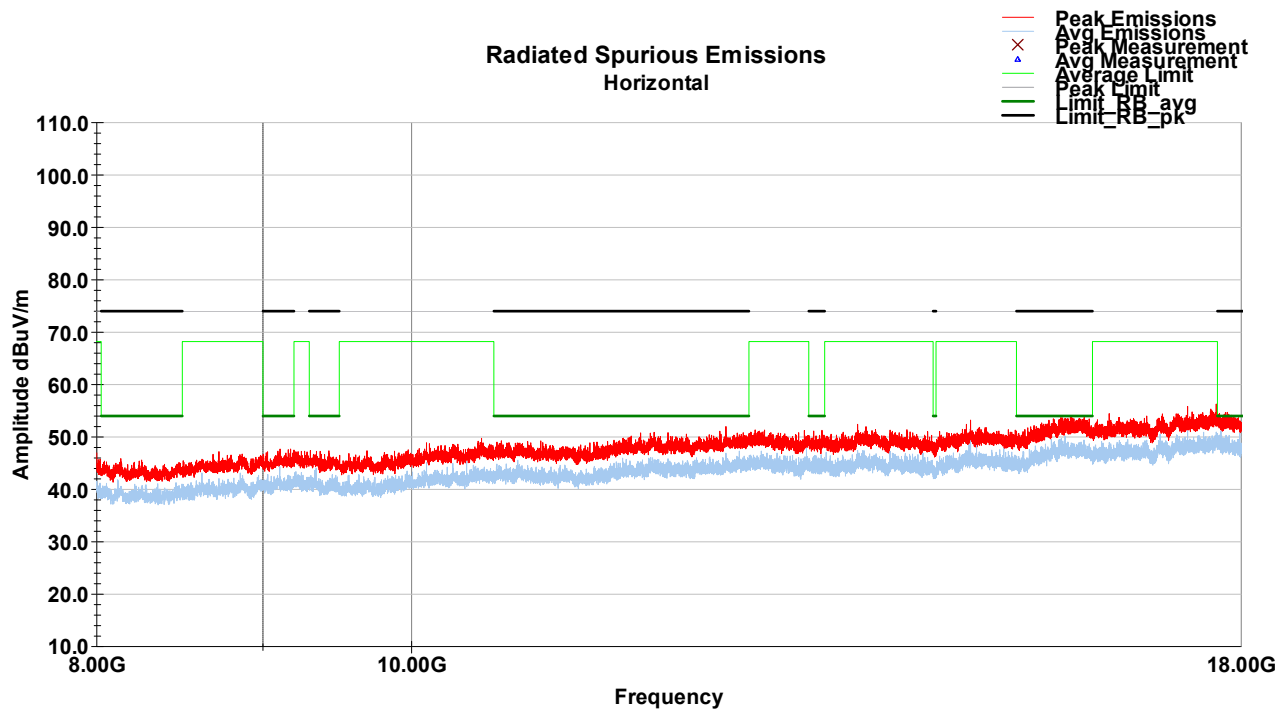
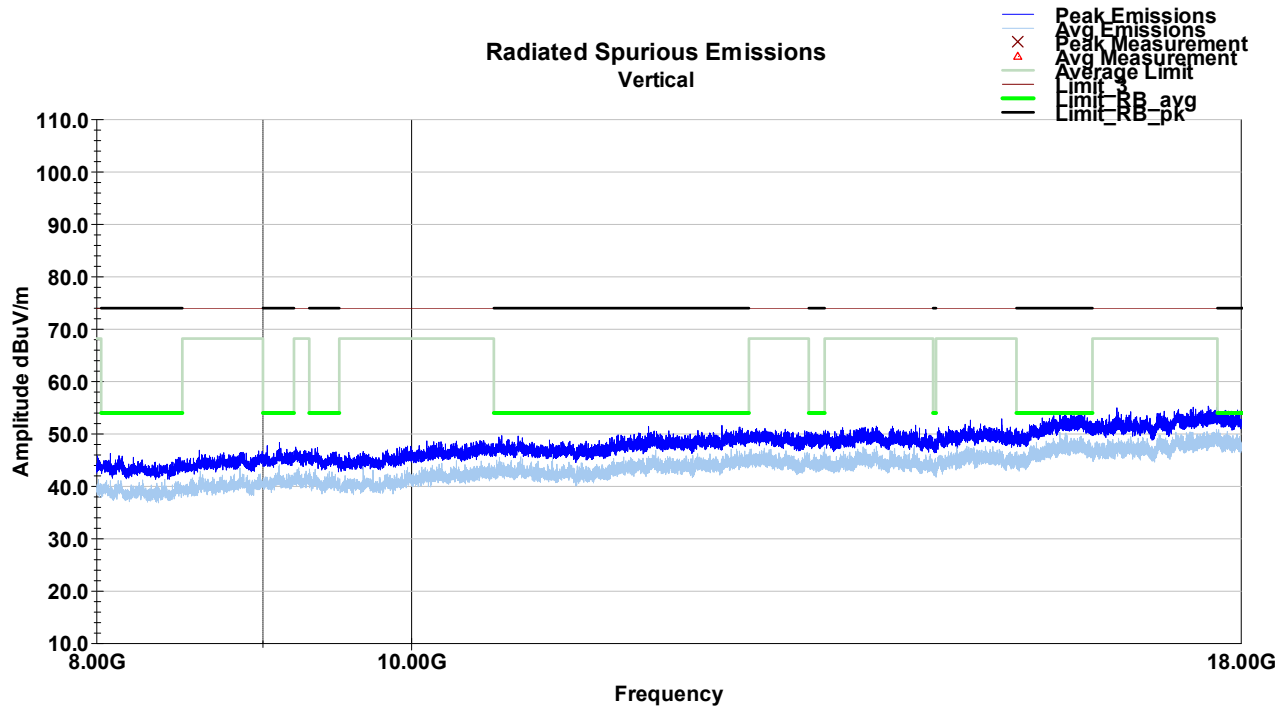
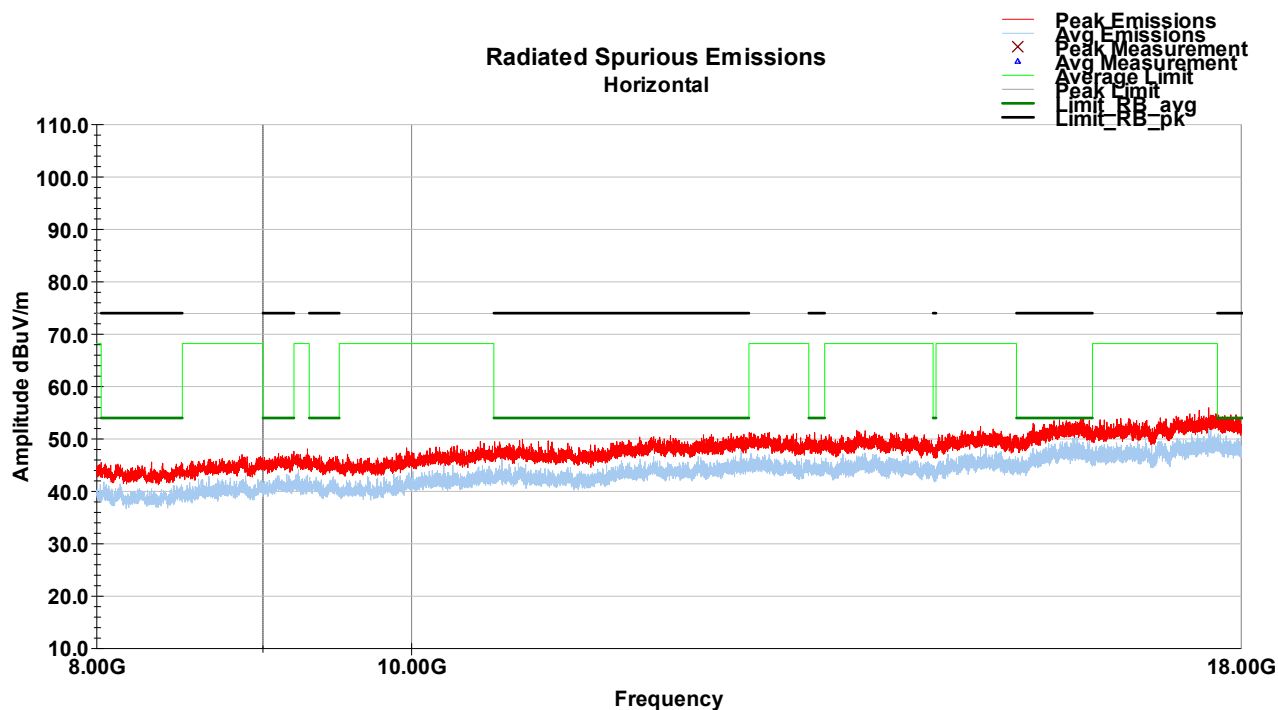
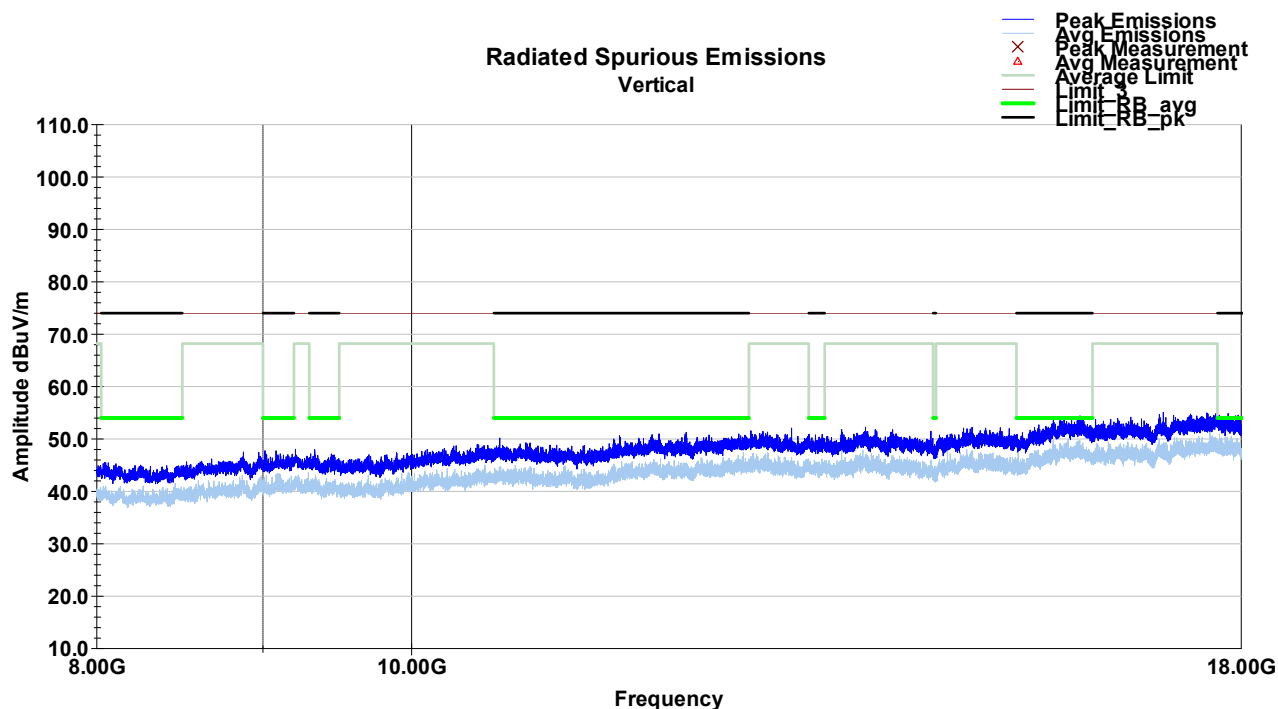


WLAN 5GHz - 8-18 GHz – 802.11ac40 Ch. 110



No discernible emissions detected from 8GHz – 18GHz.

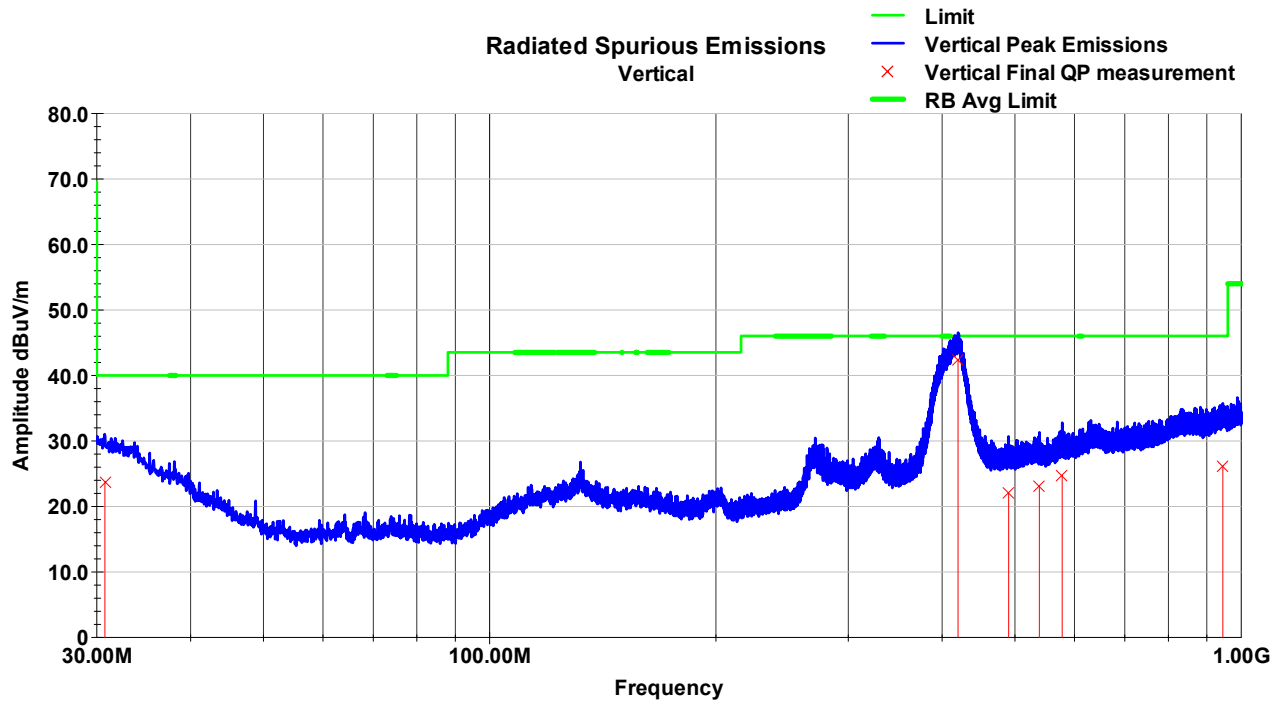
WLAN 5GHz - 8-18 GHz – 802.11ac40 Ch. 159



No discernible emissions detected from 8GHz – 18GHz.

