

Fig.22 Occupied 26dB Bandwidth (802.11n-HT40, 5310MHz)

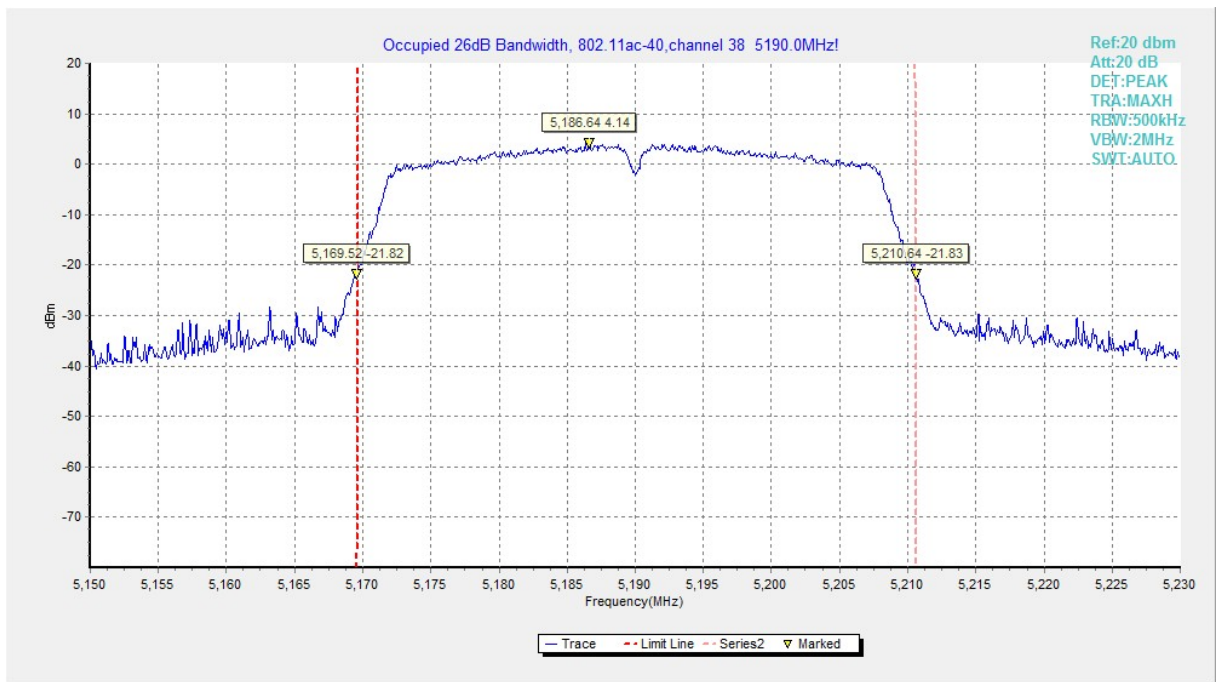


Fig.23 Occupied 26dB Bandwidth (802.11ac-HT40, 5190MHz)

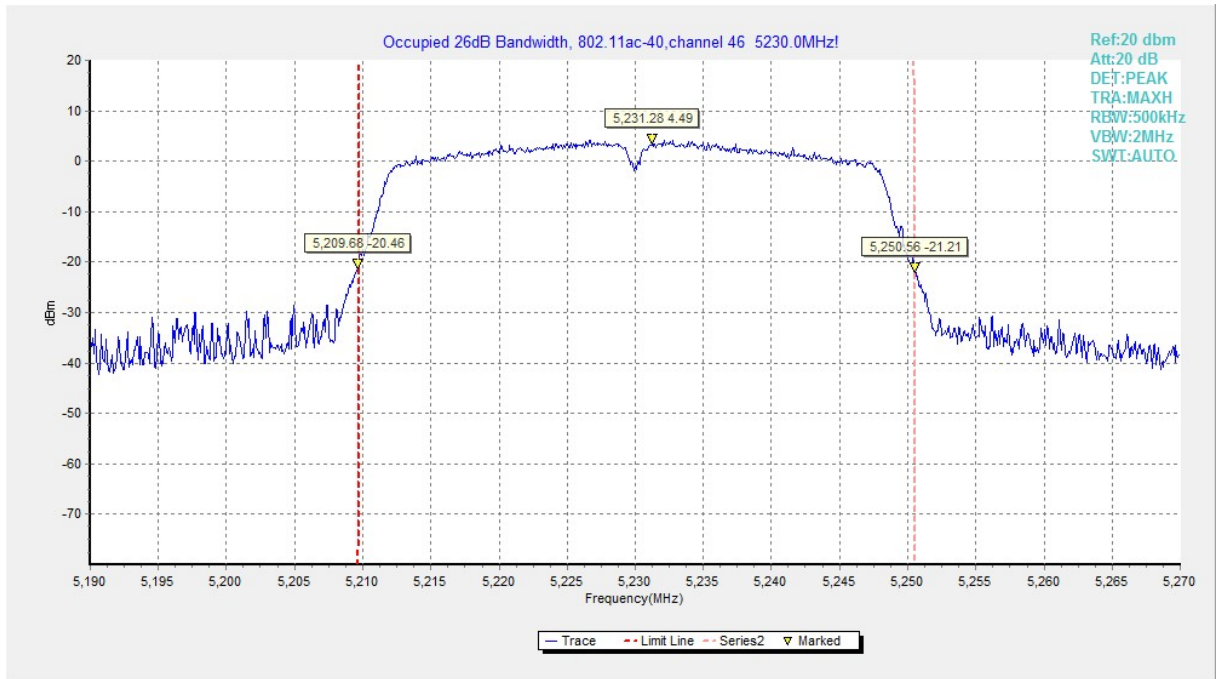


Fig.24 Occupied 26dB Bandwidth (802.11ac-HT40, 5230MHz)

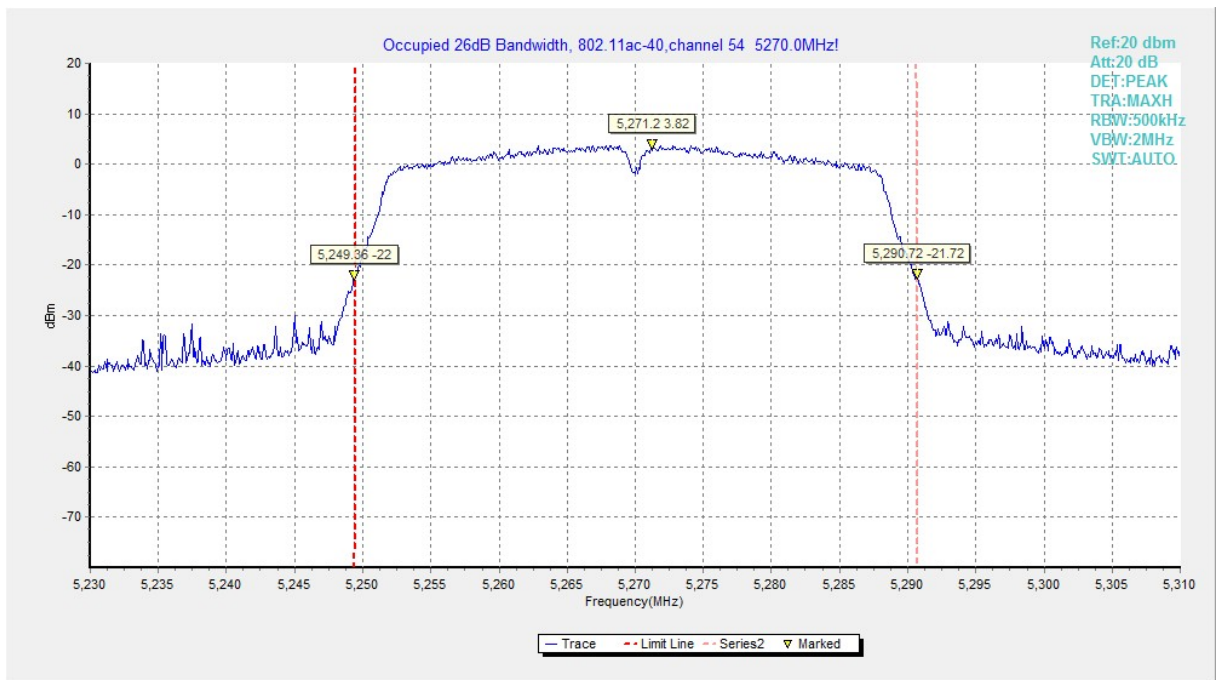


Fig.25 Occupied 26dB Bandwidth (802.11ac-HT40, 5270MHz)

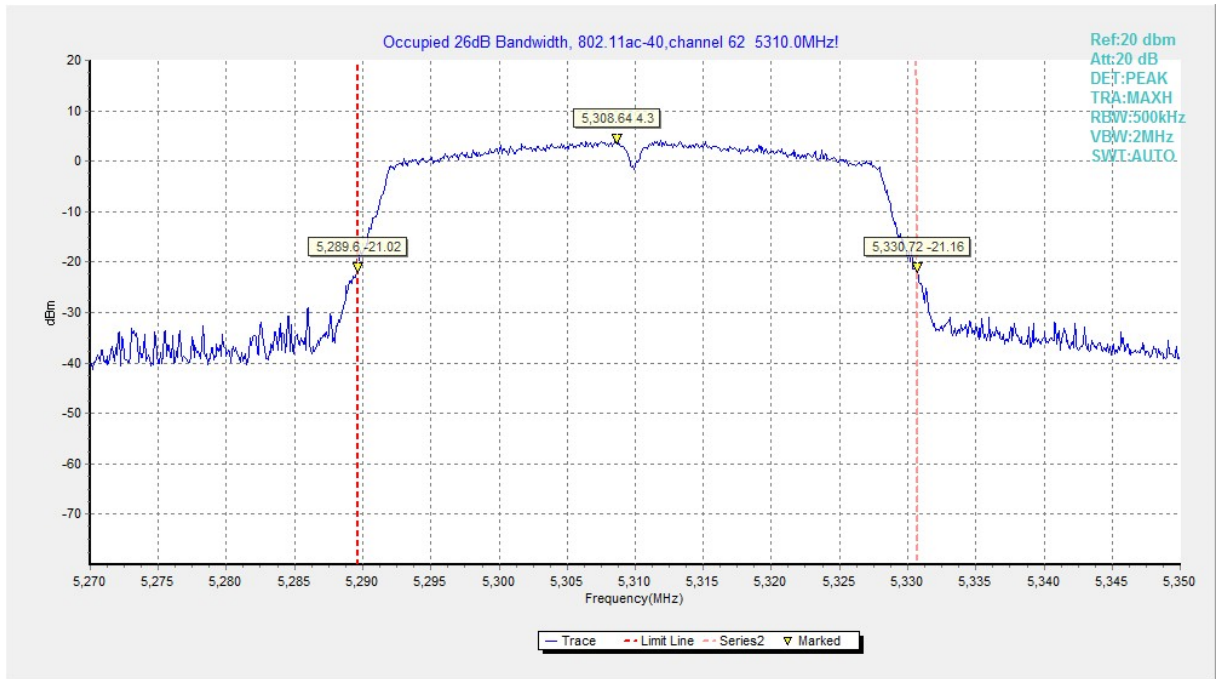


Fig.26 Occupied 26dB Bandwidth (802.11ac-HT40, 5310MHz)

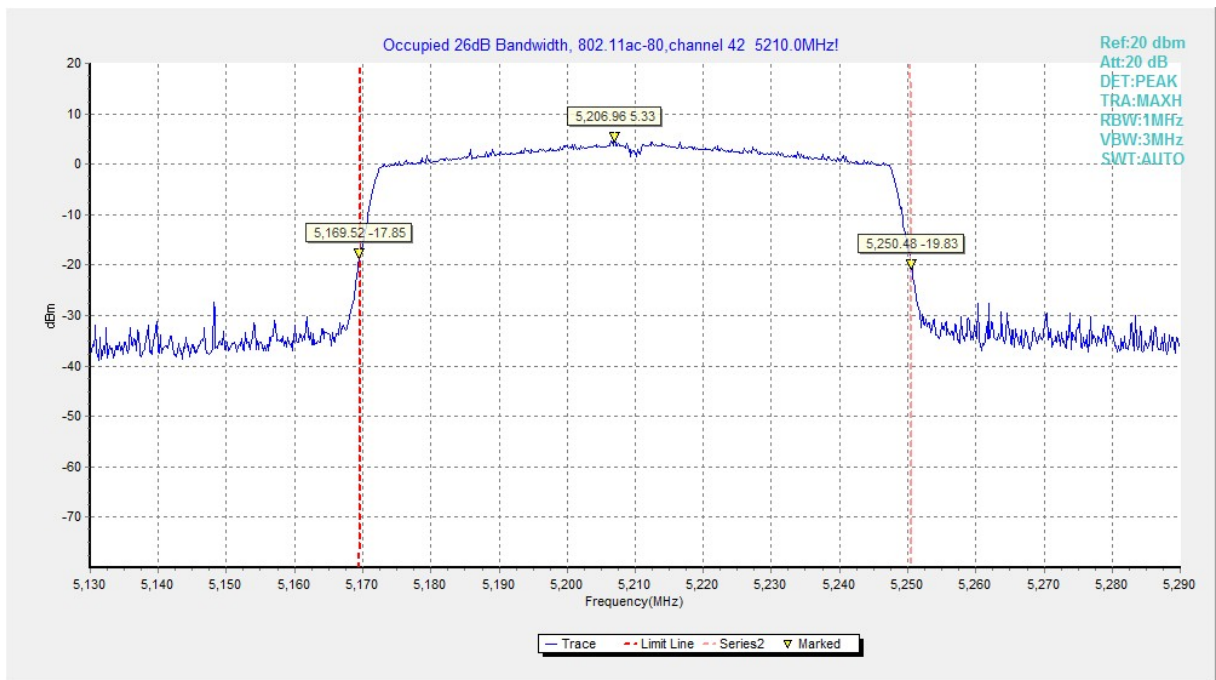


Fig.27 Occupied 26dB Bandwidth (802.11ac-HT80, 5210MHz)

