

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

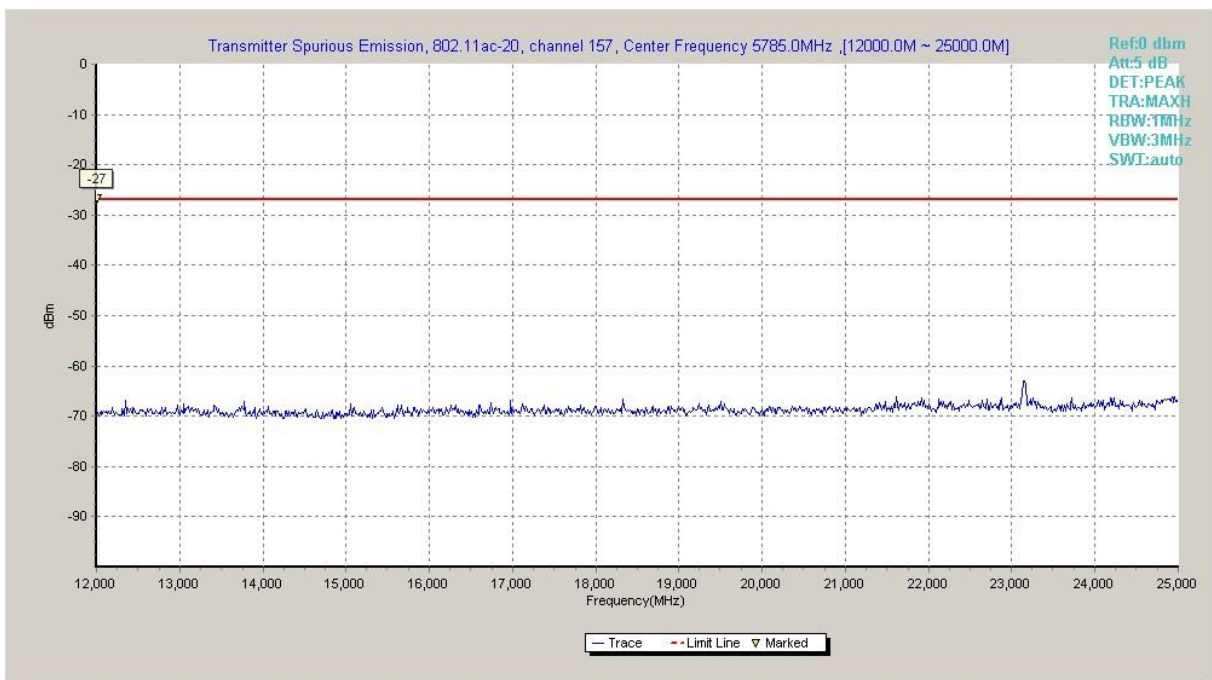


Fig. 45 Conducted Spurious Emission (802.11ac-HT20, Ch157, 12 GHz-25 GHz)

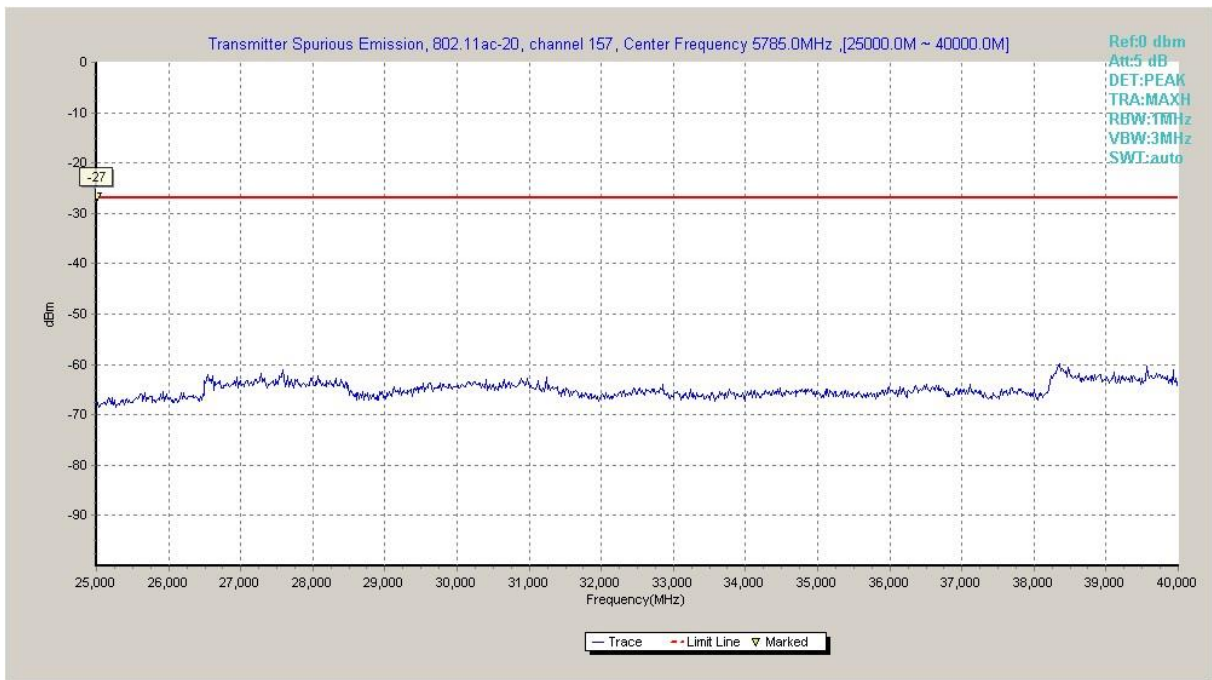


Fig. 46 Conducted Spurious Emission (802.11ac-HT20, Ch157, 25 GHz-40 GHz)

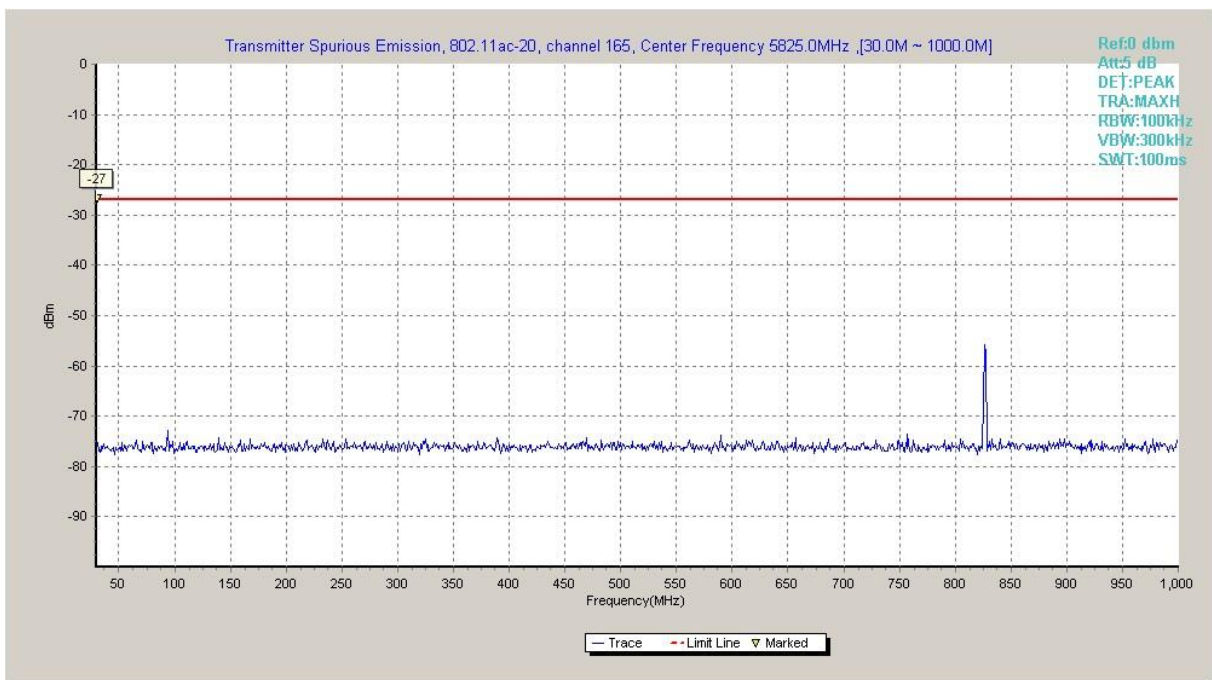


Fig. 47 Conducted Spurious Emission (802.11ac-HT20, Ch165, 30 MHz-1 GHz)

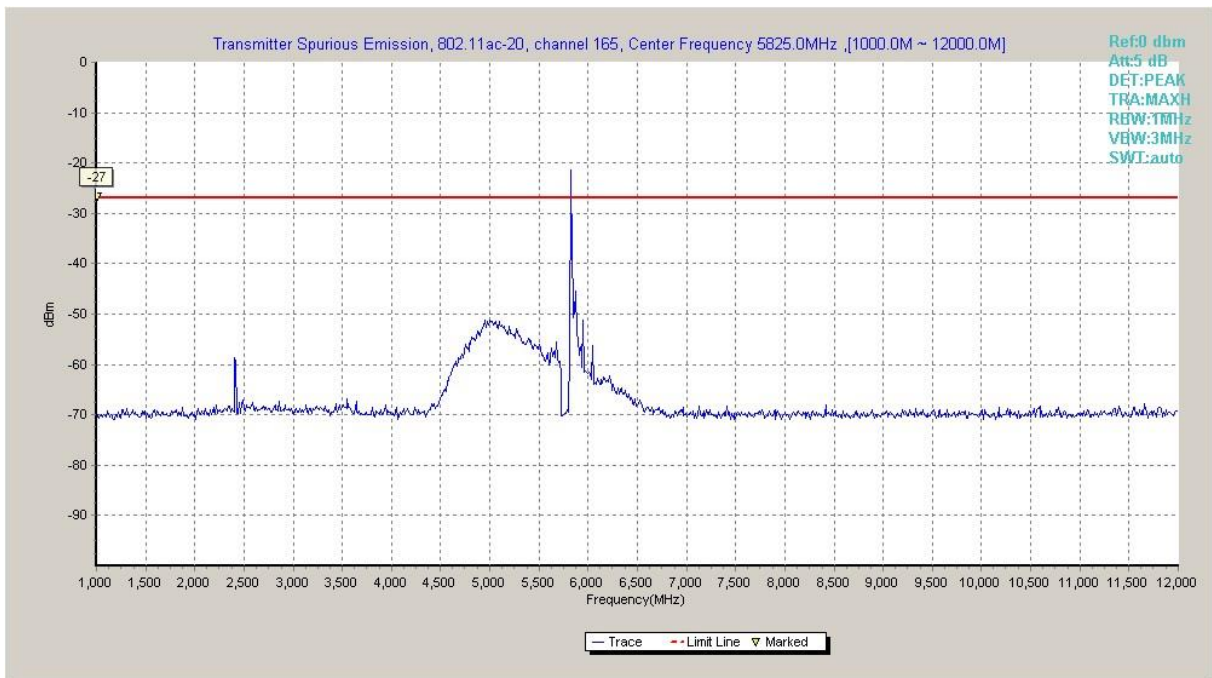


Fig. 48 Conducted Spurious Emission (802.11ac-HT20, Ch165, 1 GHz -12 GHz)