5.7 Test Data – BT

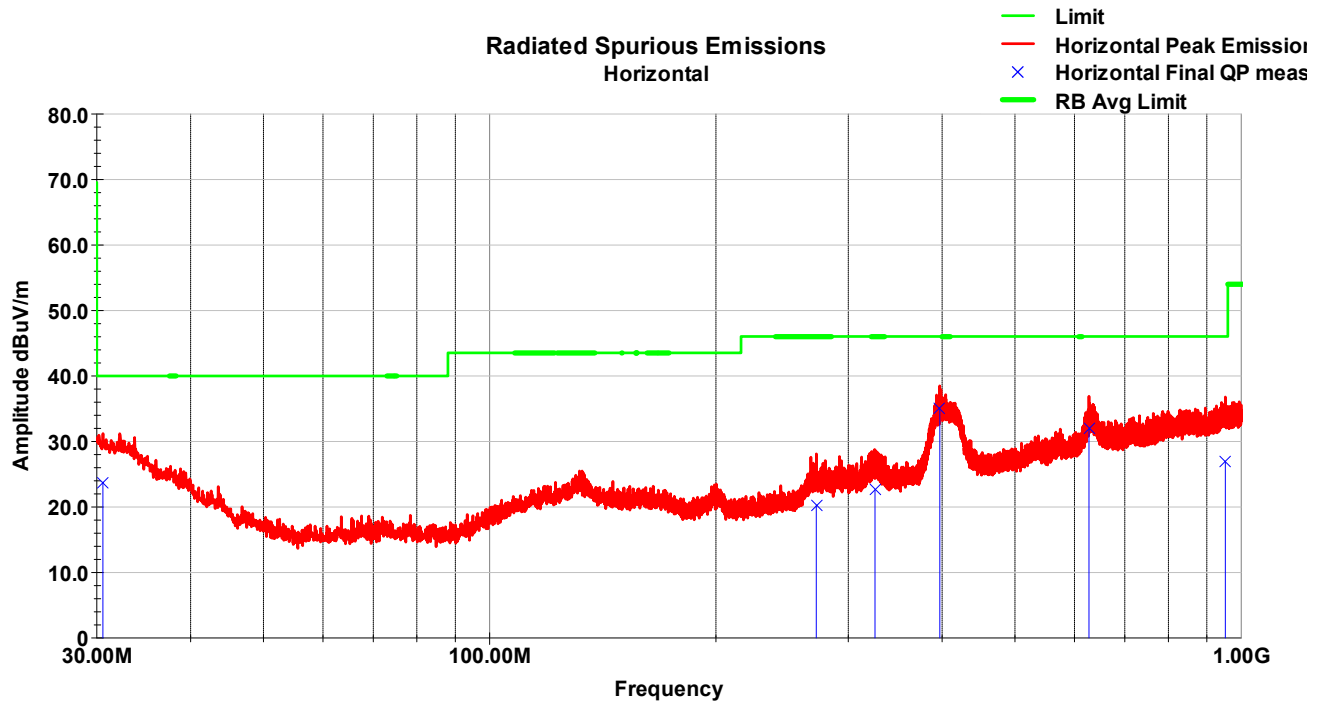
BT - 30-1000 MHz – Low Channel



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)
30.76	28.9	V	277.0	399.0	25.5	0.4	31.0	23.7	40.0	-16.3
420.01	49.7	V	132.0	100.0	20.7	2.1	30.3	42.3	46.0	-3.7
490.39	27.7	V	102.0	100.0	22.2	2.4	30.2	22.1	46.0	-23.9
538.89	27.9	V	280.0	175.0	22.7	2.5	30.1	23.1	46.0	-23.0
577.78	28.7	V	125.0	100.0	23.5	2.5	30.1	24.7	46.0	-21.3
945.37	25.1	V	0.0	400.0	27.4	2.9	29.3	26.2	46.0	-19.9

QP Value = Raw QP + AF + Loss - Amp

Margin = QP Value - Limit

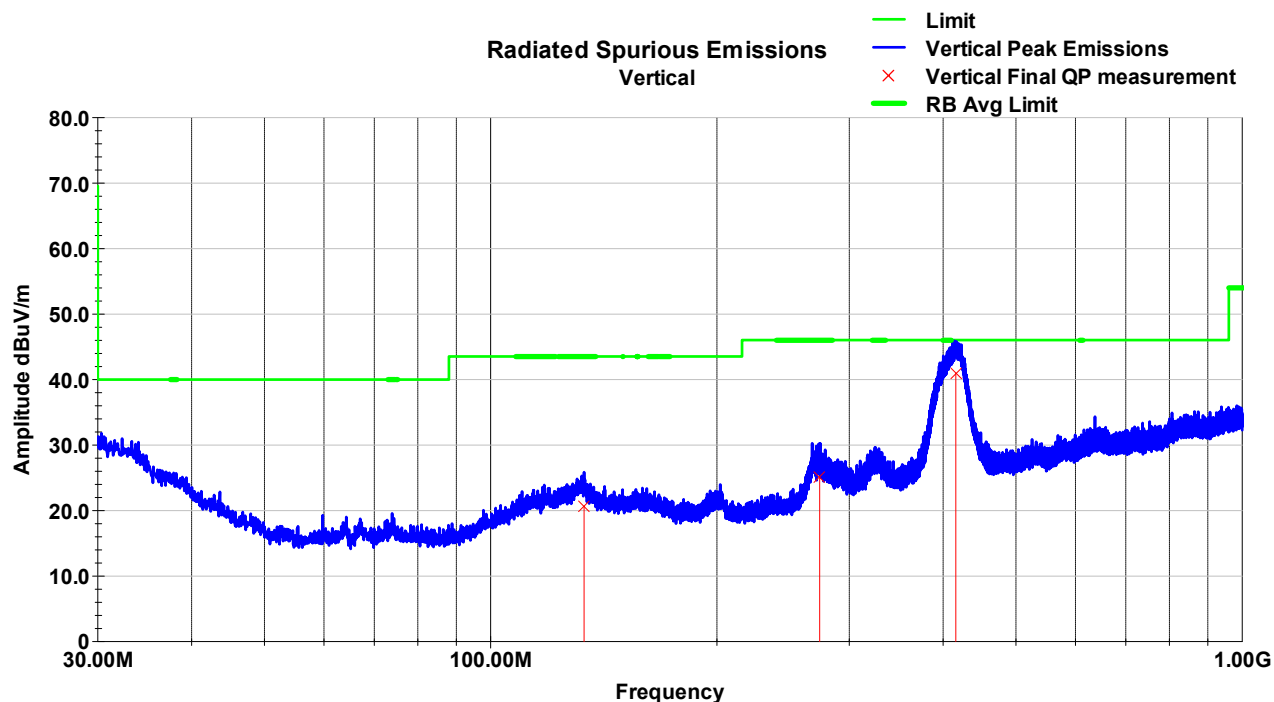


Frequency MHz	Raw QP (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	Amp (dB)	QP Value (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.57	28.8	H	160.0	117.0	25.6	0.4	31.0	23.8	40.0	-16.2
272.02	31.2	H	51.0	100.0	17.8	1.7	30.6	20.3	46.0	-25.8
325.67	32.4	H	51.0	100.0	18.7	1.9	30.5	22.6	46.0	-23.4
397.16	43.1	H	207.0	192.0	20.2	2.1	30.4	35.1	46.0	-10.9
627.33	35.3	H	173.0	117.0	23.9	2.6	30.0	31.9	46.0	-14.1
952.64	25.9	H	351.0	174.0	27.4	3.0	29.3	27.0	46.0	-19.0

QP Value = Raw QP + AF + Loss - Amp

Margin = QP Value - Limit

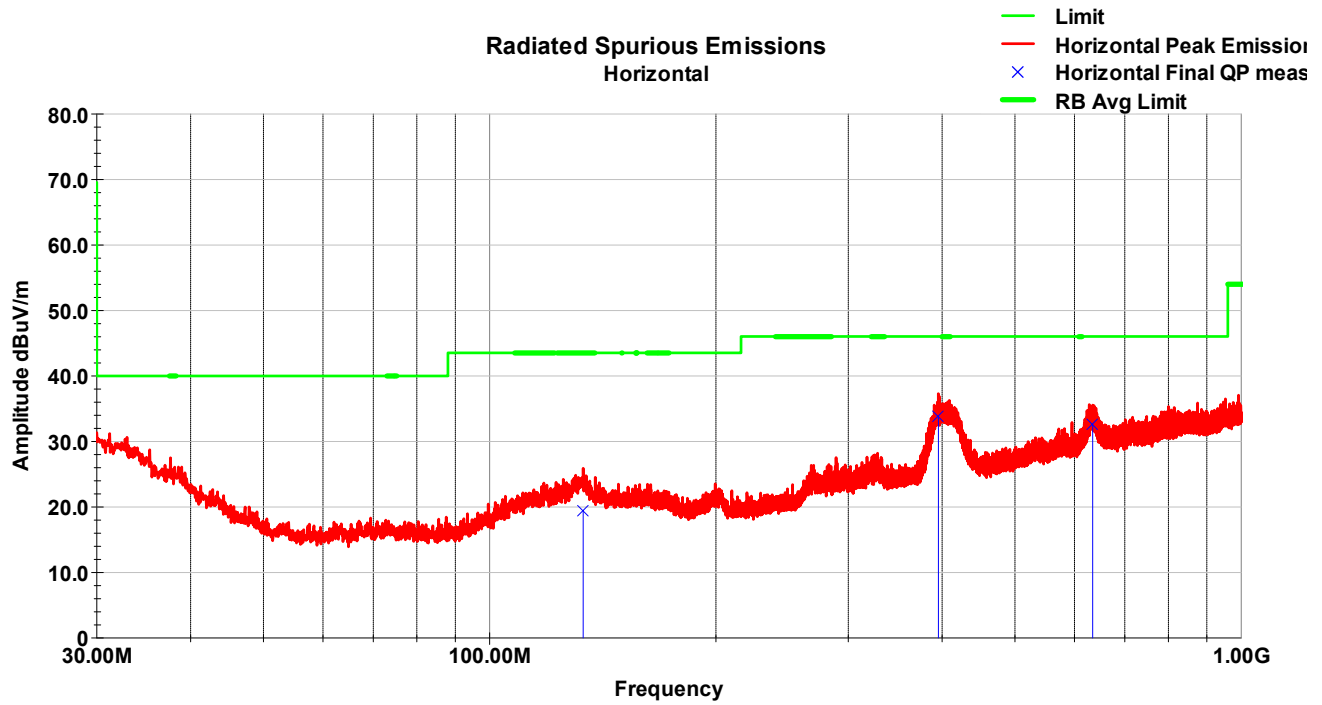
BT - 30-1000 MHz – Mid Channel



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)
133.14	32.7	V	178.0	100.0	17.7	1.0	30.8	20.6	43.5	-22.9
273.99	36.1	V	161.0	175.0	17.8	1.7	30.6	25.1	46.0	-20.9
415.80	48.5	V	64.0	100.0	20.6	2.1	30.3	41.0	46.0	-5.0

QP Value = Raw QP + AF + Loss - Amp

Margin = QP Value - Limit

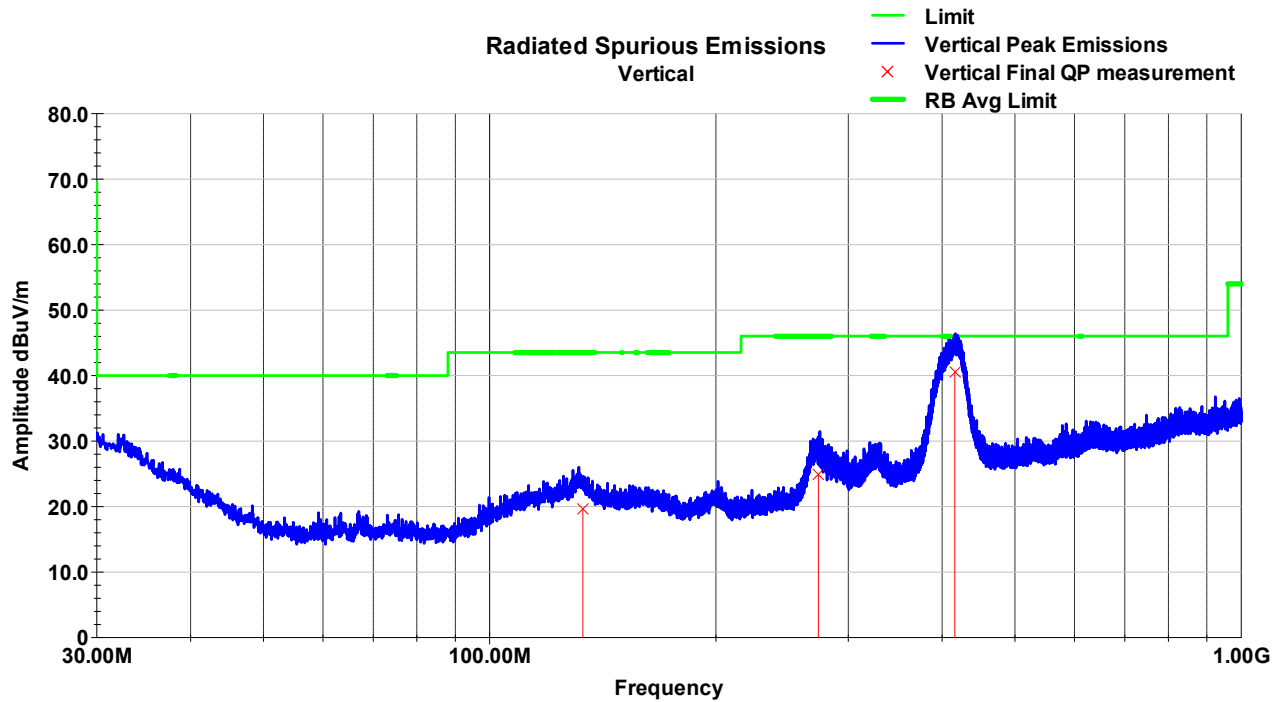


Frequency MHz	Raw QP (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	Amp (dB)	QP Value (dBuV/m)	Limit (dBuV/m)	Margin (dB)
133.18	31.5	H	307.0	175.0	17.7	1.0	30.8	19.5	43.5	-24.1
395.45	41.9	H	187.0	190.0	20.1	2.1	30.4	33.8	46.0	-12.2
634.51	35.8	H	185.0	115.0	24.2	2.6	30.0	32.7	46.0	-13.4

QP Value = Raw QP + AF + Loss - Amp

Margin = QP Value - Limit

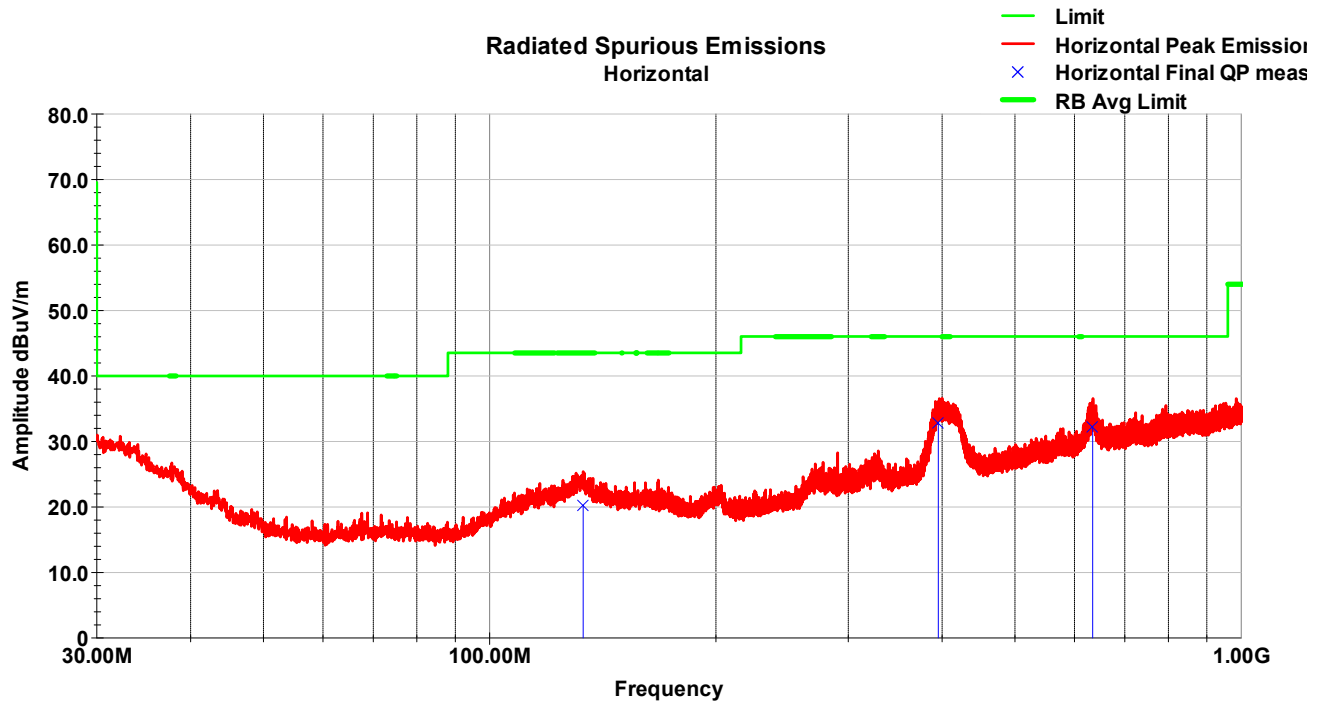
BT - 30-1000 MHz – High Channel



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)
133.04	31.6	V	0.0	100.0	17.7	1.0	30.8	19.6	43.5	-24.0
273.79	35.9	V	113.0	175.0	17.8	1.7	30.6	24.9	46.0	-21.1
415.80	48.1	V	0.0	115.0	20.6	2.1	30.3	40.6	46.0	-5.5

