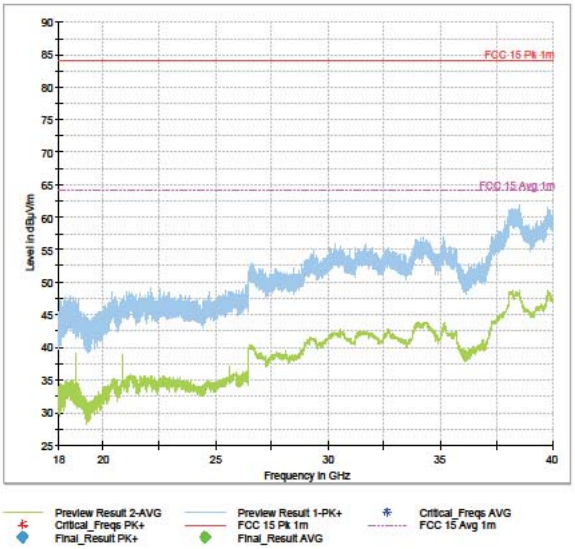
18-40GHz_Ch_42_VHT80_2x2_(Tx-16.5dBm)_CDD

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/13/2018 9:29:44 PM

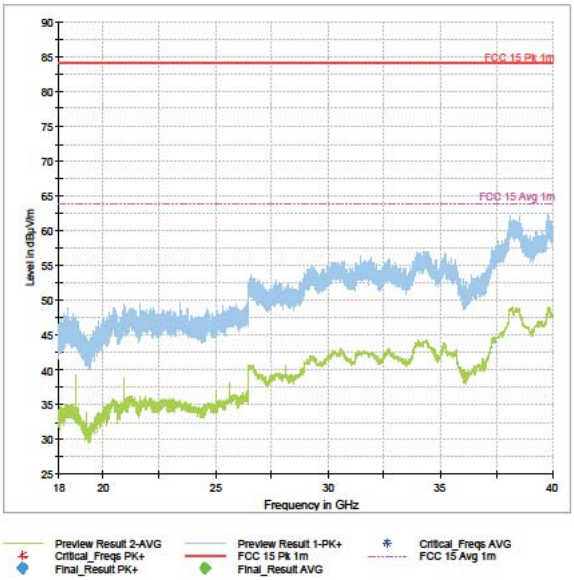
18-40GHz_Ch_44_NoHT_2x2_(Tx-20.5dBm)_CDD

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/13/2018 5:25:55 PM

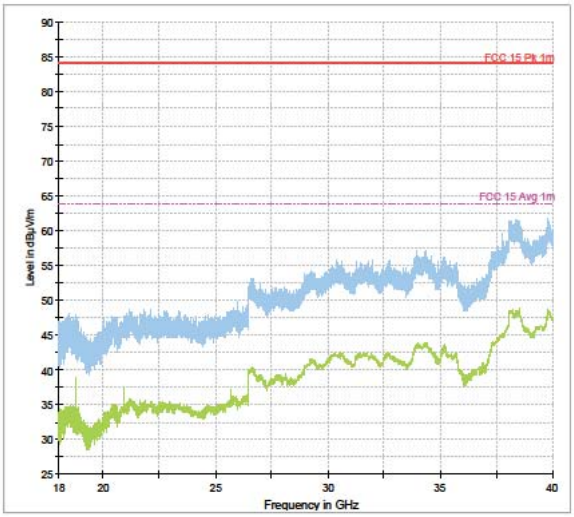
18-40GHz_Ch_44_VHT20_2x2_(Tx-18dBm)_BF

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



Preview Result 2-AVG
Critical_Freqs PK+
Final_Result PK+
Preview Result 1-PK+
FCC 15 Pk 1m
Final_Result AVG
Critical_Freqs AVG
FCC 15 Avg 1m

4/13/2018 11:26:08 PM

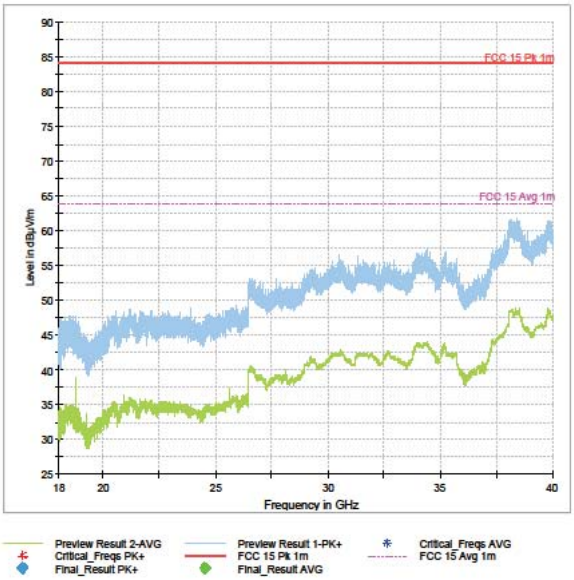
18-40GHz_Ch_46_HT40_2x2_(Tx-17dBm)_CDD

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/13/2018 8:06:33 PM

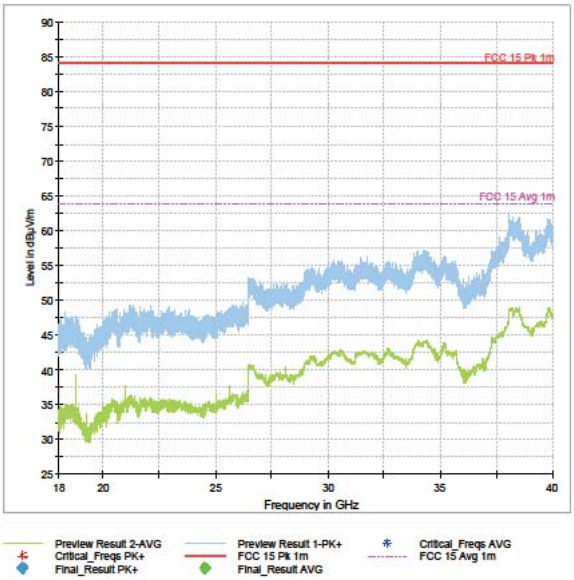
18-40GHz_Ch_48_NoHT_2x2_(Tx-20.5dBm)_CDD

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/13/2018 5:50:37 PM

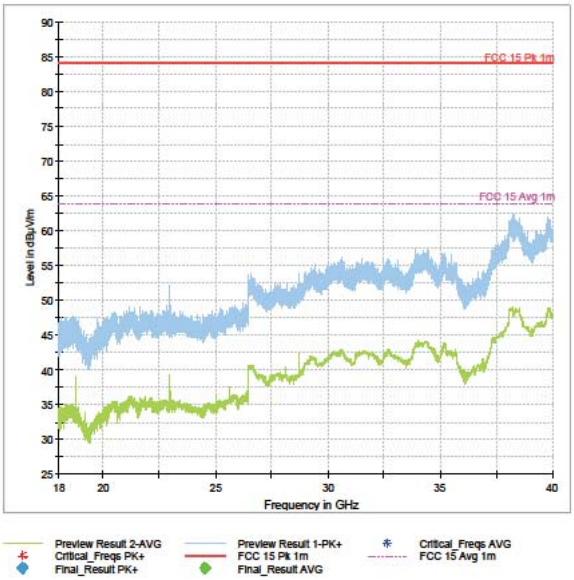
18-40GHz_Ch_149_NoHT_2x2_(Tx-25dBm)_CDD

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/13/2018 6:17:43 PM

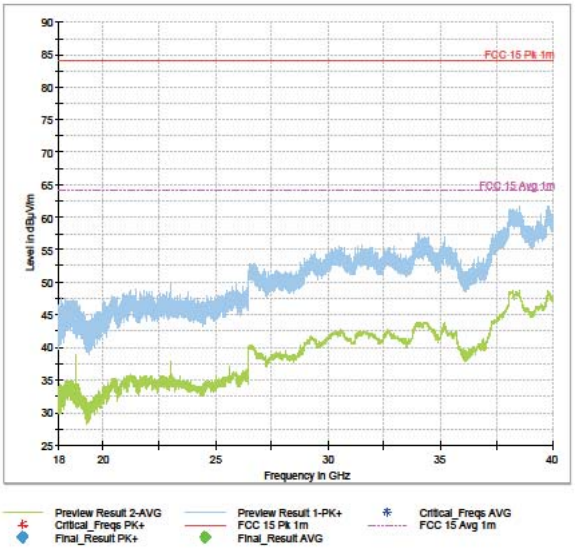
18-40GHz_Ch_151_HT40_2x2_(Tx-24.5dBm)_CDD

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/13/2018 8:57:36 PM

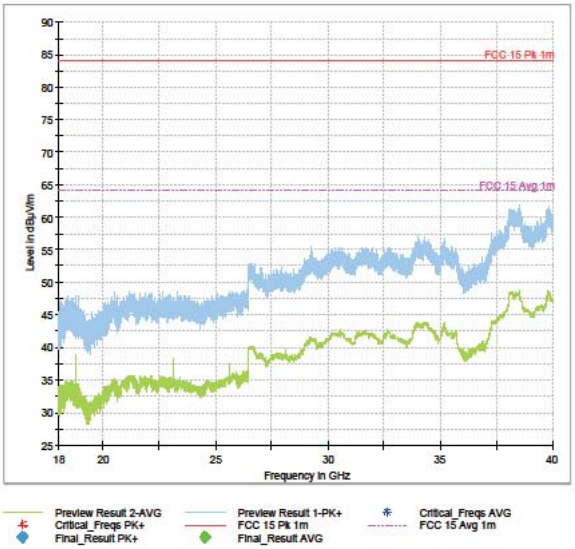
18-40GHz_Ch_155_VHT80_2x2_(Tx-20.5dBm)_CDD

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/13/2018 10:25:41 PM

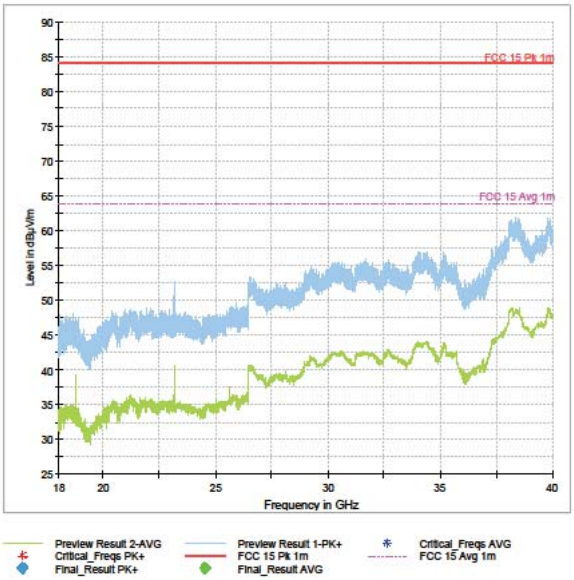
18-40GHz_Ch_157_NoHT_2x2_(Tx-25dBm)_CDD

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



Preview Result 2-AVG
Critical_Freqs PK+
Final_Result PK+
Preview Result 1-PK+
FCC 15 Pk 1m
Final_Result AVG
Critical_Freqs AVG
FCC 15 Avg 1m

4/13/2018 7:10:52 PM

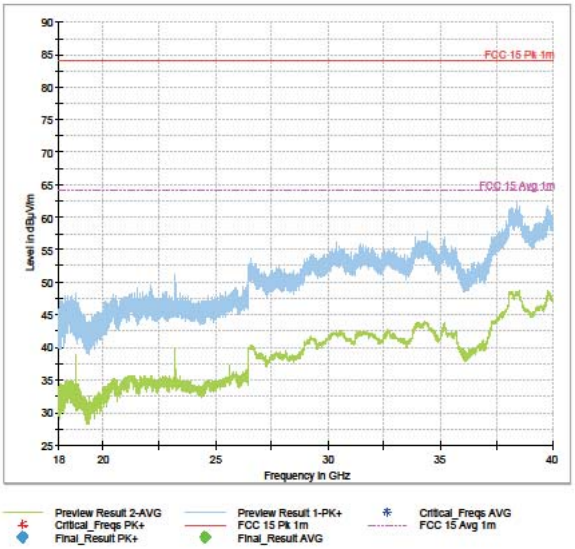
18-40GHz_Ch_159_HT40_2x2_(Tx-24.5dBm)_CDD

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/13/2018 9:00:05 PM

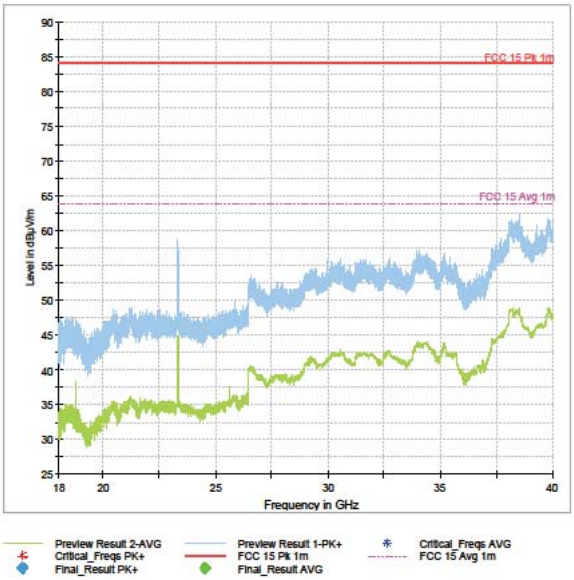
18-40GHz_Ch_165_NoHT_2x2_(Tx-25dBm)_CDD

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	

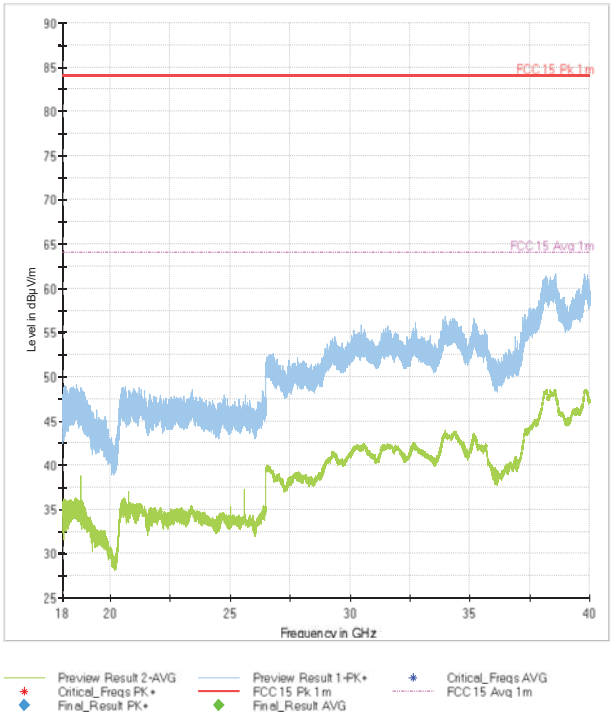


4/13/2018 7:12:54 PM

18-40GHz_Ch_38_VHT40_2x2_(Tx-17dBm)_BF

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)



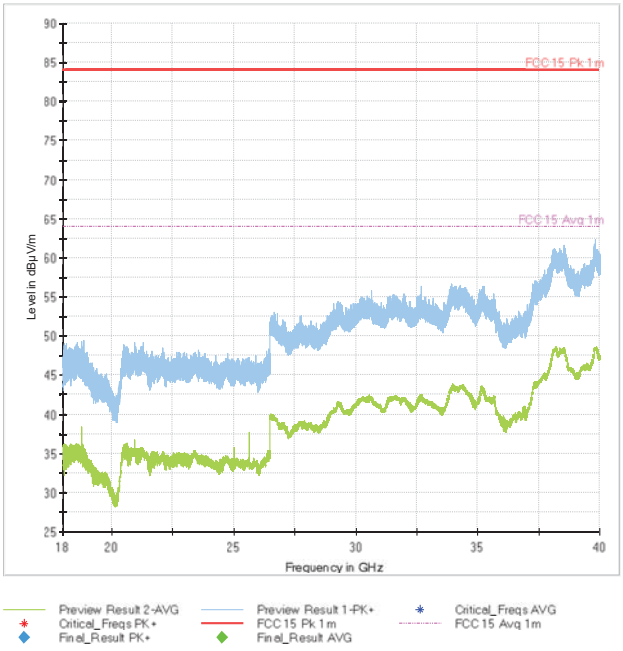
18-40GHz_Ch_44_VHT40_2x2_(Tx-17dBm)_BF

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment



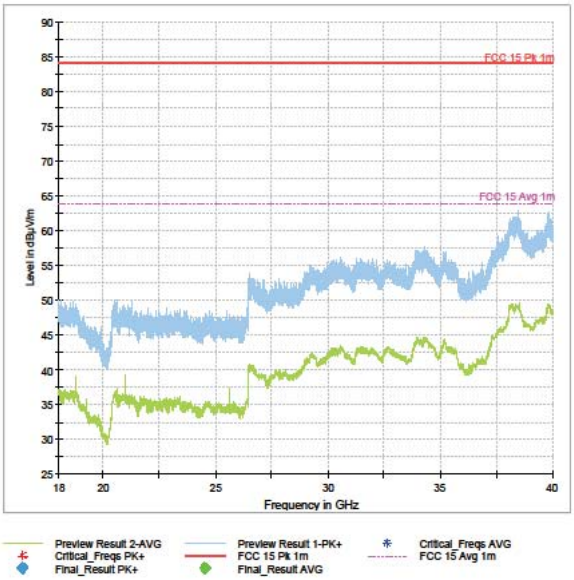
18-40GHz_Ch_48_VHT20_2x2_(Tx-18dBm)_BF

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/26/2018 7:50:35 PM

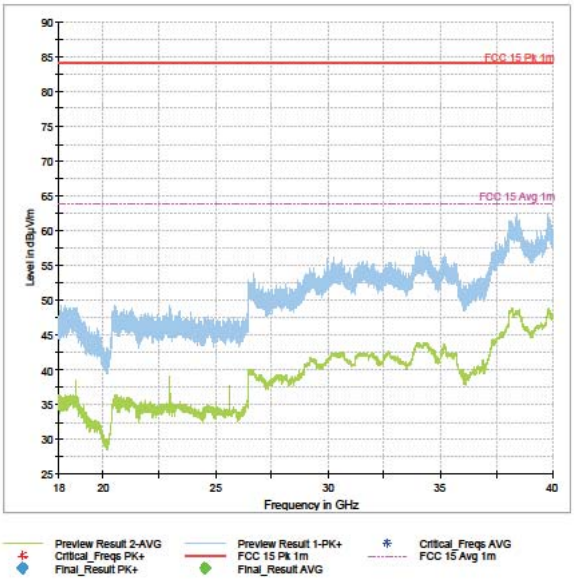
18-40GHz_Ch_149_VHT20_2x2_(Tx-25dBm)_BF

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/26/2018 8:27:07 PM

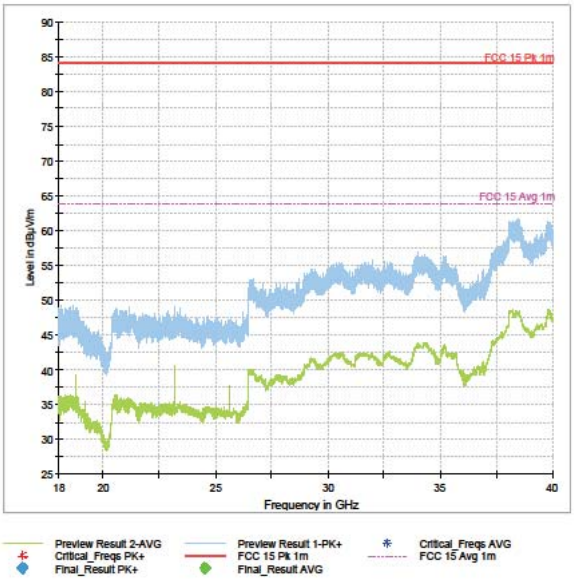
18-40GHz_Ch_157_VHT20_2x2_(Tx-25dBm)_BF

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



4/26/2018 8:59:46 PM

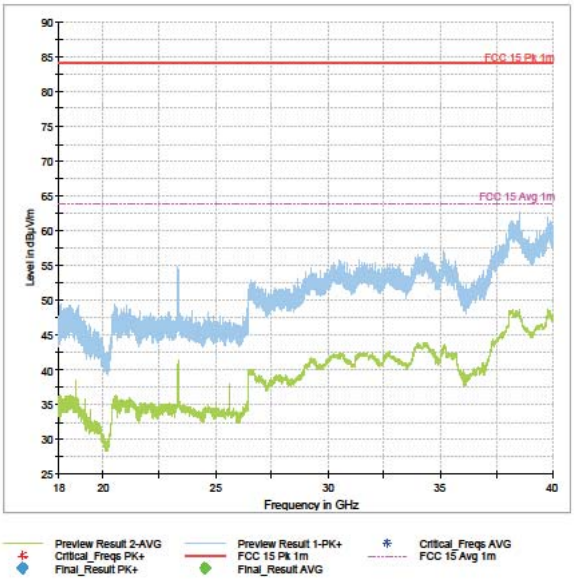
18-40GHz_Ch_165_VHT20_2x2_(Tx-25dBm)_BF

Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
—	—	—	—	—	—	—	—		—	—

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
—	



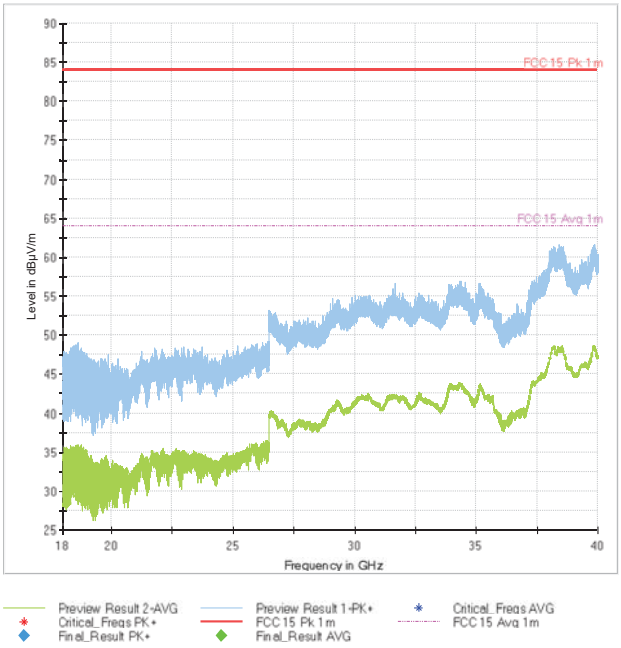
4/26/2018 9:33:14 PM

18-40GHz_Ch_42_VHT80_2x2_(Tx-17dBm)_BF

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)

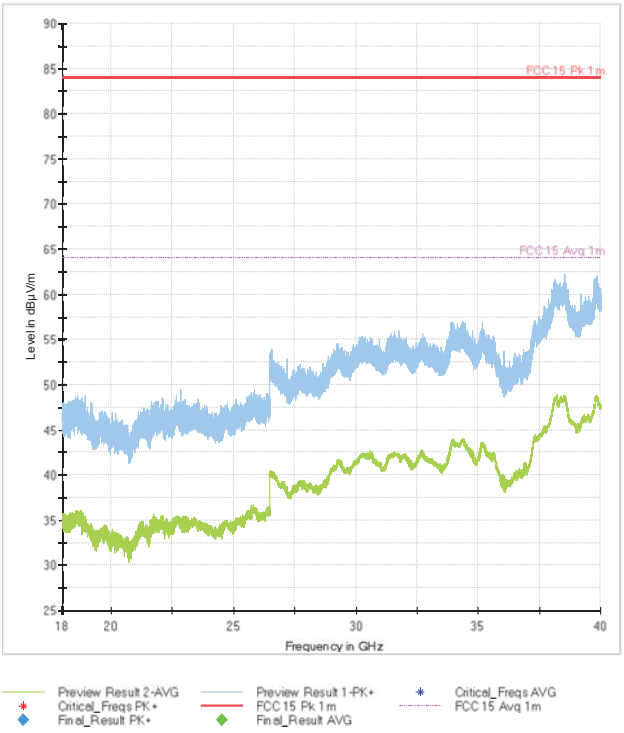
Frequency (MHz)	Comment



18-40GHz_Ch_151_VHT40_2x2_(Tx-24dBm)_BF

Final_Result

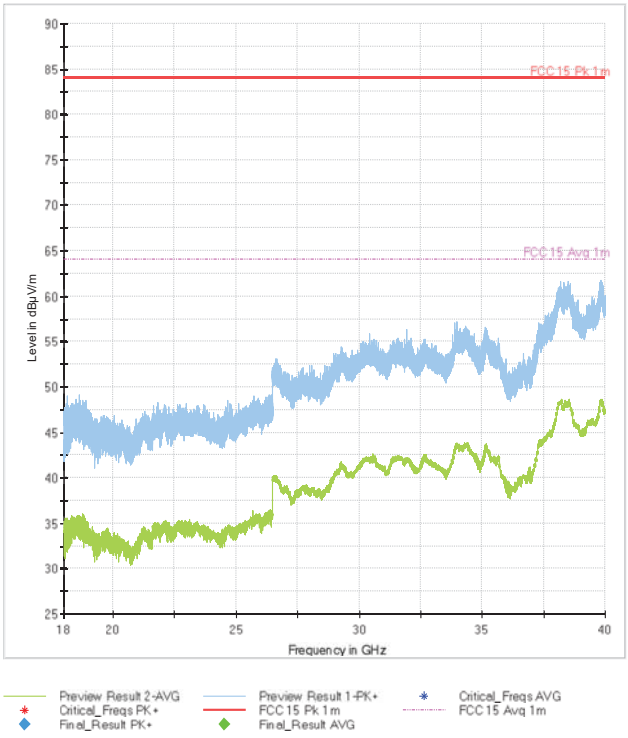
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)



18-40GHz_Ch_149_VHT80_2x2_(Tx-21dBm)_BF

Final_Result

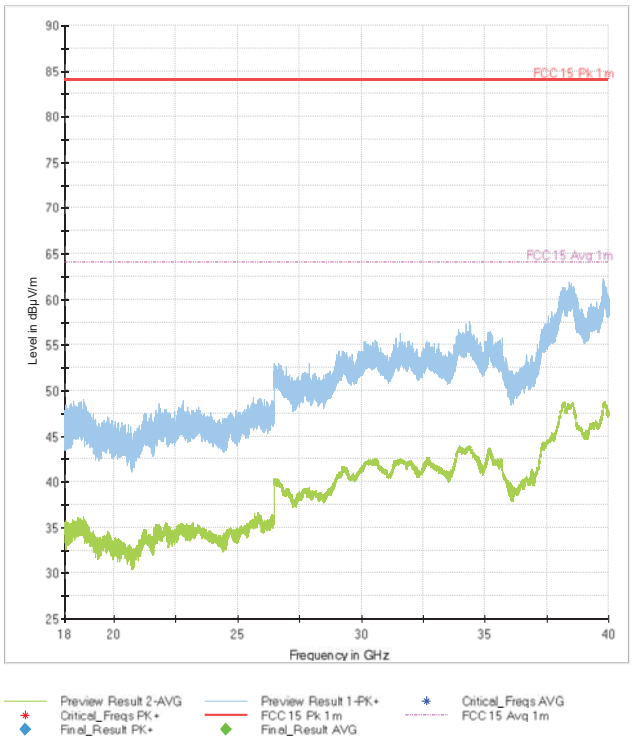
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)



18-40GHz_Ch_157_VHT40_2x2_(Tx-24dBm)_BF

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)



6.6 Band Edge Emissions in the UNII Bands

Test Method

The ANSI C63.10-2013 Section 6.10.5.2 the procedure described was followed testing in an anechoic chamber. The EUT was tested from 9kHz to 40GHz. The preliminary investigation was performed at different data rate to determine the highest power output for each mode. A diag program called QRCT was used to set the AP in continuous Tx mode and also to set the channel, channel power and data rate. This test was conducted on 3 channels for each of the throughput modes. The analyzer was configured as follows.

