

RF Test Report

Project Number: 5343570

Offer Number: SUW-202506008496

Report Number: SUW5343570EMC02R2

Revision: 2

Client: UTEC, Inc. (c/o Carrier Corporation)

Equipment Under Test: Chiller Controller Display

Model Name: SmartVu 7.0 Controller

Model Numbers: CEPL131318, CEPL131319

Contains FCC ID: 2AK6N-CM276NF

Contains IC: 703A-CM276NF

Applicable Standards: FCC Part 15 Subpart E, § 15.407

RSS-247 Issue 4

RSS-GEN Issue 5

ANSI C63.10-2020

Report issued on: 03 April 2026

Test Result: Compliant



FOR THE SCOPE OF ACCREDITATION UNDER CERTIFICATE NUMBER: 3212.01

Report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the Federal Government.

Prepared by:

A handwritten signature in blue ink that reads 'Martin Taylor'.

Martin Taylor, Project Engineer

Reviewed by:

A handwritten signature in black ink that reads 'Daniel Alvarez'.

Daniel Alvarez, RF/EMC Sr. Staff Engineer

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1 Summary of Test Results

Test Description	Test Specification		Test Result
Bandwidth	15.407(e)	RSS-247 S6.2 RSS-GEN S6.7	N/R ¹
Output Power	15.407(a)	RSS-247 S6.2	N/R ¹
Power Spectral Density	15.407(a)	RSS-247 S6.2	N/R ¹
Conducted Spurious Emissions / Band Edge	15.407(b)	RSS-247 S6.2	N/R ¹
Field Strength of Spurious Radiation (Restricted Bands)	15.407(b) 15.205, 15.209	RSS-247 S6.2 RSS-GEN S8.9, S8.10	Compliant
AC Powerline Conducted Emissions	15.207	RSS-GEN S8.8	Compliant
Antenna Requirement	15.203	RSS-GEN S6.8	Compliant ²

Notes:

- (1) Not Required. This report is for a Class 2 Permissive Change (C2PC) on a certified WLAN module being used with antennas that are not pre-approved. Therefore, only Radiated Spurious Emissions and AC Powerline Conducted Emissions testing was performed. The previously performed conducted tests on the module remain valid.
- (2) Two antennas are externally connected to the EUT via coaxial cables with Reverse-Polarity SMA connectors. These unique connectors meet the requirements of FCC rule part 15.203.

1.1 Modifications Required for Compliance

None

2 General Information

2.1 Client Information

Company Name: UTEC, Inc. (c/o Carrier Corporation)
 Address: 111 E. Wayne Street, Suite 800
 City, State, Zip, Country: Fort Wayne, IN 46802, USA

2.2 Test Laboratory

Company Name: SGS North America, Inc.
 Address: 620 Old Peachtree Road NW, Suite 100
 City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
 Type of lab: Testing Laboratory
 Certificate Number: 3212.01
 ISED CAB Identifier: US0186
 FCC Designation Number: US1126

2.3 General Information of EUT

Type of Product: Chiller Controller Display
 Product Name: SmartVu 7.0 Controller
 Model Numbers: CEPL131318 (7-inch Display)
 CEPL131319 (10-inch Display)
 Model Differences: Both models use the same PCB and PCB housing, the only difference being the display size.
 Models Tested: The 10-inch model was fully tested as the worst-case, and the 7-inch model was spot-checked. Only the 10-inch model results are included in this report.
 Serial Numbers: SGS Sample ID: SUW_SP_20250702839 (7-inch Display)
 SGS Sample ID: SUW_SP_20250702837 (10-inch Display)
 Contains FCC ID: 2AK6N-CM276NF
 Contains IC: 703A-CM276NF
 Frequency Ranges: 2402 – 2480 MHz (Bluetooth/BLE)
 2412 – 2462 MHz (WLAN 2.4GHz)
 5180 – 5240 MHz (U-NII-1 Band)
 5260 – 5320 MHz (U-NII-2A Band)
 5500 – 5720 MHz (U-NII-2C Band)
 5745 – 5825 MHz (U-NII-3 Band)
 Data Modes: Bluetooth Classic
 Bluetooth Low Energy (BLE)
 WLAN IEEE 802.11b/g/n (2.4GHz)
 WLAN IEEE 802.11a/n/ac (5GHz)
 Antennas: Two external monopole antennas: Quectel YEBM001L1AH
 Rated Voltage: 24Vac ± 30%, 50/60Hz or 24Vdc ± 30%
 Test Voltage: 24Vac ± 15%, 50/60Hz

Sample Received Date: 21 July 2025

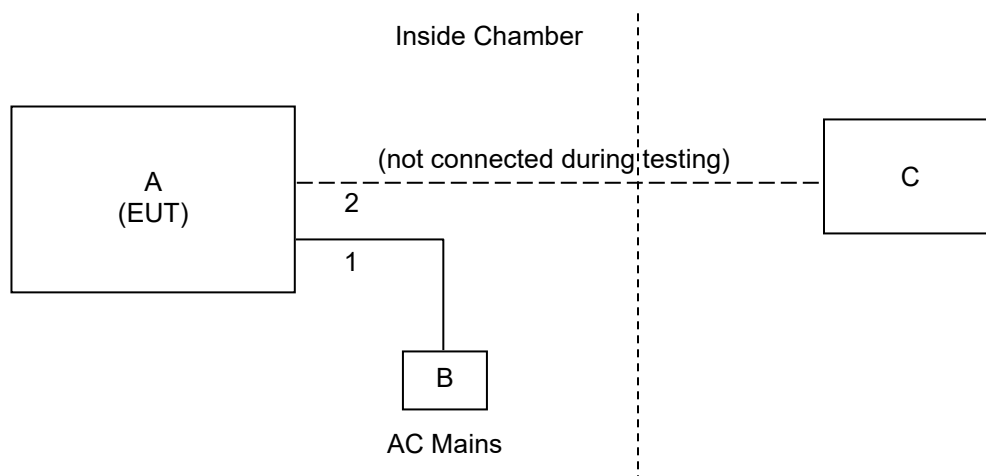
Dates of testing: 30 July to 26 August 2025 and 1-2 April 2026

2.4 Operating Modes and Conditions

The EUT was powered using a 240-to-24Vac step-down transformer provided by the client. Test mode commands were issued to turn on the radio transmit signals at low, middle and high channels for each of the four supported 5GHz WLAN U-NII bands. The worst-case data rates were tested for each data mode based on the original test report for the module. Power settings were obtained from the power tables provided by the module manufacturer. FCC power settings were used since those were the highest. Below are the settings used for each data mode.

Radio / Data Mode	Data rate	Power setting
WLAN 802.11a	6 Mbps	13 dBm
WLAN 802.11n	MCS8	13 dBm
WLAN 802.11ac	VHT MCS0	13 dBm

2.5 EUT Connection Block Diagram



2.6 System Configurations

Device reference	Manufacturer	Description	Model Number	Serial Number
A	UTEC, Inc.	Chiller Controller Display	CEPL131318 CEPL131319	SUW_SP_20250702839 SUW_SP_20250702837
B	Carrier Corp.	AC/AC Transformer	HT01BD202	Not labeled
C	Lenovo	Laptop Computer	T440p	Lab PC #2

2.7 Cable List

Cable reference	Port Name	Start	End	Cable Length (m)	Ferrite installed?	Shielded?
1	AC Power	EUT	Transformer	>1.0	No	No
2	Ethernet	EUT	Laptop	>1.0	No	No

3 Field Strength of Spurious Radiation

3.1 Test Result

Test Description	Test Specification		Test Result
Radiated Spurious Emissions	15.407(b) – 5GHz U-NII	RSS-247	Compliant

3.2 Test Method

The measurement methods defined in ANSI C63.10-2020 were used.

The lowest, middle and highest channels were tested for 5GHz U-NII Bands 1, 2A, 2C and 3. IEEE 802.11a, n(HT20) and ac(VHT20) modes were tested using the worst-case data rates for each mode based on the original certified WLAN module test reports. The wider bandwidth modes (40MHz and 80MHz) were not tested since those signals have lower power spectral density than the narrower 20MHz BW signals.

The EUT was tested in the vertical orientation as that is how the EUT will be mounted in the field.

Test distance:

- 9 kHz to 30 MHz - The EUT to measurement antenna distance was 3 meters
- 30 to 1000 MHz - The EUT to measurement antenna distance was 3 meters
- 1 to 18 GHz - The EUT to measurement antenna distance was 3 meters
- 18 to 40 GHz - The EUT to measurement antenna distance was 1 meter

Limit for spurious emissions from FCC §15.407(b) for U-NII Bands 1-3 for >1GHz: -27 dBm/MHz e.i.r.p. This -27 dBm power limit translates to a field strength limit of 68.2 dBuV/m at a 3-meter distance.

Limits for 30-1000MHz and within restricted bands of operation >1GHz (at 3m distance):

Frequency	Limits ⁽¹⁾		Peak Limits dBuV/m
	Microvolts/m	dBuV/m	
30 - 88 MHz	100	40 ⁽²⁾	--
88 - 216 MHz	150	43.5 ⁽²⁾	--
216 - 960 MHz	200	46 ⁽²⁾	--
960 - 1000 MHz	500	54 ⁽²⁾	--
1 - 40 GHz	500	54 ⁽³⁾	74

(1) These limits are applicable to emissions outside of the intentional transmit frequency band.

(2) Quasi-peak limit

(3) Average limit

3.3 Test Site

3m and 10m Absorber Lined Shielded Enclosure (ALSE), Suwanee, GA

Environmental Conditions	9kHz – 30MHz	30-1000MHz	1-18GHz	18-40GHz
Temperature:	23.08 °C	23.2 – 24.6 °C	22.7 – 24.6 °C	23.4 – 23.6 °C
Relative Humidity:	51.9 %	56.1 – 67.9 %	50.8 – 65.1 %	55.5 – 55.8 %
Atmospheric Pressure:	98.5 kPa	97.4 – 97.5 kPa	97.4 – 97.5 kPa	97.4 – 97.5 kPa

3.4 Test Equipment

9kHz-30MHz

Test End Date: 2-Apr-2026

Tester: SGM

Equipment	Model	Manufacturer	Asset	Cal Date	Cal Due Date
PASSIVE LOOP ANTENNA, 9KHZ - 30MHZ	6512	ETS LINDGREN	20151	4-Mar-2026	4-Mar-2027
N to N RF Cable	EM-B810NM-276PA	ECHOLON	25012	19-Sep-2025	19-Sep-2026
N to N RF Cable	EM-B810NM-276	ECHOLON	25013	19-Sep-2025	19-Sep-2026
N to N RF Cable	RF280-06SP-06SP- 2000	SAMTEC	23013	5-May-2025	5-May-2026
BROADBAND PREAMPLIFIER 9KHZ-2GHZ	BBV 9745	SCHWARZBECK MESS ELEKTRONIK	20157	12-Oct-2025	12-Oct-2026
EMI TEST RECEIVER	ESW44	ROHDE & SCHWARZ	22032	18-Mar-2025	18-May-2026
RF CABLE	104PE	HUBER & SUHNER	B079793	8-Aug-2025	8-Aug-2026

30-1000MHz

Test End Date: 7-Aug-2025

Tester: PL, ZH

Equipment	Model	Manufacturer	Asset	Cal Date	Cal Due Date
ANTENNA, BILOG	JB6	SUNOL	B079690	19-Apr-2024	19-Apr-2026
N to N RF Cable	EM-B810NM-276	ECHOLON	24021	15-Nov-2024	15-Nov-2025
RF CABLE	SF106	HUBER & SUHNER	B085903	8-Aug-2025	8-Aug-2026
RF CABLE	SF106	HUBER & SUHNER	B085901	2-Sep-2025	2-Sep-2026
RF CABLE NM TO NM, 0.01-18GHZ	90-195-079	TELEDYNE STORM MICROWAVE	20123	6-Feb-2025	6-Feb-2026
LOW NOISE AMPLIFIER	ZKL-2+	MINI-CIRCUITS	B079800	26-Sep-2025	26-Sep-2026
EMI TEST RECEIVER	ESW44	ROHDE & SCHWARZ	22032	2-Jan-2025	2-Jan-2026

1-18GHz

Test End Date: 15-Aug-2025

Tester: PL, ZH

Equipment	Model	Manufacturer	Asset	Cal Date	Cal Due Date
ANTENNA, DRG HORN (MEDIUM)	3117	ETS LINDGREN	B079691	2-Aug-2024	2-Aug-2026
N to N RF Cable	EM-B810NM-276	ECHOLON	24021	15-Nov-2024	15-Nov-2025
RF CABLE	SF106	HUBER & SUHNER	B085888	6-Aug-2025	6-Aug-2026
LOW NOISE AMPLIFIER	TS-PR18	ROHDE & SCHWARZ	B094463	3-Jul-2025	3-Jul-2026
EMI TEST RECEIVER	ESW44	ROHDE & SCHWARZ	22032	2-Jan-2025	2-Jan-2026
FILTER, HIGH PASS, >6250MHZ	HPM50112	MICRO-TRONICS	B093647	3-Jul-2025	3-Jul-2026

18-40GHz

Test End Date: 18-Aug-2025

Tester: ZH

Equipment	Model	Manufacturer	Asset	Cal Date	Cal Due Date
ANTENNA, DRG HORN (SMALL)	3116B	ETS LINDGREN	B079695	2-Aug-2024	2-Aug-2026
SMA to SMA RF Cable	NC12-K1K1-138	MEGAPHASE	22002	3-Apr-2025	3-Apr-2026
RF CABLE SMA	HULL150A-29P- 29P-36	HASCO COMPONENTS	19101	3-Apr-2025	3-Apr-2026
LOW NOISE AMPLIFIER	NSP1840-HG	MITEQ	B087572	21-Oct-2024	21-Oct-2025
EMI TEST RECEIVER	ESW44	ROHDE & SCHWARZ	22032	2-Jan-2025	2-Jan-2026

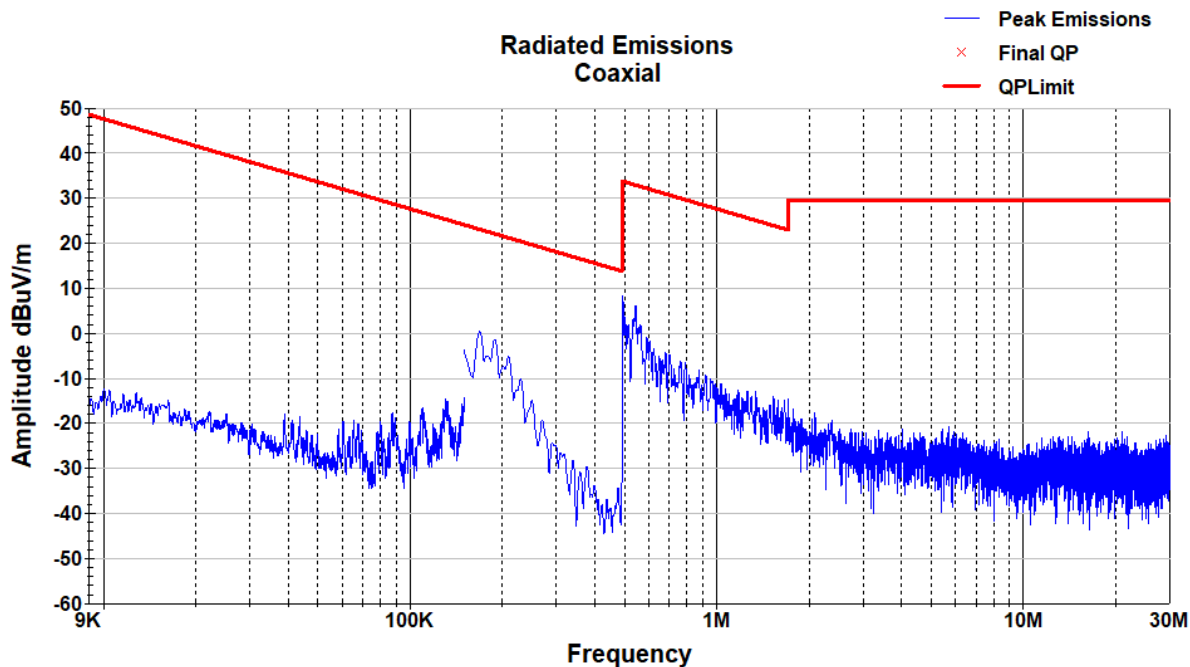
Software: "RSE 9k-30MHz 260402 Maturo" TILE! profile dated 02 April 2026
 "RSE 30-1000 MHz T7 240701" TILE! profile dated 01 July 2024
 "RSE 1-40 GHz T7 250729" TILE! profile dated 29 July 2025

3.5 Test Data – U-NII Band 1 – 802.11a

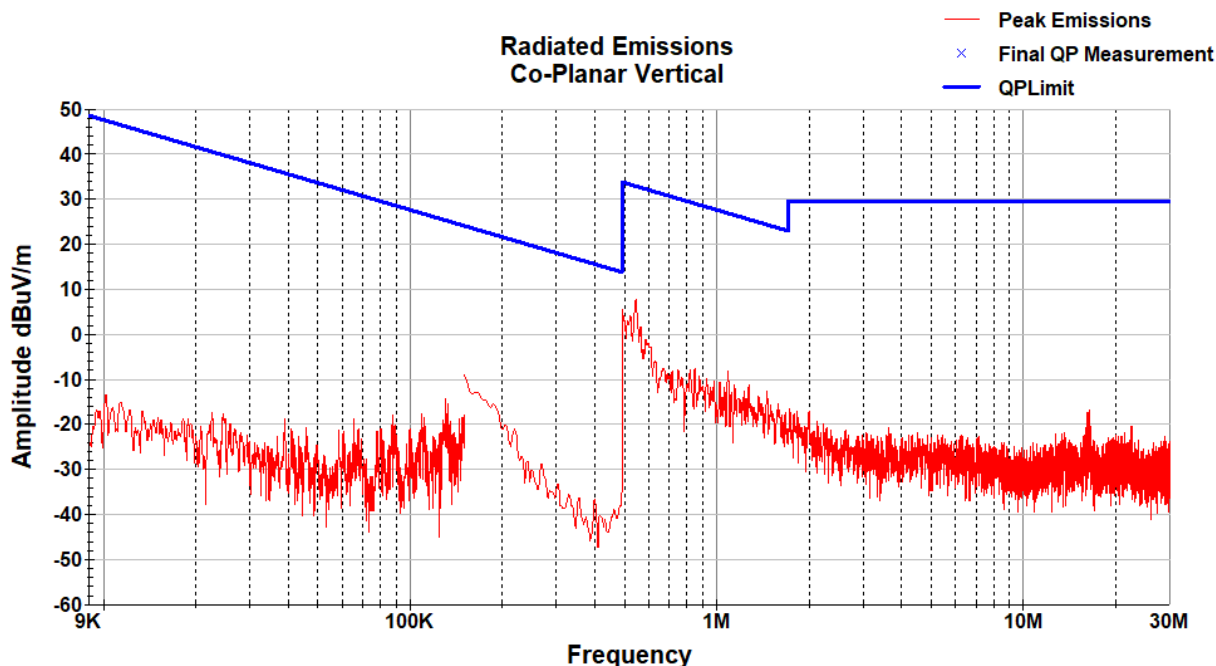
3.5.1 9kHz – 30MHz

All channels had similar plots in the 9kHz to 30MHz frequency range.