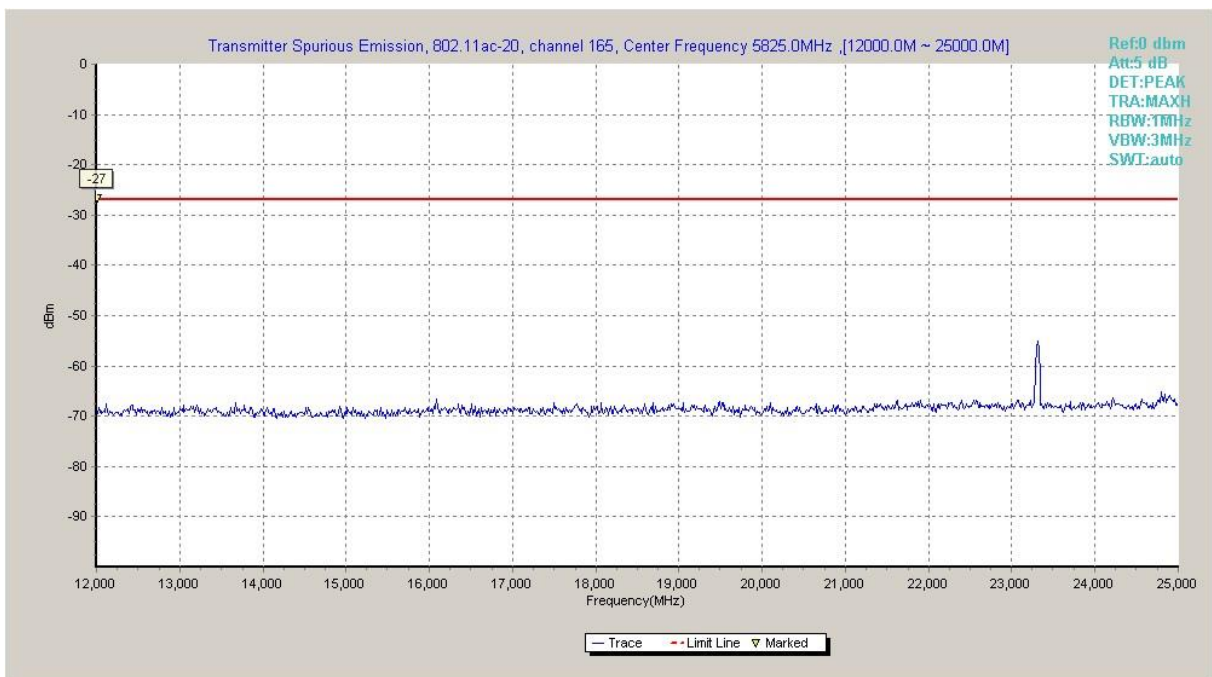


Fig. 49 Conducted Spurious Emission (802.11ac-HT20, Ch165, 12 GHz-25 GHz)

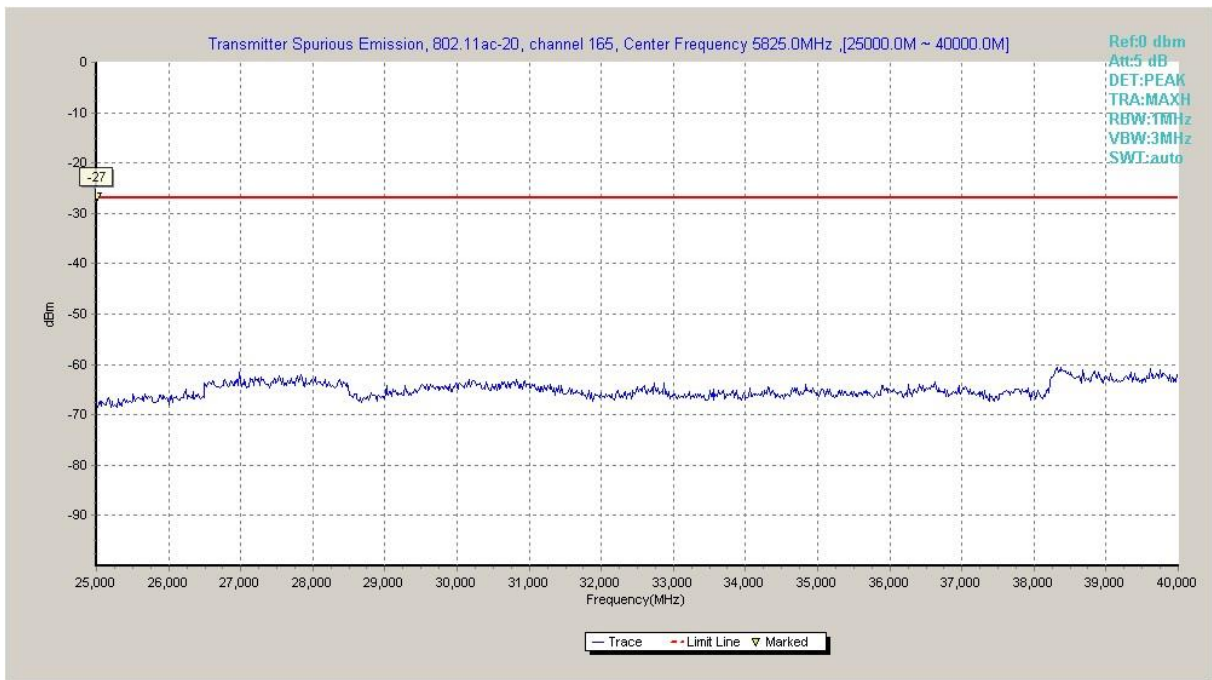


Fig. 50 Conducted Spurious Emission (802.11ac-HT20, Ch165, 25 GHz-40 GHz)

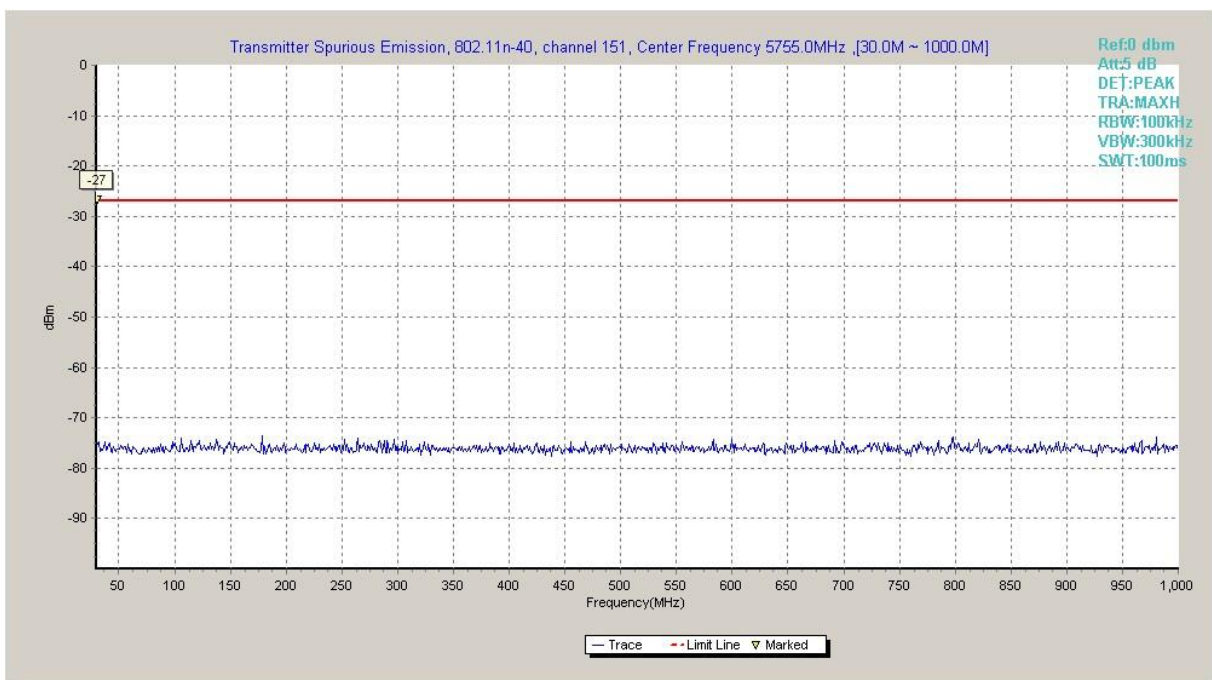


Fig. 51 Conducted Spurious Emission (802.11n-HT40, Ch151, 30 MHz-1 GHz)

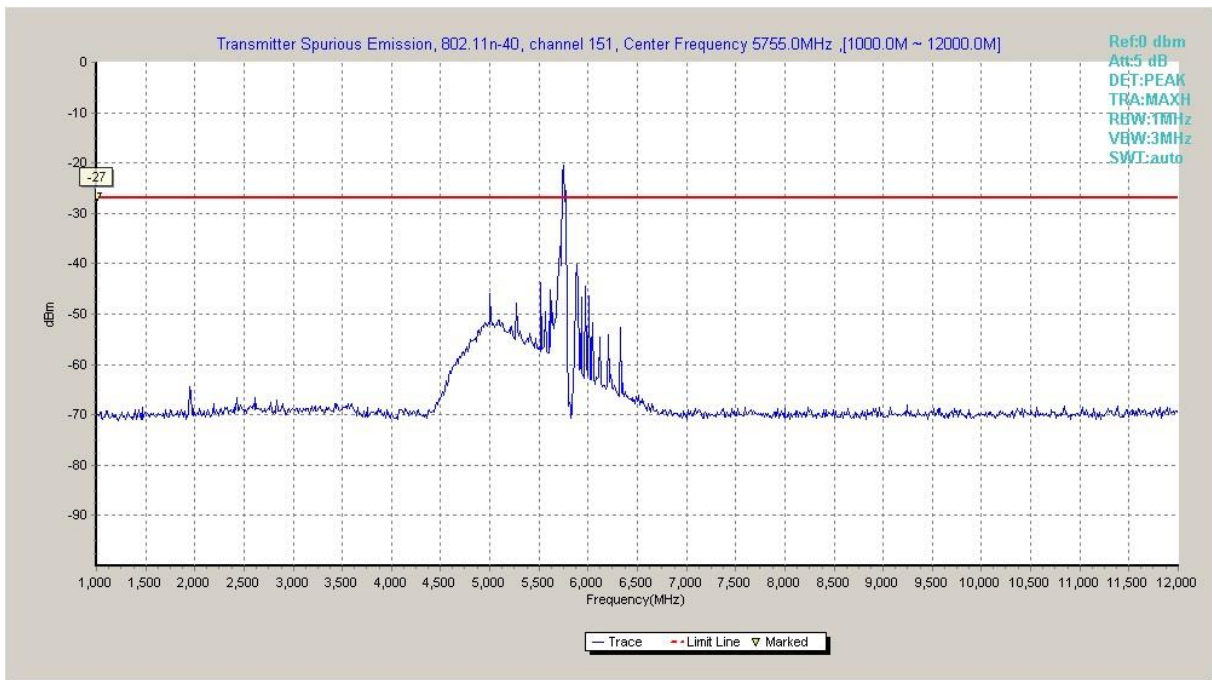


Fig. 52 Conducted Spurious Emission (802.11n-HT40, Ch151, 1 GHz -12 GHz)

