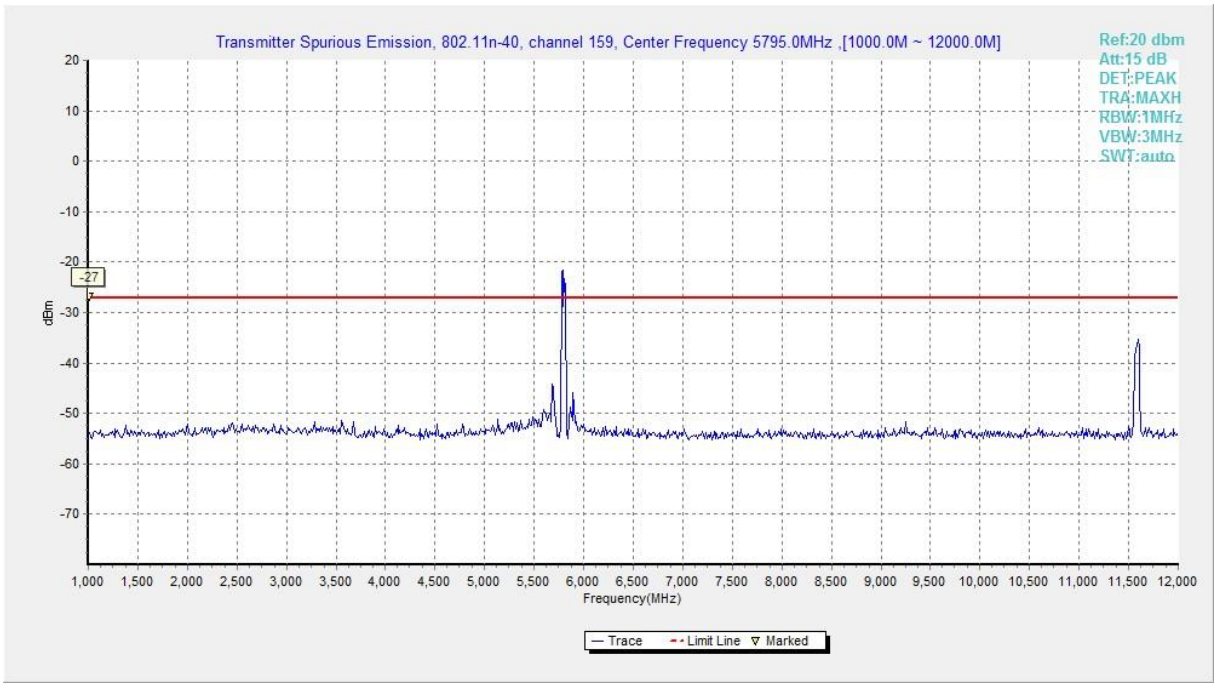

Fig. 56 Conducted Spurious Emission (802.11n-HT40, Ch159, 1 GHz -12 GHz)

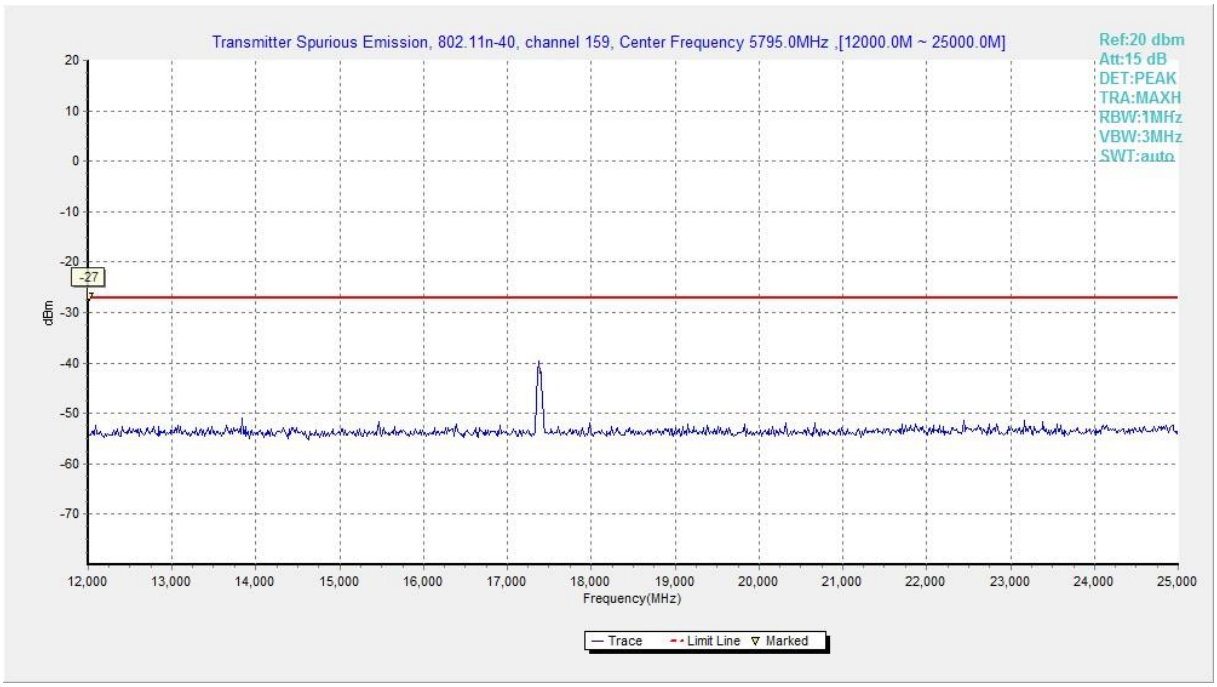

Fig. 57 Conducted Spurious Emission (802.11n-HT40, Ch159, 12 GHz-25 GHz)

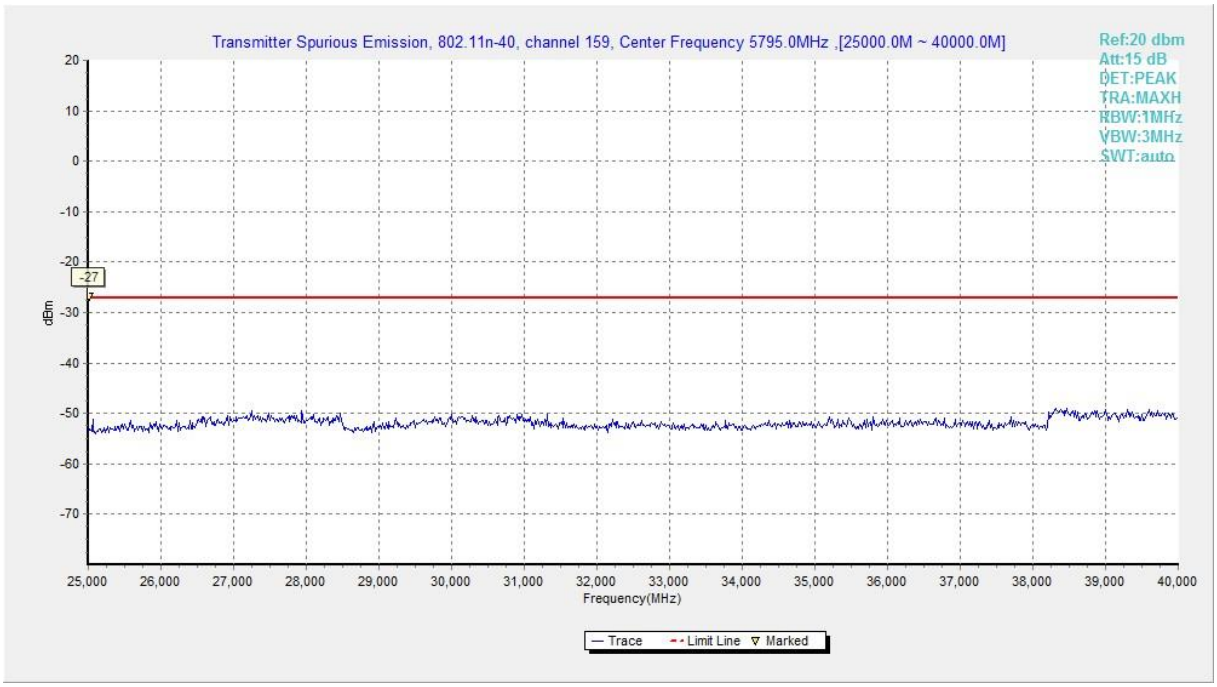

Fig. 58 Conducted Spurious Emission (802.11n-HT40, Ch159, 25 GHz-40 GHz)

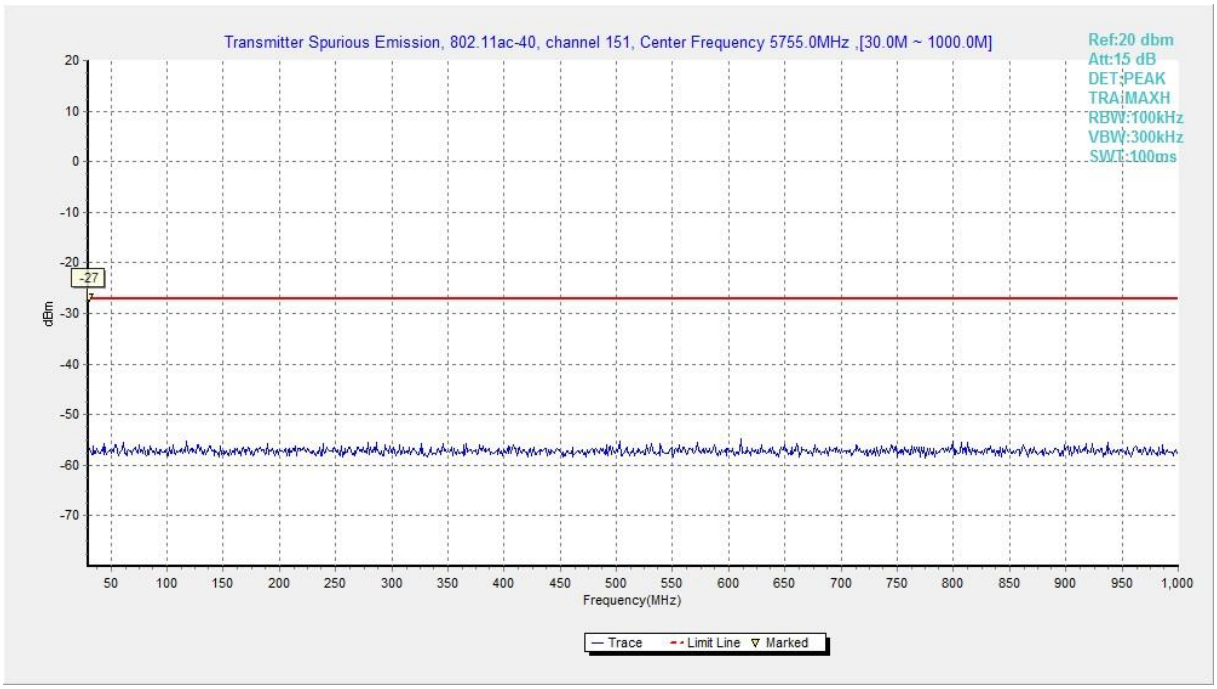

Fig. 59 Conducted Spurious Emission (802.11ac-HT40, Ch151, 30 MHz-1 GHz)

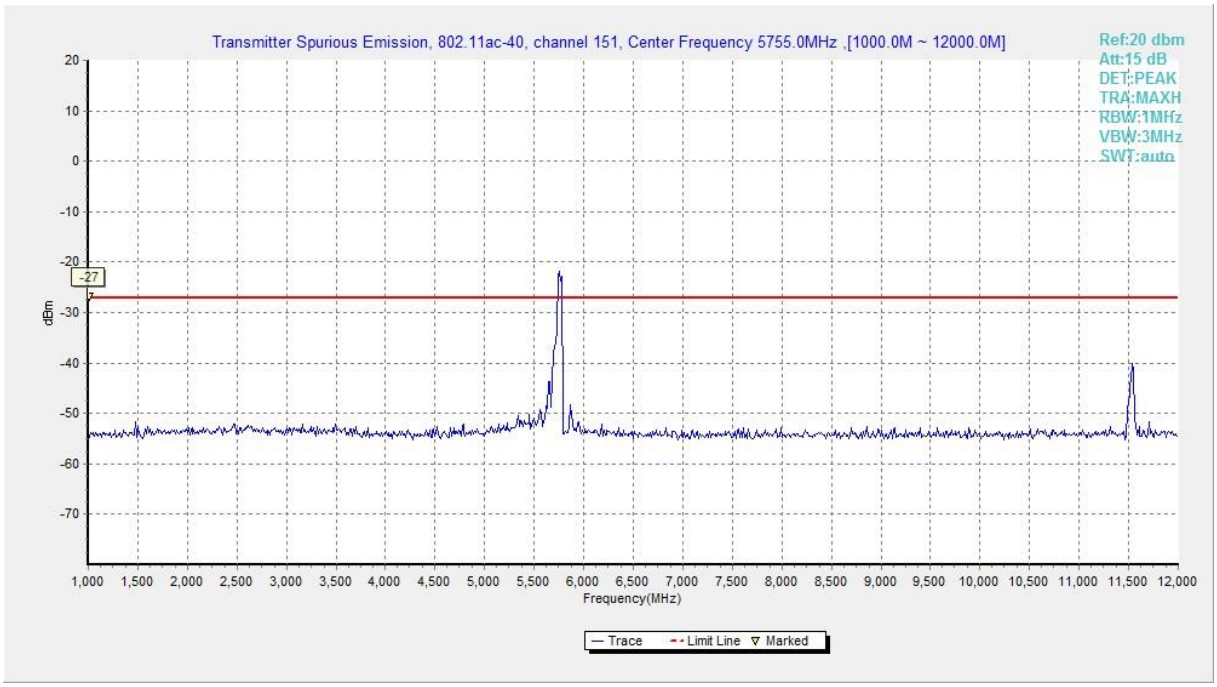

Fig. 60 Conducted Spurious Emission (802.11ac-HT40, Ch151, 1 GHz -12 GHz)

