

Fig. 34 Conducted Spurious Emission (802.11n20, Ch157 , 25 GHz ~ 40 GHz)

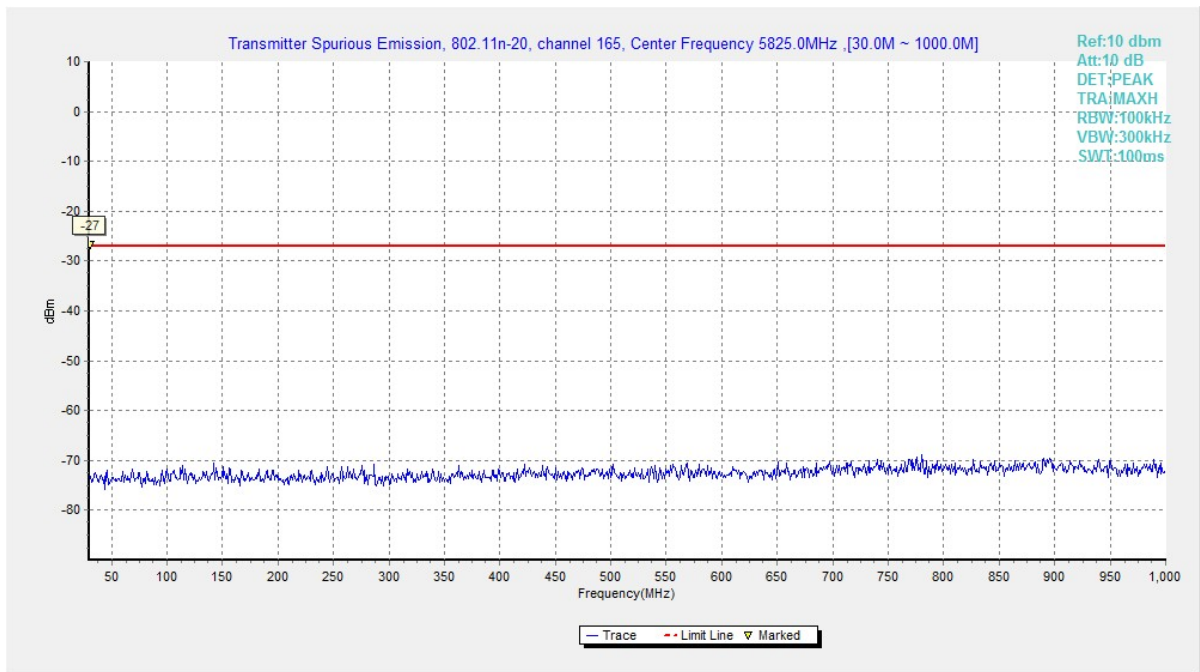


Fig. 35 Conducted Spurious Emission (802.11n20, Ch165 , 30 MHz ~ 1 GHz)

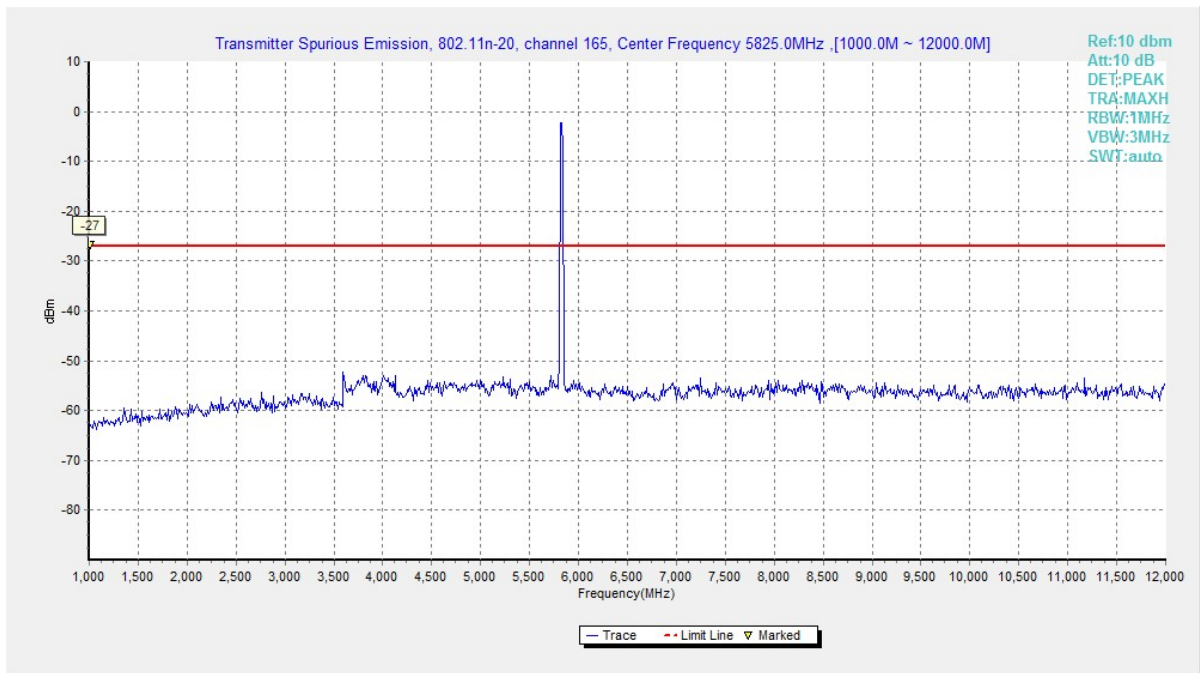


Fig. 36 Conducted Spurious Emission (802.11n20, Ch165 , 1 GHz ~ 12 GHz)

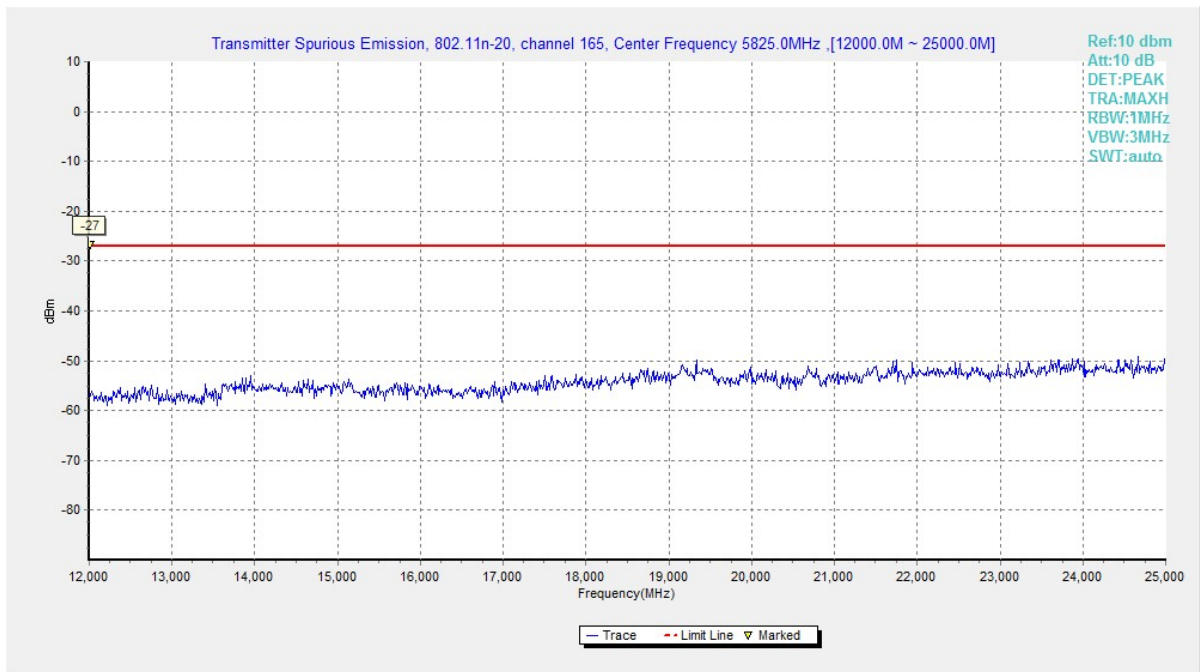


Fig. 37 Conducted Spurious Emission (802.11n20, Ch165 , 12 GHz ~ 25 GHz)

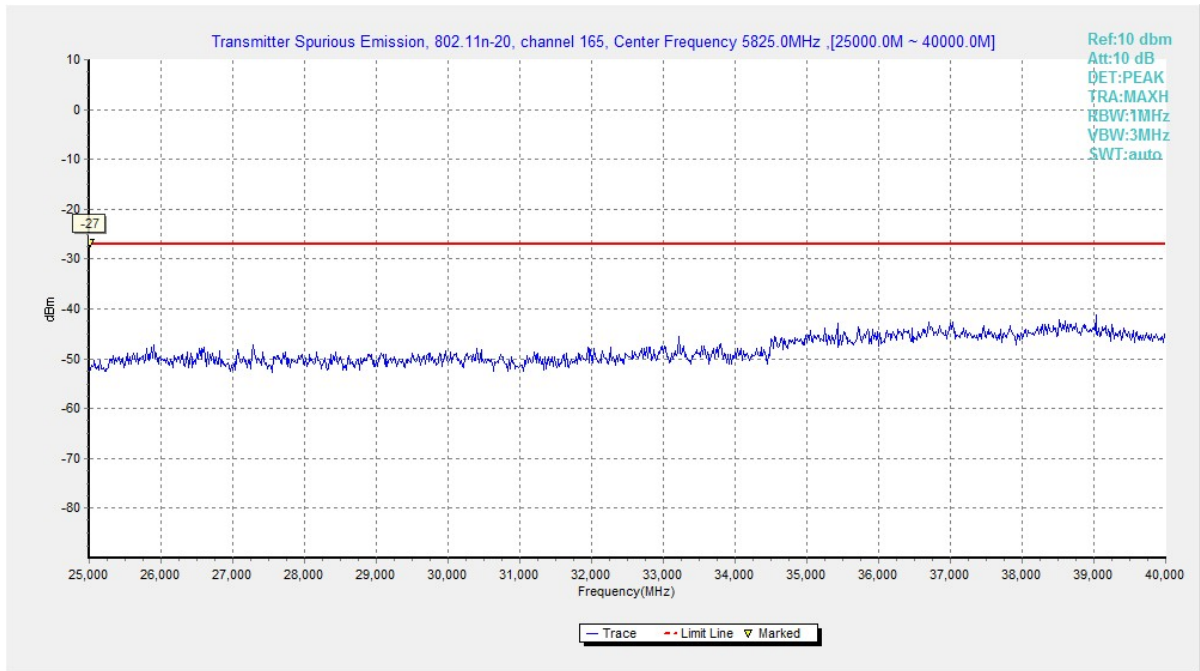


Fig. 38 Conducted Spurious Emission (802.11n20, Ch165 , 25 GHz ~ 40 GHz)

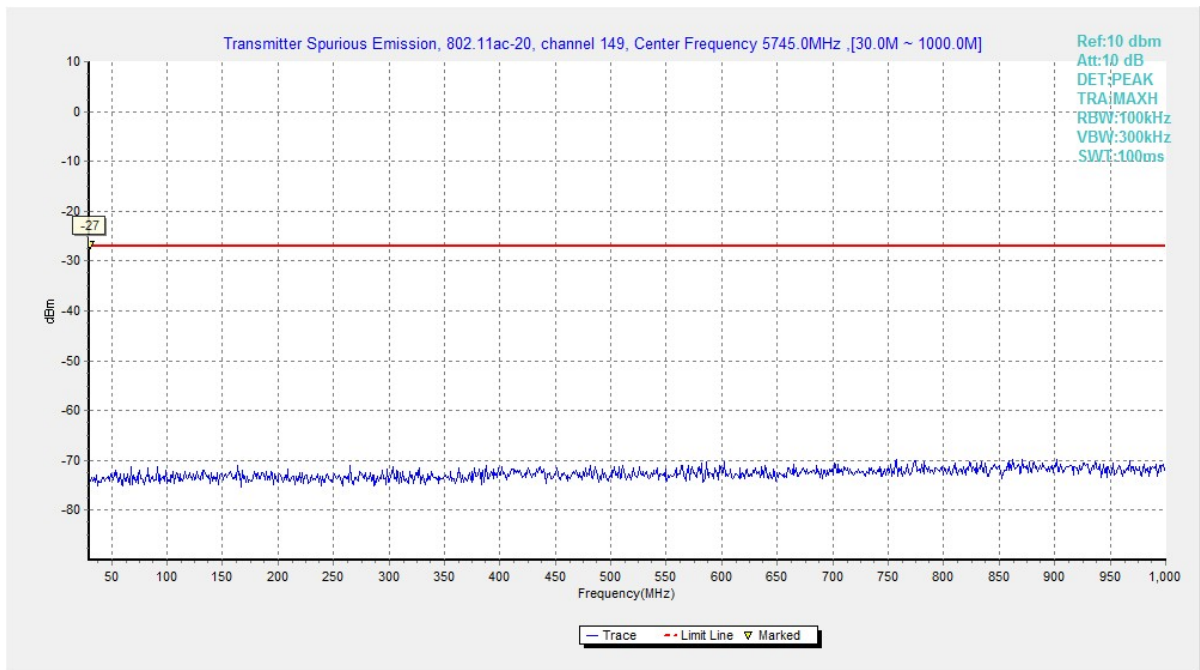


Fig. 39 Conducted Spurious Emission (802.11ac20, Ch149 , 30 MHz ~ 1 GHz)

