

10. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209

RSS-GEN, Section 8.9 and 8.10.

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements.

The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. Below 1GHz and above 18GHz emissions, the channel with the highest output power was tested.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only.

KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

KDB 558074 D01 15.247 Meas Guidance v05r02

Use of a duty cycle correction factor (DCCF) is permitted for calculating average radiated field strength emission levels for an FHSS device in 15.247. This DCCF can be applied when the field strength limit (e.g., within a Government Restricted band) and the conditions specified in Section 15.35(c) can be satisfied. The average radiated field strength is calculated by subtracting the DCCF from the maximum radiated field strength level as determined through measurement. The maximum radiated field strength level represents the worst-case (maximum amplitude) RMS measurement of the emission(s) during continuous transmission (i.e., not including any time intervals during which the transmitter is off or is transmitting at a reduced power level). It is also acceptable to apply the DCCF to a measurement performed with a peak detector instead of the specified RMS power averaging detector. Note that Section 15.35(c) specifies that the DCCF shall represent the worst-case (greatest duty cycle) over any 100 msec transmission period.

Results

High Power Beamforming GFSK mode is set to maximum power per chain to cover both SISO and MIMO modes to complies with radiated spurious emissions limits in the restricted bands between 1GHz and 18GHz low/mid/high channel (except the band edge).

Spurious emissions for frequencies below 1GHz and above 18GHz were limited to the middle channel as preliminary testing indicated that changing the operating frequency had no significant impact on the emissions in those frequency bands.

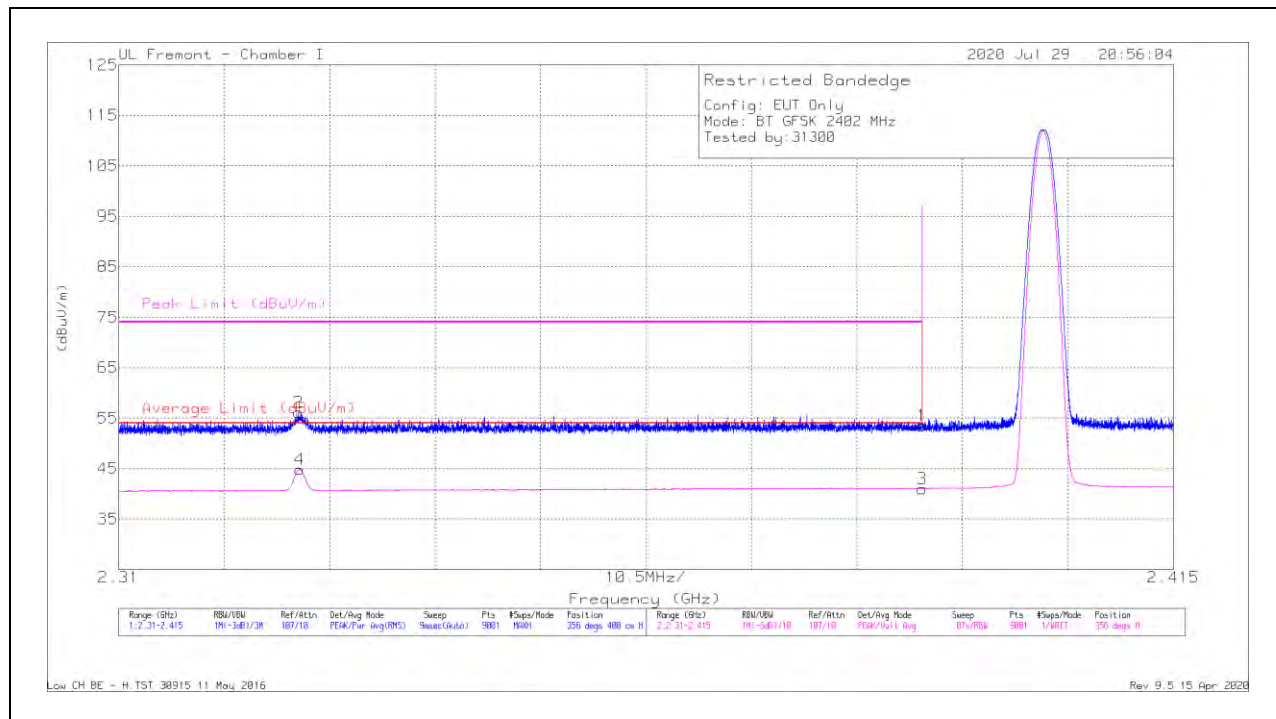
10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. HIGH POWER BASIC DATA RATE GFSK MODULATION

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

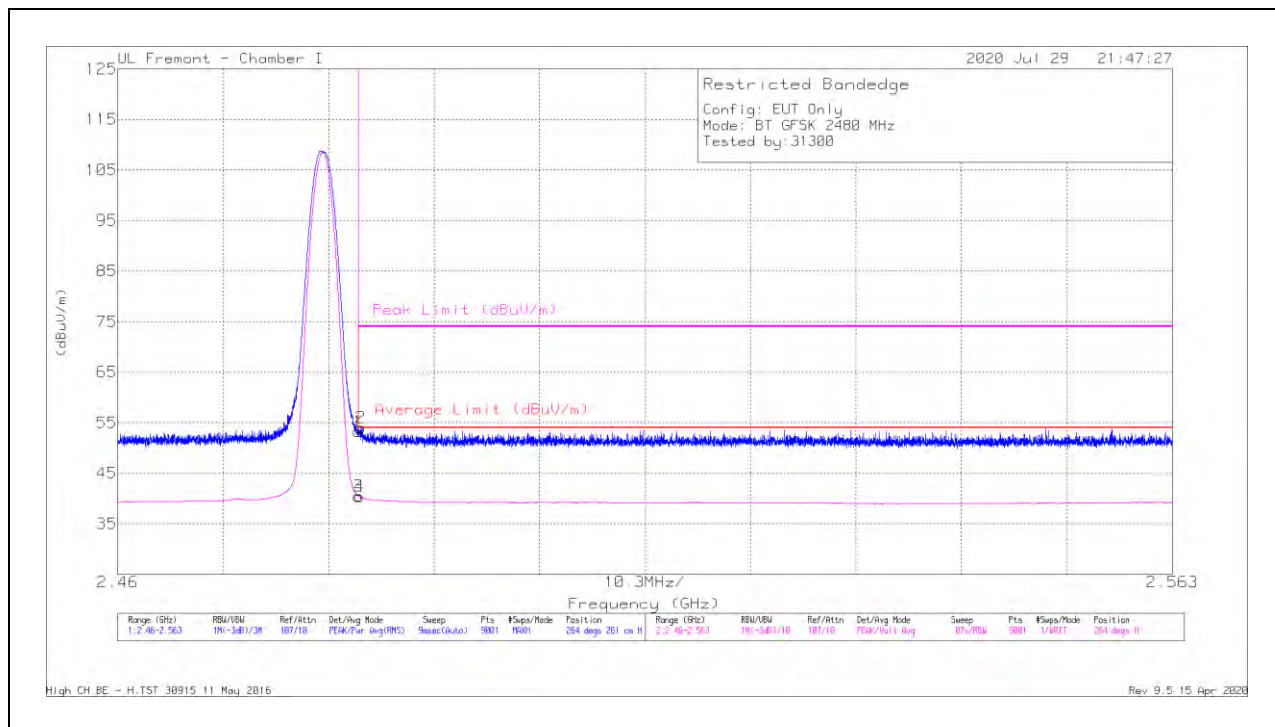
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T662 (dB/m)	Amp/Cb/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	37.52	Pk	31.9	-17.3	52.12	-	-	74	-21.88	358	253	V
2	* 2.38624	40.89	Pk	31.9	-17.3	55.49	-	-	74	-18.51	358	253	V
3	* 2.38999	25.63	VA1T	31.9	-17.3	40.23	54	-13.77	-	-	358	253	V
4	* 2.37461	25.79	VA1T	31.9	-17.3	40.39	54	-13.61	-	-	358	253	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
VA1T - FHSS: Linear Voltage Average $VB=1/Ton$ where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



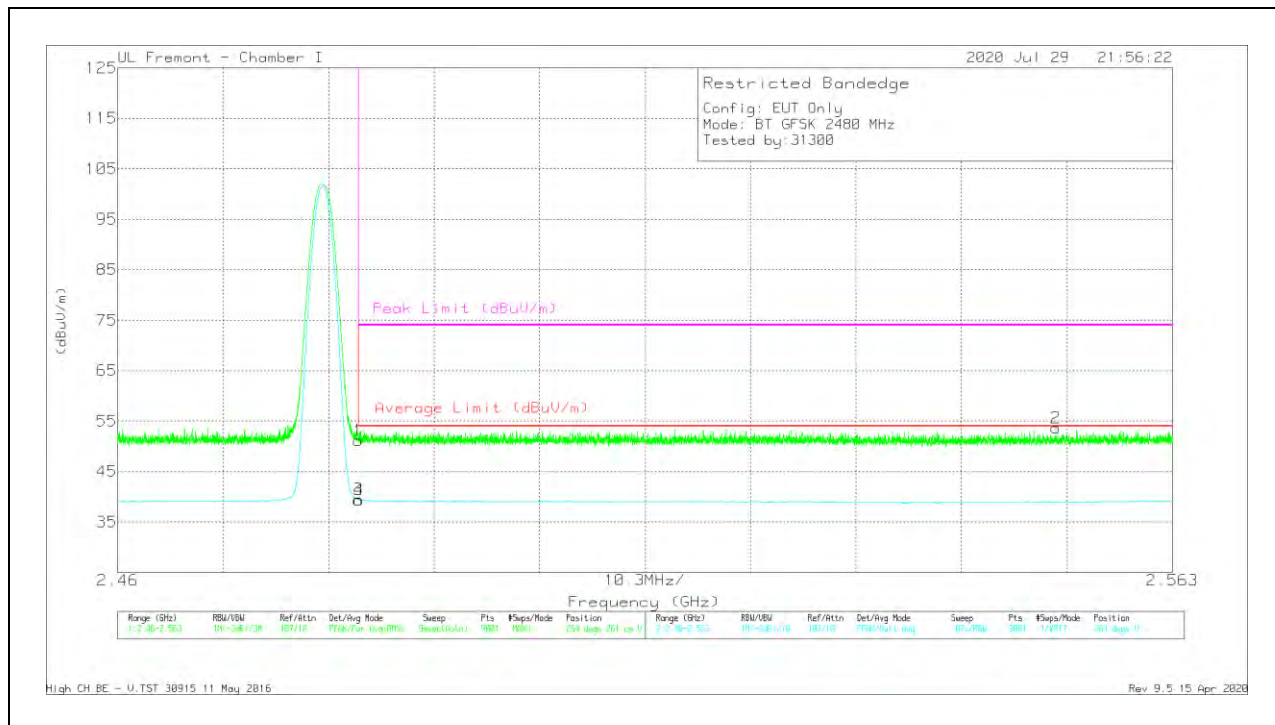
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T662 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	38.6	Pk	32.4	-17.7	53.3	-	-	74	-20.7	264	261	H
2	* 2.48371	39.26	Pk	32.4	-17.7	53.96	-	-	74	-20.04	264	261	H
3	* 2.48351	25.82	VA1T	32.4	-17.7	40.52	54	-13.48	-	-	264	261	H
4	* 2.48364	25.65	VA1T	32.4	-17.7	40.35	54	-13.65	-	-	264	261	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBUV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	36.51	Pk	32.4	-17.7	51.21	-	-	74	-22.79	264	261	V
2	2.55161	39.16	Pk	32.3	-17.8	53.66	-	-	74	-20.34	264	261	V
3	* 2.48351	24.73	VA1T	32.4	-17.7	39.43	54	-14.57	-	-	264	261	V
4	* 2.48353	24.72	VA1T	32.4	-17.7	39.42	54	-14.58	-	-	264	261	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

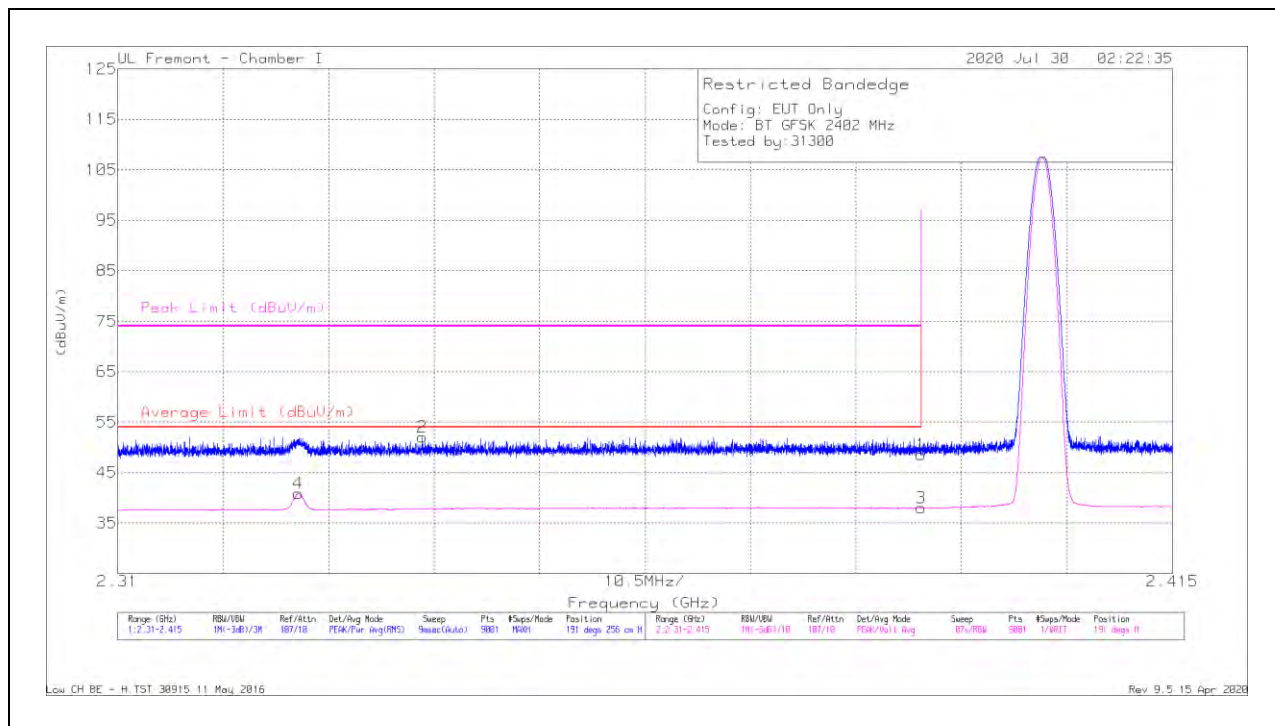
Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



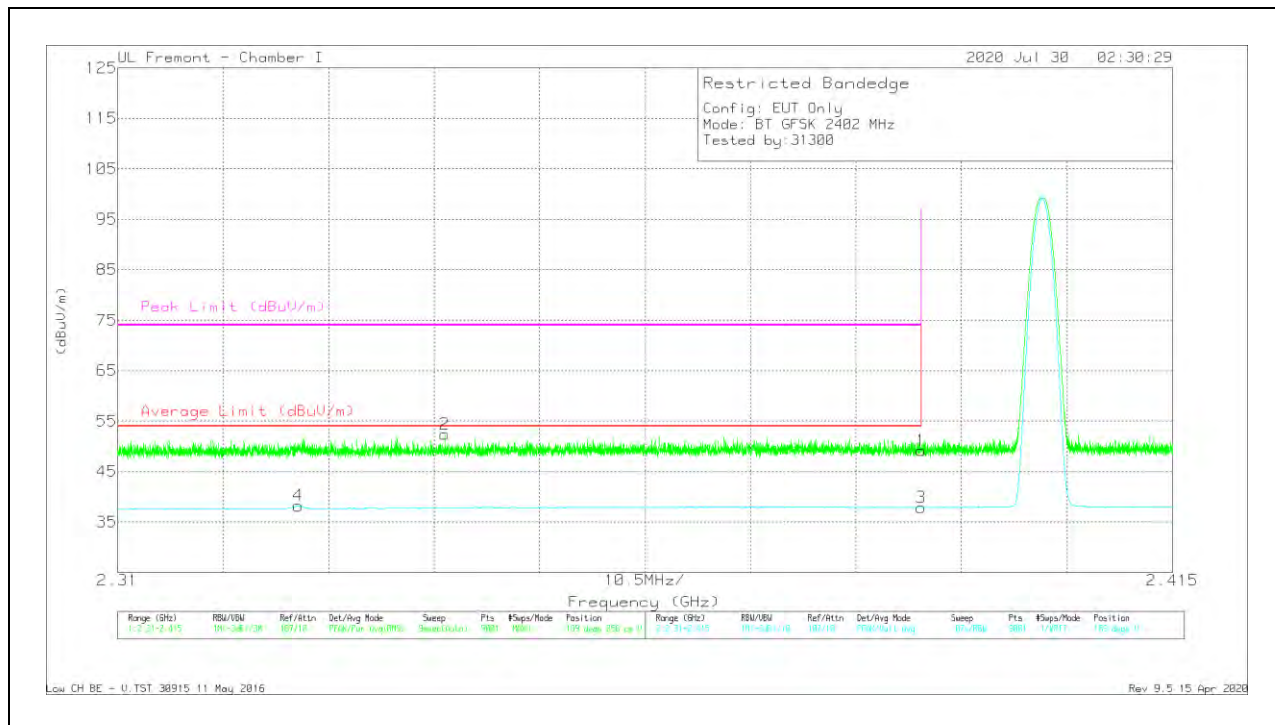
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	33.96	Pk	31.9	-17.3	48.56	-	-	74	-25.44	191	256	H
2	* 2.3403	37.66	Pk	31.6	-17.2	52.06	-	-	74	-21.94	191	256	H
3	* 2.38999	23.35	VA1T	31.9	-17.3	37.95	54	-16.05	-	-	191	256	H
4	* 2.32799	26.56	VA1T	31.5	-17.2	40.86	54	-13.14	-	-	191	256	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	34.58	Pk	31.9	-17.3	49.18	-	-	74	-24.82	189	256	V
2	* 2.34256	38.04	Pk	31.6	-17.2	52.44	-	-	74	-21.56	189	256	V
3	* 2.38999	23.27	VA1T	31.9	-17.3	37.87	54	-16.13	-	-	189	255	V
4	* 2.32798	23.89	VA1T	31.5	-17.2	38.19	54	-15.81	-	-	189	255	V

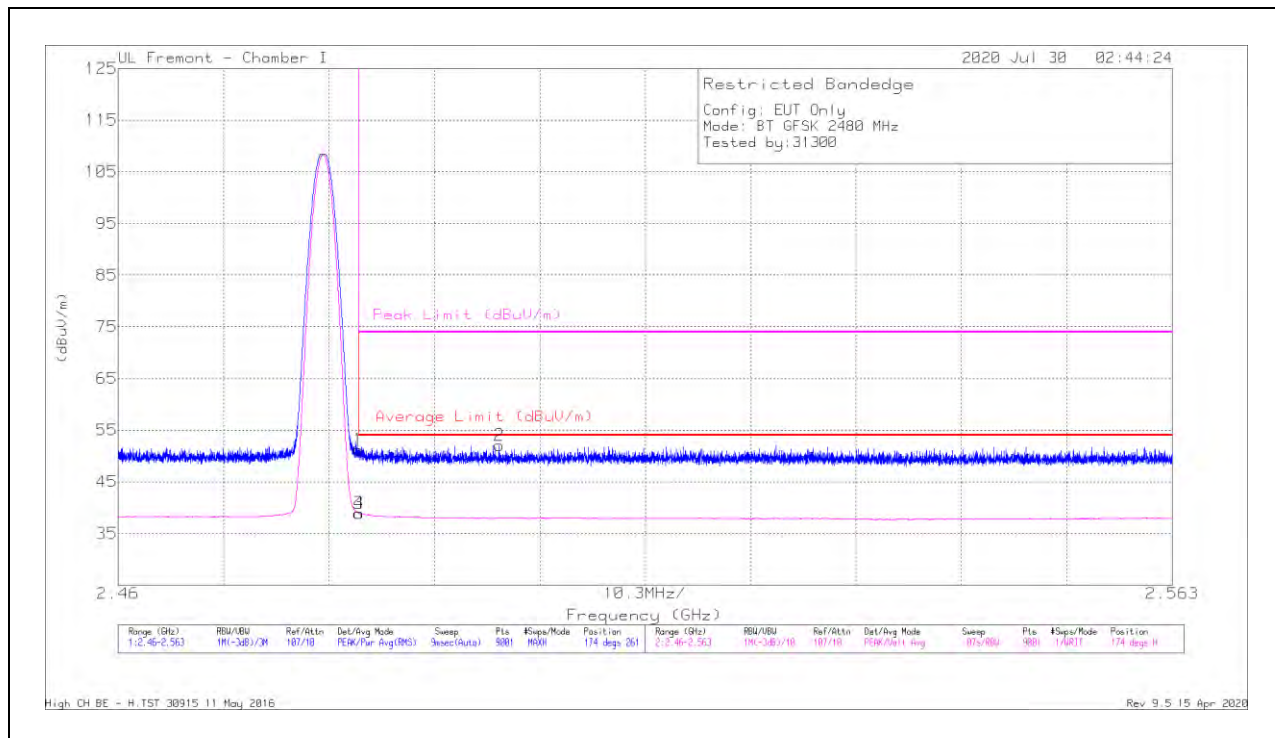
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



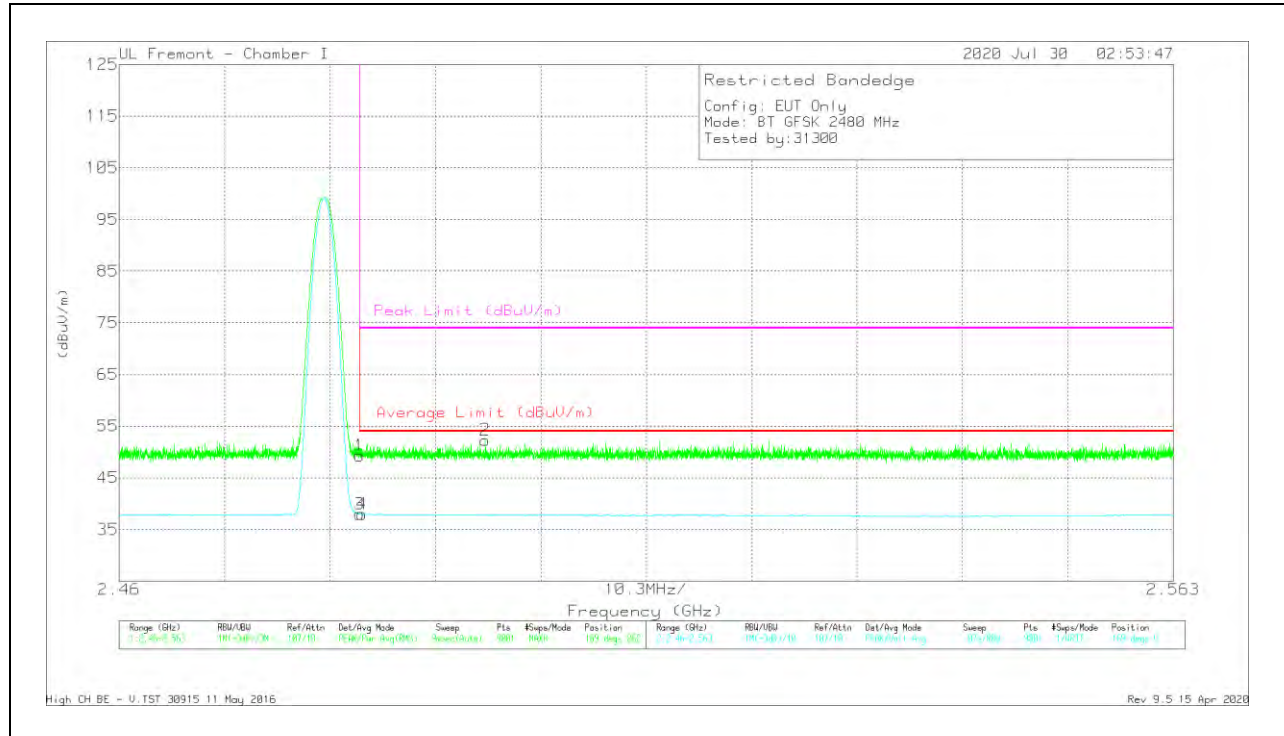
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dBm)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	36.53	Pk	32.4	-17.7	51.23	-	-	74	-22.77	174	261	H
2	* 2.49722	37.53	Pk	32.3	-17.8	52.03	-	-	74	-21.97	174	261	H
3	* 2.48351	24.21	VA1T	32.4	-17.7	38.91	54	-15.09	-	-	174	261	H
4	* 2.48353	24.2	VA1T	32.4	-17.7	38.9	54	-15.1	-	-	174	261	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average $V_B = 1/T_{on}$ where: T_{on} is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/CbI/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Dogs)	Height (cm)	Polarity
1	* 2.48351	34.6	Pk	32.4	-17.7	49.3	-	-	74	-24.7	169	262	V
2	* 2.49576	37.78	Pk	32.3	-17.8	52.28	-	-	74	-21.72	169	262	V
3	* 2.48351	23.28	VA1T	32.4	-17.7	37.98	54	-16.02	-	-	169	262	V
4	* 2.48371	23.26	VA1T	32.4	-17.7	37.96	54	-16.04	-	-	169	262	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - Peak detector

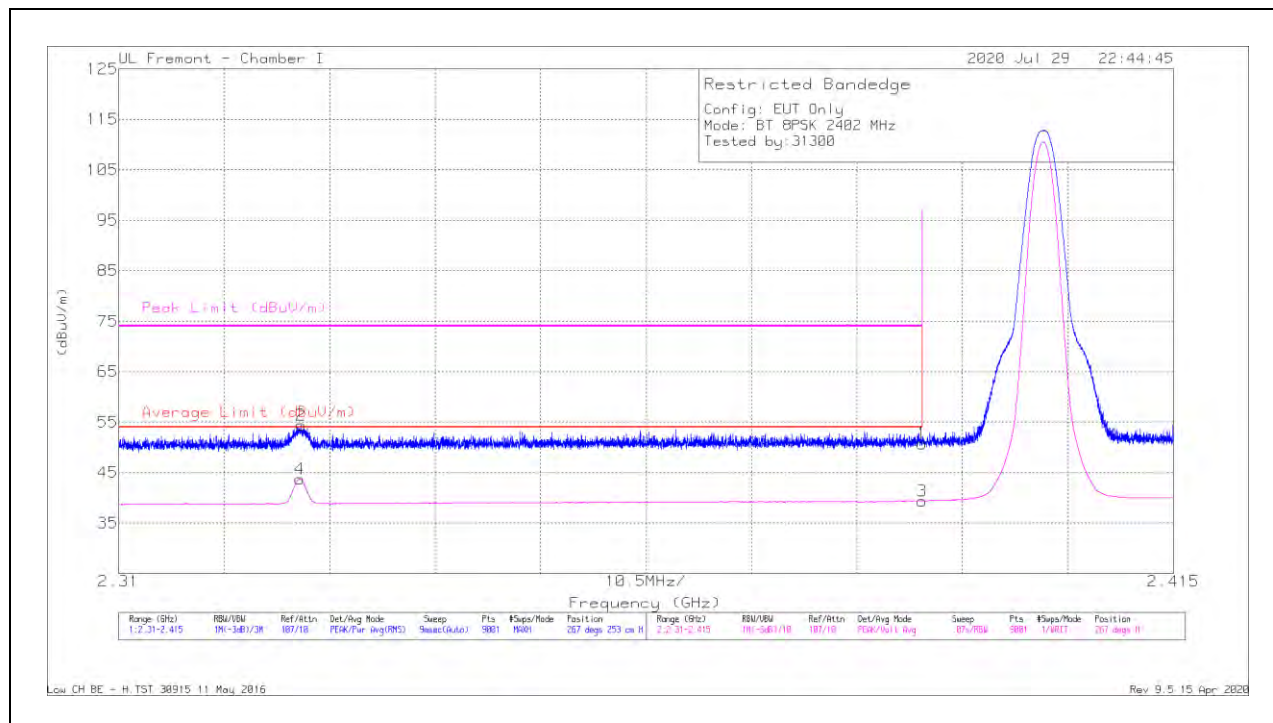
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