Cable loss and duty cycle correction were entered as an offset

RBW= 120 kHz< 1 GHz.< 1 MHz

VBW= 3 x RBW

Span= Per the band under test

SWT= auto

Detector = Per the measurement being made

Test Conditions: Conducted Measurement (SA), Normal Temperature	**Date**: 4/12-6/18 2018
Antenna Type:	Stamped metal dipole
Duty cycle correction: see sect. 5	Data Rate: 6mbps, MCS0
Ambient Temp.: 23º C	Relative Humidity: 38 %RH

6.6.1 Radiated Band Edge Emissions

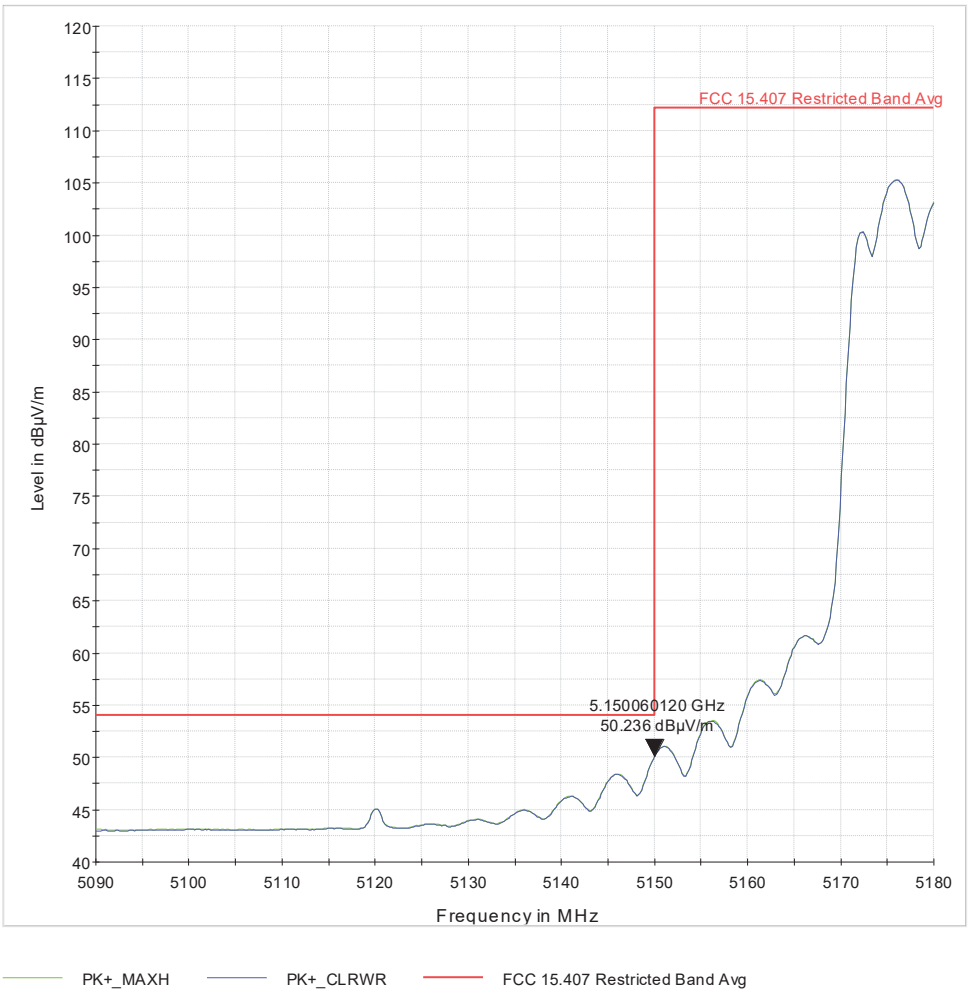


Figure 1 U-1_L-BE_ch36_NoHT_2x2_pwr=20.5_73deg_192cm_V_avg

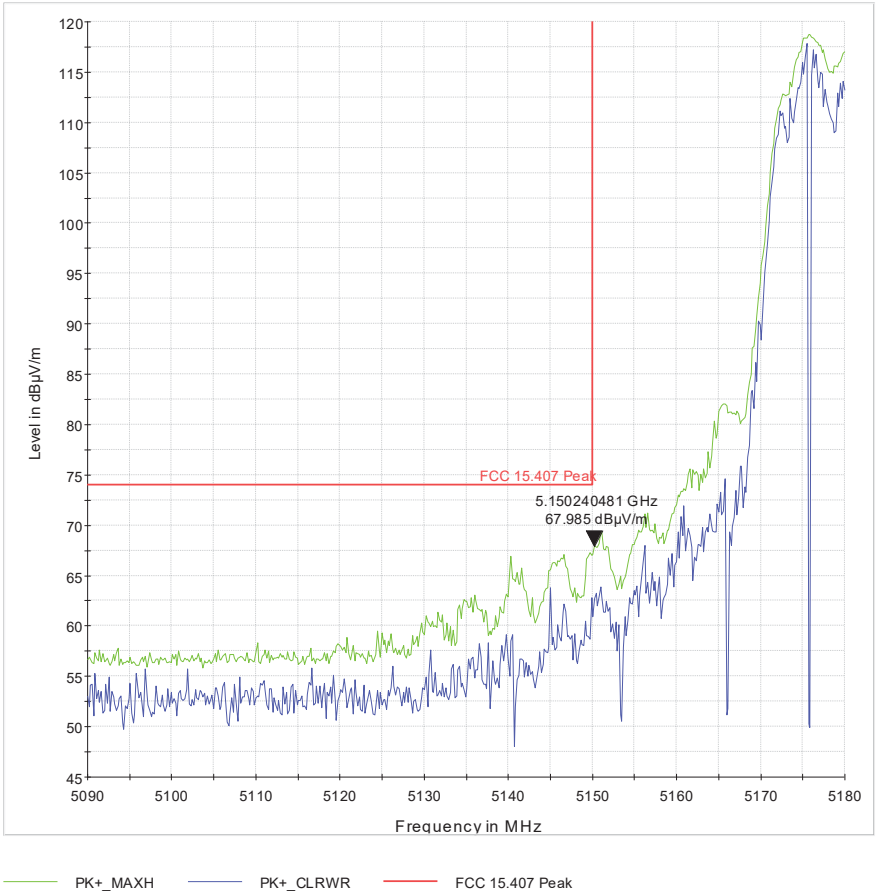


Figure 2 U-1_L-BE_ch36_NoHT_2x2_pwr=20.5_73deg_192cm_V_pk

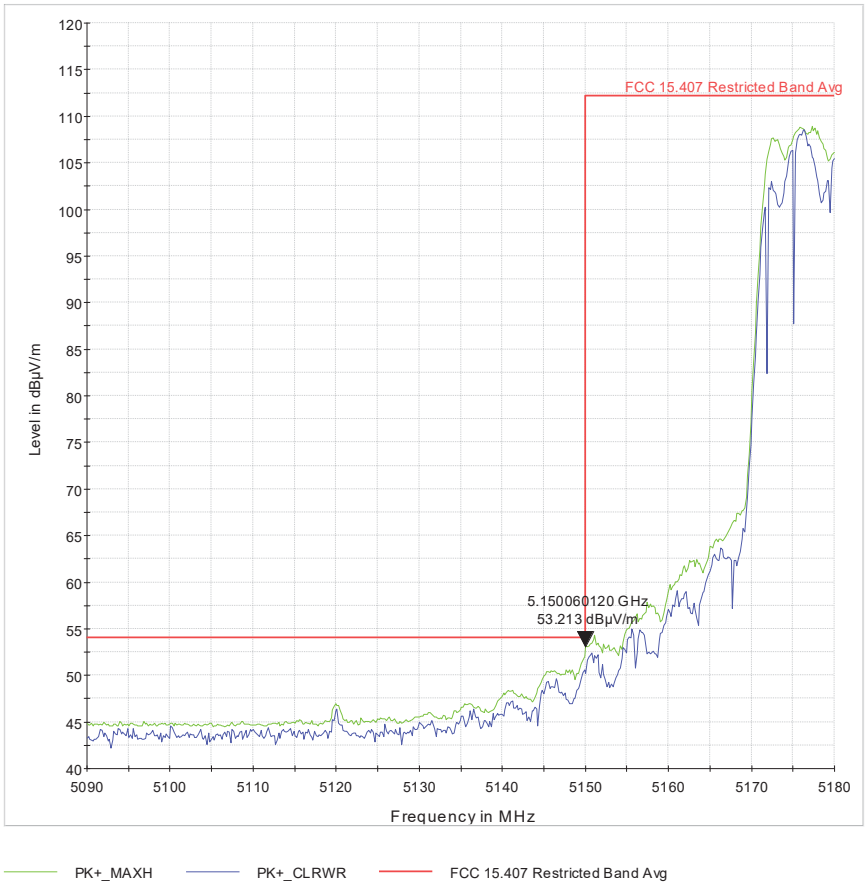


Figure 3 U-1_L-BE_ch36_NoHT_2x2_pwr=20.5_maximize

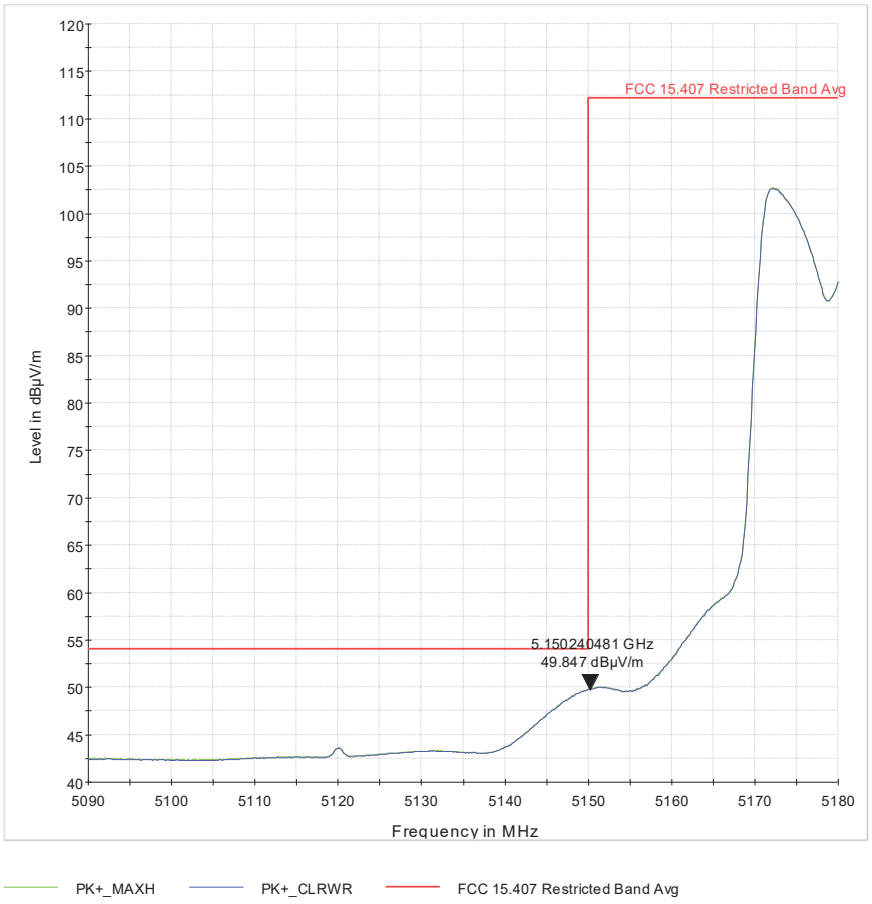


Figure 4 U-1_L-BE_ch36_HT20_2x2_pwr=20_241deg_168cm_H_avg

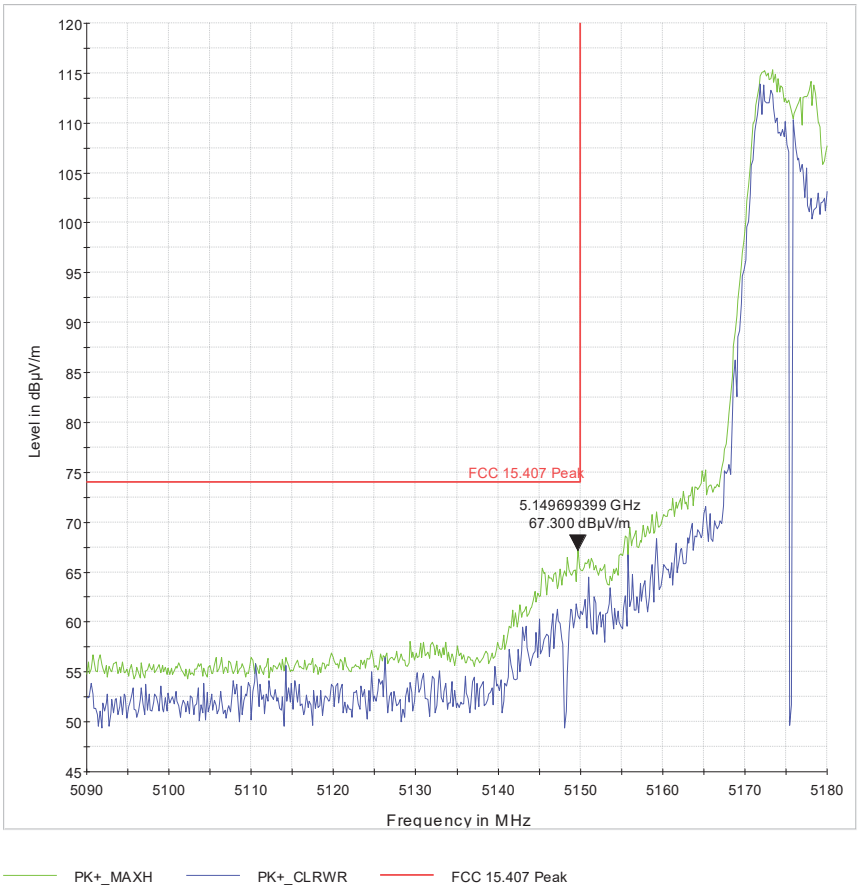


Figure 5 U-1_L-BE_ch36_HT20_2x2_pwr=20_241deg_168cm_H_pk

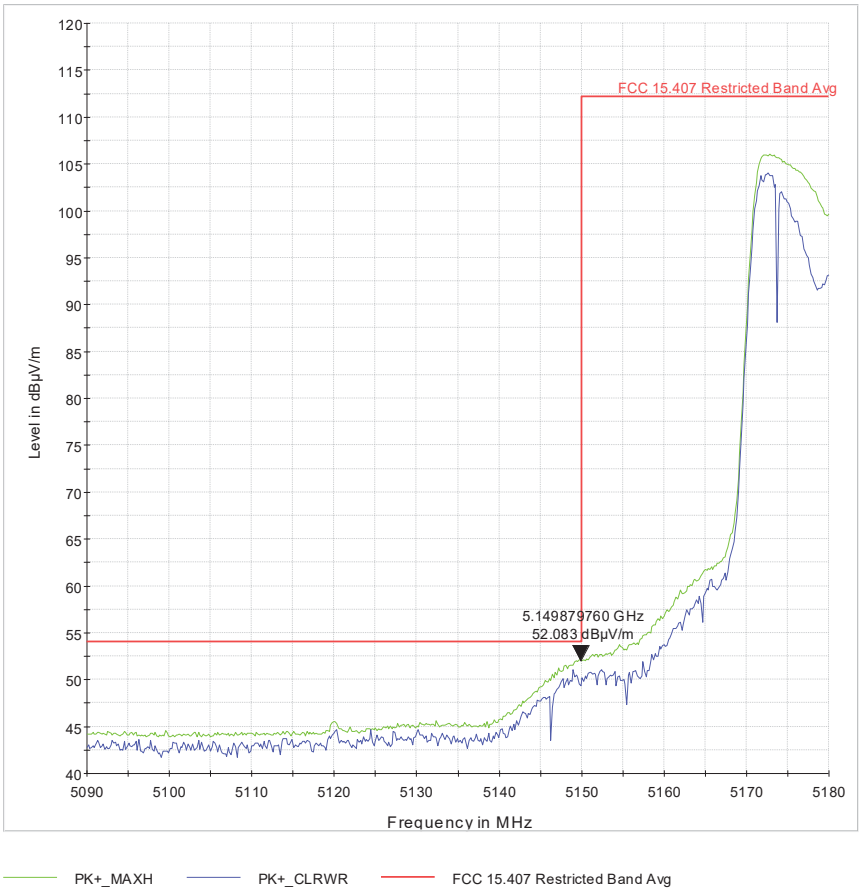


Figure 6 U-1_L-BE_ch36_HT20_2x2_pwr=20_maximize

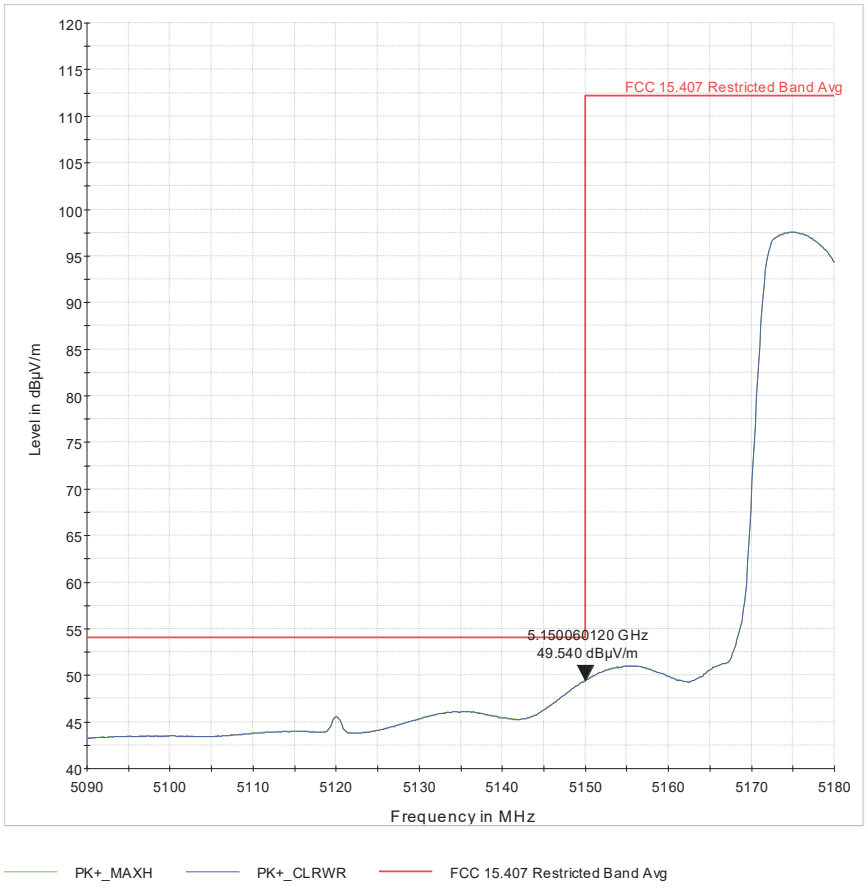


Figure 7 U-1_L-BE_ch38_HT40_2x2_pwr=17_74deg_197cm_V_avg

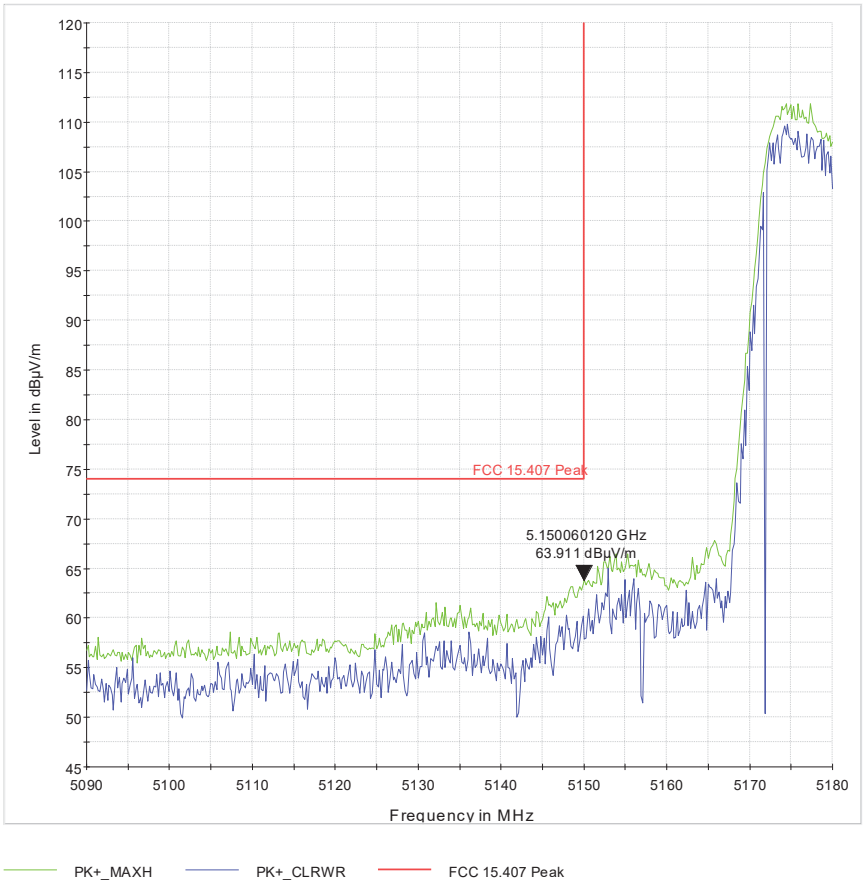


Figure 8 U-1_L-BE_ch38_HT40_2x2_pwr=17_74deg_197cm_V_pk

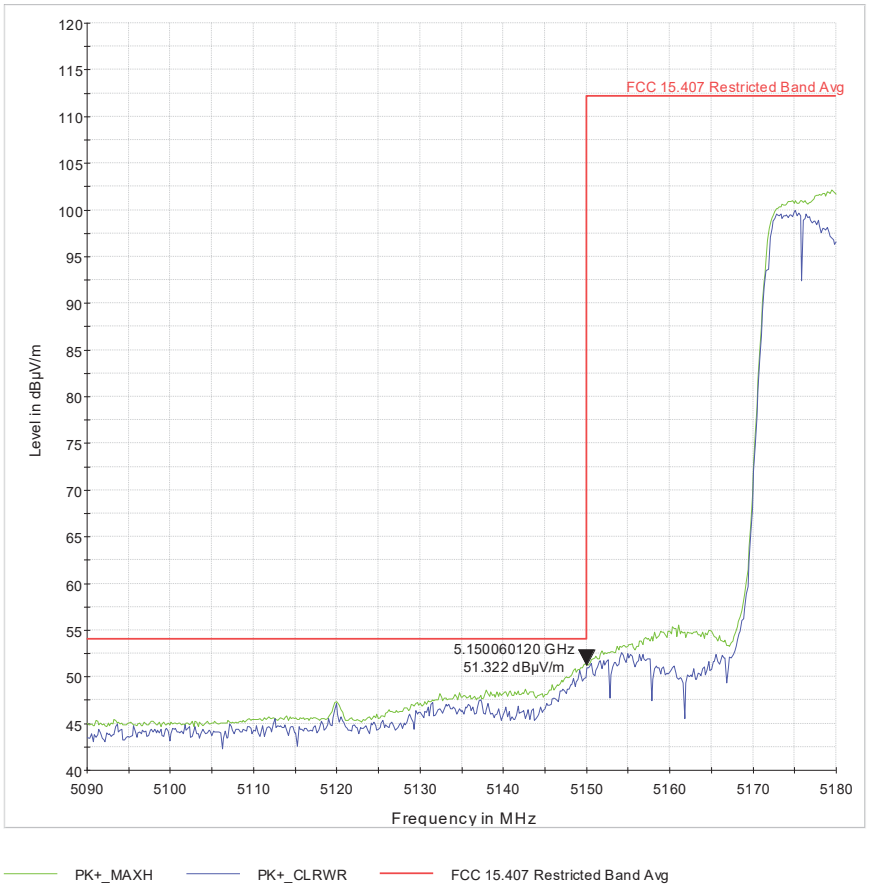


Figure 9 U-1_L-BE_ch38_HT40_2x2_pwr=17_maximize

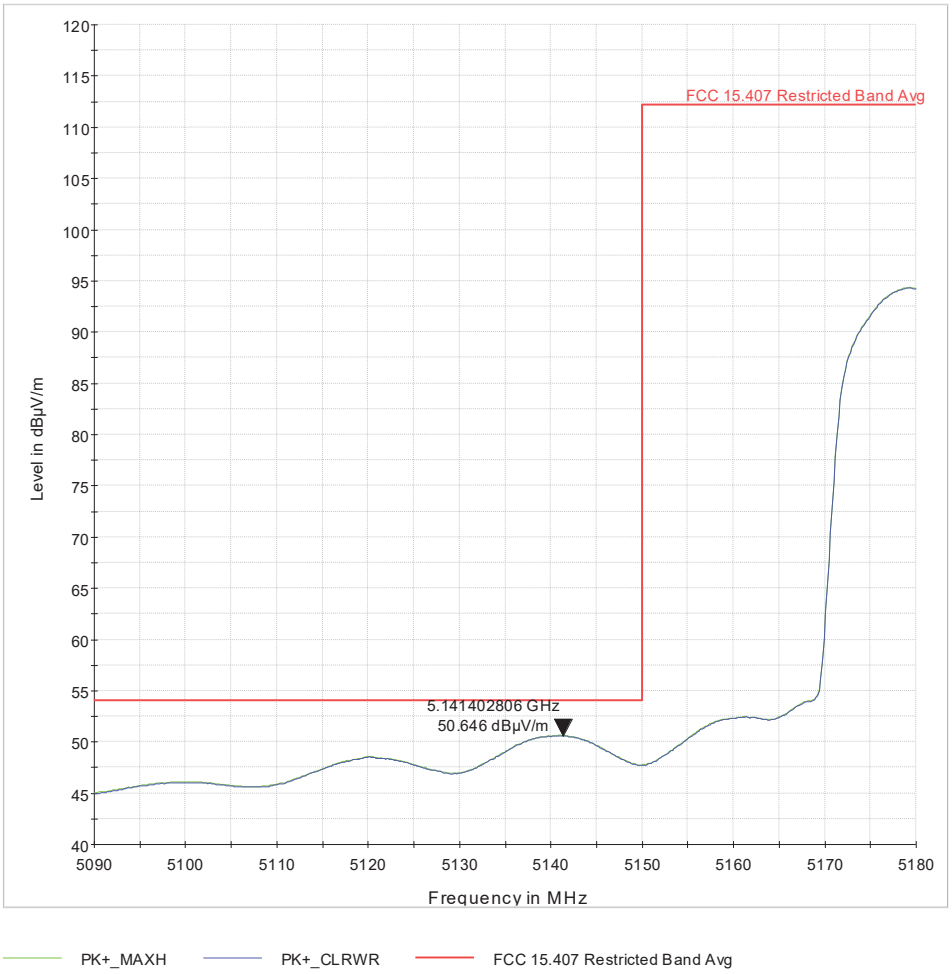


Figure 10 U-1_L-BE_ch42_VHT80_2x2_pwr=16.5_227deg_184cm_H_avg

