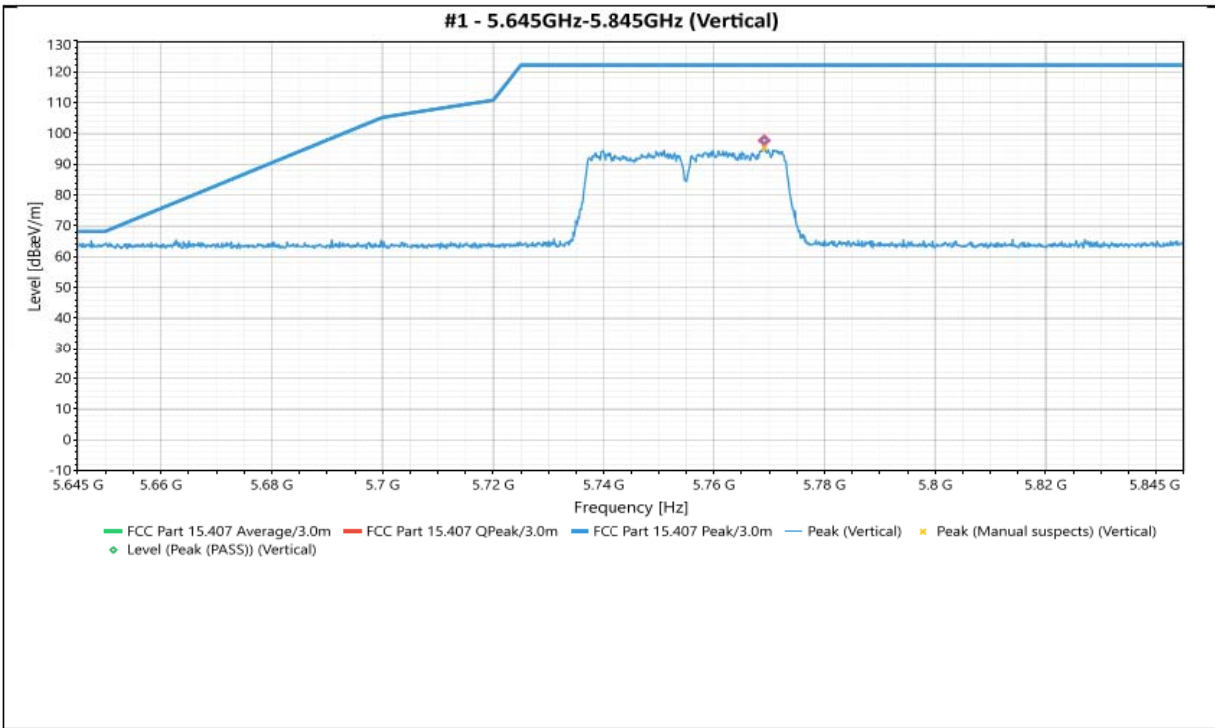


RESTRICTED BAND Test Plots
802.11n HT20 – 5755MHz

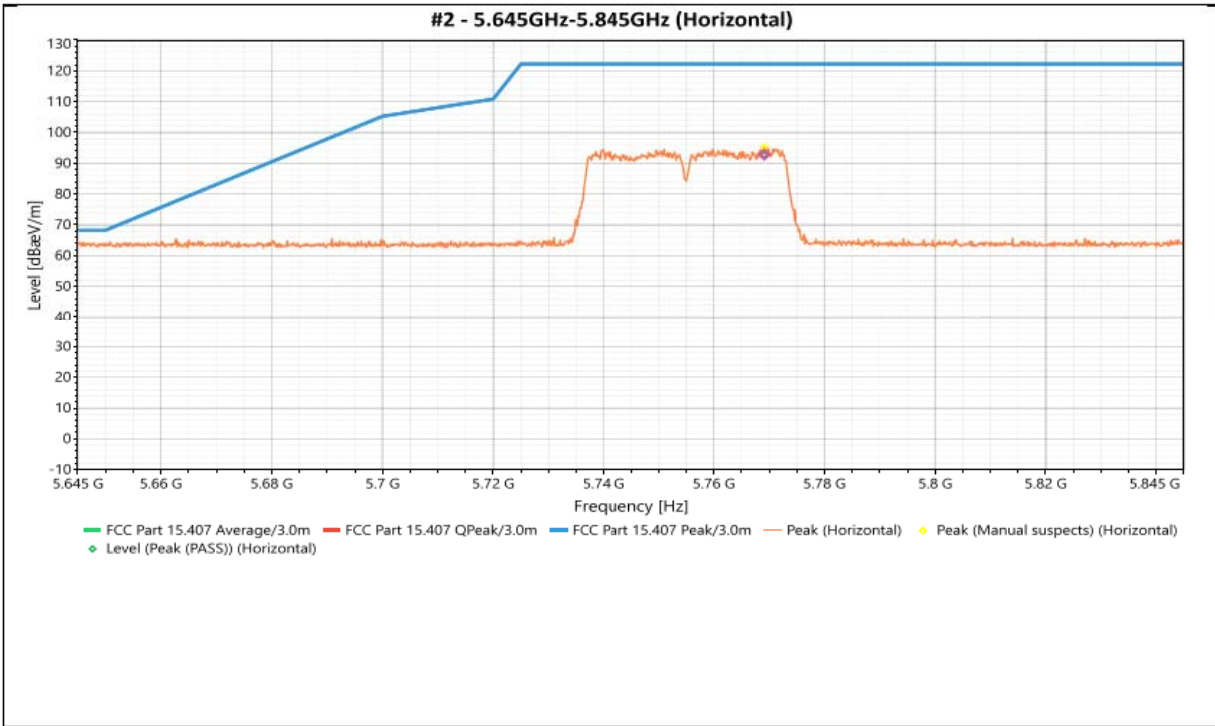


Antenna Polarity & Test Distance: Vertical at 3m										
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit Peak dB(uV/m)	Limit Avg dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5769.16	Vertical	95.254	122.23	NaN	NaN	2	0	43.64	Peak (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11n HT 40– 5755MHz