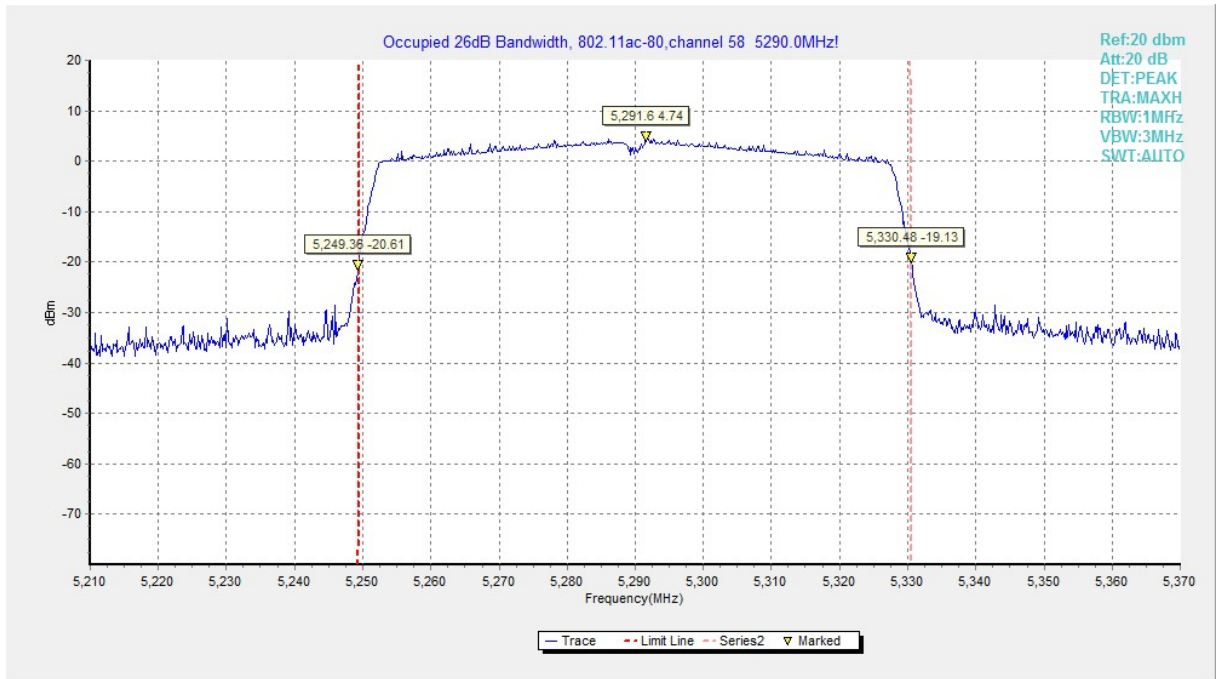


Fig.28 Occupied 26dB Bandwidth (802. 11ac-HT80, 5290MHz)

A.5. Band Edges Compliance

A5.1 Band Edges - Radiated

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407	-27 dBm/MHz

The measurement is made according to KDB 789033

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 Uncertainty:

Measurement Uncertainty	0.75dB
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Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.29	P
	5320 MHz	Fig.30	P
802.11n HT20	5180 MHz	Fig.31	P
	5200 MHz	Fig.32	P
	5320 MHz	Fig.33	P
802.11n HT40	5190 MHz	Fig.34	P
	5230 MHz	Fig.35	P
	5310 MHz	Fig.36	P
802.11ac HT20	5180 MHz	Fig.37	P
	5320 MHz	Fig.38	P
802.11ac HT40	5190 MHz	Fig.39	P
	5230 MHz	Fig.40	P
802.11ac HT80	5210 MHz	Fig.41	P
	5290 MHz	Fig.42	P

Conclusion: PASS

Test graphs as below:

Full Spectrum

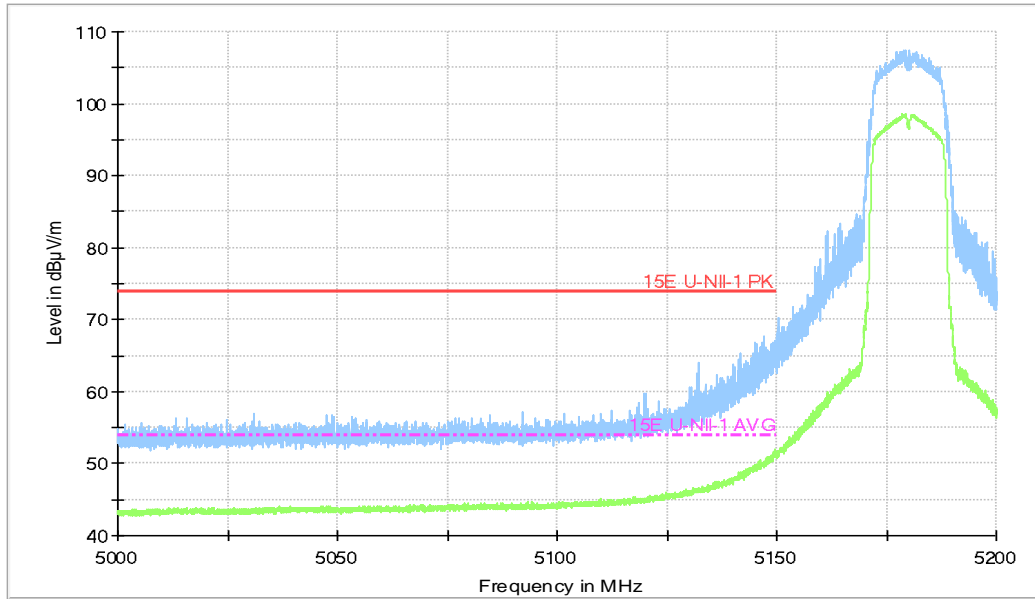


Fig.29 Band Edges (802.11a, 5180MHz)

Full Spectrum

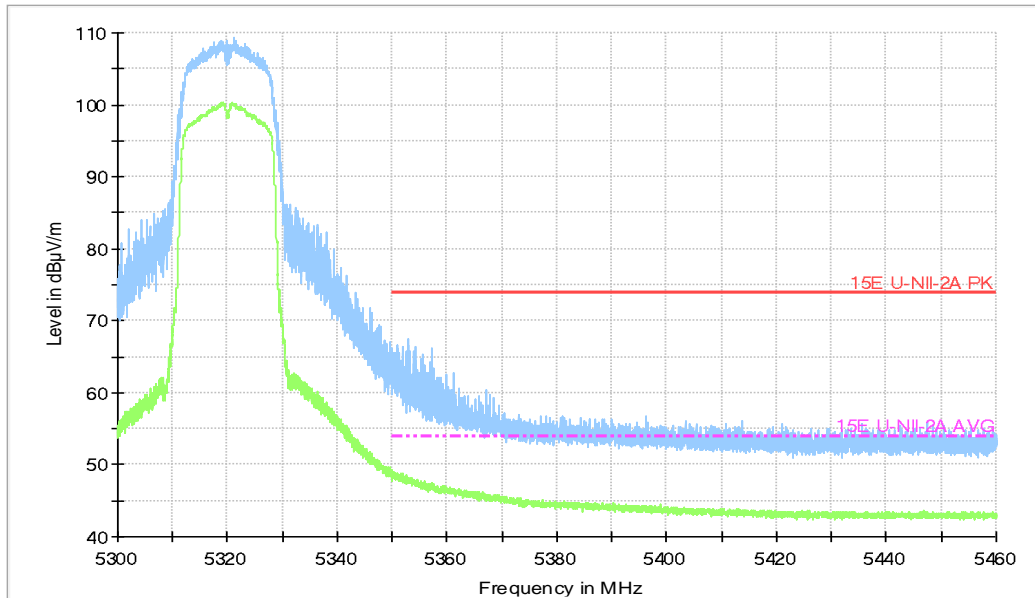


Fig.30 Band Edges (802.11a, 5320MHz)

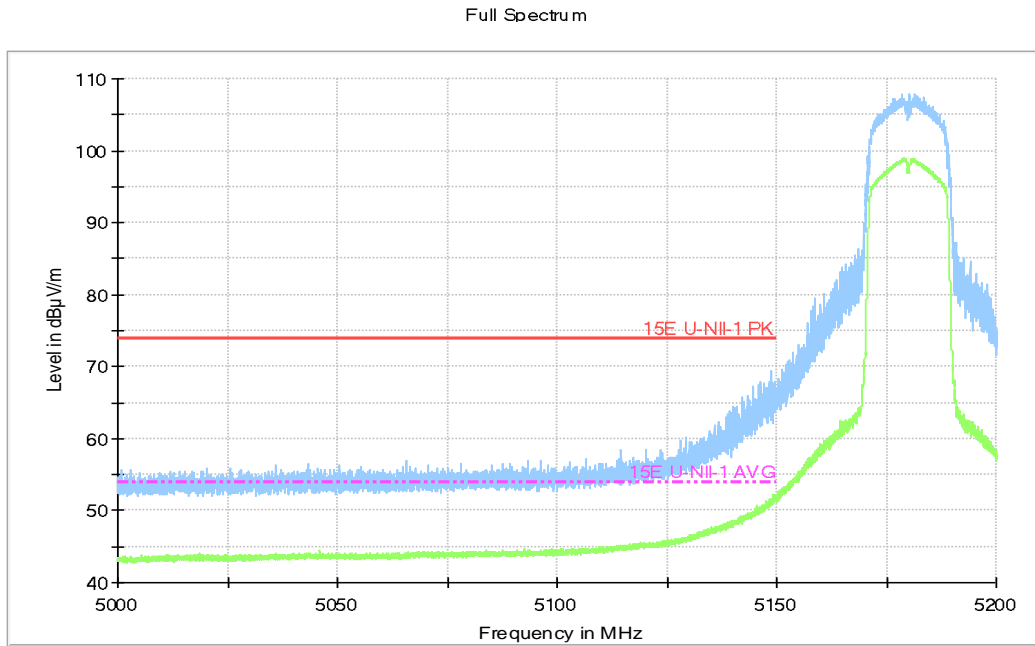


Fig.31 Band Edges (802.11n-HT20, 5180MHz)

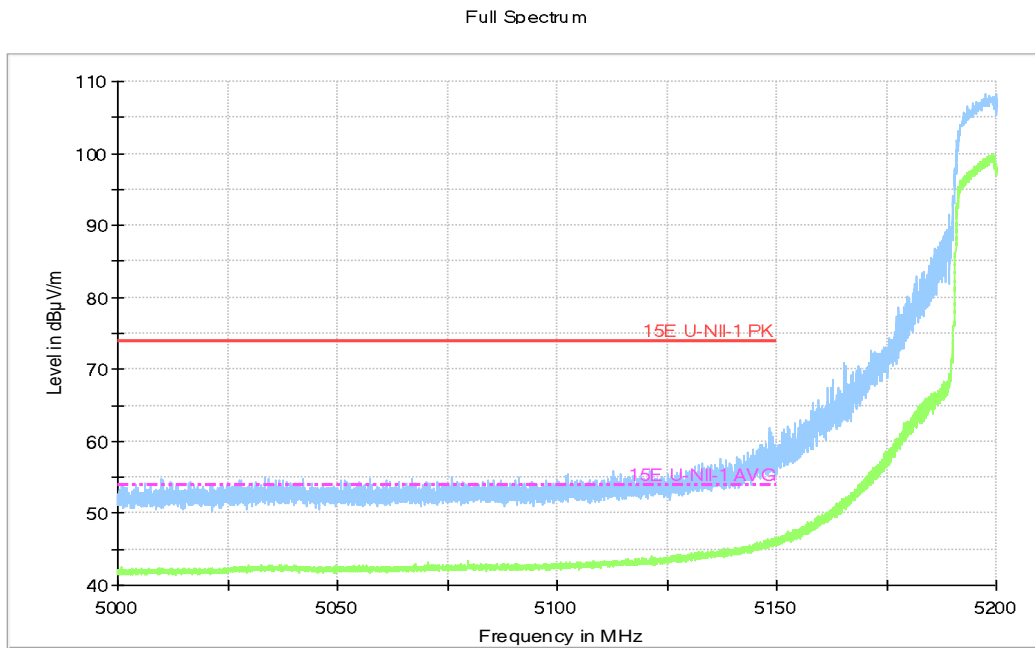


Fig.32 Band Edges (802.11n-HT20, 5200MHz)

