



FCC Test Report

Application No.: DNT2510160483R11550-14346
Applicant: Shenzhen Bilian Electronic Co.,Ltd.
Address of Applicant: Room 501, Building 3, No. 32, Dafu Road, Zhangge Community, Fucheng Street, Longhua District, Shenzhen City,China
EUT Description: FWM
Model No.: FWM-4A25
FCC ID: 2AL6KFWM-4A25
Power Supply DC 12V
Trade Mark: /
Standards: 47 CFR FCC Part 2, Subpart J
47 CFR Part 15, Subpart E
ANSI C63.10: 2020
Date of Receipt: 2025/10/16
Date of Test: 2025/10/16 to 2025/11/07
Date of Issue: 2025/11/07
Test Result: **PASS**

Prepared By: Wayne Lin (Testing Engineer)
Reviewed By: Pencils Chen (Project Engineer)
Approved By: Hense Shen (Manager)



Note: If there is any objection to the results in this report, please submit a written inquiry to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp, and is issued by the company in accordance with the requirements of the "Conditions of Issuance of Test Reports" printed in the attached page. Unless otherwise stated, the results presented in this report only apply to the samples tested this time. Partial reproduction of this report is not allowed unless approved by the company in writing.

Dongguan DN Testing Co., Ltd.

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Nov.7, 2025	Valid	Original Report



1 Test Summary

No.	Description of Test Item	FCC Standard Section	Results
1	6dB Bandwidth & 26dB Bandwidth & 99% Occupied Bandwidth	15.407(a) 15.407(e)	PASS
2	Maximum Conducted Output Power	15.407(a)	PASS
3	Peak Power Spectral Density	15.407(a)	PASS
4	Unwanted Emissions and Band Edge	15.205 15.209 15.407(b)	PASS
5	Frequency Stability	15.407(g)	PASS
6	AC Power Line Conducted Emissions	15.207 15.407(b)(9)	PASS
7	Antenna Requirement	15.203	PASS

Note:

1. "N/A" denotes test is not applicable in this test report.



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2 General Information

2.1 Test Location

Company:	Dongguan DN Testing Co., Ltd
Address:	No. 1, West Fourth Street, South Xinfu Road, Wusha Liwu, Chang 'an Town, Dongguan City, Guangdong P.R.China
Test engineer:	Wayne Lin



2.2 General Description of EUT

Manufacturer:	Shenzhen Bilian Electronic Co.,Ltd.
Address of Manufacturer:	Room 501, Building 3, No. 32, Dafu Road, Zhangge Community, Fucheng Street, Longhua District, Shenzhen City,China
EUT Description:	FWM
Test Model No.:	FWM-4A25
Additional Model(s):	/
Power Supply:	DC 12V
Trade Mark:	/
Hardware Version:	V1.0
Software Version:	V1.0.3
Chip Type:	MT7975N
Serial number	PR2510160483R11550
IEEE 802.11 WLAN Mode Supported	☒ 802.11a (20 MHz channel bandwidth), ☒ 802.11n (20 MHz channel bandwidth) ☒ 802.11n (40 MHz channel bandwidth), ☒ 802.11ac (20 MHz channel bandwidth), ☒ 802.11ac (40 MHz channel bandwidth), ☒ 802.11ac (80 MHz channel bandwidth), ☒ 802.11ax (20 MHz channel bandwidth), ☒ 802.11ax (40 MHz channel bandwidth), ☒ 802.11ax (80 MHz channel bandwidth), ☒ 802.11ax (160 MHz channel bandwidth),
Operation Frequency:	U-NII-1: 5150 MHz~5250 MHz U-NII-2A: 5250 MHz~5350 MHz U-NII-2C: 5470 MHz~5725 MHz U-NII-3: 5725 MHz~5850 MHz
Type of Modulation:	OFDM/OFDMA
Sample Type:	☐ Portable Device, ☒ Module, ☒ Mobile Device
Antenna Type:	☒ External, ☐ Integrated
Antenna Ports	☒ Ant 1, ☒ Ant 2, ☐ Ant 3
Smart System	☐ SISO (for 802.11a/n), ☒ MIMO (for 802.11n/ac/ax), ☐ Diversity (for 802.11a).
Antenna Gain*:	☒ Provided by applicant Ant1: 5.39 dBi Ant2: 5.39 dBi
Directional gain:	8.4dBi
RF Cable*:	☒ Provided by applicant 0.5dB(0.6~1GHz); 0.8dB(1.4~2GHz); 1.0dB(2.1~2.7GHz); 1.5dB(3~4GHz); 1.8dB(4.4~6GHz);



Remark:

*Directional gain=5.39+10LOG2=8.4dBi

*Since the above data and/or information is provided by the applicant relevant results or conclusions of this report are only made for these data and/or information , DNT is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.

2.3 Channel List

Band	Mode	Channel	Frequency (MHz)
U-NII-1	IEEE 802.11a & n HT20 & ac VHT20 & ax HE20	36	5180
		40	5200
		44	5220
		48	5240
	IEEE 802.11n HT40 & ac VHT40 & ax HE40	38	5190
		46	5230
	IEEE 802.11ac VHT80 & ax HE80	50	5210
U-NII-2a	IEEE 802.11a & n HT20 & ac VHT20 & ax HE20	52	5260
		56	5280
		60	5300
		64	5320
	IEEE 802.11n HT40 & & ac VHT40 & ax HE40	54	5270
		62	5310
	IEEE 802.11ac VHT80 & ax HE80	58	5290



	IEEE 802.11 ac VHT160 & ax HE160	50	5250
U-NII-2C	IEEE 802.11a & n HT20 & ac VHT20 & ax HE20	100	5500
		104	5520
		108	5540
		112	5560
		116	5580
		120	5600
		124	5620
		128	5640
		132	5660
		136	5680
		140	5700
	IEEE 802.11n HT40 & & ac VHT40 & ax HE40	102	5510
		110	5550
		118	5590
		126	5630
		134	5670

U-NII-2C	IEEE 802.11ac VHT80 & ax HE80	106	5530
		122	5610
		138	5690
	IEEE 802.11 ac VHT160 & ax HE160	114	5570
UNII-3	IEEE 802.11a & n HT20 & ac VHT20 & ax HE20	149	5745
		153	5765
		157	5785
		161	5805
		165	5825
	IEEE 802.11n HT40 & & ac VHT40 & ax HE40	151	5755
		159	5795
	IEEE 802.11ac VHT80 & ax HE80	155	5775



Remark:

In FCC 15.31, for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table, and the selected channel to perform the test as below:

Frequency Range of Operation Operating Frequency Range (in each Band)	Number of Measurement Frequencies Required	Location of Measurement Frequency in Band of Operation
1 MHz or less	1	centre
1 MHz to 10 MHz	2	1 near high end, 1 near low end
Greater than 10 MHz	3	1 near high end, 1 near centre

2.4 Test Environment and Mode

Operating Environment:	
Temperature:	20~25.0 °C
Humidity:	45~56 % RH
Atmospheric Pressure:	101.0~101.30 KPa
Test mode:	
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.

2.5 Power Setting of Test Software

Software Name	QATool		
Frequency(MHz)	5180	5200	5240
11A	14	14	14
11N20	14	14	14
11AC20	14	14	14
11AX20	14	14	14
Frequency(MHz)	5260	5300	5320
11A	14	14	14
11N20	14	14	14
11AC20	14	14	14
11AX20	14	14	14
Frequency(MHz)	5500	5600	5700
11A	14	14	14
11N20	14	14	14
11AC20	14	14	14
11AX20	14	14	14
Frequency(MHz)	5745	5785	5825
11A	14	14	14
11N20	14	14	14
11AC20	14	14	14



11AX20	14	14	14
Frequency(MHz)	5190	5230	
11N40	14	14	
11AC40	14	14	
11AX40	14	14	
Frequency(MHz)	5270	5310	
11N40	14	14	
11AC40	14	14	
11AX40	14	14	
Frequency(MHz)	5510	5590	5670
11N40	14	14	14
11AC40	14	14	14
11AX40	14	14	14
Frequency(MHz)	5755	5795	
11N40	14	14	
11AC40	14	14	
11AX40	14	14	
Frequency(MHz)	5210	5290	5530
11AC80	14	14	14
11AX80	14	14	14
Frequency(MHz)	5610	5775	
11AC80	14	14	
11AX80	14	14	
Frequency(MHz)	5250	5775	
11AC160	14	14	
11AX160	14	14	

2.6 Description of Support Units

The EUT has been tested independent unit.



2.7 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

Lab A:

• **FCC, USA**

Designation Number: CN1348

• **A2LA (Certificate No. 7050.01)**

DONGGUAN DN TESTING CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 7050.01.

• **Innovation, Science and Economic Development Canada**

DONGGUAN DN TESTING CO., LTD. EMC Laboratory has been recognized by ISED as an accredited testing laboratory. CAB identifier is CN0149.

IC#: 30755.

2.8 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	DTS Bandwidth	$\pm 0.0196\%$
2	Maximum Conducted Output Power	± 0.686 dB
3	Maximum Power Spectral Density Level	± 0.743 dB
4	Band-edge Compliance	± 1.328 dB
5	Unwanted Emissions In Non-restricted Freq Bands	9KHz-1GHz: ± 0.746 dB 1GHz-26GHz: ± 1.328 dB

No.	Item	Measurement Uncertainty
1	Conduction Emission	± 3.0 dB (150kHz to 30MHz)
2	Radiated Emission	± 4.8 dB (Below 1GHz)
		± 4.8 dB (1GHz to 6GHz)
		± 4.5 dB (6GHz to 18GHz)
		± 5.02 dB (Above 18GHz)



2.9 Equipment List

For Connect EUT Antenna Terminal Test					
Description	Manufacturer	Model	Serial Number	Cal date	Due date
Signal Generator	Keysight	N5181A-6G	MY48180415	2025-10-21	2026-10-20
Signal Generator	Keysight	N5182B	MY57300617	2025-10-21	2026-10-20
Power supply	Keysight	E3640A	ZB2022656	2025-10-21	2026-10-20
Radio Communication Tester	R&S	CMW500	105082	2025-10-21	2026-10-20
Spectrum Analyzer	Aglient	N9010A	MY52220200	2025-10-21	2026-10-20
BT/WIFI Test Software	Tonscend	JS1120 V3.1.83	NA	NA	NA
RF Control Unit	Tonscend	JS0806-2	22F8060581	NA	NA
Power Sensor	Anritsu	ML2495A	2129005	2025-10-21	2026-10-20
Pulse Power Sensor	Anritsu	MA2411B	1911397	2025-10-21	2026-10-20
temperature and humidity box	SCOTEK	SCD-C40-80PRO	6866682020008	2025-10-21	2026-10-20
RF Cable	ETS-LINDGREN	RFC-NMS-100-NMS-350-IN	NA	2025-10-21	2026-10-20

Test Equipment for Conducted Emission					
Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Receiver	R&S	ESCI3	101152	2025-10-21	2026-10-20
LISN	R&S	ENV216	102874	2025-10-21	2026-10-20
ISN	R&S	ENY81-CA6	1309.8590.03	2025-10-21	2026-10-20
RF Cable	ETS-LINDGREN	Cable-CE TS01	/	2025-10-21	2026-10-20

Test Equipment for Radiated Emission(30MHz-1000MHz)					
Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Receiver	R&S	ESR7	102497	2025-10-21	2026-10-20
Test Software	ETS-LINDGREN	TiLE-FULL	NA	NA	NA
RF Cable	ETS-LINDGREN	RE Cable-TS01	NA	2025-10-21	2026-10-20
Log periodic antenna	ETS-LINDGREN	VULB 9168	01475	2022-11-28	2025-11-27



Pre-amplifier	Schwarzbeck	BBV9743B	00423	2025-10-21	2026-10-20
Attenuator 1	Shanghai Huaxiang	TS2-6-18-A	22061803	2025-5-6	2026-5-5
Attenuator 2	Shanghai Huaxiang	TS2-6-6-A	230927163	2025-5-6	2026-5-5

Test Equipment for Radiated Emission(Above 1000MHz)					
Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Frequency analyser	Keysight	N9010A	MY52221458	2025-10-21	2026-10-20
RF Cable	ETS-LINDGREN	RE Cable-TS02	NA	2025-10-21	2026-10-20
Horn Antenna	ETS-LINDGREN	3117	00252567	2022-11-28	2025-11-27
Double ridged waveguide antenna	ETS-LINDGREN	3116C	00251780	2022-11-28	2025-11-27
Test Software	ETS-LINDGREN	TILE-FULL	NA	NA	NA
Pre-amplifier	ETS-LINDGREN	3117-PA	252567	2025-10-21	2026-10-20
Pre-amplifier	ETS-LINDGREN	3116C-PA	251780	2025-10-21	2026-10-20



3 Test results and Measurement Data

3.1 Antenna Requirement

Standard requirement:	47 CFR Part 15C Section 15.203 /247(c)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(b) (4) requirement: The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	
The PCB antenna is externally connected to the motherboard. The directional gain case gain of the antenna is 8.4dBi.	



3.2 Duty Cycle

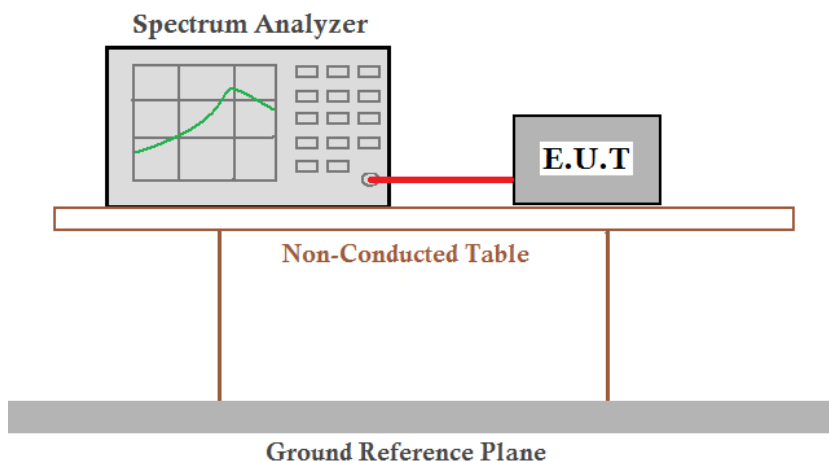
Refer to section : **Appendix A**

Note:

- 1.If duty cycle $< 98\%$, the conducted average output power and average power spectral density should be add duty factor.
- 2.If duty cycle $\geq 98\%$, the EUT is consider to be transmitting continuously, the conducted average output power and average power spectral density no need to add duty factor (consider to be zero).
- 3.The conducted peak output power and peak power spectral density no need to consider duty factor.
- 4.The on-time time is transmission duration(T).