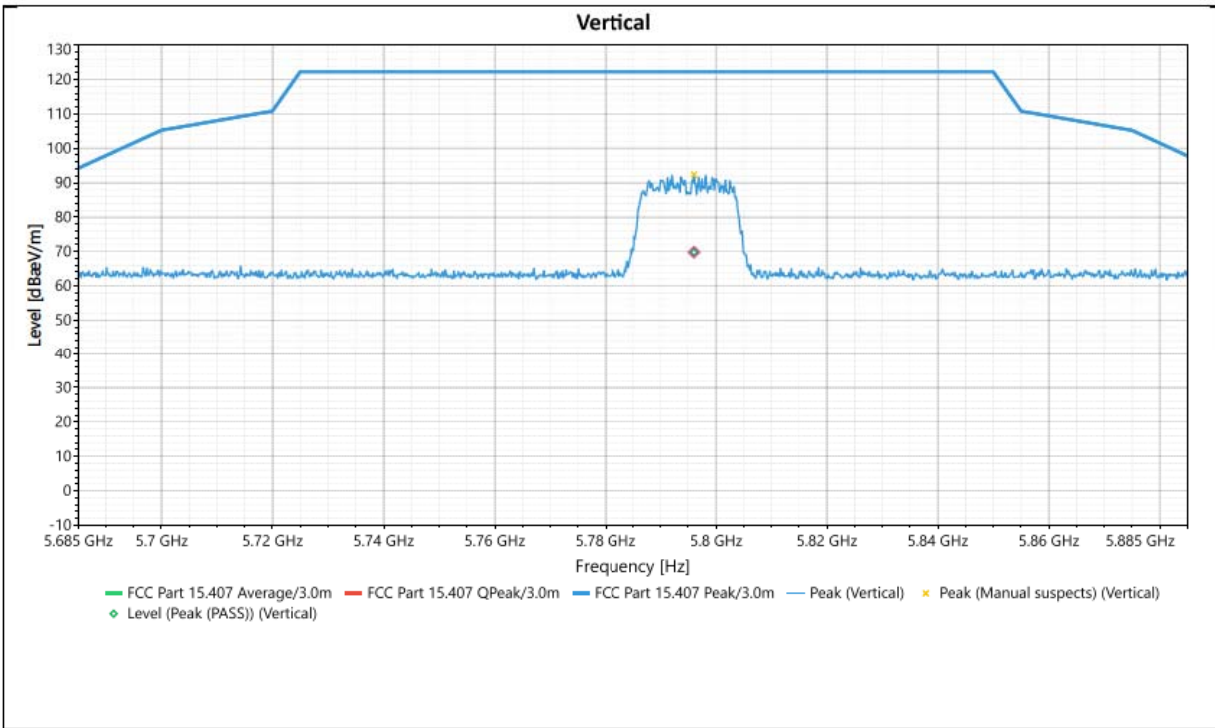


Antenna Polarity & Test Distance: Vertical at 3m										
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit Peak dB(uV/m)	Limit Avg dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5769.16	Vertical	95.272	122.23	NaN	NaN	2	0	43.65	Peak (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11n HT40 – 5775MHz

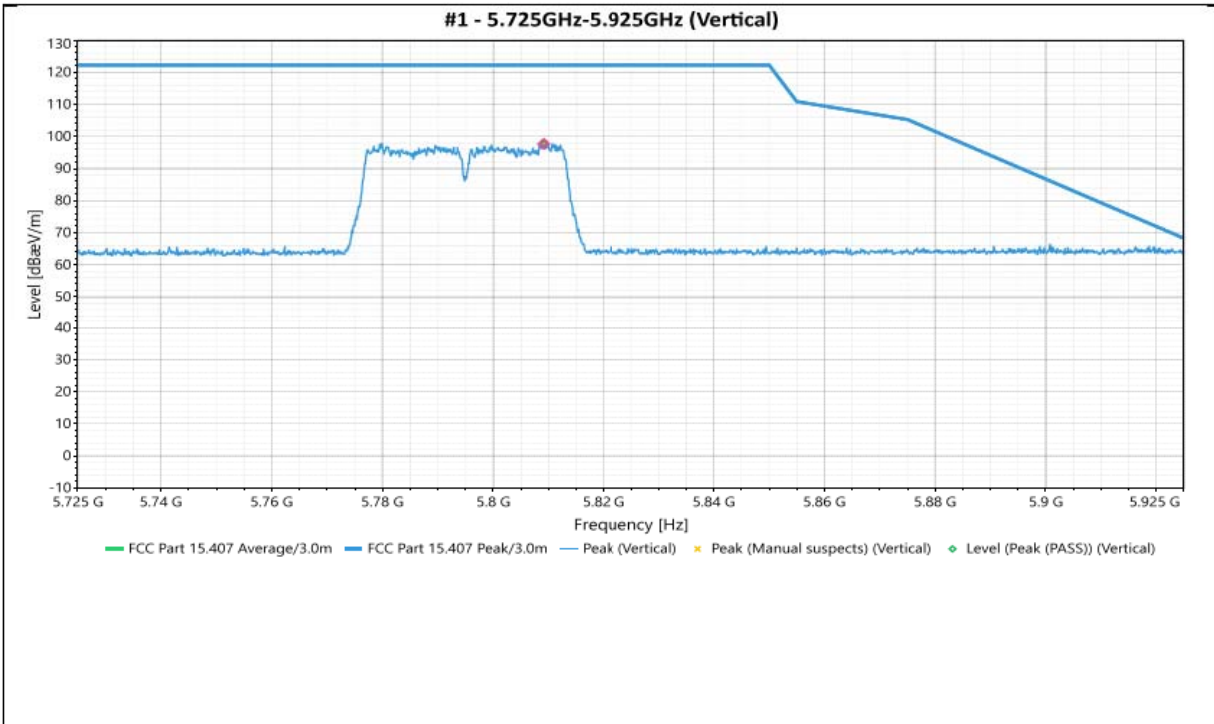


Antenna Polarity & Test Distance: Vertical at 3m										
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit Peak dB(uV/m)	Limit Avg dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5796.082	Vertical	69.796	122.23	NaN	-52.434	1.58	110	40.8	Peak (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11n HT40 – 5775MHz