QP Value = Raw QP + AF + Loss - Amp

Margin = QP Value - Limit

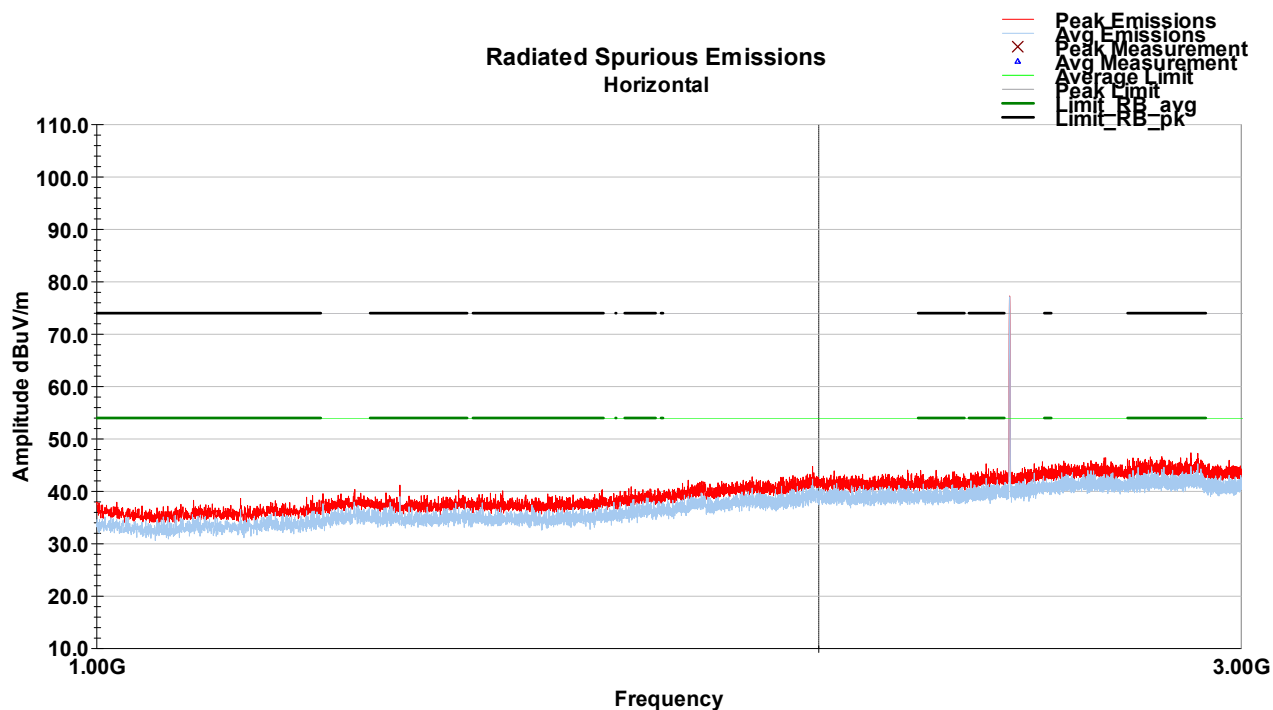
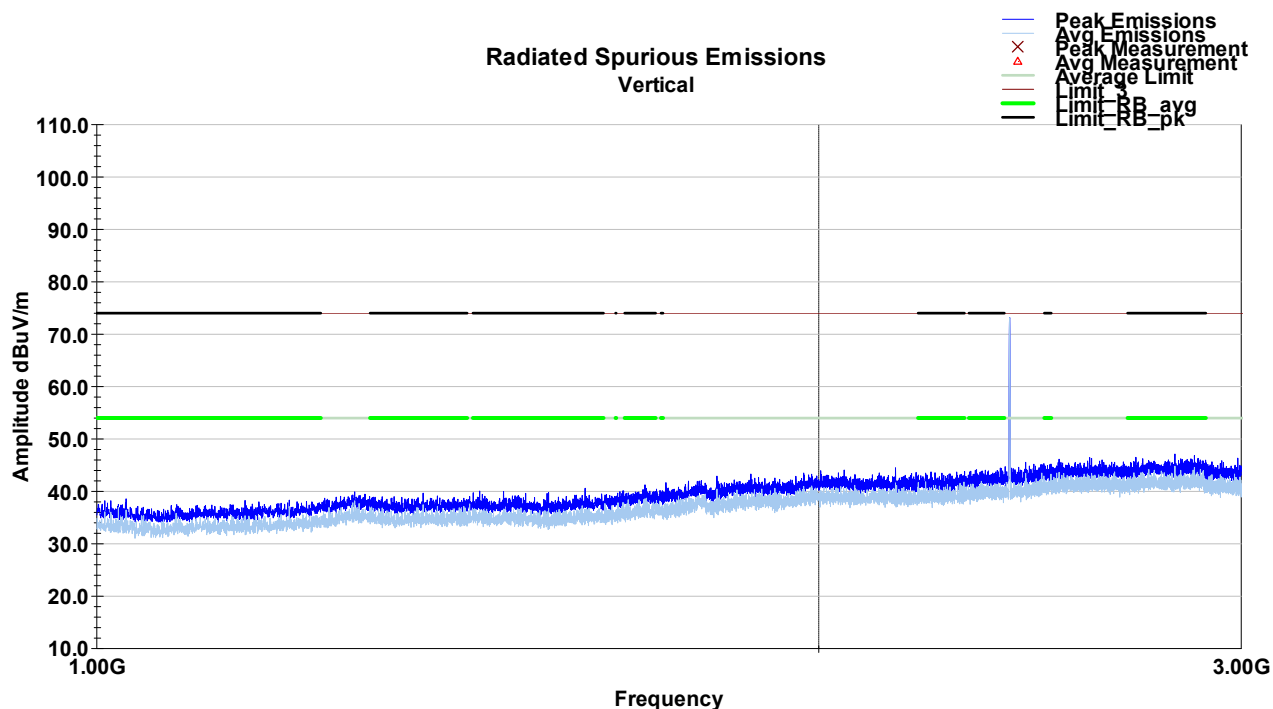


Frequency MHz	Raw QP (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	Amp (dB)	QP Value (dBuV/m)	Limit (dBuV/m)	Margin (dB)
133.17	32.3	H	54.0	129.0	17.7	1.0	30.8	20.2	43.5	-23.3
395.40	41.0	H	230.0	175.0	20.1	2.1	30.4	32.9	46.0	-13.2
634.40	35.4	H	175.0	113.0	24.1	2.6	30.0	32.3	46.0	-13.7

QP Value = Raw QP + AF + Loss - Amp

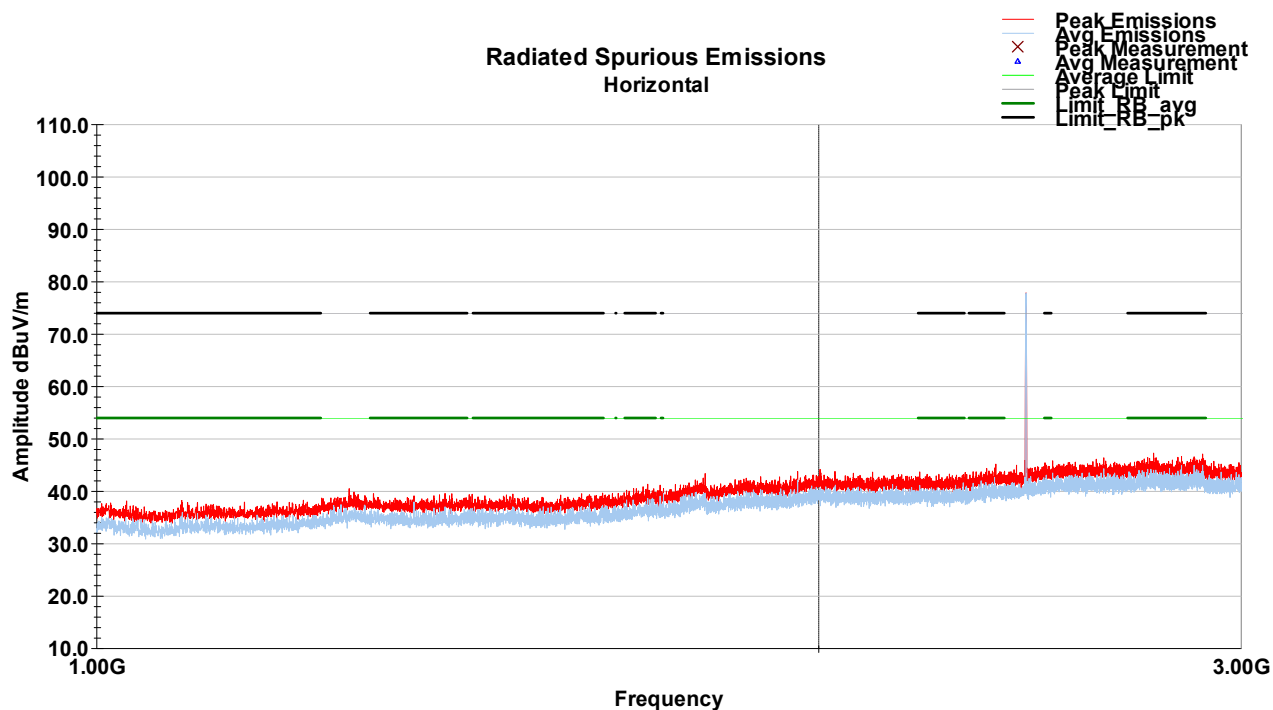
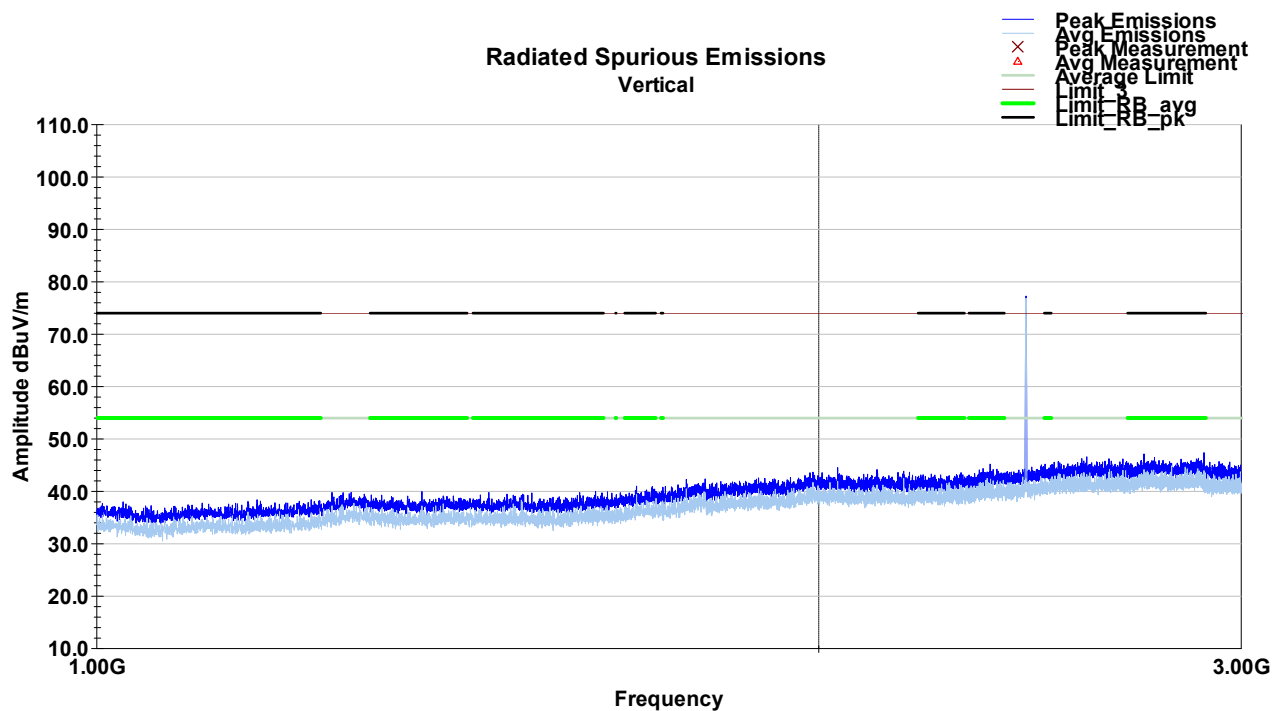
Margin = QP Value - Limit

