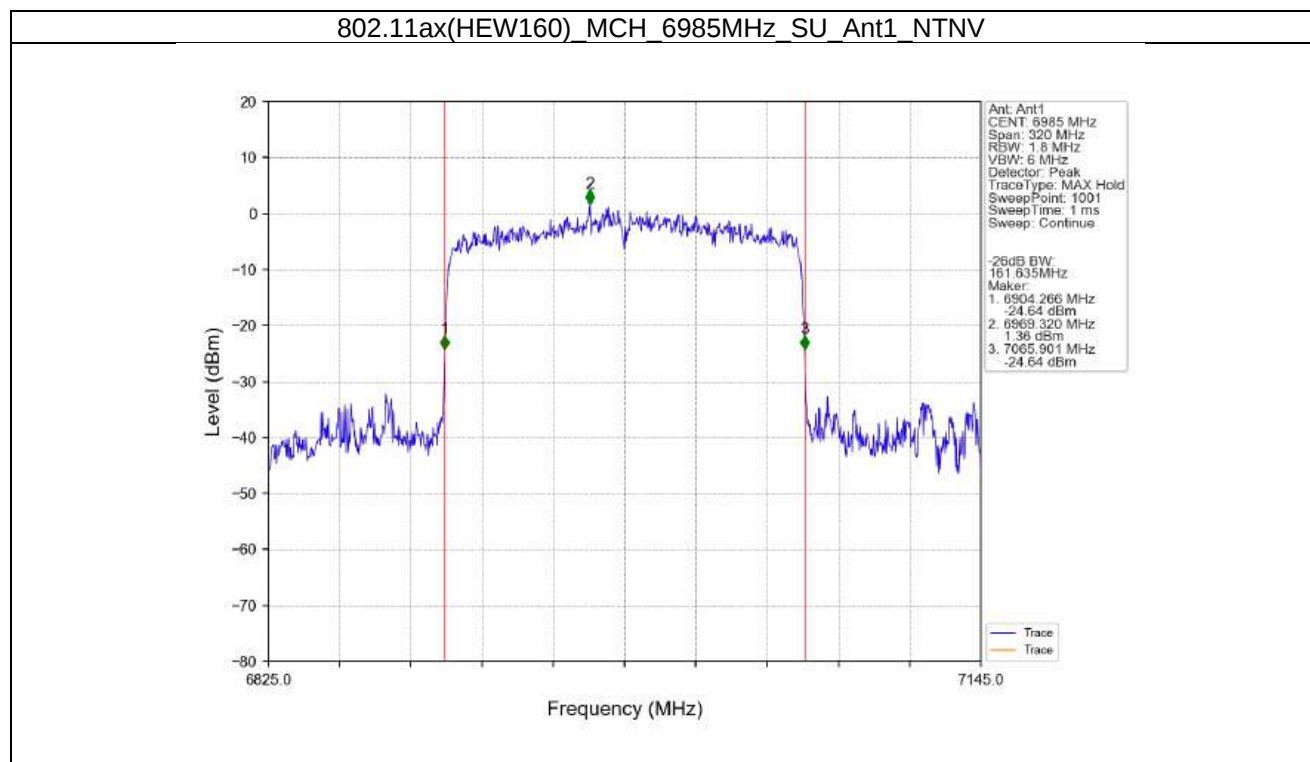


802.11ax(HEW80) LCH_6945MHz_SU_Ant1_NTNV



802.11ax(HEW80) HCH_7025MHz_SU_Ant1_NTNV





3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

ENV	Mode	TX Type	Frequency (MHz)	RU	Maximum Average Conducted Output Power (dBm)				Verdict
					ANT1	ANT2	MIMO	Limit	
NTNV	802.11ax (HEW20)	MIMO	5955	SU	4.06	4.90	7.51	/	Pass
			6175	SU	3.18	4.35	6.81	/	Pass
			6415	SU	4.31	4.26	7.30	/	Pass
	802.11ax (HEW40)	MIMO	5965	SU	6.24	7.74	10.06	/	Pass
			6165	SU	6.38	7.12	9.78	/	Pass
			6405	SU	6.33	6.43	9.39	/	Pass
	802.11ax (HEW80)	MIMO	5985	SU	9.49	9.56	12.54	/	Pass
			6145	SU	9.32	10.56	12.99	/	Pass
			6385	SU	9.42	9.54	12.49	/	Pass
	802.11ax (HEW160)	MIMO	6025	SU	7.89	8.44	11.18	/	Pass
			6185	SU	9.10	9.99	12.58	/	Pass
			6345	SU	8.14	9.30	11.77	/	Pass

Note1: Antenna Gain: Ant1: 2.83dBi; Ant2: 1.61dBi;

3.1.2 EIRP

ENV	Mode	TX Type	Frequency (MHz)	RU	E.I.R.P (dBm)				Verdict
					ANT1	ANT2	MIMO	Limit	
NTNV	802.11ax (HEW20)	MIMO	5955	SU	6.89	6.51	9.71	<=24	Pass
			6175	SU	6.01	5.96	9.00	<=24	Pass
			6415	SU	7.14	5.87	9.56	<=24	Pass
	802.11ax (HEW40)	MIMO	5965	SU	9.07	9.35	12.22	<=24	Pass
			6165	SU	9.21	8.73	11.99	<=24	Pass
			6405	SU	9.16	8.04	11.65	<=24	Pass
	802.11ax (HEW80)	MIMO	5985	SU	12.32	11.17	14.79	<=24	Pass
			6145	SU	12.15	12.17	15.17	<=24	Pass
			6385	SU	12.25	11.15	14.75	<=24	Pass
	802.11ax (HEW160)	MIMO	6025	SU	10.72	10.05	13.41	<=24	Pass
			6185	SU	11.93	11.60	14.78	<=24	Pass
			6345	SU	10.97	10.91	13.95	<=24	Pass

Note1: Antenna Gain: Ant1: 2.83dBi; Ant2: 1.61dBi;

Note2: E.I.R.P = Measured Power + Antenna Gain

3.1.3 Power

ENV	Mode	TX Type	Frequency (MHz)	RU	Maximum Average Conducted Output Power (dBm)				Verdict
					ANT1	ANT2	MIMO	Limit	
NTNV	802.11ax (HEW20)	MIMO	6435	SU	6.35	6.07	9.22	/	Pass
			6475	SU	6.38	6.88	9.65	/	Pass
			6515	SU	6.47	6.87	9.68	/	Pass
	802.11ax (HEW40)	MIMO	6445	SU	6.92	6.04	9.51	/	Pass
			6485	SU	6.51	5.68	9.13	/	Pass
	802.11ax (HEW80)	MIMO	6465	SU	10.55	9.97	13.28	/	Pass

Note1: Antenna Gain: Ant1: 1.10dBi; Ant2: -2.02dBi;

3.1.4 EIRP

Mode	RU	E.I.R.P (dBm)	Verdict
------	----	---------------	---------

ENV		TX Type	Frequency (MHz)		ANT1	ANT2	MIMO	Limit	
NTNV	802.11ax (HEW20)	MIMO	6435	SU	7.45	4.05	9.08	<=24	Pass
			6475	SU	7.48	4.86	9.37	<=24	Pass
			6515	SU	7.57	4.85	9.43	<=24	Pass
	802.11ax (HEW40)	MIMO	6445	SU	8.02	4.02	9.48	<=24	Pass
			6485	SU	7.61	3.66	9.08	<=24	Pass
	802.11ax (HEW80)	MIMO	6465	SU	11.65	7.95	13.19	<=24	Pass
Note1: Antenna Gain: Ant1: 1.10dBi; Ant2: -2.02dBi; Note2: E.I.R.P = Measured Power + Antenna Gain									

3.1.5 Power

ENV	Mode	TX Type	Frequency (MHz)	RU	Maximum Average Conducted Output Power (dBm)				Verdict
					ANT1	ANT2	MIMO	Limit	
NTNV	802.11ax (HEW20)	MIMO	6535	SU	5.38	6.38	8.92	/	Pass
			6695	SU	6.10	5.93	9.03	/	Pass
			6855	SU	5.58	5.16	8.39	/	Pass
	802.11ax (HEW40)	MIMO	6565	SU	7.51	8.36	10.97	/	Pass
			6685	SU	7.95	7.79	10.88	/	Pass
			6845	SU	8.30	7.56	10.96	/	Pass
	802.11ax (HEW80)	MIMO	6625	SU	10.41	10.74	13.59	/	Pass
			6705	SU	10.75	10.91	13.84	/	Pass
			6785	SU	9.80	9.91	12.87	/	Pass
	802.11ax (HEW160)	MIMO	6665	SU	6.32	6.94	9.65	/	Pass
Note1: Antenna Gain: Ant1: 0.52dBi; Ant2: 0.52dBi;									

3.1.6 EIRP

ENV	Mode	TX Type	Frequency (MHz)	RU	E.I.R.P (dBm)				Verdict
					ANT1	ANT2	MIMO	Limit	
NTNV	802.11ax (HEW20)	MIMO	6535	SU	5.90	6.90	9.44	<=24	Pass
			6695	SU	6.62	6.45	9.55	<=24	Pass
			6855	SU	6.10	5.68	8.91	<=24	Pass
	802.11ax (HEW40)	MIMO	6565	SU	8.03	8.88	11.49	<=24	Pass
			6685	SU	8.47	8.31	11.40	<=24	Pass
			6845	SU	8.82	8.08	11.48	<=24	Pass
	802.11ax (HEW80)	MIMO	6625	SU	10.93	11.26	14.11	<=24	Pass
			6705	SU	11.27	11.43	14.36	<=24	Pass
			6785	SU	10.32	10.43	13.39	<=24	Pass
	802.11ax (HEW160)	MIMO	6665	SU	6.84	7.46	10.17	<=24	Pass
Note1: Antenna Gain: Ant1: 0.52dBi; Ant2: 0.52dBi; Note2: E.I.R.P = Measured Power + Antenna Gain									

3.1.7 Power

ENV	Mode	TX Type	Frequency (MHz)	RU	Maximum Average Conducted Output Power (dBm)				Verdict
					ANT1	ANT2	MIMO	Limit	
NTNV	802.11ax (HEW20)	MIMO	6895	SU	5.02	5.26	8.15	/	Pass
			6995	SU	6.63	6.07	9.37	/	Pass
			7115	SU	5.46	6.12	8.81	/	Pass
	802.11ax (HEW40)	MIMO	6925	SU	8.43	8.97	11.72	/	Pass
			7005	SU	7.65	6.84	10.27	/	Pass
			7085	SU	8.27	8.34	11.32	/	Pass
		MIMO	6945	SU	9.92	10.37	13.16	/	Pass

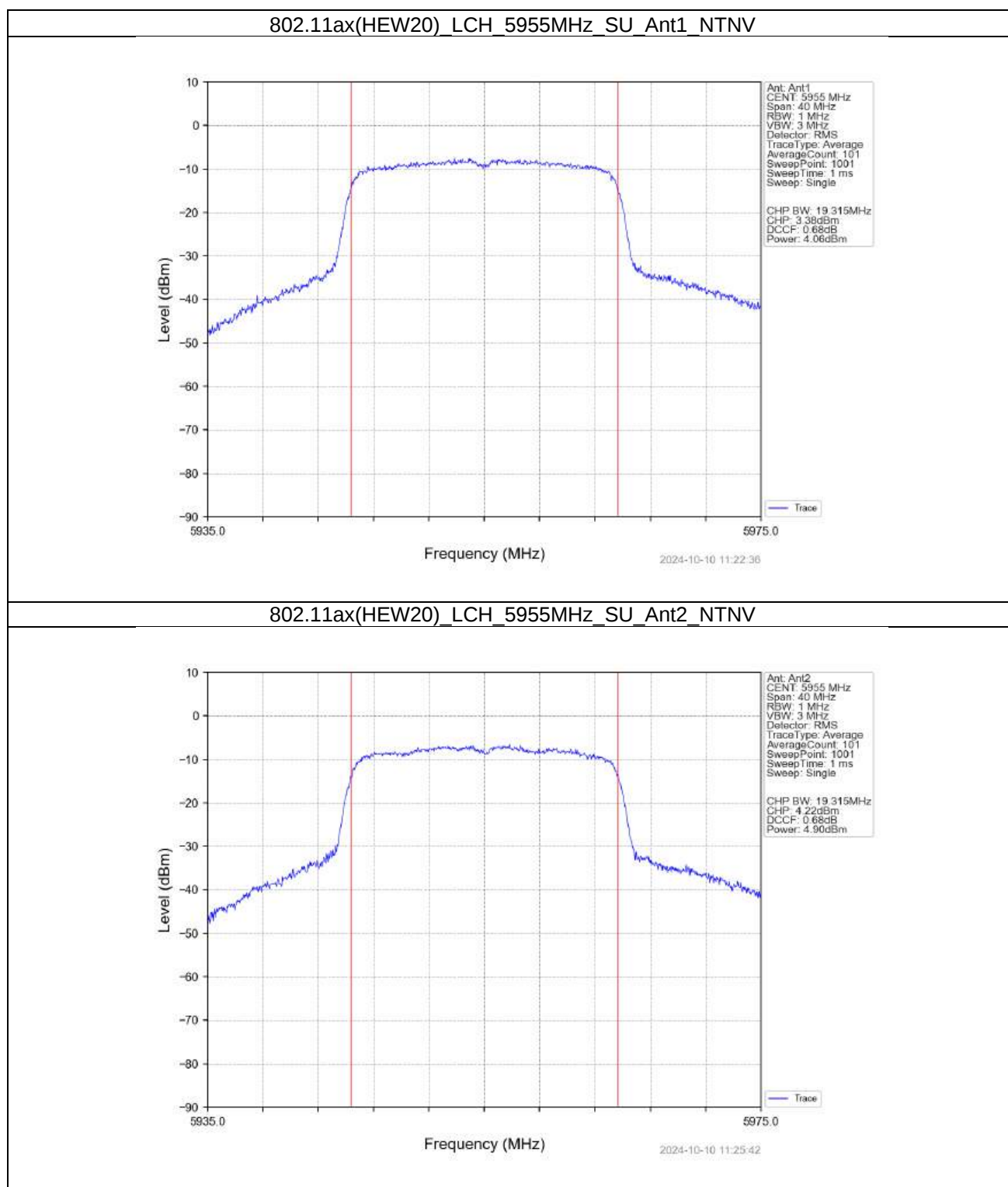
	802.11ax (HEW80)		7025	SU	9.00	8.70	11.86	/	Pass
	802.11ax (HEW160)	MIMO	6985	SU	7.48	8.01	10.76	/	Pass
Note1: Antenna Gain: Ant1: 0.41dBi; Ant2: 0.41dBi;									

3.1.8 EIRP

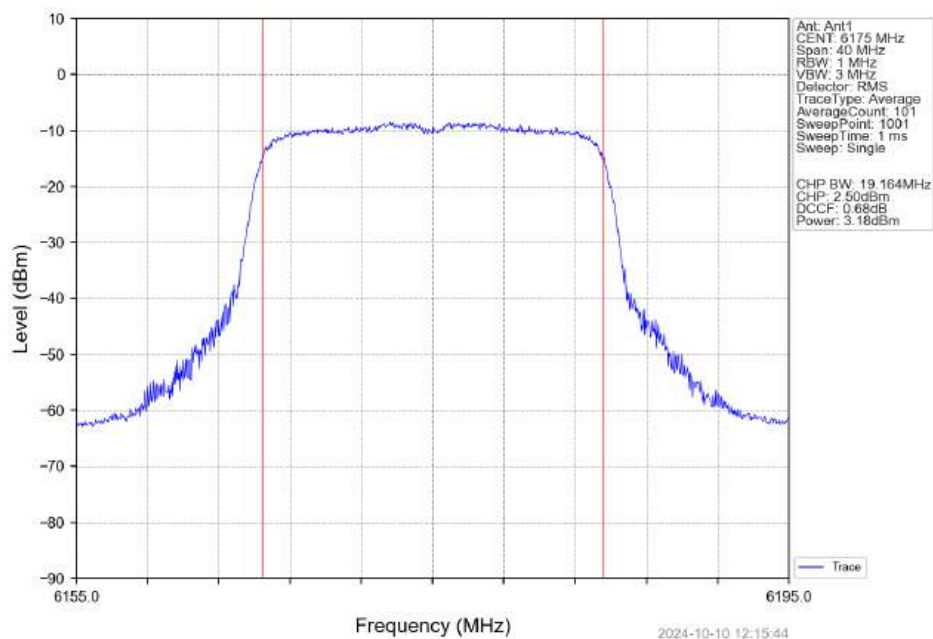
ENV	Mode	TX Type	Frequency (MHz)	RU	E.I.R.P (dBm)				Verdict
					ANT1	ANT2	MIMO	Limit	
NTNV	802.11ax (HEW20)	MIMO	6895	SU	5.43	5.67	8.56	<=24	Pass
			6995	SU	7.04	6.48	9.78	<=24	Pass
			7115	SU	5.87	6.53	9.22	<=24	Pass
	802.11ax (HEW40)	MIMO	6925	SU	8.84	9.38	12.13	<=24	Pass
			7005	SU	8.06	7.25	10.68	<=24	Pass
			7085	SU	8.68	8.75	11.73	<=24	Pass
	802.11ax (HEW80)	MIMO	6945	SU	10.33	10.78	13.57	<=24	Pass
			7025	SU	9.41	9.11	12.27	<=24	Pass
	802.11ax (HEW160)	MIMO	6985	SU	7.89	8.42	11.17	<=24	Pass
Note1: Antenna Gain: Ant1: 0.41dBi; Ant2: 0.41dBi;									
Note2: E.I.R.P = Measured Power + Antenna Gain									