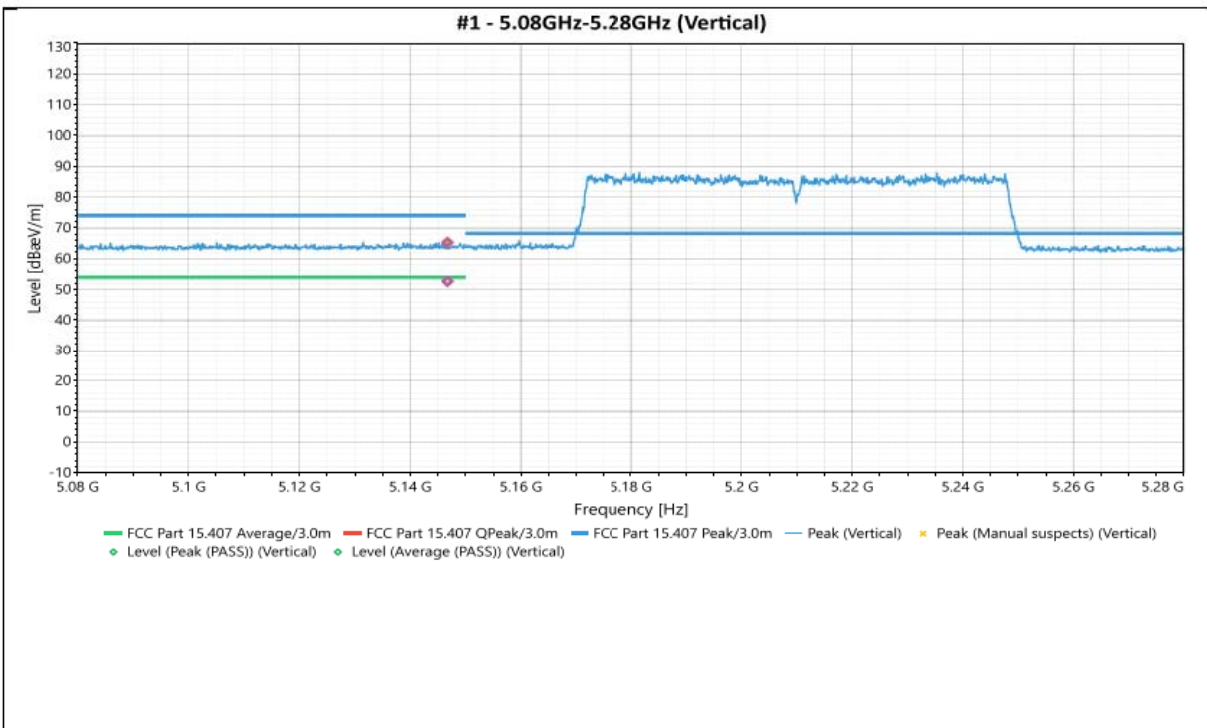


Antenna Polarity & Test Distance: Vertical at 3m										
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit Peak dB(uV/m)	Limit Avg dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5809.16	Horizontal	98.027	122.23	NaN	NaN	2.5	0	43.72	Peak (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11ac 80 – 5210MHz

