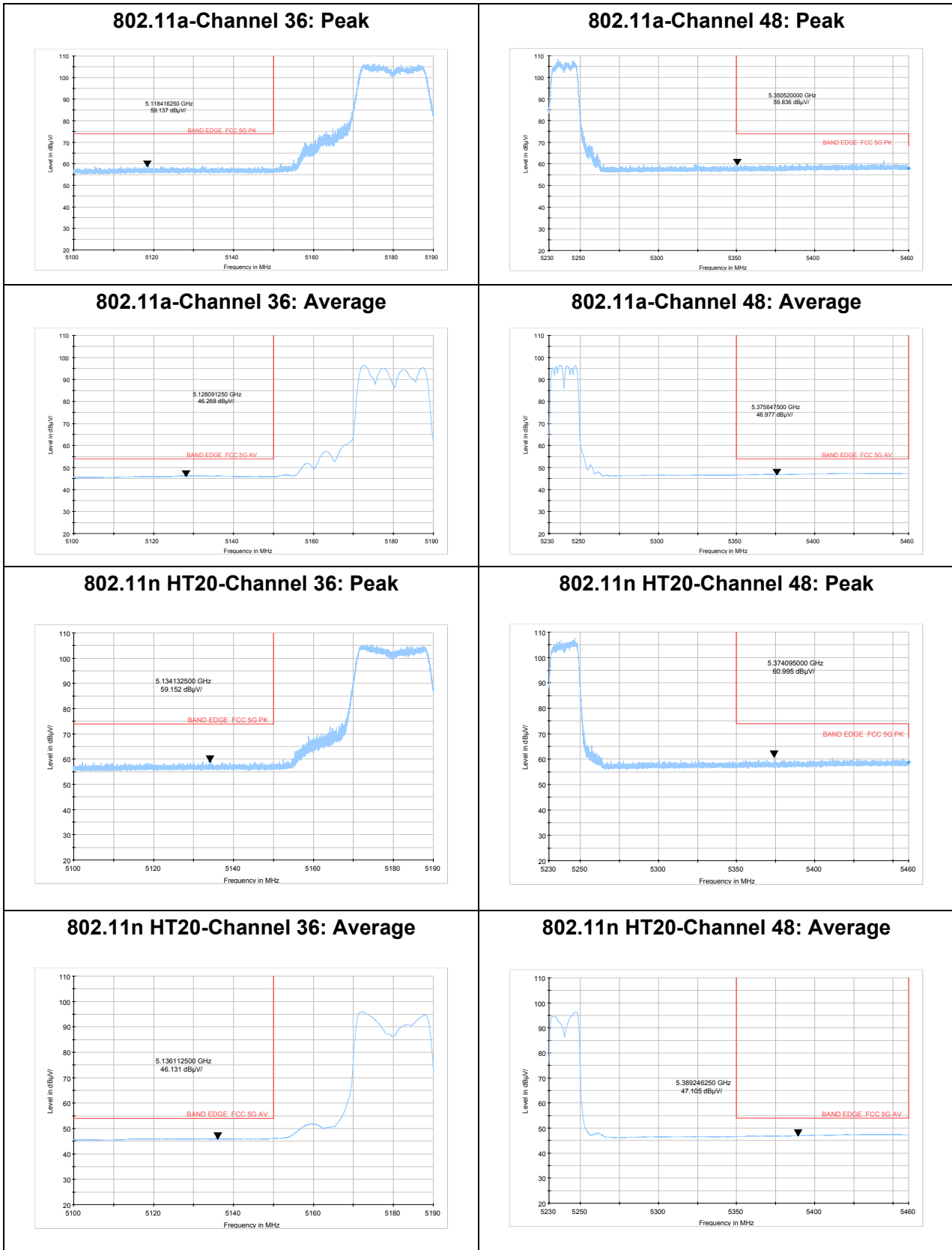




Test Results:

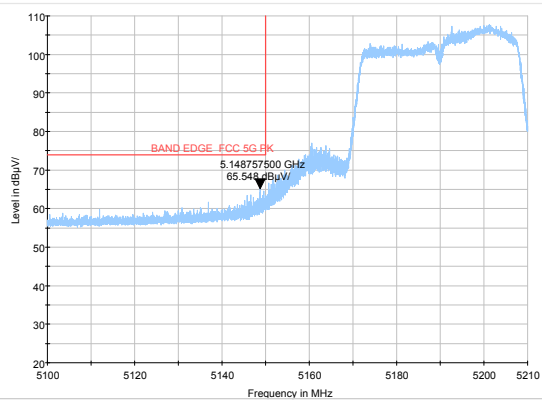
The signal beyond the limit is carrier.

U-NII-1

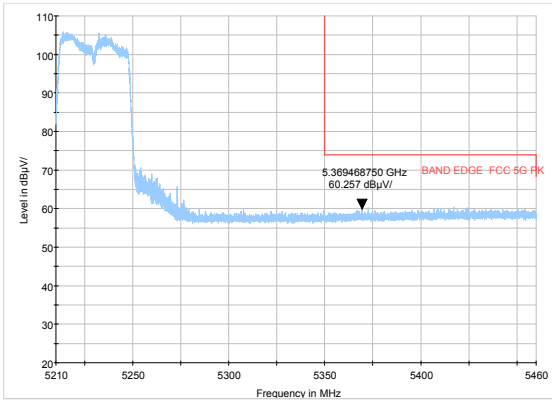




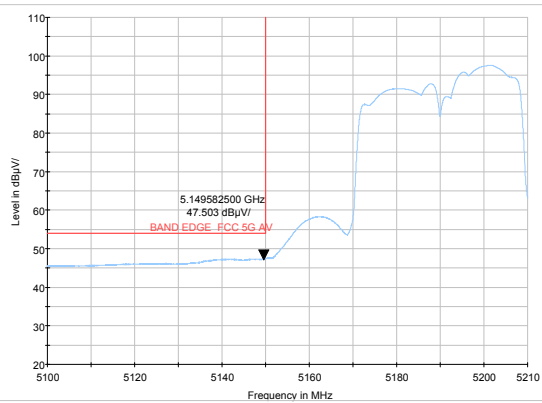
802.11n HT40-Channel 38: Peak



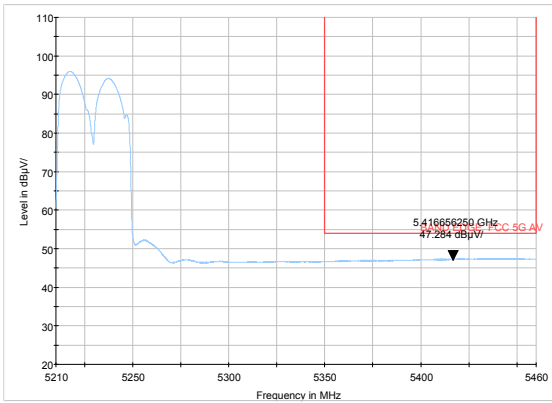
802.11n HT40-Channel 46: Peak



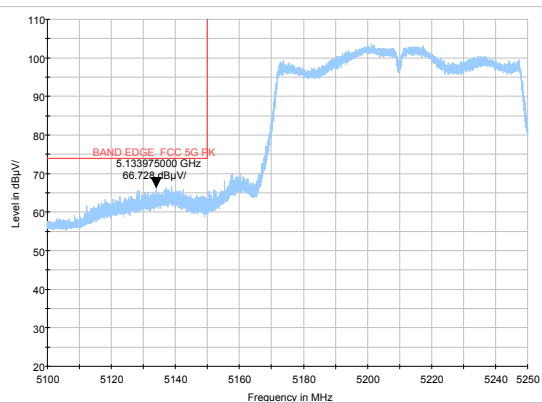
802.11n HT40-Channel 38: Average



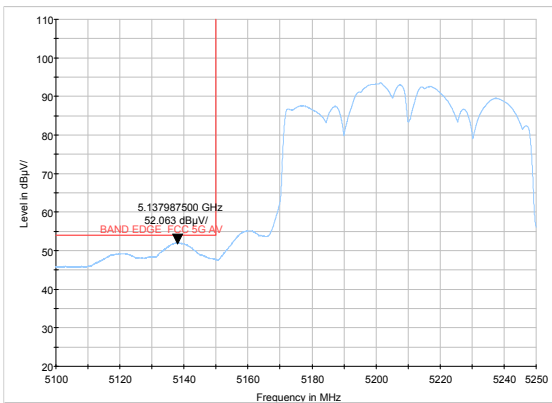
802.11n HT40-Channel 46: Average



802.11ac VHT80 -Channel 42: Peak



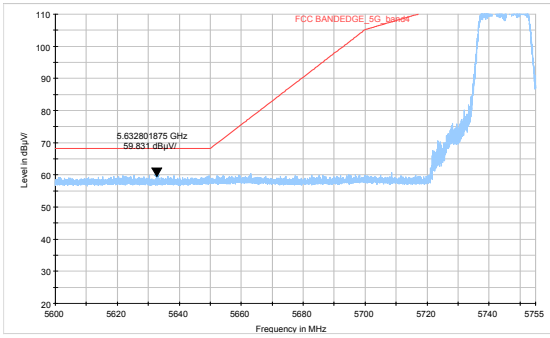
802.11ac VHT80- Channel 42: Average



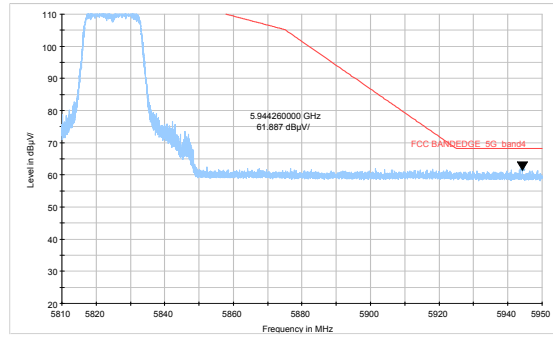


U-NII-3

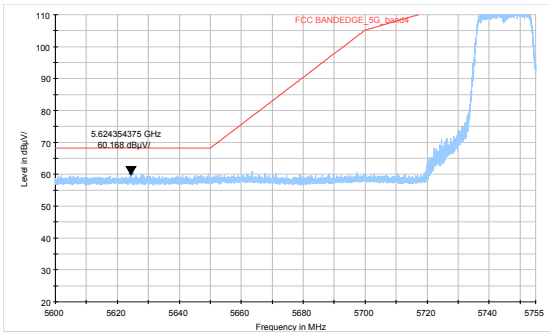
802.11a-Channel 149: Peak



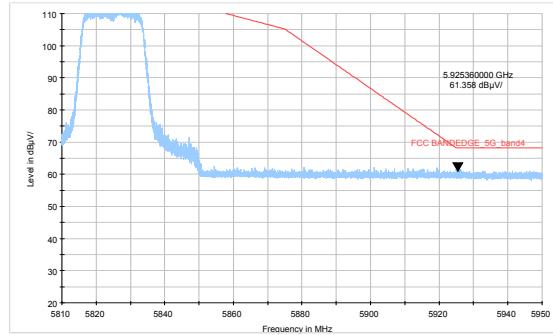
802.11a-Channel 165: Peak



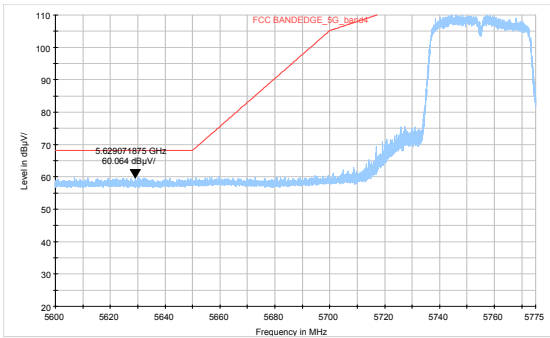
802.11n HT20-Channel 149: Peak



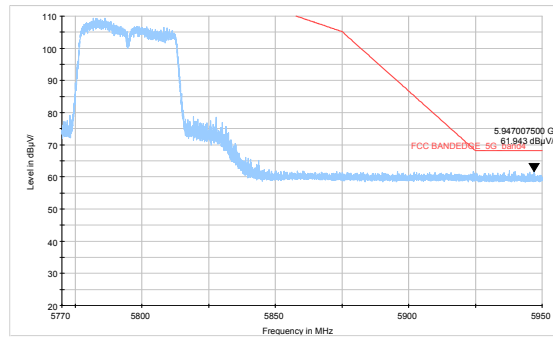
802.11n HT20-Channel 165: Peak



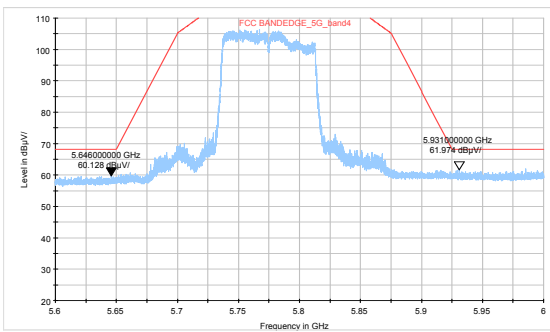
802.11n HT40-Channel 151: Peak



802.11n HT40-Channel 159: Peak



802.11ac VHT80- Channel 155: Peak



Result of RE

Test result

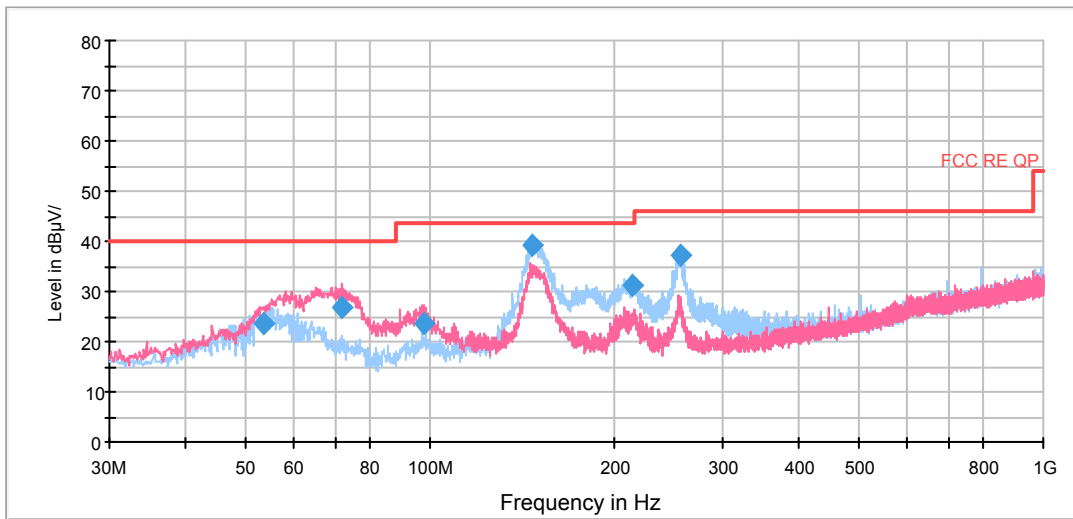
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, and 9KHz-30MHz, the emissions more than 20 dB below the permissible value are not reported.

After the pre test, Antenna 2 was selected as the worst antenna.

During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes with all channels, 802.11n, Channel 40 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Continuous TX mode:

RE 0.03-1GHz QP Class B



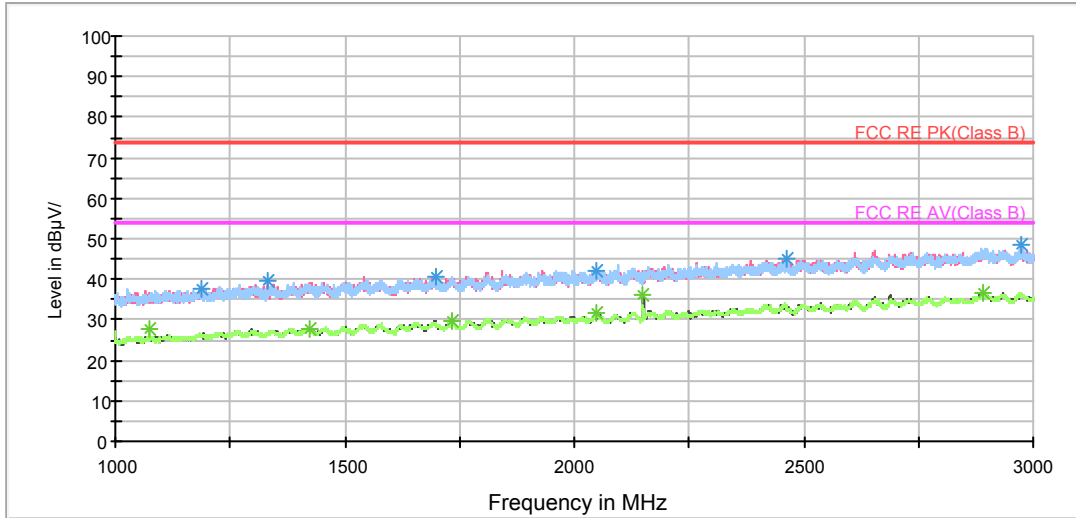
Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Reading value (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
53.725000	23.7	10.9	100.0	V	0.0	12.8	16.3	40.0
71.873750	26.8	18.2	100.0	V	0.0	8.6	13.2	40.0
97.622500	23.8	10.9	100.0	V	326.0	12.9	19.7	43.5
146.925000	39.3	30.2	200.0	H	208.0	9.1	4.2	43.5
214.138750	31.4	18.7	125.0	H	184.0	12.7	12.1	43.5
256.170000	37.2	22.6	125.0	H	162.0	14.6	8.8	46.0

- Remark:**
1. Quasi-Peak = Reading value + Correction factor
 2. Correction Factor = Antenna factor+ Insertion loss(cable loss+amplifier gain)
 3. Margin = Limit – Quasi-Peak

