

	5670 MHz	Fig.79	P
	5710 MHz	Fig.80	P
	5710 MHz	Fig.81	P
802.11ac HT80	5210MHz	Fig.82	P
	5290MHz	Fig.83	P
	5530MHz	Fig.84	P
	5690 MHz	Fig.85	P
	5690 MHz	Fig.86	P

Conclusion: PASS

Test graphs as below:

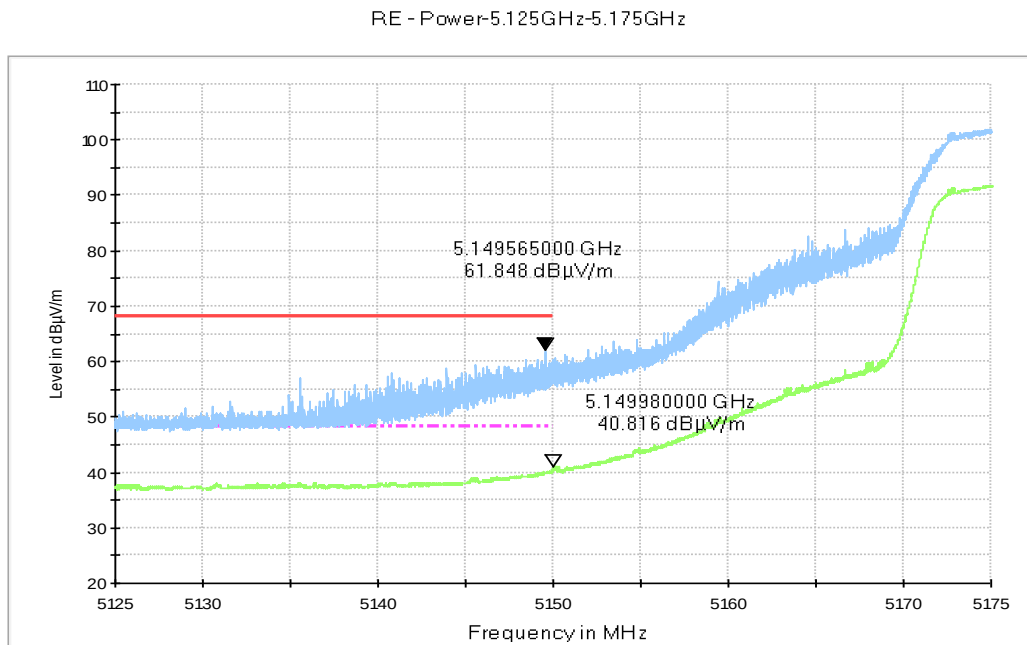


Fig.52 Band Edges (802.11a, 5180MHz)

RE - Power-5.325GHz-5.375GHz

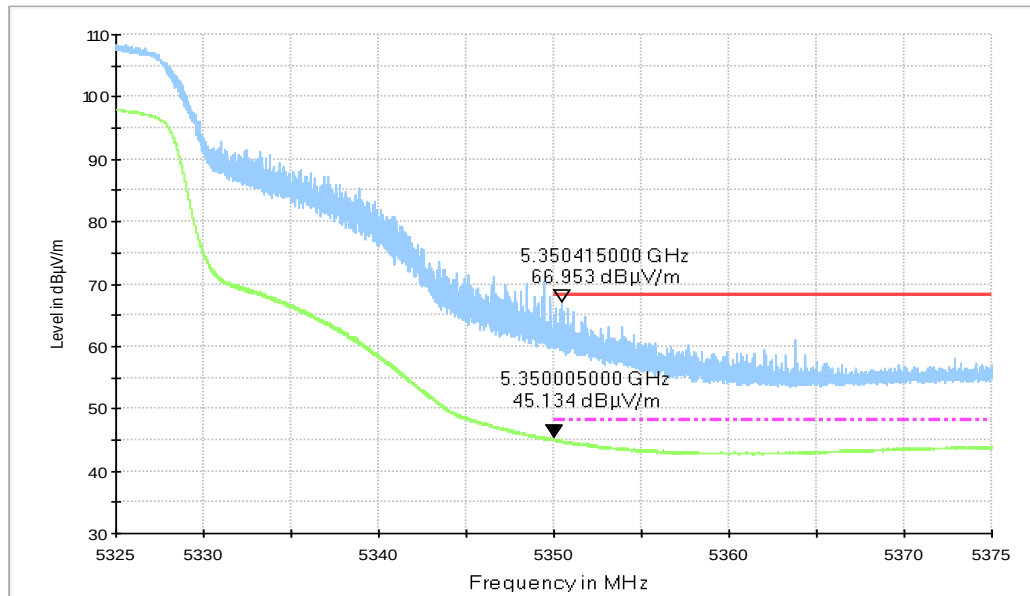


Fig.53 Band Edges (802.11a, 5320MHz)

RE - Power-5.45GHz-5.50GHz

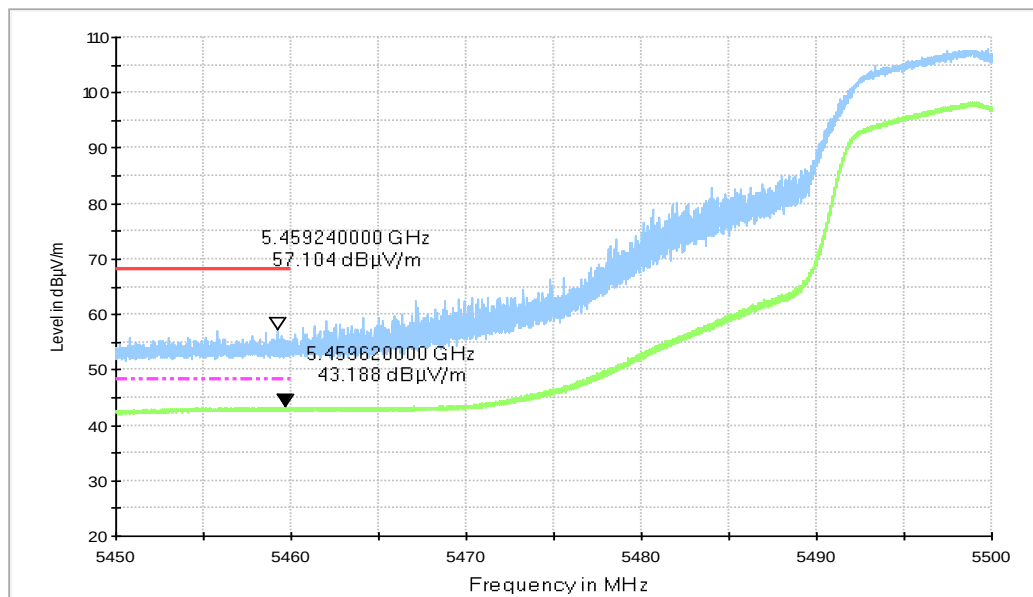


Fig.54 Band Edges (802.11a, 5500MHz)

RE - Power-5.70GHz-5.75GHz

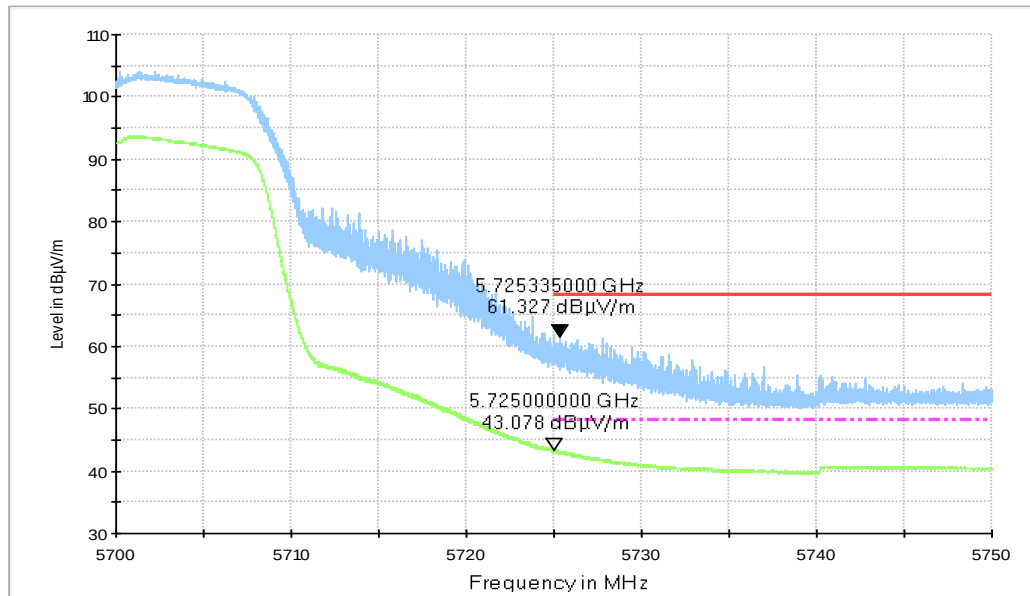


Fig.55 Band Edges (802.11a, 5700MHz)

RE - Power-5.45GHz-5.50GHz

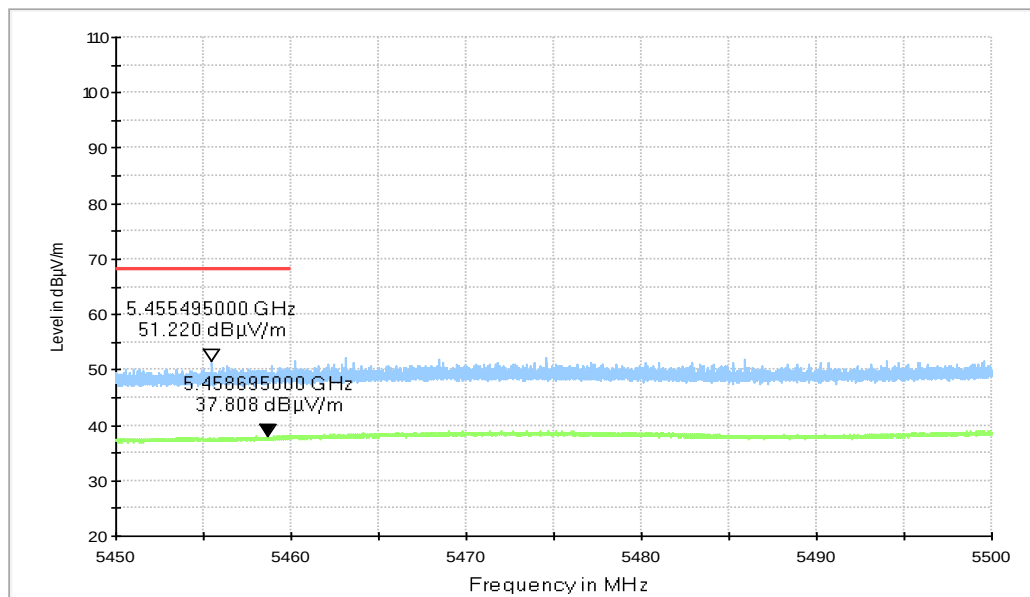


Fig.56 Band Edges (802.11a, 5720MHz)

RE - Power-5.810GHz-5.925GHz

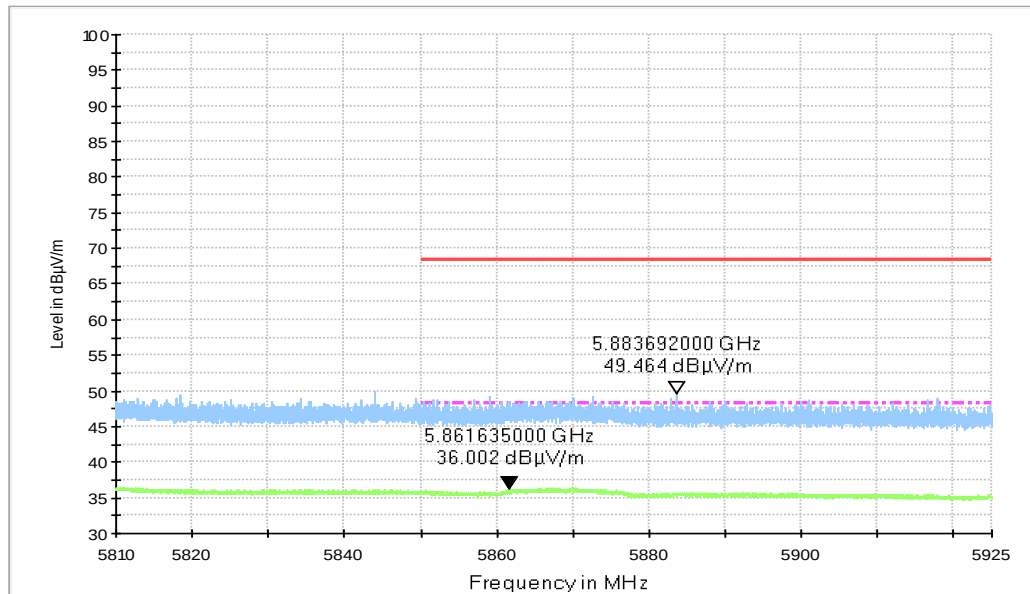


Fig.57 Band Edges (802.11a, 5720MHz)

RE - Power-5.125GHz-5.175GHz

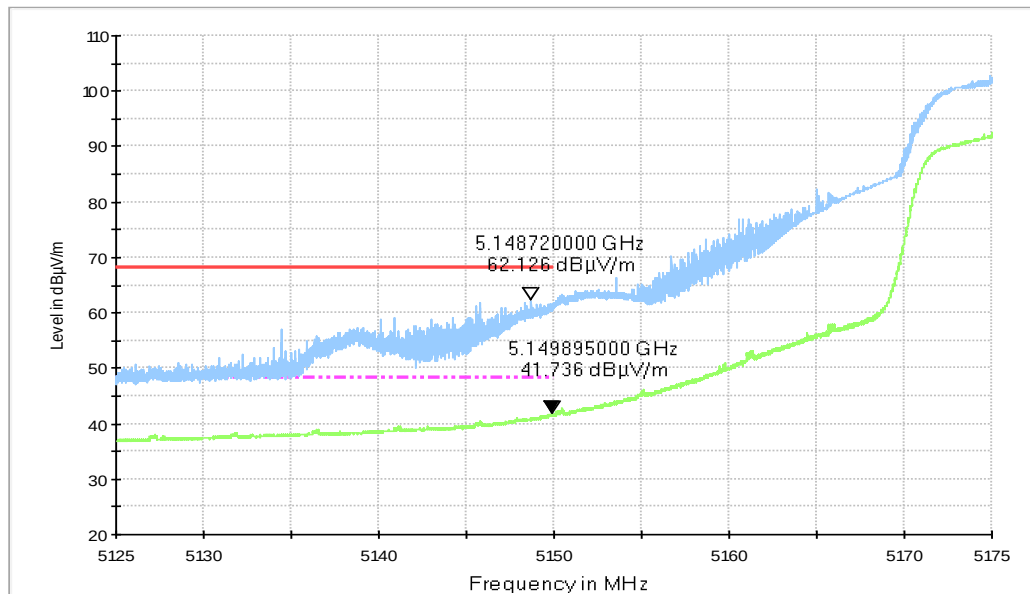


Fig.58 Band Edges (802.11n-HT20, 5180MHz)

RE - Power-5.325GHz-5.375GHz

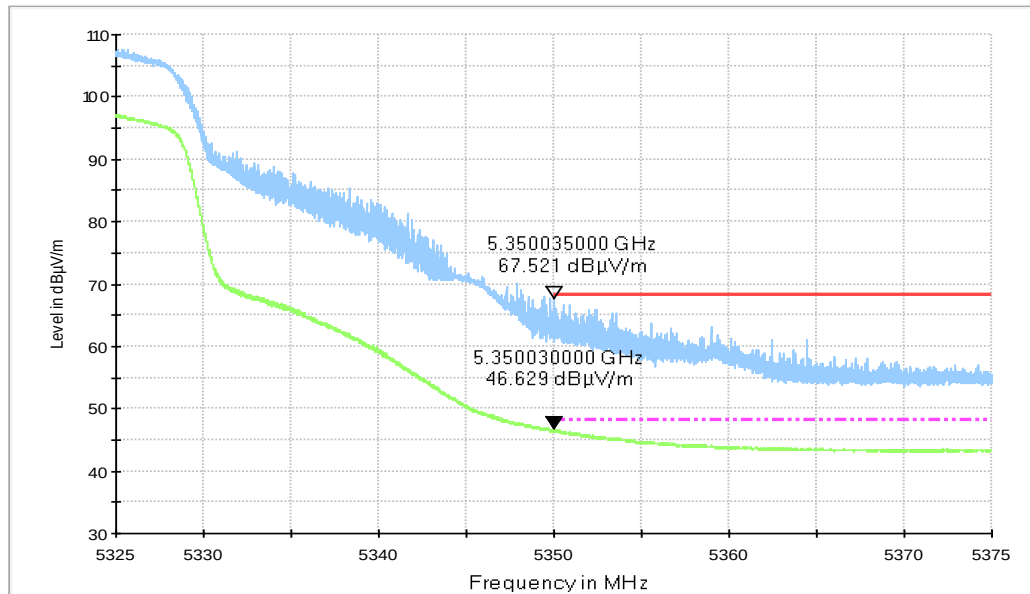


Fig.59 Band Edges (802.11n-HT20, 5320MHz)

RE - Power-5.45GHz-5.50GHz

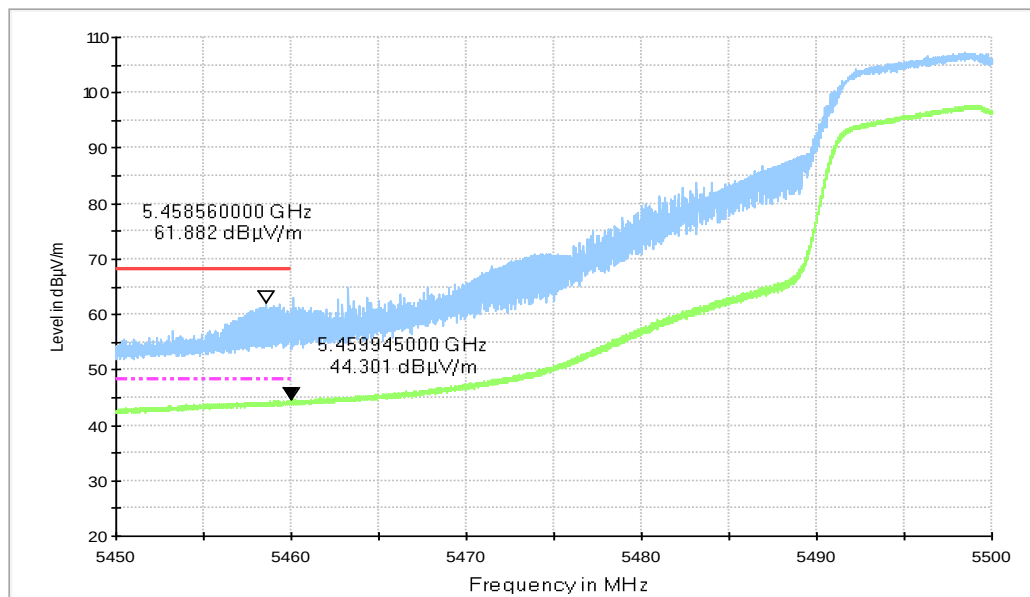


Fig.60 Band Edges (802.11n-HT20, 5500MHz)

