

TEST REPORT

Reference No. : WTD25D11316003W005
FCC ID..... : 2BTG5-SYBRAN-01
Applicant : Shenzhen Sybran Technology Co.,Ltd.
Address : 804, Bldg 5A, Block C, Chuangzhiyuncheng Phase II, Xingke 1st Rd,
Xili St Nanshan, Shenzhen, China
Manufacturer : Shenzhen Sybran Technology Co.,Ltd.
Address : 804, Bldg 5A, Block C, Chuangzhiyuncheng Phase II, Xingke 1st Rd,
Xili St Nanshan, Shenzhen, China
Product..... : CODE27 Companion Hub
Model(s)..... : SyBran-01
Standards..... : CFR47 FCC Part 15 E Section 15.407
Date of Receipt Sample : 2025-11-28
Date of Test..... : 2025-12-02 to 2026-03-18
Date of Issue : 2026-03-18
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company.

The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

Waltek Testing Group Co., Ltd.

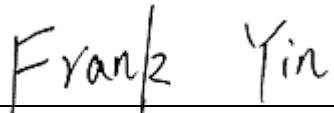
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3 Revision History

Test Report No.	Date of Receipt Sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTD25D11316003W005	2025-11-28	2025-12-02 to 2026-03-18	2026-03-18	Original	-	Valid

4 General Information

4.1 General Description of E.U.T.

Product:	CODE27 Companion Hub
Model(s):	SyBran-01
Model Description:	1. There are two hardware configurations for this model: configuration A and configuration B, the only difference being the cable specifications. Differential testing will be conducted between these two configurations, covering Radiated Emission below 1G (RE), Conducted Emission (CE). 2. All tests were performed on adapter 1 and configuration A. 3. For difference test items, all adapters were tested with both configuration A and configuration B EUTs. Only worst-case test results were recorded for All adapters.
Test Sample No.:	1-1/1
Wi-Fi Specification:	5G-802.11a/n(HT20/40)/ac(VHT20/40/80)/ax(HE20/40/80)
Hardware Version:	YT-921 V_1.2
Software Version:	rk3588s_yt921-userdebug 12 SQ3A.220705.003.A1 eng.dj 20260119.111702

4.2 Details of E.U.T.

Operation Frequency:	802.11a/n(HT20)/ac(VHT20)/ax(HE20): U-NII-1: 5180-5240MHz, U-NII-2A: 5260-5320MHz(DFS), U-NII-2C: 5500-5700MHz(DFS), U-NII-3: 5745-5825MHz 802.11n(HT40)/ac(VHT40)/ax(HE40): U-NII-1: 5190-5230MHz, U-NII-2A: 5270-5310MHz(DFS), U-NII-2C: 5510-5670MHz(DFS), U-NII-3: 5755-5795MHz 802.11ac(VHT80)/ax(HE80): U-NII-1: 5210MHz, U-NII-2A: 5290MHz(DFS), U-NII-2C: 5530-5610MHz(DFS), U-NII-3: 5775MHz
Conducted output power:	Ant.1 U-NII-1:11.12dBm, U-NII-2A: 12.74dBm, U-NII-2C: 12.94dBm U-NII-3: 12.19dBm Ant.2 U-NII-1:11.25dBm, U-NII-2A: 11.25dBm, U-NII-2C: 12.76dBm U-NII-3: 12.83dBm Total: 15.79dBm
Type of Modulation:	OFDM
Antenna installation:	FPC antenna
Antenna Gain:	ANT 1: 5.56 dBi ANT 2: 5.56 dBi
Ratings:	DC 20V
AC Adapter:	Adapter 1: Model: TEKA-PD2A65WUSC INPUT: 100-240V~ 50/60Hz 1.5A Max OUTPUT: 5V==3A 15W; 9V==3A 27W; 12V==3A 36W; 15V==3A 45W; 20V==3.25A 65W Manufacturer: GUANGDONG TEKA TECHNOLOGY CO.,LTD. Adapter 2: Model: TEKA-PC1AWUS INPUT: 100-240V~ 50/60Hz 1.2A Max OUTPUT: 5V==3A 15W; 9V==3A 27W; 12V==3A 36W; 15V==3A 45W; 20V==2.25A 45W Manufacturer: GUANGDONG TEKA TECHNOLOGY CO.,LTD. Adapter 3: Model: A849-200225C-US1 INPUT: 100-240V~ 50/60Hz 1.5A OUTPUT: 5V==3A; 9V==3A; 12V== 3A; 15V== 3A; 20V== 2.25A ; 3.3-16V==3A, 45W Max; 3.3-21V== 2.25A, 45W Max Manufacturer: Dongguan Aohai Technology Co., Ltd.

4.3 Channel List

U-NII-1 (5.15-5.25GHz)			
channel	Frequency(MHz)	channel	Frequency(MHz)
36	5180	38	5190
40	5200	42	5210
44	5220	46	5230
48	5240		

U-NII-2A (5.25-5.35GHz)			
channel	Frequency(MHz)	channel	Frequency(MHz)
52	5260	54	5270
56	5280	58	5290
60	5300	62	5310
64	5320		

U-NII-2C (5.47-5.725GHz)			
channel	Frequency(MHz)	channel	Frequency(MHz)
100	5500	102	5510
104	5520	106	5530
108	5540	110	5550
112	5560	116	5580
118	5590	120	5600
122	5610	124	5620
126	5630	128	5640
132	5660	134	5670
136	5680	140	5700

U-NII-3 (5.725-5.85GHz)			
channel	Frequency(MHz)	channel	Frequency(MHz)
149	5745	151	5755
153	5765	155	5775
157	5785	159	5795
161	5805	165	5825

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:

For 802.11a/n(HT20)/ac(VHT20)/ax(HE20):

channel	Frequency(MHz)	channel	Frequency(MHz)
36	5180	40	5200
48	5240		

channel	Frequency(MHz)	channel	Frequency(MHz)
52	5260	56	5280
64	5320		

channel	Frequency(MHz)	channel	Frequency(MHz)
100	5500	120	5600
140	5700		

channel	Frequency(MHz)	channel	Frequency(MHz)
149	5745	157	5785
165	5825		

For 802.11n(HT40)/ac(VHT40)/ax(HE40):

channel	Frequency(MHz)	channel	Frequency(MHz)
38	5190	46	5230

channel	Frequency(MHz)	channel	Frequency(MHz)
54	5270	62	5310

channel	Frequency(MHz)	channel	Frequency(MHz)
102	5510	110	5550
134	5670		

channel	Frequency(MHz)	channel	Frequency(MHz)
151	5755	159	5795

For 802.11ac(VHT80)/ax(HE80):

channel	Frequency(MHz)	channel	Frequency(MHz)
42	5210		

channel	Frequency(MHz)	channel	Frequency(MHz)
58	5290		

channel	Frequency(MHz)	channel	Frequency(MHz)
106	5530	122	5610

channel	Frequency(MHz)	channel	Frequency(MHz)
155	5775		

4.4 Test Mode Description

During testing, Channel and Power Controlling Software provided by the applicant was used to control the operating channel as well as the maximum output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final-end product.

Test Items	Mode	Data Rate	TX/RX
Radiated Emissions	802.11a(HT20)	6 Mbps	TX
	802.11n(HT20/40)	MCS0	TX
	802.11ac(VHT20/40/80)	MCS0	TX
	802.11ax(HE20/40/80)	MCS0	TX
Duty Cycle	802.11a(HT20)	6 Mbps	TX
	802.11n(HT20/40)	MCS0	TX
	802.11ac(VHT20/40/80)	MCS0	TX
	802.11ax(HE20/40/80)	MCS0	TX
Band Edge	802.11a(HT20)	6 Mbps	TX
	802.11n(HT20/40)	MCS0	TX
	802.11ac(VHT20/40/80)	MCS0	TX
	802.11ax(HE20/40/80)	MCS0	TX
6dB Bandwidth	802.11a(HT20)	6 Mbps	TX
	802.11n(HT20/40)	MCS0	TX
	802.11ac(VHT20/40/80)	MCS0	TX
	802.11ax(HE20/40/80)	MCS0	TX
26dB Bandwidth and 99% Occupied Bandwidth	802.11a(HT20)	6 Mbps	TX
	802.11n(HT20/40)	MCS0	TX
	802.11ac(VHT20/40/80)	MCS0	TX
	802.11ax(HE20/40/80)	MCS0	TX
Conducted Output Power	802.11a(HT20)	6 Mbps	TX
	802.11n(HT20/40)	MCS0	TX
	802.11ac(VHT20/40/80)	MCS0	TX
	802.11ax(HE20/40/80)	MCS0	TX
Power Spectral Density	802.11a(HT20)	6 Mbps	TX
	802.11n(HT20/40)	MCS0	TX
	802.11ac(VHT20/40/80)	MCS0	TX
	802.11ax(HE20/40/80)	MCS0	TX
Frequency Stability	Un-modulation	/	TX

Note: 802.11 ax HE20/40/80 only support full RUs, full RU was recorded in the report.

4.5 Test Facility

The test facility has a test site registered with the following organizations:

ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.

Waltek Testing Group Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files. Registration number 7760A, October 15, 2016.

FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

Waltek Testing Group Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

4.6 Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

4.7 Abnormalities from Standard Conditions

None.

5 Equipment Used during Test

5.1 Equipments List

Conducted Emissions Test Site 2#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	EMI Test Receiver	R&S	ESCI	100947	2025-07-04	2026-07-03
2	LISN	R&S	ENV216	100115	2025-06-03	2026-06-02
3	Cable	Top	TYPE16(3.5M)	-	2025-06-03	2026-06-02
3m Semi-anechoic Chamber for Radiation Emissions Test site 1#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Spectrum Analyzer	R&S	FSP30	100091	2025-04-19	2026-04-18
2	Amplifier	Agilent	8447D	2944A10178	2025-07-04	2026-07-03
3	Trilog Broadband Antenna	SCHWARZBECK	VULB9163	336	2025-07-20	2026-07-19
4	Coaxial Cable (below 1GHz)	Top	TYPE16(13M)	-	2025-04-19	2026-04-18
5	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1314	2025-08-09	2026-08-08
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9170	335	2025-07-04	2026-07-03
7	Broadband Preamplifier	COMPLIANCE DIRECTION	PAP-1G18	2004	2025-07-04	2026-07-03
8	Coaxial Cable (above 1GHz)	ZT26-NJ-NJ-8M/FA	1GHz-18GHz	NA	2025-04-19	2026-04-18
9	Microwave Broadband Preamplifier	SCHWARZBECK	BBV 9721	100472	2025-07-04	2026-07-03
10	Spectrum Analyzer	R&S	FSP40	100501	2025-07-04	2026-07-03
11	Coaxial Cable	Top	ZT40-2.92J-2.92J-2.0M	17100919	2025-04-19	2026-04-18
12	Test software	EZ-EMC	RA-03A1-1	-	N/A	N/A
3m Semi-anechoic Chamber for Radiation Emissions Test site 2#						
Item	Equipment	Manufacturer	Model No.	Serial No	Last Calibration Date	Calibration Due Date
1	Test Receiver	R&S	ESCI	101296	2025-04-19	2026-04-18
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	2025-07-05	2026-07-04
3	Active Loop Antenna	Com-Power Corp.	AL-130R	10160007	2025-04-21	2026-04-20
4	Amplifier	ANRITSU	MH648A	M43381	2025-04-19	2026-04-18
5	Cable	HUBER+SUHNER	CBL2	525178	2025-04-19	2026-04-18

RF Conducted Testing						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	Spectrum Analyzer	R&S	FSP40	100501	2025-07-04	2026-07-03
2.	EXA Signal Analyzer	Malaysia Keysight	N9010A	MY50520207	2025-04-19	2026-04-18

Test Software:

Test Item	Software name	Software version
Conduction disturbance Radiated Emission(3m)	EZ-EMC	EZ-EMC(RA-03A1-1)

5.2 Description of Support Units

Equipment	Manufacturer	Model No.	Series No.
/	/	/	/

5.3 Measurement Uncertainty

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-6}$
RF Power	± 1.0 dB
RF Power Density	± 2.2 dB
Radiated Spurious Emissions test	± 5.03 dB (30M~1000MHz)
	± 5.47 dB (1000M~25000MHz)
Conducted Spurious Emissions test	± 3.64 dB (AC mains 150KHz~30MHz)

5.4 Test Equipment Calibration

All the test equipments used are valid and calibrated by CEPREI Certification Body that address is No.110 Dongguan Zhuang RD. Guangzhou, P.R. China.

6 Test Summary

Test Items	Test Requirement	Result
Conducted Emissions	15.207(a) 15.407(b)(9)	PASS
Radiated Emissions	15.407(b) (9) 15.205(a) 15.209(a)	PASS
Duty Cycle	KDB 789033	PASS
6dB Bandwidth	15.407(e)	PASS
26 dB Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	PASS
Conducted Output Power	15.407(a)	PASS
Power Spectral Density	15.407(a)(l)	PASS
Restricted bands around fundamental frequency	15.407(b)	PASS
Frequency stability	15.407(g)	PASS
Antenna Requirement	15.203	PASS
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307(b)(1)	PASS

7 Duty Cycle

FCC 47CFR Part 15 Section 15.407
 Test Requirement: KDB789033 D02 General U-NII Test Procedures New Rules v02r01, Section (B)
 Test Method: ANSI C63.10-2020
 Test Limit: N/A
 Test Result: PASS
 Remark: Through Pre-scan, and found 802.11a at lowest channel is the worst case. Only the worst case is recorded in the report.

7.1 Test Results

ANT 1:

Type of Modulation	On time ms	Period ms	Duty Cycle linear	Duty Cycle %	Duty Cycle Factor(dB)	Average Factor(dB)
U-NII-1 802.11a	1.390	1.495	0.93	92.98	0.32	-0.63
U-NII-1 802.11n(HT20)	1.305	1.405	0.93	92.88	0.32	-0.64
U-NII-1 802.11n(HT40)	0.649	0.748	0.87	86.76	0.62	-1.23
U-NII-1 802.11ac(VHT20)	1.315	1.415	0.93	92.93	0.32	-0.64
U-NII-1 802.11ac(VHT40)	0.655	0.757	0.87	86.53	0.63	-1.26
U-NII-1 802.11ac(VHT80)	0.320	0.423	0.76	75.65	1.21	-2.42
U-NII-1 802.11ax(HE20)	1.020	1.120	0.91	91.07	0.41	-0.81
U-NII-1 802.11ax(HE40)	0.088	0.187	0.47	47.06	3.27	-6.55
U-NII-1 802.11ax(HE80)	0.078	0.178	0.44	43.82	3.58	-7.17
U-NII-2A 802.11a	1.395	1.495	0.93	93.31	0.30	-0.60
U-NII-2A 802.11n(HT20)	1.310	1.410	0.93	92.91	0.32	-0.64
U-NII-2A 802.11n(HT40)	0.648	0.748	0.87	86.63	0.62	-1.25
U-NII-2A 802.11ac(VHT20)	1.315	1.415	0.93	92.93	0.32	-0.64
U-NII-2A 802.11ac(VHT40)	0.645	0.754	0.86	85.54	0.68	-1.36
U-NII-2A 802.11ac(VHT80)	0.322	0.424	0.76	75.94	1.20	-2.39
U-NII-2A 802.11ax(HE20)	1.020	1.120	0.91	91.07	0.41	-0.81
U-NII-2A 802.11ax(HE40)	0.087	0.187	0.47	46.52	3.32	-6.65
U-NII-2A 802.11ax(HE80)	0.078	0.178	0.44	43.82	3.58	-7.17
U-NII-2C 802.11a	1.395	1.495	0.93	93.31	0.30	-0.60

U-NII-2C 802.11n(HT20)	1.310	1.410	0.93	92.91	0.32	-0.64
U-NII-2C 802.11n(HT40)	0.645	0.748	0.86	86.23	0.64	-1.29
U-NII-2C 802.11ac(VHT20)	1.315	1.415	0.93	92.93	0.32	-0.64
U-NII-2C 802.11ac(VHT40)	0.654	0.754	0.87	86.74	0.62	-1.24
U-NII-2C 802.11ac(VHT80)	0.322	0.424	0.76	75.94	1.20	-2.39
U-NII-2C 802.11ax(HE20)	1.015	1.120	0.91	90.63	0.43	-0.86
U-NII-2C 802.11ax(HE40)	0.087	0.187	0.47	46.52	3.32	-6.65
U-NII-2C 802.11ax(HE80)	0.078	0.178	0.44	43.82	3.58	-7.17
U-NII-3 802.11a	1.395	1.495	0.93	93.31	0.30	-0.60
U-NII-3 802.11n(HT20)	1.305	1.405	0.93	92.88	0.32	-0.64
U-NII-3 802.11n(HT40)	0.645	0.748	0.86	86.23	0.64	-1.29
U-NII-3 802.11ac(VHT20)	1.315	1.415	0.93	92.93	0.32	-0.64
U-NII-3 802.11ac(VHT40)	0.657	0.757	0.87	86.79	0.62	-1.23
U-NII-3 802.11ac(VHT80)	0.322	0.422	0.76	76.30	1.17	-2.35
U-NII-3 802.11ax(HE20)	1.020	1.120	0.91	91.07	0.41	-0.81
U-NII-3 802.11ax(HE40)	0.087	0.187	0.47	46.52	3.32	-6.65
U-NII-3 802.11ax(HE80)	0.078	0.178	0.44	43.82	3.58	-7.17

ANT 2:

Type of Modulation	On time ms	Period ms	Duty Cycle linear	Duty Cycle %	Duty Cycle Factor(dB)	Average Factor(dB)
U-NII-1 802.11a	1.390	1.495	0.93	92.98	0.32	-0.63
U-NII-1 802.11n(HT20)	1.305	1.410	0.93	92.55	0.34	-0.67
U-NII-1 802.11n(HT40)	0.646	0.748	0.86	86.36	0.64	-1.27
U-NII-1 802.11ac(VHT20)	1.315	1.415	0.93	92.93	0.32	-0.64
U-NII-1 802.11ac(VHT40)	0.655	0.754	0.87	86.87	0.61	-1.22
U-NII-1 802.11ac(VHT80)	0.322	0.423	0.76	76.12	1.18	-2.37
U-NII-1 802.11ax(HE20)	1.020	1.120	0.91	91.07	0.41	-0.81
U-NII-1 802.11ax(HE40)	0.087	0.187	0.47	46.52	3.32	-6.65
U-NII-1 802.11ax(HE80)	0.078	0.178	0.44	43.82	3.58	-7.17
U-NII-2A 802.11a	1.395	1.495	0.93	93.31	0.30	-0.60
U-NII-2A 802.11n(HT20)	1.310	1.410	0.93	92.91	0.32	-0.64
U-NII-2A 802.11n(HT40)	0.648	0.751	0.86	86.28	0.64	-1.28
U-NII-2A 802.11ac(VHT20)	1.315	1.415	0.93	92.93	0.32	-0.64
U-NII-2A 802.11ac(VHT40)	0.654	0.757	0.86	86.39	0.64	-1.27
U-NII-2A 802.11ac(VHT80)	0.322	0.422	0.76	76.30	1.17	-2.35
U-NII-2A 802.11ax(HE20)	1.020	1.120	0.91	91.07	0.41	-0.81
U-NII-2A 802.11ax(HE40)	0.088	0.187	0.47	47.06	3.27	-6.55
U-NII-2A 802.11ax(HE80)	0.078	0.178	0.44	43.82	3.58	-7.17
U-NII-2C 802.11a	1.395	1.495	0.93	93.31	0.30	-0.60
U-NII-2C 802.11n(HT20)	1.305	1.405	0.93	92.88	0.32	-0.64
U-NII-2C 802.11n(HT40)	0.645	0.748	0.86	86.23	0.64	-1.29
U-NII-2C 802.11ac(VHT20)	1.315	1.415	0.93	92.93	0.32	-0.64
U-NII-2C 802.11ac(VHT40)	0.645	0.757	0.85	85.20	0.70	-1.39
U-NII-2C 802.11ac(VHT80)	0.324	0.424	0.76	76.42	1.17	-2.34
U-NII-2C 802.11ax(HE20)	1.020	1.120	0.91	91.07	0.41	-0.81
U-NII-2C 802.11ax(HE40)	0.087	0.187	0.47	46.52	3.32	-6.65

U-NII-2C 802.11ax(HE80)	0.078	0.178	0.44	43.82	3.58	-7.17
U-NII-3 802.11a	1.392	1.489	0.93	93.49	0.29	-0.59
U-NII-3 802.11n(HT20)	1.305	1.405	0.93	92.88	0.32	-0.64
U-NII-3 802.11n(HT40)	0.645	0.748	0.86	86.23	0.64	-1.29
U-NII-3 802.11ac(VHT20)	1.315	1.415	0.93	92.93	0.32	-0.64
U-NII-3 802.11ac(VHT40)	0.654	0.757	0.86	86.39	0.64	-1.27
U-NII-3 802.11ac(VHT80)	0.322	0.424	0.76	75.94	1.20	-2.39
U-NII-3 802.11ax(HE20)	1.015	1.120	0.91	90.63	0.43	-0.86
U-NII-3 802.11ax(HE40)	0.088	0.187	0.47	47.06	3.27	-6.55
U-NII-3 802.11ax(HE80)	0.078	0.178	0.44	43.82	3.58	-7.17

Remark:

Duty cycle=On Time/period;

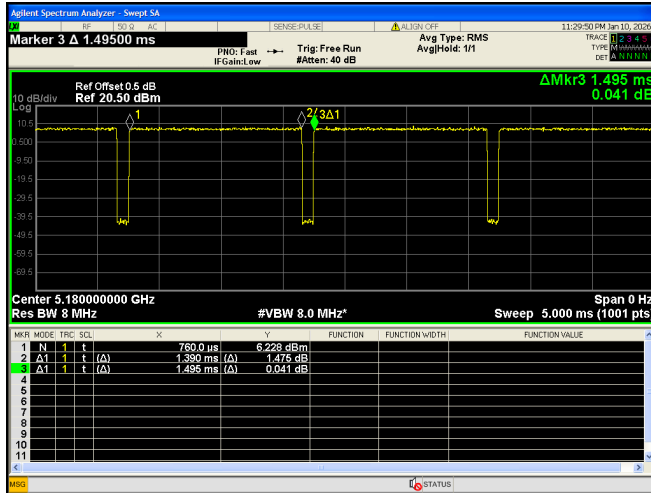
Duty cycle factor= $10 \cdot \log(1/\text{Duty cycle})$;

Average factor= $20 \log_{10} \text{Duty cycle}$

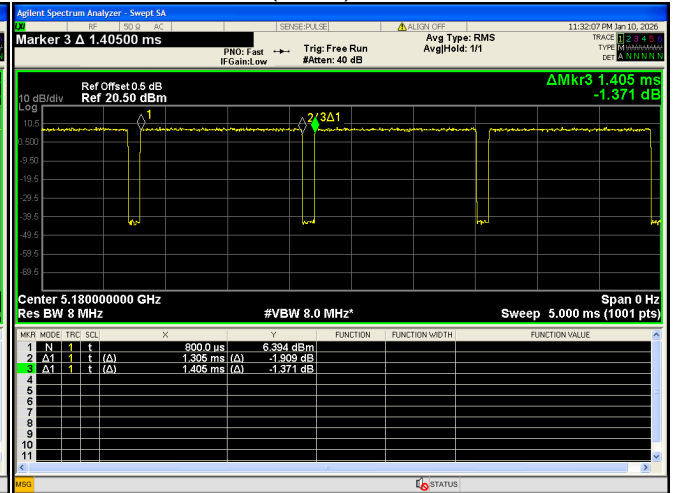
Test result plots shown as follows:

ANT 1-U-NII-1

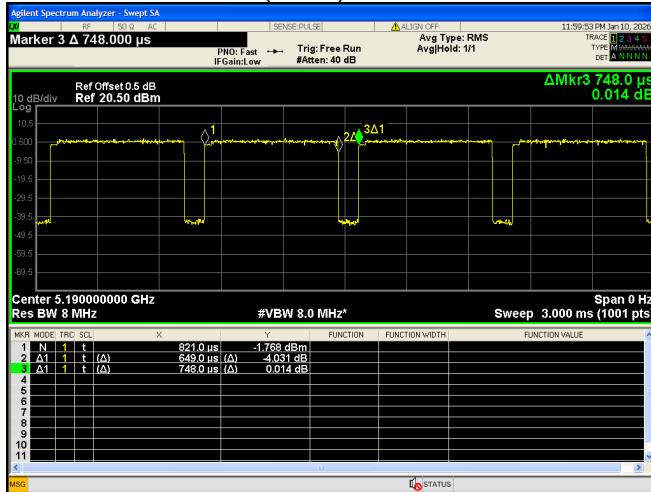
802.11a Low channel



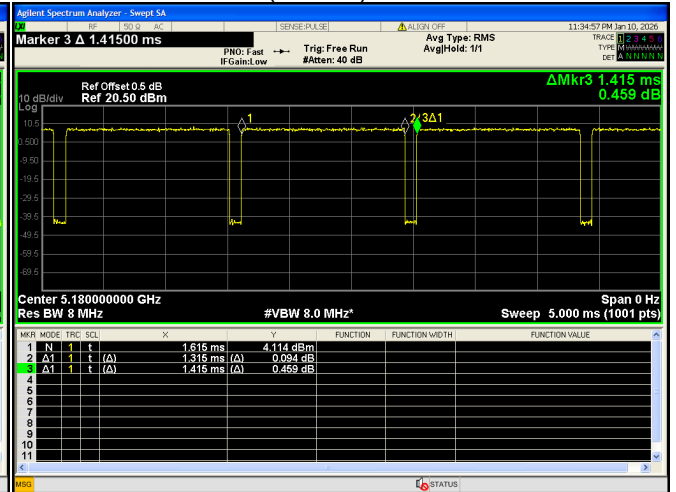
802.11n(HT20) Low channel



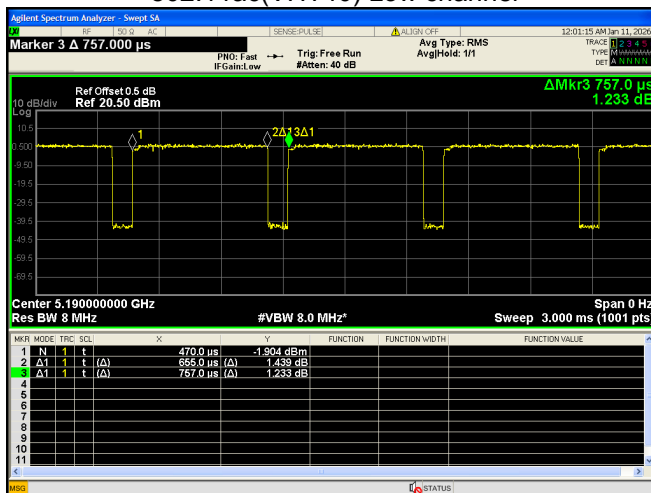
802.11n(HT40) Low channel



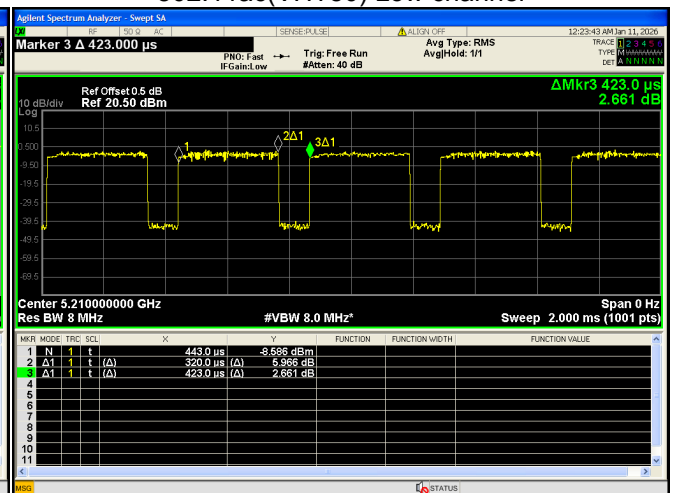
802.11ac(VHT20) Low channel



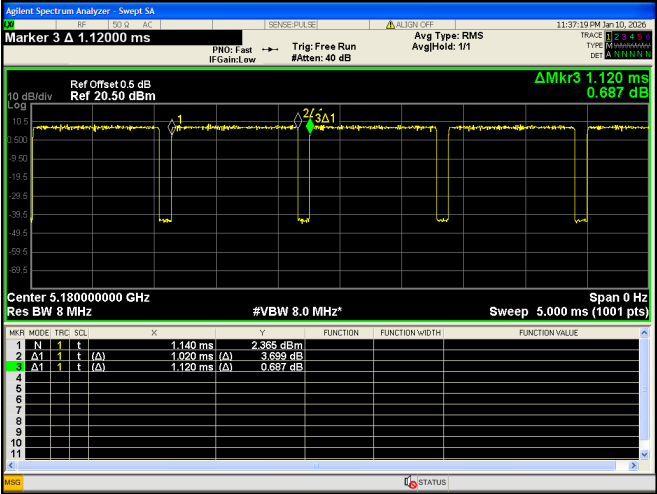
802.11ac(VHT40) Low channel



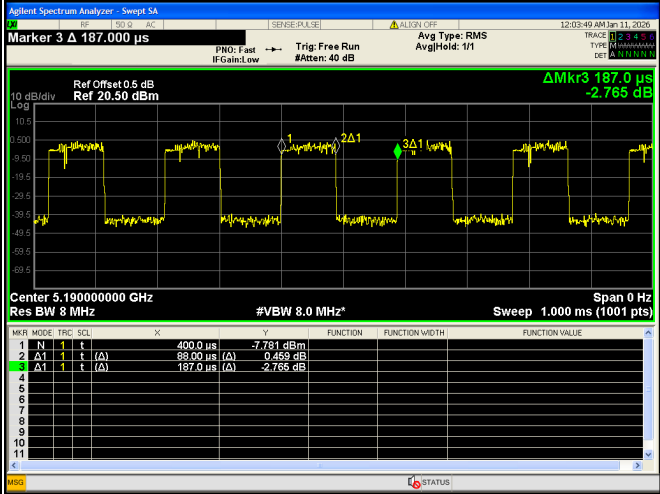
802.11ac(VHT80) Low channel



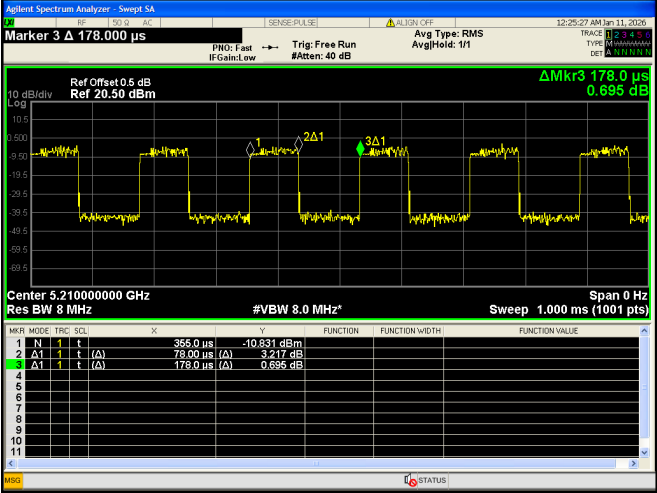
802.11ax(HE20) Low channel



802.11ax(HE40) Low channel

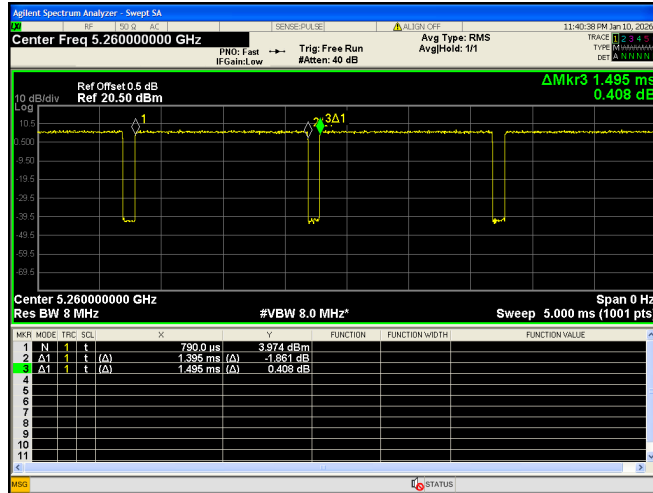


802.11ax(HE80) Low channel

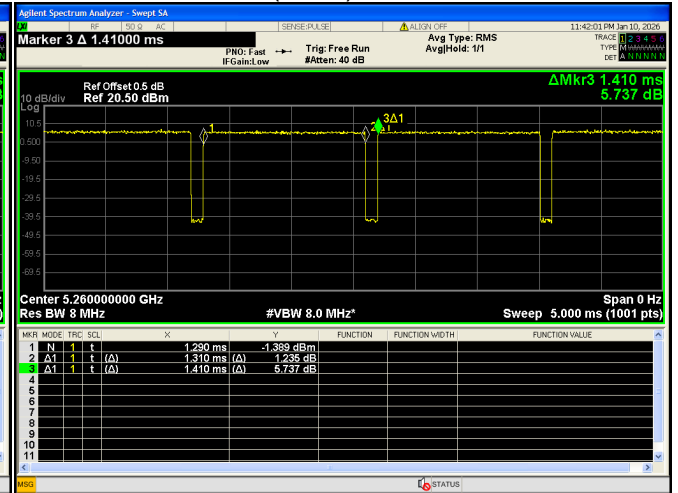


U-NII-2A

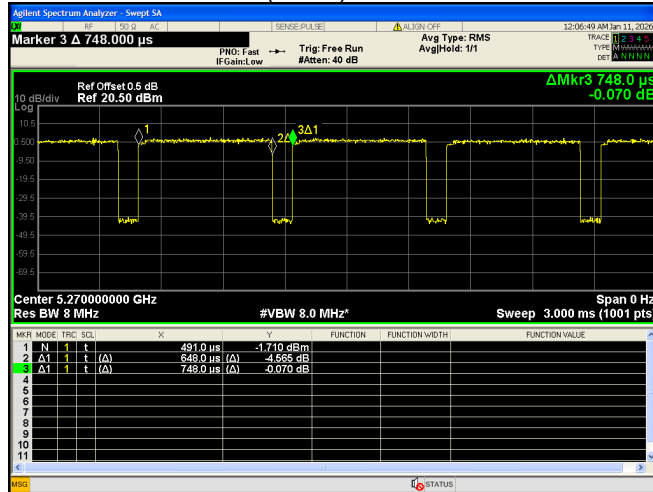
802.11a Low channel



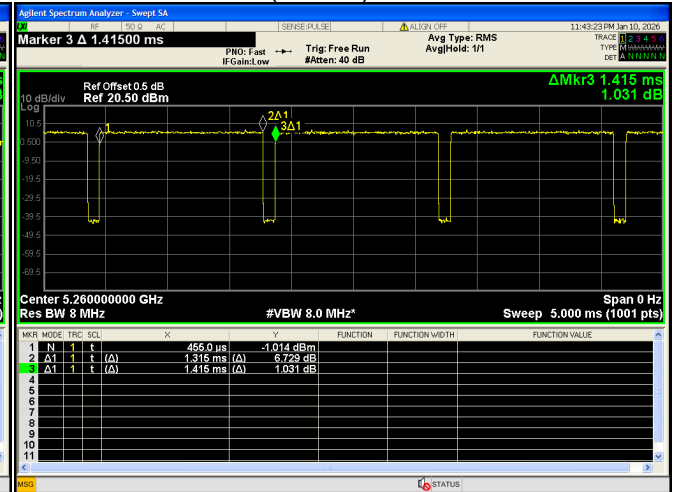
802.11n(HT20) Low channel



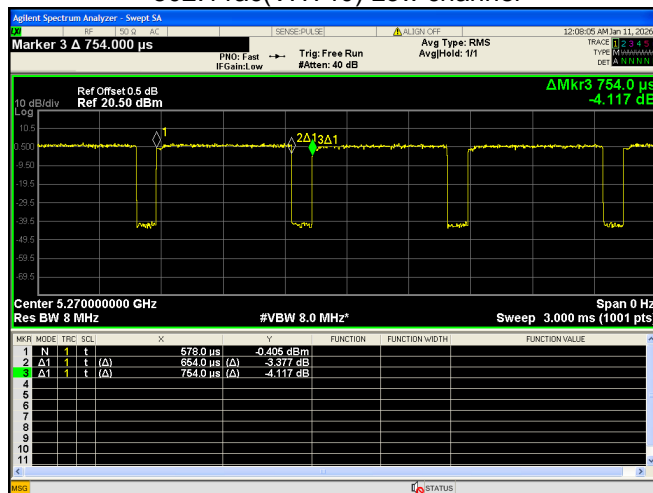
802.11n(HT40) Low channel



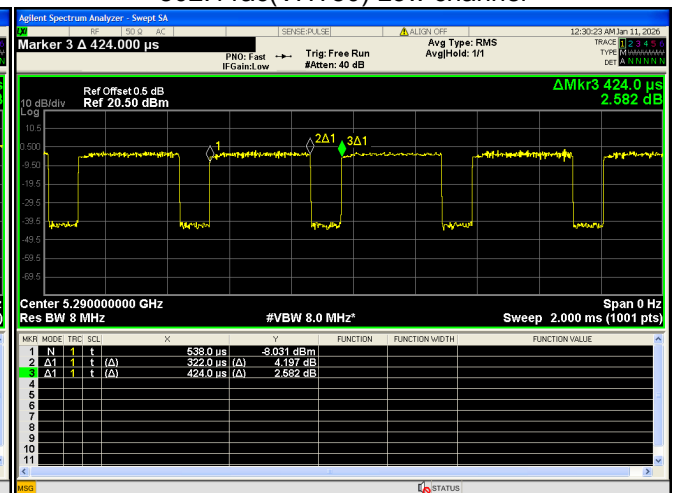
802.11ac(VHT20) Low channel



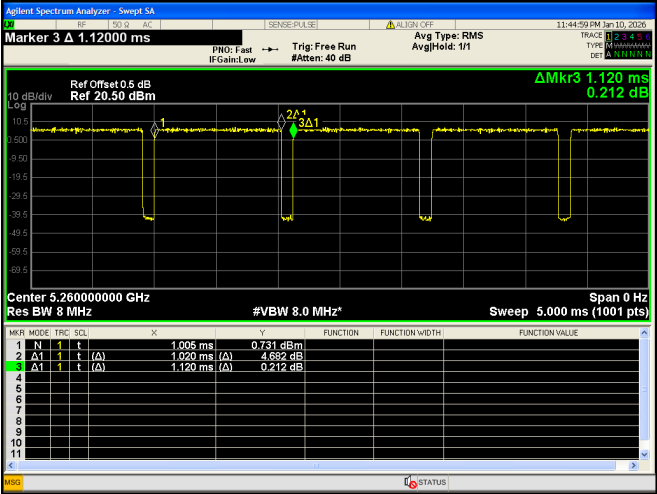
802.11ac(VHT40) Low channel



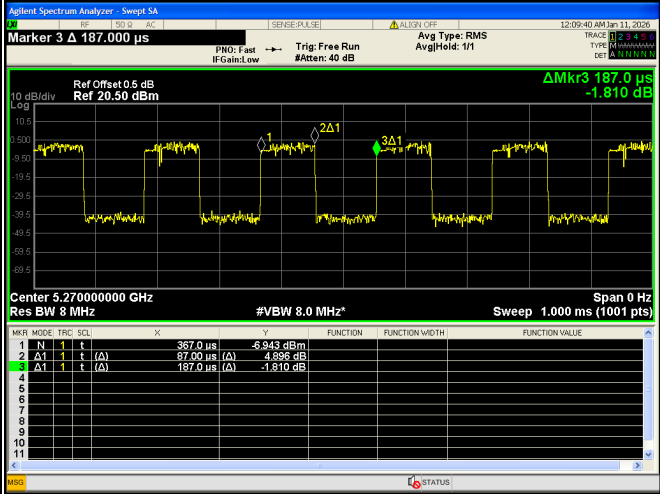
802.11ac(VHT80) Low channel



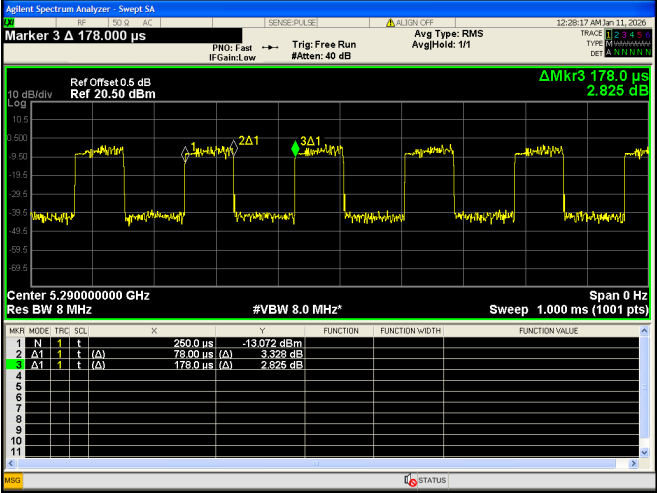
802.11ax(HE20) Low channel



802.11ax(HE40) Low channel

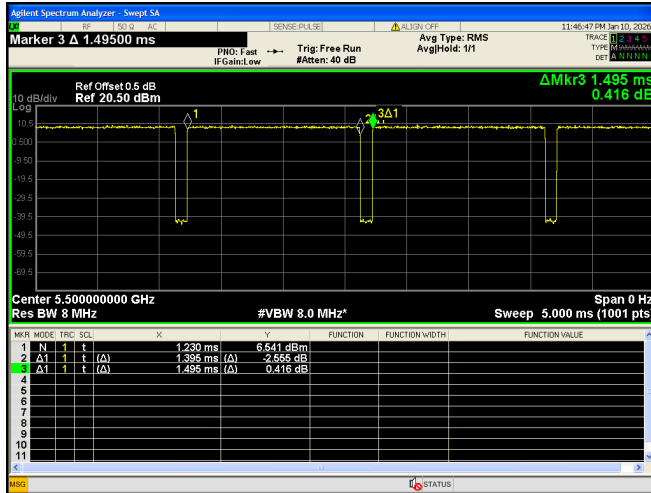


802.11ax(HE80) Low channel

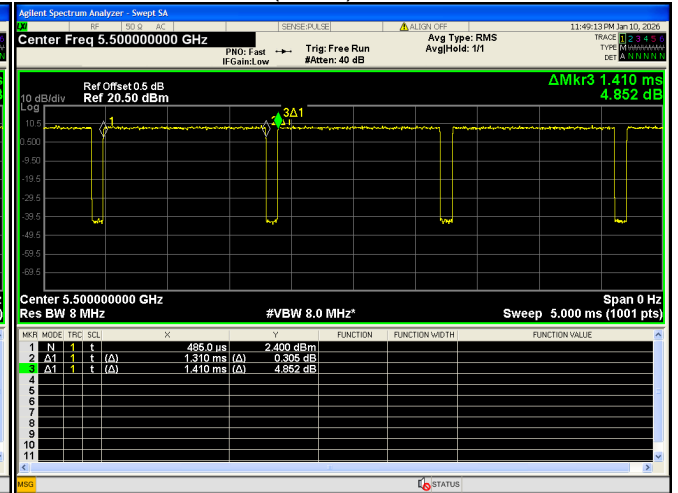


U-NII-2C

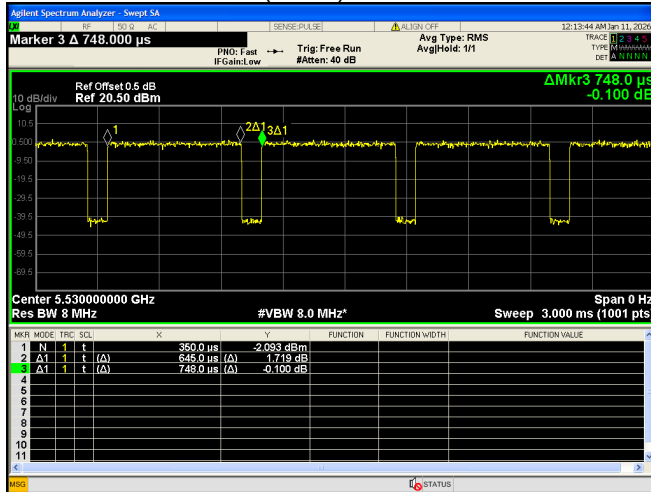
802.11a Low channel



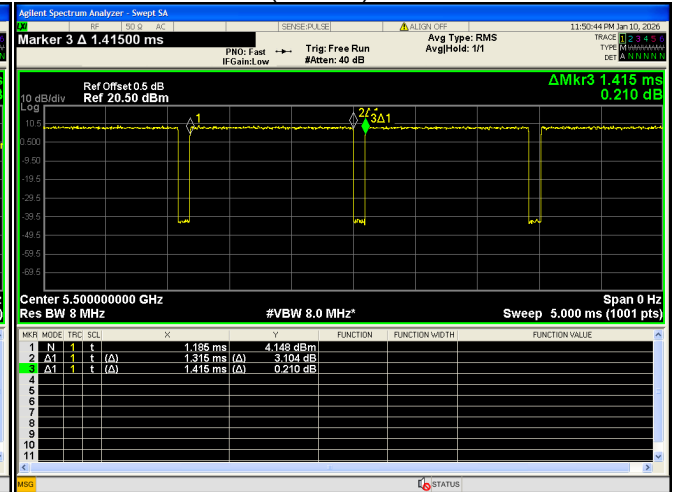
802.11n(HT20) Low channel



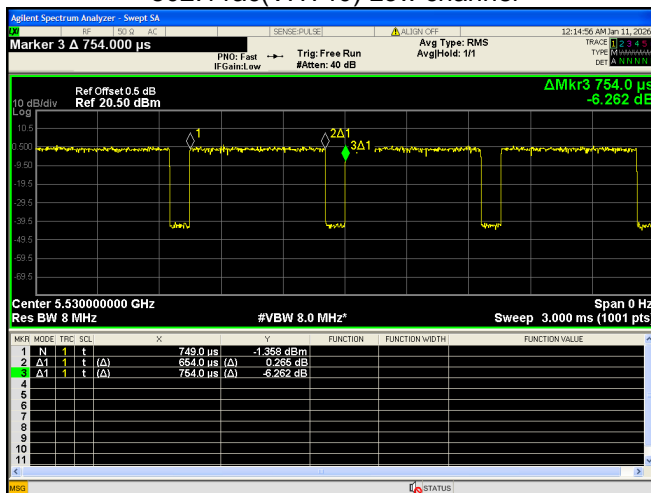
802.11n(HT40) Low channel



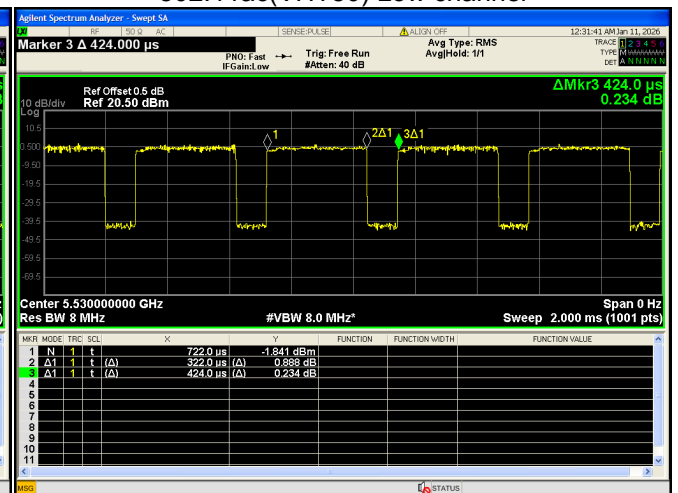
802.11ac(VHT20) Low channel



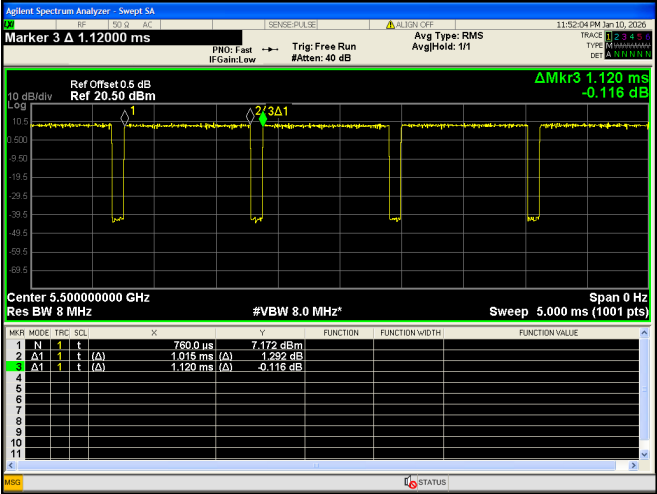
802.11ac(VHT40) Low channel



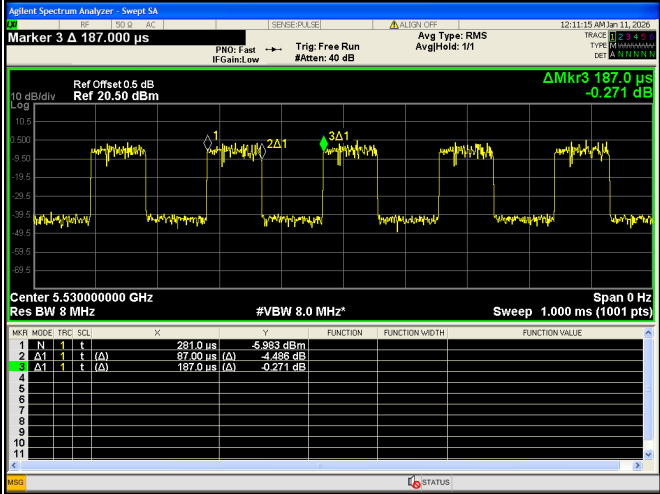
802.11ac(VHT80) Low channel



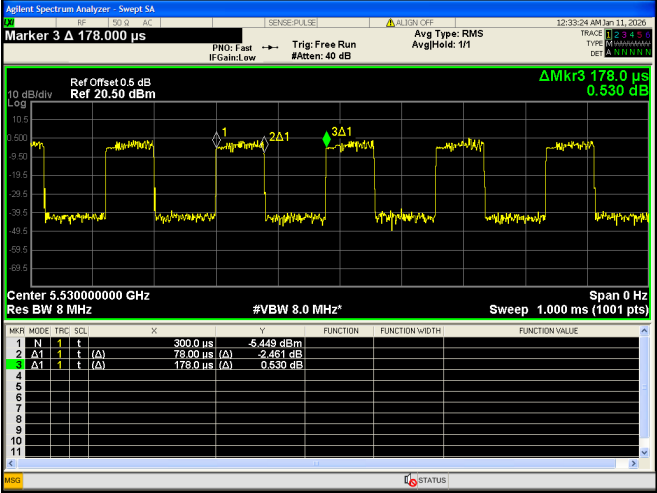
802.11ax(HE20) Low channel



802.11ax(HE40) Low channel

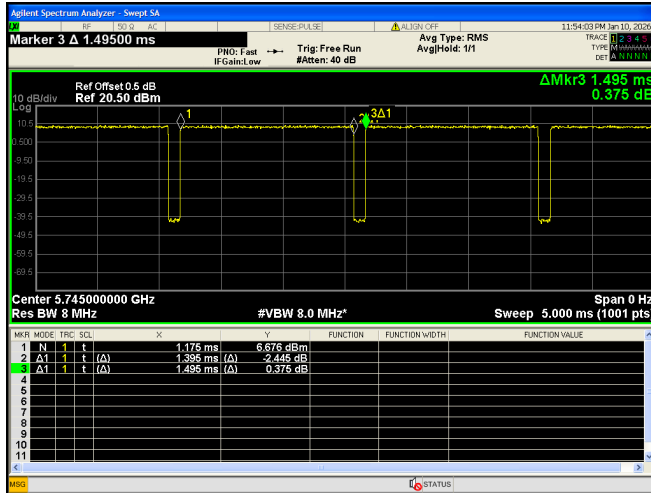


802.11ax(HE80) Low channel

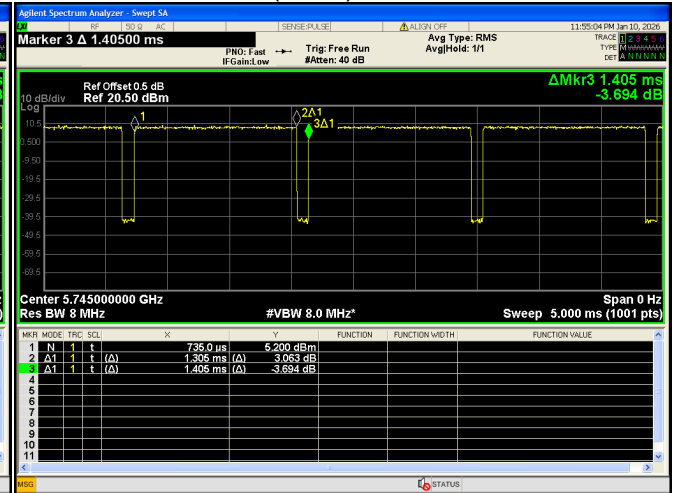


U-NII-3

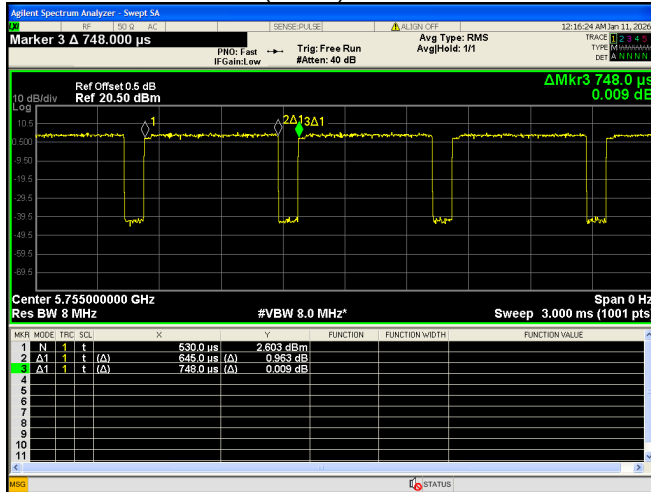
802.11a Low channel



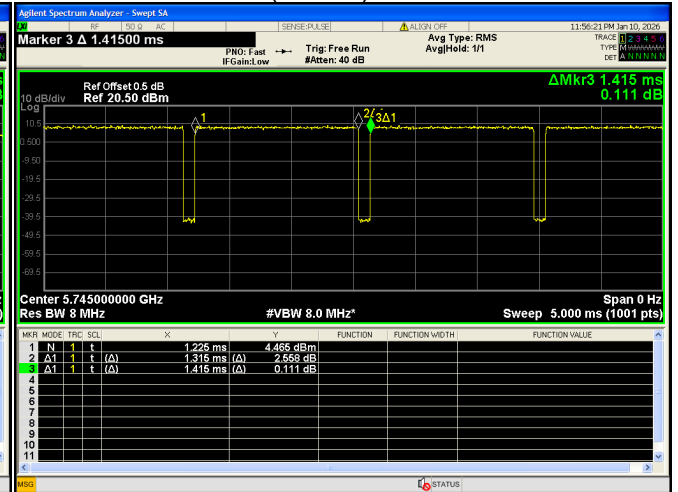
802.11n(HT20) Low channel



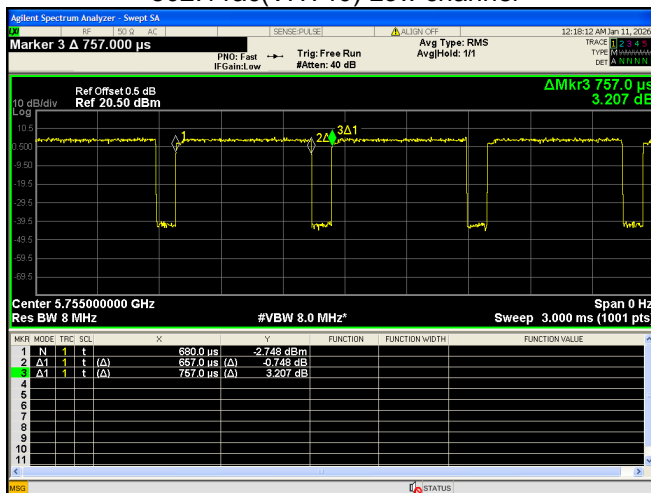
802.11n(HT40) Low channel



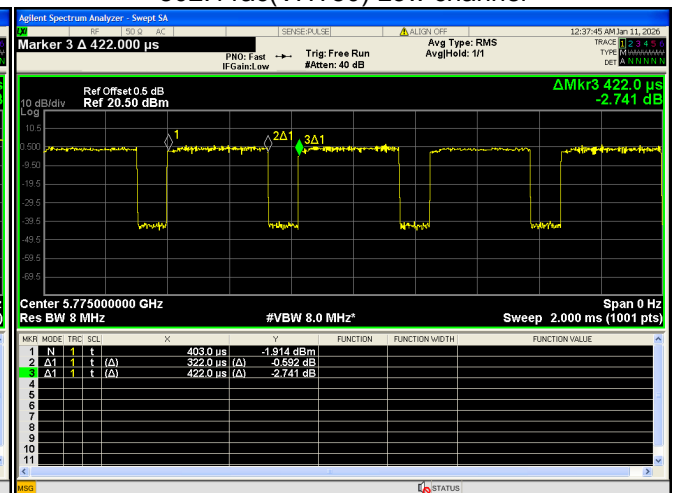
802.11ac(VHT20) Low channel



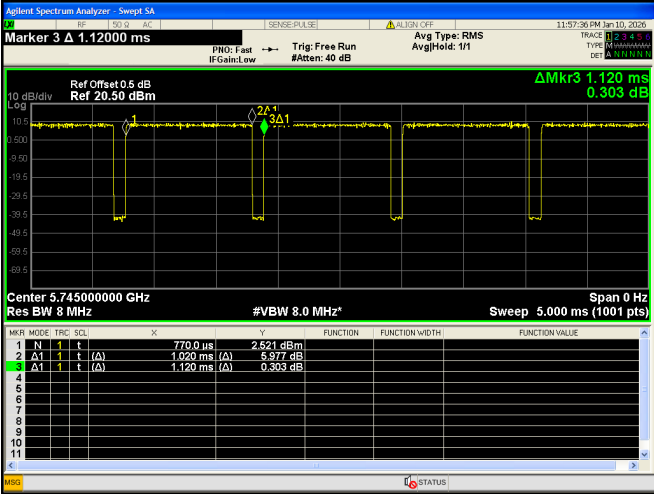
802.11ac(VHT40) Low channel



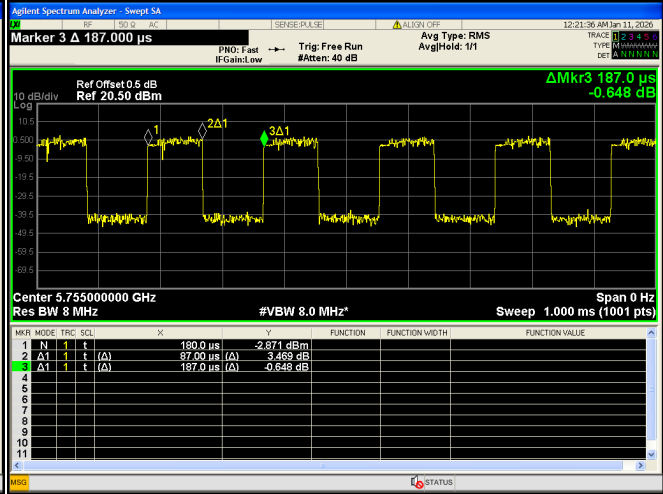
802.11ac(VHT80) Low channel



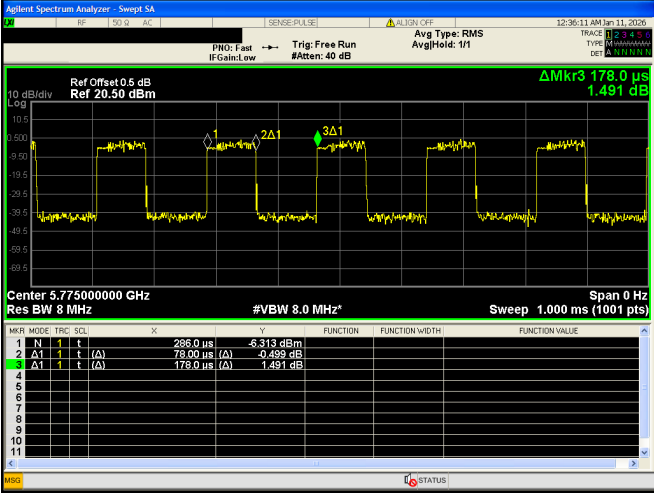
802.11ax(HE20) Low channel



802.11ax(HE40) Low channel

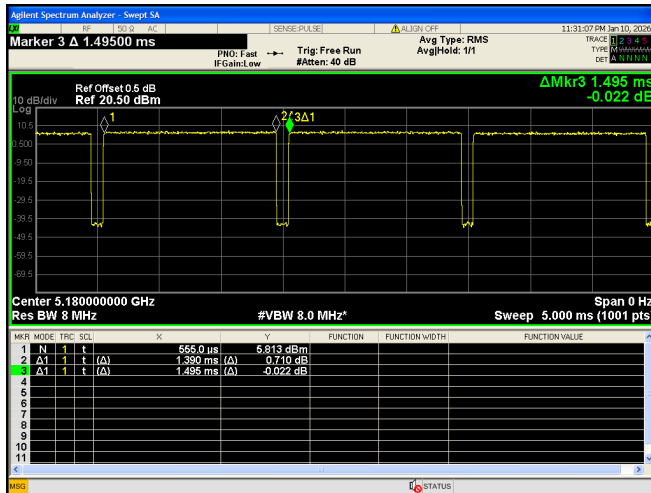


802.11ax(HE80) Low channel

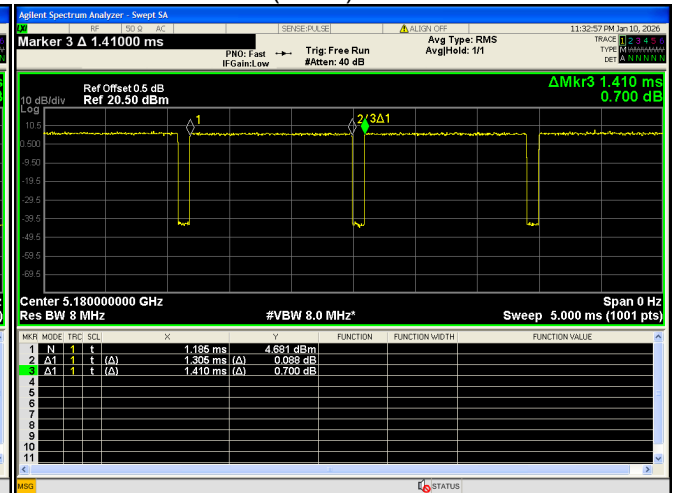


ANT 2-U-NII-1

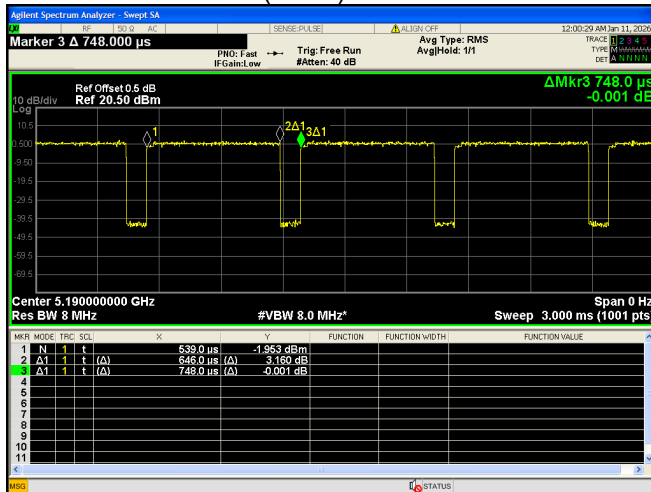
