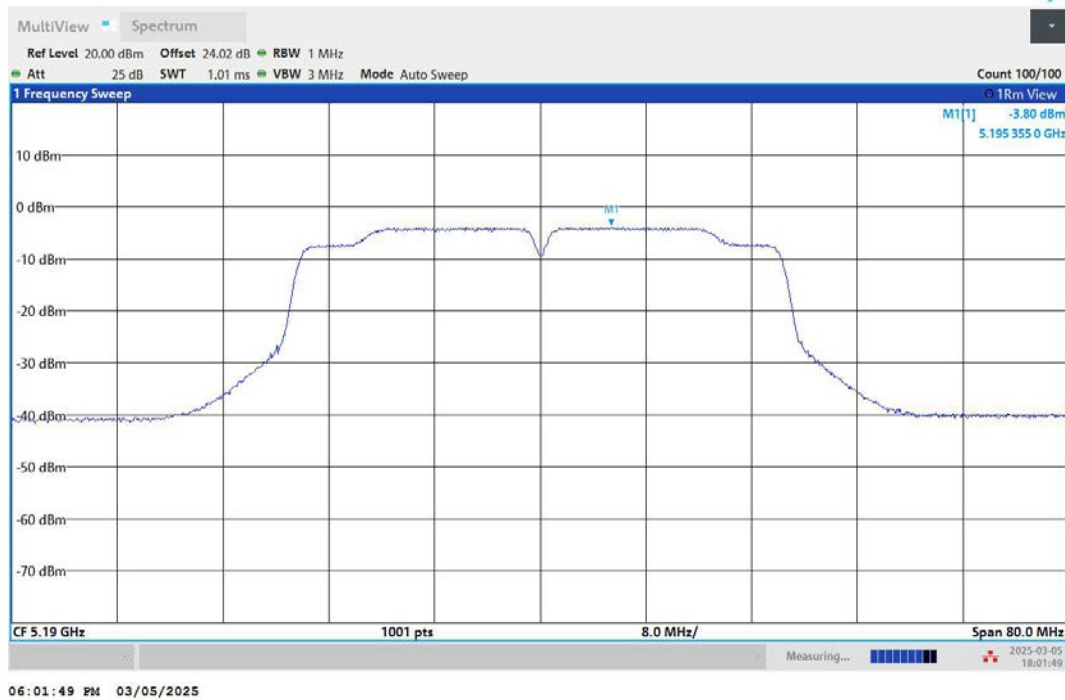
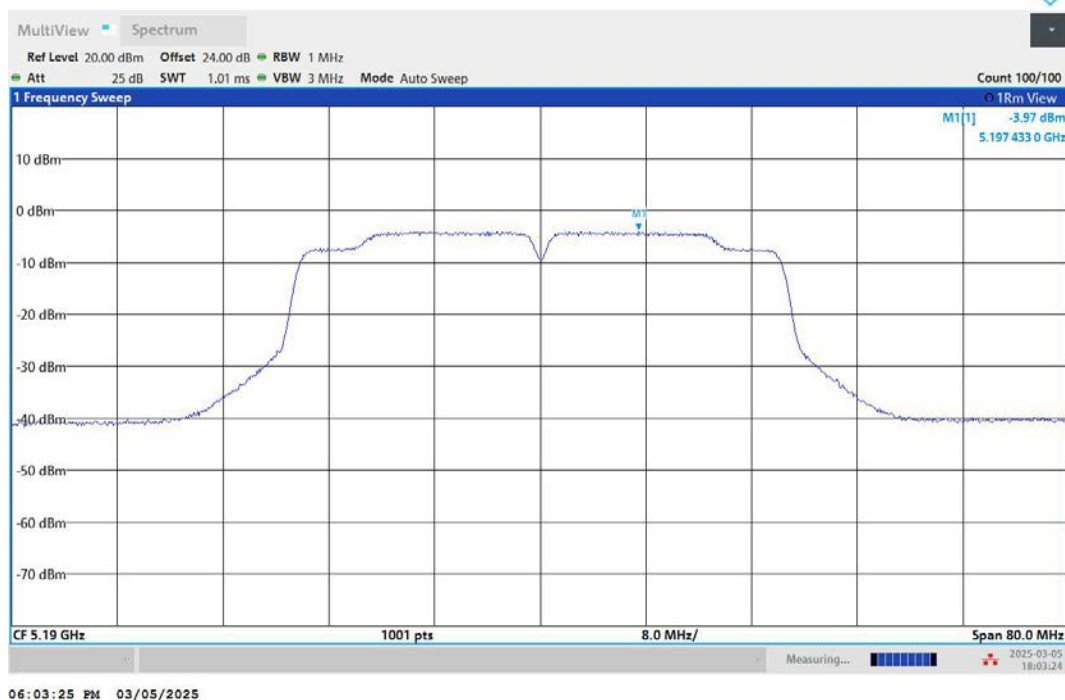
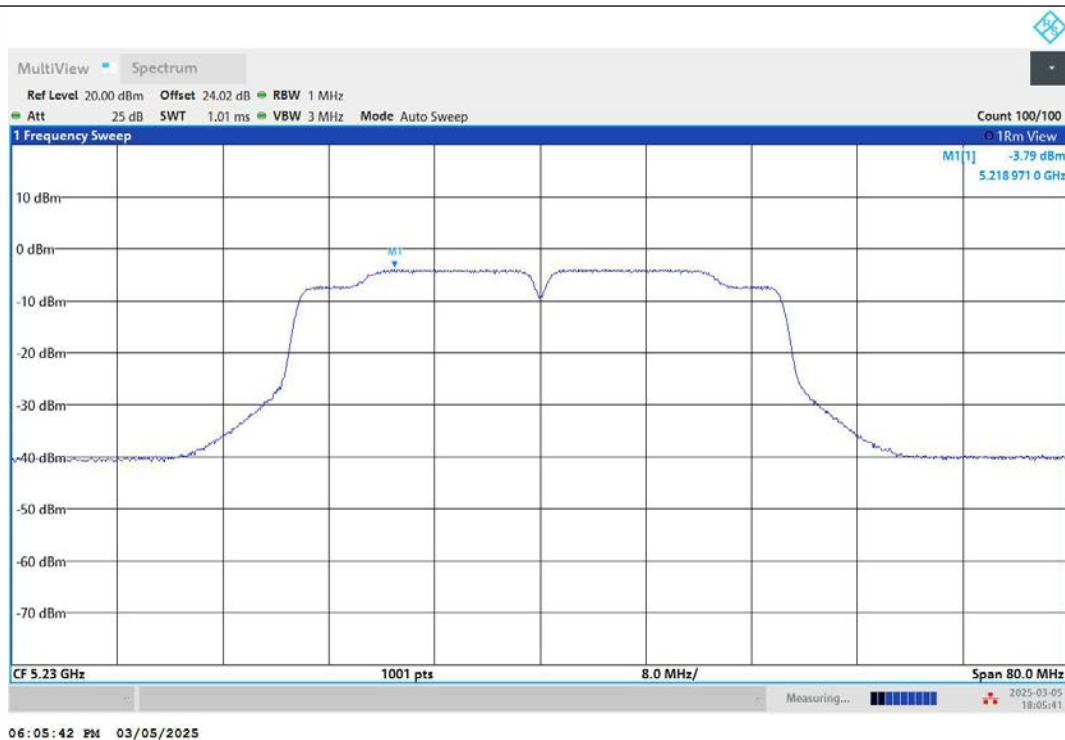




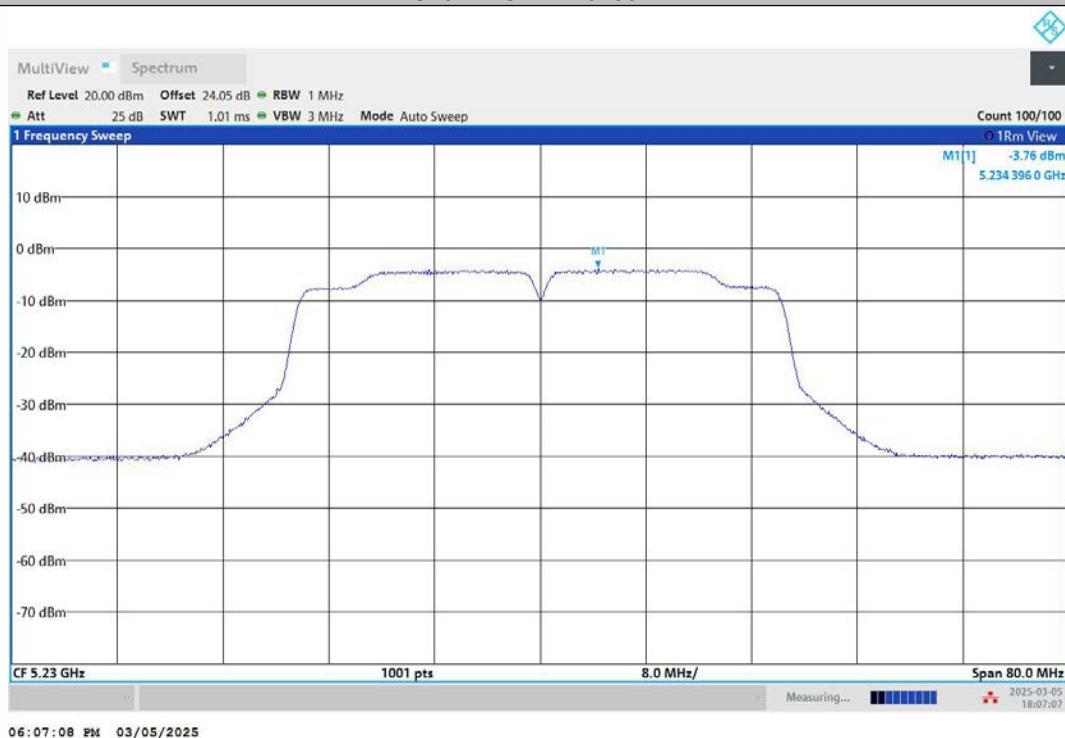
11AC40MIMO-Ant2-5190-PASS



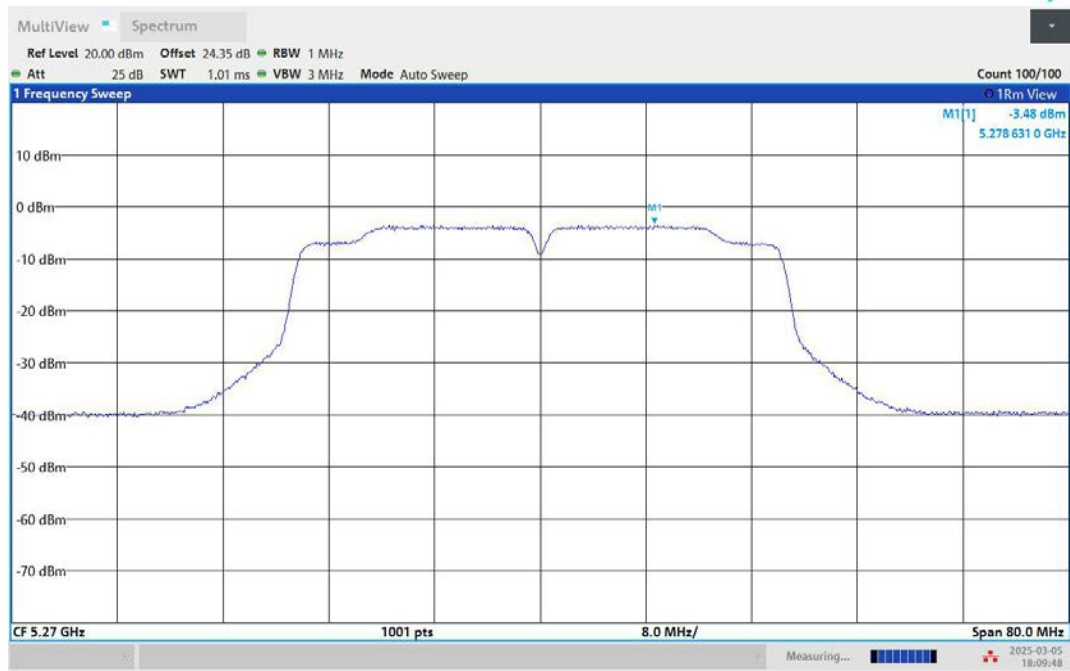
11AC40MIMO-Ant1-5230-PASS



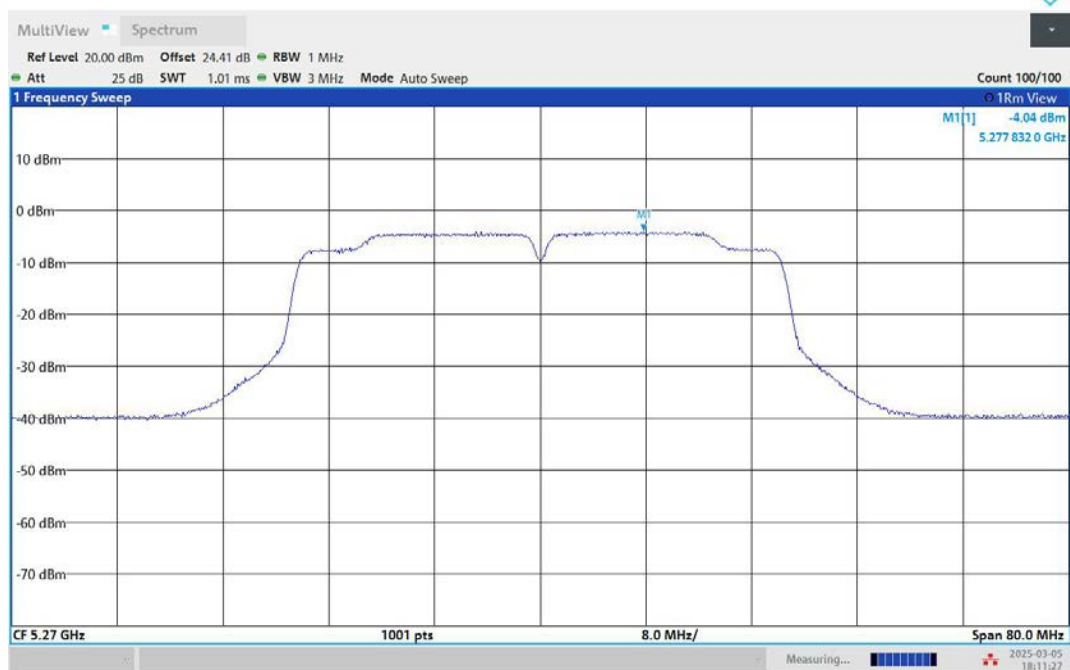
11AC40MIMO-Ant2-5230-PASS



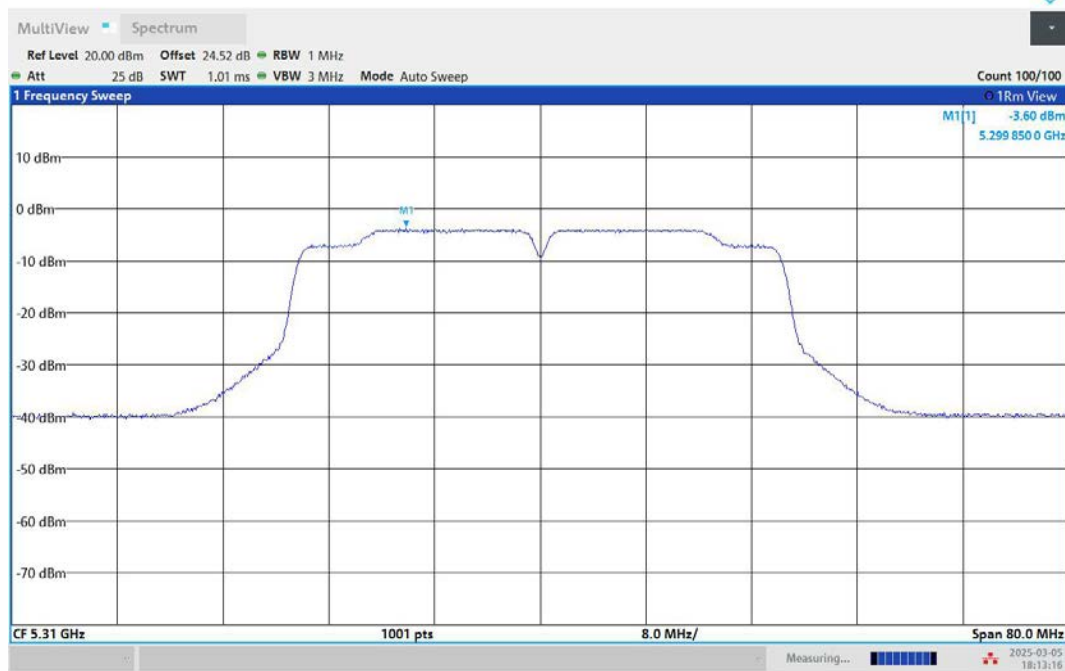
11AC40MIMO-Ant1-5270-PASS



11AC40MIMO-Ant2-5270-PASS

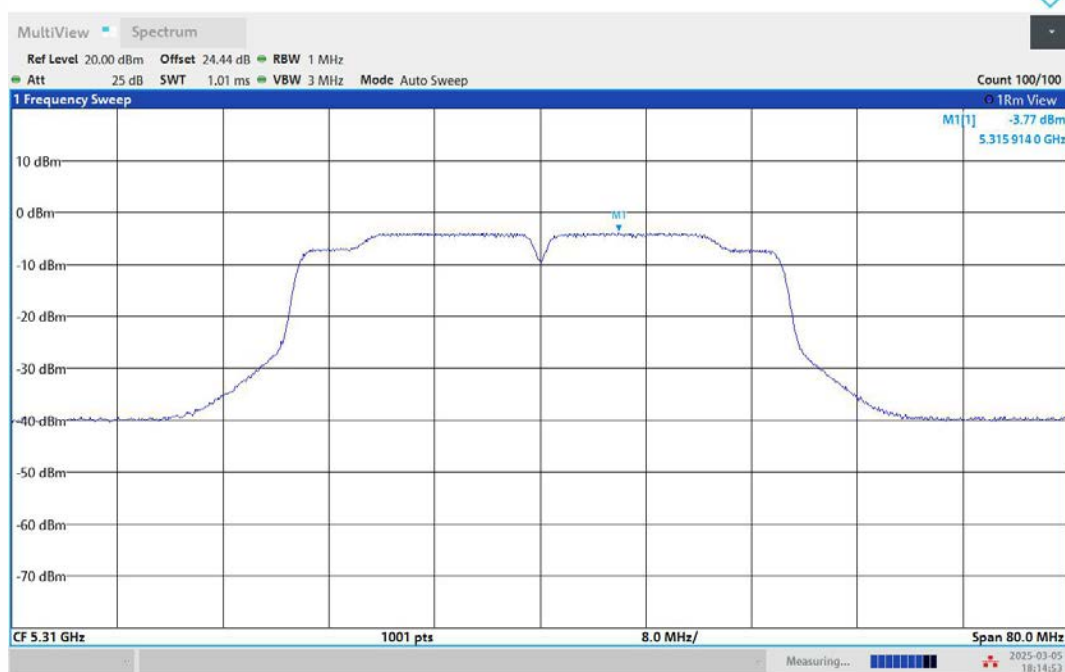


11AC40MIMO-Ant1-5310-PASS



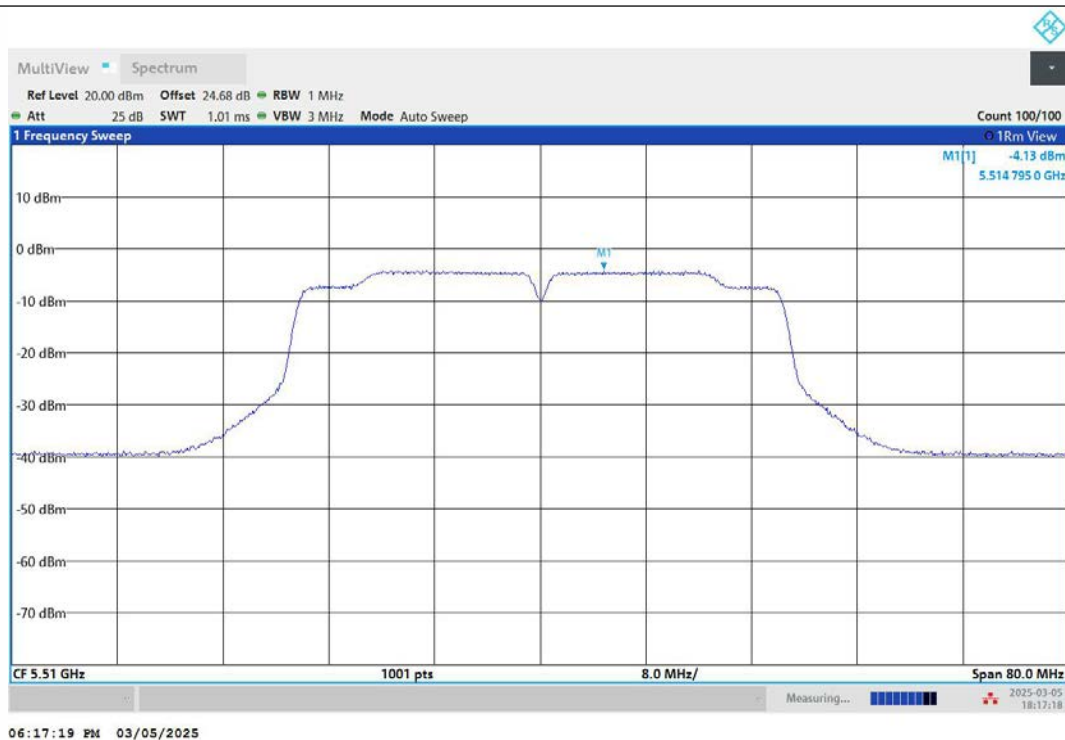
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11AC40MIMO-Ant2-5310-PASS

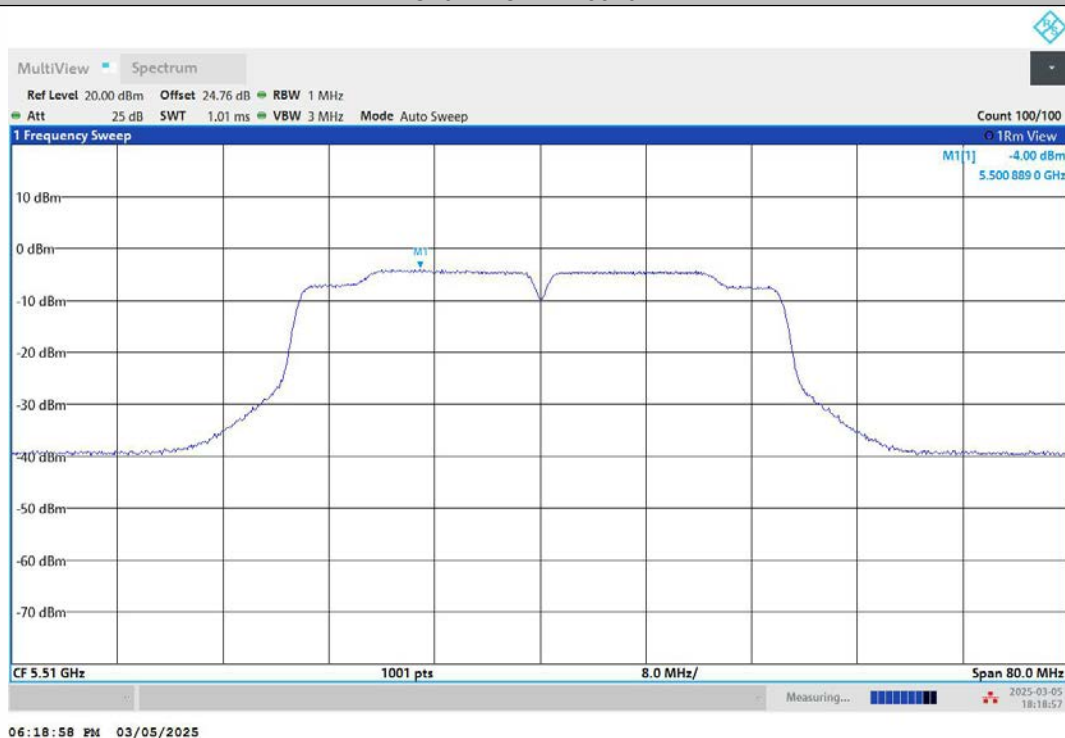


06:14:53 PM 03/05/2025

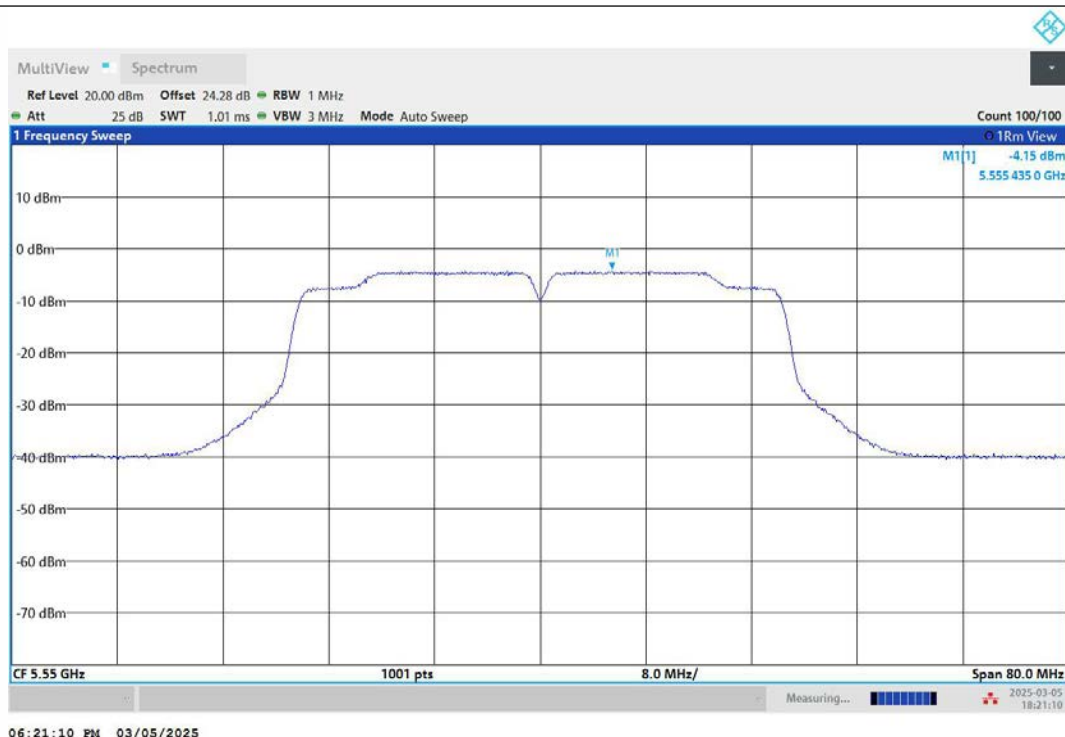
11AC40MIMO-Ant1-5510-PASS



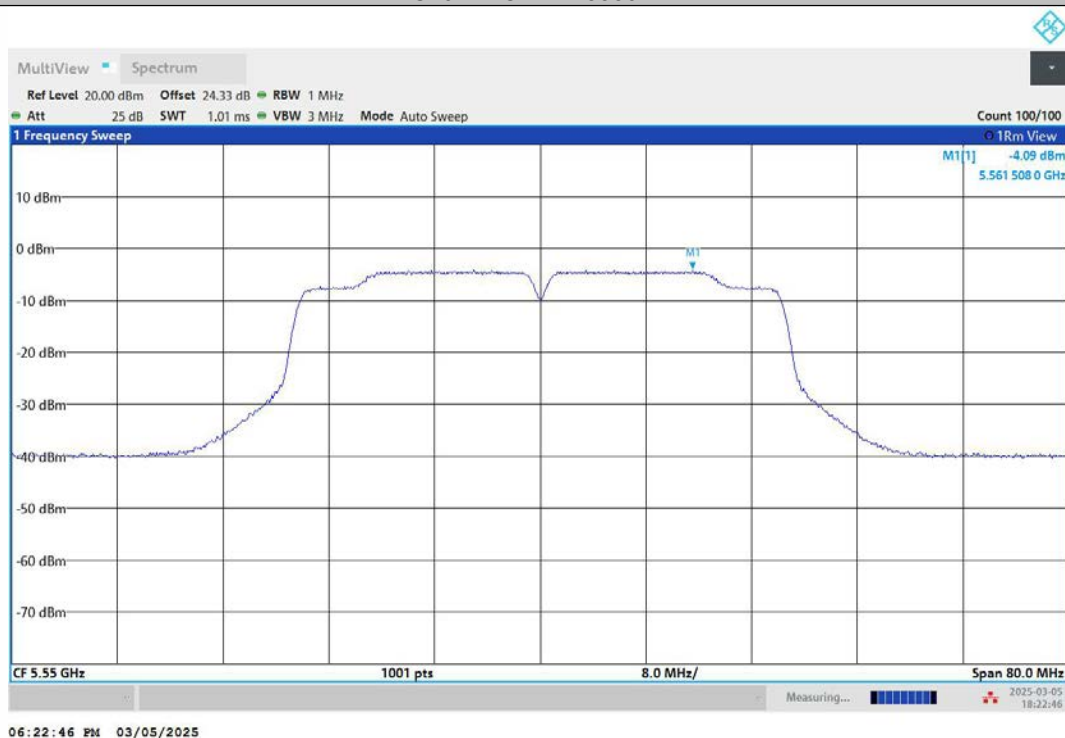
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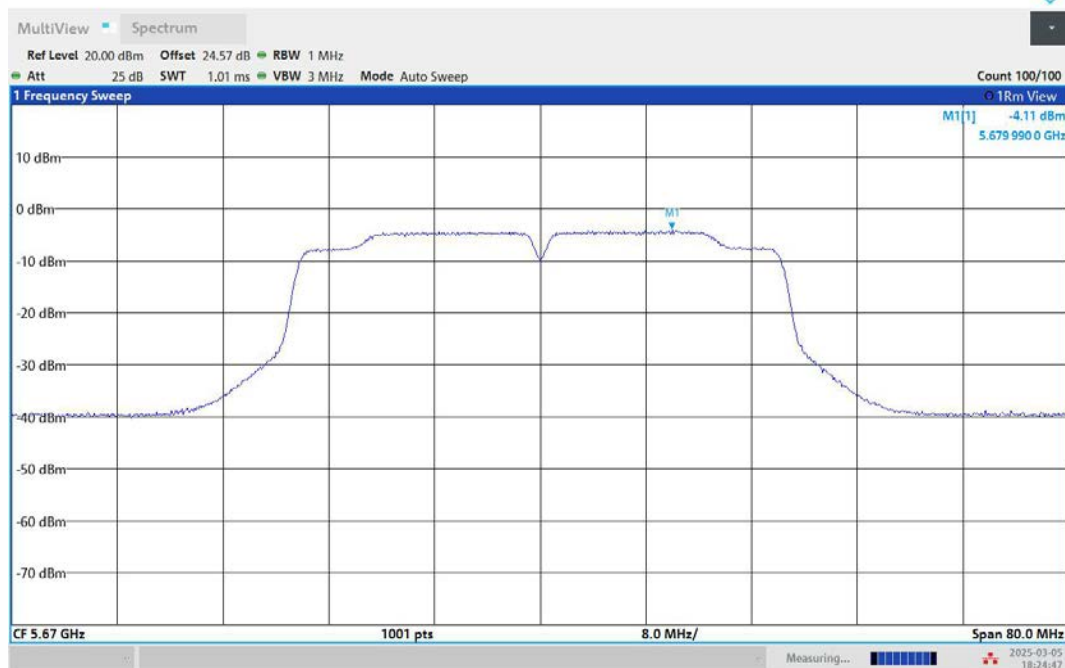
11AC40MIMO-Ant1-5550-PASS



11AC40MIMO-Ant2-5550-PASS

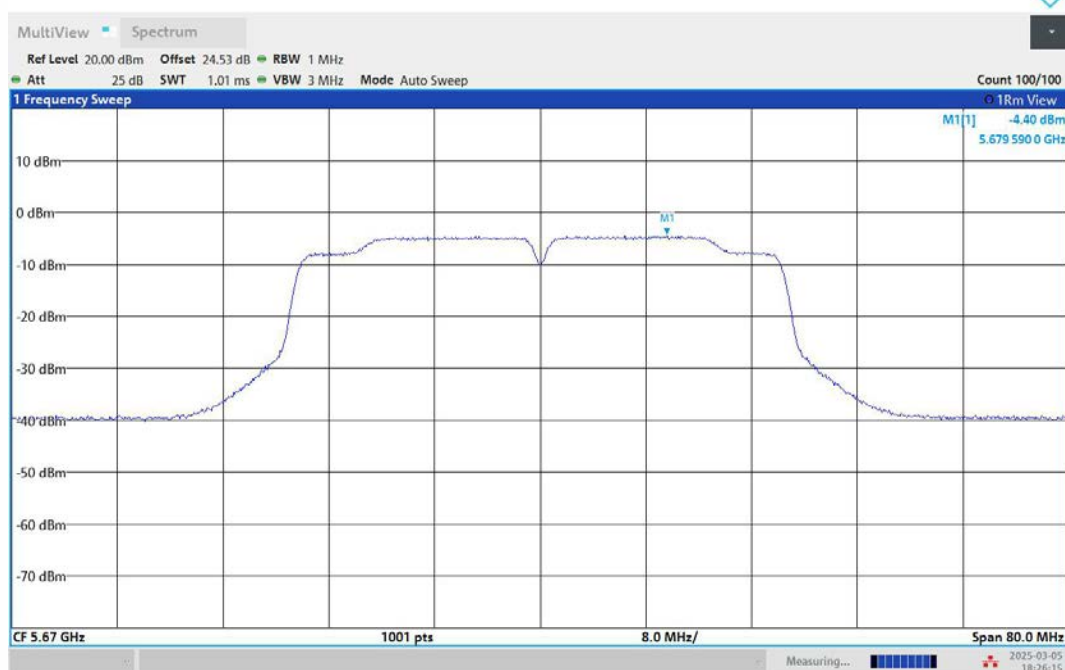


11AC40MIMO-Ant1-5670-PASS



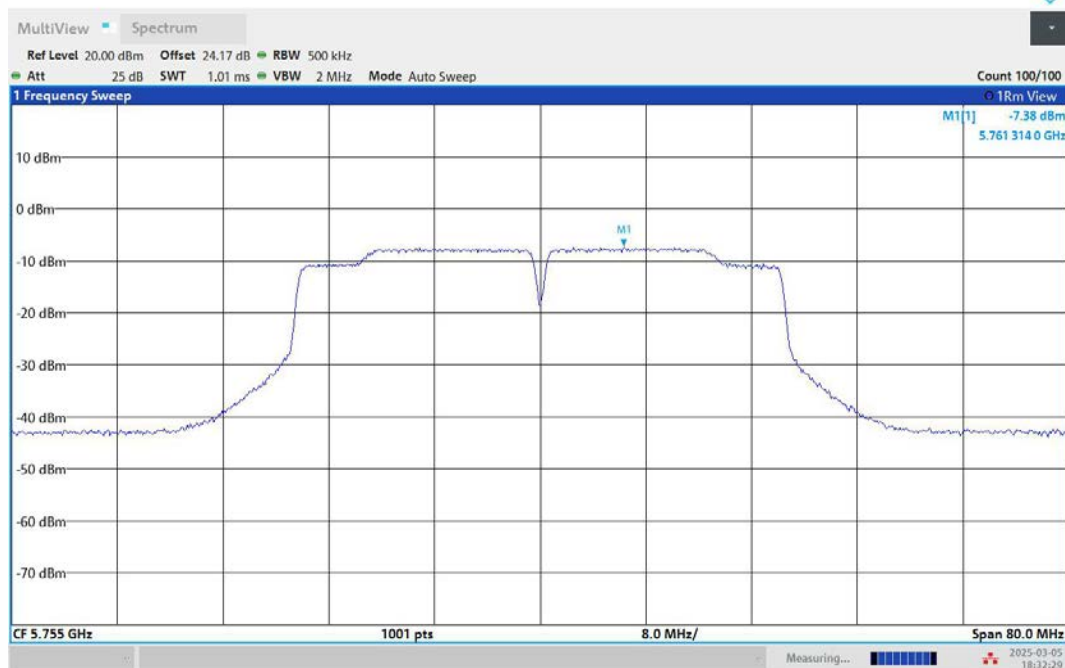
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11AC40MIMO-Ant2-5670-PASS

