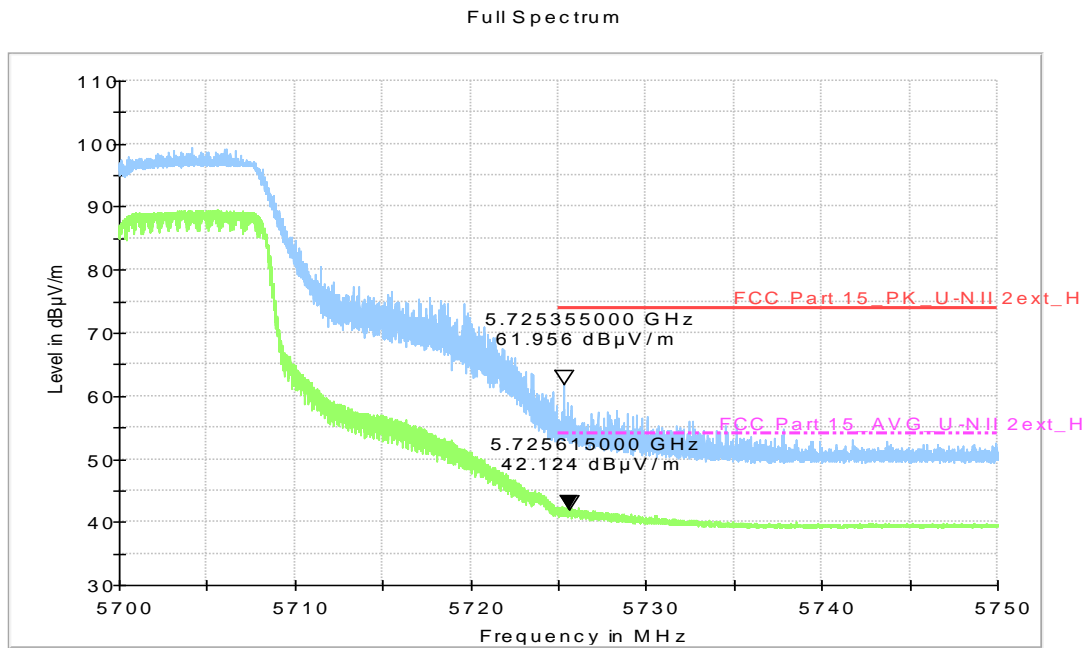
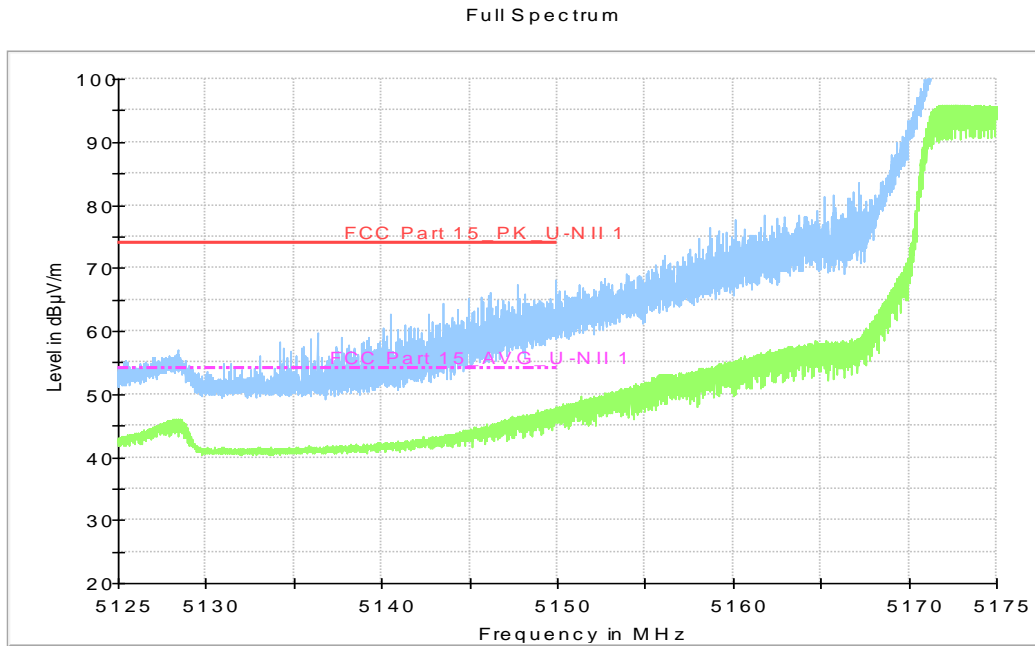


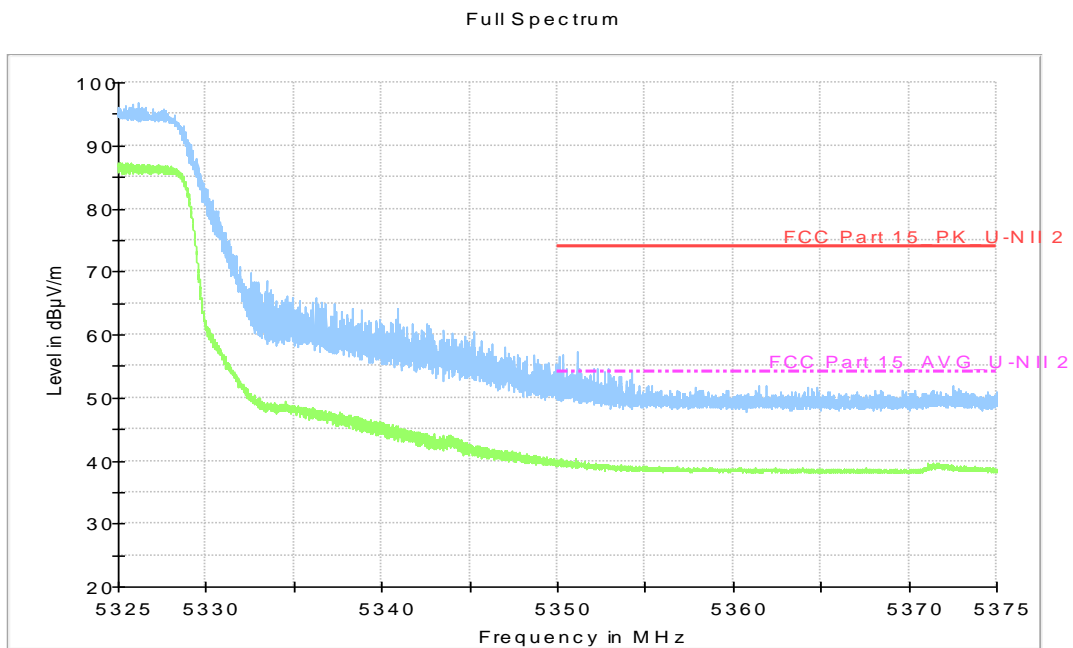
**Fig. 48 Band Edges (802.11a, 5500MHz)**



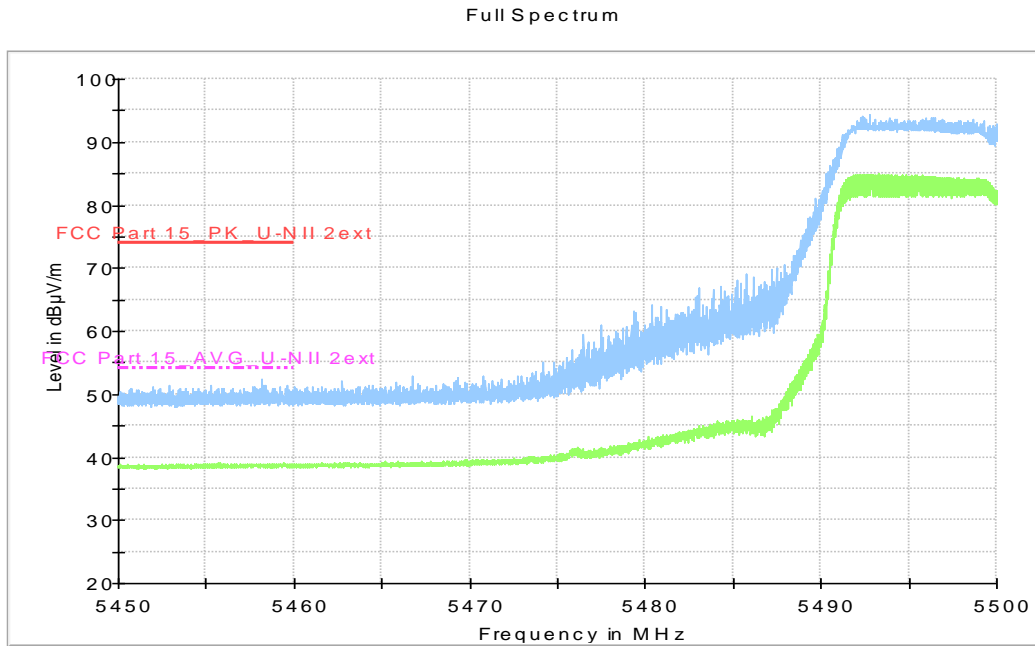
**Fig. 49 Band Edges (802.11a, 5700MHz)**



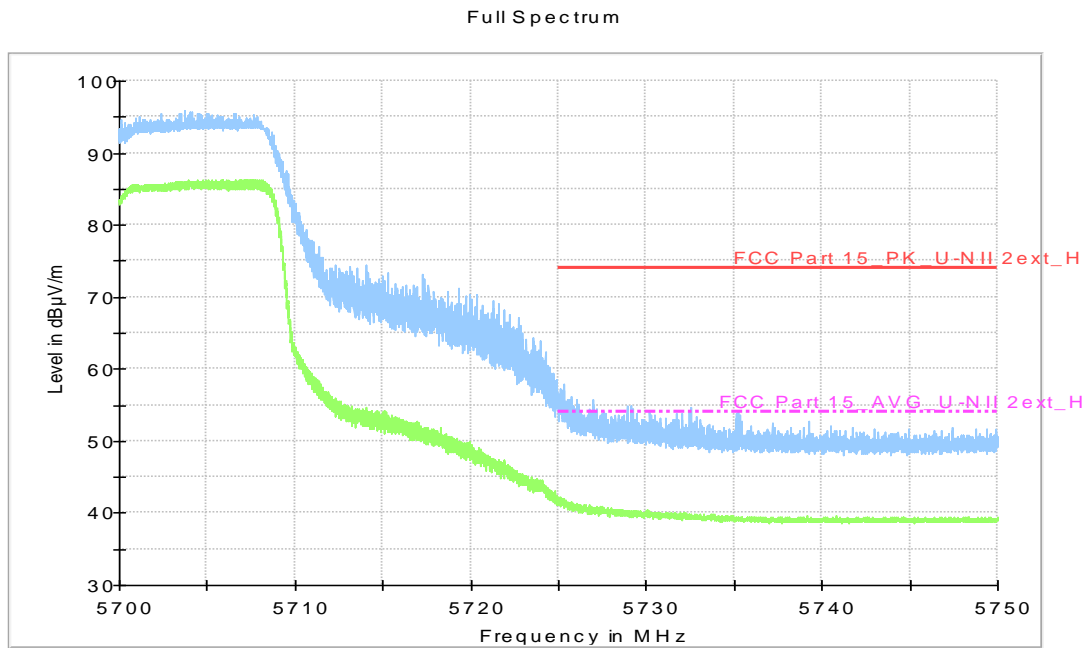
**Fig. 50 Band Edges (802.11n-HT20, 5180MHz)**



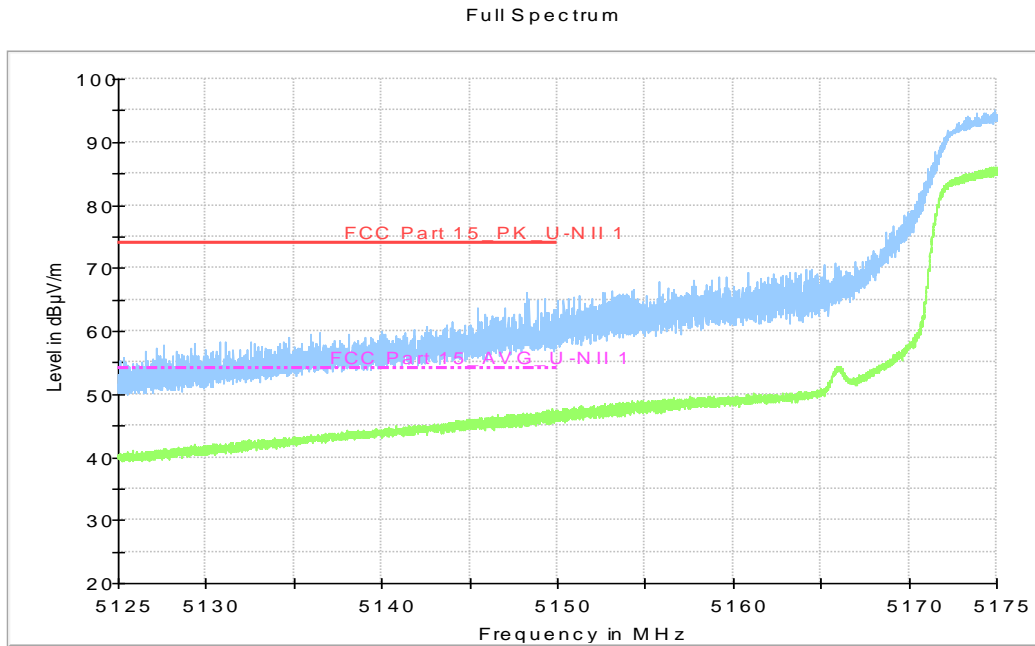
**Fig. 51 Band Edges (802.11n-HT20, 5320MHz)**