Full Spectrum

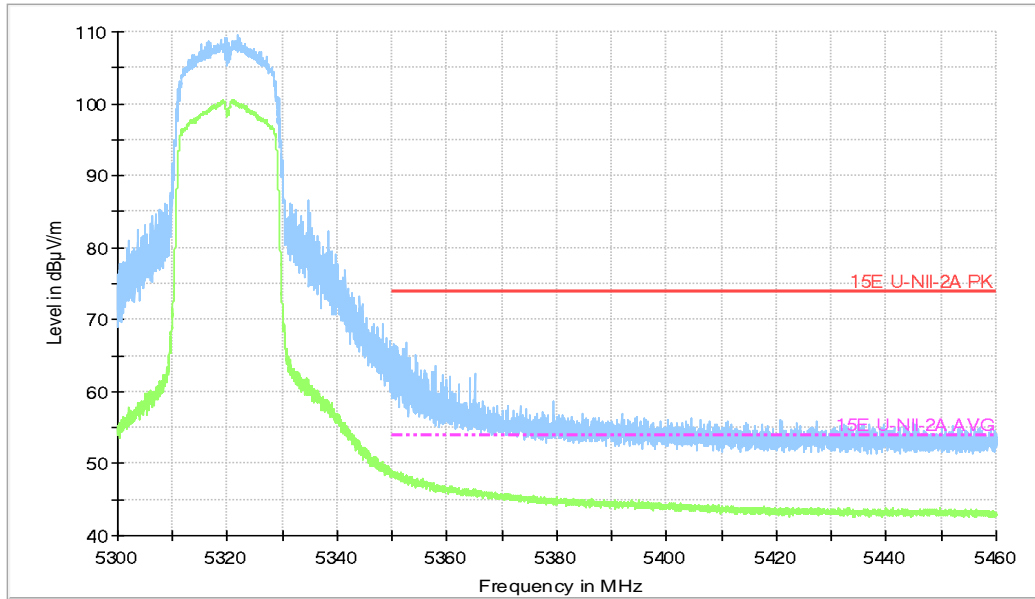


Fig.33 Band Edges (802.11n-HT20, 5320MHz)

Full Spectrum

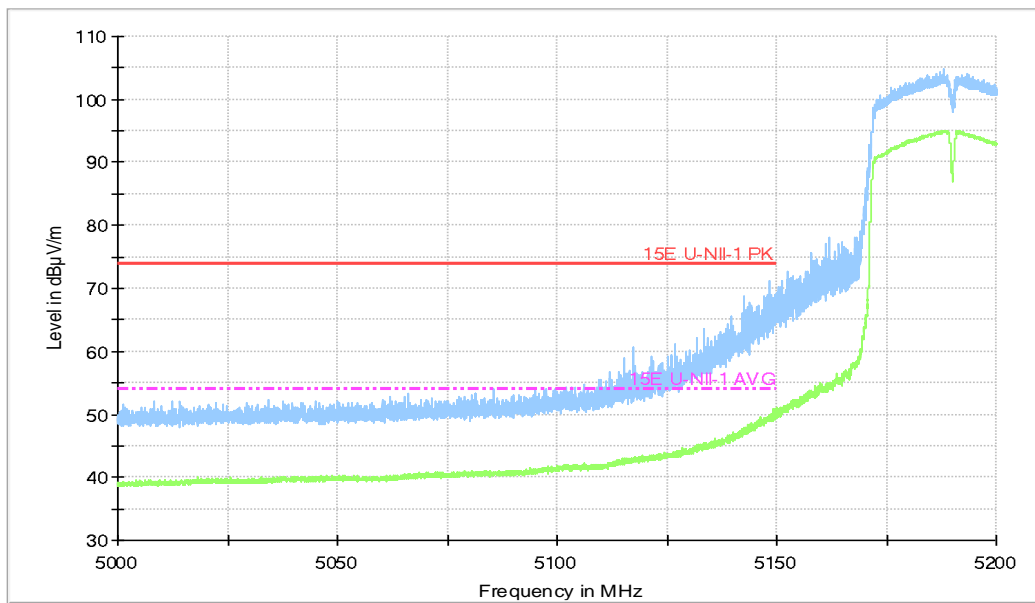


Fig.34 Band Edges (802.11n-HT40, 5190MHz)

Full Spectrum

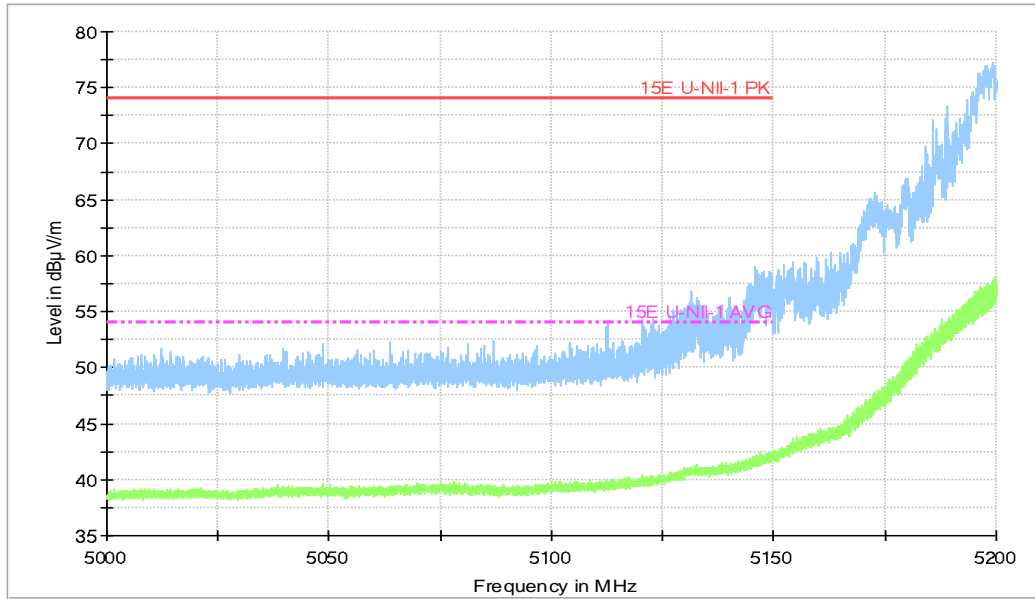


Fig.35 Band Edges (802.11n-HT40, 5230MHz)

Full Spectrum

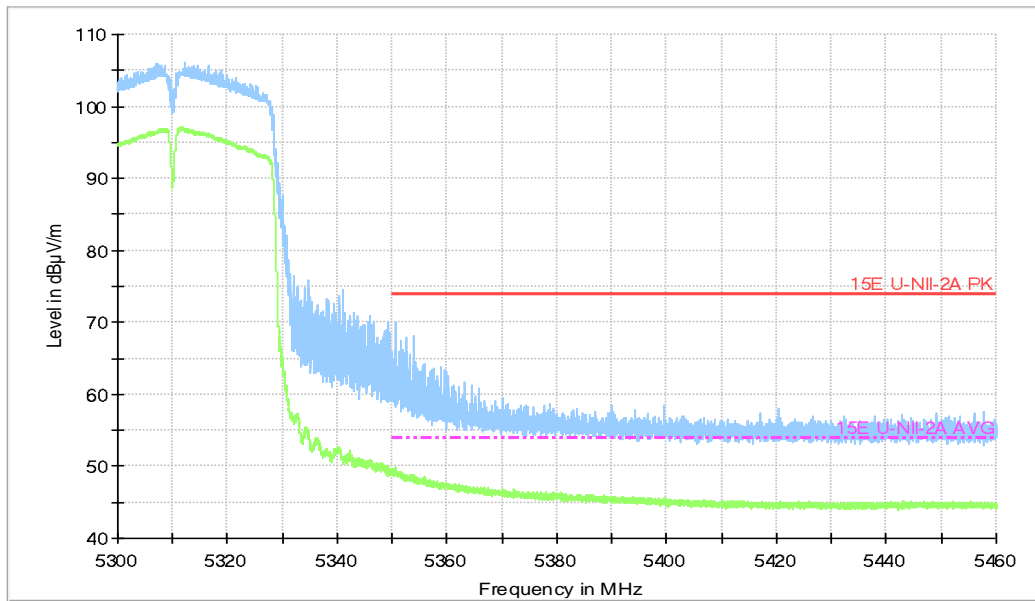


Fig.36 Band Edges (802.11n-HT40, 5310MHz)

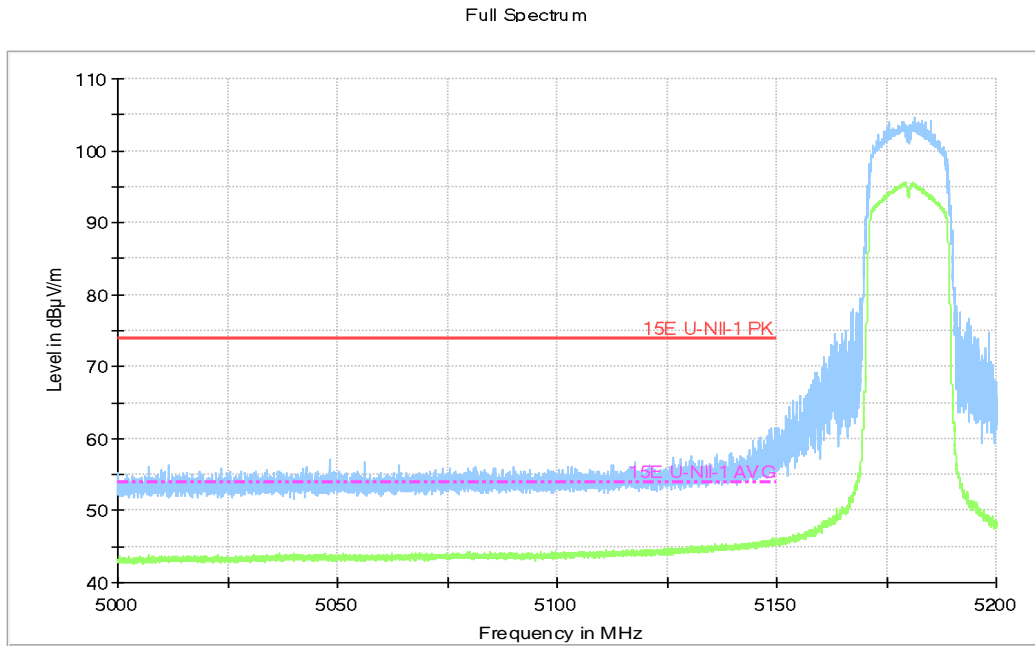


Fig.37 Band Edges (802.11ac-HT20, 5180MHz)

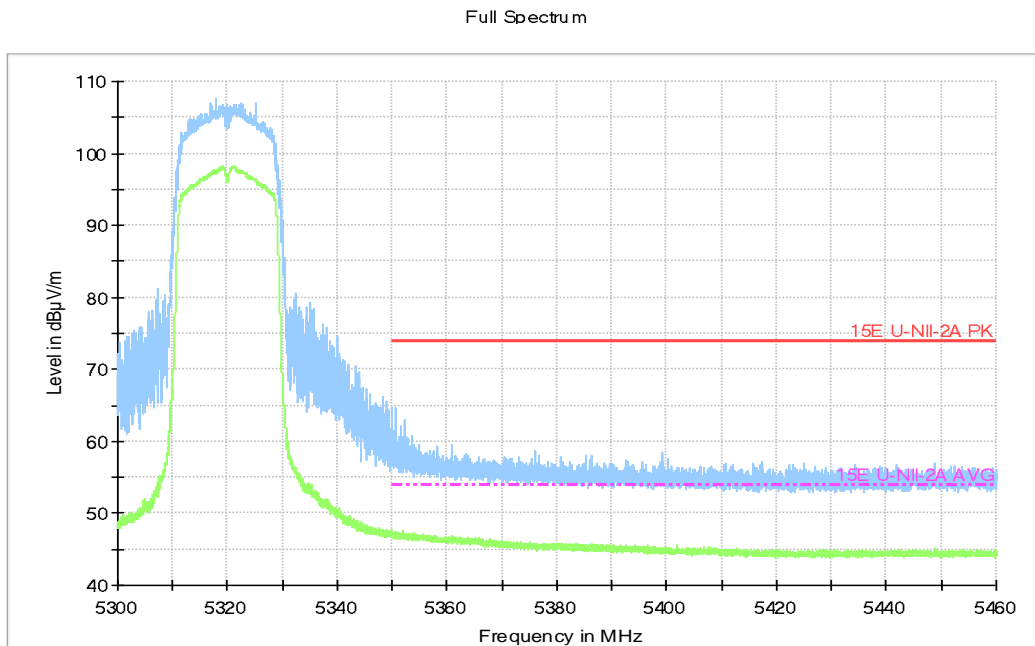


Fig.38 Band Edges (802.11ac-HT20, 5320MHz)