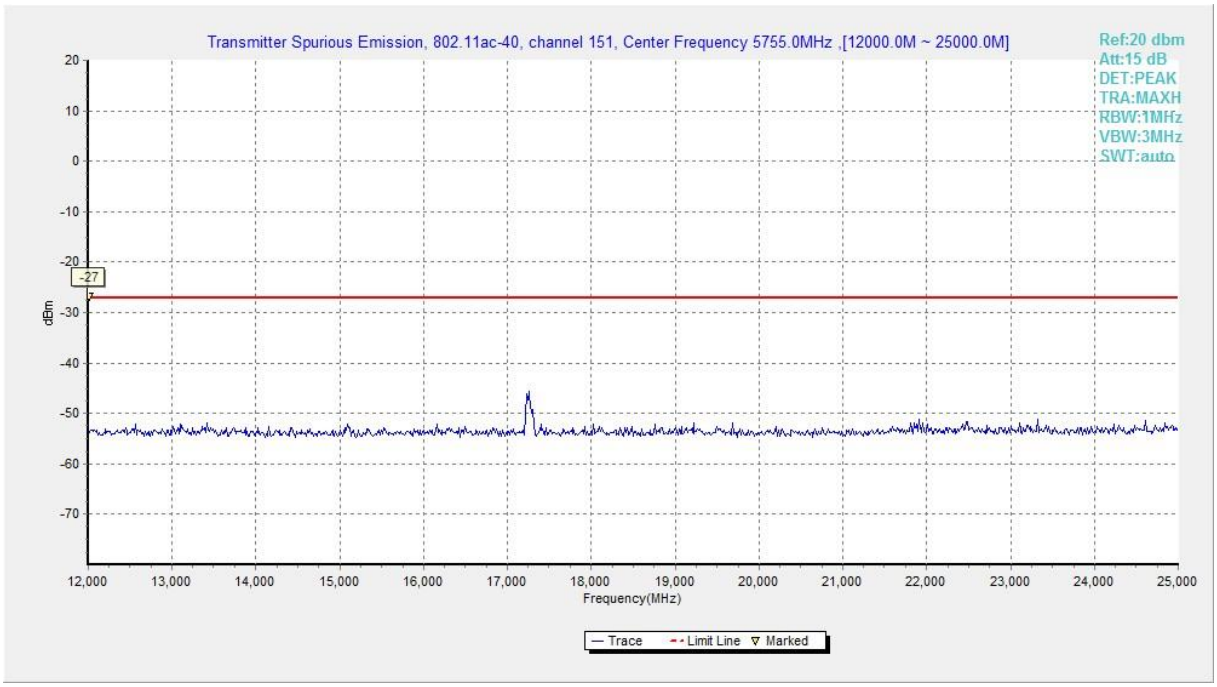

Fig. 61 Conducted Spurious Emission (802.11ac-HT40, Ch151, 12 GHz-25 GHz)

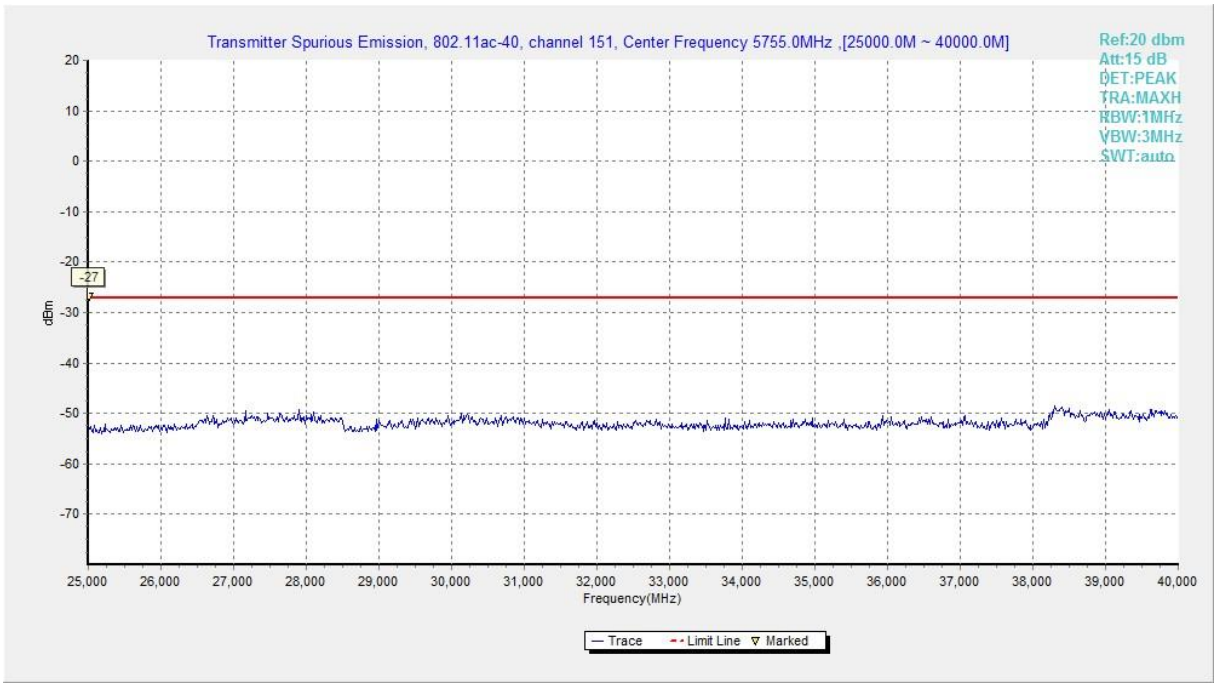

Fig. 62 Conducted Spurious Emission (802.11ac-HT40, Ch151, 25 GHz-40 GHz)

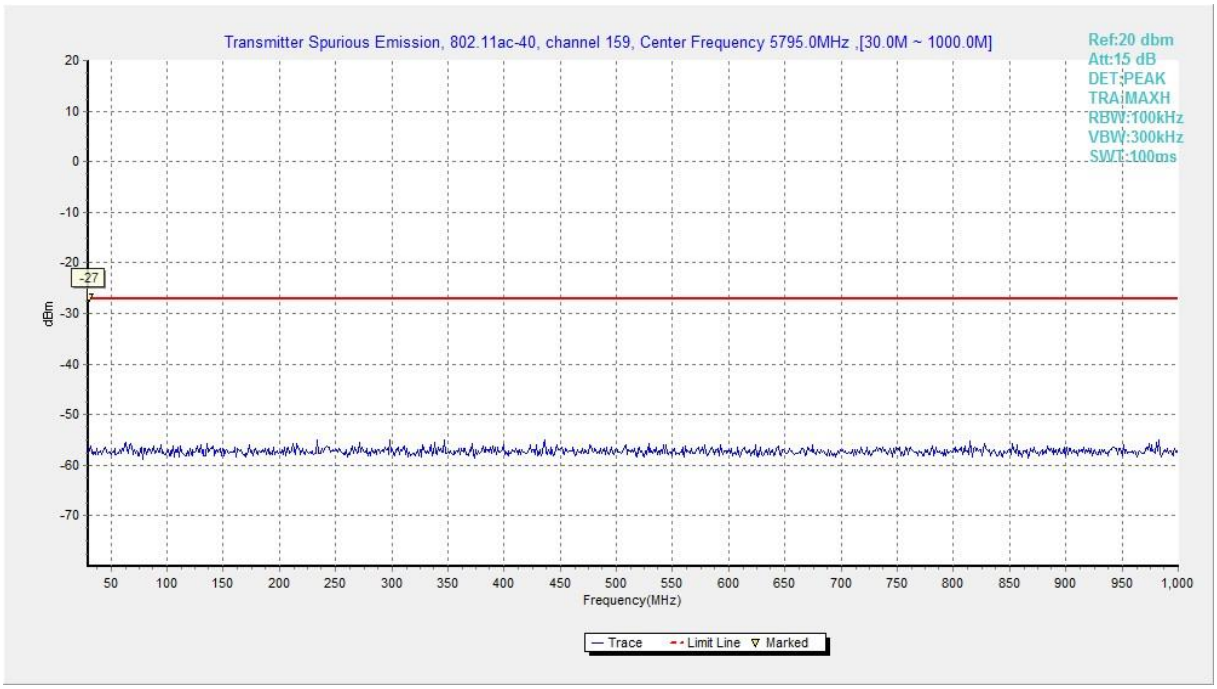

Fig. 63 Conducted Spurious Emission (802.11ac-HT40, Ch159, 30 MHz-1 GHz)

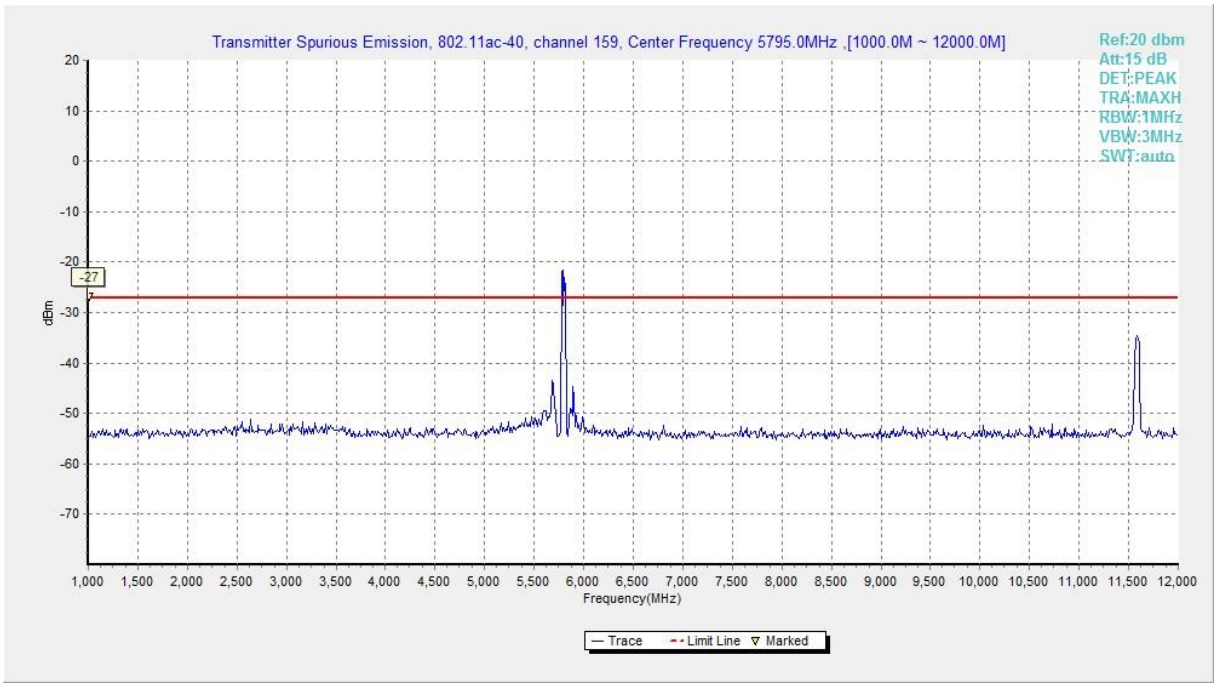

Fig. 64 Conducted Spurious Emission (802.11ac-HT40, Ch159, 1 GHz -12 GHz)

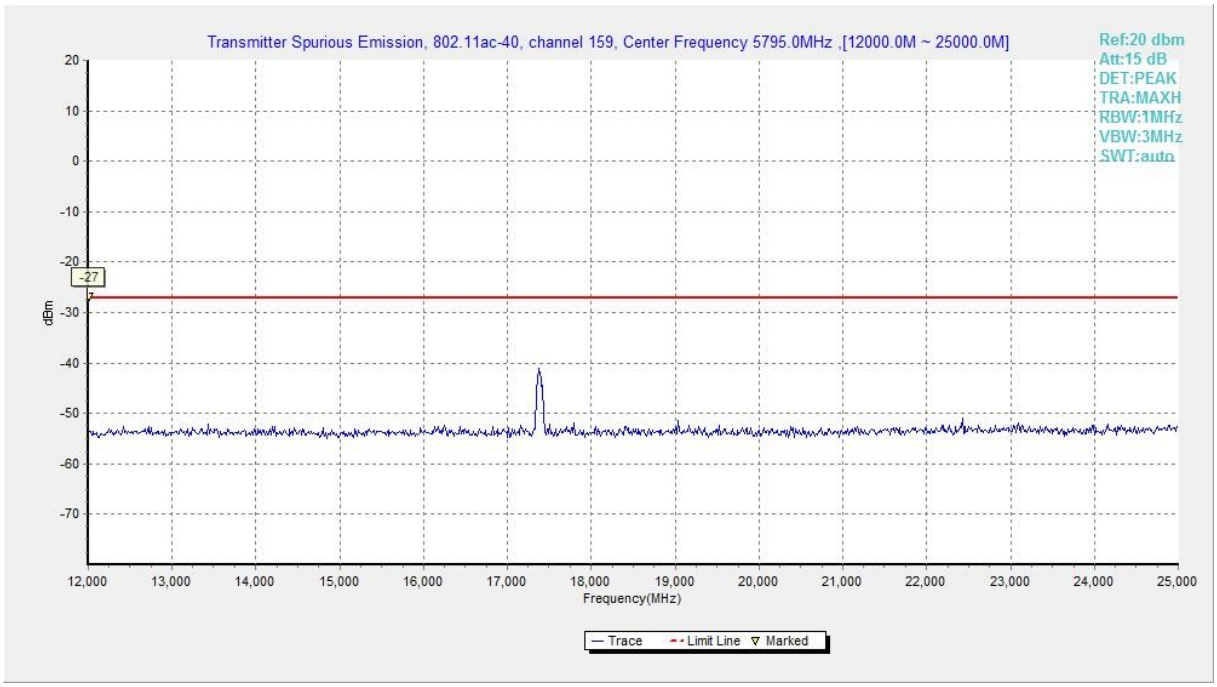

Fig. 65 Conducted Spurious Emission (802.11ac-HT40, Ch159, 12 GHz-25 GHz)

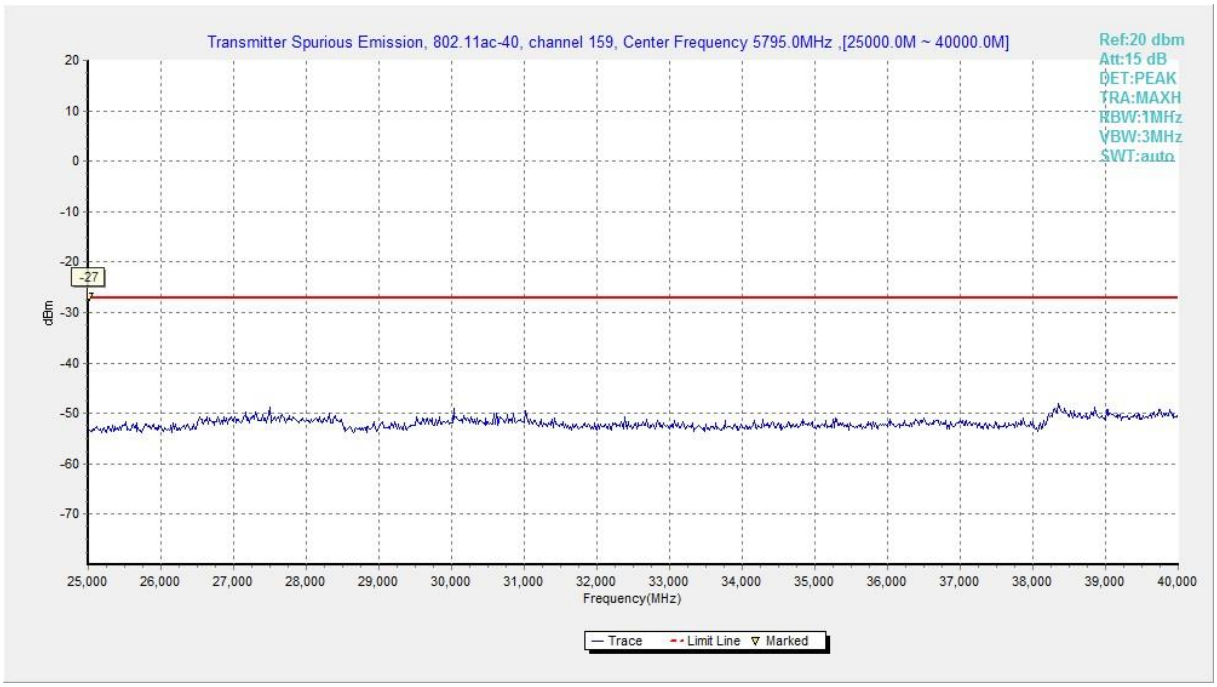

Fig. 66 Conducted Spurious Emission (802.11ac-HT40, Ch159, 25 GHz-40 GHz)