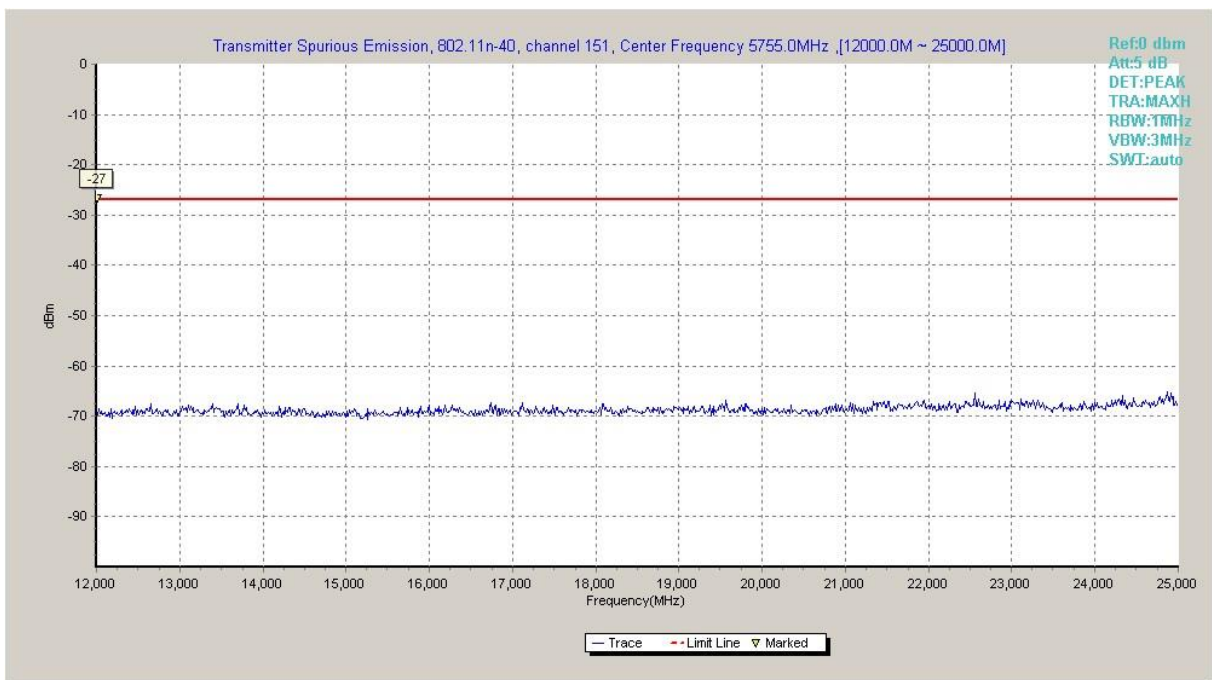


Fig. 53 Conducted Spurious Emission (802.11n-HT40, Ch151, 12 GHz-25 GHz)

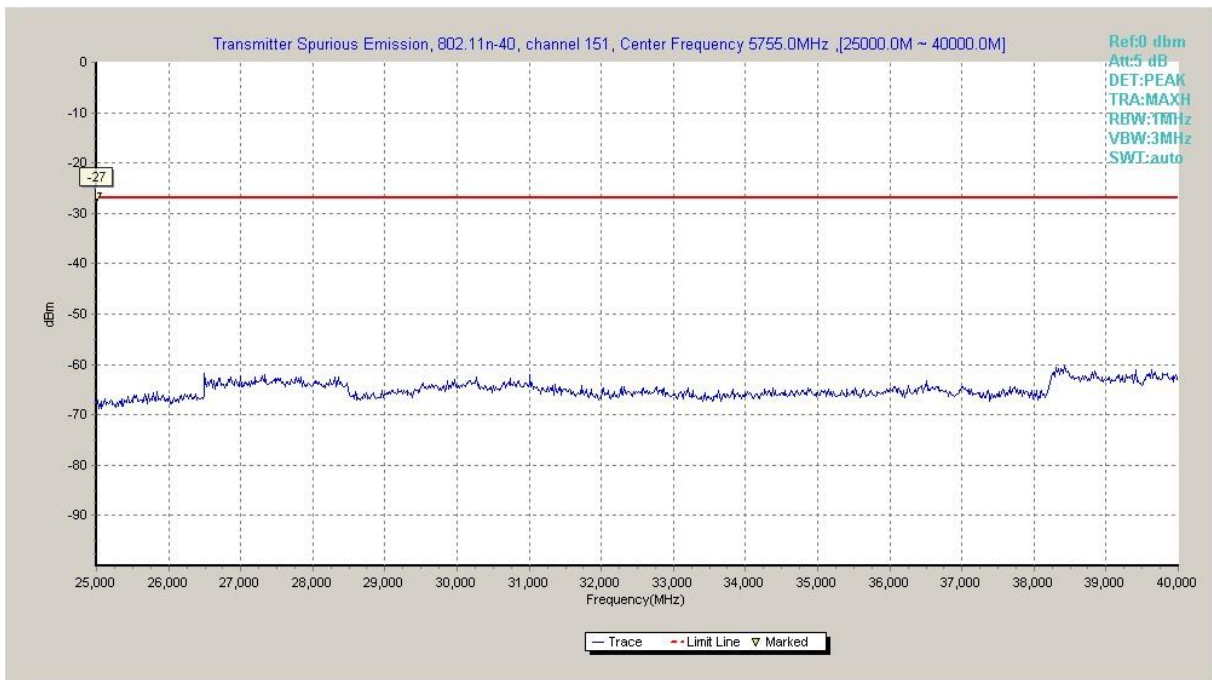


Fig. 54 Conducted Spurious Emission (802.11n-HT40, Ch151, 25 GHz-40 GHz)

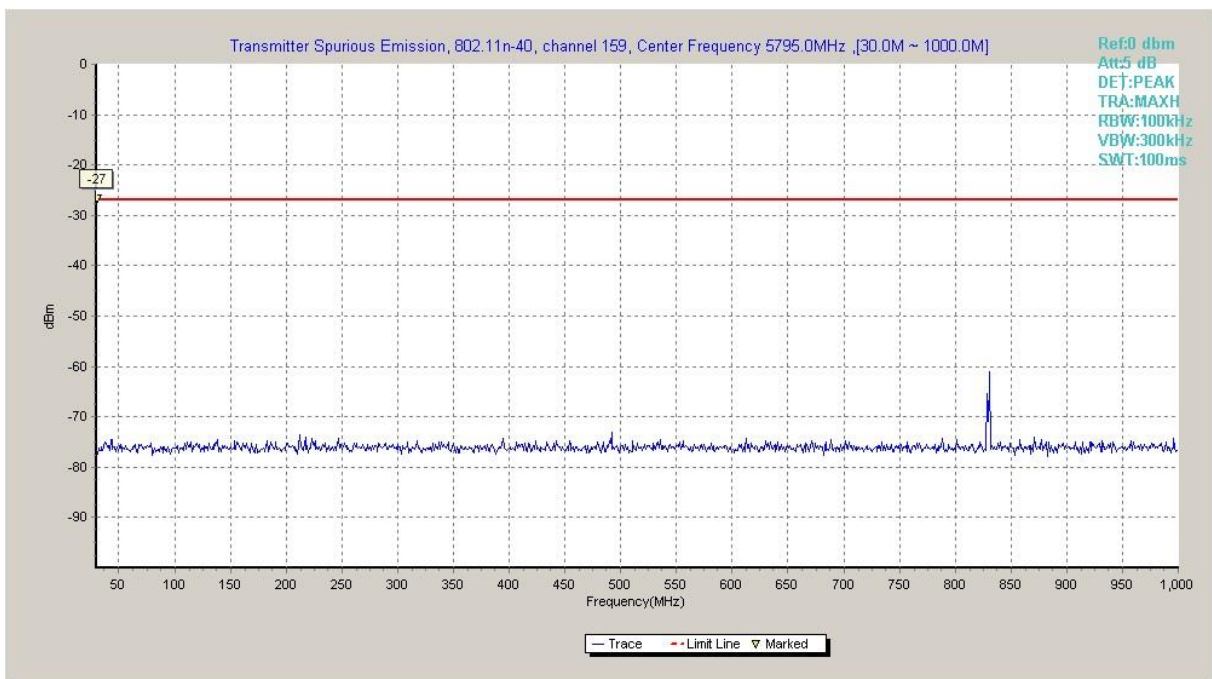


Fig. 55 Conducted Spurious Emission (802.11n-HT40, Ch159, 30 MHz-1 GHz)

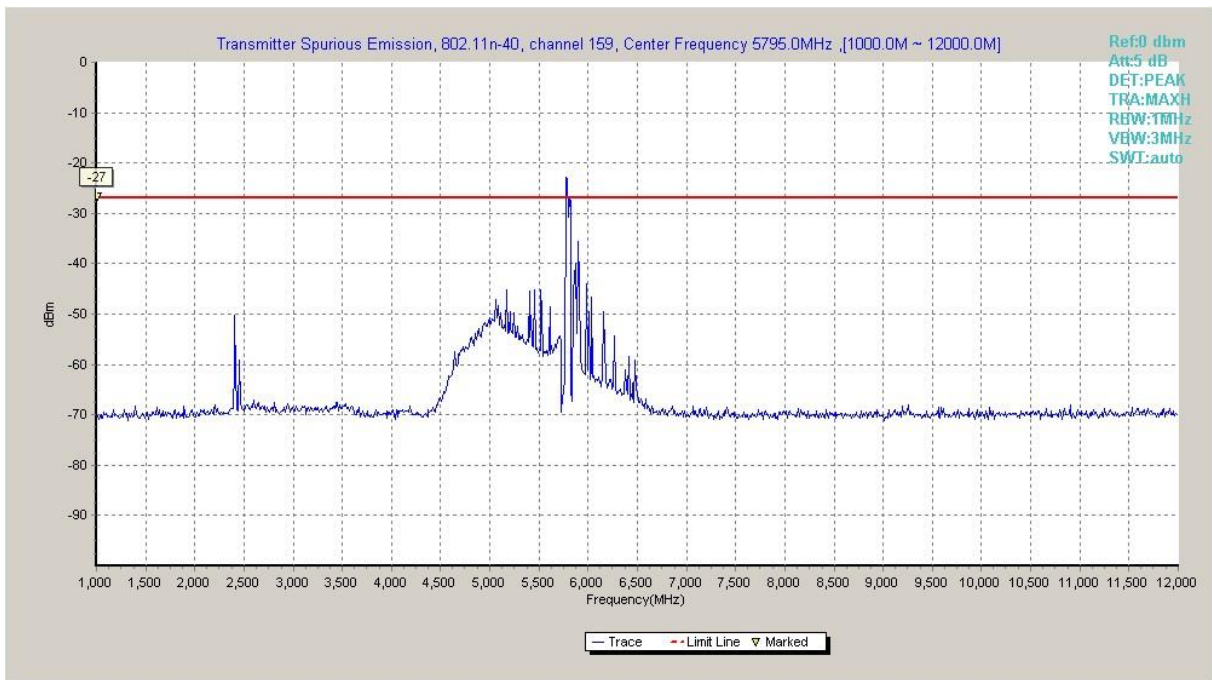


Fig. 56 Conducted Spurious Emission (802.11n-HT40, Ch159, 1 GHz -12 GHz)