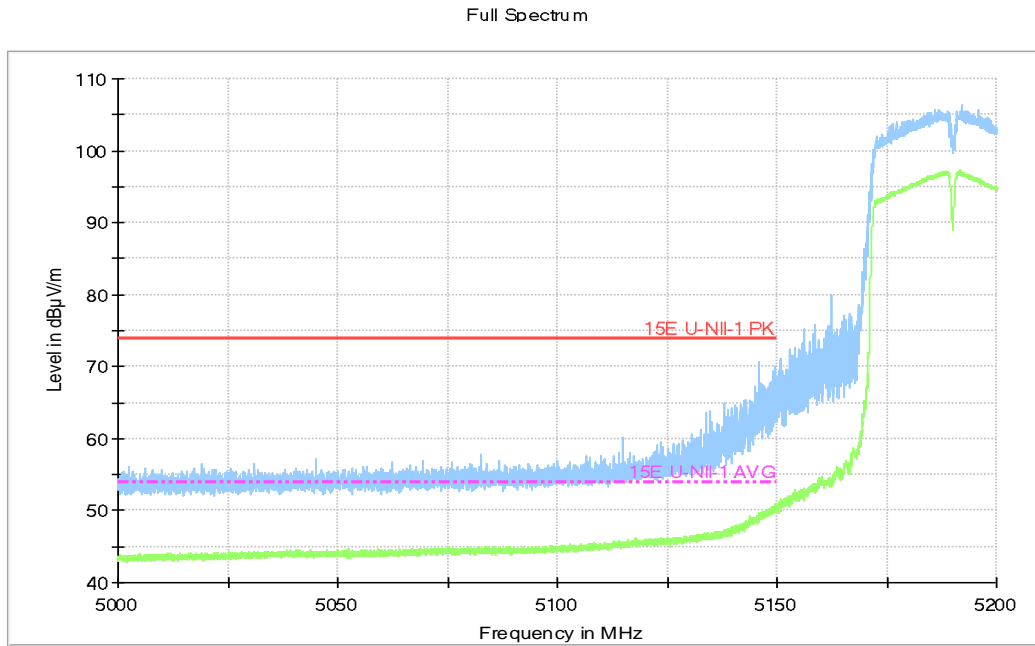


Fig.39 Band Edges (802.11ac-HT40, 5190MHz)

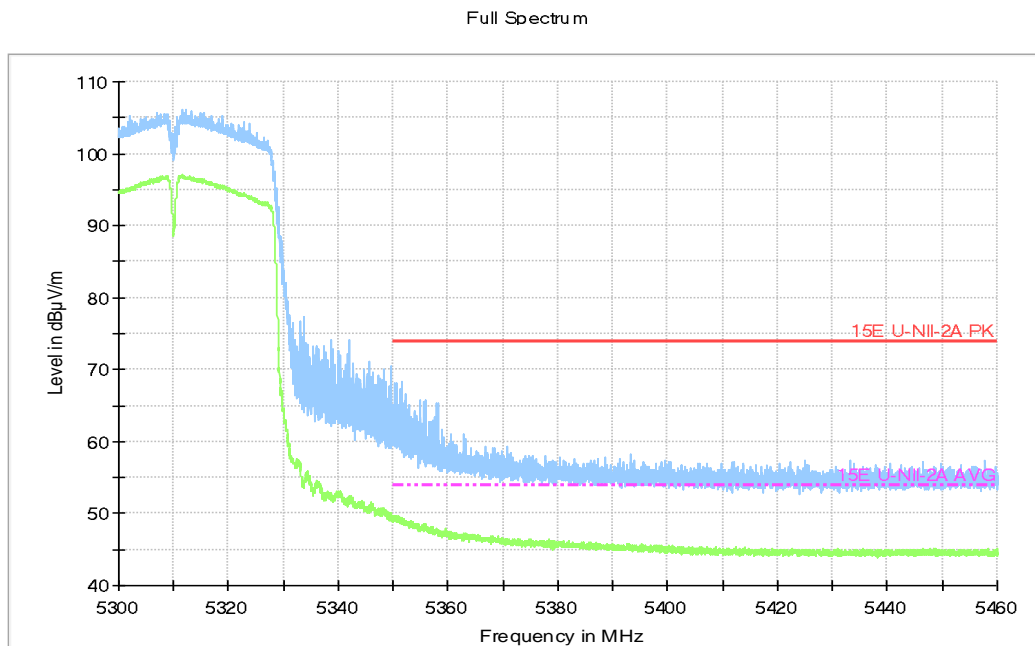


Fig.40 Band Edges (802.11ac-HT40, 5310MHz)

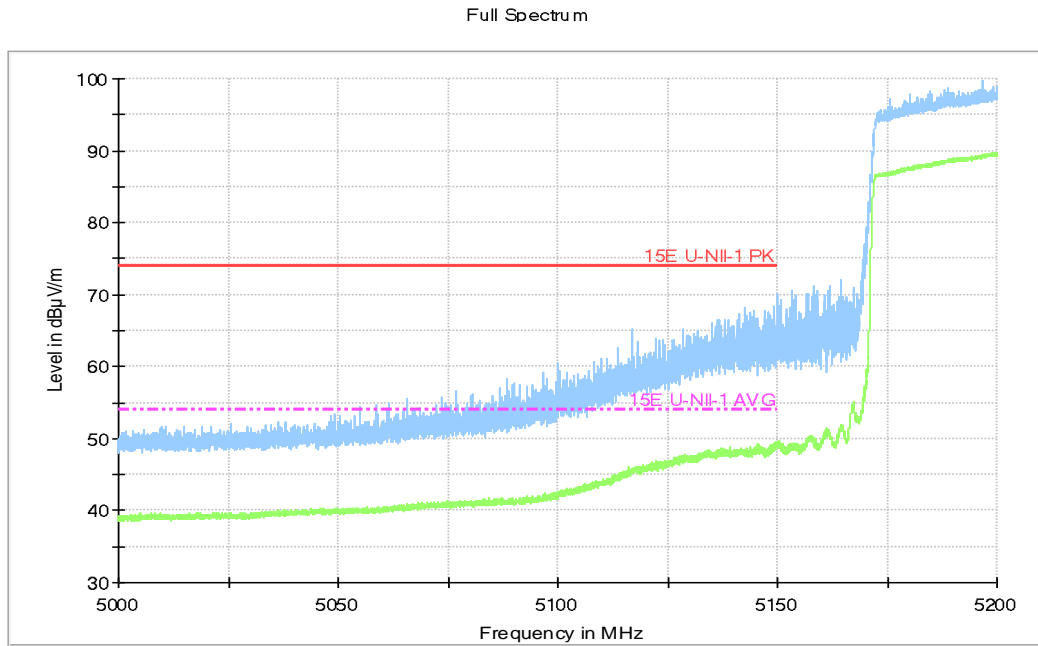


Fig.41 Band Edges (802.11ac-HT80, 5210MHz)

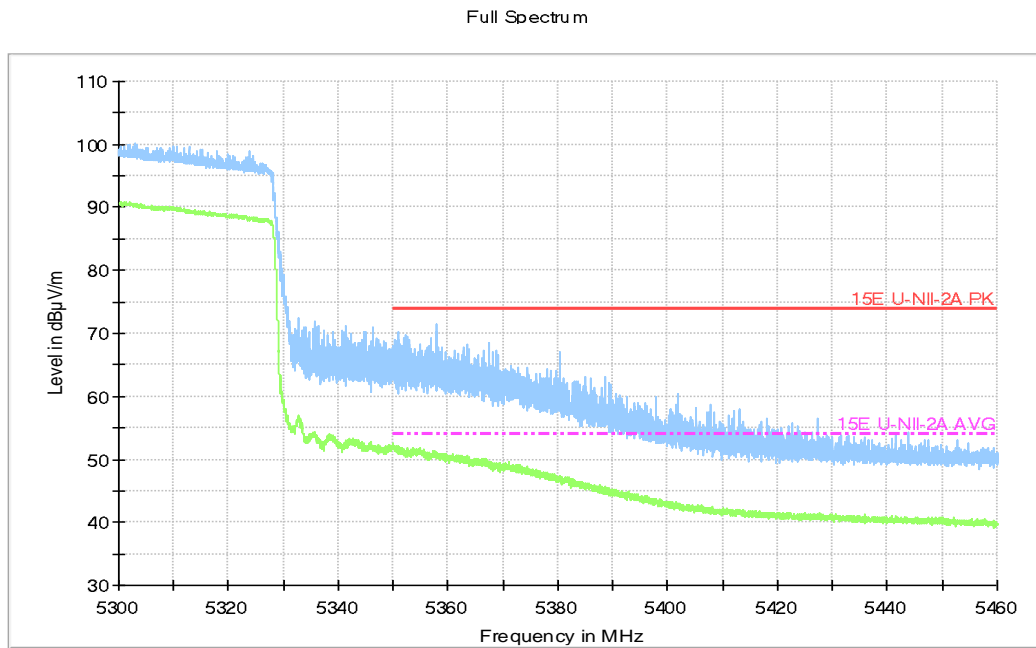


Fig.42 Band Edges (802.11ac-HT80, 5290MHz)

A.6. Transmitter Spurious Emission

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407	-27 dBm/MHz

The measurement is made according to KDB 789033

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(dB μ V/m)	Measurement distance(m)
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	3

Note: for frequency range below 960MHz, the limit in 15.209 is defined in 10m test distance. The limit used above is calculated from 10m to 3m

Measurement Results:

802.11a mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11a	36(5180MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	40(5200MHz)	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
	48(5240MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	52(5260MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	56(5280MHz)	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
64(5320MHz)	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	36(5180MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	40(5200MHz)	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
	48(5240MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	52(5260MHz)	1 GHz ~ 3 GHz	---	P

		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	56(5280MHz)	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
	64(5320MHz)	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	38(5190MHz)	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
	46(5230MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	54(5270MHz)	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
	62(5310MHz)	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

802.11ac-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ac -HT20	36(5180MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	40(5200MHz)	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
	48(5240MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	52(5260MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	56(5280MHz)	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
	64(5320MHz)	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
802.11ac HT40	38(5190MHz)	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
	46(5230MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	54(5270MHz)	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
	62(5310MHz)	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
--	--	-------------------	-----	---

802.11ac-HT80 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ac -HT80	42(5210MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	58(5290MHz)	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.