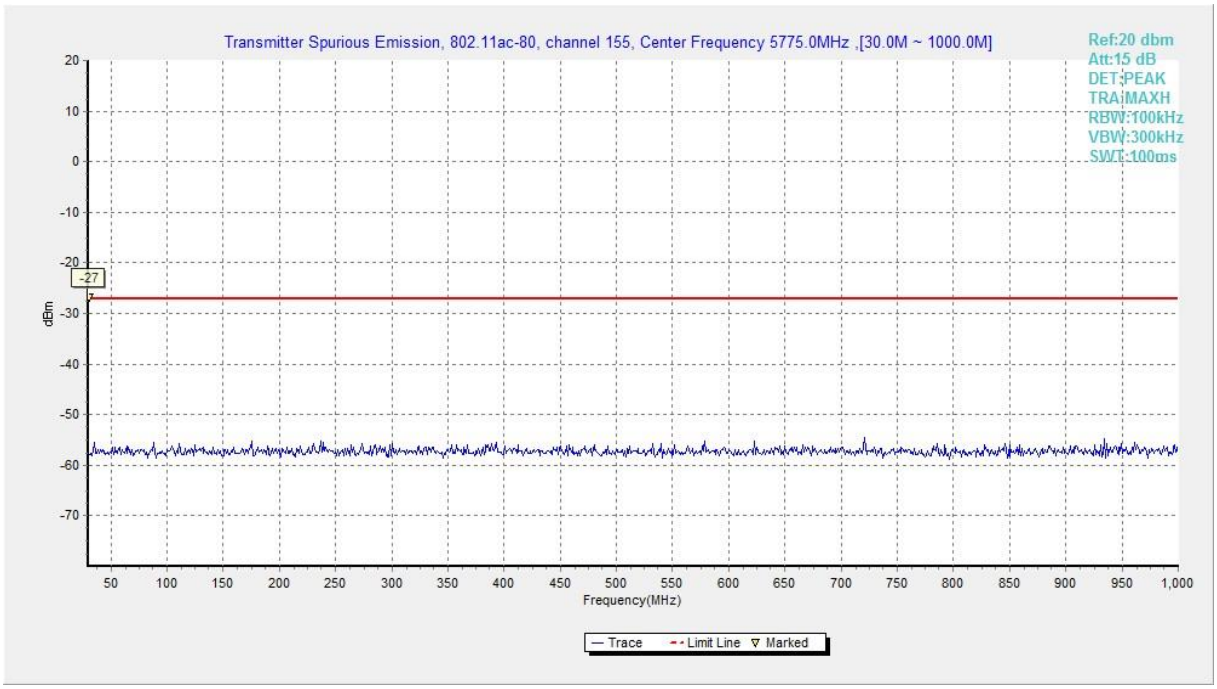

Fig. 67 Conducted Spurious Emission (802.11ac-HT80, Ch155, 30 MHz-1 GHz)

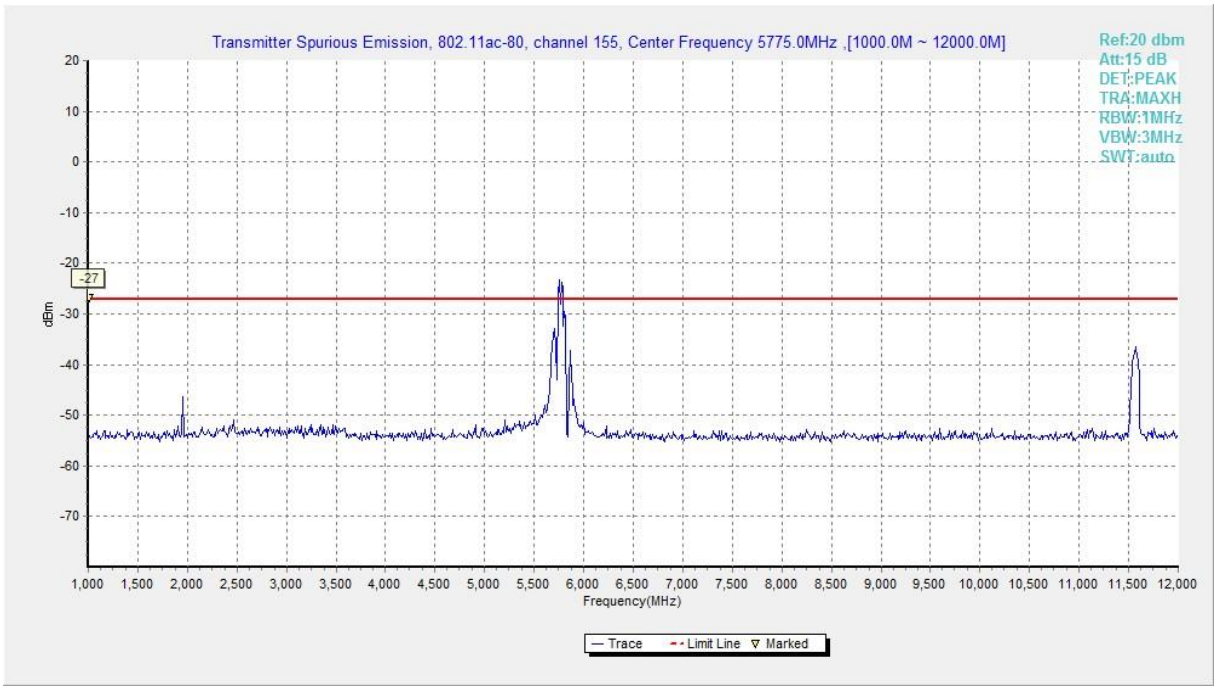

Fig. 68 Conducted Spurious Emission (802.11ac-HT80, Ch155, 1 GHz -12 GHz)

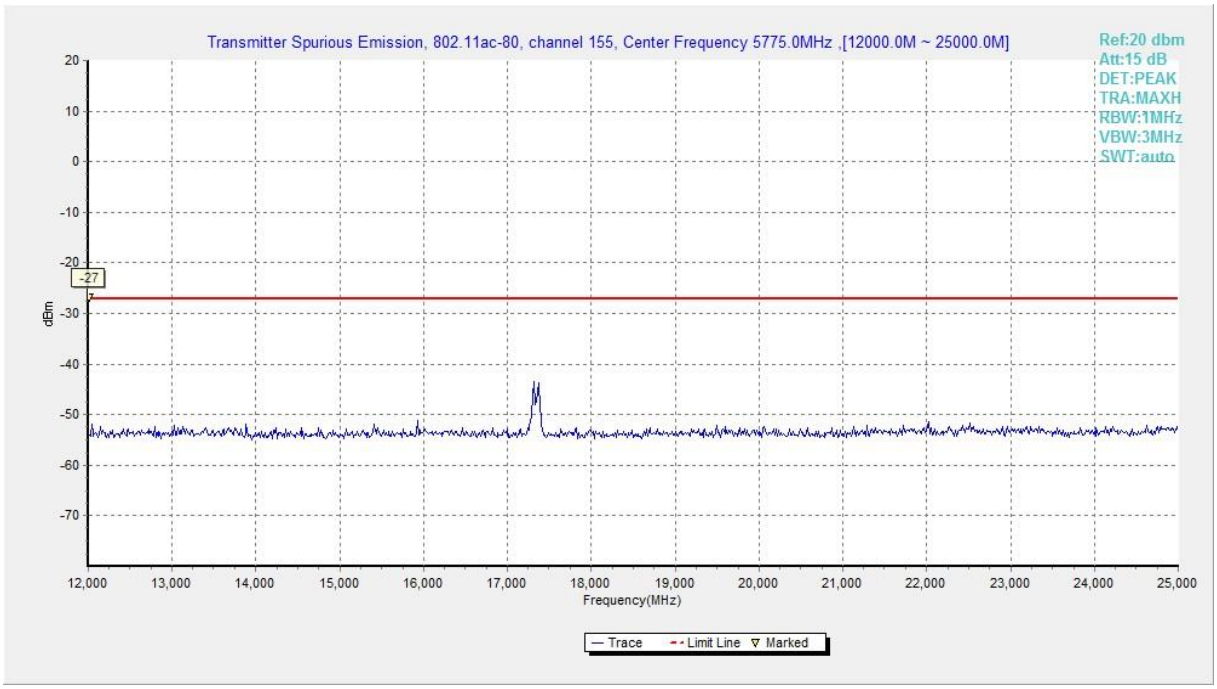

Fig. 69 Conducted Spurious Emission (802.11ac-HT80, Ch155, 12 GHz-25 GHz)

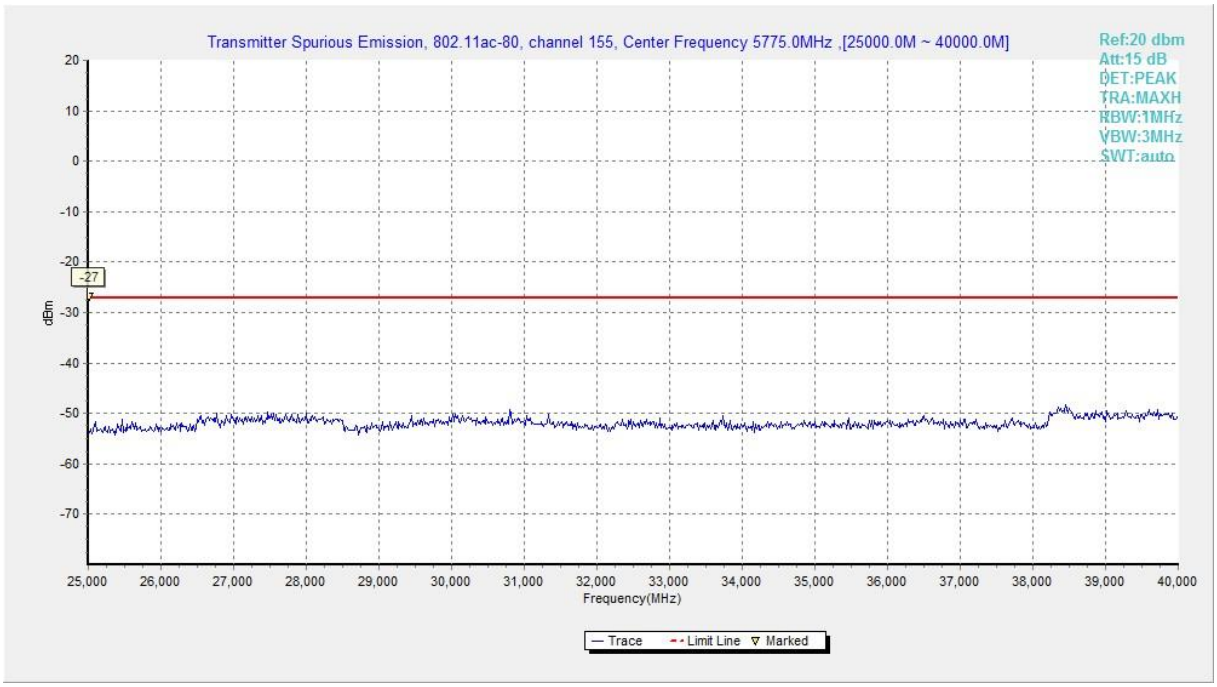

Fig. 70 Conducted Spurious Emission (802.11ac-HT80, Ch155, 25 GHz-40 GHz)

A.5.2 Transmitter Spurious Emission - Radiated

Measurement Limit:

Standard	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.	

The measurement is made according to KDB 789033

Frequency Range	Uncertainty(dB)
30MHz ≤ f ≤ 1GHz	5.40
1GHz ≤ f ≤18GHz	4.32
18GHz ≤ f ≤40GHz	5.26

Measurement Results:

802.11a mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11a	149	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	157	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	165	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	149	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	157	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	165	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	151	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	159	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11ac-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	149	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	157	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	165	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11ac-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	151	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	159	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11ac-HT80 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT80)	155	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P

Conclusion: PASS

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)	Turntable angle (deg)
5650.000	39.1	-25.1	34.8	29.40	48.2	9.1	H	28
5658.000	39.2	-25.0	34.8	29.49	54.1	14.9	H	48
11490.200	50.9	-29.3	38.5	41.71	54.0	3.1	H	8
17102.400	39.9	-23.2	41.6	21.56	54.0	14.1	H	16
17235.500	39.5	-23.3	41.5	21.27	54.0	14.5	H	228
17935.100	39.9	-23.0	41.3	21.60	54.0	14.1	H	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)	Turntable angle (deg)
5718.800	39.9	-24.9	34.9	29.95	48.3	8.4	H	28
5852.400	39.5	-24.8	35.0	29.29	48.3	8.8	H	49
11570.500	53.3	-29.3	38.6	44.08	54.0	0.7	H	246
17106.800	39.9	-23.2	41.6	21.59	54.0	14.1	H	182
17346.600	39.9	-23.1	41.4	21.61	54.0	14.1	H	94
17355.400	39.9	-23.0	41.3	21.57	54.0	14.1	H	42

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)	Turntable angle (deg)
5921.200	39.3	-24.9	35.1	29.12	51.0	11.7	H	98
5922.000	39.2	-24.9	35.1	28.99	50.4	11.2	H	135
11649.700	50.0	-29.3	38.6	40.64	54.0	4.0	H	4
16947.300	39.9	-23.4	41.7	21.66	54.0	14.1	H	74
17106.800	39.9	-23.2	41.6	21.59	54.0	14.1	H	48
17475.300	39.1	-23.2	41.2	21.04	54.0	14.9	H	246

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)	Turntable angle (deg)
5652.800	39.4	-25.1	34.8	29.62	50.3	10.9	H	92
5652.400	39.3	-25.1	34.8	29.60	50.0	10.6	H	68
11490.200	50.4	-29.3	38.5	41.19	54.0	3.6	H	118
16946.200	39.9	-23.4	41.7	21.64	54.0	14.1	H	354
17235.500	39.4	-23.3	41.5	21.16	54.0	14.6	H	18
17928.500	39.9	-23.0	41.3	21.56	54.0	14.1	H	38

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)	Turntable angle (deg)
5733.200	47.0	-24.8	34.9	36.90	48.3	1.3	H	180
5836.800	45.0	-24.8	35.0	34.74	48.3	3.3	H	200
11569.400	53.3	-29.3	38.6	44.05	54.0	0.7	H	225
16946.200	39.9	-23.4	41.7	21.68	54.0	14.1	H	202
17344.400	39.9	-23.1	41.4	21.63	54.0	14.1	H	245
17355.400	40.0	-23.0	41.3	21.67	54.0	14.0	H	268

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)	Turntable angle (deg)
5924.000	39.2	-24.9	35.1	29.00	48.9	9.7	H	92
5924.800	39.1	-24.9	35.1	28.87	48.3	9.2	H	115
11649.700	49.7	-29.3	38.6	40.32	54.0	4.3	H	135
16941.800	39.9	-23.4	41.7	21.64	54.0	14.1	H	168
17475.300	39.2	-23.2	41.2	21.14	54.0	14.8	H	184
17920.800	39.9	-22.9	41.3	21.54	54.0	14.1	H	202

