

Fig. 42 Conducted Spurious Emission (802.11ac-HT20, Ch149, 25 GHz-40 GHz)

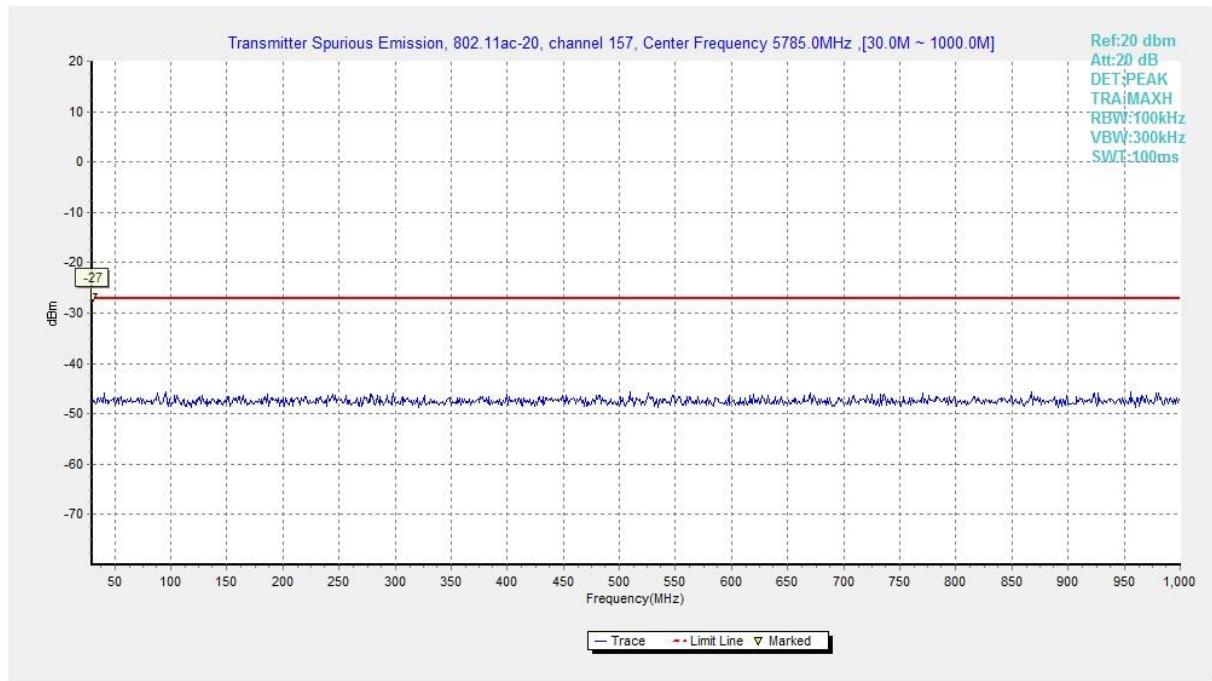


Fig. 43 Conducted Spurious Emission (802.11ac-HT20, Ch157, 30 MHz-1 GHz)

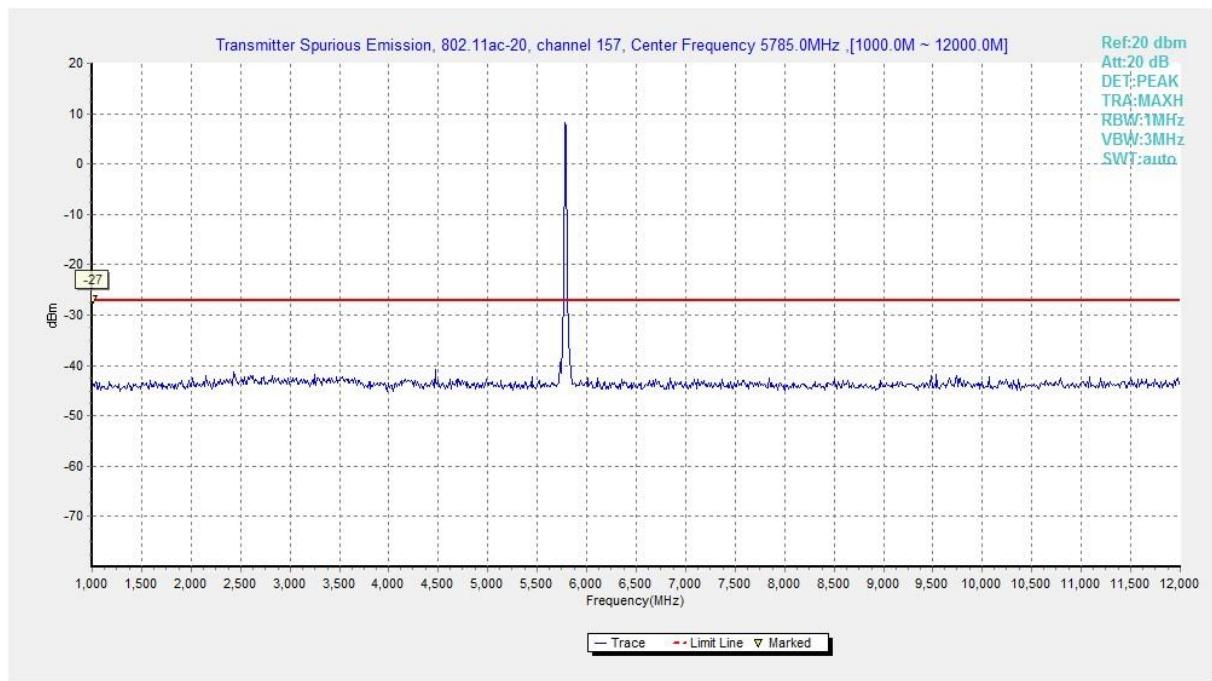


Fig. 44 Conducted Spurious Emission (802.11ac-HT20, Ch157, 1 GHz -12 GHz)

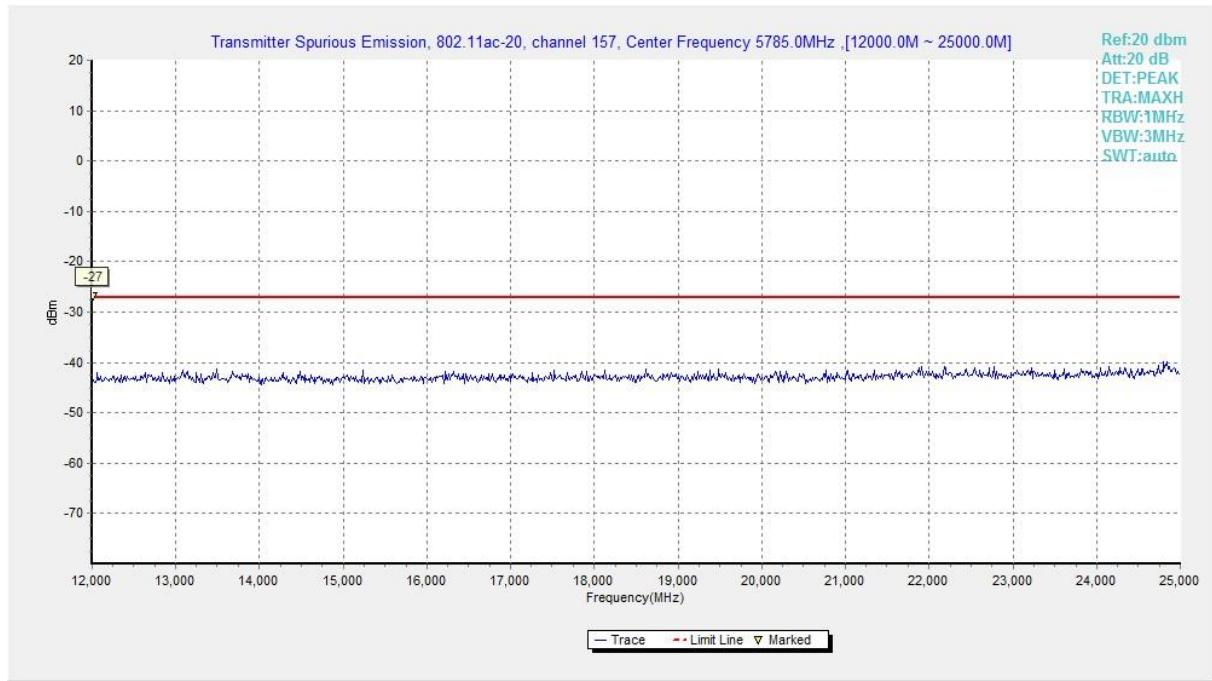


Fig. 45 Conducted Spurious Emission (802.11ac-HT20, Ch157, 12 GHz-25 GHz)

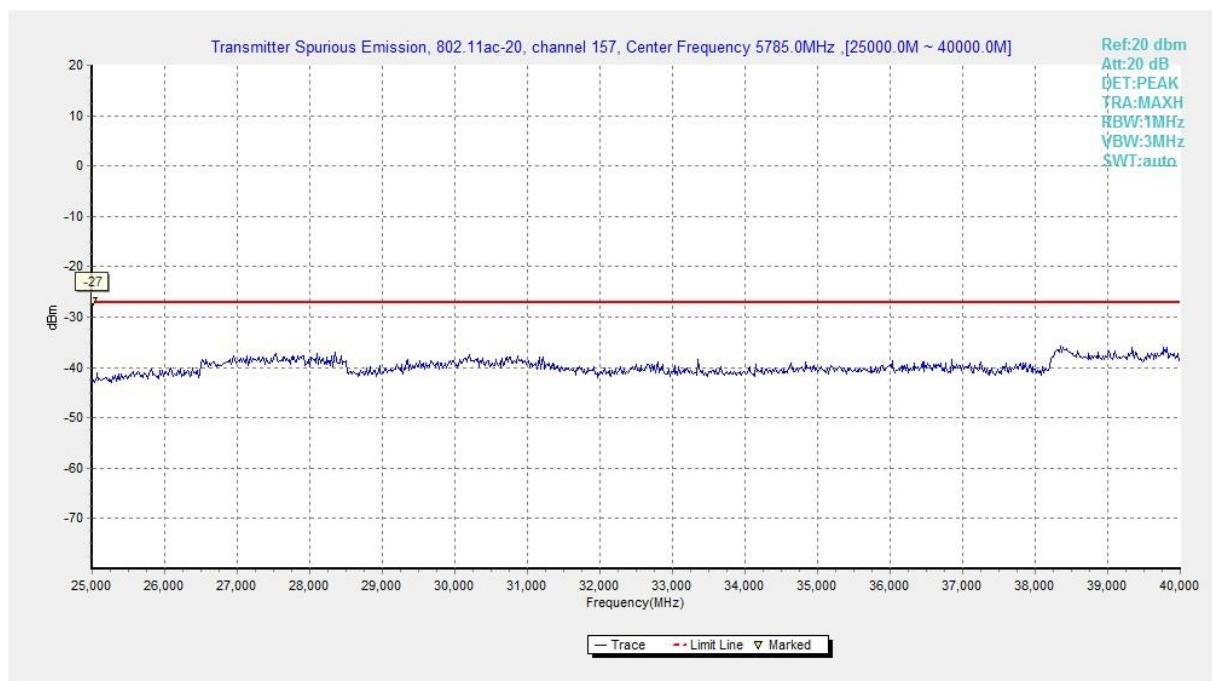


Fig. 46 Conducted Spurious Emission (802.11ac-HT20, Ch157, 25 GHz-40 GHz)

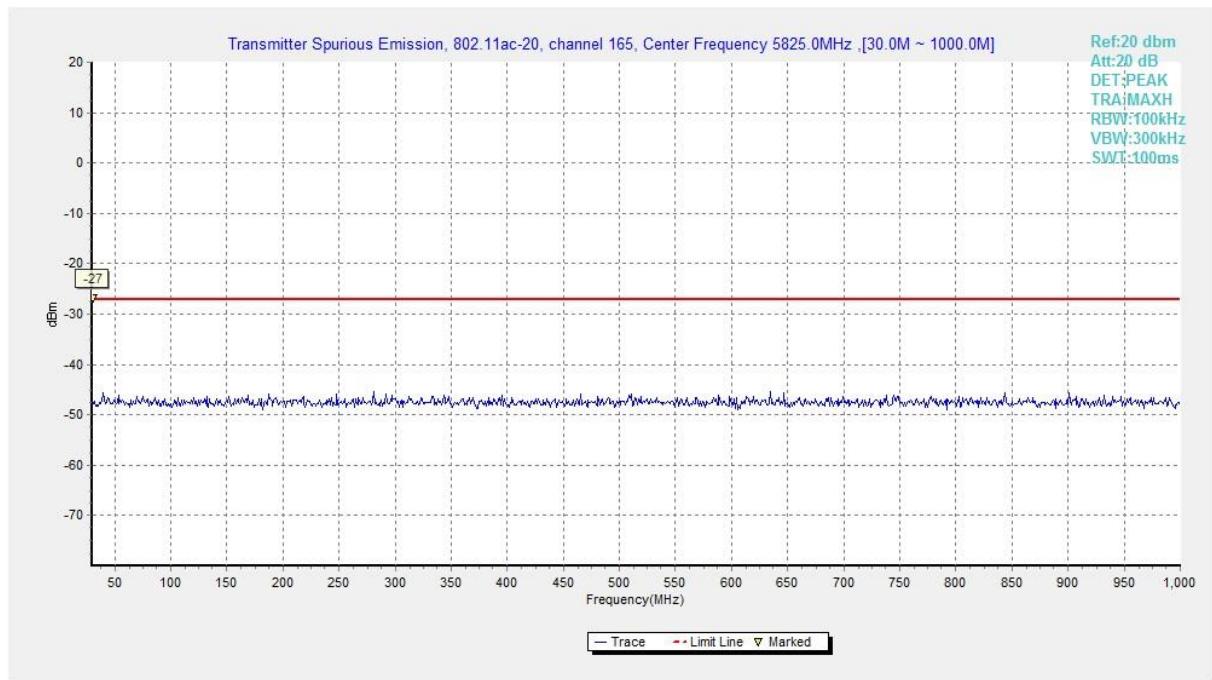


Fig. 47 Conducted Spurious Emission (802.11ac-HT20, Ch165, 30 MHz-1 GHz)

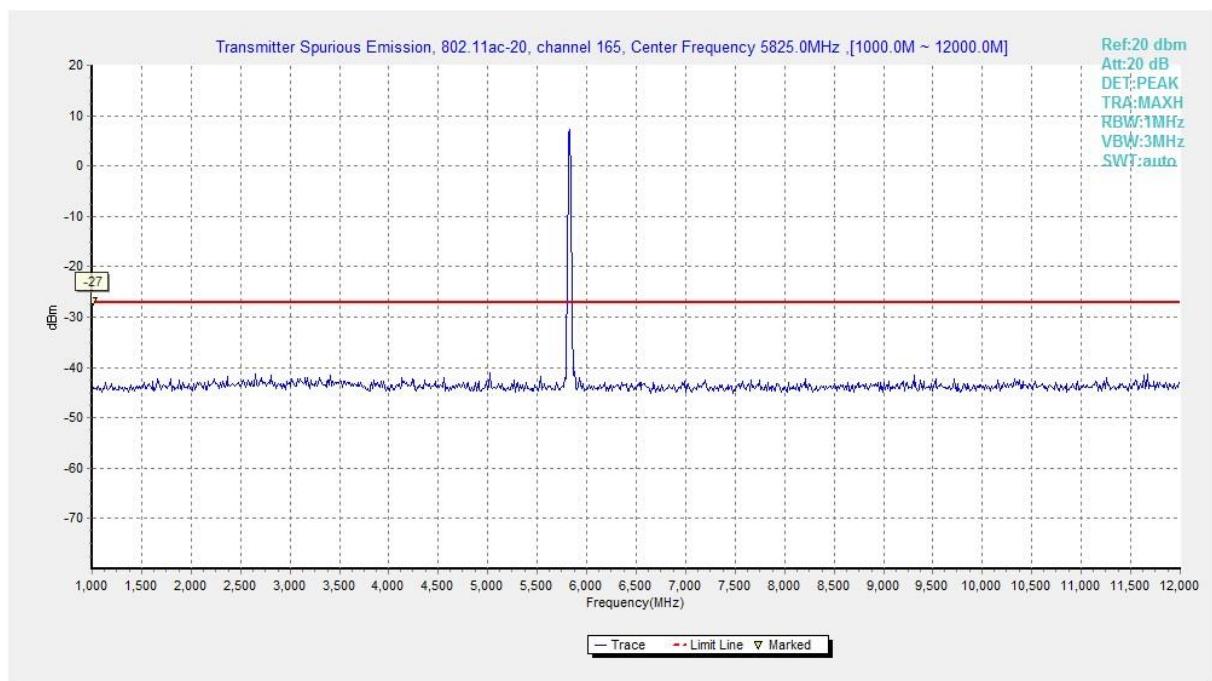


Fig. 48 Conducted Spurious Emission (802.11ac-HT20, Ch165, 1 GHz -12 GHz)

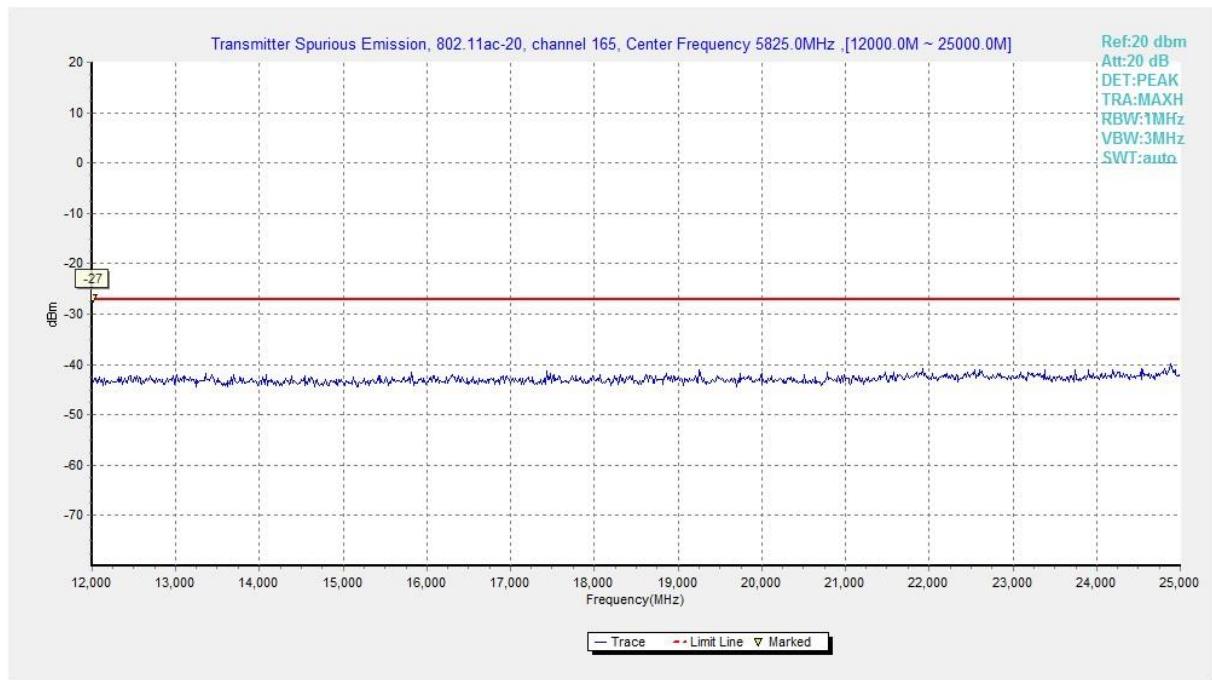


Fig. 49 Conducted Spurious Emission (802.11ac-HT20, Ch165, 12 GHz-25 GHz)