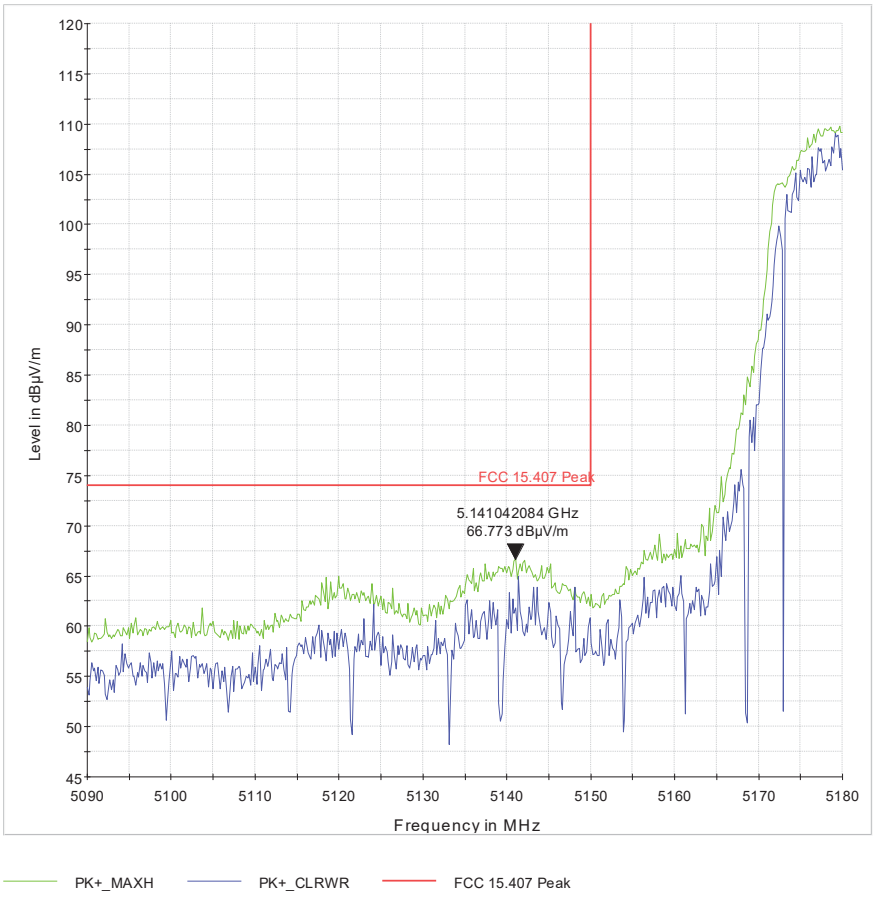


Figure 11 U-1_L-BE_ch42_VHT80_2x2_pwr=16.5_227deg_184cm_H_pk

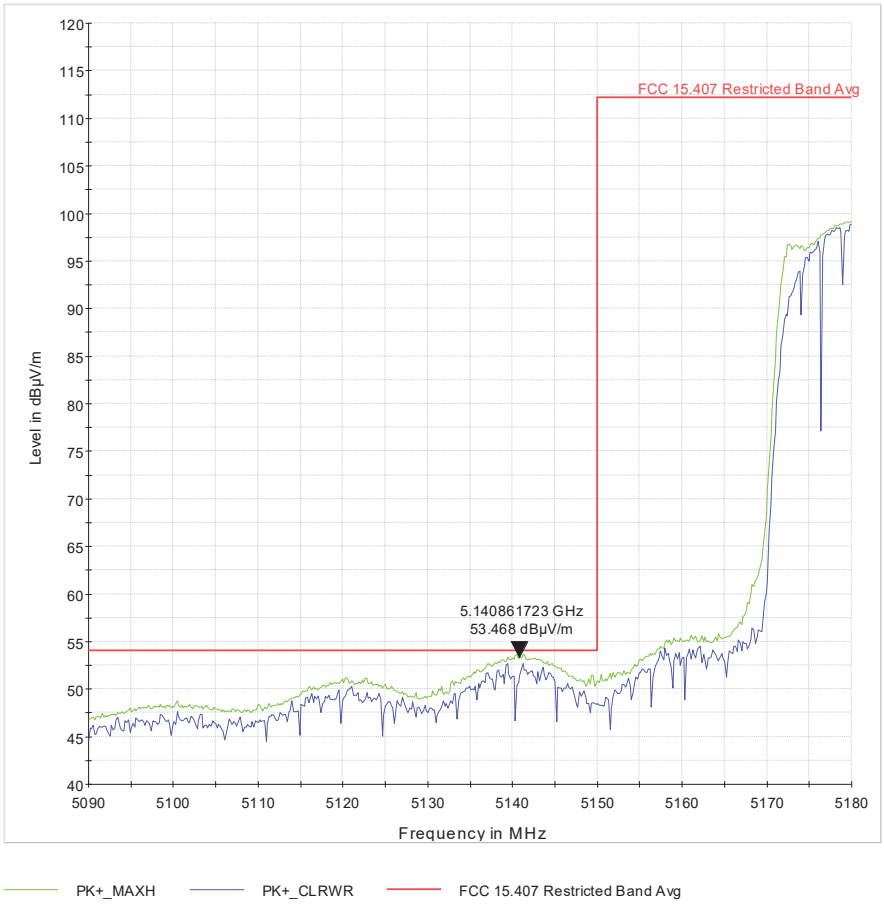


Figure 12 U-1_L-BE_ch42_VHT80_2x2_pwr=16.5_maximize

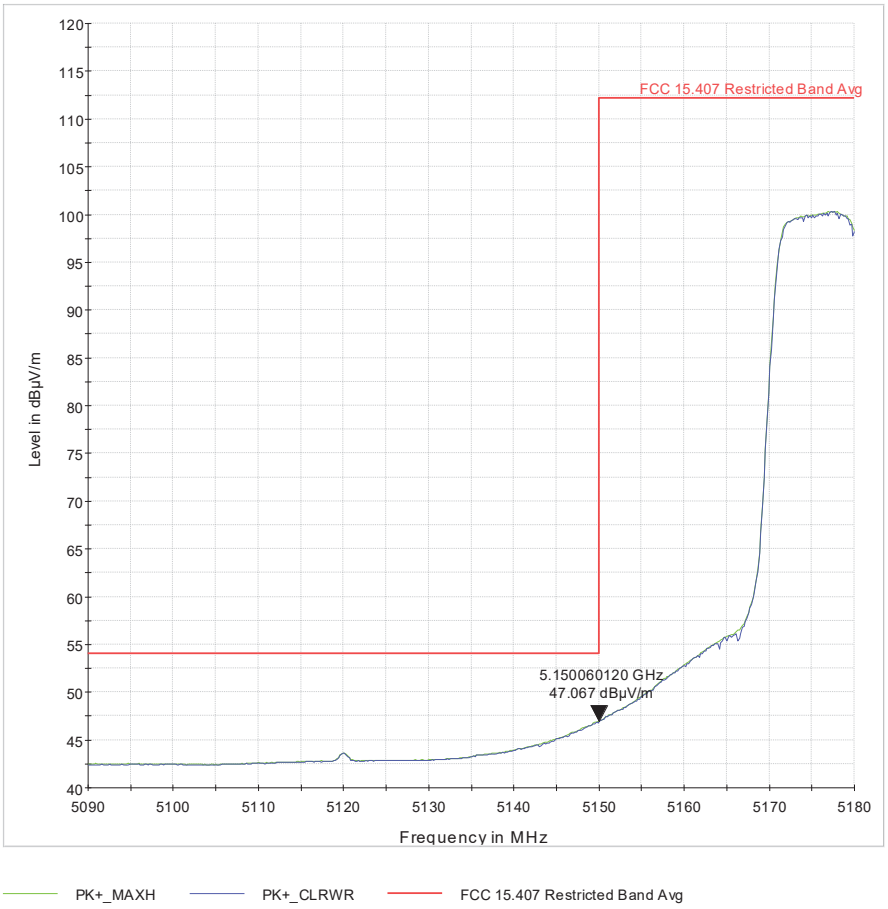


Figure 13 U-1_L-BE_ch36_VHT20_2x2_pwr=18_BF_218deg_209cm_H_avg

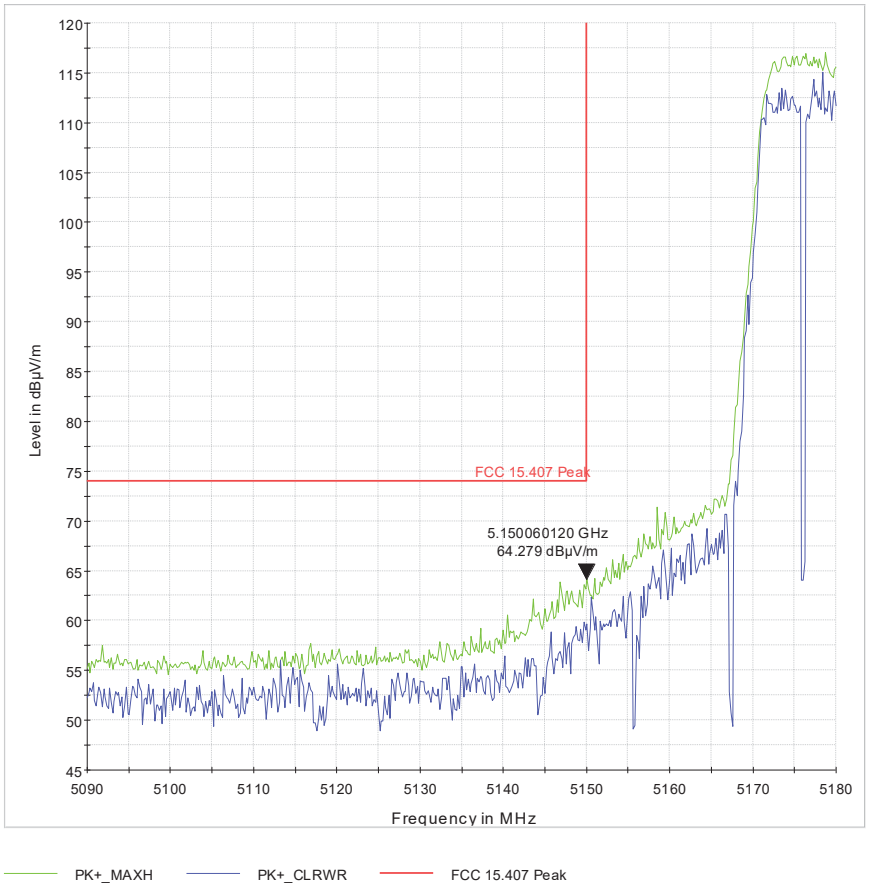


Figure 14 U-1_L-BE_ch36_VHT20_2x2_pwr=18_BF_218deg_209cm_H_pk

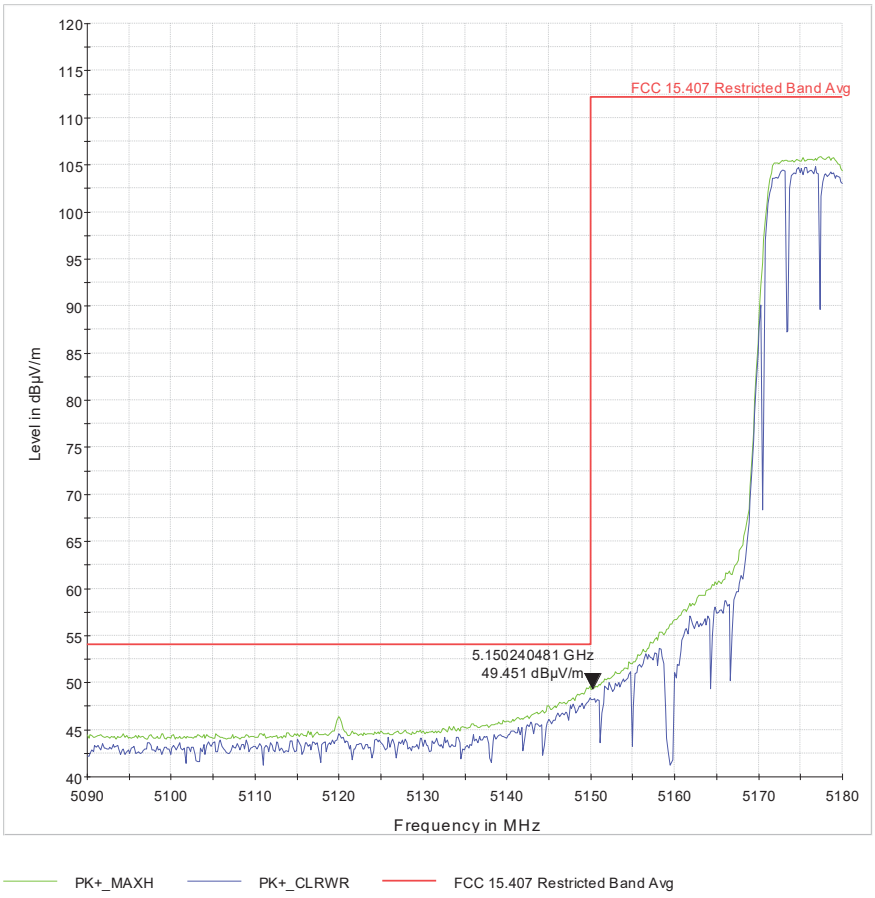


Figure 15 U-1_L-BE_ch36_VHT20_2x2_pwr=18_BF_maximize

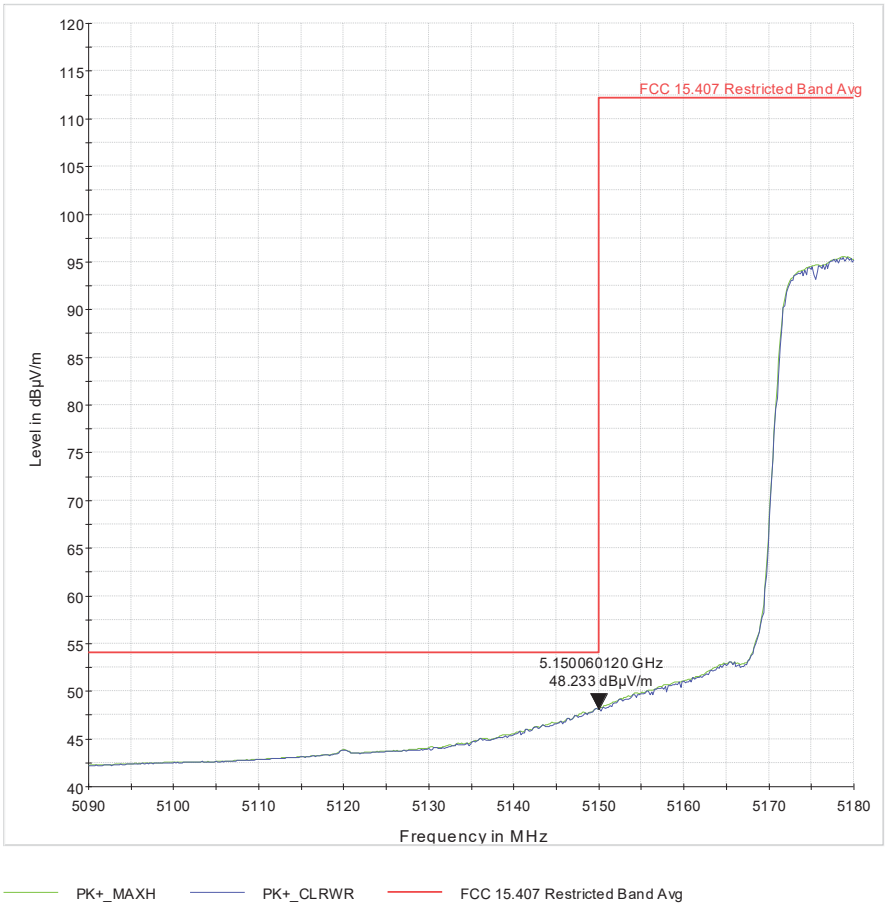


Figure 16 U-1_L-BE_ch38_VHT40_2x2_pwr=17_BF_201deg_292cm_H_avg

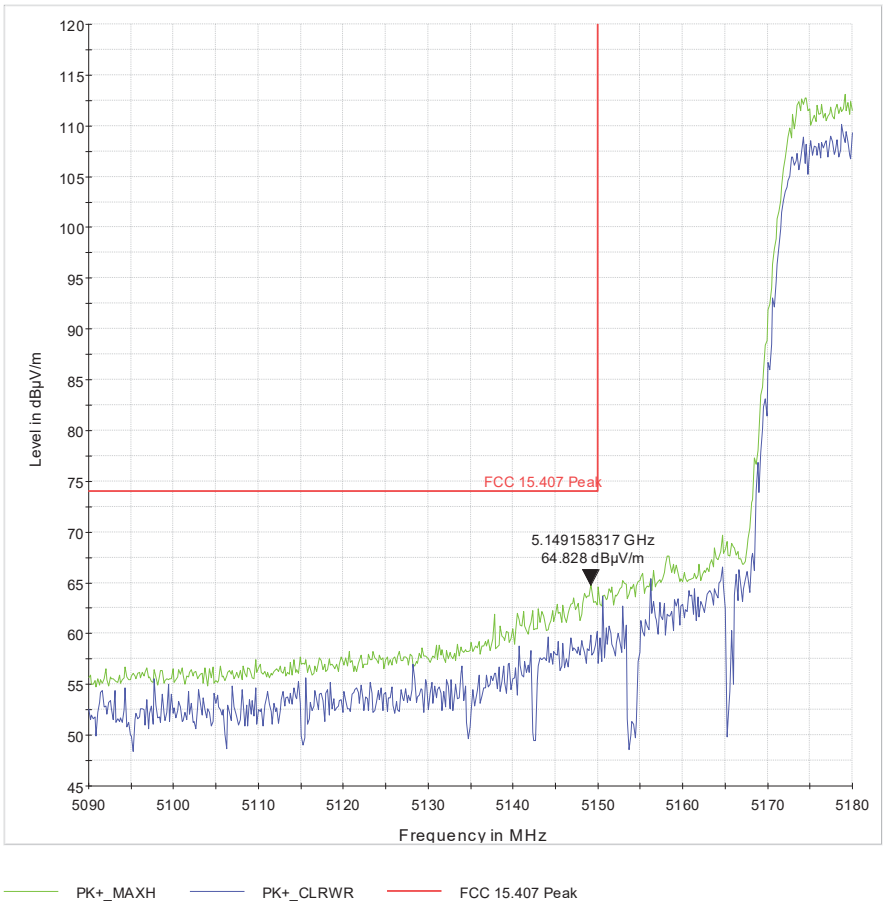


Figure 17U-1_L-BE_ch38_VHT40_2x2_pwr=17_BF_201deg_292cm_H_pk

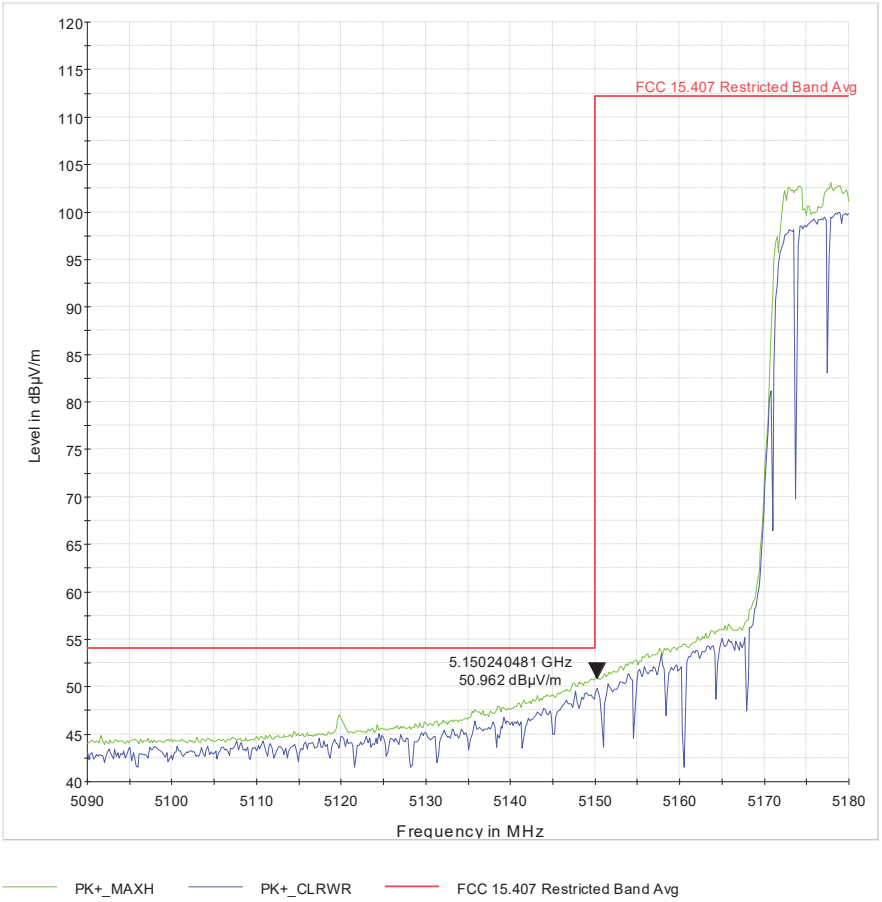


Figure 18 U-1_L-BE_ch38_VHT40_2x2_pwr=17_BF_maximize

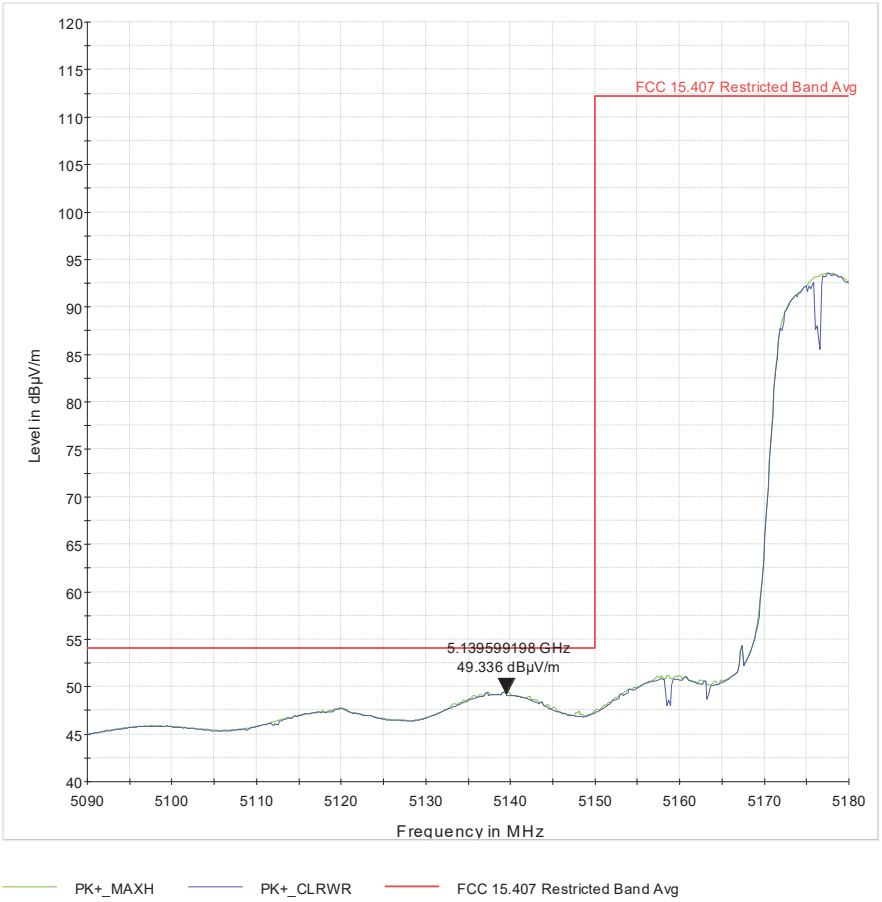


Figure 19 U-1_L-BE_ch42_VHT80_2x2_pwr=17_BF_228deg_178cm_H_avg

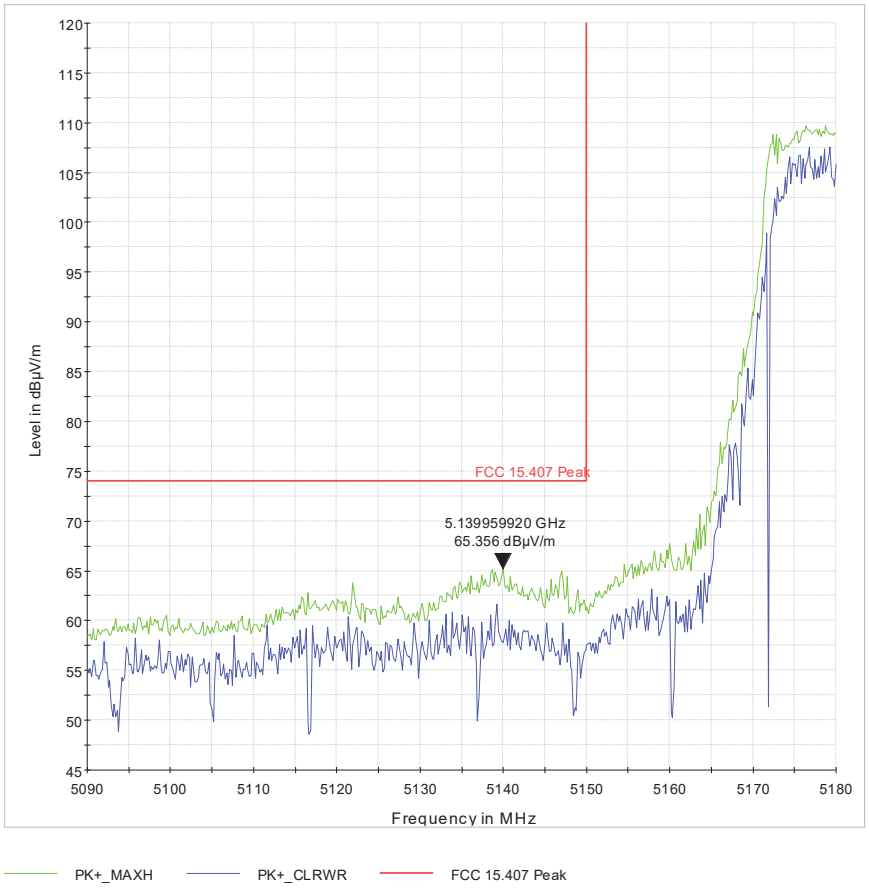


Figure 20 U-1_L-BE_ch42_VHT80_2x2_pwr=17_BF_228deg_178cm_H_pk

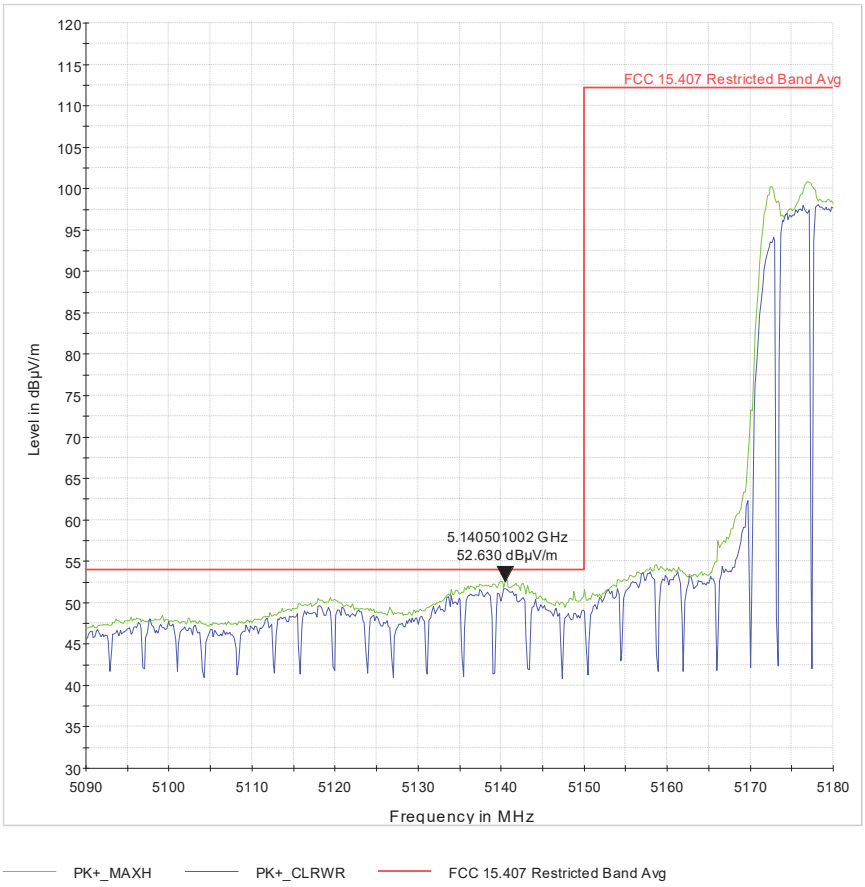


Figure 21 U-1_L-BE_ch42_VHT80_2x2_pwr=17_BF_maximize

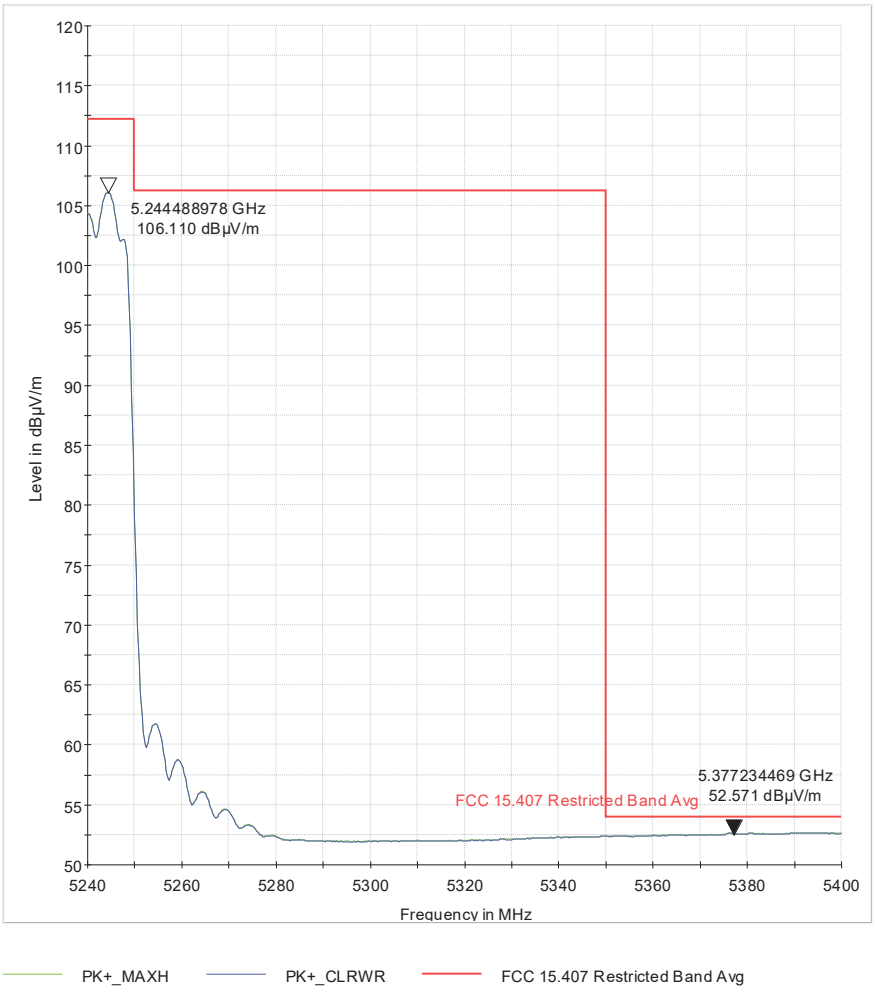


Figure 22 U-1_H_BE_NoHT_ch48_pwr-20.5_2x2_CDD_249deg_175cm_V_avg

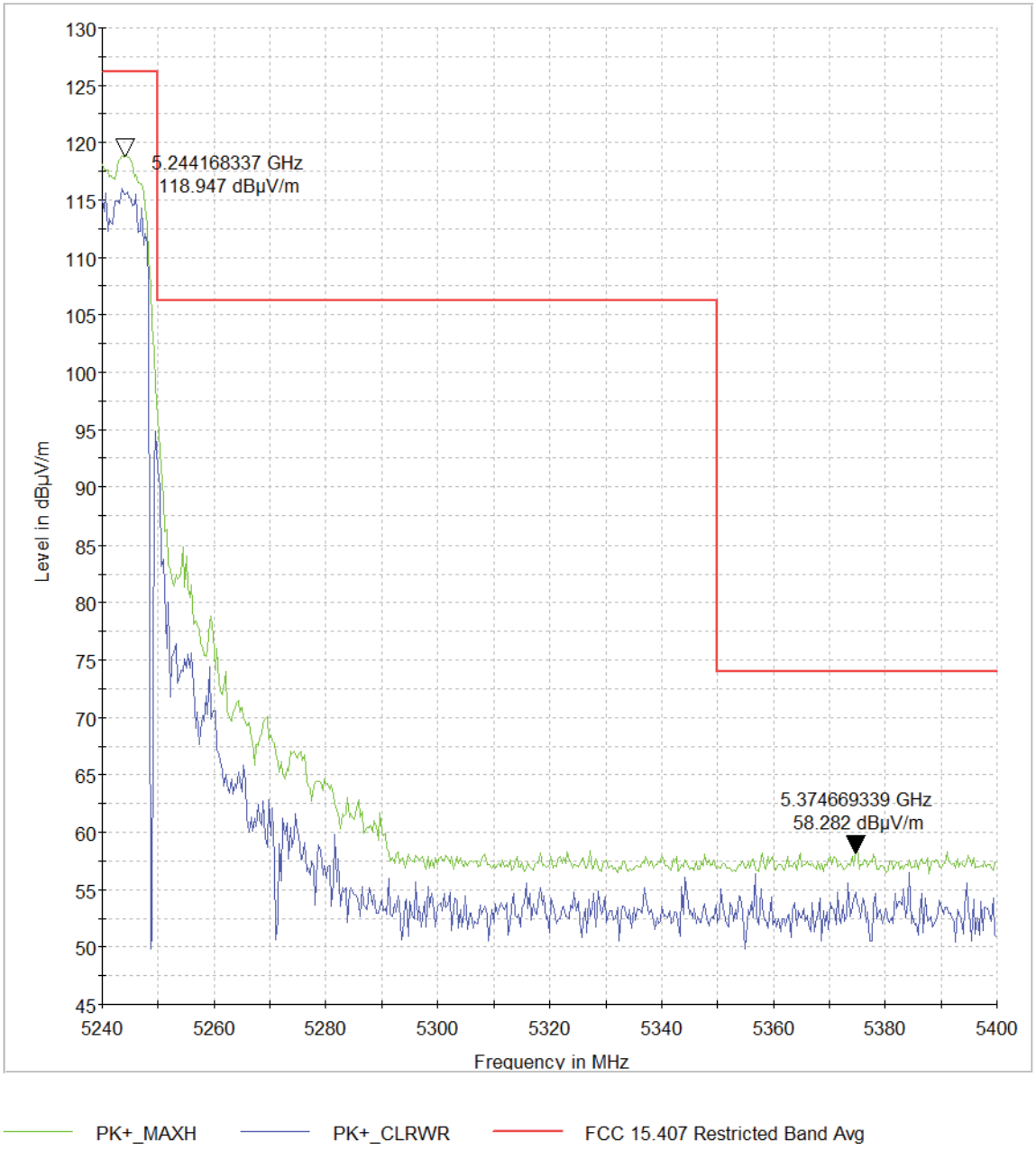


Figure 23 U-1_H_BE_NoHT_ch48_pwr-20.5_2x2_CDD_249deg_175cm_V_pk

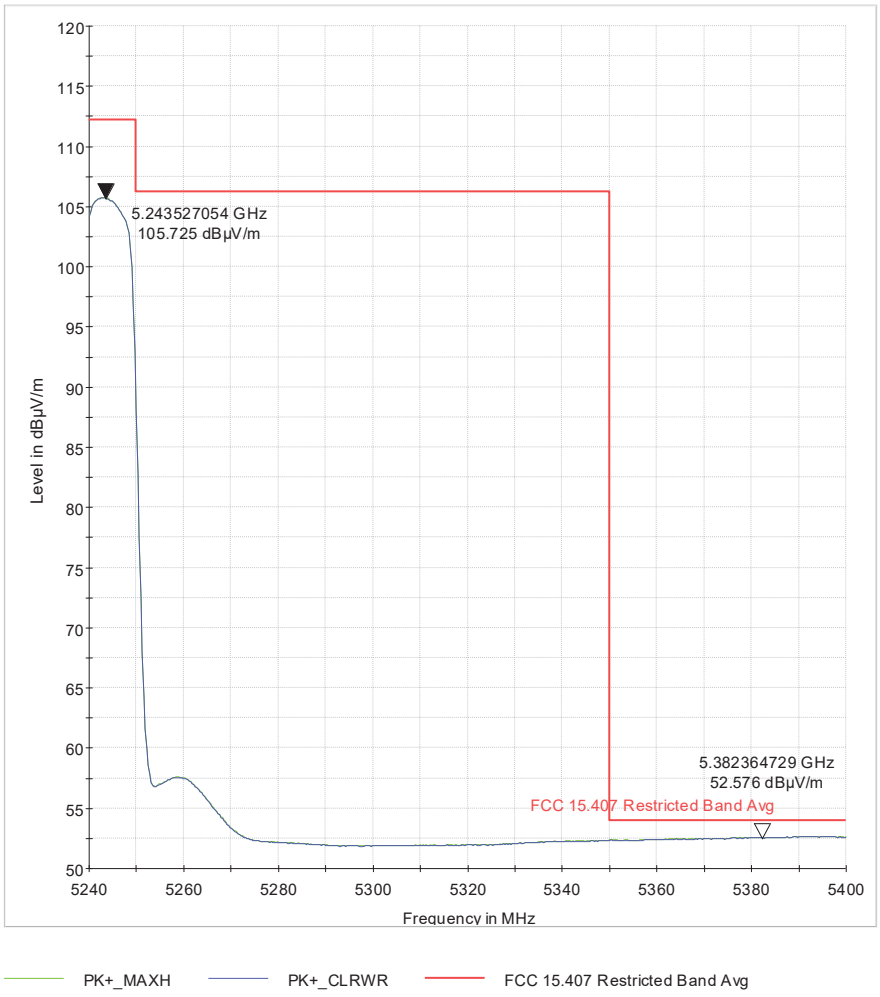


Figure 24 U-1_H_BE_HT20_ch48_pwr-20_2x2_CDD_230deg_180cm_V_avg