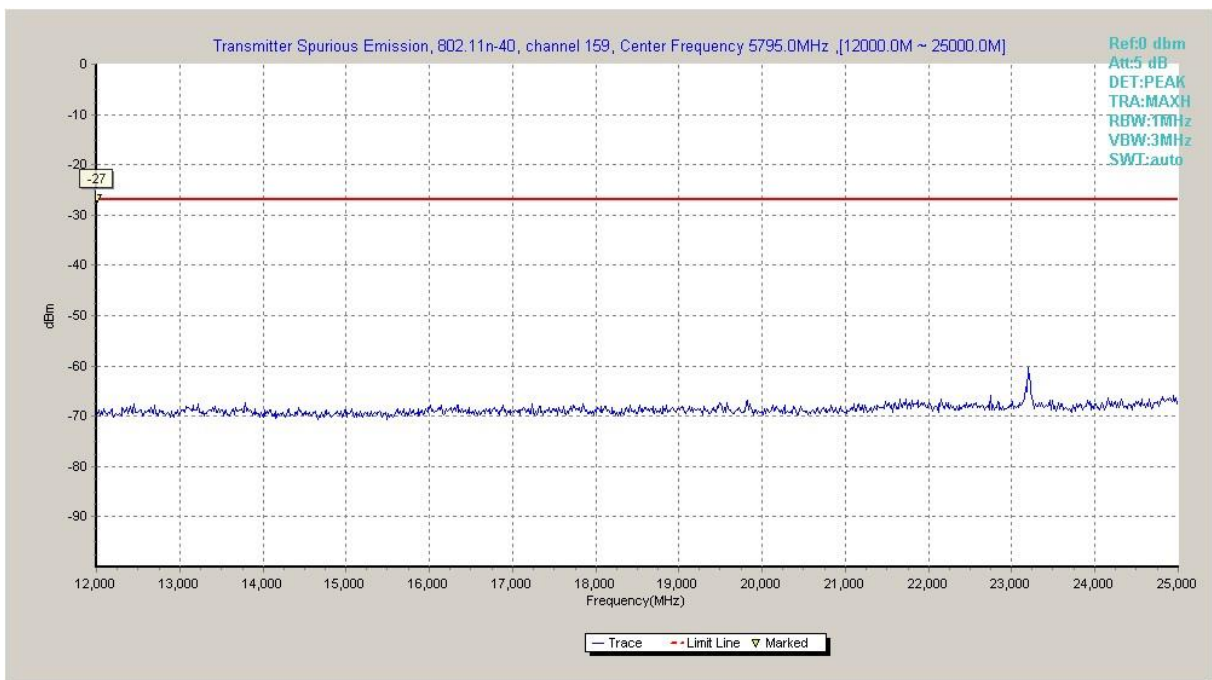


Fig. 57 Conducted Spurious Emission (802.11n-HT40, Ch159, 12 GHz-25 GHz)

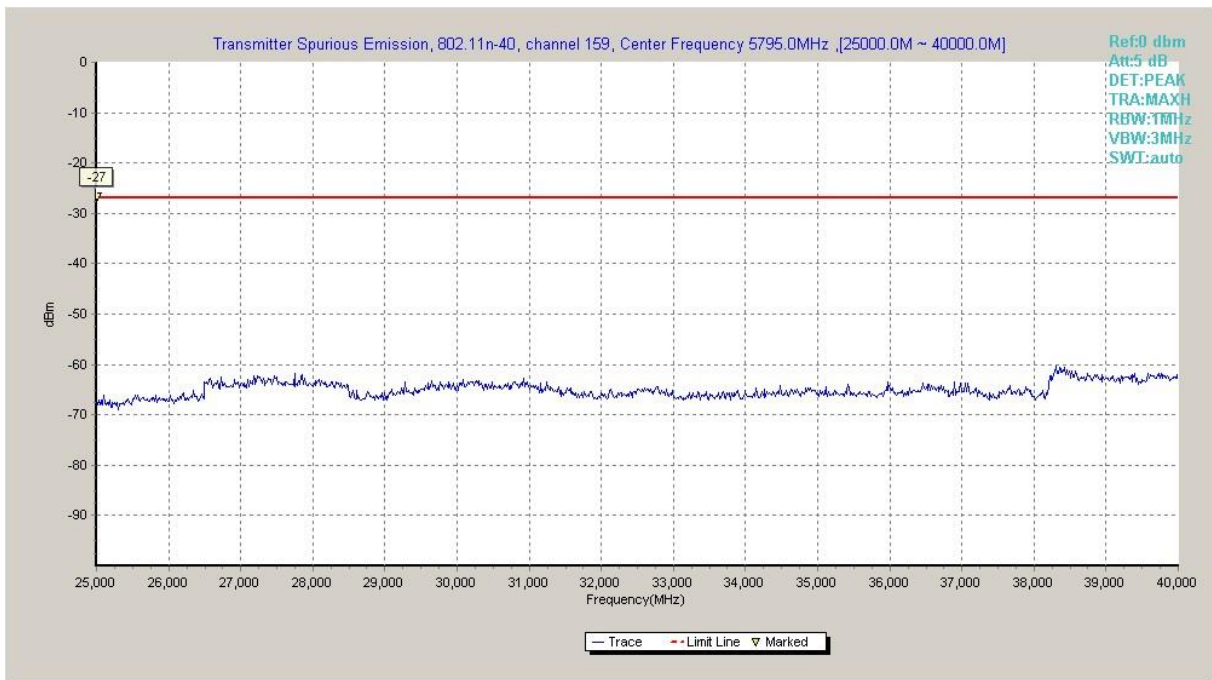


Fig. 58 Conducted Spurious Emission (802.11n-HT40, Ch159, 25 GHz-40 GHz)

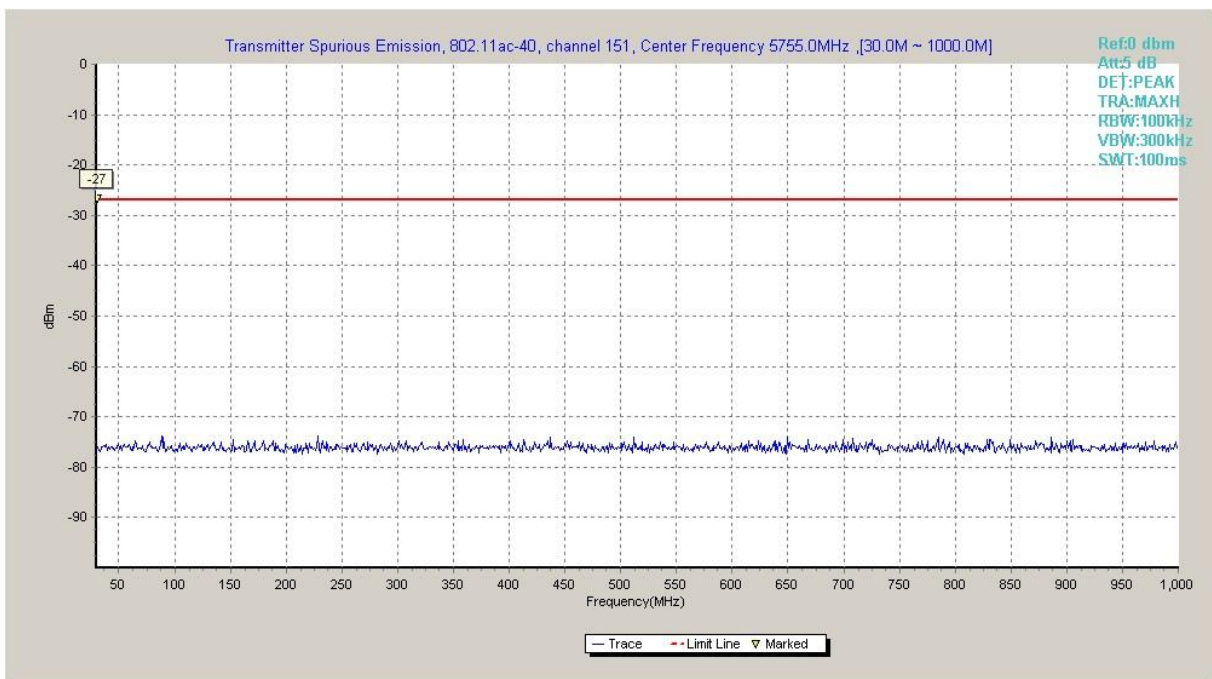


Fig. 59 Conducted Spurious Emission (802.11ac-HT40, Ch151, 30 MHz-1 GHz)