10.1.2. HIGH POWER ENHANCED DATA RATE 8PSK MODULATION

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



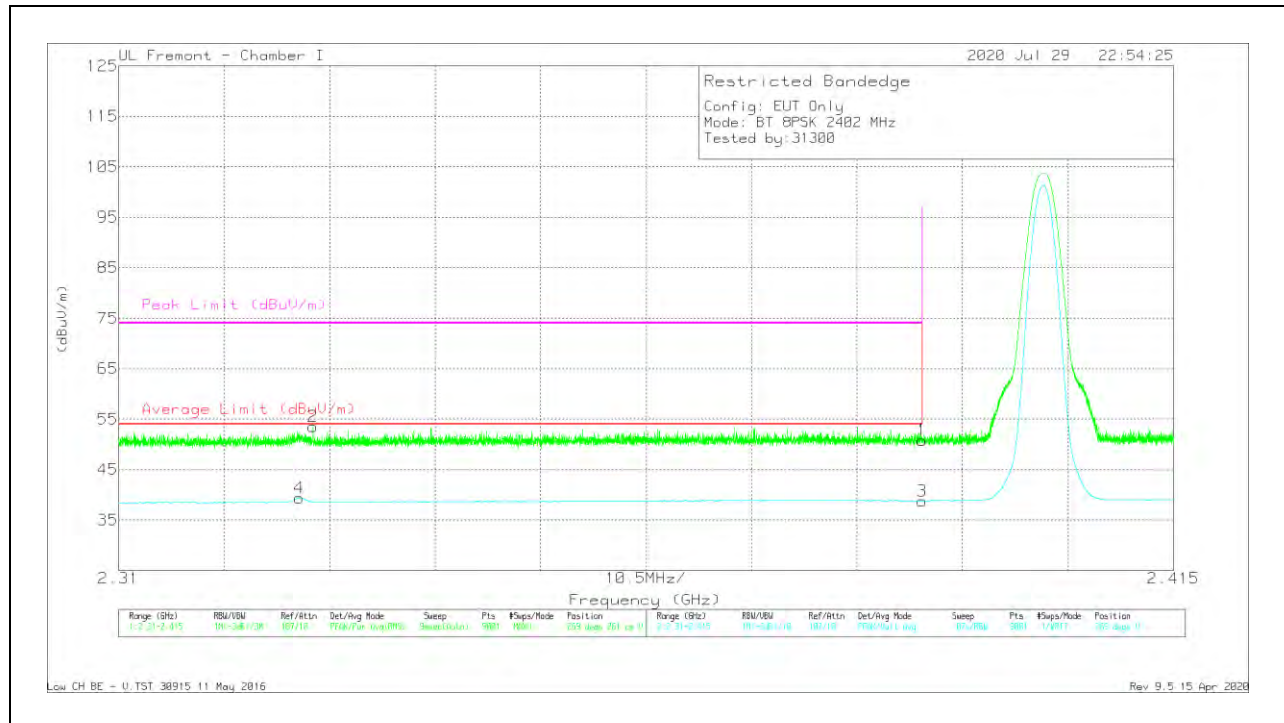
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	36.13	Pk	31.9	-17.3	50.73	-	-	74	-23.27	267	253	H
2	* 2.32817	40.14	Pk	31.5	-17.2	54.44	-	-	74	-19.56	267	253	H
3	* 2.38999	24.82	VA1T	31.9	-17.3	39.42	54	-14.58	-	-	267	253	H
4	* 2.32801	29.38	VA1T	31.5	-17.2	43.68	54	-10.32	-	-	267	253	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	36.23	Pk	31.9	-17.3	50.83	-	-	74	-23.17	269	261	V
2	* 2.32934	39.22	Pk	31.5	-17.2	53.52	-	-	74	-20.48	269	261	V
3	* 2.38999	24.18	VA1T	31.9	-17.3	38.78	54	-15.22	-	-	269	261	V
4	* 2.32799	25.09	VA1T	31.5	-17.2	39.39	54	-14.61	-	-	269	261	V

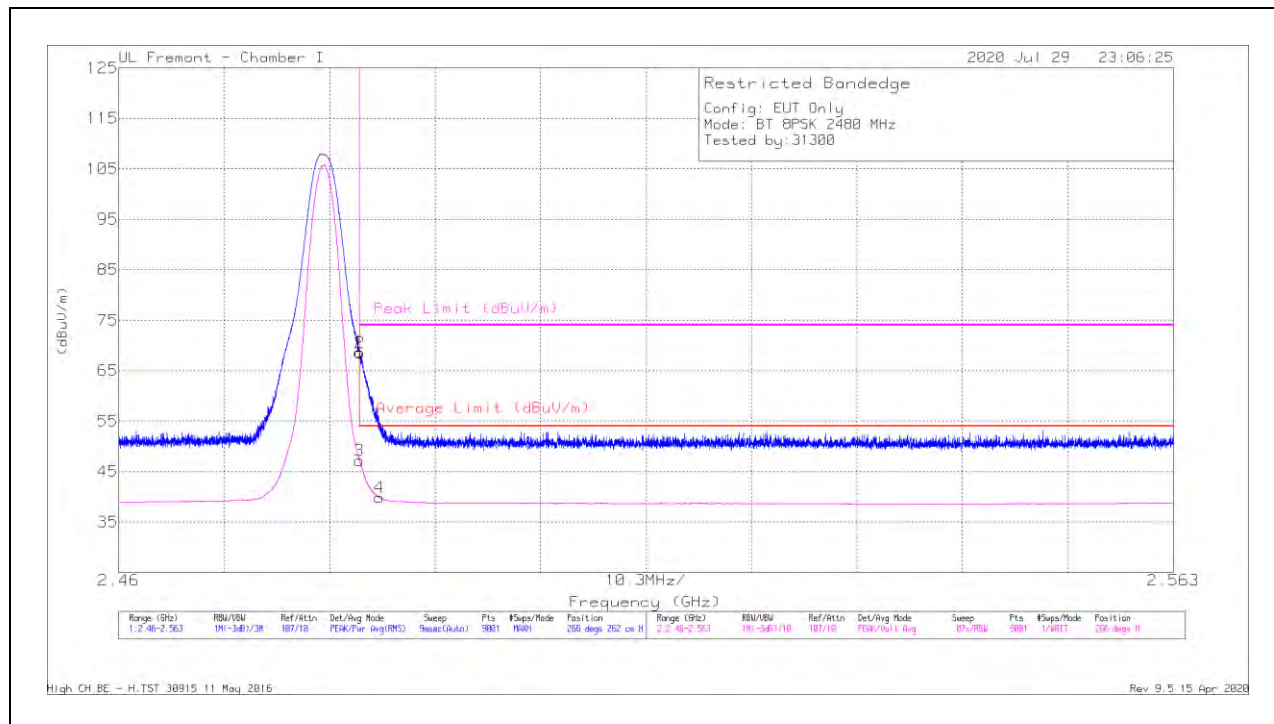
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



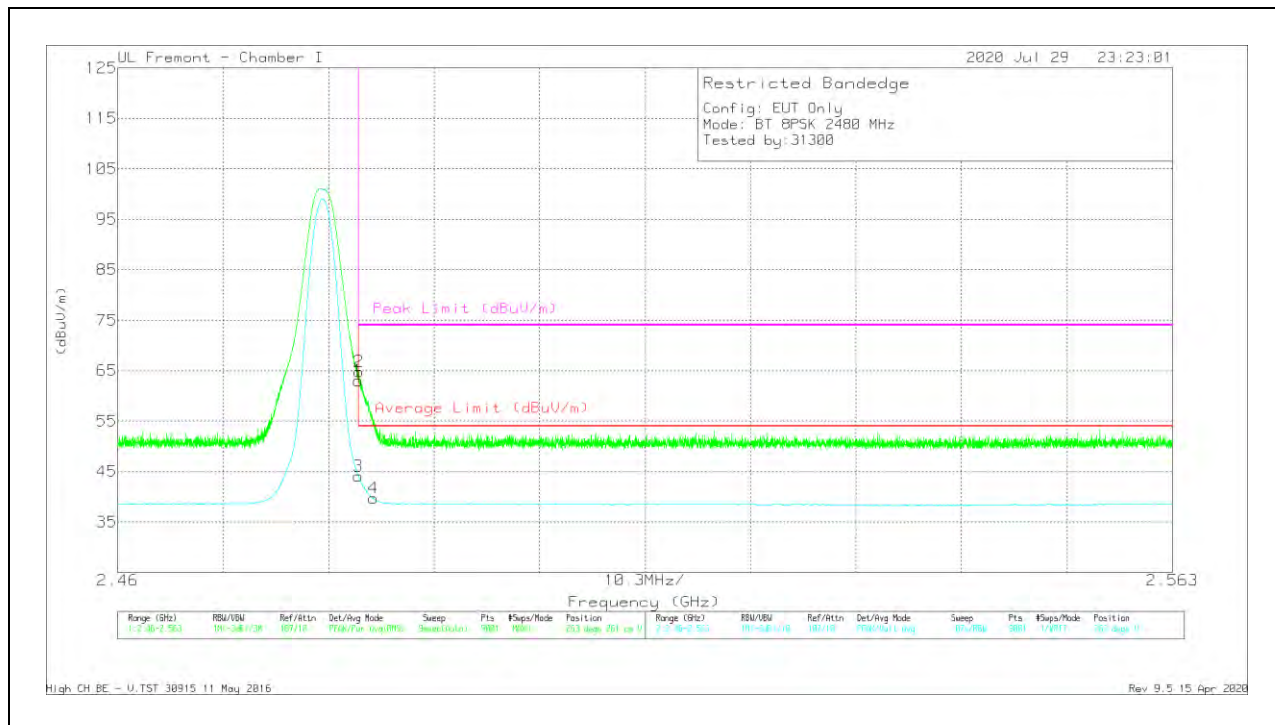
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	53.97	Pk	32.4	-17.7	68.67	-	-	74	-5.33	266	262	H
2	* 2.48356	53.86	Pk	32.4	-17.7	68.56	-	-	74	-5.44	266	262	H
3	* 2.48351	32.5	VA1T	32.4	-17.7	47.2	54	-6.8	-	-	266	262	H
4	* 2.48544	25.18	VA1T	32.4	-17.7	39.88	54	-14.12	-	-	266	262	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	48.32	Pk	32.4	-17.7	63.02	-	-	74	-10.98	263	261	V
2	* 2.48353	50.12	Pk	32.4	-17.7	64.82	-	-	74	-9.18	263	261	V
3	* 2.48351	29.35	VA1T	32.4	-17.7	44.05	54	-9.95	-	-	263	261	V
4	* 2.48494	24.99	VA1T	32.4	-17.7	39.69	54	-14.31	-	-	263	261	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

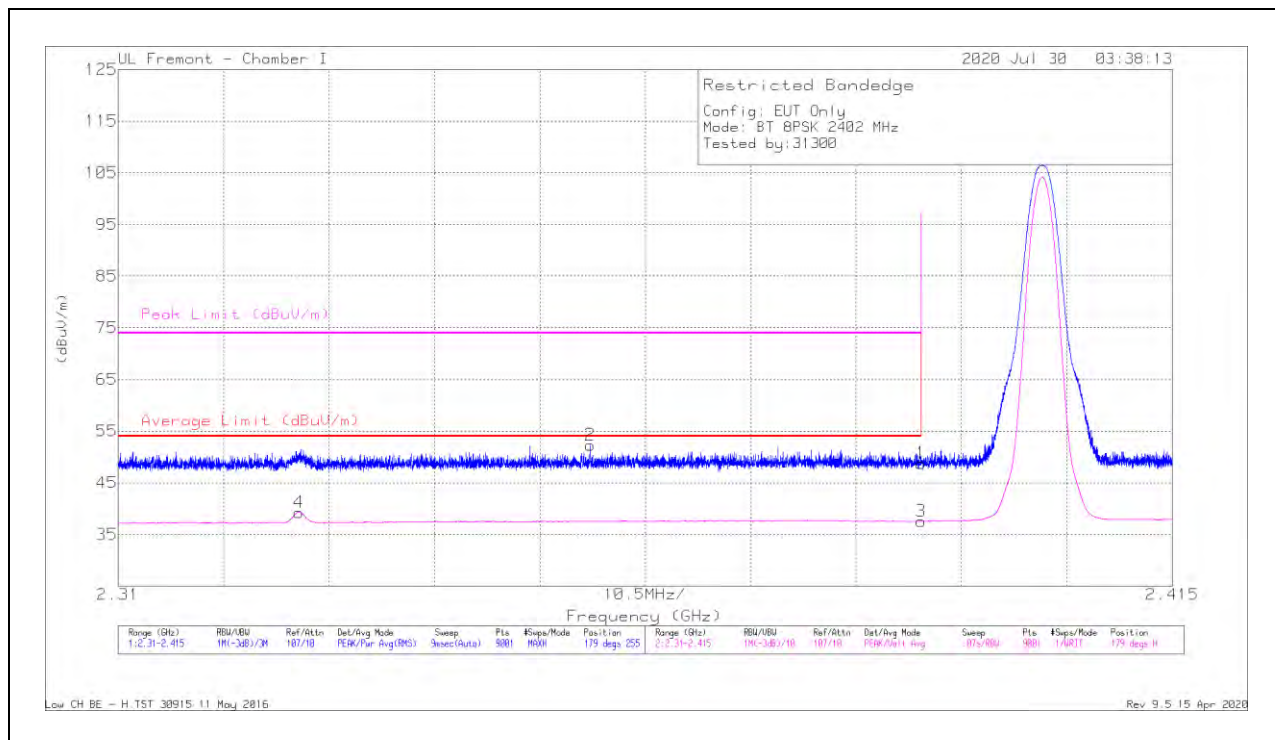
Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



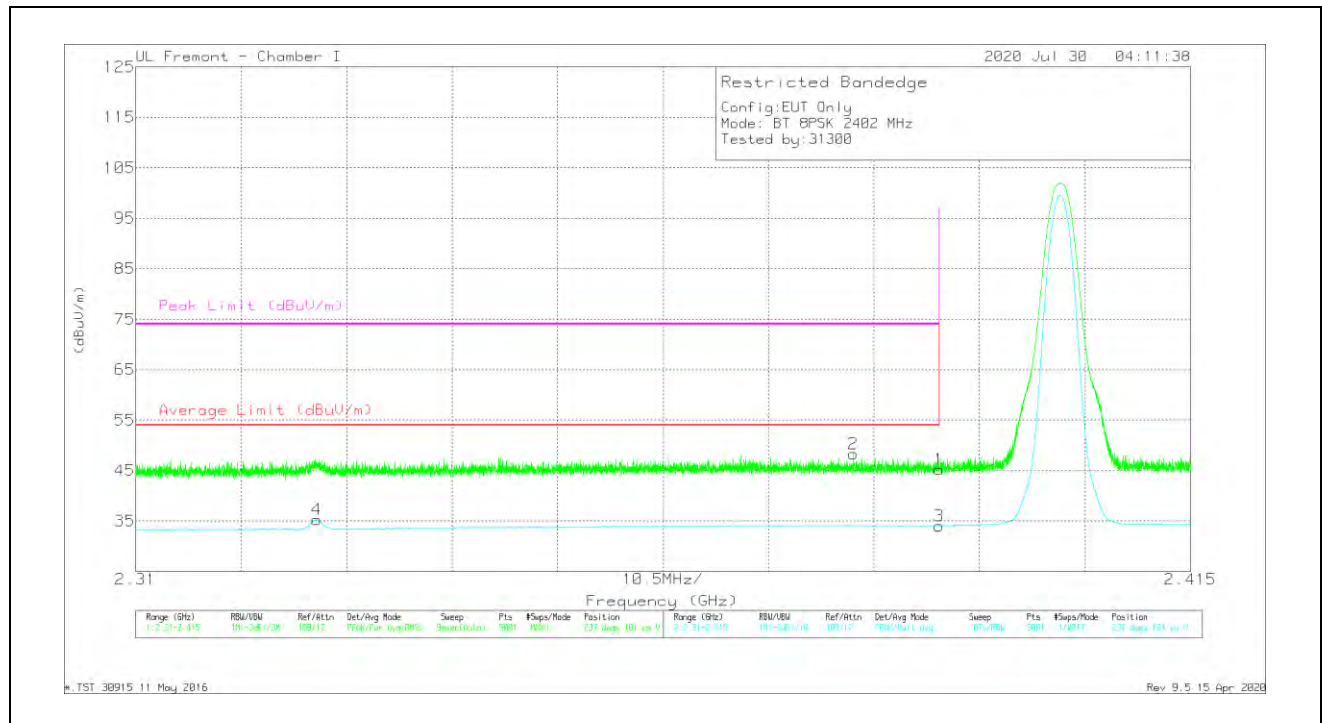
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Ftr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	34.16	Pk	31.9	-17.3	48.76	-	-	74	-25.24	179	255	H
2	* 2.35701	37.81	Pk	31.8	-17.3	52.31	-	-	74	-21.69	179	255	H
3	* 2.38999	22.95	VA1T	31.9	-17.3	37.55	54	-16.45	-	-	179	255	H
4	* 2.32799	24.96	VA1T	31.5	-17.2	39.26	54	-14.74	-	-	179	255	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T62 (dB/m)	Amp/Cbl/Ftr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	31.55	Pk	31.9	-18.2	45.25	-	-	74	-28.75	237	101	V
2	* 2.38144	34.57	Pk	31.9	-18.2	48.27	-	-	74	-25.73	237	101	V
3	* 2.38999	20.32	VA1T	31.9	-18.2	34.02	54	-19.98	-	-	237	101	V
4	* 2.32805	21.83	VA1T	31.5	-18.1	35.23	54	-18.77	-	-	237	101	V

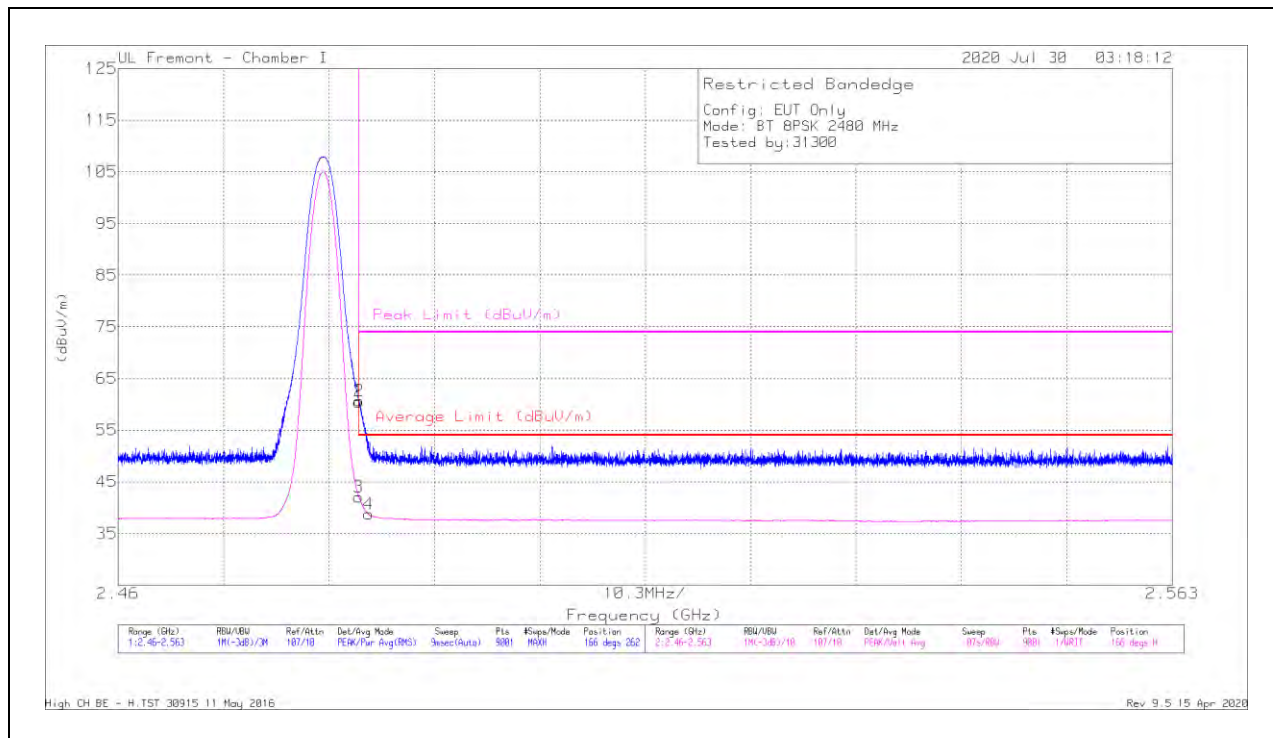
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



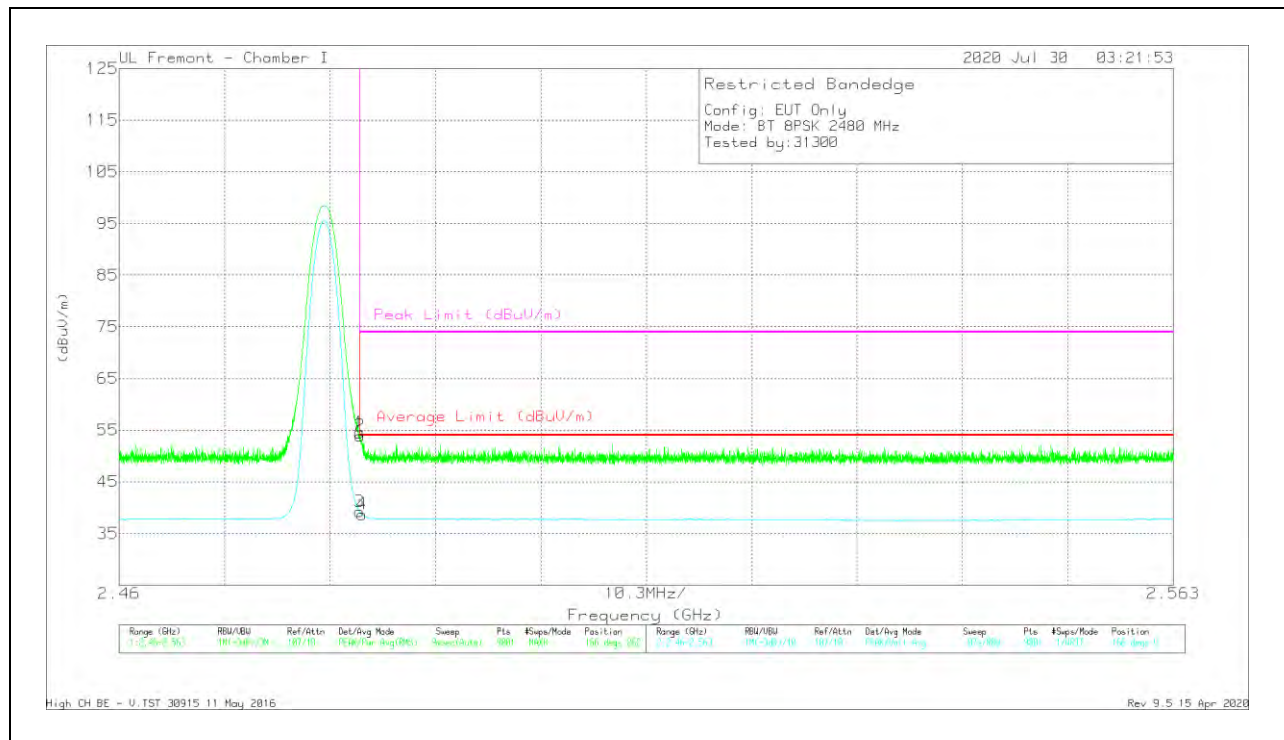
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dBm)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	45.78	Pk	32.4	-17.7	60.48	-	-	74	-13.52	166	262	H
2	* 2.48355	45.97	Pk	32.4	-17.7	60.67	-	-	74	-13.33	166	262	H
3	* 2.48351	27.37	VA1T	32.4	-17.7	42.07	54	-11.93	-	-	166	262	H
4	* 2.48446	24.03	VA1T	32.4	-17.7	38.73	54	-15.27	-	-	166	262	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/FitriPa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Dogs)	Height (cm)	Polarity
1	* 2.48351	39.84	Pk	32.4	-17.7	54.54	-	-	74	-19.46	166	262	V
2	* 2.48355	39.2	Pk	32.4	-17.7	53.9	-	-	74	-20.1	166	262	V
3	* 2.48351	24.52	VA1T	32.4	-17.7	39.22	54	-14.78	-	-	166	262	V
4	* 2.48375	23.99	VA1T	32.4	-17.7	38.69	54	-15.31	-	-	166	262	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

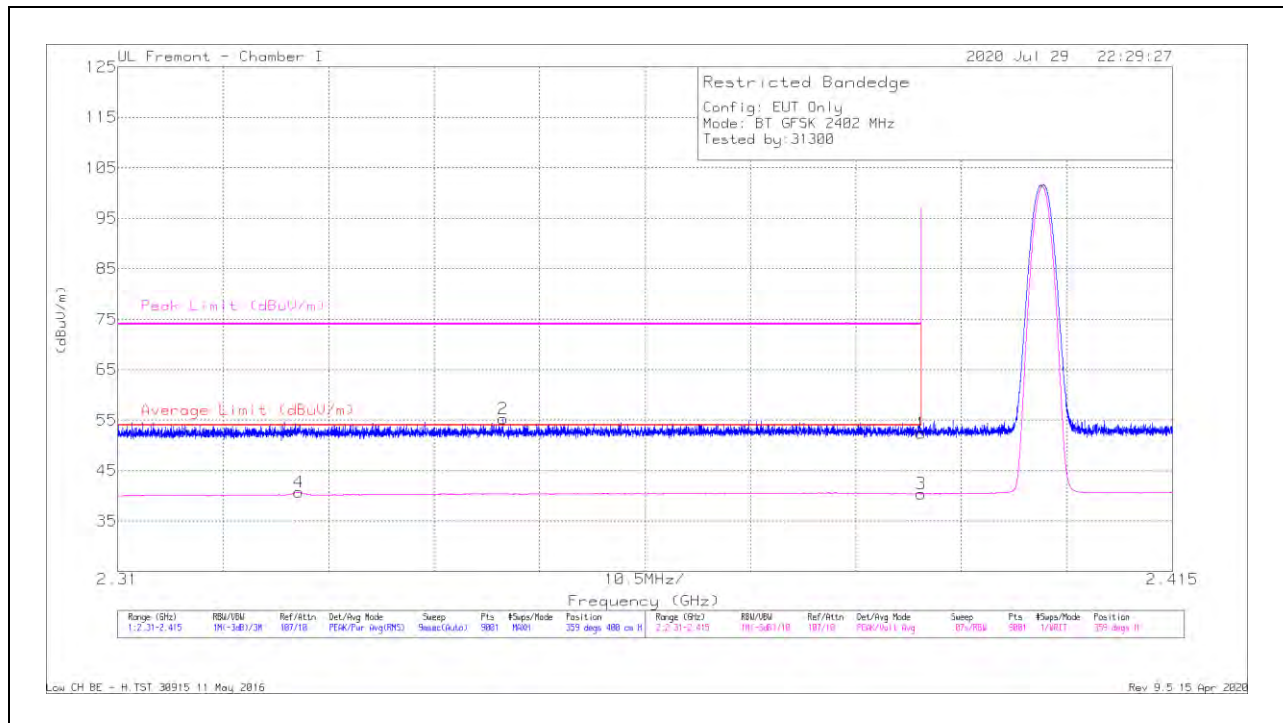
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