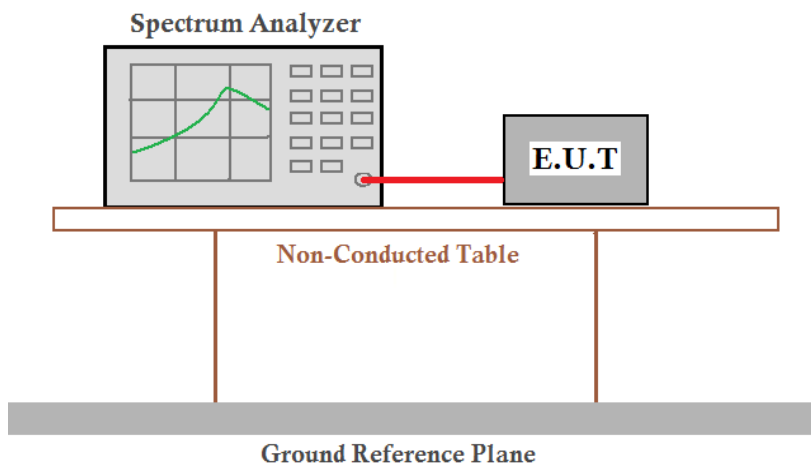
3.3 Emission Bandwidth

Test Requirement:	47 CFR Part 15 Section 15.407(a)																							
Test Method:	ANSI C63.10: 2020																							
Test Setup:																								
Instruments Used:	Refer to section 2.9 for details																							
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates																							
Final Test Mode:	Through Pre-scan, find the worst case of all modulations. Only the worst case is recorded in the report.																							
Limit	<table><tr><th>Band</th><th>Frequency (MHz)</th><th>Test Item</th><th>Limit</th></tr><tr><td>U-NII-1</td><td>5150-5250</td><td>26dB Bandwidth&99% Occupied Bandwidth</td><td>N/A</td></tr><tr><td>U-NII-2A</td><td>5250-5350</td><td>26dB Bandwidth&99% Occupied Bandwidth</td><td>N/A</td></tr><tr><td>U-NII-2C</td><td>5470-5725</td><td>26dB Bandwidth&99% Occupied Bandwidth</td><td>N/A</td></tr><tr><td>U-NII-3</td><td>5725-5850</td><td>6dB Bandwidth&99% Occupied Bandwidth</td><td>6dB Bandwidth ≥ 500KHz</td></tr></table>				Band	Frequency (MHz)	Test Item	Limit	U-NII-1	5150-5250	26dB Bandwidth&99% Occupied Bandwidth	N/A	U-NII-2A	5250-5350	26dB Bandwidth&99% Occupied Bandwidth	N/A	U-NII-2C	5470-5725	26dB Bandwidth&99% Occupied Bandwidth	N/A	U-NII-3	5725-5850	6dB Bandwidth&99% Occupied Bandwidth	6dB Bandwidth ≥ 500KHz
Band	Frequency (MHz)	Test Item	Limit																					
U-NII-1	5150-5250	26dB Bandwidth&99% Occupied Bandwidth	N/A																					
U-NII-2A	5250-5350	26dB Bandwidth&99% Occupied Bandwidth	N/A																					
U-NII-2C	5470-5725	26dB Bandwidth&99% Occupied Bandwidth	N/A																					
U-NII-3	5725-5850	6dB Bandwidth&99% Occupied Bandwidth	6dB Bandwidth ≥ 500KHz																					

The detailed test data see: **Appendix B**

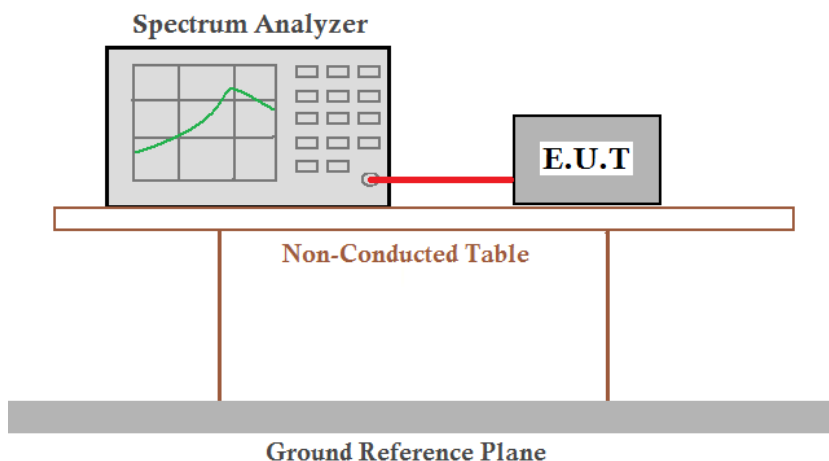


3.4 DTS (6 dB) Bandwidth

Test Requirement:	47 CFR Part 15 Section 15.407(e)																							
Test Method:	ANSI C63.10: 2020																							
Test Setup:																								
Instruments Used:	Refer to section 2.9 for details																							
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates																							
Final Test Mode:	Through Pre-scan, find the worst case of all modulations. Only the worst case is recorded in the report.																							
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Band	Frequency (MHz)	Test Item	Limit																					
U-NII-1	5150-5250	26dB Bandwidth&99% Occupied Bandwidth	N/A																					
U-NII-2A	5250-5350	26dB Bandwidth&99% Occupied Bandwidth	N/A																					
U-NII-2C	5470-5725	26dB Bandwidth&99% Occupied Bandwidth	N/A																					
U-NII-3	5725-5850	6dB Bandwidth&99% Occupied Bandwidth	6dB Bandwidth≥ 500KHz																					
Test Results:	NA																							



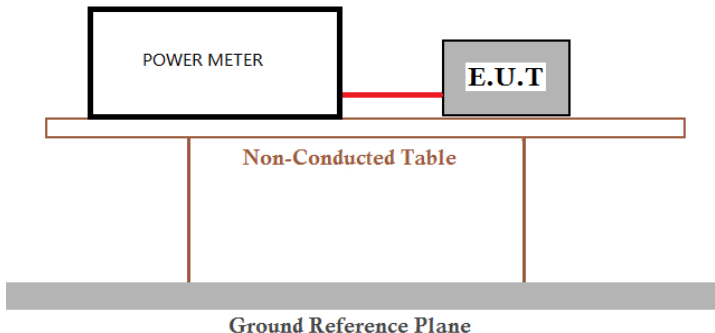
3.5 99% Occupied Bandwidth

Test Requirement:	47 CFR Part 15 Section 15.407(a)																							
Test Method:	ANSI C63.10: 2020																							
Test Setup:																								
Instruments Used:	Refer to section 2.9 for details																							
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates																							
Final Test Mode:	Through Pre-scan, find the worst case of all modulations. Only the worst case is recorded in the report.																							
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Band	Frequency (MHz)	Test Item	Limit																					
U-NII-1	5150-5250	26dB Bandwidth&99% Occupied Bandwidth	N/A																					
U-NII-2A	5250-5350	26dB Bandwidth&99% Occupied Bandwidth	N/A																					
U-NII-2C	5470-5725	26dB Bandwidth&99% Occupied Bandwidth	N/A																					
U-NII-3	5725-5850	6dB Bandwidth&99% Occupied Bandwidth	6dB Bandwidth ≥ 500KHz																					
Test Results:	Pass																							

The detailed test data see: **Appendix C**



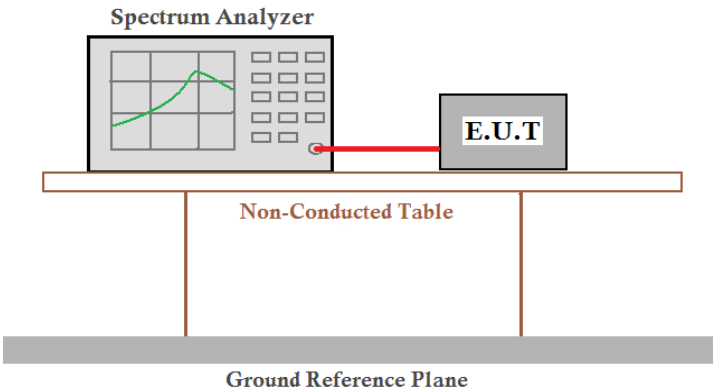
3.6 Conducted Output Power

Test Requirement:	47 CFR Part 15 Section 15.407(a)	
Test Method:	ANSI C63.10: 2020	
Test Setup:		
Test Instruments:	Refer to section 2.9 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	Through Pre-scan, find the worst case of all modulations. Only the worst case is recorded in the report.	
Limit:	Frequency Band	Limit
	5150-5250MHz	Not exceed 250mW(24dBm)
	5250-5350MHz	The lesser of 250mW(24dBm) or $11 + 10\log B$
	5470-5725MHz	The lesser of 250mW(24dBm) or $11 + 10\log B$
	5725-5850MHz	Not exceed 1W(30dBm)
Test Results:	Pass	

The detailed test data see: **Appendix D**



3.7 Power Spectral Density

Test Requirement:	47 CFR Part 15 Section 15.407(a)	
Test Method:	ANSI C63.10: 2020 KDB 789033 D02 v02r01, Section F.	
Test Setup:		
Test Instruments:	Refer to section 2.9 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	Through Pre-scan, find the worst case of all modulations. Only the worst case is recorded in the report.	
Limit:	Frequency Band	Limit
	5150-5250MHz	The power spectral density less than 11dBm/1MHz
	5250-5350MHz	The power spectral density less than 11dBm/1MHz
	5470-5725MHz	The power spectral density less than 11dBm/1MHz
	5725-5850MHz	The power spectral density less than <30dBm/500KHz
Test Results:	Pass	

The detailed test data see: **Appendix E**



3.8 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15 Section 15.407(b)				
Test Method:	ANSI C63.10: 2020				
Test Site:	Measurement Distance: 3m or 10m (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	120kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
Peak		1MHz	10Hz (DC≥0.98) ≥1/T (DC<0.98)	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
	Remark: 15.35(b),Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.				



Test Setup:

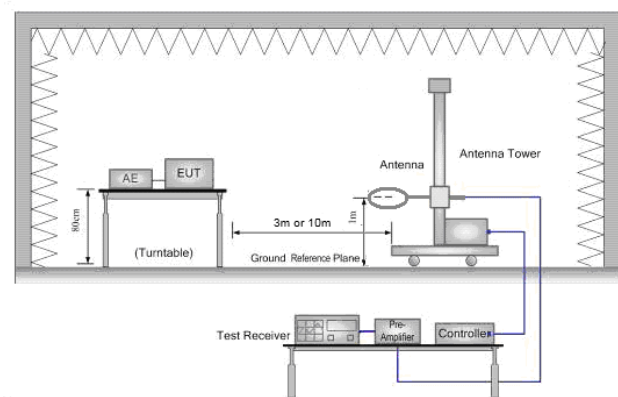


Figure 1. Below 30MHz

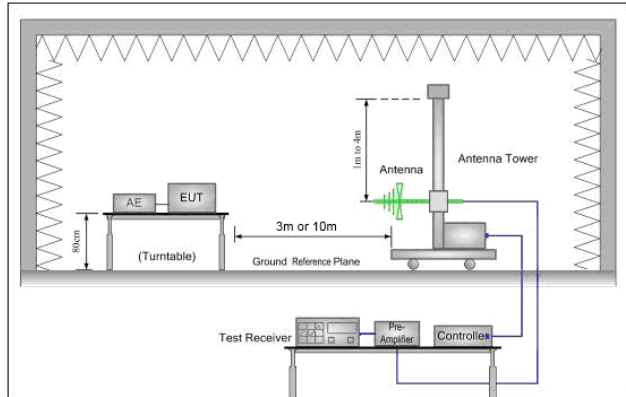


Figure 2. 30MHz to 1GHz

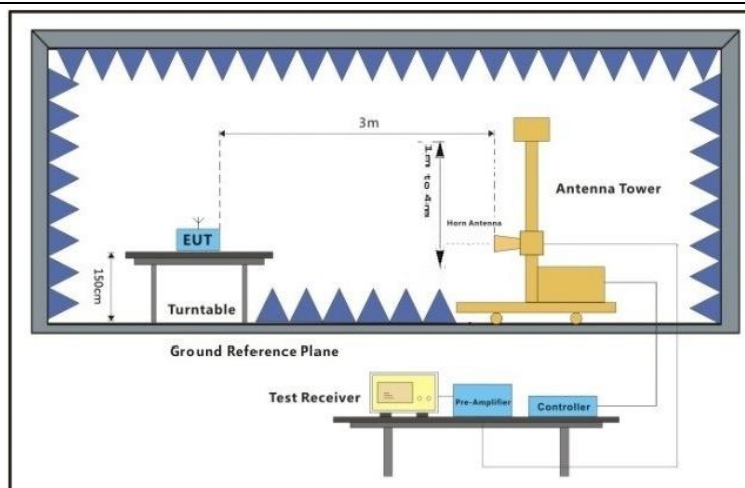


Figure 3. Above 1 GHz

Test Procedure:

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- For above 1GHz, 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
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 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.
- Test the EUT in the lowest channel, the middle channel, the Highest channel.
- The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case.



	j. Repeat above procedures until all frequencies measured was complete.
Test Configuration:	Measurements Below 1000MHz • RBW = 120 kHz • VBW = 300 kHz • Detector = Peak • Trace mode = max hold Peak Measurements Above 1000 MHz • RBW = 1 MHz • VBW $\geq$ 3 MHz • Detector = Peak • Sweep time = auto • Trace mode = max hold Average Measurements Above 1000MHz • RBW = 1 MHz • VBW = 10 Hz, when duty cycle is no less than 98 percent. • VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates. Charge + Transmitting mode.
Final Test Mode:	Pretest the EUT at Transmitting mode. Through Pre-scan, find the worst case of all modulations. Only the worst case is recorded in the report. For below 1GHz, through Pre-scan, find the the worst case. Only the worst case is recorded in the report.
Instruments Used:	Refer to section 2.9 for details
Test Results:	Pass

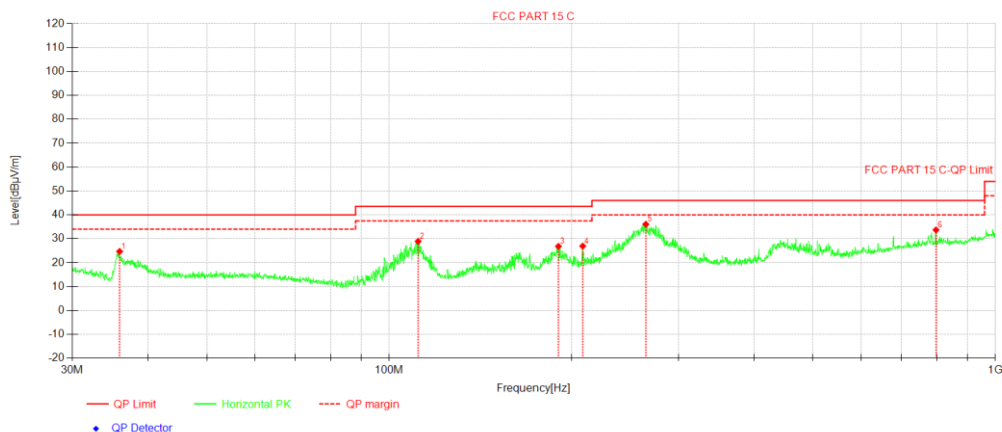


Test data

For 30-1000MHz

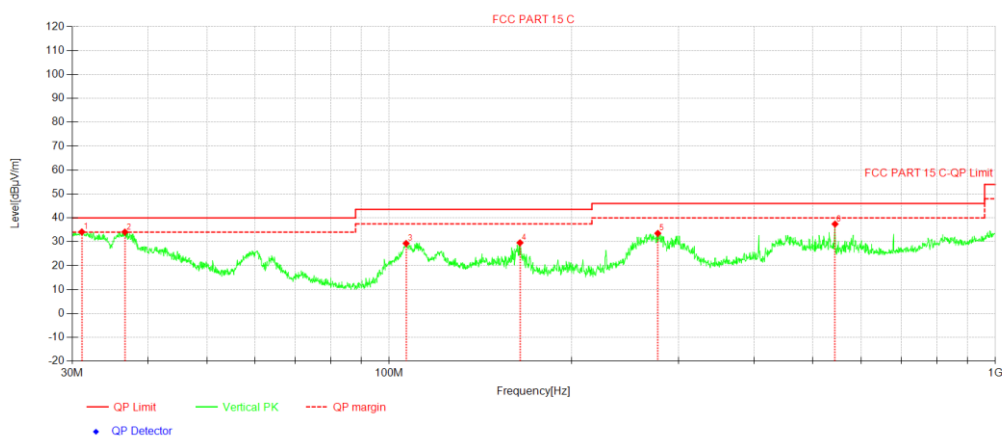
5.1G

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]
1	35.92	33.96	-9.26	24.70	40.00	15.30	200	337
2	111.61	39.96	-11.03	28.93	43.50	14.57	200	313
3	190.18	37.38	-10.55	26.83	43.50	16.67	200	337
4	208.58	37.92	-10.98	26.94	43.50	16.56	200	303
5	265.06	44.42	-8.34	36.08	46.00	9.92	200	102
6	798.05	29.52	4.18	33.70	46.00	12.30	200	117

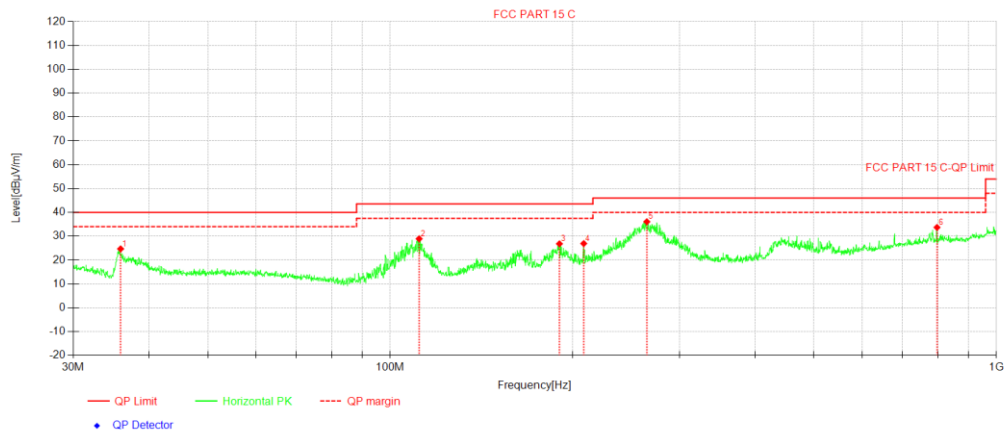
Vertical :



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]
1	31.11	44.00	-9.87	34.13	40.00	5.87	100	307
2	36.64	43.28	-9.21	34.07	40.00	5.93	100	72
3	106.63	40.93	-11.62	29.31	43.50	14.19	100	322
4	164.33	37.50	-7.92	29.58	43.50	13.92	100	297
5	277.42	41.20	-7.65	33.55	46.00	12.45	100	259
6	543.91	39.51	-2.09	37.42	46.00	8.58	100	158