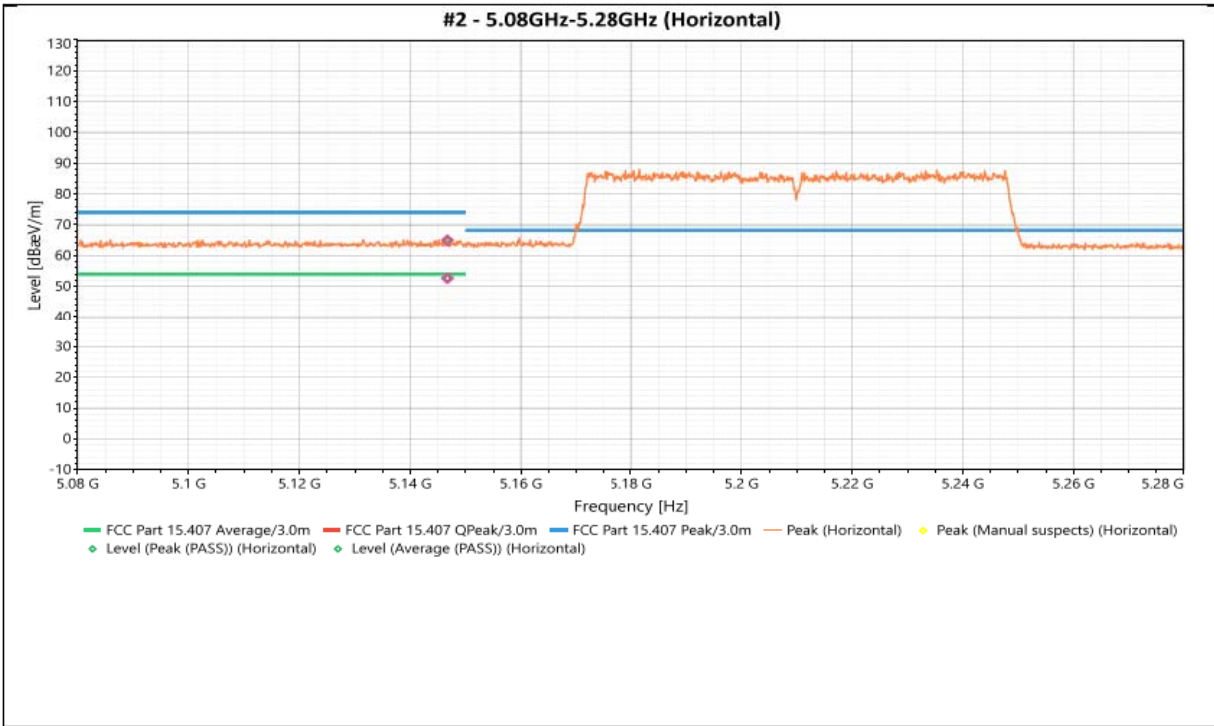


Antenna Polarity & Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5146.73	Vertical	65.24	74	-8.76	1.4	152	42.94	Peak (PASS)
2	5146.73	Vertical	52.673	54	-1.327	1.4	152	42.94	Average (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11ac 80 – 5210MHz

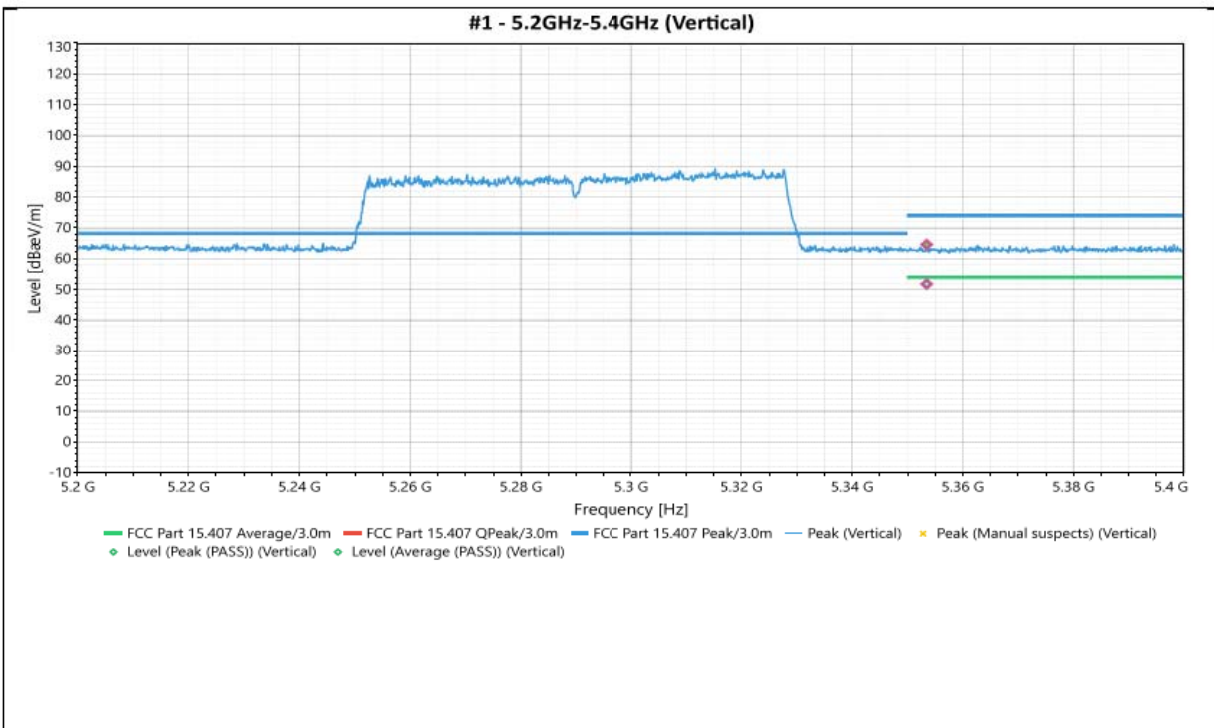


Antenna Polarity & Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Polarization	Level [dB(μV/m)]	Limit dB(μV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5146.73	Horizontal	65.004	74	-8.996	1.17	1	42.89	Peak (PASS)
2	5146.73	Horizontal	52.653	54	-1.347	1.17	1	42.89	Average (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11ac 80 – 5290MHz

