10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

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 as applicable 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.

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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.

Compliance with radiated spurious emissions limits in the restricted bands closest to the allocated 2402 – 2480 MHz band were performed on all modes for the low and high channels. Additional measurements on adjacent channels to the low and/or high channels were limited to cases where the edge channels have a significantly lower rated power than the adjacent channels.

Compliance with radiated spurious emissions limits in the restricted bands between 1GHz and 18GHz (except as explained for the band edge) the operating band were performed on the low, middle and high channel for 2Mbps mode. As this mode has the highest output power and highest power spectral density it is considered worst case for spurious emissions across all modes. For these tests both transmit chains were operating simultaneously and set to the maximum power per chain to cover both TXBF mode. Spurious emissions for frequencies below 1Ghz and above 18GHz were limited to the center channel as preliminary testing indicated that changing the operating frequency had no significant impact on the emissions in those frequency bands.

RESULTS

High Power Beamforming BLE 1Mbps 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.

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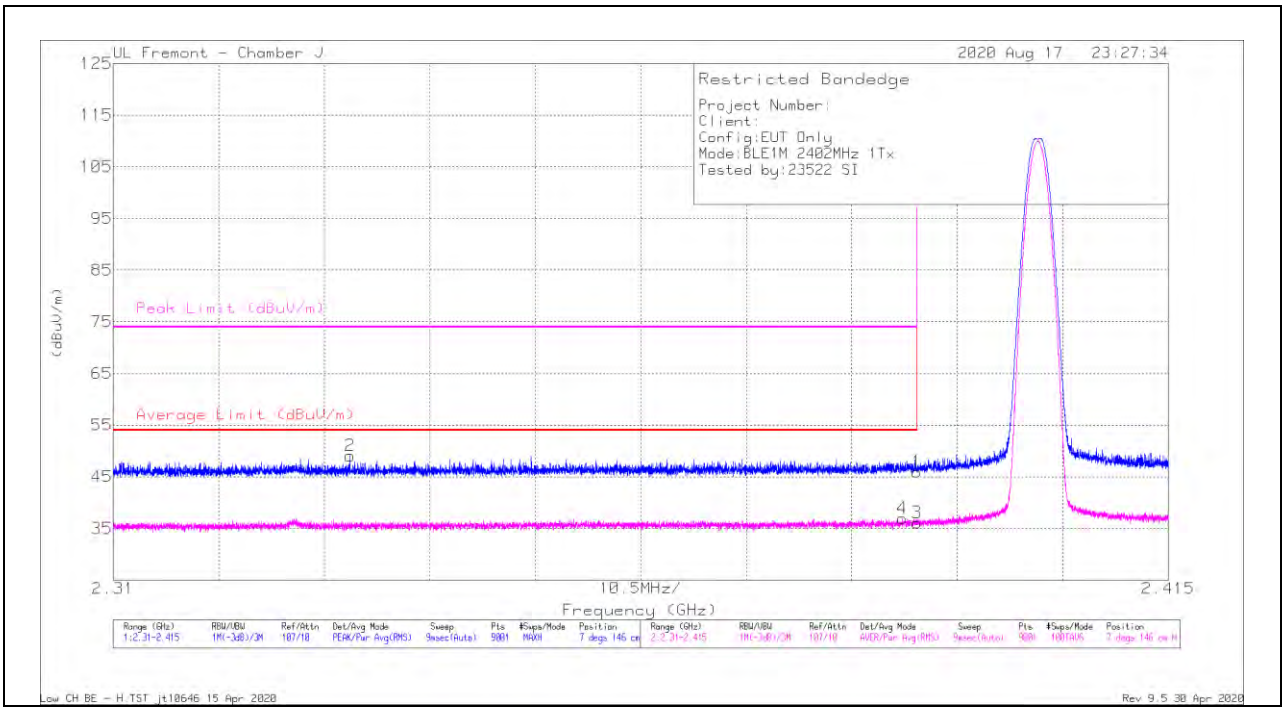
10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. HIGH POWER BLE (1Mbps)

ANT4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	42.44	Pk	29	-25.5	45.94	-	-	74	-28.06	7	146	H
2	* 2.33354	45.75	Pk	28.9	-25.6	49.05	-	-	74	-24.95	7	146	H
3	* 2.38999	32.6	RMS	29	-25.5	36.1	54	-17.9	-	-	7	146	H
4	* 2.38854	33.44	RMS	29	-25.5	36.94	54	-17.06	-	-	7	146	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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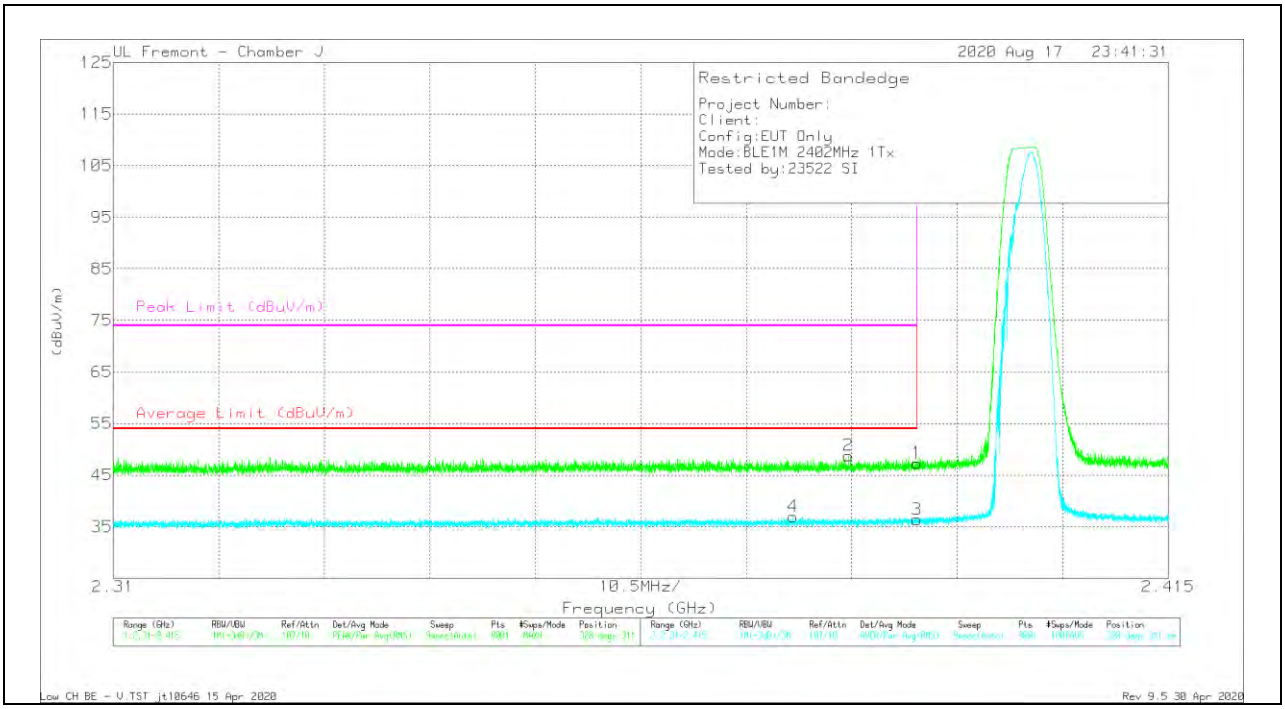
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	43.81	Pk	29	-25.5	47.31	-	-	74	-26.69	328	311	V
2	* 2.38314	45.3	Pk	29	-25.5	48.8	-	-	74	-25.2	328	311	V
3	* 2.38999	32.89	RMS	29	-25.5	36.39	54	-17.61	-	-	328	311	V
4	* 2.37765	33.43	RMS	29	-25.5	36.93	54	-17.07	-	-	328	311	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
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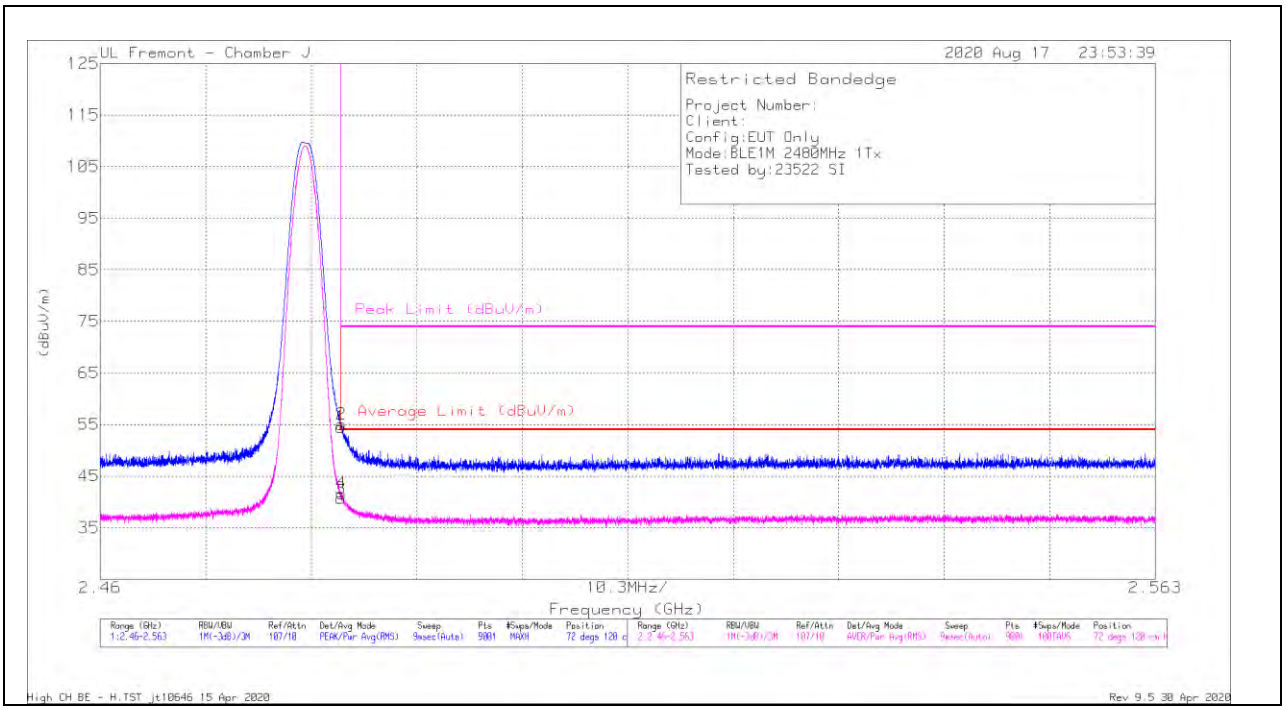
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	50.52	Pk	29.5	-25.5	54.52	-	-	74	-19.48	72	120	H
2	* 2.48355	51.03	Pk	29.5	-25.5	55.03	-	-	74	-18.97	72	120	H
3	* 2.48351	36.67	RMS	29.5	-25.5	40.67	54	-13.33	-	-	72	120	H
