

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

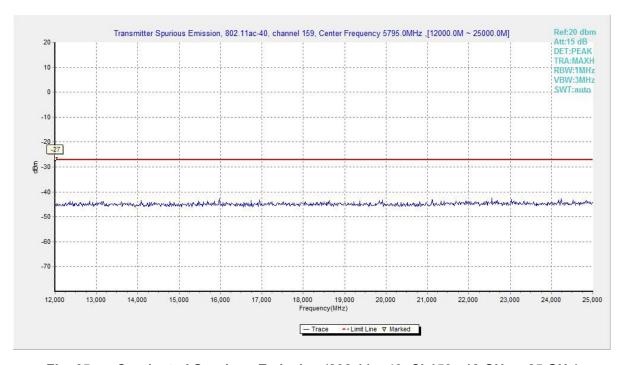


Fig. 65 Conducted Spurious Emission (802.11ac40, Ch159, 12 GHz ~ 25 GHz)





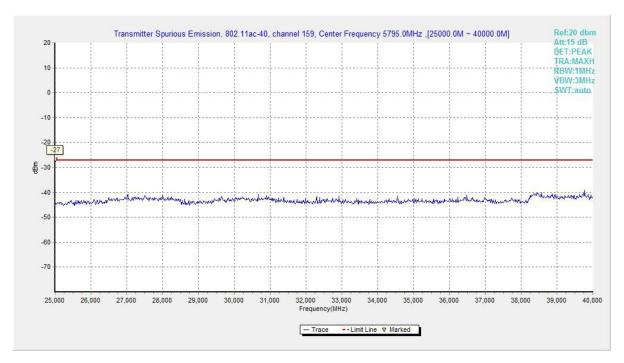


Fig. 66 Conducted Spurious Emission (802.11ac40, Ch159, 25 GHz ~ 40 GHz)

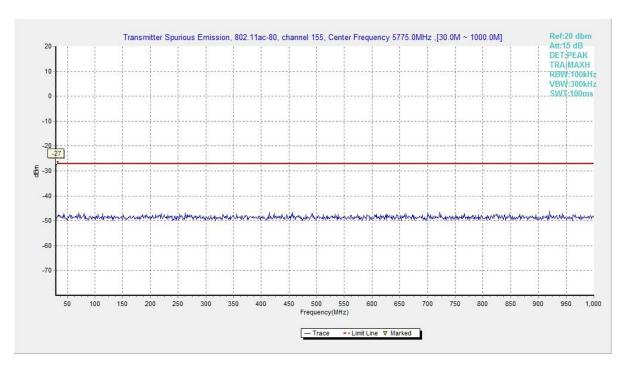


Fig. 67 Conducted Spurious Emission (802.11ac80, Ch155, 30 MHz ~ 1 GHz)





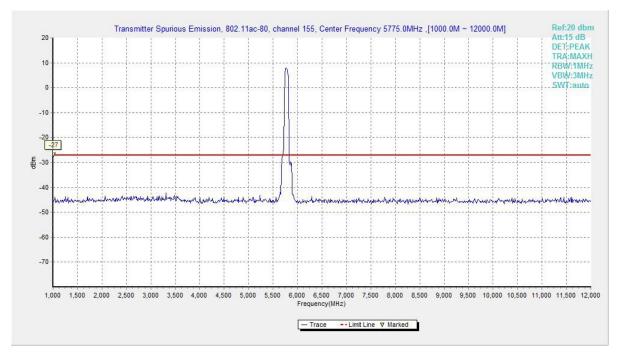


Fig. 68 Conducted Spurious Emission (802.11ac80, Ch155, 1 GHz ~ 12 GHz)

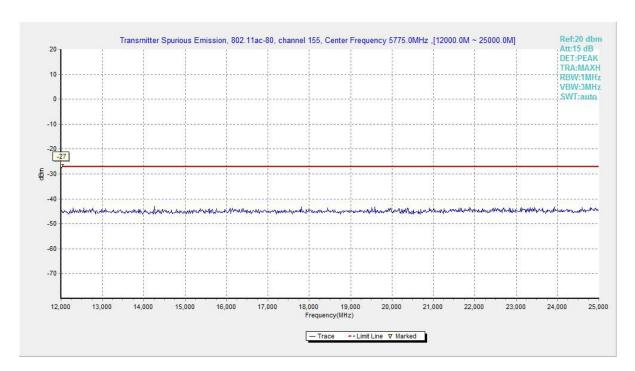


Fig. 69 Conducted Spurious Emission (802.11ac80, Ch155, 12 GHz ~ 25 GHz)