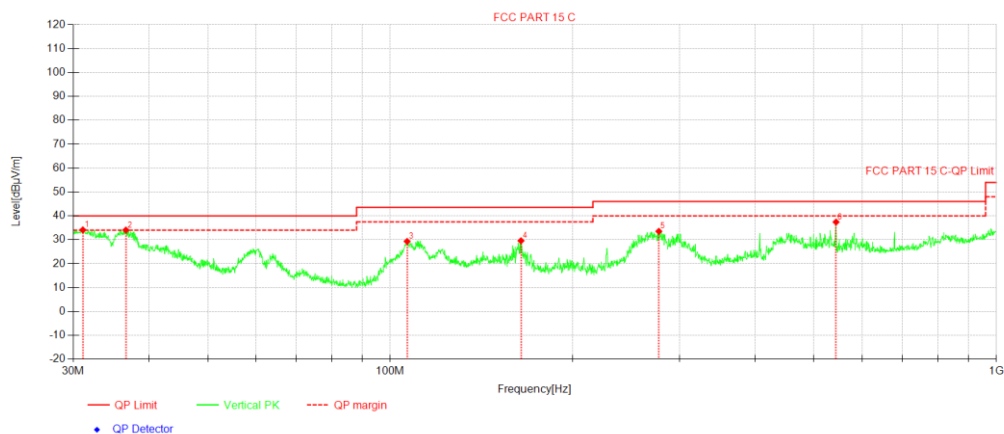
**5.8G**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]
1	35.92	33.96	-9.26	24.70	40.00	15.30	200	337
2	111.61	39.96	-11.03	28.93	43.50	14.57	200	313
3	190.18	37.38	-10.55	26.83	43.50	16.67	200	337
4	208.58	37.92	-10.98	26.94	43.50	16.56	200	303
5	265.06	44.42	-8.34	36.08	46.00	9.92	200	102
6	798.05	29.52	4.18	33.70	46.00	12.30	200	117

Vertical :



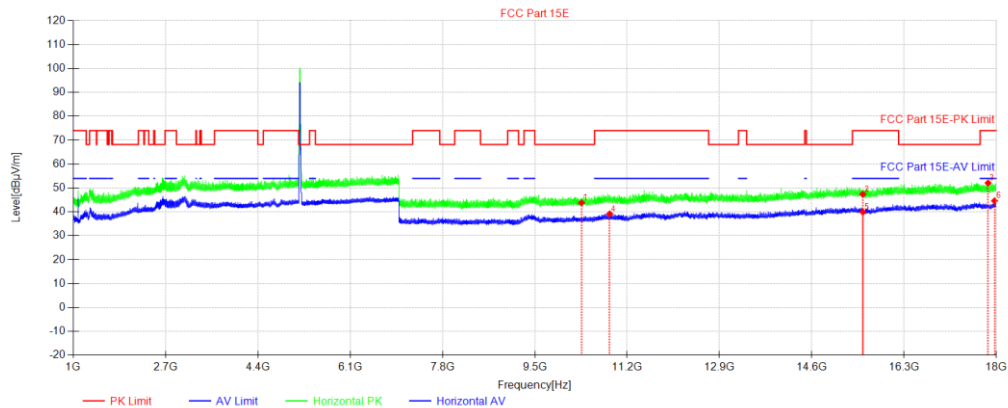
NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]
1	31.11	44.00	-9.87	34.13	40.00	5.87	100	307
2	36.64	43.28	-9.21	34.07	40.00	5.93	100	72
3	106.63	40.93	-11.62	29.31	43.50	14.19	100	322
4	164.33	37.50	-7.92	29.58	43.50	13.92	100	297
5	277.42	41.20	-7.65	33.55	46.00	12.45	100	259
6	543.91	39.51	-2.09	37.42	46.00	8.58	100	158



For above 1GHz

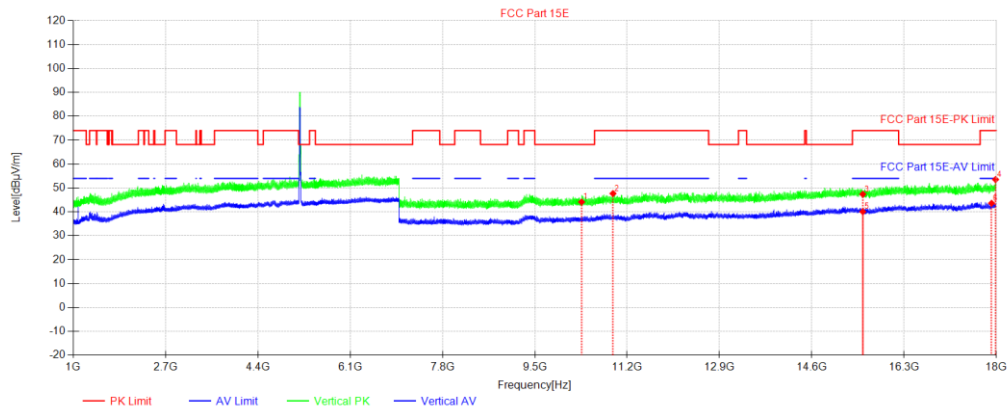
11N20 5180MHz

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10360.41	43.40	0.40	43.80	68.20	24.40	150	318	PK
2	15540.30	41.81	5.56	47.37	74.00	26.63	150	258	PK
3	17847.75	41.82	10.28	52.10	74.00	21.90	150	124	PK
4	10879.64	37.65	1.52	39.17	54.00	14.83	150	338	AV
5	15540.30	34.35	5.56	39.91	54.00	14.09	150	318	
6	17966.12	33.88	10.74	44.62	54.00	9.38	150	8	AV

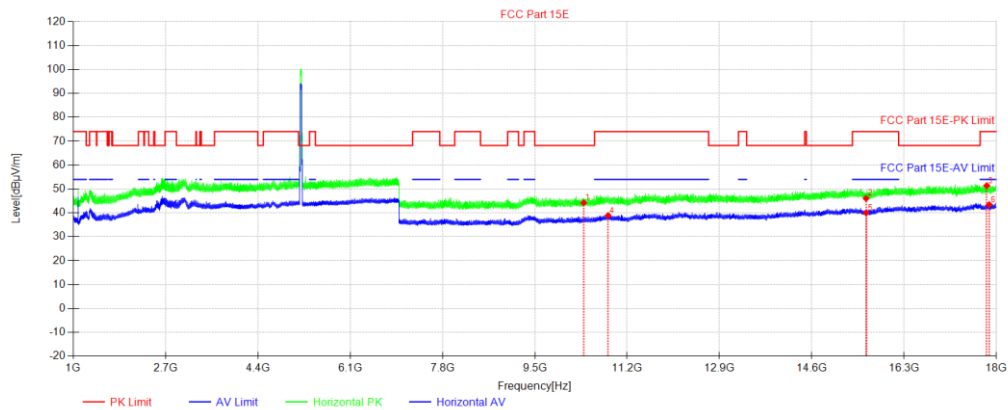
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10360.41	43.73	0.40	44.13	68.20	24.07	150	217	PK
2	10939.48	46.21	1.45	47.66	74.00	26.34	150	123	PK
3	15540.30	41.81	5.56	47.37	74.00	26.63	150	180	PK
4	17984.60	42.74	10.80	53.54	74.00	20.46	150	30	AV
5	15540.30	34.52	5.56	40.08	54.00	13.92	150	144	AV
6	17911.56	33.09	10.52	43.61	54.00	10.39	150	161	AV

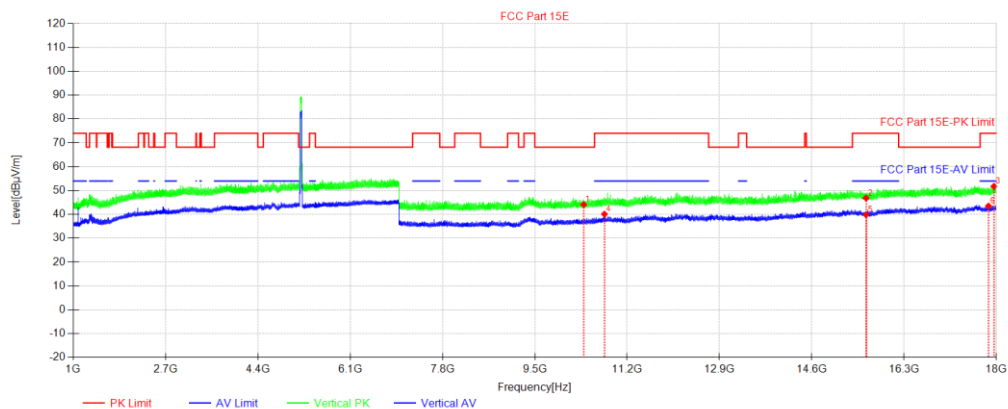
**11N20 5200MHz**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10400.02	43.83	0.36	44.19	68.20	24.01	150	277	PK
2	15600.14	40.64	5.43	46.07	74.00	27.93	150	156	PK
3	17823.11	41.16	10.21	51.37	74.00	22.63	150	197	PK
4	10850.15	37.35	1.56	38.91	54.00	15.09	150	156	AV
5	15600.14	34.60	5.43	40.03	54.00	13.97	150	238	AV
6	17869.75	33.09	10.35	43.44	54.00	10.56	150	83	AV

Vertical:

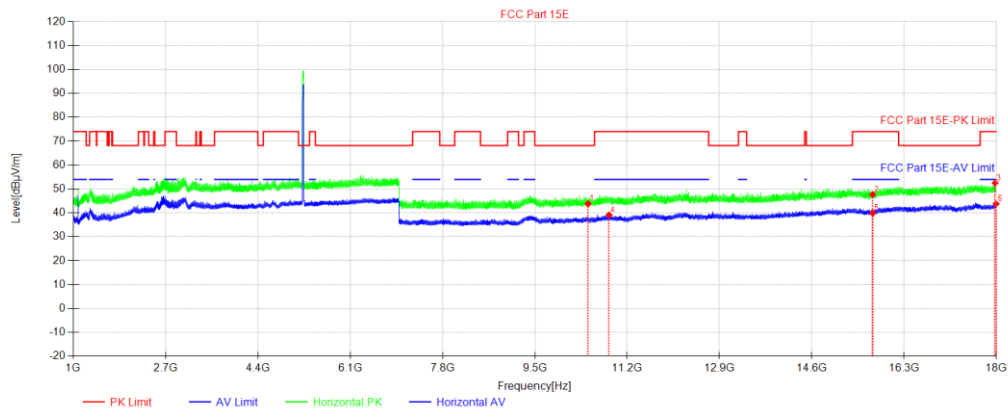


NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10400.02	43.76	0.36	44.12	68.20	24.08	150	183	PK
2	15600.14	41.40	5.43	46.83	74.00	27.17	150	202	PK
3	17955.12	41.05	10.71	51.76	74.00	22.24	150	163	PK
4	10781.95	38.60	1.50	40.10	54.00	13.90	150	240	AV
5	15600.14	34.41	5.43	39.84	54.00	14.16	150	122	AV
6	17855.23	33.21	10.30	43.51	54.00	10.49	150	102	AV



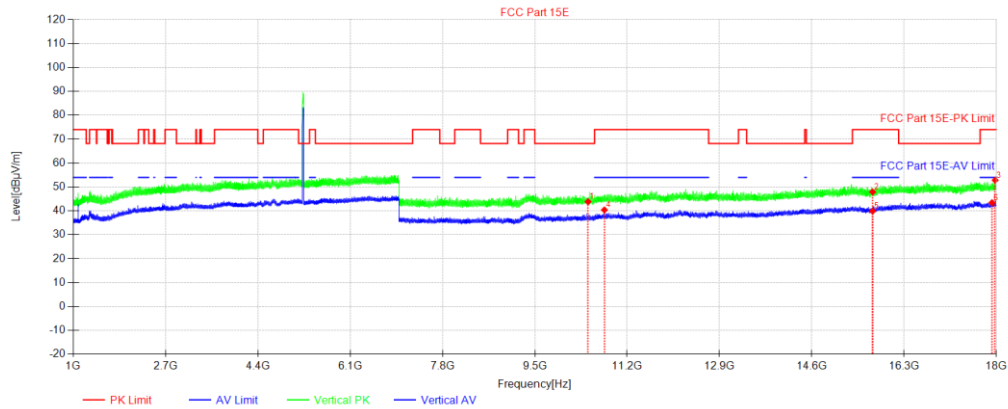
11N20 5240MHz

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10480.10	43.34	0.47	43.81	68.20	24.39	150	280	PK
2	15720.27	42.28	5.35	47.63	74.00	26.37	150	184	PK
3	17978.00	41.72	10.77	52.49	74.00	21.51	150	184	PK
4	10867.31	37.59	1.54	39.13	54.00	14.87	150	1	AV
5	15720.27	34.51	5.35	39.86	54.00	14.14	150	10	AV
6	17995.60	32.99	10.82	43.81	54.00	10.19	150	32	AV

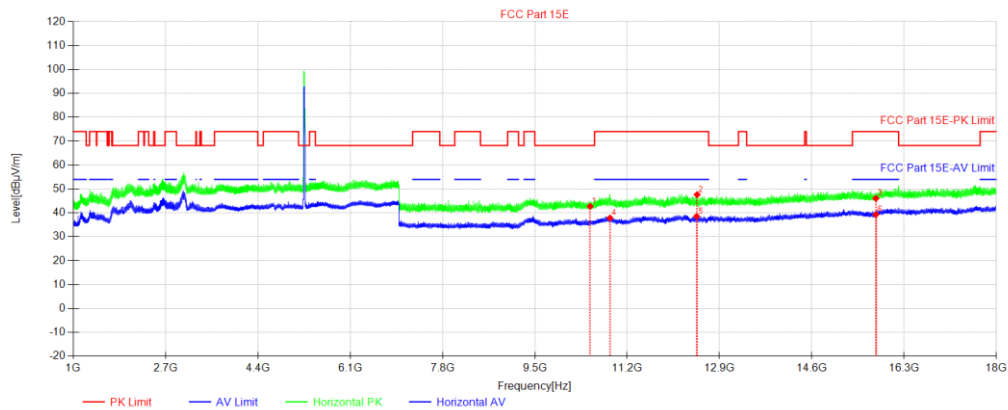
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10480.10	43.37	0.47	43.84	68.20	24.36	150	265	PK
2	15720.27	42.58	5.35	47.93	74.00	26.07	150	77	PK
3	17978.00	42.06	10.77	52.83	74.00	21.17	150	226	PK
4	10781.51	38.89	1.50	40.39	54.00	13.61	150	247	AV
5	15720.27	34.57	5.35	39.92	54.00	14.08	150	111	AV
6	17919.48	32.87	10.55	43.42	54.00	10.58	150	209	AV

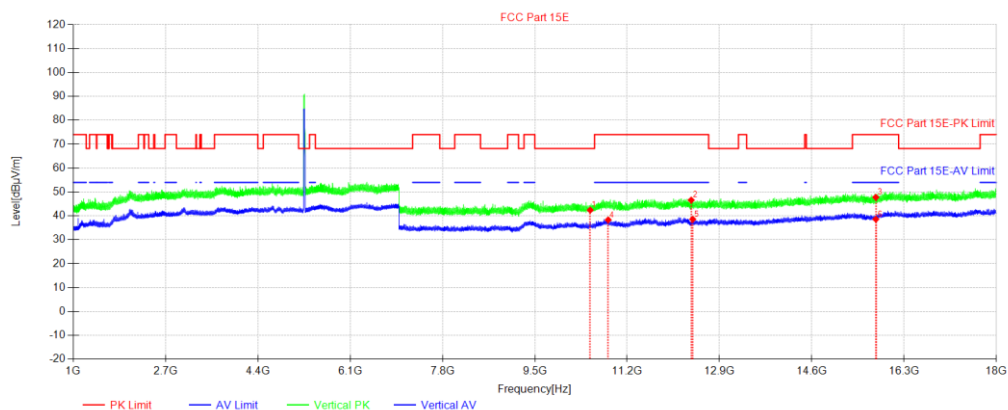
**11N20 5260MHz**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10520.14	42.19	0.54	42.73	68.20	25.47	150	205	PK
2	12488.78	45.87	1.76	47.63	74.00	26.37	150	186	PK
3	15780.11	40.78	5.28	46.06	74.00	27.94	150	0	PK
4	10885.36	36.33	1.51	37.84	54.00	16.16	150	35	AV
5	12479.54	36.81	1.74	38.55	54.00	15.45	150	356	AV
6	15780.11	34.03	5.28	39.31	54.00	14.69	150	265	AV