10.1.3. LOW POWER BASIC DATA RATE GFSK MODULATION

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



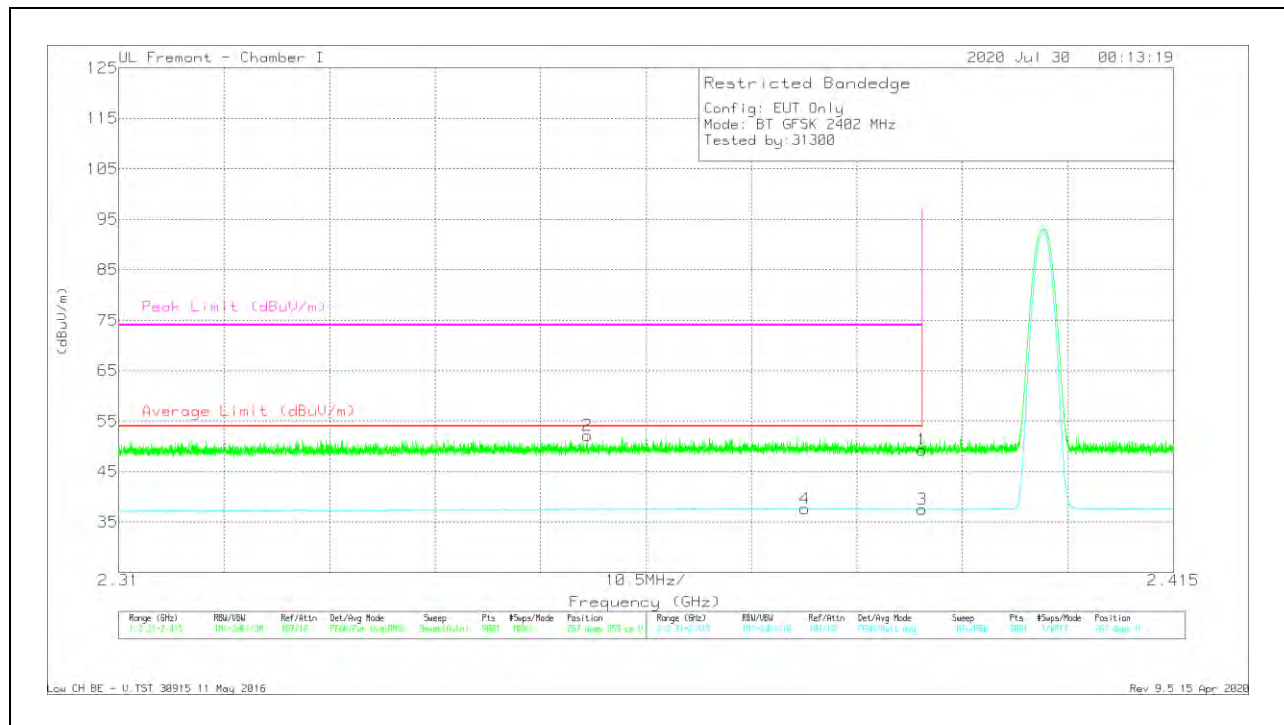
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degr)	Height (cm)	Polarity
1	* 2.38999	37.78	Pk	31.9	-17.3	52.38	-	-	74	-21.62	359	400	H
2	* 2.34836	40.81	Pk	31.7	-17.2	55.31	-	-	74	-18.69	359	400	H
3	* 2.38999	25.82	VA1T	31.9	-17.3	40.42	54	-13.58	-	-	359	400	H
4	* 2.32801	26.38	VA1T	31.5	-17.2	40.68	54	-13.32	-	-	359	400	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	34.69	Pk	31.9	-17.3	49.29	-	-	74	-24.71	267	259	V
2	* 2.35663	37.62	Pk	31.8	-17.3	52.12	-	-	74	-21.88	267	259	V
3	* 2.38999	22.88	VA1T	31.9	-17.3	37.48	54	-16.52	-	-	267	259	V
4	* 2.37832	23.05	VA1T	31.9	-17.3	37.65	54	-16.35	-	-	267	259	V

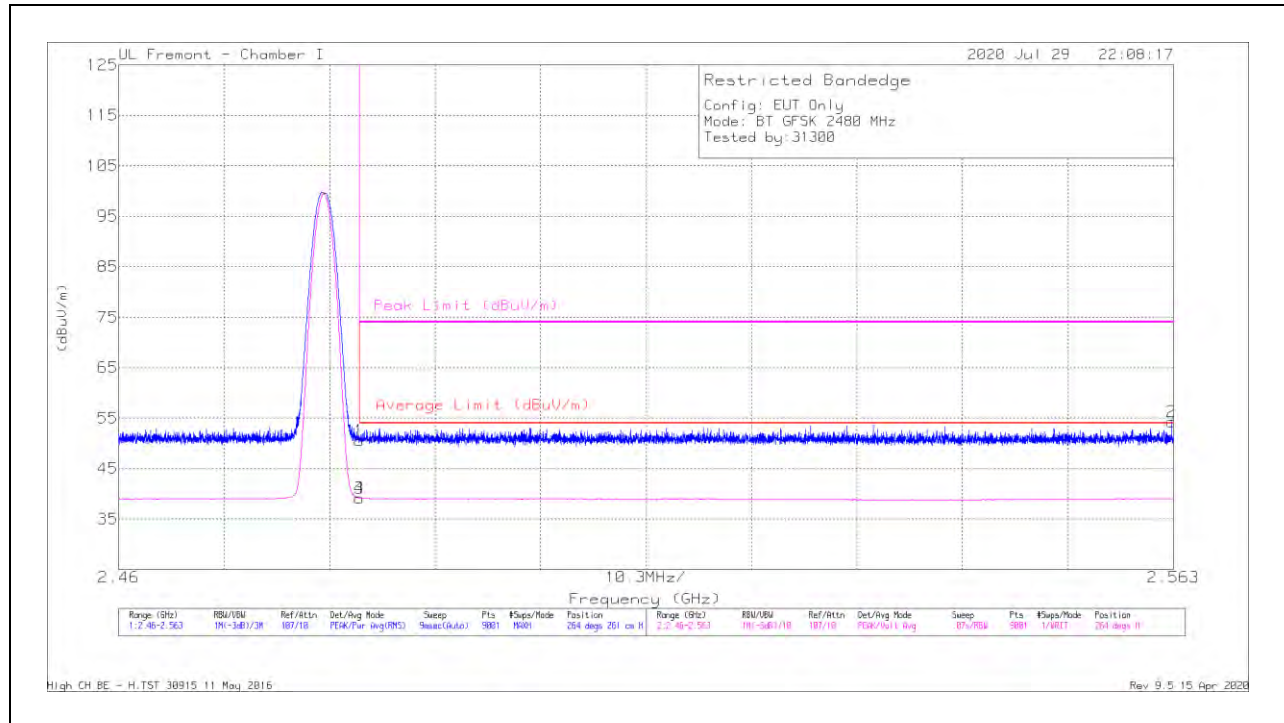
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



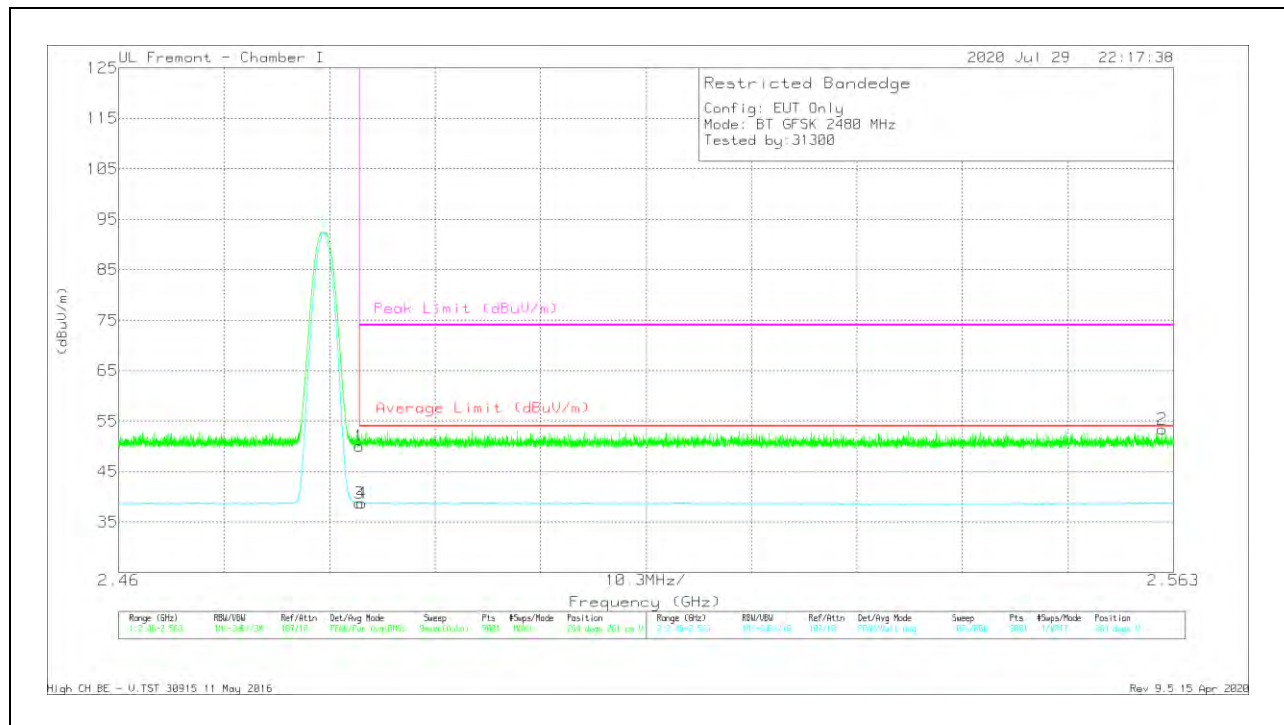
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	35.87	Pk	32.4	-17.7	50.57	-	-	74	-23.43	264	261	H
2	2.5628	39.8	Pk	32.3	-17.8	54.3	-	-	74	-19.7	264	261	H
3	* 2.48351	24.46	VA1T	32.4	-17.7	39.16	54	-14.84	-	-	264	261	H
4	* 2.48352	24.46	VA1T	32.4	-17.7	39.16	54	-14.84	-	-	264	261	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	35.33	Pk	32.4	-17.7	50.03	-	-	74	-23.97	264	261	V
2	2.5619	38.87	Pk	32.3	-17.8	53.37	-	-	74	-20.63	264	261	V
3	* 2.48351	24.06	VA1T	32.4	-17.7	38.76	54	-15.24	-	-	264	261	V
4	* 2.48375	24.09	VA1T	32.4	-17.7	38.79	54	-15.21	-	-	264	261	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

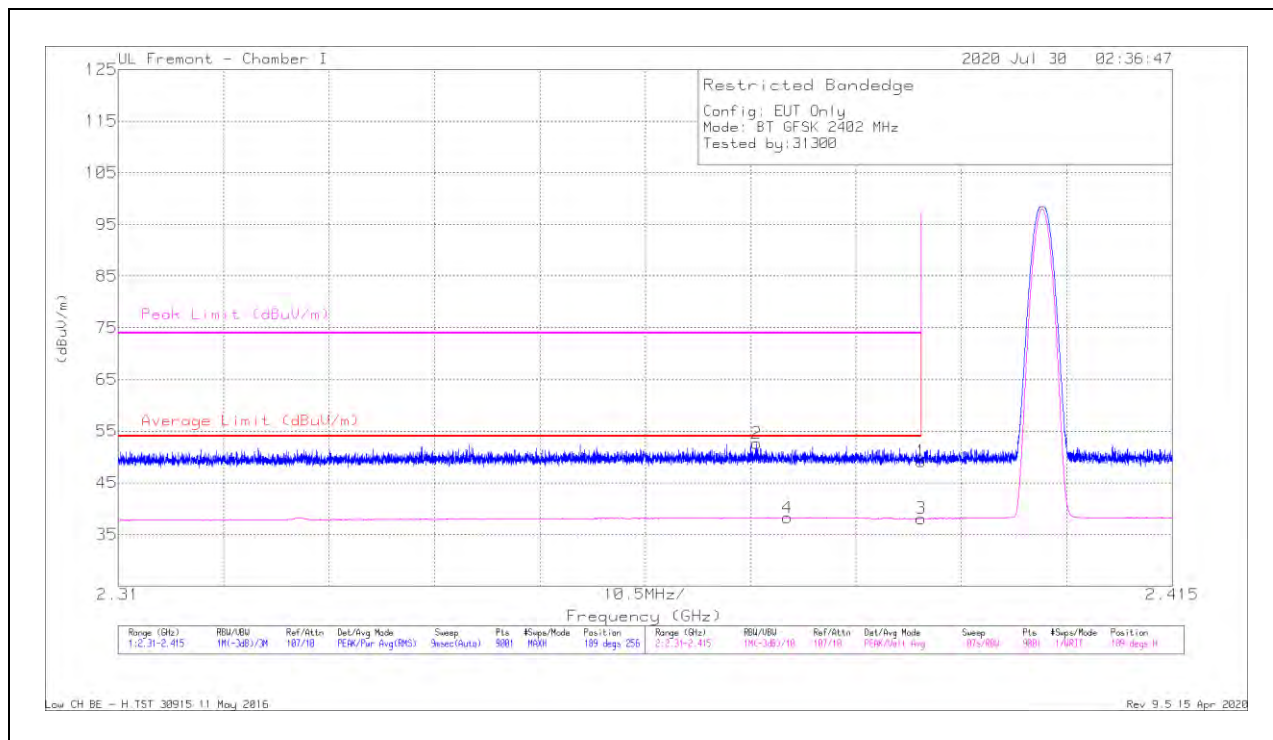
PK - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



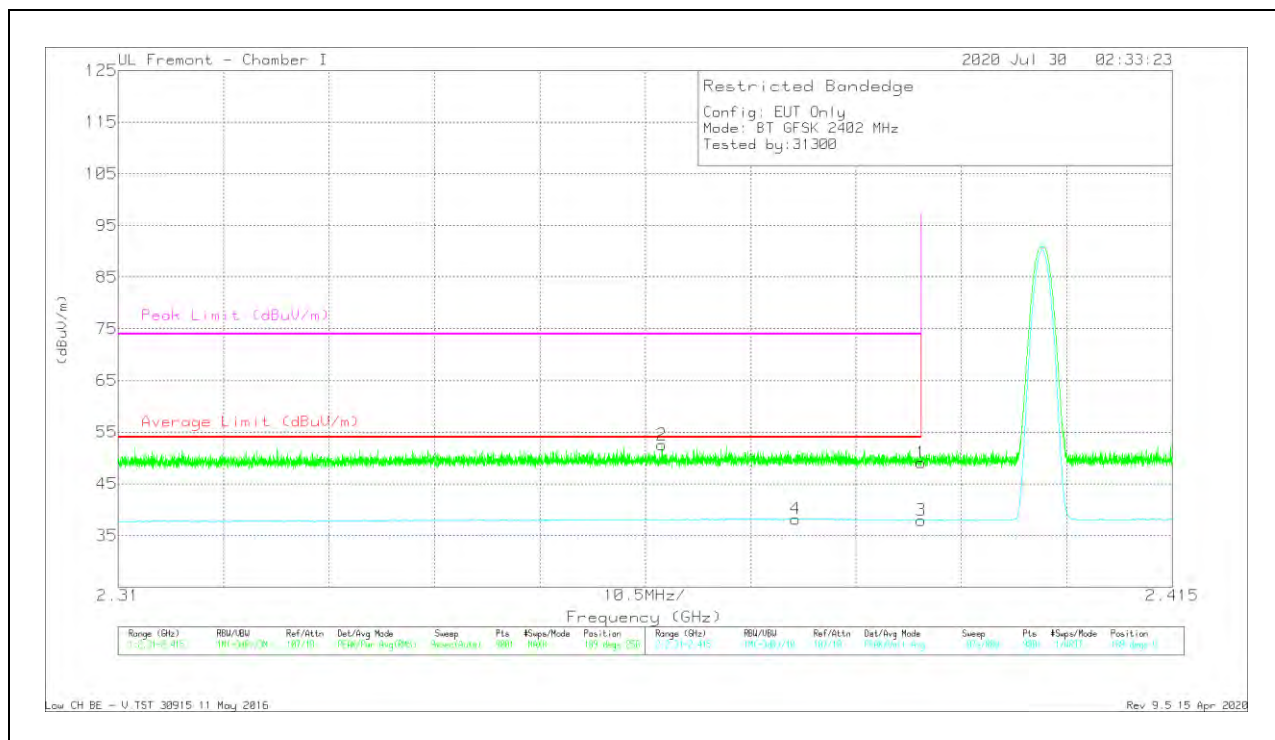
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Ftr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	34.58	Pk	31.9	-17.3	49.18	-	-	74	-24.82	189	256	H
2	* 2.37361	38.04	Pk	31.9	-17.3	52.64	-	-	74	-21.36	189	256	H
3	* 2.38999	23.47	VA1T	31.9	-17.3	38.07	54	-15.93	-	-	189	255	H
4	* 2.37664	23.64	VA1T	31.9	-17.3	38.24	54	-15.76	-	-	189	255	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/FiltriPa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degr)	Height (cm)	Polarity
1	* 2.38999	34.48	Pk	31.9	-17.3	49.08	-	-	74	-24.92	189	256	V
2	* 2.36417	38.02	Pk	31.8	-17.3	52.52	-	-	74	-21.48	189	256	V
3	* 2.38999	23.33	VA1T	31.9	-17.3	37.93	54	-16.07	-	-	189	255	V
4	* 2.37747	23.59	VA1T	31.9	-17.3	38.19	54	-15.81	-	-	189	255	V

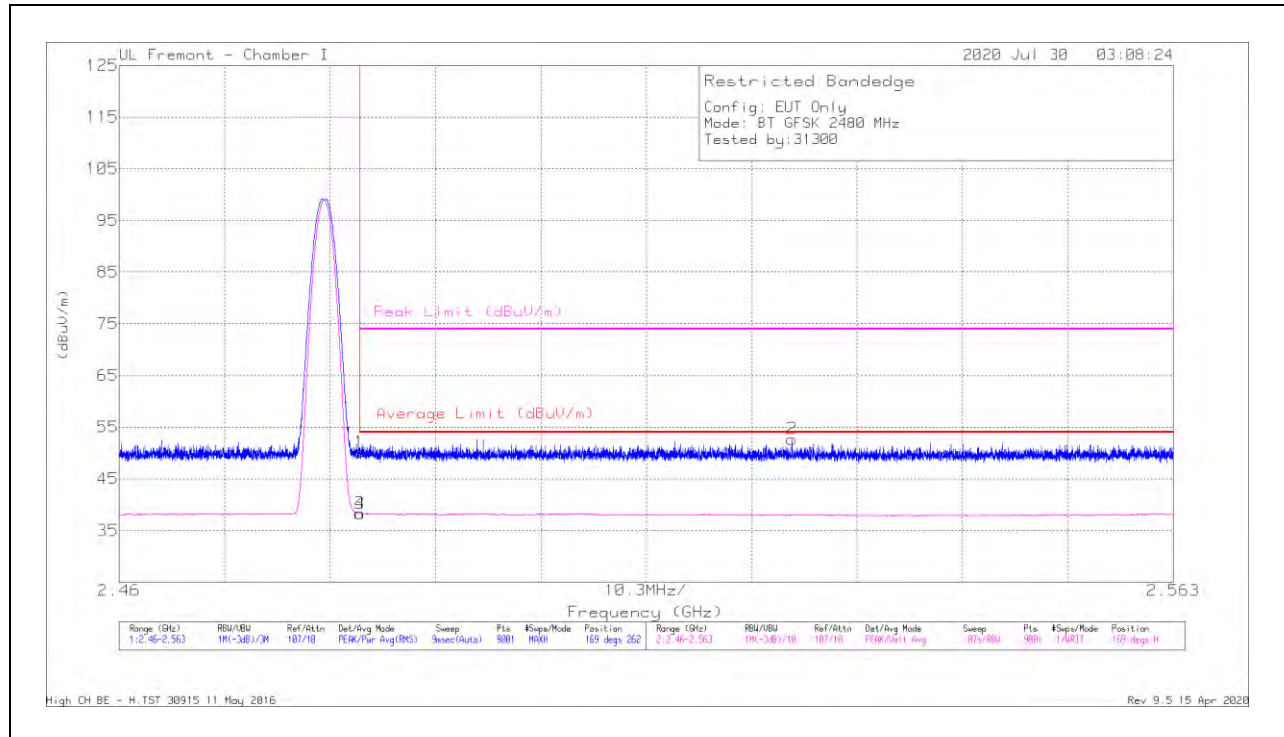
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



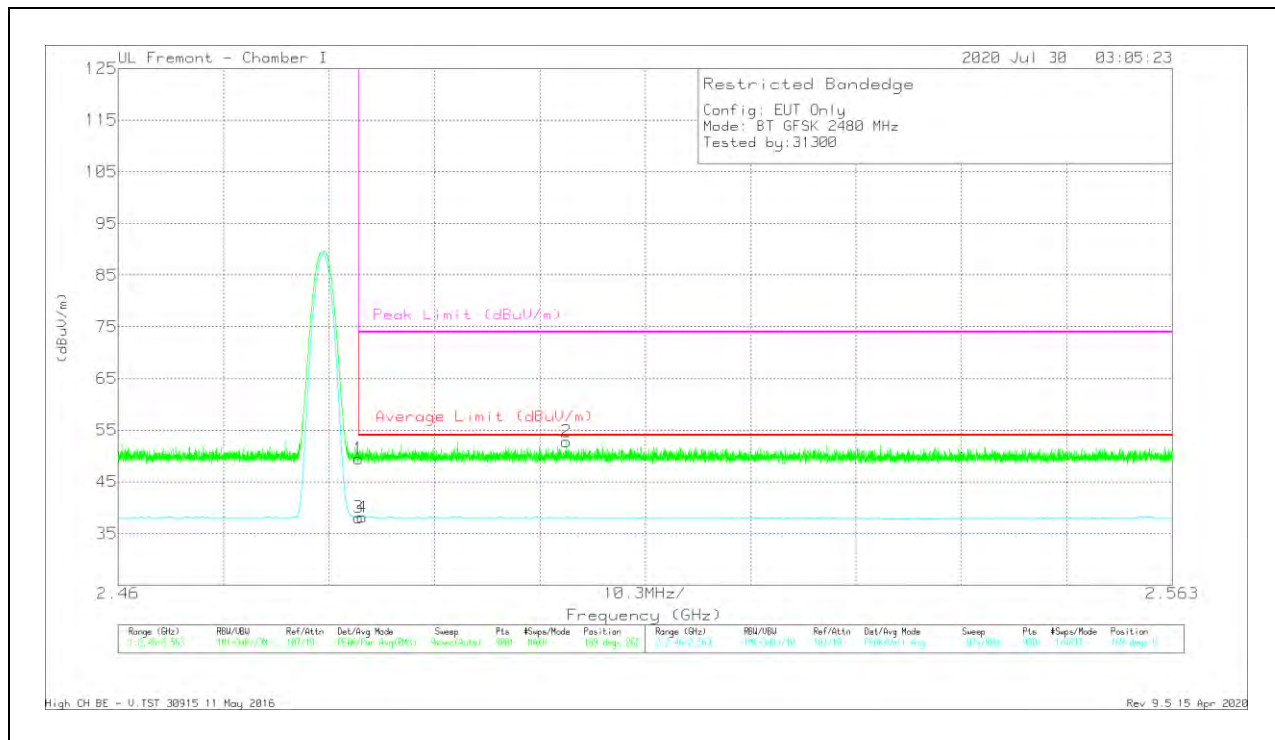
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dBm)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	35.49	Pk	32.4	-17.7	50.19	-	-	74	-23.81	169	262	H
2	2.52572	38.19	Pk	32.3	-17.8	52.69	-	-	74	-21.31	169	262	H
3	* 2.48351	23.57	VA1T	32.4	-17.7	38.27	54	-15.73	-	-	169	262	H
4	* 2.48353	23.56	VA1T	32.4	-17.7	38.26	54	-15.74	-	-	169	262	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Dogs)	Height (cm)	Polarity
1	* 2.48351	34.78	Pk	32.4	-17.7	49.48	-	-	74	-24.52	169	262	V
2	2.50381	38.28	Pk	32.3	-17.8	52.78	-	-	74	-21.22	169	262	V
3	* 2.48351	23.38	VA1T	32.4	-17.7	38.08	54	-15.92	-	-	169	262	V
4	* 2.48386	23.44	VA1T	32.4	-17.7	38.14	54	-15.86	-	-	169	262	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - Peak detector

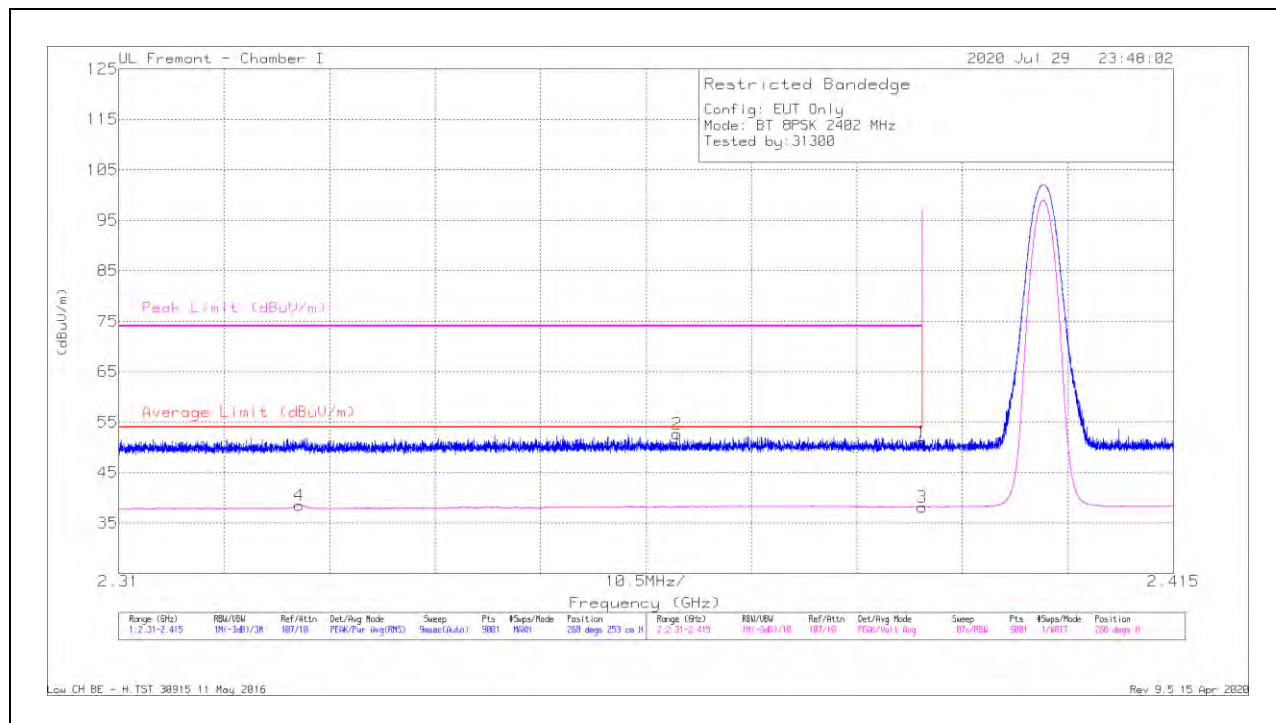
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