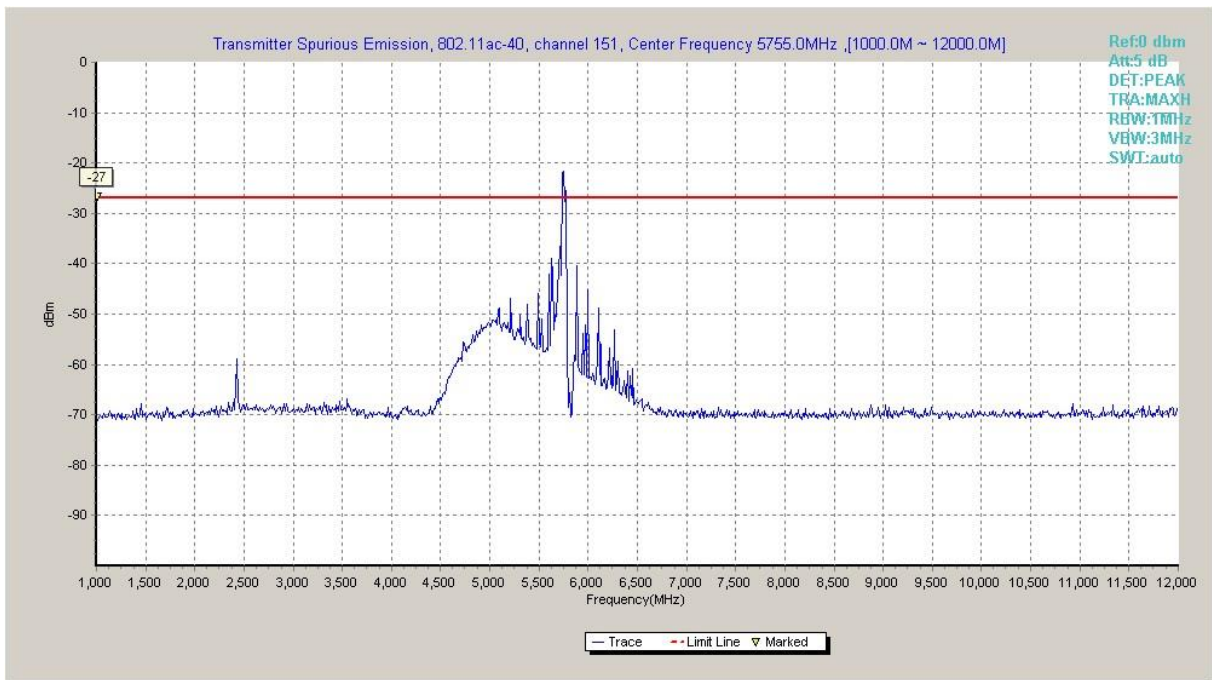


Fig. 60 Conducted Spurious Emission (802.11ac-HT40, Ch151, 1 GHz -12 GHz)

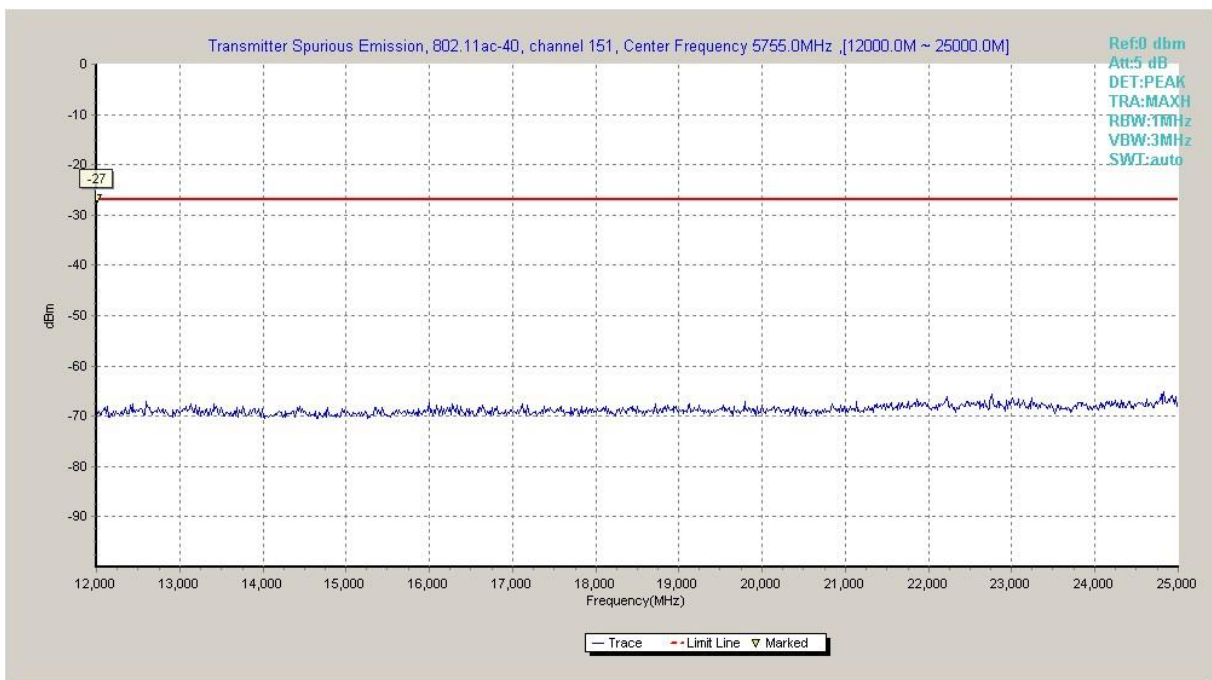


Fig. 61 Conducted Spurious Emission (802.11ac-HT40, Ch151, 12 GHz-25 GHz)

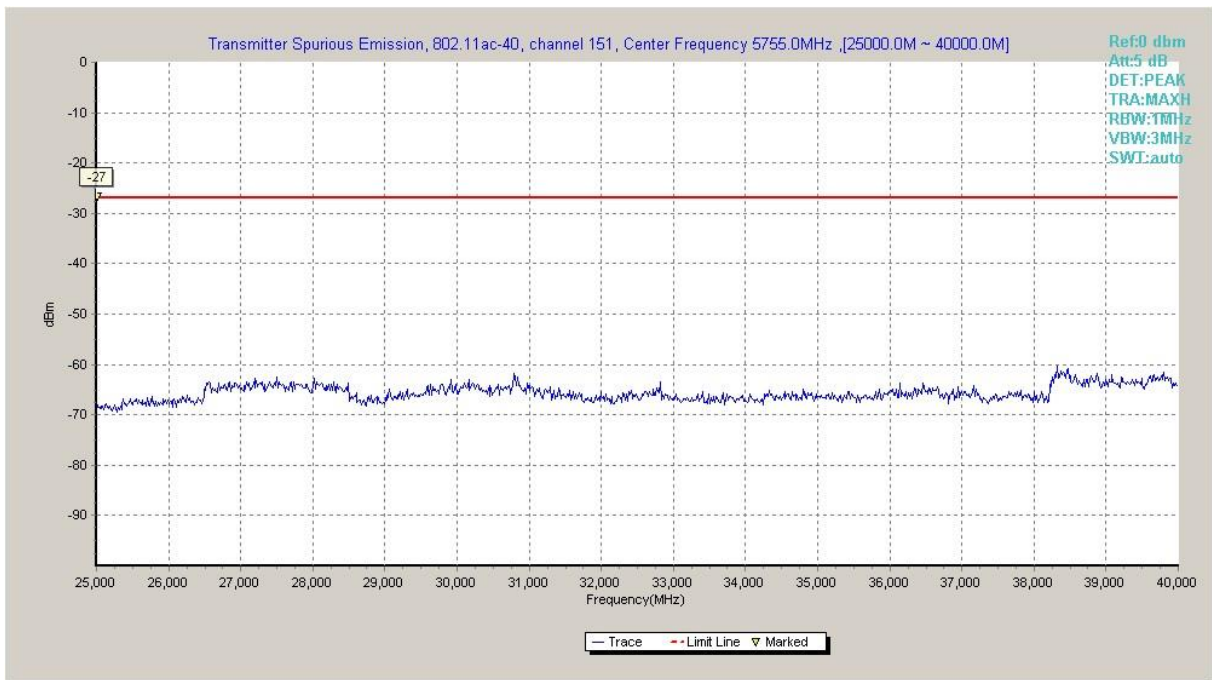


Fig. 62 Conducted Spurious Emission (802.11ac-HT40, Ch151, 25 GHz-40 GHz)

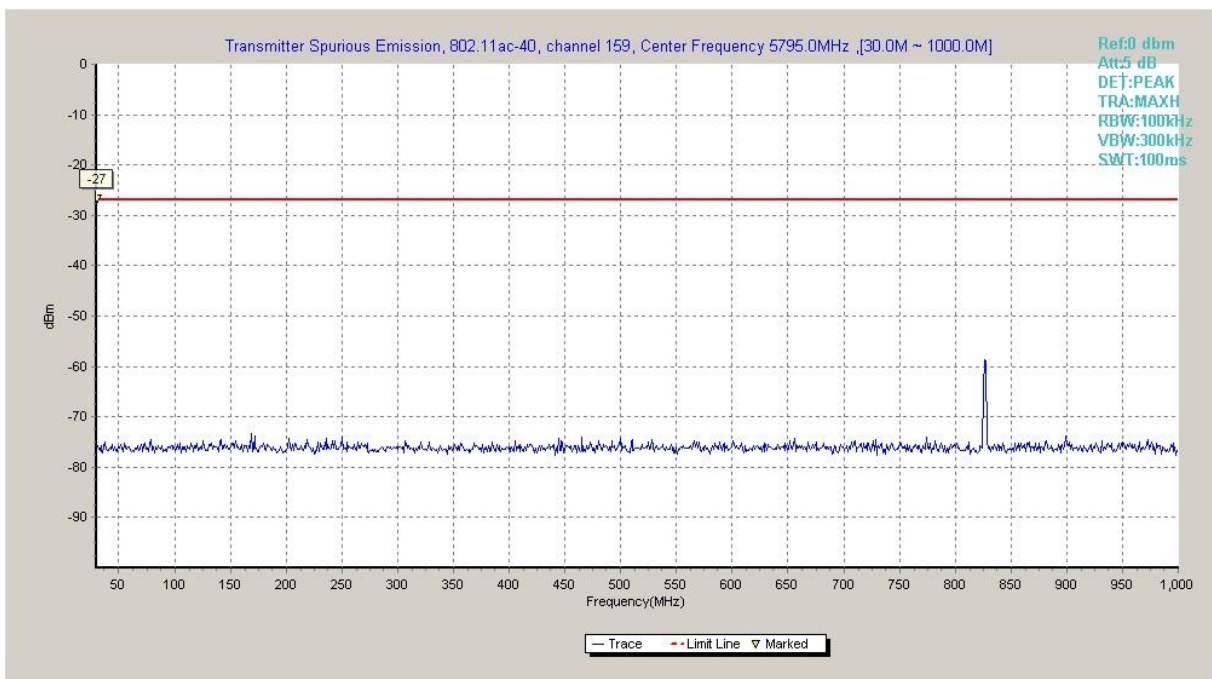


Fig. 63 Conducted Spurious Emission (802.11ac-HT40, Ch159, 30 MHz-1 GHz)

