

Full Spectrum

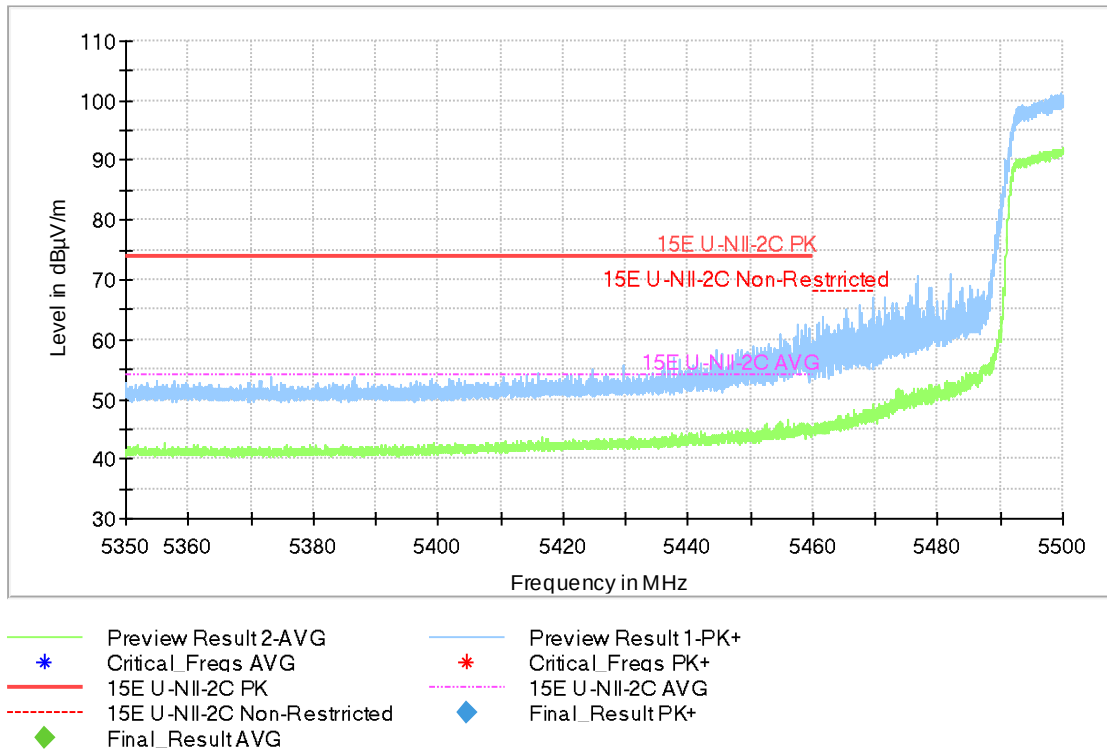


Fig.52 Band Edges (802.11ac-HT40, 5510MHz)

Full Spectrum

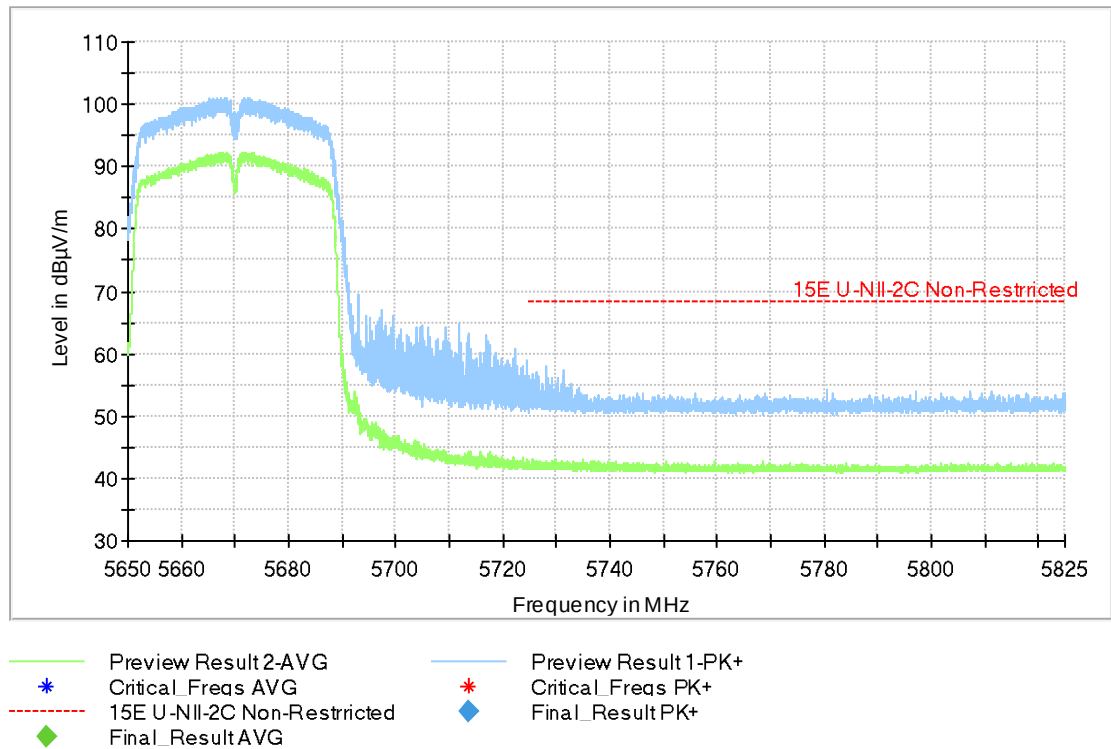


Fig.53 Band Edges (802.11ac-HT40, 5670MHz)

Full Spectrum

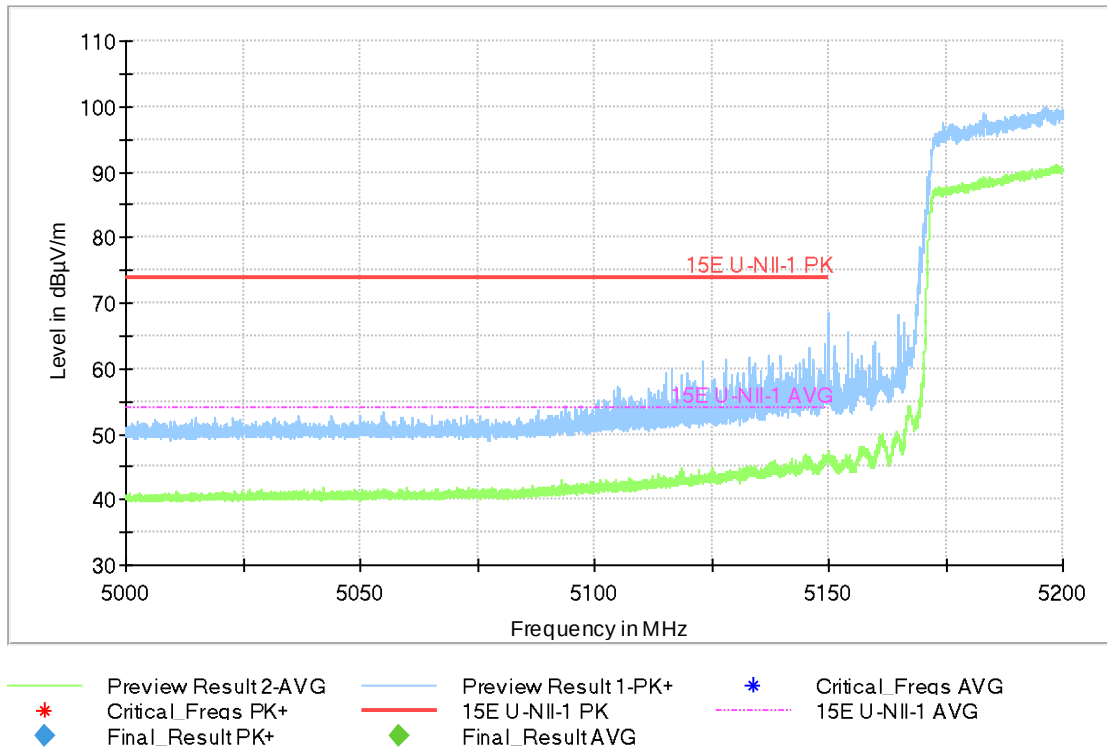


Fig.54 Band Edges (802.11ac-HT80, 5210MHz)

Full Spectrum

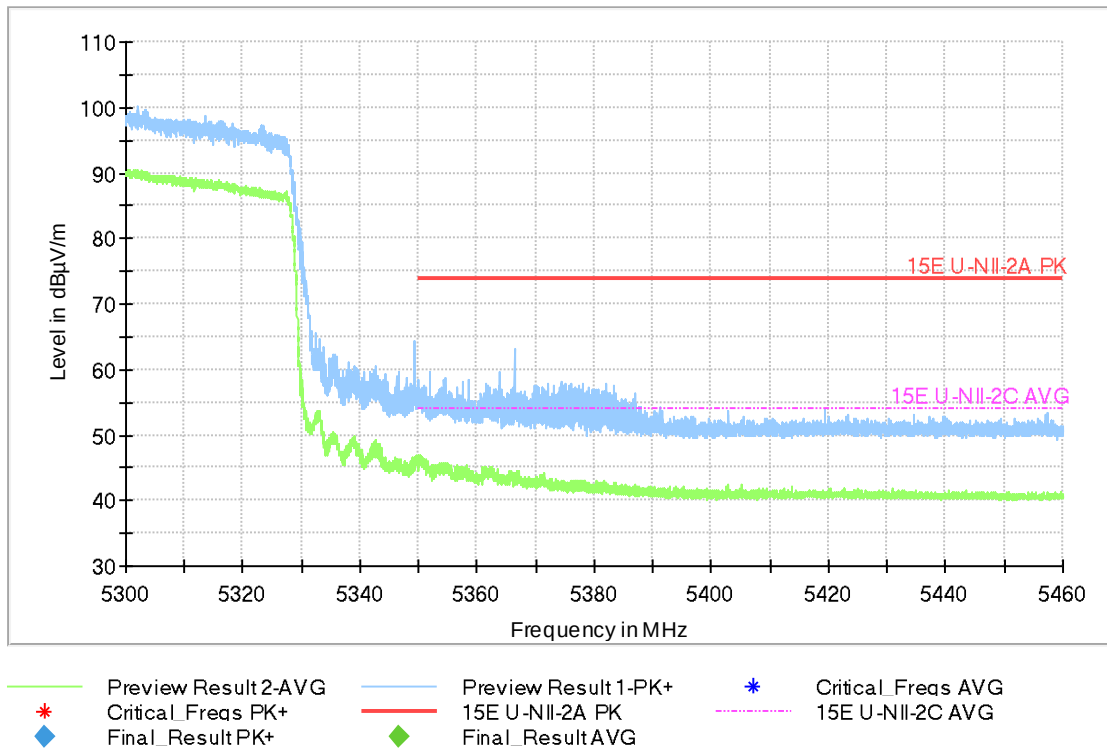


Fig.55 Band Edges (802.11ac-HT80, 5290MHz)

Full Spectrum

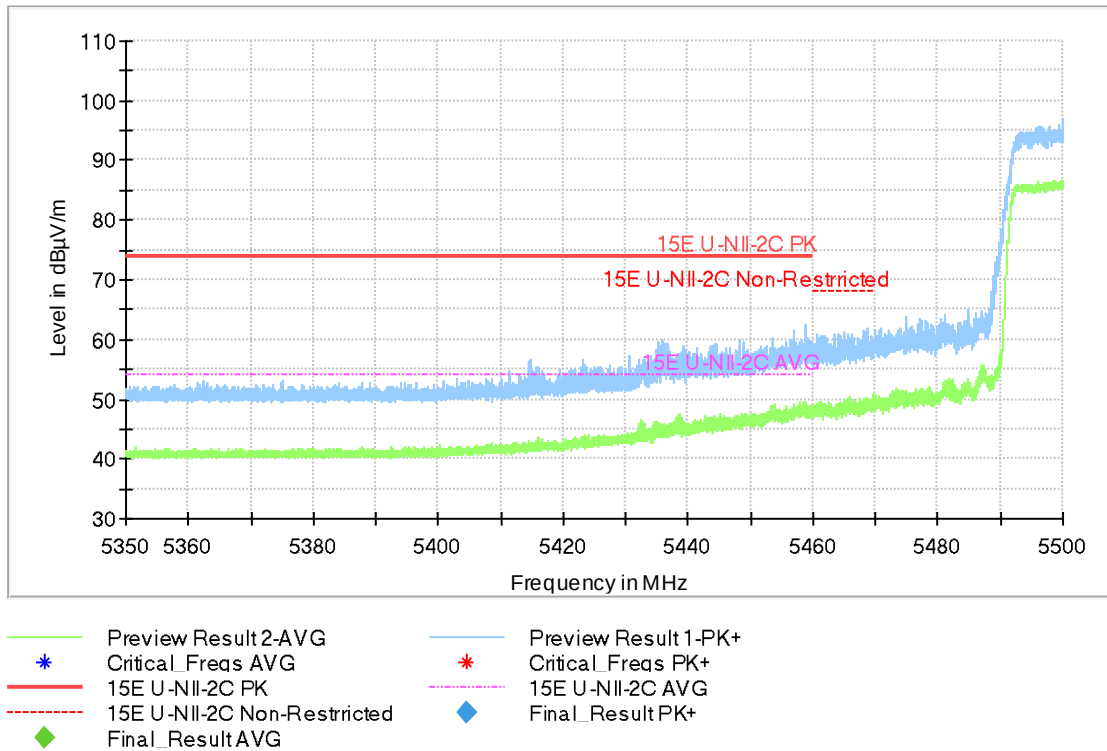


Fig.56 Band Edges (802.11ac-HT80, 5530MHz)

