15:22:08 20.12.2024

11AC80SISO_5290

15:23:03 20.12.2024

11AC80SISO_5530

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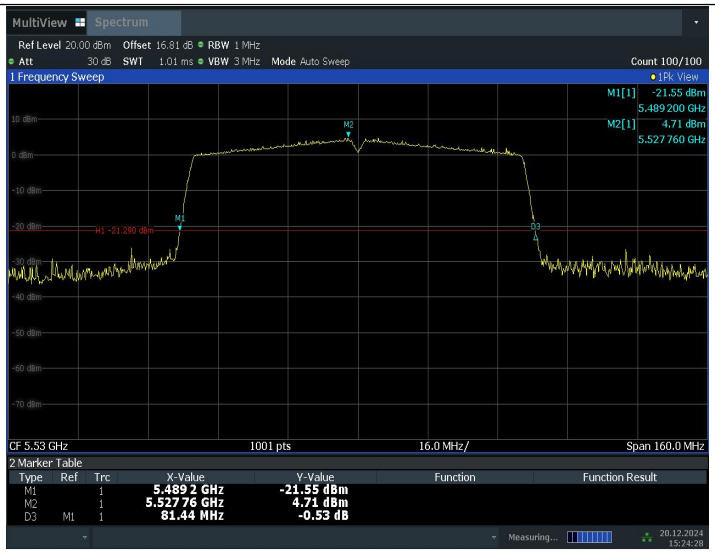

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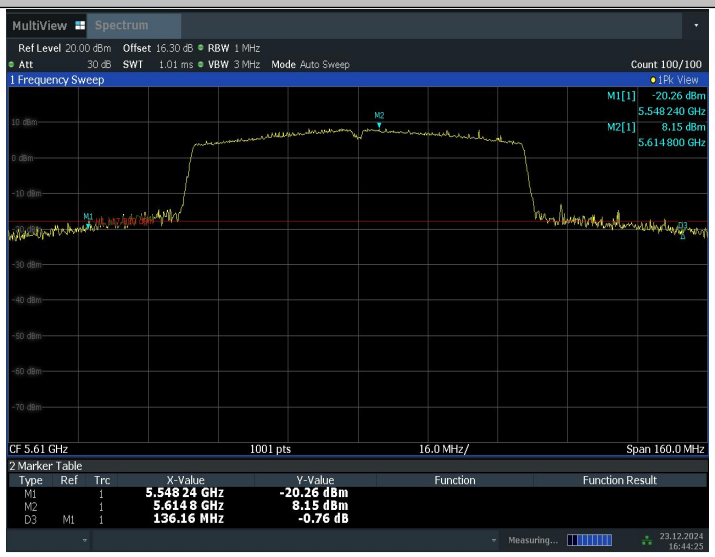

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11AC80SISO_5690

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15:27:14 20.12.2024

Conclusion: PASS

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A.5. Radiated Unwanted Emission

A.5.1 Limits

Unwanted Emissions in the unrestricted bands shall not exceed the limits that shown in 15.407:

Standard	Limit
FCC 47 CFR Part 15.407	(1) 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. (2) 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. (3) 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.

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))

Frequency (MHz)	Field strength(μV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

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 (as defined in KDB 789033 II.G.2.d).

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A.5.2 Test setup

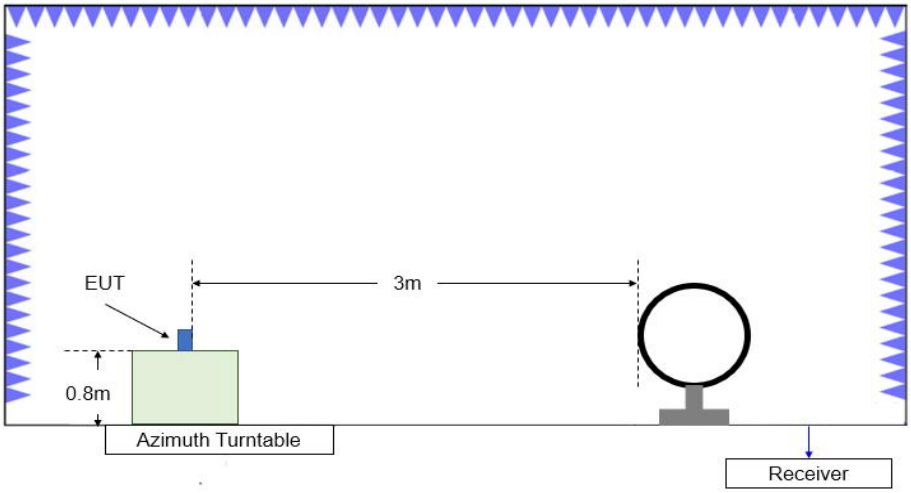

Figure A.5.1. Test Site Diagram (9kHz-30MHz)

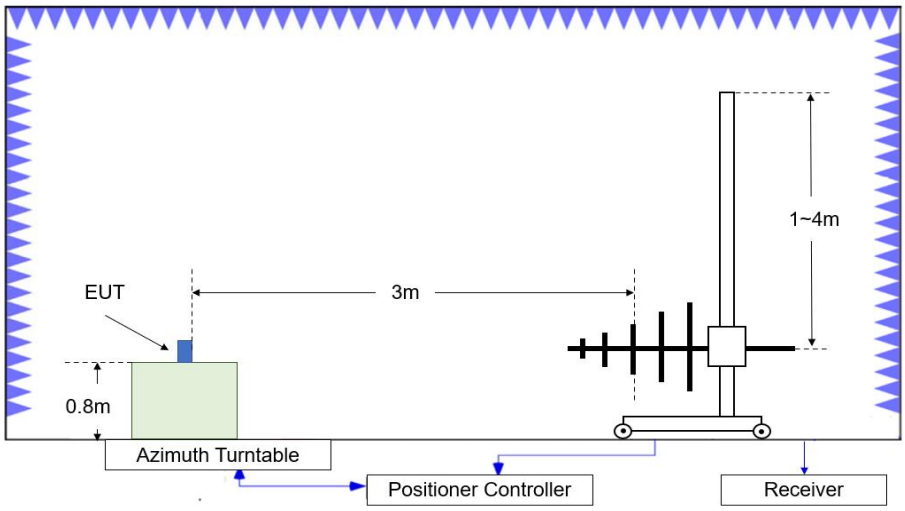

Figure A.5.2. Test Site Diagram (30MHz-1GHz)

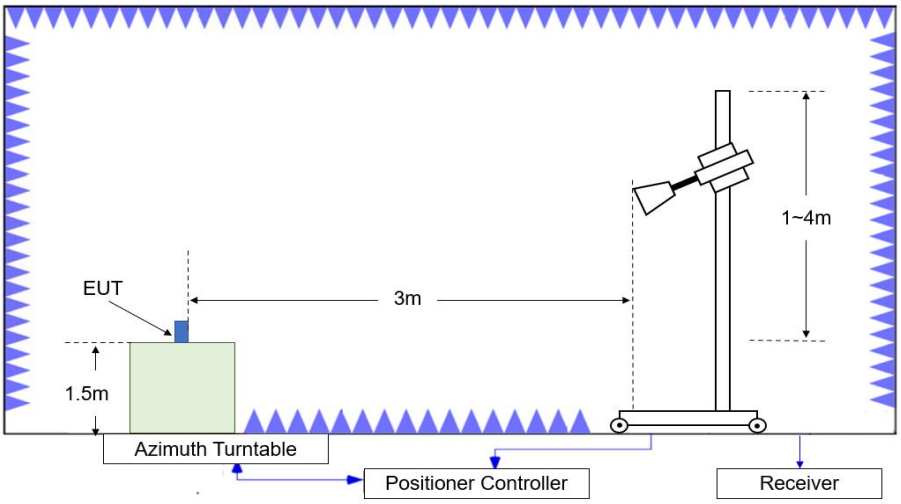

Figure A.5.3. Test Site Diagram (1GHz-40GHz)

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A.5.3 Test Procedures

Radiated unwanted emissions from the EUT were measured according to ANSI C63.10and KDB 789033.

Test setting

Frequency of emission (MHz)	RBW/VBW
30-1000	100kHz/300kHz
1000-4000	1MHz/3MHz
4000-18000	1MHz/3MHz
18000-26500	1MHz/3MHz
26500-40000	1MHz/3MHz

A.5.4 Calculation

1. The measurement results reported below is calculated by:

Measurement Results (dBμV/m) = $P_{measurement}$ (dBμV) + Cable Loss(dB) + Antenna Factor (dB/m)

Where: $P_{measurement}$ is the field strength recorded from the instrument

2. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

E=EIRP- 20log (*D*) +104.77

Where:

E is the field strength in dBμV/m

D is the measurement distance in meters

EIRP is the equivalent isotropically radiated power in dBm

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 40GHz.

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A.5.5 Measurement Results:

Average Results:

802.11a

Channel 36

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)
5148.300	45.7	-23.1	34.0	34.85	54.0	8.3	V
5149.750	45.8	-23.2	34.0	34.98	54.0	8.2	V
11957.600	36.4	-27.7	38.8	25.28	54.0	17.6	H
15540.000	37.7	-24.4	40.4	21.66	54.0	16.3	V
17947.600	39.7	-21.0	40.5	20.16	54.0	14.3	V
17990.000	39.7	-21.0	40.6	20.08	54.0	14.3	V

Channel 64

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)
5350.250	46.3	-23.1	34.1	35.26	54.0	7.7	V
5351.950	46.0	-23.0	34.1	34.90	54.0	8.0	V
10640.000	34.6	-29.1	37.6	26.13	54.0	19.4	V
15960.000	38.0	-23.4	40.8	20.59	54.0	16.0	V
17884.800	40.2	-21.0	40.5	20.60	54.0	13.8	V
17953.200	40.2	-20.9	40.6	20.46	54.0	13.8	H

Channel 100

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)
5458.450	45.4	-22.5	34.5	33.45	54.0	8.6	V
5459.900	45.5	-22.5	34.5	33.54	54.0	8.5	V
11000.000	35.3	-28.9	37.9	26.38	54.0	18.7	V
15857.600	38.2	-23.4	40.9	20.77	54.0	15.8	H
17890.400	40.1	-21.0	40.5	20.56	54.0	13.9	V
17952.400	40.2	-20.9	40.6	20.54	54.0	13.8	V

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Channel 116

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)
5419.050	45.0	-22.5	34.4	33.16	54.0	9.0	V
5431.350	45.1	-22.5	34.4	33.18	54.0	8.9	V
11160.000	35.5	-28.6	37.9	26.25	54.0	18.5	H
16176.400	39.2	-22.7	40.9	20.89	54.0	14.8	H
17890.400	40.4	-21.0	40.5	20.85	54.0	13.6	H
17950.800	40.5	-20.8	40.6	20.80	54.0	13.5	H

Channel 140

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)
5452.850	45.4	-22.6	34.5	33.46	54.0	8.6	V
5458.700	45.4	-22.5	34.5	33.43	54.0	8.6	V
11400.000	35.7	-28.4	38.0	26.09	54.0	18.3	H
16170.400	38.9	-22.5	41.0	20.45	54.0	15.1	H
17885.600	40.4	-21.0	40.5	20.90	54.0	13.6	V
17950.800	40.5	-20.8	40.6	20.81	54.0	13.5	V

Channel 144

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)
5459.200	45.1	-22.5	34.5	33.15	54.0	8.9	V
5459.850	45.1	-22.5	34.5	33.11	54.0	8.9	V
11440.000	33.8	-27.9	38.0	23.66	54.0	20.2	H
16164.000	38.2	-22.7	41.0	19.92	54.0	15.8	H
17885.200	38.7	-21.0	40.5	19.13	54.0	15.3	V
17952.000	38.7	-20.9	40.6	18.95	54.0	15.4	H

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802.11n-HT20

Channel 36

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)
5120.750	45.6	-22.4	34.0	33.93	54.0	8.4	V
5150.000	45.6	-23.2	34.0	34.78	54.0	8.4	V
11957.200	36.4	-27.7	38.8	25.31	54.0	17.6	V
15540.000	38.5	-24.4	40.4	22.43	54.0	15.5	H
17885.200	39.5	-21.0	40.5	19.93	54.0	14.5	H
17950.400	39.3	-20.8	40.6	19.61	54.0	14.7	V

Channel 64

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)
5350.000	47.2	-23.1	34.1	36.24	54.0	6.8	V
5351.950	46.9	-23.0	34.1	35.87	54.0	7.1	V
10640.000	34.5	-29.1	37.6	26.02	54.0	19.5	H
15960.000	39.3	-23.4	40.8	21.86	54.0	14.7	H
17883.200	39.3	-21.0	40.5	19.78	54.0	14.7	V
17949.200	39.3	-20.9	40.5	19.64	54.0	14.7	H

Channel 100

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)
5459.650	45.6	-22.5	34.5	33.66	54.0	8.4	V
5459.900	45.7	-22.5	34.5	33.71	54.0	8.3	V
11000.000	35.2	-28.9	37.9	26.28	54.0	18.8	V
16002.400	39.4	-23.4	40.8	22.02	54.0	14.6	H
17886.000	39.3	-21.0	40.5	19.71	54.0	14.7	V
17950.400	39.2	-20.8	40.6	19.47	54.0	14.8	V

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Channel 140

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)
5457.200	45.3	-22.5	34.5	33.32	54.0	8.7	V
5459.300	45.3	-22.5	34.5	33.36	54.0	8.7	V
11400.000	35.0	-28.4	38.0	25.45	54.0	19.0	H
16002.400	39.2	-23.4	40.8	21.76	54.0	14.8	H
17888.000	39.8	-21.0	40.5	20.22	54.0	14.2	H
17954.800	39.8	-20.9	40.6	20.13	54.0	14.2	V

Channel 144

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)
5459.200	45.1	-22.5	34.5	33.15	54.0	8.9	V
5459.500	45.2	-22.5	34.5	33.19	54.0	8.8	V
11440.000	33.7	-27.9	38.0	23.56	54.0	20.3	H
16172.400	38.2	-22.6	41.0	19.80	54.0	15.8	V
17791.600	38.1	-21.3	40.6	18.82	54.0	15.9	V
17890.000	38.6	-21.0	40.5	19.08	54.0	15.4	H

802.11n-HT40

Channel 38

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)
5149.750	46.9	-23.2	34.0	36.01	54.0	7.1	V
5149.900	46.9	-23.2	34.0	36.05	54.0	7.1	V
11958.400	36.8	-27.7	38.8	25.67	54.0	17.2	V
15570.000	38.3	-24.3	40.4	22.16	54.0	15.7	H
17884.400	39.5	-21.0	40.5	20.00	54.0	14.5	V
17950.400	39.5	-20.8	40.6	19.77	54.0	14.5	H