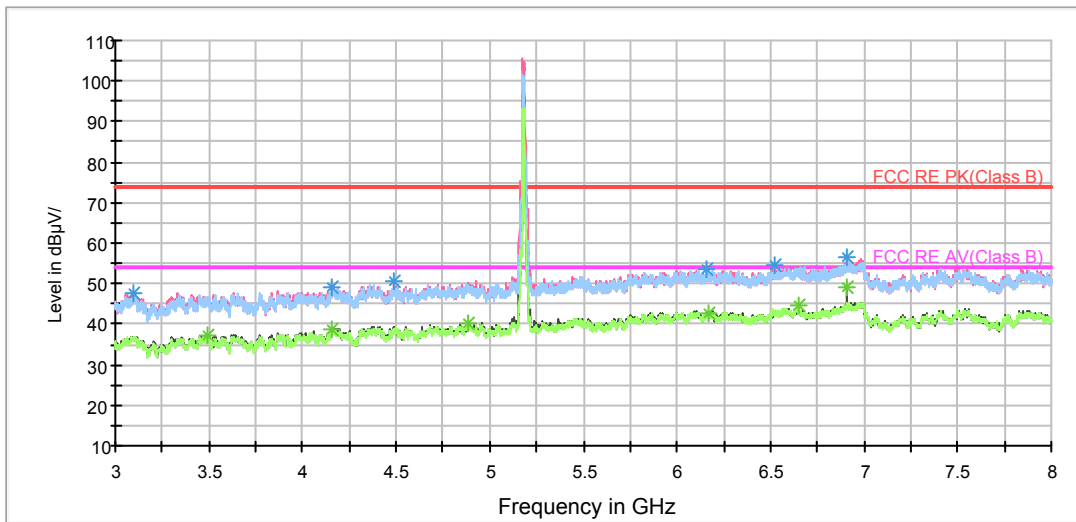
802.11a CH36

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

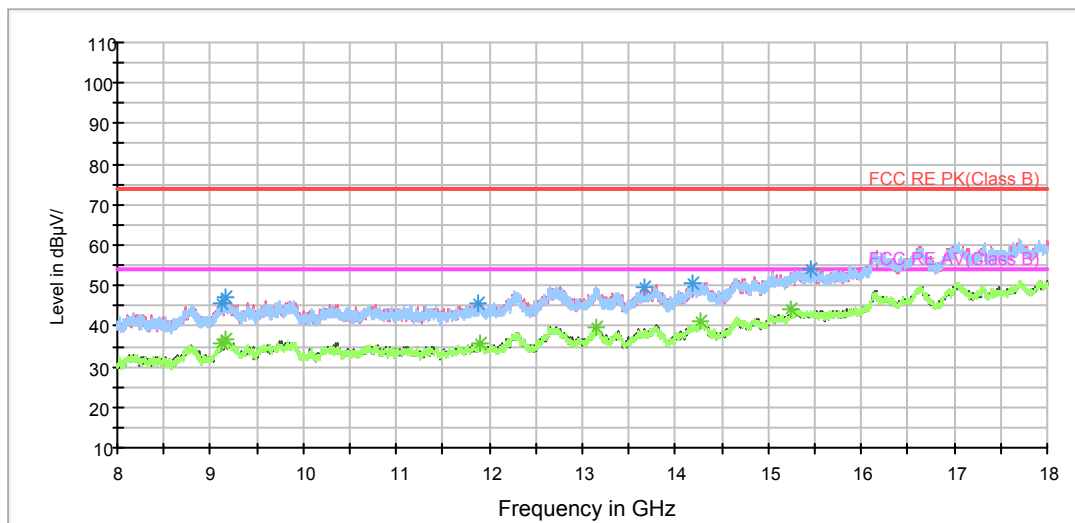
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3097.500000	47.8	300.0	V	279.0	40.6	7.2	26.2	74
4154.375000	48.9	300.0	V	0.0	39.0	9.9	25.1	74
4489.375000	50.5	200.0	V	264.0	40.0	10.5	23.5	74
6525.000000	54.6	200.0	H	299.0	39.1	15.5	19.4	74
6906.875000	56.3	200.0	H	181.0	40.0	16.3	17.7	74
6156.250000	53.7	200.0	V	1.0	38.1	15.6	20.3	74

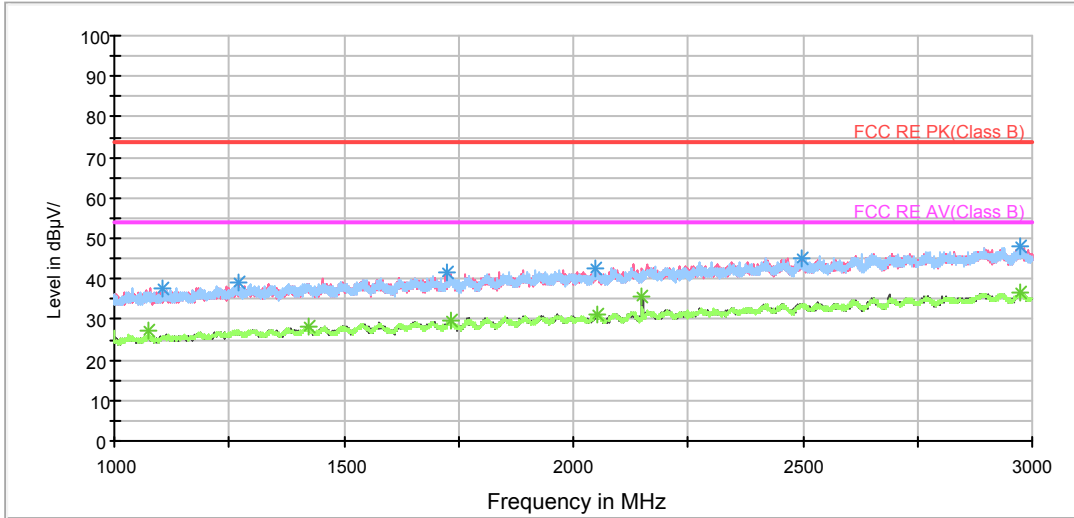
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3490.000000	37.0	400.0	V	52.0	29.0	8.0	17.0	54
4156.875000	38.8	200.0	V	31.0	28.9	9.9	15.2	54
4886.250000	40.0	200.0	V	205.0	28.1	11.9	14.0	54
6647.500000	44.7	100.0	H	180.0	29.2	15.5	9.3	54
6906.875000	49.1	200.0	V	175.0	32.8	16.3	4.9	54
6166.250000	42.8	400.0	H	205.0	27.2	15.6	11.2	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

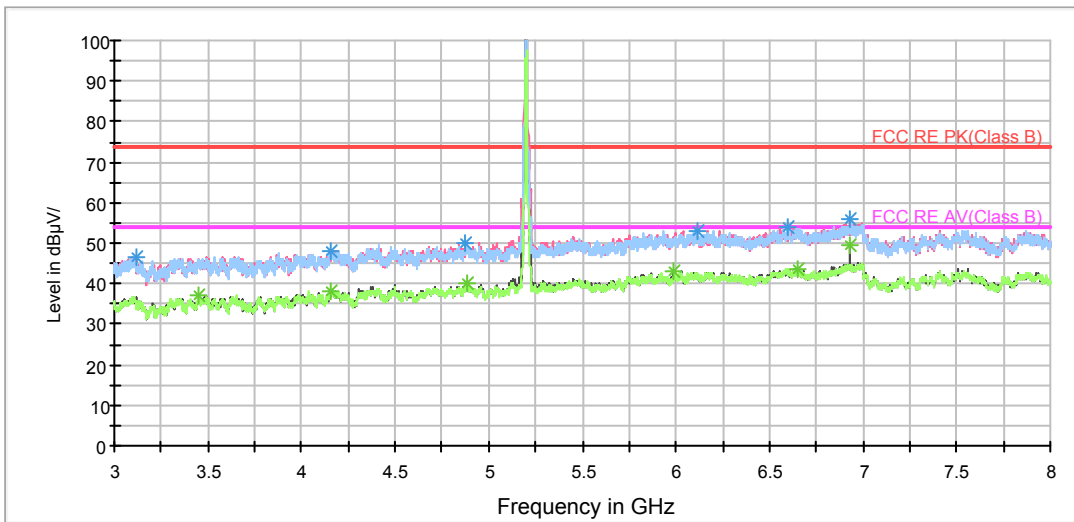
802.11a CH40

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

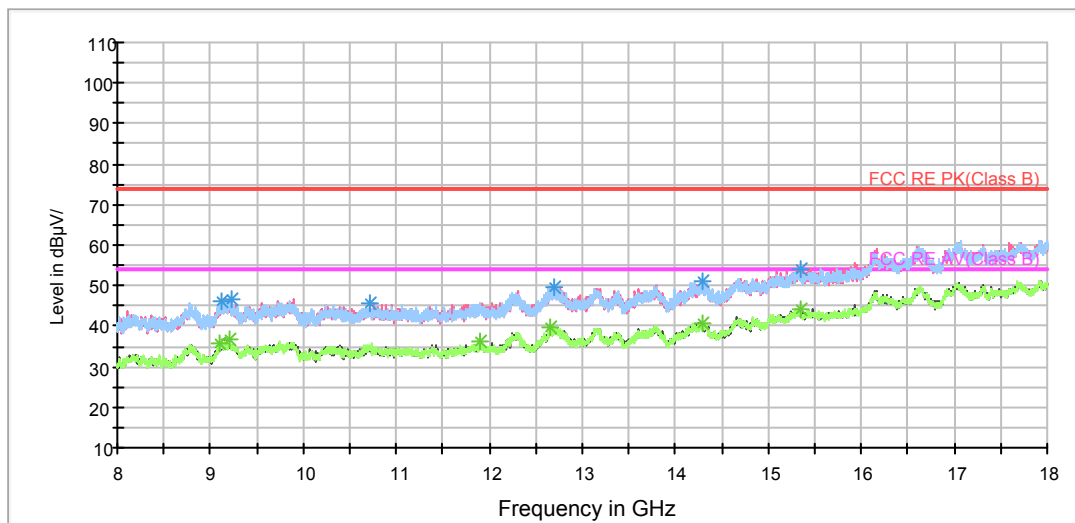
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3114.375000	46.4	200.0	V	326.0	39.0	7.4	27.6	74
4155.625000	47.8	200.0	V	297.0	37.9	9.9	26.2	74
4869.375000	50.1	200.0	H	3.0	38.3	11.8	23.9	74
6598.750000	54.2	200.0	V	267.0	38.5	15.7	19.8	74
6933.125000	55.9	200.0	V	346.0	39.7	16.2	18.1	74
6116.875000	52.8	200.0	H	120.0	37.4	15.4	21.2	74

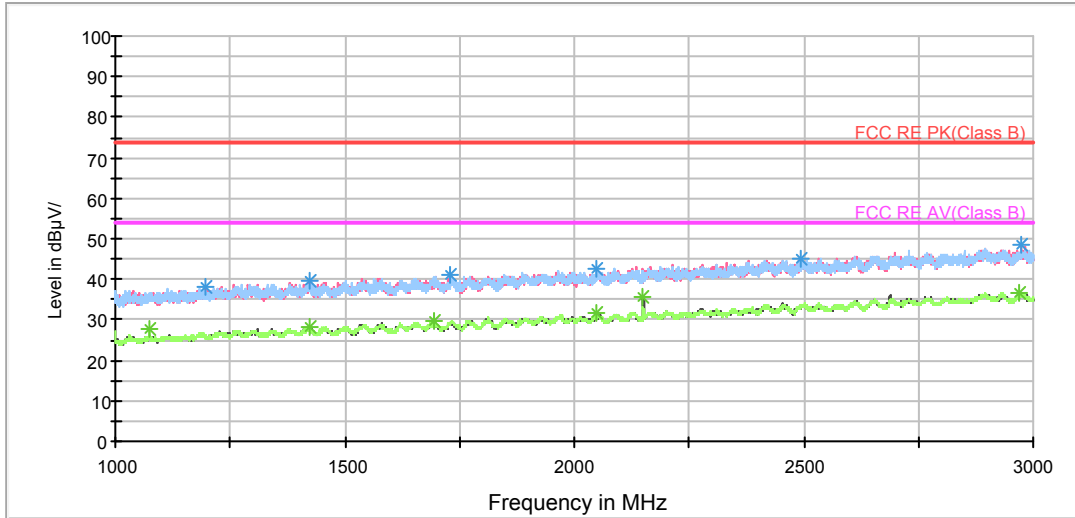
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3446.875000	36.9	200.0	H	209.0	29.1	7.8	17.1	54
4158.750000	38.0	200.0	V	180.0	28.0	10.0	16.0	54
4884.375000	40.0	200.0	H	120.0	28.1	11.9	14.0	54
6650.625000	43.8	200.0	V	356.0	28.3	15.5	10.2	54
6933.125000	49.7	200.0	V	346.0	33.5	16.2	4.3	54
5990.625000	43.0	200.0	V	0.0	28.2	14.8	11.0	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

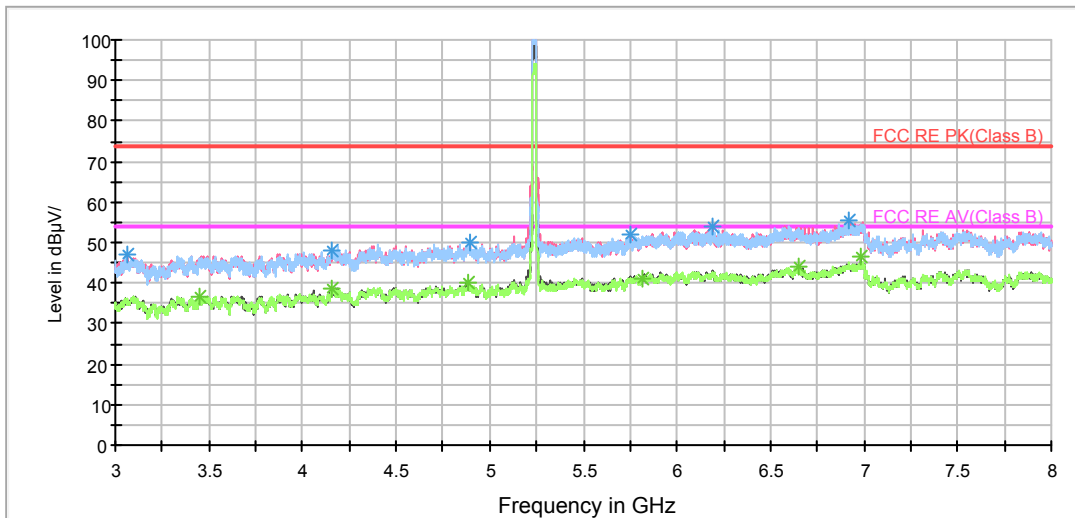
802.11a CH48

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

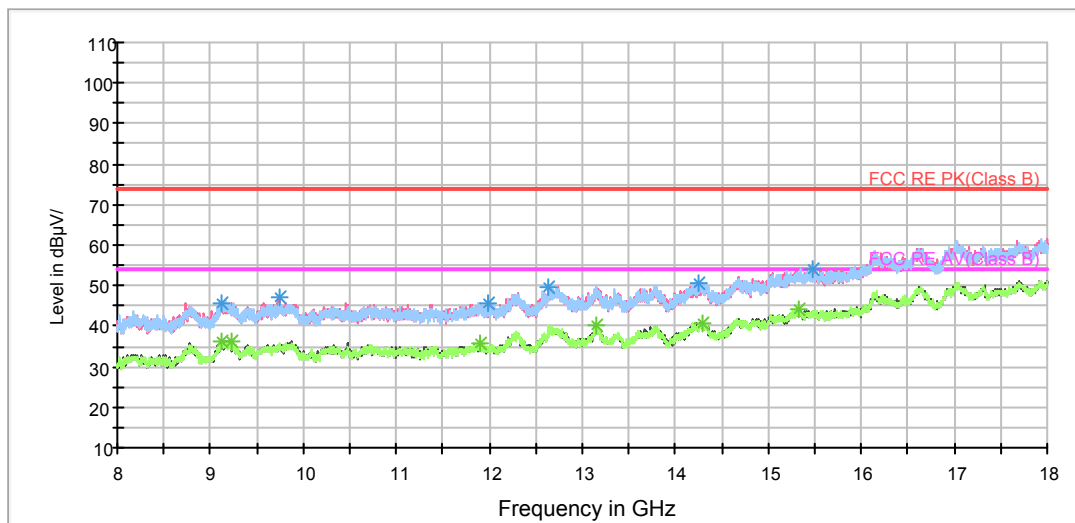
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3064.375000	46.8	200.0	V	152.0	39.9	6.9	27.2	74
4156.875000	48.1	200.0	H	147.0	38.2	9.9	25.9	74
4893.750000	49.8	200.0	V	327.0	37.9	11.9	24.2	74
5756.875000	51.9	200.0	V	260.0	38.4	13.5	22.1	74
6193.750000	54.1	200.0	V	336.0	38.7	15.4	19.9	74
6917.500000	55.5	200.0	V	356.0	39.3	16.2	18.5	74