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)	Turntable angle (deg)
5650.000	41.3	-25.1	34.8	31.58	48.2	6.9	H	8
5652.400	41.8	-25.1	34.8	32.05	50.0	8.2	H	26
11510.000	48.4	-29.3	38.5	39.18	54.0	5.6	H	72
17103.500	40.0	-23.2	41.6	21.68	54.0	14.0	H	136
17265.200	39.7	-23.3	41.4	21.54	54.0	14.3	H	94
17725.000	39.8	-23.0	41.2	21.61	54.0	14.2	H	48

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)	Turntable angle (deg)
5923.600	39.2	-24.9	35.1	28.97	49.2	10.0	H	180
5924.400	39.2	-24.9	35.1	28.97	48.6	9.4	H	202
11590.300	49.3	-29.4	38.6	40.11	54.0	4.7	H	222
17107.900	40.1	-23.2	41.6	21.71	54.0	13.9	H	190
17385.100	39.9	-22.9	41.3	21.48	54.0	14.1	H	240
17928.500	39.9	-23.0	41.3	21.55	54.0	14.1	H	270

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)	Turntable angle (deg)
5650.000	39.3	-25.1	34.8	29.55	48.2	8.9	H	180
5650.800	39.3	-25.1	34.8	29.56	48.8	9.5	H	204
11490.200	51.0	-29.3	38.5	41.83	54.0	3.0	H	222
17117.800	39.9	-23.2	41.6	21.58	54.0	14.1	H	245
17235.500	39.4	-23.3	41.5	21.15	54.0	14.6	H	72
17937.300	40.0	-23.0	41.3	21.63	54.0	14.0	H	94

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)	Turntable angle (deg)
5733.200	46.6	-24.8	34.9	36.51	48.3	1.7	H	268
5836.400	44.5	-24.8	35.0	34.25	48.3	3.8	H	290
11569.400	53.2	-29.3	38.6	43.99	54.0	0.8	H	312
17102.400	40.0	-23.2	41.6	21.66	54.0	14.0	H	46
17355.400	40.1	-23.0	41.3	21.75	54.0	13.9	H	70
17932.900	39.9	-23.0	41.3	21.62	54.0	14.1	H	92

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)	Turntable angle (deg)
5923.100	39.3	-24.8	34.9	35.72	49.6	10.3	H	48
5924.400	39.3	-24.9	35.1	33.31	48.6	9.3	H	70
11649.700	50.3	-29.3	38.6	40.96	54.0	3.7	H	92
16939.600	40.0	-23.4	41.7	21.72	54.0	14.0	H	112
17475.300	39.2	-23.2	41.2	21.11	54.0	14.8	H	136
17914.200	40.0	-22.9	41.3	21.69	54.0	14.0	H	156

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)	Turntable angle (deg)
5650.000	40.5	-25.1	34.8	30.81	48.2	7.7	H	28
5650.400	40.6	-25.1	34.8	30.86	48.5	7.9	H	74
11510.000	48.6	-29.3	38.5	39.37	54.0	5.4	H	140
16940.700	40.0	-23.4	41.7	21.71	54.0	14.0	H	8
17265.200	39.6	-23.3	41.4	21.46	54.0	14.4	H	80
17935.100	40.0	-23.0	41.3	21.69	54.0	14.0	H	243

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)	Turntable angle (deg)
5924.000	39.2	-24.9	35.1	29.00	48.9	9.7	H	92
5924.800	39.1	-24.9	35.1	28.87	48.3	9.2	H	115
11590.300	49.5	-29.4	38.6	40.30	54.0	4.5	H	135
17104.600	40.0	-23.2	41.6	21.65	54.0	14.0	H	156
17385.100	40.0	-22.9	41.3	21.56	54.0	14.0	H	180
17939.500	40.1	-23.0	41.3	21.76	54.0	13.9	H	204

802.11ac-HT80

Ch155

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)	Turntable angle (deg)
5650.000	39.0	-25.1	34.8	29.27	48.2	9.2	H	16
5650.400	39.1	-25.1	34.8	29.39	48.5	9.4	H	48
11549.600	43.8	-28.6	38.5	33.86	54.0	10.2	H	80
17048.500	39.3	-23.5	41.7	21.15	54.0	14.7	H	8
17324.600	38.9	-23.3	41.4	20.79	54.0	15.1	H	102
17728.300	39.2	-23.1	41.2	21.05	54.0	14.8	H	118

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)	Turntable angle (deg)
5651.093	53.5	-25.1	34.8	43.79	69.0	15.5	H	22
5652.208	54.9	-25.1	34.8	45.16	69.8	14.9	H	44
11484.700	64.7	-29.3	38.5	55.55	68.3	3.6	V	0
17234.950	55.0	-23.3	41.5	36.82	68.3	13.3	H	22
17386.200	58.2	-22.9	41.3	39.79	68.3	10.1	H	242
17997.250	58.1	-23.0	41.3	39.84	68.3	10.2	H	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)	Turntable angle (deg)
5718.800	53.7	-24.9	34.9	43.67	68.3	14.6	H	22
5909.600	53.4	-24.9	35.1	43.27	68.3	14.9	H	44
11572.150	64.8	-29.3	38.6	55.57	68.3	3.5	V	242
16478.700	57.3	-23.5	41.4	39.43	68.3	11.0	H	176
16820.800	57.4	-23.3	41.6	39.09	68.3	10.9	V	88
17354.850	54.8	-23.0	41.3	36.44	68.3	13.5	V	22

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)	Turntable angle (deg)
5924.494	52.8	-24.9	35.1	42.57	68.6	15.8	H	88
5924.931	52.7	-24.9	35.1	42.41	68.3	15.6	H	132
11647.500	64.7	-29.3	38.6	55.38	68.3	3.6	H	0
17055.650	57.8	-23.4	41.6	39.48	68.3	10.5	V	66
17474.750	55.0	-23.1	41.2	36.94	68.3	13.3	V	44
17798.150	57.3	-23.1	41.3	39.07	68.3	11.0	H	242

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)	Turntable angle (deg)
5651.840	53.3	-25.1	34.8	43.57	69.6	16.3	H	88
5653.404	54.1	-25.1	34.8	44.32	70.7	16.7	H	66
11489.100	64.5	-29.3	38.5	55.27	68.3	3.8	H	110
16684.400	57.9	-23.4	41.5	39.83	68.3	10.4	V	0
17140.900	57.4	-23.2	41.6	39.04	68.3	11.0	H	22
17234.950	56.3	-23.3	41.5	38.09	68.3	12.0	H	44

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)	Turntable angle (deg)
5733.000	59.2	-24.8	34.9	49.15	68.3	9.1	H	176
5837.400	58.4	-24.8	35.0	48.16	68.3	9.9	H	198
11568.850	65.5	-29.3	38.6	56.24	68.3	2.8	H	220
16871.950	57.5	-23.3	41.6	39.24	68.3	10.8	H	198
17354.850	55.8	-23.0	41.3	37.53	68.3	12.5	V	242
17928.500	58.1	-23.0	41.3	39.74	68.3	10.2	H	264

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)	Turntable angle (deg)
5922.527	53.0	-24.9	35.1	42.73	70.0	17.1	H	88
5924.195	53.6	-24.9	35.1	43.39	68.8	15.2	H	110
11651.900	64.0	-29.3	38.6	54.64	68.3	4.3	V	132
17003.400	57.8	-23.5	41.7	39.58	68.3	10.5	V	154
17395.550	57.5	-22.9	41.3	39.10	68.3	10.8	H	176
17474.750	55.3	-23.1	41.2	37.18	68.3	13.0	V	198

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)	Turntable angle (deg)
5650.943	54.8	-25.1	34.8	45.06	68.9	14.1	H	0
5652.174	55.7	-25.1	34.8	45.99	69.8	14.1	H	22
11508.900	62.9	-29.3	38.5	53.68	68.3	5.4	H	66
17265.200	55.7	-23.3	41.4	37.49	68.3	12.6	V	132
17709.050	57.8	-23.0	41.2	39.58	68.3	10.5	H	88
17995.050	57.9	-23.0	41.3	39.69	68.3	10.4	V	44

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)	Turntable angle (deg)
5924.195	53.6	-24.9	35.1	43.35	68.8	15.2	H	176
5924.632	52.6	-24.9	35.1	42.40	68.5	15.8	H	198
11586.450	61.8	-29.4	38.6	52.64	68.3	6.5	V	220
17261.350	57.4	-23.3	41.4	39.17	68.3	10.9	V	198
17385.100	55.4	-22.9	41.3	36.96	68.3	12.9	H	242
17529.200	57.9	-23.2	41.2	39.92	68.3	10.4	V	264

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)	Turntable angle (deg)
5650.518	52.8	-25.1	34.8	43.06	68.6	15.8	H	176
5651.932	52.8	-25.1	34.8	43.05	69.6	16.8	H	198
11489.650	64.7	-29.3	38.5	55.46	68.3	3.6	H	220
16555.700	57.5	-23.6	41.4	39.65	68.3	10.8	V	242
16848.850	57.3	-23.3	41.6	38.97	68.3	11.0	H	66
17234.950	56.4	-23.3	41.5	38.19	68.3	11.9	H	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)	Turntable angle (deg)
5733.800	58.1	-24.8	34.9	48.01	68.3	10.2	H	264
5837.800	57.5	-24.8	35.0	47.24	68.3	10.8	H	286
11571.050	65.1	-29.3	38.6	55.85	68.3	3.2	V	308
16887.350	57.8	-23.3	41.6	39.50	68.3	10.5	H	44
17354.850	55.9	-23.0	41.3	37.56	68.3	12.4	H	66
17866.350	58.3	-23.0	41.3	40.02	68.3	10.0	V	88

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)	Turntable angle (deg)
5923.080	53.7	-24.9	35.1	43.49	69.6	15.9	H	44
5924.436	53.1	-24.9	35.1	42.89	68.6	15.5	H	66
11651.350	63.6	-29.3	38.6	54.23	68.3	4.7	H	88
17074.900	57.7	-23.3	41.6	39.36	68.3	10.6	H	110
17474.750	56.5	-23.1	41.2	38.47	68.3	11.8	H	132
17934.000	57.2	-23.0	41.3	38.85	68.3	11.1	H	154

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)	Turntable angle (deg)
5650.621	54.6	-25.1	34.8	44.84	68.7	14.1	H	22
5651.035	54.1	-25.1	34.8	44.37	69.0	14.9	H	66
11518.350	63.0	-29.3	38.5	53.76	68.3	5.3	V	132
17265.200	55.0	-23.3	41.4	36.78	68.3	13.3	H	0
17356.500	57.7	-23.0	41.3	39.35	68.3	10.6	V	88
17437.350	57.7	-23.0	41.3	39.47	68.3	10.6	V	242

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)	Turntable angle (deg)
5924.172	52.5	-24.9	35.1	42.27	68.8	16.3	H	88
5924.966	52.5	-24.9	35.1	42.28	68.2	15.7	H	110
11588.650	62.3	-29.4	38.6	53.11	68.3	6.0	H	132
17385.100	54.6	-22.9	41.3	36.17	68.3	13.7	V	154
17501.700	57.4	-23.3	41.2	39.48	68.3	10.9	V	176
17919.700	57.2	-22.9	41.3	38.87	68.3	11.1	H	198

802.11ac-HT80

Ch155

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)	Turntable angle (deg)
5650.598	53.0	-25.1	34.8	43.27	68.6	15.7	H	22
5651.058	53.1	-25.1	34.8	43.37	69.0	15.9	H	44
11533.650	60.1	-28.6	38.5	50.13	68.3	8.2	V	88
17325.150	56.1	-23.2	41.4	38.01	68.3	12.2	V	0
17861.400	57.8	-23.0	41.3	39.52	68.3	10.5	H	110
17997.800	57.8	-22.9	41.3	39.41	68.3	10.5	H	132

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

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:

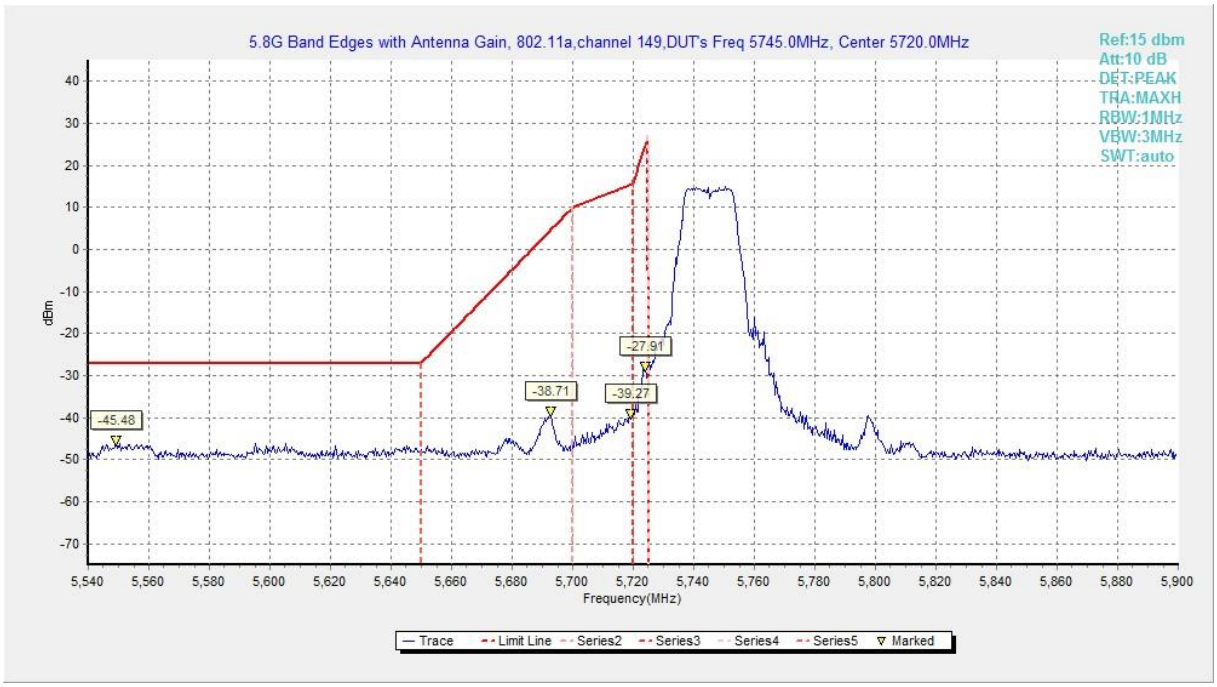

Fig. 71 Band Edges (802.11a, 5745MHz)