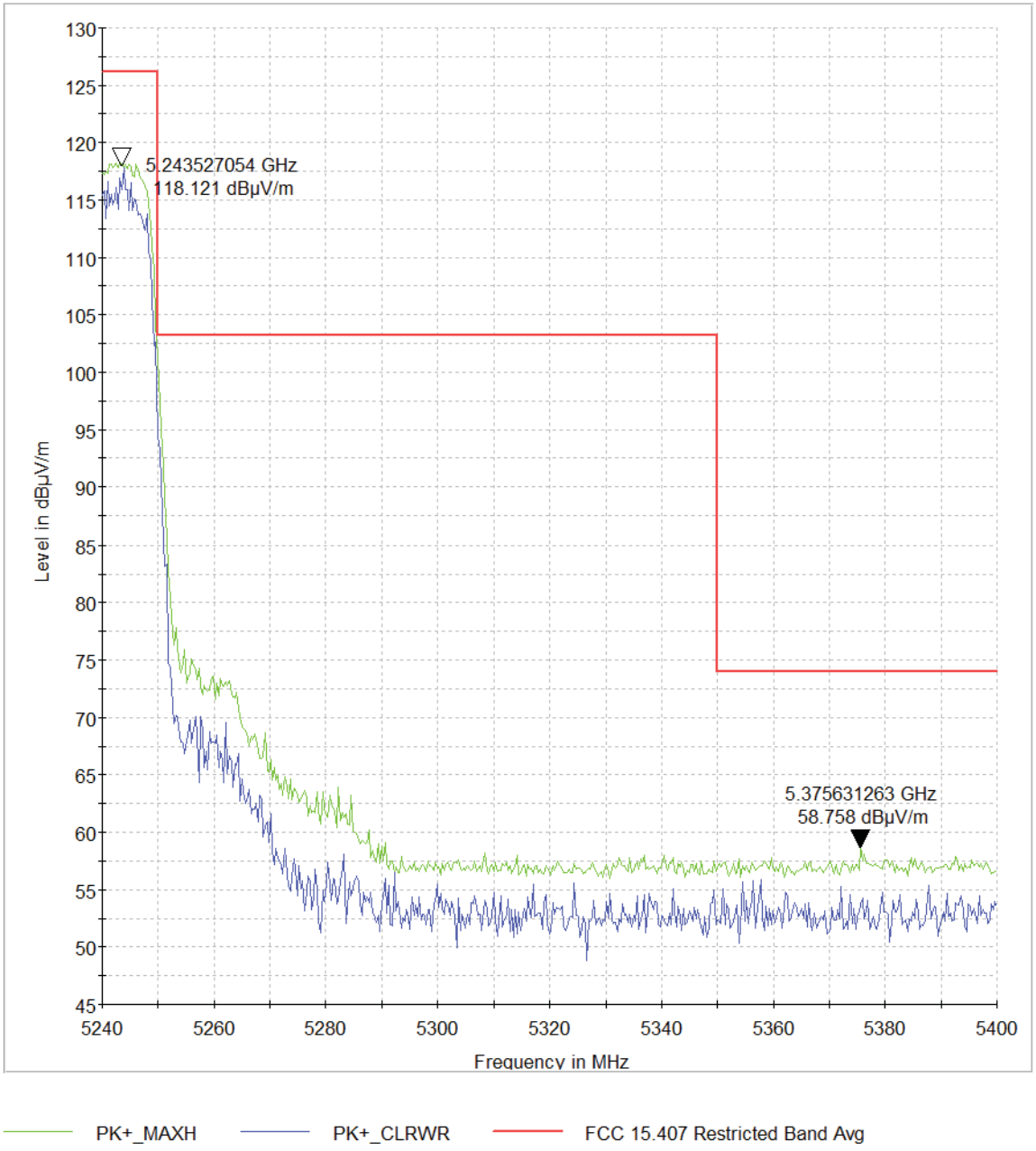


Figure 25 U-1_H_BE_HT20_ch48_pwr-20_2x2_CDD_230deg_180cm_V_pk

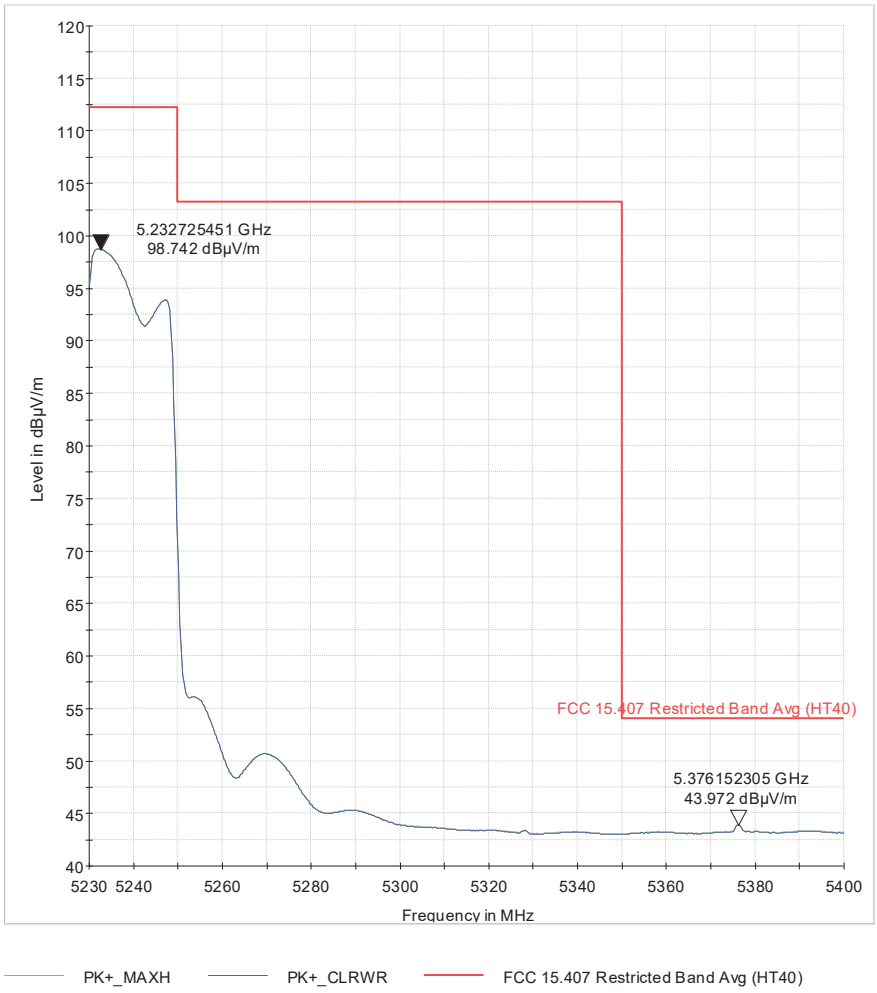


Figure 26 U-1_H_BE_HT40_ch46_pwr-17_2x2_CDD_234deg_150cm_V_avg

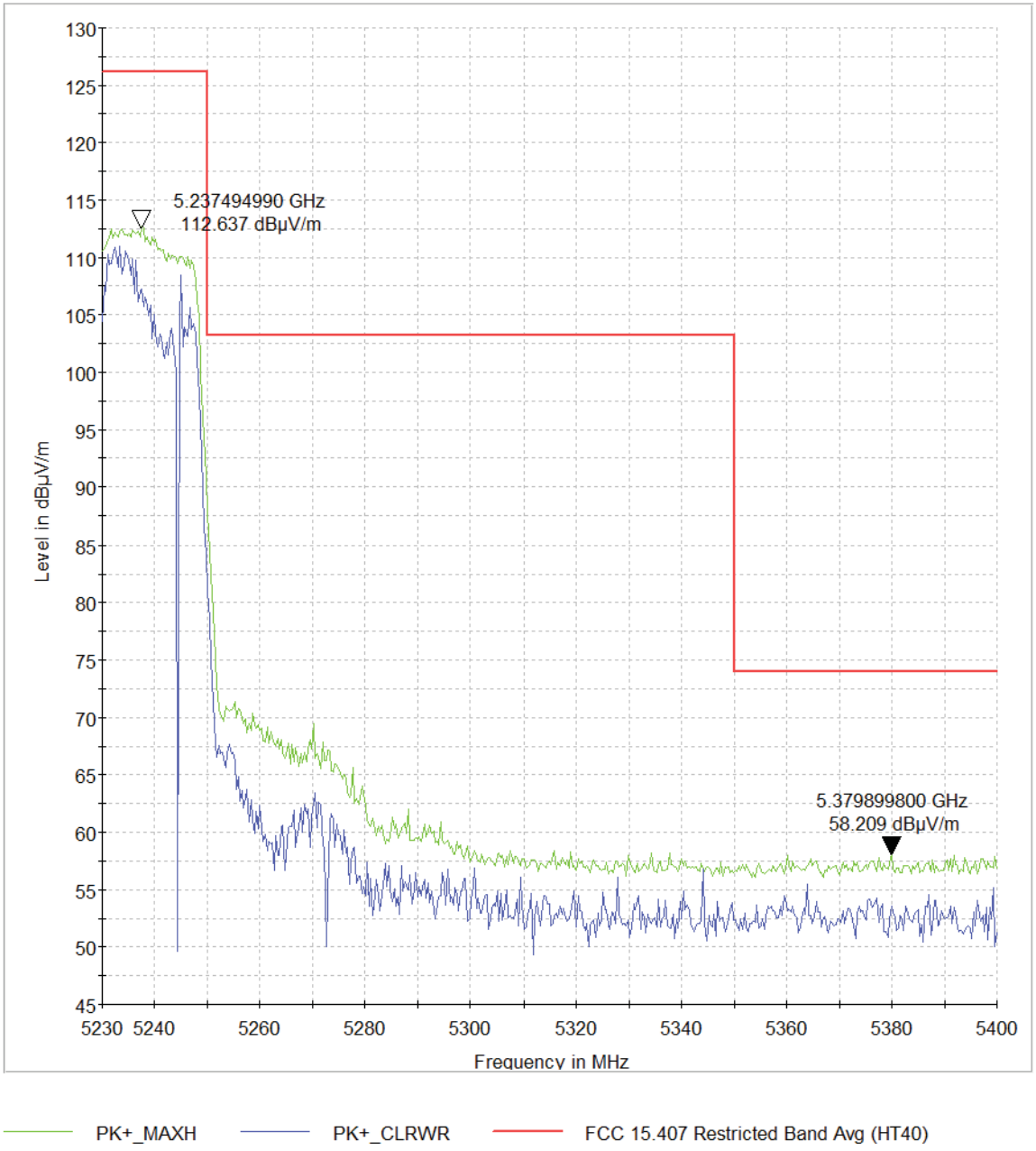


Figure 27 U-1_H_BE_HT40_ch46_pwr-17_2x2_CDD_234deg_150cm_V_pk

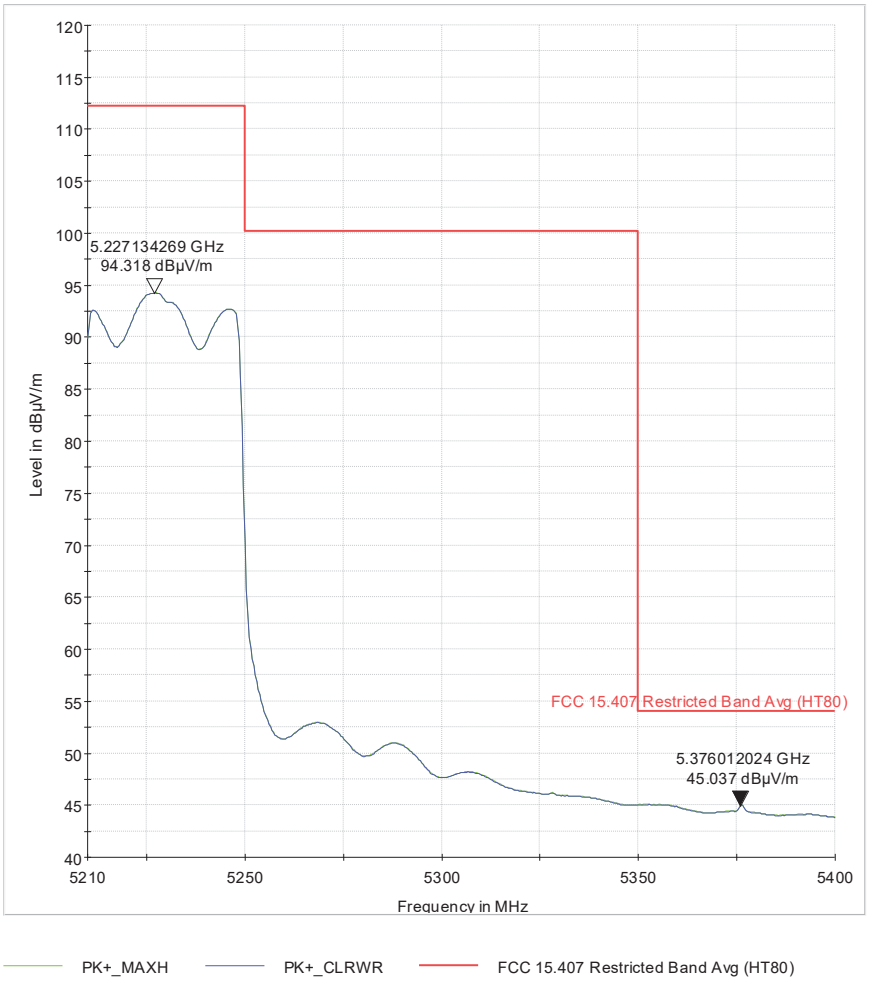


Figure 28 U-1_H_BE_VHT80_ch42_pwr-16.5_2x2_CDD_251deg_158cm_V_avg

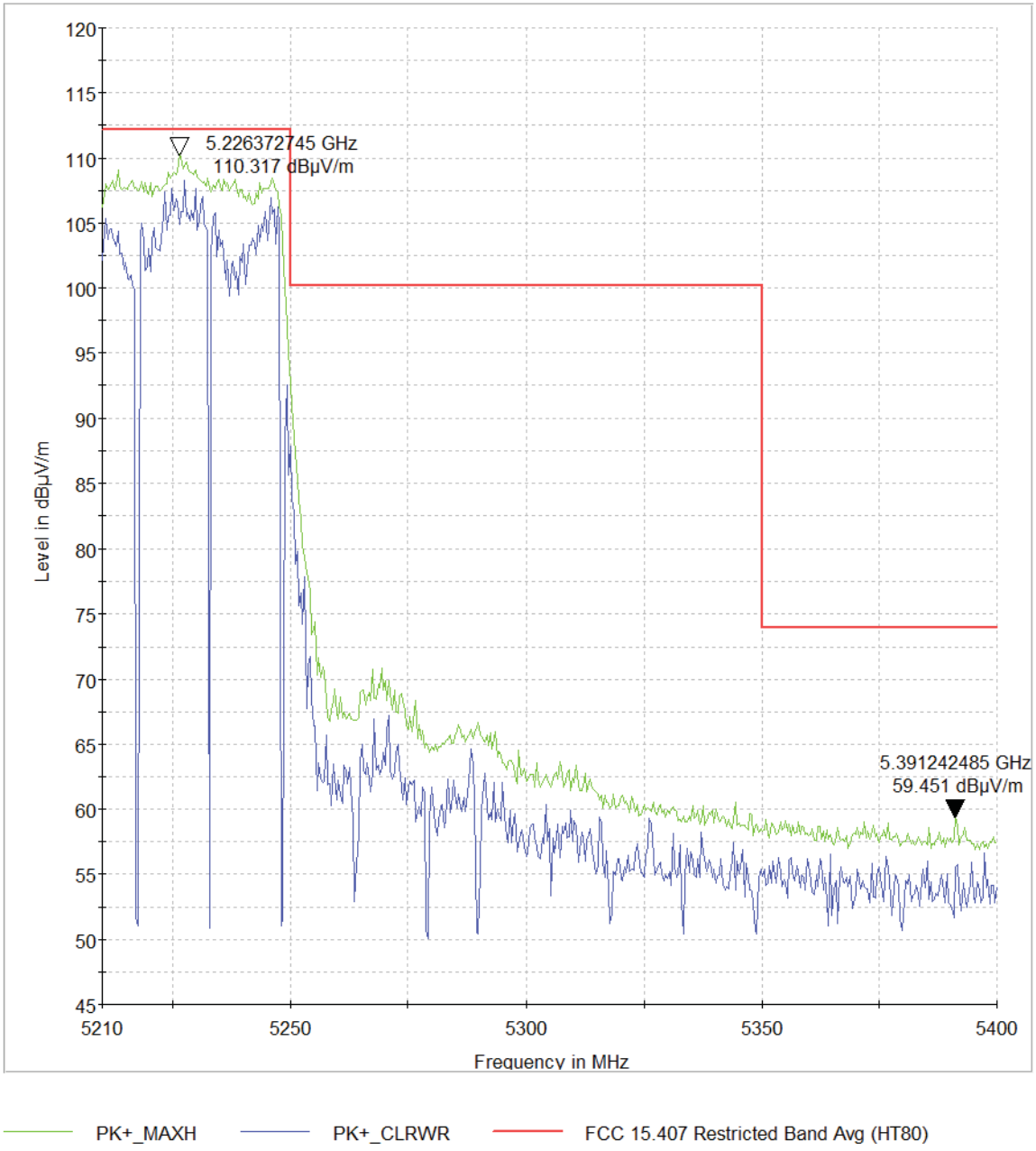


Figure 29 U-1_H_BE_VHT80_ch42_pwr-16.5_2x2_CDD_251deg_158cm_V_pk

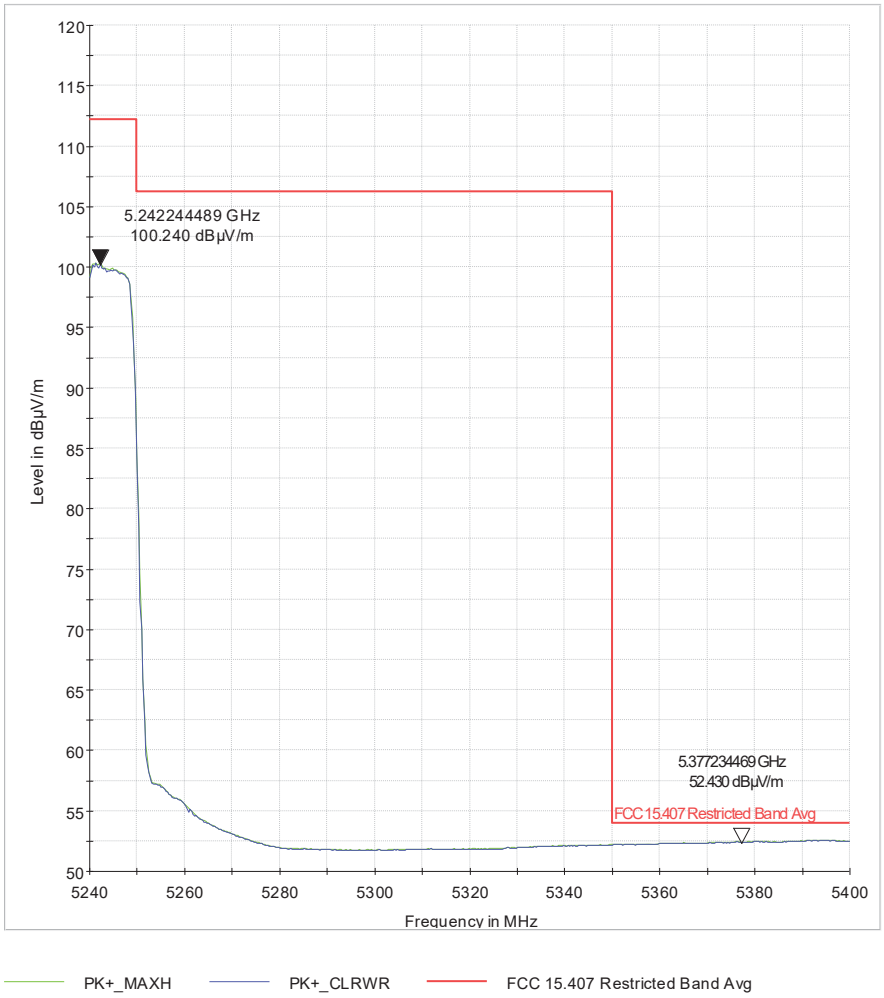


Figure 30 U-1_H_BE_VHT20_ch48_pwr-20_2x2_BF_262deg_123cm_V_avg

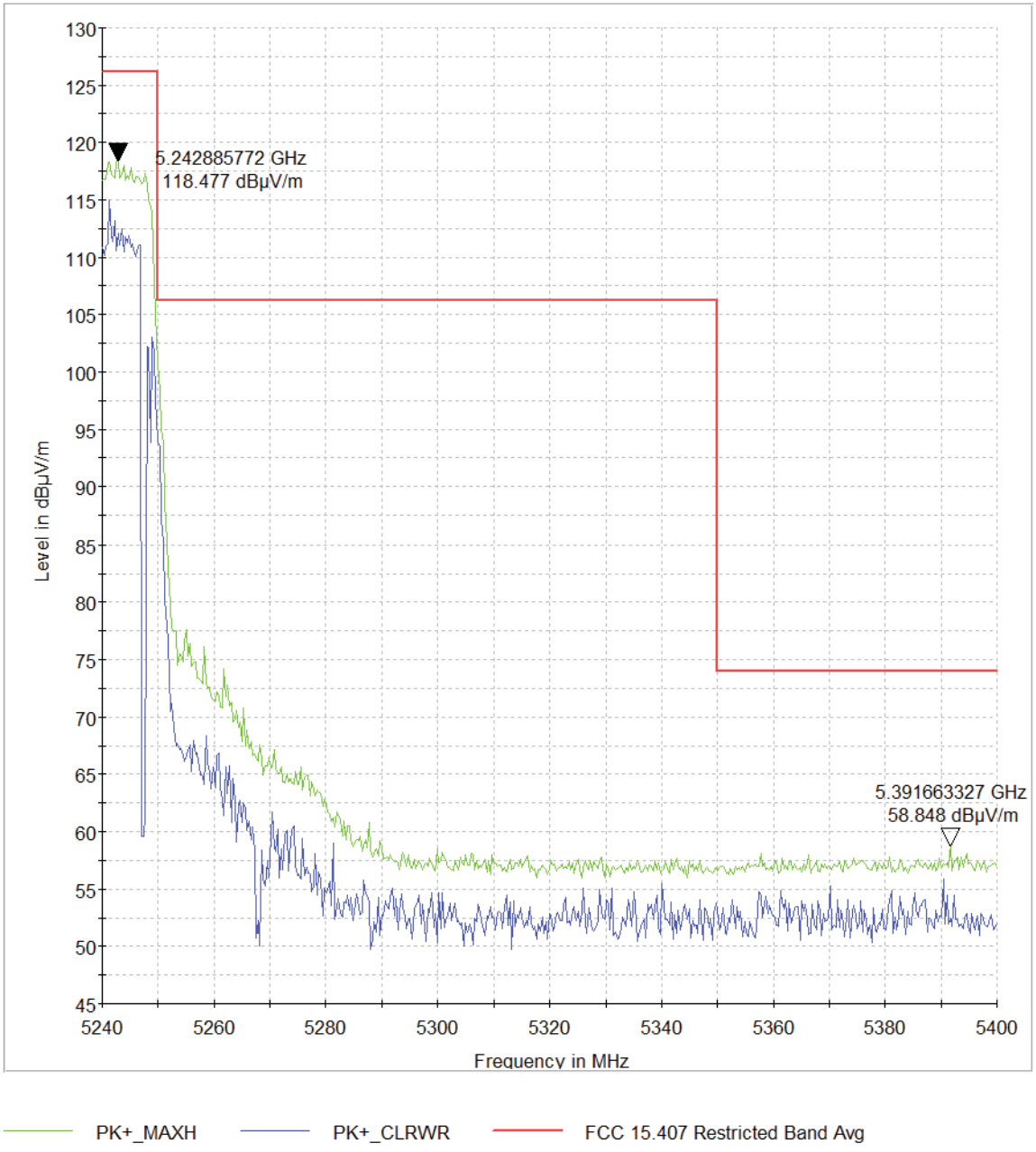


Figure 31 U-1_H_BE_VHT20_ch48_pwr-20_2x2_BF_262deg_123cm_V_pk

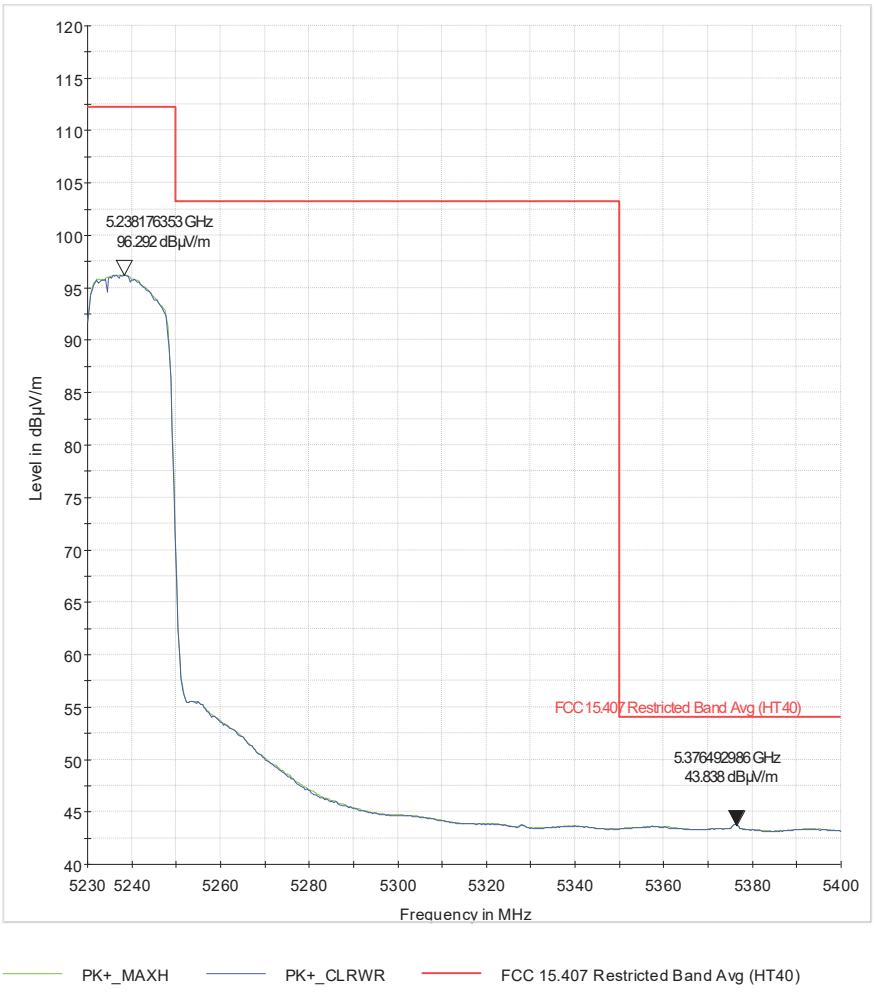


Figure 32 U-1_H_BE_VHT40_ch46_pwr-17_2x2_BF_234deg_232cm_V_avg

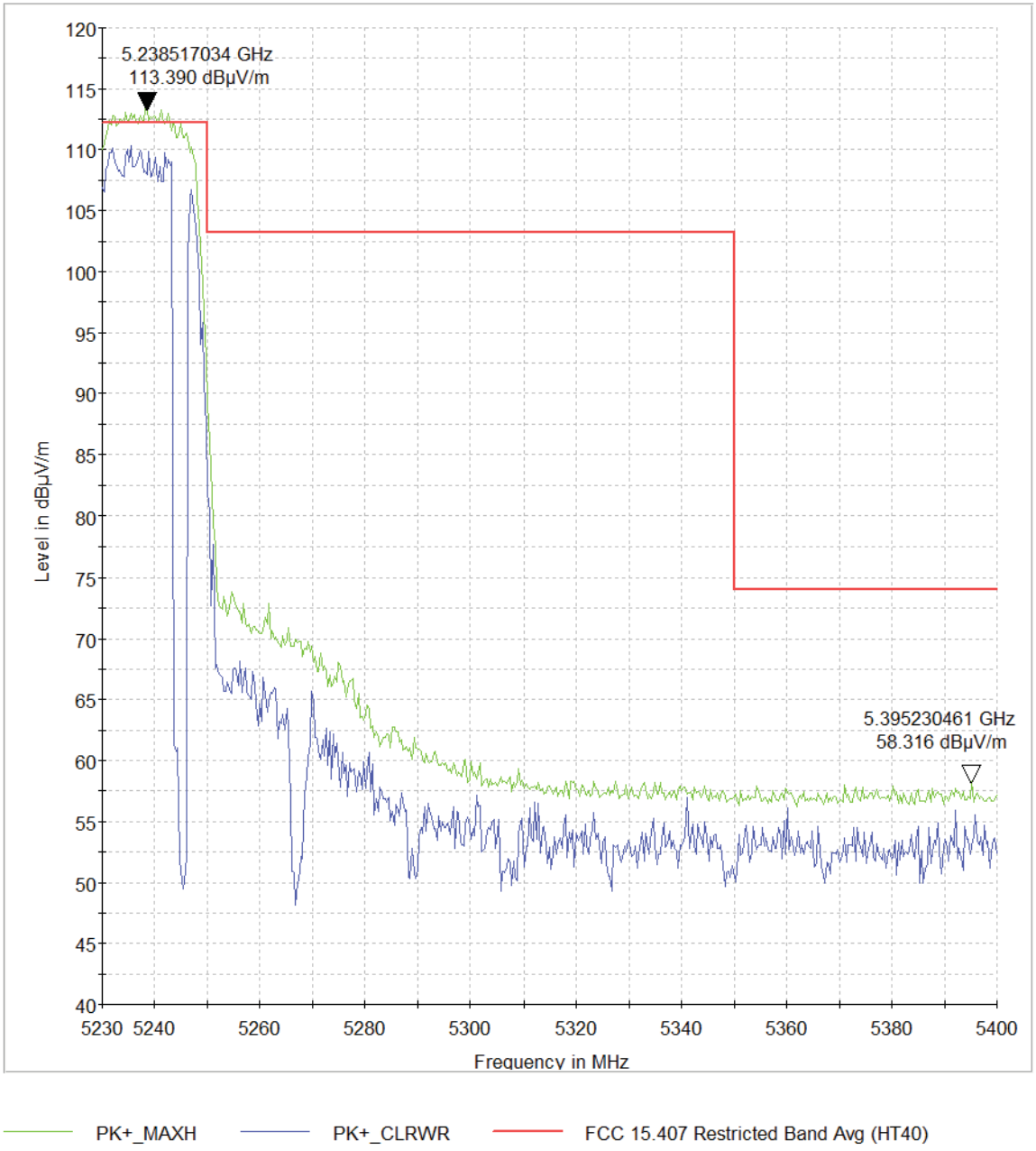


Figure 33 U-1_H_BE_VHT40_ch46_pwr-17_2x2_BF_234deg_232cm_V_pk

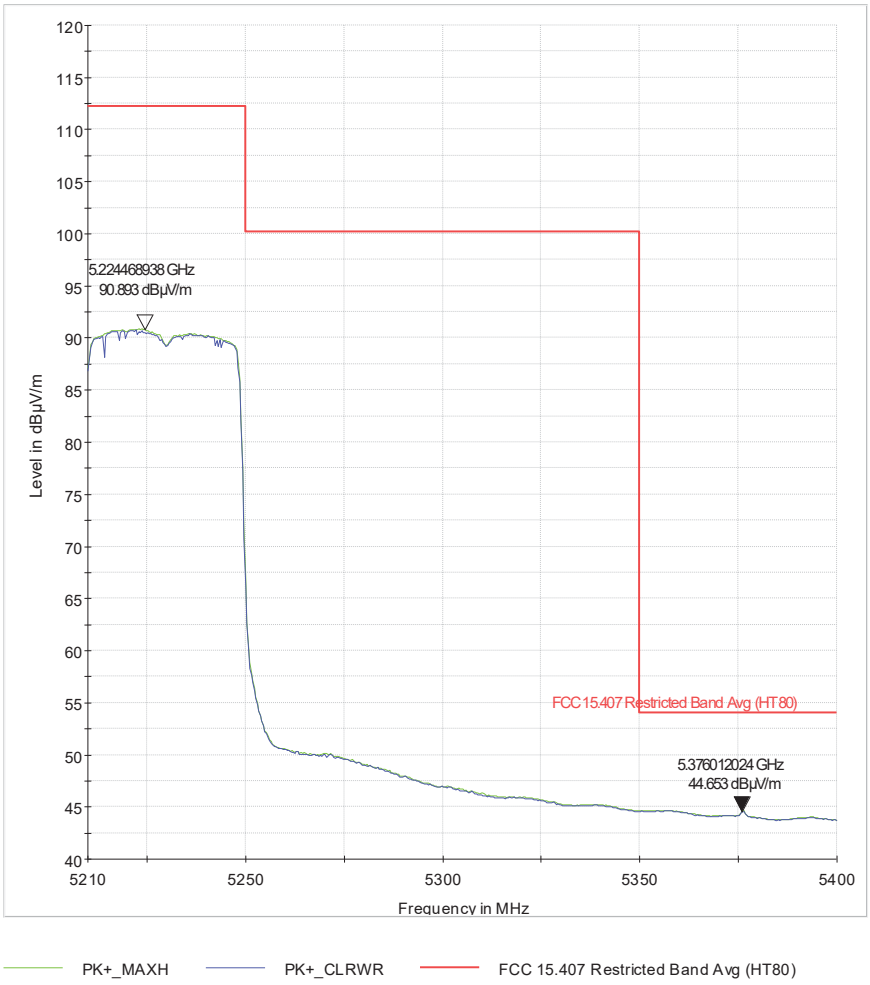


Figure 34 U-1_H_BE_VHT80_ch42_pwr-17_2x2_BF_263deg_216cm_V_avg

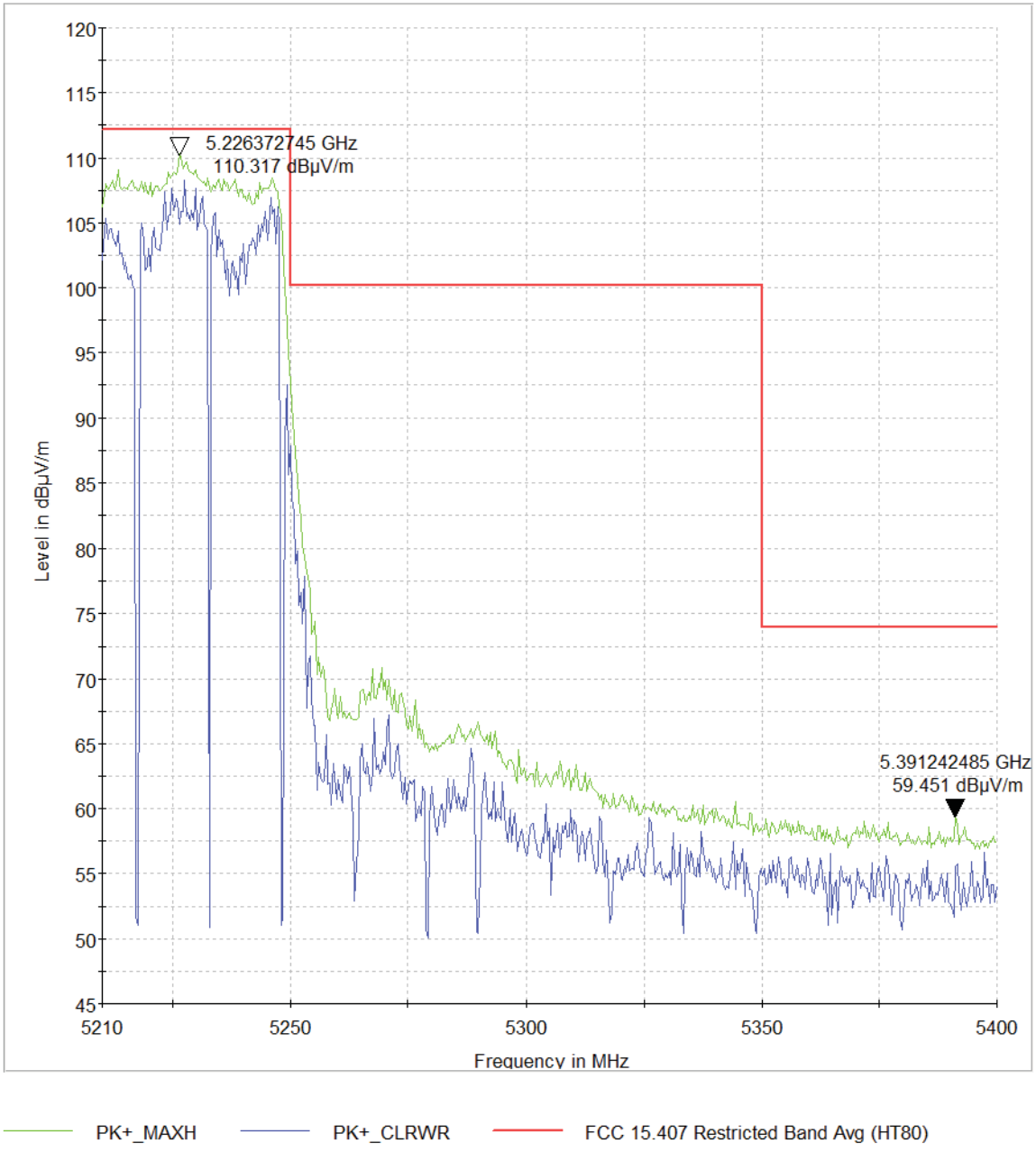


Figure 35 U-1_H_BE_VHT80_ch42_pwr-17_2x2_BF_263deg_216cm_V_pk

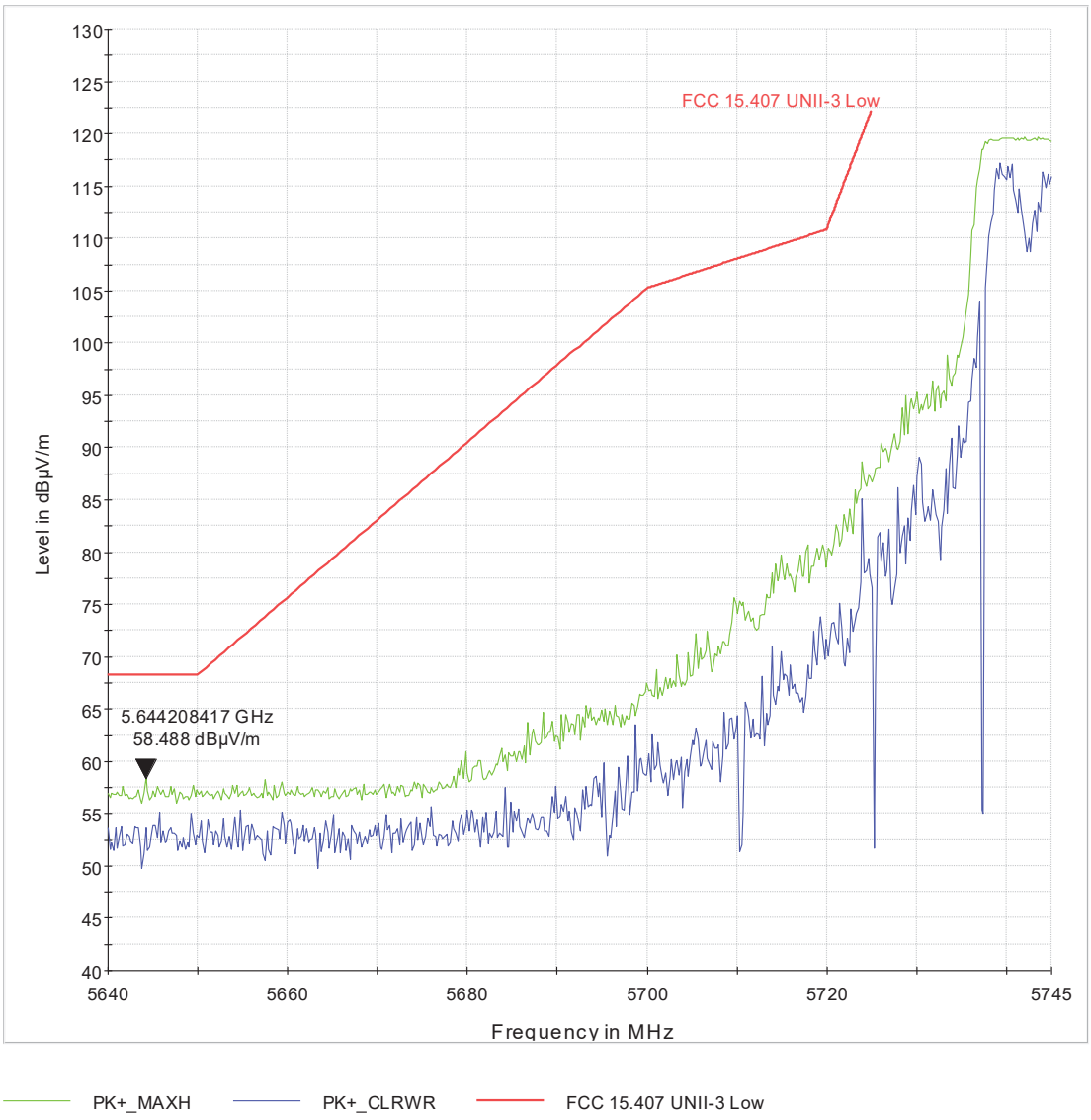


Figure 1 U-3_L-BE_ch149_NoHT_2x2_pwr=25_117deg_150cm

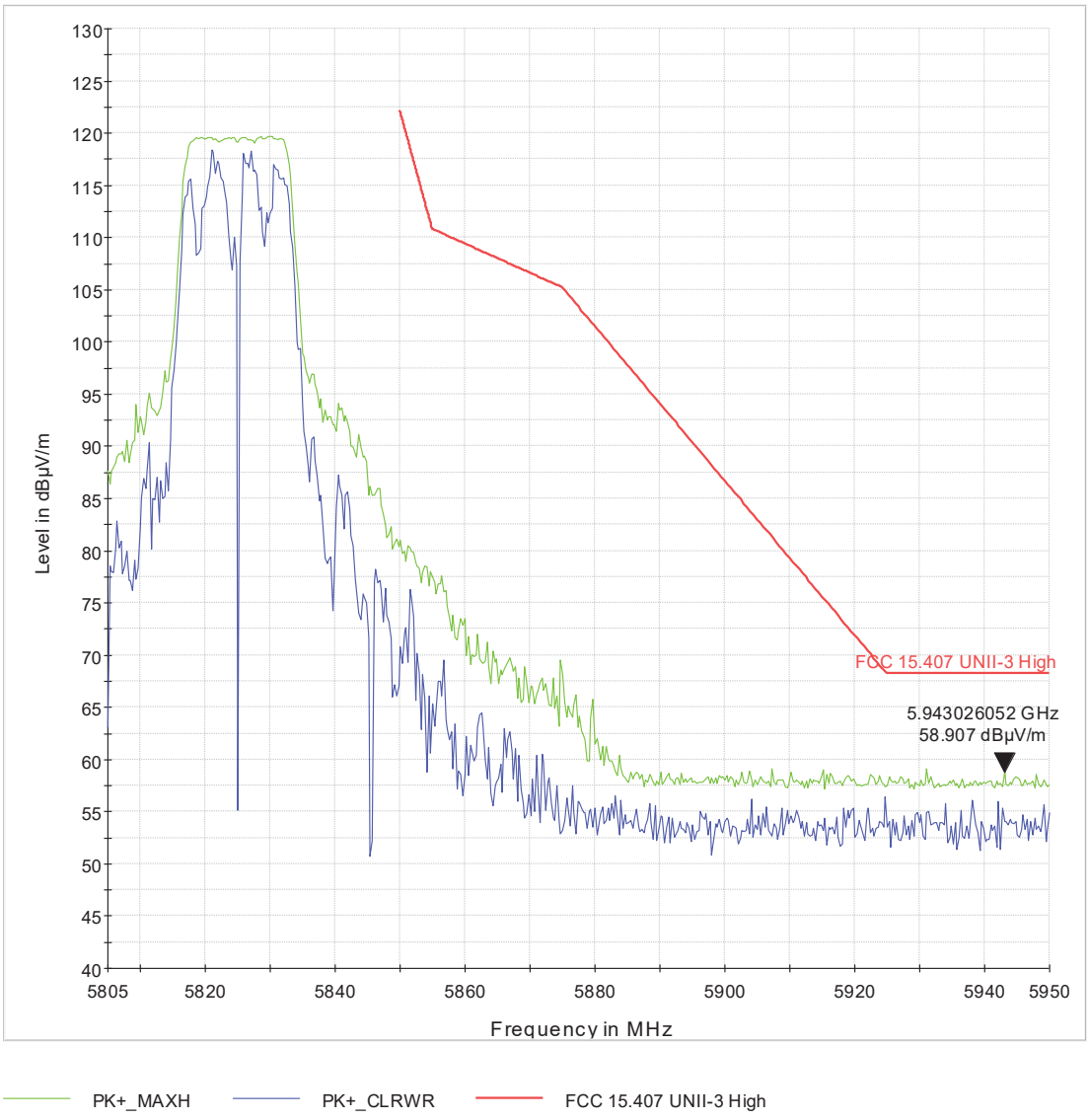


Figure 2 U-3_H-BE_ch165_NoHT_2x2_pwr=25_217deg_150cm_V

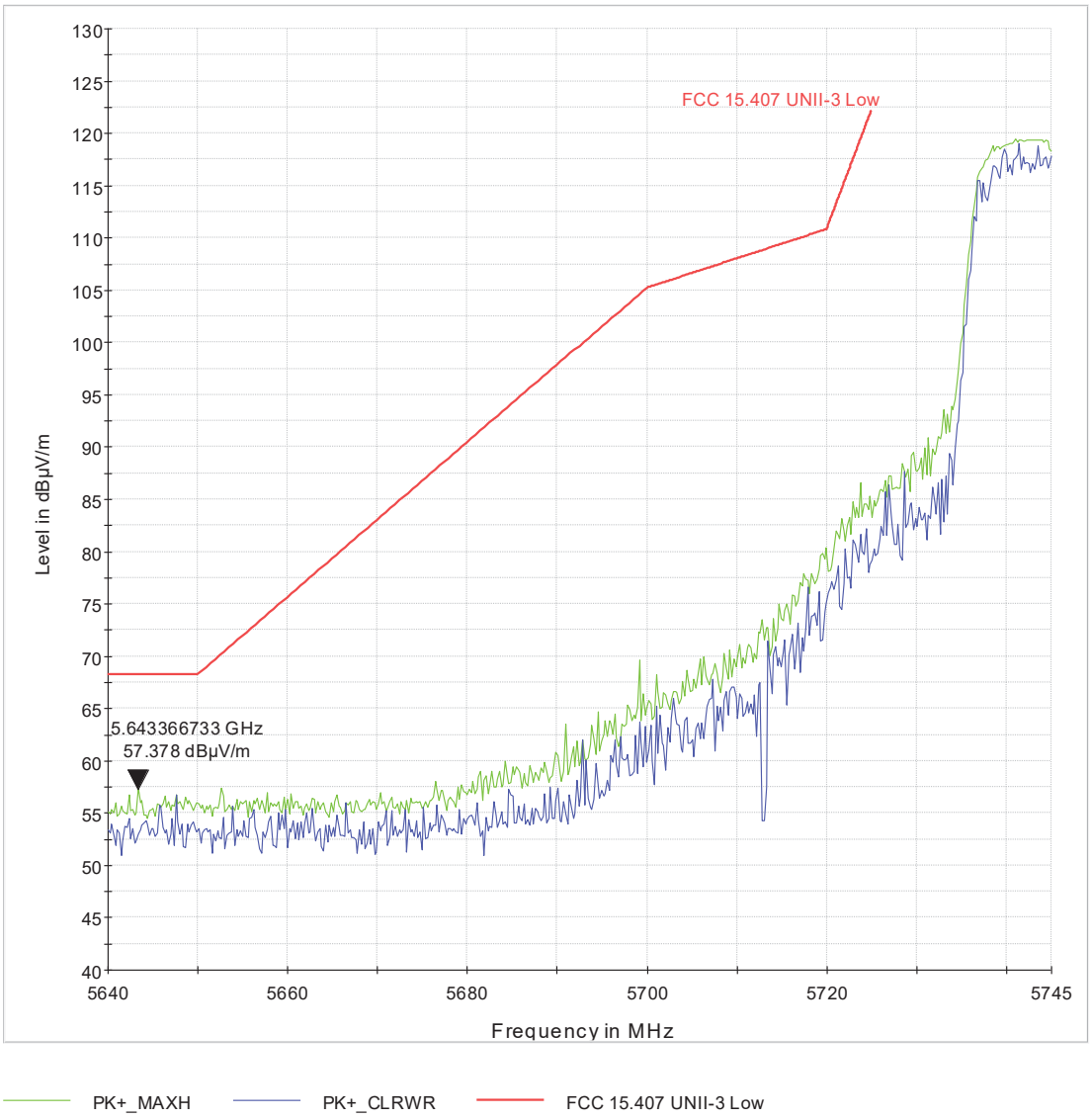


Figure 3 U-3_L-BE_ch149_HT20_2x2_pwr=25_260deg_170cm_V