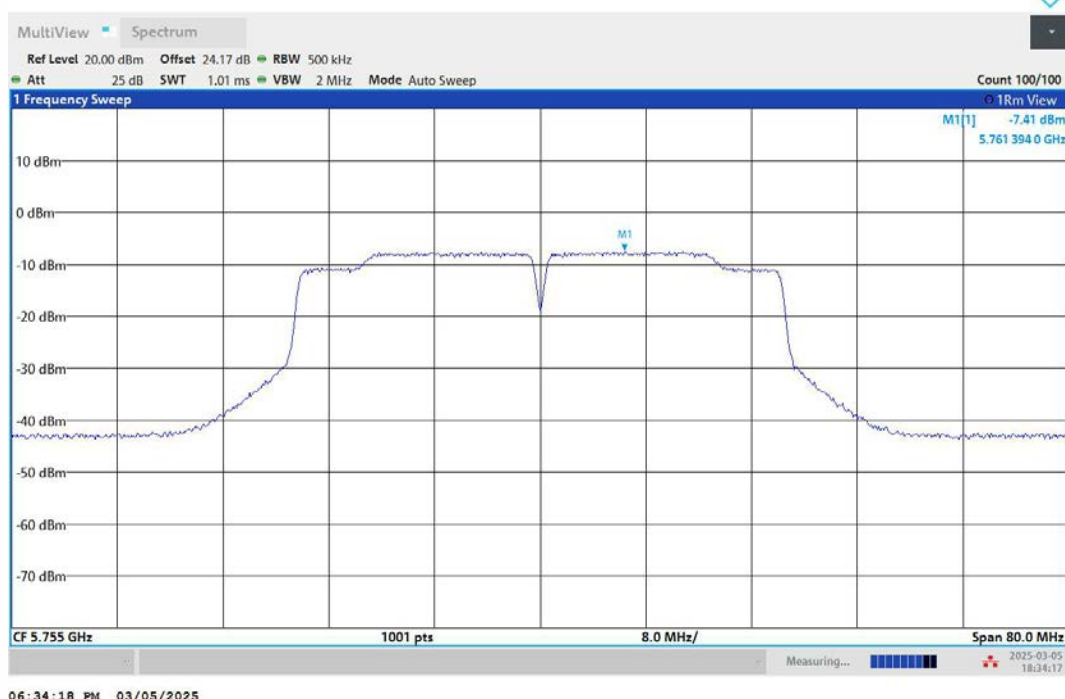


06:26:15 PM 03/05/2025

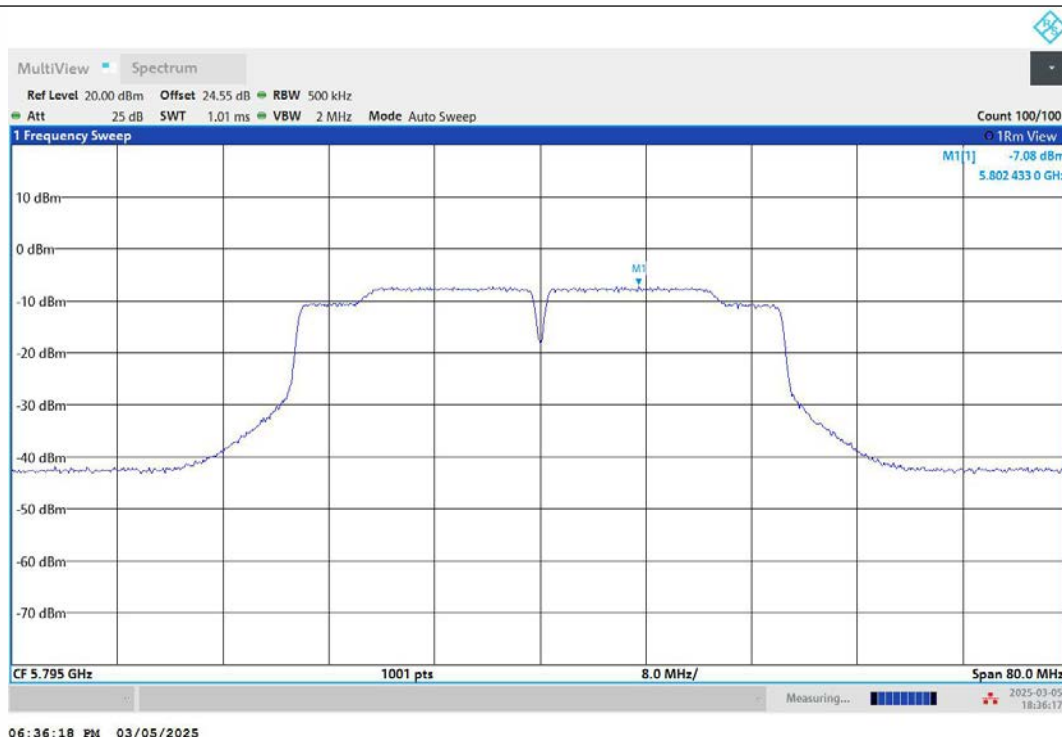
11AC40MIMO-Ant1-5755-PASS



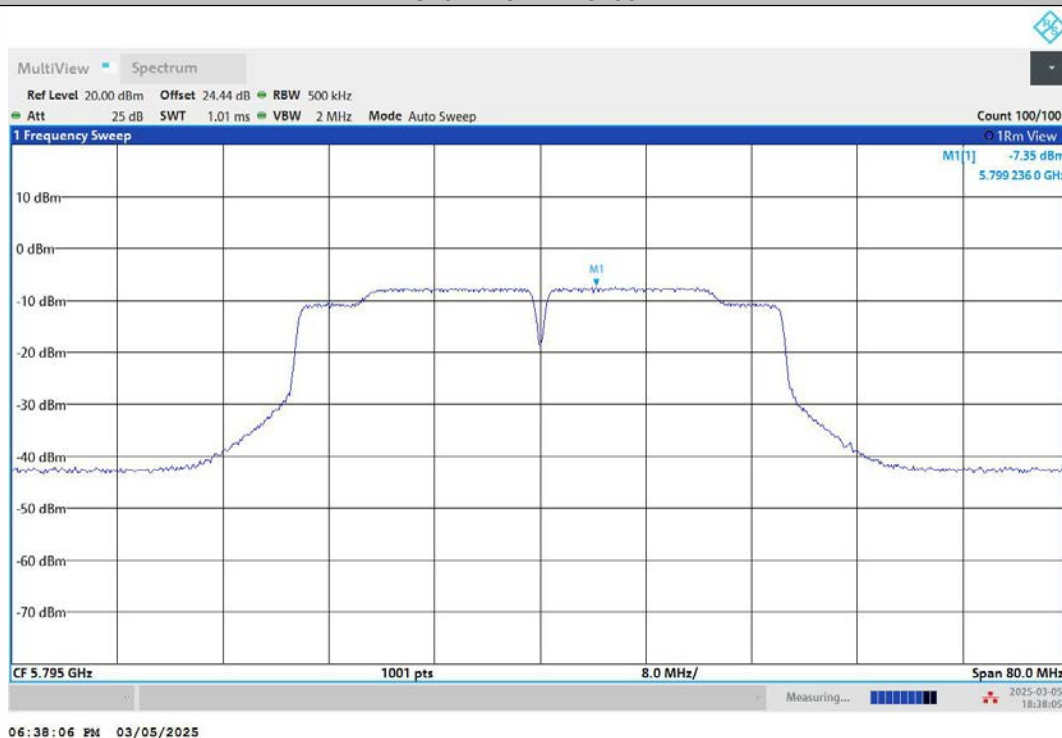
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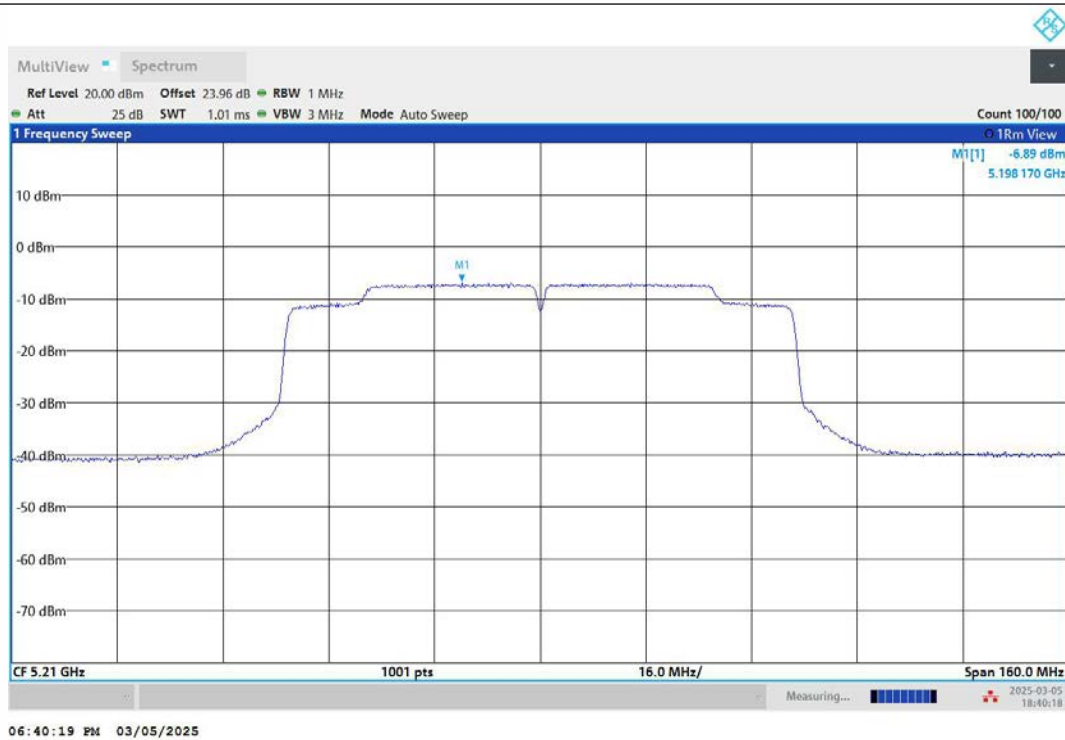
11AC40MIMO-Ant1-5795-PASS



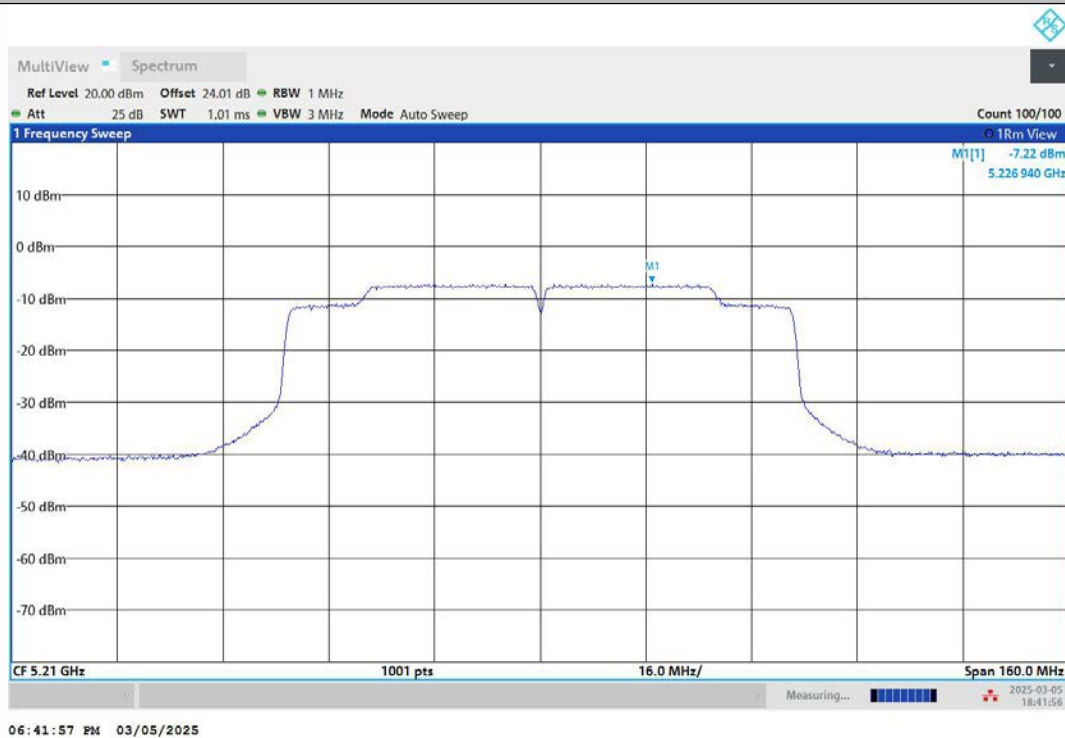
11AC40MIMO-Ant2-5795-PASS



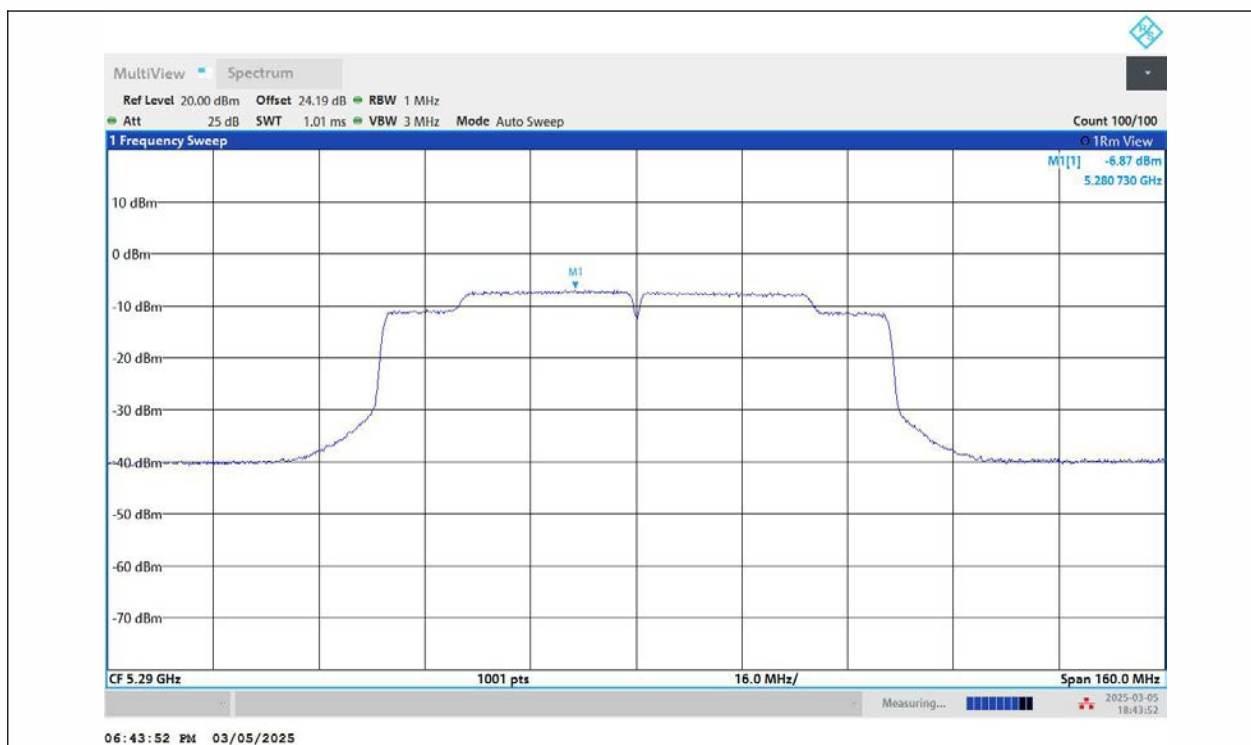
11AC80MIMO-Ant1-5210-PASS



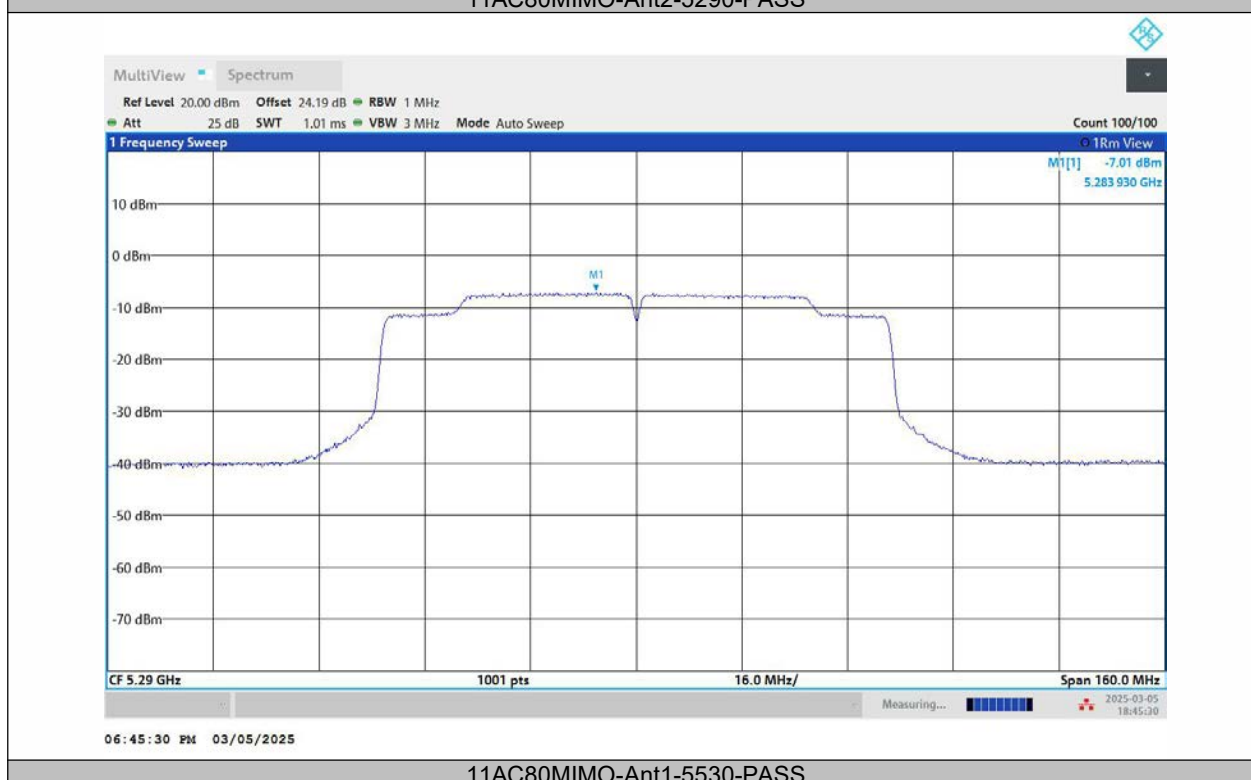
11AC80MIMO-Ant2-5210-PASS



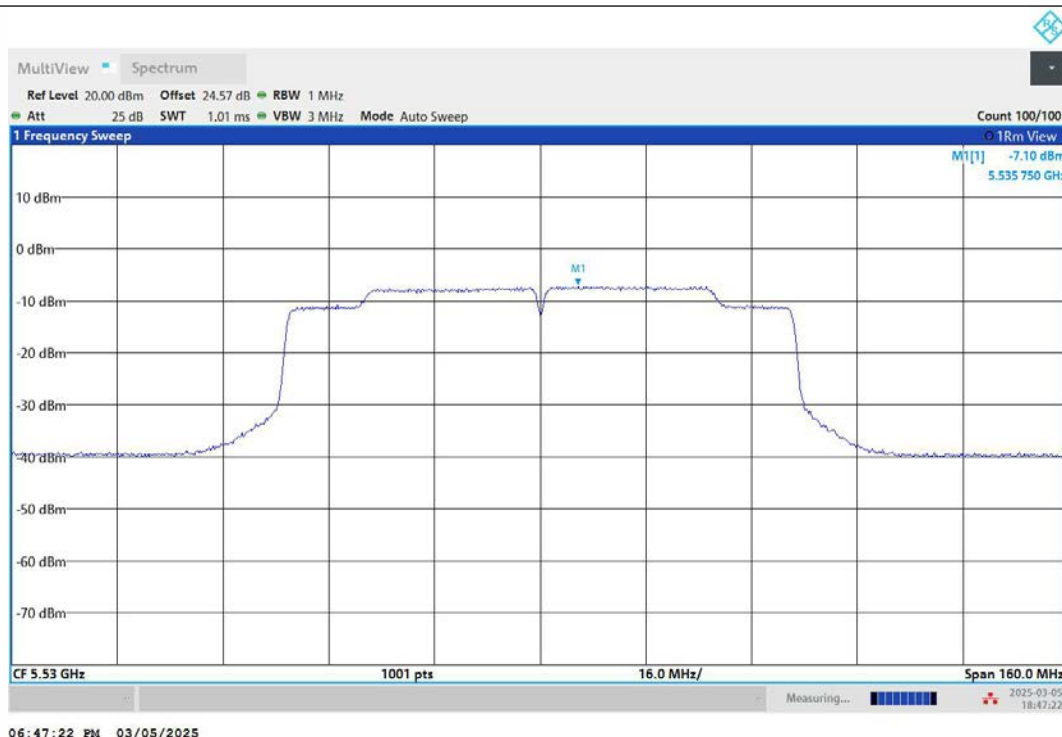
11AC80MIMO-Ant1-5290-PASS



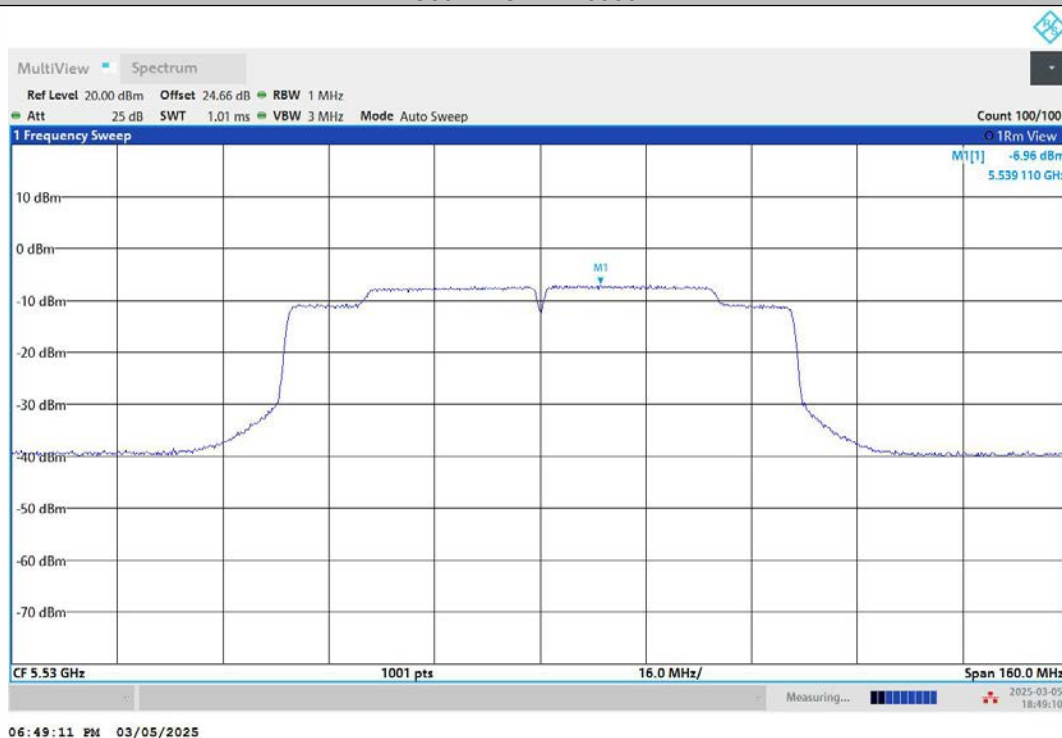
11AC80MIMO-Ant2-5290-PASS



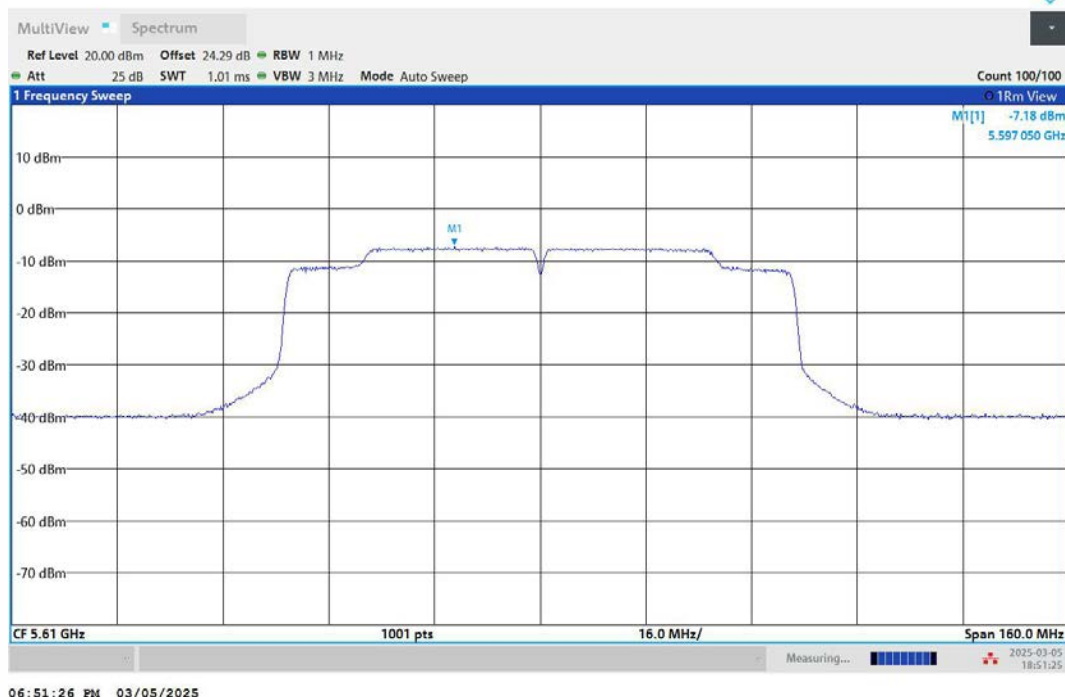
11AC80MIMO-Ant1-5530-PASS



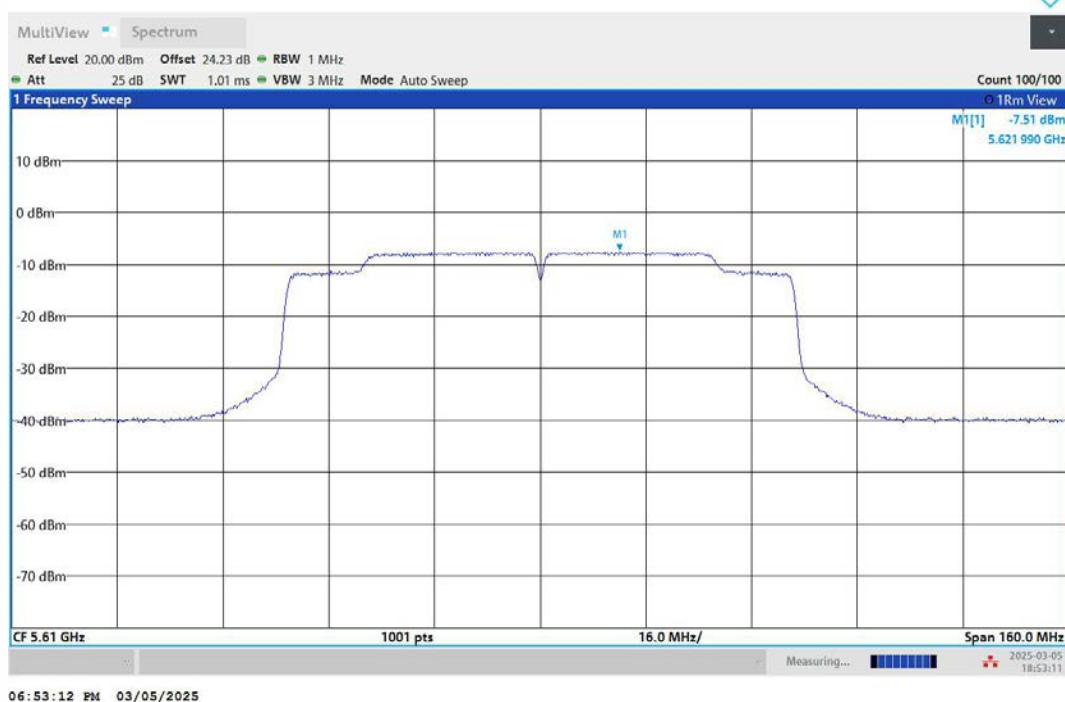
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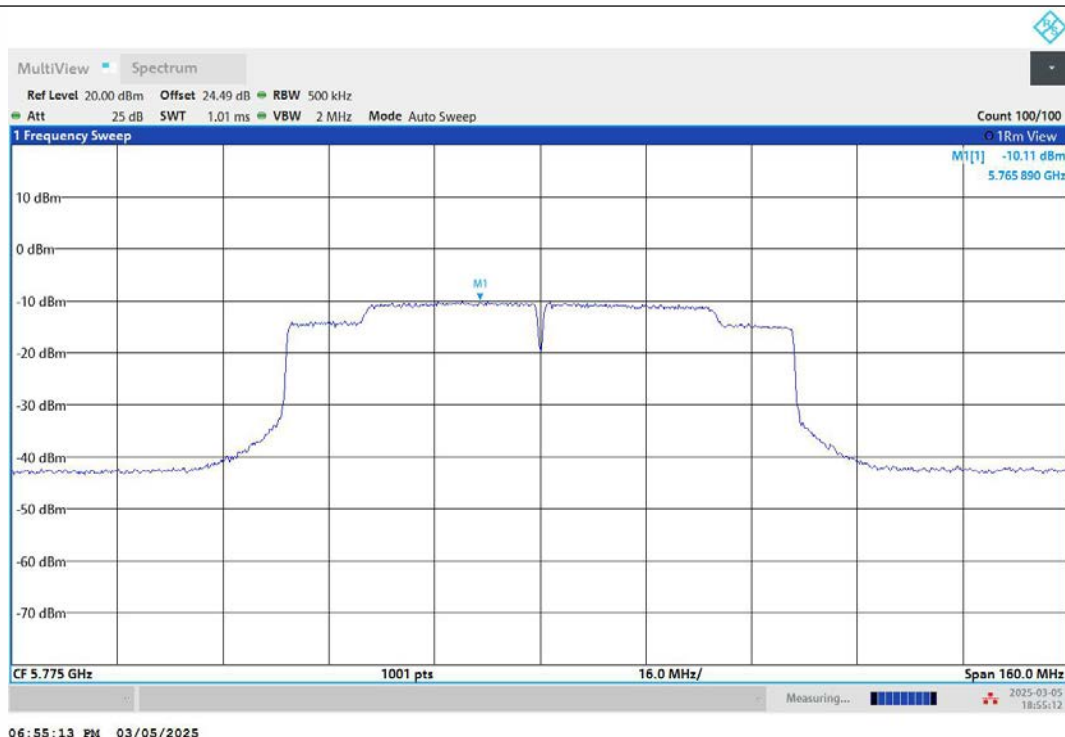
11AC80MIMO-Ant1-5610-PASS



