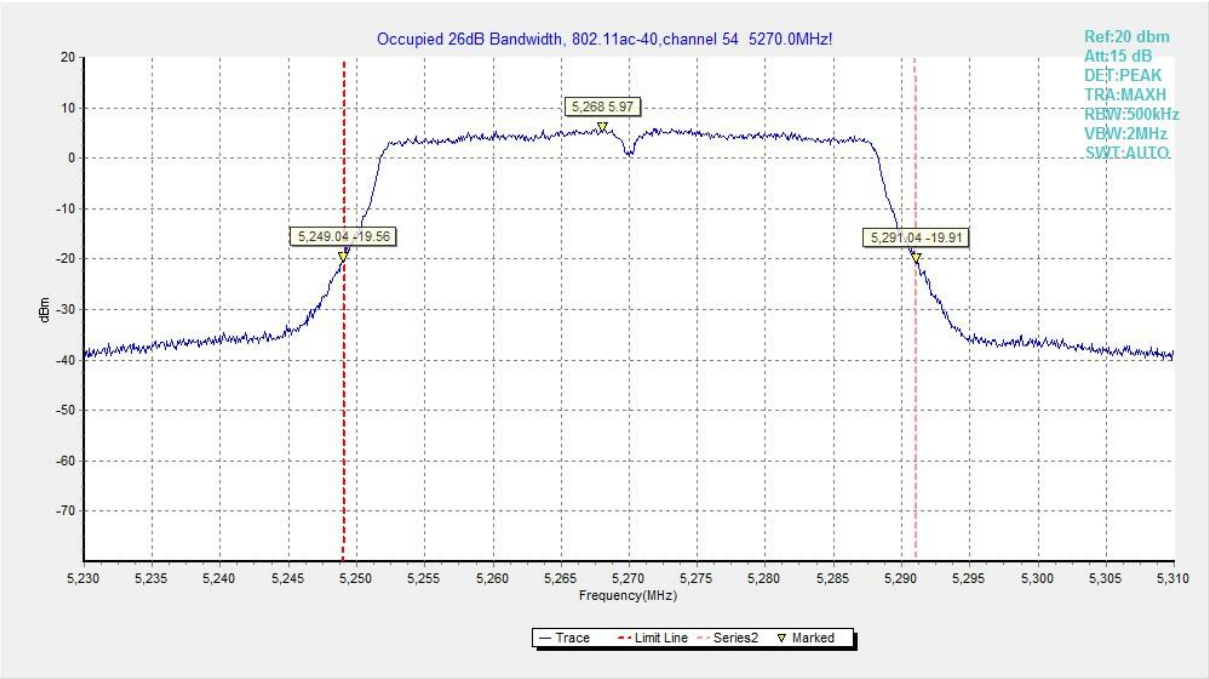

Fig.41 Occupied 26dB Bandwidth (802.11ac-HT40, 5270MHz)

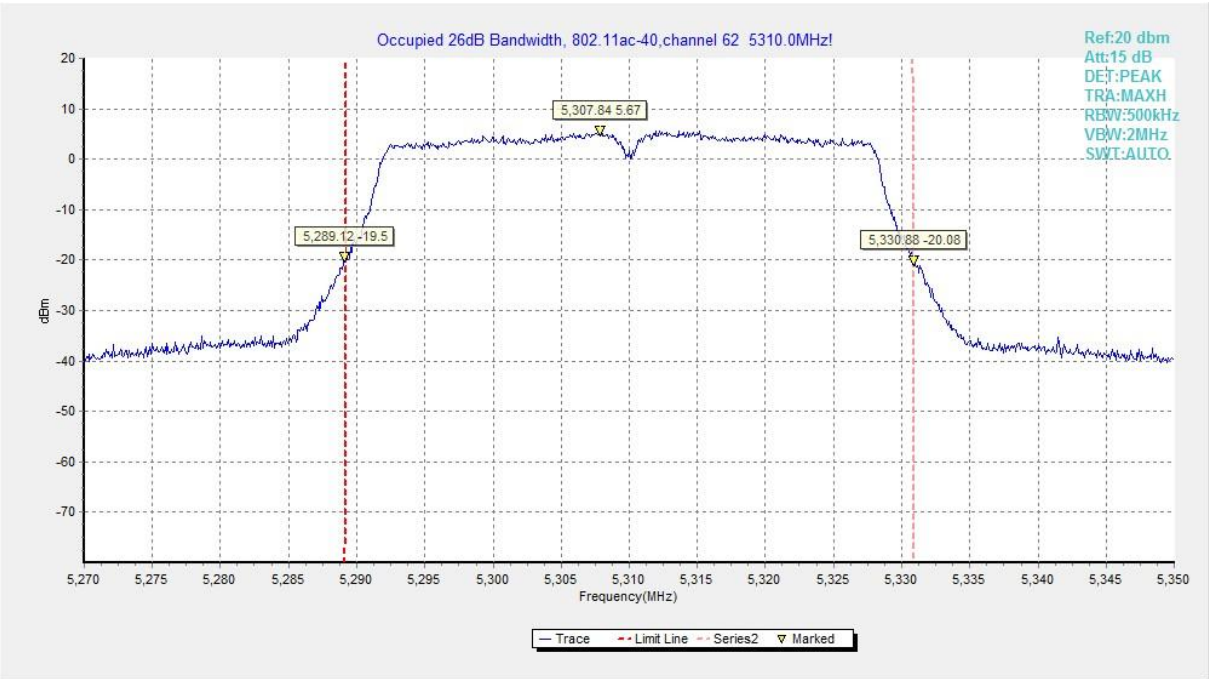

Fig.42 Occupied 26dB Bandwidth (802.11ac-HT40, 5310MHz)

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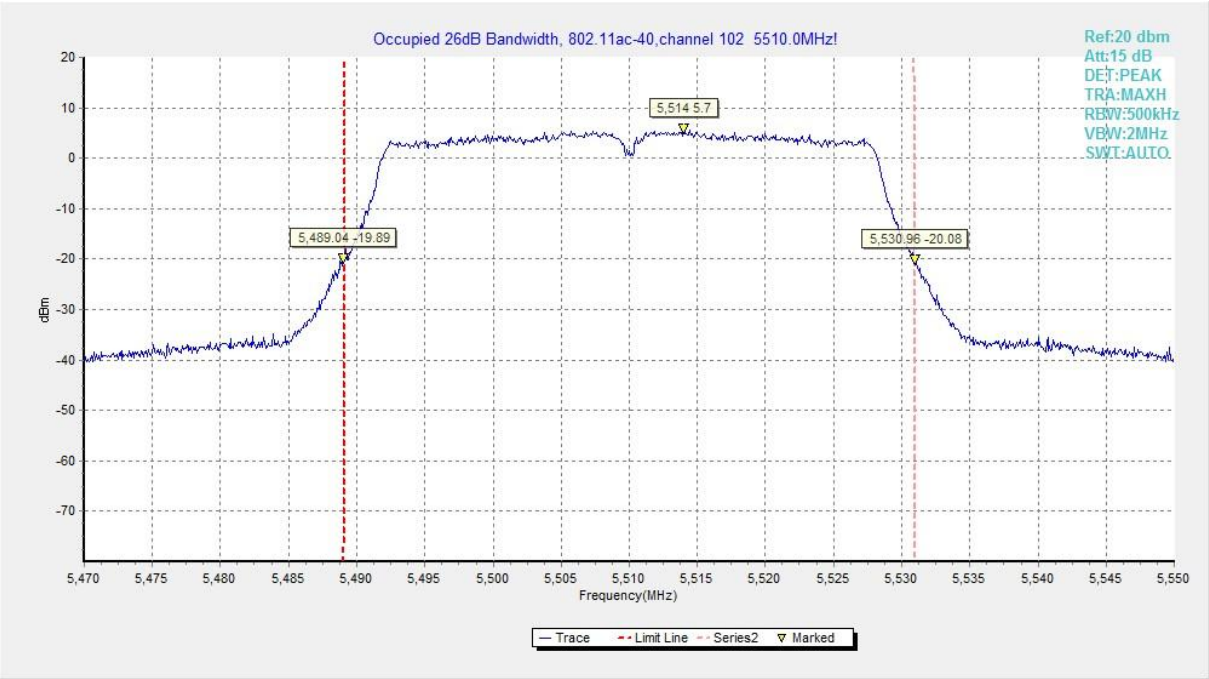

Fig.43 Occupied 26dB Bandwidth (802. 11ac-HT40, 5510MHz)

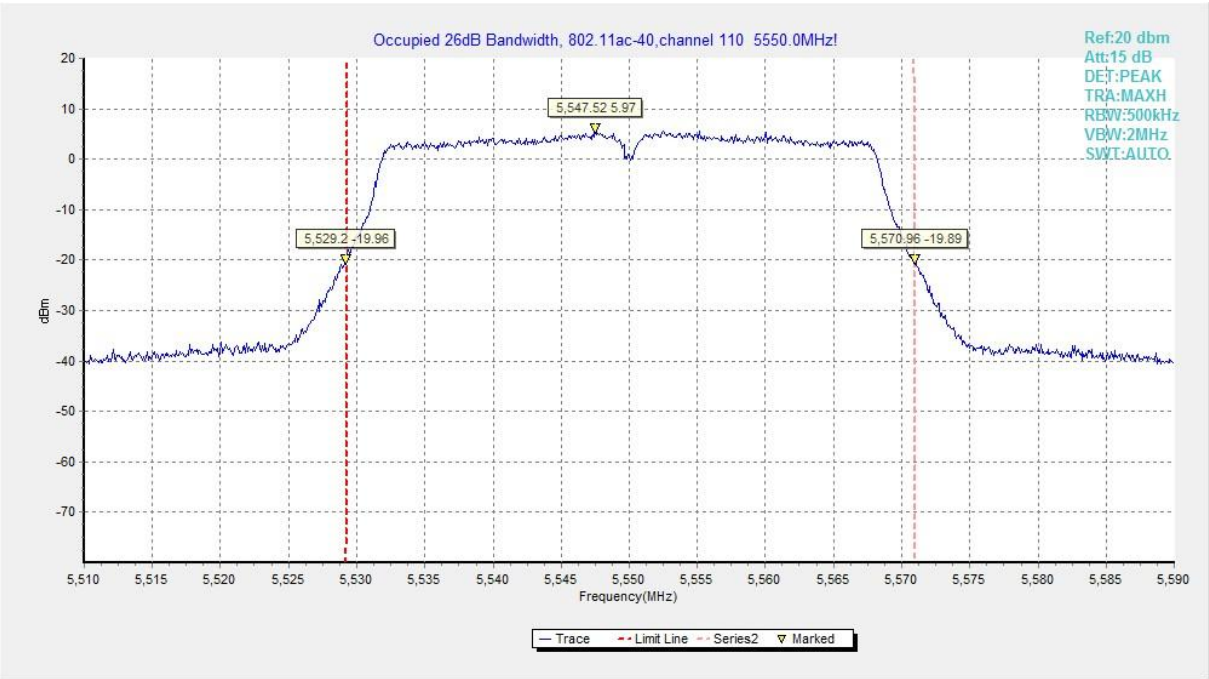

Fig.44 Occupied 26dB Bandwidth (802. 11ac-HT40, 5550MHz)

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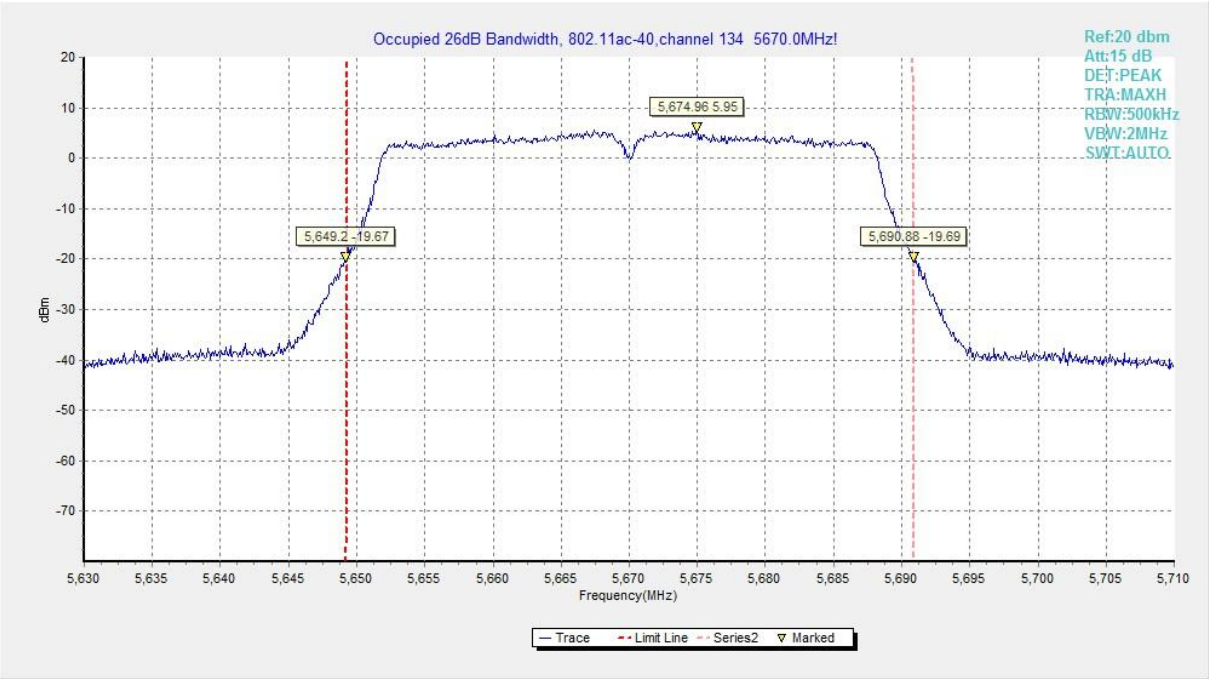

Fig.45 Occupied 26dB Bandwidth (802. 11ac-HT40, 5670MHz)

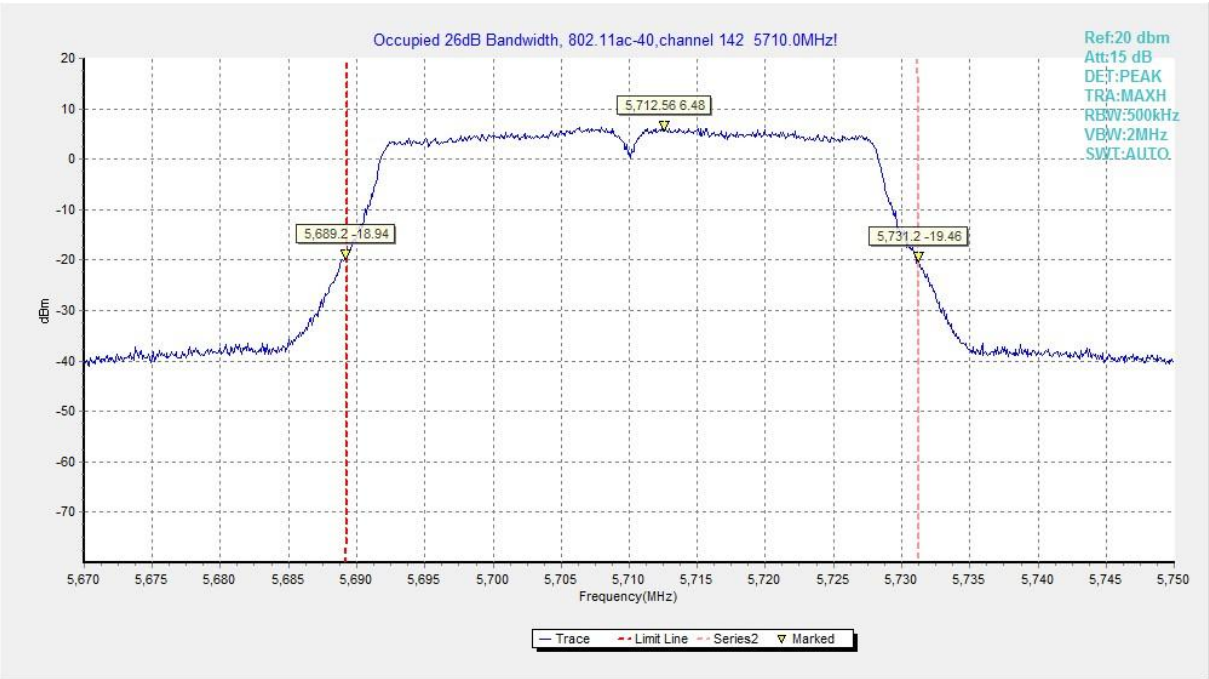

Fig.46 Occupied 26dB Bandwidth (802. 11ac-HT40, 5710MHz)

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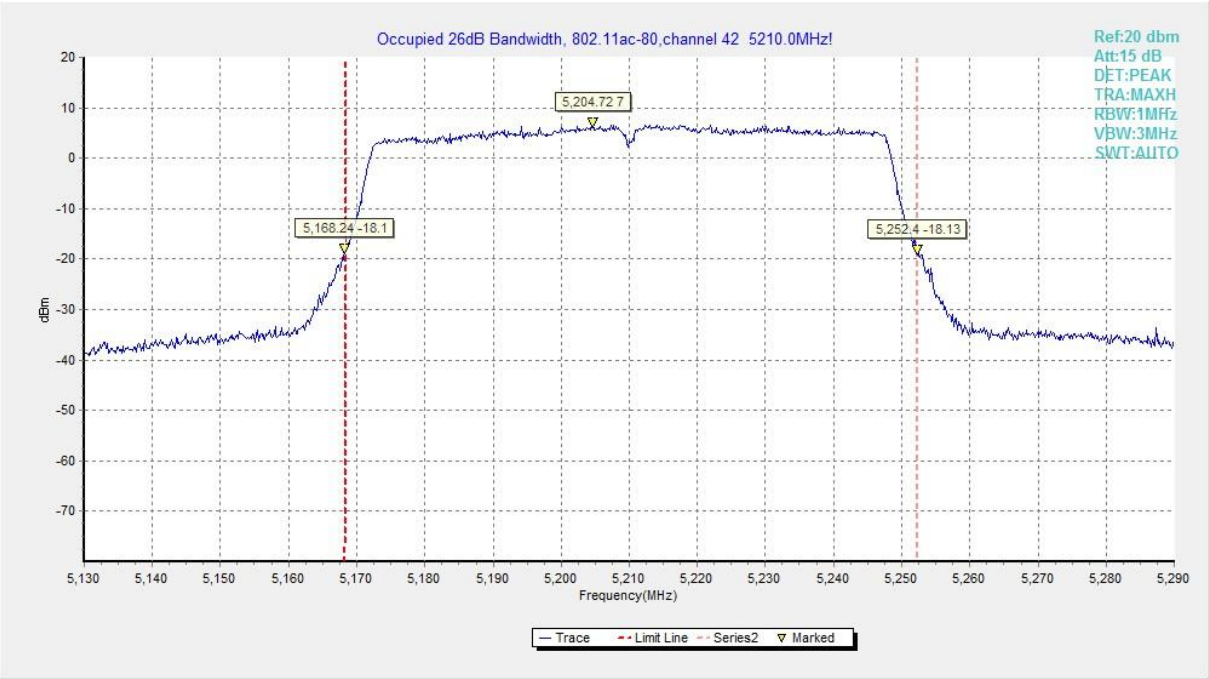

Fig.47 Occupied 26dB Bandwidth (802. 11ac-HT80, 5210MHz)