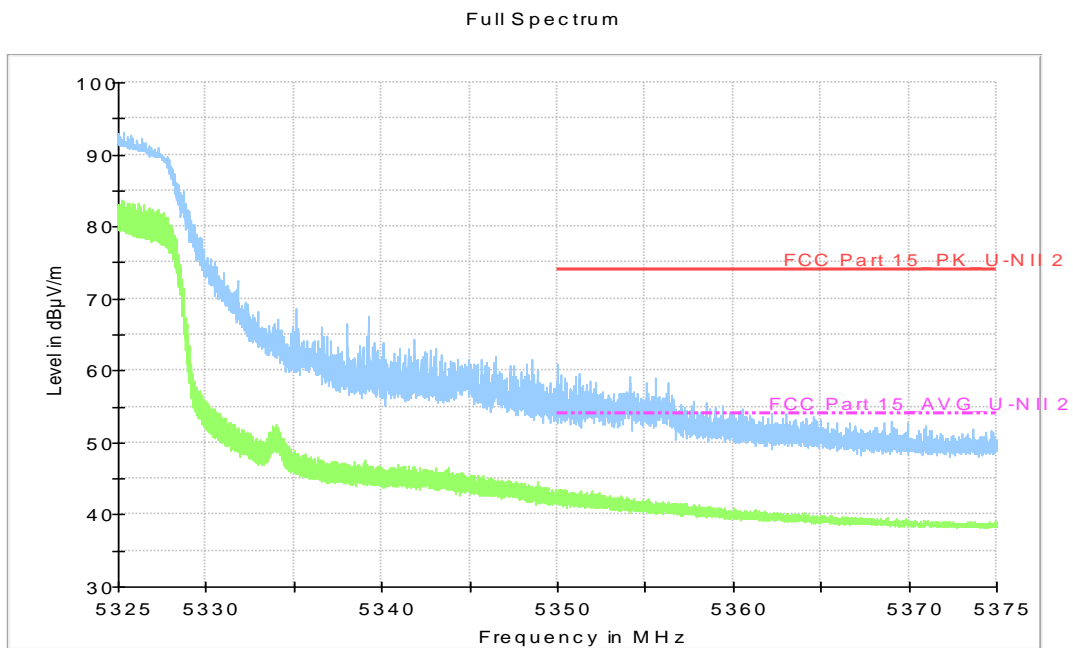
**Fig. 52 Band Edges (802.11n-HT20, 5500MHz)**



**Fig. 53 Band Edges (802.11n-HT20, 5700MHz)**

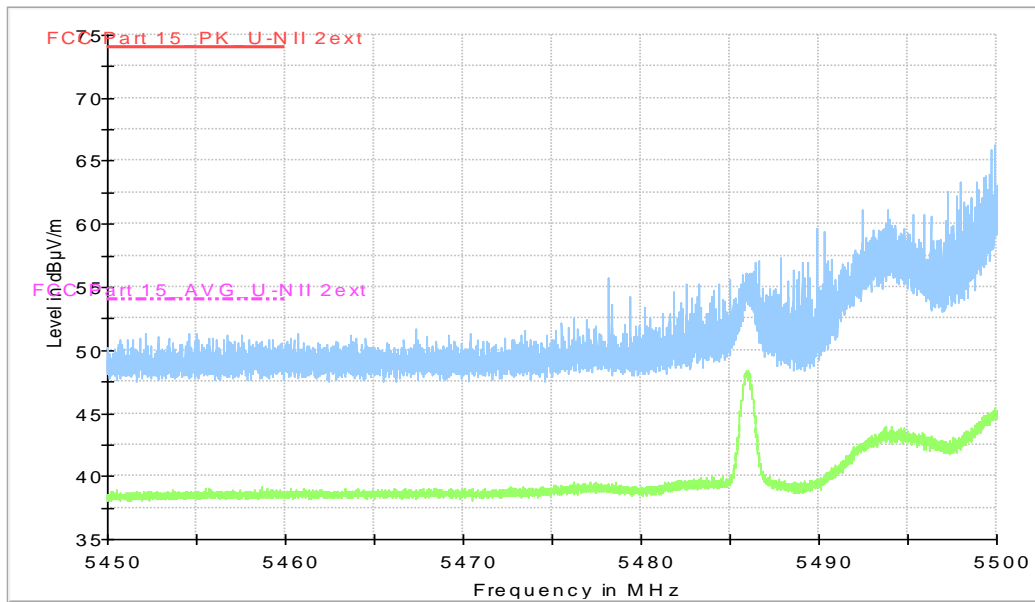


**Fig. 54 Band Edges (802.11n-HT40, 5190MHz)**



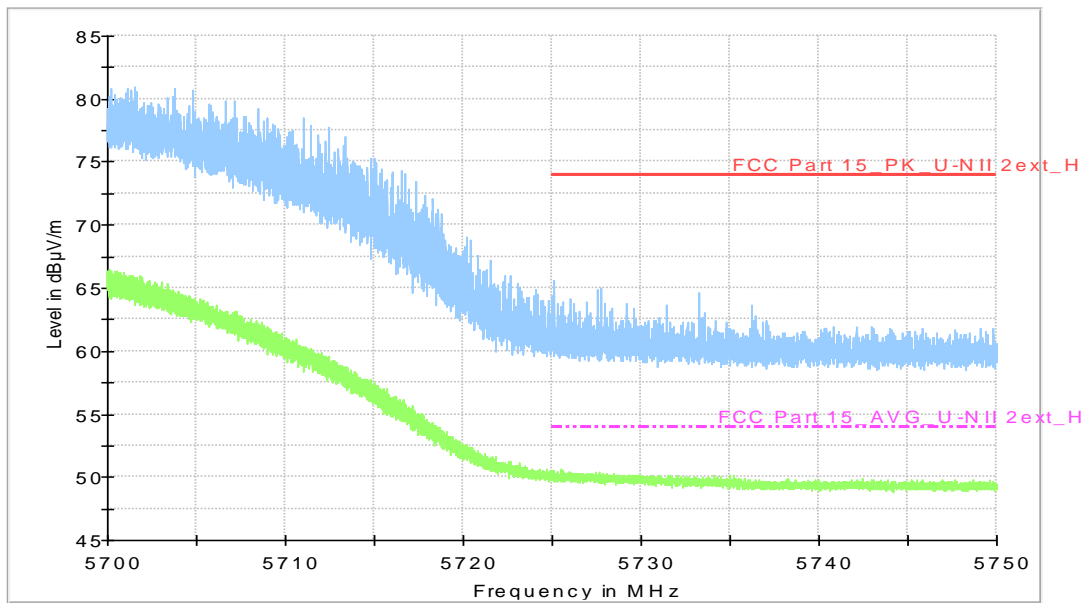
**Fig. 55 Band Edges (802.11n-HT40, 5310MHz)**

Full Spectrum



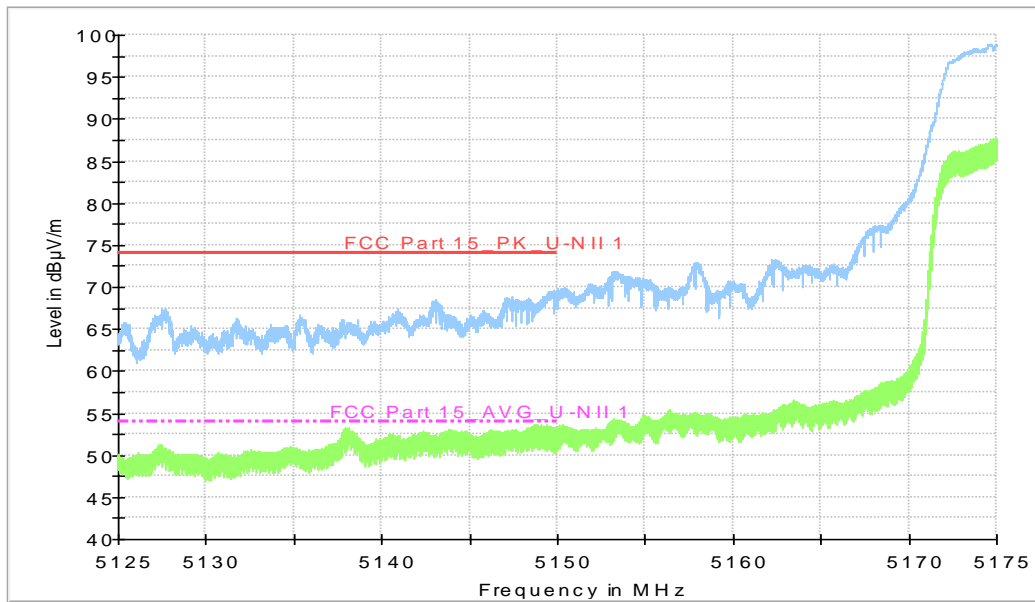
**Fig. 56 Band Edges (802.11n-HT40, 5510MHz)**

Full Spectrum



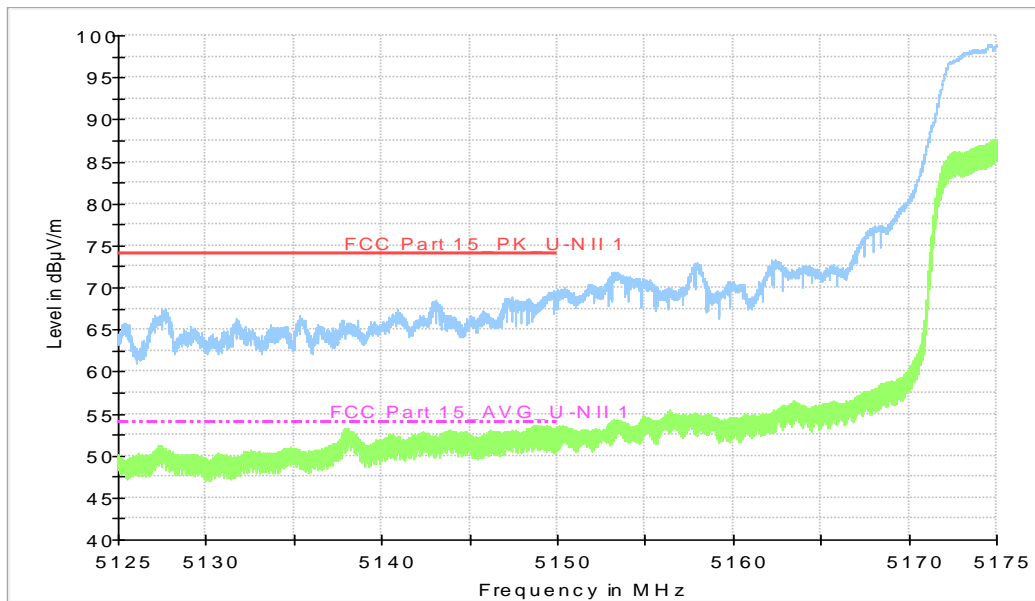
**Fig. 57 Band Edges (802.11n-HT40, 5670MHz)**

Full Spectrum



**Fig. 58 Band Edges (802.11ac-HT80, 5210MHz)**

Full Spectrum



**Fig. 59 Band Edges (802.11ac-HT80, 5290MHz)**

Full Spectrum

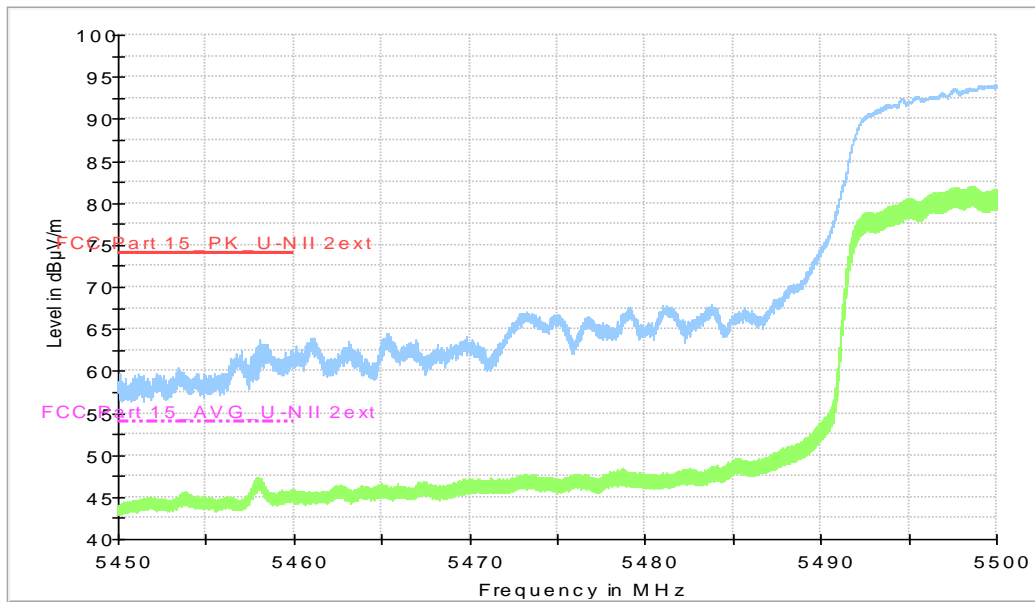


Fig. 60 Band Edges (802.11ac-HT80, 5530MHz)

## 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(dBμV/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 uncertainty:

Expanded measurement uncertainty for this test item is  $U = 5.28$  dB,  $k=2$ .

