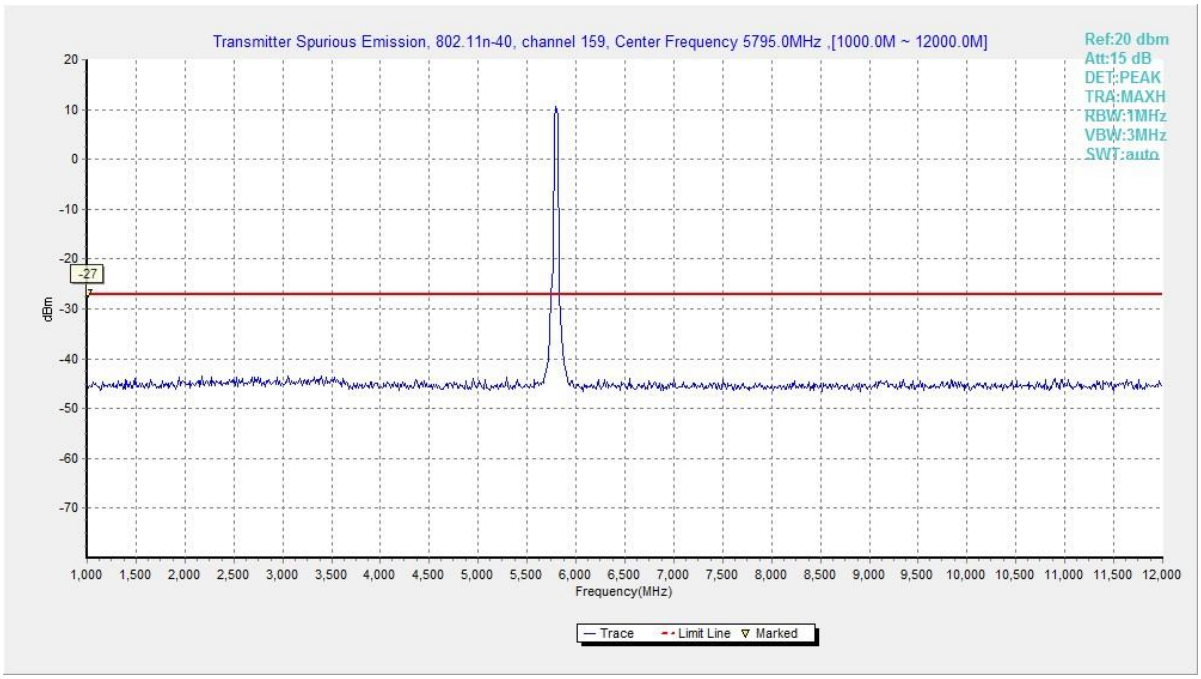


Fig. 56 Conducted Spurious Emission (802.11n40, Ch159 , 1 GHz ~ 12 GHz)

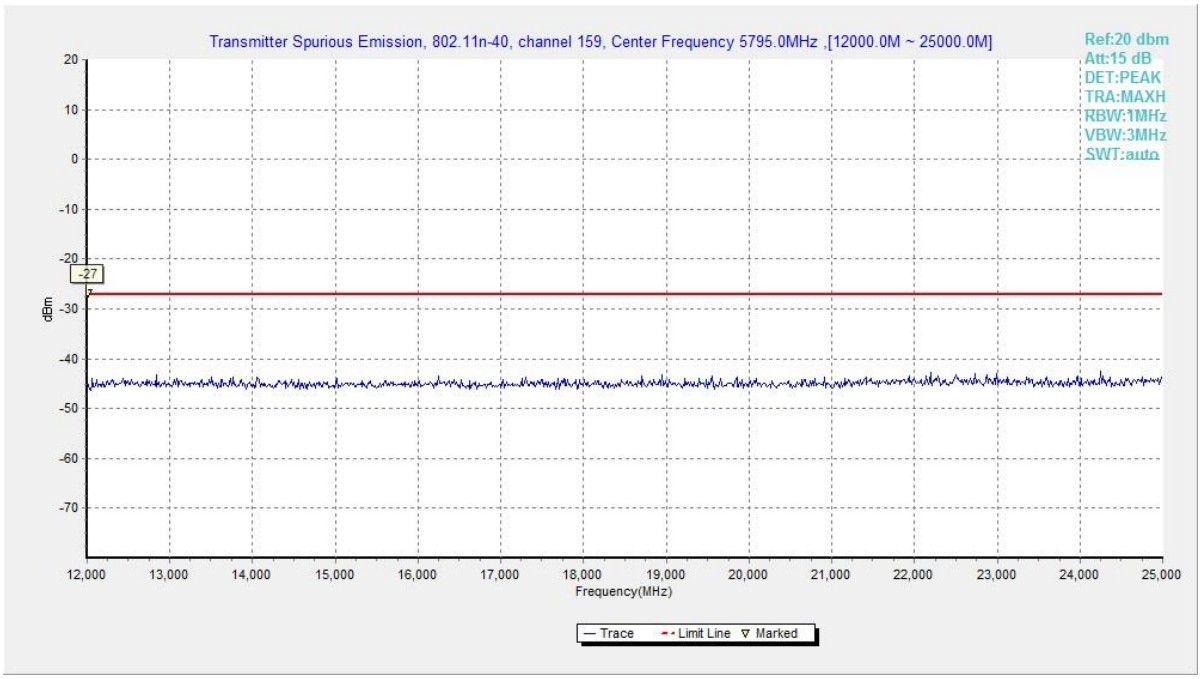


Fig. 57 Conducted Spurious Emission (802.11n40, Ch159 , 12 GHz ~ 25 GHz)

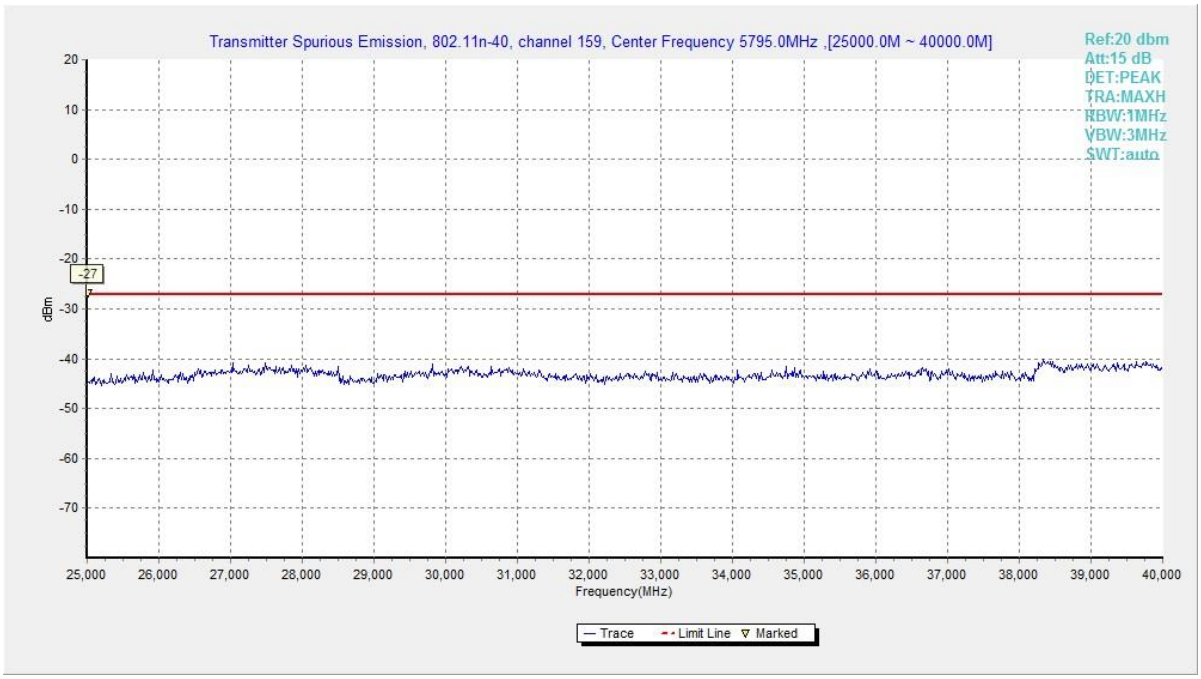


Fig. 58 Conducted Spurious Emission (802.11n40, Ch159 , 25 GHz ~ 40 GHz)

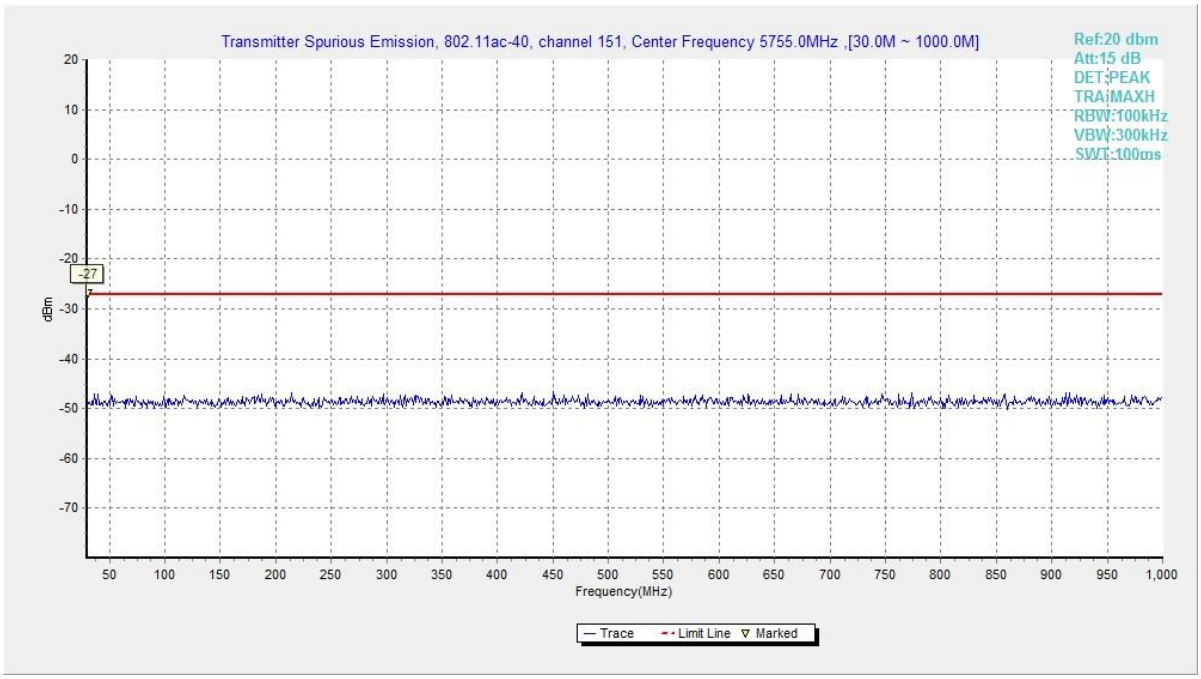


Fig. 59 Conducted Spurious Emission (802.11ac40, Ch151 , 30 MHz ~ 1 GHz)

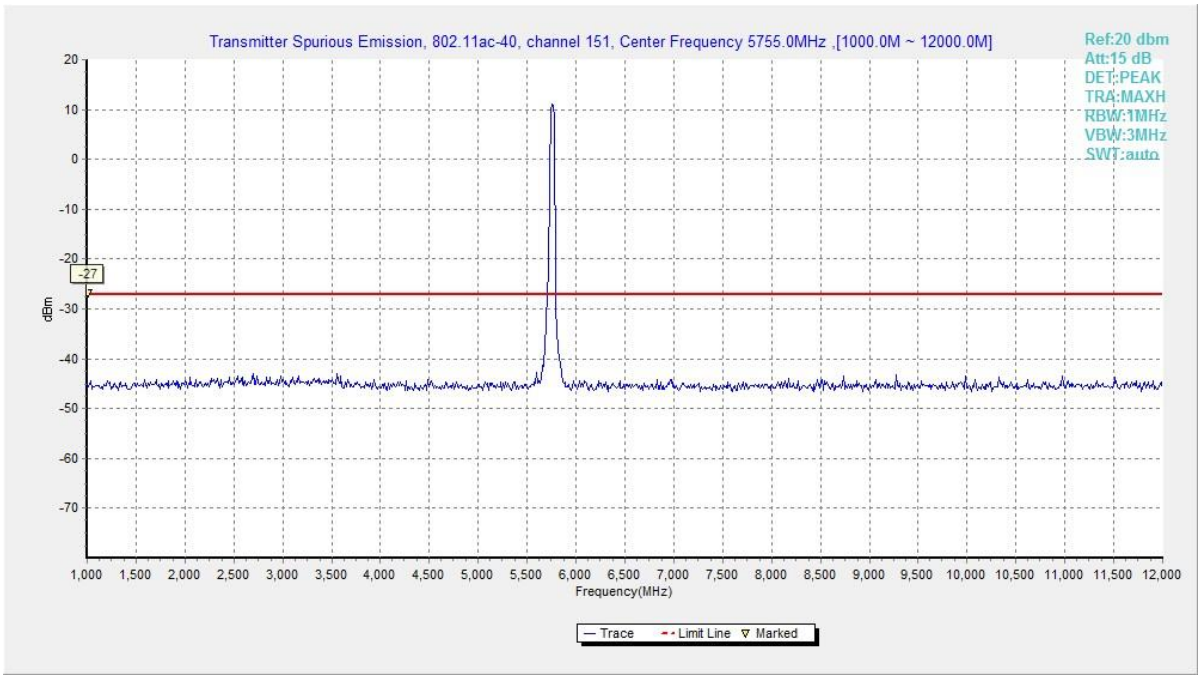


Fig. 60 Conducted Spurious Emission (802.11ac40, Ch151 , 1 GHz ~ 12 GHz)