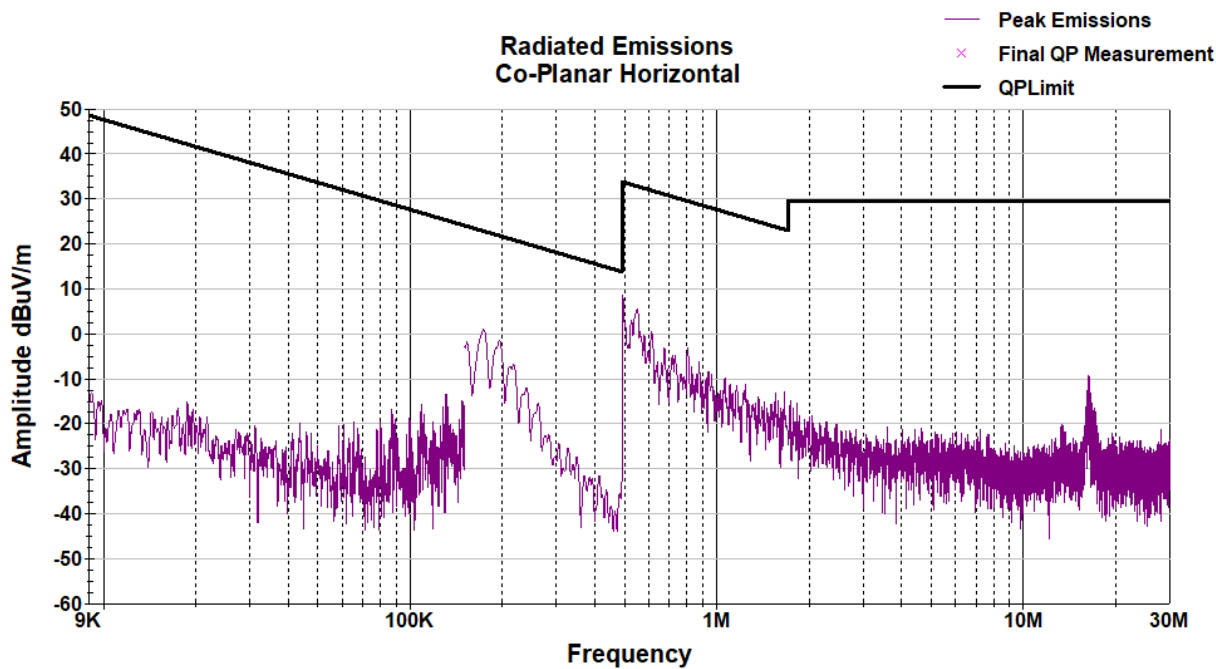
Coaxial Plot – 9 kHz-30MHz – Mid Channel



Co-Planar Vertical Plot – 9 kHz-30MHz – Mid Channel



Co-Planar Horizontal Plot – 9 kHz-30MHz – Mid Channel

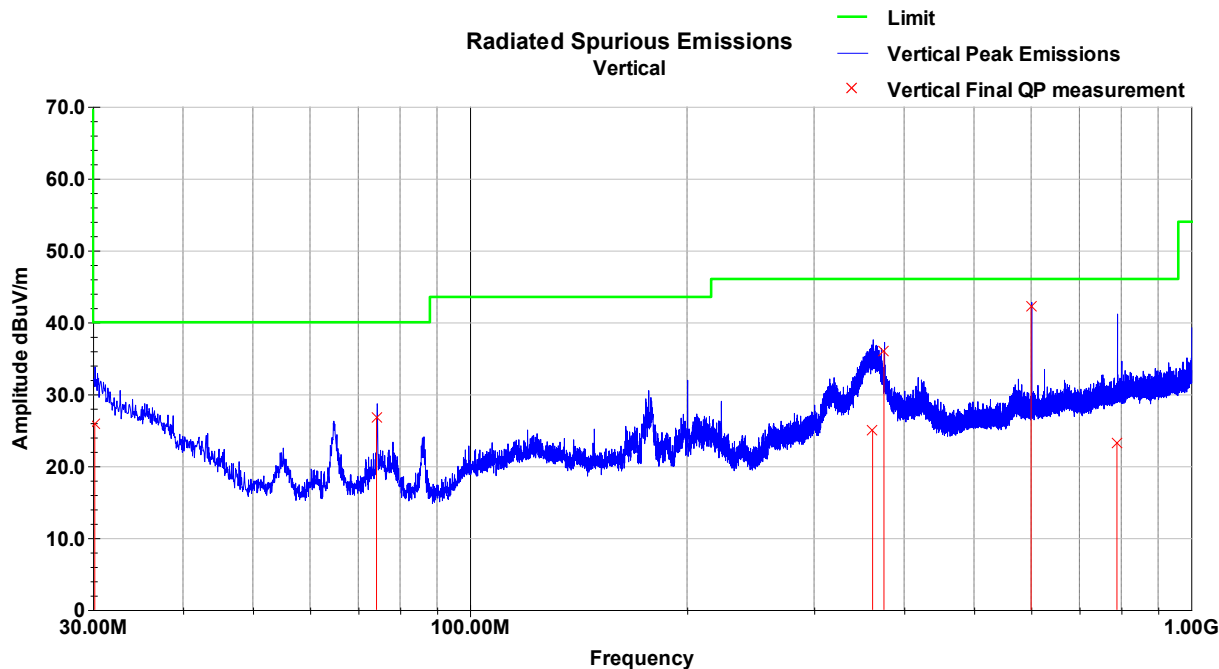


No emissions within 20dB of the limit

3.5.2 30-1000 MHz

All channels were measured and had similar plots – the worst-case plots are shown below.

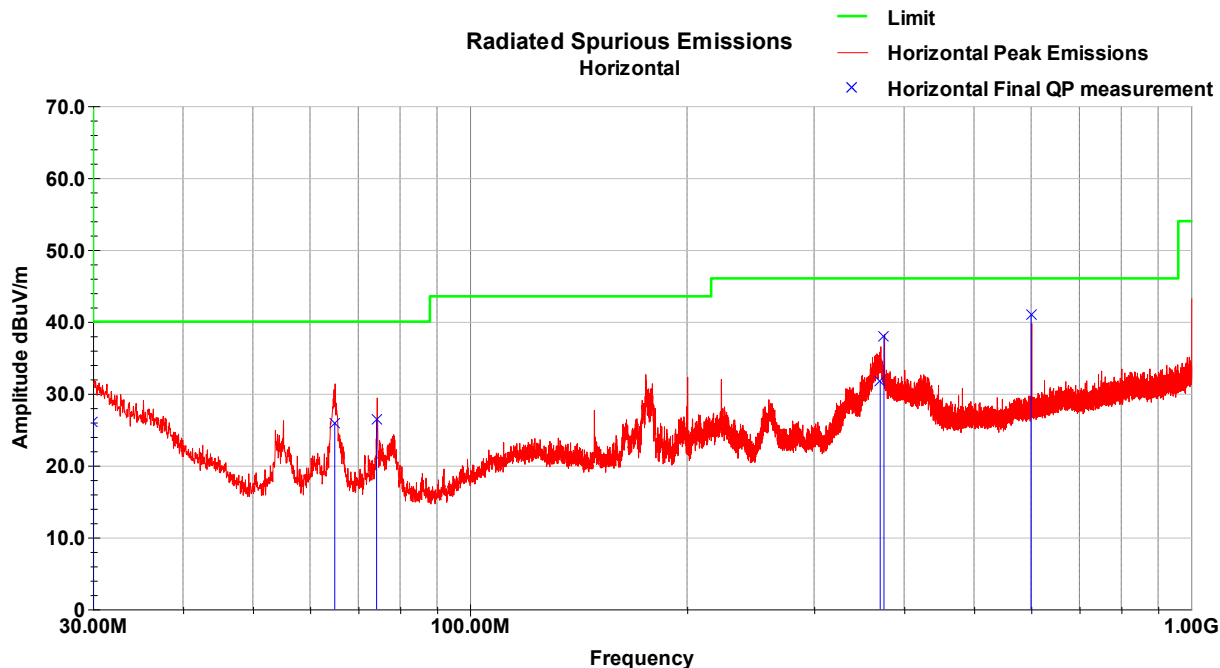
Vertical Plot – 30-1000MHz – Mid Channel



Vertical Data – 30-1000MHz – Mid Channel

Frequency MHz	Raw QP (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	Amp (dB)	QP Value (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.18	30.2	V	179.0	100.0	26.1	0.3	30.6	25.9	40.0	-14.1
74.21	44.6	V	230.0	100.0	12.3	0.6	30.7	26.7	40.0	-13.3
361.72	33.9	V	135.0	148.0	19.5	1.6	30.1	24.9	46.0	-21.1
375.01	44.7	V	138.0	100.0	19.7	1.6	30.1	36.0	46.0	-10.0
600.00	46.1	V	271.0	100.0	23.8	1.9	29.7	42.2	46.0	-3.9
789.15	24.5	V	360.0	400.0	26.1	2.0	29.3	23.3	46.0	-22.7
QP Value = Raw QP + AF + Loss - Amp										
Margin = QP Value - Limit										

Horizontal Plot – 30-1000MHz – Mid Channel

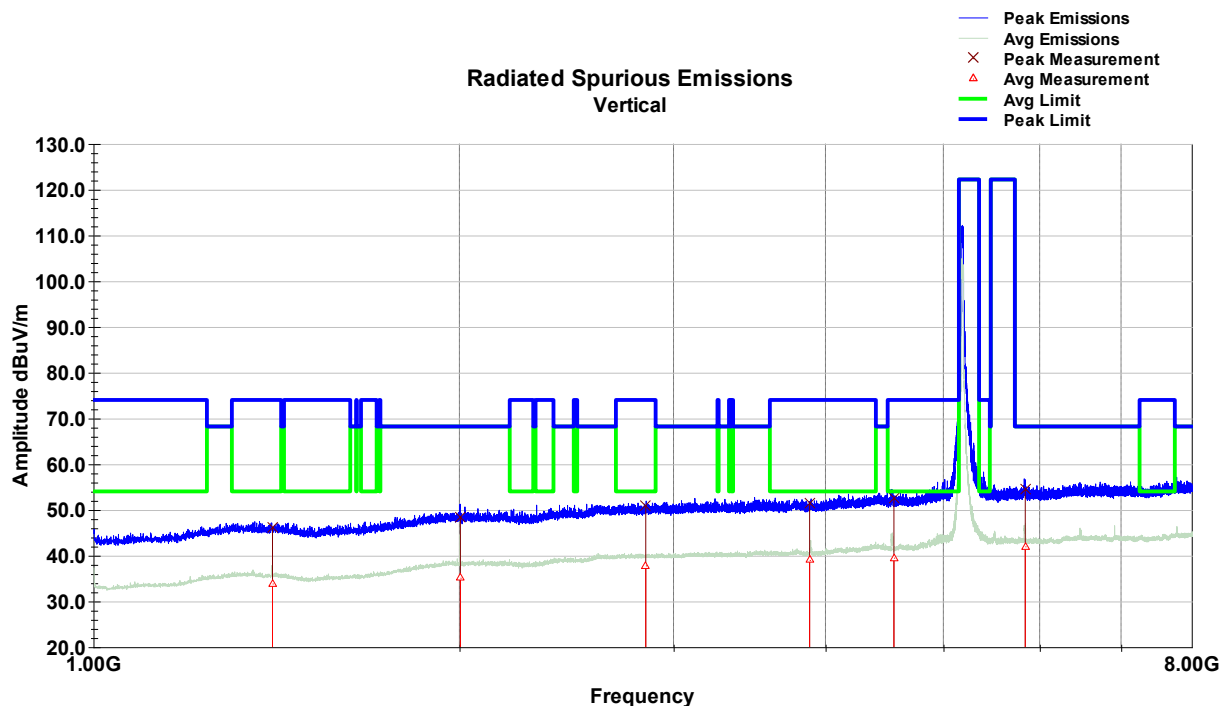


Horizontal Data – 30-1000MHz – Mid Channel

Frequency MHz	Raw QP (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	Amp (dB)	QP Value (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.00	30.1	H	172.0	398.0	26.2	0.3	30.6	26.0	69.5	-43.5
64.94	44.1	H	135.0	226.0	12.0	0.5	30.8	25.9	40.0	-14.1
74.23	44.3	H	360.0	226.0	12.3	0.6	30.7	26.5	40.0	-13.5
370.54	40.5	H	146.0	247.0	19.6	1.6	30.1	31.7	46.0	-14.3
375.02	46.8	H	168.0	246.0	19.7	1.6	30.1	38.0	46.0	-8.0
600.00	44.9	H	241.0	205.0	23.8	1.9	29.7	41.0	46.0	-5.0
QP Value = Raw QP + AF + Loss - Amp										
Margin = QP Value - Limit										

3.5.3 1-18 GHz

Vertical Plot – 1-8GHz – Low Channel

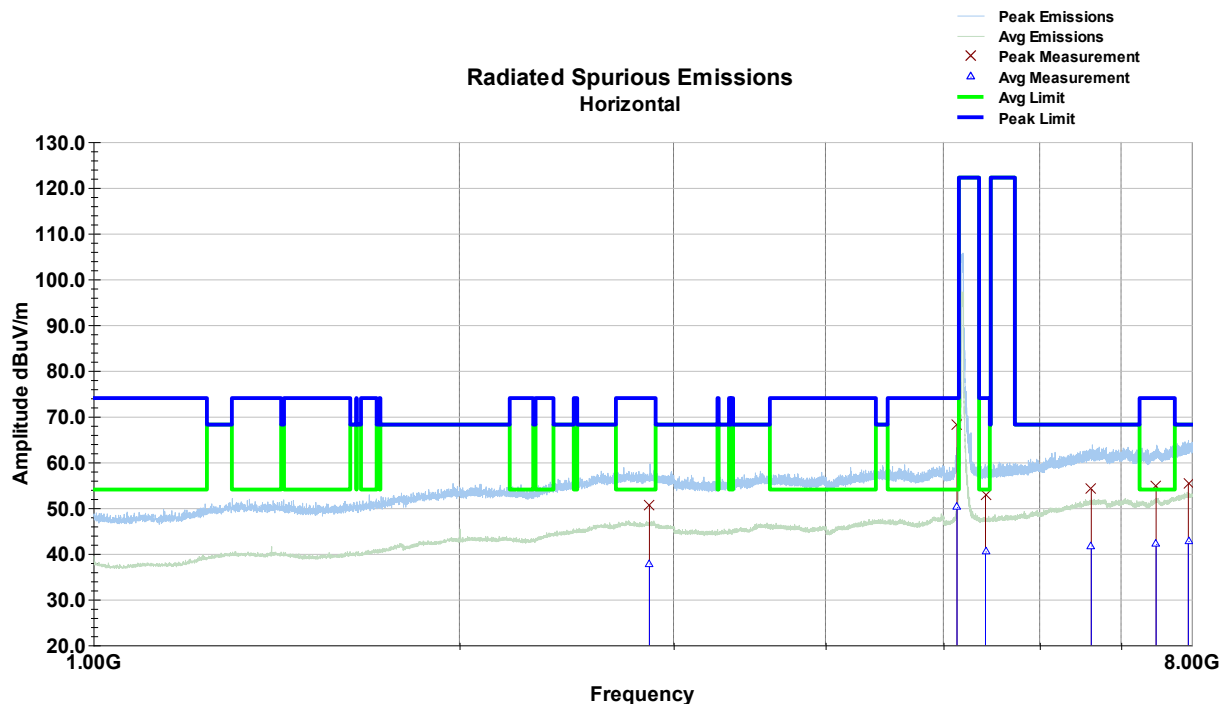


Vertical Data – 1-8GHz – Low Channel

Frequency MHz	Raw Avg dBuV	Polarity V/H	Azimuth degrees	Height cm	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1404.02	36.1	V	7.0	126.0	29.0	11.7	0.0	42.9	33.9	54.0	-20.1
2003.59	34.6	V	45.0	231.0	31.4	11.9	0.0	42.7	35.2	68.2	-33.0
2846.13	35.2	V	256.0	104.0	32.5	12.3	0.0	42.1	37.9	54.0	-16.1
3881.71	35.5	V	253.0	203.0	33.2	12.6	0.0	42.3	39.0	54.0	-15.0
4553.63	35.0	V	316.0	100.0	33.9	12.9	0.0	42.2	39.6	54.0	-14.4
5839.18	35.9	V	268.0	242.0	35.2	13.3	0.0	42.3	42.0	68.2	-26.2
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency MHz	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1404.02	48.4	V	7.0	126.0	29.0	11.7	0.0	42.9	46.2	74.0	-27.8
2003.59	47.8	V	45.0	231.0	31.4	11.9	0.0	42.7	48.4	68.2	-19.8
2846.13	48.3	V	256.0	104.0	32.5	12.3	0.0	42.1	51.0	74.0	-23.0
3881.71	47.9	V	253.0	203.0	33.2	12.6	0.0	42.3	51.4	74.0	-22.6
4553.63	47.9	V	316.0	100.0	33.9	12.9	0.0	42.2	52.4	74.0	-21.6
5839.18	48.2	V	268.0	242.0	35.2	13.3	0.0	42.3	54.4	68.2	-13.8
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Horizontal Plot – 1-8GHz – Low Channel