3.2 Test Graph

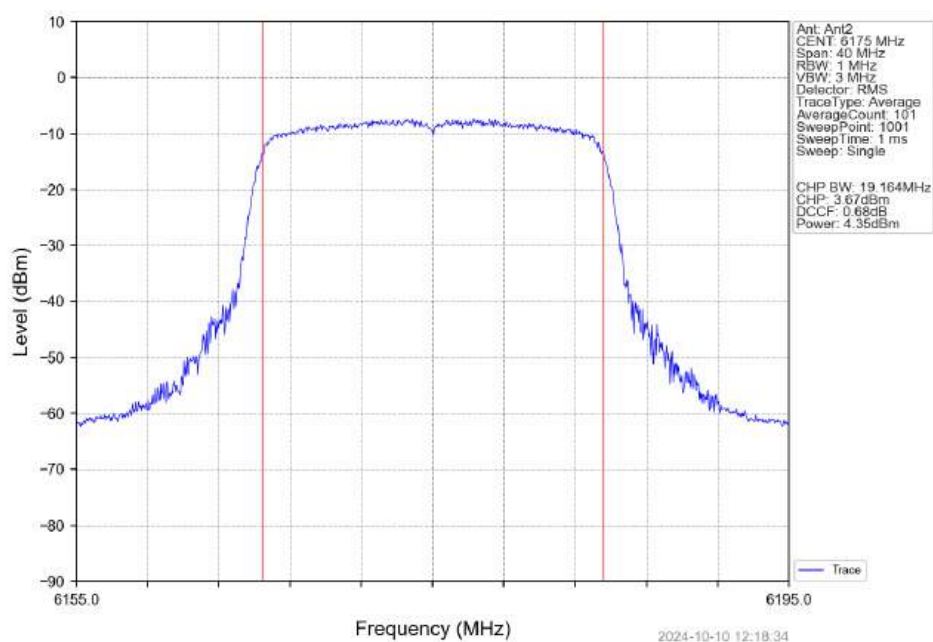
3.2.1 Power



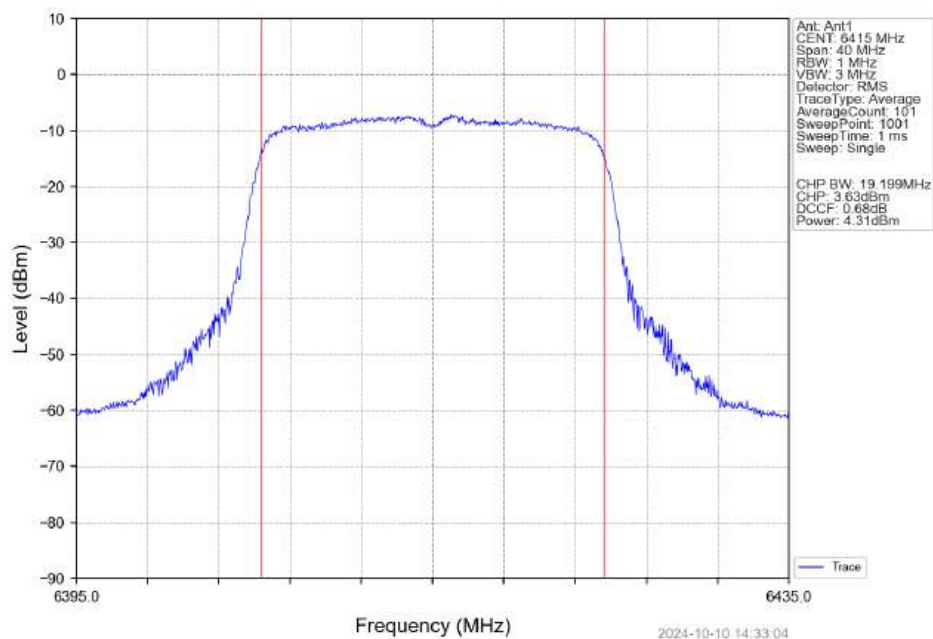
802.11ax(HEW20)_MCH_6175MHz_SU_Ant1_NTNV



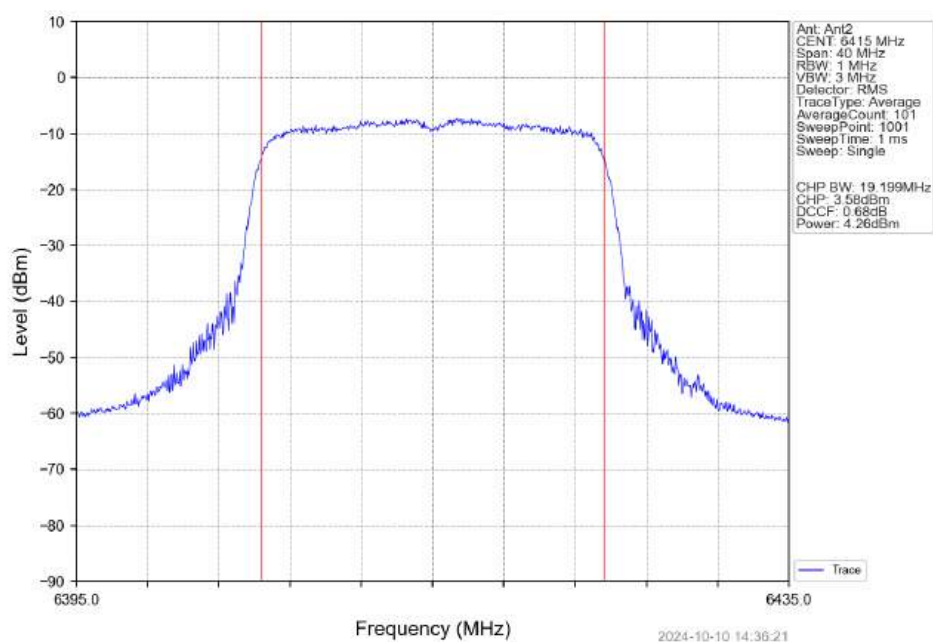
802.11ax(HEW20)_MCH_6175MHz_SU_Ant2_NTNV



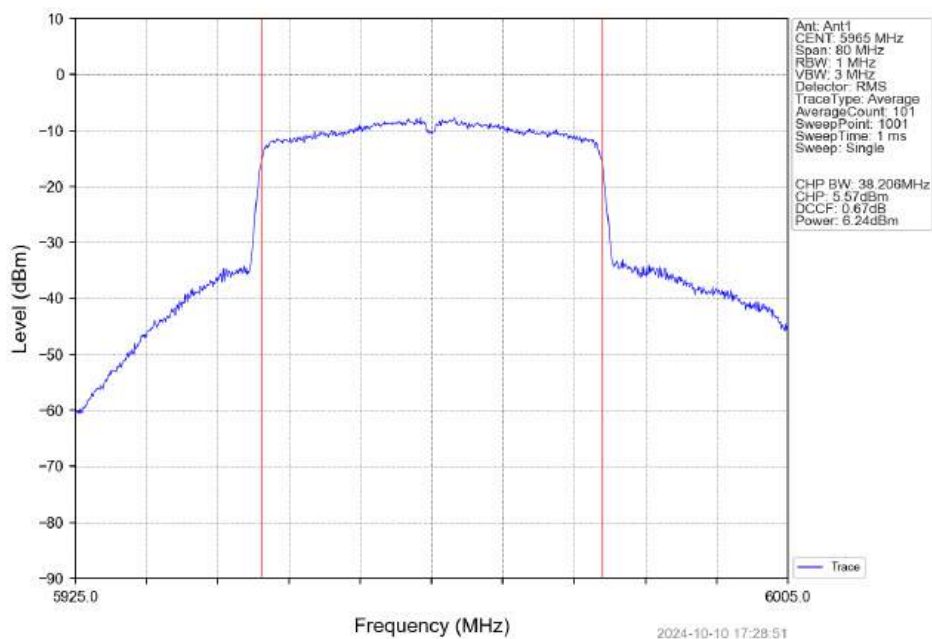
802.11ax(HEW20)_HCH_6415MHz_SU_Ant1_NTNV



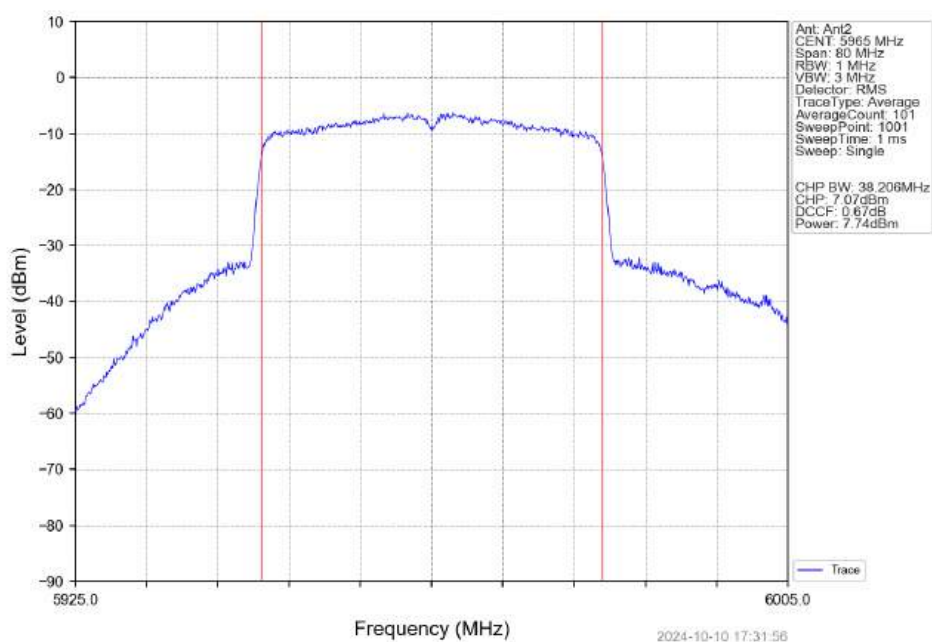
802.11ax(HEW20)_HCH_6415MHz_SU_Ant2_NTNV

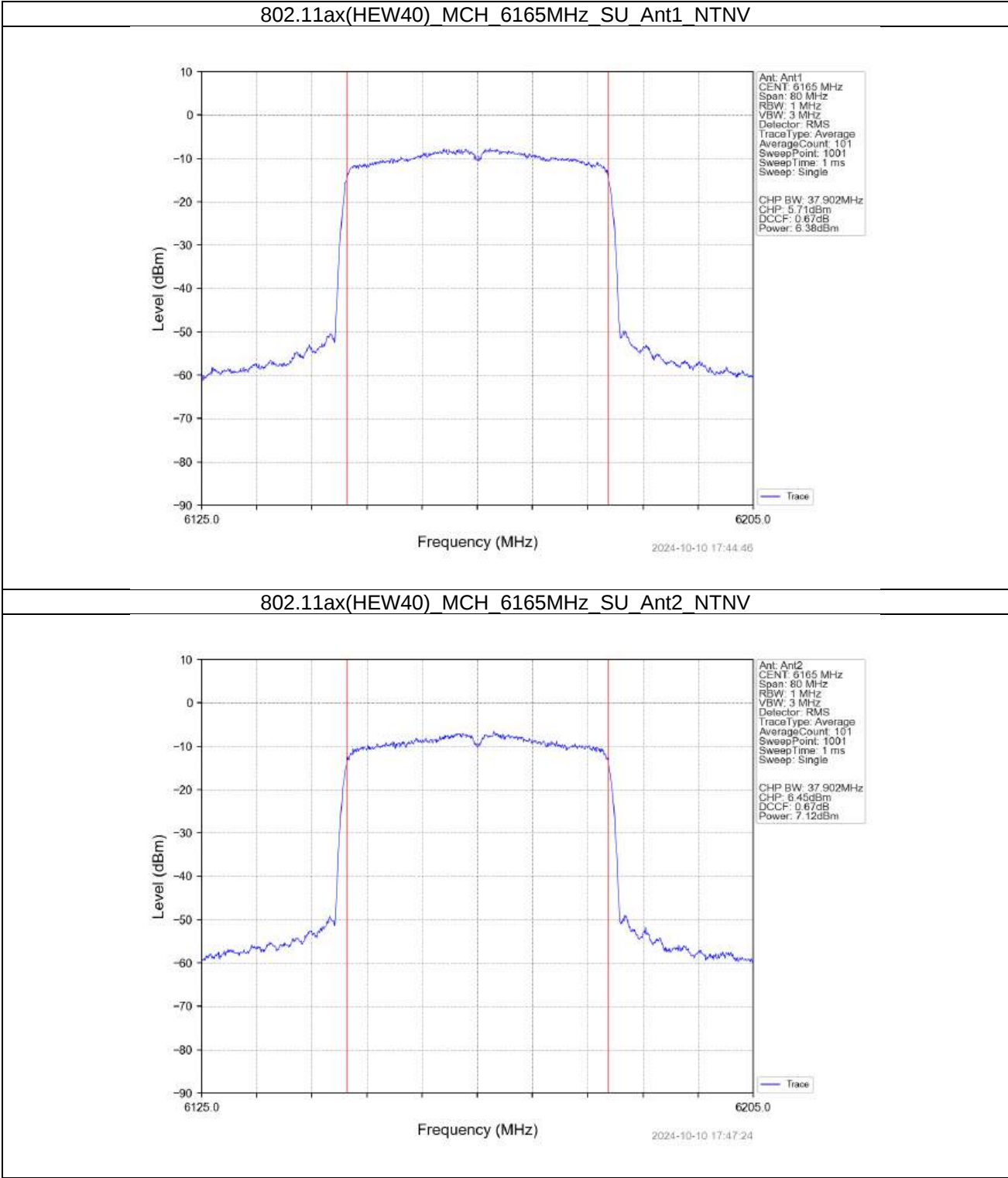


802.11ax(HEW40) LCH_5965MHz_SU_Ant1_NTNV

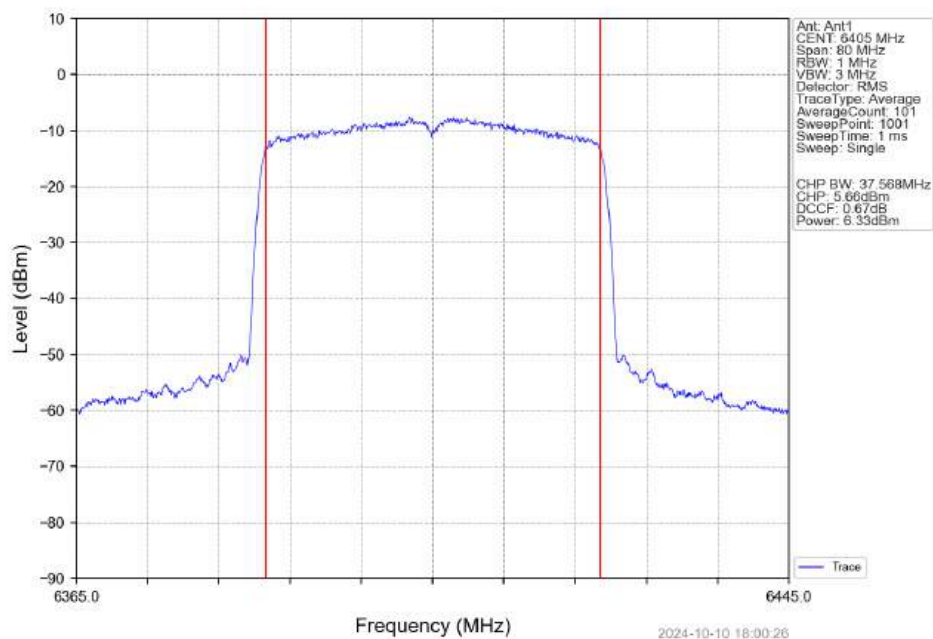


802.11ax(HEW40) LCH_5965MHz_SU_Ant2_NTNV

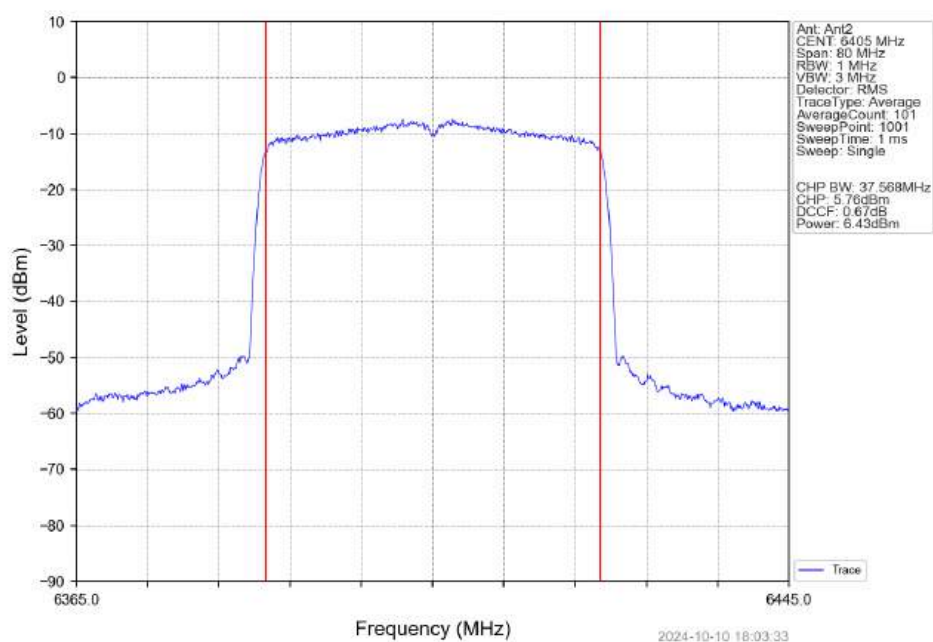




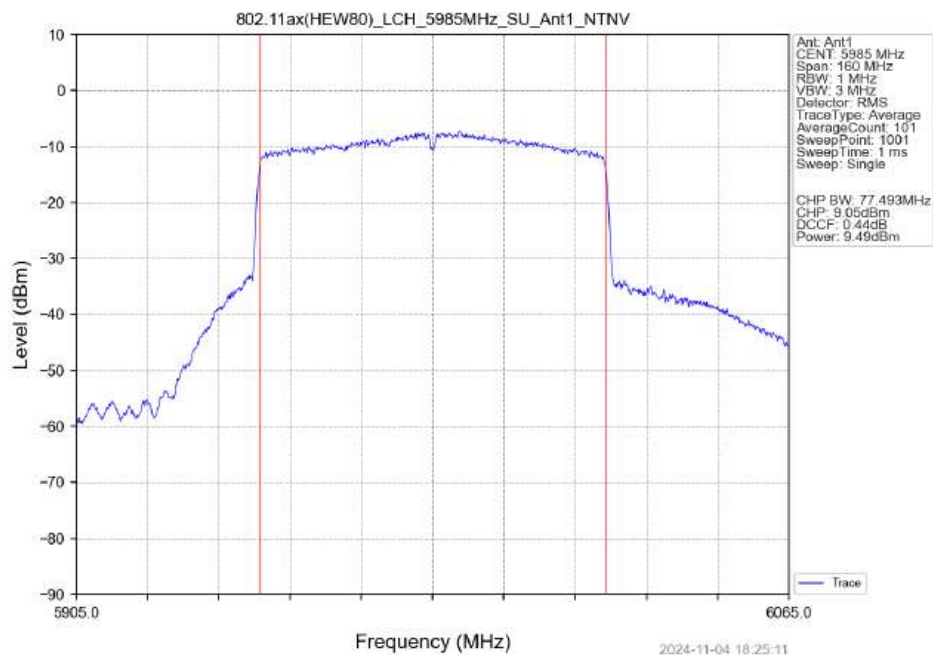
802.11ax(HEW40) HCH_6405MHz_SU_Ant1_NTNV