4	* 2.48354	37.6	RMS	29.5	-25.5	41.6	54	-12.4	-	-	72	120	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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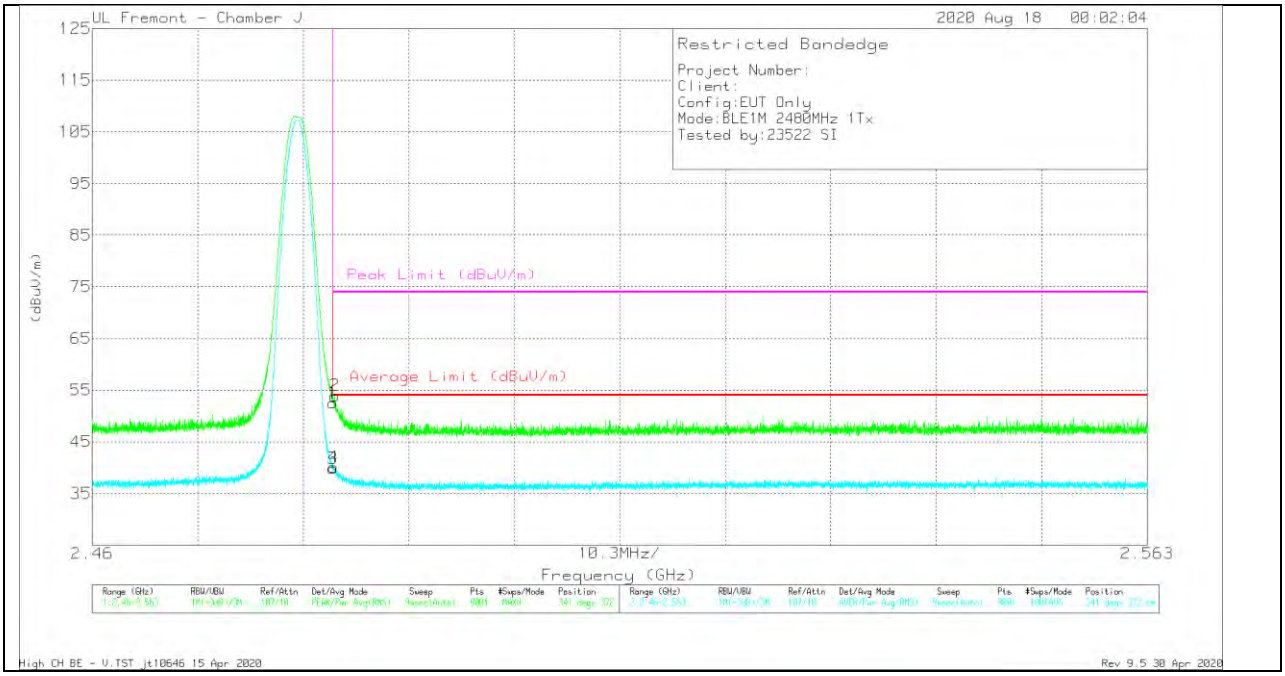
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	48.48	Pk	29.5	-25.5	52.48	-	-	74	-21.52	341	372	V
2	* 2.48365	49.91	Pk	29.5	-25.5	53.91	-	-	74	-20.09	341	372	V
3	* 2.48351	35.82	RMS	29.5	-25.5	39.82	54	-14.18	-	-	341	372	V
4	* 2.48353	36.07	RMS	29.5	-25.5	40.07	54	-13.93	-	-	341	372	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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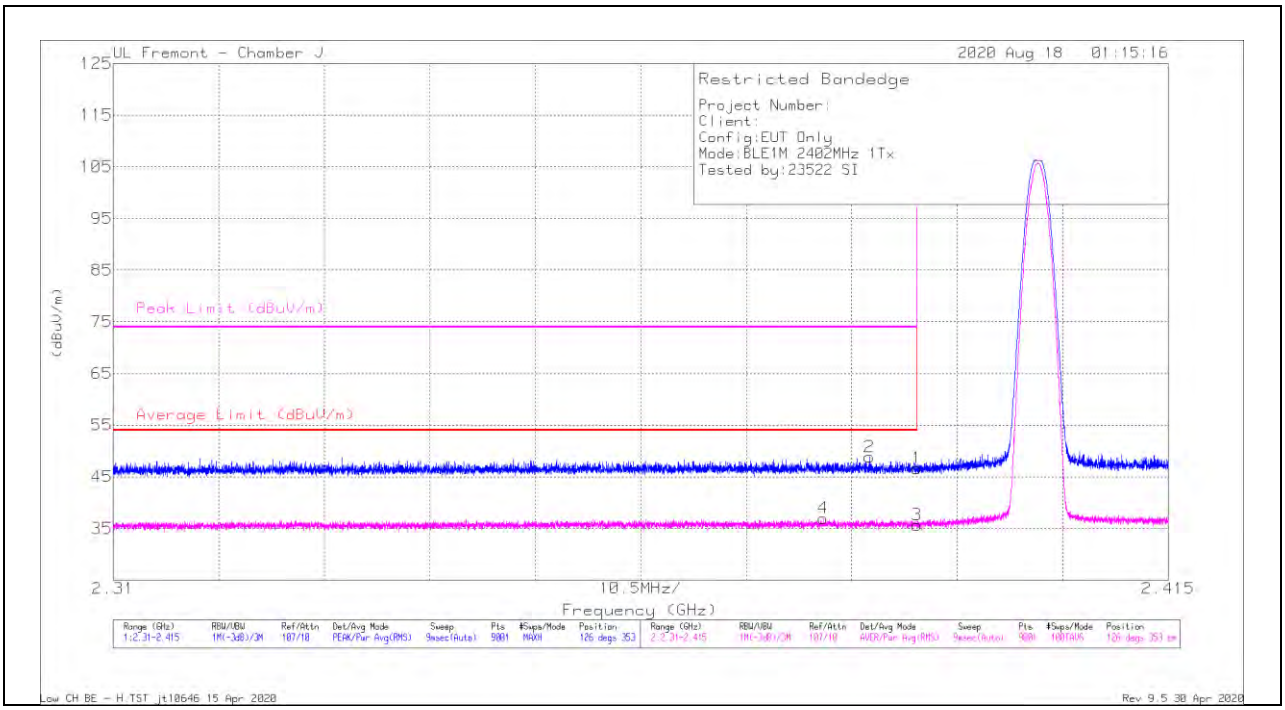
ANT3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	43.13	Pk	29	-25.5	46.63	-	-	74	-27.37	126	353	H
2	* 2.38526	45.36	Pk	29	-25.5	48.86	-	-	74	-25.14	126	353	H
3	* 2.38999	32.15	RMS	29	-25.5	35.65	54	-18.35	-	-	126	353	H
4	* 2.38066	33.48	RMS	29	-25.5	36.98	54	-17.02	-	-	126	353	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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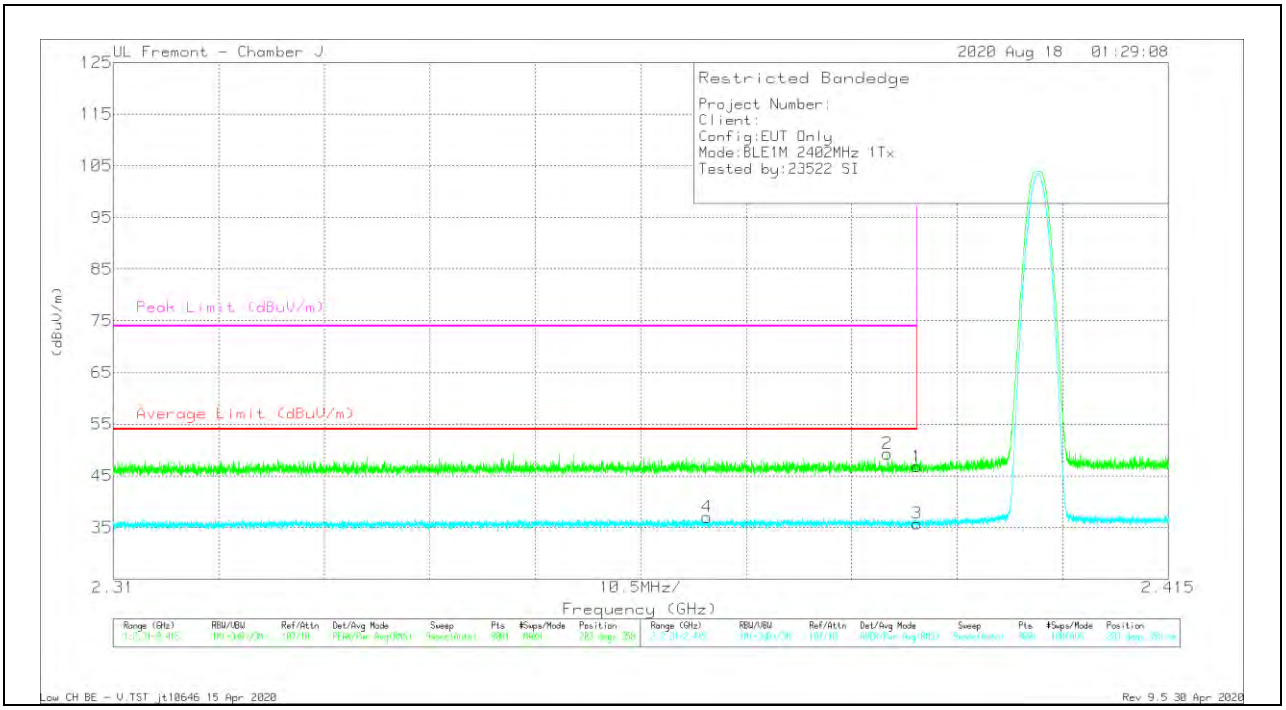
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	43.29	Pk	29	-25.5	46.79	-	-	74	-27.21	203	358	V
2	* 2.38706	45.79	Pk	29	-25.5	49.29	-	-	74	-24.71	203	358	V
3	* 2.38999	32.26	RMS	29	-25.5	35.76	54	-18.24	-	-	203	358	V
4	* 2.36909	33.49	RMS	29	-25.5	36.99	54	-17.01	-	-	203	358	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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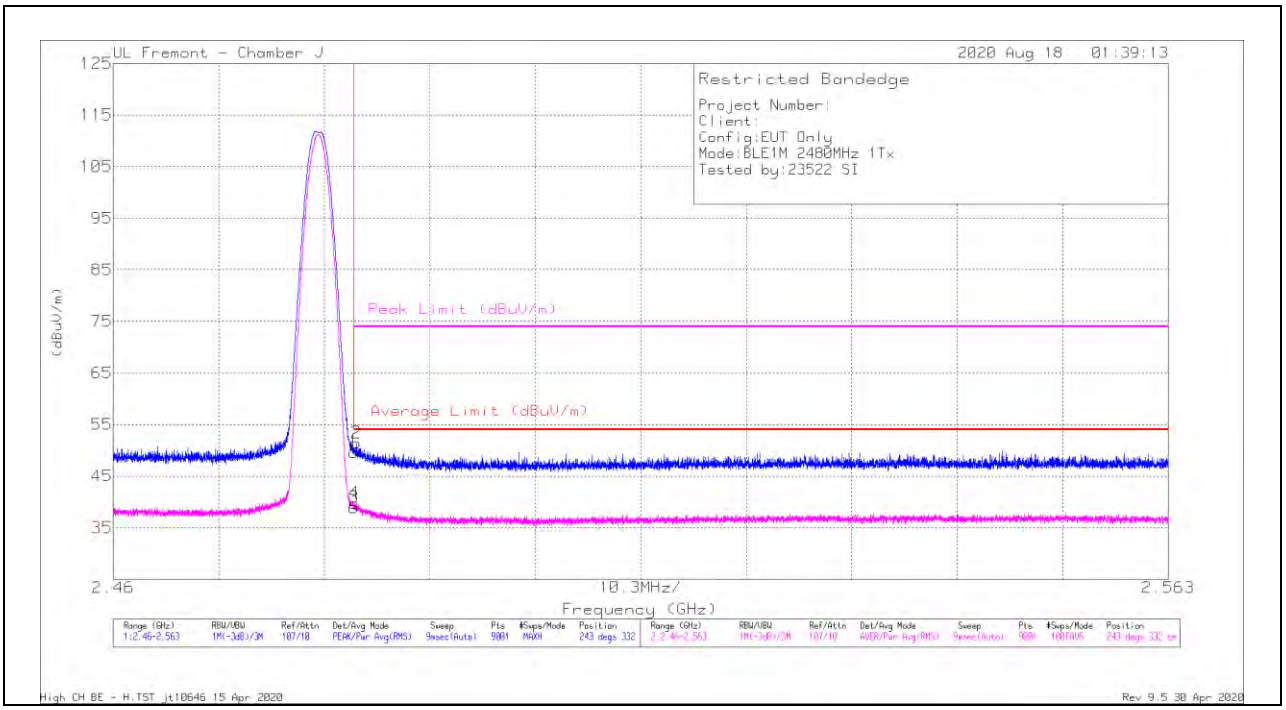
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	45.63	Pk	29.5	-25.5	49.63	-	-	74	-24.37	243	332	H
2	* 2.48375	47.43	Pk	29.5	-25.5	51.43	-	-	74	-22.57	243	332	H
3	* 2.48351	34.95	RMS	29.5	-25.5	38.95	54	-15.05	-	-	243	332	H
4	* 2.48353	35.75	RMS	29.5	-25.5	39.75	54	-14.25	-	-	243	332	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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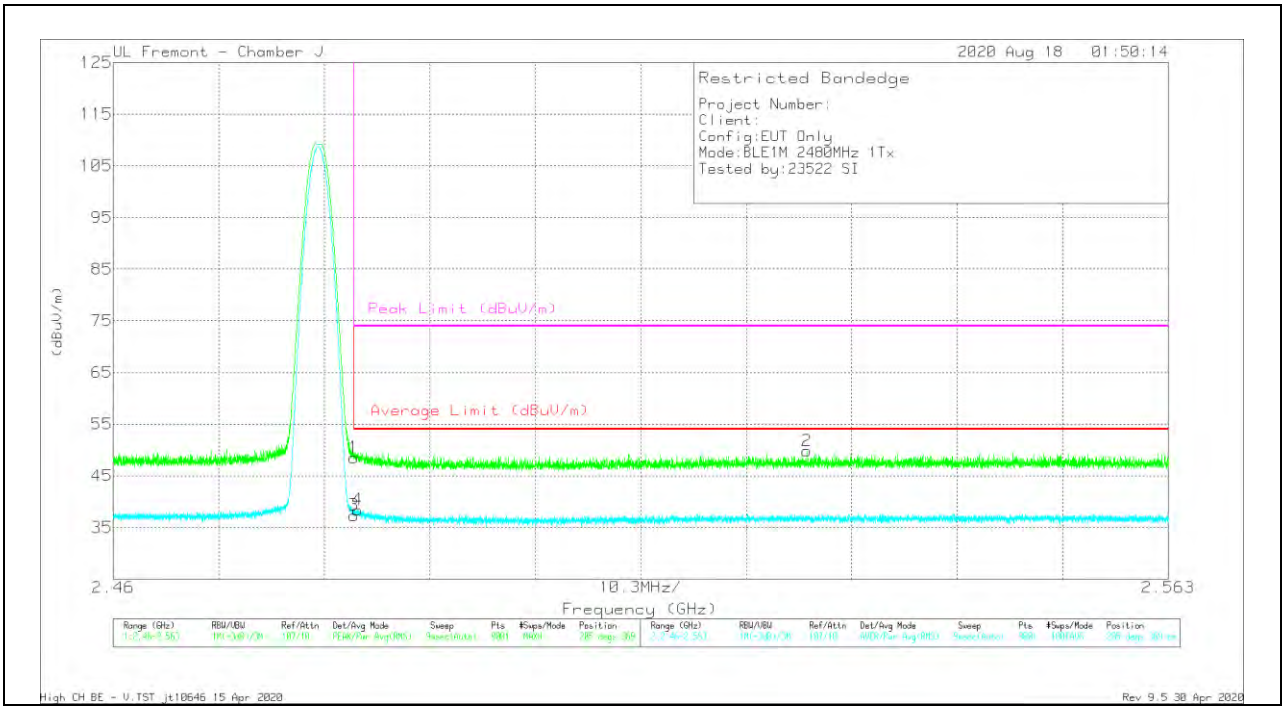
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	44.54	Pk	29.5	-25.5	48.54	-	-	74	-25.46	205	369	V
2	2.5277	45.43	Pk	29.8	-25.4	49.83	-	-	74	-24.17	205	369	V
3	* 2.48351	33.35	RMS	29.5	-25.5	37.35	54	-16.65	-	-	205	369	V
4	* 2.48386	34.41	RMS	29.5	-25.5	38.41	54	-15.59	-	-	205	369	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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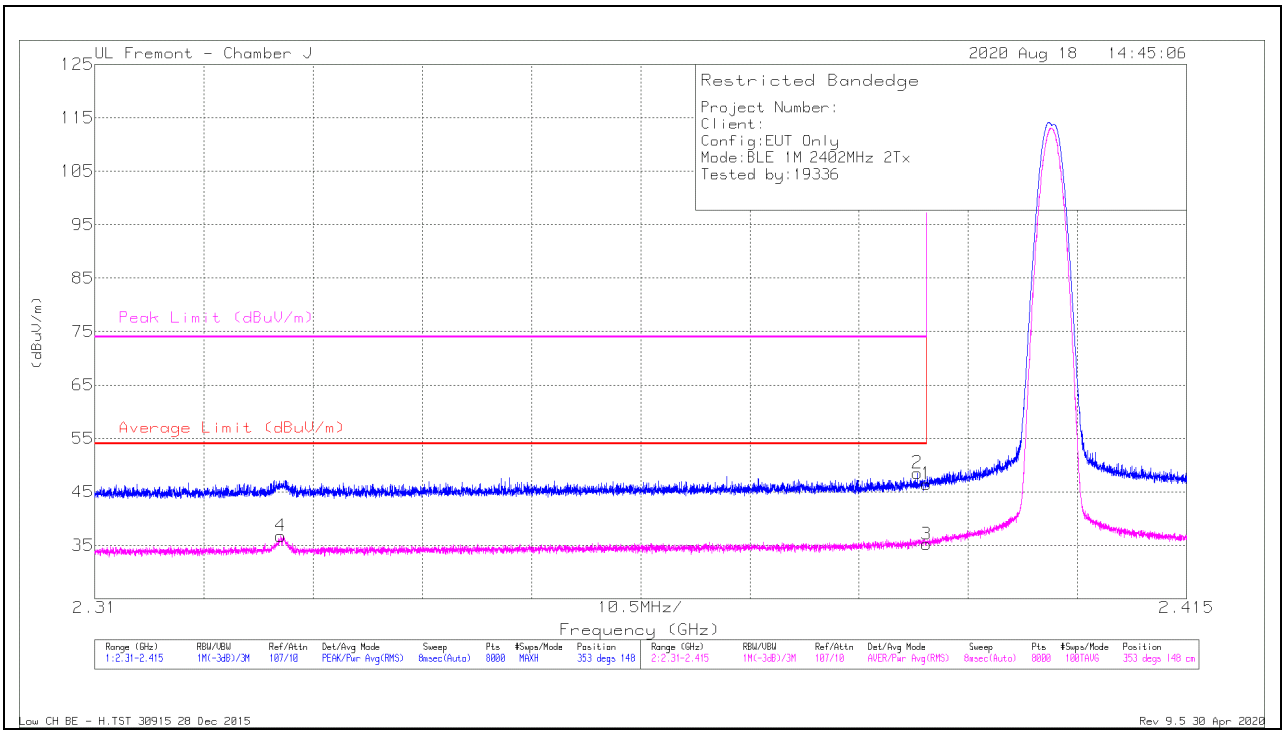
10.2.2. HIGH POWER BLE TXBF (1Mbps)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.39	32.17	Pk	29	-14.7	46.47	-	-	74	-27.53	353	148	H
2	* 2.3891	34.22	Pk	29	-14.7	48.52	-	-	74	-25.48	353	148	H
3	* 2.39	20.91	RMS	29	-14.7	35.21	54	-18.79	-	-	353	148	H
4	* 2.32789	22.75	RMS	28.9	-14.9	36.75	54	-17.25	-	-	353	148	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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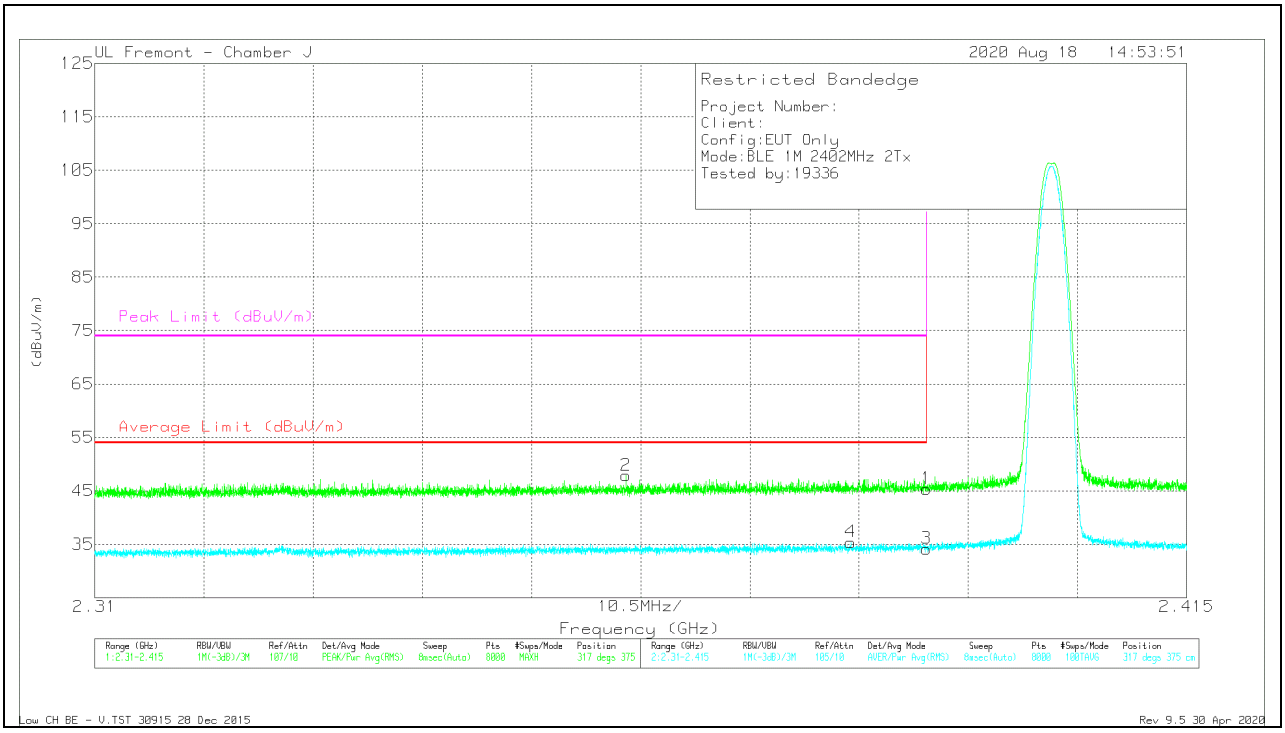