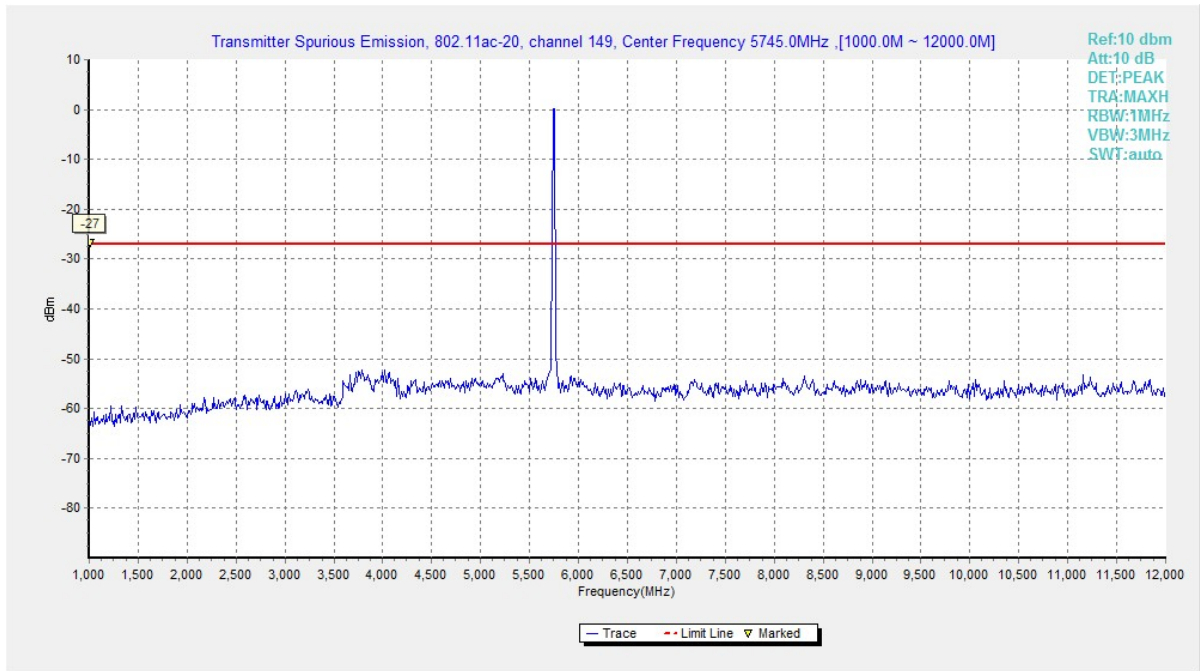


Fig. 40 Conducted Spurious Emission (802.11ac20, Ch149 , 1 GHz ~ 12 GHz)

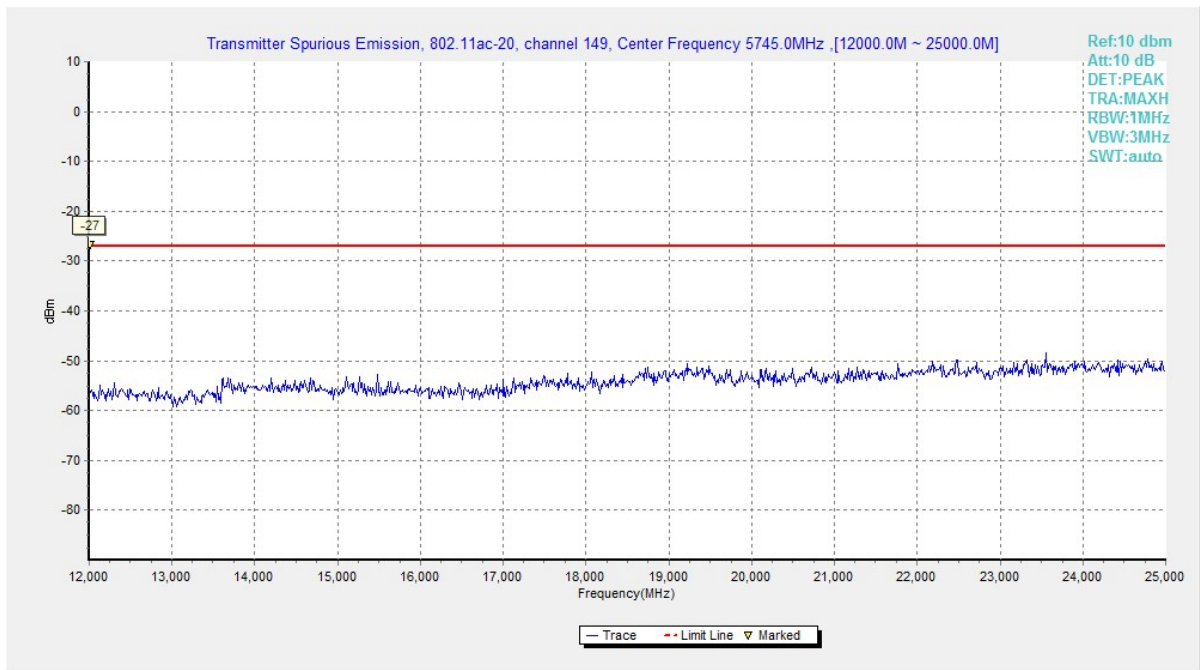


Fig. 41 Conducted Spurious Emission (802.11ac20, Ch149 , 12 GHz ~ 25 GHz)

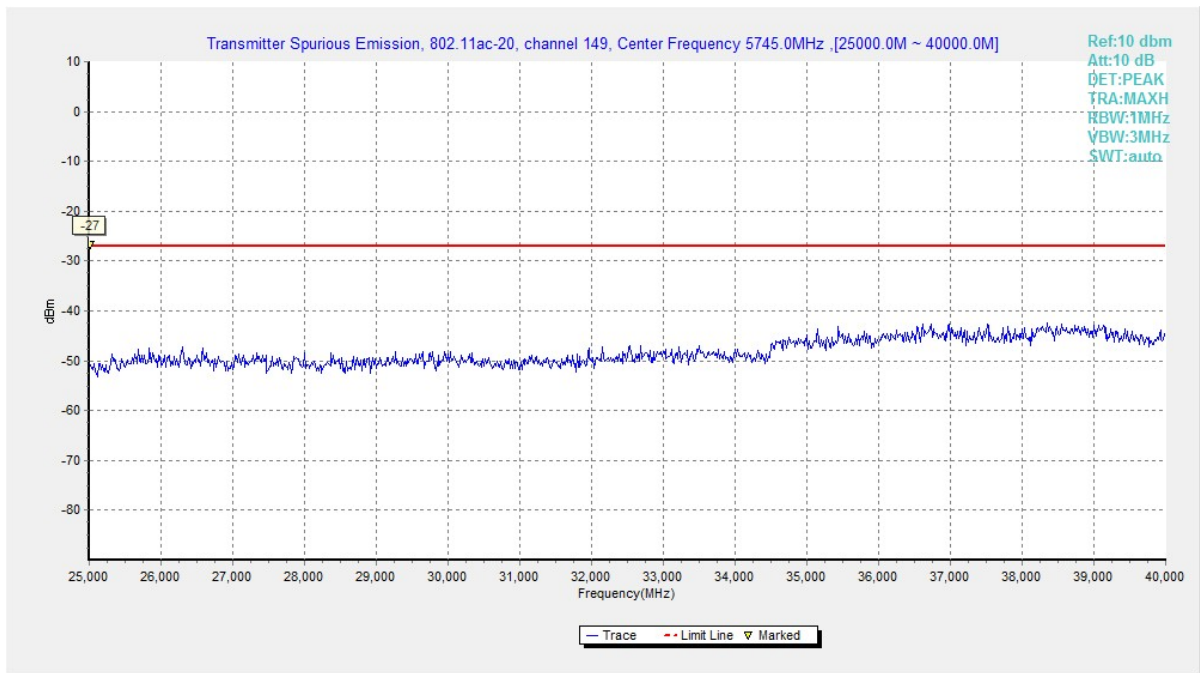


Fig. 42 Conducted Spurious Emission (802.11ac20, Ch149 , 25 GHz ~ 40 GHz)

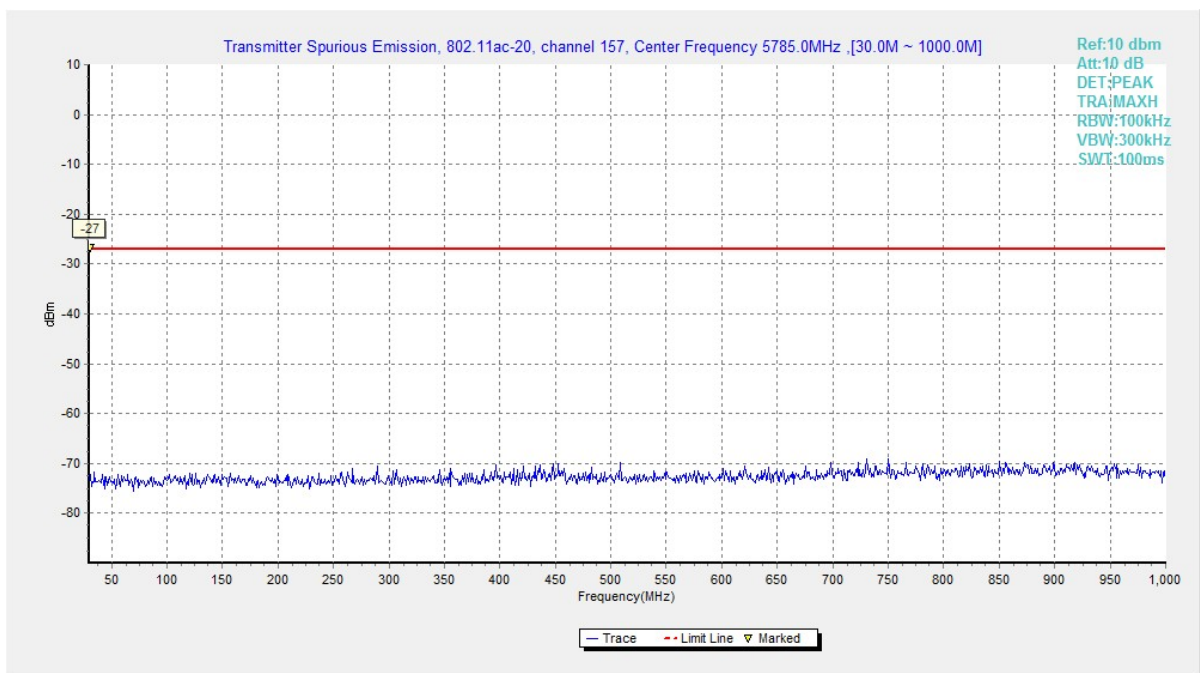


Fig. 43 Conducted Spurious Emission (802.11ac20, Ch157 , 30 MHz ~ 1 GHz)

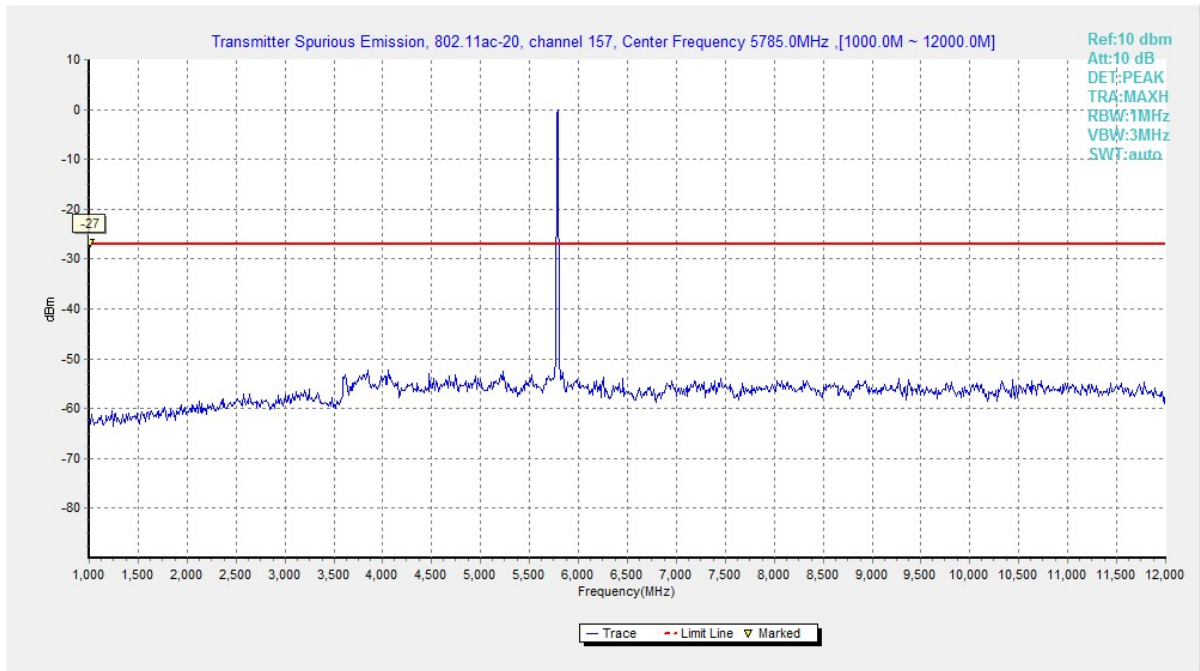


Fig. 44 Conducted Spurious Emission (802.11ac20, Ch157 , 1 GHz ~ 12 GHz)