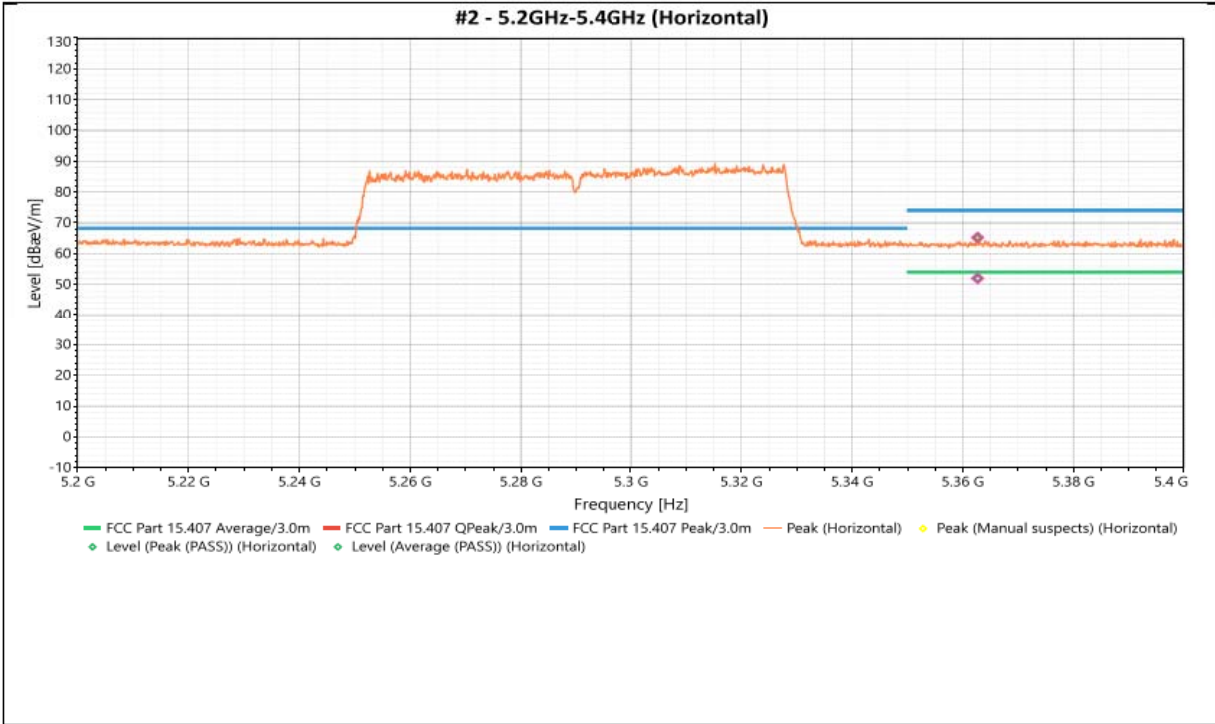


Antenna Polarity & Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5353.49	Vertical	64.541	74	-9.459	1.83	252	43.11	Peak (PASS)
2	5353.49	Vertical	51.773	54	-2.227	1.83	252	43.11	Average (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11ac 40 – 5290MHz

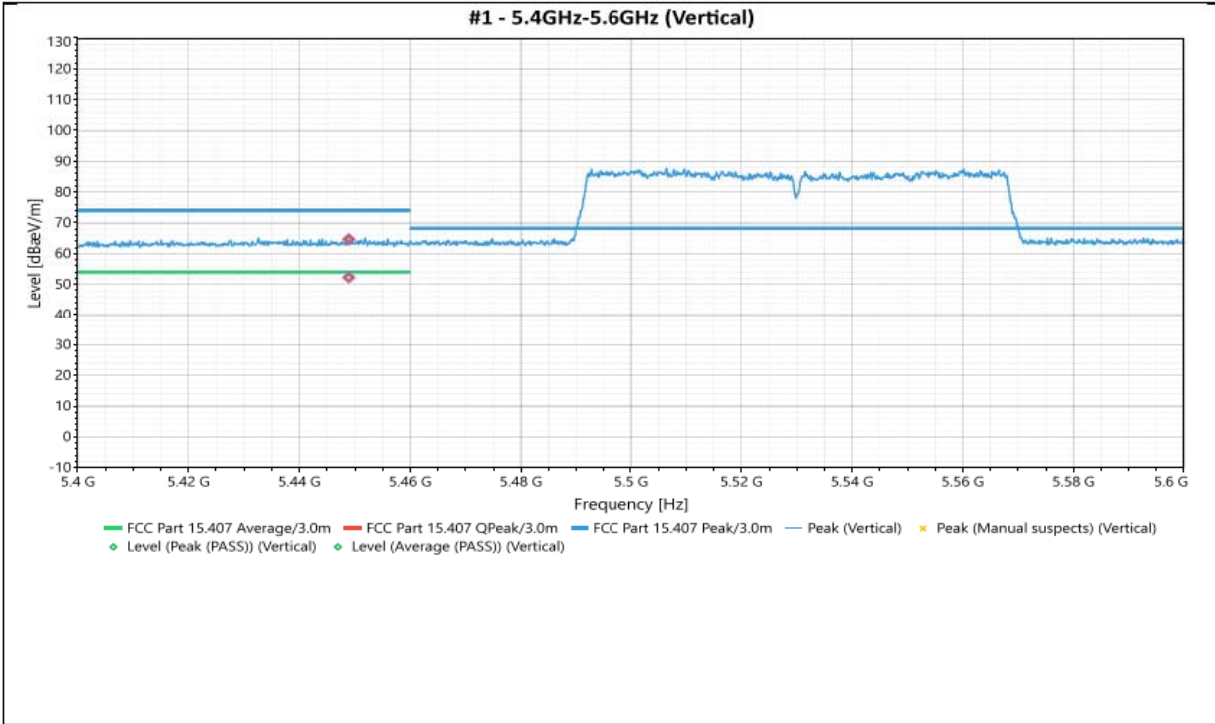


Antenna Polarity & Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5362.69	Horizontal	65.184	74	-8.816	2.97	22	43.13	Peak (PASS)
2	5362.69	Horizontal	51.978	54	-2.022	2.97	22	43.13	Average (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11 ac 80 – 5530MHz