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.39	31.06	Pk	29	-14.7	45.36	-	-	74	-28.64	317	375	V
2	* 2.36108	33.68	Pk	29	-14.8	47.88	-	-	74	-26.12	317	375	V
3	* 2.39	19.88	RMS	29	-14.7	34.18	54	-19.82	-	-	317	375	V
4	* 2.3827	21.09	RMS	29	-14.7	35.39	54	-18.61	-	-	317	375	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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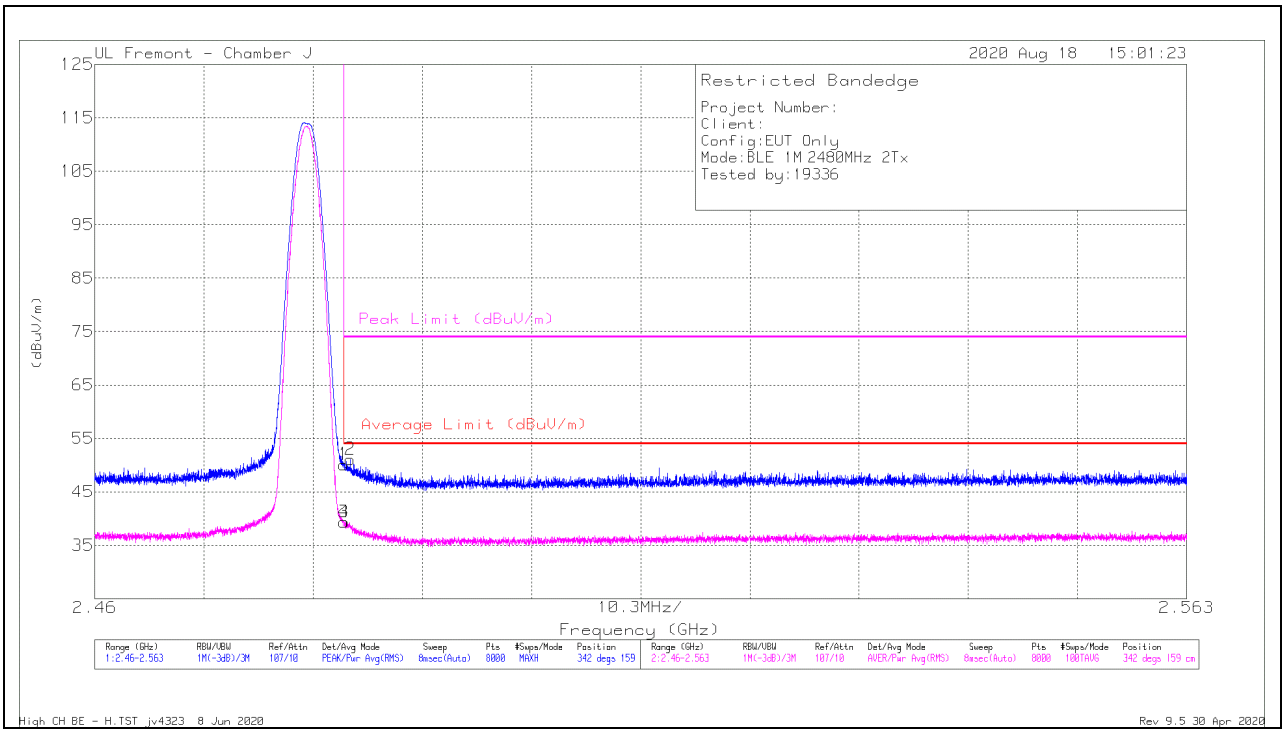
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.4835	35.2	Pk	29.5	-14.6	50.1	-	-	74	-23.9	342	159	H
2	* 2.48411	36.17	Pk	29.5	-14.6	51.07	-	-	74	-22.93	342	159	H
3	* 2.4835	24.45	RMS	29.5	-14.6	39.35	54	-14.65	-	-	342	159	H
4	* 2.48351	24.46	RMS	29.5	-14.6	39.36	54	-14.64	-	-	342	159	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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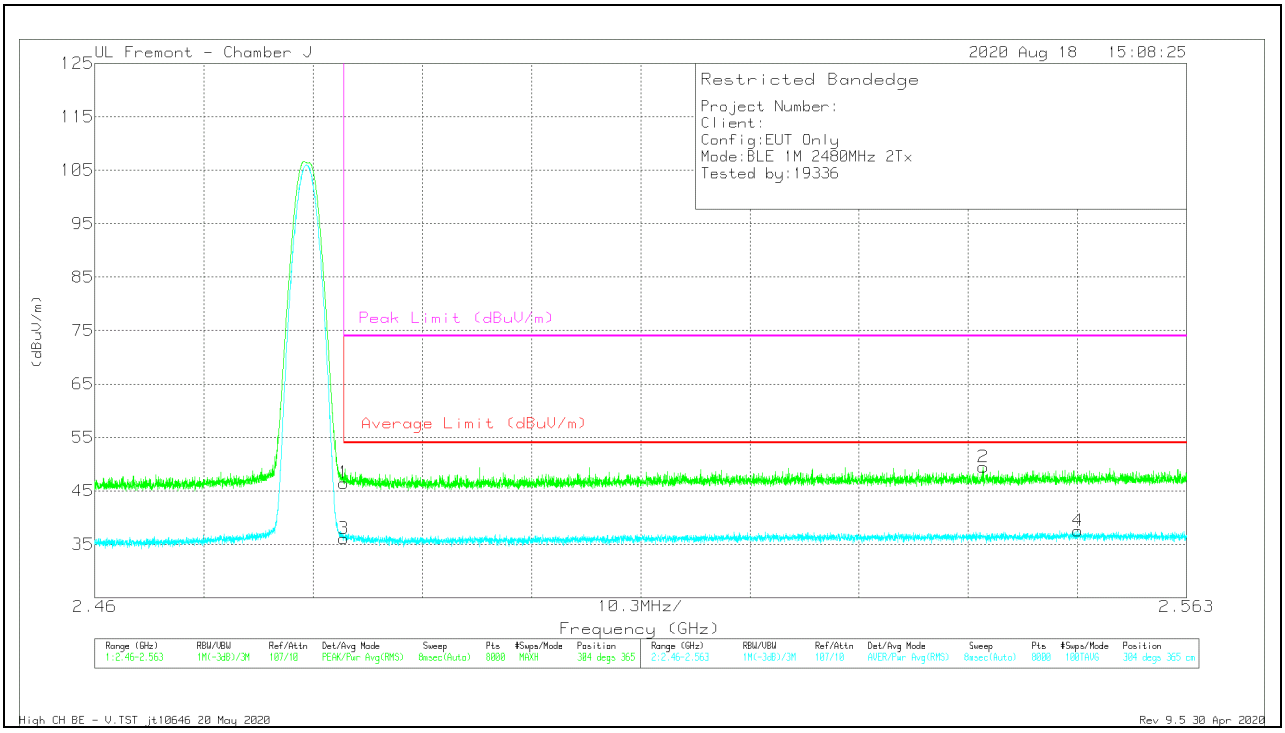
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.4835	31.56	Pk	29.5	-14.6	46.46	-	-	74	-27.54	304	365	V
2	2.54382	34.17	Pk	29.8	-14.5	49.47	-	-	74	-24.53	304	365	V
3	* 2.4835	21.15	RMS	29.5	-14.6	36.05	54	-17.95	-	-	304	365	V
4	2.55275	22.02	RMS	29.9	-14.4	37.52	54	-16.48	-	-	304	365	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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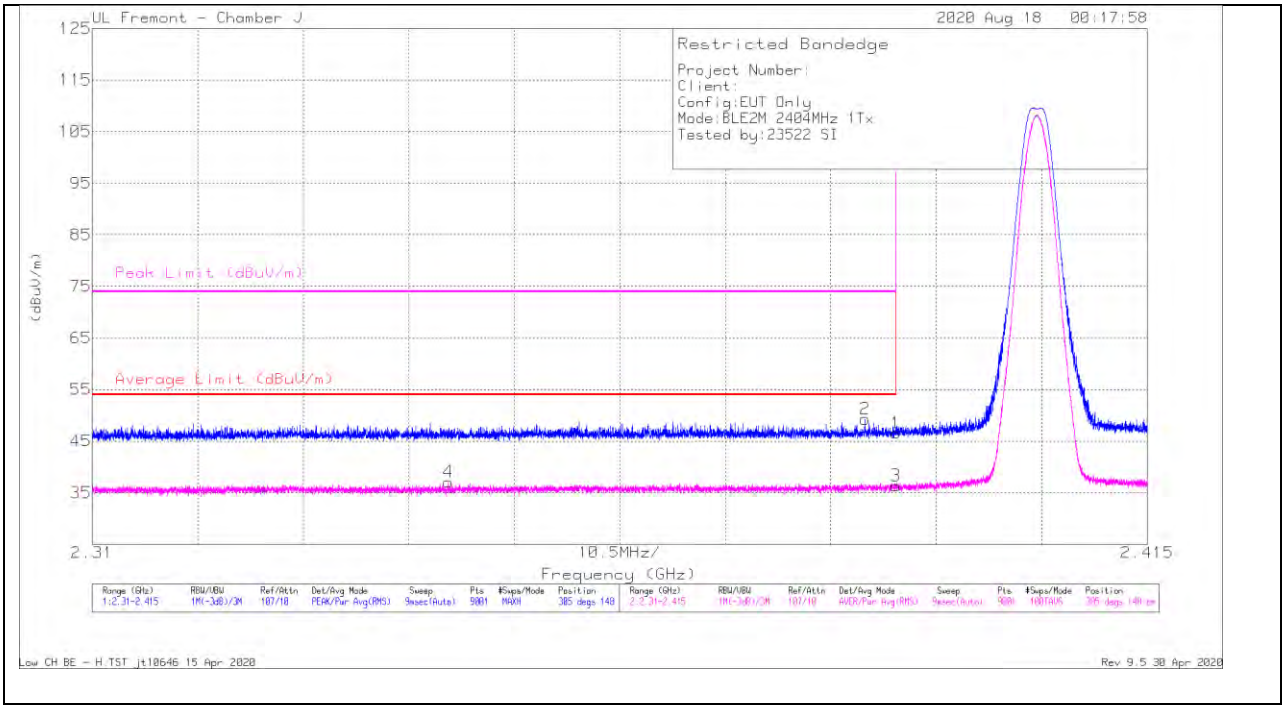
10.2.3. HIGH POWER BLE (2Mbps)

ANT4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	43.03	Pk	29	-25.5	46.53	-	-	74	-27.47	305	148	H
2	* 2.38692	45.79	Pk	29	-25.5	49.29	-	-	74	-24.71	305	148	H
3	* 2.38999	32.83	RMS	29	-25.5	36.33	54	-17.67	-	-	305	148	H
4	* 2.34547	33.75	RMS	28.9	-25.6	37.05	54	-16.95	-	-	305	148	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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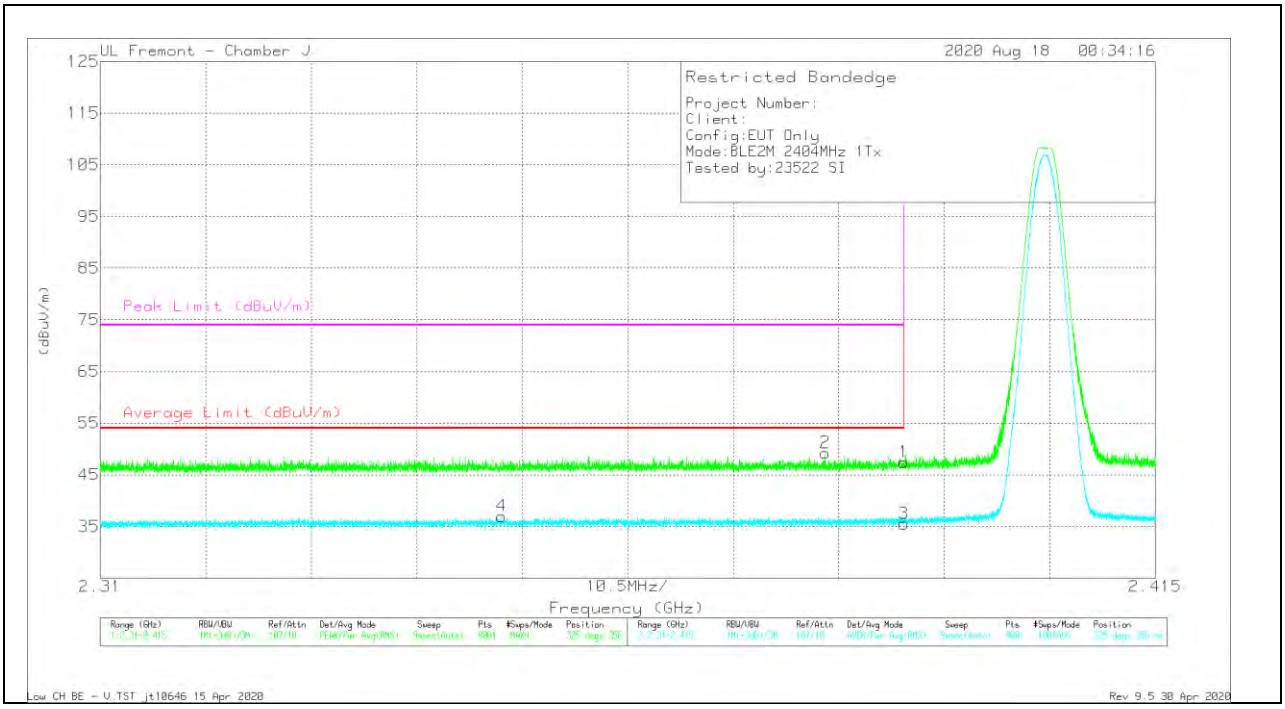
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	43.96	Pk	29	-25.5	47.46	-	-	74	-26.54	325	356	V
2	* 2.38217	45.77	Pk	29	-25.5	49.27	-	-	74	-24.73	325	356	V
3	* 2.38999	32.03	RMS	29	-25.5	35.53	54	-18.47	-	-	325	356	V
4	* 2.34995	33.58	RMS	28.9	-25.5	36.98	54	-17.02	-	-	325	356	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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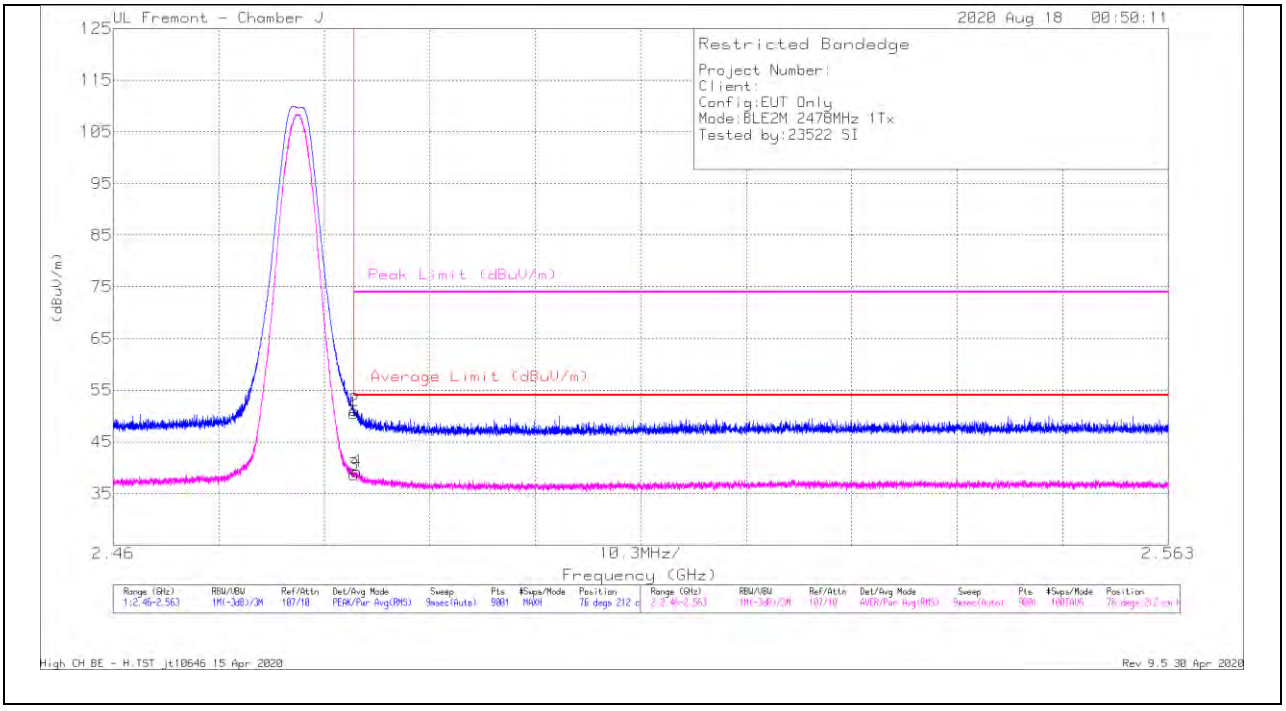
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	46.5	Pk	29.5	-25.5	50.5	-	-	74	-23.5	76	212	H
2	* 2.48354	47.07	Pk	29.5	-25.5	51.07	-	-	74	-22.93	76	212	H
3	* 2.48351	34.63	RMS	29.5	-25.5	38.63	54	-15.37	-	-	76	212	H
4	* 2.48376	35.26	RMS	29.5	-25.5	39.26	54	-14.74	-	-	76	212	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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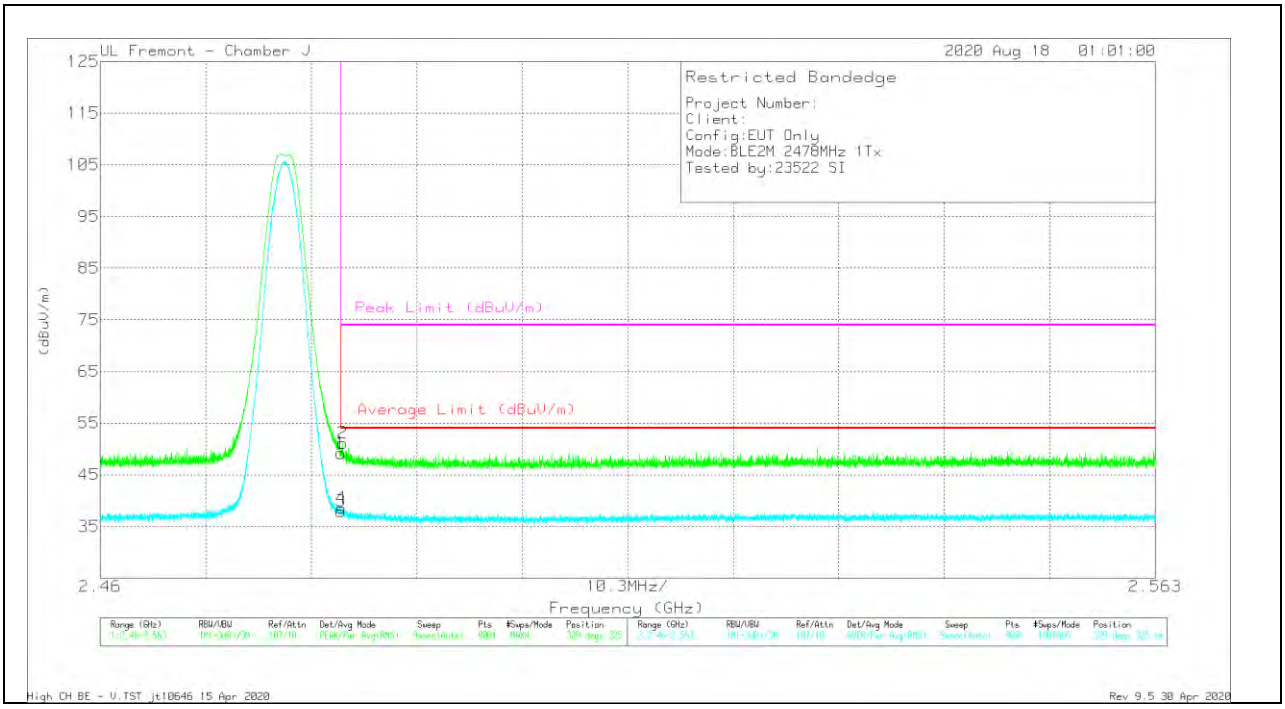