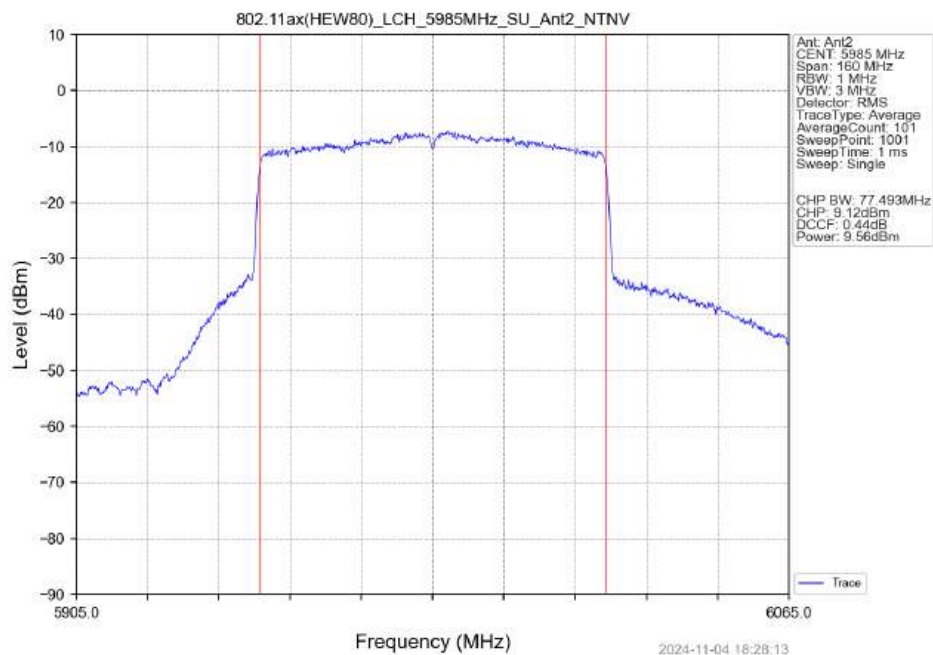
802.11ax(HEW40) HCH_6405MHz_SU_Ant2_NTNV



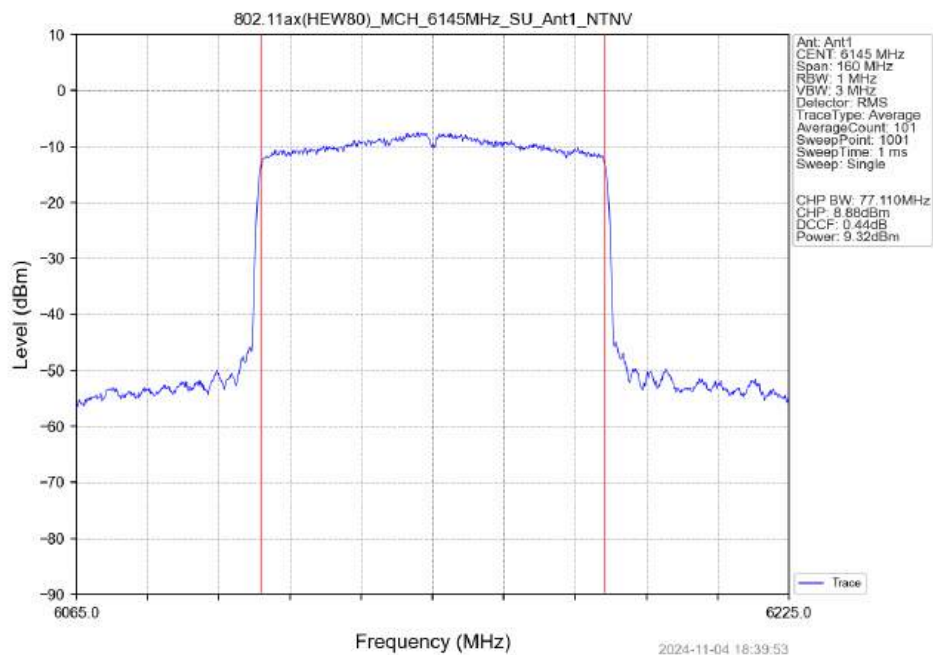
802.11ax(HEW80) LCH_5985MHz_SU_Ant1_NTNV



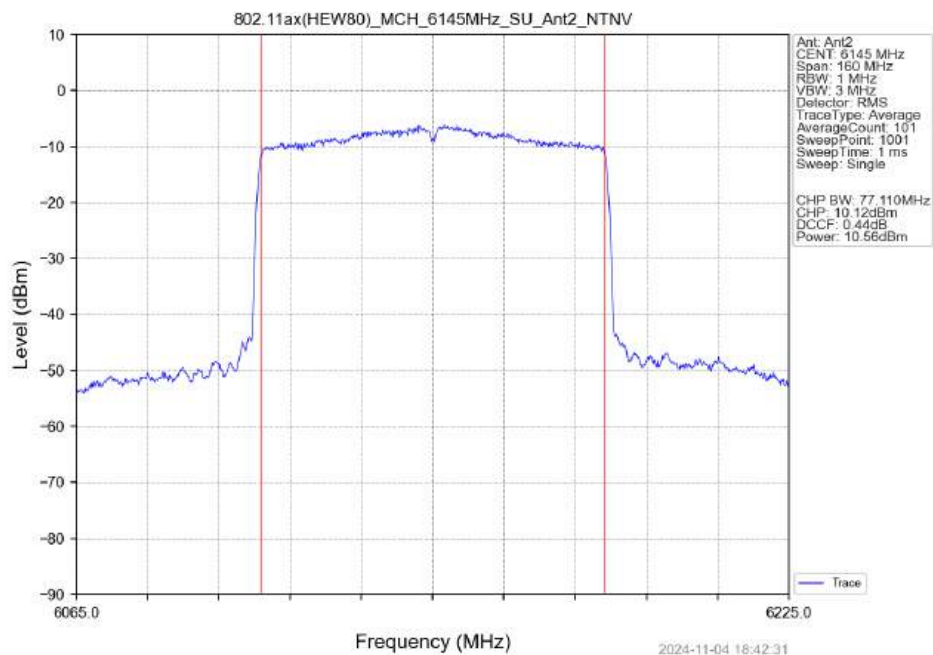
802.11ax(HEW80) LCH_5985MHz_SU_Ant2_NTNV



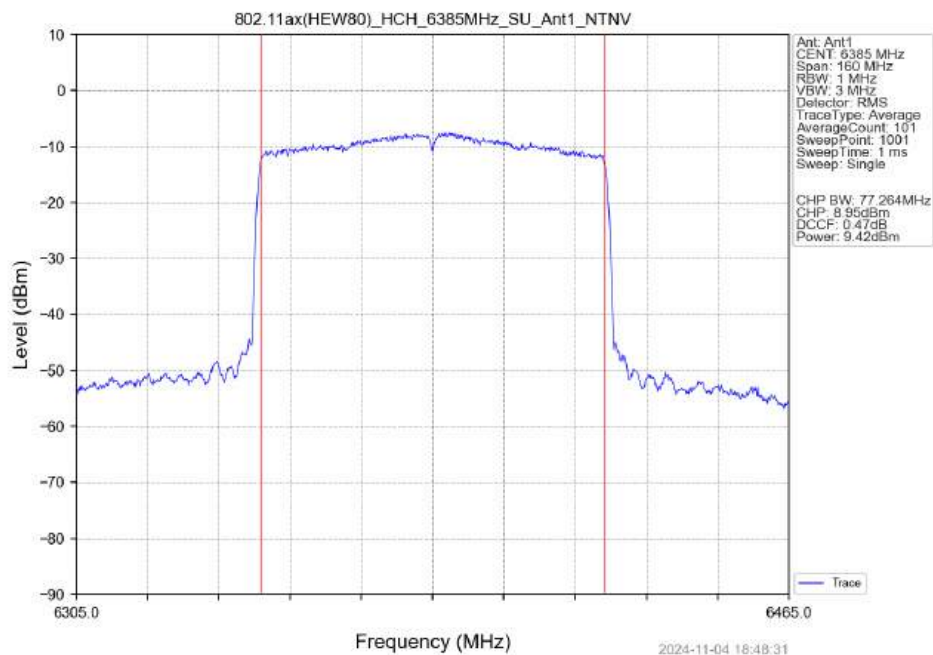
802.11ax(HEW80)_MCH_6145MHz_SU_Ant1_NTNV



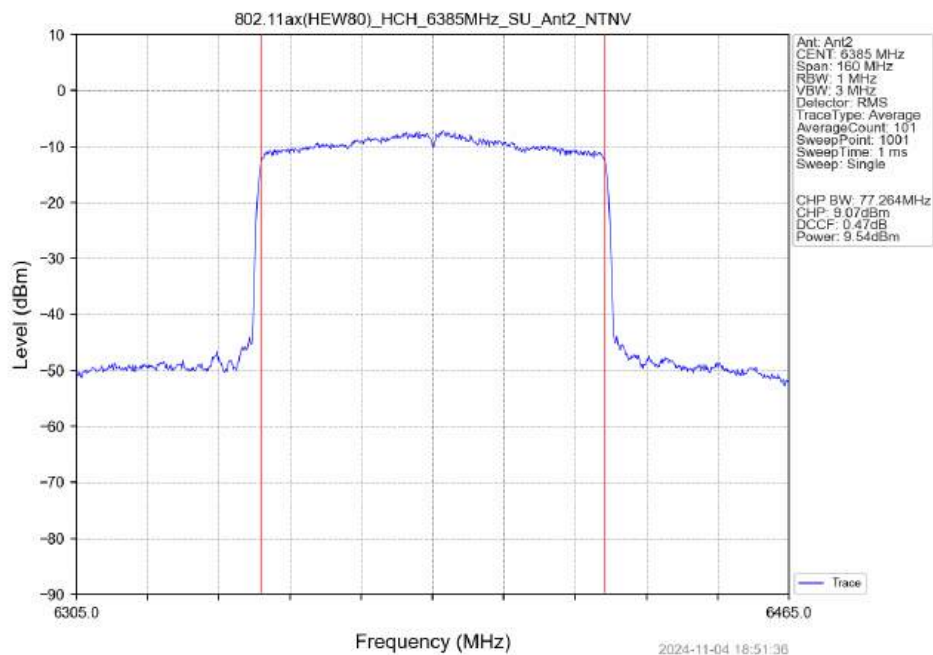
802.11ax(HEW80)_MCH_6145MHz_SU_Ant2_NTNV



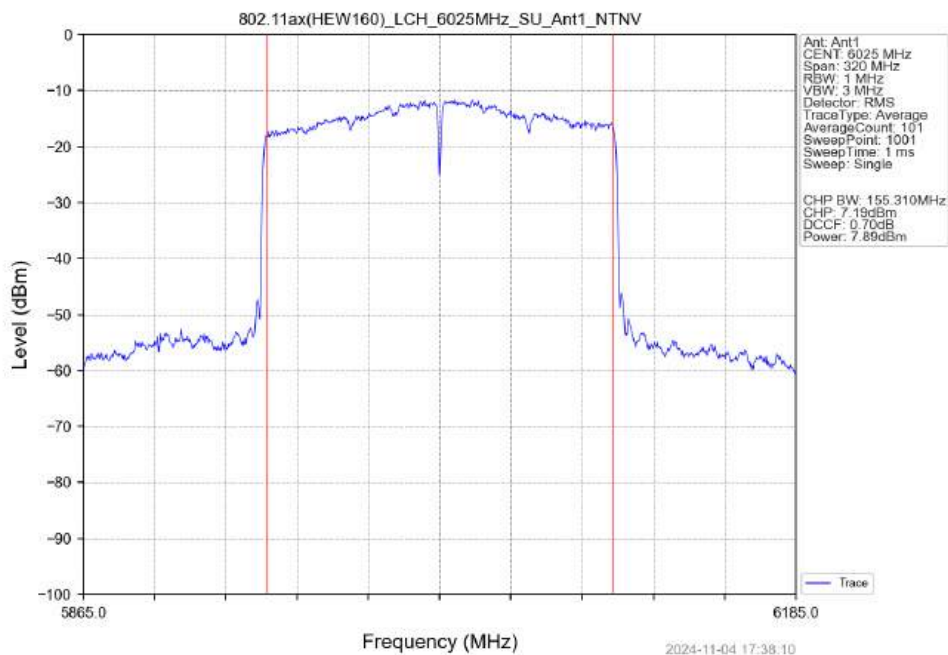
802.11ax(HEW80)_HCH_6385MHz_SU_Ant1_NTNV



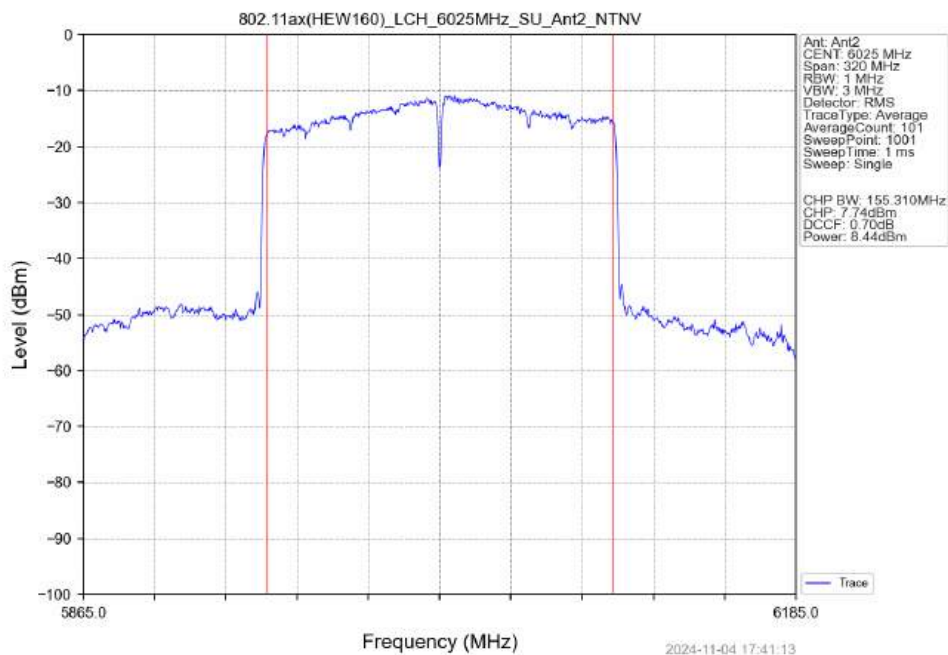
802.11ax(HEW80)_HCH_6385MHz_SU_Ant2_NTNV



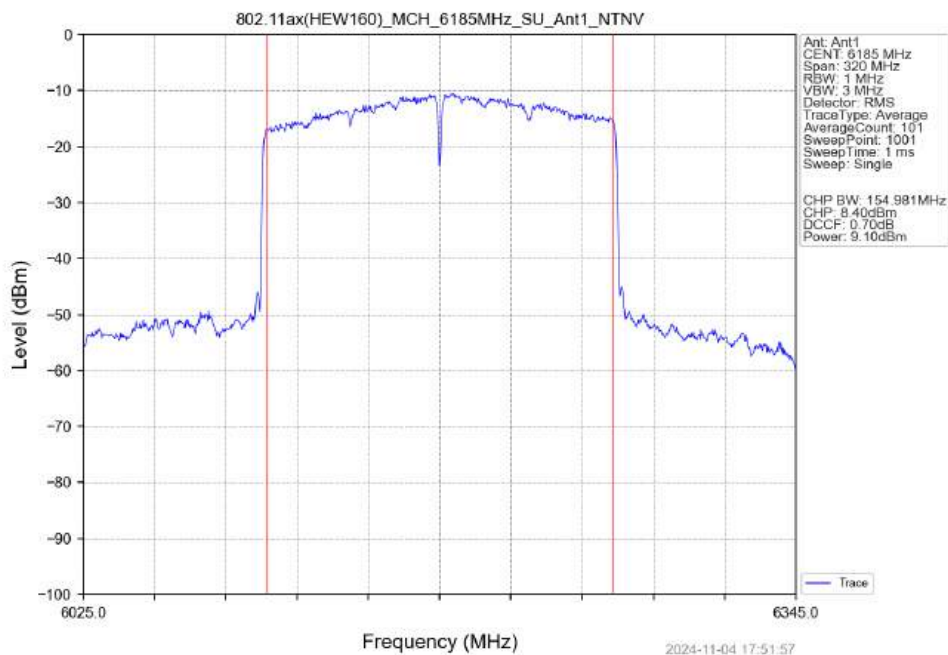
802.11ax(HEW160) LCH 6025MHz SU_Ant1_NTNV



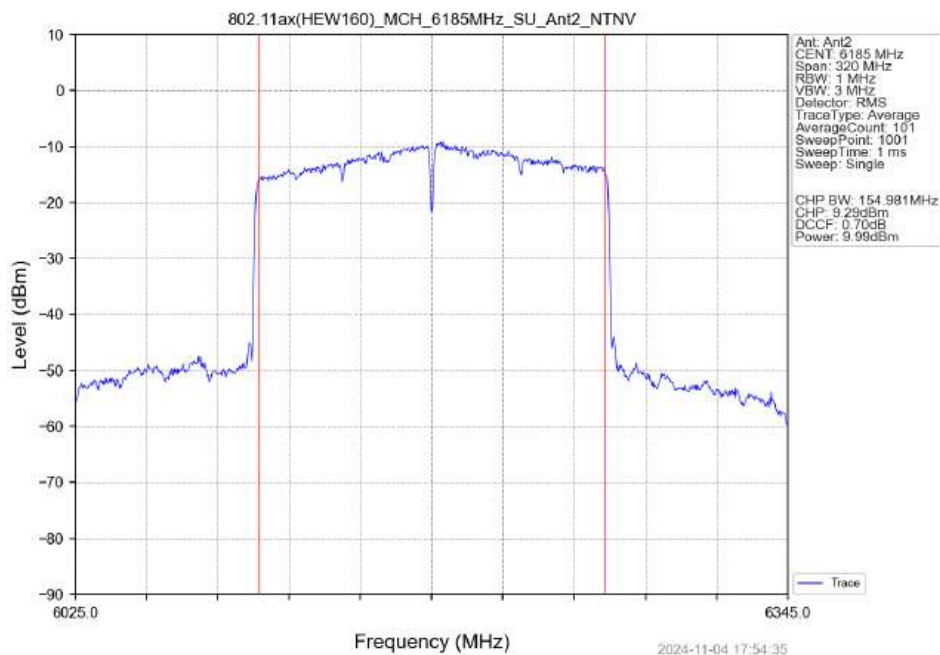
802.11ax(HEW160) LCH 6025MHz SU_Ant2_NTNV



