

Mode:			802.11 ac(VHT80) Transmitting			Channel:		5210MHz	
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1100.324	11.17	36.78	47.95	74.00	26.05	PASS	Horizontal	PK
2	1949.998	14.94	34.15	49.09	74.00	24.91	PASS	Horizontal	PK
3	2842.5737	17.55	34.02	51.57	74.00	22.43	PASS	Horizontal	PK
4	7582.7791	-1.89	47.74	45.85	74.00	28.15	PASS	Horizontal	PK
5	10679.309	2.60	44.87	47.47	74.00	26.53	PASS	Horizontal	PK
6	15183.5092	11.16	39.69	50.85	74.00	23.15	PASS	Horizontal	PK
7	1139.7056	11.39	36.47	47.86	74.00	26.14	PASS	Vertical	PK
8	1867.4947	14.74	33.45	48.19	74.00	25.81	PASS	Vertical	PK
9	2783.8314	17.36	33.78	51.14	74.00	22.86	PASS	Vertical	PK
10	7614.4057	-1.69	47.49	45.80	74.00	28.20	PASS	Vertical	PK
11	10594.7797	2.10	46.13	48.23	74.00	25.77	PASS	Vertical	PK
12	15416.9708	10.12	42.09	52.21	74.00	21.79	PASS	Vertical	PK

Note:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor - Antenna Factor - Cable Factor

2) Scan from 9kHz to 25GHz, the disturbance above 18GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

5.9 Radiated Emission which fall in the restricted bands

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.407 (b)				
Test Method:	ANSI C63.10 2013				
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	100 kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10kHz	Average
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz-88MHz	100	40.0	Quasi-peak	3
	88MHz-216MHz	150	43.5	Quasi-peak	3
	216MHz-960MHz	200	46.0	Quasi-peak	3
	960MHz-1GHz	500	54.0	Quasi-peak	3
	Above 1GHz	500	54.0	Average	3
	<p>*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.</p> <p>(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.</p> <p>(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.</p> <p>(4) For transmitters operating in the 5.725-5.85 GHz band:</p> <p>(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.</p> <p>Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed</p>				

	<p>the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.</p> <p>Note:</p> <p>(i) $EIRP = ((E*d)^2) / 30$</p> <p>where:</p> <ul style="list-style-type: none">• E is the field strength in V/m;• d is the measurement distance in meters;• EIRP is the equivalent isotropically radiated power in watts. <p>(ii) Working in dB units, the above equation is equivalent to:</p> $EIRP[dBm] = E[dB\mu V/m] + 20 \log(d[meters]) - 104.77$ <p>(iii) Or, if d is 3 meters:</p> $EIRP[dBm] = E[dB\mu V/m] - 95.2$
Test Setup:	