BT - 1-3 GHz – Low Channel



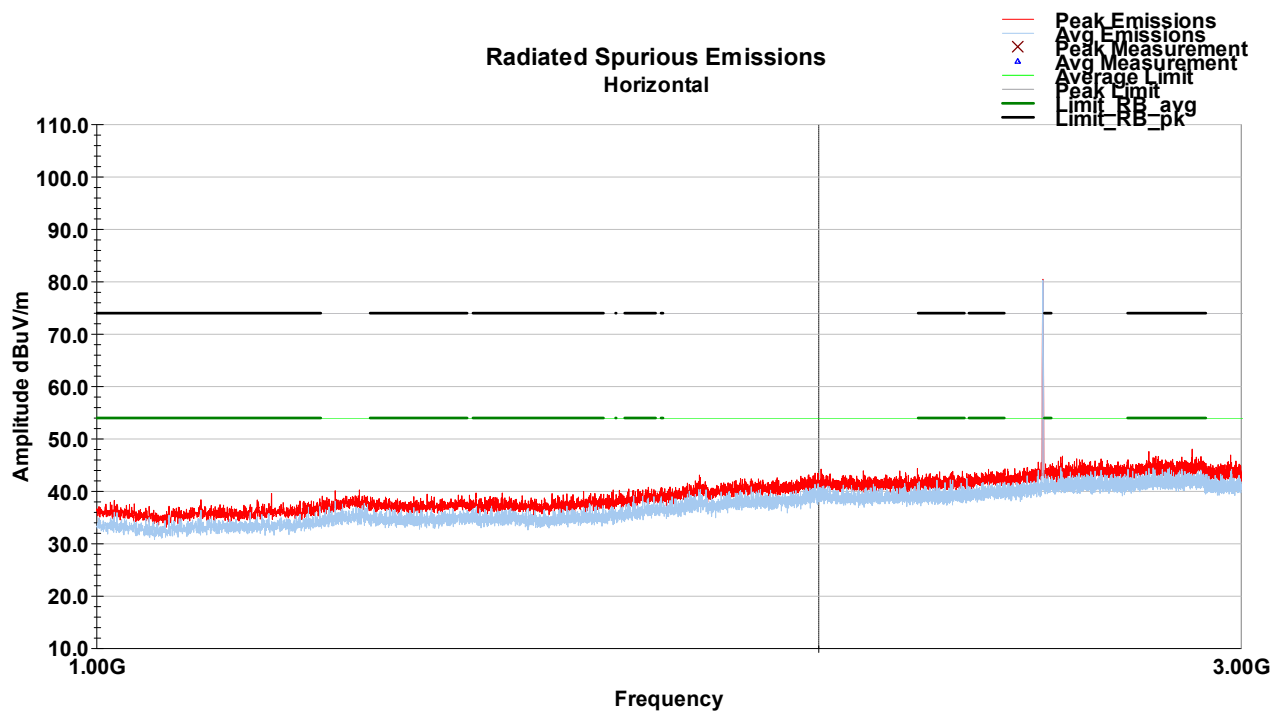
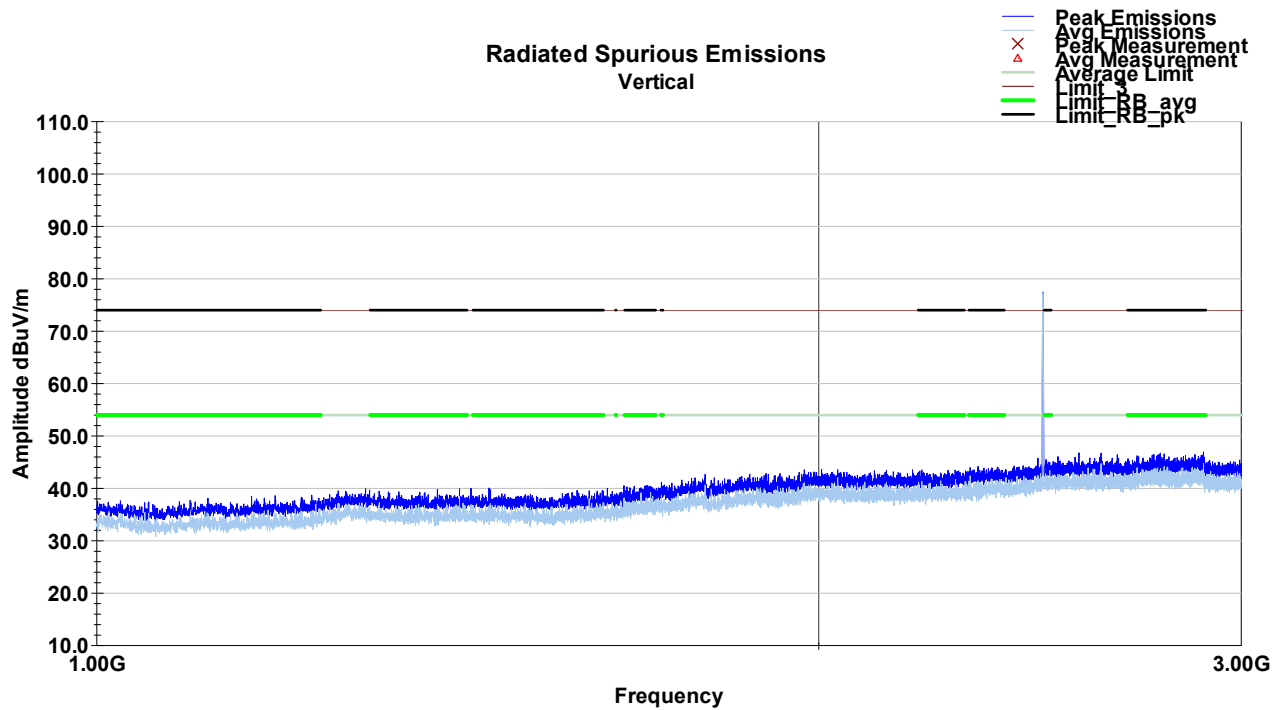
No discernible emissions detected from 1GHz – 3GHz.

BT - 1-3 GHz – Mid Channel



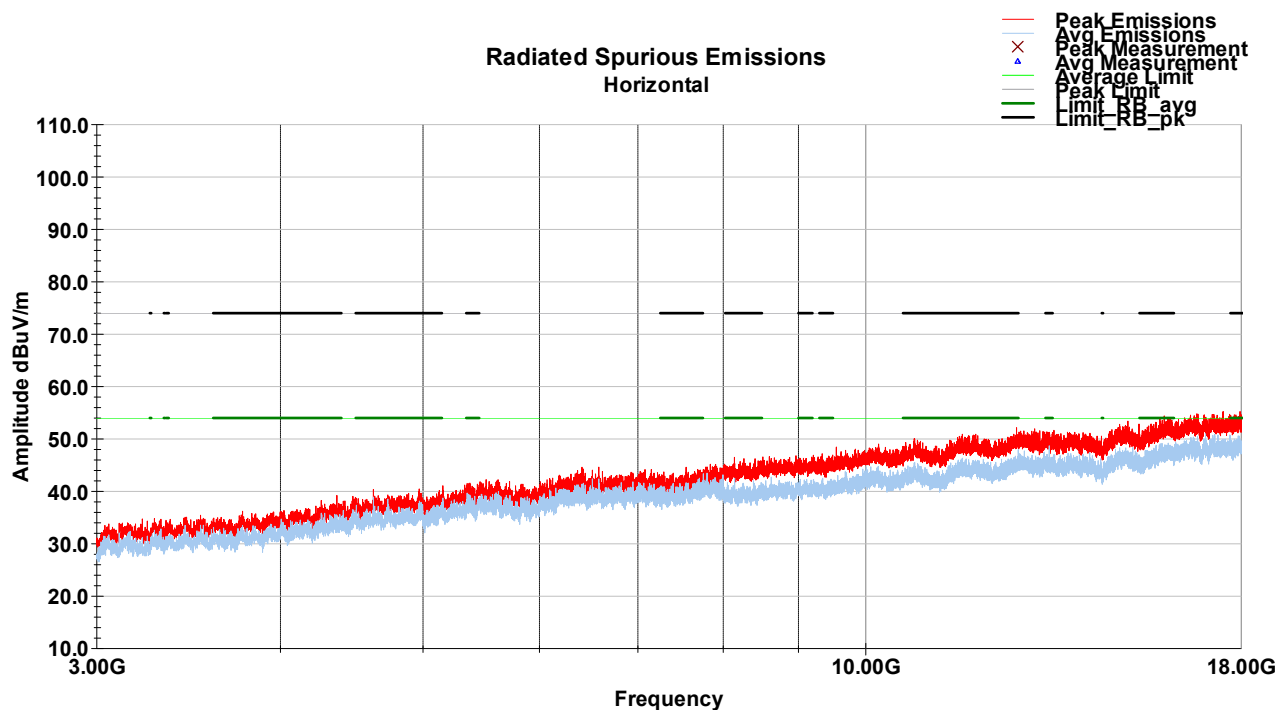
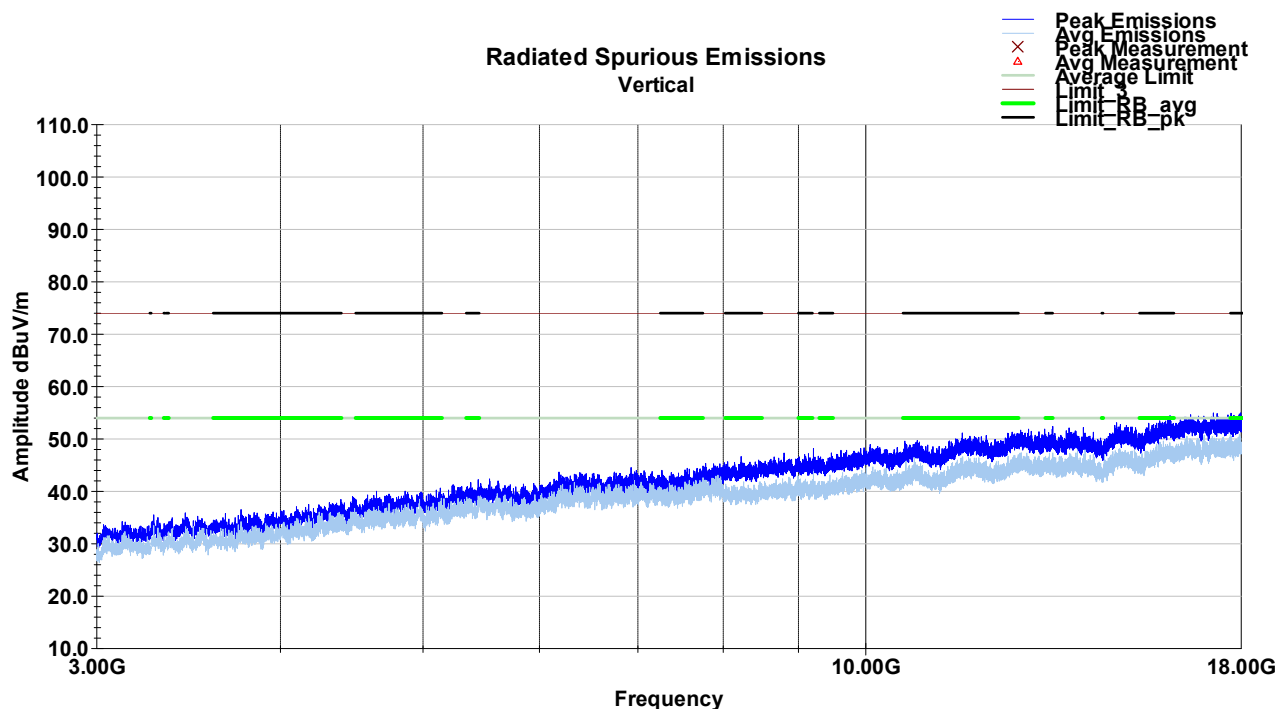
No discernible emissions detected from 1GHz – 3GHz.

BT - 1-3 GHz – High Channel



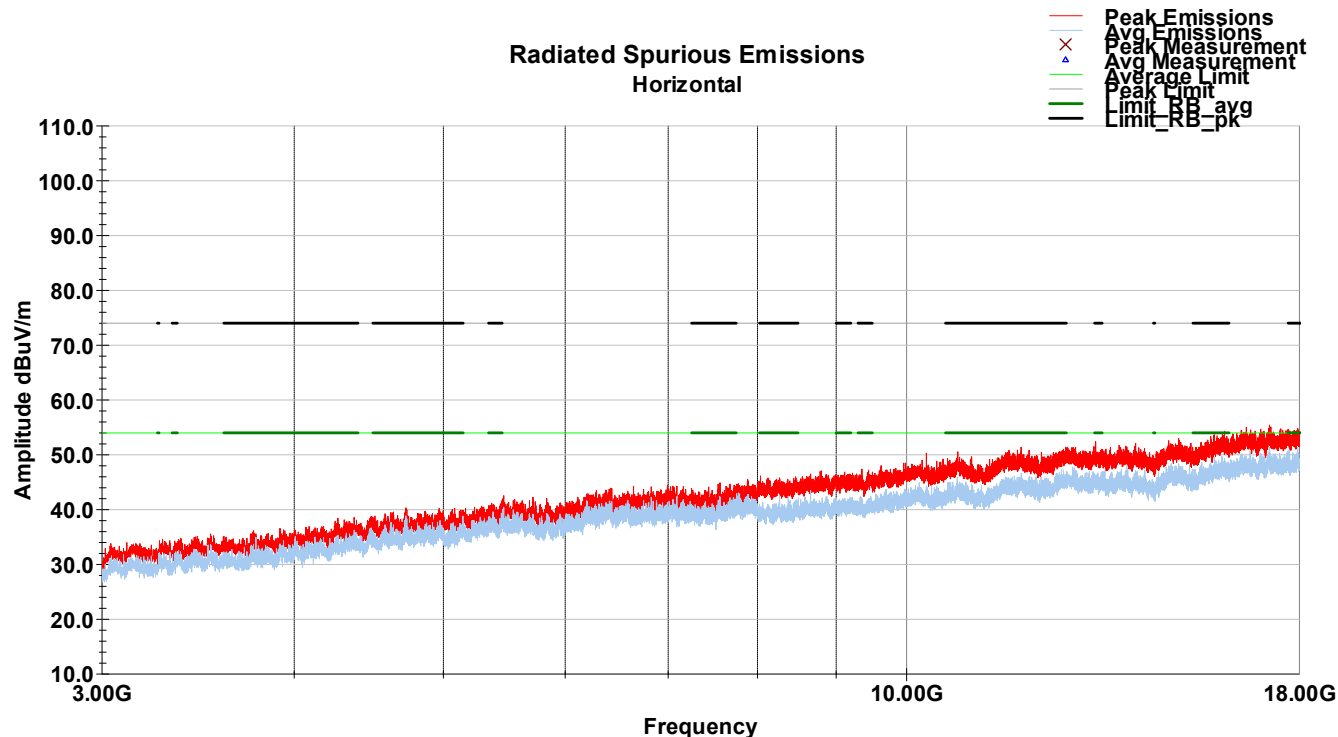
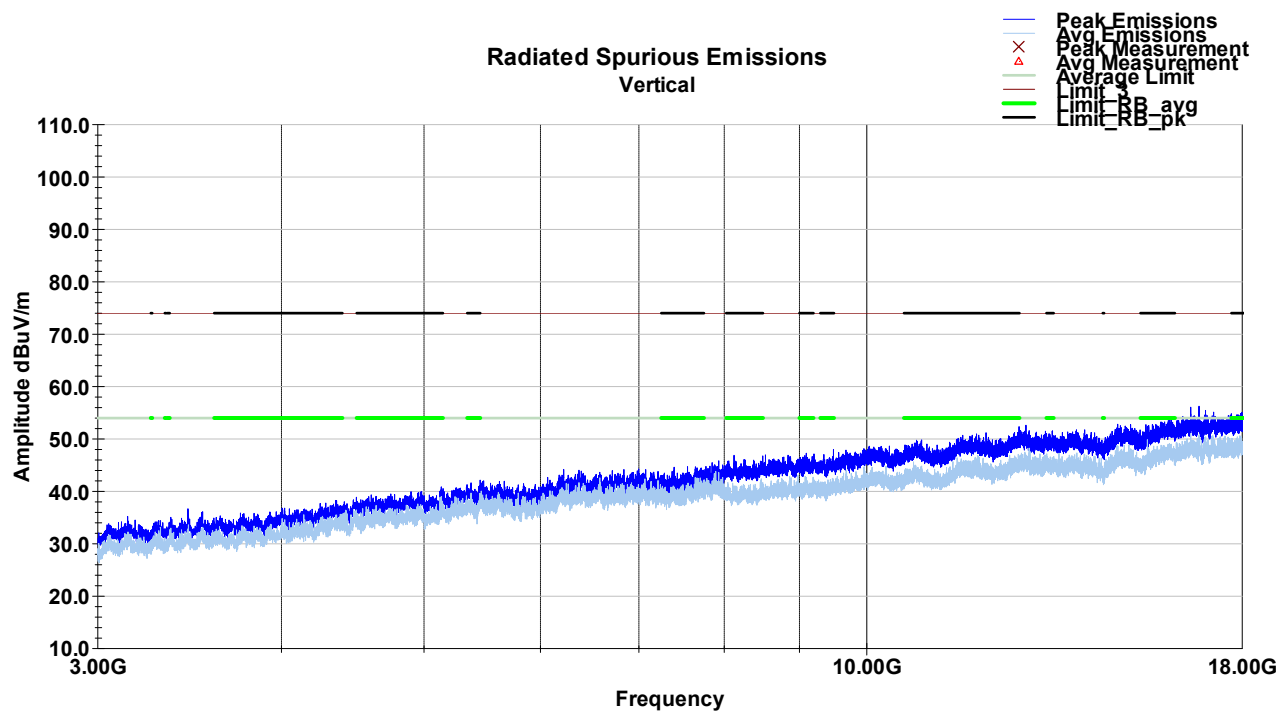
No discernible emissions detected from 1GHz – 3GHz.