10.1.4. LOW POWER ENHANCED DATA RATE 8PSK MODULATION

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



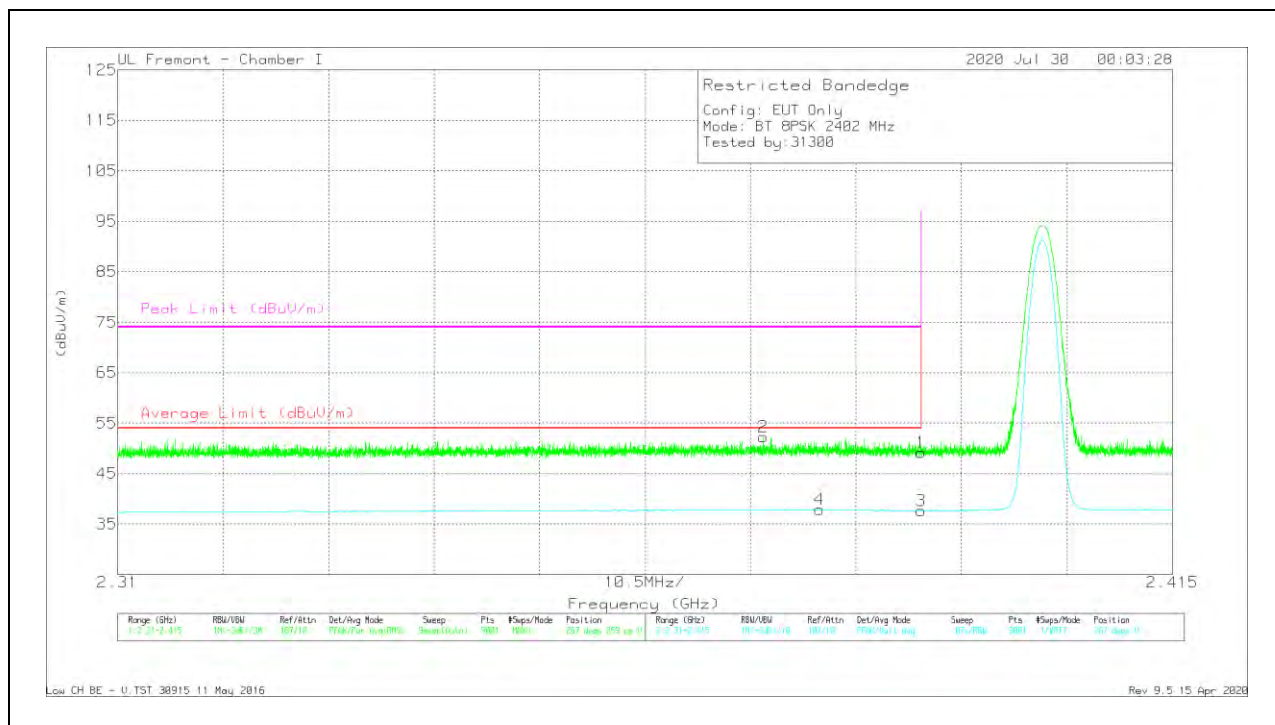
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	36.47	Pk	31.9	-17.3	51.07	-	-	74	-22.93	268	253	H
2	* 2.36558	38.13	Pk	31.8	-17.3	52.63	-	-	74	-21.37	268	253	H
3	* 2.38999	23.57	VA1T	31.9	-17.3	38.17	54	-15.83	-	-	268	253	H
4	* 2.32794	24.2	VA1T	31.5	-17.2	38.5	54	-15.5	-	-	268	253	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	34.56	Pk	31.9	-17.3	49.16	-	-	74	-24.84	267	259	V
2	* 2.37425	37.64	Pk	31.9	-17.3	52.24	-	-	74	-21.76	267	259	V
3	* 2.38999	23.06	VA1T	31.9	-17.3	37.66	54	-16.34	-	-	267	259	V
4	* 2.37985	23.26	VA1T	31.9	-17.3	37.86	54	-16.14	-	-	267	259	V

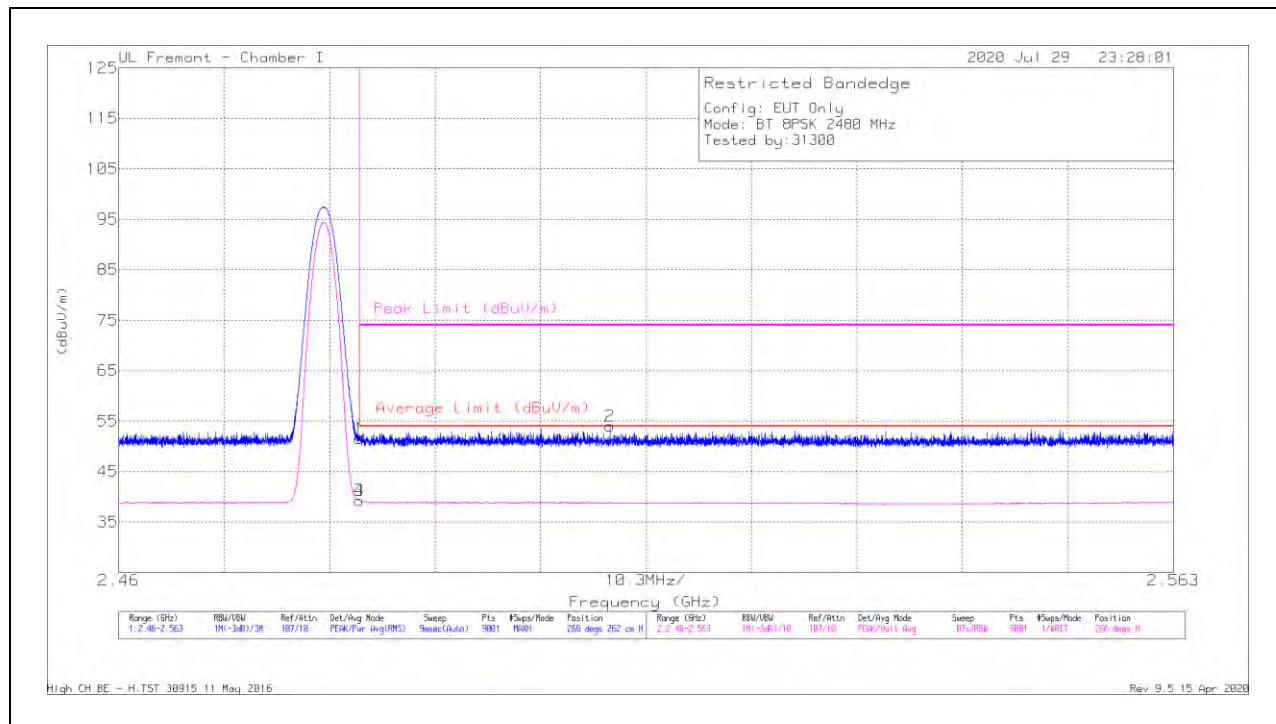
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



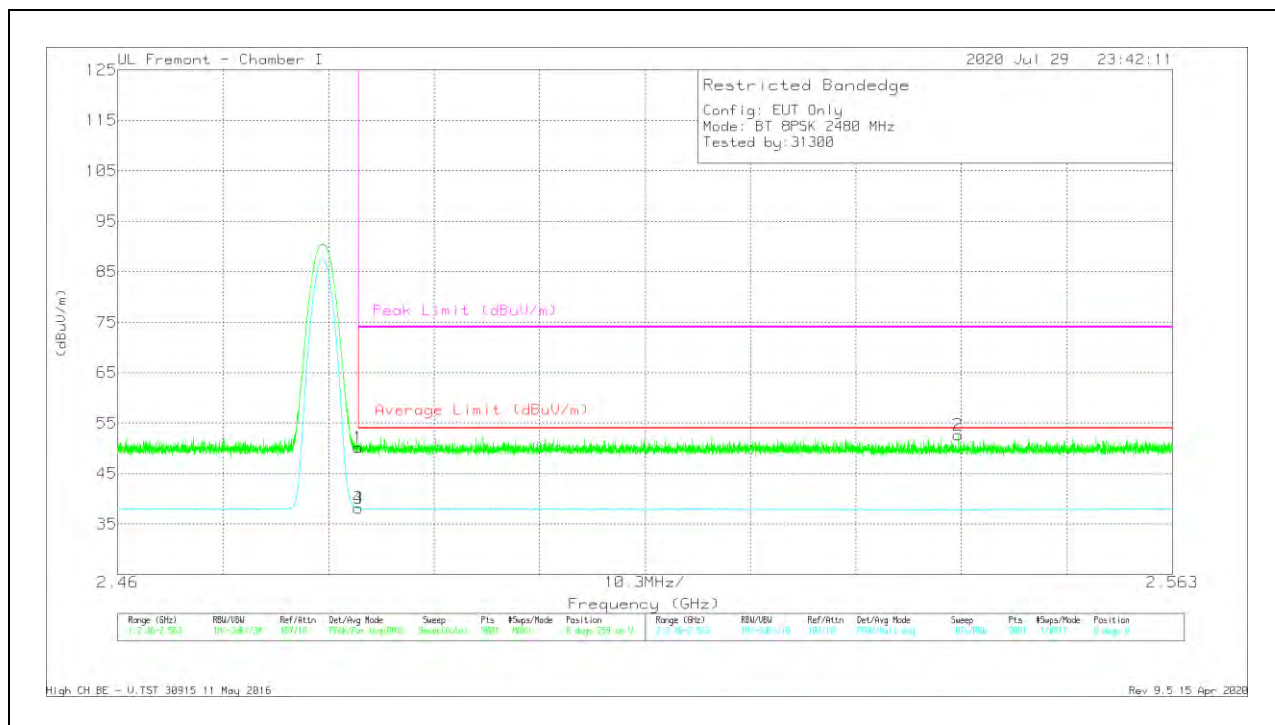
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	36.88	Pk	32.4	-17.7	51.58	-	-	74	-22.42	266	262	H
2	2.50798	39.46	Pk	32.3	-17.8	53.96	-	-	74	-20.04	266	262	H
3	* 2.48351	24.5	VA1T	32.4	-17.7	39.2	54	-14.8	-	-	266	262	H
4	* 2.48352	24.5	VA1T	32.4	-17.7	39.2	54	-14.8	-	-	266	262	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	35.45	Pk	32.4	-17.7	50.15	-	-	74	-23.85	8	259	V
2	2.54206	38.22	Pk	32.2	-17.8	52.62	-	-	74	-21.38	8	259	V
3	* 2.48351	23.39	VA1T	32.4	-17.7	38.09	54	-15.91	-	-	8	259	V
4	* 2.48352	23.39	VA1T	32.4	-17.7	38.09	54	-15.91	-	-	8	259	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

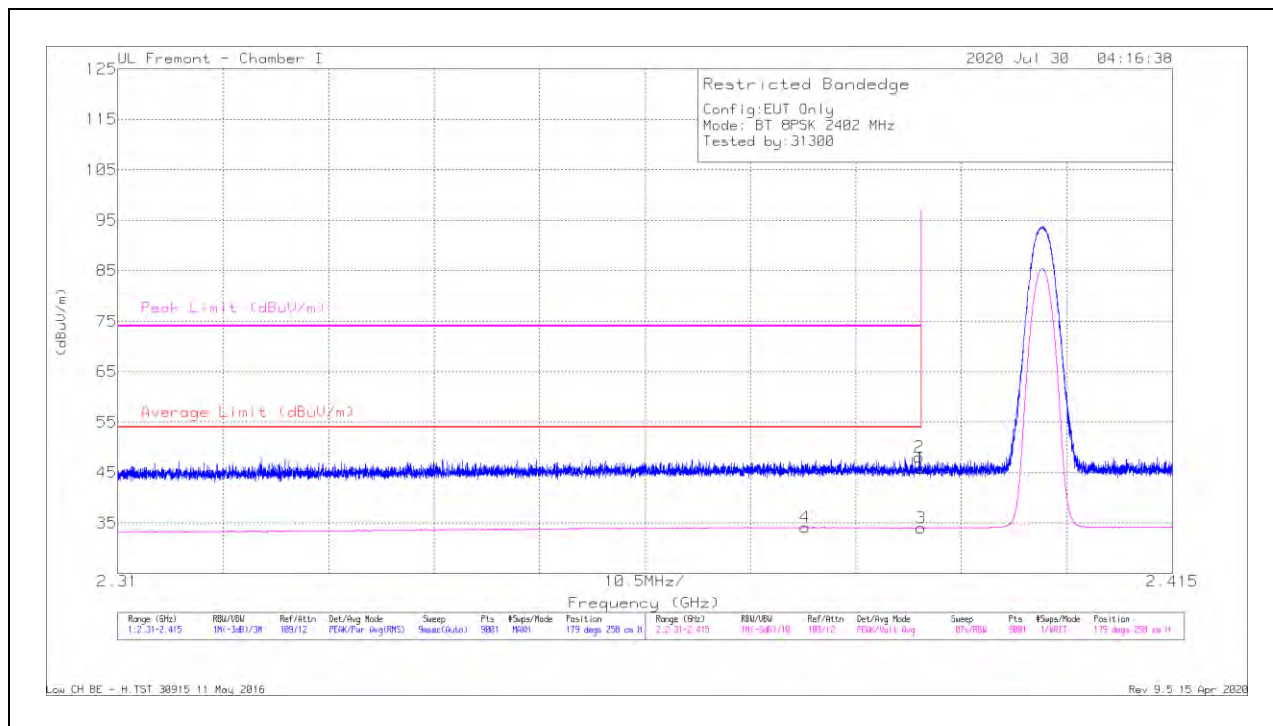
PK - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



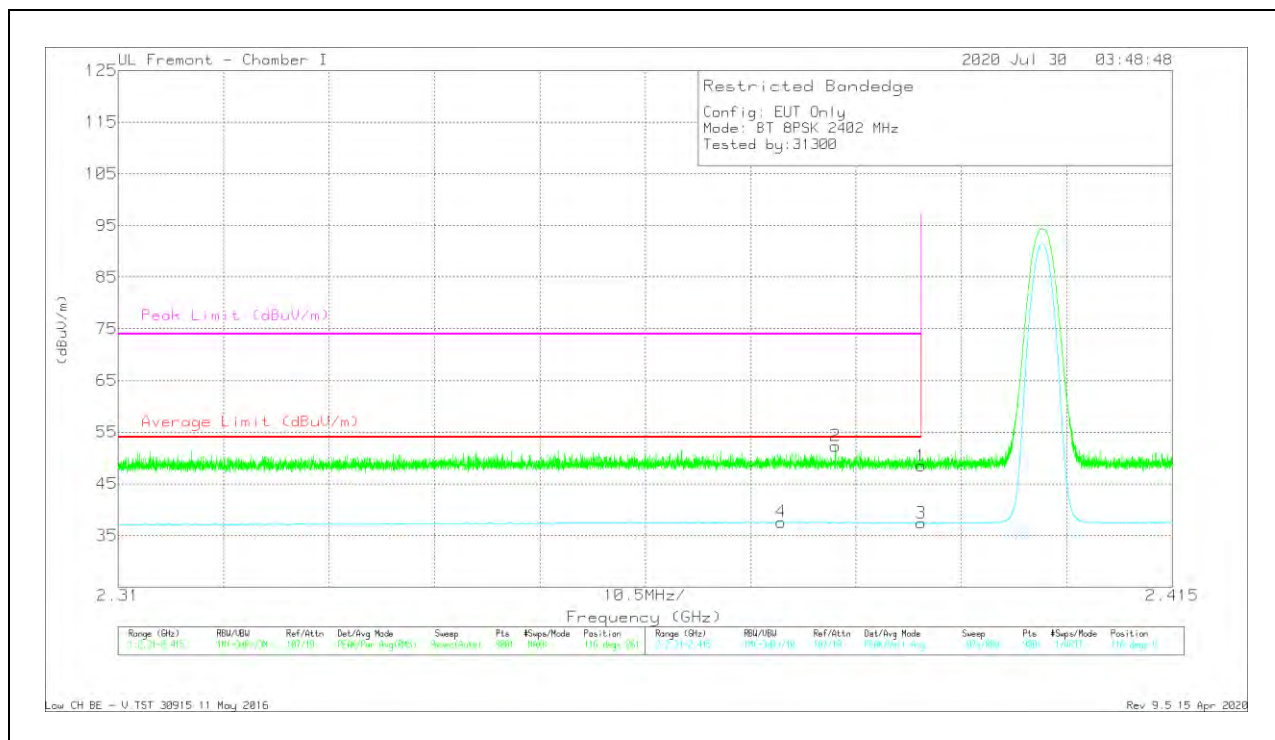
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	32.08	Pk	31.9	-18.2	45.78	-	-	74	-28.22	179	258	H
2	* 2.38981	34.32	Pk	31.9	-18.2	48.02	-	-	74	-25.98	179	258	H
3	* 2.38999	20.28	VA1T	31.9	-18.2	33.98	54	-20.02	-	-	179	258	H
4	* 2.37843	20.43	VA1T	31.9	-18.2	34.13	54	-19.87	-	-	179	258	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/FiltriPa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degr)	Height (cm)	Polarity
1	* 2.38999	33.88	Pk	31.9	-17.3	48.48	-	-	74	-25.52	116	261	V
2	* 2.38144	37.72	Pk	31.9	-17.3	52.32	-	-	74	-21.68	116	261	V
3	* 2.38999	22.79	VA1T	31.9	-17.3	37.39	54	-16.61	-	-	116	261	V
4	* 2.37605	22.99	VA1T	31.9	-17.3	37.59	54	-16.41	-	-	116	261	V

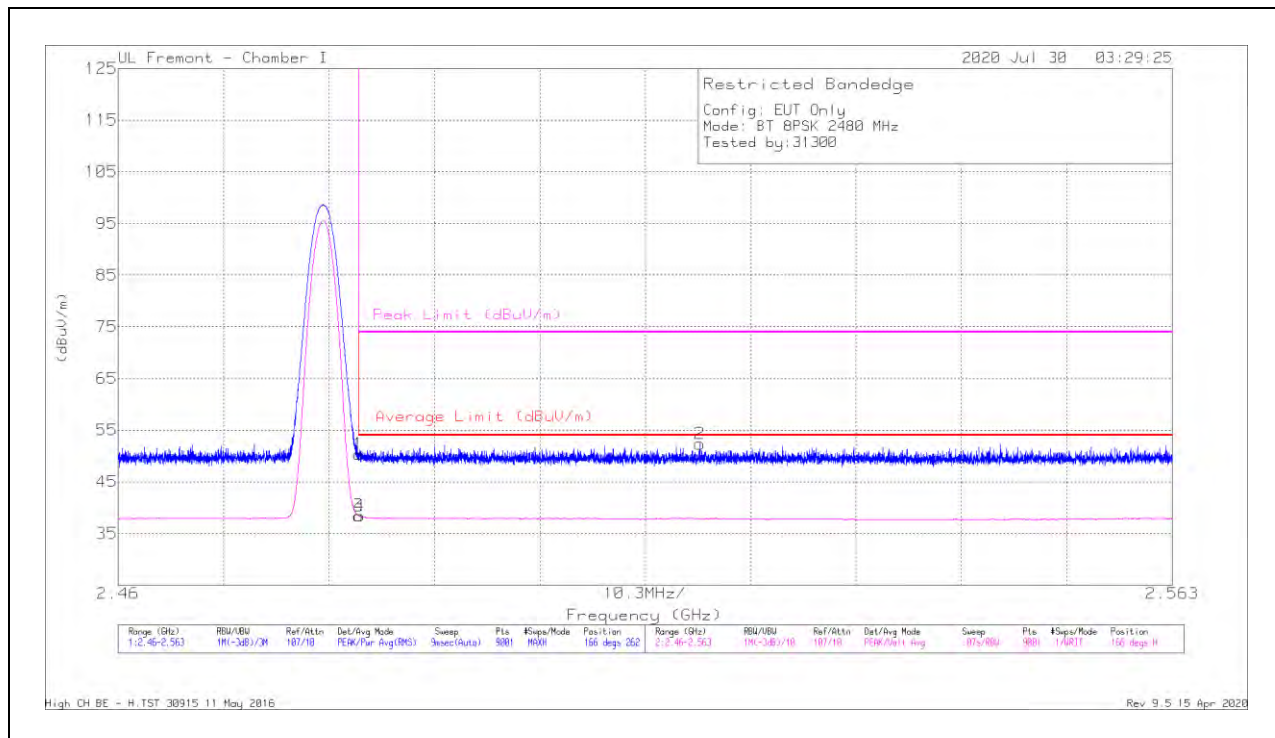
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



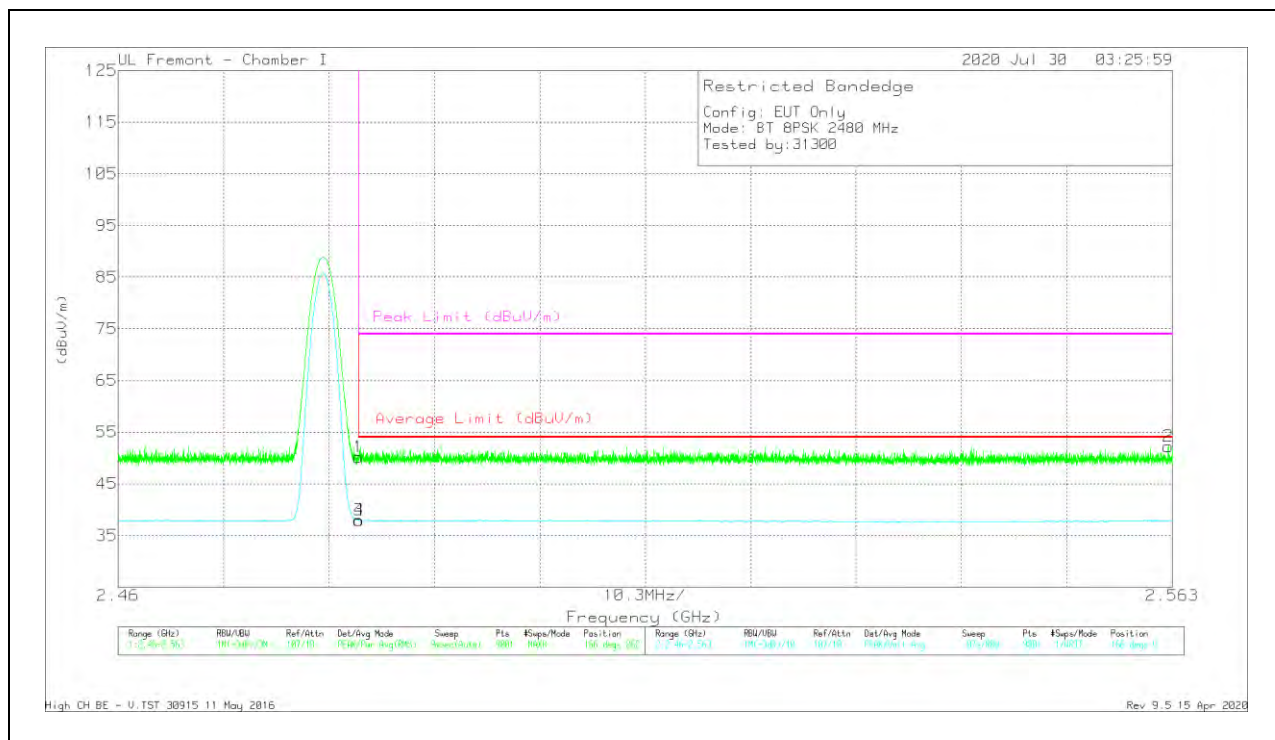
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	35.66	Pk	32.4	-17.7	50.36	-	-	74	-23.64	166	262	H
2	2.51683	37.75	Pk	32.4	-17.8	52.35	-	-	74	-21.65	166	262	H
3	* 2.48351	23.73	VA1T	32.4	-17.7	38.43	54	-15.57	-	-	166	262	H
4	* 2.48357	23.67	VA1T	32.4	-17.7	38.37	54	-15.63	-	-	166	262	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average $V_B = 1/T_{on}$ where: T_{on} is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/FiltriPa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Dogs)	Height (cm)	Polarity
1	* 2.48351	35.46	Pk	32.4	-17.7	50.16	-	-	74	-23.84	166	262	V
2	2.5626	37.73	Pk	32.3	-17.8	52.23	-	-	74	-21.77	166	262	V
3	* 2.48351	23.26	VA1T	32.4	-17.7	37.96	54	-16.04	-	-	166	262	V
4	* 2.48354	23.24	VA1T	32.4	-17.7	37.94	54	-16.06	-	-	166	262	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

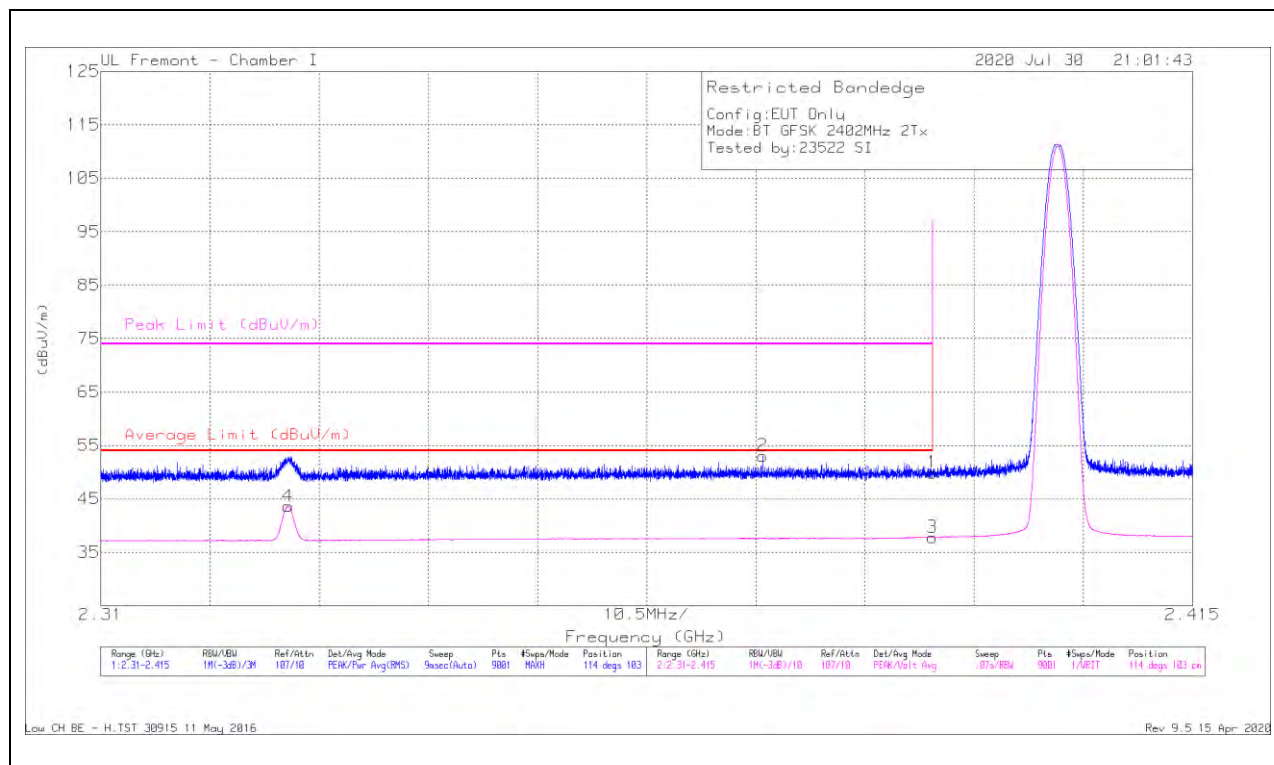
Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