Full Spectrum

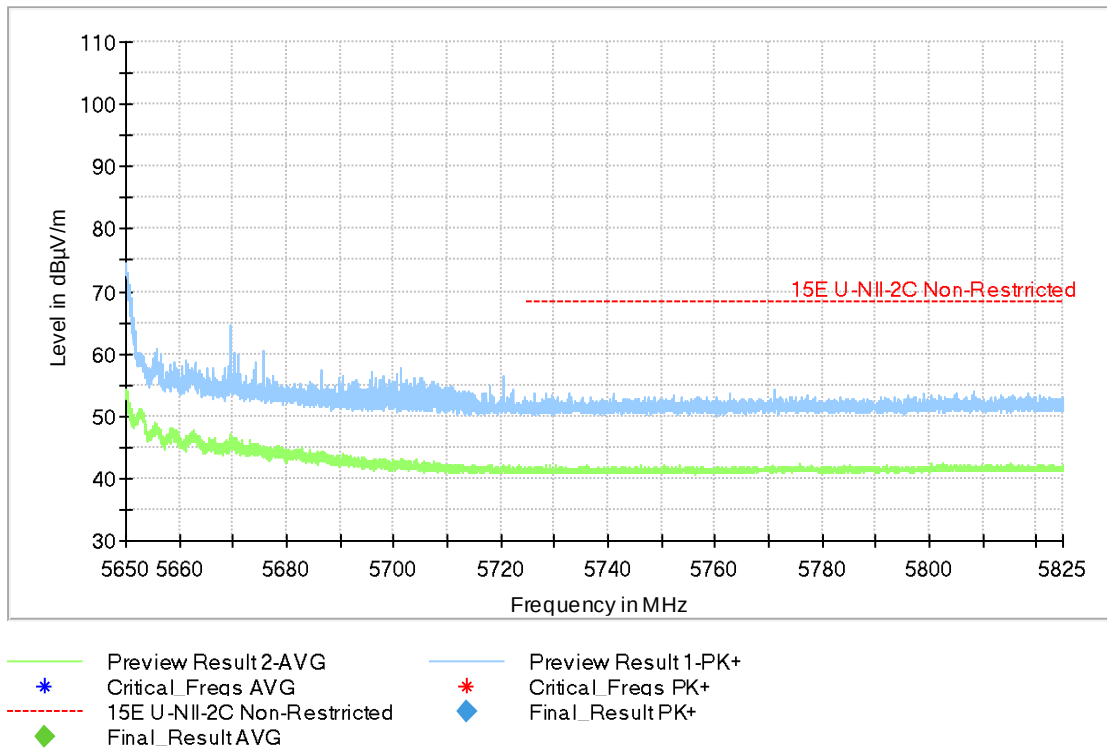


Fig.57 Band Edges (802.11ac-HT80, 5530MHz)

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:

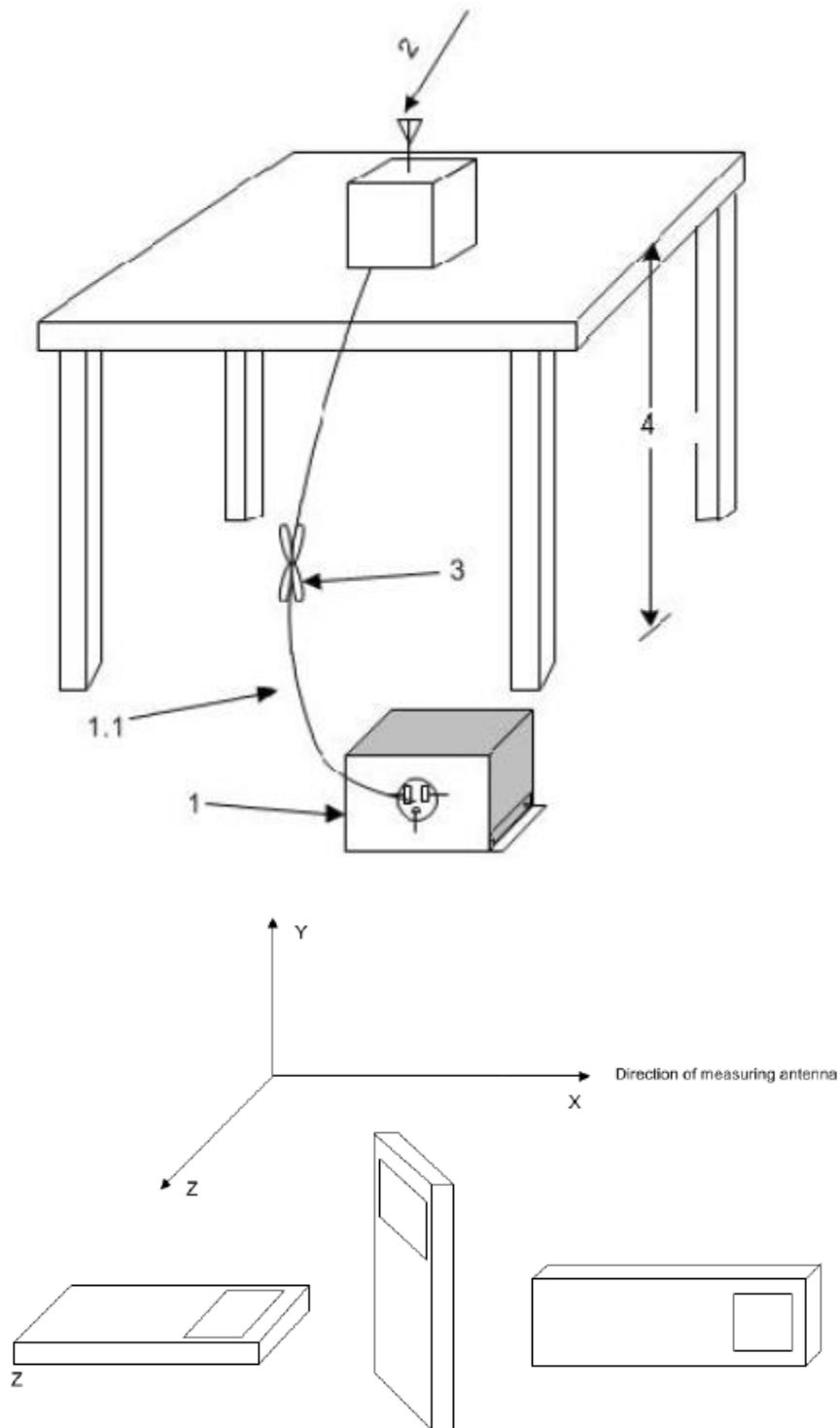
Frequency (MHz)	Field strength(μ V/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

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

Set up:

Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m. For emissions testing at or below 1 GHz, the table height shall be 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m

The EUT and transmitting antenna shall be centered on the turntable.



Test Condition

The EUT shall be tested 1 near top, 1 near middle, and 1 near bottom. Set the unlicensed wireless device to operate in continuous transmit mode. For unlicensed wireless devices unable to be configured for 100% duty cycle even in test mode, configure the system for the maximum duty cycle supported.

When required for unlicensed wireless devices, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as

appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

Exploratory radiated emissions measurements

Exploratory radiated measurements shall be performed at the measurement distance or at a closer distance than that specified for compliance to determine the emission characteristics of the EUT and, if applicable, the EUT configuration that produces the maximum level of emissions. The frequencies of maximum emission may be determined by manually positioning the antenna close to the EUT, and then moving the antenna over all sides of the EUT while observing a spectral display. It is advantageous to have prior knowledge of the frequencies of emissions, although this may be determined from such a near-field scan. The near-field scan shall only be used to determine the frequency but not the amplitude of the emissions. Where exploratory measurements are not adequate to determine the worst-case operating modes and are used only to identify the frequencies of the highest emissions, additional preliminary tests can be required.

For emissions from the EUT, the maximum level shall be determined by rotating the EUT and its antenna through 0° to 360°. For each mode of operation required to be tested, the frequency spectrum (based on findings from exploratory measurements) shall be monitored.

Broadband antennas and a spectrum analyzer or a radio-noise meter with a panoramic display are often useful in this type of test. If either antenna height or EUT azimuth are not fully measured during exploratory testing, then complete testing can be required at the OATS or semi-anechoic chamber when the final full spectrum testing is performed.

Final radiated emissions measurements

The final measurements are using the orientation and equipment arrangement of the EUT based on the measurement results found during the preliminary (exploratory) measurements, the EUT arrangement, appropriate modulation, and modes of operation that produce the emissions that have the highest amplitude relative to the limit shall be selected for the final measurement.

For each mode of operation required to be tested, the frequency spectrum (based on findings from exploratory measurements) shall be monitored. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.

For each mode selected, record the frequency and amplitude of the highest fundamental emission (if applicable), as well as the frequency and amplitude of the six highest spurious emissions relative to the limit. Emissions more than 20 dB below the limit do not need to be reported.

This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The receiver references:

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

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

The measurement results are obtained as described below:

Result= P_{Mea} + Cable Loss + Antenna Factor

Where:

P_{Mea} field strength recorded from the instrument

Test EUI ID: UT41a

Average

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)
17998.350	39.75	-25.50	46.66	18.59	54.00	14.25	H
17987.900	39.41	-25.50	46.66	18.25	54.00	14.59	H
13293.100	36.83	-29.49	39.71	26.61	54.00	17.17	V
13339.300	36.82	-29.49	39.71	26.60	54.00	17.18	H
5148.340	50.16	-27.61	33.67	44.10	54.00	3.84	H
5149.880	50.10	-27.61	33.67	44.04	54.00	3.90	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)
17859.750	37.36	-25.50	46.66	16.20	54.00	16.64	H
17936.200	37.29	-25.50	46.66	16.13	54.00	16.71	V
13376.150	36.06	-29.49	39.71	25.84	54.00	17.94	V
14482.200	35.51	-28.59	42.46	21.64	54.00	18.49	H
11923.600	35.45	-31.48	39.09	27.84	54.00	18.55	V
9479.950	34.77	-33.19	37.93	30.04	54.00	19.23	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)
17773.400	37.36	-25.50	46.66	16.20	54.00	16.64	V
17995.050	37.03	-25.50	46.66	15.87	54.00	16.97	H
14475.050	35.58	-28.59	42.46	21.71	54.00	18.42	V
12665.000	35.48	-30.47	39.06	26.89	54.00	18.52	H
11911.500	34.72	-31.85	39.05	27.52	54.00	19.28	V
10965.500	34.71	-32.82	38.70	28.83	54.00	19.29	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)
17947.750	37.50	-25.50	46.66	16.34	54.00	16.50	H
17988.450	37.13	-25.50	46.66	15.97	54.00	16.87	H
13342.050	35.30	-29.49	39.71	25.08	54.00	18.70	V
13310.700	35.26	-29.49	39.71	25.04	54.00	18.74	H
11894.450	34.97	-31.85	39.05	27.77	54.00	19.03	H
11849.900	34.50	-31.85	39.05	27.30	54.00	19.50	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)
17902.650	37.06	-25.50	46.66	15.90	54.00	16.94	V
17839.950	36.81	-25.50	46.66	15.65	54.00	17.19	H
13294.750	35.79	-29.49	39.71	25.57	54.00	18.21	V
13392.650	35.36	-29.49	39.71	25.14	54.00	18.64	H
11873.000	34.88	-31.85	39.05	27.68	54.00	19.12	V
11938.450	34.72	-31.48	39.09	27.11	54.00	19.28	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)
17882.300	37.11	-25.50	46.66	15.95	54.00	16.89	H
17996.150	36.92	-25.50	46.66	15.76	54.00	17.08	V
12660.050	35.75	-30.47	39.06	27.16	54.00	18.25	V
13398.700	35.61	-29.49	39.71	25.39	54.00	18.39	H
5350.112	47.46	-27.43	34.01	40.88	54.00	6.54	H
5350.352	47.43	-27.43	34.01	40.85	54.00	6.57	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)
17717.850	37.21	-25.74	45.95	17.00	54.00	16.79	H
17921.350	37.18	-25.50	46.66	16.02	54.00	16.82	H
14478.350	35.30	-28.59	42.46	21.43	54.00	18.70	H
13395.950	35.21	-29.49	39.71	24.99	54.00	18.79	V
5459.875	45.32	-27.18	34.17	38.33	54.00	8.68	H
5459.530	45.28	-27.18	34.17	38.29	54.00	8.72	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)
17967.550	36.98	-25.50	46.66	15.82	54.00	17.02	H
17717.850	36.96	-25.74	45.95	16.75	54.00	17.04	V
13393.200	35.23	-29.49	39.71	25.01	54.00	18.77	H
14478.900	35.22	-28.59	42.46	21.35	54.00	18.78	H
11772.350	34.61	-31.99	38.98	27.62	54.00	19.39	V
11801.500	34.60	-31.85	39.05	27.40	54.00	19.40	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)
17879.000	37.26	-25.50	46.66	16.10	54.00	16.74	V
17700.800	37.13	-25.74	45.95	16.92	54.00	16.87	V
13397.600	35.71	-29.49	39.71	25.49	54.00	18.29	H
13391.550	35.16	-29.49	39.71	24.94	54.00	18.84	H
11887.300	34.81	-31.85	39.05	27.61	54.00	19.19	V
11907.650	34.64	-31.85	39.05	27.44	54.00	19.36	H