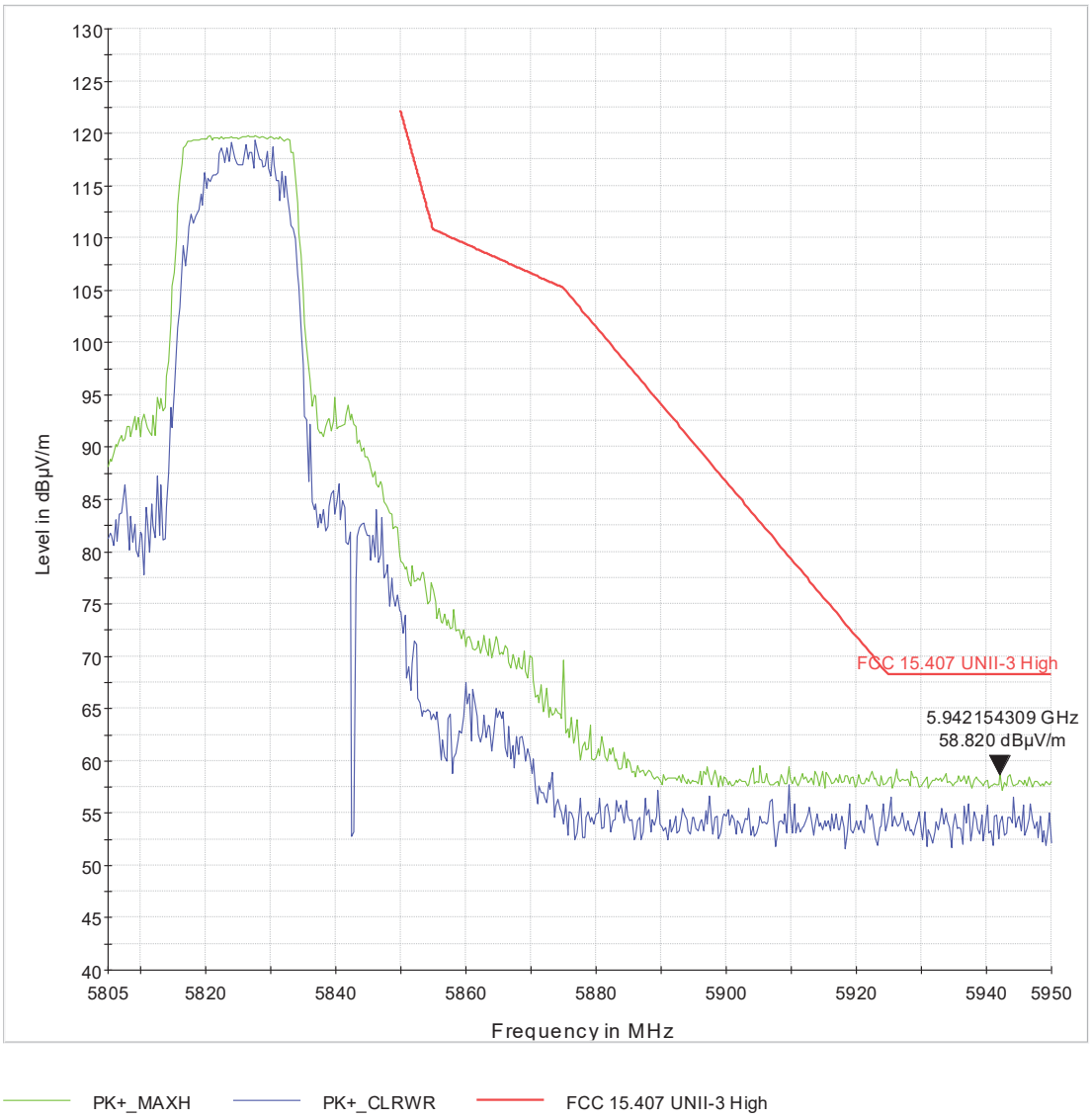


Figure 4 U-3_H-BE_ch165_HT20_2x2_pwr=25_125deg_150cm_V

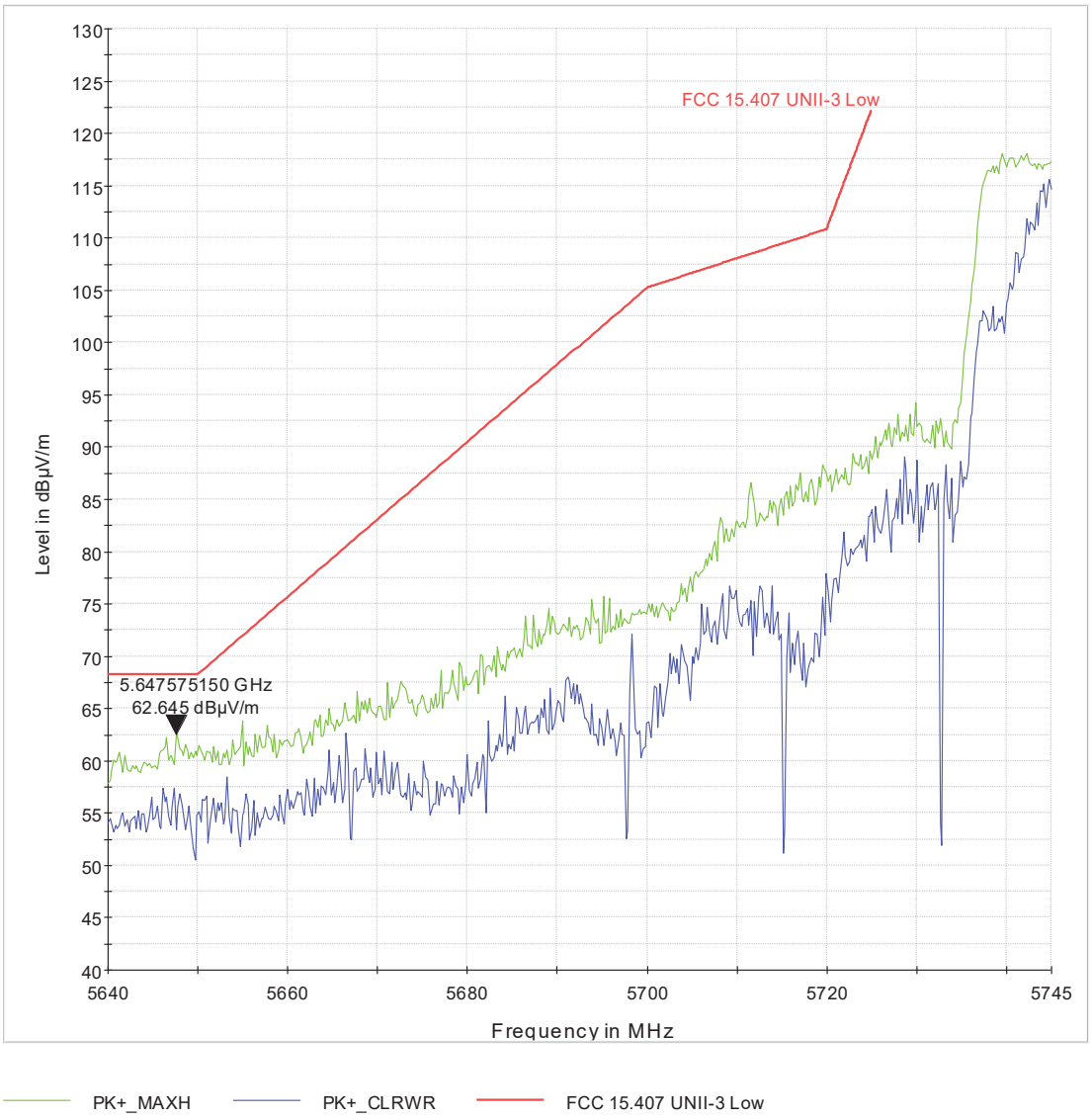


Figure 5 U-3_L-BE_ch151_HT40_2x2_pwr=24.5_132deg_250cm_V

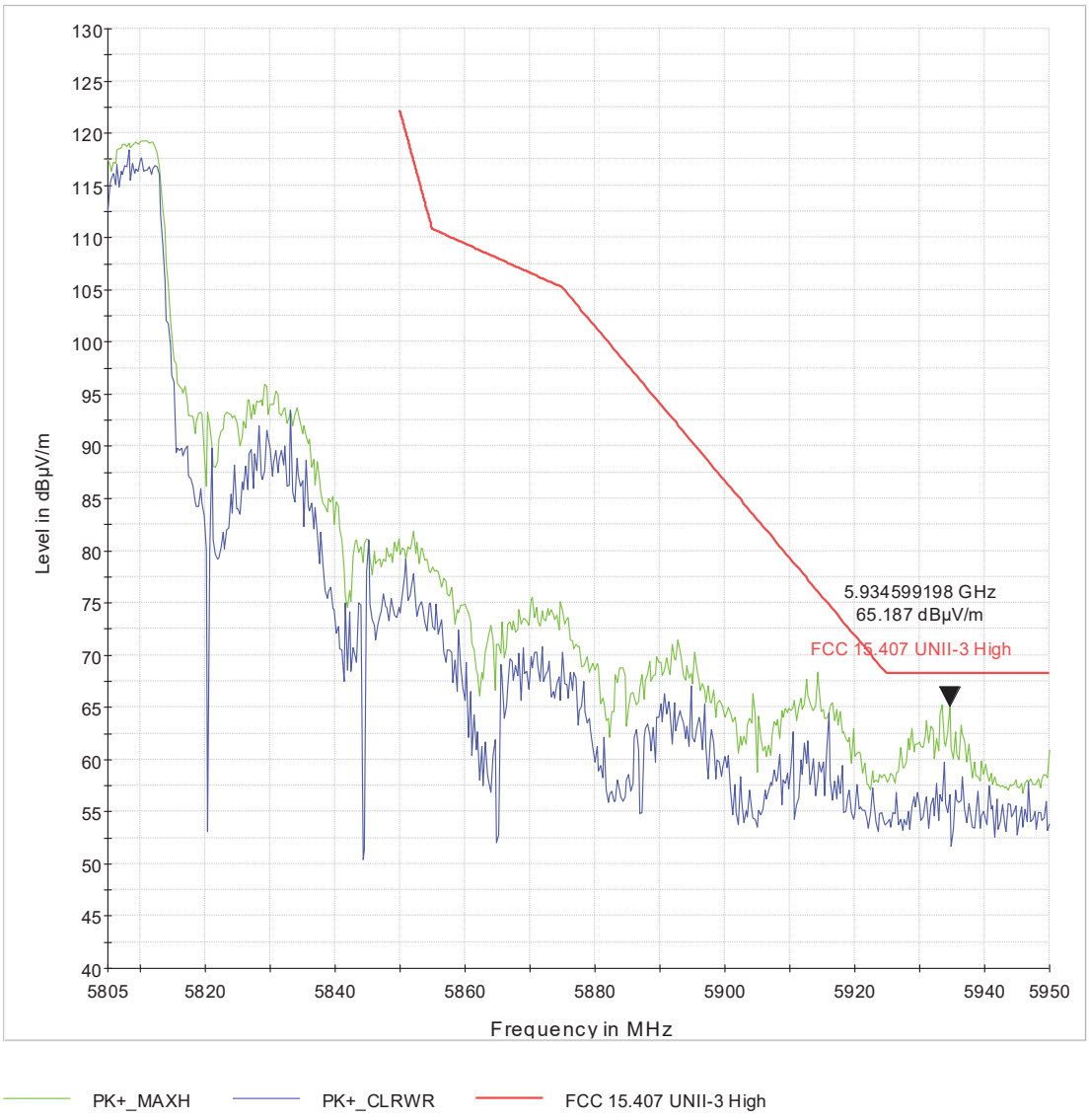


Figure 6 U-3_H-BE_ch159_HT40_2x2_pwr=24.5_130deg_208cm_V

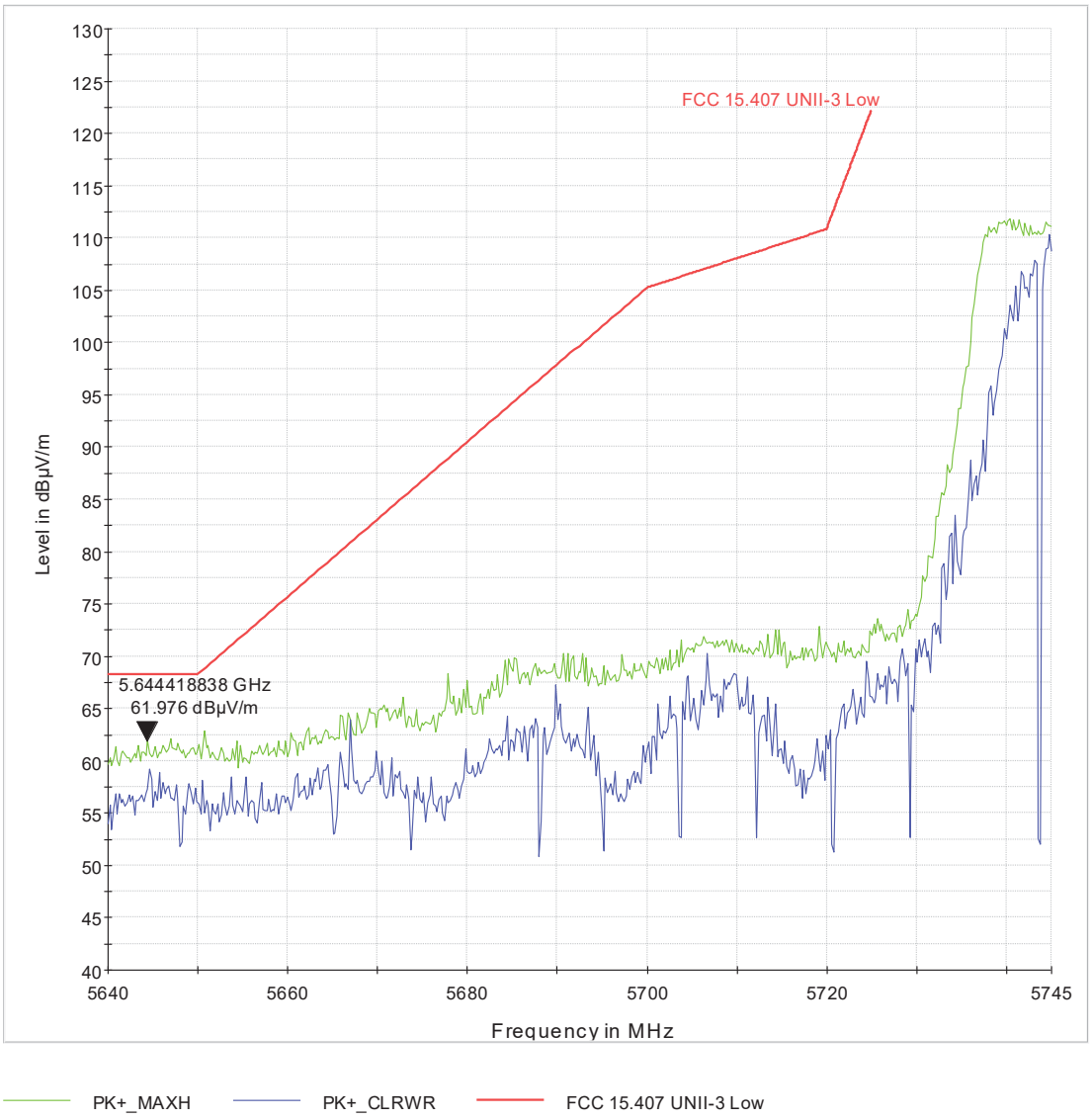


Figure 7 U-3_L-BE_ch155_VHT80_2x2_pwr=20.5_141deg_191cm_V

Figure 8 U-3_H-BE_ch155_VHT80_2x2_pwr=20.5_127deg_206cm_V

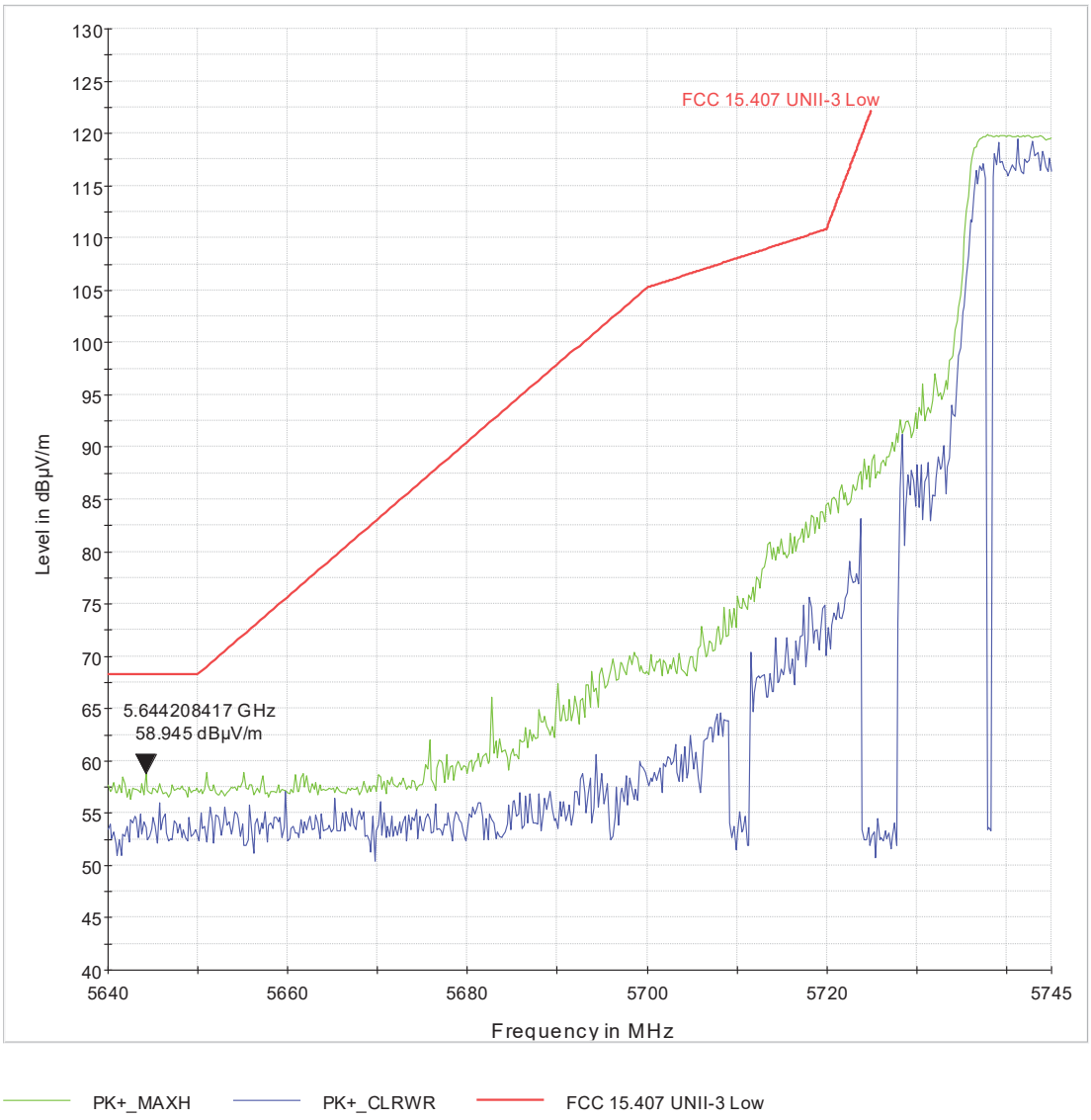


Figure 9 U-3_L-BE_ch149_VHT20_2x2_pwr=25_BF_133deg_200cm_V

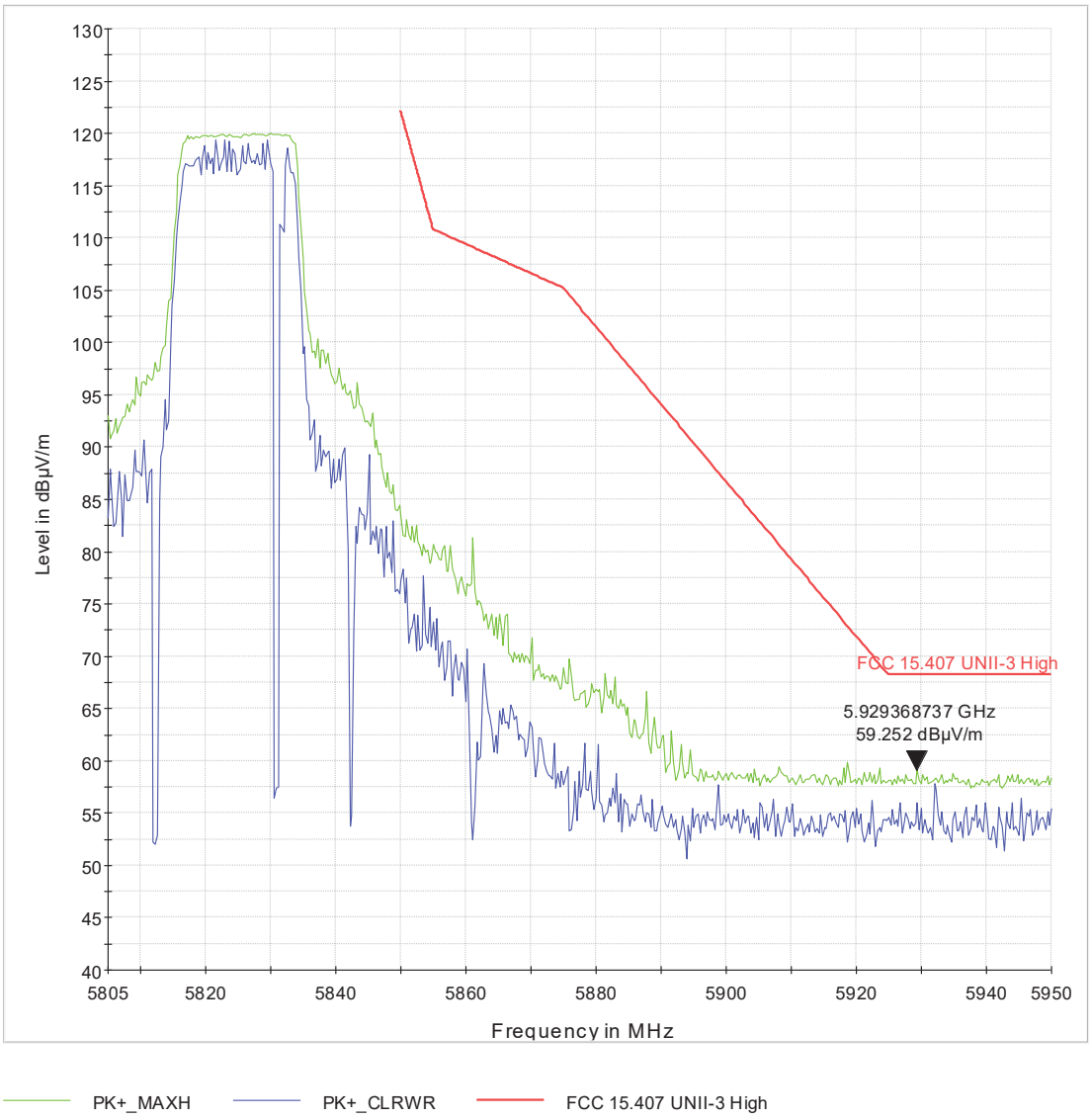


Figure 10 U-3_H-BE_ch165_VHT20_2x2_pwr=25_BF_135deg_159cm_V

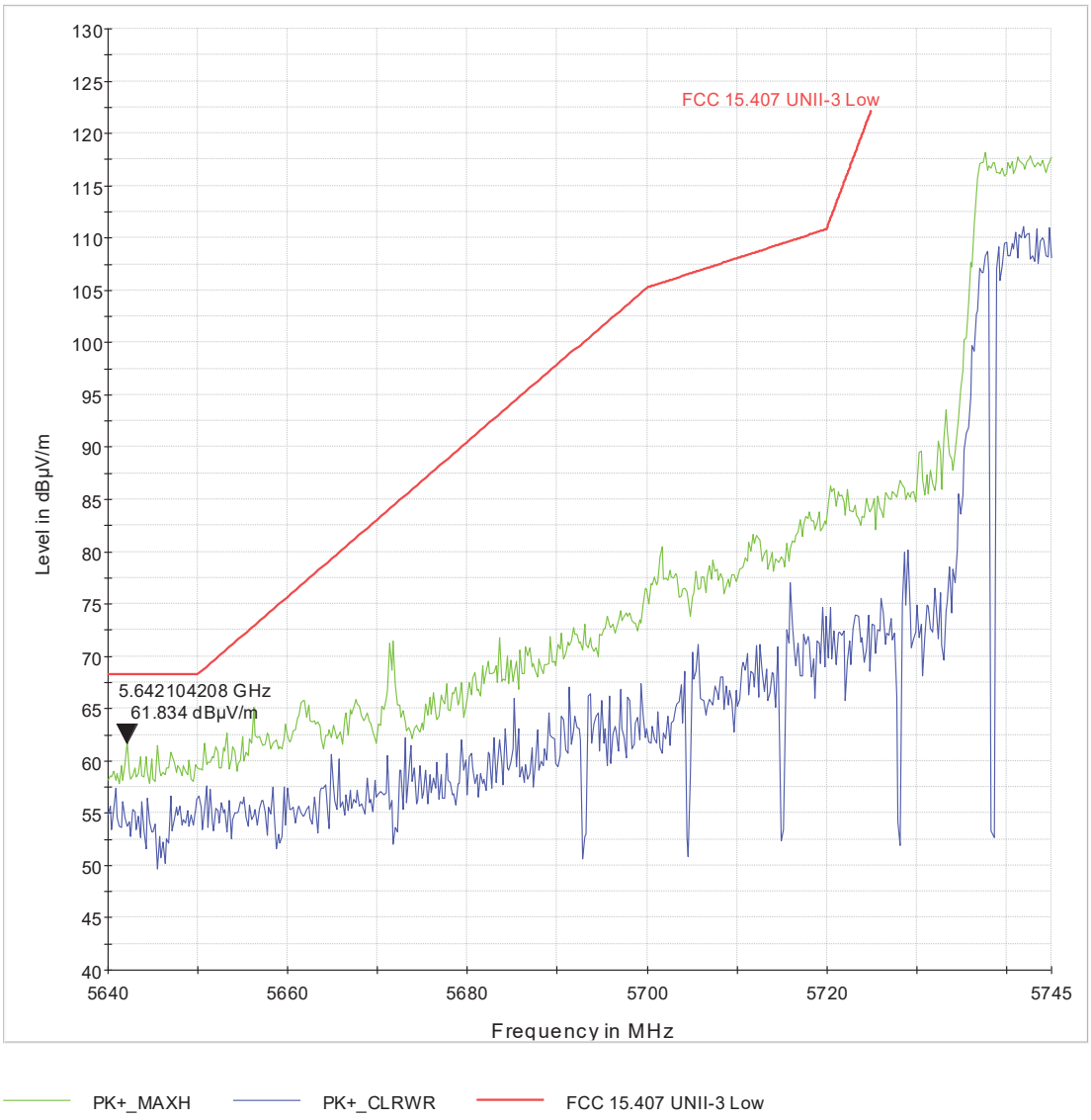


Figure 11 U-3_L-BE_ch151_VHT40_2x2_pwr=24_BF_230deg_134cm_H

Figure 12 U-3_H-BE_ch159_VHT40_2x2_pwr=24_BF_137deg_250cm_V

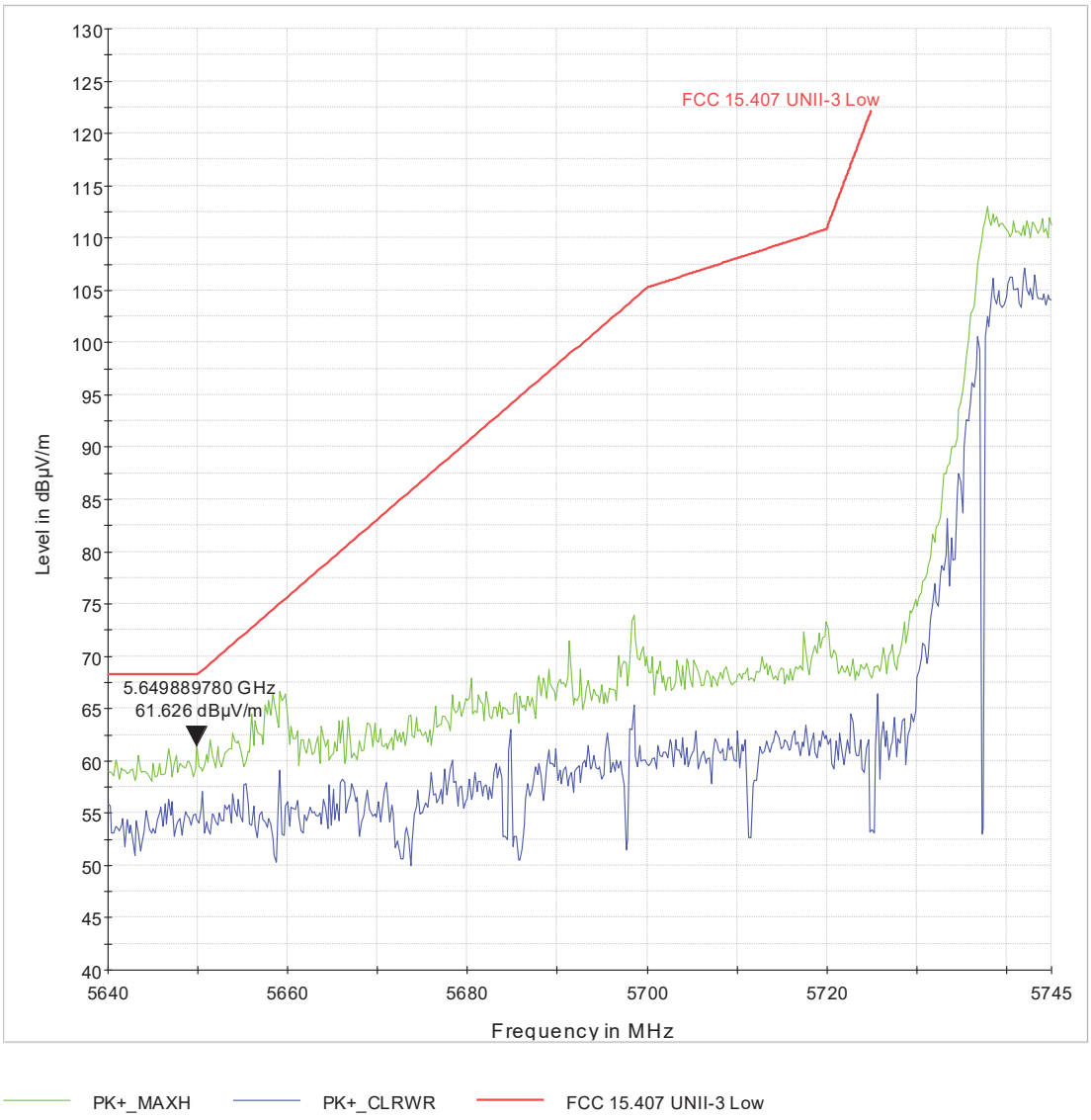


Figure 13 U-3_L-BE_ch155_VHT80_2x2_pwr=21_BF_268deg_224cm_V

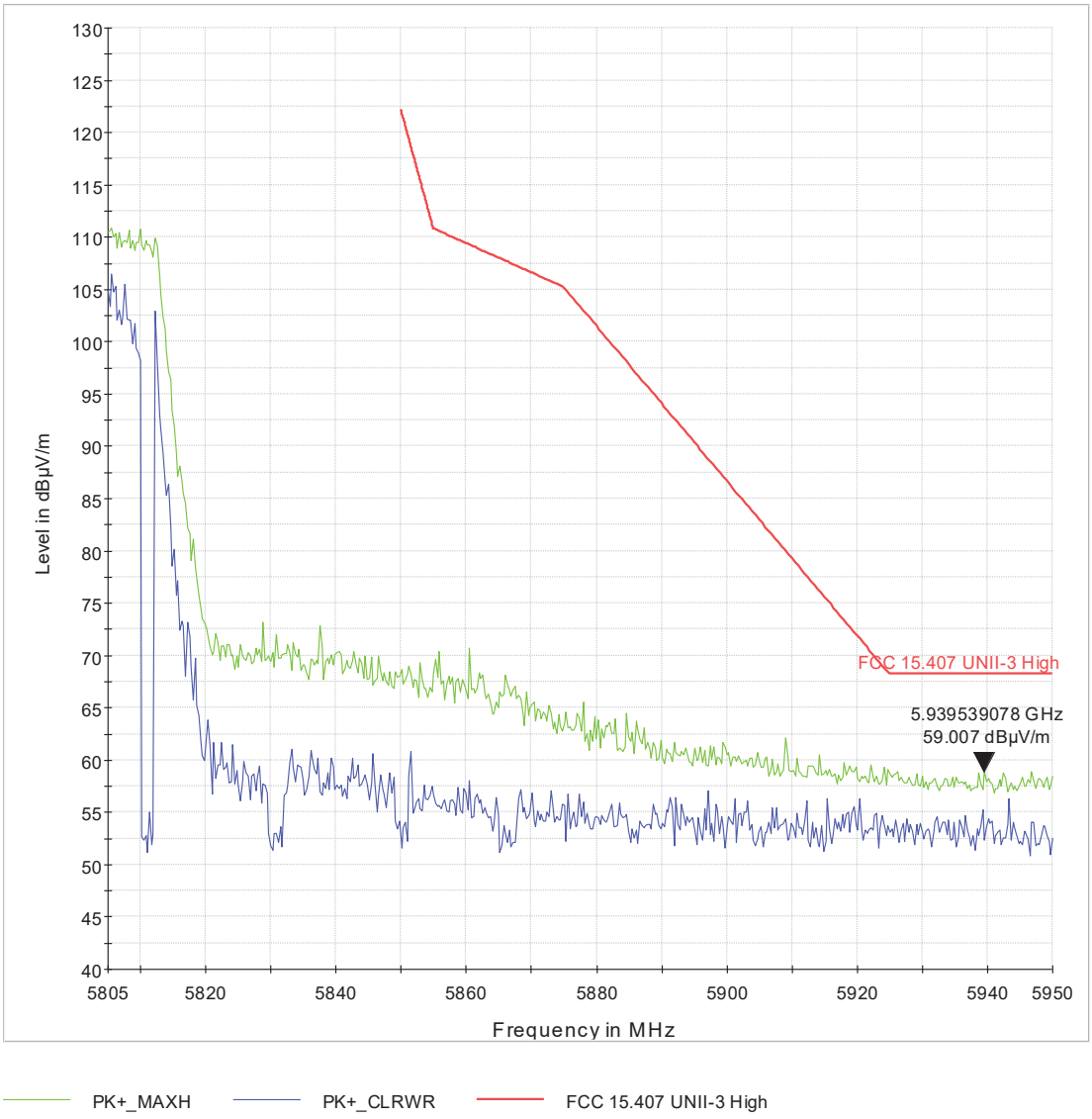


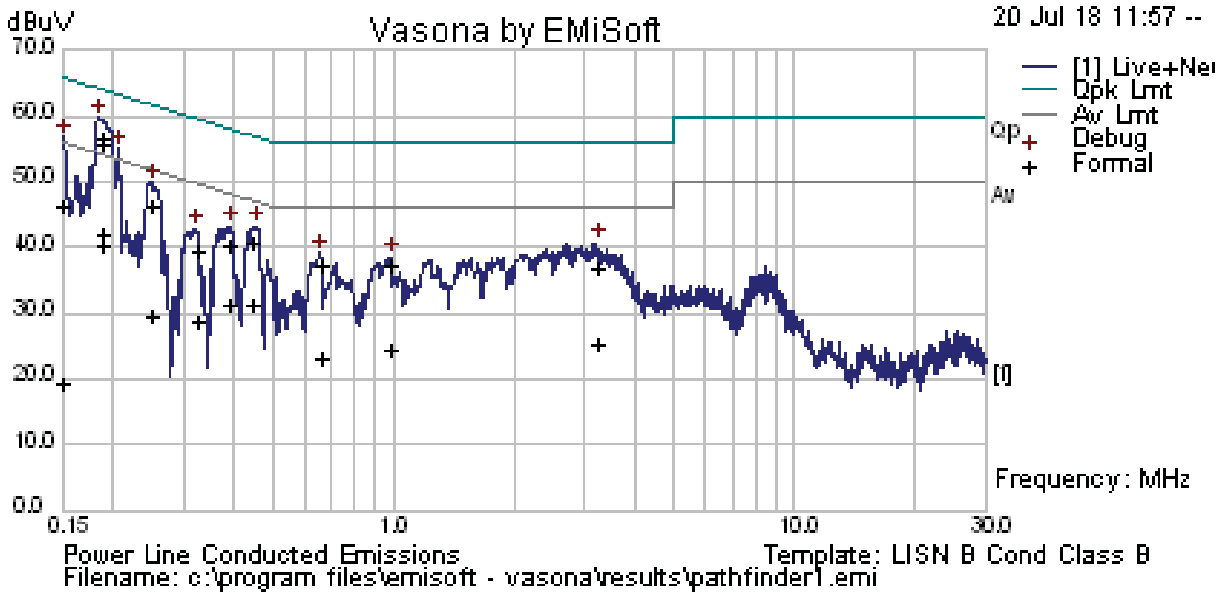
Figure 14 U-3_H-BE_ch155_VHT80_2x2_pwr=21_BF_202deg_150cm_V

\

7 Conducted power line emissions

Test Method

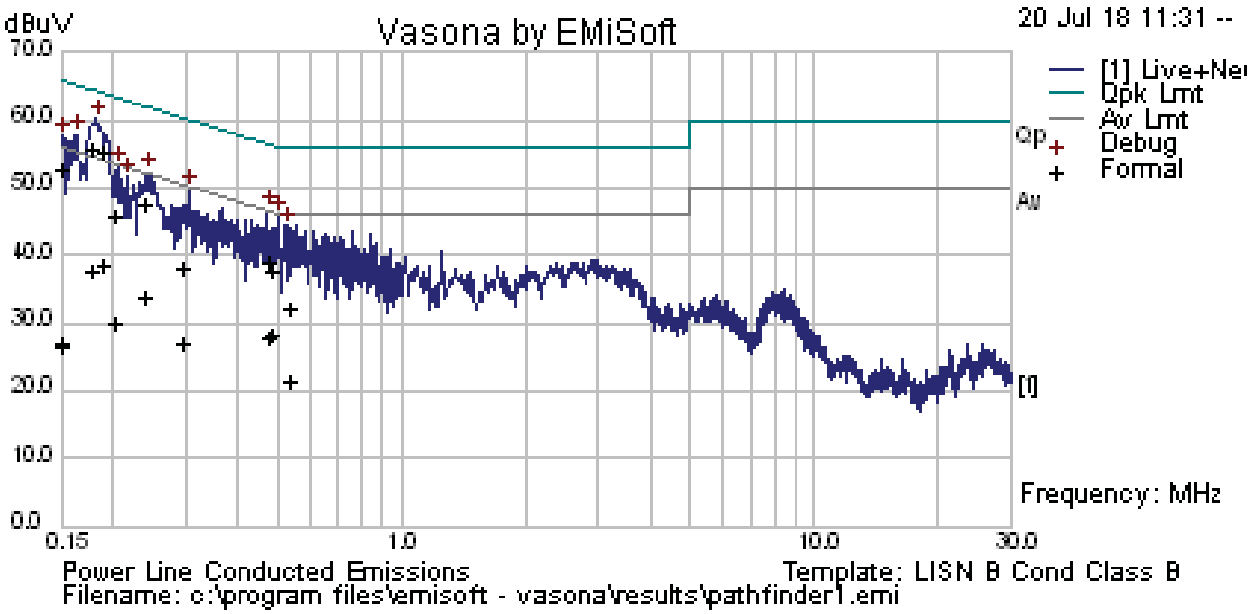
The ANSI C63.10-2013 Section 11.9.2.2.4 Conducted method was used to measure the channel power output. The preliminary investigation was performed at different data rate to determine the highest power output for each mode. A diag program called QRCT was used to set the AP in continuous Tx mode and also to set the channel, channel power and data rate.