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Channel 62

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)
5350.200	46.6	-23.1	34.1	35.59	54.0	7.4	V
5351.000	46.5	-23.1	34.1	35.50	54.0	7.5	V
10620.000	34.7	-29.2	37.6	26.33	54.0	19.3	H
15930.000	39.2	-23.9	40.9	22.24	54.0	14.8	H
17790.800	39.4	-21.3	40.6	20.13	54.0	14.6	H
17892.800	39.6	-21.0	40.5	20.12	54.0	14.4	V

Channel 102

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)
5459.700	45.3	-22.5	34.5	33.31	54.0	8.7	V
5459.900	45.4	-22.5	34.5	33.37	54.0	8.6	V
11020.000	35.1	-28.9	37.9	26.16	54.0	18.9	H
16104.000	39.3	-23.5	41.1	21.69	54.0	14.7	V
17887.200	39.4	-21.0	40.5	19.89	54.0	14.6	V
17790.400	39.2	-21.3	40.6	19.95	54.0	14.8	H

Channel 118

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)
5413.450	45.0	-22.5	34.4	33.11	54.0	9.0	V
5459.950	45.2	-22.5	34.5	33.23	54.0	8.8	V
11180.000	35.5	-28.7	38.0	26.28	54.0	18.5	V
16003.200	39.7	-23.4	40.8	22.26	54.0	14.3	V
17884.000	39.3	-21.0	40.5	19.78	54.0	14.7	V
17790.400	39.2	-21.3	40.6	19.93	54.0	14.8	H

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Channel 134

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)
5458.900	45.1	-22.5	34.5	33.08	54.0	8.9	V
5459.700	45.1	-22.5	34.5	33.09	54.0	8.9	V
11340.000	35.4	-28.1	37.9	25.60	54.0	18.6	V
15862.800	39.3	-23.3	40.9	21.71	54.0	14.7	V
17883.600	40.1	-21.0	40.5	20.55	54.0	13.9	V
17949.200	40.1	-20.9	40.5	20.45	54.0	13.9	H

Channel 142

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)
5457.600	45.1	-22.5	34.5	33.15	54.0	8.9	V
5459.550	45.0	-22.5	34.5	33.07	54.0	9.0	V
11420.000	33.3	-28.5	38.0	23.86	54.0	20.7	H
16168.000	38.2	-22.6	41.0	19.78	54.0	15.8	V
17889.200	38.6	-21.0	40.5	19.11	54.0	15.4	V
17948.400	38.5	-20.9	40.5	18.84	54.0	15.5	H

802.11ac-HT20

Channel 36

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)
5149.150	45.7	-23.2	34.0	34.89	54.0	8.3	V
5149.750	45.8	-23.2	34.0	34.96	54.0	8.2	V
11961.600	36.9	-27.8	38.8	25.85	54.0	17.1	H
15540.000	39.1	-24.4	40.4	23.03	54.0	15.0	H
17792.000	39.8	-21.3	40.6	20.54	54.0	14.2	H
17880.800	40.0	-21.0	40.5	20.46	54.0	14.0	V

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Channel 64

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)
5350.000	47.1	-23.1	34.1	36.11	54.0	6.9	V
5351.000	46.9	-23.1	34.1	35.85	54.0	7.1	V
10640.000	35.0	-29.1	37.6	26.46	54.0	19.0	H
15960.000	39.7	-23.4	40.8	22.31	54.0	14.3	V
17793.200	39.7	-21.3	40.6	20.47	54.0	14.3	V
17884.800	40.1	-21.0	40.5	20.51	54.0	13.9	V

Channel 100

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)
5458.350	45.4	-22.5	34.5	33.44	54.0	8.6	V
5459.450	45.4	-22.5	34.5	33.45	54.0	8.6	V
11000.000	35.7	-28.9	37.9	26.72	54.0	18.3	V
16001.600	40.0	-23.4	40.8	22.54	54.0	14.0	H
17793.200	39.1	-21.3	40.6	19.89	54.0	14.9	H
17885.200	39.6	-21.0	40.5	20.02	54.0	14.4	V

Channel 116

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)
5409.500	45.1	-22.4	34.3	33.20	54.0	8.9	V
5459.600	45.1	-22.5	34.5	33.10	54.0	8.9	V
11160.000	35.3	-28.6	37.9	26.04	54.0	18.7	H
15986.400	40.0	-23.3	40.8	22.51	54.0	14.0	V
17877.600	39.6	-21.0	40.5	20.16	54.0	14.4	H
17947.600	39.6	-21.0	40.5	19.97	54.0	14.5	H

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Channel 140

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)
5408.950	45.1	-22.4	34.3	33.24	54.0	8.9	V
5455.400	45.0	-22.5	34.5	33.09	54.0	9.0	V
11400.000	35.6	-28.4	38.0	26.07	54.0	18.4	V
15980.800	39.8	-23.4	40.8	22.31	54.0	14.2	H
17790.400	39.8	-21.3	40.6	20.52	54.0	14.2	V
17888.000	40.1	-21.0	40.5	20.56	54.0	13.9	V

Channel 144

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)
5458.150	45.1	-22.5	34.5	33.15	54.0	8.9	V
5459.500	45.2	-22.5	34.5	33.19	54.0	8.8	V
11440.000	33.5	-27.9	38.0	23.39	54.0	20.5	H
16167.600	38.3	-22.6	41.0	19.91	54.0	15.7	V
17792.400	38.1	-21.3	40.6	18.84	54.0	15.9	H
17892.000	38.6	-21.0	40.5	19.08	54.0	15.4	H

802.11ac-HT40

Channel 38

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)
5149.700	48.9	-23.2	34.0	38.01	54.0	5.1	V
5149.887	50.9	-23.2	34.0	40.12	54.0	3.1	V
10750.800	34.3	-28.4	37.8	25.01	54.0	19.7	V
15570.000	37.8	-24.3	40.4	21.66	54.0	16.2	V
17889.200	39.3	-21.0	40.5	19.77	54.0	14.7	H
17951.600	39.4	-20.8	40.6	19.71	54.0	14.6	V

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Channel 62

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)
5350.050	47.4	-23.1	34.1	36.42	54.0	6.6	V
5350.100	47.4	-23.1	34.1	36.40	54.0	6.6	V
10620.000	34.1	-29.2	37.6	25.77	54.0	19.9	V
15930.000	37.9	-23.9	40.9	20.94	54.0	16.1	H
17886.000	39.3	-21.0	40.5	19.78	54.0	14.7	H
17949.200	39.4	-20.9	40.5	19.71	54.0	14.6	V

Channel 102

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)
5454.000	45.4	-22.6	34.5	33.43	54.0	8.6	V
5458.350	45.5	-22.5	34.5	33.52	54.0	8.5	V
11060.000	35.3	-28.8	37.8	26.24	54.0	18.7	V
16158.000	38.6	-22.8	41.0	20.43	54.0	15.4	V
17880.000	39.7	-21.0	40.5	20.11	54.0	14.3	H
17952.000	39.7	-20.9	40.6	20.04	54.0	14.3	V

Channel 134

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)
5456.400	45.1	-22.5	34.5	33.13	54.0	8.9	V
5459.200	45.1	-22.5	34.5	33.13	54.0	8.9	V
11340.000	35.4	-28.1	37.9	25.59	54.0	18.6	H
16006.000	39.4	-23.5	40.8	22.05	54.0	14.6	H
17890.800	40.1	-21.0	40.5	20.57	54.0	13.9	H
17951.600	40.1	-20.8	40.6	20.42	54.0	13.9	H

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Channel 142

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)
5458.450	45.1	-22.5	34.5	33.15	54.0	8.9	V
5459.400	45.1	-22.5	34.5	33.15	54.0	8.9	V
11420.000	33.2	-28.5	38.0	23.76	54.0	20.8	V
16170.400	38.1	-22.5	41.0	19.69	54.0	15.9	V
17884.000	38.5	-21.0	40.5	18.91	54.0	15.5	H
17954.000	38.5	-20.9	40.6	18.78	54.0	15.5	V

802.11ac-HT80

Channel 42

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)
5149.600	48.5	-23.2	34.0	37.62	54.0	5.5	V
5149.850	48.4	-23.2	34.0	37.60	54.0	5.6	V
10962.400	35.7	-29.1	37.8	26.99	54.0	18.3	H
15630.000	37.6	-24.0	40.5	21.13	54.0	16.4	V
17794.400	39.2	-21.4	40.6	19.96	54.0	14.8	V
17950.800	39.7	-20.8	40.6	19.99	54.0	14.3	V

Channel 58

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)
5360.700	49.3	-22.8	34.1	37.95	54.0	4.7	V
5361.950	49.4	-22.8	34.1	38.01	54.0	4.6	V
10721.200	34.9	-28.7	37.7	25.83	54.0	19.1	H
15870.000	38.5	-23.1	40.9	20.78	54.0	15.5	V
17884.400	39.6	-21.0	40.5	20.10	54.0	14.4	H
17953.200	39.5	-20.9	40.6	19.84	54.0	14.5	H

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Channel 106

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)
5456.950	45.9	-22.5	34.5	33.90	54.0	8.1	V
5458.400	46.0	-22.5	34.5	34.02	54.0	8.0	V
11060.000	35.3	-28.8	37.8	26.30	54.0	18.7	V
16097.600	38.5	-23.5	41.1	20.92	54.0	15.5	H
17881.600	39.9	-21.0	40.5	20.30	54.0	14.1	V
17950.800	39.8	-20.8	40.6	20.04	54.0	14.2	H

Channel 122

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)
5455.100	46.4	-22.5	34.5	34.45	54.0	7.6	V
5459.500	46.5	-22.5	34.5	34.51	54.0	7.5	V
11220.000	34.9	-28.5	38.0	25.40	54.0	19.1	H
16004.000	39.5	-23.4	40.8	22.15	54.0	14.5	V
17882.800	40.2	-21.0	40.5	20.65	54.0	13.8	H
17950.000	40.3	-20.8	40.6	20.57	54.0	13.7	V

Channel 138

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)
5457.600	45.1	-22.5	34.5	33.12	54.0	8.9	V
5459.000	45.1	-22.5	34.5	33.11	54.0	8.9	H
11380.000	33.4	-28.4	38.0	23.88	54.0	20.6	V
16166.000	36.6	-22.6	41.0	18.29	54.0	17.4	H
17949.200	38.6	-20.9	40.5	18.97	54.0	15.4	H
17992.400	38.5	-21.1	40.6	18.99	54.0	15.5	H

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PEAK Results:

802.11a

Channel 36

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)
5148.890	68.3	-23.1	34.0	57.43	74.0	5.7	H
5149.643	67.8	-23.2	34.0	56.93	74.0	6.2	V
10359.950	46.9	-29.1	37.4	38.63	68.2	21.3	V
15539.850	50.4	-24.4	40.4	34.34	74.0	23.6	H
17544.050	52.8	-21.0	40.8	32.96	68.2	15.4	V
17647.450	54.1	-21.4	40.6	34.89	68.2	14.1	H

Channel 64

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)
5350.529	65.9	-23.1	34.1	54.91	74.0	8.1	H
5353.593	66.3	-23.0	34.1	55.22	74.0	7.7	V
10639.000	46.3	-29.1	37.6	37.78	74.0	27.7	H
15960.050	50.2	-23.4	40.8	32.83	74.0	23.8	V
17472.550	53.8	-21.8	40.8	34.82	68.2	14.4	H
17649.650	54.3	-21.4	40.6	35.07	68.2	13.9	H

Channel 100

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)
5469.880	64.6	-22.2	34.4	52.37	68.2	3.6	H
5469.693	64.7	-22.2	34.4	52.43	68.2	3.6	V
11000.150	48.5	-28.9	37.9	39.50	74.0	25.5	H
16494.100	54.2	-22.8	41.1	35.92	68.2	14.0	H
17491.800	54.0	-22.2	40.8	35.41	68.2	14.2	V
17540.200	53.7	-20.6	40.8	33.61	68.2	14.5	H

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Channel 116

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)
5537.800	58.5	-23.4	34.1	47.76	68.2	9.7	V
5625.200	58.8	-22.6	34.5	46.89	68.2	9.4	H
11161.300	48.9	-28.6	37.9	39.60	74.0	25.1	V
16744.350	54.5	-22.9	41.4	35.98	68.2	13.7	H
16941.250	54.2	-22.4	41.3	35.27	68.2	14.0	V
17348.250	54.5	-21.9	40.8	35.60	68.2	13.7	V

Channel 140

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)
5725.213	62.2	-22.1	34.3	49.98	68.2	6.0	H
5725.300	62.7	-22.1	34.3	50.46	68.2	5.5	V
11397.800	48.9	-28.4	38.0	39.40	74.0	25.1	H
16535.900	53.5	-22.8	41.2	35.09	68.2	14.7	H
17099.650	53.3	-22.3	41.0	34.57	68.2	14.9	V
17541.300	53.7	-20.7	40.8	33.72	68.2	14.5	V

Channel 144

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)
5661.600	56.0	-22.5	34.6	43.89	68.2	12.2	H
5774.600	55.7	-22.1	34.4	43.33	68.2	12.5	V
11440.150	45.3	-27.9	38.0	35.13	74.0	28.7	H
17054.000	52.2	-22.5	41.0	33.57	68.2	16.0	V
17161.250	50.9	-22.4	40.9	32.35	68.2	17.3	H
17379.050	51.5	-21.9	40.7	32.59	68.2	16.7	H

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802.11n-HT20

Channel 36

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)
5149.293	66.6	-23.2	34.0	55.71	74.0	7.4	V
5149.835	66.7	-23.2	34.0	55.87	74.0	7.3	V
10359.950	47.5	-29.1	37.4	39.18	68.2	20.7	V
15539.850	50.7	-24.4	40.4	34.71	74.0	23.3	H
17098.000	53.3	-22.3	41.0	34.66	68.2	14.9	V
17546.250	53.4	-21.1	40.8	33.80	68.2	14.8	V

Channel 64

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)
5352.054	68.5	-23.0	34.1	57.44	74.0	5.5	V
5352.621	68.3	-23.0	34.1	57.18	74.0	5.7	V
10639.900	47.6	-29.1	37.6	39.04	74.0	26.4	V
15960.050	50.6	-23.4	40.8	33.16	74.0	23.4	V
17053.450	53.4	-22.5	41.0	34.76	68.2	14.8	V
17542.400	53.1	-20.8	40.8	33.19	68.2	15.1	H