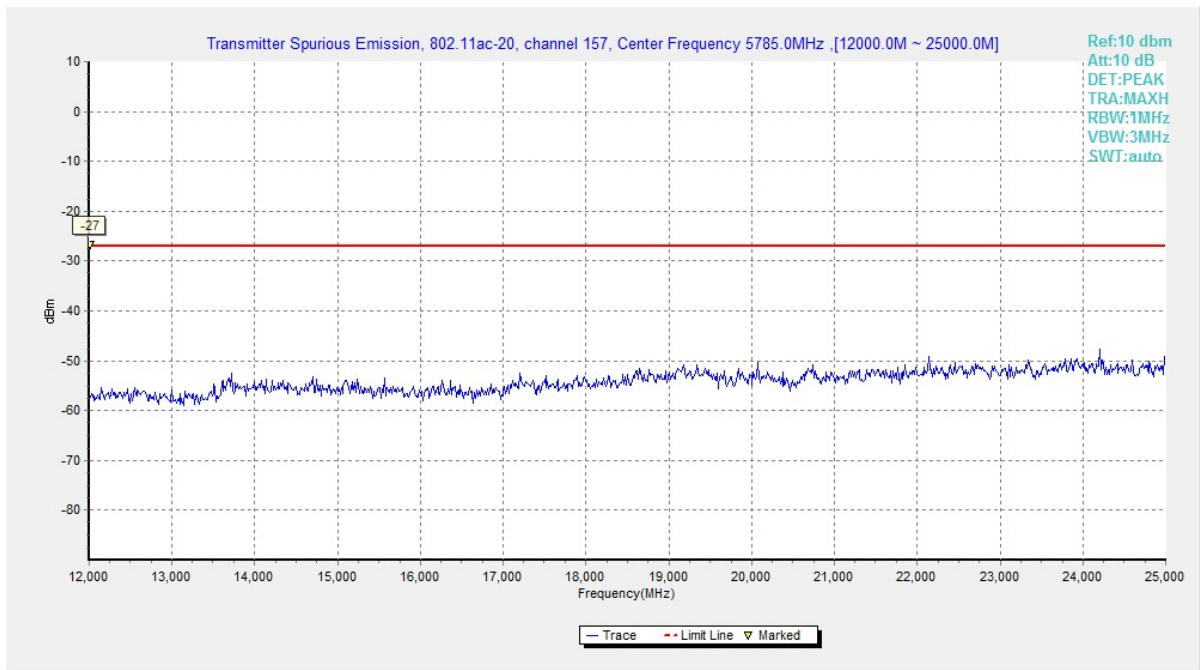


Fig. 45 Conducted Spurious Emission (802.11ac20, Ch157 , 12 GHz ~ 25 GHz)

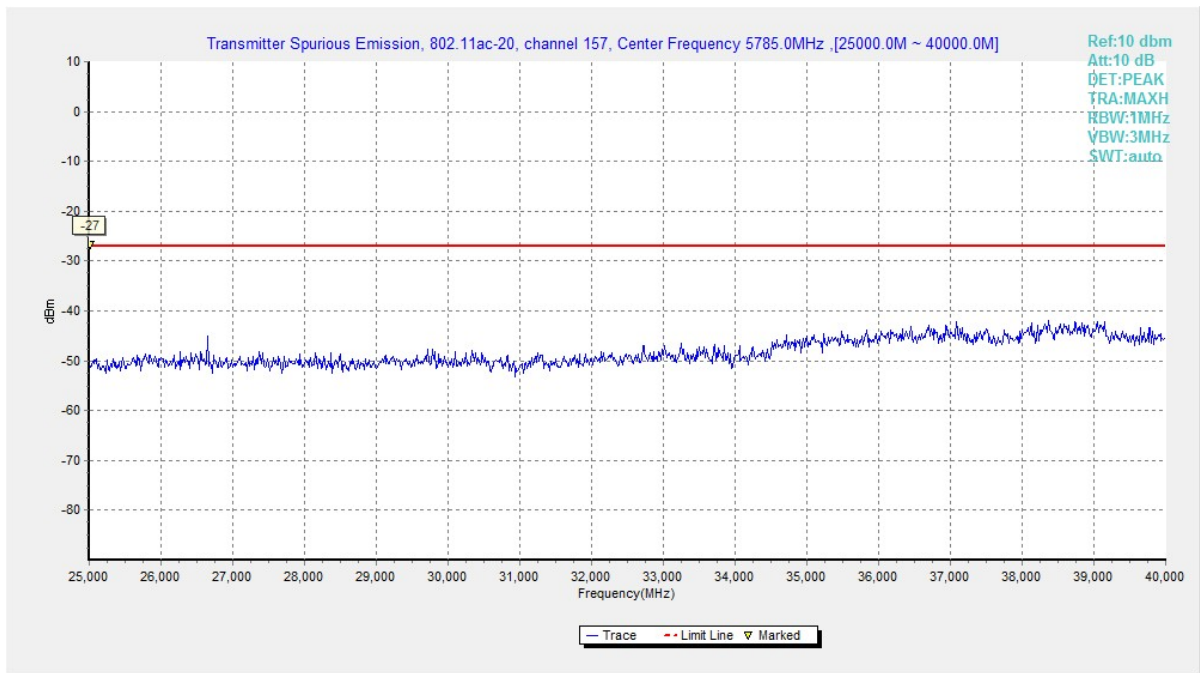


Fig. 46 Conducted Spurious Emission (802.11ac20, Ch157 , 25 GHz ~ 40 GHz)

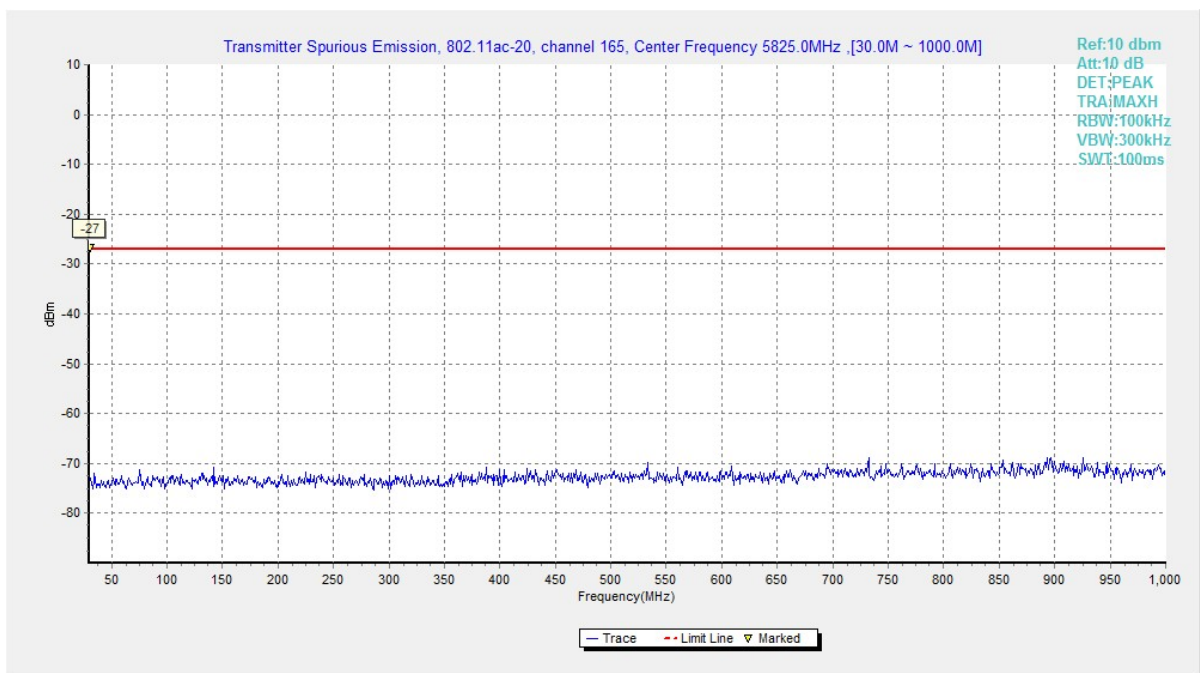


Fig. 47 Conducted Spurious Emission (802.11ac20, Ch165 , 30 MHz ~ 1 GHz)

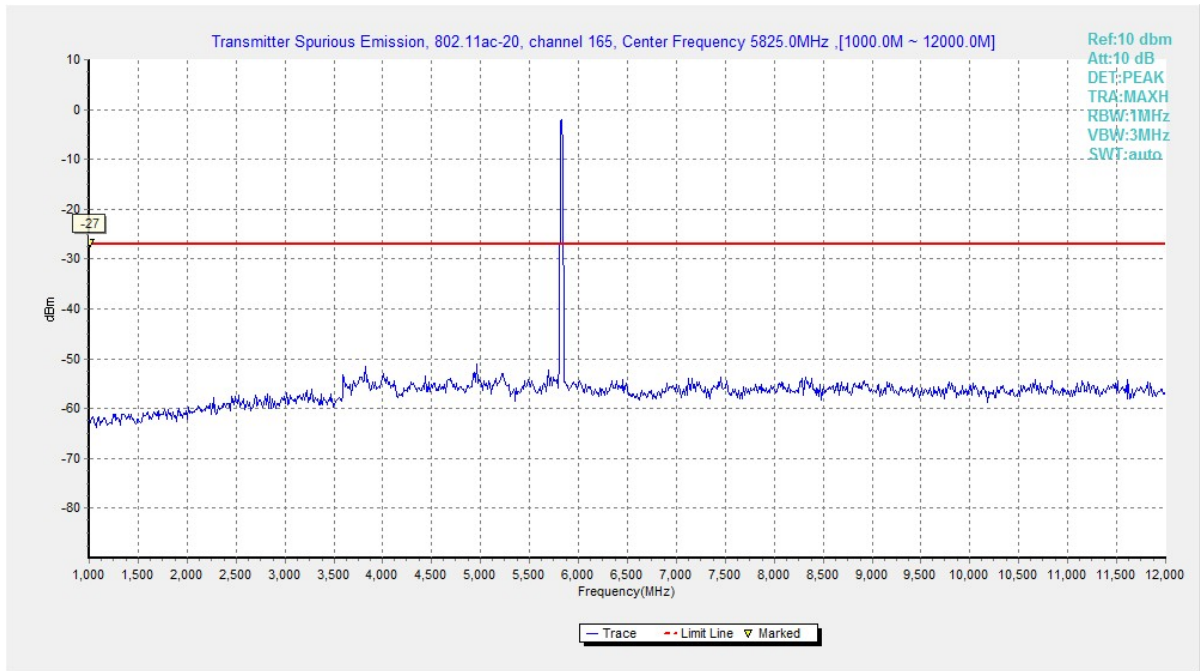


Fig. 48 Conducted Spurious Emission (802.11ac20, Ch165 , 1 GHz ~ 12 GHz)

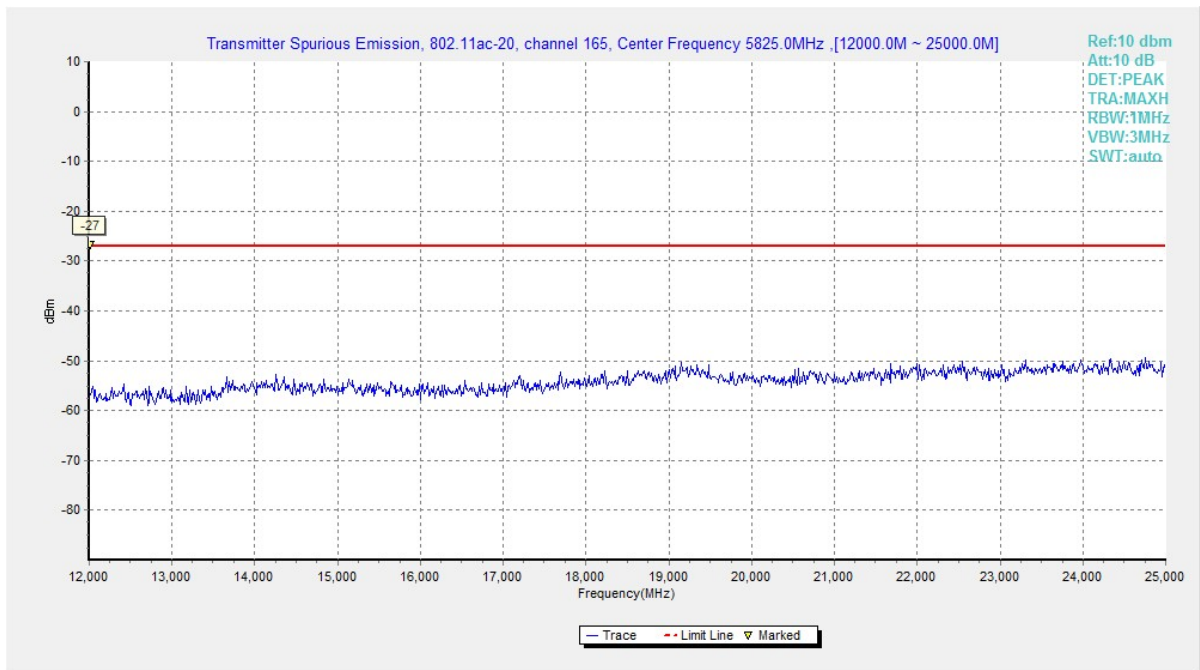


Fig. 49 Conducted Spurious Emission (802.11ac20, Ch165 , 12 GHz ~ 25 GHz)