Vasona Data : Formally Assessed Peaks

No	Frequency	Raw	dBu	Cable	Los	Factors	d	Level	dBu	Measurem	Line	Limit	dBu	Margin	dB	Pass	/Fai
1 (17)	0.388946	40.3		0.1		0.06		40.46		Quasi Pea	Live	58.09		-17.63		Pass	
2 (13)	0.188204	56.36		0.07		0.03		56.46		Quasi Pea	Live	64.12		-7.65		Pass	
3 (19)	0.659026	37.17		0.12		0.04		37.34		Quasi Pea	Live	56		-18.66		Pass	
4 (14)	0.15	46.03		0.07		0.03		46.14		Quasi Pea	Live	66		-19.86		Pass	
5 (15)	0.248132	46.06		0.08		0.01		46.14		Quasi Pea	Live	61.82		-15.68		Pass	
6 (20)	0.326092	39.42		0.09		0		39.51		Quasi Pea	Live	59.55		-20.04		Pass	
11 (17)	0.388946	31.19		0.1		0.06		31.35		Average	Live	48.09		-16.74		Pass	
12 (13)	0.188204	41.78		0.07		0.03		41.88		Average	Live	54.12		-12.23		Pass	
13 (19)	0.659026	22.97		0.12		0.04		23.14		Average	Live	46		-22.86		Pass	
14 (14)	0.15	19.36		0.07		0.03		19.47		Average	Live	56		-36.53		Pass	
15 (15)	0.248132	29.45		0.08		0.01		29.53		Average	Live	51.82		-22.29		Pass	
16 (20)	0.326092	28.64		0.09		0		28.74		Average	Live	49.55		-20.81		Pass	

2.4GHz ch 1 conducted powerline emissions

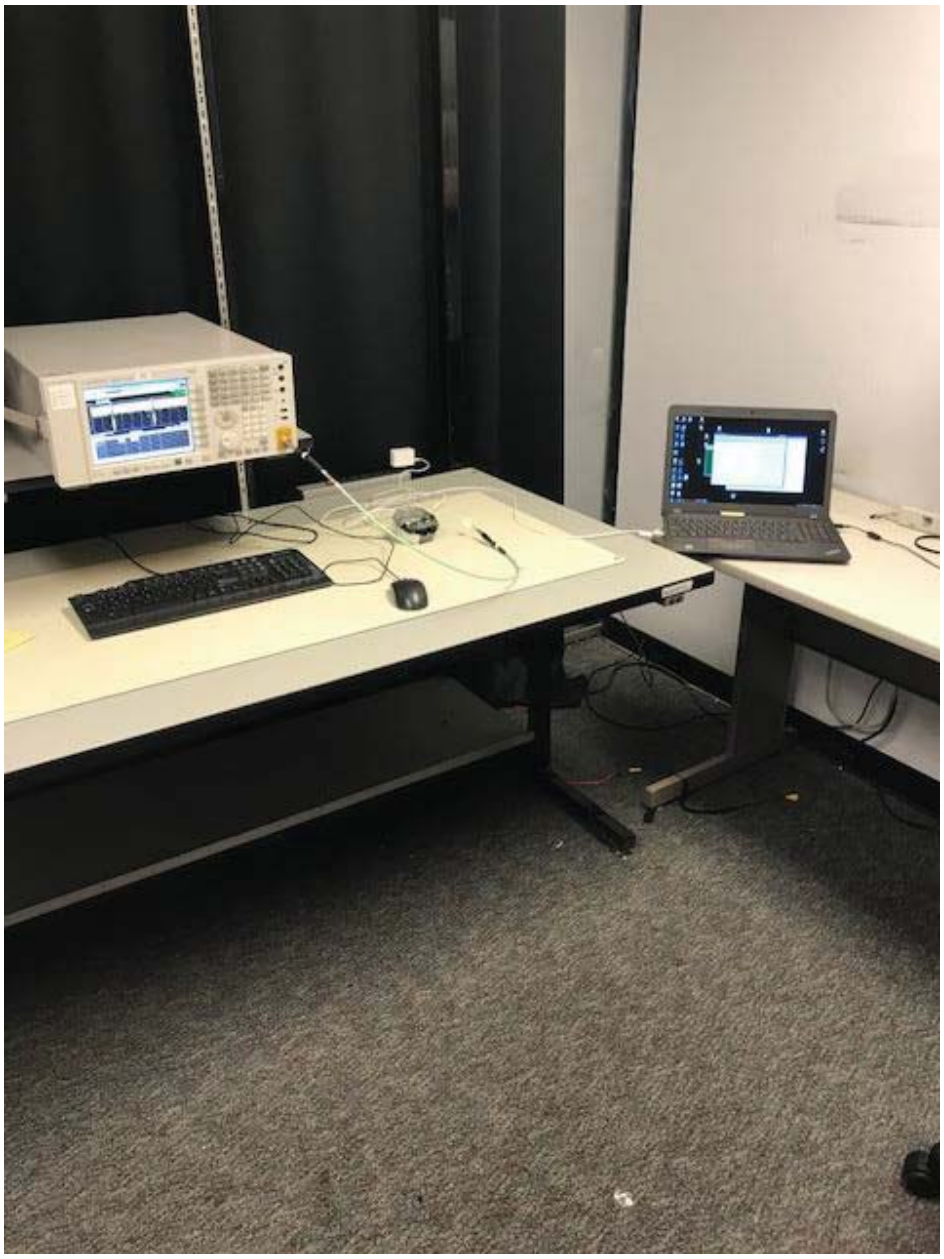


Vasona Data : Formally Assessed Peaks

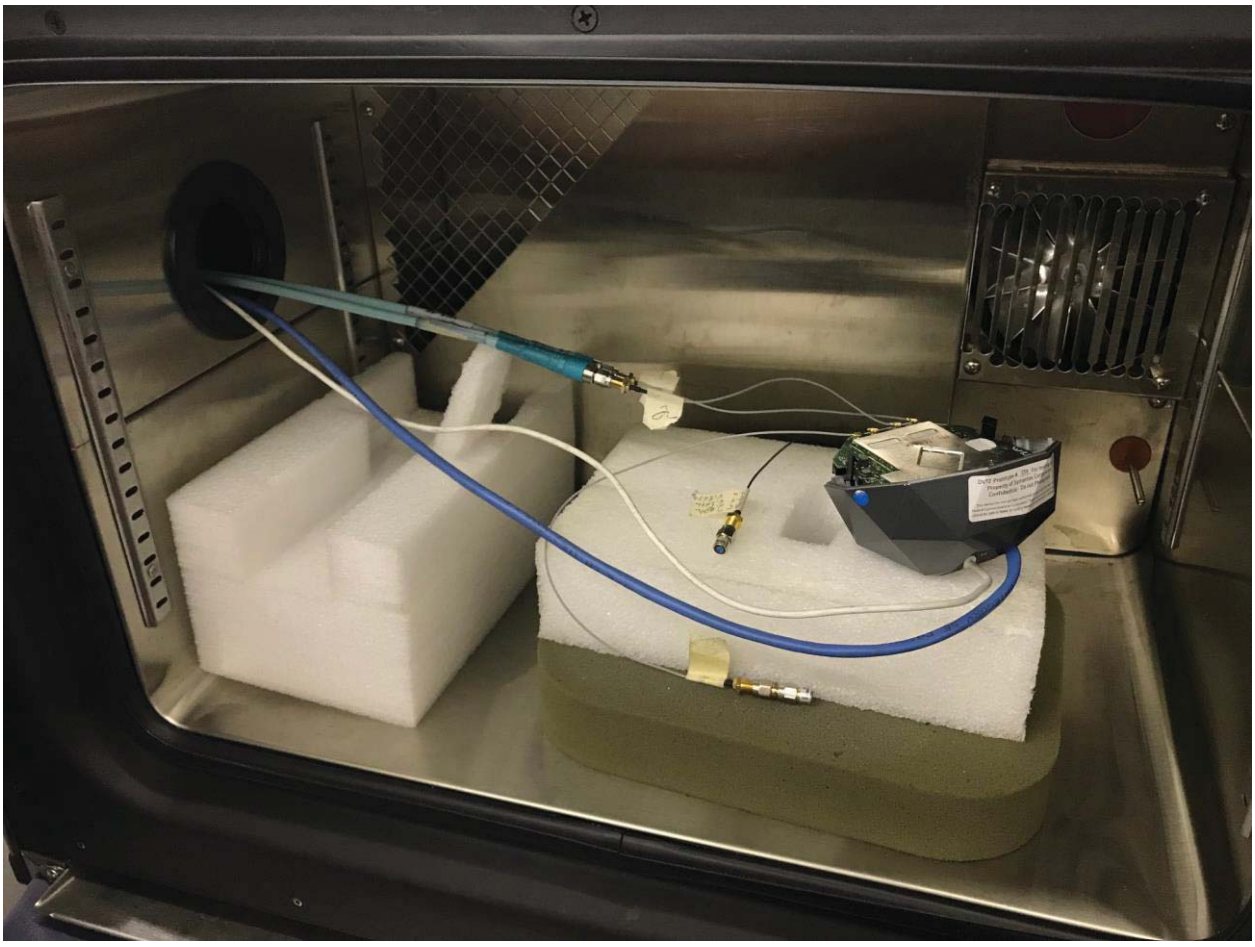
No	Frequency	Raw	dBu	Cable	Los	Factors	d	Level	dBu	Measurem	Line	Limit	dBu	Margin	dB	Pass	/Fai
1 (6)	0.187864	55.31		0.07		0.03		55.41		Quasi Pea	Neutral	64.13		-8.72		Pass	