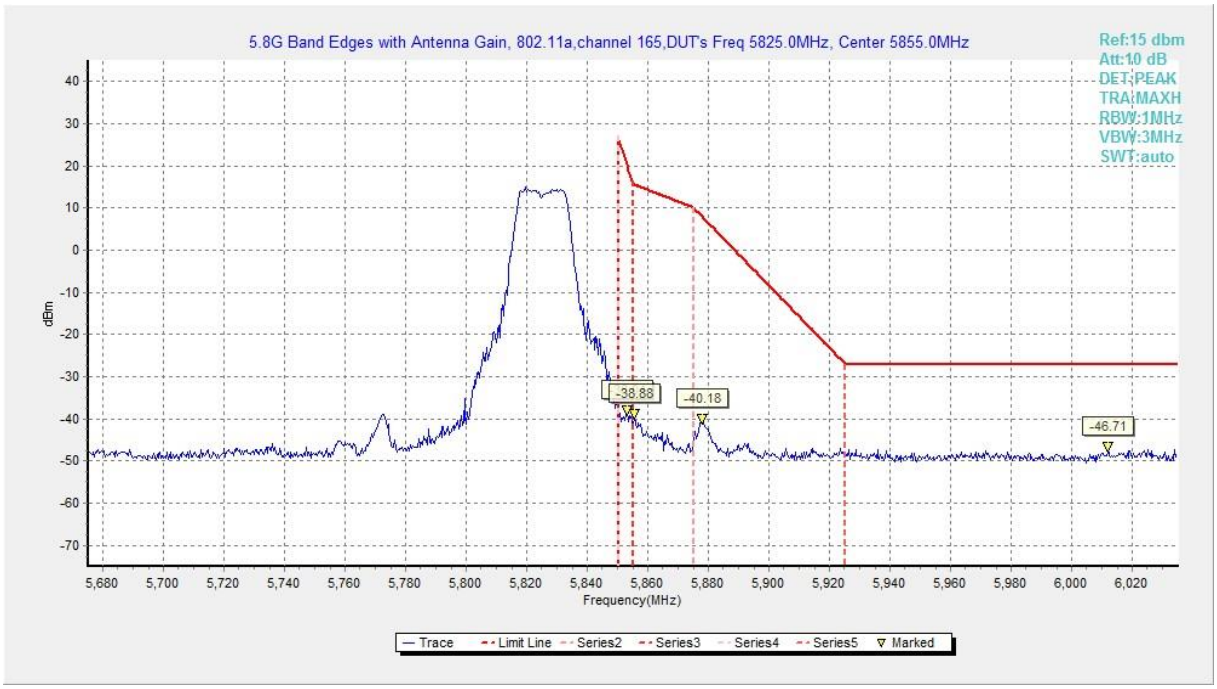

Fig. 72 Band Edges (802.11a, 5825MHz)

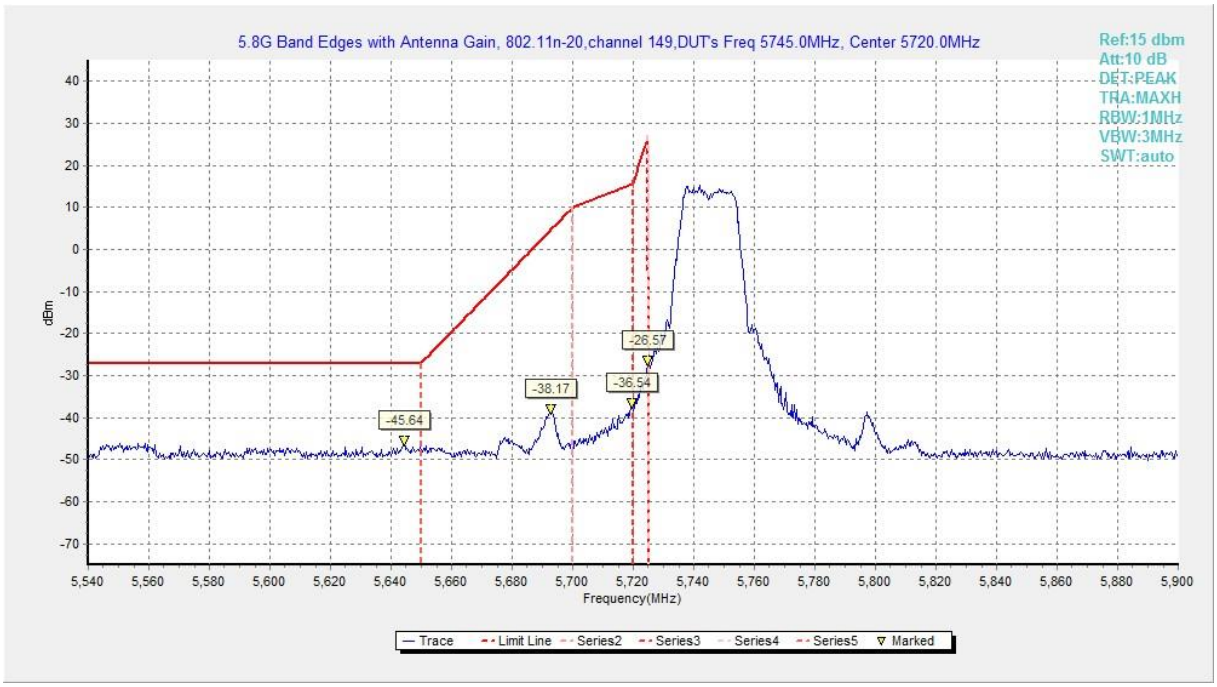

Fig. 73 Band Edges (802.11n-HT20, 5745MHz)

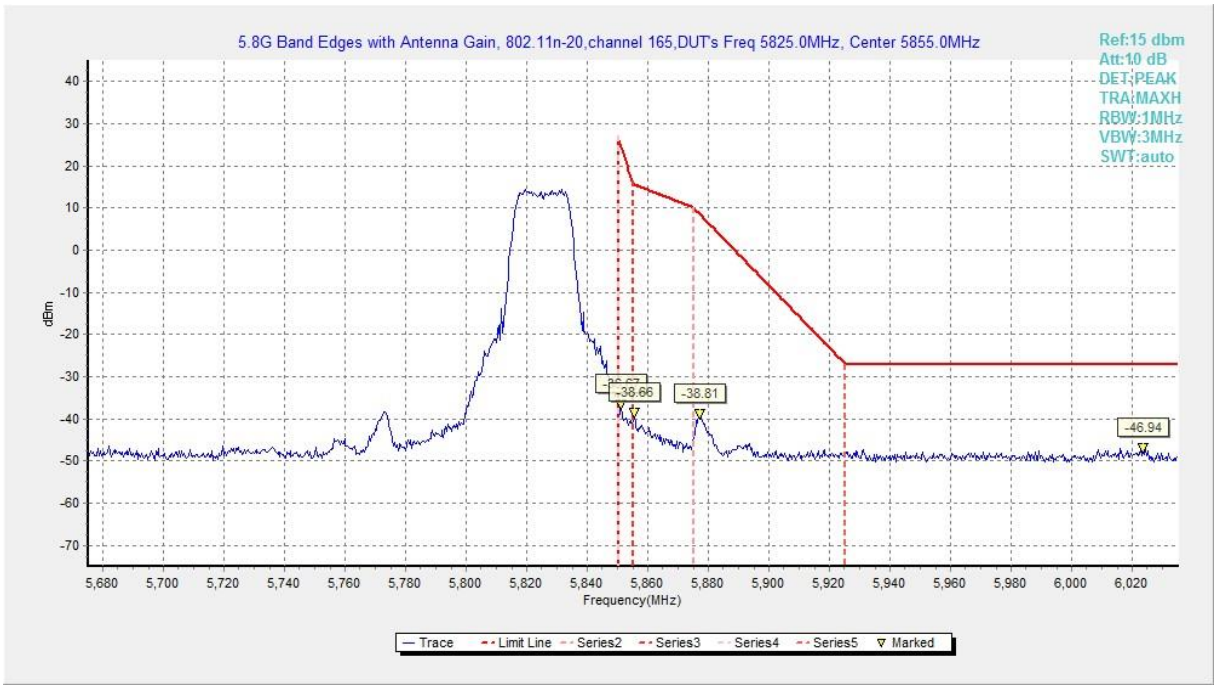

Fig. 74 Band Edges (802.11n-HT20, 5825MHz)

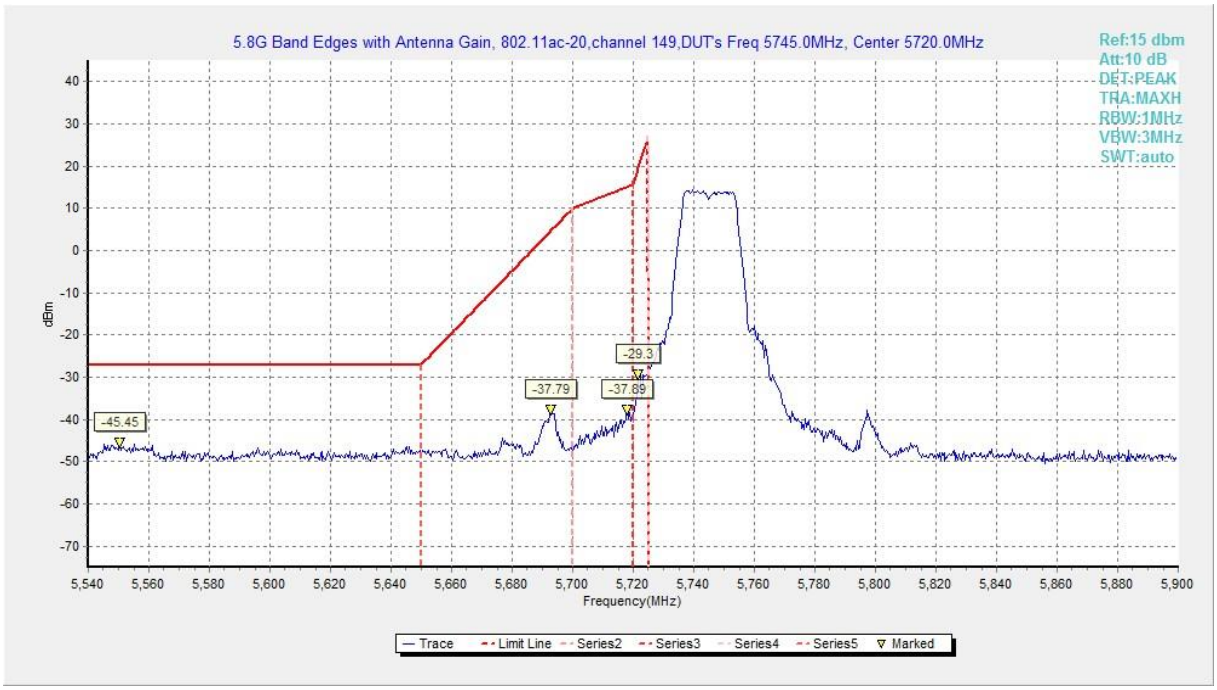

Fig. 75 Band Edges (802.11ac-HT20, 5745MHz)

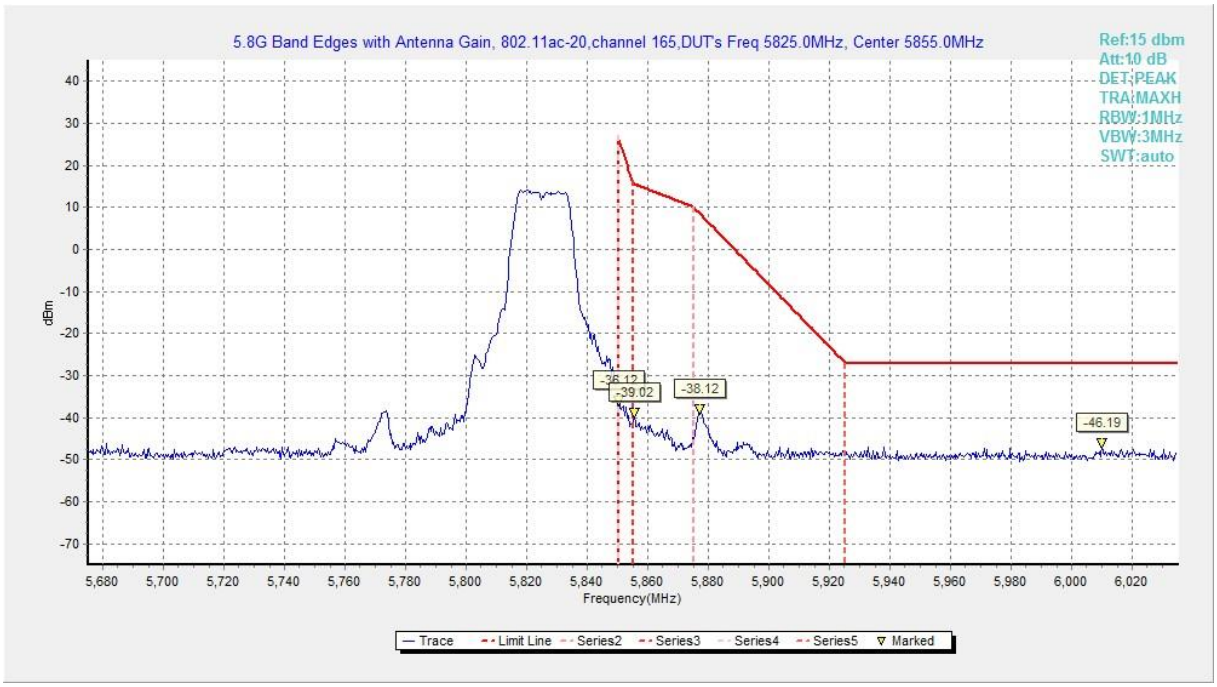

Fig. 76 Band Edges (802.11ac-HT20, 5825MHz)

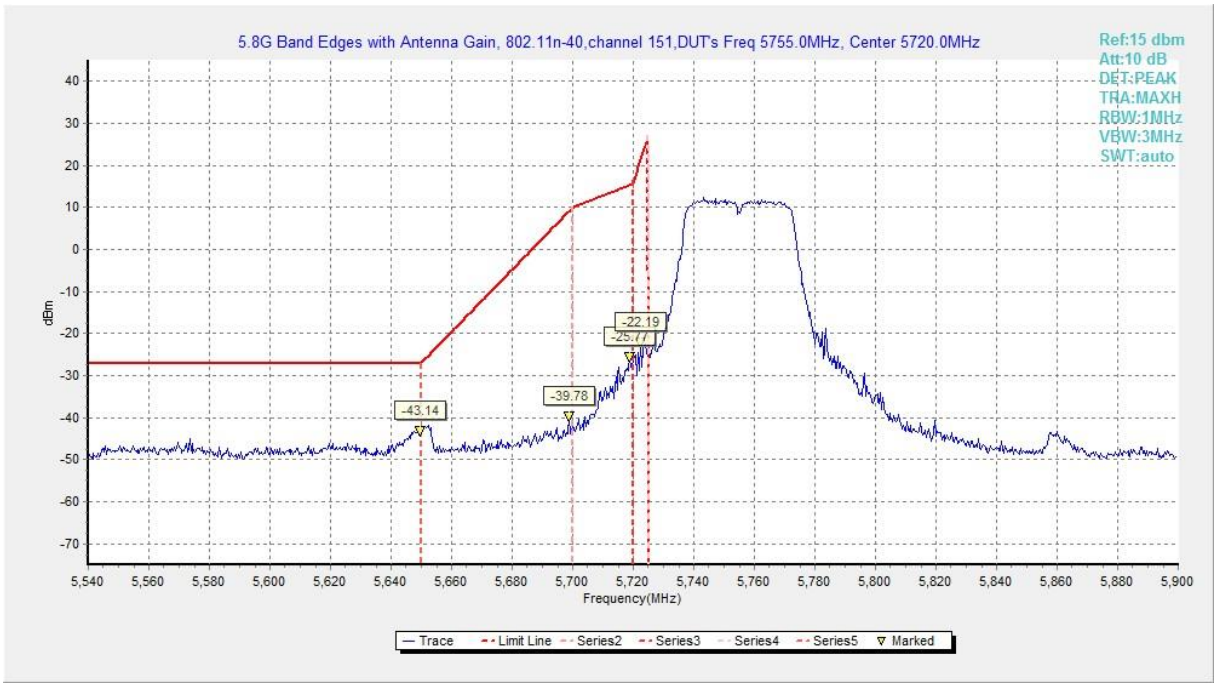

Fig. 77 Band Edges (802.11n-HT40, 5755MHz)