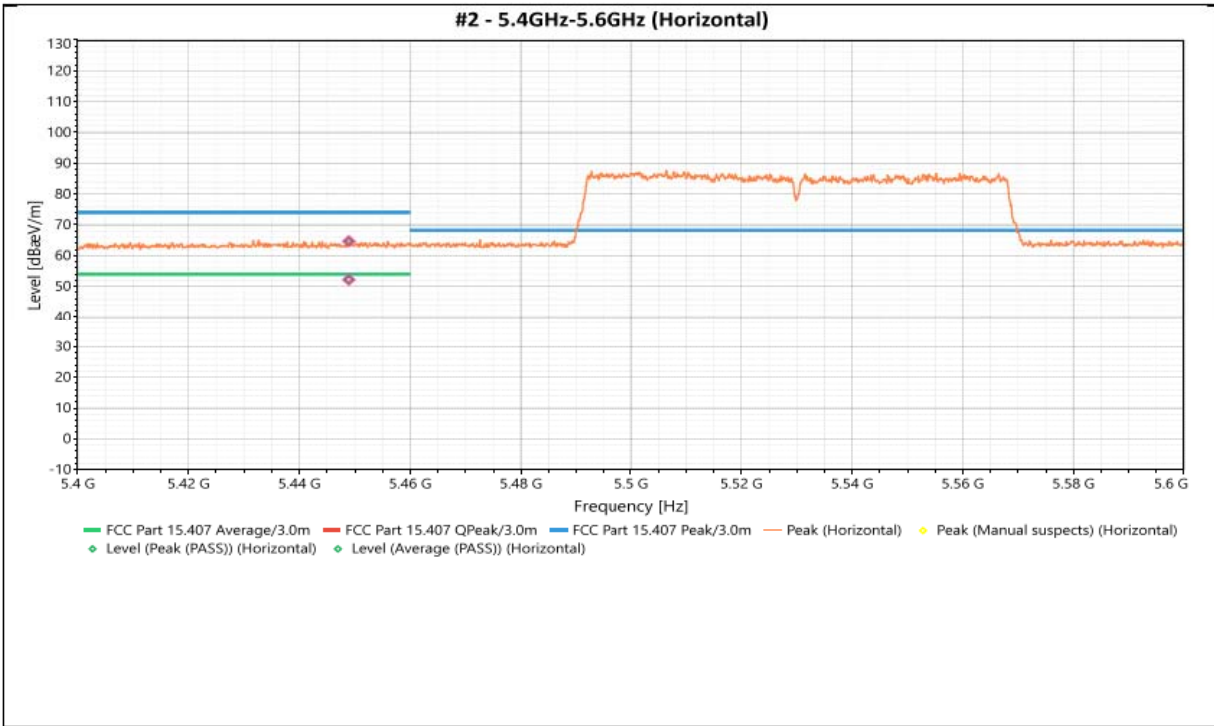


Antenna Polarity & Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5448.93	Vertical	64.691	74	-9.309	2.79	29	43.27	Peak (PASS)
2	5448.93	Vertical	52.257	54	-1.743	2.79	29	43.27	Average (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11 ac 80 – 5530MHz

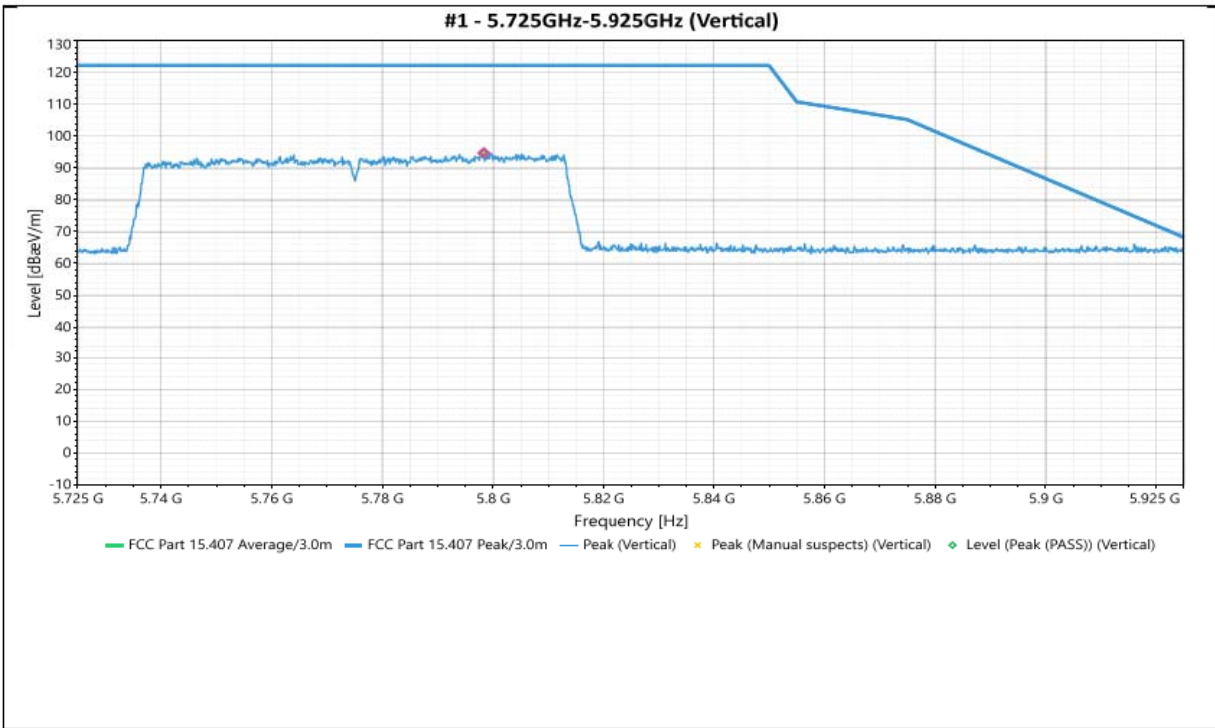


Antenna Polarity & Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5448.93	Horizontal	64.69	74	-9.31	1.29	246	43.23	Peak (PASS)
2	5448.93	Horizontal	52.202	54	-1.798	1.29	246	43.23	Average (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11 ac 80 – 5775MHz