### Measurement Results:

**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:

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





**Average**

**802.11a**

Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5149.780	48.1	-35.1	34.6	48.6	H
17923.200	45.2	-17.7	45.6	17.3	H
17930.000	45.1	-17.7	45.6	17.2	V
17919.600	45.1	-17.7	45.6	17.2	H
17917.200	45.1	-17.7	45.6	17.2	H
17933.200	45.1	-17.7	45.6	17.2	H

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17935.200	45.2	-17.7	45.6	17.3	H
17920.400	45.1	-17.7	45.6	17.2	H
17928.800	45.1	-17.7	45.6	17.2	V
17913.200	45.1	-18.5	45.6	18.0	H
17932.800	45.1	-17.7	45.6	17.2	H
17936.800	45.1	-17.7	45.6	17.2	H

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17932.800	45.2	-17.7	45.6	17.3	H
17931.200	45.1	-17.7	45.6	17.2	H
17933.200	45.1	-17.7	45.6	17.2	V
17920.400	45.0	-17.7	45.6	17.1	H
17934.400	44.9	-17.7	45.6	17.0	H
17940.800	44.9	-17.7	45.6	17.0	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17936.400	45.3	-17.7	45.6	17.4	H
17937.200	45.2	-17.7	45.6	17.3	H
17926.000	45.1	-17.7	45.6	17.2	V
17944.400	45.1	-17.7	45.6	17.2	H
17935.200	45.1	-17.7	45.6	17.2	H
17924.000	45.1	-17.7	45.6	17.2	H

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17925.600	45.3	-17.7	45.6	17.4	H
17932.000	45.2	-17.7	45.6	17.3	H
17914.400	45.1	-17.7	45.6	17.2	V
17933.600	45.1	-17.7	45.6	17.2	H
17925.200	45.1	-17.7	45.6	17.2	H
17921.600	45.1	-17.7	45.6	17.2	H

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5350.090	39.1	-34.8	34.6	39.3	H
17929.600	45.4	-17.7	45.6	17.5	H
17928.400	45.1	-17.7	45.6	17.2	V
17930.000	45.1	-17.7	45.6	17.2	H
17924.400	45.0	-17.7	45.6	17.1	H
17916.000	45.0	-17.7	45.6	17.1	H

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5457.695	38.4	-34.9	34.6	38.7	H
17916.400	45.4	-17.7	45.6	17.5	H
17928.800	45.1	-17.7	45.6	17.2	V
17924.800	45.1	-17.7	45.6	17.2	H
17941.200	45.1	-17.7	45.6	17.2	H
17938.000	45.1	-17.7	45.6	17.2	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17935.200	45.5	-17.7	45.6	17.6	H
17926.400	45.3	-17.7	45.6	17.4	H
17927.600	45.2	-17.7	45.6	17.3	V
17926.000	45.2	-17.7	45.6	17.3	H
17940.800	45.2	-17.7	45.6	17.3	H
17928.400	45.1	-17.7	45.6	17.2	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17930.000	45.1	-17.7	45.6	17.2	H
17925.200	45.1	-17.7	45.6	17.2	H
17922.000	45.0	-17.7	45.6	17.1	V
17939.200	45.0	-17.7	45.6	17.1	H
17928.000	45.0	-17.7	45.6	17.1	H
17921.600	45.0	-17.7	45.6	17.1	H

**802.11n-HT20**

Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5149.925	48.0	-35.1	34.6	48.5	H
17936.400	45.1	-17.7	45.6	17.2	H
17927.200	45.0	-17.7	45.6	17.1	V
17915.600	45.0	-17.7	45.6	17.1	H
17922.800	45.0	-17.7	45.6	17.1	H
17934.800	45.0	-17.7	45.6	17.1	H

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17942.800	45.3	-17.7	45.6	17.4	H
17933.200	45.3	-17.7	45.6	17.4	H
17923.600	45.1	-17.7	45.6	17.2	V
17931.200	45.1	-17.7	45.6	17.2	H
17928.800	45	-17.7	45.6	17.1	H
17934.400	45	-17.7	45.6	17.1	H

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17942.800	45.3	-17.7	45.6	17.4	H
17933.200	45.3	-17.7	45.6	17.4	H
17923.600	45.1	-17.7	45.6	17.2	V
17931.200	45.1	-17.7	45.6	17.2	H
17928.800	45.0	-17.7	45.6	17.1	H
17934.400	45.0	-17.7	45.6	17.1	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17930.800	45.3	-17.7	45.6	17.4	H
17915.200	45.2	-17.7	45.6	17.3	H
17927.600	45.2	-17.7	45.6	17.3	V
17930.400	45.1	-17.7	45.6	17.2	H
17918.400	45.1	-17.7	45.6	17.2	H
17929.200	45.1	-17.7	45.6	17.2	H

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17932.800	45.0	-17.7	45.6	17.1	H
17932.000	45.0	-17.7	45.6	17.1	H
17931.200	45.0	-17.7	45.6	17.1	V
17928.000	45.0	-17.7	45.6	17.1	H
17916.800	45.0	-17.7	45.6	17.1	H
17933.600	44.9	-17.7	45.6	17.0	H

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5351.145	39.3	-34.8	34.6	39.5	H
17923.600	45.2	-17.7	45.6	17.3	H
17933.200	45.2	-17.7	45.6	17.3	V
17924.800	45.1	-17.7	45.6	17.2	H
17932.400	45.1	-17.7	45.6	17.2	H
17932.800	45.0	-17.7	45.6	17.1	H

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5458.290	41.9	-34.9	34.6	38.6	H
17909.600	45.1	-18.5	45.6	18.0	H
17935.200	45.1	-17.7	45.6	17.2	V
17940.000	45.0	-17.7	45.6	17.1	H
17923.200	45.0	-17.7	45.6	17.1	H
17919.600	45.0	-17.7	45.6	17.1	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17916.000	45.1	-17.7	45.6	17.200	H
17930.400	45.1	-17.7	45.6	17.200	H
17918.000	45.1	-17.7	45.6	17.200	V
17925.200	45.0	-17.7	45.6	17.100	H
17925.600	45.0	-17.7	45.6	17.100	H
17913.600	45.0	-18.5	45.6	17.900	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5725.315	41.9	-33.8	35.1	40.600	H
17922.000	45.0	-17.7	45.6	17.100	H
17935.200	44.9	-17.7	45.6	17.000	V
17926.000	44.9	-17.7	45.6	17.000	H
17918.800	44.9	-17.7	45.6	17.000	H
17933.200	44.9	-17.7	45.6	17.000	H

**802.11n-HT40**

Channel 38

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5149.990	46.5	-35.1	34.6	47.0	H
17928.400	45.2	-17.7	45.6	17.3	H
17936.800	45.0	-17.7	45.6	17.1	V
17928.000	45.0	-17.7	45.6	17.1	H
17927.600	45.0	-17.7	45.6	17.1	H
17937.600	45.0	-17.7	45.6	17.1	H

Channel 46

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17921.200	45.2	-17.7	45.6	17.3	H
17926.400	45.0	-17.7	45.6	17.1	H
17929.600	45.0	-17.7	45.6	17.1	V
17938.400	45.0	-17.7	45.6	17.1	H
17933.200	44.9	-17.7	45.6	17.0	H
17926.800	44.9	-17.7	45.6	17.0	H

Channel 54

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17940.400	45.2	-17.7	45.6	17.3	H
17937.600	45.1	-17.7	45.6	17.2	H
17920.800	45.1	-17.7	45.6	17.2	V
17924.000	45.1	-17.7	45.6	17.2	H
17926.000	45.1	-17.7	45.6	17.2	H
17934.800	45.1	-17.7	45.6	17.2	H

Channel 62

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5350.250	43.6	-34.8	34.6	43.8	H
17934.000	45.2	-17.7	45.6	17.3	H
17917.200	45.1	-17.7	45.6	17.2	V
17915.600	45.1	-17.7	45.6	17.2	H
17926.400	45.0	-17.7	45.6	17.1	H
17923.600	45.0	-17.7	45.6	17.1	H

Channel 102

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5456.780	38.7	-34.9	34.6	39.0	H
17943.600	45.1	-17.7	45.6	17.2	H
17924.400	45.1	-17.7	45.6	17.2	V
17936.800	45.1	-17.7	45.6	17.2	H
17932.400	45.1	-17.7	45.6	17.2	H
17929.600	45.1	-17.7	45.6	17.2	H

Channel 118

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17932.000	45.3	-17.7	45.6	17.4	H
17914.400	45.1	-17.7	45.6	17.2	H
17924.000	45.0	-17.7	45.6	17.1	V
17935.200	45.0	-17.7	45.6	17.1	H
17936.000	45.0	-17.7	45.6	17.1	H
17934.800	45.0	-17.7	45.6	17.1	H

Channel 134

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5728.445	43.7	-33.8	35.1	42.4	H
17924.400	45.2	-17.7	45.6	17.3	H
17918.000	45.1	-17.7	45.6	17.2	V
17932.800	45.1	-17.7	45.6	17.2	H
17912.400	45.1	-18.5	45.6	18.0	H
17925.600	45.1	-17.7	45.6	17.2	H

802.11ac-HT20

Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5149.680	47.8	-35.1	34.6	48.3	H
17940.400	45.0	-17.7	45.6	17.1	H
17925.200	44.9	-17.7	45.6	17.0	V
17929.600	44.9	-17.7	45.6	17.0	H
17934.800	44.9	-17.7	45.6	17.0	H
17923.200	44.9	-17.7	45.6	17.0	H

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17938.800	45.0	-17.7	45.6	17.1	H
17923.200	44.9	-17.7	45.6	17.0	H
17929.200	44.9	-17.7	45.6	17.0	V
17926.800	44.9	-17.7	45.6	17.0	H
17922.800	44.9	-17.7	45.6	17.0	H
17928.400	44.9	-17.7	45.6	17.0	H

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17939.600	45.2	-17.7	45.6	17.3	H
17943.600	45.2	-17.7	45.6	17.3	H
17924.000	45.1	-17.7	45.6	17.2	V
17928.800	45.0	-17.7	45.6	17.1	H
17932.400	45.0	-17.7	45.6	17.1	H
17936.800	45.0	-17.7	45.6	17.1	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17935.600	45.3	-17.7	45.6	17.4	H
17938.000	45.2	-17.7	45.6	17.3	H
17933.200	45.1	-17.7	45.6	17.2	V
17930.400	45.1	-17.7	45.6	17.2	H
17934.400	45.1	-17.7	45.6	17.2	H
17919.600	45.1	-17.7	45.6	17.2	H

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17936.800	45.1	-17.7	45.6	17.2	H
17937.200	45.1	-17.7	45.6	17.2	H
17932.000	45	-17.7	45.6	17.1	V
17923.600	45	-17.7	45.6	17.1	H
17924.800	45	-17.7	45.6	17.1	H
17920.800	45	-17.7	45.6	17.1	H

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5350.880	39.4	-34.8	34.6	39.6	H
17923.600	45.2	-17.7	45.6	17.3	H
17933.200	45.2	-17.7	45.6	17.3	V
17924.800	45.1	-17.7	45.6	17.2	H
17932.400	45.1	-17.7	45.6	17.2	H
17932.800	45.0	-17.7	45.6	17.1	H

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5460.675	38.6	-34.9	34.6	38.9	H
17937.200	45.3	-17.7	45.6	17.4	H
17939.600	45.0	-17.7	45.6	17.1	V
17925.600	45.0	-17.7	45.6	17.1	H
17933.200	45.0	-17.7	45.6	17.1	H
17924.400	45.0	-17.7	45.6	17.1	H



Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17922.800	45.2	-17.7	45.6	17.3	H
17943.600	45.1	-17.7	45.6	17.2	H
17932.800	45	-17.7	45.6	17.1	V
17930.400	45	-17.7	45.6	17.1	H
17927.600	44.9	-17.7	45.6	17.0	H
17934.400	44.9	-17.7	45.6	17.0	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5725.765	41.88128	-33.8	35.1	40.6	H
17920.800	45.1	-17.7	45.6	17.2	H
17923.600	45.1	-17.7	45.6	17.2	V
17932.800	45.1	-17.7	45.6	17.2	H
17924.800	45.1	-17.7	45.6	17.2	H
17928.400	45	-17.7	45.6	17.1	H

**802.11ac-HT40**

Channel 38

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5152.860	47.3	-35.1	34.6	47.8	H
17941.200	45.4	-17.7	45.6	17.5	H
17932.000	45.2	-17.7	45.6	17.3	V
17923.600	45.2	-17.7	45.6	17.3	H
17937.600	45.2	-17.7	45.6	17.3	H
17934.800	45.1	-17.7	45.6	17.2	H

Channel 46

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17940.400	45.1	-17.7	45.6	17.2	H
17934.400	45.1	-17.7	45.6	17.2	H
17937.600	45.1	-17.7	45.6	17.2	V
17919.200	45.1	-17.7	45.6	17.2	H
17925.600	45.0	-17.7	45.6	17.1	H
17915.600	45.0	-17.7	45.6	17.1	H

Channel 54

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17918.400	45.0	-17.7	45.6	17.1	H
17934.000	45.0	-17.7	45.6	17.1	H
17929.600	45.0	-17.7	45.6	17.1	V
17916.400	45.0	-17.7	45.6	17.1	H
17930.800	45.0	-17.7	45.6	17.1	H
17939.200	44.9	-17.7	45.6	17.0	H

Channel 62

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5351.290	42.2	-34.8	34.6	42.4	H
17918.400	45.0	-17.7	45.6	17.1	H
17934.000	45.0	-17.7	45.6	17.1	V
17929.600	45.0	-17.7	45.6	17.1	H
17916.400	45.0	-17.7	45.6	17.1	H
17930.800	45.0	-17.7	45.6	17.1	H

Channel 102

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5459.020	44.0	-34.9	34.6	44.3	H
17943.200	45.2	-17.7	45.6	17.3	H
17923.600	45.1	-17.7	45.6	17.2	V
17940.400	45.1	-17.7	45.6	17.2	H
17917.600	45.0	-17.7	45.6	17.1	H
17924.400	45.0	-17.7	45.6	17.1	H

Channel 118

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17935.600	45.0	-17.7	45.6	17.1	H
17924.400	45.0	-17.7	45.6	17.1	H
17922.400	45.0	-17.7	45.6	17.1	V
17939.600	45.0	-17.7	45.6	17.1	H
17922.000	45.0	-17.7	45.6	17.1	H
17932.000	45.0	-17.7	45.6	17.1	H

Channel 134

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5726.005	43.7	-33.8	35.1	42.4	H
17913.600	45.0	-18.5	45.6	17.9	H
17931.200	45.0	-17.7	45.6	17.1	V
17944.000	45.0	-17.7	45.6	17.1	H
17920.800	45.0	-17.7	45.6	17.1	H
17934.000	45.0	-17.7	45.6	17.1	H

**802.11ac-HT80**

Channel 42

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5146.095	52.9	-35.1	34.6	53.4	H
17846.800	43.9	-18.5	45.6	16.8	H
17954.800	44.3	-17.7	45.6	16.4	V
17926.800	45.0	-17.7	45.6	17.1	H
17936.400	44.9	-17.7	45.6	17.0	H
17873.600	44.1	-18.5	45.6	17.0	H

Channel 58

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5350.260	48.1	-34.8	34.6	48.3	H
17924.000	45.1	-17.7	45.6	17.2	H
17932.400	45.1	-17.7	45.6	17.2	V
17922.400	45.1	-17.7	45.6	17.2	H
17932.000	45.1	-17.7	45.6	17.2	H
17928.400	45.1	-17.7	45.6	17.2	H

Channel 106

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5486.900	49.6	-34.0	34.6	49.0	H
17938.000	45.2	-17.7	45.6	17.3	H
17933.200	45.2	-17.7	45.6	17.3	V
17936.000	45.2	-17.7	45.6	17.3	H
17924.800	45.2	-17.7	45.6	17.3	H
17936.400	45.0	-17.7	45.6	17.1	H

**Peak**

**802.11a**

Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5149.605	65.2	-35.1	34.6	65.7	H
17951.600	57.8	-17.7	45.6	29.9	H
17932.400	57.3	-17.7	45.6	29.4	V
17950.000	57.2	-17.7	45.6	29.3	H
17914.000	57.0	-18.5	45.6	29.9	H
17904.800	56.8	-18.5	45.6	29.7	H

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17926.800	57.1	-17.7	45.6	29.2	H
17913.200	56.9	-18.5	45.6	29.8	H
17916.800	56.9	-17.7	45.6	29.0	V
17958.800	56.8	-17.7	45.6	28.9	H
17940.800	56.6	-17.7	45.6	28.7	H
17830.800	56.6	-18.5	45.6	29.5	H