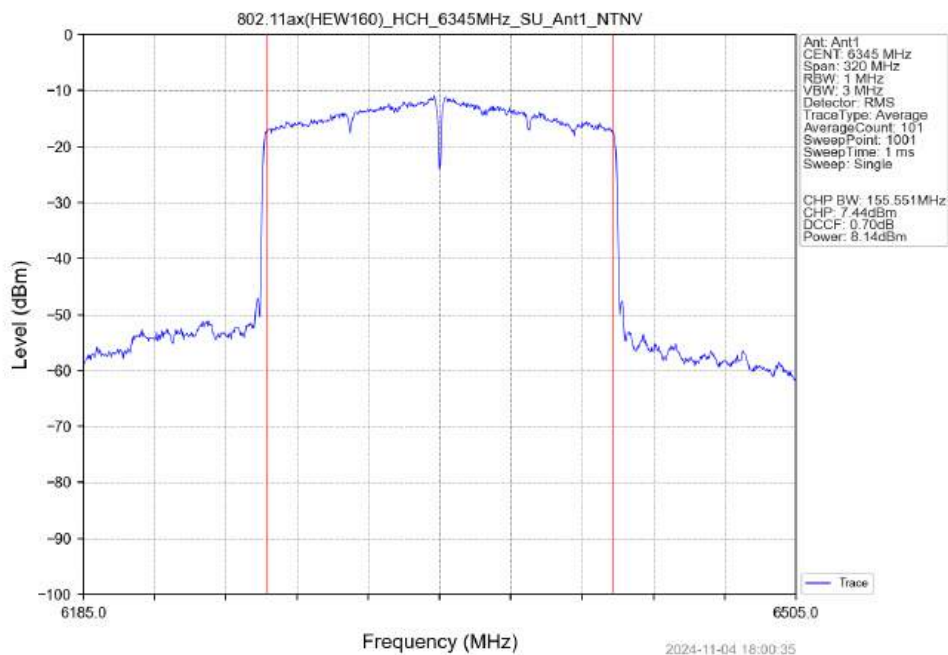
802.11ax(HEW160)_MCH_6185MHz_SU_Ant1_NTNV



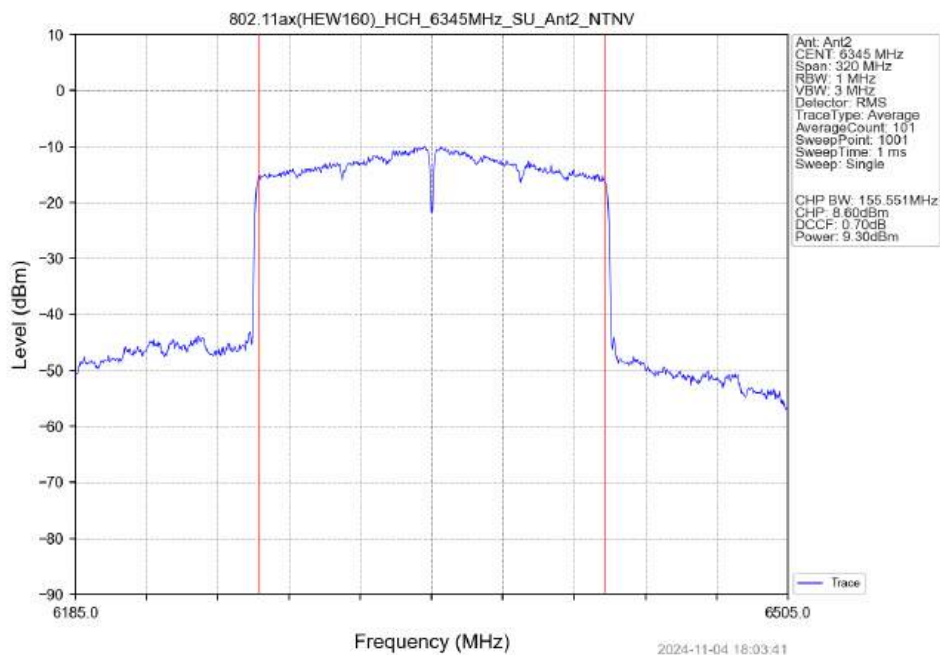
802.11ax(HEW160)_MCH_6185MHz_SU_Ant2_NTNV



802.11ax(HEW160) HCH 6345MHz SU_Ant1_NTNV

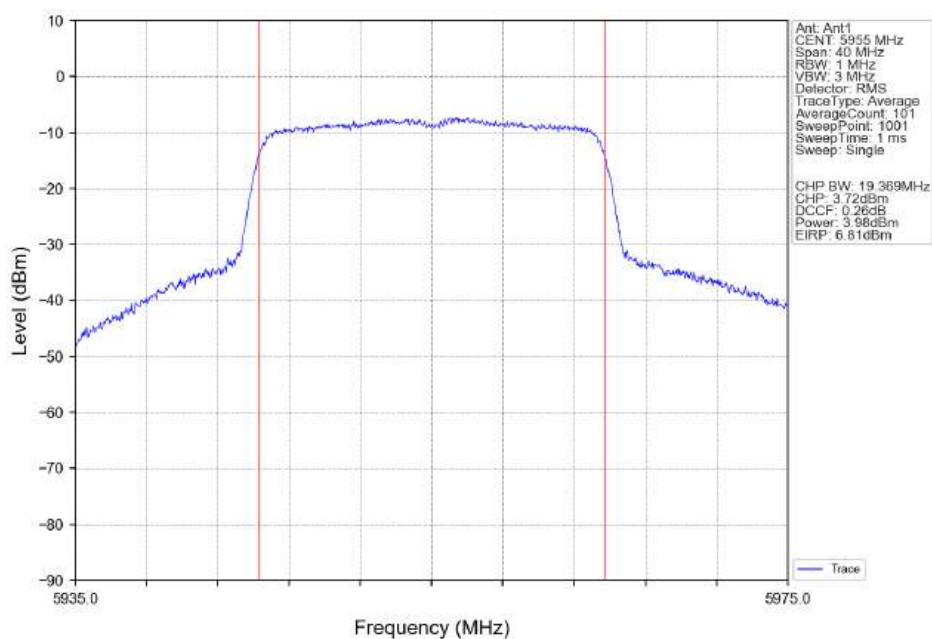


802.11ax(HEW160) HCH 6345MHz SU_Ant2_NTNV

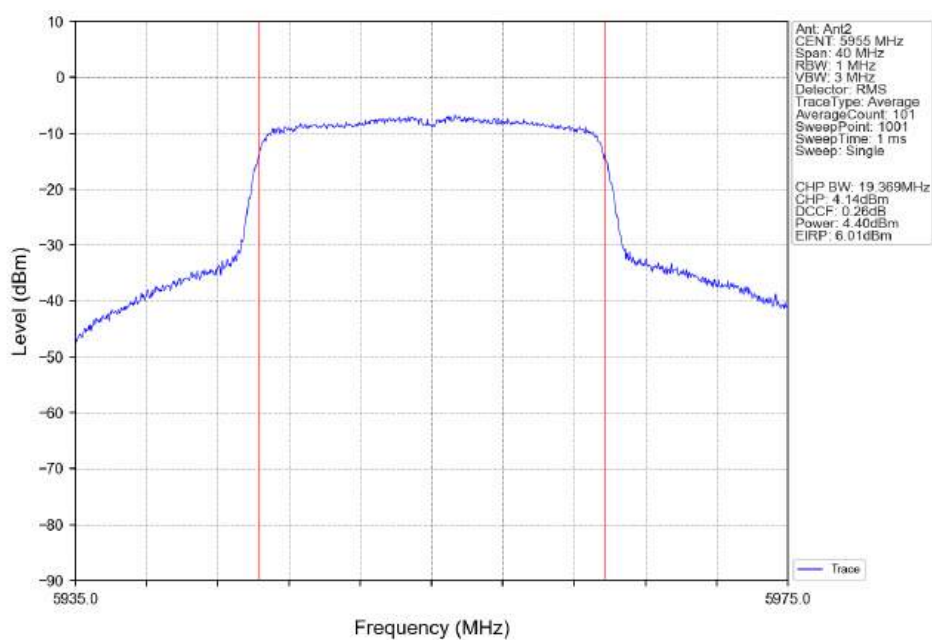


3.2.2 EIRP

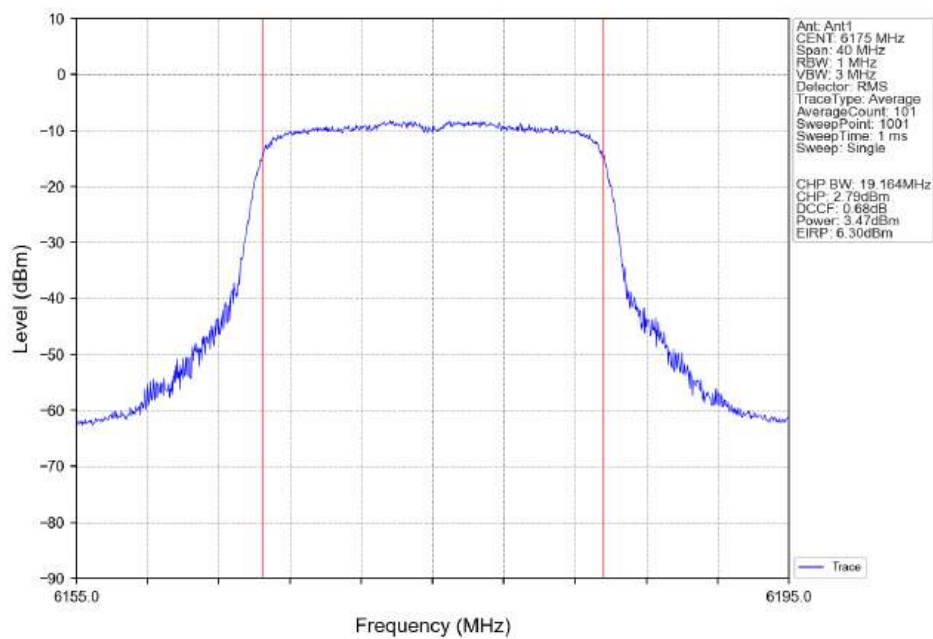
802.11ax(HEW20) LCH 5955MHz SU Ant1 NTN



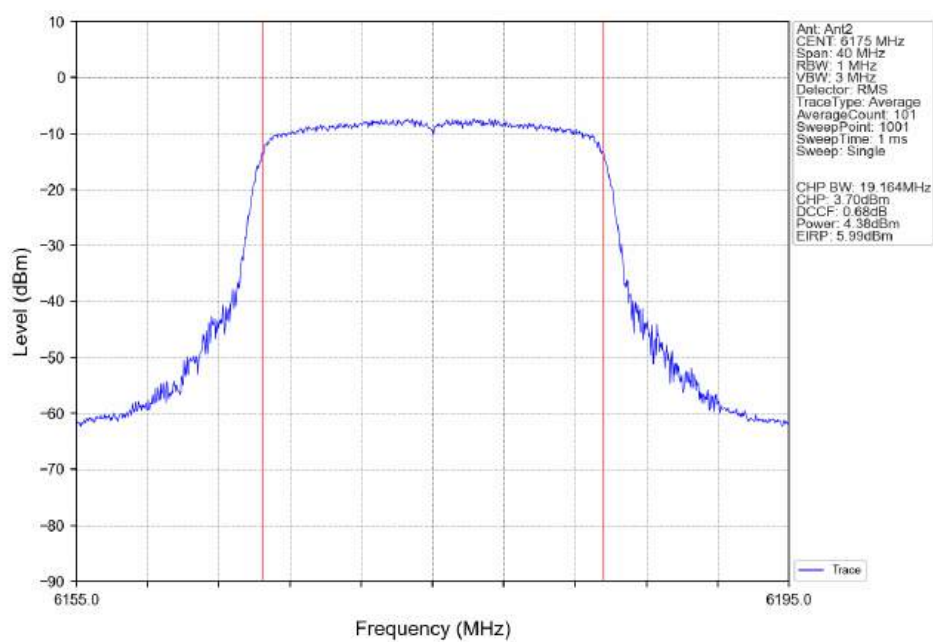
802.11ax(HEW20) LCH 5955MHz SU Ant2 NTN



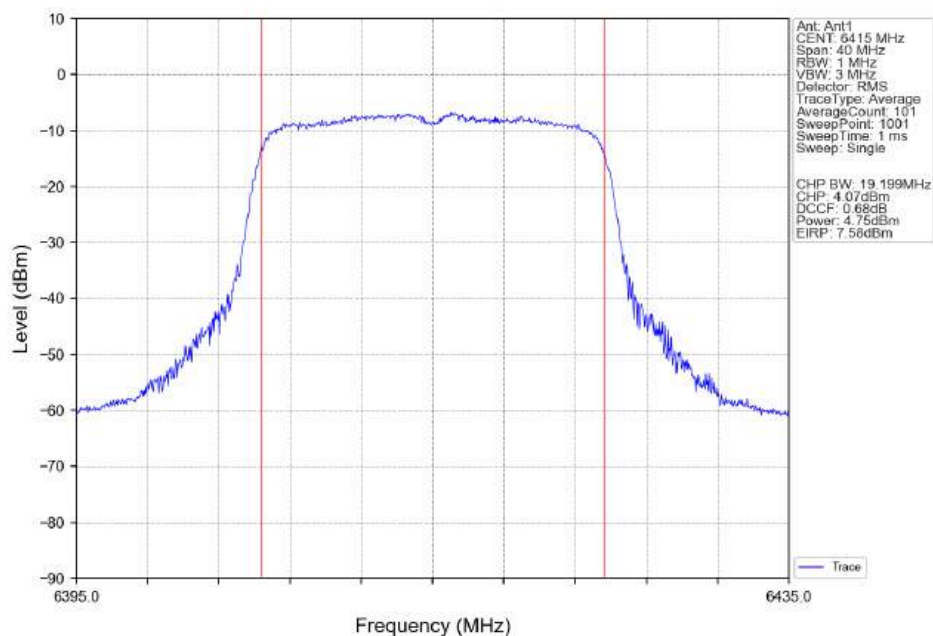
802.11ax(HEW20)_MCH_6175MHz_SU_Ant1_NTNV



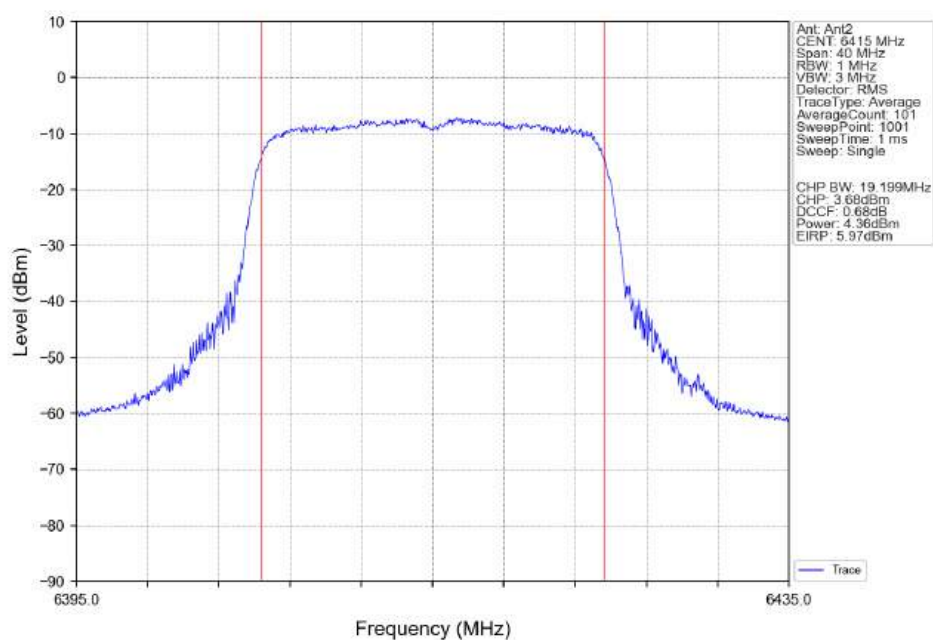
802.11ax(HEW20)_MCH_6175MHz_SU_Ant2_NTNV



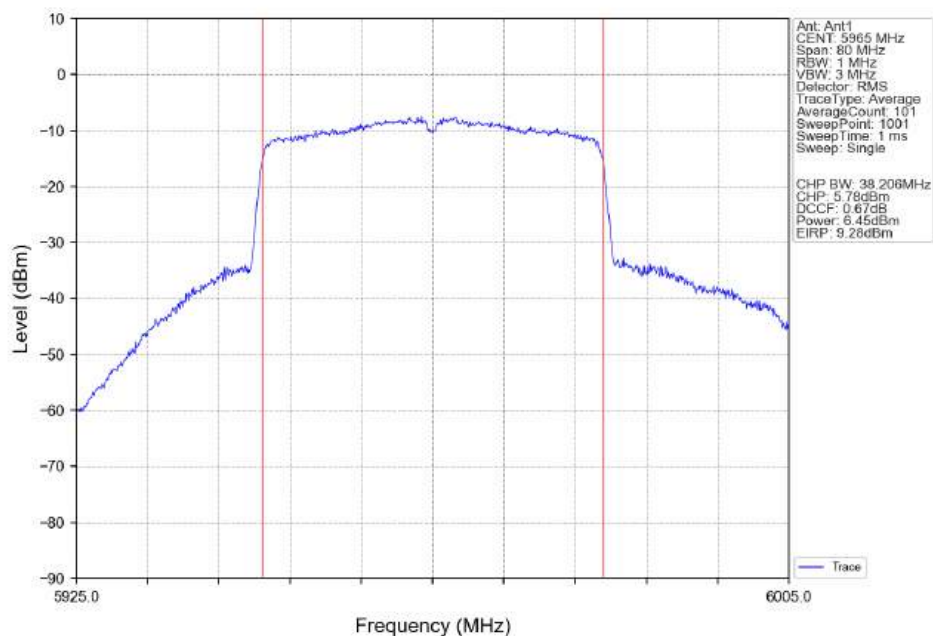
802.11ax(HEW20)_HCH_6415MHz_SU_Ant1_NTNV



