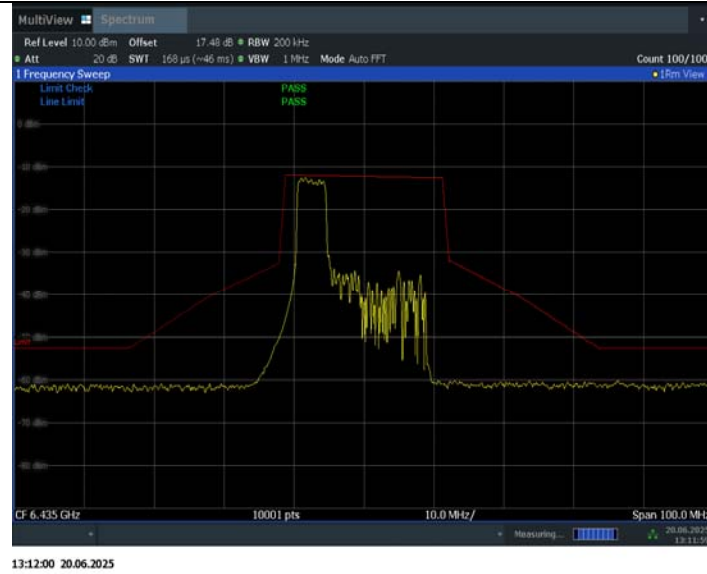
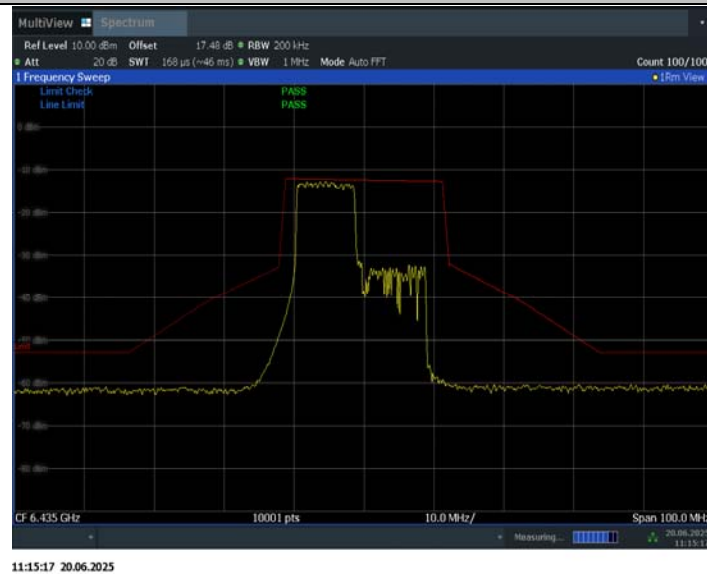
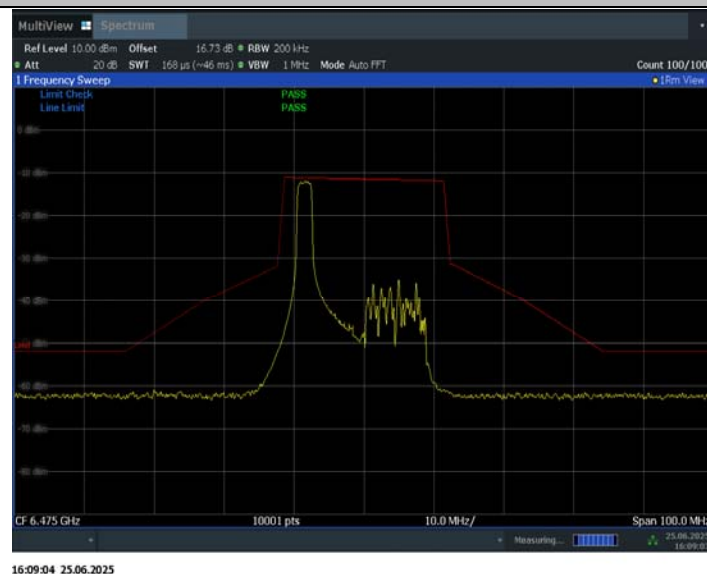




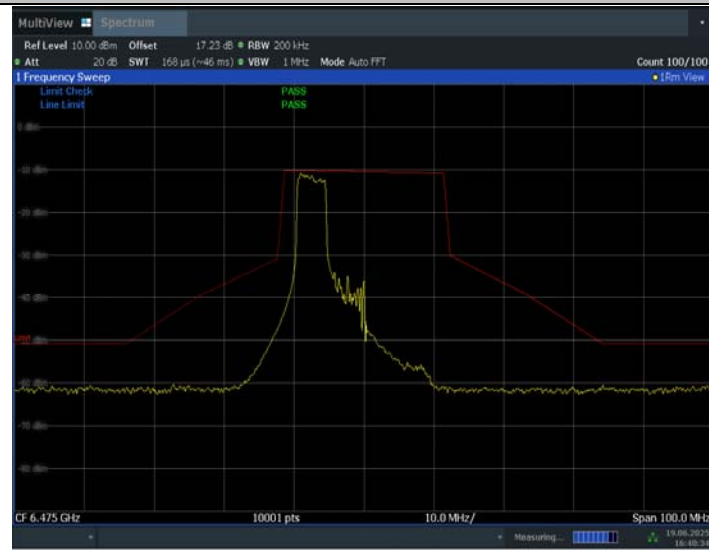
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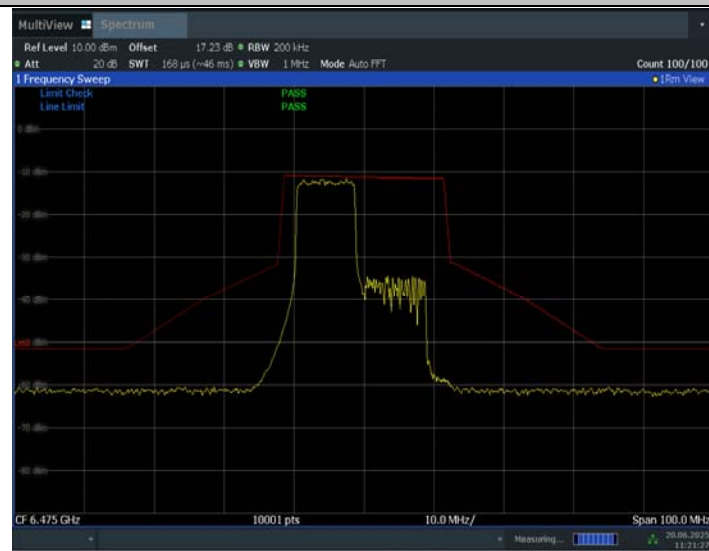
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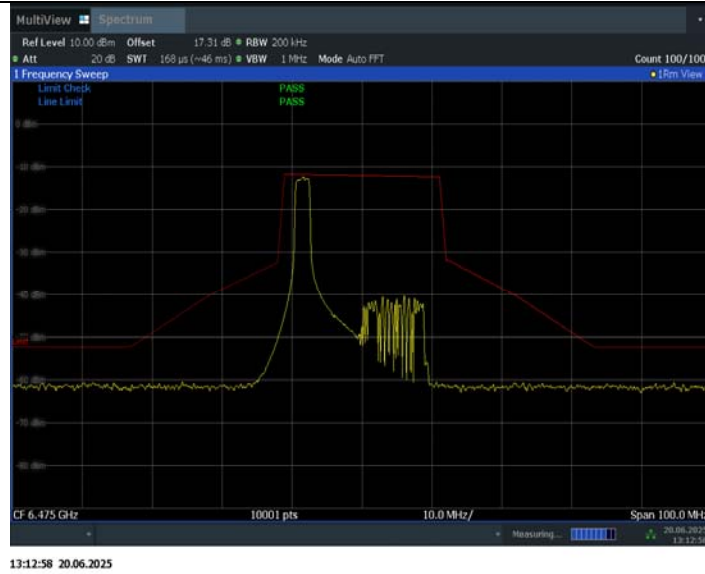
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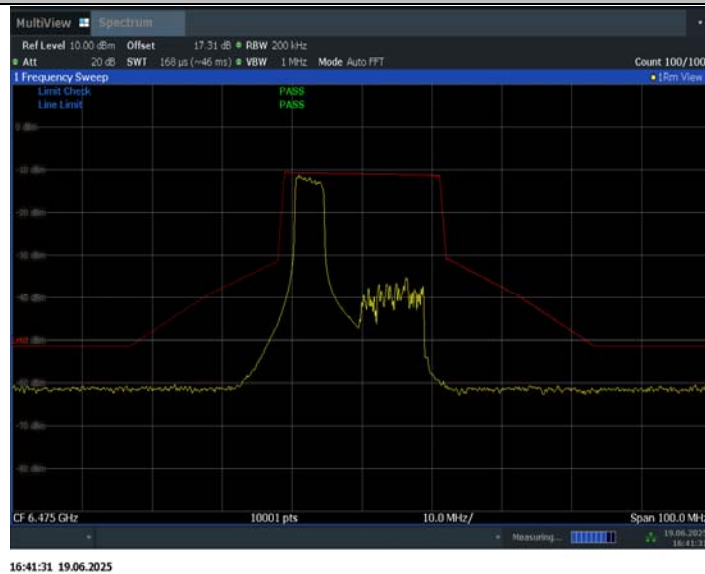
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11AX20MIMO_Ant9_6475_26Tone_RU0



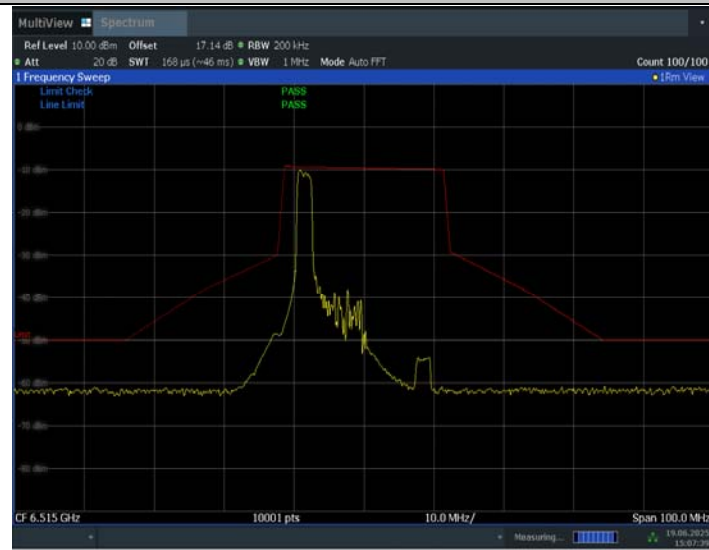
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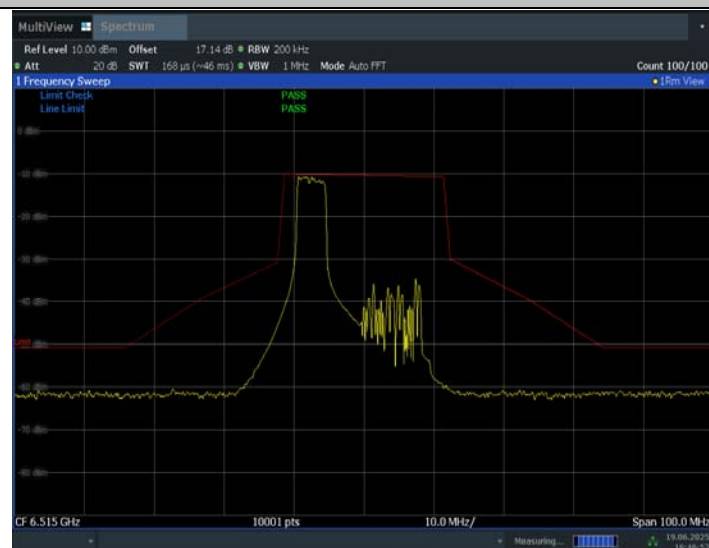


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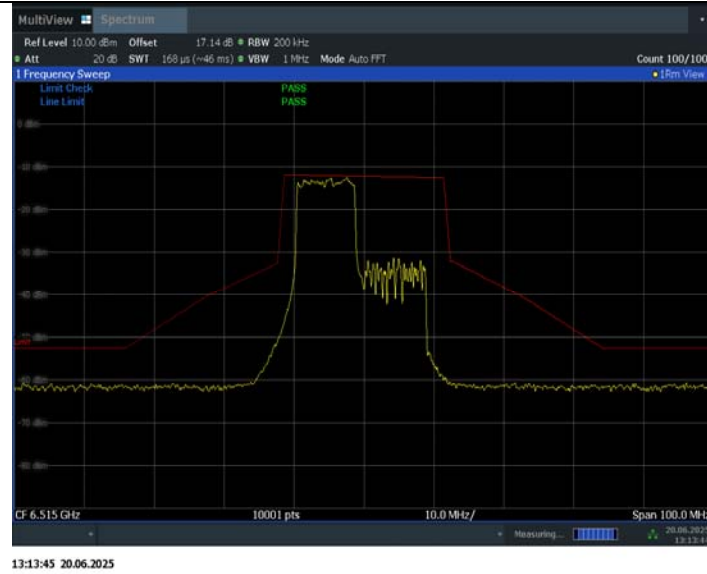
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11AX20MIMO_Ant6_6515_52Tone_RU37