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	45.19	Pk	29.5	-25.5	49.19	-	-	74	-24.81	329	325	V
2	* 2.48365	47.13	Pk	29.5	-25.5	51.13	-	-	74	-22.87	329	325	V
3	* 2.48351	33.95	RMS	29.5	-25.5	37.95	54	-16.05	-	-	329	325	V
4	* 2.48355	34.51	RMS	29.5	-25.5	38.51	54	-15.49	-	-	329	325	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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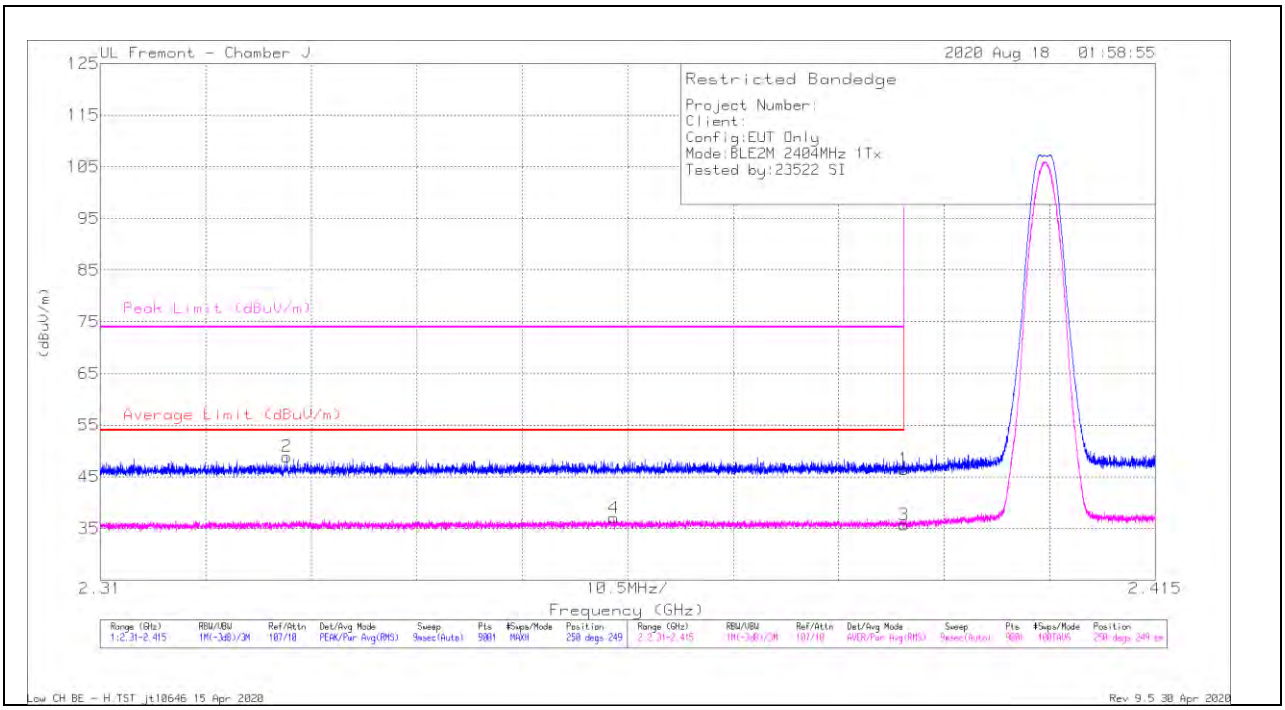
ANT3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	42.94	Pk	29	-25.5	46.44	-	-	74	-27.56	250	249	H
2	* 2.32855	45.62	Pk	28.9	-25.6	48.92	-	-	74	-25.08	250	249	H
3	* 2.38999	32.22	RMS	29	-25.5	35.72	54	-18.28	-	-	250	249	H
4	* 2.36111	33.53	RMS	29	-25.5	37.03	54	-16.97	-	-	250	249	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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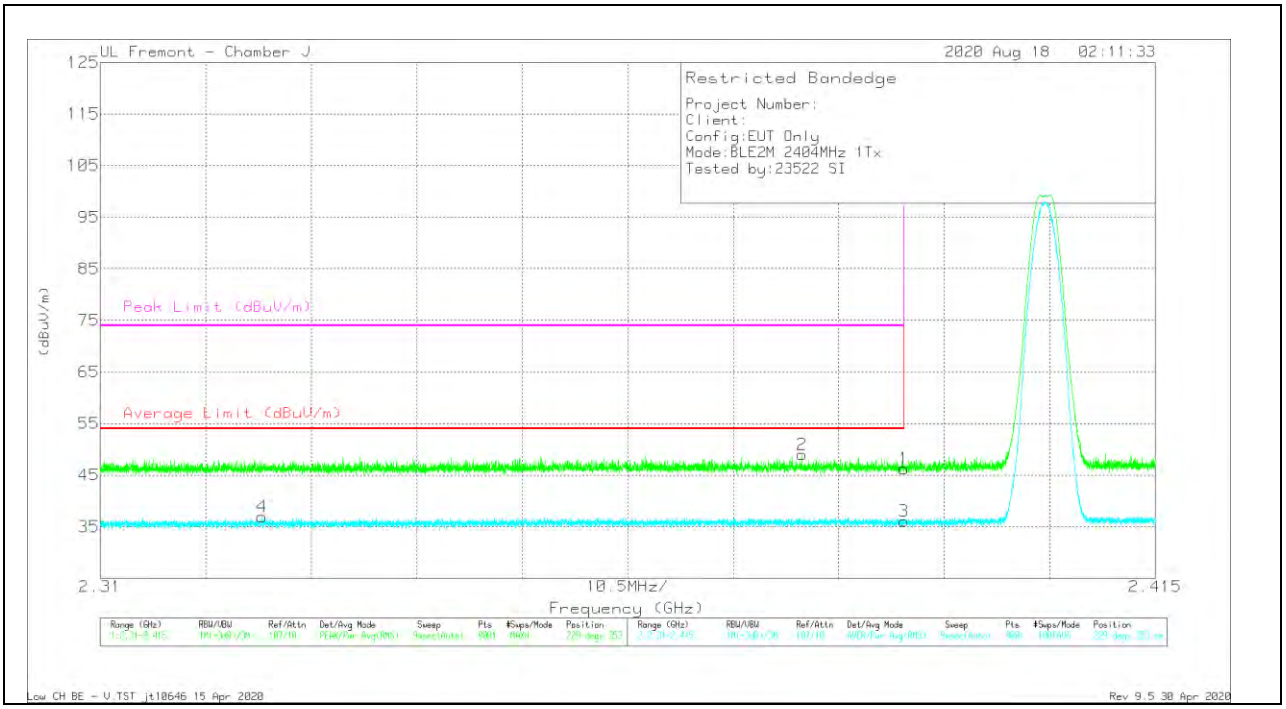
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	42.76	Pk	29	-25.5	46.26	-	-	74	-27.74	229	353	V
2	* 2.37985	45.45	Pk	29	-25.5	48.95	-	-	74	-25.05	229	353	V
3	* 2.38999	32.56	RMS	29	-25.5	36.06	54	-17.94	-	-	229	353	V
4	* 2.3261	33.7	RMS	28.8	-25.6	36.9	54	-17.1	-	-	229	353	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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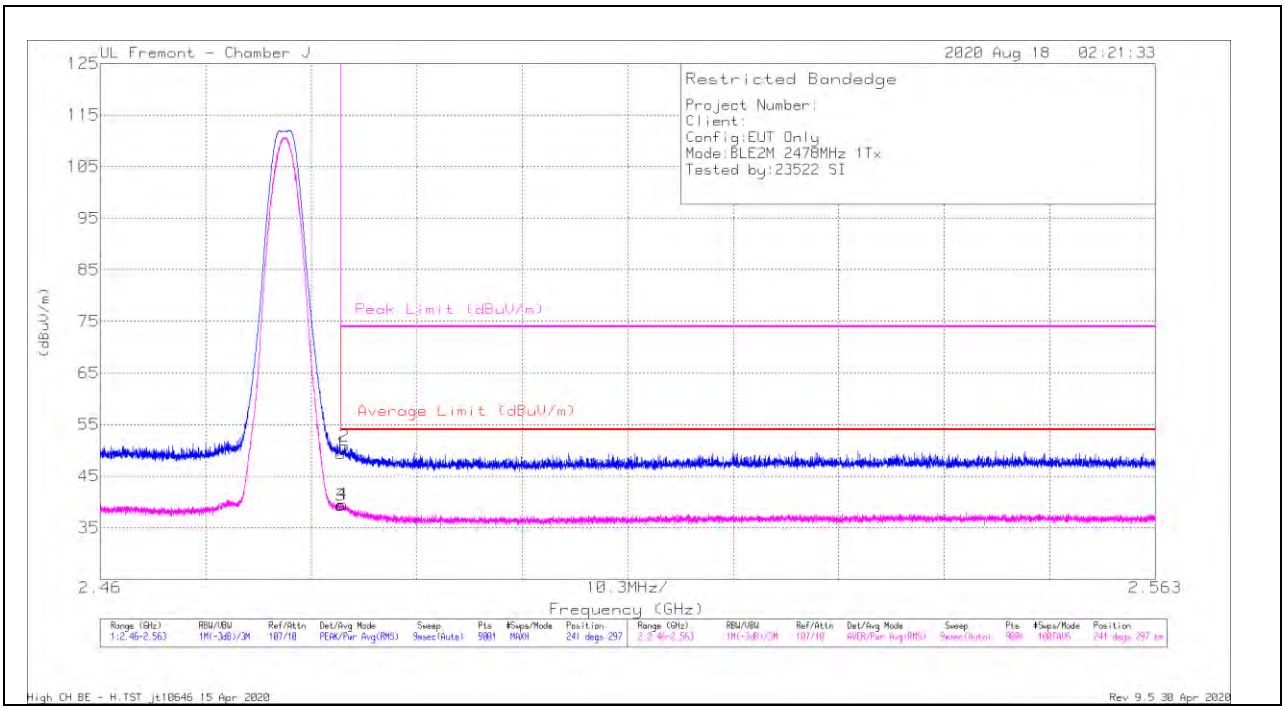
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	45.35	Pk	29.5	-25.5	49.35	-	-	74	-24.65	241	297	H
2	* 2.48387	46.78	Pk	29.5	-25.5	50.78	-	-	74	-23.22	241	297	H
3	* 2.48351	35.34	RMS	29.5	-25.5	39.34	54	-14.66	-	-	241	297	H
4	* 2.48364	35.54	RMS	29.5	-25.5	39.54	54	-14.46	-	-	241	297	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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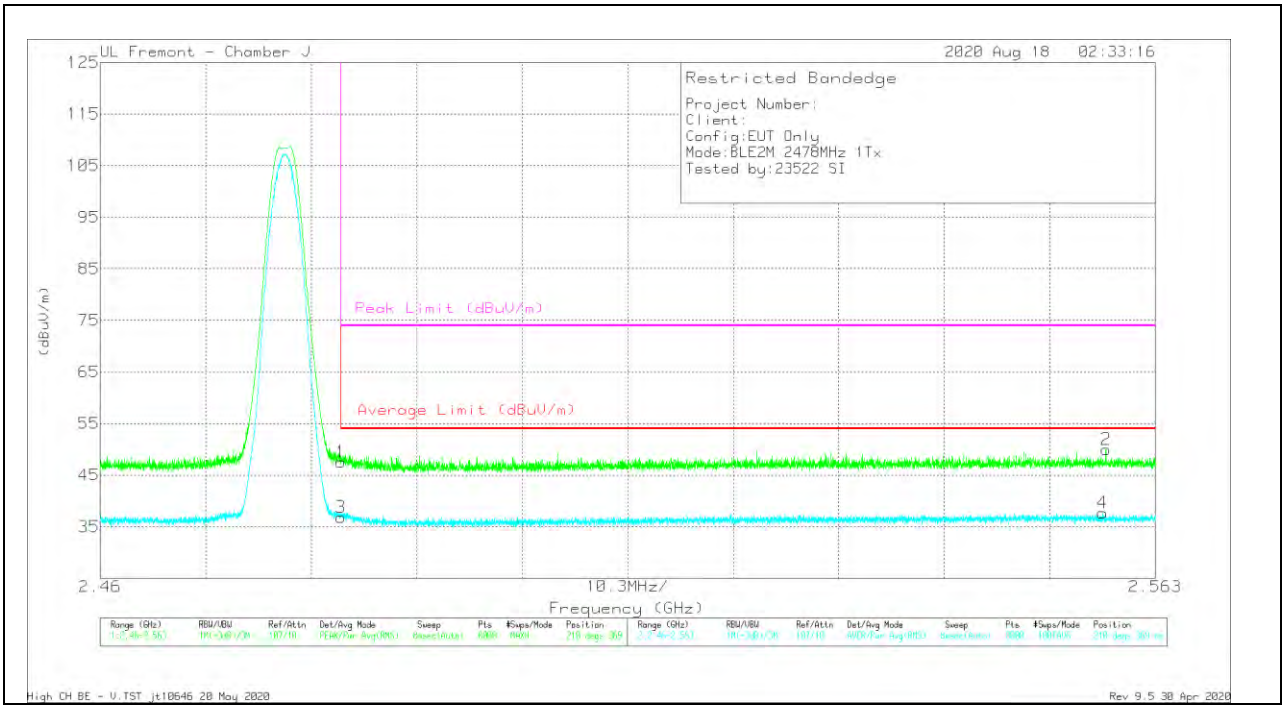
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.4835	32.63	Pk	29.5	-14.6	47.53	-	-	74	-26.47	210	369	V
2	2.55819	34.57	Pk	29.8	-14.4	49.97	-	-	74	-24.03	210	369	V
3	* 2.4835	21.92	RMS	29.5	-14.6	36.82	54	-17.18	-	-	210	369	V
4	2.55787	22.27	RMS	29.8	-14.4	37.67	54	-16.33	-	-	210	369	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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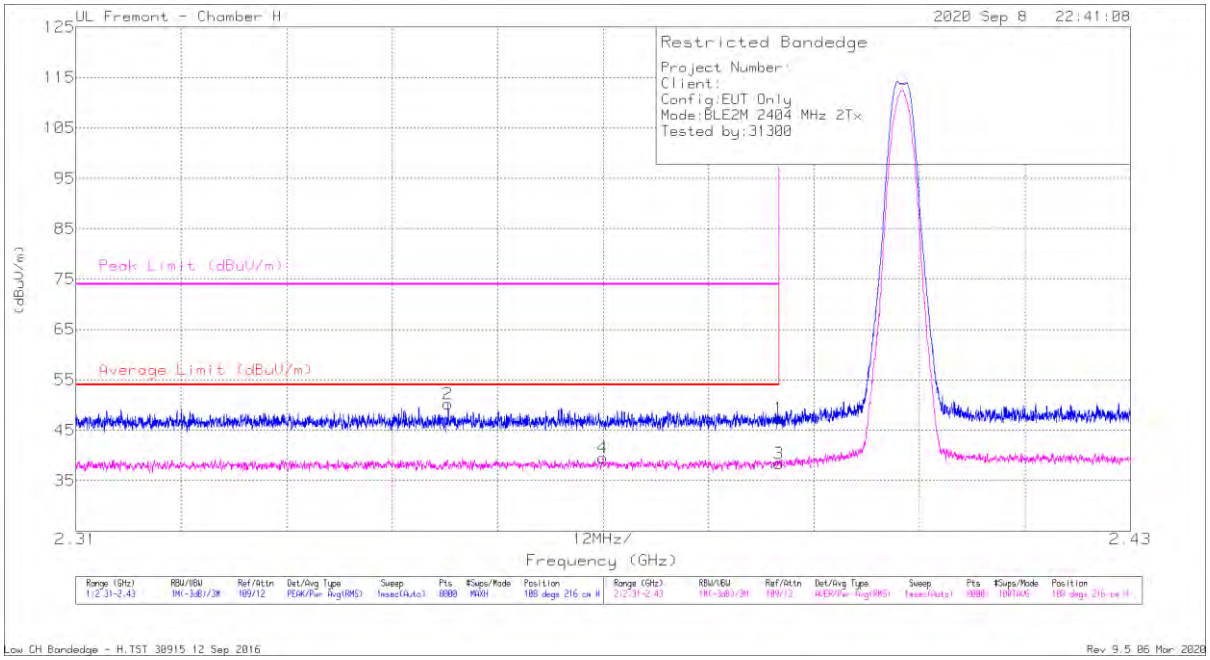
10.2.4. HIGH POWER BLE TXBF (2Mbps)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/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	37.27	Pk	31.8	-21.7	47.37	-	-	74	-26.63	108	216	H
2	* 2.35237	40.25	Pk	31.8	-21.8	50.25	-	-	74	-23.75	108	216	H
3	* 2.38999	28.29	RMS	31.8	-21.7	38.39	54	-15.61	-	-	108	216	H
4	* 2.36998	29.41	RMS	31.8	-21.7	39.51	54	-14.49	-	-	108	216	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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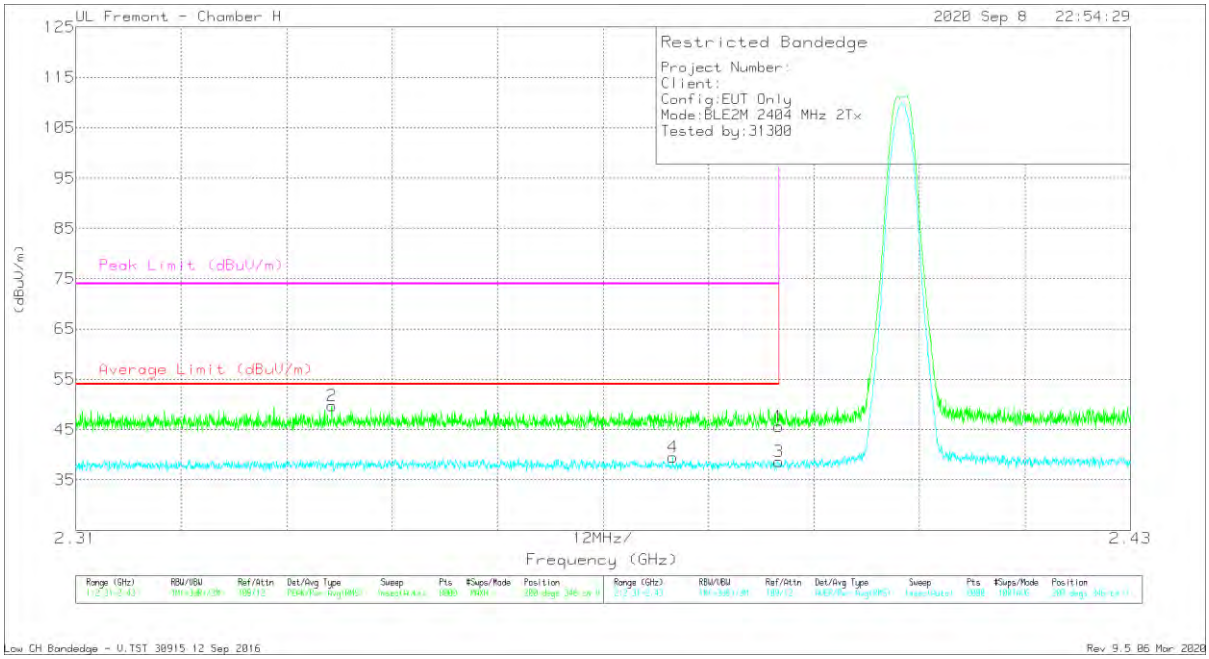