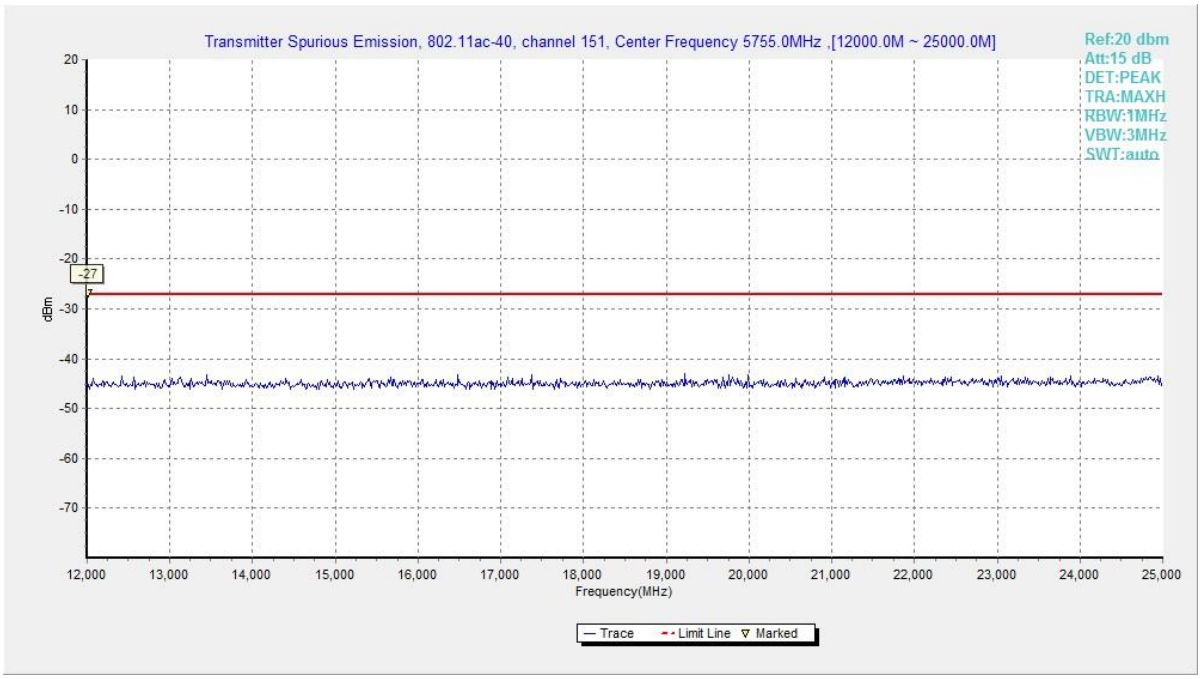


Fig. 61 Conducted Spurious Emission (802.11ac40, Ch151 , 12 GHz ~ 25 GHz)

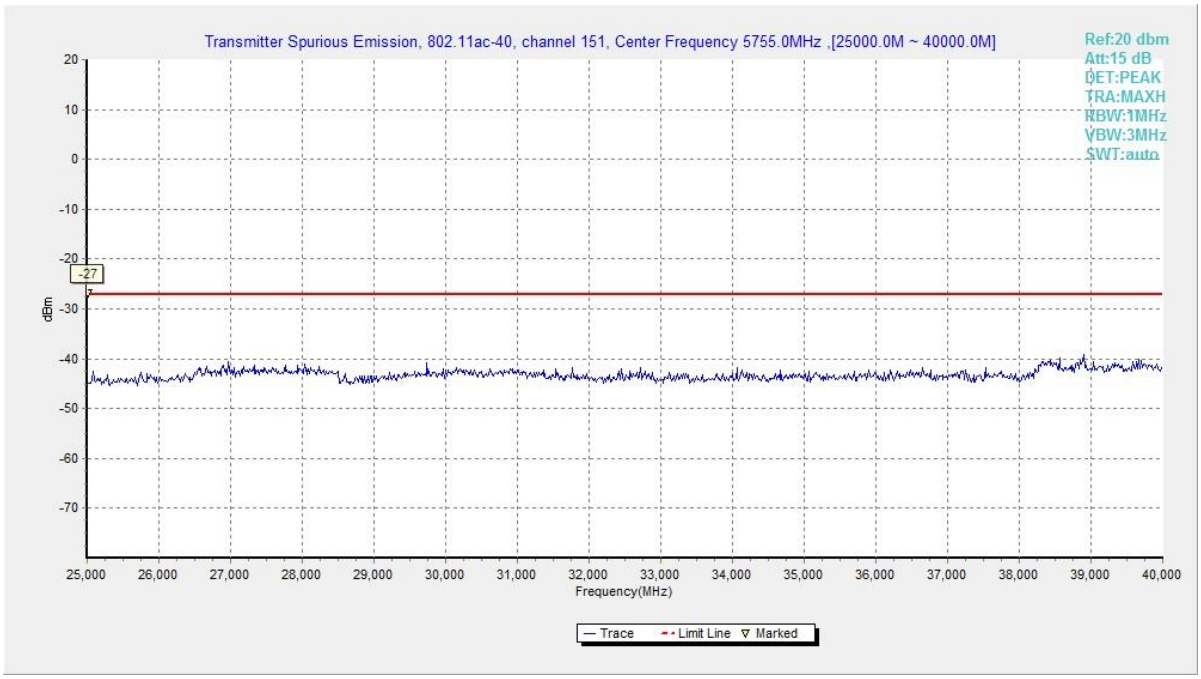


Fig. 62 Conducted Spurious Emission (802.11ac40, Ch151 , 25 GHz ~ 40 GHz)

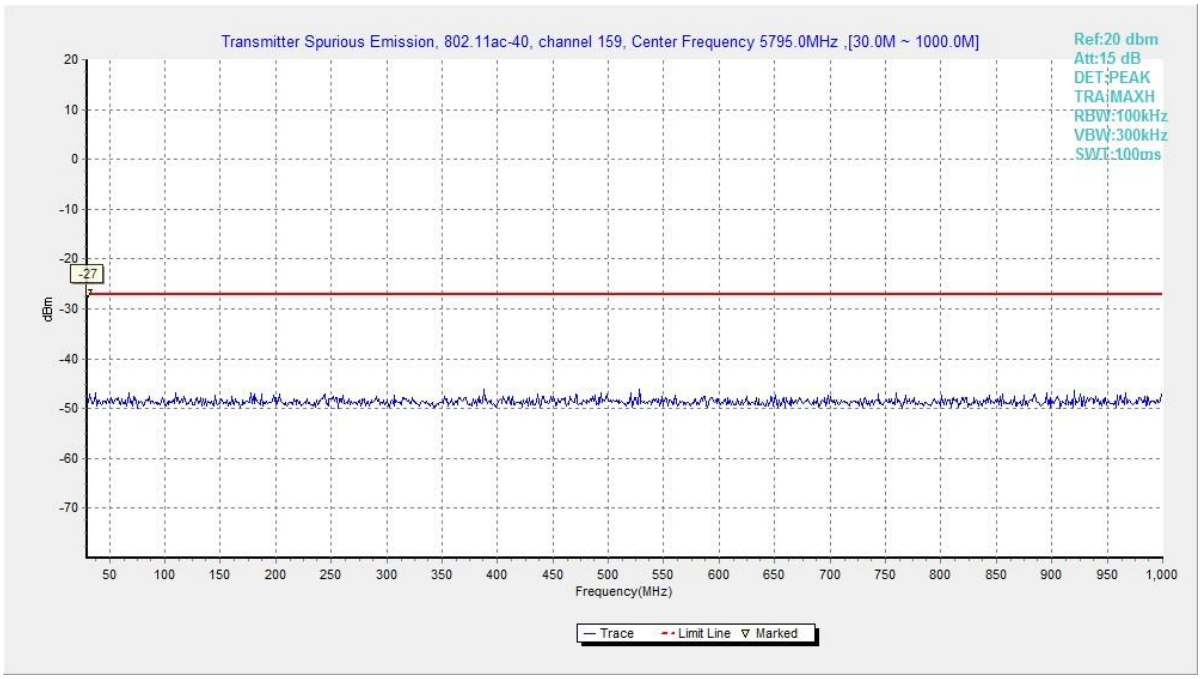


Fig. 63 Conducted Spurious Emission (802.11ac40, Ch159 , 30 MHz ~ 1 GHz)

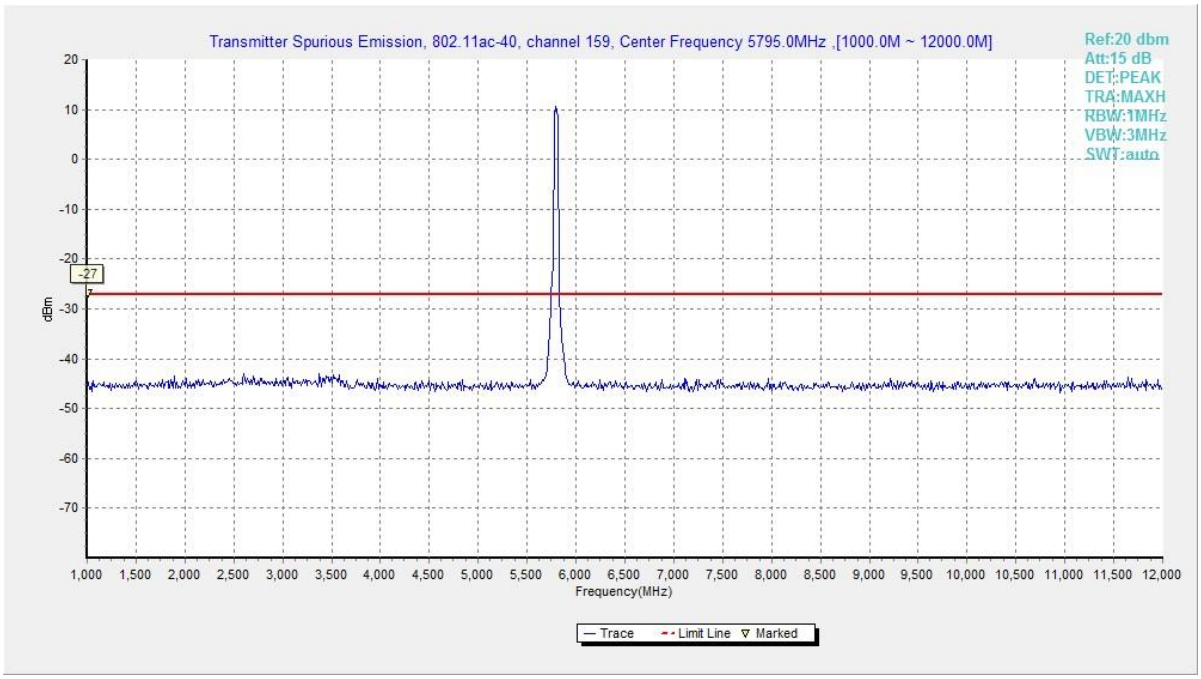


Fig. 64 Conducted Spurious Emission (802.11ac40, Ch159 , 1 GHz ~ 12 GHz)

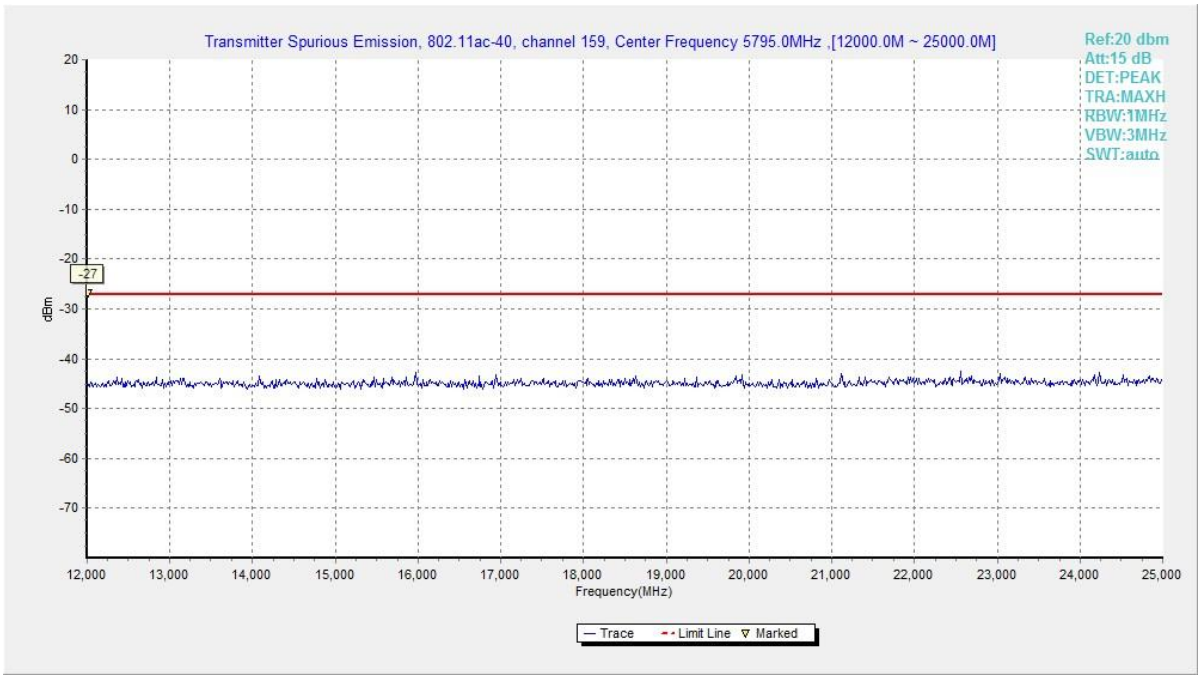


Fig. 65 Conducted Spurious Emission (802.11ac40, Ch159 , 12 GHz ~ 25 GHz)