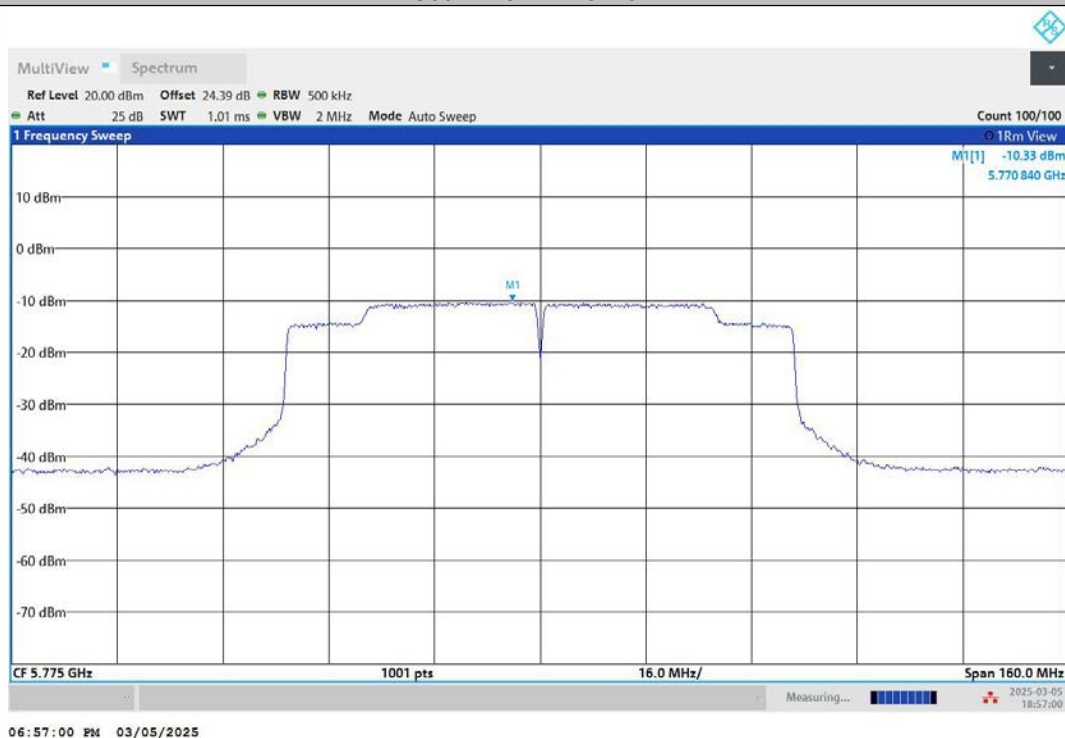
11AC80MIMO-Ant2-5610-PASS



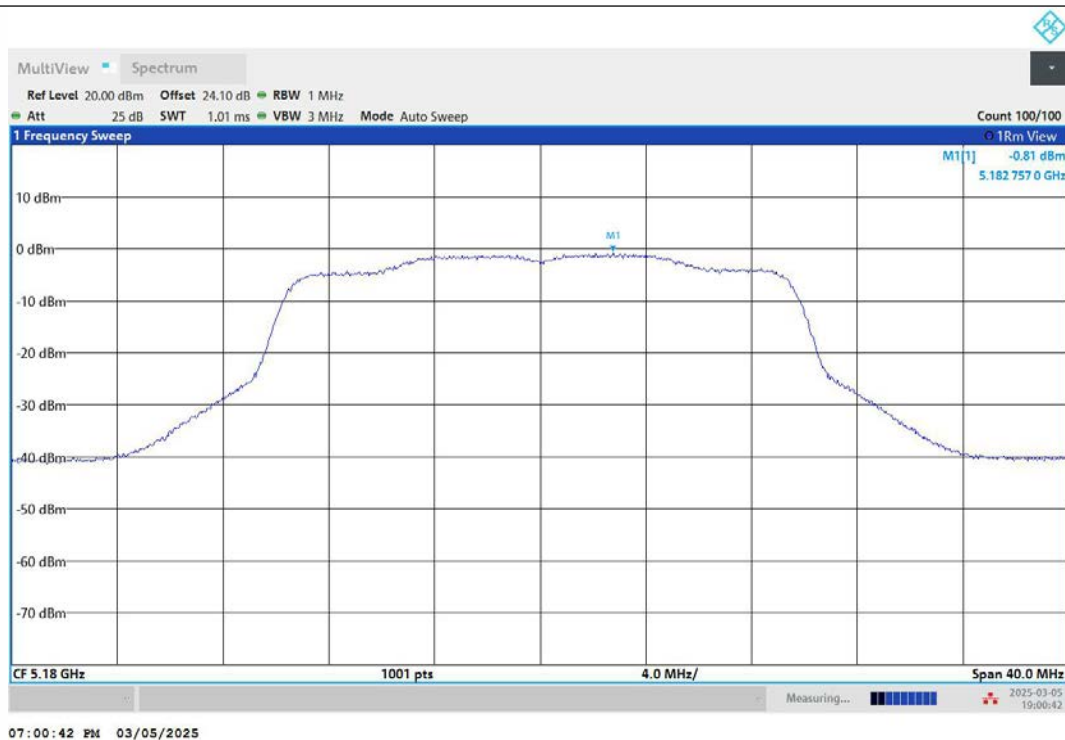
11AC80MIMO-Ant1-5775-PASS



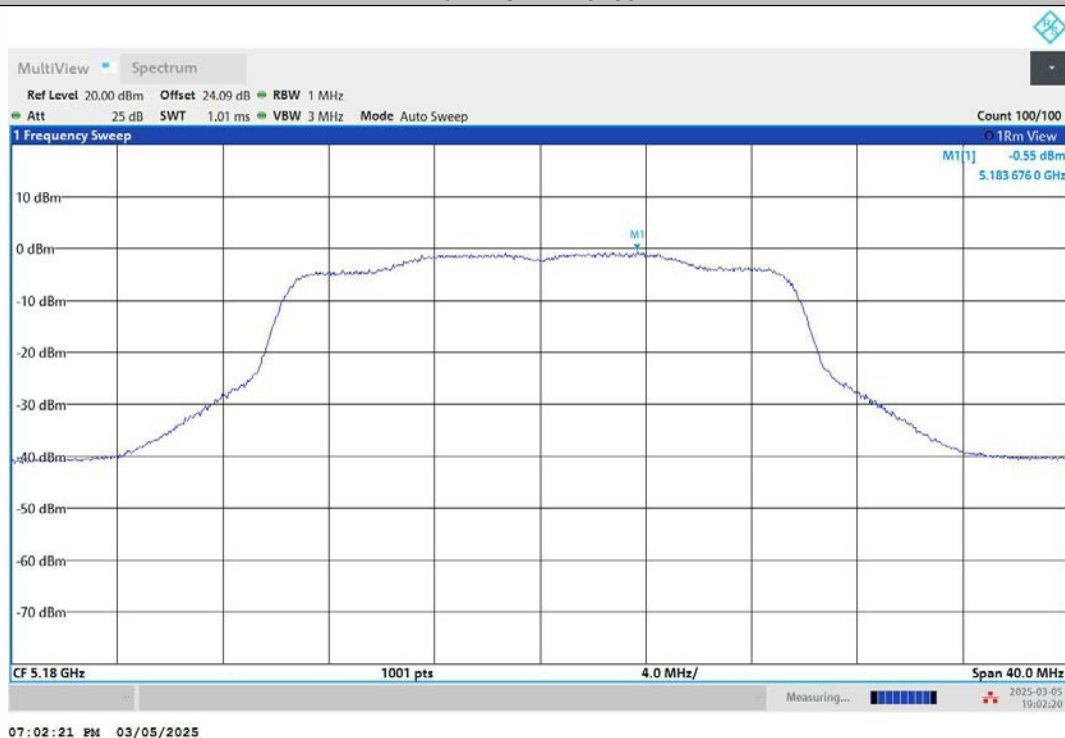
11AC80MIMO-Ant2-5775-PASS



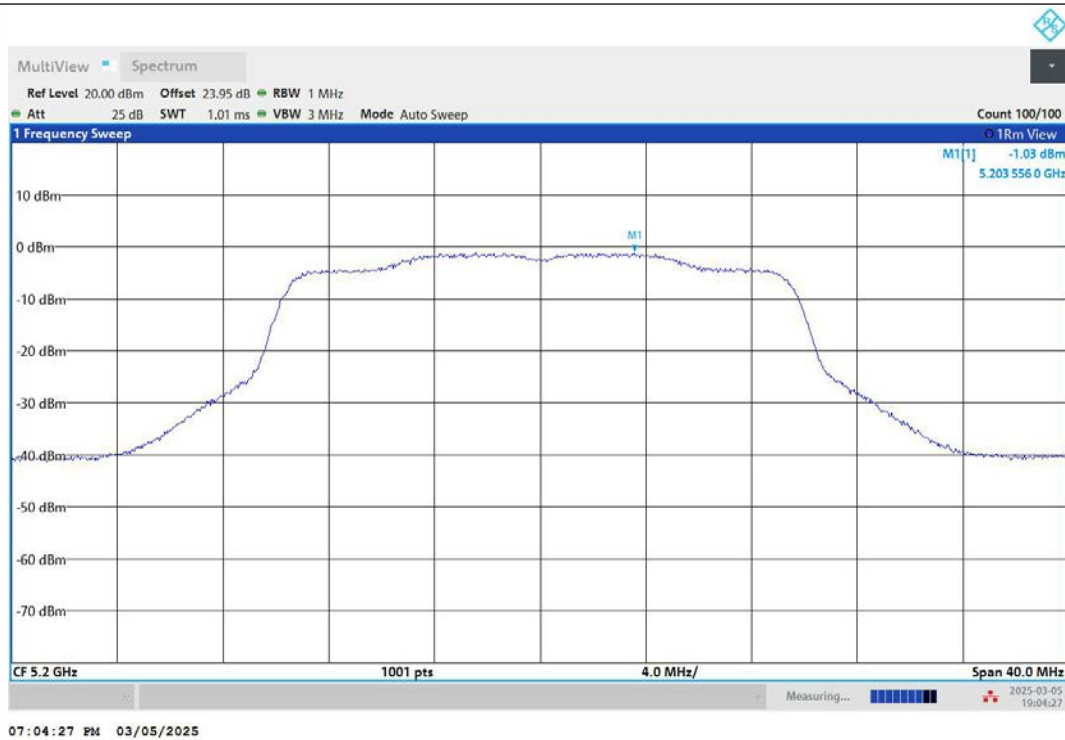
11AX20MIMO-Ant1-5180-PASS



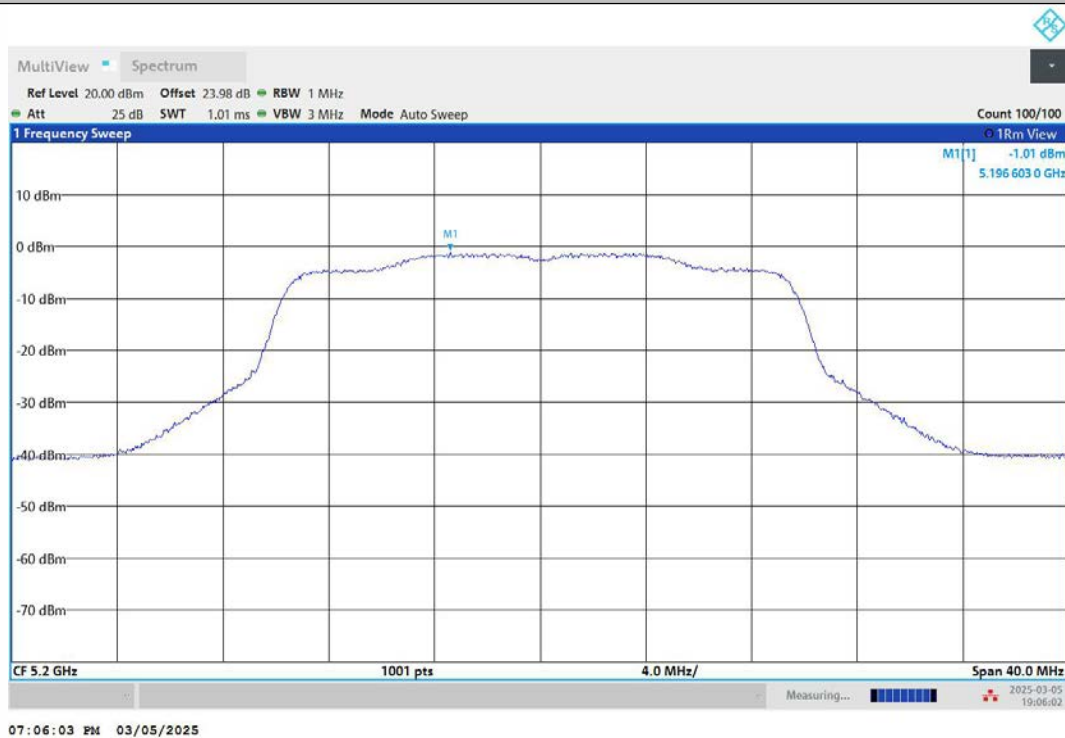
11AX20MIMO-Ant2-5180-PASS



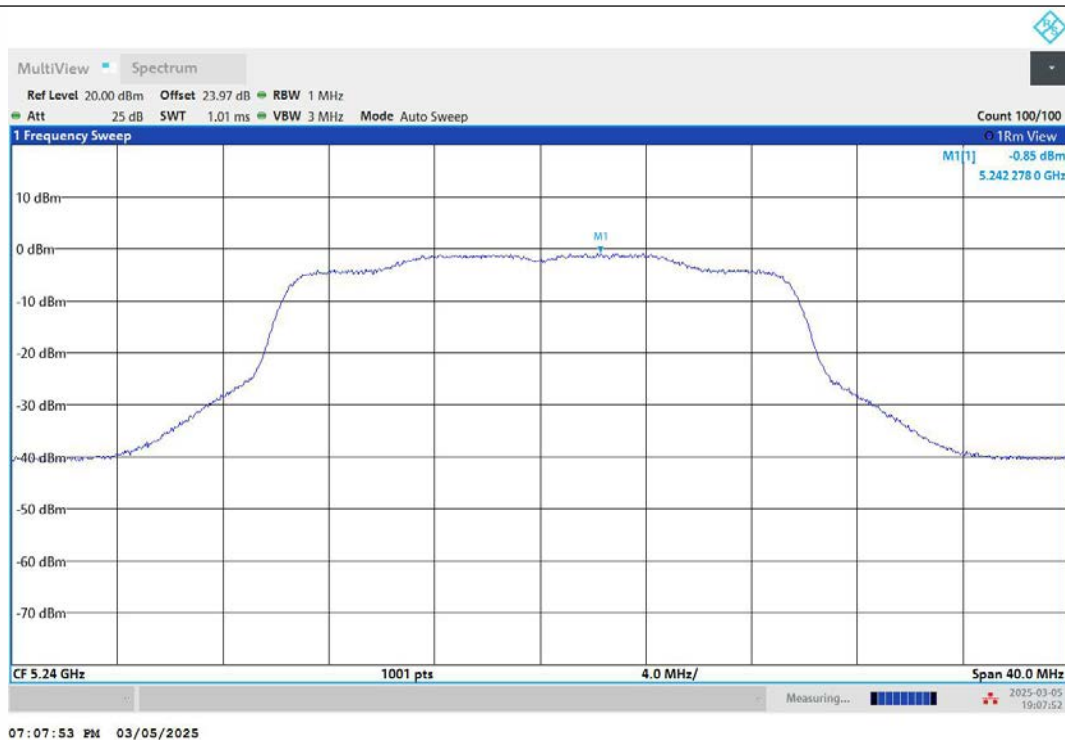
11AX20MIMO-Ant1-5200-PASS



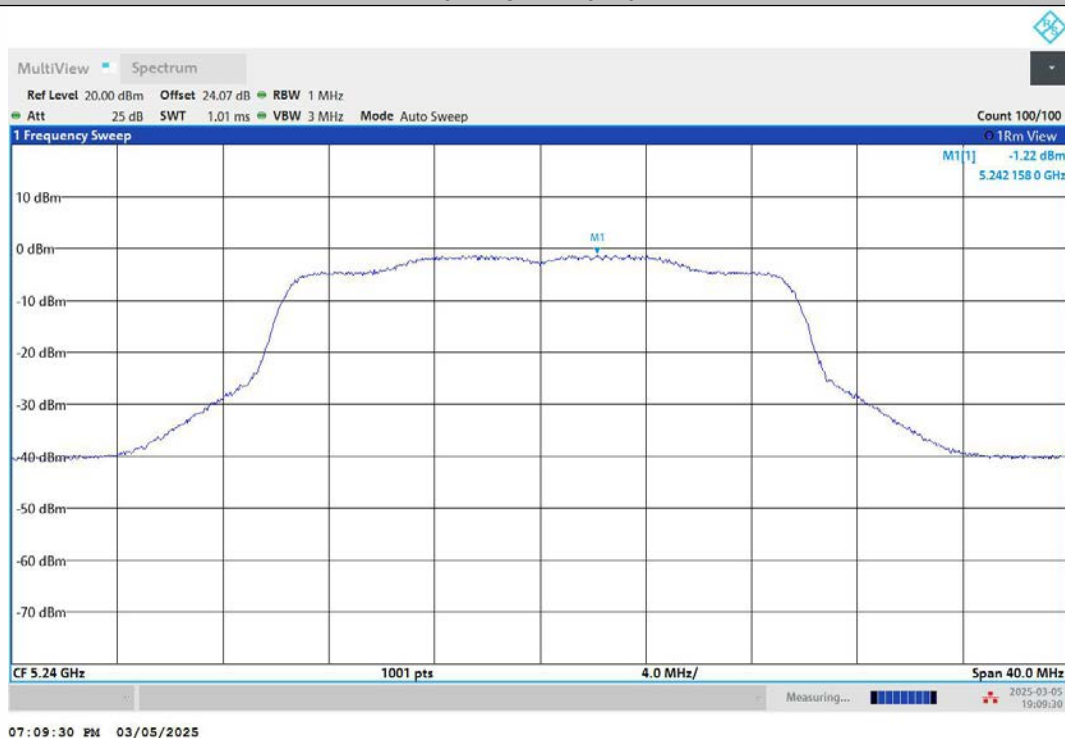
11AX20MIMO-Ant2-5200-PASS



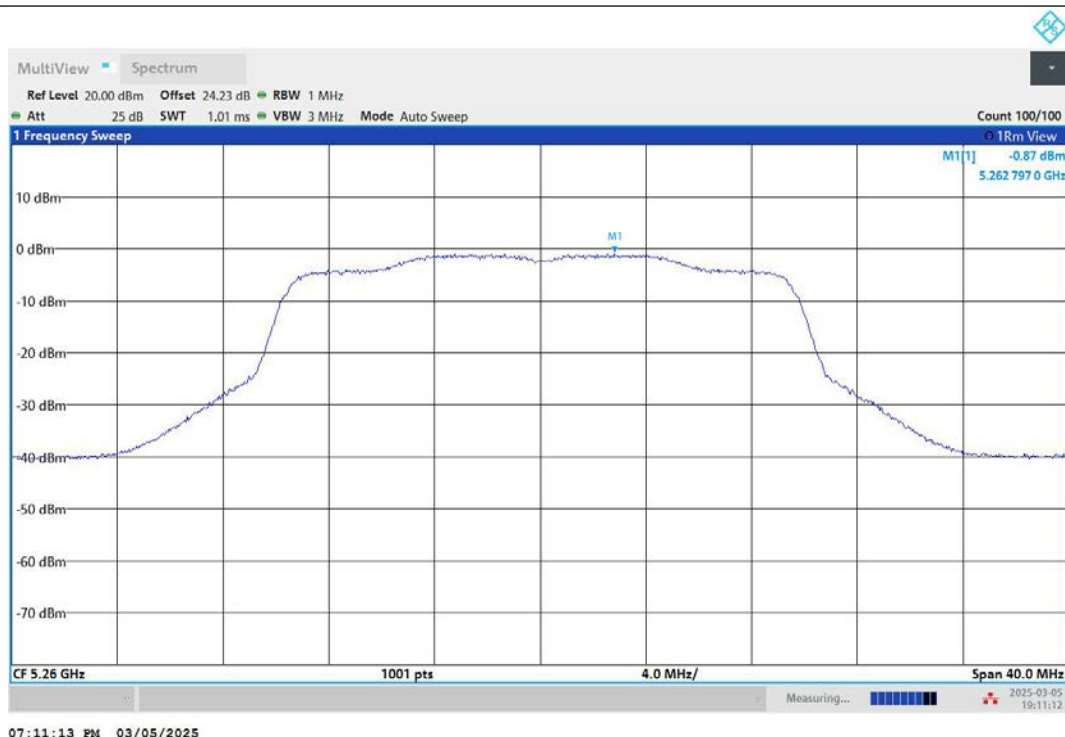
11AX20MIMO-Ant1-5240-PASS



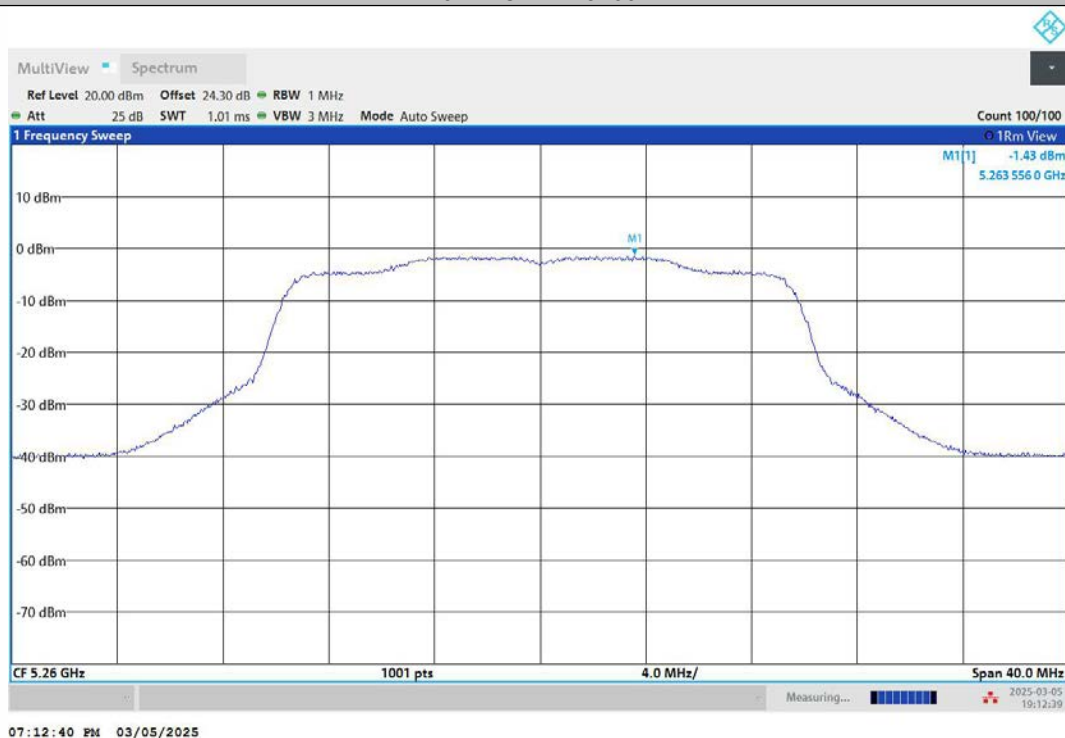
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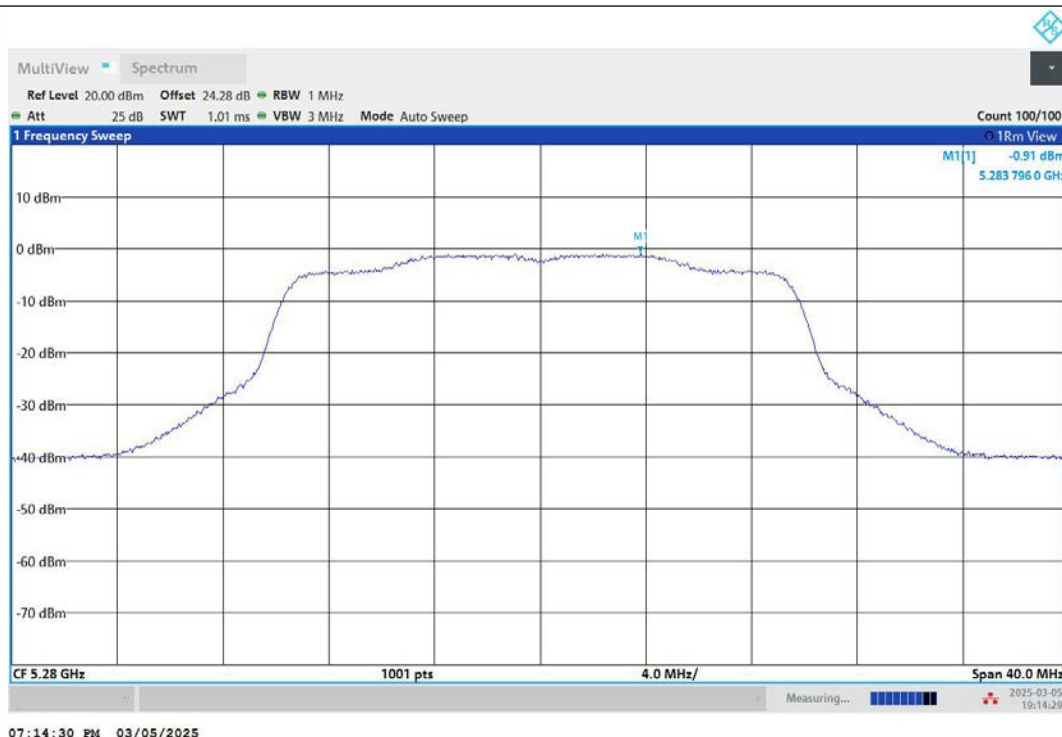
11AX20MIMO-Ant1-5260-PASS



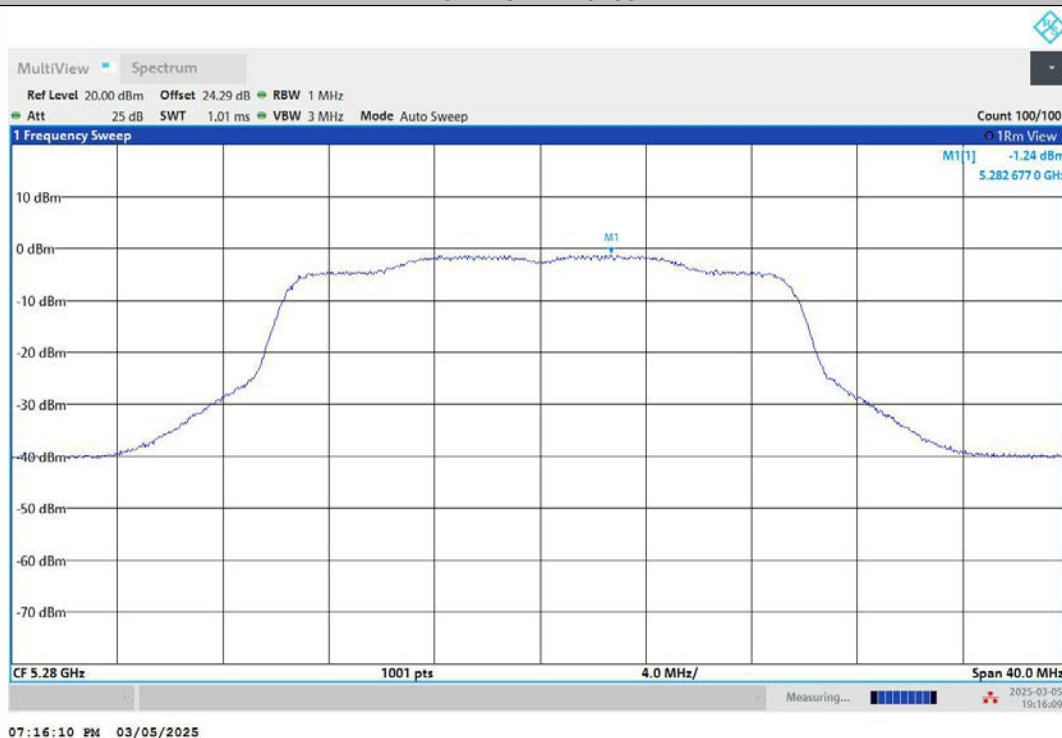
11AX20MIMO-Ant2-5260-PASS



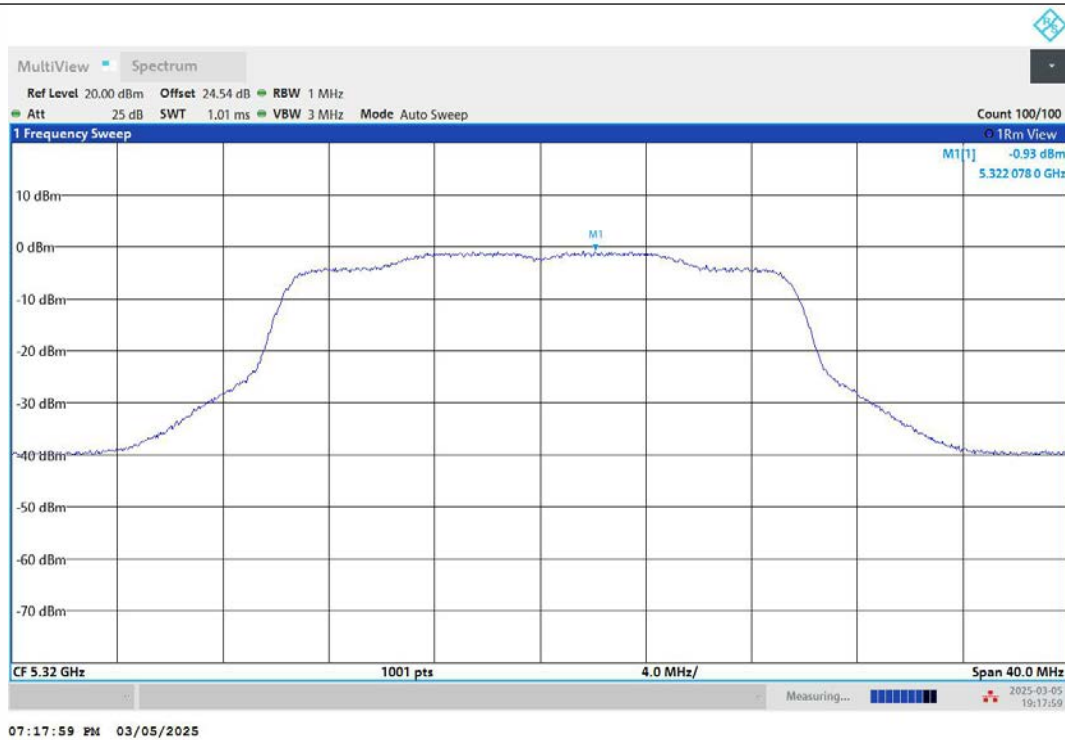
11AX20MIMO-Ant1-5280-PASS



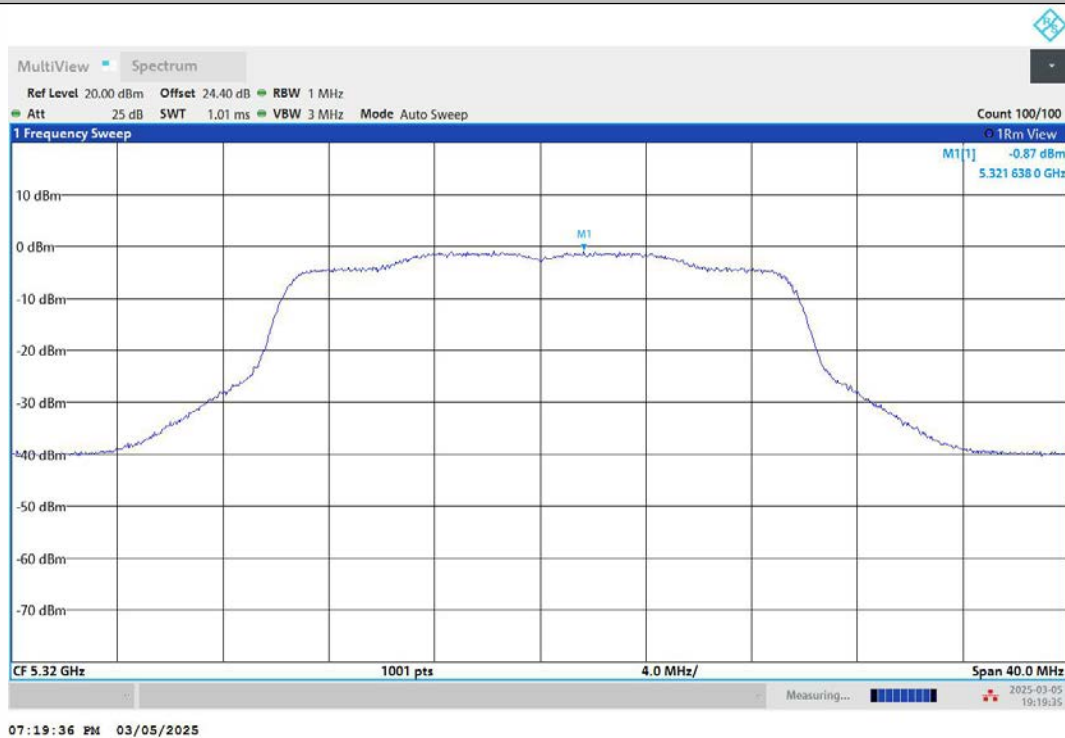
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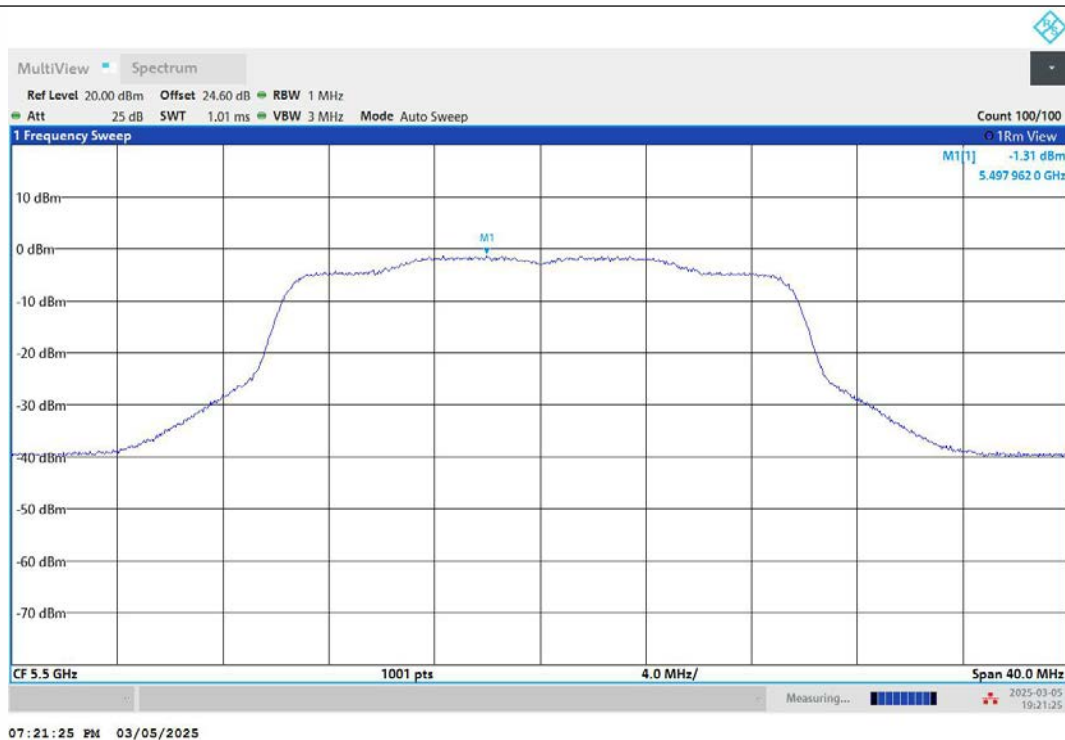
11AX20MIMO-Ant1-5320-PASS



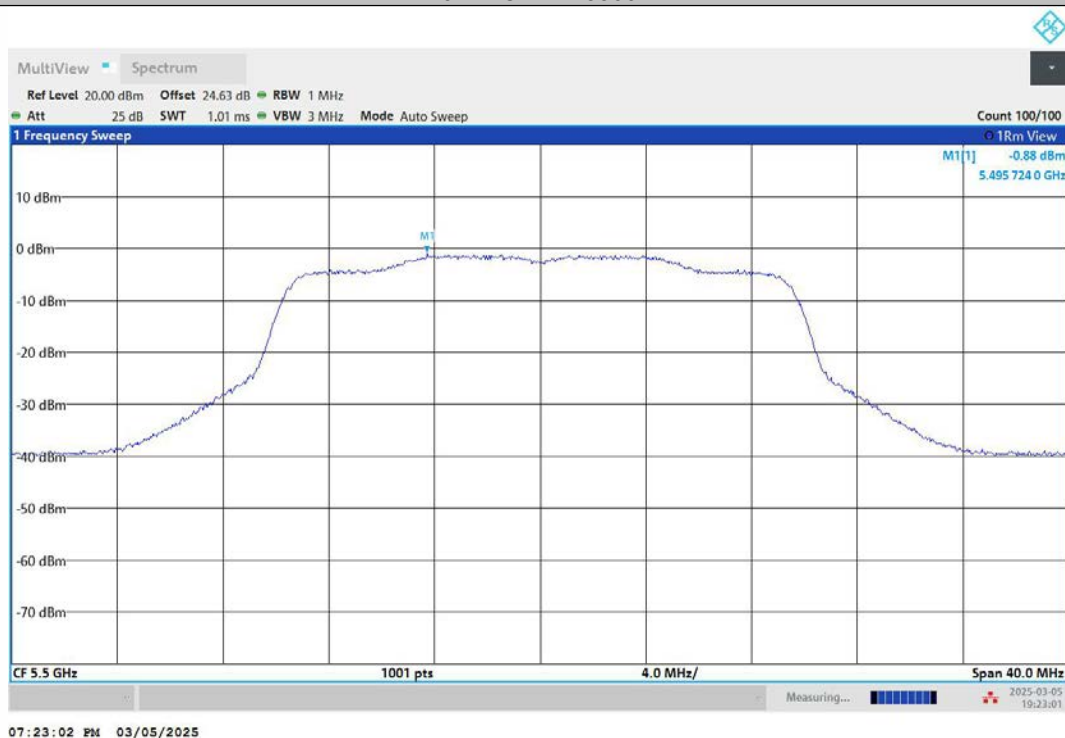
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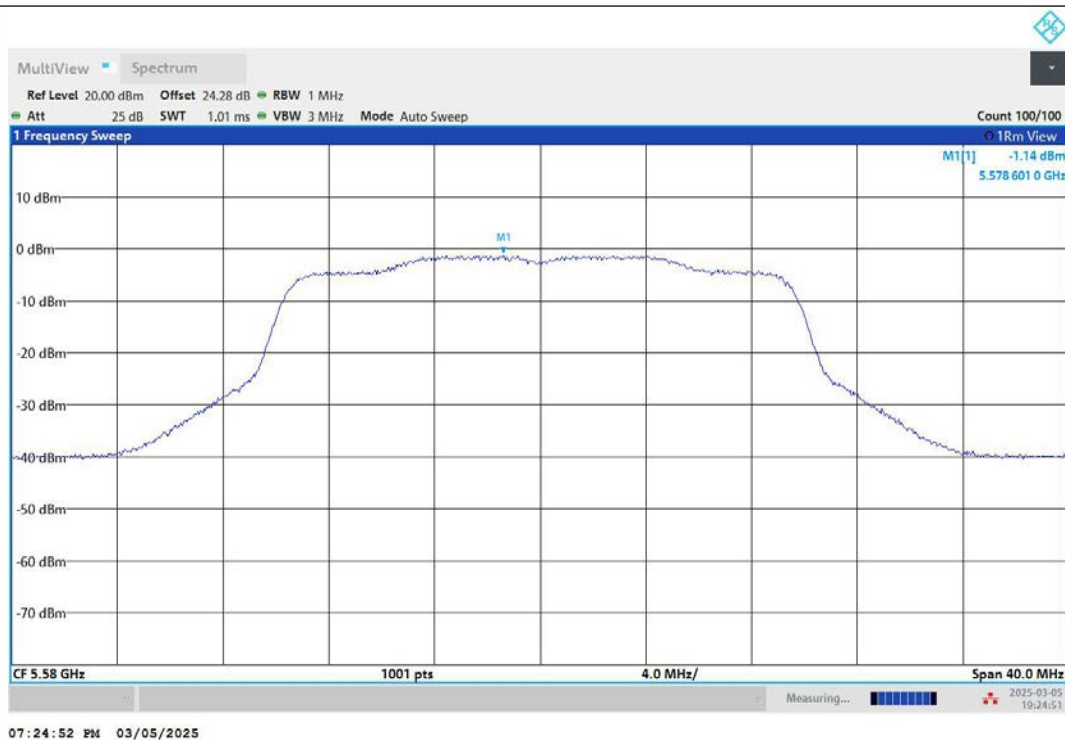
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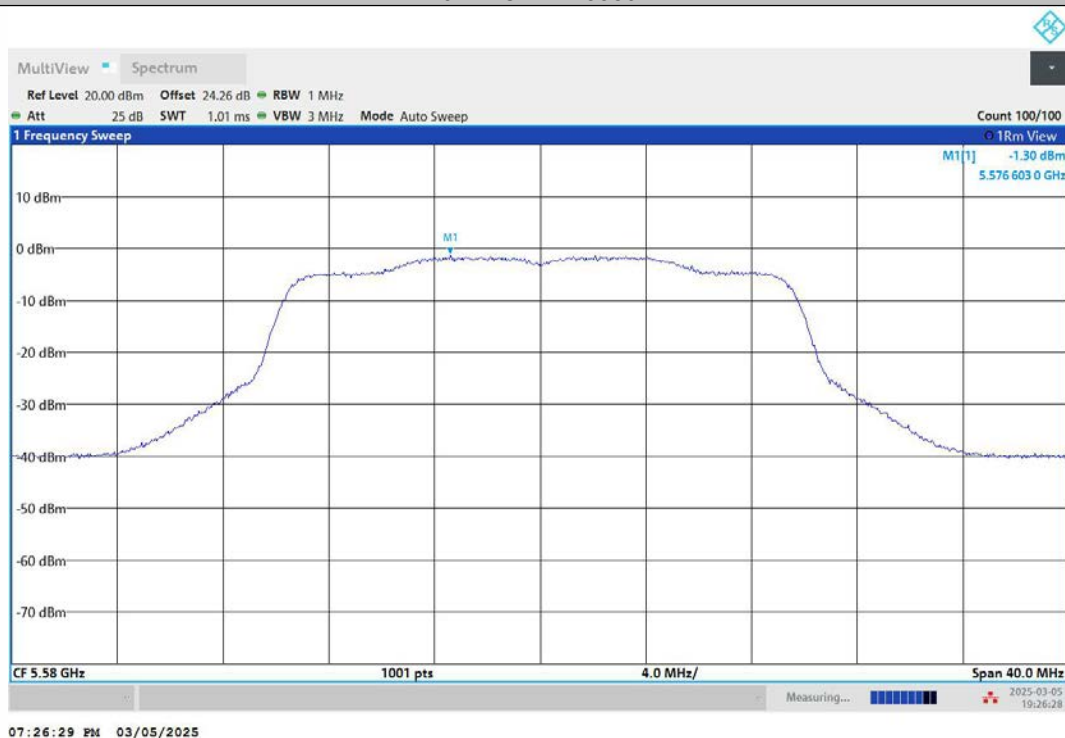
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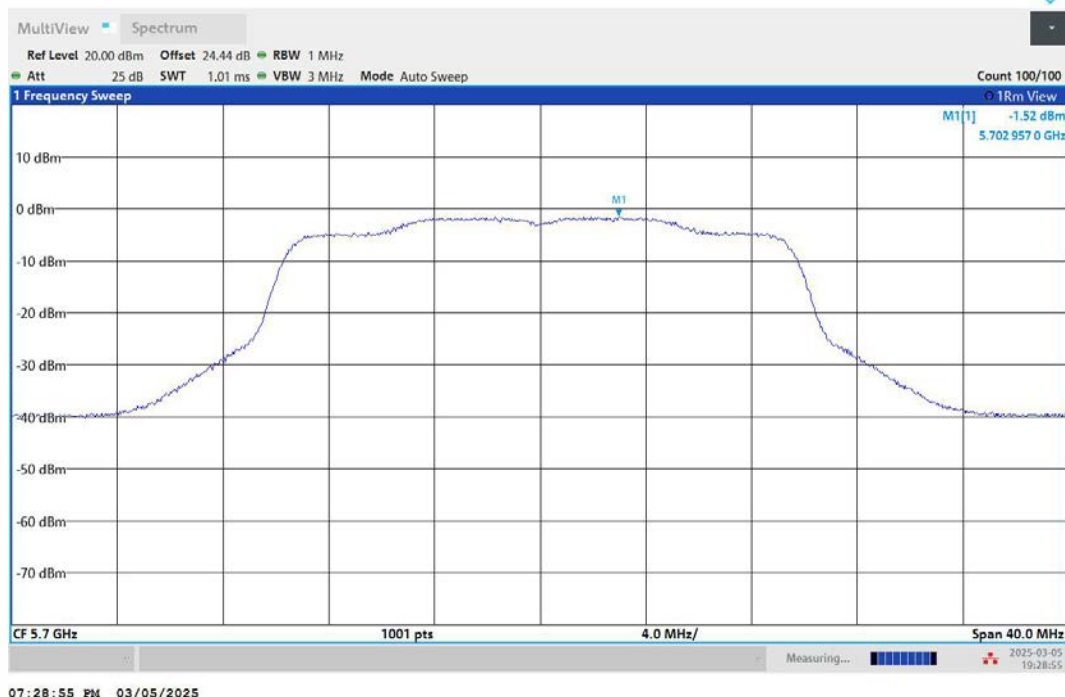
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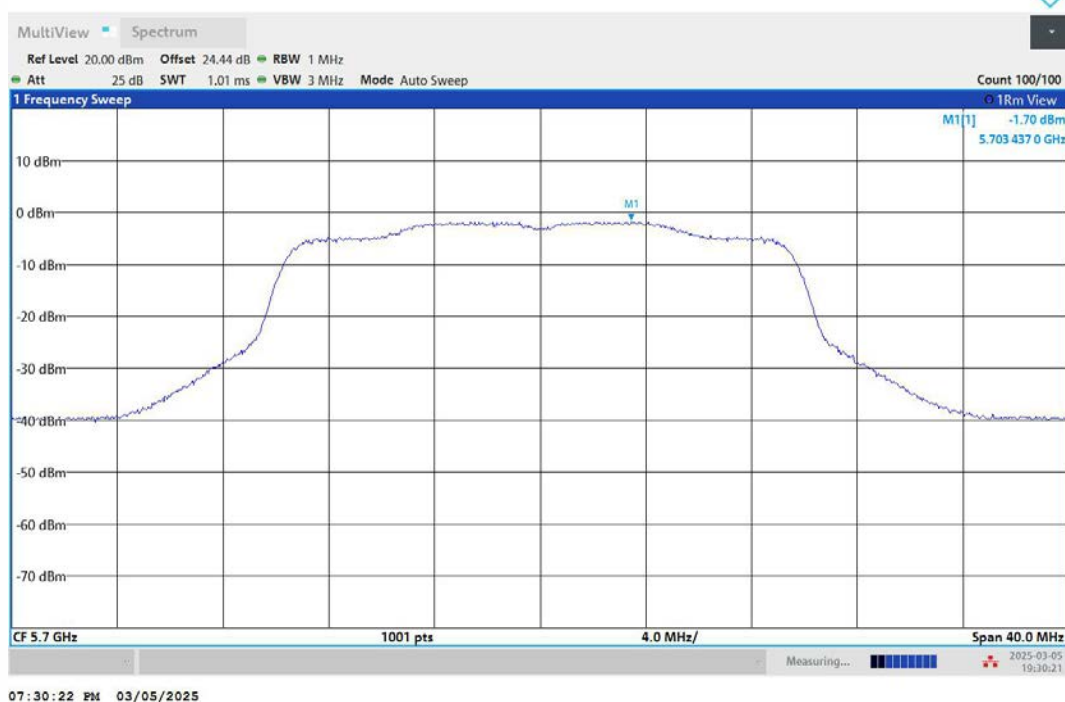
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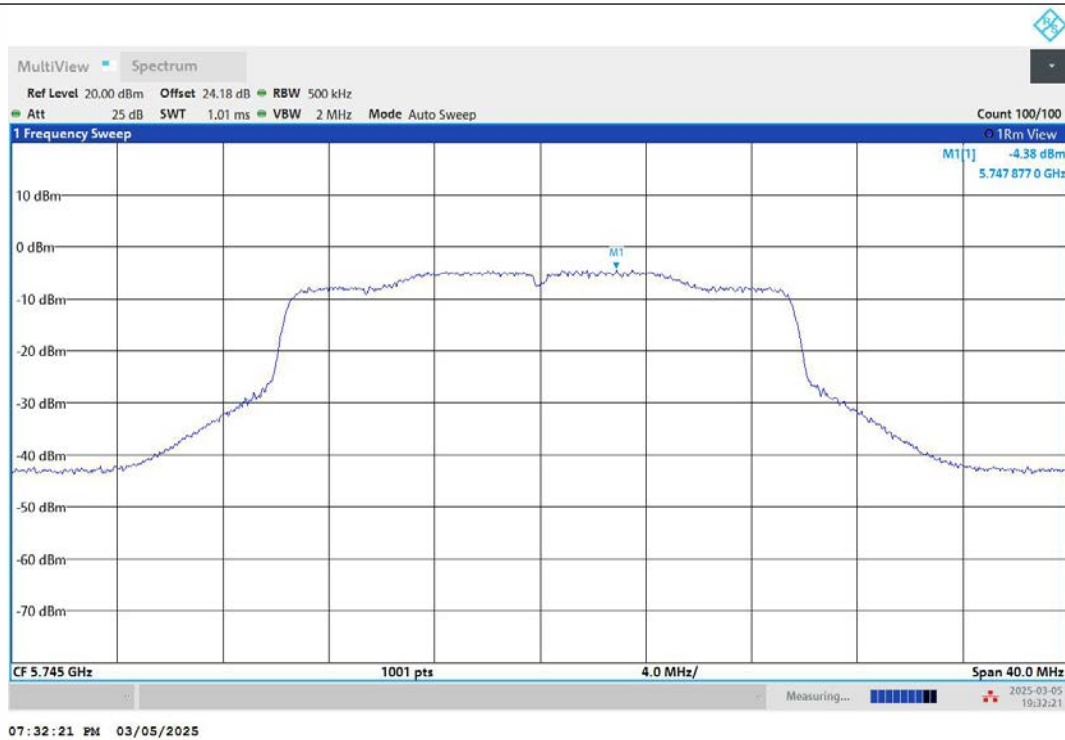
11AX20MIMO-Ant1-5700-PASS