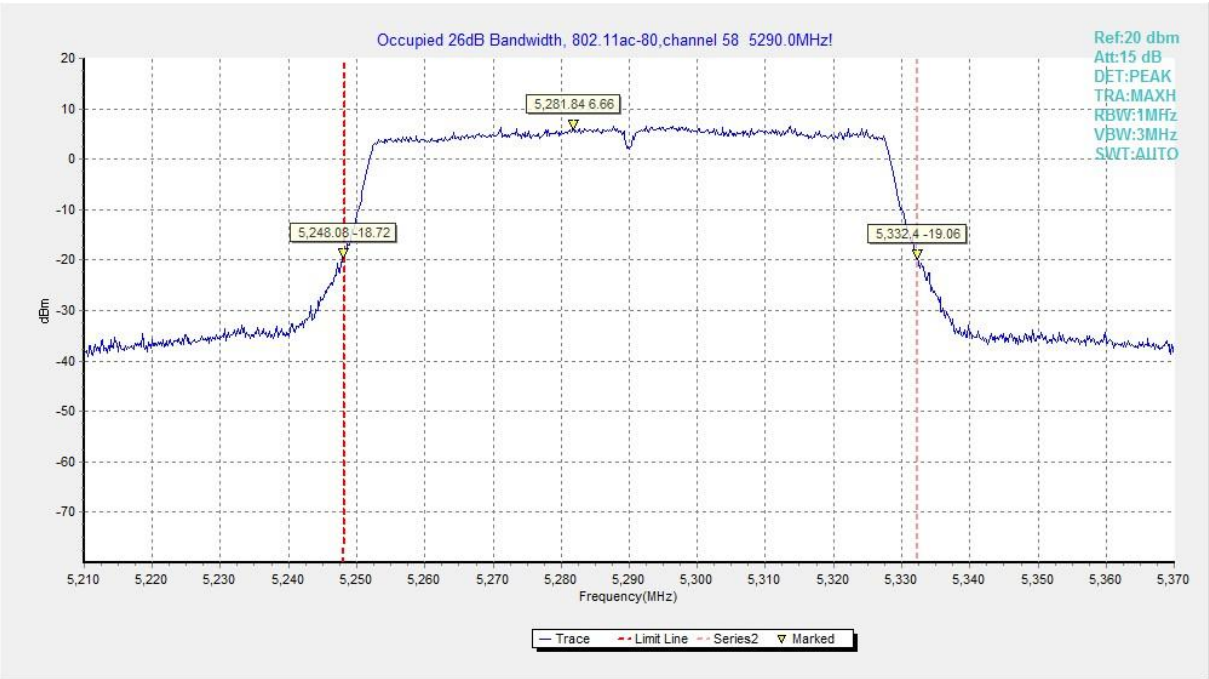

Fig.48 Occupied 26dB Bandwidth (802. 11ac-HT80, 5290MHz)

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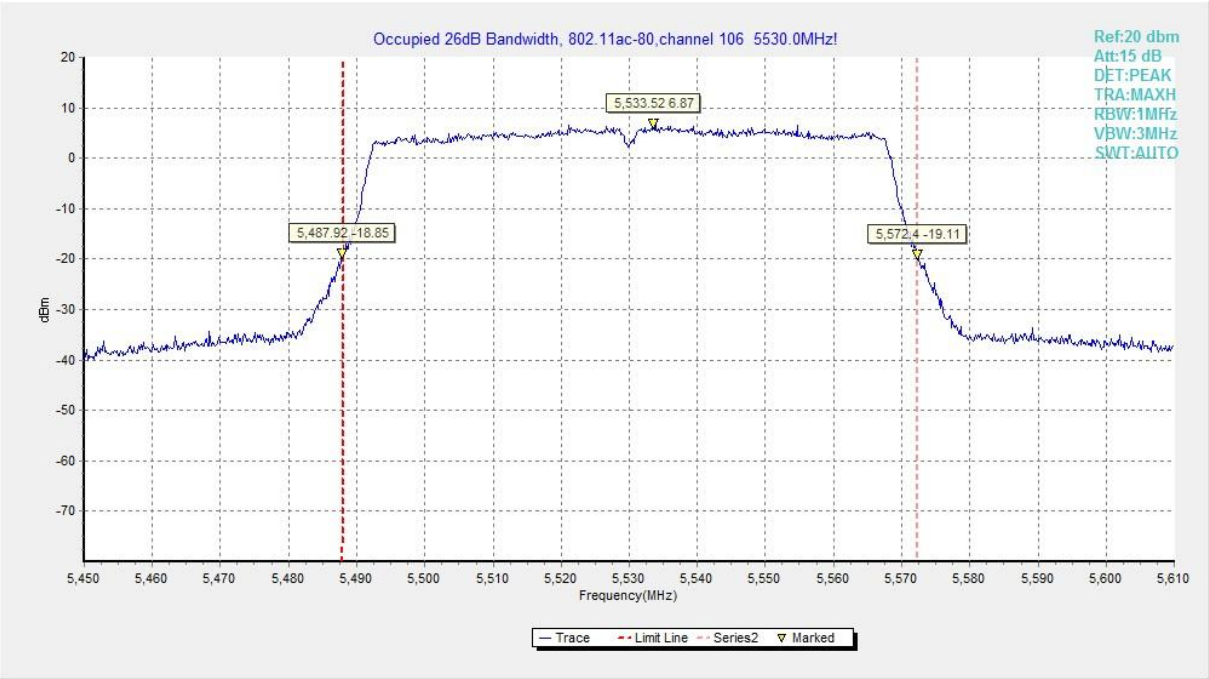

Fig.49 Occupied 26dB Bandwidth (802. 11ac-HT80, 5530MHz)

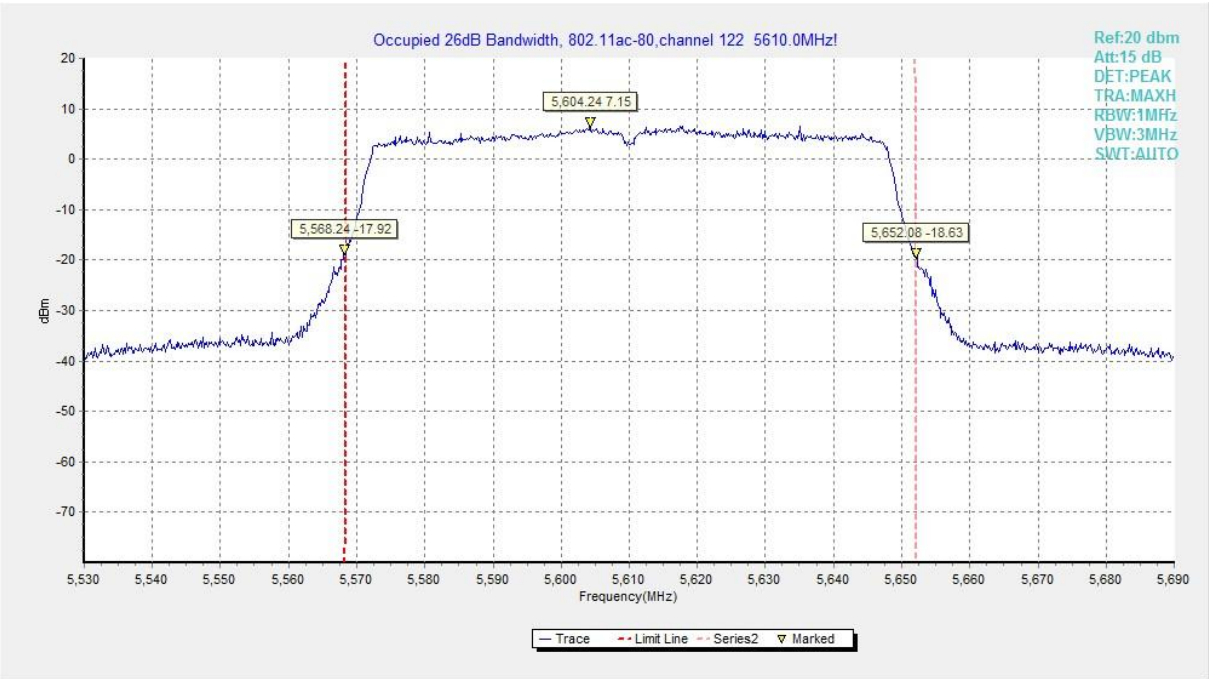

Fig.50 Occupied 26dB Bandwidth (802. 11ac-HT80, 5610MHz)

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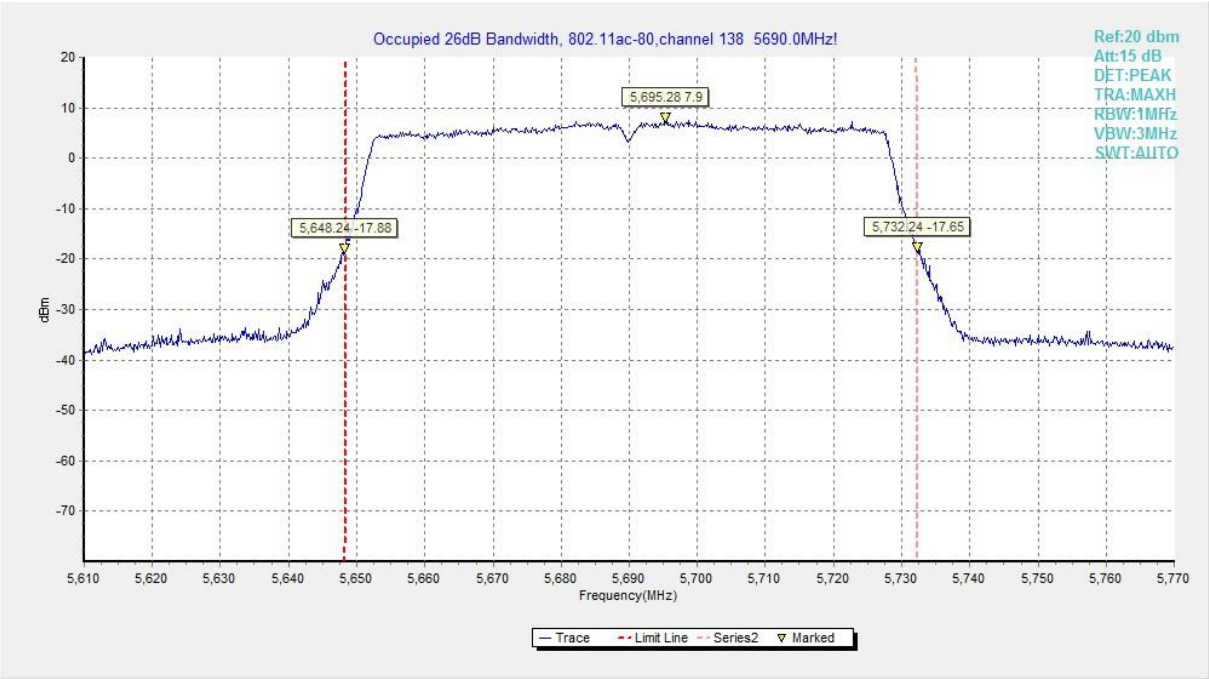

Fig.51 Occupied 26dB Bandwidth (802. 11ac-HT80, 5690MHz)

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B.5. Band Edges Compliance

B.5.1 Band Edges - Radiated

Measurement Limit:

Standard	Limit (dBμ V/m)	
FCC 47 CFR Part 15.209	Peak	74
	Average	54

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 (MHz)	Field strength(μV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Set up:

Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m and the table height shall be 1.5 m.

The EUT and transmitting antenna shall be centered on the turntable.

Test Condition

The EUT shall be tested 1 near top, 1 near middle, and 1 near bottom. Set the unlicensed wireless device to operate in continuous transmit mode. For unlicensed wireless devices unable to be configured for 100% duty cycle even in test mode, configure the system for the maximum duty cycle supported.

When required for unlicensed wireless devices, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

Exploratory radiated emissions measurements

Exploratory radiated measurements shall be performed at the measurement distance or at a closer distance than that specified for compliance to determine the emission characteristics of the EUT and, if applicable, the EUT configuration that produces the maximum level of emissions. The

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frequencies of maximum emission may be determined by manually positioning the antenna close to the EUT, and then moving the antenna over all sides of the EUT while observing a spectral display. It is advantageous to have prior knowledge of the frequencies of emissions, although this may be determined from such a near-field scan. The near-field scan shall only be used to determine the frequency but not the amplitude of the emissions. Where exploratory measurements are not adequate to determine the worst-case operating modes and are used only to identify the frequencies of the highest emissions, additional preliminary tests can be required.
For emissions from the EUT, the maximum level shall be determined by rotating the EUT and its antenna through 0° to 360°. For each mode of operation required to be tested, the frequency spectrum (based on findings from exploratory measurements) shall be monitored.
Broadband antennas and a spectrum analyzer or a radio-noise meter with a panoramic display are often useful in this type of test. If either antenna height or EUT azimuth are not fully measured during exploratory testing, then complete testing can be required at the OATS or semi-anechoic chamber when the final full spectrum testing is performed.

Final radiated emissions measurements

The final measurements are using the orientation and equipment arrangement of the EUT based on the measurement results found during the preliminary (exploratory) measurements, the EUT arrangement, appropriate modulation, and modes of operation that produce the emissions that have the highest amplitude relative to the limit shall be selected for the final measurement.
For emissions from the EUT, the maximum level shall be determined by rotating the EUT and its antenna through 0° to 360°. Final measurements for the EUT require a measurement antenna height scan of 1 m to 4 m and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. For each mode of operation required to be tested, the frequency spectrum (based on findings from exploratory measurements) shall be monitored.
For each mode selected, record the frequency and amplitude of the highest fundamental emission (if applicable), as well as the frequency and amplitude of the six highest spurious emissions relative to the limit. Emissions more than 20 dB below the limit do not need to be reported.
This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The receiver references:

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

EUT ID: EUT1(69a)

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Measurement Result:

Mode	Frequency	Test Results	Conclusion
802.11a	5180 MHz	Fig.52	P
	5320 MHz	Fig.53	P
	5500 MHz	Fig.54	P
	5700 MHz	Fig.55	P
802.11n HT20	5180 MHz	Fig.56	P
	5320 MHz	Fig.57	P
	5500 MHz	Fig.58	P
	5700 MHz	Fig.59	P
802.11ac HT20	5180 MHz	Fig.60	P
	5320 MHz	Fig.61	P
	5500 MHz	Fig.62	P
	5700 MHz	Fig.63	P
802.11n HT40	5190 MHz	Fig.64	P
	5310 MHz	Fig.65	P
	5510 MHz	Fig.66	P
	5670 MHz	Fig.67	P
802.11ac HT40	5190 MHz	Fig.68	P
	5310 MHz	Fig.69	P
	5510 MHz	Fig.70	P
	5670 MHz	Fig.71	P
802.11ac HT80	5210MHz	Fig.72	P
	5290MHz	Fig.73	P
	5530MHz	Fig.74	P

Conclusion: PASS

Test graphs as below:

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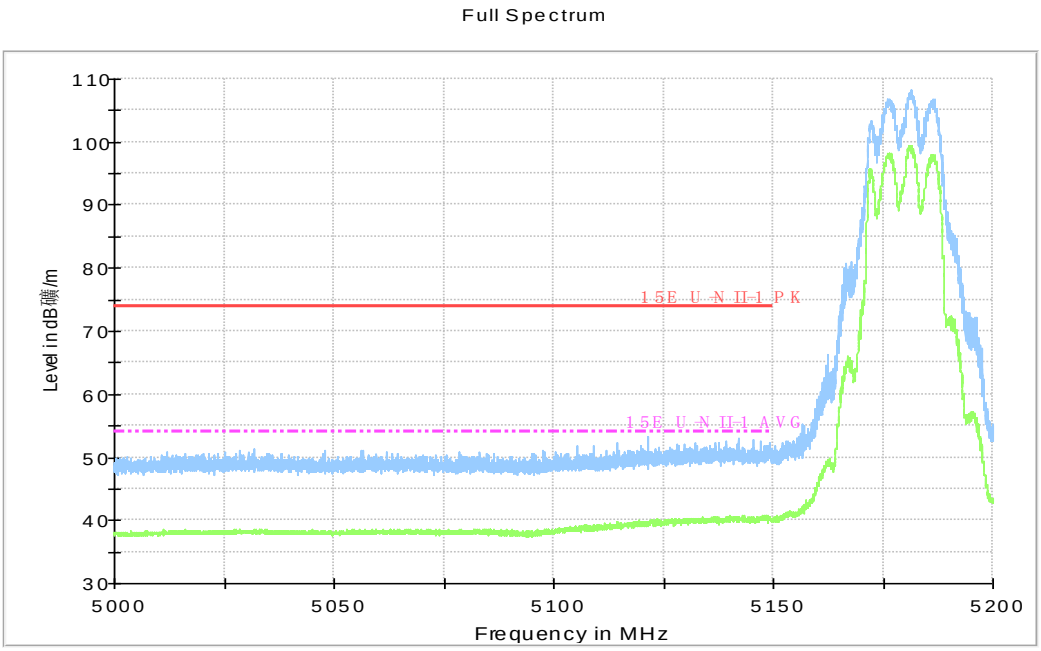

Fig.52 Band Edges (802.11a, 5180MHz)

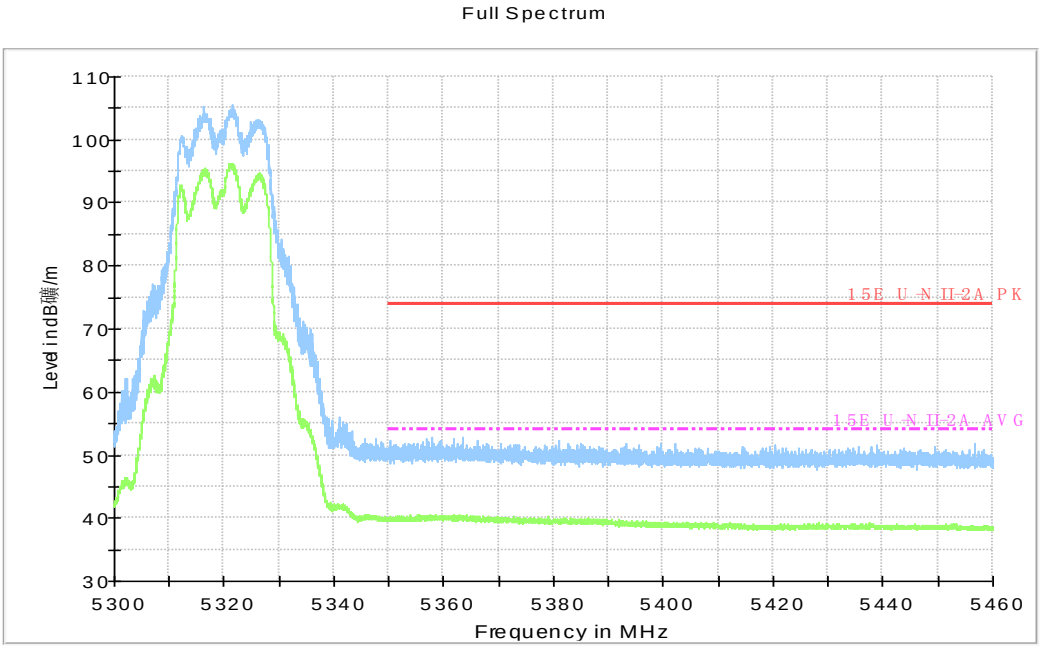

Fig.53 Band Edges (802.11a, 5320MHz)

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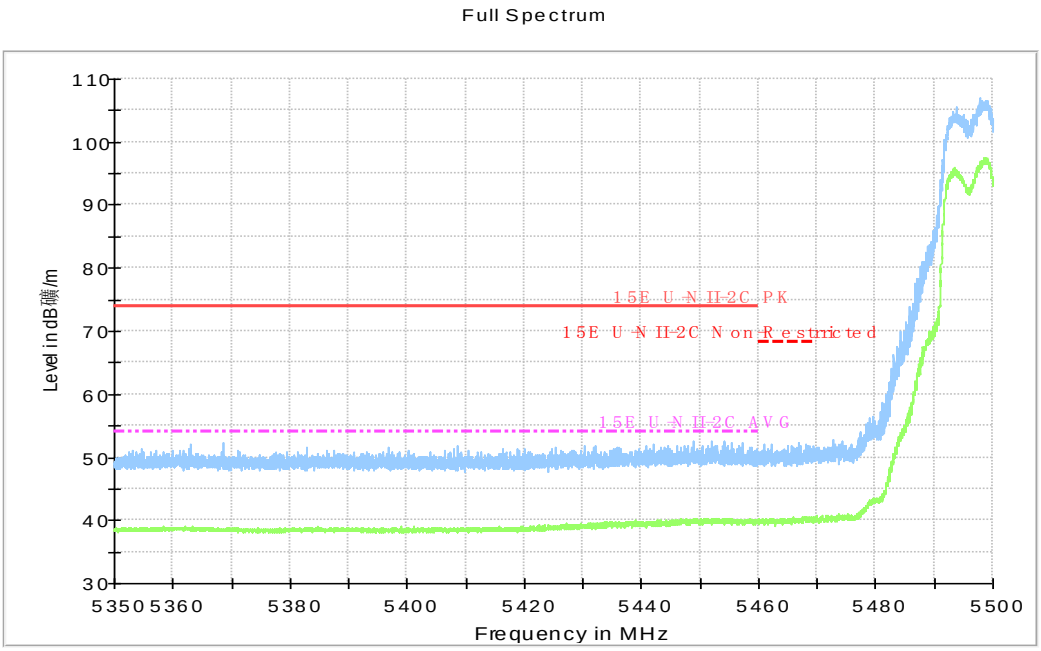