BT - 3-18 GHz – Low Channel



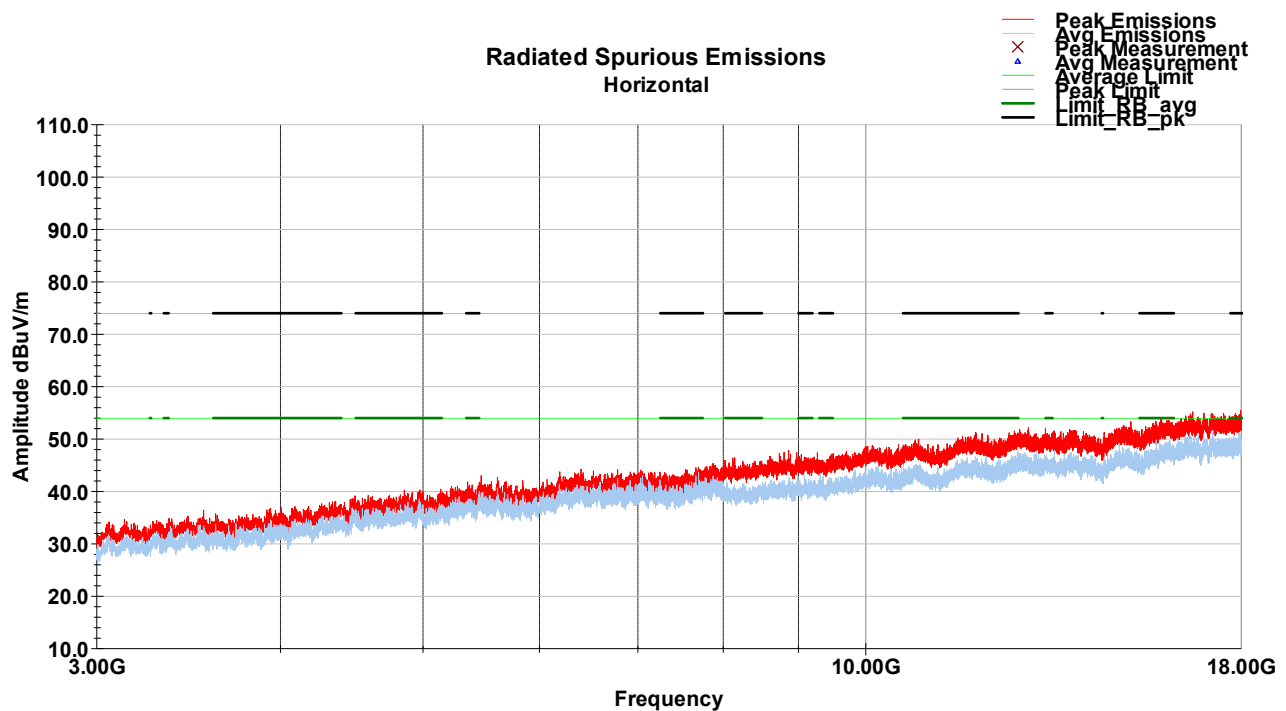
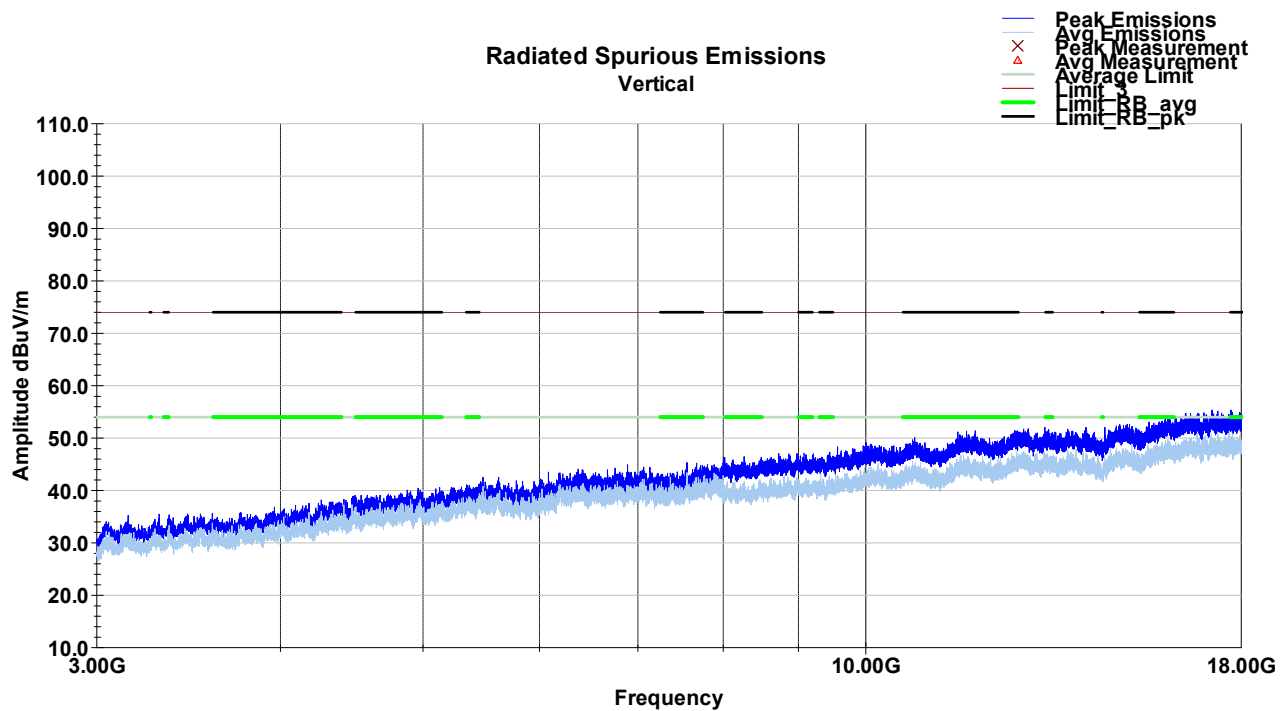
No discernible emissions detected from 3GHz – 18GHz.

BT - 3-18 GHz – Mid Channel



No discernible emissions detected from 3GHz – 18GHz.

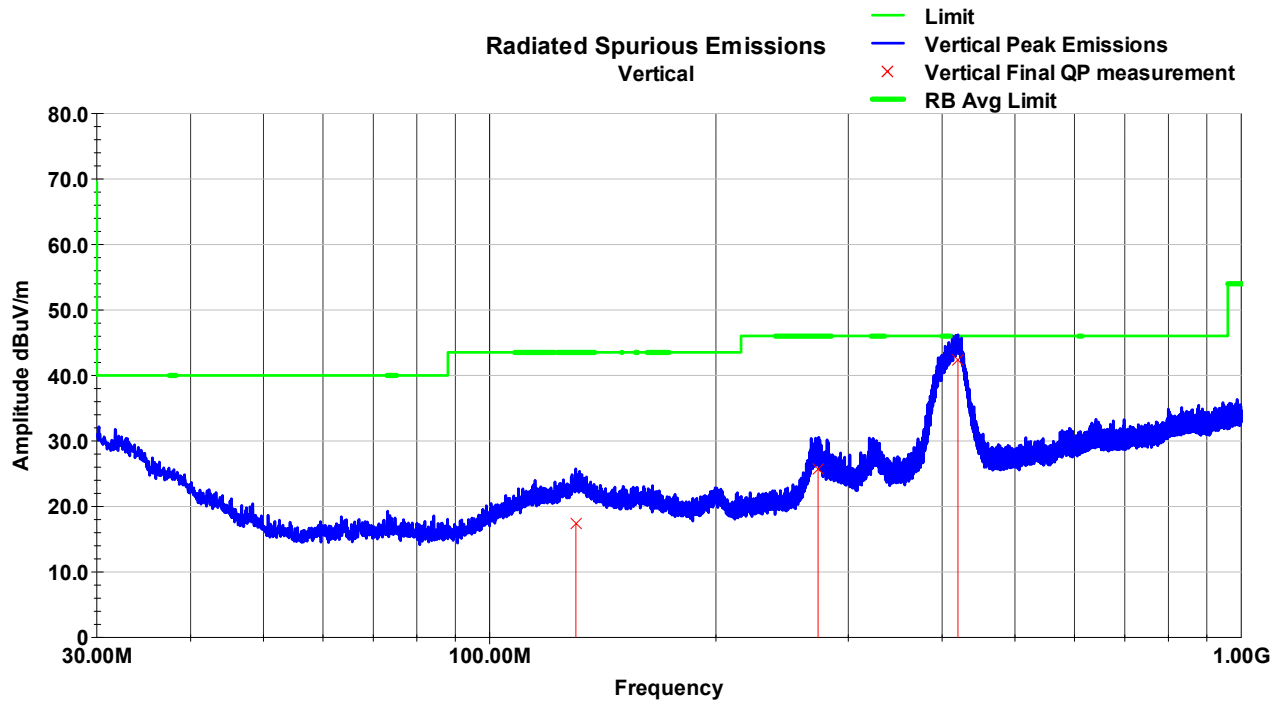
5.7.1 BT - 3-18 GHz – High Channel



No discernible emissions detected from 3GHz – 18GHz.

5.8 Test Data – BLE

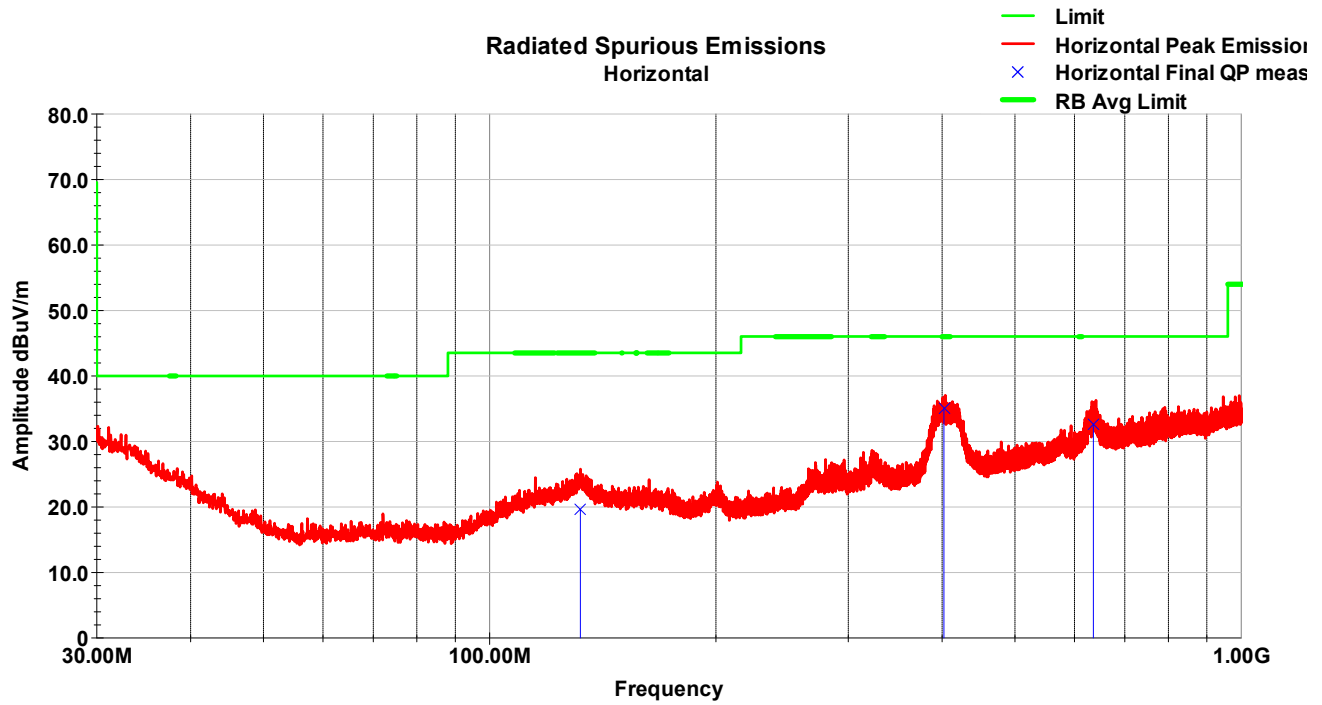
BLE - 30-1000 MHz – Low Channel



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)
130.23	29.3	V	332.0	175.0	17.8	1.0	30.8	17.3	43.5	-26.2
273.50	36.8	V	208.0	189.0	17.8	1.7	30.6	25.8	46.0	-20.2
419.77	49.8	V	138.0	100.0	20.7	2.1	30.3	42.4	46.0	-3.7

QP Value = Raw QP + AF + Loss - Amp

Margin = QP Value - Limit

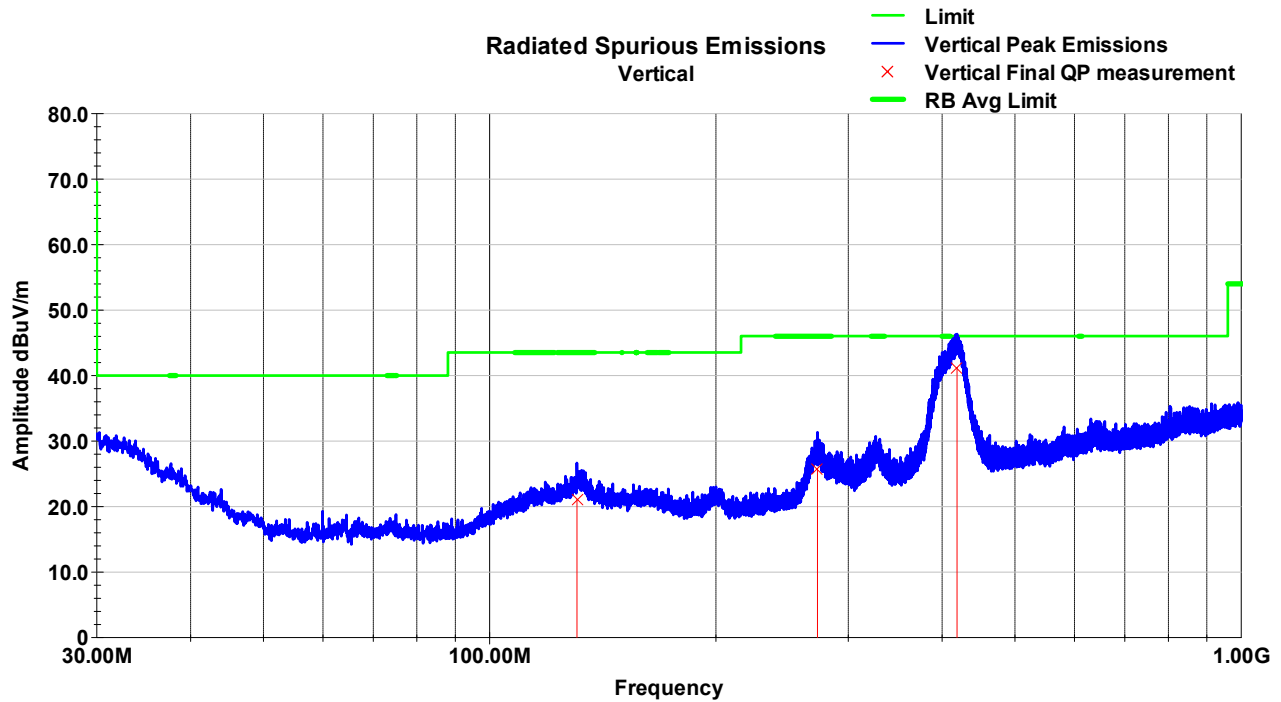


Frequency MHz	Raw QP (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	Amp (dB)	QP Value (dBuV/m)	Limit (dBuV/m)	Margin (dB)
132.04	31.6	H	34.0	100.0	17.7	1.0	30.8	19.5	43.5	-24.0
402.20	42.9	H	200.0	205.0	20.3	2.1	30.4	35.0	46.0	-11.0
635.84	35.6	H	181.0	114.0	24.2	2.6	30.0	32.5	46.0	-13.5

