

WLAN TEST REPORT

Report Number: 103419539LEX-001
Project Number: G103419539

Report Issue Date: 4/3/2018

Product Name: Power Zone Display

FCC Standards: FCC Title 47 CFR Part 15.247
FCC Title 47 CFR Part 15.407

Industry Canada Standards: RSS-247 Issue 2 and RSS-Gen Issue 4

Tested by:
Intertek Testing Services NA, Inc.
731 Enterprise Drive
Lexington, KY 40510

Client:
Generac Power Systems, Inc.
S45 W29290 Hwy 59
Waukesha, WI 53189

Report prepared by



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Report reviewed by



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1 Introduction and Conclusion

The tests indicated in section 2 were performed on the product constructed as described in section 3 in support of a Class II Permissive Change (C2PC) utilizing the AzureWave Technologies module with FCCID TLZ-CM389NF (ICID 6100A-CM389NF). The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test method, a list of the actual test equipment used, documentation photos, results and raw data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested complied with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested.

The INTERTEK-Lexington is located at 731 Enterprise Drive, Lexington Kentucky, 40510. The radiated emission test site is a 10-meter semi-anechoic chamber. The chamber meets the characteristics of CISPR 16-1 and ANSI C63.4. For measurements, a remotely controlled flush-mount metal-top turntable is used to rotate the EUT a full 360 degrees. A remote controlled non-conductive antenna mast is used to scan the antenna height from one to four meters. The test site is listed with the FCC under registration number 485103. The test site is listed with Industry Canada under site number IC 2042M-1.

2 Test Summary

Page	Test full name	FCC Reference	IC Reference	Result
7	Spurious Emissions (Transmitter)	§15.247(d) §15.407(b) (1-8)	RSS-247 (6.2.1) (6.2.2) (6.2.3)	Pass
64	Radiated Spurious Emissions (Receiver)	§15.209	RSS-Gen (7.1.2)	Pass
68	AC Powerline Conducted Emissions	§15.207	RSS-Gen (8.8)	Pass
74	Antenna Requirement per FCC Part 15.203	§15.203	RSS-Gen (8.3)	Pass

3 Description of Equipment Under Test

Equipment Under Test	
Manufacturer	Generac Power Systems, Inc.
Model Number	10000007810
Serial Number	FCC1
FCCID	TLZ-CM389NF
ICID	6100A-CM389NF
Receive Date	3/16/2018
Test Start Date	3/16/2018
Test End Date	4/2/2018
Device Received Condition	Good
Test Sample Type	Production
Frequency Band	2.4GHZ, 2400 – 2483.5MHz U-NII-1, 5150 – 5250MHz U-NII-2A, 5250 – 5350MHz U-NII-2C, 5470 – 5725MHz U-NII-3, 5725 – 5850MHz
Mode(s) of Operation	Bluetooth 802.11a, b, g, n(HT20), n(HT40)
Modulation Type	OFDM
Duty Cycle	100%
Transmission Control	Test Commands
Maximum Antenna Gain	3dBi (2.4GHz) 5dBi (5GHz)
Antenna Type (15.203)	External antenna, unique coupling
Operating Voltage	12VDC, 2A via AC/DC supply

Description of Equipment Under Test
7 inch touch screen display unit with Type 1 Enclosure and WiFi/Bluetooth.

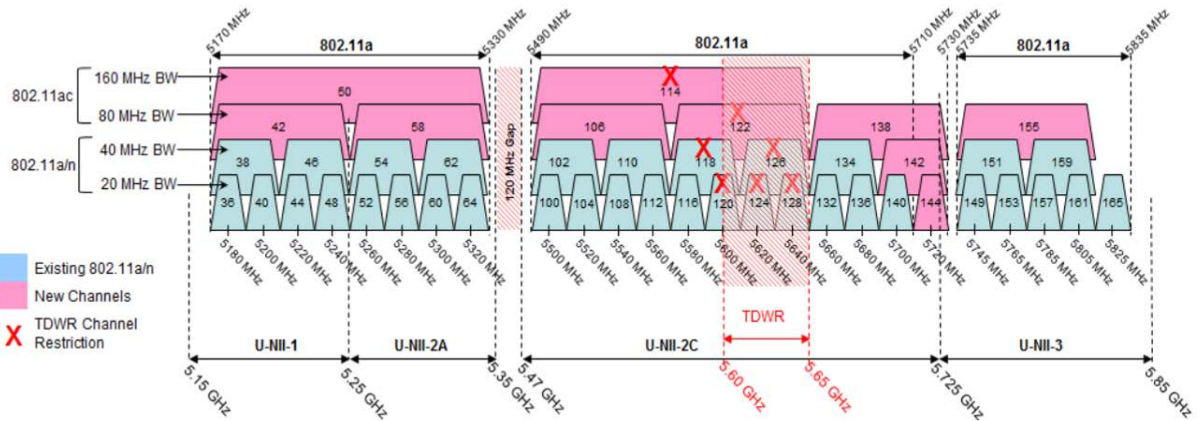
3.1 Test Channels:

The following test channels were used during the evaluation:

TX Mode	Band	TX Channels	TX Frequencies (MHz)
Bluetooth	2.4GHz	0, 39, 78	2402, 2440, 2480
802.11a	U-NII-1	36, 44, 48	5180, 5220, 5240
	U-NII-2A	52, 60, 64	5260, 5300, 5320
	U-NII-2C	100, 116, 140	5500, 5580, 5700
	U-NII-3	149, 157, 165	5745, 5785, 5825
802.11b	2.4GHz	1, 6, 11	2412, 2437, 2462
802.11g	2.4GHz	1, 6, 11	2412, 2437, 2462
802.11n (HT20)	2.4GHz	1, 6, 11	2412, 2437, 2462
	U-NII-1	36, 44, 48	5180, 5220, 5240
	U-NII-2A	52, 60, 64	5260, 5300, 5320
	U-NII-2C	100, 116, 140	5500, 5580, 5700
	U-NII-3	149, 157, 165	5745, 5785, 5825
802.11n (HT40)	2.4GHz	3, 7, 11	2422, 2442, 2462
	U-NII-1	38, 46	5190, 5230
	U-NII-2A	54, 62	5270, 5310
	U-NII-2C	102, 110, 134	5510, 5550, 5670
	U-NII-3	151, 159	5755, 5795

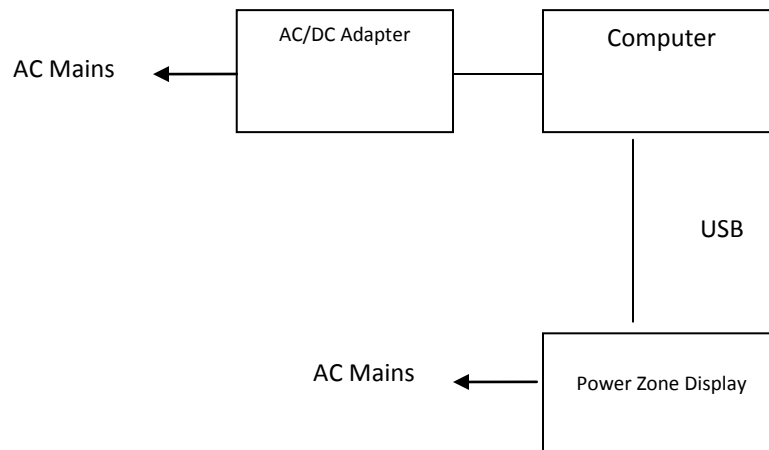
Other modes supported by the module not listed here were not subject to test, and the manufacturer declares that such modes shall not be used by the device.

3.2 U-NII Bands / Channels:



4 System setup including cable interconnection details, support equipment and simplified block diagram

4.1 EUT Block Diagram:



4.2 Cables:

Cables					
ID	Description	Length (m)	Shielding	Ferrites	Termination
1	USB Cable	2m	Yes	None	Laptop Computer

4.3 Support Equipment:

Support Equipment			
Description	Manufacturer	Model Number	Serial Number
Computer	Dell	-	-

5 Spurious Emissions (Transmitter)

5.1 FCC Unwanted Emission Limits:

§ 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

§ 15.407(b): *Undesirable emission limits.* Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(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.

(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.

(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.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(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.

(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

Part 15.205(a): Restricted Bands of Operations

MHz	MHz	MHz	GHz
0.090–0.110	16.42–16.423	399.9–410	4.5–5.15
¹ 0.495–0.505	16.69475–16.69525	608–614	5.35–5.46
2.1735–2.1905	16.80425–16.80475	960–1240	7.25–7.75
4.125–4.128	25.5–25.67	1300–1427	8.025–8.5
4.17725–4.17775	37.5–38.25	1435–1626.5	9.0–9.2
4.20725–4.20775	73–74.6	1645.5–1646.5	9.3–9.5
6.215–6.218	74.8–75.2	1660–1710	10.6–12.7
6.26775–6.26825	108–121.94	1718.8–1722.2	13.25–13.4
6.31175–6.31225	123–138	2200–2300	14.47–14.5
8.291–8.294	149.9–150.05	2310–2390	15.35–16.2
8.362–8.366	156.52475–156.52525	2483.5–2500	17.7–21.4
8.37625–8.38675	156.7–156.9	2655–2900	22.01–23.12
8.41425–8.41475	162.0125–167.17	3260–3267	23.6–24.0
12.29–12.293	167.72–173.2	3332–3339	31.2–31.8
12.51975–12.52025	240–285	3345.8–3358	36.43–36.5
12.57675–12.57725	322–335.4	3600–4400	(²)
13.36–13.41.			

¹ Until February 1, 1999, this restricted band shall be 0.490–0.510 MHz.

² Above 38.6

Part 15.209(a): Field Strength Limits for Restricted Bands of Operation

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 - 0.490	2,400 / F (kHz)	300
0.490 - 1.705	24,000 / F (kHz)	30
1.705 - 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 – 960	200	3
Above 960	500	3

5.2 ISED Unwanted Emission Limits:

Unwanted emission limits (2400 – 2483.5MHz Band)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

Unwanted emission limits (5150 – 5250MHz Band)

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection (DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

Unwanted emission limits (5250 – 5350MHz Band)

Devices shall comply with the following:

- a) All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.; or
- b) All emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device, except devices installed in vehicles, shall be labelled or include in the user manual the following text “for indoor use only.”

Unwanted emission limits (5470 – 5725MHz Band)

Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, devices with bandwidth overlapping the band edge of 5725 MHz can meet the emission limit of -27 dBm/MHz e.i.r.p. at 5850 MHz instead of 5725 MHz.

Unwanted emission limits (5725 – 5850MHz Band)

Devices operating in the band 5725-5850 MHz with antenna gain greater than 10 dBi can have unwanted emissions that comply with either the limits in this section or in section 5.5 until six (6) months after the publication date of this standard for certification. Certified devices that do not comply with emission limits in this section shall not be manufactured, imported, distributed, leased, offered for sale or sold after April 1, 2018.