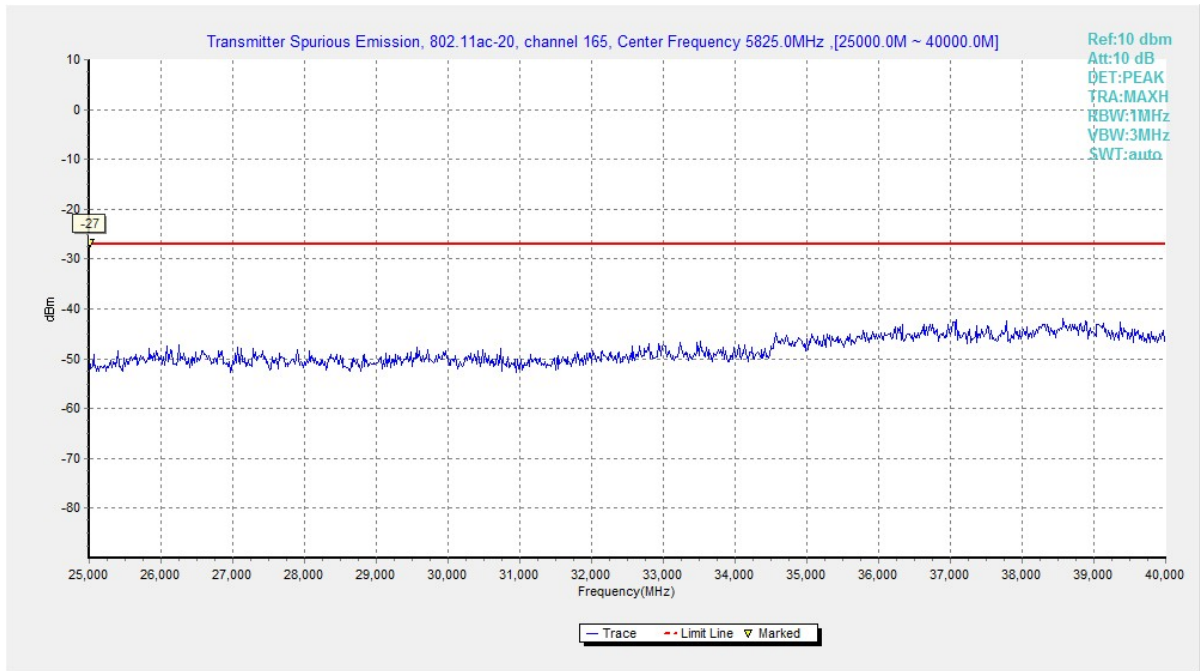


Fig. 50 Conducted Spurious Emission (802.11ac20, Ch165 , 25 GHz ~ 40 GHz)

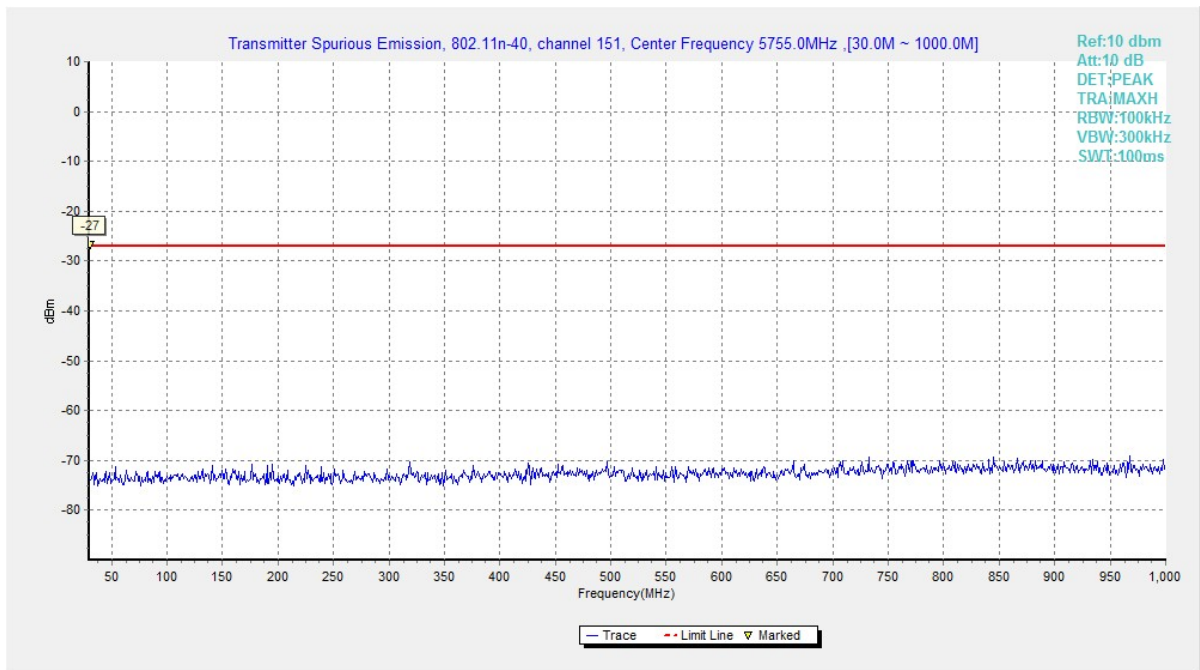


Fig. 51 Conducted Spurious Emission (802.11n40, Ch151 , 30 MHz ~ 1 GHz)

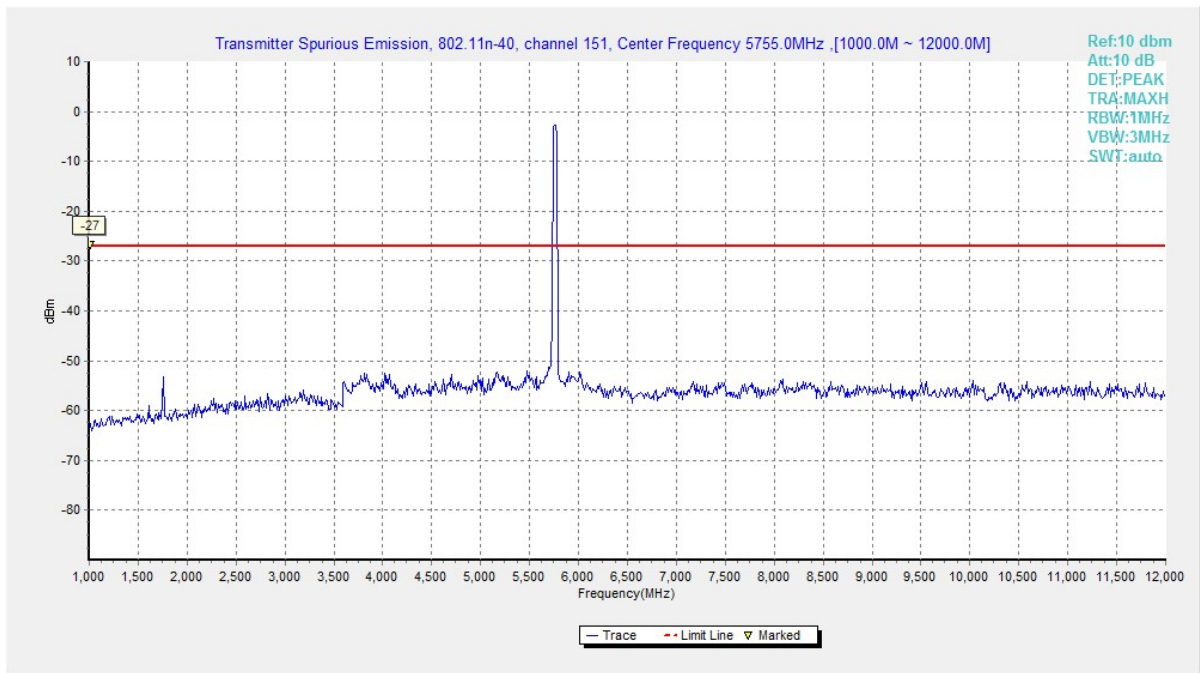


Fig. 52 Conducted Spurious Emission (802.11n40, Ch151 , 1 GHz ~ 12 GHz)

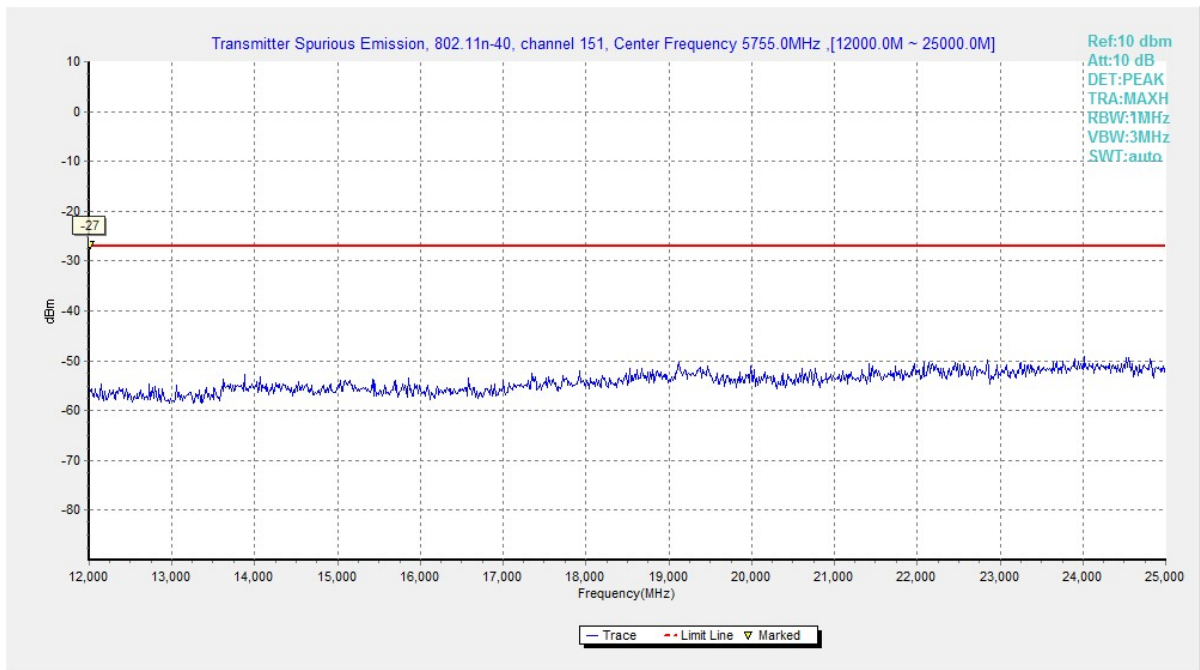


Fig. 53 Conducted Spurious Emission (802.11n40, Ch151 , 12 GHz ~ 25 GHz)

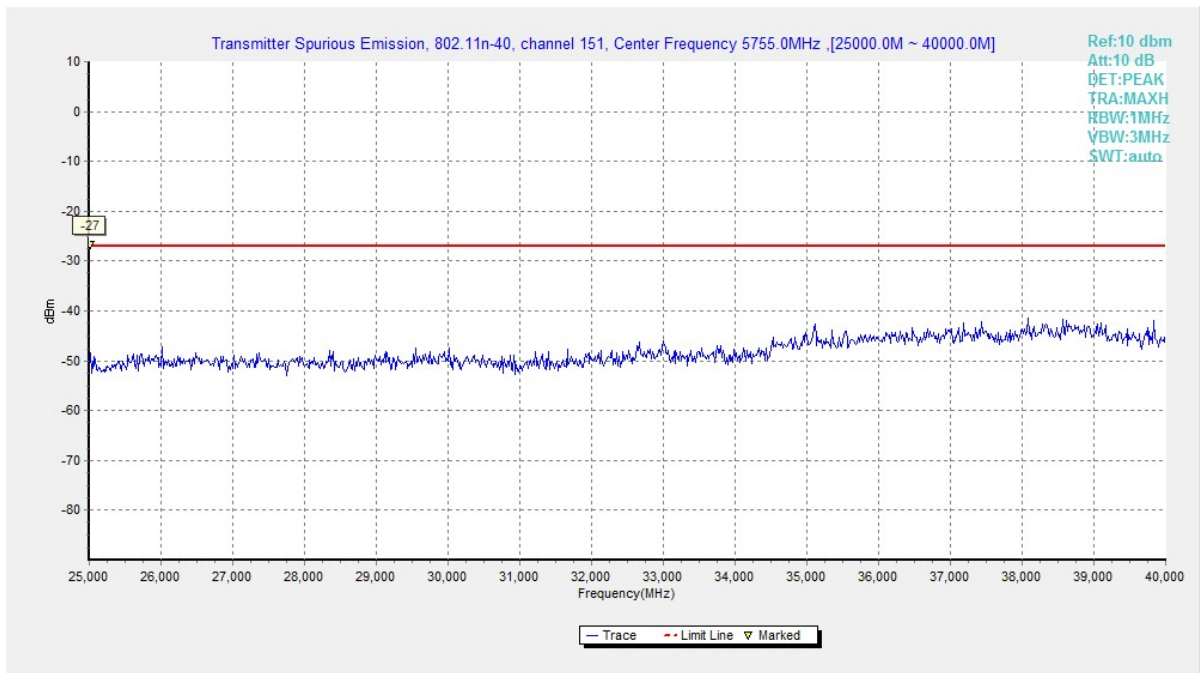


Fig. 54 Conducted Spurious Emission (802.11n40, Ch151 , 25 GHz ~ 40 GHz)