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17997.600	57.3	-17.7	45.6	29.4	H
17962.800	56.6	-17.7	45.6	28.7	H
17918.800	56.6	-17.7	45.6	28.7	V
17933.600	56.6	-17.7	45.6	28.7	H
17812.400	56.4	-18.5	45.6	29.3	H
17939.600	56.3	-17.7	45.6	28.4	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17871.600	57.6	-18.5	45.6	30.5	H
17901.600	56.9	-18.5	45.6	29.8	H
17833.600	56.8	-18.5	45.6	29.7	V
17936.400	56.8	-17.7	45.6	28.9	H
17920.400	56.7	-17.7	45.6	28.8	H
17865.200	56.7	-18.5	45.6	29.6	H

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17942.400	56.8	-17.7	45.6	28.9	H
17867.600	56.8	-18.5	45.6	29.7	H
17914.800	56.6	-17.7	45.6	28.7	V
17900.000	56.6	-18.5	45.6	29.5	H
17852.000	56.6	-18.5	45.6	29.5	H
17909.600	56.5	-18.5	45.6	29.4	H

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5350.075	53.6	-34.8	34.6	53.8	H
17976.400	57.1	-17.7	45.6	29.2	H
17945.600	57.1	-17.7	45.6	29.2	V
17906.800	56.9	-18.5	45.6	29.8	H
17820.800	56.9	-18.5	45.6	29.8	H
17804.800	56.8	-18.5	45.6	29.7	H

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5457.690	51.5	-34.9	34.6	51.8	H
17918.800	57.3	-17.7	45.6	29.4	H
17928.400	57.0	-17.7	45.6	29.1	V
17971.600	56.9	-17.7	45.6	29.0	H
17936.000	56.9	-17.7	45.6	29.0	H
17937.600	56.9	-17.7	45.6	29.0	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17822.800	57.2	-18.5	45.6	30.1	H
17806.000	56.9	-18.5	45.6	29.8	H
17928.400	56.9	-17.7	45.6	29.0	V
17978.000	56.8	-17.7	45.6	28.9	H
17924.800	56.6	-17.7	45.6	28.7	H
17945.200	56.6	-17.7	45.6	28.7	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17845.200	56.9	-18.5	45.6	29.8	H
17934.400	56.8	-17.7	45.6	28.9	H
17721.600	56.5	-18.9	45.6	29.8	V
17840.000	56.5	-18.5	45.6	29.4	H
17914.000	56.4	-18.5	45.6	29.3	H
17966.800	56.3	-17.7	45.6	28.4	H

**802.11n-HT20**

Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5149.935	68.0	-35.1	34.6	68.5	H
17932.000	57.1	-17.7	45.6	29.2	H
17906.000	56.9	-18.5	45.6	29.8	V
17829.200	56.9	-18.5	45.6	29.8	H
17682.000	56.8	-18.9	45.6	30.1	H
17876.000	56.5	-18.5	45.6	29.4	H

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17942.400	57.1	-17.7	45.6	29.2	H
17989.600	57.1	-17.7	45.6	29.2	H
17949.200	56.6	-17.7	45.6	28.7	V
17955.600	56.6	-17.7	45.6	28.7	H
17938.800	56.4	-17.7	45.6	28.5	H
17918.400	56.4	-17.7	45.6	28.5	H

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17932.000	57.6	-17.7	45.6	29.7	H
17898.000	57.0	-18.5	45.6	29.9	H
17900.000	56.9	-18.5	45.6	29.8	V
17854.000	56.9	-18.5	45.6	29.8	H
17908.800	56.7	-18.5	45.6	29.6	H
17924.400	56.7	-17.7	45.6	28.8	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17904.000	57.0	-18.5	45.6	29.9	H
17834.400	56.9	-18.5	45.6	29.8	H
17948.400	56.8	-17.7	45.6	28.9	V
17876.400	56.7	-18.5	45.6	29.6	H
17936.400	56.5	-17.7	45.6	28.6	H
17937.600	56.5	-17.7	45.6	28.6	H

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17940.400	57.4	-17.7	45.6	29.5	H
17835.200	57.2	-18.5	45.6	30.1	H
17926.400	57.1	-17.7	45.6	29.2	V
17932.800	57.0	-17.7	45.6	29.1	H
17962.400	56.7	-17.7	45.6	28.8	H
17918.000	56.7	-17.7	45.6	28.8	H

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5351.150	57.4	-34.8	34.6	57.6	H
17941.600	57.0	-17.7	45.6	29.1	H
17938.400	57.0	-17.7	45.6	29.1	V
17976.000	56.9	-17.7	45.6	29.0	H
17838.400	56.8	-18.5	45.6	29.7	H
17961.600	56.6	-17.7	45.6	28.7	H

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5459.560	50.6	-34.9	34.6	50.9	H
17976.800	57.0	-17.7	45.6	29.1	H
17946.000	56.8	-17.7	45.6	28.9	V
17918.800	56.7	-17.7	45.6	28.8	H
17877.200	56.6	-18.5	45.6	29.5	H
17901.200	56.6	-18.5	45.6	29.5	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17993.600	57.3	-17.7	45.6	29.4	H
17850.400	57.1	-18.5	45.6	30.0	H
17940.800	56.7	-17.7	45.6	28.8	V
17992.800	56.5	-17.7	45.6	28.6	H
17834.800	56.5	-18.5	45.6	29.4	H
17930.800	56.2	-17.7	45.6	28.3	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5725.335	58.0	-33.8	35.1	56.7	H
17922.400	56.9	-17.7	45.6	29.0	H
17838.000	56.6	-18.5	45.6	29.5	V
17832.000	56.6	-18.5	45.6	29.5	H
17926.800	56.5	-17.7	45.6	28.6	H
17938.000	56.4	-17.7	45.6	28.5	H

**802.11n-HT40**

Channel 38

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5149.990	61.1	-35.1	34.6	61.6	H
17967.200	56.4	-17.7	45.6	28.5	H
17913.200	56.3	-18.5	45.6	29.2	V
17976.000	56.3	-17.7	45.6	28.4	H
17924.800	56.3	-17.7	45.6	28.4	H
17957.200	56.1	-17.7	45.6	28.2	H

Channel 46

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17919.200	57.2	-17.7	45.6	29.3	H
17977.600	56.9	-17.7	45.6	29.0	H
17939.600	56.9	-17.7	45.6	29.0	V
17903.600	56.8	-18.5	45.6	29.7	H
17848.000	56.7	-18.5	45.6	29.6	H
17957.600	56.4	-17.7	45.6	28.5	H



Channel 54

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17925.200	57.3	-17.7	45.6	29.4	H
17928.400	57.2	-17.7	45.6	29.3	H
17945.600	56.7	-17.7	45.6	28.8	V
17888.400	56.6	-18.5	45.6	29.5	H
17952.400	56.5	-17.7	45.6	28.6	H
17949.200	56.4	-17.7	45.6	28.5	H

Channel 62

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5350.250	59.4	-34.8	34.6	59.6	H
17933.600	56.9	-17.7	45.6	29.0	H
17944.400	56.8	-17.7	45.6	28.9	V
17939.600	56.6	-17.7	45.6	28.7	H
17898.000	56.4	-18.5	45.6	29.3	H
17934.400	56.4	-17.7	45.6	28.5	H

Channel 102

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5456.745	51.1	-34.9	34.6	51.4	H
17887.600	57.1	-18.5	45.6	30.0	H
17897.200	56.7	-18.5	45.6	29.6	V
17920.000	56.7	-17.7	45.6	28.8	H
17952.000	56.5	-17.7	45.6	28.6	H
17947.200	56.5	-17.7	45.6	28.6	H

Channel 118

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17917.600	57.4	-17.7	45.6	29.5	H
17906.000	57.2	-18.5	45.6	30.1	H
17940.400	56.7	-17.7	45.6	28.8	V
17938.800	56.7	-17.7	45.6	28.8	H
17933.200	56.2	-17.7	45.6	28.3	H
17952.400	56.2	-17.7	45.6	28.3	H

Channel 134

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5728.445	61.0	-33.8	35.1	59.7	H
17963.200	56.7	-17.7	45.6	28.8	H
17927.600	56.6	-17.7	45.6	28.7	V
17936.000	56.4	-17.7	45.6	28.5	H
17926.800	56.3	-17.7	45.6	28.4	H
17939.200	56.3	-17.7	45.6	28.4	H

**802.11ac-HT20**

Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5149.705	64.7	-35.1	34.6	65.2	H
17917.600	57.3	-17.7	45.6	29.4	H
17914.400	57.0	-17.7	45.6	29.1	V
17992.400	56.9	-17.7	45.6	29.0	H
17937.200	56.8	-17.7	45.6	28.9	H
17965.200	56.8	-17.7	45.6	28.9	H

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17838.000	57.5	-18.5	45.6	30.4	H
17872.800	57.0	-18.5	45.6	29.9	H
17924.000	57.0	-17.7	45.6	29.1	V
17948.400	57.0	-17.7	45.6	29.1	H
17803.200	56.9	-18.5	45.6	29.8	H
17819.600	56.6	-18.5	45.6	29.5	H

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17938.400	58.1	-17.7	45.6	30.2	H
17973.600	57.1	-17.7	45.6	29.2	H
17924.000	56.9	-17.7	45.6	29.0	V
17932.800	56.7	-17.7	45.6	28.8	H
17863.600	56.5	-18.5	45.6	29.4	H
17916.000	56.4	-17.7	45.6	28.5	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17963.200	57.0	-17.7	45.6	29.1	H
17955.200	57.0	-17.7	45.6	29.1	H
17956.800	56.9	-17.7	45.6	29.0	V
17935.600	56.7	-17.7	45.6	28.8	H
17931.200	56.7	-17.7	45.6	28.8	H
17895.600	56.6	-18.5	45.6	29.5	H

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17937.200	57.5	-17.7	45.6	29.6	H
17954.800	57.2	-17.7	45.6	29.3	H
17910.000	57	-18.5	45.6	29.9	V
17940.400	56.9	-17.7	45.6	29.0	H
17920.800	56.9	-17.7	45.6	29.0	H
17956.000	56.7	-17.7	45.6	28.8	H

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5350.895	54.4	-34.8	34.6	54.6	H
17941.600	57.0	-17.7	45.6	29.1	H
17938.400	57.0	-17.7	45.6	29.1	V
17976.000	56.9	-17.7	45.6	29.0	H
17838.400	56.8	-18.5	45.6	29.7	H
17961.600	56.6	-17.7	45.6	28.7	H

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5460.675	50.5	-34.9	34.6	50.8	H
17878.400	57.2	-18.5	45.6	30.1	H
17968.400	56.9	-17.7	45.6	29.0	V
17929.200	56.8	-17.7	45.6	28.9	H
17894.400	56.8	-18.5	45.6	29.7	H
17825.600	56.7	-18.5	45.6	29.6	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17906.400	57.2	-18.5	45.6	30.1	H
17916.800	56.6	-17.7	45.6	28.7	H
17925.200	56.5	-17.7	45.6	28.6	V
17954.400	56.2	-17.7	45.6	28.3	H
17948.800	56.2	-17.7	45.6	28.3	H
17912.000	56.2	-18.5	45.6	29.1	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5725.780	41.9	-33.8	35.1	55.0	H
17900.000	56.5	-18.5	45.6	29.4	H
17927.200	56.5	-17.7	45.6	28.6	V
17905.600	56.4	-18.5	45.6	29.3	H
17950.800	56.3	-17.7	45.6	28.4	H
17920.000	56.2	-17.7	45.6	28.3	H

**802.11ac-HT40**

Channel 38

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5149.410	61.0	-35.1	34.6	61.5	H
17908.400	57.1	-18.5	45.6	30.0	H
17914.400	57.0	-17.7	45.6	29.1	V
17929.600	56.9	-17.7	45.6	29.0	H
17925.600	56.8	-17.7	45.6	28.9	H
17940.400	56.7	-17.7	45.6	28.8	H

Channel 46

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17966.000	57.0	-17.7	45.6	29.1	H
17827.600	57.0	-18.5	45.6	29.9	H
17832.800	56.8	-18.5	45.6	29.7	V
17937.600	56.8	-17.7	45.6	28.9	H
17921.200	56.5	-17.7	45.6	28.6	H
17934.400	56.4	-17.7	45.6	28.5	H

Channel 54

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17910.800	57.3	-18.5	45.6	30.2	H
17994.400	57.0	-17.7	45.6	29.1	H
17910.400	56.9	-18.5	45.6	29.8	V
17922.800	56.8	-17.7	45.6	28.9	H
17911.200	56.8	-18.5	45.6	29.7	H
17743.600	56.8	-18.5	45.6	29.7	H

Channel 62

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5351.270	54.1	-34.8	34.6	54.3	H
17910.800	57.3	-18.5	45.6	30.2	H
17994.400	57.0	-17.7	45.6	29.1	V
17910.400	56.9	-18.5	45.6	29.8	H
17922.800	56.8	-17.7	45.6	28.9	H
17911.200	56.8	-18.5	45.6	29.7	H

Channel 102

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5459.040	59.1	-34.9	34.6	59.4	H
17939.200	57.3	-17.7	45.6	29.4	H
17824.800	57.1	-18.5	45.6	30.0	V
17939.600	56.9	-17.7	45.6	29.0	H
17816.000	56.9	-18.5	45.6	29.8	H
17913.600	56.9	-18.5	45.6	29.8	H

Channel 118

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17943.600	57.0	-17.7	45.6	29.1	H
17936.800	56.6	-17.7	45.6	28.7	H
17930.800	56.5	-17.7	45.6	28.6	V
17994.800	56.4	-17.7	45.6	28.5	H
17978.400	56.3	-17.7	45.6	28.4	H
17930.400	56.2	-17.7	45.6	28.3	H

Channel 134

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5726.010	57.0	-33.8	35.1	55.7	H
17850.000	56.6	-18.5	45.6	29.5	H
17908.800	56.6	-18.5	45.6	29.5	V
17928.800	56.1	-17.7	45.6	28.2	H
17866.800	56.1	-18.5	45.6	29.0	H
17921.600	56.1	-17.7	45.6	28.2	H

802.11ac-HT80

Channel 42

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5148.970	68.1	-35.1	34.6	68.6	H
17938.000	45.2	-17.7	45.6	17.3	H
17933.200	45.2	-17.7	45.6	17.3	V
17936.000	45.2	-17.7	45.6	17.3	H
17924.800	45.2	-17.7	45.6	17.3	H
17936.400	45.0	-17.7	45.6	17.1	H

Channel 58

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5350.230	62.2	-34.8	34.6	62.4	H
17940.800	57.0	-17.7	45.6	29.1	H
17932.000	56.7	-17.7	45.6	28.8	V
17861.600	56.6	-18.5	45.6	29.5	H
17928.400	56.5	-17.7	45.6	28.6	H
17859.200	56.4	-18.5	45.6	29.3	H

Channel 106

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
5486.895	66.3	-34.0	34.6	65.7	H
17937.600	57.3	-17.7	45.6	29.4	H
17912.000	56.6	-18.5	45.6	29.5	V
17926.800	56.6	-17.7	45.6	28.7	H
17934.400	56.5	-17.7	45.6	28.6	H
17803.200	56.4	-18.5	45.6	29.3	H

Sample calculation: 802.11ac 80MHz CH106–Peak, 5486.895MHz

$$\text{Peak ERP(dBm)} = P_{\text{Mea}}(65.7 \text{ dBuV/m}) + \text{Cable Loss}(-34.0) + \text{Antenna Factor}(34.6) = 66.3 \text{ dBuV/m}$$

### A.7. Spurious Emissions Radiated < 30MHz

#### Measurement Limit(15.209, 9kHz-30MHz):

Frequency (MHz)	Field strength( $\mu\text{V/m}$ )	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

The measurement is made according to KDB 789033

Note: The measurement distance during the test is 3m. The limit used in plots is recalculated based on the extrapolation factor of 40 dB/decade.