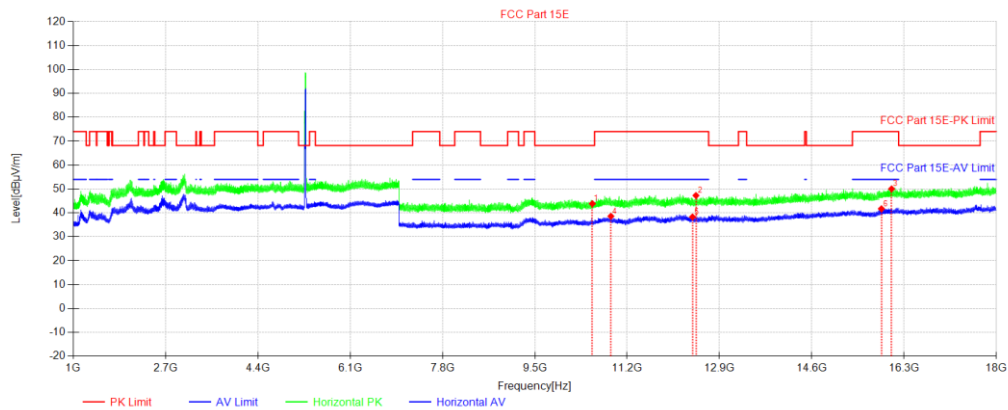
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10520.14	41.87	0.54	42.41	68.20	25.79	150	24	PK
2	12380.10	45.06	1.54	46.60	74.00	27.40	150	100	PK
3	15780.11	42.49	5.28	47.77	74.00	26.23	150	39	PK
4	10852.35	36.76	1.56	38.32	54.00	15.68	150	226	AV
5	12408.26	37.06	1.54	38.60	54.00	15.40	150	192	AV
6	15780.11	33.33	5.28	38.61	54.00	15.39	150	100	AV

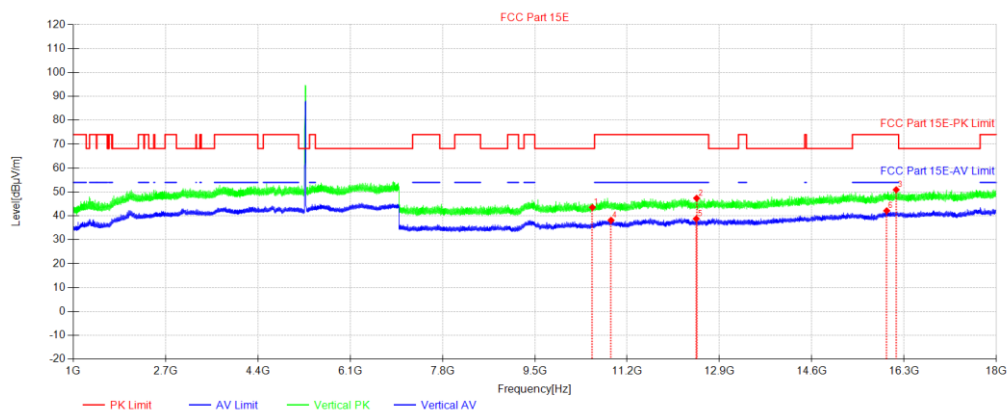
**11N20 5280MHz**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10560.18	43.23	0.61	43.84	68.20	24.36	150	281	PK
2	12467.66	45.55	1.71	47.26	74.00	26.74	150	76	PK
3	16070.08	43.64	6.40	50.04	74.00	23.96	150	319	PK
4	10901.20	37.08	1.50	38.58	54.00	15.42	150	319	AV
5	12403.86	36.78	1.53	38.31	54.00	15.69	150	150	AV
6	15882.64	36.00	5.71	41.71	54.00	12.29	150	340	AV

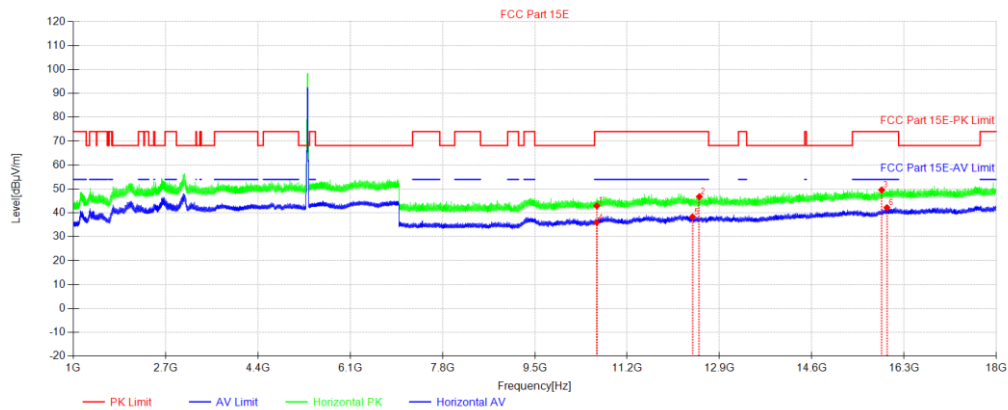
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10560.18	42.93	0.61	43.54	68.20	24.66	150	122	PK
2	12479.54	45.64	1.74	47.38	74.00	26.62	150	335	PK
3	16155.01	44.31	6.63	50.94	74.00	23.06	150	161	PK
4	10904.28	36.67	1.49	38.16	54.00	15.84	150	102	AV
5	12472.94	37.05	1.72	38.77	54.00	15.23	150	26	AV
6	15980.32	35.90	6.24	42.14	54.00	11.86	150	65	AV

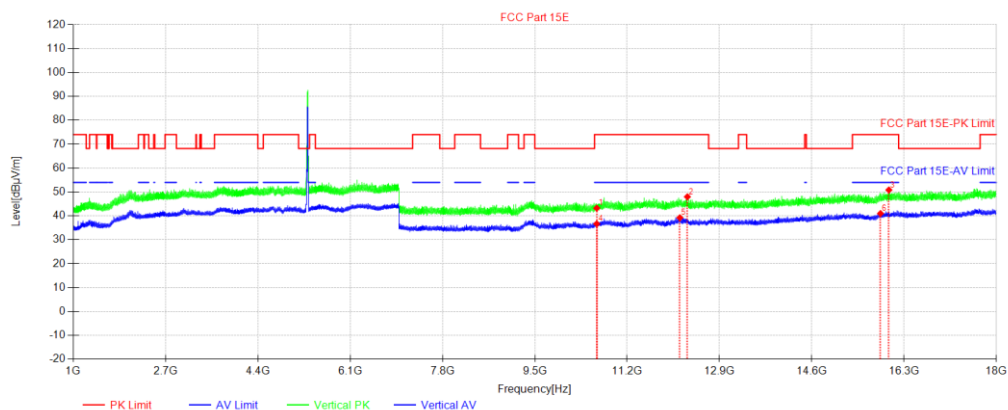
**11N20 5320MHz**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10640.27	42.05	0.85	42.90	74.00	31.10	150	7	PK
2	12529.70	44.88	1.90	46.78	74.00	27.22	150	144	PK
3	15887.92	43.86	5.73	49.59	74.00	24.41	150	26	PK
4	10640.27	35.10	0.85	35.95	54.00	18.05	150	26	AV
5	12403.86	36.80	1.53	38.33	54.00	15.67	150	242	AV
6	15985.16	35.92	6.27	42.19	54.00	11.81	150	206	AV

Vertical:

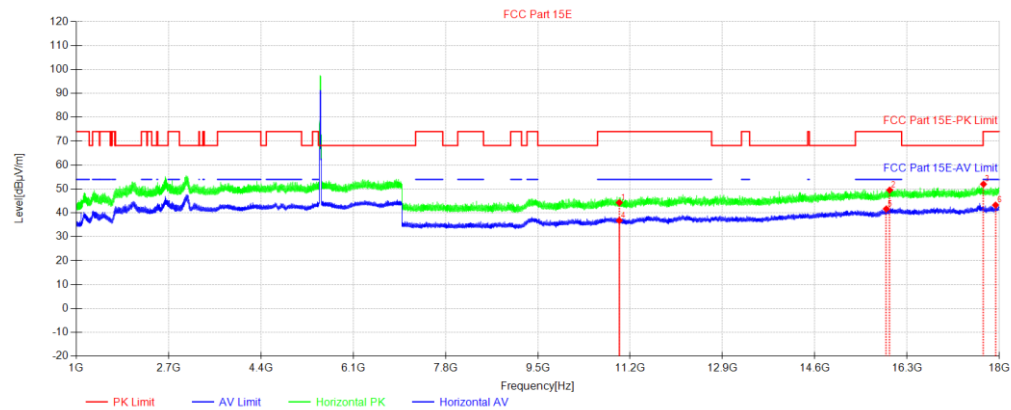


NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10640.27	42.38	0.85	43.23	74.00	30.77	150	188	PK
2	12310.13	46.33	1.65	47.98	74.00	26.02	150	297	PK
3	16019.92	44.48	6.36	50.84	74.00	23.16	150	280	PK
4	10640.27	35.83	0.85	36.68	54.00	17.32	150	94	AV
5	12171.97	37.44	1.79	39.23	54.00	14.77	150	152	AV
6	15865.91	35.37	5.62	40.99	54.00	13.01	150	117	AV



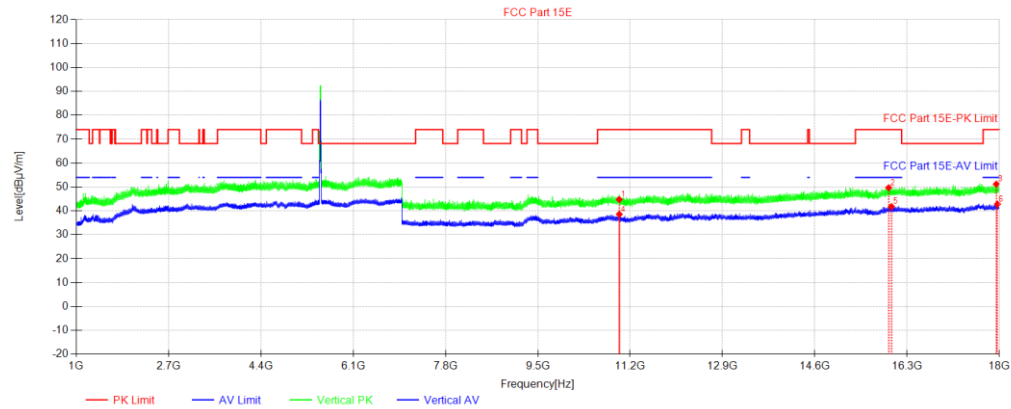
11N20 5500MHz

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11000.20	42.92	1.37	44.29	74.00	29.71	150	338	PK
2	15980.32	43.30	6.24	49.54	74.00	24.46	150	264	PK
3	17707.39	41.74	10.28	52.02	74.00	21.98	150	203	PK
4	11000.20	35.42	1.37	36.79	54.00	17.21	150	164	AV
5	15917.40	35.75	5.90	41.65	54.00	12.35	150	47	AV
6	17930.04	32.66	10.60	43.26	54.00	10.74	150	356	AV

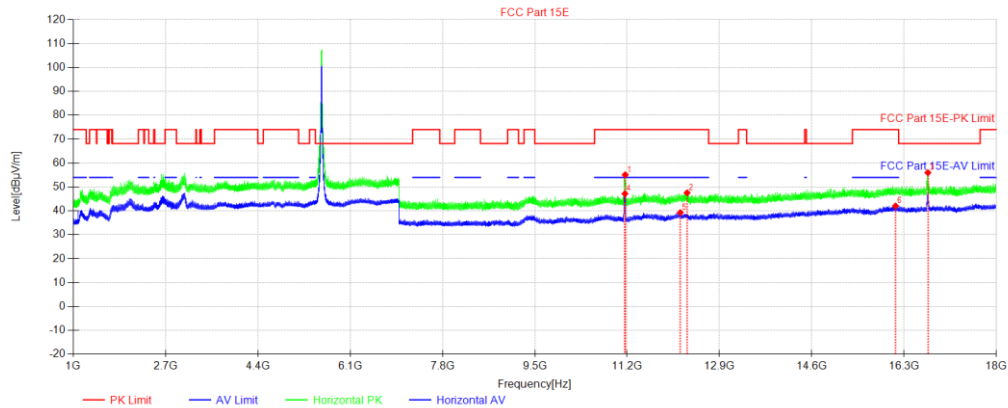
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11000.20	43.40	1.37	44.77	74.00	29.23	150	204	PK
2	15961.40	43.53	6.15	49.68	74.00	24.32	150	356	PK
3	17943.68	40.53	10.66	51.19	74.00	22.81	150	224	PK
4	11000.20	37.20	1.37	38.57	54.00	15.43	150	264	AV
5	16012.44	35.42	6.36	41.78	54.00	12.22	150	224	AV
6	17965.24	32.07	10.73	42.80	54.00	11.20	150	116	AV

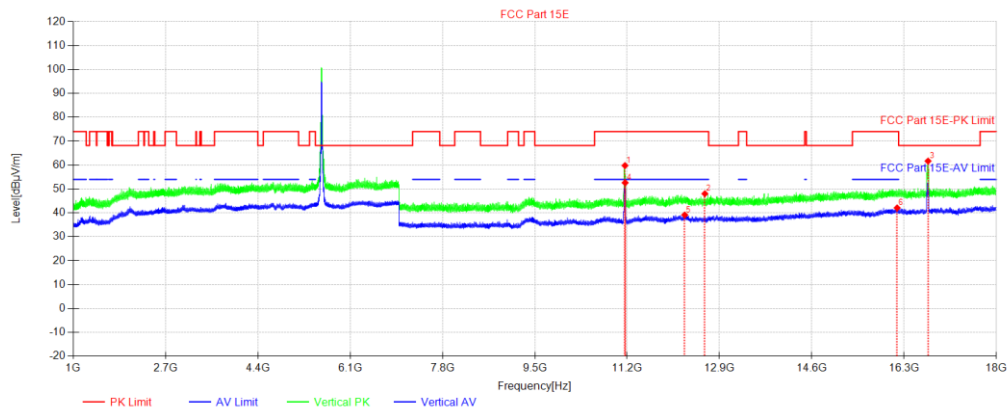
**11N20 5580MHz**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11165.21	54.01	1.08	55.09	74.00	18.91	150	202	PK
2	12304.41	45.89	1.66	47.55	74.00	26.45	150	280	PK
3	16738.47	48.95	7.05	56.00	68.20	12.20	150	86	PK
4	11160.37	46.09	1.09	47.18	54.00	6.82	150	320	AV
5	12179.45	37.47	1.81	39.28	54.00	14.72	150	300	AV
6	16142.69	35.46	6.59	42.05	54.00	11.95	150	107	AV

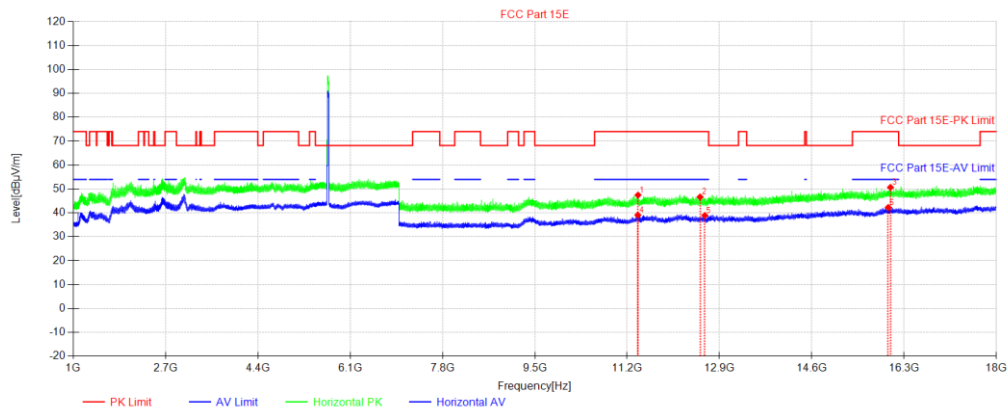
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11160.37	58.69	1.09	59.78	74.00	14.22	150	16	PK
2	12631.79	45.70	2.32	48.02	74.00	25.98	150	35	PK
3	16741.55	54.60	7.07	61.67	68.20	6.53	150	107	PK
4	11163.45	51.52	1.08	52.60	54.00	1.40	150	91	AV
5	12261.29	37.39	1.74	39.13	54.00	14.87	150	226	AV
6	16172.61	35.41	6.67	42.08	54.00	11.92	150	299	AV

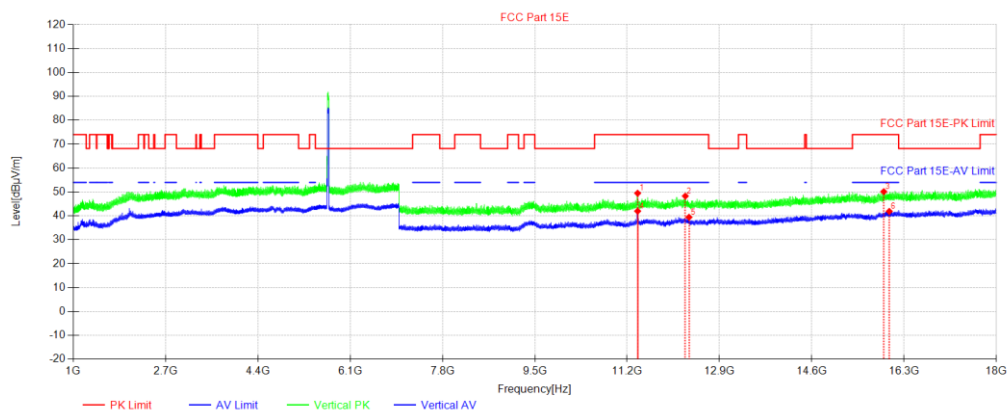
**11N20 5700MHz**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11400.62	45.70	1.74	47.44	74.00	26.56	150	307	PK
2	12543.34	44.70	1.94	46.64	74.00	27.36	150	167	PK
3	16048.96	44.30	6.37	50.67	74.00	23.33	150	307	PK
4	11397.10	37.35	1.73	39.08	54.00	14.92	150	146	AV
5	12631.35	36.58	2.32	38.90	54.00	15.10	150	284	AV
6	16008.48	35.92	6.35	42.27	54.00	11.73	150	228	AV