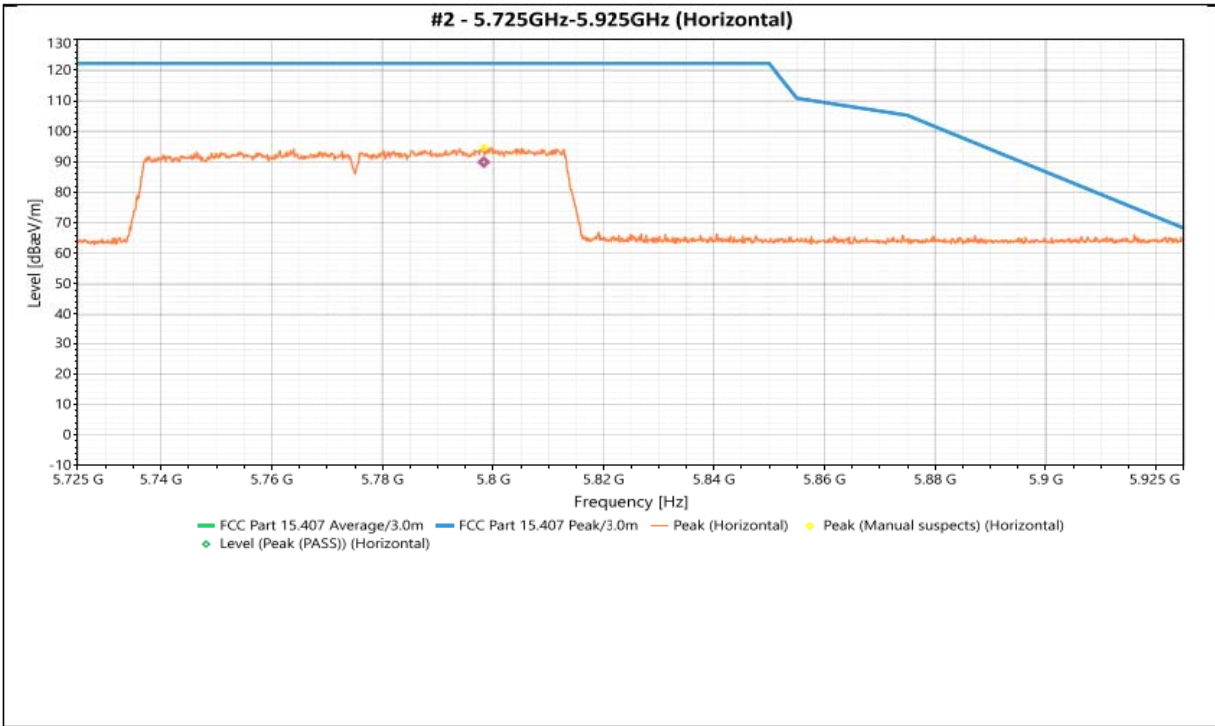


Antenna Polarity & Test Distance: Vertical at 3m										
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit Peak dB(uV/m)	Limit Avg dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5798.32	Vertical	94.593	122.23	NaN	NaN	2.5	0	43.69	Peak (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

RESTRICTED BAND Test Plots
802.11 ac 80– 5775MHz



Antenna Polarity & Test Distance: Vertical at 3m										
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit Peak dB(uV/m)	Limit Avg dB(uV/m)	Margin [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	5798.32	Vertical	94.622	122.23	NaN	NaN	2.5	0	43.72	Peak (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin agains

3.4 Conducted Emission Measurement

3.4.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3.4.2 Test Instruments

MET Asset #	Equipment	Manufacturer	Model	Last Cal Date	Cal Due Date
1S2488	Screen Room	Universal	Custom Made	Not Required	Not Required
1S4818	Digital Barometer	Control Company	6530. 68000-49	05/04/2022	05/04/2024
4U1668	True RMS Multimeter with Remote Display	Fluke	233	04/03/2023	04/03/2025
1S3898	Voltage Regulator	Volteq	TDGC2-5kVA	See Note	See Note
1S3809	EMI Receiver	Narda Safety Test Solutions	PMM 9010F	10/12/2022	10/12/2023
1S4781	Transient Limiter	Fischer Custom Communications, Inc.	450B-2.4-BNC	See Note	See Note
1U0337	LISN	Com-Power	LI-215A	10/12/2022	10/12/2023
1S2659	Impedance Stabilization Network (ISN)	Fischer Custom Communications, Inc.	F-071115-1057-1-09	04/06/2023	04/06/2024
1S54005	Micro-Ohmmeter	NDB Technologies, Inc.	DRM-1A	11/21/2022	11/21/2023
1S4852	Radio Communicator Analyzer	Anritsu	MT8821C	04/10/2023	04/10/2024

3.4.3 Test Procedure

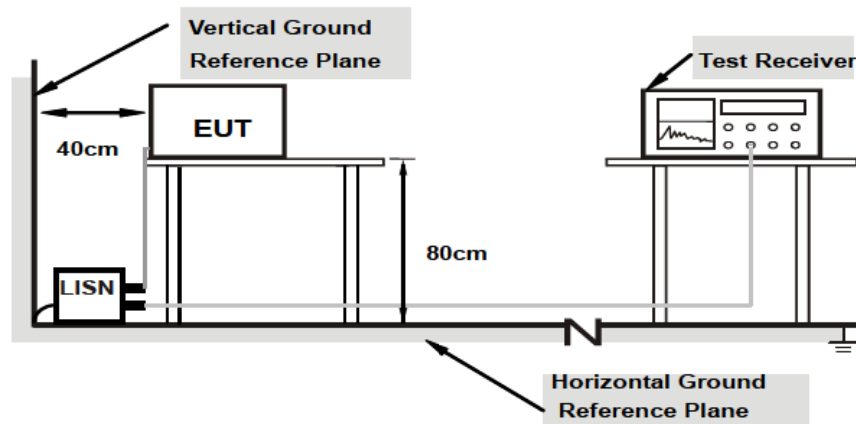
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

3.4.4 Deviation from Test Standard

No deviation.

3.4.5 Test Setup



Note: 1. Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).
2. Both LISNs are 40m away from the EUT and at least 80cm from other units and other metal planes

3.4.6 EUT Operating Condition

Same as 4.1.6.