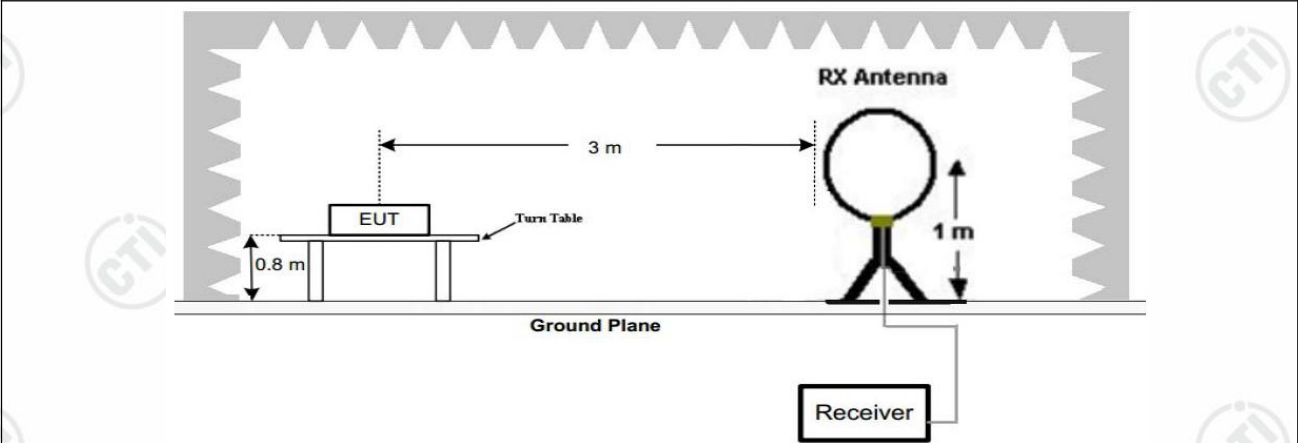


Figure 1. Below 30MHz

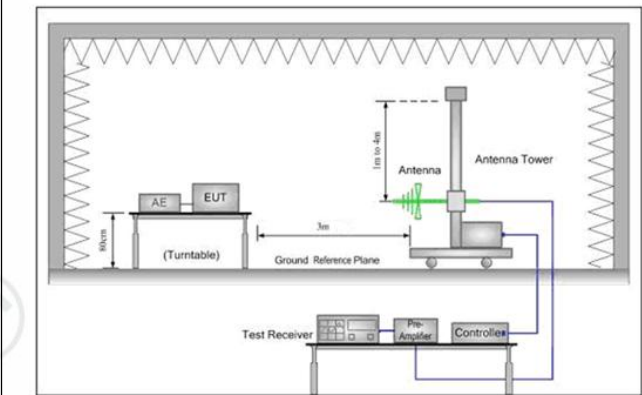


Figure 2. 30MHz to 1GHz

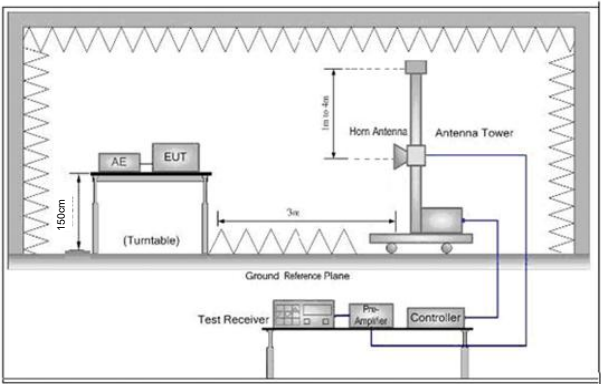


Figure 3. Above 1 GHz

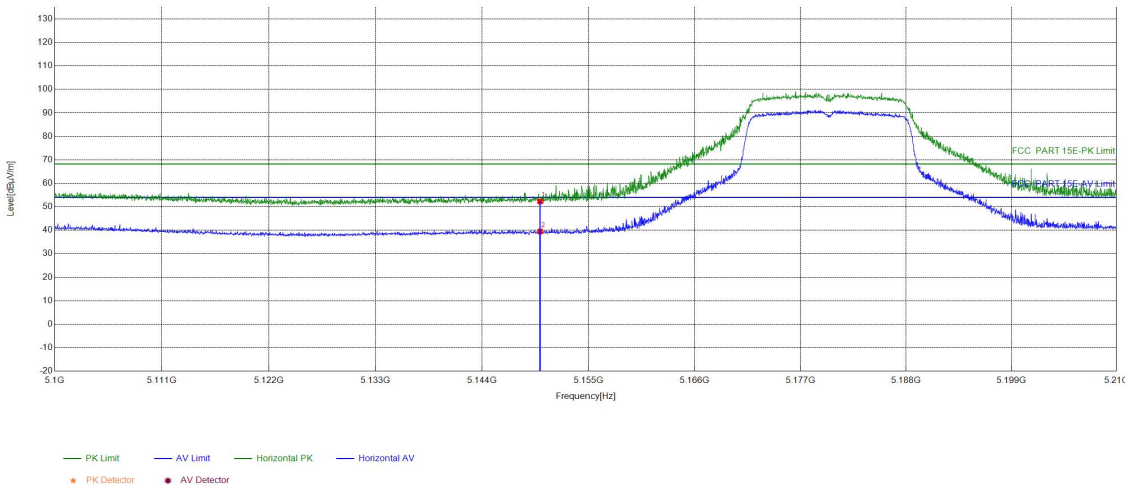
Test Procedure:	<p>j.</p> <p>1) Below 1G: The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>2) Above 1G: The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>Note: For the radiated emission test above 1GHz:</p>
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	<p>Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.</p> <p>k. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>l. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</p> <p>m. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</p> <p>n. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</p> <p>o. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</p> <p>p. Test the EUT in the lowest channel, the Highest channel</p> <p>q. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.</p> <p>r. Repeat above procedures until all frequencies measured was complete.</p>
Test Mode:	Transmitting mode with modulation
Test Results:	Pass