RE - Power-5.70GHz-5.75GHz

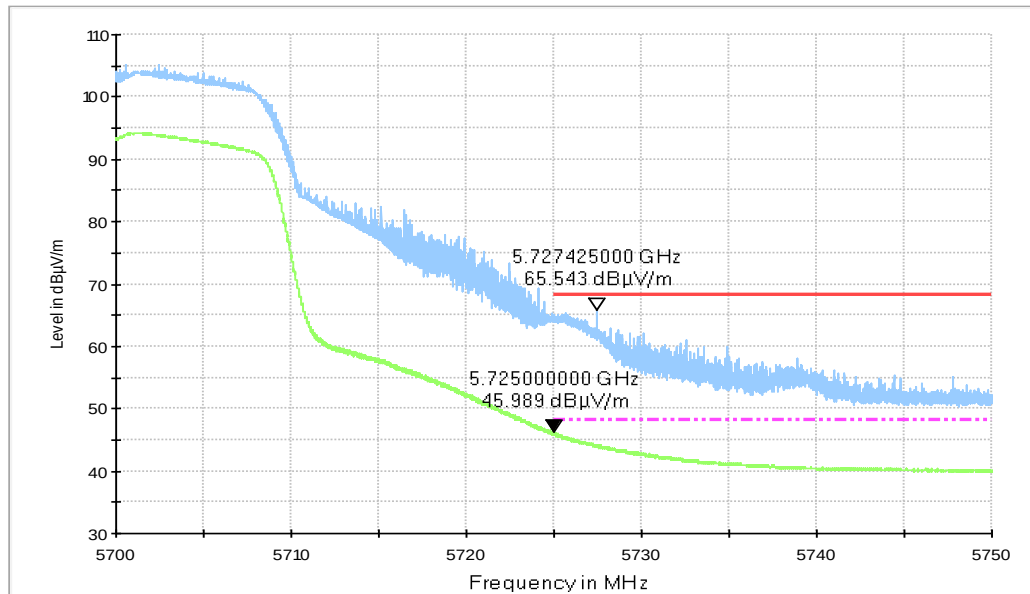


Fig.61 Band Edges (802.11n-HT20, 5700MHz)

RE - Power-5.45GHz-5.50GHz

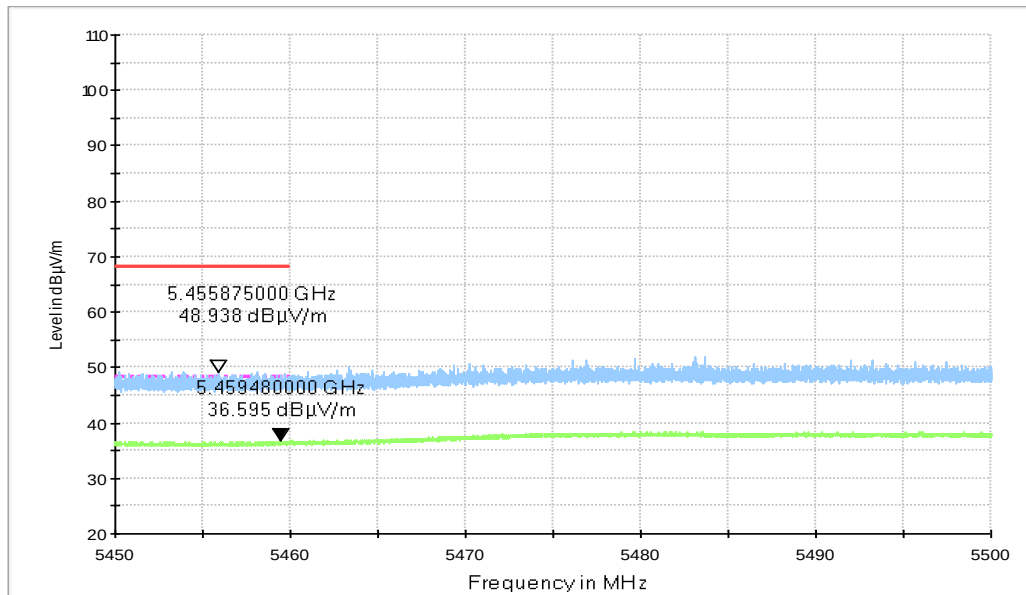


Fig.62 Band Edges (802.11n, 5720MHz)

RE - Power-5.810GHz-5.925GHz

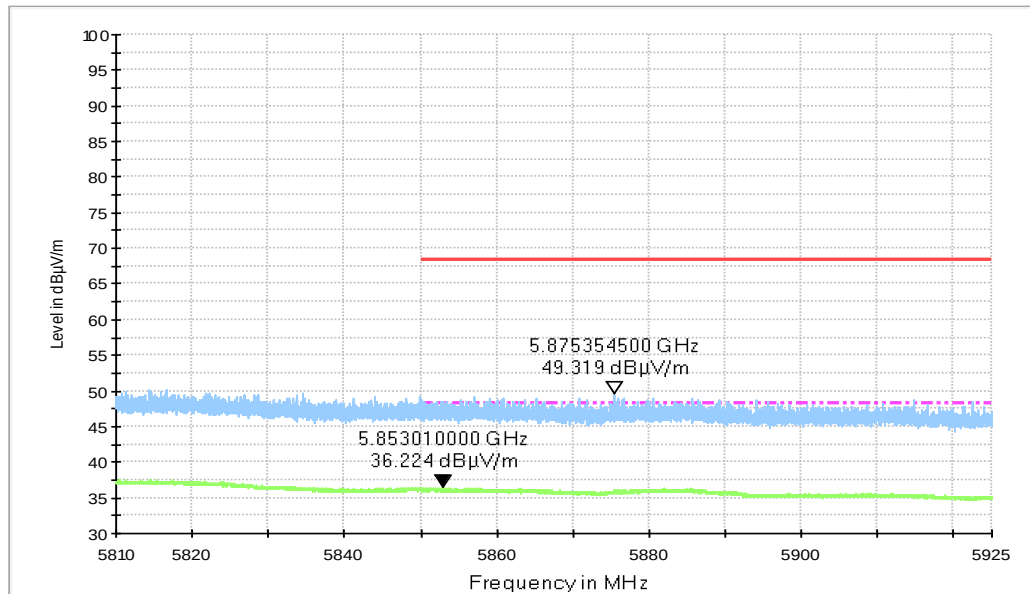


Fig.63 Band Edges (802.11n, 5720MHz)

RE - Power-5.125GHz-5.175GHz

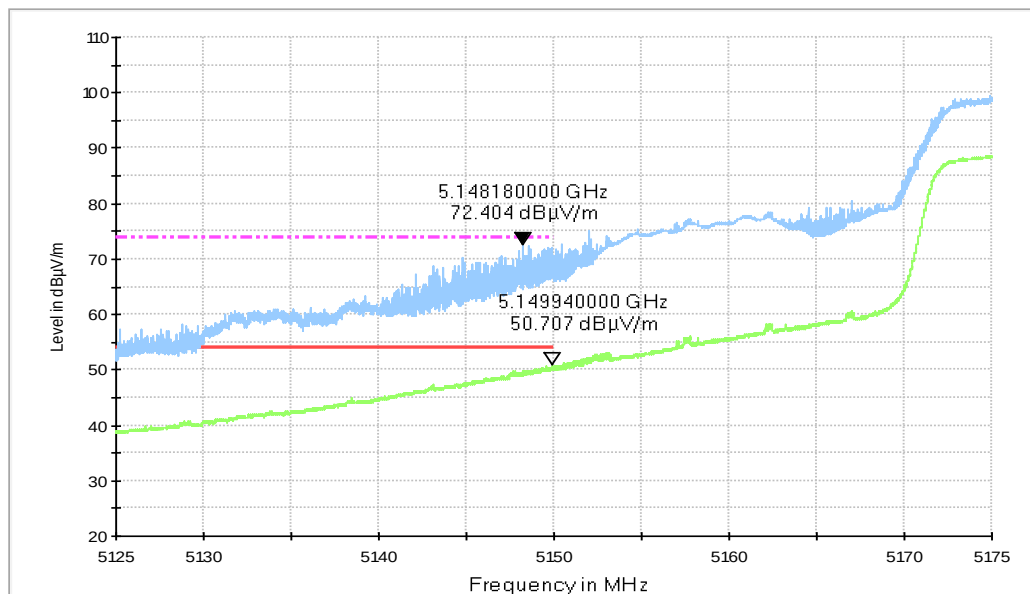


Fig.64 Band Edges (802.11ac-HT20, 5180MHz)

RE - Power-5.325GHz-5.375GHz

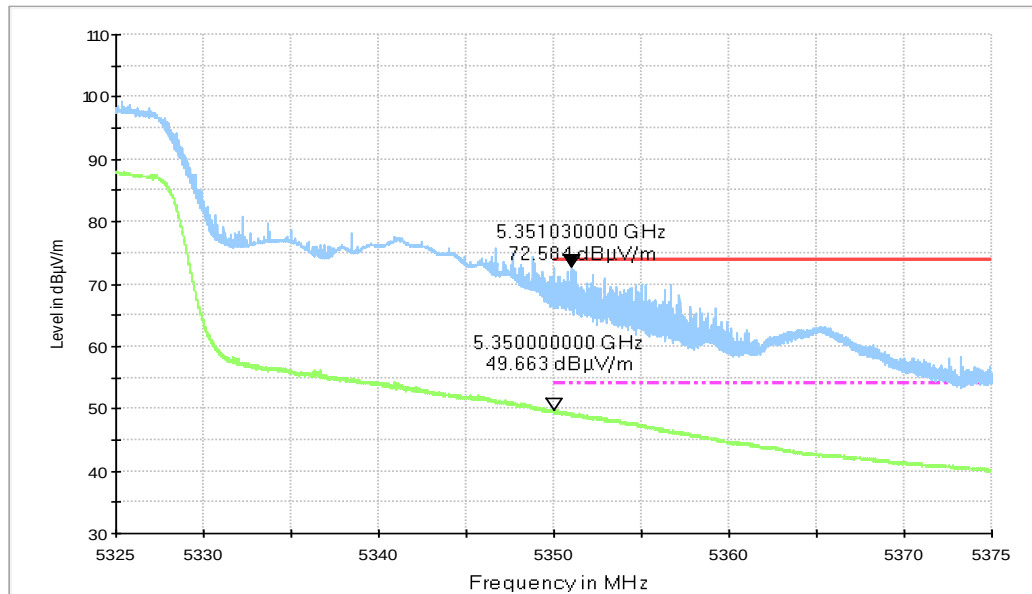


Fig.65 Band Edges (802.11ac-HT20, 5320MHz)

RE - Power-5.45GHz-5.50GHz

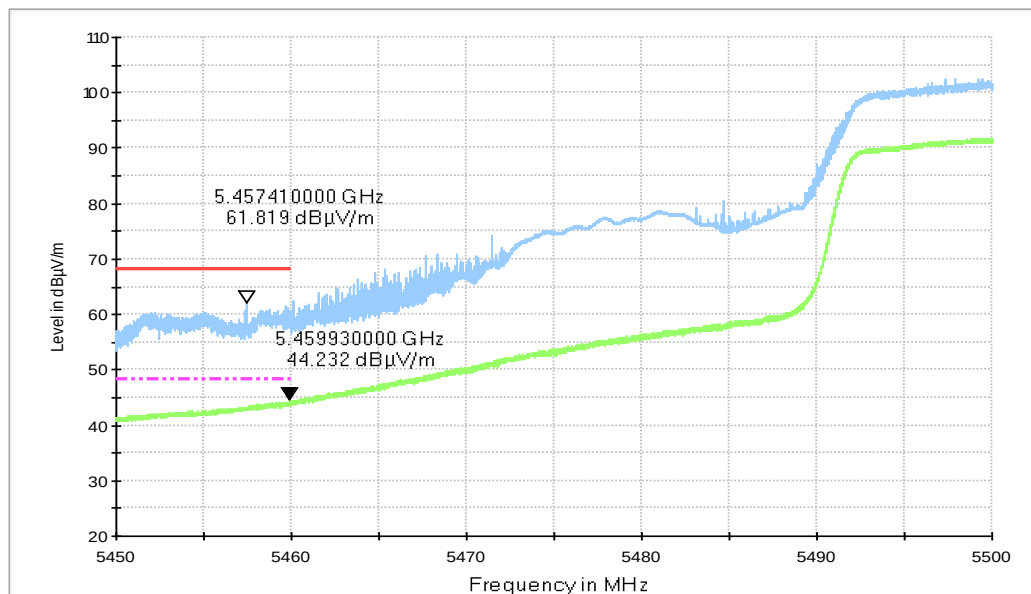


Fig.66 Band Edges (802.11ac-HT20, 5500MHz)

RE - Power-5.70GHz-5.75GHz

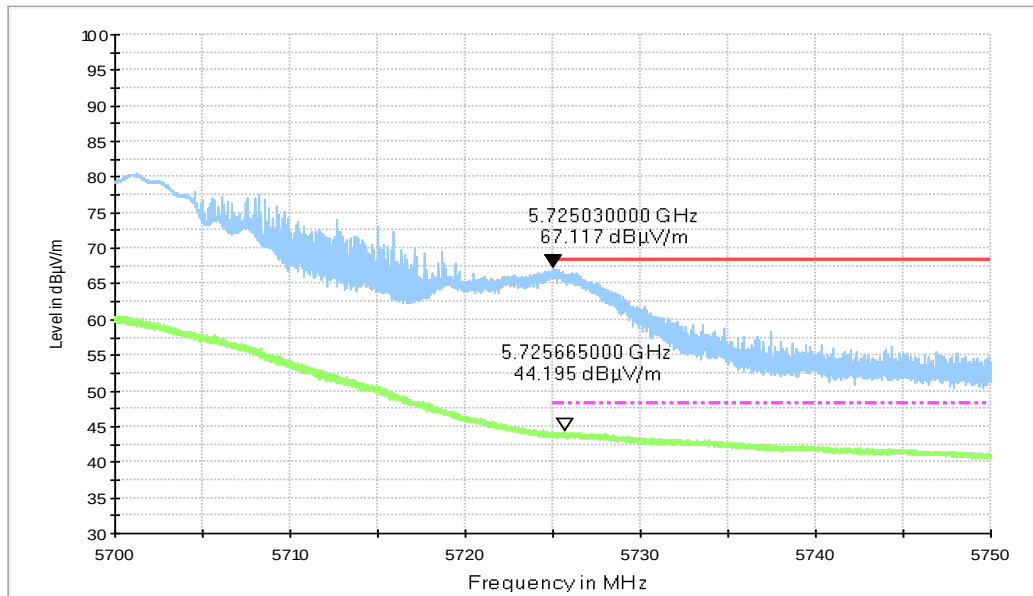


Fig.67 Band Edges (802.11ac-HT20, 5700MHz)

RE - Power-5.45GHz-5.50GHz

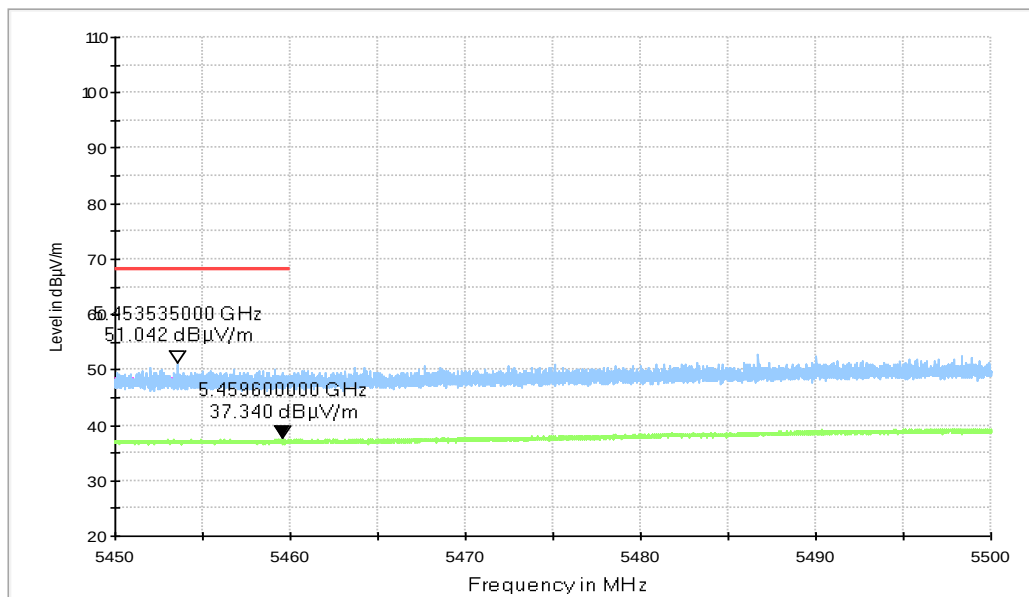


Fig.68 Band Edges (802.11ac, 5720MHz)

RE - Power-5.810GHz-5.925GHz

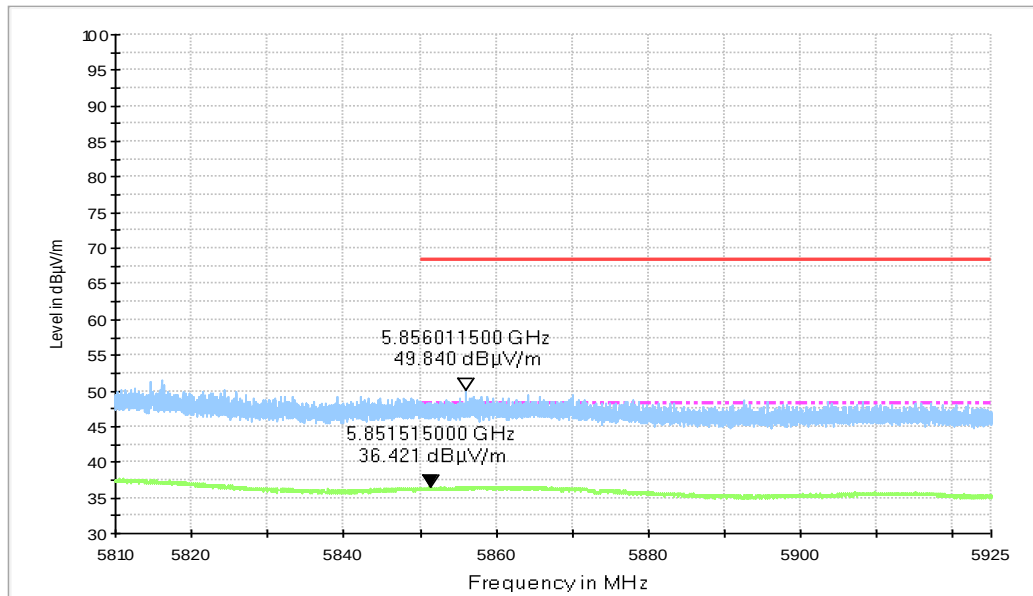


Fig.69 Band Edges (802.11ac, 5720MHz)