Channel 100

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)
5462.253	64.2	-22.4	34.5	52.17	68.2	4.0	H
5467.833	65.1	-22.3	34.4	52.94	68.2	3.1	H
11000.150	47.6	-28.9	37.9	38.68	74.0	26.4	H
16494.650	53.6	-22.8	41.1	35.24	68.2	14.6	H
17008.350	53.4	-22.1	41.1	34.40	68.2	14.8	H
17540.750	53.2	-20.7	40.8	33.08	68.2	15.0	V

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Channel 140

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)
5725.163	61.8	-22.1	34.3	49.61	68.2	6.4	V
5725.288	61.6	-22.1	34.3	49.34	68.2	6.6	V
11400.000	46.6	-28.4	38.0	37.00	74.0	27.4	H
16597.500	53.5	-22.3	41.3	34.50	68.2	14.7	V
17096.900	53.8	-22.3	41.0	35.17	68.2	14.4	H
17540.200	53.5	-20.6	40.8	33.35	68.2	14.7	H

Channel 144

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)
5666.600	55.9	-22.5	34.6	43.87	68.2	12.3	H
5778.600	56.1	-22.1	34.5	43.75	68.2	12.1	H
11440.150	45.8	-27.9	38.0	35.66	74.0	28.2	H
17057.300	52.5	-22.4	41.0	33.85	68.2	15.7	H
17099.650	52.6	-22.3	41.0	33.93	68.2	15.6	V
17161.250	50.4	-22.4	40.9	31.80	68.2	17.8	V

802.11n-HT40

Channel 38

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)
5147.735	69.9	-23.1	34.0	59.02	74.0	4.1	V
5149.258	70.8	-23.2	34.0	59.91	74.0	3.2	H
10380.850	47.7	-29.2	37.5	39.48	68.2	20.5	V
15569.550	51.4	-24.3	40.4	35.24	74.0	22.6	V
16616.200	53.7	-22.4	41.3	34.84	68.2	14.5	H
16769.500	54.0	-22.7	41.4	35.35	68.2	14.2	H

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Channel 62

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)
5350.043	69.4	-23.1	34.1	58.41	74.0	4.6	H
5351.771	69.8	-23.0	34.1	58.78	74.0	4.2	H
10620.100	47.4	-29.2	37.6	39.02	74.0	26.6	V
15929.800	51.5	-23.9	40.9	34.52	74.0	22.5	H
16513.350	53.3	-22.9	41.1	35.07	68.2	14.9	V
17016.050	53.4	-22.1	41.1	34.40	68.2	14.8	V

Channel 102

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)
5466.445	63.6	-22.3	34.4	51.43	68.2	4.6	H
5467.750	62.6	-22.3	34.4	50.45	68.2	5.6	H
11019.950	47.5	-28.9	37.9	38.56	74.0	26.5	H
16529.850	52.1	-22.5	41.2	33.50	68.2	16.1	H
16963.800	53.3	-22.2	41.2	34.32	68.2	14.9	V
17539.650	53.6	-20.7	40.8	33.48	68.2	14.6	H

Channel 118

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)
5526.000	58.9	-23.2	34.2	47.89	68.2	9.3	H
5670.000	59.2	-22.5	34.5	47.13	68.2	9.0	H
11180.000	47.4	-28.7	38.0	38.14	74.0	26.6	V
16770.200	51.2	-22.7	41.4	32.53	68.2	17.0	H
16923.650	54.1	-22.5	41.3	35.23	68.2	14.1	H
16938.500	54.1	-22.4	41.3	35.19	68.2	14.1	H

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Channel 134

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)
5725.900	64.6	-22.1	34.3	52.40	68.2	3.6	H
5732.625	63.8	-22.2	34.3	51.70	68.2	4.4	V
11340.050	47.4	-28.1	37.9	37.64	74.0	26.6	V
16616.200	52.7	-22.4	41.3	33.85	68.2	15.5	V
17010.000	51.7	-22.2	41.1	32.75	68.2	16.5	H
17423.050	53.1	-21.8	40.7	34.14	68.2	15.1	V

Channel 142

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)
5626.800	55.7	-22.6	34.5	43.72	68.2	12.5	V
5800.800	56.6	-21.7	34.6	43.78	68.2	11.6	V
11419.800	45.9	-28.5	38.0	36.38	74.0	28.1	V
17101.850	52.6	-22.3	41.0	33.92	68.2	15.6	V
17129.900	50.4	-22.3	41.0	31.72	68.2	17.8	V
17379.600	52.6	-21.9	40.7	33.71	68.2	15.6	H

802.11ac-HT20

Channel 36

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)
5148.943	66.5	-23.1	34.0	55.62	74.0	7.5	V
5149.818	68.4	-23.2	34.0	57.56	74.0	5.6	H
10359.950	47.8	-29.1	37.4	39.49	68.2	20.4	H
15539.850	51.5	-24.4	40.4	35.47	74.0	22.5	H
16887.350	53.8	-22.2	41.4	34.64	68.2	14.4	H
17012.200	53.8	-22.1	41.1	34.84	68.2	14.4	V

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Channel 64

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)
5350.380	68.1	-23.1	34.1	57.04	74.0	5.9	V
5350.664	69.5	-23.1	34.1	58.46	74.0	4.5	H
10639.900	46.9	-29.1	37.6	38.34	74.0	27.1	V
15960.050	51.9	-23.4	40.8	34.45	74.0	22.1	V
16666.800	54.0	-22.4	41.4	35.08	68.2	14.2	V
16942.900	54.3	-22.3	41.3	35.39	68.2	13.9	H

Channel 100

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)
5466.828	54.2	-22.3	34.4	42.09	68.2	14.0	V
5469.955	64.4	-22.2	34.4	52.14	68.2	3.8	V
11000.150	48.0	-28.9	37.9	39.08	74.0	26.0	H
16397.300	53.9	-22.7	40.9	35.77	68.2	14.3	H
16501.250	56.6	-22.7	41.1	38.20	68.2	11.6	H
17536.900	53.9	-20.9	40.8	34.03	68.2	14.3	V

Channel 116

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)
5539.000	58.0	-23.4	34.1	47.28	68.2	10.2	H
5624.600	60.6	-22.6	34.5	48.63	68.2	7.6	V
11120.050	48.1	-28.4	37.8	38.70	74.0	25.9	H
16681.650	52.2	-22.6	41.4	33.41	68.2	16.0	H
16733.900	54.2	-22.8	41.4	35.58	68.2	14.0	H
17426.350	53.5	-21.7	40.7	34.52	68.2	14.7	V

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Channel 140

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)
5725.850	63.4	-22.1	34.3	51.20	68.2	4.8	V
5726.125	64.4	-22.1	34.3	52.15	68.2	3.9	H
11400.000	48.9	-28.4	38.0	39.28	74.0	25.1	V
16610.700	54.0	-22.4	41.3	35.06	68.2	14.2	V
17100.200	52.5	-22.3	41.0	33.81	68.2	15.7	H
17465.400	53.6	-21.7	40.8	34.55	68.2	14.6	H

Channel 144

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)
5662.200	56.8	-22.5	34.6	44.72	68.2	11.4	H
5788.200	57.0	-21.8	34.5	44.25	68.2	11.2	H
11440.150	45.5	-27.9	38.0	35.35	74.0	28.5	V
16836.750	52.2	-22.5	41.4	33.31	68.2	16.0	V
17162.900	50.6	-22.4	40.9	31.97	68.2	17.7	V
17234.950	52.2	-22.4	40.9	33.72	68.2	16.0	V

802.11ac-HT40

Channel 38

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)
5145.653	69.3	-23.1	34.0	58.44	74.0	4.7	V
5149.432	70.6	-23.1	34.0	59.73	74.0	3.4	V
10378.650	48.3	-29.2	37.5	40.08	68.2	19.9	V
15570.100	50.2	-24.3	40.4	34.13	74.0	23.8	V
17016.050	53.6	-22.1	41.1	34.59	68.2	14.6	V
17095.800	53.5	-22.3	41.0	34.84	68.2	14.7	H

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Channel 62

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)
5353.337	69.6	-23.0	34.1	58.45	74.0	4.4	V
5357.738	69.4	-22.9	34.1	58.13	74.0	4.6	V
10620.100	47.2	-29.2	37.6	38.79	74.0	26.8	H
15930.900	51.4	-23.9	40.9	34.35	74.0	22.6	V
17035.850	53.5	-22.6	41.1	35.08	68.2	14.7	H
17437.350	54.0	-21.7	40.7	35.00	68.2	14.2	H

Channel 102

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)
5466.168	65.0	-22.3	34.4	52.87	68.2	3.2	H
5468.770	65.0	-22.2	34.4	52.79	68.2	3.2	H
11062.300	49.9	-28.8	37.8	40.90	74.0	24.1	V
16589.800	52.1	-22.3	41.3	33.15	68.2	16.1	H
16529.300	54.3	-22.5	41.2	35.72	68.2	13.9	H
17113.400	54.3	-22.3	41.0	35.59	68.2	13.9	H

Channel 134

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)
5728.838	64.2	-22.2	34.3	52.10	68.2	4.0	V
5732.038	62.2	-22.2	34.3	50.11	68.2	6.0	V
11340.050	46.6	-28.1	37.9	36.87	74.0	27.4	V
16624.450	52.9	-22.5	41.3	34.09	68.2	15.3	V
17014.400	54.4	-22.1	41.1	35.39	68.2	13.8	V
17632.600	53.3	-21.7	40.6	34.37	68.2	14.9	H

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Channel 142

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)
5604.800	55.5	-22.8	34.3	43.94	68.2	12.7	H
5820.600	56.9	-21.9	34.7	44.04	68.2	11.3	H
11417.600	46.2	-28.5	38.0	36.73	74.0	27.8	V
16929.700	52.8	-22.5	41.3	33.98	68.2	15.4	V
17129.350	51.5	-22.3	41.0	32.81	68.2	16.7	H
17195.900	52.3	-22.2	40.9	33.62	68.2	15.9	H

802.11ac-HT80

Channel 42

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)
5143.850	70.5	-23.1	34.0	59.60	74.0	3.5	H
5148.470	70.4	-23.1	34.0	59.54	74.0	3.6	V
10419.900	48.7	-29.4	37.5	40.57	68.2	19.5	H
15630.050	51.8	-24.0	40.5	35.37	74.0	22.2	H
17384.550	54.0	-21.9	40.7	35.17	68.2	14.2	V
17545.150	54.3	-21.1	40.8	34.58	68.2	13.9	V

Channel 58

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)
5359.547	69.8	-22.9	34.1	58.53	74.0	4.2	V
5351.069	49.5	-23.1	34.1	38.45	74.0	24.5	V
10581.050	48.3	-28.9	37.6	39.61	68.2	19.9	V
15869.500	51.8	-23.1	40.9	34.10	74.0	22.2	V
16819.700	53.9	-22.7	41.4	35.19	68.2	14.3	V
17533.050	54.2	-21.3	40.8	34.73	68.2	14.0	V

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Channel 106

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)
5462.035	62.9	-22.4	34.5	50.88	68.2	5.3	H
5467.275	63.5	-22.3	34.4	51.32	68.2	4.7	V
11060.650	48.2	-28.8	37.8	39.19	74.0	25.8	V
16591.450	53.8	-22.3	41.3	34.86	68.2	14.4	H
16909.900	54.2	-22.3	41.4	35.09	68.2	14.0	H
17123.300	54.5	-22.3	41.0	35.86	68.2	13.7	H

Channel 122

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)
5729.250	64.7	-22.2	34.3	52.59	68.2	3.5	V
5759.850	64.7	-21.7	34.4	52.09	68.2	3.5	V
11220.150	46.0	-28.5	38.0	36.48	74.0	28.0	H
16818.600	54.5	-22.7	41.4	35.82	68.2	13.7	V
16830.150	51.8	-22.4	41.4	32.79	68.2	16.4	V
17465.400	53.4	-21.7	40.8	34.36	68.2	14.8	H

Channel 138

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)
5557.600	56.9	-23.4	34.1	46.10	68.2	11.3	V
5841.800	57.9	-22.0	34.9	45.13	68.2	10.3	H
11380.200	44.5	-28.4	38.0	34.95	74.0	29.5	V
16482.000	51.1	-22.6	41.1	32.73	68.2	17.1	H
17071.050	50.9	-22.1	41.0	31.96	68.2	17.3	H
17088.100	52.1	-22.4	41.0	33.49	68.2	16.1	H

Conclusion: PASS

Note:

1. The spurious emission above 18G is noise only.
2. All emissions below 30MHz are more than 20 dB below the limit

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Band edge compliance

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.1	P
	5320 MHz	Fig.2	P
	5500 MHz	Fig.3	P
	5700 MHz	Fig.4	P
802.11n HT20	5180 MHz	Fig.5	P
	5320 MHz	Fig.6	P
	5500 MHz	Fig.7	P
	5700 MHz	Fig.8	P
802.11n HT40	5190 MHz	Fig.9	P
	5310 MHz	Fig.10	P
	5510 MHz	Fig.11	P
	5670 MHz	Fig.12	P
802.11ac HT20	5180 MHz	Fig.13	P
	5320 MHz	Fig.14	P
	5500 MHz	Fig.15	P
	5700 MHz	Fig.16	P
802.11ac HT40	5190 MHz	Fig.17	P
	5310 MHz	Fig.18	P
	5510 MHz	Fig.19	P
	5670 MHz	Fig.20	P
802.11ac HT80	5210MHz	Fig.21	P
	5290MHz	Fig.22	P
	5530MHz	Fig.23	P
	5610MHz	Fig.24	P

Conclusion: PASS

Test graphs as below:

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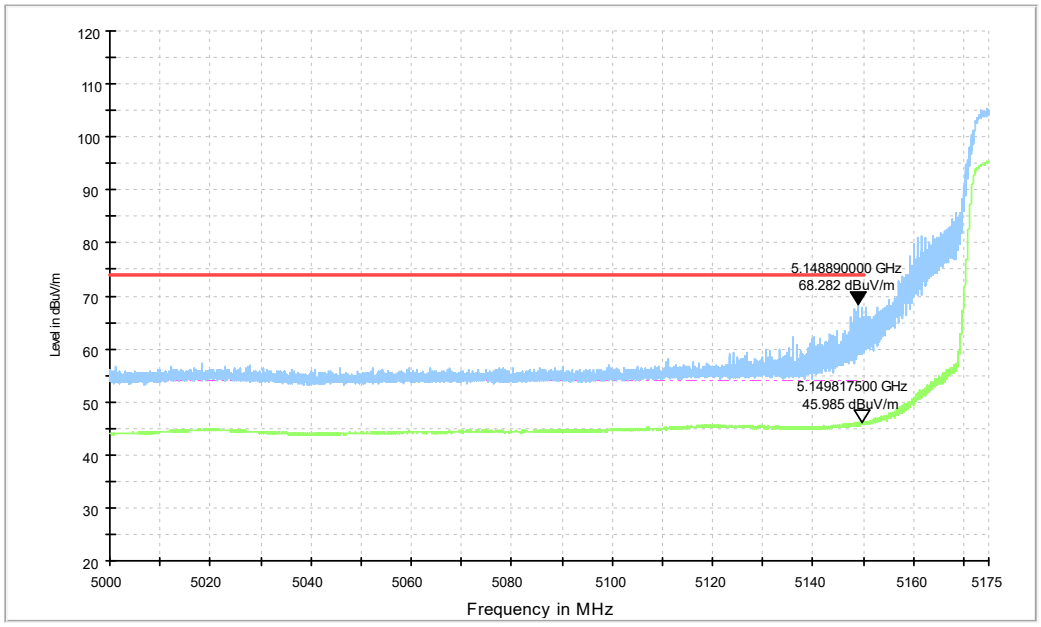

Fig. 1 Band Edges (802.11a Ch36, 5180MHz)

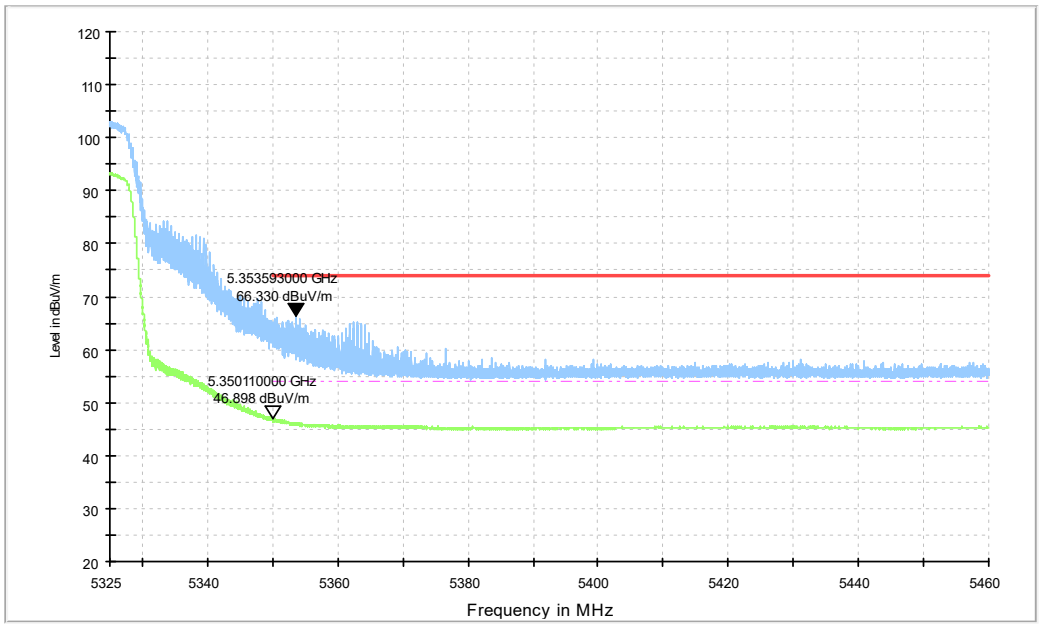

Fig. 2 Band Edges (802.11a Ch64, 5320MHz)

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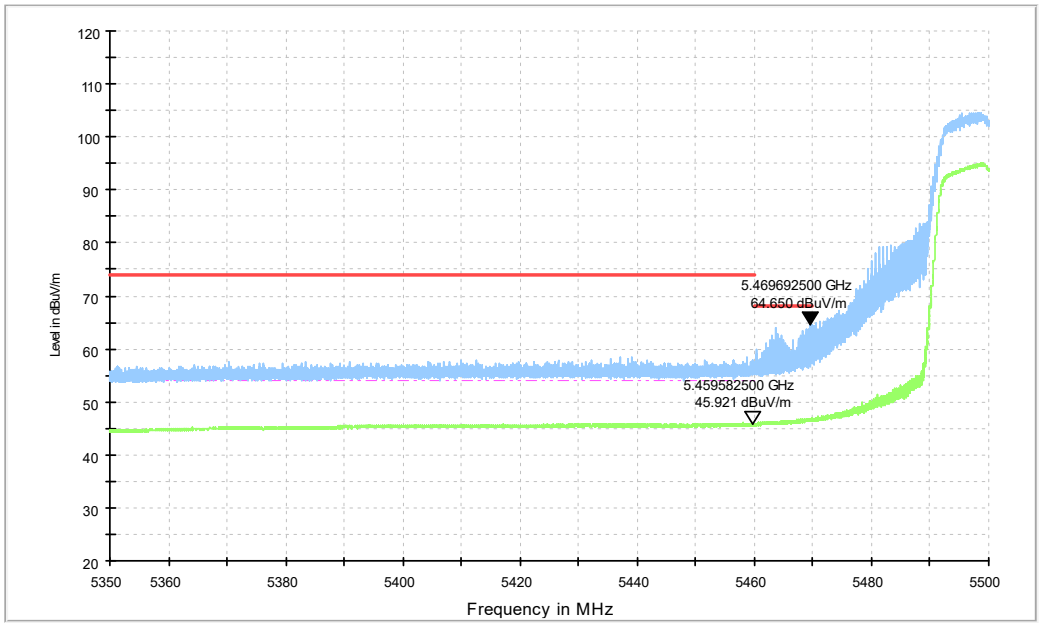

Fig. 3 Band Edges (802.11a Ch100, 5500MHz)

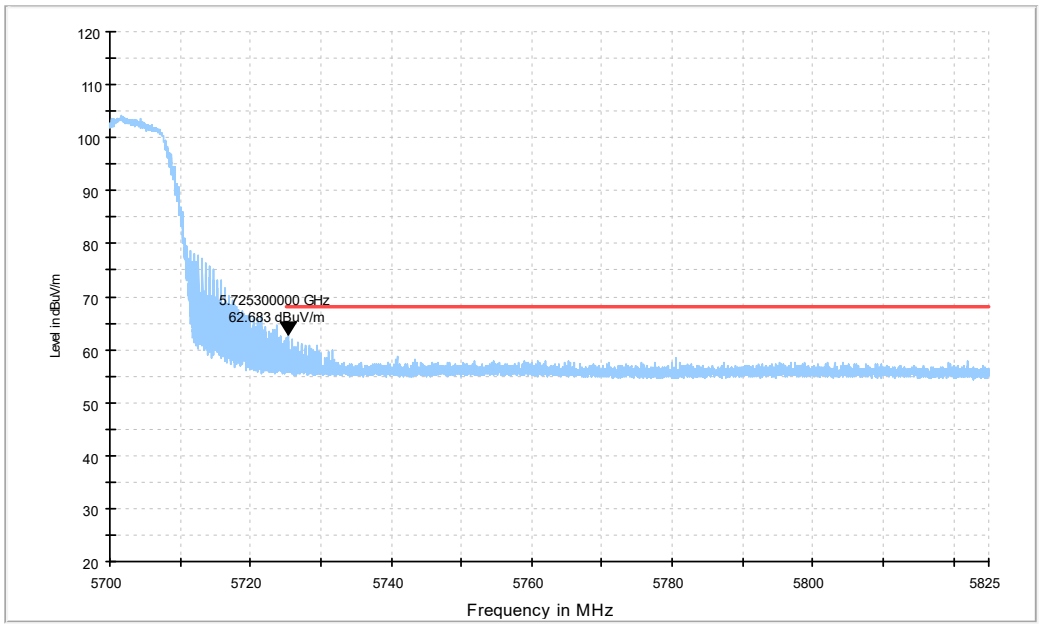

Fig. 4 Band Edges (802.11a Ch140, 5700MHz)

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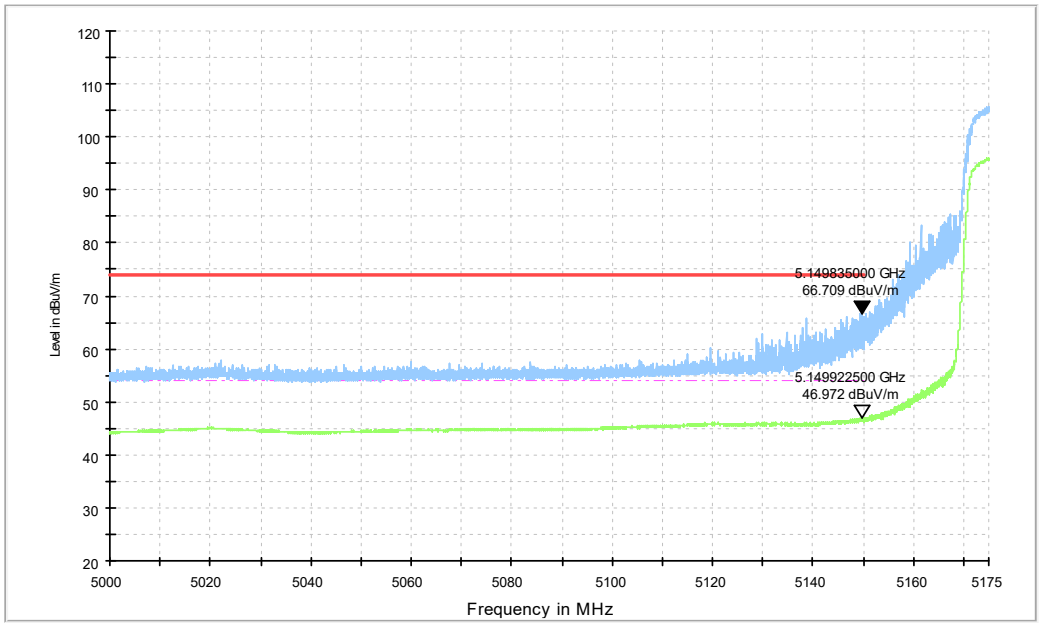

Fig. 5 Band Edges (802.11n-HT20 Ch36, 5180MHz)

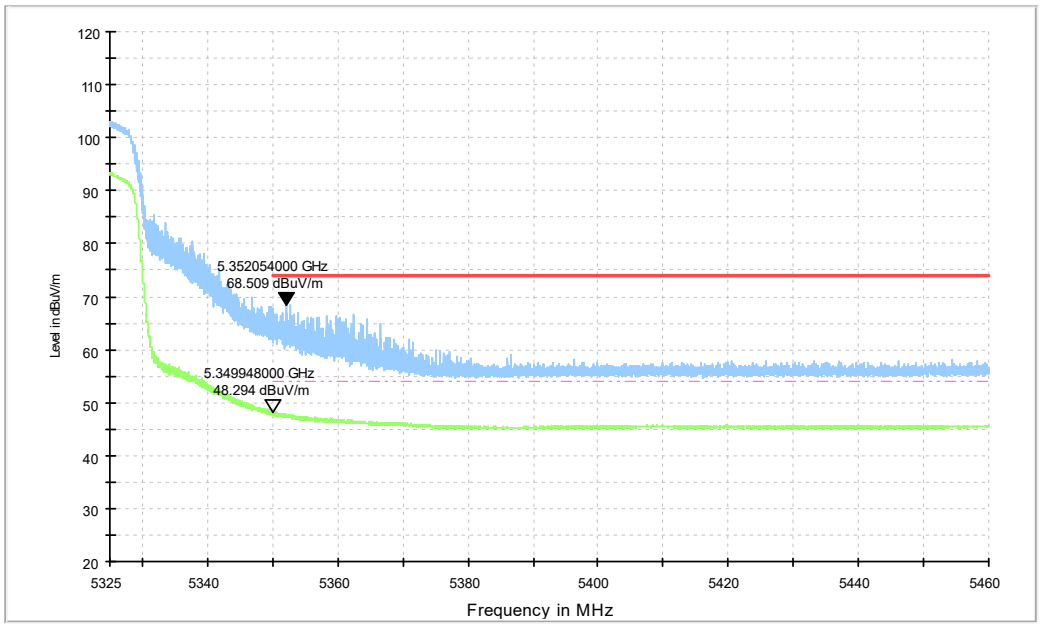

Fig. 6 Band Edges (802.11n-HT20 Ch64, 5320MHz)

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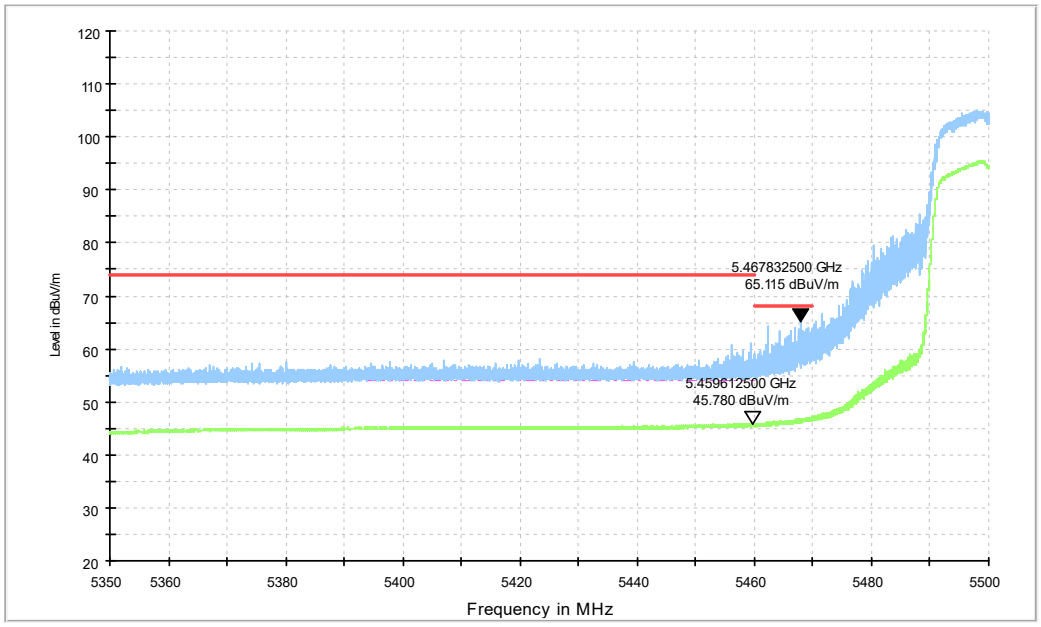

Fig. 7 Band Edges (802.11n-HT20 Ch100, 5500MHz)