802.11a Low channel



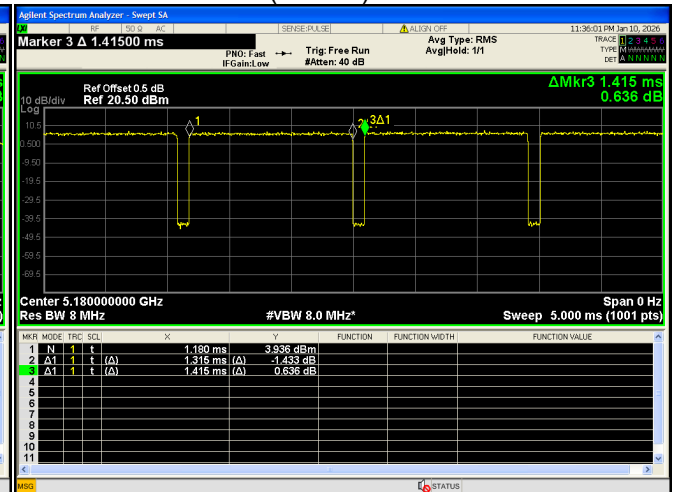
802.11n(HT20) Low channel



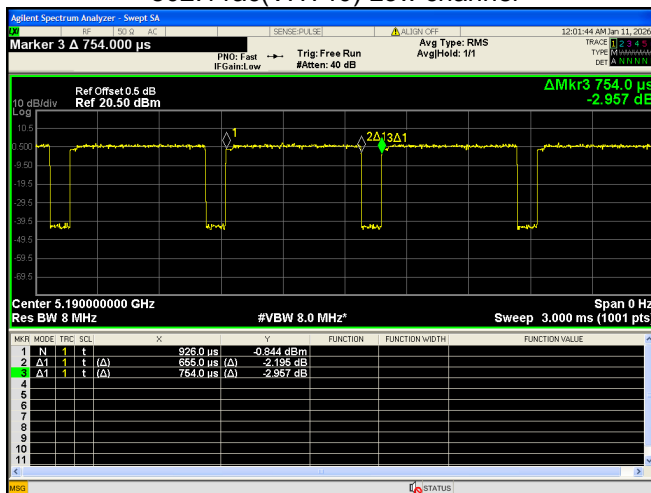
802.11n(HT40) Low channel



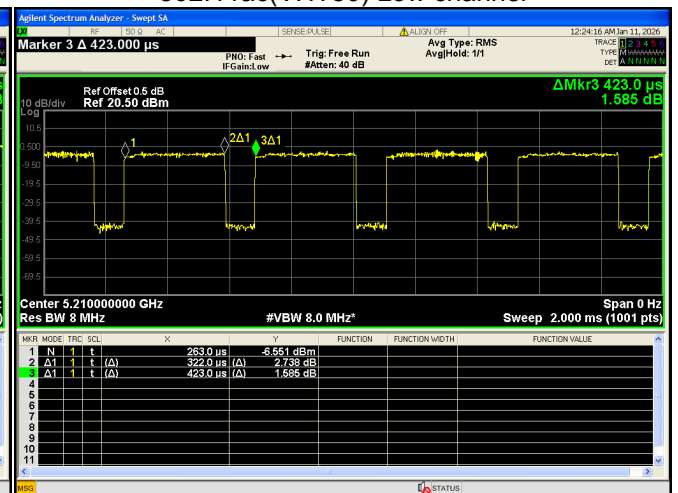
802.11ac(VHT20) Low channel



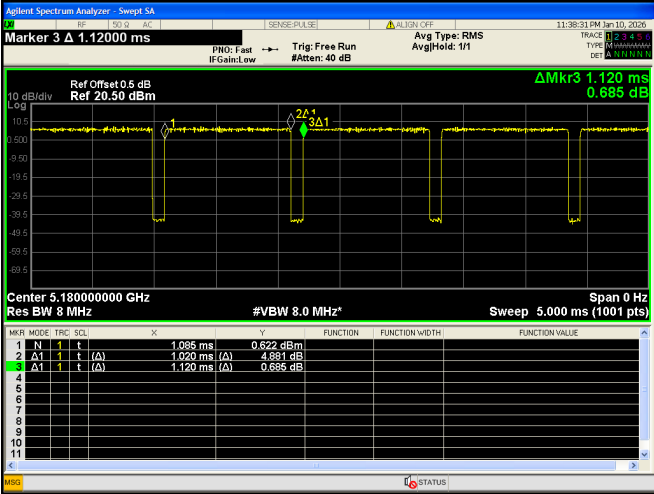
802.11ac(VHT40) Low channel



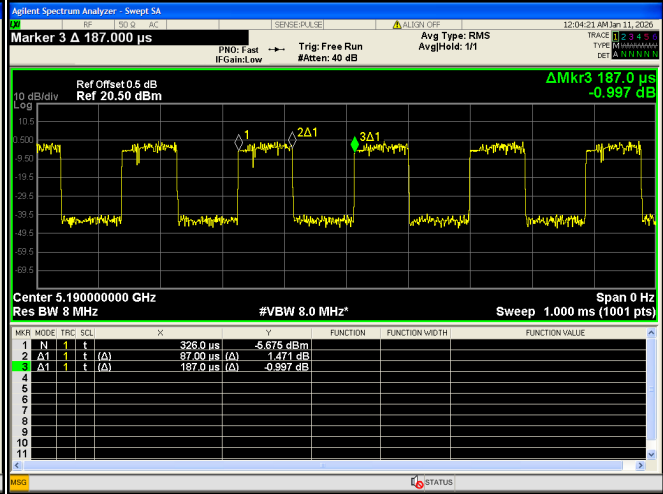
802.11ac(VHT80) Low channel



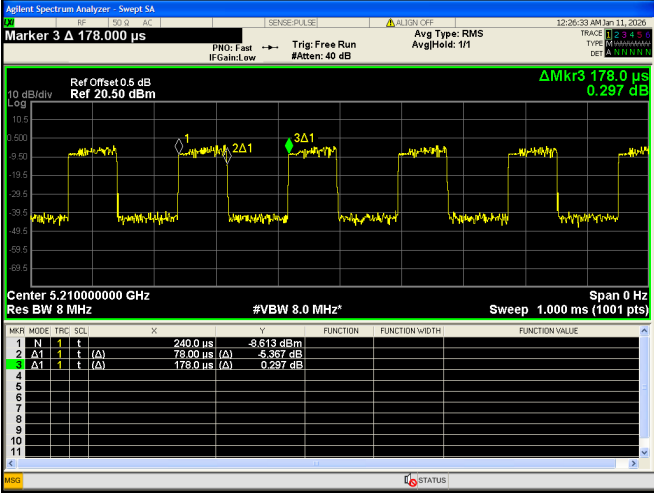
802.11ax(HE20) Low channel



802.11ax(HE40) Low channel

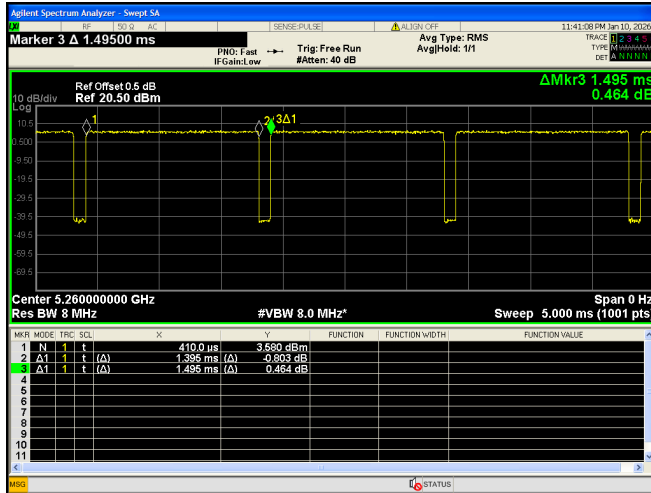


802.11ax(HE80) Low channel

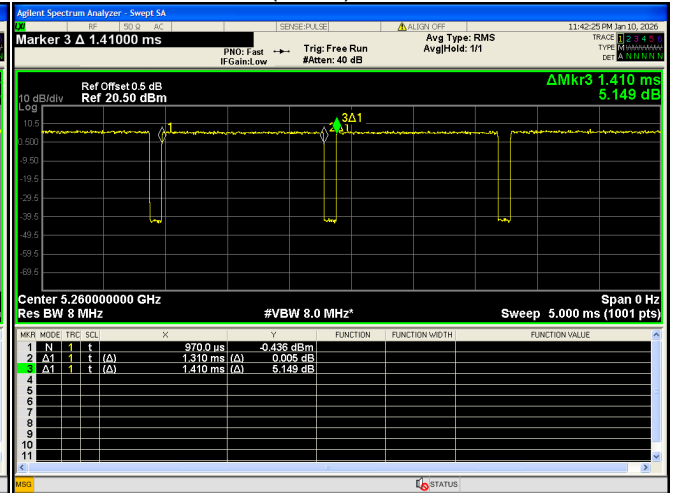


U-NII-2A

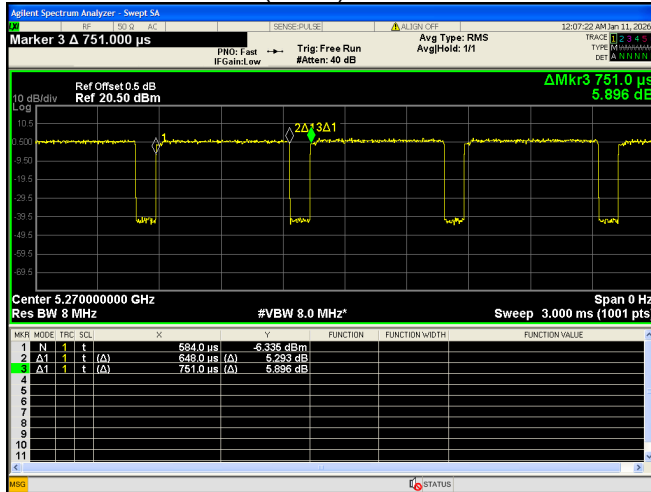
802.11a Low channel



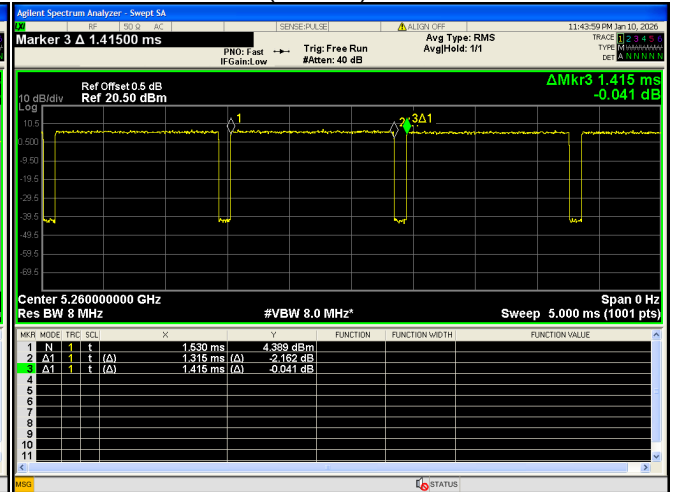
802.11n(HT20) Low channel



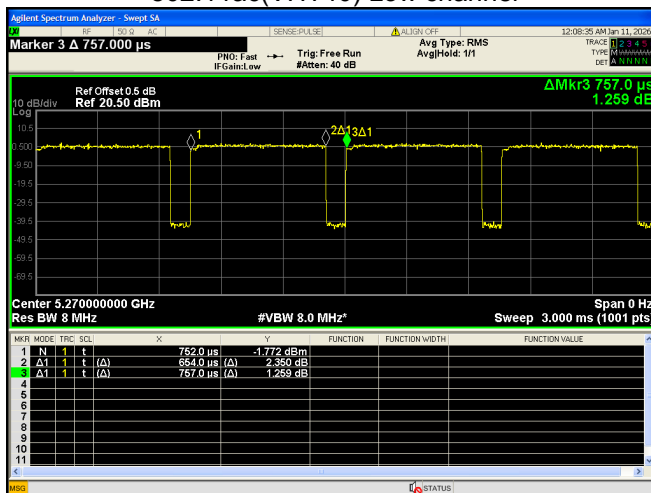
802.11n(HT40) Low channel



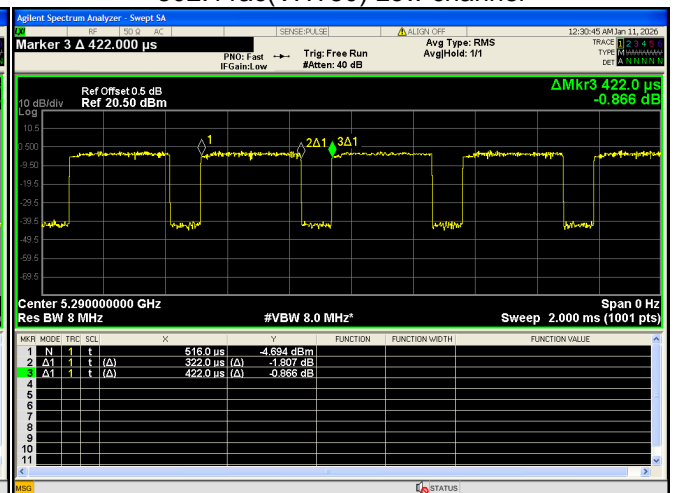
802.11ac(VHT20) Low channel



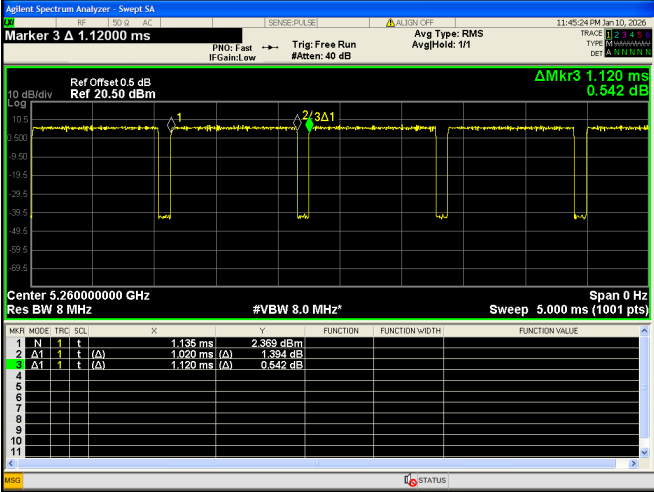
802.11ac(VHT40) Low channel



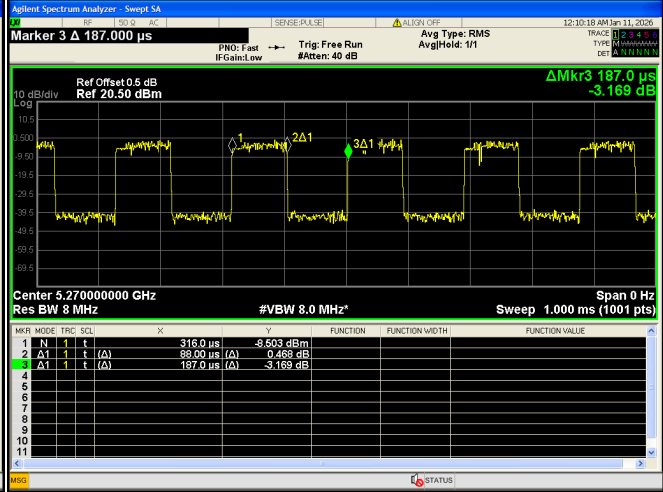
802.11ac(VHT80) Low channel



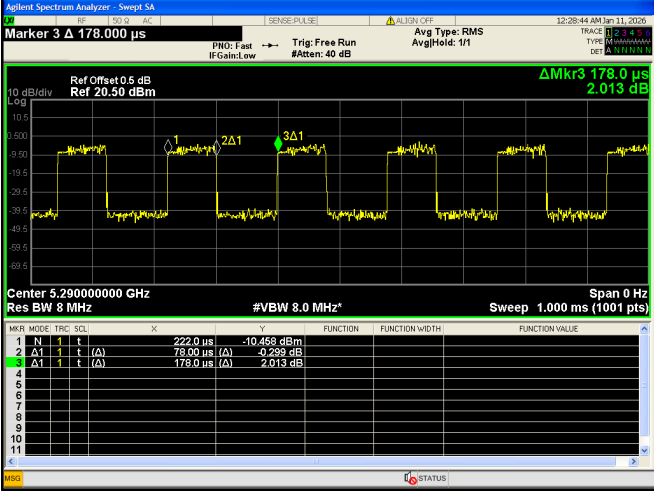
802.11ax(HE20) Low channel



802.11ax(HE40) Low channel

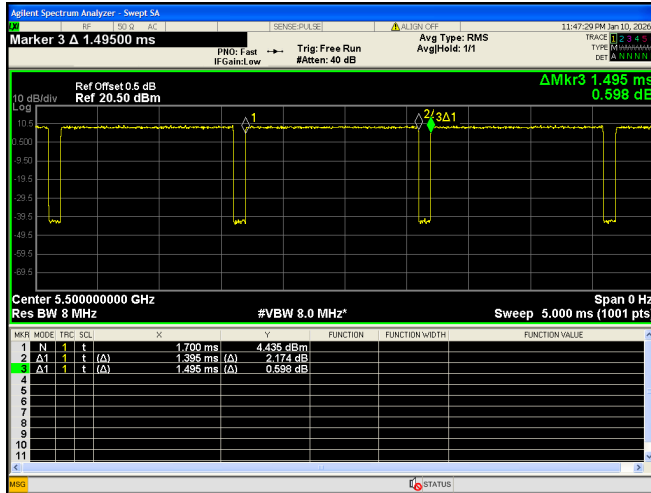


802.11ax(HE80) Low channel

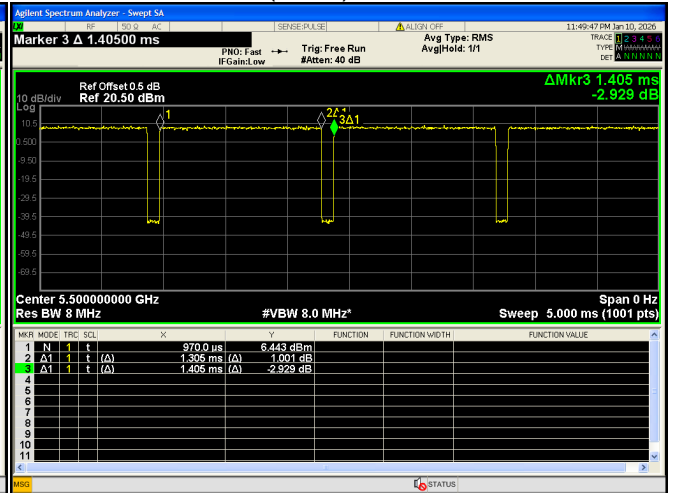


U-NII-2C

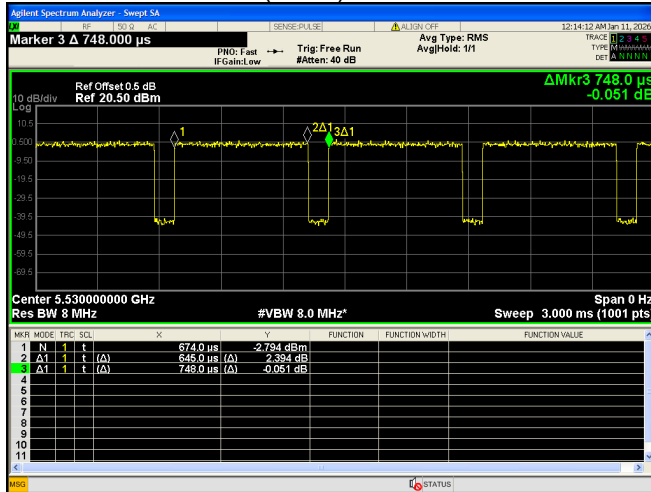
802.11a Low channel



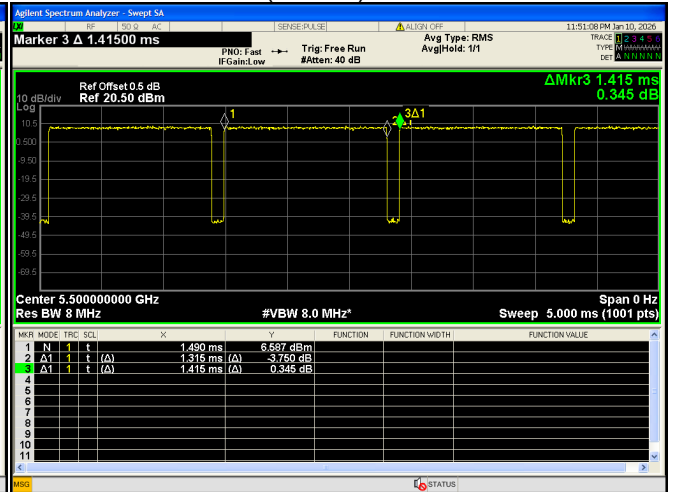
802.11n(HT20) Low channel



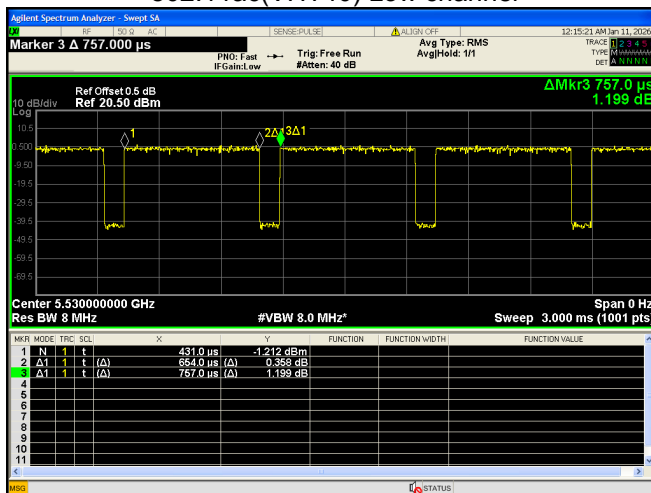
802.11n(HT40) Low channel



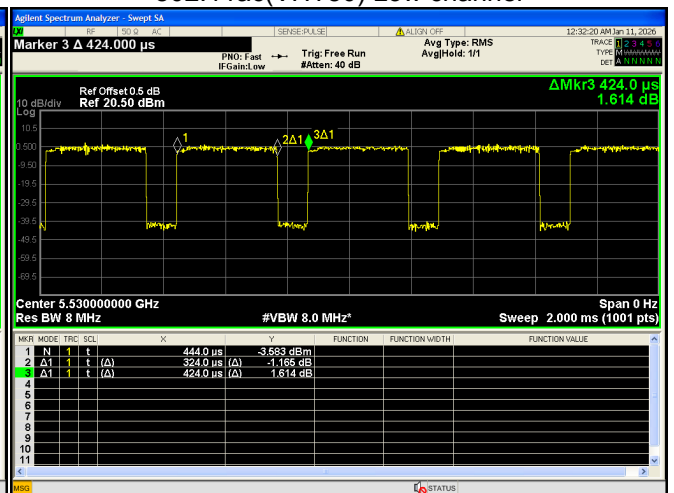
802.11ac(VHT20) Low channel



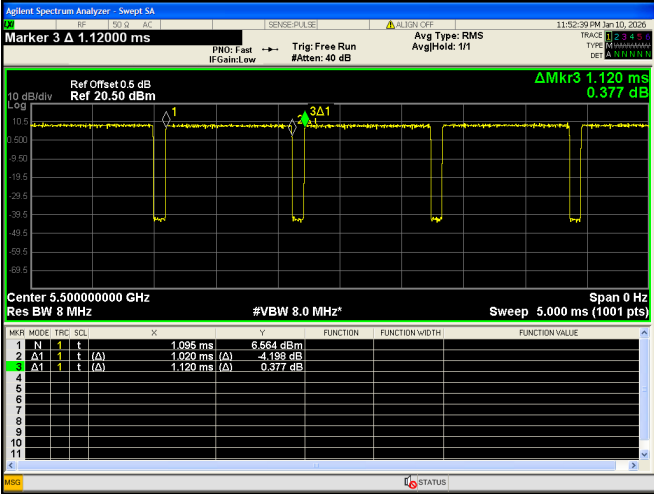
802.11ac(VHT40) Low channel



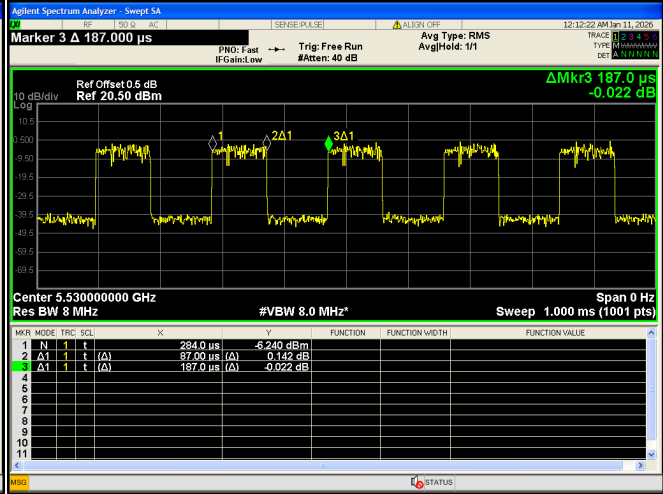
802.11ac(VHT80) Low channel



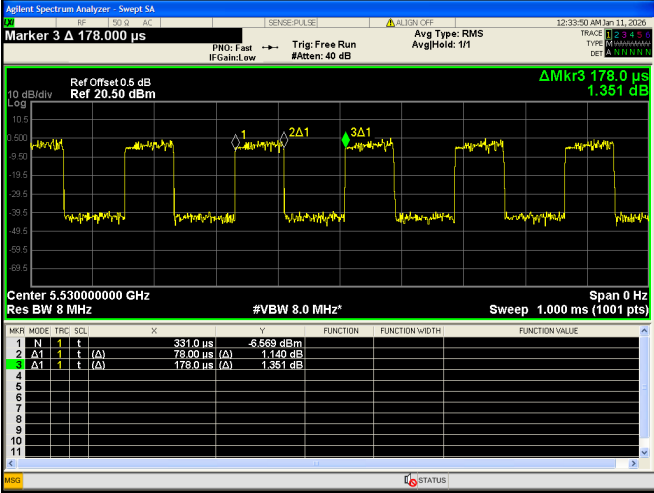
802.11ax(HE20) Low channel



802.11ax(HE40) Low channel

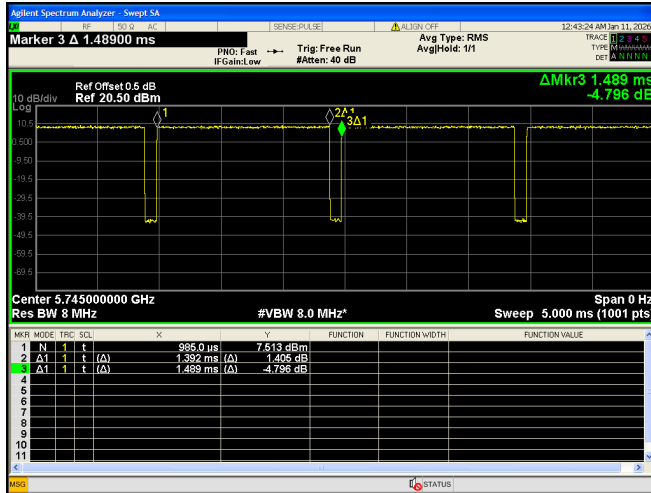


802.11ax(HE80) Low channel

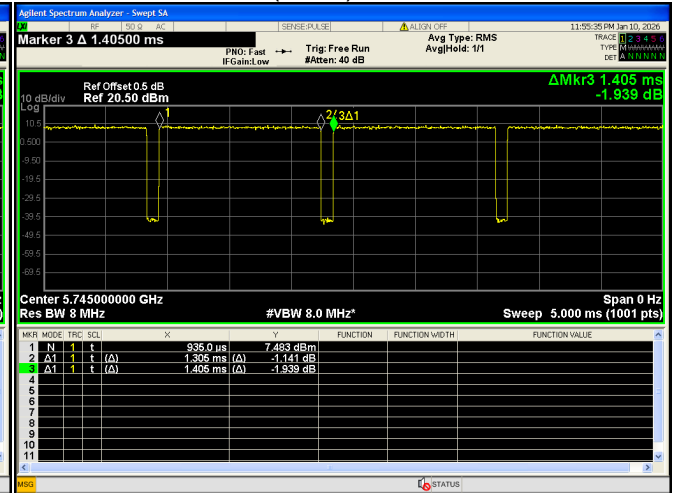


U-NII-3

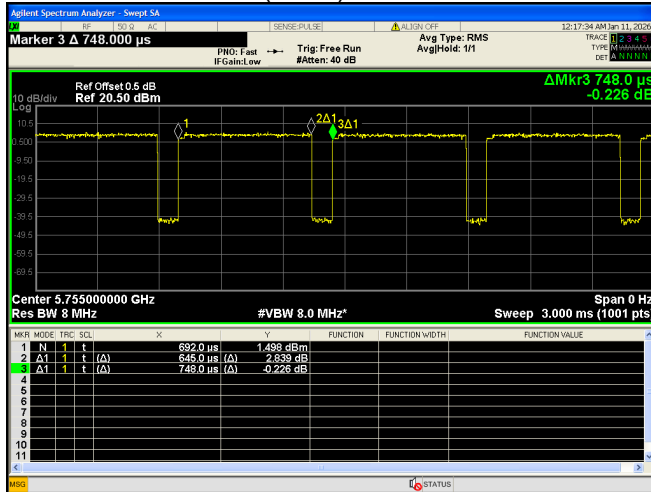
802.11a Low channel



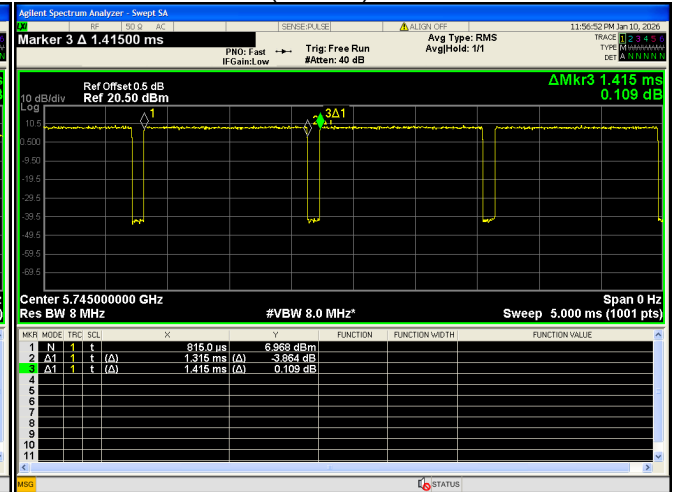
802.11n(HT20) Low channel



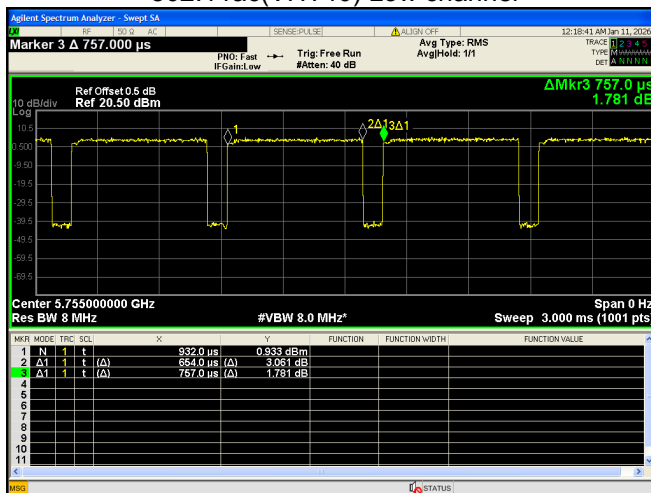
802.11n(HT40) Low channel



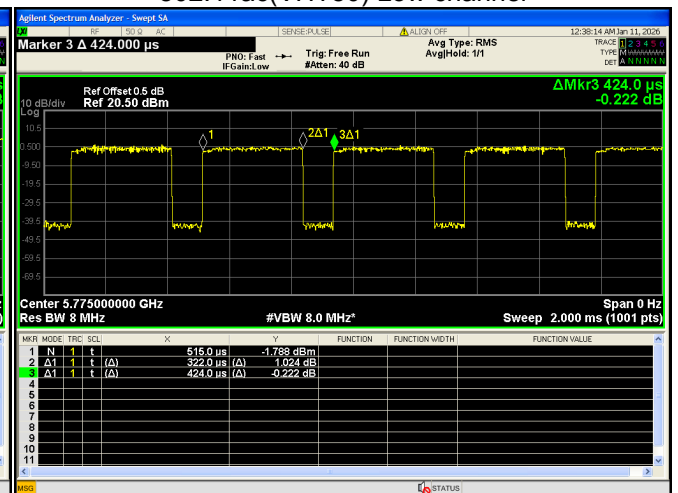
802.11ac(VHT20) Low channel



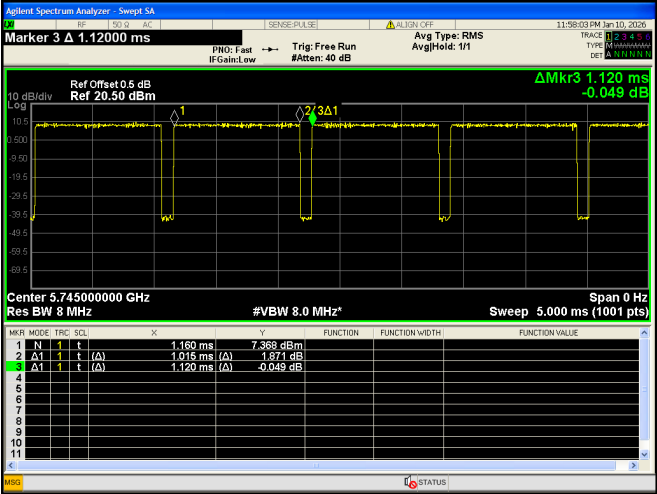
802.11ac(VHT40) Low channel



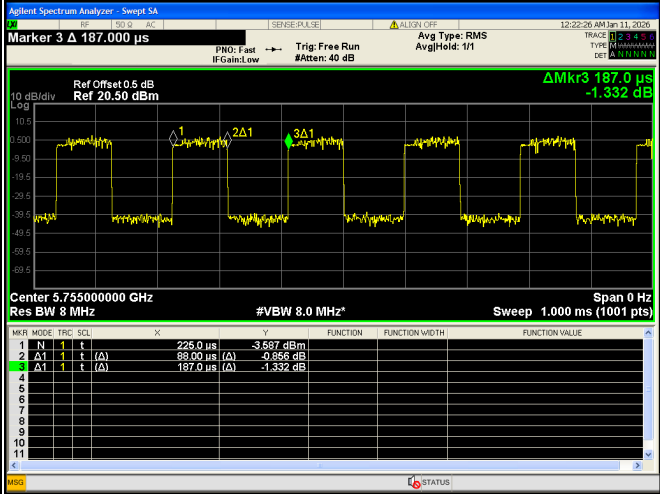
802.11ac(VHT80) Low channel



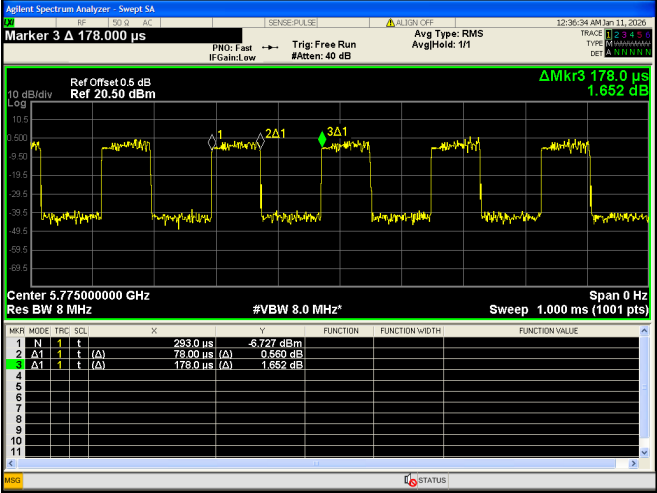
802.11ax(HE20) Low channel



802.11ax(HE40) Low channel



802.11ax(HE80) Low channel



8 Conducted Emission

Test Requirement: 47CFR FCC Part15 Subpart C §15.207
Test Method: ANSI C63.10-2020
Test Result: PASS
Frequency Range: 150kHz to 30MHz
Limit:

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

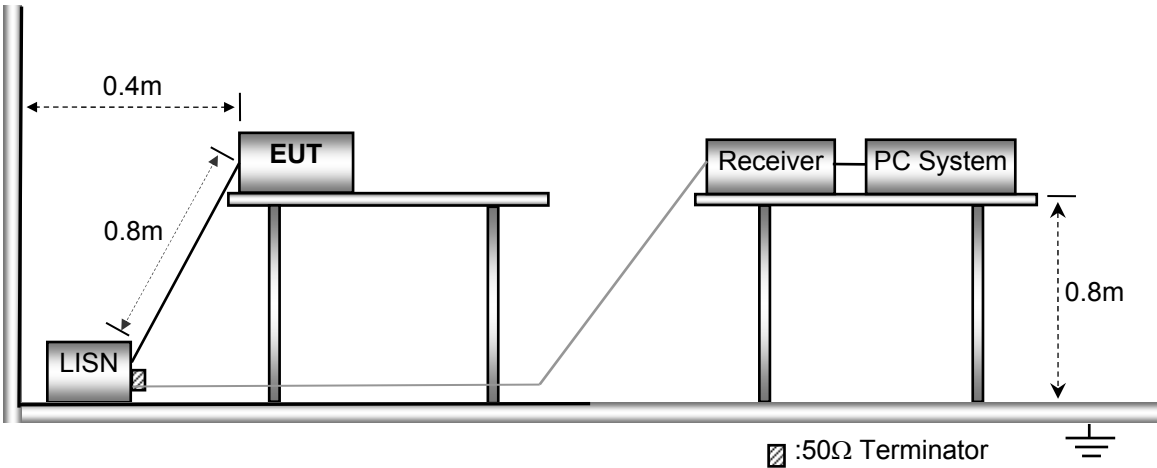
8.1 E.U.T. Operation

Operating Environment:
Temperature: 21.5~25.1°C
Humidity: 40.1~46.8%RH
Atmospheric Pressure: 101.3~101.5kPa

EUT Operation:
The test was performed in Transmitting mode, the worst test data were shown in the report.

8.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10-2020.



8.3 Measurement Description

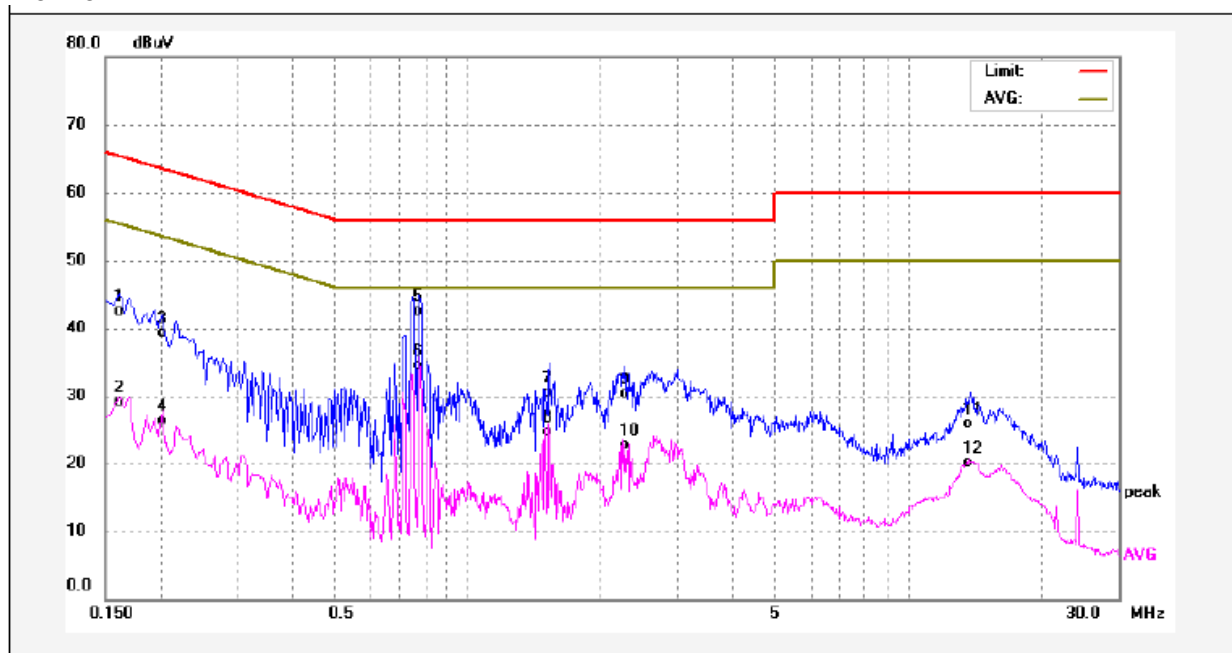
The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

8.4 Conducted Emission Test Result

Remark: only the worst data were reported.

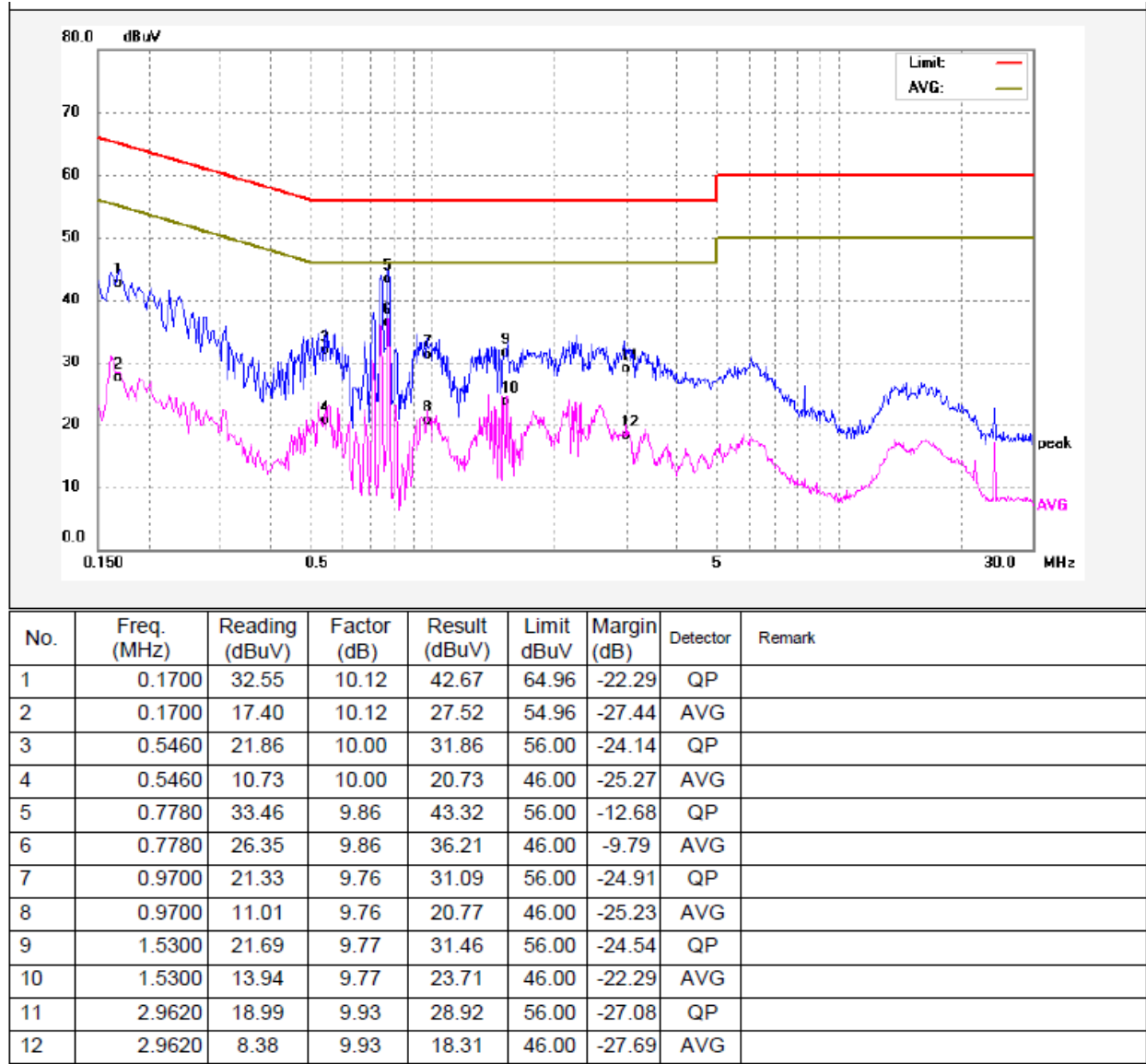
Mode: Adapter 1+configuration A_ Ant. 1+ Ant. 2_U-NII-1 802.11n(HT20) High channel

Live line:



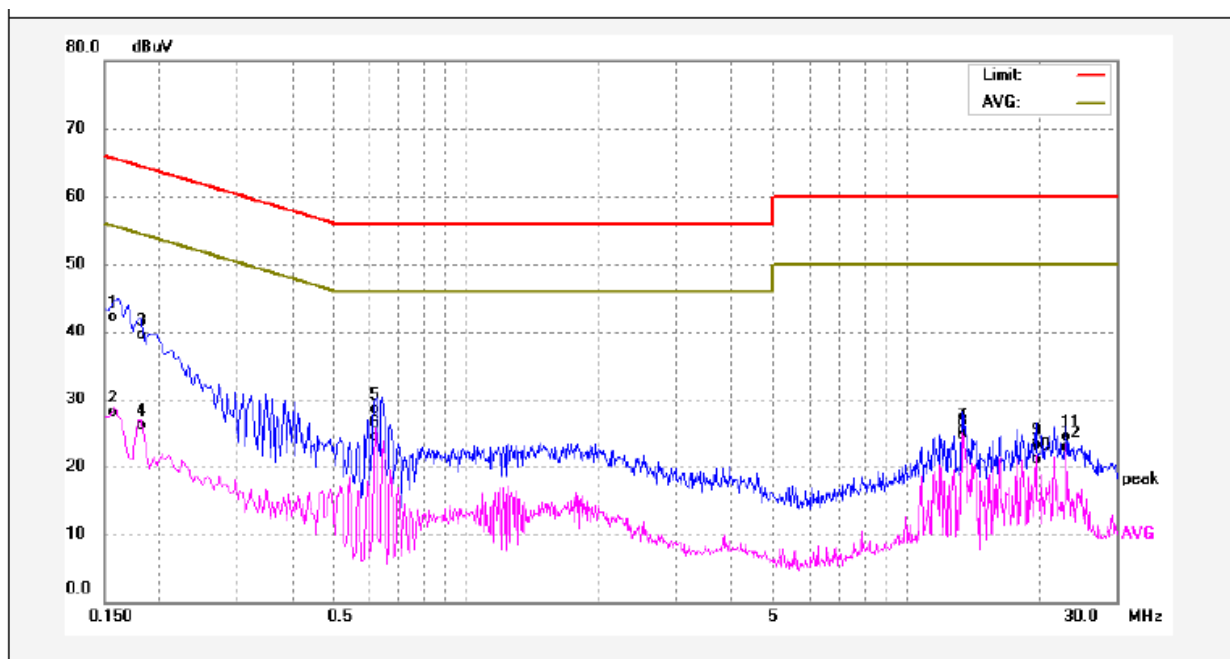
No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1620	32.52	9.94	42.46	65.36	-22.90	QP	
2	0.1620	19.13	9.94	29.07	55.36	-26.29	AVG	
3	0.2020	29.35	9.89	39.24	63.52	-24.28	QP	
4	0.2020	16.44	9.89	26.33	53.52	-27.19	AVG	
5	0.7740	32.52	10.00	42.52	56.00	-13.48	QP	
6	0.7740	24.52	10.00	34.52	46.00	-11.48	AVG	
7	1.5300	20.67	9.80	30.47	56.00	-25.53	QP	
8	1.5300	14.91	9.80	24.71	46.00	-21.29	AVG	
9	2.2740	20.51	9.81	30.32	56.00	-25.68	QP	
10	2.2740	12.81	9.81	22.62	46.00	-23.38	AVG	
11	13.8980	15.69	10.13	25.82	60.00	-34.18	QP	
12	13.8980	10.00	10.13	20.13	50.00	-29.87	AVG	

Neutral line:



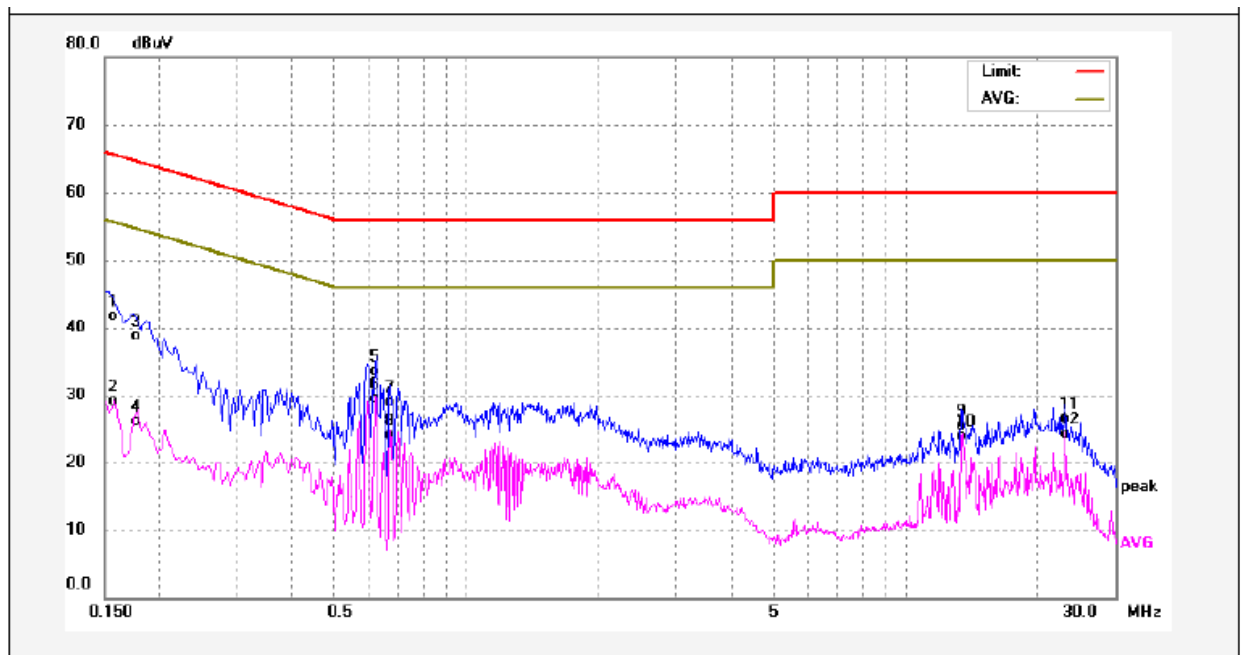
Mode: Adapter 2+configuration A_ Ant. 1+ Ant. 2_U-NII-1 802.11n(HT20) High channel

Live Line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1580	31.94	10.10	42.04	65.56	-23.52	QP	
2	0.1580	17.98	10.10	28.08	55.56	-27.48	AVG	
3	0.1819	29.42	10.02	39.44	64.39	-24.95	QP	
4	0.1819	16.11	10.02	26.13	54.39	-28.26	AVG	
5	0.6180	18.66	9.85	28.51	56.00	-27.49	QP	
6	0.6180	14.71	9.85	24.56	46.00	-21.44	AVG	
7	13.3580	14.33	11.16	25.49	60.00	-34.51	QP	
8	13.3580	13.49	11.16	24.65	50.00	-25.35	AVG	
9	19.7099	11.94	11.39	23.33	60.00	-36.67	QP	
10	19.7099	9.69	11.39	21.08	50.00	-28.92	AVG	
11	23.1299	12.70	11.89	24.59	60.00	-35.41	QP	
12	23.1299	10.98	11.89	22.87	50.00	-27.13	AVG	

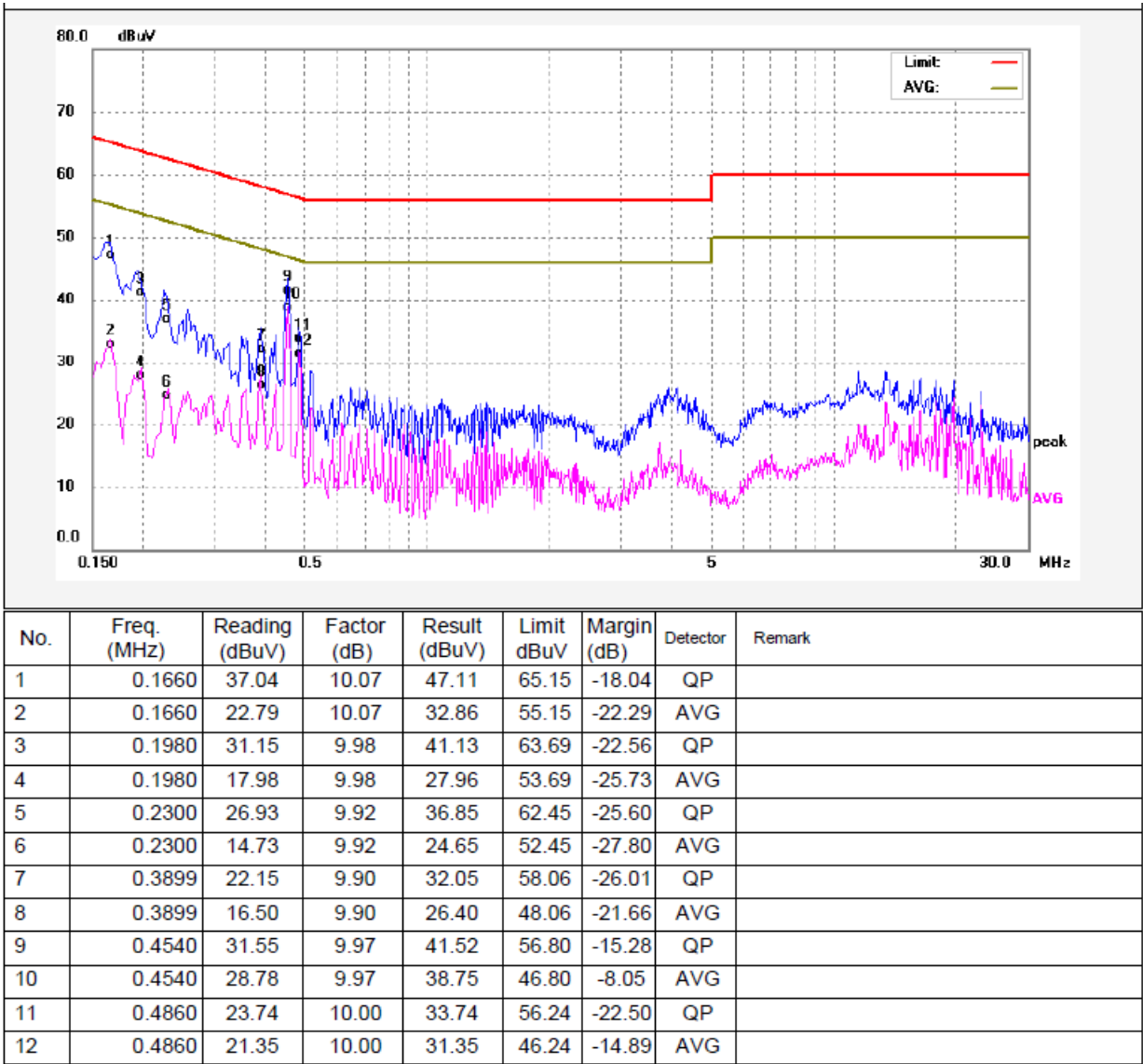
Neutral Line:



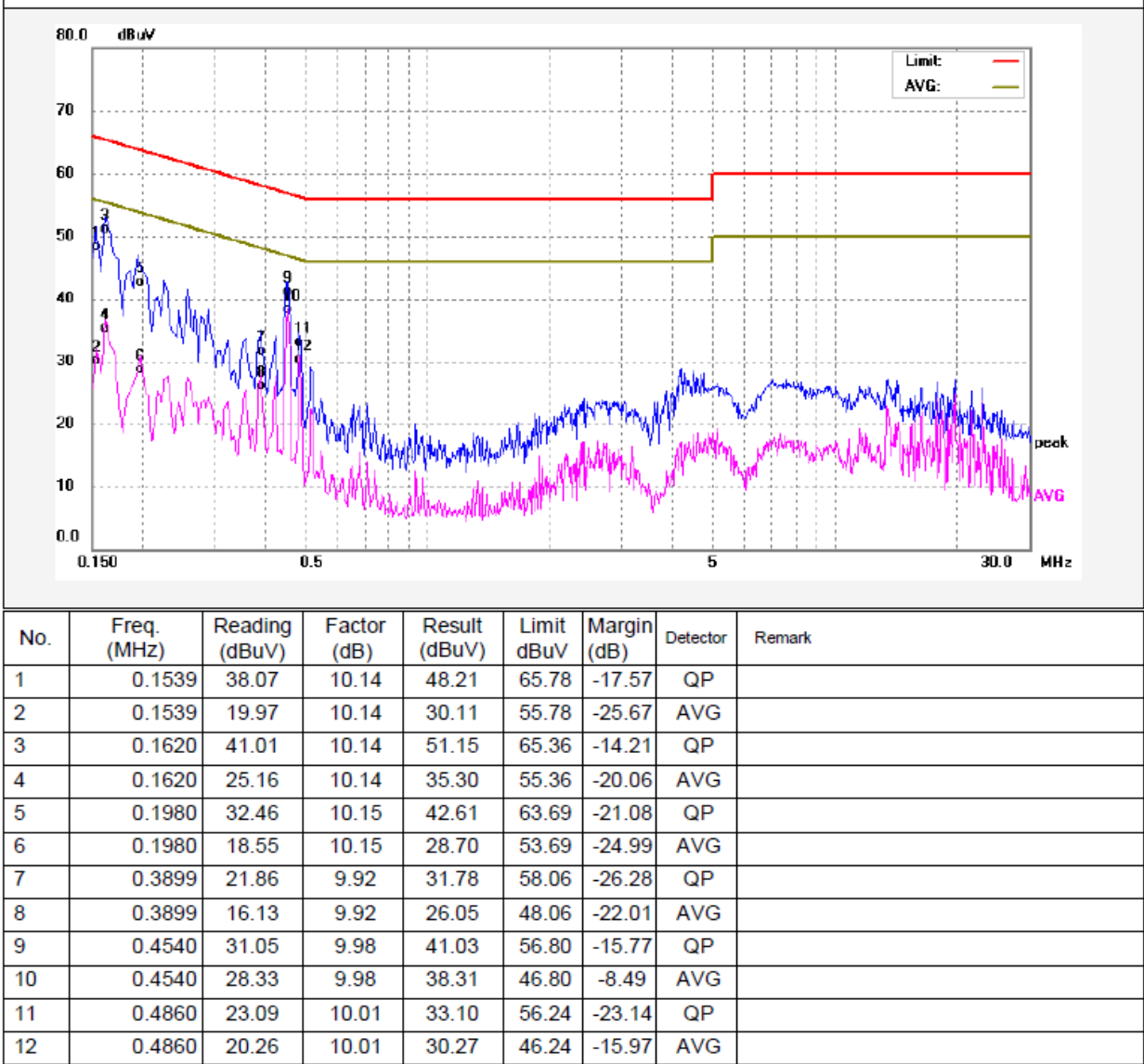
No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1580	31.63	10.14	41.77	65.56	-23.79	QP	
2	0.1580	18.95	10.14	29.09	55.56	-26.47	AVG	
3	0.1780	28.55	10.15	38.70	64.57	-25.87	QP	
4	0.1780	16.01	10.15	26.16	54.57	-28.41	AVG	
5	0.6180	23.64	9.83	33.47	56.00	-22.53	QP	
6	0.6180	19.63	9.83	29.46	46.00	-16.54	AVG	
7	0.6700	18.96	9.88	28.84	56.00	-27.16	QP	
8	0.6700	14.17	9.88	24.05	46.00	-21.95	AVG	
9	13.4180	14.35	11.08	25.43	60.00	-34.57	QP	
10	13.4180	12.86	11.08	23.94	50.00	-26.06	AVG	
11	23.1299	14.66	11.77	26.43	60.00	-33.57	QP	
12	23.1299	12.57	11.77	24.34	50.00	-25.66	AVG	

Mode: Adapter 1+configuration A_ Ant. 1+ Ant. 2_U-NII-1 802.11n(HT20) High channel

Live Line:



Neutral Line:



9 Radiated Emissions

Test Requirement: FCC CFR47 Part 15 Section 15.209 & 15.407
KDB 662911 D01 Multiple Transmitter Output v02r01, October 31, 2013

Test Method: ANSI C63.10-2020

Test Result: PASS

Measurement Distance: 3m

Limit:

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Distance	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log^{(24000/F(\text{kHz}))} + 40$
1.705 ~ 30	30	30	$100 * 30$	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

9.1 EUT Operation

Operating Environment:

Temperature: 22.4~25.1°C

Humidity: 38.8~46.7%RH

Atmospheric Pressure: 101.3~101.5kPa

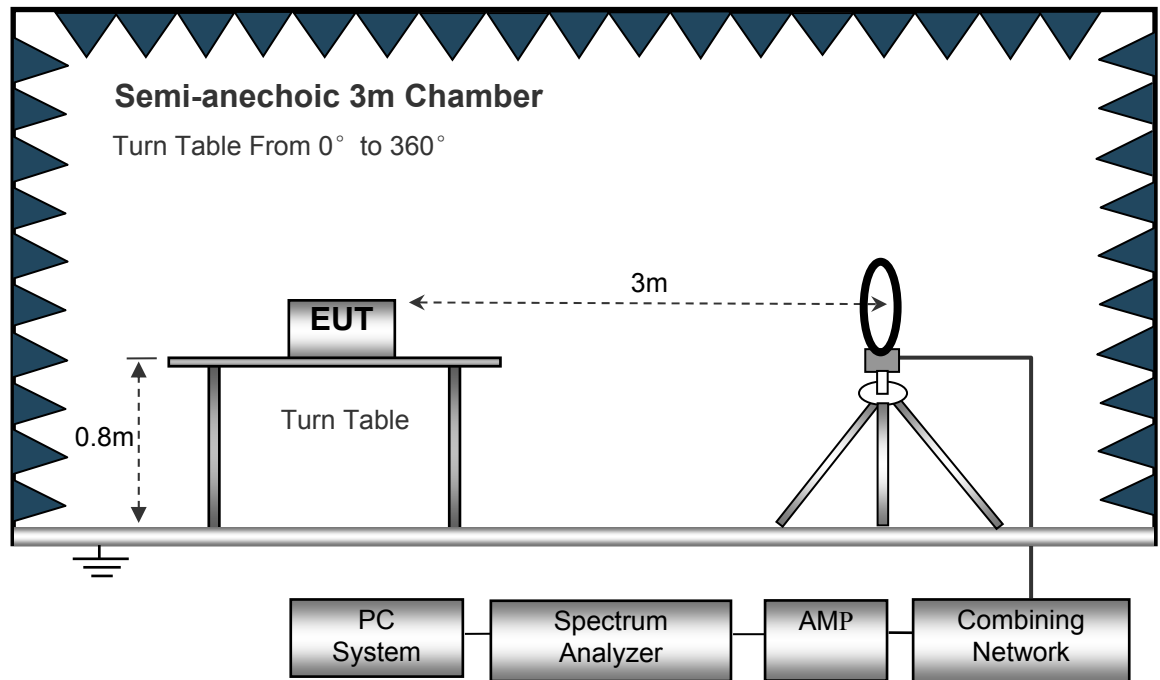
EUT Operation:

The test was performed in transmitting mode, the test data were shown in the report.

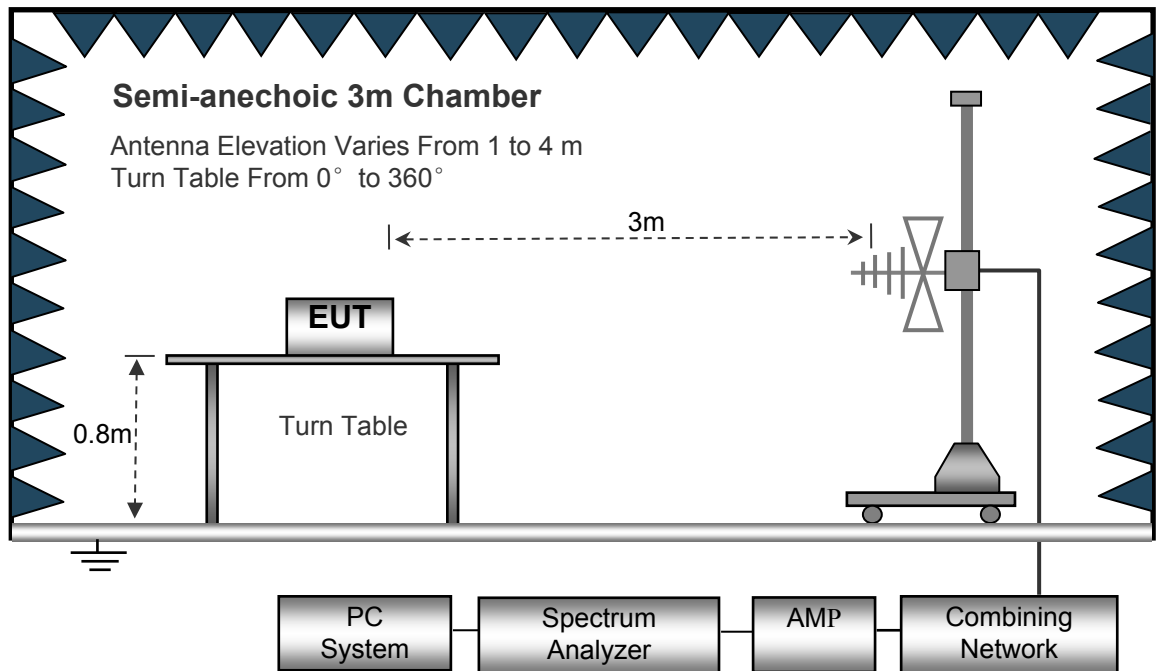
9.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.10-2020.