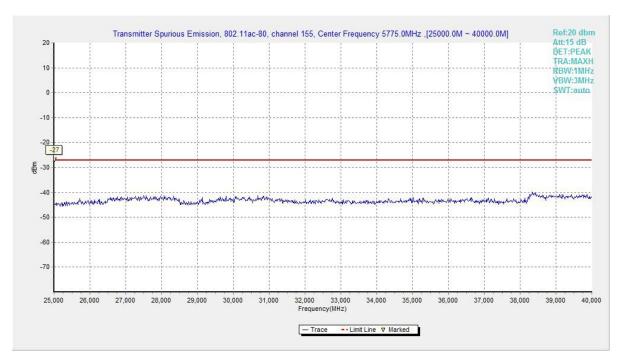


Fig. 70 Conducted Spurious Emission (802.11ac80, Ch155, 25 GHz ~ 40 GHz)

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	Field strength	Field strength	Measurement
(MHz)	(uV/m)	(dBµV/m)	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

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/m))	Margin (dB)
17994.5	36.4	-25.5	43.4	18.5	Н	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 (dΒμV/m))	Margin (dB)
17982.4	36.7	-25.5	43.4	18.8	Н	48.0	11.3
17979.1	36.4	-25.5	43.4	18.5	Н	48.0	11.6
17997.8	36.4	-25.5	43.4	18.5	Н	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	Н	48.0	11.8
17975.8	36.2	-25.5	43.4	18.3	Н	48.0	11.8

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/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	Н	48.0	11.8
17978.0	36.2	-25.5	43.4	18.3	Н	48.0	11.8
17980.2	36.2	-25.5	43.4	18.3	Н	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





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Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/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	Н	48.0	11.6
17979.1	36.4	-25.5	43.4	18.5	Н	48.0	11.6
17997.8	36.4	-25.5	43.4	18.5	Н	48.0	11.6
17963.7	36.3	-25.5	43.4	18.4	Н	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 (dΒμV/m))	Margin (dB)
17981.3	36.6	-25.5	43.4	18.7	Н	48.0	11.4
17984.6	36.5	-25.5	43.4	18.6	Н	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

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/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	Н	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	Н	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 (dΒμV/m))	Margin (dB)
17983.5	36.6	-25.5	43.4	18.7	Н	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	Н	48.0	11.6
17942.8	36.3	-25.5	43.4	18.4	Н	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 (dΒμV/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	Н	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	Н	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

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Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/m))	Margin (dB)
17996.7	36.8	-25.5	43.4	18.9	Н	48.0	11.2
17990.1	36.6	-25.5	43.4	18.7	Н	48.0	11.4
17993.4	36.6	-25.5	43.4	18.7	Н	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





Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/m))	Margin (dB)
17969.2	36.6	-25.5	43.4	18.7	Н	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	Н	48.0	11.6
17990.1	36.4	-25.5	43.4	18.5	Н	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	Н	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 (dΒμV/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	Н	48.0	11.6
17985.7	36.4	-25.5	43.4	18.5	Н	48.0	11.6
5850.1	41.0	-16.2	34.2	23.0	V	48.0	7.0

802.11ac-HT40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/m))	Margin (dB)
17984.6	36.5	-25.5	43.4	18.6	Н	48.0	11.5
17995.6	36.5	-25.5	43.4	18.6	Н	48.0	11.5
17960.4	36.4	-25.5	43.4	18.5	Н	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





Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/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	Н	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	Н	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

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Ch155

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/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	Н	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	Н	48.0	11.6
17994.5	36.4	-25.5	43.4	18.5	V	48.0	11.6

Peak Results:

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





Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/m))	Margin (dB)
17901.0	49.3	-25.5	43.4	31.4	Н	68.0	18.7
17979.1	48.5	-25.5	43.4	30.6	Н	68.0	19.5
17918.6	48.2	-25.5	43.4	30.3	Н	68.0	19.8
17975.8	48.2	-25.5	43.4	30.3	Н	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 (dΒμV/m))	Margin (dB)
17952.7	48.7	-25.5	43.4	30.8	Н	68.0	19.3
17959.3	48.7	-25.5	43.4	30.8	Н	68.0	19.3
17989.0	48.6	-25.5	43.4	30.7	Н	68.0	19.4
17875.7	48.4	-25.5	43.4	30.5	Н	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