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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)
17936.200	37.07	-25.50	46.66	15.91	54.00	16.93	H
17993.400	37.01	-25.50	46.66	15.85	54.00	16.99	H
13396.500	35.51	-29.49	39.71	25.29	54.00	18.49	H
12680.950	35.46	-30.47	39.06	26.87	54.00	18.54	H
5147.200	46.84	-27.61	33.67	40.78	54.00	7.16	H
5147.960	46.84	-27.61	33.67	40.78	54.00	7.16	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)
17708.500	37.02	-25.74	45.95	16.81	54.00	16.98	V
17707.950	36.84	-25.74	45.95	16.63	54.00	17.16	H
13344.800	35.21	-29.49	39.71	24.99	54.00	18.79	H
13331.050	35.18	-29.49	39.71	24.96	54.00	18.82	H
11927.450	35.03	-31.48	39.09	27.42	54.00	18.97	H
11873.000	34.72	-31.85	39.05	27.52	54.00	19.28	V

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)
17927.400	37.04	-25.50	46.66	15.88	54.00	16.96	V
17737.650	36.92	-25.50	46.66	15.76	54.00	17.08	H
14493.200	35.47	-28.59	42.46	21.60	54.00	18.53	V
13334.900	35.33	-29.49	39.71	25.11	54.00	18.67	H
10962.200	35.07	-32.82	38.70	29.19	54.00	18.93	V
11286.700	34.50	-32.36	38.77	28.10	54.00	19.50	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)
17967.000	36.99	-25.50	46.66	15.83	54.00	17.01	H
17862.500	36.98	-25.50	46.66	15.82	54.00	17.02	V
13325.000	35.82	-29.49	39.71	25.60	54.00	18.18	V
13339.300	35.45	-29.49	39.71	25.23	54.00	18.55	H
7301.950	35.14	-35.00	36.55	33.59	54.00	18.86	V
11928.550	34.88	-31.48	39.09	27.27	54.00	19.12	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)
17987.900	37.20	-25.50	46.66	16.04	54.00	16.80	H
17717.850	37.09	-25.74	45.95	16.88	54.00	16.91	V
12683.700	35.63	-30.47	39.06	27.04	54.00	18.37	V
13306.300	35.40	-29.49	39.71	25.18	54.00	18.60	V
11903.800	34.94	-31.85	39.05	27.74	54.00	19.06	H
11916.450	34.86	-31.48	39.09	27.25	54.00	19.14	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)
17718.400	37.15	-25.74	45.95	16.94	54.00	16.85	H
17712.900	36.95	-25.74	45.95	16.74	54.00	17.05	H
13393.200	35.39	-29.49	39.71	25.17	54.00	18.61	V
13396.500	35.31	-29.49	39.71	25.09	54.00	18.69	V
5351.008	45.99	-27.43	34.01	39.41	54.00	8.01	H
5351.664	45.95	-27.43	34.01	39.37	54.00	8.05	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)
17711.250	37.26	-25.74	45.95	17.05	54.00	16.74	V
17734.350	37.06	-25.74	45.95	16.85	54.00	16.94	H
13394.850	35.60	-29.49	39.71	25.38	54.00	18.40	H
12610.000	35.40	-31.05	38.99	27.46	54.00	18.60	H
5459.320	44.57	-27.18	34.17	37.58	54.00	9.43	H
5459.215	44.32	-27.18	34.17	37.33	54.00	9.68	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)
17702.450	36.85	-25.74	45.95	16.64	54.00	17.15	H
17854.800	36.85	-25.50	46.66	15.69	54.00	17.15	H
13377.250	35.61	-29.49	39.71	25.39	54.00	18.39	H
13328.850	35.52	-29.49	39.71	25.30	54.00	18.48	V
11940.650	34.91	-31.48	39.09	27.30	54.00	19.09	V
11909.300	34.79	-31.85	39.05	27.59	54.00	19.21	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)
17938.400	36.98	-25.50	46.66	15.82	54.00	17.02	H
17804.750	36.89	-25.50	46.66	15.73	54.00	17.11	H
13325.550	35.44	-29.49	39.71	25.22	54.00	18.56	H
13392.650	35.33	-29.49	39.71	25.11	54.00	18.67	V
11891.150	35.17	-31.85	39.05	27.97	54.00	18.83	H
11942.850	34.68	-31.48	39.09	27.07	54.00	19.32	H

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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)
17709.600	36.88	-25.74	45.95	16.67	54.00	17.12	V
17736.550	36.78	-25.74	45.95	16.57	54.00	17.22	H
13398.700	35.10	-29.49	39.71	24.88	54.00	18.90	H
13393.750	35.06	-29.49	39.71	24.84	54.00	18.94	H
5149.920	46.68	-27.61	33.67	40.62	54.00	7.32	H
5146.800	46.63	-27.61	33.67	40.57	54.00	7.37	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)
17701.350	36.99	-25.74	45.95	16.78	54.00	17.01	V
17765.700	36.91	-25.50	46.66	15.75	54.00	17.09	V
13328.850	35.19	-29.49	39.71	24.97	54.00	18.81	H
14481.100	35.17	-28.59	42.46	21.30	54.00	18.83	V
11749.800	34.53	-31.99	38.98	27.54	54.00	19.47	H
7301.950	34.42	-35.00	36.55	32.87	54.00	19.58	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)
17711.800	37.03	-25.74	45.95	16.82	54.00	16.97	H
17709.050	36.83	-25.74	45.95	16.62	54.00	17.17	H
13397.050	35.45	-29.49	39.71	25.23	54.00	18.55	V
13397.600	35.38	-29.49	39.71	25.16	54.00	18.62	H
11889.500	34.72	-31.85	39.05	27.52	54.00	19.28	V
11893.350	34.66	-31.85	39.05	27.46	54.00	19.34	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)
17705.200	37.27	-25.74	45.95	17.06	54.00	16.73	H
17998.900	37.06	-25.50	46.66	15.90	54.00	16.94	H
13387.700	35.36	-29.49	39.71	25.14	54.00	18.64	V
14472.850	35.31	-28.59	42.46	21.44	54.00	18.69	V
11919.750	34.75	-31.48	39.09	27.14	54.00	19.25	H
11909.850	34.55	-31.85	39.05	27.35	54.00	19.45	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)
17709.050	37.22	-25.74	45.95	17.01	54.00	16.78	H
17770.650	36.91	-25.50	46.66	15.75	54.00	17.09	H
13397.600	35.25	-29.49	39.71	25.03	54.00	18.75	V
13324.450	35.24	-29.49	39.71	25.02	54.00	18.76	V
11908.750	34.61	-31.85	39.05	27.41	54.00	19.39	H
11788.300	34.59	-31.99	38.98	27.60	54.00	19.41	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)
17703.550	37.18	-25.74	45.95	16.97	54.00	16.82	H
17967.000	36.96	-25.50	46.66	15.80	54.00	17.04	H
13397.050	35.59	-29.49	39.71	25.37	54.00	18.41	V
13329.950	35.44	-29.49	39.71	25.22	54.00	18.56	V
5352.320	45.87	-27.43	34.01	39.29	54.00	8.13	H
5350.240	45.66	-27.43	34.01	39.08	54.00	8.34	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)
17931.800	37.04	-25.50	46.66	15.88	54.00	16.96	H
17781.100	36.95	-25.50	46.66	15.79	54.00	17.05	V
13325.000	35.62	-29.49	39.71	25.40	54.00	18.38	V
13397.600	35.47	-29.49	39.71	25.25	54.00	18.53	V
5434.855	45.10	-27.18	34.17	38.11	54.00	8.90	H
5459.800	44.52	-27.18	34.17	37.53	54.00	9.48	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)
17708.500	37.40	-25.74	45.95	17.19	54.00	16.60	V
17704.100	37.17	-25.74	45.95	16.96	54.00	16.83	V
13279.350	35.69	-29.67	39.55	25.81	54.00	18.31	V
13398.150	35.15	-29.49	39.71	24.93	54.00	18.85	H
7315.700	34.65	-35.00	36.55	33.10	54.00	19.35	V
11907.650	34.60	-31.85	39.05	27.40	54.00	19.40	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)
17701.900	37.45	-25.74	45.95	17.24	54.00	16.55	V
17853.700	37.05	-25.50	46.66	15.89	54.00	16.95	V
13343.700	35.47	-29.49	39.71	25.25	54.00	18.53	V
13398.150	35.34	-29.49	39.71	25.12	54.00	18.66	V
11292.750	34.68	-32.36	38.77	28.28	54.00	19.32	V
11788.850	34.63	-31.99	38.98	27.64	54.00	19.37	V

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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)
17706.300	37.01	-25.74	45.95	16.80	54.00	16.99	H
17935.650	36.82	-25.50	46.66	15.66	54.00	17.18	H
13339.300	35.46	-29.49	39.71	25.24	54.00	18.54	H
13327.200	35.05	-29.49	39.71	24.83	54.00	18.95	V
5149.300	50.29	-27.61	33.67	44.23	54.00	3.71	H
5149.320	49.85	-27.61	33.67	43.79	54.00	4.15	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)
17716.750	36.89	-25.74	45.95	16.68	54.00	17.11	V
17949.950	36.71	-25.50	46.66	15.55	54.00	17.29	H
12677.650	35.21	-30.47	39.06	26.62	54.00	18.79	V
14480.000	35.13	-28.59	42.46	21.26	54.00	18.87	H
11920.300	34.70	-31.48	39.09	27.09	54.00	19.30	H
10748.250	34.60	-32.77	38.49	28.88	54.00	19.40	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)
17713.450	37.56	-25.74	45.95	17.35	54.00	16.44	H
17981.850	37.02	-25.50	46.66	15.86	54.00	16.98	V
13310.700	35.39	-29.49	39.71	25.17	54.00	18.61	V
13397.050	35.26	-29.49	39.71	25.04	54.00	18.74	V
11923.050	34.45	-31.48	39.09	26.84	54.00	19.55	V
11942.300	34.42	-31.48	39.09	26.81	54.00	19.58	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)
17992.300	37.41	-25.50	46.66	16.25	54.00	16.59	V
17918.050	37.22	-25.50	46.66	16.06	54.00	16.78	V
14493.750	35.35	-28.59	42.46	21.48	54.00	18.65	H
13299.150	35.34	-29.49	39.71	25.12	54.00	18.66	V
5350.848	49.85	-27.43	34.01	43.27	54.00	4.15	H
5353.280	49.81	-27.43	34.01	43.23	54.00	4.19	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)
17853.150	37.12	-25.50	46.66	15.96	54.00	16.88	V
17709.050	36.80	-25.74	45.95	16.59	54.00	17.20	V
13389.900	35.27	-29.49	39.71	25.05	54.00	18.73	H
13297.500	35.06	-29.49	39.71	24.84	54.00	18.94	V
5457.685	46.99	-27.18	34.17	40.00	54.00	7.01	H
5457.475	46.30	-27.18	34.17	39.31	54.00	7.70	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)
17973.050	36.83	-25.50	46.66	15.67	54.00	17.17	H
17707.400	36.81	-25.74	45.95	16.60	54.00	17.19	H
13399.250	35.63	-29.49	39.71	25.41	54.00	18.37	H
12612.200	35.41	-31.05	38.99	27.47	54.00	18.59	V
10806.000	34.74	-32.33	38.59	28.48	54.00	19.26	H
11906.550	34.70	-31.85	39.05	27.50	54.00	19.30	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)
17966.450	37.04	-25.50	46.66	15.88	54.00	16.96	V
17978.000	37.04	-25.50	46.66	15.88	54.00	16.96	V
14494.300	35.71	-28.59	42.46	21.84	54.00	18.29	H
13399.800	35.46	-29.49	39.71	25.24	54.00	18.54	H
11855.950	34.72	-31.85	39.05	27.52	54.00	19.28	H
11890.050	34.67	-31.85	39.05	27.47	54.00	19.33	H