Devices operating in the band 5725-5850 MHz with antenna gain of 10 dBi or less can have unwanted emissions that comply with either the limits in this section or in section 5.5 until April 1, 2018 for certification. Certified devices that do not comply with emission limits in this section shall not be manufactured, imported, distributed, leased, offered for sale or sold after April 1, 2020.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

- a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
- b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;

c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and

d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

5.3 Test Procedure:

ANSI C63.10: 2013

5.4 Example of Field Strength Calculation Method:

The measured field strength was calculated by summing the readings taken from the spectrum analyzer with the appropriate correction factors associated with the antenna losses and cable losses. The calculation formula and sample calculations are listed below:

Formula:

$$FS = RA + AF + CF$$

FS = Field Strength in dB μ V/m

RA = Receiver Amplitude in dB μ V

AF = Antenna Factor in dB

CF = Cable Attenuation Factor in dB (Including preamplifier and filter attenuation)

Example Calculation:

$$RA = 19.48 \text{ dB}\mu\text{V}$$

$$AF = 18.52 \text{ dB}$$

$$CF = 0.78 \text{ dB}$$

$$FS = 19.48 + 18.52 + 0.78 = 38.78 \text{ dB}\mu\text{V/m}$$

$$\text{Level in } \mu\text{V/m} = \text{Common Antilogarithm} [(38.78 \text{ dB}\mu\text{V/m})/20] = 86.89 \mu\text{V/m}$$

Conversion of Field Strength to EIRP at 3m is done by applying equation 39 from ANSIC63.10-2013.

$$\text{EIRP[dBm]} = E[\text{dB}\mu\text{V/m}] - 95.2$$

Or by re-arranging this equation, the limit in dB μ V/m at 3m can be computed from the -27dBm/MHz EIRP limit as follows

$$\text{Limit}[\text{dB}\mu\text{V/m}] = -27\text{dBm/MHz} + 95.2 = 68.2\text{dB}\mu\text{V/m}$$

5.5 Test Equipment Used:

Description	Asset	Manufacturer	Model	Cal Date	Cal Due
EMI Test Receiver	3900	Rohde&Schwarz	ESU40	9/20/2017	9/20/2018
Bilog Antenna	3133	ETS Lindgren	3142C	4/6/2017	4/6/2018
Horn Antenna	3780	ETS Lindgren	3117	6/1/2017	6/1/2018
Horn Antenna (18 - 40GHz)	3779	ETS	3116c	6/5/2017	6/5/2018
Preamplifier	3921	Rohde&Schwarz	TS-PR40	12/1/2018	12/1/2018
System Controller	4096	ETS Lindgren	2090	Verify at Time of Use	Verify at Time of Use
System Controller	3957	Sunol Sciences	SC99V	Verify at Time of Use	Verify at Time of Use
3m Cable Antenna→Preamp	3074			11/29/2017	11/29/2018
3m Cable Preamplifier	3918	TS-PR18	122005	11/29/2017	11/29/2018
3m Cable Preamp→Chamber	2588			11/29/2017	11/29/2018
3m Cable Chamber→Control Room	2593			11/29/2017	11/29/2018
3m Cable Control Room→Receiver	2592			11/29/2017	11/29/2018
10m Cable Antenna→Preamp	3339			11/29/2017	11/29/2018
10m Cable Preamplifier	7019	ZX60-3018G-S+	SUU63801252	11/29/2017	11/29/2018
10m Cable Preamp→Chamber	3172			11/29/2017	11/29/2018
10m Cable Chamber→Control Room	2590			11/29/2017	11/29/2018
10m Cable Control Room→Receiver	2589			11/29/2017	11/29/2018

5.6 Test Conditions:

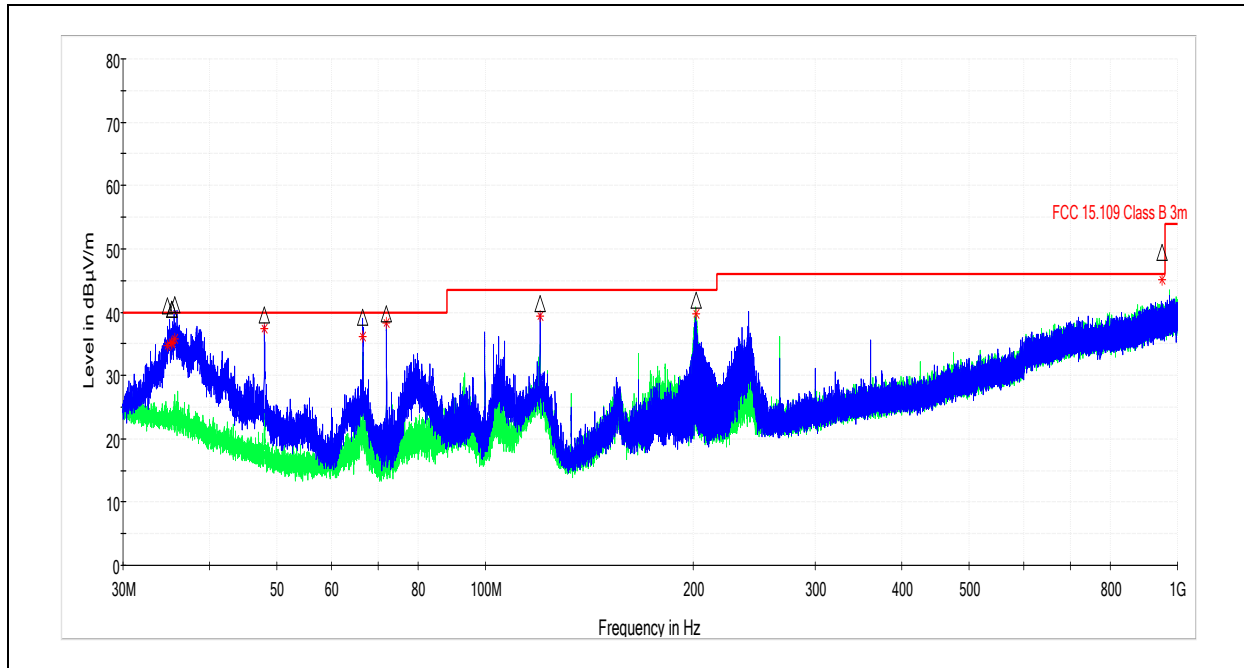
Test Personnel:	Brian Lackey	Test Date:	3/16/2018 – 3/23/2018
Supervising/Reviewing	Bryan Taylor		
Engineer:			
(Where Applicable)	NA	Ambient Temperature:	21.6C
Input Voltage:	120V/60Hz	Relative Humidity:	20.9%
		Atmospheric Pressure:	985.4mbar

5.7 Test Results:

The device was found to be **compliant**. All spurious emissions were below the -27dBm/MHz limit from FCC 15.247, FCC 15.407, and RSS-247 (68.2dBuV/m at 3m). Additionally, all emissions falling within restricted bands of operation and at the band edges were found to be below the limit specified in Part 15.209(a). The spurious emissions listed in the following tables are the worst case emissions. Emissions were investigated with the test sample positioned in 3 orthogonal axis and the worst case reported.

30MHz – 1GHz Radiated Emission Results

(Representative for all TX Modes)

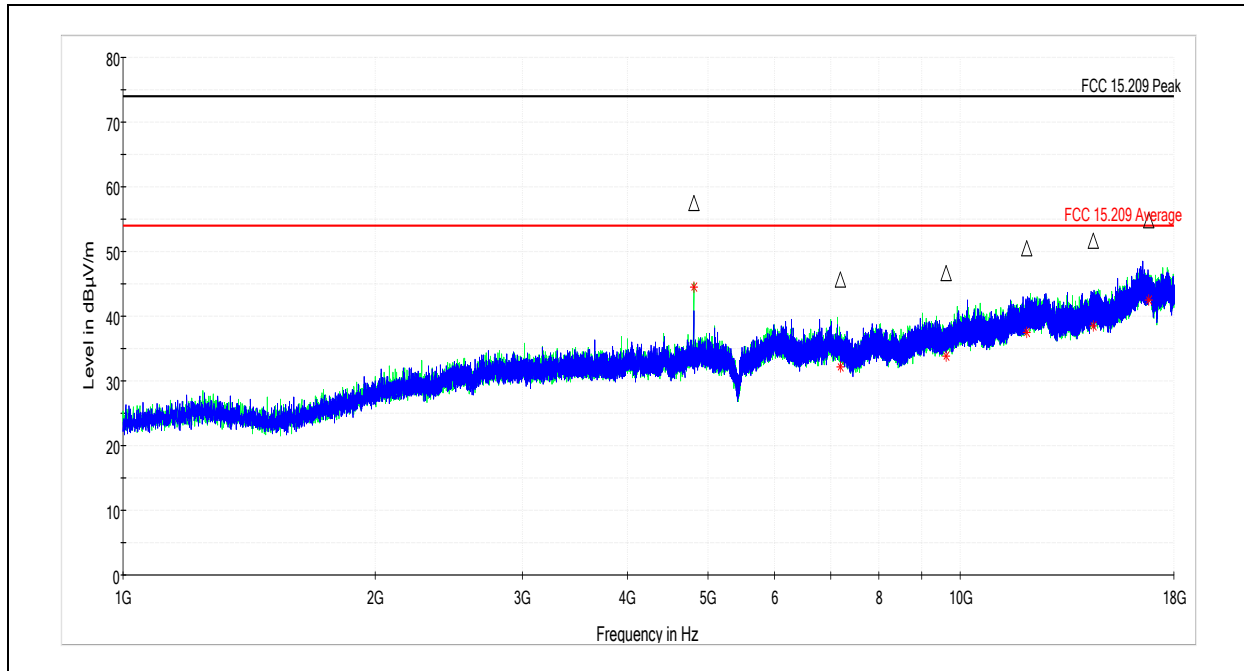


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
34.769000	41.07	60.00	18.93	120.000	102.9	V	108.0	22.5
35.243000	40.46	60.00	19.54	120.000	101.9	V	54.0	22.3
35.287000	40.41	60.00	19.59	120.000	103.1	V	109.0	22.3
35.668000	41.09	60.00	18.91	120.000	97.9	V	38.0	22.2
47.997000	39.58	60.00	20.42	120.000	102.1	V	182.0	17.1
66.570000	39.23	60.00	20.77	120.000	98.1	V	54.0	15.0
72.000000	39.77	60.00	20.23	120.000	102.7	V	73.0	15.1
120.000000	41.39	63.52	22.13	120.000	97.8	V	166.0	16.2
201.740000	41.91	63.52	21.61	120.000	114.5	H	8.0	19.2
949.020000	49.45	66.02	16.57	120.000	397.1	V	312.0	36.3

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
34.769000	34.64	40.00	5.36	120.000	102.9	V	108.0	22.5
35.243000	35.04	40.00	4.96	120.000	101.9	V	54.0	22.3
35.287000	35.15	40.00	4.85	120.000	103.1	V	109.0	22.3
35.668000	35.80	40.00	4.20	120.000	97.9	V	38.0	22.2
47.997000	37.36	40.00	2.64	120.000	102.1	V	182.0	17.1
66.570000	36.16	40.00	3.84	120.000	98.1	V	54.0	15.0
72.000000	38.38	40.00	1.62	120.000	102.7	V	73.0	15.1
120.000000	39.45	43.52	4.07	120.000	97.8	V	166.0	16.2
201.740000	39.81	43.52	3.71	120.000	114.5	H	8.0	19.2
949.020000	45.16	46.02	0.86	120.000	397.1	V	312.0	36.3

Bluetooth Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/16/2018
 Temp/Humidity/Pressure: 21.6C/20.9%/985.4mbar
 Comment: Bluetooth ch0

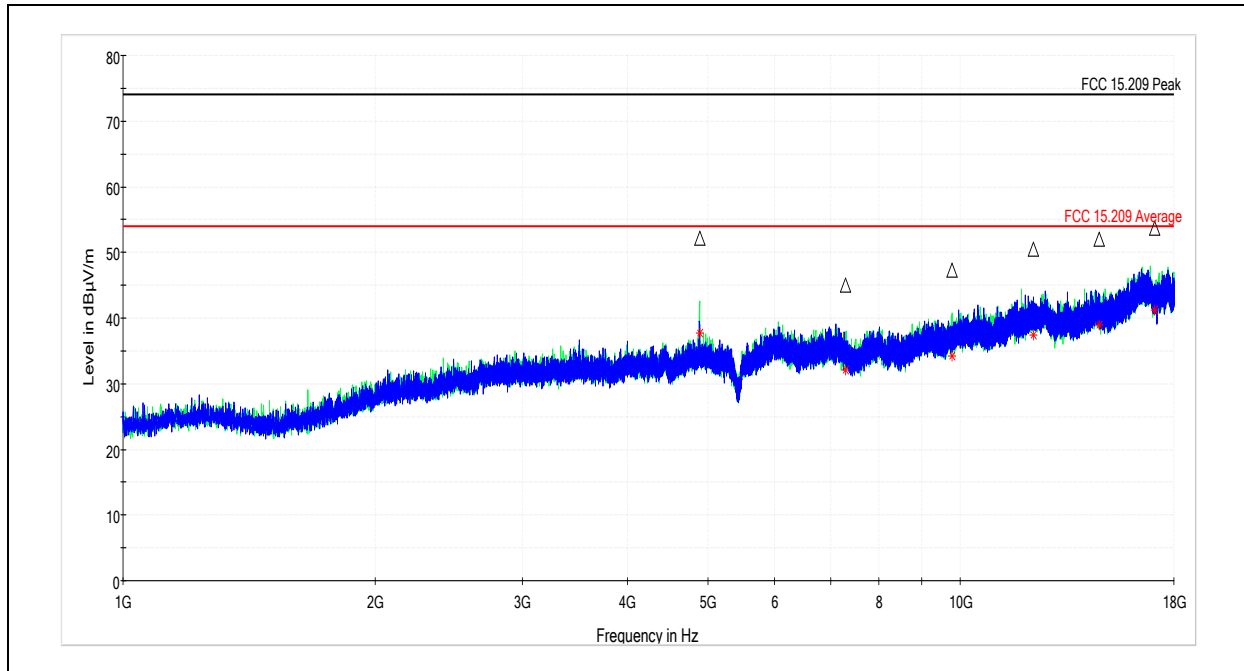


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4803.700000	57.43	74.00	16.57	1000.000	410.0	H	277.0	8.0
7195.300000	45.59	74.00	28.41	1000.000	331.0	H	0.0	11.2
9627.400000	46.70	74.00	27.30	1000.000	284.0	V	47.0	14.2
12015.300000	50.47	74.00	23.53	1000.000	364.0	V	320.0	18.0
14433.500000	51.63	74.00	22.37	1000.000	187.0	V	131.0	19.2
16813.300000	54.87	74.00	19.13	1000.000	215.0	H	136.0	23.6