16:46:52 19.06.2025

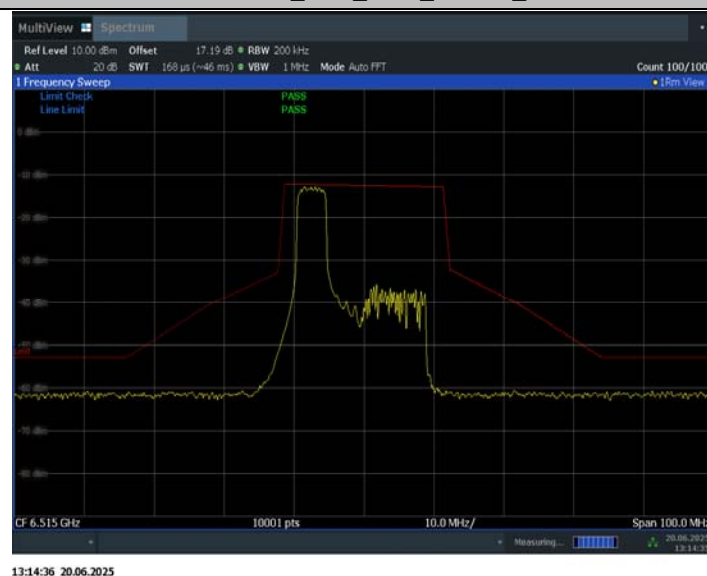
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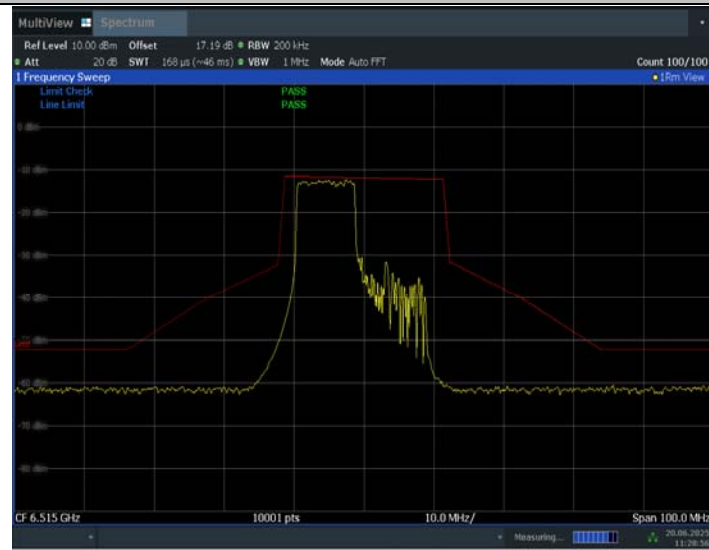
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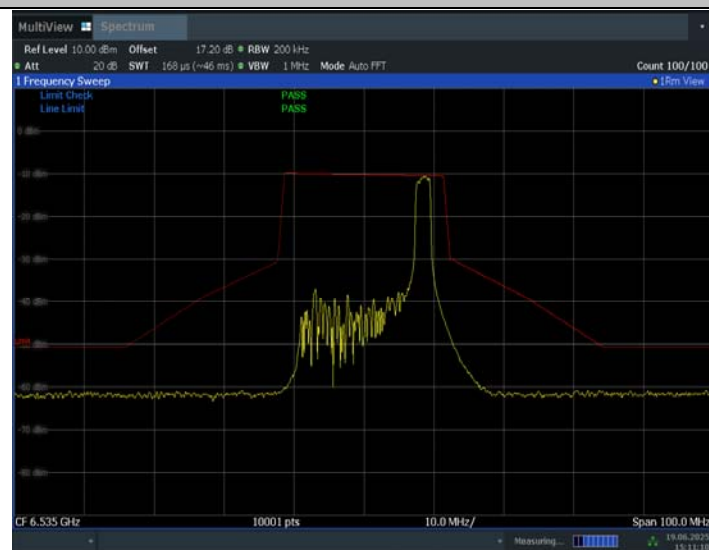
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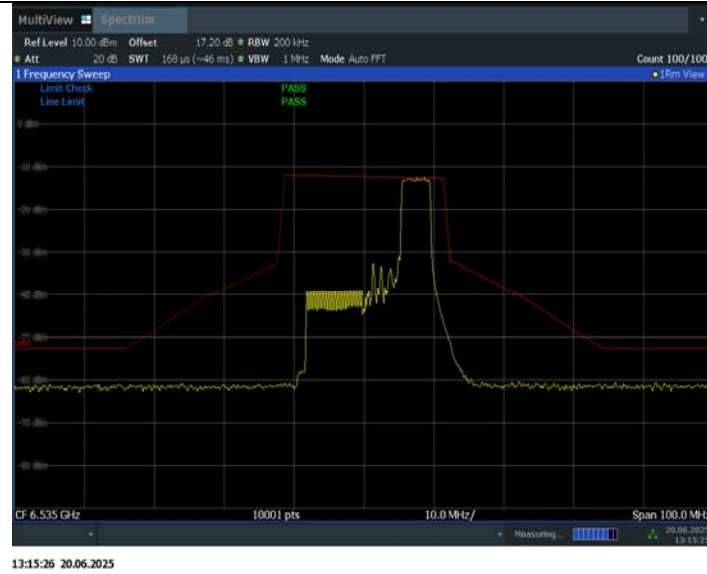
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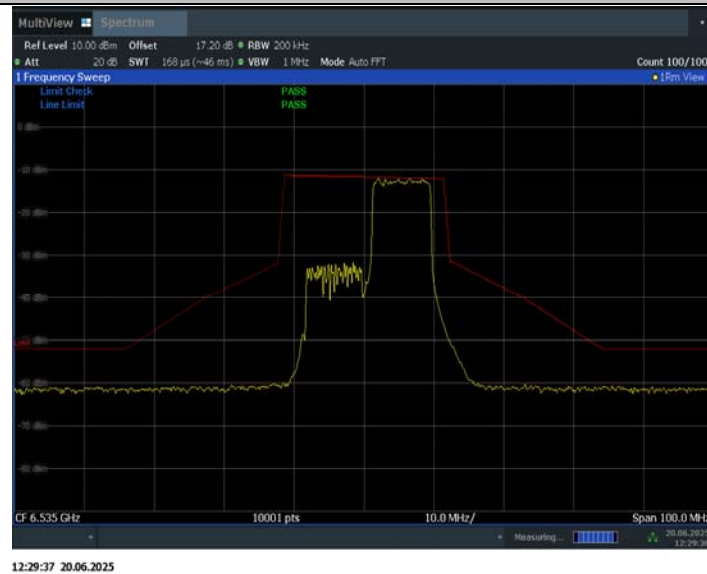
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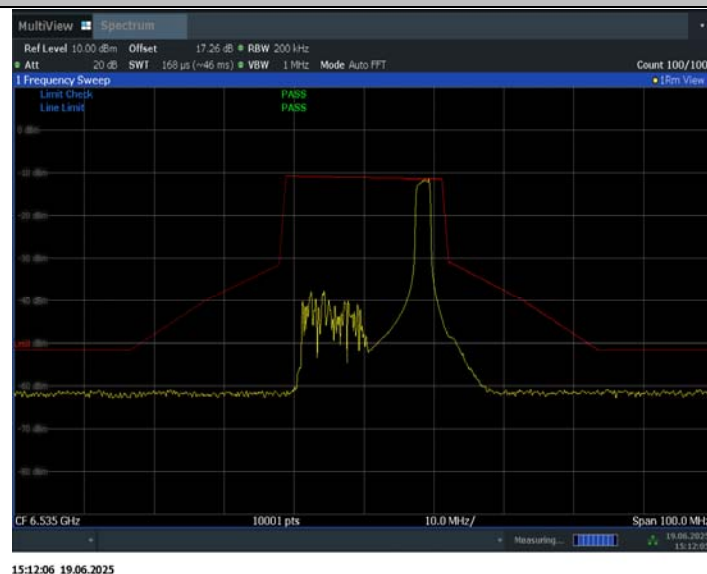
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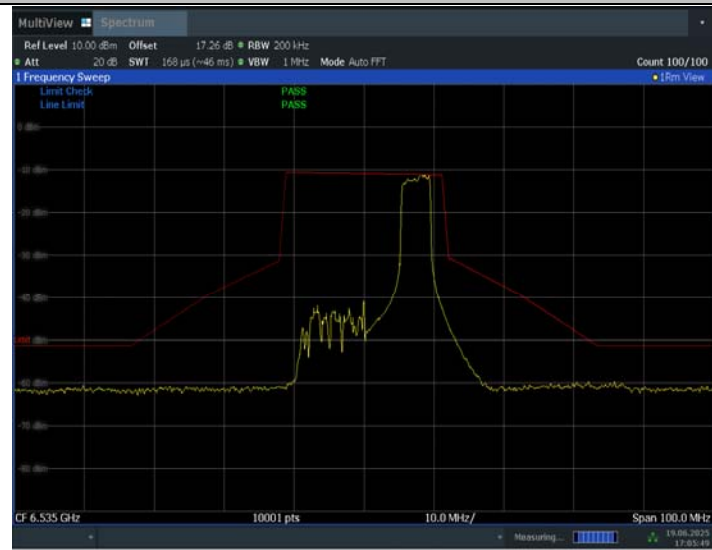
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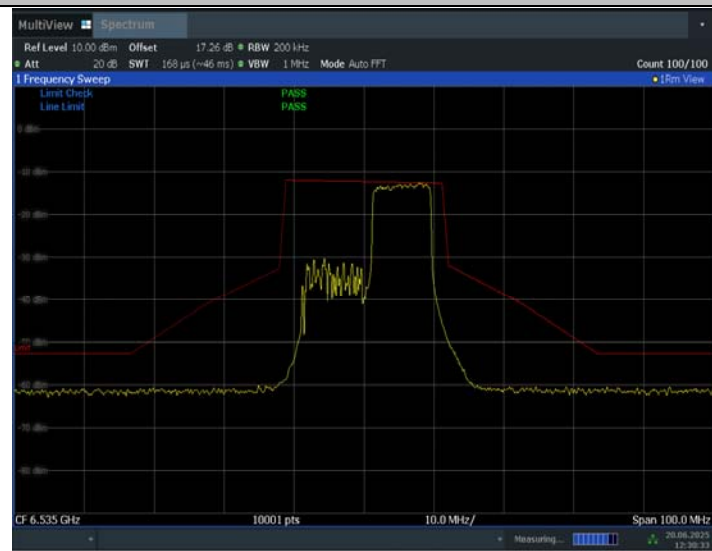
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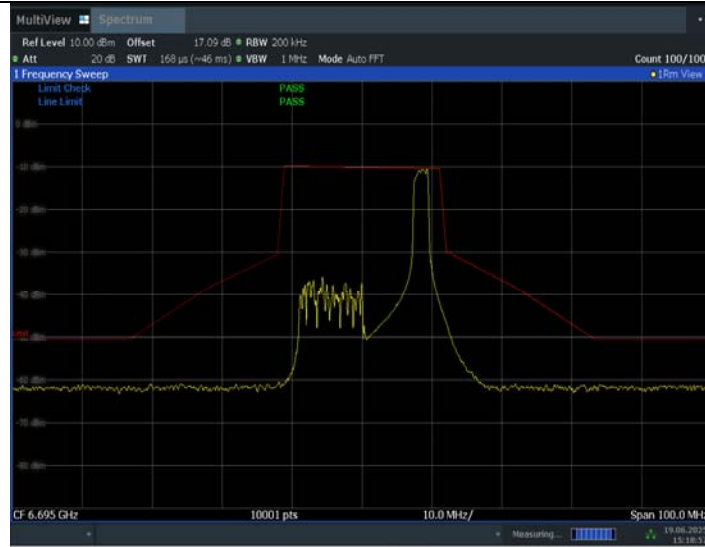
11AX20MIMO_Ant9_6535_52Tone_RU40



11AX20MIMO_Ant9_6535_106Tone_RU54

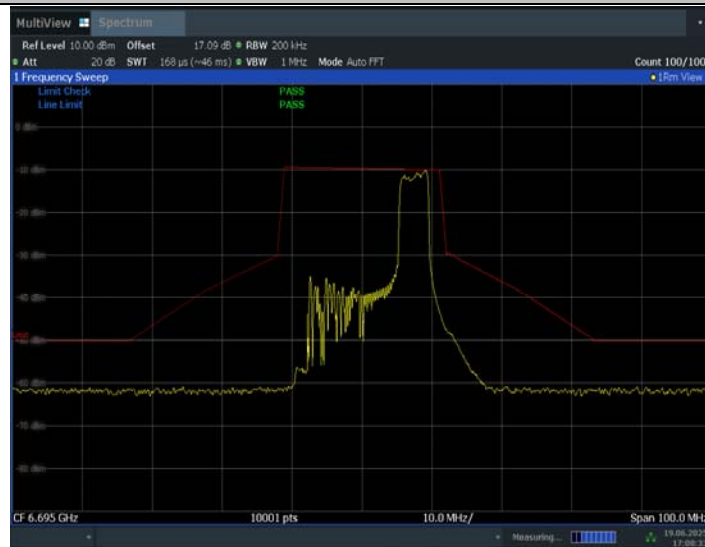


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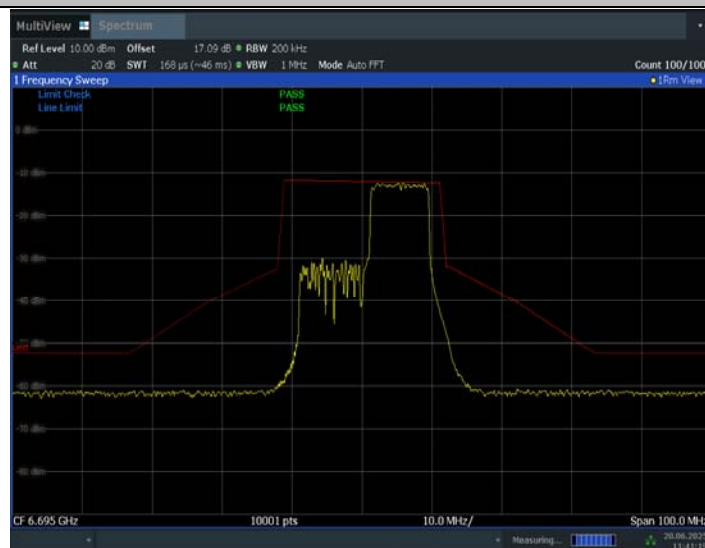
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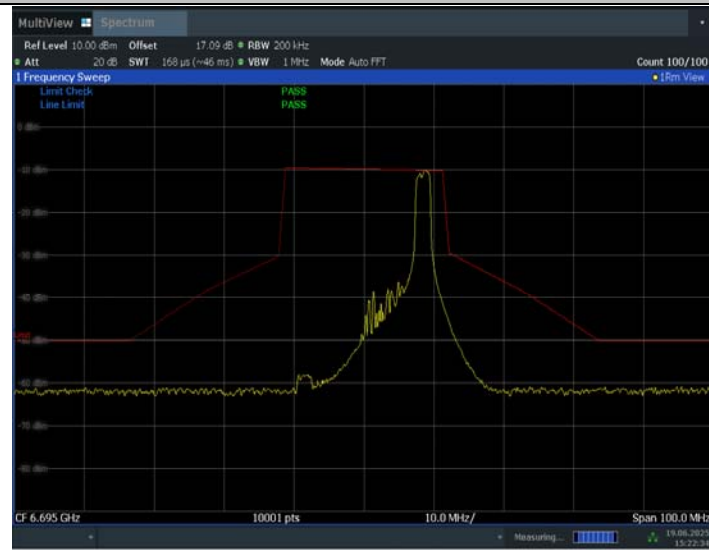
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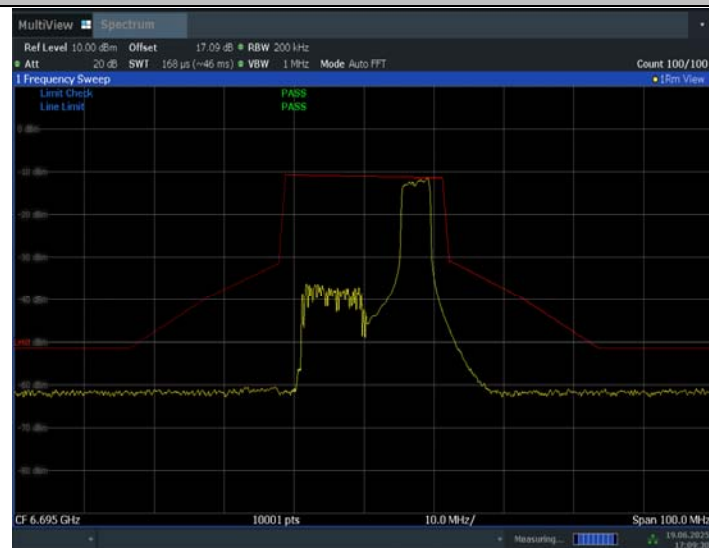
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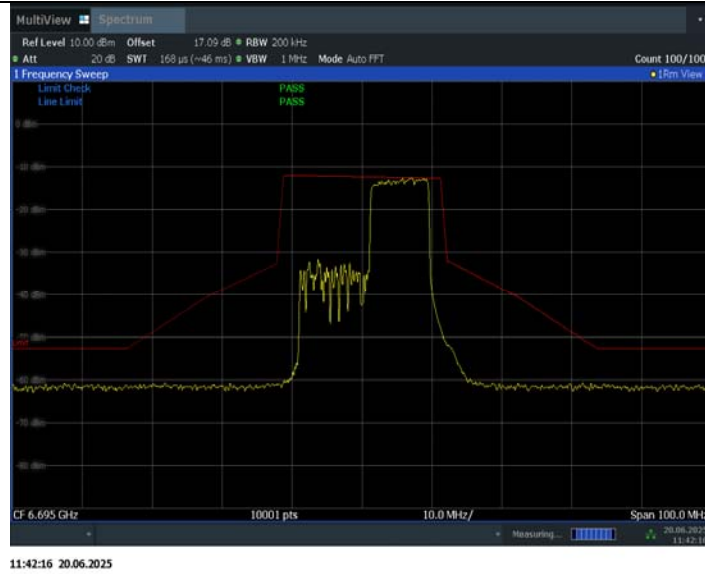
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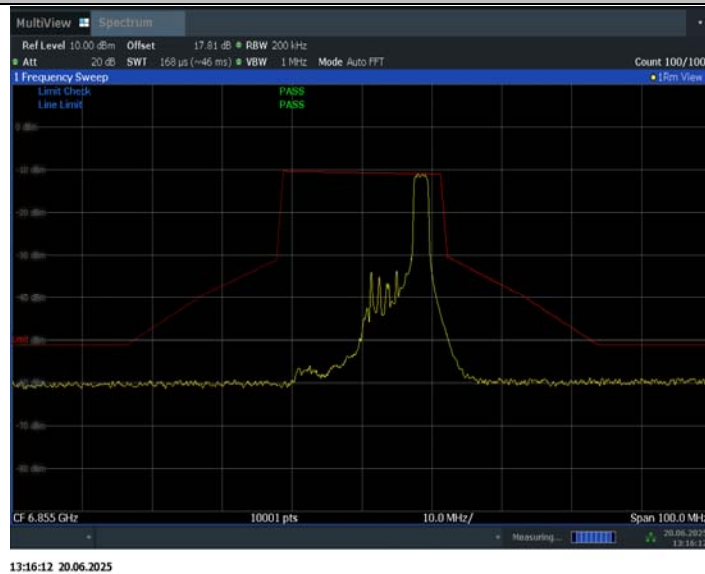