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/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	35.58	Pk	31.8	-21.7	45.68	-	-	74	-28.32	200	346	V
2	* 2.33913	39.77	Pk	31.8	-21.8	49.77	-	-	74	-24.23	200	346	V
3	* 2.38999	28.55	RMS	31.8	-21.7	38.65	54	-15.35	-	-	200	346	V
4	* 2.37791	29.4	RMS	31.8	-21.7	39.5	54	-14.5	-	-	200	346	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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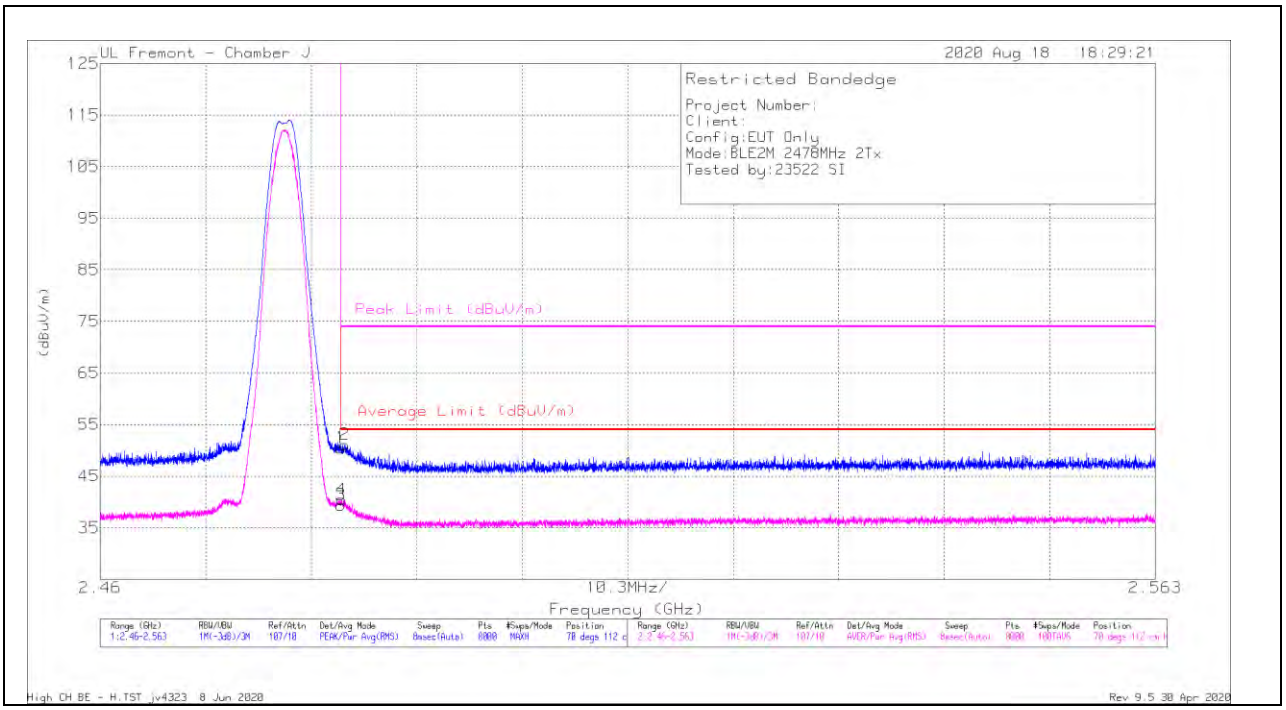
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.4835	35.57	Pk	29.5	-14.6	50.47	-	-	74	-23.53	70	112	H
2	* 2.48386	36.2	Pk	29.5	-14.6	51.1	-	-	74	-22.9	70	112	H
3	* 2.4835	24.51	RMS	29.5	-14.6	39.41	54	-14.59	-	-	70	112	H
4	* 2.48353	25.55	RMS	29.5	-14.6	40.45	54	-13.55	-	-	70	112	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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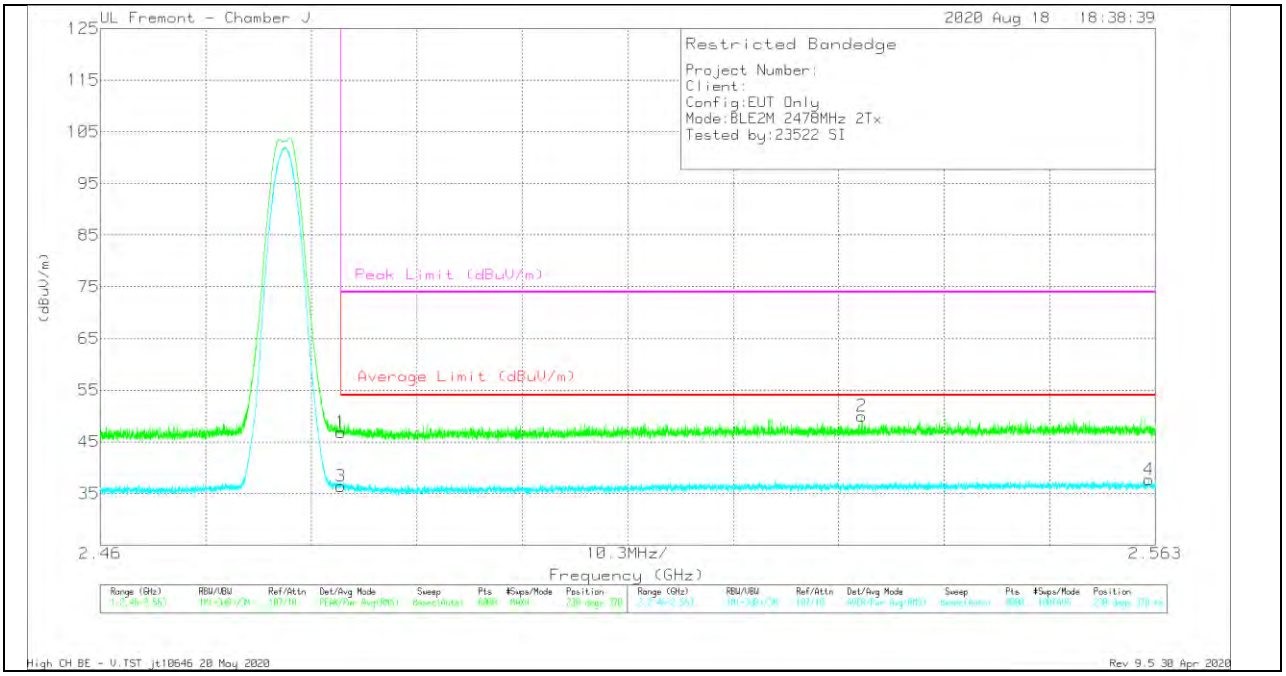
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.4835	31.93	Pk	29.5	-14.6	46.83	-	-	74	-27.17	230	370	V
2	2.53436	34.68	Pk	29.8	-14.5	49.98	-	-	74	-24.02	230	370	V
3	* 2.4835	21.5	RMS	29.5	-14.6	36.4	54	-17.6	-	-	230	370	V
4	2.56239	22.28	RMS	29.8	-14.4	37.68	54	-16.32	-	-	230	370	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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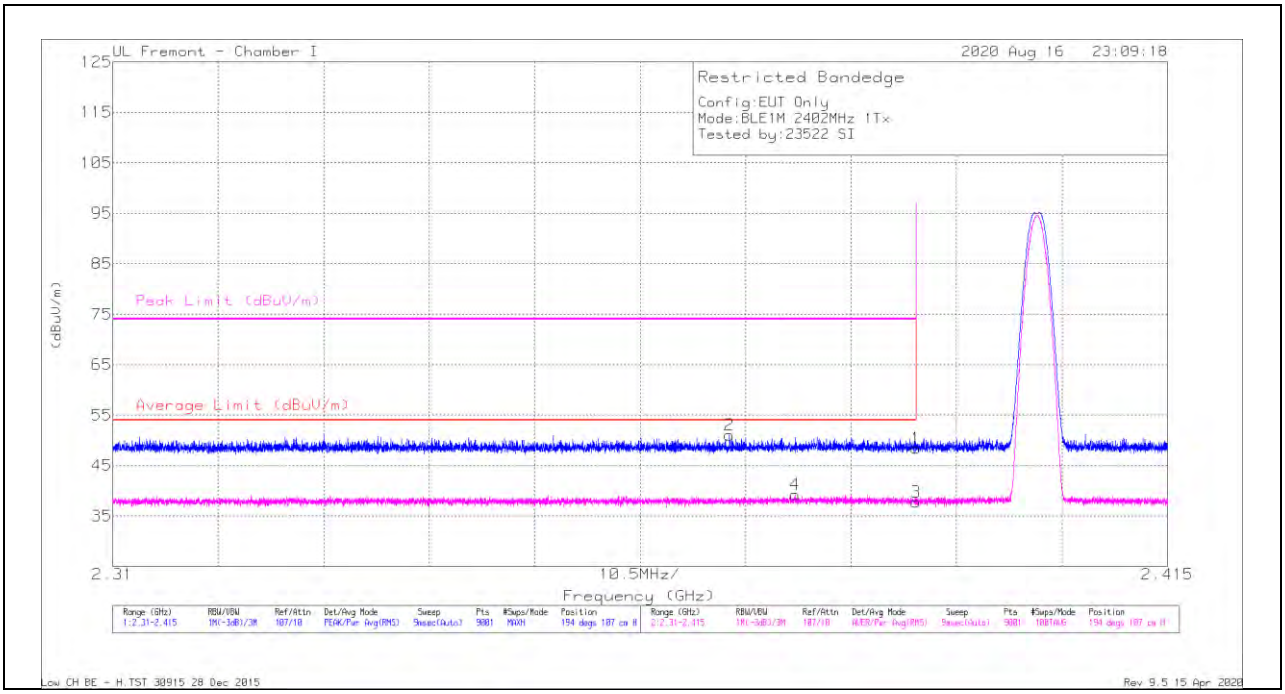
10.2.5. LOW POWER BLE (1Mbps)

ANT4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	33.77	Pk	32	-17.3	48.47	-	-	74	-25.53	194	107	H
2	* 2.37142	36.41	Pk	31.9	-17.3	51.01	-	-	74	-22.99	194	107	H
3	* 2.38999	23.03	RMS	32	-17.3	37.73	54	-16.27	-	-	194	107	H
4	* 2.37793	24.51	RMS	32	-17.3	39.21	54	-14.79	-	-	194	107	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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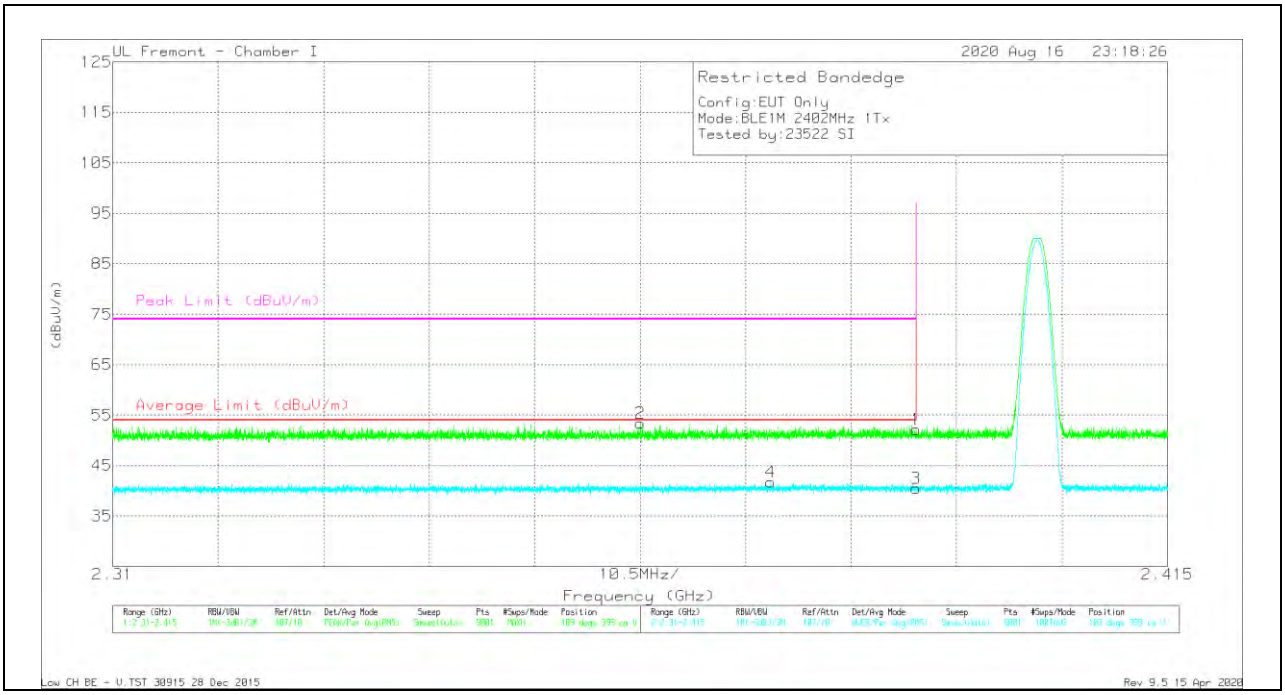
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	37.51	Pk	32	-17.3	52.21	-	-	74	-21.79	109	399	V
2	* 2.36255	38.86	Pk	31.8	-17.3	53.36	-	-	74	-20.64	109	399	V
3	* 2.38999	25.74	RMS	32	-17.3	40.44	54	-13.56	-	-	109	399	V
4	* 2.3755	27.08	RMS	31.9	-17.3	41.68	54	-12.32	-	-	109	399	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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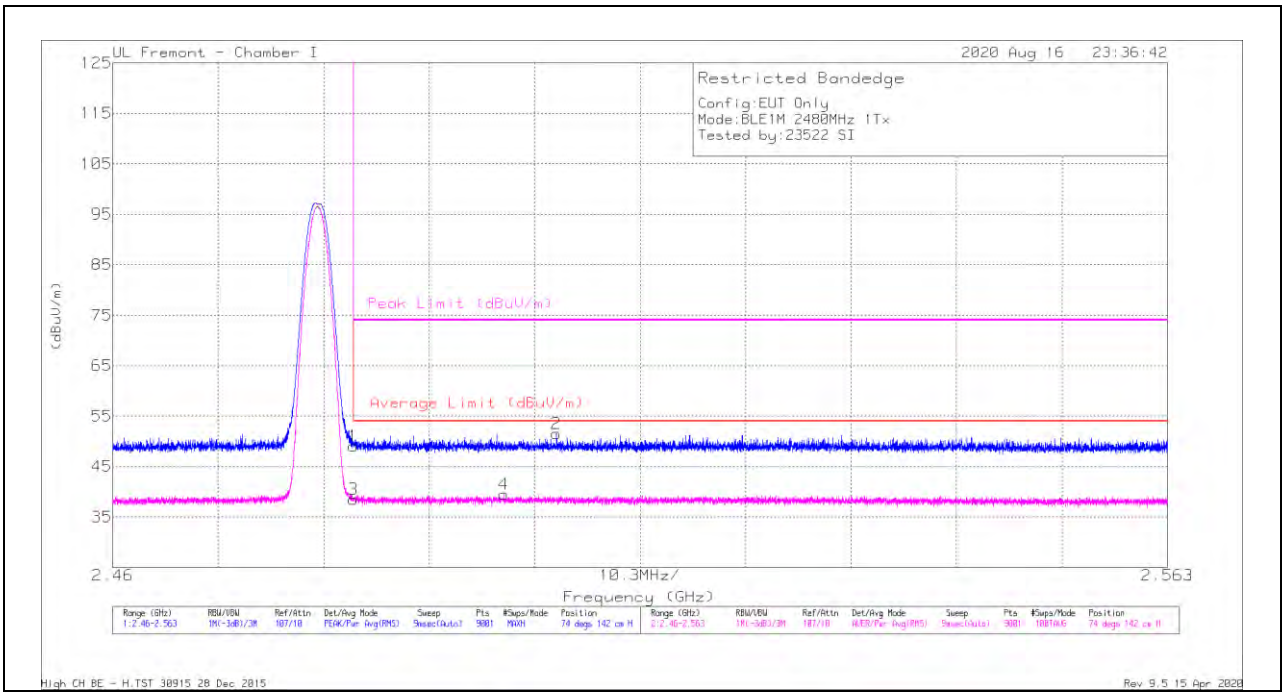
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	* 2.48351	34.35	Pk	32.4	-17.7	49.05	-	-	74	-24.95	74	142	H
2	2.50333	36.81	Pk	32.5	-17.8	51.51	-	-	74	-22.49	74	142	H
3	* 2.48351	23.75	RMS	32.4	-17.7	38.45	54	-15.55	-	-	74	142	H
4	* 2.49817	24.8	RMS	32.5	-17.8	39.5	54	-14.5	-	-	74	142	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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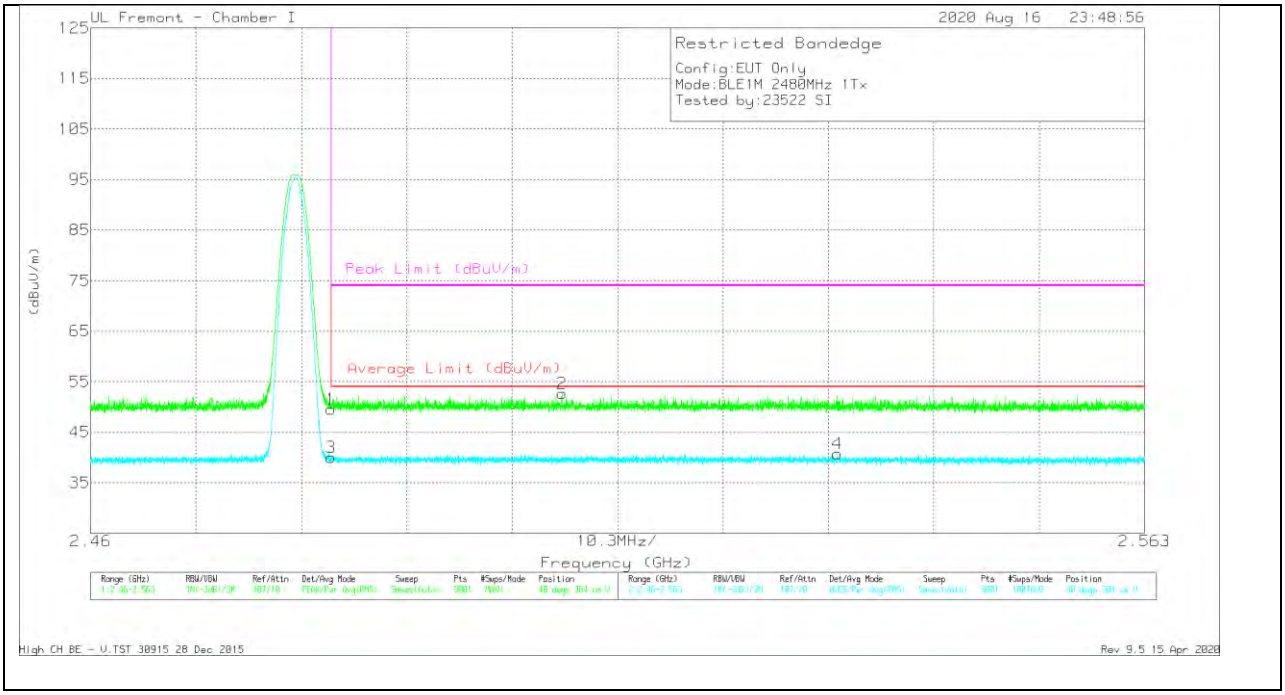
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	* 2.48351	34.87	Pk	32.4	-17.7	49.57	-	-	74	-24.43	40	384	V