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





Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/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	Н	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	Н	68.0	19.7
17989.0	48.3	-25.5	43.4	30.4	Н	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 (dΒμV/m))	Margin (dB)
17984.6	48.4	-25.5	43.4	30.5	Н	68.0	19.6
17565.5	48.2	-25.7	43.4	30.5	Н	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	Н	68.0	20.2
17994.5	47.8	-25.5	43.4	29.9	Н	68.0	20.2
5850.1	52.9	-16.2	34.2	34.9	V	68.0	15.1

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Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/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	Н	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





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

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Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/m))	Margin (dB)
17995.6	48.3	-25.5	43.4	30.4	Н	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	Н	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

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/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	Н	68.0	19.9
17598.5	48.0	-25.7	43.4	30.3	Н	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





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

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Ch151

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/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	Н	68.0	20.0
17759.1	48.0	-25.5	43.4	30.1	Н	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	Н	68.0	20.3
5724.9	67.5	-16.3	34.2	49.6	V	122.0	54.5

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Antenna Pol. (H/V)	Limit (dΒμV/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	Н	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 (dΒμV/m))	Margin (dB)
5720.4	66.0	-33.8	35.1	64.7	Н	110.0	44.0
5853.1	54.7	-33.8	35.1	53.4	Н	68.0	13.3
17751.4	48.3	-25.5	43.4	30.4	Н	68.0	19.7
17872.4	48.2	-25.5	43.4	30.3	Н	68.0	19.8
17986.8	48.2	-25.5	43.4	30.3	Н	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)
	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
FCC 47 CFR Part 15.407(b)(4)	below the band edge, and from 25 MHz above or below
FCC 47 CFR Fait 15.407(b)(4)	the band edge increasing linearly to a level of 15.6
	dBm/MHz at 5 MHz above or below the band edge, and
	from 5 MHz above or below the band edge increasing
	linearly to a level of 27 dBm/MHz at the band edge.

The measurement is made according to KDB 789033 D02

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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Measurement Result:

Mode	Channel	Test Results	Conclusion
900 110	5745 MHz	Fig.71	Р
802.11a	5825 MHz	Fig.72	Р
802.11n	5745 MHz	Fig.73	Р
HT20	5825 MHz	Fig.74	Р
802.11ac	5745 MHz	Fig.75	Р
HT20	5825 MHz	Fig.76	Р
802.11n	5755 MHz	Fig.77	Р
HT40	5795 MHz	Fig.78	Р
802.11ac	5755 MHz	Fig.79	Р
HT40	5795 MHz	Fig.80	Р
802.11ac HT80	5775 MHz	Fig.81	Р
002.11ac m160	5775 MHz	Fig.82	Р

Conclusion: PASS
Test graphs as below:





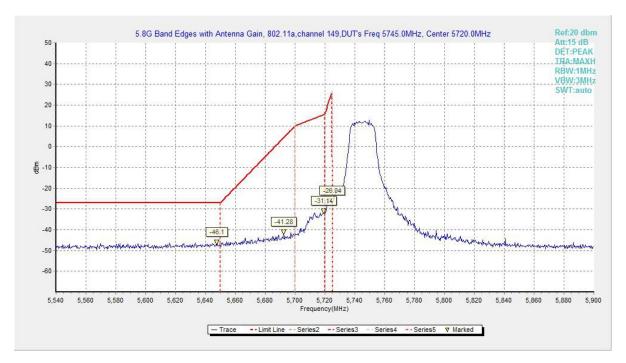


Fig. 71 Band Edges (802.11a, 5745MHz)

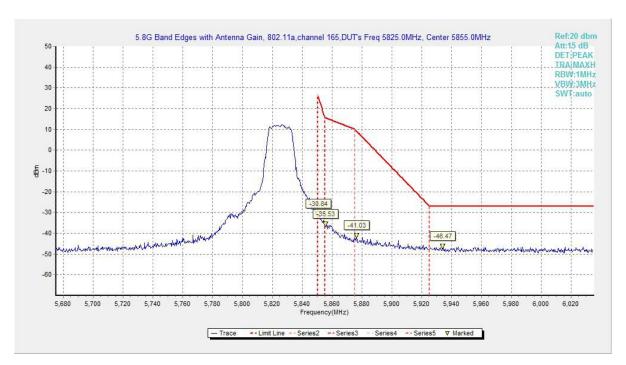


Fig. 72 Band Edges (802.11a, 5825MHz)