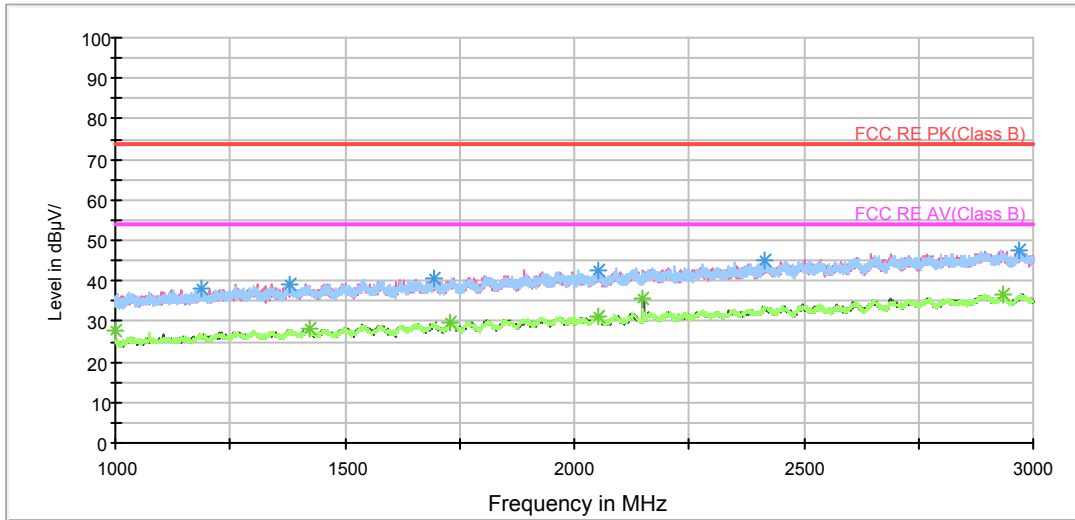
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3451.250000	36.8	200.0	H	11.0	29.0	7.8	17.2	54
4157.500000	38.5	200.0	V	270.0	28.6	9.9	15.5	54
4884.375000	40.2	200.0	V	308.0	28.3	11.9	13.8	54
5813.125000	41.2	200.0	V	346.0	26.8	14.4	12.8	54
6653.750000	44.0	200.0	V	317.0	28.5	15.5	10.0	54
6986.875000	46.5	200.0	V	356.0	30.1	16.4	7.5	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

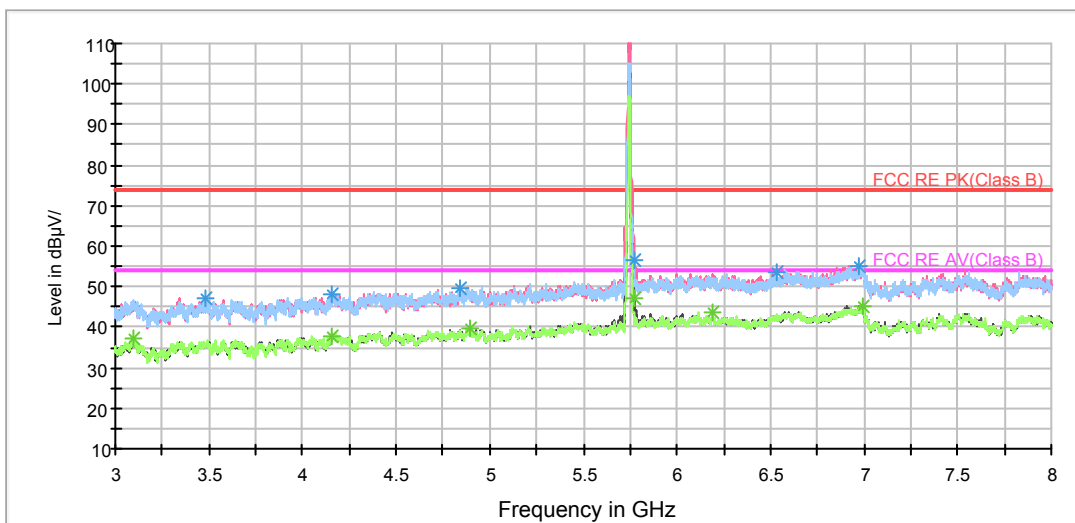
802.11a CH149

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

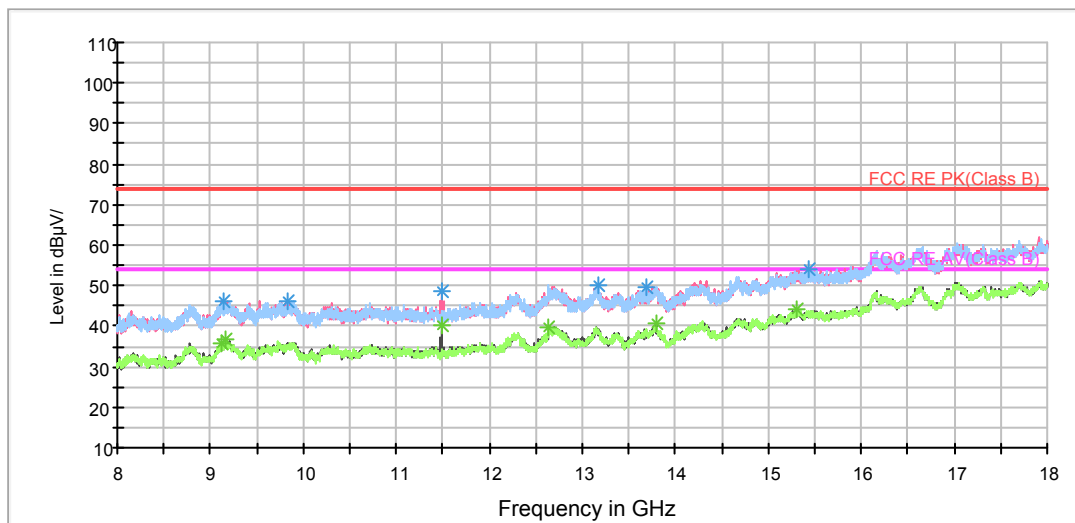
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3486.250000	47.4	200.0	H	304.0	39.4	8.0	26.6	74
4155.625000	48.3	200.0	H	89.0	38.4	9.9	25.7	74
4843.125000	49.7	200.0	V	353.0	38.1	11.6	24.3	74
5769.375000	56.6	200.0	V	177.0	42.9	13.7	17.4	74
6969.375000	55.0	200.0	H	241.0	38.7	16.3	19.0	74
6536.875000	53.7	200.0	H	177.0	38.3	15.4	20.3	74

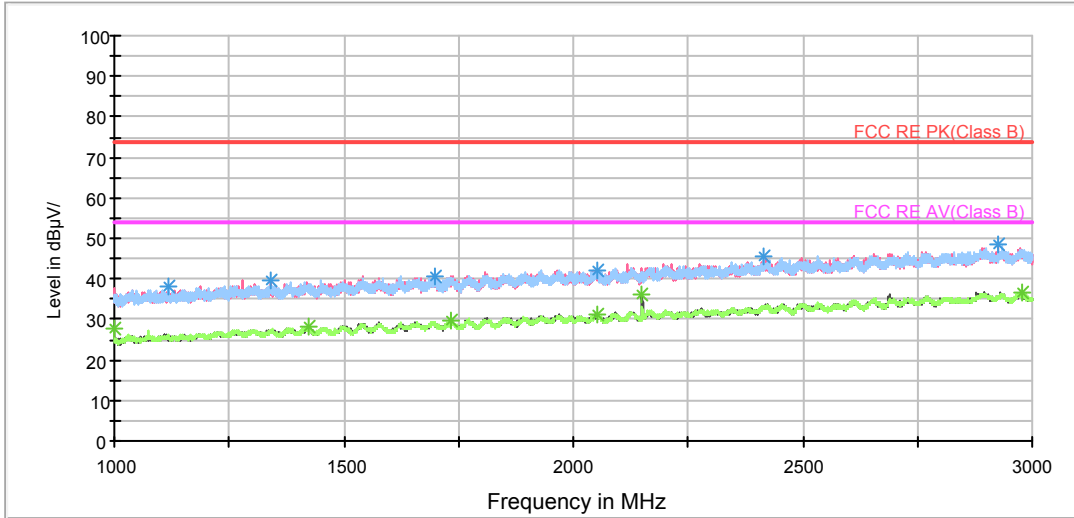
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3098.125000	37.0	200.0	H	293.0	29.8	7.2	17.0	54
4153.750000	37.9	200.0	V	118.0	28.0	9.9	16.1	54
4895.000000	39.6	200.0	V	313.0	27.7	11.9	14.4	54
5770.625000	47.1	200.0	V	0.0	33.3	13.8	6.9	54
6995.625000	45.2	200.0	V	303.0	28.7	16.5	8.8	54
6189.375000	43.6	200.0	H	69.0	28.2	15.4	10.4	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

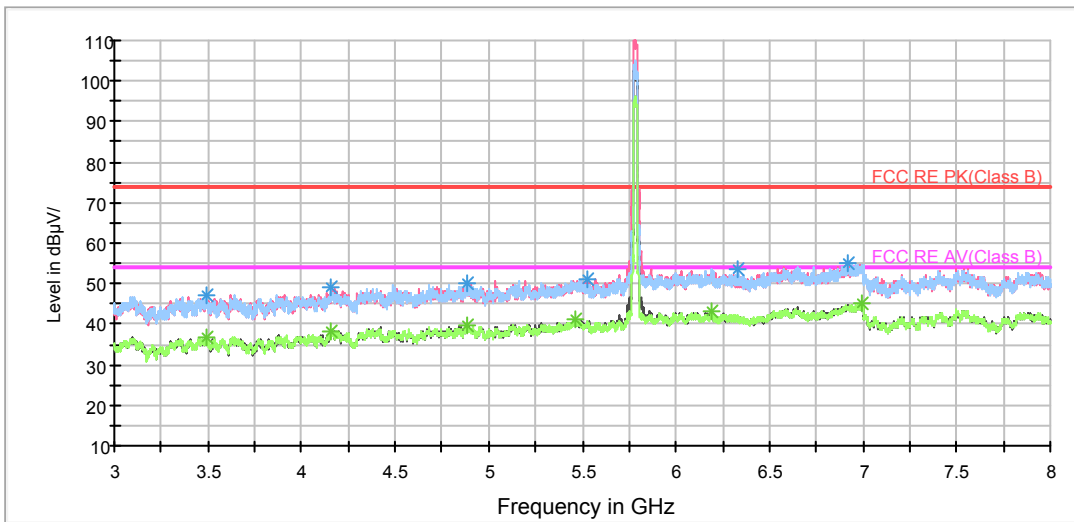
802.11a CH157

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

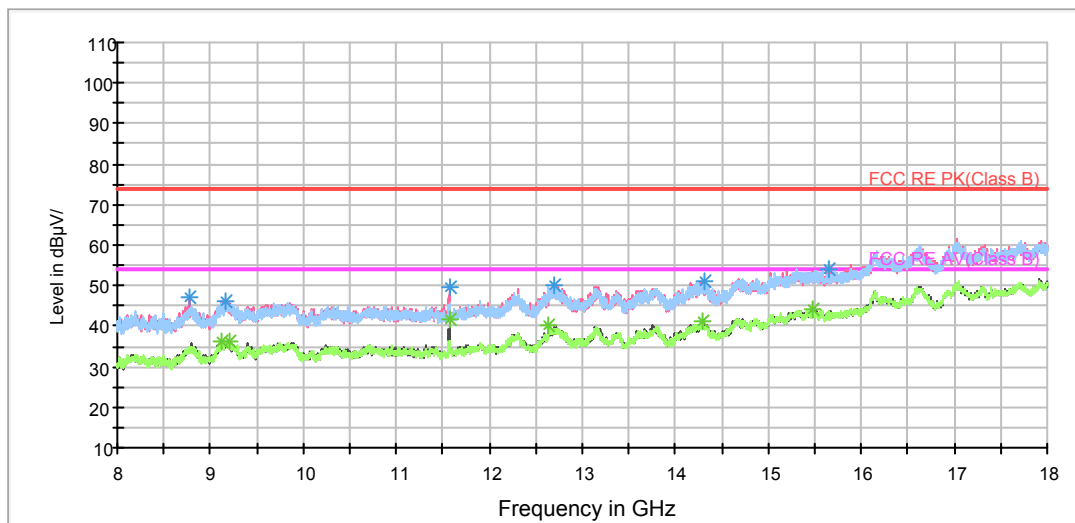
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3492.500000	47.3	200.0	H	113.0	39.4	7.9	26.7	74
4155.625000	49.1	200.0	H	231.0	39.2	9.9	24.9	74
4883.750000	50.3	200.0	V	339.0	38.4	11.9	23.7	74
6921.875000	54.9	200.0	H	84.0	38.7	16.2	19.1	74
5529.375000	51.2	200.0	V	226.0	38.0	13.2	22.8	74
6335.000000	53.5	200.0	H	32.0	38.1	15.4	20.5	74

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

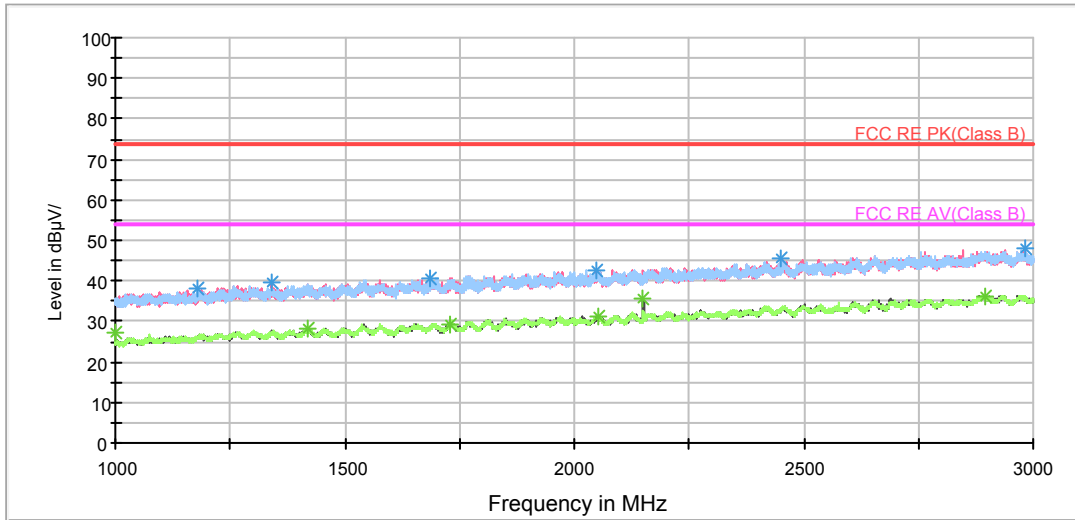
Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3491.875000	36.8	200.0	H	104.0	28.9	7.9	17.2	54
4157.500000	38.2	200.0	V	296.0	28.3	9.9	15.8	54
4883.125000	39.5	200.0	H	22.0	27.6	11.9	14.5	54
6996.875000	45.0	200.0	V	226.0	28.5	16.5	9.0	54
5462.500000	41.0	200.0	V	77.0	28.2	12.8	13.0	54
6193.750000	43.1	200.0	V	349.0	27.7	15.4	10.9	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)



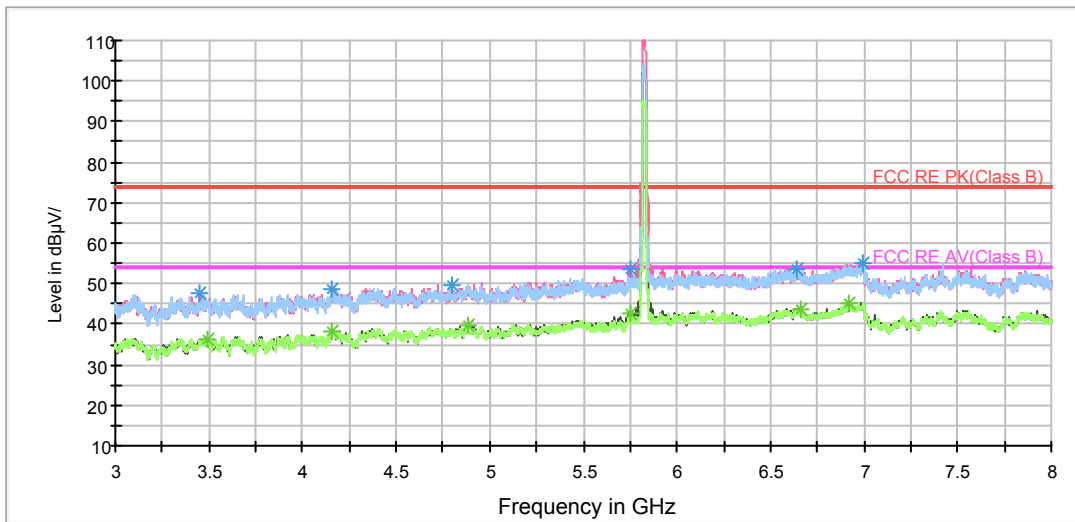
802.11a CH165

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

RE 3-18GHz PK+AV

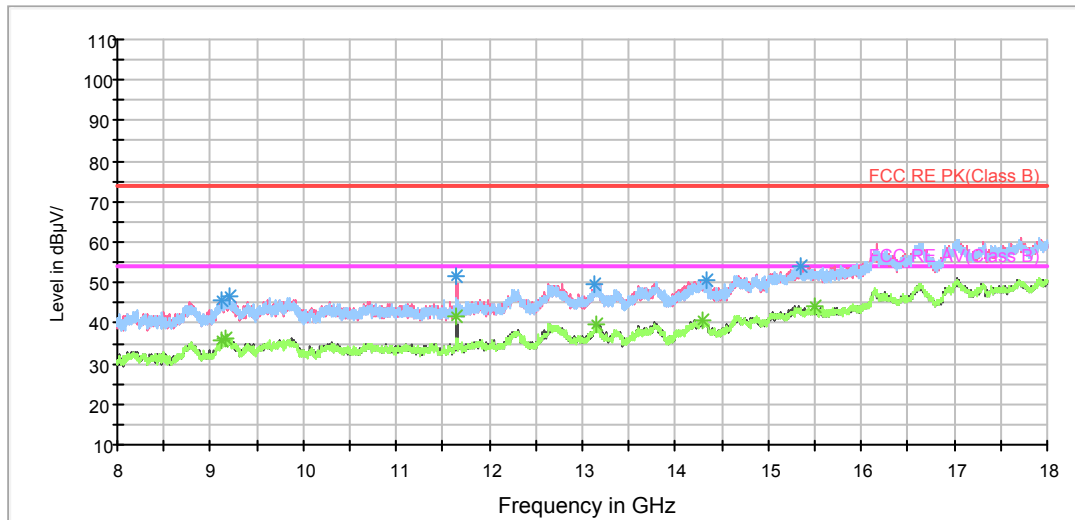


Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz



RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3448.750000	47.5	200.0	V	67.0	39.7	7.8	26.5	74
4160.000000	48.7	200.0	H	0.0	38.7	10.0	25.3	74
4800.000000	49.8	200.0	H	132.0	38.5	11.3	24.2	74
5746.875000	53.7	200.0	V	352.0	40.1	13.6	20.3	74
6995.000000	55.2	200.0	V	245.0	38.7	16.5	18.8	74
6645.000000	53.6	200.0	V	118.0	38.1	15.5	20.4	74