Fig.54 Band Edges (802.11a, 5500MHz)

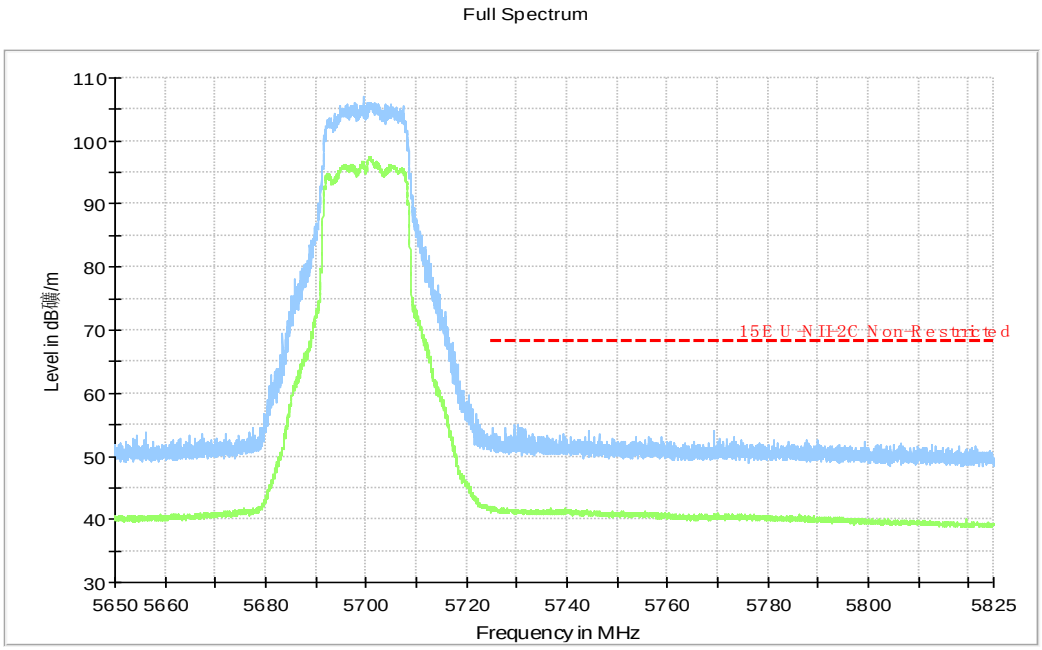

Fig.55 Band Edges (802.11a, 5700MHz)

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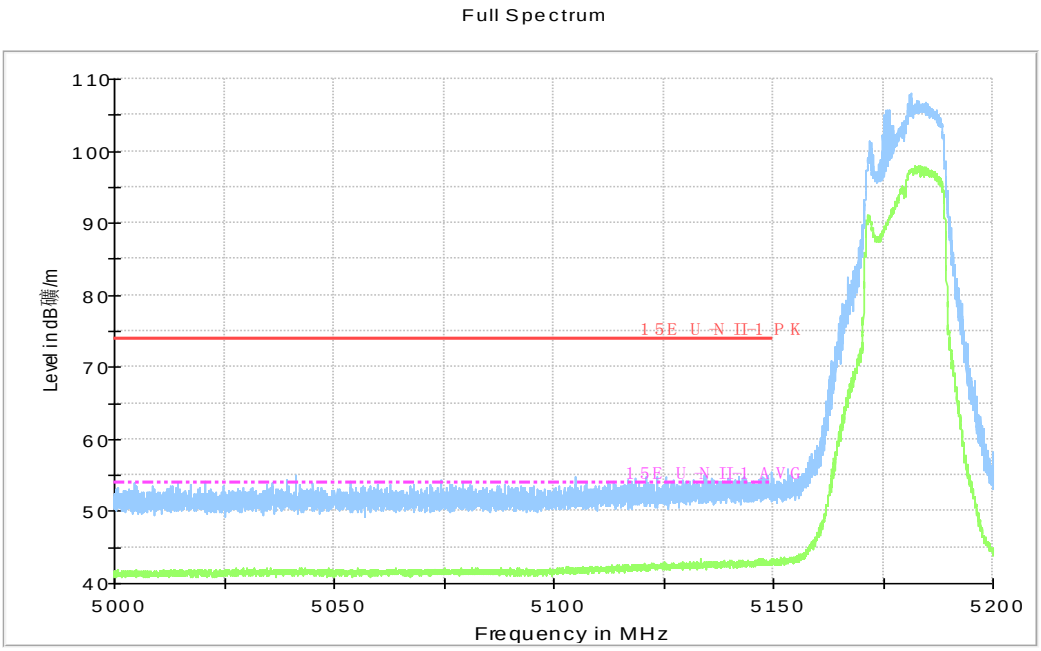

Fig.56 Band Edges (802.11n-HT20, 5180MHz)

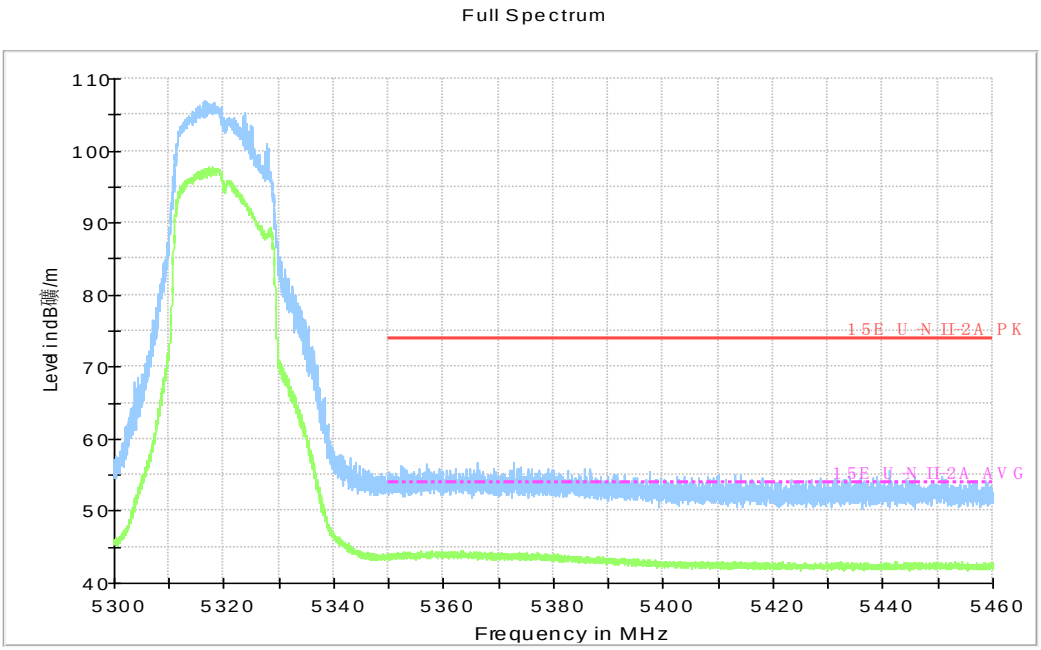

Fig.57 Band Edges (802.11n-HT20, 5320MHz)

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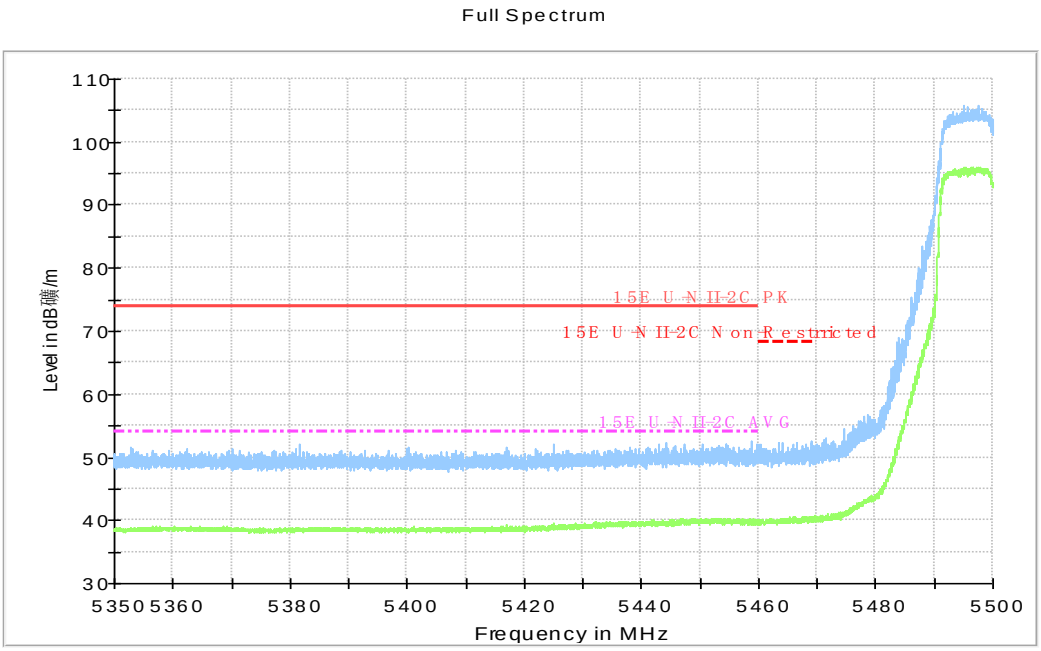

Fig.58 Band Edges (802.11n-HT20, 5500MHz)

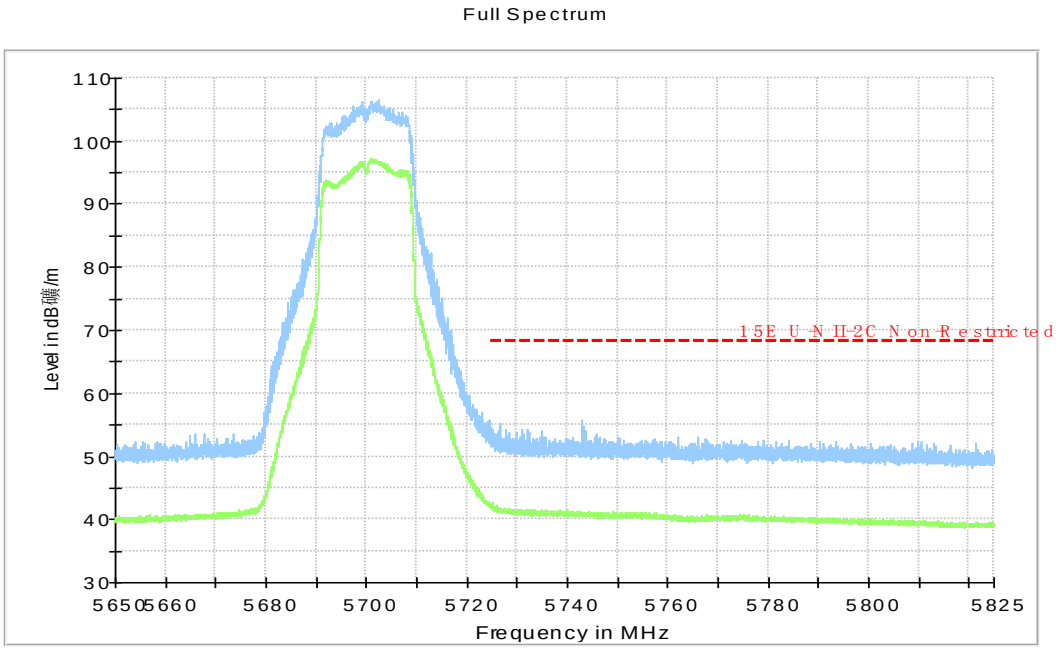

Fig.59 Band Edges (802.11n-HT20, 5700MHz)

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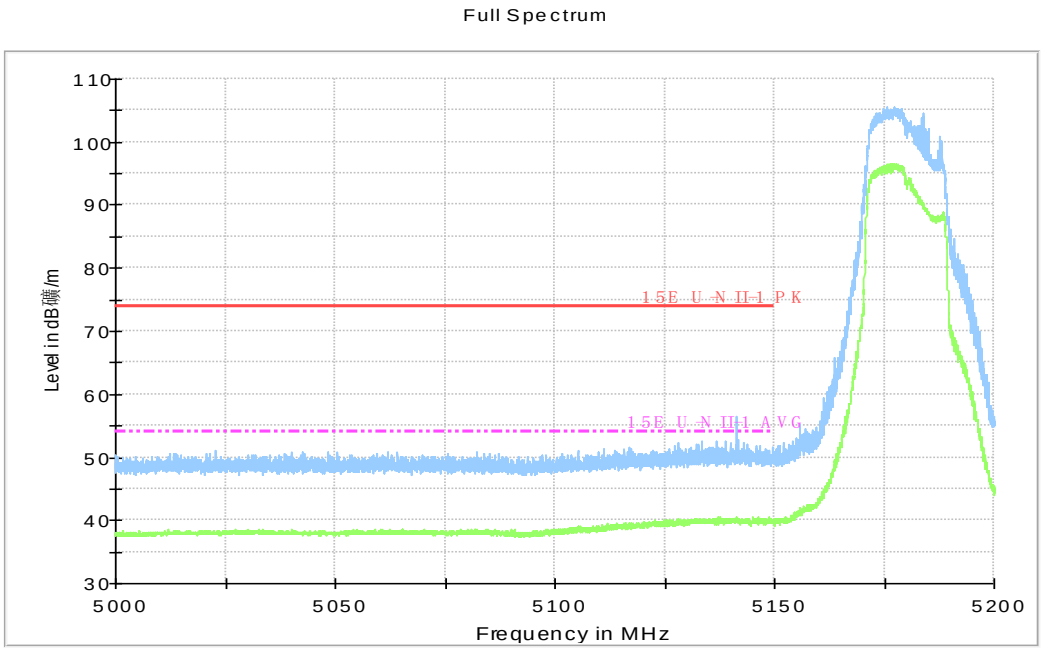

Fig.60 Band Edges (802.11ac-HT20, 5180MHz)

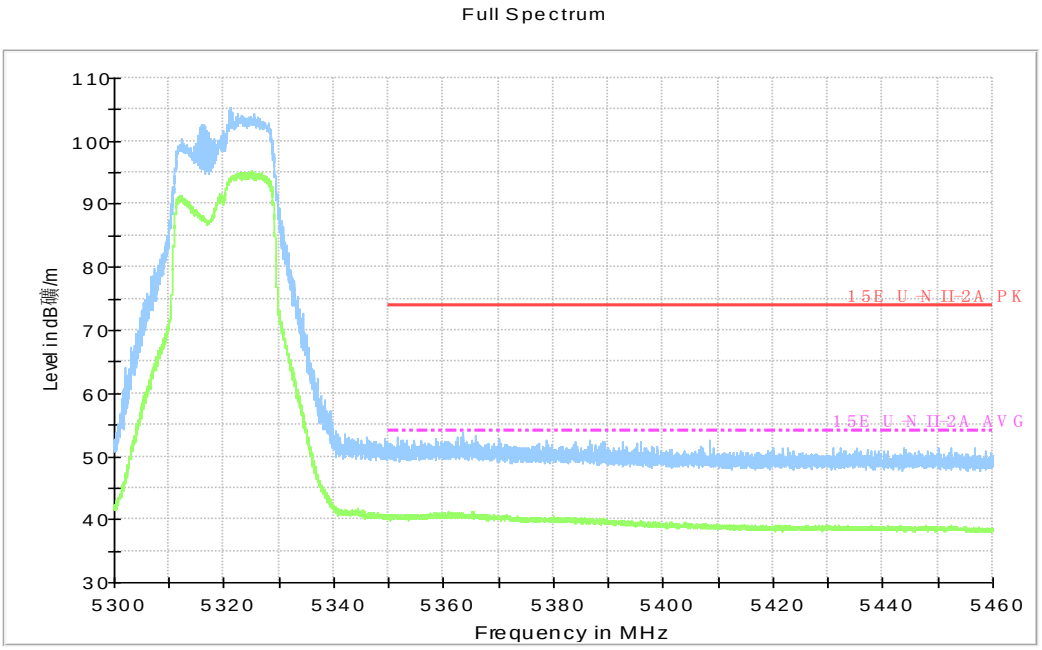

Fig.61 Band Edges (802.11ac-HT20, 5320MHz)

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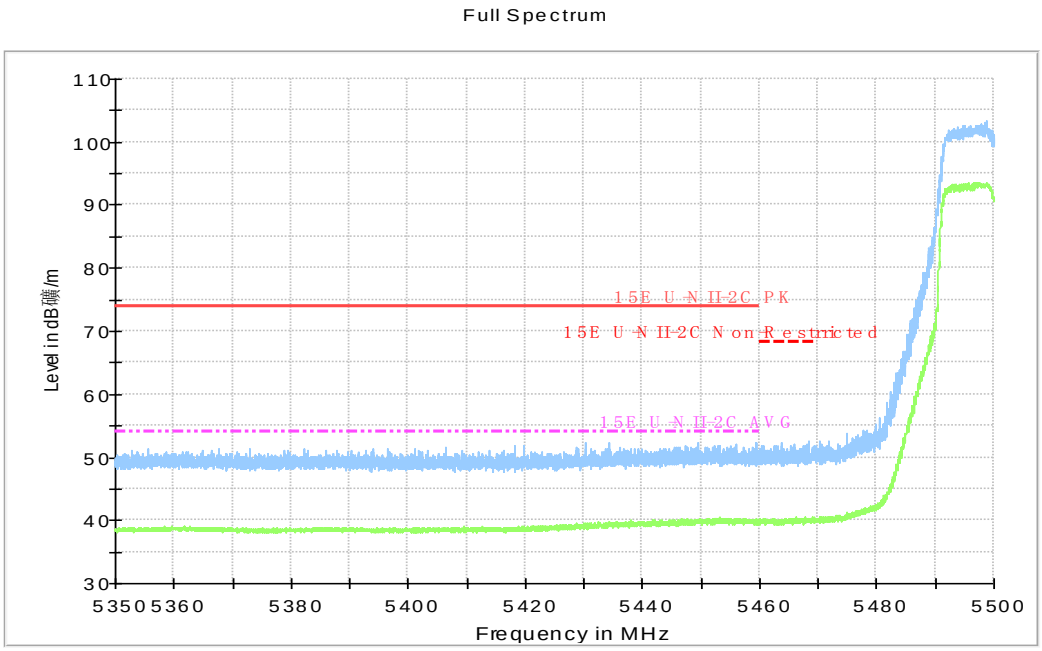

Fig.62 Band Edges (802.11ac-HT20, 5500MHz)

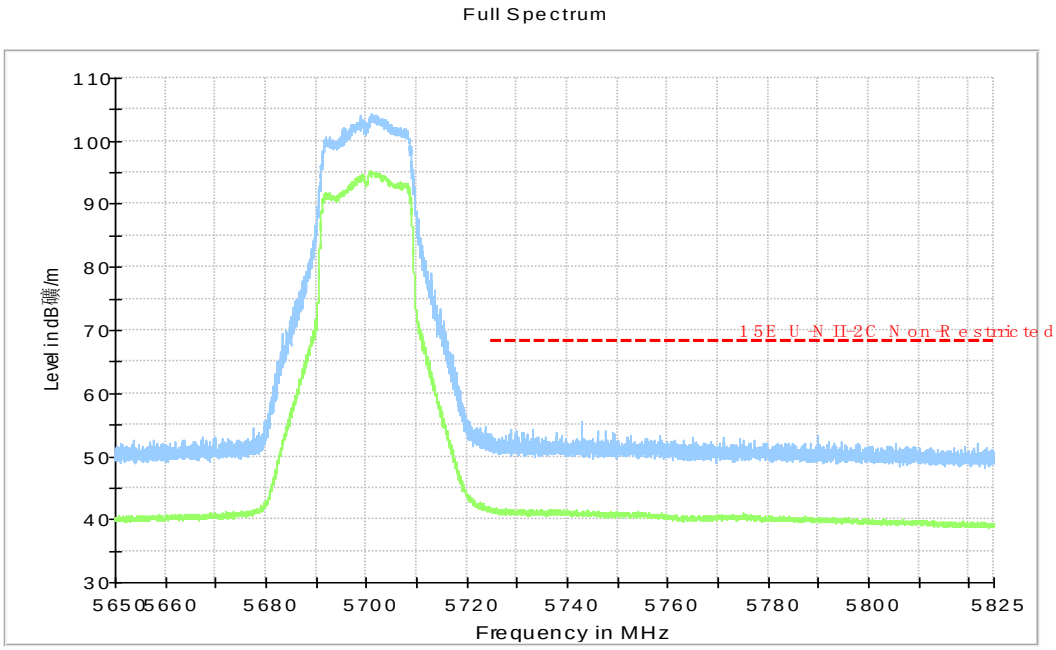

Fig.63 Band Edges (802.11ac-HT20, 5700MHz)