#### Measurement uncertainty:

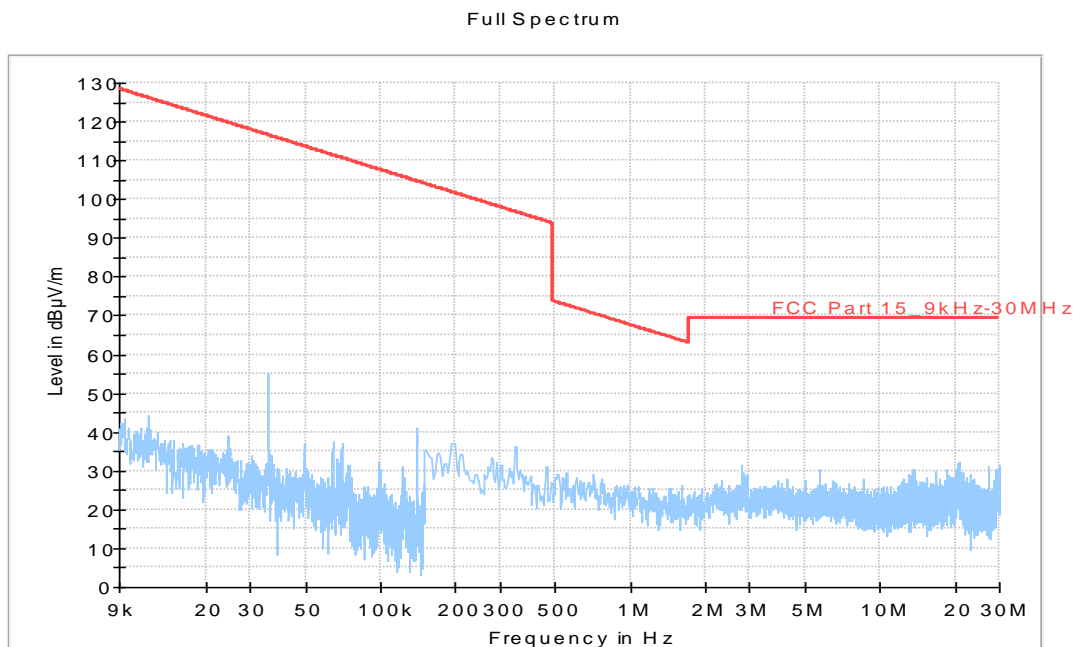
Expanded measurement uncertainty for this test item is  $U = 3.94\text{dB}$ ,  $k=2$ .

#### Measurement Results:

Mode	Frequency Range	Test Results	Conclusion
802.11a	9 kHz ~30 MHz	Fig.61	P

**Conclusion: PASS**

Test graphs as below:



**Fig. 61 Radiated Spurious Emission (802.11a, ch40, 9 kHz ~30 MHz)**

### A.8. Conducted Emission (150kHz- 30MHz)

**Test Condition:**

Voltage (V)	Frequency (Hz)
110	60

**Measurement uncertainty:**

Expanded measurement uncertainty for this test item is  $U = 3.38\text{dB}$ ,  $k=2$ .

**Measurement Result and limit:**

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	66 to 56	Fig. 62	Fig. 63	P
0.5 to 5	56	Fig. 64		
5 to 30	60	Fig. 65		

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 $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	56 to 46	Fig. 62	Fig. 63	P
0.5 to 5	46	Fig. 64		
5 to 30	50	Fig. 65		

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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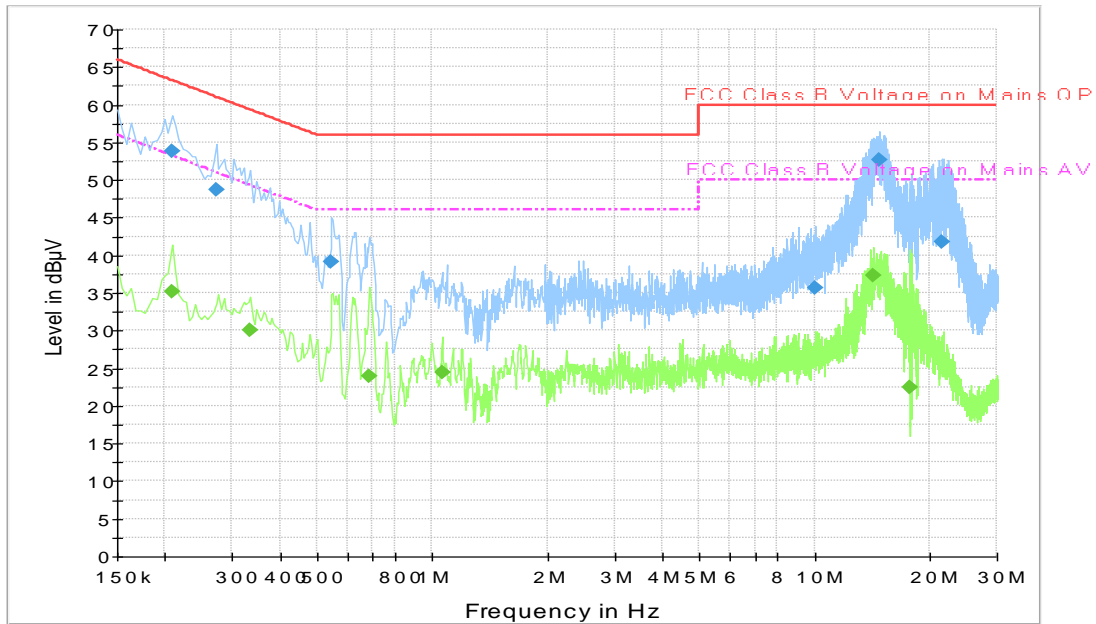


Fig. 62 AC Powerline Conducted Emission-802.11a

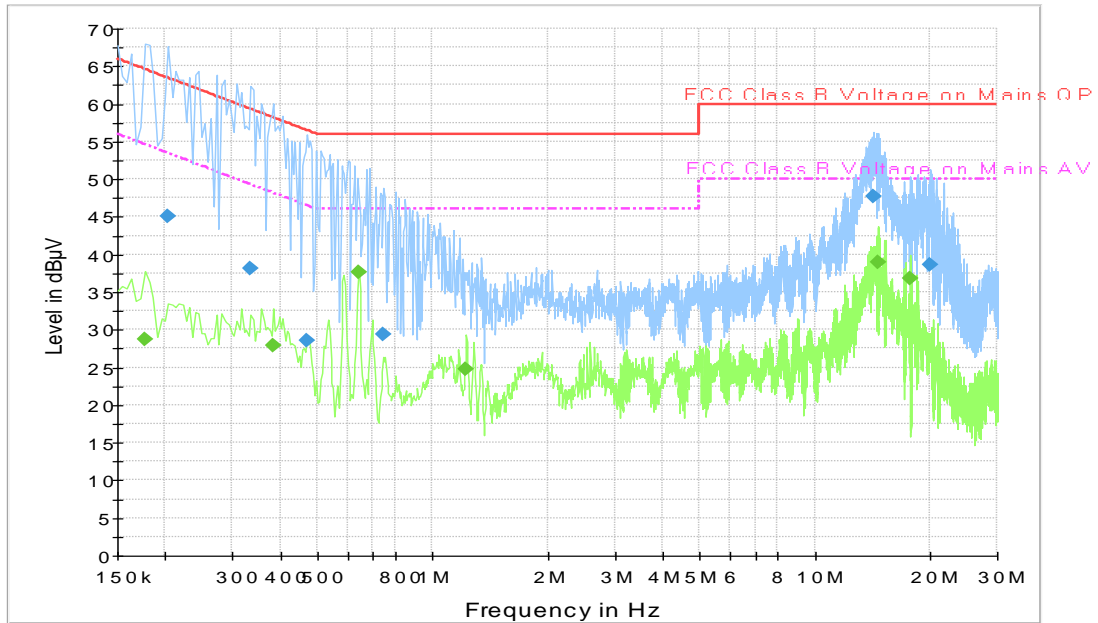
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.208500	53.8	2000.0	9.000	On	L1	19.8	9.5	63.3
0.271500	48.7	2000.0	9.000	On	L1	19.8	12.4	61.1
0.546000	39.2	2000.0	9.000	On	L1	19.9	16.8	56.0
10.081500	35.6	2000.0	9.000	On	N	19.8	24.4	60.0
14.730000	52.7	2000.0	9.000	On	L1	19.8	7.3	60.0
21.471000	41.8	2000.0	9.000	On	N	20.0	18.2	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.208500	35.2	2000.0	9.000	On	L1	19.8	18.1	53.3
0.334500	30.1	2000.0	9.000	On	L1	19.9	19.2	49.3
0.685500	24.0	2000.0	9.000	On	L1	19.8	22.0	46.0
1.063500	24.4	2000.0	9.000	On	N	19.7	21.6	46.0
14.302500	37.3	2000.0	9.000	On	L1	19.8	12.7	50.0
17.790000	22.4	2000.0	9.000	On	L1	19.9	27.6	50.0

CBA0060AGHC1



**Fig. 63 AC Powerline Conducted Emission-Idle**

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.204000	45.1	2000.0	9.000	On	L1	19.8	18.3	63.4
0.334500	38.1	2000.0	9.000	On	L1	19.9	21.2	59.3
0.469500	28.6	2000.0	9.000	On	L1	19.9	28.0	56.5
0.744000	29.3	2000.0	9.000	On	L1	19.8	26.7	56.0
14.302500	47.7	2000.0	9.000	On	L1	19.8	12.3	60.0
20.103000	38.7	2000.0	9.000	On	L1	19.9	21.3	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.177000	28.7	2000.0	9.000	On	L1	19.8	25.9	54.6
0.384000	27.9	2000.0	9.000	On	L1	19.9	20.3	48.2
0.640500	37.7	2000.0	9.000	On	N	19.8	8.3	46.0
1.225500	24.7	2000.0	9.000	On	L1	19.7	21.3	46.0
14.590500	39.0	2000.0	9.000	On	L1	19.8	11.0	50.0
17.763000	36.8	2000.0	9.000	On	L1	19.9	13.2	50.0