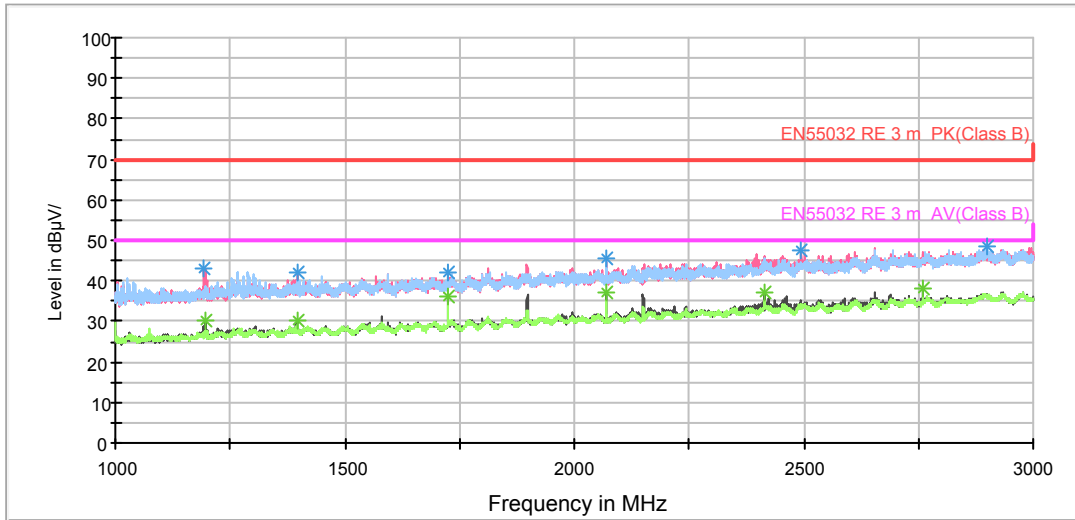
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3492.500000	36.5	200.0	H	63.0	28.6	7.9	17.5	54
4158.125000	38.2	200.0	V	274.0	28.3	9.9	15.8	54
4883.750000	39.8	200.0	V	323.0	27.9	11.9	14.2	54
5751.875000	42.6	200.0	V	235.0	29.0	13.6	11.4	54
6921.250000	45.2	200.0	V	235.0	29.0	16.2	8.8	54
6657.500000	43.7	200.0	V	0.0	28.2	15.5	10.3	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

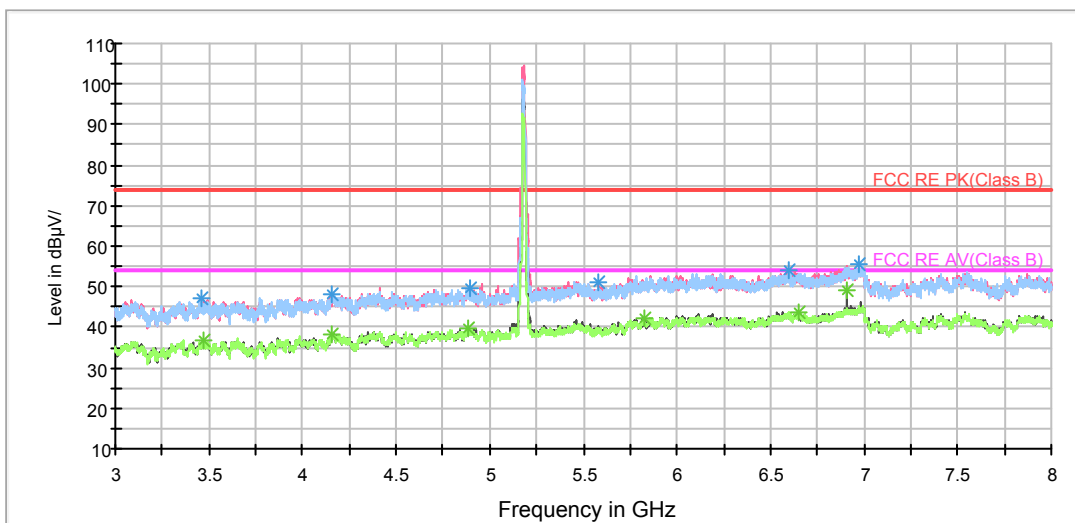
802.11n (HT20) CH36

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

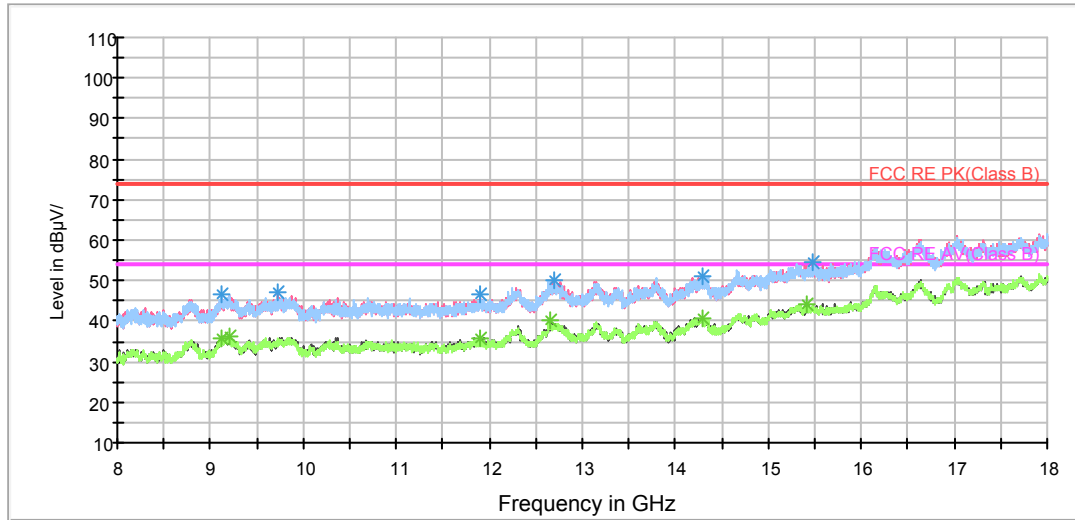
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3465.000000	47.1	200.0	V	315.0	39.2	7.9	26.9	74
4156.875000	48.1	200.0	V	148.0	38.2	9.9	25.9	74
4891.875000	49.5	200.0	H	48.0	37.6	11.9	24.5	74
6594.375000	54.0	200.0	H	165.0	38.4	15.6	20.0	74
6973.750000	55.4	200.0	H	0.0	39.1	16.3	18.6	74
5576.875000	50.9	200.0	V	285.0	37.5	13.4	23.1	74

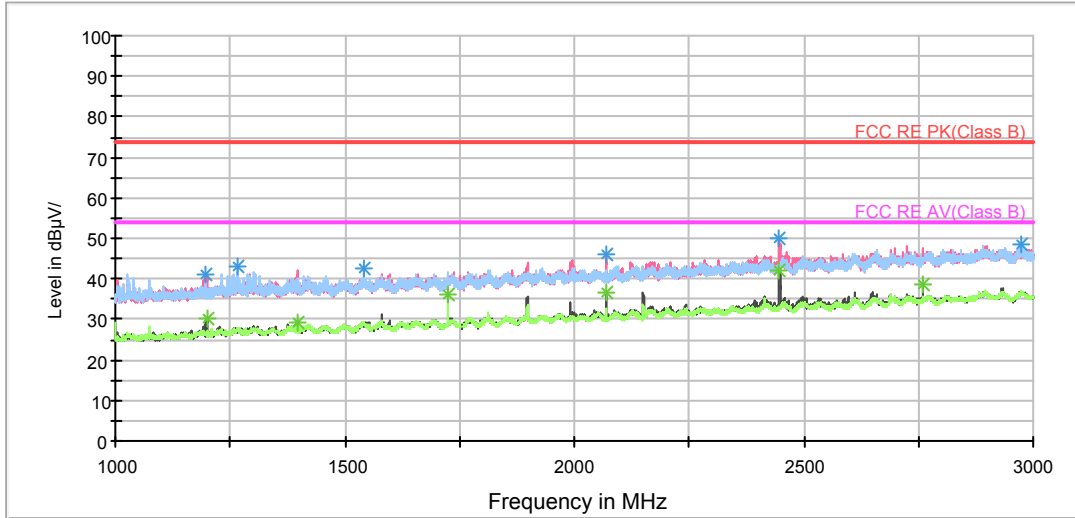
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3472.500000	36.7	200.0	V	218.0	28.8	7.9	17.3	54
4159.375000	38.1	200.0	V	66.0	28.1	10.0	15.9	54
4885.000000	39.9	200.0	H	321.0	28.0	11.9	14.1	54
6651.250000	43.6	200.0	V	0.0	28.1	15.5	10.4	54
6906.875000	49.0	200.0	V	276.0	32.7	16.3	5.0	54
5828.750000	42.0	200.0	V	295.0	27.5	14.5	12.0	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

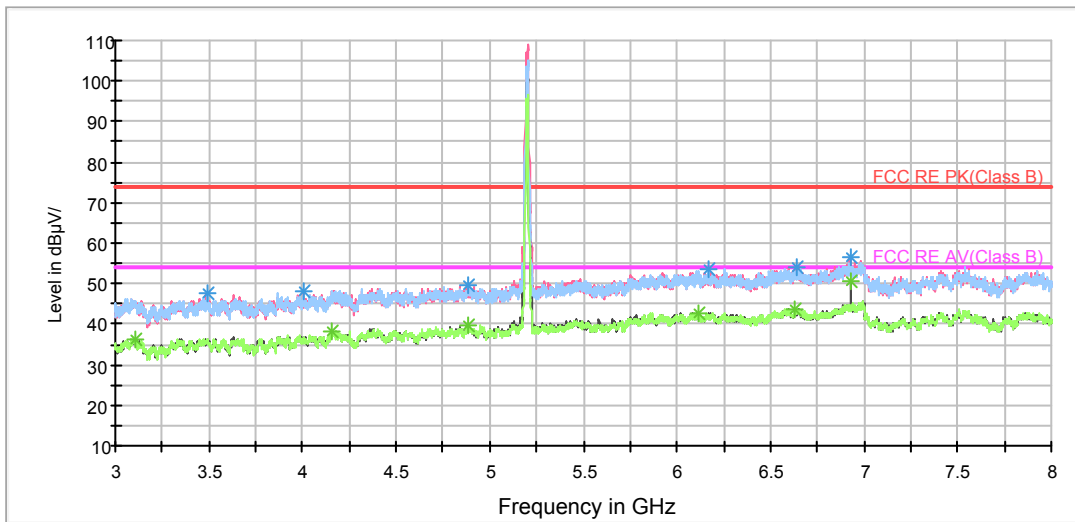
802.11n (HT20) CH40

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

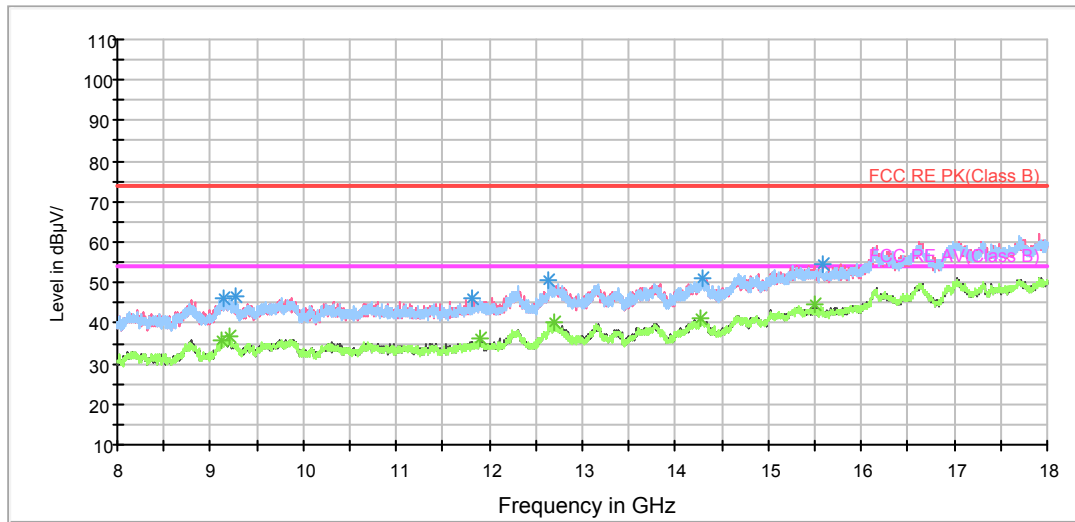
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3489.375000	47.5	200.0	H	201.0	39.5	8.0	26.5	74
4008.750000	48.2	200.0	V	359.0	39.3	8.9	25.8	74
4884.375000	49.6	200.0	H	0.0	37.7	11.9	24.4	74
6644.375000	54.0	200.0	V	359.0	38.5	15.5	20.0	74
6933.750000	56.4	200.0	V	359.0	40.2	16.2	17.6	74
6170.000000	53.8	200.0	H	112.0	38.3	15.5	20.2	74

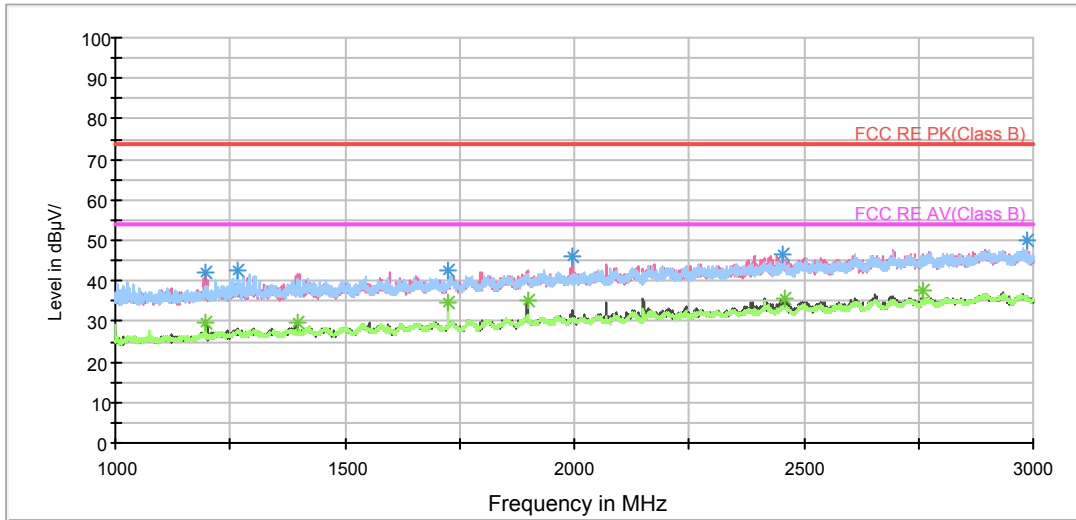
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3109.375000	36.4	200.0	H	93.0	29.1	7.3	17.6	54
4160.000000	38.2	200.0	H	103.0	28.2	10.0	15.8	54
4888.750000	39.5	200.0	V	218.0	27.6	11.9	14.5	54
6630.625000	43.9	200.0	H	241.0	28.4	15.5	10.1	54
6933.750000	50.8	200.0	V	359.0	34.6	16.2	3.2	54
6116.250000	42.9	200.0	V	258.0	27.5	15.4	11.1	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

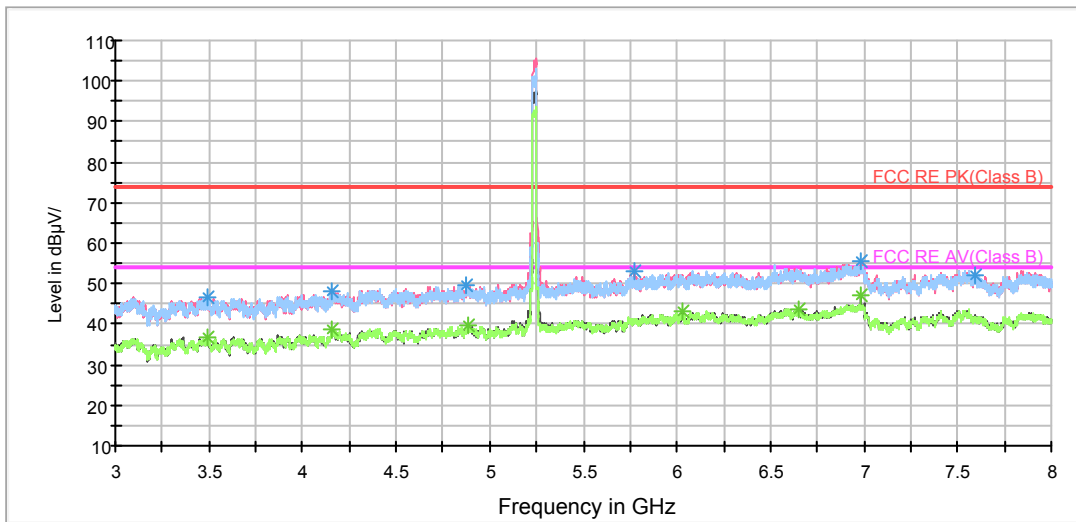
802.11n (HT20) CH48

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

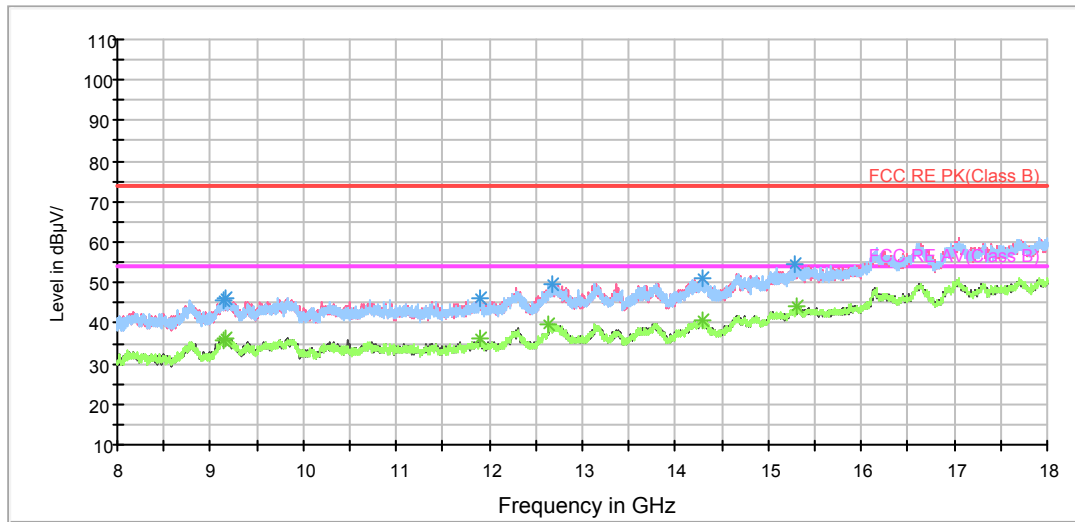
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3496.250000	46.6	200.0	H	231.0	38.7	7.9	27.4	74
4154.375000	48.3	200.0	V	254.0	38.4	9.9	25.7	74
4871.875000	49.6	200.0	H	191.0	37.8	11.8	24.4	74
6980.000000	55.7	200.0	V	254.0	39.3	16.4	18.3	74
5772.500000	53.3	200.0	V	352.0	39.5	13.8	20.7	74
7588.125000	52.3	200.0	H	65.0	35.2	17.1	21.7	74