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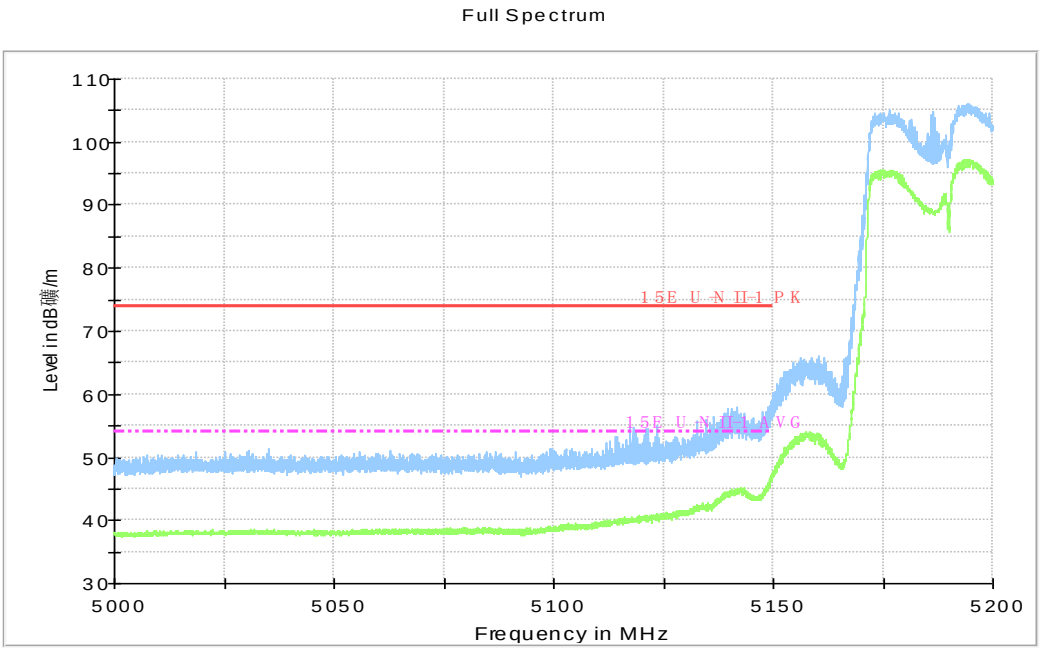

Fig.64 Band Edges (802.11n-HT40, 5190MHz)

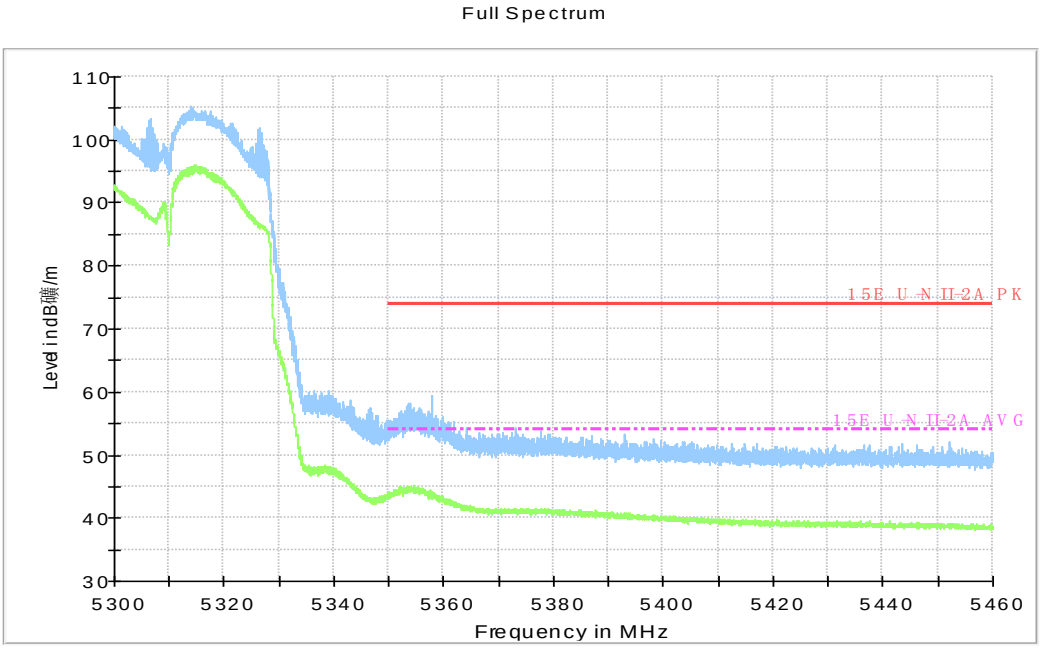

Fig.65 Band Edges (802.11n-HT40, 5310MHz)

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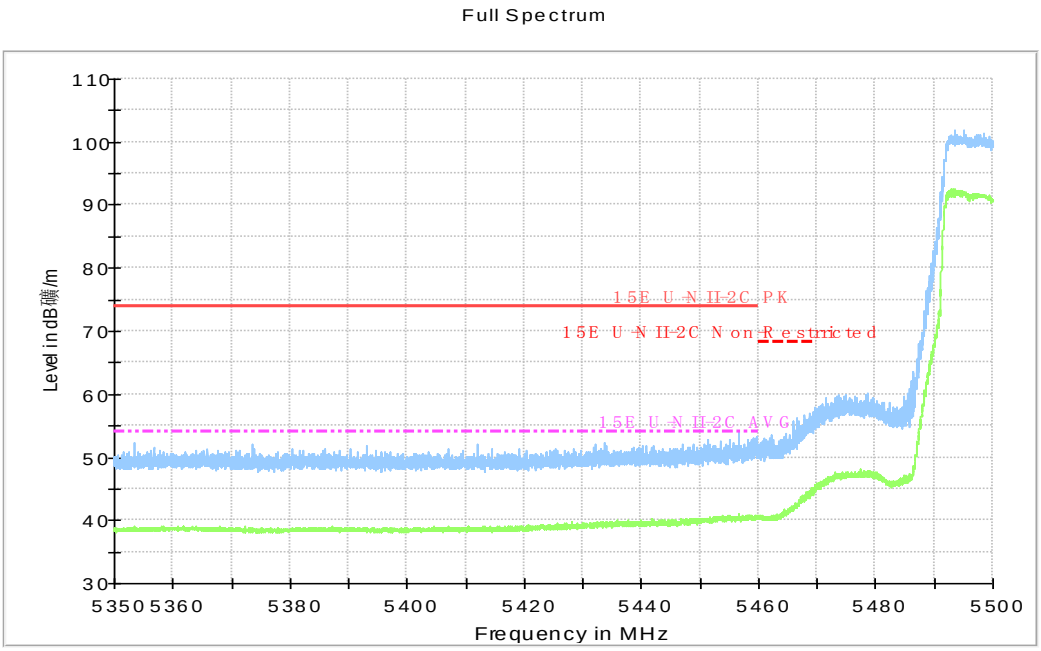

Fig.66 Band Edges (802.11n-HT40, 5510MHz)

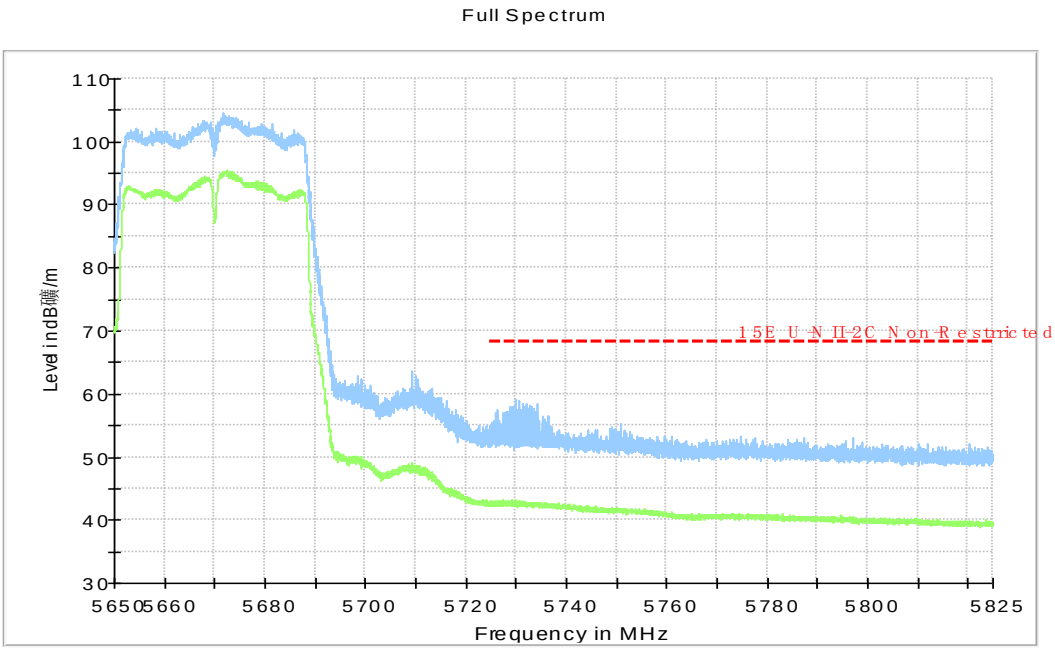

Fig.67 Band Edges (802.11n-HT40, 5670MHz)

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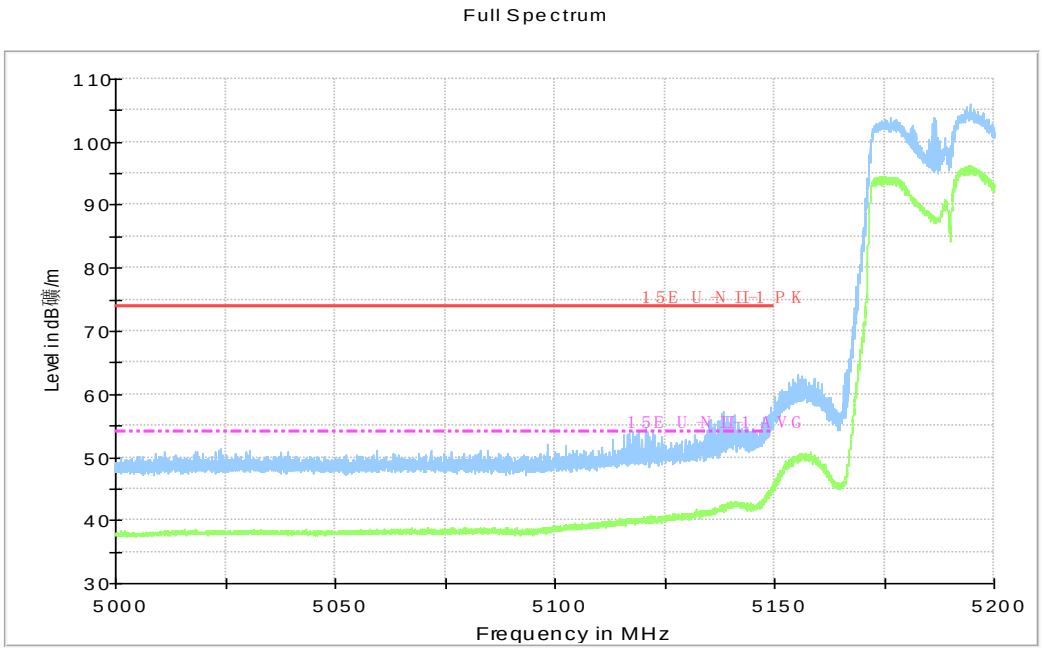

Fig.68 Band Edges (802.11ac-HT40, 5190MHz)

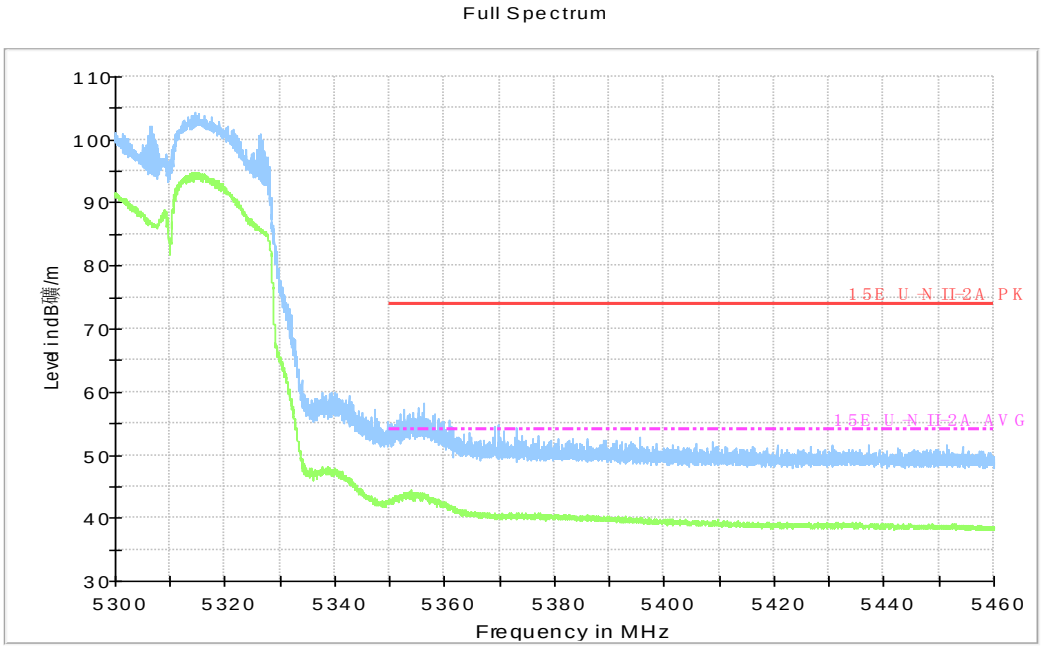

Fig.69 Band Edges (802.11ac-HT40, 5310MHz)

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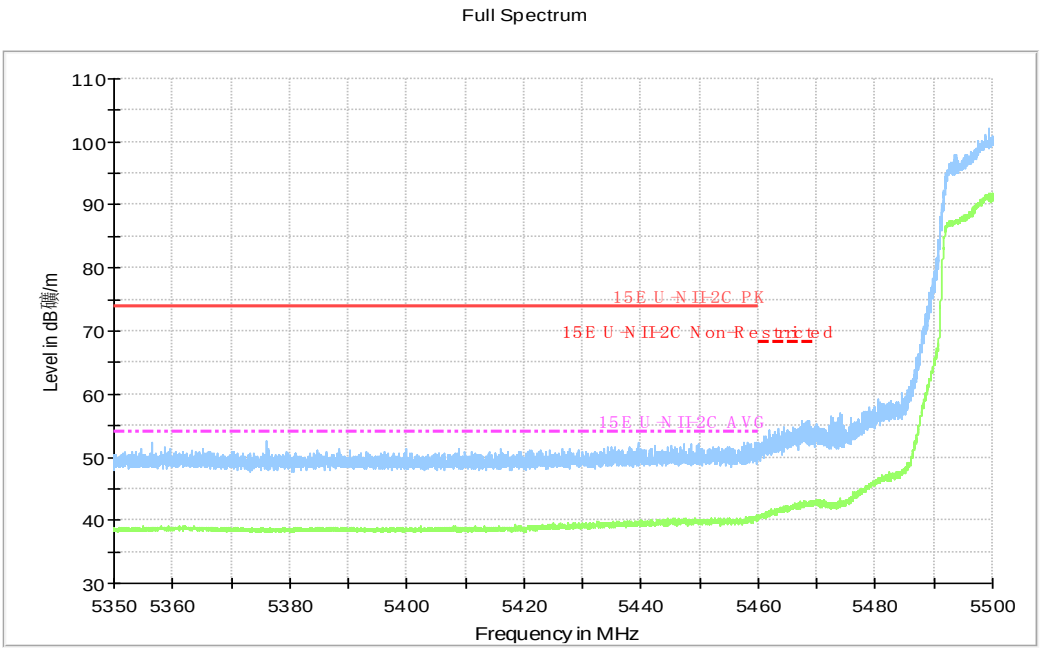

Fig.70 Band Edges (802.11ac-HT40, 5510MHz)

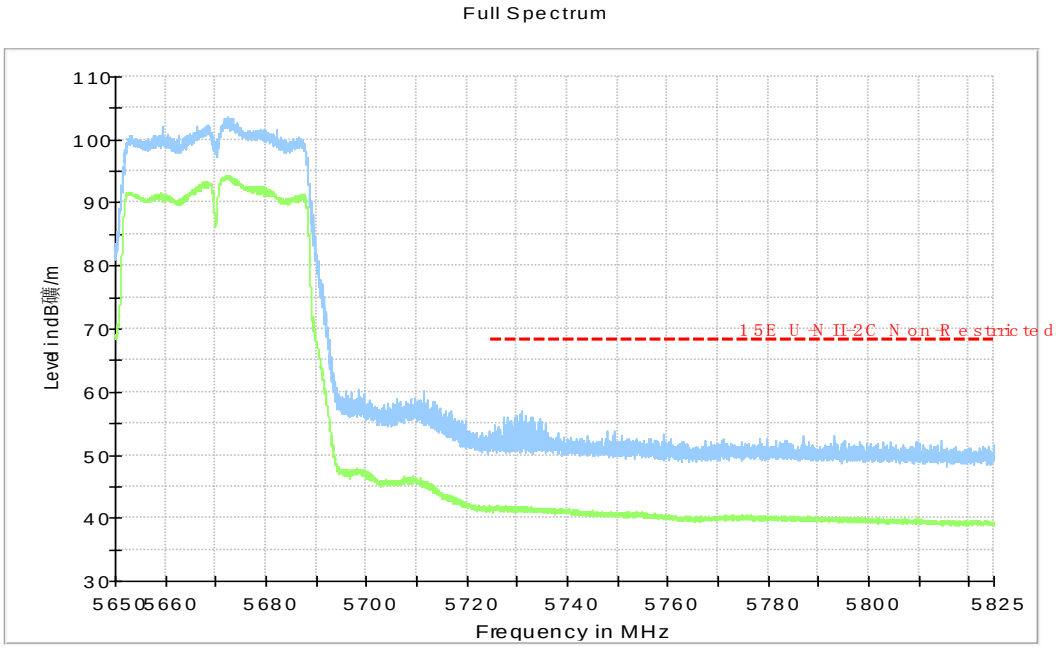

Fig.71 Band Edges (802.11ac-HT40, 5670MHz)