11AX20MIMO-Ant2-5700-PASS



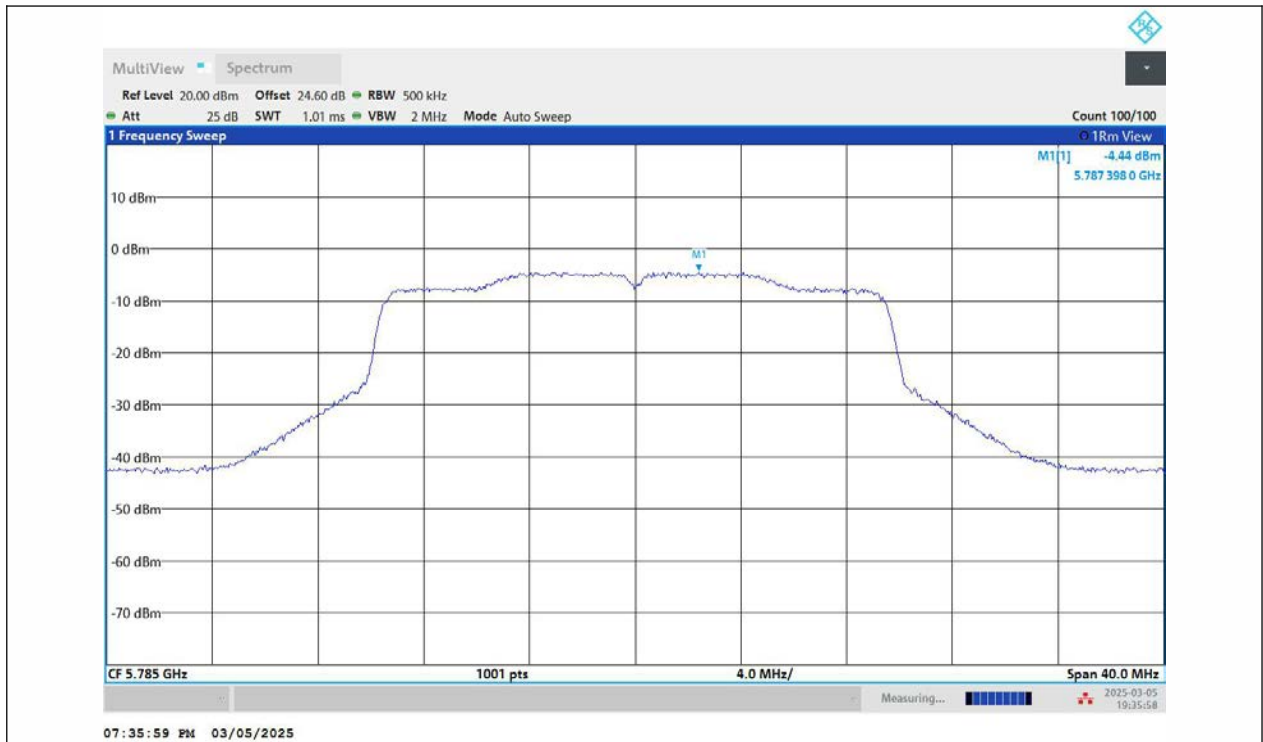
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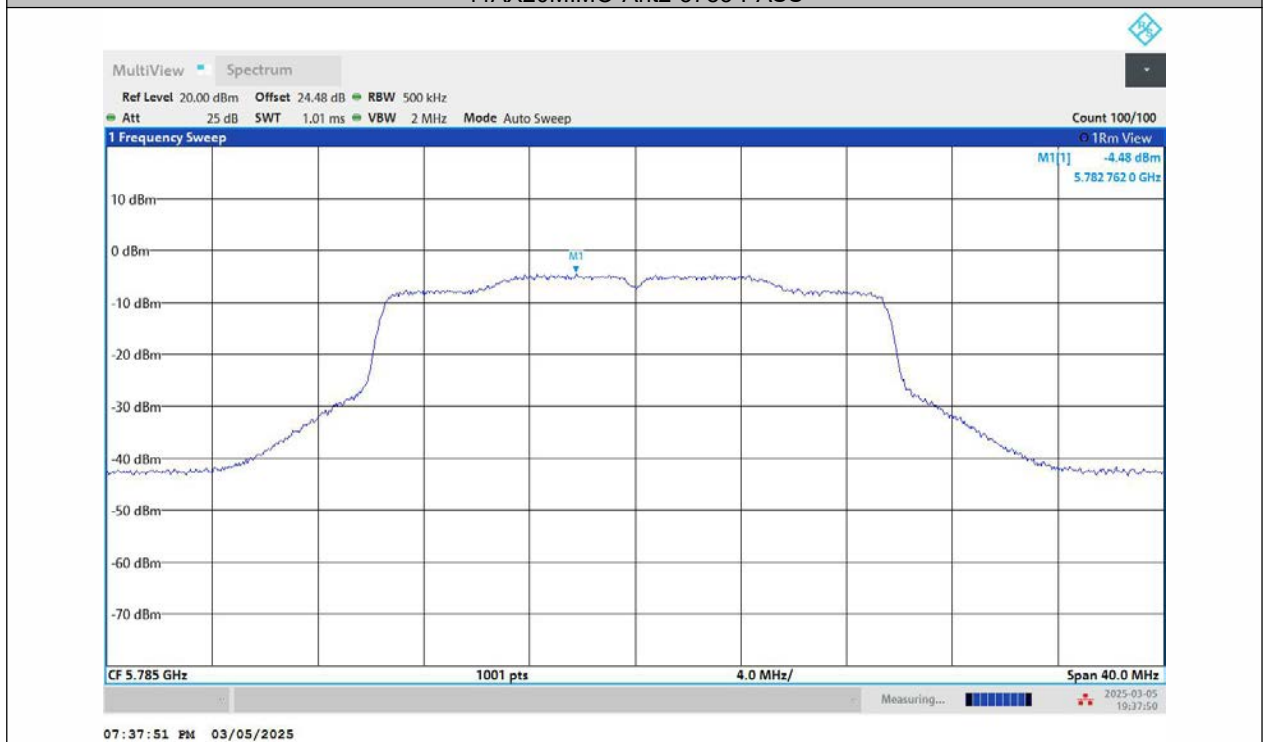
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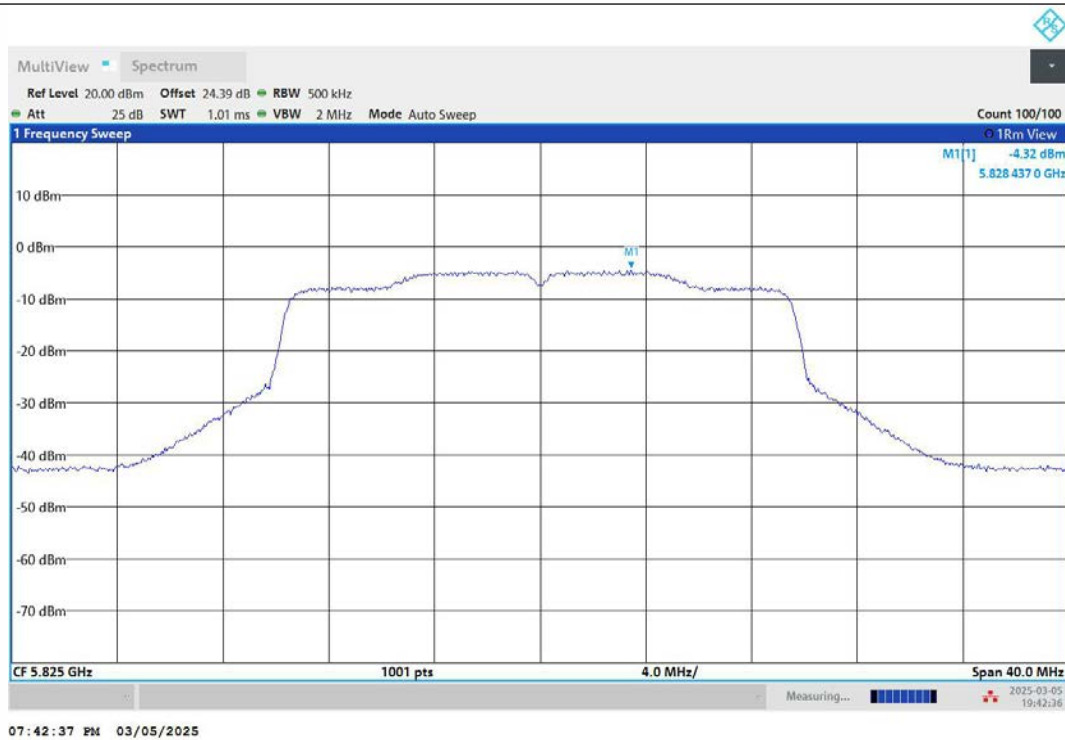
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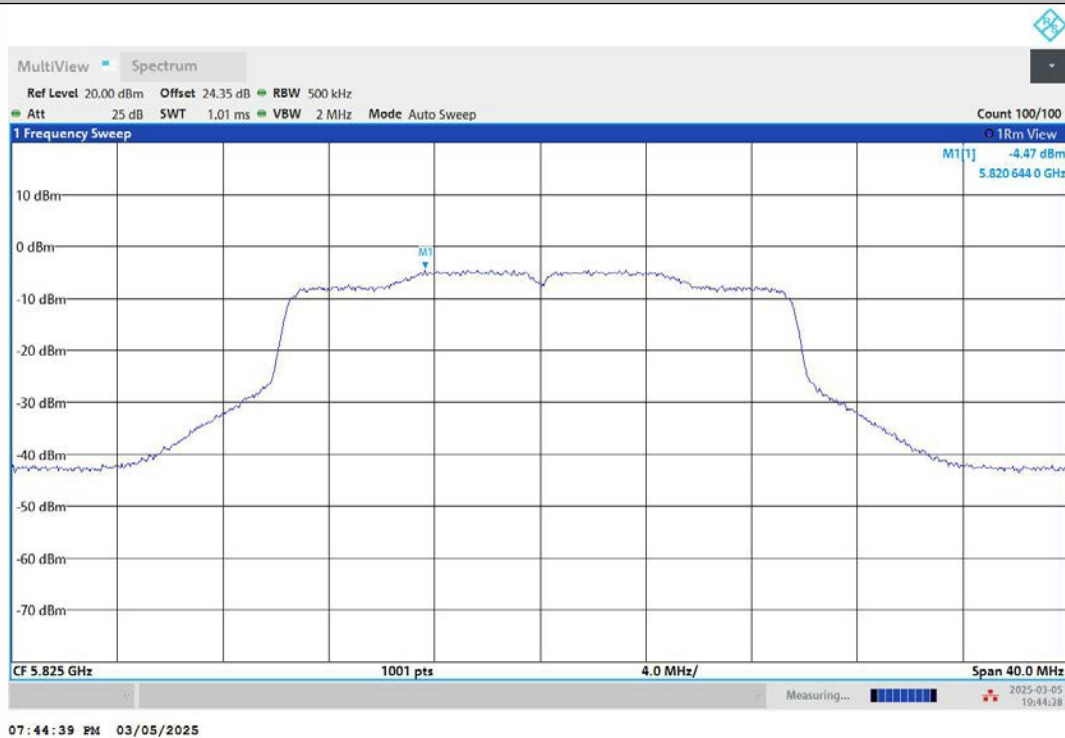
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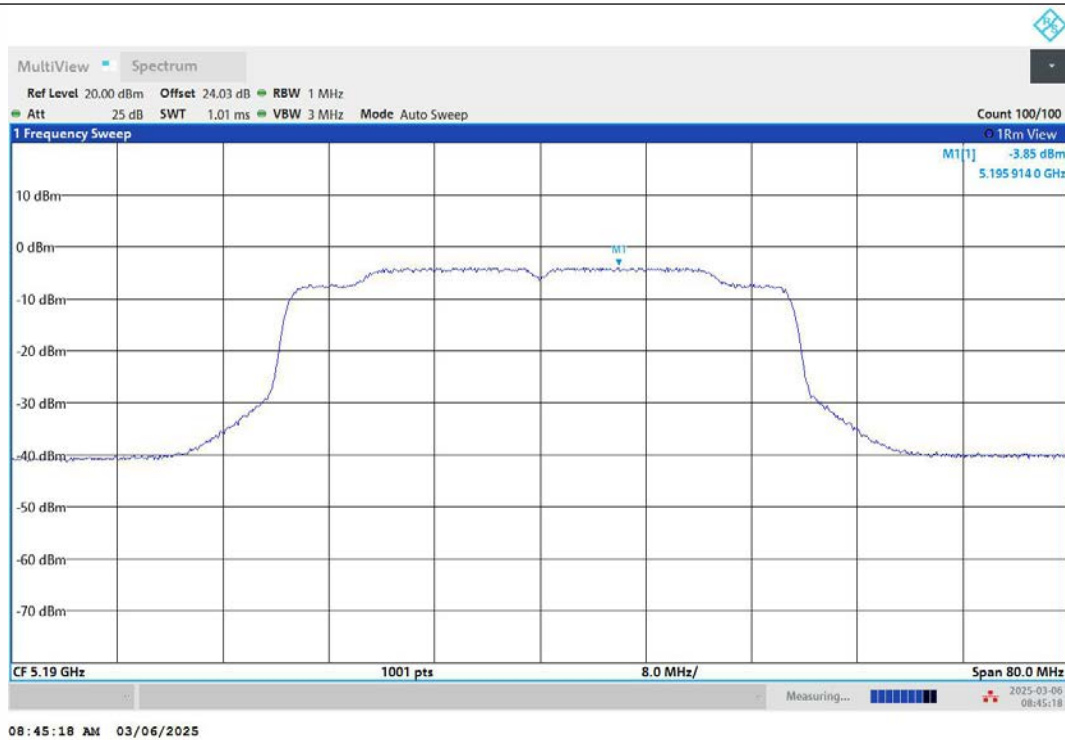
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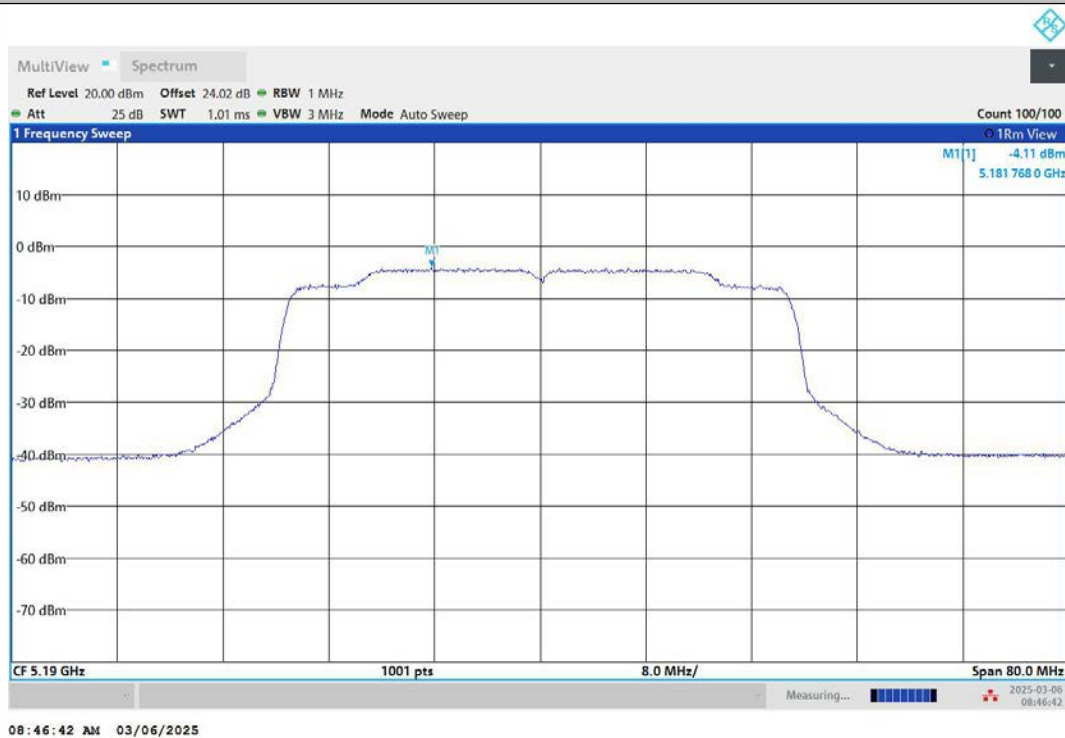
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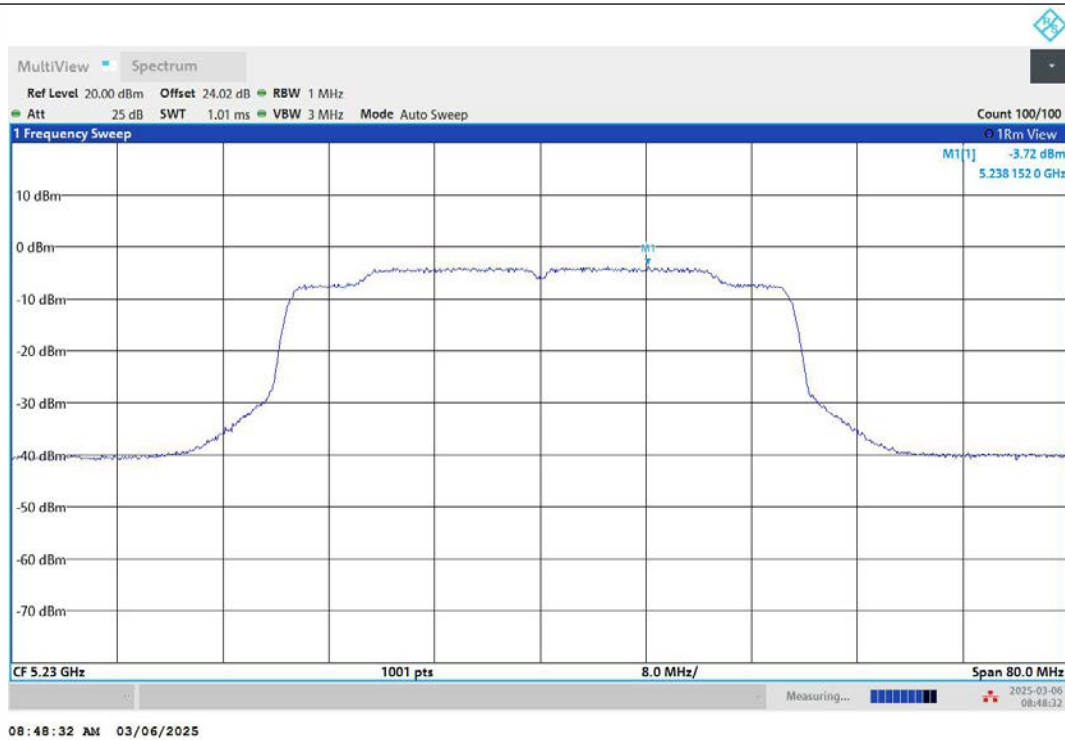
11AX40MIMO-Ant1-5190-PASS



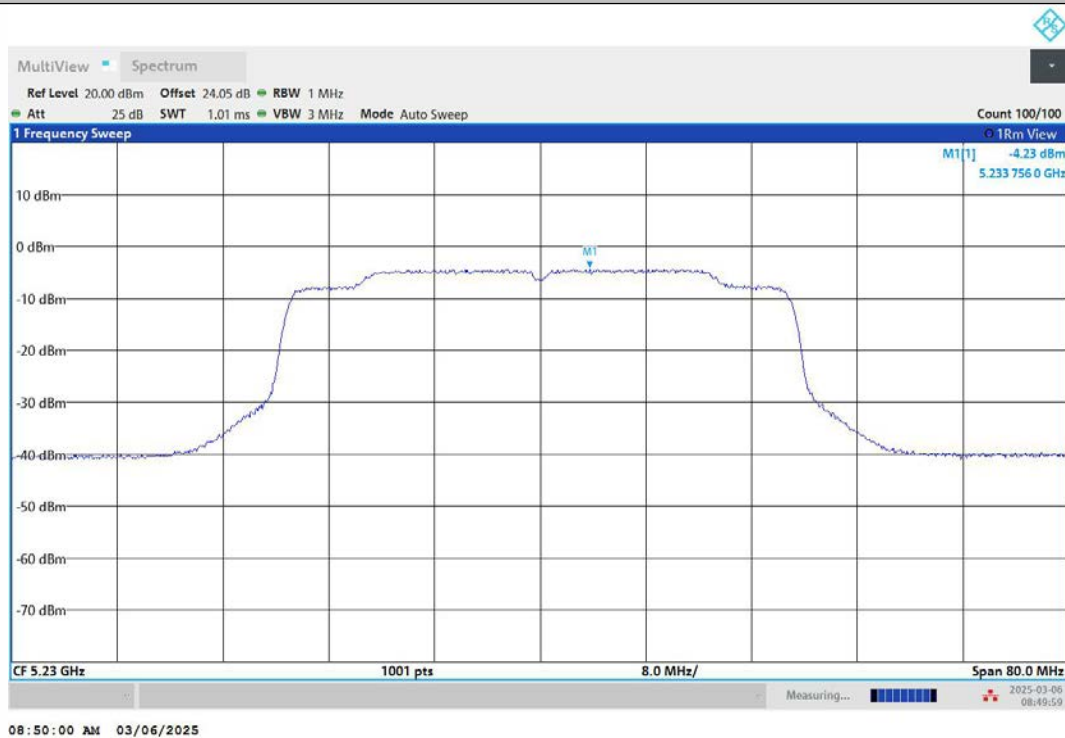
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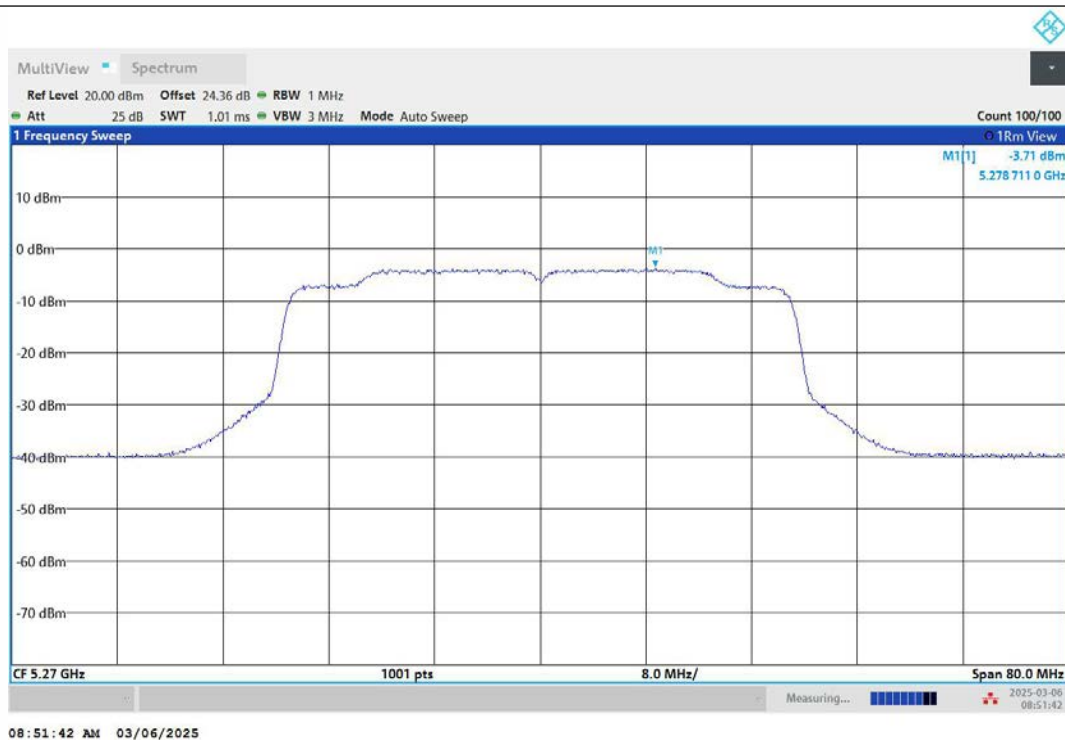
11AX40MIMO-Ant1-5230-PASS



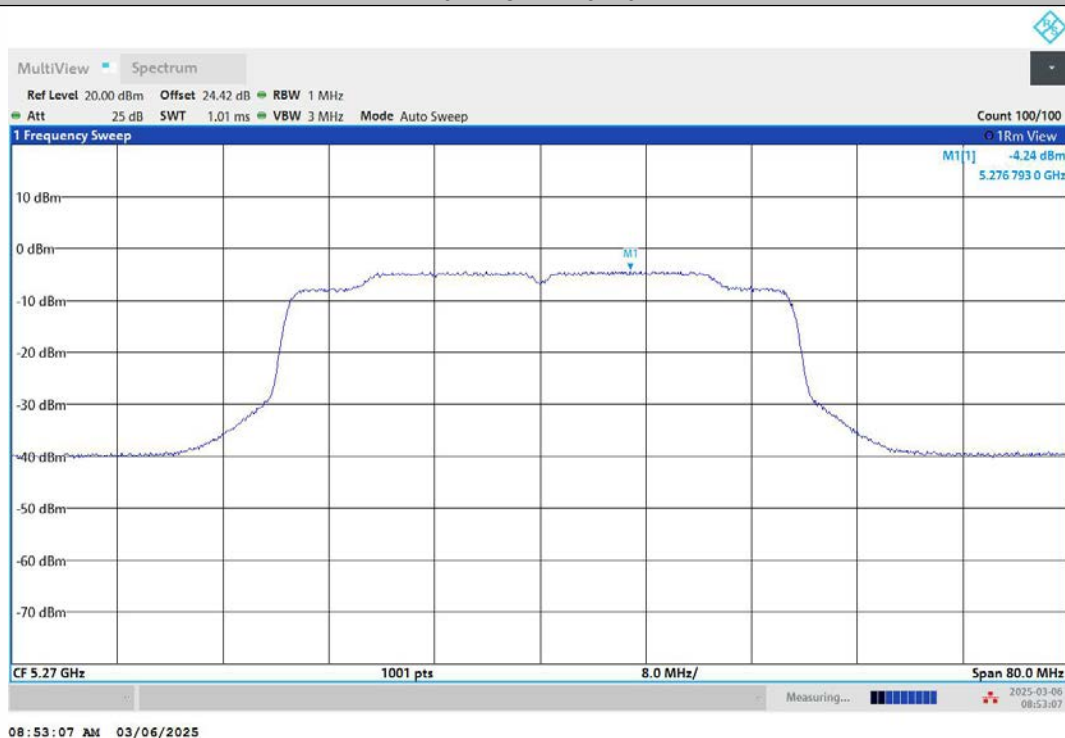
11AX40MIMO-Ant2-5230-PASS



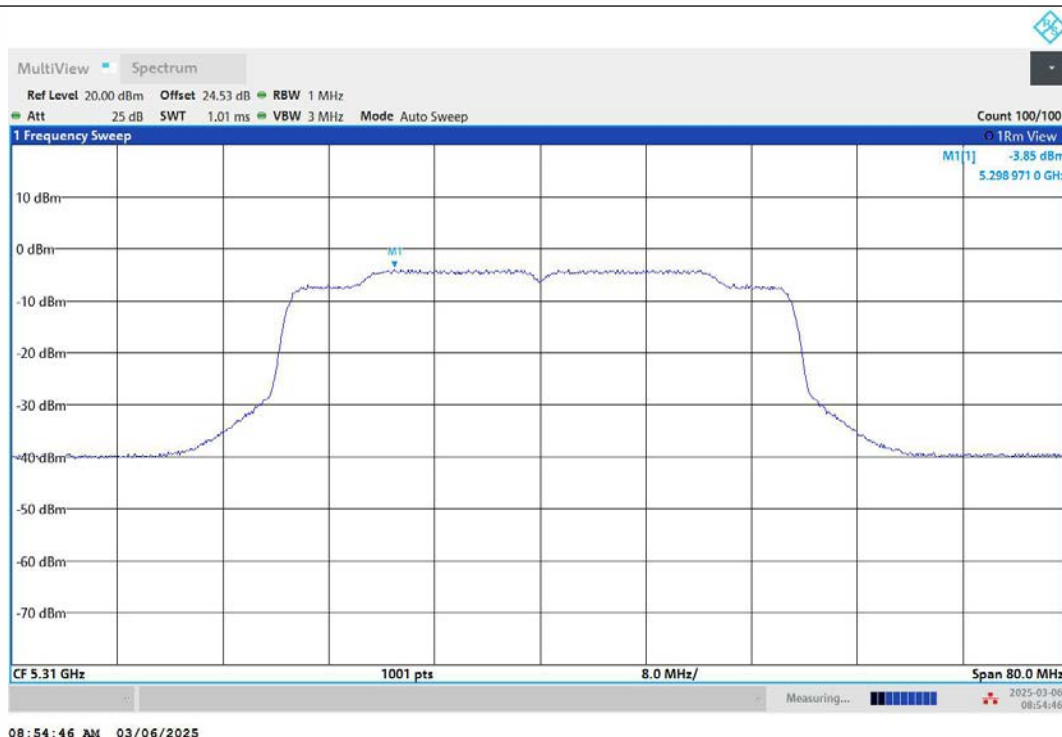
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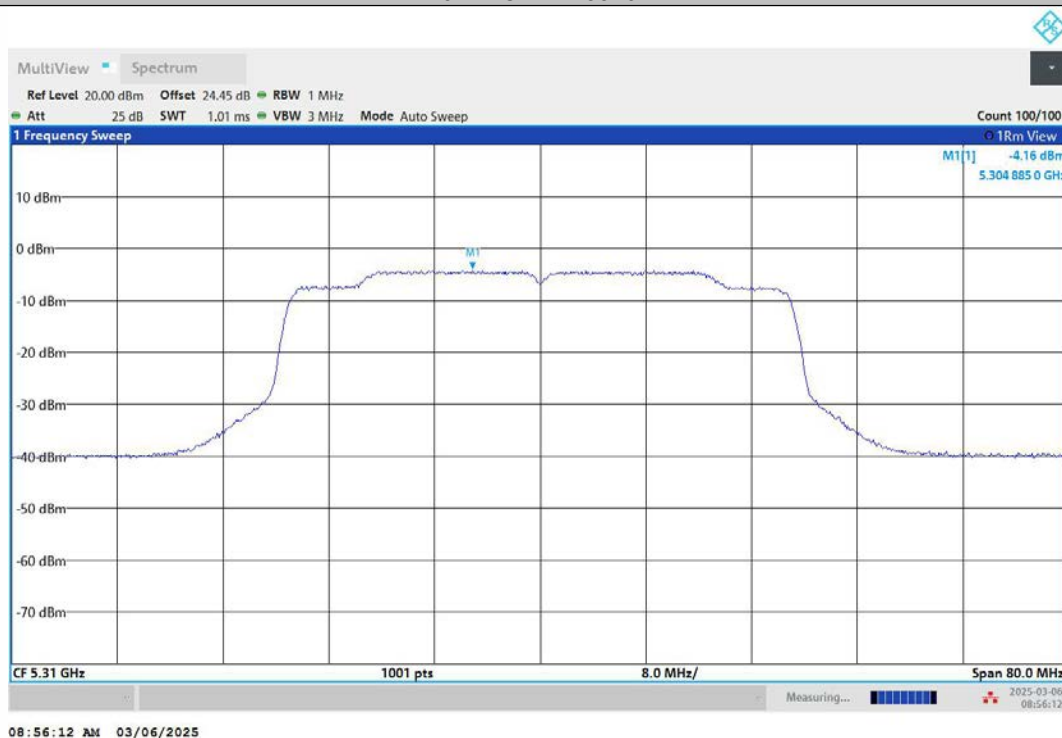
11AX40MIMO-Ant2-5270-PASS