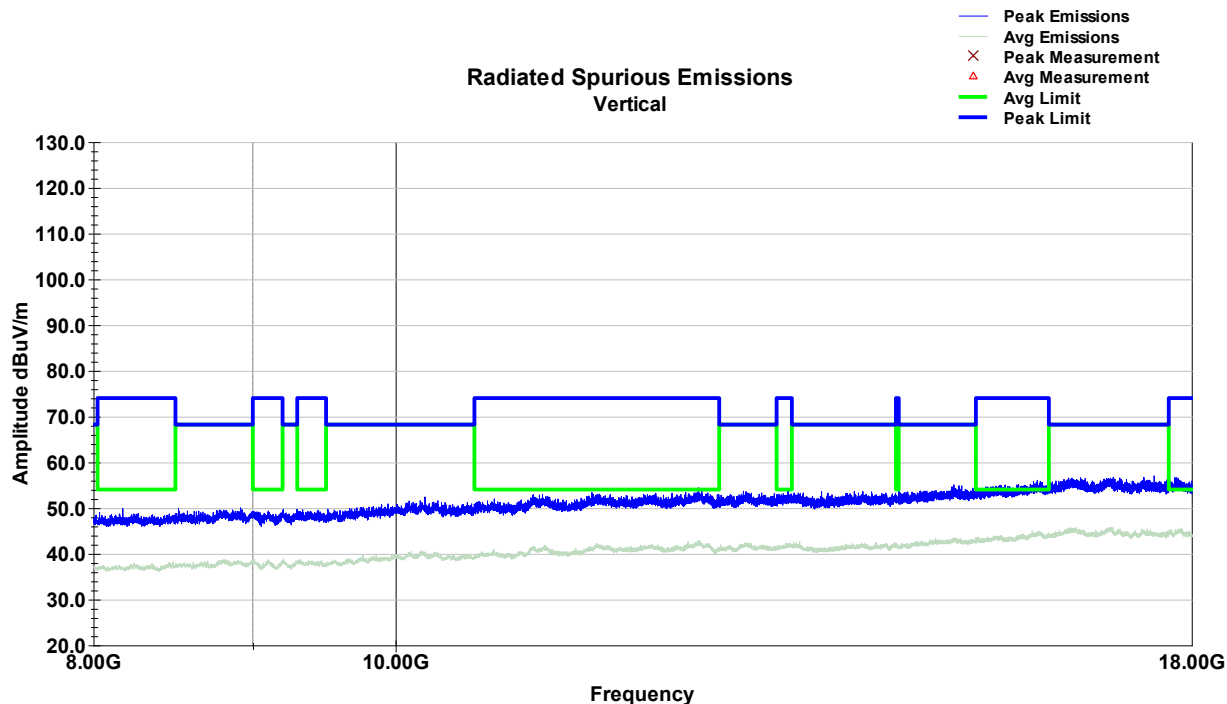


Horizontal Data – 1-8GHz – Low Channel

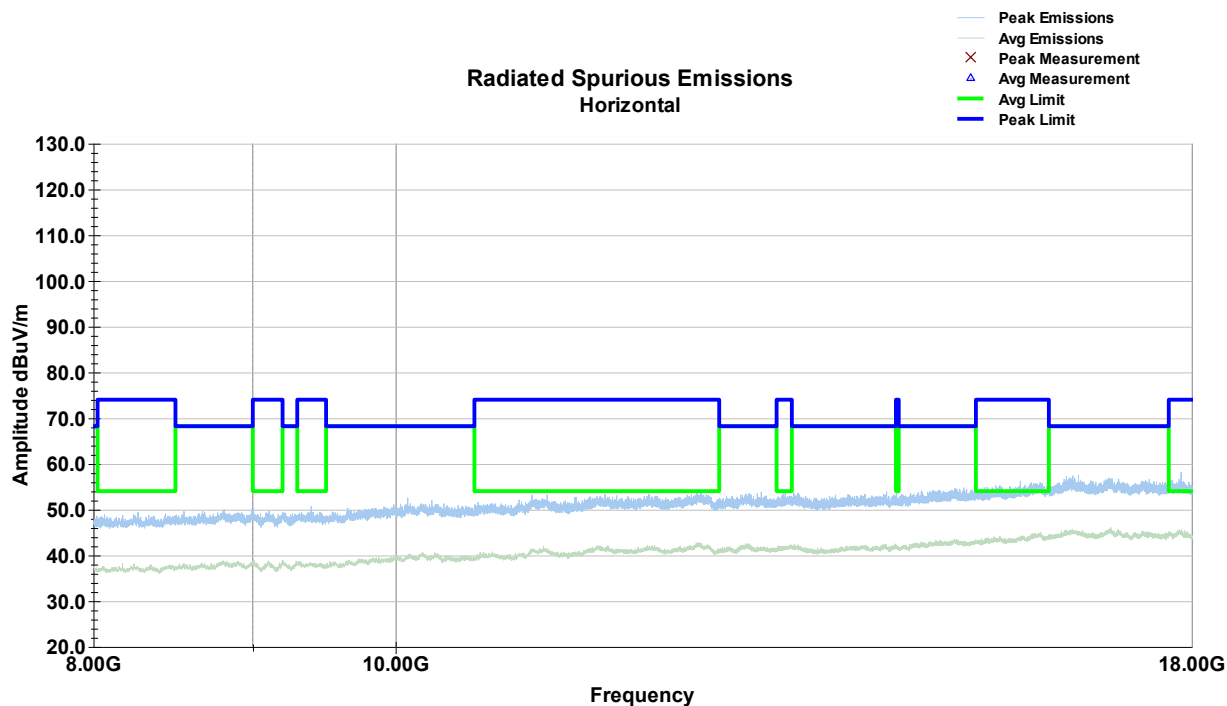
Frequency MHz	Raw Avg dBuV	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF dB	Amp (dB)	Avg Value dBuV/m	Limit (dBuV/m)	Margin (dB)
2866.20	35.2	H	327.0	141.0	32.4	12.3	0.0	42.1	37.9	54.0	-16.1
5131.16	44.9	H	171.0	182.0	34.2	13.4	0.0	42.3	50.2	54.0	-3.8
5415.25	35.2	H	132.0	138.0	34.5	13.2	0.0	42.4	40.5	54.0	-13.5
6616.74	34.7	H	18.0	198.0	35.6	13.7	0.0	42.2	41.8	68.2	-26.4
7480.60	34.3	H	151.0	198.0	35.8	14.0	0.0	42.0	42.1	54.0	-11.9
7951.93	34.8	H	202.0	208.0	36.0	14.1	0.0	42.2	42.8	68.2	-25.4
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency MHz	Raw Pk dBuV	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF dB	Amp (dB)	Final Pk dBuV/m	Limit dBuV/m	Margin dB
2866.20	47.9	H	327.0	141.0	32.4	12.3	0.0	42.1	50.6	74.0	-23.4
5131.16	62.9	H	171.0	182.0	34.2	13.4	0.0	42.3	68.3	74.0	-5.7
5415.25	47.5	H	132.0	138.0	34.5	13.2	0.0	42.4	52.9	74.0	-21.1
6616.74	47.0	H	18.0	198.0	35.6	13.7	0.0	42.2	54.1	68.2	-14.1
7480.60	47.0	H	151.0	198.0	35.8	14.0	0.0	42.0	54.8	74.0	-19.2
7951.93	47.5	H	202.0	208.0	36.0	14.1	0.0	42.2	55.4	68.2	-12.8
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

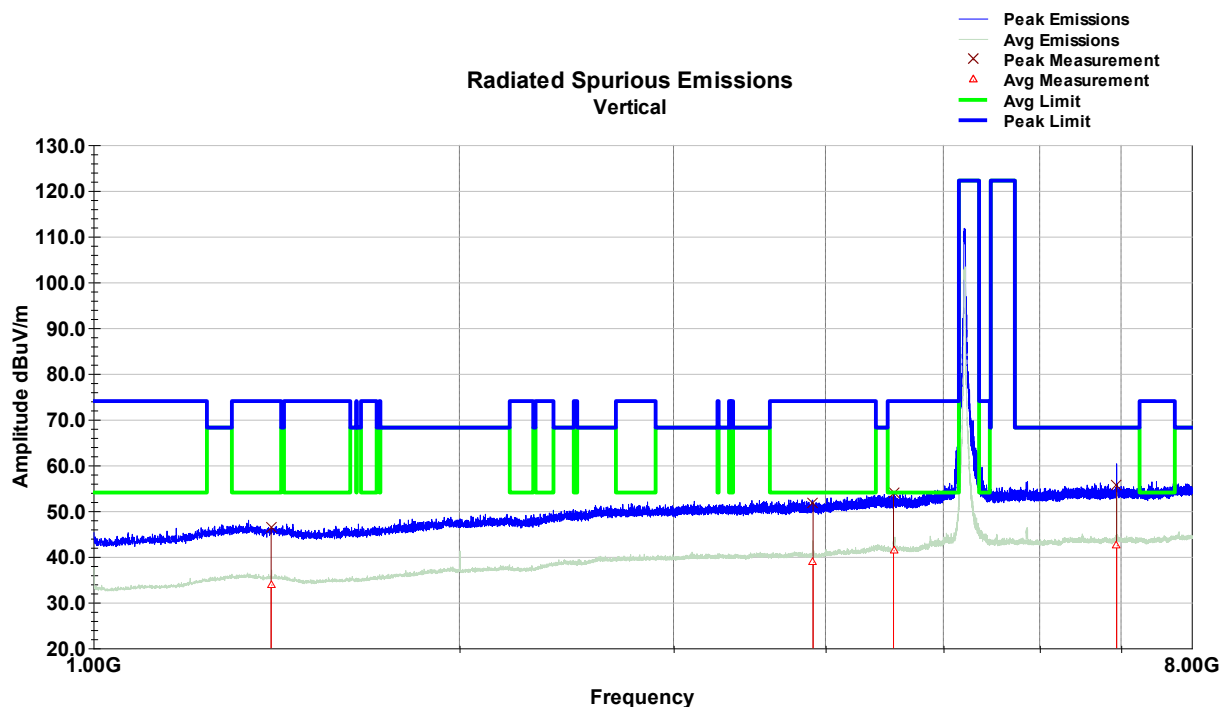
Vertical Plot – 8-18GHz – Low Channel



Horizontal Plot – 8-18GHz – Low Channel



Vertical Plot – 1-8GHz – Mid Channel

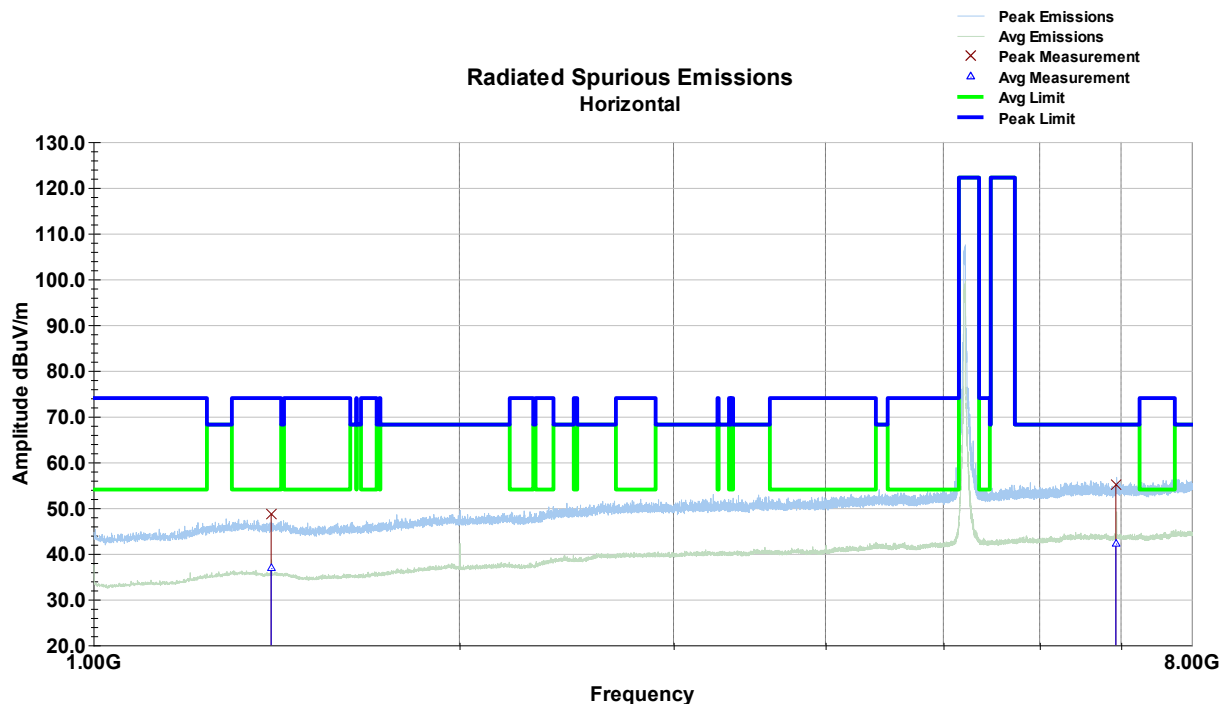


Vertical Data – 1-8GHz – Mid Channel

Frequency MHz	Raw Avg dBuV	Polarity V/H	Azimuth degrees	Height cm	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1400.47	36.1	V	277.0	117.0	29.0	11.7	0.0	42.9	33.9	54.0	-20.1
3907.15	35.4	V	22.0	235.0	33.2	12.6	0.0	42.3	38.9	54.0	-15.1
4549.91	36.9	V	140.0	247.0	33.9	12.9	0.0	42.2	41.4	54.0	-12.6
6942.01	35.1	V	98.0	129.0	35.7	13.7	0.0	42.1	42.5	68.2	-25.7
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency MHz	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1400.47	48.5	V	277.0	117.0	29.0	11.7	0.0	42.9	46.3	74.0	-27.7
3907.15	48.2	V	22.0	235.0	33.2	12.6	0.0	42.3	51.8	74.0	-22.2
4549.91	49.5	V	140.0	247.0	33.9	12.9	0.0	42.2	54.1	74.0	-19.9
6942.01	48.1	V	98.0	129.0	35.7	13.7	0.0	42.1	55.6	68.2	-12.6
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Horizontal Plot – 1-8GHz – Mid Channel

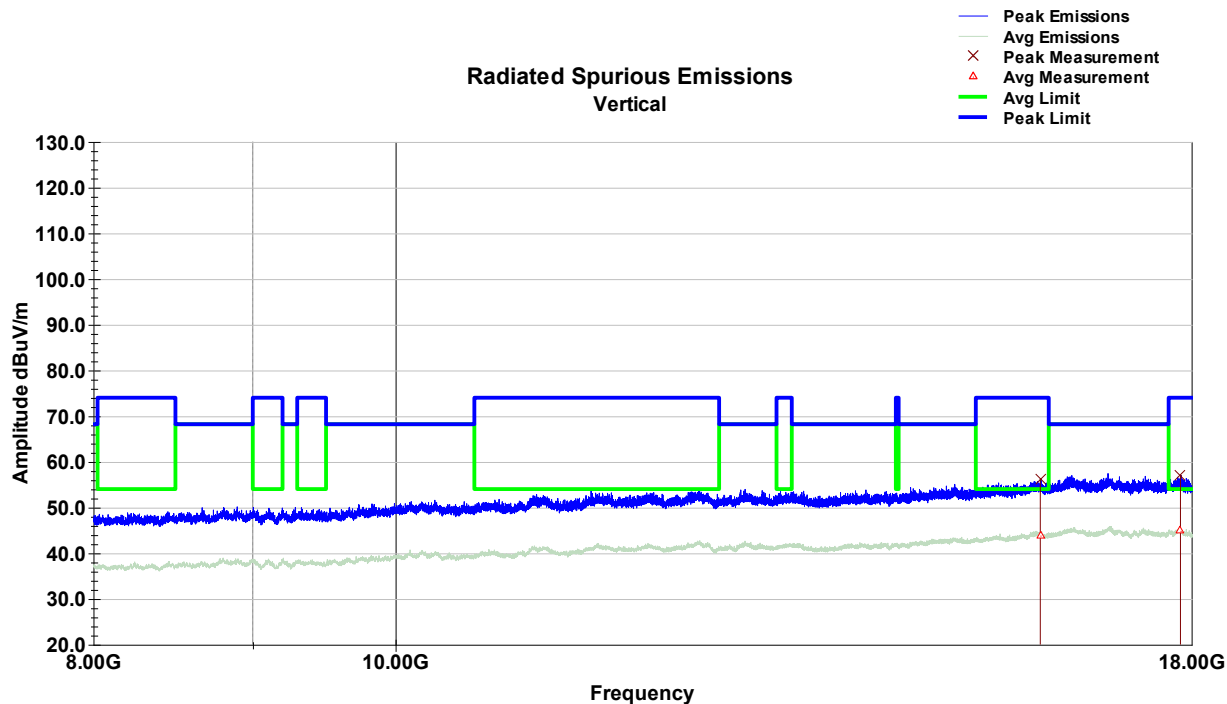


Horizontal Data – 1-8GHz – Mid Channel

Frequency MHz	Raw Avg dBuV	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF dB	Amp (dB)	Avg Value dBuV/m	Limit (dBuV/m)	Margin (dB)
1400.36	39.1	H	183.0	108.0	29.0	11.7	0.0	42.9	36.9	54.0	-17.1
6931.68	34.8	H	58.0	149.0	35.7	13.7	0.0	42.1	42.2	68.2	-26.0
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency MHz	Raw Pk dBuV	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF dB	Amp (dB)	Final Pk dBuV/m	Limit dBuV/m	Margin dB
1400.36	50.8	H	183.0	108.0	29.0	11.7	0.0	42.9	48.6	74.0	-25.4
6931.68	47.7	H	58.0	149.0	35.7	13.7	0.0	42.1	55.1	68.2	-13.1
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Vertical Plot – 8-18GHz – Mid Channel

