

Fig.31 26dB Emission Bandwidth (802. 11ac-VHT80, 5530MHz)

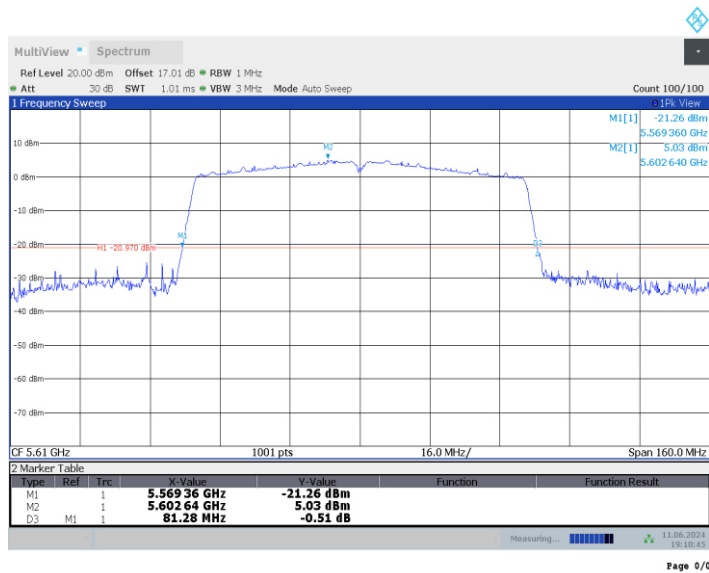
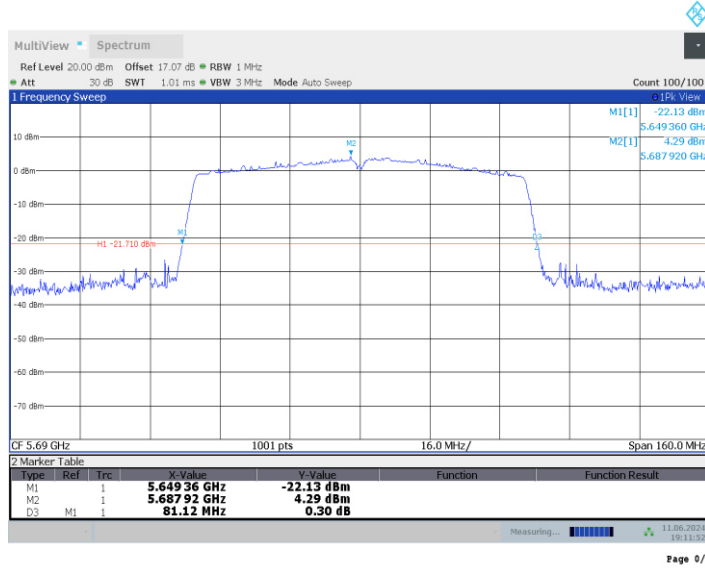


Fig.32 26dB Emission Bandwidth (802. 11ac-VHT80, 5610MHz)



**Fig.33 26dB Emission Bandwidth (802. 11ac-VHT80, 5690MHz)**

**Conclusion: PASS**

## 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.

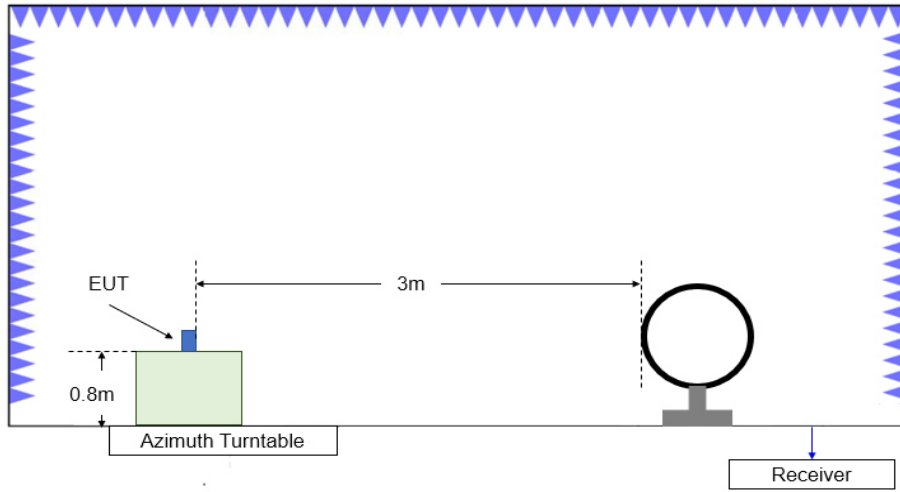
In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c))

Frequency (MHz)	Field strength( $\mu$ V/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

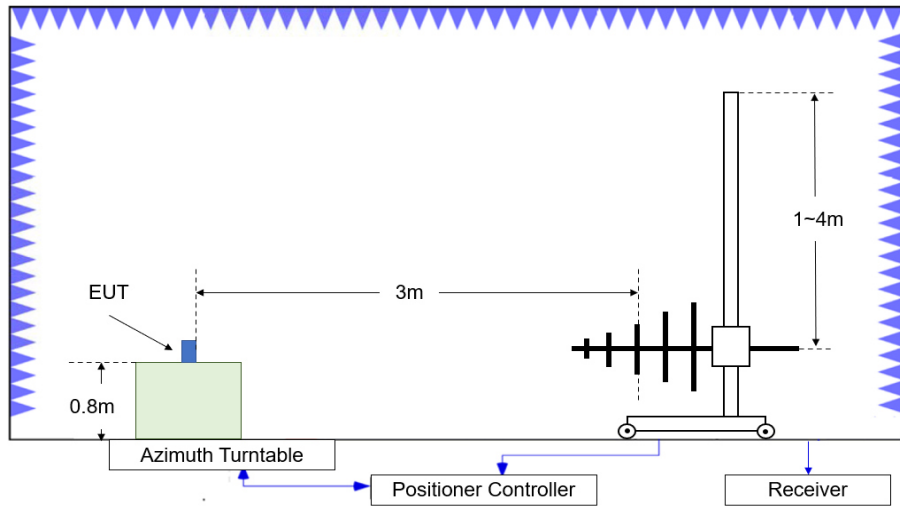
Frequency of emission (MHz)	Field strength ( $\mu$ V/m)	Field strength (dBuV/m)	Measurement distance (m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

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).

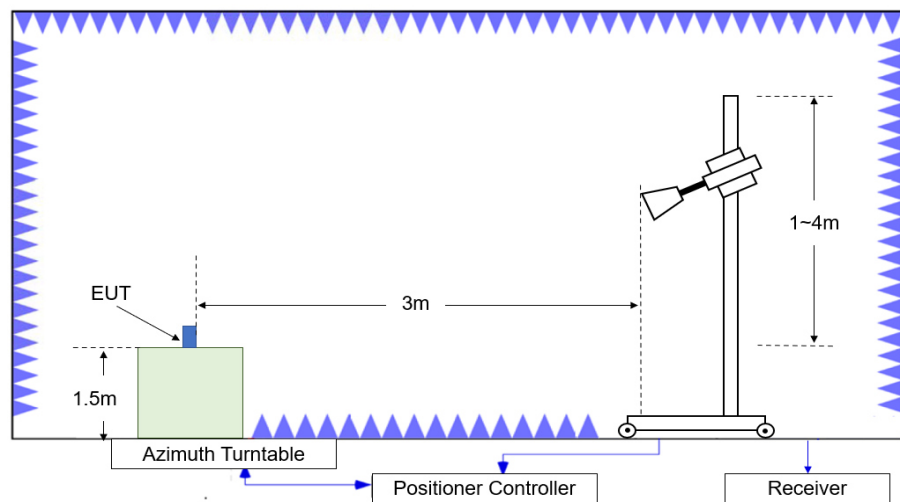
### A.5.2 Test setup



**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)**

### A.5.3 Test Procedures

Radiated unwanted emissions from the EUT were measured according to ANSI C63.10 and KDB 789033 D02 v02r01.

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:

$$\text{Measurement Results (dB}\mu\text{V/m)} = P_{\text{measurement}} \text{ (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$$

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

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

$$E = \text{EIRP} - 20 \log(D) + 104.77$$

Where:

$E$  is the field strength in dB $\mu$ V/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.

### 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)
5124.625	44.19	-22.77	34.25	32.71	54.00	9.81	V
5148.375	44.62	-22.54	34.39	32.78	54.00	9.38	V
11908.500	36.47	-28.71	38.71	26.46	54.00	17.53	V
15540.000	37.68	-24.68	40.14	22.22	54.00	16.32	H
17991.500	40.65	-23.01	41.20	22.46	54.00	13.35	V
17997.000	40.82	-22.85	41.20	22.47	54.00	13.18	H

##### Channel 40

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)
5119.000	44.11	-22.52	34.21	32.41	54.00	9.89	V
5412.250	44.33	-22.43	34.83	31.94	54.00	9.67	V
11907.500	36.37	-28.71	38.71	26.37	54.00	17.63	V
15600.000	37.57	-24.72	40.20	22.09	54.00	16.43	H
17987.500	40.52	-23.08	41.20	22.40	54.00	13.48	V
17999.500	40.64	-22.77	41.20	22.21	54.00	13.36	H

##### Channel 48

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)
5368.000	44.42	-22.92	34.96	32.37	54.00	9.58	V
5410.125	44.44	-22.39	34.84	31.99	54.00	9.56	V
11903.500	36.27	-28.72	38.70	26.29	54.00	17.73	V
15720.000	37.56	-24.38	40.34	21.61	54.00	16.44	V
17976.500	40.41	-23.13	41.20	22.34	54.00	13.59	V
17996.500	40.51	-22.86	41.20	22.17	54.00	13.49	H

## Channel 52

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)
4998.875	44.39	-23.28	34.10	33.58	54.00	9.61	V
5060.250	43.87	-22.73	34.10	32.50	54.00	10.13	V
11912.000	36.17	-28.72	38.71	26.18	54.00	17.83	H
15780.000	37.92	-24.47	40.46	21.94	54.00	16.08	V
17986.500	40.21	-23.09	41.20	22.10	54.00	13.79	H
17997.000	40.21	-22.85	41.20	21.86	54.00	13.79	H

## Channel 56

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)
5121.875	44.24	-22.63	34.23	32.63	54.00	9.76	V
5374.125	44.34	-22.85	34.95	32.24	54.00	9.66	V
11904.500	36.28	-28.71	38.70	26.29	54.00	17.72	V
15840.000	38.29	-24.48	40.58	22.19	54.00	15.71	H
17986.000	40.21	-23.09	41.20	22.10	54.00	13.79	V
17996.000	40.32	-22.88	41.20	22.00	54.00	13.68	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)
5353.625	44.37	-22.93	34.99	32.30	54.00	9.63	V
5364.500	44.45	-22.95	34.97	32.43	54.00	9.55	V
10639.500	39.17	-29.37	37.70	30.85	54.00	14.83	H
15960.000	38.84	-23.92	40.82	21.93	54.00	15.16	H
17986.500	40.42	-23.09	41.20	22.31	54.00	13.58	H
17997.500	40.45	-22.83	41.20	22.08	54.00	13.55	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)
5411.875	44.81	-22.43	34.83	32.41	54.00	9.19	V
5456.000	44.85	-22.61	34.60	32.86	54.00	9.15	V
11161.500	36.91	-30.38	37.90	29.40	54.00	17.09	H
15881.000	39.32	-23.70	40.66	22.36	54.00	14.68	V
17988.500	40.41	-23.07	41.20	22.28	54.00	13.59	H
17996.500	40.51	-22.86	41.20	22.17	54.00	13.49	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)
5369.500	44.58	-22.91	34.96	32.53	54.00	9.42	V
5410.000	44.65	-22.38	34.84	32.20	54.00	9.35	V
11159.500	37.02	-30.36	37.90	29.48	54.00	16.98	H
15871.000	39.36	-23.92	40.64	22.63	54.00	14.64	V
17966.500	40.17	-23.12	41.20	22.09	54.00	13.83	H
17988.000	40.60	-23.08	41.20	22.48	54.00	13.40	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)
5369.000	44.48	-22.91	34.96	32.43	48.30	3.82	V
5411.500	44.53	-22.42	34.83	32.12	48.30	3.77	V
11398.500	36.67	-29.68	38.10	28.25	48.30	11.63	V
15880.000	39.31	-23.67	40.66	22.32	48.30	8.99	V
17985.000	40.51	-23.10	41.20	22.41	48.30	7.79	V
17996.000	40.55	-22.88	41.20	22.23	48.30	7.75	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)
5369.375	44.62	-22.91	34.96	32.57	48.30	3.68	V
5409.750	44.53	-22.39	34.84	32.08	48.30	3.77	V
11903.500	36.44	-28.72	38.70	26.45	48.30	11.86	H
15872.000	39.33	-23.89	40.64	22.57	48.30	8.97	V
17971.000	40.43	-23.10	41.20	22.33	48.30	7.87	H
17948.500	40.39	-23.12	41.20	22.31	48.30	7.91	V

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## 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)
4999.625	44.28	-23.27	34.10	33.45	54.00	9.72	V
4455.100	44.55	-23.91	33.71	34.75	54.00	9.45	V
11900.500	36.01	-28.72	38.70	26.03	54.00	17.99	H
15540.000	37.65	-24.68	40.14	22.19	54.00	16.35	H
17972.500	40.15	-23.10	41.20	22.06	54.00	13.85	V
17994.500	40.46	-22.92	41.20	22.18	54.00	13.54	H

## Channel 40

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)
4999.375	44.27	-23.27	34.10	33.44	54.00	9.73	V
5370.000	44.40	-22.90	34.96	32.34	54.00	9.60	V
11907.000	36.35	-28.71	38.71	26.35	54.00	17.65	H
15600.000	37.53	-24.72	40.20	22.05	54.00	16.47	V
17988.500	40.34	-23.07	41.20	22.21	54.00	13.66	H
17994.500	40.38	-22.92	41.20	22.10	54.00	13.62	V

## Channel 48

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)
5400.000	44.41	-22.59	34.90	32.10	54.00	9.59	V
5438.500	44.00	-22.73	34.67	32.06	54.00	10.00	V
11907.000	36.37	-28.71	38.71	26.37	54.00	17.63	V
15720.000	37.57	-24.38	40.34	21.61	54.00	16.43	V
17957.500	40.28	-23.17	41.20	22.25	54.00	13.72	V
17987.500	40.35	-23.08	41.20	22.23	54.00	13.65	H

## Channel 52

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)
5350.375	44.52	-22.89	35.00	32.41	54.00	9.48	V
5363.375	44.46	-22.96	34.97	32.45	54.00	9.54	V
11907.500	36.32	-28.71	38.71	26.32	54.00	17.68	V
15780.000	38.08	-24.47	40.46	22.09	54.00	15.92	V
17984.000	40.47	-23.11	41.20	22.38	54.00	13.53	V
17998.000	40.60	-22.82	41.20	22.22	54.00	13.40	V

## Channel 56

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)
5354.000	44.56	-22.93	34.99	32.50	54.00	9.44	V
5363.625	44.61	-22.96	34.97	32.60	54.00	9.39	V
11906.500	36.42	-28.71	38.71	26.42	54.00	17.58	H
15840.000	38.56	-24.48	40.58	22.46	54.00	15.44	H
17988.500	40.52	-23.07	41.20	22.39	54.00	13.48	V
17997.000	40.62	-22.85	41.20	22.27	54.00	13.38	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)
5350.375	45.17	-22.89	35.00	33.06	54.00	8.83	V
5351.125	45.13	-22.90	35.00	33.03	54.00	8.87	V
10639.000	38.79	-29.38	37.70	30.47	54.00	15.21	V
15960.000	39.05	-23.92	40.82	22.15	54.00	14.95	V
17985.000	40.58	-23.10	41.20	22.48	54.00	13.42	V
17994.000	40.71	-22.94	41.20	22.45	54.00	13.29	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)
5405.875	44.86	-22.47	34.86	32.46	54.00	9.14	V
5411.875	44.98	-22.43	34.83	32.57	54.00	9.02	V
11000.500	37.34	-30.48	37.80	30.02	54.00	16.66	H
15879.500	38.95	-23.69	40.66	21.98	54.00	15.05	H
17985.180	40.18	-23.10	41.20	22.08	54.00	13.82	V
17993.000	40.22	-22.97	41.20	21.99	54.00	13.78	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)
5406.500	44.54	-22.46	34.86	32.14	54.00	9.46	V
5413.375	44.64	-22.46	34.82	32.28	54.00	9.36	V
11159.500	36.70	-30.36	37.90	29.15	54.00	17.30	H
15877.500	38.83	-23.74	40.66	21.91	54.00	15.17	H
17985.000	40.12	-23.10	41.20	22.02	54.00	13.88	H
17996.000	40.18	-22.88	41.20	21.86	54.00	13.82	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)
5374.750	44.55	-22.84	34.95	32.43	48.30	3.75	V
5403.500	44.40	-22.52	34.88	32.04	48.30	3.90	V
11397.000	34.82	-29.66	38.10	26.38	48.30	13.48	V
15870.000	38.47	-23.94	40.64	21.78	48.30	9.83	V
17986.000	39.82	-23.09	41.20	21.71	48.30	8.48	V
17995.000	39.92	-22.91	41.20	21.63	48.30	8.38	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)
5370.625	44.56	-22.89	34.96	32.49	48.30	3.74	V
5409.375	44.56	-22.40	34.84	32.11	48.30	3.74	V
11449.500	35.34	-29.41	38.20	26.55	48.30	12.96	H
15852.500	38.47	-24.19	40.61	22.05	48.30	9.83	V
17901.500	39.50	-23.04	41.20	21.34	48.30	8.80	V
17998.500	39.81	-22.80	41.20	21.42	48.30	8.49	H

