

Frequency (MHz)		EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250		-27	68.3
5250-5350		-27	68.3
5470-5725		-27	68.3
5725-5850	Below 5650	-27	68.3
	5650-5700	-27~10	68.3~105.3
	5700-5720	10~15.6	105.3~110.9
	5720-5725	15.6~27	110.9~68.3
	5725-5850	27	122.3
	5850-5855	27~15.6	122.3~110.9
	5855-5875	15.6~10	110.9~105.3
	5875-5925	10~-27	105.3~68.3
	Above 5925	-27	68.3

TEST PROCEDURE

1. The EUT was placed on a turn table which is 1.5m above 1GHz.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0° to 360° to acquire the highest emissions from EUT.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed..
5. The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
1GHz-18GHz	Double Ridged Horn Antenna	3

6. Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
1GHz-18GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

TEST RESULTS

Remark: We tested at all modes at the antenna single transmitting mode and the MIMO mode, and recored the worst data at the MIMO mode of the 802.11a Mode.

For Radiated Bandedge Measurement

802.11 a/ Channel 36 :5180 MHz									
Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit Line (dBμV/m)	Margin (dB)	Detector	Polarization
5150	36.58	35.58	29.04	8.28	51.4	68.3	-16.9	Peak	Horizontal
5150	26.95	35.58	29.04	8.28	41.77	54	-12.23	AV	Horizontal
5180	88.66	35.55	29.02	8.3	103.49	---	---	Peak	Horizontal
5180	86.96	35.55	29.02	8.3	101.79	---	---	AV	Horizontal
5150	34.54	35.58	29.04	8.28	49.36	68.3	-18.94	Peak	Vertical
5150	23.87	35.58	29.04	8.28	38.69	54	-15.31	AV	Vertical
5180	86.39	35.55	29.02	8.3	101.22	---	---	Peak	Vertical
5180	85.54	35.55	29.02	8.3	100.37	---	---	AV	Vertical

802.11 a/ Channel 48 :5240 MHz									
Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit Line (dBμV/m)	Margin (dB)	Detector	Polarization
5240	85.47	35.51	29.05	8.32	100.25	---	---	Peak	Horizontal
5240	83.28	35.51	29.05	8.32	98.06	---	---	AV	Horizontal
5350	35.53	35.42	29.06	8.39	50.28	68.3	-18.02	Peak	Horizontal
5350	26.81	35.42	29.06	8.39	41.56	54	-12.44	AV	Horizontal
5240	84.33	35.51	29.05	8.32	99.11	---	---	Peak	Vertical
5240	83.57	35.51	29.05	8.32	98.35	---	---	AV	Vertical
5350	36.32	35.42	29.06	8.39	51.07	68.3	-17.23	Peak	Vertical
5350	23.67	35.42	29.06	8.39	38.42	54	-15.58	AV	Vertical

802.11 a/ Channel 149 :5745 MHz									
Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit Line (dBμV/m)	Margin (dB)	Detector	Polarization
5725	38.96	35.69	29.13	8.65	54.17	122.3	-68.13	Peak	Horizontal
5725	29.54	35.69	29.13	8.65	44.75	---	---	AV	Horizontal
5745	78.42	35.7	29.14	8.69	93.67	---	---	Peak	Horizontal
5745	77.45	35.7	29.14	8.69	92.7	---	---	AV	Horizontal
5725	37.48	35.69	29.13	8.65	52.69	122.3	-69.61	Peak	Vertical
5725	27.28	35.69	29.13	8.65	42.49	---	---	AV	Vertical
5745	76.32	35.7	29.14	8.69	91.57	---	---	Peak	Vertical
5745	73.14	35.7	29.14	8.69	88.39	---	---	AV	Vertical

802.11 a/ Channel 165 :5825 MHz									
Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit Line (dBμV/m)	Margin (dB)	Detector	Polarization
5825	77.42	35.82	29.16	8.77	92.85	---	---	Peak	Horizontal
5825	75.81	35.82	29.16	8.77	91.24	---	---	AV	Horizontal
5850	38.21	35.85	29.18	8.8	53.68	122.3	-68.62	Peak	Horizontal
5850	23.96	35.85	29.18	8.8	39.43	---	---	AV	Horizontal
5825	76.28	35.82	29.16	8.77	91.71	---	---	Peak	Vertical
5825	73.22	35.82	29.16	8.77	88.65	---	---	AV	Vertical
5850	33.82	35.85	29.18	8.8	49.29	122.3	-73.01	Peak	Vertical
5850	24.45	35.85	29.18	8.8	39.92	---	---	AV	Vertical