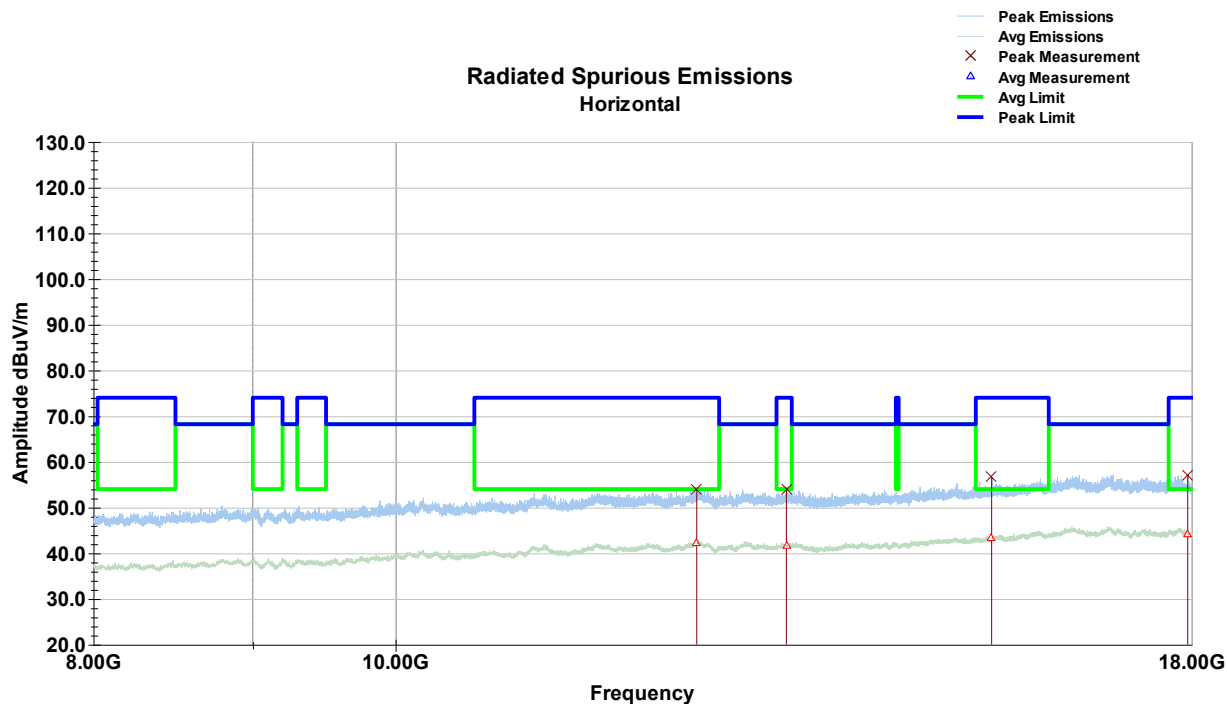


Vertical Data – 8-18GHz – Mid Channel

Frequency (MHz)	Raw Avg (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Avg (dBuV/m)	Limit (dBuV/m)	Margin (dB)
16099.00	33.5	V	238.0	200.0	40.9	5.4	0.0	35.9	43.9	54.0	-10.1
17854.00	34.8	V	290.0	250.0	41.0	5.8	0.0	36.7	44.9	54.0	-9.1
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency (MHz)	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
16099.00	46.0	V	238.0	200.0	40.9	5.4	0.0	35.9	56.3	74.0	-17.7
17854.00	47.0	V	290.0	250.0	41.0	5.8	0.0	36.7	57.1	74.0	-16.9
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Horizontal Plot – 8-18GHz – Mid Channel

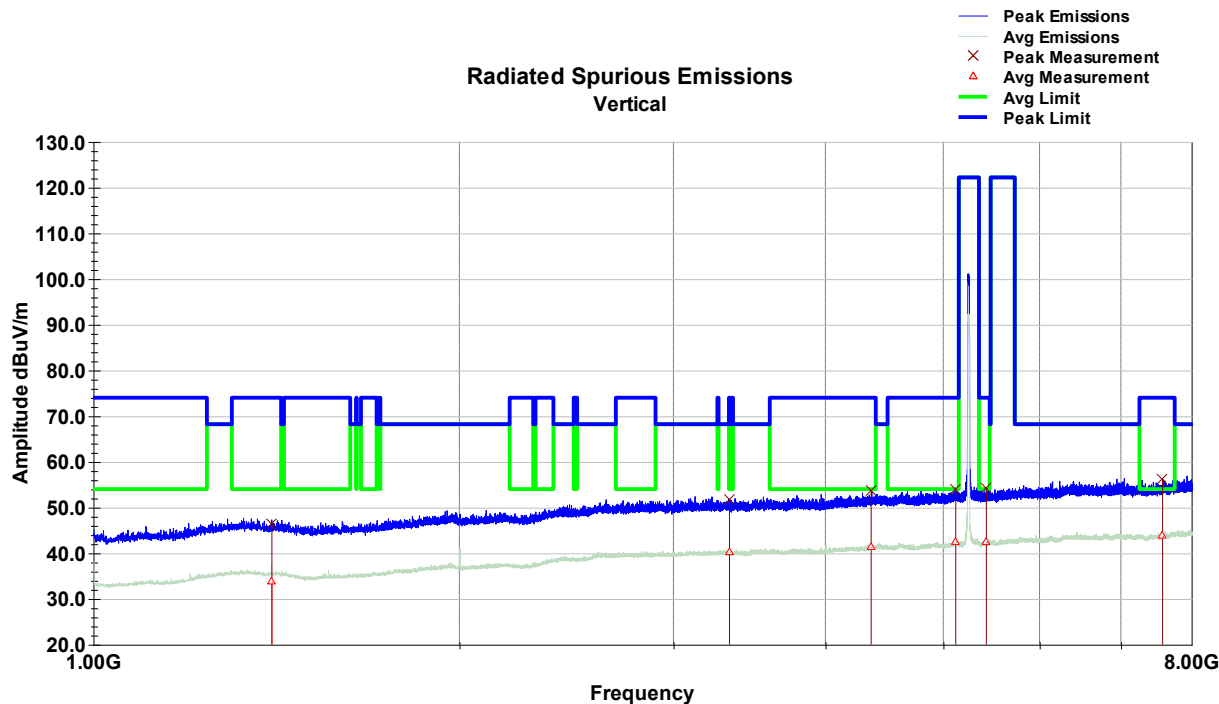


Horizontal Data – 8-18GHz – Mid Channel

Frequency (MHz)	Raw Avg (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Avg (dBuV/m)	Limit (dBuV/m)	Margin (dB)
12492.00	33.8	H	298.0	250.0	39.2	4.9	0.0	35.6	42.3	54.0	-11.7
13347.00	33.3	H	273.0	250.0	39.3	5.1	0.0	35.9	41.7	54.0	-12.3
15530.50	34.0	H	0.0	250.0	40.5	5.3	0.0	36.2	43.5	54.0	-10.5
17951.50	34.2	H	91.0	250.0	41.0	5.7	0.0	36.7	44.3	54.0	-9.7
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency (MHz)	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
12492.00	45.4	H	298.0	250.0	39.2	4.9	0.0	35.6	53.9	74.0	-20.1
13347.00	45.5	H	273.0	250.0	39.3	5.1	0.0	35.9	53.9	74.0	-20.1
15530.50	47.2	H	0.0	250.0	40.5	5.3	0.0	36.3	56.7	74.0	-17.3
17951.50	47.1	H	91.0	250.0	41.0	5.8	0.0	36.7	57.2	74.0	-16.8
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Vertical Plot – 1-8GHz – High Channel

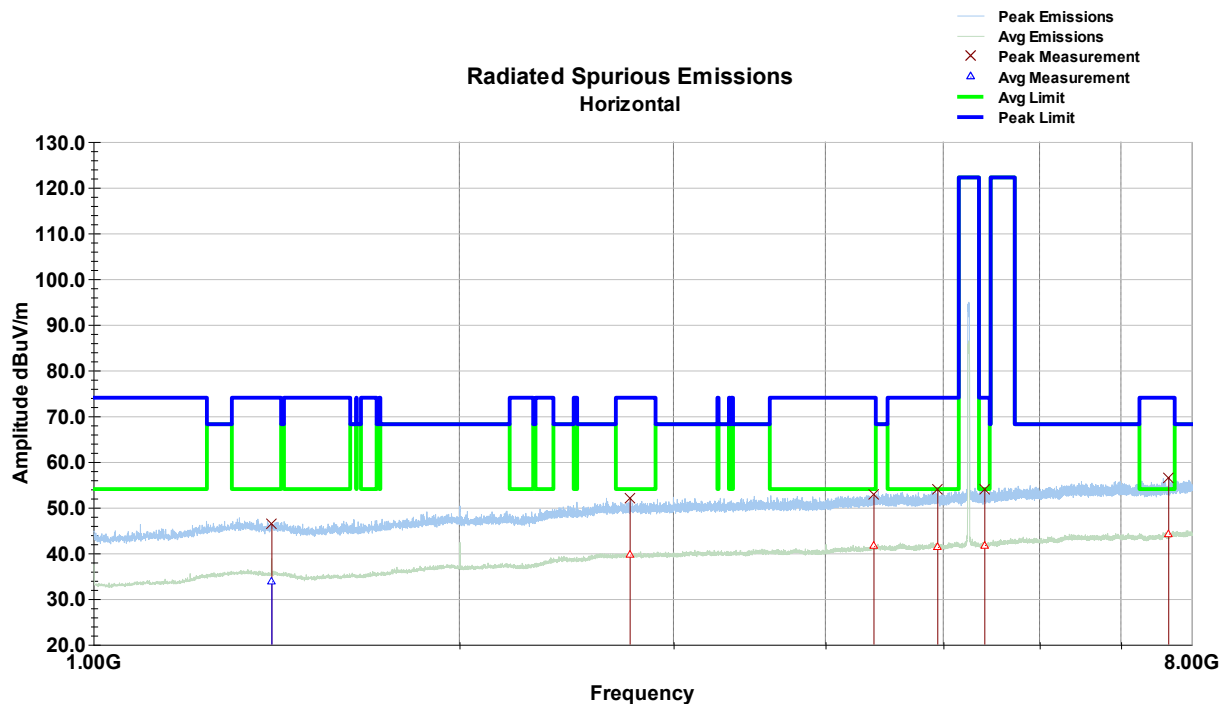


Vertical Data – 1-8GHz – High Channel

Frequency (MHz)	Raw Avg (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Avg (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1402.35	36.0	V	285.0	143.0	29.0	11.7	0.0	42.9	33.8	54.0	-20.2
3335.55	37.2	V	330.0	100.0	32.7	2.6	0.0	42.1	40.4	54.0	-13.6
4362.10	36.9	V	348.0	200.0	33.6	2.8	0.0	42.0	41.3	54.0	-12.7
5119.50	37.2	V	41.0	200.0	34.2	3.4	0.0	42.3	42.6	54.0	-11.4
5425.75	37.1	V	1.0	250.0	34.5	3.2	0.0	42.4	42.5	54.0	-11.6
7574.40	36.1	V	15.0	200.0	35.8	3.9	0.0	41.9	43.8	54.0	-10.2
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency (MHz)	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1402.35	48.6	V	285.0	143.0	29.0	11.7	0.0	42.9	46.4	74.0	-27.6
3335.55	48.5	V	330.0	100.0	32.7	2.6	0.0	42.1	51.7	74.0	-22.3
4362.10	49.2	V	348.0	200.0	33.6	2.8	0.0	42.0	53.6	74.0	-20.4
5119.50	48.6	V	41.0	200.0	34.2	3.4	0.0	42.3	54.0	74.0	-20.1
5425.75	49.0	V	1.0	250.0	34.5	3.2	0.0	42.4	54.3	74.0	-19.7
7574.40	48.5	V	15.0	200.0	35.8	3.9	0.0	41.9	56.1	74.0	-17.9
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Horizontal Plot – 1-8GHz – High Channel

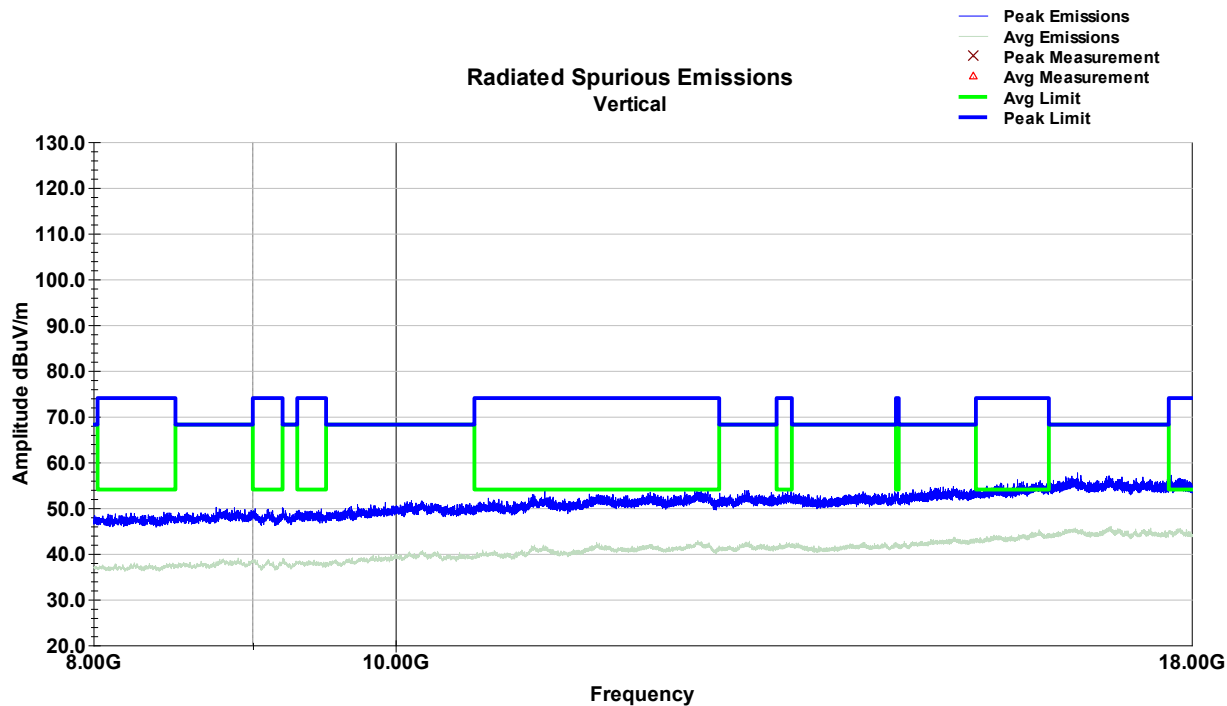


Horizontal Data – 1-8GHz – High Channel

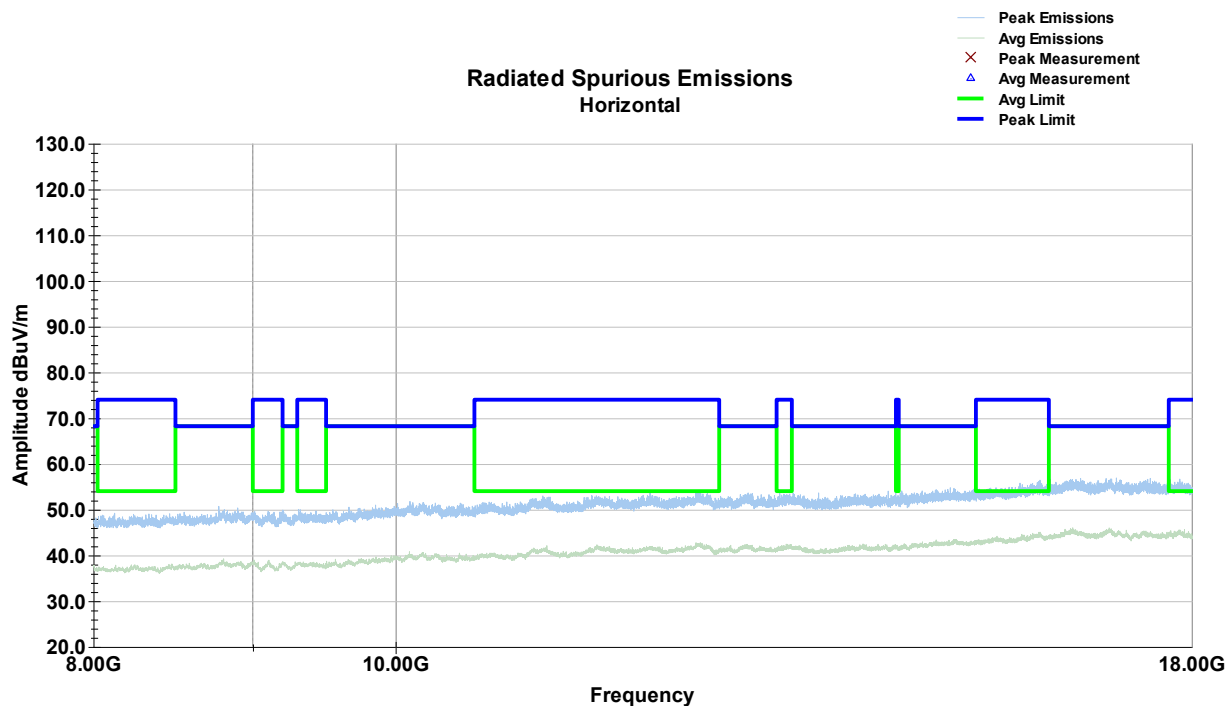
Frequency (MHz)	Raw Avg (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Avg (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1402.35	36.0	V	285.0	143.0	29.0	11.7	0.0	42.9	33.8	54.0	-20.2
3335.55	37.2	V	330.0	100.0	32.7	2.6	0.0	42.1	40.4	54.0	-13.6
4362.10	36.9	V	348.0	200.0	33.6	2.8	0.0	42.0	41.3	54.0	-12.7
5119.50	37.2	V	41.0	200.0	34.2	3.4	0.0	42.3	42.6	54.0	-11.4
5425.75	37.1	V	1.0	250.0	34.5	3.2	0.0	42.4	42.5	54.0	-11.6
7574.40	36.1	V	15.0	200.0	35.8	3.9	0.0	41.9	43.8	54.0	-10.2
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency (MHz)	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1402.35	48.6	V	285.0	143.0	29.0	11.7	0.0	42.9	46.4	74.0	-27.6
3335.55	48.5	V	330.0	100.0	32.7	2.6	0.0	42.1	51.7	74.0	-22.3
4362.10	49.2	V	348.0	200.0	33.6	2.8	0.0	42.0	53.6	74.0	-20.4
5119.50	48.6	V	41.0	200.0	34.2	3.4	0.0	42.3	54.0	74.0	-20.1
5425.75	49.0	V	1.0	250.0	34.5	3.2	0.0	42.4	54.3	74.0	-19.7
7574.40	48.5	V	15.0	200.0	35.8	3.9	0.0	41.9	56.1	74.0	-17.9
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Vertical Plot – 8-18GHz – High Channel