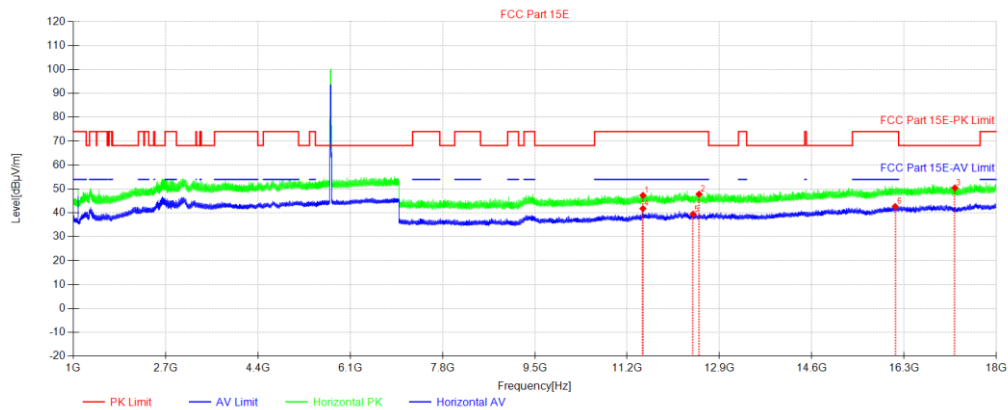
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11393.58	47.77	1.71	49.48	74.00	24.52	150	266	PK
2	12271.41	46.55	1.72	48.27	74.00	25.73	150	169	PK
3	15926.20	44.18	5.94	50.12	74.00	23.88	150	58	PK
4	11394.02	40.27	1.71	41.98	54.00	12.02	150	284	AV
5	12339.61	37.87	1.58	39.45	54.00	14.55	150	169	AV
6	16027.40	35.52	6.36	41.88	54.00	12.12	150	152	AV

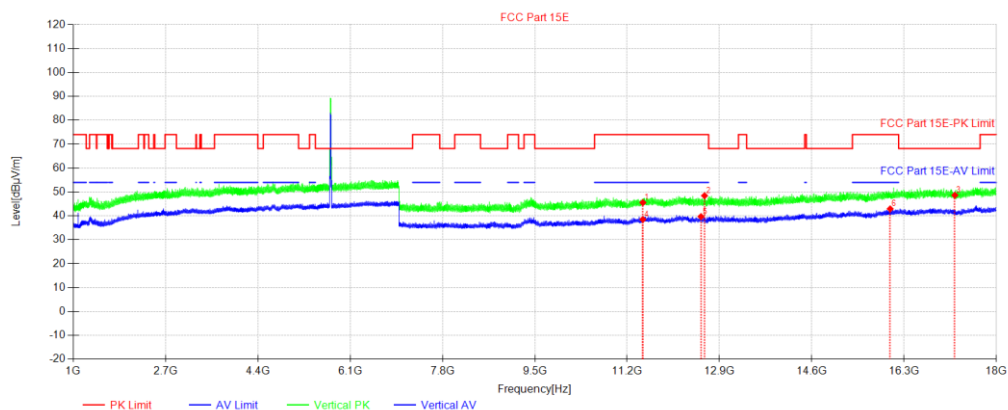
**5.8G N20 5745MHZ**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11490.38	45.29	2.03	47.32	74.00	26.68	150	245	PK
2	12524.42	45.96	1.87	47.83	74.00	26.17	150	76	PK
3	17235.25	41.59	8.86	50.45	68.20	17.75	150	264	PK
4	11490.38	39.75	2.03	41.78	54.00	12.22	150	264	AV
5	12414.42	37.92	1.56	39.48	54.00	14.52	150	339	AV
6	16136.97	36.10	6.56	42.66	54.00	11.34	150	339	AV

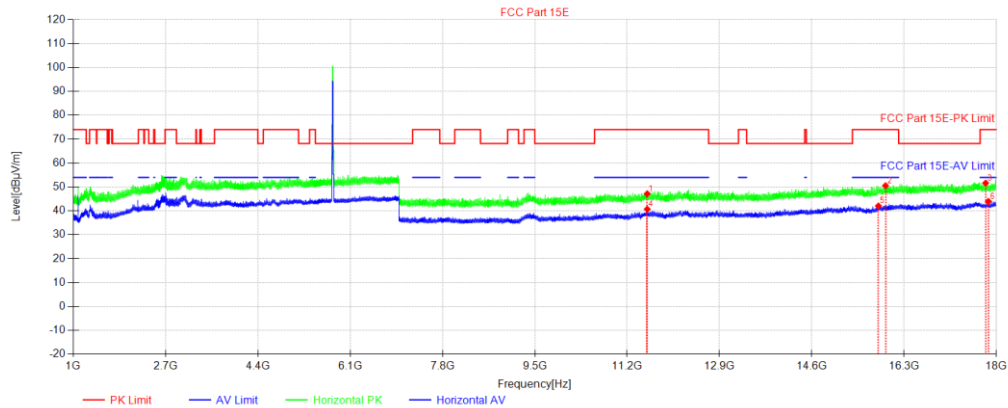
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11490.38	43.52	2.03	45.55	74.00	28.45	150	55	PK
2	12625.19	46.14	2.28	48.42	74.00	25.58	150	55	PK
3	17235.25	39.78	8.86	48.64	68.20	19.56	150	91	PK
4	11490.38	36.51	2.03	38.54	54.00	15.46	150	280	AV
5	12560.06	37.69	2.00	39.69	54.00	14.31	150	340	AV
6	16044.56	36.55	6.38	42.93	54.00	11.07	150	280	AV

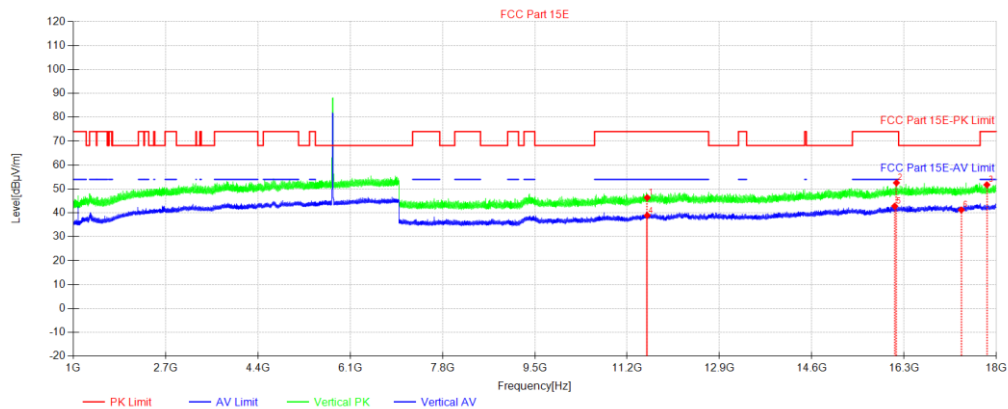
**5.8G N20 5785MHz**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11570.02	44.83	2.33	47.16	74.00	26.84	150	260	PK
2	15958.32	44.41	6.13	50.54	74.00	23.46	150	182	PK
3	17802.43	41.49	10.14	51.63	74.00	22.37	150	65	PK
4	11570.02	38.36	2.33	40.69	54.00	13.31	150	260	AV
5	15827.63	36.63	5.42	42.05	54.00	11.95	150	182	AV
6	17853.03	33.68	10.29	43.97	54.00	10.03	150	0	AV

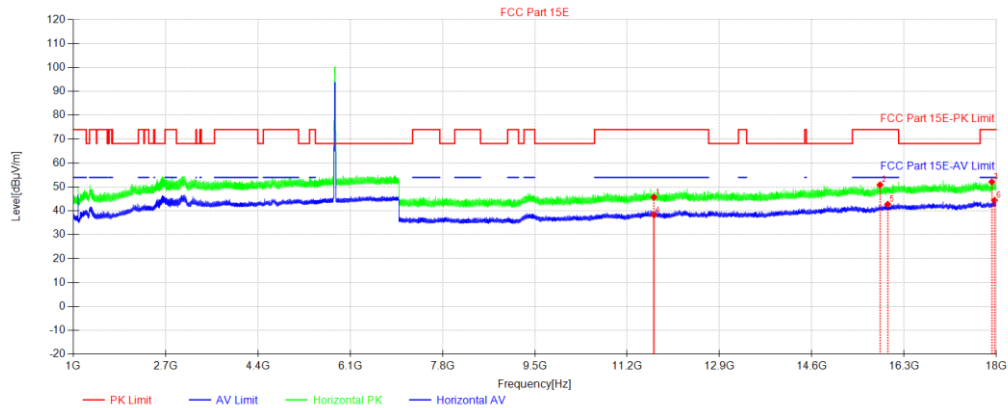
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11570.02	44.03	2.33	46.36	74.00	27.64	150	204	PK
2	16159.85	45.93	6.64	52.57	74.00	21.43	150	148	PK
3	17825.31	41.57	10.20	51.77	74.00	22.23	150	88	PK
4	11570.02	36.59	2.33	38.92	54.00	15.08	150	320	AV
5	16127.29	36.27	6.53	42.80	54.00	11.20	150	338	AV
6	17355.37	32.28	8.97	41.25	54.00	12.75	150	7	AV

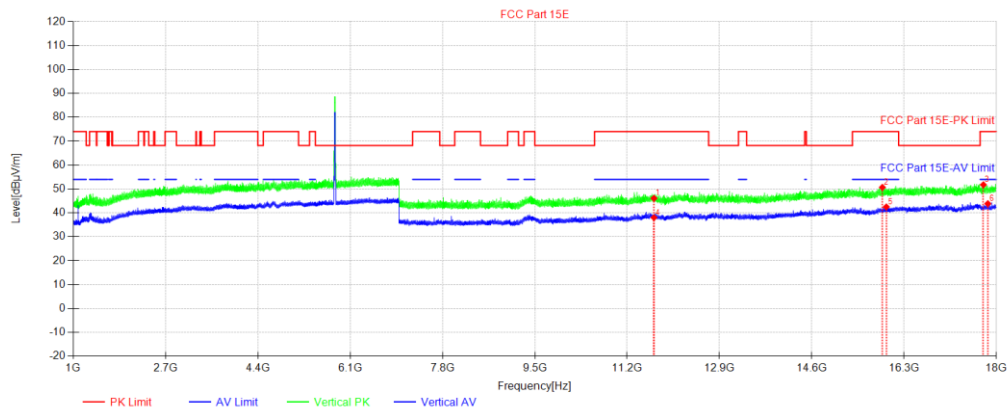
**5.8G N20 5825MHz**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11694.11	43.51	2.21	45.72	74.00	28.28	150	164	PK
2	15857.11	45.30	5.58	50.88	74.00	23.12	150	28	PK
3	17915.96	41.59	10.53	52.12	74.00	21.88	150	302	PK
4	11694.11	36.04	2.21	38.25	54.00	15.75	150	184	AV
5	15997.92	36.41	6.34	42.75	54.00	11.25	150	0	AV
6	17967.44	33.68	10.74	44.42	54.00	9.58	150	104	AV

Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11694.11	43.88	2.21	46.09	74.00	27.91	150	152	PK
2	15900.24	44.88	5.79	50.67	74.00	23.33	150	209	PK
3	17760.63	41.53	10.23	51.76	74.00	22.24	150	229	PK
4	11694.11	35.80	2.21	38.01	54.00	15.99	150	269	AV
5	15972.84	36.28	6.20	42.48	54.00	11.52	150	209	AV
6	17842.91	33.58	10.26	43.84	54.00	10.16	150	341	AV



Note:

1. The Measurement (Result Level) is calculated by Reading Level adding the Correct Factor(maybe including Ant.Factor and the Cable Factor etc.), The basic equation is as follows:

Result Level= Reading Level + Correct Factor(including Ant.Factor, Cable Factor etc.)

2. The amplitude of 9KHz to 30MHz spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

3. The amplitude of 18GHz to 40GHz spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be report.

4. All channels had been pre-test, 802.11n20 is the worst case, only the worst case was reported.



3.9 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15 Section 15.407(b)		
Test Method:	ANSI C63.10: 2020		
Test Site:	Measurement Distance: 3m or 10m (Semi-Anechoic Chamber)		
Limit:	Frequency	Limit (dBuV/m)	Remark
	30MHz-88MHz	40.0	Quasi-peak
	88MHz-216MHz	43.5	Quasi-peak
	216MHz-960MHz	46.0	Quasi-peak
	960MHz-1GHz	54.0	Quasi-peak
	Above 1GHz	54.0	Average Value
		74.0	Peak Value
	MHz	MHz	MHz
	MHz	MHz	GHz
	0.090 - 0.110	16.42 - 16.423	399.9 - 410

10.495 - 0.505	16.69475 - 16.69525	608 - 614	4.5 - 5.15
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	5.35 - 5.46
4.125 - 4.128	25.5 - 25.67	1300 - 1427	7.25 - 7.75
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	8.025 - 8.5
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.0 - 9.2
6.215 - 6.218	74.8 - 75.2	1660 - 1710	9.3 - 9.5
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	10.6 - 12.7
6.31175 - 6.31225	123 - 138	2200 - 2300	13.25 - 13.4
8.291 - 8.294	149.9 - 150.05	2310 - 2390	14.47 - 14.5
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	15.35 - 16.2
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	17.7 - 21.4
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	22.01 - 23.12
12.29 - 12.293	167.72 - 173.2	3332 - 3339	23.6 - 24.0
12.51975 - 12.52025	240 - 285	3345.8 - 3358	31.2 - 31.8
12.57675 - 12.57725	322 - 335.4	3600 - 4400	36.43 - 36.5

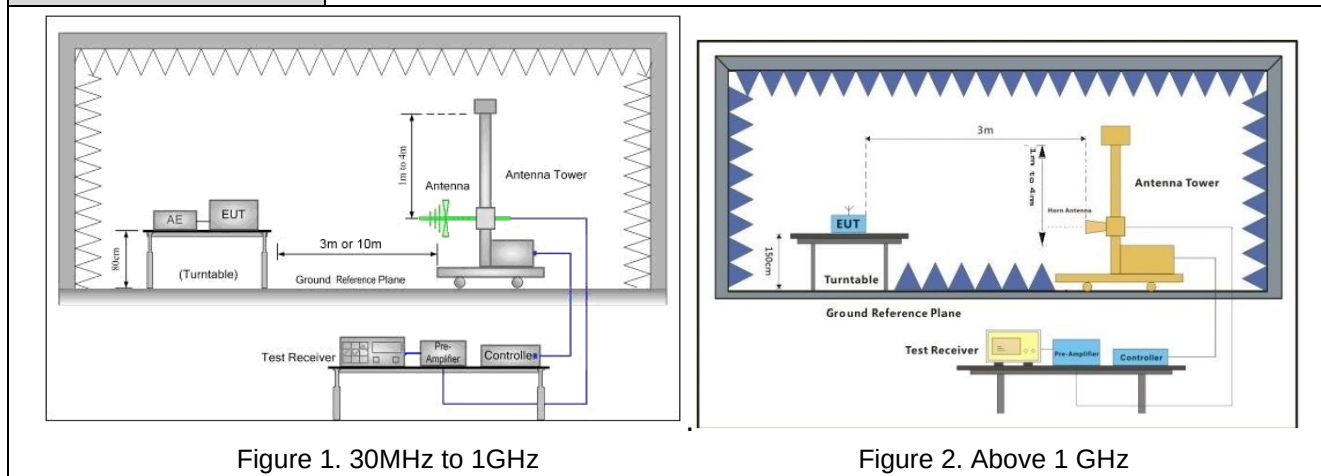


Figure 1. 30MHz to 1GHz

Figure 2. Above 1 GHz



Test Procedure:	- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. - For above 1GHz, 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. - The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. - 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. - 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 and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. - The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. - Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel - Test the EUT in the lowest channel , the Highest channel - The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case. - Repeat above procedures until all frequencies measured was complete.
Test Configuration:	Measurements Below 1000MHz • RBW = 120 kHz • VBW = 300 kHz • Detector = Peak • Trace mode = max hold Peak Measurements Above 1000 MHz • RBW = 1 MHz • VBW $\geq$ 3 MHz • Detector = Peak • Sweep time = auto • Trace mode = max hold Average Measurements Above 1000MHz • RBW = 1 MHz • VBW = 10 Hz, when duty cycle is no less than 98 percent. • VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates. Transmitting mode.
Final Test Mode:	Pretest the EUT at Charge + Transmitting mode. Through Pre-scan, find the worst case of all modulations. Only the worst case is recorded in the report.
Instruments Used:	Refer to section 2.9 for details