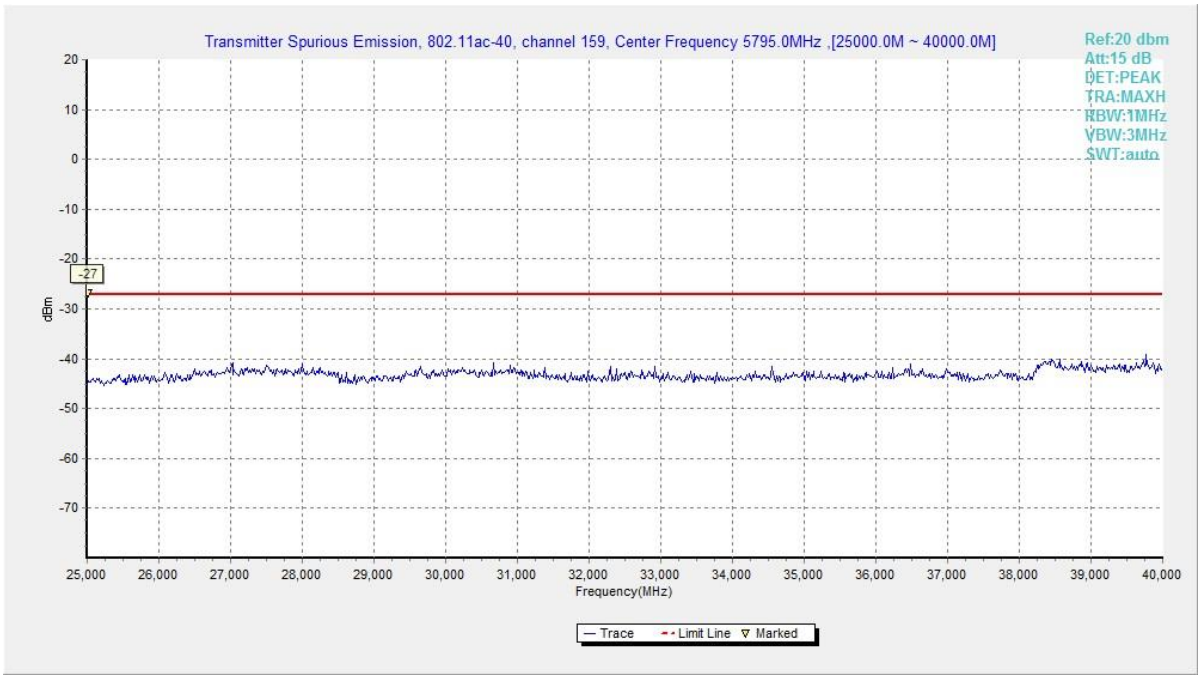


Fig. 66 Conducted Spurious Emission (802.11ac40, Ch159 , 25 GHz ~ 40 GHz)

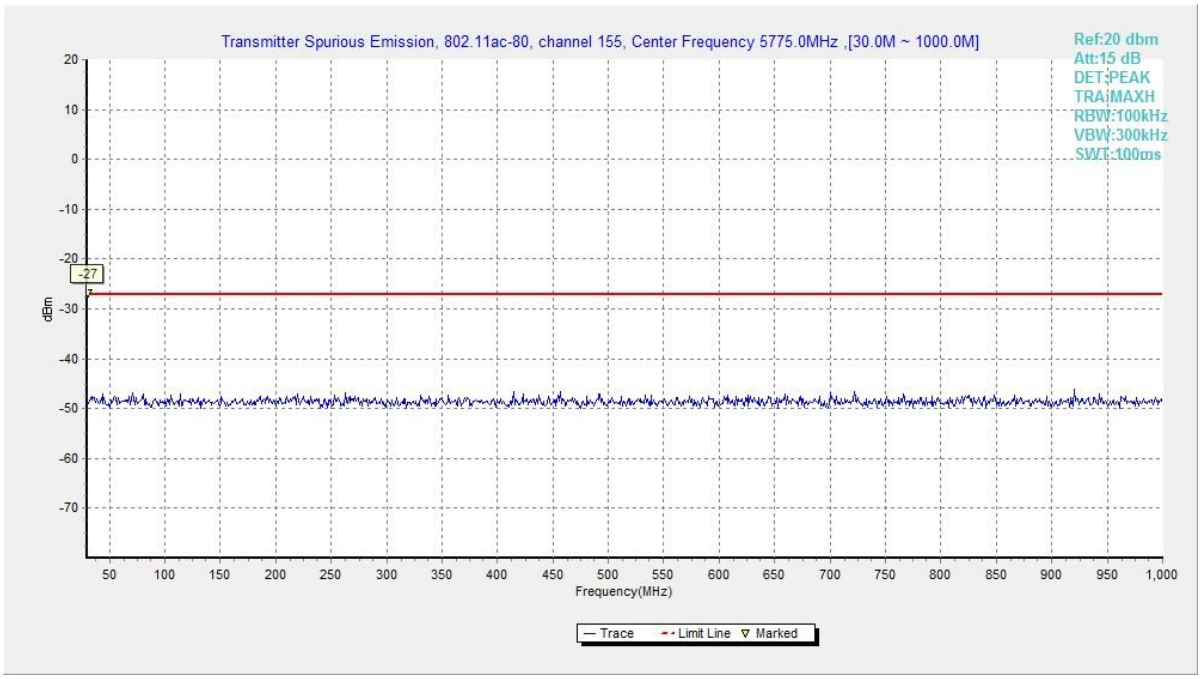


Fig. 67 Conducted Spurious Emission (802.11ac80, Ch155 , 30 MHz ~ 1 GHz)

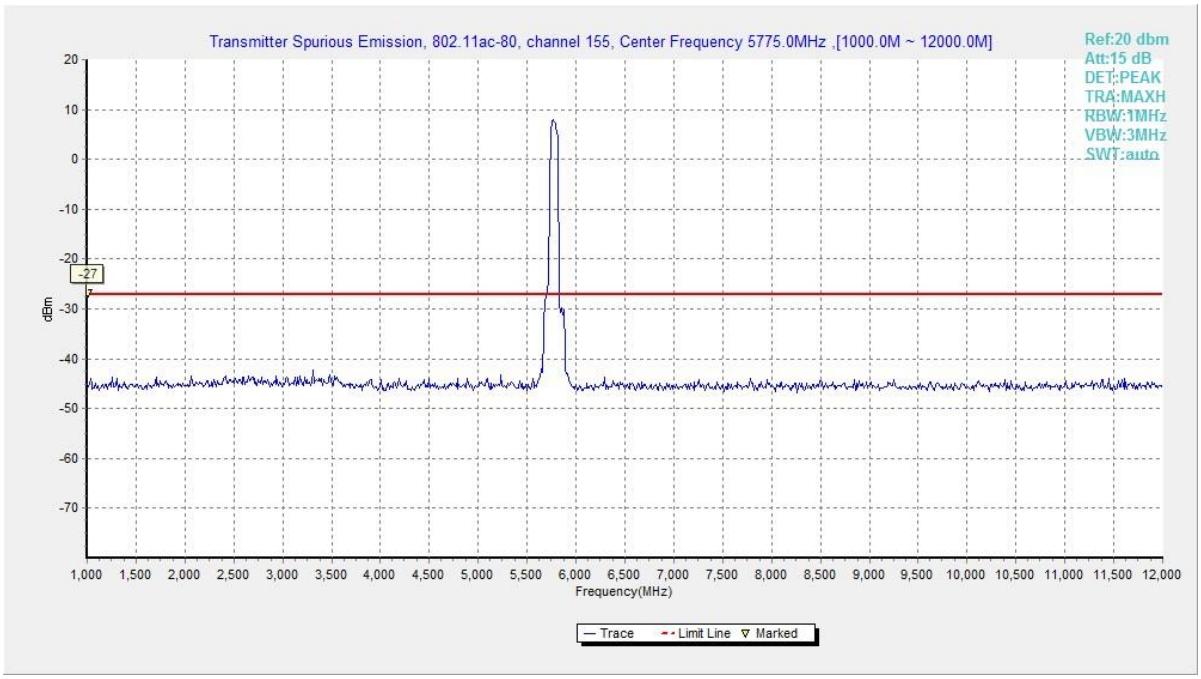


Fig. 68 Conducted Spurious Emission (802.11ac80, Ch155 , 1 GHz ~ 12 GHz)

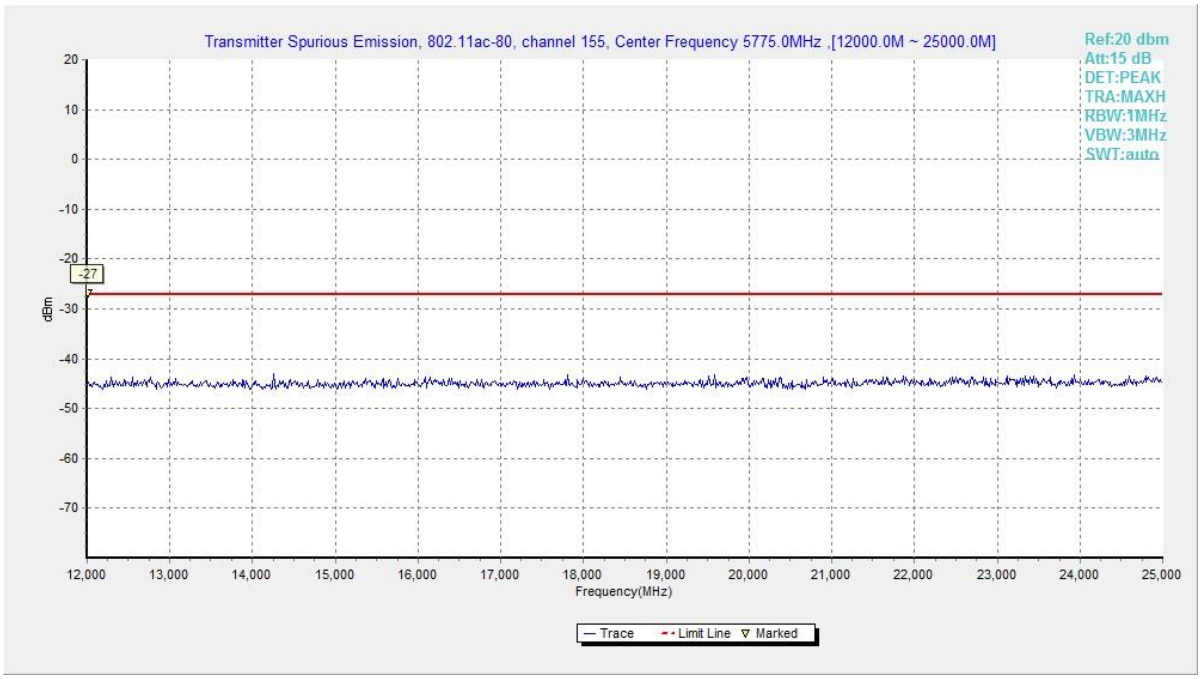


Fig. 69 Conducted Spurious Emission (802.11ac80, Ch155 , 12 GHz ~ 25 GHz)

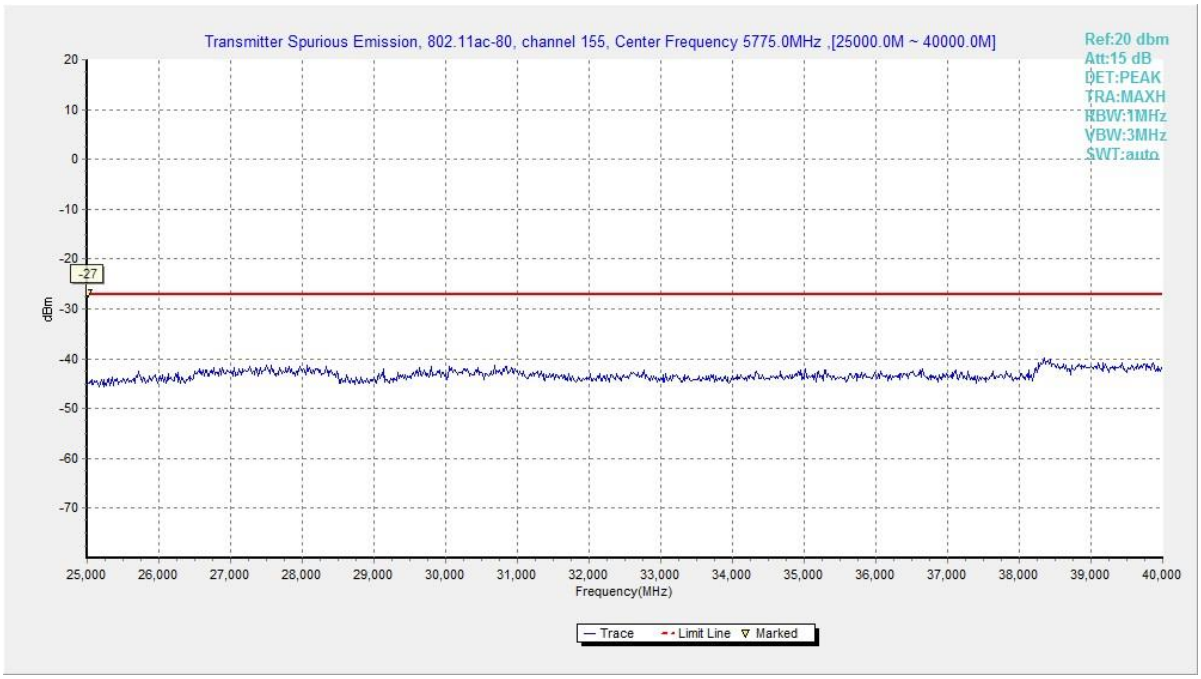


Fig. 70 Conducted Spurious Emission (802.11ac80, Ch155 , 25 GHz ~ 40 GHz)

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)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17994.5	36.4	-25.5	43.4	18.5	H	48.0	11.6
17959.3	36.2	-25.5	43.4	18.3	V	48.0	11.8
17983.5	36.2	-25.5	43.4	18.3	V	48.0	11.8
17997.8	36.2	-25.5	43.4	18.3	V	48.0	11.8
17880.1	36.1	-25.5	43.4	18.2	V	48.0	11.9
5725.0	53.4	-16.3	34.2	35.5	V	102.0	48.6

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17982.4	36.7	-25.5	43.4	18.8	H	48.0	11.3
17979.1	36.4	-25.5	43.4	18.5	H	48.0	11.6
17997.8	36.4	-25.5	43.4	18.5	H	48.0	11.6
17983.5	36.3	-25.5	43.4	18.4	V	48.0	11.7
17972.5	36.2	-25.5	43.4	18.3	H	48.0	11.8
17975.8	36.2	-25.5	43.4	18.3	H	48.0	11.8

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17983.5	36.4	-25.5	43.4	18.5	V	48.0	11.6
17969.2	36.2	-25.5	43.4	18.3	H	48.0	11.8
17978.0	36.2	-25.5	43.4	18.3	H	48.0	11.8
17980.2	36.2	-25.5	43.4	18.3	H	48.0	11.8
17986.8	36.2	-25.5	43.4	18.3	V	48.0	11.8
5850.0	40.1	-16.2	34.2	22.1	V	48.0	7.9

802.11n-HT20

Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17975.8	36.5	-25.5	43.4	18.6	V	48.0	11.5
17971.4	36.4	-25.5	43.4	18.5	H	48.0	11.6
17979.1	36.4	-25.5	43.4	18.5	H	48.0	11.6
17997.8	36.4	-25.5	43.4	18.5	H	48.0	11.6
17963.7	36.3	-25.5	43.4	18.4	H	48.0	11.7
5725.0	55.0	-16.3	34.2	37.1	V	102.0	47.0