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**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)
4999.875	44.27	-23.26	34.10	33.43	54.00	9.73	V
5119.750	44.28	-22.53	34.22	32.59	54.00	9.72	V
11913.000	36.25	-28.73	38.71	26.27	54.00	17.75	H
15570.000	37.81	-24.58	40.17	22.22	54.00	16.19	H
17987.500	40.45	-23.08	41.20	22.33	54.00	13.55	V
17995.500	40.43	-22.89	41.20	22.12	54.00	13.57	H

## Channel 46

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)
5369.500	44.29	-22.91	34.96	32.24	54.00	9.71	V
5413.125	44.43	-22.45	34.82	32.07	54.00	9.57	V
11904.000	36.24	-28.72	38.70	26.25	54.00	17.76	V
15690.000	37.95	-24.29	40.29	21.96	54.00	16.05	V
17989.000	40.43	-23.07	41.20	22.29	54.00	13.57	V
17996.000	40.48	-22.88	41.20	22.16	54.00	13.52	V

## Channel 54

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)
5370.000	44.64	-22.90	34.96	32.58	54.00	9.36	V
5407.625	44.53	-22.43	34.85	32.10	54.00	9.47	V
11910.000	36.49	-28.70	38.71	26.48	54.00	17.51	V
15810.000	38.47	-24.35	40.52	22.30	54.00	15.53	H
17986.500	40.58	-23.09	41.20	22.47	54.00	13.42	V
17995.500	40.80	-22.89	41.20	22.49	54.00	13.20	V

## 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)
5350.625	45.45	-22.90	35.00	33.34	54.00	8.55	V
5351.250	45.31	-22.90	35.00	33.21	54.00	8.69	V
10619.500	36.75	-29.30	37.70	28.35	54.00	17.25	H
15930.000	38.90	-24.16	40.76	22.30	54.00	15.10	V
17985.500	40.64	-23.10	41.20	22.54	54.00	13.36	H
17997.500	40.80	-22.83	41.20	22.43	54.00	13.20	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)
5410.250	44.84	-22.39	34.84	32.39	54.00	9.16	V
5411.625	44.85	-22.42	34.83	32.44	54.00	9.15	V
11020.000	35.60	-30.40	37.82	28.18	54.00	18.40	V
15862.500	38.50	-24.01	40.63	21.89	54.00	15.50	V
17958.000	39.72	-23.18	41.20	21.70	54.00	14.28	V
17993.000	39.89	-22.97	41.20	21.66	54.00	14.11	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)
5408.500	44.58	-22.41	34.85	32.14	54.00	9.42	V
5410.500	44.64	-22.39	34.84	32.20	54.00	9.36	V
11175.500	34.80	-30.42	37.90	27.32	54.00	19.20	H
15869.000	38.65	-23.95	40.64	21.96	54.00	15.35	H
17948.500	39.77	-23.12	41.20	21.69	54.00	14.23	H
17999.500	39.95	-22.77	41.20	21.52	54.00	14.05	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)
5372.625	44.55	-22.87	34.95	32.46	48.30	3.75	V
5381.500	44.37	-22.78	34.94	32.22	48.30	3.93	V
11340.000	34.44	-29.85	38.04	26.24	48.30	13.86	H
15872.000	38.47	-23.89	40.64	21.71	48.30	9.83	H
17958.000	39.61	-23.18	41.20	21.58	48.30	8.69	V
17987.500	39.74	-23.08	41.20	21.62	48.30	8.56	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)
5374.500	44.48	-22.84	34.95	32.37	48.30	3.82	V
5410.875	44.49	-22.40	34.83	32.06	48.30	3.81	V
11457.500	35.11	-29.58	38.22	26.47	48.30	13.19	H
15847.500	38.16	-24.30	40.60	21.86	48.30	10.14	H
17934.000	39.40	-23.16	41.20	21.36	48.30	8.90	H
17996.500	39.65	-22.86	41.20	21.32	48.30	8.65	V

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## 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)
4999.375	44.35	-23.27	34.10	33.52	54.00	9.65	V
5119.750	44.23	-22.53	34.22	32.54	54.00	9.77	V
11904.000	36.27	-28.72	38.70	26.29	54.00	17.73	V
15540.000	37.57	-24.68	40.14	22.10	54.00	16.43	V
17976.500	40.29	-23.13	41.20	22.22	54.00	13.71	V
17995.000	40.45	-22.91	41.20	22.16	54.00	13.55	H

## Channel 40

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)
5146.625	44.34	-22.61	34.38	32.57	54.00	9.66	V
5365.750	44.37	-22.94	34.97	32.35	54.00	9.63	V
11907.000	36.30	-28.71	38.71	26.30	54.00	17.70	H
15600.000	37.35	-24.72	40.20	21.87	54.00	16.65	V
17948.000	40.11	-23.12	41.20	22.02	54.00	13.89	V
17996.000	40.22	-22.88	41.20	21.90	54.00	13.78	H

## Channel 48

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)
5369.750	44.45	-22.90	34.96	32.39	54.00	9.55	V
5455.500	44.17	-22.61	34.60	32.18	54.00	9.83	V
11909.000	36.29	-28.70	38.71	26.29	54.00	17.71	H
15720.000	37.42	-24.38	40.34	21.46	54.00	16.58	V
17947.500	40.03	-23.11	41.20	21.94	54.00	13.97	V
17989.000	40.22	-23.07	41.20	22.09	54.00	13.78	V

## Channel 52

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)
5370.250	44.60	-22.90	34.96	32.54	54.00	9.40	V
5410.000	44.55	-22.38	34.84	32.09	54.00	9.45	V
11910.500	36.43	-28.71	38.71	26.43	54.00	17.57	H
15780.000	38.06	-24.47	40.46	22.08	54.00	15.94	H
17987.500	40.54	-23.08	41.20	22.42	54.00	13.46	H
17997.500	40.65	-22.83	41.20	22.28	54.00	13.35	V

## Channel 56

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)
5368.000	44.59	-22.92	34.96	32.54	54.00	9.41	V
5403.750	44.50	-22.51	34.88	32.14	54.00	9.50	V
11907.500	36.44	-28.71	38.71	26.44	54.00	17.56	V
15840.000	38.67	-24.48	40.58	22.56	54.00	15.33	H
17983.000	40.60	-23.12	41.20	22.52	54.00	13.40	V
17997.500	40.66	-22.83	41.20	22.30	54.00	13.34	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)
5352.250	44.64	-22.91	35.00	32.56	54.00	9.36	V
5368.125	44.77	-22.92	34.96	32.73	54.00	9.23	V
10640.500	36.15	-29.36	37.70	27.81	54.00	17.85	V
15960.000	38.94	-23.92	40.82	22.03	54.00	15.06	V
17993.000	40.70	-22.97	41.20	22.47	54.00	13.30	V
17998.000	40.71	-22.82	41.20	22.33	54.00	13.29	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)
5404.375	44.73	-22.50	34.87	32.35	54.00	9.27	V
5410.250	44.77	-22.39	34.84	32.32	54.00	9.23	V
11000.000	34.09	-30.49	37.80	26.78	54.00	19.91	V
15879.500	38.84	-23.69	40.66	21.87	54.00	15.16	V
17942.000	39.77	-23.04	41.20	21.61	54.00	14.23	V
17997.000	40.02	-22.85	41.20	21.67	54.00	13.98	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)
5371.375	44.63	-22.88	34.96	32.55	54.00	9.37	V
5401.625	44.49	-22.56	34.89	32.16	54.00	9.51	V
11160.000	33.58	-30.37	37.90	26.05	54.00	20.42	H
15870.000	38.70	-23.94	40.64	22.01	54.00	15.30	V
17943.500	39.81	-23.06	41.20	21.67	54.00	14.19	V
17986.000	39.94	-23.09	41.20	21.83	54.00	14.06	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)
5408.000	44.55	-22.42	34.85	32.12	48.30	3.75	V
5409.375	44.59	-22.40	34.84	32.14	48.30	3.71	V
11400.000	33.75	-29.70	38.10	25.35	48.30	14.55	V
15864.500	38.66	-23.99	40.63	22.03	48.30	9.63	H
17947.500	39.83	-23.11	41.20	21.74	48.30	8.47	V
17994.500	39.98	-22.92	41.20	21.70	48.30	8.32	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)
5372.000	44.44	-22.88	34.96	32.36	48.30	3.86	V
5410.500	44.50	-22.39	34.84	32.05	48.30	3.80	V
11908.000	36.48	-28.71	38.71	26.48	48.30	11.82	H
15856.500	39.12	-24.11	40.61	22.61	48.30	9.18	V
17938.000	40.34	-23.06	41.20	22.20	48.30	7.96	H
17993.000	40.70	-22.97	41.20	22.47	48.30	7.60	H

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**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)
4999.625	44.20	-23.27	34.10	33.36	54.00	9.80	V
5120.500	44.31	-22.55	34.22	32.64	54.00	9.69	V
11907.500	36.24	-28.71	38.71	26.24	54.00	17.76	H
15570.000	37.71	-24.58	40.17	22.13	54.00	16.29	H
17940.500	40.05	-23.02	41.20	21.87	54.00	13.95	H
17987.500	40.29	-23.08	41.20	22.17	54.00	13.71	H

## Channel 46

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)
5409.625	44.48	-22.39	34.84	32.03	54.00	9.52	V
5453.500	44.12	-22.60	34.60	32.12	54.00	9.88	V
11906.000	36.23	-28.71	38.71	26.24	54.00	17.77	V
15690.000	37.79	-24.29	40.29	21.80	54.00	16.21	H
17985.000	40.28	-23.10	41.20	22.19	54.00	13.72	H
17933.000	40.31	-23.19	41.20	22.30	54.00	13.69	H

## Channel 54

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)
5371.500	44.57	-22.88	34.96	32.49	54.00	9.43	V
5373.500	44.56	-22.86	34.95	32.46	54.00	9.44	V
11904.500	36.39	-28.71	38.70	26.40	54.00	17.61	H
15810.000	38.40	-24.35	40.52	22.23	54.00	15.60	H
17981.500	40.59	-23.14	41.20	22.53	54.00	13.41	H
17995.500	40.88	-22.89	41.20	22.57	54.00	13.12	V

## 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)
5351.375	44.66	-22.90	35.00	32.57	54.00	9.34	V
5369.250	44.81	-22.91	34.96	32.76	54.00	9.19	V
10620.000	35.55	-29.29	37.70	27.14	54.00	18.45	V
15930.000	39.00	-24.16	40.76	22.41	54.00	15.00	V
17980.500	40.54	-23.15	41.20	22.48	54.00	13.46	H
17996.000	40.79	-22.88	41.20	22.47	54.00	13.21	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)
5403.500	44.55	-22.52	34.88	32.19	54.00	9.45	V
5407.750	44.67	-22.43	34.85	32.24	54.00	9.33	V
11020.000	33.98	-30.40	37.82	26.56	54.00	20.02	V
15875.500	38.56	-23.80	40.65	21.71	54.00	15.44	V
17988.000	39.80	-23.08	41.20	21.67	54.00	14.20	H
17998.500	39.89	-22.80	41.20	21.49	54.00	14.11	V

## 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)
5368.875	44.55	-22.91	34.96	32.51	54.00	9.45	V
5373.875	44.53	-22.85	34.95	32.43	54.00	9.47	V
11180.000	33.57	-30.37	37.90	26.04	54.00	20.43	H
15878.000	38.97	-23.73	40.66	22.05	54.00	15.03	H
17987.000	40.24	-23.09	41.20	22.12	54.00	13.76	H
17994.000	40.36	-22.94	41.20	22.09	54.00	13.64	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)
5368.500	44.63	-22.92	34.96	32.59	48.30	3.66	V
5376.250	44.51	-22.82	34.95	32.38	48.30	3.79	V
11340.000	34.43	-29.85	38.04	26.24	48.30	13.87	V
15873.500	39.25	-23.85	40.65	22.46	48.30	9.05	V
17989.000	40.40	-23.07	41.20	22.27	48.30	7.90	H
17998.000	40.57	-22.82	41.20	22.19	48.30	7.73	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)
5371.125	44.53	-22.89	34.96	32.46	48.30	3.77	V
5410.250	44.58	-22.39	34.84	32.13	48.30	3.72	V
11904.500	36.35	-28.71	38.70	26.36	48.30	11.95	H
15867.000	39.19	-23.97	40.63	22.52	48.30	9.11	V
17947.000	40.26	-23.10	41.20	22.16	48.30	8.04	H
17993.500	40.71	-22.95	41.20	22.46	48.30	7.59	V

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## 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)
5148.875	45.07	-22.53	34.39	33.20	54.00	8.93	V
5149.625	45.03	-22.50	34.40	33.13	54.00	8.97	V
11905.000	36.33	-28.71	38.71	26.34	54.00	17.67	H
15630.000	37.23	-24.88	40.23	21.88	54.00	16.77	V
17987.000	40.57	-23.09	41.20	22.46	54.00	13.43	H
17995.000	40.64	-22.91	41.20	22.35	54.00	13.36	H

## 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)
5350.750	45.14	-22.90	35.00	33.04	54.00	8.86	V
5366.375	45.07	-22.94	34.97	33.04	54.00	8.93	V
11907.000	36.34	-28.71	38.71	26.34	54.00	17.66	H
15870.000	39.14	-23.94	40.64	22.44	54.00	14.86	V
17983.000	40.46	-23.12	41.20	22.38	54.00	13.54	V
17988.000	40.54	-23.08	41.20	22.41	54.00	13.46	V

## 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)
5370.625	44.62	-22.89	34.96	32.55	54.00	9.38	V
5377.625	44.52	-22.80	34.94	32.38	54.00	9.48	V
11060.000	34.27	-30.31	37.86	26.72	54.00	19.73	V
15876.500	39.41	-23.77	40.65	22.52	54.00	14.59	V
17985.000	40.70	-23.10	41.20	22.61	54.00	13.30	H
17998.000	40.81	-22.82	41.20	22.43	54.00	13.19	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)
5372.750	44.66	-22.87	34.95	32.57	54.00	9.34	V
5409.875	44.65	-22.39	34.84	32.20	54.00	9.35	V
11220.000	33.54	-30.00	37.92	25.62	54.00	20.46	V
15860.500	39.23	-24.03	40.62	22.64	54.00	14.77	H
17986.000	40.62	-23.09	41.20	22.51	54.00	13.38	H
17995.500	40.77	-22.89	41.20	22.46	54.00	13.23	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)
5372.125	44.54	-22.87	34.96	32.46	48.30	3.76	V
5409.375	44.49	-22.40	34.84	32.04	48.30	3.81	V
11386.000	34.14	-29.64	38.09	25.69	48.30	14.16	V
15914.000	38.59	-24.28	40.73	22.14	48.30	9.71	H
17954.500	39.81	-23.16	41.20	21.77	48.30	8.49	H
17997.500	40.07	-22.83	41.20	21.70	48.30	8.23	H

**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)
5146.750	58.39	-22.60	34.38	46.61	74.00	15.61	V
5149.750	58.27	-22.49	34.40	46.37	74.00	15.73	H
10356.000	50.58	-29.71	37.50	42.79	68.30	17.72	H
15540.000	49.18	-24.68	40.14	33.72	74.00	24.82	V
16953.000	53.88	-23.36	41.40	35.84	68.30	14.42	V
17081.000	54.25	-23.47	41.24	36.48	68.30	14.05	H