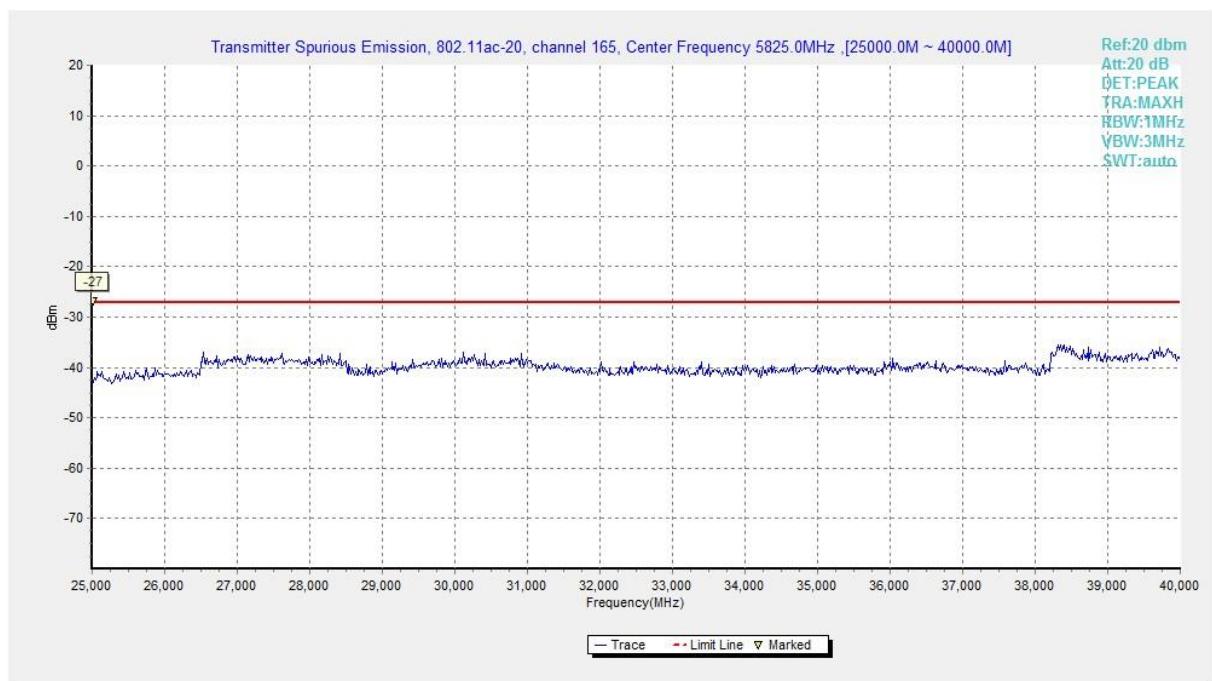


Fig. 50 Conducted Spurious Emission (802.11ac-HT20, Ch165, 25 GHz-40 GHz)

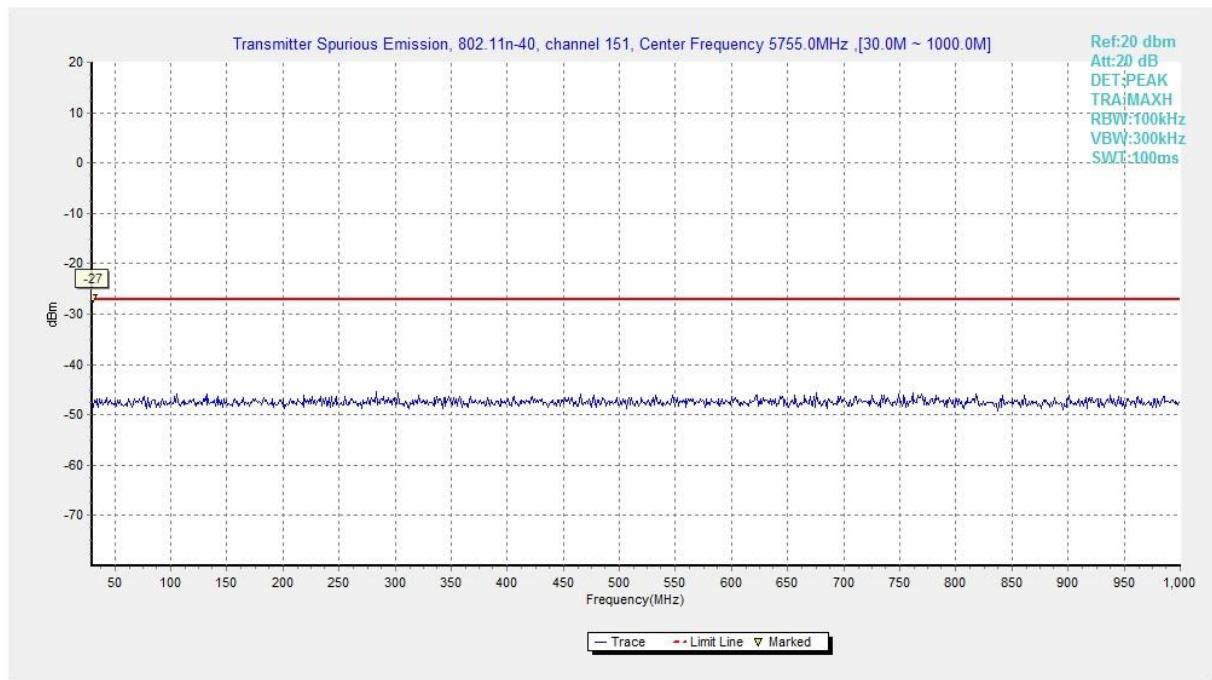


Fig. 51 Conducted Spurious Emission (802.11n-HT40, Ch151, 30 MHz-1 GHz)

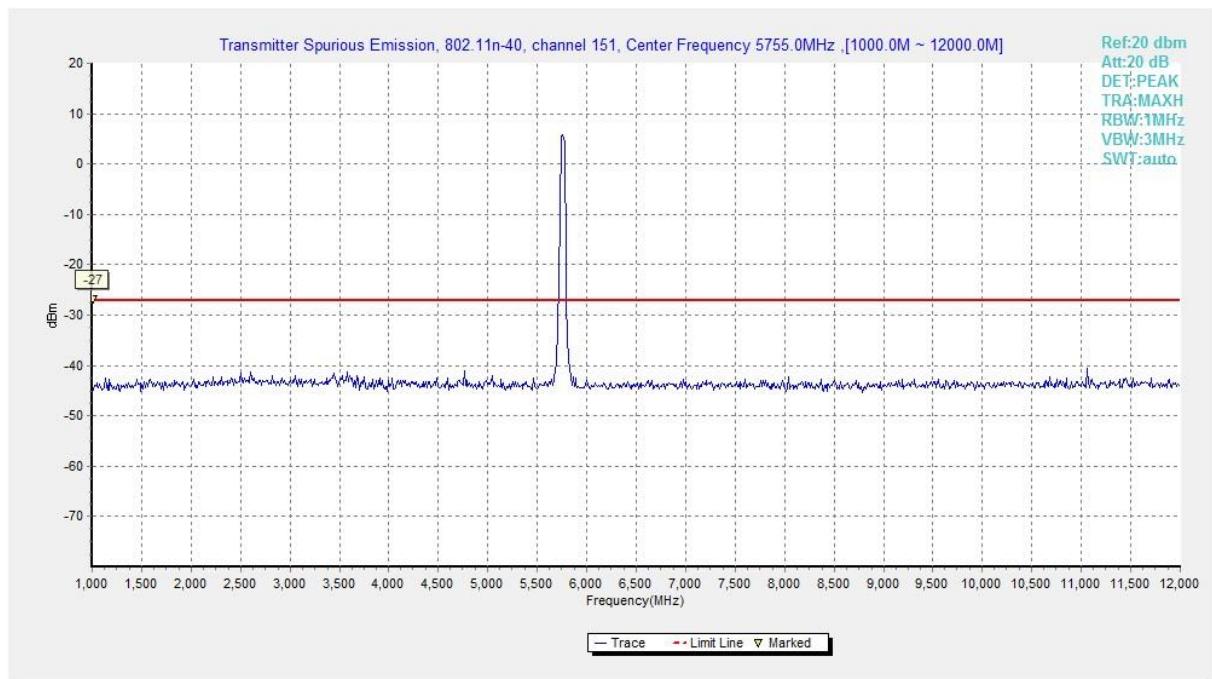


Fig. 52 Conducted Spurious Emission (802.11n-HT40, Ch151, 1 GHz -12 GHz)

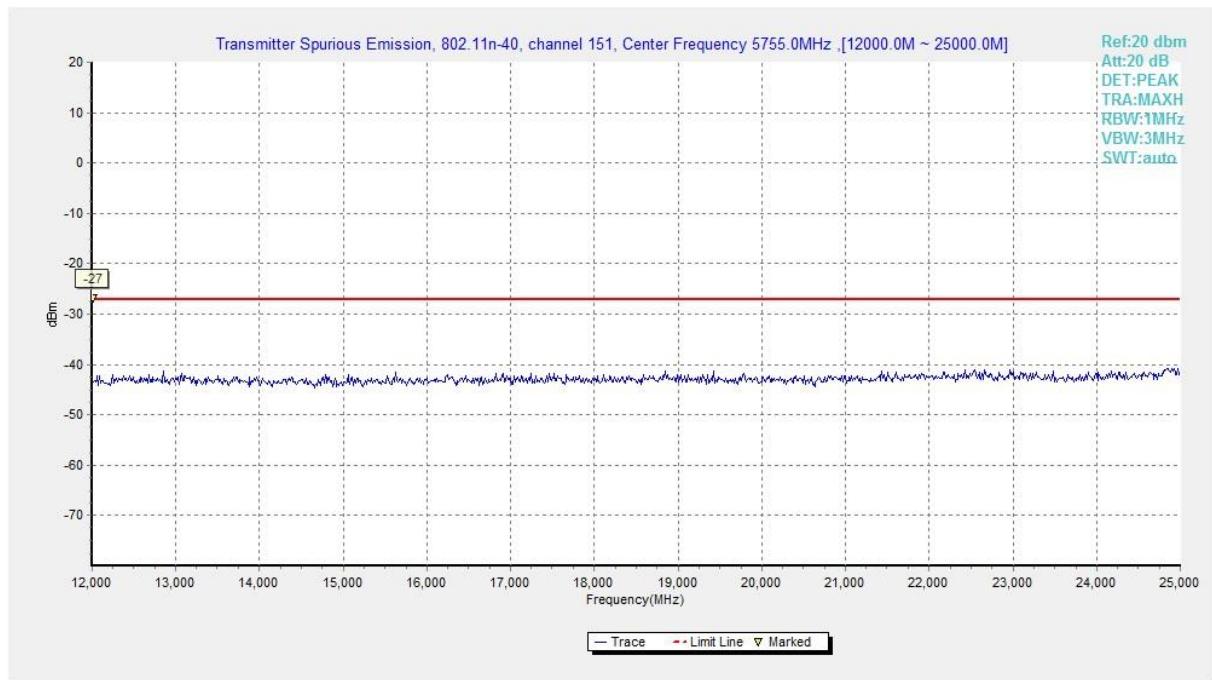


Fig. 53 Conducted Spurious Emission (802.11n-HT40, Ch151, 12 GHz-25 GHz)

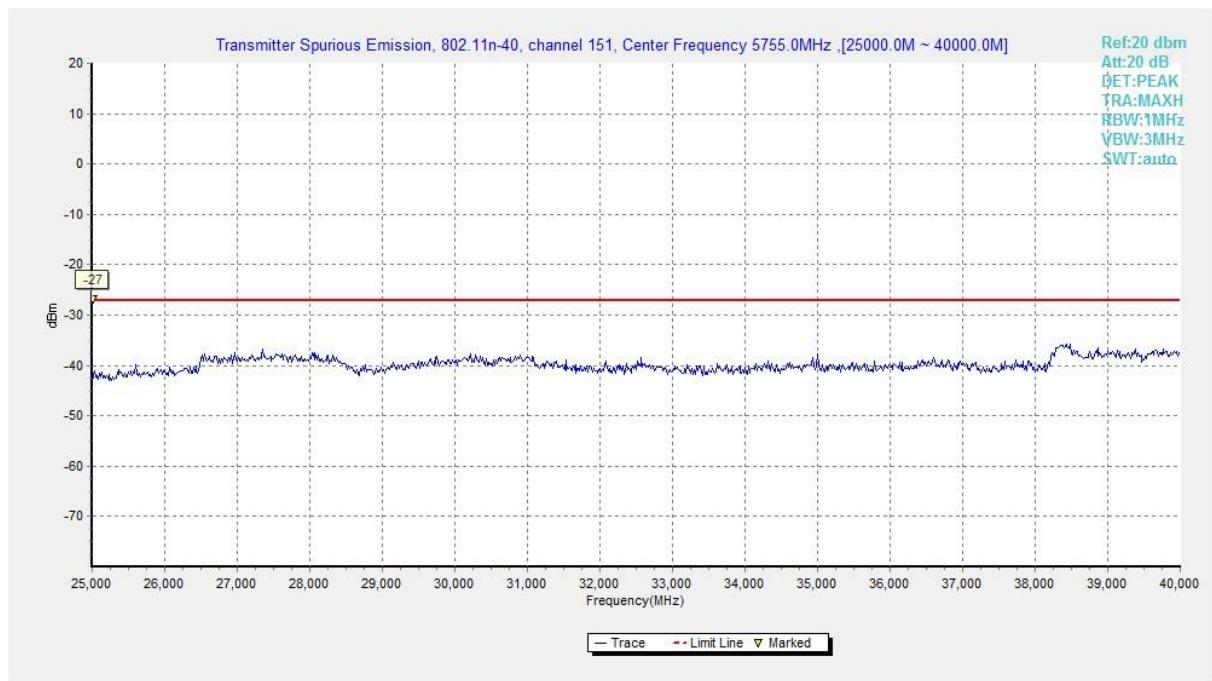


Fig. 54 Conducted Spurious Emission (802.11n-HT40, Ch151, 25 GHz-40 GHz)

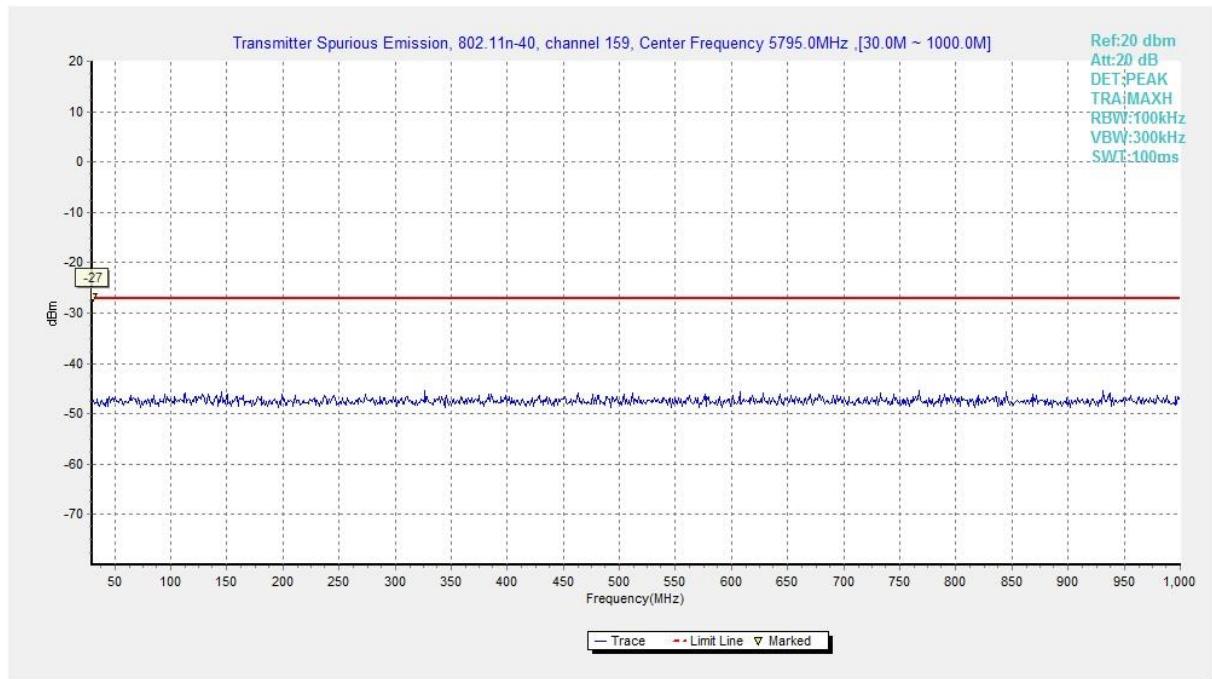


Fig. 55 Conducted Spurious Emission (802.11n-HT40, Ch159, 30 MHz-1 GHz)