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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)
17701.350	36.79	-25.74	45.95	16.58	54.00	17.21	H
17716.200	36.78	-25.74	45.95	16.57	54.00	17.22	H
13322.800	35.56	-29.49	39.71	25.34	54.00	18.44	V
13395.950	35.16	-29.49	39.71	24.94	54.00	18.84	H
5149.860	49.48	-27.61	33.67	43.42	54.00	4.52	H
5149.360	47.96	-27.61	33.67	41.90	54.00	6.04	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)
17703.550	36.93	-25.74	45.95	16.72	54.00	17.07	H
17710.150	36.67	-25.74	45.95	16.46	54.00	17.33	H
13397.600	35.35	-29.49	39.71	25.13	54.00	18.65	H
13380.000	35.09	-29.49	39.71	24.87	54.00	18.91	H
11892.250	34.83	-31.85	39.05	27.63	54.00	19.17	H
11924.700	34.48	-31.48	39.09	26.87	54.00	19.52	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)
17964.250	37.10	-25.50	46.66	15.94	54.00	16.90	H
17940.600	37.05	-25.50	46.66	15.89	54.00	16.95	H
13395.400	35.56	-29.49	39.71	25.34	54.00	18.44	H
14499.250	35.46	-28.59	42.46	21.59	54.00	18.54	H
11870.250	34.83	-31.85	39.05	27.63	54.00	19.17	H
11876.300	34.80	-31.85	39.05	27.60	54.00	19.20	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)
17760.200	37.07	-25.50	46.66	15.91	54.00	16.93	V
17722.800	37.00	-25.74	45.95	16.79	54.00	17.00	H
13397.600	35.86	-29.49	39.71	25.64	54.00	18.14	H
13393.750	35.56	-29.49	39.71	25.34	54.00	18.44	H
5353.408	48.44	-27.43	34.01	41.86	54.00	5.56	H
5353.632	48.15	-27.43	34.01	41.57	54.00	5.85	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)
17925.200	37.43	-25.50	46.66	16.27	54.00	16.57	H
17973.600	37.00	-25.50	46.66	15.84	54.00	17.00	H
13330.500	35.78	-29.49	39.71	25.56	54.00	18.22	V
13395.400	35.37	-29.49	39.71	25.15	54.00	18.63	H
5455.885	46.42	-27.18	34.17	39.43	54.00	7.58	H
5454.700	46.16	-27.18	34.17	39.17	54.00	7.84	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)
17718.400	37.19	-25.74	45.95	16.98	54.00	16.81	H
17701.350	37.13	-25.74	45.95	16.92	54.00	16.87	V
13393.750	35.22	-29.49	39.71	25.00	54.00	18.78	H
13394.850	35.21	-29.49	39.71	24.99	54.00	18.79	V
11957.700	34.90	-31.48	39.09	27.29	54.00	19.10	V
11859.250	34.81	-31.85	39.05	27.61	54.00	19.19	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)
17990.650	37.14	-25.50	46.66	15.98	54.00	16.86	H
17920.800	36.91	-25.50	46.66	15.75	54.00	17.09	V
12674.350	35.48	-30.47	39.06	26.89	54.00	18.52	H
13343.150	35.47	-29.49	39.71	25.25	54.00	18.53	V
11941.750	34.86	-31.48	39.09	27.25	54.00	19.14	H
11137.650	34.83	-32.60	38.75	28.69	54.00	19.17	V

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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)
17864.150	37.01	-25.50	46.66	15.85	54.00	16.99	V
17780.000	36.98	-25.50	46.66	15.82	54.00	17.02	V
13380.550	35.71	-29.49	39.71	25.49	54.00	18.29	V
14483.850	35.58	-28.59	42.46	21.71	54.00	18.42	H
5149.940	47.42	-27.61	33.67	41.36	54.00	6.58	H
5149.860	47.00	-27.61	33.67	40.94	54.00	7.00	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)
17767.350	37.41	-25.50	46.66	16.25	54.00	16.59	H
17710.700	37.18	-25.74	45.95	16.97	54.00	16.82	V
13332.700	35.48	-29.49	39.71	25.26	54.00	18.52	H
13327.200	35.41	-29.49	39.71	25.19	54.00	18.59	H
5350.240	46.82	-27.43	34.01	40.24	54.00	7.18	H
5350.144	46.79	-27.43	34.01	40.21	54.00	7.21	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)
17989.550	37.01	-25.50	46.66	15.85	54.00	16.99	V
17997.250	36.97	-25.50	46.66	15.81	54.00	17.03	V
13389.900	35.45	-29.49	39.71	25.23	54.00	18.55	H
14478.900	35.44	-28.59	42.46	21.57	54.00	18.56	H
5457.835	49.46	-27.18	34.17	42.47	54.00	4.54	H
5458.675	49.38	-27.18	34.17	42.39	54.00	4.62	H

Channel 122

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)
17726.650	37.36	-25.74	45.95	17.15	54.00	16.64	V
17712.350	37.02	-25.74	45.95	16.81	54.00	16.98	H
13296.400	35.58	-29.49	39.71	25.36	54.00	18.42	V
12698.550	35.56	-30.47	39.06	26.97	54.00	18.44	H
11921.950	35.16	-31.48	39.09	27.55	54.00	18.84	H
11909.850	35.00	-31.85	39.05	27.80	54.00	19.00	H

Peak

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)
17535.250	50.34	-26.85	45.25	31.94	68.20	17.86	V
17361.450	50.13	-25.95	44.35	31.72	68.20	18.07	H
14086.750	47.96	-29.44	41.66	35.74	68.20	20.24	V
13736.950	47.90	-29.10	40.86	36.13	68.20	20.30	V
5148.900	67.48	-27.61	33.67	61.42	74.00	6.52	H
5150.000	67.47	-27.61	33.67	61.41	74.00	6.53	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)
17340.550	48.62	-25.95	44.35	30.21	68.20	19.58	V
17233.850	48.35	-25.95	44.35	29.94	68.20	19.85	H
13914.600	46.40	-29.51	41.30	34.61	68.20	21.80	H
14586.700	46.32	-27.29	41.90	31.71	68.20	21.88	V
11858.150	45.27	-31.85	39.05	38.07	74.00	28.73	H
10881.350	45.20	-32.33	38.59	38.94	74.00	28.80	V

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)
17647.450	48.45	-25.74	45.95	28.24	68.20	19.75	V
17693.650	48.32	-25.74	45.95	28.11	68.20	19.88	H
14994.250	46.59	-27.85	40.21	34.23	68.20	21.61	H
13956.950	46.56	-29.51	41.30	34.77	68.20	21.64	H
10253.800	44.99	-33.33	38.15	40.17	68.20	23.21	H
10479.300	44.99	-32.99	38.27	39.70	68.20	23.21	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)
17251.450	47.95	-25.95	44.35	29.54	68.20	20.25	H
17232.750	47.62	-25.95	44.35	29.21	68.20	20.58	V
14334.800	46.94	-28.42	42.34	33.02	68.20	21.26	H
14389.250	46.45	-28.42	42.34	32.53	68.20	21.75	H
10282.950	45.50	-33.68	38.17	41.00	68.20	22.70	H
10601.400	45.26	-32.76	38.38	39.64	74.00	28.74	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)
17717.300	48.26	-25.74	45.95	28.05	74.00	25.74	H
17318.550	48.14	-25.95	44.35	29.73	68.20	20.06	H
14704.400	46.91	-28.32	41.35	33.89	68.20	21.29	V
14388.700	46.68	-28.42	42.34	32.76	68.20	21.52	V
9320.450	45.38	-33.91	37.97	41.32	74.00	28.62	H
11797.100	45.04	-31.85	39.05	37.84	74.00	28.96	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)
17285.550	48.23	-25.95	44.35	29.82	68.20	19.97	V
17341.650	48.10	-25.95	44.35	29.69	68.20	20.10	V
13927.250	45.90	-29.51	41.30	34.11	68.20	22.30	H
13514.750	45.70	-29.56	39.99	35.27	68.20	22.50	H
5360.432	64.22	-27.43	34.01	57.64	74.00	9.78	H
5351.920	63.74	-27.43	34.01	57.16	74.00	10.26	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)
17232.750	48.30	-25.95	44.35	29.89	68.20	19.90	H
17225.600	48.05	-25.95	44.35	29.64	68.20	20.15	H
14308.400	46.84	-28.42	42.34	32.92	68.20	21.36	H
13543.900	46.27	-29.56	39.99	35.84	68.20	21.93	H
5457.820	61.72	-27.18	34.17	54.73	74.00	12.28	H
5465.875	66.85	-27.18	34.17	59.86	68.20	1.35	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)
17854.800	48.97	-25.50	46.66	27.81	74.00	25.03	H
17651.300	48.57	-25.74	45.95	28.36	68.20	19.63	V
14088.400	46.83	-29.44	41.66	34.61	68.20	21.37	V
14486.050	46.48	-28.59	42.46	32.61	74.00	27.52	V
11943.400	45.74	-31.48	39.09	38.13	74.00	28.26	H
11910.950	45.41	-31.85	39.05	38.21	74.00	28.59	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)
17258.050	47.73	-25.95	44.35	29.32	68.20	20.47	V
17140.350	47.70	-26.60	43.36	30.94	68.20	20.50	H
13422.900	46.49	-29.49	39.71	36.27	68.20	21.71	H
13930.000	46.31	-29.51	41.30	34.52	68.20	21.89	H
5725.127	62.95	-27.07	34.31	55.71	68.20	5.25	H
5729.257	61.70	-27.07	34.31	54.46	68.20	6.50	H

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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)
17302.600	47.85	-25.95	44.35	29.44	68.20	20.35	V
17218.450	47.65	-25.95	44.35	29.24	68.20	20.55	V
14590.550	46.34	-27.29	41.90	31.73	68.20	21.86	H
14516.850	46.20	-28.59	42.46	32.33	68.20	22.00	V
5147.840	62.05	-27.61	33.67	55.99	74.00	11.95	H
5146.220	61.77	-27.61	33.67	55.71	74.00	12.23	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)
17148.050	48.12	-26.60	43.36	31.36	68.20	20.08	V
17992.850	47.99	-25.50	46.66	26.83	74.00	26.01	V
14399.150	47.18	-28.59	42.46	33.31	68.20	21.02	V
13427.850	46.10	-29.56	39.99	35.67	68.20	22.10	H
8695.650	45.09	-34.42	38.00	41.50	68.20	23.11	H
10467.200	45.03	-33.22	38.19	40.06	68.20	23.17	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)
14994.250	47.44	-27.85	40.21	35.08	68.20	20.76	H
17207.450	47.41	-26.60	43.36	30.65	68.20	20.79	V
17233.850	47.14	-25.95	44.35	28.73	68.20	21.06	V
14335.900	46.69	-28.42	42.34	32.77	68.20	21.51	H
10485.900	45.17	-32.99	38.27	39.88	68.20	23.03	V
10412.750	45.00	-33.22	38.19	40.03	68.20	23.20	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)
17692.000	47.62	-25.74	45.95	27.41	68.20	20.58	V
17978.550	47.59	-25.50	46.66	26.43	74.00	26.41	H
14586.700	46.63	-27.29	41.90	32.02	68.20	21.57	V
14475.050	46.46	-28.59	42.46	32.59	74.00	27.54	V
11255.350	45.23	-32.36	38.77	38.83	74.00	28.77	V
10367.650	44.89	-33.22	38.19	39.92	68.20	23.31	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)
17239.350	47.91	-25.95	44.35	29.50	68.20	20.29	H
17122.750	47.66	-26.60	43.36	30.90	68.20	20.54	H
13378.350	46.53	-29.49	39.71	36.31	74.00	27.47	H
13413.000	46.32	-29.49	39.71	36.10	68.20	21.88	H
10438.600	45.11	-33.22	38.19	40.14	68.20	23.09	H
7210.650	44.92	-35.50	36.45	43.97	68.20	23.28	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)
17375.200	47.87	-25.95	44.35	29.46	68.20	20.33	V
17243.200	47.67	-25.95	44.35	29.26	68.20	20.53	V
14083.450	46.41	-29.44	41.66	34.19	68.20	21.79	H
13943.750	46.16	-29.51	41.30	34.37	68.20	22.04	H
5356.096	63.49	-27.43	34.01	56.91	74.00	10.51	H
5353.584	63.28	-27.43	34.01	56.70	74.00	10.72	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)
17264.650	47.93	-25.95	44.35	29.52	68.20	20.27	V
17166.200	47.92	-26.60	43.36	31.16	68.20	20.28	H
13931.650	46.56	-29.51	41.30	34.77	68.20	21.64	V
10243.900	46.55	-33.33	38.15	41.73	68.20	21.65	V
5459.845	58.71	-27.18	34.17	51.72	74.00	15.29	H
5467.510	63.16	-27.18	34.17	56.17	68.20	5.04	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)
17226.150	48.38	-25.95	44.35	29.97	68.20	19.82	V
17289.400	48.17	-25.95	44.35	29.76	68.20	20.03	V
13729.800	46.62	-29.10	40.86	34.85	68.20	21.58	H
14436.000	46.39	-28.59	42.46	32.52	68.20	21.81	H
9481.050	45.54	-33.19	37.93	40.81	74.00	28.46	H
10483.700	45.12	-32.99	38.27	39.83	68.20	23.08	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)
17354.850	48.25	-25.95	44.35	29.84	68.20	19.95	H
17140.350	47.95	-26.60	43.36	31.19	68.20	20.25	H
13947.050	46.43	-29.51	41.30	34.64	68.20	21.77	V
14322.150	46.19	-28.42	42.34	32.27	68.20	22.01	V
5727.892	66.84	-27.07	34.31	59.60	68.20	1.36	H
5725.985	64.40	-27.07	34.31	57.16	68.20	3.80	H