2 (1)	0.176188	55.82		0.07		0.03		55.92		Quasi Pea	Live	64.66		-8.74		Pass	
3 (2)	0.15	52.55		0.07		0.03		52.65		Quasi Pea	Neutral	66		-13.35		Pass	
4 (3)	0.15	52.5		0.07		0.03		52.61		Quasi Pea	Live	66		-13.39		Pass	
5 (5)	0.238621	47.58		0.08		0.01		47.67		Quasi Pea	Live	62.14		-14.47		Pass	
6 (6)	0.187864	38.71		0.07		0.03		38.82		Average	Neutral	54.13		-15.31		Pass	
7 (1)	0.176188	37.79		0.07		0.03		37.89		Average	Live	54.66		-16.77		Pass	
8 (4)	0.472353	39.07		0.11		0.04		39.22		Quasi Pea	Neutral	56.47		-17.25		Pass	
9 (9)	0.20024	45.78		0.07		0.02		45.88		Quasi Pea	Neutral	63.6		-17.72		Pass	
10 (7)	0.484725	28.36		0.11		0.03		28.5		Average	Neutral	46.26		-17.76		Pass	
11 (5)	0.238621	33.98		0.08		0.01		34.07		Average	Live	52.14		-18.07		Pass	
12 (7)	0.484725	37.46		0.11		0.03		37.6		Quasi Pea	Neutral	56.26		-18.66		Pass	
13 (4)	0.472353	27.55		0.11		0.04		27.7		Average	Neutral	46.47		-18.77		Pass	
14 (8)	0.293319	38.12		0.08		0.01		38.21		Quasi Pea	Neutral	60.43		-22.22		Pass	
15 (9)	0.20024	30.13		0.07		0.02		30.22		Average	Neutral	53.6		-23.38		Pass	
16 (8)	0.293319	26.79		0.08		0.01		26.88		Average	Neutral	50.43		-23.55		Pass	
17 (10)	0.533246	32.13		0.11		0.04		32.28		Quasi Pea	Neutral	56		-23.72		Pass	
18 (10)	0.533246	21.31		0.11		0.04		21.45		Average	Neutral	46		-24.55		Pass	
19 (3)	0.15	26.85		0.07		0.03		26.95		Average	Live	56		-29.05		Pass	
20 (2)	0.15	26.63		0.07		0.03		26.73		Average	Neutral	56		-29.27		Pass	