RE - Power-5.125GHz-5.175GHz

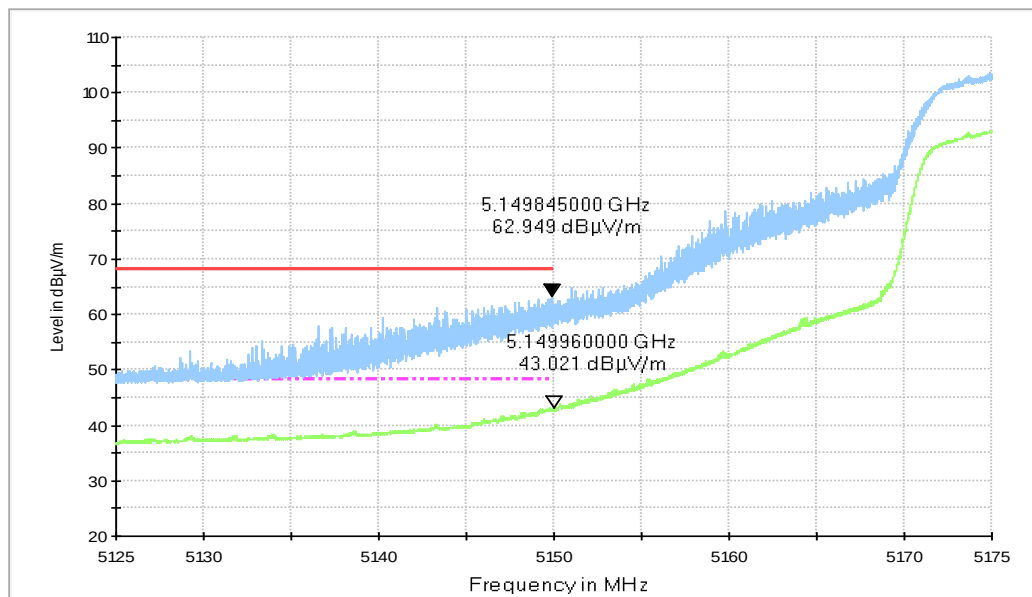


Fig.70 Band Edges (802.11n-HT40, 5190MHz)

RE - Power-5.325GHz-5.375GHz

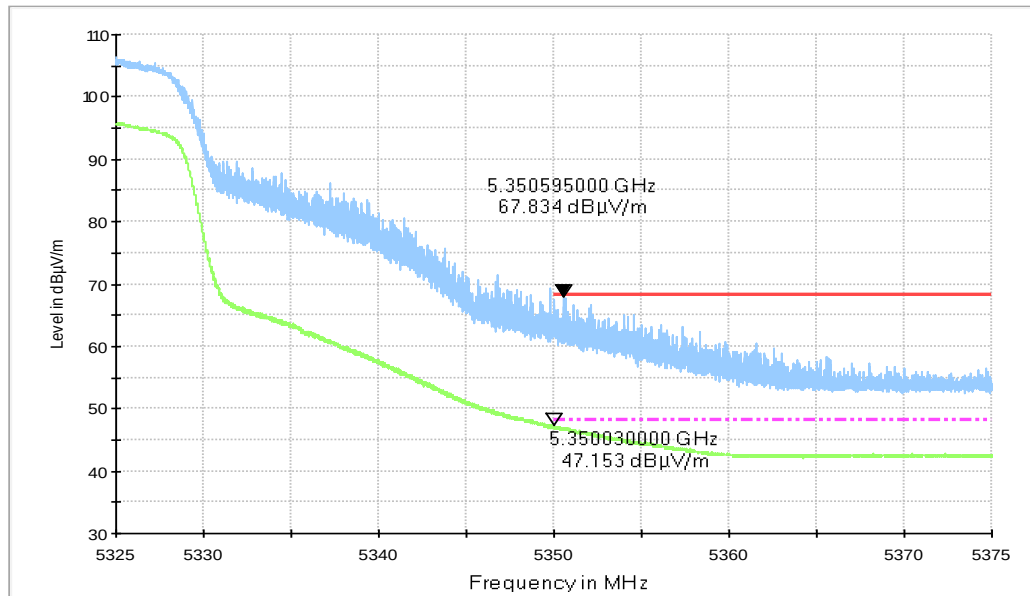


Fig.71 Band Edges (802.11n-HT40, 5310MHz)

RE - Power-5.45GHz-5.50GHz

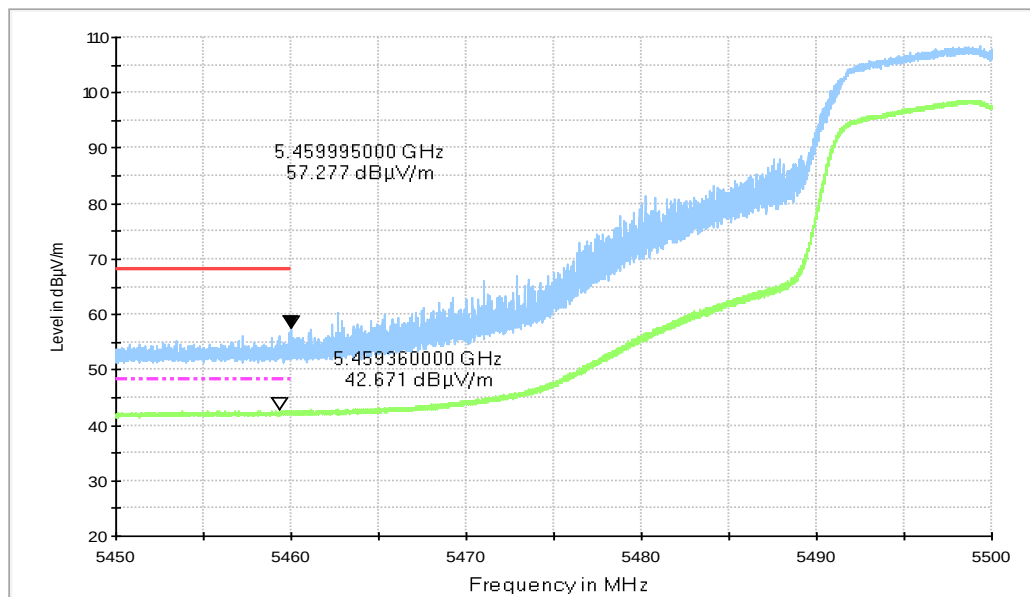


Fig.72 Band Edges (802.11n-HT40, 5510MHz)

RE - Power-5.70GHz-5.75GHz

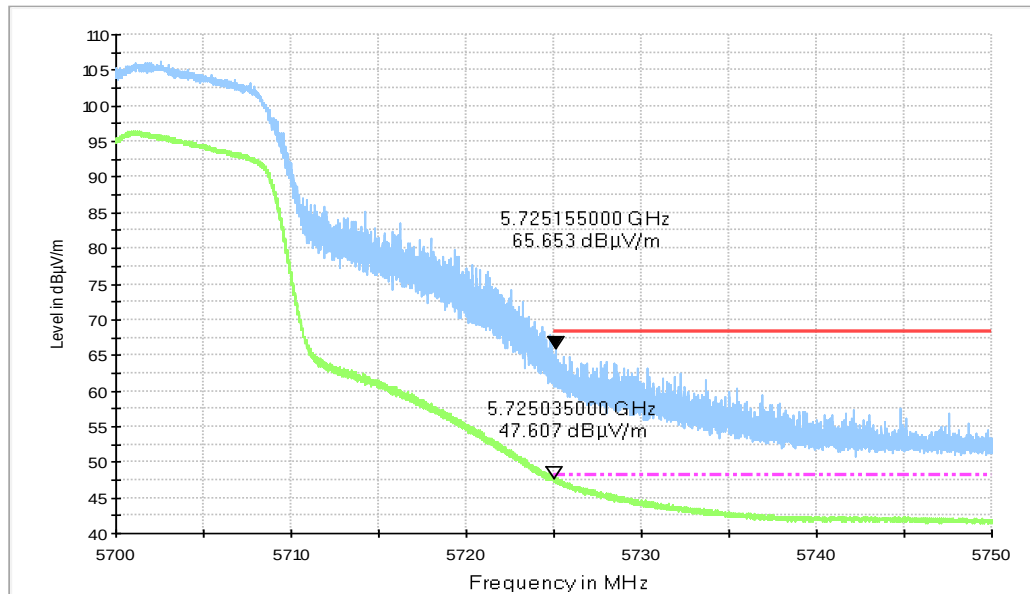


Fig.73 Band Edges (802.11n-HT40, 5670MHz)

RE - Power-5.45GHz-5.50GHz

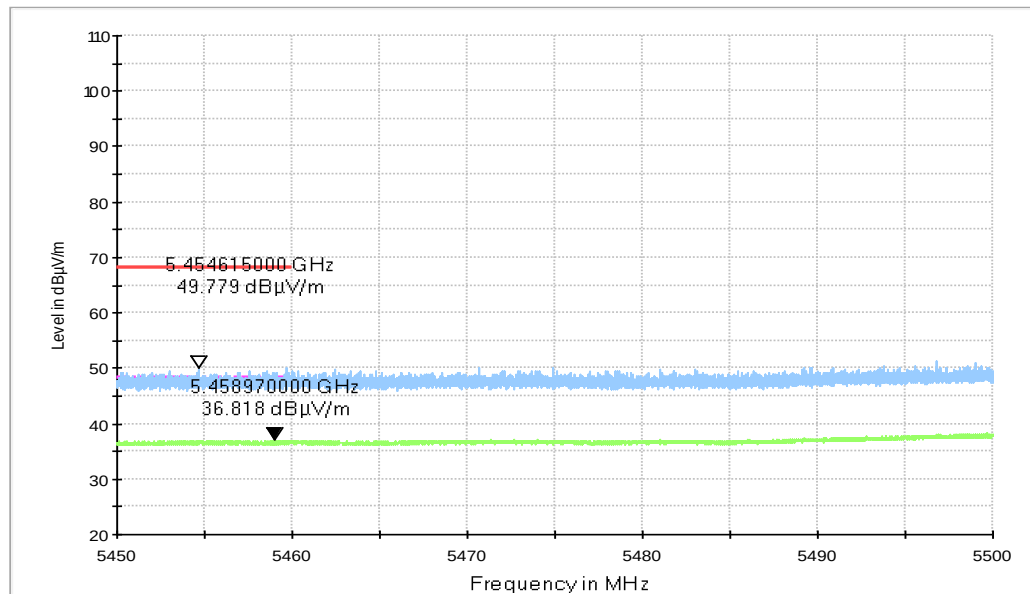


Fig.74 Band Edges (802.11n-HT40, 5710MHz)

RE - Power-5.810GHz-5.925GHz

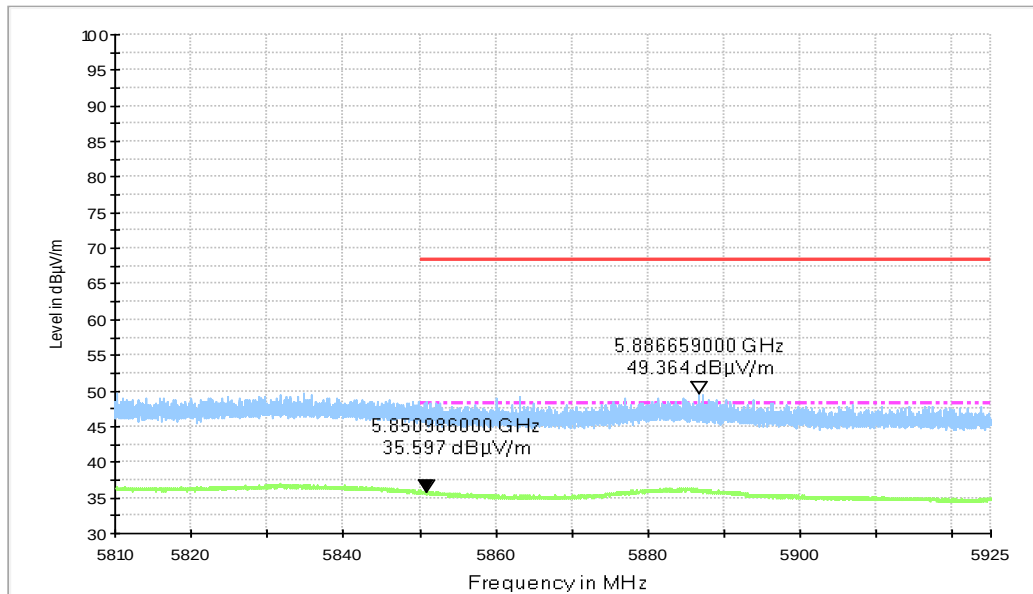


Fig.75 Band Edges (802.11n-HT40, 5710MHz)

RE - Power-5.125GHz-5.175GHz

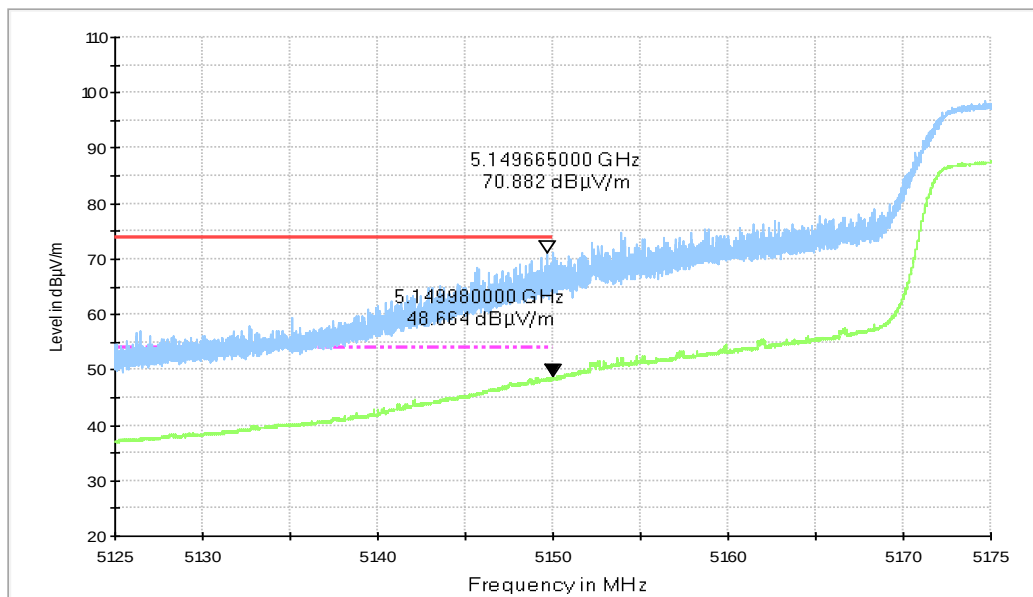


Fig.76 Band Edges (802.11ac-HT40, 5190MHz)

RE - Power-5.325GHz-5.375GHz

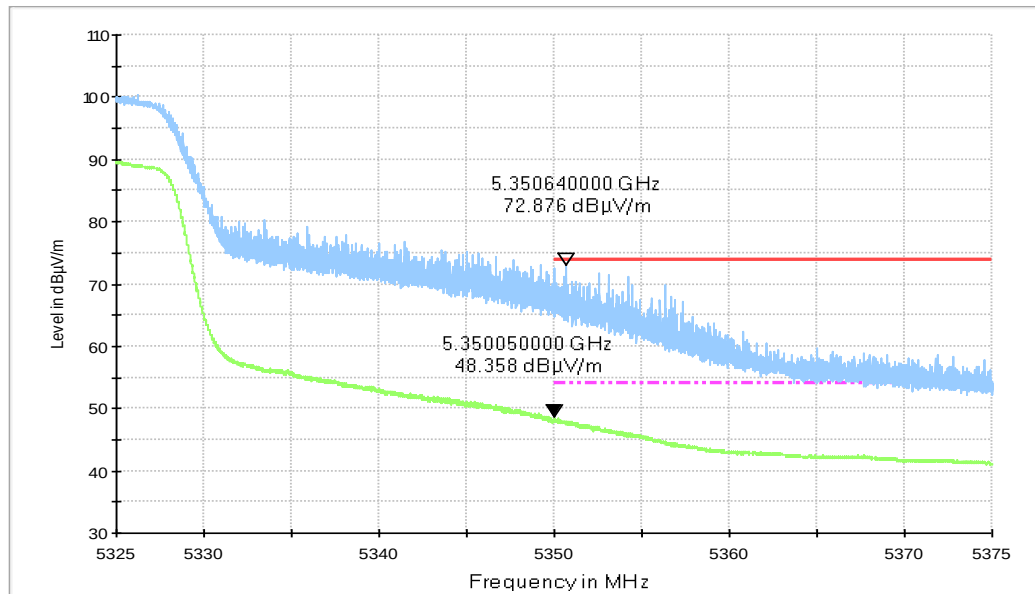


Fig.77 Band Edges (802.11ac-HT40, 5310MHz)

RE - Power-5.45GHz-5.50GHz

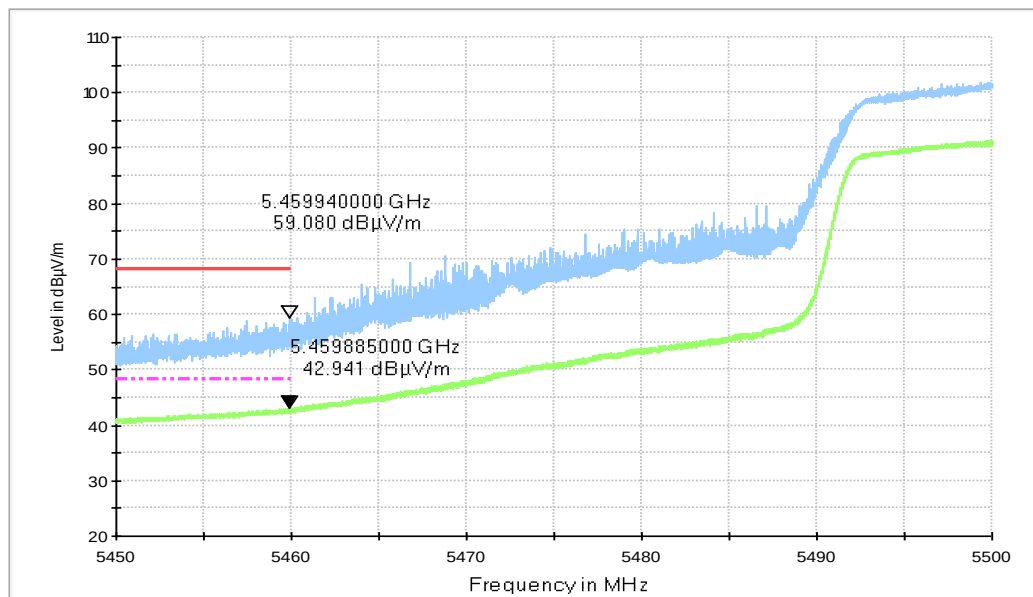


Fig.78 Band Edges (802.11ac-HT40, 5510MHz)

RE - Power-5.70GHz-5.75GHz

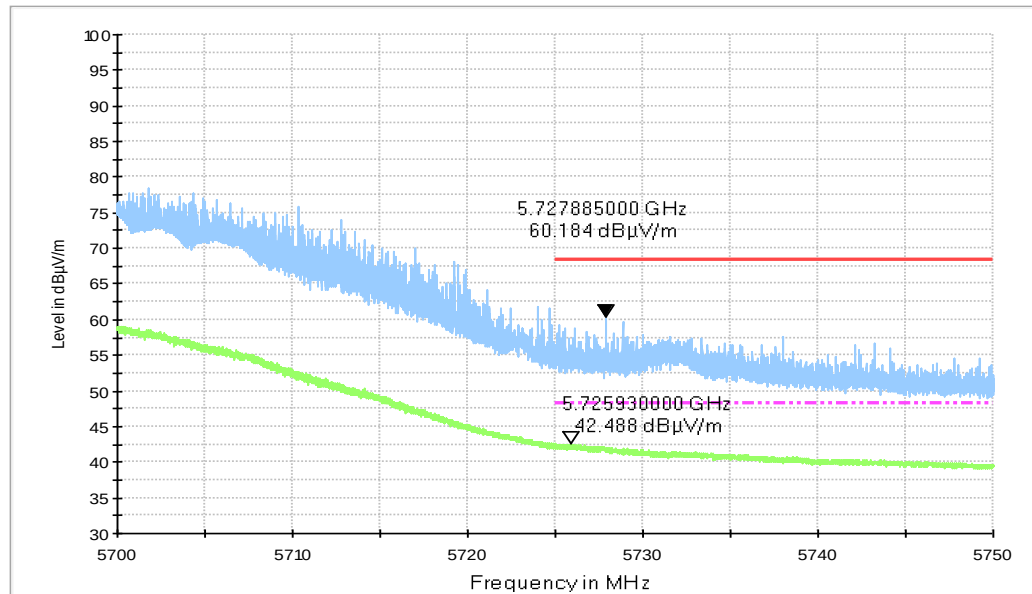


Fig.79 Band Edges (802.11ac-HT40, 5670MHz)