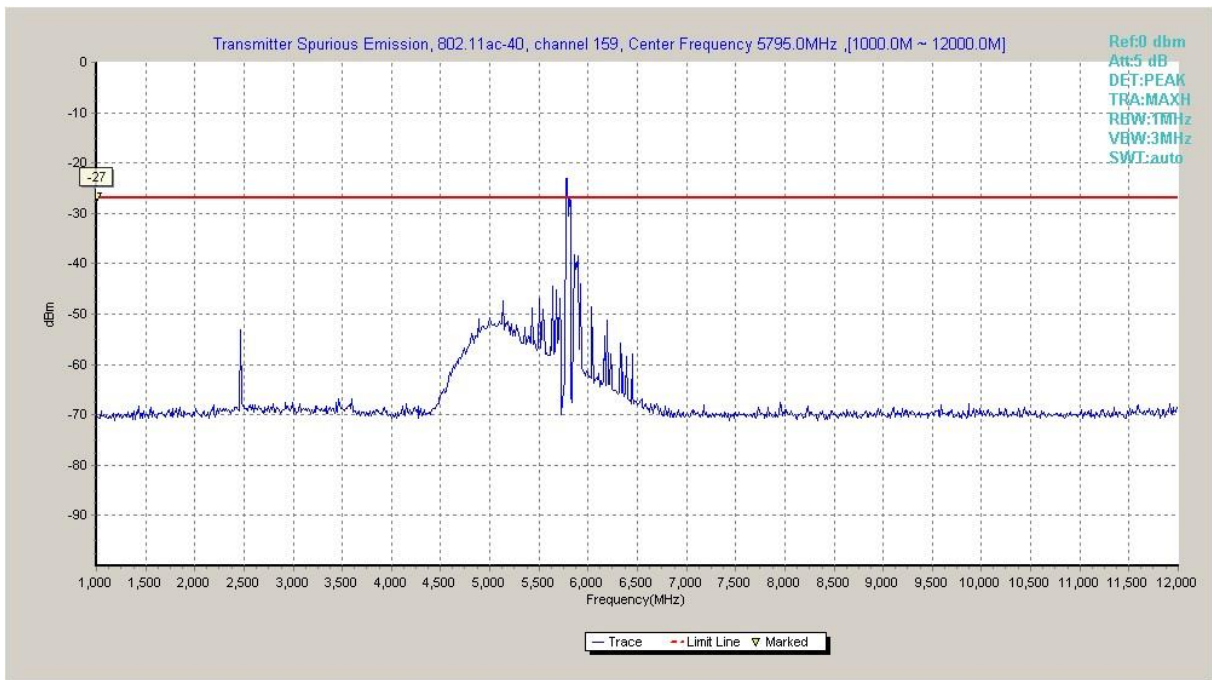


Fig. 64 Conducted Spurious Emission (802.11ac-HT40, Ch159, 1 GHz -12 GHz)

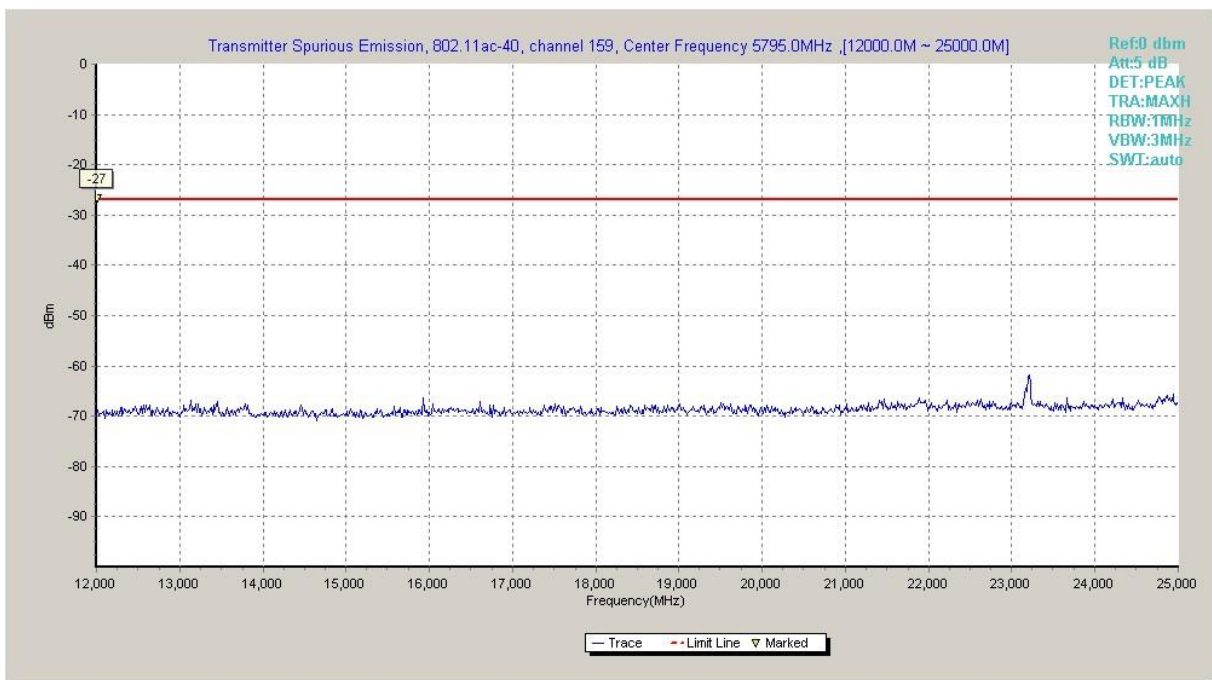


Fig. 65 Conducted Spurious Emission (802.11ac-HT40, Ch159, 12 GHz-25 GHz)

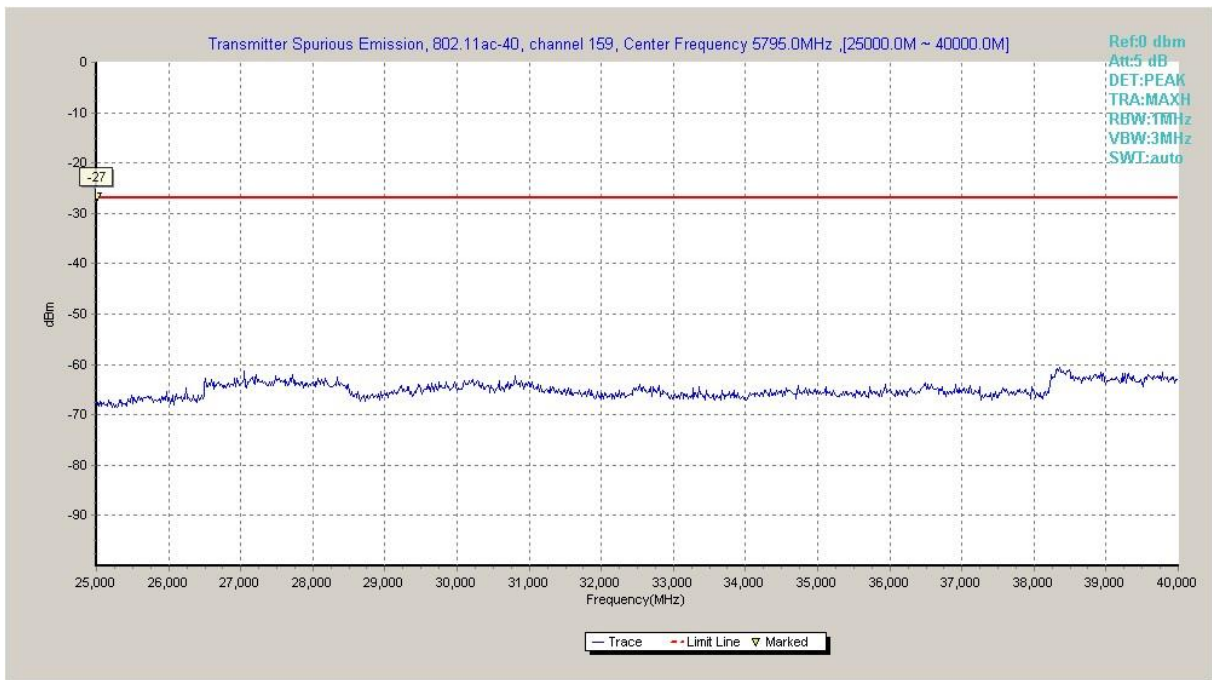


Fig. 66 Conducted Spurious Emission (802.11ac-HT40, Ch159, 25 GHz-40 GHz)

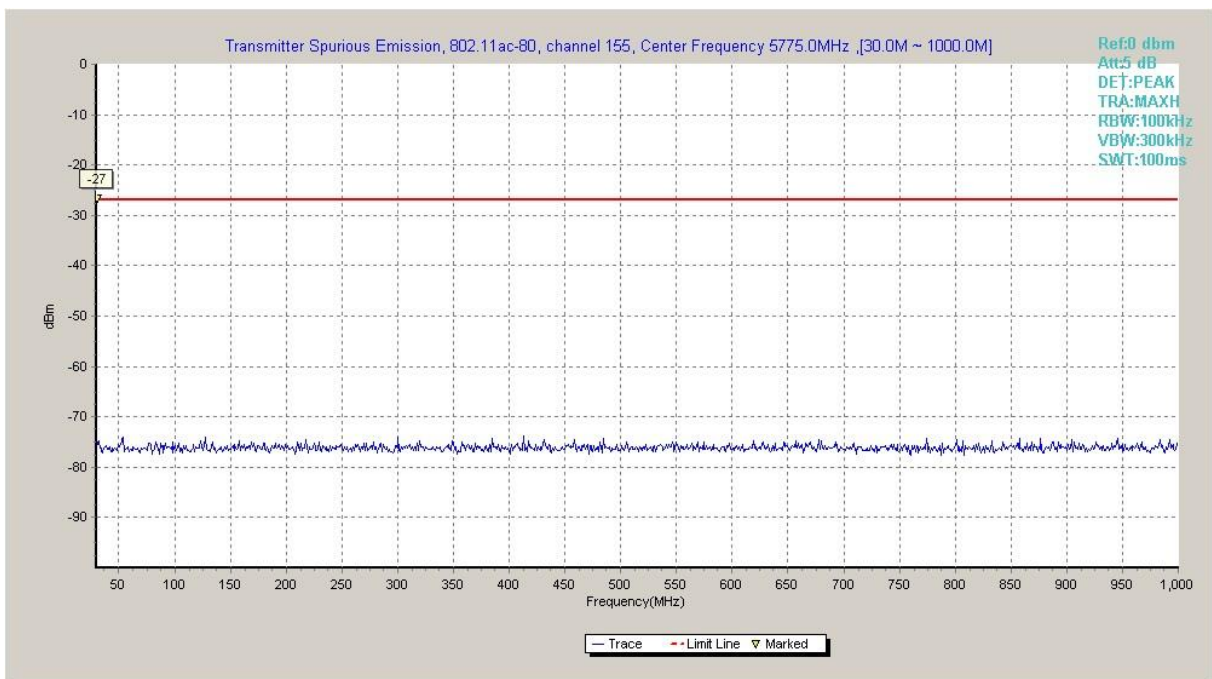


Fig. 67 Conducted Spurious Emission (802.11ac-HT80, Ch155, 30 MHz-1 GHz)