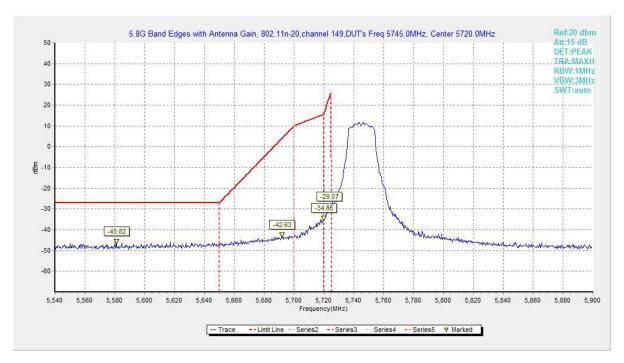


Fig. 73 Band Edges (802.11n20, 5745MHz)



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





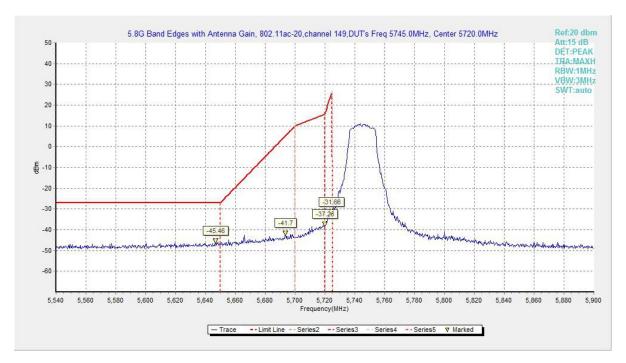


Fig. 75 Band Edges (802.11ac20, 5745MHz)



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





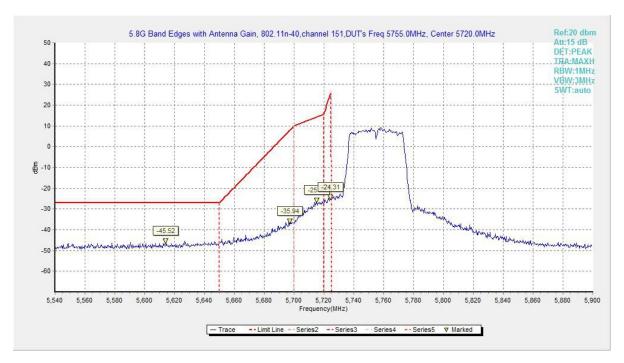


Fig. 77 Band Edges (802.11n40, 5755MHz)



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





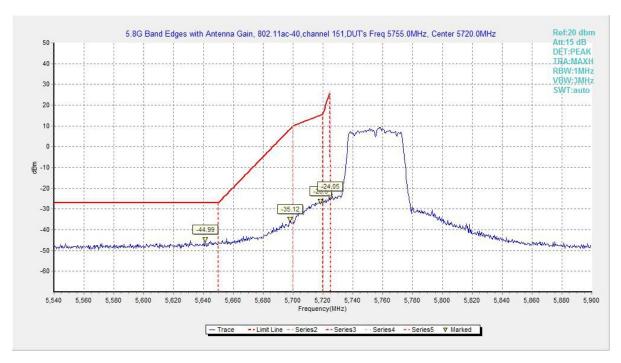


Fig. 79 Band Edges (802.11ac40, 5755MHz)

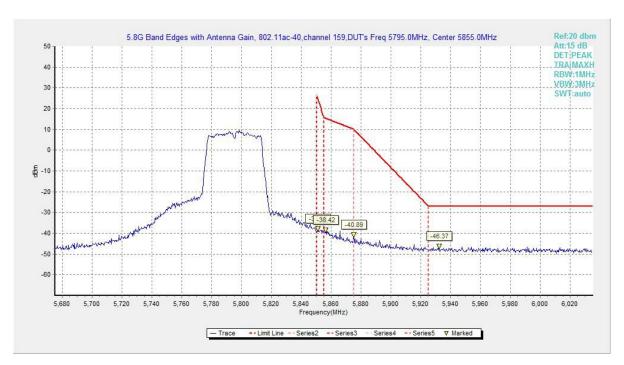


Fig. 80 Band Edges (802.11ac40, 5795MHz)