The measurement results are obtained as described below:

$$\text{Result} = P_{Mea} + A_{Rpl} = P_{Mea} + \text{Cable Loss} + \text{Antenna Factor}$$

AVERAGE Results:
802.11a

Channel 36

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)
5146.34	50.6	-16.6	33.4	33.81	54	3.4	H
15541.5	37.7	-7.4	33.8	11.33	54	16.3	H
15537.1	37.6	-7.4	38.4	6.63	54	16.4	V
15540.4	37.5	-7.4	38.4	6.53	54	16.5	H
15538.2	37.4	-7.4	38.4	6.43	54	16.6	H
15539.3	37.3	-7.4	38.4	6.33	54	16.7	H

Channel 40

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)
15605.3	39.8	-7.3	38.4	8.75	54	14.2	H
15598.7	39.7	-7.3	33.8	13.25	54	14.3	H
15604.2	39.7	-7.3	38.4	8.65	54	14.3	V
15603.1	39.7	-7.3	38.4	8.65	54	14.3	H
15599.8	39.6	-7.3	38.4	8.55	54	14.4	H
15597.6	39.5	-7.3	38.4	8.45	54	14.5	H

Channel 48

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)
15721.9	39.4	-7.3	38.4	8.35	54	14.6	H
15723	38.9	-7.3	33.8	12.45	54	15.1	H
15720.8	38.7	-7.3	38.4	7.65	54	15.3	V
15719.7	38.7	-7.3	38.4	7.65	54	15.3	H
15717.5	38.7	-7.3	38.4	7.65	54	15.3	H
15716.4	38.5	-7.3	38.4	7.45	54	15.5	H

Channel 52

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15782.4	39.1	-7.3	38.4	7.95	54	14.9	H
15778	38.9	-7.3	33.8	12.35	54	15.1	H
15781.3	38.8	-7.3	38.4	7.65	54	15.2	V
15779.1	38.8	-7.3	38.4	7.65	54	15.2	H
15783.5	38.5	-7.3	38.4	7.35	54	15.5	H
15780.2	38.5	-7.3	38.4	7.35	54	15.5	H

Channel 56

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15839.6	49.7	-7.3	38.4	18.55	54	4.3	H
15842.9	49.9	-7.3	33.8	23.35	54	4.1	H
15840.7	50.1	-7.3	38.4	18.95	54	3.9	V
15841.8	50.9	-7.3	38.4	19.75	54	3.1	H
15838.5	49.2	-7.3	38.4	18.05	54	4.8	H
15837.4	51.7	-7.3	38.4	20.55	54	2.3	H

Channel 64

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5353.696	48.1	-16.6	33.4	31.28	54	5.9	H
15958.4	36.8	-6.9	33.8	9.94	54	17.2	H
15960.6	36.5	-6.9	38.4	5.04	54	17.5	V
15959.5	36.5	-6.9	38.4	5.04	54	17.5	H
15962.8	36.5	-6.9	38.4	5.04	54	17.5	H
15956.2	36.4	-6.9	38.4	4.94	54	17.6	H

802.11n-HT20

Channel 36

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5149.08	51.6	-16.6	33.4	34.81	54	2.4	H
15539.3	37.5	-7.4	33.8	11.13	54	16.5	H
15537.1	37.3	-7.4	38.4	6.33	54	16.7	V
15538.2	37.1	-7.4	38.4	6.13	54	16.9	H
15542.6	37	-7.4	38.4	6.03	54	17	H
15541.5	37	-7.4	38.4	6.03	54	17	H

Channel 40

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15602	38.6	-7.3	38.4	7.55	54	15.4	H
15599.8	38.4	-7.3	33.8	11.95	54	15.6	H
15600.9	37.9	-7.3	38.4	6.85	54	16.1	V
15597.6	37.8	-7.3	38.4	6.75	54	16.2	H
15598.7	37.8	-7.3	38.4	6.75	54	16.2	H
15605.3	37.8	-7.3	38.4	6.75	54	16.2	H

Channel 48

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15720.8	39.6	-7.3	38.4	8.55	54	14.4	H
15718.6	39.6	-7.3	33.8	13.15	54	14.4	H
15719.7	39.6	-7.3	38.4	8.55	54	14.4	V
15723	39.5	-7.3	38.4	8.45	54	14.5	H
15717.5	39.4	-7.3	38.4	8.35	54	14.6	H
15724.1	39.2	-7.3	38.4	8.15	54	14.8	H

Channel 52

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15780.2	39.1	-7.3	38.4	7.95	54	14.9	H
15782.4	39.1	-7.3	33.8	12.55	54	14.9	H
15779.1	38.7	-7.3	38.4	7.55	54	15.3	V
15778	38.4	-7.3	38.4	7.25	54	15.6	H
15781.3	38.4	-7.3	38.4	7.25	54	15.6	H
15776.9	38.4	-7.3	38.4	7.25	54	15.6	H

Channel 56

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15840.7	39.3	-7.3	38.4	8.15	54	14.7	H
15839.6	39.2	-7.3	33.8	12.65	54	14.8	H
15838.5	39.1	-7.3	38.4	7.95	54	14.9	V
15841.8	38.9	-7.3	38.4	7.75	54	15.1	H
15844	38.8	-7.3	38.4	7.65	54	15.2	H
15836.3	38.8	-7.3	38.4	7.65	54	15.2	H

Channel 64

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15959.5	36.8	-6.9	38.4	5.34	54	17.2	H
15958.4	36.7	-6.9	33.8	9.84	54	17.3	H
15962.8	36.6	-6.9	38.4	5.14	54	17.4	V
15961.7	36.6	-6.9	38.4	5.14	54	17.4	H
15957.3	36.5	-6.9	38.4	5.04	54	17.5	H
15955.1	36.4	-6.9	38.4	4.94	54	17.6	H

802.11n-HT40

Channel 38

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5148.1	49.5	-16.6	33.4	32.71	54	4.5	H
15570.1	36.1	-7.4	33.8	9.73	54	17.9	H
15569	36	-7.4	38.4	5.03	54	18	V
8303.5	35.9	-15.2	36.7	14.36	54	18.1	H
15573.4	35.9	-7.4	38.4	4.93	54	18.1	H
15563.5	35.9	-7.4	38.4	4.93	54	18.1	H

Channel 46

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15684.5	35.7	-7.3	38.4	4.65	54	18.3	H
15686.7	35.6	-7.3	33.8	9.15	54	18.4	H
15693.3	35.6	-7.3	38.4	4.55	54	18.4	V
15692.2	35.6	-7.3	38.4	4.55	54	18.4	H
15683.4	35.5	-7.3	38.4	4.45	54	18.5	H
15694.4	35.5	-7.3	38.4	4.45	54	18.5	H

Channel 54

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15813.2	36.6	-7.3	38.4	5.45	54	17.4	H
15814.3	36.5	-7.3	33.8	9.95	54	17.5	H
15808.8	36.5	-7.3	38.4	5.35	54	17.5	V
15811	36.3	-7.3	38.4	5.15	54	17.7	H
15817.6	36.3	-7.3	38.4	5.15	54	17.7	H
15809.9	36.3	-7.3	38.4	5.15	54	17.7	H

Channel 62

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15812.1	36.5	-7.3	38.4	5.35	54	17.5	H
15814.3	36.2	-7.3	33.8	9.65	54	17.8	H
15811	36.2	-7.3	38.4	5.05	54	17.8	V
15809.9	36.1	-7.3	38.4	4.95	54	17.9	H
15819.8	36.1	-7.3	38.4	4.95	54	17.9	H
15815.4	36	-7.3	38.4	4.85	54	18	H

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Channel 36

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5144.64	45.6	-16.6	33.4	28.81	54	8.4	H
8288.1	35.4	-15.2	33.8	16.76	54	18.6	H
15542.6	34.6	-7.4	38.4	3.63	54	19.4	V
15541.5	34.4	-7.4	38.4	3.43	54	19.6	H
15540.4	34.2	-7.4	38.4	3.23	54	19.8	H
15543.7	34.2	-7.4	38.4	3.23	54	19.8	H

Channel 40

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
8320	37.8	-15.2	36.7	16.26	54	16.2	H
15602	35.3	-7.3	33.8	8.85	54	18.7	H
15604.2	35.2	-7.3	38.4	4.15	54	18.8	V
15600.9	35.2	-7.3	38.4	4.15	54	18.8	H
15599.8	34.9	-7.3	38.4	3.85	54	19.1	H
15603.1	34.8	-7.3	38.4	3.75	54	19.2	H

Channel 48

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15723	37.6	-7.3	38.4	6.55	54	16.4	H
15721.9	37.4	-7.3	33.8	10.95	54	16.6	H
15719.7	37.4	-7.3	38.4	6.35	54	16.6	V
15720.8	37.2	-7.3	38.4	6.15	54	16.8	H
15724.1	37.1	-7.3	38.4	6.05	54	16.9	H
15717.5	36.9	-7.3	38.4	5.85	54	17.1	H

Channel 52

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15776.9	38.9	-7.3	38.4	7.75	54	15.1	H
15778	38.9	-7.3	33.8	12.35	54	15.1	H
15780.2	38.8	-7.3	38.4	7.65	54	15.2	V
15781.3	38.8	-7.3	38.4	7.65	54	15.2	H
15782.4	38.5	-7.3	38.4	7.35	54	15.5	H
15779.1	38.5	-7.3	38.4	7.35	54	15.5	H

Channel 56

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15837.4	39.2	-7.3	38.4	8.05	54	14.8	H
15840.7	39.2	-7.3	33.8	12.65	54	14.8	H
15838.5	39.1	-7.3	38.4	7.95	54	14.9	V
15841.8	39.1	-7.3	38.4	7.95	54	14.9	H
15836.3	39	-7.3	38.4	7.85	54	15	H
15839.6	38.8	-7.3	38.4	7.65	54	15.2	H

Channel 64

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5354.736	46.5	-16.6	33.4	29.68	54	7.5	H
15958.4	37.1	-6.9	33.8	10.24	54	16.9	H
15962.8	36.7	-6.9	38.4	5.24	54	17.3	V
15959.5	36.6	-6.9	38.4	5.14	54	17.4	H
15957.3	36.5	-6.9	38.4	5.04	54	17.5	H
15963.9	36.5	-6.9	38.4	5.04	54	17.5	H

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Channel 38

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5146.86	49.8	-16.6	33.4	33.01	54	4.2	H
8303.5	37.7	-15.2	33.8	19.06	54	16.3	H
18000	34	-6.5	46.4	-5.86	54	20	V
17974.7	34	-5.4	43.4	-3.98	54	20	H
17948.3	33.9	-5.4	43.4	-4.08	54	20.1	H
17957.1	33.9	-5.4	43.4	-4.08	54	20.1	H

Channel 46

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
8367.3	36.3	-14.9	36.7	14.55	54	17.7	H
15692.2	34.9	-7.3	33.8	8.45	54	19.1	H
15693.3	34.8	-7.3	38.4	3.75	54	19.2	V
15698.8	34.7	-7.3	38.4	3.65	54	19.3	H
15694.4	34.7	-7.3	38.4	3.65	54	19.3	H
15696.6	34.6	-7.3	38.4	3.55	54	19.4	H

Channel 54

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15811	36.6	-7.3	38.4	5.45	54	17.4	H
15813.2	36.6	-7.3	33.8	10.05	54	17.4	H
15809.9	36.5	-7.3	38.4	5.35	54	17.5	V
15816.5	36.4	-7.3	38.4	5.25	54	17.6	H
15812.1	36.4	-7.3	38.4	5.25	54	17.6	H
15814.3	36.4	-7.3	38.4	5.25	54	17.6	H

Channel 62

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5356.48	47.7	-16.6	33.4	30.88	54	6.3	H
15813.2	36.4	-7.3	33.8	9.85	54	17.6	H
15809.9	36.3	-7.3	38.4	5.15	54	17.7	V
15812.1	36.3	-7.3	38.4	5.15	54	17.7	H
15817.6	36.2	-7.3	38.4	5.05	54	17.8	H
15814.3	36.2	-7.3	38.4	5.05	54	17.8	H

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Channel 42

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5149.06	49.2	-16.6	33.4	32.41	54	4.8	H
8335.4	35.8	-14.9	33.8	16.95	54	18.2	H
17982.4	34	-5.4	43.4	-3.98	54	20	V
17976.9	34	-5.4	43.4	-3.98	54	20	H
17991.2	33.9	-5.4	43.4	-4.08	54	20.1	H
17952.7	33.8	-5.4	43.4	-4.18	54	20.2	H

Channel 58

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5350.608	51.6	-16.6	33.4	34.78	54	2.4	H
17958.2	33.9	-5.4	33.8	5.52	54	20.1	H
17964.8	33.9	-5.4	43.4	-4.08	54	20.1	V
17989	33.9	-5.4	43.4	-4.08	54	20.1	H
17975.8	33.8	-5.4	43.4	-4.18	54	20.2	H
17997.8	33.8	-5.4	43.4	-4.18	54	20.2	H

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Channel 36

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5147.14	67.7	-16.6	33.4	50.91	74	6.3	H
15543.7	49.2	-7.4	33.8	22.83	74	24.8	H
15540.4	48.9	-7.4	38.4	17.93	74	25.1	V
15544.8	48.4	-7.4	38.4	17.43	74	25.6	H
15531.6	48.3	-7.4	38.4	17.33	74	25.7	H
15539.3	48.3	-7.4	38.4	17.33	74	25.7	H

Channel 40

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15609.7	52.7	-7.3	38.4	21.65	74	21.3	H
15606.4	52.3	-7.3	33.8	25.85	74	21.7	H
15600.9	51.8	-7.3	38.4	20.75	74	22.2	V
15599.8	51.3	-7.3	38.4	20.25	74	22.7	H
15594.3	51.2	-7.3	38.4	20.15	74	22.8	H
15603.1	50.8	-7.3	38.4	19.75	74	23.2	H

Channel 48

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15717.5	50.8	-7.3	38.4	19.75	74	23.2	H
15723	50.3	-7.3	33.8	23.85	74	23.7	H
15718.6	49.6	-7.3	38.4	18.55	74	24.4	V
15715.3	49.5	-7.3	38.4	18.45	74	24.5	H
15713.1	49.2	-7.3	38.4	18.15	74	24.8	H
15721.9	49.1	-7.3	38.4	18.05	74	24.9	H