## Channel 40

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)
5156.500	58.78	-22.60	34.40	46.97	68.30	9.52	H
5255.500	57.73	-22.71	34.53	45.91	68.30	10.57	V
10394.000	50.88	-29.92	37.50	43.30	68.30	17.42	V
15600.000	50.08	-24.72	40.20	34.60	74.00	23.92	H
16474.000	53.24	-23.73	41.25	35.72	68.30	15.06	V
16906.000	53.37	-23.09	41.40	35.07	68.30	14.93	V

## Channel 48

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)
5283.500	57.85	-22.98	34.70	46.12	68.30	10.45	V
5329.000	58.31	-22.91	34.92	46.30	68.30	9.98	V
10473.500	51.13	-29.79	37.57	43.35	68.30	17.17	H
15720.000	49.48	-24.38	40.34	33.53	74.00	24.52	H
16919.000	53.44	-23.38	41.40	35.42	68.30	14.86	H
17447.500	53.73	-23.21	40.95	35.99	68.30	14.57	V

## Channel 52

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)
5175.500	57.83	-22.67	34.40	46.10	68.30	10.47	H
5212.000	57.89	-22.56	34.42	46.03	68.30	10.41	H
10518.000	53.39	-29.12	37.62	44.89	68.30	14.91	H
15780.000	50.05	-24.47	40.46	34.06	74.00	23.95	V
16854.000	53.26	-23.12	41.45	34.94	68.30	15.04	H
16973.000	53.12	-23.36	41.40	35.08	68.30	15.18	V

## Channel 56

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)
5261.000	61.70	-22.77	34.57	49.90	68.30	6.60	V
5309.500	59.01	-22.59	34.84	46.77	68.30	9.29	V
10560.500	52.42	-29.10	37.66	43.86	68.30	15.88	H
15840.000	50.91	-24.48	40.58	34.81	74.00	23.09	H
16299.500	53.32	-23.77	41.00	36.09	68.30	14.98	H
16810.000	53.40	-23.55	41.49	35.46	68.30	14.90	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)
5354.250	58.31	-22.93	34.99	46.25	74.00	15.69	V
5378.437	57.86	-22.79	34.94	45.71	74.00	16.14	H
10640.500	51.41	-29.36	37.70	43.07	74.00	22.59	V
15960.000	50.54	-23.92	40.82	33.63	74.00	23.46	V
16840.000	52.95	-23.30	41.46	34.79	68.30	15.34	V
17246.000	53.07	-23.30	40.95	35.42	68.30	15.23	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)
5468.250	62.69	-22.67	34.60	50.75	68.30	5.61	H
5469.125	62.85	-22.67	34.60	50.92	68.30	5.45	V
11156.500	48.38	-30.31	37.90	40.79	74.00	25.62	V
16500.000	51.66	-23.86	41.30	34.23	68.30	16.64	V
16835.000	53.80	-23.36	41.46	35.70	68.30	14.50	V
17388.000	53.59	-23.38	40.90	36.06	68.30	14.71	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)
5542.000	57.81	-22.59	34.60	45.80	68.30	10.49	V
5623.500	57.90	-22.28	34.70	45.48	68.30	10.40	V
11156.500	48.38	-30.31	37.90	40.79	74.00	25.62	V
16740.000	51.22	-23.62	41.50	33.34	68.30	17.08	H
16835.000	53.80	-23.36	41.46	35.70	68.30	14.50	V
17388.000	53.59	-23.38	40.90	36.06	68.30	14.71	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)
5726.125	63.74	-22.02	34.75	51.01	68.30	4.56	V
5727.125	64.75	-22.08	34.75	52.07	68.30	3.55	V
11395.500	48.05	-29.64	38.10	39.60	74.00	25.95	H
17100.000	51.01	-23.27	41.20	33.08	68.30	17.29	V
17212.500	53.48	-23.16	40.99	35.65	68.30	14.82	H
17598.500	53.18	-23.08	41.00	35.26	68.30	15.12	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)
5666.000	58.12	-22.22	34.70	45.63	68.30	10.18	H
5765.000	58.50	-22.38	34.83	46.05	68.30	9.80	V
11432.500	48.26	-29.42	38.17	39.51	74.00	25.74	V
17154.500	52.43	-23.09	41.09	34.43	68.30	15.87	H
17441.000	53.93	-23.13	40.94	36.12	68.30	14.37	H
17624.500	53.39	-23.13	41.05	35.47	68.30	14.91	V

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## 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)
5119.625	58.05	-22.53	34.22	46.36	74.00	15.95	H
5148.375	60.26	-22.54	34.39	48.42	74.00	13.74	H
10366.000	50.38	-29.69	37.50	42.57	68.30	17.92	V
15540.000	49.17	-24.68	40.14	33.71	74.00	24.83	H
16779.500	53.32	-23.67	41.50	35.49	68.30	14.98	H
17176.000	52.79	-23.21	41.05	34.95	68.30	15.51	H

## Channel 40

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)
5161.000	57.70	-22.65	34.40	45.95	68.30	10.60	H
5234.500	58.84	-22.81	34.47	47.18	68.30	9.46	V
10404.500	49.98	-29.51	37.50	41.98	68.30	18.32	H
15600.000	50.07	-24.72	40.20	34.59	74.00	23.93	H
16749.000	53.29	-23.50	41.50	35.28	68.30	15.01	V
16963.500	53.17	-23.40	41.40	35.17	68.30	15.13	V

## Channel 48

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)
5279.000	58.22	-22.93	34.67	46.48	68.30	10.08	V
5319.000	58.11	-22.61	34.88	45.85	68.30	10.19	V
10476.500	50.44	-29.81	37.58	42.67	68.30	17.86	H
15720.000	49.42	-24.38	40.34	33.46	74.00	24.58	H
17308.500	53.88	-23.35	40.90	36.33	68.30	14.42	H
17478.500	53.60	-23.26	40.98	35.88	68.30	14.70	H

## Channel 52

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)
5211.500	58.15	-22.56	34.42	46.28	68.30	10.15	H
5303.500	58.32	-22.69	34.81	46.20	68.30	9.98	H
10522.000	51.12	-29.25	37.62	42.74	68.30	17.18	H
15780.000	50.01	-24.47	40.46	34.03	74.00	23.99	V
16867.000	53.16	-23.24	41.43	34.96	68.30	15.14	H
17447.500	53.38	-23.21	40.95	35.65	68.30	14.92	H

## Channel 56

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)
5244.000	57.54	-22.77	34.49	45.82	68.30	10.76	H
5321.500	57.33	-22.67	34.89	45.10	68.30	10.97	H
10564.500	52.45	-29.24	37.66	44.02	68.30	15.85	V
15840.000	50.67	-24.48	40.58	34.57	74.00	23.33	V
17015.000	53.09	-23.11	41.37	34.83	68.30	15.21	H
17254.500	53.22	-23.33	40.95	35.60	68.30	15.08	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)
5350.200	62.12	-22.89	35.00	50.01	74.00	11.88	H
5351.325	62.23	-22.90	35.00	50.14	74.00	11.77	H
10637.000	51.08	-29.42	37.70	42.80	74.00	22.92	V
15960.000	50.70	-23.92	40.82	33.80	74.00	23.30	H
16890.500	54.13	-22.94	41.41	35.66	68.30	14.17	H
17314.500	53.62	-23.37	40.90	36.09	68.30	14.67	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)
5464.750	63.48	-22.64	34.60	51.52	68.30	4.82	H
5465.750	62.15	-22.65	34.60	50.20	68.30	6.15	V
11005.000	50.52	-30.38	37.81	43.10	74.00	23.48	V
16500.000	49.53	-23.86	41.30	32.09	68.30	18.77	H
16854.000	53.63	-23.12	41.45	35.30	68.30	14.67	V
17322.500	53.62	-23.37	40.90	36.09	68.30	14.68	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)
5512.000	58.37	-22.00	34.60	45.76	68.30	9.93	V
5664.500	57.98	-22.19	34.70	45.47	68.30	10.32	H
11164.000	48.21	-30.41	37.90	40.72	74.00	25.79	H
16740.000	50.52	-23.62	41.50	32.64	68.30	17.78	H
17163.500	53.13	-23.01	41.07	35.07	68.30	15.17	H
17469.000	53.30	-23.17	40.97	35.51	68.30	15.00	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)
5725.000	64.33	-21.95	34.75	51.52	68.30	3.97	V
5725.500	63.65	-21.98	34.75	50.88	68.30	4.65	H
11400.000	45.46	-29.70	38.10	37.06	74.00	28.54	H
17100.000	50.08	-23.27	41.20	32.15	68.30	18.22	H
17319.000	53.01	-23.37	40.90	35.48	68.30	15.29	H
17656.000	52.77	-23.25	41.11	34.91	68.30	15.53	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)
5666.000	58.37	-22.22	34.70	45.89	68.30	9.93	V
5770.000	57.36	-22.40	34.84	44.92	68.30	10.94	H
11421.000	49.47	-29.45	38.14	40.78	74.00	24.53	V
16904.500	52.73	-23.06	41.40	34.39	68.30	15.57	H
17131.500	51.12	-23.33	41.14	33.31	68.30	17.18	H
17391.500	53.60	-23.34	40.90	36.04	68.30	14.70	V

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**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)
5137.750	59.70	-22.89	34.33	48.26	74.00	14.30	V
5147.750	60.89	-22.57	34.39	49.07	74.00	13.11	V
10380.000	47.73	-29.81	37.50	40.04	68.30	20.57	H
15570.000	48.77	-24.58	40.17	33.19	74.00	25.23	H
16629.000	52.92	-23.55	41.50	34.97	68.30	15.38	H
16867.000	53.10	-23.24	41.43	34.90	68.30	15.20	H

## Channel 46

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)
5255.500	65.20	-22.71	34.53	53.38	68.30	3.10	V
5267.500	60.05	-22.77	34.61	48.22	68.30	8.24	V
10458.000	48.58	-29.55	37.56	40.57	68.30	19.72	V
15690.000	49.73	-24.29	40.29	33.74	74.00	24.27	H
16886.500	53.35	-23.06	41.41	34.99	68.30	14.95	H
17330.500	53.91	-23.35	40.90	36.36	68.30	14.39	H

## Channel 54

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)
5224.500	59.29	-22.65	34.45	47.49	68.30	9.01	V
5322.500	58.24	-22.70	34.89	46.05	68.30	10.06	V
10540.000	49.11	-29.58	37.64	41.05	68.30	19.19	V
15810.000	50.56	-24.35	40.52	34.39	74.00	23.44	V
16836.500	53.18	-23.34	41.46	35.06	68.30	15.12	V
17467.500	53.07	-23.18	40.97	35.28	68.30	15.23	V

## 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)
5350.762	63.59	-22.90	35.00	51.49	74.00	10.41	V
5354.025	63.72	-22.93	34.99	51.66	74.00	10.28	H
10616.500	49.38	-29.33	37.70	41.01	74.00	24.62	V
15930.000	51.75	-24.16	40.76	35.16	74.00	22.25	H
17210.000	53.19	-23.11	40.99	35.31	68.30	15.11	V
17472.500	53.18	-23.20	40.97	35.40	68.30	15.12	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)
5469.750	64.64	-22.68	34.60	52.72	68.30	3.66	H
5470.000	64.86	-22.68	34.60	52.94	68.30	3.44	V
11020.000	46.91	-30.40	37.82	39.49	74.00	27.09	V
16530.000	48.75	-23.82	41.36	31.21	68.30	19.55	H
16752.500	53.12	-23.46	41.50	35.08	68.30	15.18	V
17278.000	52.70	-23.34	40.92	35.12	68.30	15.59	V

## 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)
5508.500	57.87	-22.07	34.60	45.34	68.30	10.43	V
5667.000	57.72	-22.24	34.70	45.25	68.30	10.58	H
11180.000	45.00	-30.37	37.90	37.47	74.00	29.00	H
16770.000	51.26	-23.60	41.50	33.36	68.30	17.04	V
17226.500	53.12	-23.26	40.97	35.41	68.30	15.18	V
17667.500	53.11	-23.32	41.14	35.30	68.30	15.19	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)
5725.750	59.74	-21.99	34.75	46.99	68.30	8.56	H
5726.375	59.74	-22.03	34.75	47.03	68.30	8.55	H
11340.000	45.41	-29.85	38.04	37.21	74.00	28.59	H
17010.000	49.72	-23.10	41.38	31.43	68.30	18.58	H
17275.000	52.98	-23.25	40.92	35.31	68.30	15.32	H
17641.500	52.67	-23.37	41.08	34.96	68.30	15.63	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)
5666.000	62.06	-22.22	34.70	49.58	68.30	6.24	V
5758.000	62.14	-22.37	34.82	49.69	68.30	6.16	V
11411.000	48.47	-29.76	38.12	40.10	74.00	25.53	H
16638.000	52.30	-23.61	41.50	34.41	68.30	16.00	H
17136.000	50.82	-23.26	41.13	32.95	68.30	17.48	V
17377.500	52.57	-23.37	40.90	35.04	68.30	15.73	H

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## 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)
5117.375	58.80	-22.51	34.20	47.10	74.00	15.20	V
5144.750	58.41	-22.67	34.37	46.72	74.00	15.59	V
10360.000	48.88	-29.74	37.50	41.12	68.30	19.42	V
15540.000	50.32	-24.68	40.14	34.86	74.00	23.68	H
16346.500	53.03	-24.03	41.05	36.01	68.30	15.27	V
16856.000	53.48	-23.09	41.44	35.13	68.30	14.82	V

## Channel 40

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)
5174.000	59.32	-22.65	34.40	47.57	68.30	8.98	H
5245.500	57.75	-22.74	34.49	45.99	68.30	10.55	V
10398.500	48.44	-29.81	37.50	40.75	68.30	19.86	V
15600.000	48.77	-24.72	40.20	33.30	74.00	25.23	V
16760.000	53.48	-23.39	41.50	35.37	68.30	14.81	H
17473.500	54.01	-23.21	40.97	36.24	68.30	14.29	H



## Channel 48

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)
5261.000	63.01	-22.77	34.57	51.21	68.30	5.29	H
5302.500	58.06	-22.71	34.81	45.96	68.30	10.24	V
10477.500	48.67	-29.81	37.58	40.90	68.30	19.63	V
15720.000	48.81	-24.38	40.34	32.85	74.00	25.19	V
16843.500	53.05	-23.25	41.46	34.85	68.30	15.24	V
17286.000	53.16	-23.40	40.91	35.65	68.30	15.14	V

## Channel 52

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)
5235.000	58.65	-22.81	34.47	46.99	68.30	9.65	H
5284.000	58.71	-22.98	34.70	46.99	68.30	9.59	V
10514.500	48.87	-29.13	37.61	40.38	68.30	19.43	V
15780.000	50.08	-24.47	40.46	34.10	74.00	23.92	H
16792.000	53.63	-23.47	41.50	35.60	68.30	14.67	H
17178.000	53.68	-23.26	41.04	35.90	68.30	14.62	H

## Channel 56

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)
5258.000	57.66	-22.74	34.55	45.86	68.30	10.63	V
5306.500	57.51	-22.64	34.83	45.32	68.30	10.79	H
10549.000	48.48	-29.07	37.65	39.91	68.30	19.82	V
15840.000	50.97	-24.48	40.58	34.87	74.00	23.03	V
17224.000	53.39	-23.28	40.98	35.69	68.30	14.91	H
17395.000	53.56	-23.28	40.90	35.94	68.30	14.74	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)
5351.438	58.63	-22.90	35.00	46.54	74.00	15.37	H
5356.387	58.80	-22.96	34.99	46.77	74.00	15.20	V
10640.000	47.49	-29.36	37.70	39.16	74.00	26.51	V
15960.000	49.99	-23.92	40.82	33.09	74.00	24.01	H
17219.000	53.36	-23.29	40.98	35.66	68.30	14.94	H
17573.000	53.27	-23.29	41.00	35.56	68.30	15.03	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)
5465.625	58.17	-22.65	34.60	46.22	68.30	10.12	V
5467.250	58.02	-22.66	34.60	46.07	68.30	10.28	H
11000.000	45.63	-30.49	37.80	38.32	74.00	28.37	V
16500.000	50.27	-23.86	41.30	32.83	68.30	18.03	H
17056.500	53.04	-23.11	41.29	34.86	68.30	15.26	H
17303.000	53.38	-23.33	40.90	35.81	68.30	14.92	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)
5554.500	57.37	-22.50	34.61	45.26	68.30	10.93	H
5614.500	58.01	-22.05	34.70	45.36	68.30	10.29	H
11160.000	44.93	-30.37	37.90	37.40	74.00	29.07	H
16740.000	50.53	-23.62	41.50	32.66	68.30	17.77	H
17231.000	53.41	-23.24	40.97	35.67	68.30	14.89	H
17614.000	52.49	-22.97	41.03	34.44	68.30	15.81	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)
5725.000	60.75	-21.95	34.75	47.94	68.30	7.55	H
5726.500	59.63	-22.04	34.75	46.92	68.30	8.67	V
11400.000	45.84	-29.70	38.10	37.44	74.00	28.16	H
17100.000	49.84	-23.27	41.20	31.91	68.30	18.46	H
17324.500	53.18	-23.37	40.90	35.65	68.30	15.12	V
17477.500	52.79	-23.25	40.98	35.05	68.30	15.51	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)
5691.500	57.17	-22.42	34.70	44.89	68.30	11.13	V
5746.000	57.32	-22.44	34.79	44.97	68.30	10.98	V
11440.000	48.86	-29.54	38.18	40.22	74.00	25.14	H
16601.000	53.23	-23.72	41.50	35.46	68.30	15.07	H
17160.000	51.84	-22.99	41.08	33.75	68.30	16.46	H
17483.500	53.02	-23.30	40.98	35.34	68.30	15.28	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)
5144.250	59.13	-22.69	34.37	47.46	74.00	14.87	H
5148.750	61.23	-22.53	34.39	49.37	74.00	12.77	H
10380.000	45.90	-29.81	37.50	38.21	68.30	22.40	H
15570.000	49.58	-24.58	40.17	33.99	74.00	24.42	V
16822.500	53.84	-23.46	41.48	35.82	68.30	14.46	V
17315.000	53.23	-23.37	40.90	35.70	68.30	15.07	H