10.1.5. HIGH POWER BASIC DATA RATE TX BF GFSK MODULATION

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



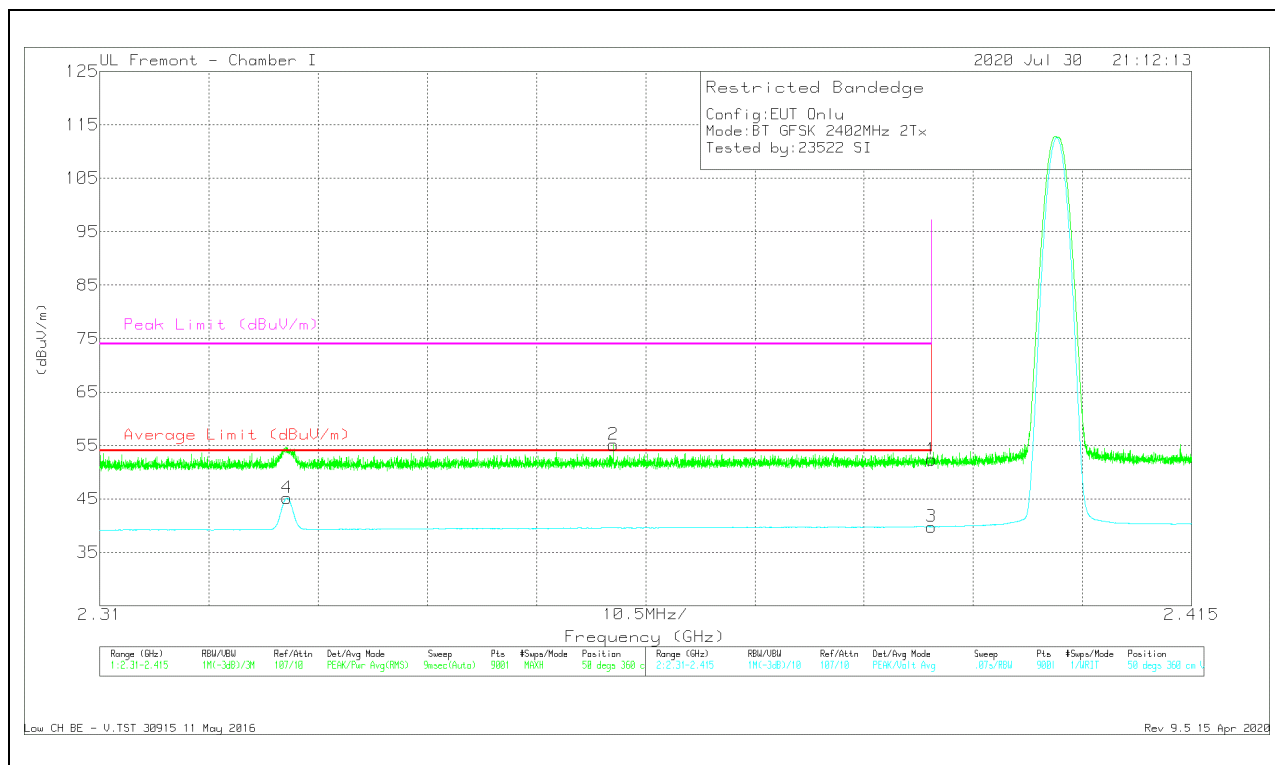
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/FitriPa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	35.29	Pk	31.9	-17.3	49.89	-	-	74	-24.11	114	103	H
2	* 2.37364	38.44	Pk	31.9	-17.3	53.04	-	-	74	-20.96	114	103	H
3	* 2.38999	23.18	VA1T	31.9	-17.3	37.78	54	-16.22	-	-	114	103	H
4	* 2.32803	29.29	VA1T	31.5	-17.2	43.59	54	-10.41	-	-	114	103	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dBm)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	37.75	Pk	31.9	-17.3	52.35	-	-	74	-21.65	50	360	V
2	* 2.35939	40.64	Pk	31.8	-17.3	55.14	-	-	74	-18.86	50	360	V
3	* 2.38999	25.18	VA1T	31.9	-17.3	39.78	54	-14.22	-	-	50	360	V
4	* 2.328	30.87	VA1T	31.5	-17.2	45.17	54	-8.83	-	-	50	360	V

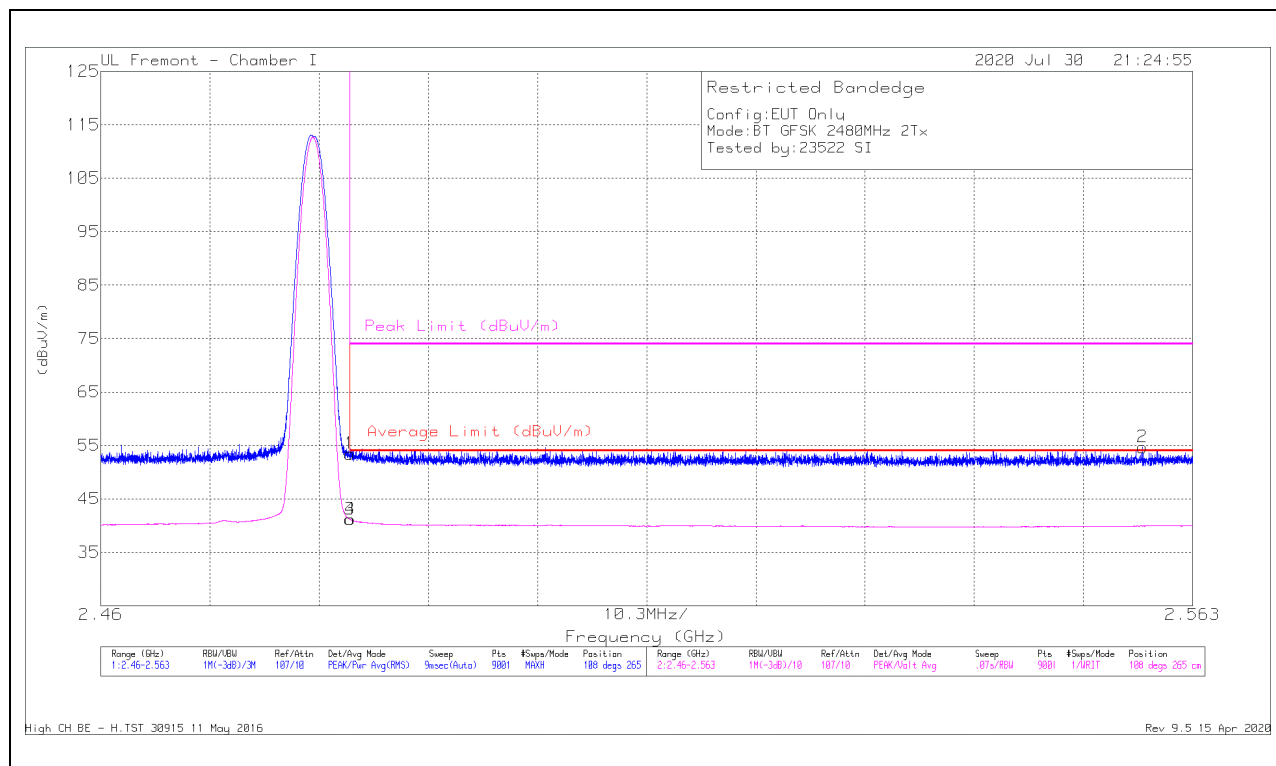
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



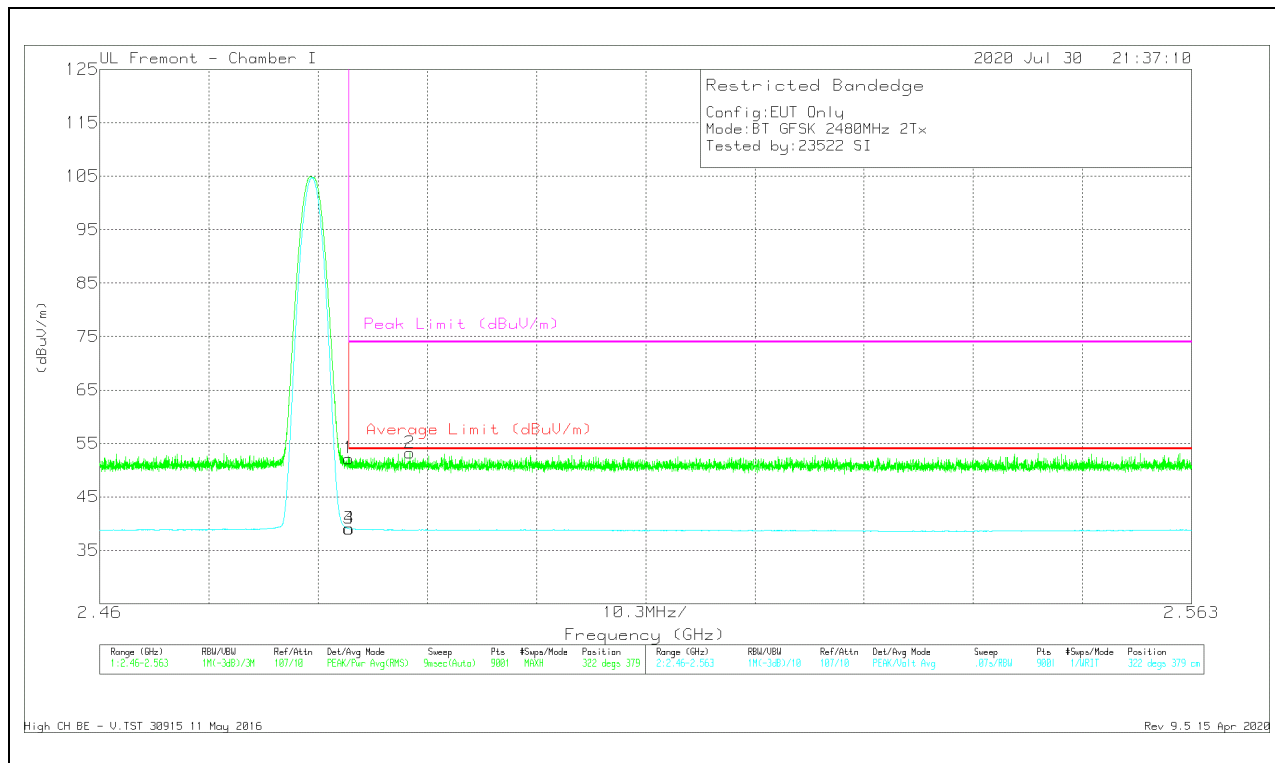
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	38.74	Pk	32.4	-17.7	53.44	-	-	74	-20.56	108	265	H
2	2.55828	40.17	Pk	32.3	-17.8	54.67	-	-	74	-19.33	108	265	H
3	* 2.48351	26.48	VA1T	32.4	-17.7	41.18	54	-12.82	-	-	108	265	H
4	* 2.48353	26.47	VA1T	32.4	-17.7	41.17	54	-12.83	-	-	108	265	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T662 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	37.51	Pk	32.4	-17.7	52.21	-	-	74	-21.79	322	379	V
2	* 2.48927	38.73	Pk	32.3	-17.8	53.23	-	-	74	-20.77	322	379	V
3	* 2.48351	24.37	VA1T	32.4	-17.7	39.07	54	-14.93	-	-	322	379	V
4	* 2.48353	24.36	VA1T	32.4	-17.7	39.06	54	-14.94	-	-	322	379	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

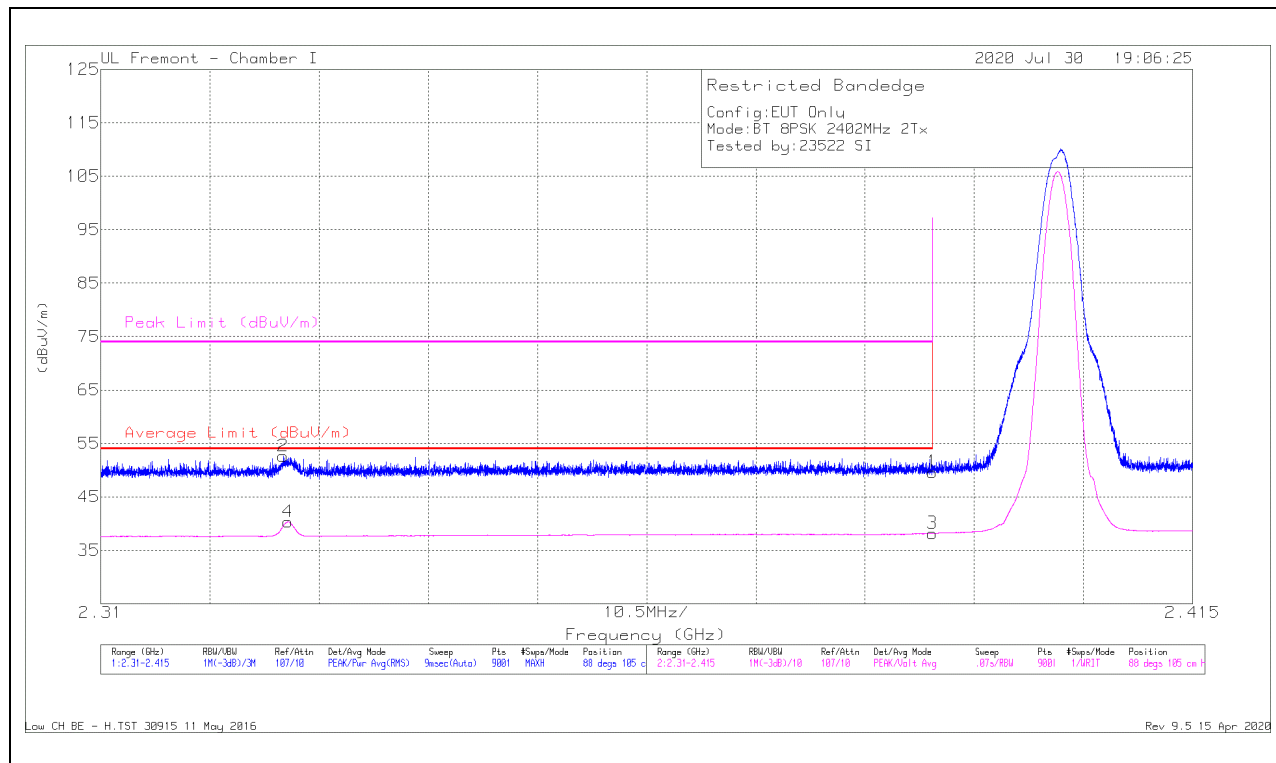
Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

10.1.6. HIGH POWER BASIC DATA RATE TXBF 8PSK MODULATION

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



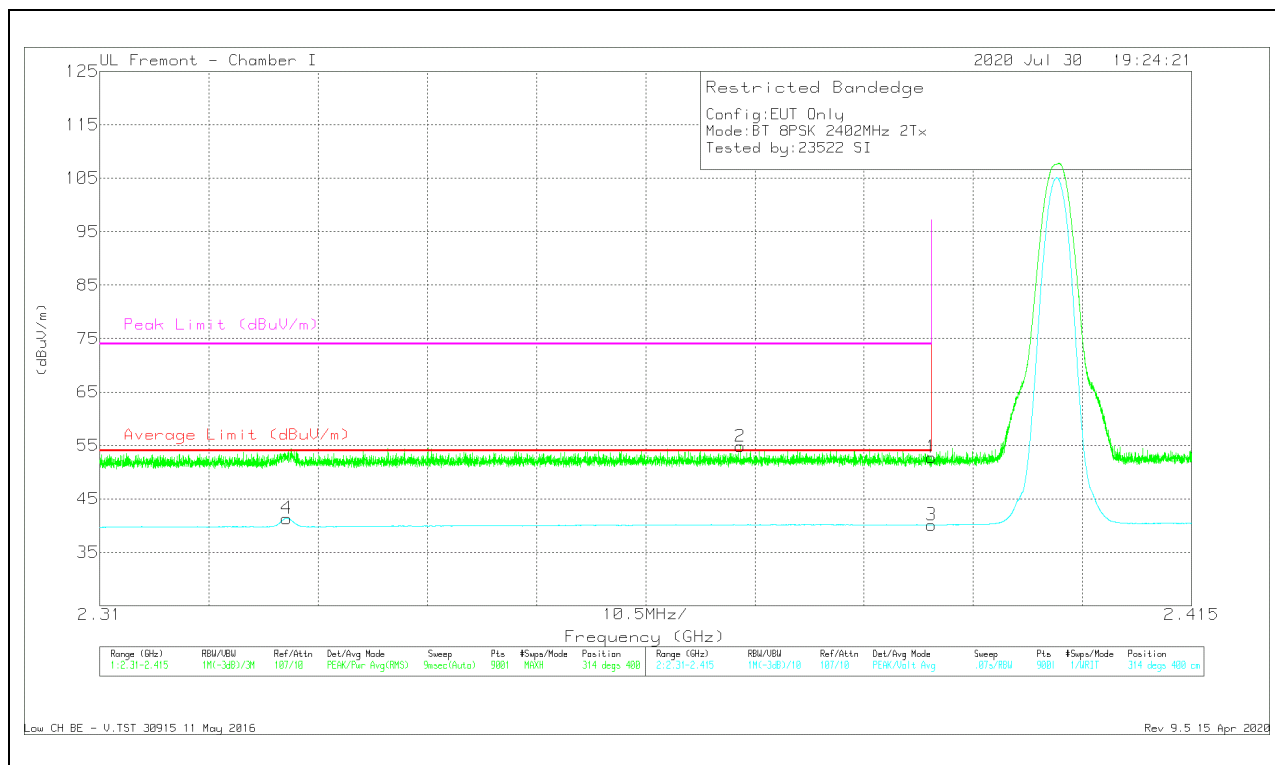
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	35.05	Pk	31.9	-17.3	49.65	-	-	74	-24.35	88	105	H
2	* 2.32754	38.33	Pk	31.5	-17.2	52.63	-	-	74	-21.37	88	105	H
3	* 2.38999	23.55	VA1T	31.9	-17.3	38.15	54	-15.85	-	-	88	105	H
4	* 2.32798	26.02	VA1T	31.5	-17.2	40.32	54	-13.68	-	-	88	105	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dBm)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	38.18	Pk	31.9	-17.3	52.78	-	-	74	-21.22	314	400	V
2	* 2.37158	40.21	Pk	31.9	-17.3	54.81	-	-	74	-19.19	314	400	V
3	* 2.38999	25.5	VA1T	31.9	-17.3	40.1	54	-13.9	-	-	314	400	V
4	* 2.32797	27.05	VA1T	31.5	-17.2	41.35	54	-12.65	-	-	314	400	V

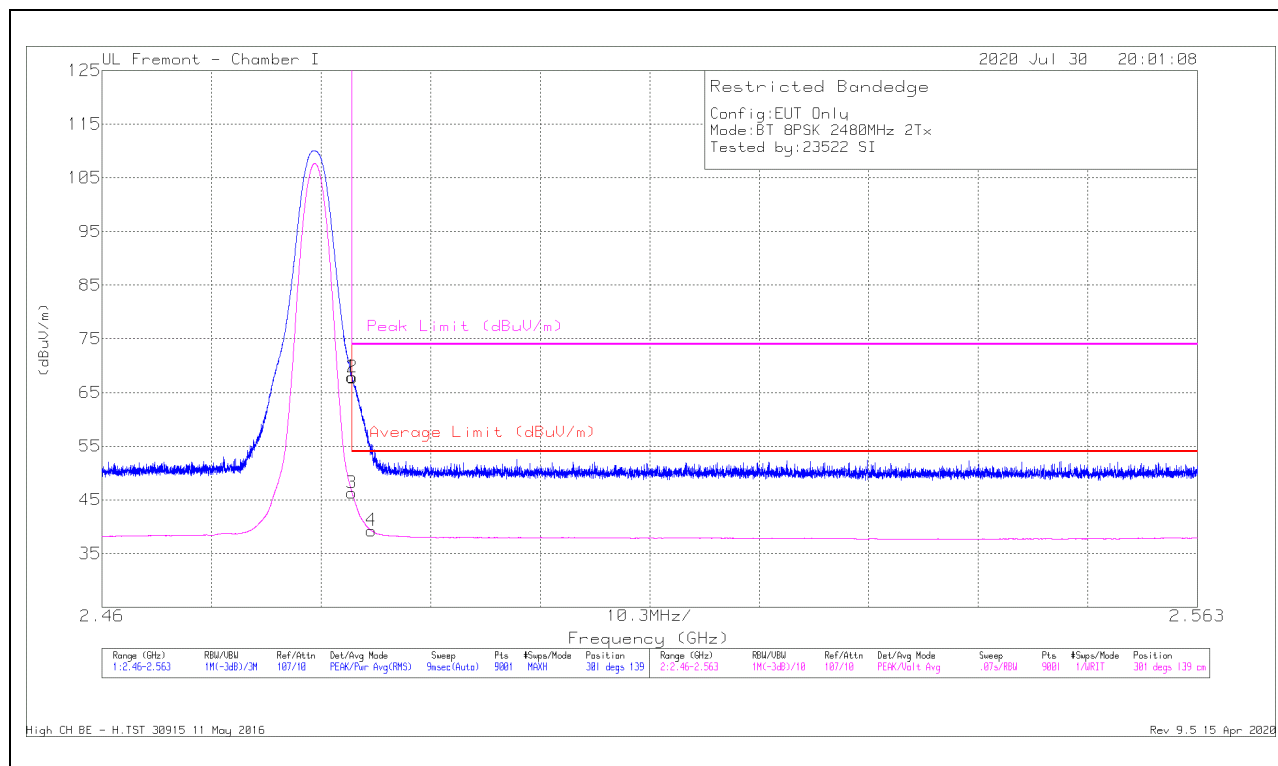
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



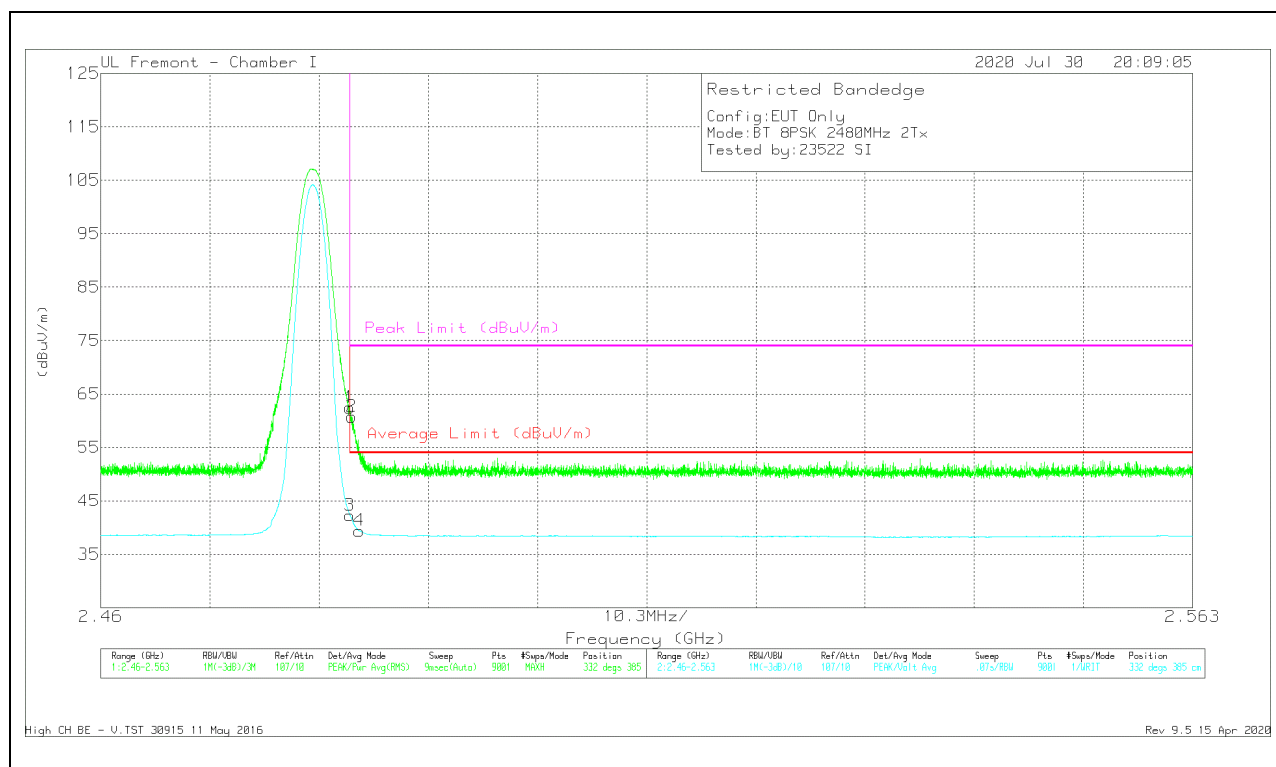
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fittr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	53.18	Pk	32.4	-17.7	67.88	-	-	74	-6.12	301	139	H
2	* 2.48354	53.12	Pk	32.4	-17.7	67.82	-	-	74	-6.18	301	139	H
3	* 2.48351	31.59	VA1T	32.4	-17.7	46.29	54	-7.71	-	-	301	139	H
4	* 2.48533	24.58	VA1T	32.4	-17.7	39.28	54	-14.72	-	-	301	139	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dBm)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	47.75	Pk	32.4	-17.7	62.45	-	-	74	-11.55	332	385	V
2	* 2.48367	46.06	Pk	32.4	-17.7	60.76	-	-	74	-13.24	332	385	V
3	* 2.48351	27.58	VA1T	32.4	-17.7	42.28	54	-11.72	-	-	332	385	V
4	* 2.48438	24.71	VA1T	32.4	-17.7	39.41	54	-14.59	-	-	332	385	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