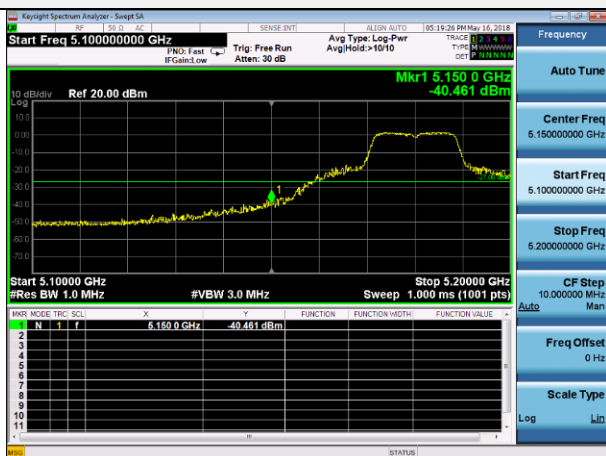
REMARKS:

1. Result Level = Read Level + Antenna Factor + Cable loss - Preamp Factor.
2. The other emission levels were very low against the limit.
3. The average measurement was not performed when the peak measured data under the limit of average detection.
4. Detector AV is setting spectrum/receiver. RBW=1MHz/VBW=10Hz/Sweep time=Auto/Detector=Peak;