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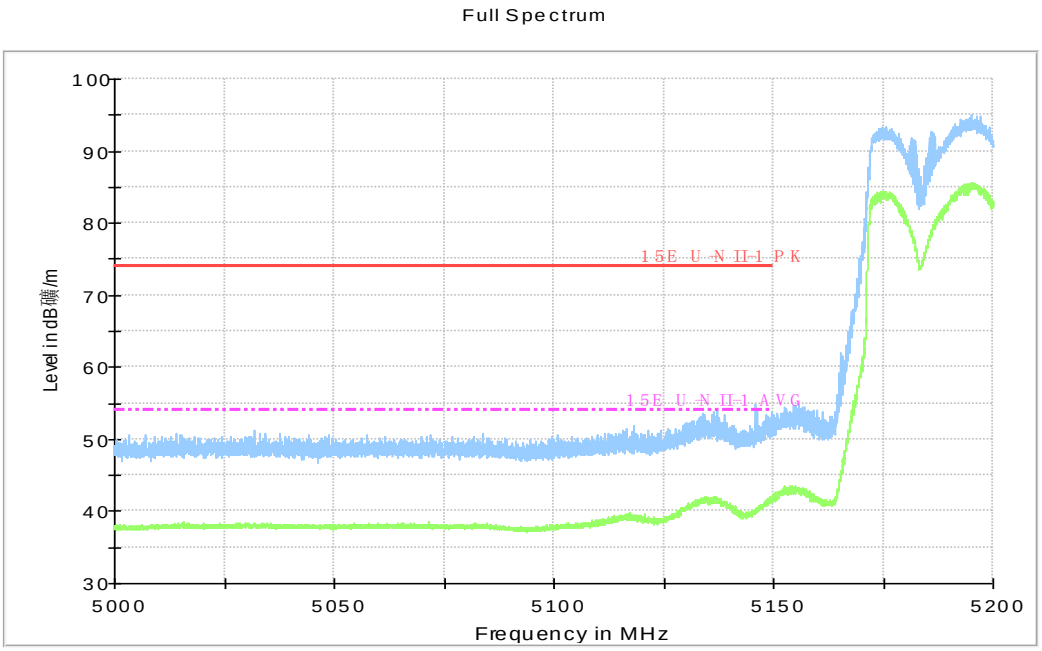

Fig.72 Band Edges (802.11ac-HT80, 5210MHz)

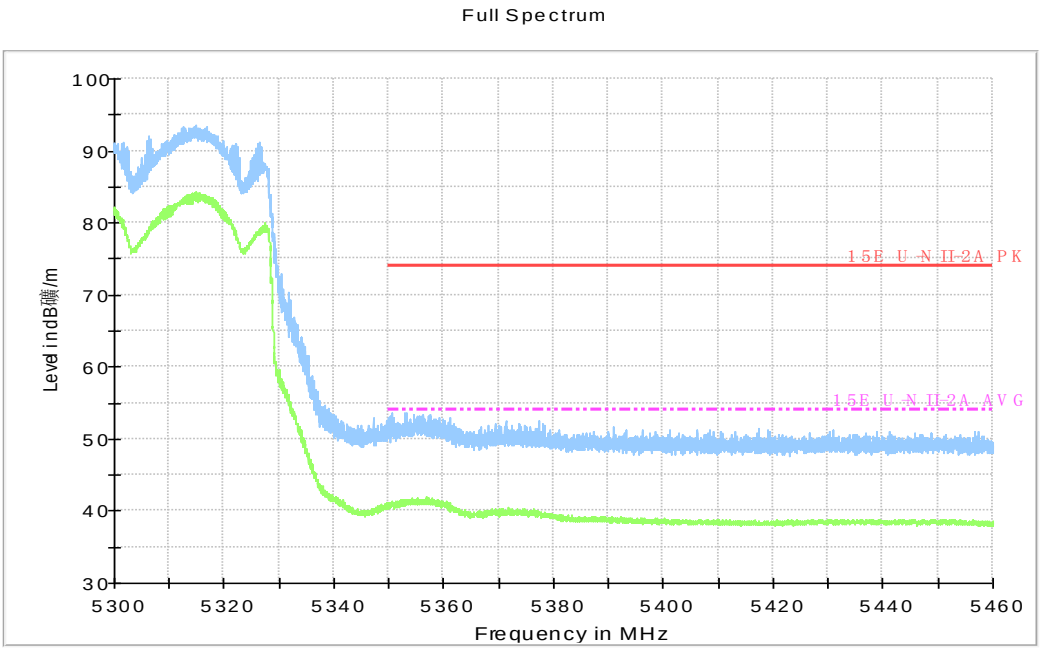

Fig.73 Band Edges (802.11ac-HT80, 5290MHz)

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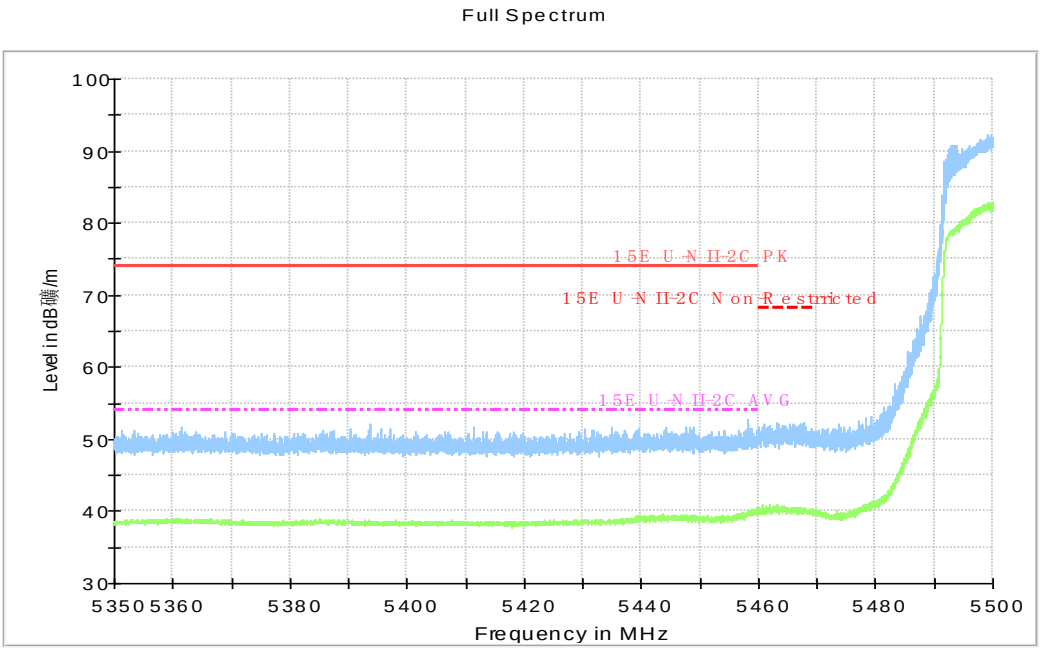

Fig.74 Band Edges (802.11ac-HT80, 5530MHz)

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B.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(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Frequency (MHz)	Field strength(μV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Set up:

Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m. For emissions testing at or below 1 GHz, the table height shall be 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m

The EUT and transmitting antenna shall be centered on the turntable.

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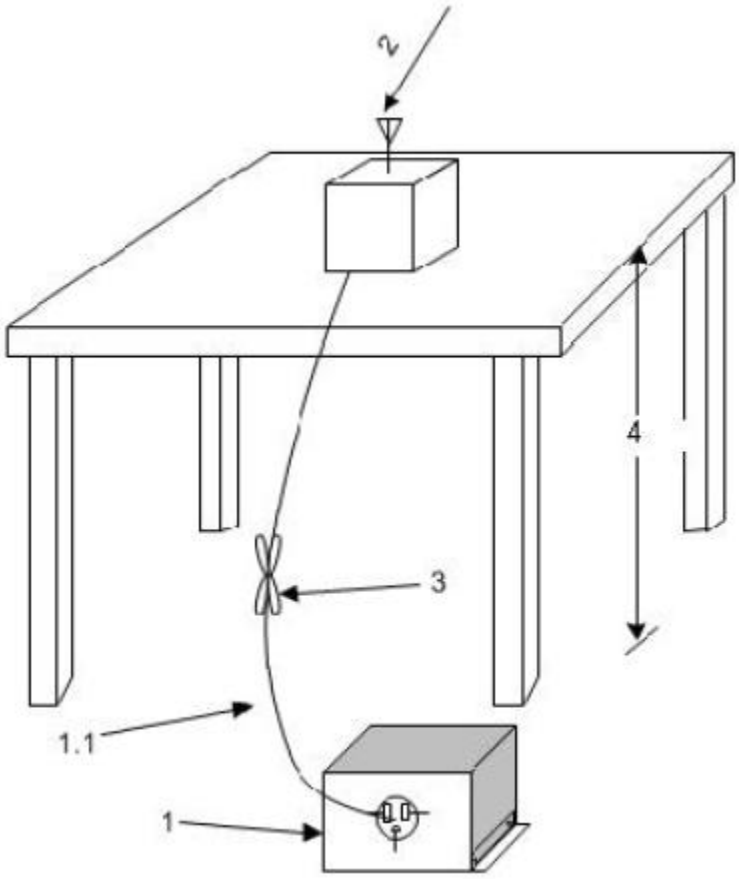

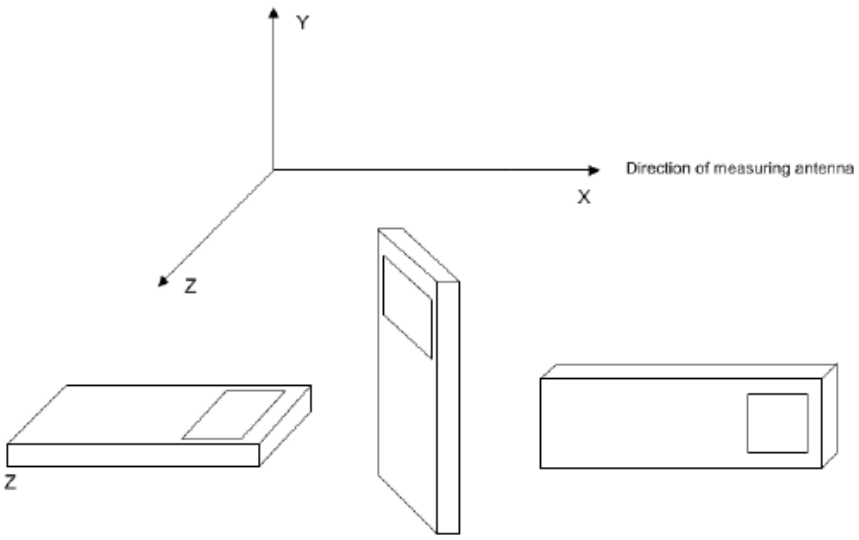

Test Condition

The EUT shall be tested 1 near top, 1 near middle, and 1 near bottom. Set the unlicensed wireless device to operate in continuous transmit mode. For unlicensed wireless devices unable to be configured for 100% duty cycle even in test mode, configure the system for the maximum duty cycle supported.

When required for unlicensed wireless devices, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as

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appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

Exploratory radiated emissions measurements

Exploratory radiated measurements shall be performed at the measurement distance or at a closer distance than that specified for compliance to determine the emission characteristics of the EUT and, if applicable, the EUT configuration that produces the maximum level of emissions. The frequencies of maximum emission may be determined by manually positioning the antenna close to the EUT, and then moving the antenna over all sides of the EUT while observing a spectral display. It is advantageous to have prior knowledge of the frequencies of emissions, although this may be determined from such a near-field scan. The near-field scan shall only be used to determine the frequency but not the amplitude of the emissions. Where exploratory measurements are not adequate to determine the worst-case operating modes and are used only to identify the frequencies of the highest emissions, additional preliminary tests can be required.

For emissions from the EUT, the maximum level shall be determined by rotating the EUT and its antenna through 0° to 360°. For each mode of operation required to be tested, the frequency spectrum (based on findings from exploratory measurements) shall be monitored.

Broadband antennas and a spectrum analyzer or a radio-noise meter with a panoramic display are often useful in this type of test. If either antenna height or EUT azimuth are not fully measured during exploratory testing, then complete testing can be required at the OATS or semi-anechoic chamber when the final full spectrum testing is performed.

Final radiated emissions measurements

The final measurements are using the orientation and equipment arrangement of the EUT based on the measurement results found during the preliminary (exploratory) measurements, the EUT arrangement, appropriate modulation, and modes of operation that produce the emissions that have the highest amplitude relative to the limit shall be selected for the final measurement.

For each mode of operation required to be tested, the frequency spectrum (based on findings from exploratory measurements) shall be monitored. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.

For each mode selected, record the frequency and amplitude of the highest fundamental emission (if applicable), as well as the frequency and amplitude of the six highest spurious emissions relative to the limit. Emissions more than 20 dB below the limit do not need to be reported.

This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The receiver references:

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

P_{Mea} is the field strength recorded from the instrument.

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The measurement results are obtained as described below:

Result= P_{Mea} + Cable Loss + Antenna Factor

Where:

P_{Mea} field strength recorded from the instrument

EUT ID: EUT1(69a)

Conclusion: Pass

Average Measurement results

802.11a

Channel 36

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17965.900	47.1	-25.5	46.7	25.9	54.0	6.9	V
17990.100	47.1	-25.5	46.7	25.9	54.0	6.9	H
17947.800	47.0	-25.5	46.7	25.8	54.0	7.0	H
17973.600	47.0	-25.5	46.7	25.8	54.0	7.0	H
17974.700	47.0	-25.5	46.7	25.8	54.0	7.0	H
5148.200	40.8	-17.0	33.7	24.1	54.0	13.2	V

Channel 40

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17992.300	47.3	-25.5	46.7	26.1	54.0	6.7	V
17966.500	47.2	-25.5	46.7	26.0	54.0	6.8	H
17982.400	47.2	-25.5	46.7	26.0	54.0	6.8	V
17996.700	47.2	-25.5	46.7	26.0	54.0	6.8	H
17962.600	47.1	-25.5	46.7	25.9	54.0	6.9	H
17981.800	47.1	-25.5	46.7	25.9	54.0	6.9	V

Channel 48

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17996.200	47.2	-25.5	46.7	26.0	54.0	6.8	H
17966.500	47.1	-25.5	46.7	25.9	54.0	6.9	V
17968.100	47.1	-25.5	46.7	25.9	54.0	6.9	V
17970.300	47.1	-25.5	46.7	25.9	54.0	6.9	V
17958.800	47.0	-25.5	46.7	25.8	54.0	7.0	V
17960.400	47.0	-25.5	46.7	25.8	54.0	7.0	H

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Channel 52

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17987.900	47.5	-25.5	46.7	26.3	54.0	6.5	H
17976.300	47.2	-25.5	46.7	26.0	54.0	6.8	V
17974.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17977.500	47.1	-25.5	46.7	25.9	54.0	6.9	H
17996.700	47.1	-25.5	46.7	25.9	54.0	6.9	V
17961.000	47.0	-25.5	46.7	25.8	54.0	7.0	V

Channel 56

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17995.600	47.5	-25.5	46.7	26.3	54.0	6.5	V
17973.600	47.2	-25.5	46.7	26.0	54.0	6.8	V
17974.200	47.2	-25.5	46.7	26.0	54.0	6.8	V
17967.500	47.0	-25.5	46.7	25.8	54.0	7.0	H
17970.300	47.0	-25.5	46.7	25.8	54.0	7.0	V
17972.000	47.0	-25.5	46.7	25.8	54.0	7.0	H

Channel 64

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17983.500	47.1	-25.5	46.7	25.9	54.0	6.9	H
17994.500	47.1	-25.5	46.7	25.9	54.0	6.9	V
17997.800	47.1	-25.5	46.7	25.9	54.0	6.9	H
17972.500	47.0	-25.5	46.7	25.8	54.0	7.0	H
17975.200	47.0	-25.5	46.7	25.8	54.0	7.0	V
5354.000	40.5	-16.9	34.0	23.4	54.0	13.5	V

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Channel 100

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.600	47.1	-25.5	46.7	25.9	54.0	6.9	V
17998.900	47.1	-25.5	46.7	25.9	54.0	6.9	V
17957.100	47.0	-25.5	46.7	25.8	54.0	7.0	H
17963.700	47.0	-25.5	46.7	25.8	54.0	7.0	V
17964.200	47.0	-25.5	46.7	25.8	54.0	7.0	V
5451.000	40.4	-16.8	34.2	23.0	54.0	13.6	V

Channel 120

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17991.200	47.6	-25.5	46.7	26.4	54.0	6.4	H
17972.500	47.4	-25.5	46.7	26.2	54.0	6.6	V
17994.000	47.2	-25.5	46.7	26.0	54.0	6.8	V
17981.300	47.1	-25.5	46.7	25.9	54.0	6.9	V
17997.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17959.800	47.0	-25.5	46.7	25.8	54.0	7.0	V

Channel 140

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17957.700	47.2	-25.5	46.7	26.0	54.0	6.8	V
17982.400	47.2	-25.5	46.7	26.0	54.0	6.8	H
17961.500	47.1	-25.5	46.7	25.9	54.0	6.9	H
17969.800	47.1	-25.5	46.7	25.9	54.0	6.9	V
17963.700	47.0	-25.5	46.7	25.8	54.0	7.0	H
5725.700	42.1	-16.3	34.3	24.1	54.0	11.9	V

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802.11n-HT20

Channel 36

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17984.600	47.2	-25.5	46.7	26.0	54.0	6.8	V
17960.400	47.1	-25.5	46.7	25.9	54.0	6.9	H
17985.700	47.0	-25.5	46.7	25.8	54.0	7.0	H
17993.400	47.0	-25.5	46.7	25.8	54.0	7.0	V
17995.600	47.0	-25.5	46.7	25.8	54.0	7.0	H
5150.000	43.5	-17.0	33.7	26.8	54.0	10.5	V

Channel 40

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17983.000	47.1	-25.5	46.7	25.9	54.0	6.9	H
17986.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17995.000	47.1	-25.5	46.7	25.9	54.0	6.9	H
17940.600	47.0	-25.5	46.7	25.8	54.0	7.0	H
17973.000	47.0	-25.5	46.7	25.8	54.0	7.0	V
17975.200	47.0	-25.5	46.7	25.8	54.0	7.0	V

Channel 48

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17972.500	47.2	-25.5	46.7	26.0	54.0	6.8	H
17975.200	47.1	-25.5	46.7	25.9	54.0	6.9	V
17983.000	47.1	-25.5	46.7	25.9	54.0	6.9	V
17986.800	47.1	-25.5	46.7	25.9	54.0	6.9	H
17998.300	47.1	-25.5	46.7	25.9	54.0	6.9	H
17936.800	47.0	-25.5	46.7	25.8	54.0	7.0	H

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Channel 52

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17969.800	47.5	-25.5	46.7	26.3	54.0	6.5	V
17963.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17976.900	47.1	-25.5	46.7	25.9	54.0	6.9	H
17981.800	47.1	-25.5	46.7	25.9	54.0	6.9	H
17987.900	47.1	-25.5	46.7	25.9	54.0	6.9	V
17976.300	47.0	-25.5	46.7	25.8	54.0	7.0	V

Channel 56

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17974.200	47.3	-25.5	46.7	26.1	54.0	6.7	V
17978.500	47.2	-25.5	46.7	26.0	54.0	6.8	V
17975.800	47.1	-25.5	46.7	25.9	54.0	6.9	H
17979.700	47.1	-25.5	46.7	25.9	54.0	6.9	V
17983.000	47.1	-25.5	46.7	25.9	54.0	6.9	H
17985.700	47.1	-25.5	46.7	25.9	54.0	6.9	H

Channel 64

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17972.500	47.5	-25.5	46.7	26.3	54.0	6.5	V
17978.000	47.3	-25.5	46.7	26.1	54.0	6.7	H
17983.500	47.2	-25.5	46.7	26.0	54.0	6.8	V
17974.700	47.1	-25.5	46.7	25.9	54.0	6.9	V
17990.100	47.1	-25.5	46.7	25.9	54.0	6.9	V
5363.500	44.6	-16.9	34.0	27.5	54.0	9.4	V

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Channel 100

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17977.500	47.2	-25.5	46.7	26.0	54.0	6.8	V
17981.300	47.2	-25.5	46.7	26.0	54.0	6.8	V
17976.300	47.1	-25.5	46.7	25.9	54.0	6.9	V
17995.000	47.1	-25.5	46.7	25.9	54.0	6.9	V
17964.800	47.0	-25.5	46.7	25.8	54.0	7.0	V
5454.200	40.4	-16.8	34.2	23.0	54.0	13.6	V

Channel 120

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17991.200	47.1	-25.5	46.7	25.9	54.0	6.9	V
17992.300	47.1	-25.5	46.7	25.9	54.0	6.9	H
17951.600	47.0	-25.5	46.7	25.8	54.0	7.0	V
17967.000	47.0	-25.5	46.7	25.8	54.0	7.0	H
17974.700	47.0	-25.5	46.7	25.8	54.0	7.0	V
17997.200	47.0	-25.5	46.7	25.8	54.0	7.0	H