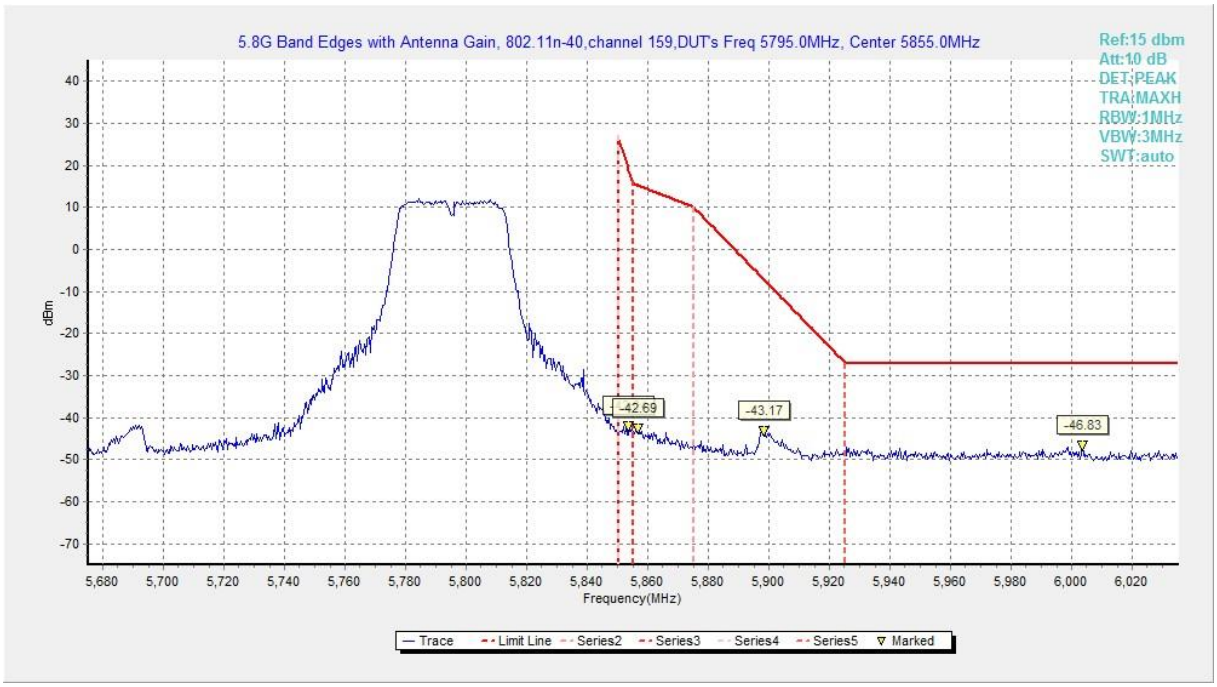

Fig. 78 Band Edges (802.11n-HT40, 5795MHz)

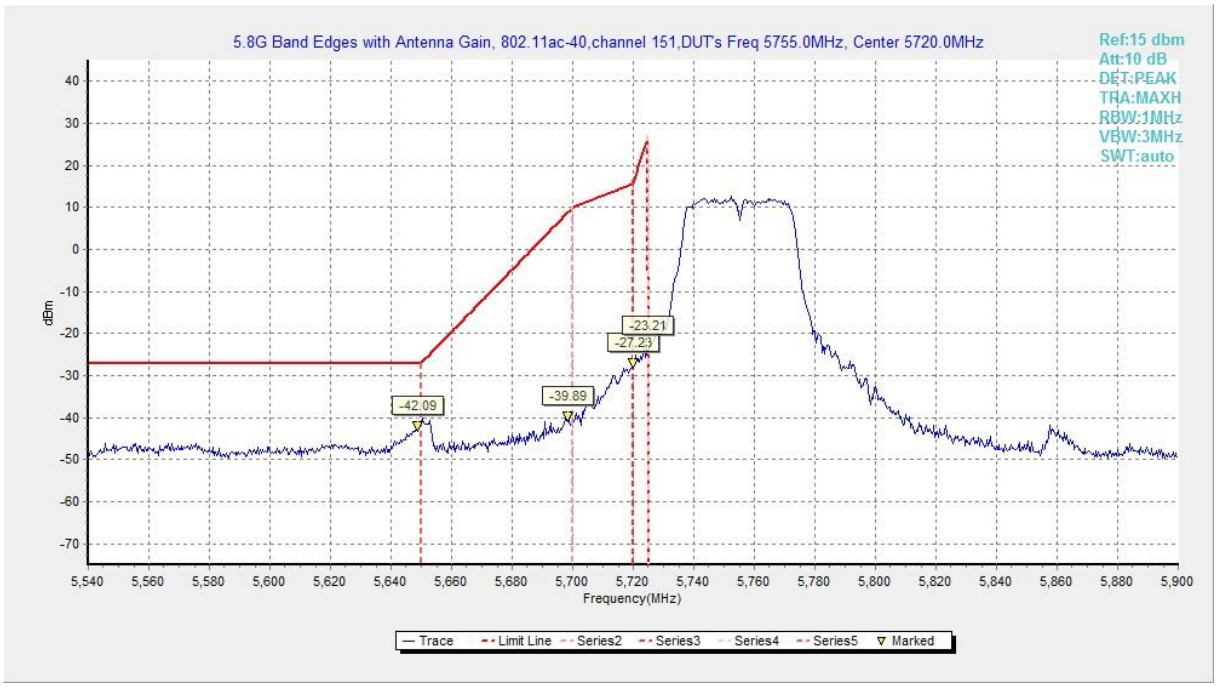

Fig. 79 Band Edges (802.11ac-HT40, 5755MHz)

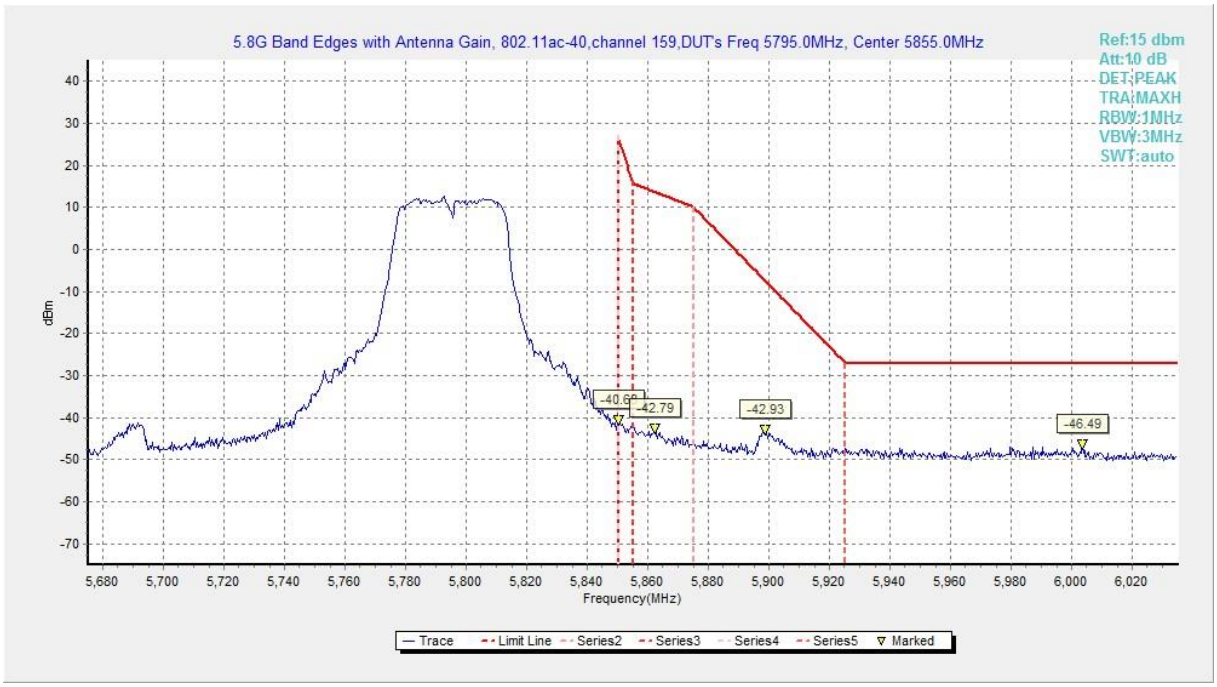

Fig. 80 Band Edges (802.11ac-HT40, 5795MHz)

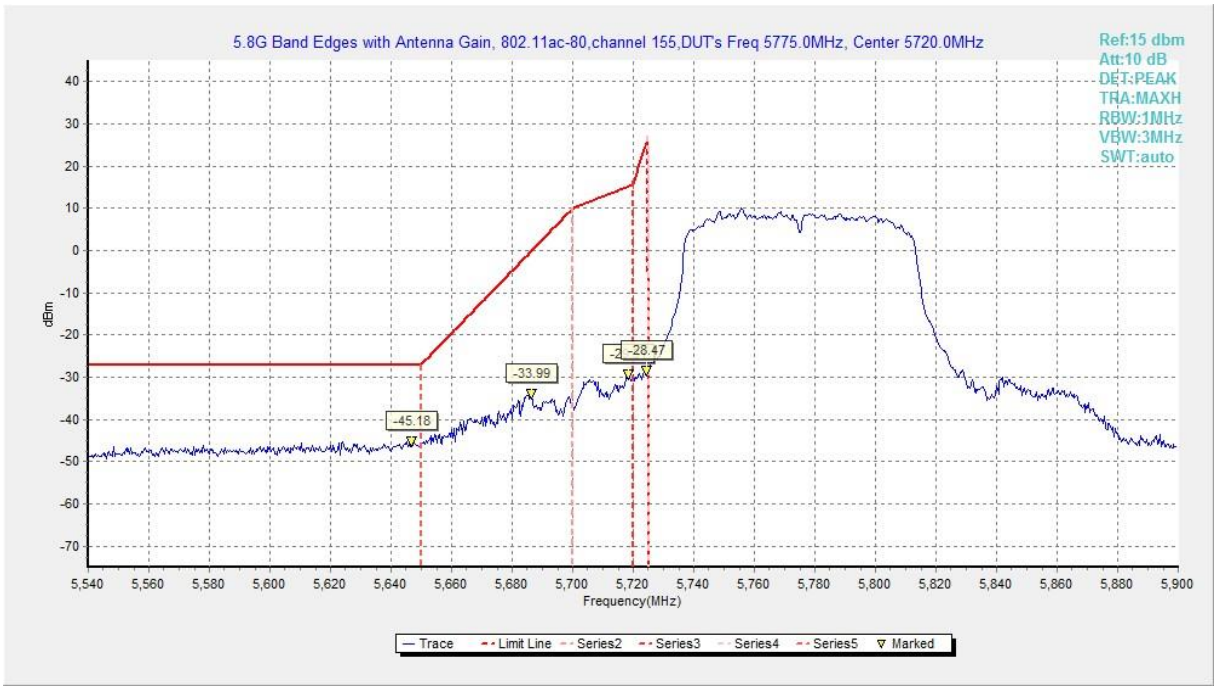

Fig. 81 Band Edges (802.11ac-HT80, 5775MHz)

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 Uncertainty:

Measurement Uncertainty	0.75dB

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 Fig.94	P

Conclusion: PASS

Test graphs as below:

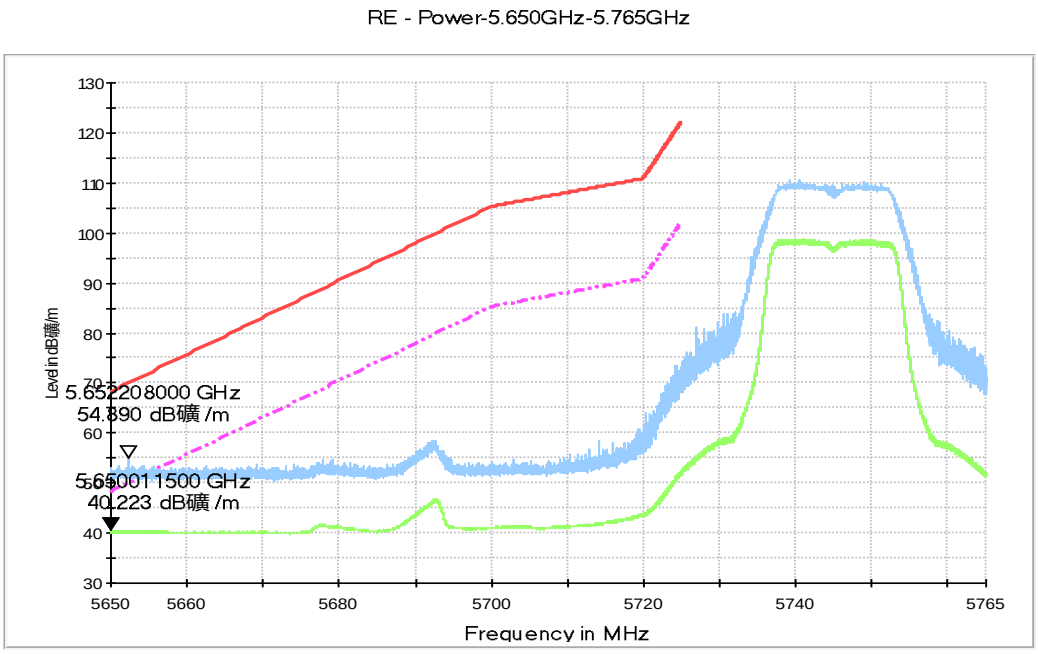

Fig. 83 Band Edges (802.11a, 5745MHz)

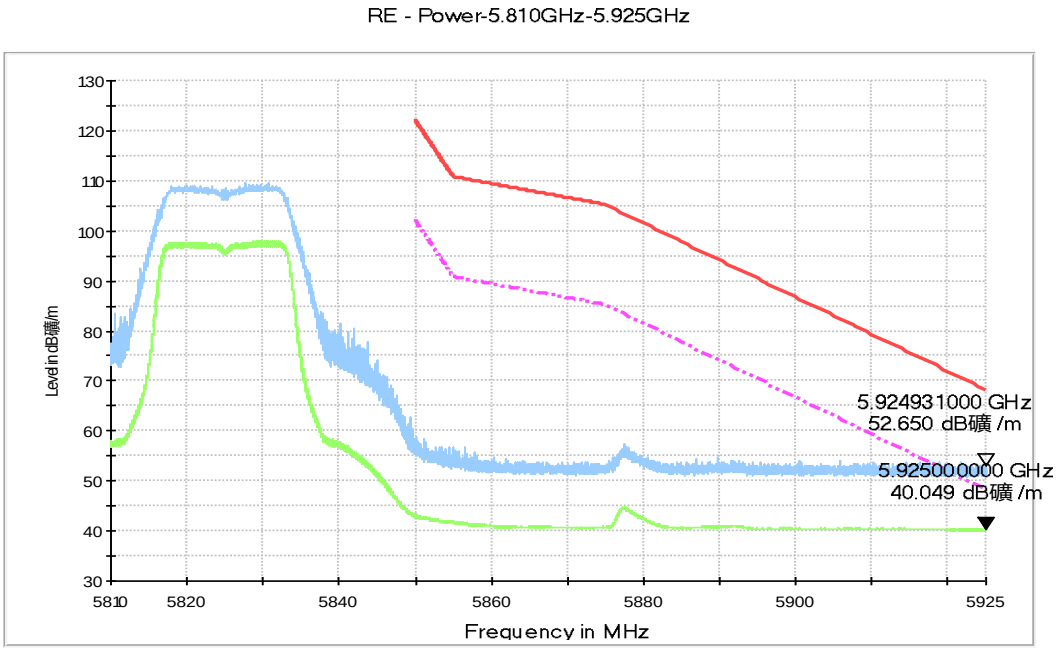

Fig. 84 Band Edges (802.11a, 5825MHz)