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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)
17228.900	47.94	-25.95	44.35	29.53	68.20	20.26	H
17290.500	47.94	-25.95	44.35	29.53	68.20	20.26	V
12630.900	46.29	-31.05	38.99	38.35	74.00	27.71	H
11035.350	46.14	-32.49	38.72	39.90	74.00	27.86	V
5146.040	57.14	-27.61	33.67	51.08	74.00	16.86	H
5146.280	57.04	-27.61	33.67	50.98	74.00	16.96	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)
17239.900	47.75	-25.95	44.35	29.34	68.20	20.45	V
17657.350	47.57	-25.74	45.95	27.36	68.20	20.63	H
13413.550	46.71	-29.49	39.71	36.49	68.20	21.49	V
13422.350	46.07	-29.49	39.71	35.85	68.20	22.13	V
11894.450	45.55	-31.85	39.05	38.35	74.00	28.45	H
9335.300	45.19	-33.91	37.97	41.13	74.00	28.81	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)
17242.100	47.91	-25.95	44.35	29.50	68.20	20.29	H
17278.400	47.87	-25.95	44.35	29.46	68.20	20.33	H
14405.200	46.88	-28.59	42.46	33.01	68.20	21.32	V
13835.950	46.85	-29.51	41.30	35.06	68.20	21.35	V
10273.050	45.71	-33.68	38.17	41.21	68.20	22.49	V
9650.450	45.30	-33.06	37.97	40.39	68.20	22.90	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)
17236.600	48.74	-25.95	44.35	30.33	68.20	19.46	V
17242.100	48.12	-25.95	44.35	29.71	68.20	20.08	V
14409.600	46.80	-28.59	42.46	32.93	68.20	21.40	H
14334.800	46.61	-28.42	42.34	32.69	68.20	21.59	H
11915.900	45.93	-31.48	39.09	38.32	74.00	28.07	H
11293.850	45.41	-32.36	38.77	39.01	74.00	28.59	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)
17134.850	48.12	-26.60	43.36	31.36	68.20	20.08	H
17138.150	47.97	-26.60	43.36	31.21	68.20	20.23	V
10439.700	46.45	-33.22	38.19	41.48	68.20	21.75	H
13402.550	46.30	-29.49	39.71	36.08	68.20	21.90	V
14599.350	46.11	-27.29	41.90	31.50	68.20	22.09	H
7212.300	45.43	-35.50	36.45	44.48	68.20	22.77	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)
17230.550	48.24	-25.95	44.35	29.83	68.20	19.96	V
17134.850	48.18	-26.60	43.36	31.42	68.20	20.02	H
14346.350	46.42	-28.42	42.34	32.50	68.20	21.78	V
13914.050	46.29	-29.51	41.30	34.50	68.20	21.91	V
5350.272	57.48	-27.43	34.01	50.90	74.00	16.52	H
5379.232	57.27	-27.36	34.09	50.55	74.00	16.73	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)
17121.650	48.11	-26.60	43.36	31.35	68.20	20.09	H
16794.400	47.88	-26.62	41.49	33.01	68.20	20.32	V
13950.900	45.89	-29.51	41.30	34.10	68.20	22.31	V
13546.650	45.88	-29.56	39.99	35.45	68.20	22.32	V
5458.615	58.25	-27.18	34.17	51.26	74.00	15.75	H
5469.190	62.17	-27.18	34.17	55.18	68.20	6.03	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)
17238.250	48.11	-25.95	44.35	29.70	68.20	20.09	V
17245.400	48.09	-25.95	44.35	29.68	68.20	20.11	H
13925.050	46.50	-29.51	41.30	34.71	68.20	21.70	H
14417.850	46.49	-28.59	42.46	32.62	68.20	21.71	H
10287.900	45.77	-33.68	38.17	41.27	68.20	22.43	V
9425.500	45.39	-32.95	37.91	40.42	74.00	28.61	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)
17237.150	48.55	-25.95	44.35	30.14	68.20	19.65	V
17249.250	47.86	-25.95	44.35	29.45	68.20	20.34	H
13303.550	47.11	-29.49	39.71	36.89	74.00	26.89	V
14411.250	47.00	-28.59	42.46	33.13	68.20	21.20	H
5725.215	65.06	-27.07	34.31	57.82	68.20	3.14	H
5725.337	62.05	-27.07	34.31	54.81	68.20	6.15	H

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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)
17231.650	48.20	-25.95	44.35	29.79	68.20	20.00	H
17712.900	47.72	-25.74	45.95	27.51	74.00	26.28	V
13856.300	46.31	-29.51	41.30	34.52	68.20	21.89	V
14278.700	45.76	-28.42	42.34	31.84	68.20	22.44	H
5149.860	71.13	-27.61	33.67	65.07	74.00	2.87	H
5149.840	71.00	-27.61	33.67	64.94	74.00	3.00	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)
17224.500	47.76	-25.95	44.35	29.35	68.20	20.44	H
17229.450	47.31	-25.95	44.35	28.90	68.20	20.89	H
14709.350	46.33	-28.32	41.35	33.31	68.20	21.87	V
13435.550	46.10	-29.56	39.99	35.67	68.20	22.10	V
10756.500	45.44	-32.77	38.49	39.72	74.00	28.56	H
7464.750	45.25	-34.48	36.82	42.90	74.00	28.75	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)
17346.050	48.62	-25.95	44.35	30.21	68.20	19.58	H
17239.900	48.22	-25.95	44.35	29.81	68.20	19.98	H
13320.050	46.19	-29.49	39.71	35.97	74.00	27.81	H
13907.450	46.03	-29.51	41.30	34.24	68.20	22.17	H
9474.450	45.25	-32.95	37.91	40.28	74.00	28.75	H
7299.750	45.15	-35.00	36.55	43.60	74.00	28.85	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)
17273.450	48.04	-25.95	44.35	29.63	68.20	20.16	H
17237.700	47.84	-25.95	44.35	29.43	68.20	20.36	V
14698.900	47.41	-28.32	41.35	34.39	68.20	20.79	V
13936.600	46.89	-29.51	41.30	35.10	68.20	21.31	H
5350.176	69.78	-27.43	34.01	63.20	74.00	4.22	H
5350.400	69.40	-27.43	34.01	62.82	74.00	4.60	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)
17244.850	48.28	-25.95	44.35	29.87	68.20	19.92	H
17706.850	48.16	-25.74	45.95	27.95	74.00	25.84	H
14542.150	46.50	-27.29	41.90	31.89	68.20	21.70	V
13325.000	46.38	-29.49	39.71	36.16	74.00	27.62	V
5457.280	62.29	-27.18	34.17	55.30	74.00	11.71	H
5468.530	65.84	-27.18	34.17	58.85	68.20	2.36	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)
17360.350	48.25	-25.95	44.35	29.84	68.20	19.95	H
17242.100	48.07	-25.95	44.35	29.66	68.20	20.13	H
13509.250	46.36	-29.56	39.99	35.93	68.20	21.84	V
14075.200	46.06	-29.44	41.66	33.84	68.20	22.14	V
10473.250	45.80	-32.99	38.27	40.51	68.20	22.40	H
10481.500	45.23	-32.99	38.27	39.94	68.20	22.97	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)
17243.200	47.99	-25.95	44.35	29.58	68.20	20.21	V
17214.600	47.97	-26.60	43.36	31.21	68.20	20.23	V
13399.800	46.66	-29.49	39.71	36.44	74.00	27.34	H
14394.750	45.85	-28.59	42.46	31.98	68.20	22.35	V
5728.802	61.48	-27.07	34.31	54.24	68.20	6.72	H
5737.762	60.57	-27.07	34.31	53.33	68.20	7.63	H

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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)
17235.500	47.78	-25.95	44.35	29.37	68.20	20.42	V
17244.300	47.77	-25.95	44.35	29.36	68.20	20.43	H
13427.300	46.20	-29.56	39.99	35.77	68.20	22.00	H
14009.200	46.16	-29.44	41.66	33.94	68.20	22.04	V
5149.860	66.64	-27.61	33.67	60.58	74.00	7.36	H
5149.440	66.56	-27.61	33.67	60.50	74.00	7.44	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)
17733.250	47.86	-25.74	45.95	27.65	74.00	26.14	V
17326.800	47.65	-25.95	44.35	29.24	68.20	20.55	V
14400.800	46.35	-28.59	42.46	32.48	68.20	21.85	H
14565.250	46.24	-27.29	41.90	31.63	68.20	21.96	H
11893.900	45.46	-31.85	39.05	38.26	74.00	28.54	H
10822.500	44.99	-32.33	38.59	38.73	74.00	29.01	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)
17927.950	47.83	-25.50	46.66	26.67	74.00	26.17	V
17709.050	47.62	-25.74	45.95	27.41	74.00	26.38	H
14168.150	46.67	-28.99	42.00	33.65	68.20	21.53	V
14717.050	46.32	-28.32	41.35	33.30	68.20	21.88	H
8800.150	46.25	-33.90	38.07	42.08	68.20	21.95	H
10102.550	45.03	-33.45	38.13	40.35	68.20	23.17	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)
17343.300	48.06	-25.95	44.35	29.65	68.20	20.14	H
17243.750	48.01	-25.95	44.35	29.60	68.20	20.19	H
13927.250	46.18	-29.51	41.30	34.39	68.20	22.02	V
10737.250	46.10	-32.77	38.49	40.38	74.00	27.90	V
5353.024	63.58	-27.43	34.01	57.00	74.00	10.42	H
5353.344	63.38	-27.43	34.01	56.80	74.00	10.62	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)
17250.900	48.59	-25.95	44.35	30.18	68.20	19.61	H
17219.000	47.93	-25.95	44.35	29.52	68.20	20.27	H
12758.500	47.16	-30.47	39.06	38.57	68.20	21.04	V
13943.750	46.21	-29.51	41.30	34.42	68.20	21.99	H
5458.705	62.45	-27.18	34.17	55.46	74.00	11.55	H
5469.475	67.22	-27.18	34.17	60.23	68.20	0.98	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)
17322.950	47.89	-25.95	44.35	29.48	68.20	20.31	V
17226.700	47.86	-25.95	44.35	29.45	68.20	20.34	H
14321.600	46.34	-28.42	42.34	32.42	68.20	21.86	V
14677.450	46.30	-27.29	41.90	31.69	68.20	21.90	H
11786.100	45.71	-31.99	38.98	38.72	74.00	28.29	V
9475.000	45.51	-32.95	37.91	40.54	74.00	28.49	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)
17316.350	48.62	-25.95	44.35	30.21	68.20	19.58	H
17331.750	47.58	-25.95	44.35	29.17	68.20	20.62	V
14311.150	46.10	-28.42	42.34	32.18	68.20	22.10	V
14478.350	46.08	-28.59	42.46	32.21	74.00	27.92	V
5727.998	58.03	-27.07	34.31	50.79	68.20	10.17	H
5731.410	57.46	-27.07	34.31	50.22	68.20	10.74	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)
17342.750	48.07	-25.95	44.35	29.66	68.20	20.13	V
17232.750	48.01	-25.95	44.35	29.60	68.20	20.19	V
14996.450	46.42	-27.85	40.21	34.06	68.20	21.78	H
14313.350	46.35	-28.42	42.34	32.43	68.20	21.85	H
5149.800	68.51	-27.61	33.67	62.45	74.00	5.49	H
5149.920	67.77	-27.61	33.67	61.71	74.00	6.23	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)
17262.450	48.74	-25.95	44.35	30.33	68.20	19.46	H
17134.850	48.24	-26.60	43.36	31.48	68.20	19.96	H
12723.300	46.55	-30.47	39.06	37.96	68.20	21.65	H
14331.500	46.33	-28.42	42.34	32.41	68.20	21.87	H
5366.288	63.24	-27.43	34.01	56.66	74.00	10.76	H
5351.824	59.71	-27.43	34.01	53.13	74.00	14.29	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)
17242.650	48.19	-25.95	44.35	29.78	68.20	20.01	V
17722.250	48.17	-25.74	45.95	27.96	74.00	25.83	H
12721.100	46.52	-30.47	39.06	37.93	68.20	21.68	V
14574.050	46.49	-27.29	41.90	31.88	68.20	21.71	V
5458.900	62.65	-27.18	34.17	55.66	74.00	11.35	H
5468.755	61.71	-27.18	34.17	54.72	68.20	6.49	H