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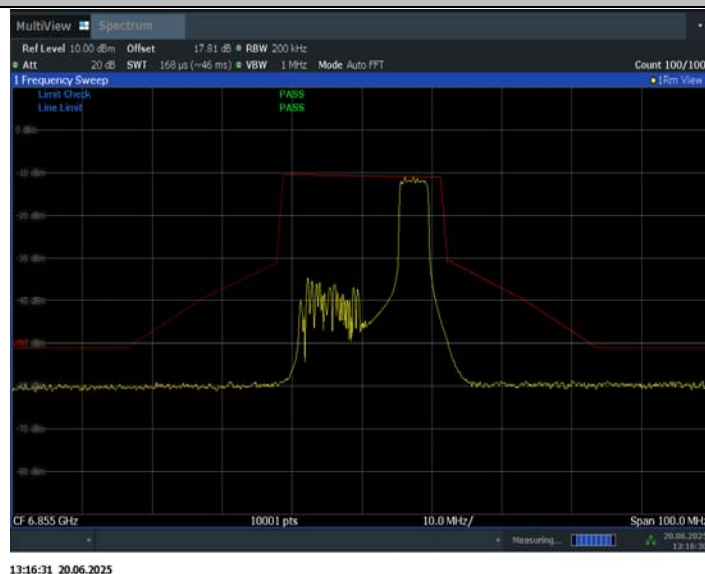
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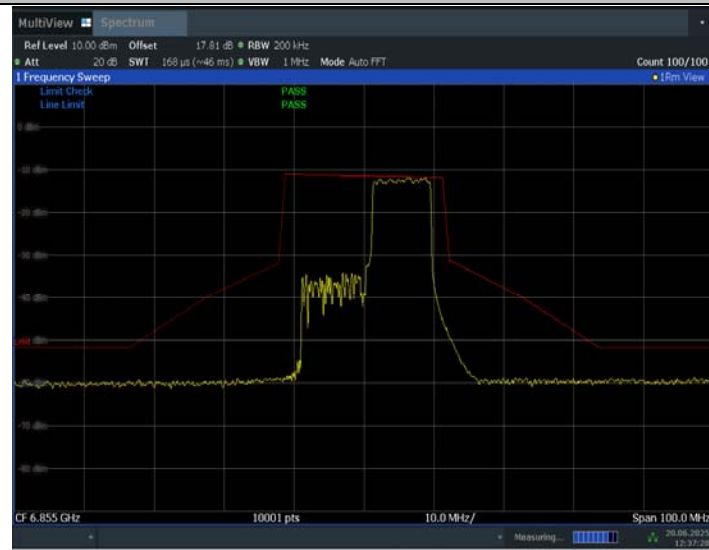
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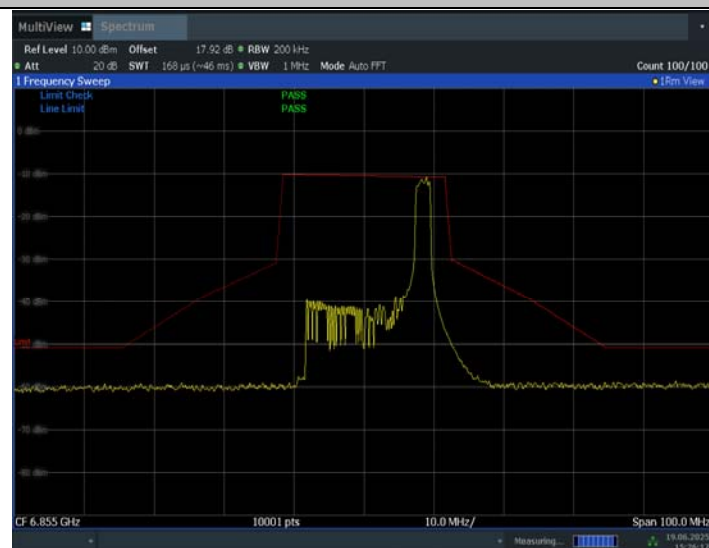


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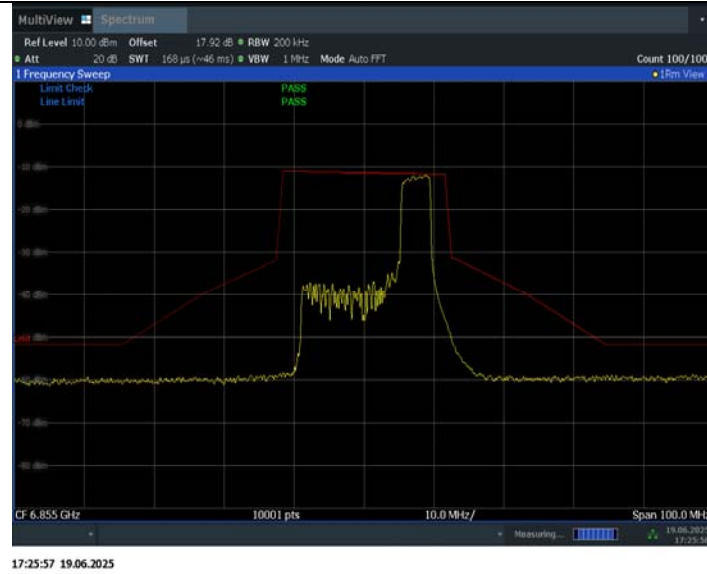
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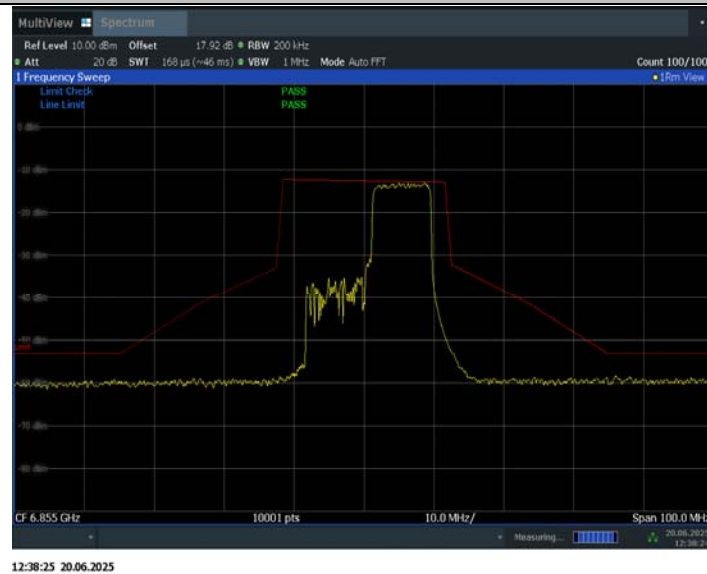


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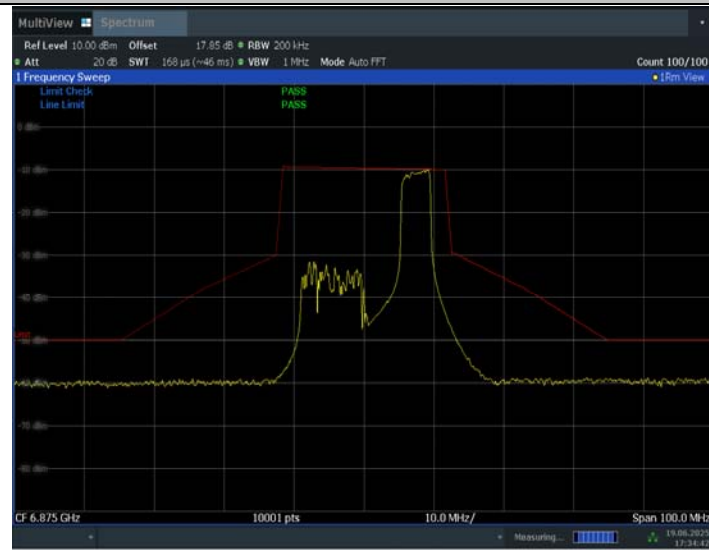
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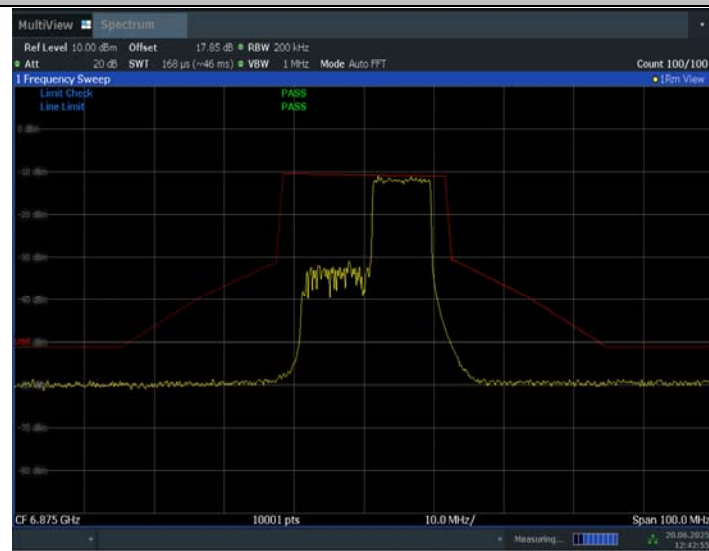
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11AX20MIMO_Ant6_6875_52Tone_RU40



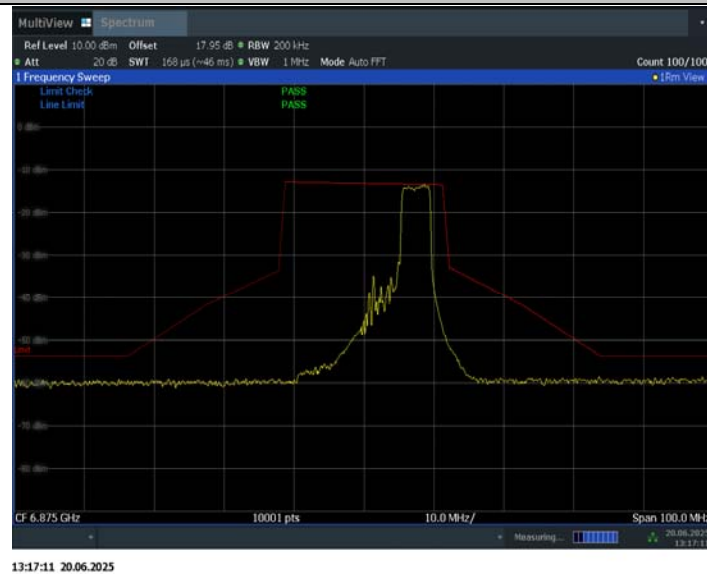
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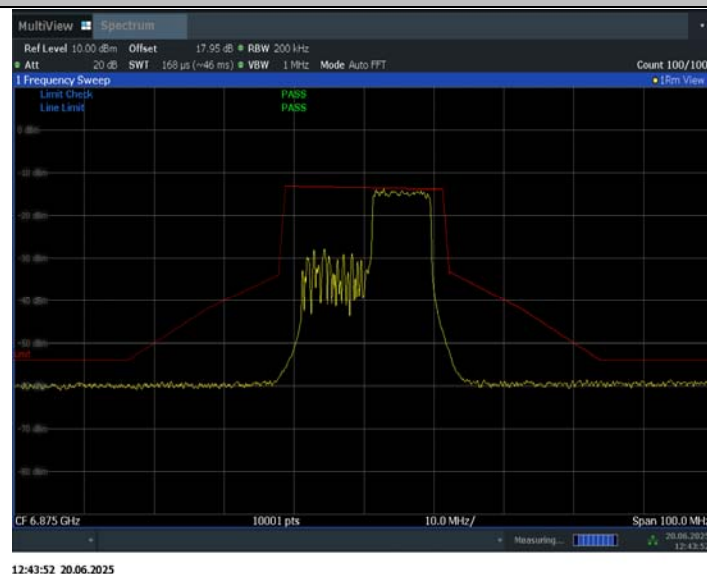
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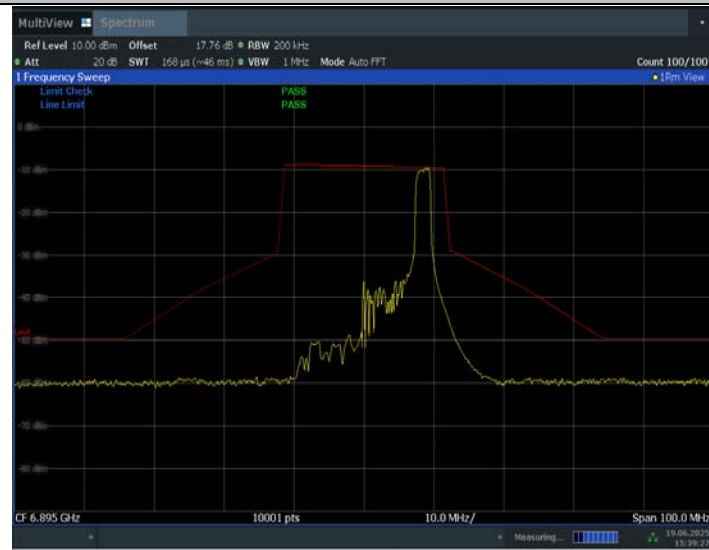
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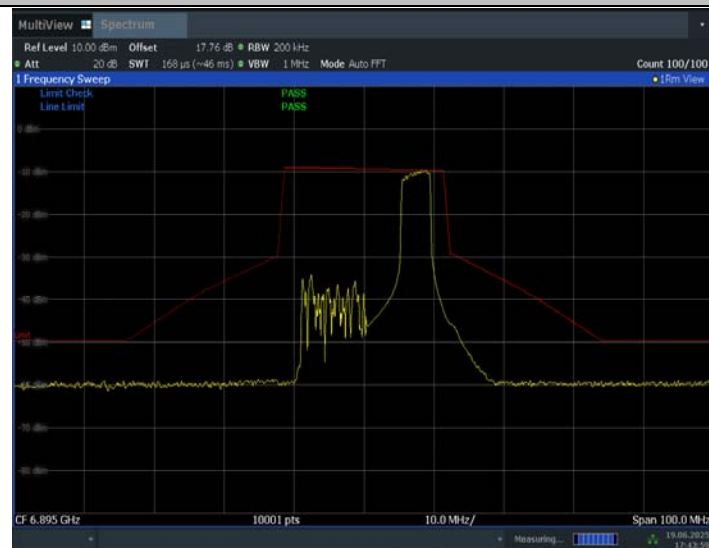


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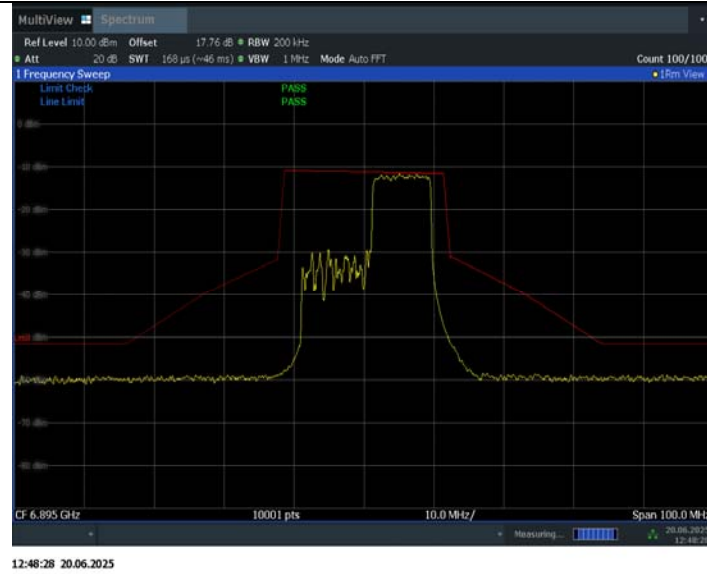
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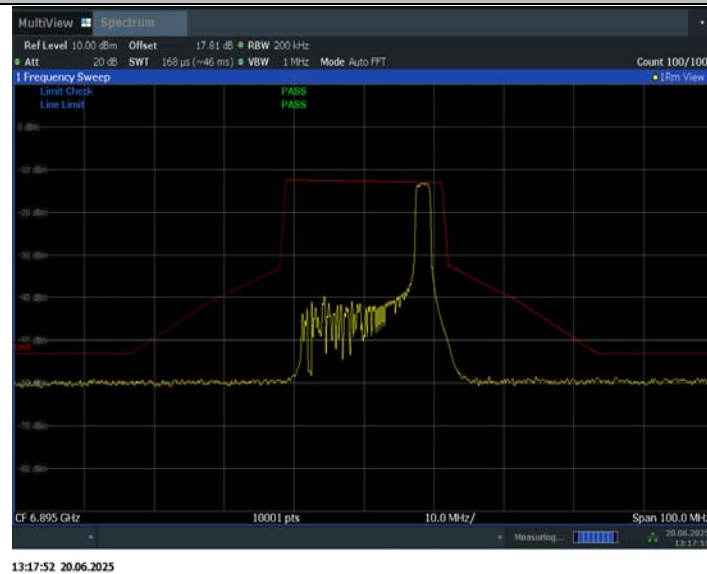