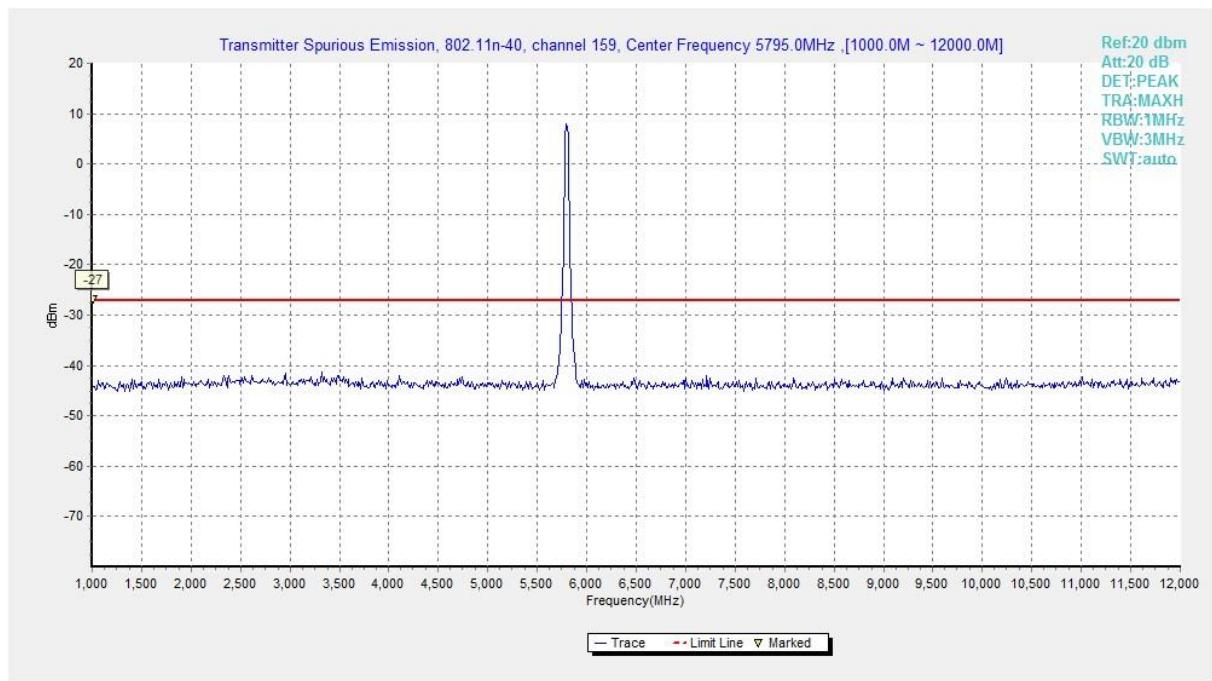


Fig. 56 Conducted Spurious Emission (802.11n-HT40, Ch159, 1 GHz -12 GHz)

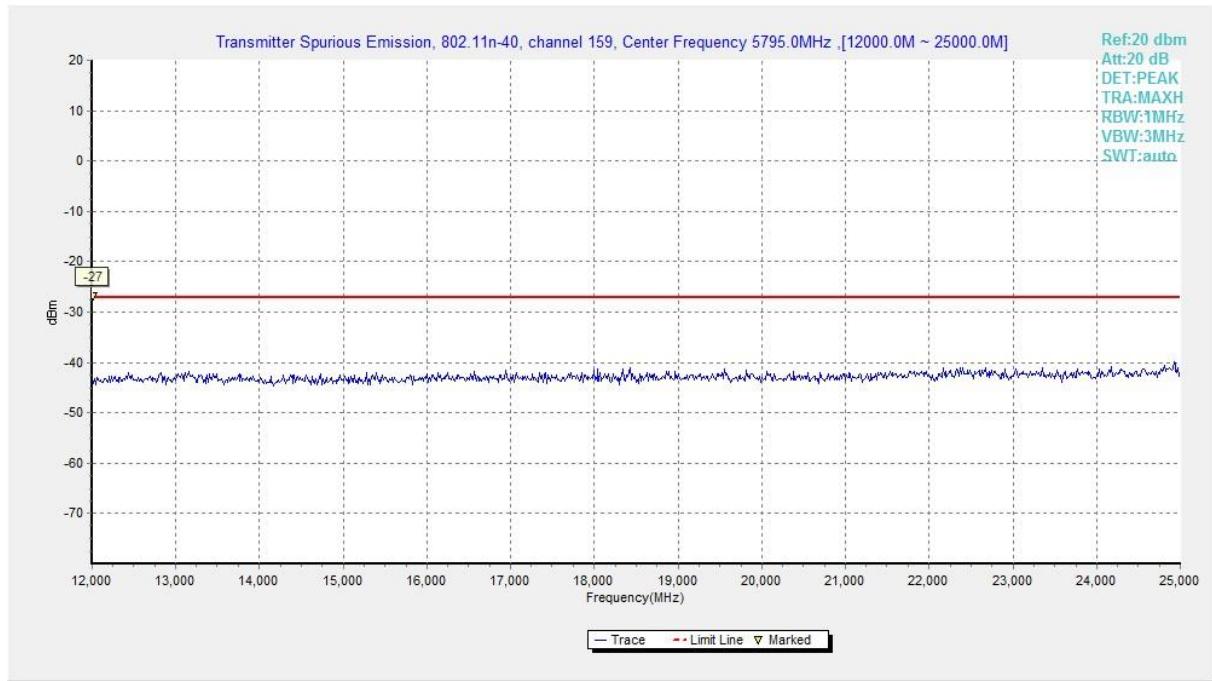


Fig. 57 Conducted Spurious Emission (802.11n-HT40, Ch159, 12 GHz-25 GHz)

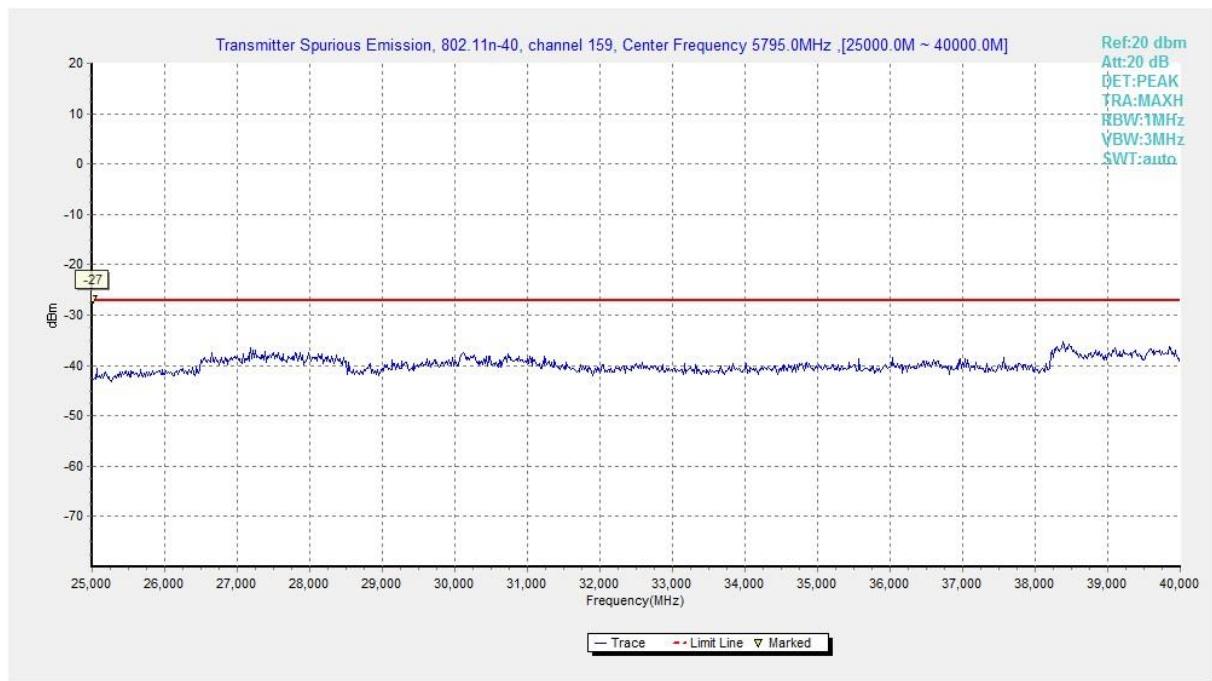


Fig. 58 Conducted Spurious Emission (802.11n-HT40, Ch159, 25 GHz-40 GHz)

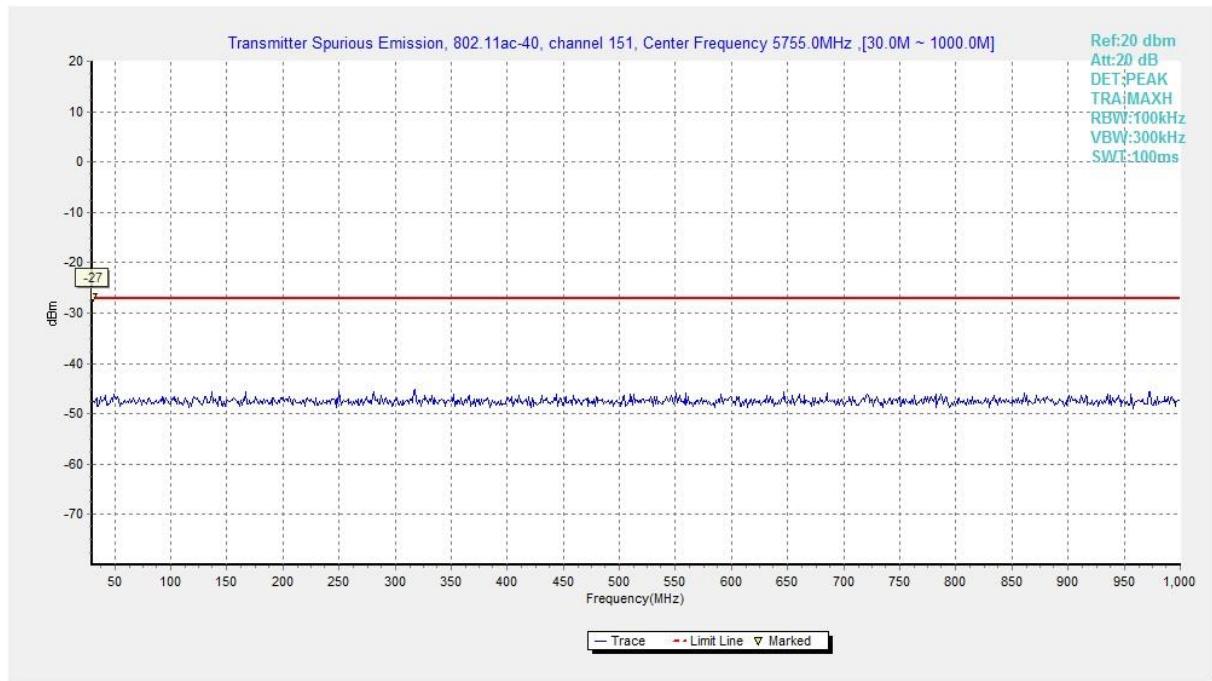


Fig. 59 Conducted Spurious Emission (802.11ac-HT40, Ch151, 30 MHz-1 GHz)

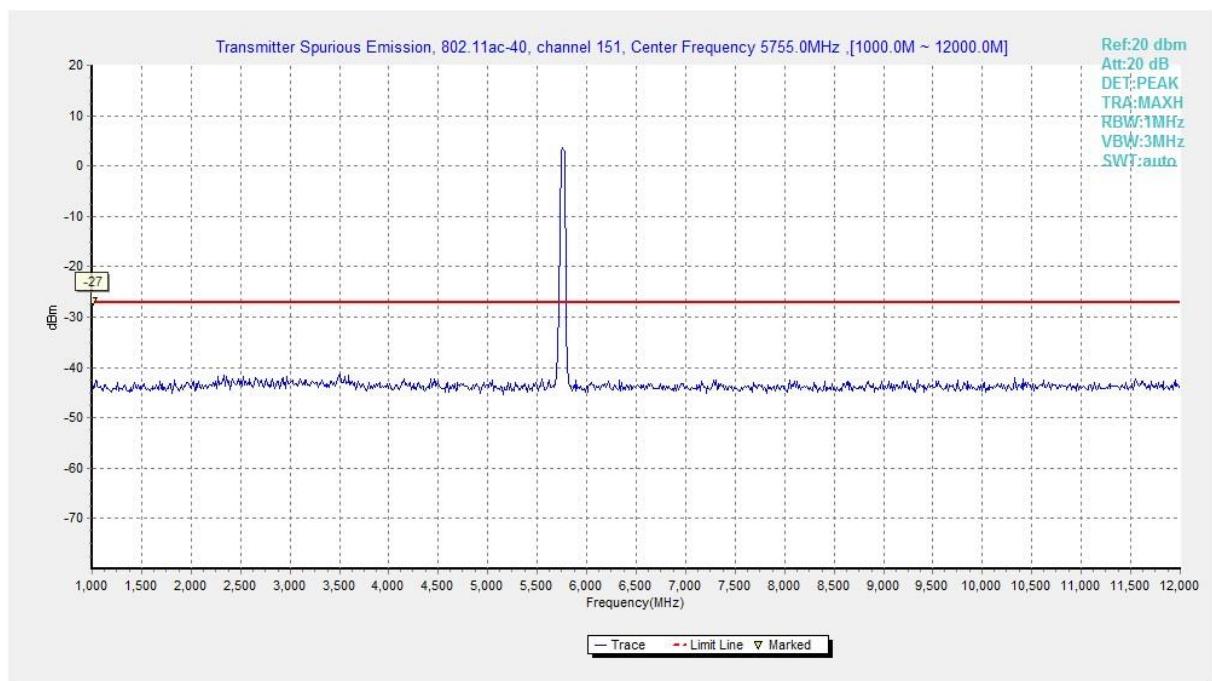


Fig. 60 Conducted Spurious Emission (802.11ac-HT40, Ch151, 1 GHz -12 GHz)

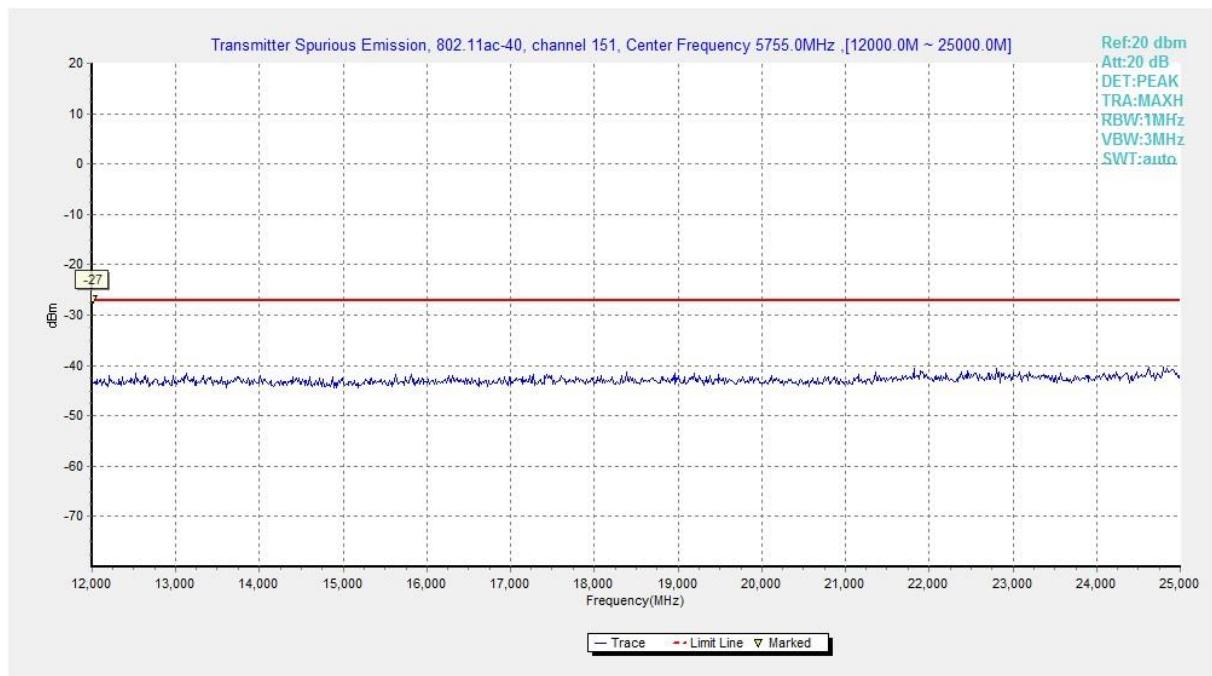


Fig. 61 Conducted Spurious Emission (802.11ac-HT40, Ch151, 12 GHz-25 GHz)

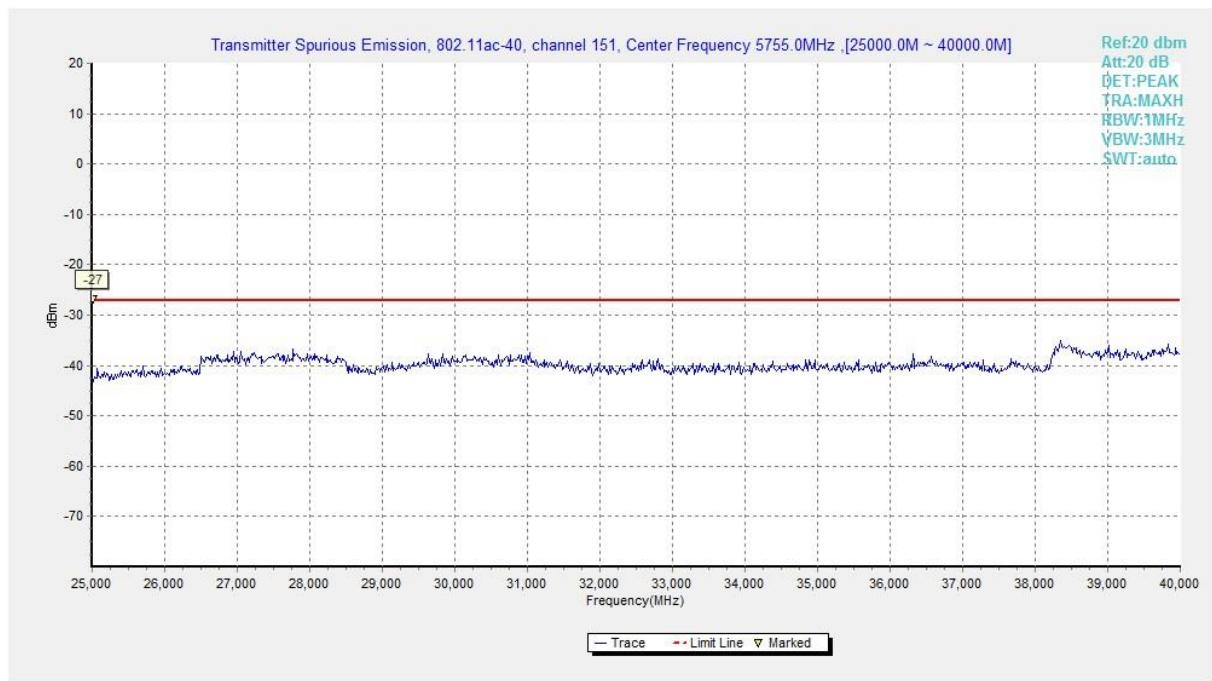


Fig. 62 Conducted Spurious Emission (802.11ac-HT40, Ch151, 25 GHz-40 GHz)