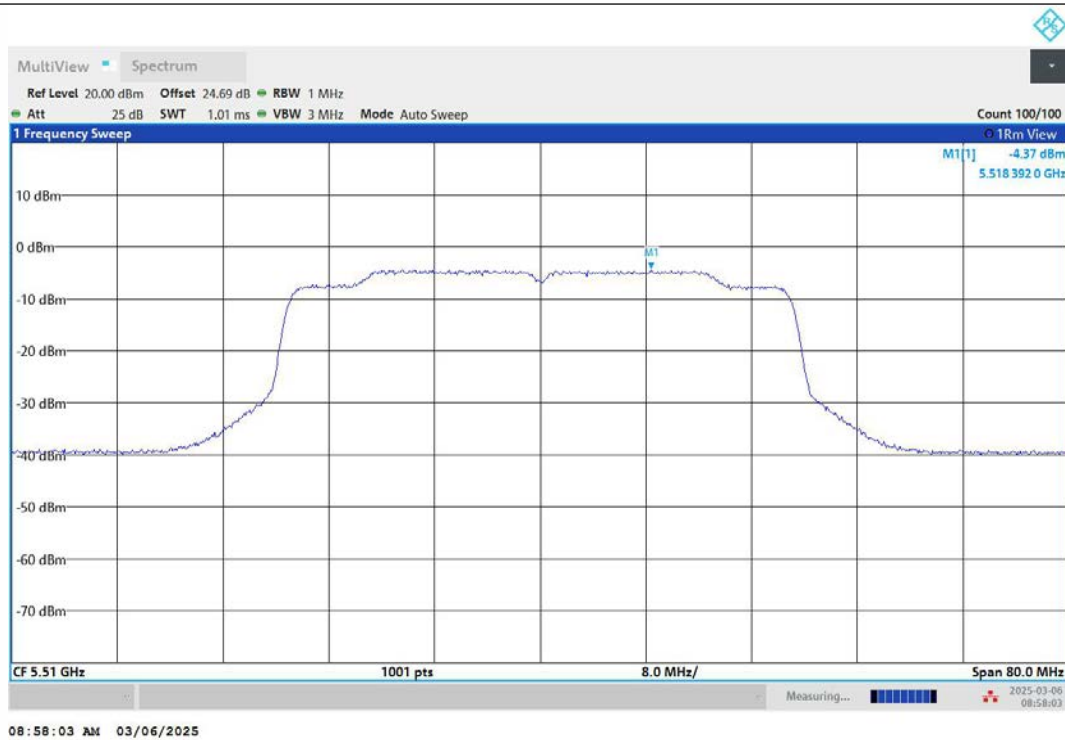
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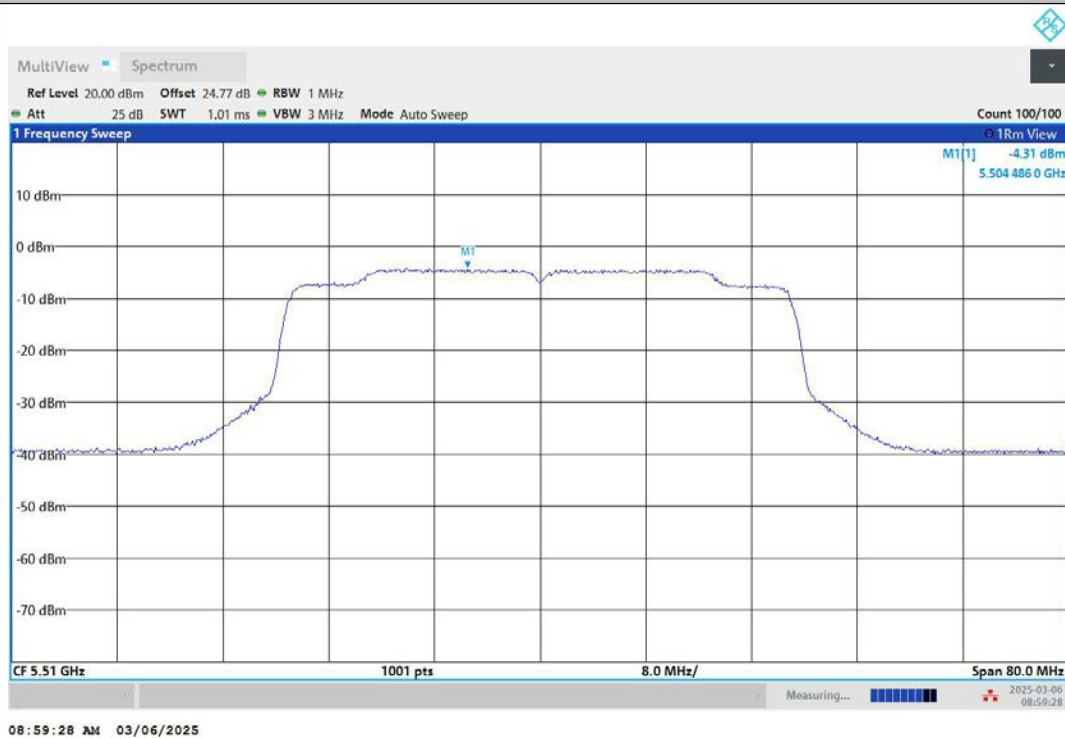
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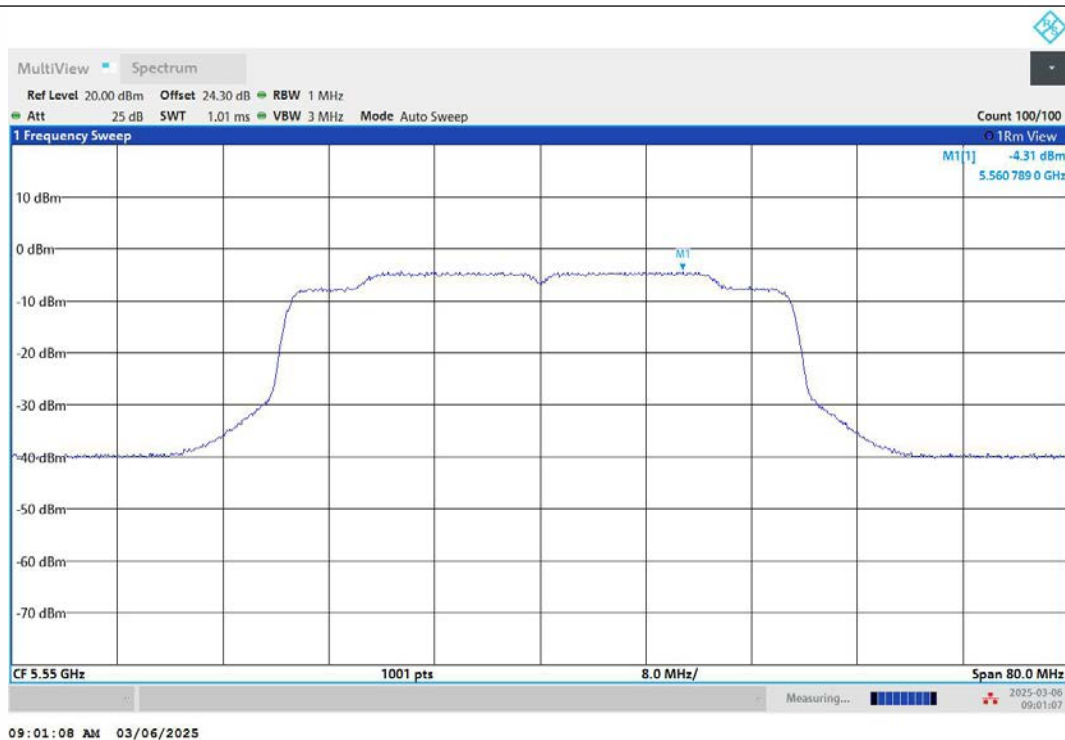
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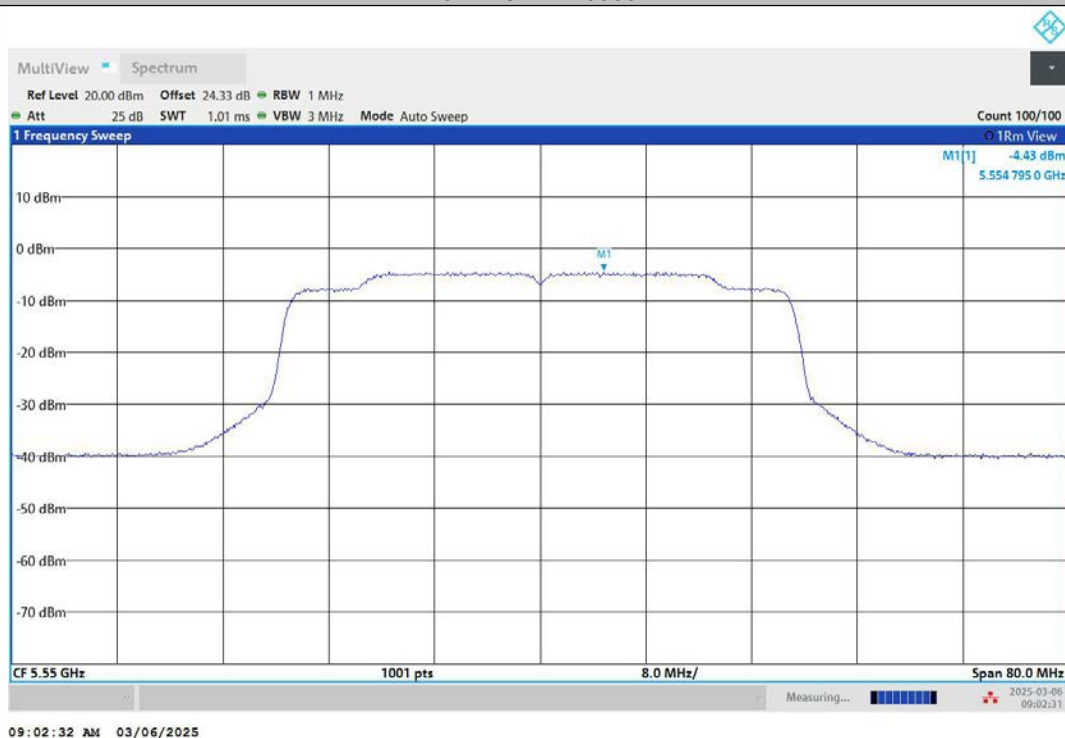
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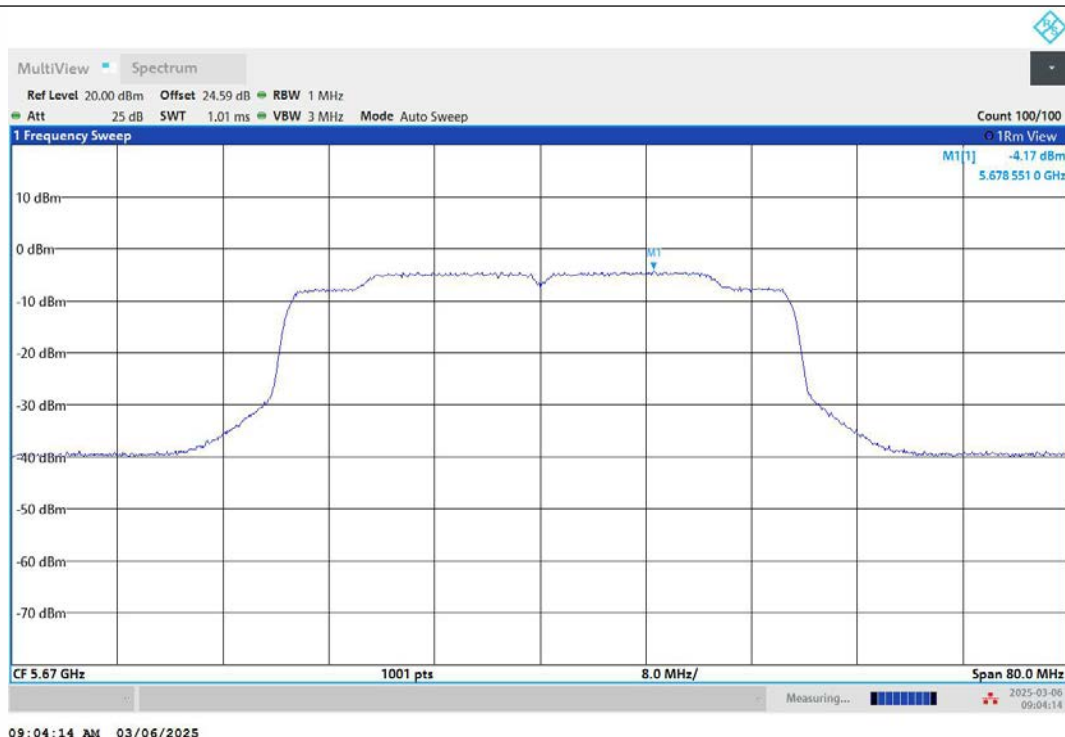
11AX40MIMO-Ant1-5550-PASS



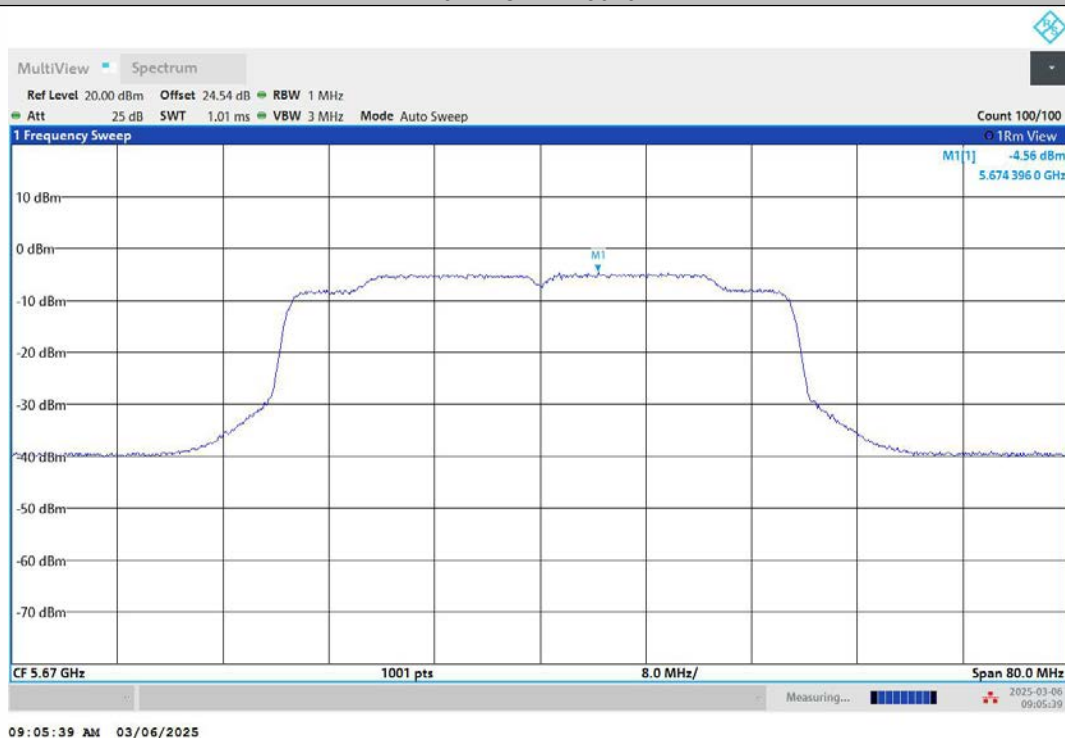
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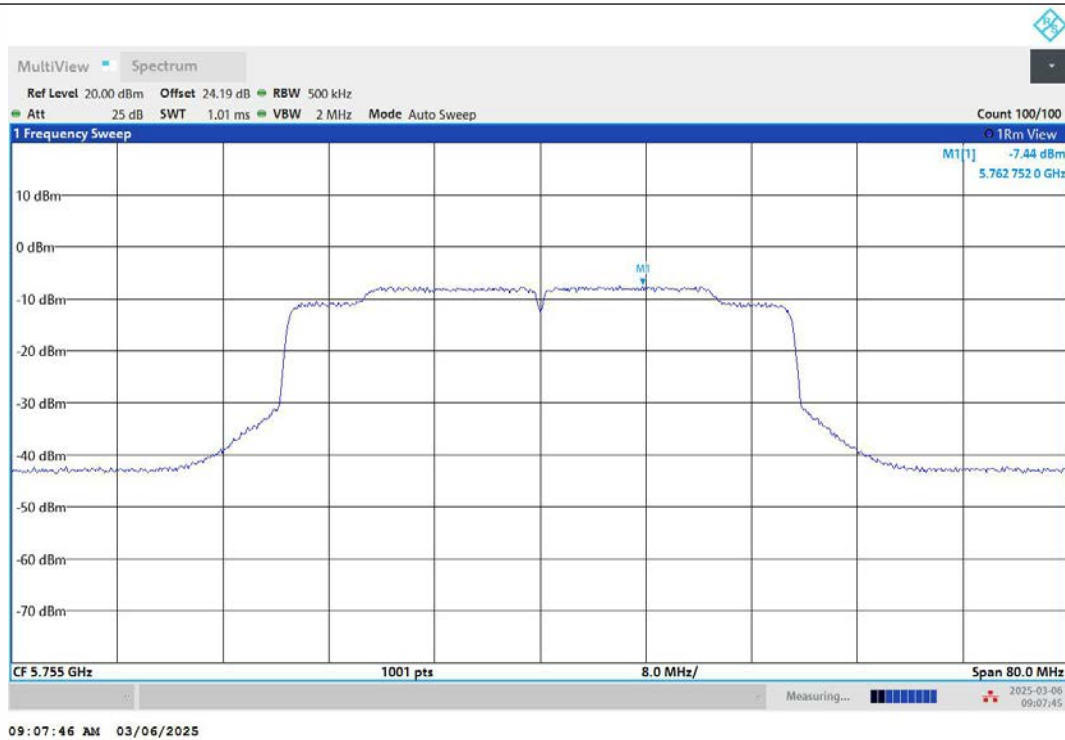
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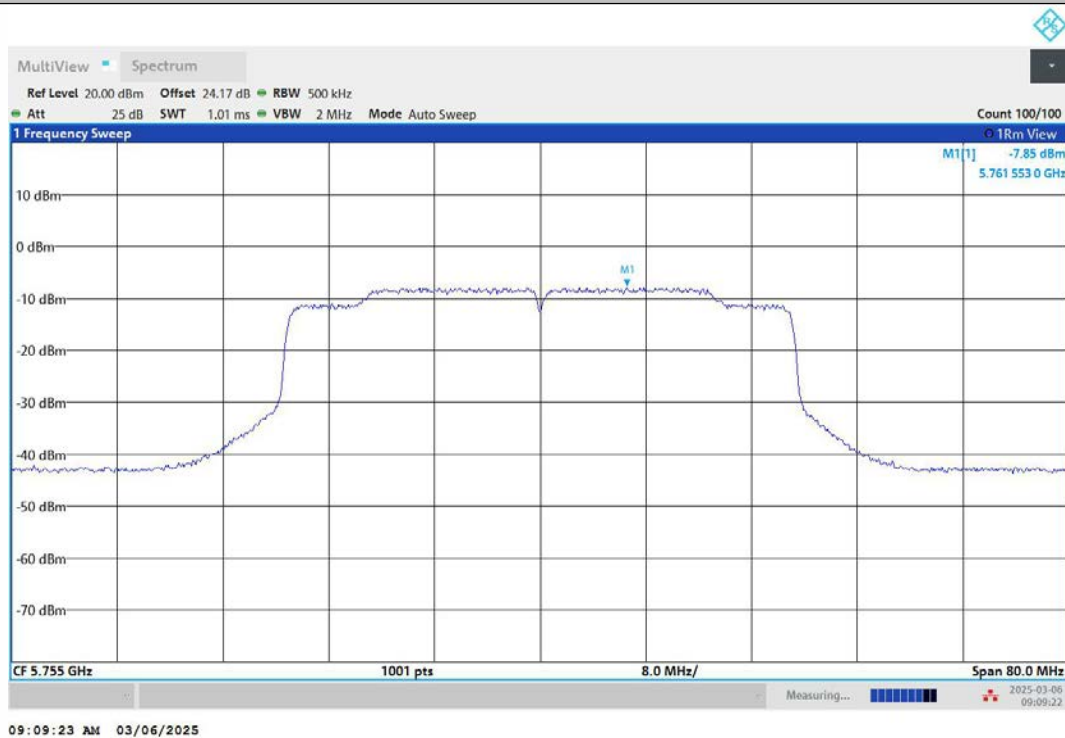
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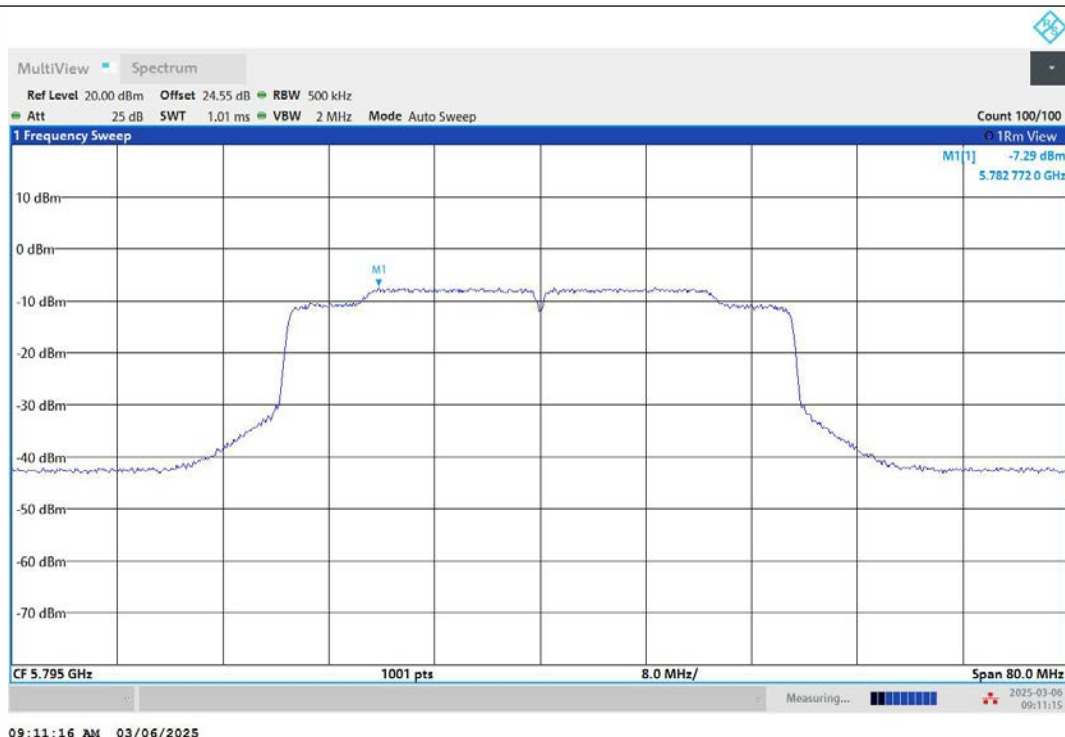
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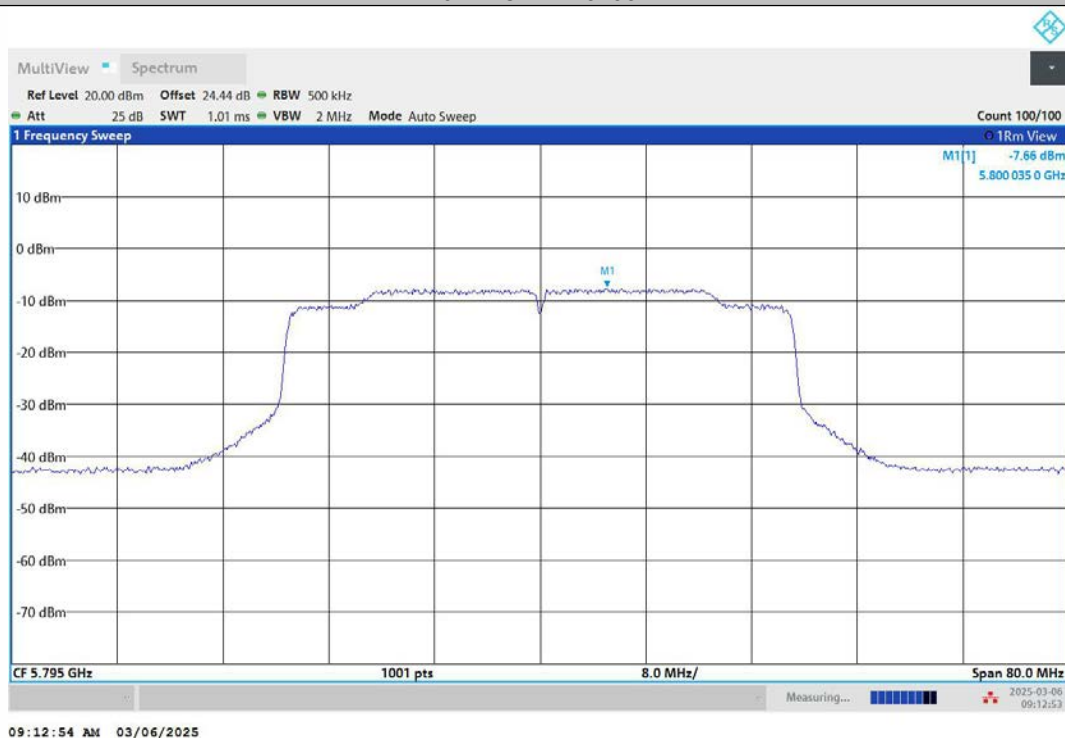
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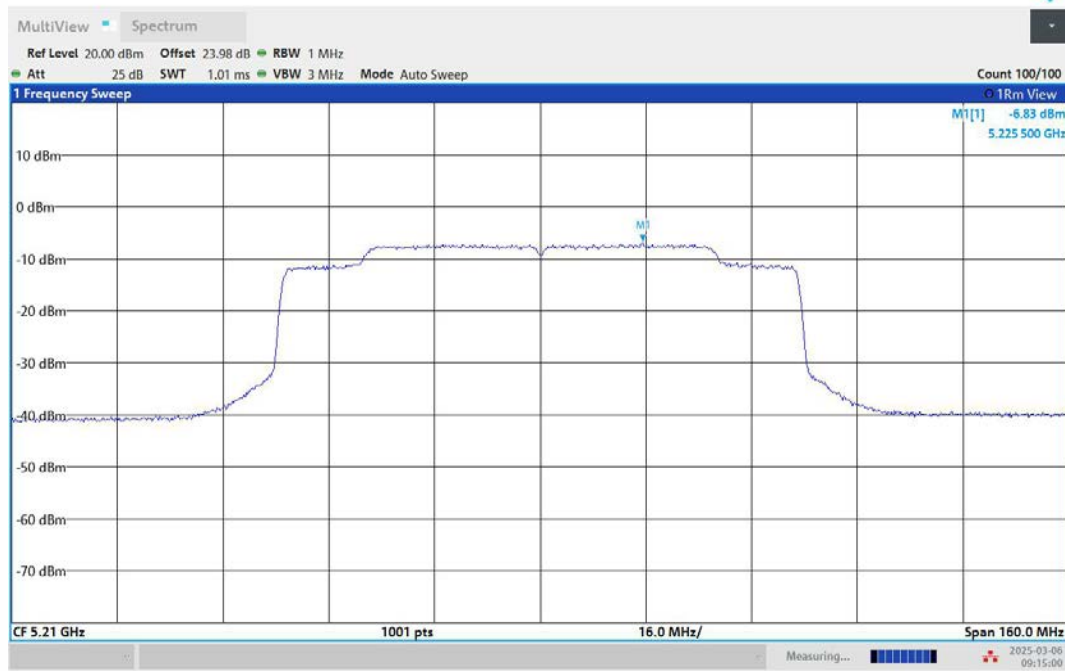
11AX40MIMO-Ant1-5795-PASS



11AX40MIMO-Ant2-5795-PASS

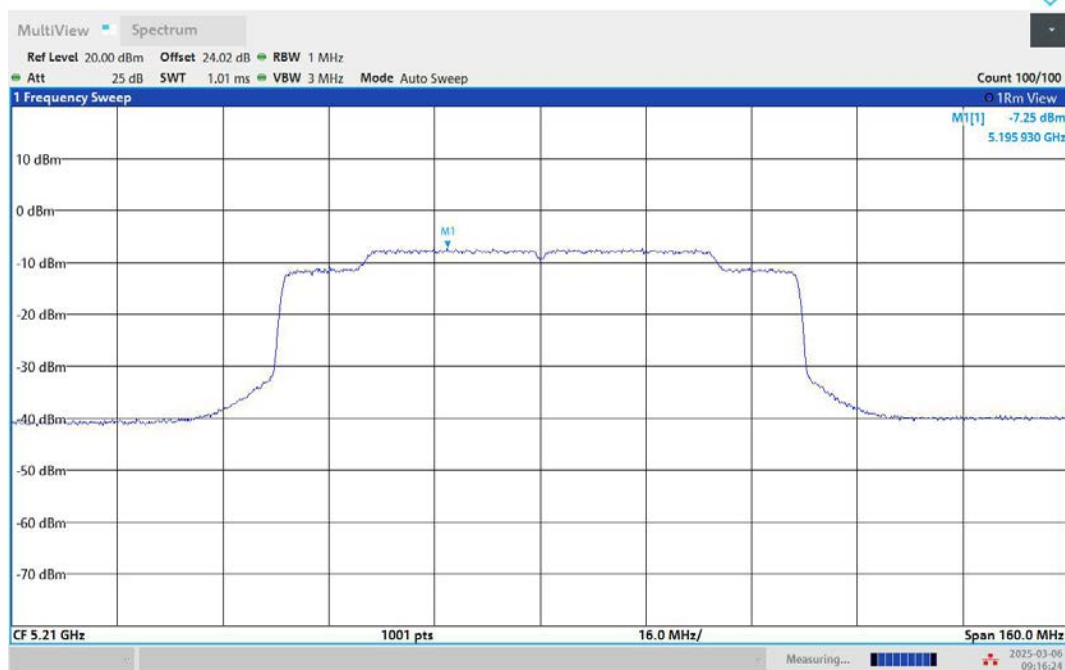


11AX80MIMO-Ant1-5210-PASS



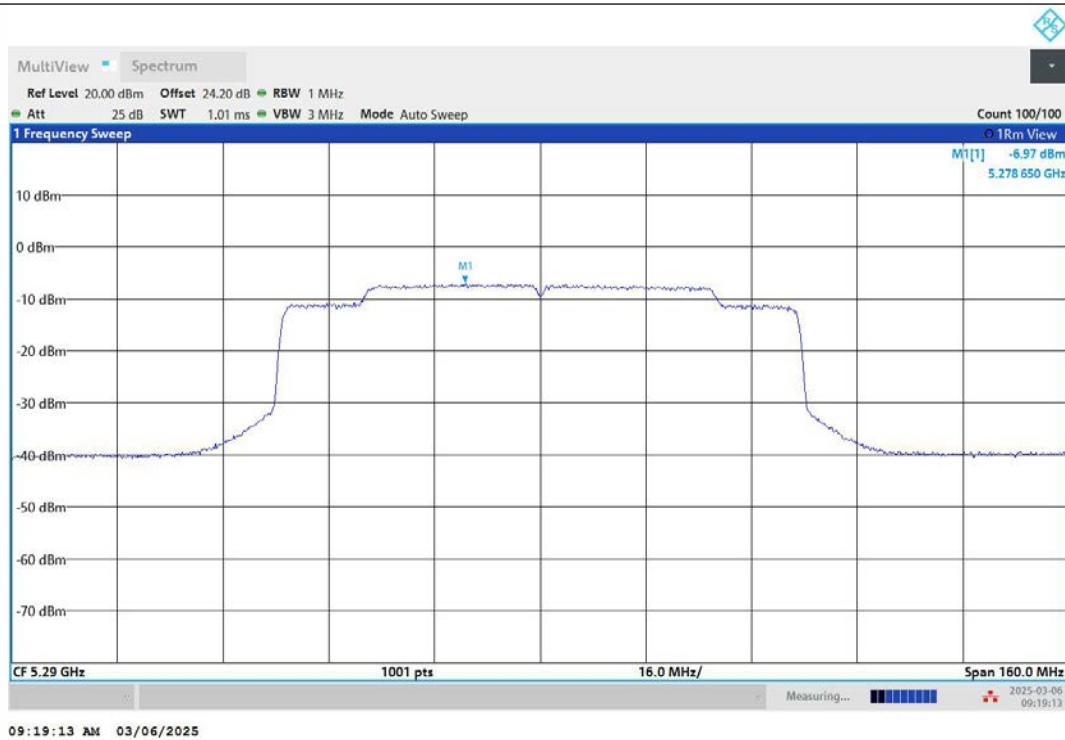
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11AX80MIMO-Ant2-5210-PASS

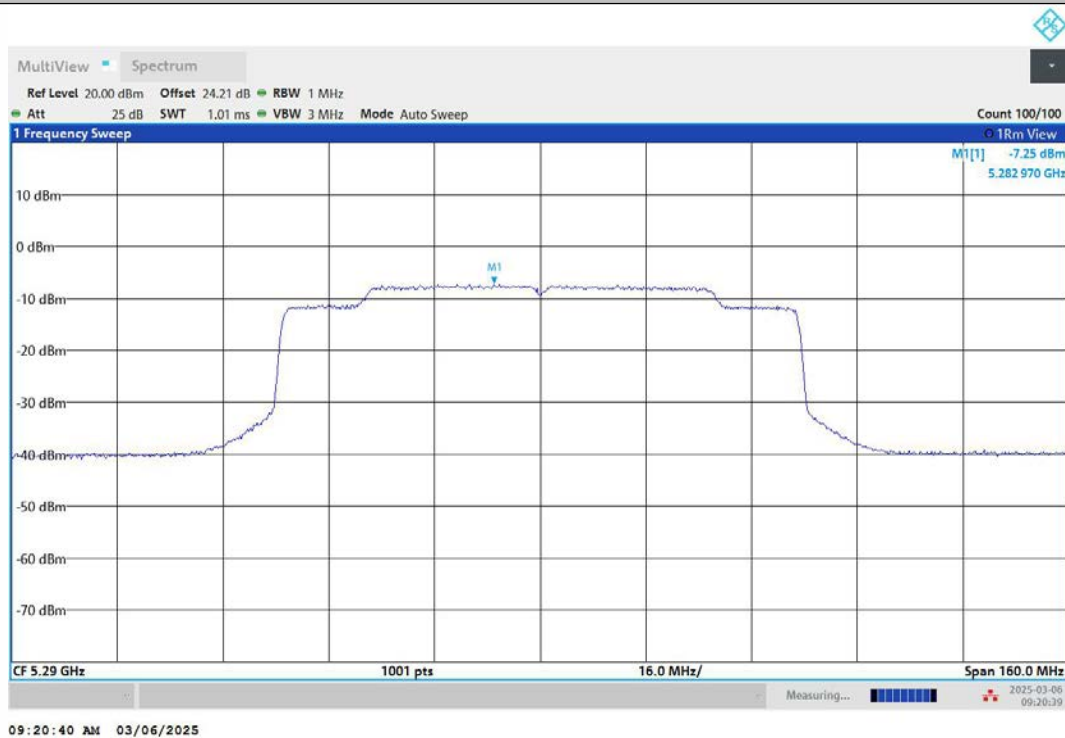


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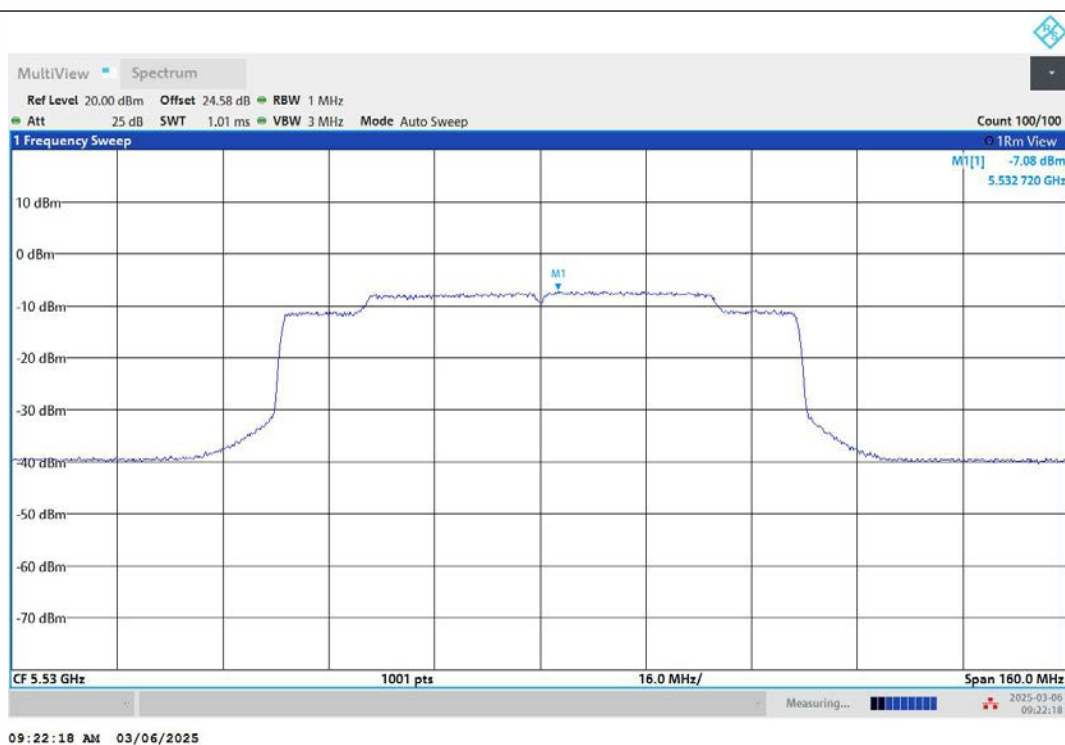
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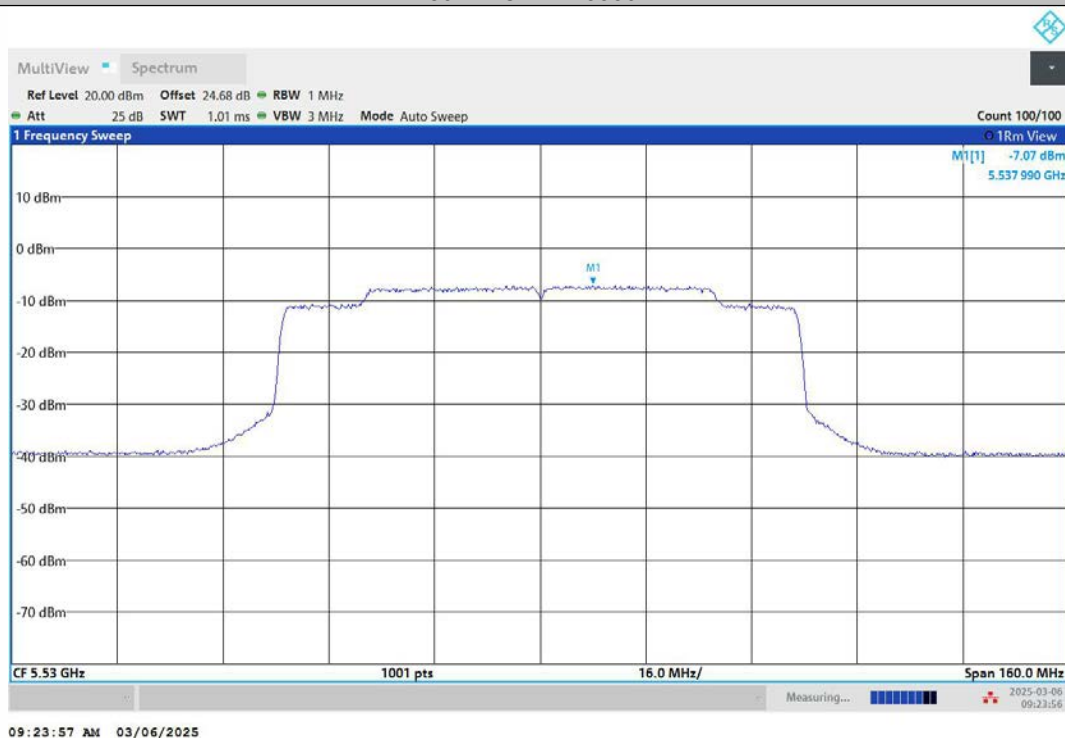
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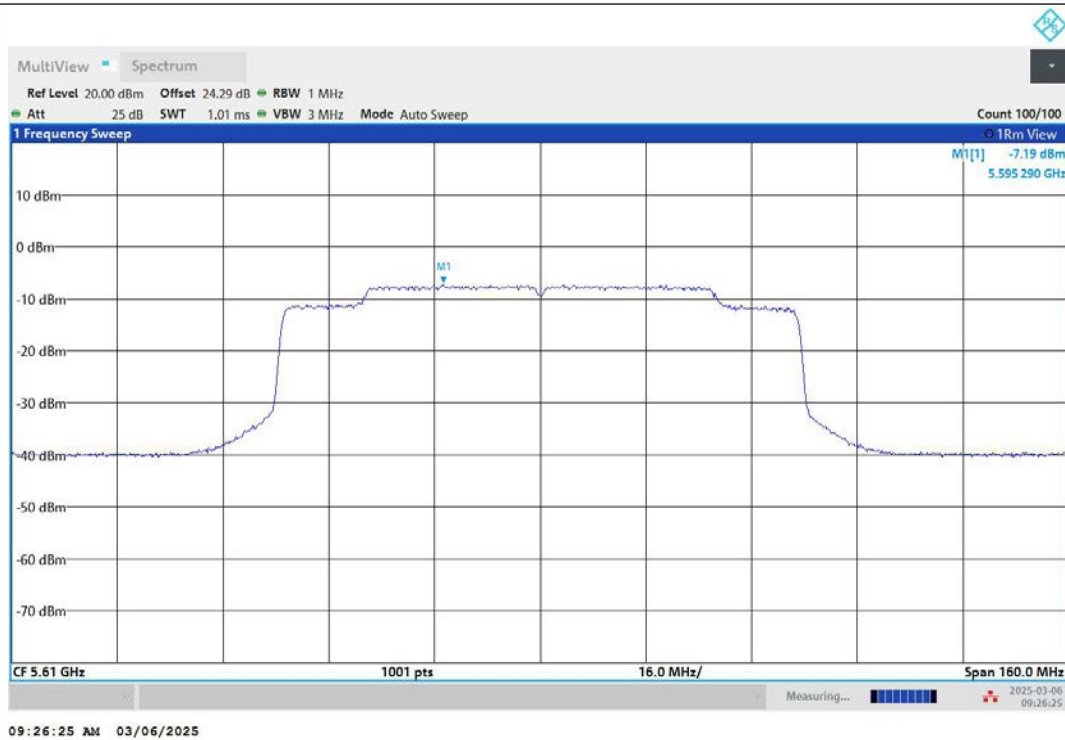
11AX80MIMO-Ant1-5530-PASS