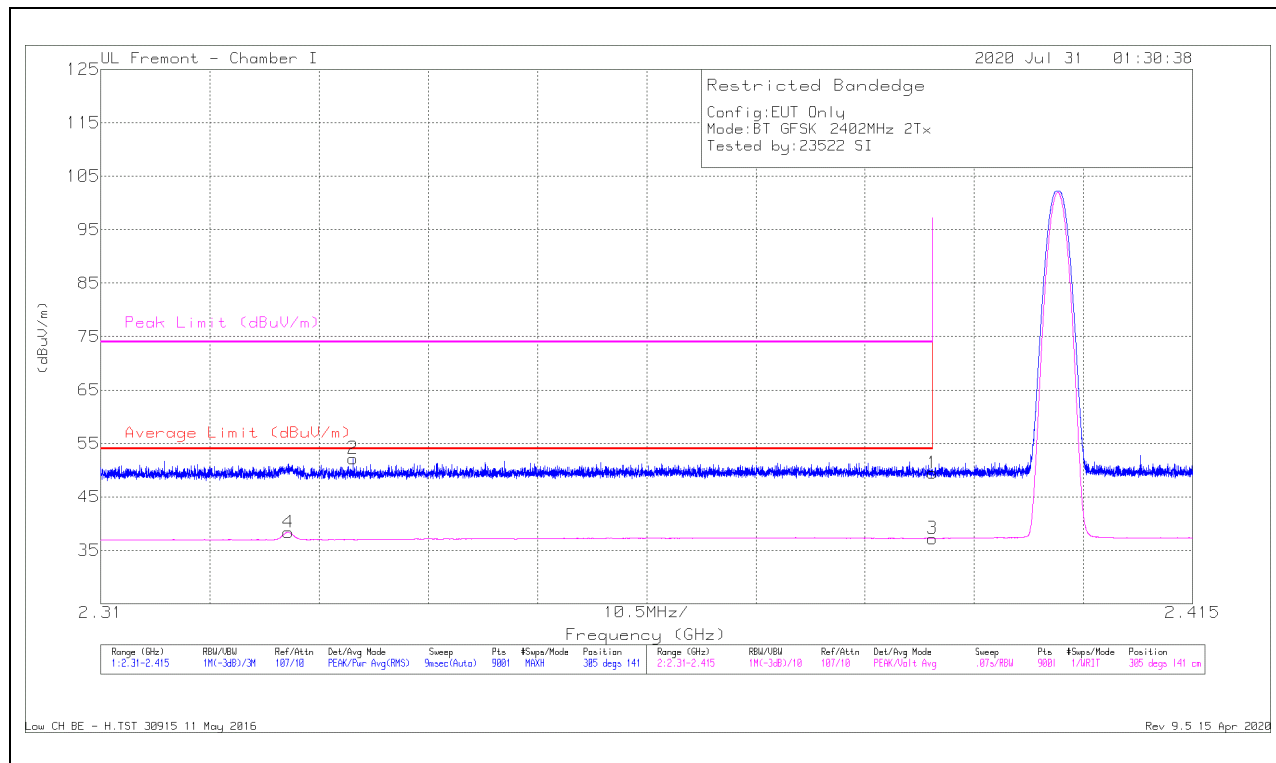
Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

10.1.7. LOW POWER BASIC DATA RATE TXBF GFSK MODULATION

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



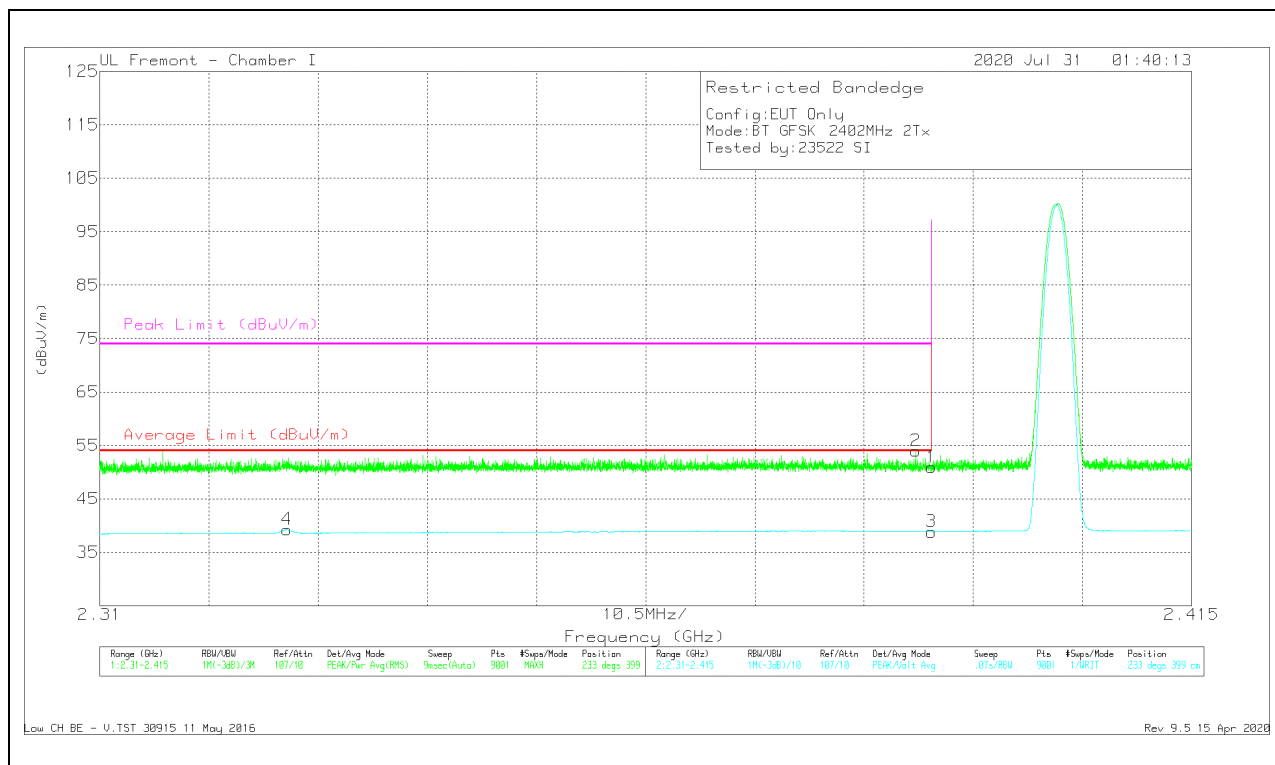
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T62 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	34.85	Pk	31.9	-17.3	49.45	-	-	74	-24.55	305	141	H
2	* 2.33426	37.86	Pk	31.5	-17.2	52.16	-	-	74	-21.84	305	141	H
3	* 2.38999	22.61	VA1T	31.9	-17.3	37.21	54	-16.79	-	-	305	141	H
4	* 2.32804	24.06	VA1T	31.5	-17.2	38.36	54	-15.64	-	-	305	141	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dBm)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	36.32	Pk	31.9	-17.3	50.92	-	-	74	-23.08	233	399	V
2	* 2.38847	39.35	Pk	31.9	-17.3	53.95	-	-	74	-20.05	233	399	V
3	* 2.38999	24.23	VA1T	31.9	-17.3	38.83	54	-15.17	-	-	233	399	V
4	* 2.32799	24.94	VA1T	31.5	-17.2	39.24	54	-14.76	-	-	233	399	V

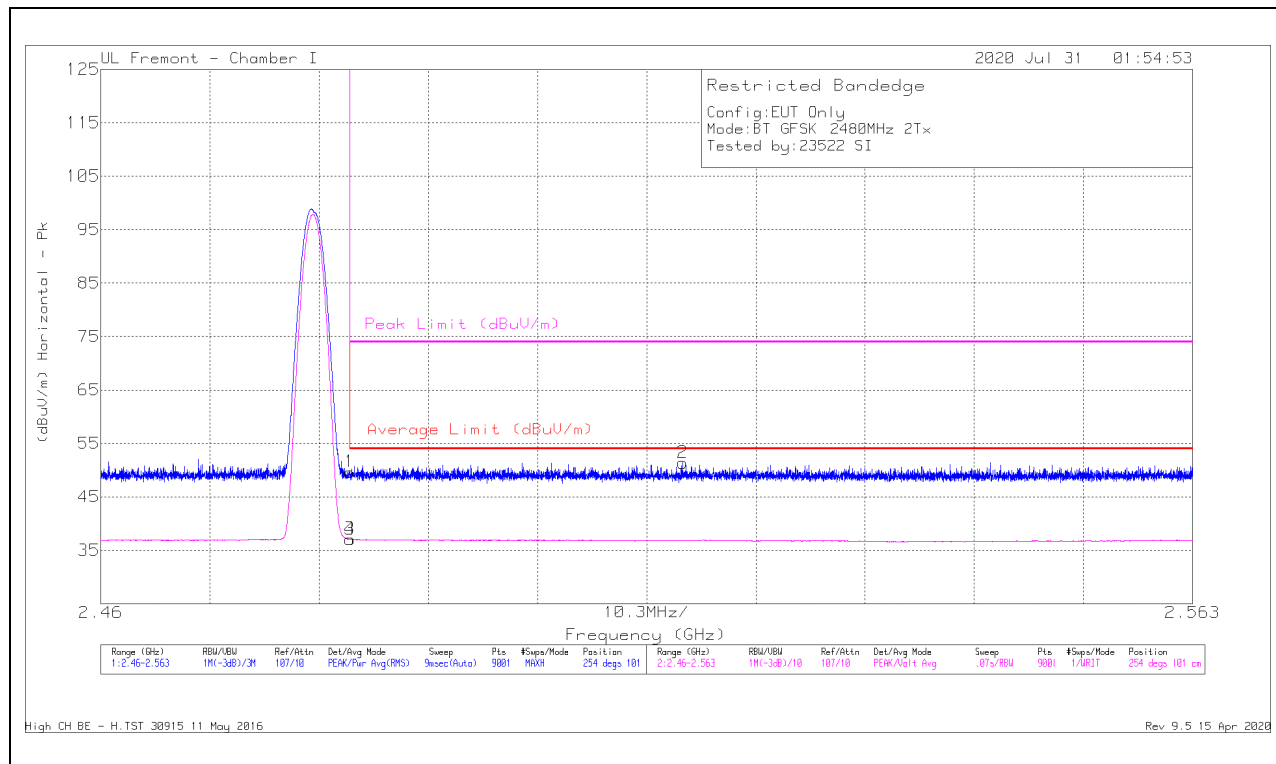
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



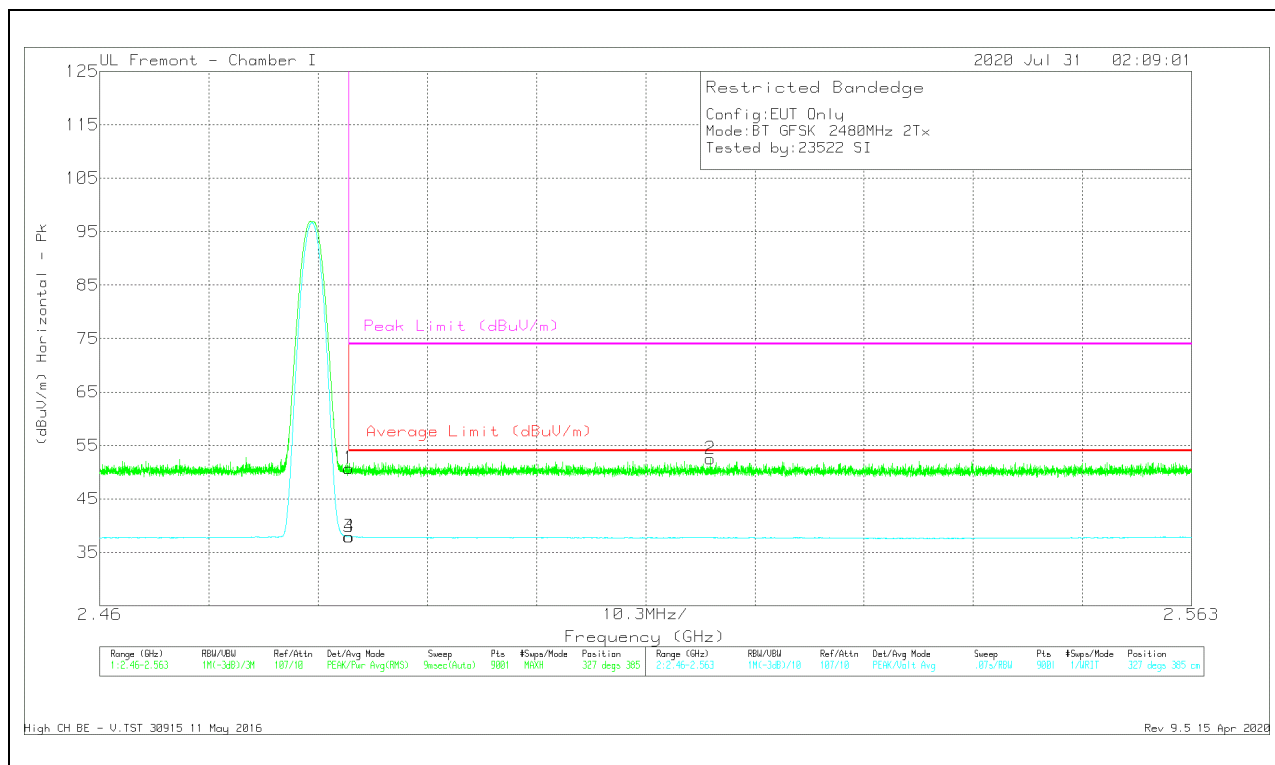
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	34.95	Pk	32.4	-17.7	49.65	-	-	74	-24.35	254	101	H
2	2.5149	36.88	Pk	32.3	-17.8	51.38	-	-	74	-22.62	254	101	H
3	* 2.48351	22.36	VA1T	32.4	-17.7	37.06	54	-16.94	-	-	254	101	H
4	* 2.48352	22.36	VA1T	32.4	-17.7	37.06	54	-16.94	-	-	254	101	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBUV)	Det	AF T862 (dBm)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	36.03	Pk	32.4	-17.7	50.73	-	-	74	-23.27	327	385	V
2	2.5176	38.02	Pk	32.3	-17.8	52.52	-	-	74	-21.48	327	385	V
3	* 2.48351	23.22	VA1T	32.4	-17.7	37.92	54	-16.08	-	-	327	385	V
4	* 2.48354	23.22	VA1T	32.4	-17.7	37.92	54	-16.08	-	-	327	385	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

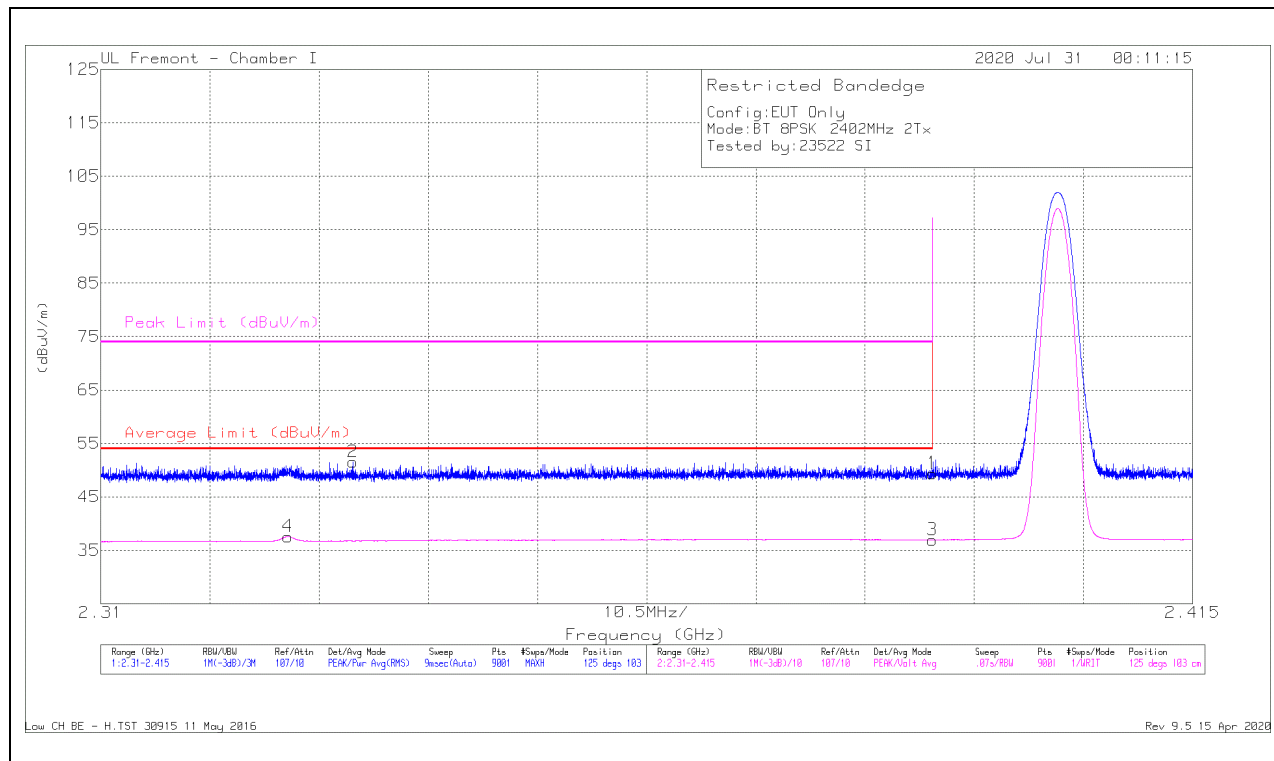
Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

10.1.8. LOW POWER BASIC DATA RATE TXBF 8PSK MODULATION

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



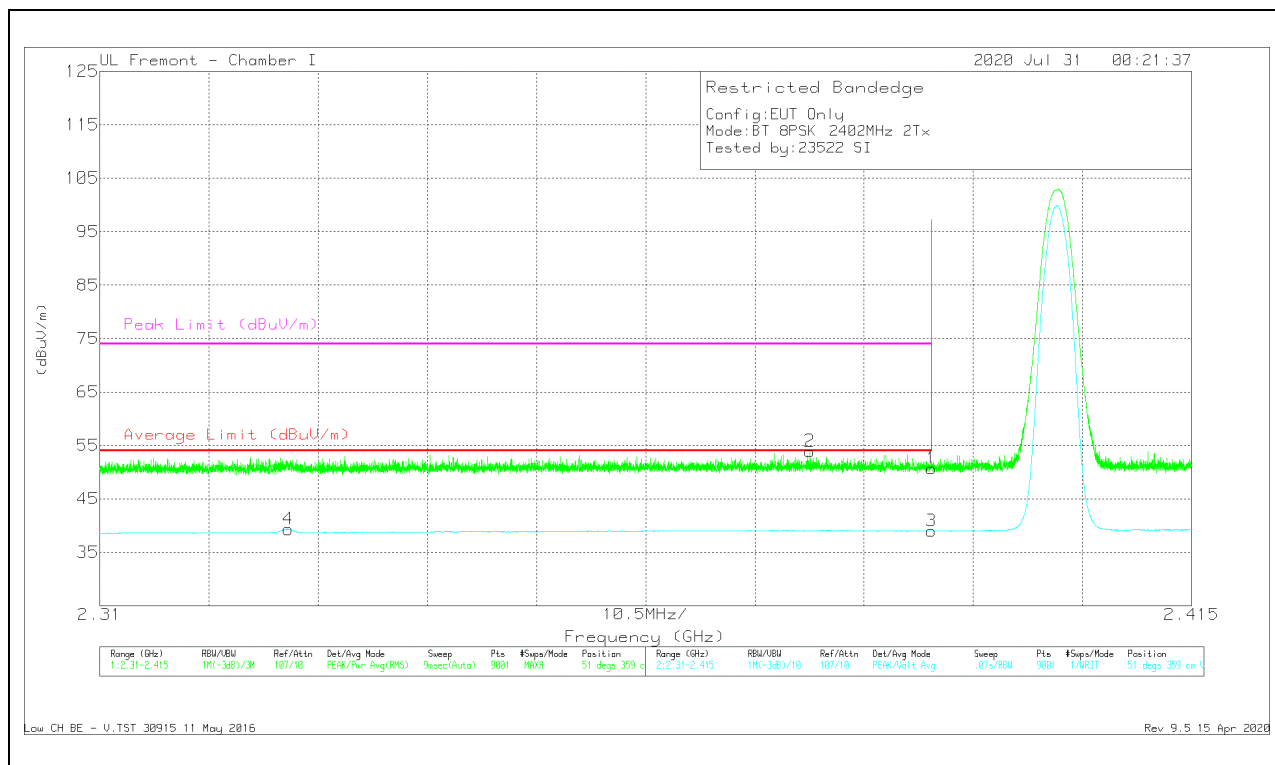
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fittr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	34.76	Pk	31.9	-17.3	49.36	-	-	74	-24.64	125	103	H
2	* 2.33424	37.22	Pk	31.5	-17.2	51.52	-	-	74	-22.48	125	103	H
3	* 2.38999	22.34	VA1T	31.9	-17.3	36.94	54	-17.06	-	-	125	103	H
4	* 2.32799	23.26	VA1T	31.5	-17.2	37.56	54	-16.44	-	-	125	103	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dBm)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	36.09	Pk	31.9	-17.3	50.69	-	-	74	-23.31	51	359	V
2	* 2.3783	39.27	Pk	31.9	-17.3	53.87	-	-	74	-20.13	51	359	V
3	* 2.38999	24.39	VA1T	31.9	-17.3	38.99	54	-15.01	-	-	51	359	V
4	* 2.32813	25.02	VA1T	31.5	-17.2	39.32	54	-14.68	-	-	51	359	V

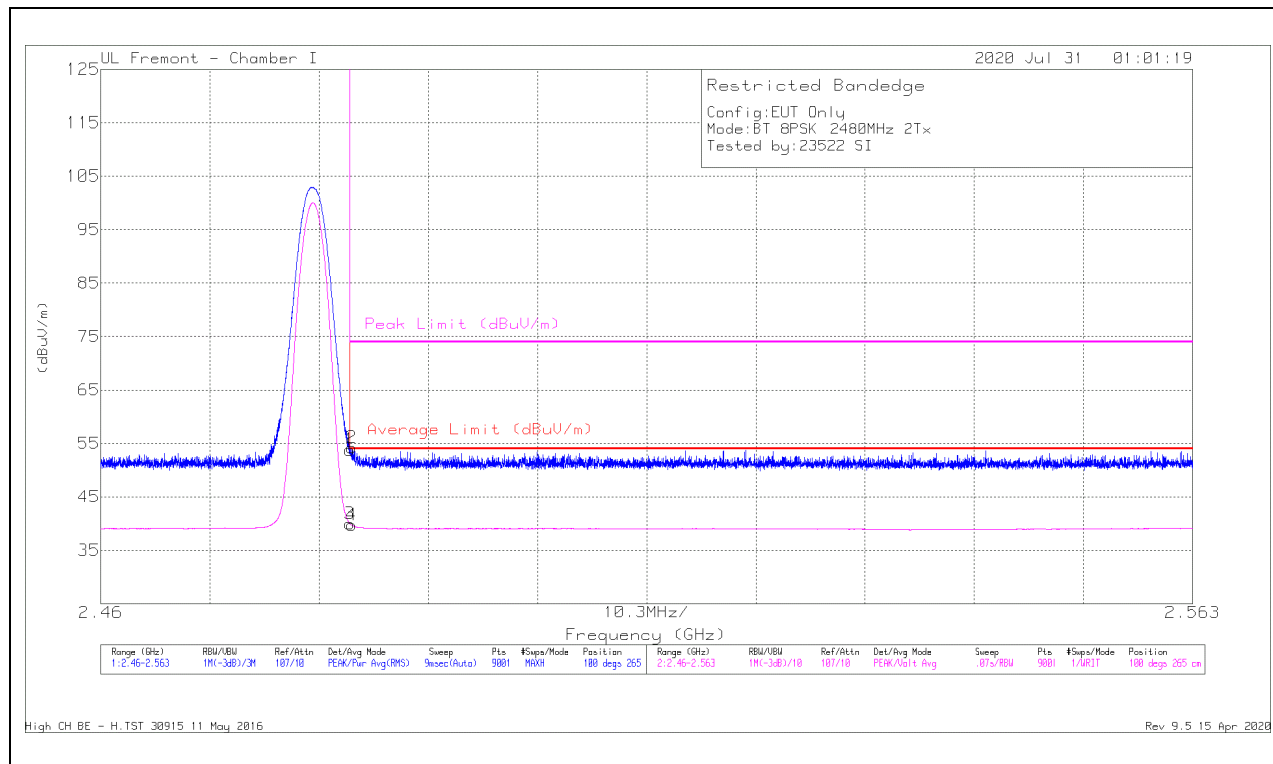
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



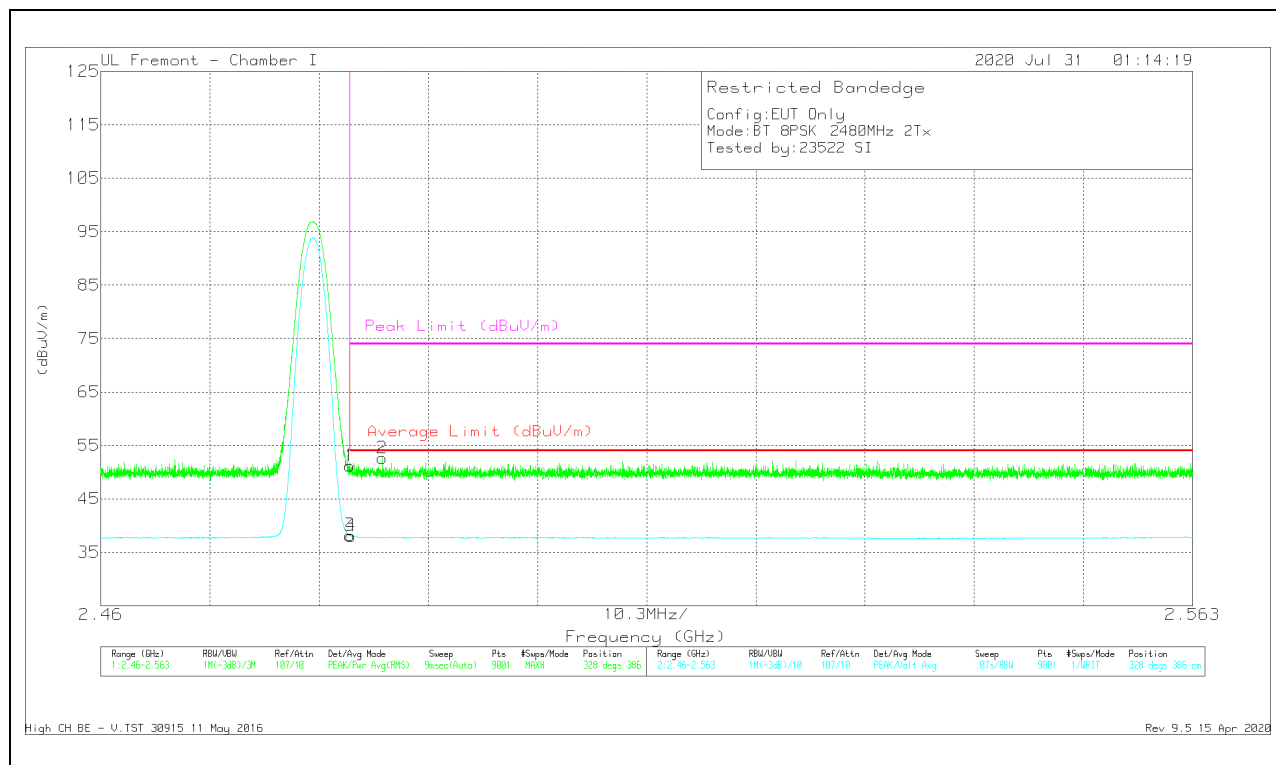
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	39.11	Pk	32.4	-17.7	53.81	-	-	74	-20.19	100	265	H
2	* 2.48365	39.49	Pk	32.4	-17.7	54.19	-	-	74	-19.81	100	265	H
3	* 2.48351	25.26	VA1T	32.4	-17.7	39.96	54	-14.04	-	-	100	265	H
4	* 2.48368	25	VA1T	32.4	-17.7	39.7	54	-14.3	-	-	100	265	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dBm)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	36.45	Pk	32.4	-17.7	51.15	-	-	74	-22.85	328	386	V
2	* 2.48654	37.92	Pk	32.4	-17.7	52.62	-	-	74	-21.38	328	386	V
3	* 2.48351	23.47	VA1T	32.4	-17.7	38.17	54	-15.83	-	-	328	386	V
4	* 2.4836	23.36	VA1T	32.4	-17.7	38.06	54	-15.94	-	-	328	386	V