CBA0060ACHC1

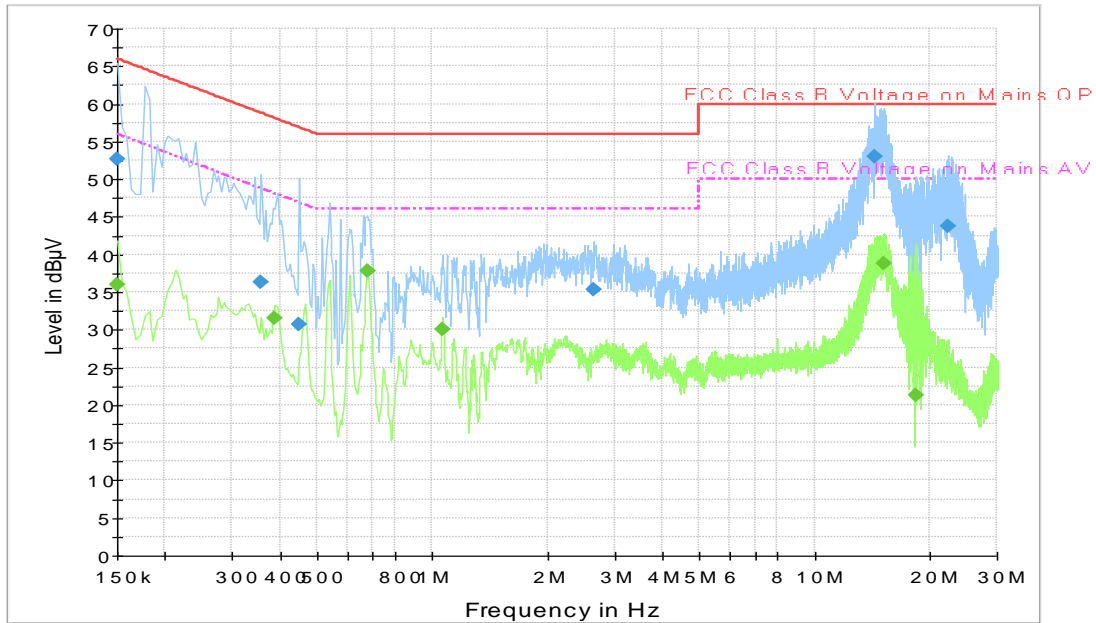


Fig. 64 AC Powerline Conducted Emission-802.11a

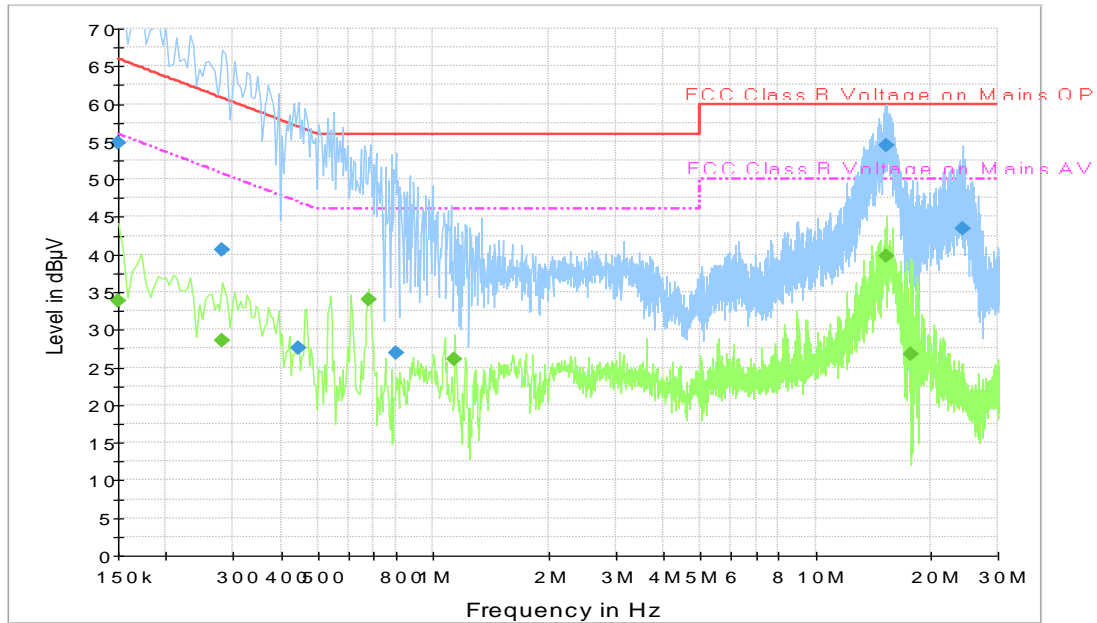
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	52.7	2000.0	9.000	On	L1	20.2	13.3	66.0
0.357000	36.3	2000.0	9.000	On	L1	19.8	22.5	58.8
0.447000	30.7	2000.0	9.000	On	L1	19.9	26.3	56.9
2.643000	35.3	2000.0	9.000	On	N	19.3	20.7	56.0
14.415000	53.0	2000.0	9.000	On	N	19.8	7.0	60.0
22.281000	43.8	2000.0	9.000	On	L1	20.0	16.2	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	36.1	2000.0	9.000	On	L1	20.2	19.9	56.0
0.388500	31.5	2000.0	9.000	On	L1	19.9	16.6	48.1
0.676500	37.7	2000.0	9.000	On	L1	19.8	8.3	46.0
1.068000	30.0	2000.0	9.000	On	L1	19.7	16.0	46.0
15.211500	38.7	2000.0	9.000	On	L1	19.8	11.3	50.0
18.366000	21.4	2000.0	9.000	On	L1	19.9	28.6	50.0

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**Fig. 65 AC Powerline Conducted Emission-802.11a**

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	54.9	2000.0	9.000	On	L1	20.2	11.1	66.0
0.280500	40.6	2000.0	9.000	On	L1	19.8	20.2	60.8
0.442500	27.5	2000.0	9.000	On	L1	19.9	29.5	57.0
0.798000	26.9	2000.0	9.000	On	L1	19.8	29.1	56.0
15.315000	54.4	2000.0	9.000	On	L1	19.8	5.6	60.0
24.247500	43.4	2000.0	9.000	On	N	20.1	16.6	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	33.8	2000.0	9.000	On	L1	20.2	22.2	56.0
0.280500	28.5	2000.0	9.000	On	L1	19.8	22.3	50.8
0.676500	34.0	2000.0	9.000	On	L1	19.8	12.0	46.0
1.140000	26.0	2000.0	9.000	On	N	19.7	20.0	46.0
15.315000	39.8	2000.0	9.000	On	L1	19.8	10.2	50.0
17.781000	26.8	2000.0	9.000	On	L1	19.9	23.2	50.0

### A.9. 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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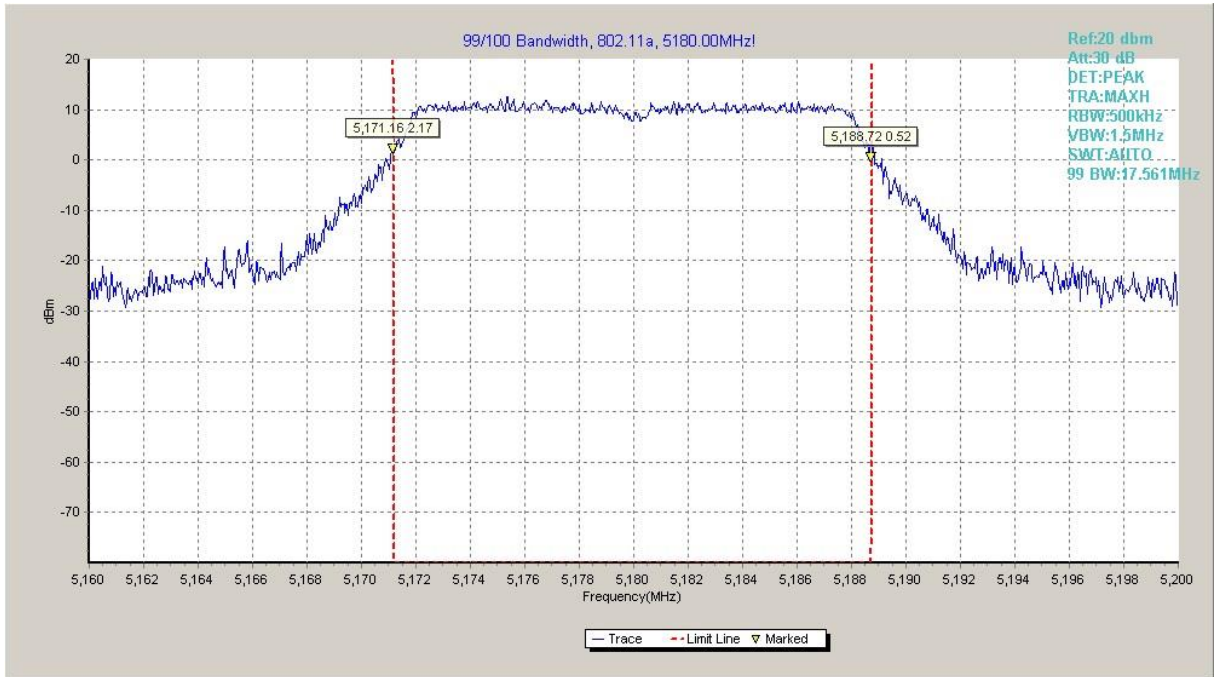
#### Measurement Result:

Mode	Channel	99% Occupied bandwidth ( kHz)		conclusion
802.11a	5180 MHz	Fig.62	17.56	P
	5200 MHz	Fig.63	17.47	P
	5240 MHz	Fig.64	17.66	P
802.11n HT20	5180 MHz	Fig.65	18.47	P
	5200 MHz	Fig.66	18.44	P
	5240 MHz	Fig.67	18.40	P
802.11ac HT20	5180 MHz	Fig.68	18.48	P
	5200 MHz	Fig.69	18.44	P
	5240 MHz	Fig.70	18.50	P
802.11n HT40	5190 MHz	Fig.71	36.25	P
	5230 MHz	Fig.72	36.25	P

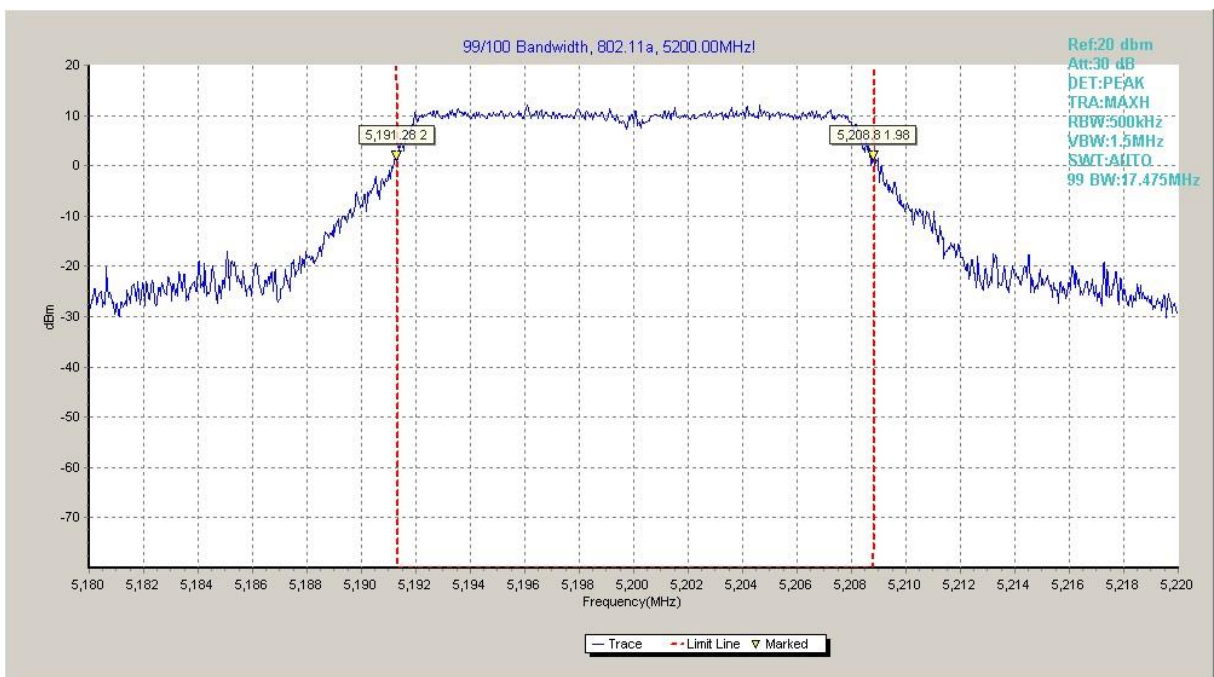
802.11ac HT40	5190 MHz	Fig.73	36.27	P
	5230 MHz	Fig.74	36.26	P
802.11ac HT80	5210MHz	Fig.75	74.68	P

**Conclusion: PASS**

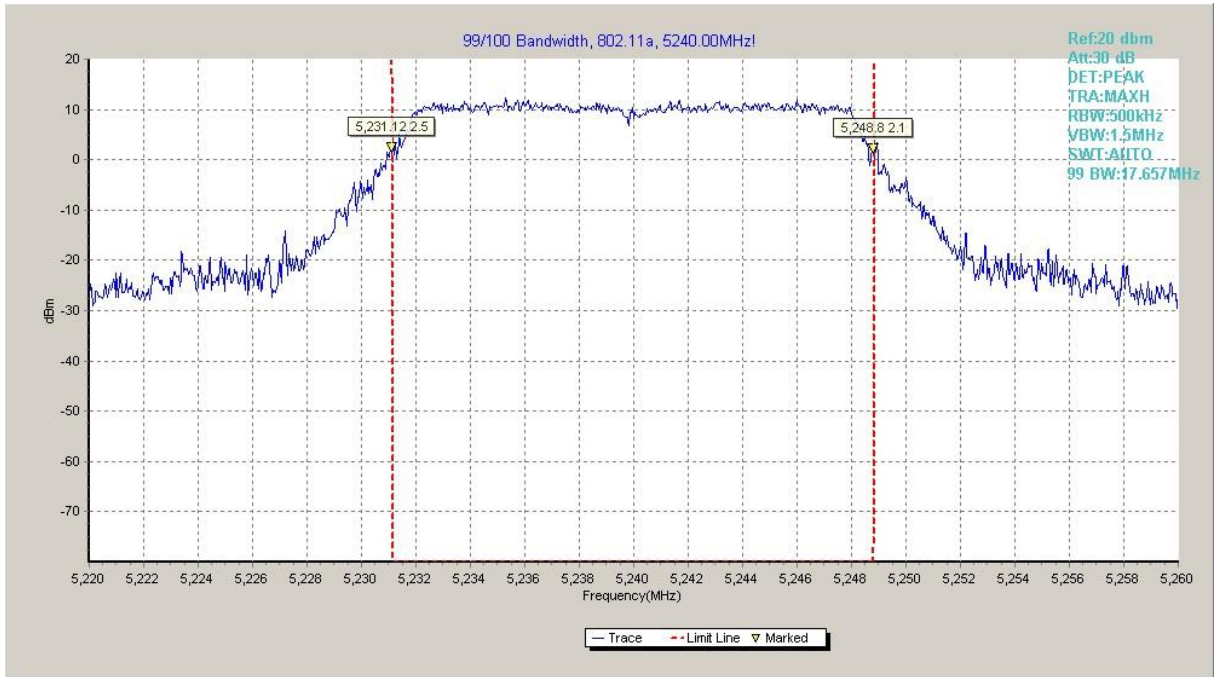
**Test graphs as below:**



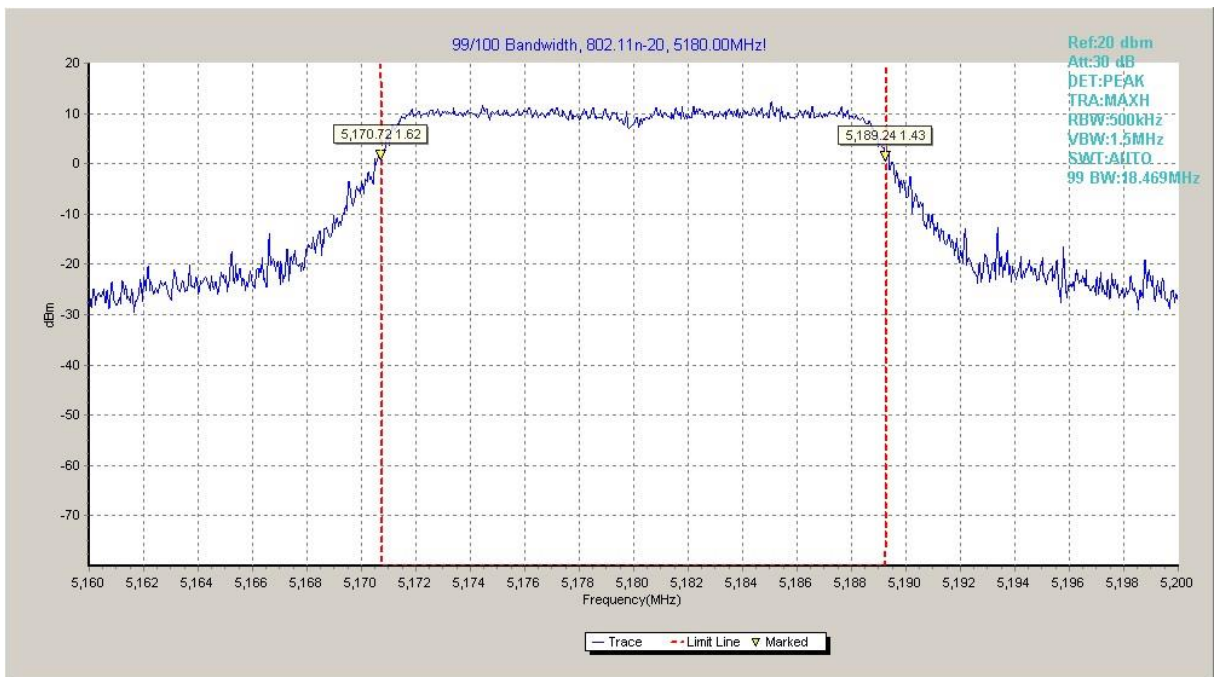
**Fig. 66 99% Occupied bandwidth (802.11a, 5180MHz)**