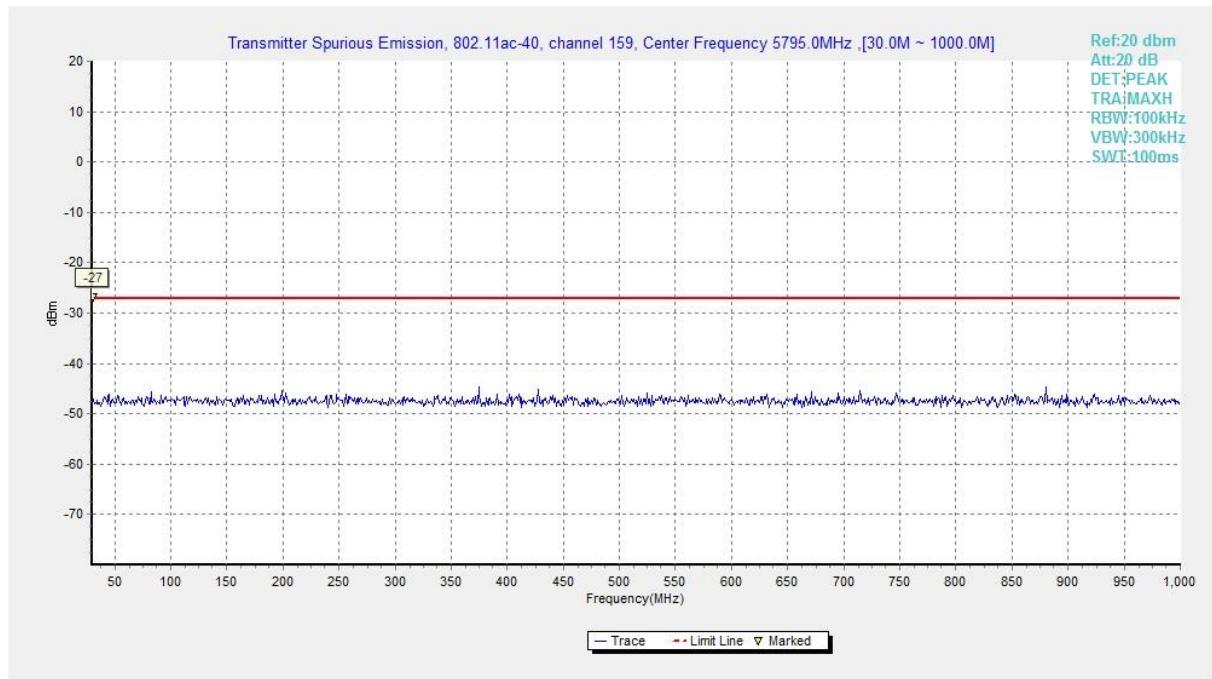


Fig. 63 Conducted Spurious Emission (802.11ac-HT40, Ch159, 30 MHz-1 GHz)

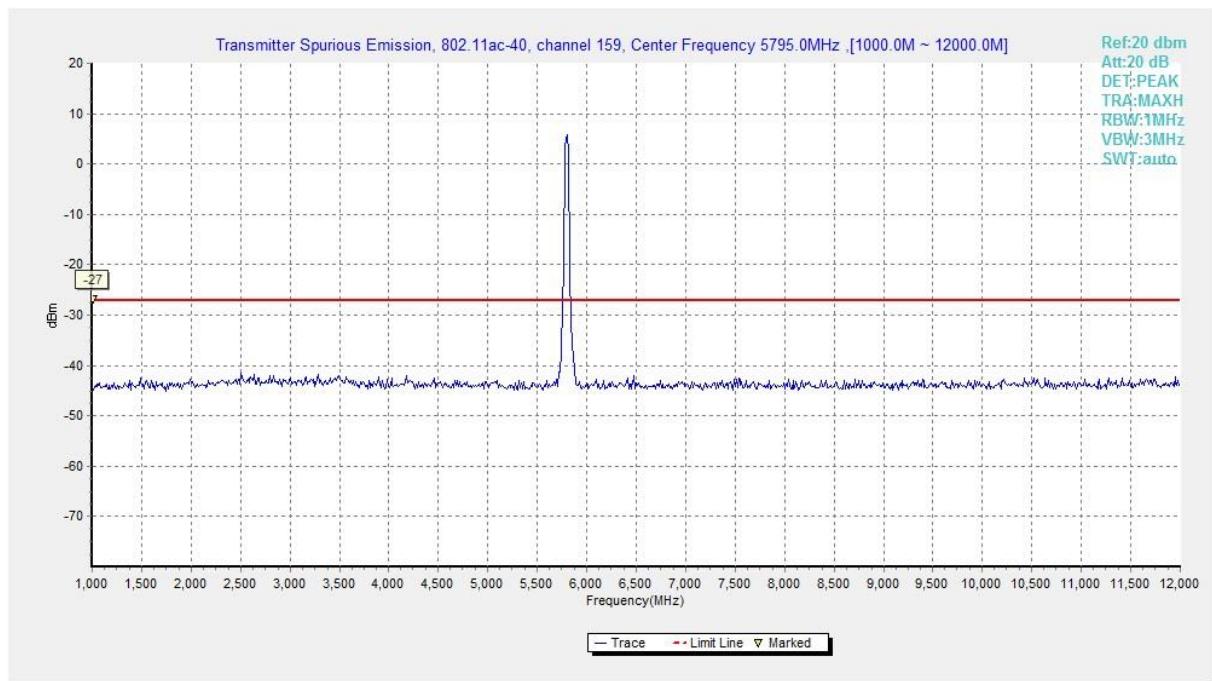


Fig. 64 Conducted Spurious Emission (802.11ac-HT40, Ch159, 1 GHz -12 GHz)

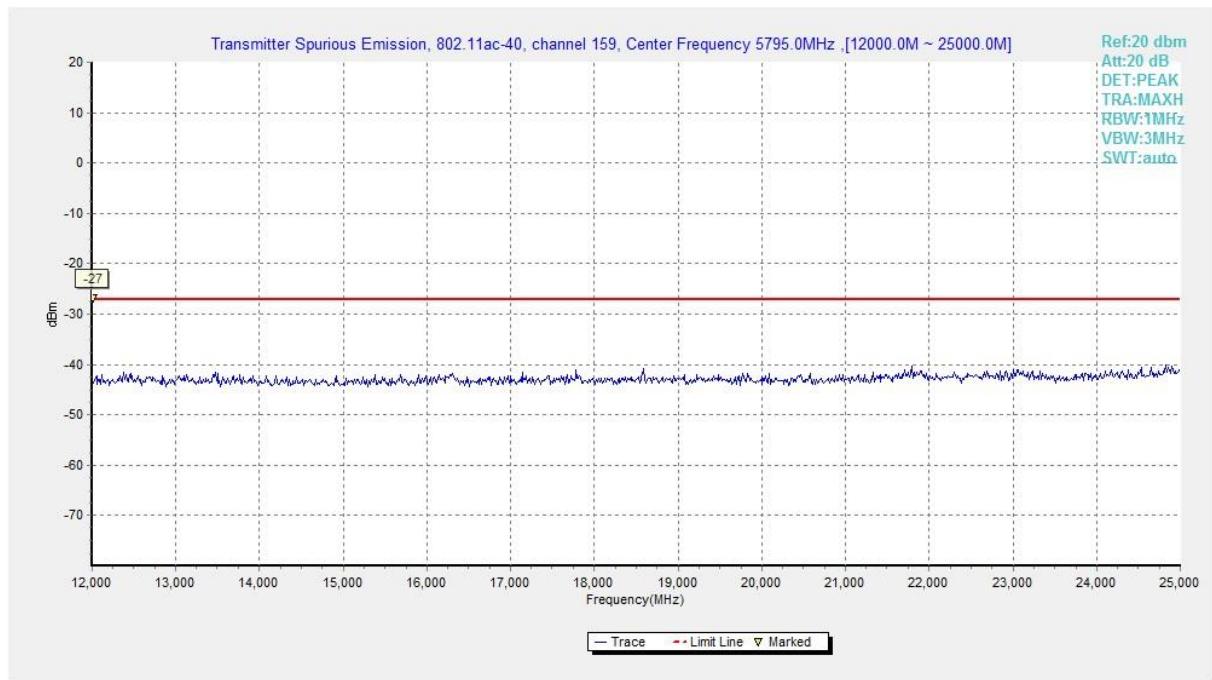


Fig. 65 Conducted Spurious Emission (802.11ac-HT40, Ch159, 12 GHz-25 GHz)

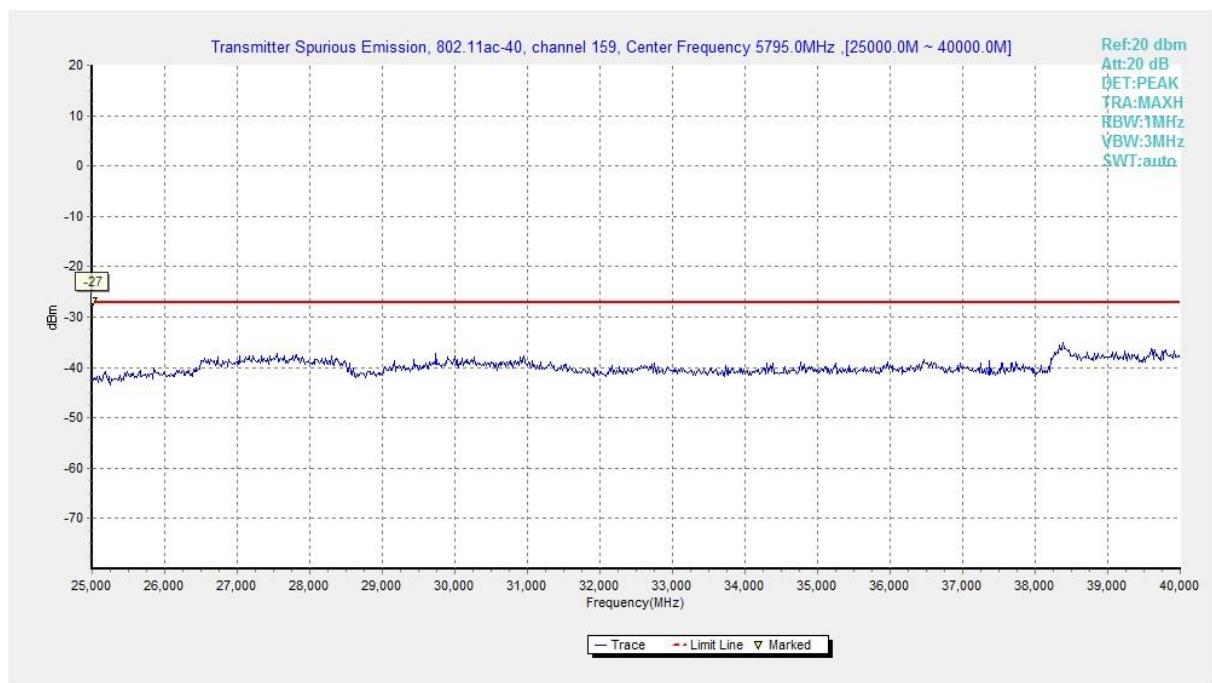


Fig. 66 Conducted Spurious Emission (802.11ac-HT40, Ch159, 25 GHz-40 GHz)

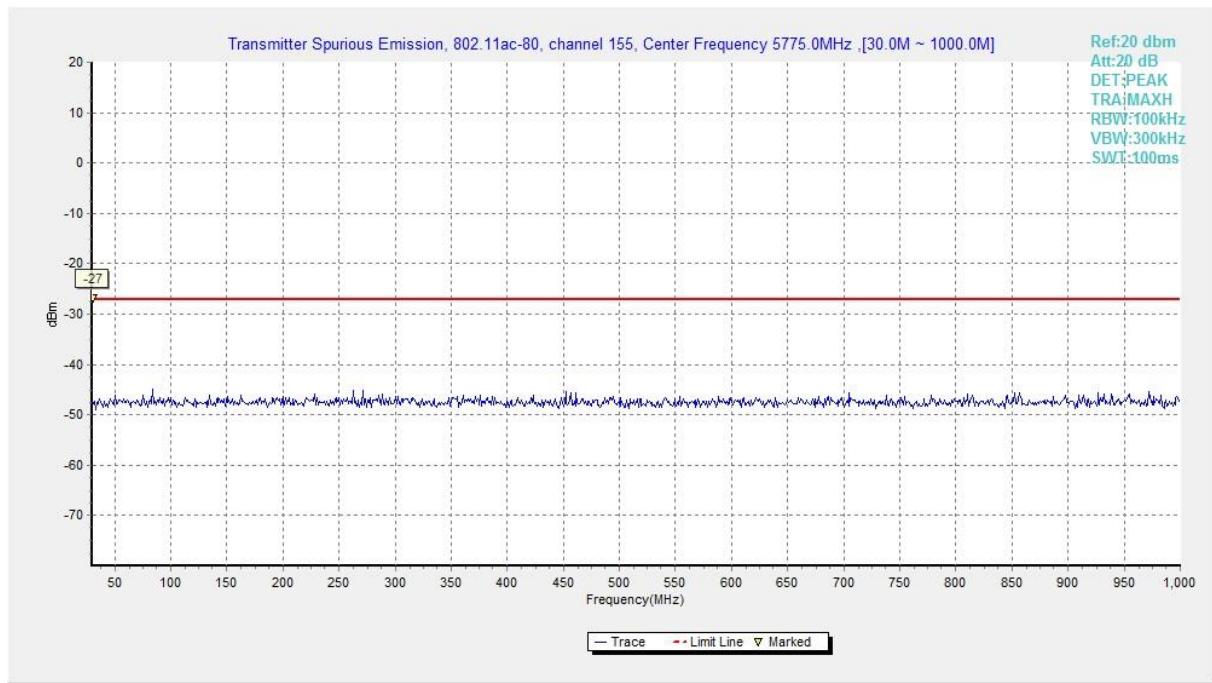


Fig. 67 Conducted Spurious Emission (802.11ac-HT80, Ch155, 30 MHz-1 GHz)

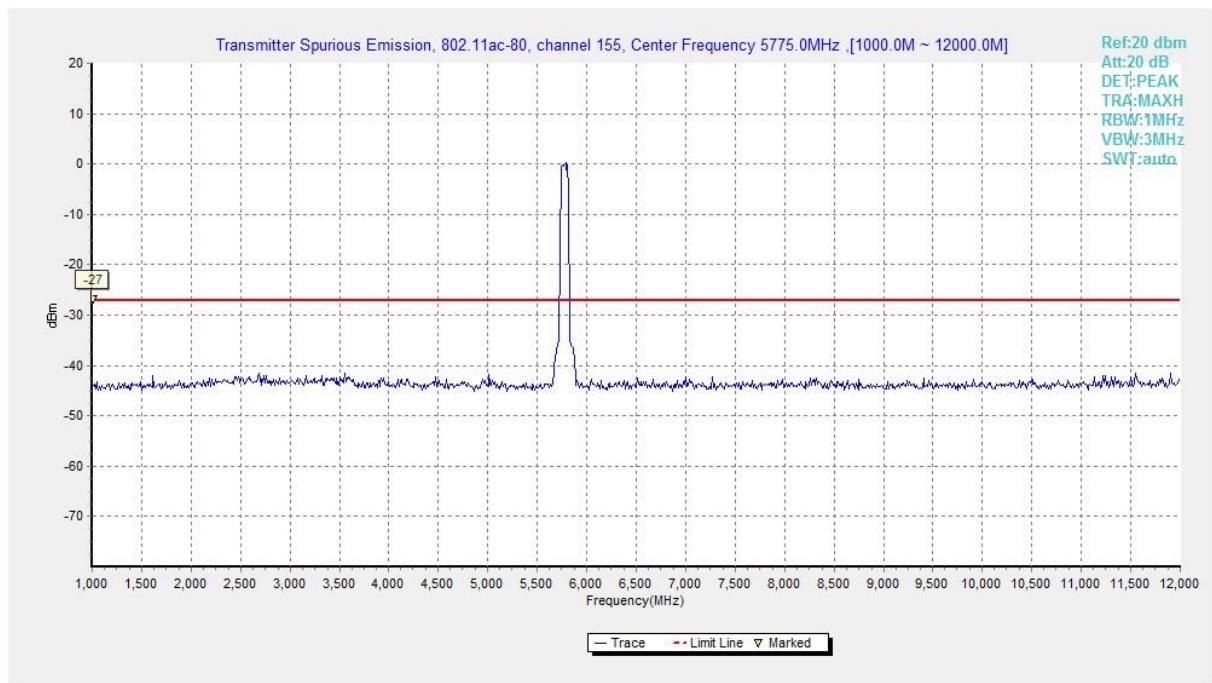


Fig. 68 Conducted Spurious Emission (802.11ac-HT80, Ch155, 1 GHz -12 GHz)