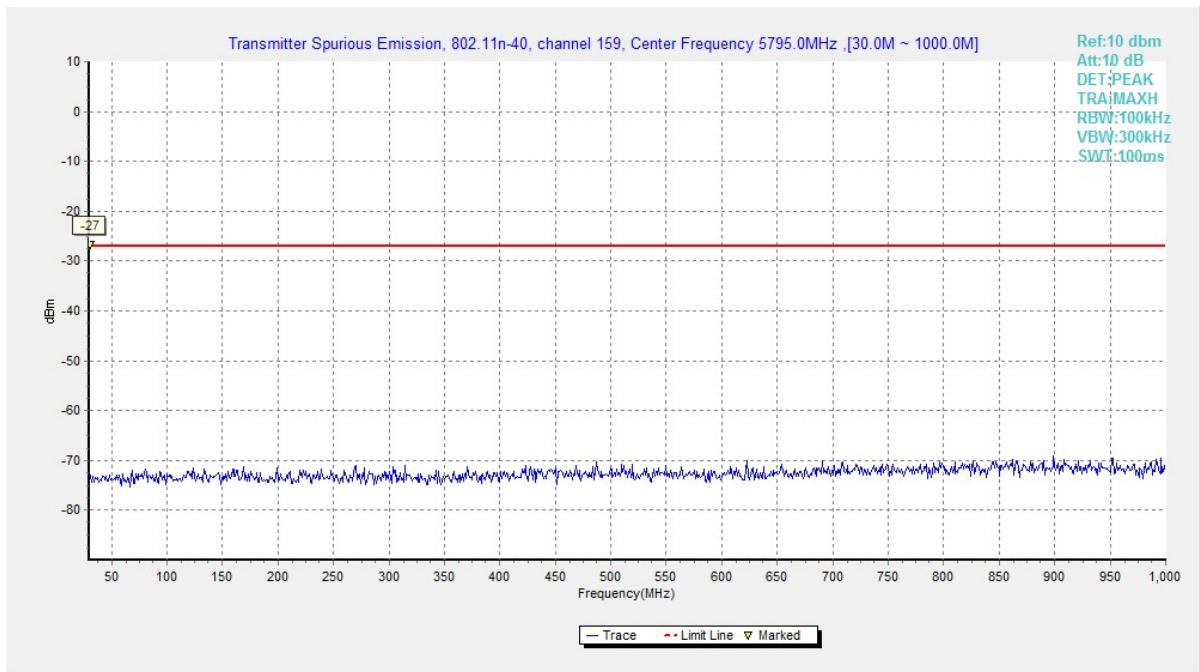


Fig. 55 Conducted Spurious Emission (802.11n40, Ch159 , 30 MHz ~ 1 GHz)

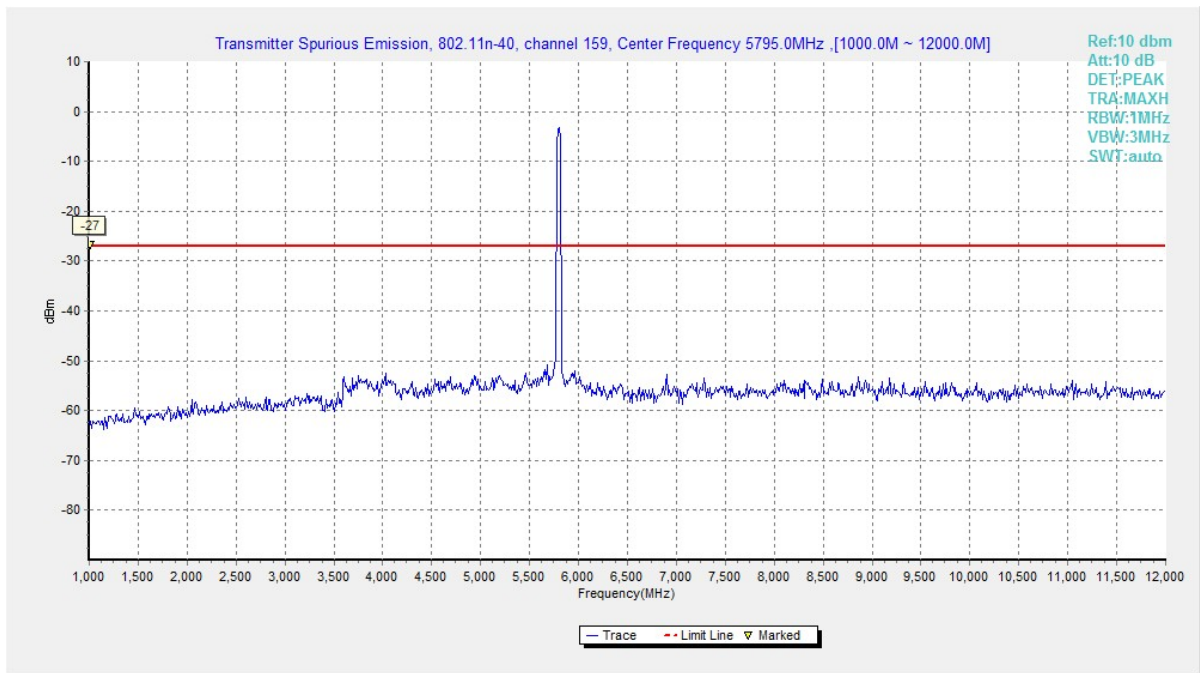


Fig. 56 Conducted Spurious Emission (802.11n40, Ch159 , 1 GHz ~ 12 GHz)

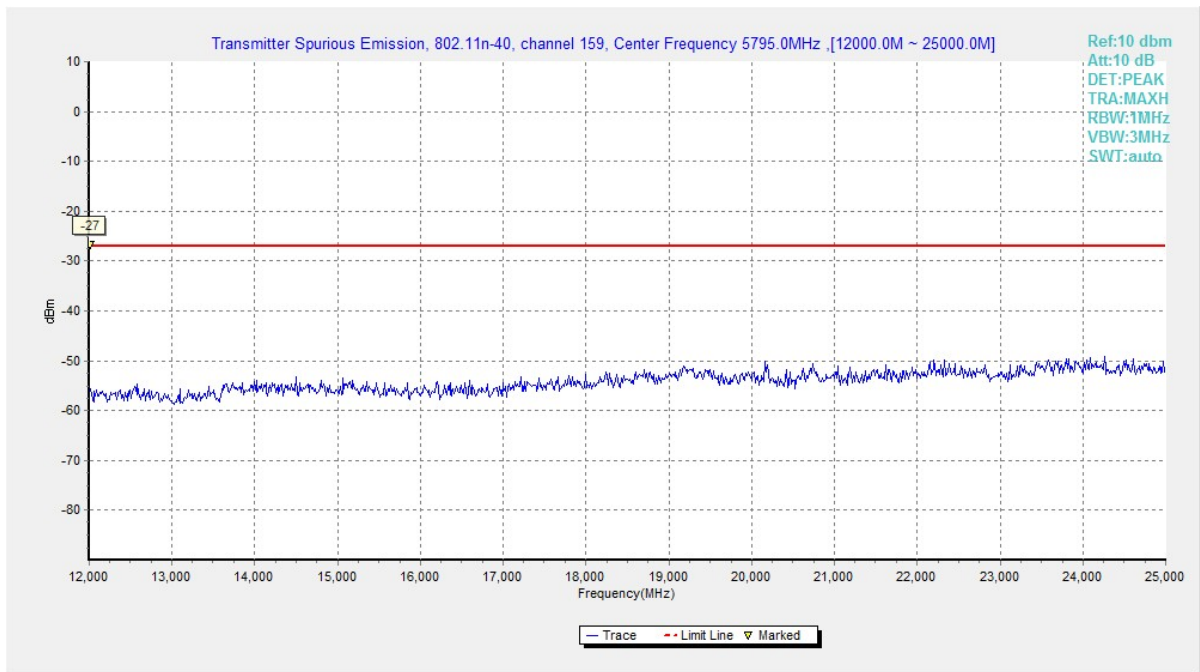


Fig. 57 Conducted Spurious Emission (802.11n40, Ch159 , 12 GHz ~ 25 GHz)

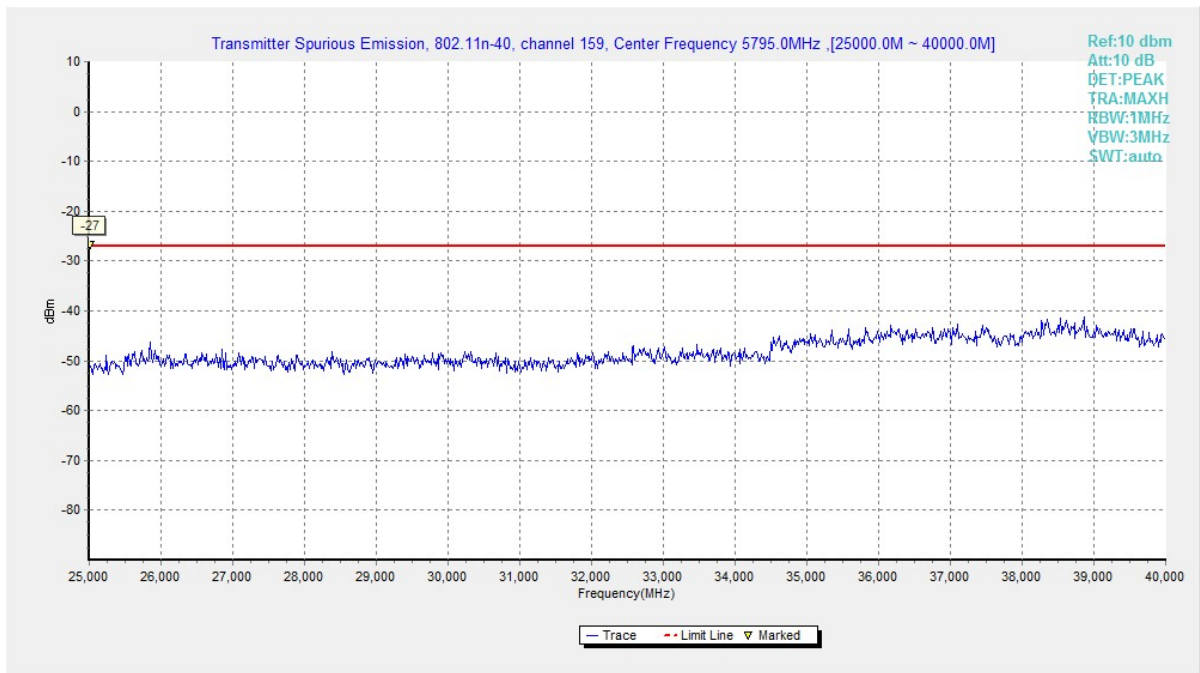


Fig. 58 Conducted Spurious Emission (802.11n40, Ch159 , 25 GHz ~ 40 GHz)

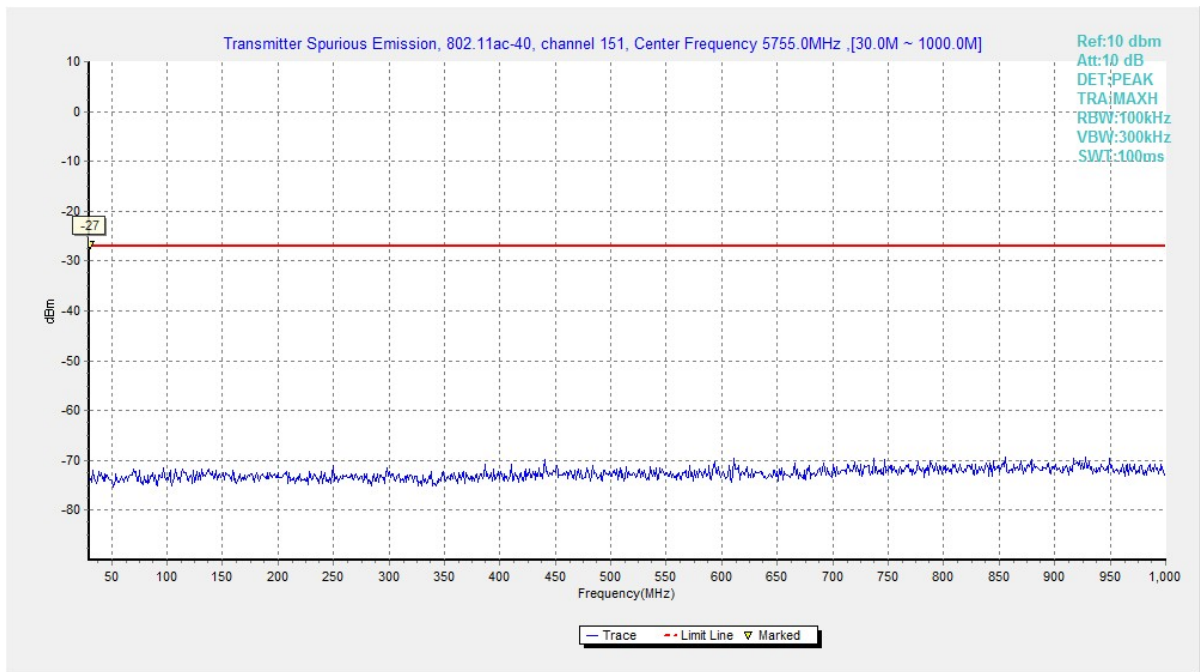


Fig. 59 Conducted Spurious Emission (802.11ac40, Ch151 , 30 MHz ~ 1 GHz)