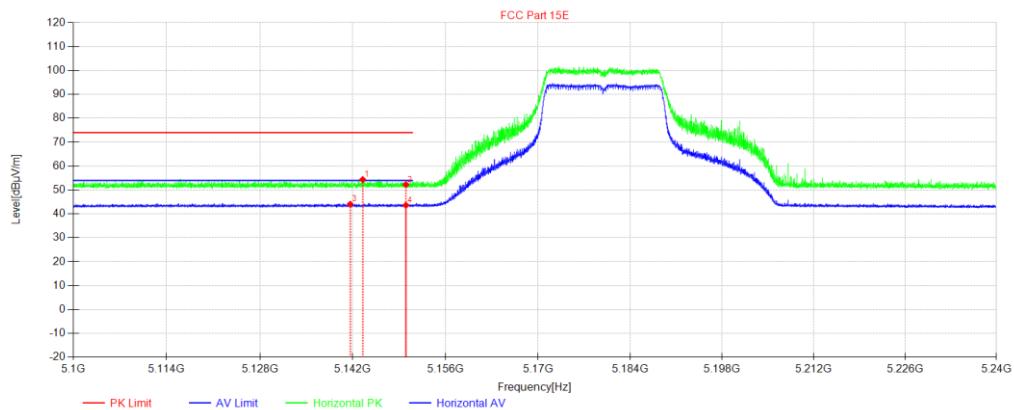


Test Results:

Pass

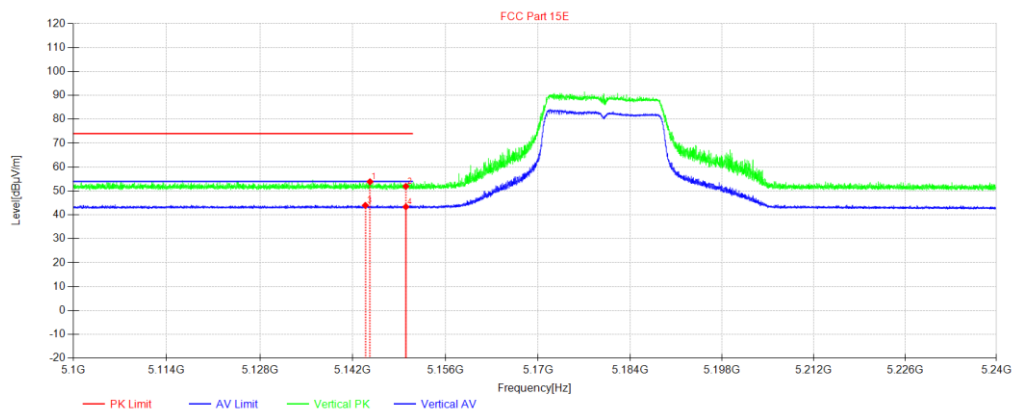
Test Date
11N20 5180MHz

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5143.49	49.36	4.99	54.35	74.00	19.65	150	16	PK
2	5150.01	47.22	5.01	52.23	74.00	21.77	150	131	PK
3	5141.61	39.06	4.98	44.04	54.00	9.96	150	256	AV
4	5150.01	38.58	5.01	43.59	54.00	10.41	150	231	AV

Vertical:

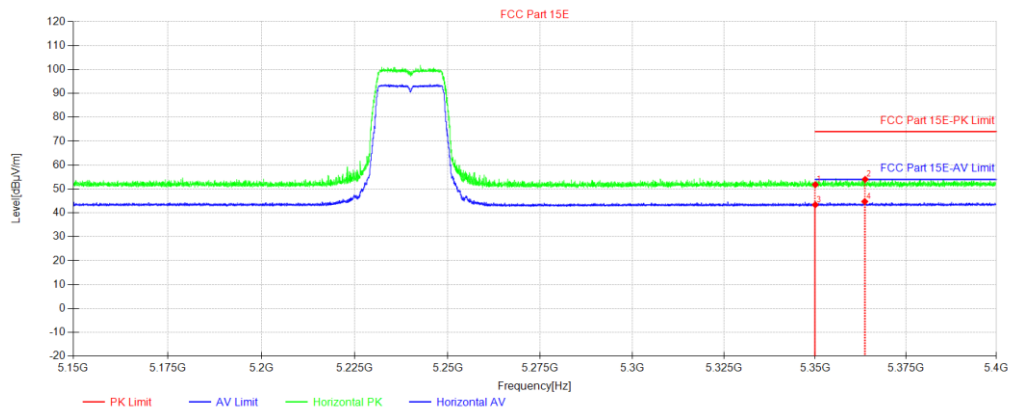


NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5144.59	48.87	4.99	53.86	74.00	20.14	150	188	PK
2	5150.01	46.91	5.01	51.92	74.00	22.08	150	108	PK
3	5143.89	38.98	4.99	43.97	54.00	10.03	150	0	AV
4	5150.01	38.35	5.01	43.36	54.00	10.64	150	301	AV



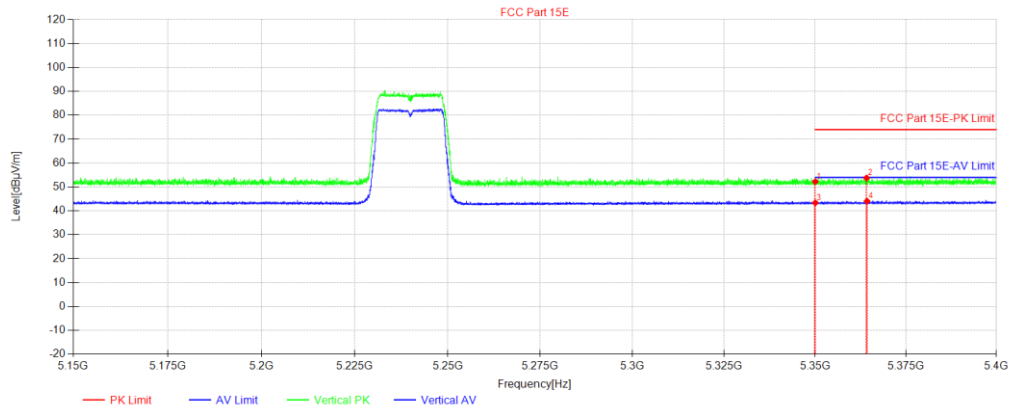
11N20 5240MHz

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5350.02	46.66	5.15	51.81	74.00	22.19	150	157	PK
2	5363.75	48.90	5.12	54.02	74.00	19.98	150	70	PK
3	5350.02	38.22	5.15	43.37	54.00	10.63	150	360	AV
4	5363.62	39.61	5.12	44.73	54.00	9.27	150	360	AV

Vertical:

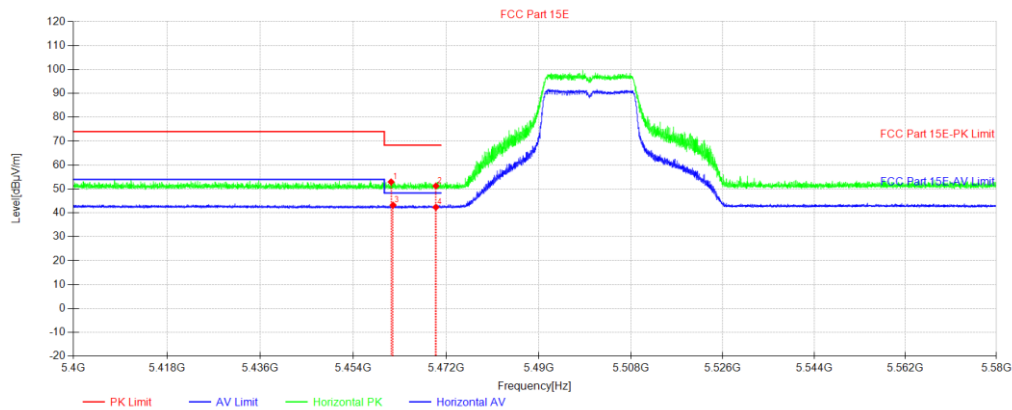


NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5350.02	47.07	5.15	52.22	74.00	21.78	150	233	PK
2	5364.12	48.64	5.11	53.75	74.00	20.25	150	312	PK
3	5350.02	38.20	5.15	43.35	54.00	10.65	150	200	AV
4	5364.25	38.95	5.11	44.06	54.00	9.94	150	143	AV



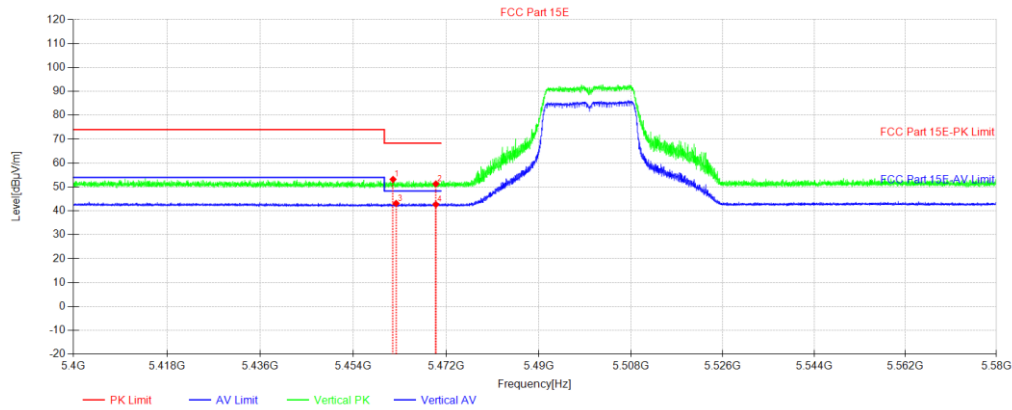
11N20 5500MHz

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5461.31	47.91	5.03	52.94	68.30	15.36	150	206	PK
2	5470.01	46.21	5.04	51.25	68.30	17.05	150	59	PK
3	5461.69	38.21	5.03	43.24	48.30	5.06	150	231	AV
4	5470.01	37.32	5.04	42.36	48.30	5.94	150	162	AV

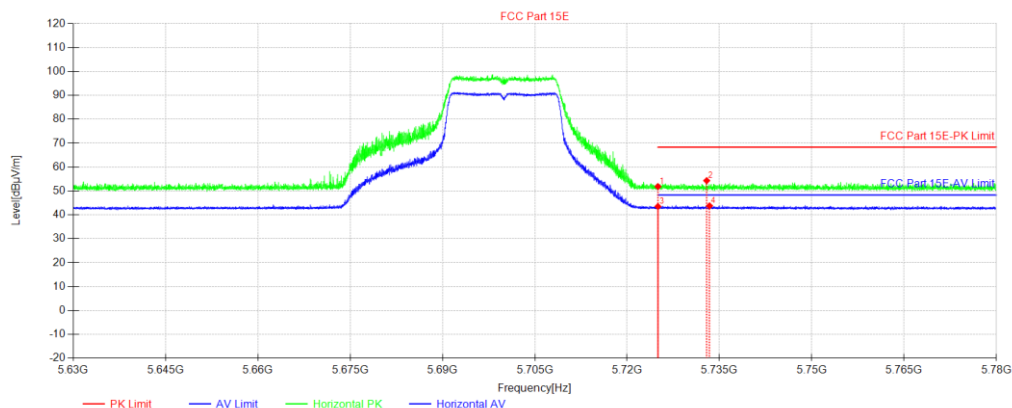
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5461.69	48.14	5.03	53.17	68.30	15.13	150	167	PK
2	5470.01	46.25	5.04	51.29	68.30	17.01	150	145	PK
3	5462.29	38.10	5.03	43.13	48.30	5.17	150	210	AV
4	5470.01	37.63	5.04	42.67	48.30	5.63	150	124	AV

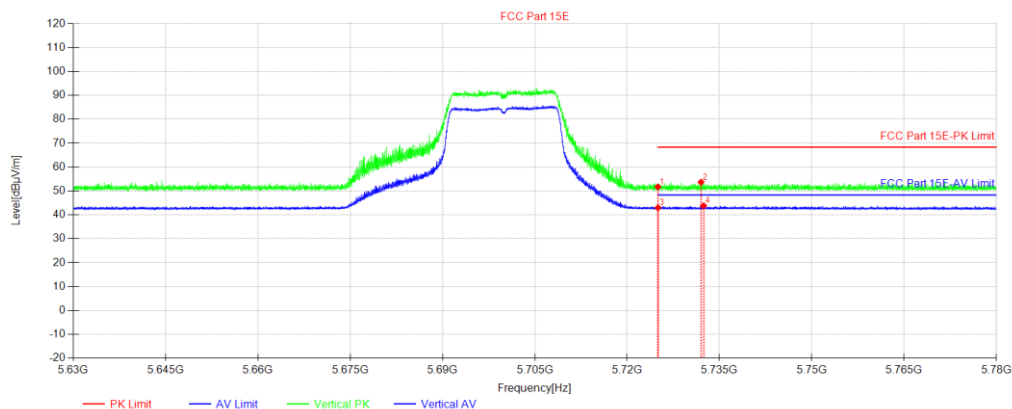
**11N20 5700MHz**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5725.00	46.64	5.21	51.85	68.30	16.45	150	81	PK
2	5732.93	49.09	5.23	54.32	68.30	13.98	150	81	PK
3	5725.00	38.28	5.21	43.49	48.30	4.81	150	287	AV
4	5733.39	38.54	5.23	43.77	48.30	4.53	150	298	AV

Vertical:

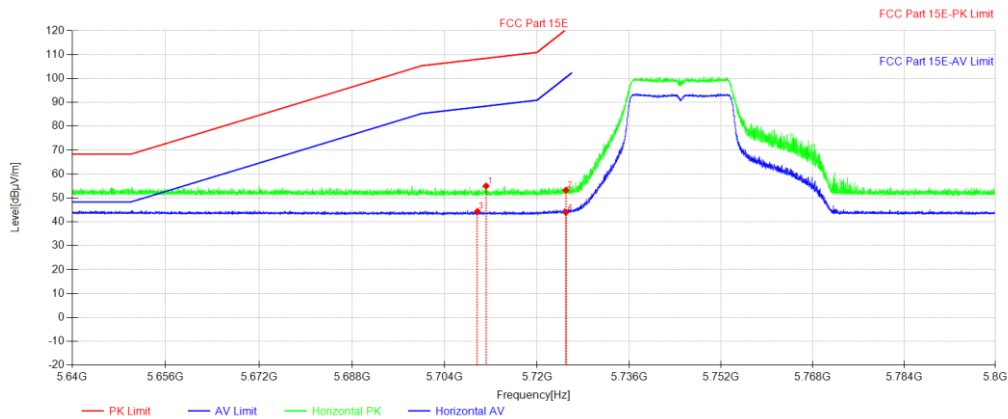


NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5725.00	46.48	5.21	51.69	68.30	16.61	150	205	PK
2	5732.01	48.44	5.23	53.67	68.30	14.63	150	310	PK
3	5725.00	37.77	5.21	42.98	48.30	5.32	150	108	AV
4	5732.43	38.61	5.23	43.84	48.30	4.46	150	60	AV



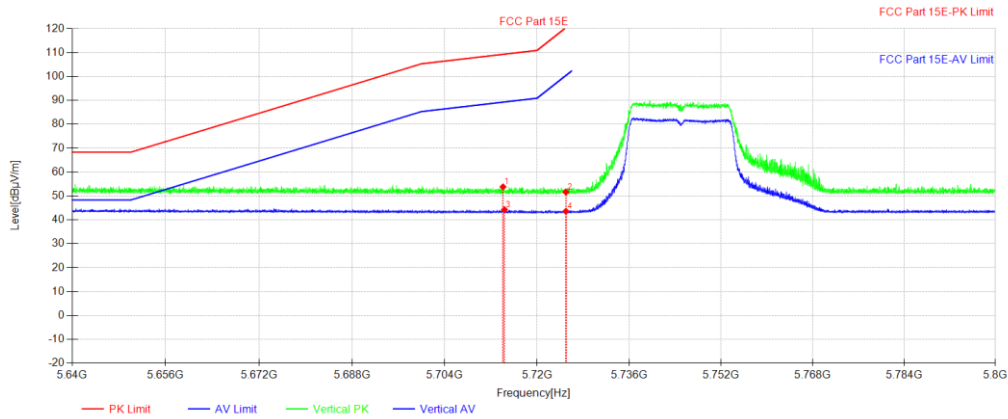
5.8G N20 5745MHz

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5711.18	49.82	5.18	55.00	108.43	53.43	150	359	PK
2	5725.00	48.03	5.21	53.24	120.40	67.16	150	4	PK
3	5709.69	39.21	5.17	44.38	88.01	43.63	150	327	AV
4	5725.00	38.76	5.21	43.97	100.40	56.43	150	316	AV