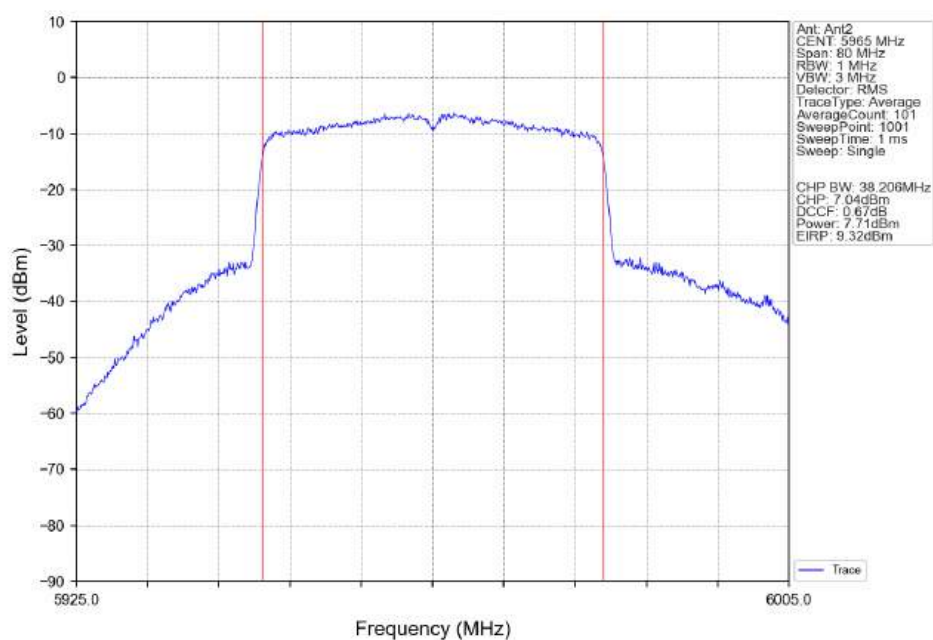
802.11ax(HEW20)_HCH_6415MHz_SU_Ant2_NTNV



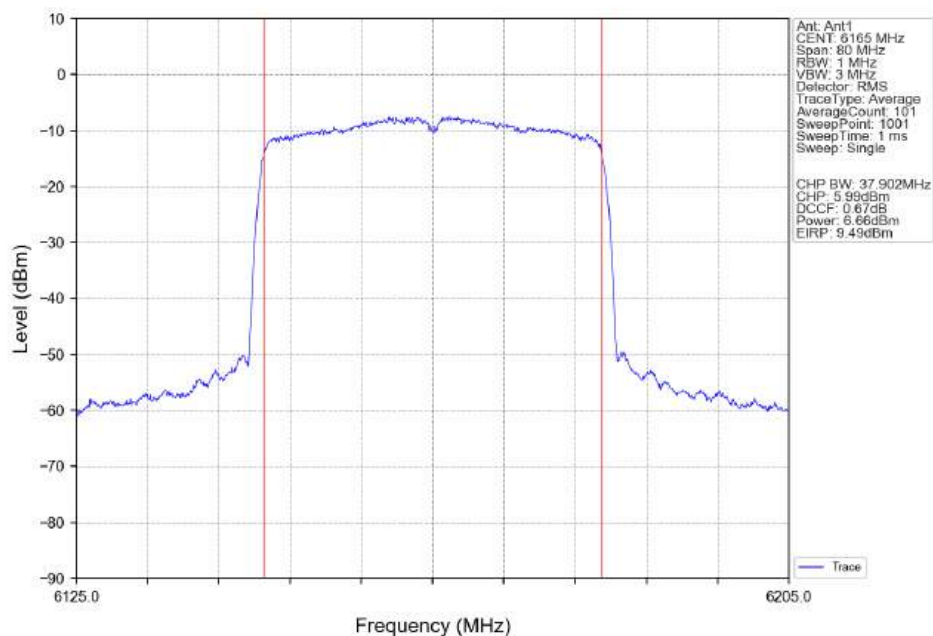
802.11ax(HEW40) LCH_5965MHz_SU_Ant1_NTNV



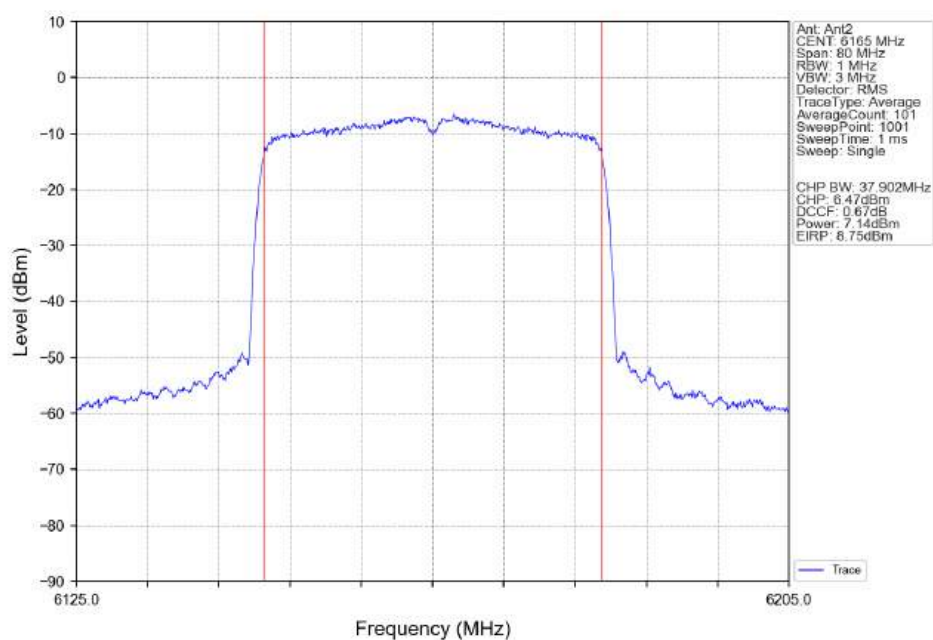
802.11ax(HEW40) LCH_5965MHz_SU_Ant2_NTNV



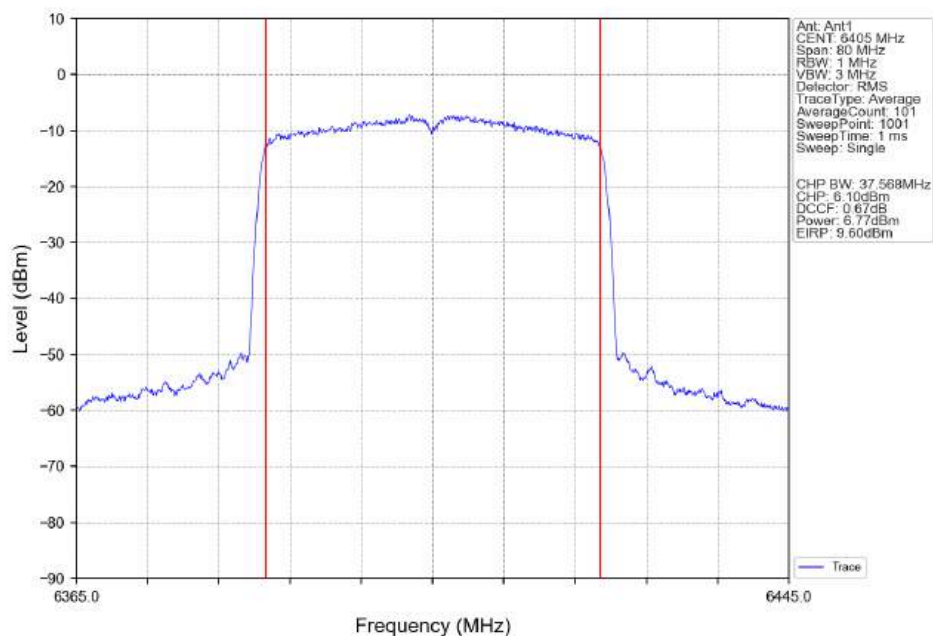
802.11ax(HEW40)_MCH_6165MHz_SU_Ant1_NTNV



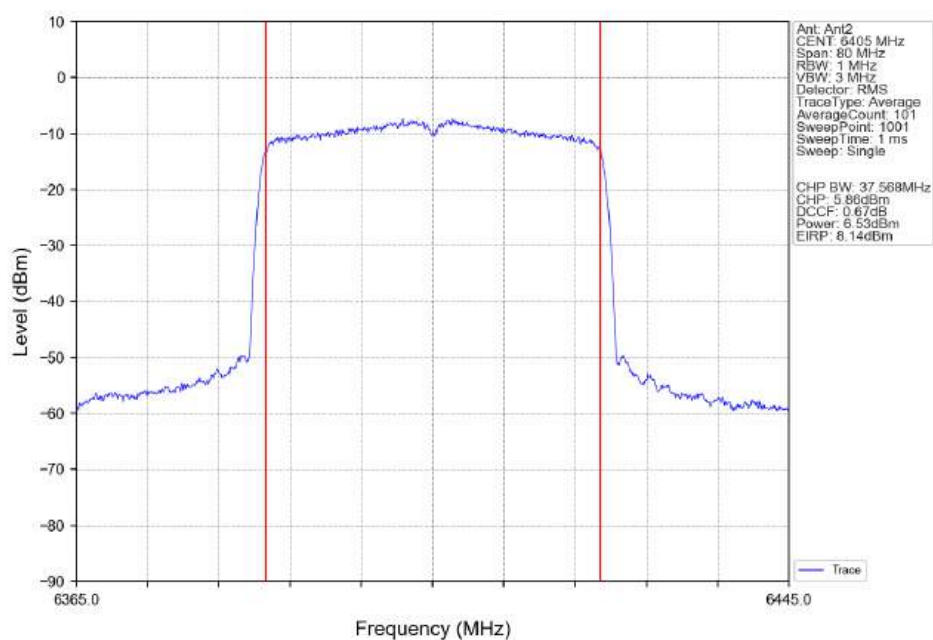
802.11ax(HEW40)_MCH_6165MHz_SU_Ant2_NTNV



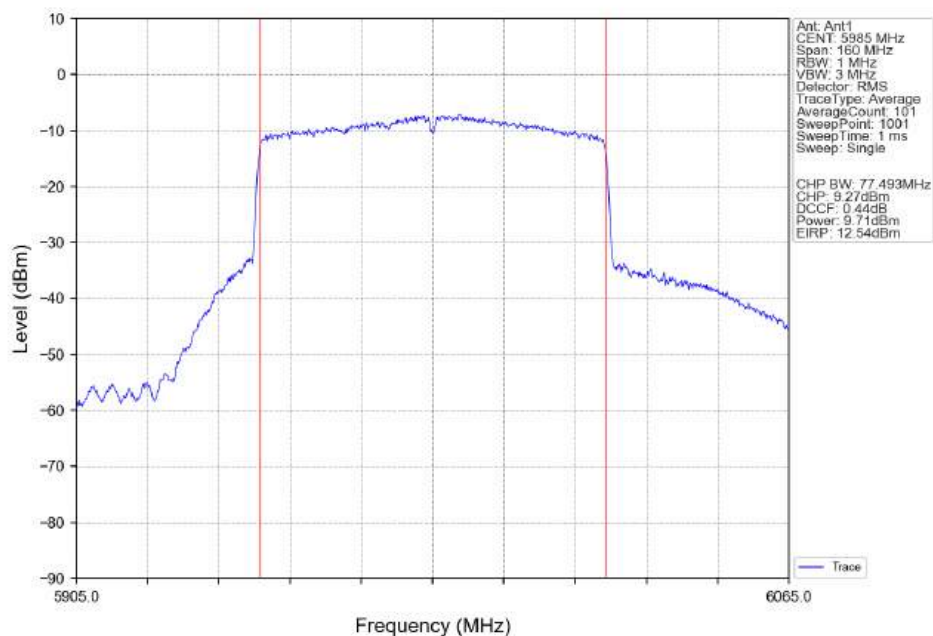
802.11ax(HEW40)_HCH_6405MHz_SU_Ant1_NTNV



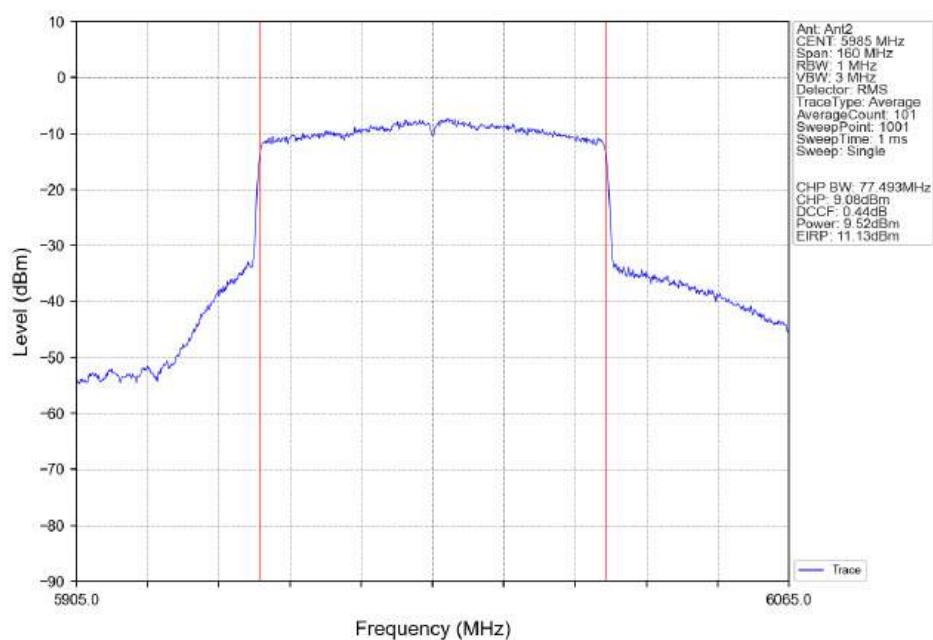
802.11ax(HEW40)_HCH_6405MHz_SU_Ant2_NTNV



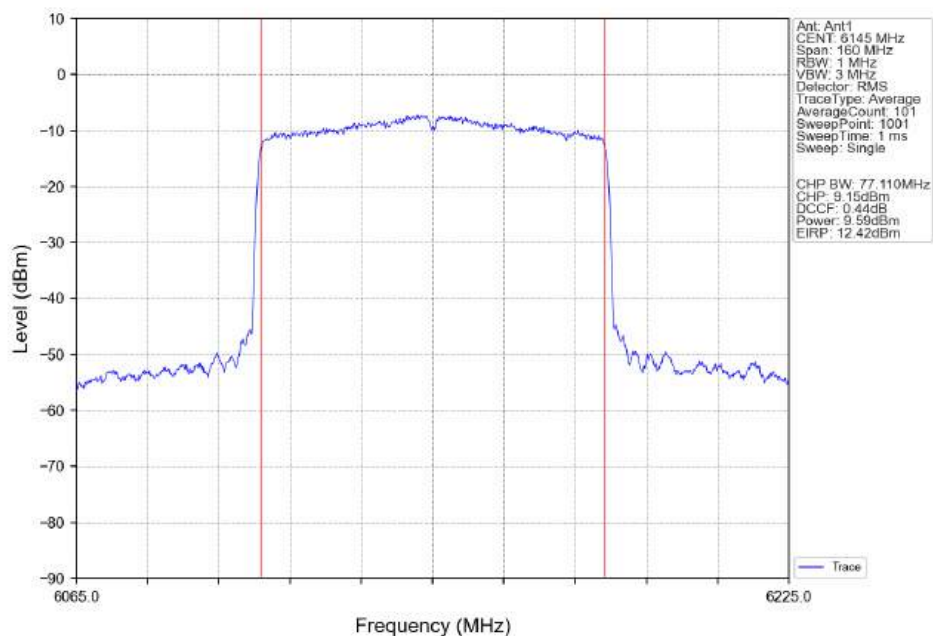
802.11ax(HEW80) LCH_5985MHz_SU_Ant1_NTNV



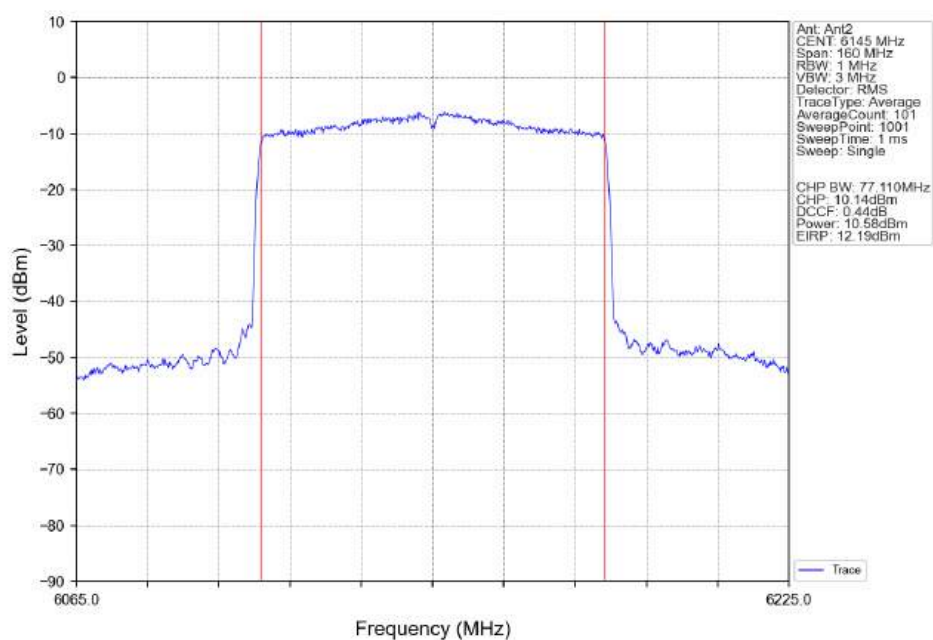
802.11ax(HEW80) LCH_5985MHz_SU_Ant2_NTNV



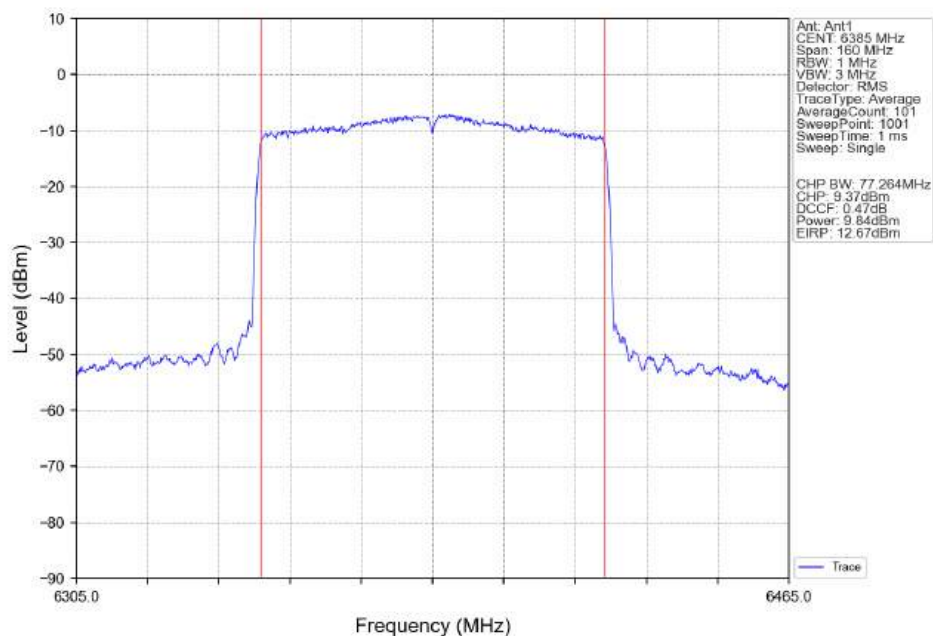
802.11ax(HEW80)_MCH_6145MHz_SU_Ant1_NTNV