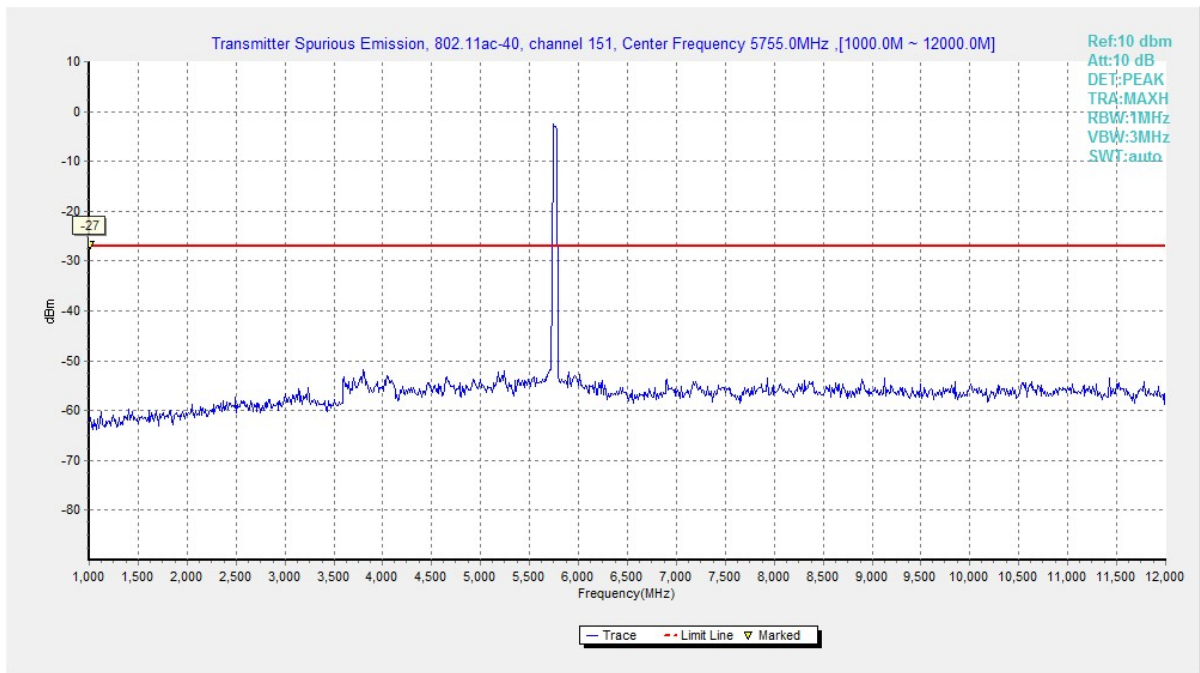


Fig. 60 Conducted Spurious Emission (802.11ac40, Ch151 , 1 GHz ~ 12 GHz)

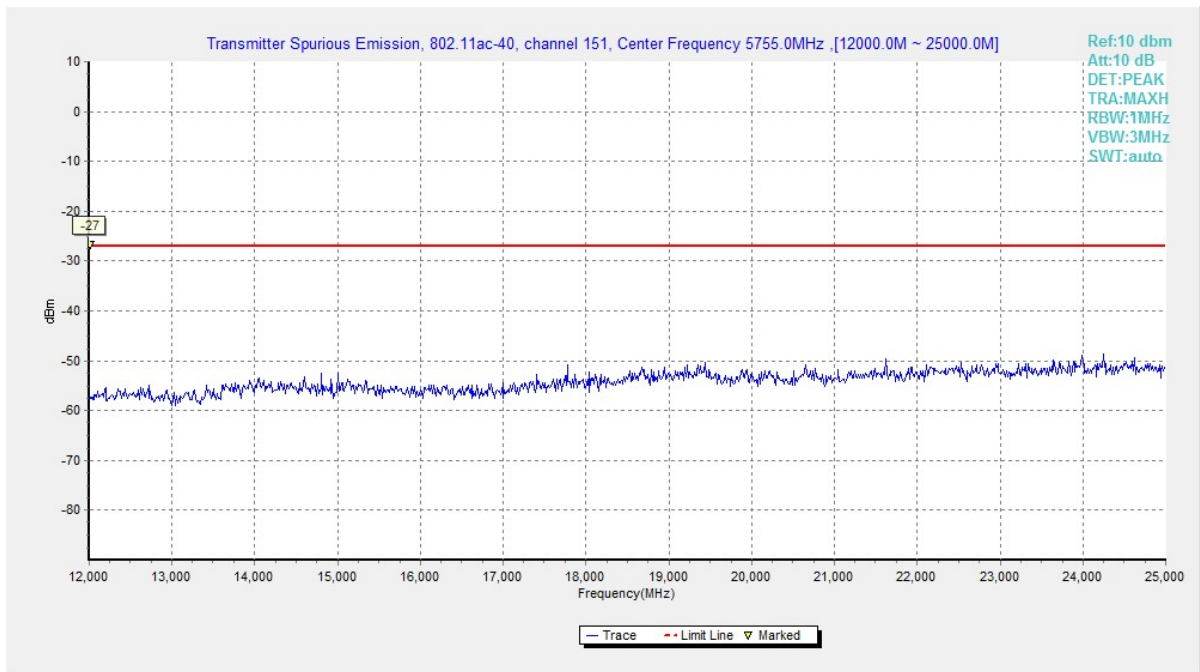


Fig. 61 Conducted Spurious Emission (802.11ac40, Ch151 , 12 GHz ~ 25 GHz)

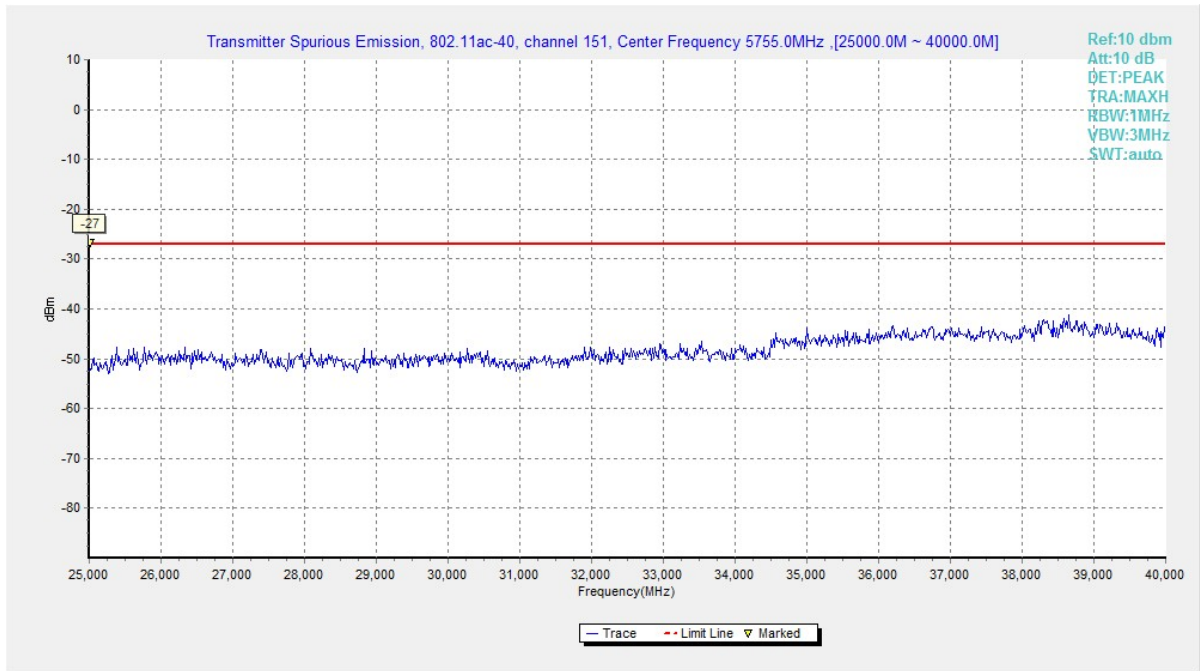


Fig. 62 Conducted Spurious Emission (802.11ac40, Ch151 , 25 GHz ~ 40 GHz)

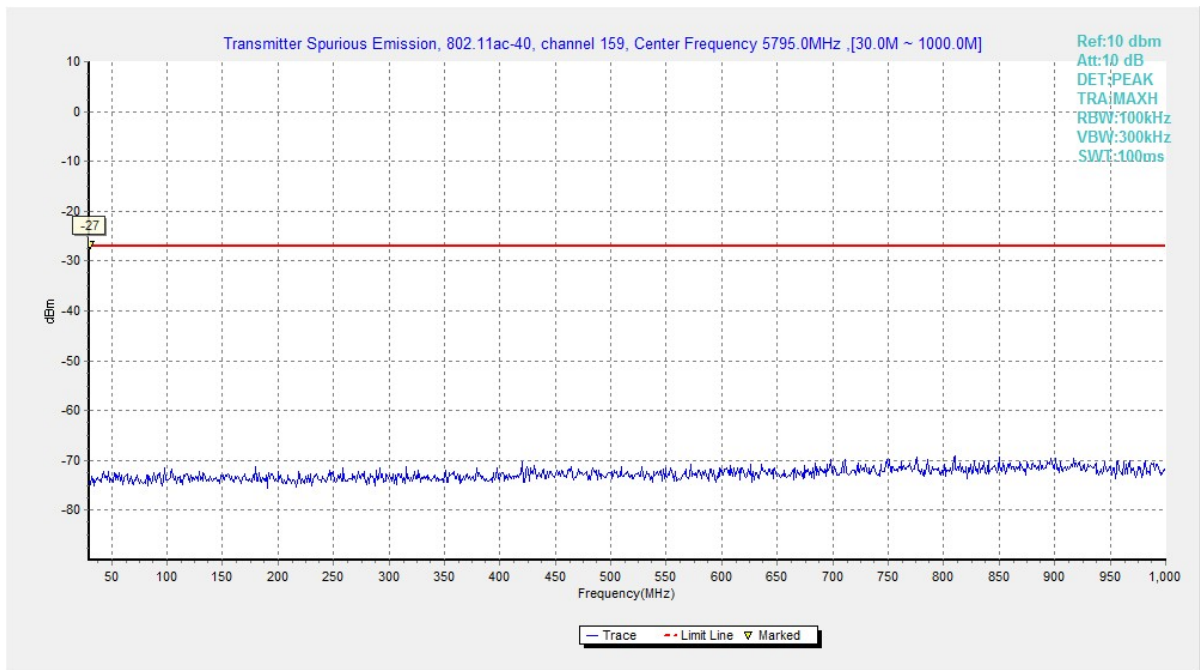


Fig. 63 Conducted Spurious Emission (802.11ac40, Ch159 , 30 MHz ~ 1 GHz)

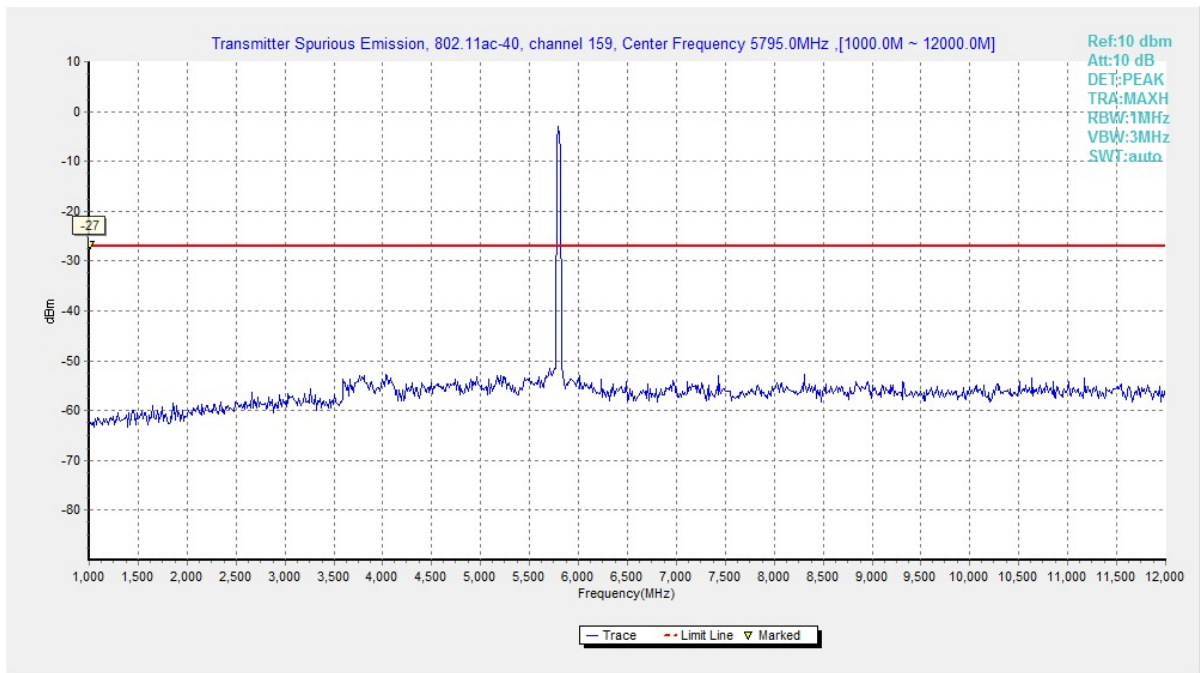


Fig. 64 Conducted Spurious Emission (802.11ac40, Ch159 , 1 GHz ~ 12 GHz)