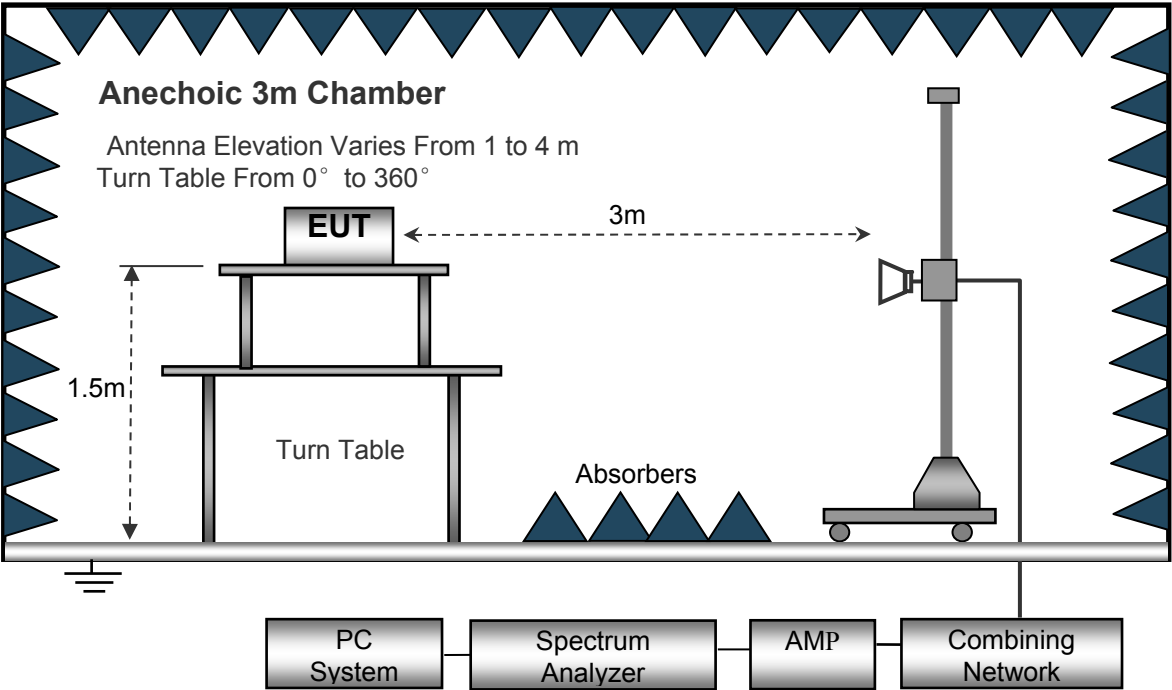
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz.



9.3 Spectrum Analyzer Setup

Below 30MHz

Sweep Speed Auto
IF Bandwidth.....10kHz
Video Bandwidth.....10kHz
Resolution Bandwidth.....10kHz

30MHz ~ 1GHz

Sweep Speed Auto
DetectorPK
Resolution Bandwidth.....100kHz
Video Bandwidth.....300kHz

Above 1GHz

Sweep Speed Auto
DetectorPK
Resolution Bandwidth.....1MHz
Video Bandwidth.....3MHz
DetectorAve.
Resolution Bandwidth.....1MHz
Video Bandwidth.....10Hz

9.4 Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz and 1.5m for above 1GHz.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are performed in X, Y and Z axis positioning (X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), the worst condition was tested putting the eut in X axis,so the worst data were shown as follow.
8. A 2.4GHz high –pass filter is used during radiated emissions above 1GHz measurement.

9.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the maximum limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{Limit}$$

9.6 Summary of Test Results

Remark: only the worst data were reported.

Test Frequency: 9KHz~30MHz

The measurements were more than 20 dB below the limit and not reported.

Test Frequency: 30MHz ~ 1GHz

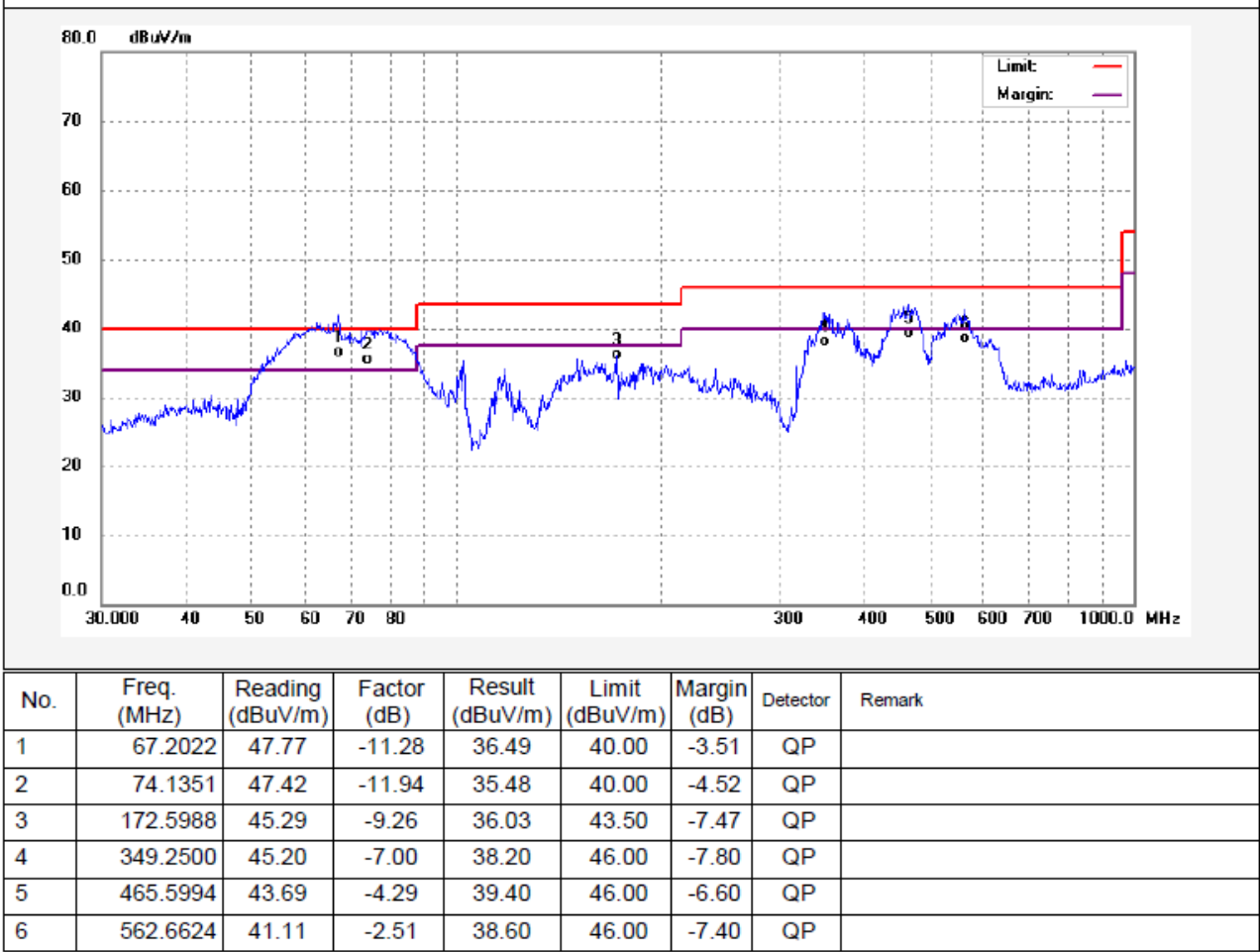
Mode: Adapter 1+configuration A_ Ant. 1+ Ant. 2_U-NII-2C 802.11n(HT20) Low channel

Antenna Polarization: Horizontal

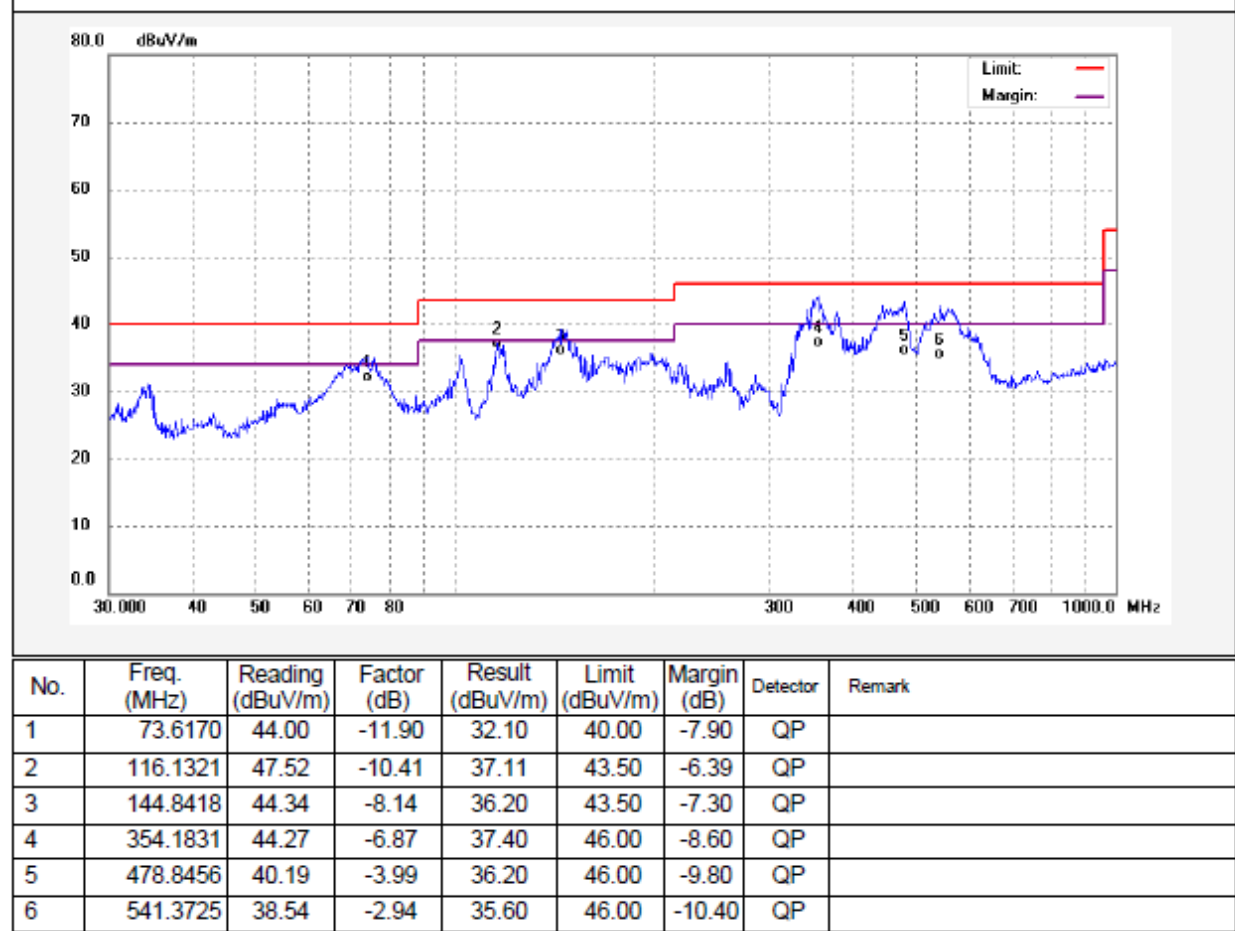


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	64.4331	41.24	-11.02	30.22	40.00	-9.78	QP	
2	82.0706	44.00	-12.66	31.34	40.00	-8.66	QP	
3	101.6443	45.36	-11.59	33.77	43.50	-9.73	QP	
4	137.4202	45.07	-8.43	36.64	43.50	-6.86	QP	
5	444.8514	42.16	-4.76	37.40	46.00	-8.60	QP	
6	574.6258	40.43	-2.23	38.20	46.00	-7.80	QP	

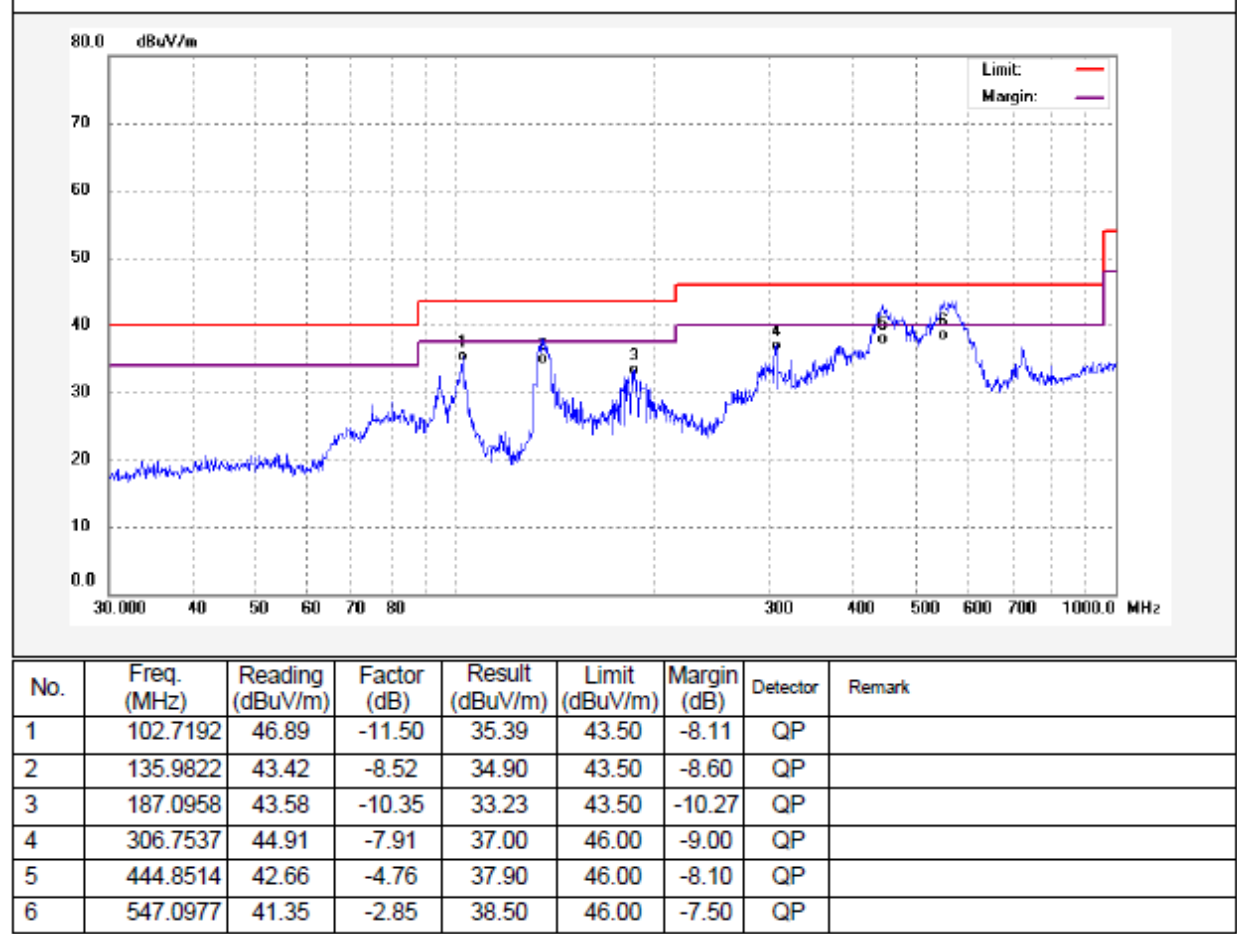
Antenna Polarization: Vertical



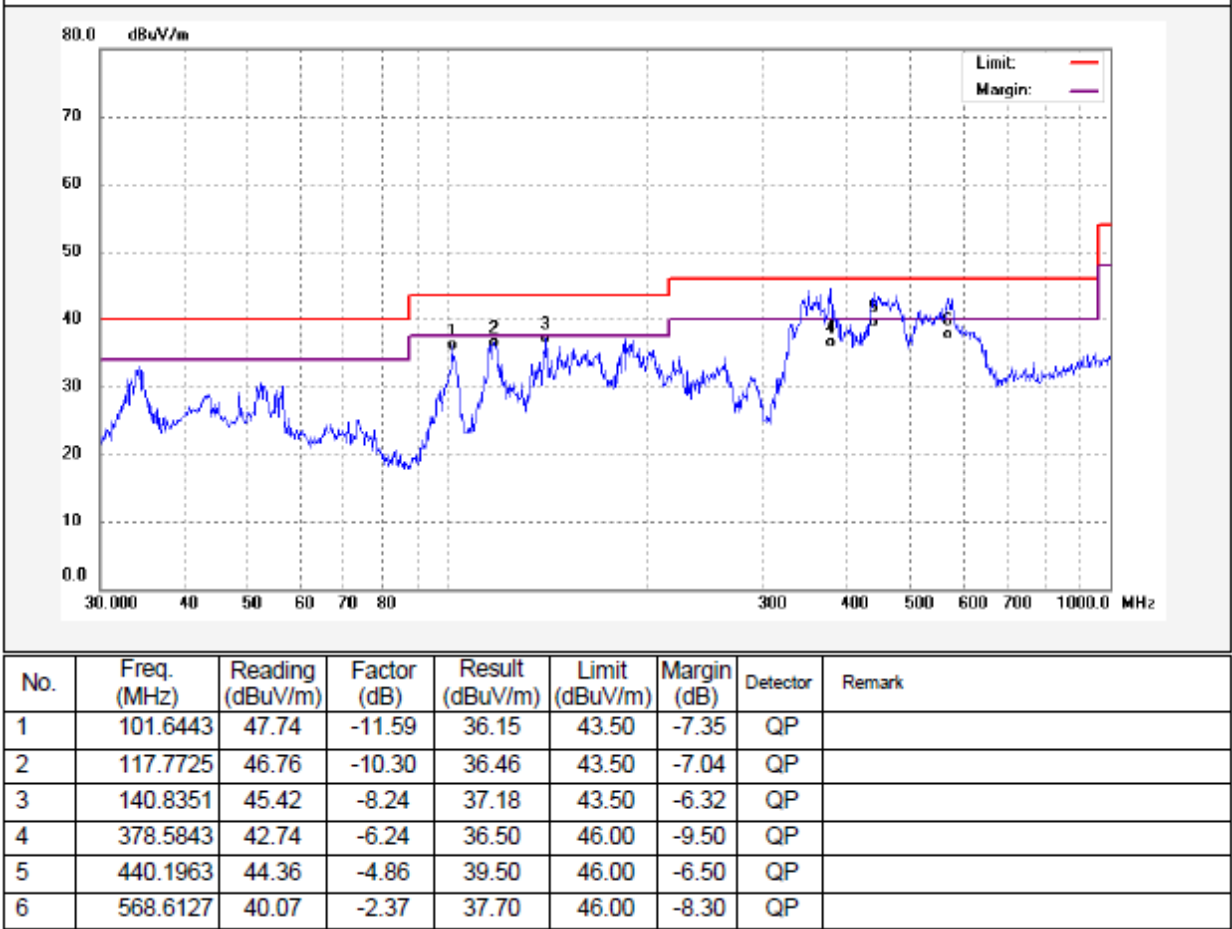
Mode: Adapter 2+configuration A_ Ant. 1+ Ant. 2_U-NII-2C 802.11n(HT20) Low channel
Antenna Polarization: Vertical



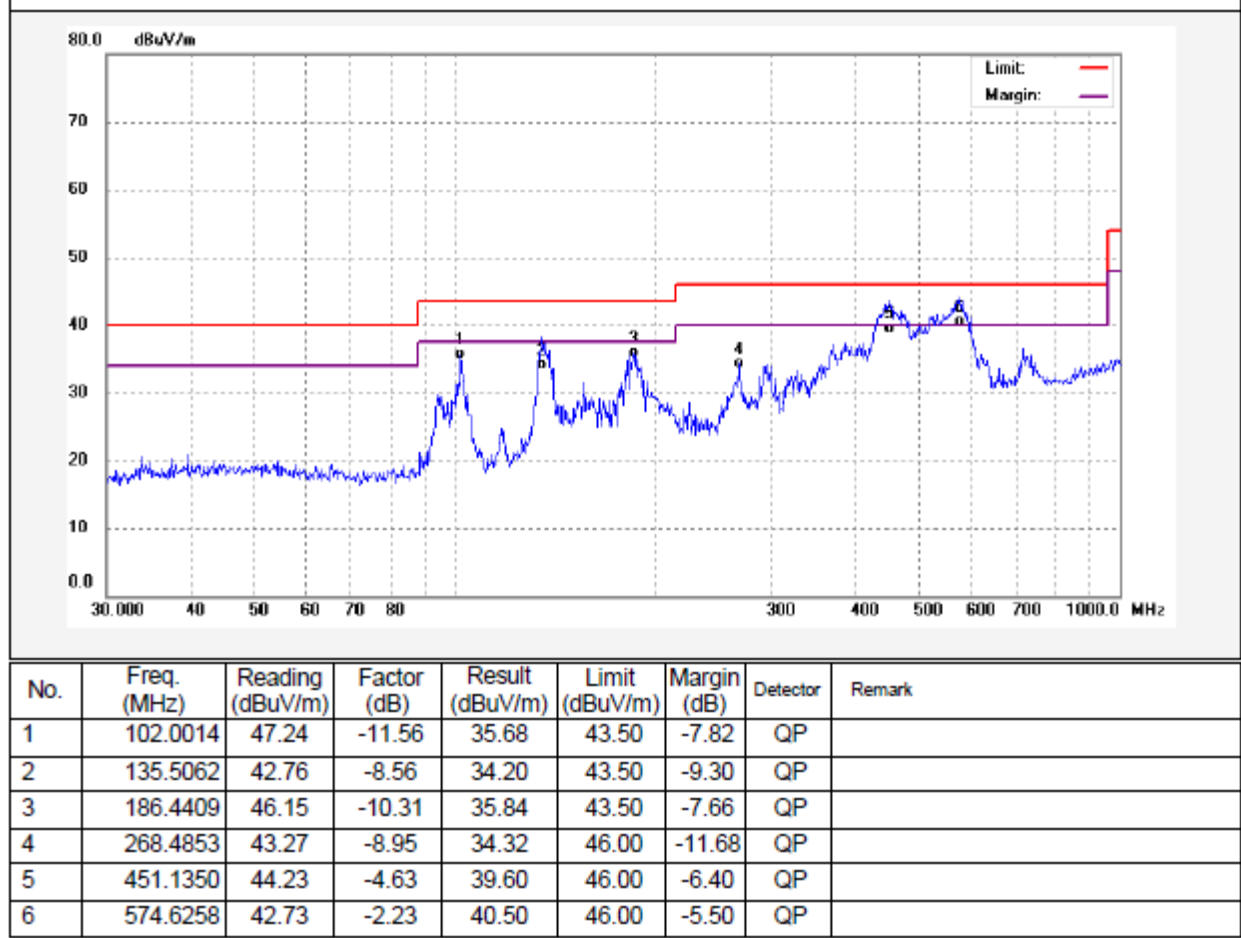
Antenna Polarization: Horizontal



Mode: Adapter 3+configuration A_ Ant. 1+ Ant. 2_U-NII-2C 802.11n(HT20) Low channel
Antenna Polarization: Vertical



Antenna Polarization: Horizontal

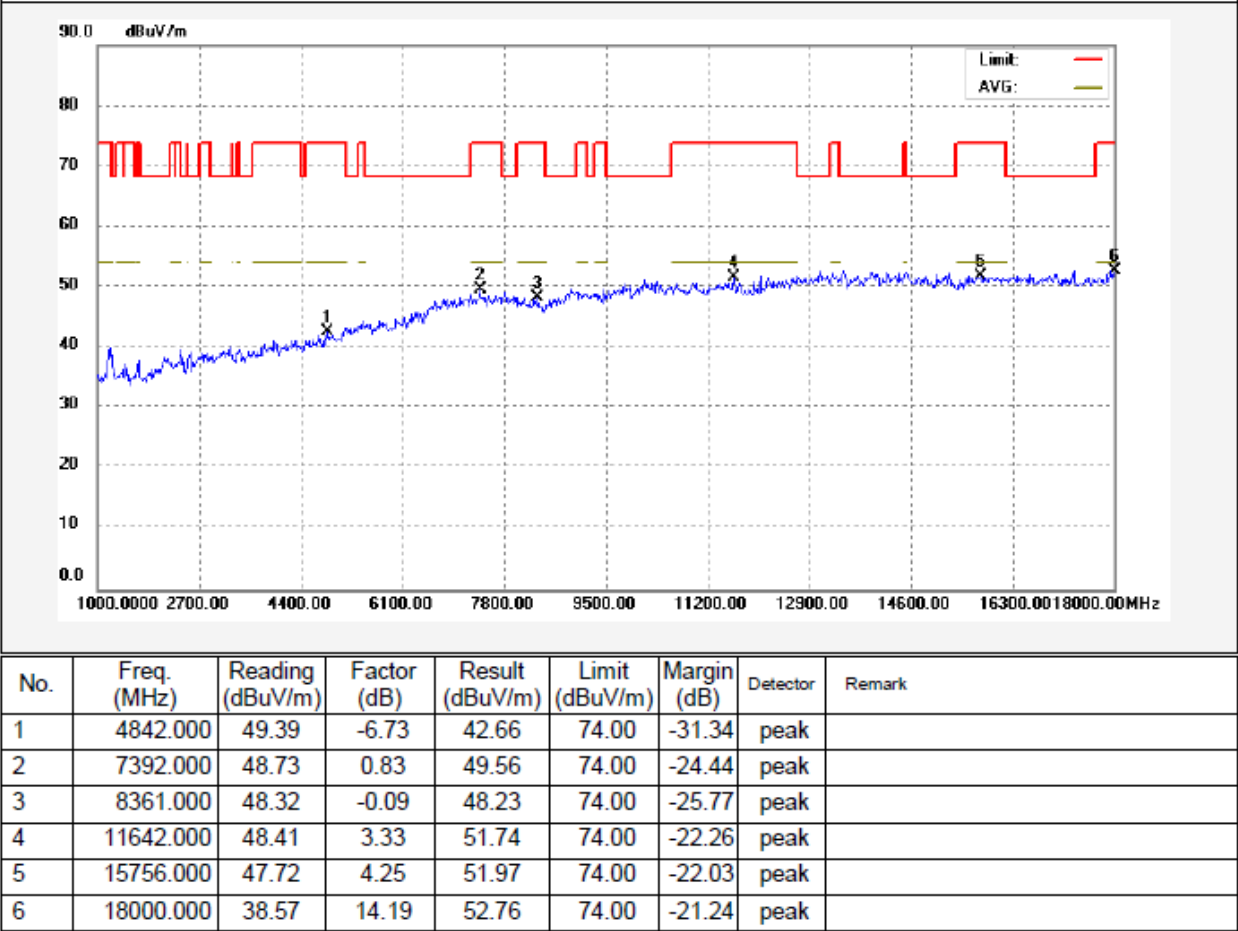


Test Frequency: 1GHz ~ 18GHz

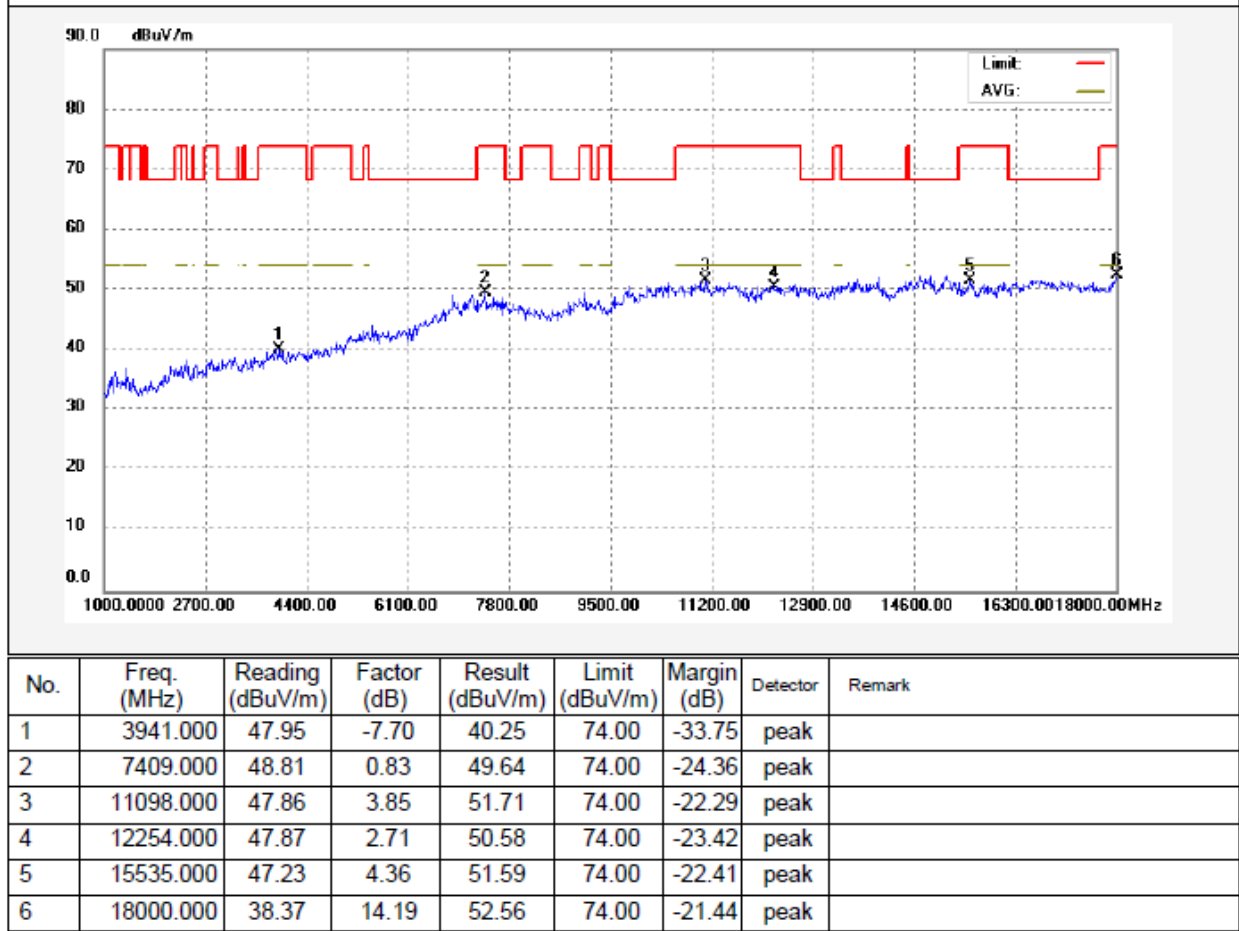
U-NII-1:

Mode: configuration A_ Ant. 1+ Ant. 2_ 802.11n(HT40) High channel

Antenna Polarization: Vertical



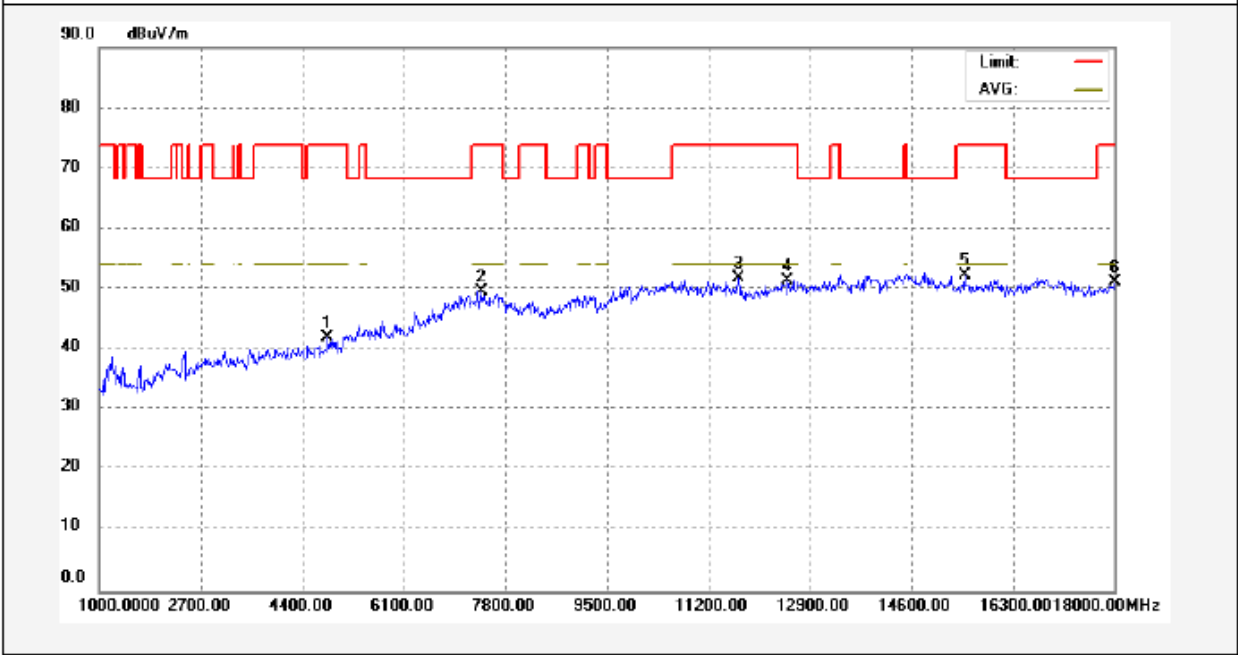
Antenna Polarization: Horizontal



U-NII-2A:

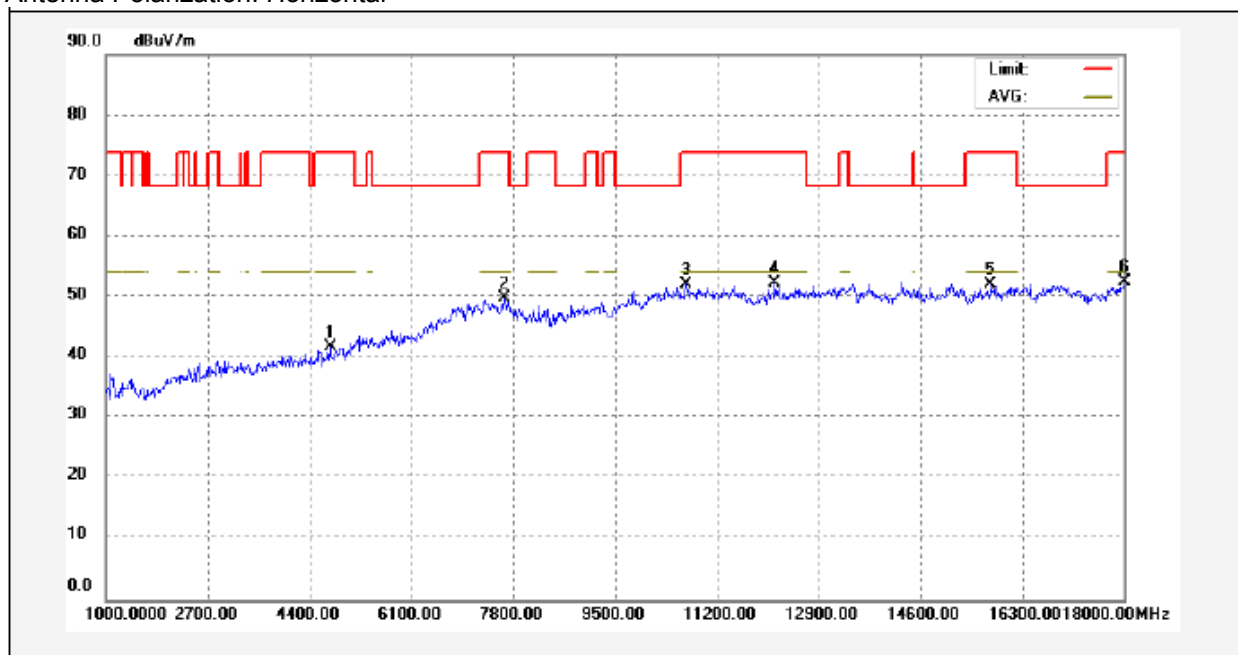
Mode: configuration A_ Ant. 1+ Ant. 2_ 802.11ax(HE40) High channel

Antenna Polarization: Vertical



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	4825.000	48.62	-6.75	41.87	74.00	-32.13	peak	
2	7392.000	48.85	0.83	49.68	74.00	-24.32	peak	
3	11710.000	48.76	3.15	51.91	74.00	-22.09	peak	
4	12526.000	48.39	3.00	51.39	74.00	-22.61	peak	
5	15484.000	47.82	4.44	52.26	74.00	-21.74	peak	
6	18000.000	36.89	14.19	51.08	74.00	-22.92	peak	

Antenna Polarization: Horizontal

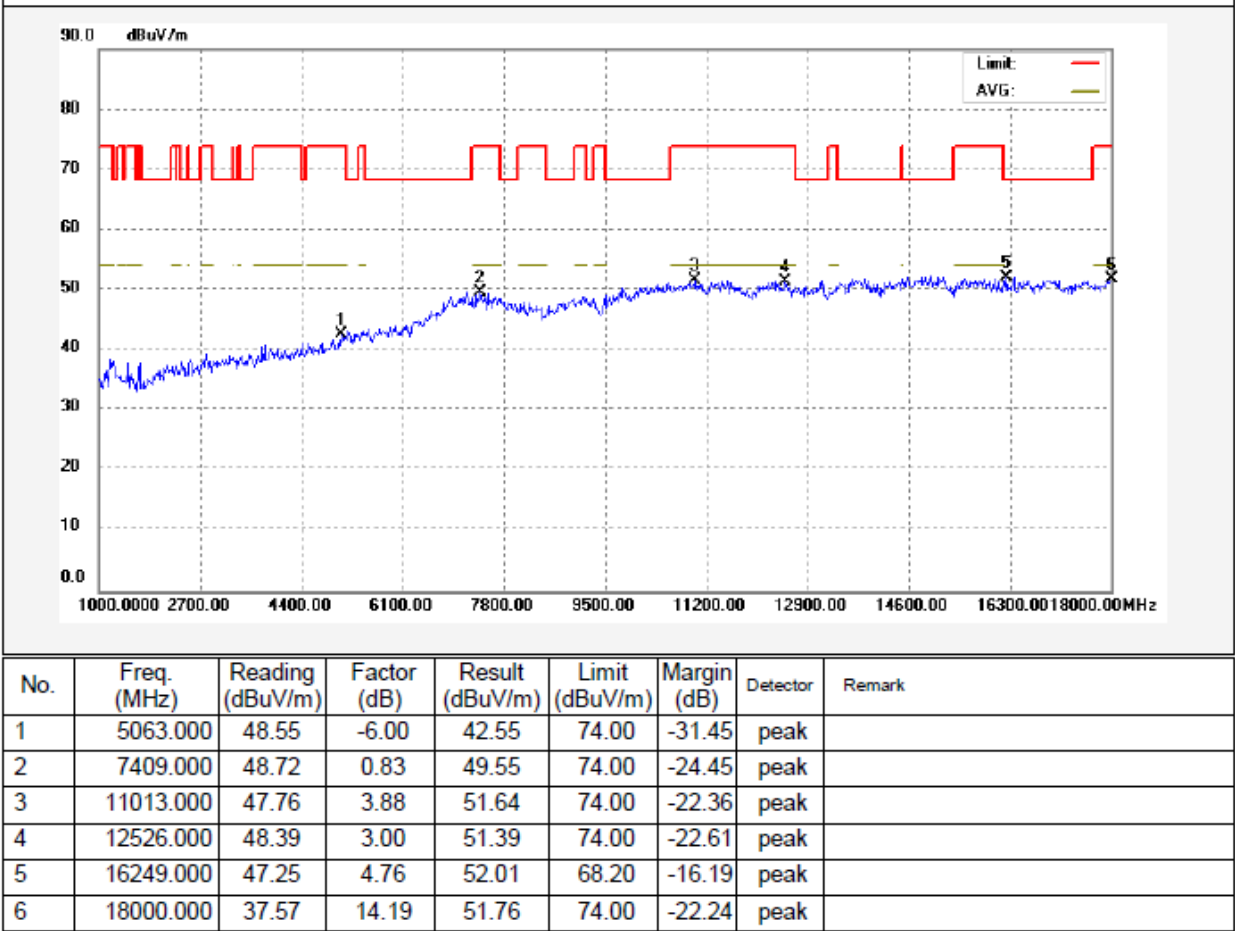


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	4740.000	48.59	-6.92	41.67	74.00	-32.33	peak	
2	7647.000	49.41	0.48	49.89	74.00	-24.11	peak	
3	10690.000	48.57	3.41	51.98	74.00	-22.02	peak	
4	12169.000	49.64	2.61	52.25	74.00	-21.75	peak	
5	15773.000	47.74	4.24	51.98	74.00	-22.02	peak	
6	18000.000	38.38	14.19	52.57	74.00	-21.43	peak	

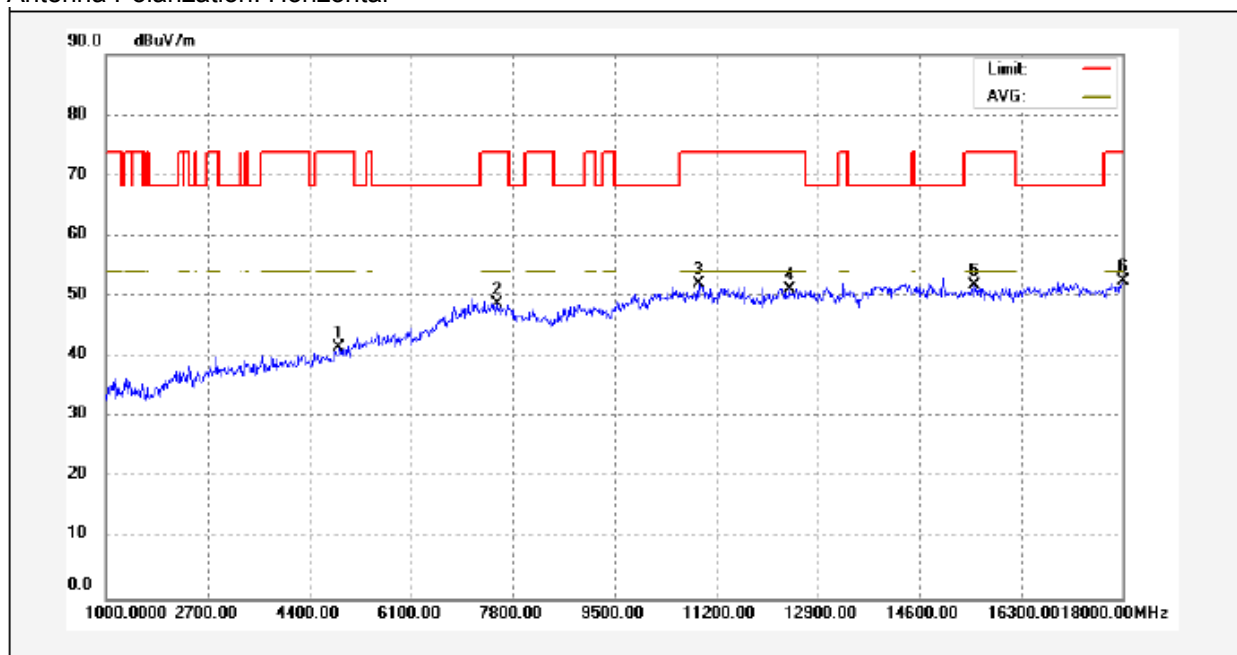
U-NII-2C:

Mode: configuration A_ Ant. 1+ Ant. 2_ 802.11n(HT20) Low channel

Antenna Polarization: Vertical



Antenna Polarization: Horizontal

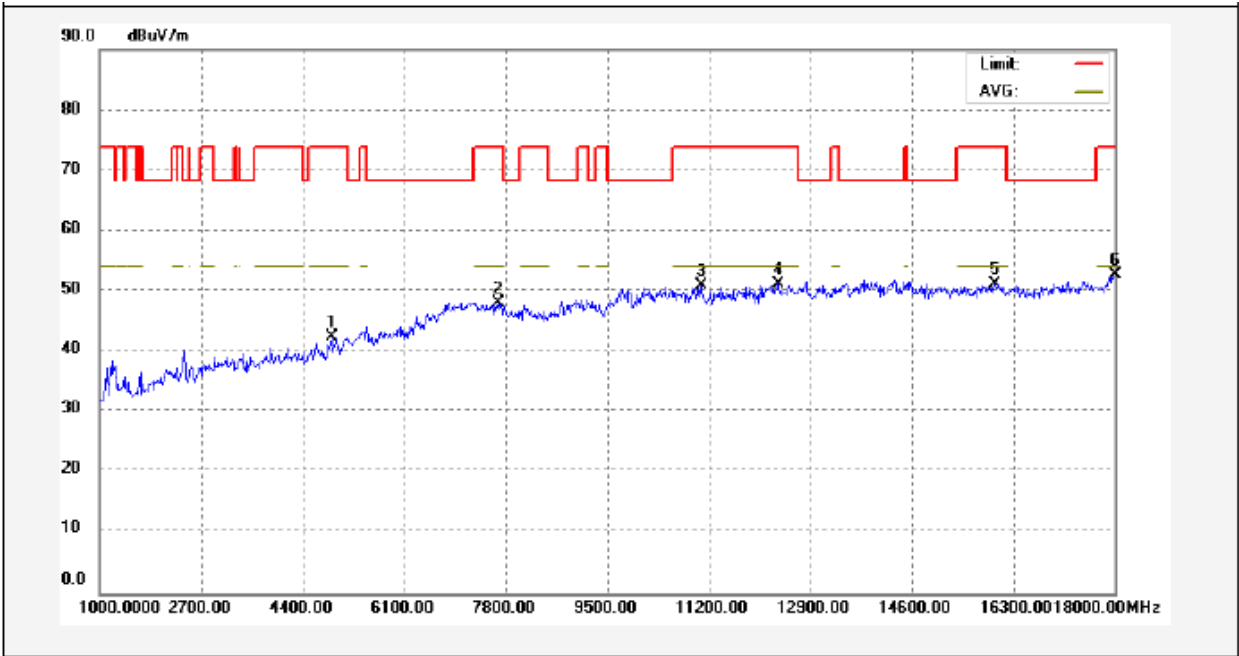


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	4893.000	48.16	-6.64	41.52	74.00	-32.48	peak	
2	7528.000	48.07	0.67	48.74	74.00	-25.26	peak	
3	10911.000	48.28	3.75	52.03	74.00	-21.97	peak	
4	12424.000	48.39	2.90	51.29	74.00	-22.71	peak	
5	15518.000	47.45	4.37	51.82	74.00	-22.18	peak	
6	18000.000	38.34	14.19	52.53	74.00	-21.47	peak	

U-NII-3:

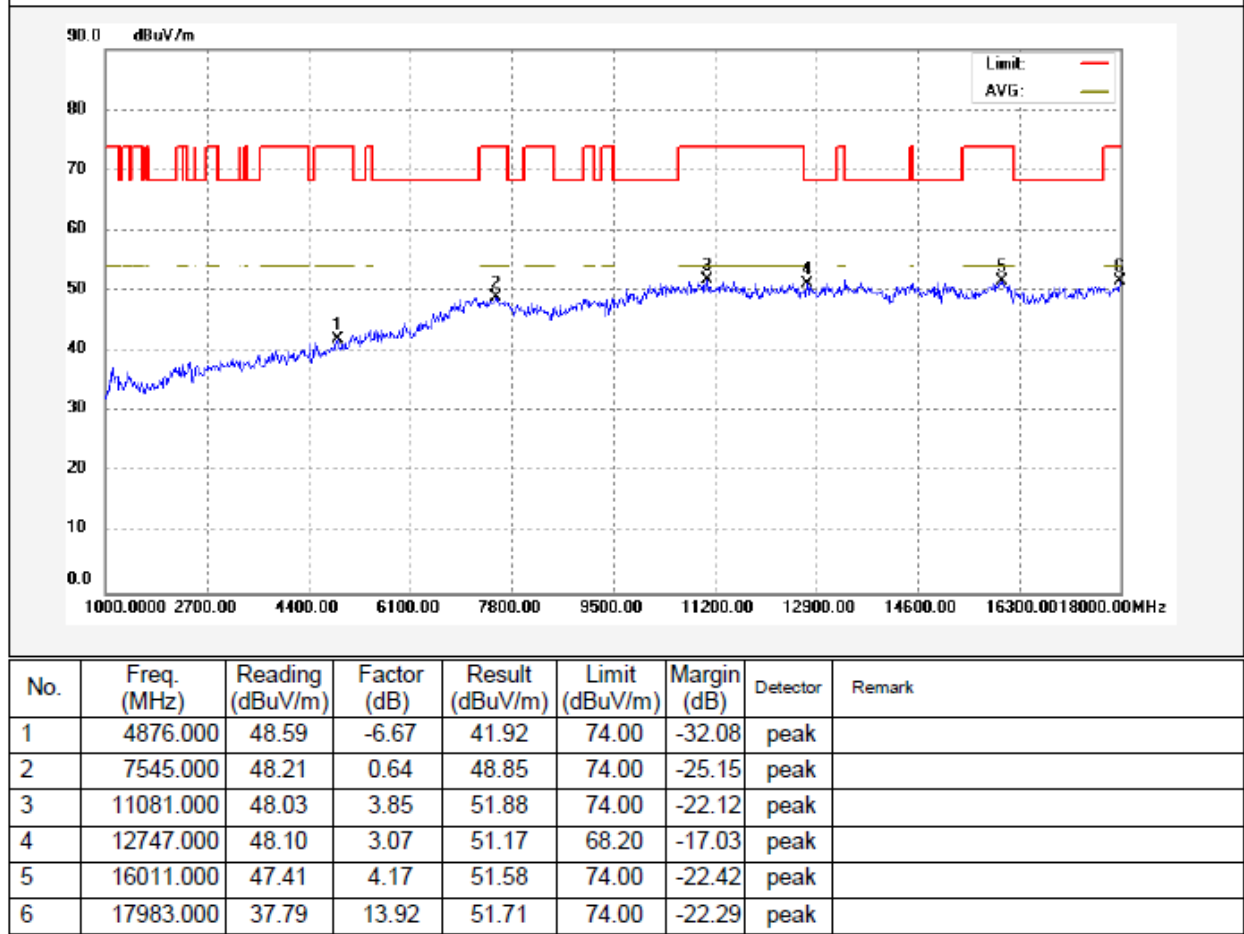
Mode: configuration A_ Ant. 1+ Ant. 2_ 802.11ax(HE40) Low channel

Antenna Polarization: Vertical



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	4876.000	49.01	-6.67	42.34	74.00	-31.66	peak	
2	7664.000	47.53	0.46	47.99	74.00	-26.01	peak	
3	11064.000	47.05	3.86	50.91	74.00	-23.09	peak	
4	12356.000	48.46	2.83	51.29	74.00	-22.71	peak	
5	15994.000	47.01	4.15	51.16	74.00	-22.84	peak	
6	18000.000	38.49	14.19	52.68	74.00	-21.32	peak	

Antenna Polarization: Horizontal



Test Frequency: 18GHz~40GHz

The measurements were more than 20 dB below the limit and not reported.

10 Band Edge

Test Requirement:	FCC 47CFR Part 15 Section 15.407
Test Method:	ANSI C63.10-2020
Test Limit:	For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.; or All emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, devices with bandwidth overlapping the band edge of 5725 MHz can meet the emission limit of -27 dBm/MHz e.i.r.p. at 5850 MHz instead of 5725 MHz. Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following: 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges; 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges; 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.
Test Result:	PASS

10.1 Test Produce

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. To convert the conducted power to EIRP as required by FCC 15.407, calculate and apply a Reference Level Offset or Correction factor table in the spectrum analyzer:
 Path Loss: Measure the loss of the cable and any external attenuators set into Reference Level Offset.
 Antenna Gain (G): Determine the maximum directional gain of the antenna in dBi.
 MIMO/Beamforming: If the EUT supports multiple outputs, calculate the Directional Gain according to KDB 662911, set Directional Antenna Gain (dBi) into Correction factor table.
 Follow the procedures specified in KDB Publication 662911 adjusting emission levels measured on individual outputs by $10\log(N_{ANT})$, where N_{ANT} is the number of outputs, set $10\log(N_{ANT})$, into Correction factor table.
4. Set RBW to 1000 kHz and VBW of spectrum analyzer to 3000 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
5. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
6. Repeat above procedures until all measured frequencies were complete.

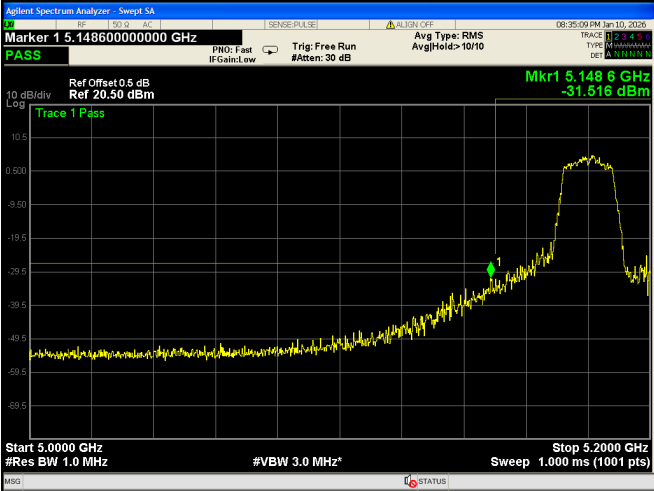
10.2 Test Result

Note: Both Ant. 1 and Ant. 2 have been tested separately, and the report only shows the worst case.