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4803.700000	44.55	54.00	9.45	1000.000	410.0	H	277.0	8.0
7195.300000	32.11	54.00	21.89	1000.000	331.0	H	0.0	11.2
9627.400000	33.89	54.00	20.11	1000.000	284.0	V	47.0	14.2
12015.300000	37.54	54.00	16.46	1000.000	364.0	V	320.0	18.0
14433.500000	38.49	54.00	15.51	1000.000	187.0	V	131.0	19.2
16813.300000	42.54	54.00	11.46	1000.000	215.0	H	136.0	23.6

Bluetooth Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/16/2018
 Temp/Humidity/Pressure: 21.6C/20.9%/985.4mbar
 Comment: Bluetooth ch39

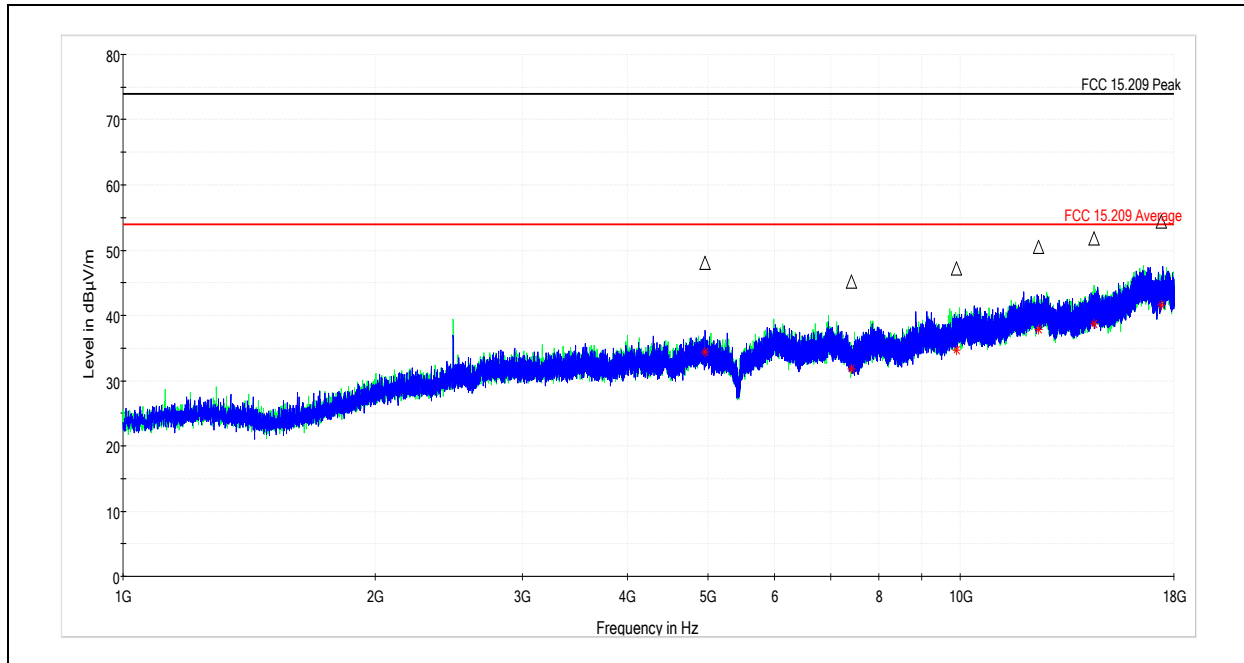


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4882.500000	52.20	74.00	21.80	1000.000	377.0	H	312.0	8.1
7295.200000	45.08	74.00	28.92	1000.000	395.0	H	258.0	11.1
9783.100000	47.24	74.00	26.76	1000.000	390.0	H	168.0	14.4
12236.500000	50.49	74.00	23.51	1000.000	108.0	V	348.0	17.9
14644.800000	51.94	74.00	22.06	1000.000	386.0	V	190.0	19.5
17078.900000	53.76	74.00	20.24	1000.000	392.0	V	92.0	22.5

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4882.500000	37.67	54.00	16.33	1000.000	377.0	H	312.0	8.1
7295.200000	32.10	54.00	21.90	1000.000	395.0	H	258.0	11.1
9783.100000	34.21	54.00	19.79	1000.000	390.0	H	168.0	14.4
12236.500000	37.49	54.00	16.51	1000.000	108.0	V	348.0	17.9
14644.800000	39.00	54.00	15.00	1000.000	386.0	V	190.0	19.5
17078.900000	41.23	54.00	12.77	1000.000	392.0	V	92.0	22.5

Bluetooth Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/16/2018
 Temp/Humidity/Pressure: 21.6C/20.9%/985.4mbar
 Comment: Bluetooth ch78

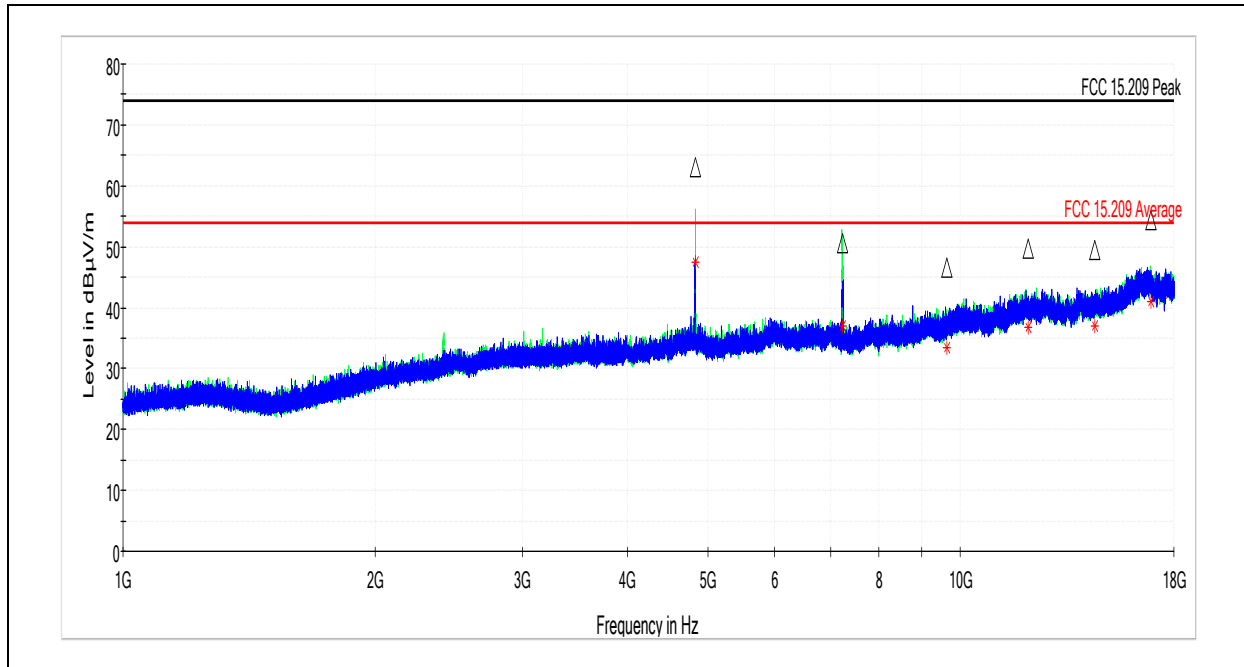


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4960.300000	47.99	74.00	26.01	1000.000	396.0	V	216.0	8.2
7411.700000	45.24	74.00	28.76	1000.000	354.0	V	302.0	11.3
9896.800000	47.15	74.00	26.85	1000.000	390.0	V	104.0	14.8
12403.000000	50.47	74.00	23.53	1000.000	410.0	V	322.0	18.3
14444.500000	51.81	74.00	22.19	1000.000	108.0	H	134.0	19.2
17374.100000	54.39	74.00	19.61	1000.000	380.0	H	15.0	22.6

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4960.300000	34.32	54.00	19.68	1000.000	396.0	V	216.0	8.2
7411.700000	31.77	54.00	22.23	1000.000	354.0	V	302.0	11.3
9896.800000	34.69	54.00	19.31	1000.000	390.0	V	104.0	14.8
12403.000000	37.78	54.00	16.22	1000.000	410.0	V	322.0	18.3
14444.500000	38.65	54.00	15.35	1000.000	108.0	H	134.0	19.2
17374.100000	41.52	54.00	12.48	1000.000	380.0	H	15.0	22.6

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/15/2018
 Temp/Humidity/Pressure: 22.7C/48.2%.982.0mbar
 Comment: 802.11b ch1 11Mbps

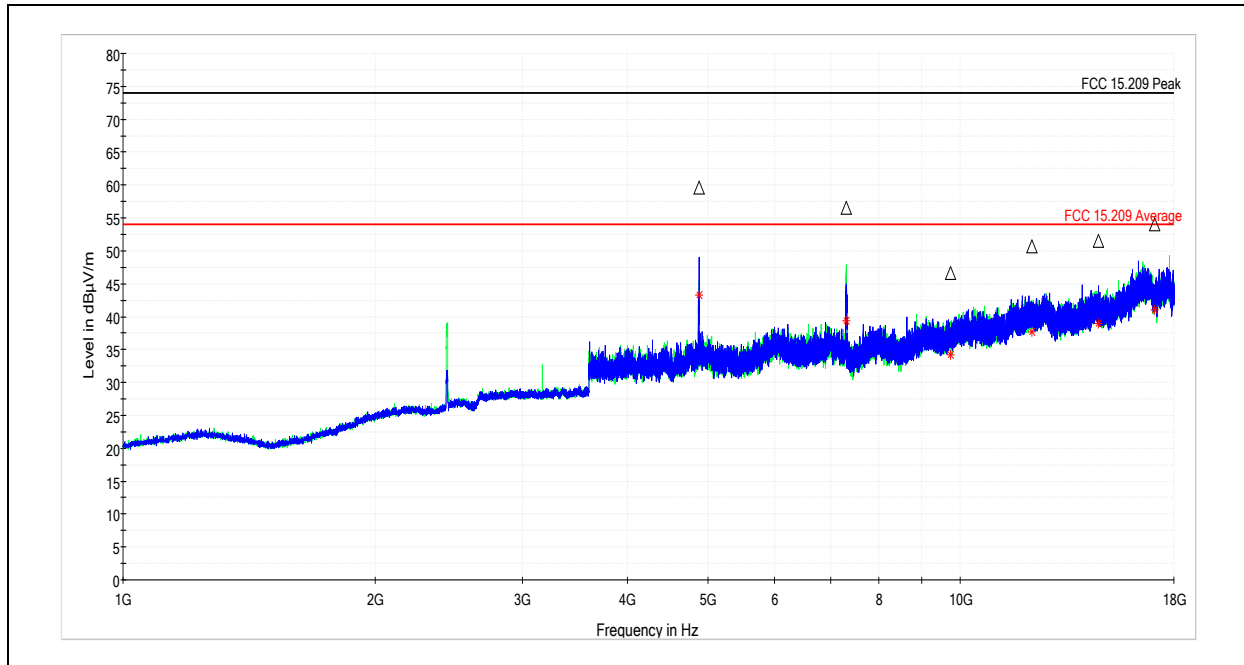


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4824.000000	63.06	74.00	10.94	1000.000	410.0	H	283.0	7.6
7238.800000	50.59	74.00	23.41	1000.000	302.0	H	216.0	10.3
9647.600000	46.64	74.00	27.36	1000.000	297.0	H	254.0	13.5
12051.200000	49.78	74.00	24.22	1000.000	354.0	H	153.0	17.2
14482.000000	49.47	74.00	24.53	1000.000	379.0	H	231.0	17.3
16886.000000	54.27	74.00	19.73	1000.000	410.0	H	195.0	21.8