Channel 122

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)
17633.700	48.43	-25.74	45.95	28.22	68.20	19.77	V
17219.000	48.15	-25.95	44.35	29.74	68.20	20.05	V
13424.550	46.74	-29.56	39.99	36.31	68.20	21.46	V
14299.050	46.37	-28.42	42.34	32.45	68.20	21.83	H
5771.188	54.40	-27.07	34.33	47.14	68.20	13.80	V
5808.217	53.91	-27.07	34.33	46.65	68.20	14.29	V

Sample calculation: 802.11ac 80MHz CH106–Peak, 17633.700MHz

$$\text{Peak ERP} = P_{\text{Mea}}(28.22 \text{ dBuV/m}) + \text{Cable Loss}(-25.74\text{dB}) + \text{Antenna Factor}(45.95\text{dB/m}) = 48.43 \text{ dBuV/m}$$

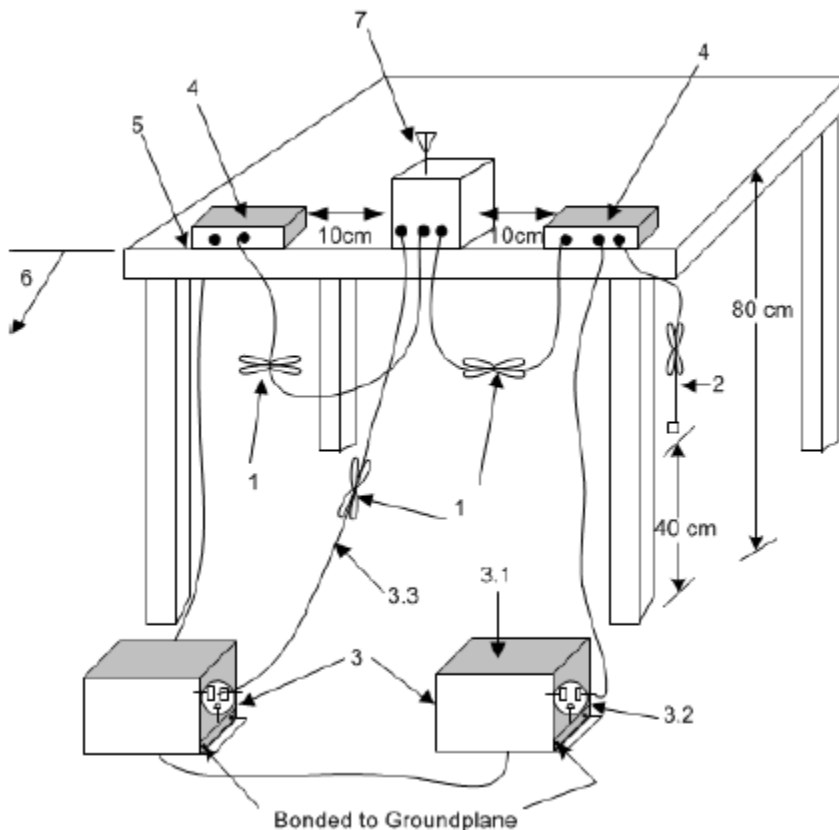
A.7. AC Powerline Conducted Emission (150kHz- 30MHz)

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

Setup:

A stand-alone EUT shall be placed in the center along the back edge of the tabletop. For multiunit tabletop systems, the EUT shall be centered laterally (left to right facing the tabletop) on the tabletop and its rear shall be flush with the rear of the table.

Accessories that are part of an EUT system tested on a tabletop shall be placed in a test arrangement on one or both sides of the host with a 10 cm separation between the nearest points of the cabinets. The rear of the host and accessories shall be flush with the back of the supporting tabletop unless that would not be typical of normal use. If more than two accessories are present, then an equipment test arrangement shall be chosen that maintains 10 cm spacing between cabinets unless the equipment is normally located closer together.



Exploratory ac power-line conducted emission measurements

Exploratory measurements shall be used to identify the frequency of the emission that has the highest amplitude relative to the limit by operating the EUT in a range of typical modes of operation, cable positions, and with a typical system equipment configuration and arrangement. For each mode of operation and for each ac power current-carrying conductor, cable manipulation

shall be performed within the range of likely configurations. For this measurement or series of measurements, the frequency spectrum of interest shall be monitored looking for the emission that has the highest amplitude relative to the limit. Once that emission is found for each current-carrying conductor of each power cord associated with the EUT (but not the cords associated with non-EUT equipment in the overall system), the one configuration and arrangement and mode of operation that produces the emission closest to the limit over all of the measured conductors shall be recorded.

Final ac power-line conducted emission measurements

Based on the exploratory tests of the EUT, the one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT. If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed. The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation. If the EUT is composed of equipment units that have their own separate ac power connections (e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network), then each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be measured separately. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

EUT ID: UT41a

WLAN (Quasi-peak Limit)

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

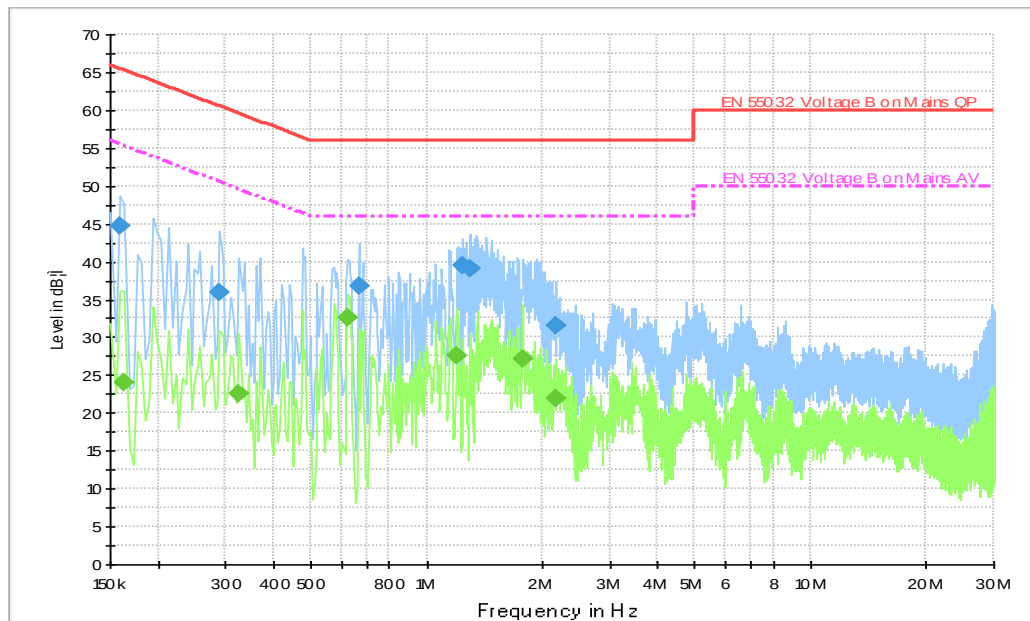


Fig.58 Conducted Emission(802.11a, Ch40, TX)

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.159000	44.7	L1	10.0	20.9	65.5
0.289500	36.0	L1	10.0	24.6	60.5
0.667500	36.9	N	9.9	19.1	56.0
1.243500	39.6	N	10.0	16.4	56.0
1.293000	39.2	L1	10.0	16.8	56.0
2.175000	31.5	N	10.0	24.5	56.0

Final Result 2

Frequency (MHz)	Average (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.163500	24.0	N	10.0	31.3	55.3
0.325500	22.5	L1	9.9	27.1	49.6
0.622500	32.5	L1	9.9	13.5	46.0
1.203000	27.7	L1	10.0	18.3	46.0

1.779000	27.1	L1	10.0	18.9	46.0
2.175000	22.0	N	10.0	24.0	46.0

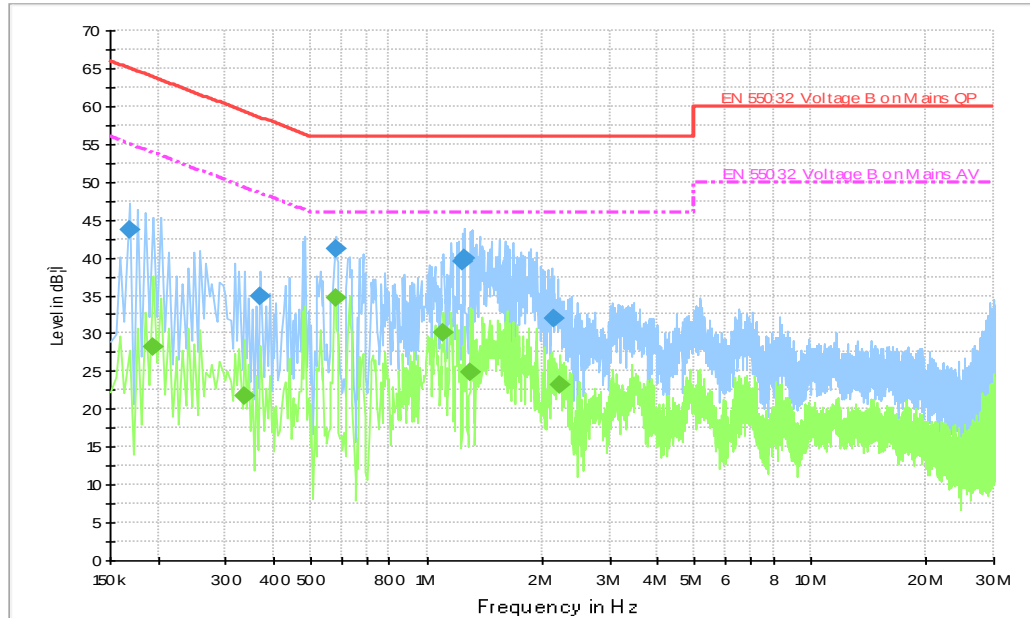


Fig.59 Conducted Emission(802.11a, IDLE)

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.168000	43.7	L1	10.0	21.4	65.1
0.370500	35.0	L1	10.0	23.5	58.5
0.577500	41.1	L1	10.0	14.9	56.0
1.243500	39.4	L1	10.0	16.6	56.0
1.257000	39.8	N	10.0	16.2	56.0
2.134500	31.9	N	10.0	24.1	56.0

Final Result 2

Frequency (MHz)	Average (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.195000	28.2	N	10.0	25.6	53.8
0.334500	21.7	L1	10.0	27.6	49.3
0.577500	34.7	L1	10.0	11.3	46.0
1.108500	30.0	N	10.0	16.0	46.0
1.302000	24.8	L1	10.0	21.2	46.0
2.215500	23.2	N	10.0	22.8	46.0

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
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Measurement Result:

Mode	Frequency	99% Occupied bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.60	17.24	P
	5200 MHz	Fig.61	17.28	P
	5240 MHz	Fig.62	17.40	P
802.11n HT20	5180 MHz	Fig.63	18.08	P
	5200 MHz	Fig.64	18.16	P
	5240 MHz	Fig.65	18.16	P
802.11ac HT40	5190 MHz	Fig.66	36.24	P
	5230 MHz	Fig.67	36.32	P
802.11ac HT80	5210 MHz	Fig.68	75.20	P