QP Value = Raw QP + AF + Loss - Amp

Margin = QP Value - Limit

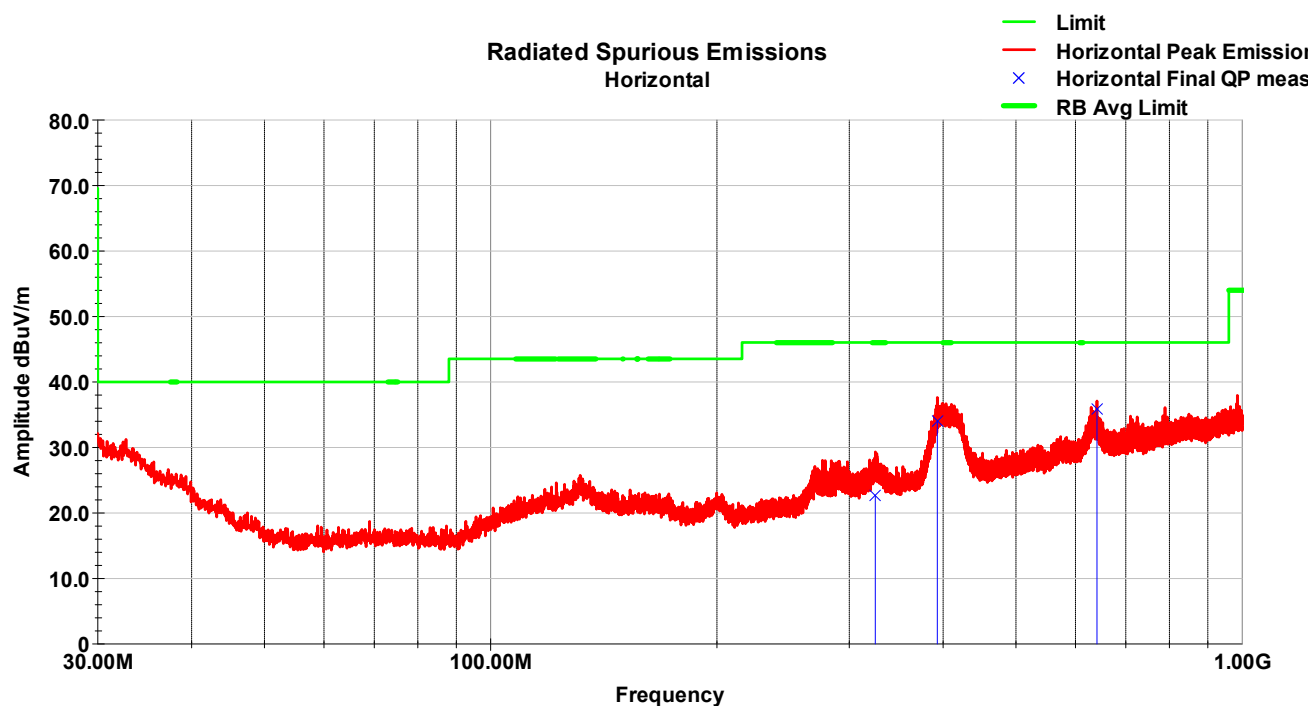
BLE - 30-1000 MHz – Mid Channel



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)
130.67	33.1	V	190.0	100.0	17.8	1.0	30.8	21.1	43.5	-22.4
273.01	36.7	V	150.0	174.0	17.8	1.7	30.6	25.7	46.0	-20.3
418.66	48.7	V	85.0	100.0	20.6	2.1	30.3	41.2	46.0	-4.8

QP Value = Raw QP + AF + Loss - Amp

Margin = QP Value - Limit

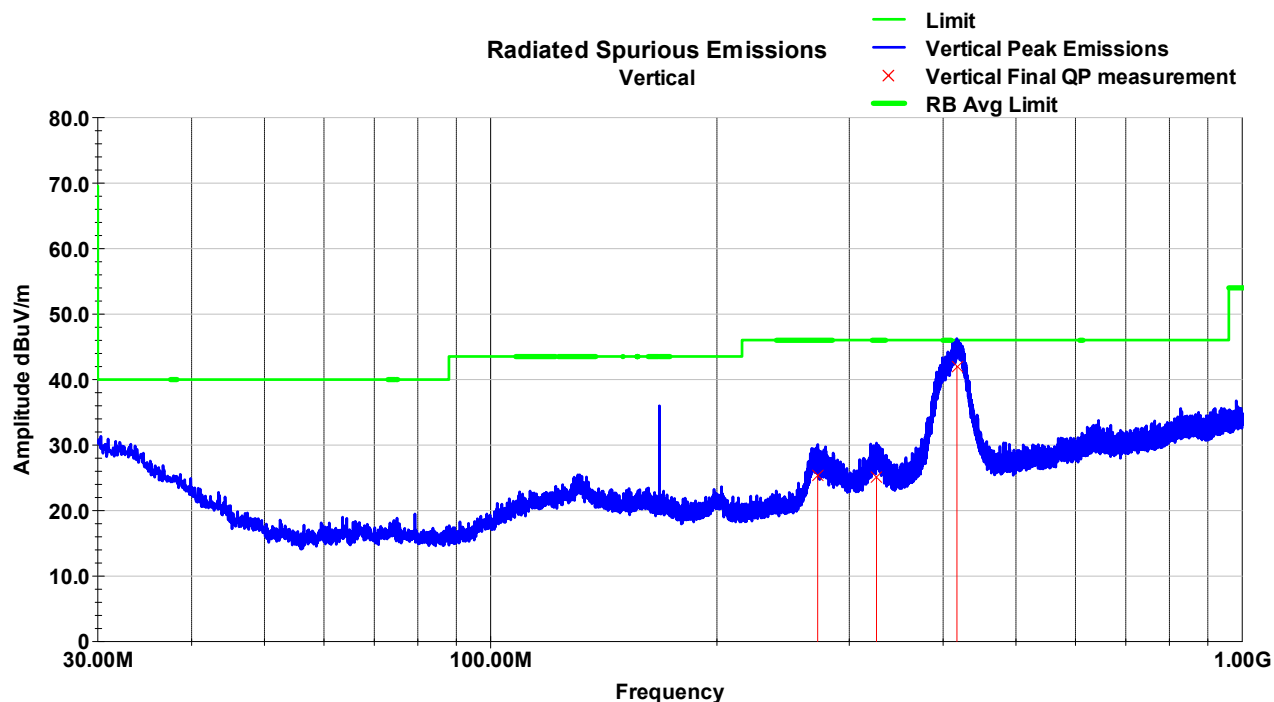


Frequency MHz	Raw QP (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	Amp (dB)	QP Value (dBuV/m)	Limit (dBuV/m)	Margin (dB)
324.95	32.5	H	42.0	100.0	18.7	1.9	30.5	22.7	46.0	-23.3
392.98	42.2	H	205.0	189.0	20.0	2.1	30.4	33.9	46.0	-12.1
640.80	38.8	H	170.0	113.0	24.3	2.6	30.0	35.8	46.0	-10.2

QP Value = Raw QP + AF + Loss - Amp

Margin = QP Value - Limit

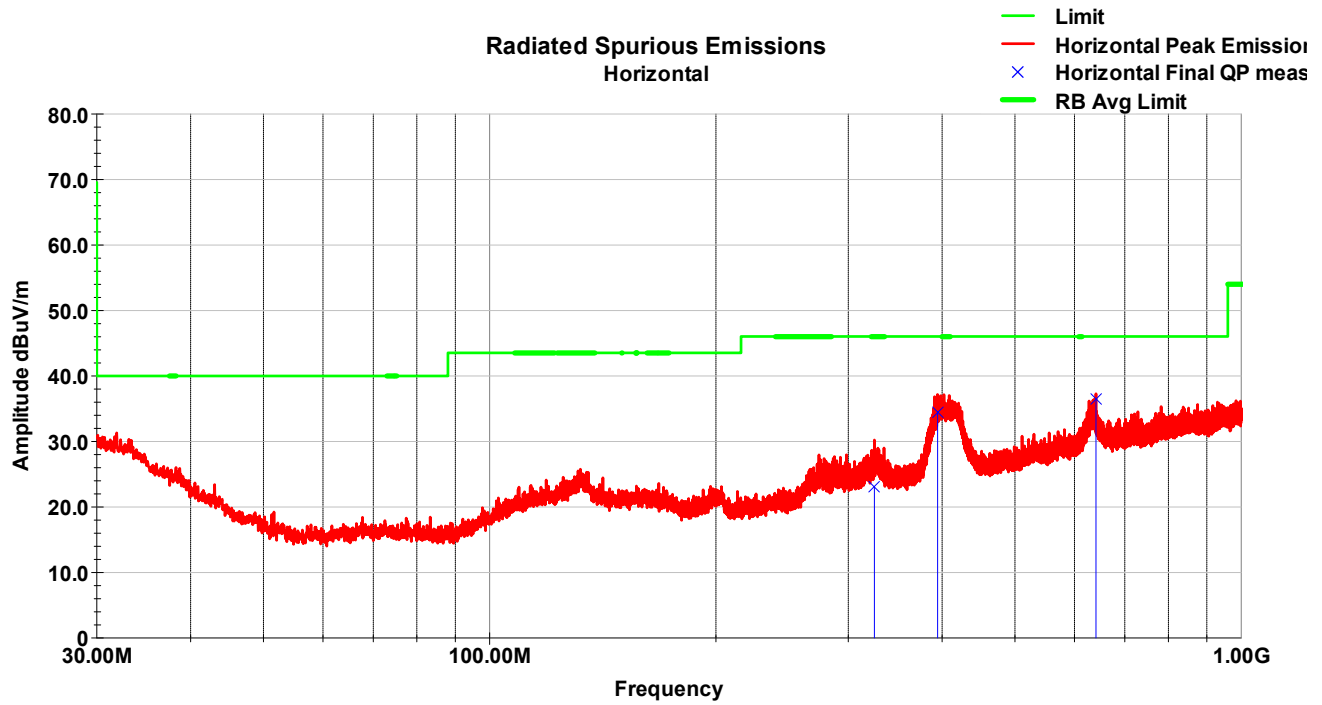
BLE - 30-1000 MHz – High Channel



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)
272.33	36.3	V	152.0	189.0	17.8	1.7	30.6	25.3	46.0	-20.7
326.12	34.9	V	122.0	174.0	18.7	1.9	30.5	25.1	46.0	-20.9
417.30	49.5	V	122.0	100.0	20.6	2.1	30.3	42.0	46.0	-4.0

QP Value = Raw QP + AF + Loss - Amp

Margin = QP Value - Limit

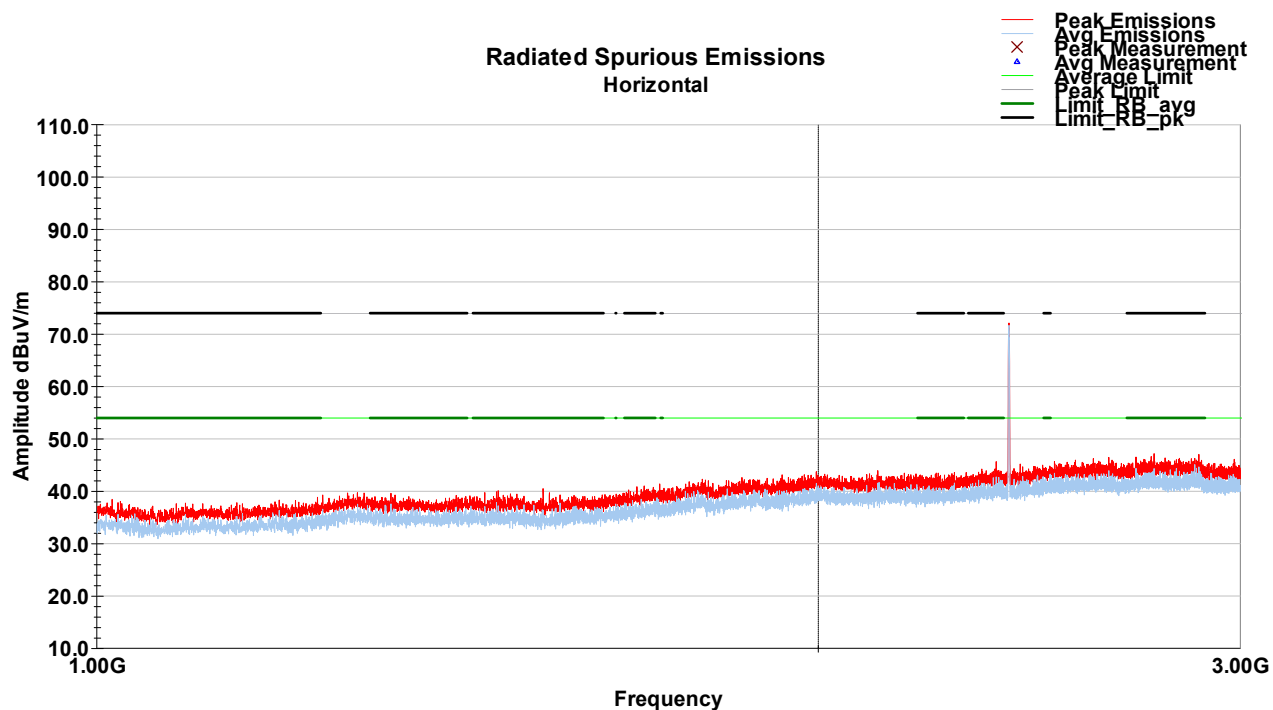
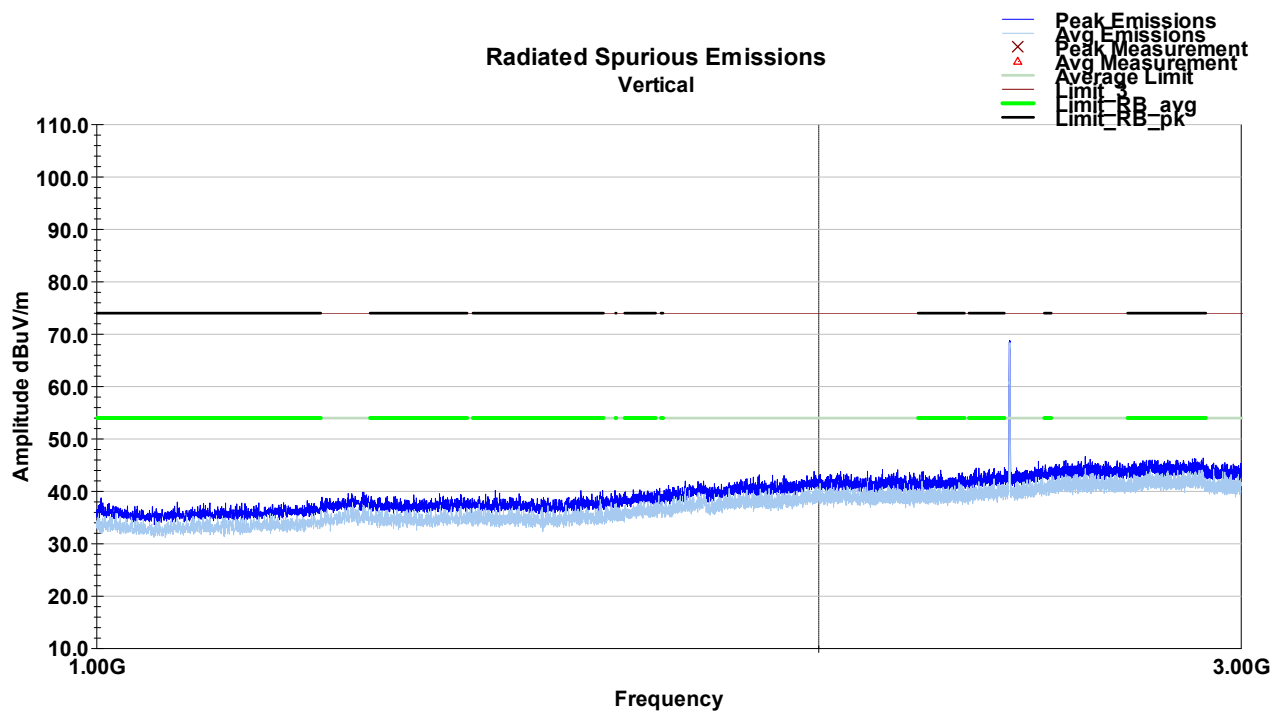