## Channel 46

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)
5257.500	64.28	-22.74	34.55	52.47	68.30	4.02	V
5265.000	62.27	-22.77	34.59	50.45	68.30	6.03	H
10460.000	47.94	-29.57	37.56	39.95	68.30	20.36	V
15690.000	51.44	-24.29	40.29	35.44	74.00	22.56	H
16847.500	53.16	-23.20	41.45	34.91	68.30	15.14	V
17393.000	53.38	-23.32	40.90	35.80	68.30	14.92	V

## Channel 54

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)
5237.500	63.80	-22.83	34.48	52.16	68.30	4.50	H
5306.500	60.67	-22.64	34.83	48.49	68.30	7.63	V
10540.000	46.32	-29.58	37.64	38.26	68.30	21.98	H
15810.000	51.59	-24.35	40.52	35.42	74.00	22.41	H
16693.500	53.08	-23.64	41.50	35.22	68.30	15.22	H
17254.500	53.39	-23.33	40.95	35.77	68.30	14.91	H

## 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)
5350.988	59.27	-22.90	35.00	47.17	74.00	14.73	H
5370.113	59.79	-22.90	34.96	47.73	74.00	14.21	H
10624.000	48.33	-29.39	37.70	40.02	74.00	25.67	V
15930.000	50.90	-24.16	40.76	34.30	74.00	23.10	H
16842.000	53.19	-23.27	41.46	35.00	68.30	15.11	H
17345.000	53.96	-23.32	40.90	36.38	68.30	14.34	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)
5466.000	58.38	-22.65	34.60	46.43	68.30	9.92	V
5468.125	59.24	-22.67	34.60	47.31	68.30	9.06	V
11020.000	45.67	-30.40	37.82	38.26	74.00	28.33	H
16530.000	49.09	-23.82	41.36	31.55	68.30	19.21	V
16772.500	53.01	-23.62	41.50	35.12	68.30	15.29	H
17235.500	53.44	-23.23	40.96	35.71	68.30	14.86	V

## 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)
5556.000	58.13	-22.48	34.61	46.00	68.30	10.17	H
5631.000	58.10	-22.50	34.70	45.90	68.30	10.20	V
11180.000	45.28	-30.37	37.90	37.75	74.00	28.72	V
16770.000	50.37	-23.60	41.50	32.47	68.30	17.93	V
17226.500	53.30	-23.26	40.97	35.58	68.30	15.00	V
17451.500	52.70	-23.24	40.95	34.98	68.30	15.60	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)
5726.875	59.16	-22.07	34.75	46.48	68.30	9.14	H
5728.625	58.92	-22.18	34.76	46.35	68.30	9.38	V
11340.000	46.12	-29.85	38.04	37.93	74.00	27.88	V
17010.000	51.85	-23.10	41.38	33.57	68.30	16.45	H
17275.500	53.41	-23.27	40.92	35.75	68.30	14.89	H
17384.500	53.73	-23.39	40.90	36.21	68.30	14.57	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)
5667.500	58.42	-22.24	34.70	45.96	68.30	9.88	V
549.000	57.64	0.00	0.00	57.64	68.30	10.66	H
11419.500	47.26	-29.48	38.14	38.60	74.00	26.74	H
16884.500	54.06	-23.13	41.42	35.77	68.30	14.24	V
17134.000	52.04	-23.29	41.13	34.20	68.30	16.26	V
17650.500	53.73	-23.30	41.10	35.93	68.30	14.57	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)
5142.500	61.97	-22.75	34.36	50.36	74.00	12.03	H
5147.875	63.41	-22.56	34.39	51.59	74.00	10.59	V
10414.500	48.52	-29.18	37.51	40.18	68.30	19.78	H
15630.000	48.81	-24.88	40.23	33.47	74.00	25.19	V
17099.500	53.65	-23.28	41.20	35.72	68.30	14.65	H
17268.000	53.75	-23.15	40.93	35.97	68.30	14.55	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)
5350.650	62.38	-22.90	35.00	50.28	74.00	11.62	V
5351.550	61.83	-22.91	35.00	49.74	74.00	12.17	H
10580.000	45.75	-29.64	37.68	37.71	68.30	22.55	V
15870.000	50.78	-23.94	40.64	34.09	74.00	23.22	V
16738.500	53.74	-23.62	41.50	35.86	68.30	14.56	V
17335.000	53.66	-23.30	40.90	36.05	68.30	14.64	V

## 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)
5462.875	59.50	-22.63	34.60	47.53	68.30	8.80	H
5467.125	60.42	-22.66	34.60	48.48	68.30	7.88	V
11060.000	46.82	-30.31	37.86	39.27	74.00	27.18	H
16590.000	51.24	-23.75	41.48	33.51	68.30	17.06	V
16836.500	53.84	-23.34	41.46	35.72	68.30	14.46	V
17438.500	53.62	-23.13	40.94	35.82	68.30	14.67	V

## 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)
5727.250	58.93	-22.09	34.75	46.26	68.30	9.37	V
5740.875	59.06	-22.49	34.78	46.77	68.30	9.24	H
11220.000	46.09	-30.00	37.92	38.17	74.00	27.91	H
16830.000	51.07	-23.43	41.47	33.02	68.30	17.23	V
17320.000	54.33	-23.37	40.90	36.80	68.30	13.97	H
17597.000	53.35	-23.12	41.00	35.47	68.30	68.30	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)
5640.500	59.78	-22.46	34.70	47.54	68.30	8.52	V
5743.000	57.64	-22.47	34.79	45.33	68.30	10.66	V
11380.500	47.64	-29.73	38.08	39.29	68.30	20.66	V
17070.000	50.18	-23.33	41.26	32.25	68.30	18.12	V
17510.000	53.88	-23.39	41.00	36.27	68.30	14.42	V
17640.500	53.17	-23.38	41.08	35.46	68.30	15.13	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

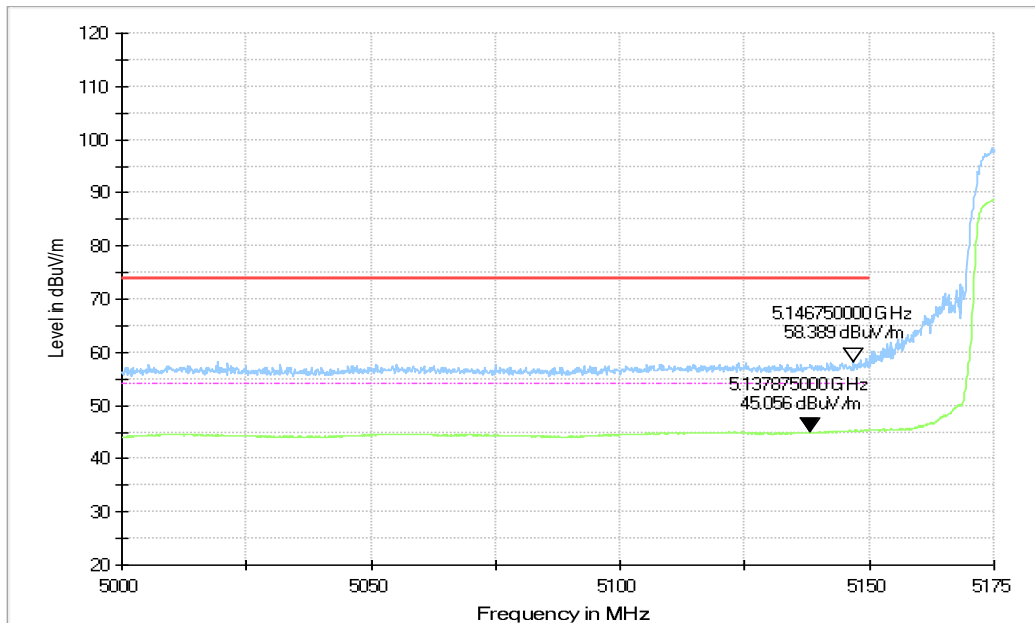
**Band edge compliance**

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.34	P
	5320 MHz	Fig.35	P
	5500 MHz	Fig.36	P
	5700 MHz	Fig.37	P
802.11n HT20	5180 MHz	Fig.38	P
	5320 MHz	Fig.39	P
	5500 MHz	Fig.40	P
	5700 MHz	Fig.41	P
802.11n HT40	5190 MHz	Fig.42	P
	5310 MHz	Fig.43	P
	5510 MHz	Fig.44	P
	5670 MHz	Fig.45	P
802.11ac HT20	5180 MHz	Fig.46	P
	5320 MHz	Fig.47	P
	5500 MHz	Fig.48	P
	5700 MHz	Fig.49	P
802.11ac HT40	5190 MHz	Fig.50	P
	5310 MHz	Fig.51	P
	5510 MHz	Fig.52	P
	5670 MHz	Fig.53	P
802.11ac HT80	5210MHz	Fig.54	P
	5290MHz	Fig.55	P
	5530MHz	Fig.56	P
	5610MHz	Fig.57	P

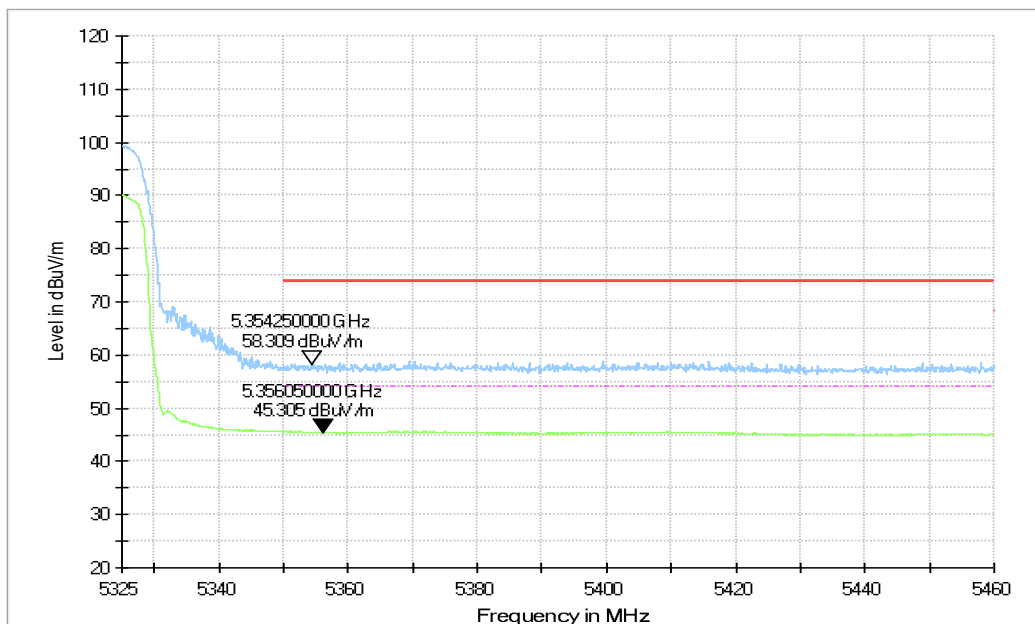
**Conclusion: PASS**

**Test graphs as below:**

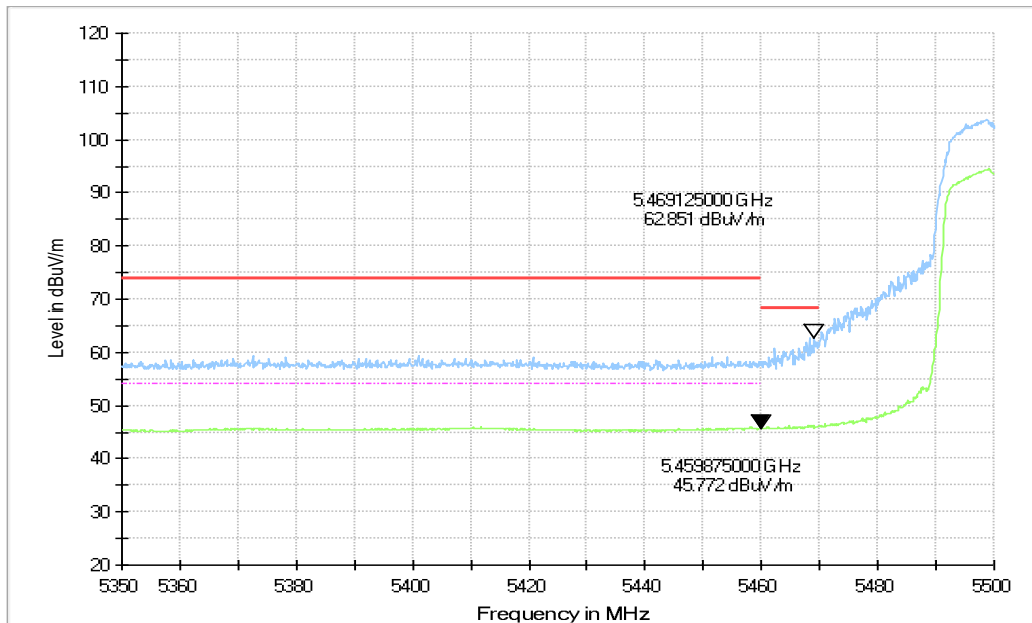




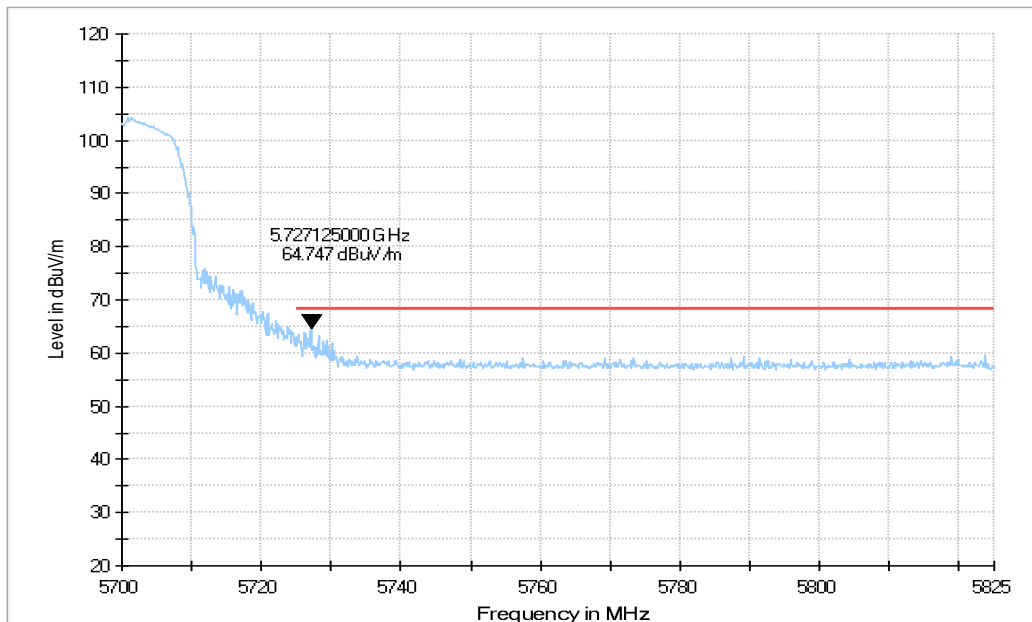
**Fig. 34 Band Edges (802.11a Ch36, 5180MHz)**