RE - Power-5.45GHz-5.50GHz

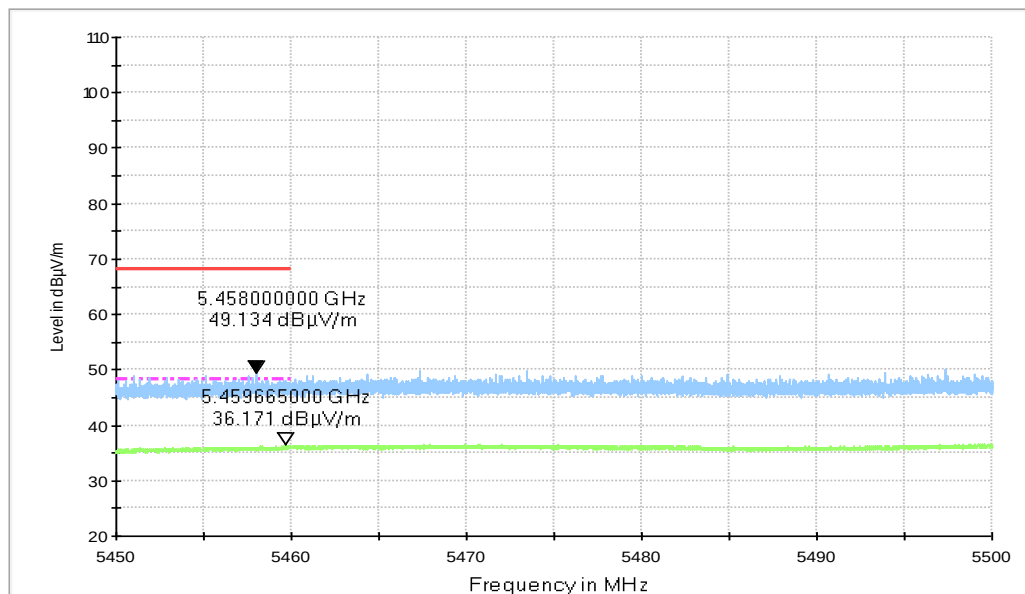


Fig.80 Band Edges (802.11ac-HT40, 5710MHz)

RE - Power-5.810GHz-5.925GHz

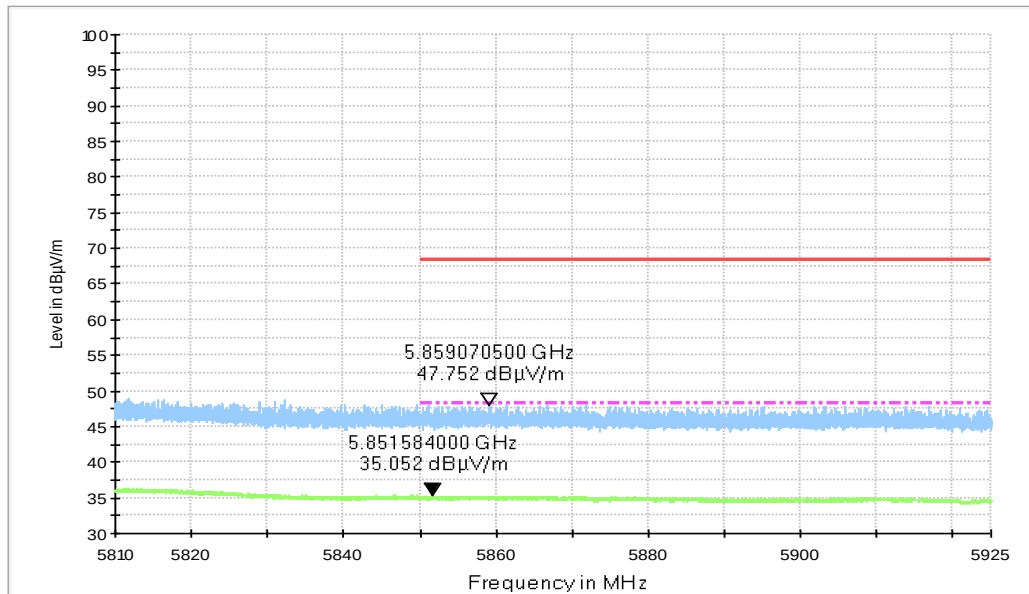


Fig.81 Band Edges (802.11ac-HT40, 5710MHz)

RE - Power-5.125GHz-5.175GHz

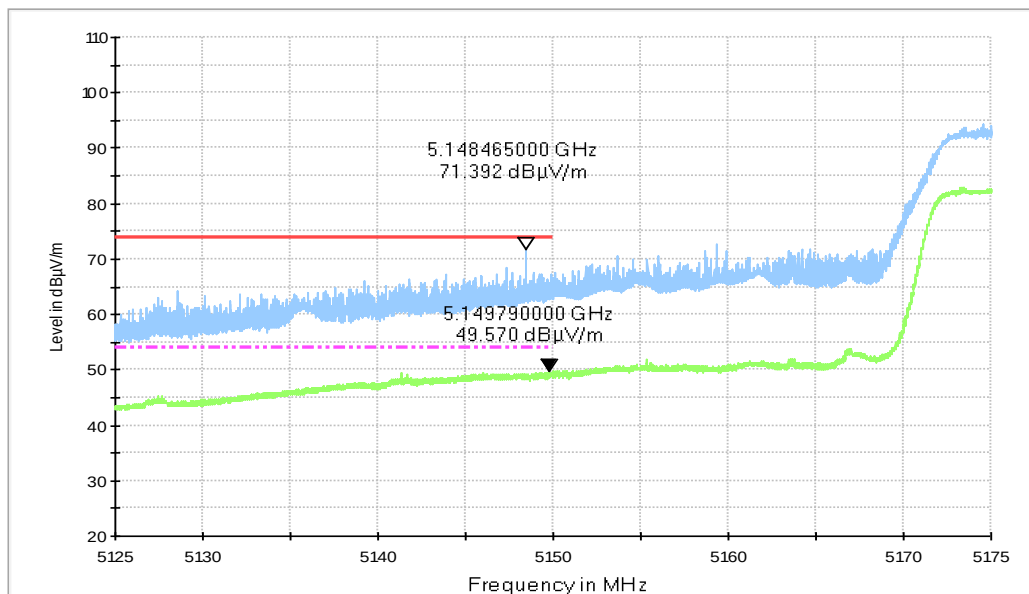


Fig.82 Band Edges (802.11ac-HT80, 5210MHz)

RE - Power-5.325GHz-5.375GHz

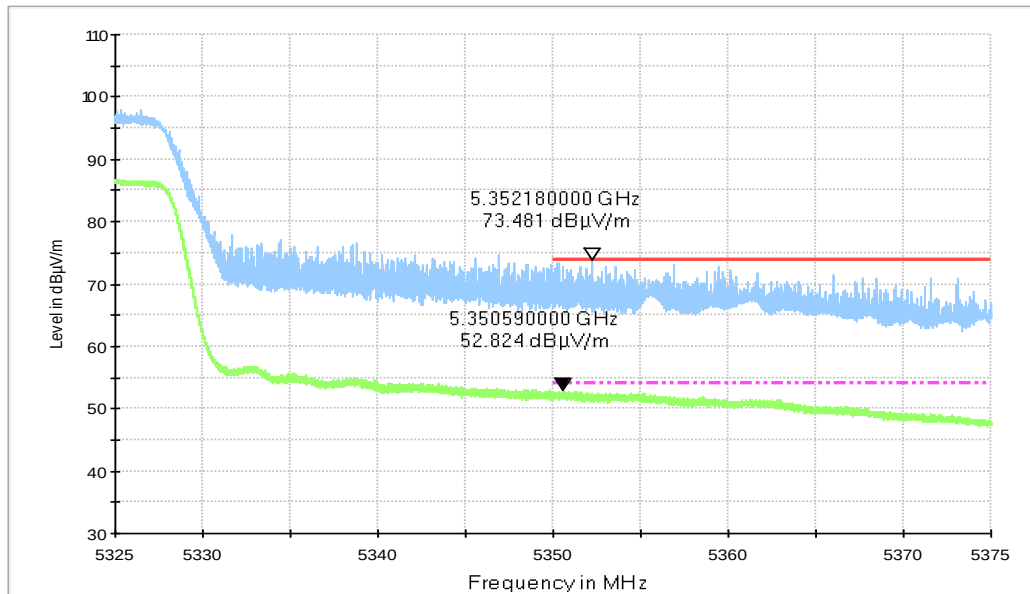


Fig.83 Band Edges (802.11ac-HT80, 5290MHz)

RE - Power-5.45GHz-5.50GHz

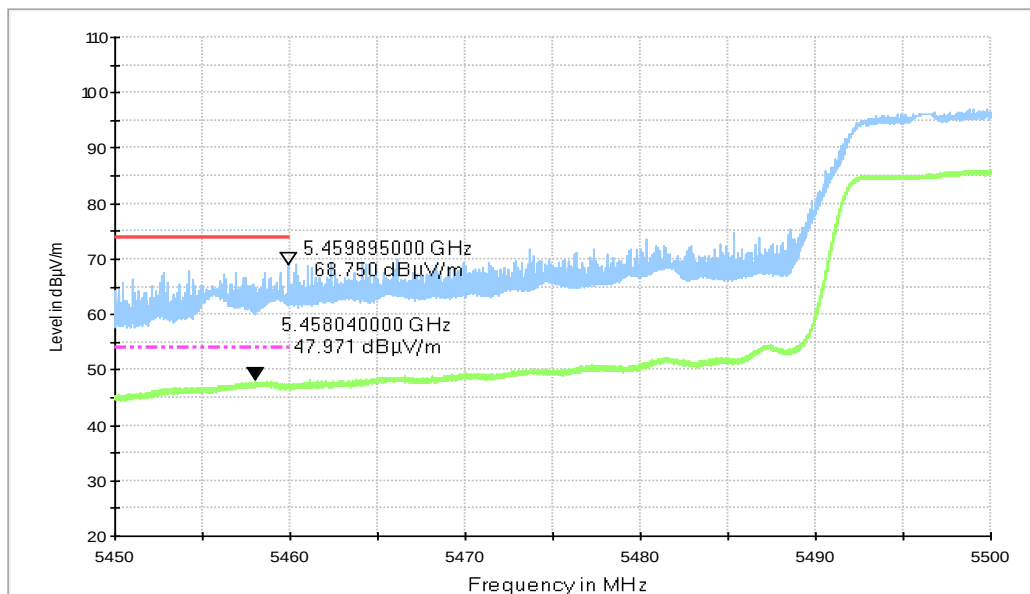


Fig.84 Band Edges (802.11ac-HT80, 5530MHz)

RE - Power-5.45GHz-5.50GHz

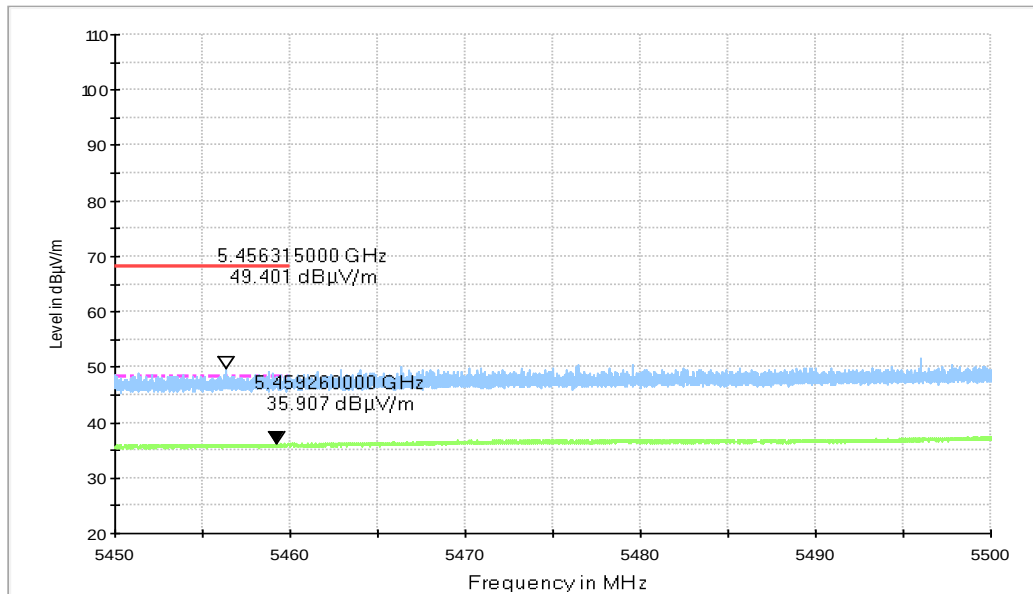


Fig.85 Band Edges (802.11ac-HT80, 5690MHz)

RE - Power-5.810GHz-5.925GHz

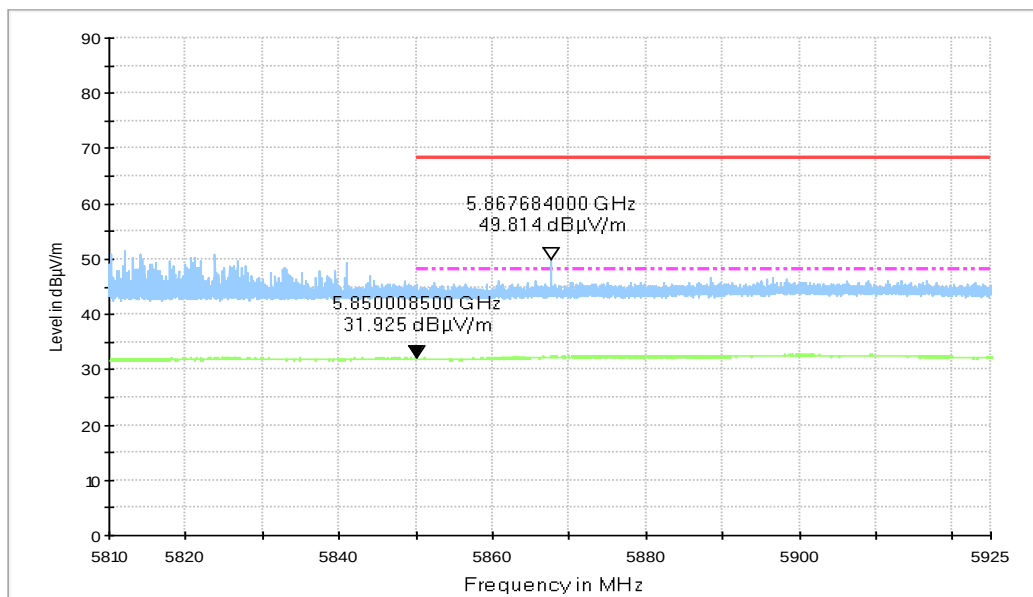


Fig.86 Band Edges (802.11ac-HT80, 5690MHz)

A.6. Transmitter Spurious Emission

Measurement Limit:

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

The measurement is made according to KDB 789033

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(dBμV/m)	Measurement distance(m)
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	3

Note: for frequency range below 960MHz, the limit in 15.209 is defined in 10m test distance. The limit used above is calculated from 10m to 3m

Measurement uncertainty:

Expanded measurement uncertainty for this test item is $U = 3.9\text{dB}$, $k=2$.

Measurement Results:

Conclusion: PASS

Note:

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

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

The measurement results are obtained as described below:

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

AVERAGE Results:
802.11a
Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5150.000	41.5	-34.7	34.2	42.05	48.3	6.8	H
5149.680	41.3	-34.8	34.2	41.83	48.3	7.0	H
10360.000	36.8	-30.0	37.5	29.31	48.3	11.5	H
15540.000	38.0	-27.6	40.1	25.45	48.3	10.3	H
17107.950	39.9	-26.0	41.6	24.28	48.3	8.4	H
17913.250	39.8	-26.1	41.3	24.66	48.3	8.5	H

Channel 40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5147.000	38.0	-34.8	34.2	38.57	48.3	10.3	H
5296.680	39.7	-35.1	34.3	40.52	48.3	8.6	H
10400.000	36.2	-29.4	37.5	28.15	48.3	12.1	H
15600.000	38.0	-27.5	40.2	25.22	48.3	10.3	H
17022.560	39.8	-26.6	41.7	24.69	48.3	8.5	H
17897.500	39.8	-26.2	41.3	24.71	48.3	8.5	H

Channel 48

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5321.850	39.7	-34.9	34.4	40.25	48.3	8.6	H
5312.450	40.0	-35.0	34.4	40.59	48.3	8.3	H
10480.000	35.6	-31.5	37.6	29.45	48.3	12.7	H
15720.000	37.7	-27.5	40.4	24.78	48.3	10.6	H
17018.560	39.8	-26.6	41.7	24.73	48.3	8.5	H
17889.860	39.8	-26.2	41.3	24.77	48.3	8.5	H

Channel 52

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5213.560	37.7	-34.3	34.3	37.76	48.3	10.6	H
5197.650	37.3	-34.2	34.3	37.31	48.3	11.0	H
10520.000	35.5	-32.0	37.6	29.85	48.3	12.8	H
15780.000	37.6	-27.6	40.4	24.78	48.3	10.7	H
17008.900	39.8	-26.7	41.7	24.77	48.3	8.5	H
17884.560	39.8	-26.2	41.3	24.80	48.3	8.5	H

Channel 56

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5248.400	36.0	-34.6	34.3	36.30	48.3	12.3	H
5308.800	35.0	-35.0	34.4	35.63	48.3	13.3	H
10559.600	33.5	-30.7	37.6	26.50	48.3	14.8	H
15839.600	36.6	-27.5	40.5	23.62	48.3	11.7	H
17025.400	38.7	-26.5	41.7	23.53	48.3	9.6	H
17919.700	38.4	-26.1	41.3	23.23	48.3	9.9	H

Channel 64

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5364.400	34.1	-34.3	34.4	34.01	48.3	14.2	H
5373.600	34.2	-34.1	34.4	33.83	48.3	14.1	H
10639.900	33.4	-29.0	37.7	24.74	48.3	14.9	H
15959.500	36.3	-27.1	40.7	22.71	48.3	12.0	H
16412.700	37.6	-27.1	41.2	23.52	48.3	10.7	H
17264.100	38.3	-26.7	41.4	23.65	48.3	10.0	H