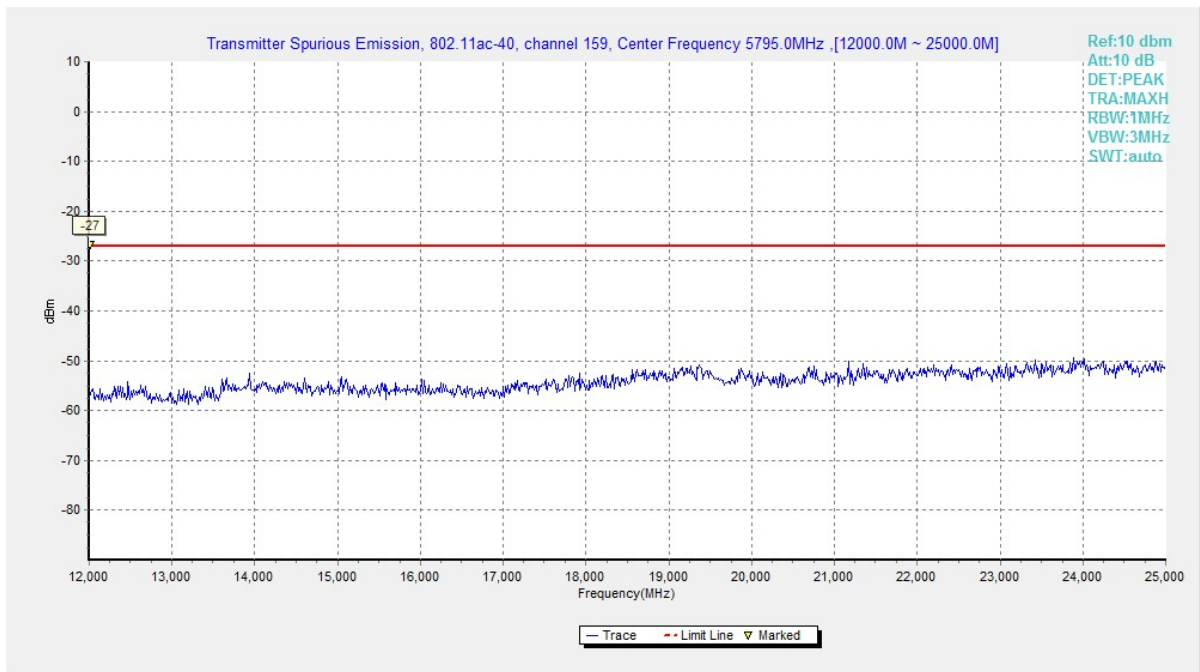


Fig. 65 Conducted Spurious Emission (802.11ac40, Ch159 , 12 GHz ~ 25 GHz)

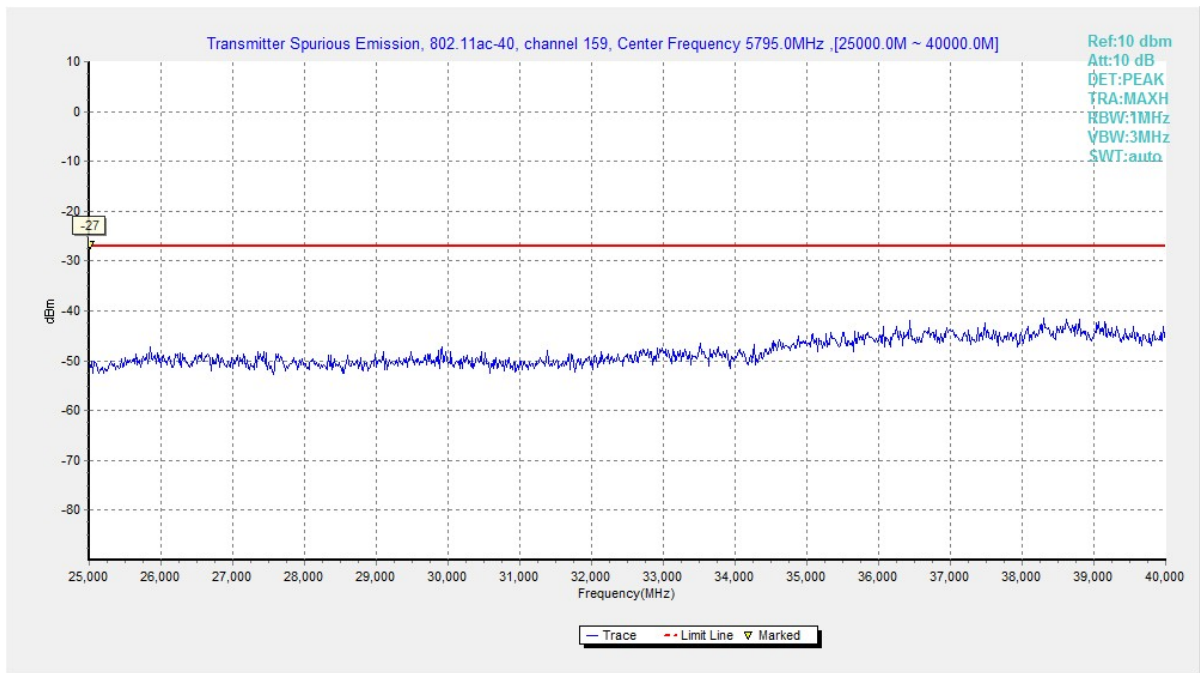


Fig. 66 Conducted Spurious Emission (802.11ac40, Ch159 , 25 GHz ~ 40 GHz)

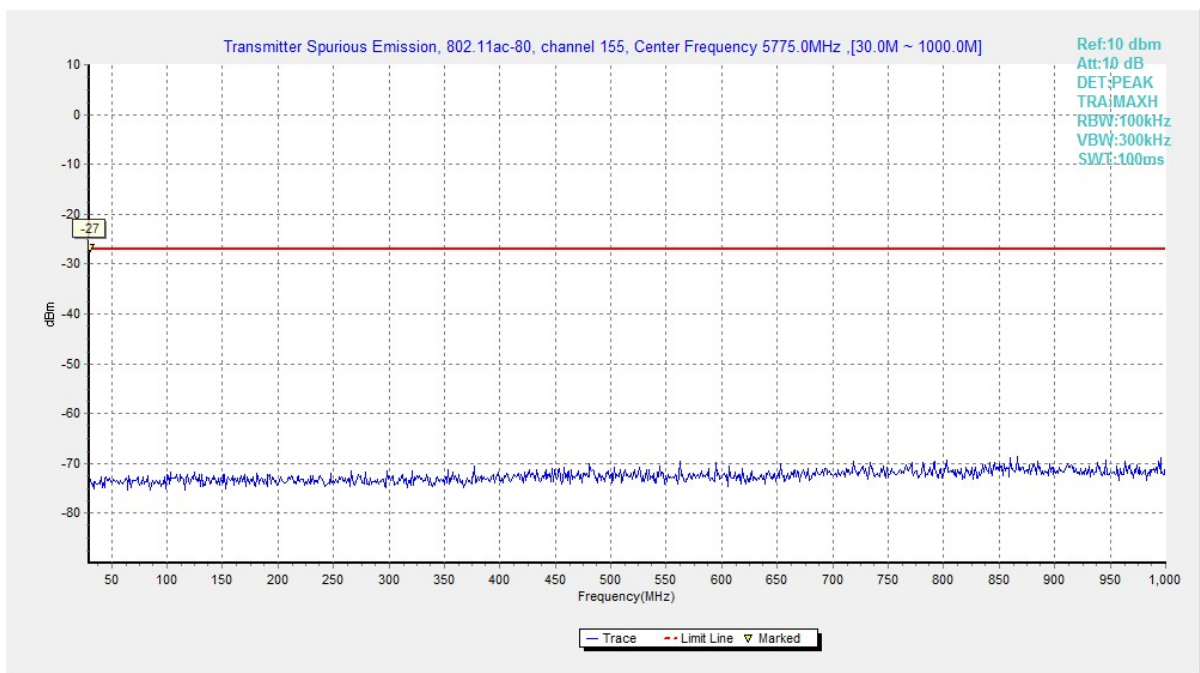


Fig. 67 Conducted Spurious Emission (802.11ac80, Ch155 , 30 MHz ~ 1 GHz)

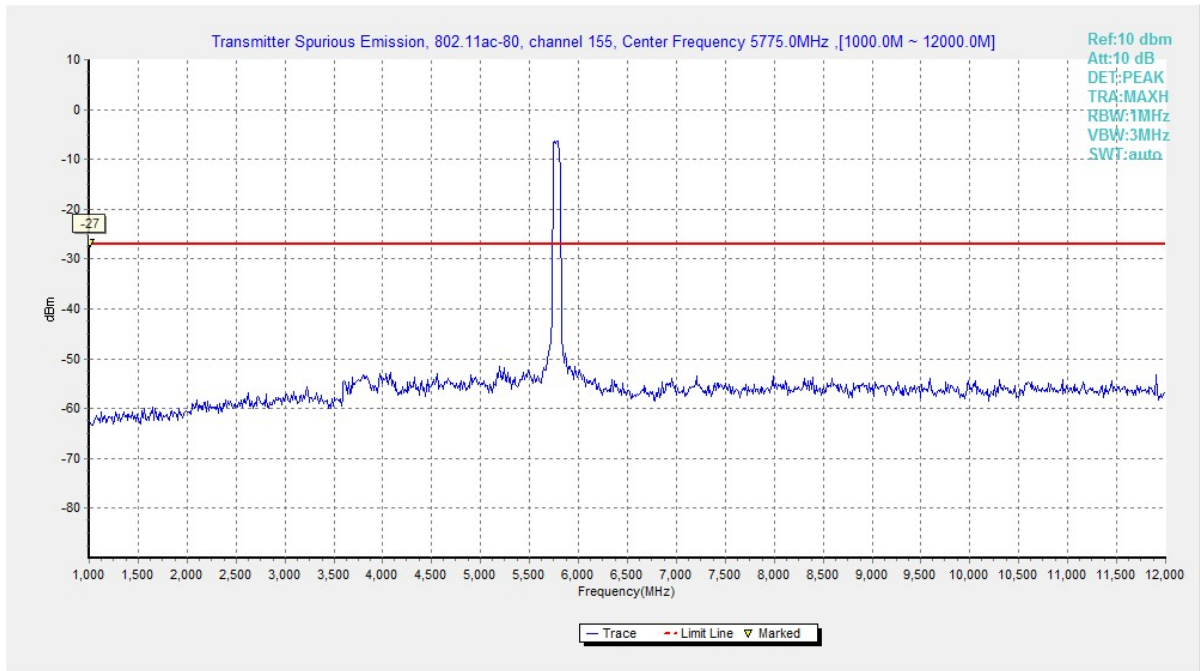


Fig. 68 Conducted Spurious Emission (802.11ac80, Ch155 , 1 GHz ~ 12 GHz)

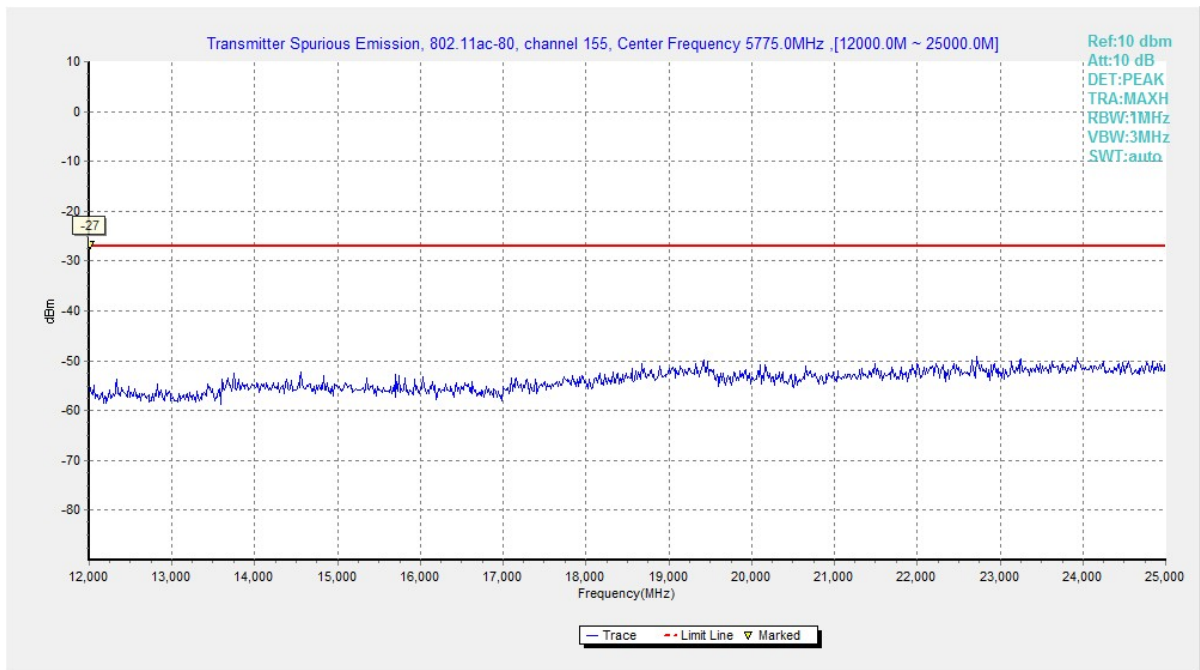


Fig. 69 Conducted Spurious Emission (802.11ac80, Ch155 , 12 GHz ~ 25 GHz)