Channel 140

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17952.200	47.3	-25.5	46.7	26.1	54.0	6.7	V
17974.700	47.3	-25.5	46.7	26.1	54.0	6.7	H
17981.800	47.1	-25.5	46.7	25.9	54.0	6.9	H
17996.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17997.800	47.1	-25.5	46.7	25.9	54.0	6.9	H
5725.100	42.7	-16.3	34.3	24.7	54.0	11.3	V

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802.11n-HT40

Channel 38

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17978.500	47.3	-25.5	46.7	26.1	54.0	6.7	H
17998.900	47.2	-25.5	46.7	26.0	54.0	6.8	V
17980.200	47.0	-25.5	46.7	25.8	54.0	7.0	V
17981.800	47.0	-25.5	46.7	25.8	54.0	7.0	H
17986.200	46.9	-25.5	46.7	25.7	54.0	7.1	H
5150.000	47.6	-17.0	33.7	30.9	54.0	6.4	V

Channel 46

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17982.400	47.5	-25.5	46.7	26.3	54.0	6.5	V
17973.600	47.2	-25.5	46.7	26.0	54.0	6.8	V
17963.200	47.0	-25.5	46.7	25.8	54.0	7.0	V
17992.300	47.0	-25.5	46.7	25.8	54.0	7.0	V
17992.800	47.0	-25.5	46.7	25.8	54.0	7.0	V
17951.600	46.9	-25.5	46.7	25.7	54.0	7.1	V

Channel 54

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17978.000	47.5	-25.5	46.7	26.3	54.0	6.5	H
17960.400	47.2	-25.5	46.7	26.0	54.0	6.8	H
17975.200	47.2	-25.5	46.7	26.0	54.0	6.8	V
17984.000	47.2	-25.5	46.7	26.0	54.0	6.8	H
17959.300	47.1	-25.5	46.7	25.9	54.0	6.9	H
17978.500	47.1	-25.5	46.7	25.9	54.0	6.9	H

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Channel 62

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.800	47.2	-25.5	46.7	26.0	54.0	6.8	V
17962.600	47.1	-25.5	46.7	25.9	54.0	6.9	H
17968.100	47.1	-25.5	46.7	25.9	54.0	6.9	H
17985.200	47.1	-25.5	46.7	25.9	54.0	6.9	V
17954.300	47.0	-25.5	46.7	25.8	54.0	7.0	V
5354.500	45.2	-16.9	34.0	28.1	54.0	8.8	V

Channel 102

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17996.200	47.3	-25.5	46.7	26.1	54.0	6.7	H
17967.000	47.1	-25.5	46.7	25.9	54.0	6.9	H
17983.500	47.1	-25.5	46.7	25.9	54.0	6.9	H
17994.500	47.1	-25.5	46.7	25.9	54.0	6.9	V
17969.800	47.0	-25.5	46.7	25.8	54.0	7.0	H
5455.100	40.9	-16.8	34.2	23.5	54.0	13.1	V

Channel 118

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17968.700	47.4	-25.5	46.7	26.2	54.0	6.6	H
17987.900	47.3	-25.5	46.7	26.1	54.0	6.7	V
17954.900	47.2	-25.5	46.7	26.0	54.0	6.8	H
17994.500	47.2	-25.5	46.7	26.0	54.0	6.8	V
17980.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17985.200	47.1	-25.5	46.7	25.9	54.0	6.9	H

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Channel 134

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17995.600	47.2	-25.5	46.7	26.0	54.0	6.8	V
17959.800	47.1	-25.5	46.7	25.9	54.0	6.9	V
17991.800	47.1	-25.5	46.7	25.9	54.0	6.9	H
17970.300	47.0	-25.5	46.7	25.8	54.0	7.0	H
17972.500	47.0	-25.5	46.7	25.8	54.0	7.0	H
5727.400	43.2	-16.3	34.3	25.2	54.0	10.8	V

802.11ac-HT20

Channel 36

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.900	47.2	-25.5	46.7	26.0	54.0	6.8	V
17985.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17972.000	47.0	-25.5	46.7	25.8	54.0	7.0	H
17988.500	47.0	-25.5	46.7	25.8	54.0	7.0	V
17989.000	47.0	-25.5	46.7	25.8	54.0	7.0	V
5141.500	40.6	-17.0	33.7	23.9	54.0	13.4	V

Channel 40

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.800	47.0	-25.5	46.7	25.8	54.0	7.0	V
17986.200	47.0	-25.5	46.7	25.8	54.0	7.0	V
17987.300	47.0	-25.5	46.7	25.8	54.0	7.0	V
17994.500	47.0	-25.5	46.7	25.8	54.0	7.0	H
17959.300	46.9	-25.5	46.7	25.7	54.0	7.1	V
17966.500	46.9	-25.5	46.7	25.7	54.0	7.1	H

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Channel 48

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17971.400	47.3	-25.5	46.7	26.1	54.0	6.7	H
17991.200	47.3	-25.5	46.7	26.1	54.0	6.7	V
17978.000	47.2	-25.5	46.7	26.0	54.0	6.8	V
17966.500	47.1	-25.5	46.7	25.9	54.0	6.9	H
17992.300	47.1	-25.5	46.7	25.9	54.0	6.9	H
17995.000	47.1	-25.5	46.7	25.9	54.0	6.9	H

Channel 52

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17979.700	47.4	-25.5	46.7	26.2	54.0	6.6	H
17981.300	47.2	-25.5	46.7	26.0	54.0	6.8	V
17984.600	47.2	-25.5	46.7	26.0	54.0	6.8	H
17979.100	47.1	-25.5	46.7	25.9	54.0	6.9	H
17994.000	47.1	-25.5	46.7	25.9	54.0	6.9	H
17977.500	47.0	-25.5	46.7	25.8	54.0	7.0	H

Channel 56

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17997.200	47.2	-25.5	46.7	26.0	54.0	6.8	H
17969.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17986.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17942.800	47.0	-25.5	46.7	25.8	54.0	7.0	H
17976.900	47.0	-25.5	46.7	25.8	54.0	7.0	H
17981.800	47.0	-25.5	46.7	25.8	54.0	7.0	V

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Channel 64

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.300	47.1	-25.5	46.7	25.9	54.0	6.9	H
17985.200	47.1	-25.5	46.7	25.9	54.0	6.9	V
17987.300	47.1	-25.5	46.7	25.9	54.0	6.9	H
17987.900	47.1	-25.5	46.7	25.9	54.0	6.9	H
17988.500	47.1	-25.5	46.7	25.9	54.0	6.9	V
5360.900	41.3	-16.9	34.0	24.2	54.0	12.7	V

Channel 100

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17962.000	47.5	-25.5	46.7	26.3	54.0	6.5	V
17985.700	47.2	-25.5	46.7	26.0	54.0	6.8	H
17971.400	47.1	-25.5	46.7	25.9	54.0	6.9	H
17973.000	47.1	-25.5	46.7	25.9	54.0	6.9	V
17953.800	47.0	-25.5	46.7	25.8	54.0	7.0	V
5453.100	40.5	-16.8	34.2	23.1	54.0	13.5	V

Channel 120

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17985.200	47.3	-25.5	46.7	26.1	54.0	6.7	V
17972.000	47.1	-25.5	46.7	25.9	54.0	6.9	V
17971.400	47.0	-25.5	46.7	25.8	54.0	7.0	V
17983.000	47.0	-25.5	46.7	25.8	54.0	7.0	V
17986.200	47.0	-25.5	46.7	25.8	54.0	7.0	H
17993.400	47.0	-25.5	46.7	25.8	54.0	7.0	H

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Channel 140

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17968.100	47.3	-25.5	46.7	26.1	54.0	6.7	V
17970.800	47.1	-25.5	46.7	25.9	54.0	6.9	V
17951.600	47.0	-25.5	46.7	25.8	54.0	7.0	V
17961.000	47.0	-25.5	46.7	25.8	54.0	7.0	V
17976.300	47.0	-25.5	46.7	25.8	54.0	7.0	H
5725.900	41.7	-16.3	34.3	23.7	54.0	12.3	V

802.11ac-HT40

Channel 38

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17972.500	47.2	-25.5	46.7	26.0	54.0	6.8	H
17991.800	47.2	-25.5	46.7	26.0	54.0	6.8	H
17997.800	47.2	-25.5	46.7	26.0	54.0	6.8	V
17963.700	47.1	-25.5	46.7	25.9	54.0	6.9	V
17992.300	47.1	-25.5	46.7	25.9	54.0	6.9	V
5150.000	46.0	-17.0	33.7	29.3	54.0	8.0	V

Channel 46

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17983.500	47.1	-25.5	46.7	25.9	54.0	6.9	H
17991.200	47.1	-25.5	46.7	25.9	54.0	6.9	V
17993.400	47.1	-25.5	46.7	25.9	54.0	6.9	H
17959.800	47.0	-25.5	46.7	25.8	54.0	7.0	H
17991.800	47.0	-25.5	46.7	25.8	54.0	7.0	V
17954.300	46.9	-25.5	46.7	25.7	54.0	7.1	V

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Channel 54

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17986.800	47.4	-25.5	46.7	26.2	54.0	6.6	H
17963.200	47.2	-25.5	46.7	26.0	54.0	6.8	H
17986.200	47.2	-25.5	46.7	26.0	54.0	6.8	V
17953.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17957.100	47.1	-25.5	46.7	25.9	54.0	6.9	H
17976.900	47.1	-25.5	46.7	25.9	54.0	6.9	H

Channel 62

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17991.200	47.5	-25.5	46.7	26.3	54.0	6.5	H
17995.600	47.2	-25.5	46.7	26.0	54.0	6.8	H
17973.000	47.1	-25.5	46.7	25.9	54.0	6.9	V
17987.900	47.1	-25.5	46.7	25.9	54.0	6.9	H
17989.500	47.1	-25.5	46.7	25.9	54.0	6.9	V
5353.900	44.4	-16.9	34.0	27.3	54.0	9.6	V

Channel 102

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17985.700	47.2	-25.5	46.7	26.0	54.0	6.8	H
17986.200	47.1	-25.5	46.7	25.9	54.0	6.9	H
17997.800	47.1	-25.5	46.7	25.9	54.0	6.9	V
17946.700	47.0	-25.5	46.7	25.8	54.0	7.0	V
17954.900	47.0	-25.5	46.7	25.8	54.0	7.0	H
5459.700	40.8	-16.8	34.2	23.4	54.0	13.2	V

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Channel 118

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17985.200	47.4	-25.5	46.7	26.2	54.0	6.6	V
17986.800	47.4	-25.5	46.7	26.2	54.0	6.6	H
17981.300	47.3	-25.5	46.7	26.1	54.0	6.7	V
17943.900	47.1	-25.5	46.7	25.9	54.0	6.9	V
17964.200	47.1	-25.5	46.7	25.9	54.0	6.9	V
17996.200	47.1	-25.5	46.7	25.9	54.0	6.9	V

Channel 134

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17987.900	47.4	-25.5	46.7	26.2	54.0	6.6	V
17969.800	47.1	-25.5	46.7	25.9	54.0	6.9	V
17959.300	47.0	-25.5	46.7	25.8	54.0	7.0	V
17978.000	47.0	-25.5	46.7	25.8	54.0	7.0	V
17983.500	47.0	-25.5	46.7	25.8	54.0	7.0	V
5725.900	42.0	-16.3	34.3	24.0	54.0	12.0	V

802.11ac-HT80

Channel 42

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17979.700	47.1	-25.5	46.7	25.9	54.0	6.9	H
17985.200	47.1	-25.5	46.7	25.9	54.0	6.9	V
17981.300	47.0	-25.5	46.7	25.8	54.0	7.0	V
17957.700	46.9	-25.5	46.7	25.7	54.0	7.1	H
17959.800	46.9	-25.5	46.7	25.7	54.0	7.1	H
5149.100	42.1	-17.0	33.7	25.4	54.0	11.9	V

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Channel 58

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17984.600	47.1	-25.5	46.7	25.9	54.0	6.9	H
17950.000	47.0	-25.5	46.7	25.8	54.0	7.0	H
17964.800	47.0	-25.5	46.7	25.8	54.0	7.0	H
17948.800	46.9	-25.5	46.7	25.7	54.0	7.1	V
17952.200	46.9	-25.5	46.7	25.7	54.0	7.1	V
5356.700	42.0	-16.9	34.0	24.9	54.0	12.0	V

Channel 106

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17975.200	47.3	-25.5	46.7	26.1	54.0	6.7	V
17980.800	47.2	-25.5	46.7	26.0	54.0	6.8	H
17965.300	47.1	-25.5	46.7	25.9	54.0	6.9	V
17972.500	47.1	-25.5	46.7	25.9	54.0	6.9	H
17981.300	47.0	-25.5	46.7	25.8	54.0	7.0	V
5459.100	40.3	-16.8	34.2	22.9	54.0	13.7	V

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Peak Measurement results

802.11a

Channel 36

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17974.700	59.2	-25.5	46.7	38.0	68.3	9.1	H
17995.600	59.0	-25.5	46.7	37.8	68.3	9.3	H
17892.200	58.8	-25.5	46.7	37.6	68.3	9.5	V
17969.200	58.6	-25.5	46.7	37.4	68.3	9.7	V
17991.800	58.6	-25.5	46.7	37.4	68.3	9.7	H
5142.000	53.0	-17.0	33.7	36.3	68.3	15.3	V

Channel 40

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17985.200	58.7	-25.5	46.7	37.5	68.3	9.6	H
17941.200	58.4	-25.5	46.7	37.2	68.3	9.9	H
17979.700	58.3	-25.5	46.7	37.1	68.3	10.0	V
17998.900	58.3	-25.5	46.7	37.1	68.3	10.0	V
17960.400	58.1	-25.5	46.7	36.9	68.3	10.2	V
17968.700	58.1	-25.5	46.7	36.9	68.3	10.2	V

Channel 48

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17943.900	58.8	-25.5	46.7	37.6	68.3	9.5	V
17998.300	58.8	-25.5	46.7	37.6	68.3	9.5	V
17866.300	58.7	-25.5	46.7	37.5	68.3	9.6	H
17965.300	58.7	-25.5	46.7	37.5	68.3	9.6	H
17962.000	58.6	-25.5	46.7	37.4	68.3	9.7	H
17975.800	58.6	-25.5	46.7	37.4	68.3	9.7	V

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Channel 52

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17989.000	59.3	-25.5	46.7	38.1	68.3	9.0	V
17904.800	59.0	-25.5	46.7	37.8	68.3	9.3	H
17973.000	58.7	-25.5	46.7	37.5	68.3	9.6	V
17911.500	58.5	-25.5	46.7	37.3	68.3	9.8	H
17975.200	58.5	-25.5	46.7	37.3	68.3	9.8	V
17985.700	58.4	-25.5	46.7	37.2	68.3	9.9	H

Channel 56

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.900	59.0	-25.5	46.7	37.8	68.3	9.3	H
17983.500	58.8	-25.5	46.7	37.6	68.3	9.5	V
17979.100	58.6	-25.5	46.7	37.4	68.3	9.7	H
17965.900	58.4	-25.5	46.7	37.2	68.3	9.9	V
17968.700	58.4	-25.5	46.7	37.2	68.3	9.9	H
17962.600	58.3	-25.5	46.7	37.1	68.3	10.0	H

Channel 64

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17996.200	59.3	-25.5	46.7	38.1	68.3	9.0	V
17939.500	58.7	-25.5	46.7	37.5	68.3	9.6	H
17948.800	58.7	-25.5	46.7	37.5	68.3	9.6	V
17965.900	58.6	-25.5	46.7	37.4	68.3	9.7	V
17973.000	58.5	-25.5	46.7	37.3	68.3	9.8	H
5363.500	52.8	-16.9	34.0	35.7	68.3	15.5	V

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Channel 100

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17965.900	58.6	-25.5	46.7	37.4	68.3	9.7	V
17996.200	58.3	-25.5	46.7	37.1	68.3	10.0	V
17795.400	58.0	-25.5	46.7	36.8	68.3	10.3	V
17871.800	58.0	-25.5	46.7	36.8	68.3	10.3	V
17975.200	58.0	-25.5	46.7	36.8	68.3	10.3	V
5454.200	52.7	-16.8	34.2	35.3	68.3	15.6	V

Channel 120

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17995.600	58.9	-25.5	46.7	37.7	68.3	9.4	V
17979.700	58.8	-25.5	46.7	37.6	68.3	9.5	H
17947.200	58.7	-25.5	46.7	37.5	68.3	9.6	V
17965.300	58.3	-25.5	46.7	37.1	68.3	10.0	V
17991.200	58.3	-25.5	46.7	37.1	68.3	10.0	H
17969.200	58.2	-25.5	46.7	37.0	68.3	10.1	H

Channel 140

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17945.000	59.3	-25.5	46.7	38.1	68.3	9.0	H
17953.200	59.1	-25.5	46.7	37.9	68.3	9.2	H
17941.200	58.6	-25.5	46.7	37.4	68.3	9.7	V
17969.800	58.6	-25.5	46.7	37.4	68.3	9.7	V
17937.300	58.2	-25.5	46.7	37.0	68.3	10.1	H
5729.700	55.1	-16.3	34.3	37.1	68.3	13.2	V

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Channel 36

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17968.100	58.8	-25.5	46.7	37.6	68.3	9.5	H
17980.200	58.5	-25.5	46.7	37.3	68.3	9.8	V
17875.200	58.3	-25.5	46.7	37.1	68.3	10.0	V
17958.800	58.3	-25.5	46.7	37.1	68.3	10.0	V
17978.500	58.3	-25.5	46.7	37.1	68.3	10.0	H
5149.700	55.5	-17.0	33.7	38.8	68.3	12.8	V

Channel 40

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17940.600	59.1	-25.5	46.7	37.9	68.3	9.2	H
17898.200	58.2	-25.5	46.7	37.0	68.3	10.1	H
17953.800	58.1	-25.5	46.7	36.9	68.3	10.2	V
17983.500	58.1	-25.5	46.7	36.9	68.3	10.2	H
17995.600	58.1	-25.5	46.7	36.9	68.3	10.2	H
17961.000	58.0	-25.5	46.7	36.8	68.3	10.3	V

Channel 48

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17951.000	58.7	-25.5	46.7	37.5	68.3	9.6	V
17965.300	58.5	-25.5	46.7	37.3	68.3	9.8	V
17940.000	58.4	-25.5	46.7	37.2	68.3	9.9	H
17953.200	58.2	-25.5	46.7	37.0	68.3	10.1	V
17995.000	58.2	-25.5	46.7	37.0	68.3	10.1	H
17937.800	58.1	-25.5	46.7	36.9	68.3	10.2	H

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Channel 52

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17968.100	58.8	-25.5	46.7	37.6	68.3	9.5	H
17974.700	58.4	-25.5	46.7	37.2	68.3	9.9	V
17965.900	58.3	-25.5	46.7	37.1	68.3	10.0	V
17946.700	58.2	-25.5	46.7	37.0	68.3	10.1	V
17997.200	58.2	-25.5	46.7	37.0	68.3	10.1	H
17877.900	58.1	-25.5	46.7	36.9	68.3	10.2	H

Channel 56

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17962.600	58.9	-25.5	46.7	37.7	68.3	9.4	V
17976.900	58.8	-25.5	46.7	37.6	68.3	9.5	V
17894.400	58.7	-25.5	46.7	37.5	68.3	9.6	V
17979.700	58.1	-25.5	46.7	36.9	68.3	10.2	V
17952.700	58.0	-25.5	46.7	36.8	68.3	10.3	V
17962.000	58.0	-25.5	46.7	36.8	68.3	10.3	H

Channel 64

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17975.800	59.4	-25.5	46.7	38.2	68.3	8.9	V
17966.500	58.8	-25.5	46.7	37.6	68.3	9.5	V
17973.600	58.8	-25.5	46.7	37.6	68.3	9.5	V
17965.900	58.6	-25.5	46.7	37.4	68.3	9.7	H
17997.800	58.6	-25.5	46.7	37.4	68.3	9.7	V
5366.100	56.8	-16.9	34.0	39.7	68.3	11.5	V