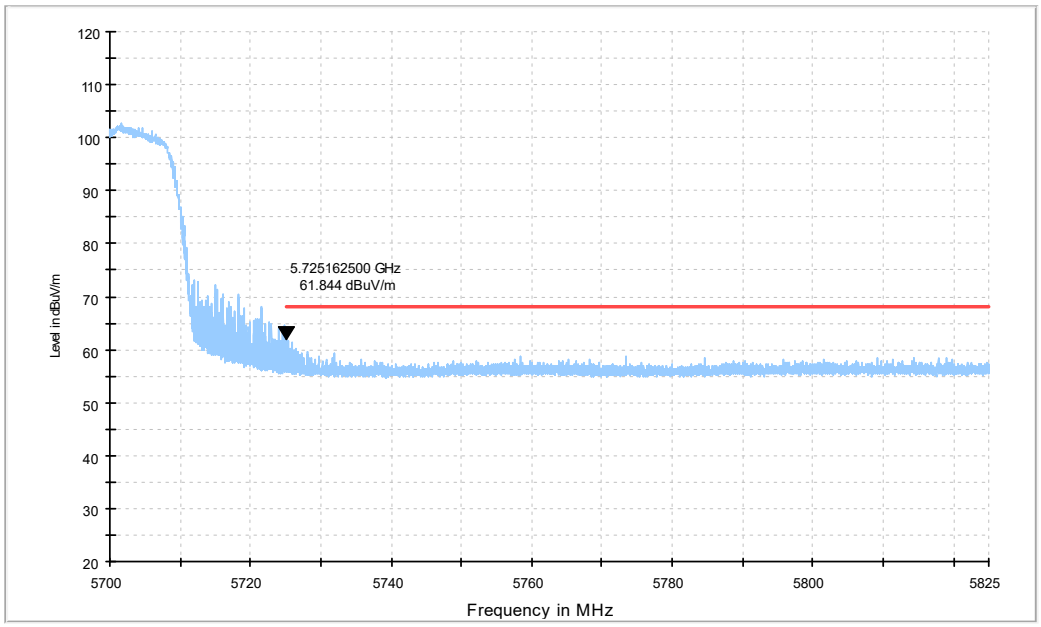

Fig. 8 Band Edges (802.11n-HT20 Ch140, 5700MHz)

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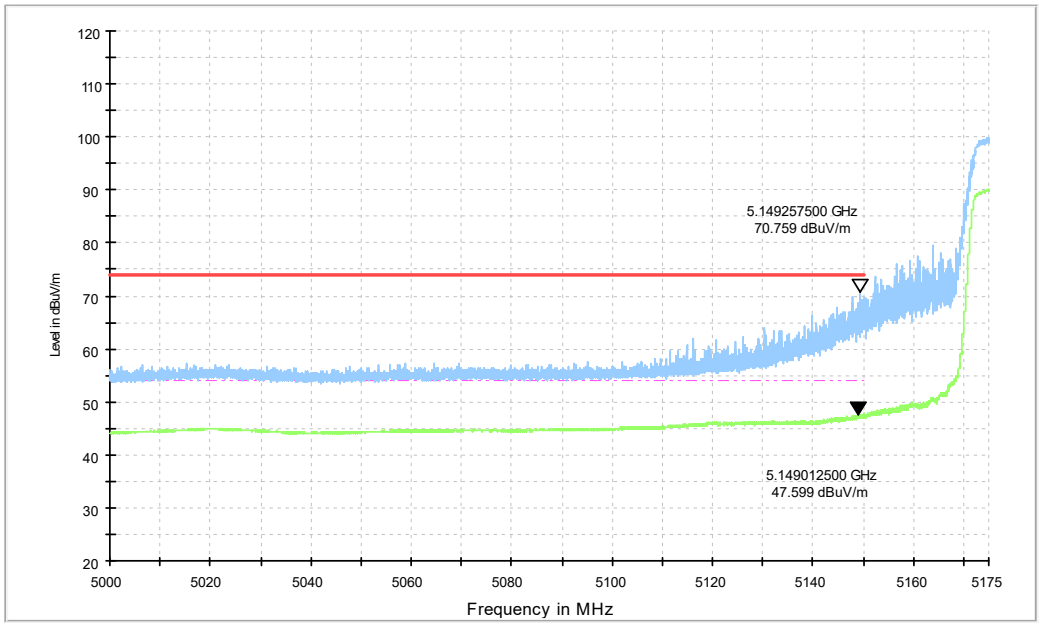

Fig. 9 Band Edges (802.11n-HT40 Ch38, 5190MHz)

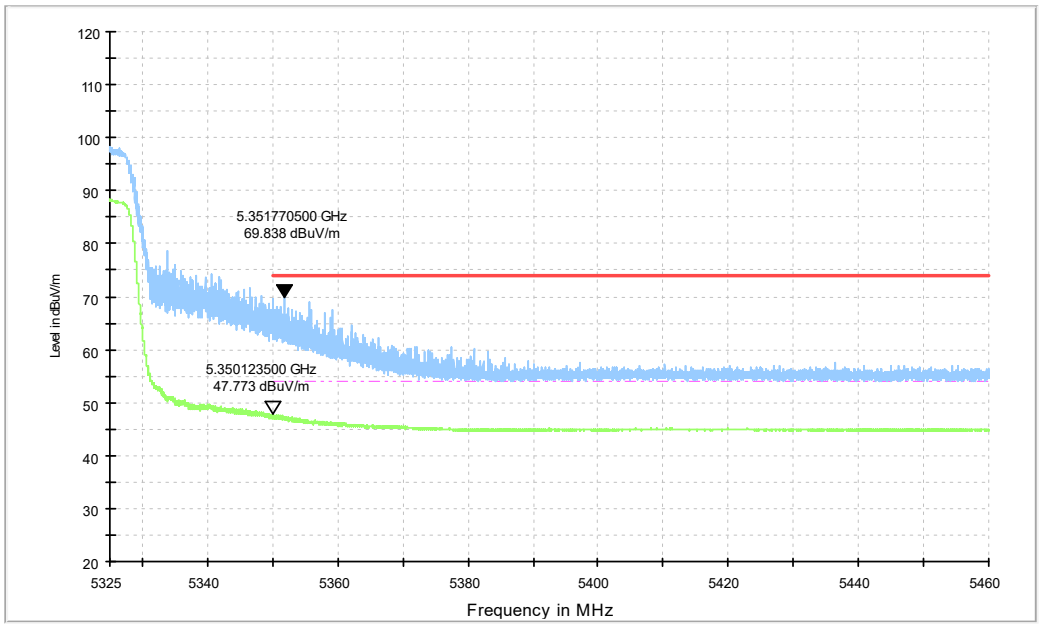

Fig. 10 Band Edges (802.11n-HT40 Ch62, 5310MHz)

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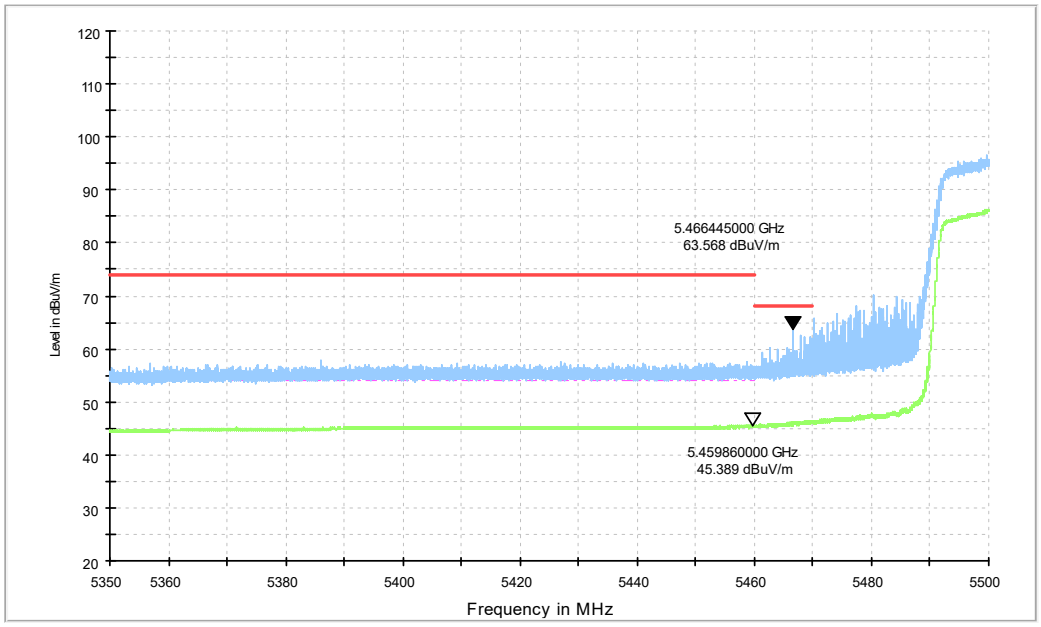

Fig. 11 Band Edges (802.11n-HT40 Ch102, 5510MHz)

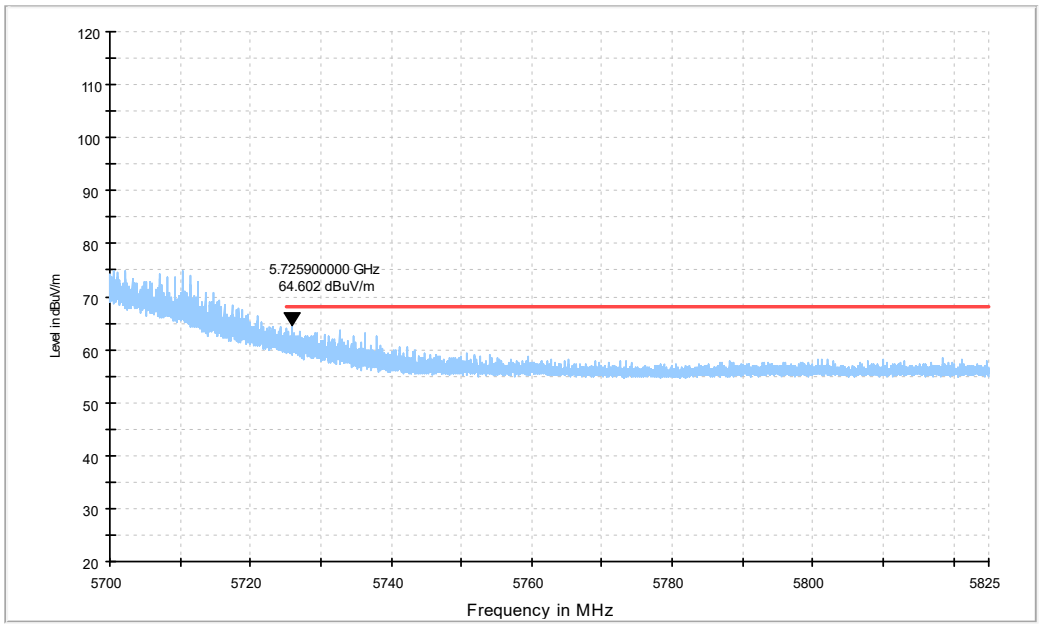

Fig. 12 Band Edges (802.11n-HT40 Ch134, 5670MHz)

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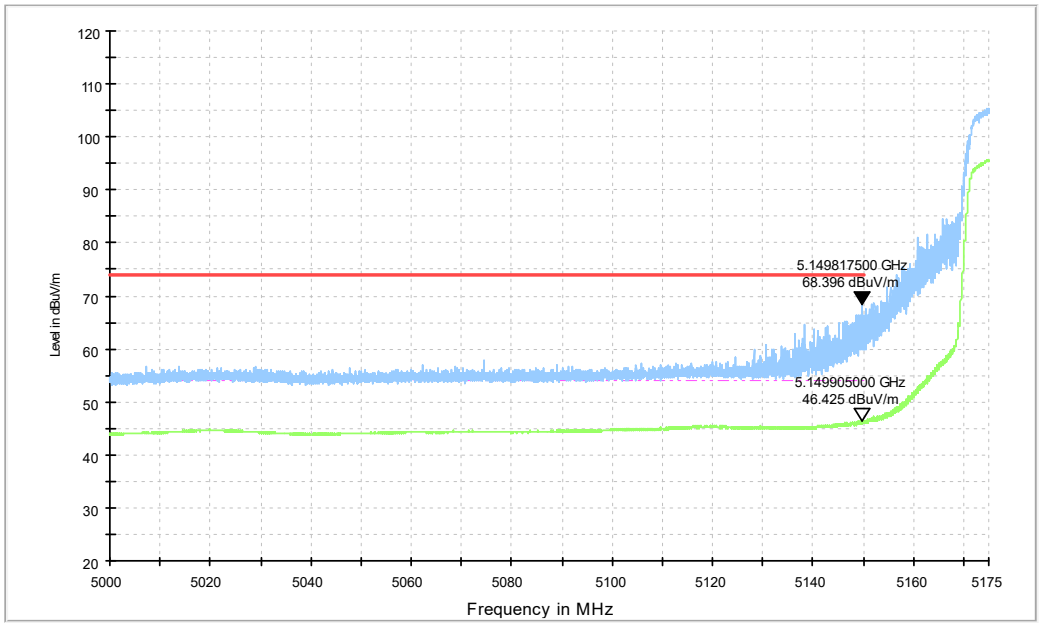

Fig. 13 Band Edges (802.11ac-HT20 Ch36, 5180MHz)

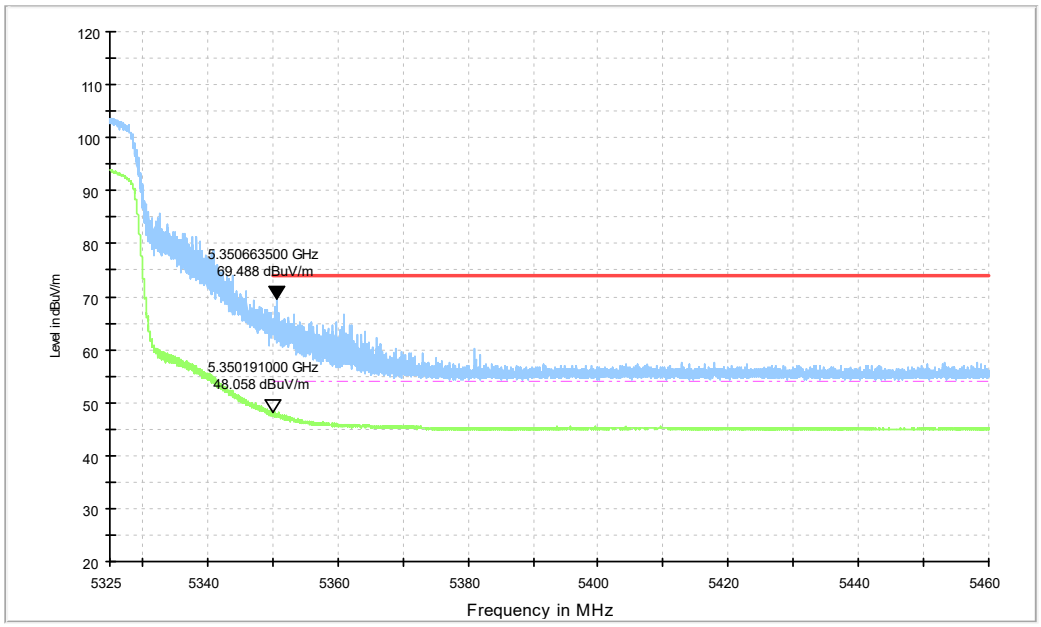

Fig. 14 Band Edges (802.11ac-HT20 Ch64, 5320MHz)