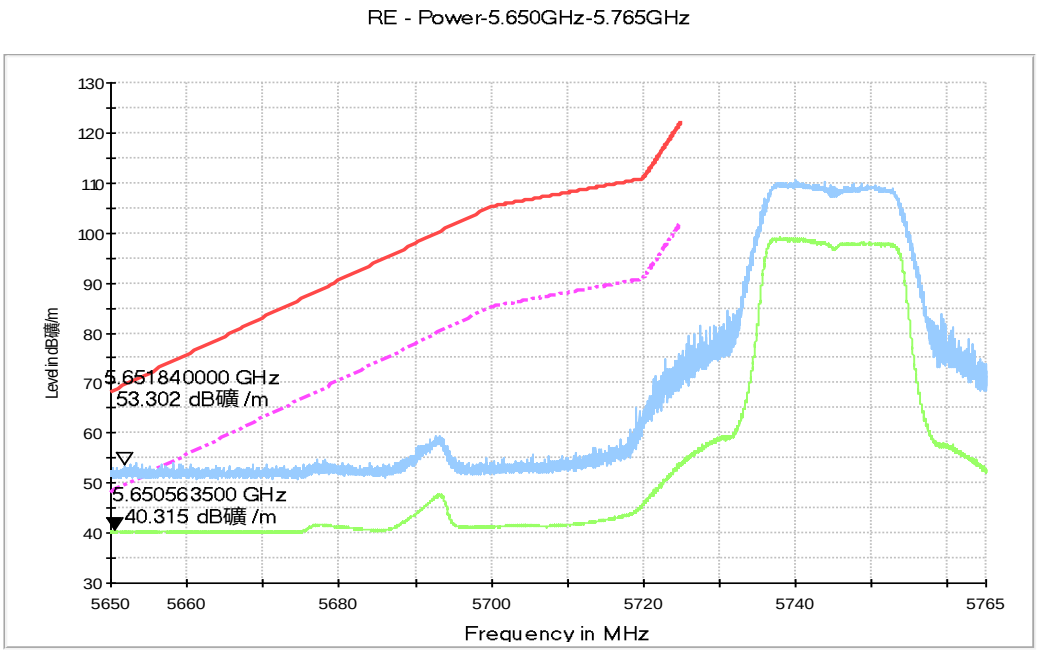

Fig. 85 Band Edges (802.11n-HT20, 5745MHz)

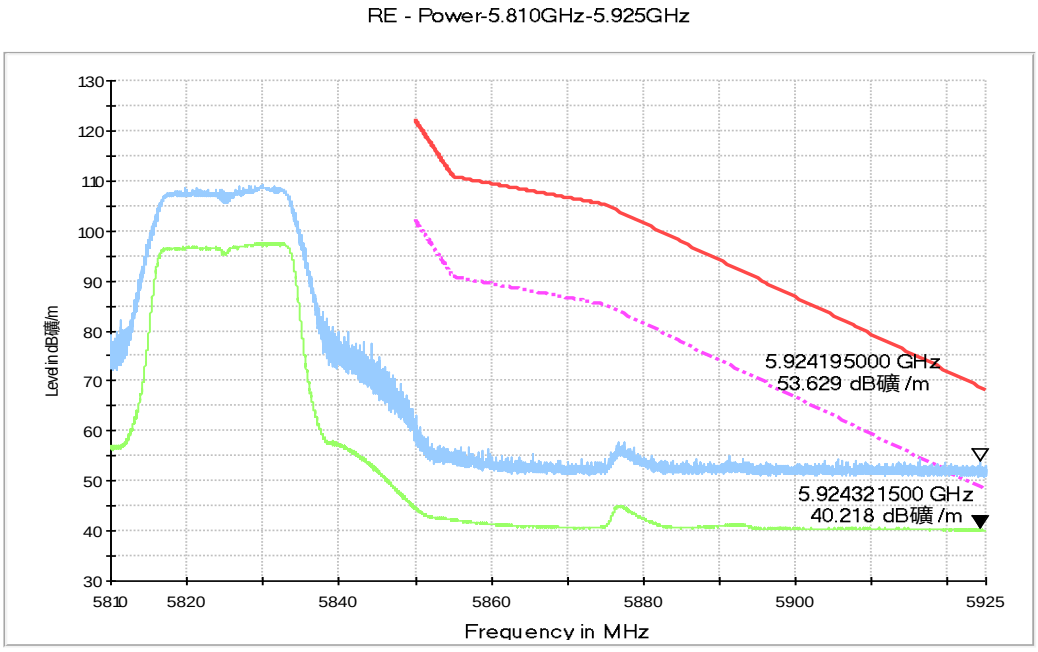

Fig. 86 Band Edges (802.11n-HT20, 5825MHz)

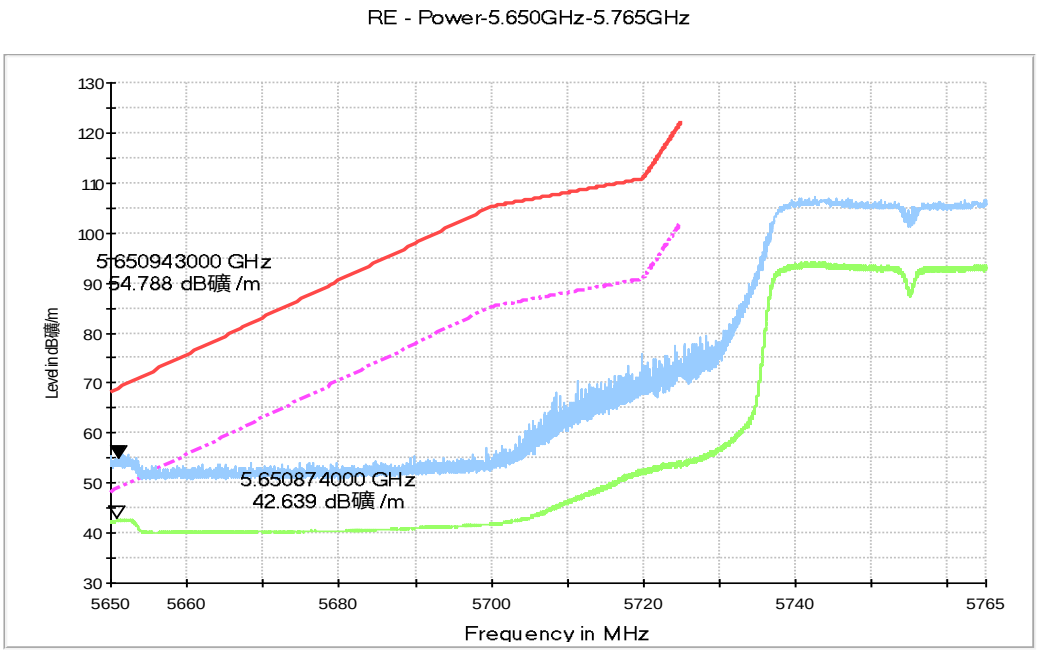

Fig. 87 Band Edges (802.11n-HT40, 5755MHz)

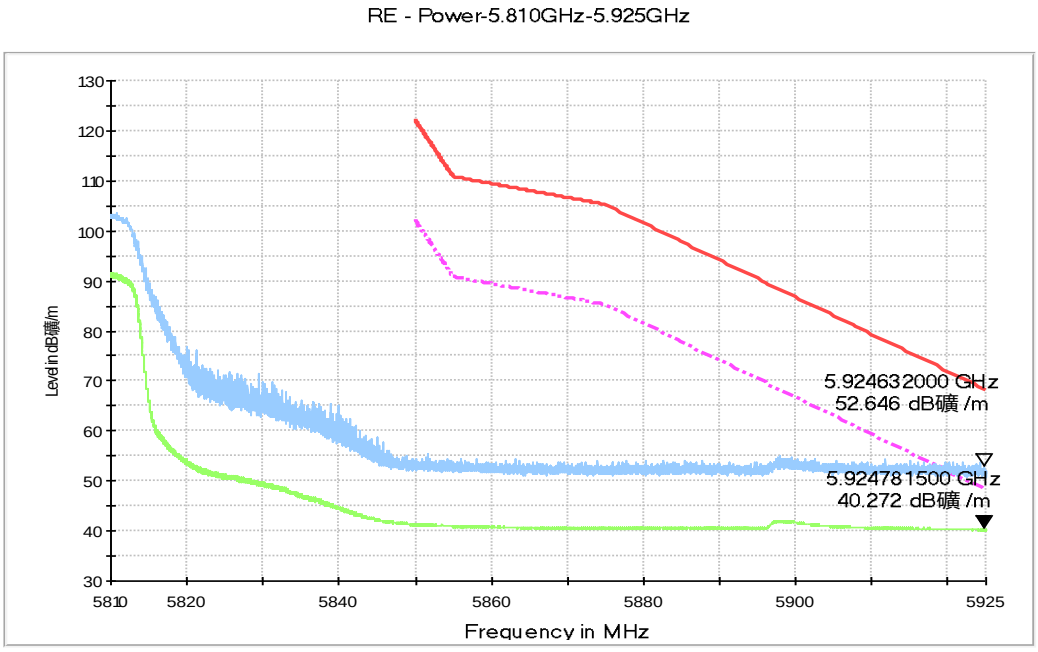

Fig. 88 Band Edges (802.11n-HT40, 5795MHz)

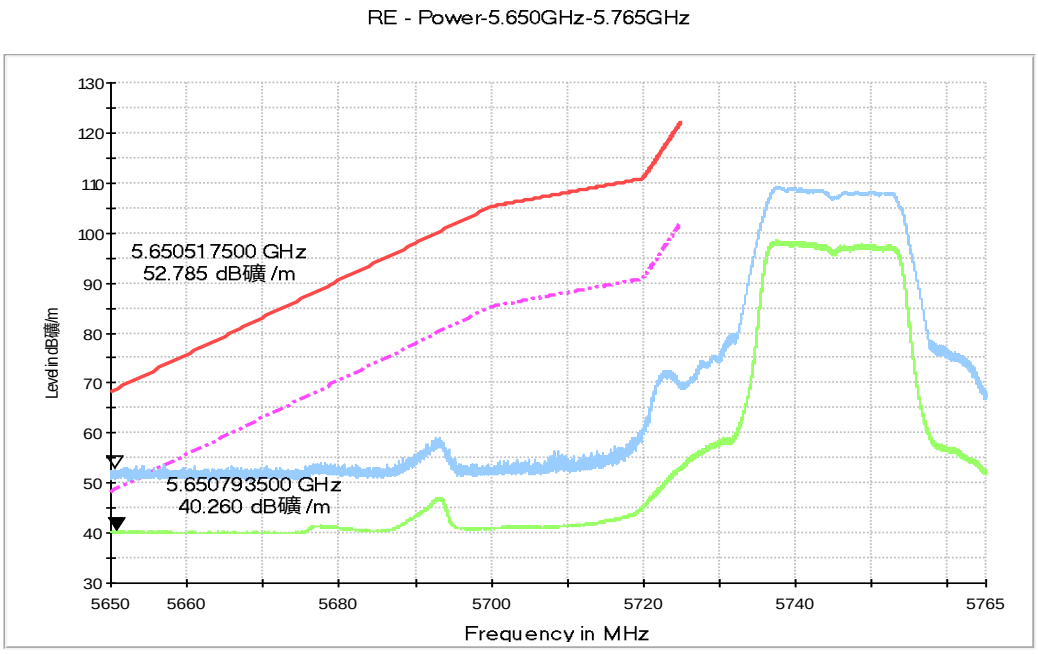

Fig. 89 Band Edges (802.11ac-HT20, 5745MHz)

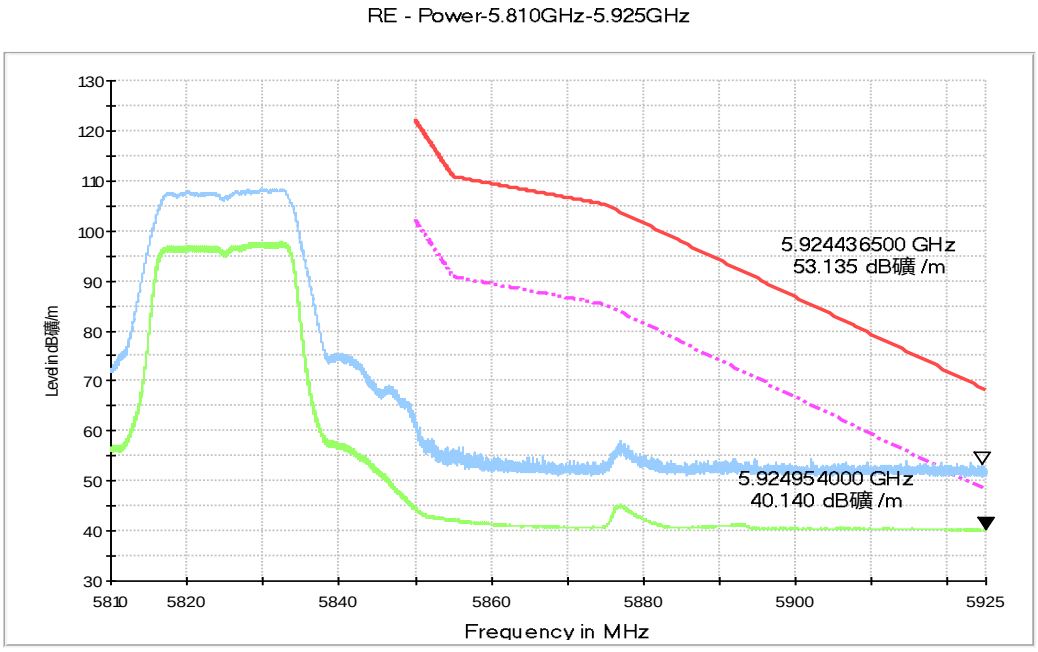

Fig. 90 Band Edges (802.11ac-HT20, 5825MHz)