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4824.000000	47.37	54.00	6.63	1000.000	410.0	H	283.0	7.6
7238.800000	37.04	54.00	16.96	1000.000	302.0	H	216.0	10.3
9647.600000	33.53	54.00	20.47	1000.000	297.0	H	254.0	13.5
12051.200000	36.81	54.00	17.19	1000.000	354.0	H	153.0	17.2
14482.000000	37.02	54.00	16.98	1000.000	379.0	H	231.0	17.3
16886.000000	40.96	54.00	13.04	1000.000	410.0	H	195.0	21.8

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/15/2018
 Temp/Humidity/Pressure: 22.7C/48.2%.982.0mbar
 Comment: 802.11b ch6 11Mbps



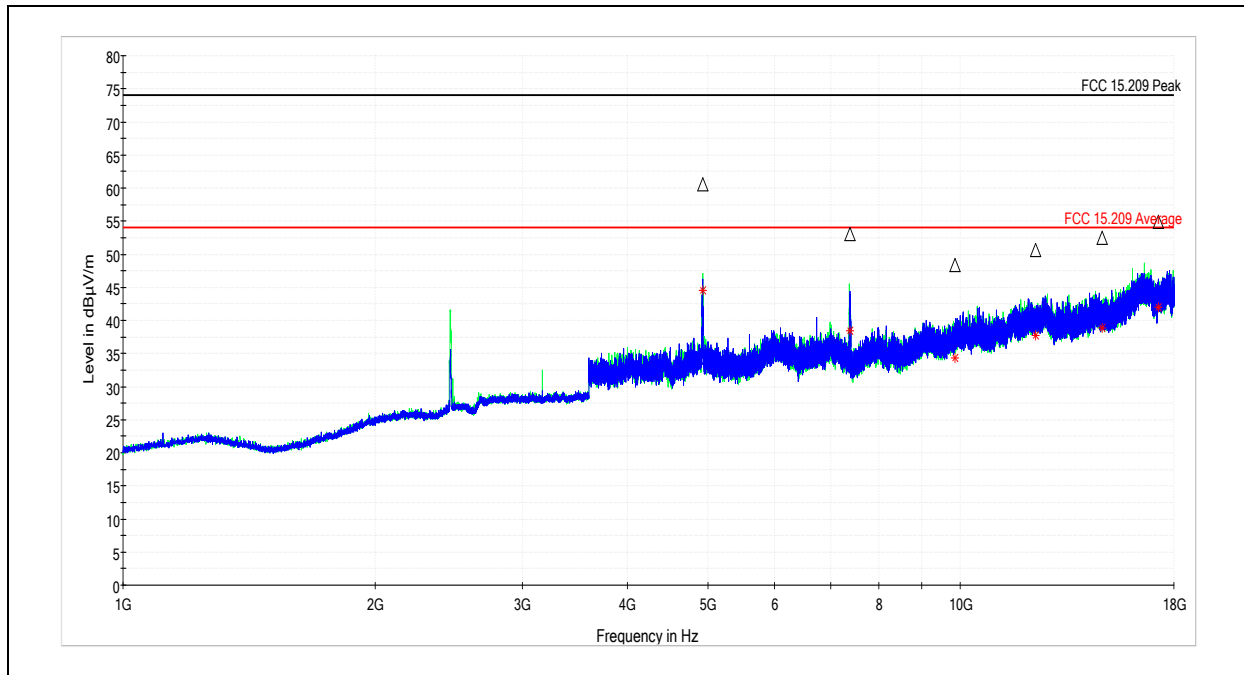
Note – difference in prescan below 3.5GHz due to preselection enabled on receiver which did not impact final results

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
4873.800000	59.56	74.00	14.44	1000.000	392.0	H	113.0
7310.970000	56.53	74.00	17.47	1000.000	105.0	H	240.0
9746.160000	46.67	74.00	27.33	1000.000	360.0	H	0.0
12183.220000	50.71	74.00	23.29	1000.000	329.0	H	232.0
14620.920000	51.57	74.00	22.43	1000.000	398.0	H	238.0
17057.180000	54.01	74.00	19.99	1000.000	298.0	H	201.0

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
4873.800000	43.22	54.00	10.78	1000.000	392.0	H	113.0
7310.970000	39.35	54.00	14.65	1000.000	105.0	H	240.0
9746.160000	34.21	54.00	19.79	1000.000	360.0	H	0.0
12183.220000	37.64	54.00	16.36	1000.000	329.0	H	232.0
14620.920000	38.90	54.00	15.10	1000.000	398.0	H	238.0
17057.180000	41.03	54.00	12.97	1000.000	298.0	H	201.0

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/15/2018
 Temp/Humidity/Pressure: 22.7C/48.2%.982.0mbar
 Comment: 802.11b 11Mbps ch11



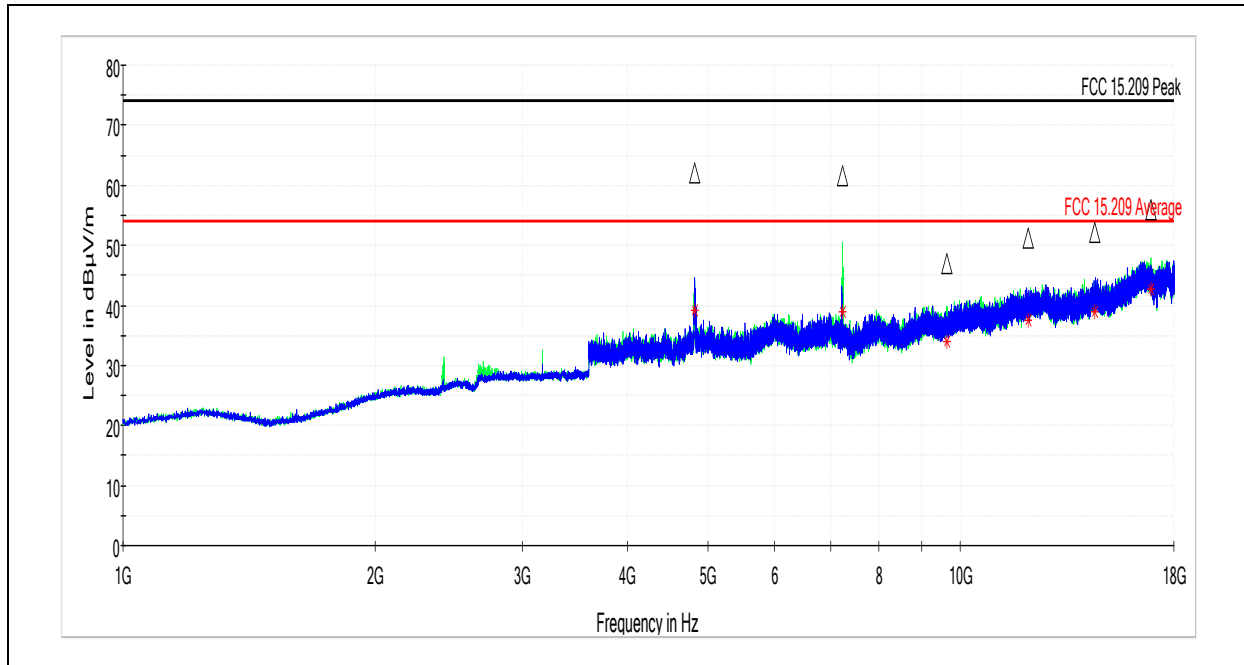
Note – difference in prescan below 3.5GHz due to preselection enabled on receiver which did not impact final results

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
4924.020000	60.60	74.00	13.40	1000.000	410.0	H	302.0
7383.590000	53.09	74.00	20.91	1000.000	376.0	H	191.0
9849.550000	48.41	74.00	25.59	1000.000	388.0	H	325.0
12309.470000	50.63	74.00	23.37	1000.000	208.0	H	136.0
14771.490000	52.53	74.00	21.47	1000.000	337.0	H	118.0
17236.270000	54.86	74.00	19.14	1000.000	289.0	H	212.0

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
4924.020000	44.54	54.00	9.46	1000.000	410.0	H	302.0
7383.590000	38.50	54.00	15.50	1000.000	376.0	H	191.0
9849.550000	34.39	54.00	19.61	1000.000	388.0	H	325.0
12309.470000	37.66	54.00	16.34	1000.000	208.0	H	136.0
14771.490000	38.88	54.00	15.12	1000.000	337.0	H	118.0
17236.270000	41.95	54.00	12.05	1000.000	289.0	H	212.0

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/15/2018
 Temp/Humidity/Pressure: 22.7C/48.2%.982.0mbar
 Comment: 802.11g 54Mbps ch1



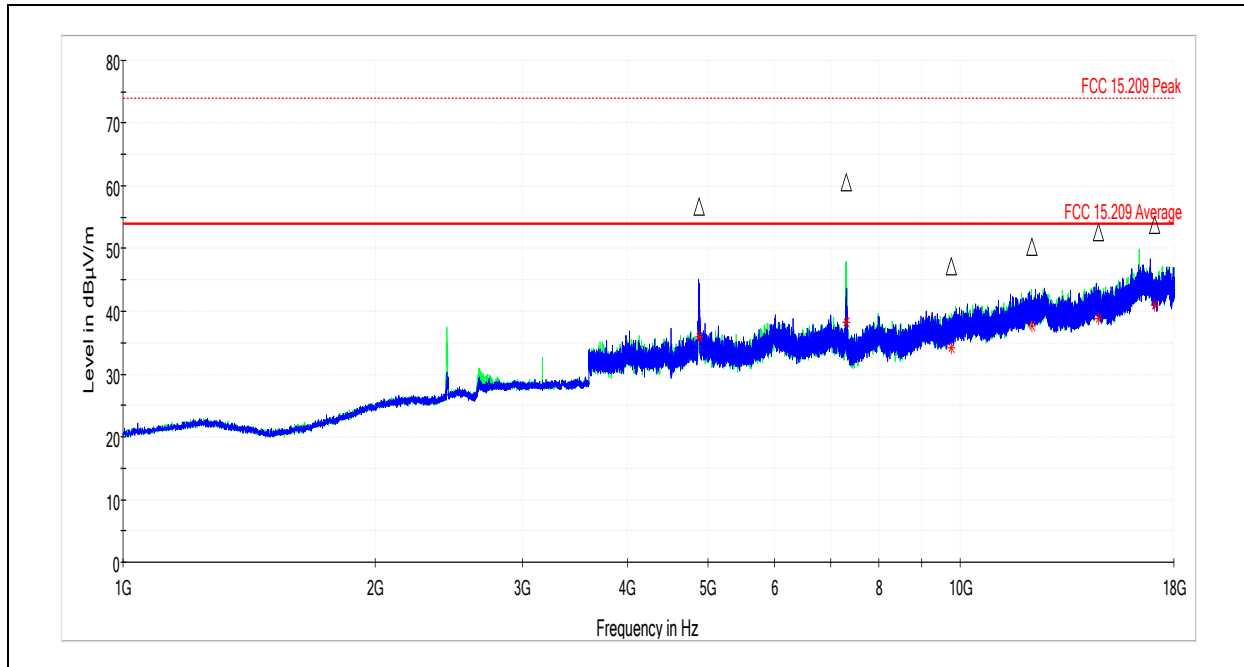
Note – difference in prescan below 3.5GHz due to preselection enabled on receiver which did not impact final results

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4822.520000	62.12	74.00	11.88	1000.000	410.0	H	268.0	8.1
7237.210000	61.65	74.00	12.35	1000.000	410.0	H	153.0	11.0
9645.700000	46.97	74.00	27.03	1000.000	365.0	H	196.0	14.1
12058.190000	51.19	74.00	22.81	1000.000	410.0	H	170.0	18.1
14470.240000	52.13	74.00	21.87	1000.000	410.0	H	197.0	19.3
16884.540000	56.01	74.00	17.99	1000.000	362.0	H	183.0	23.5

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4822.520000	39.22	54.00	14.78	1000.000	410.0	H	268.0	8.1
7237.210000	38.88	54.00	15.12	1000.000	410.0	H	153.0	11.0
9645.700000	33.99	54.00	20.01	1000.000	365.0	H	196.0	14.1
12058.190000	37.61	54.00	16.39	1000.000	410.0	H	170.0	18.1
14470.240000	38.84	54.00	15.16	1000.000	410.0	H	197.0	19.3
16884.540000	42.63	54.00	11.37	1000.000	362.0	H	183.0	23.5

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/15/2018
 Temp/Humidity/Pressure: 22.7C/48.2%.982.0mbar
 Comment: 802.11g 54Mbps ch6