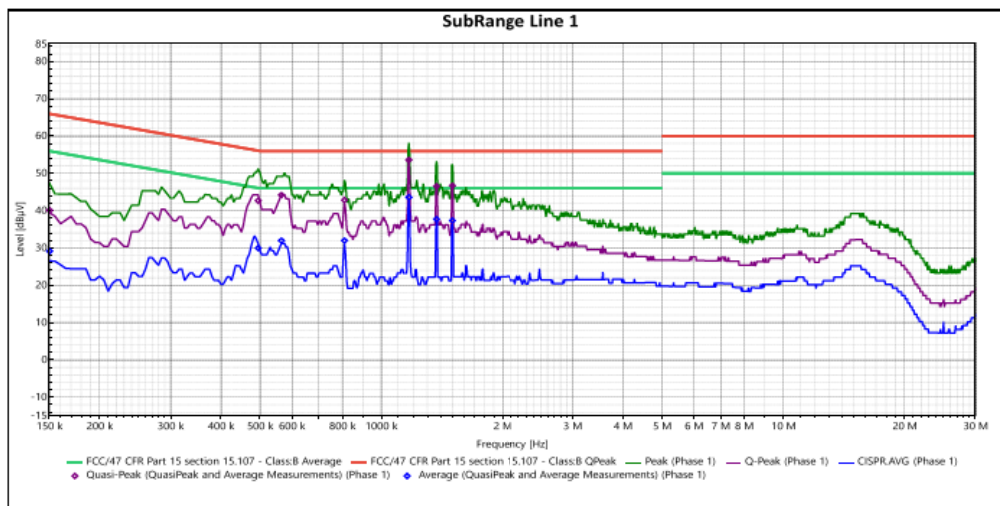
3.4.7 Test Results

Frequency Range	0.15-30 MHz	Phase	Line
Input Power	120 Vac	Environmental Conditions	24 °C, 48% RH
Tested by	Richard Dollente	Test Date	04/22/2023
Test Mode	Mode 1		

Line	Frequency	QP Amplitude (dBμV)	QP Limit (dBμV)	QP Margin (dB)	Pass/Fail	Average Amplitude (dBμV)	Average Limit (dBμV)	Average Margin (dB)	Pass/Fail
Phase 1	150 kHz	40.12	66	-25.88	Pass	29.15	56	-26.85	Pass
Phase 1	495 kHz	42.683	56.083	-13.4	Pass	29.993	46.083	-16.09	Pass
Phase 1	565 kHz	44.187	56	11.813	Pass	31.987	46	-14.013	Pass
Phase 1	810 kHz	42.857	56	-13.143	Pass	31.987	46	-14.013	Pass
Phase 1	1.17 MHz	53.603	56	-2.397	Pass	43.623	46	-2.377	Pass
Phase 1	1.37 MHz	46.581	56	-9.419	Pass	37.721	46	-8.279	Pass

Remark:

1. The emission levels of other frequencies were very low against the limit.
2. Margin value = Emission level – Limit value
3. Emission Level = Correction Factor + Reading Value

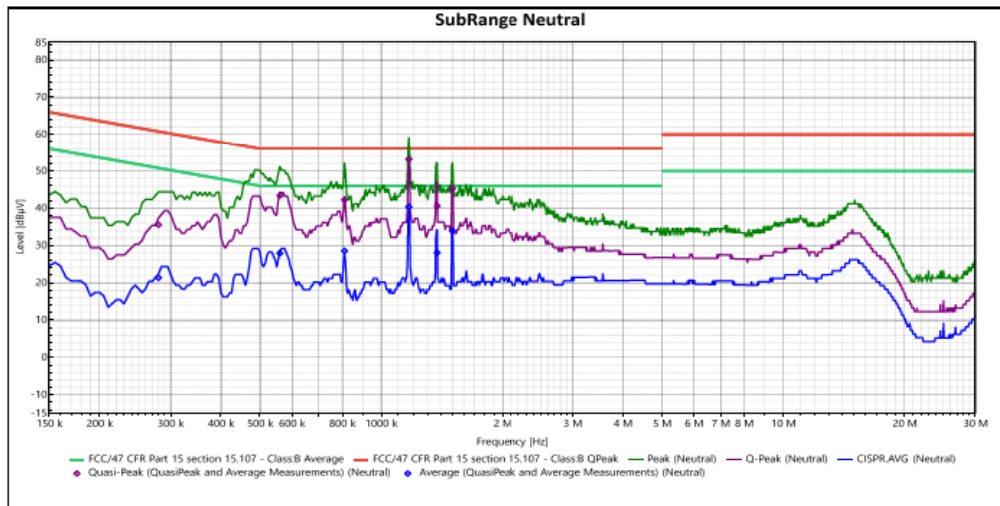


Frequency Range	0.15-30 MHz	Phase	Neutral
Input Power	120 Vac	Environmental Conditions	24 °C, 48% RH
Tested by	Richard Dollente	Test Date	04/20/2023
Test Mode	Mode 1		

Line	Frequency	QP Amplitude (dBμV)	QP Limit (dBμV)	QP Margin (dB)	Pass/Fail	Average Amplitude (dBμV)	Average Limit (dBμV)	Average Margin (dB)	Pass/Fail
Neutral	280 kHz	35.566	60.816	-25.25	Pass	21.356	50.816	-29.46	Pass
Neutral	560 kHz	43.378	56	-12.622	Pass	27.958	46	-18.042	Pass
Neutral	810 kHz	42.197	56	-13.803	Pass	28.577	46	-17.423	Pass
Neutral	1.17 MHz	53.163	56	-2.837	Pass	40.363	46	-5.637	Pass
Neutral	1.375 MHz	40.602	56	-15.398	Pass	28.092	46	-17.908	Pass
Neutral	1.5 MHz	45.279	56	-10.721	Pass	33.979	46	-12.021	Pass

Remark:

1. The emission levels of other frequencies were very low against the limit.
2. Margin value = Emission level – Limit value
3. Emission Level = Correction Factor + Reading Value



4 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

--- END ---