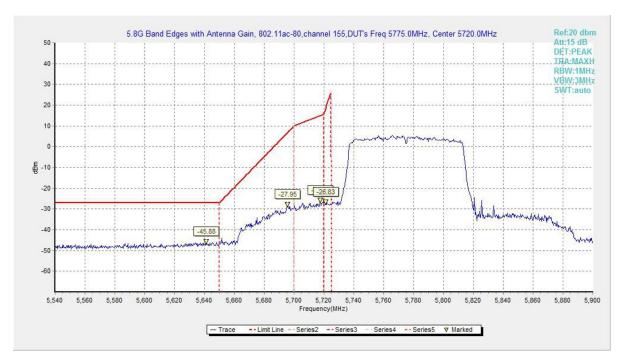


Fig. 81 Band Edges (802.11ac80, 5775MHz)

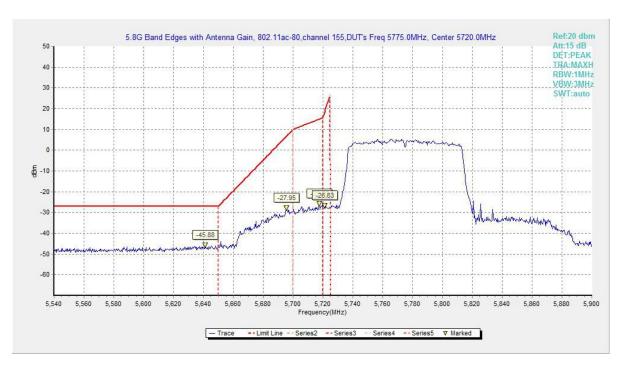


Fig. 82 Band Edges (802.11ac80, 5775MHz)





A6.2 Band Edges - Radiated

Measurement Limit:

Standard	Limit (dBm/MHz)			
	at the band edge	27		
FCC 47 CFR	at 5 MHz above or below the band edge	15.6		
Part 15.407	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:

Wicasarciniciti Nesait.			
Mode	Channel	Test Results	Conclusion
902.446	5745 MHz	Fig.83	Р
802.11a	5825 MHz	Fig.84	Р
802.11n	5745 MHz	Fig.85	Р
HT20	5825 MHz	Fig.86	Р
802.11ac	5745 MHz	Fig.87	Р
HT20	5825 MHz	Fig.88	Р
802.11n	5755 MHz	Fig.89	Р
HT40	5795 MHz	Fig.90	Р
802.11ac	5755 MHz	Fig.91	Р
HT40	5795 MHz	Fig.92	Р
000 44cc LITCO	5775 MHz	Fig.93	Р
802.11ac HT80	5775 MHz	Fig.94	Р

Conclusion: PASS
Test graphs as below:





Full Spectrum

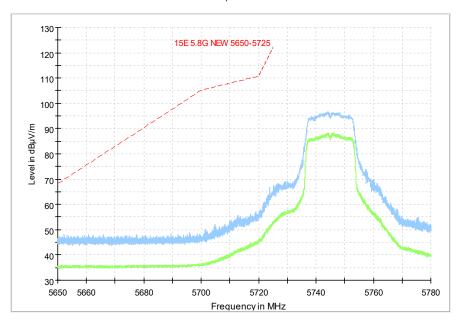


Fig. 83 Band Edges (802.11a, 5745MHz)

Full Spectrum

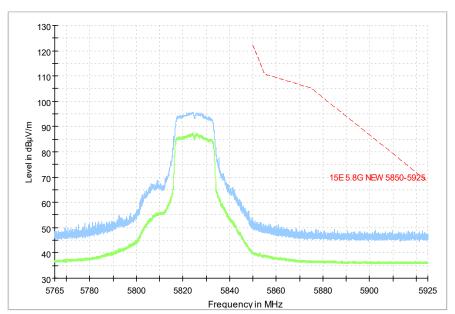


Fig. 84 Band Edges (802.11a, 5825MHz)