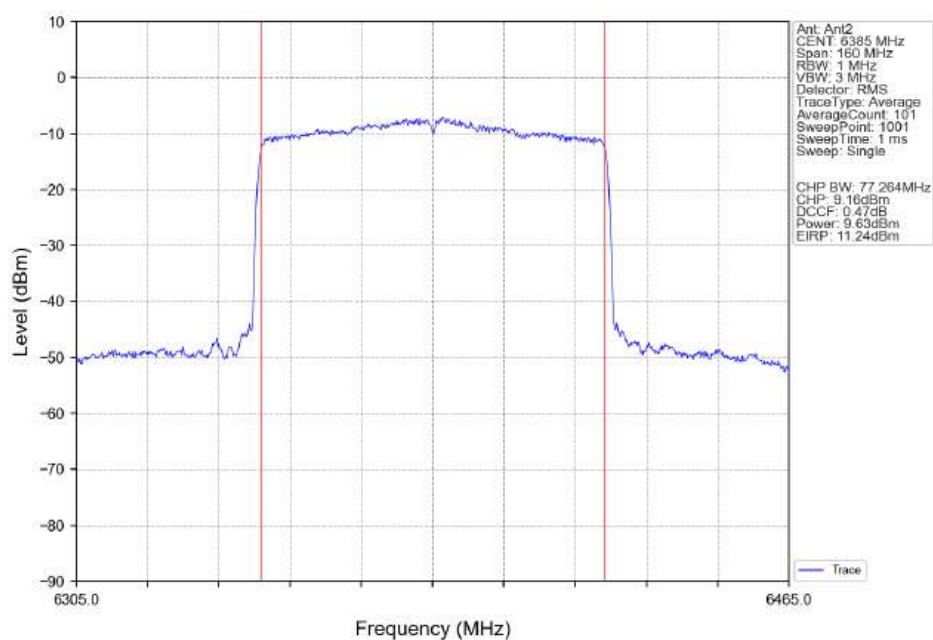
802.11ax(HEW80)_MCH_6145MHz_SU_Ant2_NTNV



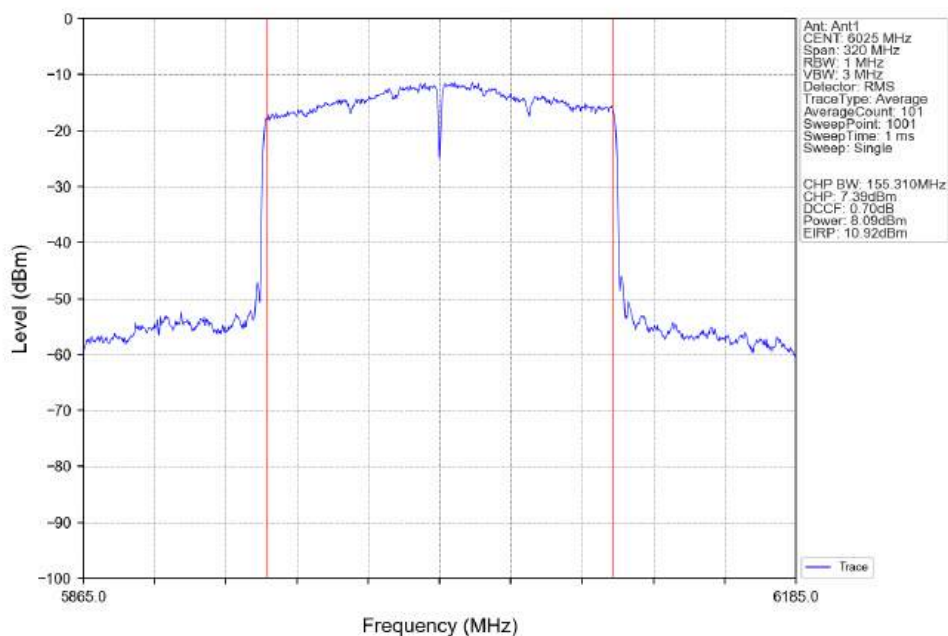
802.11ax(HEW80)_HCH_6385MHz_SU_Ant1_NTNV



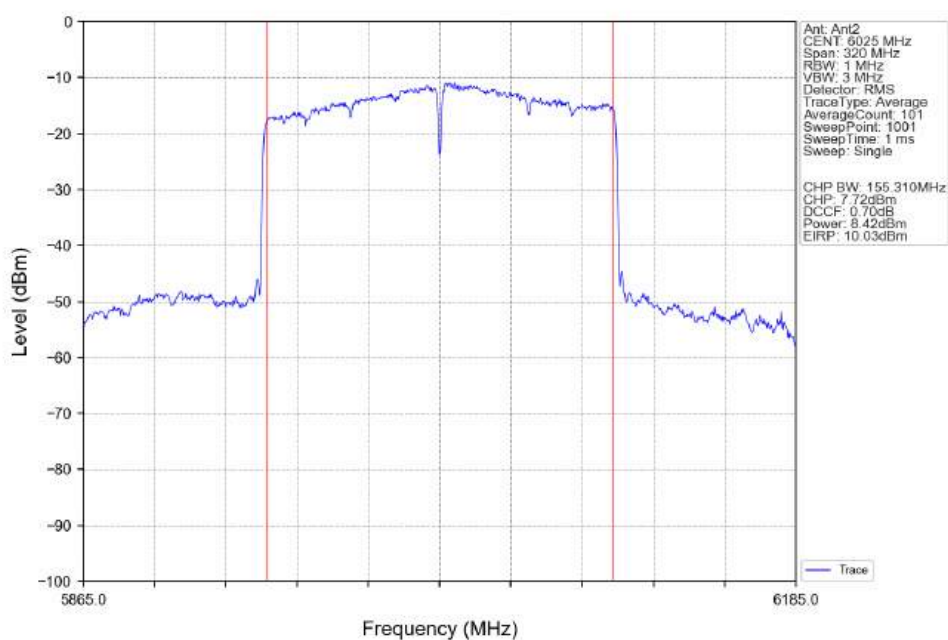
802.11ax(HEW80)_HCH_6385MHz_SU_Ant2_NTNV



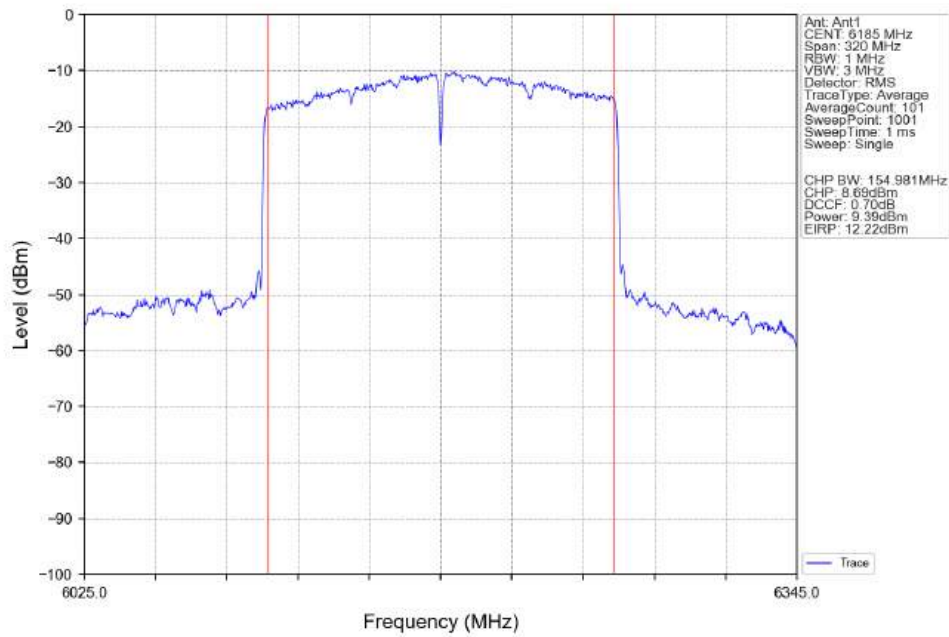
802.11ax(HEW160) LCH 6025MHz SU_Ant1_NTNV



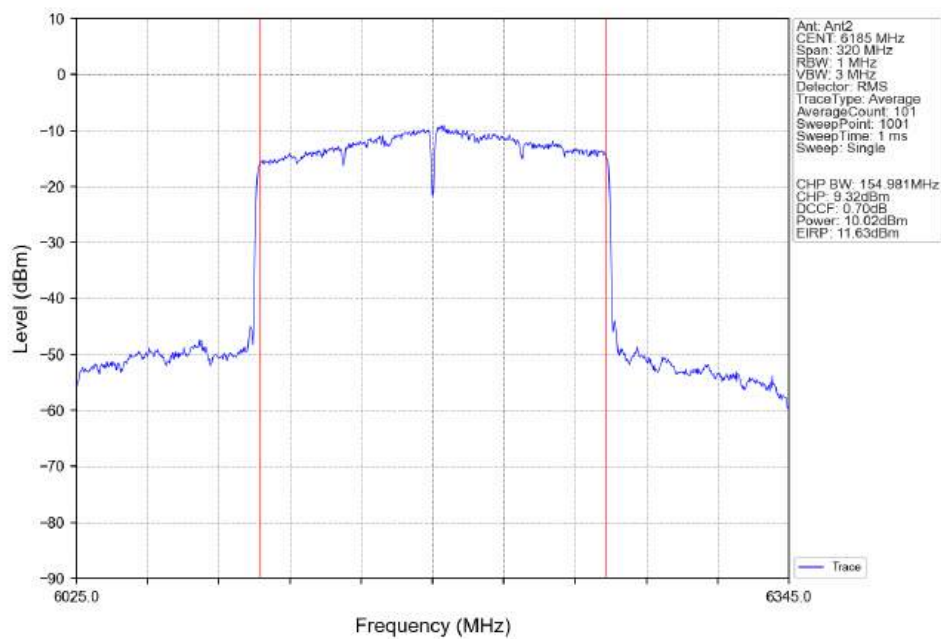
802.11ax(HEW160) LCH 6025MHz SU_Ant2_NTNV



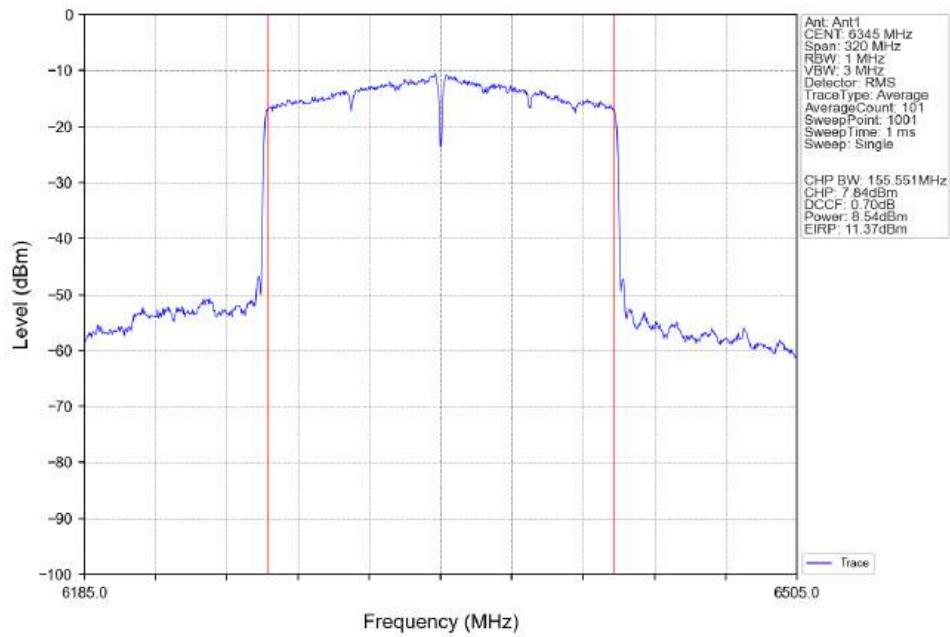
802.11ax(HEW160)_MCH_6185MHz_SU_Ant1_NTNV



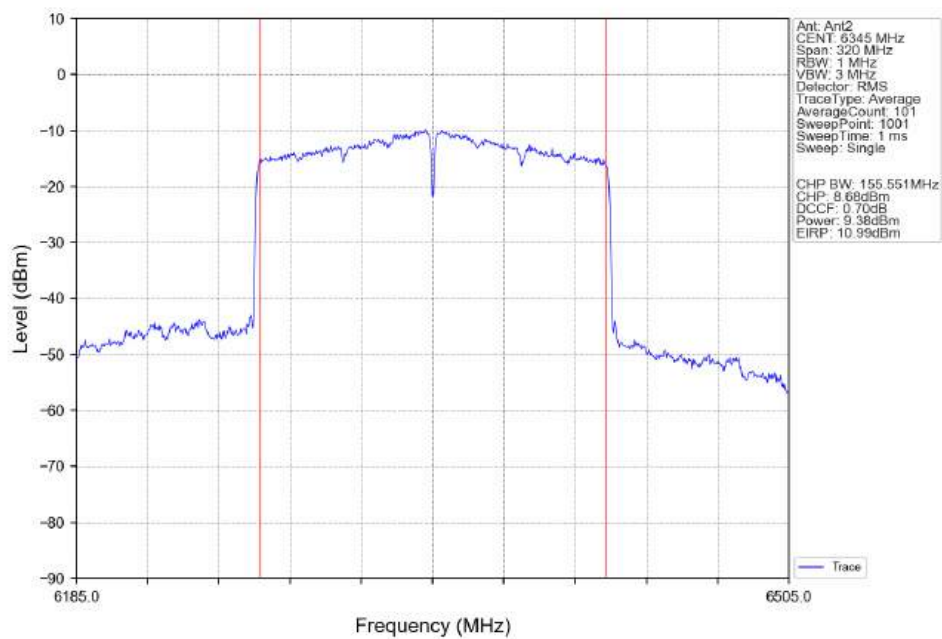
802.11ax(HEW160)_MCH_6185MHz_SU_Ant2_NTNV