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17981.3	36.6	-25.5	43.4	18.7	H	48.0	11.4
17984.6	36.5	-25.5	43.4	18.6	H	48.0	11.5
17979.1	36.4	-25.5	43.4	18.5	V	48.0	11.6
17982.4	36.4	-25.5	43.4	18.5	V	48.0	11.6
17987.9	36.4	-25.5	43.4	18.5	V	48.0	11.6
17970.3	36.3	-25.5	43.4	18.4	V	48.0	11.7

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17992.3	36.7	-25.5	43.4	18.8	V	48.0	11.3
17986.8	36.5	-25.5	43.4	18.6	V	48.0	11.5
17954.9	36.4	-25.5	43.4	18.5	H	48.0	11.6
17972.5	36.4	-25.5	43.4	18.5	V	48.0	11.6
17978.0	36.4	-25.5	43.4	18.5	H	48.0	11.6
5850.0	40.5	-16.2	34.2	22.5	V	48.0	7.5

802.11n-HT40

Ch151

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17983.5	36.6	-25.5	43.4	18.7	H	48.0	11.4
17989.0	36.6	-25.5	43.4	18.7	V	48.0	11.4
17975.8	36.4	-25.5	43.4	18.5	H	48.0	11.6
17942.8	36.3	-25.5	43.4	18.4	H	48.0	11.7
17952.7	36.3	-25.5	43.4	18.4	V	48.0	11.7
5724.2	56.8	-16.3	34.2	38.9	V	100.0	43.2

Ch159

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17989.0	36.6	-25.5	43.4	18.7	V	48.0	11.4
17981.3	36.5	-25.5	43.4	18.6	H	48.0	11.5
17887.8	36.4	-25.5	43.4	18.5	V	48.0	11.6
17976.9	36.4	-25.5	43.4	18.5	H	48.0	11.6
17987.9	36.4	-25.5	43.4	18.5	V	48.0	11.6
5850.1	39.0	-16.2	34.2	21.0	V	48.0	9.0

802.11ac-HT20

Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17996.7	36.8	-25.5	43.4	18.9	H	48.0	11.2
17990.1	36.6	-25.5	43.4	18.7	H	48.0	11.4
17993.4	36.6	-25.5	43.4	18.7	H	48.0	11.4
17985.7	36.5	-25.5	43.4	18.6	V	48.0	11.5
17972.5	36.4	-25.5	43.4	18.5	V	48.0	11.6
5724.9	55.2	-16.3	34.2	37.3	V	102.0	46.8

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17969.2	36.6	-25.5	43.4	18.7	H	48.0	11.4
17975.8	36.4	-25.5	43.4	18.5	V	48.0	11.6
17981.3	36.4	-25.5	43.4	18.5	H	48.0	11.6
17990.1	36.4	-25.5	43.4	18.5	H	48.0	11.6
17992.3	36.4	-25.5	43.4	18.5	V	48.0	11.6
17994.5	36.4	-25.5	43.4	18.5	H	48.0	11.6

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17991.2	36.5	-25.5	43.4	18.6	V	48.0	11.5
17975.8	36.4	-25.5	43.4	18.5	V	48.0	11.6
17976.9	36.4	-25.5	43.4	18.5	V	48.0	11.6
17984.6	36.4	-25.5	43.4	18.5	H	48.0	11.6
17985.7	36.4	-25.5	43.4	18.5	H	48.0	11.6
5850.1	41.0	-16.2	34.2	23.0	V	48.0	7.0

802.11ac-HT40

Ch151

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17984.6	36.5	-25.5	43.4	18.6	H	48.0	11.5
17995.6	36.5	-25.5	43.4	18.6	H	48.0	11.5
17960.4	36.4	-25.5	43.4	18.5	H	48.0	11.6
17979.1	36.4	-25.5	43.4	18.5	V	48.0	11.6
17980.2	36.4	-25.5	43.4	18.5	V	48.0	11.6
5724.2	56.2	-16.3	34.2	38.3	V	100.0	43.8

Ch159

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17989.0	36.6	-25.5	43.4	18.7	V	48.0	11.4
17995.6	36.6	-25.5	43.4	18.7	H	48.0	11.4
17957.1	36.4	-25.5	43.4	18.5	V	48.0	11.6
17973.6	36.4	-25.5	43.4	18.5	H	48.0	11.6
17978.0	36.4	-25.5	43.4	18.5	V	48.0	11.6
5850.0	38.1	-16.2	34.2	20.1	V	48.0	9.9

802.11ac-HT80

Ch155

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
5720.9	53.8	-33.8	35.1	52.5	V	112.0	58.2
5853.7	41.5	-33.8	35.1	40.2	H	48.0	6.5
17993.4	36.5	-25.5	43.4	18.6	V	48.0	11.5
17991.2	36.4	-25.5	43.4	18.5	V	48.0	11.6
17992.3	36.4	-25.5	43.4	18.5	H	48.0	11.6
17994.5	36.4	-25.5	43.4	18.5	V	48.0	11.6

Peak Results：

802.11a

Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17964.8	48.6	-25.5	43.4	30.7	H	68.0	19.4
17808.6	48.0	-25.5	43.4	30.1	H	68.0	20.0
17115.6	47.9	-26.6	40.1	34.4	H	68.0	20.1
17908.7	47.8	-25.5	43.4	29.9	H	68.0	20.2
17950.5	47.8	-25.5	43.4	29.9	H	68.0	20.2
5723.9	66.7	-16.3	34.2	48.8	V	120.0	53.3

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17901.0	49.3	-25.5	43.4	31.4	H	68.0	18.7
17979.1	48.5	-25.5	43.4	30.6	H	68.0	19.5
17918.6	48.2	-25.5	43.4	30.3	H	68.0	19.8
17975.8	48.2	-25.5	43.4	30.3	H	68.0	19.8
17008.9	48.0	-26.3	40.1	34.2	V	68.0	20.0
17973.6	48.0	-25.5	43.4	30.1	V	68.0	20.0

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17952.7	48.7	-25.5	43.4	30.8	H	68.0	19.3
17959.3	48.7	-25.5	43.4	30.8	H	68.0	19.3
17989.0	48.6	-25.5	43.4	30.7	H	68.0	19.4
17875.7	48.4	-25.5	43.4	30.5	H	68.0	19.6
17385.1	48.3	-25.9	40.1	34.1	V	68.0	19.7
5851.0	52.6	-16.2	34.2	34.6	V	68.0	15.4

802.11n-HT20

Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17978.0	48.5	-25.5	43.4	30.6	V	68.0	19.5
17908.7	48.2	-25.5	43.4	30.3	H	68.0	19.8
17904.3	47.9	-25.5	43.4	30.0	H	68.0	20.1
17971.4	47.9	-25.5	43.4	30.0	H	68.0	20.1
17679.9	47.8	-25.7	43.4	30.1	H	68.0	20.2
5725.0	66.7	-16.3	34.2	48.8	V	122.0	55.3

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17829.5	48.7	-25.5	43.4	30.8	V	68.0	19.3
17907.6	48.6	-25.5	43.4	30.7	H	68.0	19.4
17371.9	48.4	-25.9	40.1	34.2	V	68.0	19.6
17943.9	48.4	-25.5	43.4	30.5	V	68.0	19.6
17840.5	48.3	-25.5	43.4	30.4	H	68.0	19.7
17989.0	48.3	-25.5	43.4	30.4	H	68.0	19.7

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17984.6	48.4	-25.5	43.4	30.5	H	68.0	19.6
17565.5	48.2	-25.7	43.4	30.5	H	68.0	19.8
17956.0	47.9	-25.5	43.4	30.0	V	68.0	20.1
17883.4	47.8	-25.5	43.4	29.9	H	68.0	20.2
17994.5	47.8	-25.5	43.4	29.9	H	68.0	20.2
5850.1	52.9	-16.2	34.2	34.9	V	68.0	15.1

802.11n-HT40

Ch151

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17597.4	48.9	-25.7	43.4	31.2	V	68.0	19.1
17884.5	48.9	-25.5	43.4	31.0	V	68.0	19.1
17663.4	48.6	-25.7	43.4	30.9	H	68.0	19.4
17952.7	48.4	-25.5	43.4	30.5	V	68.0	19.6
17502.8	48.0	-26.9	43.4	31.5	V	68.0	20.0
5724.8	67.6	-16.3	34.2	49.7	V	122.0	54.4

Ch159

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17985.7	48.5	-25.5	43.4	30.6	H	68.0	19.5
17964.8	48.4	-25.5	43.4	30.5	H	68.0	19.6
17951.6	48.3	-25.5	43.4	30.4	V	68.0	19.7
17975.8	48.3	-25.5	43.4	30.4	V	68.0	19.7
17979.1	48.3	-25.5	43.4	30.4	H	68.0	19.7
5850.0	51.4	-16.2	34.2	33.4	V	68.0	16.6

802.11ac-HT20

Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17995.6	48.3	-25.5	43.4	30.4	H	68.0	19.7
17550.1	48.2	-26.9	43.4	31.7	V	68.0	19.8
17477.5	48.1	-26.9	43.4	31.6	H	68.0	19.9
17542.4	48.0	-26.9	43.4	31.5	V	68.0	20.0
17609.5	48.0	-25.7	43.4	30.3	V	68.0	20.0
5724.9	66.8	-16.3	34.2	48.9	V	122.0	55.2

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17846.0	48.6	-25.5	43.4	30.7	V	68.0	19.4
17632.6	48.2	-25.7	43.4	30.5	V	68.0	19.8
17986.8	48.1	-25.5	43.4	30.2	H	68.0	19.9
17598.5	48.0	-25.7	43.4	30.3	H	68.0	20.0
17890.0	48.0	-25.5	43.4	30.1	V	68.0	20.0
17516.0	47.9	-26.9	43.4	31.4	V	68.0	20.1

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17923.0	49.1	-25.5	43.4	31.2	H	68.0	18.9
17816.3	48.8	-25.5	43.4	30.9	H	68.0	19.2
17891.1	48.0	-25.5	43.4	30.1	H	68.0	20.0
17994.5	47.9	-25.5	43.4	30.0	V	68.0	20.1
17798.7	47.8	-25.5	43.4	29.9	H	68.0	20.2
5850.1	53.2	-16.2	34.2	35.2	V	68.0	14.8

802.11ac-HT40

Ch151

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17909.8	48.4	-25.5	43.4	30.5	V	68.0	19.6
17483.0	48.0	-26.9	43.4	31.5	H	68.0	20.0
17759.1	48.0	-25.5	43.4	30.1	H	68.0	20.0
17463.2	47.9	-26.9	43.4	31.4	V	68.0	20.1
17365.3	47.7	-25.9	40.1	33.5	H	68.0	20.3
5724.9	67.5	-16.3	34.2	49.6	V	122.0	54.5

Ch159

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)	Limit (dBμV/m))	Margin (dB)
17747.0	48.7	-25.5	43.4	30.8	V	68.0	19.3
17993.4	48.6	-25.5	43.4	30.7	V	68.0	19.4
17813.0	48.3	-25.5	43.4	30.4	V	68.0	19.7
17090.3	48.1	-26.6	40.1	34.6	H	68.0	19.9
17970.3	48.1	-25.5	43.4	30.2	V	68.0	19.9
5851.0	51.0	-16.2	34.2	33.0	V	68.0	17.0

802.11ac-HT80

Ch155

Frequency (MHz)	Measurement Result (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dBµV/m))	Margin (dB)
5720.4	66.0	-33.8	35.1	64.7	H	110.0	44.0
5853.1	54.7	-33.8	35.1	53.4	H	68.0	13.3
17751.4	48.3	-25.5	43.4	30.4	H	68.0	19.7
17872.4	48.2	-25.5	43.4	30.3	H	68.0	19.8
17986.8	48.2	-25.5	43.4	30.3	H	68.0	19.8
17989.0	48.1	-25.5	43.4	30.2	V	68.0	19.9

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

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:

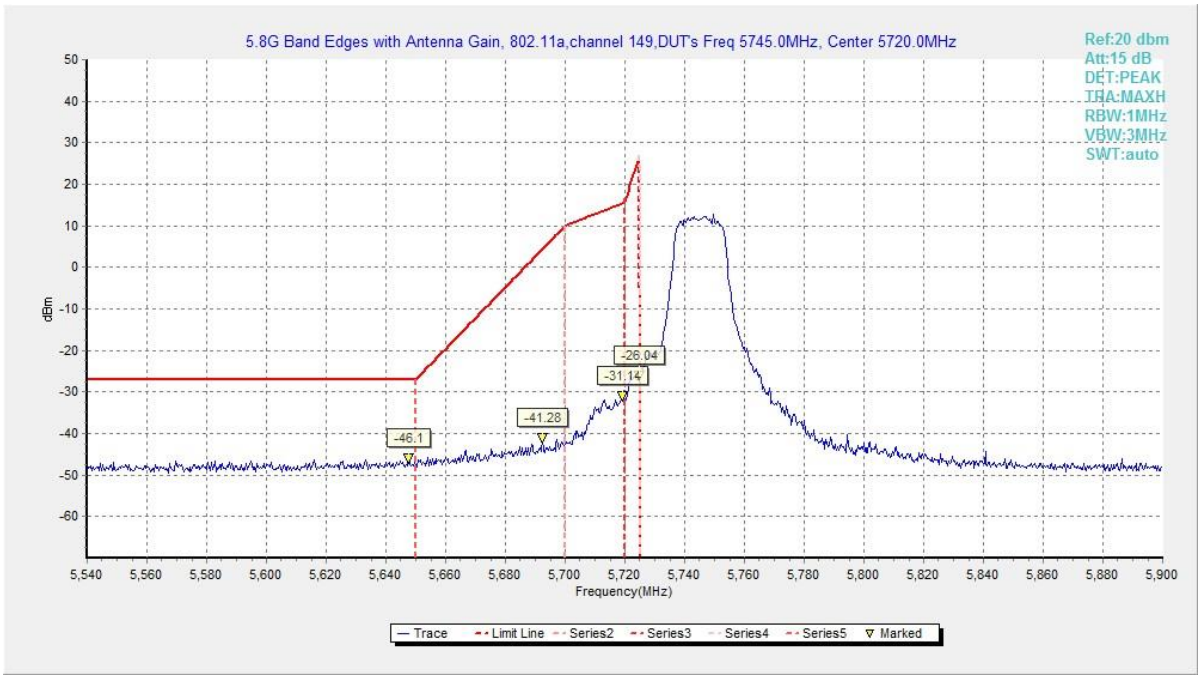


Fig. 71 Band Edges (802.11a, 5745MHz)