Conclusion: PASS
Test graphs as below:

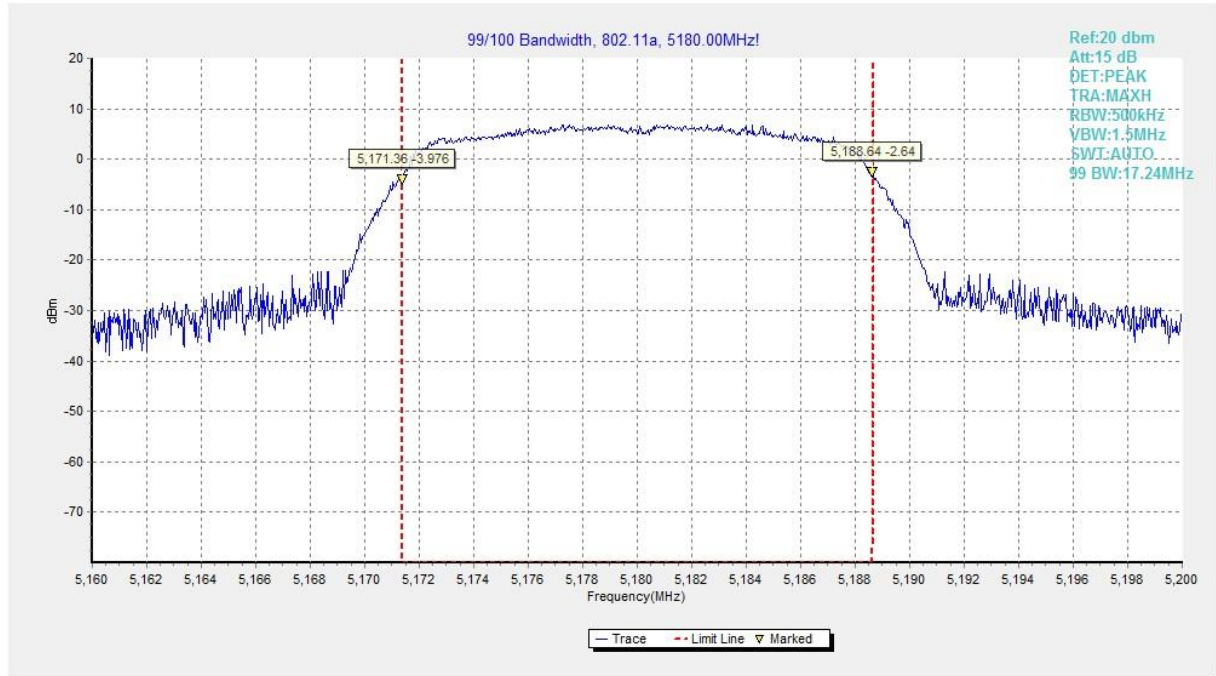


Fig.60 99% Occupied bandwidth (802.11a, 5180MHz)

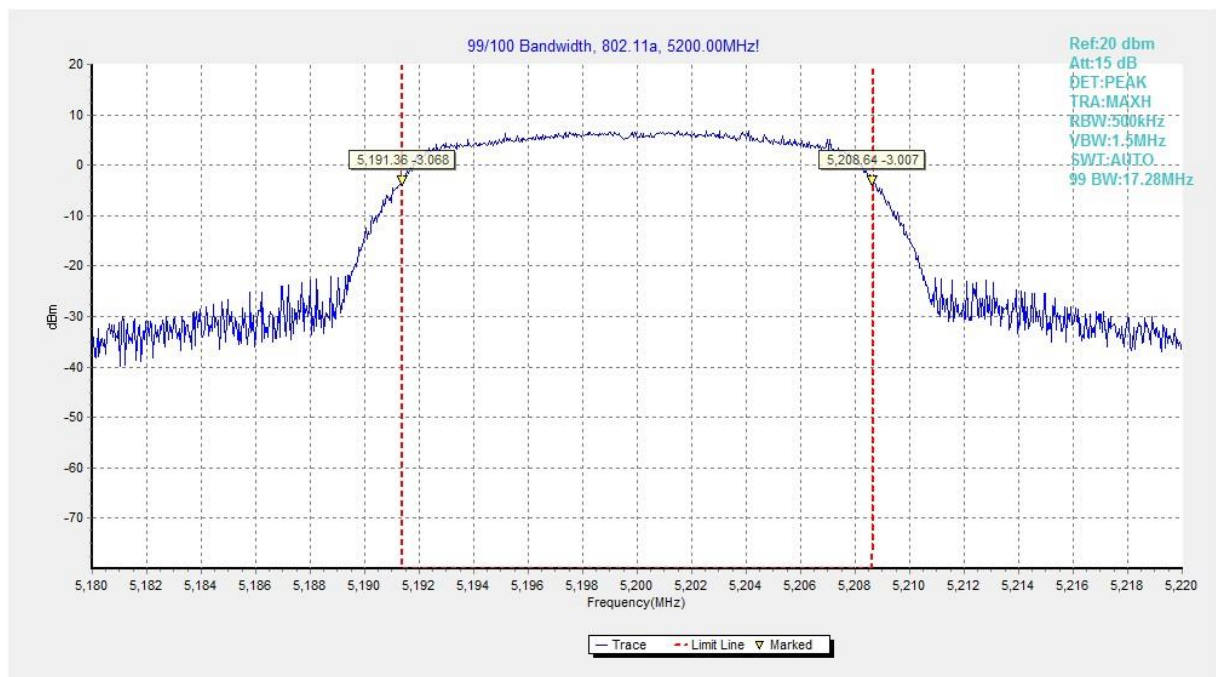


Fig.61 99% Occupied bandwidth (802.11a, 5200MHz)

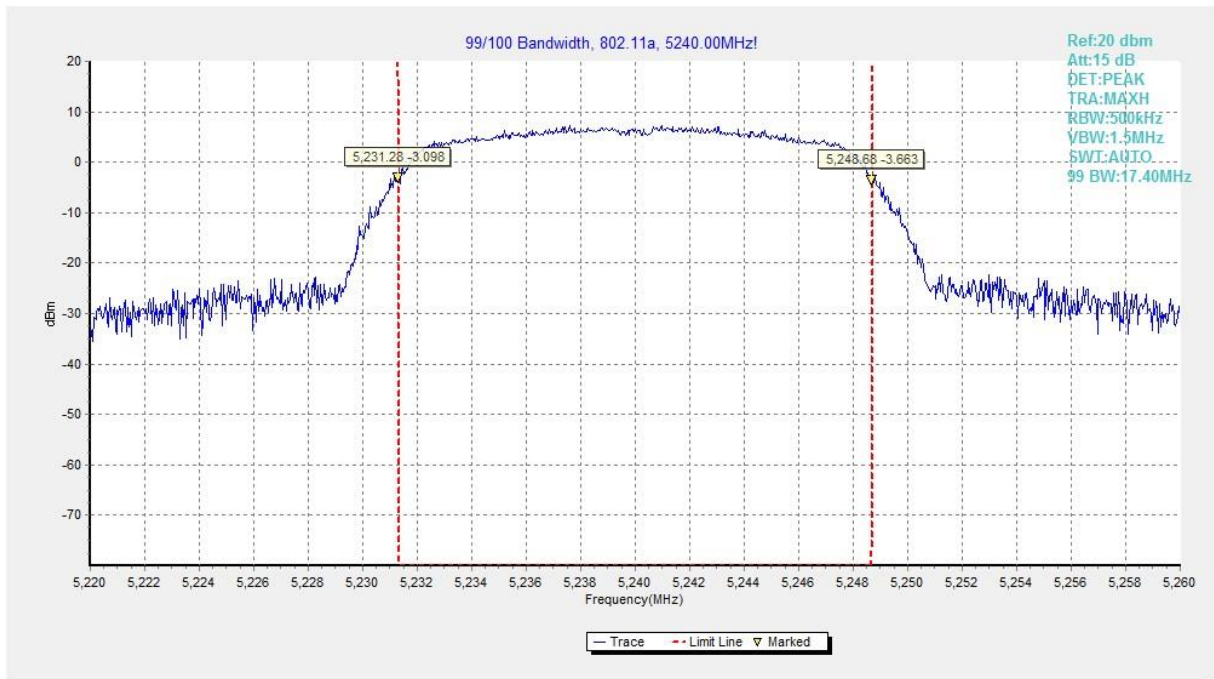


Fig.62 99% Occupied bandwidth (802.11a, 5240MHz)

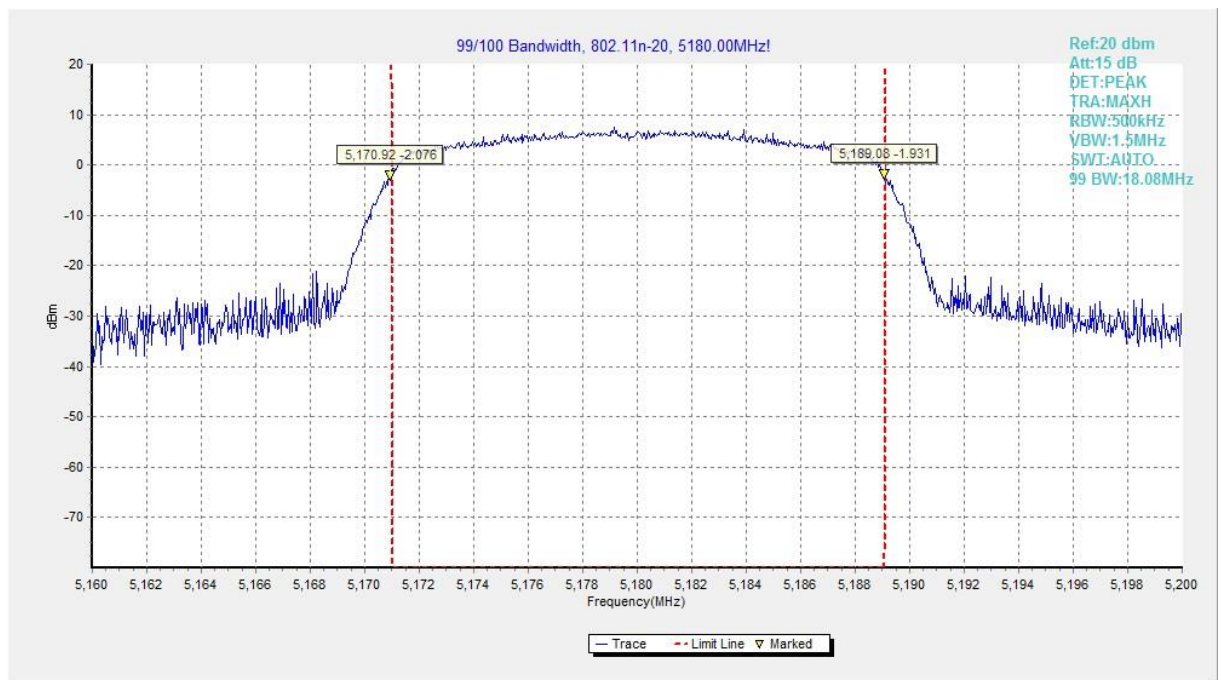


Fig.63 99% Occupied bandwidth (802.11n-HT20, 5180MHz)

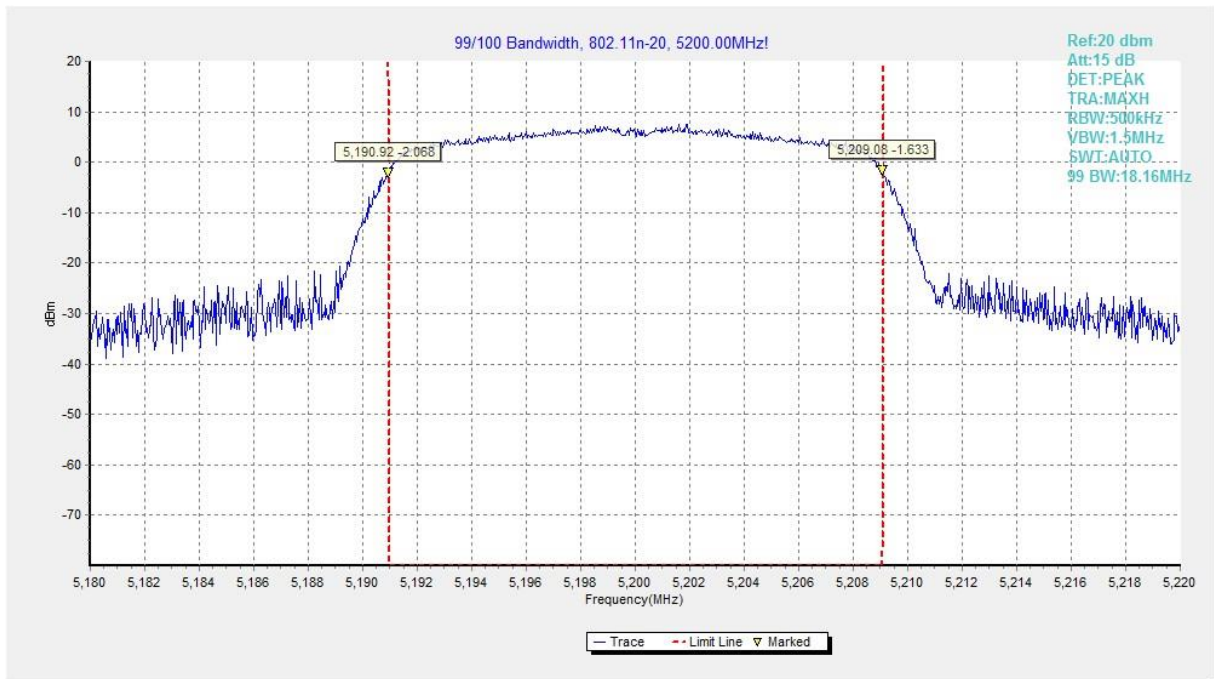


Fig.64 99% Occupied bandwidth (802.11n-HT20, 5200MHz)