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Channel 100

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17959.800	58.8	-25.5	46.7	37.6	68.3	9.5	V
17956.000	58.3	-25.5	46.7	37.1	68.3	10.0	H
17974.200	58.3	-25.5	46.7	37.1	68.3	10.0	H
17985.200	58.3	-25.5	46.7	37.1	68.3	10.0	V
17989.000	58.3	-25.5	46.7	37.1	68.3	10.0	V
5458.700	52.5	-16.8	34.2	35.1	68.3	15.8	V

Channel 120

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17961.500	60.0	-25.5	46.7	38.8	68.3	8.3	H
17957.100	59.1	-25.5	46.7	37.9	68.3	9.2	V
17984.000	58.8	-25.5	46.7	37.6	68.3	9.5	V
17937.300	58.3	-25.5	46.7	37.1	68.3	10.0	H
17986.200	58.2	-25.5	46.7	37.0	68.3	10.1	H
17935.100	58.0	-25.5	46.7	36.8	68.3	10.3	V

Channel 140

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17997.200	59.0	-25.5	46.7	37.8	68.3	9.3	V
17928.000	58.4	-25.5	46.7	37.2	68.3	9.9	V
17903.200	58.3	-25.5	46.7	37.1	68.3	10.0	H
17962.600	58.3	-25.5	46.7	37.1	68.3	10.0	V
17859.200	58.2	-25.5	46.7	37.0	68.3	10.1	V
5743.000	55.9	-16.3	34.3	37.9	68.3	12.4	V

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802.11n-HT40

Channel 38

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17991.800	59.0	-25.5	46.7	37.8	68.3	9.3	H
17964.200	58.9	-25.5	46.7	37.7	68.3	9.4	H
17967.000	58.7	-25.5	46.7	37.5	68.3	9.6	V
17981.300	58.4	-25.5	46.7	37.2	68.3	9.9	V
17943.300	58.3	-25.5	46.7	37.1	68.3	10.0	V
5150.000	60.1	-17.0	33.7	43.4	68.3	8.2	V

Channel 46

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17981.300	59.9	-25.5	46.7	38.7	68.3	8.4	V
17956.500	58.6	-25.5	46.7	37.4	68.3	9.7	V
17979.700	58.5	-25.5	46.7	37.3	68.3	9.8	H
17994.500	58.4	-25.5	46.7	37.2	68.3	9.9	H
17975.200	58.3	-25.5	46.7	37.1	68.3	10.0	H
17948.800	58.2	-25.5	46.7	37.0	68.3	10.1	H

Channel 54

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17967.500	58.8	-25.5	46.7	37.6	68.3	9.5	V
17975.200	58.7	-25.5	46.7	37.5	68.3	9.6	V
17895.000	58.4	-25.5	46.7	37.2	68.3	9.9	H
17979.100	58.3	-25.5	46.7	37.1	68.3	10.0	H
17898.800	58.2	-25.5	46.7	37.0	68.3	10.1	V
17995.600	58.2	-25.5	46.7	37.0	68.3	10.1	V

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Channel 62

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17981.800	58.9	-25.5	46.7	37.7	68.3	9.4	V
17973.000	58.7	-25.5	46.7	37.5	68.3	9.6	V
17968.700	58.5	-25.5	46.7	37.3	68.3	9.8	H
17964.200	58.4	-25.5	46.7	37.2	68.3	9.9	V
17975.800	58.3	-25.5	46.7	37.1	68.3	10.0	H
5357.700	59.4	-16.9	34.0	42.3	68.3	8.9	V

Channel 102

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17957.700	59.8	-25.5	46.7	38.6	68.3	8.5	H
17966.500	59.2	-25.5	46.7	38.0	68.3	9.1	V
17986.800	58.8	-25.5	46.7	37.6	68.3	9.5	V
17929.000	58.6	-25.5	46.7	37.4	68.3	9.7	H
17955.500	58.4	-25.5	46.7	37.2	68.3	9.9	V
5456.700	54.1	-16.8	34.2	36.7	68.3	14.2	V

Channel 118

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17997.800	59.0	-25.5	46.7	37.8	68.3	9.3	H
17975.200	58.6	-25.5	46.7	37.4	68.3	9.7	V
17970.800	58.4	-25.5	46.7	37.2	68.3	9.9	H
17992.800	58.3	-25.5	46.7	37.1	68.3	10.0	H
17964.200	58.2	-25.5	46.7	37.0	68.3	10.1	V
17980.800	58.2	-25.5	46.7	37.0	68.3	10.1	H

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Channel 134

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17967.000	58.4	-25.5	46.7	37.2	68.3	9.9	H
17972.000	58.4	-25.5	46.7	37.2	68.3	9.9	V
17940.600	58.3	-25.5	46.7	37.1	68.3	10.0	V
17993.400	58.2	-25.5	46.7	37.0	68.3	10.1	H
17998.900	58.0	-25.5	46.7	36.8	68.3	10.3	V
5730.000	59.1	-16.3	34.3	41.1	68.3	9.2	V

802.11ac-HT20

Channel 36

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17951.000	59.0	-25.5	46.7	37.8	68.3	9.3	V
17967.500	58.3	-25.5	46.7	37.1	68.3	10.0	H
17928.000	58.2	-25.5	46.7	37.0	68.3	10.1	H
17972.500	58.2	-25.5	46.7	37.0	68.3	10.1	V
17994.500	58.2	-25.5	46.7	37.0	68.3	10.1	H
5141.300	56.6	-17.0	33.7	39.9	68.3	11.7	V

Channel 40

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17961.000	58.9	-25.5	46.7	37.7	68.3	9.4	V
17987.300	58.9	-25.5	46.7	37.7	68.3	9.4	V
17961.500	58.7	-25.5	46.7	37.5	68.3	9.6	H
17939.500	58.5	-25.5	46.7	37.3	68.3	9.8	H
17970.300	58.5	-25.5	46.7	37.3	68.3	9.8	H
17976.300	58.5	-25.5	46.7	37.3	68.3	9.8	H

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Channel 48

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17978.000	58.9	-25.5	46.7	37.7	68.3	9.4	V
17992.300	58.7	-25.5	46.7	37.5	68.3	9.6	H
17993.400	58.6	-25.5	46.7	37.4	68.3	9.7	H
17988.500	58.5	-25.5	46.7	37.3	68.3	9.8	V
17943.300	58.4	-25.5	46.7	37.2	68.3	9.9	V
17957.700	58.3	-25.5	46.7	37.1	68.3	10.0	V

Channel 52

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17964.800	59.5	-25.5	46.7	38.3	68.3	8.8	H
17936.200	59.4	-25.5	46.7	38.2	68.3	8.9	H
17961.500	58.5	-25.5	46.7	37.3	68.3	9.8	H
17994.500	58.4	-25.5	46.7	37.2	68.3	9.9	H
17981.800	58.2	-25.5	46.7	37.0	68.3	10.1	V
17996.700	58.2	-25.5	46.7	37.0	68.3	10.1	H

Channel 56

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.200	59.1	-25.5	46.7	37.9	68.3	9.2	H
17990.700	58.3	-25.5	46.7	37.1	68.3	10.0	V
17994.000	58.2	-25.5	46.7	37.0	68.3	10.1	H
17890.500	58.1	-25.5	46.7	36.9	68.3	10.2	H
17928.000	58.1	-25.5	46.7	36.9	68.3	10.2	H
17983.000	58.1	-25.5	46.7	36.9	68.3	10.2	V

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Channel 64

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17955.500	58.6	-25.5	46.7	37.4	68.3	9.7	V
17976.900	58.6	-25.5	46.7	37.4	68.3	9.7	H
17956.500	58.5	-25.5	46.7	37.3	68.3	9.8	H
17980.800	58.1	-25.5	46.7	36.9	68.3	10.2	V
17947.200	58.0	-25.5	46.7	36.8	68.3	10.3	V
5363.600	53.9	-16.9	34.0	36.8	68.3	14.4	V

Channel 100

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17960.400	58.6	-25.5	46.7	37.4	68.3	9.7	H
17964.800	58.5	-25.5	46.7	37.3	68.3	9.8	H
17975.200	58.5	-25.5	46.7	37.3	68.3	9.8	H
17897.200	58.4	-25.5	46.7	37.2	68.3	9.9	V
17991.800	58.2	-25.5	46.7	37.0	68.3	10.1	V
5459.300	52.2	-16.8	34.2	34.8	68.3	16.1	V

Channel 120

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17957.700	59.0	-25.5	46.7	37.8	68.3	9.3	H
17940.600	58.9	-25.5	46.7	37.7	68.3	9.4	H
17982.400	58.5	-25.5	46.7	37.3	68.3	9.8	H
17900.500	58.3	-25.5	46.7	37.1	68.3	10.0	H
17964.200	58.3	-25.5	46.7	37.1	68.3	10.0	H
17879.500	58.2	-25.5	46.7	37.0	68.3	10.1	H

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Channel 140

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.300	58.7	-25.5	46.7	37.5	68.3	9.6	H
17901.500	58.3	-25.5	46.7	37.1	68.3	10.0	V
17927.400	58.0	-25.5	46.7	36.8	68.3	10.3	H
17945.000	58.0	-25.5	46.7	36.8	68.3	10.3	V
17996.700	58.0	-25.5	46.7	36.8	68.3	10.3	H
5743.100	55.6	-16.3	34.3	37.6	68.3	12.7	V

802.11ac-HT40

Channel 38

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17855.900	59.4	-25.5	46.7	38.2	68.3	8.9	V
17976.900	58.9	-25.5	46.7	37.7	68.3	9.4	H
17968.100	58.4	-25.5	46.7	37.2	68.3	9.9	H
17991.200	58.4	-25.5	46.7	37.2	68.3	9.9	V
17956.000	58.3	-25.5	46.7	37.1	68.3	10.0	V
5149.100	58.0	-17.0	33.7	41.3	68.3	10.3	V

Channel 46

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17957.100	58.5	-25.5	46.7	37.3	68.3	9.8	H
17880.700	58.4	-25.5	46.7	37.2	68.3	9.9	H
17994.500	58.3	-25.5	46.7	37.1	68.3	10.0	V
17962.600	58.2	-25.5	46.7	37.0	68.3	10.1	H
17978.000	58.1	-25.5	46.7	36.9	68.3	10.2	H
17903.800	58.0	-25.5	46.7	36.8	68.3	10.3	V

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Channel 54

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17965.900	58.8	-25.5	46.7	37.6	68.3	9.5	H
17954.900	58.5	-25.5	46.7	37.3	68.3	9.8	H
17977.500	58.4	-25.5	46.7	37.2	68.3	9.9	H
17963.700	58.3	-25.5	46.7	37.1	68.3	10.0	V
17972.000	58.3	-25.5	46.7	37.1	68.3	10.0	H
17965.300	58.2	-25.5	46.7	37.0	68.3	10.1	V

Channel 62

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17975.200	59.2	-25.5	46.7	38.0	68.3	9.1	H
17984.600	58.9	-25.5	46.7	37.7	68.3	9.4	H
17951.000	58.8	-25.5	46.7	37.6	68.3	9.5	H
17976.900	58.8	-25.5	46.7	37.6	68.3	9.5	V
17979.700	58.8	-25.5	46.7	37.6	68.3	9.5	V
5356.100	58.3	-16.9	34.0	41.2	68.3	10.0	V

Channel 102

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.200	58.9	-25.5	46.7	37.7	68.3	9.4	V
17981.300	58.9	-25.5	46.7	37.7	68.3	9.4	V
17986.200	58.4	-25.5	46.7	37.2	68.3	9.9	H
17992.800	58.4	-25.5	46.7	37.2	68.3	9.9	V
17954.900	58.3	-25.5	46.7	37.1	68.3	10.0	H
5458.100	52.4	-16.8	34.2	35.0	68.3	15.9	V

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Channel 118

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.200	58.6	-25.5	46.7	37.4	68.3	9.7	V
17970.800	58.4	-25.5	46.7	37.2	68.3	9.9	H
17989.000	58.3	-25.5	46.7	37.1	68.3	10.0	H
17958.800	58.2	-25.5	46.7	37.0	68.3	10.1	H
17981.800	58.2	-25.5	46.7	37.0	68.3	10.1	V
17961.000	58.1	-25.5	46.7	36.9	68.3	10.2	V

Channel 134

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.800	58.4	-25.5	46.7	37.2	68.3	9.9	V
17862.000	58.3	-25.5	46.7	37.1	68.3	10.0	H
17993.400	58.3	-25.5	46.7	37.1	68.3	10.0	H
17948.800	58.1	-25.5	46.7	36.9	68.3	10.2	V
17990.100	58.1	-25.5	46.7	36.9	68.3	10.2	H
5731.100	56.9	-16.3	34.3	38.9	68.3	11.4	V

802.11ac-HT80

Channel 42

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17964.200	59.6	-25.5	46.7	38.4	68.3	8.7	V
17954.900	58.7	-25.5	46.7	37.5	68.3	9.6	V
17971.400	58.5	-25.5	46.7	37.3	68.3	9.8	V
17979.700	58.5	-25.5	46.7	37.3	68.3	9.8	H
17989.500	58.3	-25.5	46.7	37.1	68.3	10.0	H
5146.000	55.0	-17.0	33.7	38.3	68.3	13.3	V

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Channel 58

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17942.800	58.6	-25.5	46.7	37.4	68.3	9.7	V
17886.700	58.4	-25.5	46.7	37.2	68.3	9.9	H
17943.300	58.3	-25.5	46.7	37.1	68.3	10.0	V
17949.400	58.2	-25.5	46.7	37.0	68.3	10.1	V
17978.000	58.2	-25.5	46.7	37.0	68.3	10.1	V
5350.500	53.6	-16.9	34.0	36.5	68.3	14.7	V

Channel 106

Frequency (MHz)	Meas. Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17940.000	59.3	-25.5	46.7	38.1	68.3	9.0	H
17970.300	58.8	-25.5	46.7	37.6	68.3	9.5	H
17950.500	58.6	-25.5	46.7	37.4	68.3	9.7	V
17972.000	58.0	-25.5	46.7	36.8	68.3	10.3	V
17983.000	58.0	-25.5	46.7	36.8	68.3	10.3	V
5458.300	52.7	-16.8	34.2	35.3	68.3	15.6	V

Sample calculation: 802.11ac 80MHz CH106–Peak, 5458.300 MHz

Peak ERP(dBm) = P_{Mea}(35.3dBuV/m) + Cable Loss(-16.8) + Antenna Factor(34.2) = 52.7 dBuV/m

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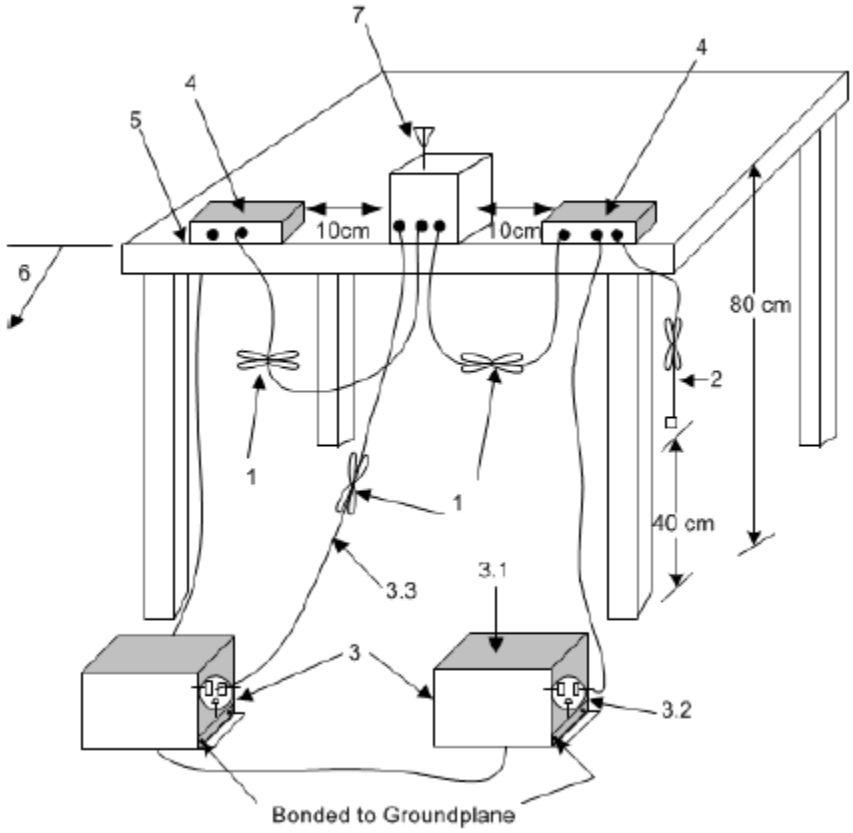
B.7. AC Powerline Conducted Emission (150kHz- 30MHz)

Method of Measurement: See ANSI C63.10-2013-clause 6.2

Setup:

A stand-alone EUT shall be placed in the center along the back edge of the tabletop. For multiunit tabletop systems, the EUT shall be centered laterally (left to right facing the tabletop) on the tabletop and its rear shall be flush with the rear of the table.

Accessories that are part of an EUT system tested on a tabletop shall be placed in a test arrangement on one or both sides of the host with a 10 cm separation between the nearest points of the cabinets. The rear of the host and accessories shall be flush with the back of the supporting tabletop unless that would not be typical of normal use. If more than two accessories are present, then an equipment test arrangement shall be chosen that maintains 10 cm spacing between cabinets unless the equipment is normally located closer together.



Exploratory ac power-line conducted emission measurements

Exploratory measurements shall be used to identify the frequency of the emission that has the highest amplitude relative to the limit by operating the EUT in a range of typical modes of operation, cable positions, and with a typical system equipment configuration and arrangement. For each mode of operation and for each ac power current-carrying conductor, cable manipulation shall be performed within the range of likely configurations. For this measurement or series of measurements, the frequency spectrum of interest shall be monitored looking for the emission that has the highest amplitude relative to the limit. Once that emission is found for each current-carrying conductor of each power cord associated with the EUT (but not the cords

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associated with non-EUT equipment in the overall system), the one configuration and arrangement and mode of operation that produces the emission closest to the limit over all of the measured conductors shall be recorded.

Final ac power-line conducted emission measurements

Based on the exploratory tests of the EUT, the one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT. If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed. The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation. If the EUT is composed of equipment units that have their own separate ac power connections (e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network), then each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be measured separately. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.

Test Condition:

Voltage（V）	Frequency（Hz）
120	60

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Measurement Result and limit:

EUT ID: EUT1(69a)

Charger WC0506A51JH

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV) With charger 11a mode	Result (dBμV) With charger Idle	Conclusion
0.15 to 0.5	66 to 56	Fig.75	Fig.76	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) With charger 11a mode	Result (dBμV) With charger Idle	Conclusion
0.15 to 0.5	56 to 46	Fig.75	Fig.76	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.				

Charger WC030B51HK

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV) With charger 11a mode	Result (dBμV) With charger Idle	Conclusion
0.15 to 0.5	66 to 56	Fig.77	/	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) With charger 11a mode	Result (dBμV) With charger Idle	Conclusion
0.15 to 0.5	56 to 46	Fig.77	/	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.				