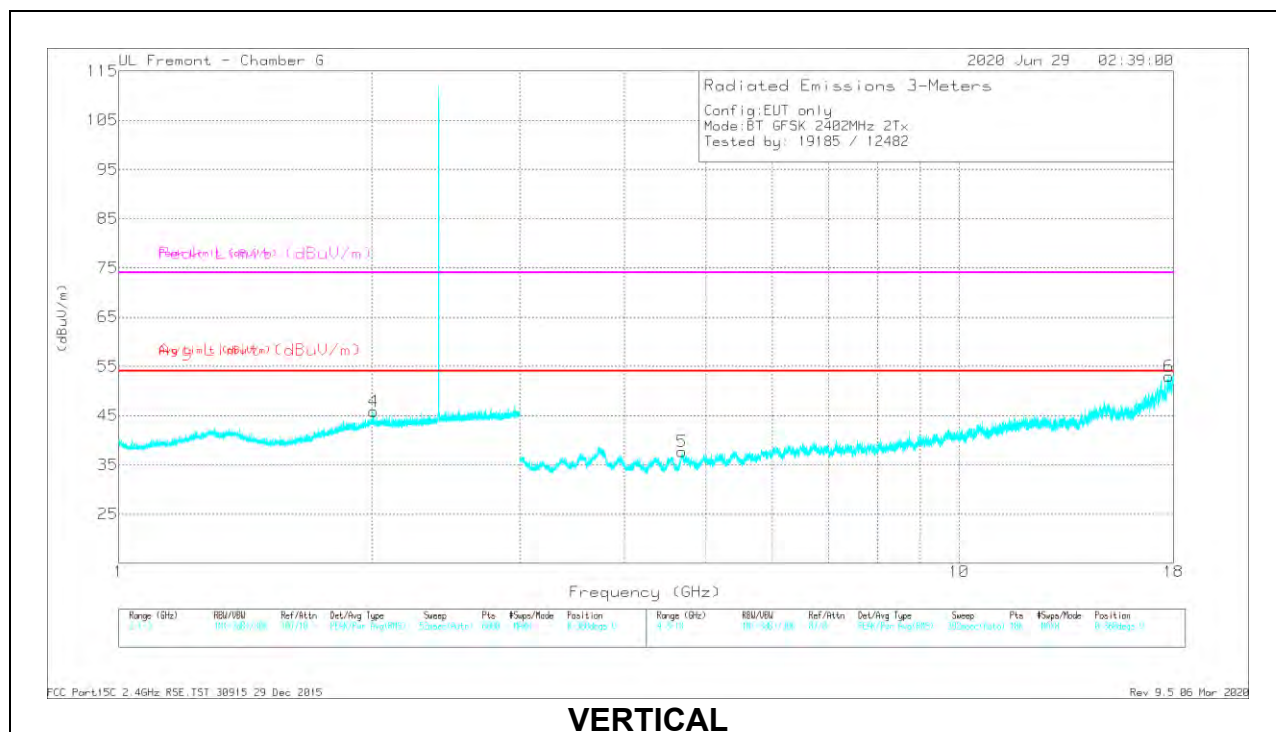
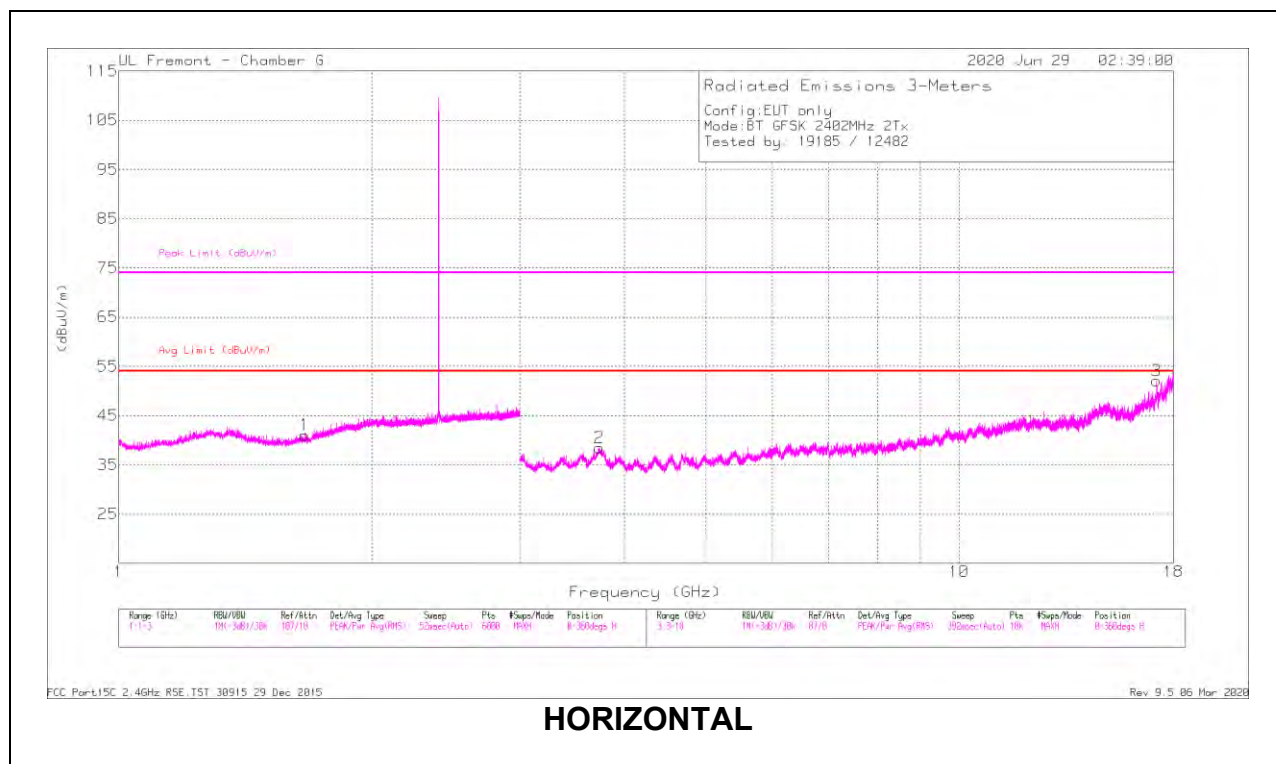
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

10.1.9. HIGH POWER HARMONICS AND SPURIOUS TXBF GFSK MODULATION

LOW CHANNEL RESULTS

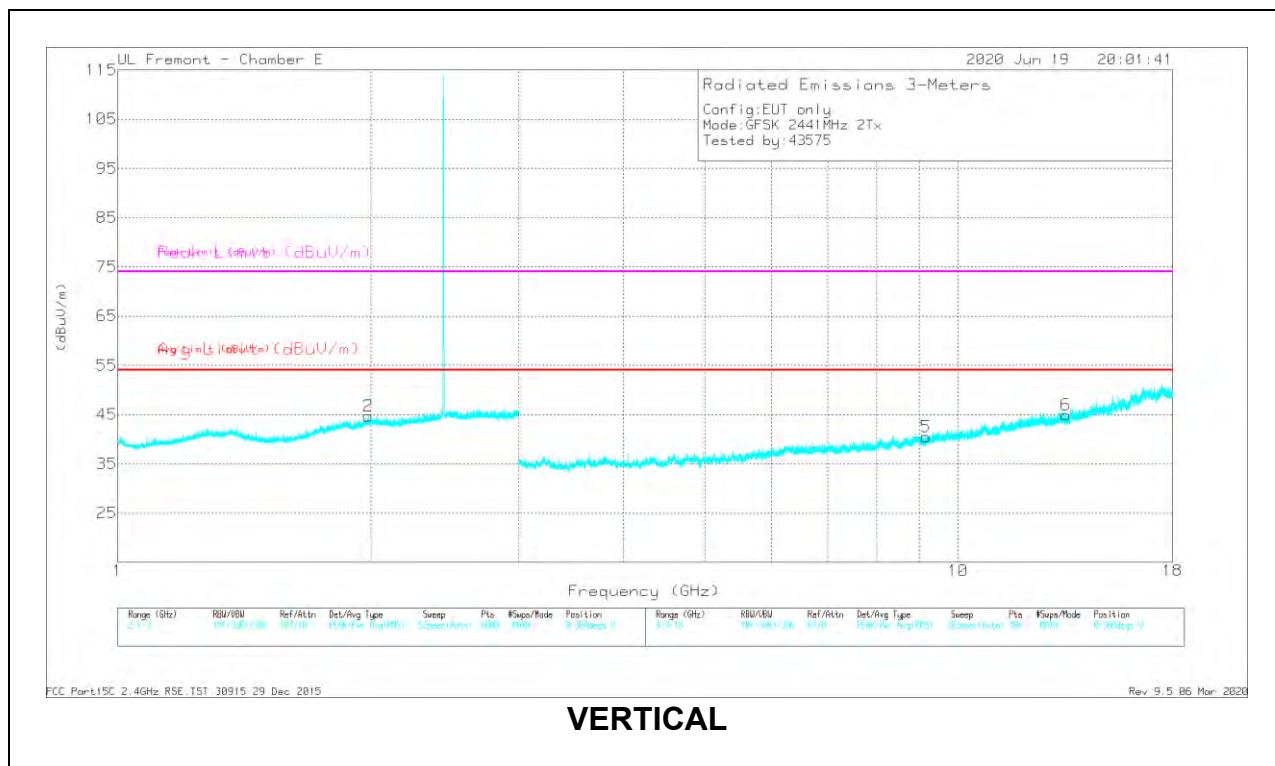
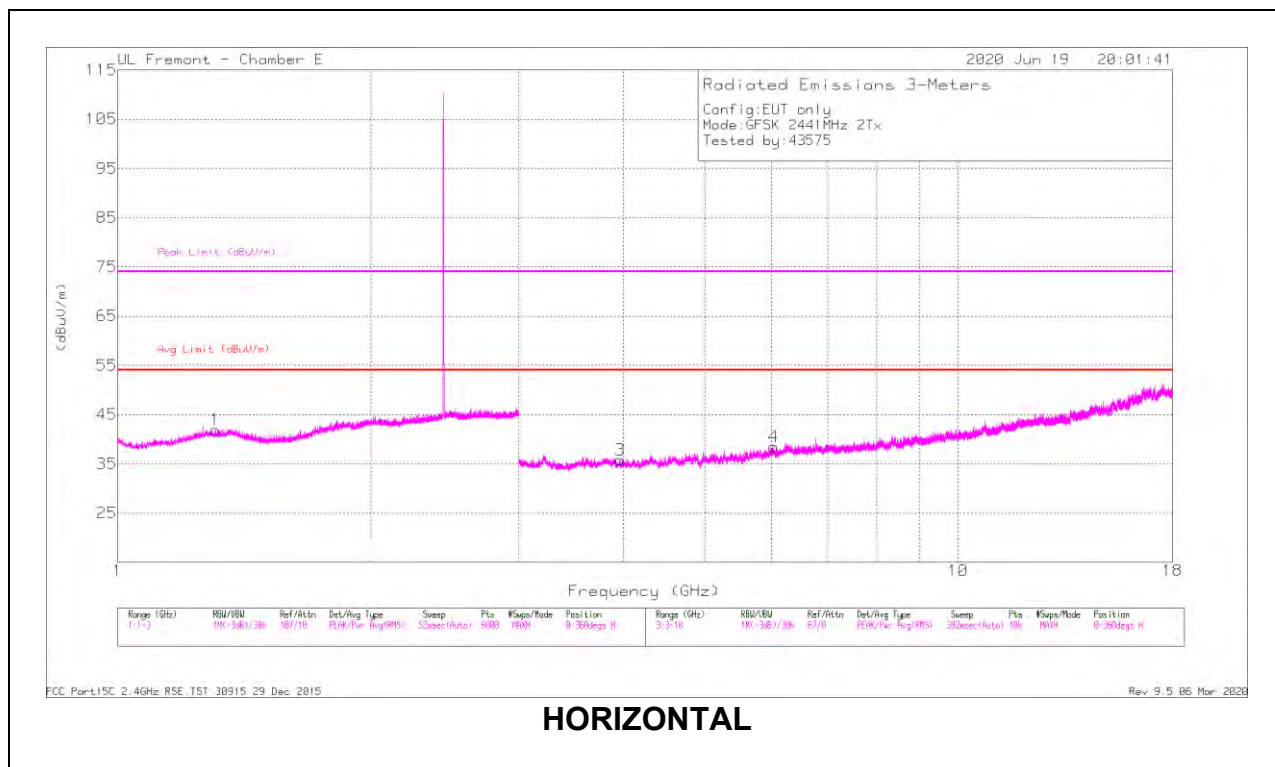


RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT120 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.66568	42.56	PKFH	28.5	-24	47.06	-	-	74	-26.94	153	281	H
	* 1.66389	29.73	VA1T	28.6	-24	34.33	54	-19.67	-	-	153	281	H
2	* 3.73188	39.06	PKFH	35.1	-30.1	44.06	-	-	74	-29.94	135	259	H
	* 3.73055	26.89	VA1T	35.1	-30.1	31.89	54	-22.11	-	-	135	259	H
5	* 4.68522	39.42	PKFH	34.1	-30.9	42.62	-	-	74	-31.38	182	175	V
	* 4.68536	26.99	VA1T	34.1	-30.9	30.19	54	-23.81	-	-	182	175	V
6	* 17.79066	34.35	PKFH	41.9	-16	60.25	-	-	74	-13.75	143	209	V
	* 17.79138	18.8	VA1T	41.9	-16	44.7	54	-9.3	-	-	143	209	V
4	2.00894	42.3	PKFH	32	-23.8	50.5	-	-	-	-	337	376	V
	2.00948	29.25	VA1T	31.9	-23.8	37.35	-	-	-	-	337	376	V
3	17.18717	19.19	VA1T	40.8	-18.5	41.49	-	-	-	-	186	146	H
	17.18872	35.1	PKFH	40.9	-18.4	57.6	-	-	-	-	186	146	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

MID CHANNEL RESULTS



RADIATED EMISSIONS

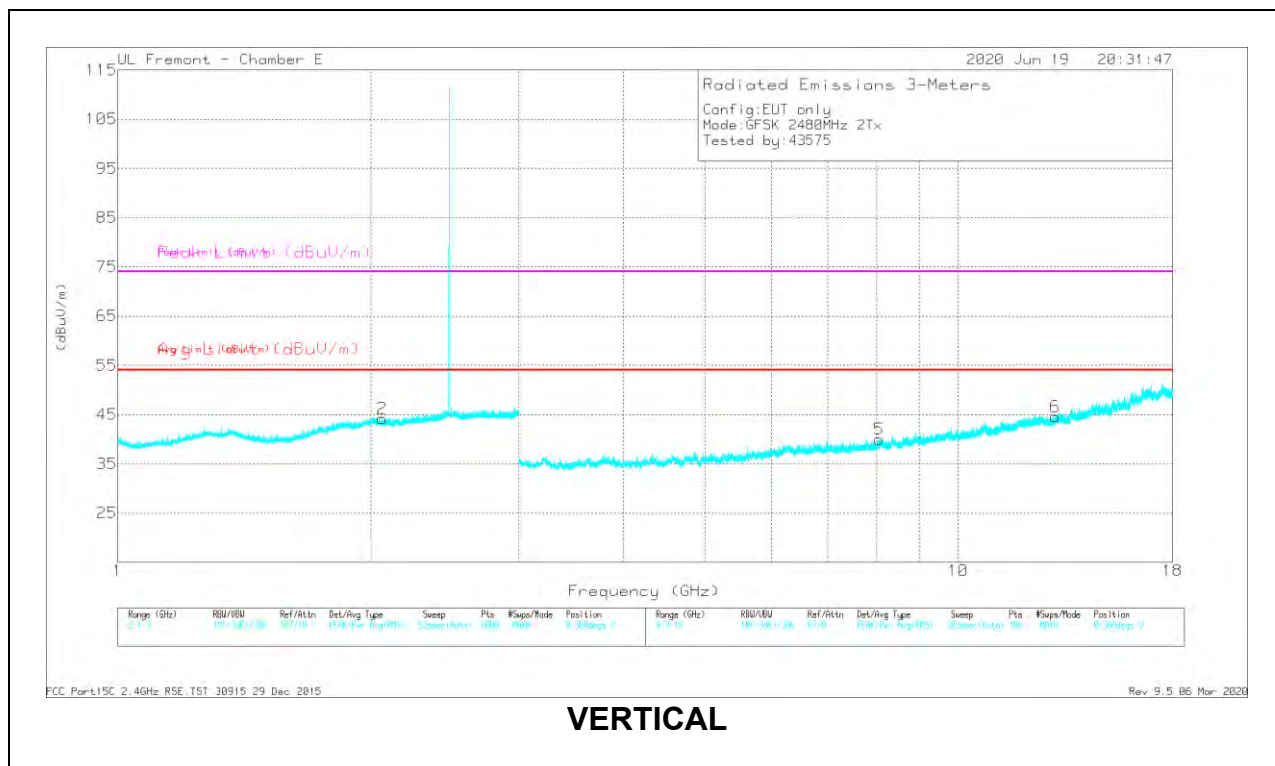
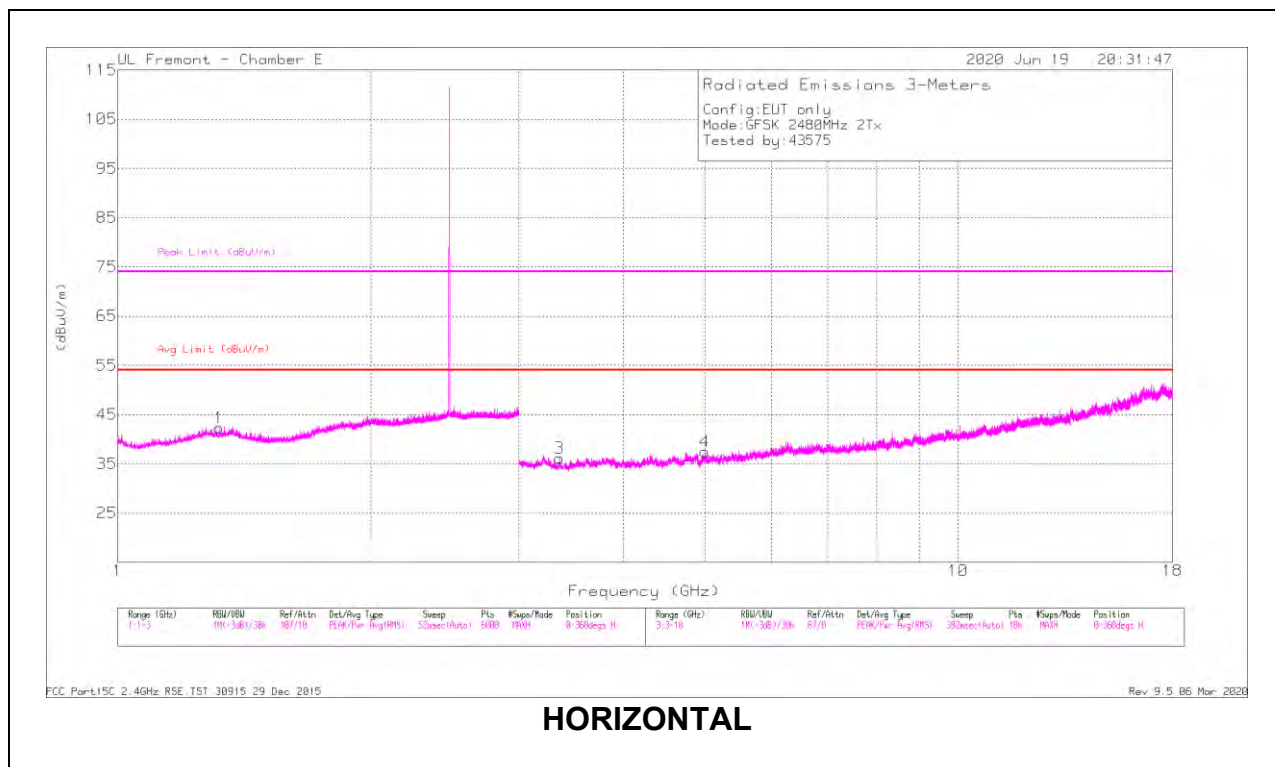
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.30464	44.7	PKFH	29.4	-26.4	47.7	-	-	74	-26.3	0	200	H
	* 1.30791	32.5	VA1T	29.4	-26.4	35.5	54	-18.5	-	-	0	200	H
3	* 3.96488	40.99	PKFH	33.6	-33	41.59	-	-	74	-32.41	0	200	H
	* 3.96544	29.31	VA1T	33.6	-33	29.91	54	-24.09	-	-	0	200	H
5	* 9.16979	36.34	PKFH	36.2	-25.4	47.14	-	-	74	-26.86	0	200	V
	* 9.16761	23.7	VA1T	36.2	-25.5	34.4	54	-19.6	-	-	0	200	V
2	1.9861	44.26	PKFH	31.6	-26.5	49.36	-	-	-	-	0	101	V
	1.98778	32.82	VA1T	31.7	-26.5	38.02	-	-	-	-	0	101	V
4	6.03964	26.48	VA1T	35.4	-29.7	32.18	-	-	-	-	0	200	H
	6.04032	38.53	PKFH	35.3	-29.7	44.13	-	-	-	-	0	200	H
6	13.43976	22.17	VA1T	39	-22.5	38.67	-	-	-	-	0	200	V
	13.44138	34.27	PKFH	39	-22.5	50.77	-	-	-	-	0	200	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.32015	45.03	PKFH	29.3	-26.3	48.03	-	-	74	-25.97	0	200	H
	* 1.32144	32.55	VA1T	29.3	-26.4	35.45	54	-18.55	-	-	0	200	H
3	* 3.35774	42.74	PKFH	32.8	-34.6	40.94	-	-	74	-33.06	0	200	H
	* 3.35643	31.2	VA1T	32.8	-34.6	29.4	54	-24.6	-	-	0	200	H
4	* 4.99943	39.67	PKFH	34.2	-31.6	42.27	-	-	74	-31.73	0	102	H
	* 4.99922	28.51	VA1T	34.2	-31.6	31.11	54	-22.89	-	-	0	102	H
5	* 8.06116	37.04	PKFH	35.8	-27.2	45.64	-	-	74	-28.36	0	199	V
	* 8.05999	25.13	VA1T	35.8	-27.3	33.63	54	-20.37	-	-	0	199	V
2	2.06504	32.86	VA1T	31.6	-26.5	37.96	-	-	-	-	0	101	V
	2.06542	44.78	PKFH	31.6	-26.5	49.88	-	-	-	-	0	101	V
6	13.04883	22.28	VA1T	39.2	-22.6	38.88	-	-	-	-	0	101	V
	13.05162	34.9	PKFH	39.2	-22.6	51.5	-	-	-	-	0	101	V

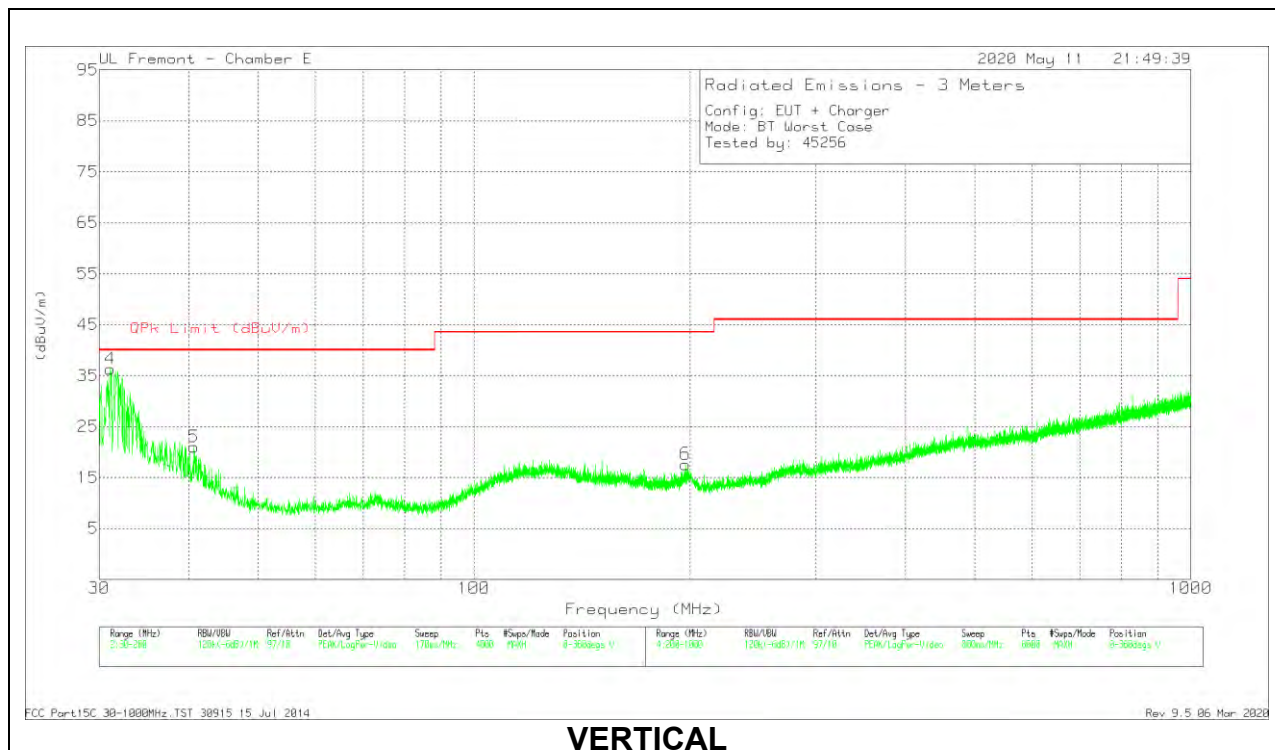
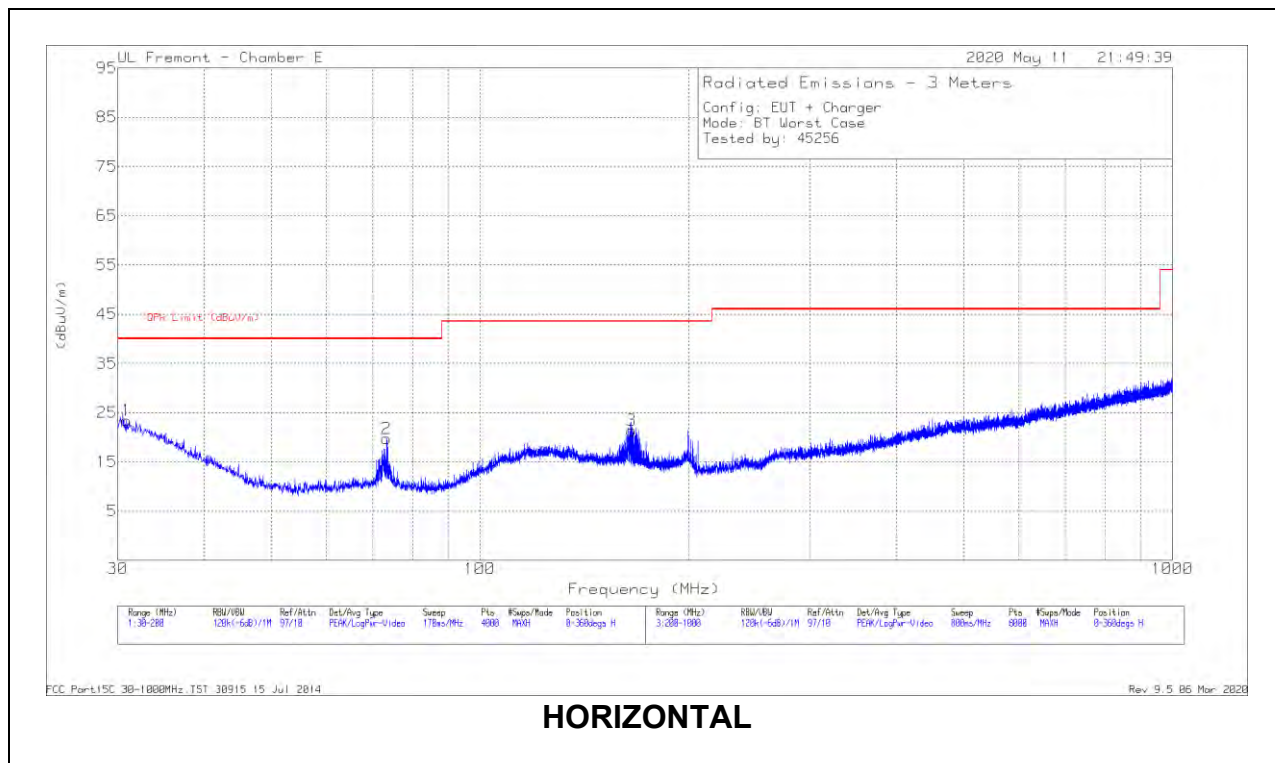
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