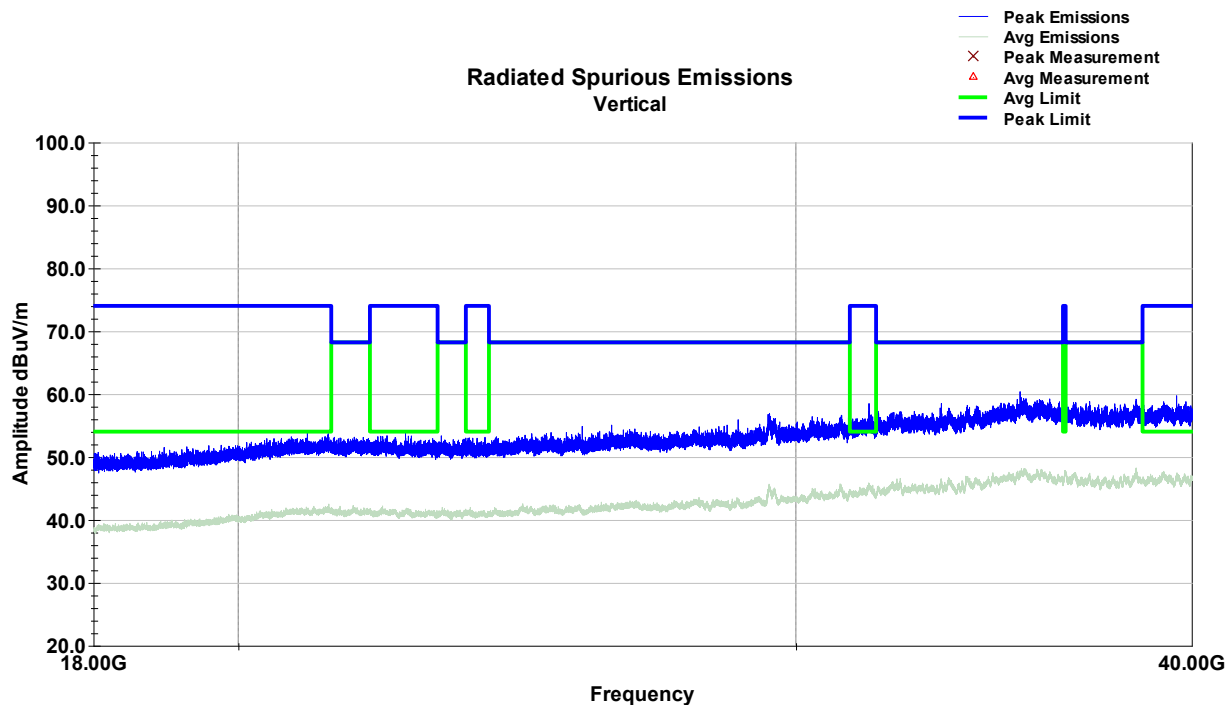
Horizontal Plot – 8-18GHz – High Channel



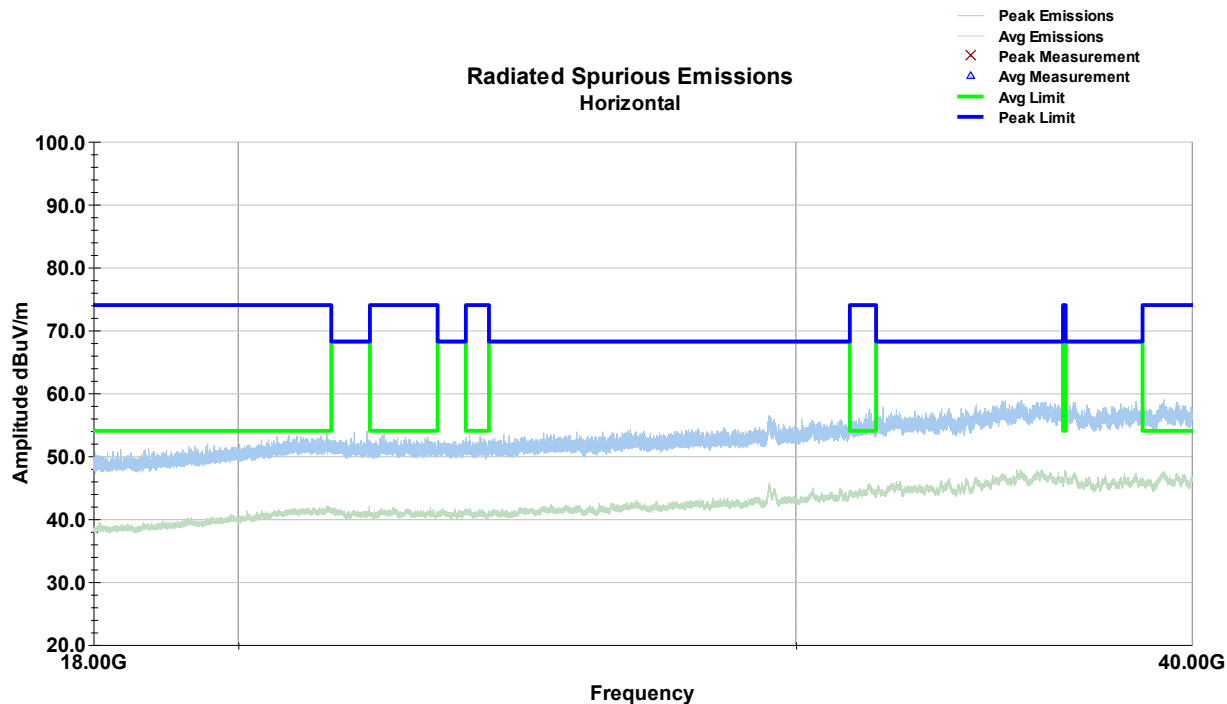
3.5.4 18-40 GHz

All channels had similar plots in the 18-40GHz frequency range.

Vertical Plot – 18-40GHz – Mid Channel



Horizontal Plot – 18-40GHz – Mid Channel

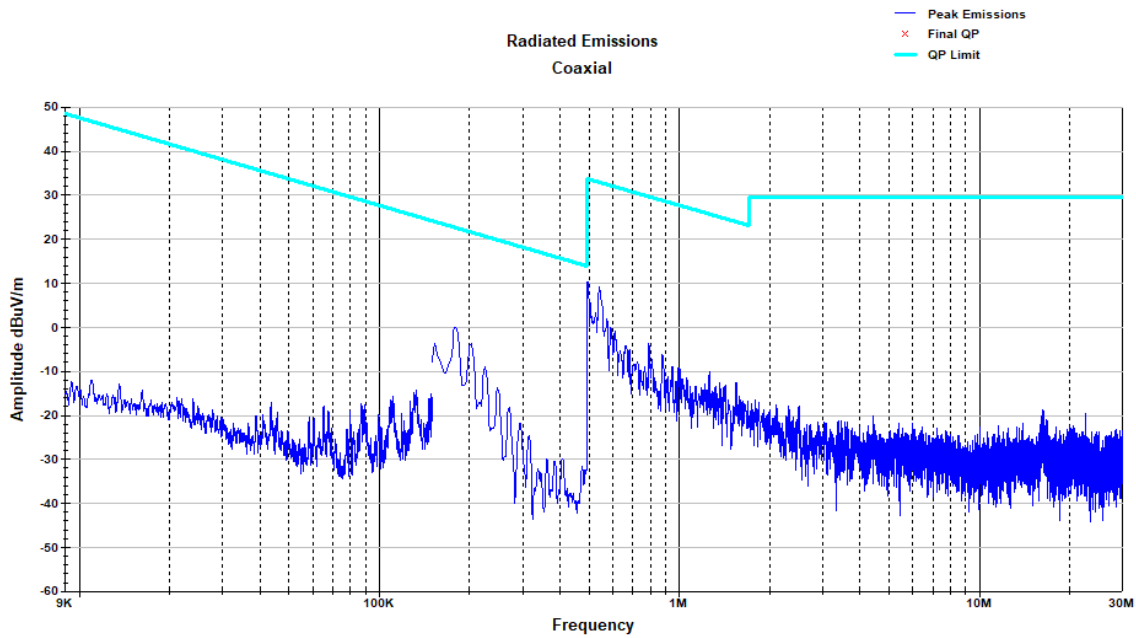


3.6 Test Data – U-NII Band 1 – 802.11n

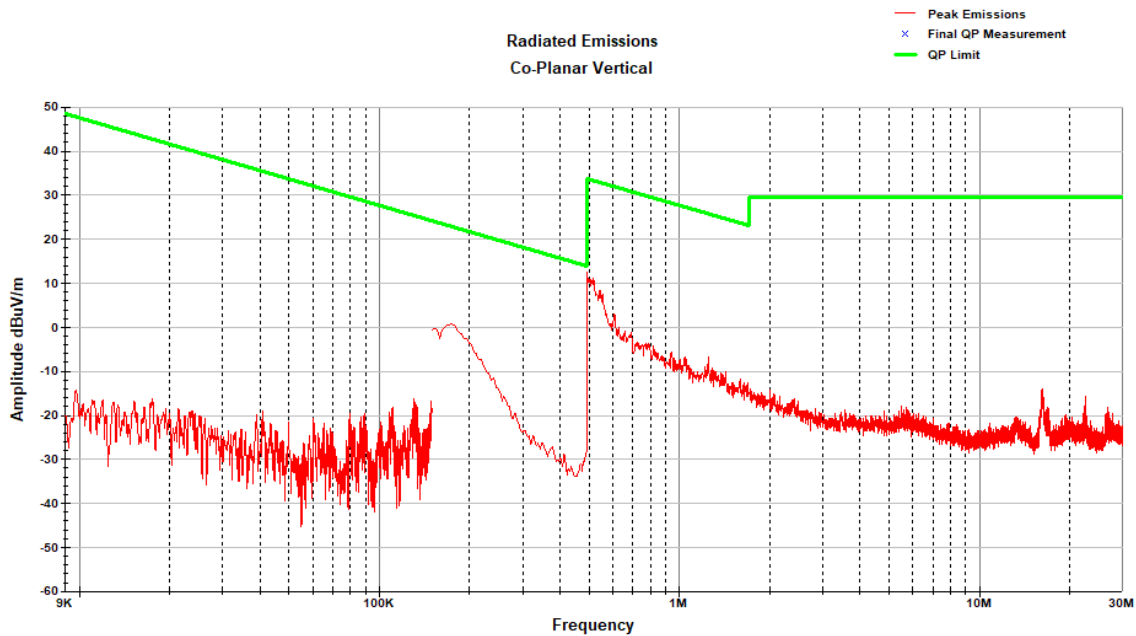
3.6.1 9kHz – 30MHz

All channels had similar plots in the 9kHz to 30MHz frequency range.

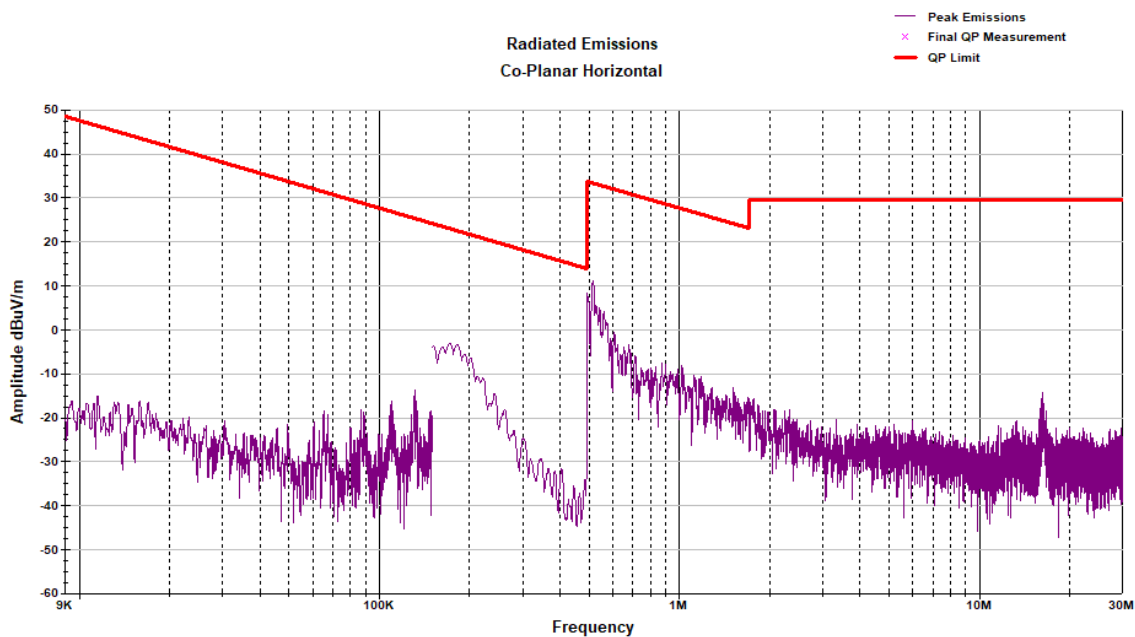
Coaxial Plot – 9 kHz-30MHz – Mid Channel



Co-Planar Vertical Plot – 9 kHz-30MHz – Mid Channel



Co-Planar Horizontal Plot – 9 kHz-30MHz – Mid Channel

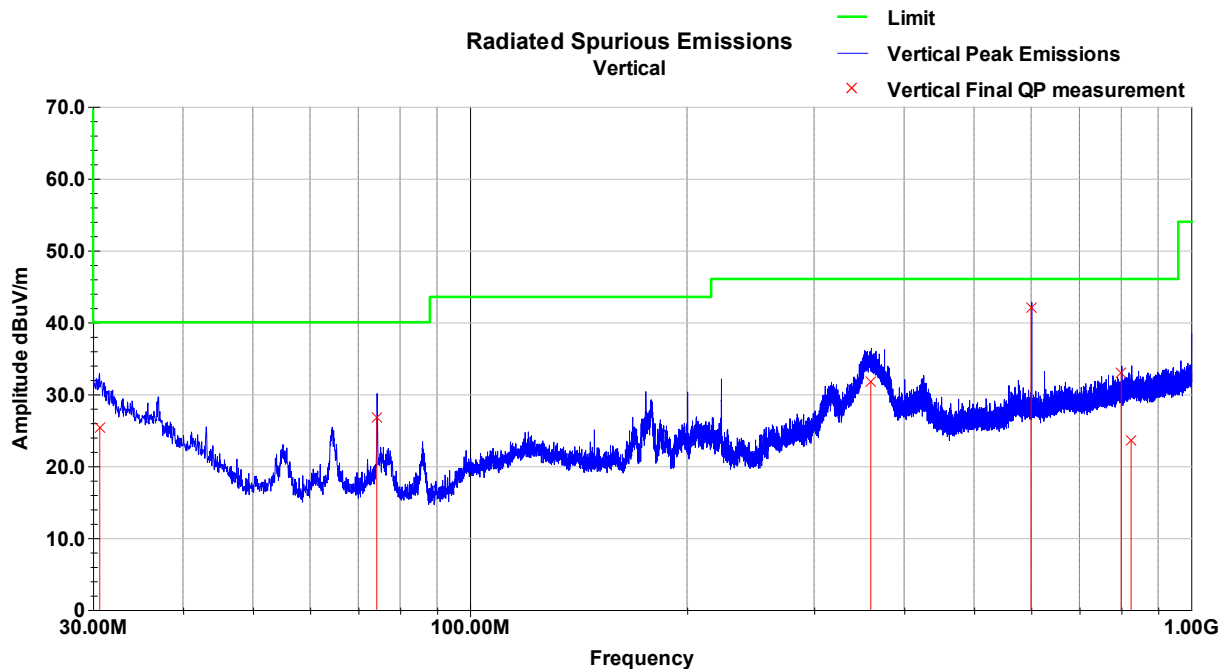


No emissions within 20dB of the limit

3.6.2 30-1000 MHz

All channels were measured and had similar plots – the worst-case plots are shown below.