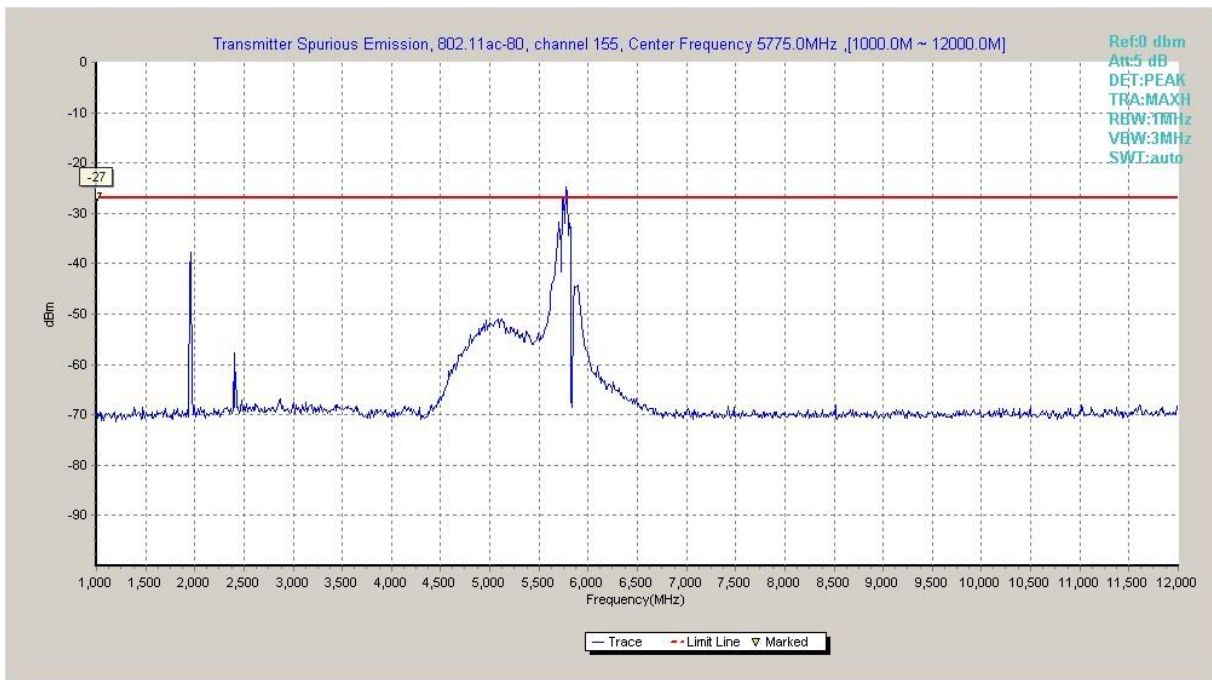


Fig. 68 Conducted Spurious Emission (802.11ac-HT80, Ch155, 1 GHz -12 GHz)

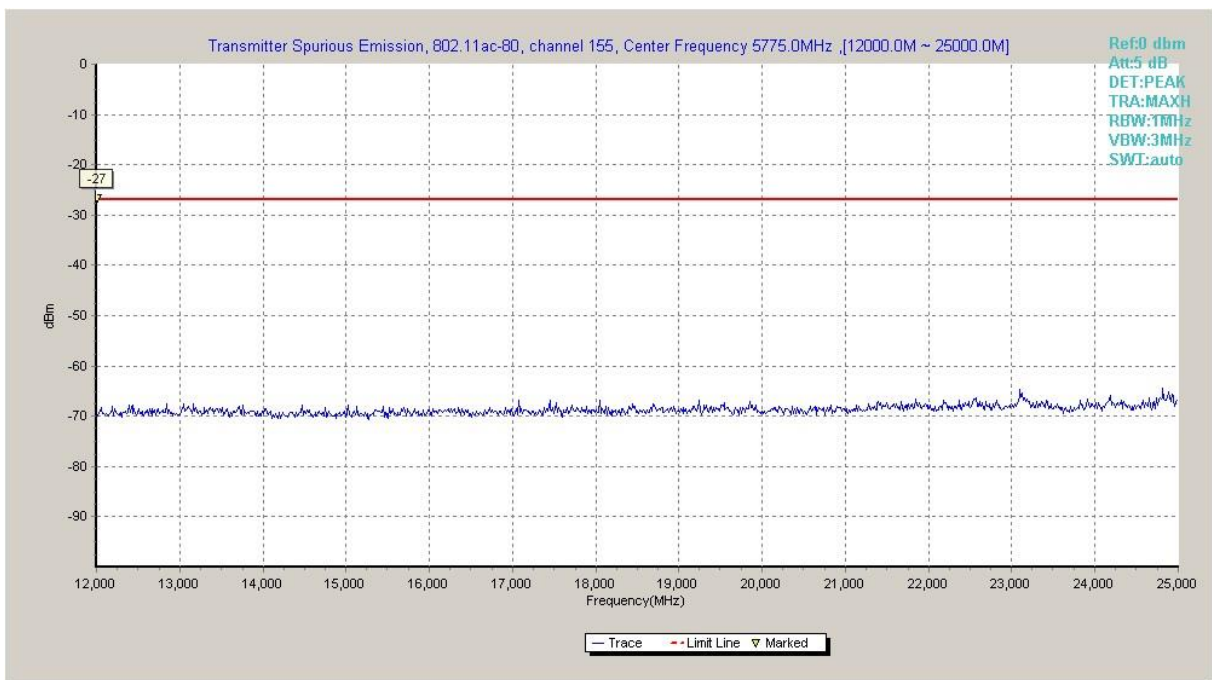


Fig. 69 Conducted Spurious Emission (802.11ac-HT80, Ch155, 12 GHz-25 GHz)

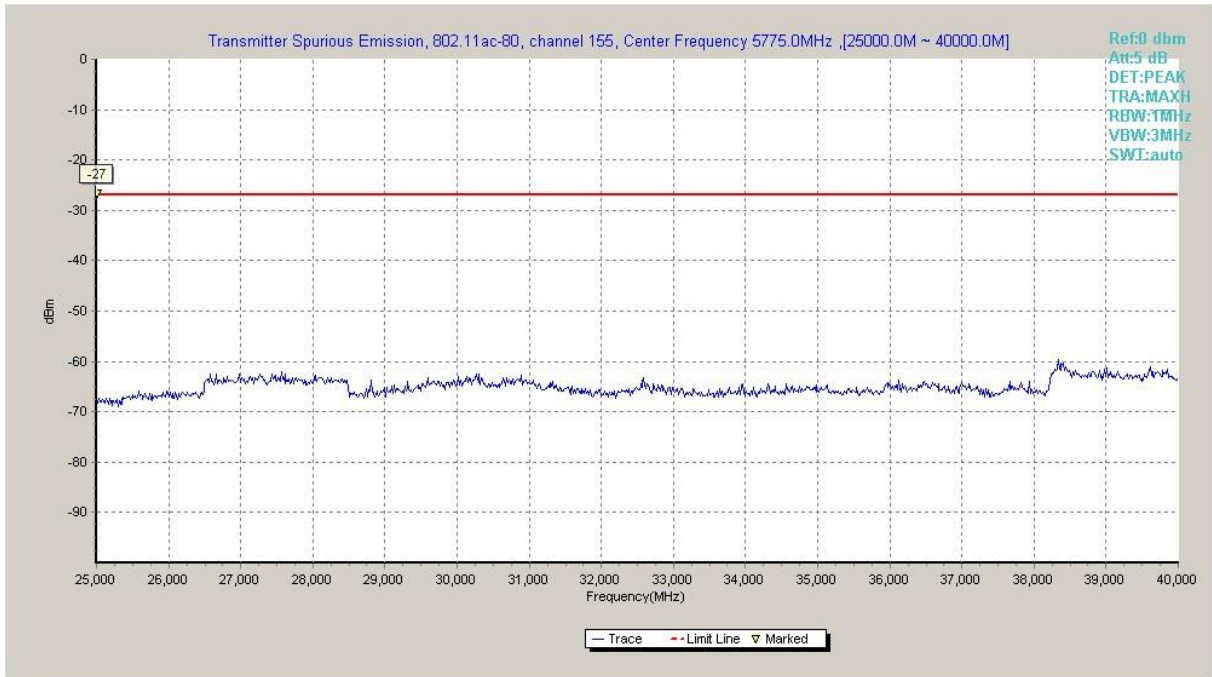


Fig. 70 Conducted Spurious Emission (802.11ac-HT80, Ch155, 25 GHz-40 GHz)

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 (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)	Measurement Result (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5650.500	31.5	-33.0	34.7	29.86	48.6	17.0	H	155	6
5655.000	31.6	-32.9	34.7	29.80	51.9	20.3	H	155	48
7659.450	38.5	-31.3	35.8	33.98	48.3	9.8	H	155	92
11490.000	34.8	-30.8	38.2	27.46	48.3	13.5	H	155	48
17235.000	39.6	-26.6	41.5	24.73	48.3	8.7	H	155	68
12615.500	37.5	-30.9	39.1	29.20	48.3	10.8	H	155	92

Ch157

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)	Antenna Height (cm)	Turntable angle (deg)
5565.000	32.5	-34.7	34.6	32.62	48.3	15.8	H	155	268
5934.000	33.7	-32.6	35.1	31.17	48.3	14.6	H	155	138
7713.350	38.1	-33.1	35.8	35.36	48.3	10.2	H	155	104
11570.000	34.8	-30.8	38.3	27.29	48.3	13.5	H	155	40
17355.000	39.5	-26.6	41.3	24.77	48.3	8.8	H	155	28
13076.500	37.1	-31.6	39.2	29.55	48.3	11.2	H	155	8

Ch165

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)	Antenna Height (cm)	Turntable angle (deg)
5919.000	34.0	-32.5	35.1	31.32	52.6	18.7	H	155	16
5925.000	33.9	-32.5	35.1	31.33	48.2	14.3	H	155	48
11650.000	36.7	-30.6	38.4	28.98	48.3	11.6	H	155	80
17475.000	38.6	-26.3	41.2	23.62	48.3	9.8	H	155	8
17886.780	39.8	-26.2	41.3	24.75	48.3	8.5	H	155	102
17032.800	39.9	-26.5	41.7	24.70	48.3	8.4	H	155	118

802.11n-HT20

Ch149

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)	Antenna Height (cm)	Turntable angle (deg)
5650.500	32.3	-33.0	34.7	30.68	48.6	16.2	H	155	28
5655.000	32.2	-32.9	34.7	30.46	51.9	19.7	H	155	46
11490.000	34.9	-30.8	38.2	27.55	48.3	13.4	H	155	8
17235.000	39.6	-26.6	41.5	24.78	48.3	8.7	H	155	6
13084.500	37.1	-31.7	39.1	29.67	48.3	11.2	H	155	24
17889.600	39.8	-26.2	41.3	24.71	48.3	8.5	H	155	185