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Charger WC0506A51GB

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	66 to 56	Fig.78	/	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		
		11a mode	Idle	
0.15 to 0.5	56 to 46	Fig.78	/	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:

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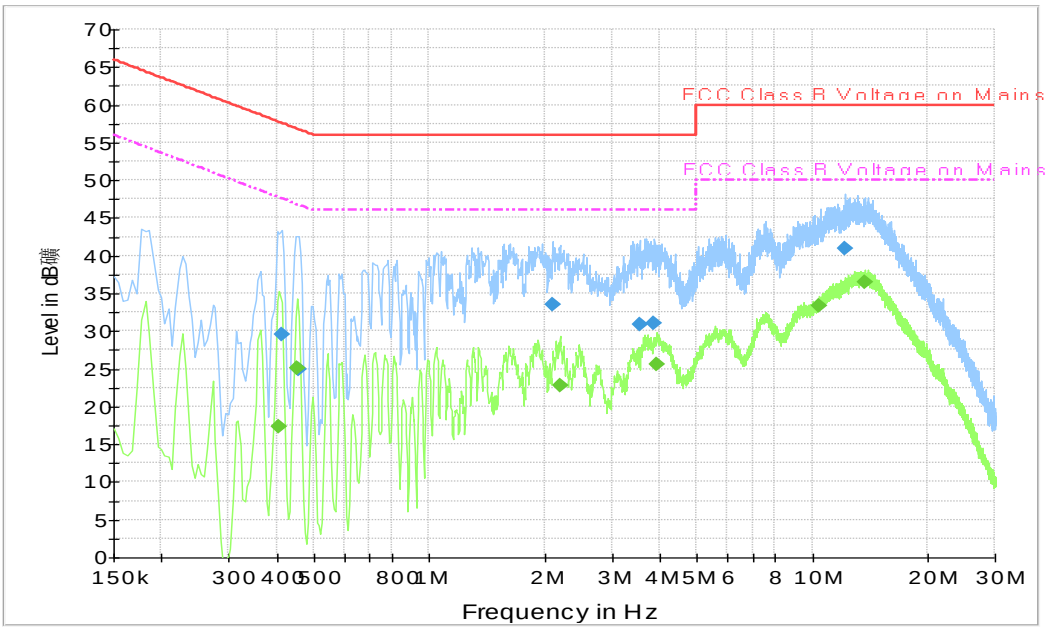

Fig.75 Conducted Emission(802.11a, Ch40, TX) (Charger WC0506A51JH)

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.411000	29.6	GND	N	10.0	28.0	57.6
0.456000	25.0	GND	N	10.0	31.8	56.8
2.094000	33.6	GND	N	10.1	22.4	56.0
3.538500	30.9	GND	N	10.1	25.1	56.0
3.871500	31.1	GND	N	10.1	24.9	56.0
12.223500	41.0	GND	N	10.5	19.0	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.406500	17.3	GND	L1	10.0	30.4	47.7
0.451500	25.1	GND	L1	10.0	21.7	46.8
2.193000	22.8	GND	N	10.1	23.2	46.0
3.939000	25.6	GND	N	10.1	20.4	46.0
10.383000	33.3	GND	N	10.4	16.7	50.0
13.677000	36.5	GND	N	10.6	13.5	50.0

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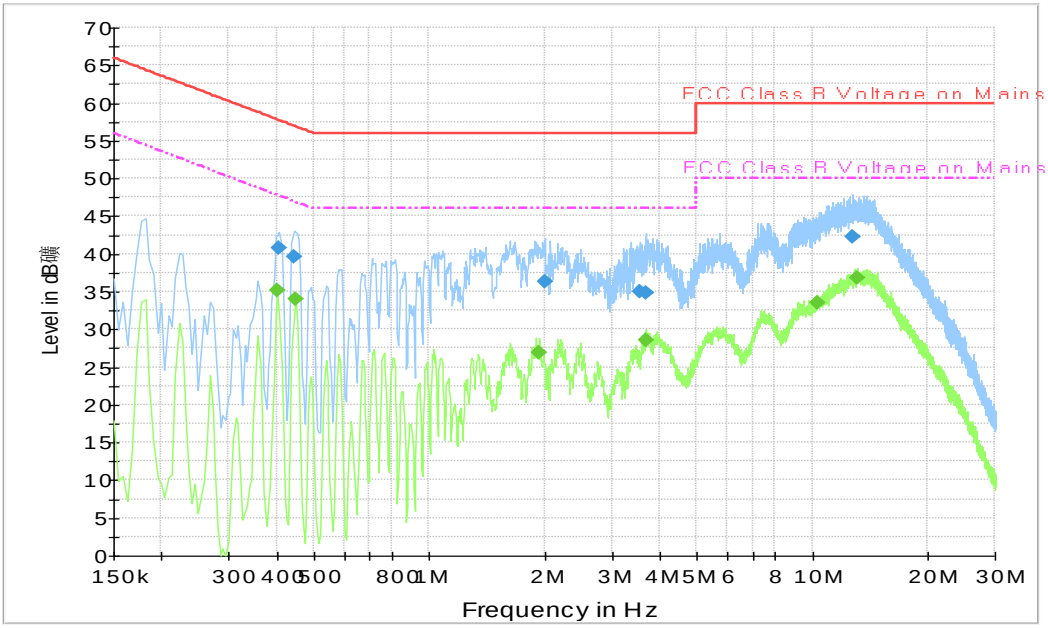

Fig.76 Conducted Emission(802.11a, IDLE) (Charger WC0506A51JH)

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.406500	40.7	GND	N	10.0	17.0	57.7
0.442500	39.7	GND	N	10.0	17.3	57.0
1.999500	36.3	GND	N	10.1	19.7	56.0
3.538500	35.0	GND	N	10.1	21.0	56.0
3.669000	34.8	GND	N	10.1	21.2	56.0
12.714000	42.3	GND	N	10.5	17.7	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.402000	35.1	GND	L1	10.0	12.7	47.8
0.447000	33.9	GND	L1	10.0	13.0	46.9
1.941000	26.9	GND	N	10.1	19.1	46.0
3.669000	28.5	GND	N	10.1	17.5	46.0
10.320000	33.5	GND	N	10.4	16.5	50.0
13.155000	36.8	GND	N	10.5	13.2	50.0

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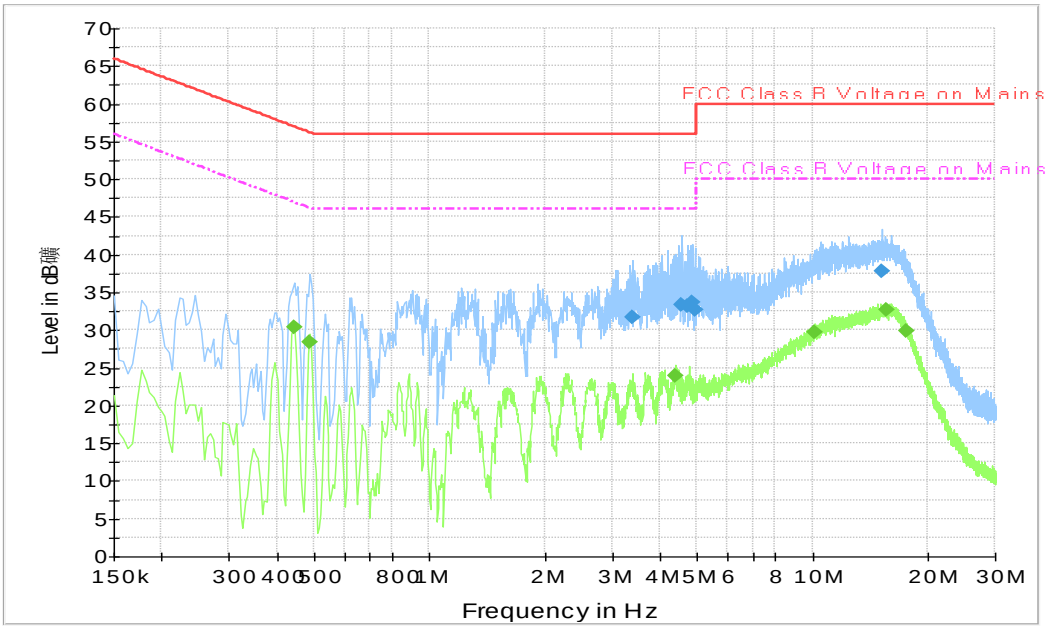

Fig.77 Conducted Emission(802.11a, Ch40, TX) (Charger WC030B51HK)

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
3.376500	31.8	GND	N	10.1	24.2	56.0
4.569000	33.3	GND	N	10.2	22.7	56.0
4.708500	33.2	GND	N	10.2	22.8	56.0
4.875000	33.6	GND	N	10.2	22.4	56.0
4.924500	32.8	GND	N	10.2	23.2	56.0
15.207000	37.8	GND	N	10.6	22.2	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.442500	30.4	GND	L1	10.0	16.6	47.0
0.487500	28.5	GND	N	10.0	17.8	46.2
4.407000	23.9	GND	N	10.2	22.1	46.0
10.104000	29.7	GND	N	10.4	20.3	50.0
15.544500	32.7	GND	N	10.7	17.3	50.0
17.664000	29.8	GND	N	10.7	20.2	50.0

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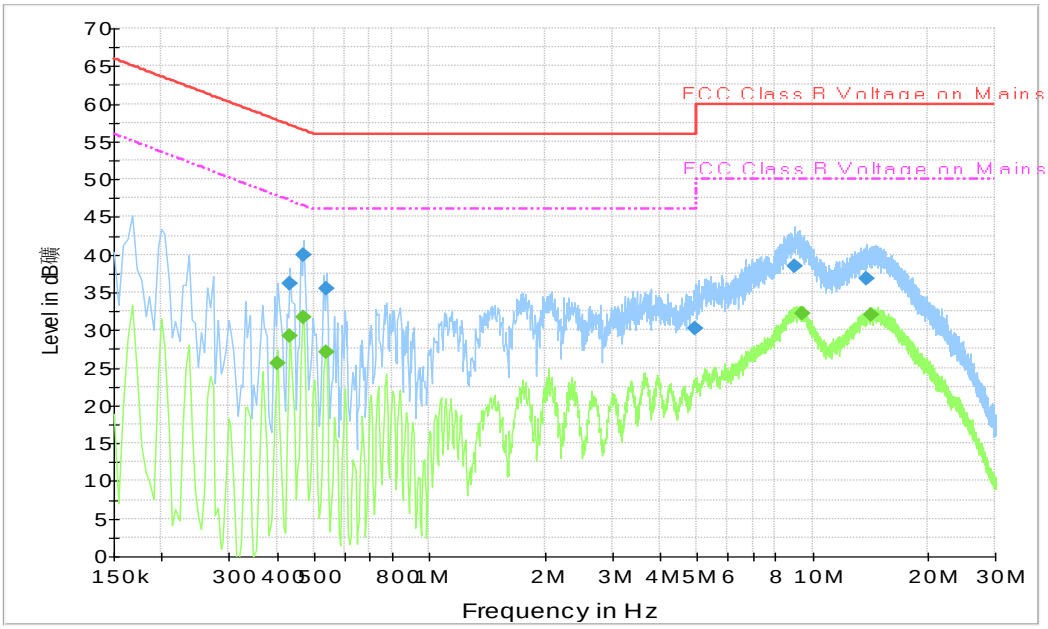

Fig.78 Conducted Emission(802.11a, Ch40, TX) (Charger WC0506A51GB)

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.433500	36.2	GND	L1	10.0	21.0	57.2
0.469500	40.0	GND	L1	10.0	16.6	56.5
0.537000	35.4	GND	L1	10.0	20.6	56.0
4.947000	30.2	GND	N	10.2	25.8	56.0
8.961000	38.5	GND	N	10.3	21.5	60.0
13.884000	36.8	GND	N	10.6	23.2	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.402000	25.6	GND	L1	10.0	22.2	47.8
0.433500	29.3	GND	L1	10.0	17.9	47.2
0.469500	31.7	GND	L1	10.0	14.8	46.5
0.537000	27.1	GND	L1	10.0	18.9	46.0
9.388500	32.2	GND	N	10.4	17.8	50.0
14.221500	32.0	GND	N	10.6	18.0	50.0

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B.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% ofthe 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

Measurement Result:

MIMO&CDD-ANT6

Mode	Frequency	99% Occupied bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.79	17.08	P
	5200 MHz	Fig.80	17.04	P
	5240 MHz	Fig.81	17.04	P
802.11n HT20	5180 MHz	Fig.82	18.32	P
	5200 MHz	Fig.83	18.32	P
	5240 MHz	Fig.84	18.32	P
802.11ac HT20	5180 MHz	Fig.85	18.32	P
	5200 MHz	Fig.86	18.32	P
	5240 MHz	Fig.87	18.36	P
802.11n	5190 MHz	Fig.88	36.40	P

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HT40	5230 MHz	Fig.89	36.40	P
802.11ac HT40	5190 MHz	Fig.90	36.40	P
	5230 MHz	Fig.91	36.40	P
802.11ac HT80	5210 MHz	Fig.92	75.84	P

Both of the ANT6 and ANT7 are measured, as the power of ANT6 is the worse case, so the results of ANT6 are reflected in the report.

Conclusion: PASS

Test graphs as below:

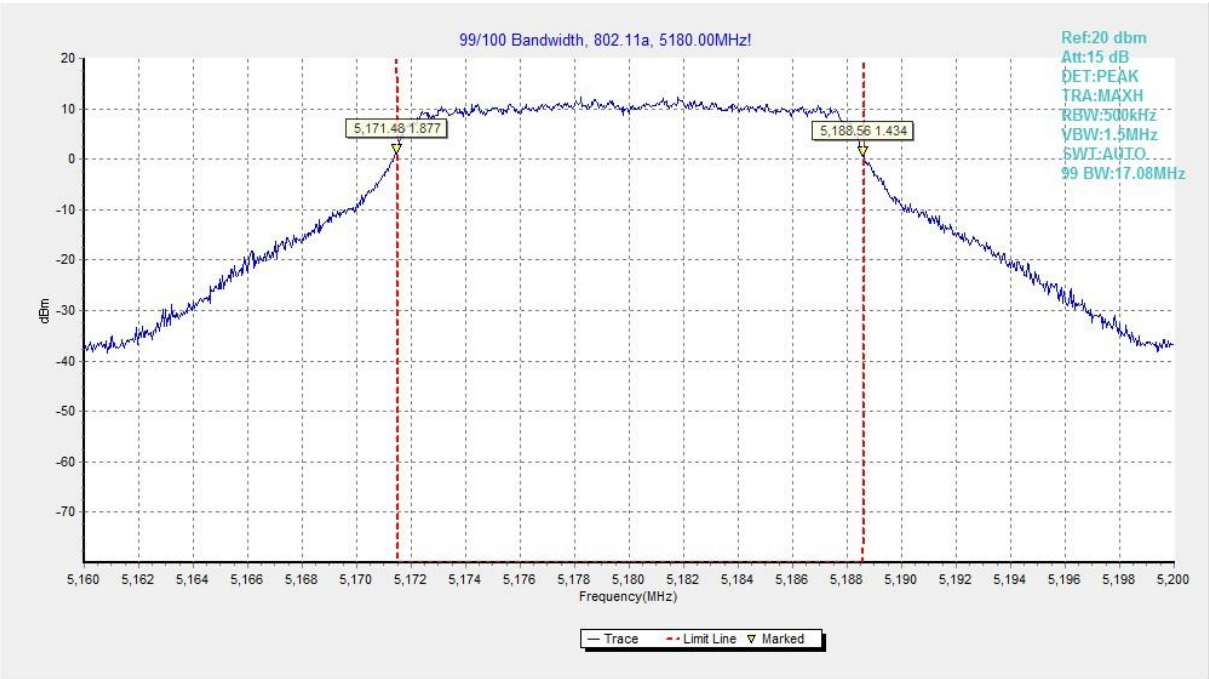

Fig.79 99% Occupied bandwidth (802.11a, 5180MHz)

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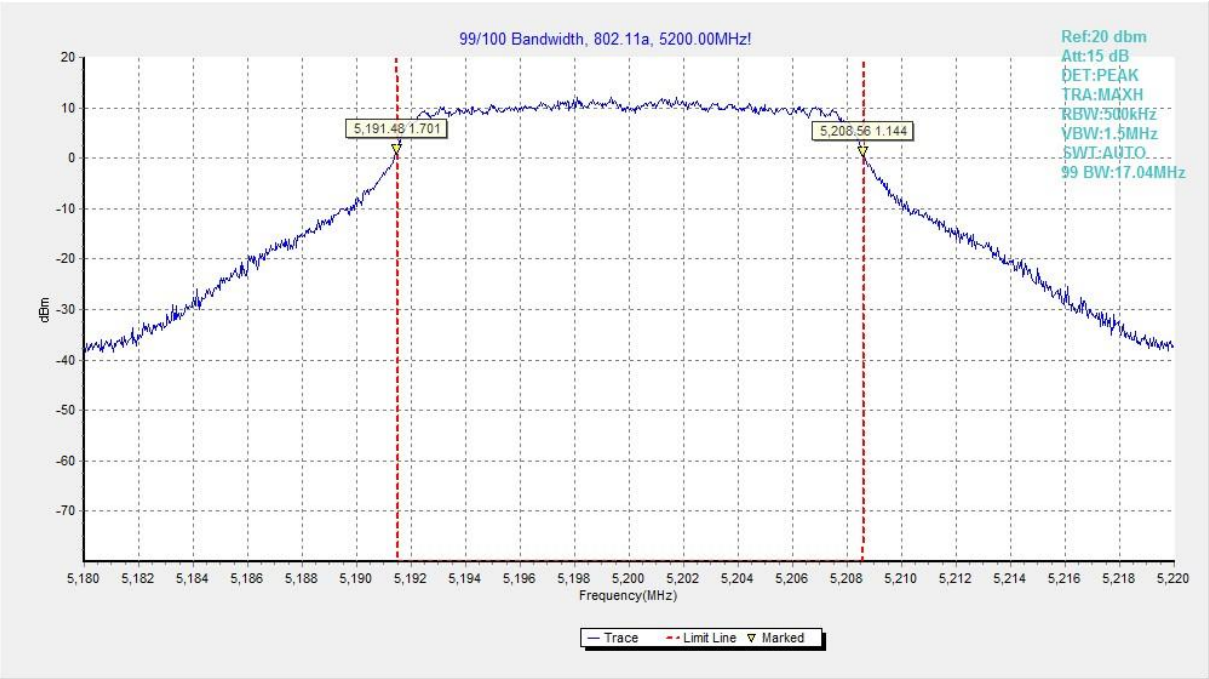

Fig.80 99% Occupied bandwidth (802.11a, 5200MHz)

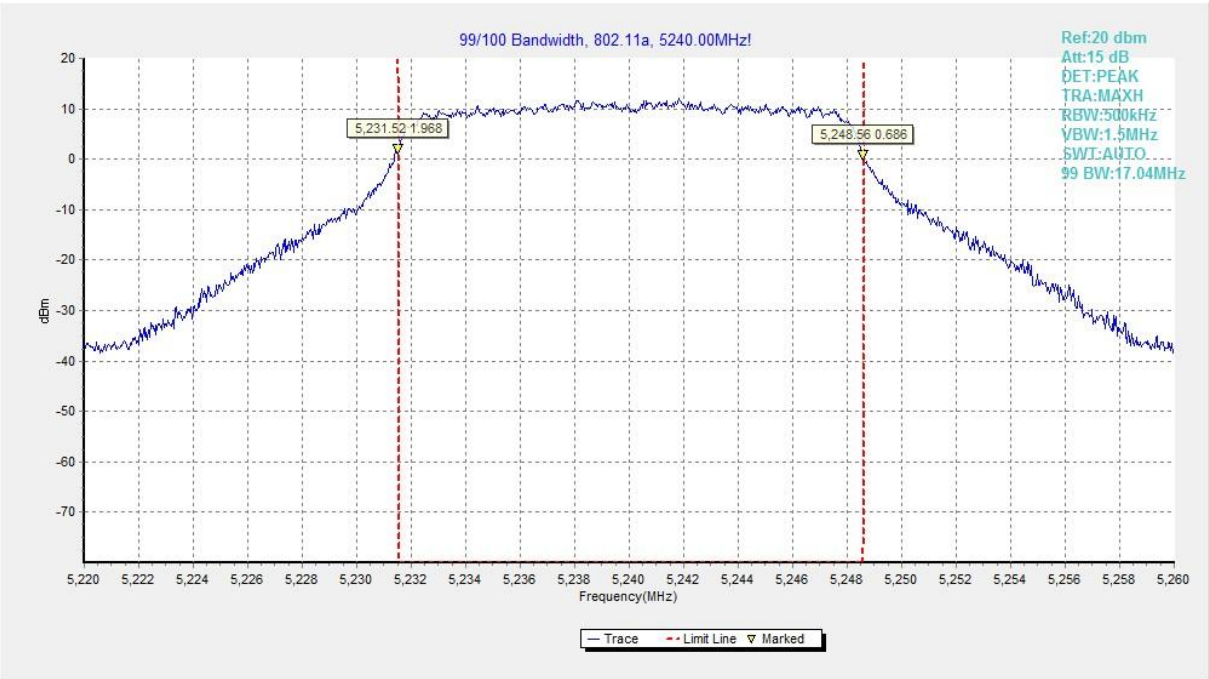

Fig.81 99% Occupied bandwidth (802.11a, 5240MHz)

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