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

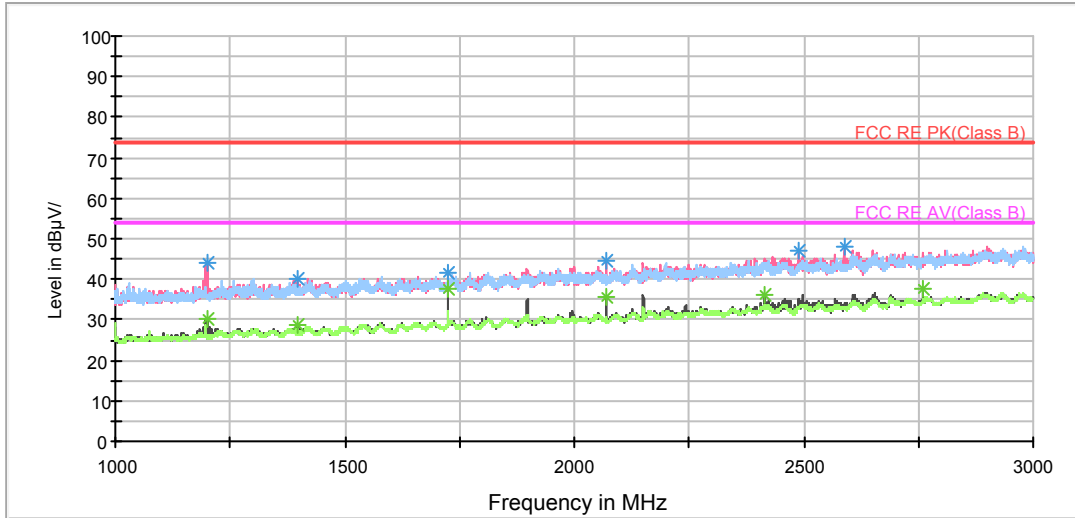
Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3493.125000	36.6	200.0	H	0.0	28.7	7.9	17.4	54
4156.875000	38.5	200.0	H	112.0	28.6	9.9	15.5	54
4883.125000	39.6	200.0	H	231.0	27.7	11.9	14.4	54
6654.375000	43.7	200.0	H	0.0	28.2	15.5	10.3	54
6986.875000	47.0	200.0	V	0.0	30.6	16.4	7.0	54
6026.250000	43.2	200.0	V	76.0	28.4	14.8	10.8	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)



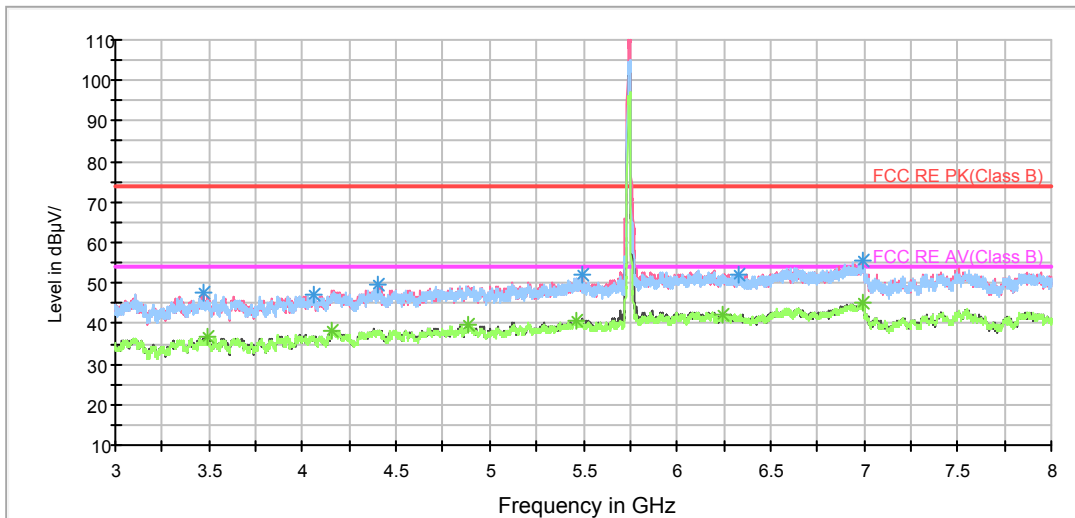
802.11n (HT20) CH149

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

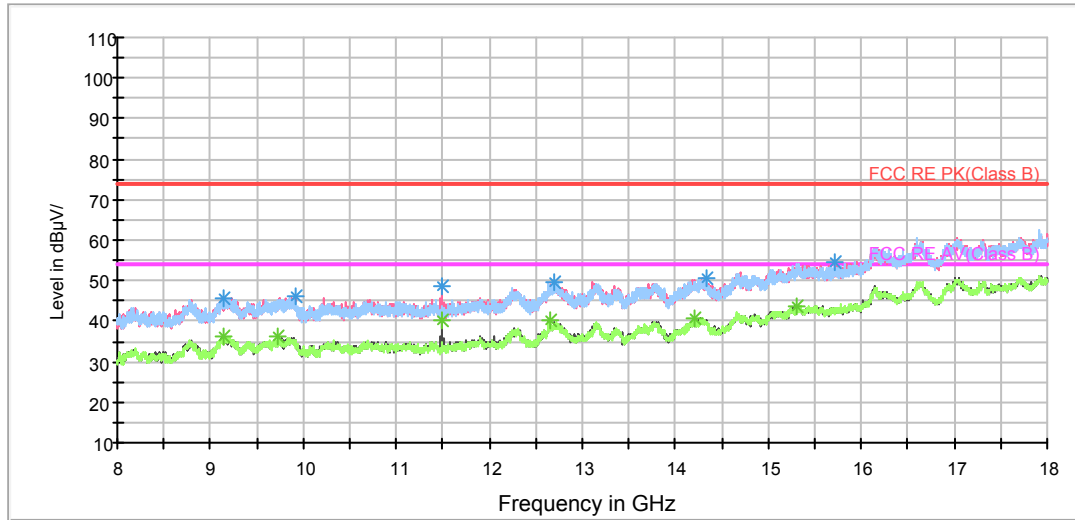
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3471.875000	47.6	200.0	V	258.0	39.7	7.9	26.4	74
4055.000000	47.4	200.0	V	277.0	38.5	8.9	26.6	74
4407.500000	49.5	200.0	V	200.0	39.4	10.1	24.5	74
6991.250000	55.4	200.0	V	0.0	38.9	16.5	18.6	74
5490.000000	52.0	200.0	V	171.0	38.9	13.1	22.0	74
6330.625000	52.3	200.0	H	351.0	36.9	15.4	21.7	74

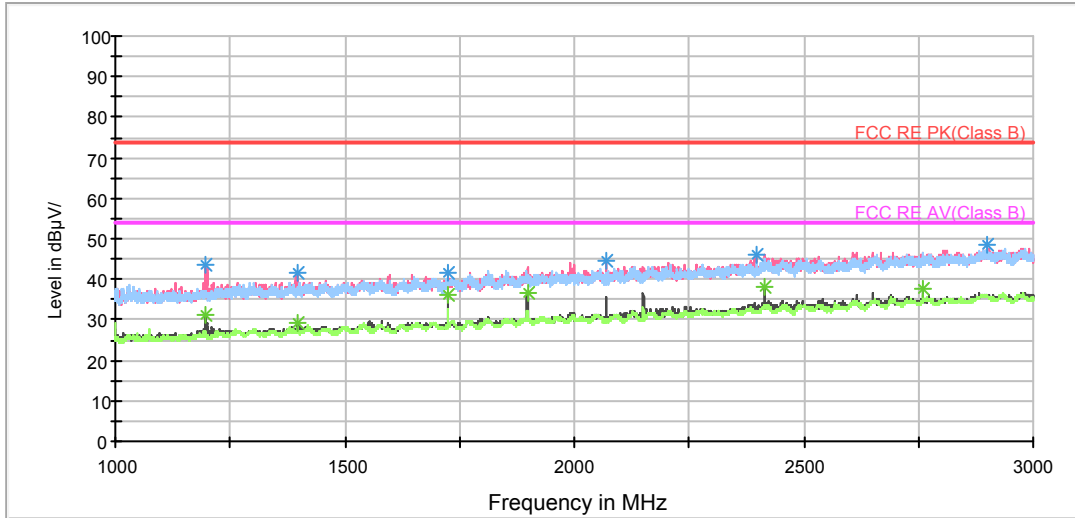
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3488.750000	36.9	200.0	V	219.0	28.9	8.0	17.1	54
4160.000000	38.2	200.0	V	0.0	28.2	10.0	15.8	54
4887.500000	39.8	200.0	H	77.0	27.9	11.9	14.2	54
6990.625000	45.0	200.0	H	106.0	28.5	16.5	9.0	54
5459.375000	40.6	200.0	V	355.0	27.8	12.8	13.4	54
6248.125000	42.2	200.0	V	116.0	26.8	15.4	11.8	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

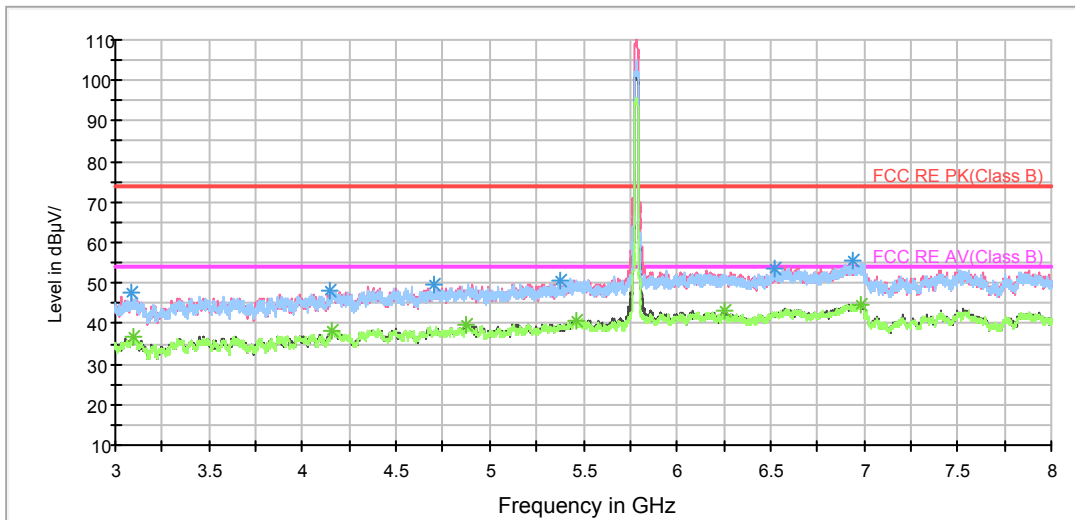
802.11n (HT20) CH157

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

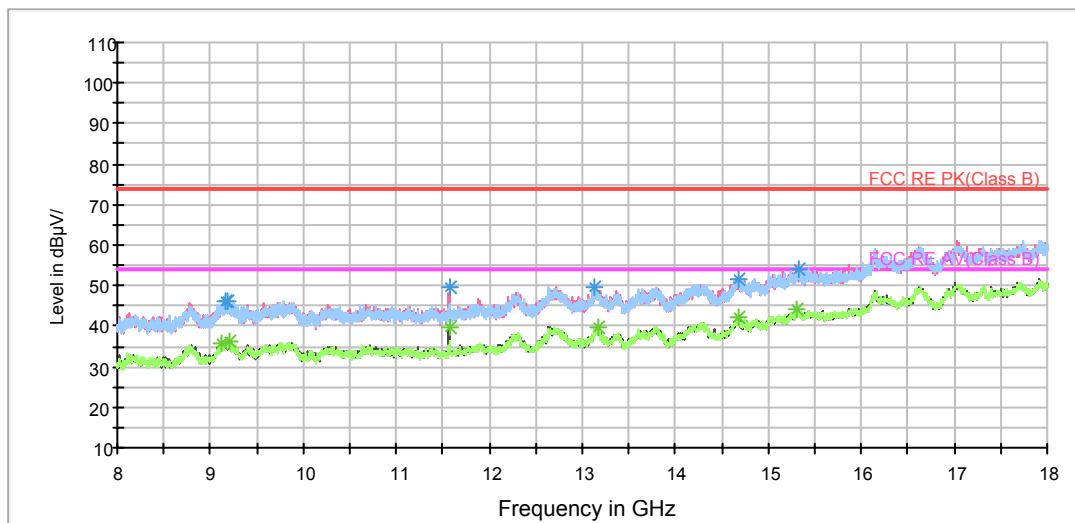
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3086.875000	47.6	200.0	H	222.0	40.5	7.1	26.4	74
4146.875000	48.2	200.0	H	48.0	38.4	9.8	25.8	74
4706.250000	49.8	200.0	V	273.0	39.0	10.8	24.2	74
6938.125000	55.3	200.0	H	263.0	39.2	16.1	18.7	74
5374.375000	50.8	200.0	V	254.0	38.5	12.3	23.2	74
6517.500000	53.7	200.0	H	105.0	38.2	15.5	20.3	74

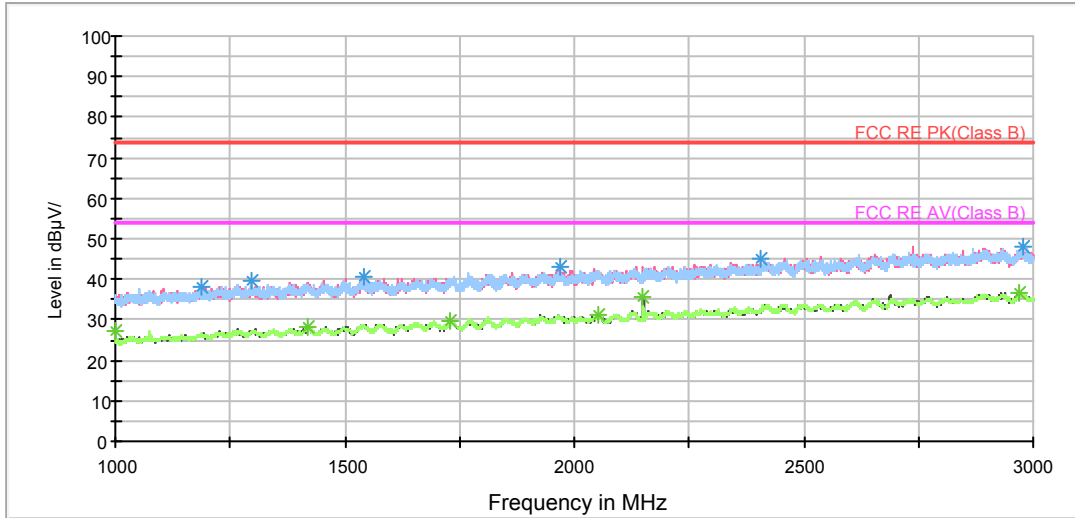
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3101.250000	36.9	200.0	V	321.0	29.7	7.2	17.1	54
4158.125000	38.2	200.0	H	28.0	28.3	9.9	15.8	54
4878.125000	39.7	200.0	H	115.0	27.9	11.8	14.3	54
6987.500000	44.9	200.0	V	44.0	28.5	16.4	9.1	54
5465.000000	40.9	200.0	V	75.0	28.1	12.8	13.1	54
6250.000000	43.2	200.0	V	196.0	27.8	15.4	10.8	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