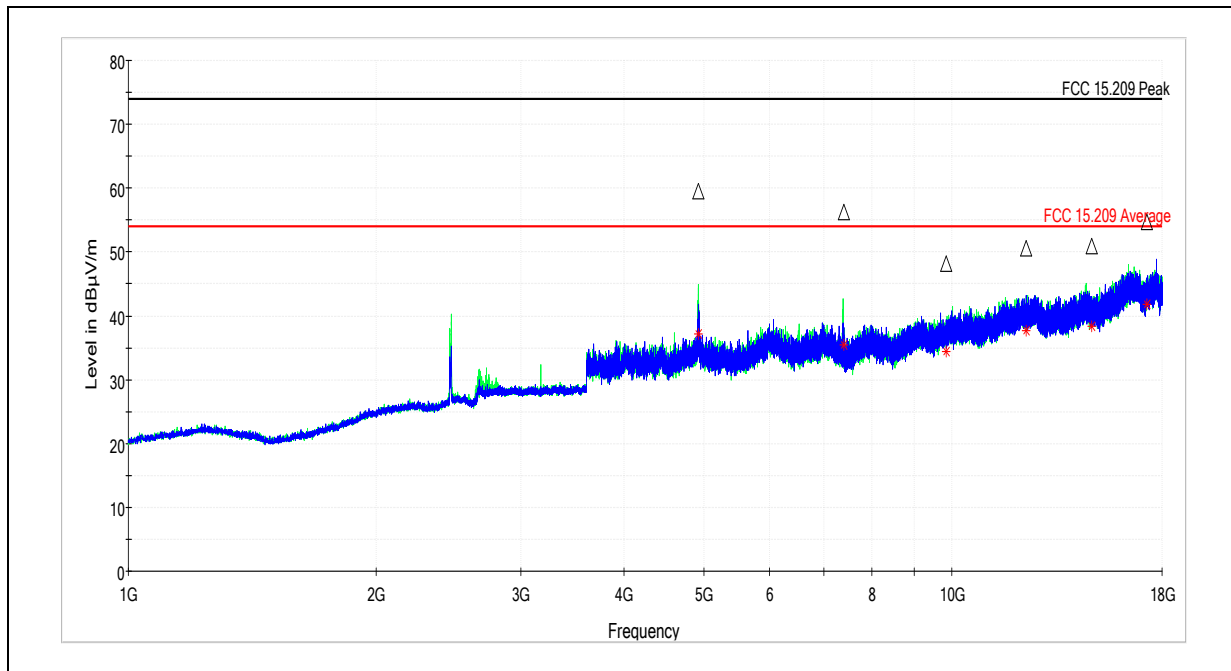
Note – difference in prescan below 3.5GHz due to preselection enabled on receiver which did not impact final results

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4872.680000	56.62	74.00	17.38	1000.000	271.0	H	275.0	8.1
7311.300000	60.50	74.00	13.50	1000.000	274.0	H	249.0	11.0
9749.600000	47.09	74.00	26.91	1000.000	269.0	H	291.0	14.3
12187.030000	50.36	74.00	23.64	1000.000	316.0	H	340.0	18.0
14624.440000	52.69	74.00	21.31	1000.000	359.0	H	0.0	19.4
17056.510000	53.71	74.00	20.29	1000.000	329.0	H	242.0	22.4

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4872.680000	35.95	54.00	18.05	1000.000	271.0	H	275.0	8.1
7311.300000	38.26	54.00	15.74	1000.000	274.0	H	249.0	11.0
9749.600000	34.24	54.00	19.76	1000.000	269.0	H	291.0	14.3
12187.030000	37.59	54.00	16.41	1000.000	316.0	H	340.0	18.0
14624.440000	38.93	54.00	15.07	1000.000	359.0	H	0.0	19.4
17056.510000	40.99	54.00	13.01	1000.000	329.0	H	242.0	22.4

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/15/2018
 Temp/Humidity/Pressure: 22.7C/48.2%.982.0mbar
 Comment: 802.11g 54Mbps ch11



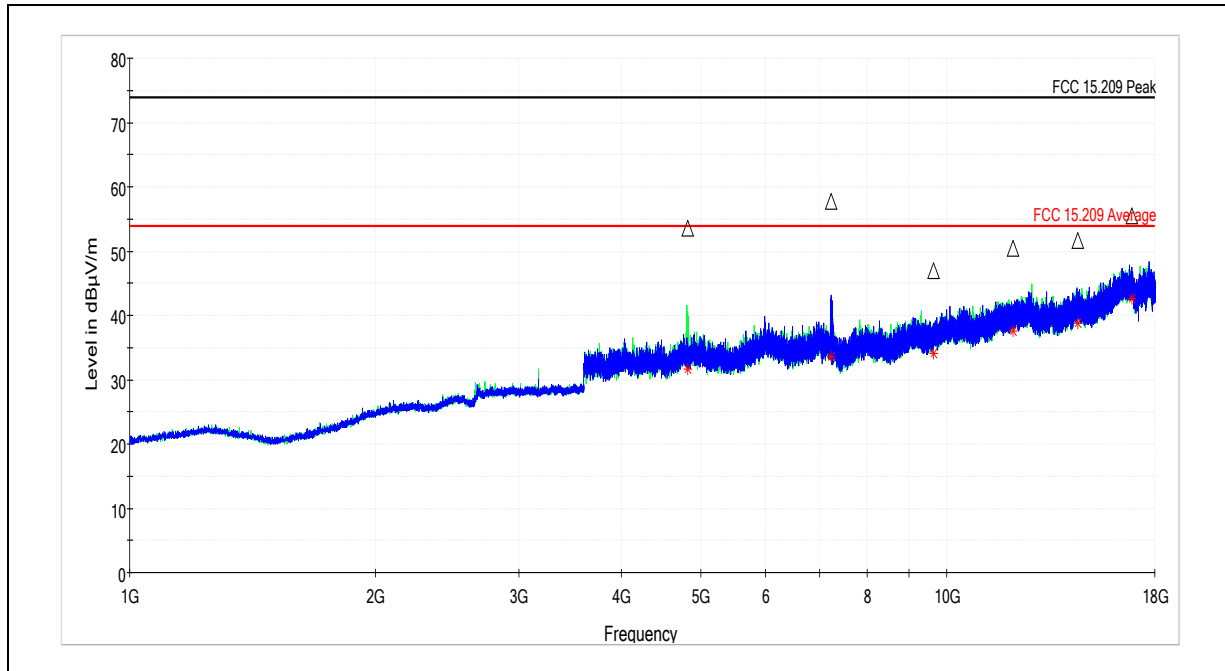
Note – difference in prescan below 3.5GHz due to preselection enabled on receiver which did not impact final results

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4922.420000	59.46	74.00	14.54	1000.000	364.0	H	272.0	8.2
7388.000000	56.30	74.00	17.70	1000.000	326.0	H	165.0	11.1
9846.900000	48.16	74.00	25.84	1000.000	371.0	H	154.0	14.4
12310.510000	50.54	74.00	23.46	1000.000	363.0	H	320.0	18.3
14773.600000	50.93	74.00	23.07	1000.000	410.0	H	254.0	19.1
17233.830000	54.73	74.00	19.27	1000.000	299.0	H	100.0	22.8

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4922.420000	37.24	54.00	16.76	1000.000	364.0	H	272.0	8.2
7388.000000	35.45	54.00	18.55	1000.000	326.0	H	165.0	11.1
9846.900000	34.41	54.00	19.59	1000.000	371.0	H	154.0	14.4
12310.510000	37.68	54.00	16.32	1000.000	363.0	H	320.0	18.3
14773.600000	38.29	54.00	15.71	1000.000	410.0	H	254.0	19.1
17233.830000	41.76	54.00	12.24	1000.000	299.0	H	100.0	22.8

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/16/2018
 Temp/Humidity/Pressure: 21.6C/20.9%/985.4mbar
 Comment: 802.11n MCS7 65Mbit/s ch1



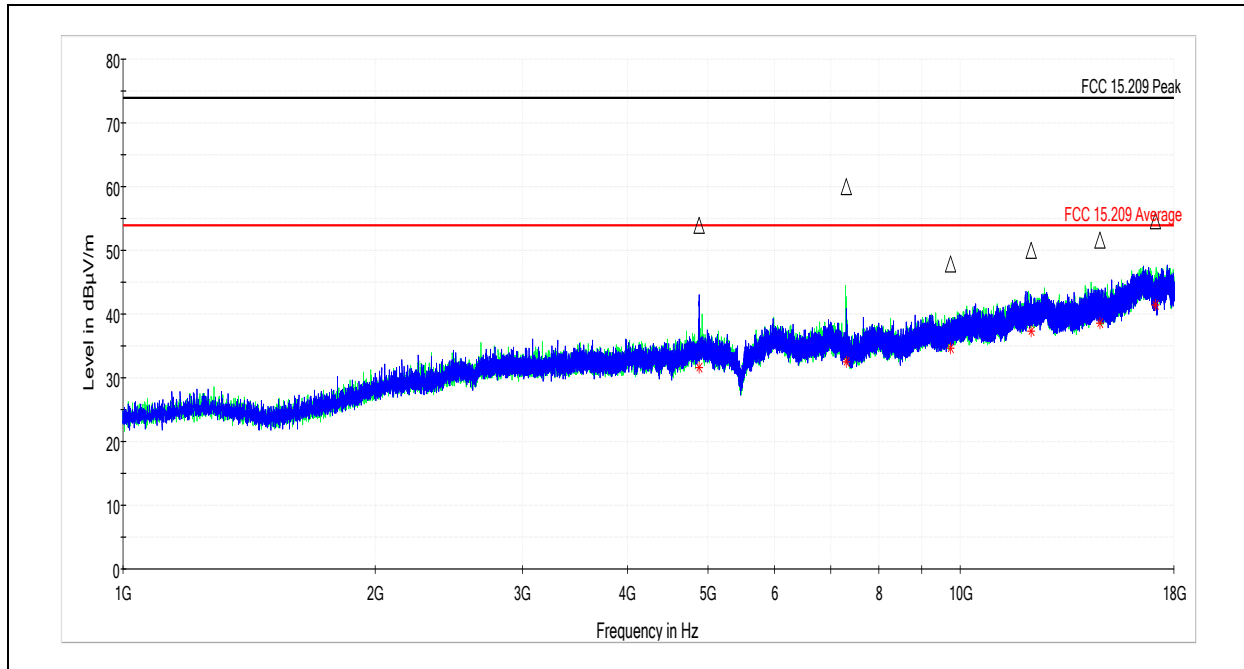
Note – difference in prescan below 3.5GHz due to preselection enabled on receiver which did not impact final results

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4825.030000	53.64	74.00	20.36	1000.000	253.0	V	244.0	8.1
7233.740000	57.74	74.00	16.26	1000.000	354.0	V	241.0	11.0
9647.950000	46.96	74.00	27.04	1000.000	221.0	V	93.0	14.1
12058.910000	50.49	74.00	23.51	1000.000	300.0	V	0.0	18.1
14470.120000	51.65	74.00	22.35	1000.000	410.0	V	0.0	19.3
16885.100000	55.43	74.00	18.57	1000.000	100.0	V	225.0	23.5

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4825.030000	31.67	54.00	22.33	1000.000	253.0	V	244.0	8.1
7233.740000	33.59	54.00	20.41	1000.000	354.0	V	241.0	11.0
9647.950000	34.16	54.00	19.84	1000.000	221.0	V	93.0	14.1
12058.910000	37.62	54.00	16.38	1000.000	300.0	V	0.0	18.1
14470.120000	38.82	54.00	15.18	1000.000	410.0	V	0.0	19.3
16885.100000	42.64	54.00	11.36	1000.000	100.0	V	225.0	23.5

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/16/2018
 Temp/Humidity/Pressure: 21.6C/20.9%/985.4mbar
 Comment: 802.11n MCS7 65Mbit/s ch6