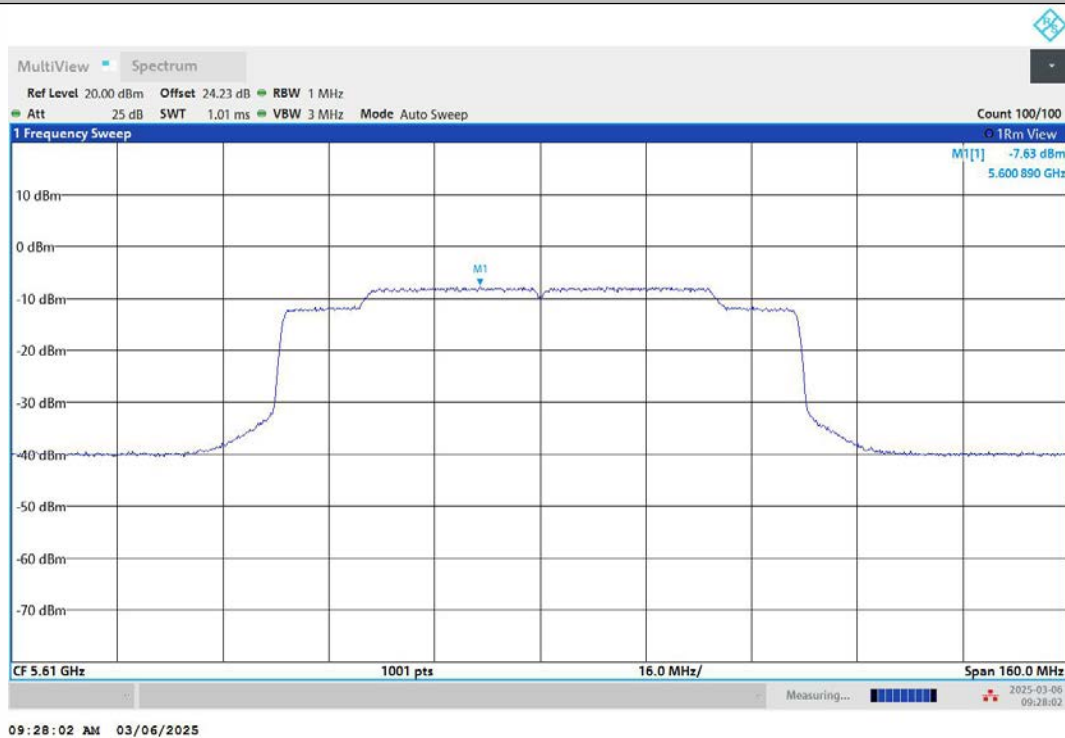
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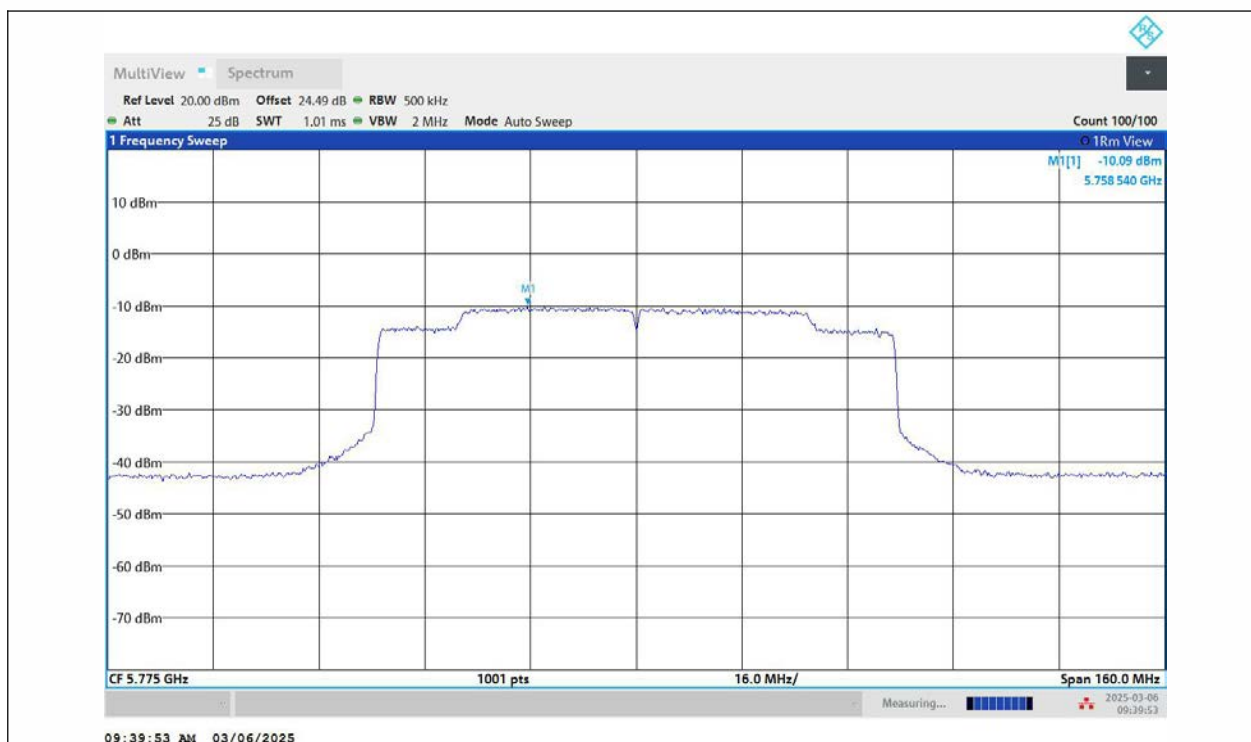
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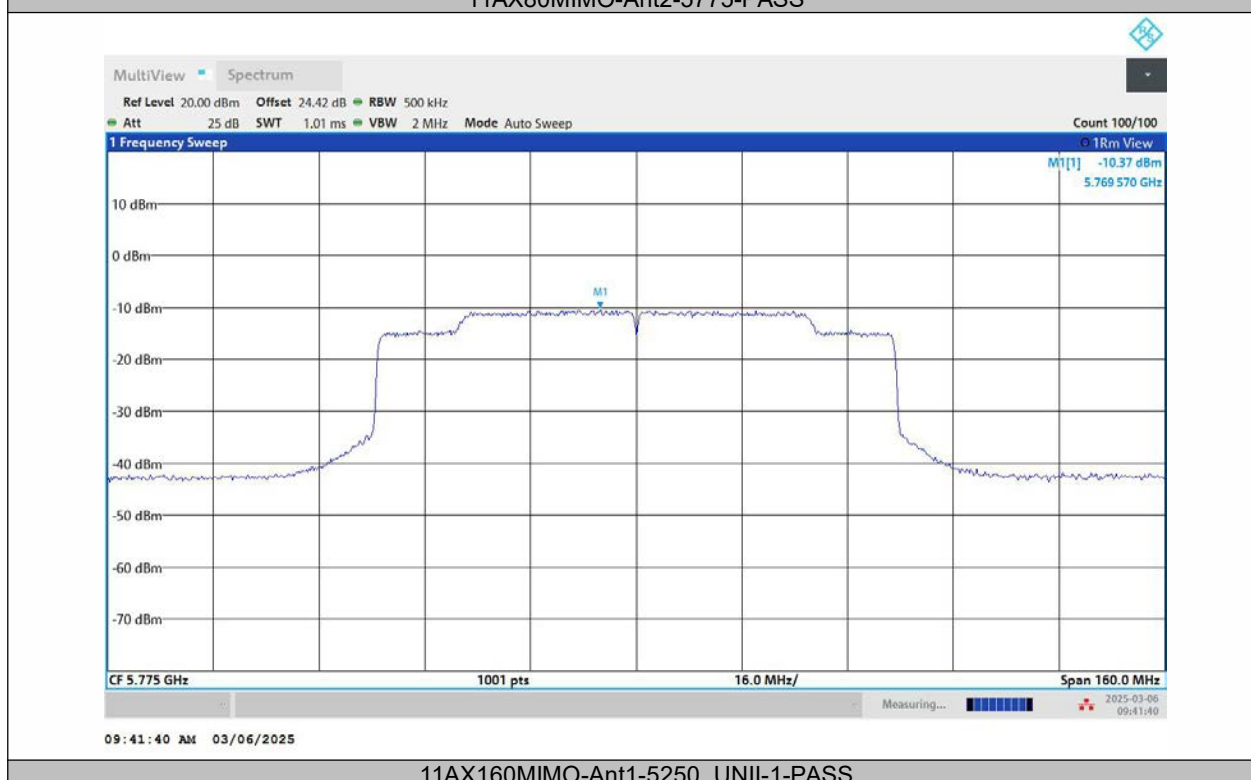
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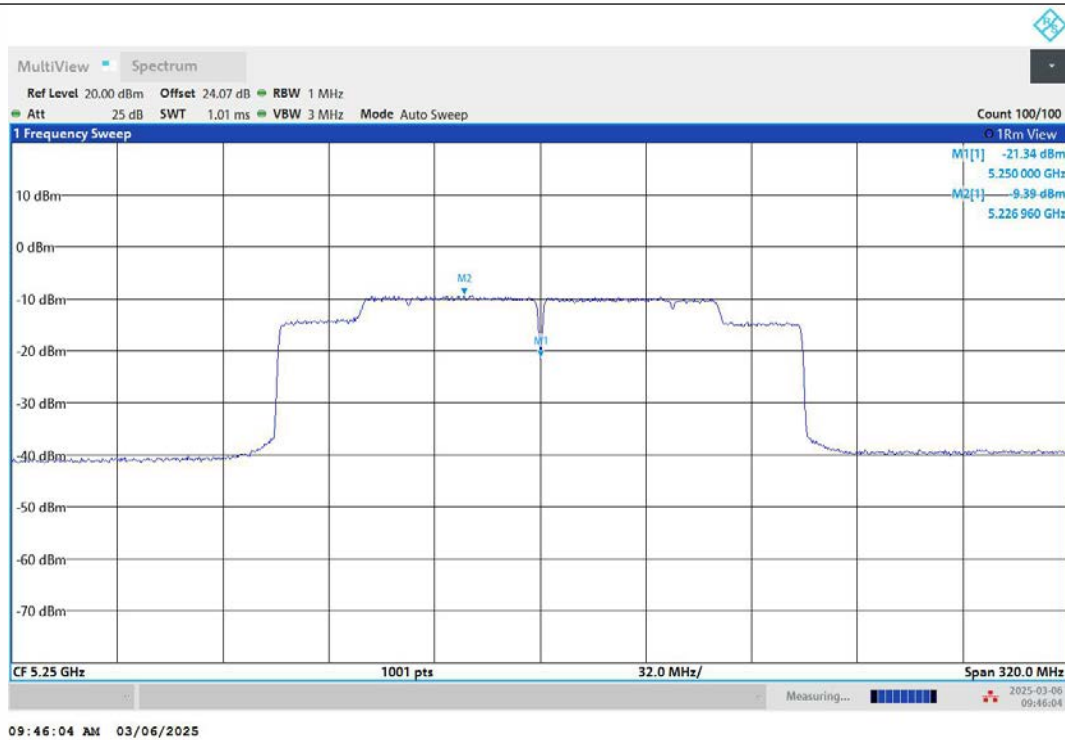
11AX80MIMO-Ant1-5775-PASS



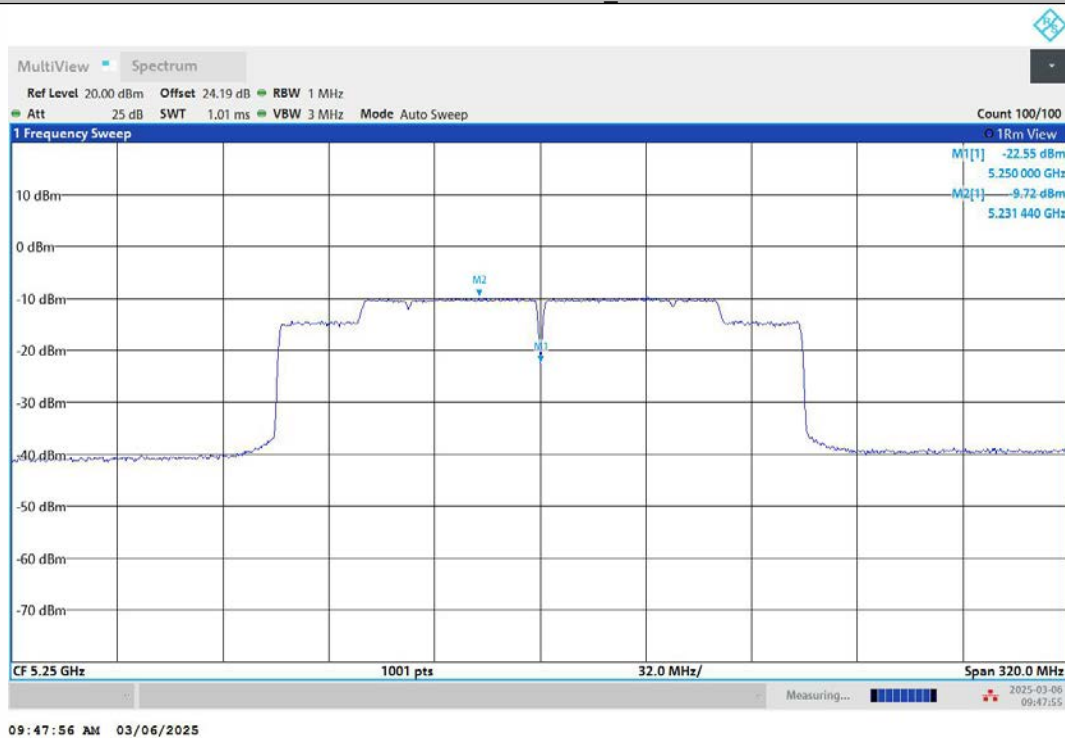
11AX80MIMO-Ant2-5775-PASS



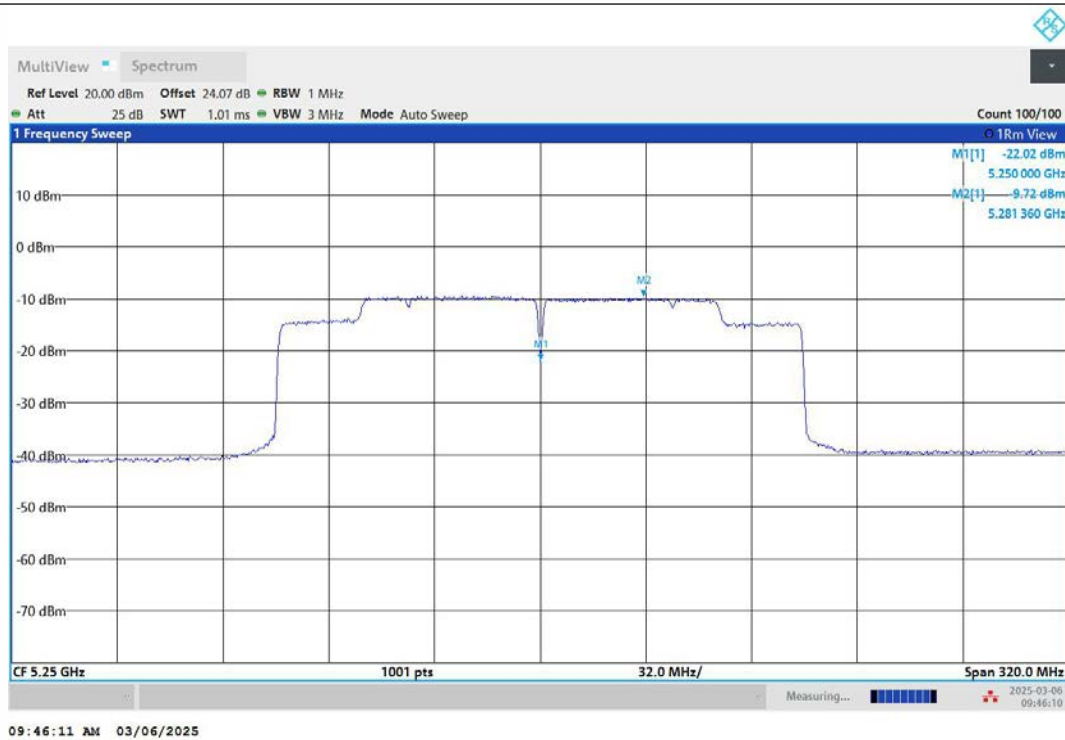
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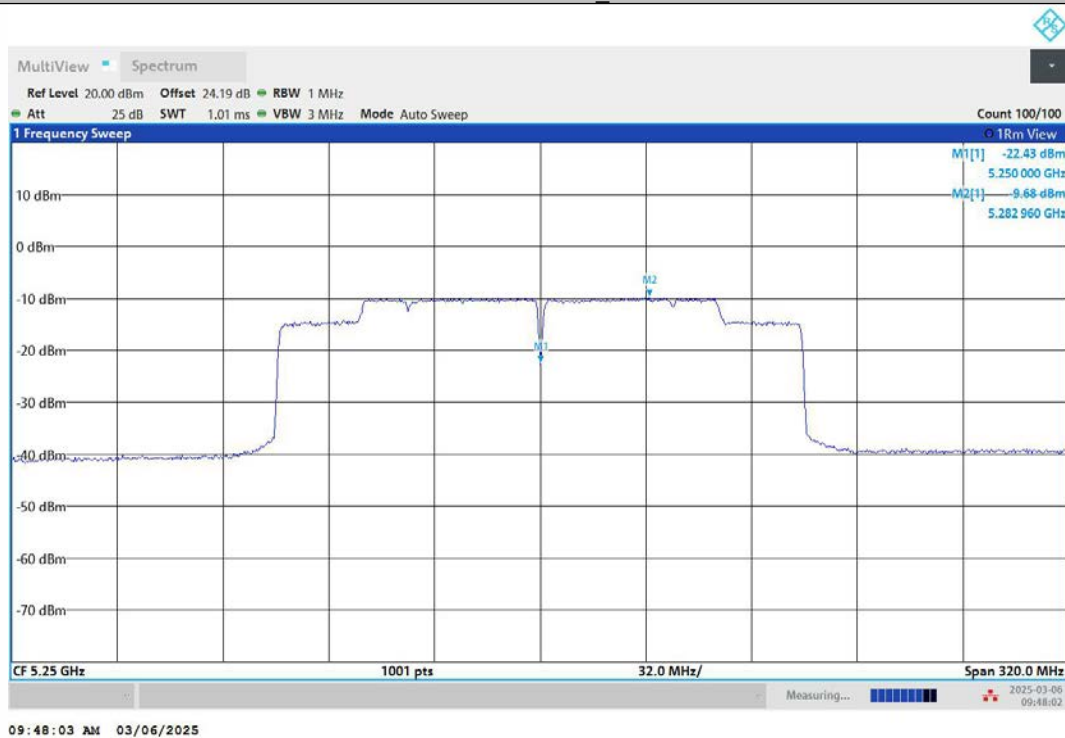
11AX160MIMO-Ant2-5250_UNII-1-PASS



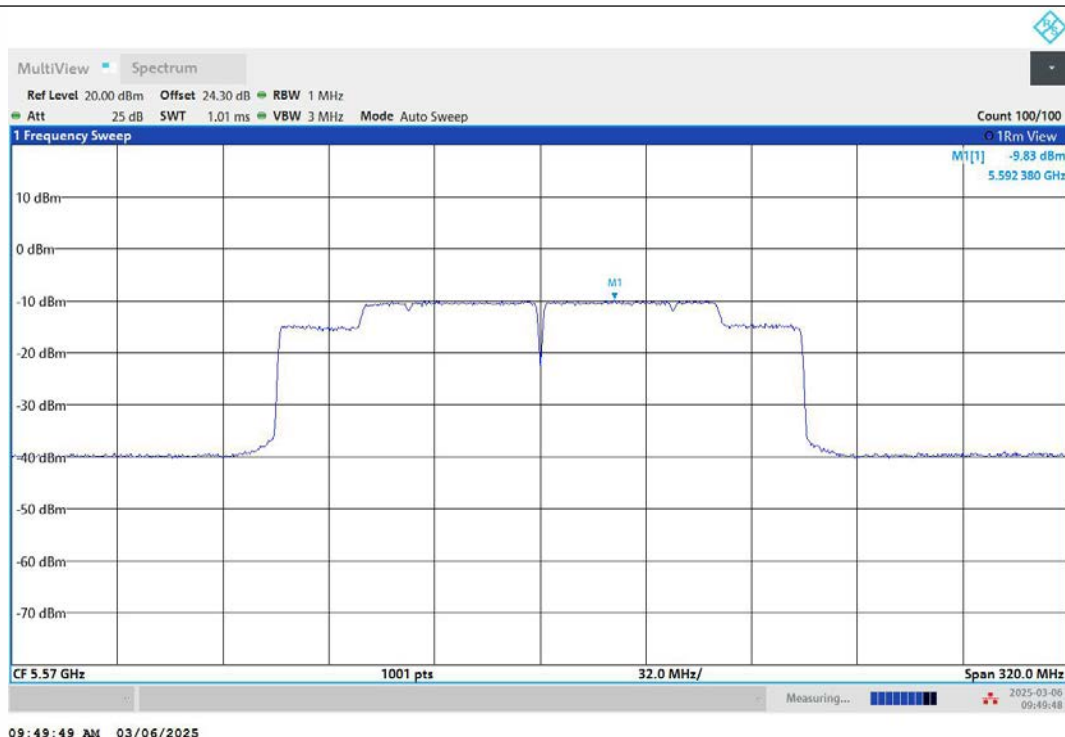
11AX160MIMO-Ant1-5250_UNII-2A-PASS



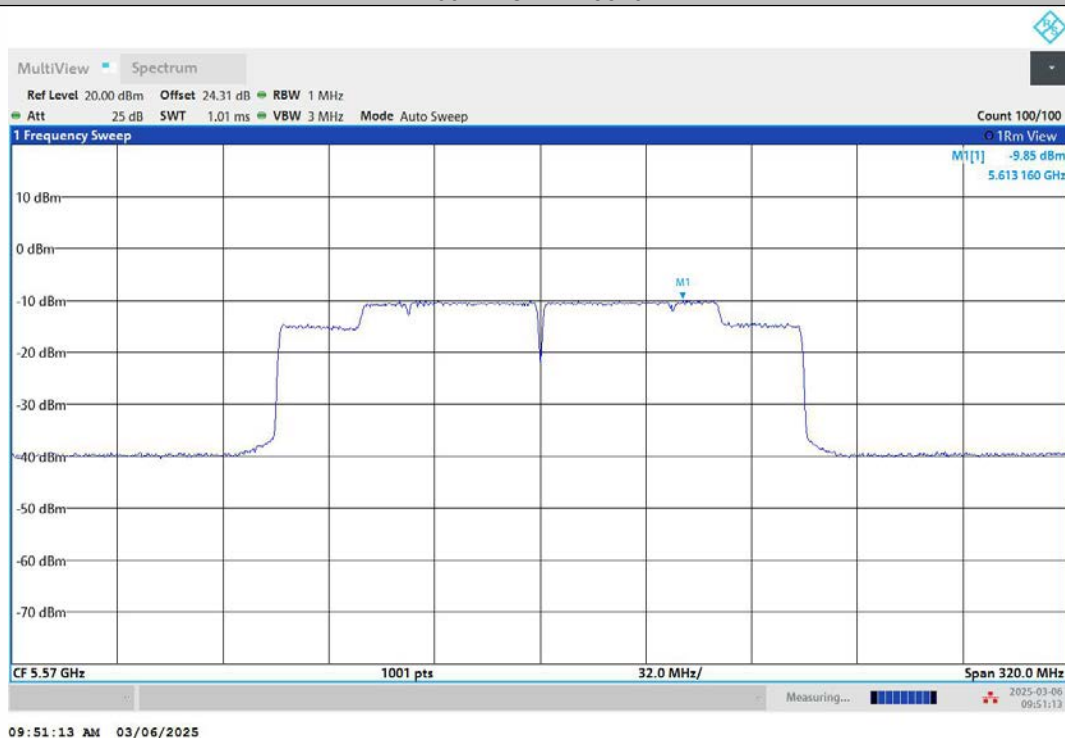
11AX160MIMO-Ant2-5250_UNII-2A-PASS



11AX160MIMO-Ant1-5570-PASS



11AX160MIMO-Ant2-5570-PASS



8.4 UNDESIRABLE RADIATED SPURIOUS EMISSION

8.4.1 Applicable Standard

According to FCC Part 15.407 (b)
According to 789033 D02 Section II(G)

8.4.2 Conformance Limit

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

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

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

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

Restricted Frequency(MHz)	Field Strength ($\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)	Measurement Distance
0.009-0.490	2400/F(KHz)	20 log ($\mu\text{V/m}$)	300
0.490-1.705	2400/F(KHz)	20 log ($\mu\text{V/m}$)	30
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

The provisions of §15.205 apply to intentional radiators operating under this section, 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	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	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			

- Remark:
1. Emission level in dBuV/m=20 log (uV/m)
 2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
 3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ξ 15.205, and the emissions located in restricted bands also comply with 15.209 limit.

8.4.3 Test Configuration

Test according to clause 6.2 radio frequency test setup 2.

8.4.4 Test Procedure

■ Unwanted Emissions Measurements below 1000 MHz

Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.

The EUT was placed on a turn table which is 0.8m above ground plane.

And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

Repeat above procedures until all frequency measured was complete.

We use software control the EUT, Let EUT hopping on and transmit with highest power, All the modes have been tested and the worst result was reported.

Use the following spectrum analyzer settings:

Set RBW=120kHz for $f < 1$ GHz(30MHz to 1GHz), 200Hz for $f < 150$ KHz(9KHz to 150KHz), 9KHz for $f < 30$ MHz (150KHz to 30KHz).

Set the VBW > RBW.

Detector = Peak.

Trace mode = max hold.

Follow the guidelines in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in Section 15.35(b). Submit this data.

Repeat above procedures until all frequency measured was complete.

■ Unwanted Maximum peak Emissions Measurements above 1000 MHz

Maximum emission levels are measured by setting the analyzer as follows:

RBW = 1 MHz.

VBW $\geq$ 3 MHz.

Detector = Peak.

Sweep time = auto.

Trace mode = max hold.

Allow sweeps to continue until the trace stabilizes. Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately $1/x$, where x is the duty cycle. For example, at 50 percent duty cycle, the measurement time will increase by a factor of two relative to measurement time for continuous transmission.

■ Unwanted Average Emissions Measurements above 1000 MHz

Method VB (Averaging using reduced video bandwidth): Alternative method.

RBW = 1 MHz.

Video bandwidth. • If the EUT is configured to transmit with duty cycle $\geq$ 98 percent, set $VBW \leq RBW/100$ (i.e., 10 kHz) but not less than 10 Hz.

• If the EUT duty cycle is < 98 percent, set $VBW \geq 1/T$, where T is defined in section II.B.1.a).

Video bandwidth mode or display mode • The instrument shall be set to ensure that video filtering is applied in the power domain. Typically, this requires setting the detector mode to RMS and setting the Average-VBW Type to Power (RMS).

• As an alternative, the analyzer may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some analyzers require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode.

Detector = Peak.

Sweep time = auto.

Trace mode = max hold.

Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of $1/x$, where x is the duty cycle. For example, use at least 200 traces if the duty cycle is 25 percent. (If a specific emission is demonstrated to be continuous—i.e., 100 percent duty cycle—rather than turning on and off with the transmit cycle, at least 50 traces shall be averaged).

■ Band edge measurements.

Unwanted band-edge emissions may be measured using either of the special band-edge measurement techniques (the marker-delta or integration methods) described below. Note that the marker-delta method is primarily a radiated measurement technique that requires the 99% occupied bandwidth edge to be within 2 MHz of the authorized band edge, whereas the integration method can be used in either a radiated or conducted measurement without any special requirement with regards to the displacement of the unwanted emission(s) relative to the authorized bandwidth.

Marker-Delta Method.

The marker-delta method, as described in ANSI C63.10, can be used to perform measurements of the radiated unwanted emissions level of emissions provided that the 99% occupied bandwidth of the fundamental is within 2 MHz of the authorized band-edge.

8.4.5 Test Results

Temperature : 25°C
Humidity : 60 %

ATM Pressure:: 1011 mbar
Test Engineer: CZF

- ☒ For Undesirable radiated Spurious Emission in U-NII – 1
 - ☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)
- All of the configurations or modes are tested, the data of the worst case is recorded in the report.
Highest gain of each antenna and highest output power is ANT1 and MIMO as below:

ANT1:

Test mode: 802.11n(20) Frequency(MHz): 5180

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8679.4517	V	58.15	-37.08	-27	10.08
10700.5706	V	62.44	-32.79	-27	5.79
12682.6872	V	64.25	-30.98	-27	3.98
8059.4153	H	57.02	-38.21	-27	11.21
10075.5339	H	61.39	-33.84	-27	6.84
12538.6787	H	63.40	-31.83	-27	4.83

Test mode: 802.11n(20) Frequency(MHz): 5200

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8678.4517	V	57.64	-37.59	-27	10.59
10750.5736	V	62.08	-33.15	-27	6.15
12590.6818	V	63.72	-31.51	-27	4.51
8701.453	H	58.36	-36.87	-27	9.87
10728.5723	H	62.11	-33.12	-27	6.12
12574.6809	H	64.46	-30.77	-27	3.77

Test mode: 802.11n(20) Frequency(MHz): 5240

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8077.4163	V	57.21	-38.02	-27	11.02
9914.5244	V	61.60	-33.63	-27	6.63
12589.6817	V	63.99	-31.24	-27	4.24
8092.4172	H	57.03	-38.2	-27	11.2
10042.5319	H	62.15	-33.08	-27	6.08
12528.6782	H	63.66	-31.57	-27	4.57

MIMO:

Test mode: 802.11n(20) Frequency(MHz): 5180

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8678.0617	V	58.02	-37.21	-27	10.21
10699.1806	V	62.28	-32.95	-27	5.95
12683.9672	V	64.22	-31.01	-27	4.01
8071.1053	H	56.94	-38.29	-27	11.29
10087.2239	H	61.18	-34.05	-27	7.05
12550.3687	H	63.24	-31.99	-27	4.99

Test mode: 802.11n(20) Frequency(MHz): 5200

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8677.0617	V	57.51	-37.72	-27	10.72
10749.1836	V	61.92	-33.31	-27	6.31
12591.9618	V	63.69	-31.54	-27	4.54
8713.1430	H	58.28	-36.95	-27	9.95
10740.2623	H	61.9	-33.33	-27	6.33
12586.3709	H	64.3	-30.93	-27	3.93

Test mode: 802.11n(20) Frequency(MHz): 5240

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8076.0263	V	57.08	-38.15	-27	11.15
9913.1344	V	61.44	-33.79	-27	6.79
12590.9617	V	63.96	-31.27	-27	4.27
8104.1072	H	56.95	-38.28	-27	11.28
10054.2219	H	61.94	-33.29	-27	6.29
12540.3682	H	63.5	-31.73	-27	4.73

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77

d is the measurement distance in 3 meters

ANT1:

Test mode: 802.11n(20)		Frequency(MHz): 5180			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8679.4517	V	58.15	74.00	15.85	Peak
10700.5706	V	62.44	74.00	11.56	Peak
12682.6872	V	64.25	74.00	9.75	Peak
8679.4517	V	42.67	54.00	11.33	Avg
10700.5706	V	45.02	54.00	8.98	Avg
12682.6872	V	45.25	54.00	8.75	Avg
8059.4153	H	57.02	74.00	16.98	Peak
10075.5339	H	61.39	74.00	12.61	Peak
12538.6787	H	63.40	74.00	10.60	Peak
8059.4153	H	41.39	54.00	12.61	Avg
10075.5339	H	43.08	54.00	10.92	Avg
12538.6787	H	45.06	54.00	8.94	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5200			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8678.4517	V	57.64	74.00	16.36	Peak
10750.5736	V	62.08	74.00	11.92	Peak
12590.6818	V	63.72	74.00	10.28	Peak
8678.4517	V	42.77	54.00	11.23	Avg
10750.5736	V	44.81	54.00	9.19	Avg
12590.6818	V	46.39	54.00	7.61	Avg
8701.453	H	58.36	74.00	15.64	Peak
10728.5723	H	62.11	74.00	11.89	Peak
12574.6809	H	64.46	74.00	9.54	Peak
8701.453	H	43.81	54.00	10.19	Avg
10728.5723	H	44.84	54.00	9.16	Avg
12574.6809	H	45.50	54.00	8.50	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5240			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8077.4163	V	57.21	74.00	16.79	Peak
9914.5244	V	61.60	74.00	12.40	Peak
12589.6817	V	63.99	74.00	10.01	Peak
8077.4163	V	40.61	54.00	13.39	Avg
9914.5244	V	41.73	54.00	12.27	Avg
12589.6817	V	45.95	54.00	8.05	Avg
8092.4172	H	57.03	74.00	16.97	Peak
10042.5319	H	62.15	74.00	11.85	Peak
12528.6782	H	63.66	74.00	10.34	Peak
8092.4172	H	40.33	54.00	13.67	Avg
10042.5319	H	42.35	54.00	11.65	Avg
12528.6782	H	45.27	54.00	8.73	Avg

MIMO:

Test mode: 802.11n(20)		Frequency(MHz): 5180			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8678.0617	V	58.02	74.00	15.98	Peak
10699.1806	V	62.28	74.00	11.72	Peak
12683.9672	V	64.22	74.00	9.78	Peak
8680.7317	V	42.65	54.00	11.35	Avg
10698.3206	V	44.76	54.00	9.24	Avg
12680.4372	V	45.06	54.00	8.94	Avg
8071.1053	H	56.94	74.00	17.06	Peak
10087.2239	H	61.18	74.00	12.82	Peak
12550.3687	H	63.24	74.00	10.76	Peak
8071.1053	H	41.25	54.00	12.75	Avg
10072.2239	H	42.90	54.00	11.10	Avg
12535.3687	H	44.93	54.00	9.07	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5200			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8677.0617	V	57.51	74.00	16.49	Peak
10749.1836	V	61.92	74.00	12.08	Peak
12591.9618	V	63.69	74.00	10.31	Peak
8679.7317	V	42.75	54.00	11.25	Avg
10748.3236	V	44.55	54.00	9.45	Avg
12588.4318	V	46.20	54.00	7.80	Avg
8713.1430	H	58.28	74.00	15.72	Peak
10740.2623	H	61.90	74.00	12.10	Peak
12586.3709	H	64.30	74.00	9.70	Peak
8713.1430	H	43.67	54.00	10.33	Avg
10725.2623	H	44.66	54.00	9.34	Avg
12571.3709	H	45.37	54.00	8.63	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5240			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8076.0263	V	57.08	74.00	16.92	Peak
9913.1344	V	61.44	74.00	12.56	Peak
12590.9617	V	63.96	74.00	10.04	Peak
8078.6963	V	40.59	54.00	13.41	Avg
9912.2744	V	41.47	54.00	12.53	Avg
12587.4317	V	45.76	54.00	8.24	Avg
8104.1072	H	56.95	74.00	17.05	Peak
10054.2219	H	61.94	74.00	12.06	Peak
12540.3682	H	63.50	74.00	10.50	Peak
8104.1072	H	40.19	54.00	13.81	Avg
10039.2219	H	42.17	54.00	11.83	Avg
12525.3682	H	45.14	54.00	8.86	Avg

- Note:** (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

● ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11n(20) Frequency(MHz): 5180

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5145.6938	V	55.70	-39.53	-27	Pass
5144.6375	H	61.71	-33.52	-27	Pass

Test mode: 802.11n(20) Frequency(MHz): 5240

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5353.0388	V	53.79	-41.44	-27	Pass
5352.31	H	54.50	-40.73	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
 d is the measurement distance in 3 meters

Test mode: 802.11n(20) Frequency(MHz): 5180

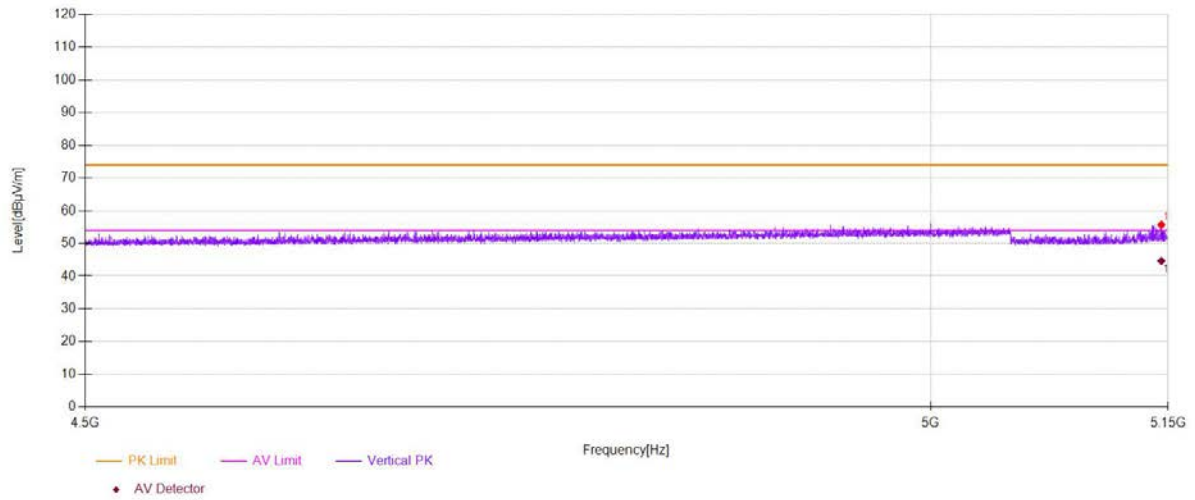
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5145.6938	V	55.70	74.00	18.30	Peak
5145.6938	V	44.64	54.00	9.36	Avg
5144.6375	H	61.71	74.00	12.29	Peak
5144.6375	H	44.75	54.00	9.25	Avg

Test mode: 802.11n(20) Frequency(MHz): 5240

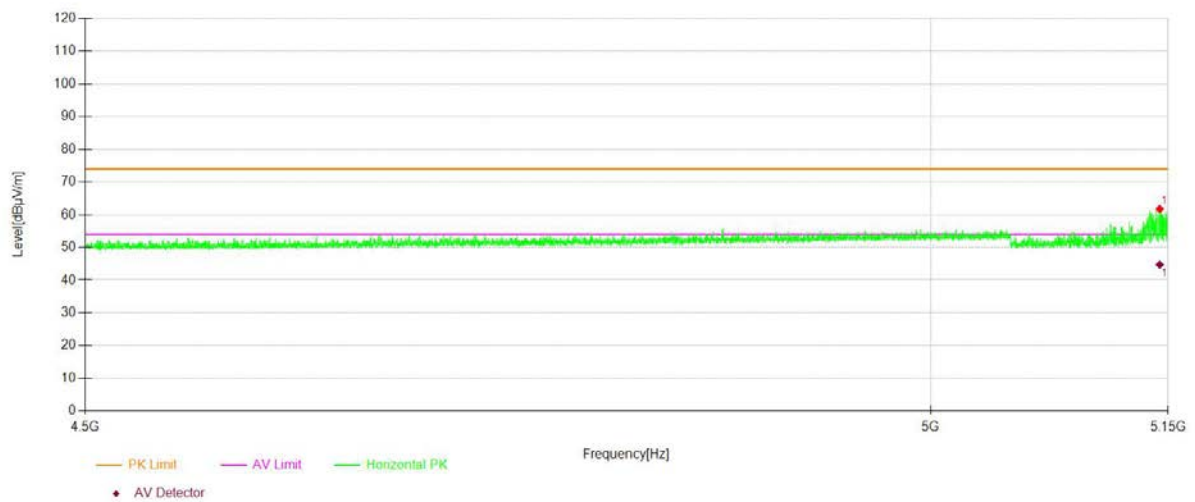
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5353.0388	V	53.79	74.00	20.21	Peak
5353.0388	V	45.09	54.00	8.91	Avg
5352.31	H	54.50	74.00	19.50	Peak
5352.31	H	45.54	54.00	8.46	Avg

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

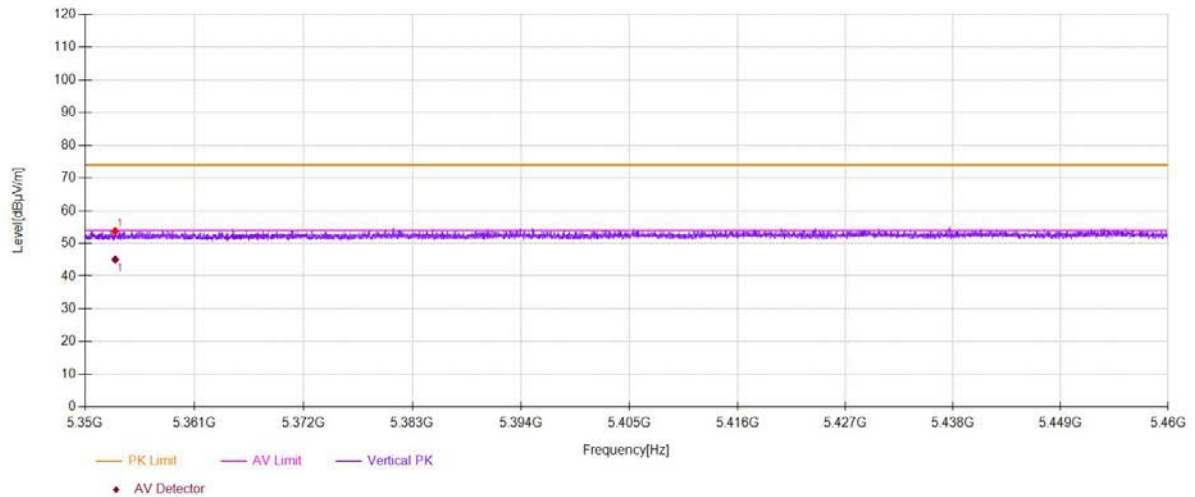
Test Model U-NII - 1
Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11n(HT40)
☒ 5180 ☐ 5200 ☐ 5240 Ant.Pol V



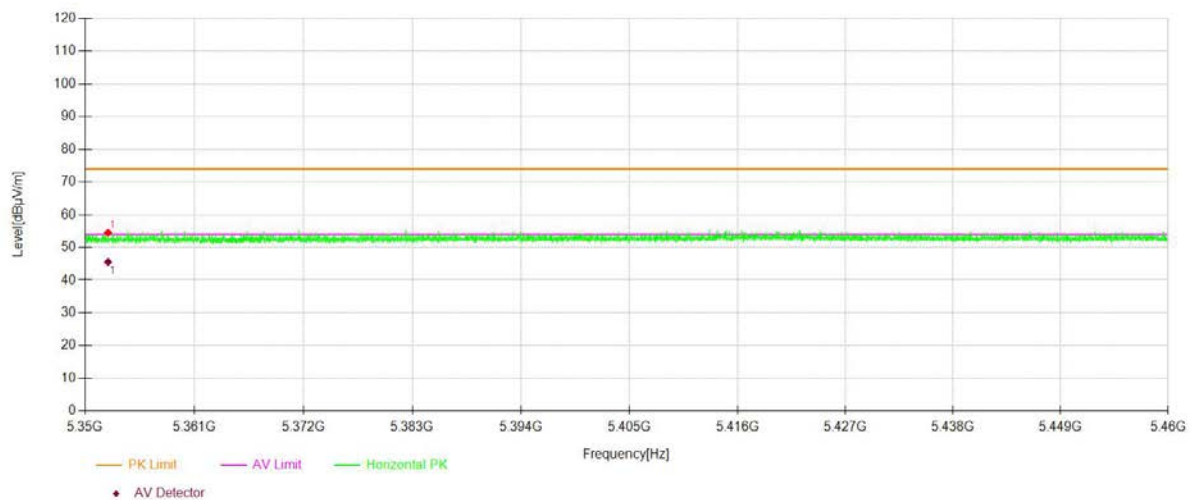
Test Model U-NII - 1
Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11n(HT40)
☒ 5180 ☐ 5200 ☐ 5240 Ant.Pol H



Test Model U-NII - 1
Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11n(HT40)
☐ 5180 ☐ 5200 ☒ 5240 Ant.Pol V



Test Model U-NII - 1
Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11n(HT40)
☐ 5180 ☐ 5200 ☒ 5240 Ant.Pol H



- ☒ For Undesirable radiated Spurious Emission in U-NII -2A
- ☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)

All of the configurations or modes are tested, the data of the worst case is recorded in the report.