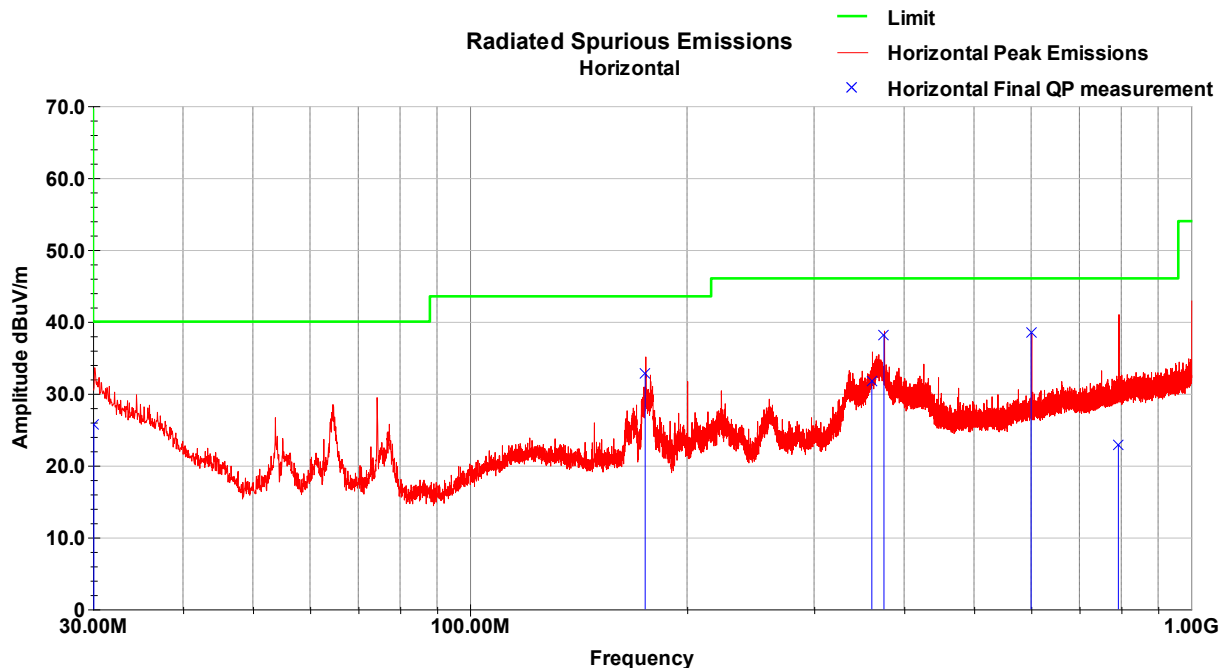
Vertical Plot – 30-1000MHz – Mid Channel



Vertical Data – 30-1000MHz – Mid Channel

Frequency MHz	Raw QP (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	Amp (dB)	QP Value (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.66	30.1	V	164.0	325.0	25.7	0.3	30.6	25.4	40.0	-14.6
74.26	44.7	V	147.0	100.0	12.3	0.6	30.7	26.8	40.0	-13.2
359.64	40.8	V	177.0	100.0	19.5	1.6	30.1	31.8	46.0	-14.2
600.00	45.9	V	267.0	100.0	23.8	1.9	29.7	42.0	46.0	-4.0
800.02	34.0	V	359.0	170.0	26.2	1.9	29.2	32.9	46.0	-13.1
825.77	24.1	V	47.0	100.0	26.5	2.0	29.1	23.6	46.0	-22.5
QP Value = Raw QP + AF + Loss - Amp										
Margin = QP Value - Limit										

Horizontal Plot – 30-1000MHz – Mid Channel

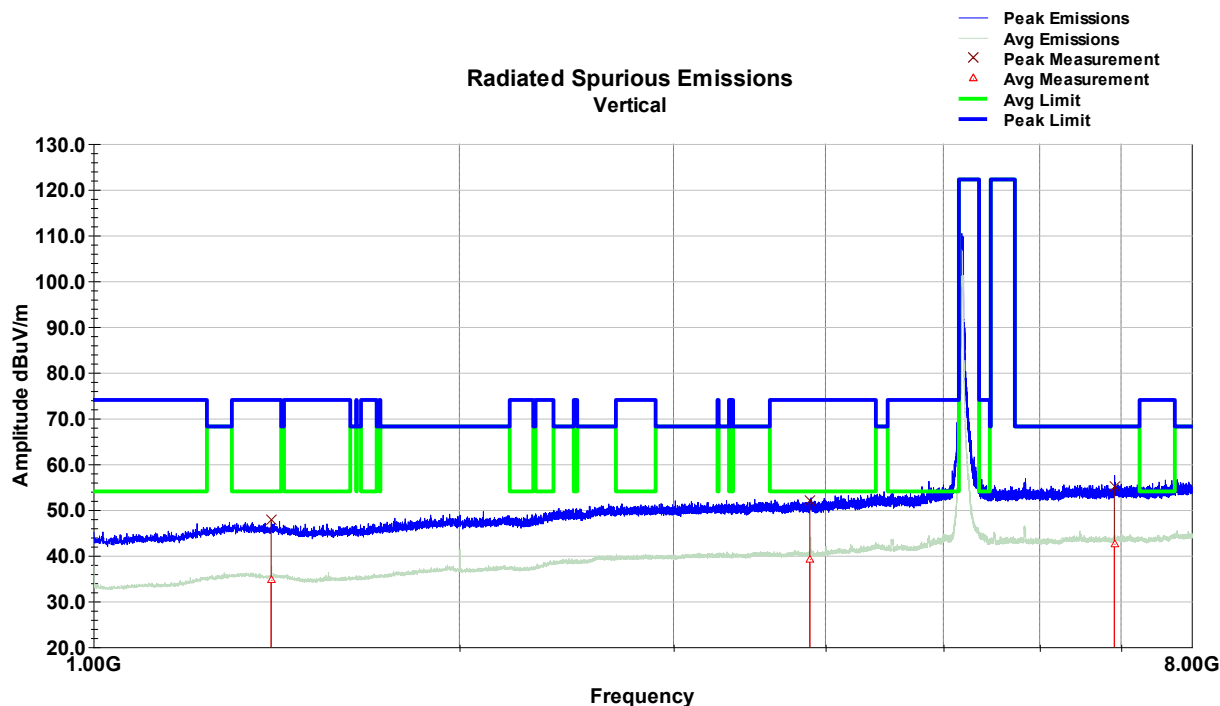


Horizontal Data – 30-1000MHz – Mid Channel

Frequency MHz	Raw QP (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	Amp (dB)	QP Value (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.09	29.9	H	-1.0	396.0	26.1	0.3	30.6	25.7	40.0	-14.3
175.00	46.4	H	119.0	100.0	15.8	0.9	30.4	32.7	43.5	-10.8
360.89	40.7	H	169.0	175.0	19.5	1.6	30.1	31.7	46.0	-14.3
375.00	46.9	H	161.0	244.0	19.7	1.6	30.1	38.1	46.0	-7.9
600.05	42.4	H	243.0	192.0	23.8	1.9	29.7	38.5	46.0	-7.6
792.77	24.0	H	322.0	117.0	26.2	2.0	29.3	22.9	46.0	-23.1
QP Value = Raw QP + AF + Loss - Amp										
Margin = QP Value - Limit										

3.6.3 1-18 GHz

Vertical Plot – 1-8GHz – Low Channel

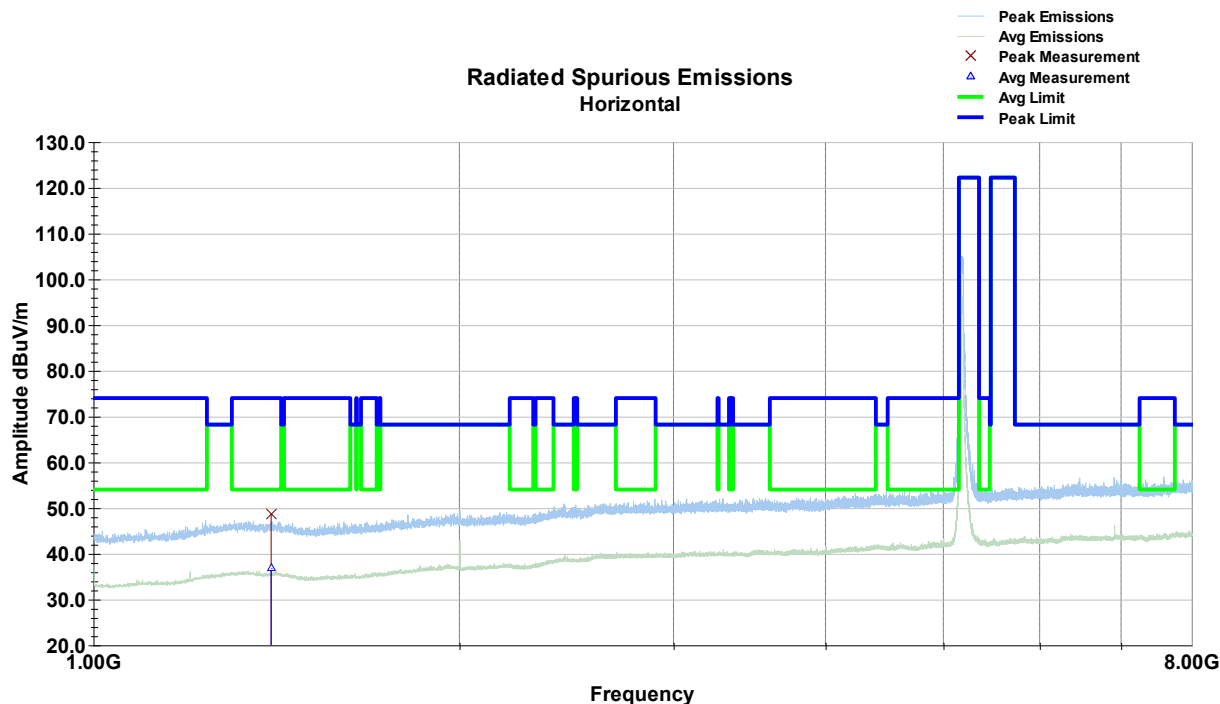


Vertical Data – 1-8GHz – Low Channel

Frequency MHz	Raw Avg dBuV	Polarity V/H	Azimuth degrees	Height cm	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1400.47	36.9	V	183.0	159.0	29.0	11.7	0.0	42.9	34.7	54.0	-19.3
3883.14	35.7	V	335.0	217.0	33.2	12.6	0.0	42.3	39.2	54.0	-14.8
6911.04	35.3	V	49.0	185.0	35.7	13.7	0.0	42.1	42.6	68.2	-25.6
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency MHz	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1400.47	50.0	V	183.0	159.0	29.0	11.7	0.0	42.9	47.8	74.0	-26.2
3883.14	48.5	V	335.0	217.0	33.2	12.6	0.0	42.3	52.1	74.0	-21.9
6911.04	47.9	V	49.0	185.0	35.7	13.7	0.0	42.1	55.2	68.2	-13.0
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Horizontal Plot – 1-8GHz – Low Channel

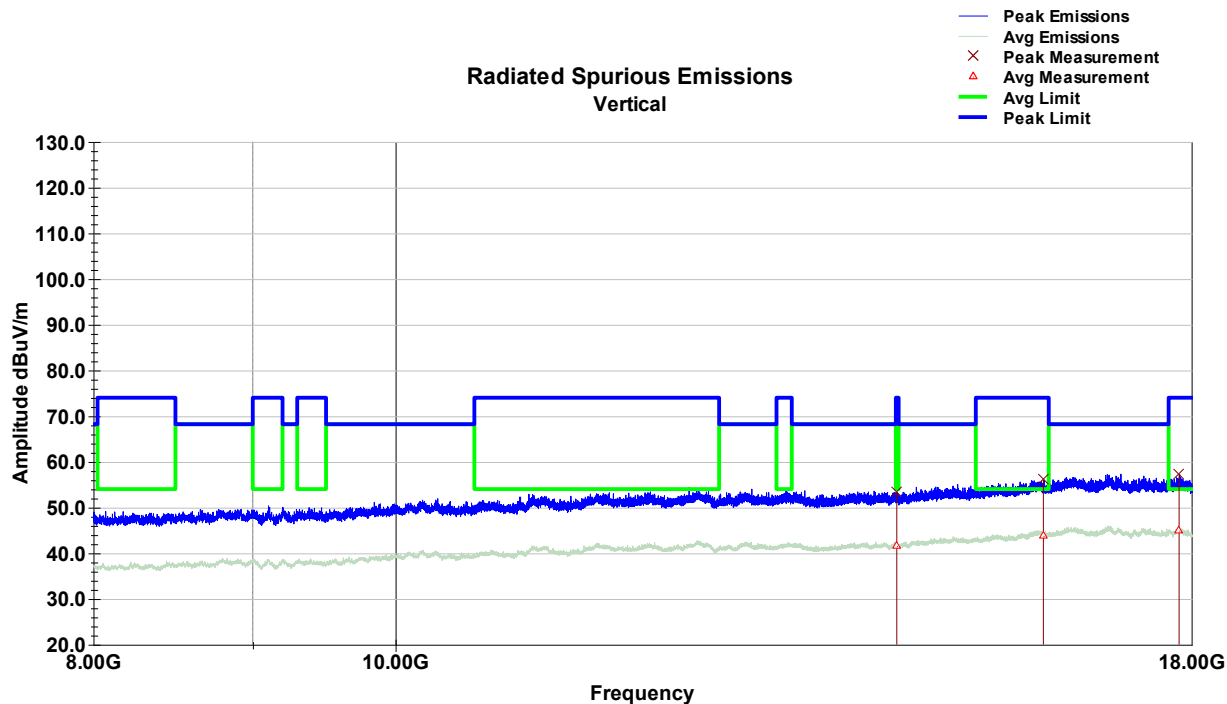


Horizontal Data – 1-8GHz – Low Channel

Frequency MHz	Raw Avg dBuV	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF dB	Amp (dB)	Avg Value dBuV/m	Limit (dBuV/m)	Margin (dB)
1400.36	39.1	H	237.0	150.0	29.0	11.7	0.0	42.9	36.9	54.0	-17.1
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency MHz	Raw Pk dBuV	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF dB	Amp (dB)	Final Pk dBuV/m	Limit dBuV/m	Margin dB
1400.36	50.9	H	237.0	150.0	29.0	11.7	0.0	42.9	48.7	74.0	-25.3
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Vertical Plot – 8-18GHz – Low Channel

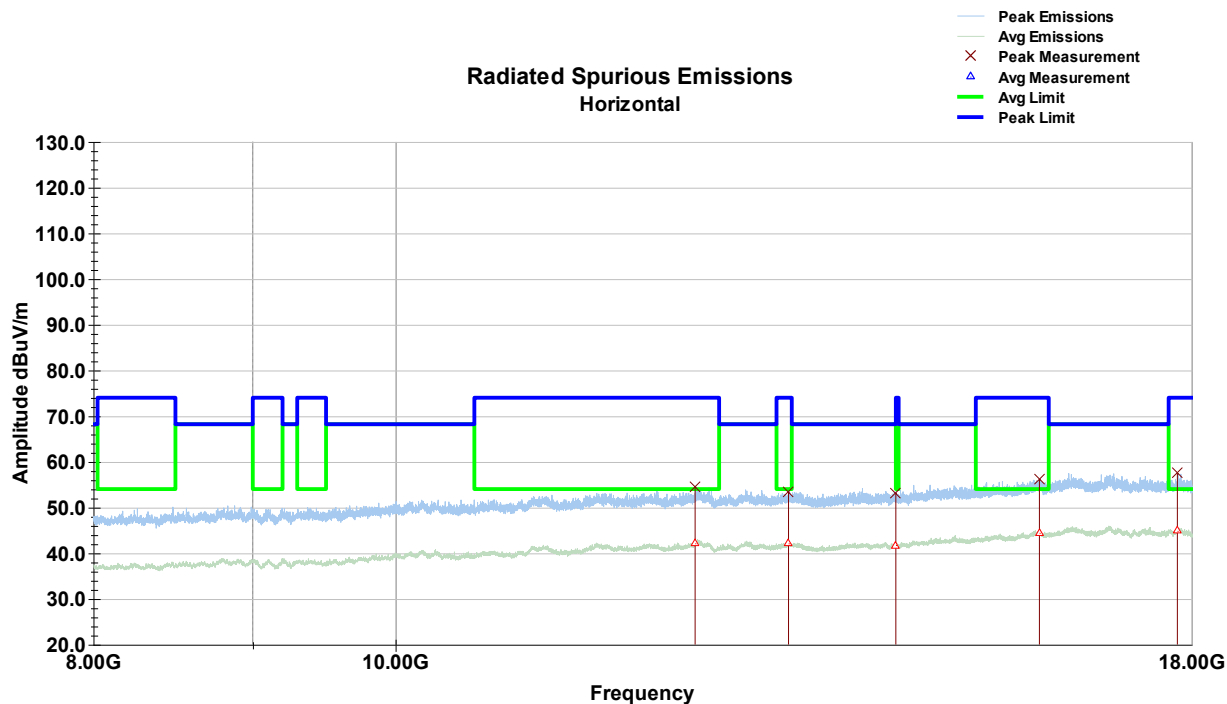


Vertical Data – 8-18GHz – Low Channel

Frequency (MHz)	Raw Avg (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Avg (dBuV/m)	Limit (dBuV/m)	Margin (dB)
14480.50	33.2	V	96.0	250.0	39.7	5.0	0.0	36.4	41.6	54.0	-12.5
16136.00	33.7	V	121.0	250.0	40.8	5.3	0.0	36.0	43.8	54.0	-10.2
17836.50	34.9	V	181.0	200.0	41.0	5.8	0.0	36.7	45.0	54.0	-9.0
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency (MHz)	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
14480.50	45.0	V	96.0	250.0	39.7	5.0	0.0	36.4	53.3	74.0	-20.7
16136.00	46.0	V	121.0	250.0	40.8	5.3	0.0	36.0	56.1	74.0	-17.9
17836.50	47.1	V	181.0	200.0	41.0	5.8	0.0	36.7	57.2	74.0	-16.8
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Horizontal Plot – 8-18GHz – Low Channel