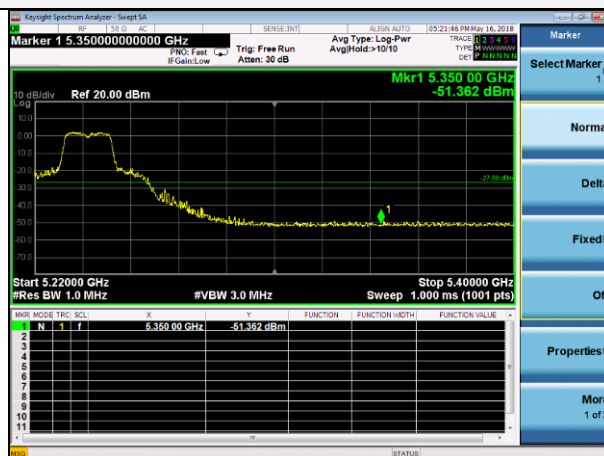
For Conducted Bandedge Measurement

5.2G Antenna 1

802.11a

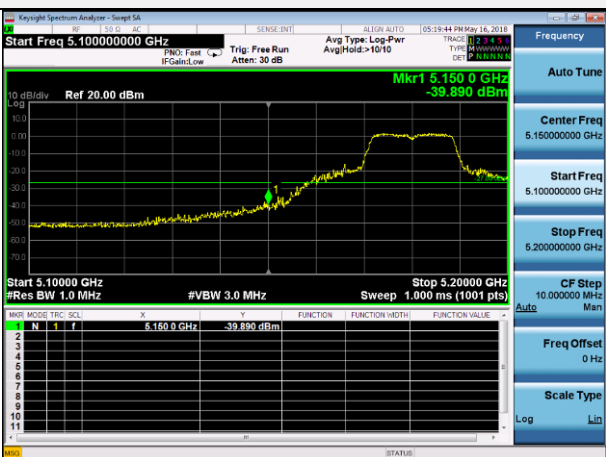


5180

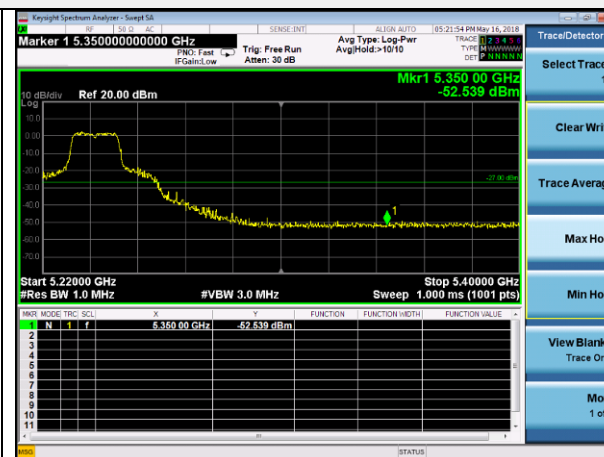


5240

802.11n HT20

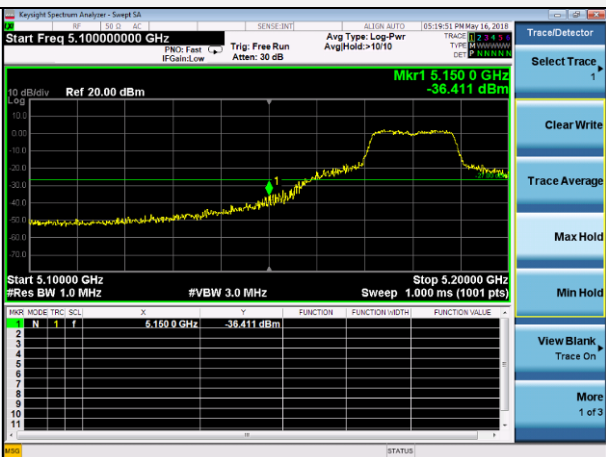


5180

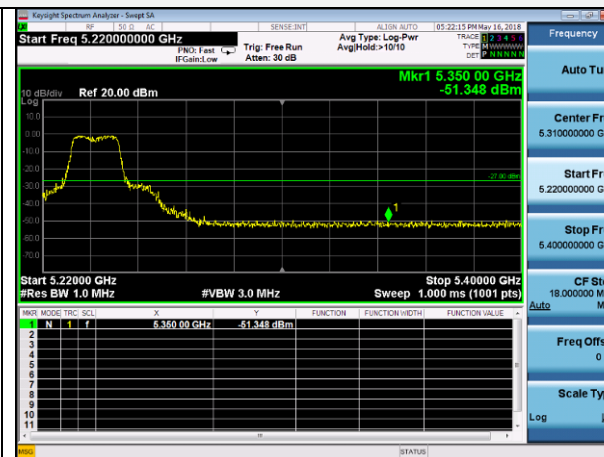


5240