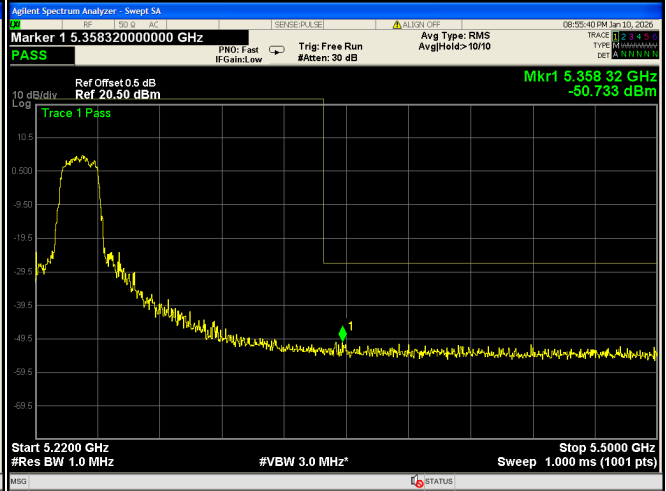
Test plots shown as follows:
Ant. 1

U-NII-1

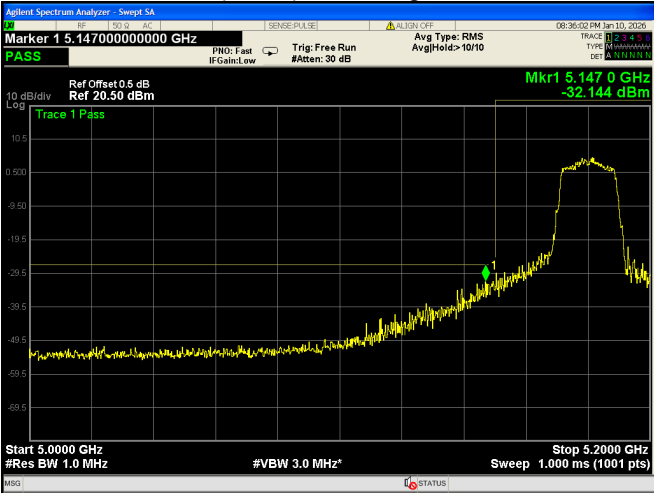
802.11a Band edge-left side



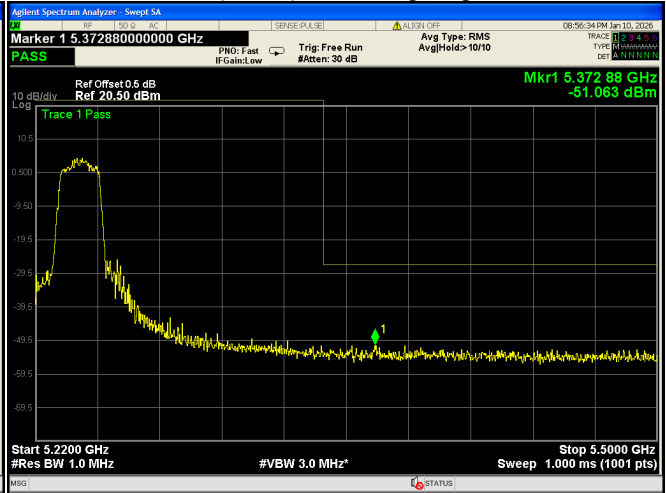
802.11a Band edge-right side



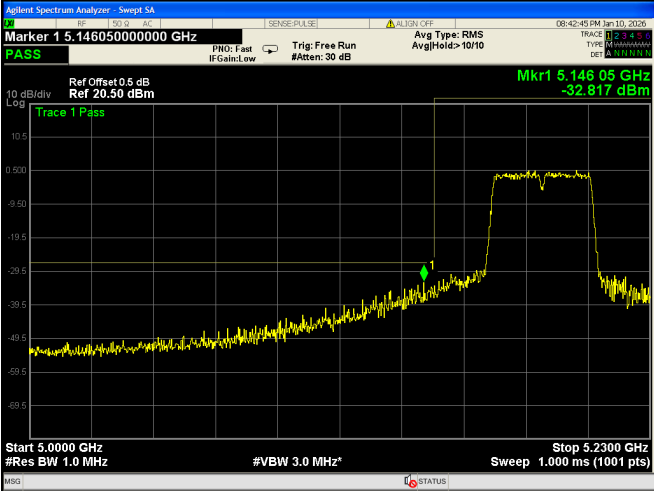
802.11n(HT20) Band edge-left side



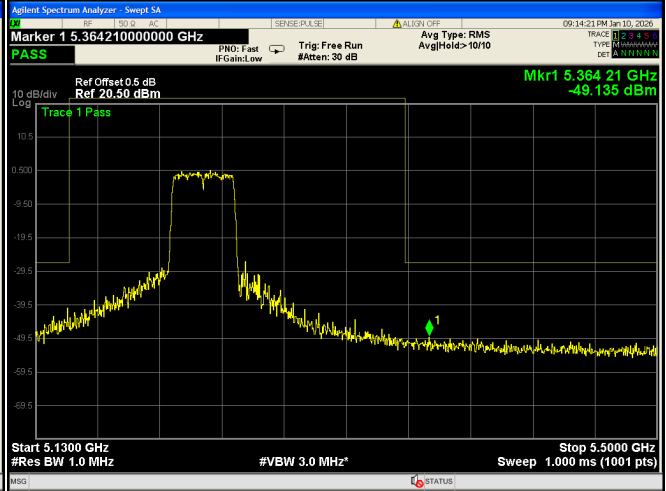
802.11n(HT20) Band edge-right side



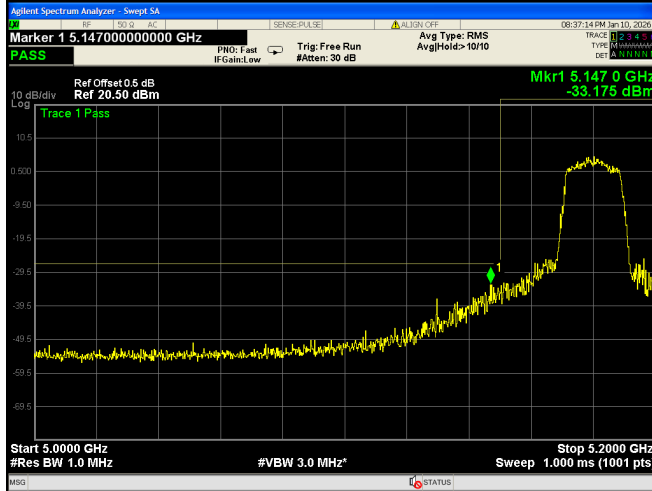
802.11n(HT40) Band edge-left side



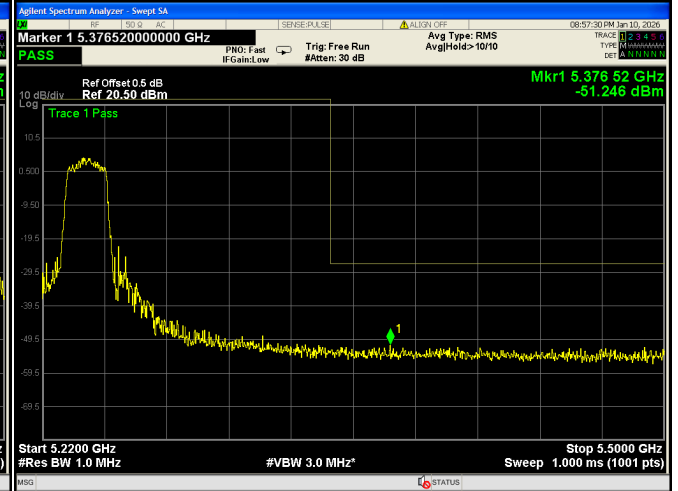
802.11n(HT40) Band edge-right side



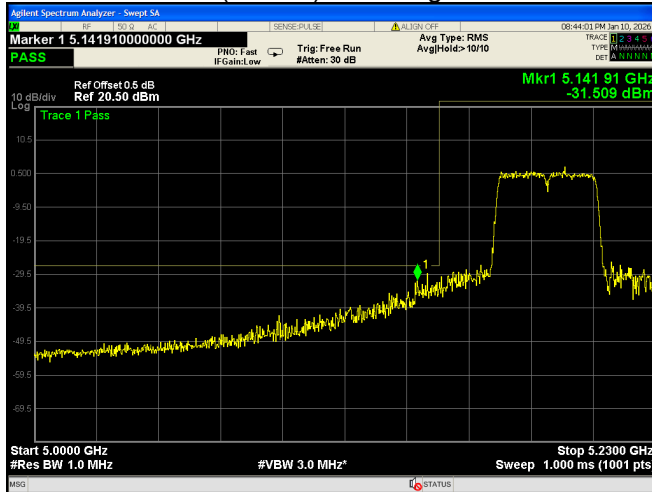
802.11ac(VHT20) Band edge-left side



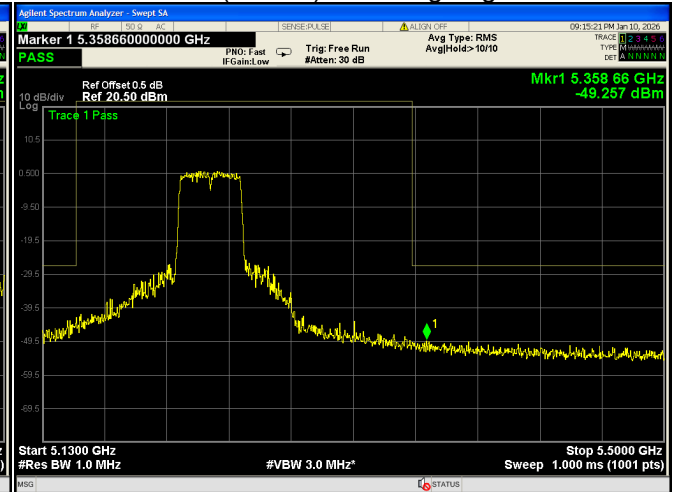
802.11ac(VHT20) Band edge-right side



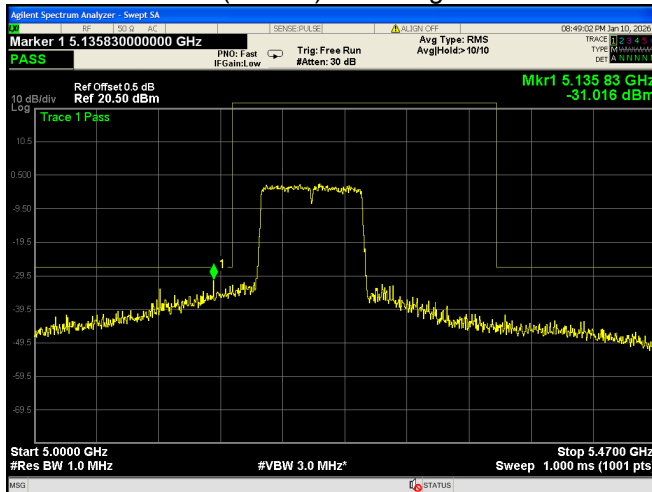
802.11ac(VHT40) Band edge-left side



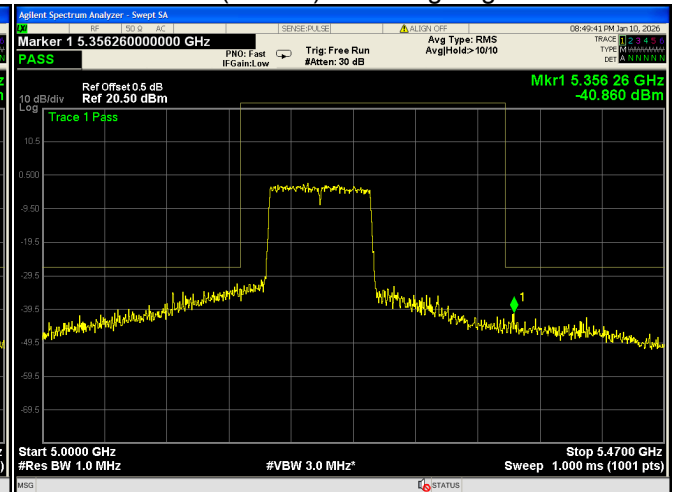
802.11ac(VHT40) Band edge-right side



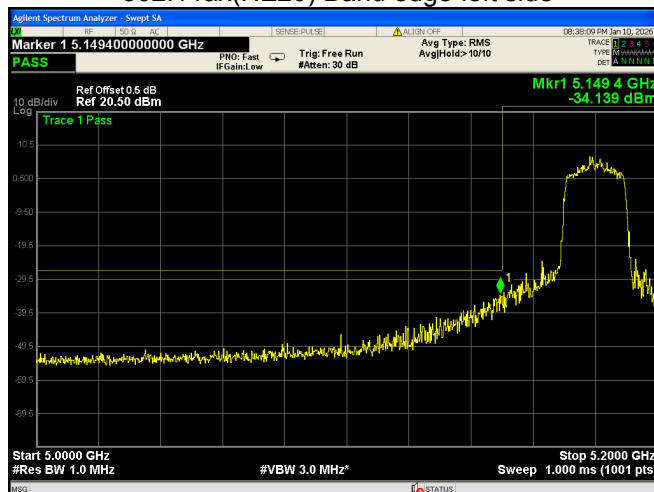
802.11ac(VHT80) Band edge-left side



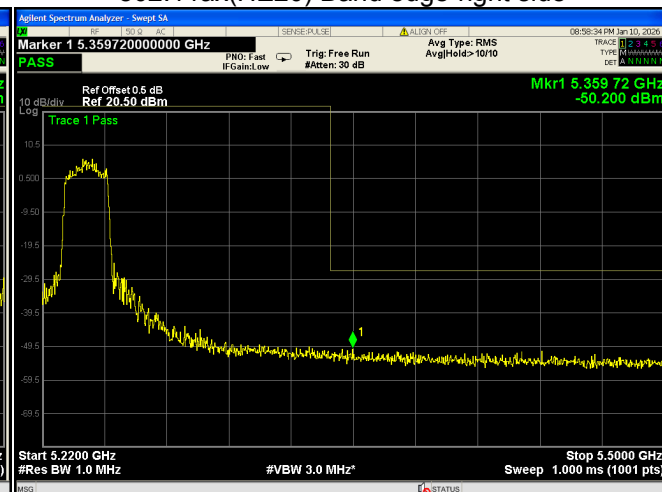
802.11ac(VHT80) Band edge-right side



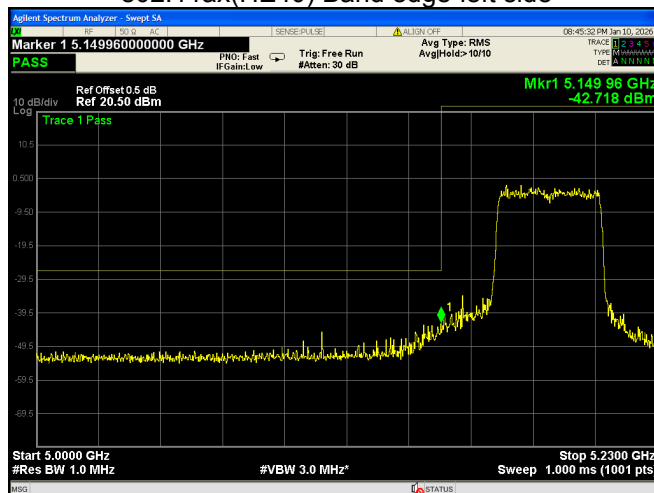
802.11ax(HE20) Band edge-left side



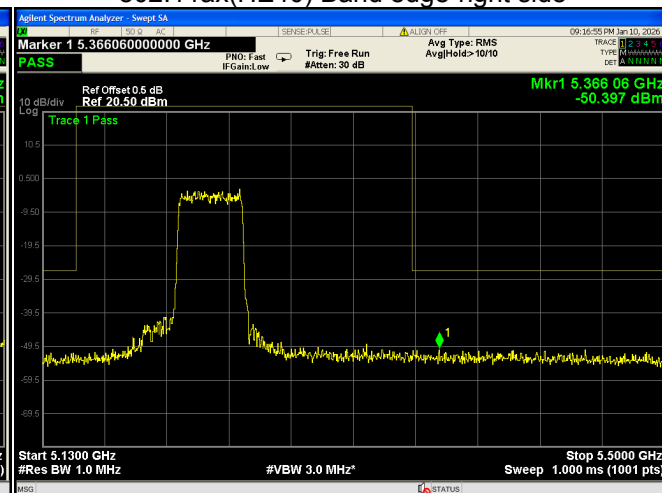
802.11ax(HE20) Band edge-right side



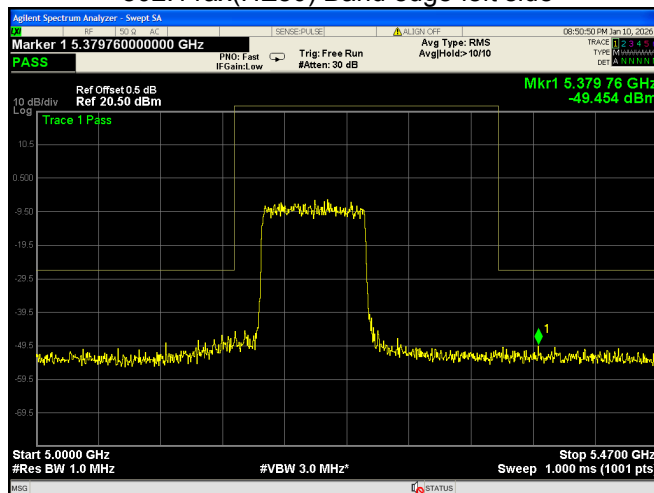
802.11ax(HE40) Band edge-left side



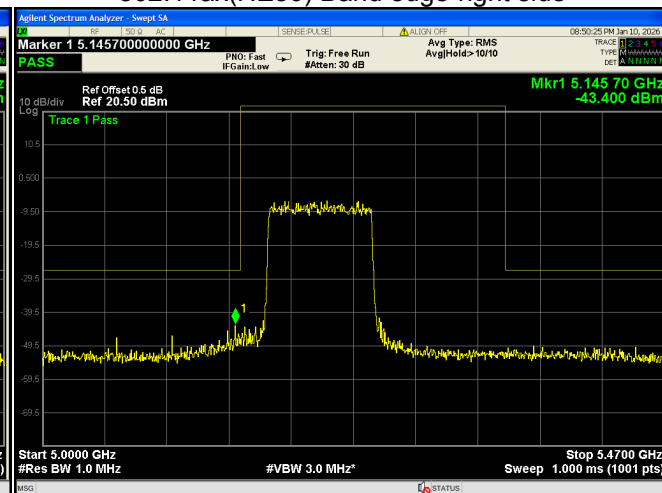
802.11ax(HE40) Band edge-right side



802.11ax(HE80) Band edge-left side

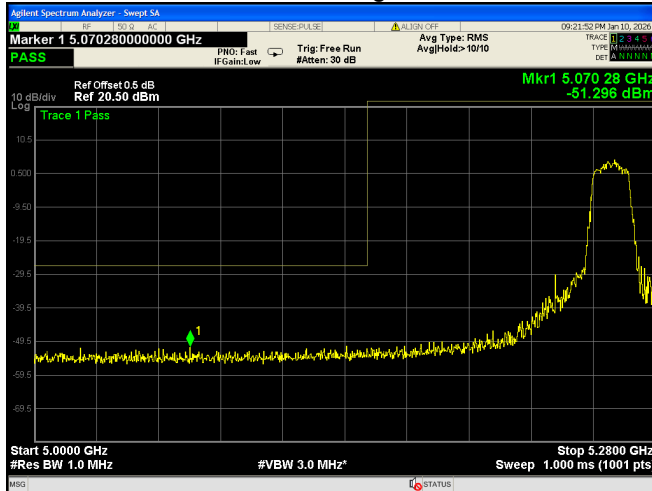


802.11ax(HE80) Band edge-right side

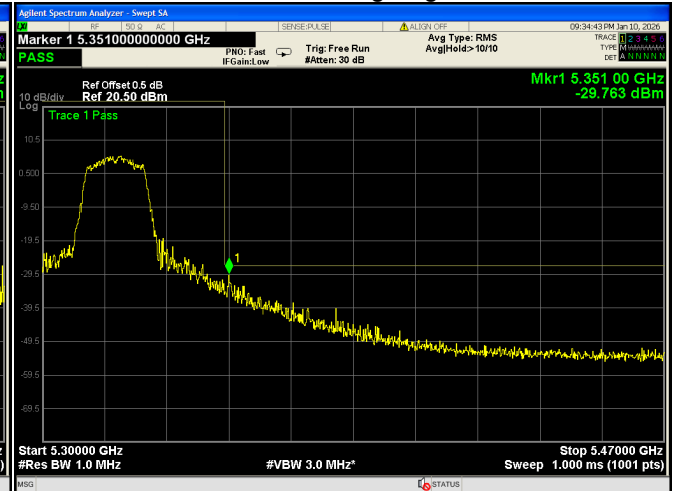


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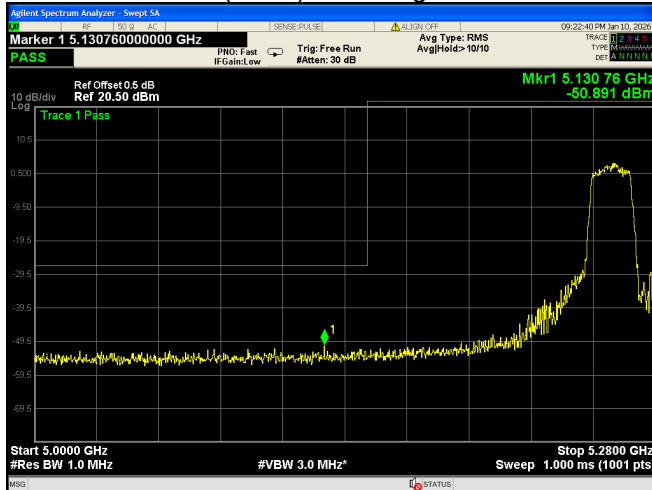
802.11a Band edge-left side



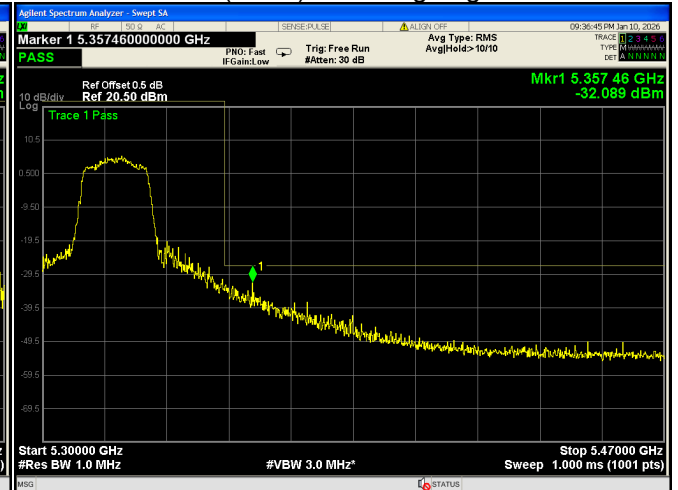
802.11a Band edge-right side



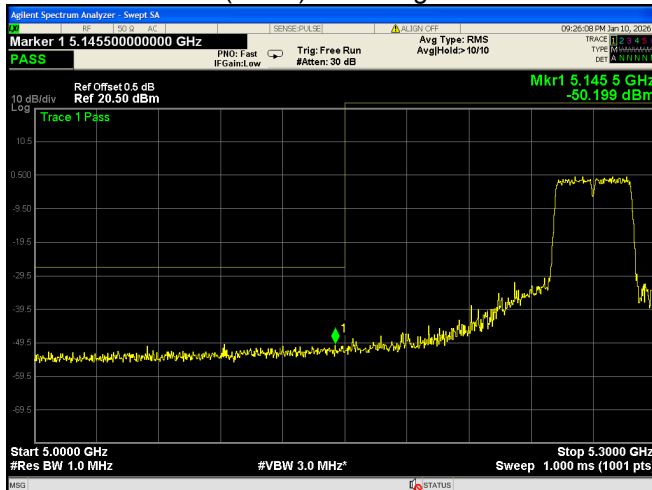
802.11n(HT20) Band edge-left side



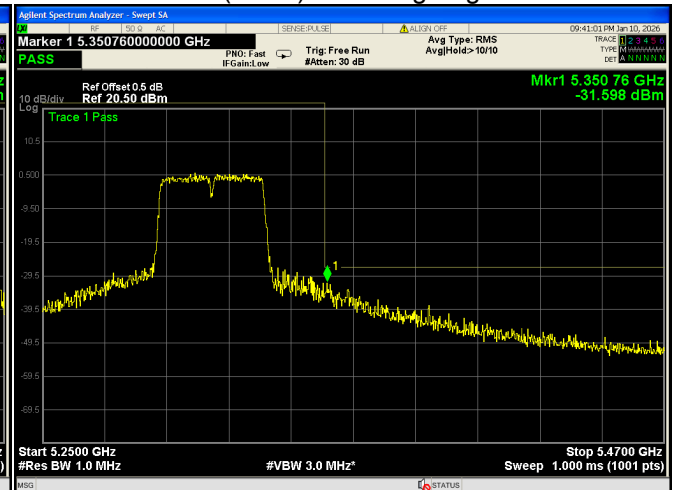
802.11n(HT20) Band edge-right side



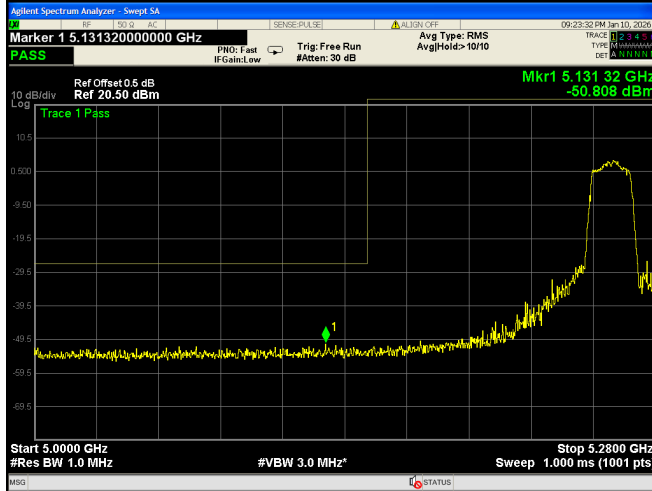
802.11n(HT40) Band edge-left side



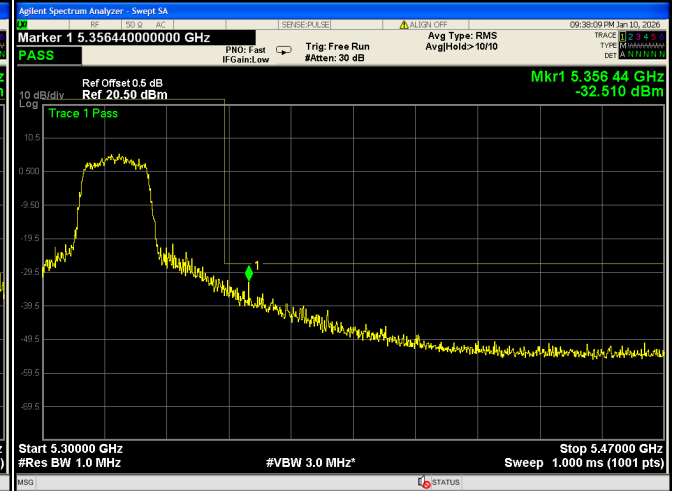
802.11n(HT40) Band edge-right side



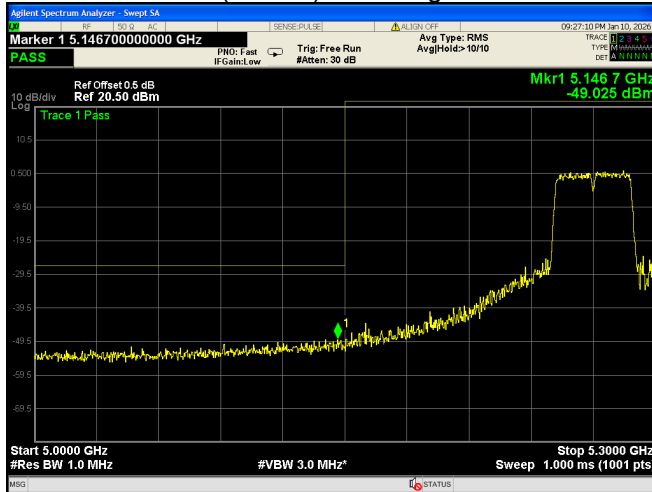
802.11ac(VHT20) Band edge-left side



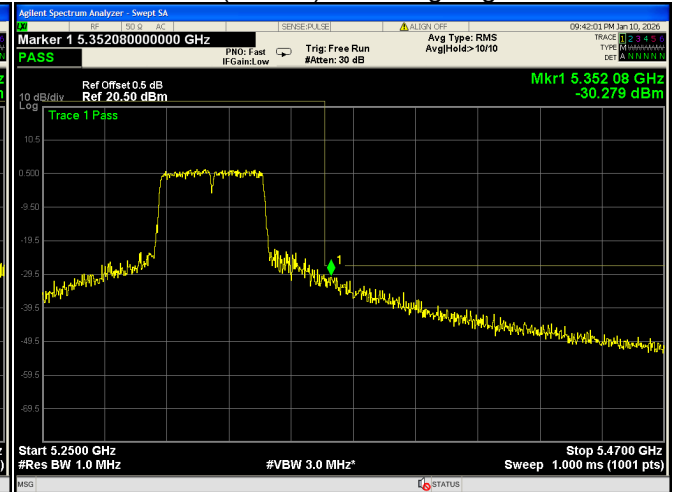
802.11ac(VHT20) Band edge-right side



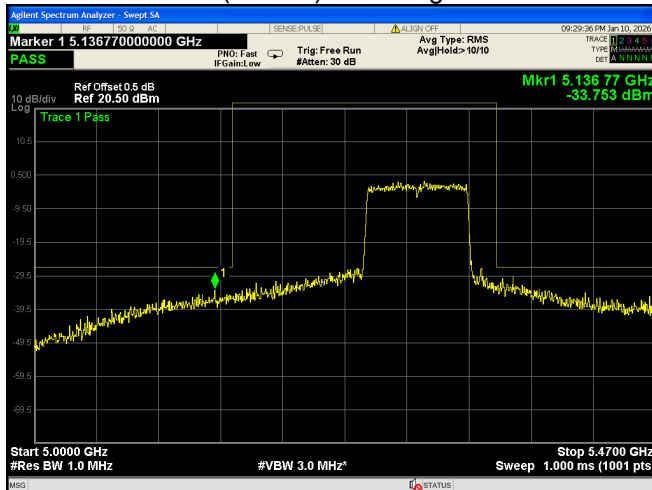
802.11ac(VHT40) Band edge-left side



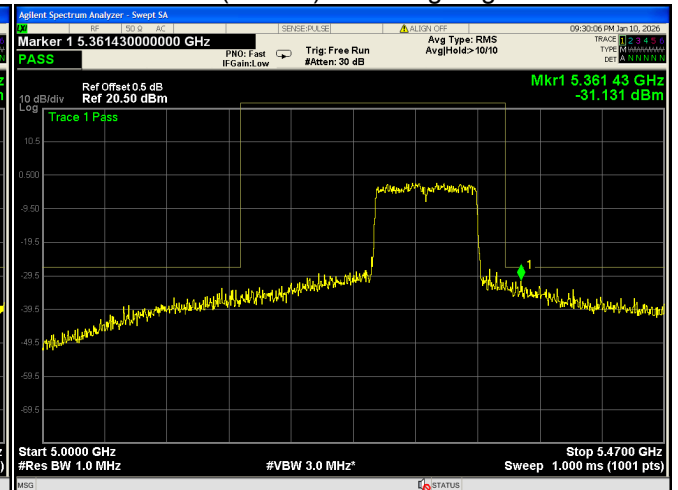
802.11ac(VHT40) Band edge-right side



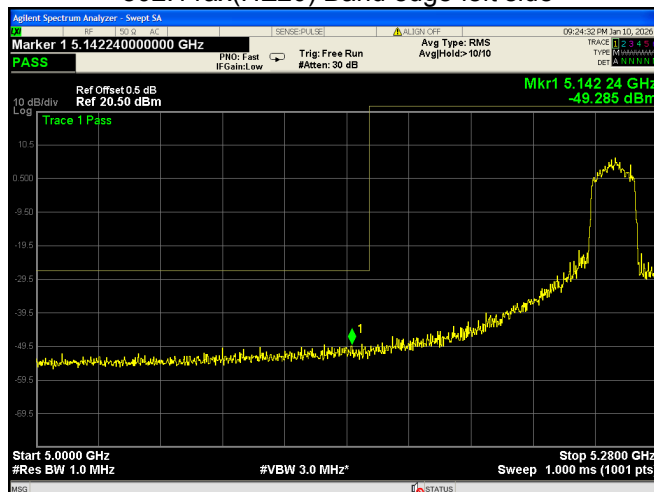
802.11ac(VHT80) Band edge-left side



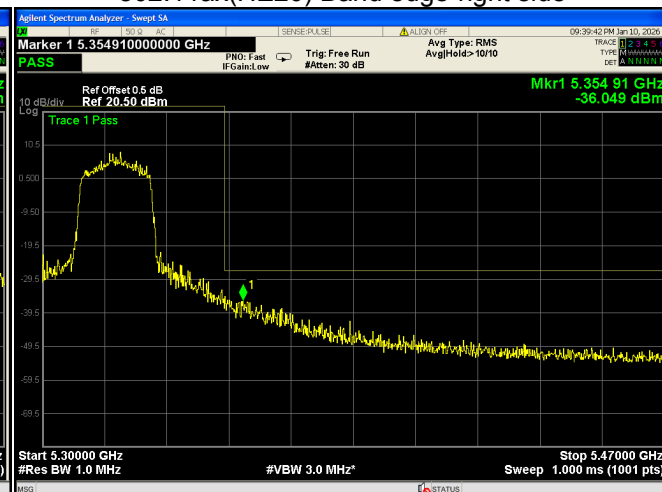
802.11ac(VHT80) Band edge-right side



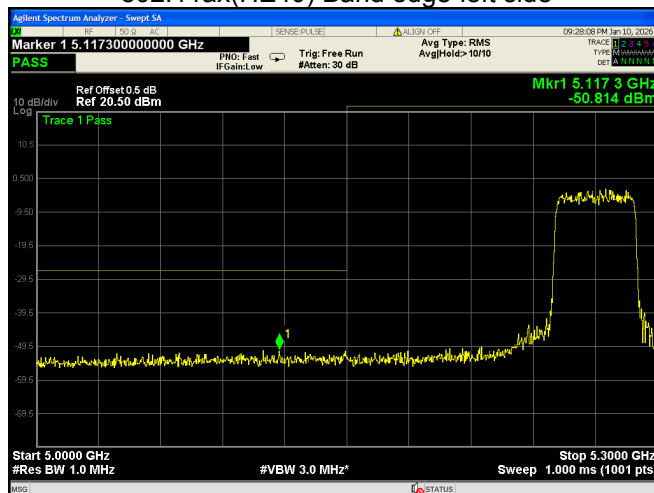
802.11ax(HE20) Band edge-left side



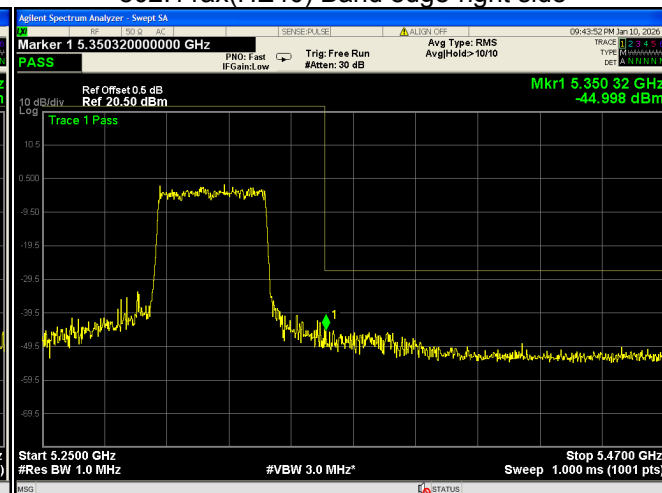
802.11ax(HE20) Band edge-right side



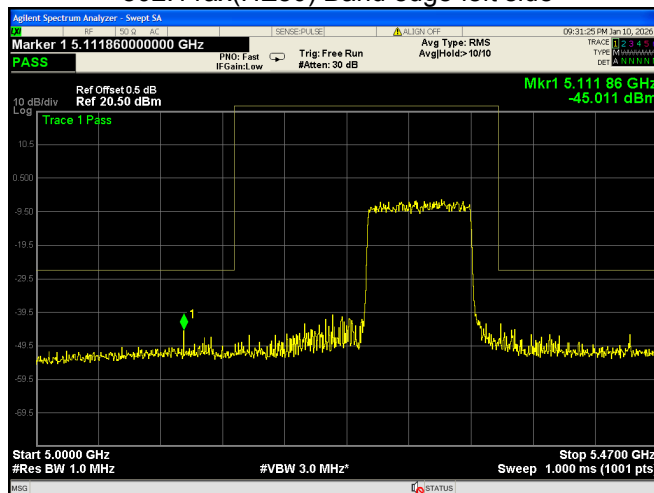
802.11ax(HE40) Band edge-left side



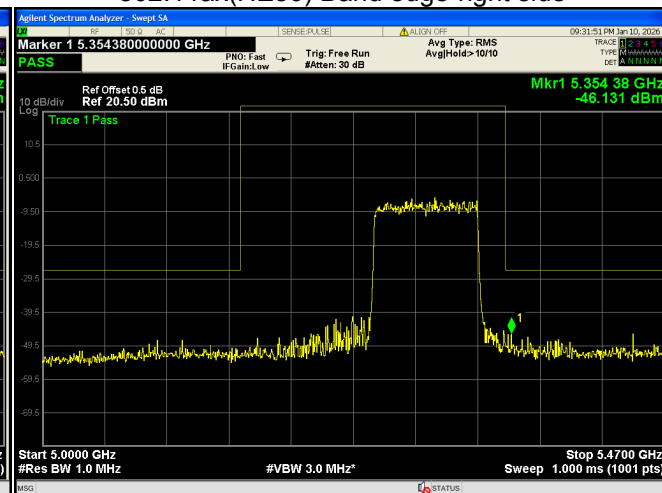
802.11ax(HE40) Band edge-right side



802.11ax(HE80) Band edge-left side

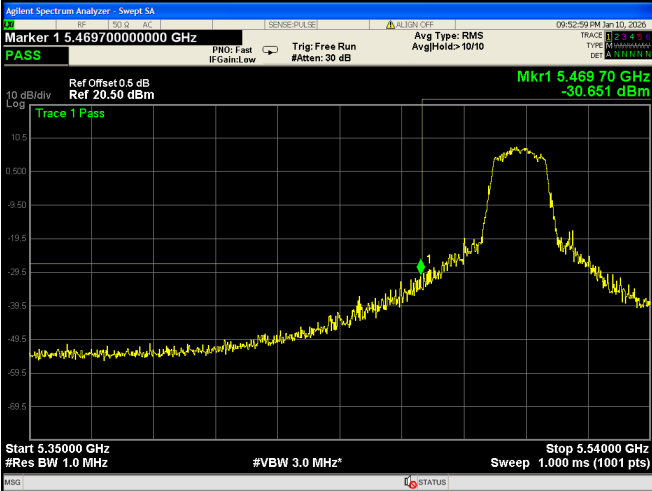


802.11ax(HE80) Band edge-right side

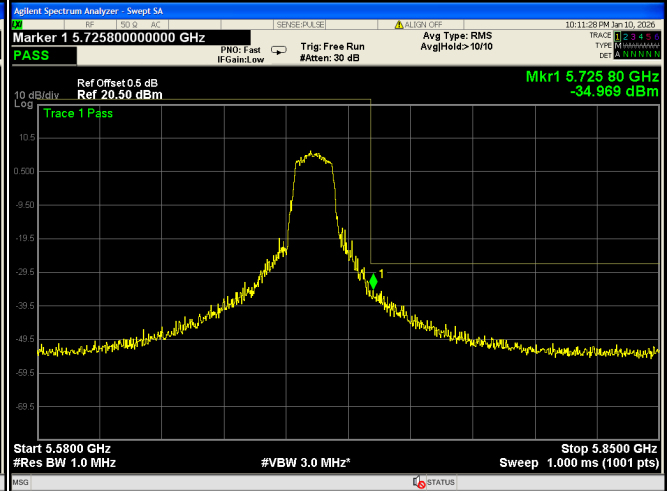


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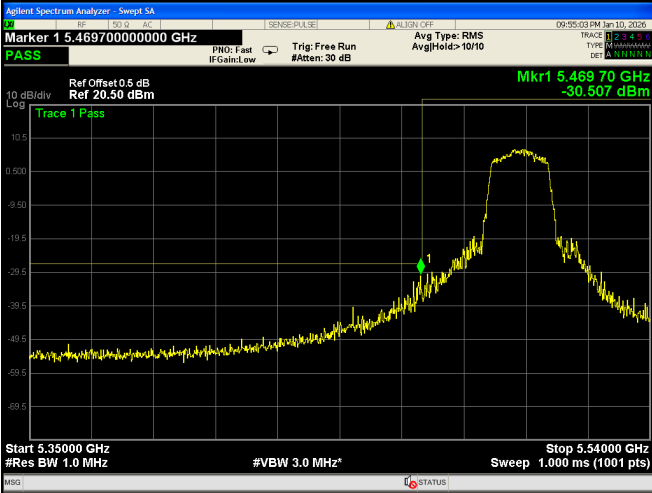
802.11a Band edge-left side