2	2.50605	37.91	Pk	32.5	-17.8	52.61	-	-	74	-21.39	40	384	V
3	* 2.48351	25.27	RMS	32.4	-17.7	39.97	54	-14.03	-	-	40	384	V
4	2.53298	26.15	RMS	32.4	-17.8	40.75	54	-13.25	-	-	40	384	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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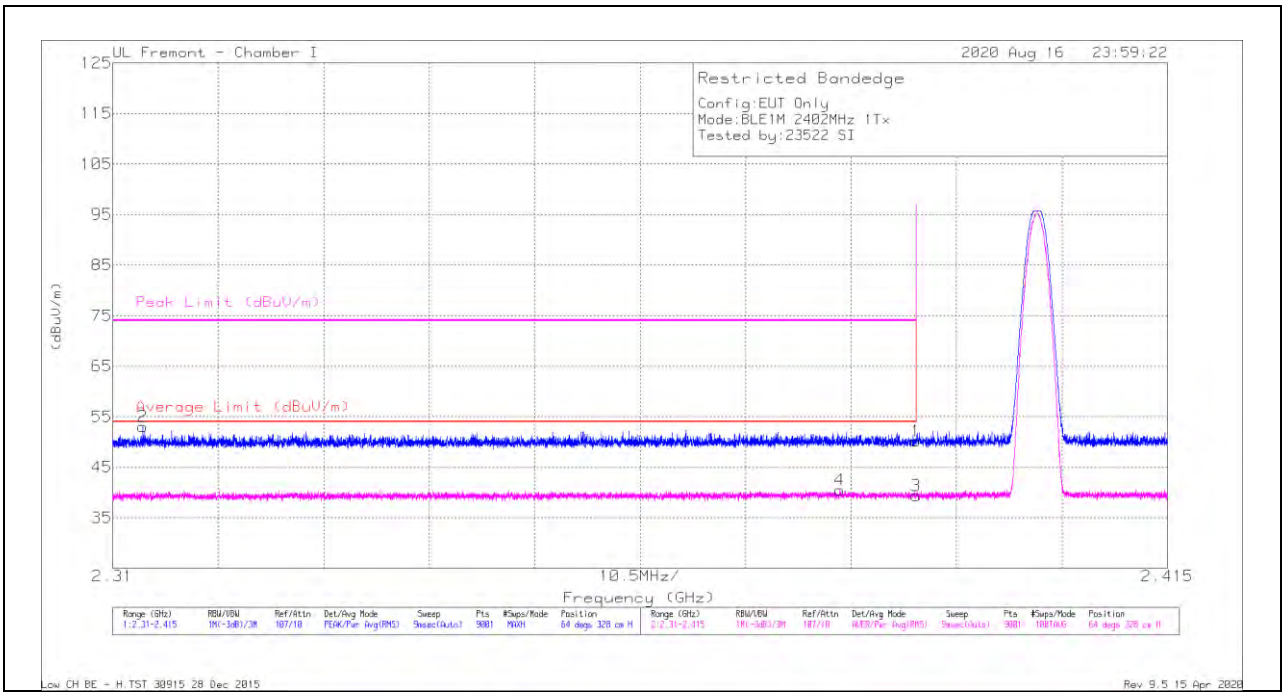
ANT3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	35.46	Pk	32	-17.3	50.16	-	-	74	-23.84	64	328	H
2	* 2.313	38.4	Pk	31.8	-17.2	53	-	-	74	-21	64	328	H
3	* 2.38999	24.64	RMS	32	-17.3	39.34	54	-14.66	-	-	64	328	H
4	* 2.38239	25.73	RMS	32	-17.3	40.43	54	-13.57	-	-	64	328	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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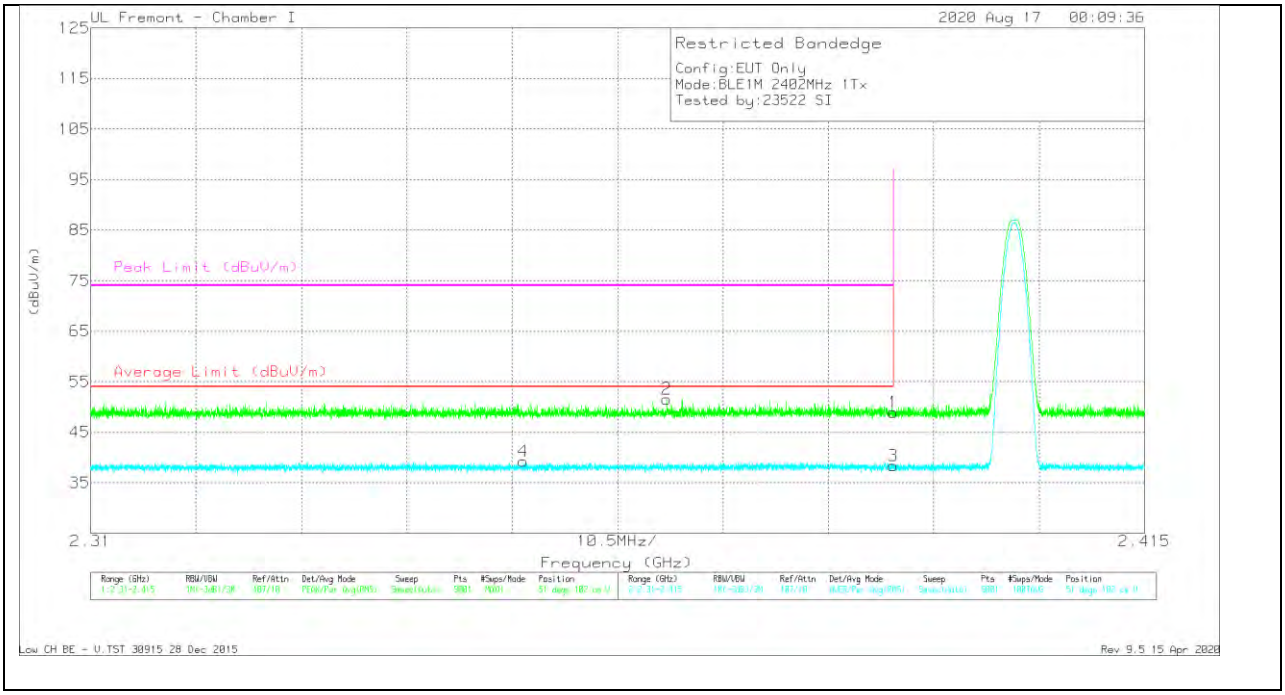
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	34.26	Pk	32	-17.3	48.96	-	-	74	-25.04	51	102	V
2	* 2.3674	36.99	Pk	31.9	-17.3	51.59	-	-	74	-22.41	51	102	V
3	* 2.38999	23.63	RMS	32	-17.3	38.33	54	-15.67	-	-	51	102	V
4	* 2.35313	24.69	RMS	31.8	-17.2	39.29	54	-14.71	-	-	51	102	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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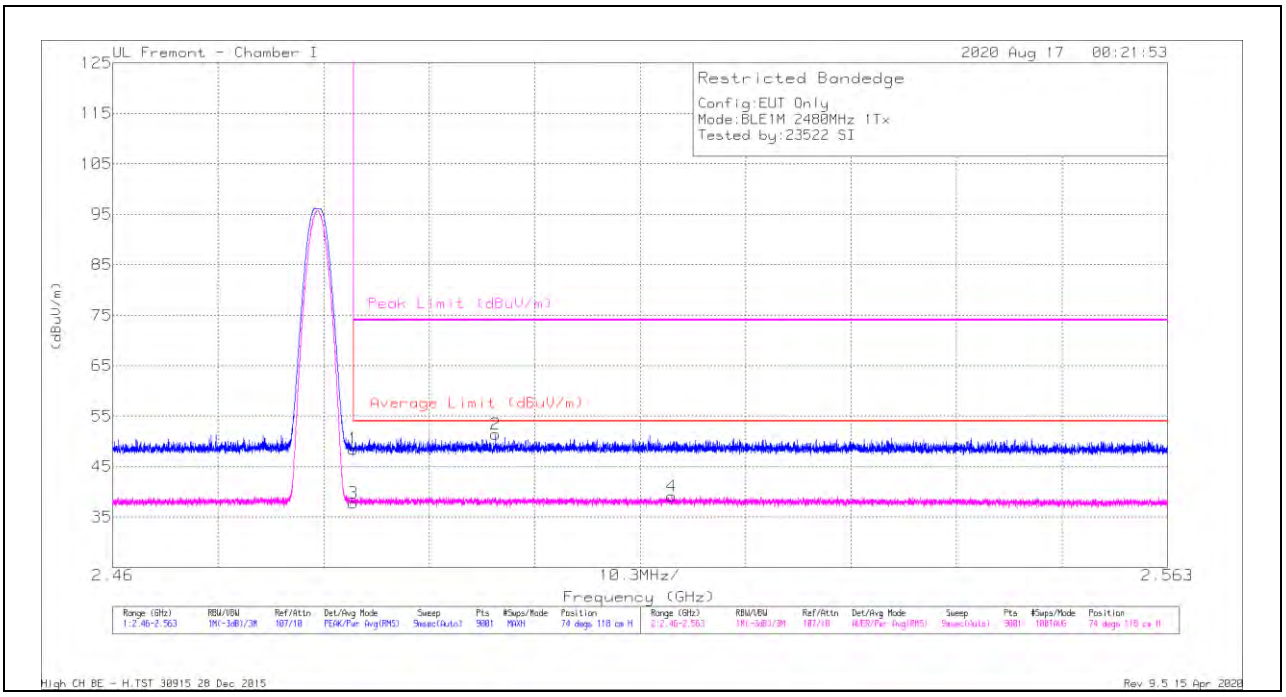
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	* 2.48351	33.79	Pk	32.4	-17.7	48.49	-	-	74	-25.51	74	118	H
2	* 2.4974	36.67	Pk	32.5	-17.8	51.37	-	-	74	-22.63	74	118	H
3	* 2.48351	23.06	RMS	32.4	-17.7	37.76	54	-16.24	-	-	74	118	H
4	2.51461	24.45	RMS	32.5	-17.8	39.15	54	-14.85	-	-	74	118	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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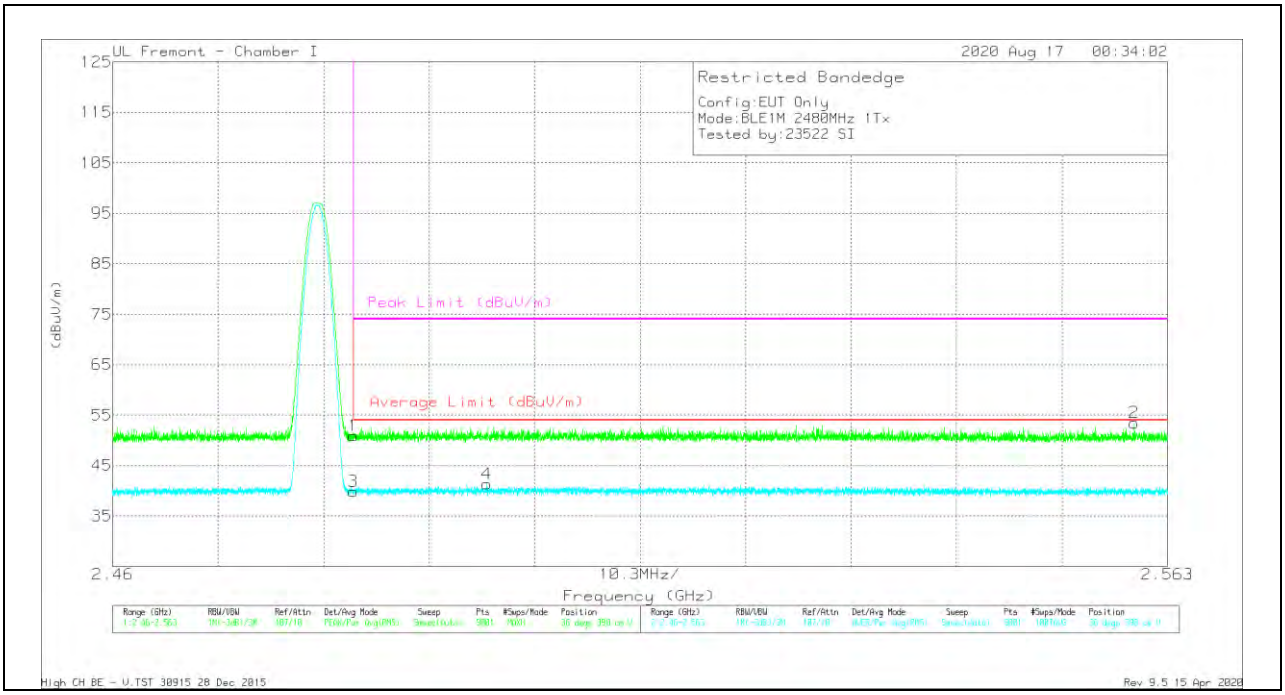
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	* 2.48351	36.22	Pk	32.4	-17.7	50.92	-	-	74	-23.08	36	390	V
2	2.55975	38.96	Pk	32.3	-17.8	53.46	-	-	74	-20.54	36	390	V
3	* 2.48351	25.21	RMS	32.4	-17.7	39.91	54	-14.09	-	-	36	390	V
4	* 2.49652	26.6	RMS	32.5	-17.8	41.3	54	-12.7	-	-	36	390	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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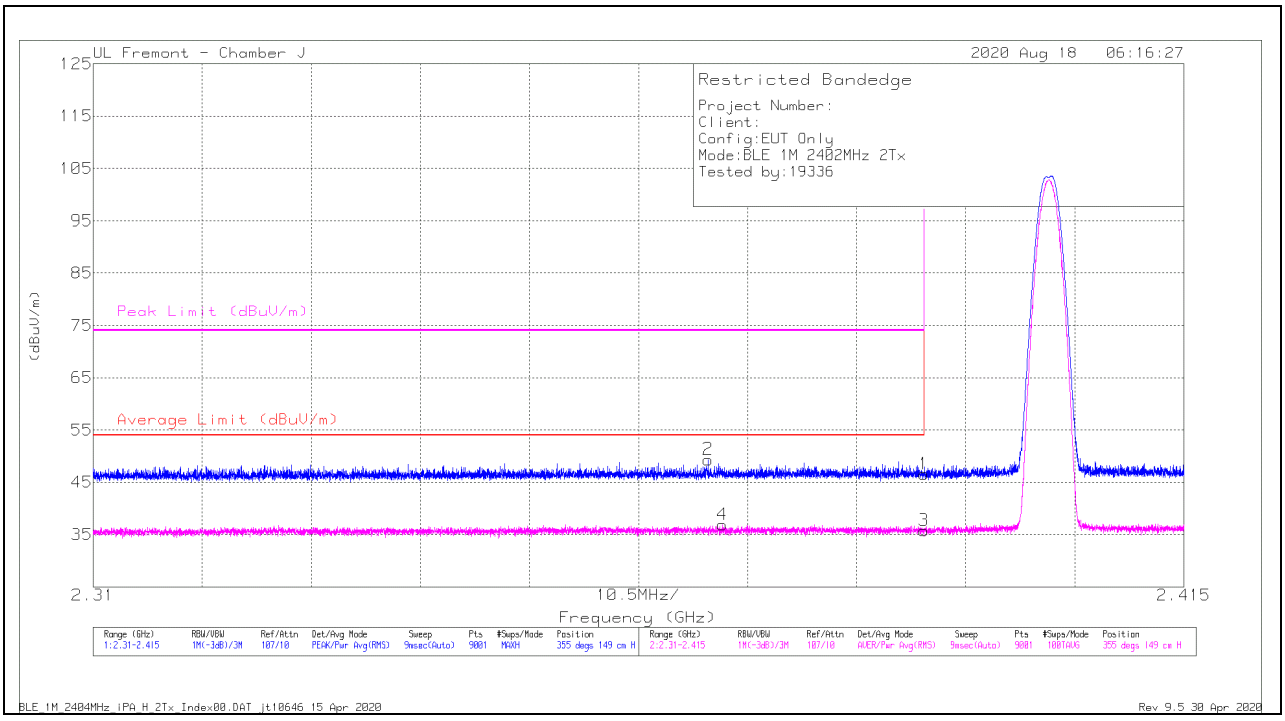
10.2.6. LOW POWER BLE TXBF (1Mbps)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	43.05	Pk	29	-25.5	46.55	-	-	74	-27.45	355	149	H
2	* 2.36921	45.86	Pk	29	-25.5	49.36	-	-	74	-24.64	355	149	H
3	* 2.38999	32.24	RMS	29	-25.5	35.74	54	-18.26	-	-	355	149	H
4	* 2.37055	33.38	RMS	29	-25.5	36.88	54	-17.12	-	-	355	149	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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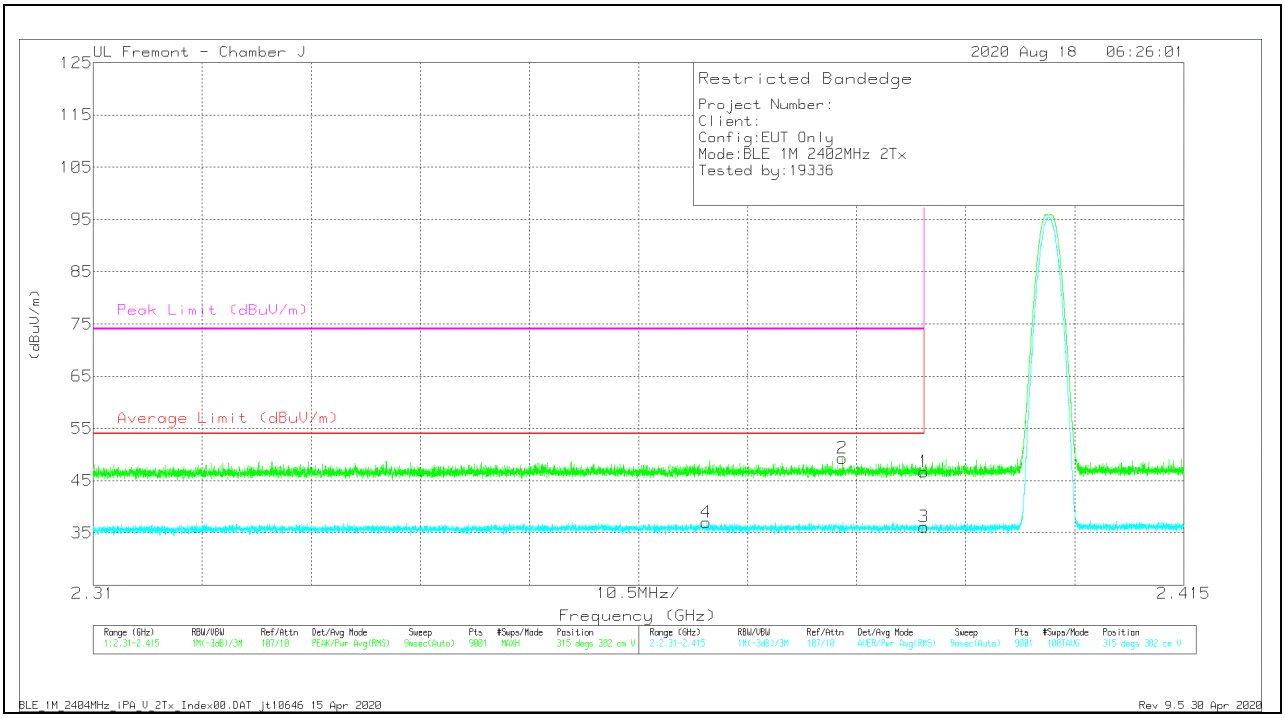
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	43.21	Pk	29	-25.5	46.71	-	-	74	-27.29	315	382	V
2	* 2.3821	45.77	Pk	29	-25.5	49.27	-	-	74	-24.73	315	382	V
3	* 2.38999	32.66	RMS	29	-25.5	36.16	54	-17.84	-	-	315	382	V