Highest gain of each antenna and highest output power is ANT1 and MIMO as below:

ANT1:

Test mode: 802.11n(20) Frequency(MHz): 5260

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8704.4532	V	57.78	-37.45	-27	10.45
10120.5365	V	60.73	-34.5	-27	7.5
12564.6803	V	63.74	-31.49	-27	4.49
8689.4523	H	58.45	-36.78	-27	9.78
10655.568	H	61.49	-33.74	-27	6.74
12537.6787	H	63.77	-31.46	-27	4.46

Test mode: 802.11n(20) Frequency(MHz): 5280

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8055.415	V	57.33	-37.9	-27	10.9
10003.5296	V	61.65	-33.58	-27	6.58
12557.6799	V	63.84	-31.39	-27	4.39
8684.452	H	58.32	-36.91	-27	9.91
9915.5244	H	60.95	-34.28	-27	7.28
12615.6833	H	64.03	-31.2	-27	4.2

Test mode: 802.11n(20) Frequency(MHz): 5320

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8685.4521	V	58.27	-36.96	-27	9.96
9988.5287	V	61.41	-33.82	-27	6.82
12575.6809	V	63.89	-31.34	-27	4.34
7351.3736	H	54.78	-40.45	-27	13.45
10040.5318	H	61.94	-33.29	-27	6.29
12580.6812	H	63.93	-31.3	-27	4.3

MIMO:

Test mode: 802.11n(20) Frequency(MHz): 5260

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8703.0632	V	57.65	-37.58	-27	10.58
10119.1465	V	60.57	-34.66	-27	7.66
12565.9603	V	63.71	-31.52	-27	4.52
8701.1423	H	58.37	-36.86	-27	9.86
10667.2580	H	61.28	-33.95	-27	6.95
12549.3687	H	63.61	-31.62	-27	4.62

Test mode: 802.11n(20) Frequency(MHz): 5280

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8054.0250	V	57.2	-38.03	-27	11.03
10002.1396	V	61.49	-33.74	-27	6.74
12558.9599	V	63.81	-31.42	-27	4.42
8696.1420	H	58.24	-36.99	-27	9.99
9927.2144	H	60.74	-34.49	-27	7.49
12627.3733	H	63.87	-31.36	-27	4.36

Test mode: 802.11n(20) Frequency(MHz): 5320

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8684.0621	V	58.14	-37.09	-27	10.09
9987.1387	V	61.25	-33.98	-27	6.98
12576.9609	V	63.86	-31.37	-27	4.37
7363.0636	H	54.7	-40.53	-27	13.53
10052.2218	H	61.73	-33.50	-27	6.50
12592.3712	H	63.77	-31.46	-27	4.46

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
(2) Emission Level= Reading Level+Probe Factor +Cable Loss.
(3) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
d is the measurement distance in 3 meters

ANT1:

Test mode: 802.11n(20)		Frequency(MHz): 5260			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8704.4532	V	57.78	74.00	16.22	Peak
10120.5365	V	60.73	74.00	13.27	Peak
12564.6803	V	63.74	74.00	10.26	Peak
8704.4532	V	42.76	54.00	11.24	Avg
10120.5365	V	42.50	54.00	11.50	Avg
12564.6803	V	45.30	54.00	8.70	Avg
8689.4523	H	58.45	74.00	15.55	Peak
10655.568	H	61.49	74.00	12.51	Peak
12537.6787	H	63.77	74.00	10.23	Peak
8689.4523	H	42.58	54.00	11.42	Avg
10655.568	H	44.45	54.00	9.55	Avg
12537.6787	H	45.56	54.00	8.44	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5280			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8055.415	V	57.33	74.00	16.67	Peak
10003.5296	V	61.65	74.00	12.35	Peak
12557.6799	V	63.84	74.00	10.16	Peak
8055.415	V	40.58	54.00	13.42	Avg
10003.5296	V	39.06	54.00	14.94	Avg
12557.6799	V	45.55	54.00	8.45	Avg
8684.452	H	58.32	74.00	15.68	Peak
9915.5244	H	60.95	74.00	13.05	Peak
12615.6833	H	64.03	74.00	9.97	Peak
8684.452	H	43.10	54.00	10.90	Avg
9915.5244	H	41.99	54.00	12.01	Avg
12615.6833	H	46.28	54.00	7.72	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5320			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8685.4521	V	58.27	74.00	15.73	Peak
9988.5287	V	61.41	74.00	12.59	Peak
12575.6809	V	63.89	74.00	10.11	Peak
8685.4521	V	41.20	54.00	12.80	Avg
9988.5287	V	41.75	54.00	12.25	Avg
12575.6809	V	46.39	54.00	7.61	Avg
7351.3736	H	54.78	74.00	19.22	Peak
10040.5318	H	61.94	74.00	12.06	Peak
12580.6812	H	63.93	74.00	10.07	Peak
7351.3736	H	40.46	54.00	13.54	Avg
10040.5318	H	42.21	54.00	11.79	Avg
12580.6812	H	45.78	54.00	8.22	Avg

MIMO:

Test mode: 802.11n(20)		Frequency(MHz): 5260			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8703.0632	V	57.65	74.00	16.35	Peak
10119.1465	V	60.57	74.00	13.43	Peak
12565.9603	V	63.71	74.00	10.29	Peak
8705.7332	V	42.74	54.00	11.26	Avg
10118.2865	V	42.24	54.00	11.76	Avg
12562.4303	V	45.11	54.00	8.89	Avg
8701.1423	H	58.37	74.00	15.63	Peak
10667.2580	H	61.28	74.00	12.72	Peak
12549.3687	H	63.61	74.00	10.39	Peak
8701.1423	H	42.44	54.00	11.56	Avg
10652.2580	H	44.27	54.00	9.73	Avg
12534.3687	H	45.43	54.00	8.57	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5280			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8054.0250	V	57.20	74.00	16.80	Peak
10002.1396	V	61.49	74.00	12.51	Peak
12558.9599	V	63.81	74.00	10.19	Peak
8056.6950	V	40.56	54.00	13.44	Avg
10001.2796	V	38.80	54.00	15.20	Avg
12555.4299	V	45.36	54.00	8.64	Avg
8696.1420	H	58.24	74.00	15.76	Peak
9927.2144	H	60.74	74.00	13.26	Peak
12627.3733	H	63.87	74.00	10.13	Peak
8696.1420	H	42.96	54.00	11.04	Avg
9912.2144	H	41.81	54.00	12.19	Avg
12612.3733	H	46.15	54.00	7.85	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5320			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8684.0621	V	58.14	74.00	15.86	Peak
9987.1387	V	61.25	74.00	12.75	Peak
12576.9609	V	63.86	74.00	10.14	Peak
8686.7321	V	41.18	54.00	12.82	Avg
9986.2787	V	41.49	54.00	12.51	Avg
12573.4309	V	46.20	54.00	7.80	Avg
7363.0636	H	54.70	74.00	19.30	Peak
10052.2218	H	61.73	74.00	12.27	Peak
12592.3712	H	63.77	74.00	10.23	Peak
7363.0636	H	40.32	54.00	13.68	Avg
10037.2218	H	42.03	54.00	11.97	Avg
12577.3712	H	45.65	54.00	8.35	Avg

- Note:** (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

● ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11n(20) Frequency(MHz): 5260

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5143.3375	V	56.59	-38.64	-27	Pass
5140.4125	H	60.84	-34.39	-27	Pass

Test mode: 802.11n(20) Frequency(MHz): 5320

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5350.055	V	61.70	-33.53	-27	Pass
5350.275	H	67.49	-27.74	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
 d is the measurement distance in 3 meters

Test mode: 802.11n(20) Frequency(MHz): 5260

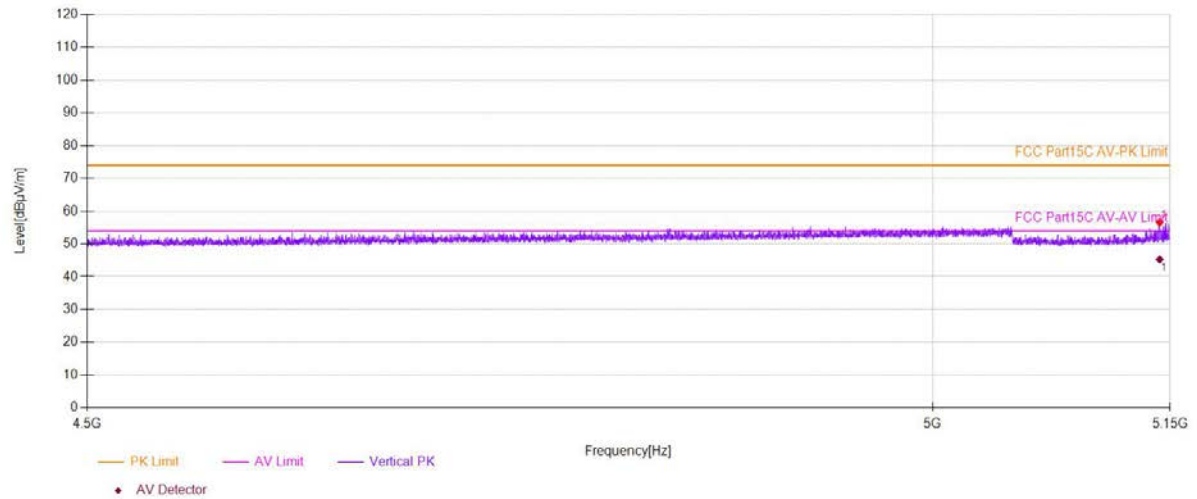
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5143.3375	V	56.59	74.00	17.41	Peak
5143.3375	V	45.27	54.00	8.73	Avg
5140.4125	H	60.84	74.00	13.16	Peak
5140.4125	H	44.88	54.00	9.12	Avg

Test mode: 802.11n(20) Frequency(MHz): 5320

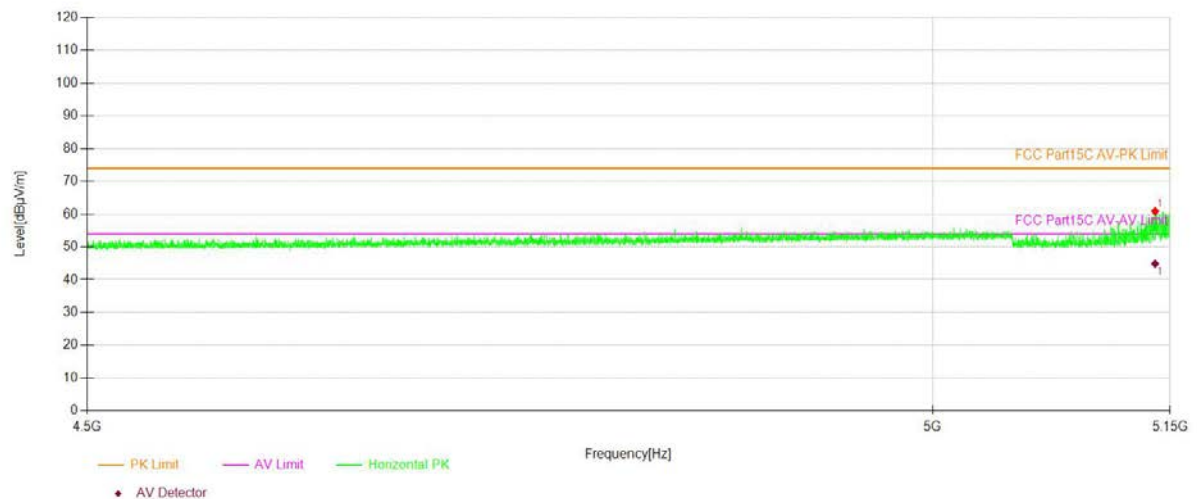
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5350.055	V	61.70	74.00	12.30	Peak
5350.055	V	48.97	54.00	5.03	Avg
5350.275	H	67.49	74.00	6.51	Peak
5350.275	H	50.87	54.00	3.13	Avg

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

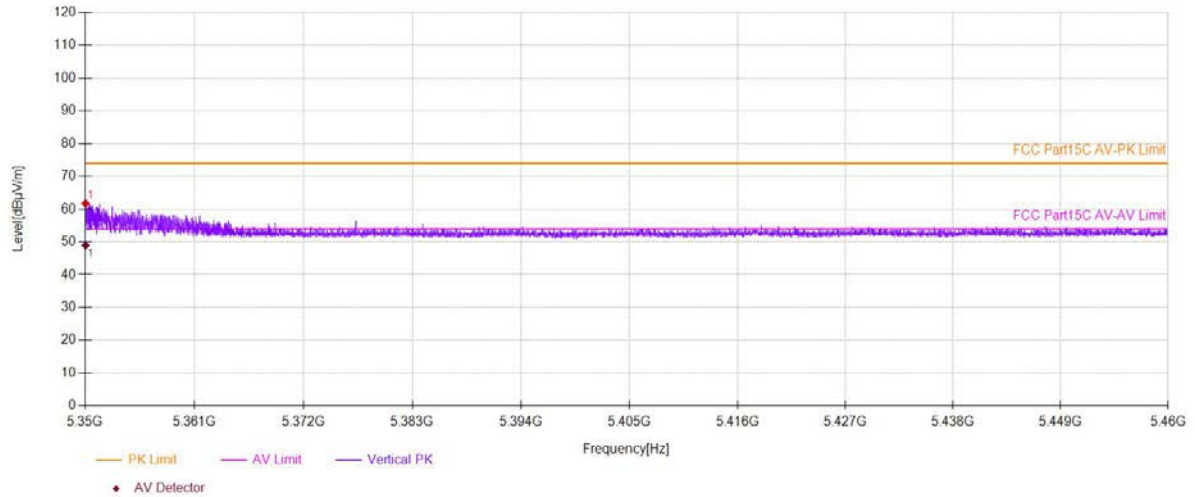
Test Model U-NII -2A
Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11 ac (VHT20)
☒ 5260 ☐ 5300 ☐ 5320 Ant.Pol V



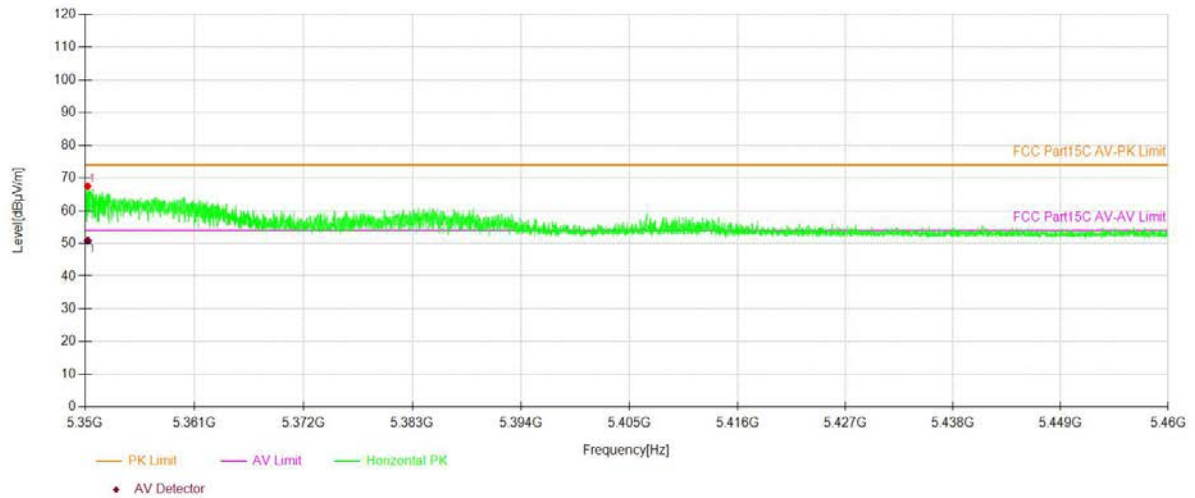
Test Model U-NII -2A
Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11 ac (VHT20)
☒ 5260 ☐ 5300 ☐ 5320 Ant.Pol H



Test Model U-NII -2A
Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11 ac (VHT20)
☐ 5260 ☐ 5300 ☒ 5320 Ant.Pol V



Test Model U-NII -2A
Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11 ac (VHT20)
☐ 5260 ☐ 5300 ☒ 5320 Ant.Pol H



- ☒ For Undesirable radiated Spurious Emission in U-NII -2C
 - ☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)
- All of the configurations or modes are tested, the data of the worst case is recorded in the report.
Highest gain of each antenna and highest output power is ANT1 and MIMO as below:

ANT1:

Test mode: 802.11n(20) Frequency(MHz): 5500

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
7251.3677	V	55.60	-39.63	-27	12.63
9370.4924	V	58.20	-37.03	-27	10.03
12577.681	V	63.55	-31.68	-27	4.68
7018.354	H	54.90	-40.33	-27	13.33
8660.4506	H	58.14	-37.09	-27	10.09
10016.5304	H	62.25	-32.98	-27	5.98

Test mode: 802.11n(20) Frequency(MHz): 5580

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6940.3494	V	55.22	-40.01	-27	13.01
8678.4517	V	58.09	-37.14	-27	10.14
9896.5233	V	61.71	-33.52	-27	6.52
6955.3503	H	55.00	-40.23	-27	13.23
7977.4104	H	56.96	-38.27	-27	11.27
10069.5335	H	62.13	-33.1	-27	6.1

Test mode: 802.11n(20) Frequency(MHz): 5700

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6937.3493	V	55.37	-39.86	-27	12.86
9287.4875	V	58.25	-36.98	-27	9.98
11844.6379	V	61.82	-33.41	-27	6.41
8022.4131	H	58.06	-37.17	-27	10.17
10051.5324	H	61.41	-33.82	-27	6.82
12536.6786	H	63.62	-31.61	-27	4.61

MIMO:

Test mode: 802.11n(20) Frequency(MHz): 5500

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
7249.9777	V	55.47	-39.76	-27	12.76
9369.1024	V	58.04	-37.19	-27	10.19
12578.9610	V	63.52	-31.71	-27	4.71
7030.0440	H	54.82	-40.41	-27	13.41
8672.1406	H	57.93	-37.30	-27	10.30
10028.2204	H	62.09	-33.14	-27	6.14

Test mode: 802.11n(20) Frequency(MHz): 5580

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6938.9594	V	55.09	-40.14	-27	13.14
8677.0617	V	57.93	-37.30	-27	10.30
9897.8033	V	61.68	-33.55	-27	6.55
6967.0403	H	54.92	-40.31	-27	13.31
7989.1004	H	56.75	-38.48	-27	11.48
10081.2235	H	61.97	-33.26	-27	6.26

Test mode: 802.11n(20) Frequency(MHz): 5700

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6935.9593	V	55.24	-39.99	-27	12.99
9286.0975	V	58.09	-37.14	-27	10.14
11845.9179	V	61.79	-33.44	-27	6.44
8034.1031	H	57.98	-37.25	-27	10.25
10063.2224	H	61.2	-34.03	-27	7.03
12548.3686	H	63.46	-31.77	-27	4.77

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
(2) Emission Level= Reading Level+Probe Factor +Cable Loss.
(3) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
d is the measurement distance in 3 meters

ANT1:

Test mode: 802.11n(20)		Frequency(MHz): 5500			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
7251.3677	V	55.60	74.00	18.40	Peak
9370.4924	V	58.20	74.00	15.80	Peak
12577.681	V	63.55	74.00	10.45	Peak
7251.3677	V	40.35	54.00	13.65	Avg
9370.4924	V	40.74	54.00	13.26	Avg
12577.681	V	46.08	54.00	7.92	Avg
7018.354	H	54.90	74.00	19.10	Peak
8660.4506	H	58.14	74.00	15.86	Peak
10016.5304	H	62.25	74.00	11.75	Peak
7018.354	H	40.10	54.00	13.90	Avg
8660.4506	H	37.95	54.00	16.05	Avg
10016.5304	H	38.60	54.00	15.40	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5580			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6940.3494	V	55.22	74.00	18.78	Peak
8678.4517	V	58.09	74.00	15.91	Peak
9896.5233	V	61.71	74.00	12.29	Peak
6940.3494	V	39.78	54.00	14.22	Avg
8678.4517	V	38.46	54.00	15.54	Avg
9896.5233	V	38.04	54.00	15.96	Avg
6955.3503	H	55.00	74.00	19.00	Peak
7977.4104	H	56.96	74.00	17.04	Peak
10069.5335	H	62.13	74.00	11.87	Peak
6955.3503	H	40.65	54.00	13.35	Avg
7977.4104	H	34.95	54.00	19.05	Avg
10069.5335	H	39.31	54.00	14.69	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5700			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6937.3493	V	55.37	74.00	18.63	Peak
9287.4875	V	58.25	74.00	15.75	Peak
11844.6379	V	61.82	74.00	12.18	Peak
6937.3493	V	39.32	54.00	14.68	Avg
9287.4875	V	39.75	54.00	14.25	Avg
11844.6379	V	40.56	54.00	13.44	Avg
8022.4131	H	58.06	74.00	15.94	Peak
10051.5324	H	61.41	74.00	12.59	Peak
12536.6786	H	63.62	74.00	10.38	Peak
8022.4131	H	38.94	54.00	15.06	Avg
10051.5324	H	42.49	54.00	11.51	Avg
12536.6786	H	44.89	54.00	9.11	Avg

MIMO:

Test mode: 802.11n(20)		Frequency(MHz): 5500			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
7249.9777	V	55.47	74.00	18.53	Peak
9369.1024	V	58.04	74.00	15.96	Peak
12578.9610	V	63.52	74.00	10.48	Peak
7252.6477	V	40.33	54.00	13.67	Avg
9368.2424	V	40.48	54.00	13.52	Avg
12575.4310	V	45.89	54.00	8.11	Avg
7030.0440	H	54.82	74.00	19.18	Peak
8672.1406	H	57.93	74.00	16.07	Peak
10028.2204	H	62.09	74.00	11.91	Peak
7030.0440	H	39.96	54.00	14.04	Avg
8657.1406	H	37.77	54.00	16.23	Avg
10013.2204	H	38.47	54.00	15.53	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5580			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6938.9594	V	55.09	74.00	18.91	Peak
8677.0617	V	57.93	74.00	16.07	Peak
9897.8033	V	61.68	74.00	12.32	Peak
6941.6294	V	39.76	54.00	14.24	Avg
8676.2017	V	38.20	54.00	15.80	Avg
9894.2733	V	37.85	54.00	16.15	Avg
6967.0403	H	54.92	74.00	19.08	Peak
7989.1004	H	56.75	74.00	17.25	Peak
10081.2235	H	61.97	74.00	12.03	Peak
6967.0403	H	40.51	54.00	13.49	Avg
7974.1004	H	34.77	54.00	19.23	Avg
10066.2235	H	39.18	54.00	14.82	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5700			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6935.9593	V	55.24	74.00	18.76	Peak
9286.0975	V	58.09	74.00	15.91	Peak
11845.9179	V	61.79	74.00	12.21	Peak
6938.6293	V	39.30	54.00	14.70	Avg
9285.2375	V	39.49	54.00	14.51	Avg
11842.3879	V	40.37	54.00	13.63	Avg
8034.1031	H	57.98	74.00	16.02	Peak
10063.2224	H	61.20	74.00	12.80	Peak
12548.3686	H	63.46	74.00	10.54	Peak
8034.1031	H	38.80	54.00	15.20	Avg
10048.2224	H	42.31	54.00	11.69	Avg
12533.3686	H	44.76	54.00	9.24	Avg

- Note:** (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

● ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11n(20) Frequency(MHz): 5500

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5469.5	V	56.84	-38.39	-27	Pass
5468.725	H	57.86	-37.37	-27	Pass

Test mode: 802.11n(20) Frequency(MHz): 5700

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5725.5938	V	65.94	-29.29	-27	Pass
5725.4312	H	65.67	-29.56	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
 d is the measurement distance in 3 meters

Test mode: 802.11n(20) Frequency(MHz): 5500

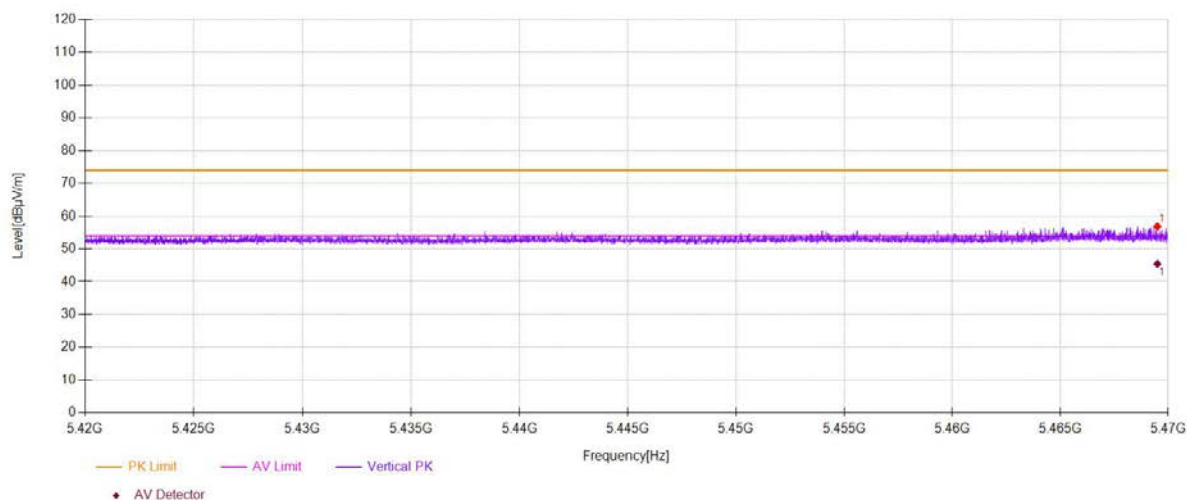
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5469.5	V	56.84	74.00	17.16	Peak
5469.5	V	45.43	54.00	8.57	Avg
5468.725	H	57.86	74.00	16.14	Peak
5468.725	H	45.62	54.00	8.38	Avg

Test mode: 802.11n(20) Frequency(MHz): 5700

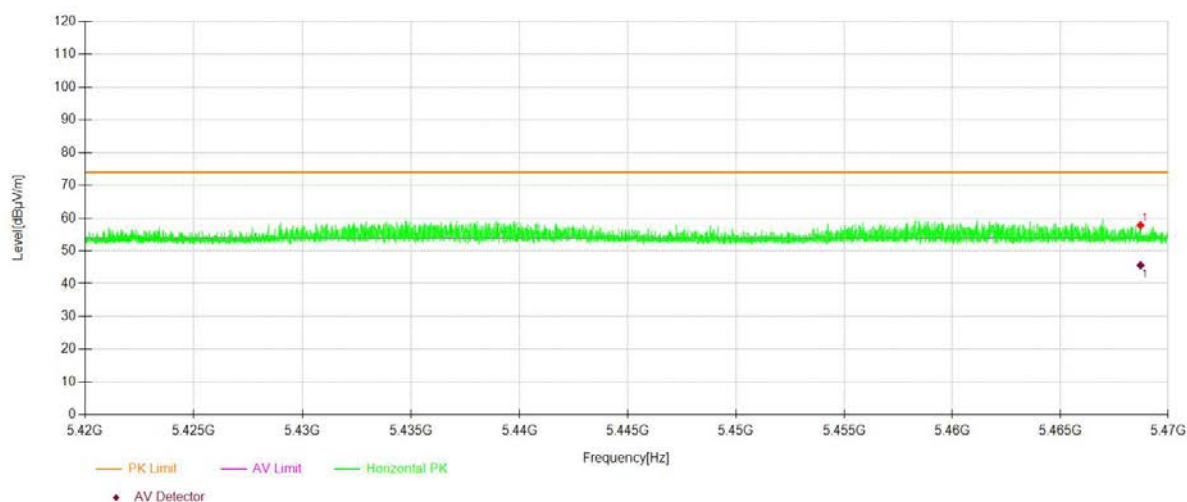
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5725.5938	V	65.94	74.00	8.06	Peak
5725.5938	V	50.83	54.00	3.17	Avg
5725.4312	H	65.67	74.00	8.33	Peak
5725.4312	H	50.13	54.00	3.87	Avg

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

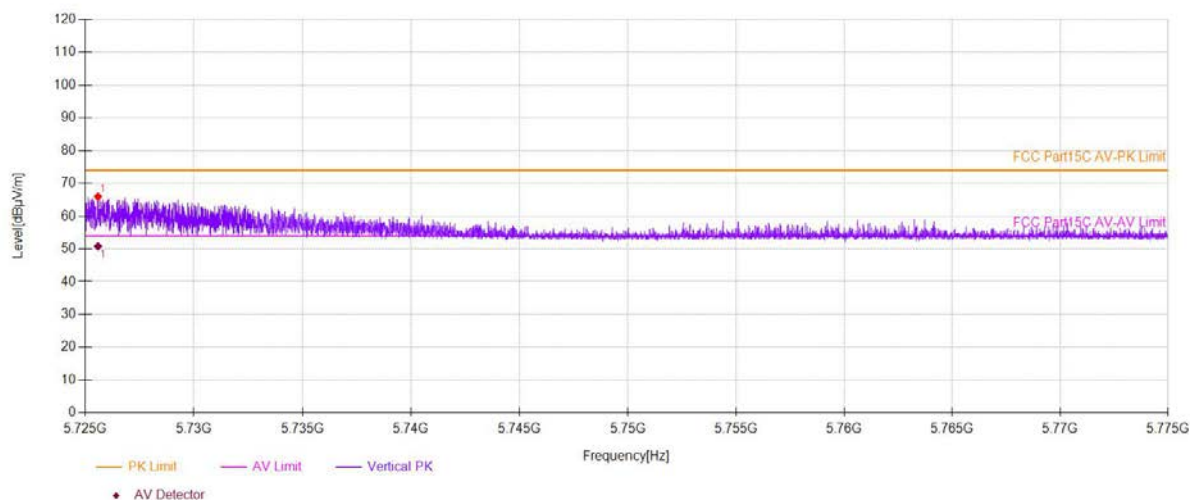
Test Model U-NII -2C
Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11 ac (VHT20)
☒ 5500 ☐ 5580 ☐ 5700 Ant.Pol V



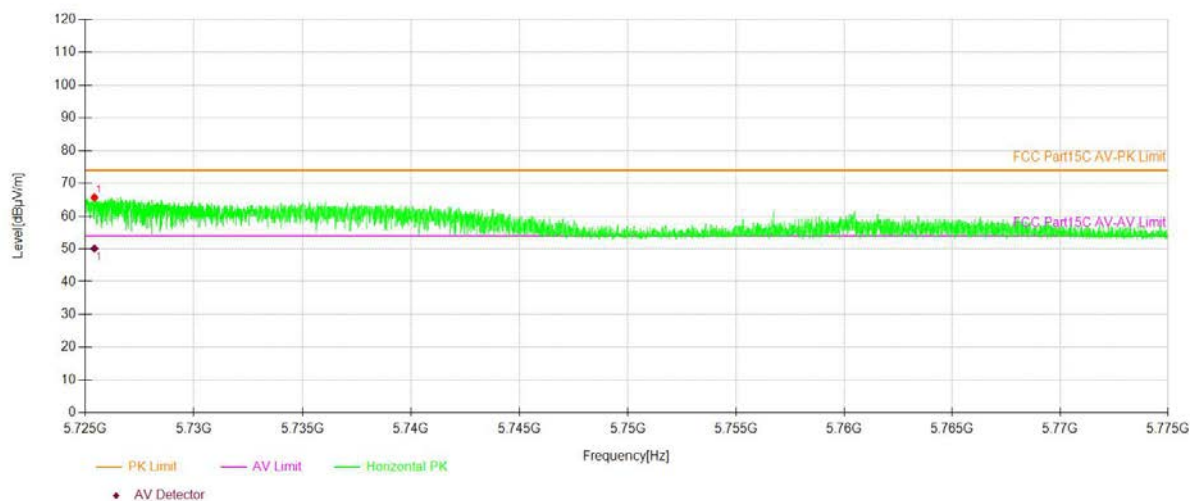
Test Model U-NII -2C
Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11 ac (VHT20)
☒ 5500 ☐ 5580 ☐ 5700 Ant.Pol H



Test Model U-NII -2C
Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11 ac (VHT20)
☐ 5500 ☐ 5580 ☒ 5700 Ant.Pol V



Test Model U-NII -2C
Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11 ac (VHT20)
☐ 5500 ☐ 5580 ☒ 5700 Ant.Pol H



- ☒ For Undesirable radiated Spurious Emission in U-NII -3
 - ☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)
- All of the configurations or modes are tested, the data of the worst case is recorded in the report.
Highest gain of each antenna and highest output power is ANT1 and MIMO as below:

ANT1:

Test mode: 802.11n(20) Frequency(MHz): 5745

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8050.4147	V	56.26	-38.97	-27	11.97
10018.5305	V	60.75	-34.48	-27	7.48
10737.5728	V	62.93	-32.3	-27	5.3
8727.4546	H	57.85	-37.38	-27	10.38
9986.5286	H	61.21	-34.02	-27	7.02
12529.6782	H	63.30	-31.93	-27	4.93

Test mode: 802.11n(20) Frequency(MHz): 5785

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8426.4368	V	58.09	-37.14	-27	10.14
10740.573	V	62.31	-32.92	-27	5.92
12580.6812	V	63.40	-31.83	-27	4.83
8719.4541	H	57.98	-37.25	-27	10.25
10672.569	H	62.53	-32.7	-27	5.7
12566.6804	H	63.94	-31.29	-27	4.29

Test mode: 802.11n(20) Frequency(MHz): 5825

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8052.4148	V	57.38	-37.85	-27	10.85
9992.529	V	61.47	-33.76	-27	6.76
12576.681	V	64.12	-31.11	-27	4.11
8100.4177	H	56.39	-38.84	-27	11.84
10010.53	H	61.40	-33.83	-27	6.83
12583.6814	H	64.12	-31.11	-27	4.11

MIMO:

Test mode: 802.11n(20) Frequency(MHz): 5745

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8049.0247	V	56.13	-39.10	-27	12.10
10017.1405	V	60.59	-34.64	-27	7.64
10738.8528	V	62.9	-32.33	-27	5.33
8739.1446	H	57.77	-37.46	-27	10.46
9998.2186	H	61	-34.23	-27	7.23
12541.3682	H	63.14	-32.09	-27	5.09

Test mode: 802.11n(20) Frequency(MHz): 5785

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8425.0468	V	57.96	-37.27	-27	10.27
10739.1830	V	62.15	-33.08	-27	6.08
12581.9612	V	63.37	-31.86	-27	4.86
8731.1441	H	57.9	-37.33	-27	10.33
10684.2590	H	62.32	-32.91	-27	5.91
12578.3704	H	63.78	-31.45	-27	4.45

Test mode: 802.11n(20) Frequency(MHz): 5825

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
8051.0248	V	57.25	-37.98	-27	10.98
9991.1390	V	61.31	-33.92	-27	6.92
12577.9610	V	64.09	-31.14	-27	4.14
8112.1077	H	56.31	-38.92	-27	11.92
10022.2200	H	61.19	-34.04	-27	7.04
12595.3714	H	63.96	-31.27	-27	4.27

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
(2) Emission Level= Reading Level+Probe Factor +Cable Loss.
(3) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
d is the measurement distance in 3 meters

ANT1:

Test mode: 802.11n(20)		Frequency(MHz): 5745			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8050.4147	V	56.26	74.00	17.74	Peak
10018.5305	V	60.75	74.00	13.25	Peak
10737.5728	V	62.93	74.00	11.07	Peak
8050.4147	V	41.04	54.00	12.96	Avg
10018.5305	V	41.48	54.00	12.52	Avg
10737.5728	V	41.57	54.00	12.43	Avg
8727.4546	H	57.85	74.00	16.15	Peak
9986.5286	H	61.21	74.00	12.79	Peak
12529.6782	H	63.30	74.00	10.70	Peak
8727.4546	H	43.06	54.00	10.94	Avg
9986.5286	H	41.92	54.00	12.08	Avg
12529.6782	H	44.84	54.00	9.16	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5785			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8426.4368	V	58.09	74.00	15.91	Peak
10740.573	V	62.31	74.00	11.69	Peak
12580.6812	V	63.40	74.00	10.60	Peak
8426.4368	V	40.30	54.00	13.70	Avg
10740.573	V	44.98	54.00	9.02	Avg
12580.6812	V	45.79	54.00	8.21	Avg
8719.4541	H	57.98	74.00	16.02	Peak
10672.569	H	62.53	74.00	11.47	Peak
12566.6804	H	63.94	74.00	10.06	Peak
8719.4541	H	42.70	54.00	11.30	Avg
10672.569	H	45.13	54.00	8.87	Avg
12566.6804	H	45.38	54.00	8.62	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5825			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8052.4148	V	57.38	74.00	16.62	Peak
9992.529	V	61.47	74.00	12.53	Peak
12576.681	V	64.12	74.00	9.88	Peak
8052.4148	V	40.70	54.00	13.30	Avg
9992.529	V	41.95	54.00	12.05	Avg
12576.681	V	45.64	54.00	8.36	Avg
8100.4177	H	56.39	74.00	17.61	Peak
10010.53	H	61.40	74.00	12.60	Peak
12583.6814	H	64.12	74.00	9.88	Peak
8100.4177	H	41.18	54.00	12.82	Avg
10010.53	H	42.08	54.00	11.92	Avg
12583.6814	H	45.67	54.00	8.33	Avg

MIMO:

Test mode: 802.11n(20)		Frequency(MHz): 5745			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8049.0247	V	56.13	74.00	17.87	Peak
10017.1405	V	60.59	74.00	13.41	Peak
10738.8528	V	62.90	74.00	11.10	Peak
8051.6947	V	41.02	54.00	12.98	Avg
10016.2805	V	41.22	54.00	12.78	Avg
10735.3228	V	41.38	54.00	12.62	Avg
8739.1446	H	57.77	74.00	16.23	Peak
9998.2186	H	61.00	74.00	13.00	Peak
12541.3682	H	63.14	74.00	10.86	Peak
8739.1446	H	42.92	54.00	11.08	Avg
9983.2186	H	41.74	54.00	12.26	Avg
12526.3682	H	44.71	54.00	9.29	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5785			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8425.0468	V	57.96	74.00	16.04	Peak
10739.1830	V	62.15	74.00	11.85	Peak
12581.9612	V	63.37	74.00	10.63	Peak
8427.7168	V	40.28	54.00	13.72	Avg
10738.3230	V	44.72	54.00	9.28	Avg
12578.4312	V	45.60	54.00	8.40	Avg
8731.1441	H	57.90	74.00	16.10	Peak
10684.2590	H	62.32	74.00	11.68	Peak
12578.3704	H	63.78	74.00	10.22	Peak
8731.1441	H	42.56	54.00	11.44	Avg
10669.2590	H	44.95	54.00	9.05	Avg
12563.3704	H	45.25	54.00	8.75	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5825			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
8051.0248	V	57.25	74.00	16.75	Peak
9991.1390	V	61.31	74.00	12.69	Peak
12577.9610	V	64.09	74.00	9.91	Peak
8053.6948	V	40.68	54.00	13.32	Avg
9990.2790	V	41.69	54.00	12.31	Avg
12574.4310	V	45.45	54.00	8.55	Avg
8112.1077	H	56.31	74.00	17.69	Peak
10022.2200	H	61.19	74.00	12.81	Peak
12595.3714	H	63.96	74.00	10.04	Peak
8112.1077	H	41.04	54.00	12.96	Avg
10007.2200	H	41.90	54.00	12.10	Avg
12580.3714	H	45.54	54.00	8.46	Avg

- Note:** (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

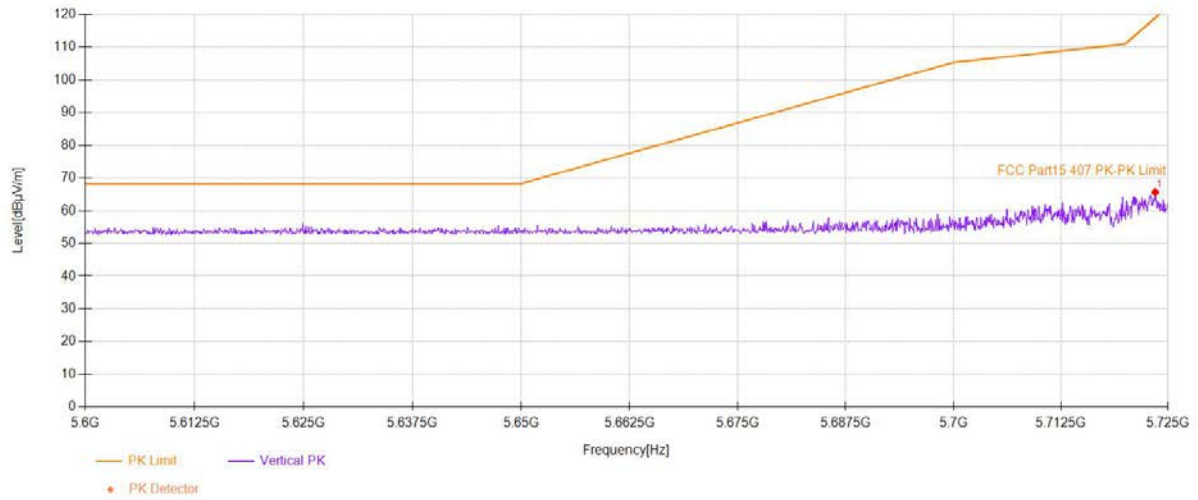
- ☒ Undesirable radiated Spurious Emission in band edge

Test mode:		802.11n(20)		Frequency:		5745	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict		
5723.4992	V	65.65	-29.58	-27	PASS		
5723.0615	H	65.63	-29.6	-27	PASS		

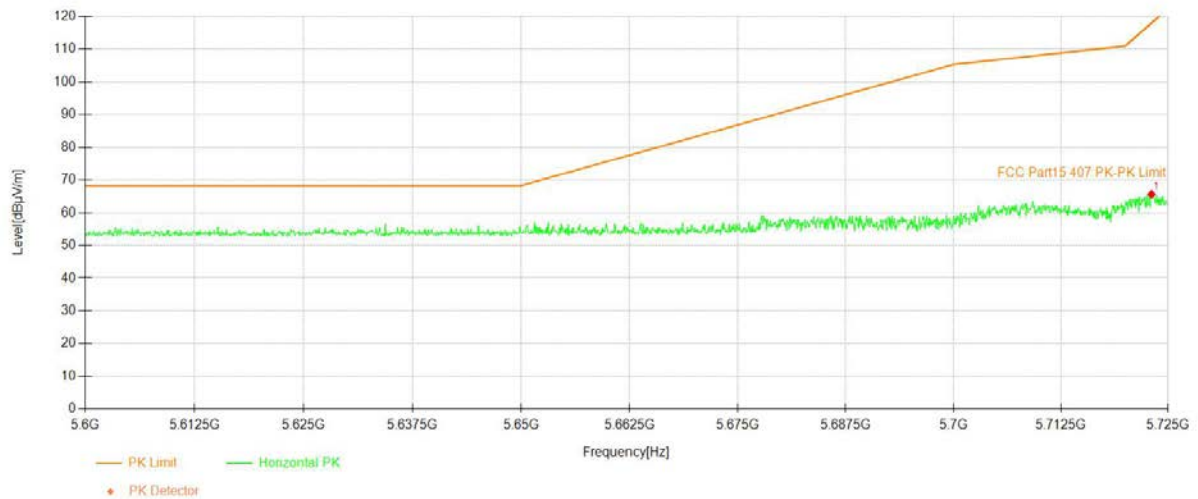
Test mode:		802.11n(20)		Frequency:		5825	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict		
5853.5643	V	63.54	-31.69	-27	PASS		
5855.0025	H	64.90	-30.33	-27	PASS		

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
d is the measurement distance in 3 meters

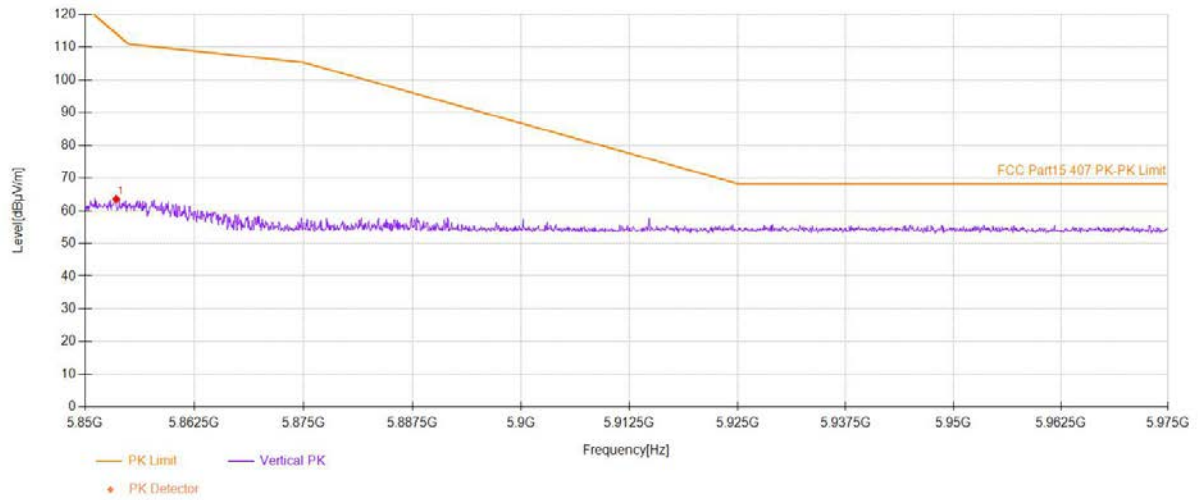
Test Model U-NII -3
Undesirable radiated ☐ 802.11a Undesirable radiated ☒ 5745 Spurious Emission in Band Edge ☐ 802.11n(HT40)
Ant.Pol V



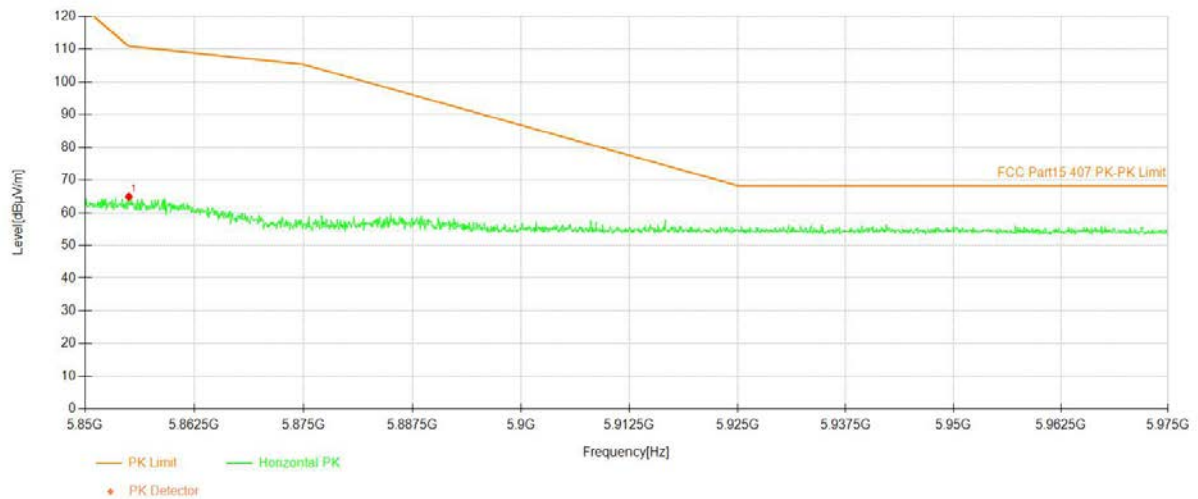
Test Model U-NII -3
Undesirable radiated ☐ 802.11a Undesirable radiated ☒ 5745 Spurious Emission in Band Edge ☐ 802.11n(HT40)
Ant.Pol H



Test Model U-NII -3
Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11n(HT40)
☒ 5825 Ant.Pol V

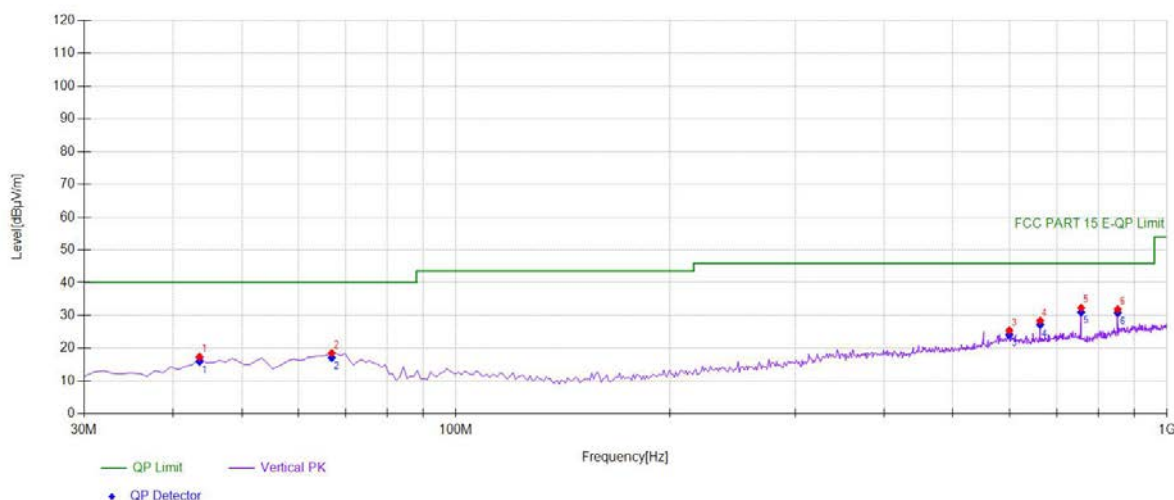


Test Model U-NII -3
Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11n(HT40)
☒ 5825 Ant.Pol H



- Undesirable radiated Spurious Emission below 1GHz (30MHz to 1GHz)
All of the configurations or modes are tested, the data of the worst case is recorded in the report.

Test mode: 802.11n(20) Frequency(MHz): 5180

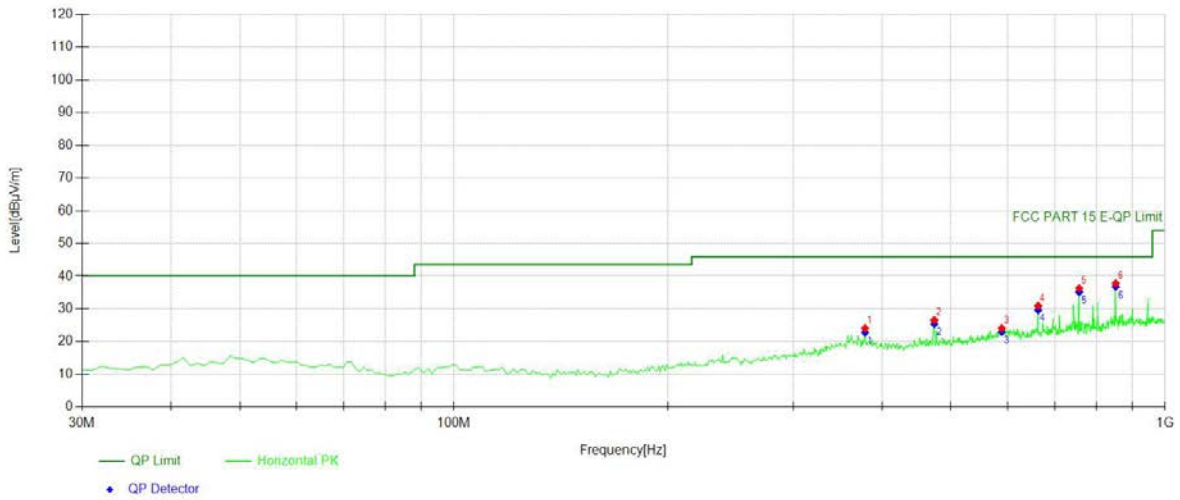


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	43.5936	34.34	-16.99	17.35	PK	40.00	22.65	Vertical
2	66.8969	36.90	-18.37	18.53	PK	40.00	21.47	Vertical
3	599.96	31.84	-6.42	25.42	PK	46.00	20.58	Vertical
4	663.073	35.34	-6.95	28.39	PK	46.00	17.61	Vertical
5	757.257	38.99	-6.67	32.32	PK	46.00	13.68	Vertical
6	852.412	36.02	-4.10	31.92	PK	46.00	14.08	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	43.5936	-16.99	15.98	40.00	24.02
2	66.8969	-18.37	17.08	40.00	22.92
3	599.96	-6.42	24.15	46.00	21.85
4	663.0731	-6.95	27.12	46.00	18.88
5	757.2573	-6.67	30.97	46.00	15.03
6	852.4124	-4.10	30.75	46.00	15.25



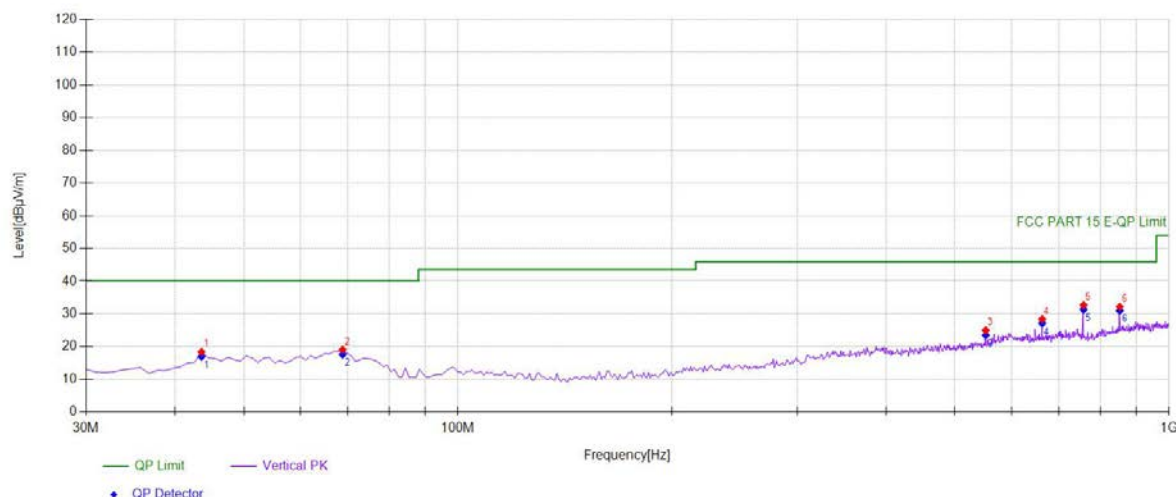
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	378.578	35.78	-11.71	24.07	PK	46.00	21.93	Horizontal
2	473.733	36.76	-10.22	26.54	PK	46.00	19.46	Horizontal
3	589.279	31.10	-7.02	24.08	PK	46.00	21.92	Horizontal
4	663.073	37.84	-6.95	30.89	PK	46.00	15.11	Horizontal
5	757.257	42.97	-6.67	36.30	PK	46.00	9.70	Horizontal
6	852.412	41.88	-4.10	37.78	PK	46.00	8.22	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	378.5786	-11.71	22.77	46.00	23.23
2	473.7337	-10.22	25.42	46.00	20.58
3	589.2793	-7.02	22.96	46.00	23.04
4	663.0731	-6.95	29.69	46.00	16.31
5	757.2573	-6.67	35.10	46.00	10.90
6	852.4124	-4.10	36.76	46.00	9.24

Test mode: 802.11n(20) Frequency(MHz): 5200

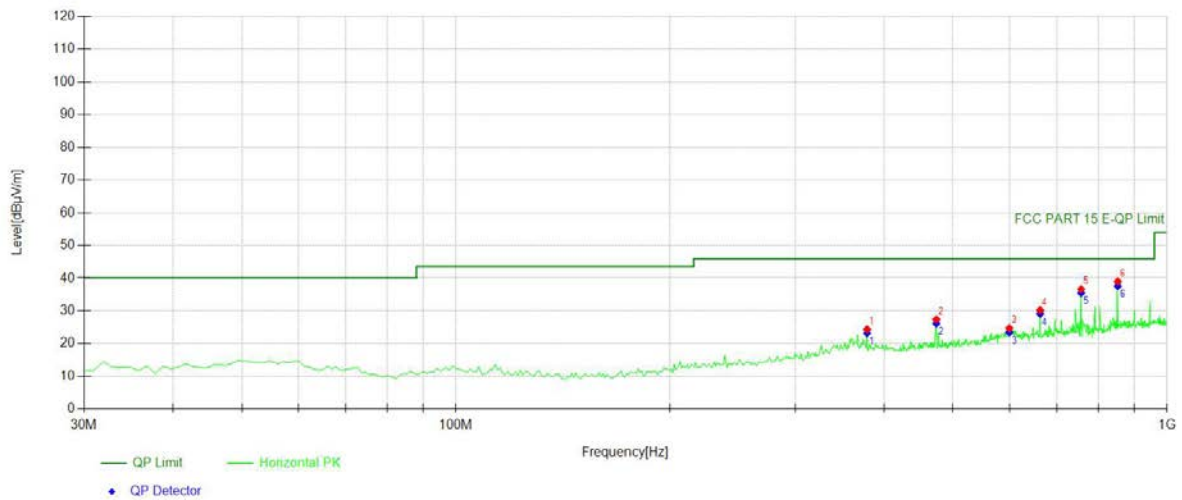


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	43.5936	35.34	-16.99	18.35	PK	40.00	21.65	Vertical
2	68.8388	37.69	-18.63	19.06	PK	40.00	20.94	Vertical
3	552.382	33.91	-8.96	24.95	PK	46.00	21.05	Vertical
4	663.073	35.33	-6.95	28.38	PK	46.00	17.62	Vertical
5	758.228	39.39	-6.71	32.68	PK	46.00	13.32	Vertical
6	852.412	36.28	-4.10	32.18	PK	46.00	13.82	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	43.5936	-16.99	16.96	40.00	23.04
2	68.8388	-18.63	17.59	40.00	22.41
3	552.3824	-8.96	23.48	46.00	22.52
4	663.0731	-6.95	27.09	46.00	18.91
5	758.2282	-6.71	31.30	46.00	14.70
6	852.4124	-4.10	30.98	46.00	15.02



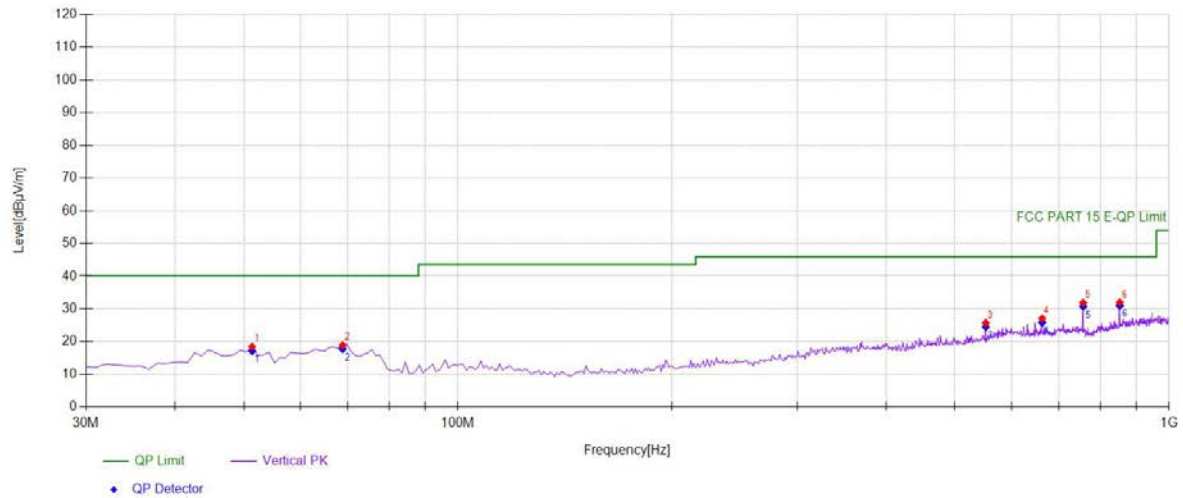
Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV]	Factor [dB/m]	Level [dBµV/m]	Detector	Limit [dBµV/m]	Margin [dB]	Polarity
1	378.578	36.10	-11.71	24.39	PK	46.00	21.61	Horizontal
2	473.733	37.58	-10.22	27.36	PK	46.00	18.64	Horizontal
3	599.96	31.12	-6.42	24.70	PK	46.00	21.30	Horizontal
4	663.073	37.16	-6.95	30.21	PK	46.00	15.79	Horizontal
5	757.257	43.31	-6.67	36.64	PK	46.00	9.36	Horizontal
6	852.412	43.09	-4.10	38.99	PK	46.00	7.01	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]
1	378.5786	-11.71	23.18	46.00	22.82
2	473.7337	-10.22	26.15	46.00	19.85
3	599.96	-6.42	23.41	46.00	22.59
4	663.0731	-6.95	29.10	46.00	16.90
5	757.2573	-6.67	35.53	46.00	10.47
6	852.4124	-4.10	37.56	46.00	8.44

Test mode: 802.11n(20) Frequency(MHz): 5240

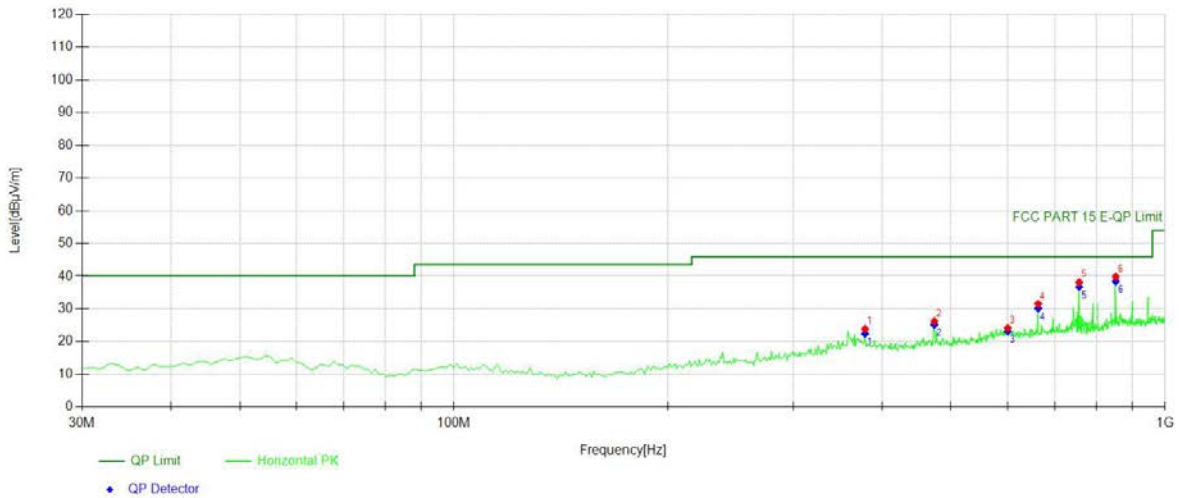


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	51.3614	34.70	-16.28	18.42	PK	40.00	21.58	Vertical
2	68.8388	37.48	-18.63	18.85	PK	40.00	21.15	Vertical
3	552.382	34.61	-8.96	25.65	PK	46.00	20.35	Vertical
4	663.073	33.95	-6.95	27.00	PK	46.00	19.00	Vertical
5	757.257	38.53	-6.67	31.86	PK	46.00	14.14	Vertical
6	852.412	36.07	-4.10	31.97	PK	46.00	14.03	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	51.3614	-16.28	17.13	40.00	22.87
2	68.8388	-18.63	17.74	40.00	22.26
3	552.3824	-8.96	24.54	46.00	21.46
4	663.0731	-6.95	25.81	46.00	20.19
5	757.2573	-6.67	30.67	46.00	15.33
6	852.4124	-4.10	30.96	46.00	15.04



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	378.578	35.59	-11.71	23.88	PK	46.00	22.12	Horizontal
2	473.733	36.40	-10.22	26.18	PK	46.00	19.82	Horizontal
3	600.930	30.61	-6.46	24.15	PK	46.00	21.85	Horizontal
4	663.073	38.45	-6.95	31.50	PK	46.00	14.50	Horizontal
5	757.257	44.81	-6.67	38.14	PK	46.00	7.86	Horizontal
6	852.412	43.95	-4.10	39.85	PK	46.00	6.15	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	378.5786	-11.71	22.44	46.00	23.56
2	473.7337	-10.22	25.16	46.00	20.84
3	600.9309	-6.46	23.13	46.00	22.87
4	663.0731	-6.95	30.16	46.00	15.84
5	757.2573	-6.67	36.71	46.00	9.29
6	852.4124	-4.10	38.42	46.00	7.58

8.5 POWER LINE CONDUCTED EMISSIONS

8.5.1 Applicable Standard

According to FCC Part 15.207(a)

8.5.2 Conformance Limit

Frequency(MHz)	Conducted Emission Limit	
	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

8.5.3 Test Configuration

Test according to clause 6.3 conducted emission test setup

8.5.4 Test Procedure

The EUT was placed on a table which is 0.8m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Repeat above procedures until all frequency measured were complete.

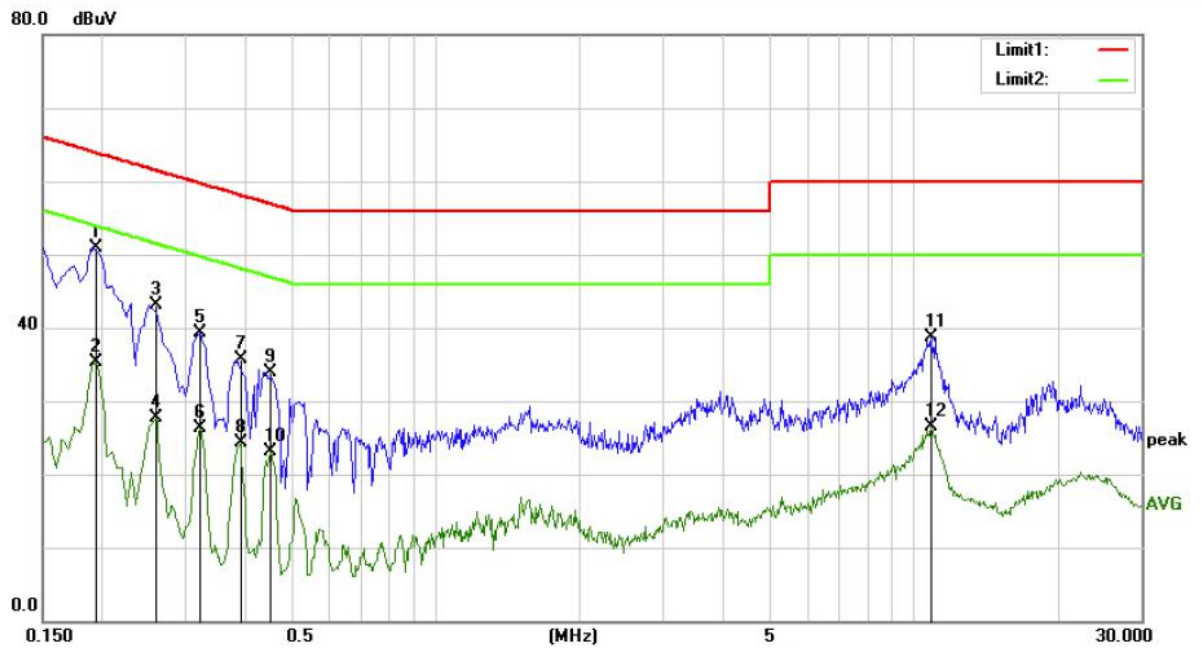
8.5.5 Test Results

Temperature : 21.2°C
Humidity : 55%

ATM Pressure: 1011 mbar
Test Engineer: Zhuowen Sheng

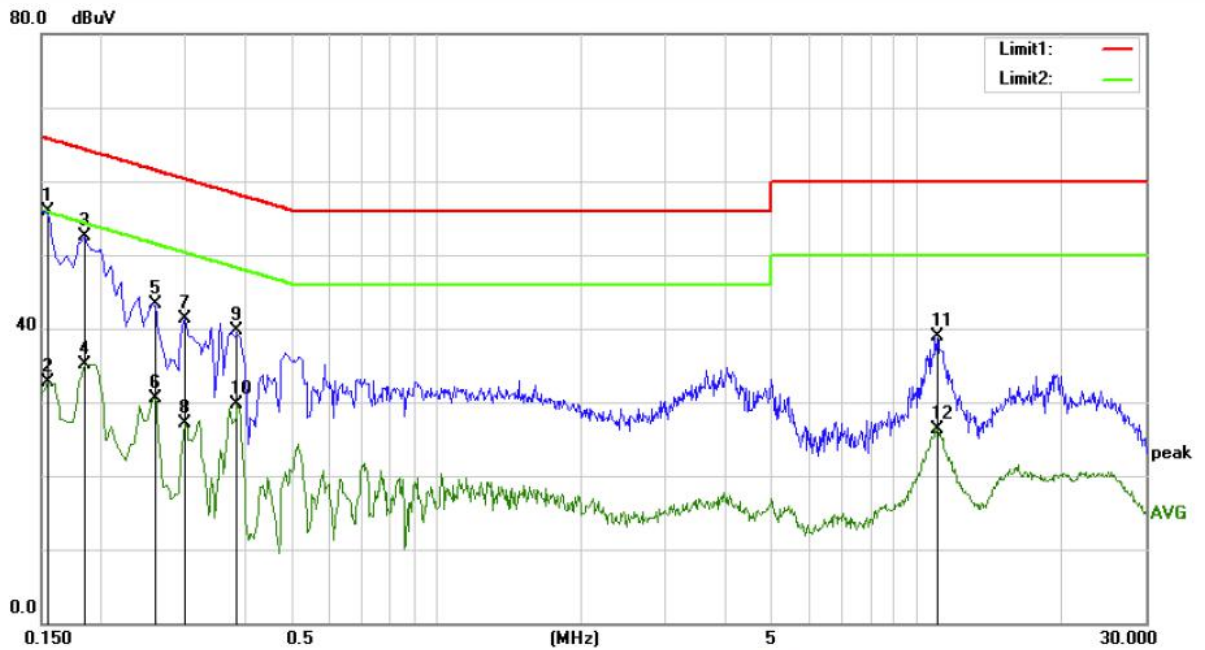
Pass

The all voltage have been tested, and the worst result recorded was report as below.



Site Conduction #1 Phase: **N** Temperature: 21.2

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1950	41.07	9.90	50.97	63.82	-12.85	QP	
2		0.1950	25.38	9.90	35.28	53.82	-18.54	AVG	
3		0.2600	33.18	9.93	43.11	61.43	-18.32	QP	
4		0.2600	17.85	9.93	27.78	51.43	-23.65	AVG	
5		0.3200	29.33	9.92	39.25	59.71	-20.46	QP	
6		0.3200	16.30	9.92	26.22	49.71	-23.49	AVG	
7		0.3900	25.72	9.89	35.61	58.06	-22.45	QP	
8		0.3900	14.34	9.89	24.23	48.06	-23.83	AVG	
9		0.4500	24.00	9.91	33.91	56.88	-22.97	QP	
10		0.4500	13.16	9.91	23.07	46.88	-23.81	AVG	
11		10.8550	28.36	10.25	38.61	60.00	-21.39	QP	
12		10.8550	16.27	10.25	26.52	50.00	-23.48	AVG	



Site Conduction #1

Phase: L1

Temperature: 21.2

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1	*	0.1550	45.84	10.02	55.86	65.73	-9.87	QP	
2		0.1550	22.65	10.02	32.67	55.73	-23.06	AVG	
3		0.1850	42.50	10.04	52.54	64.26	-11.72	QP	
4		0.1850	25.09	10.04	35.13	54.26	-19.13	AVG	
5		0.2600	33.37	10.03	43.40	61.43	-18.03	QP	
6		0.2600	20.51	10.03	30.54	51.43	-20.89	AVG	
7		0.3000	31.29	10.05	41.34	60.24	-18.90	QP	
8		0.3000	16.96	10.05	27.01	50.24	-23.23	AVG	
9		0.3850	29.70	9.95	39.65	58.17	-18.52	QP	
10		0.3850	19.71	9.95	29.66	48.17	-18.51	AVG	
11		11.0550	28.82	10.17	38.99	60.00	-21.01	QP	
12		11.0550	16.18	10.17	26.35	50.00	-23.65	AVG	

8.6 ANTENNA APPLICATION

8.6.1 Antenna Requirement

Standard	Requirement
FCC CRF Part 15.203	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

8.6.2 Result

Temperature : 25°C ATM Pressure:: 1011 mbar
Humidity : 60 % Test Engineer: GJ

PASS

The EUT is integrated antenna, Ant1: 4.37dBi, Ant2: 4.33dBi.

- ☒ Antennas use a permanently attached antenna which is not replaceable.
- ☐ Not using a standard antenna jack or electrical connector for antenna replacement
- ☐ The antenna has to be professionally installed (please provide method of installation)

Which in accordance to section 15.203, please refer to the internal photos.

Detail of factor for radiated emission:

Frequency(MHz)	Ant_F(dB)	Cab_L(dB)	Preamp(dB)	Correct Factor(dB)
0.009	20.6	0.03	\	20.63
0.15	20.7	0.1	\	20.8
1	20.9	0.15	\	21.05
10	20.1	0.28	\	20.38
30	18.8	0.45	\	19.25
30	11.7	0.62	27.9	-15.58
100	12.5	1.02	27.8	-14.28
300	12.9	1.91	27.5	-12.69
600	19.2	2.92	27	-4.88
800	21.1	3.54	26.6	-1.96
1000	22.3	4.17	26.2	0.27
1000	25.6	1.76	41.4	-14.04
3000	28.9	3.27	43.2	-11.03
5000	31.1	4.2	44.6	-9.3
8000	36.2	5.95	44.7	-2.55
10000	38.4	6.3	43.9	0.8
12000	38.5	7.14	42.3	3.34
15000	40.2	8.15	41.4	6.95
18000	45.4	9.02	41.3	13.12
18000	37.9	1.81	47.9	-8.19
21000	37.9	1.95	48.7	-8.85
25000	39.3	2.01	42.8	-1.49
28000	39.6	2.16	46.0	-4.24
31000	41.2	2.24	44.5	-1.06
34000	41.5	2.29	46.6	-2.81
37000	43.8	2.30	46.4	-0.3
40000	43.2	2.50	42.2	3.5

--- End of Report ---

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6. Objections shall be raised within 20 days from the date receiving the report.