Channel 100

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5459.625	42.2	-33.3	34.5	41.01	48.3	6.1	H
5458.680	42.1	-33.2	34.5	40.90	48.3	6.2	H
11000.000	35.1	-30.1	37.8	27.40	48.3	13.2	H
16500.000	38.8	-27.0	41.3	24.51	48.3	9.5	H
17010.250	39.9	-26.6	41.7	24.81	48.3	8.4	H
17928.560	39.7	-26.1	41.3	24.46	48.3	8.6	H

Channel 120

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5503.650	41.6	-34.1	34.5	41.20	48.3	6.7	H
5658.800	40.3	-32.9	34.7	38.39	48.3	8.0	H
11200.000	36.1	-30.3	38.0	28.45	48.3	12.2	H
16800.000	39.2	-26.8	41.5	24.43	48.3	9.1	H
17051.850	39.8	-26.4	41.6	24.51	48.3	8.5	H
17861.400	39.7	-26.3	41.3	24.81	48.3	8.6	H

Channel 140

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.200	43.3	-33.6	34.8	42.11	48.3	5.0	H
5730.000	40.4	-33.7	34.8	39.27	48.3	7.9	H
11400.000	36.5	-30.4	38.1	28.74	48.3	11.8	H
17100.000	39.8	-26.1	41.6	24.29	48.3	8.5	H
17926.890	39.7	-26.1	41.3	24.46	48.3	8.6	H
17000.500	39.8	-26.7	41.7	24.85	48.3	8.5	H

802.11n-HT20

Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5150.000	41.1	-34.7	34.2	41.65	48.3	7.2	H
5149.895	40.9	-34.8	34.2	41.40	48.3	7.4	H
10360.000	36.8	-30.0	37.5	29.31	48.3	11.5	H
15540.000	38.0	-27.6	40.1	25.45	48.3	10.3	H
17105.500	39.8	-26.0	41.6	24.21	48.3	8.5	H
17900.750	39.7	-26.2	41.3	24.55	48.3	8.6	H

Channel 40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5120.580	38.1	-35.0	34.2	38.94	48.3	10.2	H
5311.450	40.0	-35.0	34.4	40.63	48.3	8.3	H
10400.000	36.3	-29.4	37.5	28.27	48.3	12.0	H
15600.000	37.9	-27.5	40.2	25.15	48.3	10.4	H
17010.500	39.9	-26.6	41.7	24.81	48.3	8.4	H
17878.500	39.7	-26.3	41.3	24.66	48.3	8.6	H

Channel 48

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5302.600	40.7	-35.1	34.3	41.39	48.3	7.6	H
5297.560	40.6	-35.1	34.3	41.32	48.3	7.7	H
10480.000	35.7	-31.5	37.6	29.59	48.3	12.6	H
15720.000	37.7	-27.5	40.4	24.87	48.3	10.6	H
17020.500	39.7	-26.6	41.7	24.58	48.3	8.6	H
17895.500	39.7	-26.2	41.3	24.66	48.3	8.6	H

Channel 52

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5192.050	37.8	-34.2	34.3	37.78	48.3	10.5	H
5196.680	37.7	-34.2	34.3	37.67	48.3	10.6	H
10520.000	35.5	-32.0	37.6	29.91	48.3	12.8	H
15780.000	37.6	-27.6	40.4	24.76	48.3	10.7	H
17018.500	39.8	-26.6	41.7	24.70	48.3	8.5	H
17895.500	39.9	-26.2	41.3	24.77	48.3	8.4	H

Channel 56

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5235.600	37.8	-34.4	34.3	37.97	48.3	10.5	H
5337.860	40.6	-34.8	34.4	41.00	48.3	7.7	H
10560.000	35.7	-30.7	37.6	28.77	48.3	12.6	H
15840.000	37.9	-27.5	40.5	24.87	48.3	10.4	H
16974.500	39.8	-26.9	41.7	25.01	48.3	8.5	H
17888.500	39.9	-26.2	41.3	24.84	48.3	8.4	H

Channel 64

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.003	45.3	-34.6	34.4	45.47	48.3	3.0	H
5350.140	45.1	-34.6	34.4	45.30	48.3	3.2	H
10640.000	36.2	-29.0	37.7	27.55	48.3	12.1	H
15960.000	38.1	-27.1	40.7	24.54	48.3	10.2	H
17052.500	39.7	-26.4	41.6	24.40	48.3	8.6	H
17943.850	39.9	-26.0	41.3	24.56	48.3	8.5	H

Channel 100

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5458.950	44.1	-33.2	34.5	42.84	48.3	4.2	H
5459.650	43.9	-33.3	34.5	42.64	48.3	4.4	H
11000.000	35.1	-30.1	37.8	27.43	48.3	13.2	H
16500.000	38.8	-27.0	41.3	24.47	48.3	9.5	H
17018.750	39.8	-26.6	41.7	24.67	48.3	8.5	H
17932.500	39.7	-26.0	41.3	24.50	48.3	8.6	H

Channel 120

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5431.460	42.5	-33.3	34.4	41.28	48.3	5.8	H
5680.890	41.4	-32.8	34.8	39.44	48.3	6.9	H
11200.000	36.3	-30.3	38.0	28.58	48.3	12.1	H
16800.000	39.3	-26.8	41.5	24.57	48.3	9.0	H
17045.500	39.8	-26.4	41.7	24.60	48.3	8.5	H
17855.500	39.7	-26.4	41.3	24.77	48.3	8.6	H

Channel 140

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.200	43.7	-33.6	34.8	42.50	48.3	4.6	H
5727.300	42.1	-33.6	34.8	40.89	48.3	6.2	H
11400.000	36.5	-30.4	38.1	28.72	48.3	11.8	H
17100.000	39.8	-26.1	41.6	24.25	48.3	8.5	H
17934.500	39.6	-26.0	41.3	24.33	48.3	8.7	H
17012.500	39.8	-26.6	41.7	24.71	48.3	8.5	H

802.11n-HT40
Channel 38

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5150.000	49.8	-34.7	34.2	50.28	54.0	4.3	H
5149.868	49.3	-34.8	34.2	49.86	54.0	4.7	H
10380.000	36.1	-29.7	37.5	28.26	48.3	12.2	H
15570.000	37.9	-27.6	40.2	25.28	48.3	10.4	H
16973.700	39.2	-26.9	41.7	24.37	48.3	9.1	H
17877.800	39.6	-26.3	41.3	24.55	48.3	8.7	H

Channel 46

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5308.520	39.6	-35.0	34.4	40.29	48.3	8.7	H
5319.530	39.1	-34.9	34.4	39.68	48.3	9.2	H
10460.000	35.4	-30.9	37.6	28.68	48.3	13.0	H
15690.000	37.7	-27.4	40.3	24.86	48.3	10.6	H
17057.850	39.8	-26.3	41.6	24.46	48.3	8.5	H
17917.550	39.7	-26.1	41.3	24.50	48.3	8.6	H

Channel 54

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5211.200	37.4	-34.3	34.3	37.44	48.3	10.9	H
5200.800	37.3	-34.3	34.3	37.31	48.3	11.0	H
10540.000	35.4	-31.3	37.6	29.08	48.3	12.9	H
15810.000	37.4	-27.6	40.5	24.55	48.3	10.9	H
17010.560	39.9	-26.6	41.7	24.88	48.3	8.4	H
17895.680	39.9	-26.2	41.3	24.84	48.3	8.4	H

Channel 62

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.000	46.9	-34.6	34.4	47.09	54.0	7.1	H
5353.600	45.6	-34.5	34.4	45.72	54.0	8.4	H
10620.000	36.1	-28.8	37.6	27.28	48.3	12.2	H
15930.000	38.0	-27.2	40.6	24.59	48.3	10.3	H
16972.500	39.8	-26.9	41.7	25.01	48.3	8.5	H
17898.650	39.9	-26.2	41.3	24.79	48.3	8.4	H

Channel 102

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5459.645	44.2	-33.3	34.5	42.99	48.3	4.1	H
5459.930	44.2	-33.3	34.5	43.02	48.3	4.1	H
11020.000	35.1	-30.7	37.8	27.99	48.3	13.2	H
16530.000	38.5	-26.9	41.3	24.06	48.3	9.8	H
17015.600	39.8	-26.6	41.7	24.71	48.3	8.5	H
17925.500	39.7	-26.1	41.3	24.49	48.3	8.6	H

Channel 118

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5502.250	40.5	-34.1	34.5	40.07	48.3	7.8	H
5652.680	40.1	-33.0	34.7	38.39	48.3	8.2	H
11180.000	36.6	-30.1	37.9	28.80	48.3	11.7	H
16770.000	39.2	-26.7	41.5	24.43	48.3	9.1	H
17050.500	39.7	-26.4	41.6	24.41	48.3	8.6	H
17903.500	39.9	-26.2	41.3	24.77	48.3	8.4	H

Channel 134

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.090	44.0	-33.6	34.8	42.80	48.3	4.3	H
5725.665	44.1	-33.6	34.8	42.90	48.3	4.2	H
11340.000	37.0	-30.5	38.1	29.37	48.3	11.3	H
17010.000	39.8	-26.6	41.7	24.80	48.3	8.5	H
16938.500	39.7	-27.1	41.7	25.09	48.3	8.6	H
17900.500	39.9	-26.2	41.3	24.81	48.3	8.4	H

802.11ac-HT20

Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.996	42.0	-34.7	34.2	42.55	48.3	6.3	H
5149.268	41.9	-34.8	34.2	42.46	48.3	6.4	H
10360.000	36.8	-30.0	37.5	29.26	48.3	11.5	H
15540.000	37.9	-27.6	40.1	25.34	48.3	10.4	H
17114.500	39.9	-26.0	41.6	24.30	48.3	8.4	H
17912.500	39.7	-26.1	41.3	24.58	48.3	8.6	H

Channel 40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5030.650	37.5	-35.0	34.1	38.32	48.3	10.8	H
5303.600	39.2	-35.1	34.3	39.92	48.3	9.1	H
10400.000	36.3	-29.4	37.5	28.27	48.3	12.0	H
15600.000	37.9	-27.5	40.2	25.15	48.3	10.4	H
17012.750	39.8	-26.6	41.7	24.72	48.3	8.5	H
17894.000	39.7	-26.2	41.3	24.66	48.3	8.6	H

Channel 48

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5323.650	40.2	-34.9	34.4	40.74	48.3	8.1	H
5318.250	40.3	-34.9	34.4	40.90	48.3	8.0	H
10480.000	35.7	-31.5	37.6	29.59	48.3	12.6	H
15720.000	37.7	-27.5	40.4	24.87	48.3	10.6	H
17020.500	39.7	-26.6	41.7	24.58	48.3	8.6	H
17895.500	39.7	-26.2	41.3	24.66	48.3	8.6	H

Channel 52

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5188.500	37.5	-34.2	34.3	37.43	48.3	10.8	H
5190.580	37.3	-34.2	34.3	37.21	48.3	11.0	H
10520.000	35.5	-32.0	37.6	29.86	48.3	12.8	H
15780.000	37.6	-27.6	40.4	24.80	48.3	10.7	H
17022.500	39.9	-26.6	41.7	24.80	48.3	8.4	H
17882.750	39.9	-26.3	41.3	24.91	48.3	8.4	H

Channel 56

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5211.890	37.9	-34.3	34.3	37.93	48.3	10.4	H
5366.500	39.9	-34.2	34.4	39.70	48.3	8.4	H
10560.000	35.6	-30.7	37.6	28.61	48.3	12.7	H
15840.000	37.8	-27.5	40.5	24.78	48.3	10.5	H
16982.750	39.9	-26.8	41.7	25.00	48.3	8.4	H
17898.580	40.0	-26.2	41.3	24.85	48.3	8.3	H

Channel 64

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.000	46.1	-34.6	34.4	46.33	48.3	2.2	H
5350.280	46.0	-34.6	34.4	46.15	48.3	2.3	H
10640.000	36.1	-29.0	37.7	27.43	48.3	12.2	H
15960.000	38.3	-27.1	40.7	24.77	48.3	10.0	H
17040.580	39.8	-26.4	41.7	24.59	48.3	8.5	H
17954.500	39.7	-26.0	41.3	24.35	48.3	8.6	H

Channel 100

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5459.360	42.6	-33.2	34.5	41.33	48.3	5.7	H
5459.925	42.5	-33.3	34.5	41.27	48.3	5.8	H
11000.000	35.2	-30.1	37.8	27.54	48.3	13.1	H
16500.000	38.7	-27.0	41.3	24.39	48.3	9.6	H
17025.500	39.8	-26.5	41.7	24.69	48.3	8.5	H
17936.500	39.7	-26.0	41.3	24.43	48.3	8.6	H

Channel 120

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5507.450	43.0	-34.2	34.5	42.62	48.3	5.3	H
5638.580	42.4	-33.3	34.7	40.96	48.3	5.9	H
11200.000	36.3	-30.3	38.0	28.66	48.3	12.0	H
16800.000	39.4	-26.8	41.5	24.67	48.3	8.9	H
17050.500	39.8	-26.4	41.6	24.52	48.3	8.5	H
17850.750	39.8	-26.4	41.3	24.86	48.3	8.6	H

Channel 140

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.035	46.8	-33.6	34.8	45.52	48.3	1.6	H
5726.770	46.6	-33.6	34.8	45.38	48.3	1.7	H
11400.000	36.6	-30.4	38.1	28.86	48.3	11.7	H
17100.000	39.8	-26.1	41.6	24.30	48.3	8.5	H
17939.500	39.7	-26.0	41.3	24.44	48.3	8.6	H
17010.000	39.8	-26.6	41.7	24.80	48.3	8.5	H

802.11ac-HT40

Channel 38

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.450	47.5	-34.8	34.2	47.98	54.0	6.6	H
5150.000	47.7	-34.7	34.2	48.21	54.0	6.3	H
10380.000	36.1	-29.7	37.5	28.31	48.3	12.2	H
15570.000	37.9	-27.6	40.2	25.26	48.3	10.4	H
16984.500	39.2	-26.8	41.7	24.35	48.3	9.1	H
17884.500	39.7	-26.2	41.3	24.62	48.3	8.7	H

Channel 46

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5305.200	39.7	-35.0	34.3	40.40	48.3	8.6	H
5311.600	39.0	-35.0	34.4	39.64	48.3	9.3	H
10460.000	35.4	-30.9	37.6	28.68	48.3	13.0	H
15690.000	37.7	-27.4	40.3	24.86	48.3	10.6	H
17065.500	39.8	-26.3	41.6	24.49	48.3	8.5	H
17922.650	39.7	-26.1	41.3	24.52	48.3	8.6	H

Channel 54

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5185.520	37.2	-34.2	34.3	37.15	48.3	11.1	H
5174.850	37.0	-34.4	34.2	37.11	48.3	11.3	H
10540.000	35.4	-31.3	37.6	29.13	48.3	12.9	H
15810.000	37.4	-27.6	40.5	24.60	48.3	10.9	H
17018.500	39.9	-26.6	41.7	24.80	48.3	8.4	H
17888.500	39.9	-26.2	41.3	24.89	48.3	8.4	H

Channel 62

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.000	50.5	-34.6	34.4	50.71	54.0	3.5	H
5051.200	50.2	-35.0	34.1	51.05	54.0	3.8	H
10620.000	36.1	-28.8	37.6	27.32	48.3	12.2	H
15930.000	37.9	-27.2	40.6	24.53	48.3	10.4	H
16966.500	39.8	-26.9	41.7	25.00	48.3	8.6	H
17885.500	39.9	-26.2	41.3	24.87	48.3	8.4	H

Channel 102

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5459.885	42.0	-33.3	34.5	40.81	48.3	6.3	H
5458.950	41.7	-33.2	34.5	40.45	48.3	6.6	H
11020.000	35.1	-30.7	37.8	27.96	48.3	13.2	H
16530.000	38.4	-26.9	41.3	23.99	48.3	9.9	H
17010.500	39.7	-26.6	41.7	24.64	48.3	8.6	H
17910.500	39.6	-26.1	41.3	24.42	48.3	8.7	H

Channel 118

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5514.450	40.9	-34.2	34.5	40.60	48.3	7.4	H
5647.050	40.0	-33.1	34.7	38.38	48.3	8.3	H
11180.000	36.7	-30.1	37.9	28.90	48.3	11.6	H
16770.000	39.3	-26.7	41.5	24.55	48.3	9.0	H
17045.500	39.7	-26.4	41.7	24.50	48.3	8.6	H
17912.500	40.0	-26.1	41.3	24.79	48.3	8.3	H

Channel 134

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.475	42.0	-33.6	34.8	40.80	48.3	6.3	H
5725.930	42.1	-33.6	34.8	40.93	48.3	6.2	H
11340.000	36.9	-30.5	38.1	29.29	48.3	11.4	H
17010.000	39.9	-26.6	41.7	24.88	48.3	8.4	H
16942.750	39.7	-27.1	41.7	25.14	48.3	8.6	H
17910.500	39.9	-26.1	41.3	24.74	48.3	8.4	H

802.11ac-HT80

Channel 42

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.790	49.6	-34.8	34.2	50.10	54.0	4.4	H
5149.875	49.5	-34.8	34.2	50.03	54.0	4.5	H
10420.000	35.9	-29.8	37.5	28.10	48.3	12.4	H
15630.000	37.8	-27.4	40.3	24.94	48.3	10.5	H
17050.750	39.8	-26.4	41.6	24.55	48.3	8.5	H
17914.560	39.8	-26.1	41.3	24.67	48.3	8.5	H

Channel 58

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5650.820	48.3	-33.0	34.7	46.64	54.0	5.7	H
5651.600	48.0	-33.0	34.7	46.32	54.0	6.0	H
10580.000	36.0	-30.0	37.6	28.31	48.3	12.3	H
15870.000	37.8	-27.4	40.5	24.69	48.3	10.5	H
17055.800	39.8	-26.3	41.6	24.52	48.3	8.5	H
17905.600	39.8	-26.2	41.3	24.72	48.3	8.5	H

Channel 106

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5458.040	48.0	-33.2	34.5	46.72	54.0	6.0	H
5458.620	47.9	-33.2	34.5	46.62	54.0	6.1	H
11060.000	35.1	-31.3	37.8	28.50	48.3	13.2	H
16590.000	38.6	-26.6	41.4	23.91	48.3	9.7	H
17062.580	39.8	-26.3	41.6	24.51	48.3	8.5	H
17906.750	39.8	-26.2	41.3	24.70	48.3	8.5	H

PEAK Results:
802.11a
Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.565	61.8	-34.8	34.2	62.38	68.3	6.5	H
5148.410	60.4	-34.8	34.2	60.95	68.3	7.9	H
10360.000	50.2	-30.0	37.5	42.71	68.3	18.1	H
15540.000	54.1	-27.6	40.1	41.62	68.3	14.2	H
17424.700	57.2	-26.4	41.3	42.31	68.3	11.1	H
17863.600	57.4	-26.3	41.3	42.48	68.3	10.9	V

Channel 40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5063.600	49.1	-35.0	34.2	50.03	68.3	19.2	H
5309.850	52.8	-35.0	34.4	53.47	68.3	15.5	H
10400.000	49.9	-29.4	37.5	41.83	68.3	18.4	V
15600.000	53.6	-27.5	40.2	40.88	68.3	14.7	V
17021.560	57.0	-26.6	41.7	41.89	68.3	11.3	H
17894.950	57.1	-26.2	41.3	42.03	68.3	11.2	H

Channel 48

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5323.000	54.6	-34.9	34.4	55.15	68.3	13.7	H
5361.850	52.4	-34.3	34.4	52.32	68.3	15.9	H
10480.000	49.4	-31.5	37.6	43.26	68.3	18.9	V
15720.000	53.5	-27.5	40.4	40.58	68.3	14.9	H
16961.050	57.0	-27.0	41.7	42.26	68.3	11.3	V
17899.350	57.4	-26.2	41.3	42.29	68.3	10.9	H