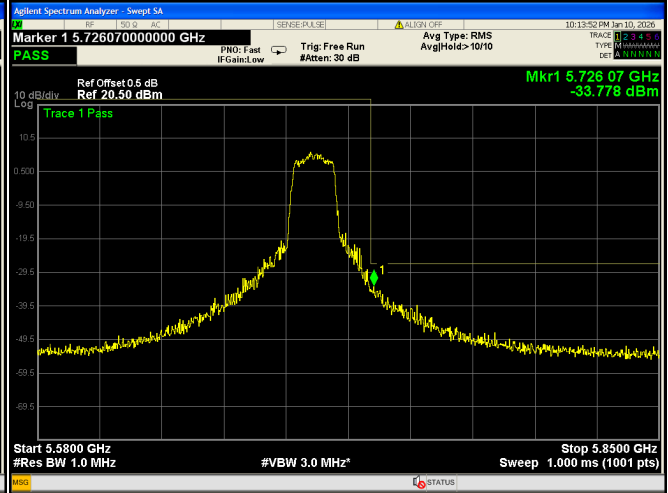
802.11a Band edge-right side



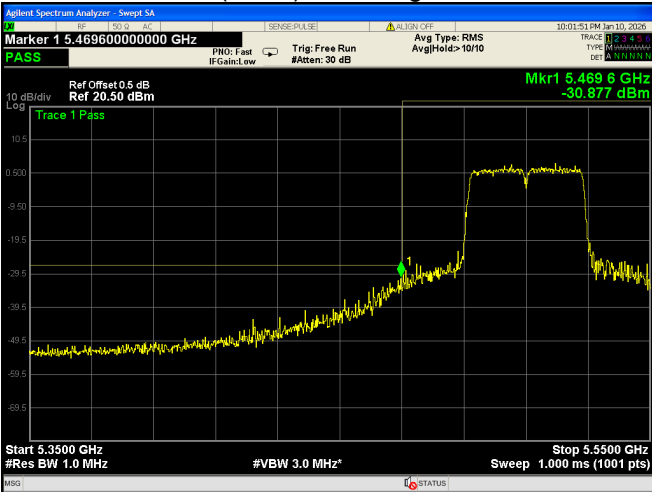
802.11n(HT20) Band edge-left side



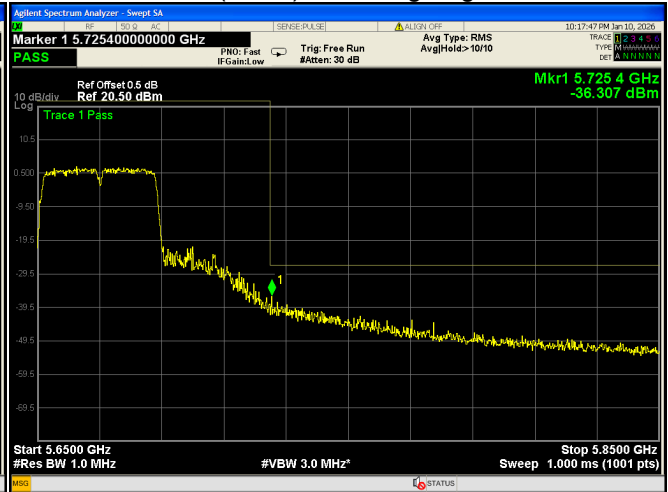
802.11n(HT20) Band edge-right side



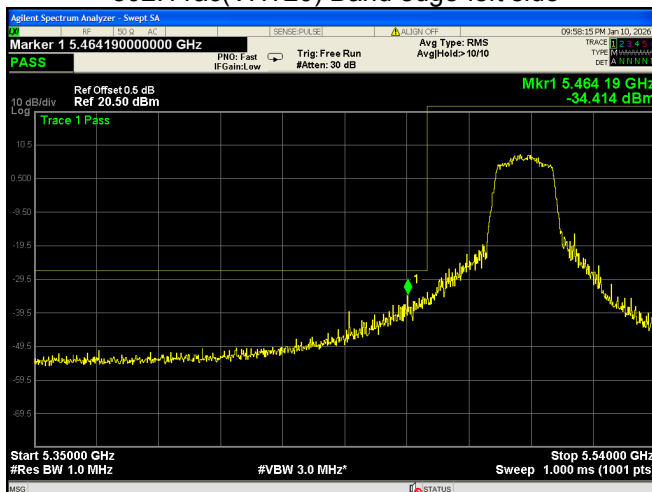
802.11n(HT40) Band edge-left side



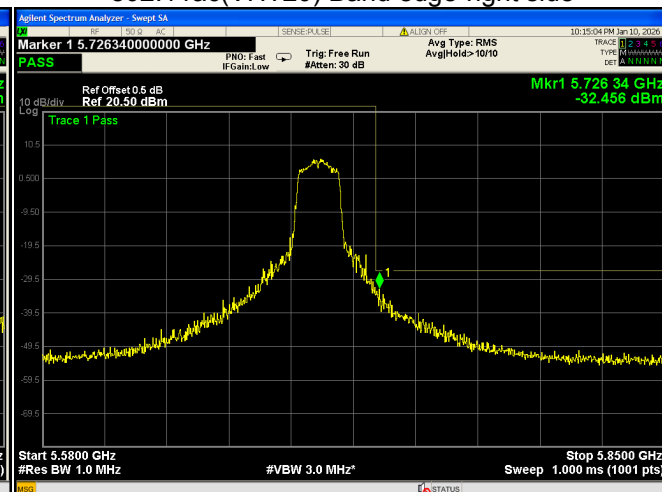
802.11n(HT40) Band edge-right side



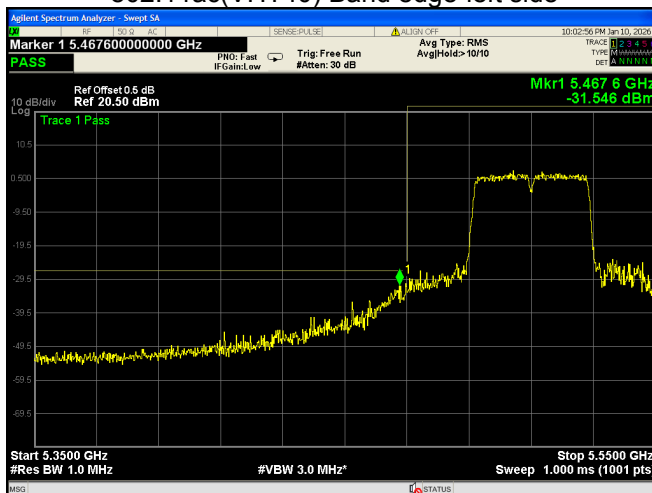
802.11ac(VHT20) Band edge-left side



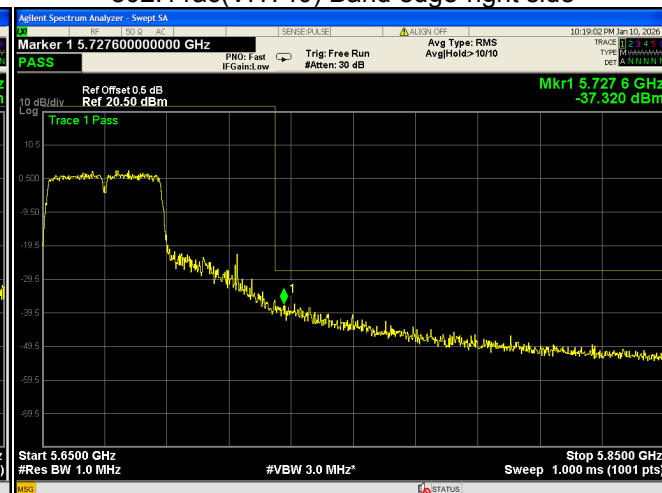
802.11ac(VHT20) Band edge-right side



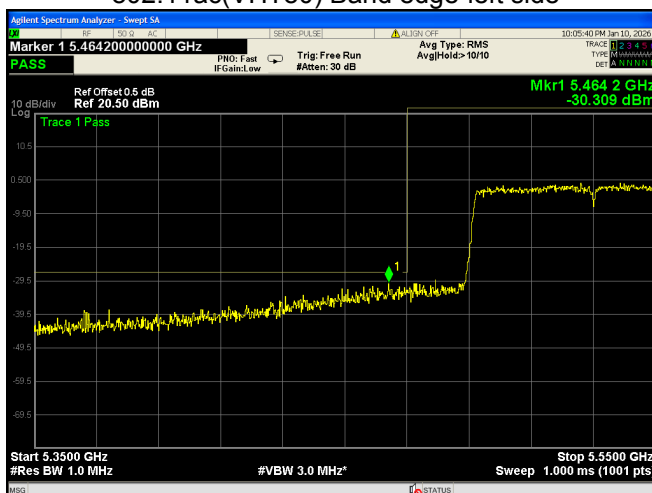
802.11ac(VHT40) Band edge-left side



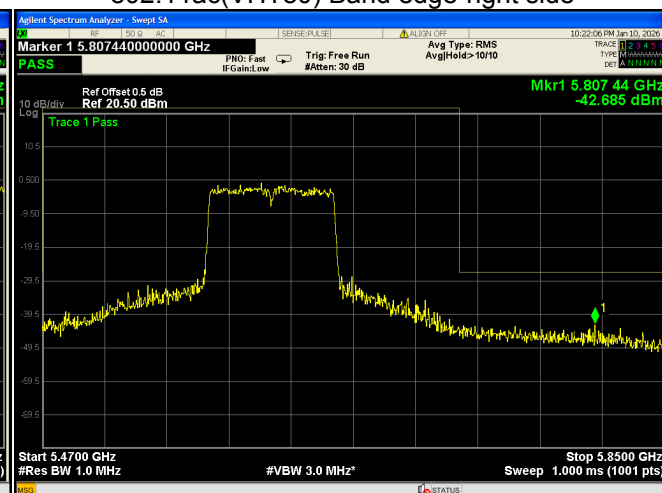
802.11ac(VHT40) Band edge-right side



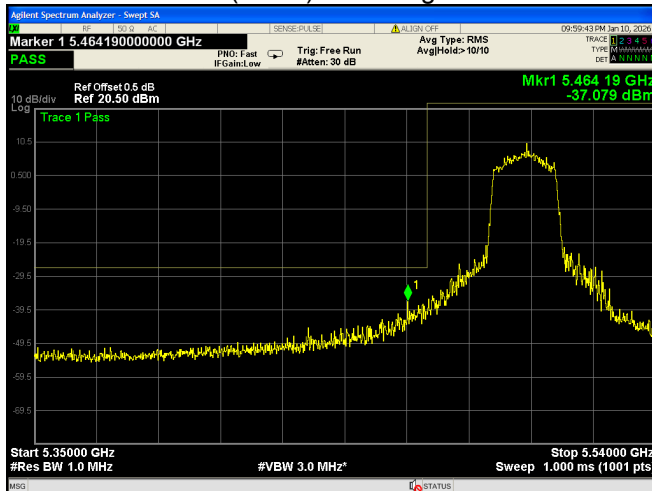
802.11ac(VHT80) Band edge-left side



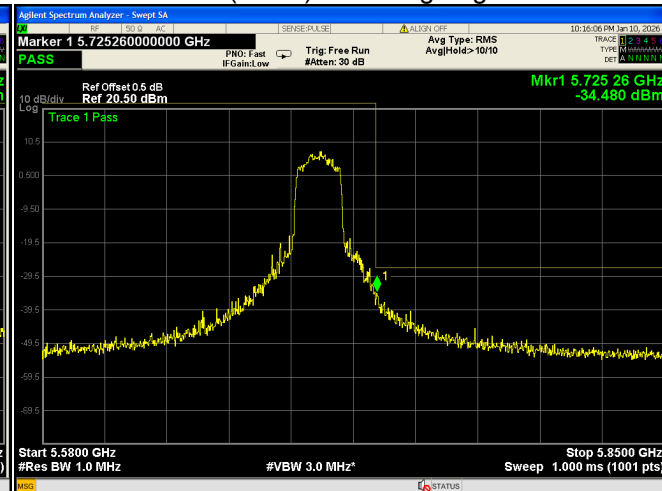
802.11ac(VHT80) Band edge-right side



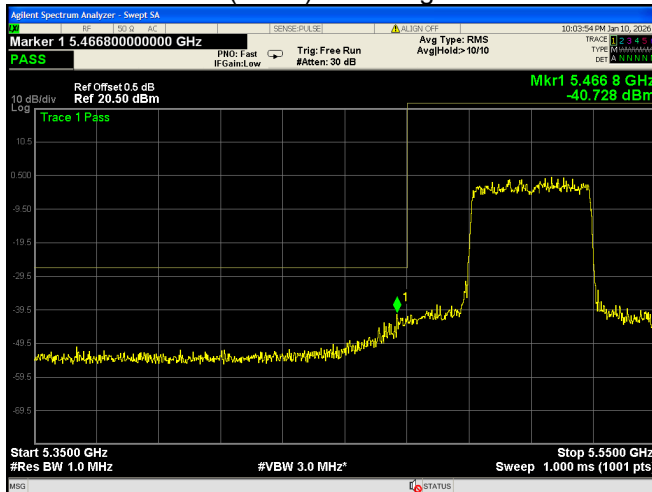
802.11ax(HE20) Band edge-left side



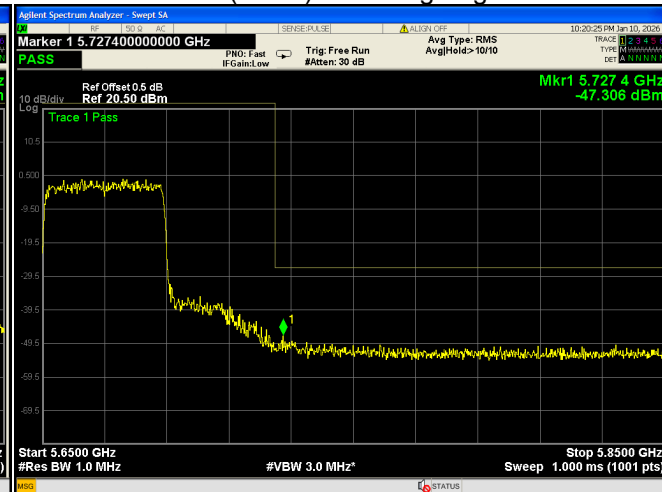
802.11ax(HE20) Band edge-right side



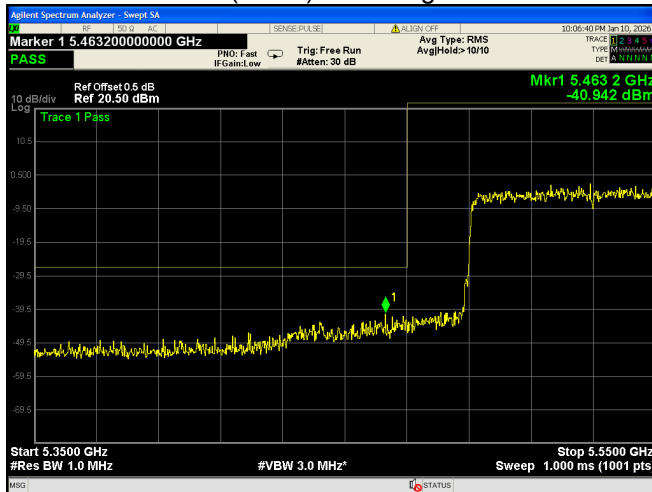
802.11ax(HE40) Band edge-left side



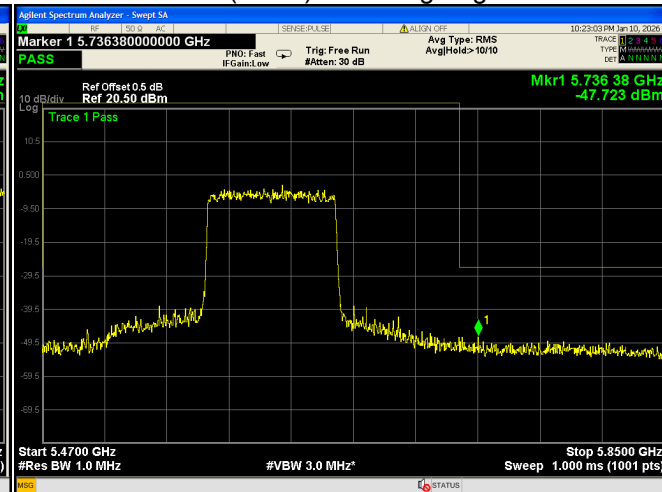
802.11ax(HE40) Band edge-right side



802.11ax(HE80) Band edge-left side

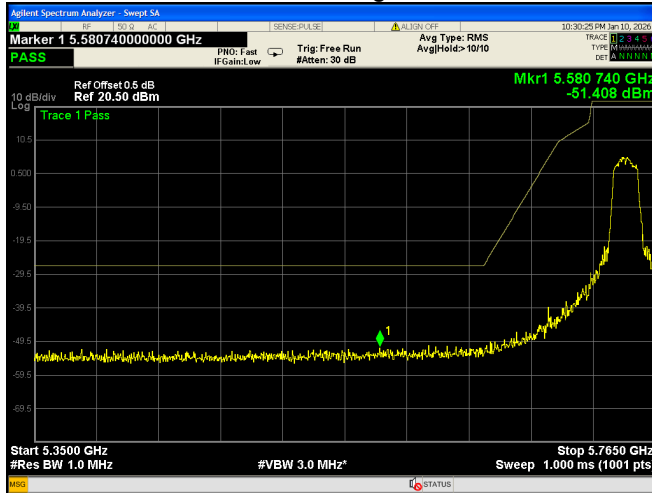


802.11ax(HE80) Band edge-right side

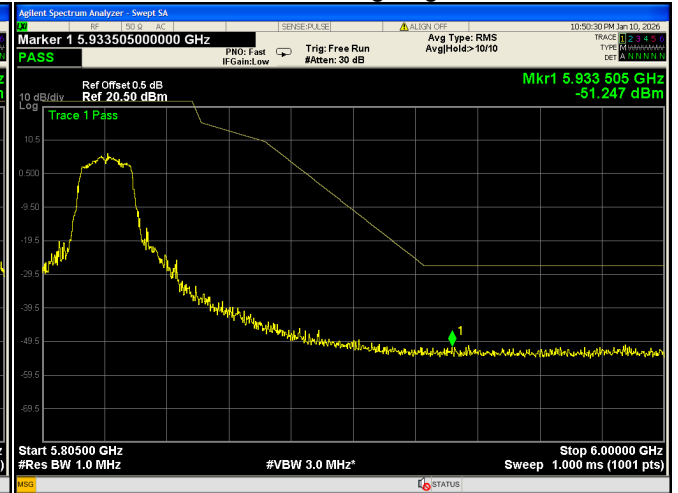


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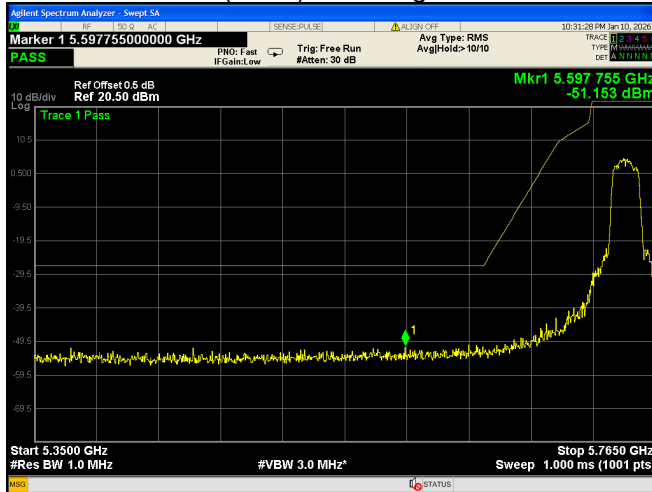
802.11a Band edge-left side



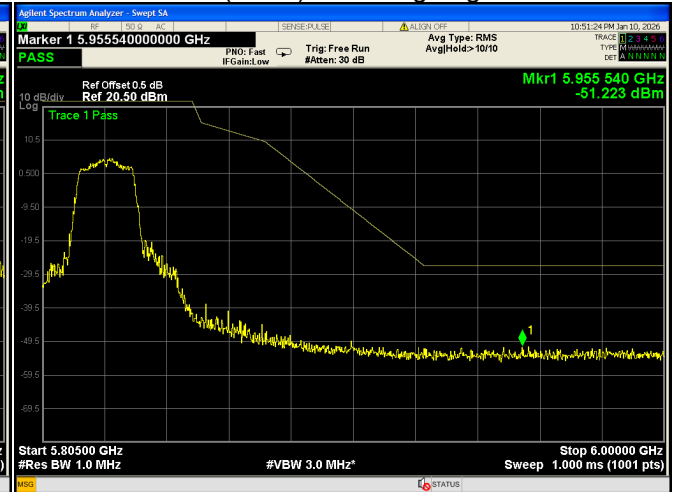
802.11a Band edge-right side



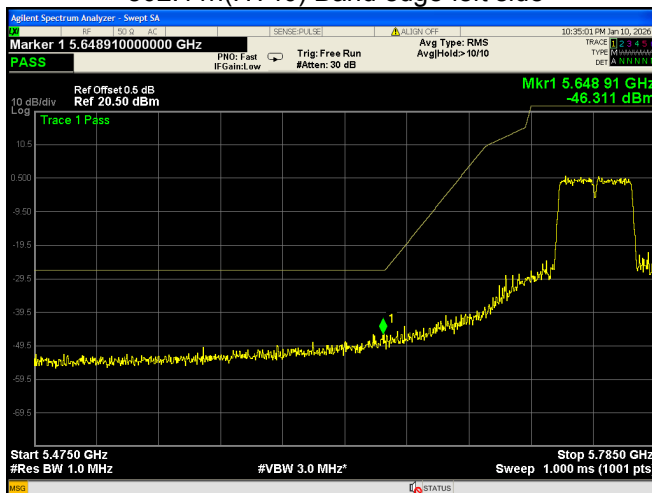
802.11n(HT20) Band edge-left side



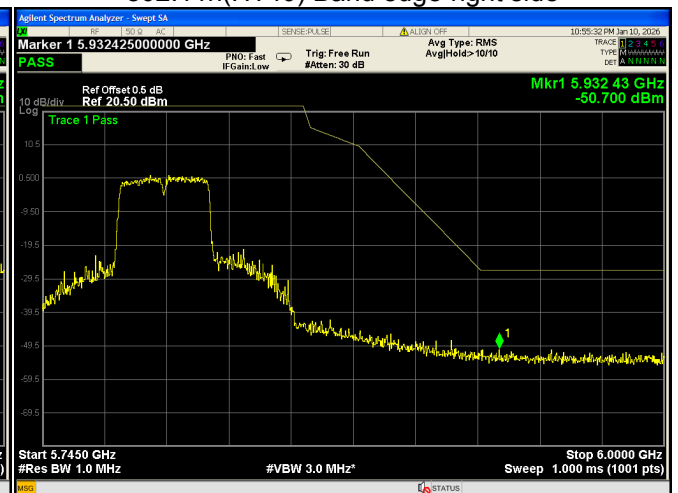
802.11n(HT20) Band edge-right side



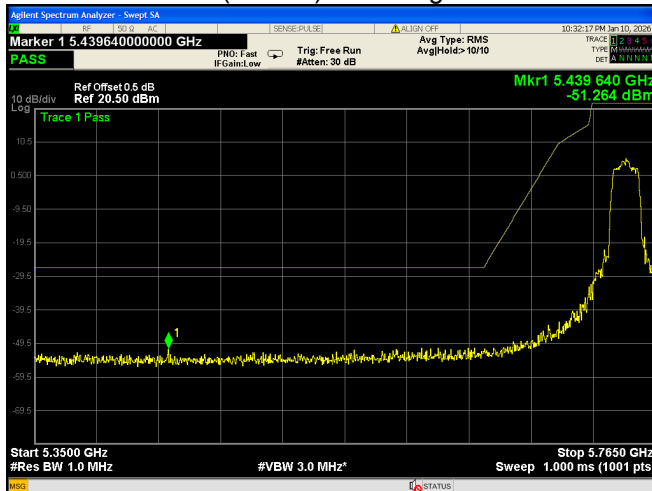
802.11n(HT40) Band edge-left side



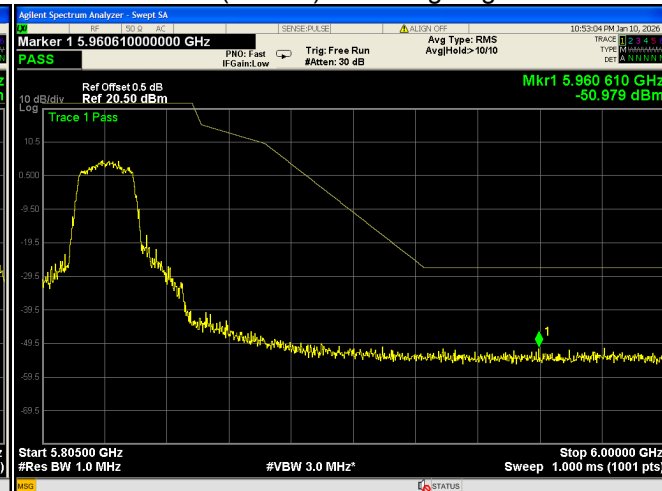
802.11n(HT40) Band edge-right side



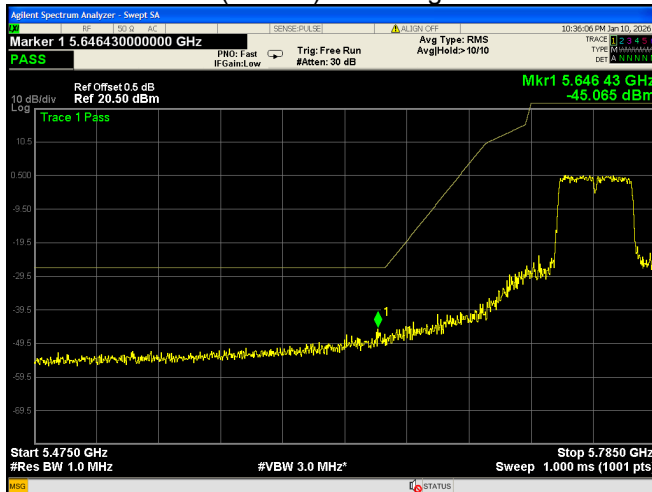
802.11ac(VHT20) Band edge-left side



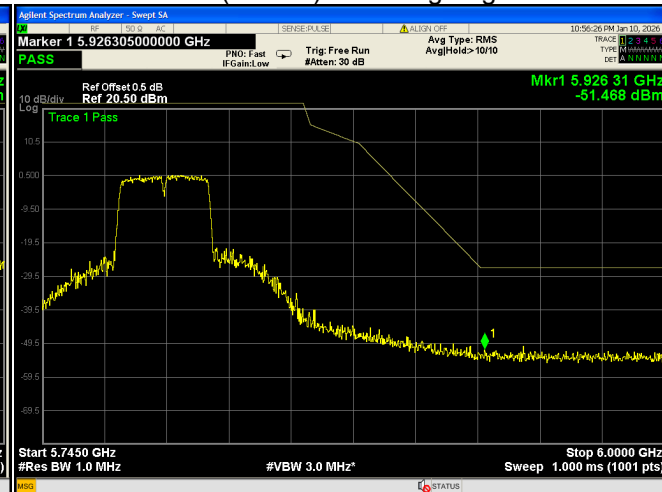
802.11ac(VHT20) Band edge-right side



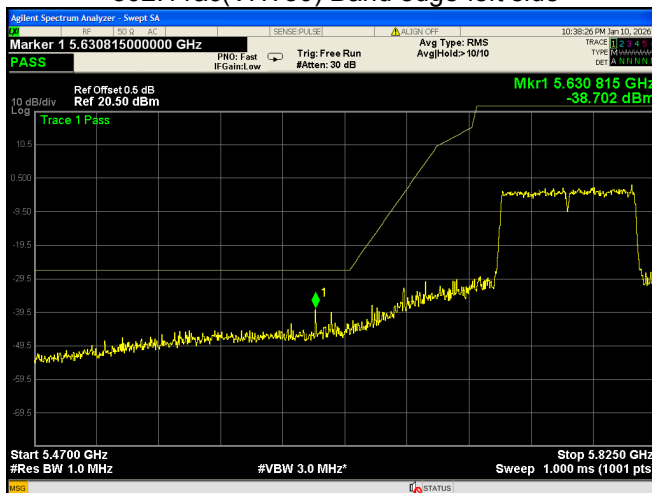
802.11ac(VHT40) Band edge-left side



802.11ac(VHT40) Band edge-right side



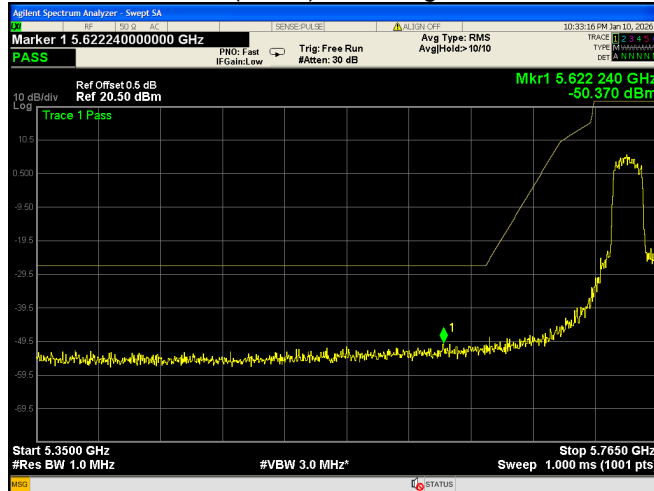
802.11ac(VHT80) Band edge-left side



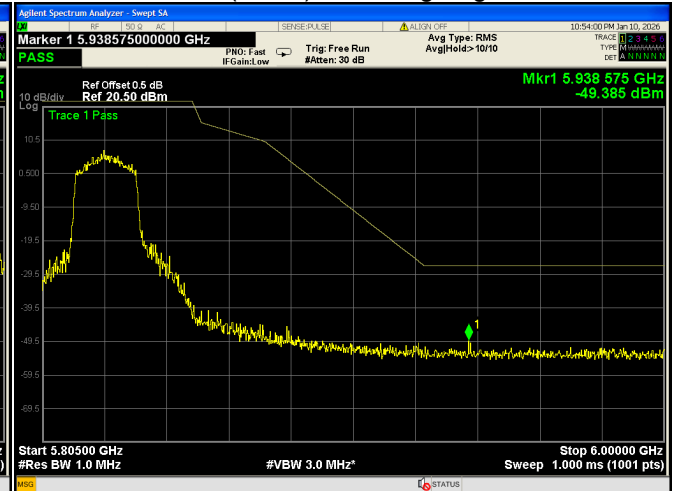
802.11ac(VHT80) Band edge-right side



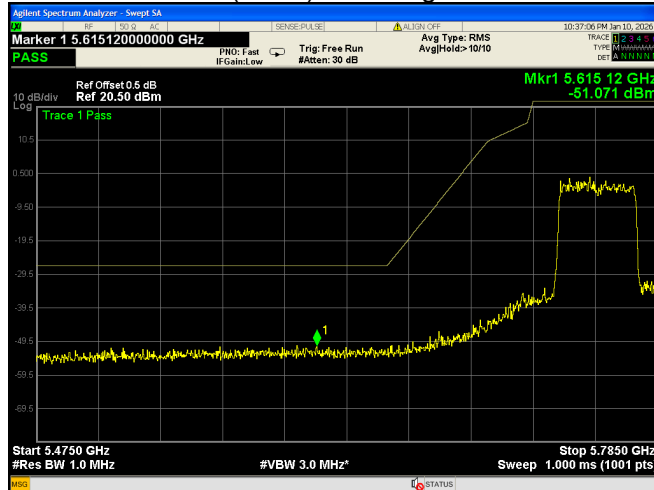
802.11ax(HE20) Band edge-left side



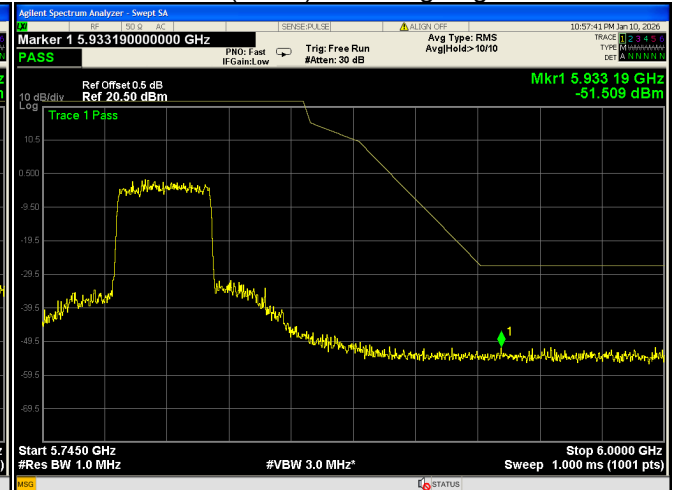
802.11ax(HE20) Band edge-right side



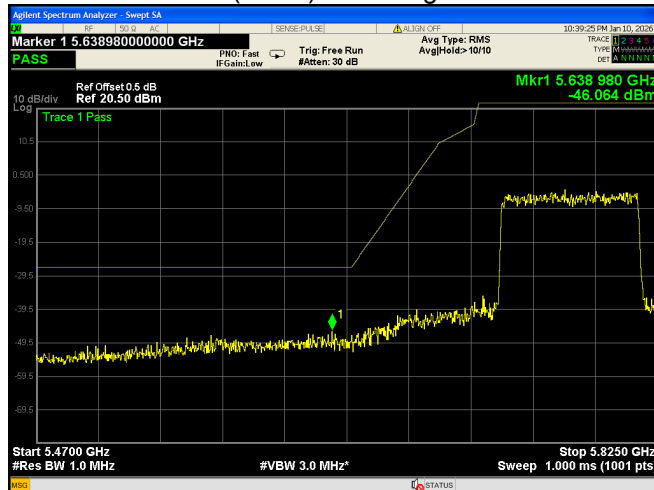
802.11ax(HE40) Band edge-left side



802.11ax(HE40) Band edge-right side



802.11ax(HE80) Band edge-left side



802.11ax(HE80) Band edge-right side