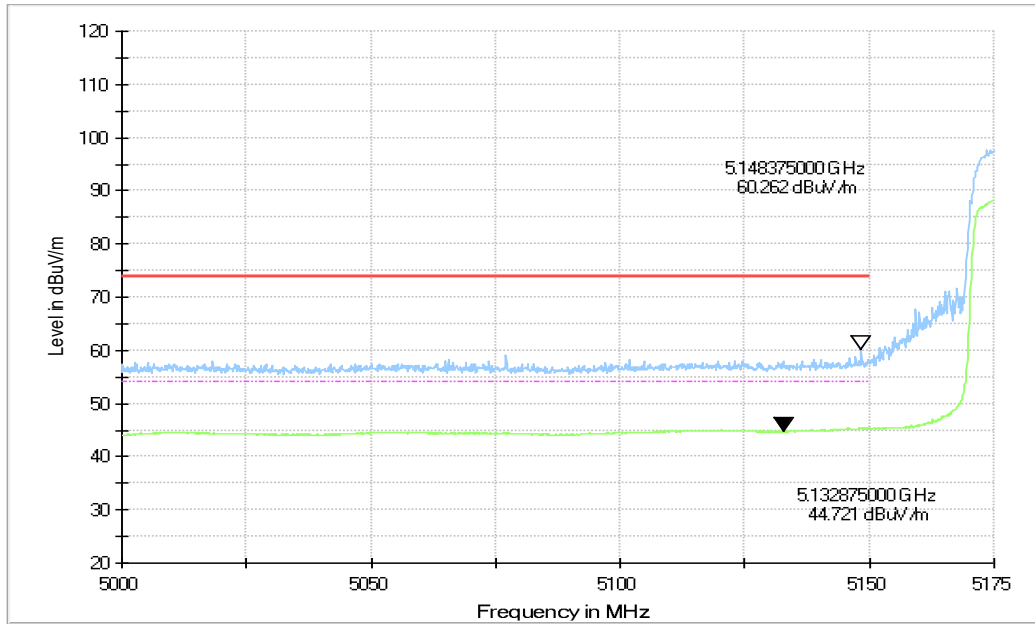
**Fig. 35 Band Edges (802.11a Ch64, 5320MHz)**



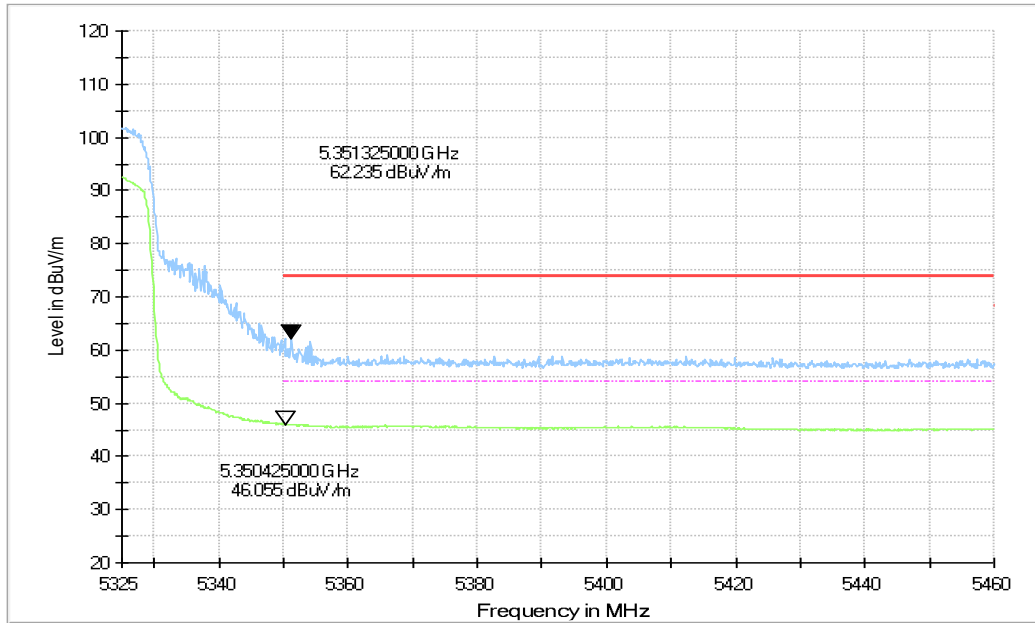
**Fig. 36 Band Edges (802.11a Ch100, 5500MHz)**



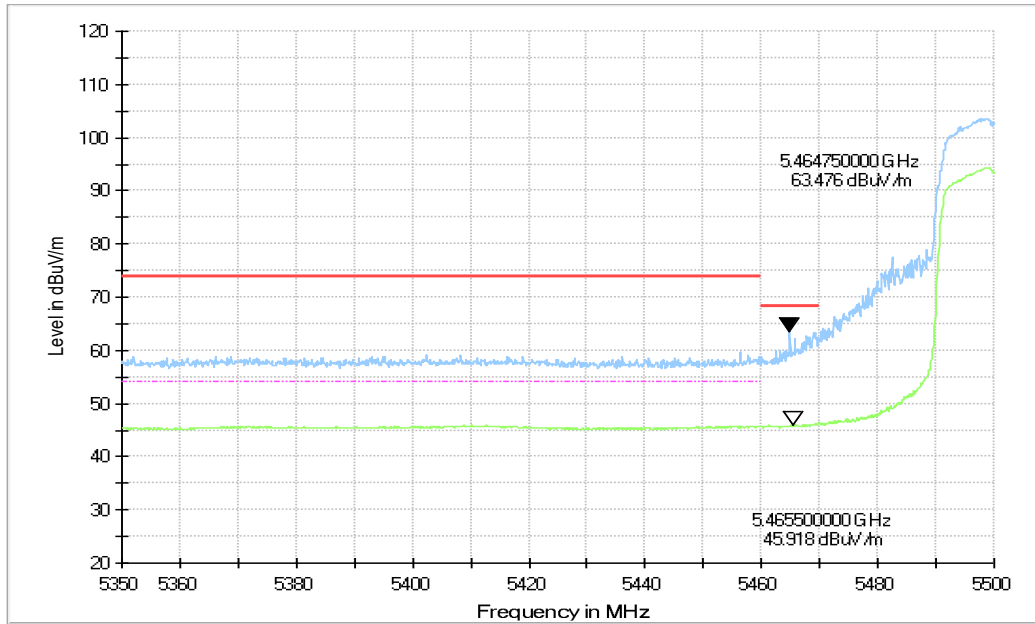
**Fig. 37 Band Edges (802.11a Ch140, 5700MHz)**



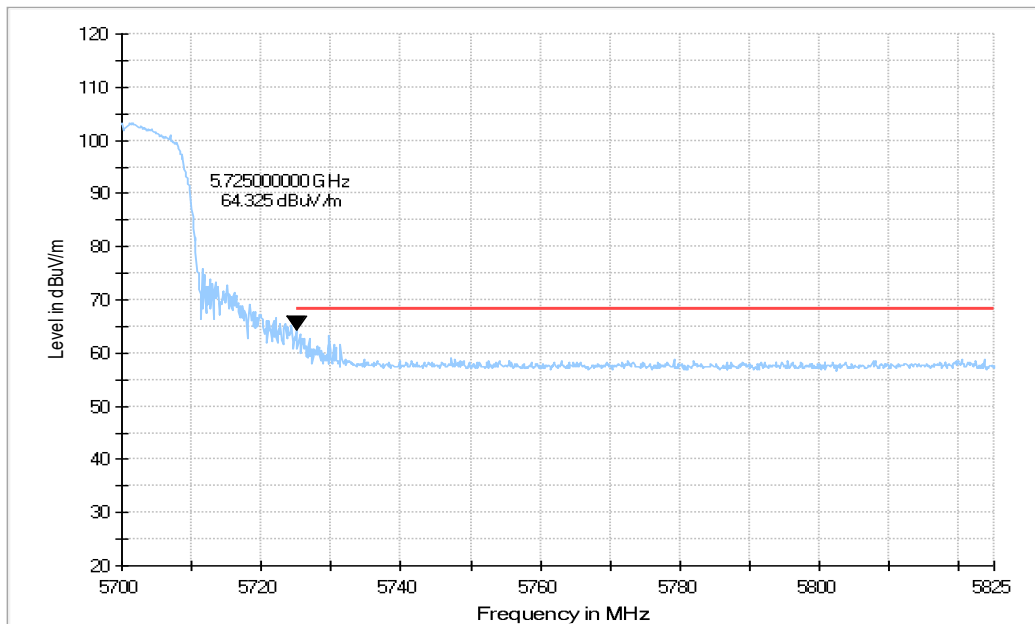
**Fig. 38 Band Edges (802.11n-HT20 Ch36, 5180MHz)**



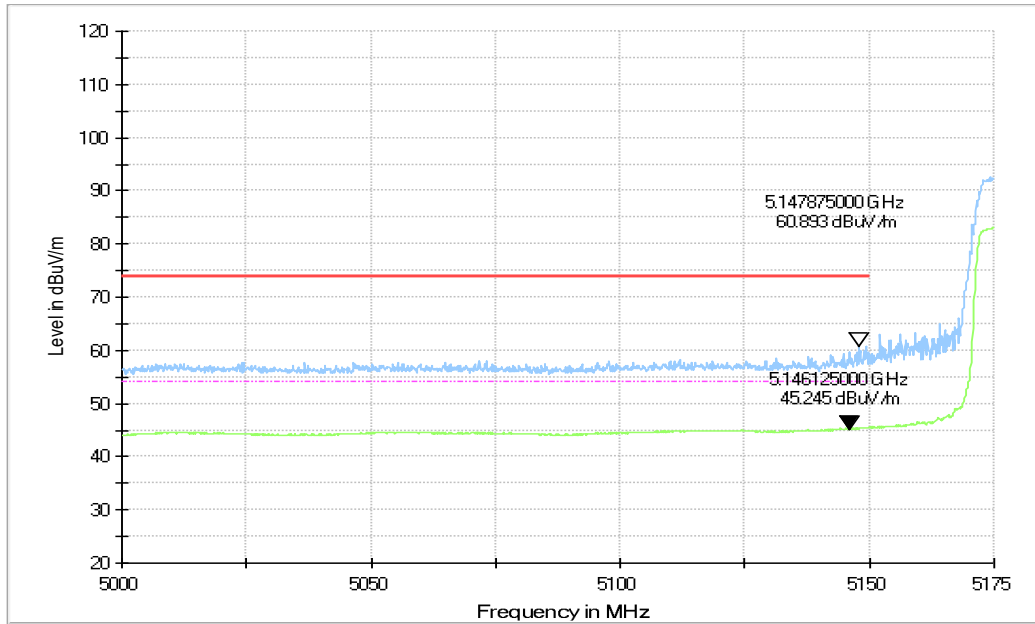
**Fig. 39 Band Edges (802.11n-HT20 Ch64, 5320MHz)**



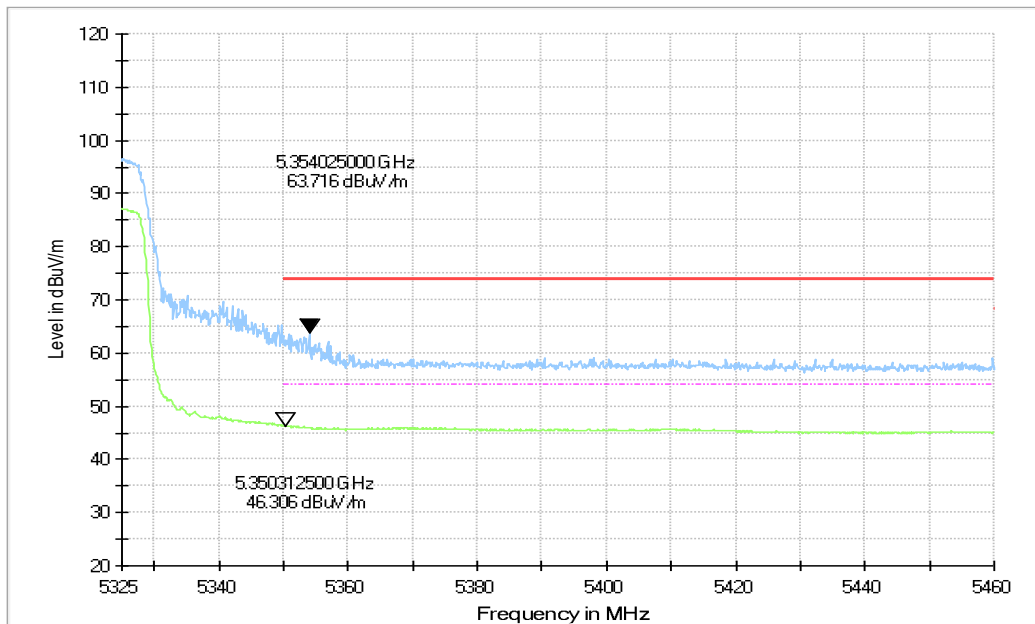
**Fig. 40 Band Edges (802.11n-HT20 Ch100, 5500MHz)**



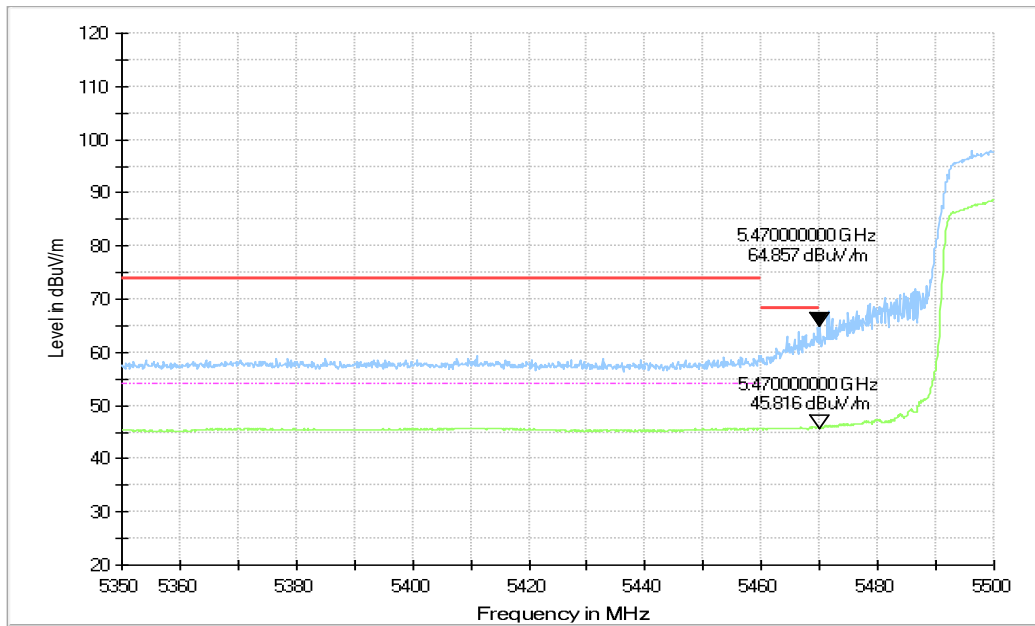
**Fig. 41 Band Edges (802.11n-HT20 Ch140, 5700MHz)**



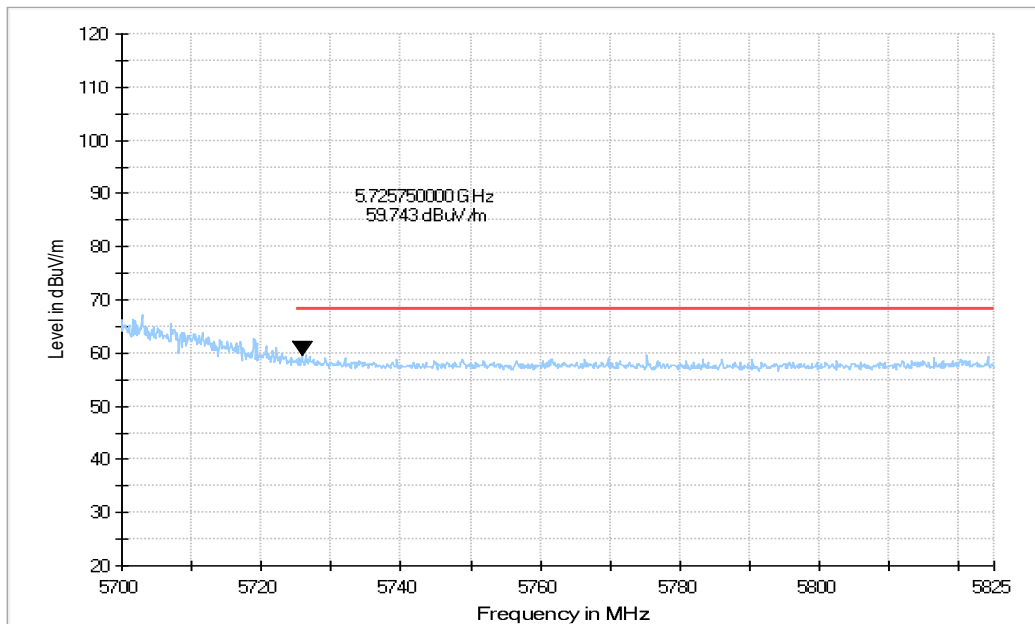
**Fig. 42 Band Edges (802.11n-HT40 Ch38, 5190MHz)**