802.11ax(HEW160) HCH 6345MHz SU_Ant1_NTNV

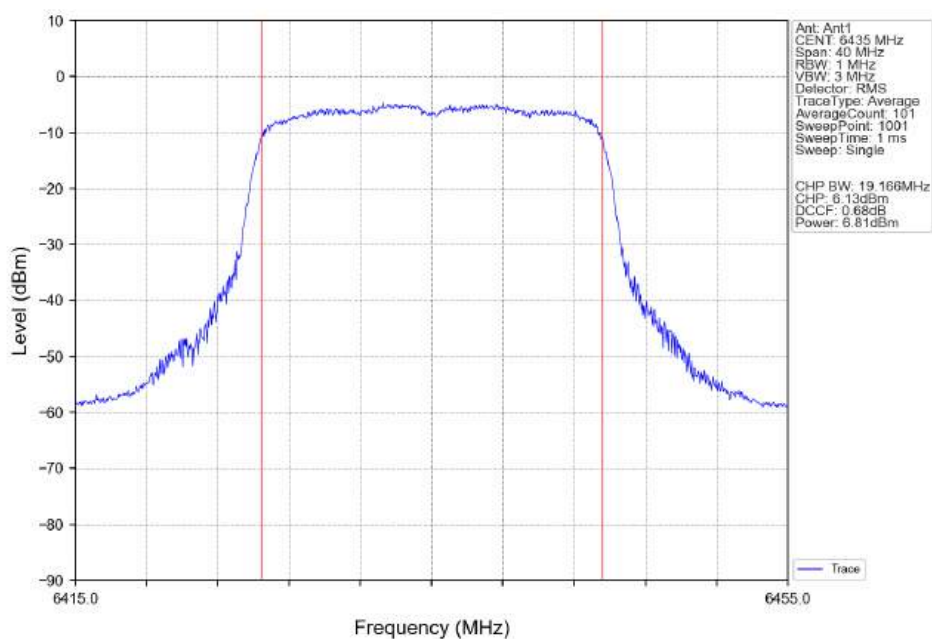


802.11ax(HEW160) HCH 6345MHz SU_Ant2_NTNV

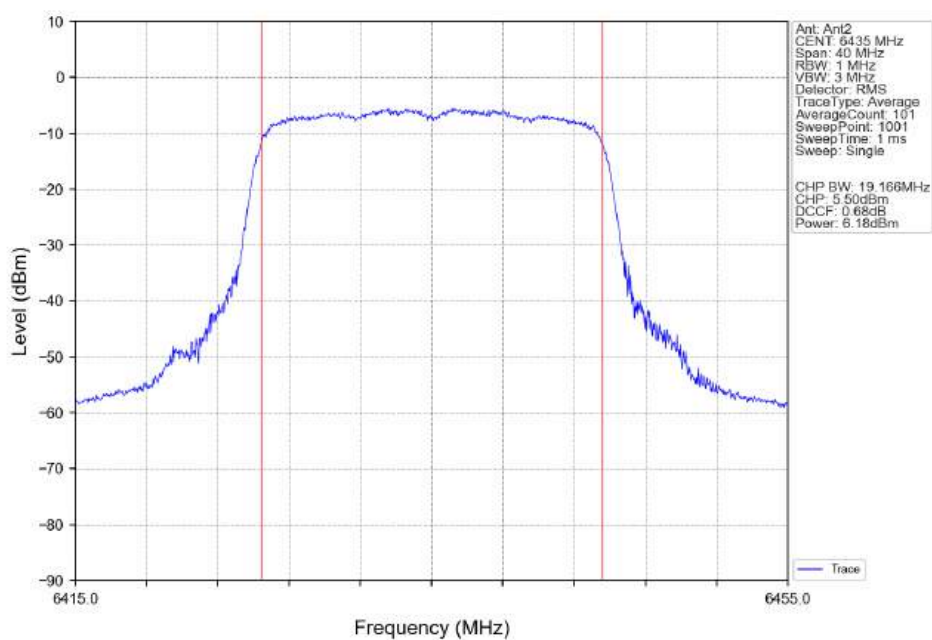


3.2.3 Power

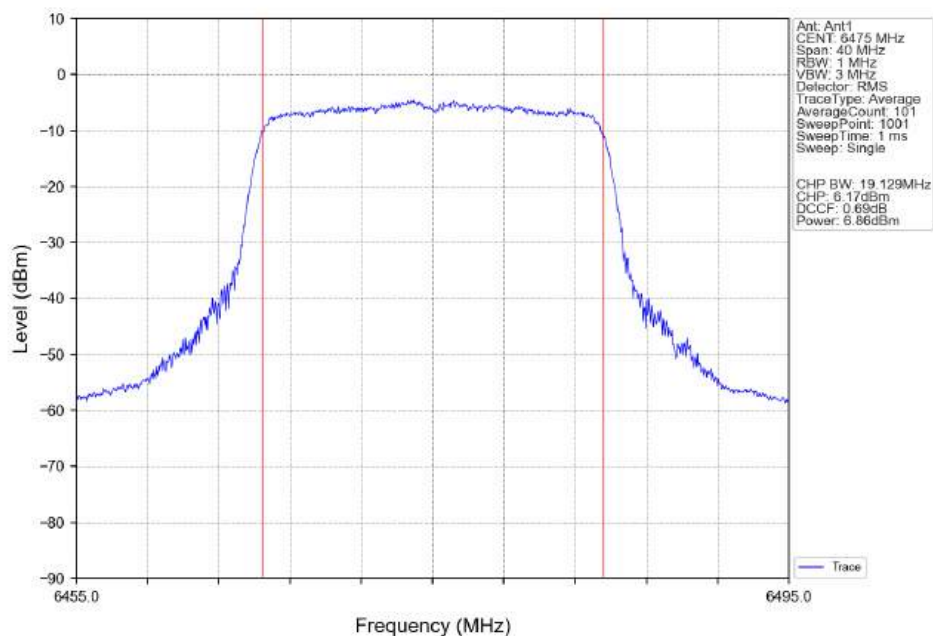
802.11ax(HEW20) LCH 6435MHz SU Ant1 NTN



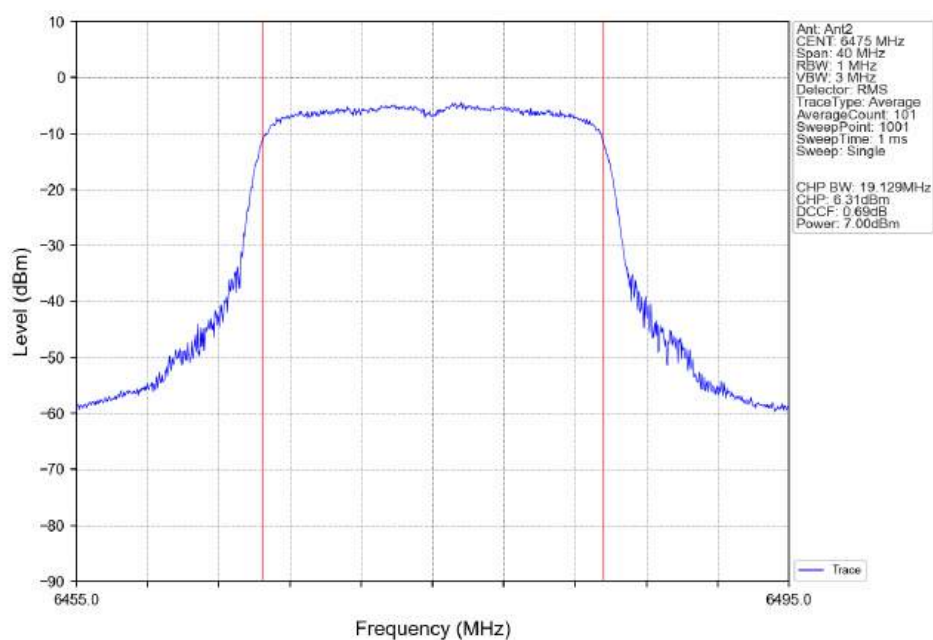
802.11ax(HEW20) LCH 6435MHz SU Ant2 NTN



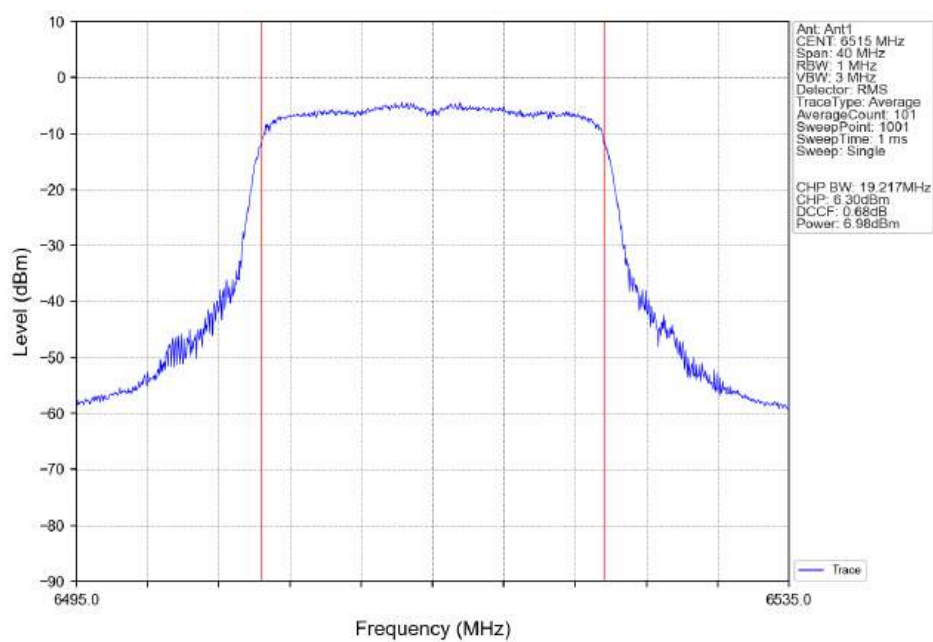
802.11ax(HEW20)_MCH_6475MHz_SU_Ant1_NTNV



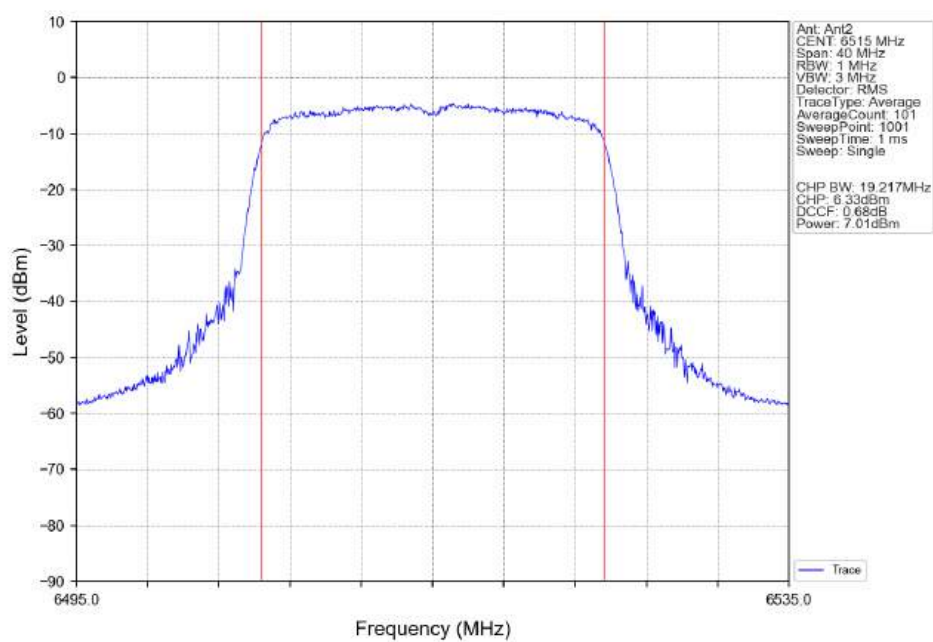
802.11ax(HEW20)_MCH_6475MHz_SU_Ant2_NTNV



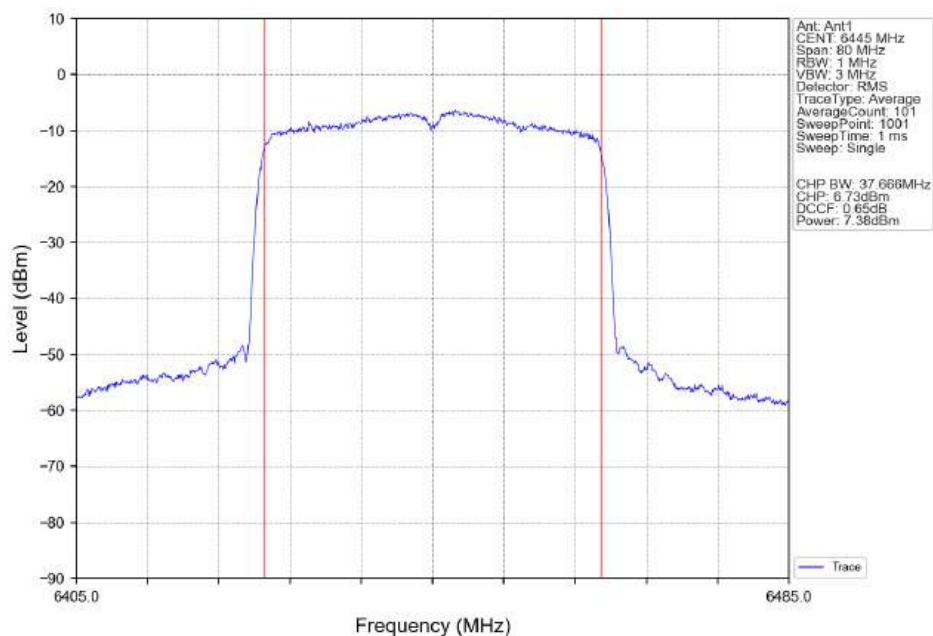
802.11ax(HEW20)_HCH_6515MHz_SU_Ant1_NTNV



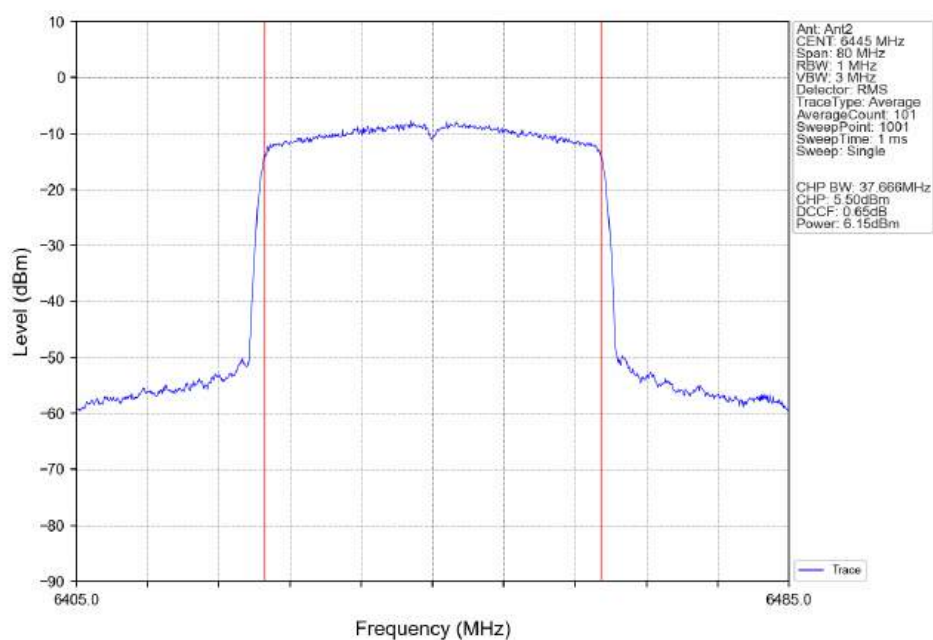
802.11ax(HEW20)_HCH_6515MHz_SU_Ant2_NTNV



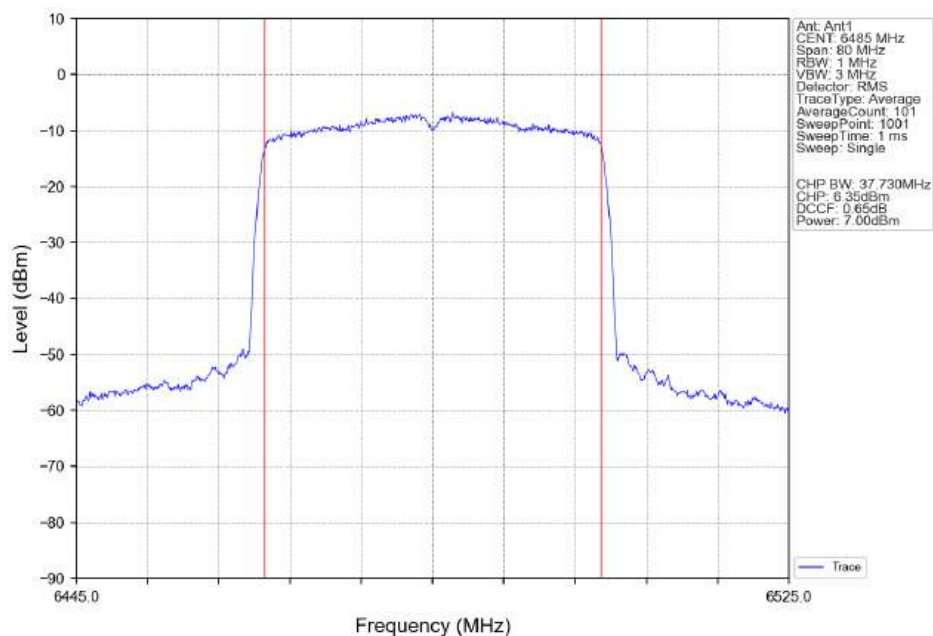
802.11ax(HEW40) LCH_6445MHz_SU_Ant1_NTNV



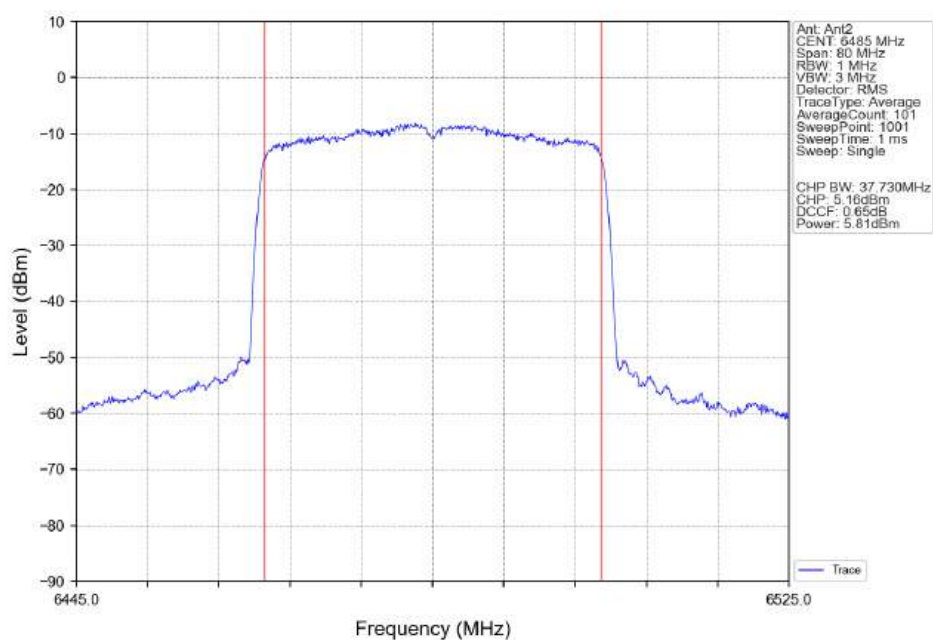
802.11ax(HEW40) LCH_6445MHz_SU_Ant2_NTNV



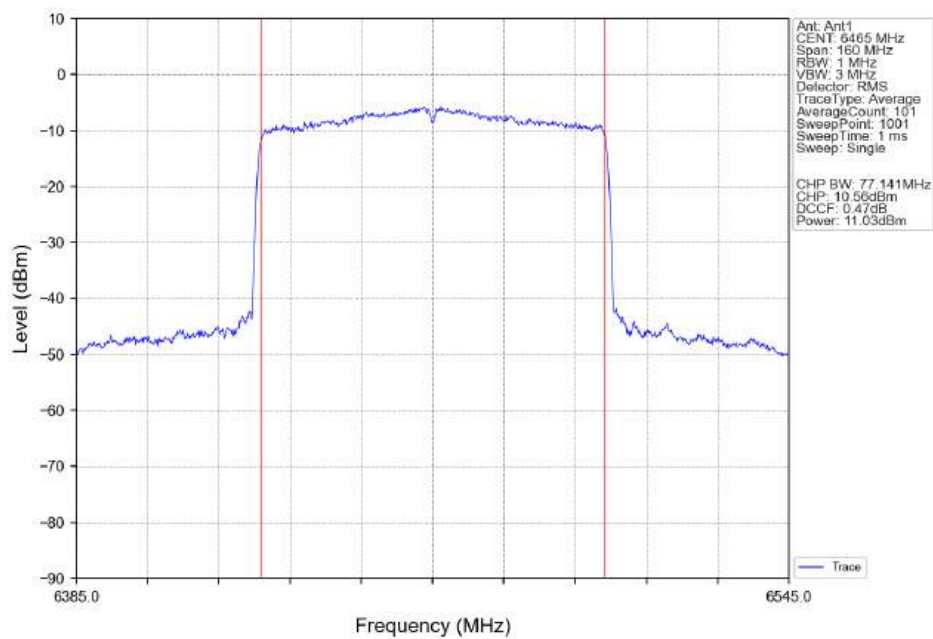
802.11ax(HEW40)_MCH_6485MHz_SU_Ant1_NTNV



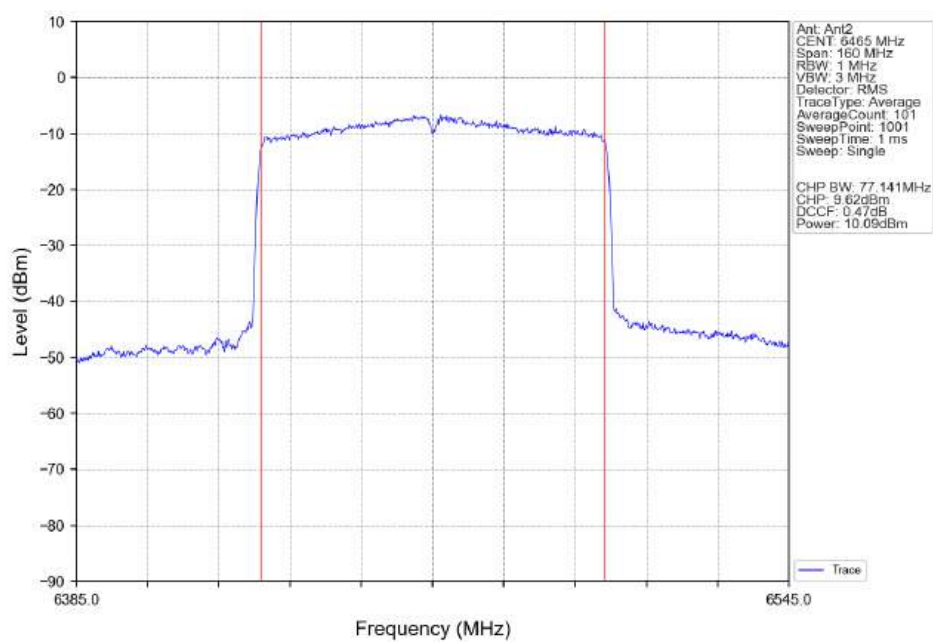
802.11ax(HEW40)_MCH_6485MHz_SU_Ant2_NTNV