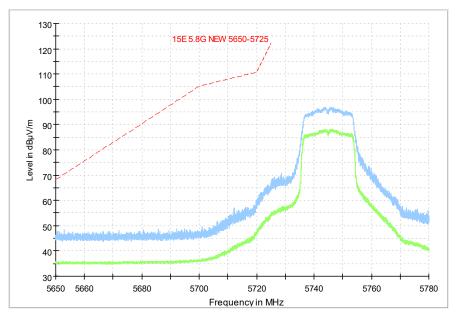


Fig. 85 Band Edges (802.11n-HT20, 5745MHz)

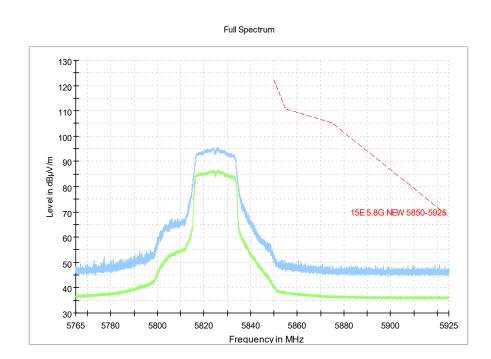


Fig. 86 Band Edges (802.11n-HT20, 5825MHz)





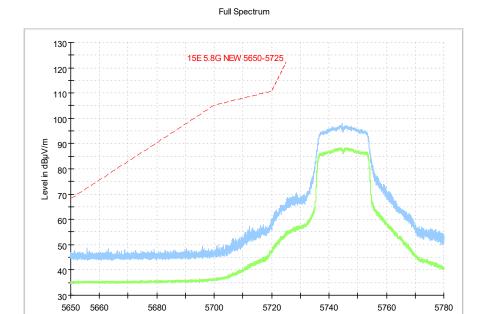


Fig. 87 Band Edges (802.11ac-HT20, 5745MHz)

Frequency in MHz

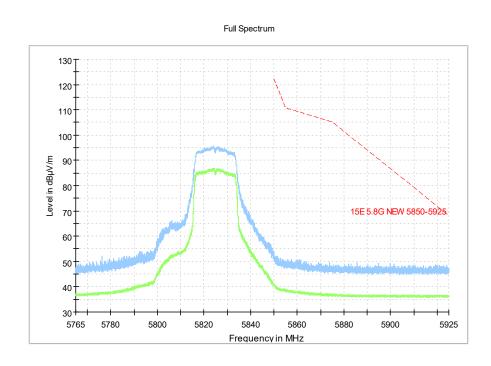


Fig. 88 Band Edges (802.11ac-HT20, 5825MHz)







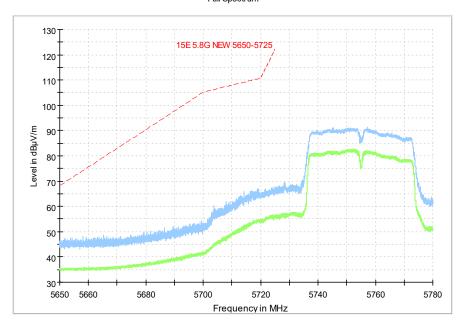


Fig. 89 Band Edges (802.11n-HT40, 5755MHz)

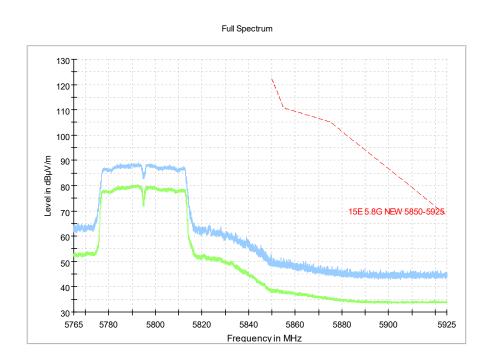


Fig. 90 Band Edges (802.11n-HT40, 5795MHz)







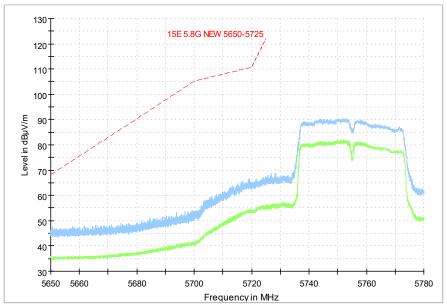


Fig. 91 Band Edges (802.11ac-HT40, 5755MHz)