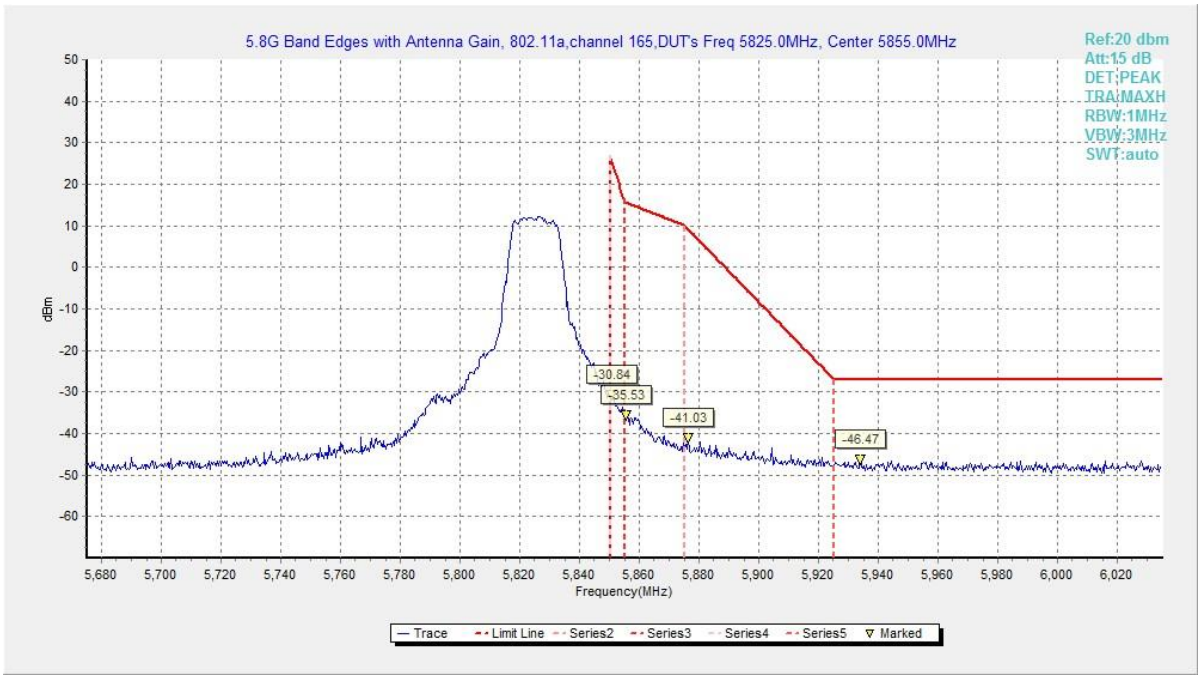


Fig. 72 Band Edges (802.11a, 5825MHz)

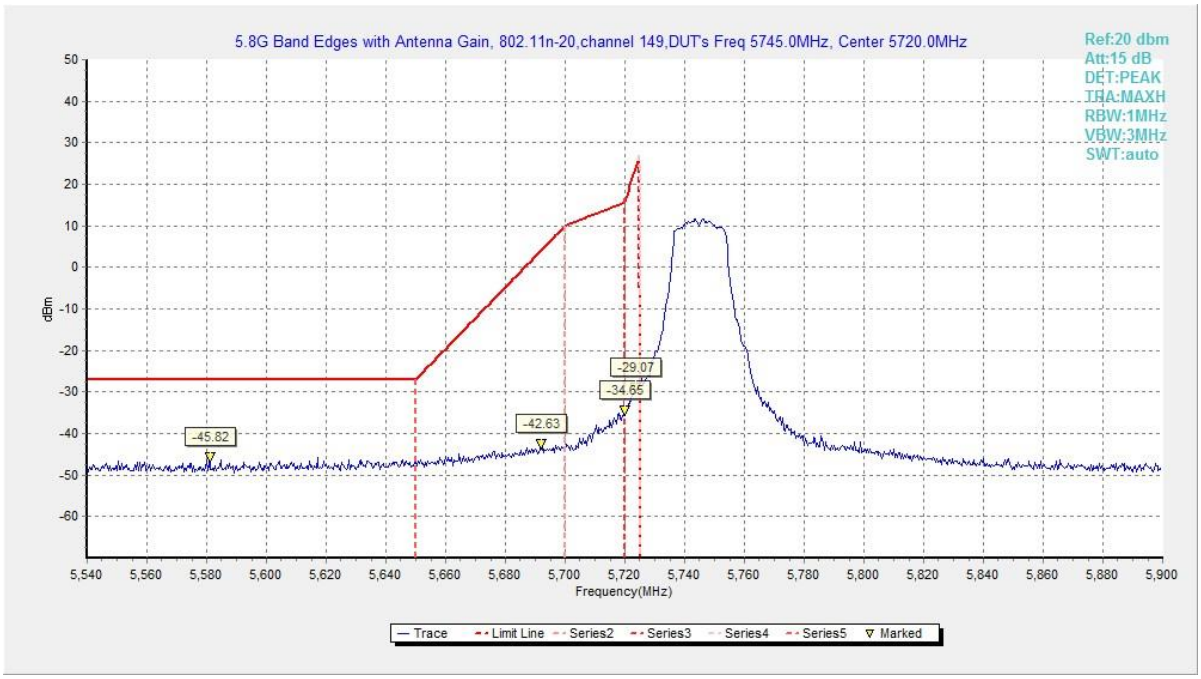


Fig. 73 Band Edges (802.11n20, 5745MHz)

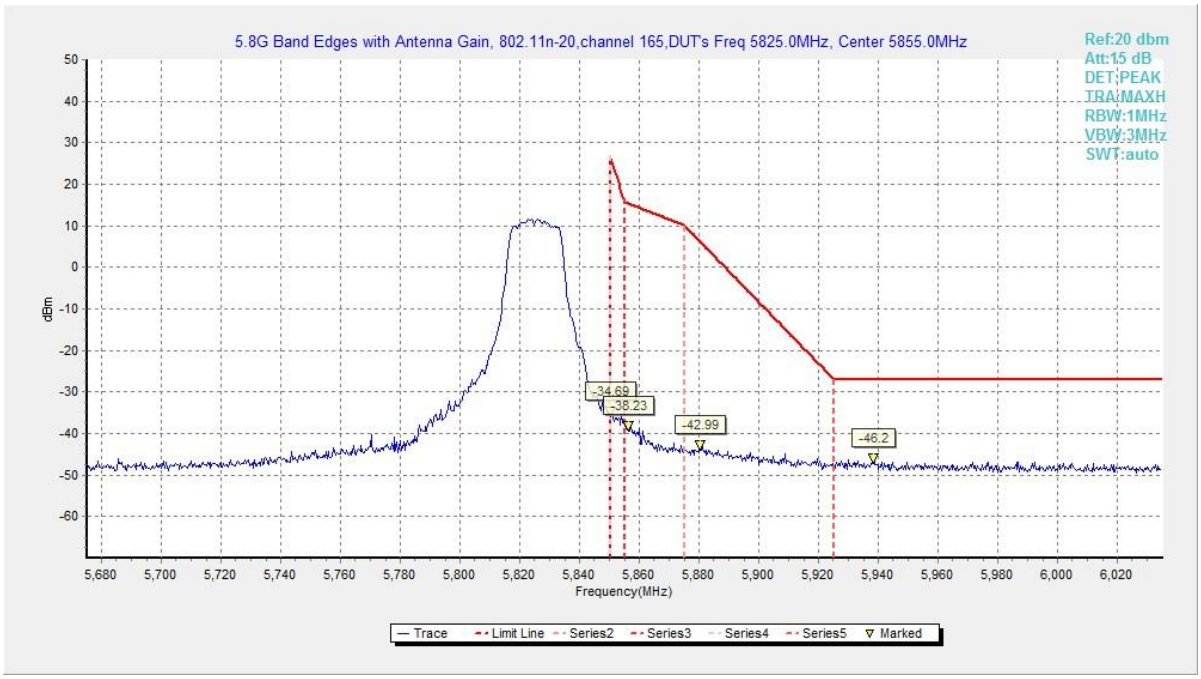


Fig. 74 Band Edges (802.11n20, 5825MHz)

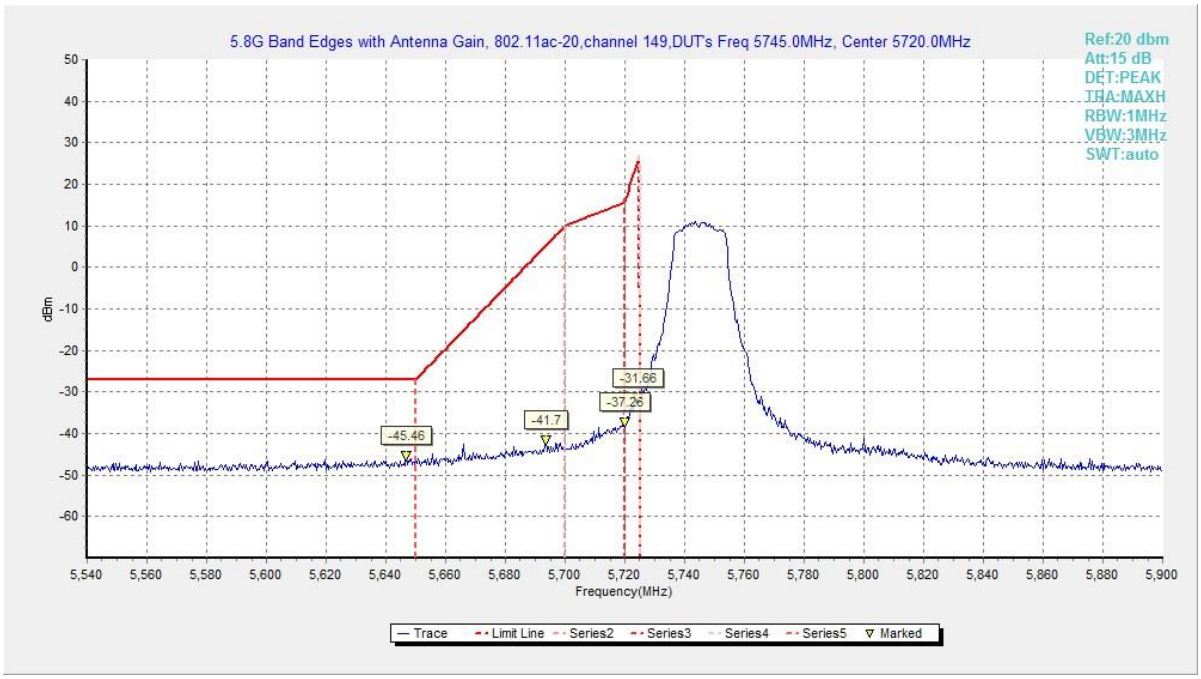


Fig. 75 Band Edges (802.11ac20, 5745MHz)

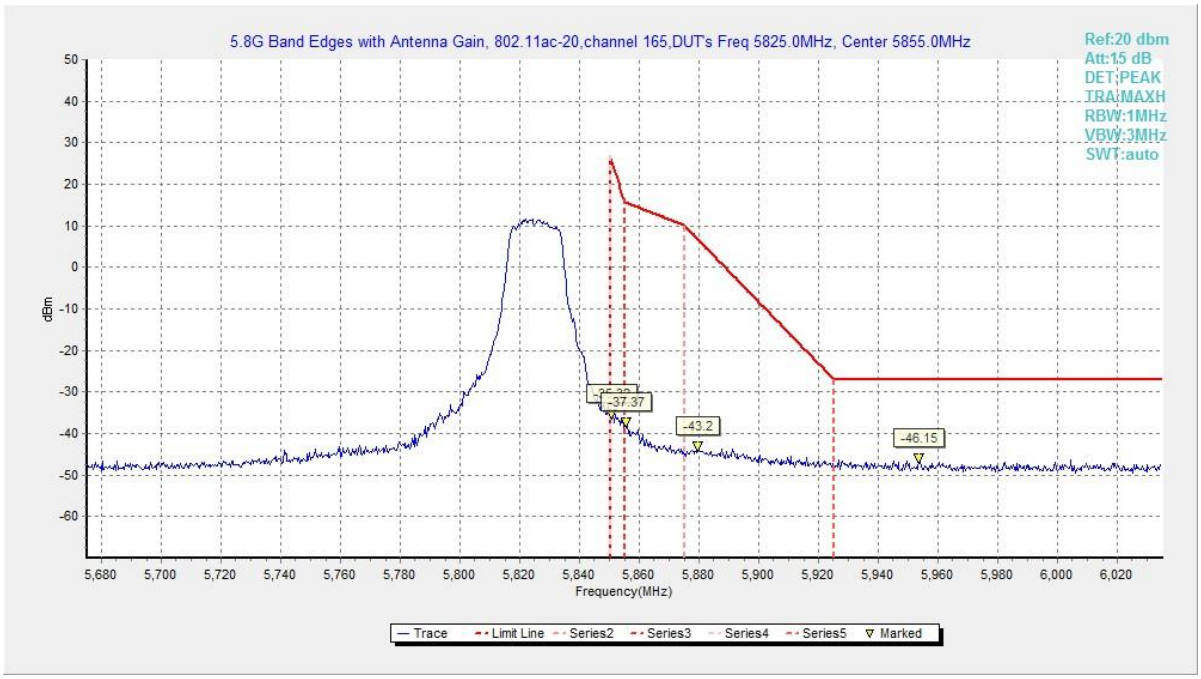


Fig. 76 Band Edges (802.11ac20, 5825MHz)