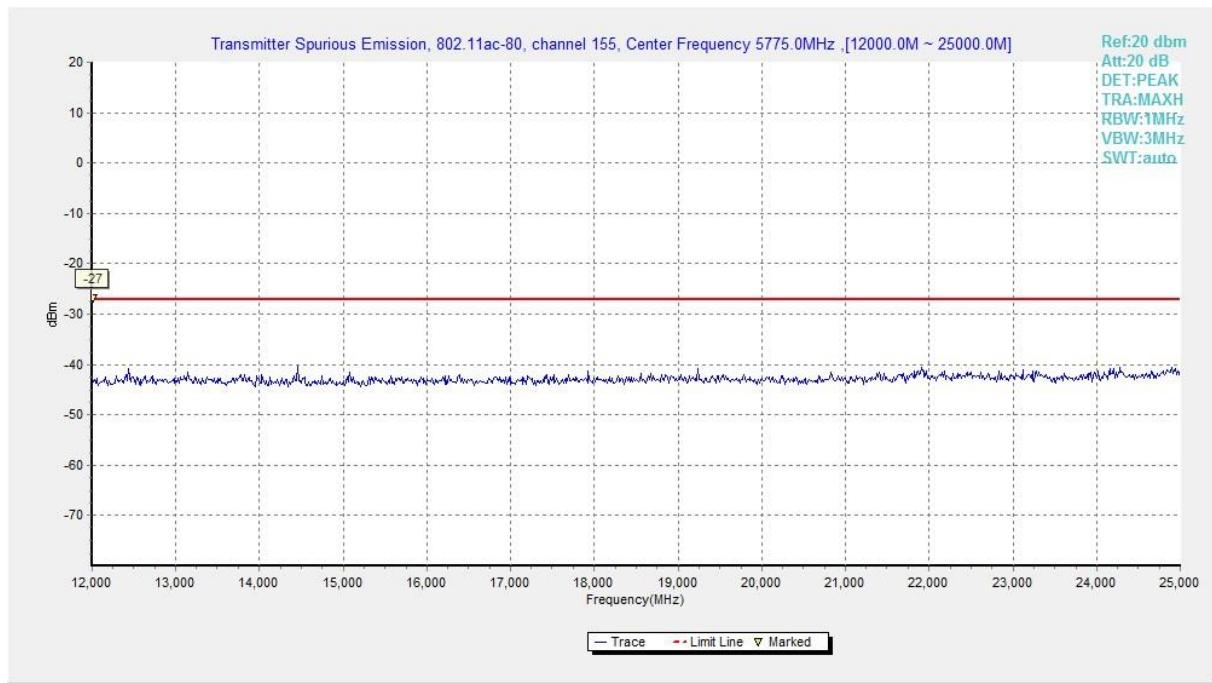


Fig. 69 Conducted Spurious Emission (802.11ac-HT80, Ch155, 12 GHz-25 GHz)

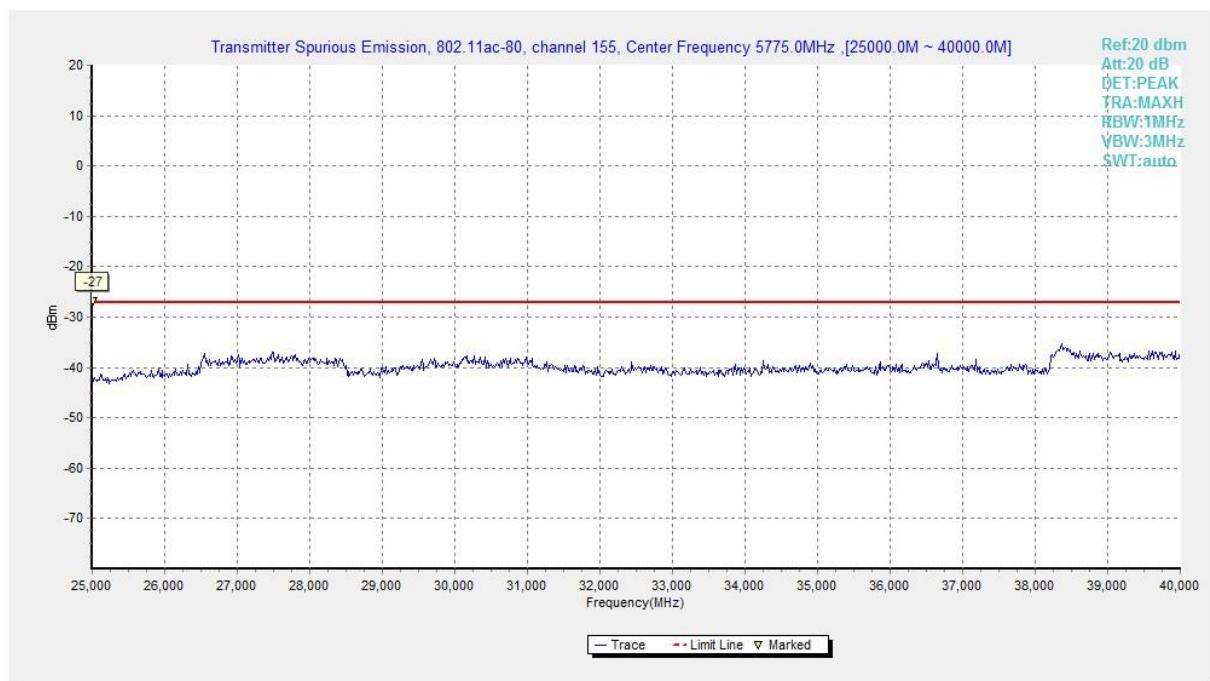


Fig. 70 Conducted Spurious Emission (802.11ac-HT80, Ch155, 25 GHz-40 GHz)

A.5.2 Transmitter Spurious Emission - Radiated

Measurement Limit:

Standard	Frequency (MHz)	Limit (dBm/MHz)
FCC 47 CFR Part 15.407	5725MHz~5850MHz	< -27

The measurement is made according to ANSI C63.10 .

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

Limit in restricted band:

Frequency of emission (MHz)	Field strength (uV/m)	Field strength (dB μ V/m)	Measurement distance(m)
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Measurement Results:

Note:

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

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

Average Results:

802.11a

Ch149

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5724.843	53.5	-33.0	34.9	51.58	101.8	48.3	H
5724.486	53.0	-33.0	34.9	51.04	101.0	48.1	H
11480.200	37.8	-30.4	38.7	29.51	54.0	16.2	H
17235.500	37.7	-25.8	41.2	22.30	54.0	16.3	H
17725.000	38.6	-24.4	41.0	21.98	54.0	15.4	H
17802.000	39.8	-23.1	41.0	21.96	54.0	14.2	H

Ch157

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5725.614	40.3	-33.0	34.9	38.41	54.0	13.7	H
5851.227	39.9	-32.2	35.1	37.01	54.0	14.1	H
11569.400	39.1	-30.5	38.8	30.75	54.0	14.9	H
17353.200	38.2	-25.6	41.2	22.67	54.0	15.8	H
17738.200	38.8	-24.2	41.0	21.96	54.0	15.2	H
17805.300	39.8	-23.1	41.0	21.89	54.0	14.2	H

Ch165

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5850.823	41.8	-32.2	35.1	38.94	100.3	58.5	H
5851.635	41.5	-32.2	35.1	38.59	98.5	57.0	H
11649.700	36.4	-30.2	38.9	27.72	54.0	17.6	H
17475.300	38.6	-25.2	41.2	22.63	54.0	15.4	H
17736.000	38.8	-24.2	41.0	21.94	54.0	15.2	H
17807.500	39.8	-23.0	41.0	21.90	54.0	14.2	H

802.11n-HT20

Ch149

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5724.862	51.9	-33.0	34.9	49.99	101.9	50.0	H
5724.930	51.7	-33.0	34.9	49.81	102.0	50.3	H
11490.200	37.0	-30.4	38.7	28.74	54.0	17.0	H
17235.500	37.1	-25.8	41.2	21.69	54.0	16.9	H
17738.200	38.7	-24.2	41.0	21.83	54.0	15.3	H
17799.800	39.8	-23.2	41.0	22.02	54.0	14.2	H

Ch157

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5724.780	40.4	-33.0	34.9	38.45	54.0	13.6	H
5853.226	40.1	-32.2	35.1	37.26	54.0	13.9	H
11569.400	40.3	-30.5	38.8	31.99	54.0	13.7	H
17355.400	37.6	-25.6	41.2	22.03	54.0	16.4	H
17725.000	38.6	-24.4	41.0	21.91	54.0	15.4	H
17808.600	39.7	-23.0	41.0	21.77	54.0	14.3	H

Ch165

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5850.342	41.5	-32.2	35.1	38.63	101.4	59.9	H
5876.836	41.2	-32.2	35.1	38.30	83.8	42.6	H
11650.800	37.0	-30.2	38.9	28.31	54.0	17.0	H
17476.400	39.0	-25.3	41.2	23.04	54.0	15.0	H
17737.100	38.8	-24.2	41.0	21.98	54.0	15.2	H
17804.200	39.8	-23.1	41.0	21.95	54.0	14.2	H

802.11n-HT40

Ch151

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5724.802	48.4	-33.0	34.9	46.51	101.7	53.3	H
5721.634	47.9	-32.9	34.9	45.91	94.5	46.7	H
11510.000	38.7	-30.4	38.7	30.39	54.0	15.3	H
17265.200	37.4	-25.9	41.2	22.13	54.0	16.6	H
17741.500	38.8	-24.1	41.0	21.90	54.0	15.2	H
17802.000	39.9	-23.1	41.0	22.10	54.0	14.1	H

Ch159

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5850.423	40.9	-32.2	35.1	37.99	101.2	60.4	H
5850.803	40.7	-32.2	35.1	37.82	100.4	59.7	H
11590.300	38.5	-30.5	38.8	30.21	54.0	15.5	H
17385.100	37.8	-25.5	41.2	22.12	54.0	16.2	H
17734.900	38.9	-24.2	41.0	22.07	54.0	15.1	H
17809.700	39.9	-23.0	41.0	21.99	54.0	14.1	H

802.11ac-HT20

Ch149

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5724.798	41.0	-33.0	34.9	39.07	101.7	60.7	H
5724.682	40.6	-33.0	34.9	38.67	101.5	60.9	H
11490.200	37.4	-30.4	38.7	29.09	54.0	16.6	H
17235.500	37.8	-25.8	41.2	22.43	54.0	16.2	H
17726.100	38.7	-24.4	41.0	22.06	54.0	15.3	H
17808.600	39.9	-23.0	41.0	21.95	54.0	14.1	H

Ch157

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5723.320	41.0	-32.9	34.9	39.06	54.0	13.0	H
5856.924	40.1	-32.2	35.1	37.21	54.0	13.9	H
11569.400	39.1	-30.5	38.8	30.79	54.0	14.9	H
17355.400	37.7	-25.6	41.2	22.19	54.0	16.3	H
17738.200	38.8	-24.2	41.0	21.97	54.0	15.2	H
17805.300	40.0	-23.1	41.0	22.05	54.0	14.1	H

Ch165

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5850.964	38.9	-32.2	35.1	36.01	100.0	61.1	H
5854.128	38.8	-32.2	35.1	35.92	92.8	54.0	H
11649.700	38.0	-30.2	38.9	29.28	54.0	16.0	H
17475.300	39.4	-25.2	41.2	23.47	54.0	14.6	H
17741.500	38.6	-24.1	41.0	21.73	54.0	15.4	H
17809.700	39.7	-23.0	41.0	21.78	54.0	14.3	H

802.11ac-HT40

Ch151

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5724.683	49.9	-33.0	34.9	47.93	101.5	51.6	H
5722.680	49.6	-32.9	34.9	47.63	96.9	47.3	H
11510.000	39.0	-30.4	38.7	30.69	54.0	15.0	H
17265.200	37.5	-25.9	41.2	22.17	54.0	16.5	H
17739.300	38.9	-24.1	41.0	22.07	54.0	15.1	H
17802.000	39.9	-23.1	41.0	22.01	54.0	14.1	H

Ch159

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5897.602	38.4	-32.2	35.1	35.43	68.5	30.1	H
5898.806	38.2	-32.2	35.1	35.22	67.6	29.4	H
11590.300	39.1	-30.5	38.8	30.79	54.0	14.9	H
17385.100	37.7	-25.5	41.2	21.97	54.0	16.3	H
17741.500	38.9	-24.1	41.0	21.96	54.0	15.1	H
17806.400	39.9	-23.0	41.0	21.95	54.0	14.1	H

802.11ac-HT80

Ch155

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5655.820	42.5	-32.5	34.9	40.14	54.0	11.5	H
5892.324	42.8	-32.2	35.1	39.82	54.0	11.2	H
11549.600	39.1	-30.5	38.8	30.78	54.0	14.9	H
17324.600	36.9	-25.8	41.2	21.51	54.0	17.1	H
17737.100	38.7	-24.2	41.0	21.87	54.0	15.3	H
17808.600	39.8	-23.0	41.0	21.90	54.0	14.2	H

Peak Results:
802.11a

Ch149

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5724.336	79.4	-33.0	34.9	77.43	120.7	41.3	H
5723.278	77.9	-32.9	34.9	75.99	118.3	40.3	H
11490.200	46.8	-30.4	38.7	38.54	74.0	27.2	H
17234.950	49.4	-25.8	41.2	33.96	74.0	24.6	V
17740.400	51.9	-24.1	41.0	35.04	74.0	22.1	V
17804.200	52.7	-23.1	41.0	34.83	74.0	21.3	V

Ch157

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5725.000	51.6	-33.0	34.9	49.69	74.0	22.4	V
5850.235	49.9	-32.2	35.1	47.01	74.0	24.1	H
11569.950	47.3	-30.5	38.8	38.96	74.0	26.7	V
17354.850	48.9	-25.6	41.2	33.36	74.0	25.1	V
17803.100	52.7	-23.1	41.0	34.84	74.0	21.3	H
17811.350	52.5	-23.0	41.0	34.56	74.0	21.5	V

Ch165

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5850.434	63.1	-32.2	35.1	60.18	121.2	58.2	H

5851.538	62.6	-32.2	35.1	59.74	118.7	56.1	H
11650.250	47.6	-30.2	38.9	38.88	74.0	26.4	H
17474.750	49.7	-25.2	41.2	33.75	74.0	24.3	V
17736.550	51.8	-24.2	41.0	34.98	74.0	22.2	H
17808.600	52.3	-23.0	41.0	34.36	74.0	21.7	H

802.11n-HT20

Ch149

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5722.680	76.3	-32.9	34.9	74.34	116.9	40.6	H
5724.443	76.6	-33.0	34.9	74.66	120.9	44.3	H
11490.200	47.2	-30.4	38.7	38.90	74.0	26.8	H
17234.950	48.4	-25.8	41.2	33.03	74.0	25.6	H
17734.900	52.5	-24.2	41.0	35.74	74.0	21.5	H
17800.900	53.0	-23.1	41.0	35.12	74.0	21.1	V

Ch157

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5724.020	55.0	-33.0	34.9	53.11	74.0	19.0	H
5850.610	52.8	-32.2	35.1	49.94	74.0	21.2	H
11569.950	47.4	-30.5	38.8	39.04	74.0	26.6	V
17354.850	49.1	-25.6	41.2	33.57	74.0	24.9	V
17817.950	52.5	-23.1	40.9	34.70	74.0	21.5	H
17874.600	52.2	-23.9	40.9	35.21	74.0	21.8	H

Ch165

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5850.204	64.3	-32.2	35.1	61.37	121.7	57.5	H
5850.664	64.0	-32.2	35.1	61.16	120.7	56.6	H
11650.250	47.6	-30.2	38.9	38.91	74.0	26.4	V
17474.750	51.6	-25.2	41.2	35.67	74.0	22.4	H
17809.700	52.9	-23.0	41.0	34.91	74.0	21.1	V
17950.500	52.4	-24.9	40.8	36.44	74.0	21.6	H

802.11n-HT40

Ch151

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5723.048	71.8	-32.9	34.9	69.86	117.7	45.9	H
5720.518	72.2	-32.9	34.9	70.22	112.0	39.8	V
11510.000	47.0	-30.4	38.7	38.71	74.0	27.0	H
17265.200	48.0	-25.9	41.2	32.68	74.0	26.0	V
17799.250	53.0	-23.2	41.0	35.15	74.0	21.0	V
17819.050	52.6	-23.1	40.9	34.78	74.0	21.4	V

Ch159

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5852.960	60.8	-32.2	35.1	57.95	115.5	54.6	H
5859.542	60.8	-32.2	35.1	57.91	109.5	48.7	V
11590.300	47.8	-30.5	38.8	39.49	74.0	26.2	V
17385.100	48.5	-25.5	41.2	32.76	74.0	25.6	V
17800.900	53.0	-23.1	41.0	35.13	74.0	21.0	V
17839.950	52.9	-23.4	40.9	35.34	74.0	21.1	V

802.11ac-HT20

Ch149

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5722.864	76.0	-32.9	34.9	74.02	117.3	41.4	H
5723.738	75.6	-33.0	34.9	73.66	119.3	43.7	H
11490.200	46.8	-30.4	38.7	38.52	74.0	27.2	V
17234.950	49.5	-25.8	41.2	34.10	74.0	24.5	H
17794.850	52.7	-23.2	41.0	34.98	74.0	21.3	V
17802.000	52.9	-23.1	41.0	35.02	74.0	21.1	H

Ch157

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5723.320	53.4	-32.9	34.9	51.45	74.0	20.6	H
5853.226	53.4	-32.2	35.1	50.52	74.0	20.6	H
11569.950	47.3	-30.5	38.8	38.98	74.0	26.7	H
17355.400	49.3	-25.6	41.2	33.75	74.0	24.7	V
17788.250	53.5	-23.3	41.0	35.83	74.0	20.5	V
17881.750	52.5	-24.0	40.9	35.59	74.0	21.5	H

Ch165

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5850.066	62.3	-32.2	35.1	59.42	122.0	59.7	V
5851.538	61.4	-32.2	35.1	58.54	118.7	57.3	H
11650.250	46.0	-30.2	38.9	37.31	74.0	28.0	V
17474.750	51.1	-25.2	41.2	35.12	74.0	22.9	H
17725.000	51.7	-24.4	41.0	35.10	74.0	22.3	H
17813.000	52.4	-23.0	40.9	34.48	74.0	21.6	V

802.11ac-HT40

Ch151

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5719.920	87.1	-32.9	34.9	85.09	110.8	23.7	H
5724.198	88.2	-33.0	34.9	86.24	120.4	32.2	H
11510.000	48.2	-30.4	38.7	39.93	74.0	25.8	V
17265.750	48.8	-25.9	41.2	33.47	74.0	25.2	V
17799.800	52.9	-23.2	41.0	35.05	74.0	21.1	V
17852.600	52.7	-23.6	40.9	35.40	74.0	21.3	V

Ch159

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5896.848	54.1	-32.2	35.1	51.12	89.0	34.9	H
5898.182	54.5	-32.2	35.1	51.50	88.0	33.6	H
11590.300	48.9	-30.5	38.8	40.60	74.0	25.1	H
17385.100	48.7	-25.5	41.2	33.04	74.0	25.3	V
17742.050	52.4	-24.1	41.0	35.47	74.0	21.6	V
17777.800	53.0	-23.5	41.0	35.52	74.0	21.0	V

802.11ac-HT80

Ch155

Frequency (MHz)	Meas. Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5618.276	54.4	-32.7	34.8	52.22	74.0	19.6	H
5924.126	57.8	-31.9	35.2	54.56	74.0	16.2	H
11550.150	48.6	-30.5	38.8	40.25	74.0	25.4	V
17325.150	48.4	-25.8	41.2	32.96	74.0	25.6	V
17811.350	52.5	-23.0	41.0	34.61	74.0	21.5	V
17836.100	52.5	-23.4	40.9	34.89	74.0	21.5	V