GHz ch 149 conducted powerline emissions

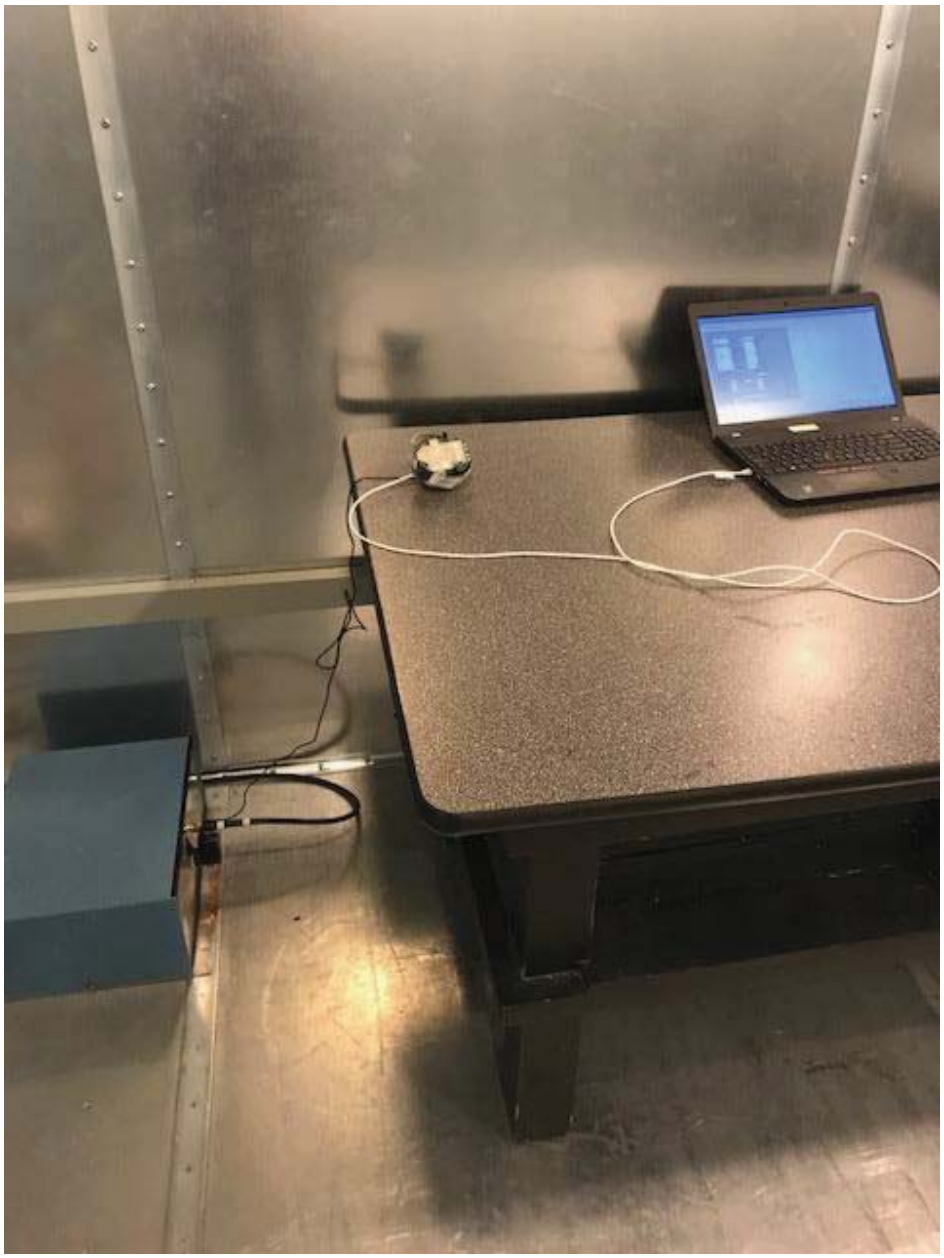
8 Photos



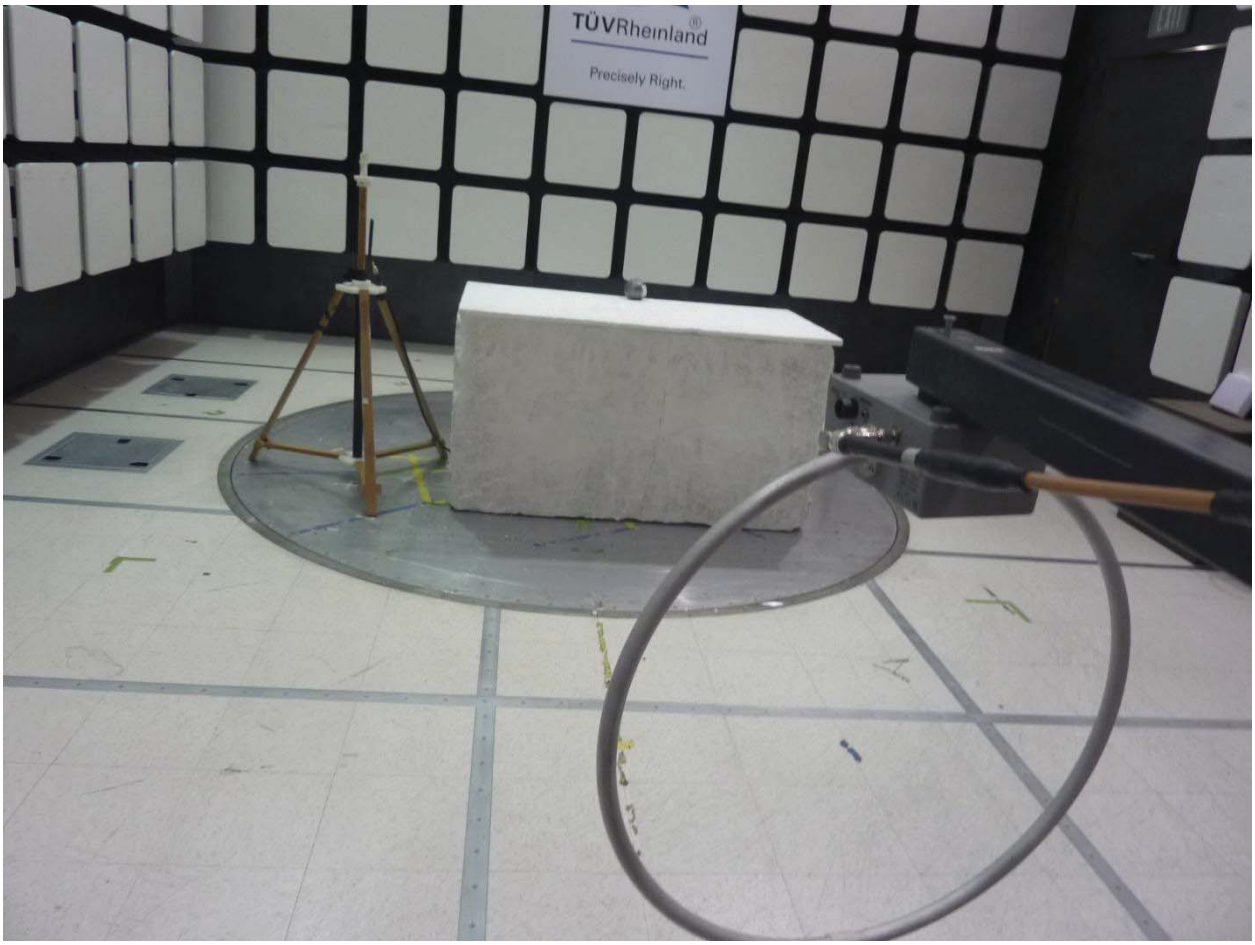
Conducted measurements setup



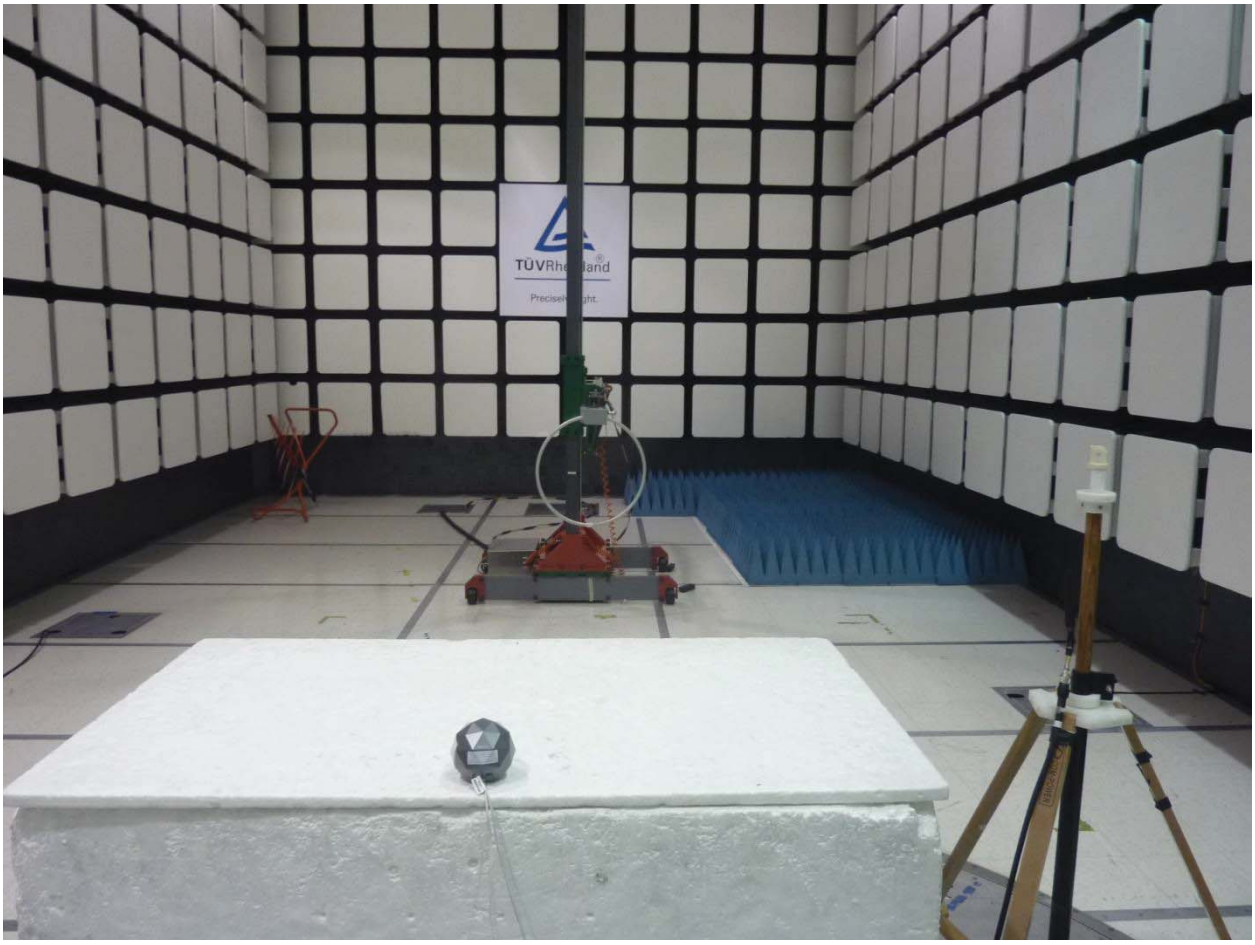
Conducted Output Power Measurement



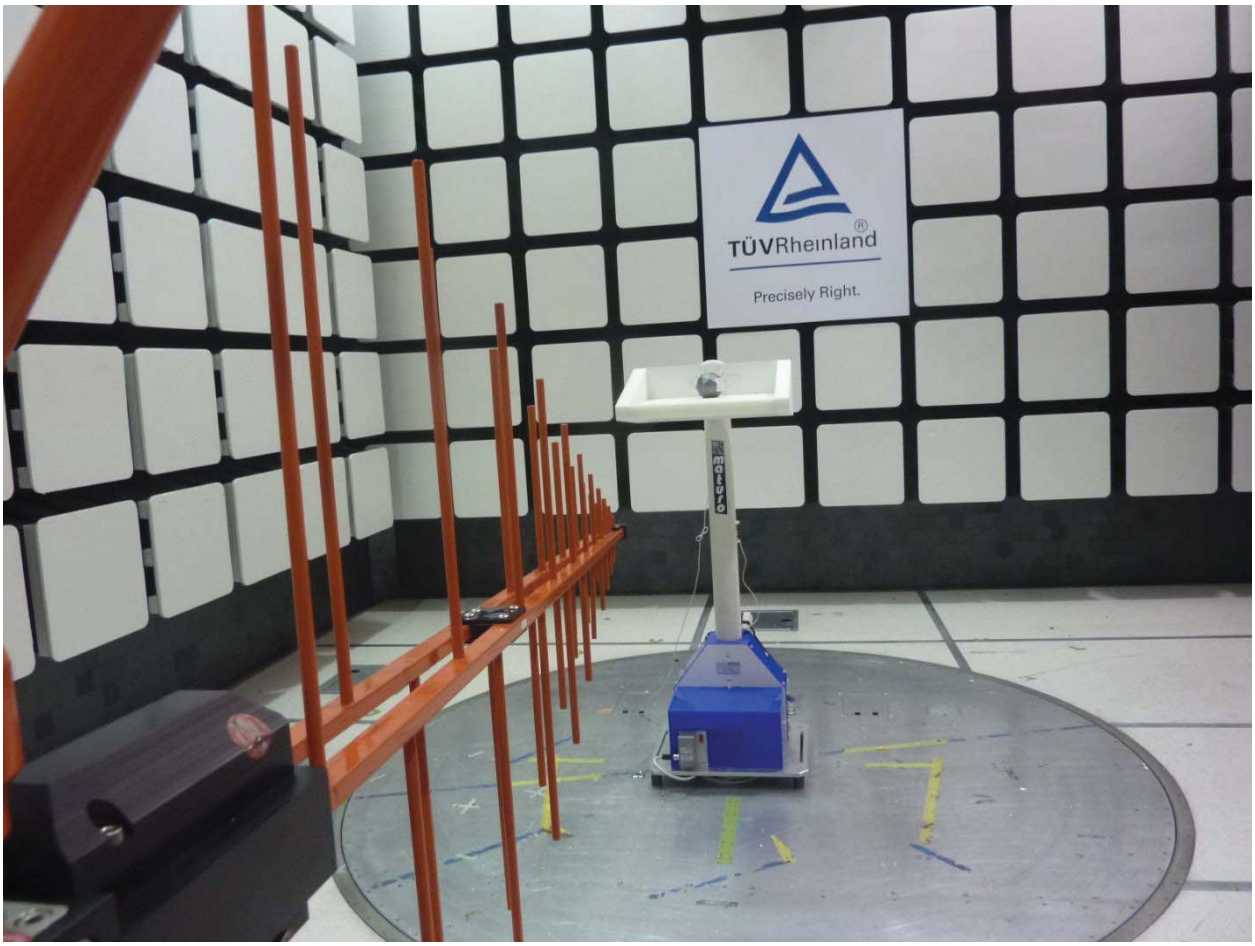
Powerline conducted emissions setup



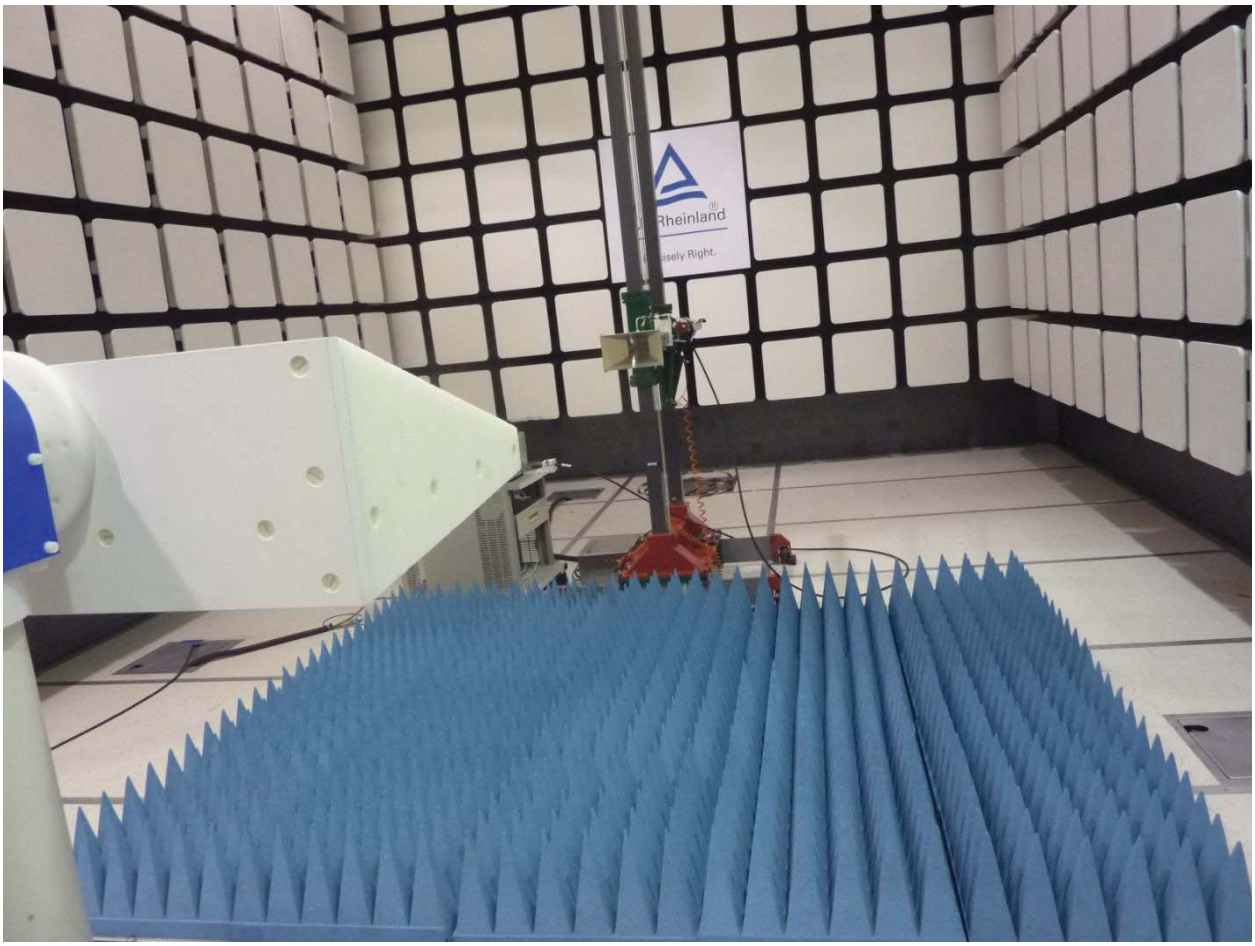
Radiated Emissions 9k-30 MHz front



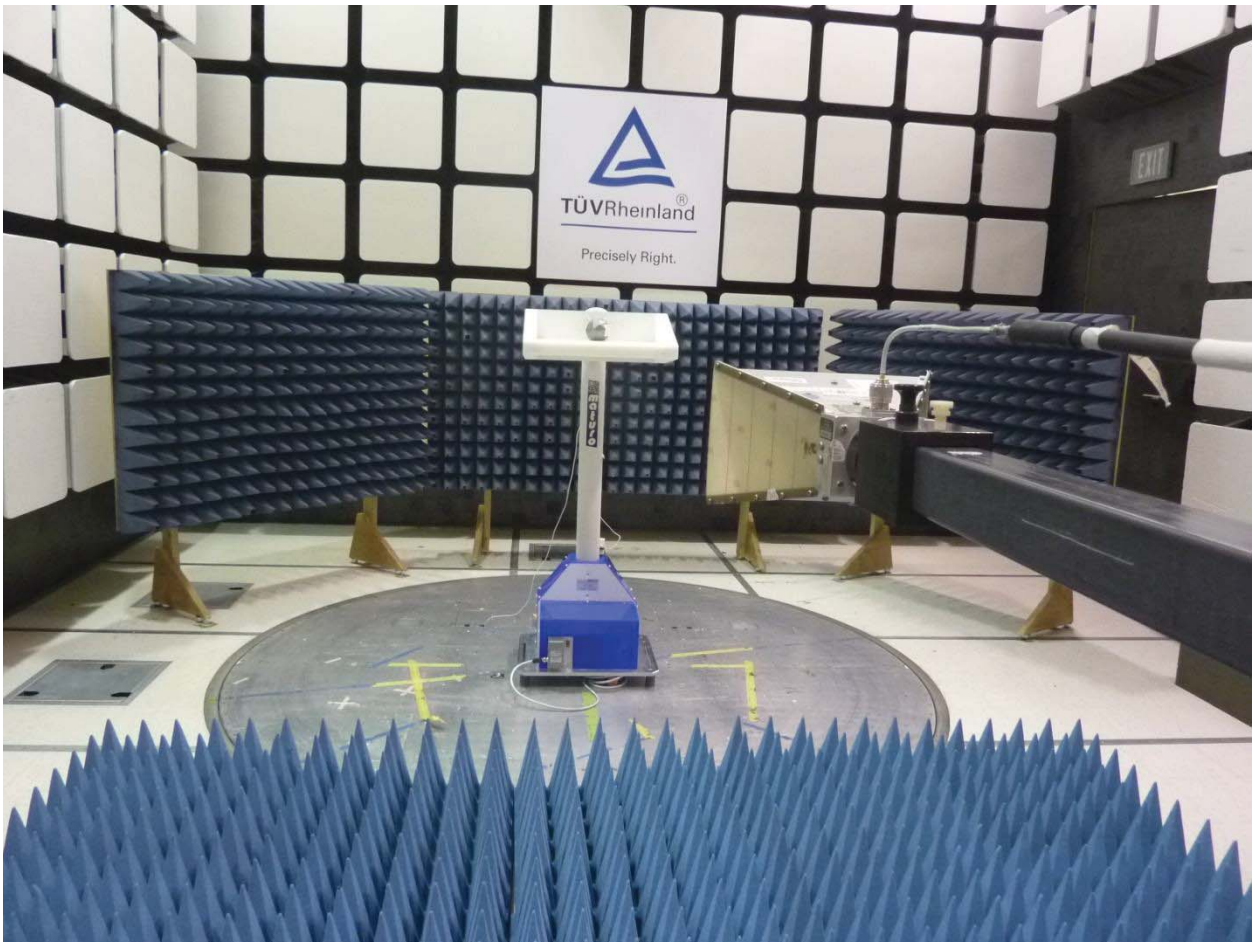
Radiated Emissions 9k-30 MHz rear



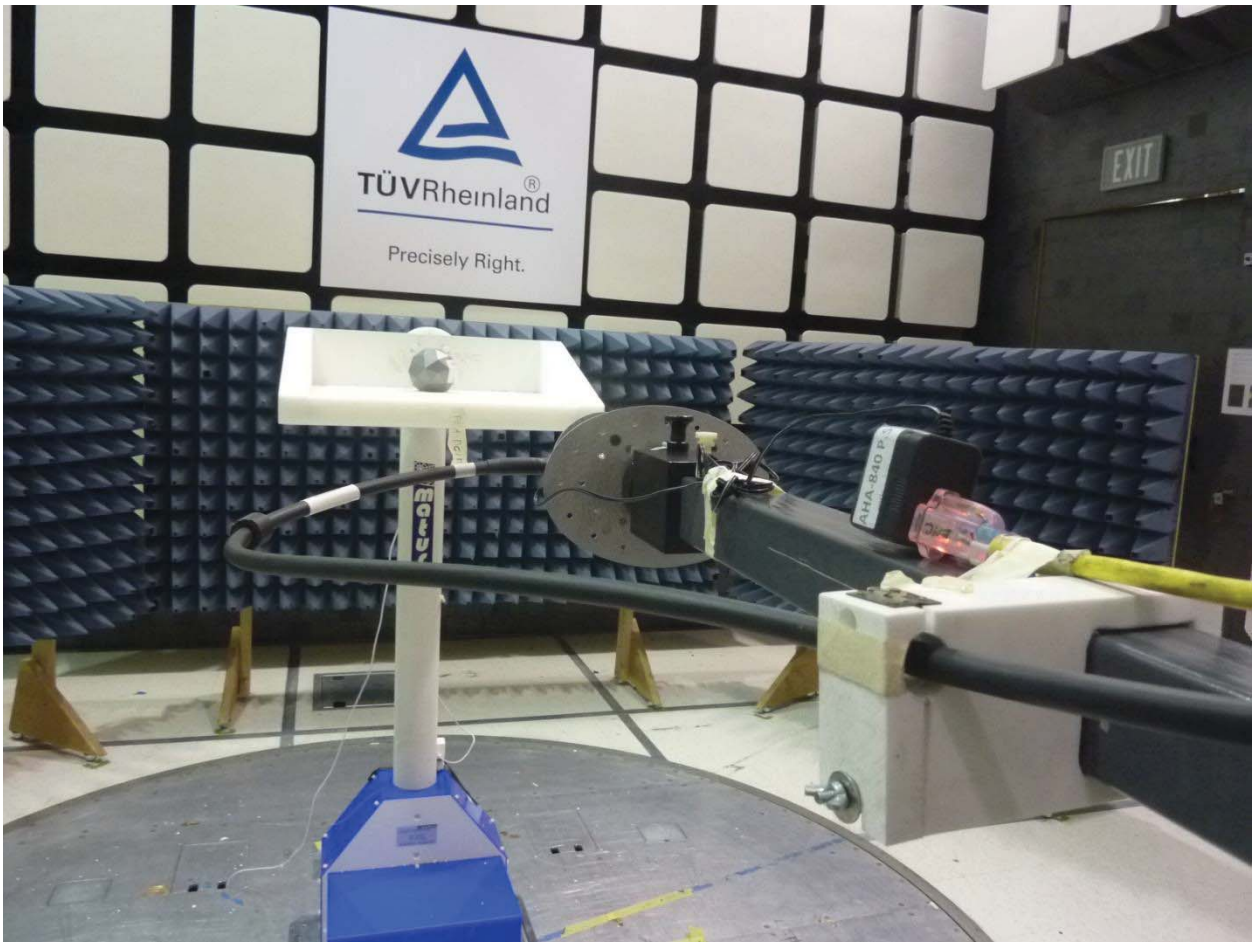
Radiated Emissions 30-1000 MHz



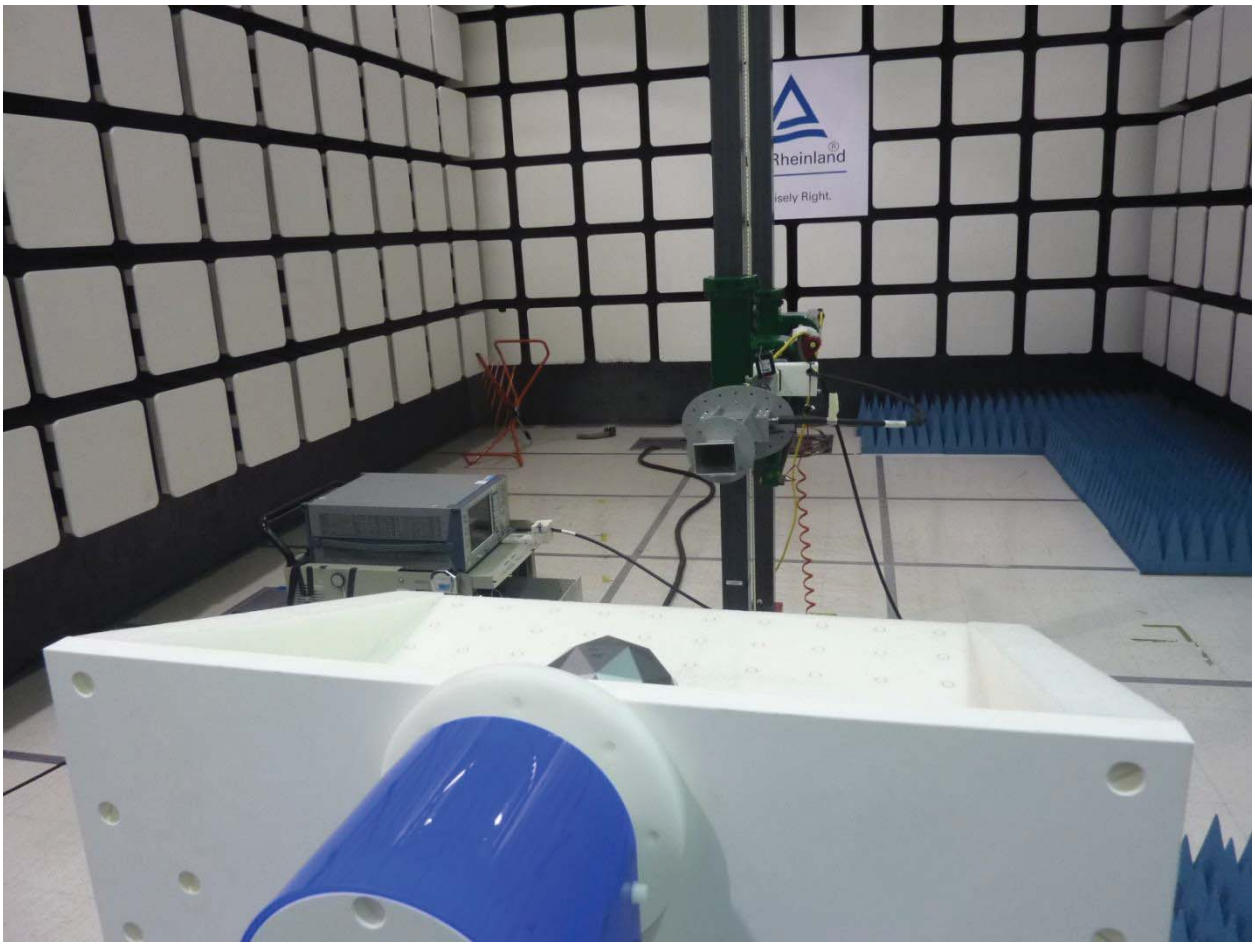
Radiated Emissions 1-18 GHz rear



Radiated Emissions 1-18 GHz front



Radiated Emissions 18-40 GHz front



Radiated Emissions 18-40 GHz rear

9 Measurement Equipment Used

Equipment	Manufacturer	Model #	Serial/Inst #	Last Cal mm/dd/yy	Next Cal mm/dd/yy	Test
Bilog Antenna	Sunol Sciences	JB3	A102606	06/15/2016	06/15/2018	RE
Horn Antenna	Sunol Science	DRH118	A040806	11/11/2016	11/11/2018	RE
Horn Antenna	Com-Power	AHA-840	105005	05/26/2017	05/26/2019	RE
Amplifier	Sonoma Instruments	310	165516	01/23/2018	01/23/2019	RE
Spectrum Analyzer	Rohde & Schwarz	ESI	832340/001	01/22/2018	01/22/2019	RE
Spectrum Analyzer	Agilent	MXE	52260210	01/22/2018	01/22/2019	RE
Spectrum Analyzer	Agilent	PXA	US51350291	01/22/18	01/22/19	CE (Tx)
LISN	Com-Power	n/a	12100	01/24/18	01/24/19	CE
Power Sensors	Rohde & Schwarz	OSP-B157	26160467	01/18/2018	01/18/2019	CE (Tx)
Spectrum Analyzer	Rohde & Schwarz	FSW67	104088	06/11/2018	06/11/2019	CE (Tx)

Note: CE=Conducted Emissions, CI=Conducted Immunity, DP=Disturbance Power, EFT=Electrical Fast Transients, ESD=Electrostatic Discharge, FLI=Flicker, HAR=Harmonics, MF=Magnetic Field Immunity, NCR=No Calibration Required, RE=Radiated Emissions, RI=Radiated Immunity, SI=Surge Immunity, VDSI=Voltage Dips and Short Interruptions

10 Test Plan

10.1 Introduction

This section provides a description of the Equipment Under Test (EUT), configurations, operating conditions, and performance acceptance criteria. It is an overview of information provided by the manufacturer so that the test laboratory may perform the requested testing.

10.2 Equipment Under Test (EUT)

Table 4: EUT Specifications

EUT Specifications	
Dimensions	6in in diameter
DC Input	110 VDC
Environment	Indoor
Operating Temperature Range:	-20 / 60C
Multiple Feeds:	☒ Yes and how many 2 ☐ No
Product Marketing Name (PMN)	Norton Core Mini
Hardware Version Identification Number (HVIN)	518
Firmware Version Identification Number (FVIN)	n/a
802.11ac Radio	
Operating Mode	802.11ac,802.11n
Transmitter Frequency Band	2400-2483.5 GHz 5150-5250 GHZ 5725-5850 GHz
Operating Bandwidth	20,40,80 MHz
Antenna Type	4 Stamped metal dipoles
Antenna Gain	2.7dbi @2.4GHz 4.5dbi @ 5GHz
Modulation Type	CCK, OFDM,BPSK,QPSK,16-QAM,64-QAM,256-QAM
Data Rate	1 Mbps to MCS08

Table 5: Antenna Information

Number	Antenna Type	Description	Max Gain (dBi)
Antenna 1	Internal	Max. peak gain at 2.4 GHz	+2.7
Antenna 2	Internal	Max. peak gain at 5 GHz	+4.5

Table 6: Interface Specifications

Interface Type	Cabled with what type of cable?	Is the cable shielded?	Maximum potential length of the cable?	Metallic (M), Coax (C), Fiber (F), or Not Applicable?
Ethernet	CAT5 UTP	☐ Yes	☐ Metric: various	☒ M

Table 7: Supported Equipment

Equipment	Manufacturer	Model	Serial	Used for
Laptop	Lenovo	20DF003 WUS	00392-918-500002-85320	Running test software
Ethernet cable	(generic)	n/a	n/a	Communication link
Laptop AC adapter	Lenovo	ADLX65 NPC2A	11S36200282 ZZ204/8S0JX	Power supply
Note: None.				

Table 8: Description of Sample used for Testing

Device	Serial	RF Connection	CFR47 Part 15.247 2017 CFR47 Part 15.247 2017 RSS247: 2017
Norton Core Mini	PP #1	Internal	TX Emissions.
	PP #2	Direct via SMA Connection	Transmit Power, Occupied Bandwidth, Out of Band Emission,

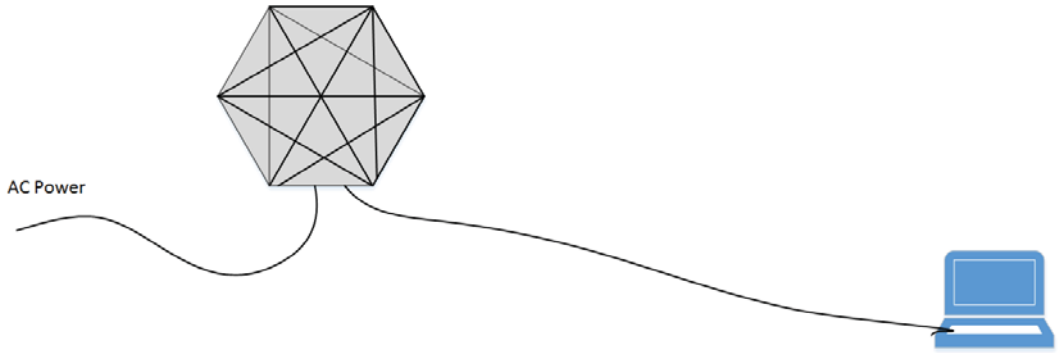
Table 9: Test specifications and mode of operation

Test	Mode

Occupied Bandwidth CFR 47 15.247 2018 CFR 47 15.409 2018 RSS 247:2013 5.2 6.2	2.4GHz HT20,HT40,VHT20,VHT40 CH 1,3,6,11 5.0 ghZ NONHT20,HT40,HT80,Vht20,VHT40,VHT80 CH 36,38,42,44,46,48,149151,157,159,155,165
Output Power CFR47 15.247 2018 (b3), CFR47 15.247 2018 RSS 247:2013 5.2 6.2	2.4GHz HT20,HT40,VHT20,VHT40 CH 1,3,6,11 5.0 ghZ NONHT20,HT40,HT80,Vht20,VHT40,VHT80 CH 36,38,42,44,46,48,149151,157,159,155,165
Out of Band Emission CFR47 15.247 2018 (d), RSS 247:2013 5.2 6.2	2.4GHz HT20,HT40,VHT20,VHT40 CH 1,3,6,11
Band-Edge (Conducted) FCC Part 15.205, 15.209	2.4GHz HT20,HT40,VHT20,VHT40 CH 1,3,6,11 5.0 ghZ NONHT20,HT40,HT80,Vht20,VHT40,VHT80 CH 36,38,42,44,46,48,149151,157,159,155,165
Transmitted Spurious Emission (30 MHz – 1GHz) FCC Part 15.205, 15.209	2.4GHz HT20,HT40,VHT20,VHT40 CH 1,3,6,11 5.0 ghZ NONHT20,HT40,HT80,Vht20,VHT40,VHT80 CH 36,38,42,44,46,48,149151,157,159,155,165
Transmitted Spurious Emission (Above 1GHz) FCC Part 15.205, 15.209	2.4GHz HT20,HT40,VHT20,VHT40 CH 1,3,6,11 5.0 ghZ NONHT20,HT40,HT80,Vht20,VHT40,VHT80 CH 36,38,42,44,46,48,149151,157,159,155,165
AC Conducted Emission FCC Part 15.207	Any single channel in each band
Note: All VHTxx channels include beamforming gain	

10.3 Block Diagram

Radiated emissions test setup



Conducted Tx emissions setup