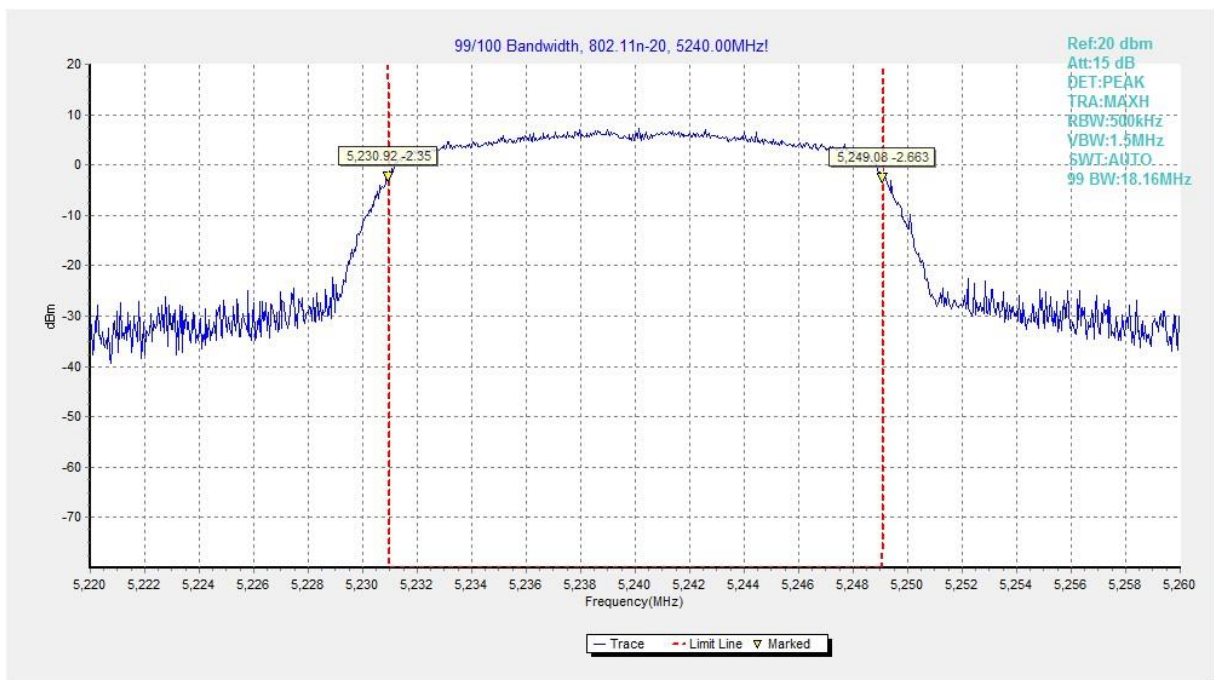


Fig.65 99% Occupied bandwidth (802.11n-HT20, 5240MHz)

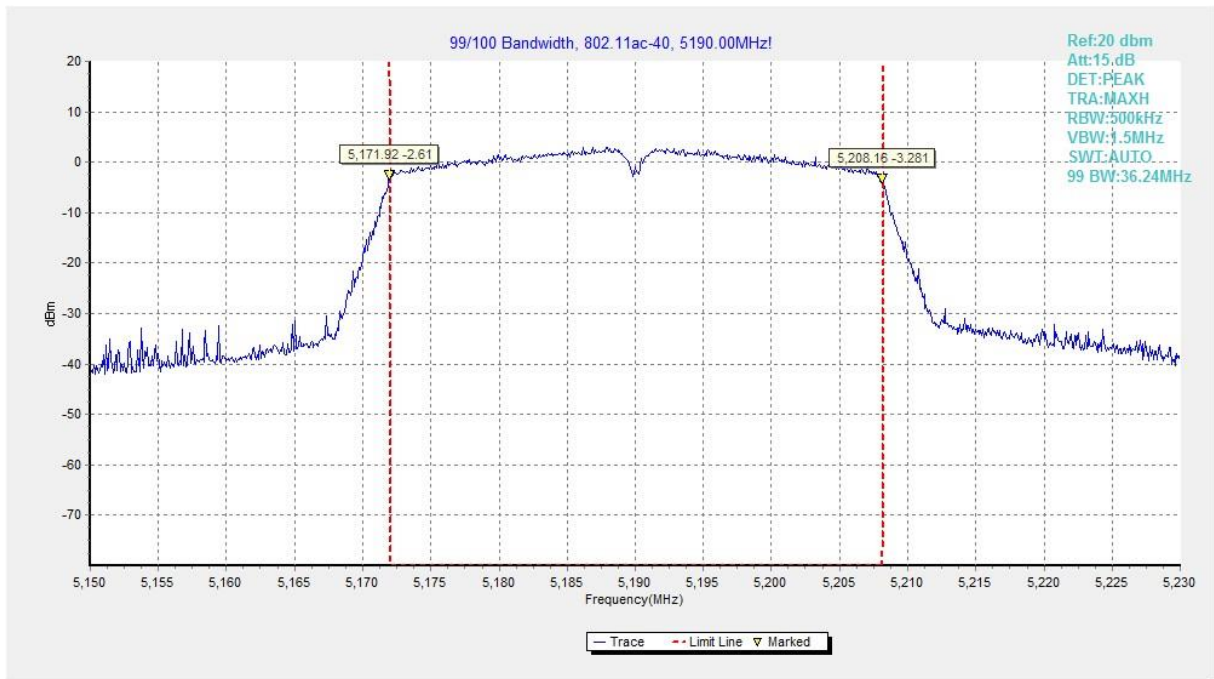


Fig.66 99% Occupied bandwidth (802.11ac-HT40, 5190MHz)

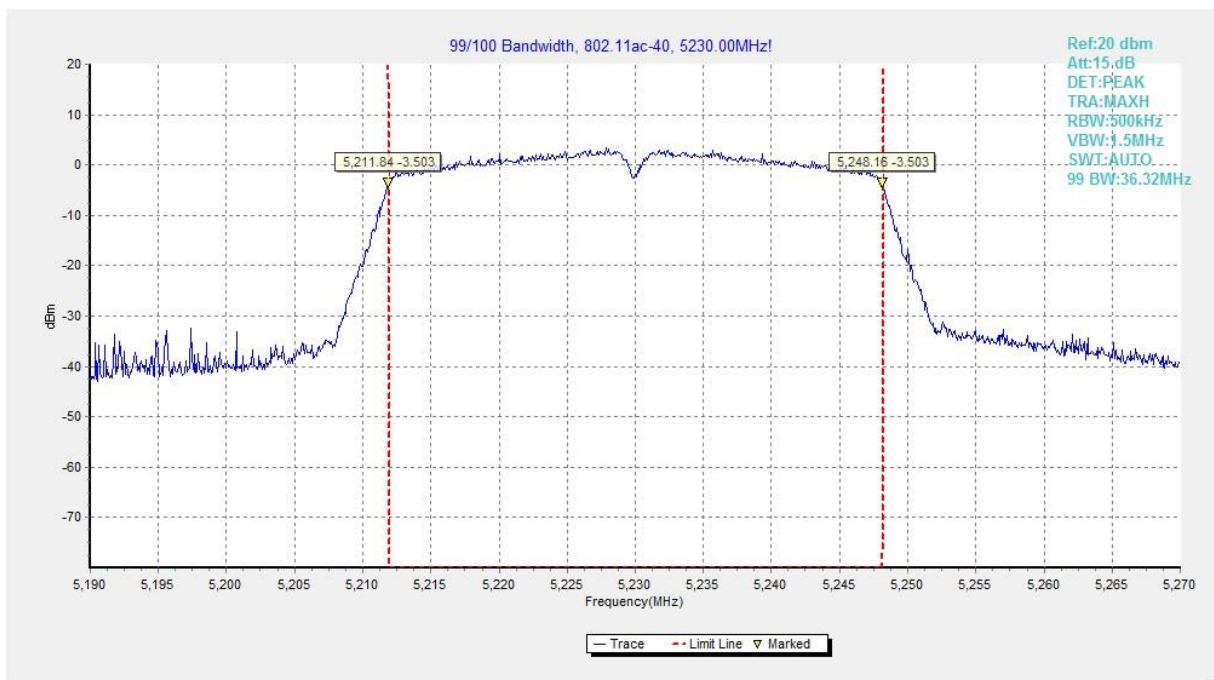


Fig.67 99% Occupied bandwidth (802.11ac-HT40, 5230MHz)

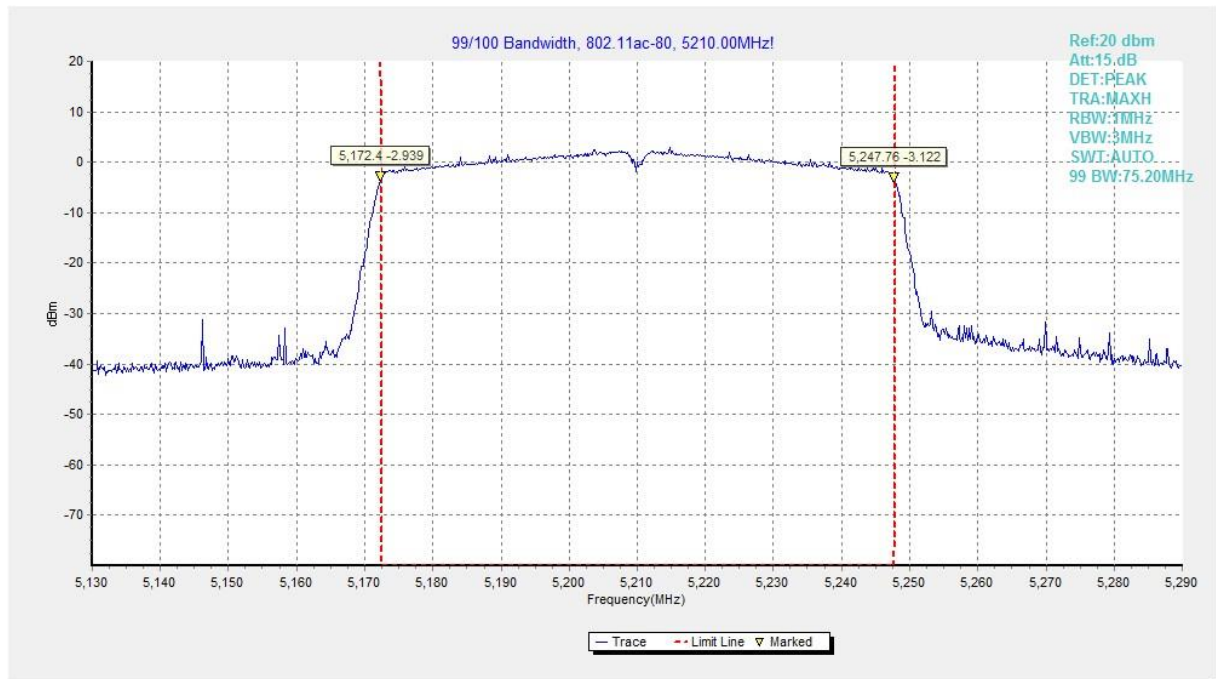


Fig.68 99% Occupied bandwidth (802.11ac-HT80, 5210MHz)

A.9. Power control

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

ANNEX B: EUT parameters

Disclaimer: The 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



*** END OF REPORT BODY ***