10.2. WORST CASE BELOW 1 GHZ

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)



Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.8927	28.92	Pk	26.1	-31.6	23.42	40	-16.58	0-360	301	H
2	* 73.3612	36.84	Pk	13.9	-31	19.74	40	-20.26	0-360	201	H
3	* 165.5676	33.68	Pk	17.9	-30.2	21.38	43.52	-22.14	0-360	101	H
4	31.2908	30.94	Qp	25.9	-31.5	25.34	40	-14.66	337	104	V
5	40.6278	33.65	Pk	18.9	-31.5	21.05	40	-18.95	0-360	100	V
6	197.1958	29.22	Pk	18.3	-29.9	17.62	43.52	-25.9	0-360	100	V

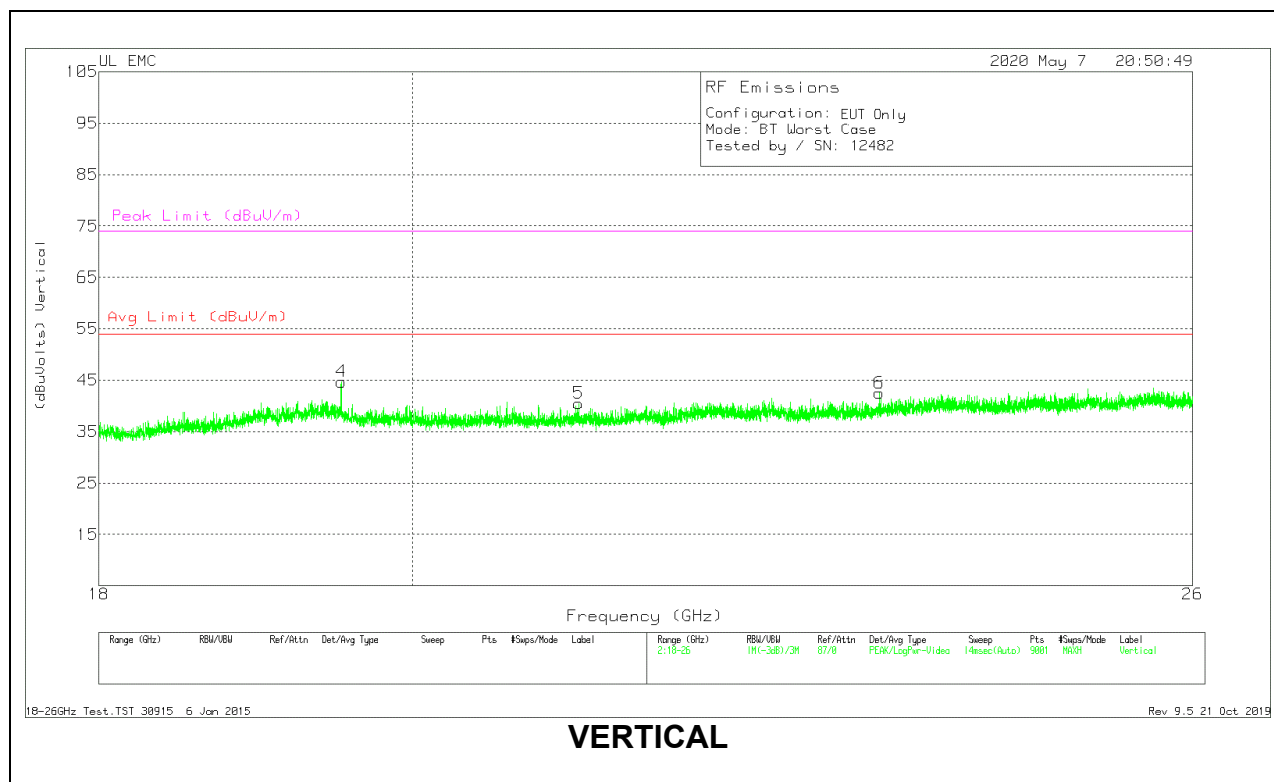
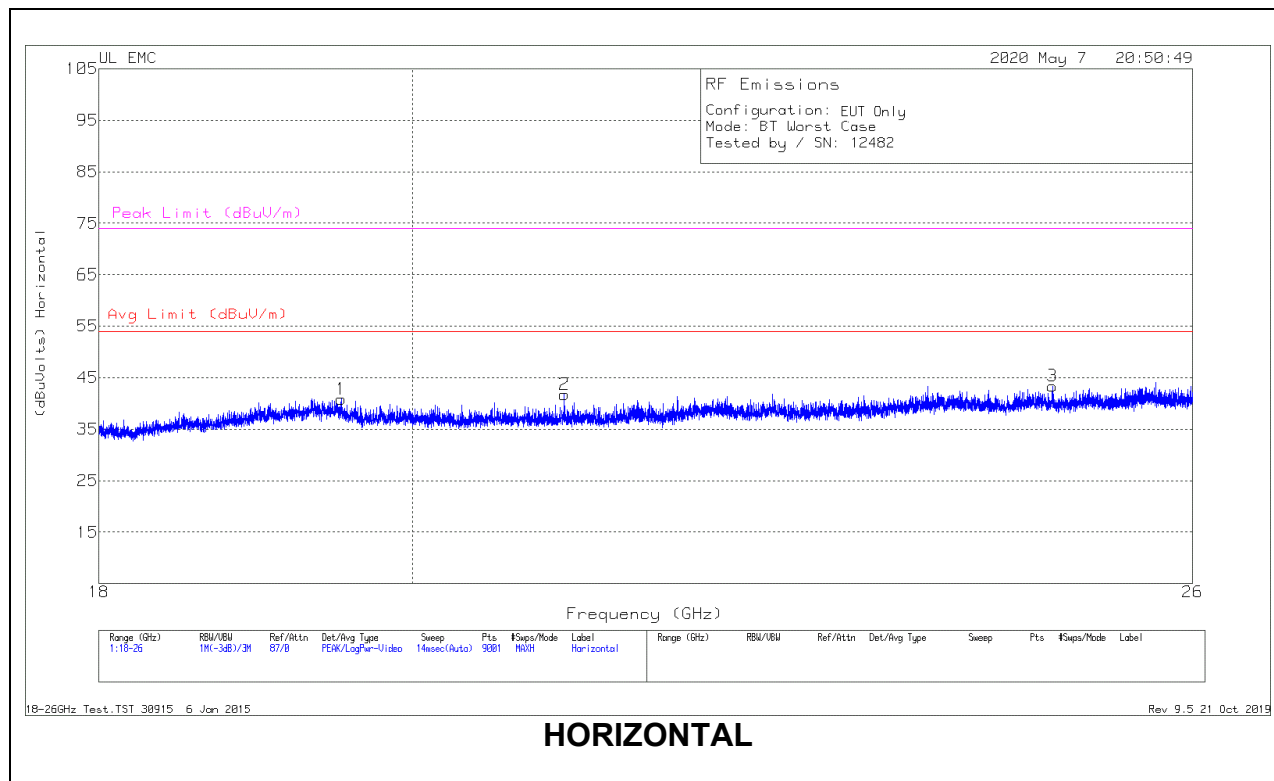
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

Qp - Quasi-Peak detector

10.3. WORST CASE 18-26 GHZ

SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION)



18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T125 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	19.52711	36.74	Pk	32.8	-19.2	-9.5	40.84	54	-13.16	74	-33.16
2	21.048	39.25	Pk	33.1	-21.1	-9.5	41.75	54	-12.25	74	-32.25
3	24.80178	37.77	Pk	34.1	-19	-9.5	43.37	54	-10.63	74	-30.63
4	19.52551	42.11	Pk	32.8	-19.1	-9.5	46.31	-	-	74	-26.18
	19.52607	23.62	Av	32.8	-19.1	-9.5	27.82	54	-26.18		
5	21.14933	37.87	Pk	33	-20.9	-9.5	40.47	54	-13.53	74	-33.53
6	23.4	38.12	Pk	34	-20.1	-9.5	42.52	54	-11.48	74	-31.48

Pk - Peak detector

Av - Average detection

18-26GHz Test.TST 30915 6 Jan 2015
Rev 9.5 21 Oct 2019

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

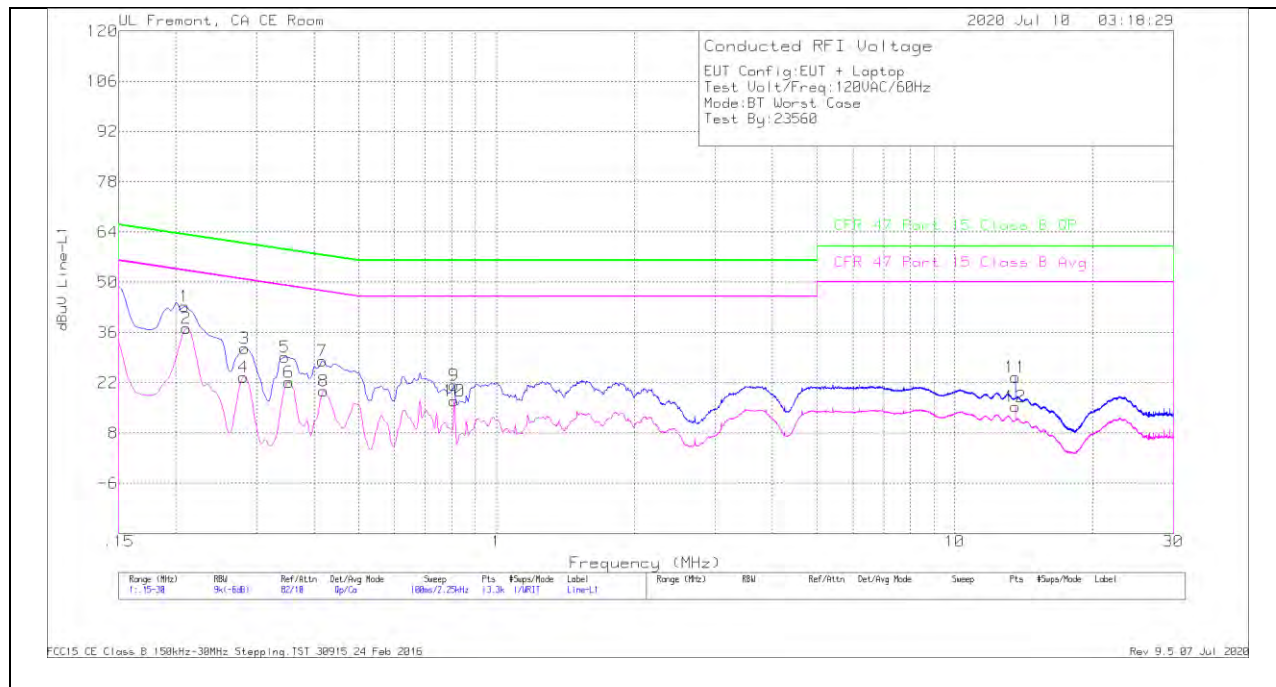
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

11.1. AC Power Line With Laptop

LINE 1 RESULTS



Range 1: Line-L1 .15 - 30MHz

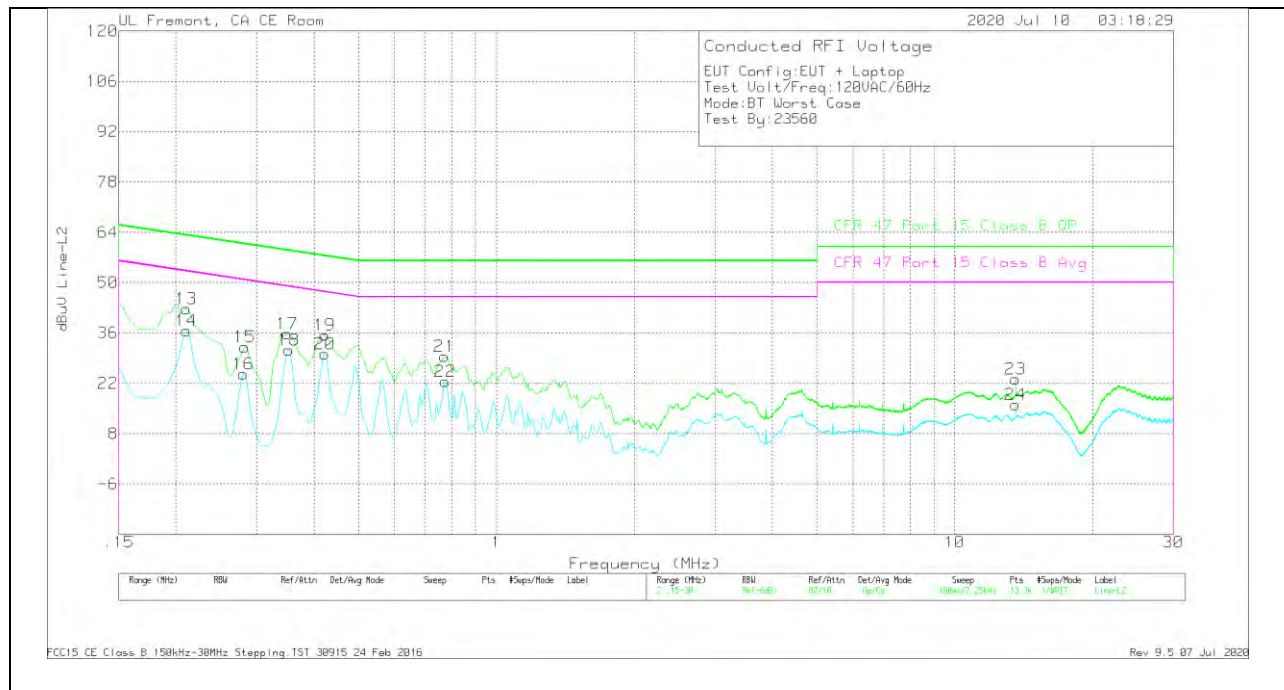
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE018644 6 LISN L1	LC Cables C1&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)Margin (dB)
1	.2085	33.35	Qp	0	0	10	43.35	63.26	-19.91	-	-
2	.21075	27.2	Ca	0	0	10	37.2	-	-	53.18	-15.98
3	.28275	21.66	Qp	0	0	10	31.66	60.73	-29.07	-	-
4	.2805	13.62	Ca	0	0	10	23.62	-	-	50.8	-27.18
5	.34575	19.14	Qp	0	0	10	29.14	59.06	-29.92	-	-
6	.3525	12.18	Ca	0	0	10	22.18	-	-	48.9	-26.72
7	.41775	18.11	Qp	0	0	10	28.11	57.49	-29.38	-	-
8	.42	9.66	Ca	0	0	10	19.66	-	-	47.45	-27.79
9	.80925	11.22	Qp	0	0	10	21.22	56	-34.78	-	-
10	.80925	7	Ca	0	0	10	17	-	-	46	-29
11	13.56	13.08	Qp	.1	.2	10.1	23.48	60	-36.52	-	-
12	13.56	5.03	Ca	.1	.2	10.1	15.43	-	-	50	-34.57

Qp - Quasi-Peak detector

Ca - CISPR average detection

FCC15 CE Class B 150kHz-30MHz Stepping.TST 30915 24 Feb 2016
Rev 9.5 07 Jul 2020

LINE 2 RESULTS



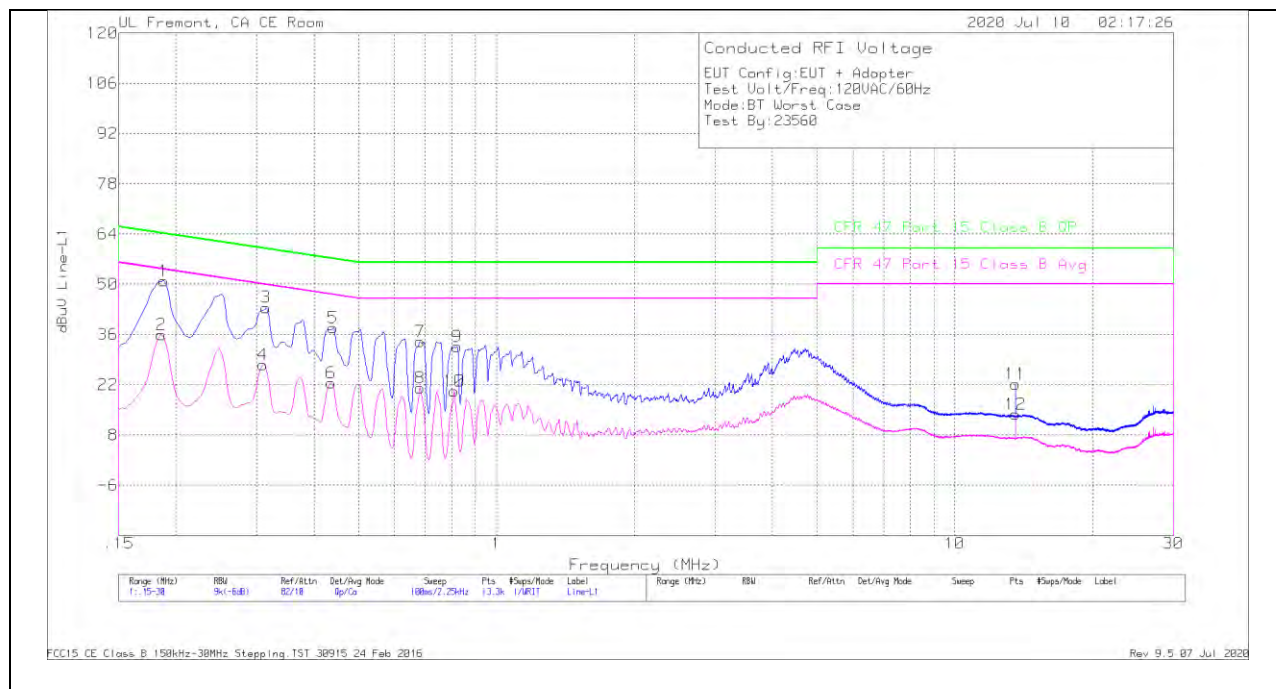
Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE018644 6 LISN L2	LC Cables C2&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)M argin (dB)
13	.21075	32.74	Qp	0	0	10	42.74	63.18	-20.44	-	-
14	.21075	26.58	Ca	0	0	10	36.58	-	-	53.18	-16.6
15	.28275	22.15	Qp	0	0	10	32.15	60.73	-28.58	-	-
16	.2805	14.67	Ca	0	0	10	24.67	-	-	50.8	-26.13
17	.35025	25.71	Qp	0	0	10	35.71	58.96	-23.25	-	-
18	.3525	21.25	Ca	0	0	10	31.25	-	-	48.9	-17.65
19	.42225	25.4	Qp	0	0	10	35.4	57.4	-22	-	-
20	.42225	20.14	Ca	0	0	10	30.14	-	-	47.4	-17.26
21	.771	19.44	Qp	0	0	10	29.44	56	-26.56	-	-
22	.77325	12.58	Ca	0	0	10	22.58	-	-	46	-23.42
23	13.56	12.75	Qp	.1	.2	10.1	23.15	60	-36.85	-	-
24	13.56	5.7	Ca	.1	.2	10.1	16.1	-	-	50	-33.9

Qp - Quasi-Peak detector
Ca - CISPR average detection

FCC15 CE Class B 150kHz-30MHz Stepping.TST 30915 24 Feb 2016
Rev 9.5 07 Jul 2020

11.2. AC Power Line With AC/DC Adapter

LINE 1 RESULTS



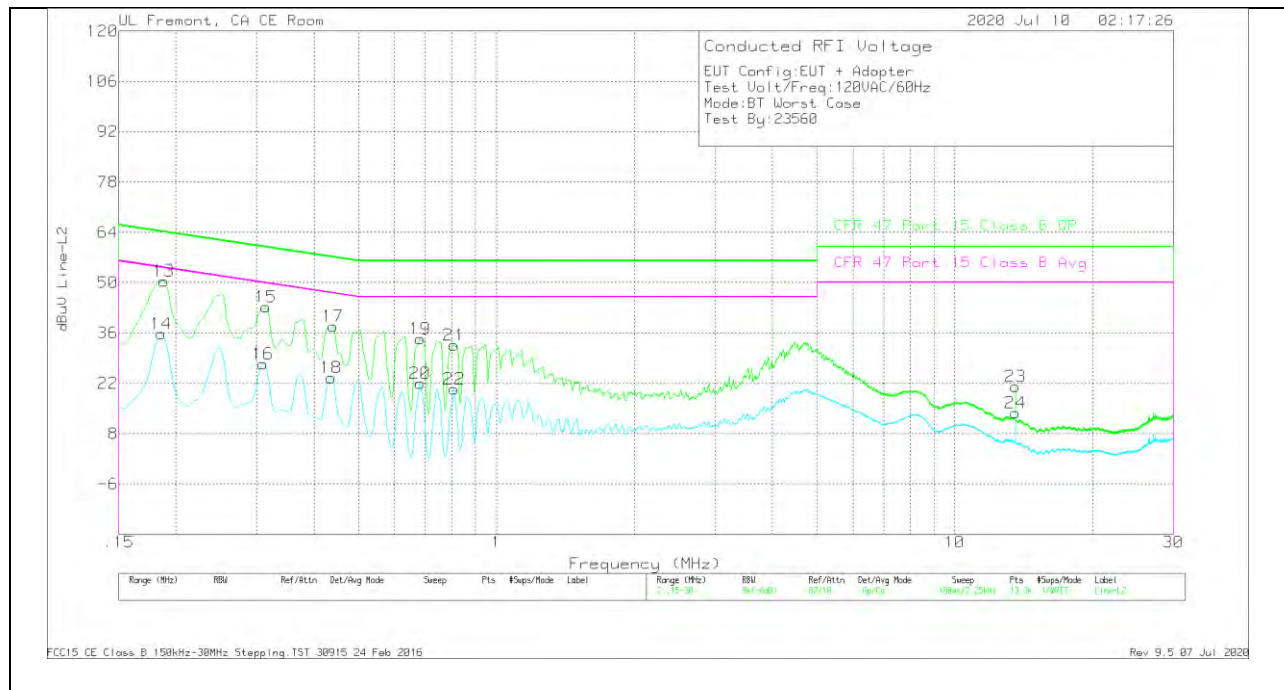
Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE018644 6 LISN L1	LC Cables C1&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)M argin (dB)
1	.18825	40.96	Qp	0	0	10	50.96	64.11	-13.15	-	-
2	.186	25.99	Ca	0	0	10	35.99	-	-	54.21	-18.22
3	.31425	33.54	Qp	0	0	10	43.54	59.86	-16.32	-	-
4	.30975	17.61	Ca	0	0	10	27.61	-	-	49.98	-22.37
5	.44025	27.81	Qp	0	0	10	37.81	57.06	-19.25	-	-
6	.43575	12.53	Ca	0	0	10	22.53	-	-	47.14	-24.61
7	.681	24.06	Qp	0	0	10	34.06	56	-21.94	-	-
8	.681	11.09	Ca	0	0	10	21.09	-	-	46	-24.91
9	.8205	22.68	Qp	0	0	10	32.68	56	-23.32	-	-
10	.80925	10.19	Ca	0	0	10	20.19	-	-	46	-25.81
11	13.56	11.71	Qp	.1	.2	10.1	22.11	60	-37.89	-	-
12	13.56	3.46	Ca	.1	.2	10.1	13.86	-	-	50	-36.14

Qp - Quasi-Peak detector

Ca - CISPR average detection

FCC15 CE Class B 150kHz-30MHz Stepping.TST 30915 24 Feb 2016
Rev 9.5 07 Jul 2020

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	PRE018644 6 LISN L2	LC Cables C2&C3	Limiter (dB)	Corrected Reading dBUV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)M argin (dB)
13	.18825	40.51	Qp	0	0	10	50.51	64.11	-13.6	-	-
14	.186	25.8	Ca	0	0	10	35.8	-	-	54.21	-18.41
15	.31425	33.29	Qp	0	0	10	43.29	59.86	-16.57	-	-
16	.30975	17.42	Ca	0	0	10	27.42	-	-	49.98	-22.56
17	.44025	27.79	Qp	0	0	10	37.79	57.06	-19.27	-	-
18	.43575	13.62	Ca	0	0	10	23.62	-	-	47.14	-23.52
19	.681	24.31	Qp	0	0	10	34.31	56	-21.69	-	-
20	.681	11.99	Ca	0	0	10	21.99	-	-	46	-24.01
21	.80925	22.57	Qp	0	0	10	32.57	56	-23.43	-	-
22	.80925	10.45	Ca	0	0	10	20.45	-	-	46	-25.55
23	13.56	10.74	Qp	.1	.2	10.1	21.14	60	-38.86	-	-
24	13.56	3.43	Ca	.1	.2	10.1	13.83	-	-	50	-36.17

Qp - Quasi-Peak detector
Ca - CISPR average detection

FCC15 CE Class B 150kHz-30MHz Stepping.TST 30915 24 Feb 2016
Rev 9.5 07 Jul 2020

12. SETUP PHOTOS

Please refer to 13259315-EP1 for setup photos

END OF TEST REPORT