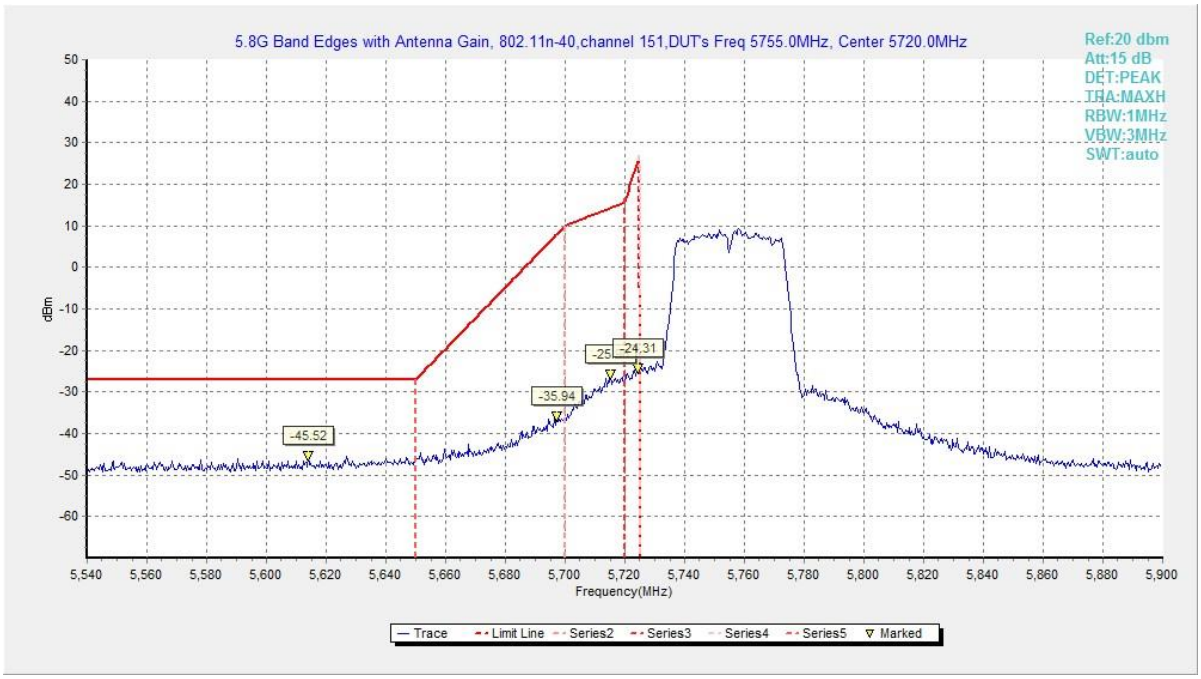


Fig. 77 Band Edges (802.11n40, 5755MHz)

Fig. 78 Band Edges (802.11n40, 5795MHz)

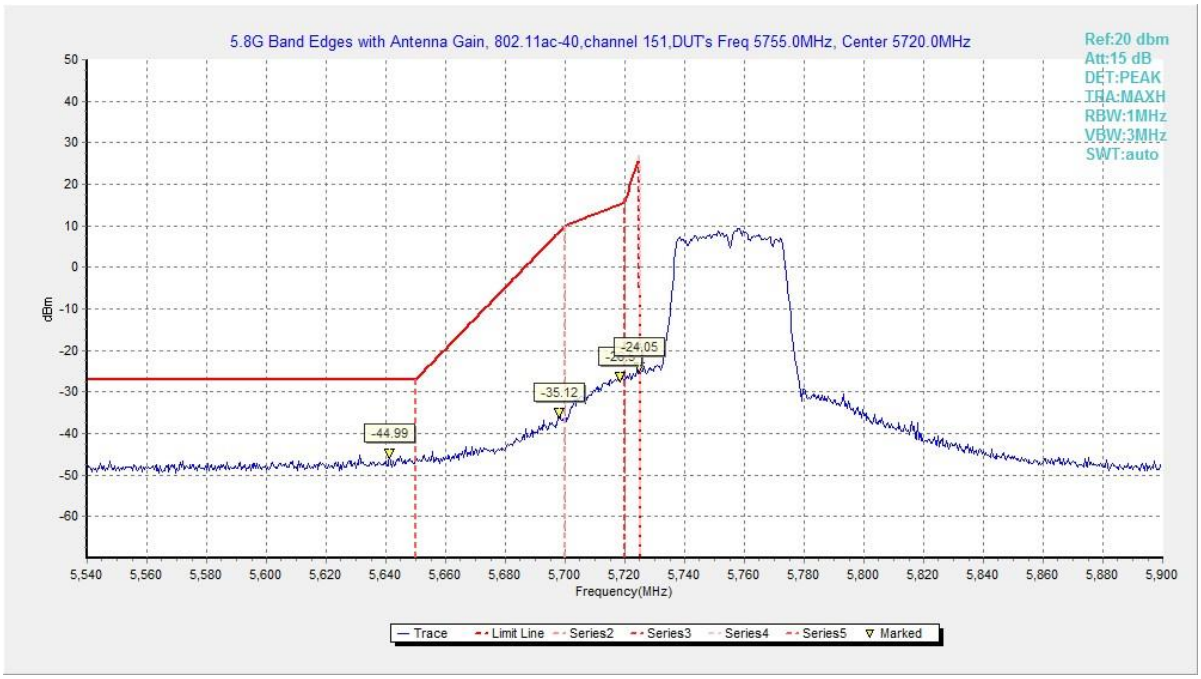


Fig. 79 Band Edges (802.11ac40, 5755MHz)

Fig. 80 Band Edges (802.11ac40, 5795MHz)

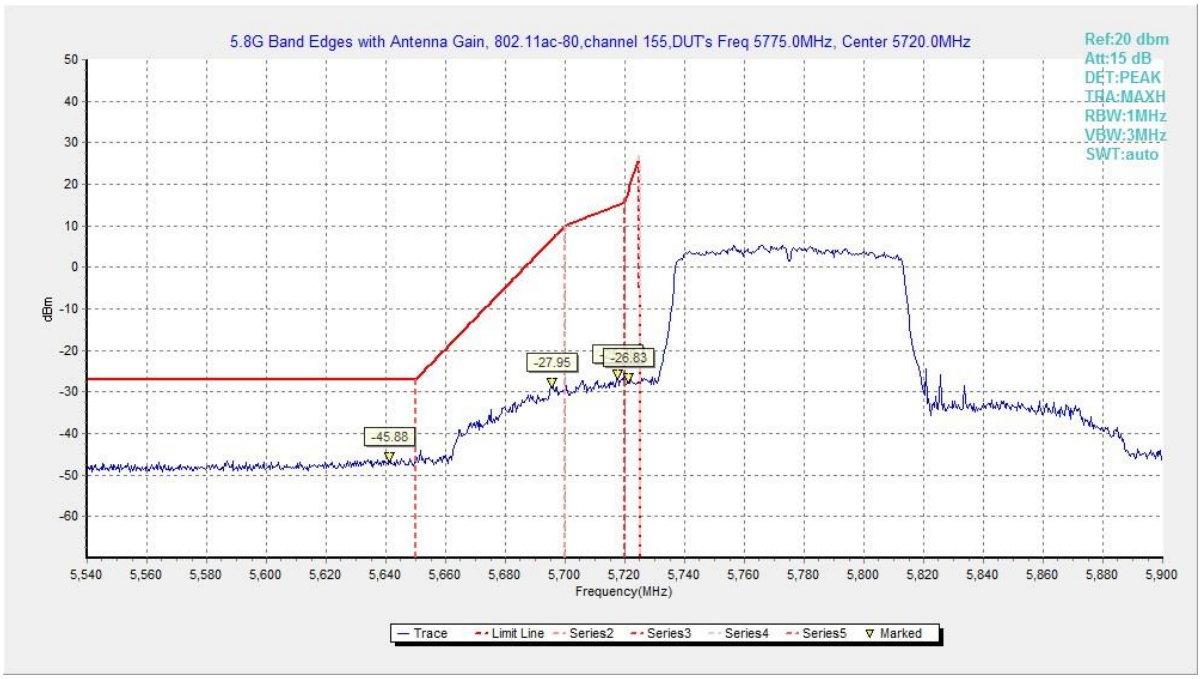


Fig. 81 Band Edges (802.11ac80, 5775MHz)

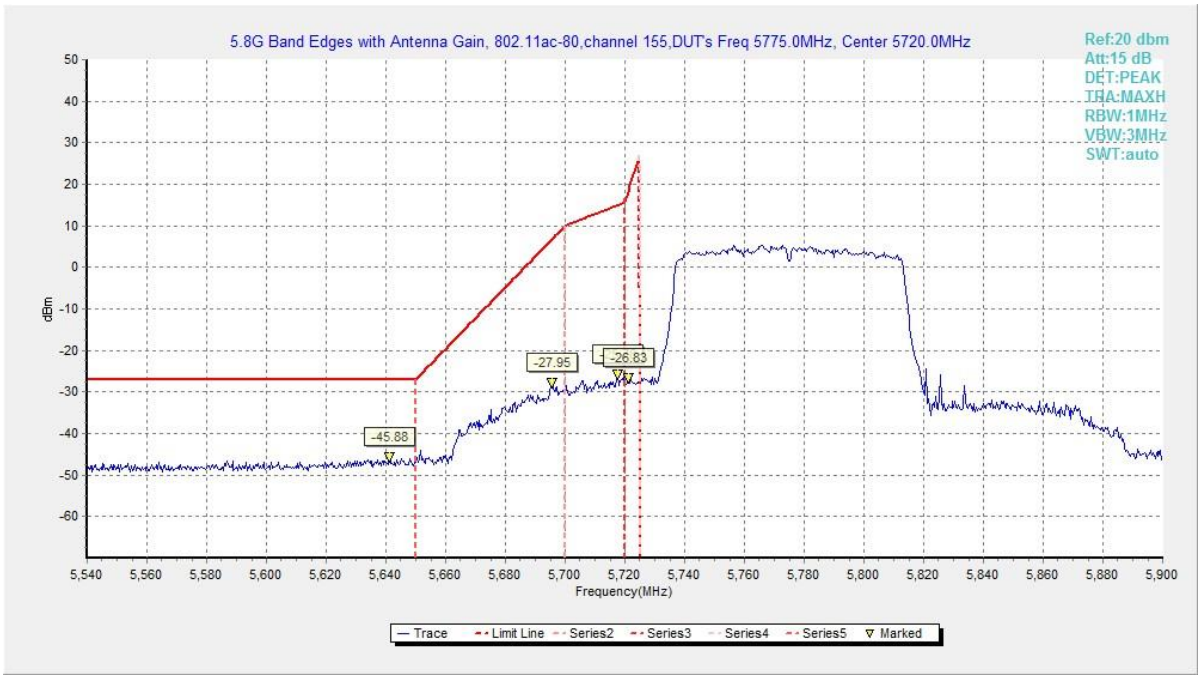


Fig. 82 Band Edges (802.11ac80, 5775MHz)

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.	

The measurement is made according to KDB 789033 D02
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)).

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
802.11ac HT20	5745 MHz	Fig.87	P
	5825 MHz	Fig.88	P
802.11n HT40	5755 MHz	Fig.89	P
	5795 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
	5775 MHz	Fig.94	P

Conclusion: PASS
Test graphs as below:

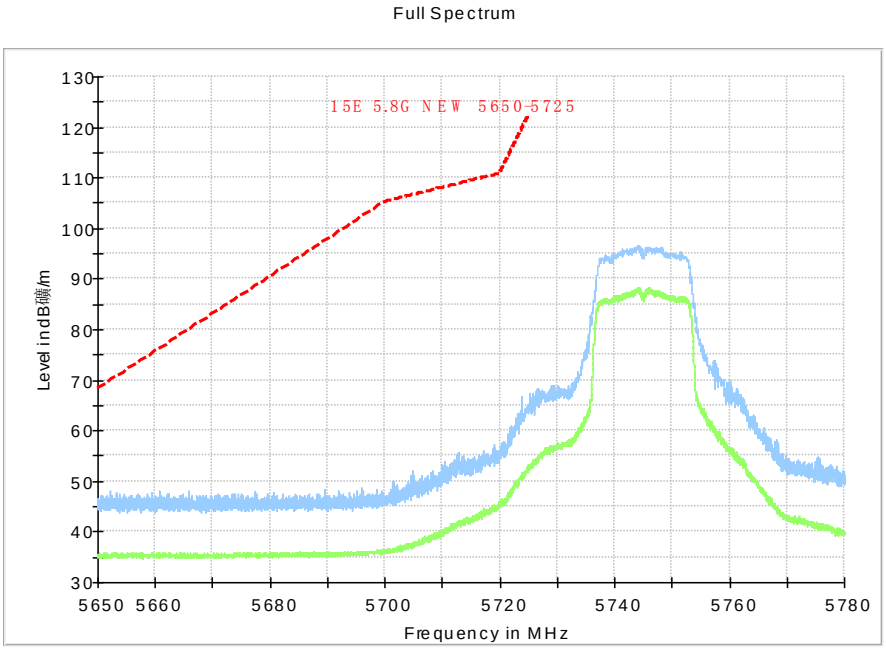


Fig. 83 Band Edges (802.11a, 5745MHz)

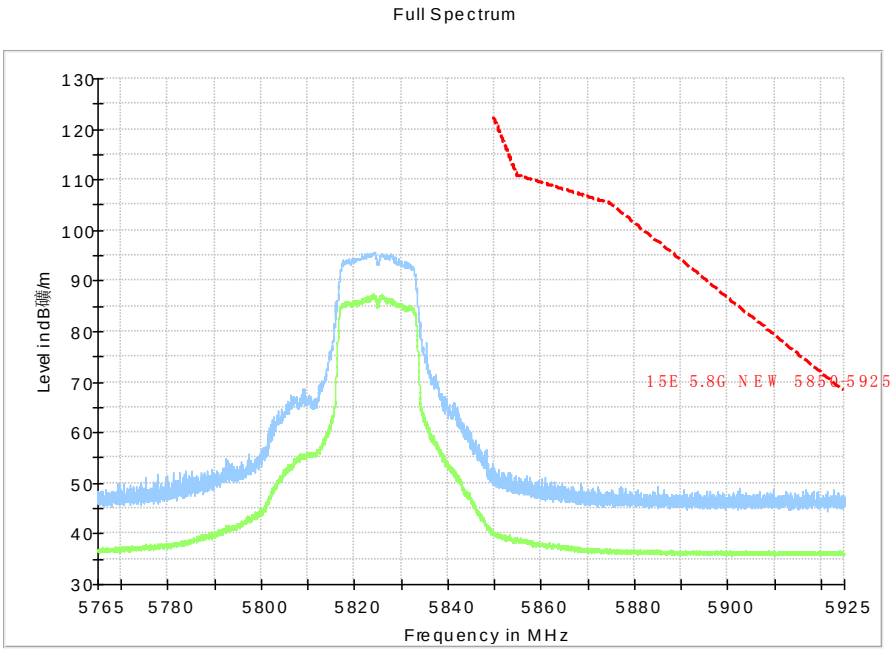


Fig. 84 Band Edges (802.11a, 5825MHz)