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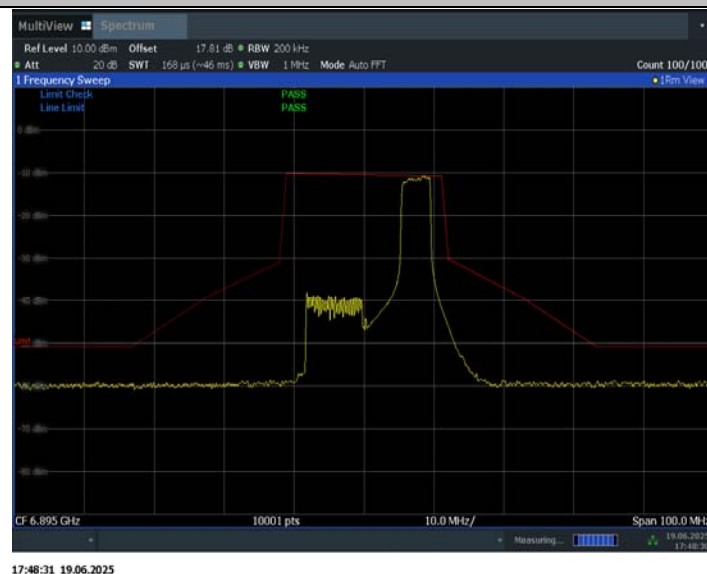
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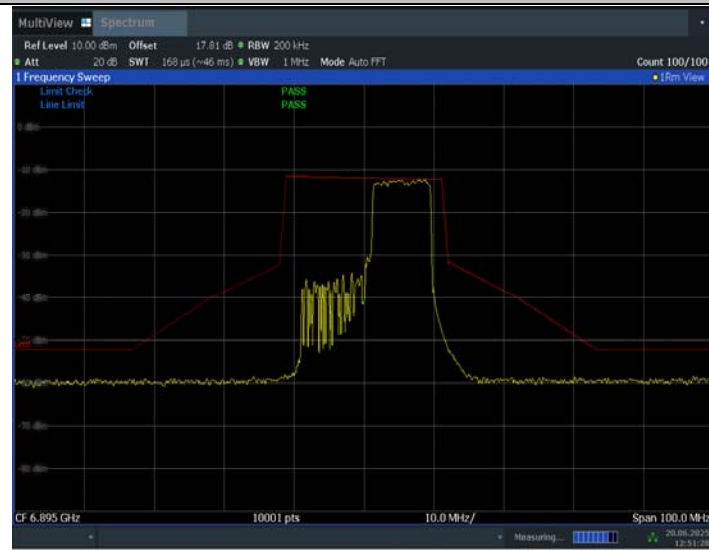
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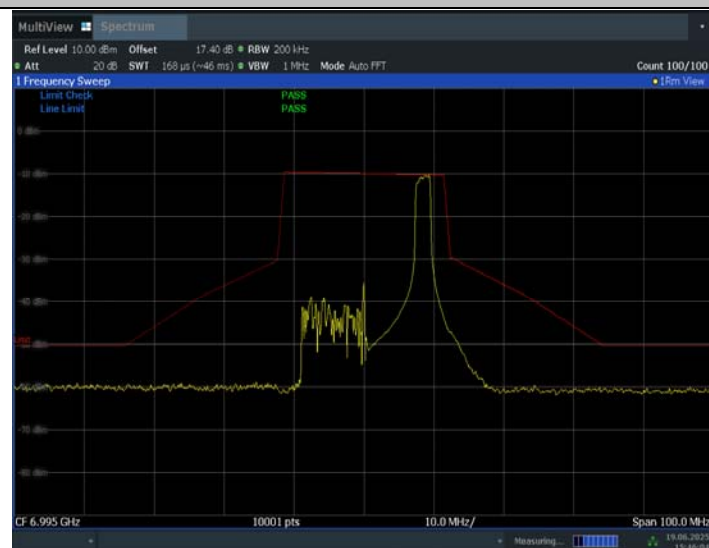


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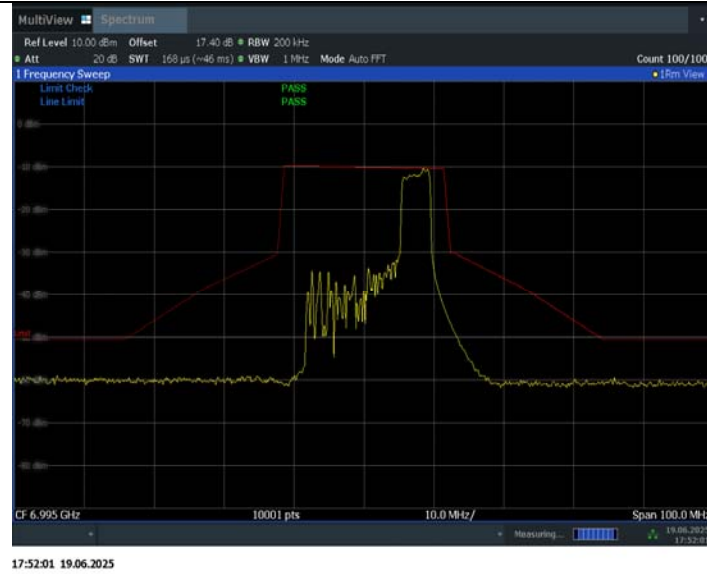
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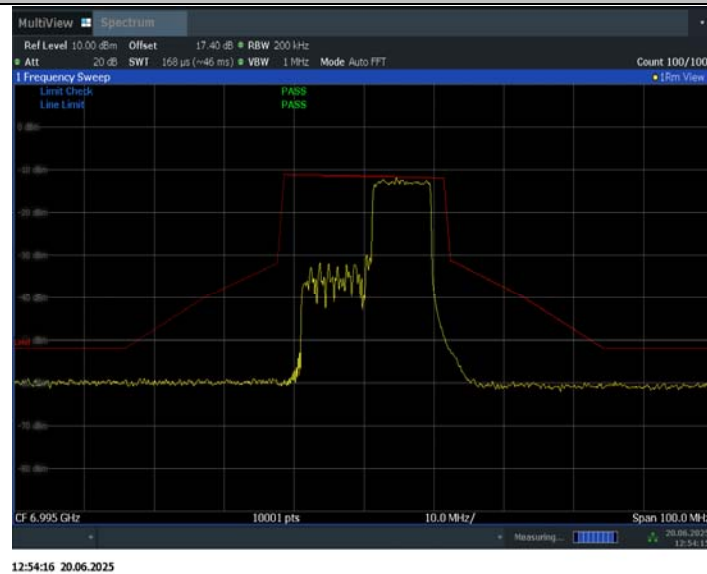


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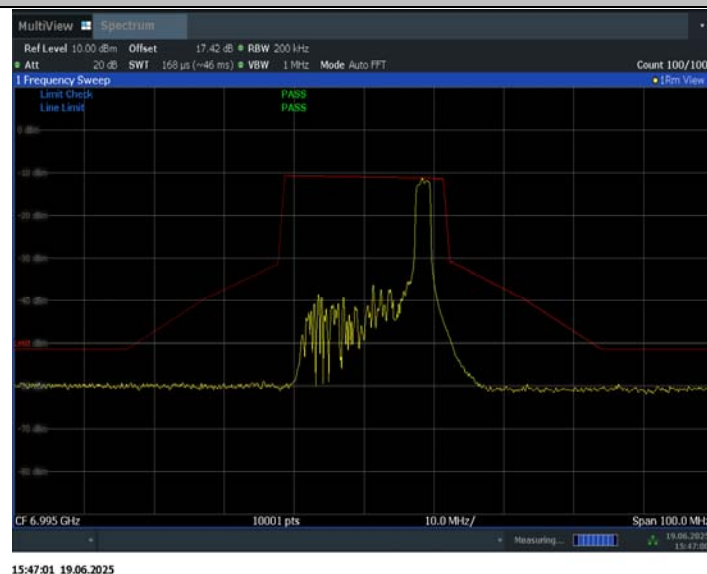
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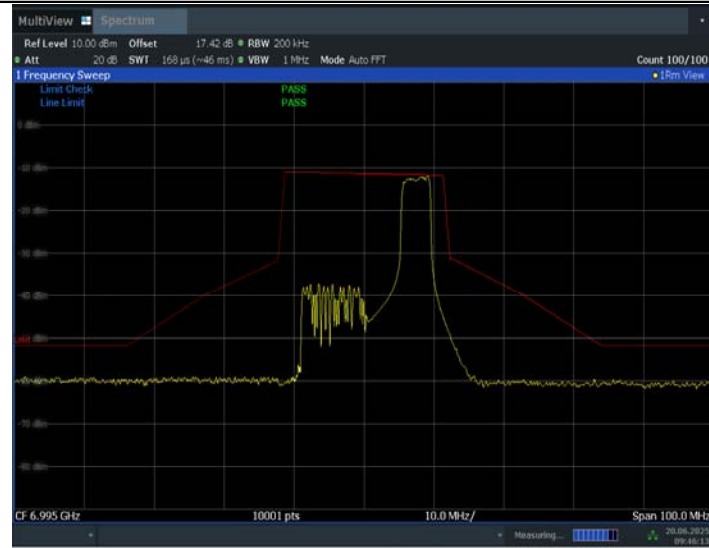
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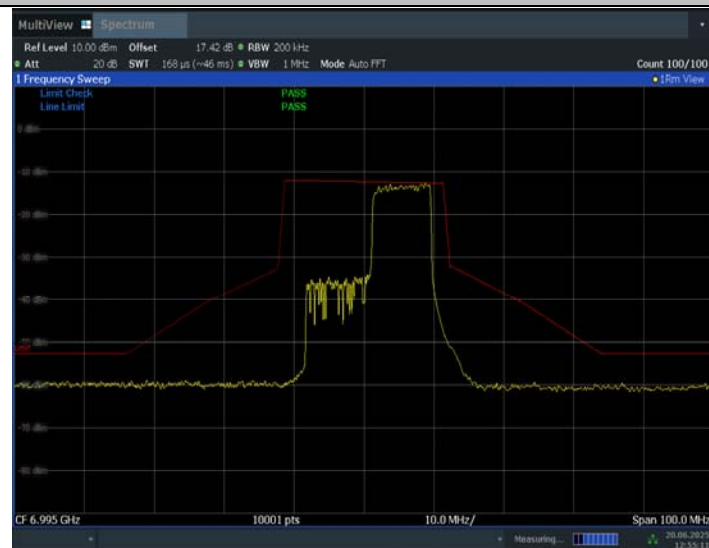


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09:46:13 20.06.2025

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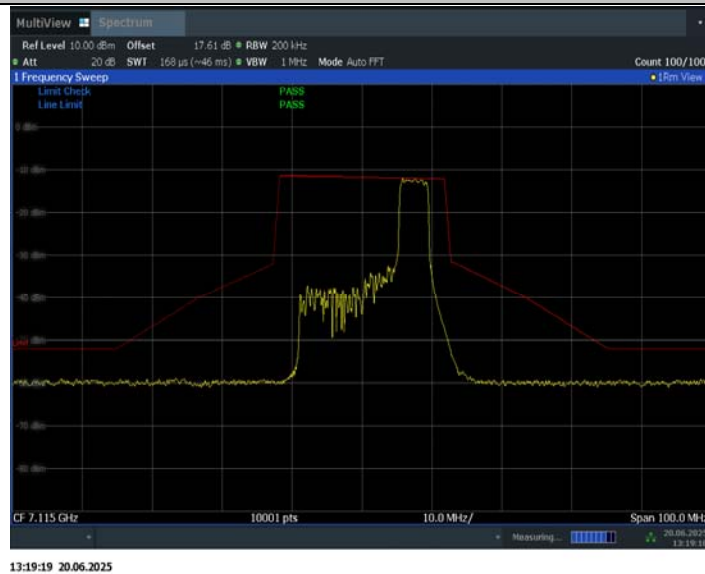


12:55:12 20.06.2025

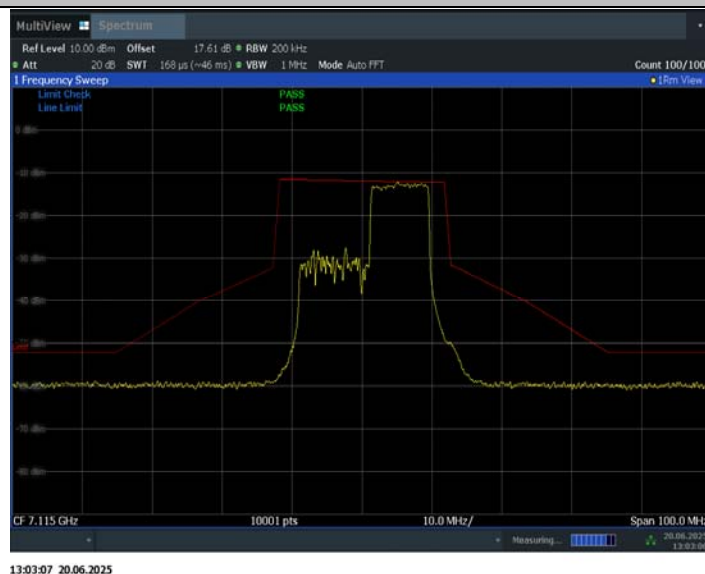
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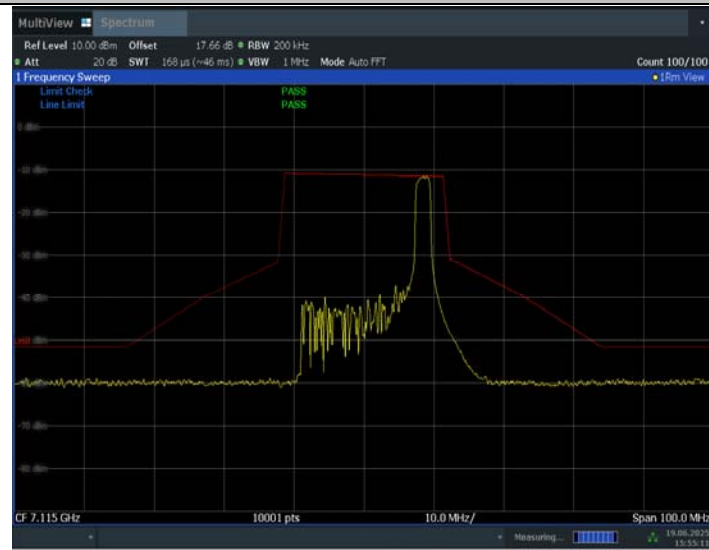
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11AX20MIMO_Ant6_7115_106Tone_RU54

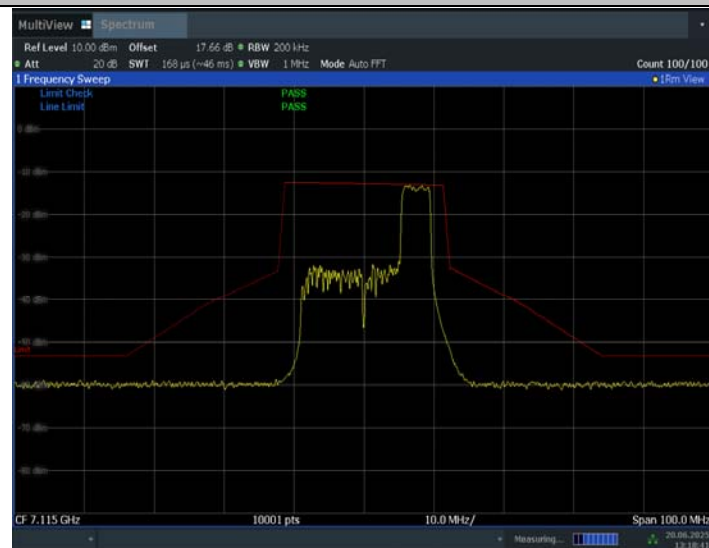


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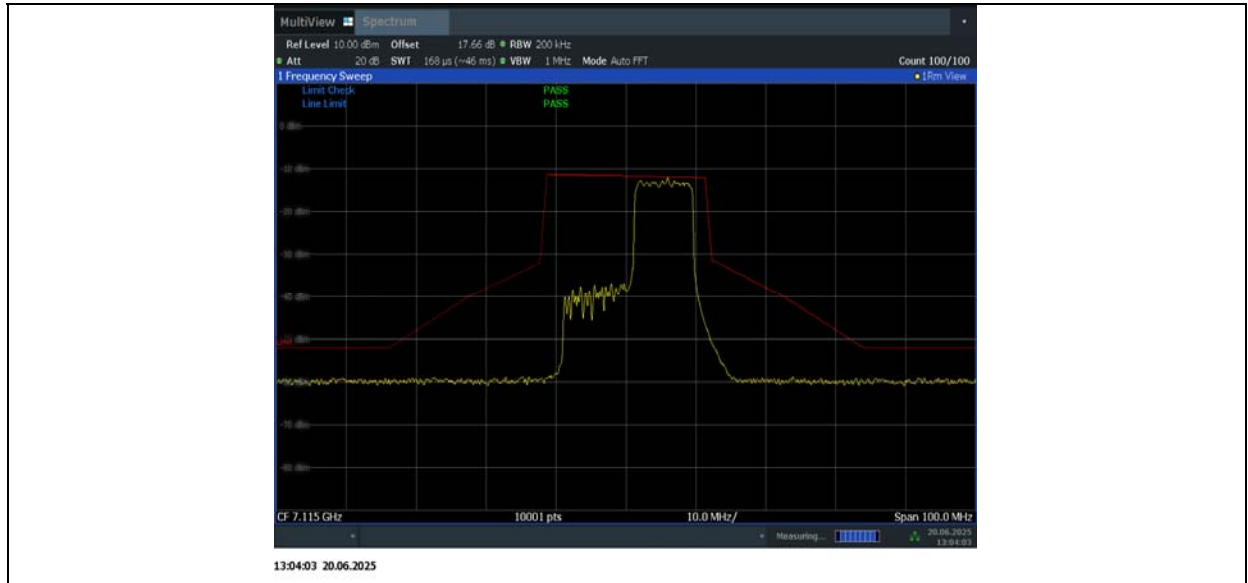
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11AX20MIMO_Ant9_7115_52Tone_RU40