Test Data:

EUT_Name		Test_Model	
Test_Mode	802.11 a Transmitting	Test_Frequency	5180Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

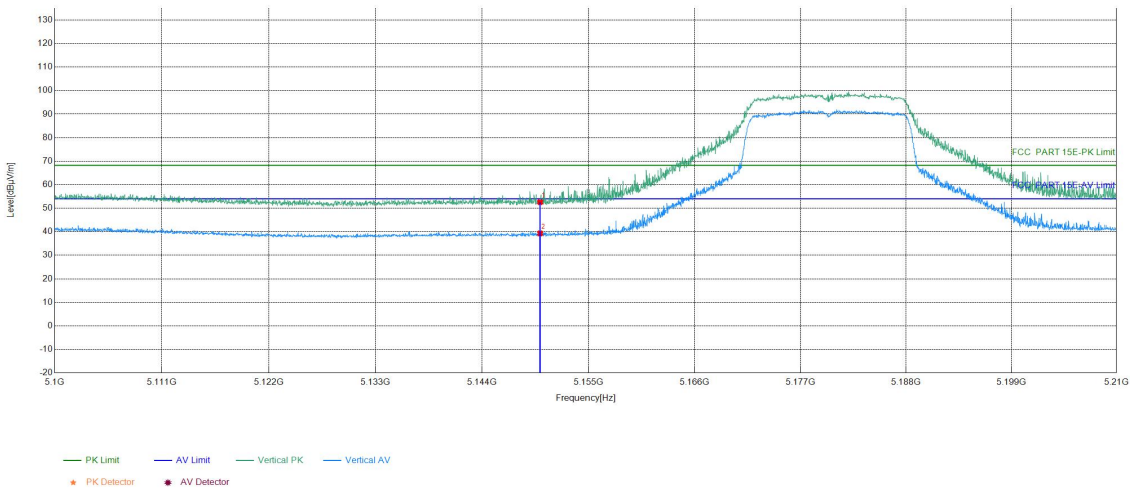
Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	23.98	28.30	52.28	68.20	15.92	PASS	Horizontal	PK
2	5150	23.98	15.49	39.47	54.00	14.53	PASS	Horizontal	AV

EUT_Name		Test_Model	
Test_Mode	802.11 a Transmitting	Test_Frequency	5180Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