Channel 52

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5197.640	49.0	-34.2	34.3	48.94	68.3	19.3	H
5209.250	49.3	-34.3	34.3	49.35	68.3	19.0	H
10520.000	49.5	-32.0	37.6	43.86	68.3	18.8	V
15780.000	53.9	-27.6	40.4	41.06	68.3	14.4	H
17443.950	57.9	-26.3	41.3	42.96	68.3	10.4	H
17726.580	57.1	-26.5	41.2	42.38	68.3	11.2	H

Channel 56

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5240.250	51.1	-34.5	34.3	51.26	68.3	17.2	V
5322.480	52.8	-34.9	34.4	53.31	68.3	15.5	H
10560.000	50.0	-30.7	37.6	43.00	68.3	18.3	V
15840.000	53.3	-27.5	40.5	40.34	68.3	15.0	H
16939.650	57.2	-27.1	41.7	42.58	68.3	11.1	H
17998.560	57.3	-25.9	41.3	41.92	68.3	11.0	V

Channel 64

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.830	66.0	-34.6	34.4	66.16	68.3	2.3	H
5350.415	67.0	-34.6	34.4	67.13	68.3	1.3	V
10640.000	50.1	-29.0	37.7	41.43	68.3	18.2	H
15960.000	53.5	-27.1	40.7	39.93	68.3	14.8	V
17674.560	56.8	-26.5	41.2	42.06	68.3	11.5	V
17985.680	57.3	-25.8	41.3	41.85	68.3	11.0	V

Channel 100

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5455.740	57.1	-33.2	34.5	55.81	68.3	11.2	H
5459.240	57.1	-33.2	34.5	55.88	68.3	11.2	H
11000.000	48.9	-30.1	37.8	41.27	68.3	19.4	V
16500.000	55.7	-27.0	41.3	41.45	68.3	12.6	V
16529.850	57.0	-26.9	41.3	42.55	68.3	11.3	V
17509.995	58.0	-26.3	41.2	43.12	68.3	10.3	H

Channel 120

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5504.250	54.1	-34.1	34.5	53.67	68.3	14.2	H
5666.800	52.1	-32.7	34.7	50.01	68.3	16.2	H
11200.000	49.7	-30.3	38.0	42.04	68.3	18.6	H
16800.000	56.2	-26.8	41.5	41.44	68.3	12.1	H
17011.650	57.0	-26.6	41.7	41.99	68.3	11.3	H
17782.250	56.6	-26.5	41.3	41.85	68.3	11.7	V

Channel 140

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.335	61.3	-33.6	34.8	60.10	68.3	7.0	H
5727.755	61.2	-33.6	34.8	60.05	68.3	7.1	H
11400.000	49.9	-30.4	38.1	42.14	68.3	18.4	V
17100.000	56.5	-26.1	41.6	41.01	68.3	11.8	H
16807.560	56.6	-26.8	41.5	41.90	68.3	11.7	V
17101.850	57.0	-26.1	41.6	41.49	68.3	11.3	V

802.11n-HT20
Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5145.775	61.8	-34.8	34.2	62.35	68.3	6.5	H
5148.720	62.1	-34.8	34.2	62.67	68.3	6.2	H
10360.000	50.1	-30.0	37.5	42.58	68.3	18.2	V
15540.000	54.2	-27.6	40.1	41.72	68.3	14.1	H
17428.500	57.2	-26.4	41.3	42.33	68.3	11.1	V
17868.500	57.3	-26.3	41.3	42.34	68.3	11.0	H

Channel 40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5122.500	51.1	-35.0	34.2	51.90	68.3	17.2	H
5311.650	52.1	-35.0	34.4	52.72	68.3	16.2	H
10400.000	49.9	-29.4	37.5	41.85	68.3	18.4	H
15600.000	53.5	-27.5	40.2	40.72	68.3	14.8	V
17054.500	56.9	-26.4	41.6	41.61	68.3	11.4	V
17886.580	57.2	-26.2	41.3	42.17	68.3	11.1	H

Channel 48

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.000	47.0	-34.8	34.2	47.56	68.3	21.3	H
5321.800	46.2	-34.9	34.4	46.77	68.3	22.1	H
10479.850	51.3	-31.5	37.6	45.15	68.3	17.0	V
15720.250	51.6	-27.5	40.4	38.73	68.3	16.7	H
16453.400	54.5	-27.2	41.2	40.42	68.3	13.8	H
16907.150	55.7	-27.0	41.6	41.07	68.3	12.6	H

Channel 52

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5096.250	49.1	-35.1	34.2	49.98	68.3	19.2	H
5185.480	49.4	-34.2	34.3	49.37	68.3	18.9	V
10520.000	49.5	-32.0	37.6	43.89	68.3	18.8	V
15780.000	53.9	-27.6	40.4	41.07	68.3	14.4	V
17438.500	57.9	-26.3	41.3	42.99	68.3	10.4	V
17732.500	57.2	-26.5	41.2	42.50	68.3	11.1	V

Channel 56

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5225.500	49.3	-34.4	34.3	49.38	68.3	19.0	V
5332.480	53.2	-34.8	34.4	53.69	68.3	15.1	V
10560.000	49.9	-30.7	37.6	42.89	68.3	18.4	H
15840.000	53.2	-27.5	40.5	40.19	68.3	15.1	H
16950.500	57.2	-27.0	41.7	42.61	68.3	11.1	H
17988.500	57.3	-25.8	41.3	41.80	68.3	11.0	H

Channel 64

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.035	67.5	-34.6	34.4	67.71	68.3	0.8	V
5350.510	66.6	-34.6	34.4	66.76	68.3	1.7	H
10640.000	50.2	-29.0	37.7	41.54	68.3	18.1	V
15960.000	53.5	-27.1	40.7	39.96	68.3	14.8	H
17685.500	56.9	-26.5	41.2	42.17	68.3	11.4	V
17997.750	57.3	-25.9	41.3	41.84	68.3	11.0	V

Channel 100

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5458.560	61.9	-33.2	34.5	60.64	68.3	6.4	H
5459.340	61.8	-33.2	34.5	60.55	68.3	6.5	H
11000.000	48.9	-30.1	37.8	41.22	68.3	19.4	V
16500.000	55.8	-27.0	41.3	41.52	68.3	12.5	V
16901.650	57.1	-27.0	41.6	42.47	68.3	11.2	V
17508.950	58.0	-26.3	41.2	43.11	68.3	10.3	V

Channel 120

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5433.450	55.9	-33.2	34.4	54.65	68.3	12.4	H
5675.280	52.8	-32.7	34.8	50.74	68.3	15.5	H
11200.000	49.8	-30.3	38.0	42.15	68.3	18.5	H
16800.000	56.3	-26.8	41.5	41.58	68.3	12.0	V
17015.800	57.2	-26.6	41.7	42.07	68.3	11.2	V
17790.500	56.7	-26.6	41.3	41.98	68.3	11.6	V

Channel 140

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.690	65.4	-33.6	34.8	64.16	68.3	2.9	H
5727.425	65.5	-33.6	34.8	64.36	68.3	2.8	H
11400.000	49.9	-30.4	38.1	42.09	68.3	18.4	H
17100.000	56.7	-26.1	41.6	41.12	68.3	11.6	V
16812.750	56.8	-26.8	41.6	42.02	68.3	11.5	V
17112.500	57.1	-26.0	41.6	41.51	68.3	11.2	V

802.11n-HT40

Channel 38

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.180	72.4	-34.8	34.2	72.96	74.0	1.6	H
5148.515	72.3	-34.8	34.2	72.82	74.0	1.7	H
10380.000	51.5	-29.7	37.5	43.74	68.3	16.8	H
15570.000	52.9	-27.6	40.2	40.31	68.3	15.4	V
16895.860	56.9	-27.0	41.6	42.24	68.3	11.4	V
17890.560	57.3	-26.2	41.3	42.22	68.3	11.0	H

Channel 46

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5342.450	51.3	-34.7	34.4	51.67	68.3	17.0	H
5339.650	50.9	-34.8	34.4	51.31	68.3	17.4	H
10460.000	49.9	-30.9	37.6	43.22	68.3	18.4	H
15690.000	53.3	-27.4	40.3	40.38	68.3	15.0	V
17895.800	57.2	-26.2	41.3	42.14	68.3	11.1	H
16960.870	57.0	-27.0	41.7	42.30	68.3	11.3	H

Channel 54

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5179.650	49.0	-34.3	34.2	49.05	68.3	19.3	H
5157.890	48.7	-34.6	34.2	49.12	68.3	19.6	H
10540.000	48.9	-31.3	37.6	42.60	68.3	19.4	V
15810.000	52.7	-27.6	40.5	39.82	68.3	15.6	H
16752.680	57.4	-26.7	41.5	42.60	68.3	10.9	V
17010.560	57.1	-26.6	41.7	42.02	68.3	11.2	V

Channel 62

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.800	72.1	-34.6	34.4	72.26	74.0	1.9	H
5351.030	72.6	-34.6	34.4	72.75	74.0	1.4	H
10620.000	49.9	-28.8	37.6	41.05	68.3	18.4	H
15930.000	53.8	-27.2	40.6	40.38	68.3	14.5	V
17015.850	57.1	-26.6	41.7	42.04	68.3	11.2	V
16720.550	57.4	-26.7	41.5	42.59	68.3	10.9	H

Channel 102

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5457.410	61.8	-33.2	34.5	60.56	68.3	6.5	H
5459.670	61.4	-33.3	34.5	60.18	68.3	6.9	H
11020.000	49.2	-30.7	37.8	42.10	68.3	19.1	H
16530.000	54.3	-26.9	41.3	39.91	68.3	14.0	V
17506.850	57.8	-26.3	41.2	42.92	68.3	10.5	H
16912.500	57.1	-27.0	41.6	42.52	68.3	11.2	H

Channel 118

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5496.500	52.7	-34.0	34.5	52.18	68.3	15.6	H
5660.450	51.6	-32.8	34.7	49.73	68.3	16.7	H
11180.000	48.8	-30.1	37.9	40.94	68.3	19.5	H
16770.000	55.6	-26.7	41.5	40.85	68.3	12.7	H
17957.450	56.9	-25.9	41.3	41.51	68.3	11.4	H
17333.950	56.6	-26.7	41.4	41.96	68.3	11.7	V

Channel 134

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.030	67.1	-33.6	34.8	65.89	68.3	1.2	H
5725.125	67.1	-33.6	34.8	65.87	68.3	1.2	H
11340.000	50.8	-30.5	38.1	43.18	68.3	17.5	H
17010.000	57.0	-26.6	41.7	41.96	68.3	11.3	V
17908.500	56.9	-26.1	41.3	41.79	68.3	11.4	V
17925.860	57.0	-26.1	41.3	41.79	68.3	11.3	H

802.11ac-HT20

Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.155	62.7	-34.8	34.2	63.29	68.3	5.6	H
5149.845	62.9	-34.8	34.2	63.48	68.3	5.4	H
10360.000	50.1	-30.0	37.5	42.55	68.3	18.2	V
15540.000	54.1	-27.6	40.1	41.55	68.3	14.2	V
17432.650	57.0	-26.4	41.3	42.12	68.3	11.3	H
17872.850	57.2	-26.3	41.3	42.20	68.3	11.1	H

Channel 40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5124.250	49.0	-35.0	34.2	49.86	68.3	19.3	H
5293.500	50.0	-35.1	34.3	50.84	68.3	18.3	H
10400.000	50.0	-29.4	37.5	41.88	68.3	18.3	V
15600.000	53.6	-27.5	40.2	40.84	68.3	14.7	H
17008.650	56.8	-26.7	41.7	41.75	68.3	11.5	H
17880.750	57.1	-26.3	41.3	42.06	68.3	11.2	H

Channel 48

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5326.680	53.7	-34.9	34.4	54.19	68.3	14.6	H
542.860	52.5	0.0	0.0	52.54	68.3	15.8	H
10480.000	49.4	-31.5	37.6	43.23	68.3	18.9	V
15720.000	53.5	-27.5	40.4	40.58	68.3	14.8	H
16908.500	57.0	-27.0	41.6	42.34	68.3	11.3	V
17888.500	57.6	-26.2	41.3	42.53	68.3	10.7	V

Channel 52

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5180.200	49.0	-34.3	34.2	49.04	68.3	19.3	V
5173.560	48.6	-34.4	34.2	48.69	68.3	19.7	H
10520.000	49.4	-32.0	37.6	43.76	68.3	18.9	V
15780.000	53.8	-27.6	40.4	40.92	68.3	14.6	H
17444.500	57.9	-26.3	41.3	42.99	68.3	10.4	H
17748.500	57.3	-26.5	41.3	42.61	68.3	11.0	V

Channel 56

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5235.250	51.3	-34.4	34.3	51.46	68.3	17.0	H
5359.860	51.5	-34.4	34.4	51.47	68.3	16.8	H
10560.000	49.9	-30.7	37.6	42.96	68.3	18.4	V
15840.000	53.3	-27.5	40.5	40.35	68.3	15.0	V
16955.750	57.4	-27.0	41.7	42.68	68.3	11.0	H
17994.500	57.4	-25.9	41.3	41.99	68.3	10.9	H

Channel 64

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.595	67.8	-34.6	34.4	68.01	74.0	6.2	H
5350.685	67.8	-34.6	34.4	67.95	74.0	6.2	H
10640.000	50.0	-29.0	37.7	41.32	68.3	18.3	V
15960.000	53.4	-27.1	40.7	39.83	68.3	14.9	H
17695.750	56.8	-26.5	41.2	42.04	68.3	11.5	H
17980.500	57.4	-25.8	41.3	41.97	68.3	10.9	H

Channel 100

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5459.989	56.6	-33.3	34.5	55.41	68.3	11.7	H
5459.995	52.3	-33.3	34.5	51.07	68.3	16.0	H
11000.000	48.9	-30.1	37.8	41.22	68.3	19.4	V
16500.000	55.8	-27.0	41.3	41.54	68.3	12.5	V
17135.450	57.2	-26.1	41.6	41.76	68.3	11.1	V
17505.890	57.9	-26.3	41.2	43.01	68.3	10.4	V

Channel 120

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5441.250	55.4	-33.2	34.5	54.15	68.3	12.9	H
5683.250	53.4	-32.8	34.8	51.48	68.3	14.9	H
11200.000	49.8	-30.3	38.0	42.09	68.3	18.5	H
16800.000	56.5	-26.8	41.5	41.70	68.3	11.9	V
17008.500	57.3	-26.7	41.7	42.29	68.3	11.0	H
17785.500	56.7	-26.5	41.3	42.02	68.3	11.6	H

Channel 140

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.155	65.7	-33.6	34.8	64.43	68.3	2.6	H
5726.870	65.6	-33.6	34.8	64.39	68.3	2.7	H
11400.000	49.9	-30.4	38.1	42.17	68.3	18.4	H
17100.000	56.7	-26.1	41.6	41.20	68.3	11.6	V
16824.500	56.8	-26.8	41.6	42.09	68.3	11.5	V
17120.500	57.2	-26.0	41.6	41.66	68.3	11.1	H

802.11ac-HT40

Channel 38

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.350	70.3	-34.8	34.2	70.80	74.0	3.7	H
5149.665	70.9	-34.8	34.2	71.41	74.0	3.1	H
10380.000	51.5	-29.7	37.5	43.68	68.3	16.8	H
15570.000	52.9	-27.6	40.2	40.24	68.3	15.4	V
16886.540	56.9	-27.0	41.6	42.26	68.3	11.4	V
17880.740	57.3	-26.3	41.3	42.30	68.3	11.0	V

Channel 46

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5369.600	50.1	-34.2	34.4	49.81	68.3	18.2	H
5352.450	50.5	-34.5	34.4	50.65	68.3	17.8	H
10460.000	49.9	-30.9	37.6	43.27	68.3	18.4	V
15690.000	53.3	-27.4	40.3	40.44	68.3	15.0	H
17882.500	57.4	-26.3	41.3	42.38	68.3	10.9	V
16983.500	57.1	-26.8	41.7	42.27	68.3	11.2	V

Channel 54

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5195.230	49.6	-34.2	34.3	49.53	68.3	18.7	H
5193.800	49.3	-34.2	34.3	49.23	68.3	19.0	H
10540.000	48.8	-31.3	37.6	42.46	68.3	19.6	V
15810.000	52.9	-27.6	40.5	40.01	68.3	15.5	H
16768.500	57.5	-26.7	41.5	42.75	68.3	10.8	V
17005.650	57.0	-26.7	41.7	41.98	68.3	11.3	V

Channel 62

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.100	72.5	-34.6	34.4	72.69	74.0	1.5	H
5350.640	72.9	-34.6	34.4	73.05	74.0	1.1	H
10620.000	49.8	-28.8	37.6	40.96	68.3	18.5	V
15930.000	53.7	-27.2	40.6	40.24	68.3	14.7	V
17023.800	57.0	-26.6	41.7	41.88	68.3	11.3	H
16700.500	57.5	-26.7	41.5	42.70	68.3	10.8	V

Channel 102

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5457.485	58.7	-33.2	34.5	57.45	68.3	9.6	V
5459.945	59.1	-33.3	34.5	57.87	68.3	9.2	V
11020.000	49.1	-30.7	37.8	41.98	68.3	19.2	H
16530.000	54.2	-26.9	41.3	39.79	68.3	14.1	V
17512.500	57.7	-26.3	41.2	42.80	68.3	10.6	H
16908.750	57.0	-27.0	41.6	42.38	68.3	11.3	V

Channel 118

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5509.850	52.7	-34.2	34.5	52.39	68.3	15.6	H
5652.080	52.7	-33.0	34.7	51.00	68.3	15.6	V
11180.000	48.7	-30.1	37.9	40.86	68.3	19.6	H
16770.000	55.7	-26.7	41.5	40.96	68.3	12.6	V
17957.450	56.9	-25.9	41.3	41.56	68.3	11.4	V
17333.950	56.5	-26.7	41.4	41.79	68.3	11.8	V

Channel 134

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5727.885	60.2	-33.6	34.8	59.01	68.3	8.1	V
5728.835	59.8	-33.7	34.8	58.64	68.3	8.5	H
11340.000	50.7	-30.5	38.1	43.09	68.3	17.6	V
17010.000	57.1	-26.6	41.7	42.07	68.3	11.2	H
17917.500	56.8	-26.1	41.3	41.61	68.3	11.5	H
17920.500	57.2	-26.1	41.3	41.96	68.3	11.2	V

802.11ac-HT80

Channel 42

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.465	71.4	-34.8	34.2	71.94	74.0	2.6	H
5147.335	68.6	-34.8	34.2	69.15	74.0	5.4	V
10420.000	49.8	-29.8	37.5	42.02	68.3	18.5	V
15630.000	53.3	-27.4	40.3	40.49	68.3	15.0	V
16863.750	56.9	-26.9	41.6	42.27	68.3	11.4	H
17672.580	56.9	-26.5	41.2	42.19	68.3	11.4	H

Channel 58

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5352.180	73.5	-34.5	34.4	73.62	74.0	0.5	H
5350.215	73.4	-34.6	34.4	73.55	74.0	0.6	H
10580.000	47.6	-30.0	37.6	39.94	68.3	20.7	H
15870.000	53.6	-27.4	40.5	40.48	68.3	14.7	H
16860.750	57.0	-26.9	41.6	42.32	68.3	11.3	H
17675.850	57.0	-26.5	41.2	42.25	68.3	11.3	H

Channel 106

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5454.260	68.0	-33.1	34.5	66.65	74.0	6.0	H
5459.895	68.8	-33.3	34.5	67.54	74.0	5.3	H
11060.000	48.4	-31.3	37.8	41.84	68.3	19.9	H
16590.000	55.4	-26.6	41.4	40.70	68.3	12.9	V
17672.860	59.9	-26.5	41.2	45.17	68.3	8.4	H
17914.750	56.6	-26.1	41.3	41.44	68.3	11.7	H

A.7. AC Powerline Conducted Emission (150kHz- 30MHz)

Test Condition:

Voltage (V)	Frequency (Hz)
110	60

Measurement uncertainty:

Expanded measurement uncertainty for this test item is $U = 3.10\text{dB}$, $k=2$.