Ch157

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)	Antenna Height (cm)	Turntable angle (deg)
5482.500	32.9	-33.7	34.5	32.15	48.3	15.4	H	155	92
5917.500	33.7	-32.4	35.1	31.08	48.3	14.6	H	155	26
11570.000	35.0	-30.8	38.3	27.53	48.3	13.3	H	155	222
17355.000	39.1	-26.6	41.3	24.39	48.3	9.2	H	155	248
13088.500	37.2	-31.7	39.1	29.66	48.3	11.2	H	155	46
17859.600	39.8	-26.3	41.3	24.91	48.3	8.5	H	155	68

Ch165

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)	Antenna Height (cm)	Turntable angle (deg)
5919.000	34.0	-32.5	35.1	31.33	52.6	18.7	H	155	8
5925.000	34.0	-32.5	35.1	31.39	48.2	14.2	H	155	28
11650.000	35.4	-30.6	38.4	27.68	48.3	12.9	H	155	119
17475.000	38.7	-26.3	41.2	23.77	48.3	9.6	H	155	146
12625.800	37.6	-30.6	39.1	29.07	48.3	10.7	H	155	76
17902.500	37.8	-26.2	41.3	22.73	48.3	10.5	H	155	94

802.11n-HT40

Ch151

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)	Antenna Height (cm)	Turntable angle (deg)
5654.450	33.1	-33.0	34.7	31.32	51.5	18.4	H	155	92
5651.360	33.2	-33.0	34.7	31.46	49.2	16.1	H	155	68
11510.000	34.8	-30.8	38.2	27.38	48.3	13.5	H	155	118
17265.000	39.1	-26.8	41.4	24.38	48.3	9.2	H	155	354
13094.560	37.1	-31.6	39.1	29.54	48.3	11.2	H	155	18
16940.750	39.7	-27.1	41.7	25.09	48.3	8.6	H	155	38

Ch159

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)	Antenna Height (cm)	Turntable angle (deg)
5922.750	34.4	-32.5	35.1	31.83	49.9	15.4	H	155	20
5924.680	34.2	-32.5	35.1	31.59	48.4	14.3	H	155	18
11590.000	34.5	-30.8	38.3	27.04	48.3	13.8	H	155	90
17385.000	39.0	-26.5	41.3	24.23	48.3	9.3	H	155	114
12611.450	37.5	-30.9	39.1	29.32	48.3	10.8	H	155	36
17894.400	39.9	-26.2	41.3	24.80	48.3	8.4	H	155	2

802.11ac-HT20

Ch149

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)	Antenna Height (cm)	Turntable angle (deg)
5652.000	32.6	-33.0	34.7	30.92	49.7	17.1	H	155	8
5653.500	32.7	-33.0	34.7	30.94	50.8	18.1	H	155	16
11490.000	34.8	-30.8	38.2	27.41	48.3	13.5	H	155	312
17235.000	39.6	-26.6	41.5	24.76	48.3	8.7	H	155	48
13090.500	37.2	-31.6	39.1	29.69	48.3	11.1	H	155	68
17890.500	39.8	-26.2	41.3	24.76	48.3	8.5	H	155	80

Ch157

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)	Antenna Height (cm)	Turntable angle (deg)
5493.560	32.9	-33.9	34.5	32.30	48.3	15.4	H	155	268
5924.650	33.8	-32.5	35.1	31.24	48.3	14.5	H	155	138
11570.000	34.9	-30.8	38.3	27.40	48.3	13.4	H	155	104
17355.000	39.1	-26.6	41.3	24.36	48.3	9.2	H	155	40
13094.500	37.2	-31.6	39.1	29.66	48.3	11.1	H	155	28
17848.500	39.9	-26.4	41.3	25.03	48.3	8.4	H	155	8

Ch165

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)	Antenna Height (cm)	Turntable angle (deg)
5920.500	33.7	-32.5	35.1	31.03	51.5	17.9	H	155	354
5925.000	33.8	-32.5	35.1	31.23	48.2	14.4	H	155	28
11650.000	35.5	-30.6	38.4	27.77	48.3	12.8	H	155	348
17475.000	38.8	-26.3	41.2	23.83	48.3	9.5	H	155	345
12620.500	37.6	-30.8	39.1	29.25	48.3	10.7	H	155	184
17908.500	37.9	-26.1	41.3	22.76	48.3	10.4	H	155	182

802.11ac-HT40

Ch151

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)	Antenna Height (cm)	Turntable angle (deg)
5652.450	33.2	-33.0	34.7	31.43	50.0	16.9	H	155	8
5654.500	33.1	-33.0	34.7	31.34	51.5	18.4	H	155	46
11510.000	34.6	-30.8	38.2	27.27	48.3	13.7	H	155	20
17265.000	39.1	-26.8	41.4	24.44	48.3	9.2	H	155	118
13089.800	37.2	-31.6	39.1	29.72	48.3	11.1	H	155	82
16945.500	39.7	-27.1	41.7	25.15	48.3	8.6	H	155	46

Ch159

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)	Antenna Height (cm)	Turntable angle (deg)
5921.845	34.5	-32.5	35.1	31.90	50.5	16.0	H	155	18
5924.850	34.2	-32.5	35.1	31.59	48.3	14.1	H	155	56
11590.000	34.6	-30.8	38.3	27.11	48.3	13.7	H	155	139
17385.000	39.2	-26.5	41.3	24.45	48.3	9.1	H	155	108
12605.700	37.6	-31.1	39.1	29.58	48.3	10.7	H	155	78
17886.500	39.9	-26.2	41.3	24.90	48.3	8.4	H	155	36

802.11ac-HT80

Ch155_L

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)	Antenna Height (cm)	Turntable angle (deg)
5652.450	35.2	-33.0	34.7	33.43	50.0	14.9	H	155	8
5655.840	35.1	-32.9	34.7	33.29	52.5	17.4	H	155	16
11550.000	36.2	-30.8	38.3	28.78	48.3	12.1	H	155	312
17325.000	40.1	-26.7	41.4	25.47	48.3	8.2	H	155	48
17086.500	39.7	-26.2	41.6	24.27	48.3	8.6	H	155	68
17094.650	39.8	-26.1	41.6	24.31	48.3	8.5	H	155	80

Ch155_R

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)	Antenna Height (cm)	Turntable angle (deg)
5922.380	34.7	-32.5	35.1	32.06	50.1	15.5	H	155	28
5924.460	34.7	-32.5	35.1	32.08	48.6	13.9	H	155	46
11550.000	36.2	-30.8	38.3	28.78	48.3	12.1	H	155	312
17325.000	40.1	-26.7	41.4	25.47	48.3	8.2	H	155	48
17086.500	39.7	-26.2	41.6	24.27	48.3	8.6	H	155	68
17094.650	39.8	-26.1	41.6	24.31	48.3	8.5	H	155	80

Peak Results:
802.11a

Ch149

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)	Antenna Height (cm)	Turntable angle (deg)
5650.713	46.2	-33.0	34.7	44.53	68.7	22.5	H	155	0
5651.725	46.5	-33.0	34.7	44.83	69.5	22.9	H	155	44
7659.450	50.8	-31.3	35.8	46.31	68.3	17.5	V	155	88
11490.000	49.6	-30.8	38.2	42.18	68.3	18.7	V	155	44
17235.000	56.0	-26.6	41.5	41.11	68.3	12.3	V	155	66
17549.550	57.3	-26.4	41.2	42.44	68.3	11.0	H	155	88

Ch157

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)	Antenna Height (cm)	Turntable angle (deg)
5540.200	47.8	-34.5	34.6	47.77	68.3	20.5	H	155	264
6001.000	49.9	-33.8	35.2	48.42	68.3	18.4	H	155	132
7713.350	49.1	-33.1	35.8	46.38	68.3	19.2	H	155	110
11570.000	49.4	-30.8	38.3	41.95	68.3	18.9	H	155	44
17355.000	56.6	-26.6	41.3	41.89	68.3	11.7	H	155	22
17391.150	56.7	-26.5	41.3	41.92	68.3	11.6	V	155	0

Ch165

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)	Antenna Height (cm)	Turntable angle (deg)
5922.746	48.3	-32.5	35.1	45.68	69.9	21.6	H	155	22
5924.000	48.9	-32.5	35.1	46.34	68.9	20.0	H	155	66
11650.000	49.7	-30.6	38.4	41.93	68.3	18.6	V	155	88
17475.000	55.8	-26.3	41.2	40.88	68.3	12.5	V	155	0
16924.750	57.7	-27.0	41.6	43.10	68.3	10.6	H	155	110
17553.400	57.3	-26.4	41.2	42.43	68.3	11.0	H	155	132

802.11n-HT20

Ch149

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)	Antenna Height (cm)	Turntable angle (deg)
5650.575	46.0	-33.0	34.7	44.36	68.6	22.6	H	155	22
5651.955	45.9	-33.0	34.7	44.16	69.6	23.8	H	155	44
11490.000	49.7	-30.8	38.2	42.35	68.3	18.6	V	155	0
17235.000	55.1	-26.6	41.5	40.28	68.3	13.2	H	155	0
17055.850	56.7	-26.3	41.6	41.38	68.3	11.6	V	155	22
17745.960	57.1	-26.5	41.2	42.36	68.3	11.2	H	155	176

Ch157

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)	Antenna Height (cm)	Turntable angle (deg)
5686.600	48.1	-32.9	34.8	46.20	68.3	20.2	H	155	88
5954.000	48.7	-32.7	35.1	46.22	68.3	19.6	H	155	22
11570.000	49.7	-30.8	38.3	42.27	68.3	18.6	V	155	220
17355.000	55.6	-26.6	41.3	40.91	68.3	12.7	V	155	242
16875.600	56.4	-26.9	41.6	41.78	68.3	11.9	V	155	44
17765.850	57.1	-26.5	41.3	42.34	68.3	11.3	V	155	66

Ch165

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)	Antenna Height (cm)	Turntable angle (deg)
5922.114	48.0	-32.5	35.1	45.37	70.3	22.3	H	155	0
5923.609	48.5	-32.5	35.1	45.94	69.2	20.7	H	155	22
11650.000	49.4	-30.6	38.4	41.59	68.3	18.9	H	155	110
17475.000	55.5	-26.3	41.2	40.54	68.3	12.8	V	155	132
16528.650	56.5	-26.9	41.3	42.11	68.3	11.8	V	155	66
17783.860	57.3	-26.5	41.3	42.61	68.3	11.0	V	155	88

802.11n-HT40

Ch151

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)	Antenna Height (cm)	Turntable angle (deg)
5650.931	53.1	-33.0	34.7	51.42	68.9	15.8	H	155	88
5652.905	53.2	-33.0	34.7	51.42	70.3	17.2	H	155	66
11510.000	50.0	-30.8	38.2	42.60	68.3	18.3	H	155	110
17265.000	56.5	-26.8	41.4	41.86	68.3	11.8	V	155	0
16481.450	56.6	-27.1	41.3	42.38	68.3	11.7	H	155	22
17898.250	57.5	-26.2	41.3	42.41	68.3	10.8	H	155	44