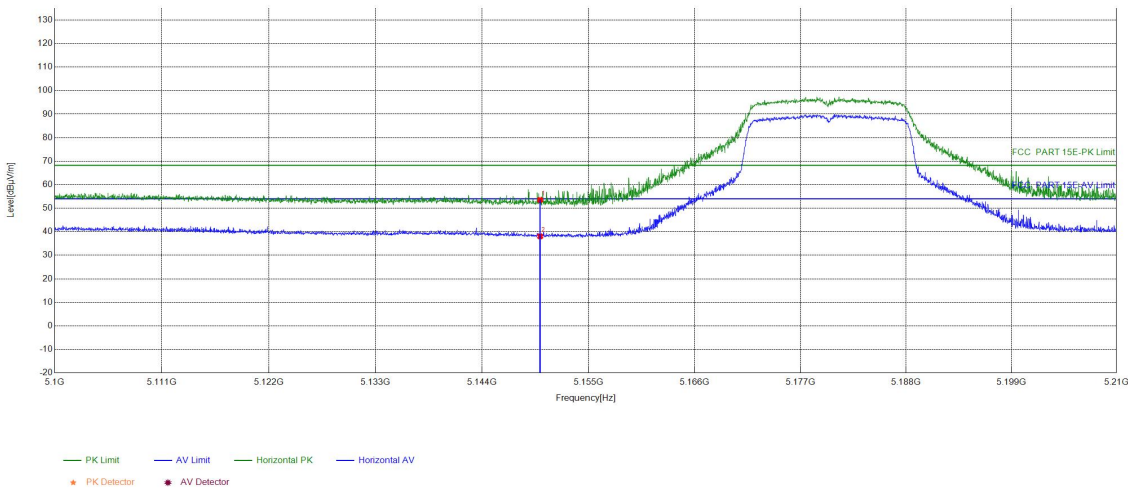
Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	23.98	28.61	52.59	68.20	15.61	PASS	Vertical	PK
2	5150	23.98	15.33	39.31	54.00	14.69	PASS	Vertical	AV

EUT_Name		Test_Model	
Test_Mode	802.11 n(HT20) Transmitting	Test_Frequency	5180Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

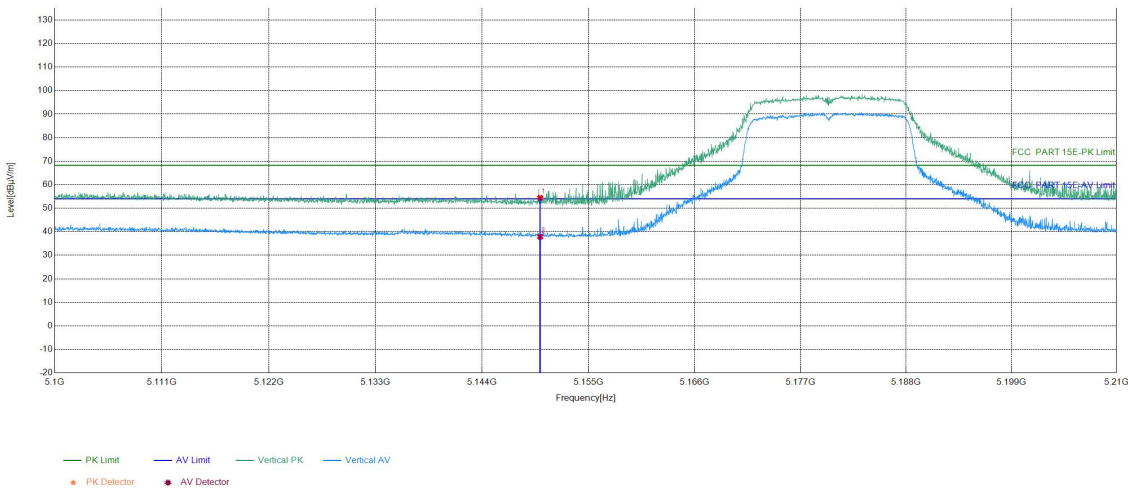
Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	23.98	29.56	53.54	68.20	14.66	PASS	Horizontal	PK
2	5150	23.98	14.06	38.04	54.00	15.96	PASS	Horizontal	AV

EUT_Name		Test_Model	
Test_Mode	802.11 n(HT20) Transmitting	Test_Frequency	5180Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