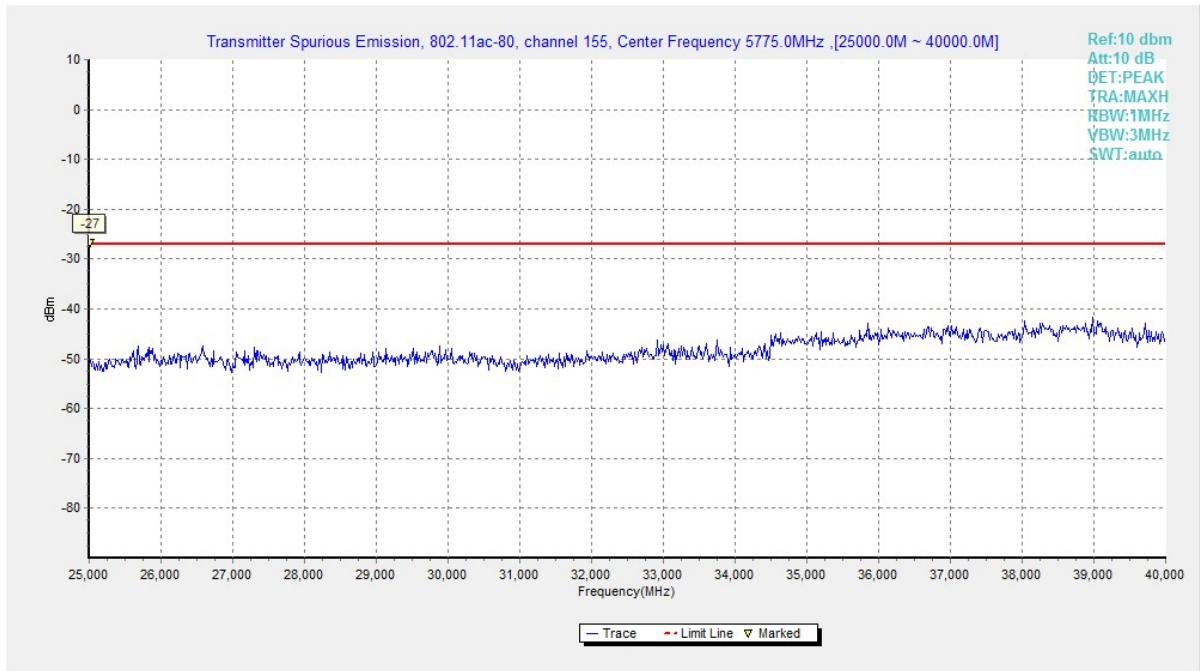


Fig. 70 Conducted Spurious Emission (802.11ac80, Ch155 , 25 GHz ~ 40 GHz)

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 (dBµV/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 (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)
5672.380	36.5	-32.6	34.7	34.40	64.8	28.2	H
5682.350	36.6	-32.8	34.8	34.60	72.1	35.6	H
11490.000	33.8	-30.8	38.2	26.46	48.3	14.5	H
17235.000	36.9	-26.6	41.5	22.04	48.3	11.4	H
16960.200	38.9	-27.0	41.7	24.23	48.3	9.4	H
17064.500	38.9	-26.3	41.6	23.52	48.3	9.4	H

Ch157

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
3542.000	33.9	-35.3	33.1	36.10	48.3	14.4	H
5797.200	35.4	-34.5	34.9	34.93	48.3	12.9	H
11570.000	33.7	-30.8	38.3	26.28	48.3	14.6	H
17355.000	36.9	-26.6	41.3	22.18	48.3	11.4	H
16960.000	38.9	-27.0	41.7	24.22	48.3	9.4	H
17060.000	38.9	-26.3	41.6	23.58	48.3	9.4	H

Ch165

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5898.400	37.0	-32.4	35.1	34.38	67.9	30.8	H
5894.380	36.8	-32.5	35.1	34.20	70.9	34.1	H
11650.000	33.7	-30.6	38.4	25.89	48.3	14.6	H
17475.000	36.9	-26.3	41.2	21.95	48.3	11.4	H
16884.680	38.9	-27.0	41.6	24.23	48.3	9.4	H
17056.400	38.9	-26.3	41.6	23.60	48.3	9.4	H

802.11n-HT20

Ch149

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5671.620	36.8	-32.6	34.7	34.60	64.2	27.4	H
5674.400	36.8	-32.6	34.8	34.64	66.3	29.5	H
11490.000	33.7	-30.8	38.2	26.28	48.3	14.6	H
17235.000	36.6	-26.6	41.5	21.72	48.3	11.7	H
16958.460	38.8	-27.0	41.7	24.07	48.3	9.5	H
17063.670	38.9	-26.3	41.6	23.55	48.3	9.4	H

Ch157

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
3616.000	35.5	-35.5	33.2	37.82	48.3	12.8	H
3666.800	34.1	-35.7	33.2	36.56	48.3	14.2	H
11570.000	33.7	-30.8	38.3	26.18	48.3	14.7	H
17355.000	36.9	-26.6	41.3	22.14	48.3	11.4	H
16955.000	38.9	-27.0	41.7	24.23	48.3	9.4	H
17062.000	38.9	-26.3	41.6	23.57	48.3	9.4	H

Ch165

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5908.800	36.1	-32.4	35.1	33.44	60.2	24.1	H
5899.640	37.0	-32.4	35.1	34.28	67.0	30.0	H
11650.000	33.7	-30.6	38.4	25.88	48.3	14.7	H
17475.000	36.9	-26.3	41.2	21.93	48.3	11.4	H
16884.680	38.9	-27.0	41.6	24.20	48.3	9.4	H
17056.400	38.8	-26.3	41.6	23.55	48.3	9.5	H

802.11n-HT40

Ch151

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5666.820	36.6	-32.7	34.7	34.57	60.6	24.1	H
5670.840	36.7	-32.6	34.7	34.56	63.6	26.9	H
11510.400	36.8	-30.8	38.2	29.45	48.3	11.5	H
17264.800	38.2	-26.8	41.4	23.54	48.3	10.1	H
17626.400	38.4	-26.5	41.2	23.70	48.3	9.9	H
17911.200	38.9	-26.1	41.3	23.74	48.3	9.4	H

Ch159

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5890.020	36.1	-32.6	35.1	33.62	74.1	38.0	H
5899.640	37.0	-32.4	35.1	34.28	67.0	30.0	H
11590.400	36.7	-30.8	38.3	29.20	48.3	11.6	H
17384.800	38.3	-26.5	41.3	23.49	48.3	10.0	H
17628.000	38.5	-26.5	41.2	23.77	48.3	9.8	H
17898.400	38.6	-26.2	41.3	23.52	48.3	9.7	H

802.11ac-HT20

Ch149

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5671.630	36.7	-32.6	34.7	34.55	64.2	27.5	H
5678.820	36.6	-32.7	34.8	34.61	69.5	32.9	H
11490.400	36.6	-30.8	38.2	29.23	48.3	11.7	H
17235.200	38.2	-26.6	41.5	23.30	48.3	10.1	H
17623.200	38.5	-26.5	41.2	23.75	48.3	9.8	H
17898.400	38.9	-26.2	41.3	23.77	48.3	9.4	H

Ch157

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
3496.000	34.4	-35.8	33.1	37.10	48.3	13.9	H
3613.300	36.9	-35.5	33.2	39.18	48.3	11.4	H
11570.400	36.6	-30.8	38.3	29.17	48.3	11.7	H
17355.200	38.3	-26.6	41.3	23.59	48.3	10.0	H
17645.600	38.4	-26.5	41.2	23.65	48.3	9.9	H
17889.600	38.9	-26.2	41.3	23.81	48.3	9.4	H

Ch165

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5903.600	37.0	-32.4	35.1	34.27	64.0	27.1	H
5889.640	36.7	-32.6	35.1	34.20	74.4	37.7	H
11650.400	36.3	-30.6	38.4	28.52	48.3	12.0	H
17475.200	37.7	-26.3	41.2	22.74	48.3	10.6	H
17634.400	38.4	-26.5	41.2	23.63	48.3	9.9	H
17898.400	38.9	-26.2	41.3	23.78	48.3	9.4	H

802.11ac-HT40

Ch151

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5669.250	36.6	-32.6	34.7	34.44	62.4	25.9	H
5678.830	36.7	-32.7	34.8	34.67	69.5	32.8	H
11510.400	36.7	-30.8	38.2	29.28	48.3	11.6	H
17264.800	38.3	-26.8	41.4	23.59	48.3	10.0	H
17620.800	38.4	-26.5	41.2	23.62	48.3	9.9	H
17892.000	38.9	-26.2	41.3	23.80	48.3	9.4	H

Ch159

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5899.230	37.0	-32.4	35.1	34.32	67.3	30.3	H
5896.840	36.9	-32.4	35.1	34.28	69.0	32.1	H
11570.400	36.6	-30.8	38.3	29.15	48.3	11.7	H
17384.800	38.3	-26.5	41.3	23.52	48.3	10.0	H
17626.400	38.5	-26.5	41.2	23.79	48.3	9.8	H
17889.600	38.9	-26.2	41.3	23.84	48.3	9.4	H

802.11ac-HT80

Ch155

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5654.860	37.9	-33.5	34.8	36.54	51.8	13.9	H
5922.860	37.1	-32.3	35.1	34.33	49.8	12.7	H
11550.400	36.7	-30.8	38.3	29.24	48.3	11.6	H
17324.800	38.3	-26.7	41.4	23.69	48.3	10.0	H
17627.200	38.5	-26.5	41.2	23.77	48.3	9.8	H
17898.400	38.9	-26.2	41.3	23.85	48.3	9.4	H

Peak Results :

802.11a

Ch149

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5650.265	46.4	-33.1	34.7	44.72	68.4	22.0	H
5652.392	46.3	-33.0	34.7	44.54	70.0	23.7	H
11490.000	50.0	-30.8	38.2	42.63	68.3	18.3	H
17235.000	54.5	-26.6	41.5	39.64	68.3	13.8	V
16959.328	56.6	-27.0	41.7	41.90	68.3	11.7	H
17064.476	56.1	-26.3	41.6	40.80	68.3	12.2	H

Ch157

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5728.000	45.3	-33.7	34.8	44.11	68.3	23.0	H
5840.000	45.7	-33.6	35.0	44.24	68.3	22.6	H
11570.000	50.2	-30.8	38.3	42.76	68.3	18.1	H
17355.000	54.5	-26.6	41.3	39.78	68.3	13.8	H
16963.270	56.5	-26.9	41.7	41.77	68.3	11.8	H
17060.360	56.2	-26.3	41.6	40.91	68.3	12.1	V

Ch165

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5923.620	46.2	-32.5	35.1	43.61	69.2	23.0	H
5924.345	46.3	-32.5	35.1	43.73	68.7	22.4	H
11650.000	50.2	-30.6	38.4	42.47	68.3	18.1	V
17475.000	54.4	-26.3	41.2	39.45	68.3	13.9	V
16883.320	56.5	-27.0	41.6	41.85	68.3	11.8	H
17064.290	56.3	-26.3	41.6	40.91	68.3	12.1	H

802.11n-HT20

Ch149

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5650.357	45.9	-33.0	34.7	44.28	68.5	22.5	H
5651.748	46.1	-33.0	34.7	44.45	69.5	23.3	H
11490.000	50.0	-30.8	38.2	42.65	68.3	18.3	V
17235.000	54.5	-26.6	41.5	39.62	68.3	13.8	H
16958.460	56.6	-27.0	41.7	41.91	68.3	11.7	V
17063.670	56.2	-26.3	41.6	40.88	68.3	12.1	H

Ch157

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5745.400	45.3	-34.0	34.9	44.38	68.3	23.0	H
5829.200	44.6	-33.8	35.0	43.42	68.3	23.7	H
11570.000	50.2	-30.8	38.3	42.71	68.3	18.1	V
17355.000	54.5	-26.6	41.3	39.76	68.3	13.8	H
16948.650	56.3	-27.0	41.7	41.66	68.3	12.0	V
17058.250	56.3	-26.3	41.6	41.01	68.3	12.0	H

Ch165

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5923.425	46.1	-32.5	35.1	43.51	69.4	23.3	H
5924.586	46.0	-32.5	35.1	43.38	68.5	22.5	H
11650.000	50.2	-30.6	38.4	42.47	68.3	18.1	H
17475.000	54.4	-26.3	41.2	39.44	68.3	13.9	V
16885.380	56.5	-27.0	41.6	41.87	68.3	11.8	V
17066.280	56.3	-26.3	41.6	40.97	68.3	12.0	H

802.11n-HT40

Ch151

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5650.414	45.2	-33.0	34.7	43.51	68.5	22.2	H
5651.104	45.7	-33.0	34.7	44.04	69.0	23.4	H
11510.000	49.4	-30.8	38.2	42.00	68.3	18.9	V
17265.200	53.7	-26.8	41.4	39.05	68.3	14.6	V
17396.650	56.2	-26.5	41.3	41.36	68.3	12.1	V
17618.850	56.0	-26.5	41.2	41.24	68.3	12.3	V

Ch159

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
5924.057	46.2	-32.5	35.1	43.57	68.9	22.7	H
5924.529	45.7	-32.5	35.1	43.06	68.5	22.9	H
11589.750	49.5	-30.8	38.3	41.99	68.3	18.8	H
17385.100	53.0	-26.5	41.3	38.16	68.3	15.3	V
17682.650	55.0	-26.5	41.2	40.24	68.3	13.3	V
17902.650	56.1	-26.2	41.3	40.98	68.3	12.2	V