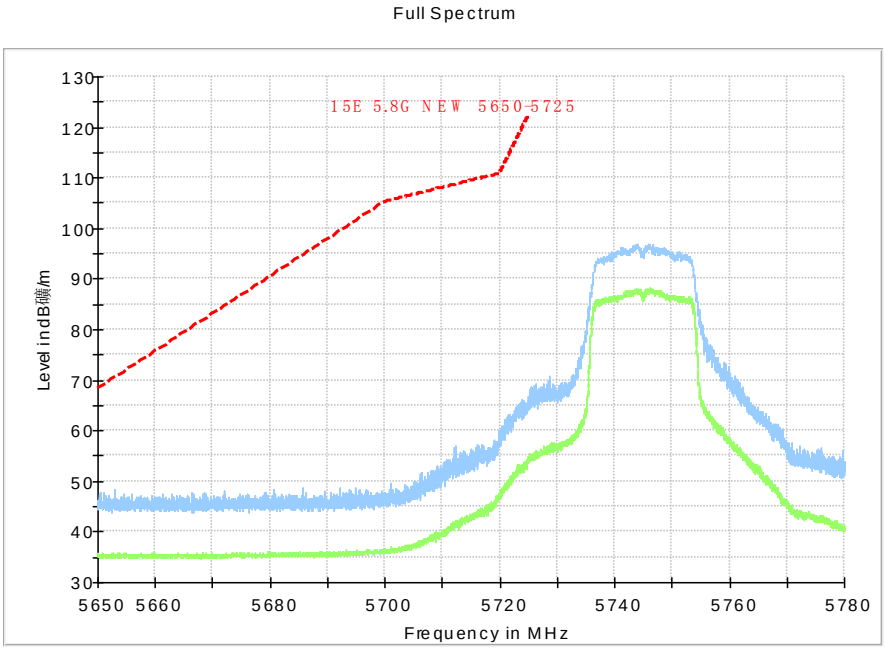


Fig. 85 Band Edges (802.11n-HT20, 5745MHz)

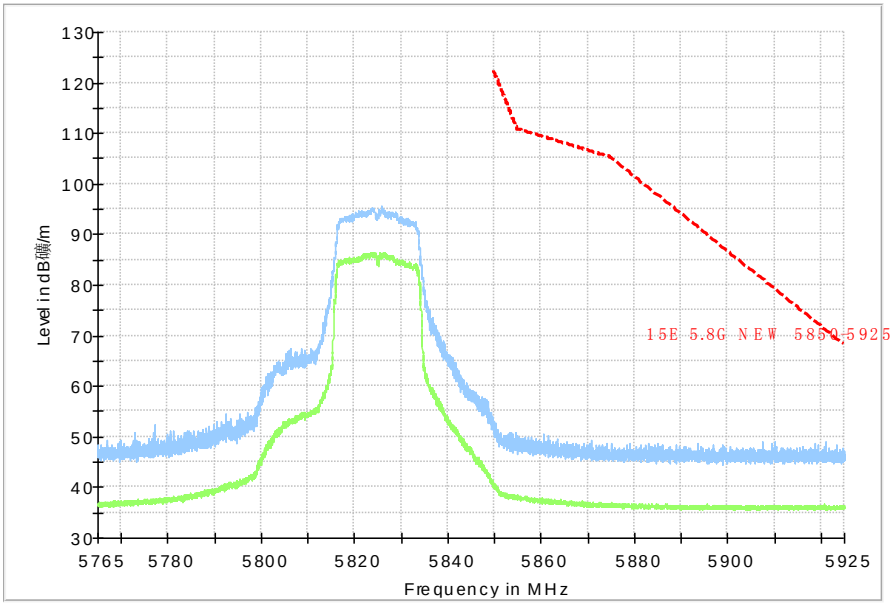


Fig. 86 Band Edges (802.11n-HT20, 5825MHz)

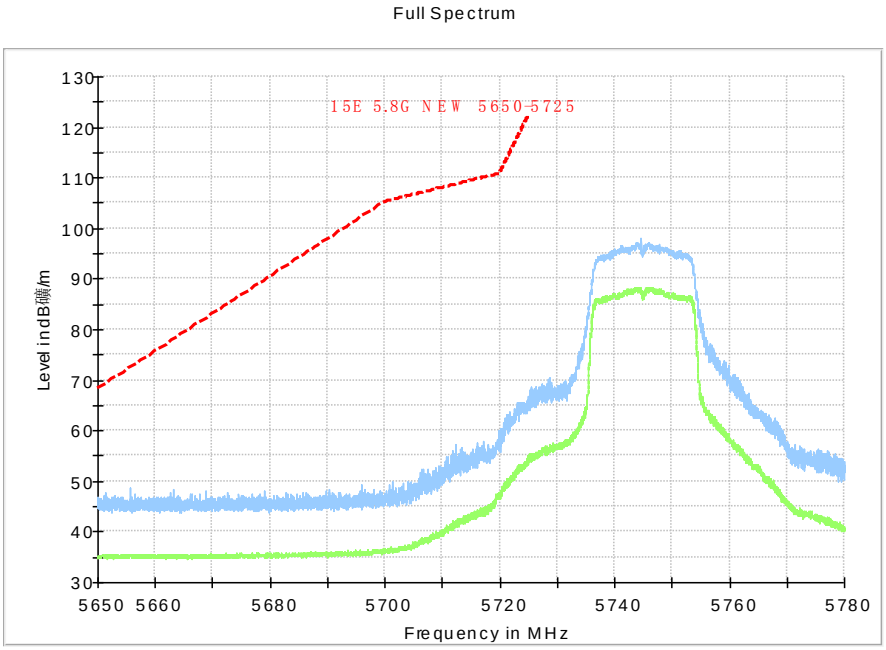


Fig. 87 Band Edges (802.11ac-HT20, 5745MHz)

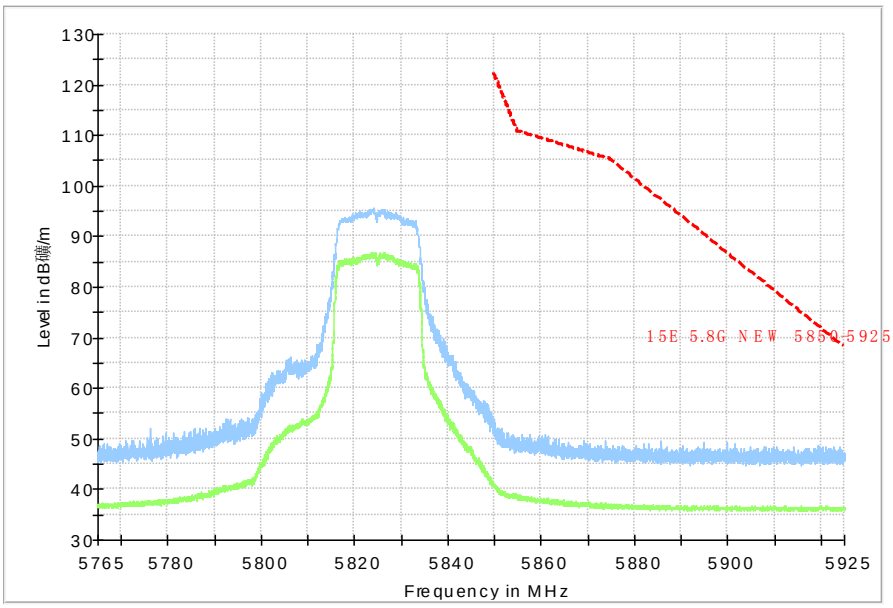


Fig. 88 Band Edges (802.11ac-HT20, 5825MHz)

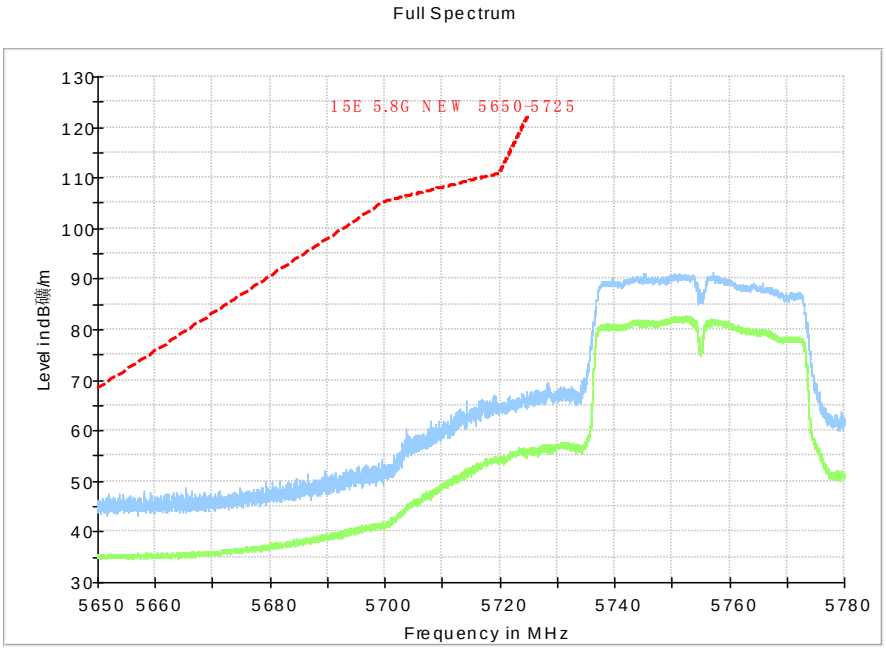


Fig. 89 Band Edges (802.11n-HT40, 5755MHz)

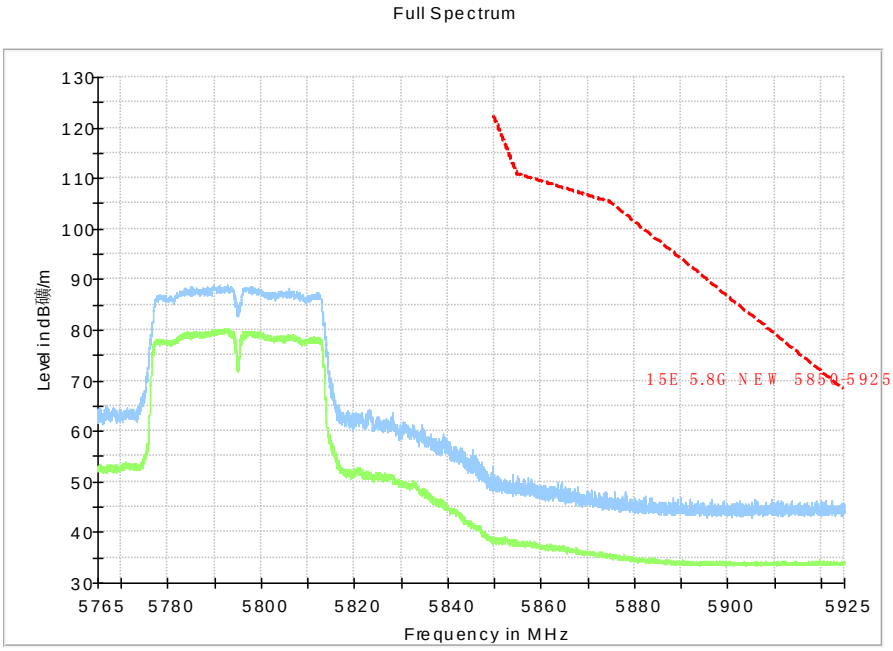


Fig. 90 Band Edges (802.11n-HT40, 5795MHz)

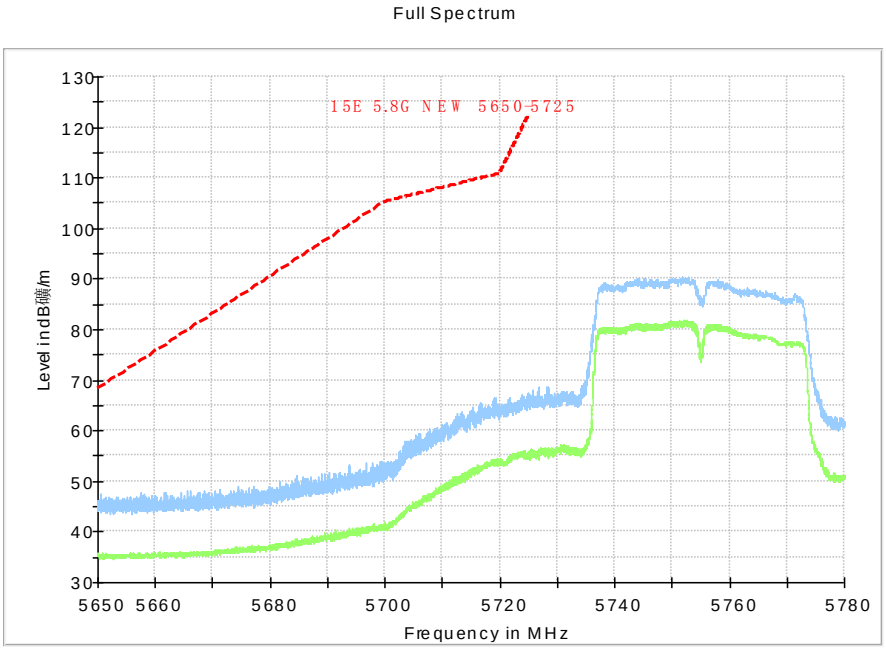


Fig. 91 Band Edges (802.11ac-HT40, 5755MHz)