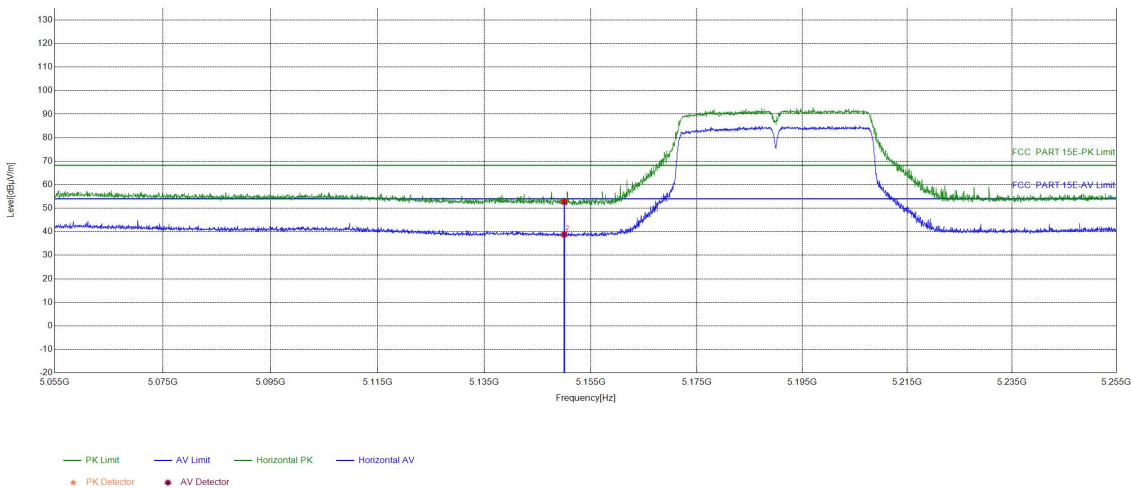
Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	23.98	30.45	54.43	68.20	13.77	PASS	Vertical	PK
2	5150	23.98	13.87	37.85	54.00	16.15	PASS	Vertical	AV

EUT_Name		Test_Model	
Test_Mode	802.11 n(HT40) Transmitting	Test_Frequency	5190Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

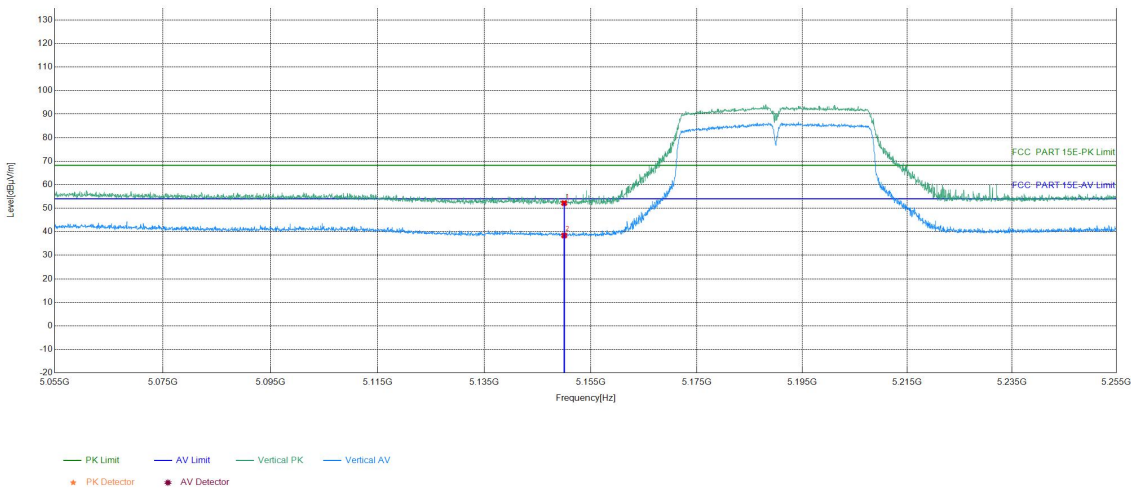
Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	24.08	28.62	52.70	68.20	15.50	PASS	Horizontal	PK
2	5150	24.08	14.74	38.82	54.00	15.18	PASS	Horizontal	AV