802.11ax(HEW80) LCH_6465MHz_SU_Ant1_NTNV

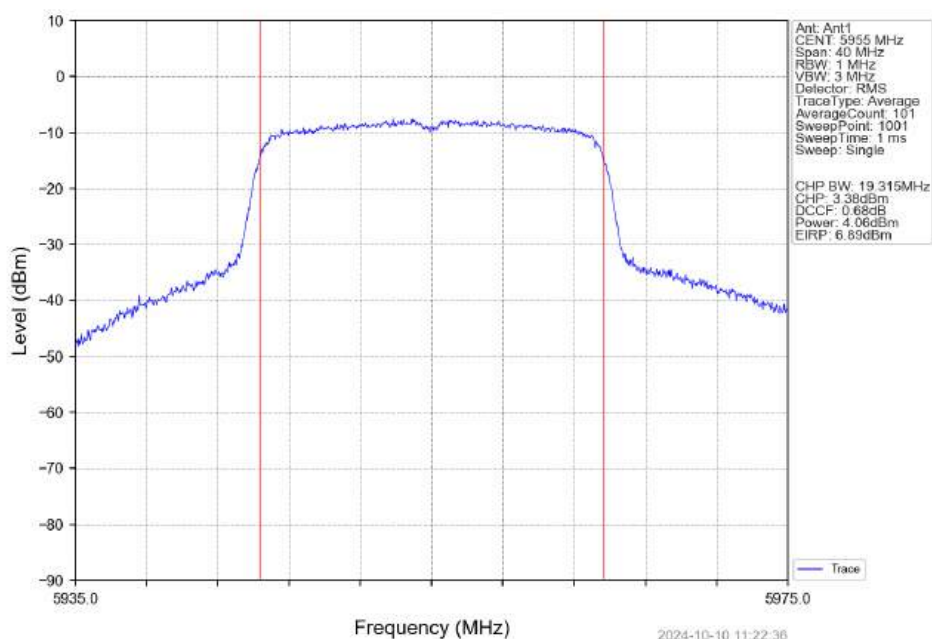


802.11ax(HEW80) LCH_6465MHz_SU_Ant2_NTNV

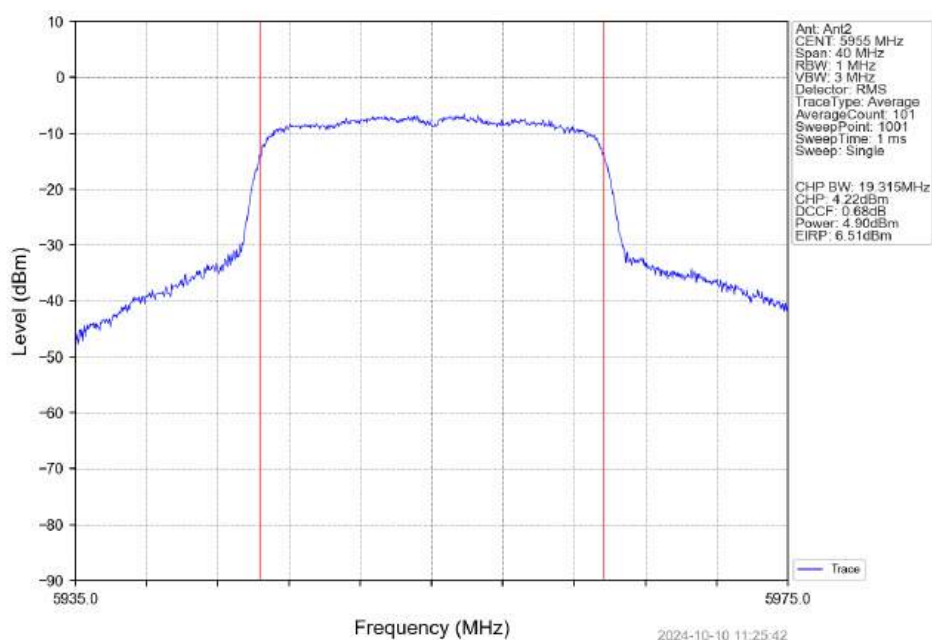


3.2.4 EIRP

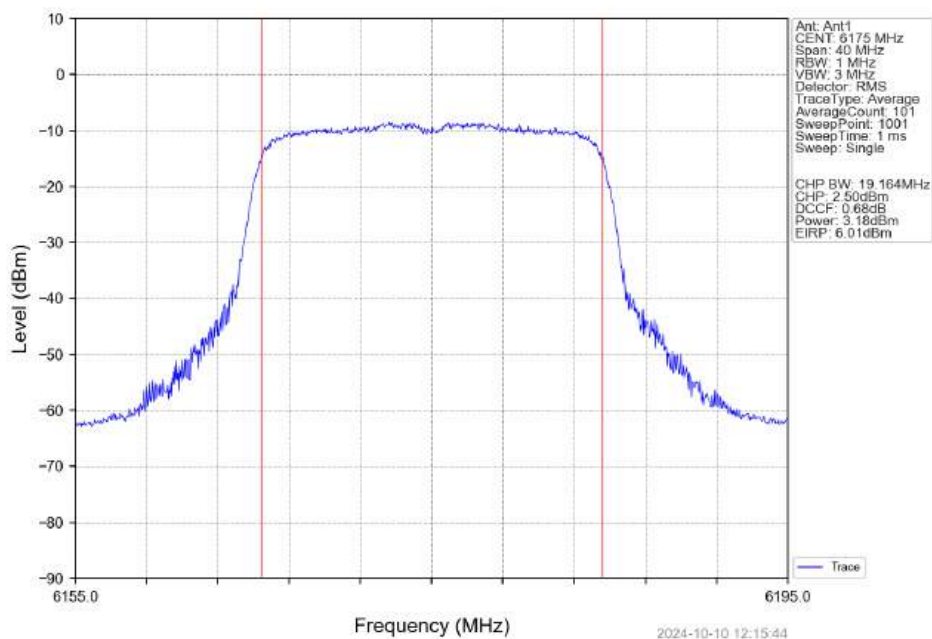
802.11ax(HEW20) LCH_6435MHz_SU_Ant1_NTNV



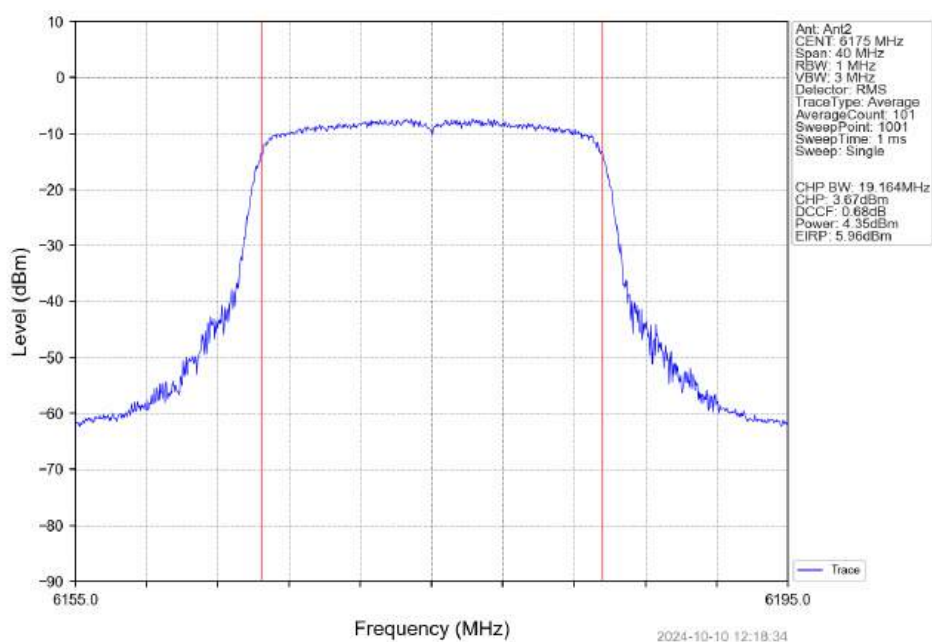
802.11ax(HEW20) LCH_5955MHz_SU_Ant2_NTNV



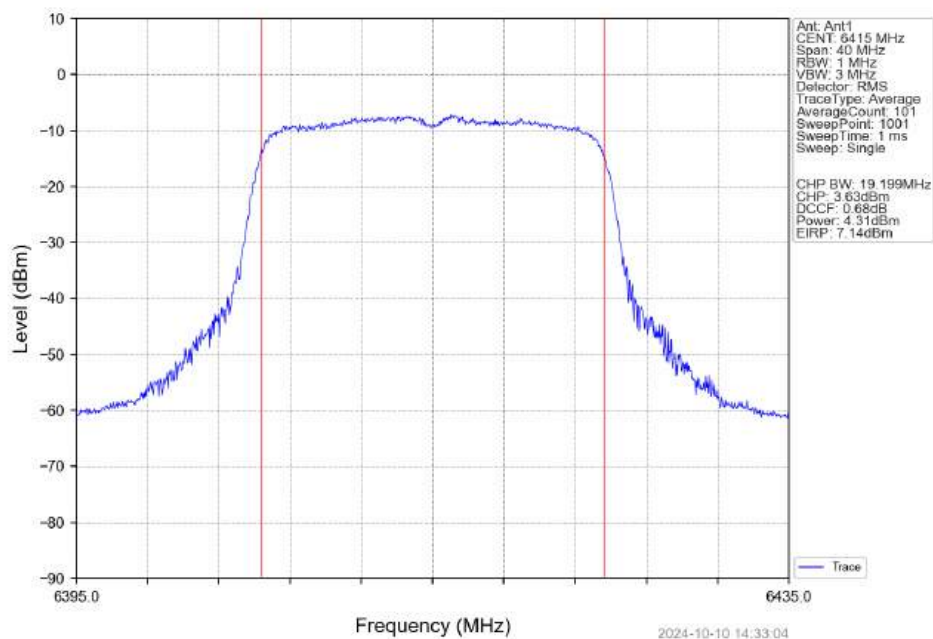
802.11ax(HEW20)_MCH_6175MHz_SU_Ant1_NTNV



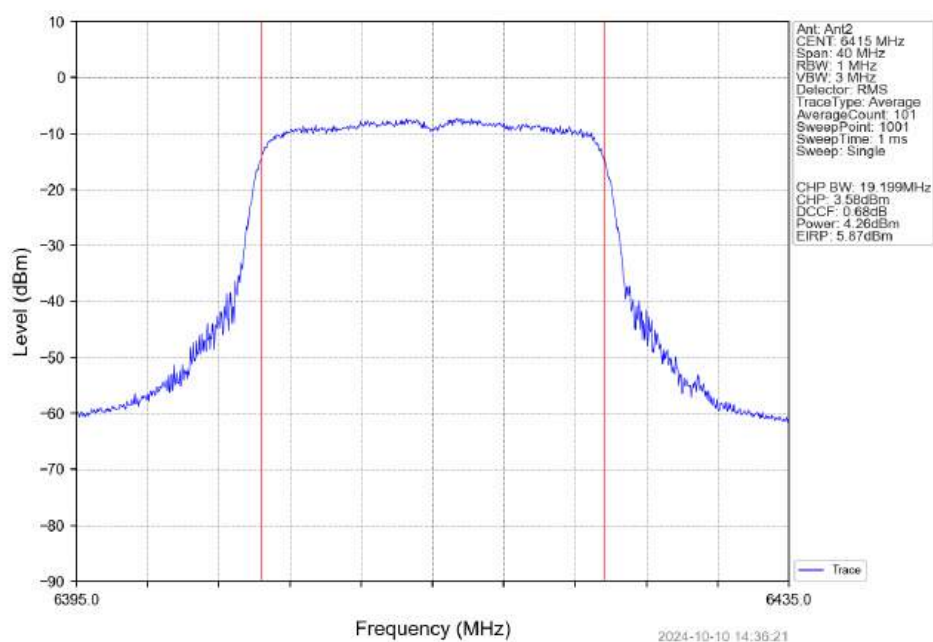
802.11ax(HEW20)_MCH_6175MHz_SU_Ant2_NTNV



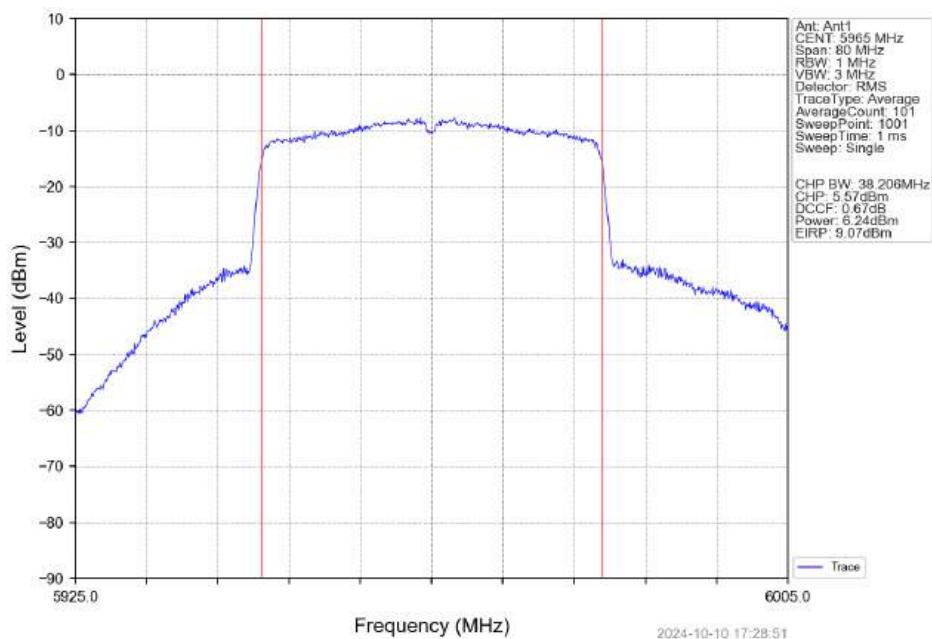
802.11ax(HEW20)_HCH_6415MHz_SU_Ant1_NTNV



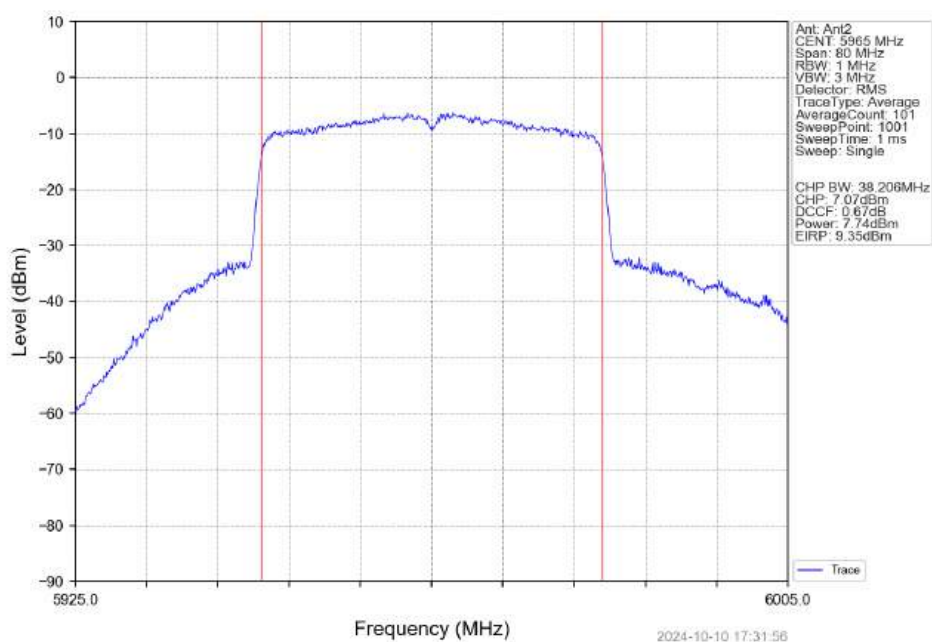
802.11ax(HEW20)_HCH_6415MHz_SU_Ant2_NTNV



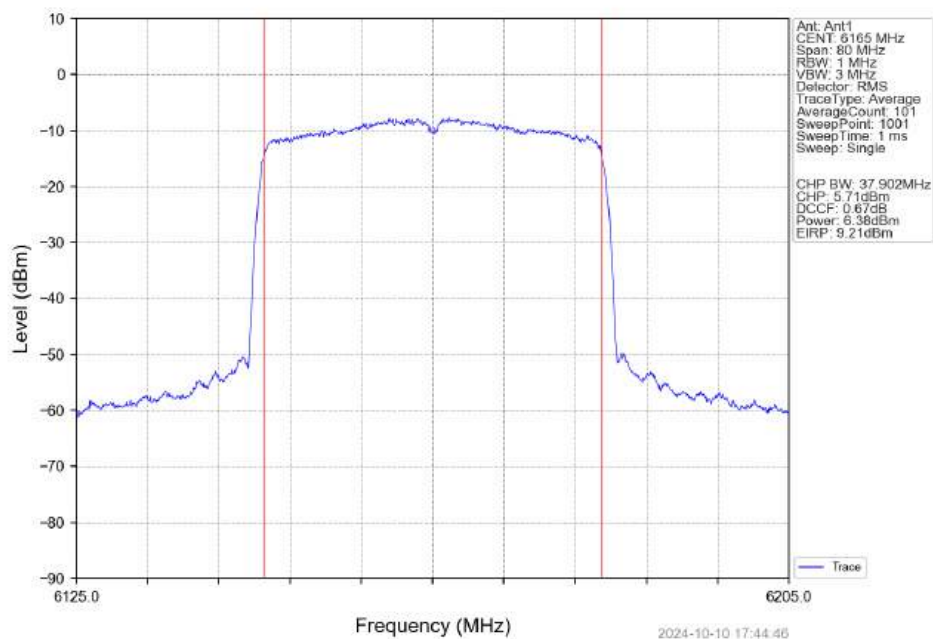
802.11ax(HEW40) LCH_5965MHz_SU_Ant1_NTNV



802.11ax(HEW40) LCH_5965MHz_SU_Ant2_NTNV



802.11ax(HEW40)_MCH_6165MHz_SU_Ant1_NTNV



802.11ax(HEW40)_MCH_6165MHz_SU_Ant2_NTNV