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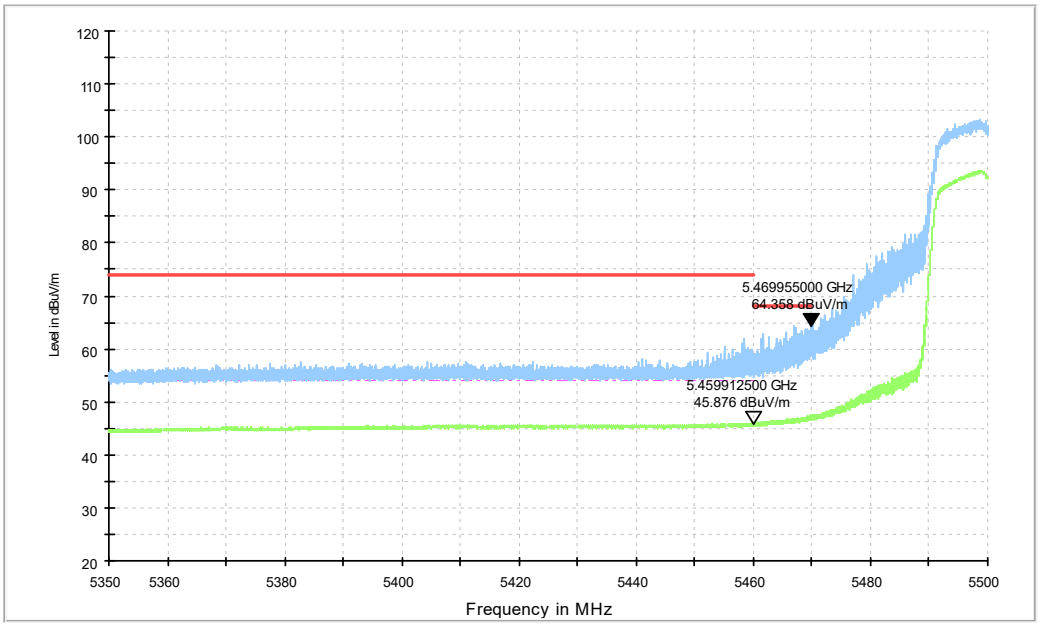

Fig. 15 Band Edges (802.11ac-HT20 Ch100, 5500MHz)

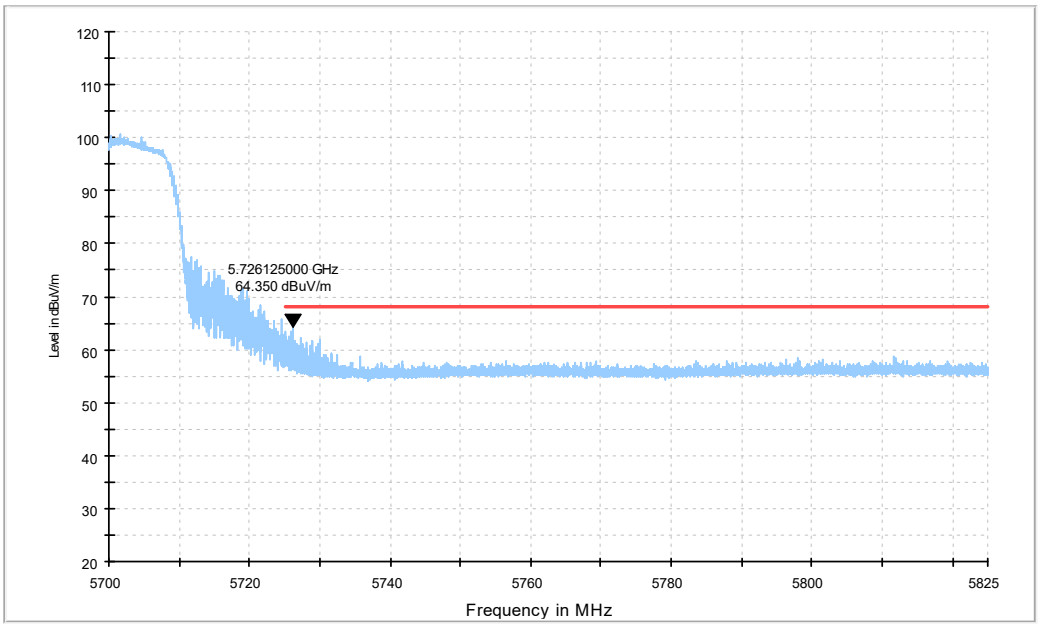

Fig. 16 Band Edges (802.11ac-HT20 Ch140, 5700MHz)

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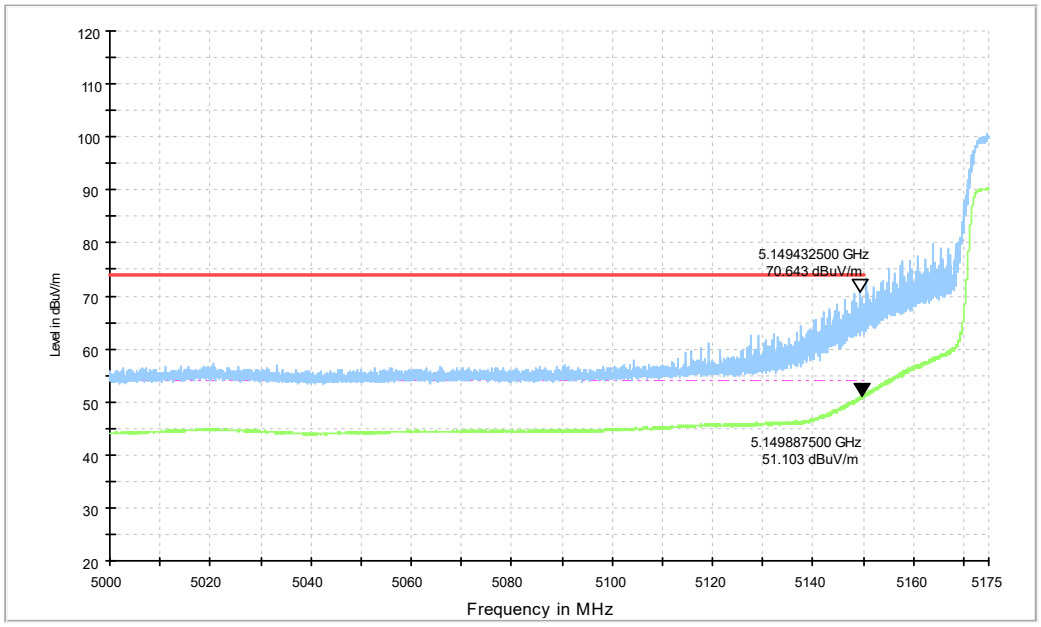

Fig. 17 Band Edges (802.11ac-HT40 Ch38, 5190MHz)

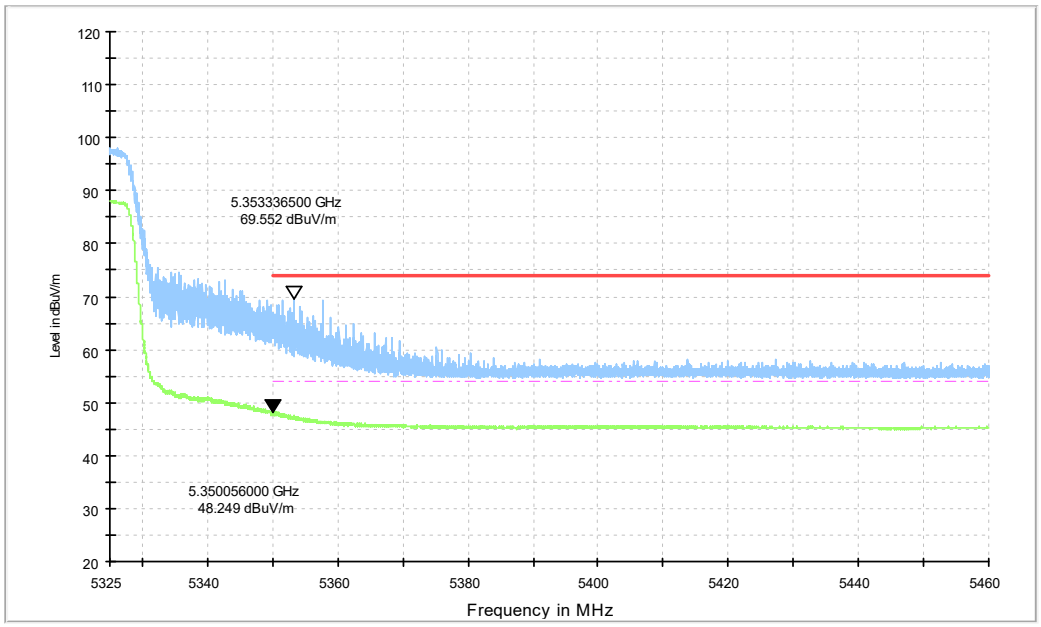

Fig. 18 Band Edges (802.11ac-HT40 Ch62, 5310MHz)

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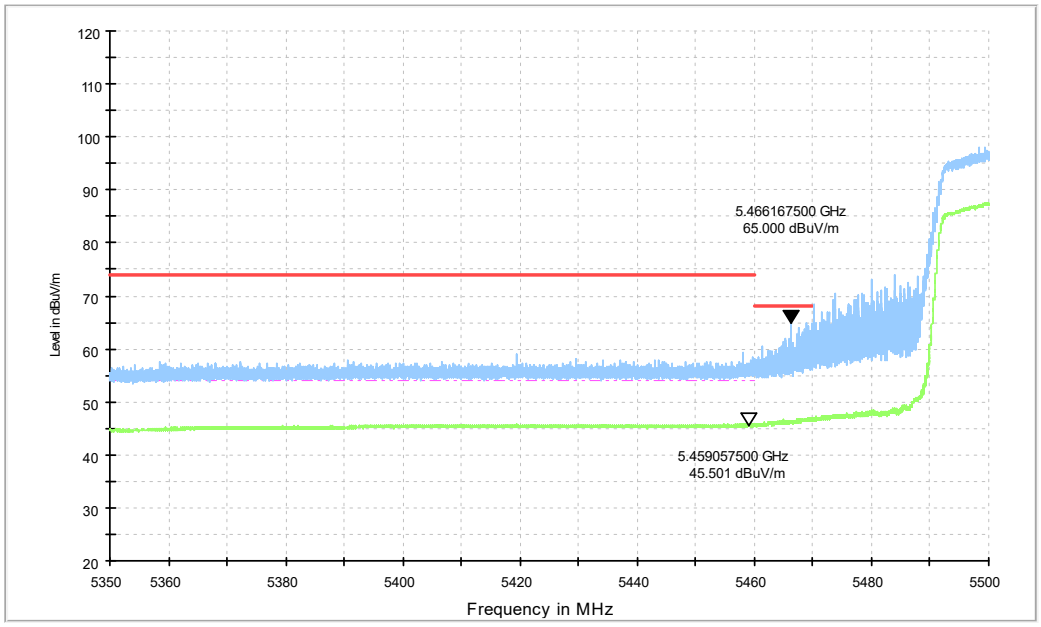

Fig. 19 Band Edges (802.11ac-HT40 Ch102, 5510MHz)

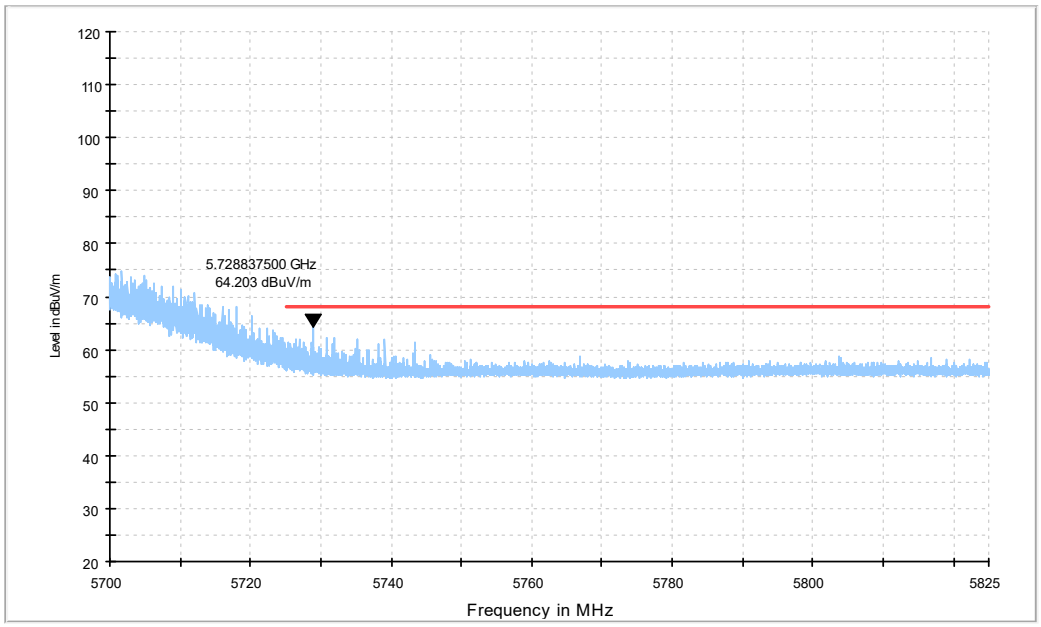

Fig. 20 Band Edges (802.11ac-HT40 Ch134, 5670MHz)