EUT_Name		Test_Model	
Test_Mode	802.11 n(HT40) Transmitting	Test_Frequency	5190Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

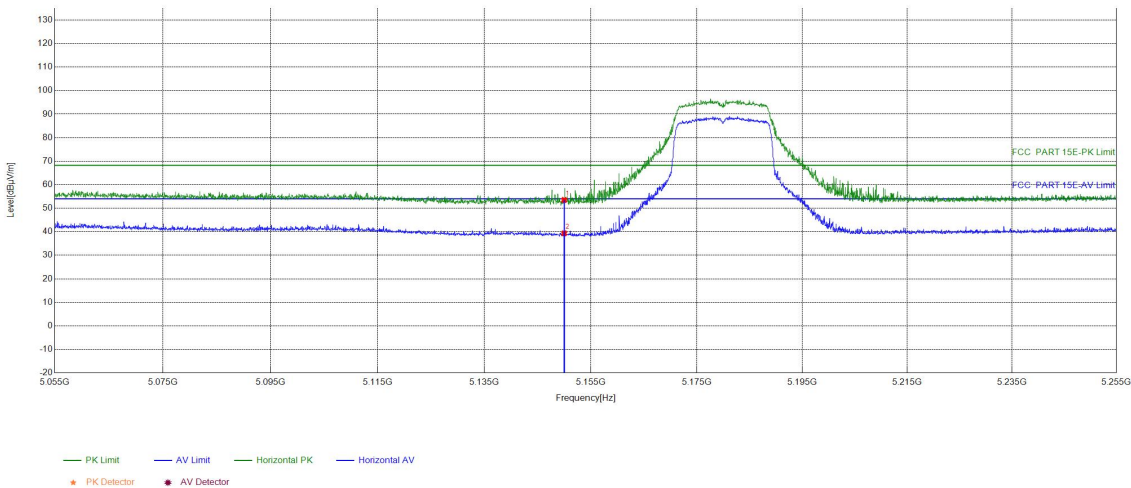
Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	24.08	28.09	52.17	68.20	16.03	PASS	Vertical	PK
2	5150	24.08	14.33	38.41	54.00	15.59	PASS	Vertical	AV

EUT_Name		Test_Model	
Test_Mode	802.11 ac(VHT20) Transmitting	Test_Frequency	5180Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

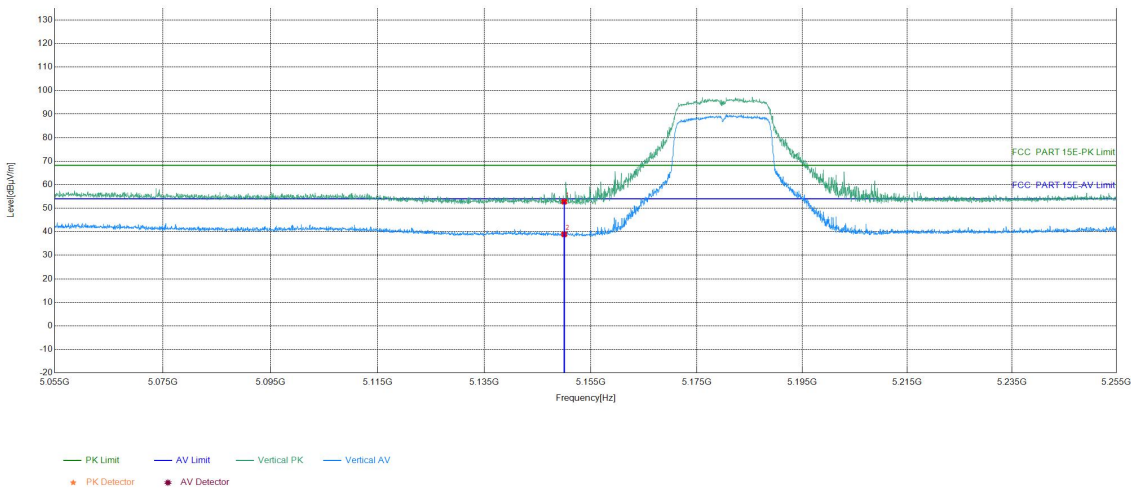
Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	24.08	29.41	53.49	68.20	14.71	PASS	Horizontal	PK
2	5150	24.08	15.26	39.34	54.00	14.66	PASS	Horizontal	AV