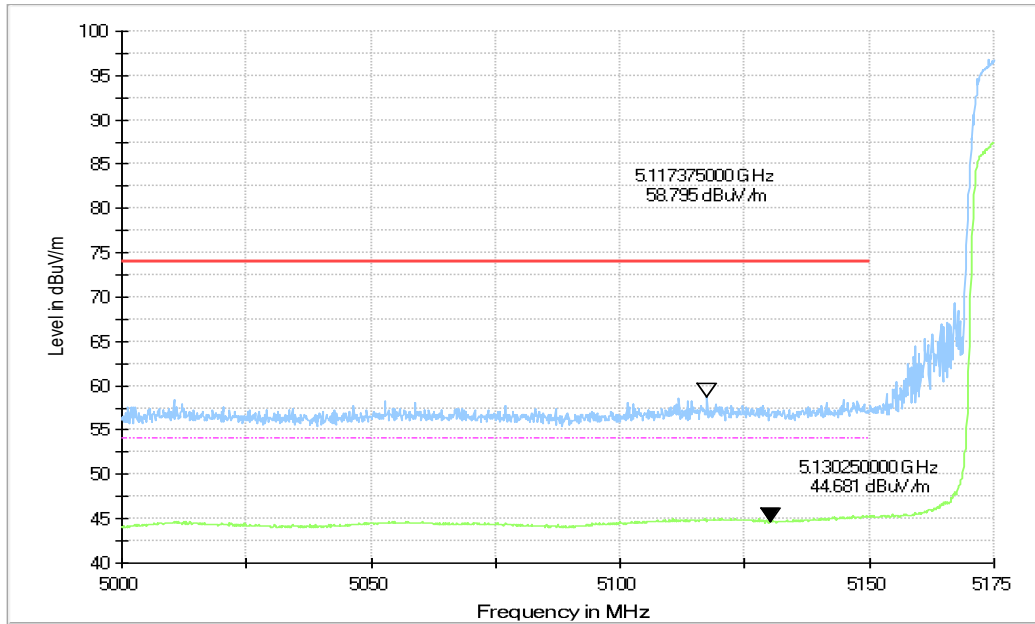
**Fig. 43 Band Edges (802.11n-HT40 Ch62, 5310MHz)**



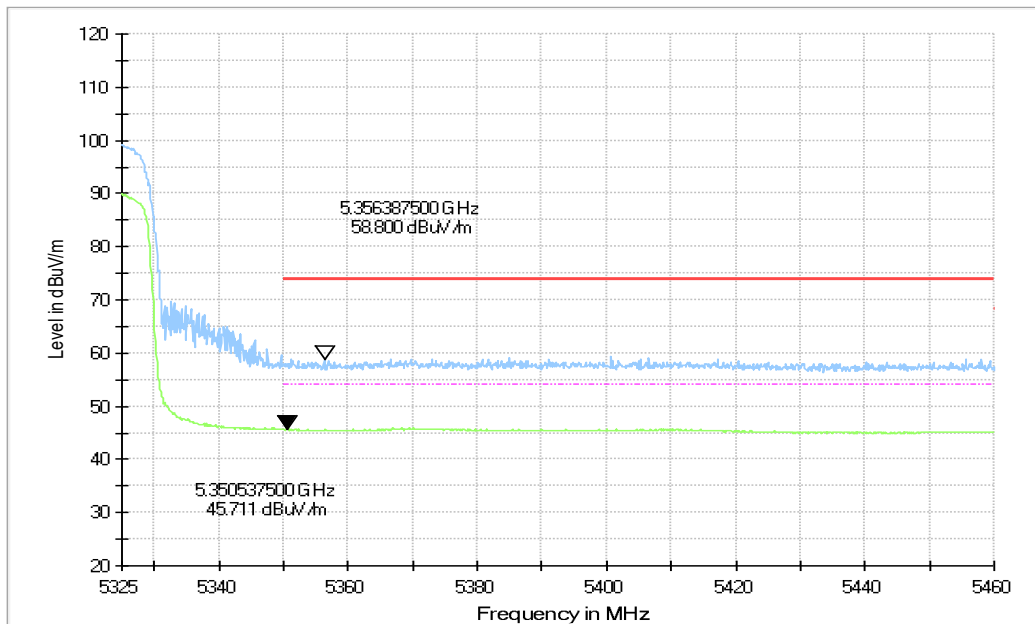
**Fig. 44 Band Edges (802.11n-HT40 Ch102, 5510MHz)**



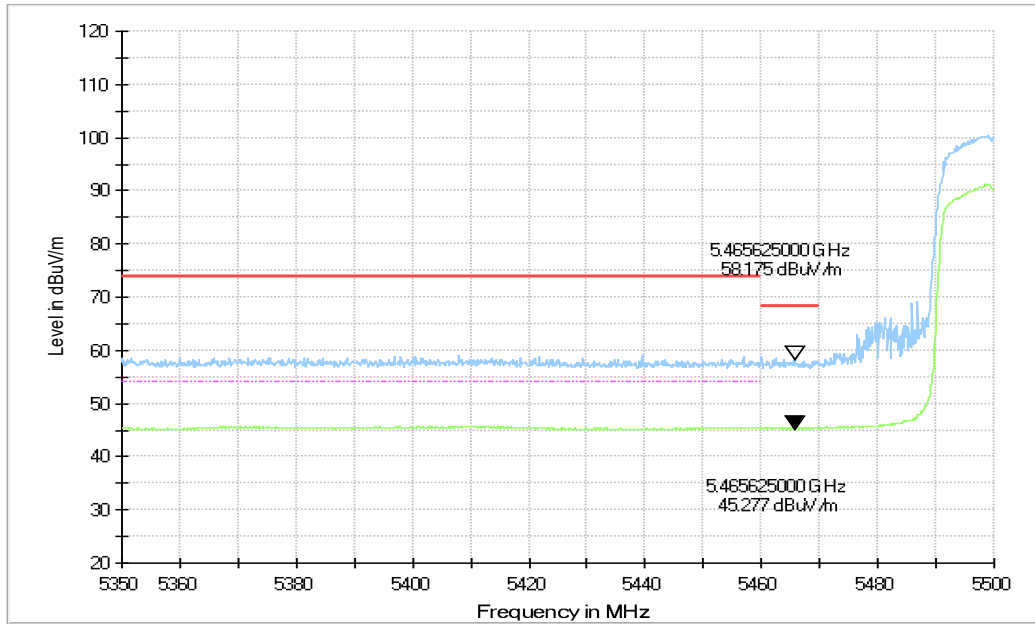
**Fig. 45 Band Edges (802.11n-HT40 Ch134, 5670MHz)**



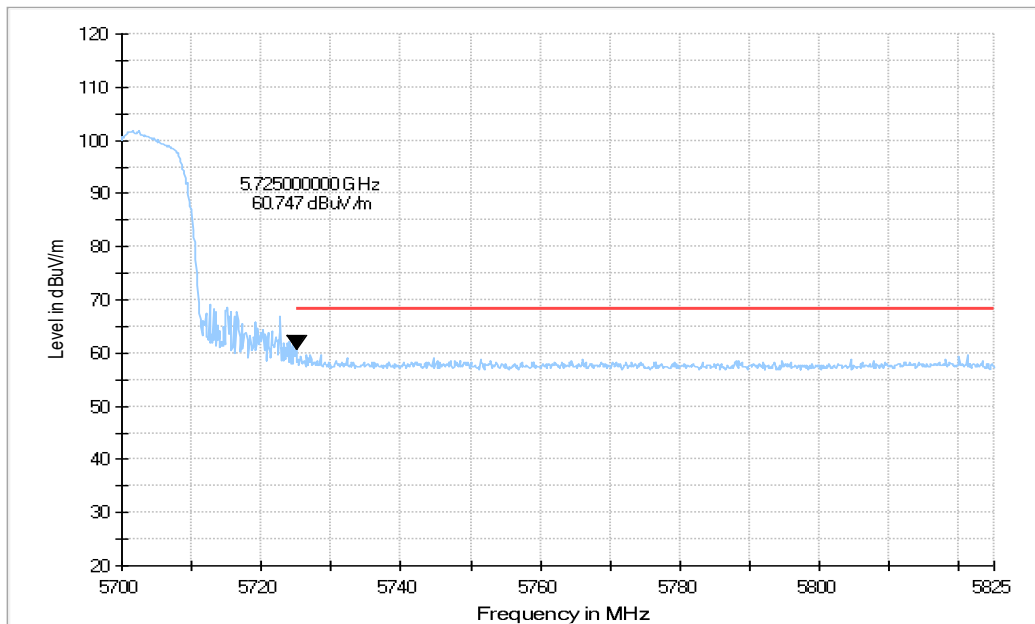
**Fig. 46 Band Edges (802.11ac-HT20 Ch36, 5180MHz)**



**Fig. 47 Band Edges (802.11ac-HT20 Ch64, 5320MHz)**

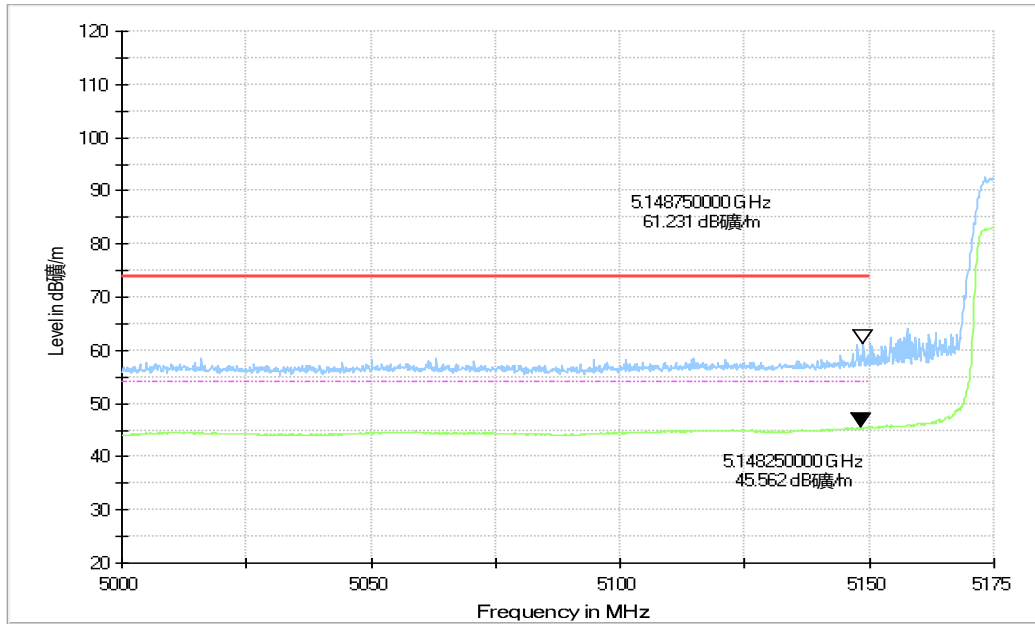


**Fig. 48 Band Edges (802.11ac-HT20 Ch100, 5500MHz)**

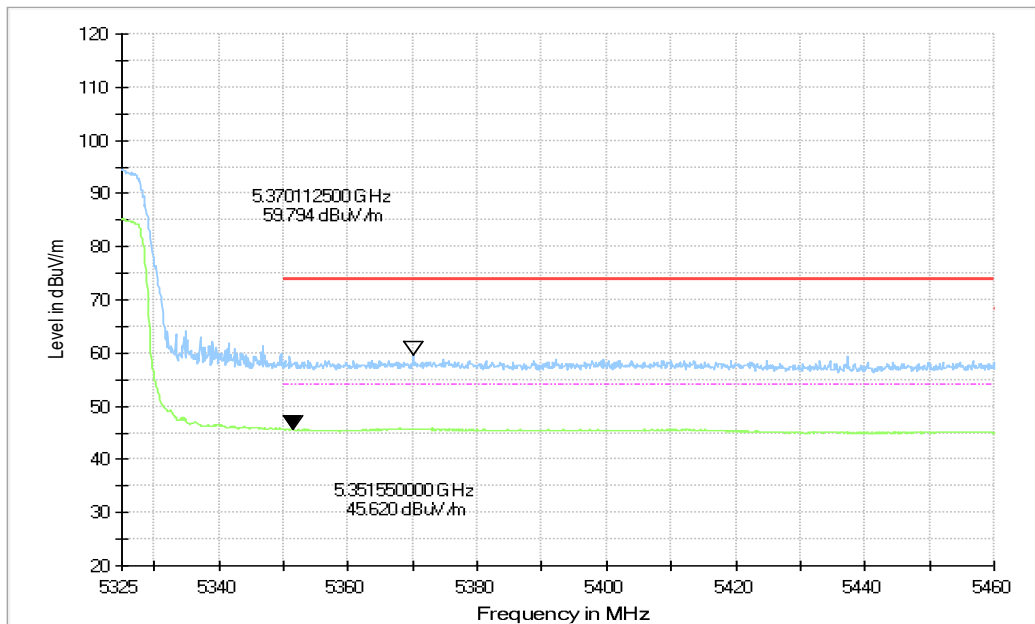


**Fig. 49 Band Edges (802.11ac-HT20 Ch140, 5700MHz)**

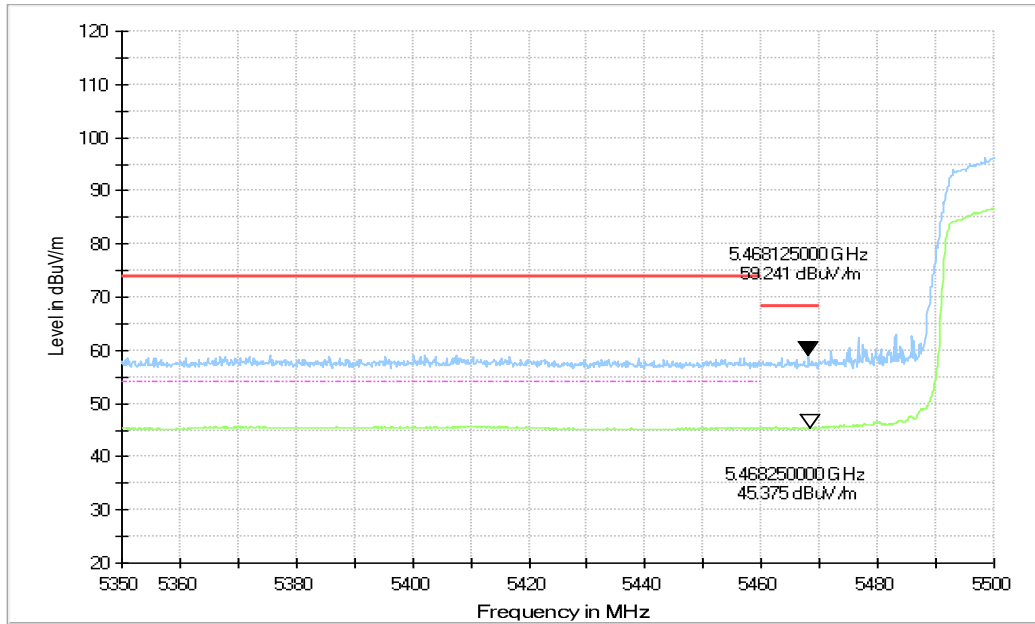




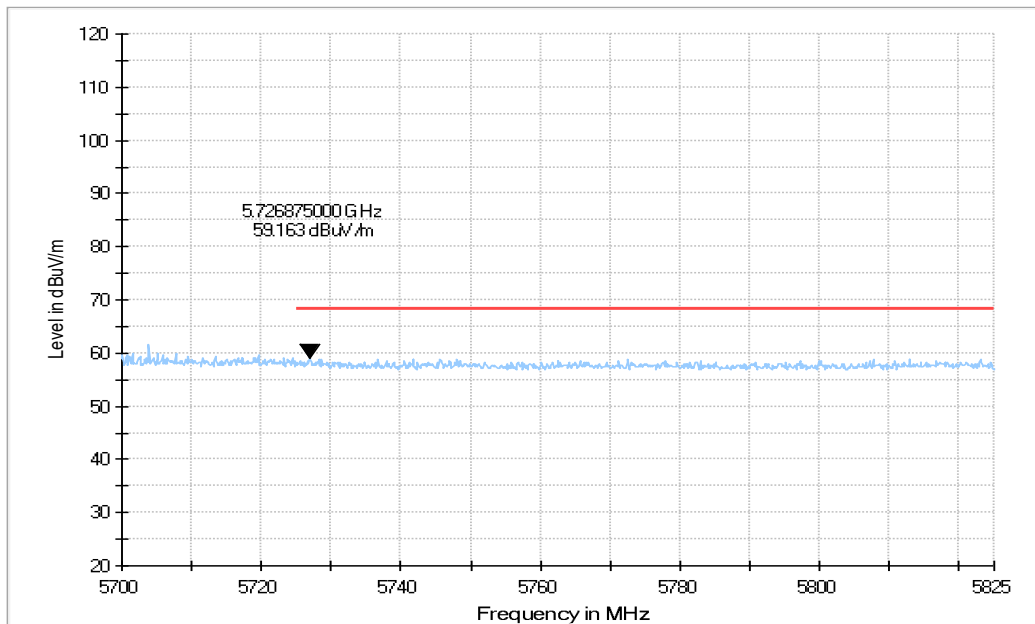
**Fig. 50 Band Edges (802.11ac-HT40 Ch38, 5190MHz)**