Channel 52

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15773.6	50.2	-7.3	38.4	19.05	74	23.8	H
15780.2	50.2	-7.3	33.8	23.65	74	23.8	H
15785.7	50.1	-7.3	38.4	18.95	74	23.9	V
15776.9	50.1	-7.3	38.4	18.95	74	23.9	H
15784.6	49.9	-7.3	38.4	18.75	74	24.1	H
15782.4	49.7	-7.3	38.4	18.55	74	24.3	H

Channel 56

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15837.4	51.7	-7.3	38.4	20.55	74	22.3	H
15845.1	51.2	-7.3	33.8	24.65	74	22.8	H
15841.8	50.9	-7.3	38.4	19.75	74	23.1	V
15846.2	50.1	-7.3	38.4	18.95	74	23.9	H
15840.7	50.1	-7.3	38.4	18.95	74	23.9	H
15842.9	49.9	-7.3	38.4	18.75	74	24.1	H

Channel 64

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5351.056	66.7	-16.6	33.4	49.88	74	7.3	H
15962.8	50.3	-6.9	33.8	23.44	74	23.7	H
15971.6	48.9	-6.9	38.4	17.44	74	25.1	V
15958.4	48.3	-6.9	38.4	16.84	74	25.7	H
15952.9	47.9	-6.9	38.4	16.44	74	26.1	H
15957.3	47.8	-6.9	38.4	16.34	74	26.2	H

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Channel 36

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5148.72	69.4	-16.6	33.4	52.61	74	4.6	H
15545.9	49.4	-7.4	33.8	23.03	74	24.6	H
15542.6	49	-7.4	38.4	18.03	74	25	V
15537.1	48.6	-7.4	38.4	17.63	74	25.4	H
15538.2	48.4	-7.4	38.4	17.43	74	25.6	H
15541.5	48.1	-7.4	38.4	17.13	74	25.9	H

Channel 40

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15602	50.5	-7.3	38.4	19.45	74	23.5	H
15604.2	49.8	-7.3	33.8	23.35	74	24.2	H
15597.6	49.4	-7.3	38.4	18.35	74	24.6	V
15595.4	49.2	-7.3	38.4	18.15	74	24.8	H
15610.8	48.8	-7.3	38.4	17.75	74	25.2	H
15605.3	48.6	-7.3	38.4	17.55	74	25.4	H

Channel 48

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15716.4	51.5	-7.3	38.4	20.45	74	22.5	H
15721.9	51.1	-7.3	33.8	24.65	74	22.9	H
15717.5	51	-7.3	38.4	19.95	74	23	V
15719.7	50.9	-7.3	38.4	19.85	74	23.1	H
15720.8	50.6	-7.3	38.4	19.55	74	23.4	H
15727.4	50.5	-7.3	38.4	19.45	74	23.5	H

Channel 52

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15786.8	52.2	-7.3	38.4	21.05	74	21.8	H
15776.9	50.2	-7.3	33.8	23.65	74	23.8	H
15775.8	50.2	-7.3	38.4	19.05	74	23.8	V
15778	50.2	-7.3	38.4	19.05	74	23.8	H
15782.4	49.9	-7.3	38.4	18.75	74	24.1	H
15781.3	49.7	-7.3	38.4	18.55	74	24.3	H

Channel 56

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15836.3	53.4	-7.3	38.4	22.25	74	20.6	H
15839.6	52.3	-7.3	33.8	25.75	74	21.7	H
15826.4	51.1	-7.3	38.4	19.95	74	22.9	V
15831.9	50.9	-7.3	38.4	19.75	74	23.1	H
15834.1	50.3	-7.3	38.4	19.15	74	23.7	H
15841.8	50.3	-7.3	38.4	19.15	74	23.7	H

Channel 64

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5352.656	66.8	-16.6	33.4	49.98	74	7.2	H
15961.7	48.9	-6.9	33.8	22.04	74	25.1	H
15957.3	48.8	-6.9	38.4	17.34	74	25.2	V
15952.9	48.5	-6.9	38.4	17.04	74	25.5	H
15962.8	48.3	-6.9	38.4	16.84	74	25.7	H
15956.2	48.1	-6.9	38.4	16.64	74	25.9	H

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Channel 38

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5148.42	71.3	-16.6	33.4	54.51	74	2.7	H
15558	47.5	-7.4	33.8	21.13	74	26.5	H
15560.2	47.1	-7.4	38.4	16.13	74	26.9	V
15574.5	47	-7.4	38.4	16.03	74	27	H
15559.1	47	-7.4	38.4	16.03	74	27	H
15570.1	46.1	-7.4	38.4	15.13	74	27.9	H

Channel 46

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15685.6	47.4	-7.3	38.4	16.35	74	26.6	H
15696.6	47.2	-7.3	33.8	20.75	74	26.8	H
15691.1	46.8	-7.3	38.4	15.75	74	27.2	V
15704.3	46.5	-7.3	38.4	15.45	74	27.5	H
15702.1	46.3	-7.3	38.4	15.25	74	27.7	H
15698.8	46.1	-7.3	38.4	15.05	74	27.9	H

Channel 54

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15816.5	48.9	-7.3	38.4	17.75	74	25.1	H
15807.7	47.2	-7.3	33.8	20.65	74	26.8	H
15824.2	47.2	-7.3	38.4	16.05	74	26.8	V
15825.3	47	-7.3	38.4	15.85	74	27	H
15814.3	46.9	-7.3	38.4	15.75	74	27.1	H
15826.4	46.9	-7.3	38.4	15.75	74	27.1	H

Channel 62

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5350.496	70	-16.6	33.4	53.18	74	4	H
15824.2	47.3	-7.3	33.8	20.75	74	26.7	H
15817.6	47.3	-7.3	38.4	16.15	74	26.7	V
15816.5	47.2	-7.3	38.4	16.05	74	26.8	H
15812.1	47.2	-7.3	38.4	16.05	74	26.8	H
15795.6	47.2	-7.3	38.4	16.05	74	26.8	H

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Channel 36

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5148.82	60.6	-16.6	33.4	43.81	74	13.4	H
15540.4	47.2	-7.4	33.8	20.83	74	26.8	H
17937.3	46.3	-5.4	43.4	8.32	74	27.7	V
17934	45.9	-5.4	43.4	7.92	74	28.1	H
15549.2	45.8	-7.4	38.4	14.83	74	28.2	H
15534.9	45.6	-7.4	38.4	14.63	74	28.4	H

Channel 40

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17963.7	46.6	-5.4	43.4	8.62	74	27.4	H
17578.7	46.3	-6.9	33.8	19.40	74	27.7	H
17893.3	46.2	-5.7	43.4	8.54	74	27.8	V
15602	46	-7.3	38.4	14.95	74	28	H
15597.6	45.9	-7.3	38.4	14.85	74	28.1	H
15593.2	45.9	-7.3	38.4	14.85	74	28.1	H

Channel 48

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15717.5	51	-7.3	38.4	19.95	74	23	H
15720.8	48.7	-7.3	33.8	22.25	74	25.3	H
15723	48.4	-7.3	38.4	17.35	74	25.6	V
15721.9	48.3	-7.3	38.4	17.25	74	25.7	H
15719.7	48.1	-7.3	38.4	17.05	74	25.9	H
15725.2	48	-7.3	38.4	16.95	74	26	H

Channel 52

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15784.6	51.3	-7.3	38.4	20.15	74	22.7	H
15776.9	50.8	-7.3	33.8	24.25	74	23.2	H
15771.4	50.7	-7.3	38.4	19.55	74	23.3	V
15774.7	50.6	-7.3	38.4	19.45	74	23.4	H
15780.2	50.4	-7.3	38.4	19.25	74	23.6	H
15778	50.2	-7.3	38.4	19.05	74	23.8	H

Channel 56

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15845.1	53.2	-7.3	38.4	22.05	74	20.8	H
15836.3	53	-7.3	33.8	26.45	74	21	H
15837.4	52.2	-7.3	38.4	21.05	74	21.8	V
15841.8	51.3	-7.3	38.4	20.15	74	22.7	H
15838.5	50.2	-7.3	38.4	19.05	74	23.8	H
15840.7	50.2	-7.3	38.4	19.05	74	23.8	H

Channel 64

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5352.144	62.9	-16.6	33.4	46.08	74	11.1	H
15958.4	48.8	-6.9	33.8	21.94	74	25.2	H
15949.6	48.3	-6.9	38.4	16.84	74	25.7	V
15970.5	47.7	-6.9	38.4	16.24	74	26.3	H
15960.6	47.6	-6.9	38.4	16.14	74	26.4	H
15957.3	47.6	-6.9	38.4	16.14	74	26.4	H

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Channel 38

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5145.94	70.7	-16.6	33.4	53.91	74	3.3	H
17938.4	45.7	-5.4	33.8	17.32	74	28.3	H
17870.2	45.5	-5.7	43.4	7.84	74	28.5	V
17480.8	45.3	-5.9	40.1	11.12	74	28.7	H
17942.8	45.3	-5.4	43.4	7.32	74	28.7	H
17981.3	45.3	-5.4	43.4	7.32	74	28.7	H

Channel 46

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15696.6	46.5	-7.3	38.4	15.45	74	27.5	H
15692.2	46.4	-7.3	33.8	19.95	74	27.6	H
15697.7	46.2	-7.3	38.4	15.15	74	27.8	V
17974.7	46	-5.4	43.4	8.02	74	28	H
17888.9	45.7	-5.7	43.4	8.04	74	28.3	H
15683.4	45.6	-7.3	38.4	14.55	74	28.4	H

Channel 54

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
15813.2	47.9	-7.3	38.4	16.75	74	26.1	H
15801.1	47.8	-7.3	33.8	21.25	74	26.2	H
15807.7	47.1	-7.3	38.4	15.95	74	26.9	V
15808.8	47	-7.3	38.4	15.85	74	27	H
15822	46.9	-7.3	38.4	15.75	74	27.1	H
15811	46.9	-7.3	38.4	15.75	74	27.1	H

Channel 62

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5355.808	65.8	-16.6	33.4	48.98	74	8.2	H
15815.4	47.9	-7.3	33.8	21.35	74	26.1	H
15820.9	47.6	-7.3	38.4	16.45	74	26.4	V
15804.4	47.5	-7.3	38.4	16.35	74	26.5	H
15812.1	47.3	-7.3	38.4	16.15	74	26.7	H
15807.7	47.3	-7.3	38.4	16.15	74	26.7	H

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Channel 42

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5149.38	68.3	-16.6	33.4	51.51	74	5.7	H
17954.9	46	-5.4	33.8	17.62	74	28	H
17995.6	45.6	-5.4	43.4	7.62	74	28.4	V
17956	45.5	-5.4	43.4	7.52	74	28.5	H
17084.8	45.4	-6.3	40.1	11.60	74	28.6	H
17882.3	45.4	-5.7	43.4	7.74	74	28.6	H

Channel 58

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
5357.792	71.4	-16.6	33.4	54.58	74	2.6	H
17948.3	45.8	-5.4	33.8	17.42	74	28.2	H
17973.6	45.8	-5.4	43.4	7.82	74	28.2	V
17979.1	45.6	-5.4	43.4	7.62	74	28.4	H
17968.1	45.6	-5.4	43.4	7.62	74	28.4	H
17931.8	45.6	-5.4	43.4	7.62	74	28.4	H

A.7. AC Powerline Conducted Emission (150kHz- 30MHz)

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement uncertainty:

Expanded measurement uncertainty for this test item is $U = 3.10\text{dB}$, $k=2$.

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.43	Fig.44	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 (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	67 56 to 46	Fig.43	Fig.44	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.