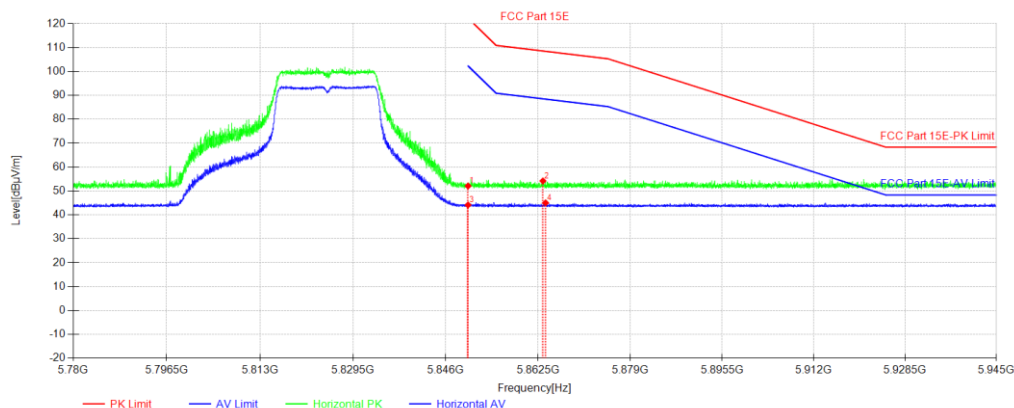
Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5714.10	48.62	5.18	53.80	109.25	55.45	150	2	PK
2	5725.00	46.43	5.21	51.64	120.40	68.76	150	118	PK
3	5714.36	39.09	5.18	44.27	89.32	45.05	150	21	AV
4	5725.00	38.37	5.21	43.58	100.40	56.82	150	184	AV

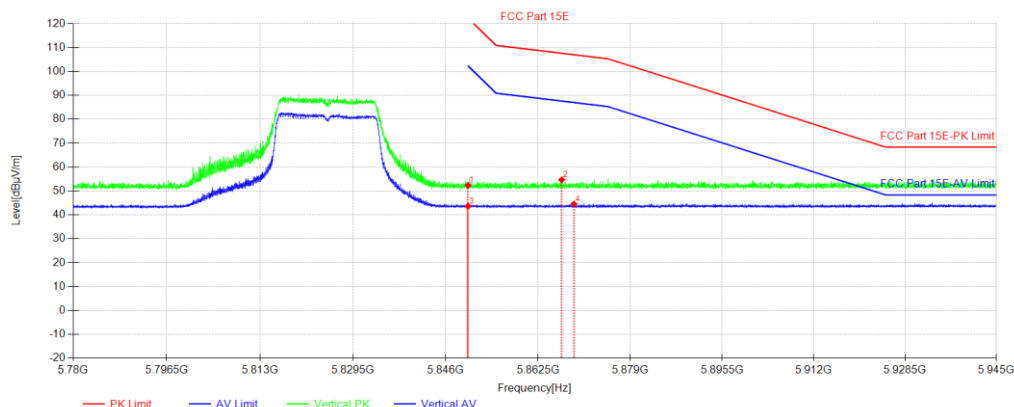
**5.8G N20 5825MHz**

Horizontal:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5850.00	46.58	5.50	52.08	122.30	70.22	150	333	PK
2	5863.37	48.66	5.52	54.18	108.56	54.38	150	318	PK
3	5850.00	38.64	5.50	44.14	102.30	58.16	150	199	AV
4	5863.84	39.50	5.52	45.02	88.42	43.40	150	333	AV

Vertical:



NO.	Freq. [MHz]	Reading Level [dBμV]	Correct Factor [dB/m]	Result Level [dBμV/m]	AV Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5850.00	46.84	5.50	52.34	122.30	69.96	150	67	PK
2	5866.73	49.13	5.53	54.66	107.61	52.95	150	109	PK
3	5850.00	38.11	5.50	43.61	102.30	58.69	150	287	AV
4	5868.91	38.97	5.54	44.51	87.00	42.49	150	157	AV

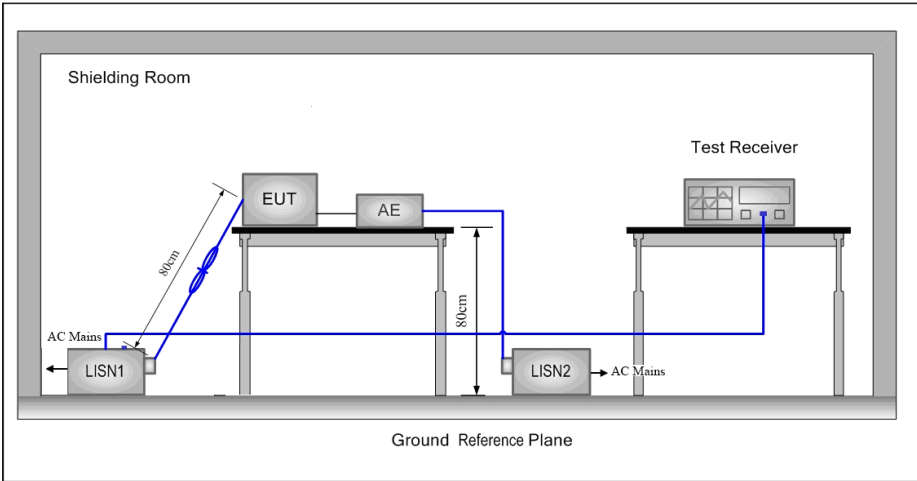
1. The Measurement (Result Level) is calculated by Reading Level adding the Correct Factor(maybe including Ant.Factor and the Cable Factor etc.), The basic equation is as follows:

$$\text{Result Level} = \text{Reading Level} + \text{Correct Factor}(\text{including Ant.Factor, Cable Factor etc.})$$

2. All channels had been pre-test, 802.11n20 is the worst case, only the worst case was reported.



3.10 AC Power Line Conducted Emissions

Test Requirement:	47 CFR Part 15 Section 15.407(b)		
Test Method:	ANSI C63.10: 2020		
Test Frequency Range:	150kHz to 30MHz		
Limit:	Frequency range (MHz)	Limit (dBuV)	
		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.			
Test Procedure:	1) The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu\text{H} + 5\Omega$ linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 2013 on conducted measurement.		
Test Setup:			
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates at lowest, middle and highest channel. Charge + Transmitting mode.		
Final Test Mode:	Through Pre-scan, find the 6.5Mbps of rate of 802.11n(HT20) at lowest		



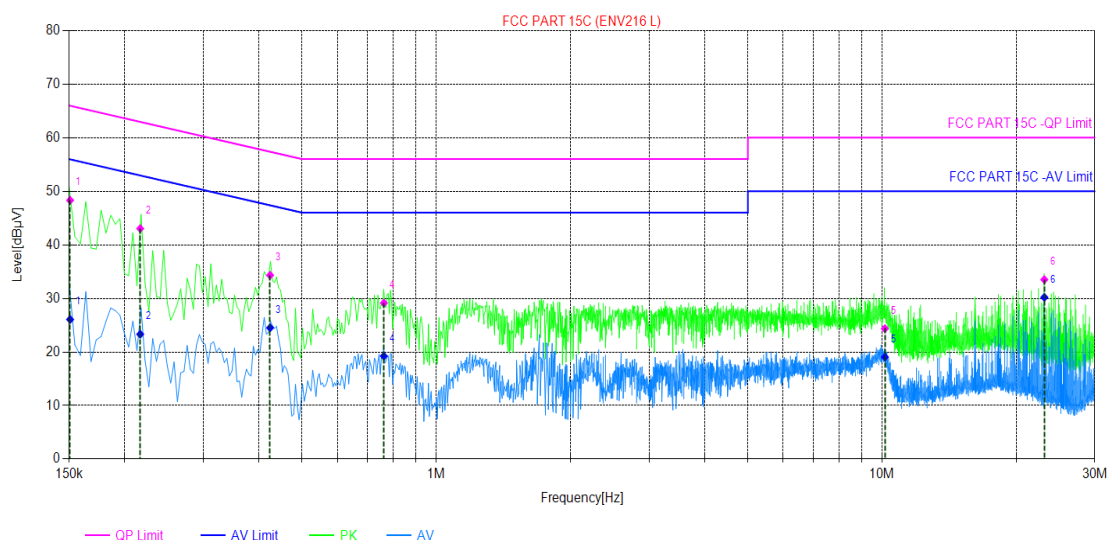
	channel is the worst case. Charge + Transmitting mode. Only the worst case is recorded in the report.
Instruments Used:	Refer to section 2.9 for details
Test Results:	Pass

Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Live Line:

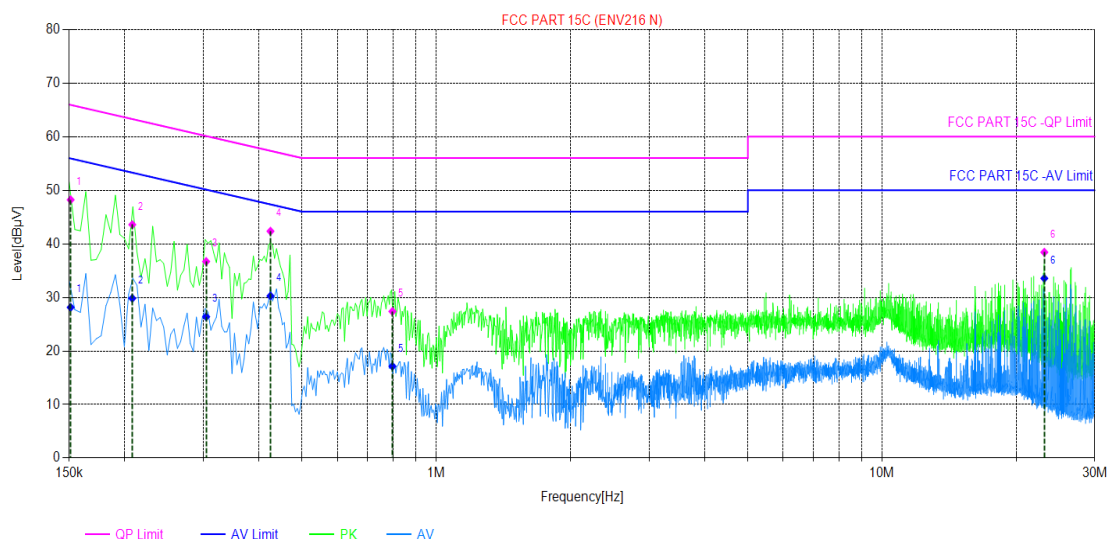


Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.1508	9.89	48.31	65.96	17.65	26.06	55.96	29.90	PASS
2	0.2166	9.92	43.03	62.95	19.92	23.31	52.95	29.64	PASS
3	0.4237	9.80	34.32	57.38	23.06	24.51	47.38	22.87	PASS
4	0.7626	9.75	29.12	56.00	26.88	19.23	46.00	26.77	PASS
5	10.1464	9.86	24.36	60.00	35.64	19.05	50.00	30.95	PASS
6	23.1285	10.18	33.50	60.00	26.50	30.19	50.00	19.81	PASS



Neutral Line:



Final Data List									
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.1512	9.79	48.22	65.93	17.71	28.14	55.93	27.79	PASS
2	0.2079	9.86	43.58	63.29	19.71	29.83	53.29	23.46	PASS
3	0.3045	9.88	36.70	60.12	23.42	26.39	50.12	23.73	PASS
4	0.4245	9.84	42.35	57.36	15.01	30.26	47.36	17.10	PASS
5	0.7970	9.80	27.38	56.00	28.62	17.13	46.00	28.87	PASS
6	23.1286	10.12	38.43	60.00	21.57	33.55	50.00	16.45	PASS

Remark:

1. The 802.11A is the worse case.
2. The following Quasi-Peak and Average measurements were performed on the EUT:
3. The Measurement (Result Level) is calculated by Reading Level adding the Correct Factor(maybe including LISN Factor and the Cable Factor etc.), The basic equation is as follows:

Result Level= Reading Level + Correct Factor(including LISN Factor, Cable Factor etc.)



4 Appendix

Appendix A: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	1.39	1.60	86.88
	Ant2	5180	1.39	1.60	86.88
	Ant1	5200	1.40	1.61	86.96
	Ant2	5200	1.39	1.60	86.88
	Ant1	5240	1.40	1.61	86.96
	Ant2	5240	1.39	1.60	86.88
	Ant1	5260	1.39	1.60	86.88
	Ant2	5260	1.39	1.60	86.88
	Ant1	5280	1.39	1.60	86.88
	Ant2	5280	1.39	1.60	86.88
	Ant1	5320	1.39	1.60	86.88
	Ant2	5320	1.39	1.60	86.88
	Ant1	5500	1.39	1.60	86.88
	Ant2	5500	1.40	1.61	86.96
	Ant1	5580	1.39	1.60	86.88
	Ant2	5580	1.39	1.60	86.88
	Ant1	5700	1.39	1.60	86.88
	Ant2	5700	1.39	1.60	86.88
	Ant1	5745	1.39	1.60	86.88
	Ant2	5745	1.39	1.60	86.88
11N20MIMO	Ant1	5785	1.40	1.61	86.96
	Ant2	5785	1.40	1.61	86.96
	Ant1	5825	1.39	1.60	86.88
	Ant2	5825	1.40	1.61	86.96
	Ant1	5180	1.40	1.61	86.96
	Ant2	5180	1.39	1.60	86.88
	Ant1	5200	1.40	1.61	86.96
	Ant2	5200	1.39	1.60	86.88
	Ant1	5240	1.40	1.61	86.96
	Ant2	5240	1.39	1.60	86.88
	Ant1	5260	1.40	1.61	86.96
	Ant2	5260	1.39	1.60	86.88
	Ant1	5280	1.39	1.60	86.88
	Ant2	5280	1.39	1.60	86.88
	Ant1	5320	1.40	1.61	86.96
	Ant2	5320	1.40	1.61	86.96
	Ant1	5500	1.39	1.60	86.88
	Ant2	5500	1.39	1.60	86.88
	Ant1	5580	1.39	1.60	86.88
	Ant2	5580	1.39	1.60	86.88
11N40MIMO	Ant1	5700	1.39	1.60	86.88
	Ant2	5700	1.40	1.61	86.96
	Ant1	5745	1.40	1.61	86.96
	Ant2	5745	1.39	1.60	86.88
	Ant1	5785	1.39	1.60	86.88
	Ant2	5785	1.39	1.60	86.88
	Ant1	5825	1.40	1.61	86.96
	Ant2	5825	1.39	1.60	86.88
	Ant1	5190	0.35	0.41	85.37
	Ant2	5190	0.35	0.41	85.37
	Ant1	5230	0.35	0.41	85.37
	Ant2	5230	0.35	0.40	87.50
	Ant1	5270	0.35	0.40	87.50
	Ant2	5270	0.35	0.41	85.37
	Ant1	5310	0.35	0.41	85.37
	Ant2	5310	0.35	0.41	85.37
	Ant1	5510	0.35	0.41	85.37
	Ant2	5510	0.35	0.40	87.50