802.11ac VHT20

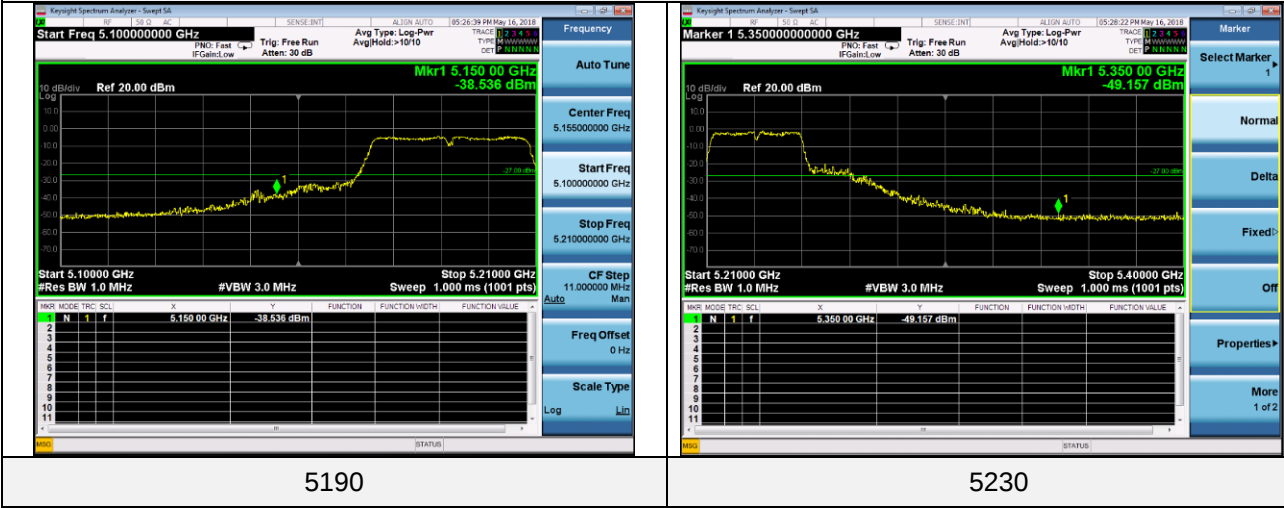


5180

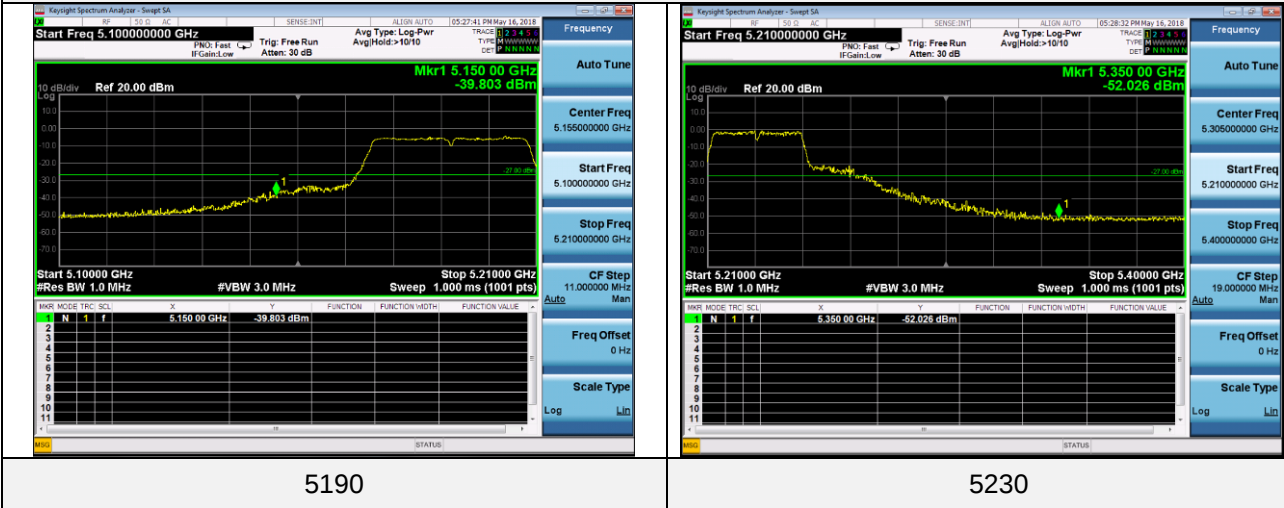


5240

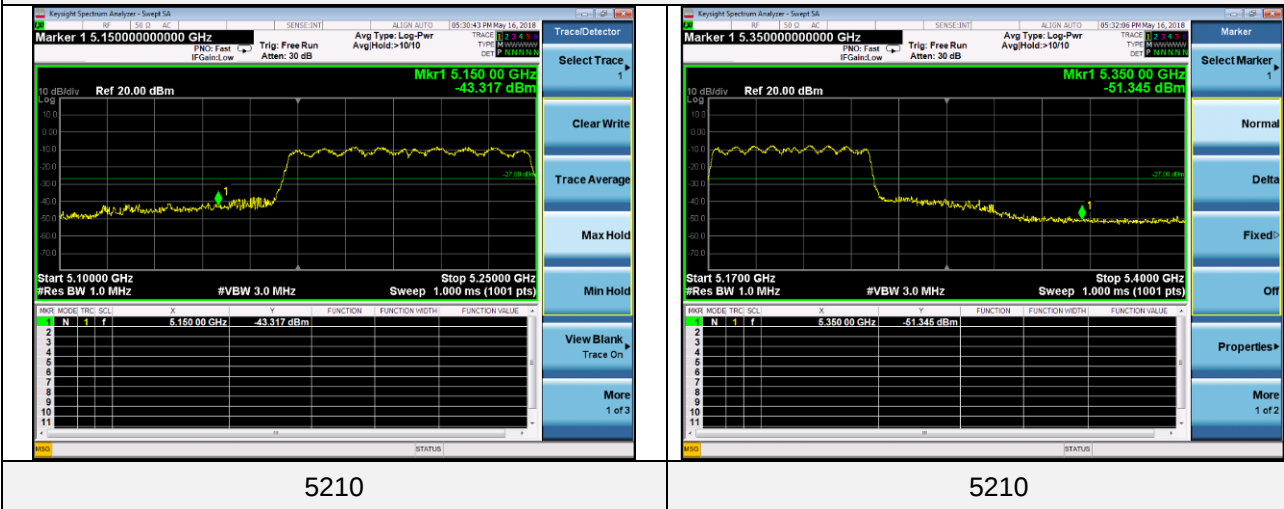
802.11n HT40



802.11ac VHT40



802.11ac VHT80



5.2G Antenna 2

802.11a



802.11n HT20



802.11ac VHT20



802.11n HT40



802.11ac VHT40



802.11ac VHT80