Frequency MHz	Raw QP (dBuV)	Polarity (V/H)	Azimuth (degrees)	Height (cm)	AF (dB/m)	Loss (dB)	Amp (dB)	QP Value (dBuV/m)	Limit (dBuV/m)	Margin (dB)
325.06	32.8	H	59.0	100.0	18.7	1.9	30.5	23.0	46.0	-23.0
394.49	42.6	H	197.0	205.0	20.1	2.1	30.4	34.5	46.0	-11.5
640.82	39.3	H	168.0	113.0	24.3	2.6	30.0	36.4	46.0	-9.6

QP Value = Raw QP + AF + Loss - Amp

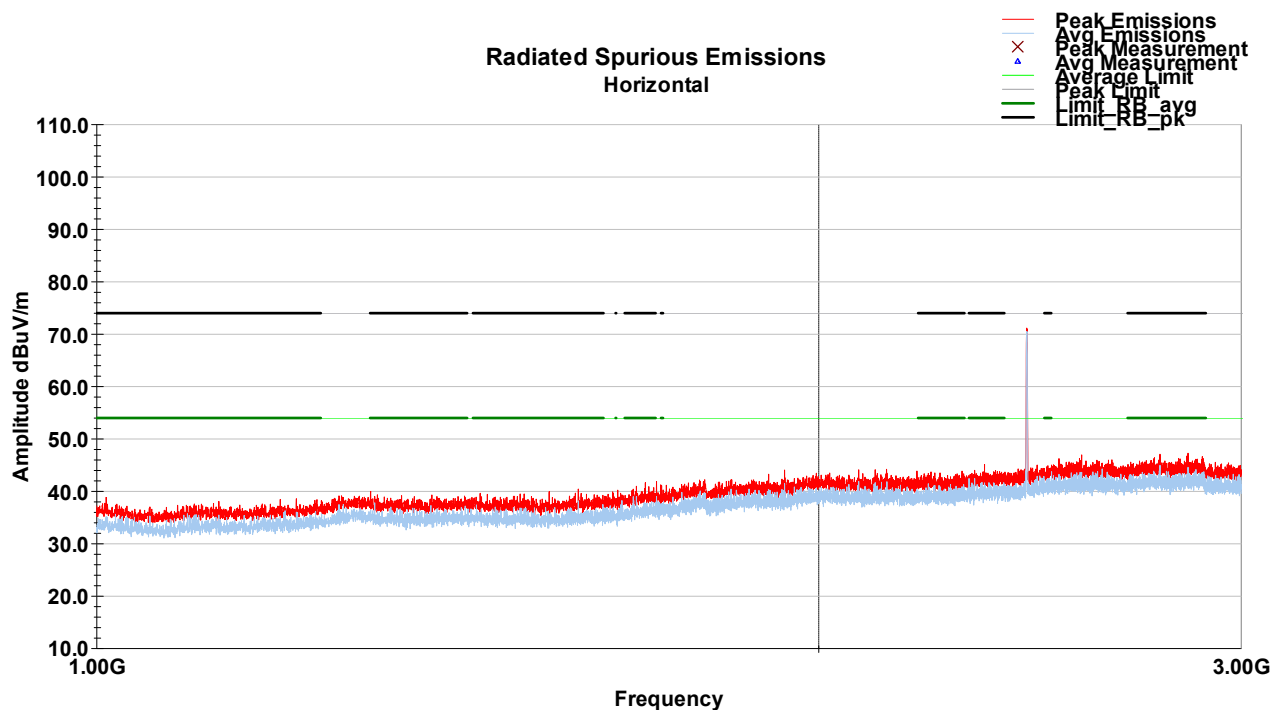
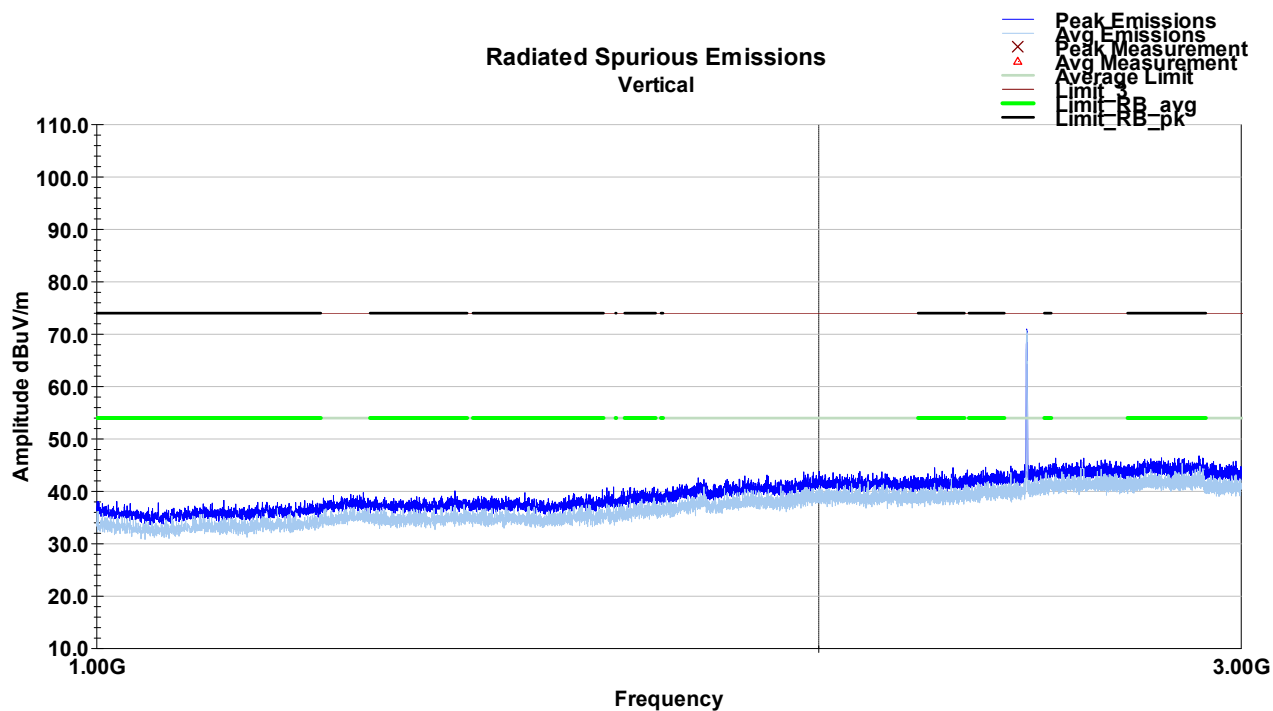
Margin = QP Value - Limit

BLE - 1-3 GHz – Low Channel



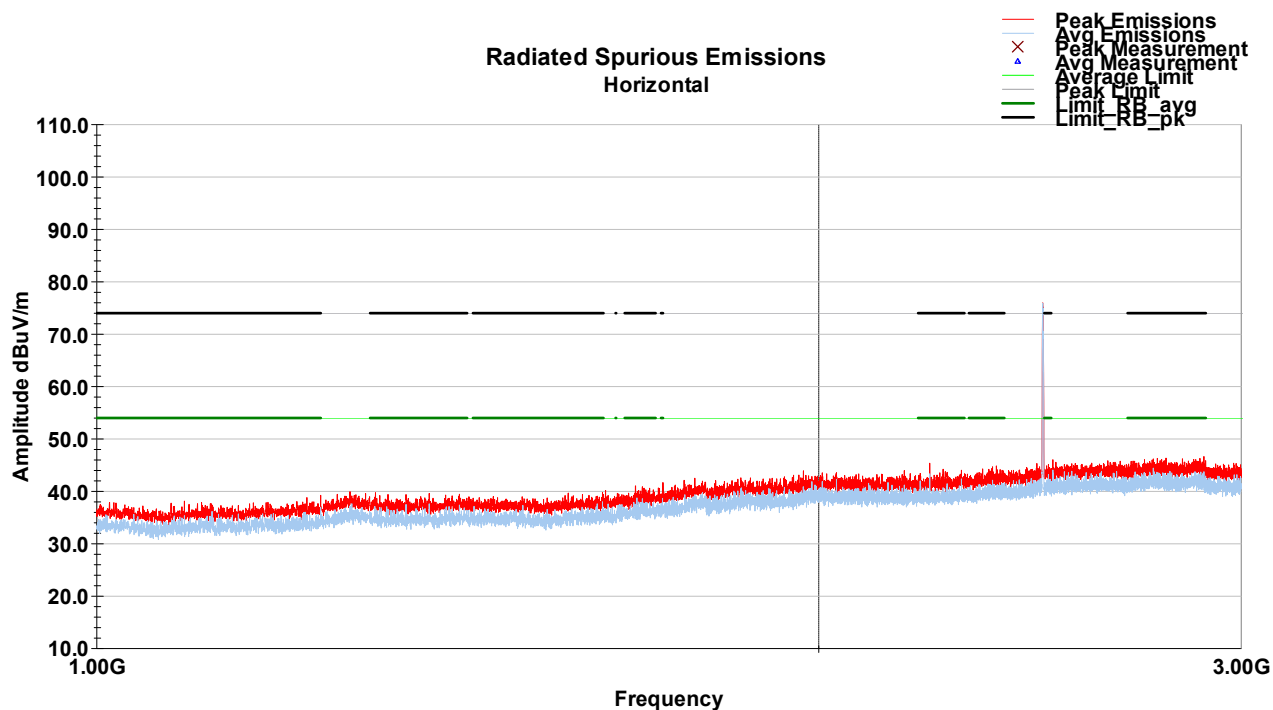
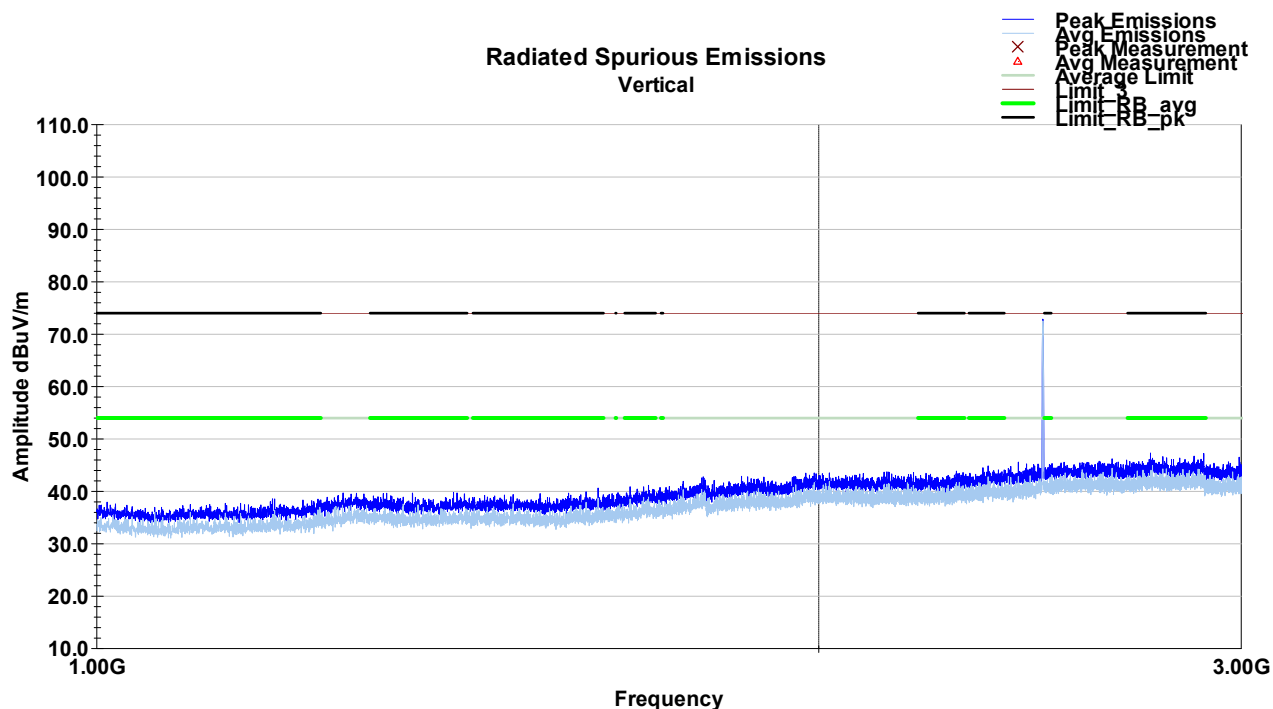
No discernible emissions detected from 1GHz – 3GHz.

BLE - 1-3 GHz – Mid Channel



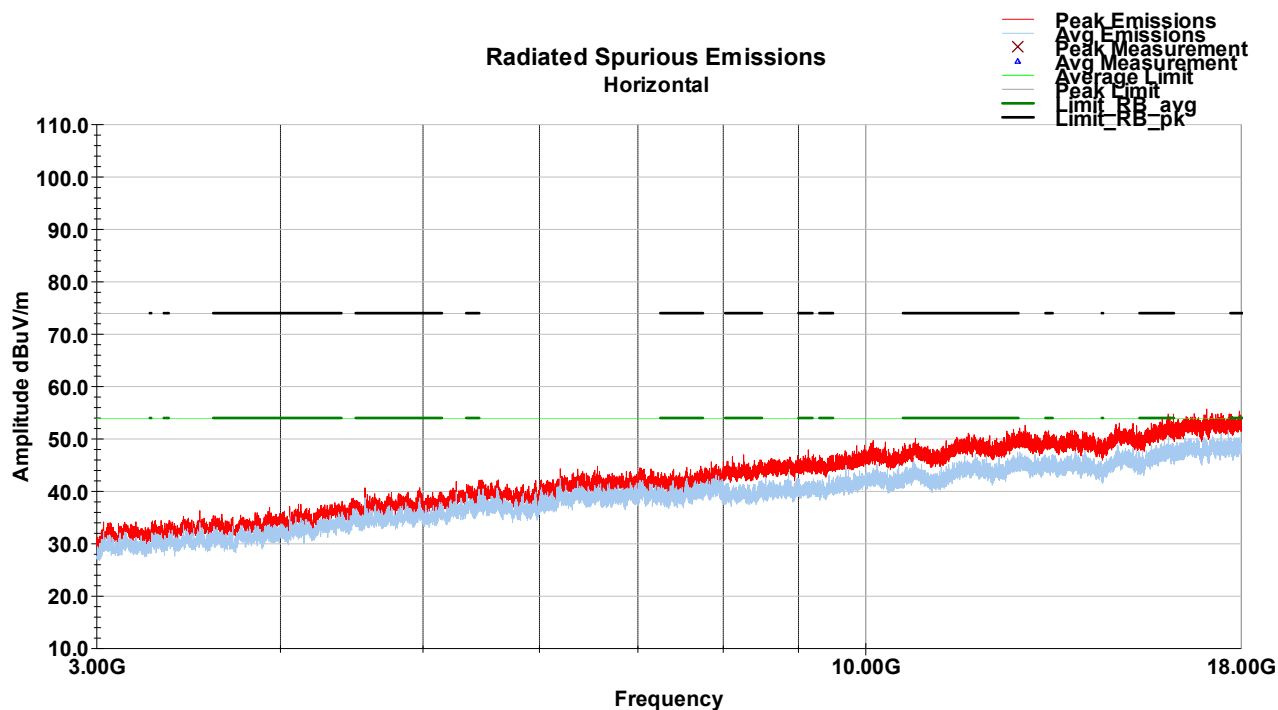
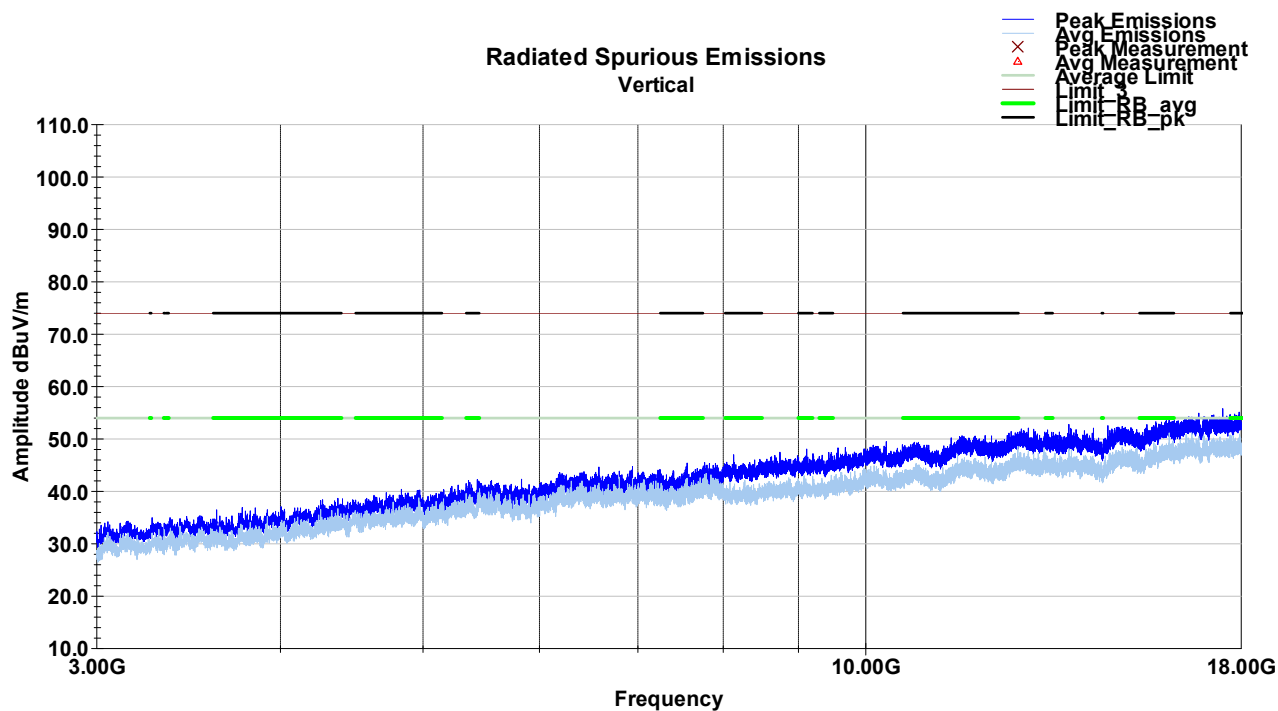
No discernible emissions detected from 1GHz – 3GHz.