EUT_Name		Test_Model	
Test_Mode	802.11 ac(VHT20) Transmitting	Test_Frequency	5180Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

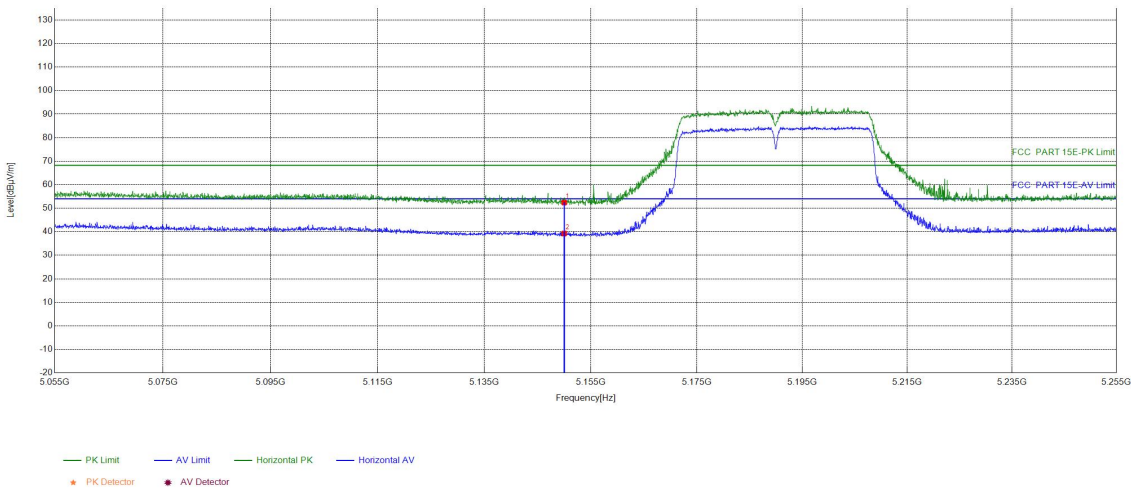
Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	24.08	28.70	52.78	68.20	15.42	PASS	Vertical	PK
2	5150	24.08	14.84	38.92	54.00	15.08	PASS	Vertical	AV

EUT_Name		Test_Model	
Test_Mode	802.11 ac(VHT40) Transmitting	Test_Frequency	5190Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