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.87 Fig.89	Fig.88	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		
		802.11a	Idle	
0.15 to 0.5	67 56 to 46	Fig.87 Fig.89	Fig.88	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 (With AE2):

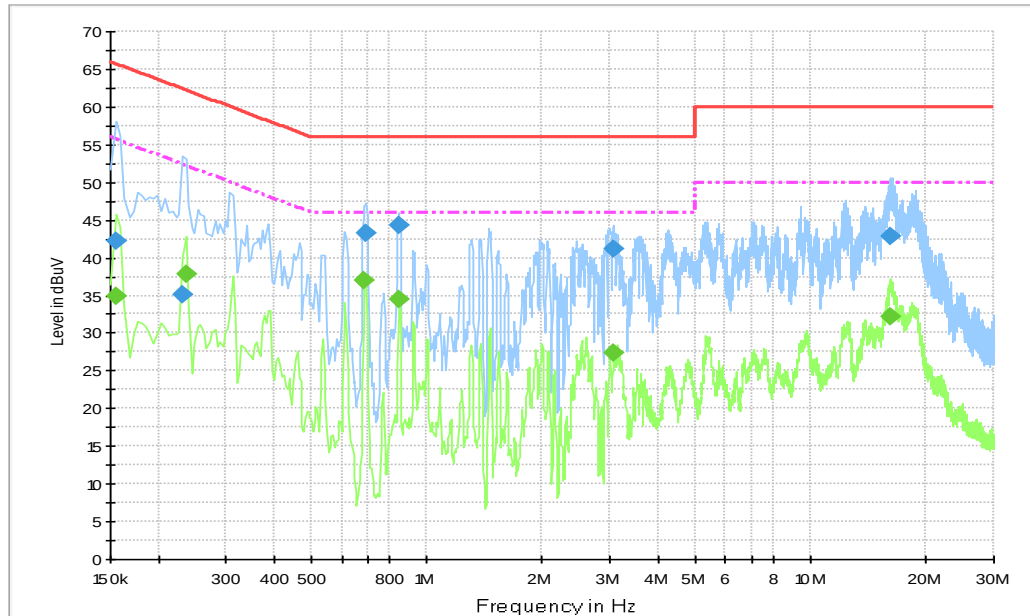


Fig.87 Conducted Emission (802.11a, Ch40, TX)

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.154500	42.2	10000	9.000	L1	19.9	23.6	65.8
0.231000	35.0	10000	9.000	L1	20.0	27.4	62.4
0.694500	43.2	10000	9.000	L1	19.9	12.8	56.0
0.843000	44.2	10000	9.000	L1	19.9	11.8	56.0
3.057000	41.1	10000	9.000	L1	19.8	14.9	56.0
16.152000	42.9	10000	9.000	L1	20.0	17.1	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.154500	35.0	10000	9.000	L1	19.9	20.8	55.8
0.235500	37.9	10000	9.000	L1	20.0	14.4	52.3
0.690000	36.9	10000	9.000	L1	19.9	9.1	46.0
0.847500	34.5	10000	9.000	L1	19.9	11.5	46.0
3.075000	27.4	10000	9.000	L1	19.8	18.6	46.0
16.161000	32.2	10000	9.000	L1	20.0	17.8	50.0

Note: The measurement results showed here are worst cases of the combinations of different USB cables.

Idle (With AE2):

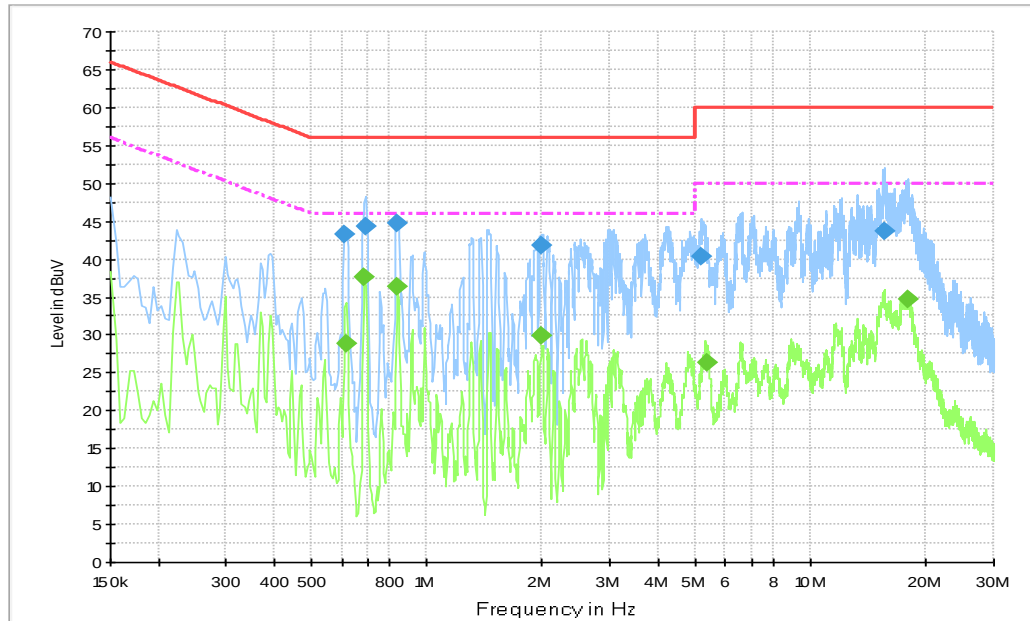


Fig.88 Conducted Emission(802.11a, IDLE)

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.609000	43.2	10000	9.000	L1	20.0	12.8	56.0
0.694500	44.2	10000	9.000	L1	19.9	11.8	56.0
0.834000	44.7	10000	9.000	L1	19.9	11.3	56.0
1.990500	41.7	10000	9.000	L1	19.8	14.3	56.0
5.203500	40.3	10000	9.000	L1	19.8	19.7	60.0
15.589500	43.6	10000	9.000	L1	20.0	16.4	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.618000	28.7	10000	9.000	L1	20.0	17.3	46.0
0.690000	37.7	10000	9.000	L1	19.9	8.3	46.0
0.838500	36.4	10000	9.000	L1	19.9	9.6	46.0
1.990500	29.8	10000	9.000	L1	19.8	16.2	46.0
5.383500	26.4	10000	9.000	L1	19.8	23.6	50.0
17.839500	34.7	10000	9.000	L1	20.1	15.3	50.0

Note: The measurement results showed here are worst cases of the combinations of different USB cables.

Traffic (With AE3):

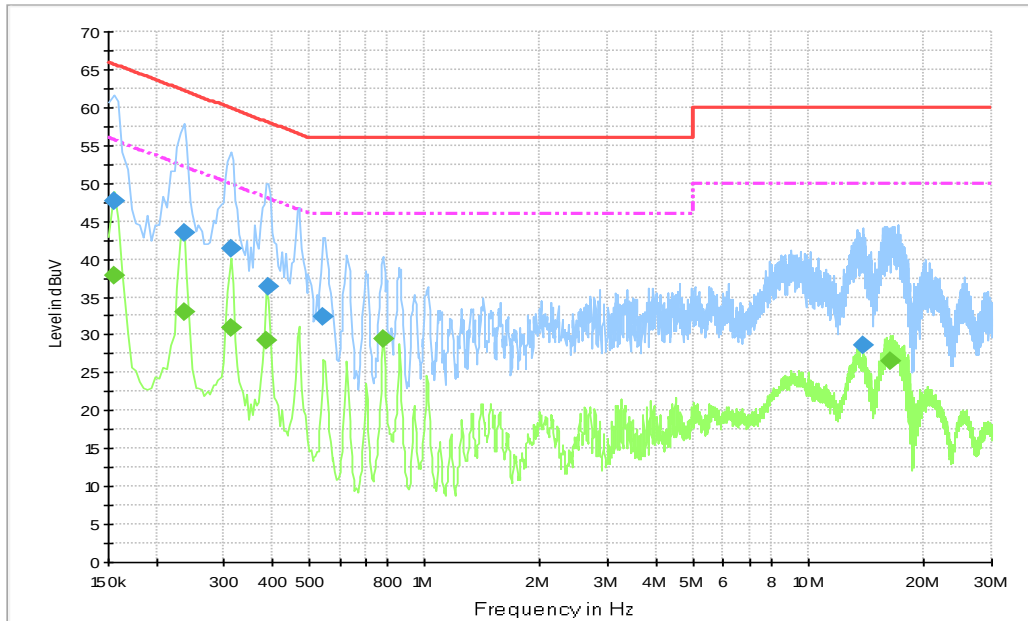


Fig.89 Conducted Emission (802.11a, Ch40, TX)

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.154500	47.5	10000	9.000	L1	19.9	18.2	65.8
0.235500	43.4	10000	9.000	L1	20.0	18.8	62.3
0.312000	41.3	10000	9.000	L1	20.0	18.6	59.9
0.393000	36.4	10000	9.000	L1	20.0	21.6	58.0
0.546000	32.4	10000	9.000	L1	20.0	23.6	56.0
13.915500	28.7	10000	9.000	L1	20.0	31.3	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.154500	37.8	10000	9.000	L1	19.9	18.0	55.8
0.235500	32.9	10000	9.000	L1	20.0	19.3	52.3
0.312000	31.0	10000	9.000	L1	20.0	19.0	49.9
0.388500	29.3	10000	9.000	L1	20.0	18.8	48.1
0.780000	29.4	10000	9.000	L1	20.0	16.6	46.0
16.399500	26.5	10000	9.000	L1	20.0	23.5	50.0

Note: The measurement results showed here are worst cases of the combinations of different USB cables.

A.8. 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% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
-------------------------	---------

Measurement Result:

Mode	Frequency	99% Occupied bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.90	17.48	P
	5200 MHz	Fig.91	17.76	P
	5240 MHz	Fig.92	17.60	P
802.11n HT20	5180 MHz	Fig.93	18.20	P
	5200 MHz	Fig.94	18.32	P
	5240 MHz	Fig.95	18.32	P
802.11ac HT20	5180 MHz	Fig.96	18.24	P
	5200 MHz	Fig.97	18.28	P
	5240 MHz	Fig.98	18.28	P
802.11n HT40	5190 MHz	Fig.99	36.24	P
	5230 MHz	Fig.100	36.24	P
802.11ac	5190 MHz	Fig.101	36.24	P

HT40	5230 MHz	Fig.102	36.32	P
802.11ac HT80	5210 MHz	Fig.103	75.20	P

Conclusion: PASS

Test graphs as below:

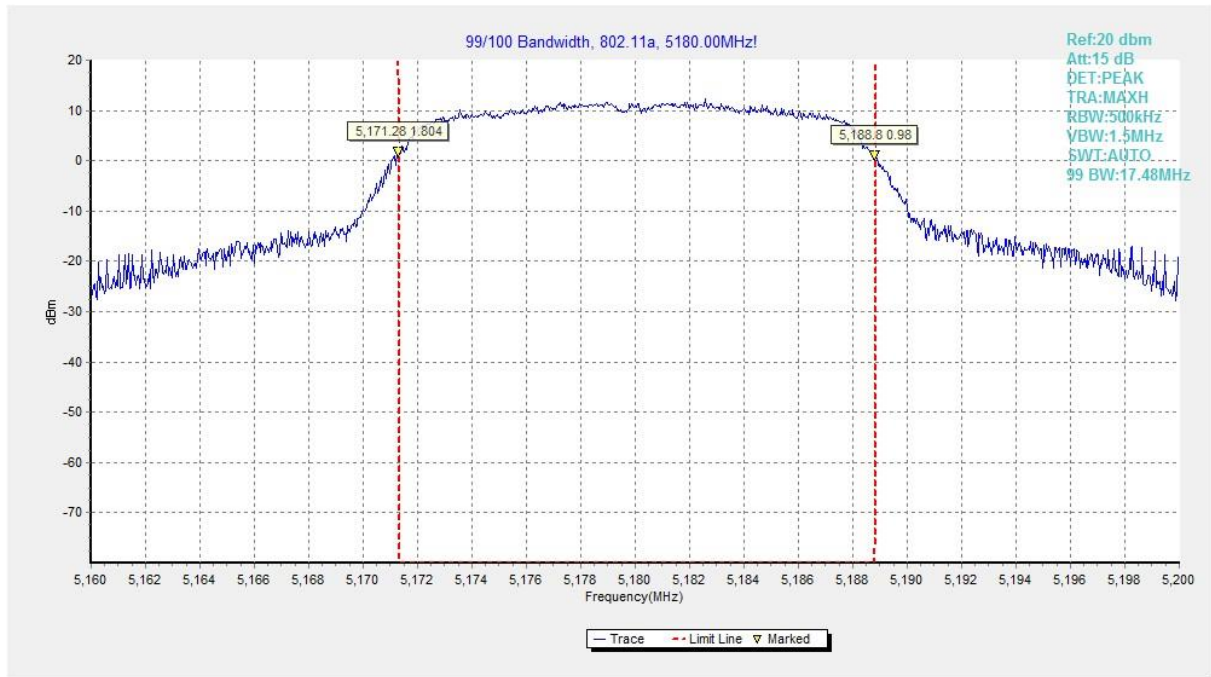


Fig.90 99% Occupied bandwidth (802.11a, 5180MHz)

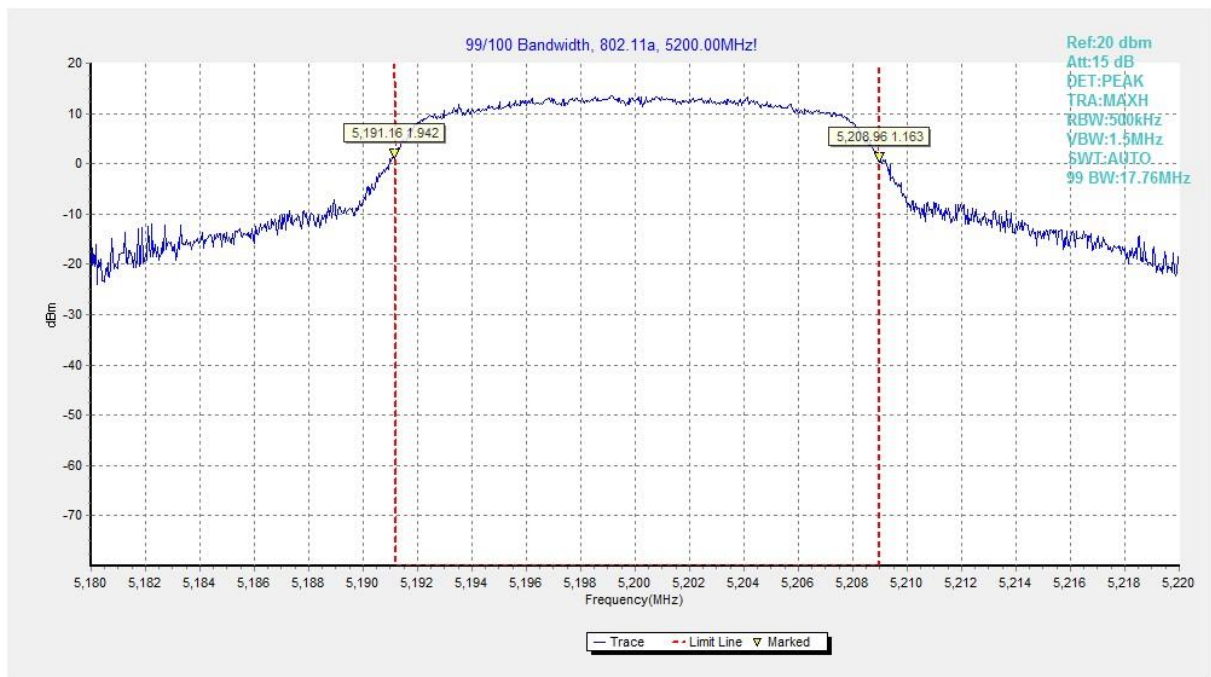


Fig.91 99% Occupied bandwidth (802.11a, 5200MHz)

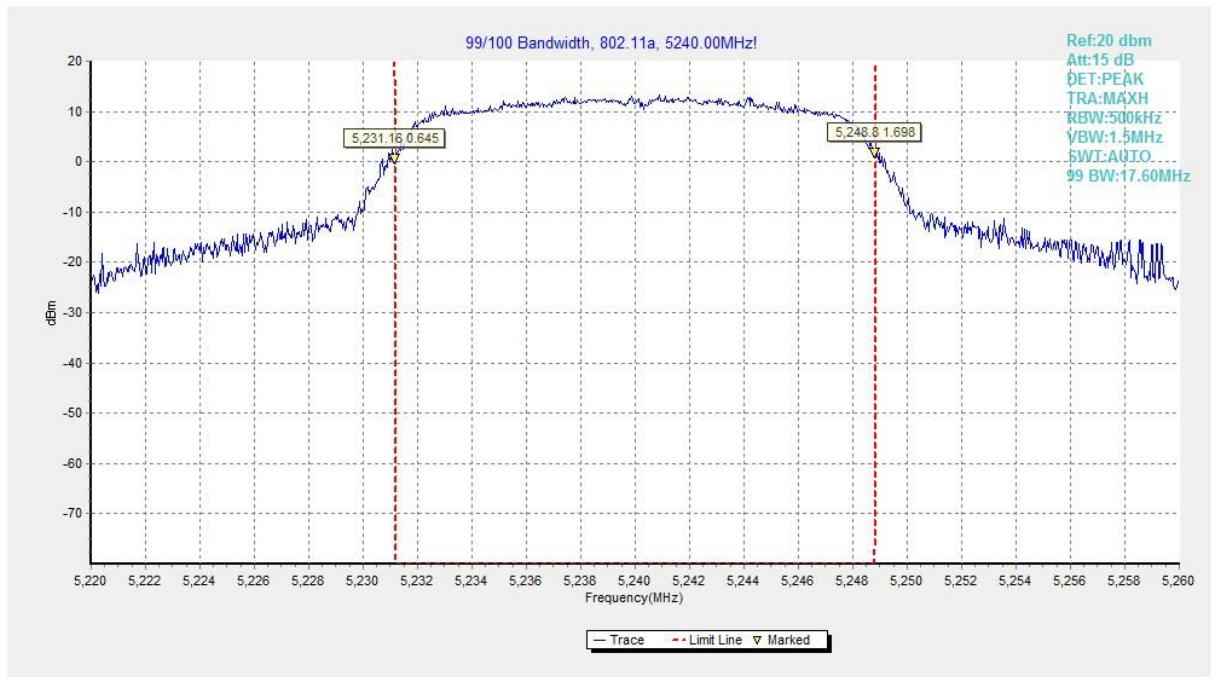


Fig.92 99% Occupied bandwidth (802.11a, 5240MHz)