Conclusion: PASS

A.6. Band Edges Compliance

A6.1 Band Edges - conducted

Measurement Limit:

Standard	Limit (dBm/MHz)
FCC 47 CFR Part 15.407(b)(4)	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

The measurement is made according to KDB 789033 D02

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5745 MHz	Fig.71	P
	5825 MHz	Fig.72	P
802.11n HT20	5745 MHz	Fig.73	P
	5825 MHz	Fig.74	P
802.11ac HT20	5745 MHz	Fig.75	P
	5825 MHz	Fig.76	P

802.11n HT40	5755 MHz	Fig.77	P
	5795 MHz	Fig.78	P
802.11ac HT40	5755 MHz	Fig.79	P
	5795 MHz	Fig.80	P

802.11ac HT80	5775 MHz	Fig.81	P
	5775 MHz	Fig.82	P

Conclusion: PASS

Test graphs as below:

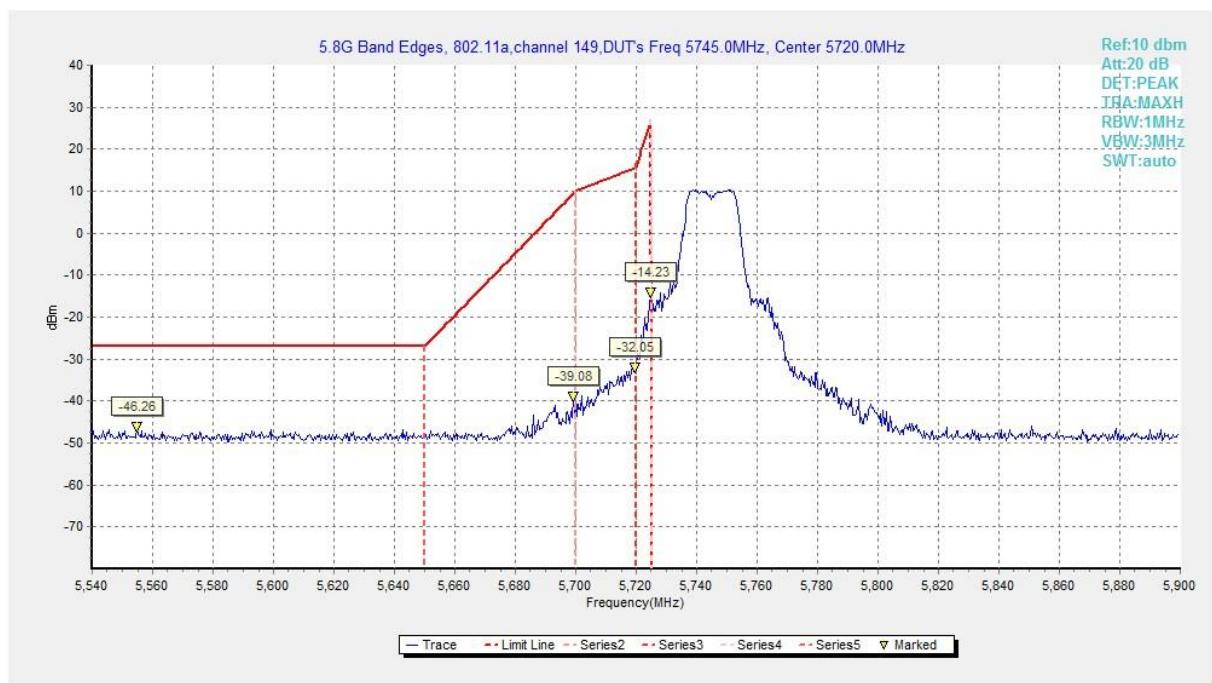


Fig. 71 Band Edges (802.11a, 5745MHz)



Fig. 72 Band Edges (802.11a, 5825MHz)

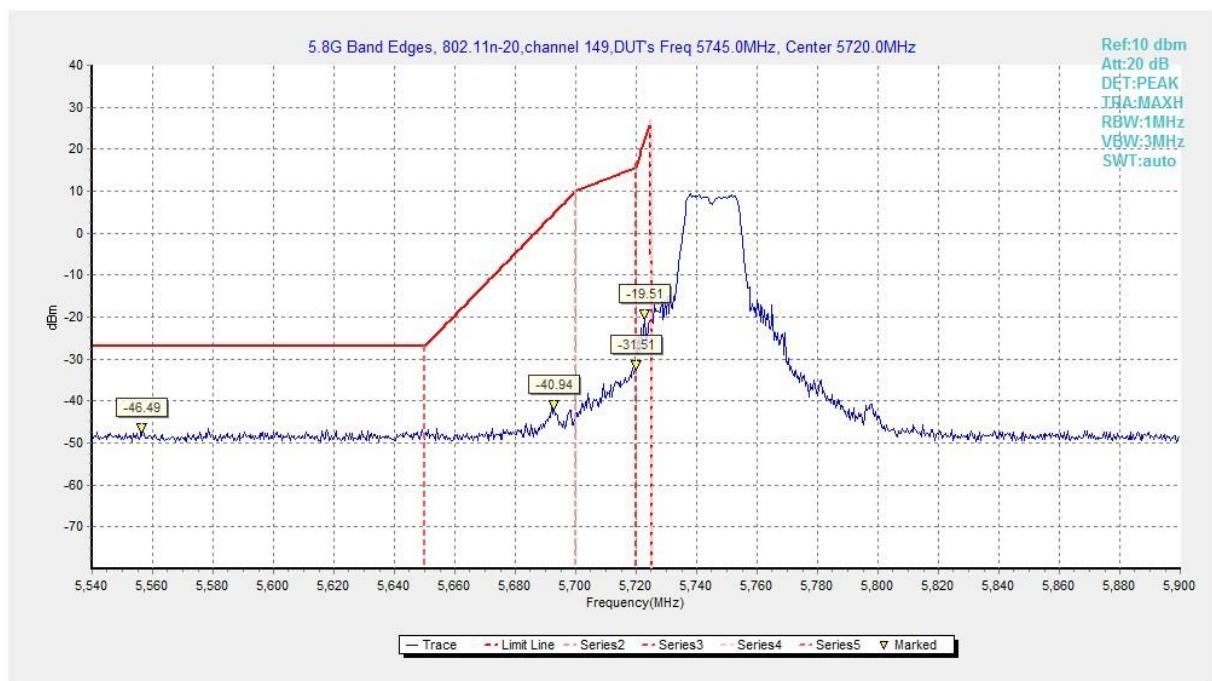
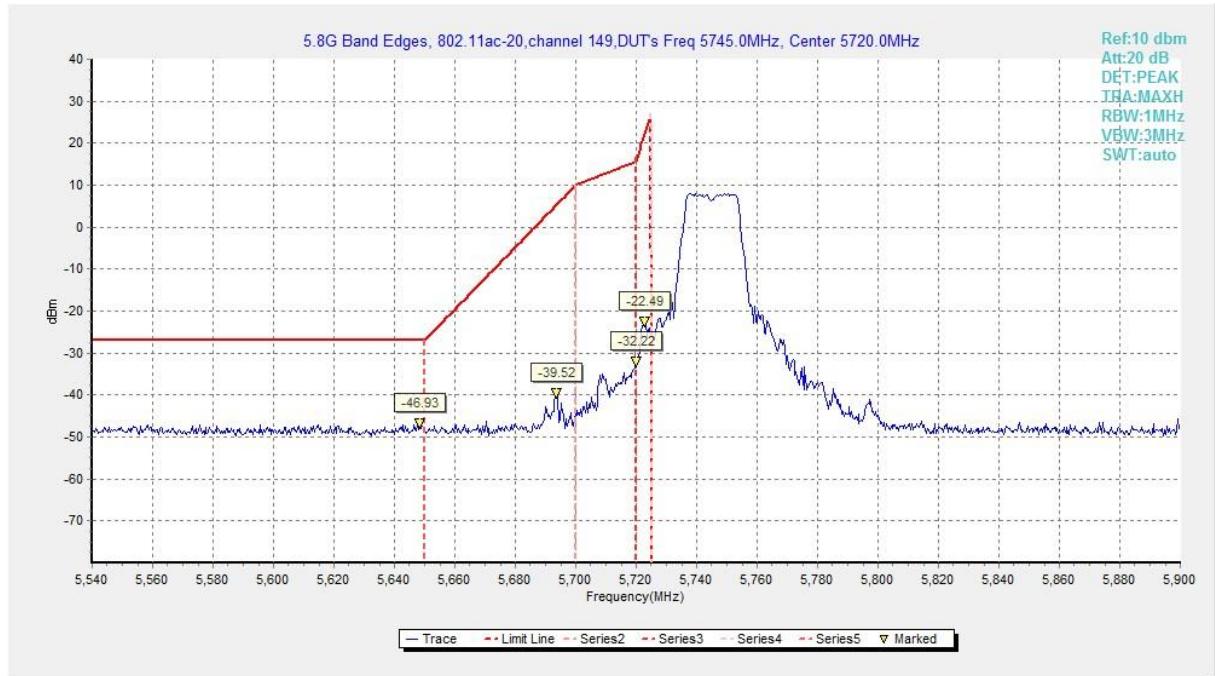
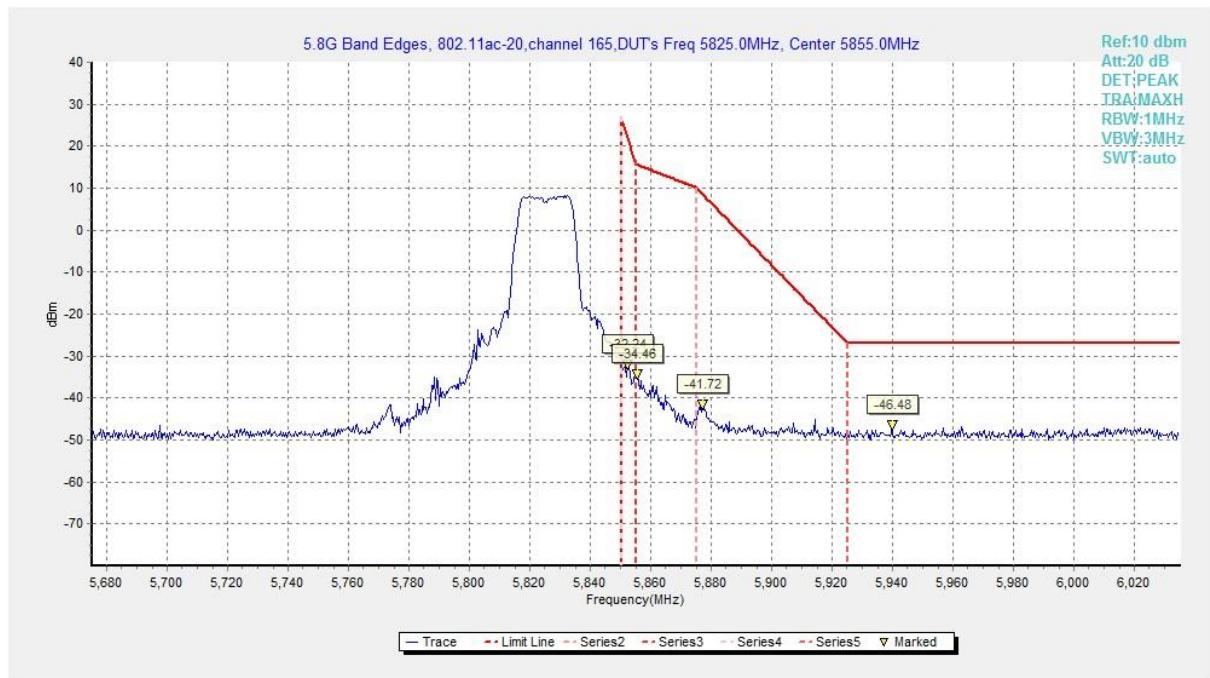


Fig. 73 Band Edges (802.11n-HT20, 5745MHz)



Fig. 74 Band Edges (802.11n-HT20, 5825MHz)

Fig. 75 Band Edges (802.11ac-HT20, 5745MHz)

Fig. 76 Band Edges (802.11ac-HT20, 5825MHz)

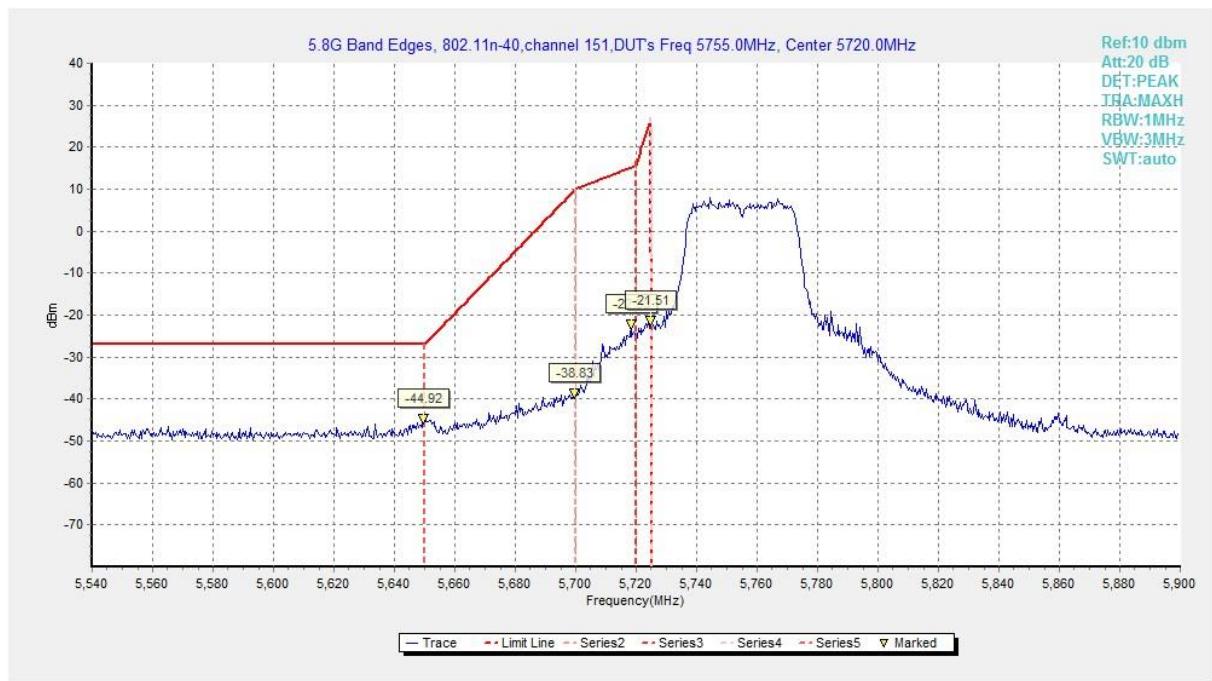


Fig. 77 Band Edges (802.11n-HT40, 5755MHz)



Fig. 78 Band Edges (802.11n-HT40, 5795MHz)

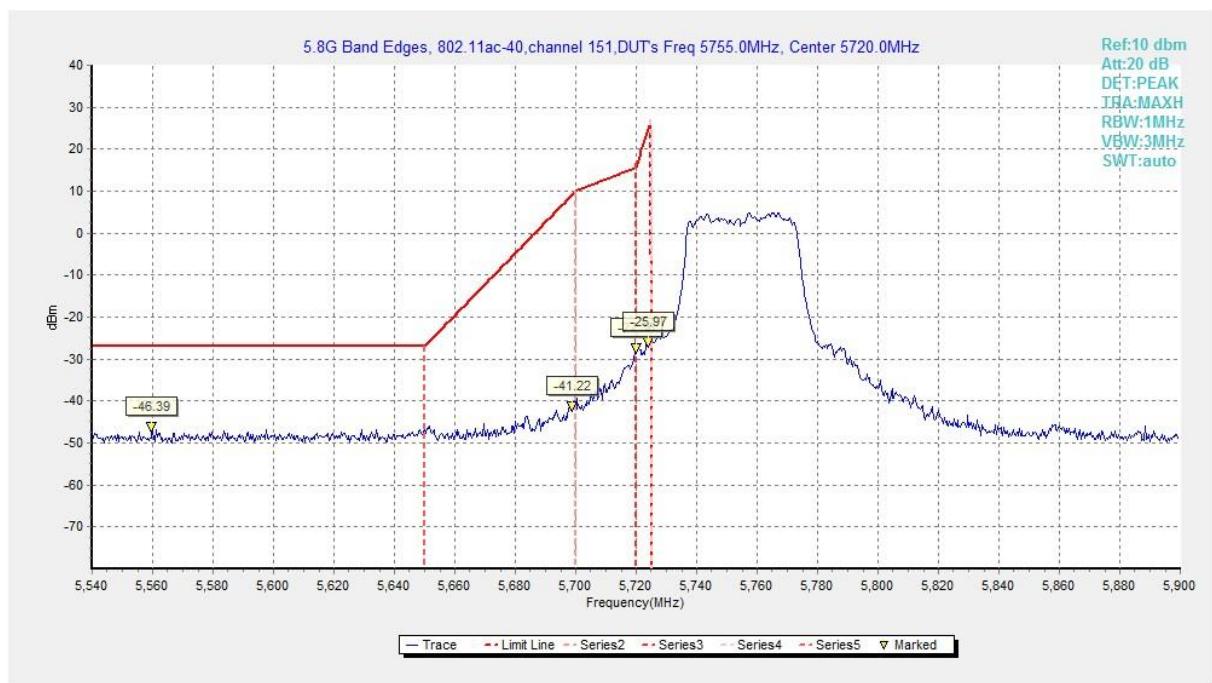


Fig. 79 Band Edges (802.11ac-HT40, 5755MHz)

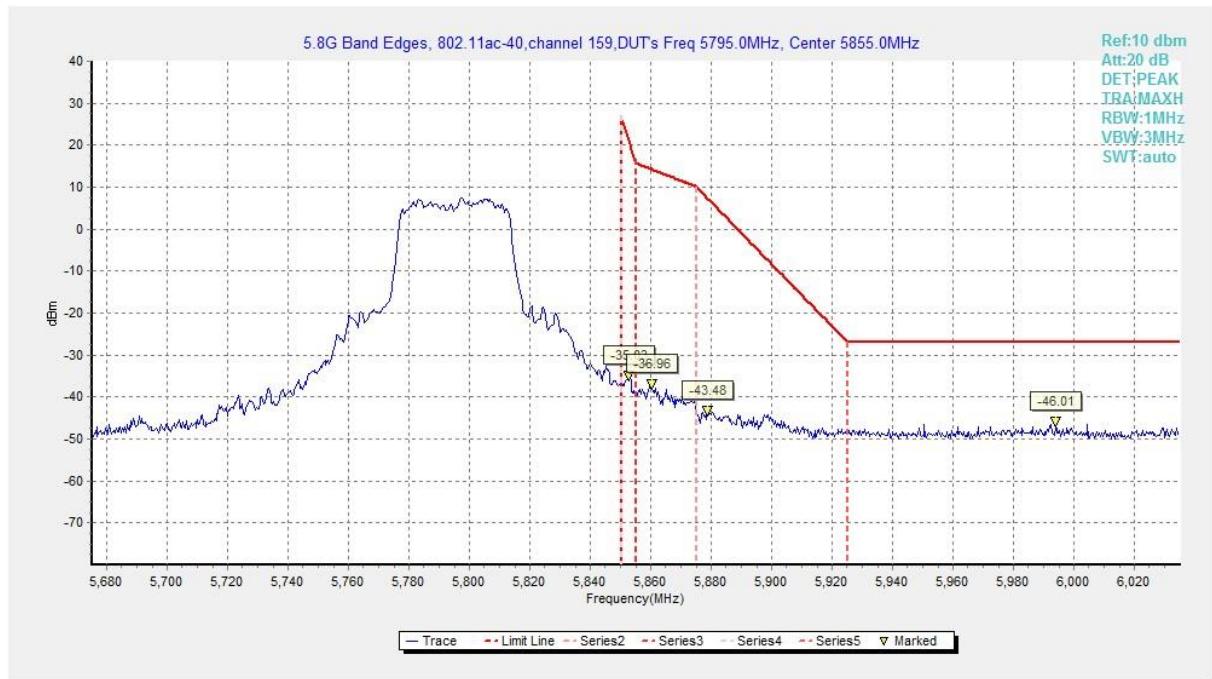


Fig. 80 Band Edges (802.11ac-HT40, 5795MHz)


Fig. 81 Band Edges (802.11ac-HT80, 5775MHz)

Fig. 82 Band Edges (802.11ac-HT80, 5775MHz)

A6.2 Band Edges - Radiated

Measurement Limit:

Standard	Limit (dBm/MHz)	
FCC 47 CFR Part 15.407	at the band edge	27
	at 5 MHz above or below the band edge	15.6
	at 25 MHz above or below the band edge	10
	at 75 MHz or more above or below the band edge	-27
Note: increasing linearly from point to point.		

Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5745 MHz	Fig. 83	P
	5825 MHz	Fig. 84	P
802.11n HT20	5745 MHz	Fig. 85	P
	5825 MHz	Fig. 86	P
802.11n HT40	5755 MHz	Fig. 87	P
	5795 MHz	Fig. 88	P
802.11ac HT20	5745 MHz	Fig. 89	P
	5825 MHz	Fig. 90	P
802.11ac HT40	5755 MHz	Fig. 91	P
	5795 MHz	Fig. 92	P
802.11ac HT80	5775 MHz	Fig. 93	P

Conclusion: PASS

Test graphs as below:

RE - Power-5.650GHz-5.765GHz

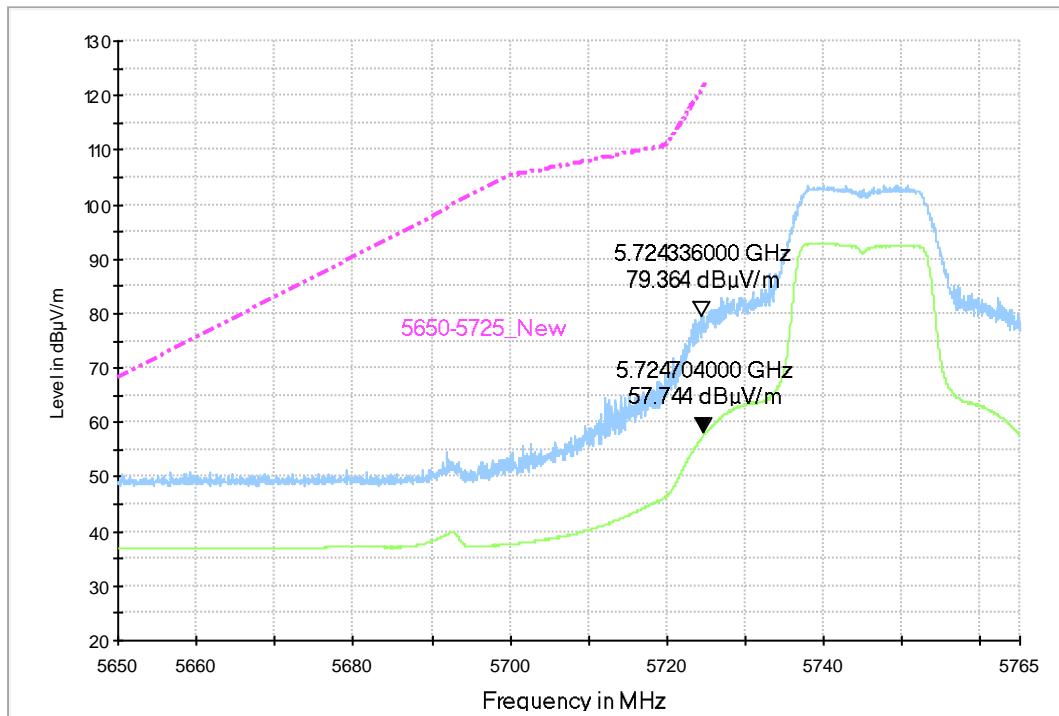


Fig. 83 Band Edges (802.11a, 5745MHz)

RE - Power-5.810GHz-5.925GHz

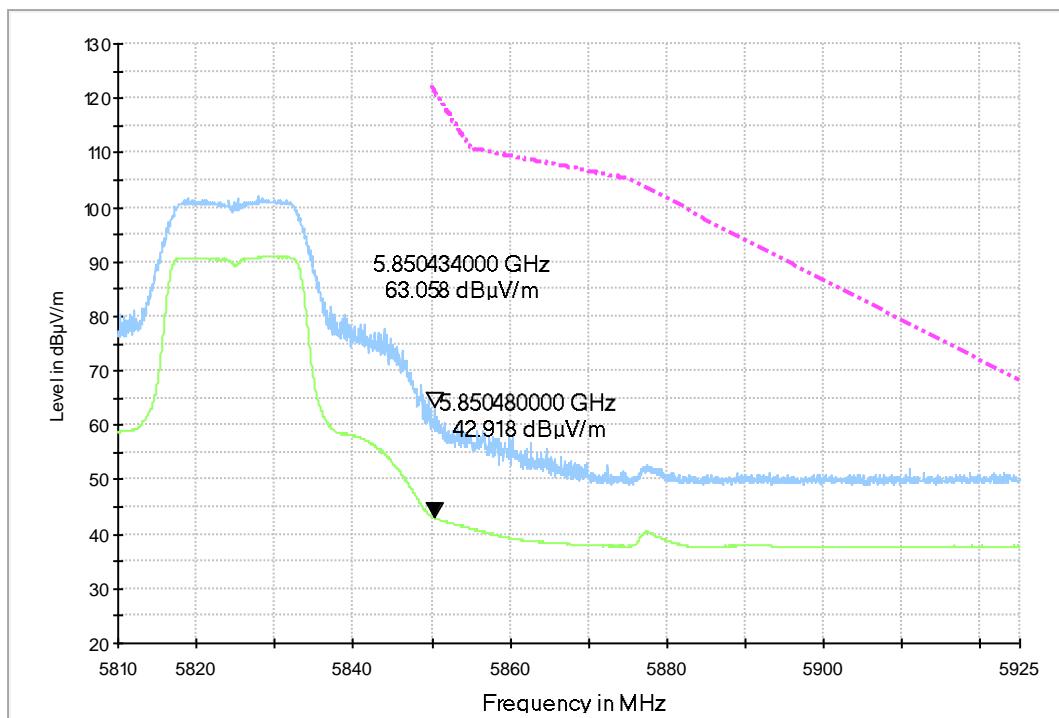


Fig. 84 Band Edges (802.11a, 5825MHz)

RE - Power-5.650GHz-5.765GHz

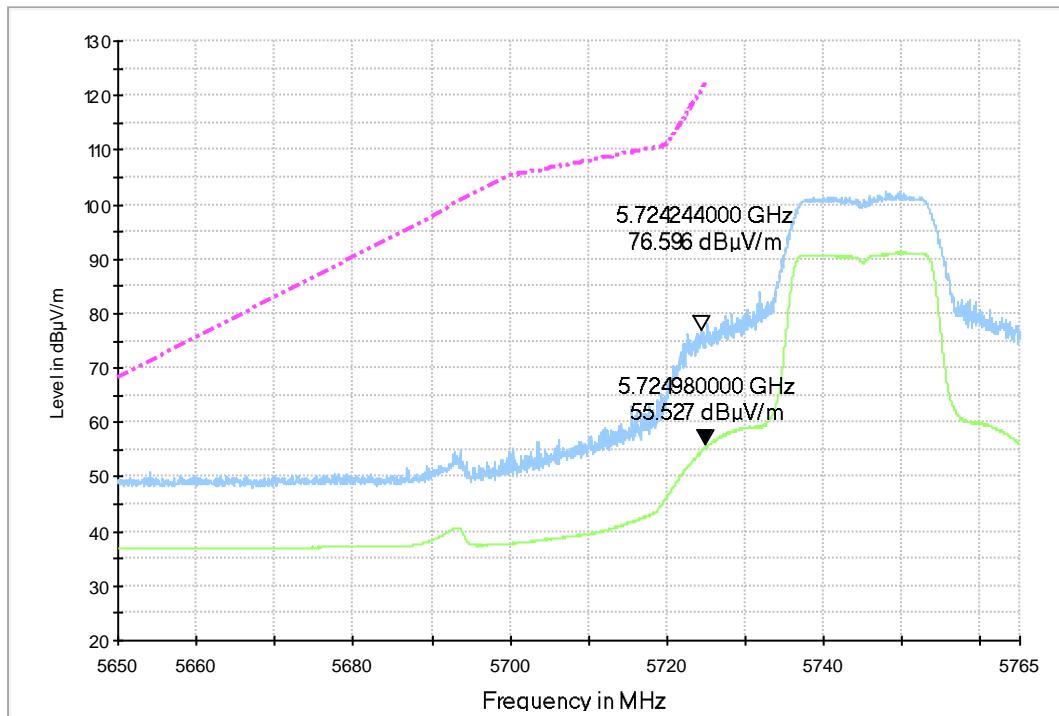


Fig. 85 Band Edges (802.11n-HT20, 5745MHz)

RE - Power-5.810GHz-5.925GHz

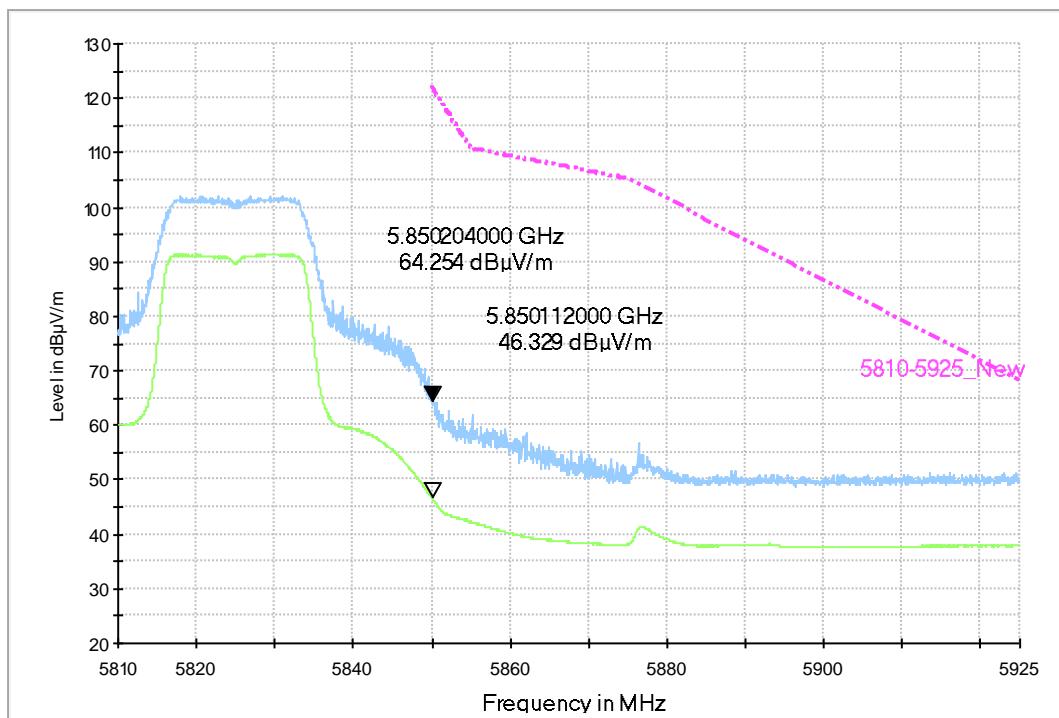


Fig. 86 Band Edges (802.11n-HT20, 5825MHz)

RE - Power-5.650GHz-5.765GHz

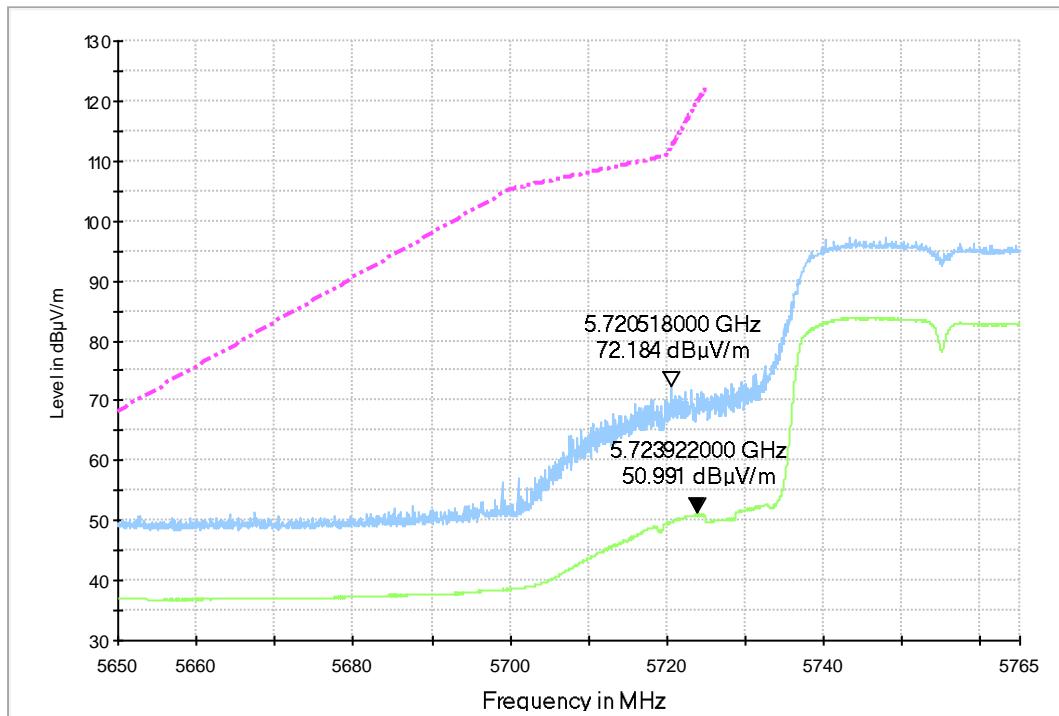


Fig. 87 Band Edges (802.11n-HT40, 5755MHz)

RE - Power-5.810GHz-5.925GHz

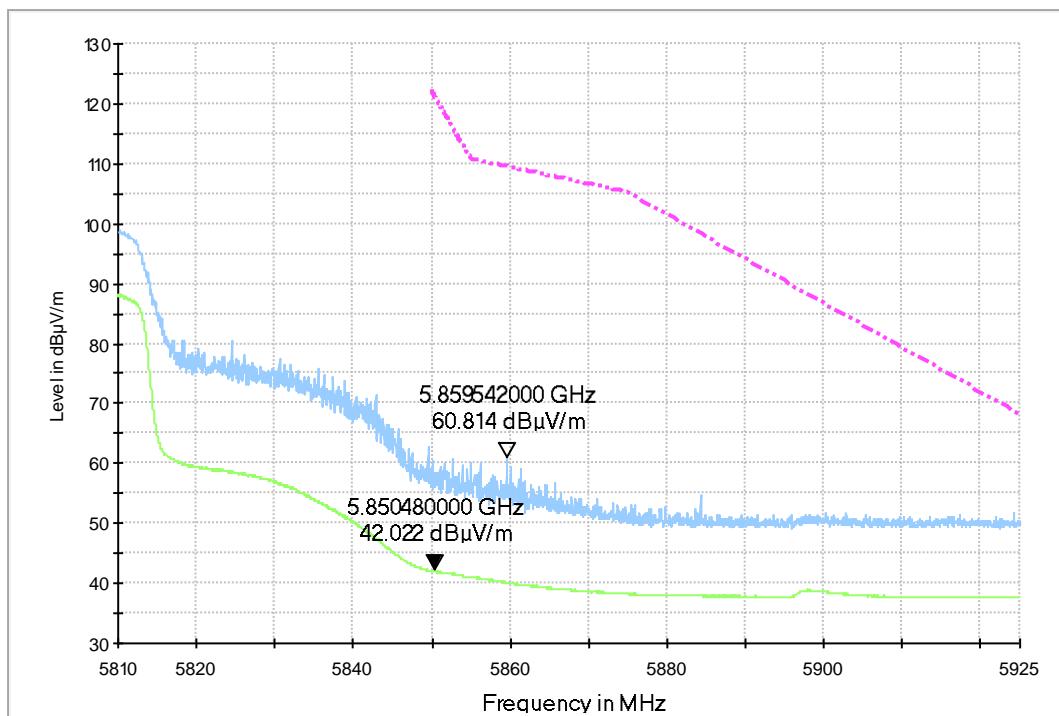


Fig. 88 Band Edges (802.11n-HT40, 5795MHz)