4	* 2.369	33.55	RMS	29	-25.5	37.05	54	-16.95	-	-	315	382	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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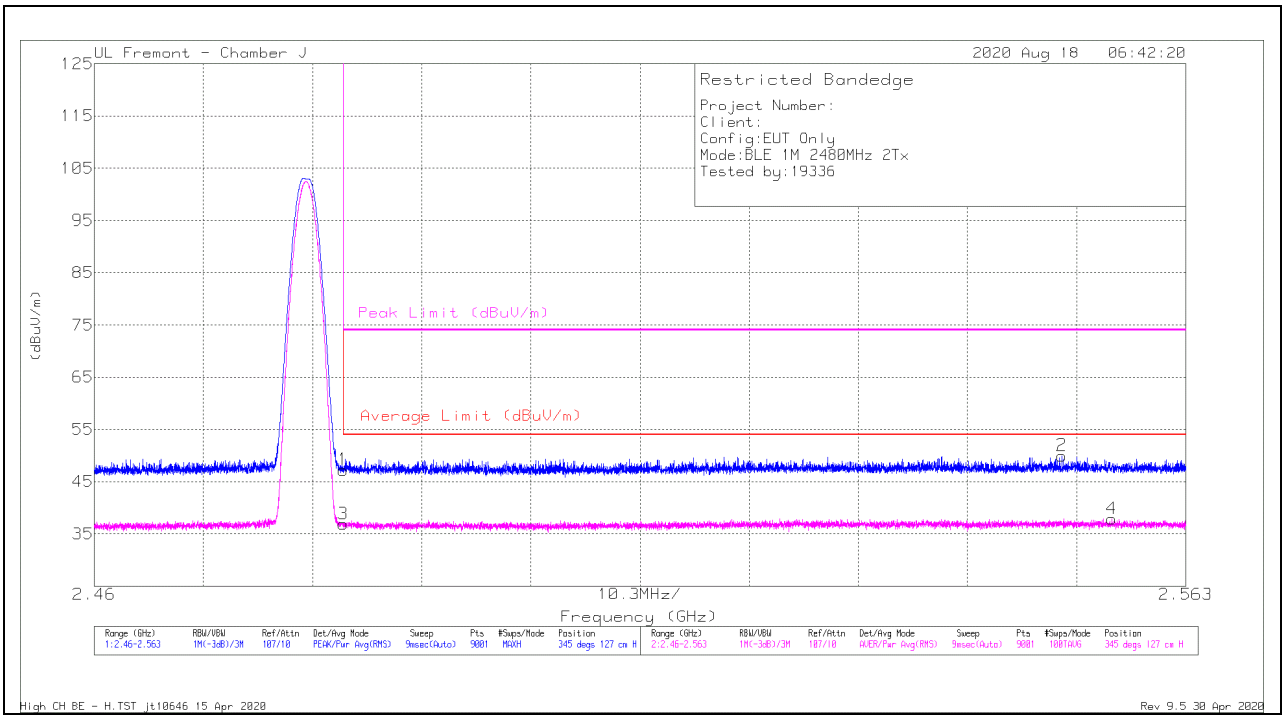
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	43.25	Pk	29.5	-25.5	47.25	-	-	74	-26.75	345	127	H
2	2.5513	45.48	Pk	29.9	-25.4	49.98	-	-	74	-24.02	345	127	H
3	* 2.48351	32.85	RMS	29.5	-25.5	36.85	54	-17.15	-	-	345	127	H
4	2.556	33.51	RMS	29.8	-25.4	37.91	54	-16.09	-	-	345	127	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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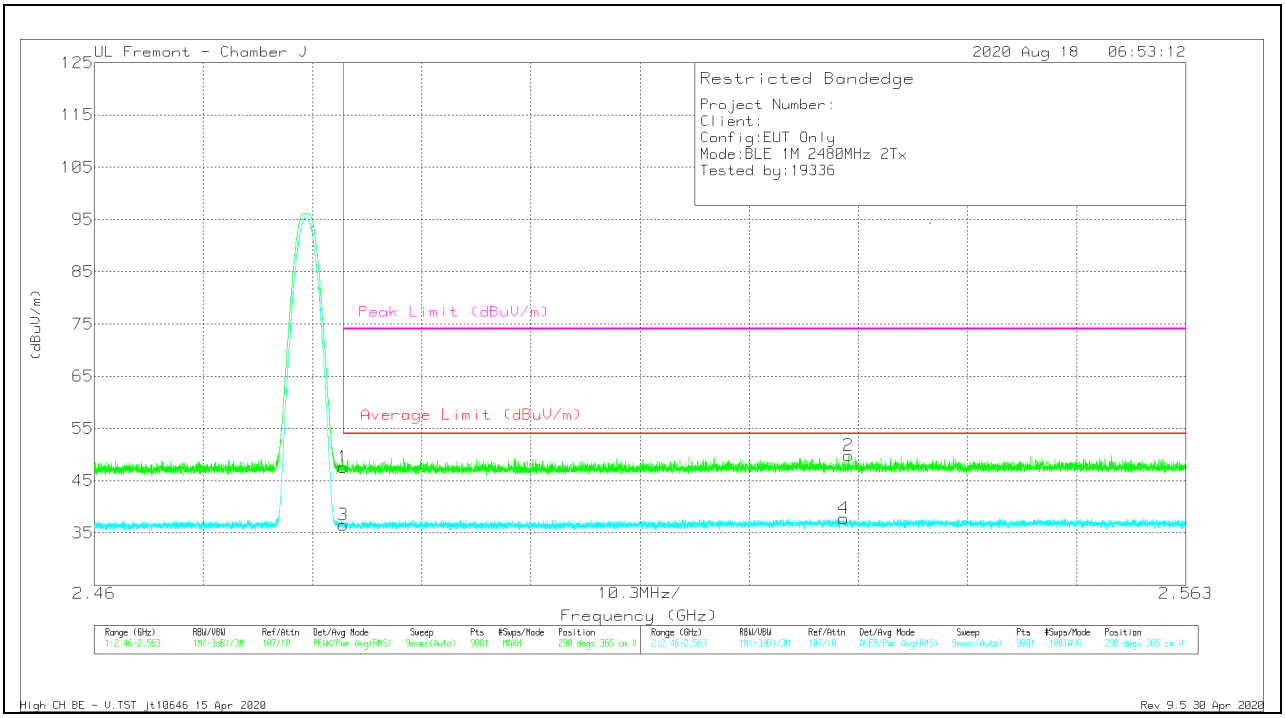
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	43.6	Pk	29.5	-25.5	47.6	-	-	74	-26.4	298	365	V
2	2.53115	45.34	Pk	29.8	-25.4	49.74	-	-	74	-24.26	298	365	V
3	* 2.48351	32.56	RMS	29.5	-25.5	36.56	54	-17.44	-	-	298	365	V
4	2.53071	33.39	RMS	29.8	-25.4	37.79	54	-16.21	-	-	298	365	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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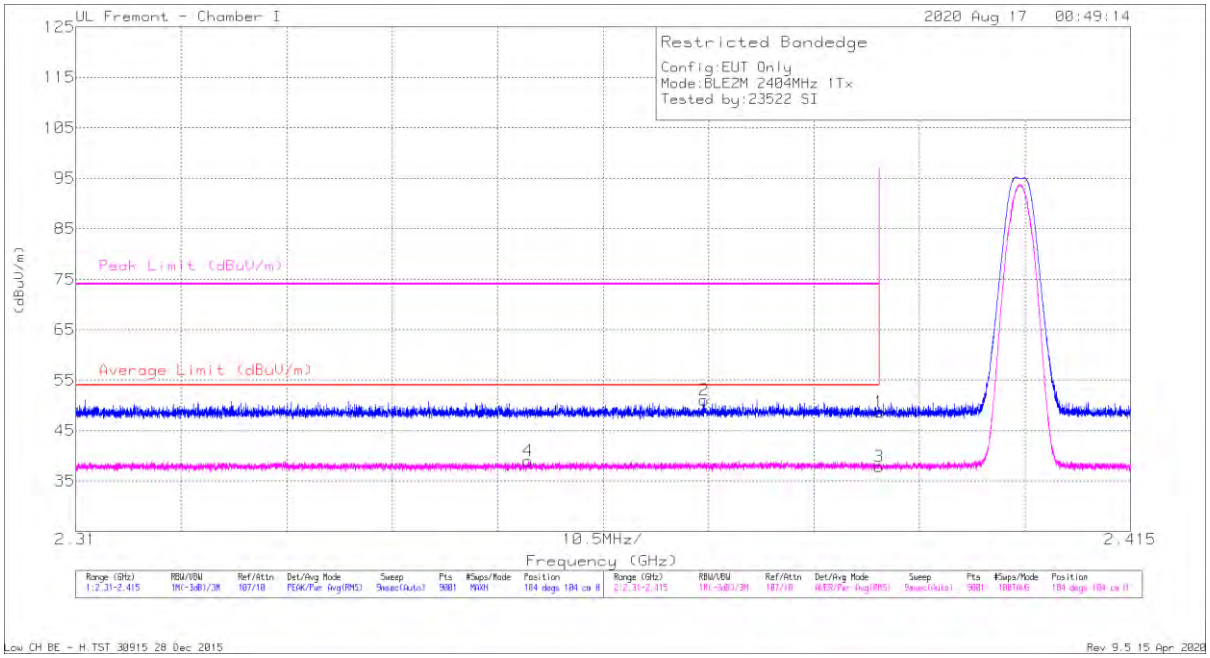
10.2.7. LOW POWER BLE (2Mbps)

ANT4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	34.03	Pk	32	-17.3	48.73	-	-	74	-25.27	184	104	H
2	* 2.37255	36.39	Pk	31.9	-17.3	50.99	-	-	74	-23.01	184	104	H
3	* 2.38999	23.21	RMS	32	-17.3	37.91	54	-16.09	-	-	184	104	H
4	* 2.35503	24.52	RMS	31.8	-17.3	39.02	54	-14.98	-	-	184	104	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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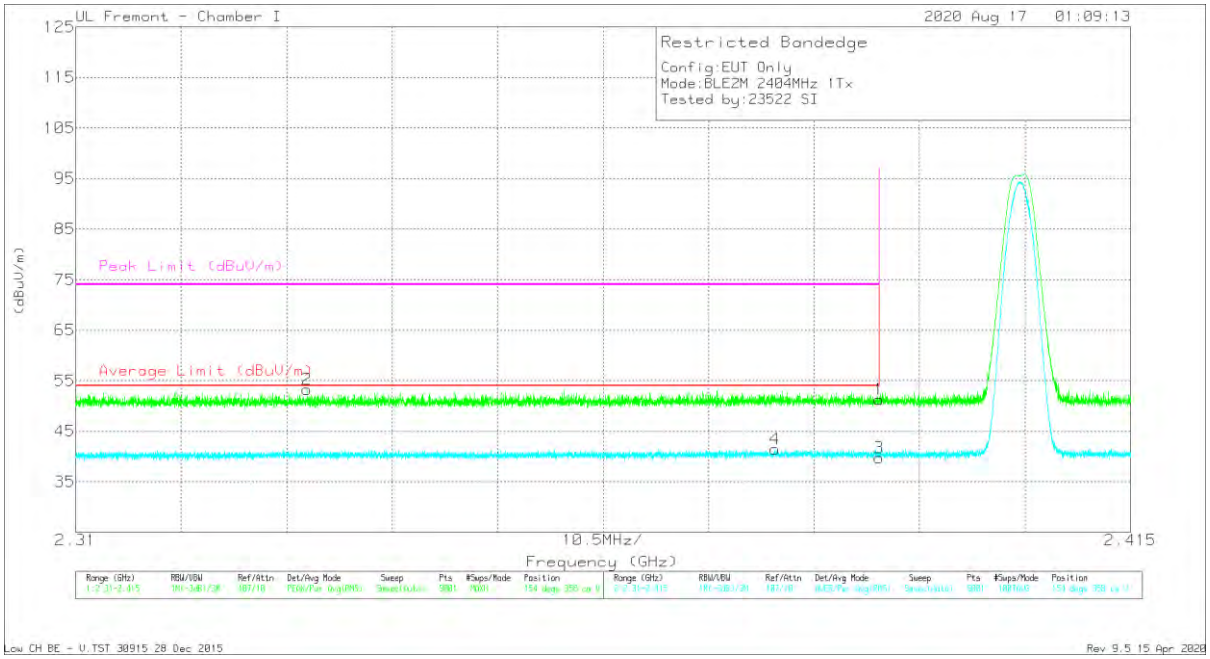
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	36.54	Pk	32	-17.3	51.24	-	-	74	-22.76	154	358	V
2	* 2.33303	38.68	Pk	31.8	-17.2	53.28	-	-	74	-20.72	154	358	V
3	* 2.38999	25.05	RMS	32	-17.3	39.75	54	-14.25	-	-	154	358	V
4	* 2.37961	26.81	RMS	32	-17.3	41.51	54	-12.49	-	-	154	358	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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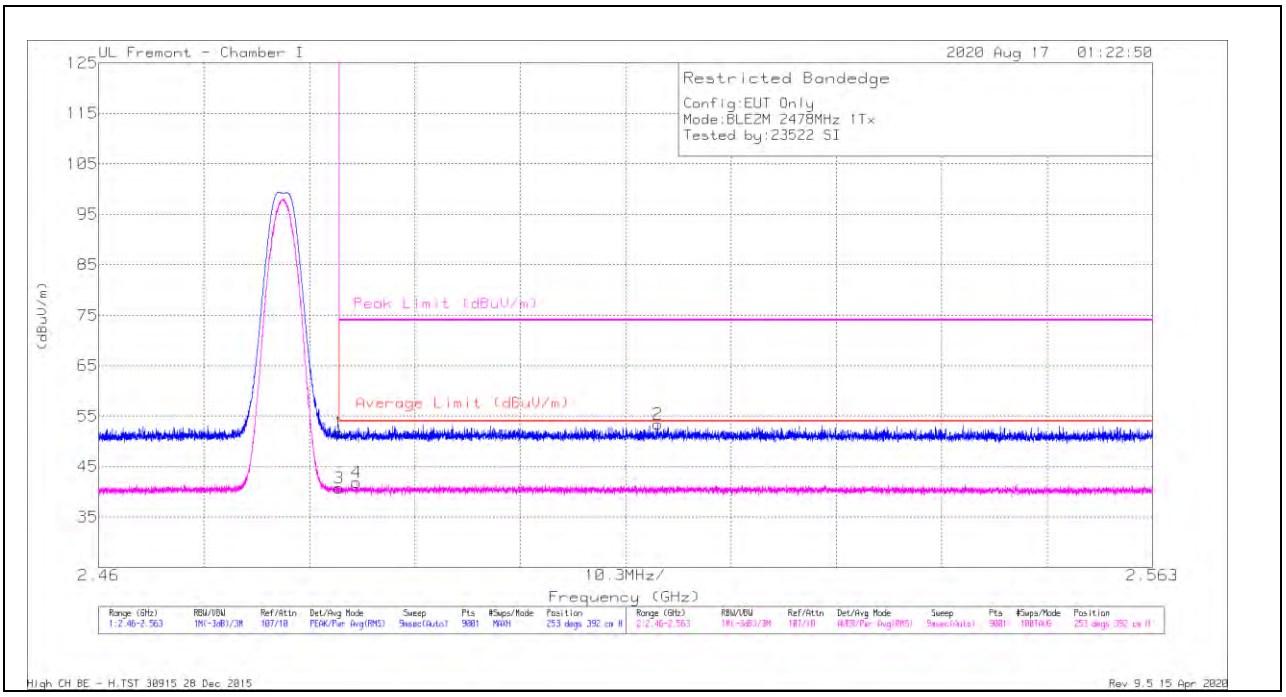
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	* 2.48351	36.98	Pk	32.4	-17.7	51.68	-	-	74	-22.32	253	392	H
2	2.51462	38.67	Pk	32.5	-17.8	53.37	-	-	74	-20.63	253	392	H
3	* 2.48351	26.04	RMS	32.4	-17.7	40.74	54	-13.26	-	-	253	392	H
4	* 2.48522	27.07	RMS	32.5	-17.7	41.87	54	-12.13	-	-	253	392	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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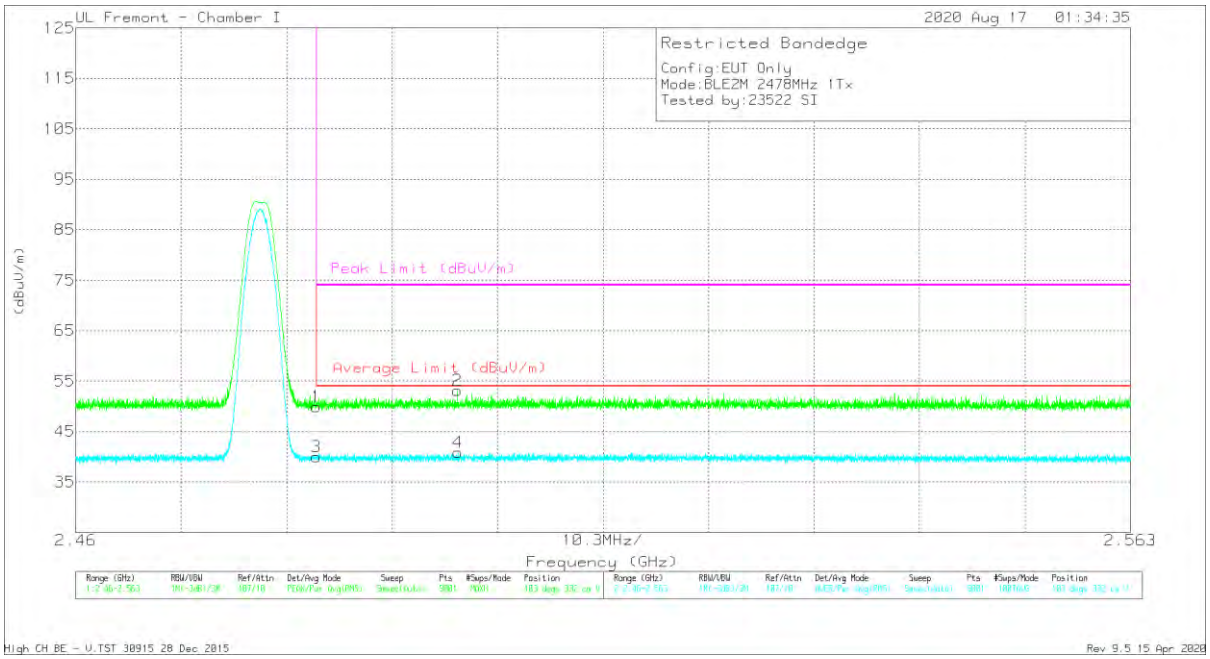
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	* 2.48351	35.23	Pk	32.4	-17.7	49.93	-	-	74	-24.07	103	332	V
2	* 2.49727	38.47	Pk	32.5	-17.8	53.17	-	-	74	-20.83	103	332	V
3	* 2.48351	25.24	RMS	32.4	-17.7	39.94	54	-14.06	-	-	103	332	V