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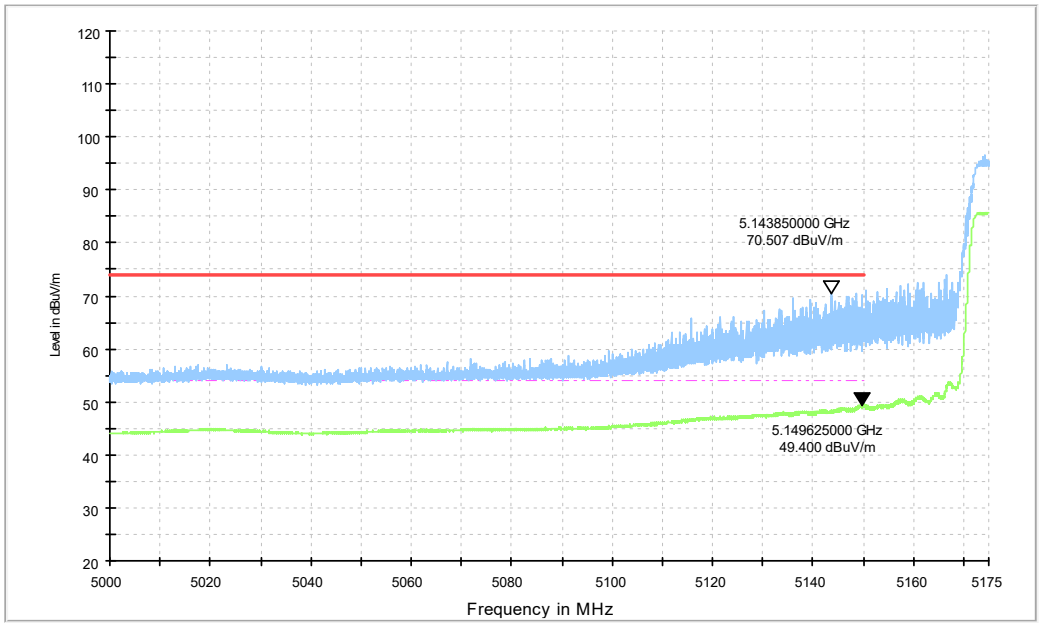

Fig. 21 Band Edges (802.11ac-HT80 Ch42 , 5210MHz)

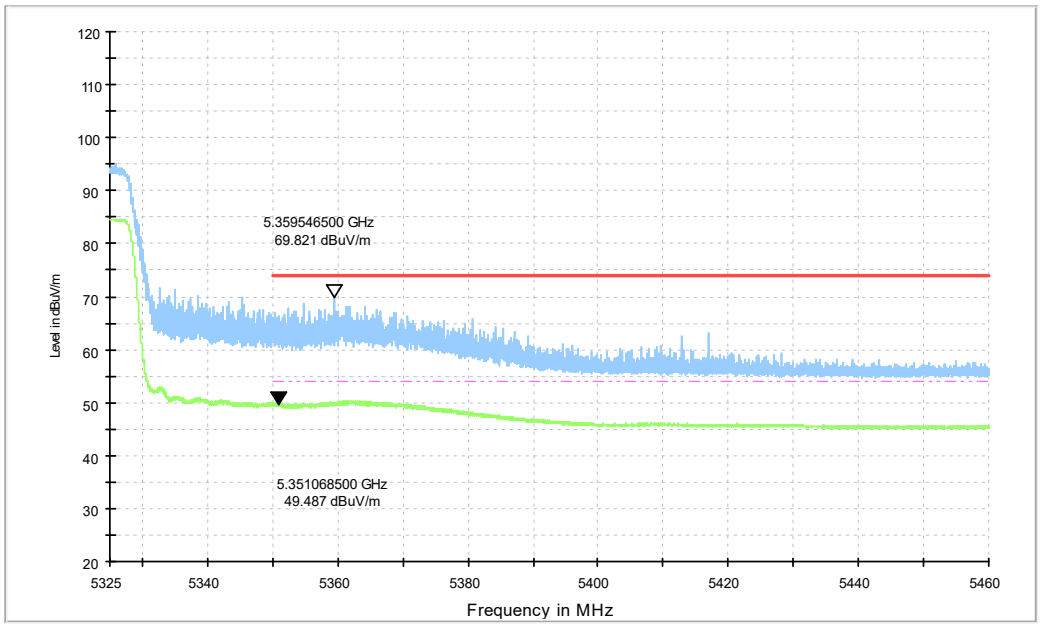

Fig. 22 Band Edges (802.11ac-HT80 Ch58, 5290MHz)

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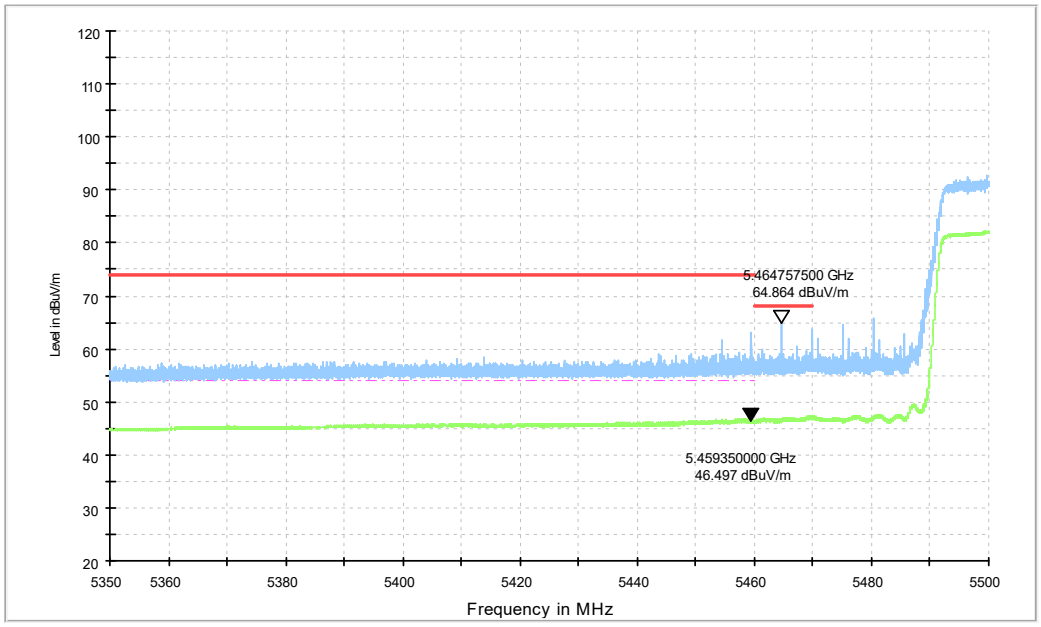

Fig. 23 Band Edges (802.11ac-HT80 Ch106, 5530MHz)

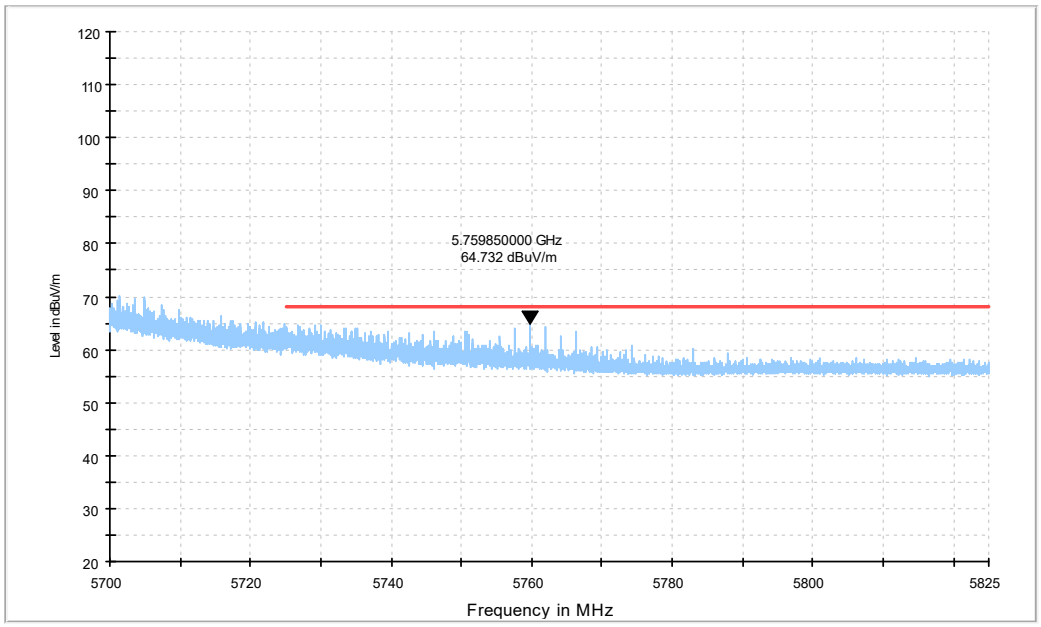

Fig. 24 Band Edges (802.11ac-HT80 Ch122, 5610MHz)

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A.6. AC Powerline Conducted Emission (150kHz- 30MHz)

A.6.1 Summary

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section

A.6.2 Method of Measurement

See Clause 6.2 of ANSI C63.10 specifically.

See Clause 4 and Clause 5 of ANSI C63.10 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver: Quasi-Peak / Average Detector.

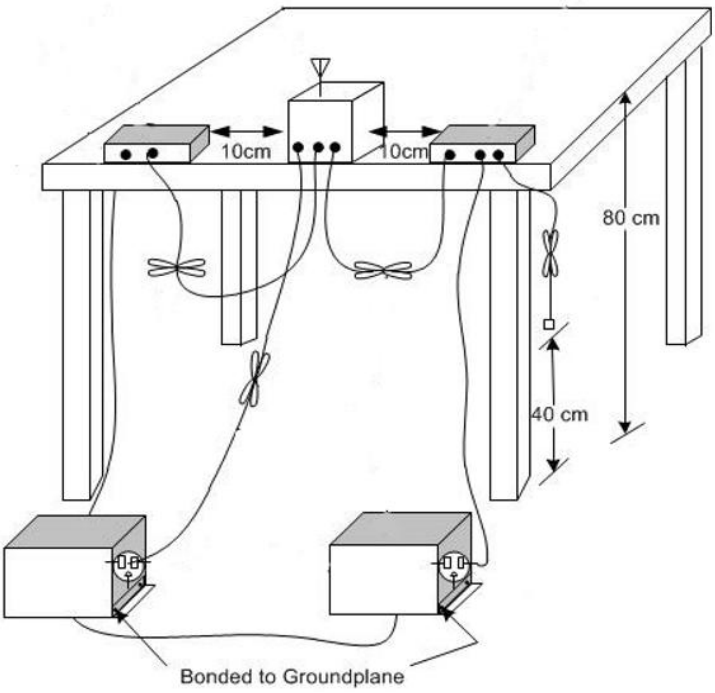
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
0.15-30	9kHz

A.6.3 Test Condition

Voltage（V）	Frequency（Hz）
120	60

A.6.4 Test setup



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Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	66 to 56	Fig.25	Fig.26	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		
		11a mode	Idle	
0.15 to 0.5	56 to 46	Fig.25	Fig.26	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:

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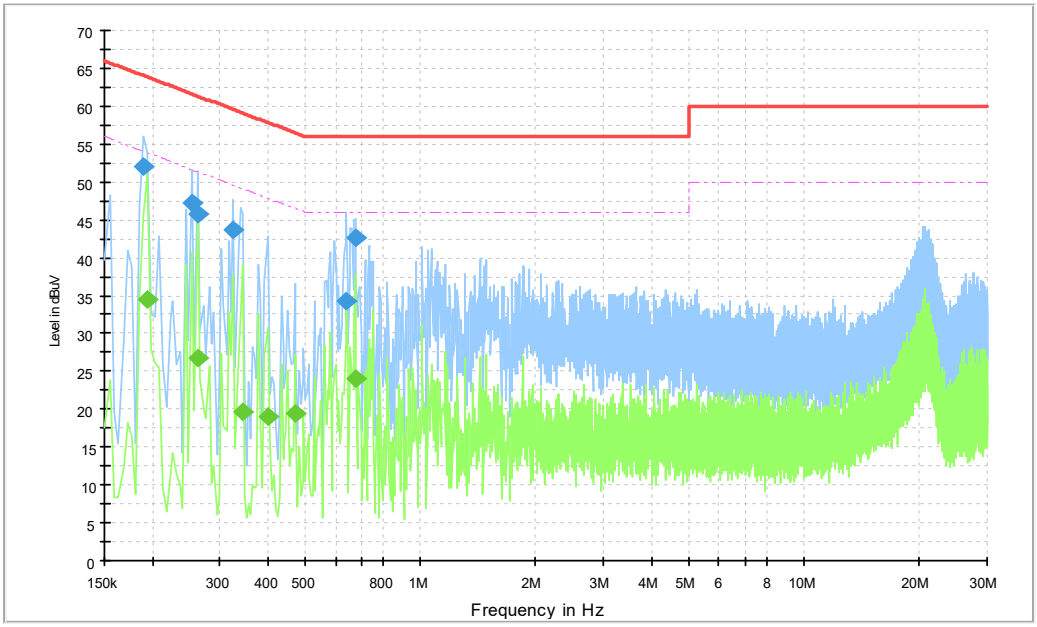

Fig.25 Conducted Emission (802.11a, TX)

Measurement Result:

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.190500	52.0	2000.0	9.000	On	N	19.9	12.0	64.0
0.253500	47.2	2000.0	9.000	On	N	19.8	14.5	61.6
0.262500	45.8	2000.0	9.000	On	N	19.8	15.5	61.4
0.325500	43.7	2000.0	9.000	On	L1	19.8	15.8	59.6
0.640500	34.3	2000.0	9.000	On	L1	19.8	21.7	56.0
0.676500	42.7	2000.0	9.000	On	L1	19.9	13.3	56.0

Measurement Result:

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.195000	34.5	2000.0	9.000	On	L1	19.9	19.4	53.8
0.262500	26.7	2000.0	9.000	On	N	19.8	24.6	51.4
0.343500	19.7	2000.0	9.000	On	N	19.8	29.5	49.1
0.402000	19.0	2000.0	9.000	On	L1	19.9	28.9	47.8
0.469500	19.4	2000.0	9.000	On	L1	19.9	27.2	46.5
0.676500	24.1	2000.0	9.000	On	N	19.9	21.9	46.0