13:18:41 20.06.2025

11AX20MIMO_Ant9_7115_106Tone_RU54



Conclusion: PASS

A.8. Radiated Unwanted Emission

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407	-27 dBm/MHz

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

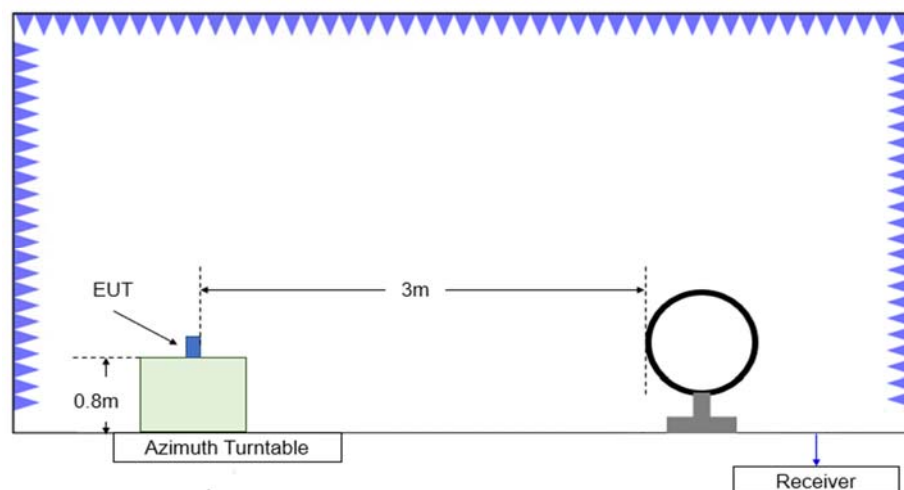
Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)	Measurement distance(m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

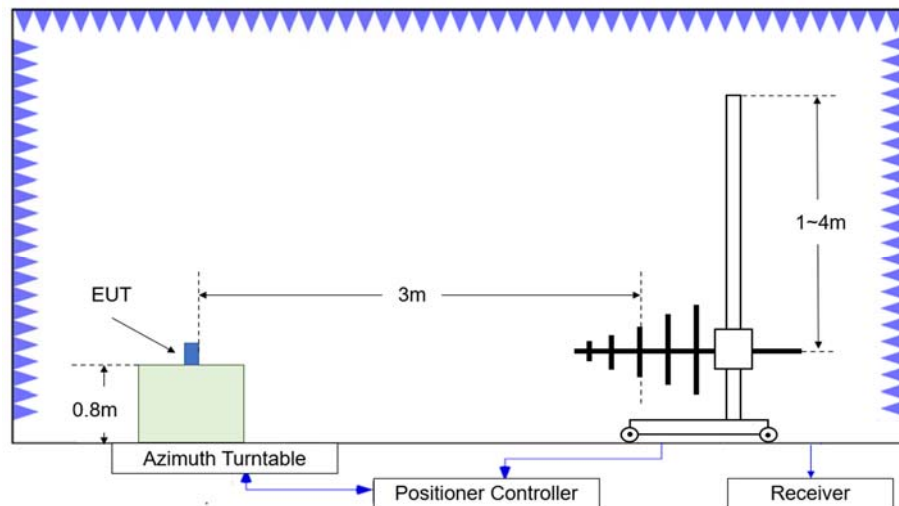
Frequency of emission (MHz)	Field strength (uV/m)	Field strength (dBuV/m)	Measurement distance (m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Note: When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor.

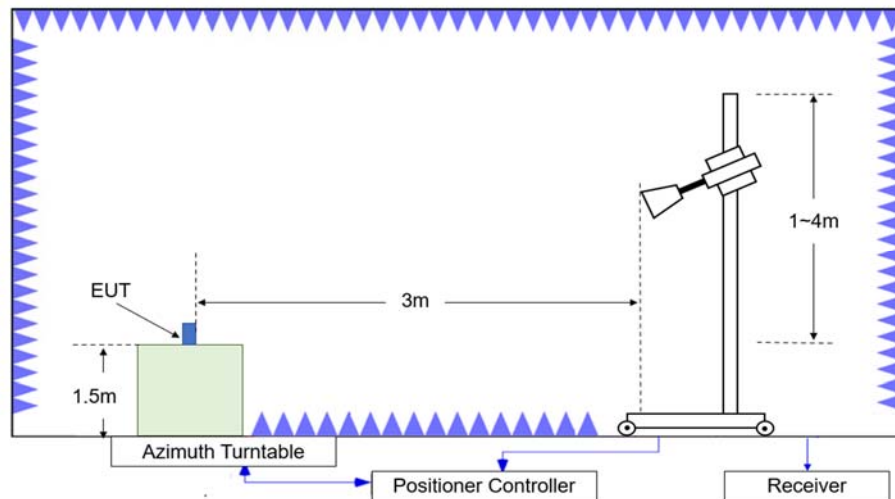
Test setup



Test Site Diagram (9kHz-30MHz)



Test Site Diagram (30MHz-1GHz)



Test Site Diagram (1GHz-40GHz)

Test Procedures

Radiated unwanted emissions from the EUT were measured according to ANSI C63.10.

Test setting

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100kHz/300kHz	5
1000-3000	1MHz/3MHz	15
3000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

Sample Calculation

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result= $P_{\text{Mea}}+A_{\text{Rpl}}= P_{\text{Mea}}+\text{Cable Loss}+\text{Antenna Factor}$

Test note

1. The EUT is operating at its maximum duty cycle and its maximum power control level.
2. Investigation has been done on all modes and modulations/data rates. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.
3. Spurious emissions for all channels were investigated and almost the same below 1GHz. According to FCC 47 CFR §15.31, emission levels are not report much lower than the limit by over 20dB
4. Measurement frequencies were performed from 9 kHz to the 10th harmonic of highest fundamental frequency or 40GHz, whichever is lower.
5. Both full RU and partial RU spurious emission was tested. And the results are basically noises with no suspicious emission. In this case, the measurement results of full RU were reported and represented worst cases.

Measurement Results:
AVERAGE Results:
802.11a, FULL RU

Channel 1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5924.450	46.1	-22.0	34.8	33.29	68.3	22.2	H
5924.900	46.1	-22.0	34.8	33.34	68.3	22.2	H
11909.600	37.1	-28.0	38.7	26.38	54.0	16.9	H
17788.800	39.7	-21.3	40.6	20.45	68.4	28.7	H
17864.800	39.8	-21.3	40.5	20.52	54.0	14.2	H
17888.800	40.2	-21.0	40.5	20.64	54.0	13.8	H

AVERAGE Results:
802.11a, FULL RU

Channel 105

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
12119.400	37.0	-27.1	39.0	25.15	54.0	17.0	V
12331.350	36.9	-27.3	38.9	25.23	54.0	17.1	V
12949.900	35.7	-27.6	38.8	24.49	68.3	32.6	H
15862.150	39.9	-23.3	40.9	22.35	54.0	14.1	H
17788.250	40.6	-21.3	40.6	21.36	54.0	13.4	H
17879.550	40.9	-21.0	40.5	21.35	54.0	13.1	H

AVERAGE Results:
802.11a, FULL RU

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11952.000	37.0	-27.6	38.8	25.80	54.0	17.0	H
12331.350	37.5	-27.3	38.9	25.90	54.0	16.5	V
13389.900	36.1	-27.1	38.4	24.76	54.0	17.9	H
15845.100	39.6	-23.7	40.8	22.37	54.0	14.4	H
17885.050	40.7	-21.0	40.5	21.19	54.0	13.3	V
17948.300	40.4	-20.9	40.5	20.78	54.0	13.6	V

AVERAGE Results:
802.11a, FULL RU

Channel 233

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
7125.027	49.9	-31.7	35.7	45.87	68.3	18.4	H
7125.687	49.1	-31.6	35.7	45.05	68.3	19.2	H
14229.750	37.3	-25.5	39.1	23.80	68.3	31.0	H
15981.500	39.8	-23.4	40.8	22.34	54.0	14.2	H
17882.850	40.9	-21.0	40.5	21.31	54.0	13.1	H
17950.500	40.7	-20.8	40.6	20.94	54.0	13.3	V

AVERAGE Results:
802.11ax-20M, FULL RU

Channel 1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5923.850	45.9	-22.0	34.8	33.12	54.0	8.1	V
5924.600	45.9	-22.0	34.8	33.09	54.0	8.1	V
11910.950	37.8	-28.0	38.7	27.02	54.0	16.2	H
15981.500	39.9	-23.4	40.8	22.45	54.0	14.1	V
17865.000	40.5	-21.3	40.5	21.29	54.0	13.5	H
17987.900	40.8	-21.0	40.6	21.23	54.0	13.2	V

AVERAGE Results:
802.11ax-20M, FULL RU

Channel 105

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
6453.050	46.8	-31.1	35.3	42.67	68.3	21.5	V
6491.300	46.3	-31.7	35.2	42.70	68.3	22.0	V
12949.900	35.7	-27.6	38.8	24.50	68.3	32.6	H
15862.150	39.9	-23.3	40.9	22.34	54.0	14.1	V
17886.700	41.0	-21.0	40.5	21.49	54.0	13.0	V
17989.550	40.8	-21.0	40.6	21.27	54.0	13.2	H

AVERAGE Results:
802.11ax-20M, FULL RU

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
12119.400	37.2	-27.1	39.0	25.41	68.3	31.1	V
12347.550	37.6	-27.2	38.9	25.91	68.3	30.7	V
13389.900	36.1	-27.1	38.4	24.76	54.0	17.9	V
16002.400	39.8	-23.4	40.8	22.39	54.0	14.2	V
17883.400	40.8	-21.0	40.5	21.25	54.0	13.2	H
17990.650	40.7	-21.0	40.6	21.17	54.0	13.3	H

AVERAGE Results:
802.11ax-20M, FULL RU

Channel 233

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
7125.011	65.5	-31.7	35.7	61.45	68.3	2.8	V
7125.110	64.4	-31.7	35.7	60.37	68.3	3.9	V
14229.750	37.2	-25.5	39.1	23.63	68.3	31.1	H
15989.200	40.0	-23.3	40.8	22.53	54.0	14.0	V
17892.200	40.5	-21.0	40.5	21.01	54.0	13.5	H
17948.850	40.1	-20.9	40.5	20.49	54.0	13.9	V

AVERAGE Results:
802.11ax-40M, FULL RU

Channel 3

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5921.300	46.7	-22.0	34.8	33.89	68.3	21.6	V
5923.850	47.0	-22.0	34.8	34.23	68.3	21.3	V
11930.200	37.1	-28.0	38.8	26.31	54.0	16.9	H
15862.150	39.8	-23.3	40.9	22.22	54.0	14.2	H
17894.950	40.6	-21.1	40.5	21.17	54.0	13.4	H
17986.800	40.5	-21.1	40.6	20.97	54.0	13.5	H

AVERAGE Results:
802.11ax-40M, FULL RU

Channel 107

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11961.900	38.4	-27.8	38.8	27.40	54.0	15.6	V
12333.150	38.5	-27.2	38.9	26.86	54.0	15.5	V
12970.250	35.7	-27.7	38.8	24.62	68.3	32.6	H
15861.050	39.8	-23.3	40.9	22.26	54.0	14.2	H
17882.850	40.9	-21.0	40.5	21.30	54.0	13.1	H
17986.250	40.6	-21.1	40.6	21.12	54.0	13.4	H

AVERAGE Results:
802.11ax-40M, FULL RU

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
12054.150	27.0	-27.7	39.0	15.76	54.0	27.0	H
12333.150	37.5	-27.2	38.9	25.84	54.0	16.5	H
13449.850	37.0	-26.4	38.4	25.07	68.3	31.3	V
15984.250	40.0	-23.4	40.8	22.57	54.0	14.0	H
17878.450	40.9	-21.0	40.5	21.37	54.0	13.1	V
17985.150	40.6	-21.1	40.6	21.12	54.0	13.4	V

AVERAGE Results:
802.11ax-40M, FULL RU

Channel 227

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
7126.250	51.3	-31.6	35.7	47.26	68.3	17.0	V
7128.800	50.2	-31.6	35.7	46.07	68.3	18.1	V
14169.800	37.2	-25.1	38.9	23.33	68.3	31.1	H
15984.250	40.2	-23.4	40.8	22.73	54.0	13.8	V
17883.950	41.0	-21.0	40.5	21.44	54.0	13.0	H
17987.350	40.7	-21.1	40.6	21.20	54.0	13.3	V

AVERAGE Results:
802.11ax-80M, FULL RU

Channel 7

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5921.450	46.4	-22.0	34.8	33.68	68.3	21.9	V
5924.150	46.6	-22.0	34.8	33.81	68.3	21.7	V
11969.800	36.9	-28.1	38.8	26.10	54.0	17.1	V
15982.600	40.1	-23.4	40.8	22.60	54.0	13.9	V
17886.700	41.0	-21.0	40.5	21.50	54.0	13.0	V
17956.550	40.6	-20.9	40.6	20.98	54.0	13.4	V

AVERAGE Results:
802.11ax-80M, FULL RU

Channel 103

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11956.950	38.4	-27.7	38.8	27.30	68.3	29.9	V
12347.550	38.6	-27.2	38.9	26.86	68.3	29.7	V
12930.100	35.6	-28.0	38.8	24.81	68.3	32.7	V
15984.800	40.2	-23.4	40.8	22.78	54.0	13.8	V
17890.000	41.3	-21.0	40.5	21.74	54.0	12.7	V
17949.950	40.9	-20.8	40.6	21.13	54.0	13.1	V

AVERAGE Results:
802.11ax-80M, FULL RU

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11959.200	36.9	-27.7	38.8	25.83	54.0	17.1	V
12334.050	37.6	-27.2	38.9	25.94	54.0	16.4	V
13410.250	36.1	-27.1	38.4	24.79	68.3	32.2	V
15983.150	40.0	-23.4	40.8	22.57	54.0	14.0	V
17882.850	41.0	-21.0	40.5	21.45	54.0	13.0	V
17986.250	40.7	-21.1	40.6	21.23	54.0	13.3	V

AVERAGE Results:
802.11ax-80M, FULL RU

Channel 215

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
7125.050	47.0	-31.7	35.7	42.93	68.3	21.3	V
7169.150	47.5	-30.8	35.7	42.58	68.3	20.8	V
14049.900	36.8	-25.8	38.7	23.81	68.3	31.5	V
15986.450	40.0	-23.3	40.8	22.53	54.0	14.0	V
17886.700	41.0	-21.0	40.5	21.44	54.0	13.0	V
17949.950	40.7	-20.8	40.6	21.02	54.0	13.3	V

PEAK Results:
802.11a-20M, FULL RU

Channel 1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5924.252	59.8	-22.0	34.8	47.00	88.3	28.5	V
5924.840	46.7	-22.0	34.8	33.89	88.3	41.6	V
11909.250	50.7	-28.0	38.7	39.98	74.0	23.3	H
17743.500	54.5	-21.7	40.5	35.60	74.0	19.5	H
17865.000	53.3	-21.3	40.5	34.10	74.0	20.7	H
17973.450	54.3	-21.1	40.6	34.79	74.0	19.7	H