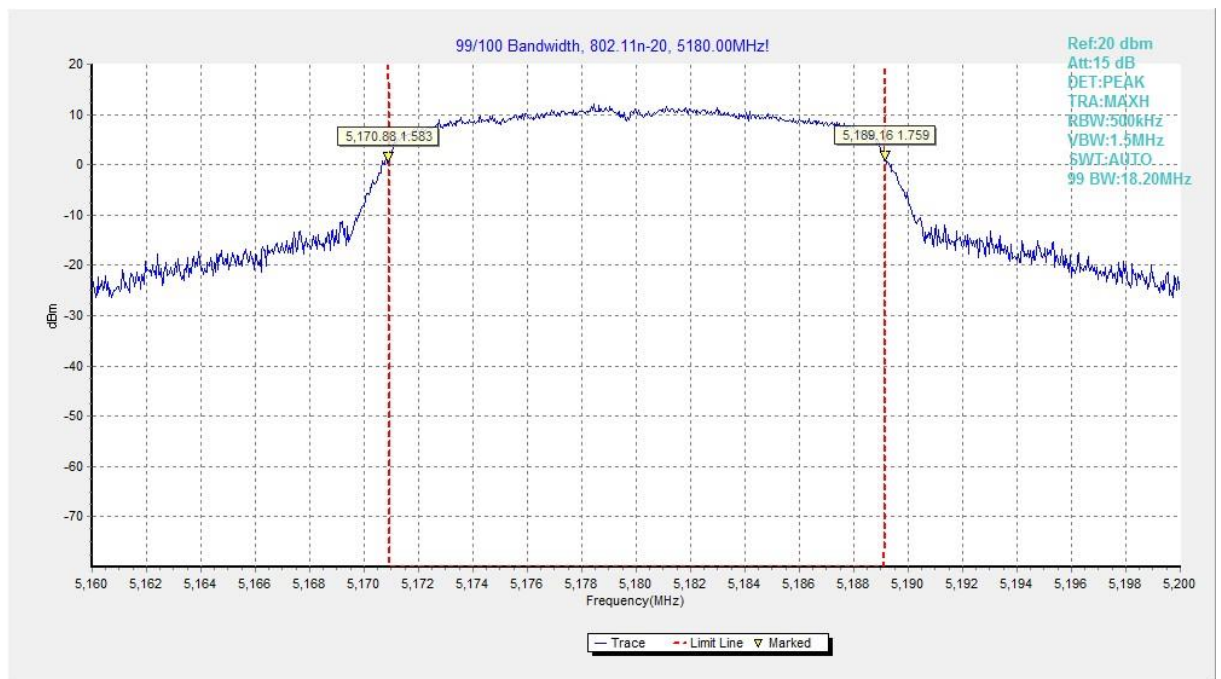


Fig.93 99% Occupied bandwidth (802.11n-HT20, 5180MHz)

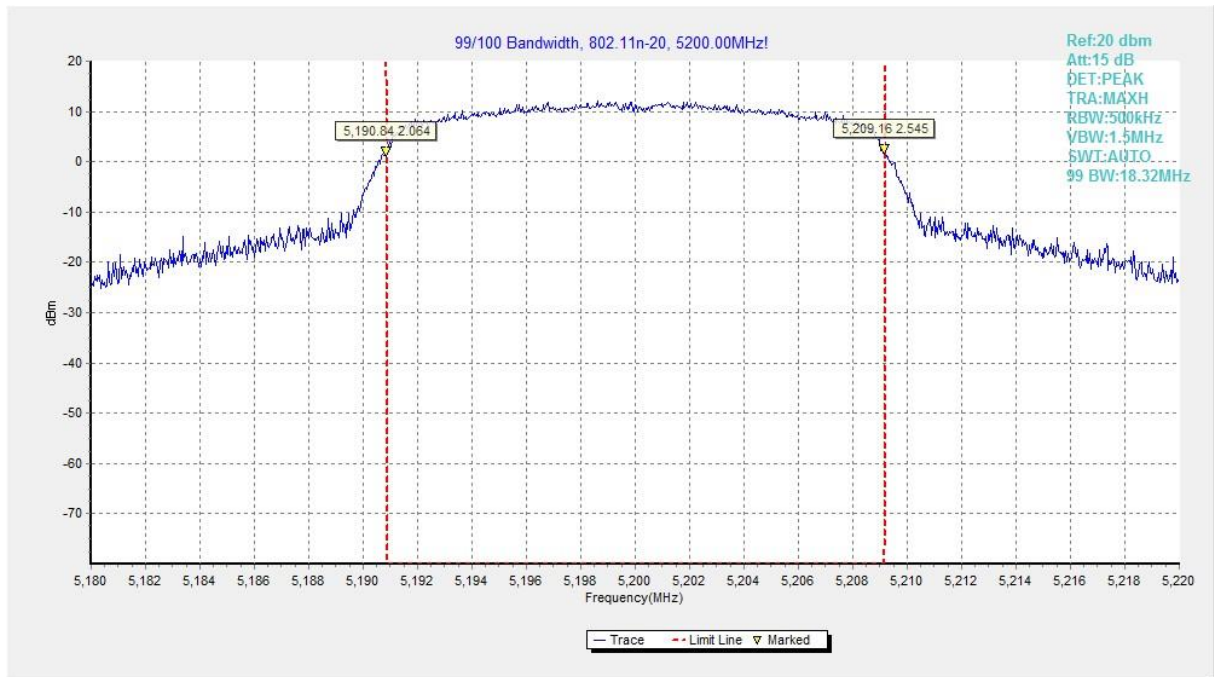


Fig.94 99% Occupied bandwidth (802.11n-HT20, 5200MHz)

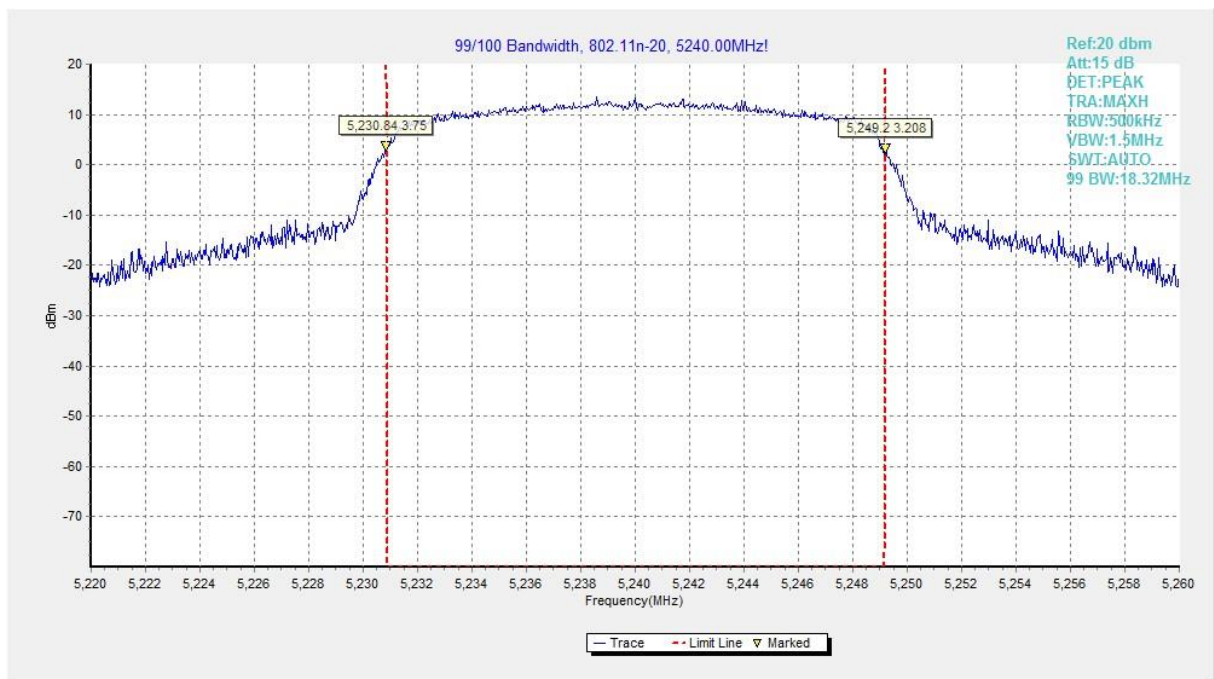


Fig.95 99% Occupied bandwidth (802.11n-HT20, 5240MHz)

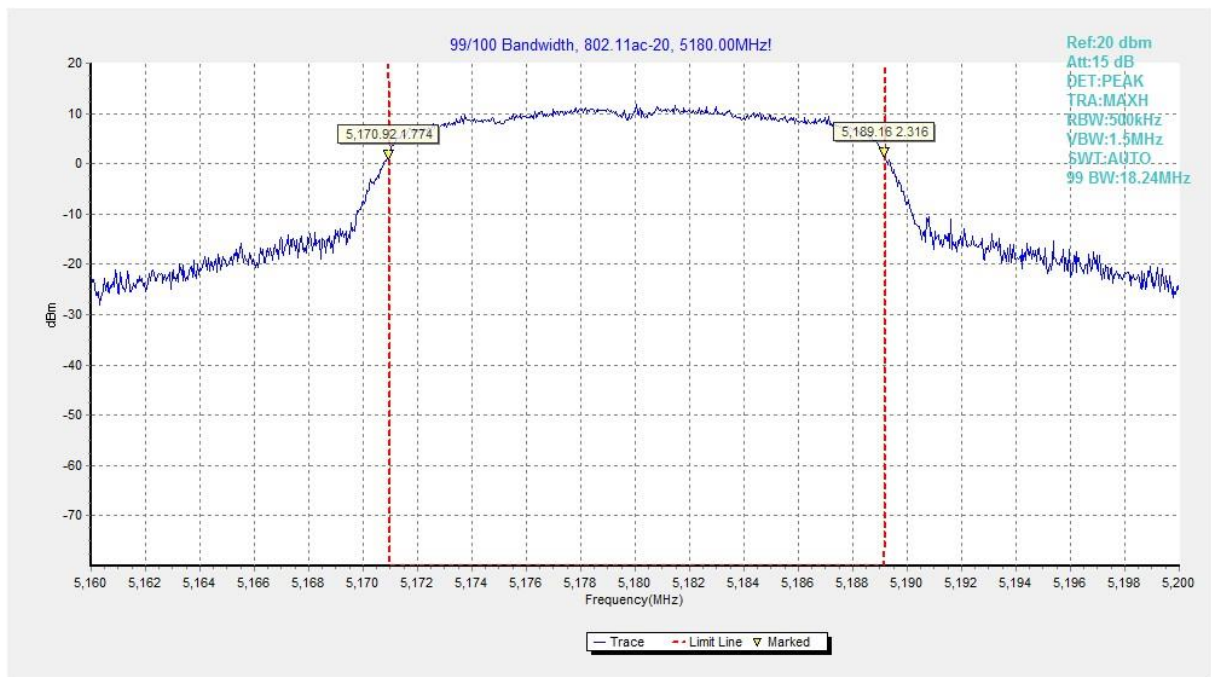


Fig.96 99% Occupied bandwidth (802.11ac-HT20, 5180MHz)

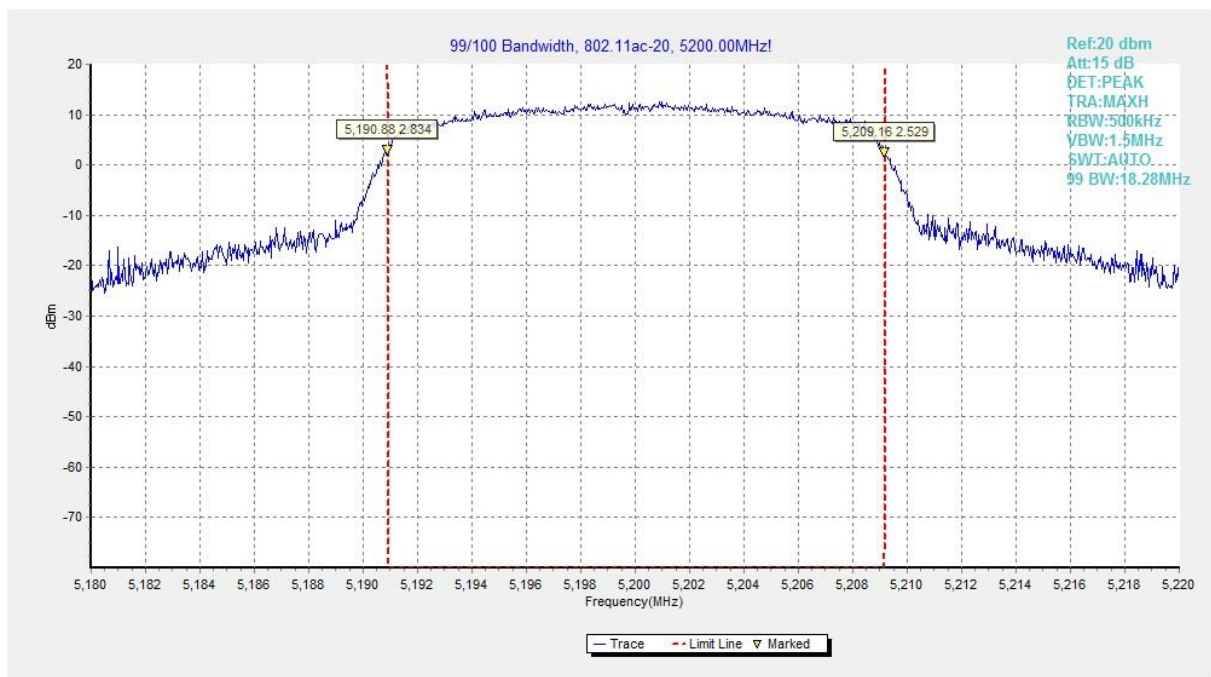


Fig.97 99% Occupied bandwidth (802.11ac-HT20, 5200MHz)

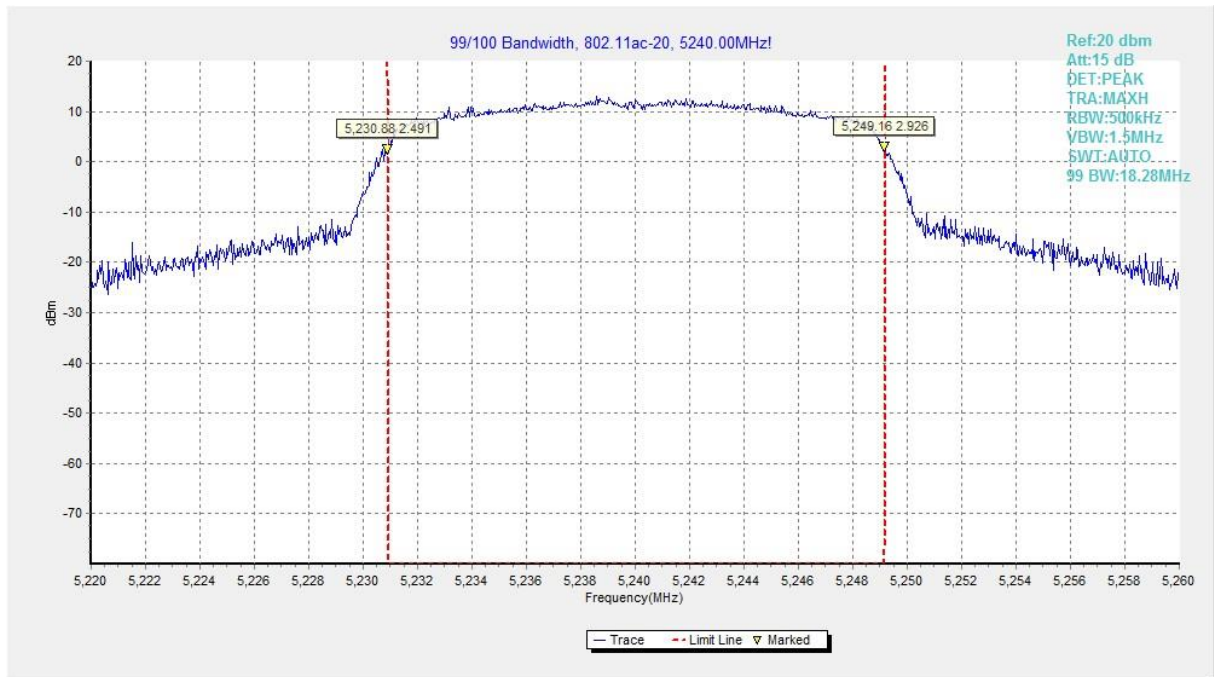


Fig.98 99% Occupied bandwidth (802.11ac-HT20, 5240MHz)

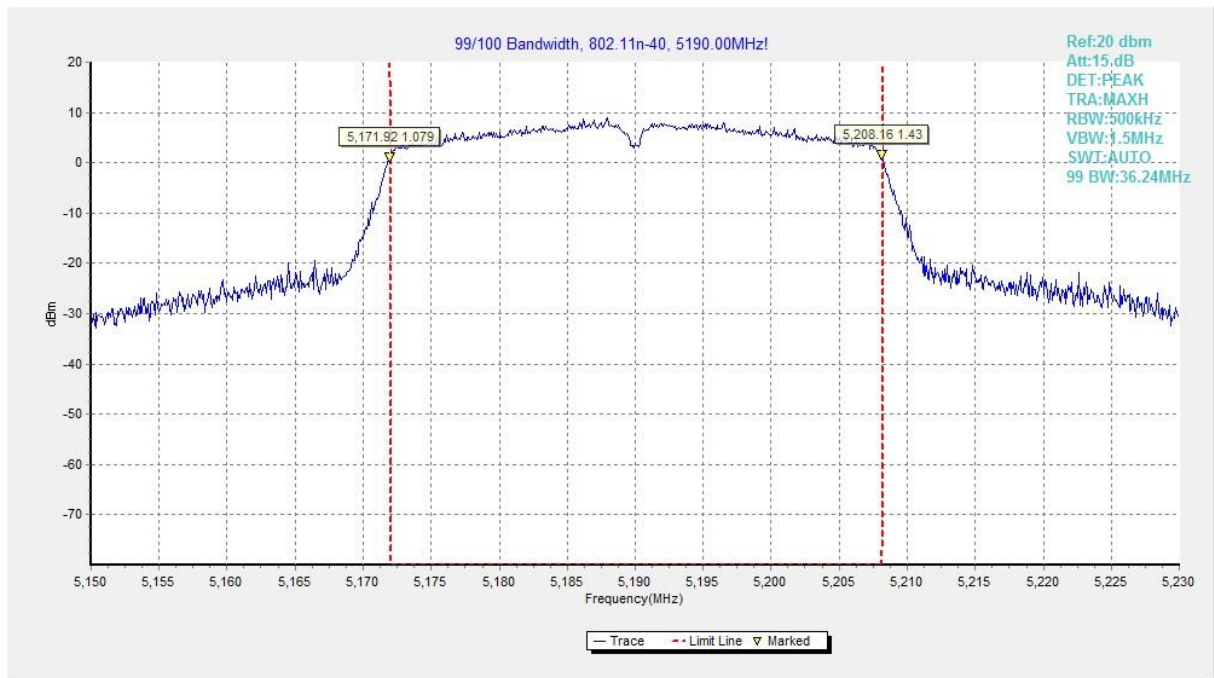


Fig.99 99% Occupied bandwidth (802.11n-HT40, 5190MHz)