Conclusion: PASS

Test graphs as below:

Traffic:

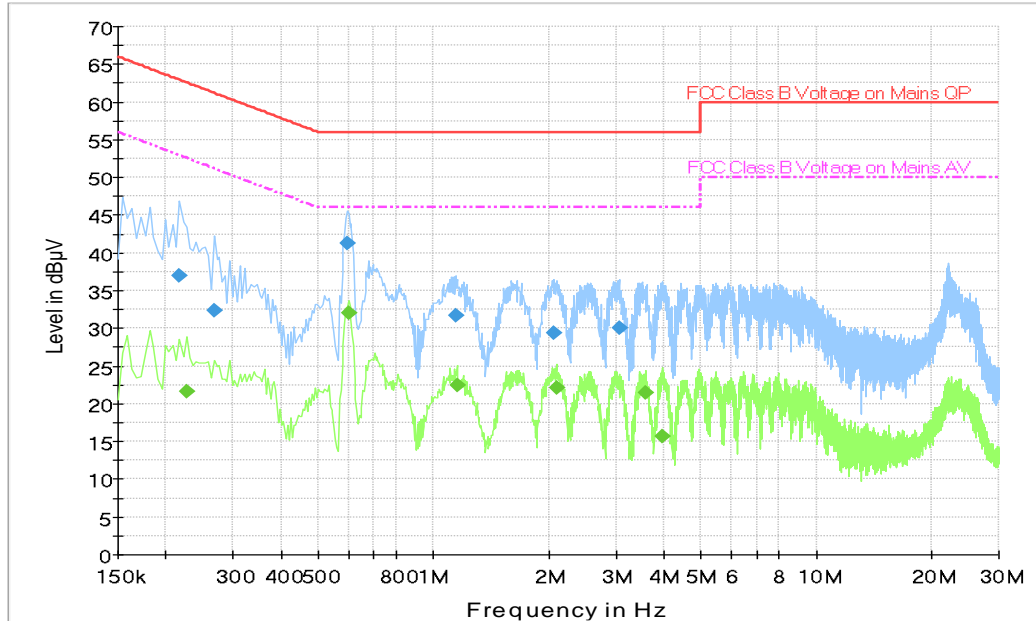


Fig.43 Conducted Emission (802.11a, Ch40, TX)

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.217500	36.9	1000.	9.000	N	19.8	26.0	62.9
0.267000	32.3	1000.	9.000	N	19.8	28.9	61.2
0.595500	41.3	1000.	9.000	N	20.0	14.7	56.0
1.144500	31.6	1000.	9.000	N	19.9	24.4	56.0
2.058000	29.4	1000.	9.000	N	19.9	26.6	56.0
3.052500	30.0	1000.	9.000	L1	20.3	26.0	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.226500	21.6	1000.	9.000	L1	20.0	30.9	52.6
0.600000	32.0	1000.	9.000	N	20.0	14.0	46.0
1.153500	22.4	1000.	9.000	N	19.9	23.6	46.0
2.094000	22.2	1000.	9.000	L1	20.1	23.8	46.0
3.579000	21.4	1000.	9.000	L1	20.5	24.6	46.0
3.970500	15.6	1000.	9.000	L1	20.6	30.4	46.0

Idle:

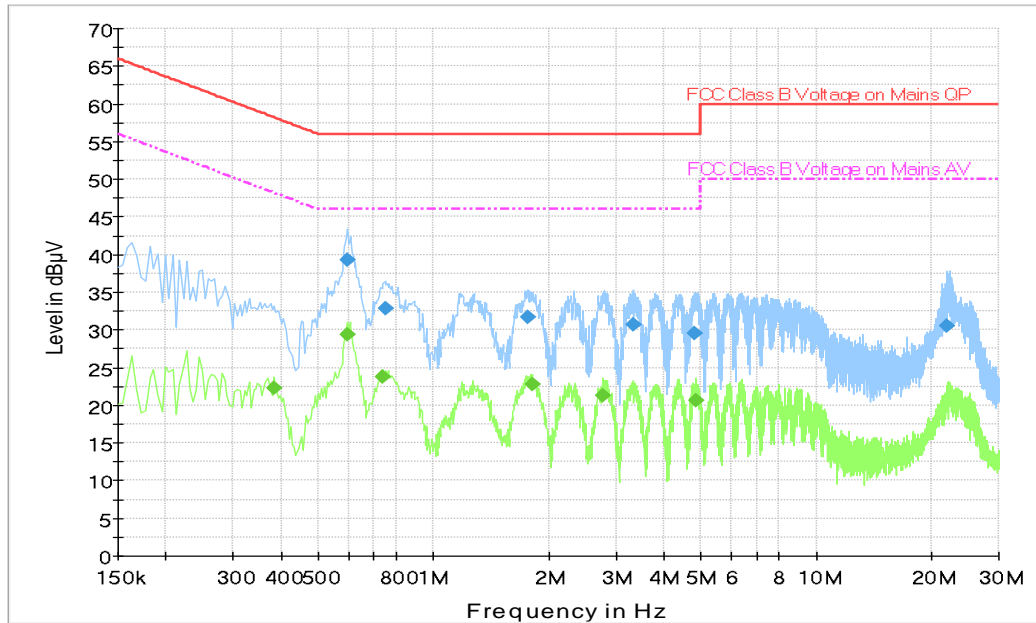


Fig.44 Conducted Emission(802.11a, IDLE)

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.595500	39.2	1000.	9.000	L1	20.1	16.8	56.0
0.748500	32.9	1000.	9.000	N	20.0	23.1	56.0
1.761000	31.6	1000.	9.000	N	19.9	24.4	56.0
3.318000	30.6	1000.	9.000	L1	20.4	25.4	56.0
4.825500	29.6	1000.	9.000	L1	20.8	26.4	56.0
21.925500	30.5	1000.	9.000	L1	25.6	29.5	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.384000	22.2	1000.	9.000	N	19.9	25.9	48.2
0.595500	29.3	1000.	9.000	L1	20.1	16.7	46.0
0.739500	23.7	1000.	9.000	L1	20.1	22.3	46.0
1.806000	22.8	1000.	9.000	N	19.9	23.2	46.0
2.778000	21.3	1000.	9.000	L1	20.3	24.7	46.0
4.852500	20.6	1000.	9.000	L1	20.8	25.4	46.0

A.8. 99% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (OBW/RBW)]$ below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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Measurement Result:

Mode	Frequency	99% Occupied bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.45	17.59	P
	5200 MHz	Fig.46	17.71	P
	5240 MHz	Fig.47	17.74	P
802.11n HT20	5180 MHz	Fig.48	18.35	P
	5200 MHz	Fig.49	18.40	P
	5240 MHz	Fig.50	18.43	P
802.11ac HT20	5180 MHz	Fig.51	18.09	P
	5200 MHz	Fig.52	18.08	P
	5240 MHz	Fig.53	18.39	P
802.11n HT40	5190 MHz	Fig.54	36.35	P
	5230 MHz	Fig.55	36.31	P
802.11ac	5190 MHz	Fig.56	36.12	P

HT40	5230 MHz	Fig.57	36.17	P
802.11ac HT80	5210 MHz	Fig.58	75.28	P

Conclusion: PASS

Test graphs as below:

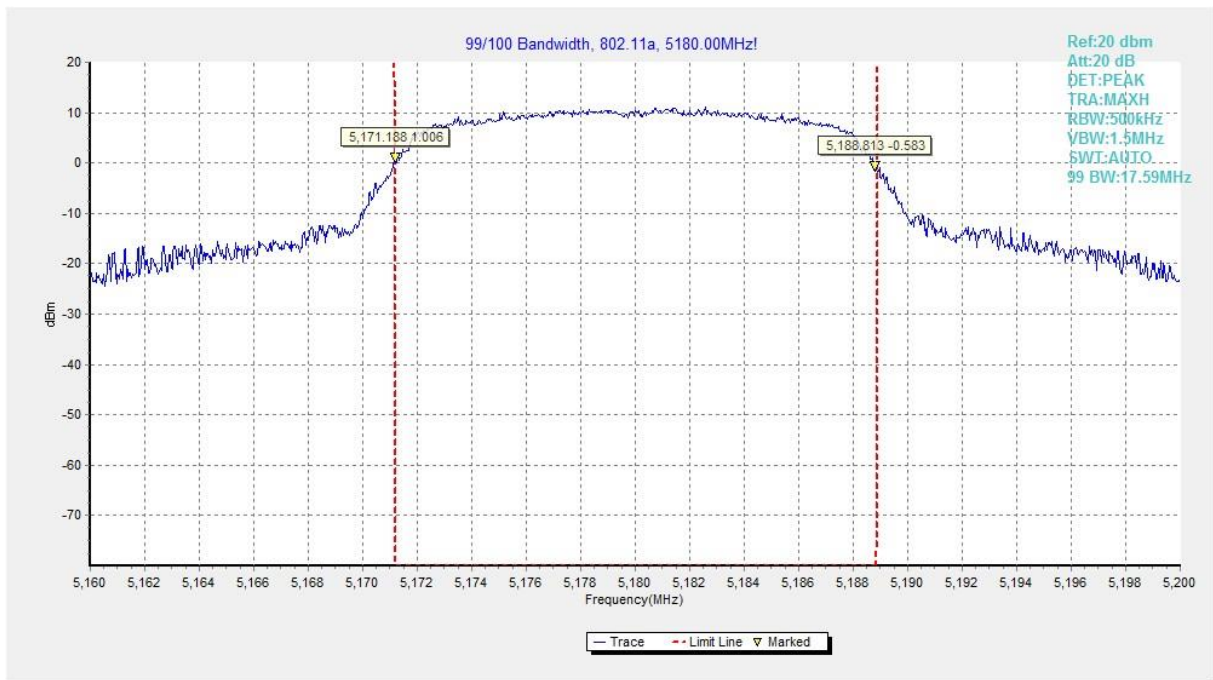


Fig.45 99% Occupied bandwidth (802.11a, 5180MHz)

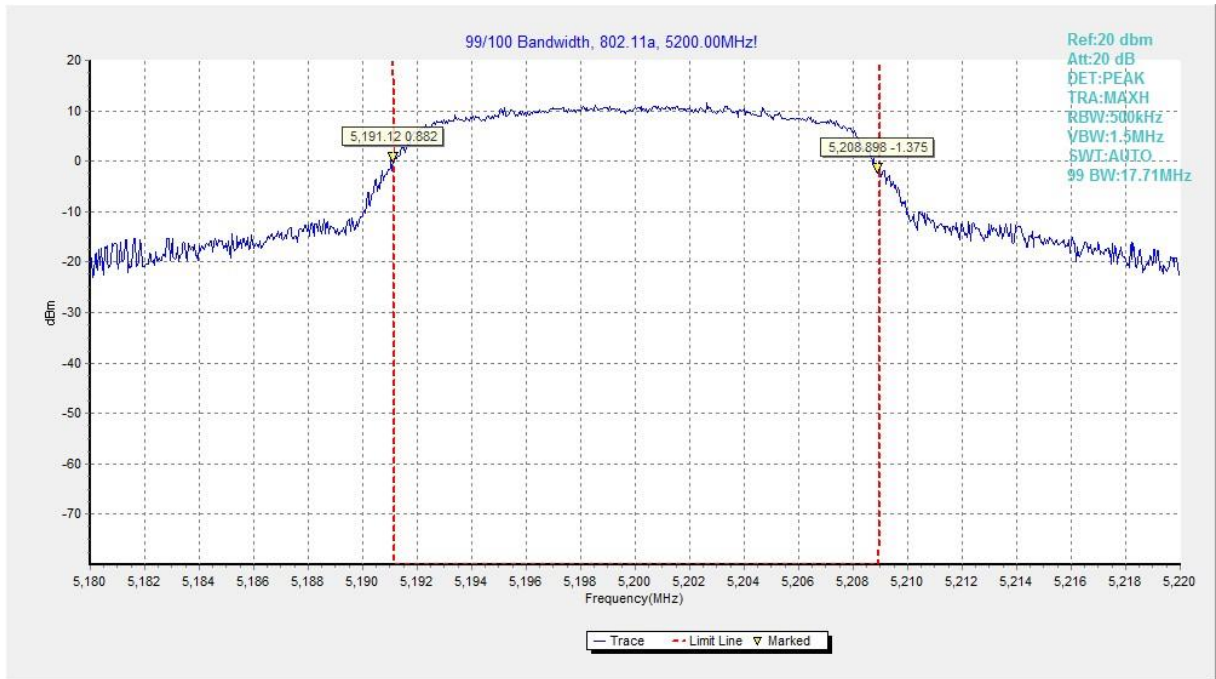


Fig.46 99% Occupied bandwidth (802.11a, 5200MHz)