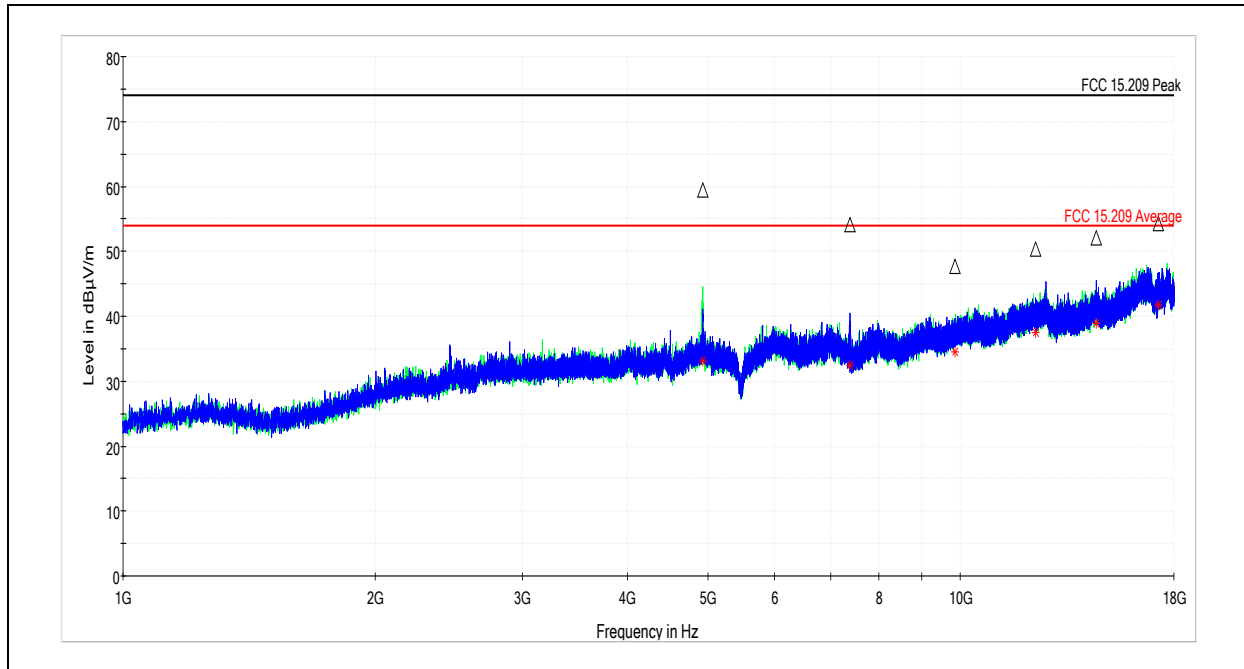


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4875.200000	53.86	74.00	20.14	1000.000	172.0	V	22.0	8.1
7303.900000	59.92	74.00	14.08	1000.000	194.0	H	192.0	11.0
9747.900000	47.77	74.00	26.23	1000.000	157.0	H	45.0	14.3
12155.100000	49.97	74.00	24.03	1000.000	264.0	H	150.0	18.2
14690.000000	51.63	74.00	22.37	1000.000	362.0	V	296.0	19.2
17118.800000	54.57	74.00	19.43	1000.000	358.0	H	94.0	22.8

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4875.200000	31.55	54.00	22.45	1000.000	172.0	V	22.0	8.1
7303.900000	32.49	54.00	21.51	1000.000	194.0	H	192.0	11.0
9747.900000	34.72	54.00	19.28	1000.000	157.0	H	45.0	14.3
12155.100000	37.33	54.00	16.67	1000.000	264.0	H	150.0	18.2
14690.000000	38.58	54.00	15.42	1000.000	362.0	V	296.0	19.2
17118.800000	41.47	54.00	12.53	1000.000	358.0	H	94.0	22.8

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/16/2018
 Temp/Humidity/Pressure: 21.6C/20.9%/985.4mbar
 Comment: 802.11n MCS7 65Mbit/s ch11

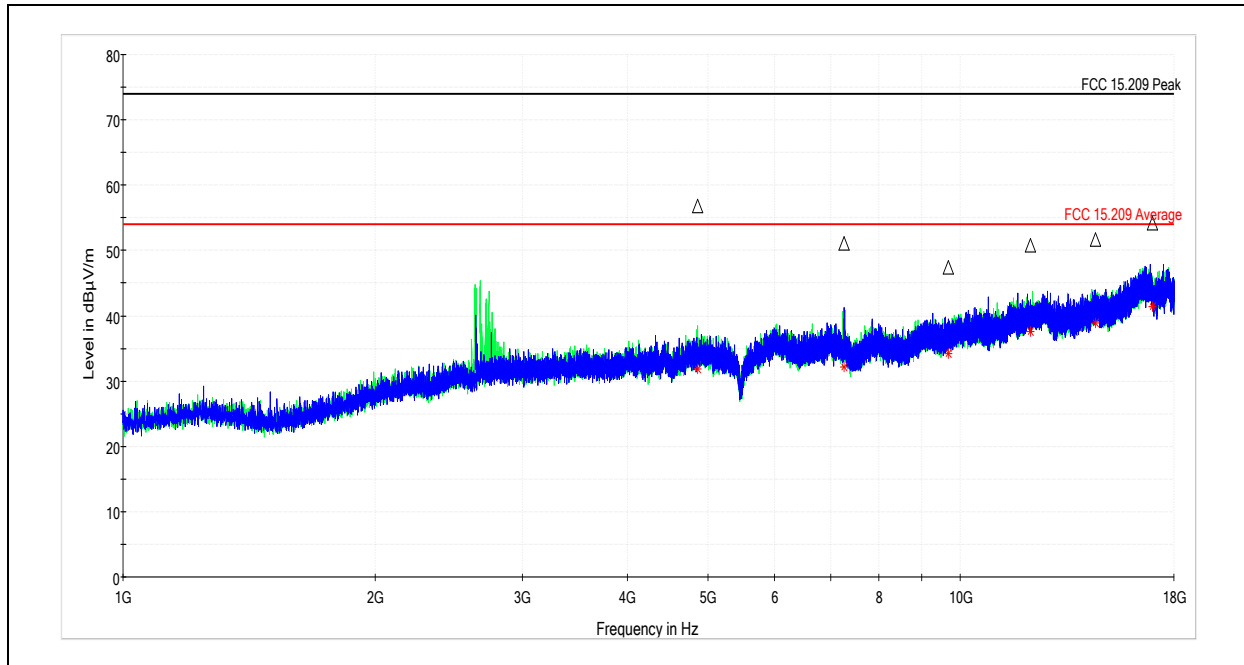


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4922.600000	59.47	74.00	14.53	1000.000	391.0	H	287.0	8.2
7389.100000	54.11	74.00	19.89	1000.000	376.0	V	238.0	11.1
9860.500000	47.71	74.00	26.29	1000.000	410.0	V	46.0	14.6
12309.300000	50.40	74.00	23.60	1000.000	142.0	V	122.0	18.3
14525.500000	52.09	74.00	21.91	1000.000	385.0	V	312.0	19.1
17244.700000	54.32	74.00	19.68	1000.000	390.0	V	204.0	22.8

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4922.600000	33.15	54.00	20.85	1000.000	391.0	H	287.0	8.2
7389.100000	32.41	54.00	21.59	1000.000	376.0	V	238.0	11.1
9860.500000	34.48	54.00	19.52	1000.000	410.0	V	46.0	14.6
12309.300000	37.49	54.00	16.51	1000.000	142.0	V	122.0	18.3
14525.500000	38.95	54.00	15.05	1000.000	385.0	V	312.0	19.1
17244.700000	41.73	54.00	12.27	1000.000	390.0	V	204.0	22.8

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/16/2018
 Temp/Humidity/Pressure: 21.6C/20.9%/985.4mbar
 Comment: 802.11n 40MHz MCS7 65Mbit/s ch3

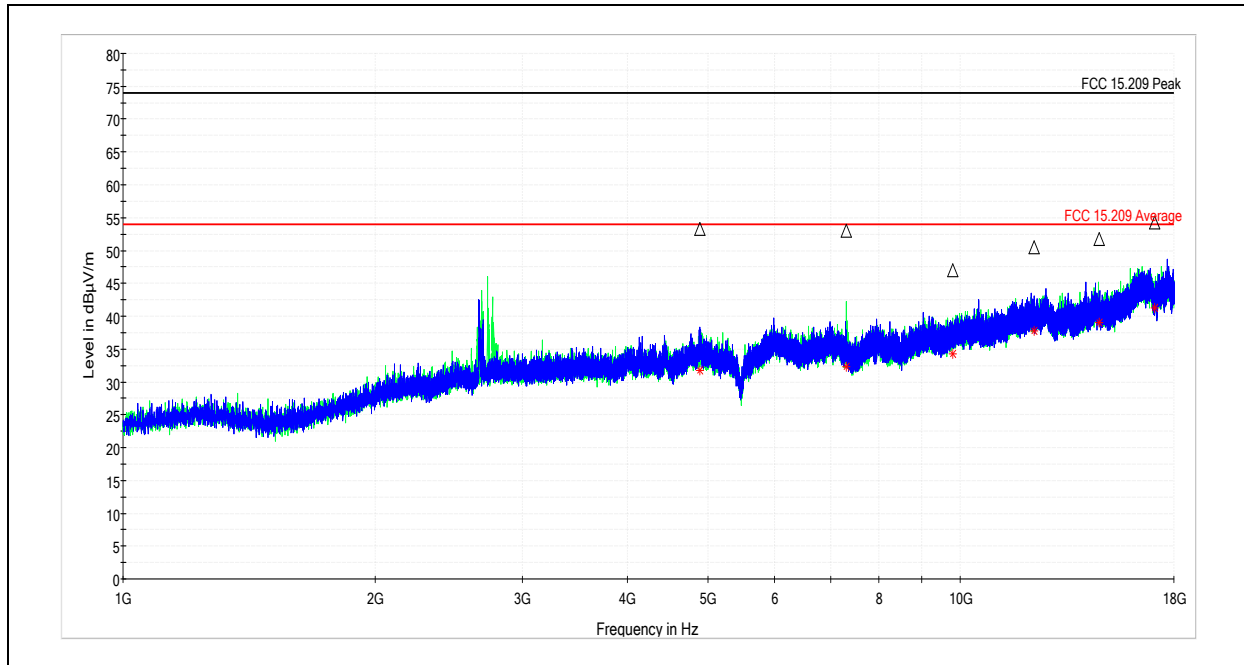


Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4852.900000	56.79	74.00	17.21	1000.000	375.0	H	288.0	8.1
7268.800000	51.01	74.00	22.99	1000.000	228.0	V	9.0	11.0
9675.500000	47.39	74.00	26.61	1000.000	335.0	V	121.0	14.3
12134.600000	50.84	74.00	23.16	1000.000	325.0	V	293.0	18.1
14503.600000	51.74	74.00	22.26	1000.000	150.0	H	0.0	19.1
16960.000000	54.16	74.00	19.84	1000.000	384.0	H	198.0	22.9

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4852.900000	31.82	54.00	22.18	1000.000	375.0	H	288.0	8.1
7268.800000	32.10	54.00	21.90	1000.000	228.0	V	9.0	11.0
9675.500000	34.26	54.00	19.74	1000.000	335.0	V	121.0	14.3
12134.600000	37.52	54.00	16.48	1000.000	325.0	V	293.0	18.1
14503.600000	38.89	54.00	15.11	1000.000	150.0	H	0.0	19.1
16960.000000	41.36	54.00	12.64	1000.000	384.0	H	198.0	22.9

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/16/2018
 Temp/Humidity/Pressure: 21.6C/20.9%/985.4mbar
 Comment: 802.11n 40MHz MCS7 65Mbit/s ch7

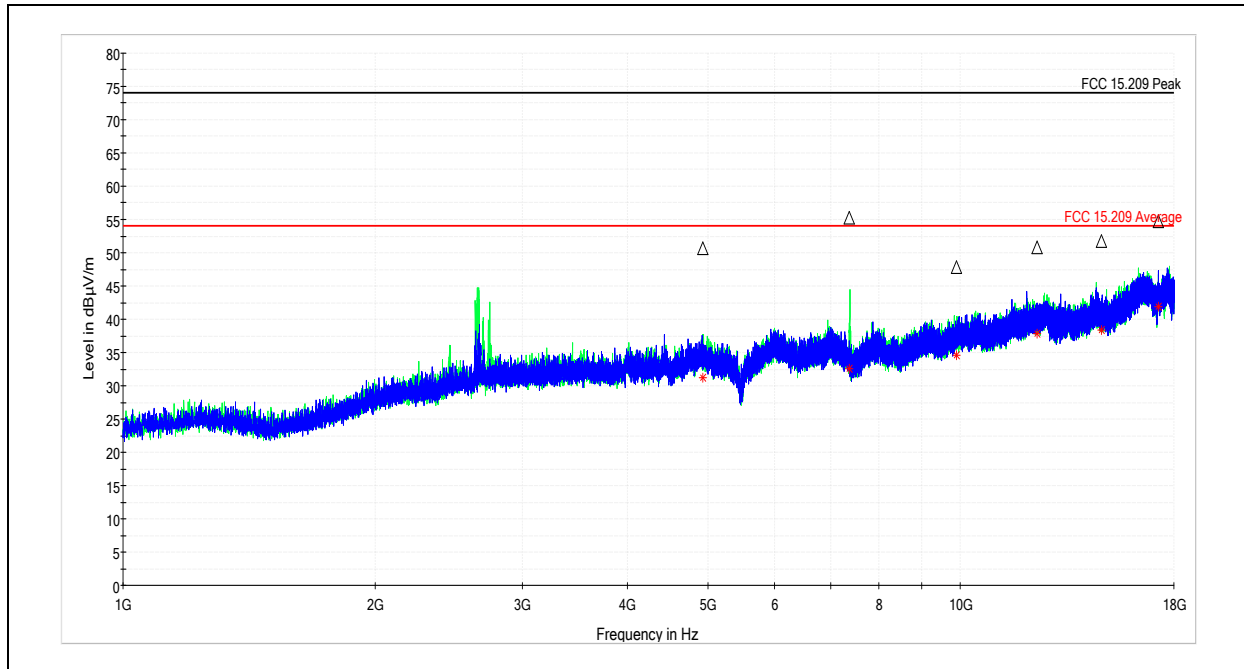


Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4889.700000	53.25	74.00	20.75	1000.000	363.0	V	226.0	8.2
7312.300000	53.00	74.00	21.00	1000.000	220.0	H	326.0	11.0
9791.000000	47.02	74.00	26.98	1000.000	336.0	H	0.0	14.4
12252.900000	50.55	74.00	23.45	1000.000	343.0	V	216.0	18.1
14646.400000	51.80	74.00	22.20	1000.000	384.0	H	176.0	19.5
17085.500000	54.24	74.00	19.76	1000.000	307.0	H	166.0	22.5