PEAK Results:
802.11a-20M, FULL RU

Channel 105

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11764.800	51.2	-27.7	38.6	40.32	74.0	22.8	V
12349.350	51.8	-27.4	38.9	40.24	74.0	22.2	V
12950.100	47.9	-27.6	38.8	36.64	88.3	40.4	V
16080.750	54.2	-23.6	41.0	36.73	74.0	19.8	H
17829.650	54.8	-21.4	40.6	35.63	74.0	19.2	V
17951.400	55.0	-20.8	40.6	35.28	74.0	19.0	H

PEAK Results:
802.11a-20M, FULL RU

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10787.850	51.1	-27.2	39.0	39.36	74.0	22.9	H
12057.300	51.2	-27.2	38.9	39.51	74.0	22.8	V
13390.200	47.6	-27.1	38.4	36.32	74.0	26.4	V
15849.450	54.2	-23.6	40.8	36.98	74.0	19.8	H
17797.050	53.8	-21.4	40.6	34.62	74.0	20.2	H
17896.050	54.4	-21.1	40.5	34.99	74.0	19.6	V

PEAK Results:
802.11a-20M, FULL RU

Channel 233

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
7125.060	71.2	-31.7	35.7	67.13	88.3	17.1	V
7125.143	71.4	-31.7	35.7	67.35	88.3	16.9	V
14229.900	50.3	-25.5	39.1	36.79	88.3	38.0	V
15755.400	53.3	-23.5	40.7	36.02	74.0	20.7	V
17859.150	54.1	-21.3	40.5	34.80	74.0	19.9	V
17962.200	53.8	-21.0	40.6	34.26	74.0	20.2	H

PEAK Results:
802.11ax-20M, FULL RU

Channel 1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5922.614	58.1	-22.0	34.8	45.36	88.3	30.2	H
5923.622	58.0	-22.0	34.8	45.18	88.3	30.3	H
11910.150	49.3	-28.0	38.7	38.49	74.0	24.7	H
16038.900	53.8	-23.3	40.9	36.21	74.0	20.2	H
17803.350	53.9	-21.4	40.6	34.72	74.0	20.1	H
17865.000	52.4	-21.3	40.5	33.16	74.0	21.6	H

PEAK Results:
802.11ax-20M, FULL RU

Channel 105

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
6423.000	58.1	-31.6	35.2	54.53	88.3	30.2	H
6504.000	57.3	-31.7	35.2	53.75	88.3	31.0	V
12950.100	47.6	-27.6	38.8	36.34	88.3	40.7	V
15984.450	54.6	-23.4	40.8	37.18	74.0	19.4	V
17836.650	54.5	-21.3	40.6	35.30	74.0	19.5	H
17854.200	54.7	-21.3	40.5	35.45	74.0	19.3	H

PEAK Results:
802.11ax-20M, FULL RU

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
12118.500	51.1	-27.2	39.0	39.32	74.0	22.9	V
12354.300	51.3	-27.2	38.9	39.61	74.0	22.7	V
13390.200	48.8	-27.1	38.4	37.52	74.0	25.2	H
15661.350	53.9	-23.8	40.5	37.21	74.0	20.1	H
17879.400	53.9	-21.0	40.5	34.40	74.0	20.1	H
17960.850	54.4	-21.0	40.6	34.82	74.0	19.6	H

PEAK Results:
802.11ax-20M, FULL RU

Channel 233

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
7125.044	77.6	-31.7	35.7	73.54	88.3	10.7	H
7125.126	76.7	-31.7	35.7	72.67	88.3	11.6	H
14229.900	48.9	-25.5	39.1	35.36	88.3	39.4	H
15984.900	53.3	-23.4	40.8	35.80	74.0	20.7	V
17858.700	53.6	-21.3	40.5	34.33	74.0	20.4	V
17882.100	54.1	-21.0	40.5	34.52	74.0	19.9	V

PEAK Results:
802.11ax-40M, FULL RU

Channel 3

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5921.438	61.4	-22.0	34.8	48.62	88.3	26.9	H
5924.336	60.9	-22.0	34.8	48.13	88.3	27.4	H
11929.950	50.5	-28.0	38.8	39.66	74.0	23.5	V
15991.650	53.8	-23.3	40.8	36.37	74.0	20.2	H
17895.150	52.4	-21.1	40.5	32.94	74.0	21.6	V
17928.000	54.8	-21.6	40.5	35.83	74.0	19.2	H

PEAK Results:
802.11ax-40M, FULL RU

Channel 107

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11946.600	50.7	-27.7	38.8	39.55	74.0	23.3	V
12223.350	51.4	-27.7	38.8	40.29	74.0	22.6	H
12969.900	47.5	-27.7	38.8	36.46	88.3	40.8	V
15855.750	53.5	-23.5	40.9	36.11	74.0	20.5	V
17796.600	54.1	-21.4	40.6	34.86	74.0	19.9	V
17899.200	54.2	-21.1	40.5	34.88	74.0	19.8	V

PEAK Results:
802.11ax-40M, FULL RU

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
12024.000	51.7	-27.7	38.9	40.45	74.0	22.3	H
12116.700	51.5	-27.3	39.0	39.86	74.0	22.5	V
13450.050	48.8	-26.4	38.4	36.77	88.3	39.5	V
15868.350	53.6	-23.2	40.9	35.94	74.0	20.4	V
17785.800	54.5	-21.3	40.6	35.24	74.0	19.5	V
17849.250	54.5	-21.2	40.6	35.18	74.0	19.5	H

PEAK Results:
802.11ax-40M, FULL RU

Channel 227

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
7128.509	68.1	-31.6	35.7	63.94	88.3	20.2	V
7128.723	67.6	-31.6	35.7	63.45	88.3	20.7	H
14170.050	49.5	-25.1	38.9	35.68	88.3	38.8	H
15997.050	53.3	-23.3	40.8	35.87	74.0	20.7	V
17787.150	54.6	-21.3	40.6	35.34	74.0	19.4	V
17892.900	54.6	-21.0	40.5	35.17	74.0	19.4	V

PEAK Results:
802.11ax-80M, FULL RU

Channel 7

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5886.886	59.1	-21.9	34.8	46.22	88.3	29.2	V
5924.476	59.2	-22.0	34.8	46.42	88.3	29.1	V
11970.000	49.3	-28.1	38.8	38.50	74.0	24.7	V
15842.700	53.9	-23.7	40.8	36.75	74.0	20.1	V
17947.350	54.9	-21.0	40.5	35.35	74.0	19.1	H
17955.000	53.2	-20.9	40.6	33.56	74.0	20.8	H

PEAK Results:
802.11ax-80M, FULL RU

Channel 103

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11951.100	52.0	-27.6	38.8	40.78	74.0	22.0	V
12418.200	51.5	-27.6	38.8	40.28	74.0	22.5	V
12929.850	48.2	-28.0	38.8	37.35	88.3	40.1	H
15969.150	53.6	-23.3	40.8	36.11	74.0	20.4	V
17784.450	54.2	-21.3	40.6	34.93	74.0	19.8	V
17940.600	54.4	-21.4	40.5	35.27	74.0	19.6	H

PEAK Results:
802.11ax-80M, FULL RU

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
12117.600	51.5	-27.2	39.0	39.76	74.0	22.5	V
12352.950	51.5	-27.2	38.9	39.76	74.0	22.5	V
13410.000	48.1	-27.1	38.4	36.80	88.3	40.2	H
15869.250	53.7	-23.1	40.9	36.00	74.0	20.3	V
17800.650	55.0	-21.4	40.6	35.77	74.0	19.0	V
17892.450	55.0	-21.0	40.5	35.50	74.0	19.0	H

PEAK Results:**802.11ax-80M, FULL RU**

Channel 215

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
7126.001	59.1	-31.6	35.7	54.98	88.3	29.2	V
7166.574	59.7	-30.9	35.7	54.90	88.3	28.6	V
14049.900	48.8	-25.8	38.7	35.76	88.3	39.5	H
16005.150	54.2	-23.4	40.8	36.80	74.0	19.8	V
17800.200	55.8	-21.4	40.6	36.54	74.0	18.2	V
17896.050	54.6	-21.1	40.5	35.23	74.0	19.4	H

Conclusion: PASS**Note:**

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result= $P_{Mea}+A_{Rpl}= P_{Mea}+Cable\ Loss+Antenna\ Factor$

Note: The measurement results showed here are worst cases

A.9. Band Edges Compliance

A9.1 Band Edges - Radiated

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407	-27 dBm/MHz

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)	Measurement distance(m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

The measurement is made according to ANSI C63.10-2013 and KDB 789033

Measurement Result for full RU:

Mode	Channel	Test Results	Conclusion
802.11a 20M	CH1	Fig.1	P
	CH233	Fig.2	P
802.11ax 20M	CH1	Fig.3	P
	CH233	Fig.4	P
802.11ax 40M	CH3	Fig.5	P
	CH227	Fig.6	P
802.11ax 80M	CH7	Fig.7	P
	CH215	Fig.8	P

Measurement Result for Partial RU:

Mode	Channel	RU size and index	Test Results	Conclusion
802.11ax 20M	CH1	106RU-index53	Fig.9	P
	CH233	106RU-index54	Fig.10	P
802.11ax 40M	CH3	242RU-index61	Fig.11	P
	CH227	242RU-index62	Fig.12	P
802.11ax 80M	CH7	242RU-index61	Fig.13	P
	CH215	242RU-index62	Fig.14	P

Note1: All partial RU and full RU have been tested, in spurious domain there are basically noises with suspicious emission, thus only the full RU results were reported.

Note2: All SISO and MIMO emissions have been checked, only the worst cases were reported.

Conclusion: PASS

Test graphs as below:

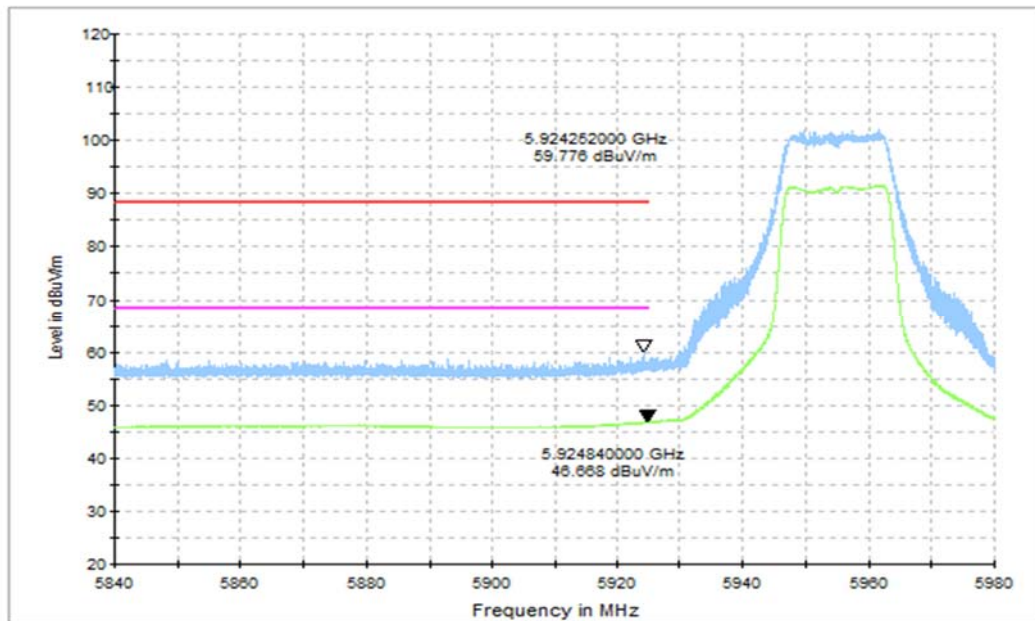


Fig.1 Band Edges (802.11a 20M Ch1 MIMO)

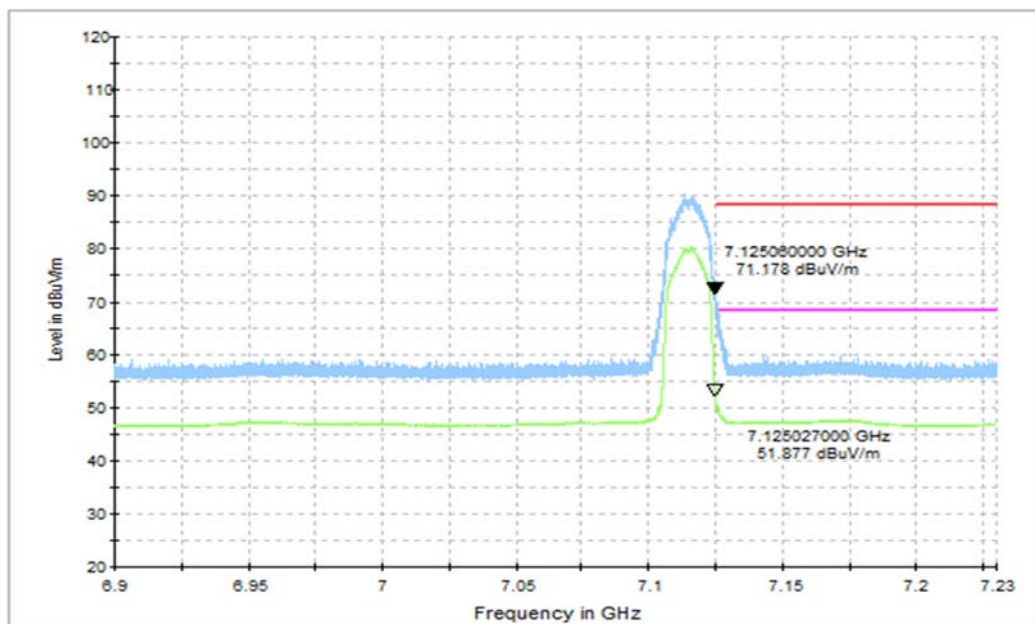


Fig.2 Band Edges (802.11a 20M Ch233 MIMO)

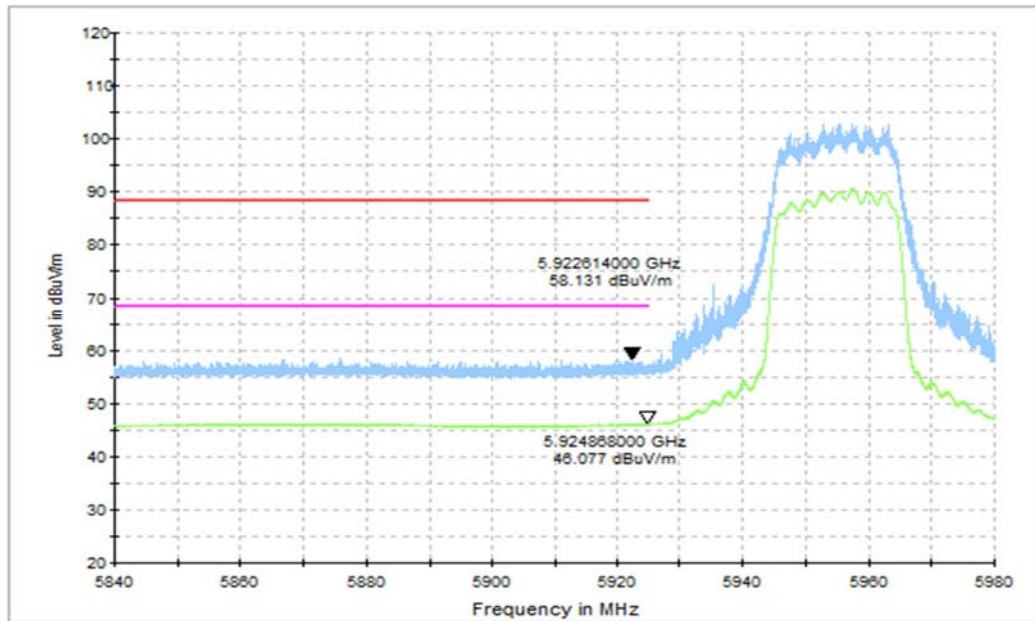


Fig.3 Band Edges (802.11ax 20M Ch1 full RU MIMO)