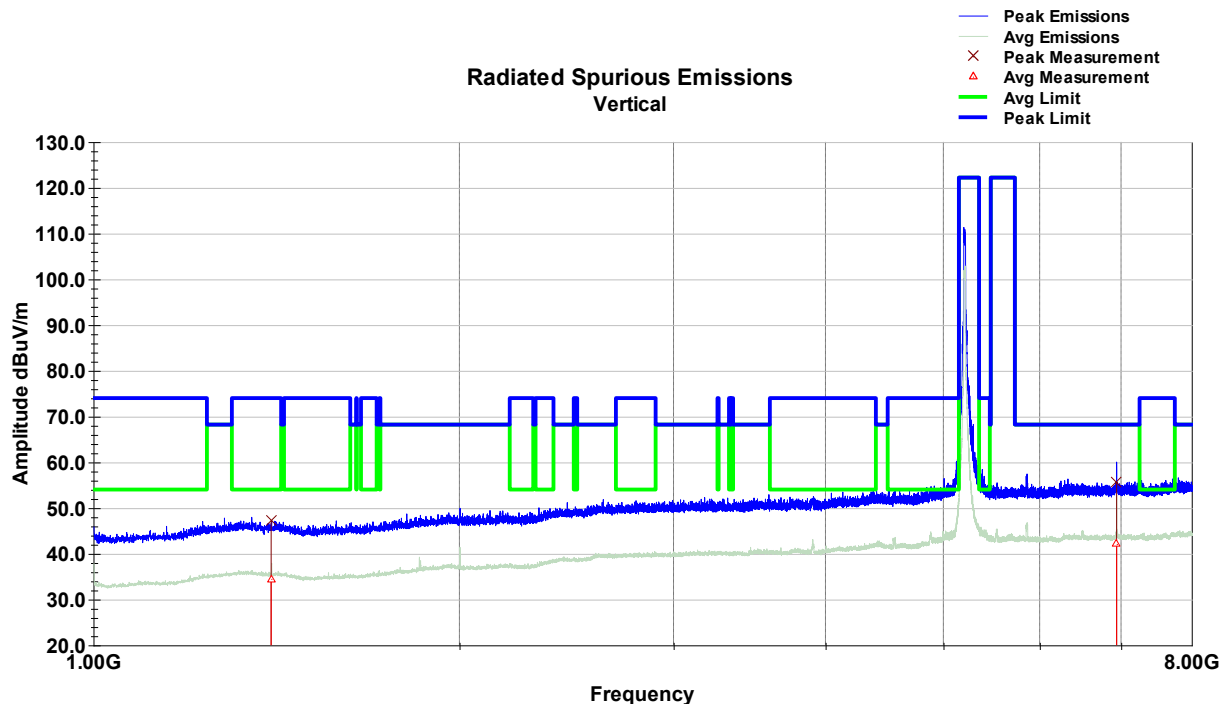


Horizontal Data – 8-18GHz – Low Channel

Frequency (MHz)	Raw Avg (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Avg (dBuV/m)	Limit (dBuV/m)	Margin (dB)
12477.00	33.8	H	78.0	250.0	39.2	4.8	0.0	35.7	42.2	54.0	-11.8
13367.50	33.9	H	257.0	250.0	39.3	5.0	0.0	36.0	42.2	54.0	-11.8
14470.50	33.4	H	95.0	250.0	39.7	5.0	0.0	36.3	41.8	54.0	-12.2
16089.00	34.1	H	308.0	250.0	40.9	5.4	0.0	35.9	44.5	54.0	-9.5
17813.50	34.8	H	129.0	250.0	41.0	5.7	0.0	36.6	44.9	54.0	-9.1
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency (MHz)	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
12477.00	46.2	H	78.0	250.0	39.2	4.8	0.0	35.7	54.6	74.0	-19.4
13367.50	45.2	H	257.0	250.0	39.3	5.0	0.0	36.0	53.5	74.0	-20.5
14470.50	44.7	H	95.0	250.0	39.7	5.0	0.0	36.3	53.1	74.0	-20.9
16089.00	45.9	H	308.0	250.0	40.9	5.4	0.0	35.9	56.2	74.0	-17.8
17813.50	47.4	H	129.0	250.0	41.0	5.7	0.0	36.6	57.5	74.0	-16.5
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Vertical Plot – 1-8GHz – Mid Channel

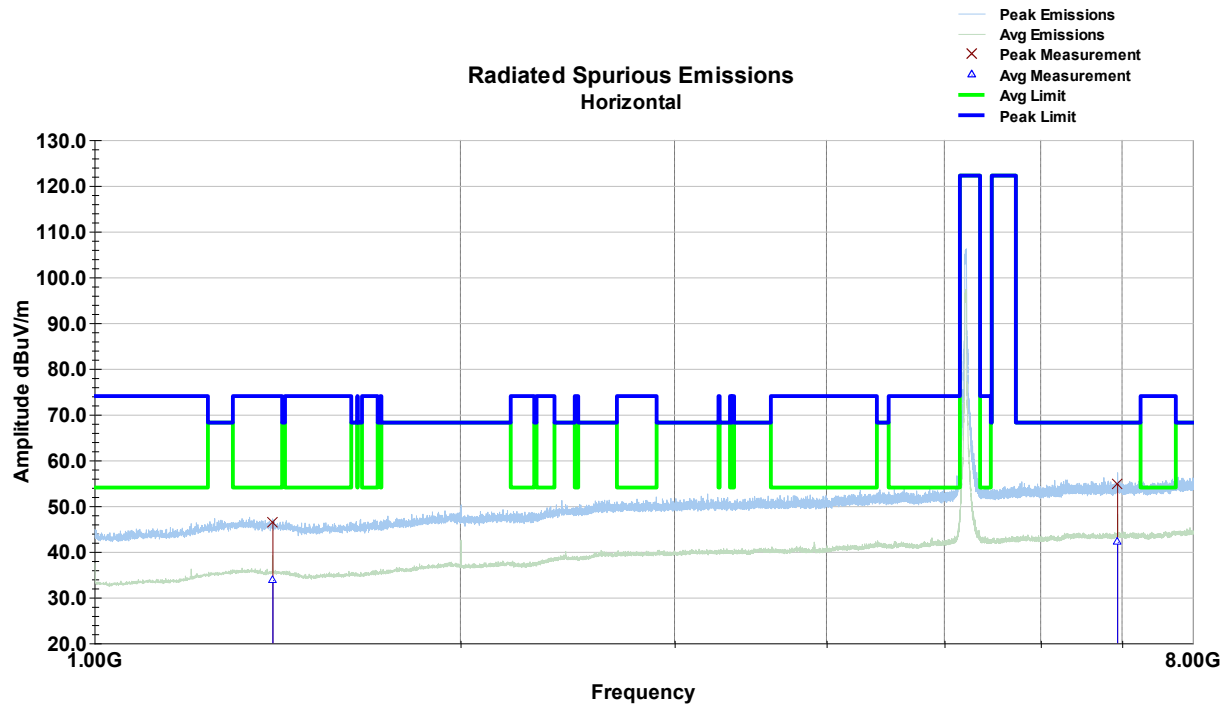


Vertical Data – 1-8GHz – Mid Channel

Frequency MHz	Raw Avg dBuV	Polarity V/H	Azimuth degrees	Height cm	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1400.47	36.7	V	39.0	113.0	29.0	11.7	0.0	42.9	34.5	54.0	-19.5
6942.25	34.7	V	307.0	250.0	35.7	13.7	0.0	42.1	42.1	68.2	-26.1
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency MHz	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1400.47	49.5	V	39.0	113.0	29.0	11.7	0.0	42.9	47.2	74.0	-26.8
6942.25	48.2	V	307.0	250.0	35.7	13.7	0.0	42.1	55.6	68.2	-12.6
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Horizontal Plot – 1-8GHz – Mid Channel

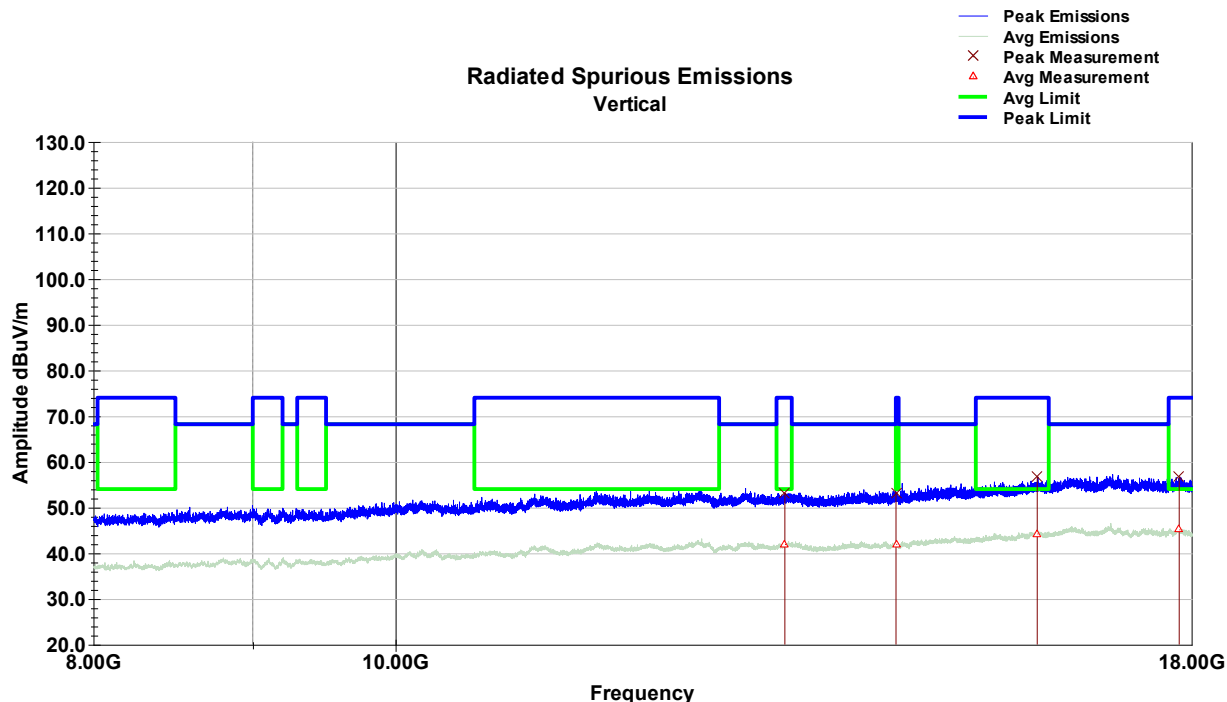


Horizontal Data – 1-8GHz – Mid Channel

Frequency MHz	Raw Avg dBuV	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF dB	Amp (dB)	Avg Value dBuV/m	Limit (dBuV/m)	Margin (dB)
1402.48	36.0	H	11.0	139.0	29.0	11.7	0.0	42.9	33.8	54.0	-20.2
6942.14	34.8	H	289.0	250.0	35.7	13.7	0.0	42.1	42.2	68.2	-26.0
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency MHz	Raw Pk dBuV	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF dB	Amp (dB)	Final Pk dBuV/m	Limit dBuV/m	Margin dB
1402.48	48.7	H	11.0	139.0	29.0	11.7	0.0	42.9	46.5	74.0	-27.5
6942.14	47.3	H	289.0	250.0	35.7	13.7	0.0	42.1	54.8	68.2	-13.5
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Vertical Plot – 8-18GHz – Mid Channel

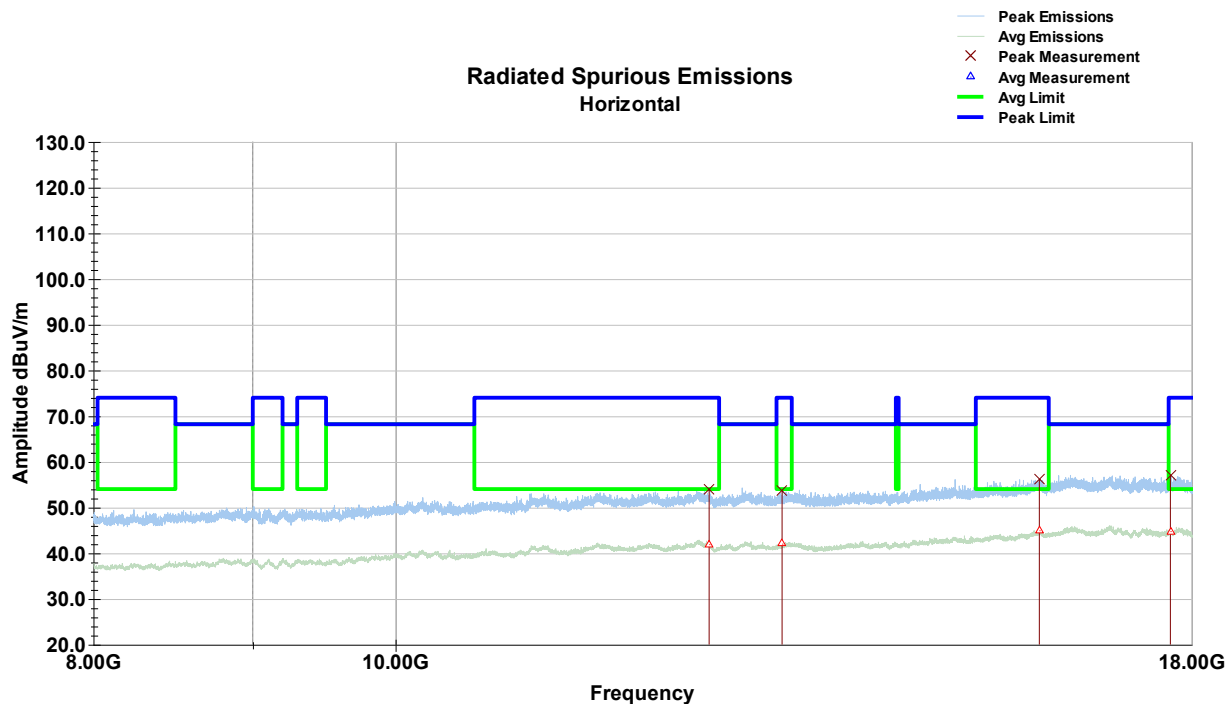


Vertical Data – 8-18GHz – Mid Channel

Frequency (MHz)	Raw Avg (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Avg (dBuV/m)	Limit (dBuV/m)	Margin (dB)
13331.50	33.6	V	232.0	200.0	39.3	5.1	0.0	35.9	42.0	54.0	-12.0
14472.00	33.7	V	277.0	250.0	39.7	5.0	0.0	36.3	42.1	54.0	-11.9
16063.00	34.0	V	0.0	200.0	40.9	5.4	0.0	35.9	44.3	54.0	-9.7
17838.50	35.1	V	286.0	250.0	41.0	5.8	0.0	36.7	45.2	54.0	-8.8
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency (MHz)	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
13331.50	44.8	V	232.0	200.0	39.3	5.1	0.0	35.9	53.2	74.0	-20.8
14472.00	44.8	V	277.0	250.0	39.7	5.0	0.0	36.3	53.2	74.0	-20.8
16063.00	46.4	V	0.0	200.0	40.9	5.4	0.0	35.9	56.8	74.0	-17.3
17838.50	46.7	V	286.0	250.0	41.0	5.8	0.0	36.7	56.8	74.0	-17.2
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Horizontal Plot – 8-18GHz – Mid Channel