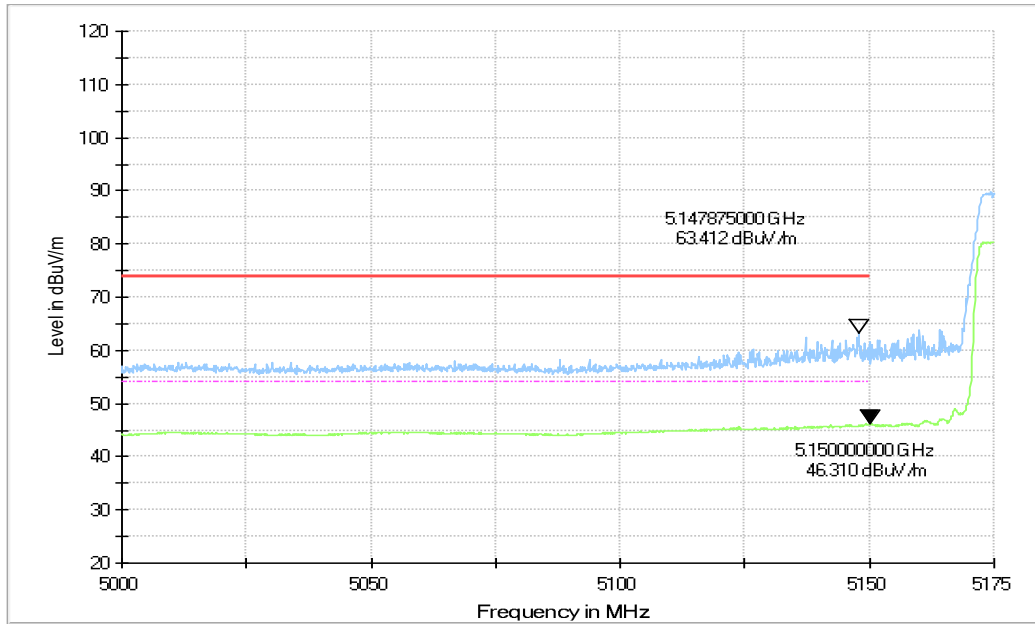
**Fig. 51 Band Edges (802.11ac-HT40 Ch62, 5310MHz)**



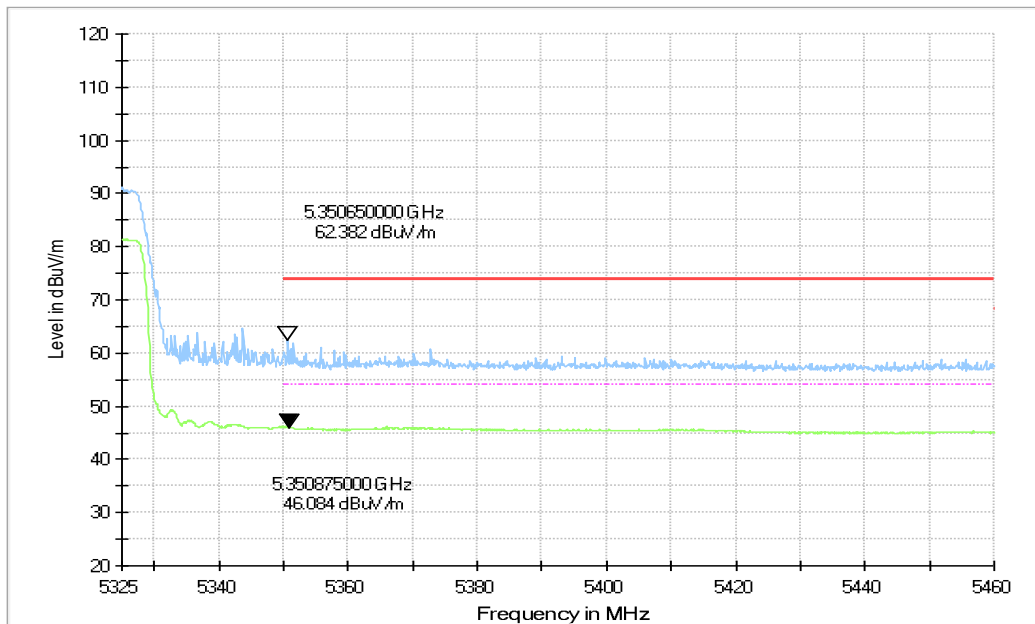
**Fig. 52 Band Edges (802.11ac-HT40 Ch102, 5510MHz)**



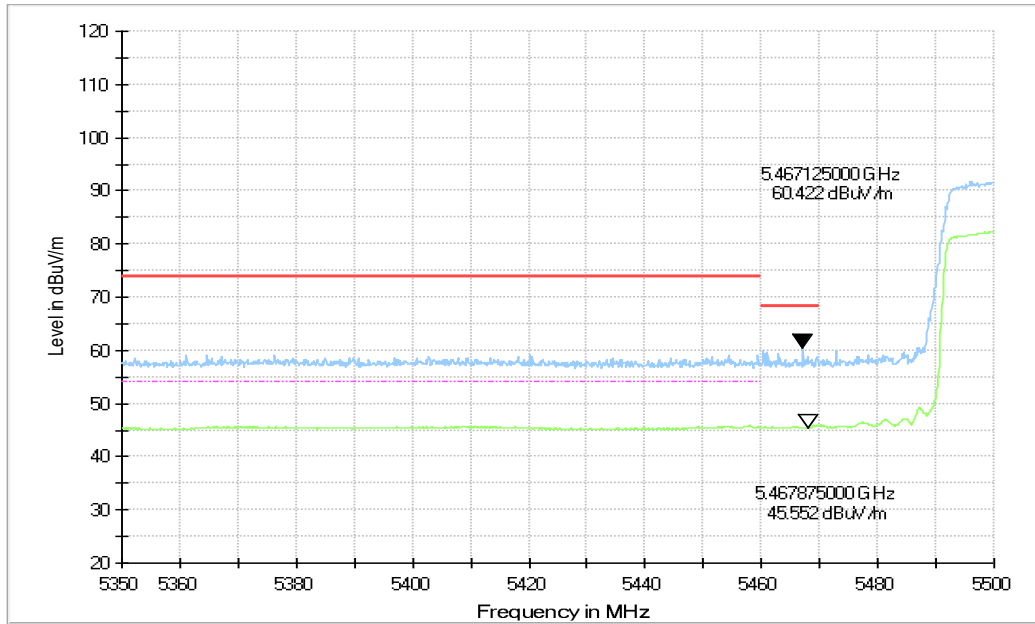
**Fig. 53 Band Edges (802.11ac-HT40 Ch134, 5670MHz)**



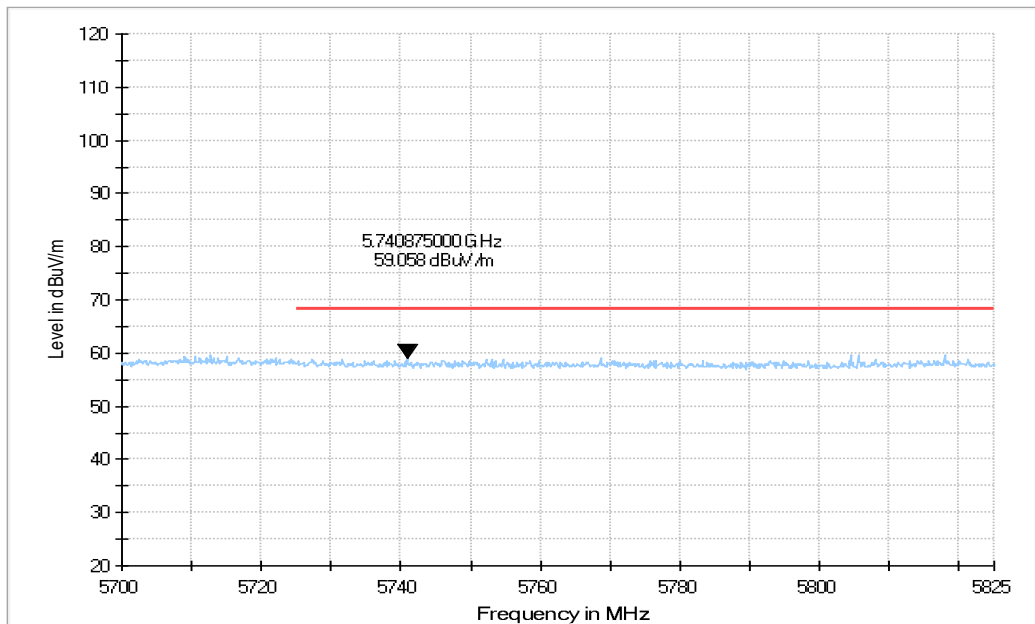
**Fig. 54 Band Edges (802.11ac-HT80 Ch42 , 5210MHz)**



**Fig. 55 Band Edges (802.11ac-HT80 Ch58, 5290MHz)**



**Fig. 56 Band Edges (802.11ac-HT80 Ch106, 5530MHz)**



**Fig. 57 Band Edges (802.11ac-HT80 Ch122, 5610MHz)**

## **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.

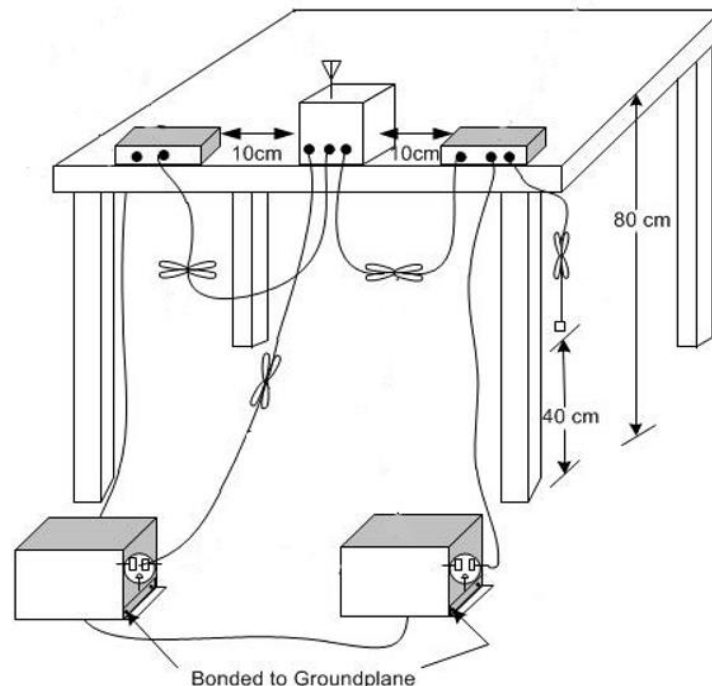
The measurement bandwidth is:

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**



**Measurement Result and limit:**

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	66 to 56	Fig.58	Fig.59	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.

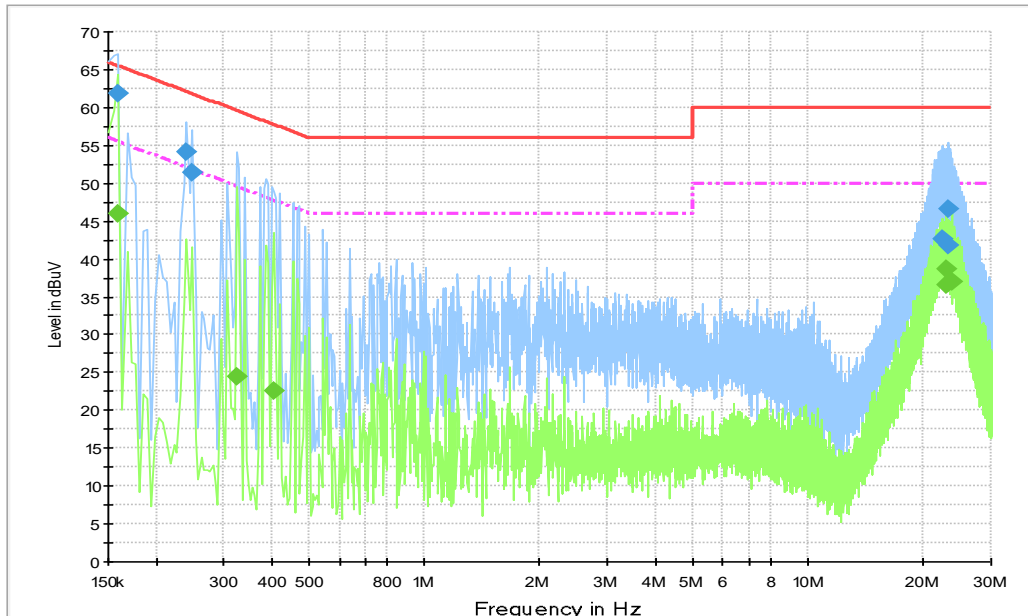
WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	56 to 46	Fig.58	Fig.59	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:



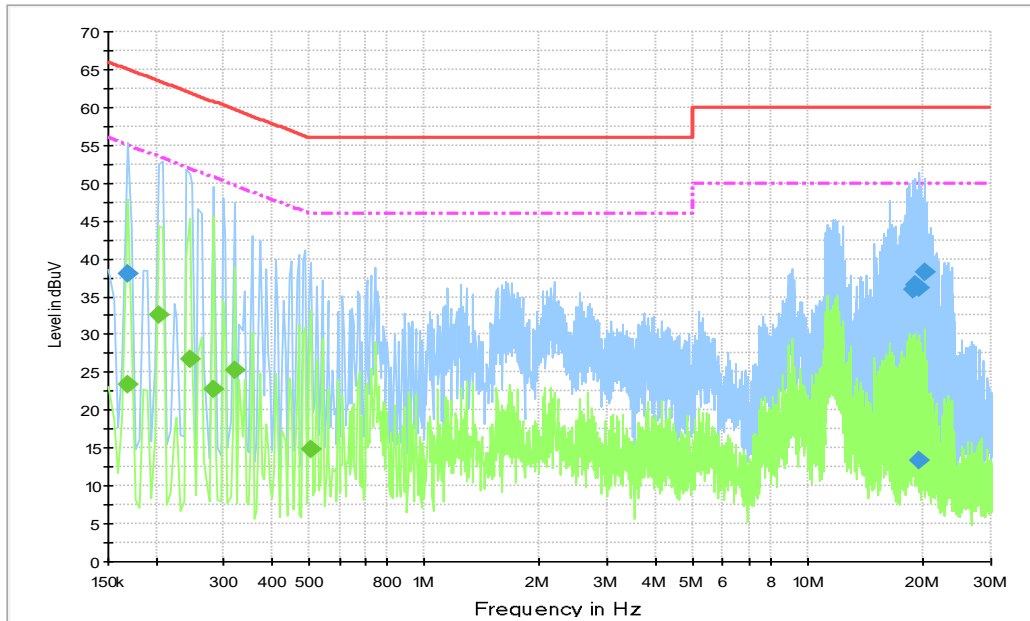
**Fig. 58 Conducted Emission (802.11a, TX)**

## Measurement Result:

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.159000	61.8	2000.0	9.000	On	N	20.1	3.8	65.5
0.240000	54.2	2000.0	9.000	On	L1	20.0	7.9	62.1
0.249000	51.4	2000.0	9.000	On	L1	20.0	10.4	61.8
22.488000	42.7	2000.0	9.000	On	N	20.3	17.3	60.0
23.235000	46.6	2000.0	9.000	On	L1	20.1	13.4	60.0
23.266500	41.9	2000.0	9.000	On	N	20.3	18.1	60.0