BLE - 1-3 GHz – High Channel



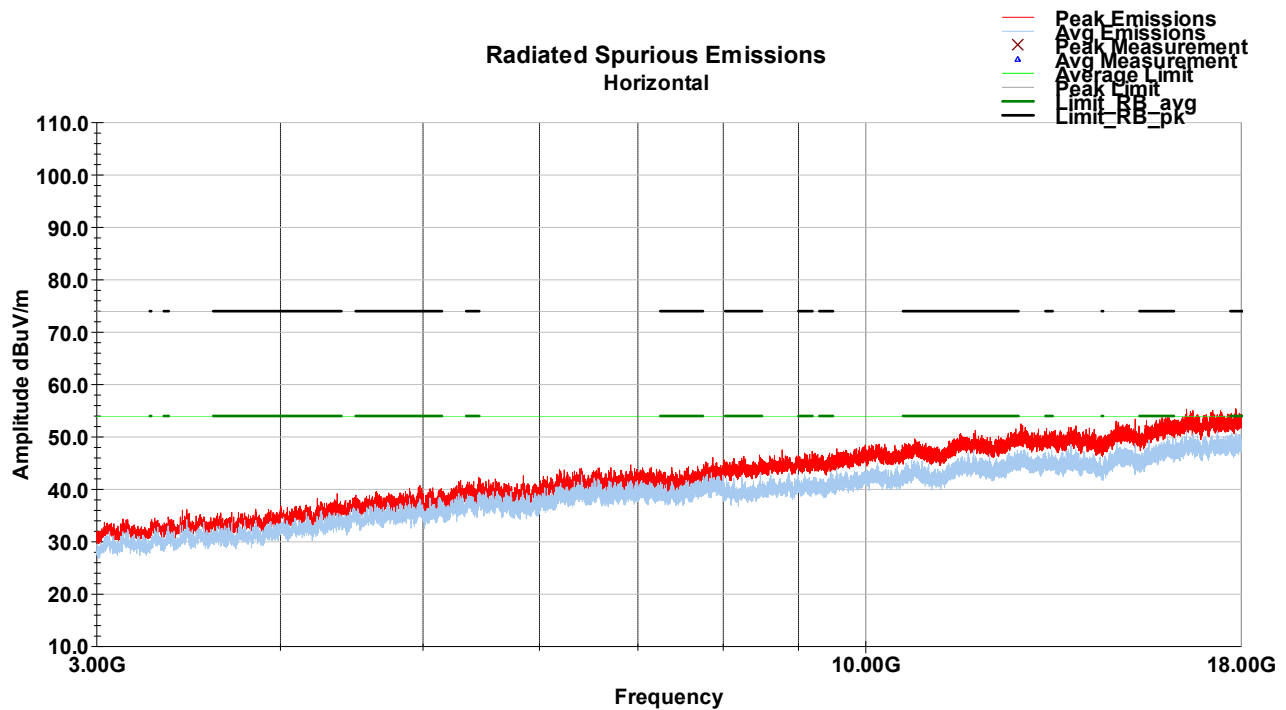
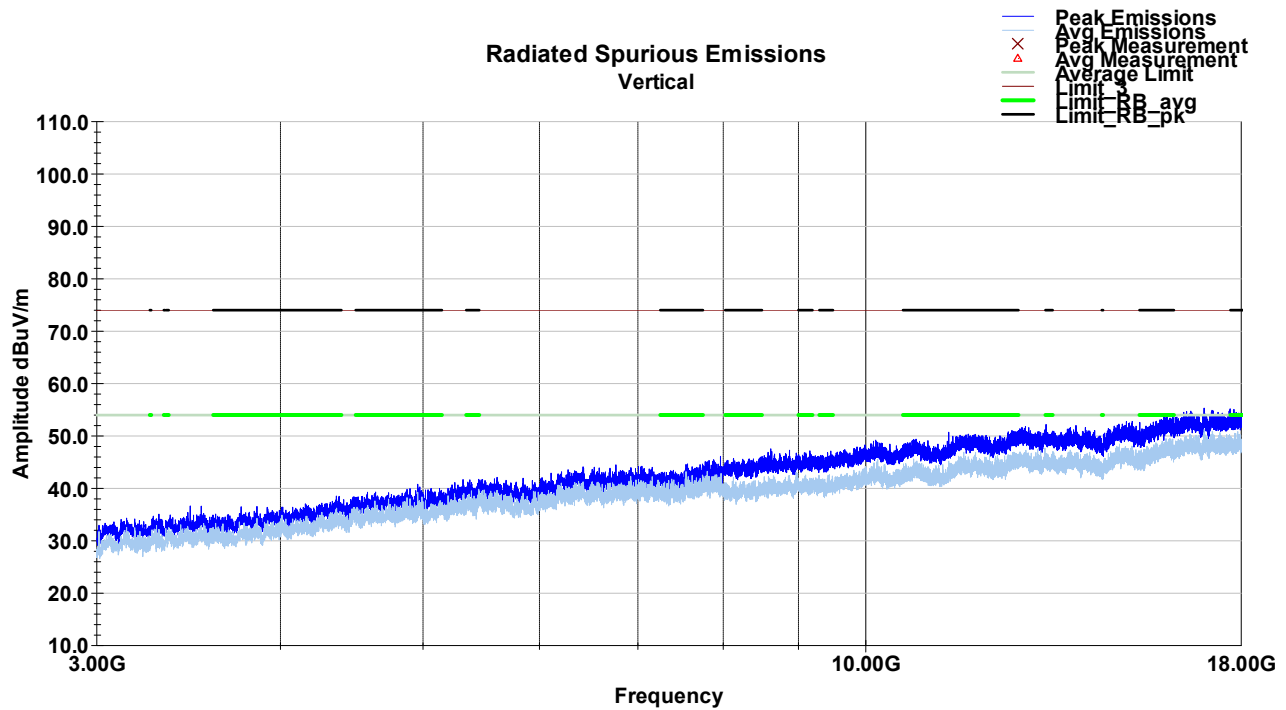
No discernible emissions detected from 1GHz – 3GHz.

BLE - 3-18 GHz – Low Channel



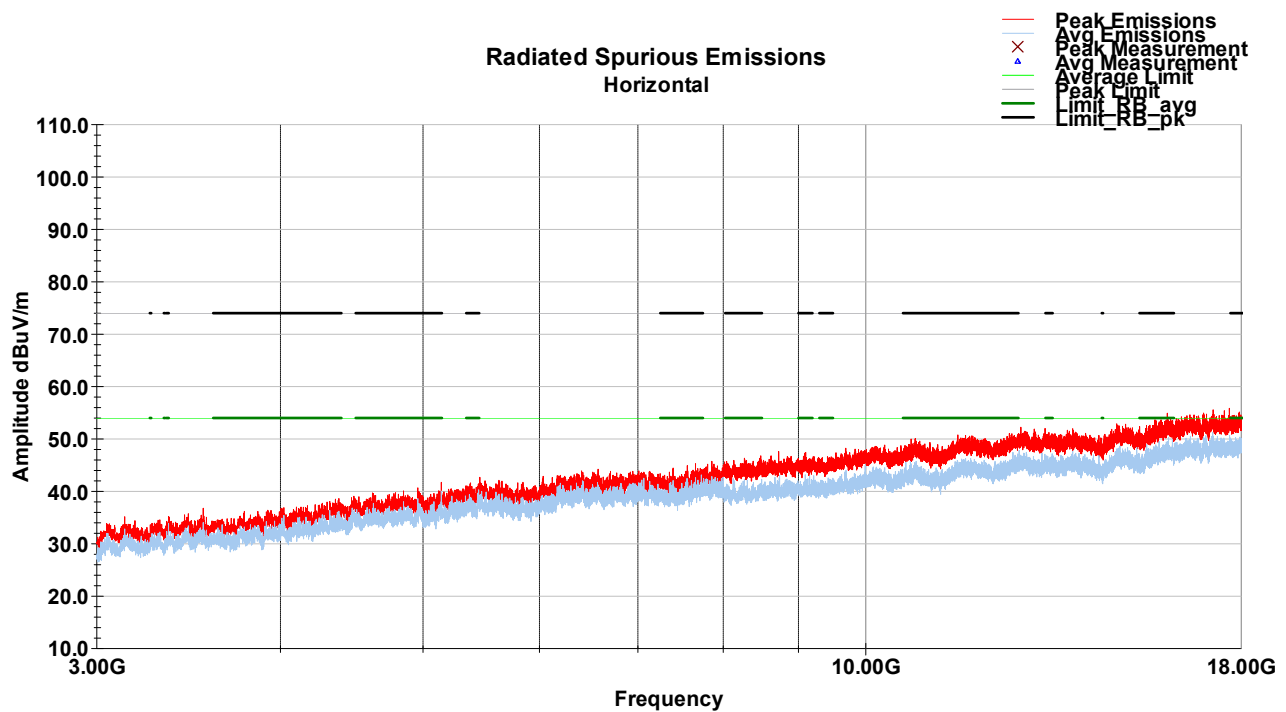
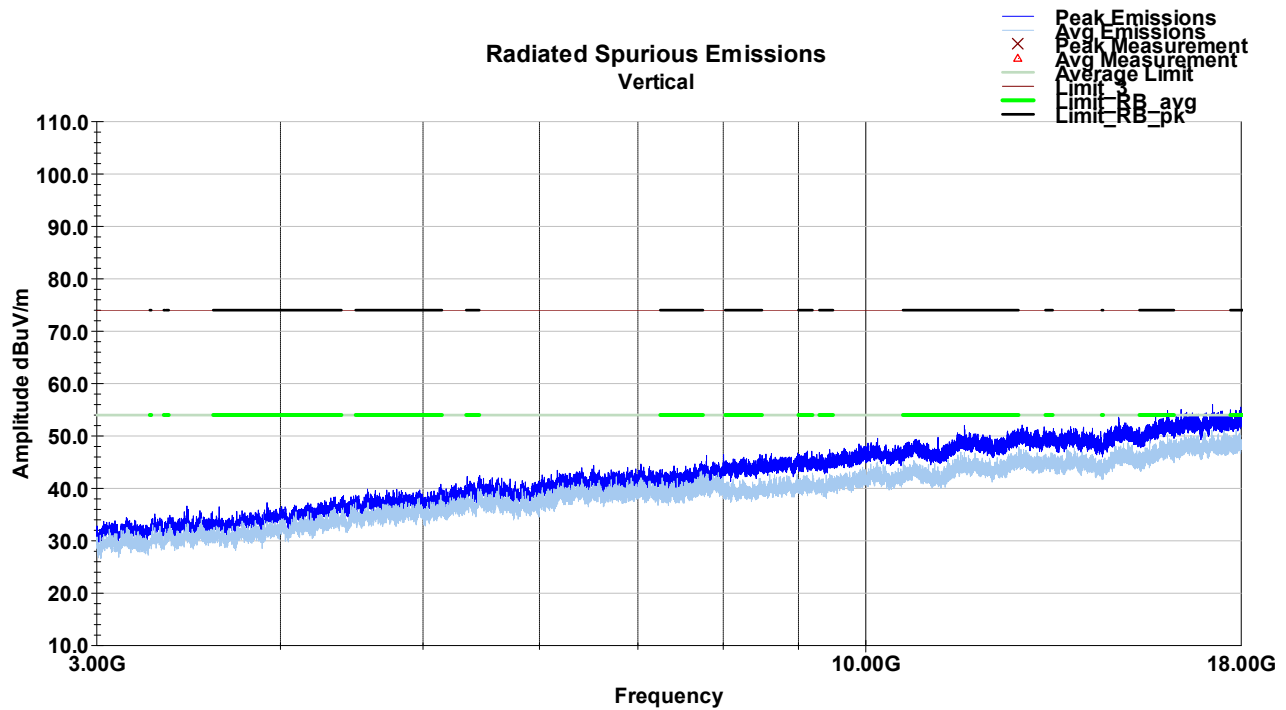
No discernible emissions detected from 3GHz – 18GHz.

BLE - 3-18 GHz – Mid Channel



No discernible emissions detected from 3GHz – 18GHz.

BLE - 3-18 GHz – High Channel



No discernible emissions detected from 3GHz – 18GHz.

6 Measurement Uncertainty

The measurement uncertainty figures are be calculated in accordance with TR 100 028-1 [2] and correspond to an expansion factor (coverage factor) $k = 2$ (which provide confidence levels of 95,45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

Parameter	Expanded Uncertainty for Normal k factor equal to 2	
	Required	Laboratory Actual
Radio Frequency	$\pm 1 \times 10^{-5}$	$\pm 9.8 \times 10^{-8}$
total RF power, conducted	± 1.5 dB	± 1.2 dB
RF power density, conducted	± 3 dB	± 0.7 dB
spurious emissions, conducted	± 3 dB	± 2.1 dB
all emissions, radiated	± 6 dB	± 4.8 dB
temperature	$\pm 1^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$
humidity	± 5 %	$\pm 3.5\%$
DC and low frequency voltages	± 3 %	$\pm 0.4\%$

7 Revision History

Revision Level	Description of changes	Revision Date
0	Initial release	30 May 2023
1	Updated FCC and IC ID's on Title page	18 September 2024
2	Updated ID's to match Aegex's ID's. Updated RSS 247 to issue 3	23 September 2024