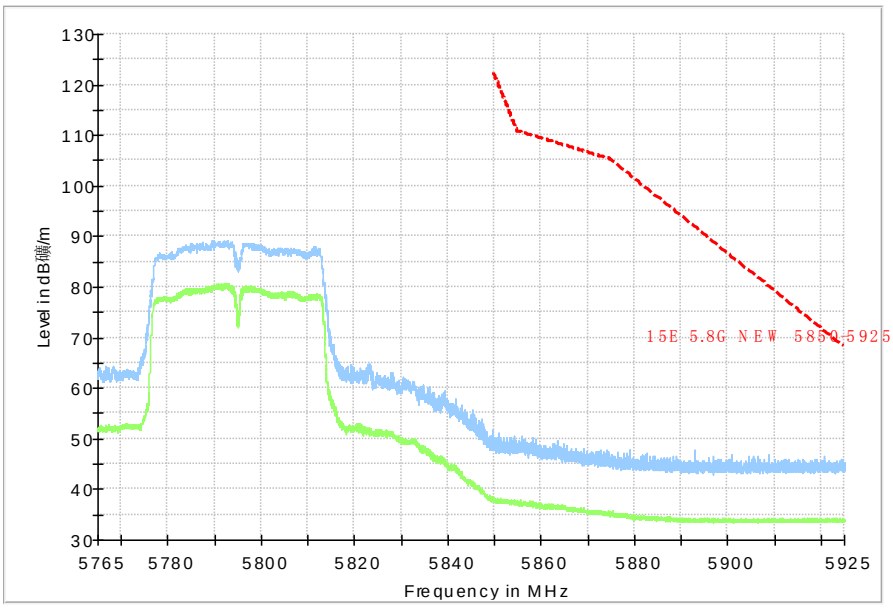


Fig. 92 Band Edges (802.11ac-HT40, 5795MHz)

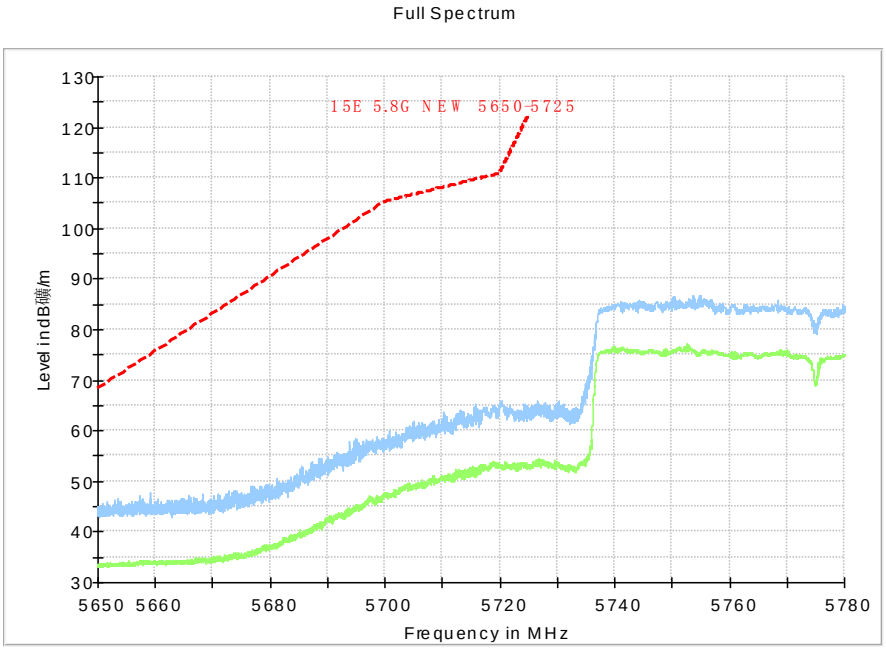


Fig. 93 Band Edges (802.11ac-HT80, 5775MHz)

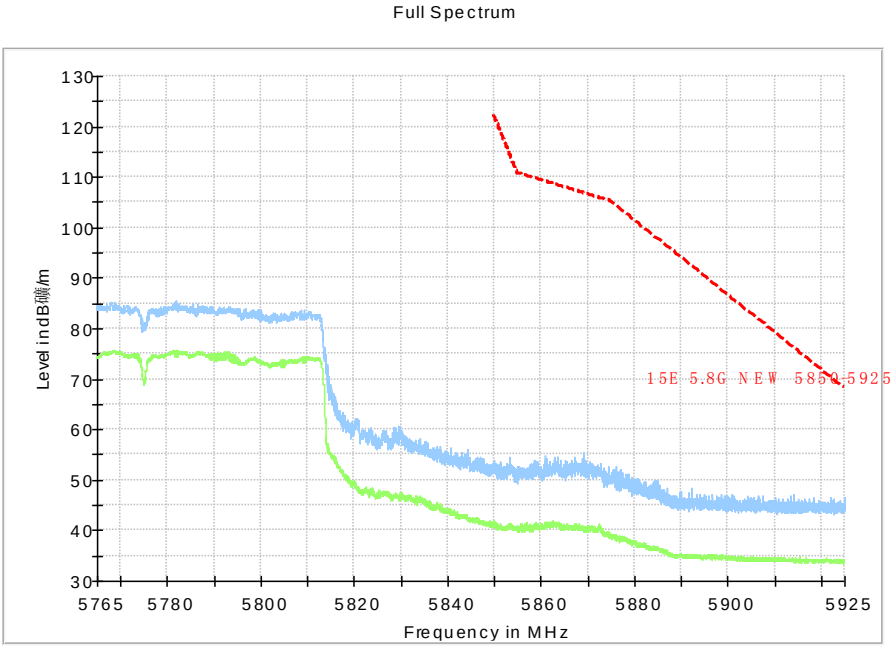


Fig. 94 Band Edges (802.11ac-HT80, 5775MHz)

A.7. AC Powerline Conducted Emission

Test Condition:

Voltage（V）	Frequency（Hz）
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 (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:

Result for traffic:

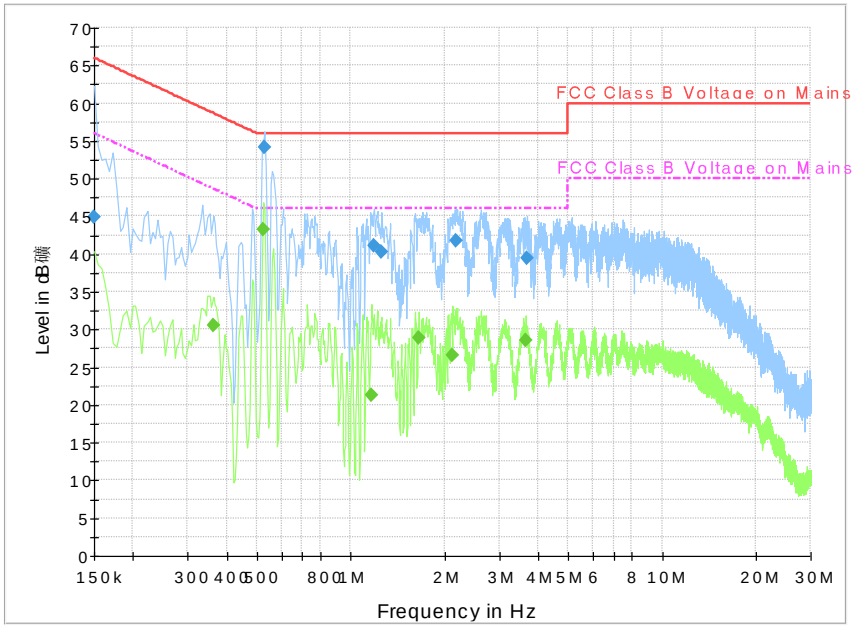


Fig. 95 AC Powerline Conducted Emission-802.11a

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.150000	44.9	1000.0	9.000	On	N	30.6	21.1	66.0	
0.528000	54.2	1000.0	9.000	On	L1	19.8	1.8	56.0	
1.189500	41.2	1000.0	9.000	On	L1	19.7	14.8	56.0	
1.261500	40.4	1000.0	9.000	On	L1	19.6	15.6	56.0	
2.184000	41.8	1000.0	9.000	On	L1	19.6	14.2	56.0	
3.673500	39.5	1000.0	9.000	On	L1	19.6	16.5	56.0	

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.361500	30.6	1000.0	9.000	On	L1	19.8	18.1	48.7	
0.523500	43.3	1000.0	9.000	On	L1	19.8	2.7	46.0	
1.167000	21.3	1000.0	9.000	On	L1	19.7	24.7	46.0	
1.653000	28.9	1000.0	9.000	On	L1	19.6	17.1	46.0	
2.130000	26.6	1000.0	9.000	On	L1	19.6	19.4	46.0	
3.651000	28.5	1000.0	9.000	On	L1	19.6	17.5	46.0	

Result for Idle:

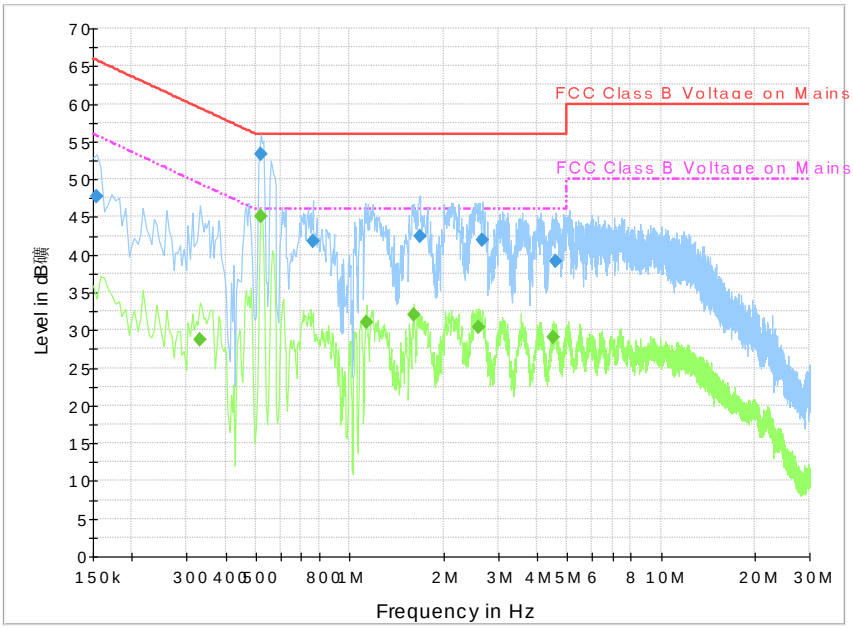


Fig. 96 AC Powerline Conducted Emission-Idle

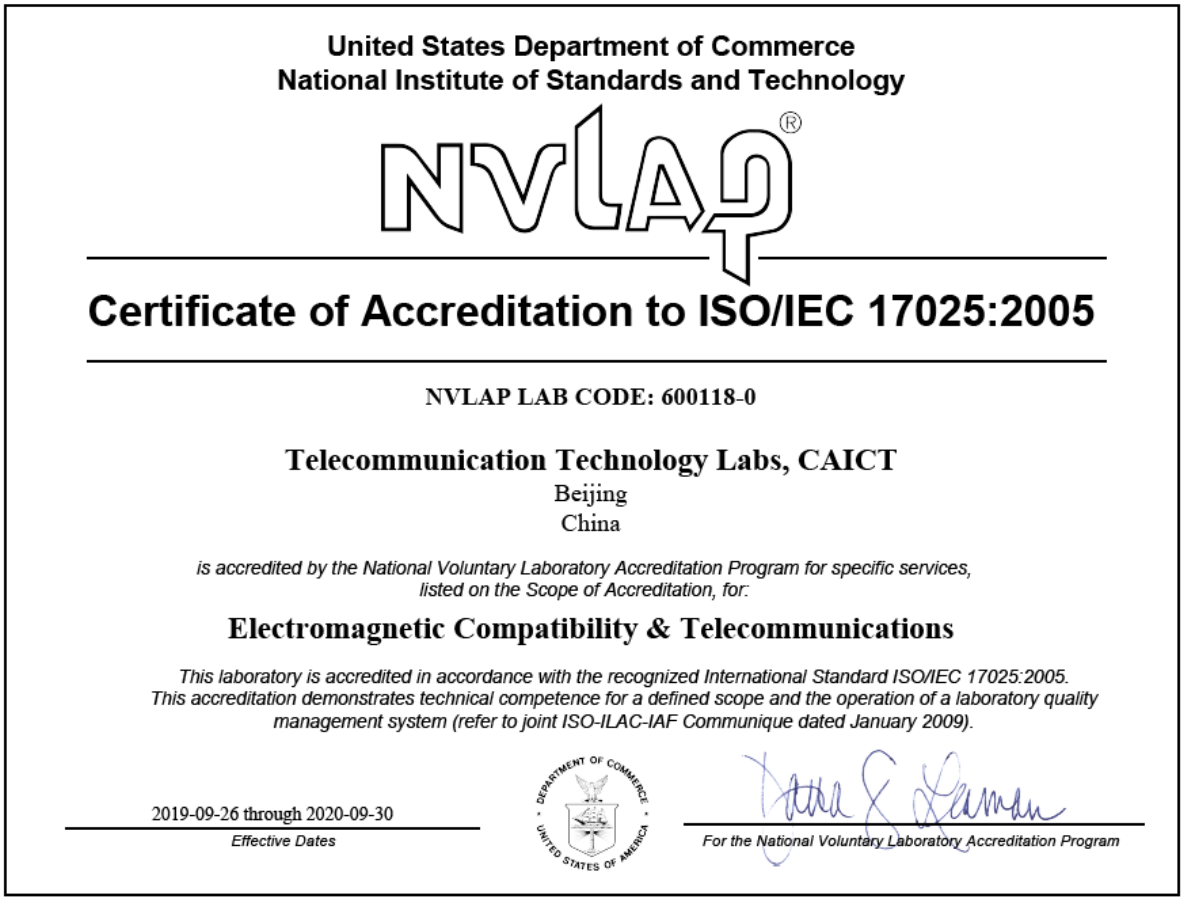
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.154500	47.7	1000.0	9.000	On	L1	29.7	18.0	65.8	
0.519000	53.3	1000.0	9.000	On	L1	19.8	2.7	56.0	
0.762000	41.8	1000.0	9.000	On	L1	19.8	14.2	56.0	
1.680000	42.5	1000.0	9.000	On	L1	19.6	13.5	56.0	
2.665500	42.0	1000.0	9.000	On	L1	19.6	14.0	56.0	
4.578000	39.1	1000.0	9.000	On	L1	19.6	16.9	56.0	

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.330000	28.7	1000.0	9.000	On	L1	19.8	20.7	49.5	
0.519000	45.1	1000.0	9.000	On	L1	19.8	0.9	46.0	
1.131000	31.0	1000.0	9.000	On	L1	19.7	15.0	46.0	
1.612500	32.0	1000.0	9.000	On	L1	19.6	14.0	46.0	
2.593500	30.5	1000.0	9.000	On	L1	19.6	15.5	46.0	
4.528500	29.1	1000.0	9.000	On	L1	19.6	16.9	46.0	

ANNEX B: Accreditation Certificate



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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

DEPARTMENT OF COMMERCE · UNITED STATES OF AMERICA

For the National Voluntary Laboratory Accreditation Program

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