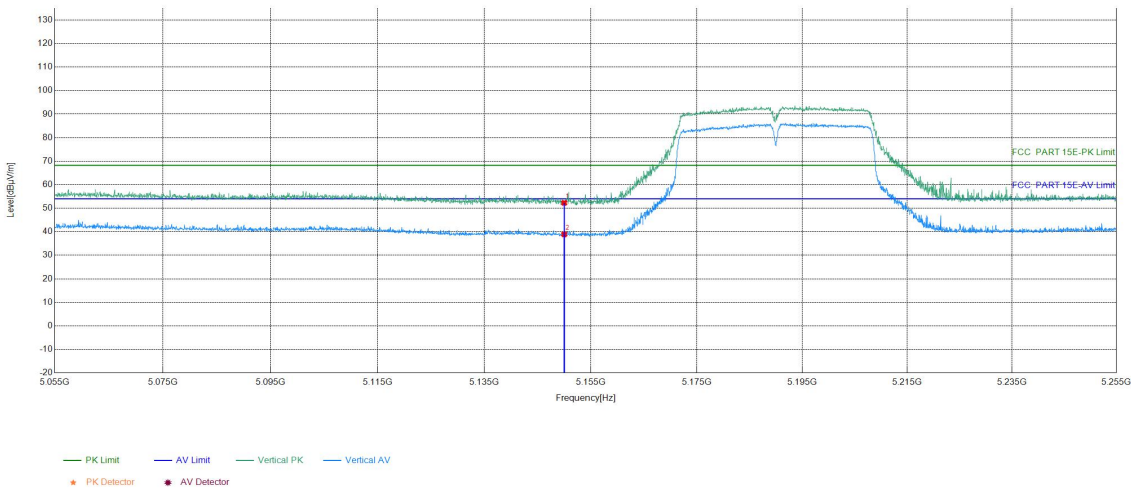
Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	24.08	28.33	52.41	68.20	15.79	PASS	Horizontal	PK
2	5150	24.08	15.18	39.26	54.00	14.74	PASS	Horizontal	AV

EUT_Name		Test_Model	
Test_Mode	802.11 ac(VHT40) Transmitting	Test_Frequency	5190Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

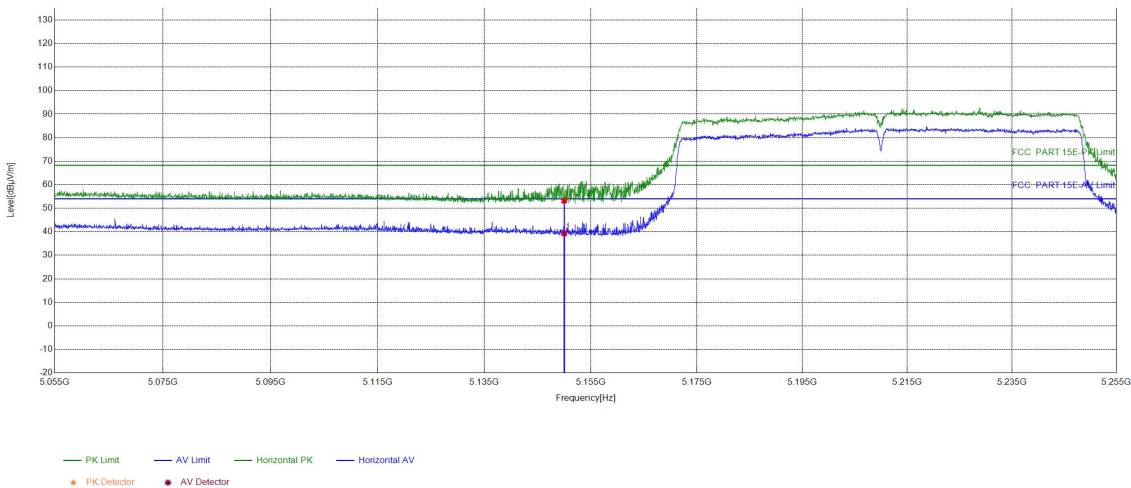
Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	24.08	28.19	52.27	68.20	15.93	PASS	Vertical	PK
2	5150	24.08	14.82	38.90	54.00	15.10	PASS	Vertical	AV

EUT_Name		Test_Model	
Test_Mode	802.11 ac(VHT80) Transmitting	Test_Frequency	5210Mhz
Tset_Engineer	chenjun	Test_Date	2025/08/29
Remark			

Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	5150	24.08	29.10	53.18	68.20	15.02	PASS	Horizontal	PK
2	5150	24.08	15.21	39.29	54.00	14.71	PASS	Horizontal	AV