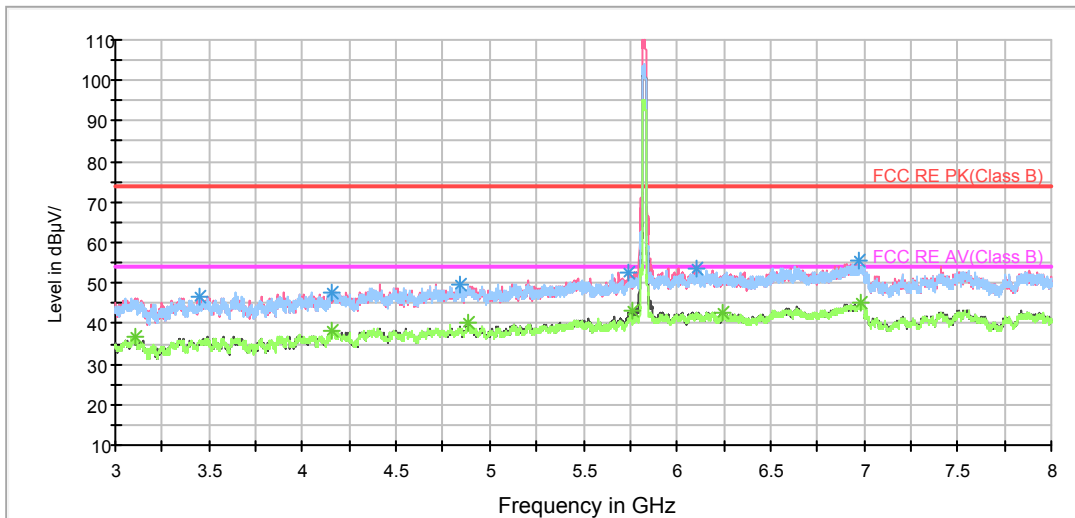
802.11n (HT20) CH165

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

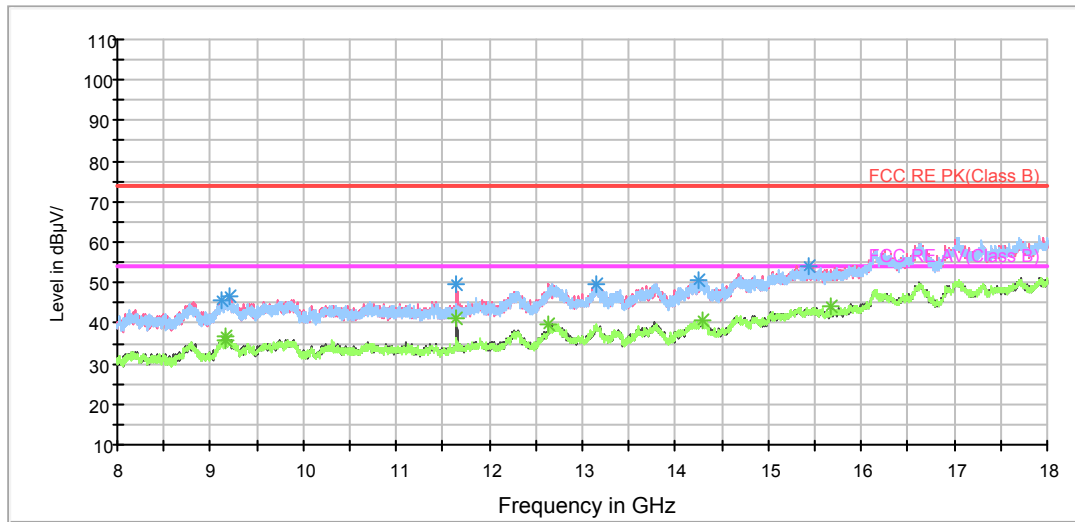
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3445.000000	46.8	200.0	H	18.0	39.1	7.7	27.2	74
4158.125000	47.8	200.0	H	36.0	37.9	9.9	26.2	74
4836.250000	49.6	200.0	H	18.0	38.1	11.5	24.4	74
5740.000000	52.7	200.0	V	138.0	39.0	13.7	21.3	74
6973.125000	55.7	200.0	H	56.0	39.4	16.3	18.3	74
6108.125000	53.5	200.0	V	198.0	38.3	15.2	20.5	74

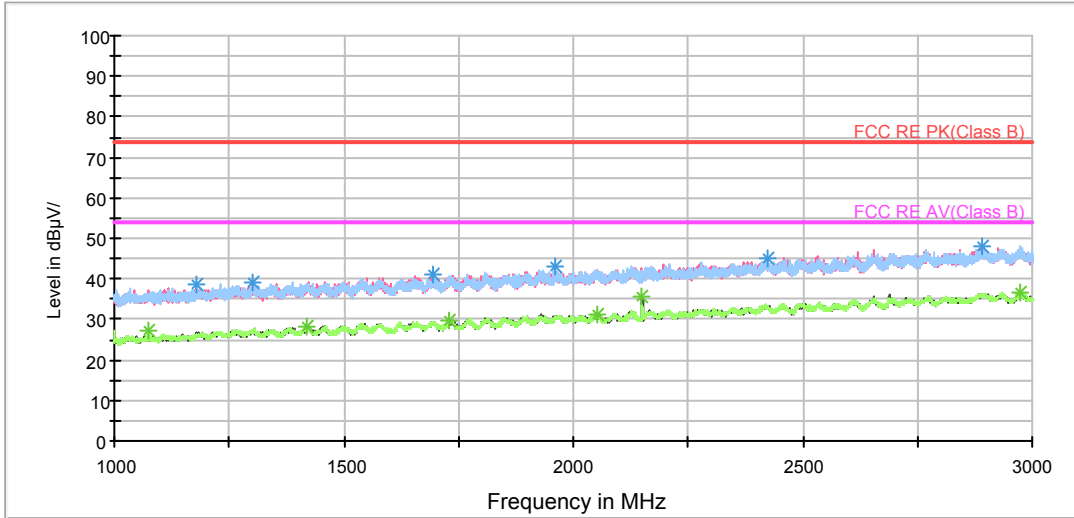
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3105.625000	36.7	200.0	H	144.0	29.4	7.3	17.3	54
4157.500000	38.4	200.0	V	208.0	28.5	9.9	15.6	54
4883.125000	40.0	200.0	H	18.0	28.1	11.9	14.0	54
5757.500000	42.9	200.0	V	178.0	29.4	13.5	11.1	54
6980.625000	45.0	200.0	V	297.0	28.6	16.4	9.0	54
6248.125000	42.9	200.0	V	356.0	27.5	15.4	11.1	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

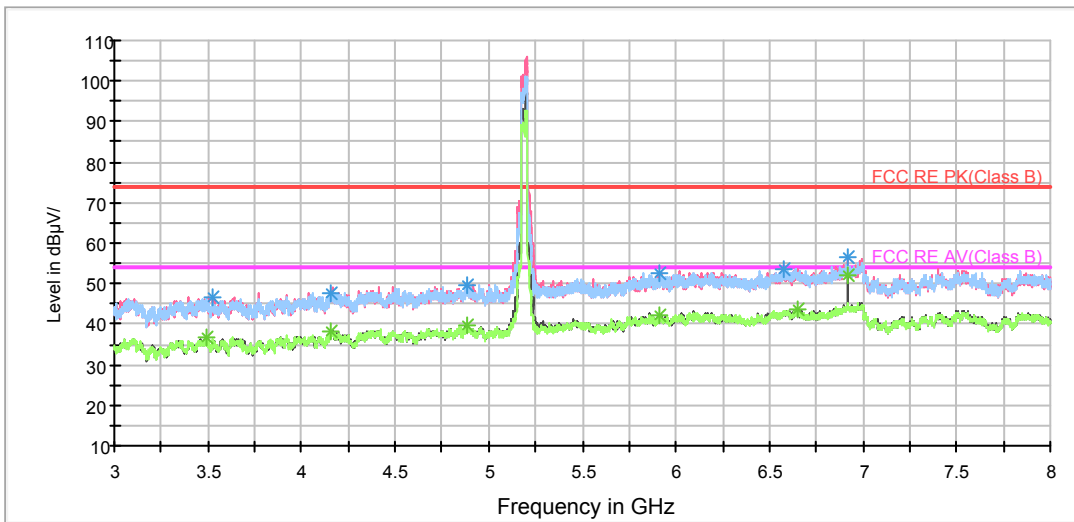
802.11n (HT40) CH38

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

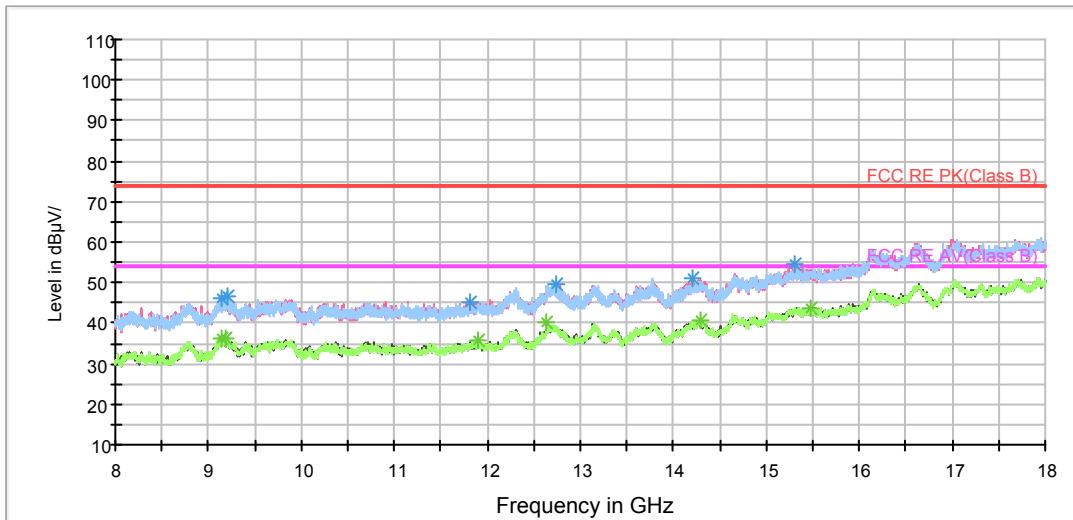
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3523.125000	46.8	200.0	V	34.0	38.8	8.0	27.2	74
4156.875000	47.6	200.0	V	205.0	37.7	9.9	26.4	74
4881.250000	49.8	200.0	V	205.0	38.0	11.8	24.2	74
6580.625000	53.7	200.0	V	149.0	38.2	15.5	20.3	74
6920.000000	56.5	200.0	V	358.0	40.3	16.2	17.5	74
5917.500000	52.6	200.0	V	105.0	37.7	14.9	21.4	74

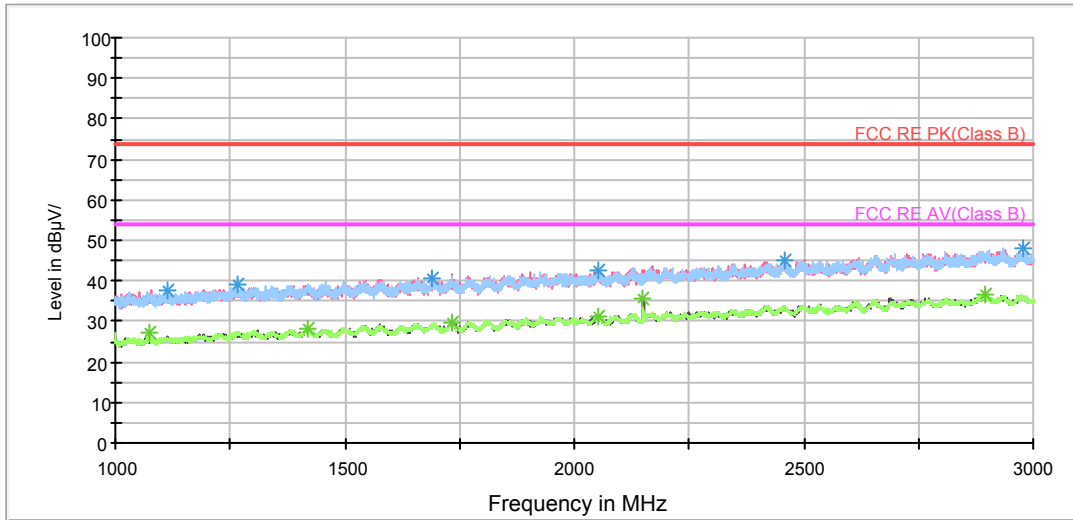
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3493.125000	36.5	200.0	V	149.0	28.6	7.9	17.5	54
4154.375000	38.2	200.0	H	170.0	28.3	9.9	15.8	54
4886.875000	39.7	200.0	V	349.0	27.8	11.9	14.3	54
6654.375000	43.7	200.0	V	349.0	28.2	15.5	10.3	54
6920.000000	52.2	200.0	V	358.0	36.0	16.2	1.8	54
5915.000000	42.4	200.0	V	0.0	27.5	14.9	11.6	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

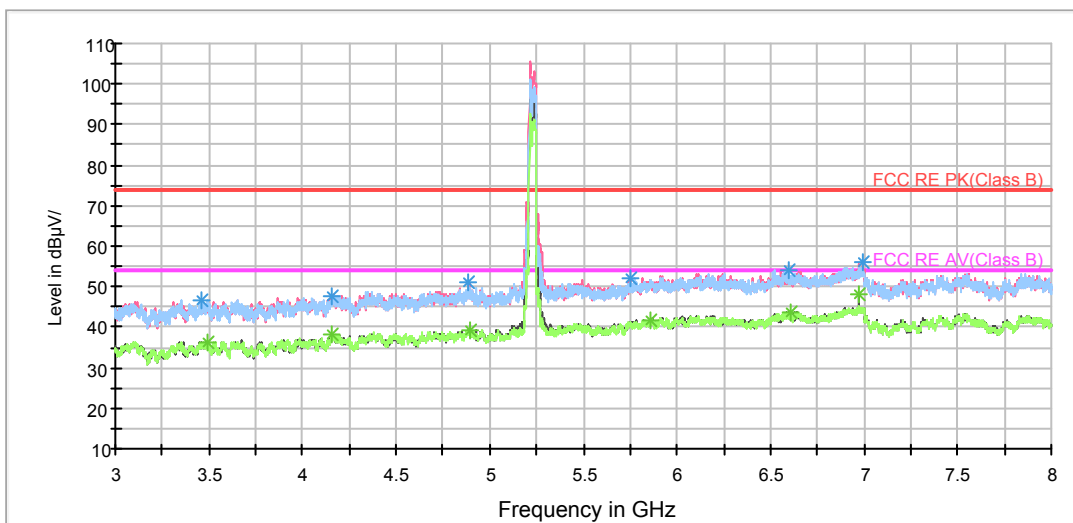
802.11n (HT40) CH46

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

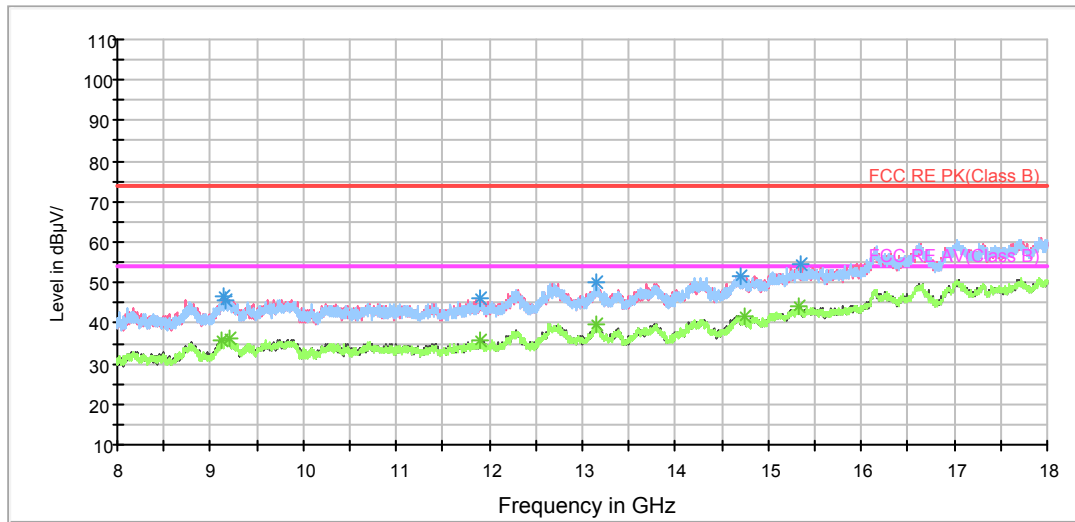
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3457.500000	46.8	200.0	H	22.0	39.0	7.8	27.2	74
4155.000000	47.5	200.0	V	309.0	37.6	9.9	26.5	74
4884.375000	51.0	200.0	H	98.0	39.1	11.9	23.0	74
6592.500000	54.0	200.0	H	239.0	38.4	15.6	20.0	74
6998.125000	56.2	200.0	V	108.0	39.7	16.5	17.8	74
5752.500000	52.2	200.0	V	171.0	38.6	13.6	21.8	74

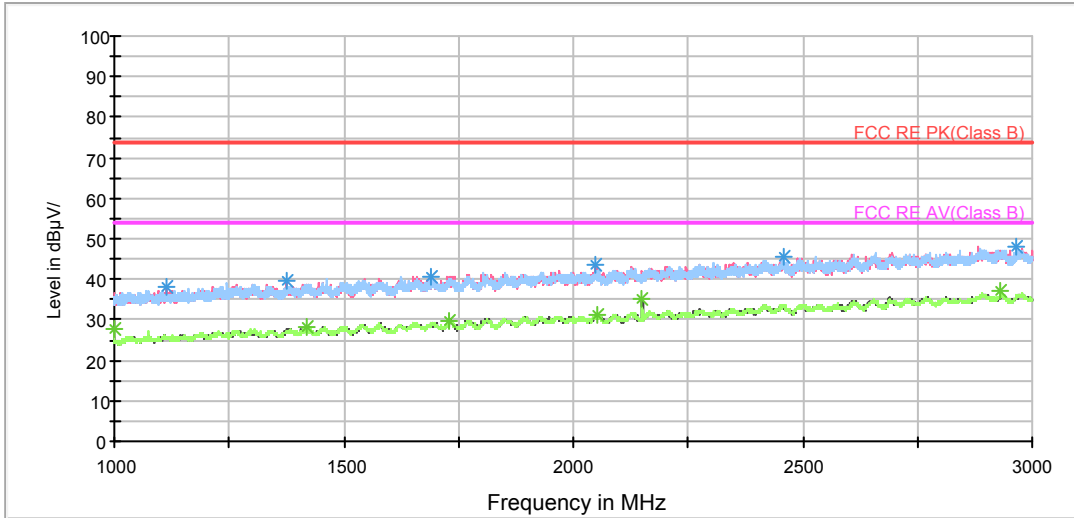
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3491.875000	36.3	200.0	V	0.0	28.4	7.9	17.7	54
4157.500000	38.0	200.0	V	142.0	28.1	9.9	16.0	54
4893.125000	39.3	200.0	H	239.0	27.4	11.9	14.7	54
6605.625000	43.9	200.0	V	0.0	28.3	15.6	10.1	54
6973.125000	48.0	200.0	V	357.0	31.7	16.3	6.0	54
5858.750000	41.7	200.0	V	212.0	26.9	14.8	12.3	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