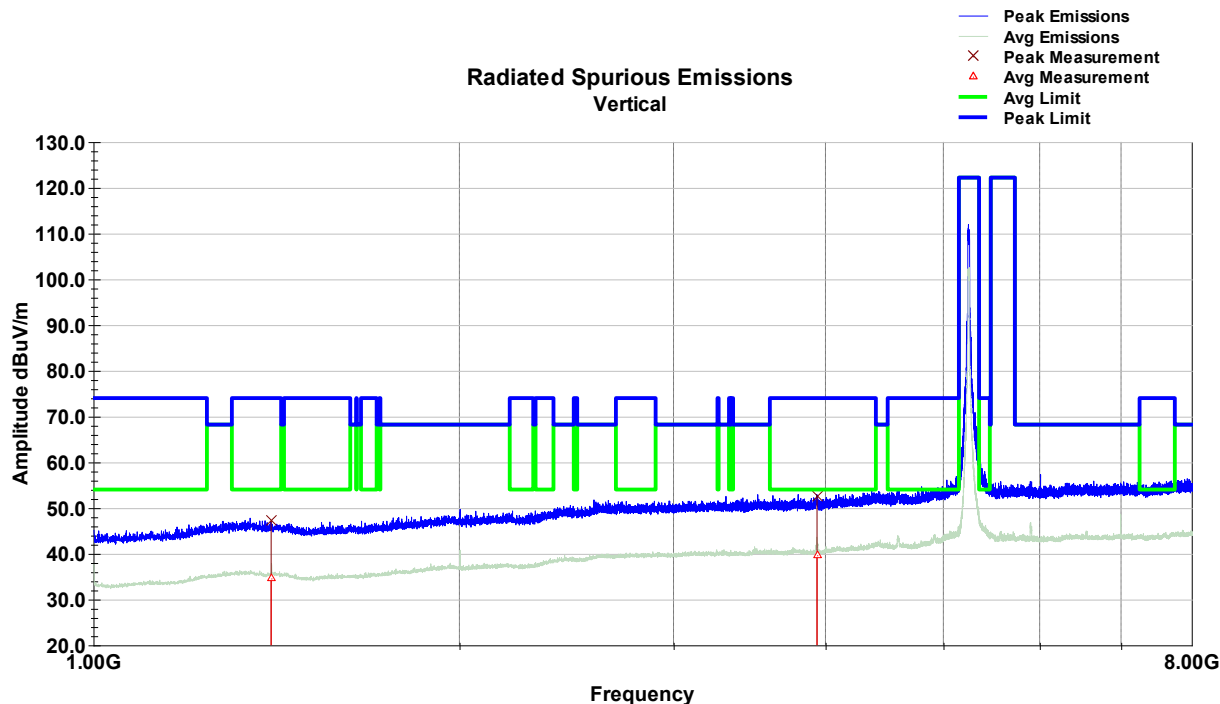


Horizontal Data – 8-18GHz – Mid Channel

Frequency (MHz)	Raw Avg (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Avg (dBuV/m)	Limit (dBuV/m)	Margin (dB)
12606.00	33.5	H	183.0	200.0	39.3	4.7	0.0	35.6	42.0	54.0	-12.0
13304.00	33.8	H	208.0	200.0	39.2	5.1	0.0	36.0	42.1	54.0	-11.9
16088.00	34.7	H	213.0	250.0	40.9	5.4	0.0	35.9	45.1	54.0	-8.9
17721.50	34.8	H	251.0	200.0	40.9	5.7	0.0	36.6	44.9	54.0	-9.1
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency (MHz)	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
12606.00	45.5	H	183.0	200.0	39.3	4.7	0.0	35.6	54.0	74.0	-20.0
13304.00	45.3	H	208.0	200.0	39.2	5.1	0.0	36.0	53.6	74.0	-20.4
16088.00	45.9	H	213.0	250.0	40.9	5.4	0.0	35.9	56.2	74.0	-17.8
17721.50	47.0	H	251.0	200.0	40.9	5.7	0.0	36.6	57.0	74.0	-17.0
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Vertical Plot – 1-8GHz – High Channel

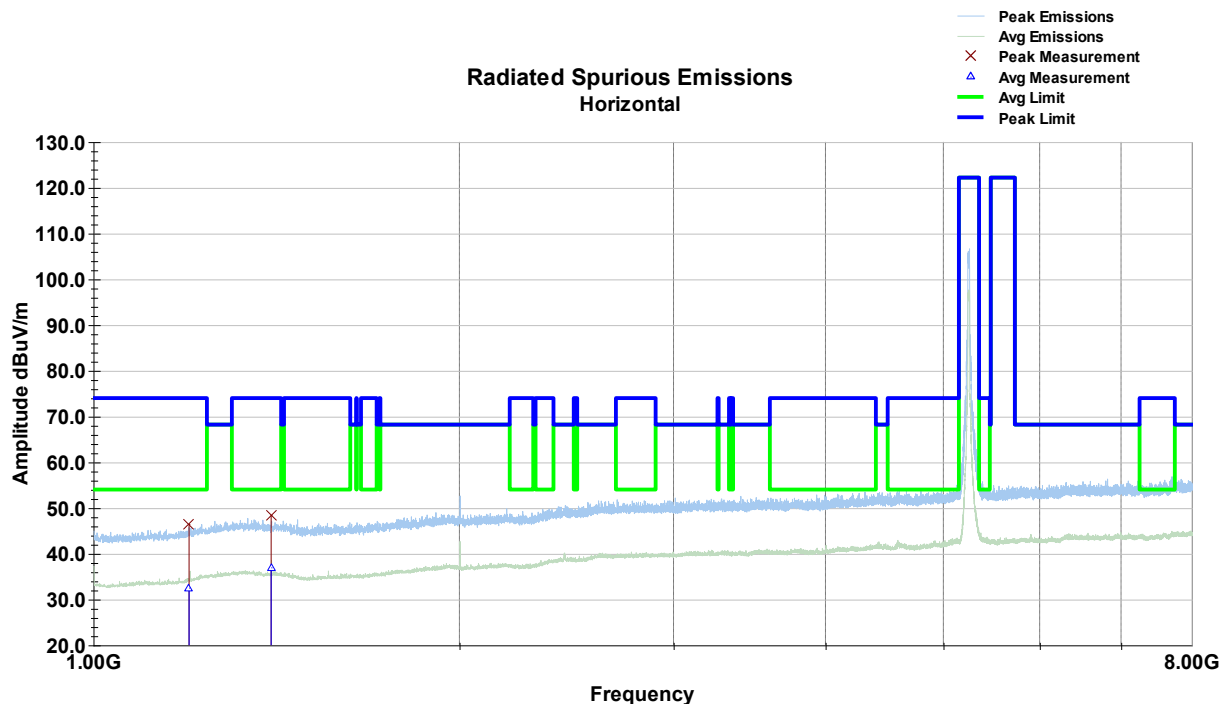


Vertical Data – 1-8GHz – High Channel

Frequency MHz	Raw Avg dBuV	Polarity V/H	Azimuth degrees	Height cm	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1400.23	36.8	V	131.0	158.0	29.0	11.7	0.0	42.9	34.6	54.0	-19.4
3936.47	36.2	V	57.0	174.0	33.2	12.7	0.0	42.4	39.7	54.0	-14.3
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency MHz	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1400.23	49.4	V	131.0	158.0	29.0	11.7	0.0	42.9	47.2	74.0	-26.8
3936.47	49.0	V	57.0	174.0	33.2	12.7	0.0	42.4	52.6	74.0	-21.4
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Horizontal Plot – 1-8GHz – High Channel

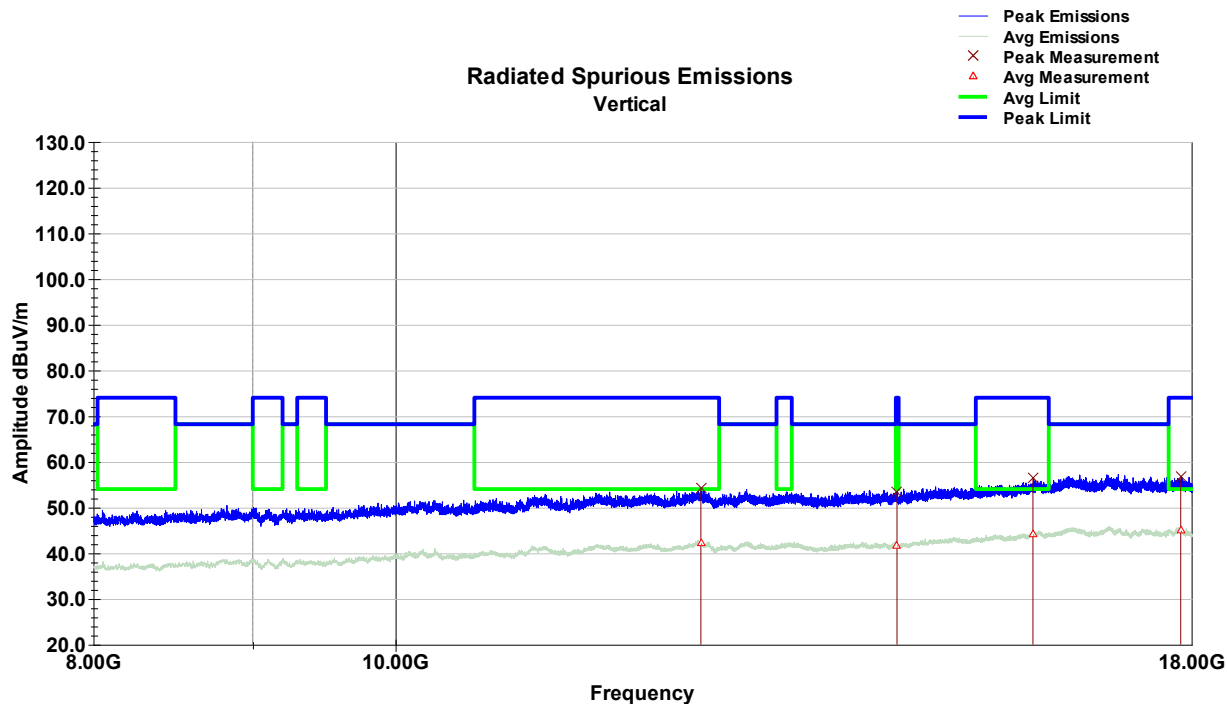


Horizontal Data – 1-8GHz – High Channel

Frequency MHz	Raw Avg dBuV	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF dB	Amp (dB)	Avg Value dBuV/m	Limit (dBuV/m)	Margin (dB)
1198.80	36.2	H	339.0	118.0	28.0	11.3	0.0	42.9	32.6	54.0	-21.4
1400.36	39.3	H	232.0	120.0	29.0	11.7	0.0	42.9	37.1	54.0	-16.9
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency MHz	Raw Pk dBuV	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF dB	Amp (dB)	Final Pk dBuV/m	Limit dBuV/m	Margin dB
1198.80	50.1	H	339.0	118.0	28.0	11.3	0.0	42.9	46.5	74.0	-27.5
1400.36	50.7	H	232.0	120.0	29.0	11.7	0.0	42.9	48.5	74.0	-25.5
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Vertical Plot – 8-18GHz – High Channel

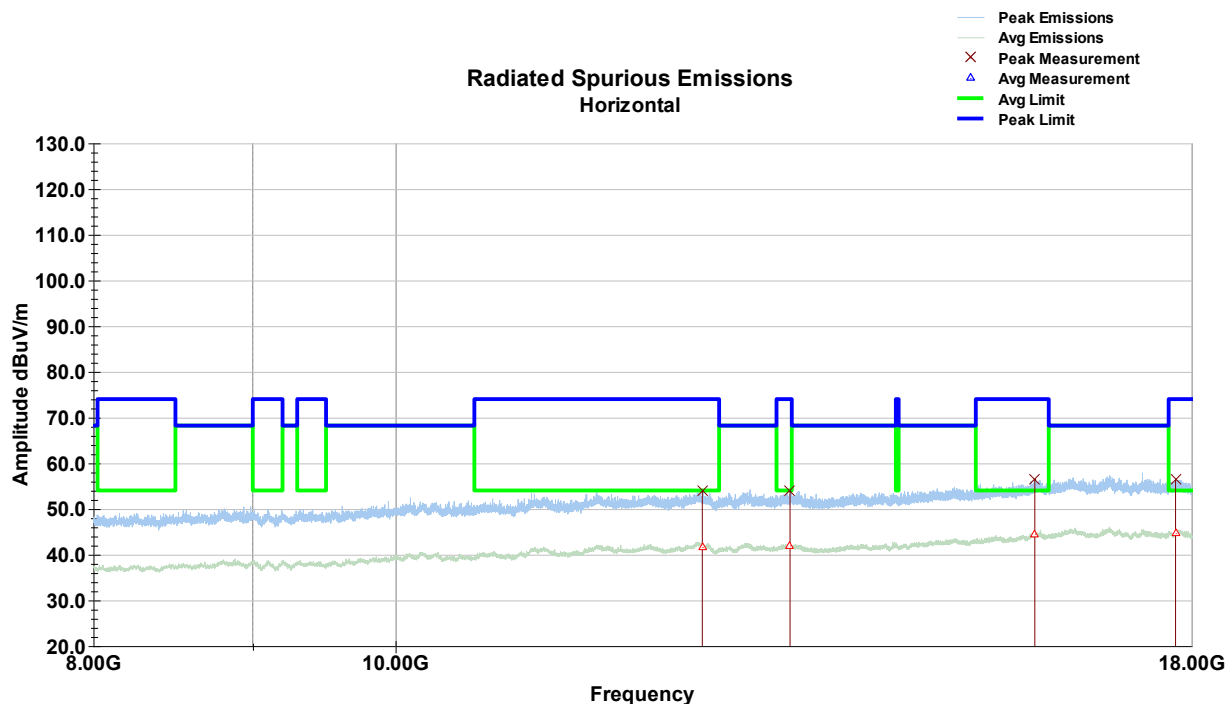


Vertical Data – 8-18GHz – High Channel

Frequency (MHz)	Raw Avg (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Avg (dBuV/m)	Limit (dBuV/m)	Margin (dB)
12530.00	33.8	V	78.0	150.0	39.3	4.8	0.0	35.8	42.1	54.0	-11.9
14482.00	33.4	V	360.0	200.0	39.7	5.0	0.0	36.4	41.7	54.0	-12.3
16012.00	33.7	V	123.0	250.0	40.9	5.3	0.0	35.9	44.1	54.0	-9.9
17858.50	34.8	V	276.0	100.0	41.0	5.8	0.0	36.7	44.9	54.0	-9.1
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency (MHz)	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
12530.00	45.9	V	78.0	150.0	39.3	4.8	0.0	35.8	54.2	74.0	-19.8
14482.00	45.2	V	360.0	200.0	39.7	5.0	0.0	36.4	53.5	74.0	-20.5
16012.00	46.2	V	123.0	250.0	40.9	5.3	0.0	35.9	56.5	74.0	-17.5
17858.50	46.7	V	276.0	100.0	41.0	5.8	0.0	36.7	56.8	74.0	-17.2
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Horizontal Plot – 8-18GHz – High Channel



Horizontal Data – 8-18GHz – High Channel

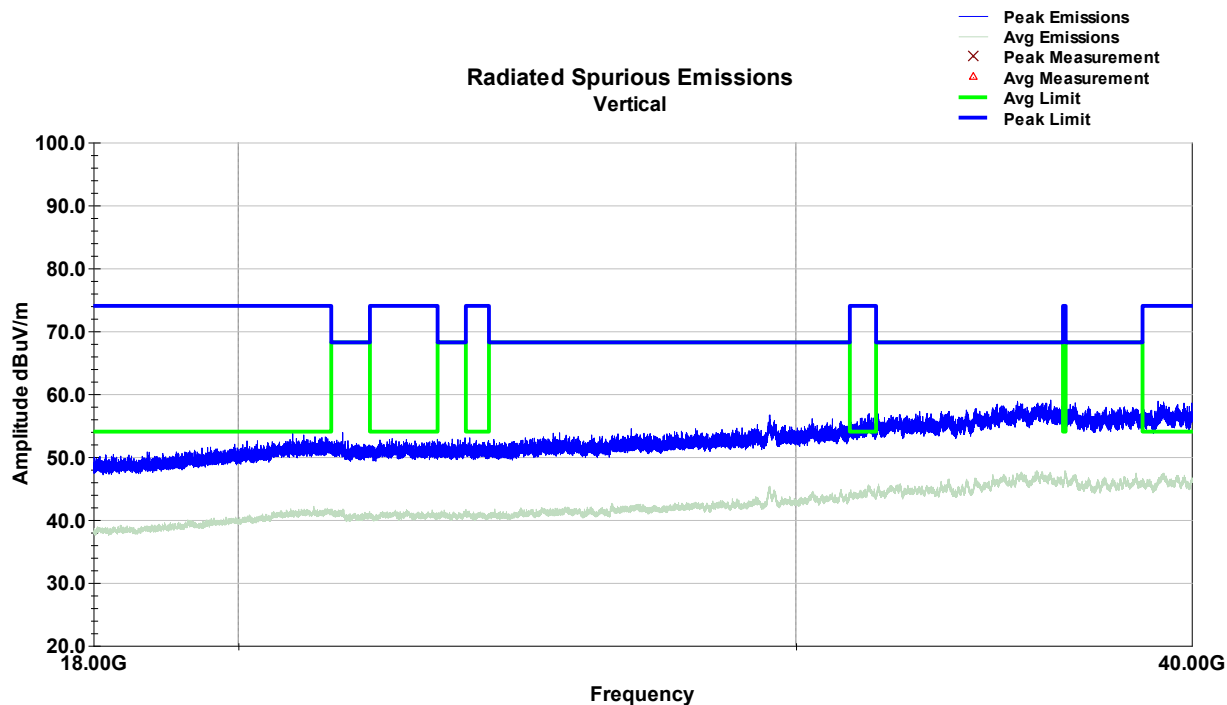
Frequency (MHz)	Raw Avg (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Avg (dBuV/m)	Limit (dBuV/m)	Margin (dB)
12543.00	33.5	H	104.0	200.0	39.3	4.8	0.0	35.9	41.7	54.0	-12.3
13383.00	33.9	H	208.0	250.0	39.2	5.0	0.0	36.1	42.0	54.0	-12.0
16034.50	34.2	H	335.0	150.0	40.9	5.4	0.0	35.9	44.6	54.0	-9.4
17790.50	34.7	H	319.0	250.0	41.0	5.7	0.0	36.6	44.7	54.0	-9.3
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Frequency (MHz)	Raw Pk (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	DCF (dB)	Amp (dB)	Final Pk (dBuV/m)	Limit (dBuV/m)	Margin (dB)
12543.00	45.8	H	104.0	200.0	39.3	4.8	0.0	35.9	53.9	74.0	-20.1
13383.00	45.8	H	208.0	250.0	39.3	5.0	0.0	36.1	54.0	74.0	-20.0
16034.50	46.2	H	335.0	150.0	40.9	5.4	0.0	35.9	56.6	74.0	-17.4
17790.50	46.4	H	319.0	250.0	41.0	5.7	0.0	36.6	56.5	74.0	-17.5
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

3.6.4 18-40 GHz

All channels had similar plots in the 18-40GHz frequency range.

Vertical Plot – 18-40GHz – Mid Channel



Horizontal Plot – 18-40GHz – Mid Channel