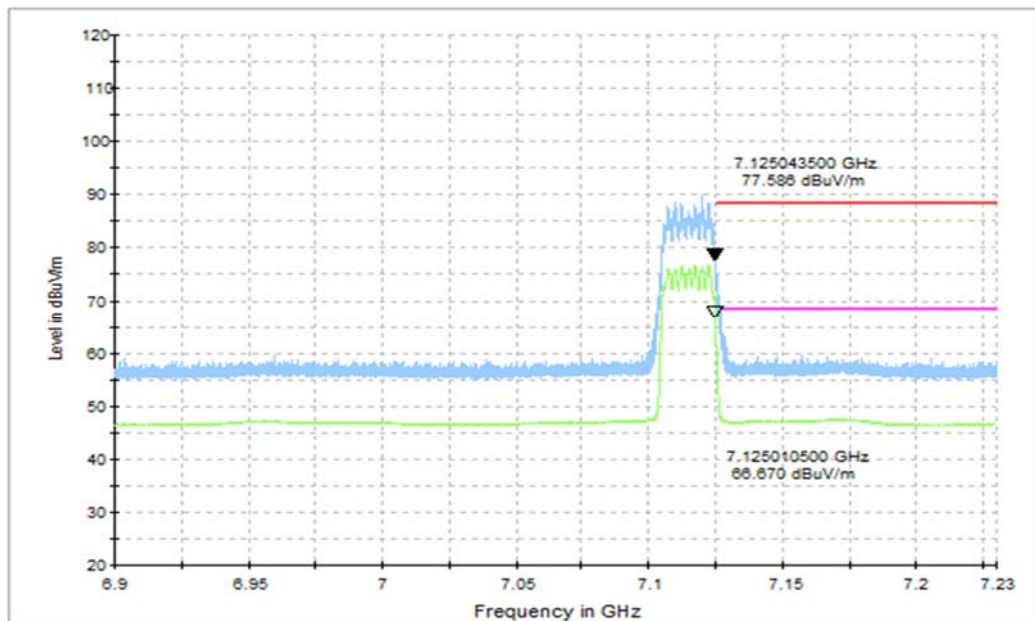


Fig.4 Band Edges (802.11ax 20M Ch233 full RU MIMO)

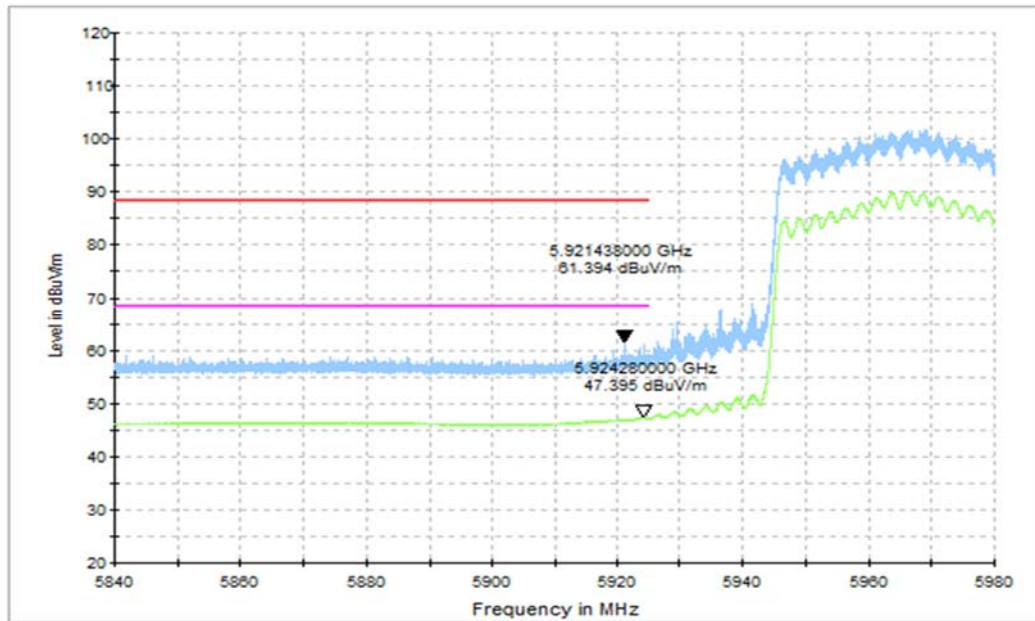


Fig.5 Band Edges (802.11ax 40M Ch3 full RU MIMO)

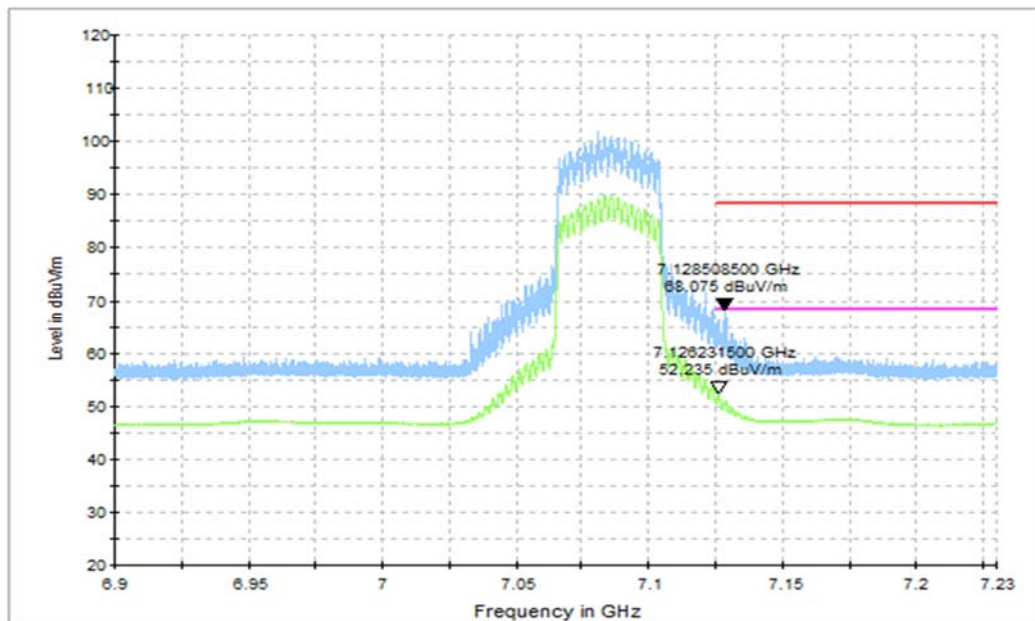


Fig.6 Band Edges (802.11ax 40M Ch227 full RU MIMO)

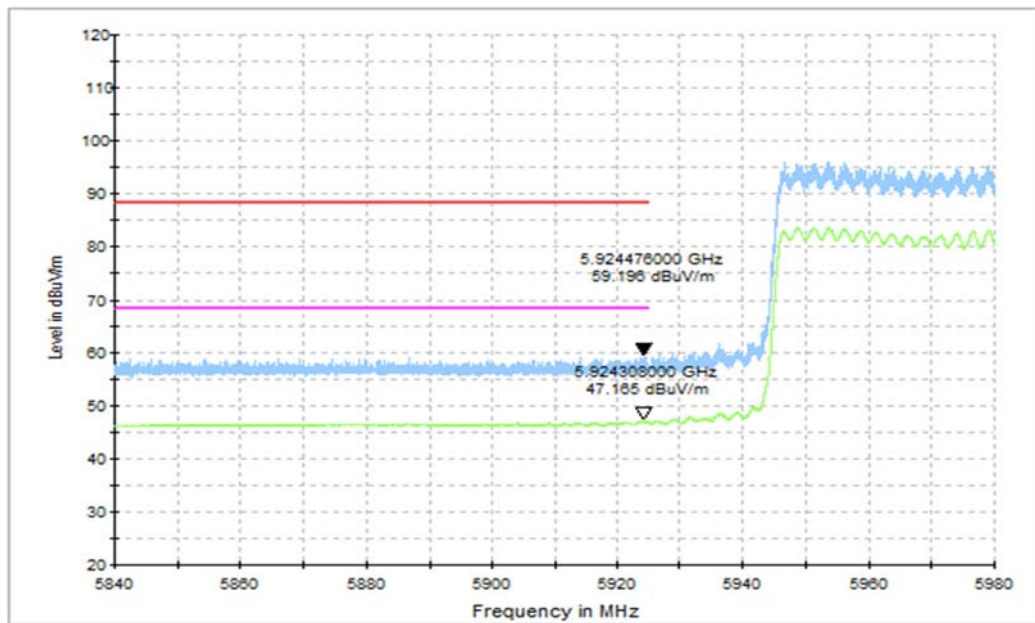


Fig.7 Band Edges (802.11ax 80M Ch7 full RU MIMO)

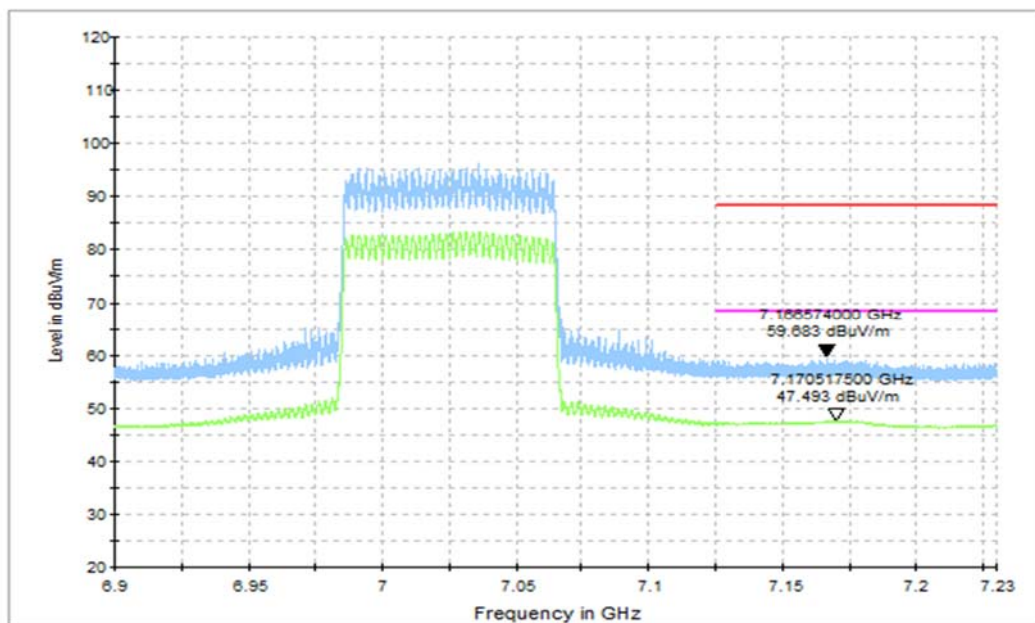


Fig.8 Band Edges (802.11ax 80M Ch215 full RU MIMO)

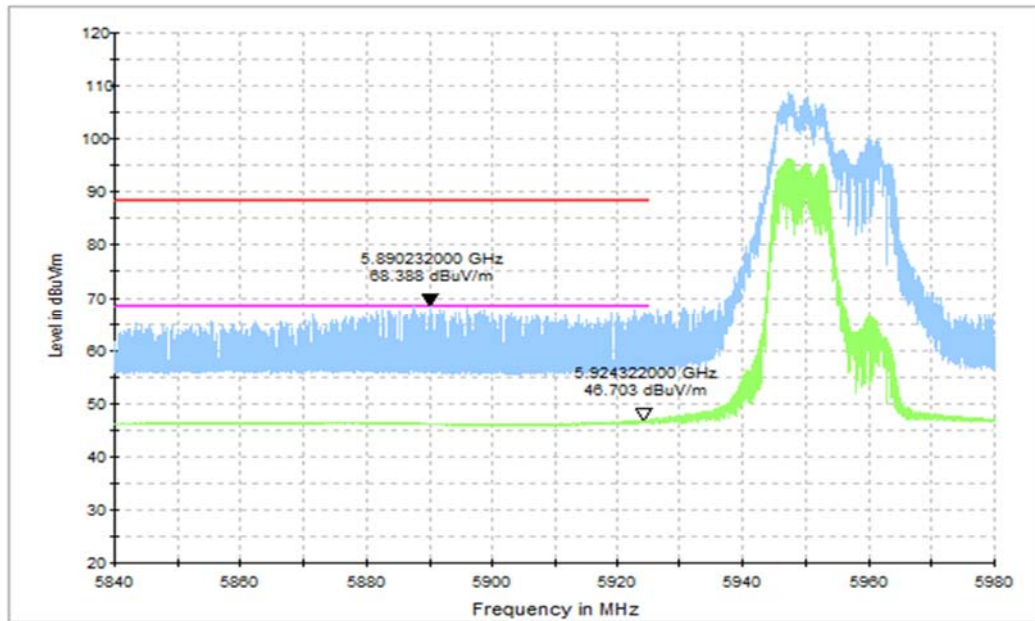


Fig.9 Band Edges (802.11ax 20M Ch1 partial RU MIMO)

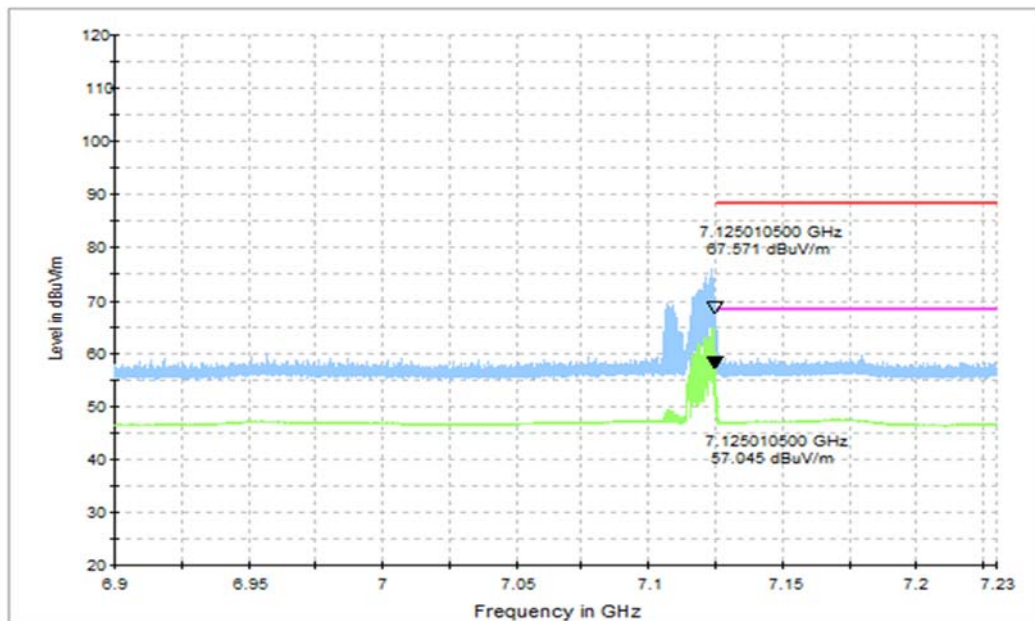


Fig.10 Band Edges (802.11ax 20M Ch233 partial RU MIMO)

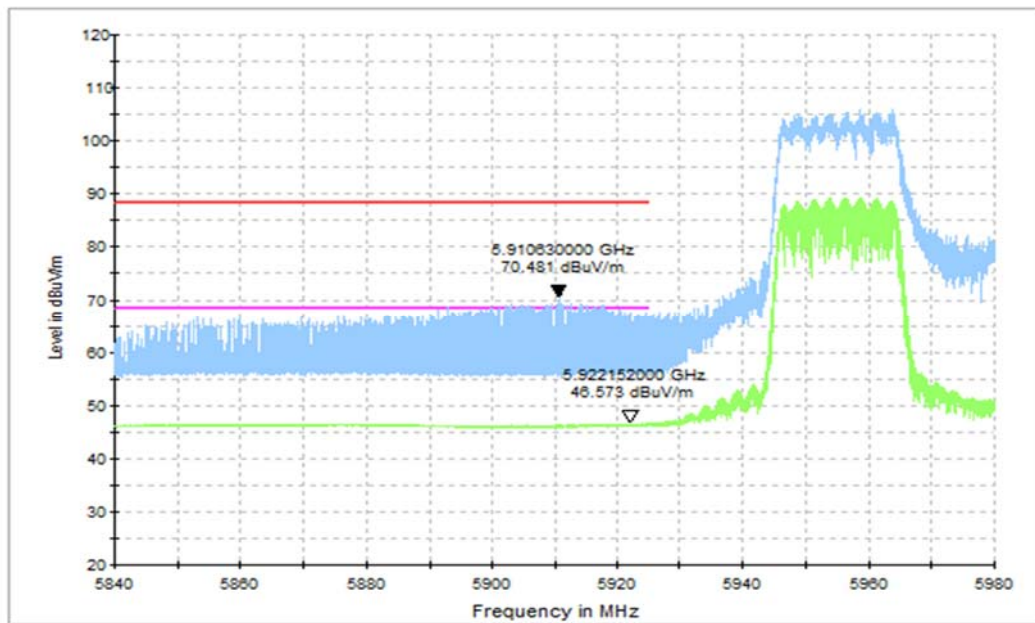


Fig.11 Band Edges (802.11ax 40M Ch3 partial RU MIMO)