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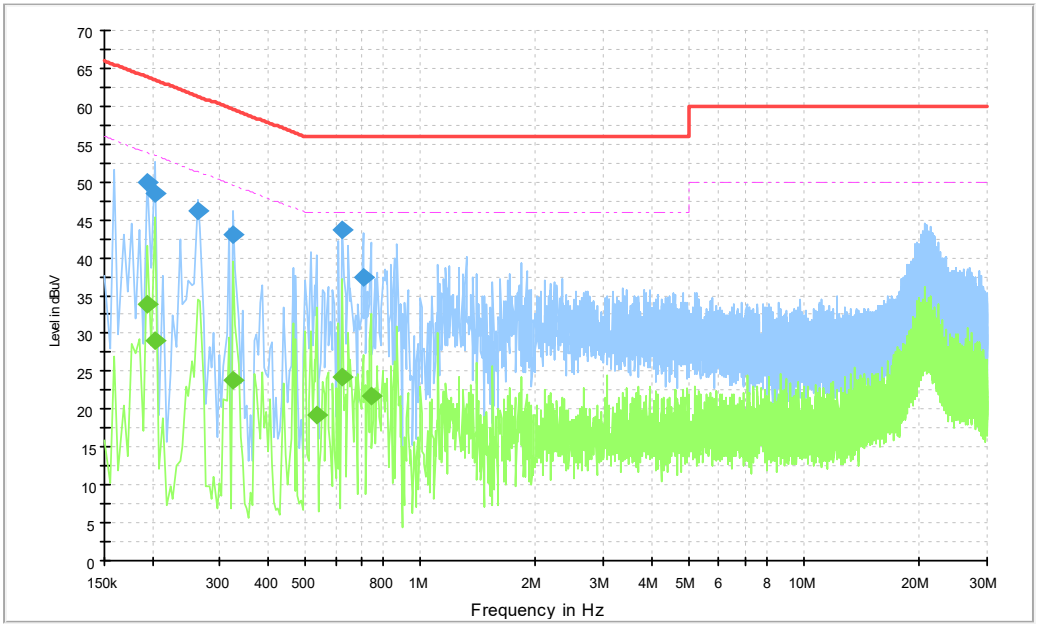

Fig.26 Conducted Emission (802.11a, IDLE)

Measurement Result:

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.195000	49.9	2000.0	9.000	On	N	19.9	14.0	63.8
0.204000	48.4	2000.0	9.000	On	N	19.9	15.1	63.4
0.262500	46.1	2000.0	9.000	On	L1	19.8	15.2	61.4
0.325500	43.1	2000.0	9.000	On	L1	19.8	16.5	59.6
0.622500	43.7	2000.0	9.000	On	L1	19.9	12.3	56.0
0.708000	37.3	2000.0	9.000	On	N	19.9	18.7	56.0

Measurement Result:

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.195000	33.8	2000.0	9.000	On	L1	19.9	20.0	53.8
0.204000	29.0	2000.0	9.000	On	N	19.9	24.5	53.4
0.325500	23.8	2000.0	9.000	On	N	19.8	25.8	49.6
0.537000	19.3	2000.0	9.000	On	N	19.9	26.7	46.0
0.622500	24.3	2000.0	9.000	On	N	19.9	21.7	46.0
0.744000	21.8	2000.0	9.000	On	N	19.9	24.2	46.0

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A.7. 99% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.

a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.

b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.

c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.

d) Step a) through step c) might require iteration to adjust within the specified range.

e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.

f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% ofthe total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.

h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz

EUT ID: UT14a

Measurement Result:

TestMode	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	5180	17.411	5171.3070	5188.7180	---	---
	5200	17.361	5191.2963	5208.6572	---	---
	5240	17.519	5231.2226	5248.7417	---	---
11N40SISO	5190	36.419	5171.8180	5208.2368	---	---
	5230	36.593	5211.6345	5248.2278	---	---
11AC20SISO	5180	18.322	5170.8474	5189.1690	---	---
	5200	18.231	5190.8500	5209.0814	---	---
	5240	18.222	5230.8630	5249.0854	---	---
11AC80SISO	5210	75.399	5172.2722	5247.6714	---	---

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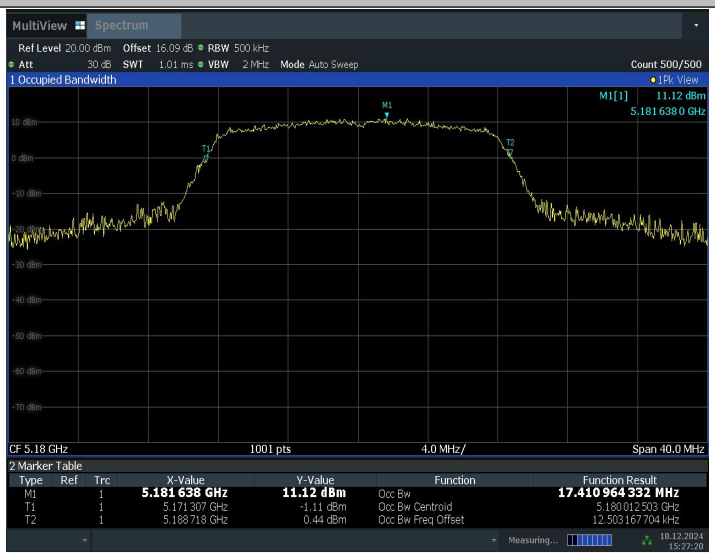
Test graphs as below:

11A_5180



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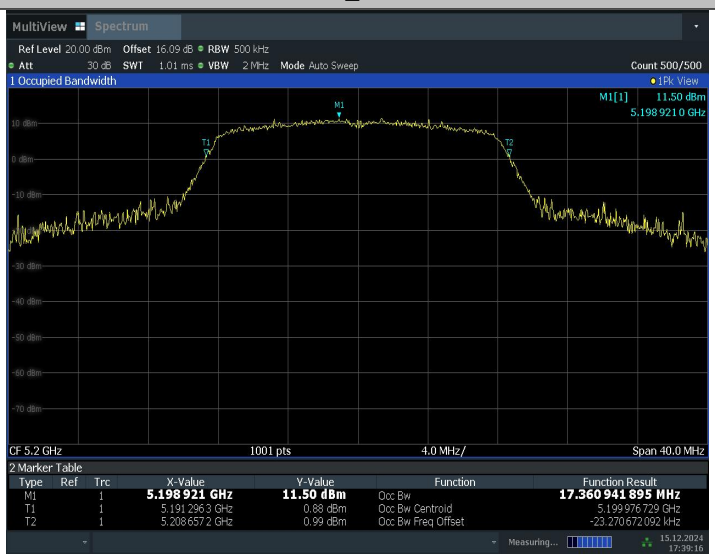
11A_5200



17:39:16 15.12.2024

11A_5240

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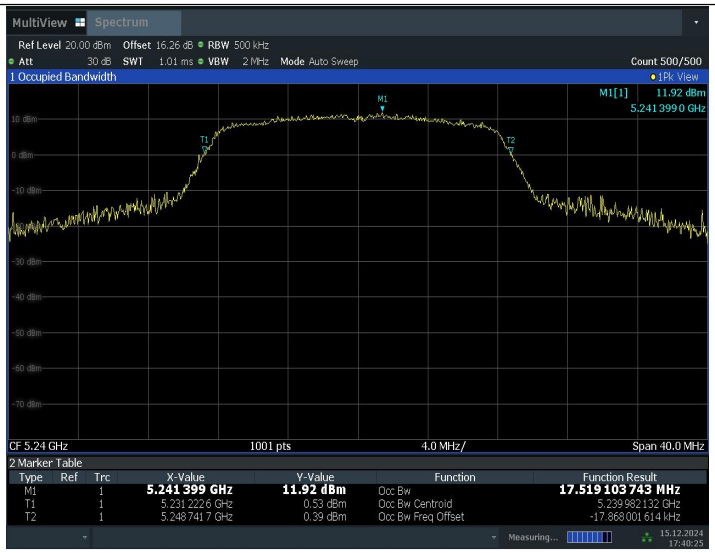

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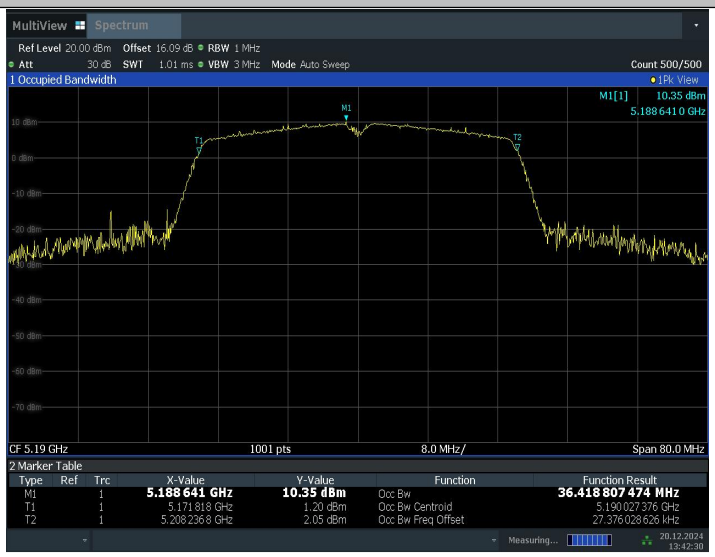

13:42:31 20.12.2024

11N40SISO_5230

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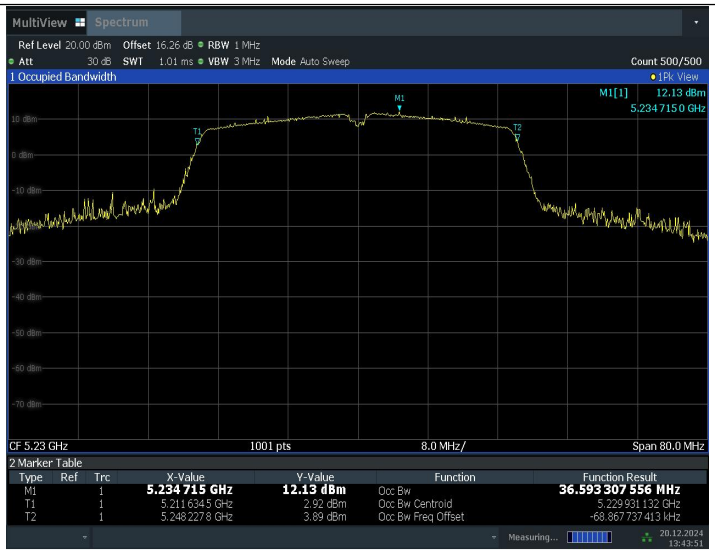
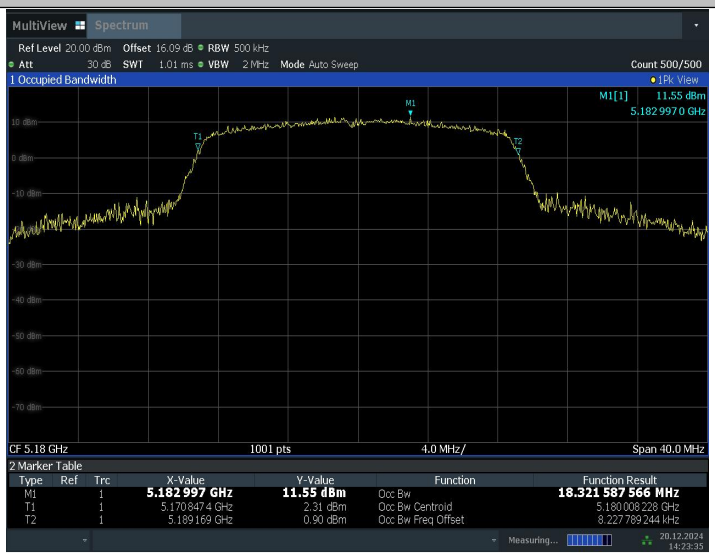


13:43:51 20.12.2024

11AC20SISO_5180



14:23:36 20.12.2024

11AC20SISO_5200

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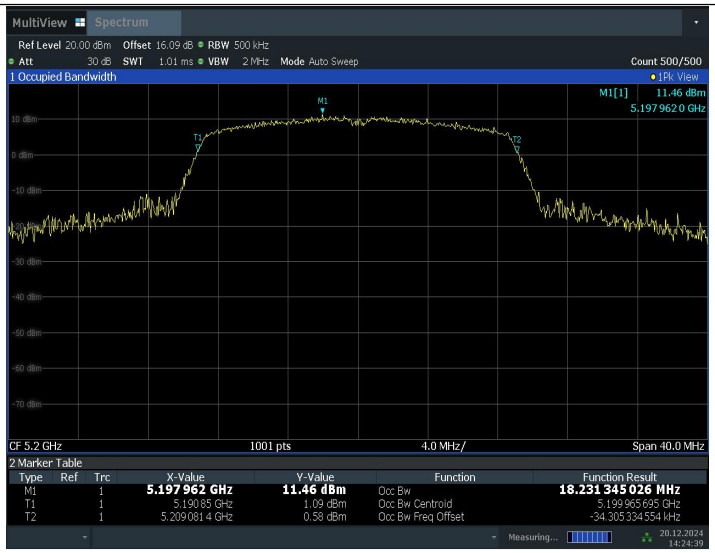

14:24:40 20.12.2024

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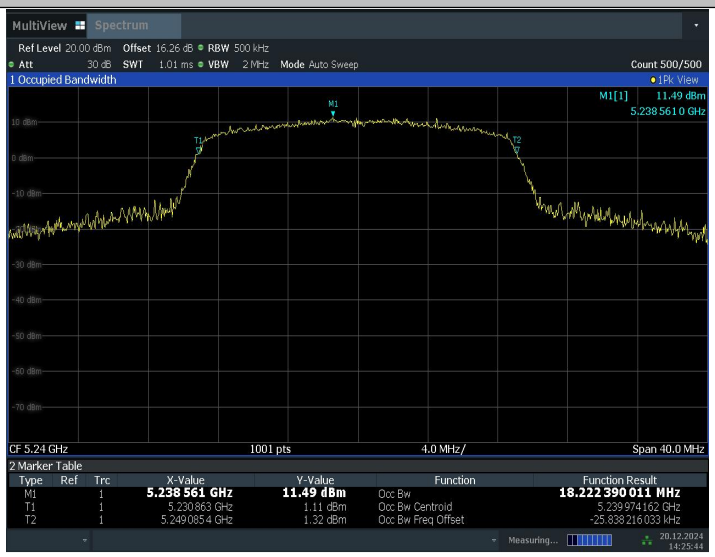

14:25:45 20.12.2024

11AC80SISO_5210

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15:22:15 20.12.2024

Conclusion: PASS

A.8. 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.

A.9. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500 mW).

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.

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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 McInturff, 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 *****

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