**Fig. 67 99% Occupied bandwidth (802.11a, 5200MHz)**



**Fig. 68 99% Occupied bandwidth (802.11a, 5240MHz)**



**Fig. 69 99% Occupied bandwidth (802.11n-HT20, 5180MHz)**

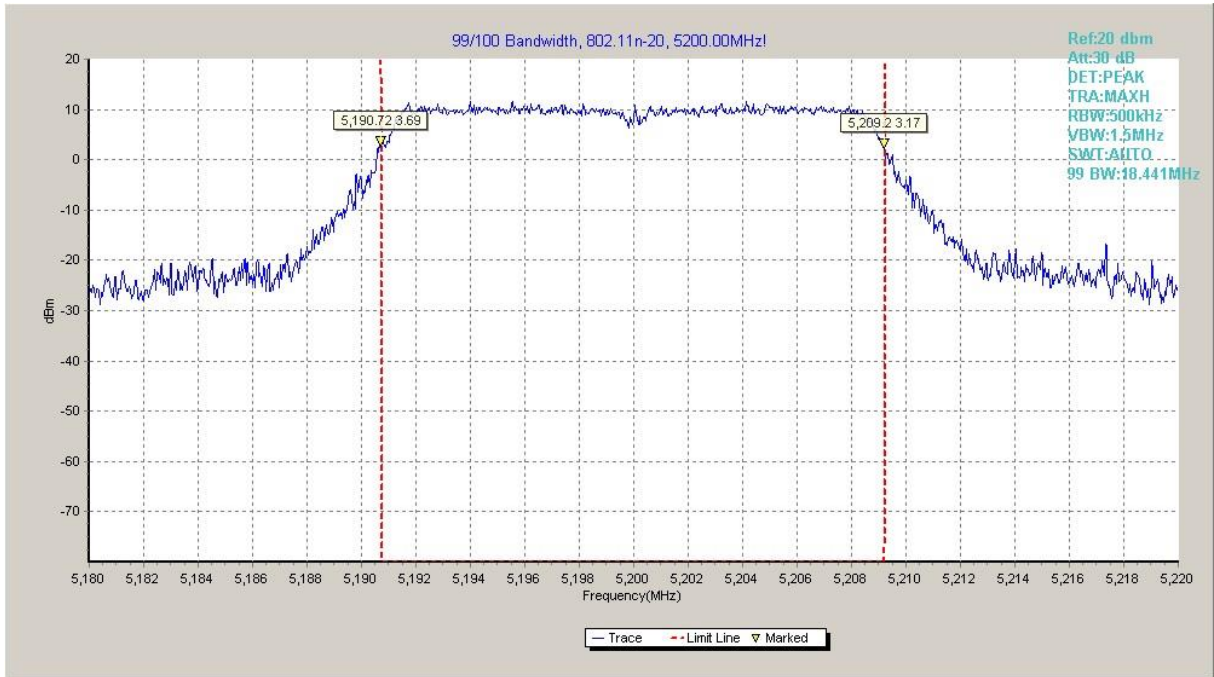


Fig. 70 99% Occupied bandwidth (802.11n-HT20, 5200MHz)

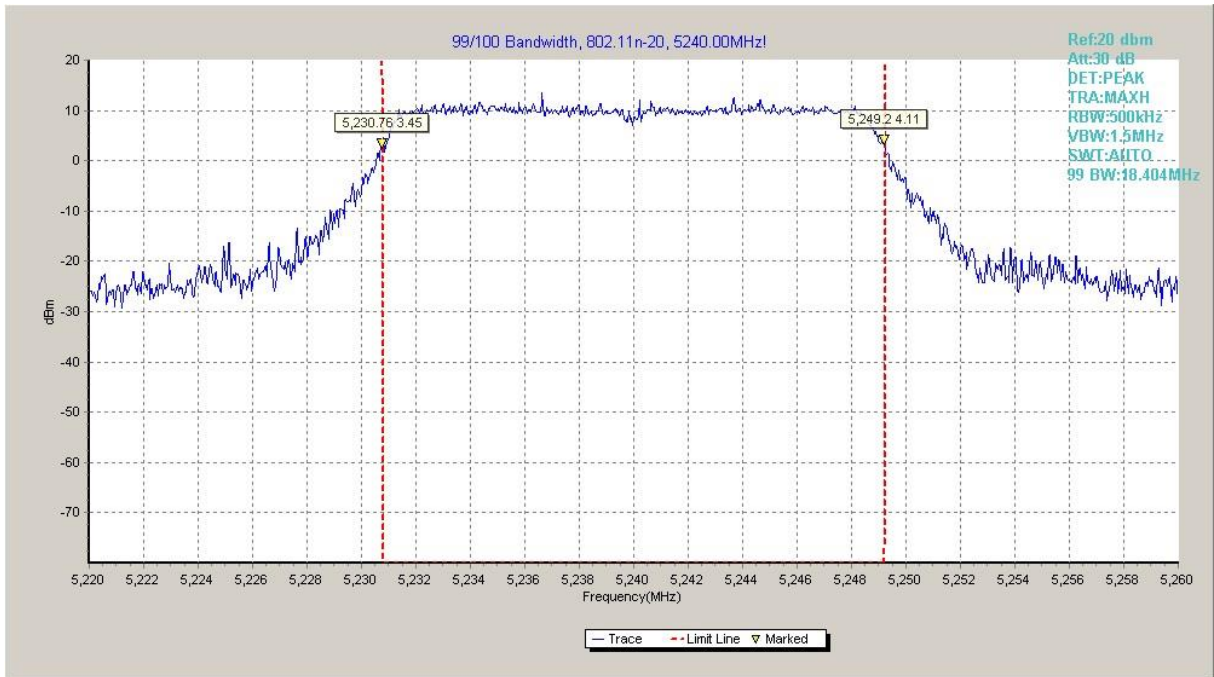
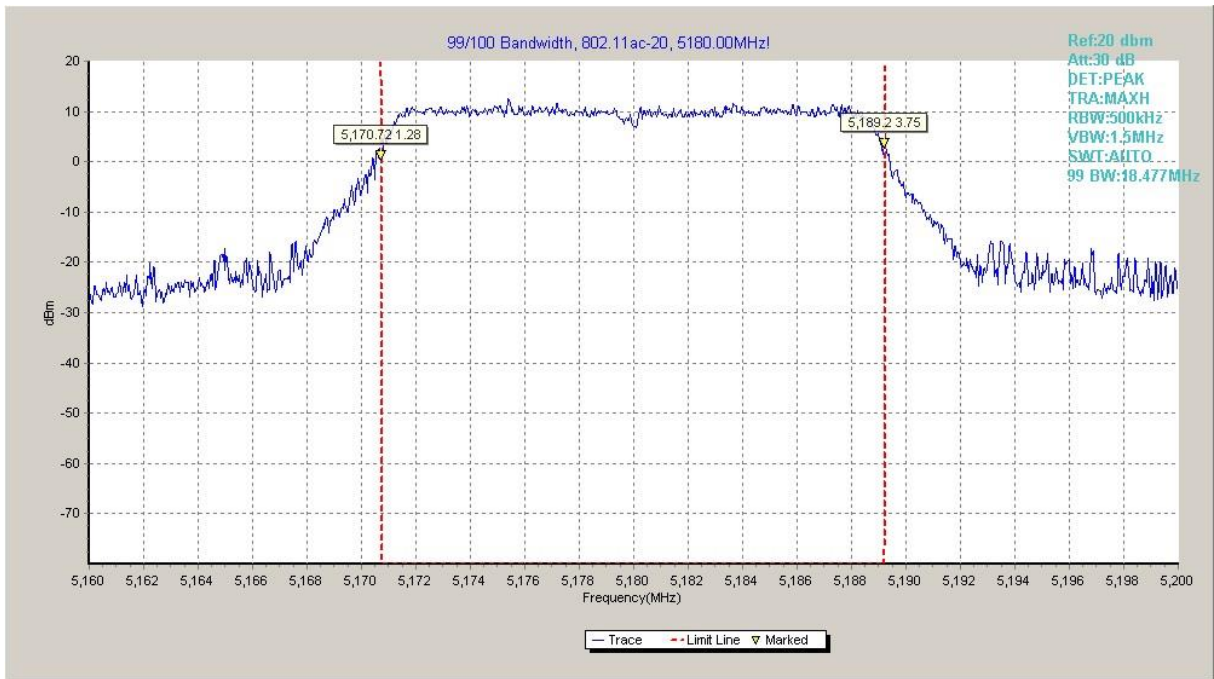
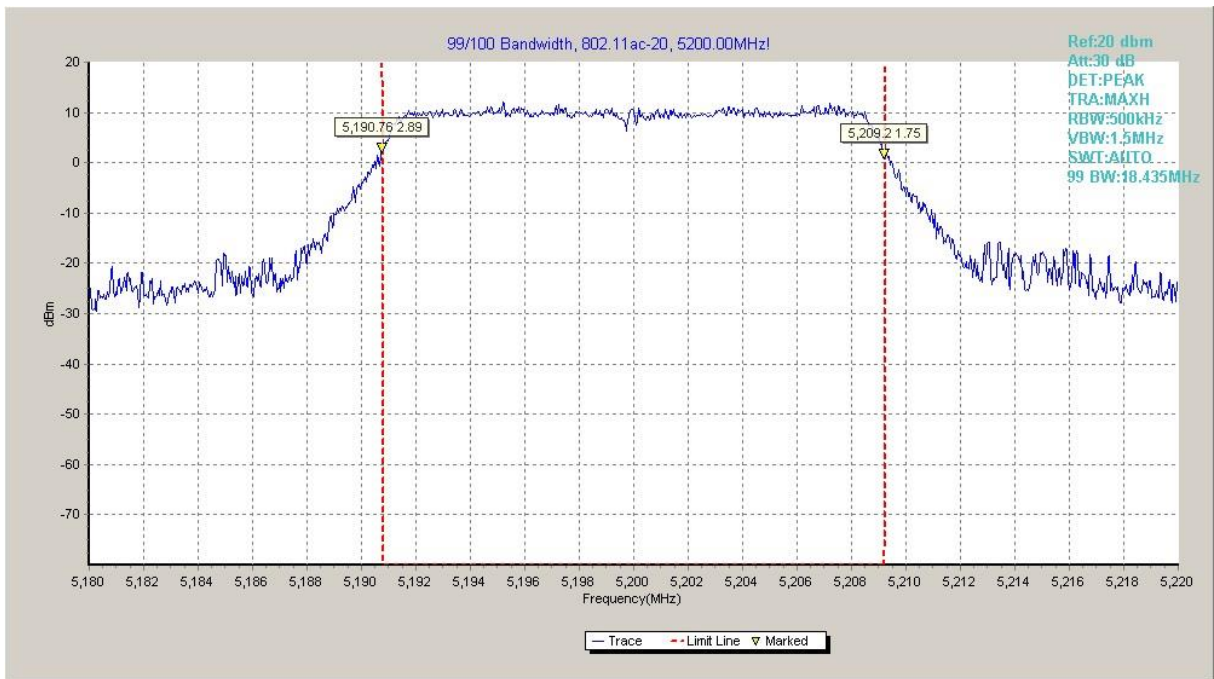


Fig. 71 99% Occupied bandwidth (802.11n-HT20, 5240MHz)