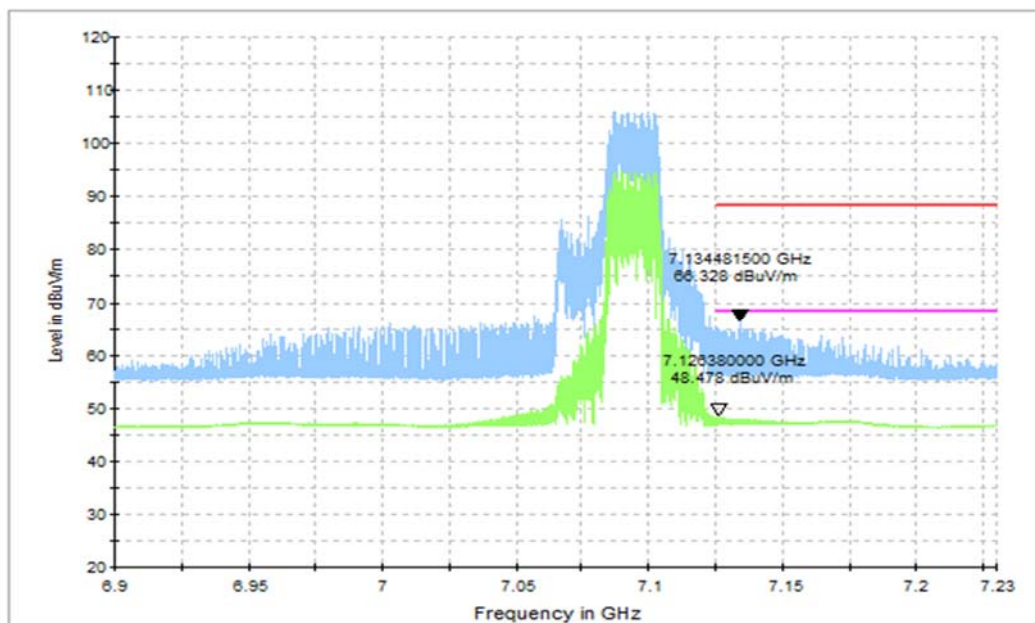


Fig.12 Band Edges (802.11ax 40M Ch227 partial RU MIMO)

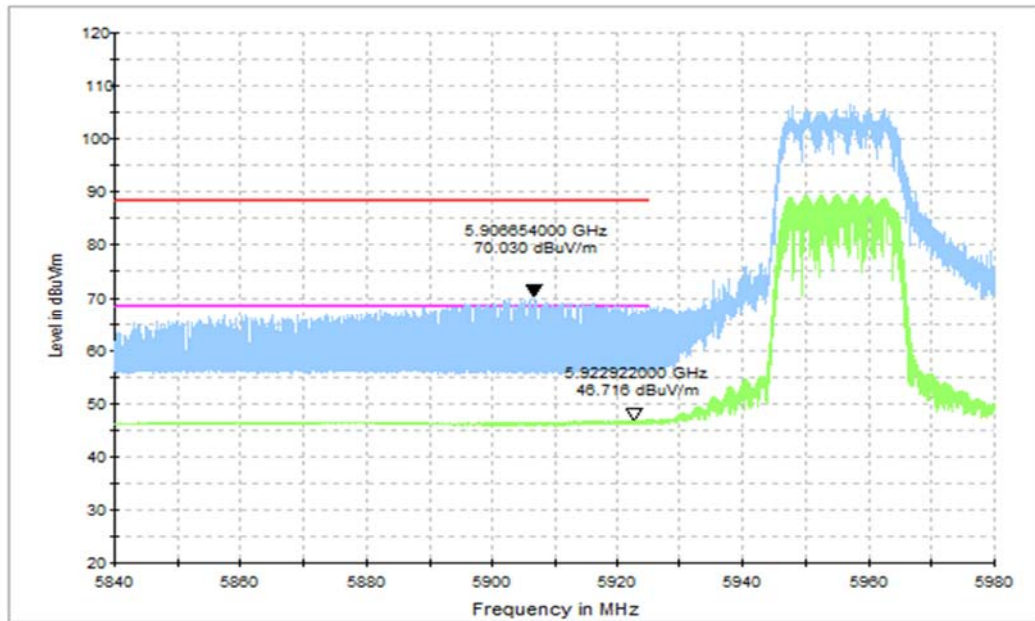


Fig.13 Band Edges (802.11ax 80M Ch7 partial RU MIMO)

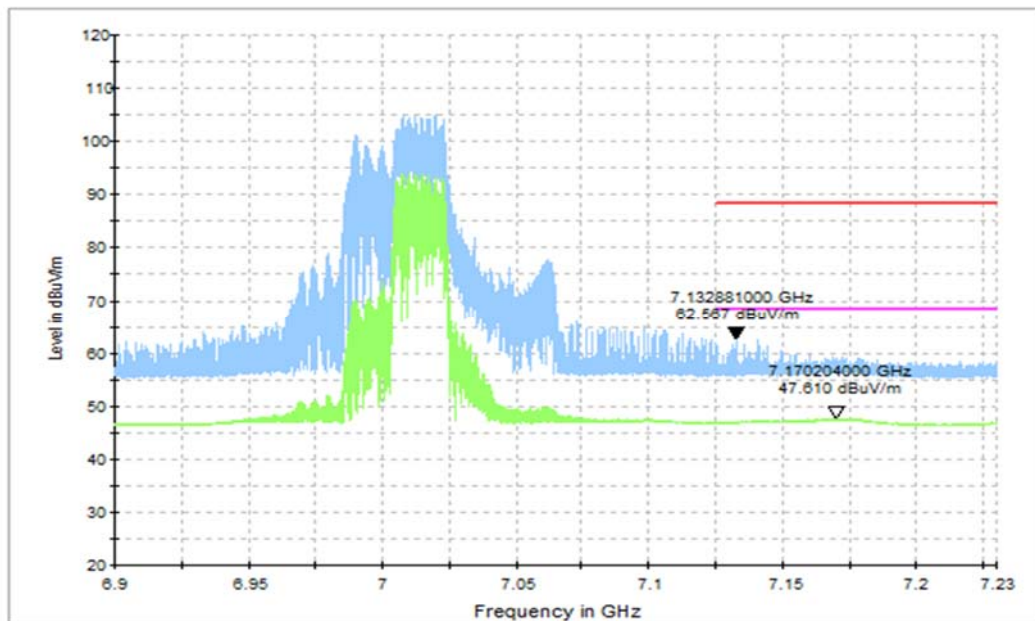


Fig.14 Band Edges (802.11ax 80M Ch215 partial RU MIMO)

A.10. AC Powerline Conducted Emission (150kHz- 30MHz)

Method of Measurement: See ANSI C63.10-2013-clause 6.2

- 1 The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.
- 2 If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.
- 3 The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.
- 4 If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.
- 5 If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.³⁶ Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger QC16US		
		802.11ax	Idle	
0.15 to 0.5	66 to 56	Fig.15	Fig.16	P
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dBμV)	Result (dBμV)		Conclusion
		With charger QC16US		
		802.11ax	Idle	
0.15 to 0.5	67 56 to 46	Fig.15	Fig.16	P
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger QC16EU		
		802.11ax	Idle	
0.15 to 0.5	68 to 56	Fig.17	/	P
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dBμV)	Result (dBμV)		Conclusion
		With charger QC16EU		
		802.11ax	Idle	
0.15 to 0.5	69 56 to 46	Fig.17	/	P
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Conclusion: PASS
Test graphs as below:

Traffic:

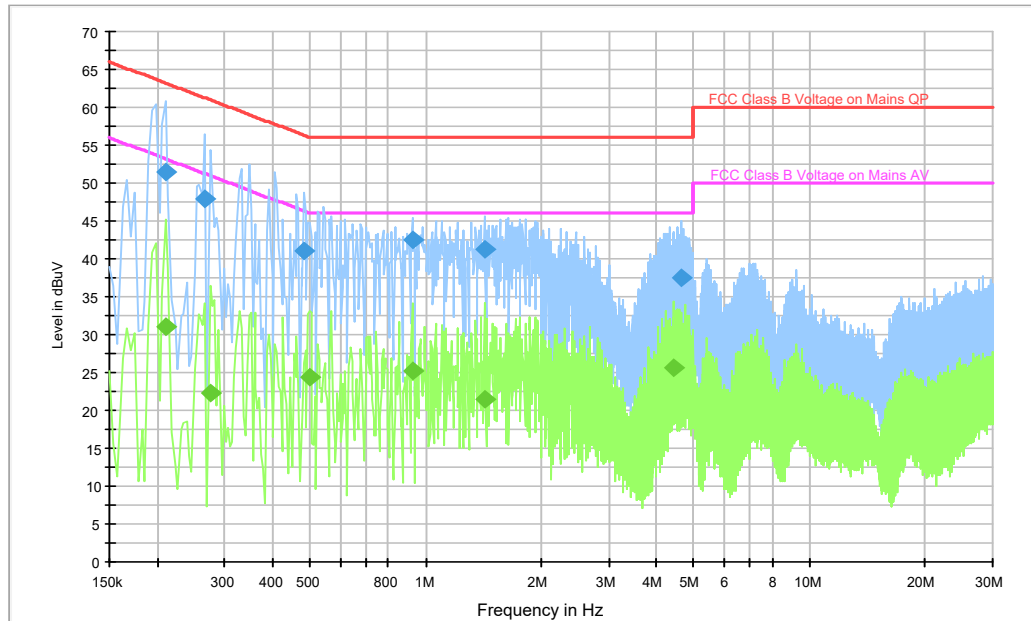


Fig.15 Conducted Emission (802.11ax, Ch1, TX, With charger QC16US)

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.210000	51.5	L1	19.8	11.7	63.2
0.266000	48.0	L1	19.9	13.2	61.2
0.482000	41.0	L1	20.0	15.3	56.3
0.922000	42.6	L1	19.9	13.4	56.0
1.422000	41.2	L1	19.9	14.8	56.0
4.642000	37.5	L1	19.8	18.5	56.0

Final Result 2

Frequency (MHz)	Average (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.210000	31.1	L1	19.8	22.1	53.2
0.274000	22.3	N	19.8	28.7	51.0
0.498000	24.5	N	19.9	21.6	46.0
0.922000	25.1	L1	19.9	20.9	46.0
1.426000	21.5	N	19.7	24.5	46.0
4.446000	25.6	L1	19.8	20.4	46.0

Note2: The measurement results showed here are worst cases of the combinations of different cables and chargers

Idle:

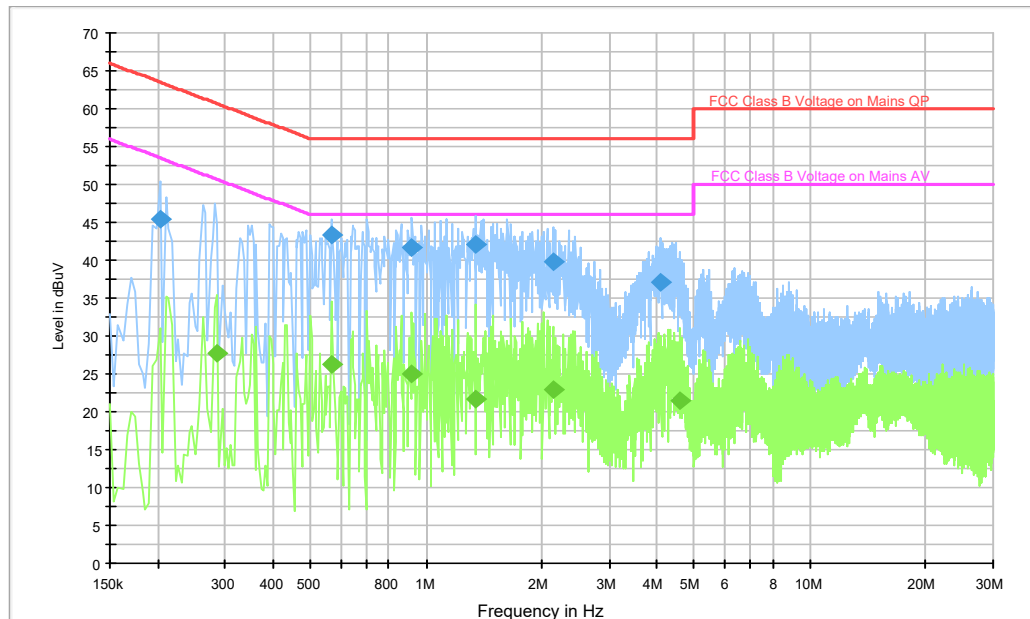


Fig.16 Conducted Emission(802.11ax, CH1 IDLE, With charger QC16US)

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.202000	45.5	L1	19.8	18.0	63.5
0.566000	43.4	L1	20.0	12.6	56.0
0.918000	41.7	L1	19.9	14.3	56.0
1.346000	42.1	L1	19.9	13.9	56.0
2.134000	39.9	L1	19.8	16.1	56.0
4.070000	37.0	L1	19.8	19.0	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.286000	27.7	N	19.8	23.0	50.6
0.566000	26.3	L1	20.0	19.7	46.0
0.918000	25.0	L1	19.9	21.0	46.0
1.346000	21.6	L1	19.9	24.4	46.0
2.134000	22.9	L1	19.8	23.1	46.0
4.586000	21.5	L1	19.8	24.5	46.0

Note2: The measurement results showed here are worst cases of the combinations of different cables and chargers

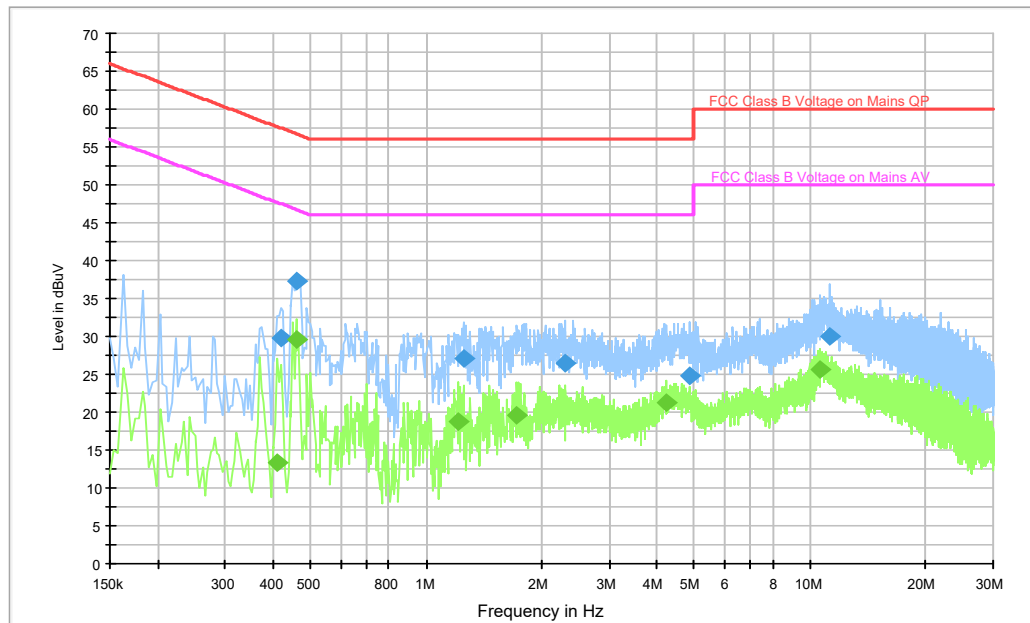


Fig.17 Conducted Emission (802.11ax, Ch1, TX, With charger QC16EU)

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.418000	29.7	L1	20.0	27.8	57.5
0.462000	37.2	L1	20.0	19.5	56.7
1.250000	27.1	L1	19.9	28.9	56.0
2.302000	26.4	L1	19.8	29.6	56.0
4.850000	24.8	L1	19.8	31.2	56.0
11.254000	29.9	L1	20.0	30.1	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.410000	13.4	L1	20.0	34.2	47.6
0.458000	29.7	L1	20.0	17.1	46.7
1.210000	18.8	L1	19.9	27.2	46.0
1.726000	19.6	L1	19.8	26.4	46.0
4.214000	21.2	L1	19.8	24.8	46.0
10.574000	25.6	L1	19.9	24.4	50.0

Note2: The measurement results showed here are worst cases of the combinations of different cables and chargers

A.11. Antenna Requirement

The antenna of the device is permanently attached. There are no provisions for connection to an external antenna.

The unit complies with the requirement of FCC Part 15.203.

ANNEX B: EUT parameters

Disclaimer: The antenna gain and worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX C: Accreditation Certificate



Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 23rd day of July 2024.



Mr. Trace McInturf, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2026

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

*** END OF REPORT BODY ***