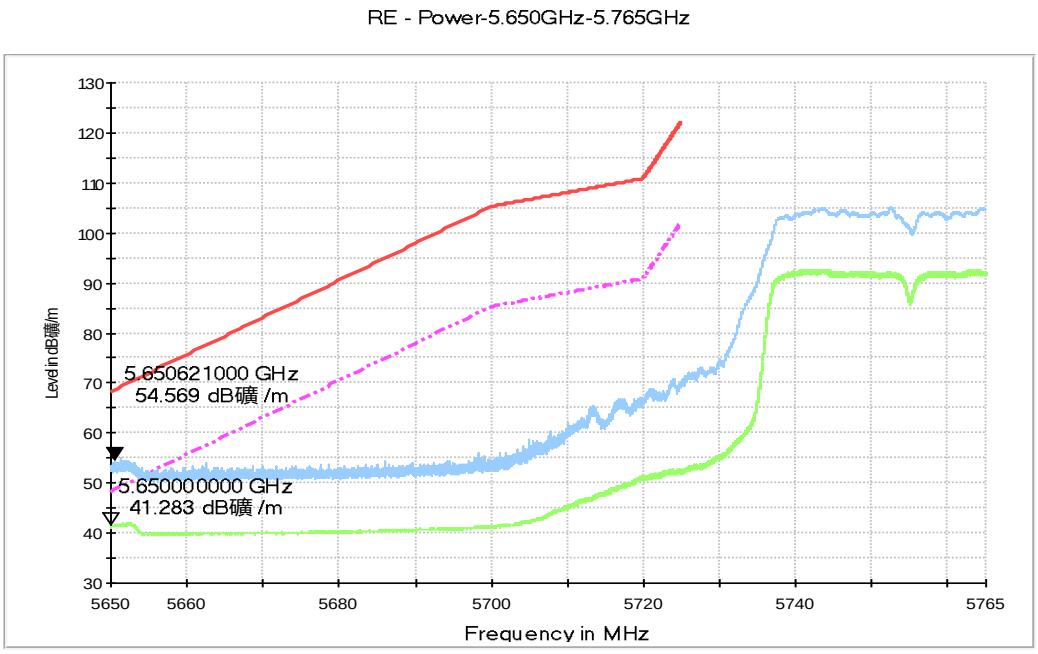

Fig. 91 Band Edges (802.11ac-HT40, 5755MHz)

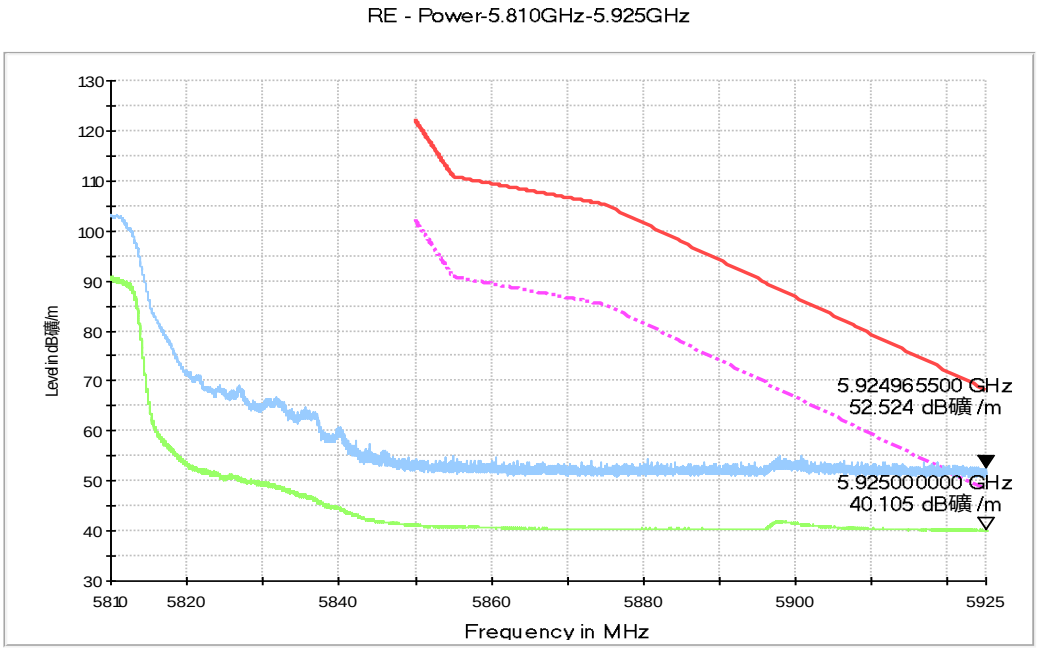

Fig. 92 Band Edges (802.11ac-HT40, 5795MHz)

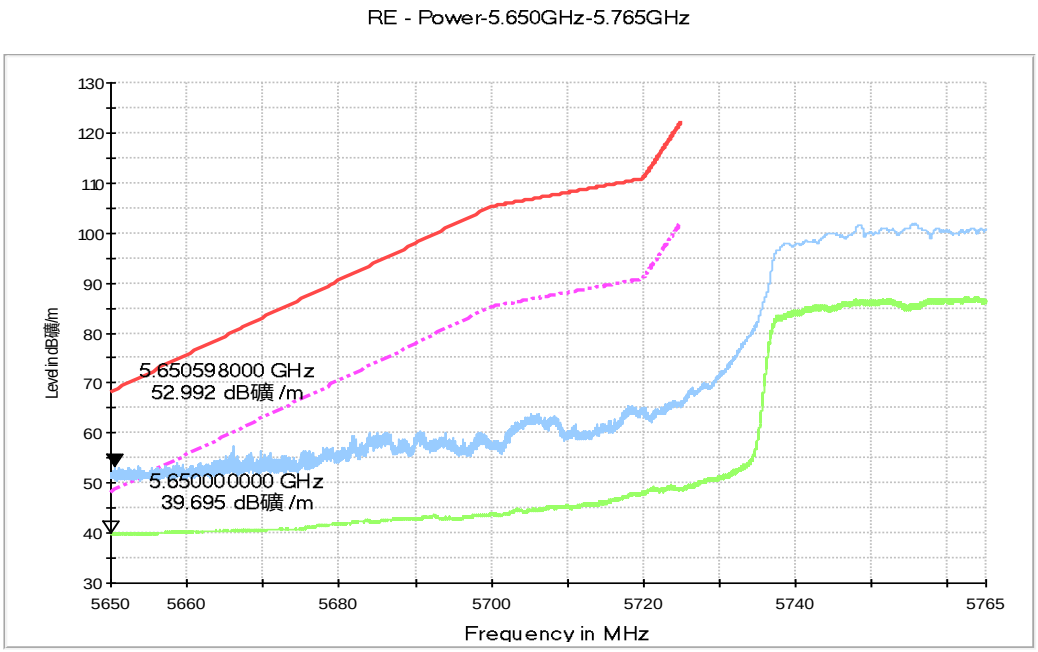

Fig. 93 Band Edges (802.11ac-HT80, 5775MHz)

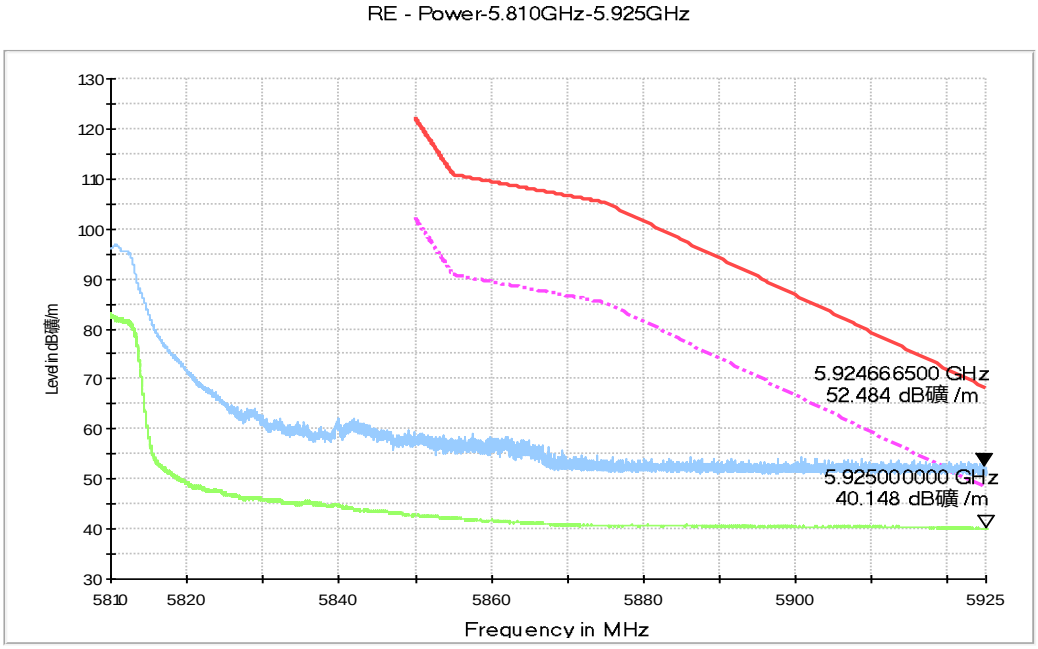

Fig. 94 Band Edges (802.11ac-HT80, 5775MHz)

A.7. AC Powerline Conducted Emission

Test Condition:

Voltage（V）	Frequency（Hz）
120	60

Measurement uncertainty:

Expanded measurement uncertainty for this test item is U =3.10dB, k=2.

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.95	Fig.96	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 (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	56 to 46	Fig.95	Fig.96	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.				

The measurement is made according to ANSI C63.10 .

Conclusion: PASS

Test graphs as below:

Traffic:

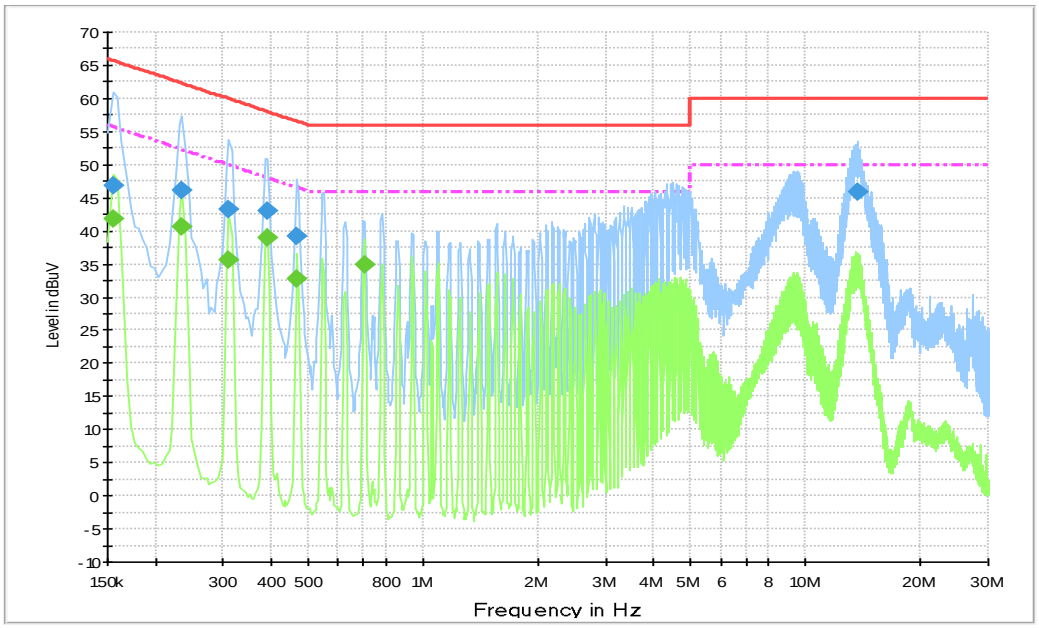

Fig. 95 AC Power line Conducted Emission-802.11a

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	46.9	15000.0	9.000	N	10.2	18.8	65.8
0.235500	46.1	15000.0	9.000	N	10.1	16.1	62.3
0.312000	43.2	15000.0	9.000	N	10.1	16.8	59.9
0.393000	42.9	15000.0	9.000	L1	10.1	15.1	58.0
0.469500	39.1	15000.0	9.000	L1	10.1	17.4	56.5
13.609500	45.9	15000.0	9.000	L1	10.8	14.1	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	41.7	15000.0	9.000	L1	10.2	14.0	55.8
0.235500	40.5	15000.0	9.000	L1	10.1	11.7	52.3
0.312000	35.7	15000.0	9.000	L1	10.1	14.2	49.9
0.393000	38.8	15000.0	9.000	L1	10.1	9.2	48.0
0.469500	32.9	15000.0	9.000	L1	10.1	13.7	46.5
0.703500	34.8	15000.0	9.000	L1	10.0	11.2	46.0

Idle:

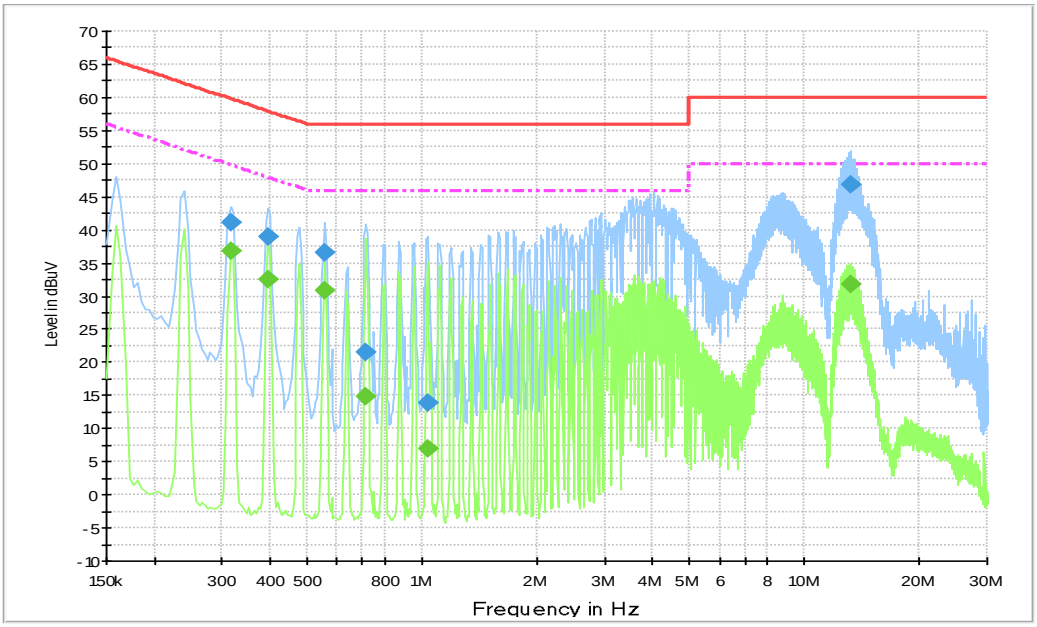

Fig. 96 AC Power line Conducted Emission-Idle

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.316500	41.0	15000.0	9.000	N	10.1	18.8	59.8
0.397500	39.1	15000.0	9.000	L1	10.1	18.8	57.9
0.555000	36.6	15000.0	9.000	L1	10.1	19.4	56.0
0.717000	21.6	15000.0	9.000	N	10.1	34.4	56.0
1.036500	13.8	15000.0	9.000	N	10.1	42.2	56.0
13.141500	46.8	15000.0	9.000	L1	10.7	13.2	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.316500	36.8	15000.0	9.000	L1	10.1	13.0	49.8
0.397500	32.6	15000.0	9.000	L1	10.1	15.3	47.9
0.555000	30.7	15000.0	9.000	L1	10.1	15.3	46.0
0.717000	14.7	15000.0	9.000	L1	10.0	31.3	46.0
1.032000	7.0	15000.0	9.000	L1	10.1	39.0	46.0
13.209000	31.9	15000.0	9.000	L1	10.7	18.1	50.0

ANNEX B: Accreditation Certificate

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

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 Communique dated January 2009).

2019-09-26 through 2020-09-30
Effective Dates

For the National Voluntary Laboratory Accreditation Program

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