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4889.700000	31.78	54.00	22.22	1000.000	363.0	V	226.0	8.2
7312.300000	32.28	54.00	21.72	1000.000	220.0	H	326.0	11.0
9791.000000	34.32	54.00	19.68	1000.000	336.0	H	0.0	14.4
12252.900000	37.72	54.00	16.28	1000.000	343.0	V	216.0	18.1
14646.400000	39.02	54.00	14.98	1000.000	384.0	H	176.0	19.5
17085.500000	41.26	54.00	12.74	1000.000	307.0	H	166.0	22.5

2.4GHz Wi-Fi Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: B. Lackey
 Date: 3/16/2018
 Temp/Humidity/Pressure: 21.6C/20.9%/985.4mbar
 Comment: 802.11n 40MHz MCS7 65Mbit/s ch11

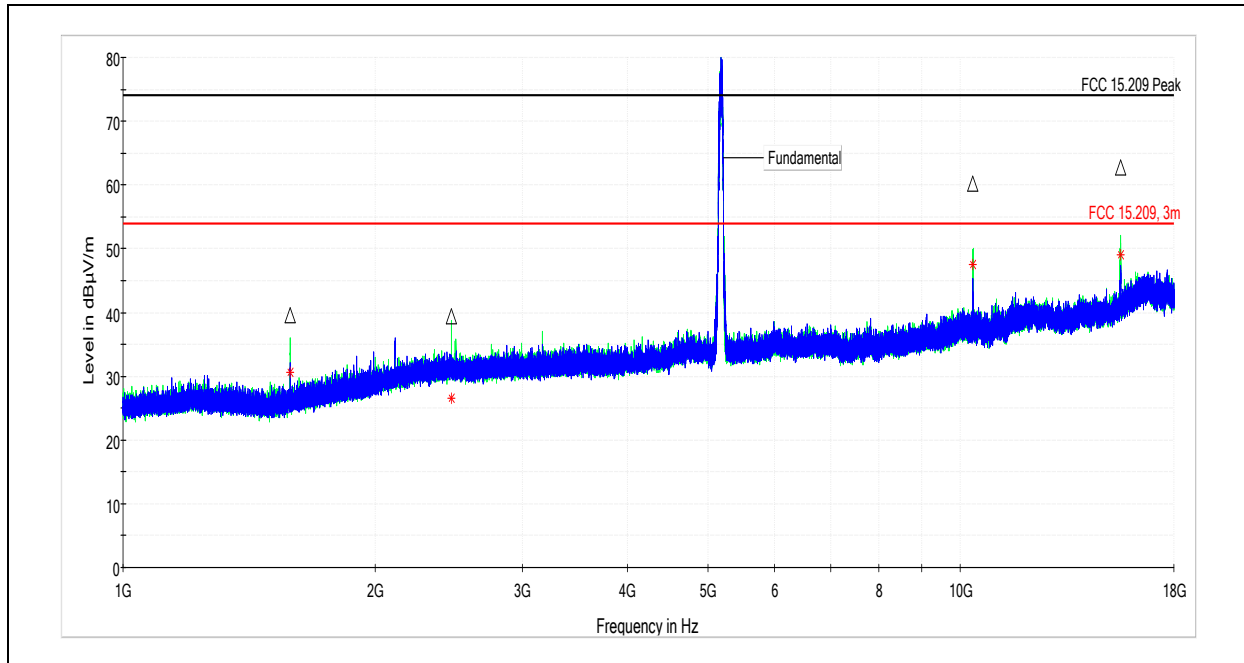


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4925.200000	50.69	74.00	23.31	1000.000	381.0	V	195.0	8.2
7372.100000	55.24	74.00	18.76	1000.000	234.0	H	247.0	11.2
9899.400000	47.83	74.00	26.17	1000.000	350.0	H	0.0	14.8
12344.500000	50.80	74.00	23.20	1000.000	301.0	V	99.0	18.5
14755.500000	51.74	74.00	22.26	1000.000	100.0	V	238.0	19.2
17246.100000	54.73	74.00	19.27	1000.000	379.0	V	346.0	22.8

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4925.200000	31.18	54.00	22.82	1000.000	381.0	V	195.0	8.2
7372.100000	32.52	54.00	21.48	1000.000	234.0	H	247.0	11.2
9899.400000	34.64	54.00	19.36	1000.000	350.0	H	0.0	14.8
12344.500000	37.85	54.00	16.15	1000.000	301.0	V	99.0	18.5
14755.500000	38.43	54.00	15.57	1000.000	100.0	V	238.0	19.2
17246.100000	41.86	54.00	12.14	1000.000	379.0	V	346.0	22.8

U-NII-1 Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: Bryan Taylor
 Date: 3/19/2018
 Temp/Humidity/Pressure: 22.7C/48.2%.982.0mbar
 Comment: 802.11a, ch36

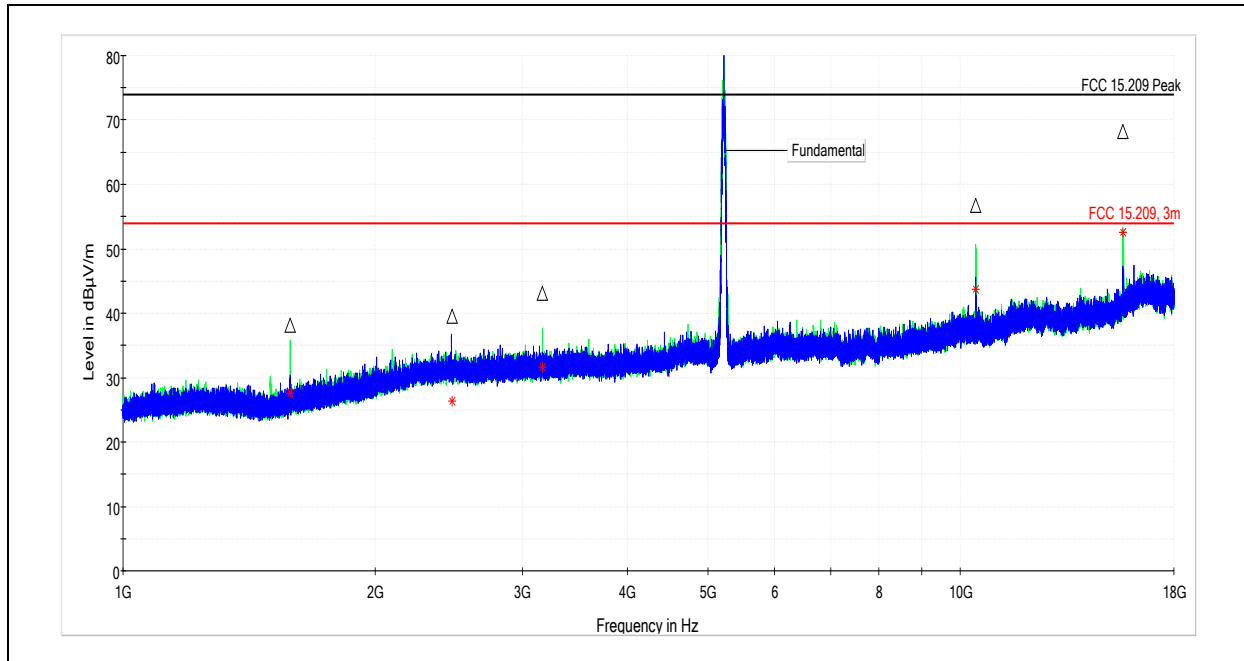


Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1583.917500	39.64	74.00	34.36	1000.000	350.0	H	230.0	-1.3
2469.289000	39.44	74.00	34.56	1000.000	350.0	H	304.0	3.9
10356.675500	60.22	74.00	13.78	1000.000	335.0	H	218.0	14.6
15537.309000	62.80	74.00	11.20	1000.000	289.0	H	248.0	18.8

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1583.917500	30.65	54.00	23.35	1000.000	350.0	H	230.0	-1.3
2469.289000	26.48	54.00	27.52	1000.000	350.0	H	304.0	3.9
10356.675500	47.53	54.00	6.47	1000.000	335.0	H	218.0	14.6
15537.309000	49.12	54.00	4.88	1000.000	289.0	H	248.0	18.8

U-NII-1 Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: Bryan Taylor
 Date: 3/19/2018
 Temp/Humidity/Pressure: 22.7C/48.2%.982.0mbar
 Comment: 802.11a, ch44

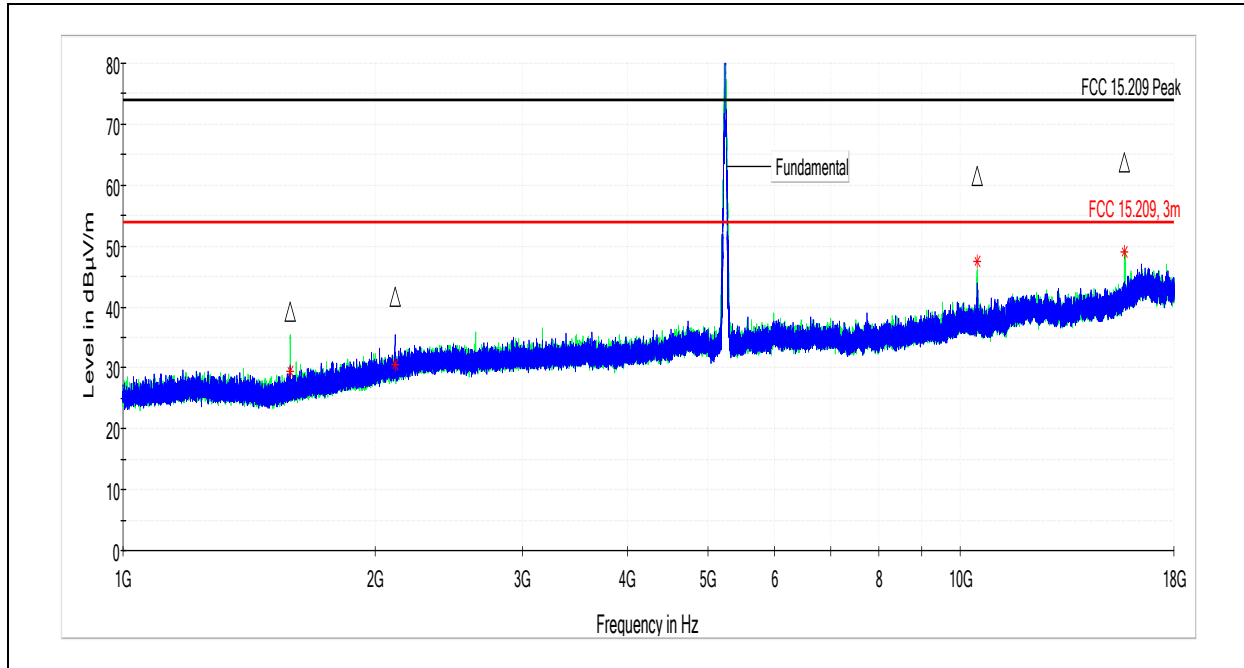


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1584.010500	38.21	74.00	35.79	1000.000	350.0	H	129.0	-1.3
2473.103000	39.51	74.00	34.49	1000.000	350.0	V	10.0	3.9
3168.198000	43.12	74.00	30.88	1000.000	350.0	H	76.0	5.0
10439.778500	56.78	74.00	17.22	1000.000	350.0	H	126.0	14.7
15655.933500	68.15	74.00	5.85	1000.000	350.0	H	118.0	19.5