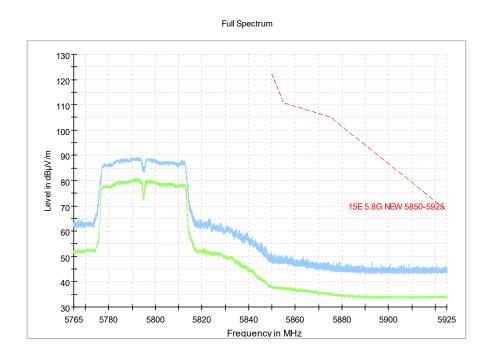


Fig. 92 Band Edges (802.11ac-HT40, 5795MHz)





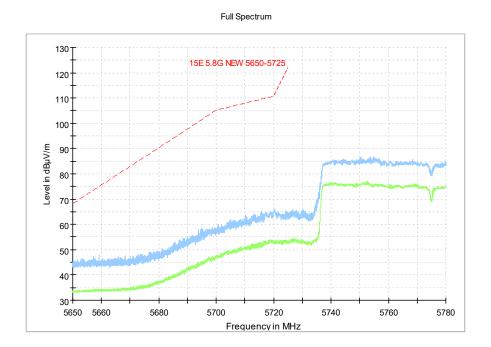


Fig. 93 Band Edges (802.11ac-HT80, 5775MHz)

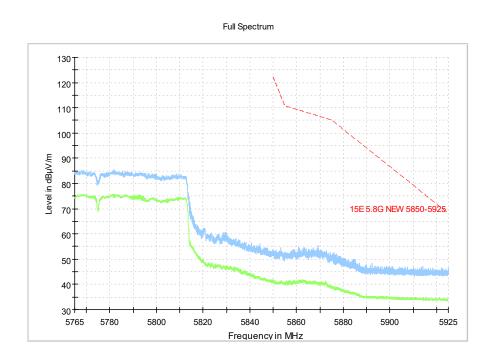


Fig. 94 Band Edges (802.11ac-HT80, 5775MHz)





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 With cl	Conclusion	
(101112)	Limit (abµv)	802.11a	ldle	
0.15 to 0.5	66 to 56			
0.5 to 5	56	Fig. 95	Fig. 96	Р
5 to 30	60	1 19. 00	1 19. 00	

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	Result With c	Conclusion		
	(dBμV)	802.11a	Idle		
0.15 to 0.5	56 to 46				
0.5 to 5	46	Fig.95	Fig.96	Р	
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:





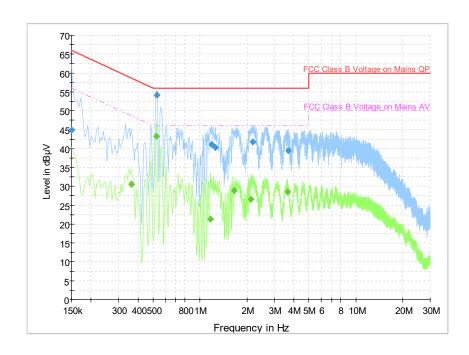


Fig. 95 AC Powerline Conducted Emission-802.11a

Final Result 1

a	J 41. C .								
Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit	Comment
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)	
		(ms)							
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	Average	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit	Comment
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)	
		(ms)							
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:

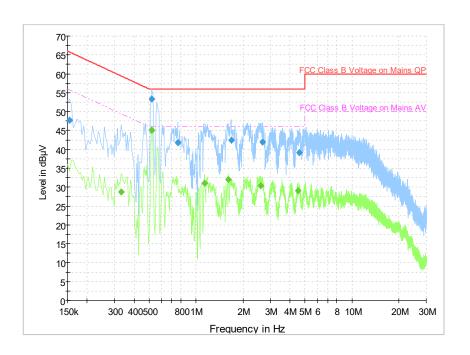


Fig. 96 AC Powerline Conducted Emission-Idle

Final Result 1

Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit	Comment
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)	
		(ms)							
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	Average	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit	Comment
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)	
		(ms)							
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

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT

Beijing China

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

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2019-09-26 through 2020-09-30

Effective Dates



For the National Voluntary Laboratory Accreditation Program

*** END OF REPORT BODY ***