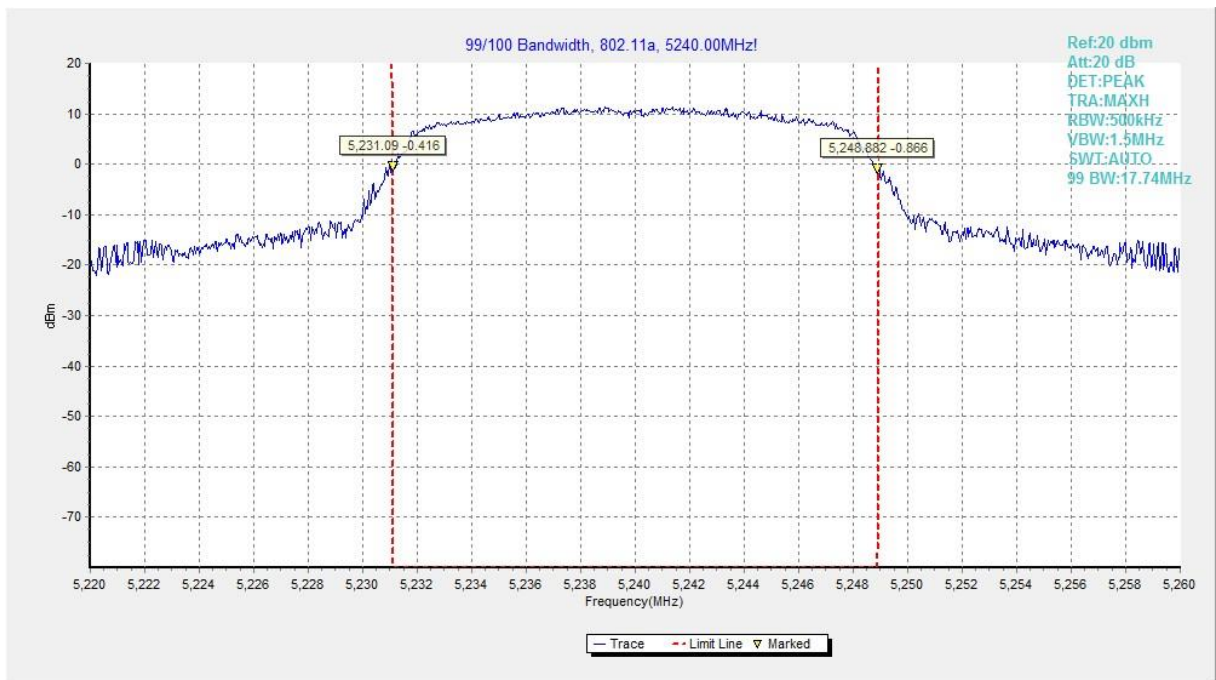


Fig.47 99% Occupied bandwidth (802.11a, 5240MHz)

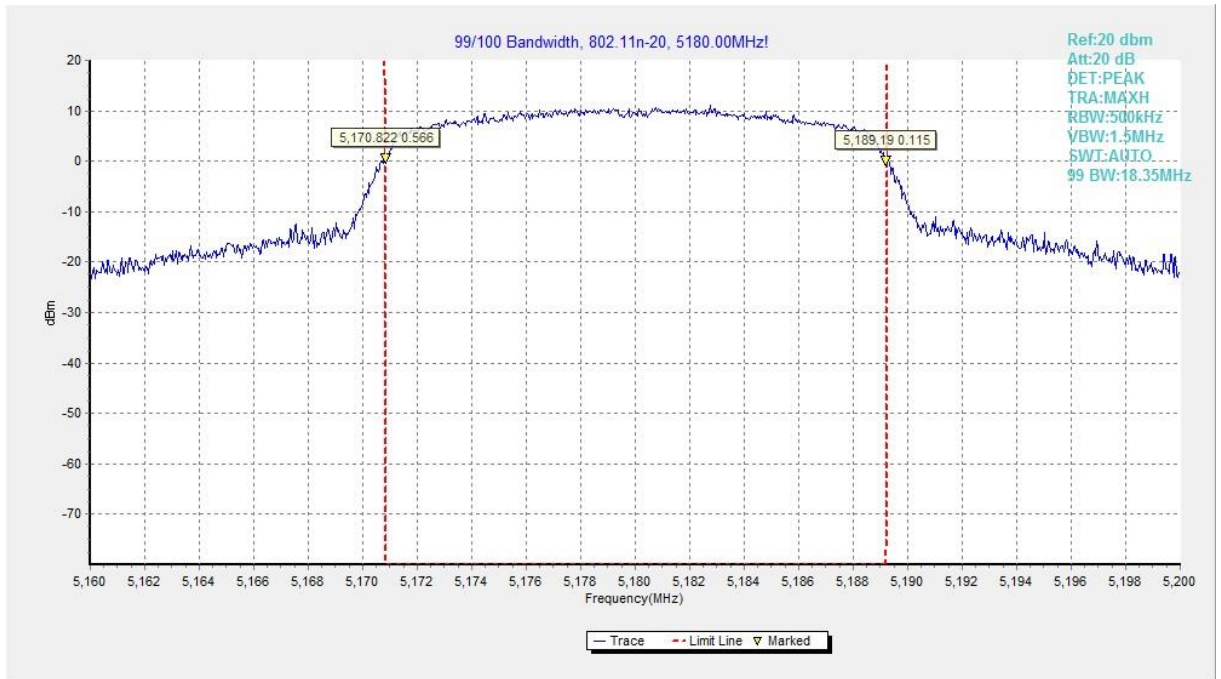


Fig.48 99% Occupied bandwidth (802.11n-HT20, 5180MHz)

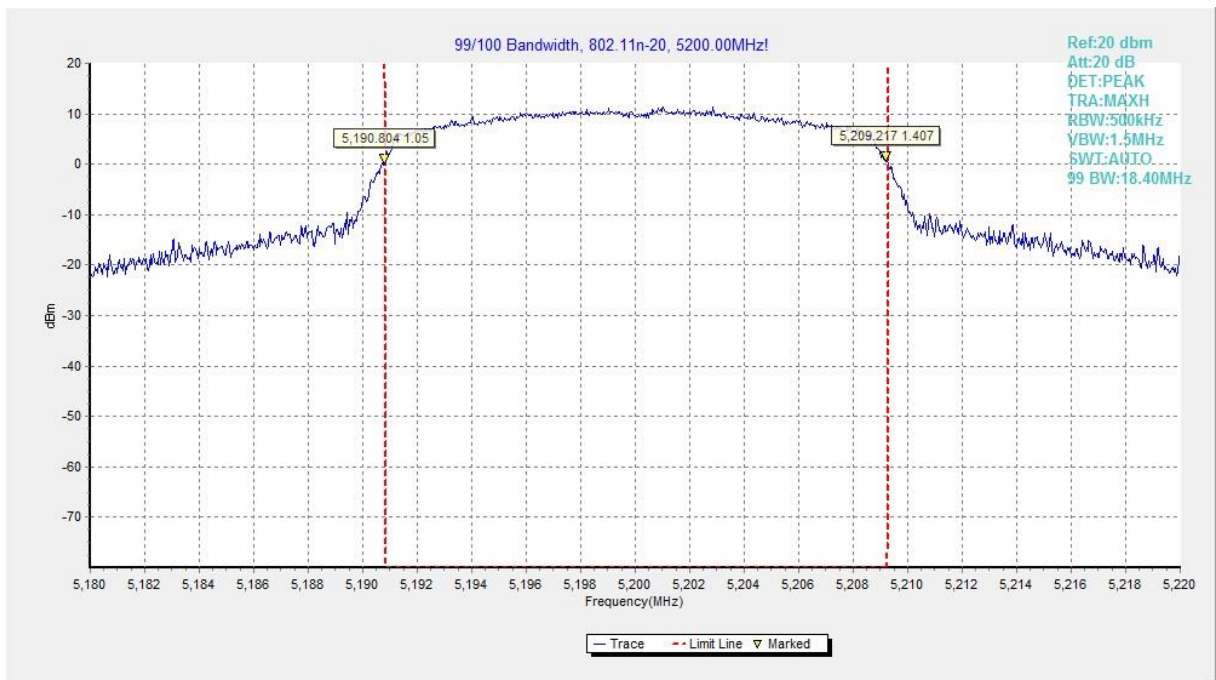


Fig.49 99% Occupied bandwidth (802.11n-HT20, 5200MHz)

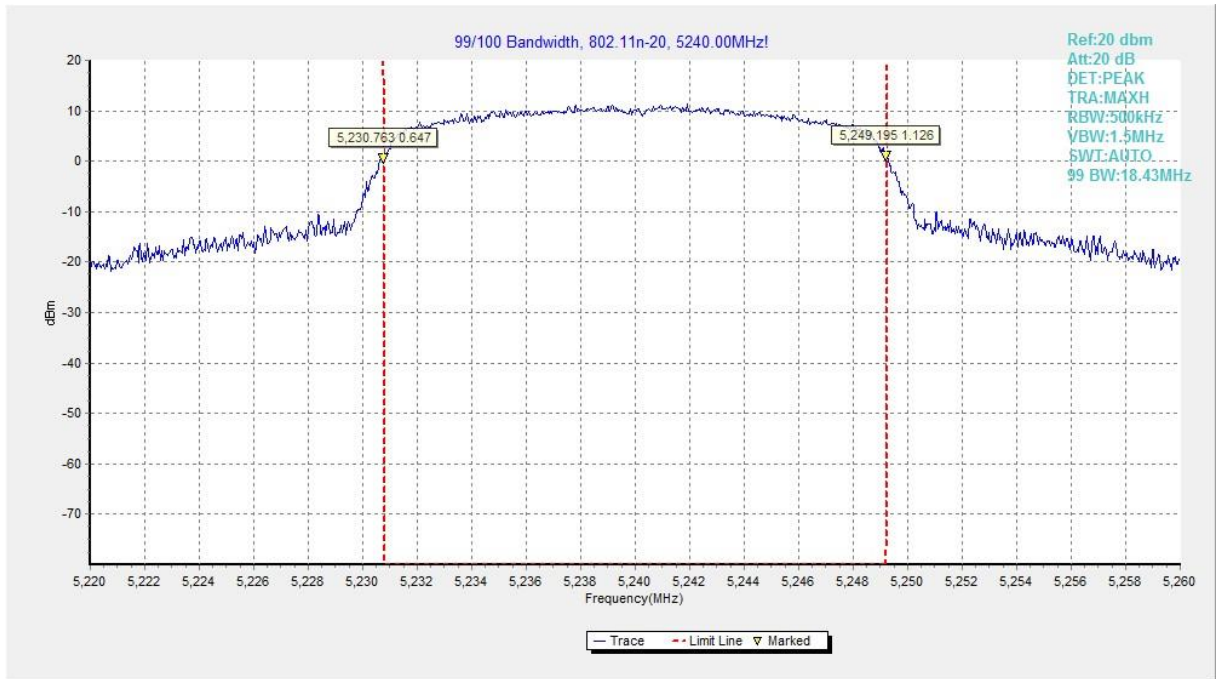


Fig.50 99% Occupied bandwidth (802.11n-HT20, 5240MHz)

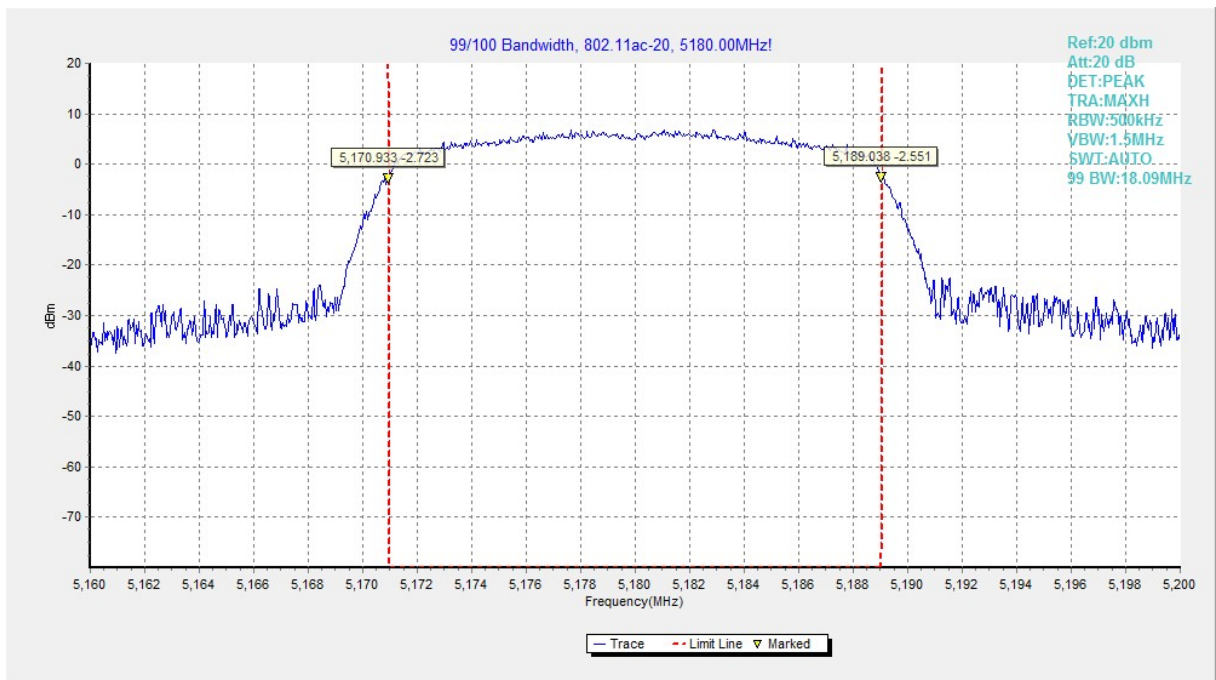


Fig.51 99% Occupied bandwidth (802.11ac-HT20, 5180MHz)