## Measurement Result:

Frequency (MHz)	Average (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.159000	45.9	2000.0	9.000	On	L1	20.1	9.6	55.5
0.325500	24.5	2000.0	9.000	On	L1	20.0	25.1	49.6
0.406500	22.6	2000.0	9.000	On	N	20.2	25.1	47.7
22.870500	36.5	2000.0	9.000	On	N	20.3	13.5	50.0
23.023500	38.7	2000.0	9.000	On	L1	20.1	11.3	50.0
23.716500	37.1	2000.0	9.000	On	L1	20.1	12.9	50.0



**Fig. 59 Conducted Emission (802.11a, IDLE)**

Measurement Result:

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.168000	38.0	2000.0	9.000	On	L1	20.1	27.0	65.1
18.798000	35.9	2000.0	9.000	On	N	20.2	24.1	60.0
19.054500	36.6	2000.0	9.000	On	N	20.2	23.4	60.0
19.441500	36.2	2000.0	9.000	On	N	20.3	23.8	60.0
19.495500	13.4	2000.0	9.000	On	N	20.3	46.6	60.0
20.229000	38.3	2000.0	9.000	On	N	20.3	21.7	60.0

Measurement Result:

Frequency (MHz)	Average (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.168000	23.4	2000.0	9.000	On	L1	20.1	31.7	55.1
0.204000	32.6	2000.0	9.000	On	N	20.1	20.8	53.4
0.244500	26.8	2000.0	9.000	On	L1	20.0	25.2	51.9
0.280500	22.8	2000.0	9.000	On	L1	20.0	28.0	50.8
0.321000	25.3	2000.0	9.000	On	L1	20.0	24.4	49.7
0.505500	14.8	2000.0	9.000	On	N	20.2	31.2	46.0



### **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% 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
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**EUT ID: UT08a**

#### **Measurement Result:**

Mode	Frequency	99% Occupied bandwidth (MHz)		conclusion
		Fig.	Value	
802.11a	5180 MHz	Fig.60	16.83	P
	5200 MHz	Fig.61	16.88	P
	5240 MHz	Fig.62	16.89	P
802.11n HT20	5180 MHz	Fig.63	17.87	P
	5200 MHz	Fig.64	17.93	P
	5240 MHz	Fig.65	17.94	P
802.11n HT40	5190 MHz	Fig.66	36.70	P
	5230 MHz	Fig.67	36.70	P
802.11ac VHT80	5210 MHz	Fig.68	75.21	P

Test graphs as below:

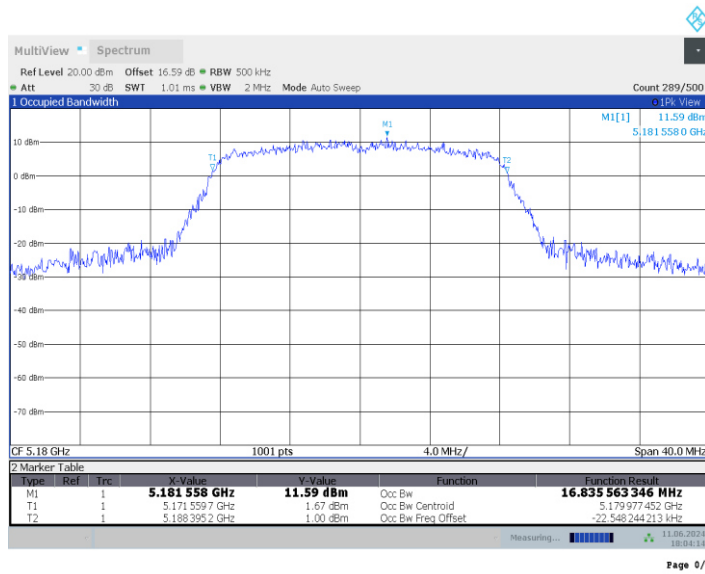


Fig.60 99% Occupied bandwidth (802.11a, 5180MHz)

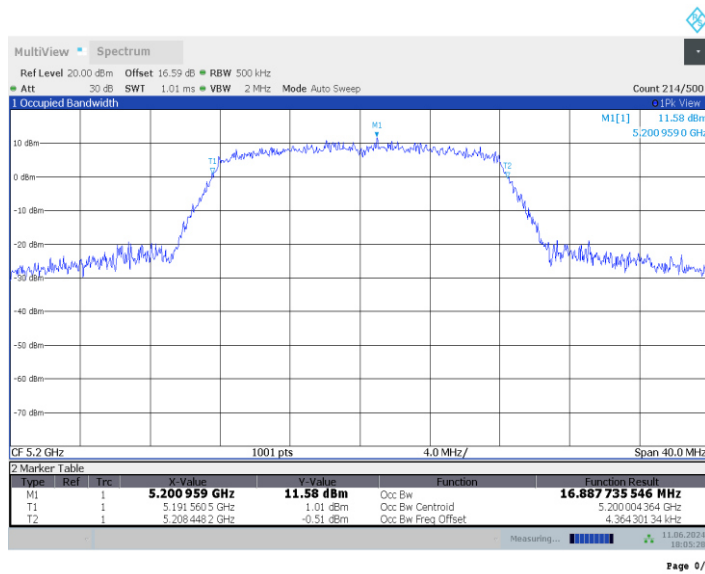
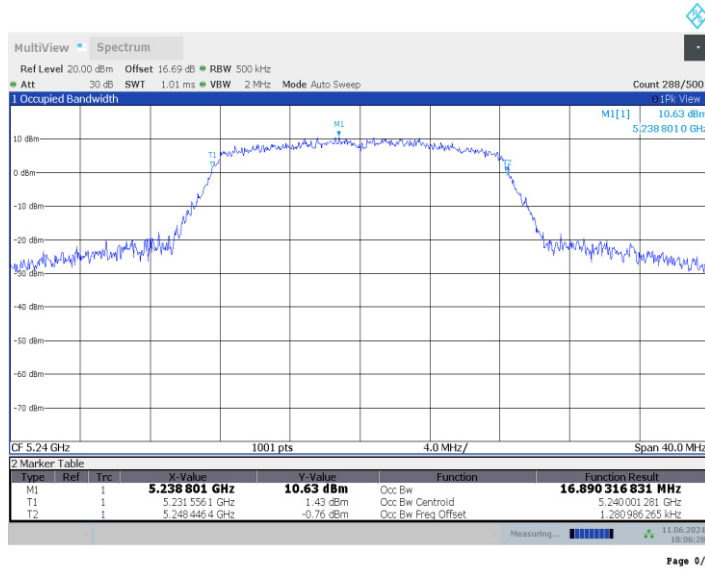
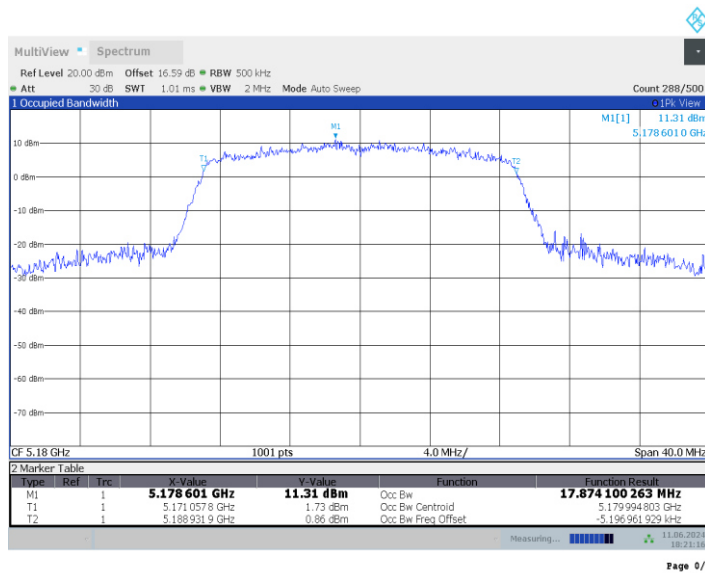


Fig.61 99% Occupied bandwidth (802.11a, 5200MHz)



**Fig.62 99% Occupied bandwidth (802.11a, 5240MHz)**



**Fig.63 99% Occupied bandwidth (802.11n-HT20, 5180MHz)**

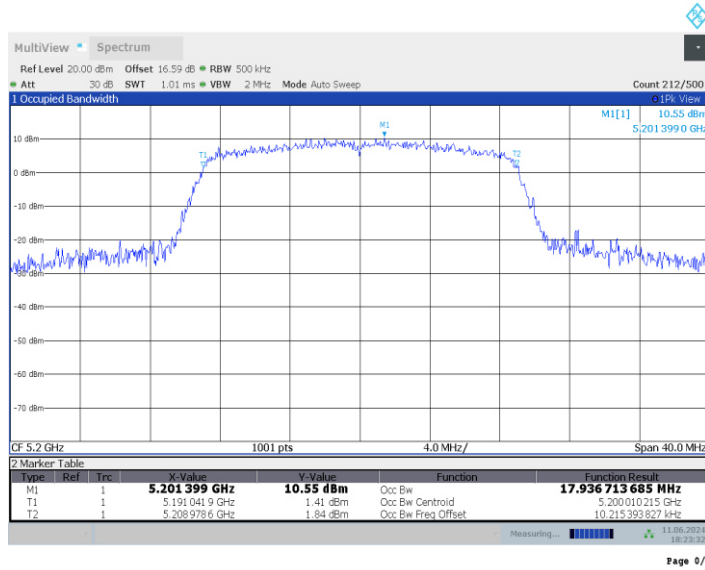


Fig.64 99% Occupied bandwidth (802.11n-HT20, 5200MHz)

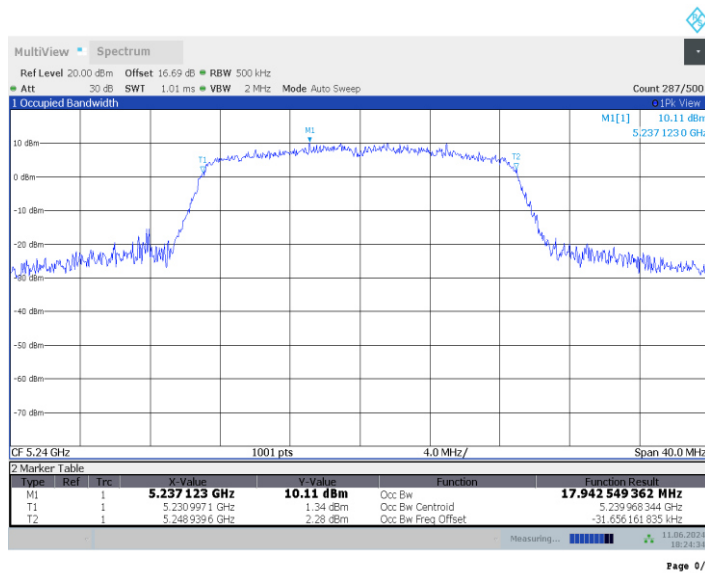
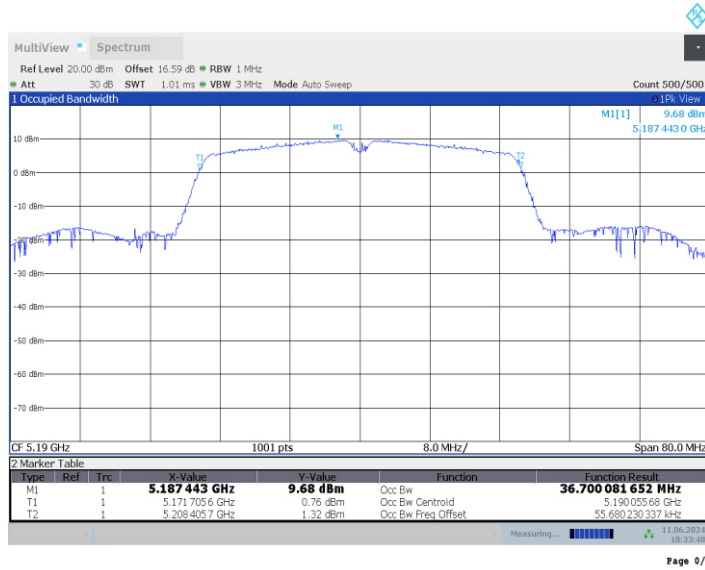
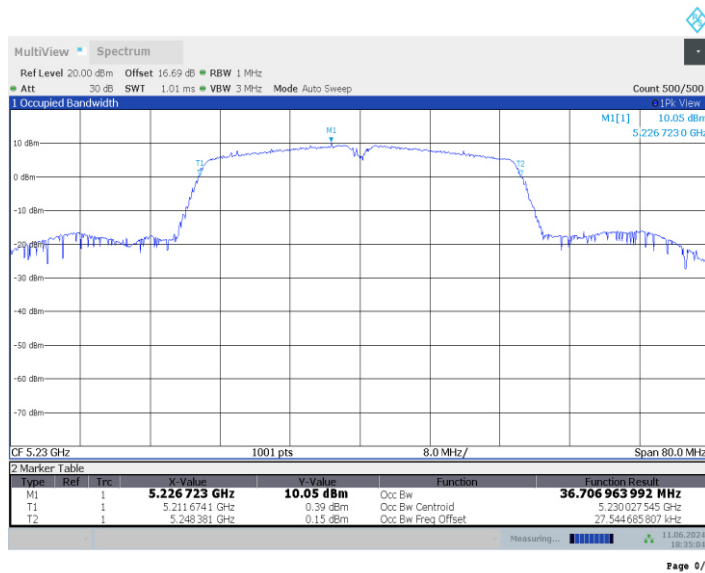


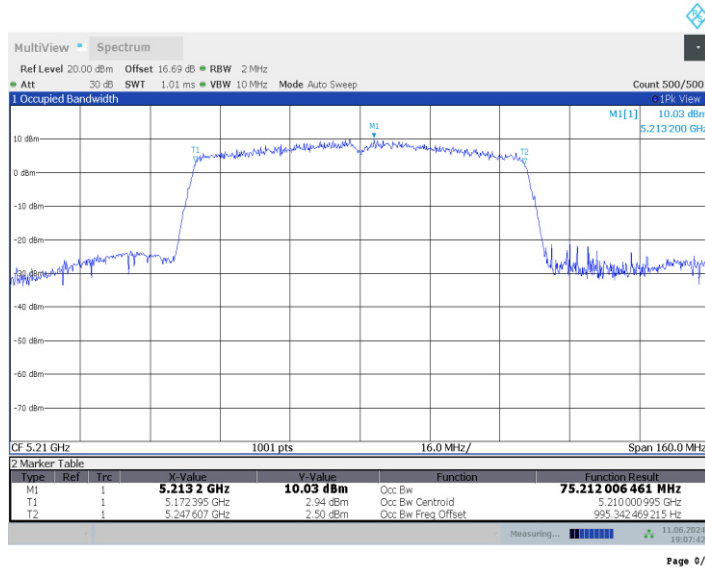
Fig.65 99% Occupied bandwidth (802.11n-HT20, 5240MHz)



**Fig.66 99% Occupied bandwidth (802.11n-HT40, 5190MHz)**



**Fig.67 99% Occupied bandwidth (802.11n-HT40, 5230MHz)**



**Fig.68 99% Occupied bandwidth (802.11ac-VHT80, 5210MHz)**

**Conclusion: PASS**

### **A.8. Power control**

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

### **A.9. Antenna Requirement**

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

The unit complies with the requirement of FCC Part 15.203.

## **ANNEX B: EUT parameters**

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

## **ANNEX C: Accreditation Certificate**



The accreditation certificate features a decorative orange and blue wavy border on the left. At the top center, it displays the logos for ILAC-MRA and A2LA. Below these logos, the text reads "Accredited Laboratory" in a large, bold, blue font. Underneath, it states "A2LA has accredited" in a smaller font, followed by "TELECOMMUNICATION TECHNOLOGY LABS, CAICT" in a large, bold, blue font. Below this, it says "Beijing, People's Republic of China" in a smaller font. The next line reads "for technical competence in the field of" in a smaller font, followed by "Electrical Testing" in a large, bold, blue font. A paragraph of text follows: "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)." To the left of this paragraph is a gold seal with the text "CORPORATE SEAL 1978" and "A2LA". To the right of the paragraph is a signature and the text: "Presented this 26<sup>th</sup> day of June 2023.", "Mr. Trace McInturff, Vice President, Accreditation Services", "For the Accreditation Council", "Certificate Number 7049.01", and "Valid to July 31, 2024". At the bottom of the certificate, it reads: "For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation."

\*\*\* END OF REPORT BODY \*\*\*