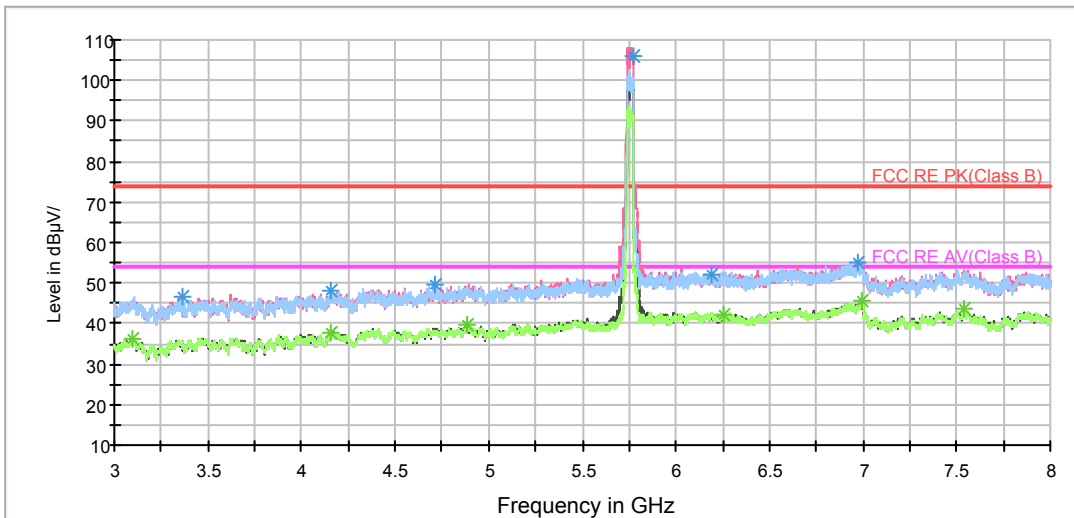
802.11n (HT40) CH151

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

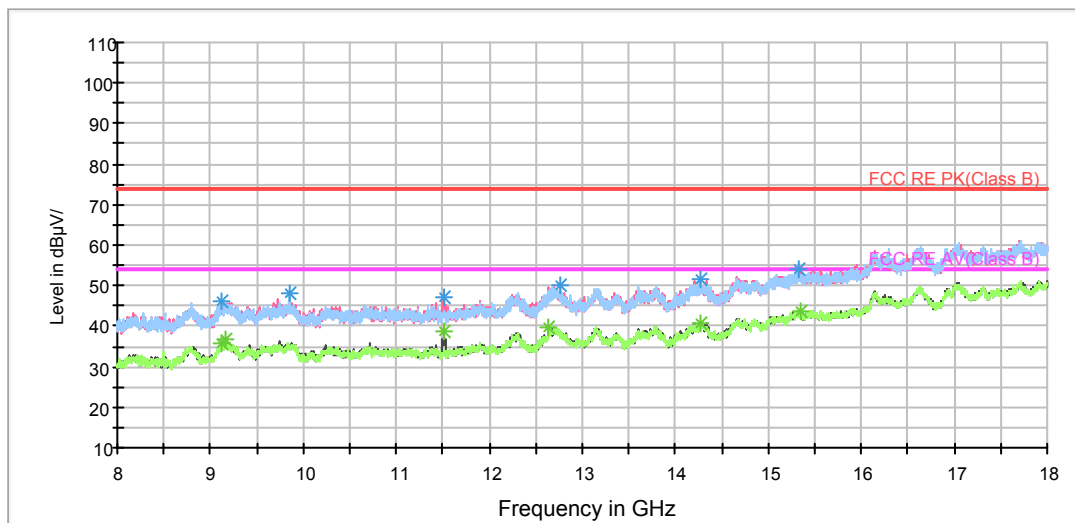
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3359.375000	46.7	200.0	H	10.0	39.0	7.7	27.3	74
4160.000000	48.4	200.0	H	10.0	38.4	10.0	25.6	74
4715.625000	49.7	200.0	V	326.0	38.9	10.8	24.3	74
6972.500000	55.2	200.0	V	107.0	38.9	16.3	18.8	74
6194.375000	52.3	200.0	H	214.0	36.9	15.4	21.7	74

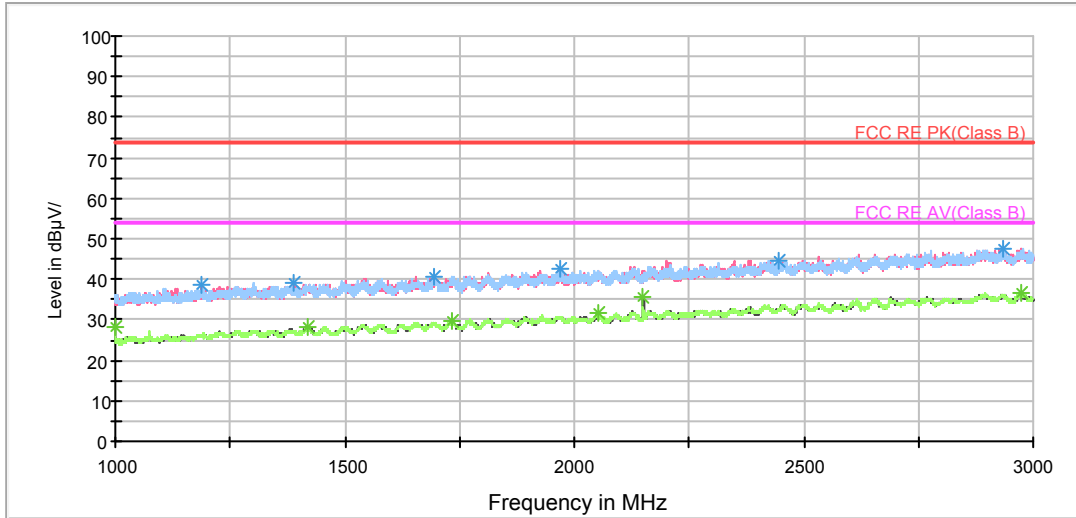
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3095.625000	36.4	200.0	H	137.0	29.3	7.1	17.6	54
4155.000000	37.8	200.0	H	137.0	27.9	9.9	16.2	54
4885.625000	39.6	200.0	V	356.0	27.7	11.9	14.4	54
6995.625000	45.7	200.0	H	68.0	29.2	16.5	8.3	54
6257.500000	42.4	200.0	H	58.0	26.9	15.5	11.6	54
7540.000000	43.6	200.0	H	78.0	26.6	17.0	10.4	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

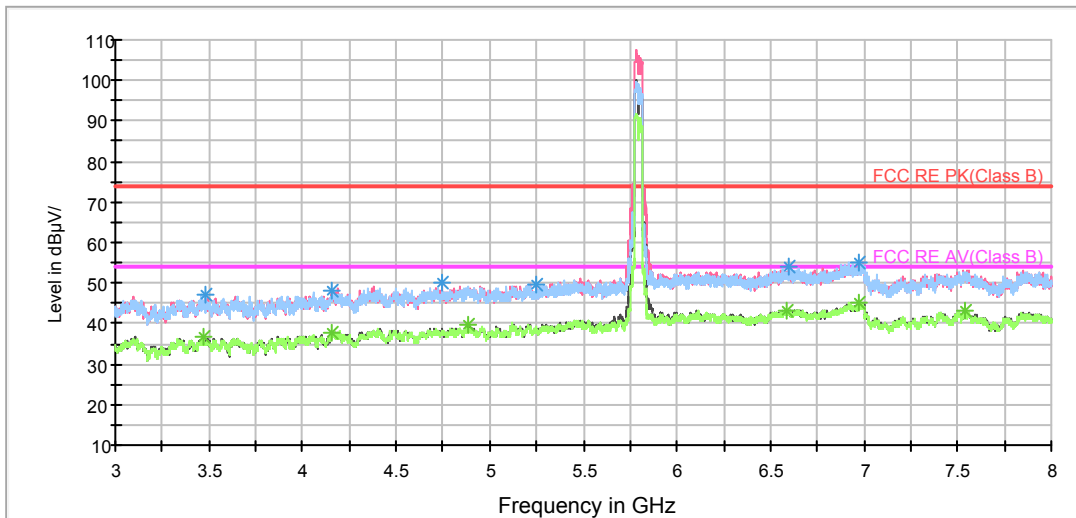
802.11n (HT40) CH159

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

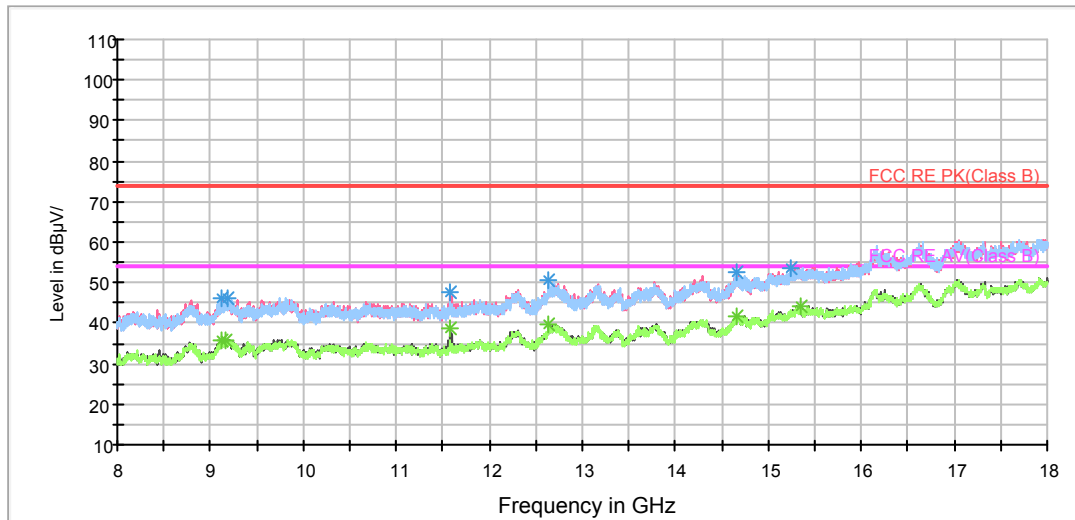
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3485.625000	47.3	200.0	H	0.0	39.3	8.0	26.7	74
4158.750000	48.1	200.0	V	358.0	38.1	10.0	25.9	74
4743.750000	50.1	200.0	V	292.0	39.2	10.9	23.9	74
6970.625000	55.2	200.0	V	189.0	38.9	16.3	18.8	74
5245.000000	49.8	200.0	V	0.0	37.7	12.1	24.2	74
6601.875000	54.2	200.0	H	222.0	38.5	15.7	19.8	74

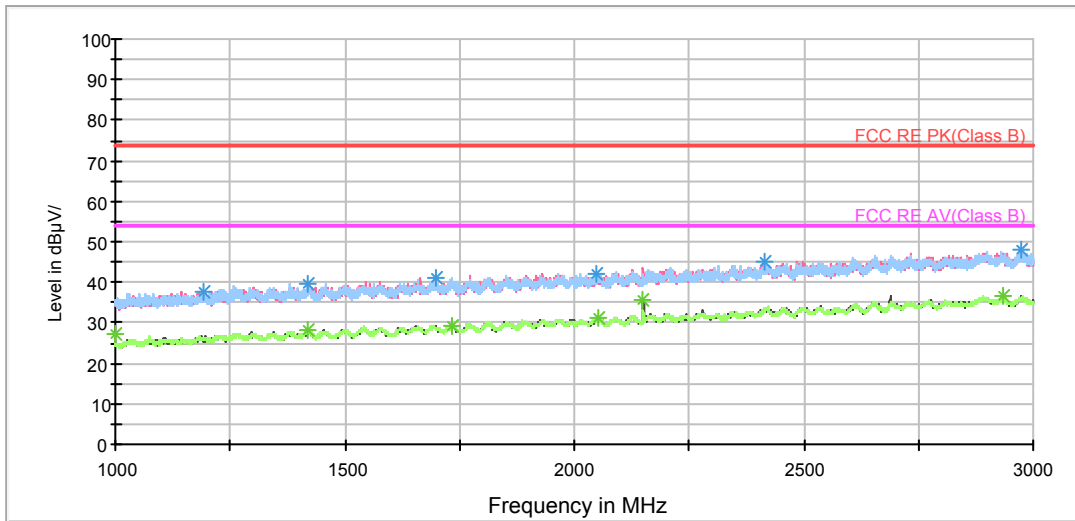
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3472.500000	36.7	200.0	H	66.0	28.8	7.9	17.3	54
4155.000000	37.6	200.0	V	301.0	27.7	9.9	16.4	54
4883.750000	39.5	200.0	V	301.0	27.6	11.9	14.5	54
6973.750000	45.2	200.0	H	0.0	28.9	16.3	8.8	54
6586.875000	43.3	200.0	V	358.0	27.7	15.6	10.7	54
7535.625000	43.3	200.0	V	310.0	26.3	17.0	10.7	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

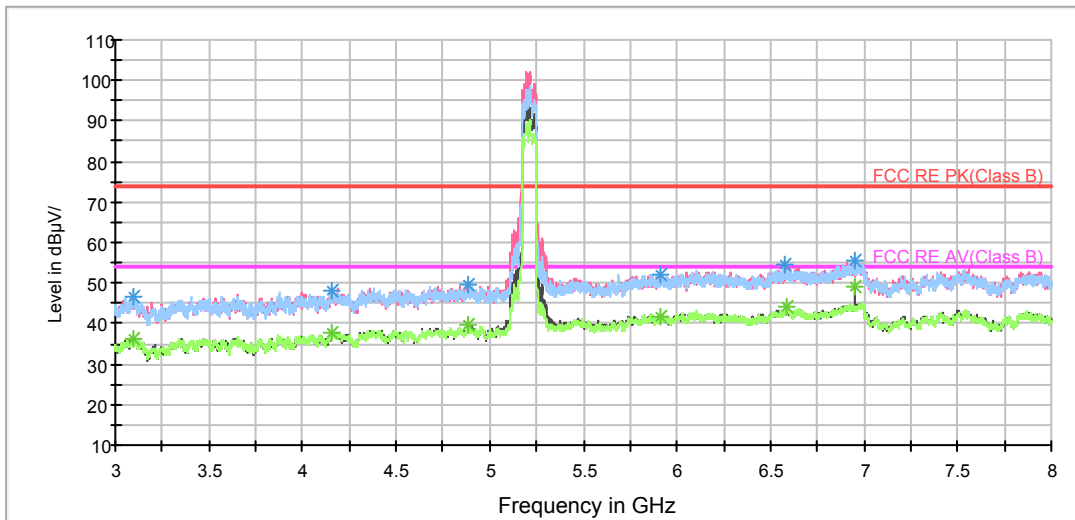
802.11ac (VHT80) CH42

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

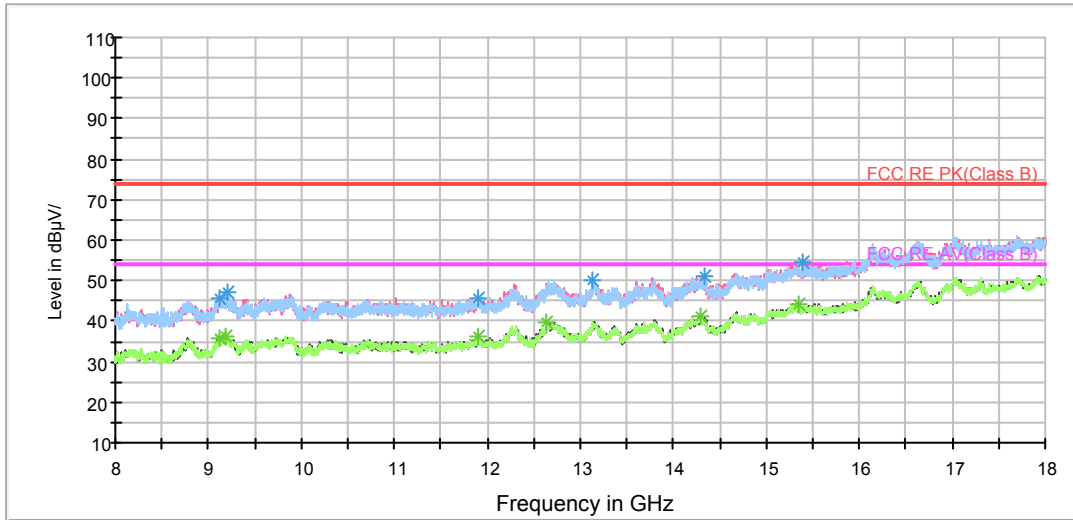
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3095.000000	46.7	200.0	H	113.0	39.6	7.1	27.3	74
4158.125000	48.1	200.0	V	45.0	38.2	9.9	25.9	74
4880.000000	49.4	200.0	V	266.0	37.6	11.8	24.6	74
6578.125000	54.3	200.0	V	190.0	38.8	15.5	19.7	74
6946.875000	55.7	200.0	V	353.0	39.5	16.2	18.3	74
5915.625000	52.1	200.0	V	266.0	37.2	14.9	21.9	74