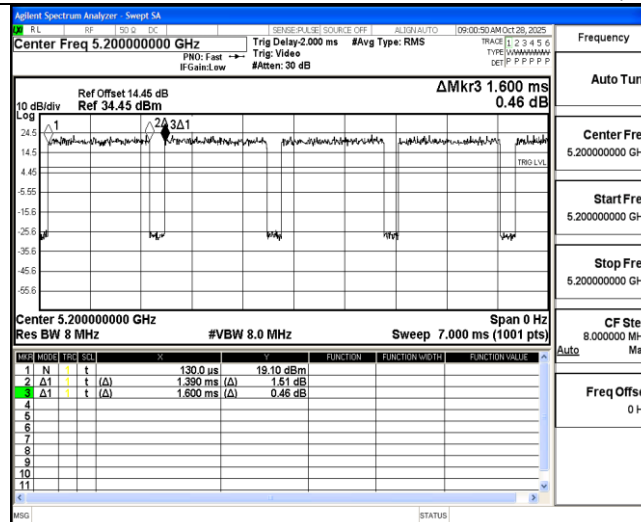


	Ant1	5550	0.35	0.41	85.37
	Ant2	5550	0.34	0.40	85.00
	Ant1	5670	0.34	0.40	85.00
	Ant2	5670	0.35	0.41	85.37
	Ant1	5755	0.35	0.41	85.37
	Ant2	5755	0.35	0.41	85.37
	Ant1	5795	0.35	0.41	85.37
	Ant2	5795	0.34	0.40	85.00
11AC20MIMO	Ant1	5180	0.08	0.14	57.14
	Ant2	5180	0.08	0.14	57.14
	Ant1	5200	0.08	0.14	57.14
	Ant2	5200	0.08	0.14	57.14
	Ant1	5240	0.08	0.13	61.54
	Ant2	5240	0.08	0.13	61.54
	Ant1	5260	0.08	0.14	57.14
	Ant2	5260	0.08	0.14	57.14
	Ant1	5280	0.08	0.14	57.14
	Ant2	5280	0.08	0.13	61.54
	Ant1	5320	0.08	0.14	57.14
	Ant2	5320	0.08	0.14	57.14
	Ant1	5500	0.08	0.14	57.14
	Ant2	5500	0.08	0.13	61.54
	Ant1	5580	0.08	0.13	61.54
	Ant2	5580	0.08	0.13	61.54
	Ant1	5700	0.08	0.13	61.54
	Ant2	5700	0.08	0.13	61.54
	Ant1	5745	0.08	0.14	57.14
	Ant2	5745	0.08	0.13	61.54
	Ant1	5785	0.08	0.13	61.54
	Ant2	5785	0.08	0.13	61.54
	Ant1	5825	0.08	0.14	57.14
	Ant2	5825	0.08	0.14	57.14
11AC40MIMO	Ant1	5190	0.07	0.13	53.85
	Ant2	5190	0.07	0.13	53.85
	Ant1	5230	0.08	0.13	61.54
	Ant2	5230	0.07	0.13	53.85
	Ant1	5270	0.08	0.13	61.54
	Ant2	5270	0.08	0.13	61.54
	Ant1	5310	0.07	0.13	53.85
	Ant2	5310	0.07	0.13	53.85
	Ant1	5510	0.07	0.13	53.85
	Ant2	5510	0.07	0.13	53.85
	Ant1	5550	0.07	0.13	53.85
	Ant2	5550	0.07	0.13	53.85
	Ant1	5670	0.07	0.13	53.85
	Ant2	5670	0.07	0.13	53.85
	Ant1	5755	0.07	0.13	53.85
	Ant2	5755	0.08	0.13	61.54
	Ant1	5795	0.07	0.13	53.85
	Ant2	5795	0.08	0.13	61.54
11AC80MIMO	Ant1	5210	0.06	0.11	54.55
	Ant2	5210	0.06	0.12	50.00
	Ant1	5290	0.06	0.12	50.00
	Ant2	5290	0.06	0.12	50.00
	Ant1	5530	0.06	0.12	50.00
	Ant2	5530	0.06	0.12	50.00
	Ant1	5610	0.06	0.12	50.00
	Ant2	5610	0.06	0.11	54.55
11AC160MIMO	Ant1	5775	0.06	0.12	50.00
	Ant2	5775	0.06	0.12	50.00
	Ant1	5250	0.06	0.12	50.00
	Ant2	5250	0.06	0.11	54.55
11AX20MIMO	Ant1	5570	0.06	0.12	50.00
	Ant2	5570	0.05	0.11	45.45
	Ant1	5180	0.19	0.25	76.00
	Ant2	5180	0.19	0.25	76.00

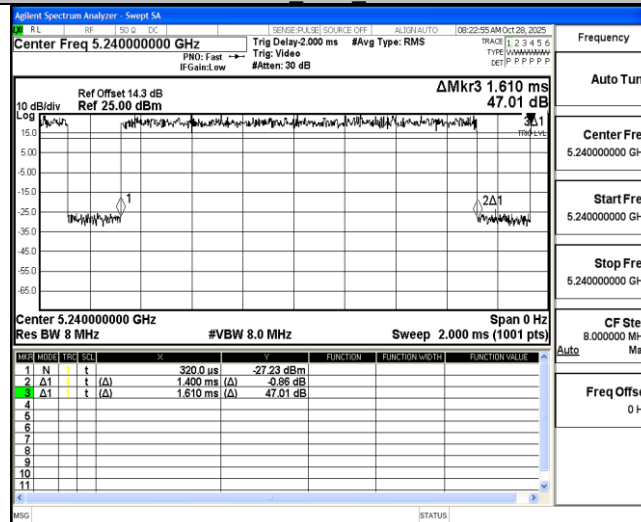


	Ant1	5200	0.19	0.25	76.00
	Ant2	5200	0.19	0.25	76.00
	Ant1	5240	0.19	0.24	79.17
	Ant2	5240	0.19	0.25	76.00
	Ant1	5260	0.19	0.25	76.00
	Ant2	5260	0.18	0.24	75.00
	Ant1	5280	0.19	0.25	76.00
	Ant2	5280	0.18	0.24	75.00
	Ant1	5320	0.13	0.19	68.42
	Ant2	5320	0.12	0.18	66.67
	Ant1	5500	0.12	0.18	66.67
	Ant2	5500	0.13	0.19	68.42
	Ant1	5580	0.12	0.18	66.67
	Ant2	5580	0.13	0.19	68.42
	Ant1	5700	0.13	0.19	68.42
	Ant2	5700	0.12	0.18	66.67
	Ant1	5745	0.12	0.18	66.67
	Ant2	5745	0.12	0.18	66.67
	Ant1	5785	0.12	0.18	66.67
	Ant2	5785	0.12	0.18	66.67
11AX40MIMO	Ant1	5825	0.12	0.18	66.67
	Ant2	5825	0.13	0.19	68.42
	Ant1	5190	0.19	0.24	79.17
	Ant2	5190	0.19	0.25	76.00
	Ant1	5230	0.12	0.18	66.67
	Ant2	5230	0.12	0.17	70.59
	Ant1	5270	0.11	0.17	64.71
	Ant2	5270	0.11	0.17	64.71
	Ant1	5310	0.12	0.18	66.67
	Ant2	5310	0.11	0.17	64.71
	Ant1	5510	0.12	0.17	70.59
	Ant2	5510	0.11	0.17	64.71
	Ant1	5550	0.11	0.17	64.71
	Ant2	5550	0.11	0.17	64.71
	Ant1	5670	0.12	0.18	66.67
	Ant2	5670	0.12	0.18	66.67
11AX80MIMO	Ant1	5755	0.12	0.18	66.67
	Ant2	5755	0.12	0.17	70.59
	Ant1	5795	0.12	0.17	70.59
	Ant2	5795	0.12	0.17	70.59
	Ant1	5210	0.12	0.17	70.59
	Ant2	5210	0.11	0.17	64.71
	Ant1	5290	0.12	0.17	70.59
	Ant2	5290	0.12	0.17	70.59
11AX160MIMO	Ant1	5530	0.11	0.17	64.71
	Ant2	5530	0.11	0.17	64.71
	Ant1	5610	0.12	0.17	70.59
	Ant2	5610	0.12	0.17	70.59
	Ant1	5775	0.11	0.17	64.71
	Ant2	5775	0.12	0.17	70.59
	Ant1	5250	0.12	0.18	66.67
	Ant2	5250	0.13	0.18	72.22
	Ant1	5570	0.12	0.18	66.67
	Ant2	5570	0.12	0.18	66.67

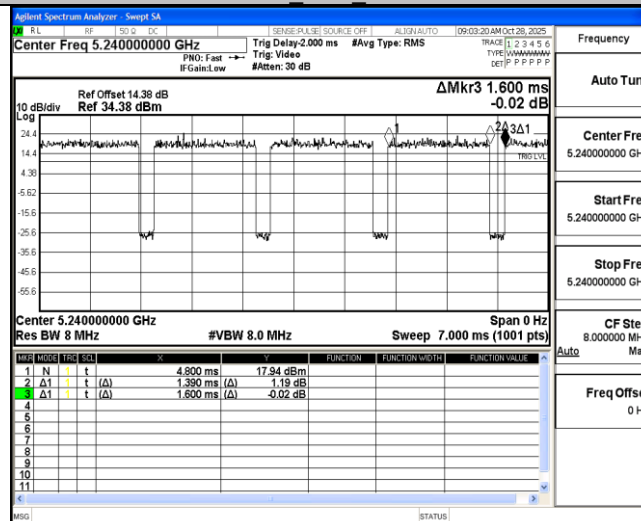




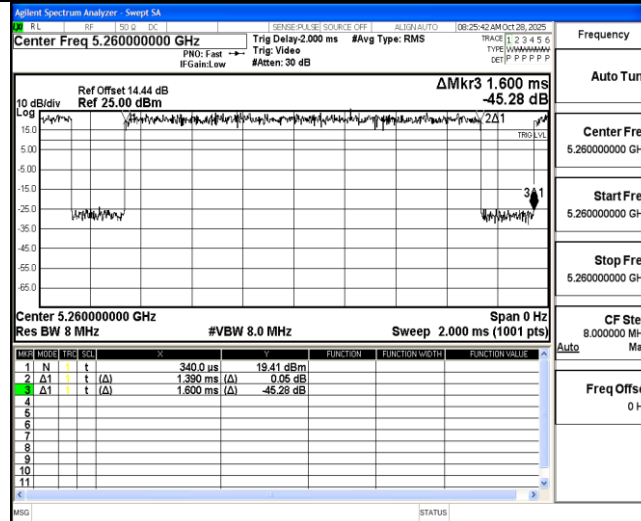
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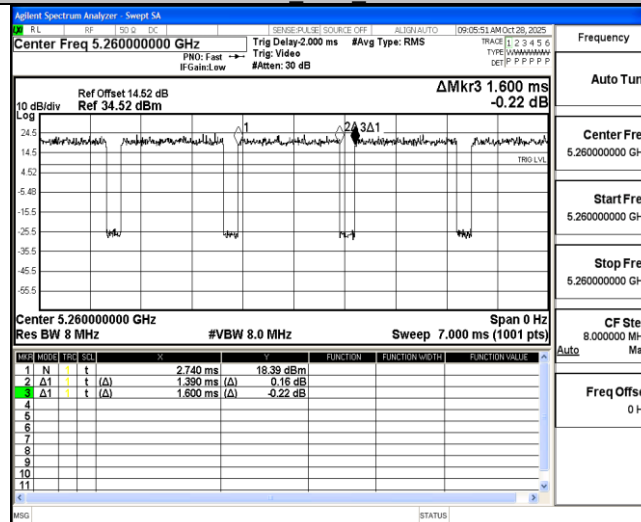
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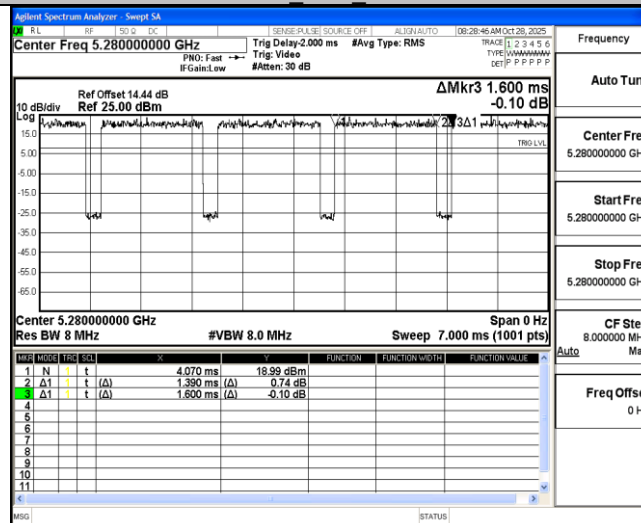
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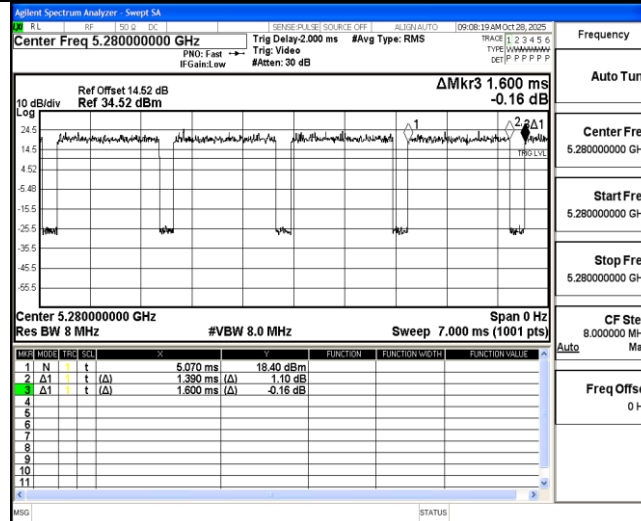
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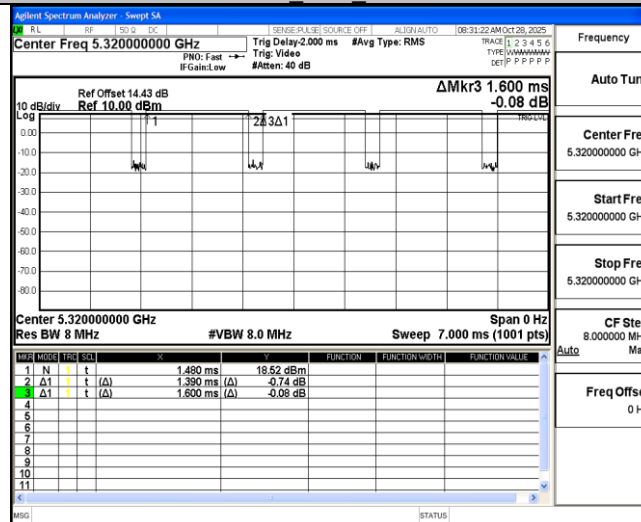
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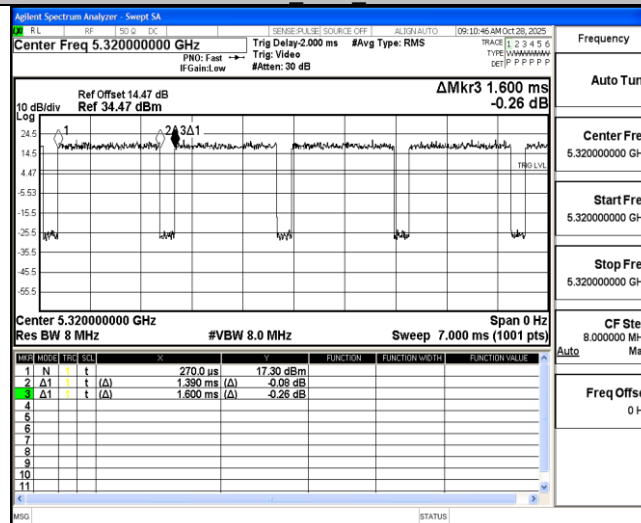
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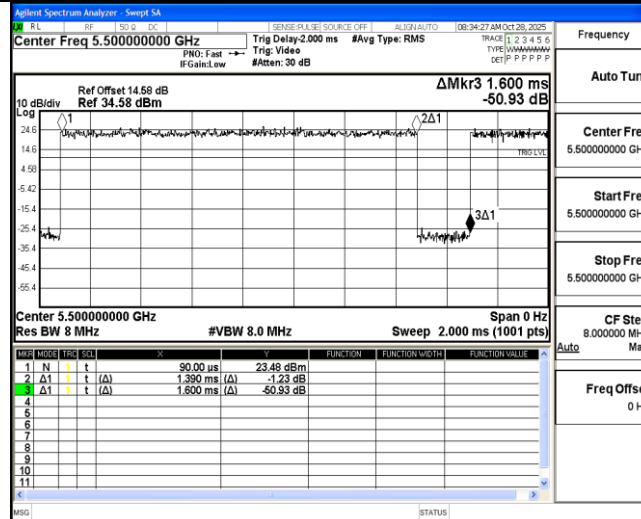
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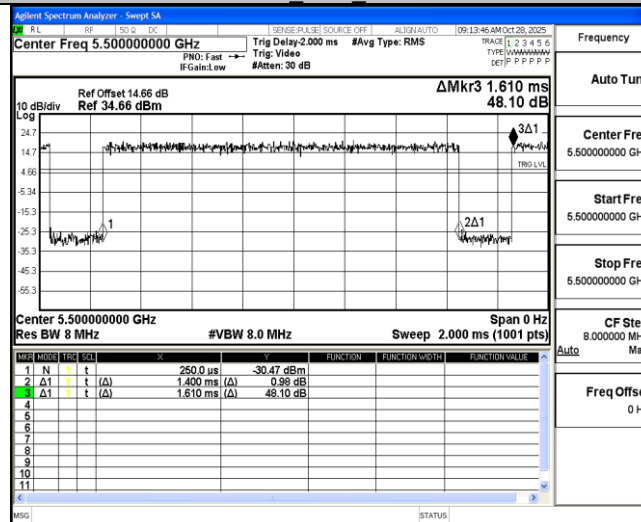
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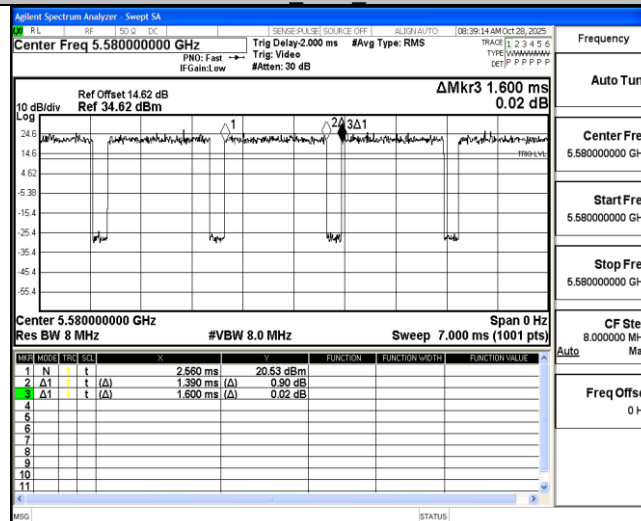
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11A Ant2 5500



11A Ant1 5580



11A Ant2 5580