RE - Power-5.650GHz-5.765GHz

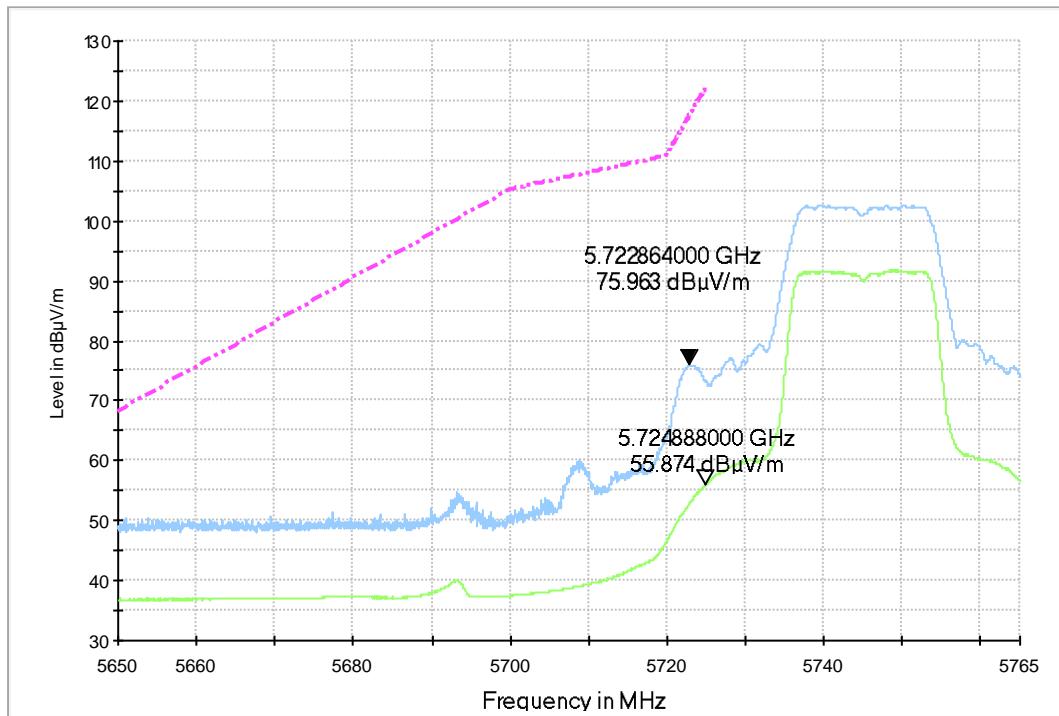


Fig. 89 Band Edges (802.11ac-HT20, 5745MHz)

RE - Power-5.810GHz-5.925GHz

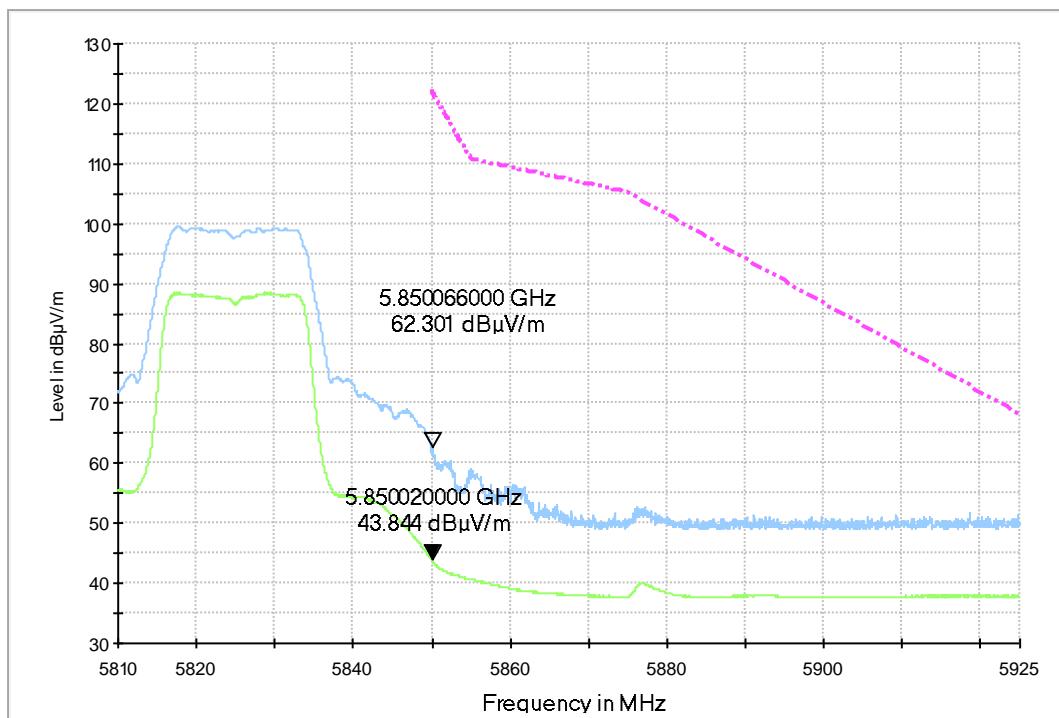


Fig. 90 Band Edges (802.11ac-HT20, 5825MHz)

RE - Power-5.650GHz-5.765GHz

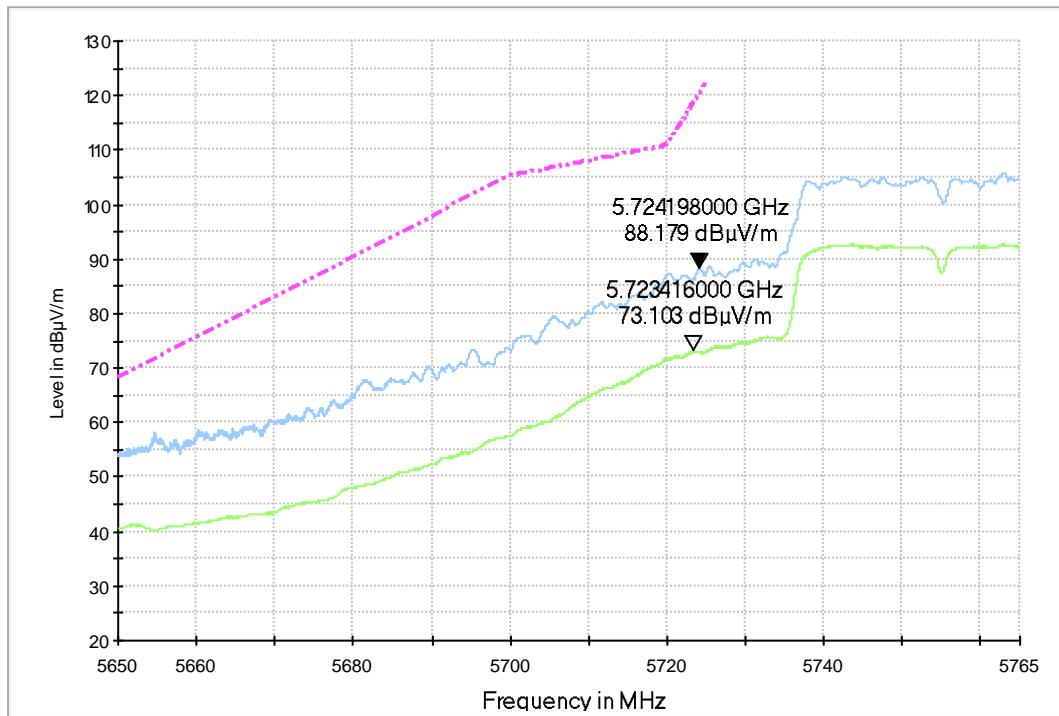


Fig. 91 Band Edges (802.11ac-HT40, 5755MHz)

RE - Power-5.810GHz-5.925GHz

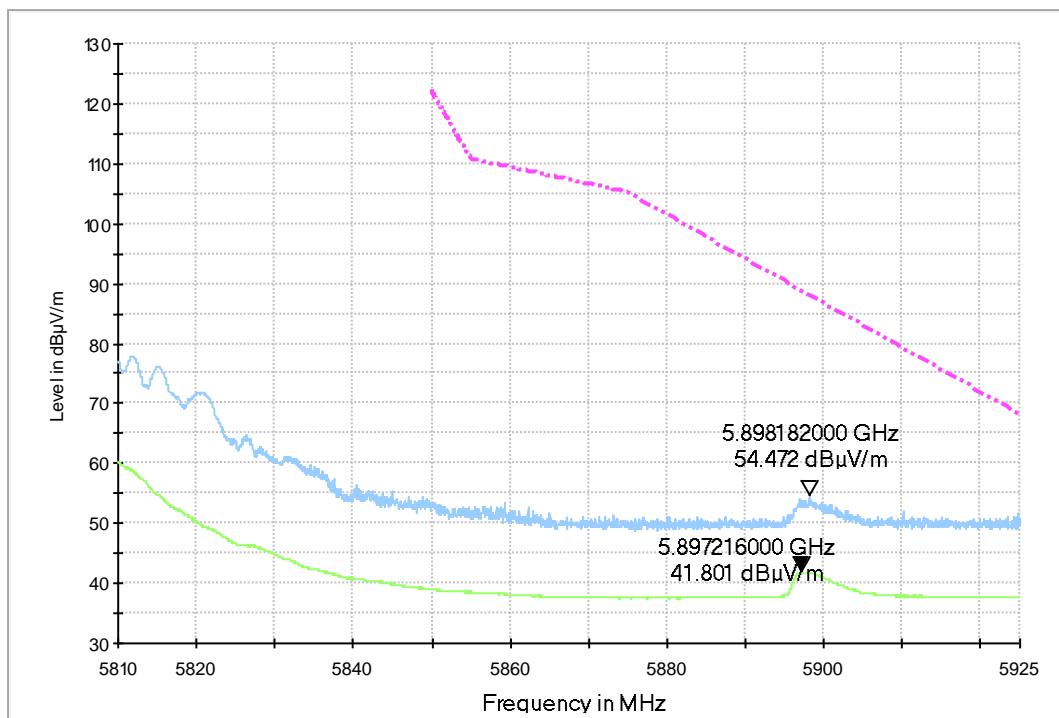


Fig. 92 Band Edges (802.11ac-HT40, 5795MHz)

RE - Power-5.650GHz-5.765GHz

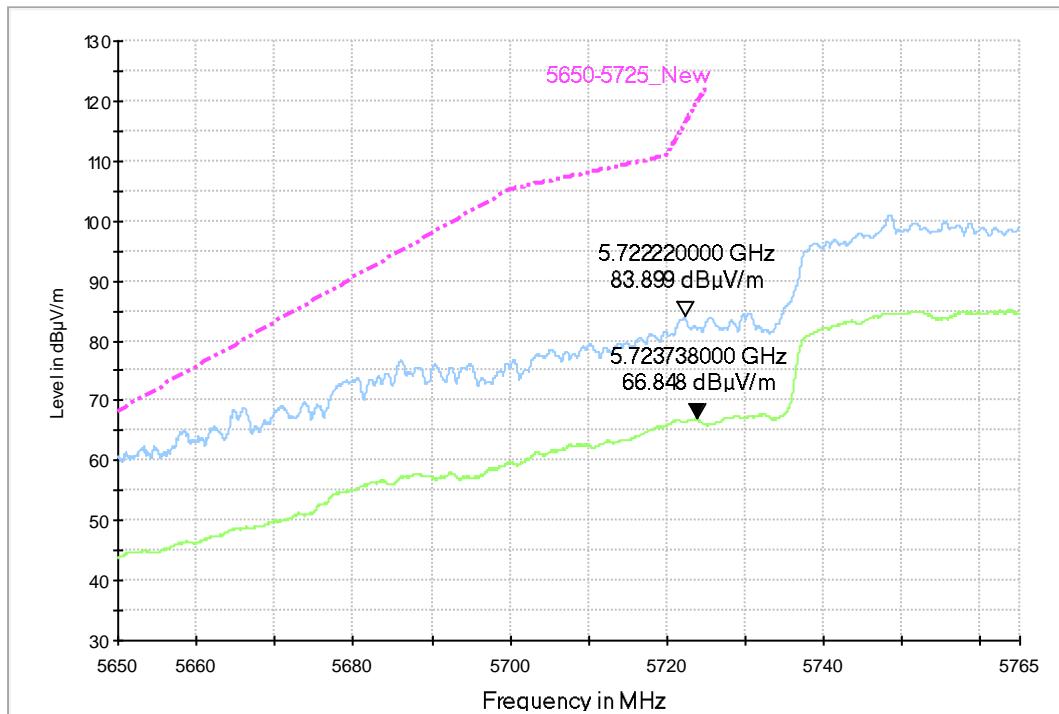


Fig. 93 Band Edges (802.11ac-HT80, 5775MHz)

A.7. AC Powerline Conducted Emission

T Test Condition:

Voltage (V)	Frequency (Hz)
110	60

Measurement uncertainty:

Expanded measurement uncertainty for this test item is U =3.2dB, k=2.

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion	
		With charger			
		802.11a	Idle		
0.15 to 0.5	66 to 56				
0.5 to 5	56			P	
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)

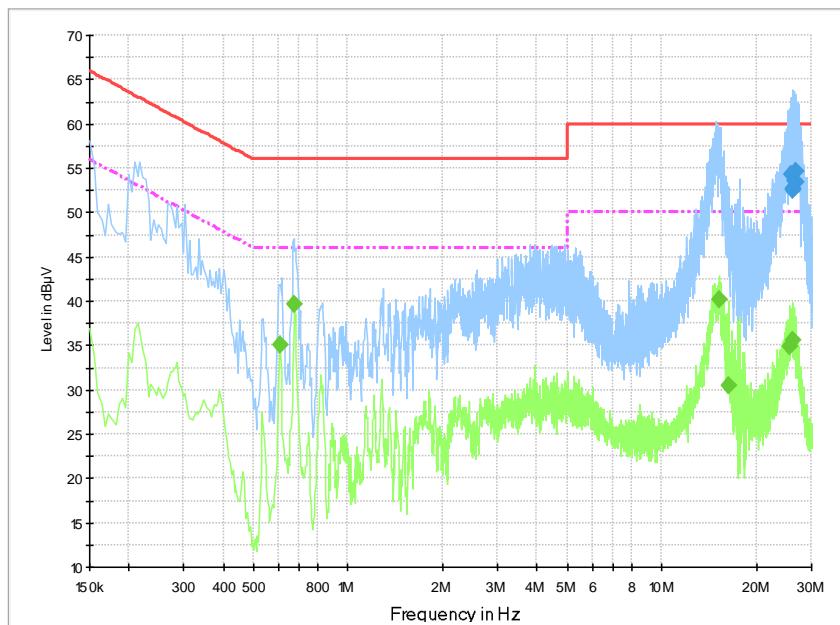
Frequency range (MHz)	Average Limit (dB μ V)	Result (dB μ V)		Conclusion	
		With charger			
		802.11a	Idle		
0.15 to 0.5	56 to 46				
0.5 to 5	46			P	
5 to 30	50				

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

The measurement is made according to ANSI C63.10 .

Conclusion: PASS

Test graphs as below:

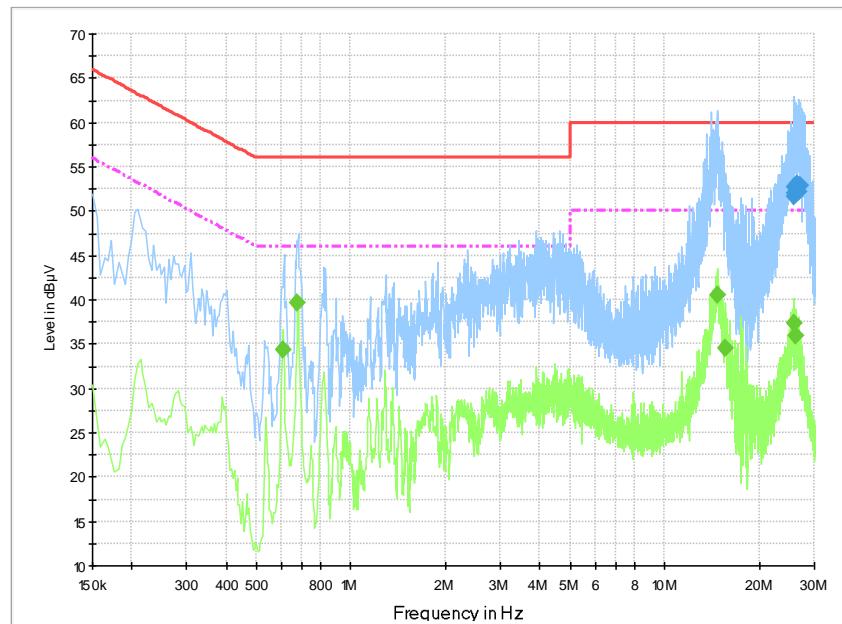

Fig. 94 AC Powerline Conducted Emission-802.11a

Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
25.984500	54.2	GND	N	11.1	5.8	60.0
26.056500	52.5	GND	L1	11.4	7.5	60.0
26.160000	52.7	GND	N	11.1	7.3	60.0
26.520000	53.6	GND	L1	11.4	6.4	60.0
26.605500	53.4	GND	N	11.1	6.6	60.0
26.736000	54.7	GND	L1	11.4	5.3	60.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.604500	35.1	GND	L1	10.2	10.9	46.0
0.676500	39.6	GND	L1	10.2	6.4	46.0
15.202500	40.1	GND	L1	10.9	9.9	50.0
16.269000	30.4	GND	L1	11.0	19.6	50.0
25.449000	35.0	GND	L1	11.3	15.0	50.0
26.128500	35.6	GND	L1	11.4	14.4	50.0


Fig. 95 AC Powerline Conducted Emission-Idle

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
25.786500	51.6	GND	N	11.1	8.4	60.0
25.881000	52.7	GND	N	11.1	7.3	60.0
25.899000	52.1	GND	L1	11.4	7.9	60.0
26.538000	53.1	GND	L1	11.4	6.9	60.0
26.785500	52.3	GND	L1	11.4	7.7	60.0
27.069000	52.9	GND	N	11.1	7.1	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.609000	34.4	GND	L1	10.2	11.6	46.0
0.676500	39.7	GND	L1	10.2	6.3	46.0
14.739000	40.6	GND	L1	10.9	9.4	50.0
15.670500	34.5	GND	L1	10.9	15.5	50.0
25.908000	37.3	GND	L1	11.4	12.7	50.0
26.115000	35.9	GND	L1	11.4	14.1	50.0

ANNEX B: Accreditation Certificate

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT

Beijing
China

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Electromagnetic Compatibility & Telecommunications

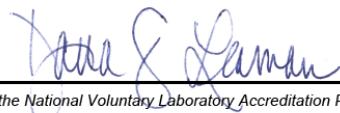
*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

2016-09-29 through 2017-09-30

Effective Dates



For the National Voluntary Laboratory Accreditation Program



*** END OF REPORT BODY ***