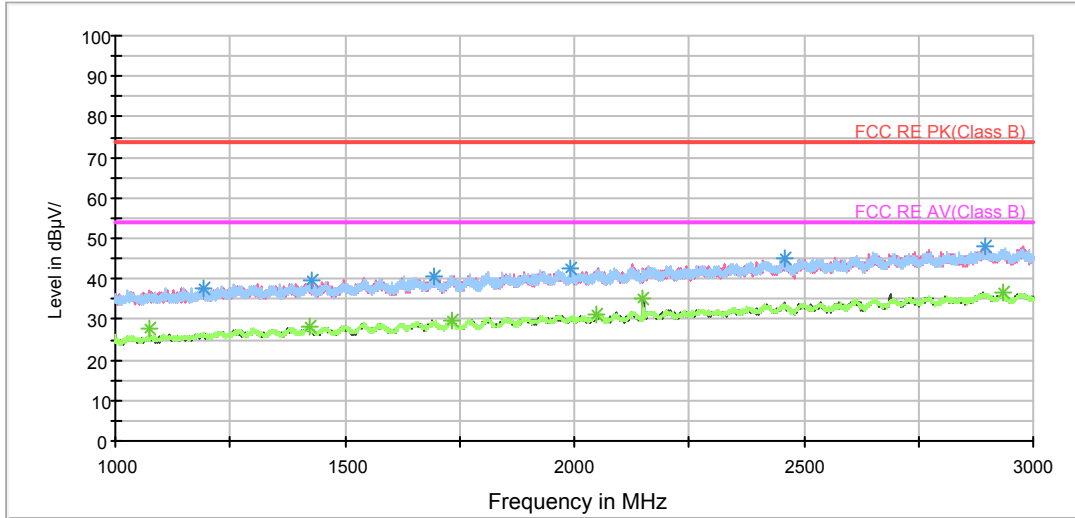
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3101.250000	36.5	200.0	V	116.0	29.3	7.2	17.5	54
4157.500000	37.9	200.0	V	324.0	28.0	9.9	16.1	54
4882.500000	39.5	200.0	V	324.0	27.6	11.9	14.5	54
6591.250000	44.0	200.0	H	123.0	28.4	15.6	10.0	54
6946.875000	49.0	200.0	V	353.0	32.8	16.2	5.0	54
5910.625000	41.9	200.0	V	234.0	27.1	14.8	12.1	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

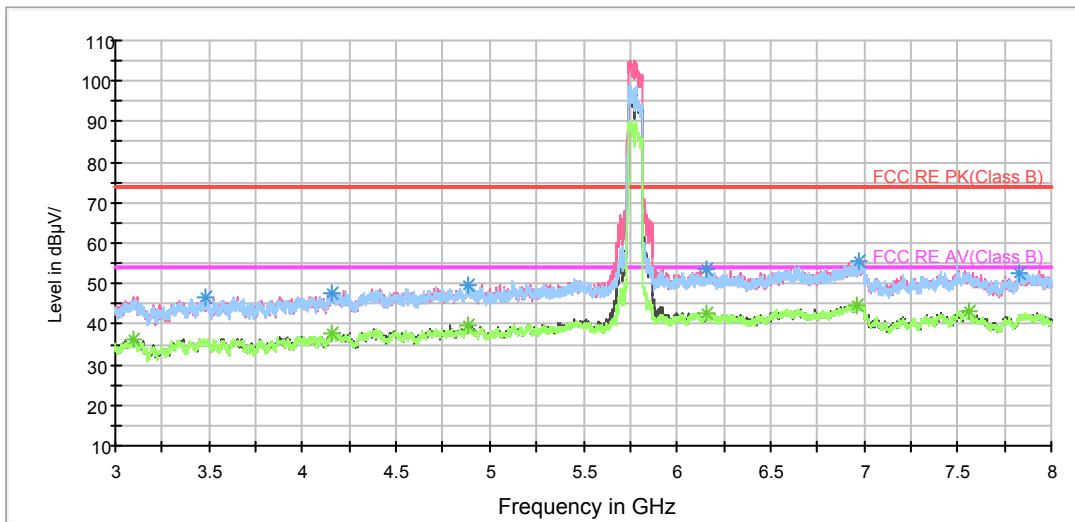
802.11ac (VHT80) CH155

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

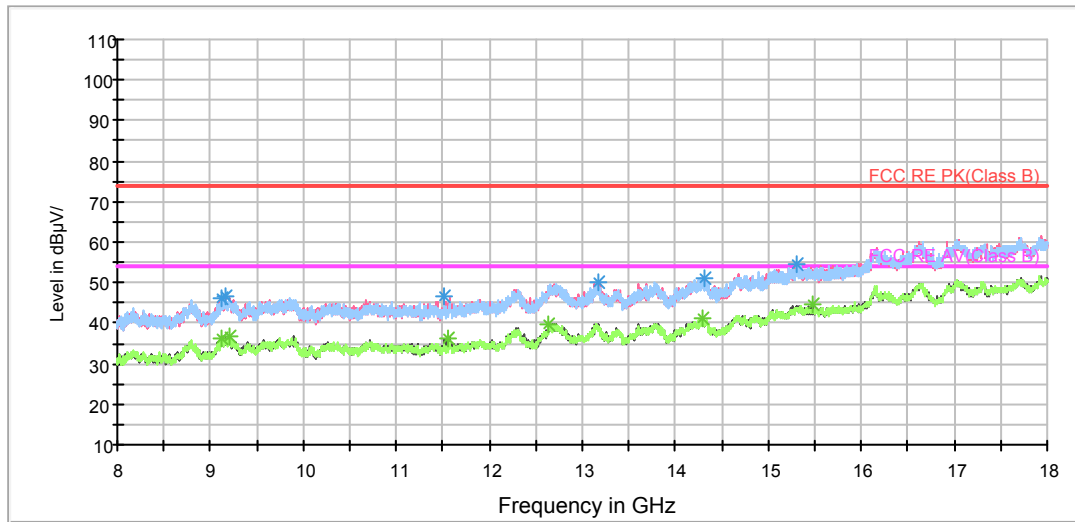
RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz

RE 3-18GHz PK+AV



Radiates Emission from 8GHz to 18GHz

Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3486.875000	46.8	200.0	H	299.0	38.8	8.0	27.2	74
4155.000000	47.8	200.0	V	299.0	37.9	9.9	26.2	74
4888.125000	49.4	200.0	H	0.0	37.5	11.9	24.6	74
6976.250000	55.4	200.0	V	319.0	39.1	16.3	18.6	74
6157.500000	53.7	200.0	V	290.0	38.1	15.6	20.3	74
7831.875000	52.7	200.0	V	222.0	35.7	17.0	21.3	74

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3094.375000	36.4	200.0	V	251.0	29.3	7.1	17.6	54
4156.875000	37.5	200.0	H	0.0	27.6	9.9	16.5	54
4883.125000	39.7	200.0	V	222.0	27.8	11.9	14.3	54
6964.375000	44.9	200.0	H	0.0	28.7	16.2	9.1	54
7562.500000	43.1	200.0	H	116.0	26.1	17.0	10.9	54
6155.625000	42.5	200.0	V	222.0	26.9	15.6	11.5	54

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

5.6. Conducted Emission

Ambient condition

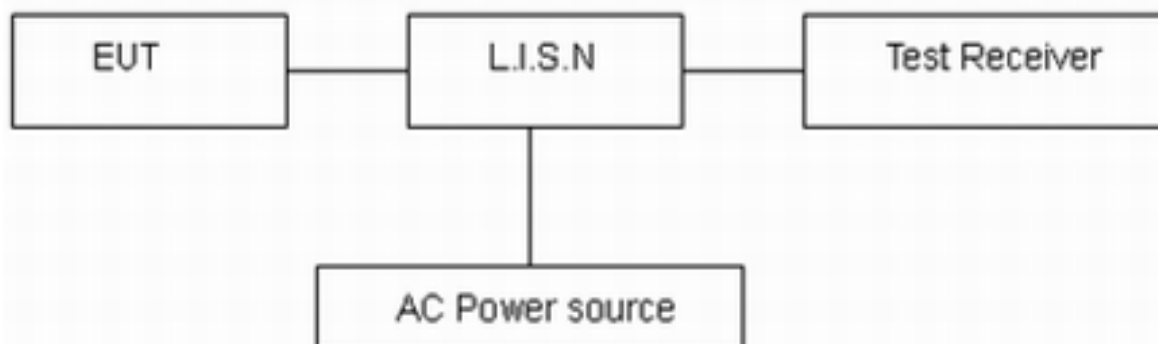
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

The EUT IS placed on a non-metallic table of 80cm height above the horizontal metal reference ground plane. During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.10-2013. Connect the AC power line of the EUT to the LISN Use EMI receiver to detect the average and Quasi-peak value. RBW is set to 9kHz, VBW is set to 30kHz The measurement result should include both L line and N line.

The test is in transmitting mode.

Test Setup



Note: AC Power source is used to change the voltage 110V/60Hz.

Limits

Frequency (MHz)	Conducted Limits(dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46 *
0.5 - 5	56	46
5 - 30	60	50

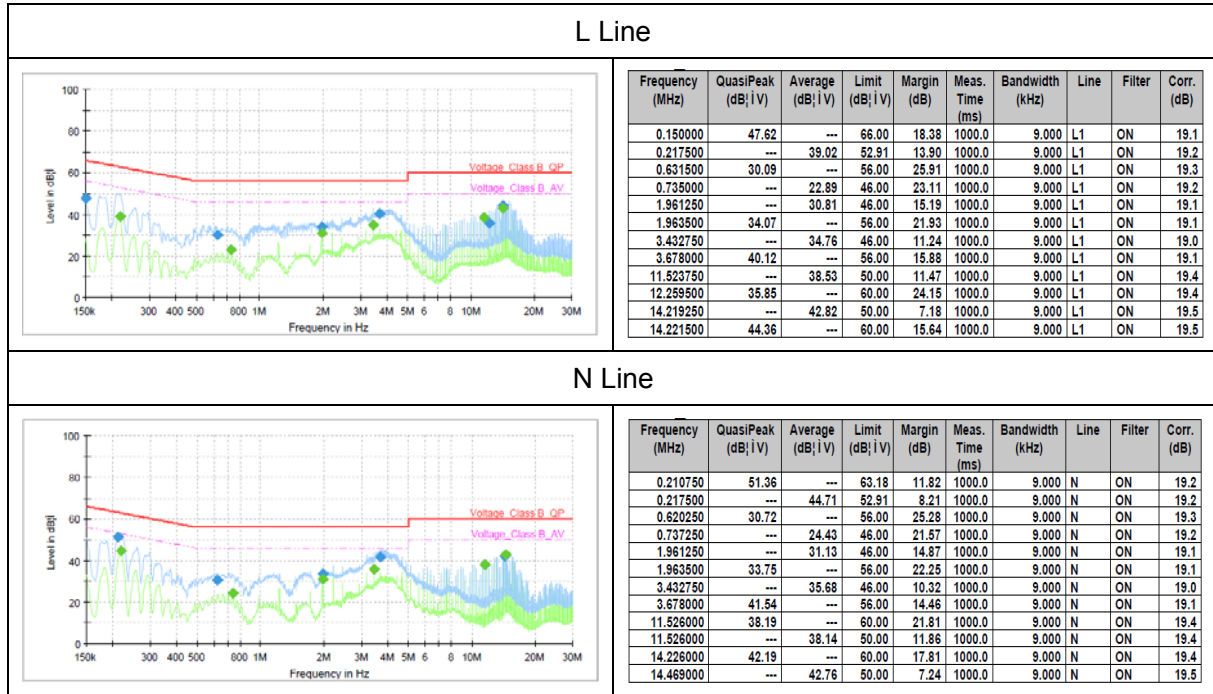
*: Decreases with the logarithm of the frequency.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U = 2.69$ dB.

Test Results:

Following plots, Blue trace uses the peak detection and Green trace uses the average detection. During the test, the Conducted Emission was performed in all modes with all channels, 802.11n, Channel 40 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.





6. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Spectrum Analyzer	R&S	FSV40	15195-01-00	2017-09-06	2018-09-05
EMI Test Receiver	R&S	ESCI	100948	2018-05-20	2019-05-19
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2017-02-18	2020-02-17
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-201	2017-11-18	2020-11-17
Double Ridged Waveguide Horn Antenna	R&S	HF907	100126	2014-12-06	2019-12-05
Standard Gain Horn	ETS-Lindgren	3160-09	00102644	2015-01-30	2020-01-29
Standard Gain Horn	STEATITE	QSH-SL-26-40 -K-15	16779	2016-03-21	2019-03-20
Broadband Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06024	2016-11-24	2019-11-23
EMI Test Receiver	R&S	ESR	101667	2017-09-06	2018-09-05
LISN	R&S	ENV216	101171	2016-12-16	2019-12-15
Spectrum Analyzer	KEYSIGHT	N9020A	MY54420163	2017-12-17	2018-12-16
RF Cable	Agilent	SMA 15cm	0001	/	/
TEMPERATURE CHAMBER	WEISS	VT4002	582261194500 10	2017-12-17	2018-12-16
Power Meter	R&S	NRP	104306	2018-05-20	2019-05-19
Power Sensor	R&S	NRP-Z21	104799	2018-05-20	2019-05-19
DC Power Supply	GWINSTEK	GPS-3030D	GEP882653	2018-05-20	2020-05-19

*****END OF REPORT *****

ANNEX A: EUT Appearance and Test Setup

A.1 EUT Appearance



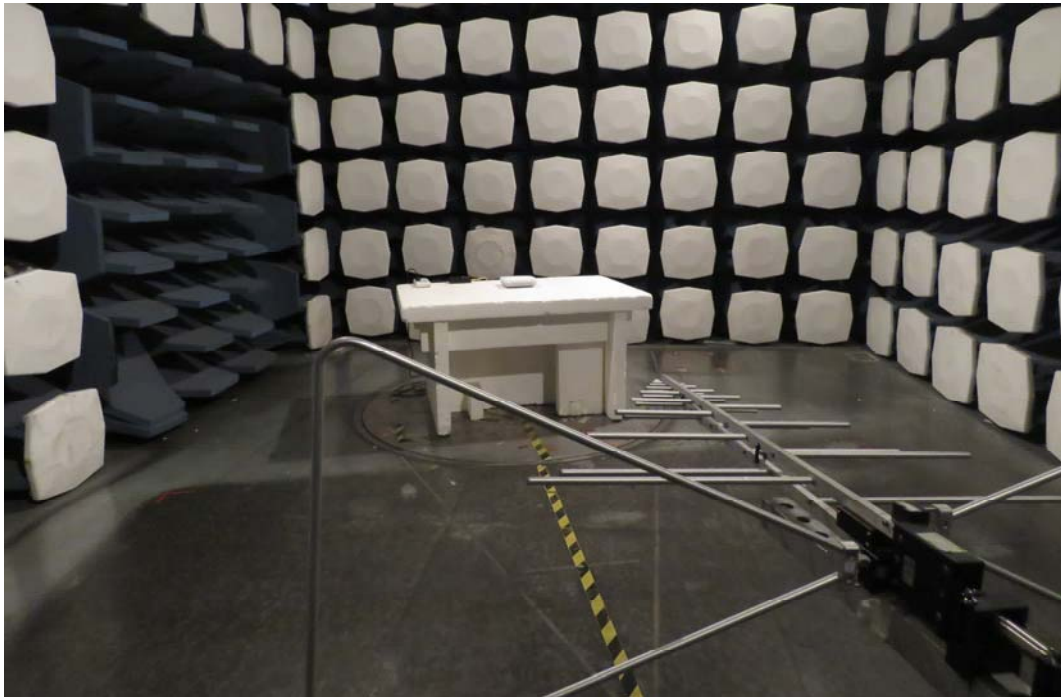
Front Side



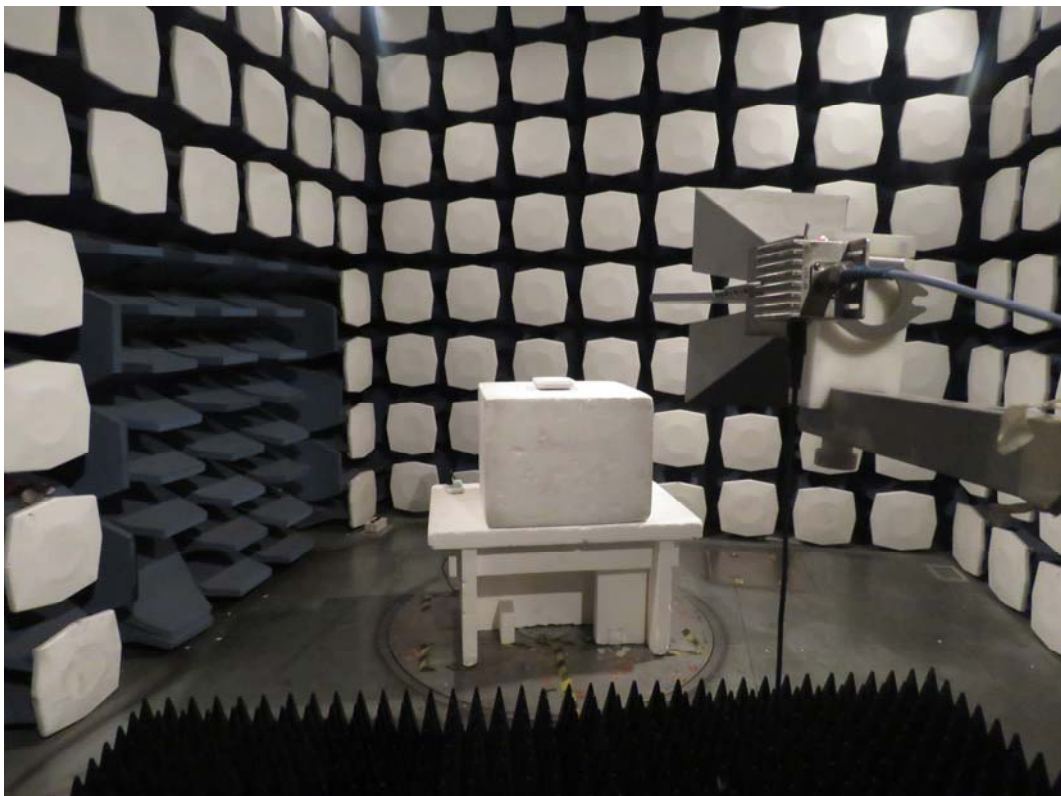
Back Side

Picture 1 EUT and Accessory

A.2 Test Setup



30MHz-1GHz



Above 1GHz

Picture 2 Radiated Emission Test Setup



Picture 3 Conducted Emission Test Setup