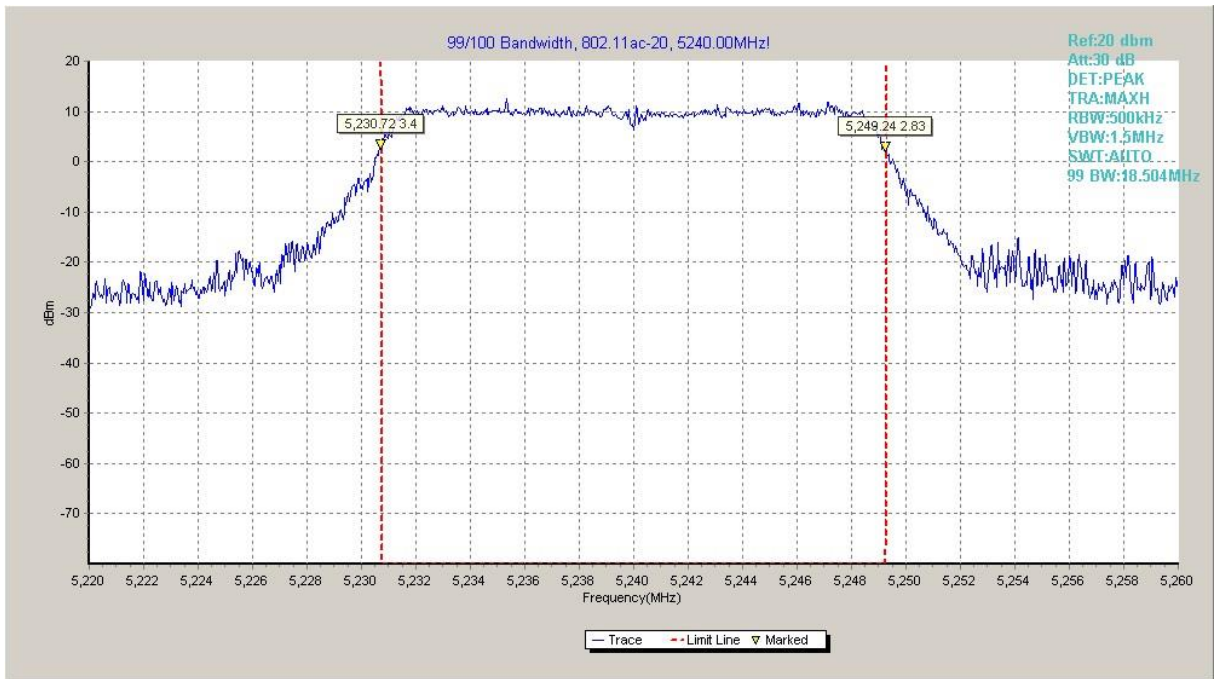




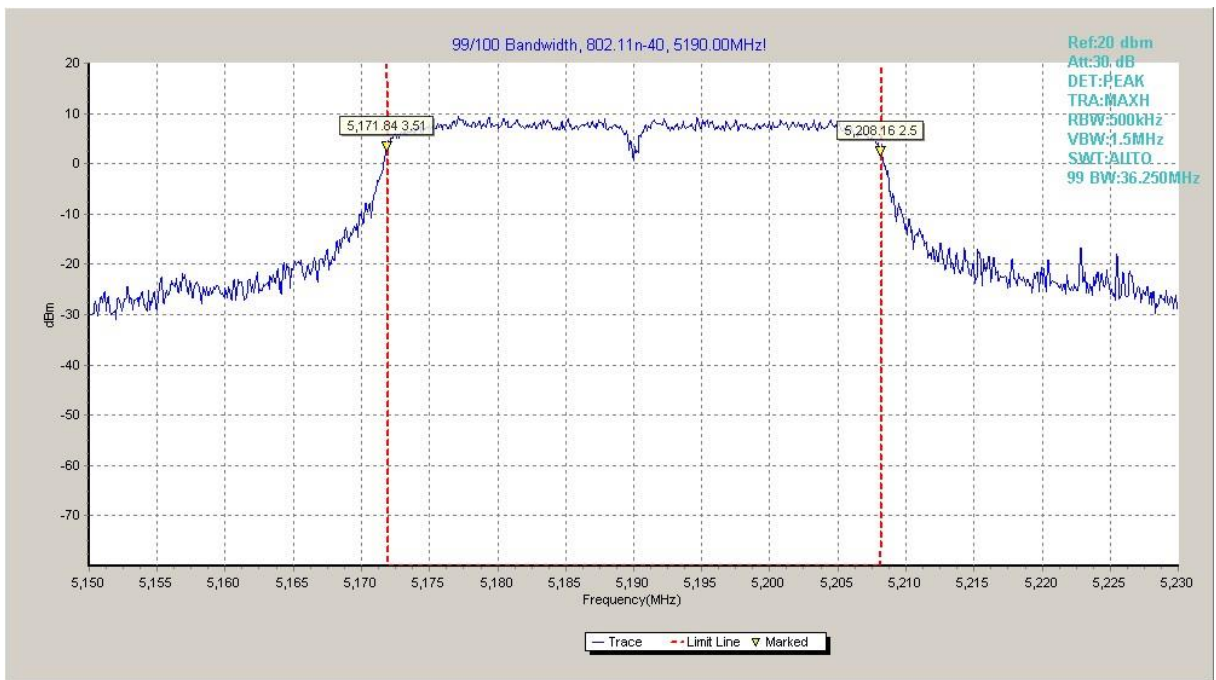
**Fig. 72 99% Occupied bandwidth (802.11ac-HT20, 5180MHz)**



**Fig. 73 99% Occupied bandwidth (802.11ac-HT20, 5200MHz)**



**Fig. 74 99% Occupied bandwidth (802.11ac-HT20, 5240MHz)**



**Fig. 75 99% Occupied bandwidth (802.11n-HT40, 5190MHz)**

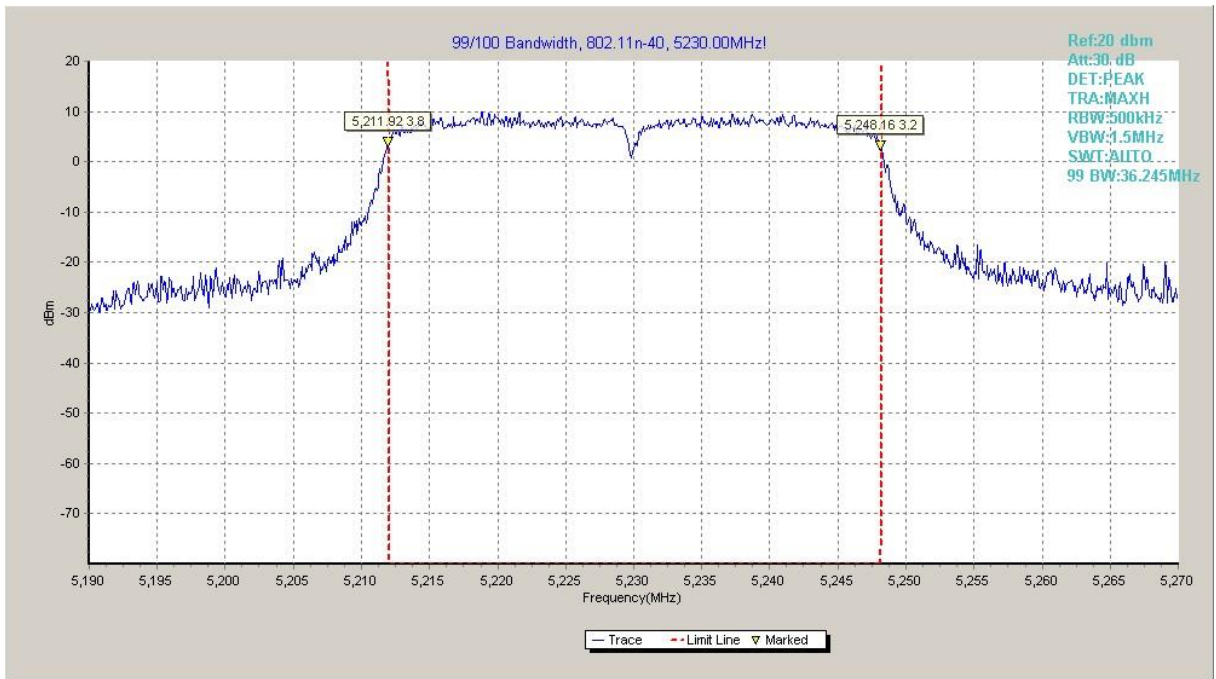
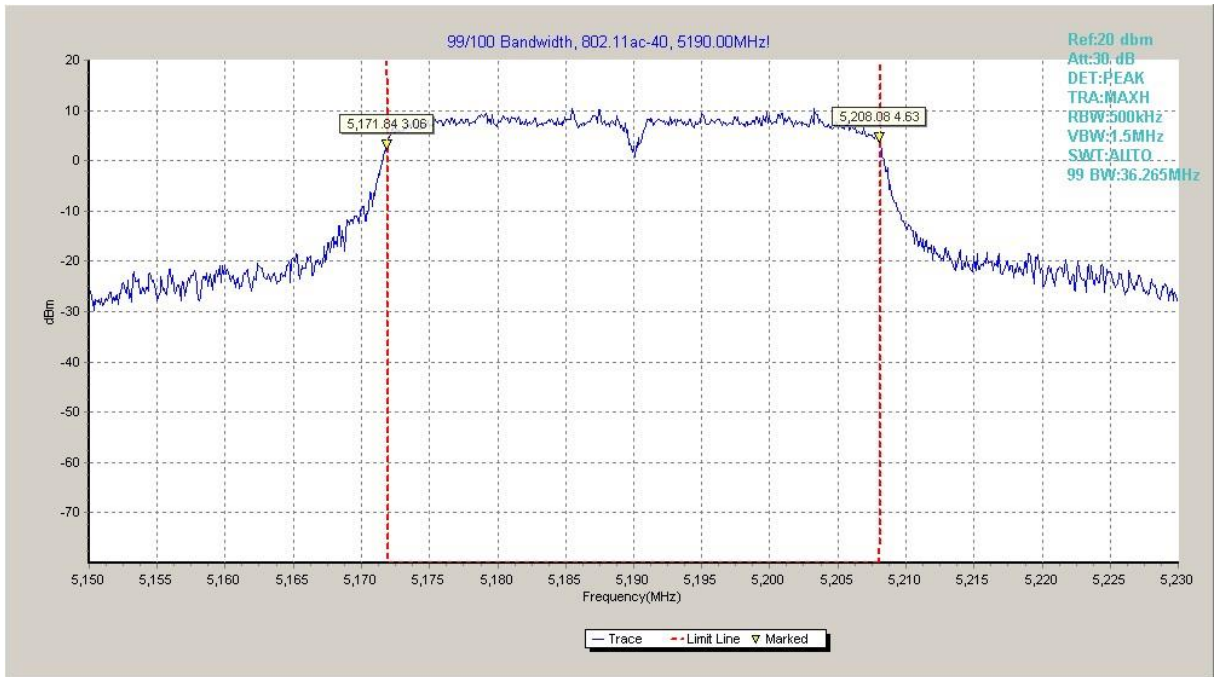
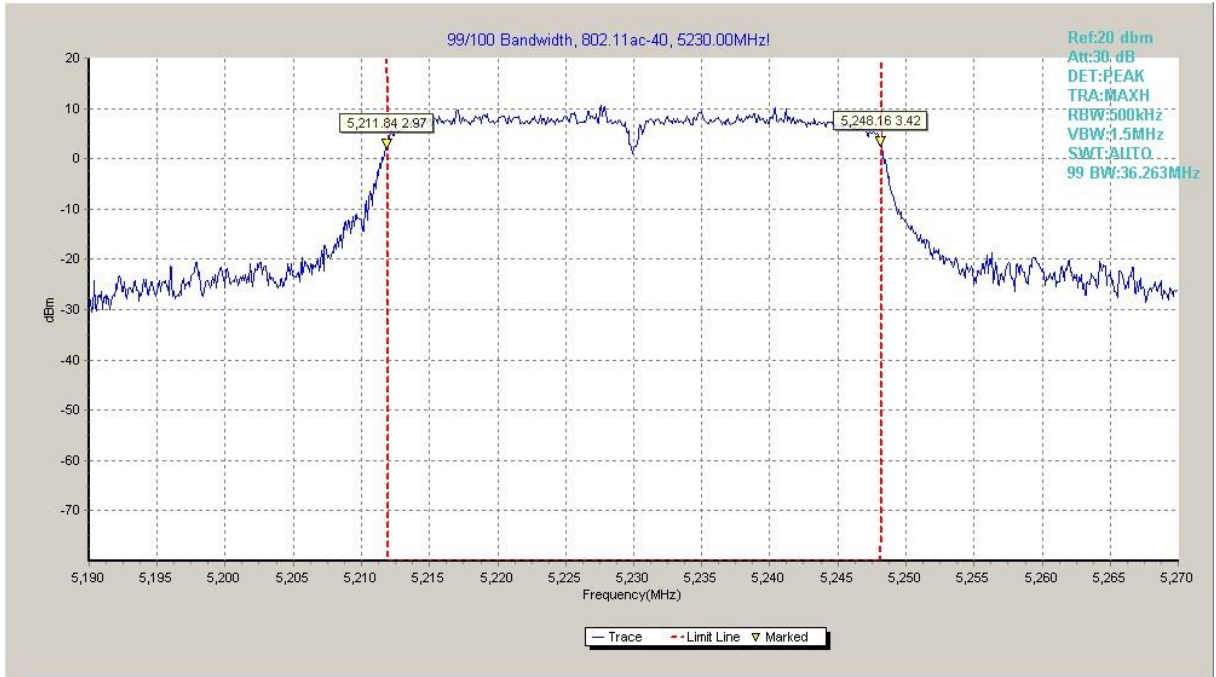


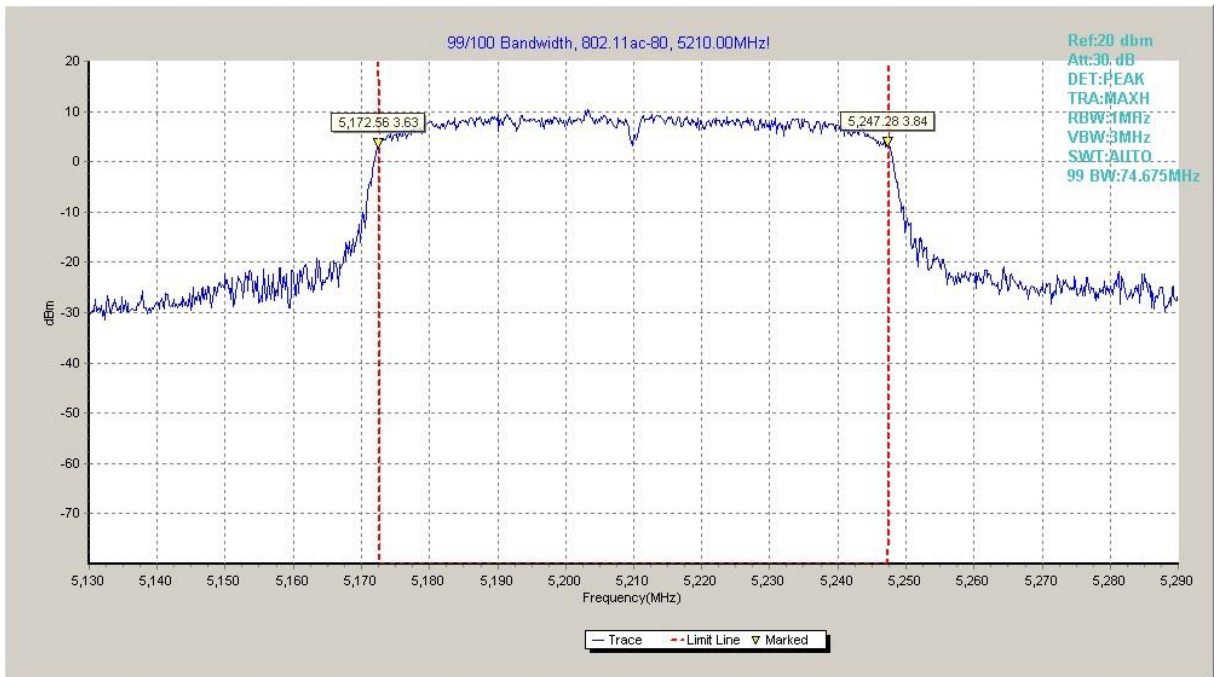
Fig. 76 99% Occupied bandwidth (802.11n-HT40, 5230MHz)



**Fig. 77 99% Occupied bandwidth (802.11ac-HT40, 5190MHz)**



**Fig. 78 99% Occupied bandwidth (802.11ac-HT40, 5230MHz)**



**Fig. 79 99% Occupied bandwidth (802.11ac-HT80, 5210MHz)**

### A.10. Frequency Stability

Manufacturers ensured the EUT meet the requirement of frequency stability, such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

**Measurement Result:**

Mode	Channel	Test Condition		Result
802.11a	5180 MHz	Tnom	Vnom	30.00
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	
802.11n HT40	5310 MHz	Tnom	Vnom	29.79
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	
802.11a	5700 MHz	Tnom	Vnom	29.79
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	

### A.11. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500 mW).

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