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1584.010500	27.62	54.00	26.38	1000.000	350.0	H	129.0	-1.3
2473.103000	26.40	54.00	27.60	1000.000	350.0	V	10.0	3.9
3168.198000	31.64	54.00	22.36	1000.000	350.0	H	76.0	5.0
10439.778500	43.77	54.00	10.23	1000.000	350.0	H	126.0	14.7
15655.933500	52.61	54.00	1.39	1000.000	350.0	H	118.0	19.5

U-NII-1 Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: Bryan Taylor
 Date: 3/20/2018
 Temp/Humidity/Pressure: 23.9C/21.2%/982.0mbar
 Comment: 802.11a, ch48

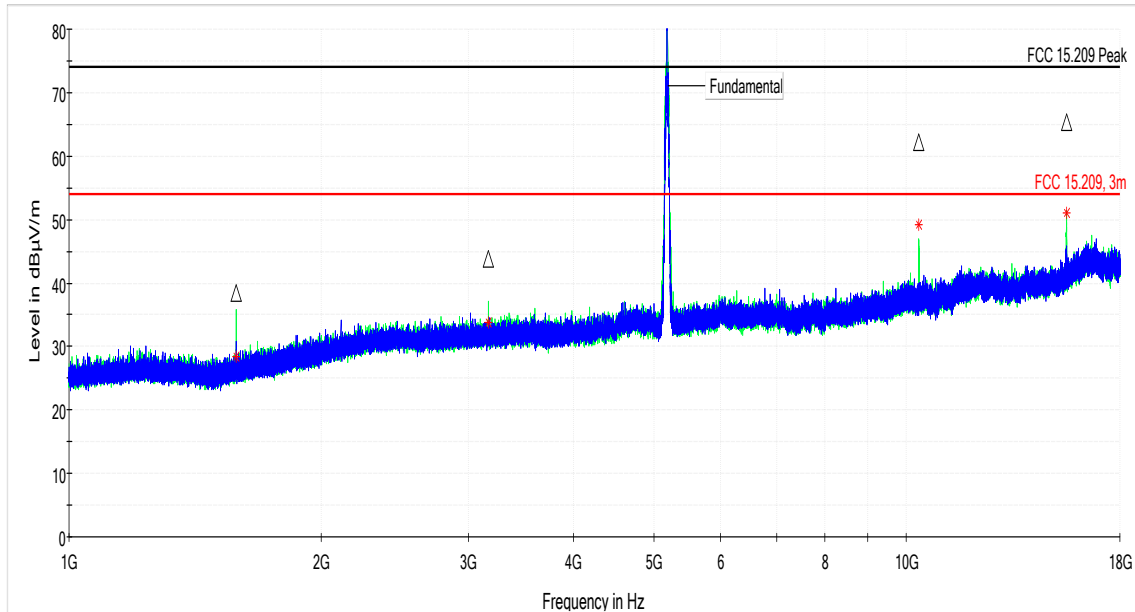


Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1583.892000	39.27	74.00	34.73	1000.000	350.0	H	124.0	-1.3
2112.169500	41.60	74.00	32.40	1000.000	350.0	V	22.0	2.7
10484.777000	61.61	74.00	12.39	1000.000	350.0	H	102.0	14.7
15720.162000	63.69	74.00	10.31	1000.000	350.0	H	108.0	19.7

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1583.892000	29.37	54.00	24.63	1000.000	350.0	H	124.0	-1.3
2112.169500	30.56	54.00	23.44	1000.000	350.0	V	22.0	2.7
10484.777000	47.57	54.00	6.43	1000.000	350.0	H	102.0	14.7
15720.162000	49.08	54.00	4.92	1000.000	350.0	H	108.0	19.7

U-NII-1 Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: Bryan Taylor
 Date: 3/20/2018
 Temp/Humidity/Pressure: 23.9C/21.2%/982.0mbar
 Comment: 802.11n (20MHz), ch36

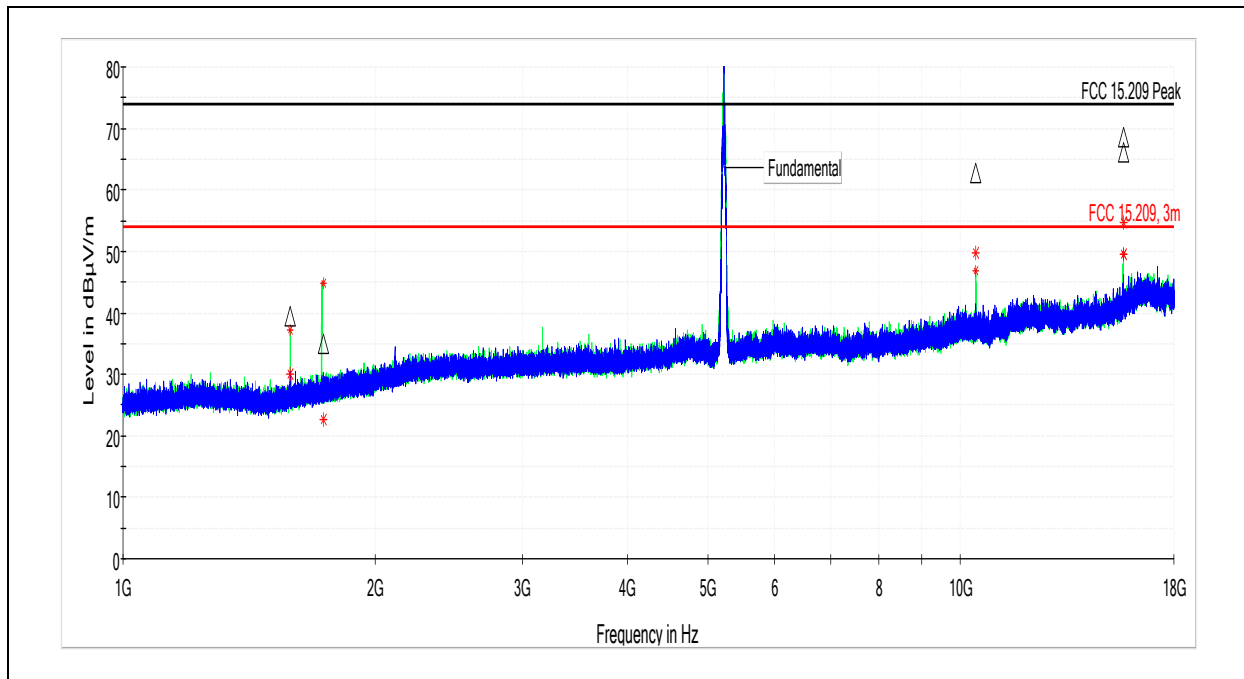


Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1583.970000	38.42	74.00	35.58	1000.000	208.0	H	106.0	-1.3
3168.105000	43.89	74.00	30.11	1000.000	100.0	H	196.0	5.0
10359.566000	62.13	74.00	11.87	1000.000	350.0	H	105.0	14.5
15534.801000	65.42	74.00	8.58	1000.000	350.0	H	111.0	18.8

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1583.970000	28.49	54.00	25.51	1000.000	208.0	H	106.0	-1.3
3168.105000	33.85	54.00	20.15	1000.000	100.0	H	196.0	5.0
10359.566000	49.18	54.00	4.82	1000.000	350.0	H	105.0	14.5
15534.801000	51.07	54.00	2.93	1000.000	350.0	H	111.0	18.8

U-NII-1 Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: Bryan Taylor
 Date: 3/20/2018
 Temp/Humidity/Pressure: 23.9C/21.2%/982.0mbar
 Comment: 802.11n (20MHz), ch44

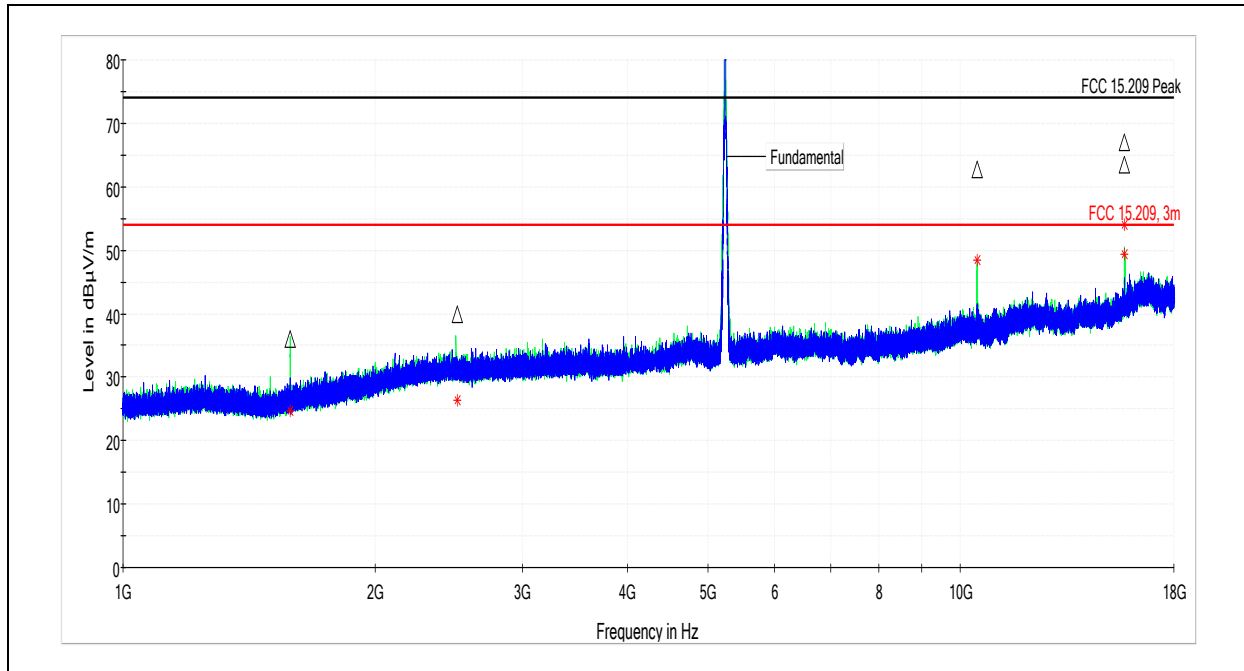


Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1583.903000	39.44	74.00	34.56	1000.000	205.0	H	103.0	-1.3
1734.268500	35.07	74.00	38.93	1000.000	350.0	H	96.0	-0.1
10439.394000	62.69	74.00	11.31	1000.000	350.0	H	111.0	14.7
15662.070000	68.46	74.00	5.54	1000.000	350.0	H	112.0	19.6
15662.070000	66.08	74.00	7.92	1000.000	350.0	H	112.0	19.6

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1583.903000	30.01	54.00	23.99	1000.000	205.0	H	103.0	-1.3
1734.268500	22.57	54.00	31.43	1000.000	350.0	H	96.0	-0.1
10439.394000	49.76	54.00	4.24	1000.000	350.0	H	111.0	14.7
15662.070000	49.49	54.00	4.51	1000.000	350.0	H	112.0	19.6

U-NII-1 Radiated Emission Results

EUT Name: Display
 Manufacturer: Generac
 Test Engineer: Bryan Taylor
 Date: 3/20/2018
 Temp/Humidity/Pressure: 23.9C/21.2%/982.0mbar
 Comment: 802.11n (20MHz), ch48



Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1583.929500	36.02	74.00	37.98	1000.000	213.0	H	111.0	-1.3
2506.097500	39.86	74.00	34.14	1000.000	266.0	H	174.0	3.9
10483.173000	62.72	74.00	11.28	1000.000	350.0	H	110.0	14.7
15719.157000	63.41	74.00	10.59	1000.000	350.0	H	105.0	19.6
15721.875000	66.99	74.00	7.01	1000.000	350.0	H	115.0	19.7

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1583.929500	24.70	54.00	29.30	1000.000	213.0	H	111.0	-1.3
2506.097500	26.45	54.00	27.55	1000.000	266.0	H	174.0	3.9
10483.173000	48.44	54.00	5.56	1000.000	350.0	H	110.0	14.7
15719.157000	49.41	54.00	4.59	1000.000	350.0	H	105.0	19.6