4	* 2.49732	26.14	RMS	32.5	-17.8	40.84	54	-13.16	-	-	103	332	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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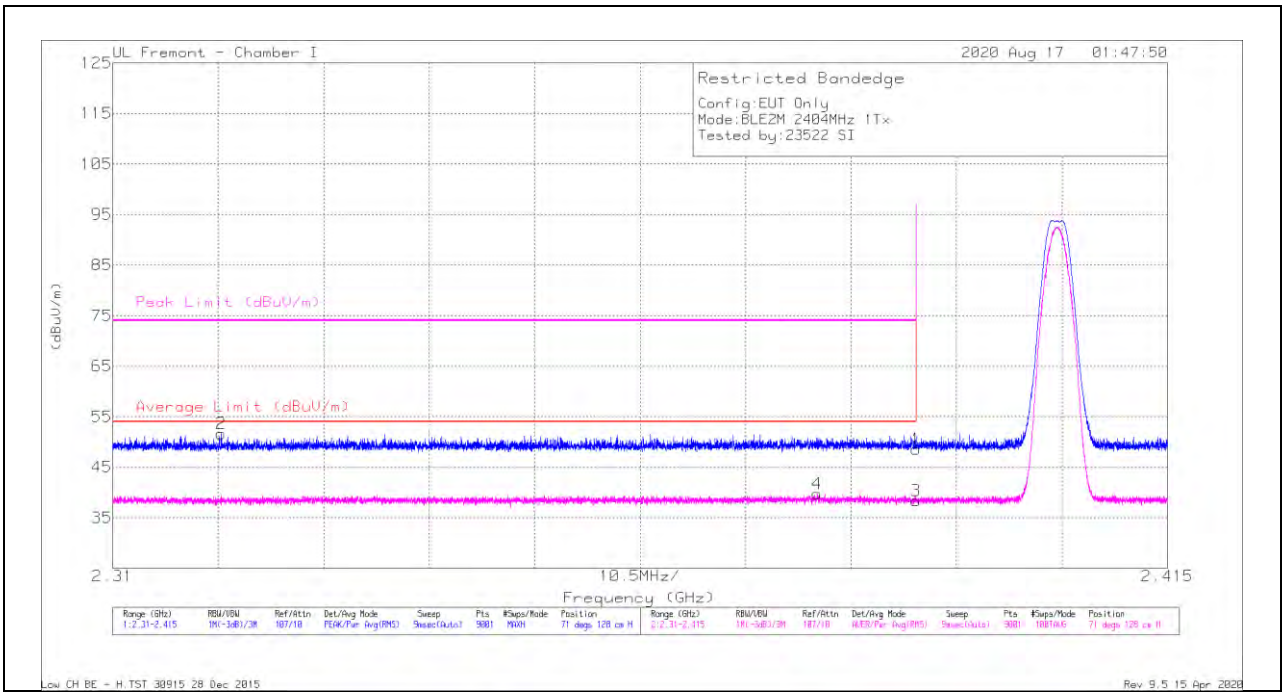
ANT3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	33.91	Pk	32	-17.3	48.61	-	-	74	-25.39	71	128	H
2	* 2.32077	37.11	Pk	31.7	-17.2	51.61	-	-	74	-22.39	71	128	H
3	* 2.38999	23.68	RMS	32	-17.3	38.38	54	-15.62	-	-	71	128	H
4	* 2.38012	25	RMS	32	-17.3	39.7	54	-14.3	-	-	71	128	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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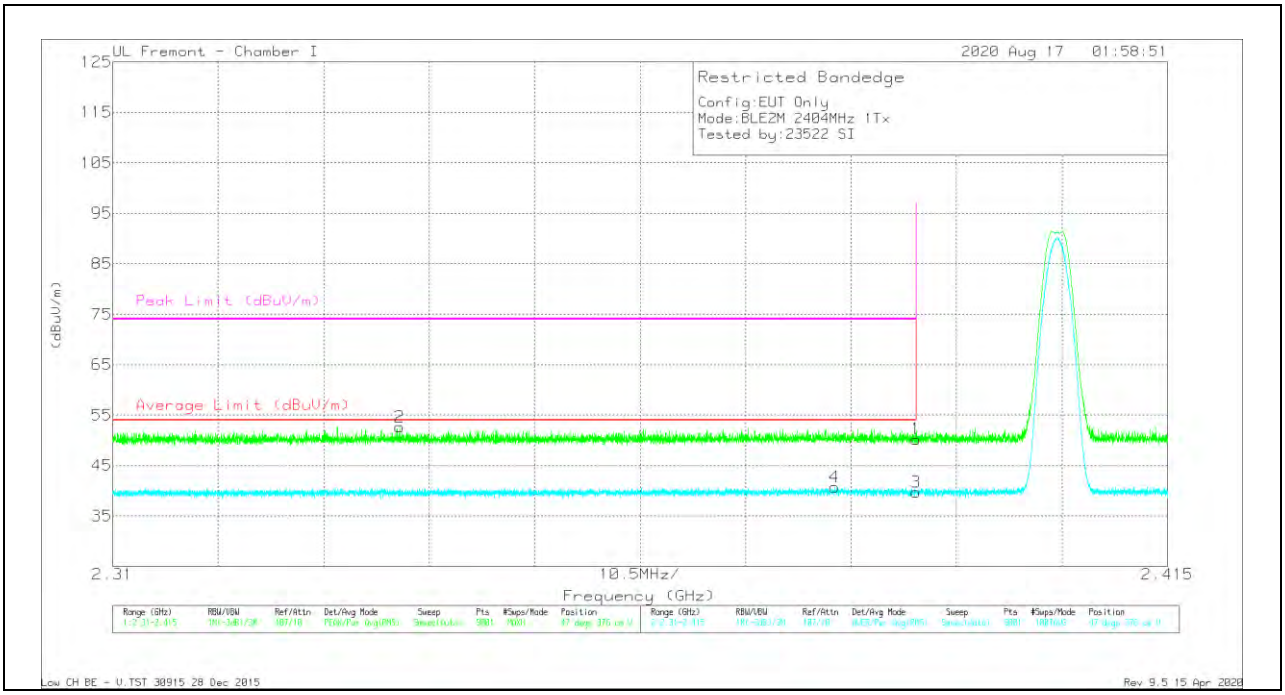
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	35.53	Pk	32	-17.3	50.23	-	-	74	-23.77	47	376	V
2	* 2.33855	38.1	Pk	31.8	-17.2	52.7	-	-	74	-21.3	47	376	V
3	* 2.38999	24.99	RMS	32	-17.3	39.69	54	-14.31	-	-	47	376	V
4	* 2.38187	26.06	RMS	32	-17.3	40.76	54	-13.24	-	-	47	376	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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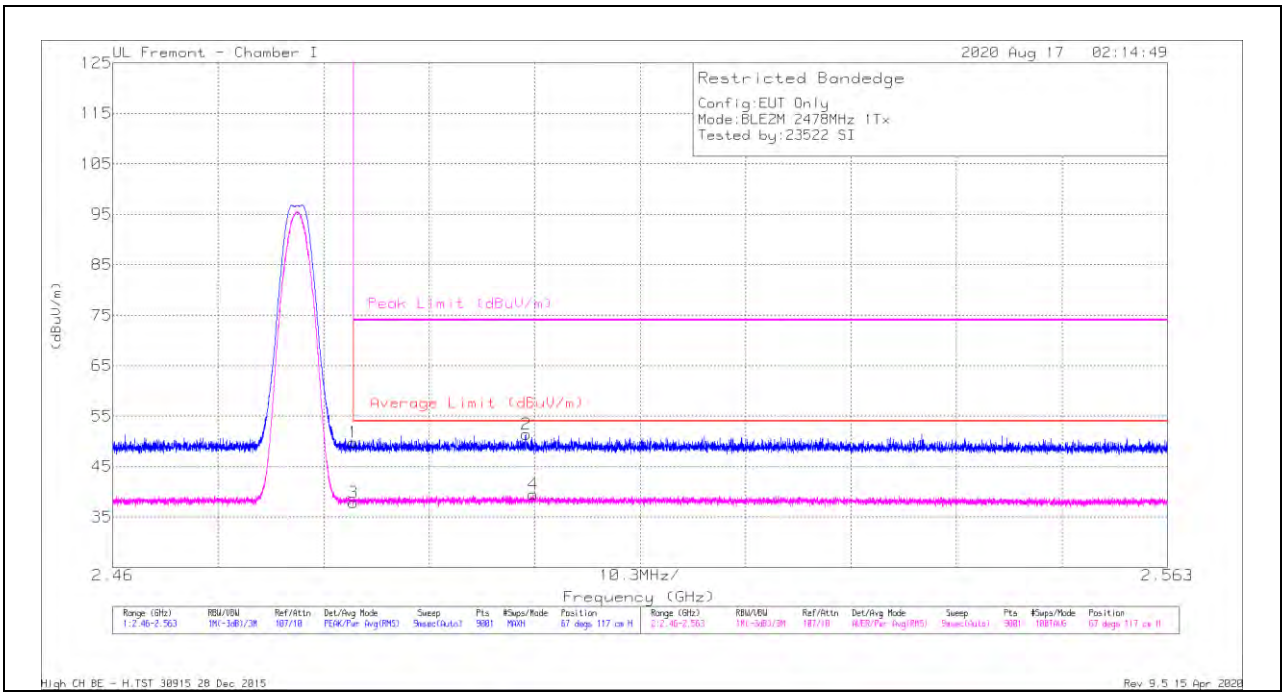
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	* 2.48351	35.09	Pk	32.4	-17.7	49.79	-	-	74	-24.21	67	117	H
2	2.50039	36.73	Pk	32.5	-17.8	51.43	-	-	74	-22.57	67	117	H
3	* 2.48351	23.12	RMS	32.4	-17.7	37.82	54	-16.18	-	-	67	117	H
4	2.50108	24.81	RMS	32.5	-17.8	39.51	54	-14.49	-	-	67	117	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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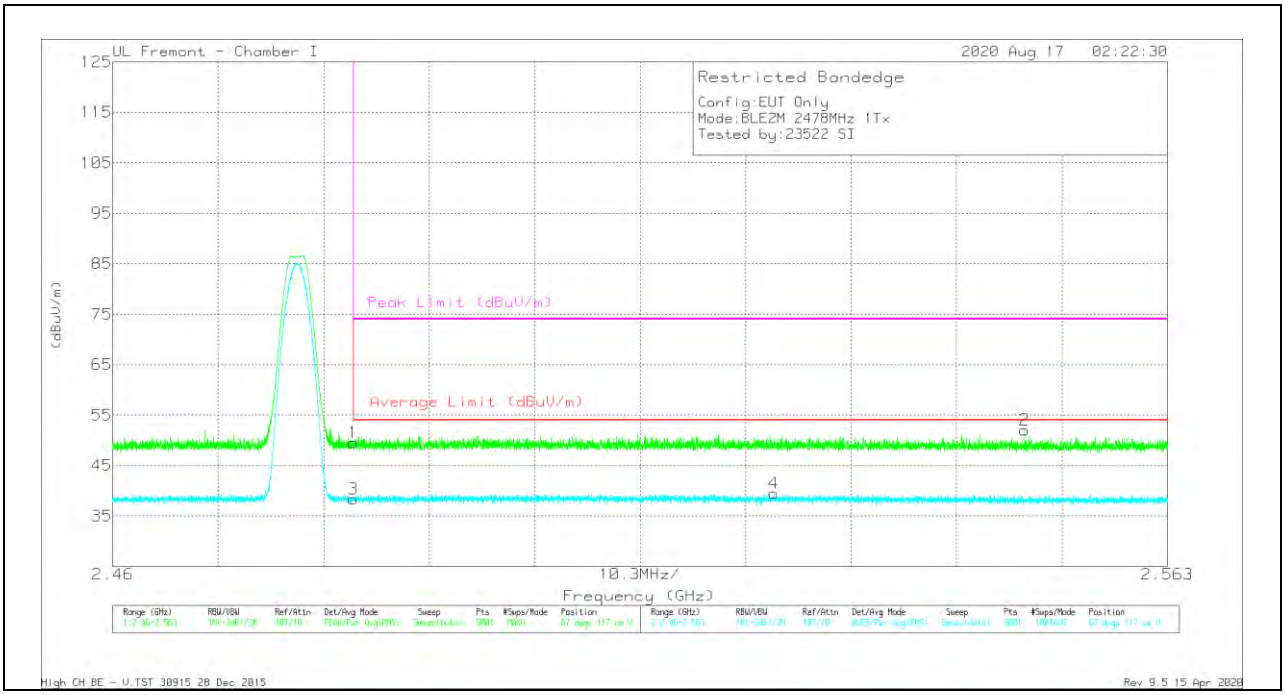
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/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	* 2.48351	34.83	Pk	32.4	-17.7	49.53	-	-	74	-24.47	67	117	V
2	2.54907	37.51	Pk	32.3	-17.8	52.01	-	-	74	-21.99	67	117	V
3	* 2.48351	23.7	RMS	32.4	-17.7	38.4	54	-15.6	-	-	67	117	V
4	2.52458	24.92	RMS	32.4	-17.8	39.52	54	-14.48	-	-	67	117	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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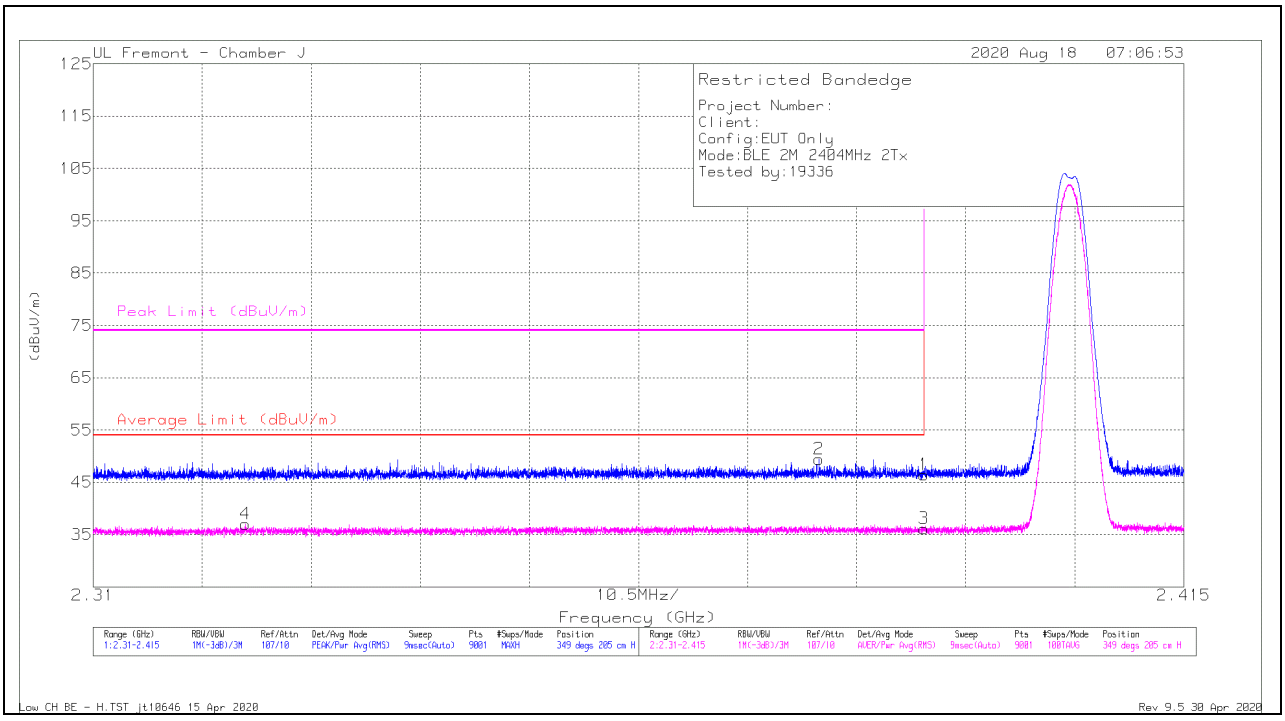
10.2.8. LOW POWER BLE TXBF (2Mbps)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	42.89	Pk	29	-25.5	46.39	-	-	74	-27.61	349	205	H
2	* 2.37986	45.94	Pk	29	-25.5	49.44	-	-	74	-24.56	349	205	H
3	* 2.38999	32.61	RMS	29	-25.5	36.11	54	-17.89	-	-	349	205	H
4	* 2.32468	33.82	RMS	28.8	-25.6	37.02	54	-16.98	-	-	349	205	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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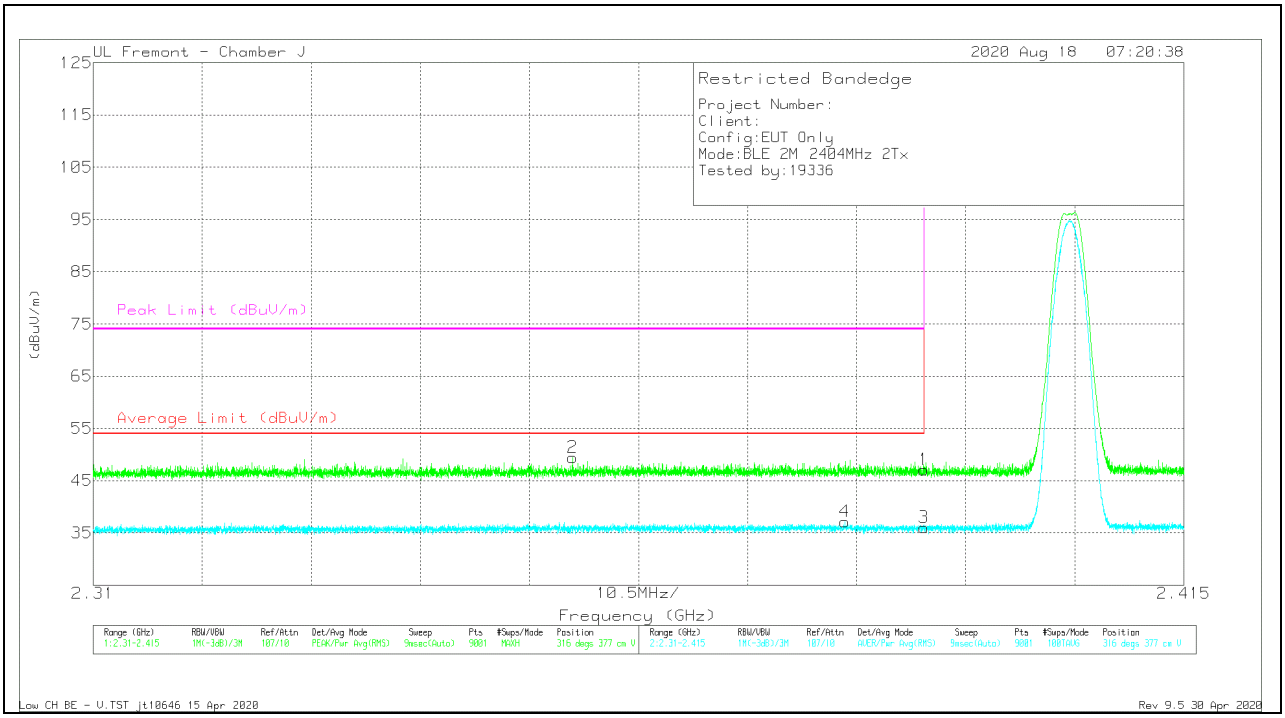
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	43.53	Pk	29	-25.5	47.03	-	-	74	-26.97	316	377	V
2	* 2.35619	46.06	Pk	29	-25.6	49.46	-	-	74	-24.54	316	377	V
3	* 2.38999	32.56	RMS	29	-25.5	36.06	54	-17.94	-	-	316	377	V
4	* 2.38237	33.65	RMS	29	-25.5	37.15	54	-16.85	-	-	316	377	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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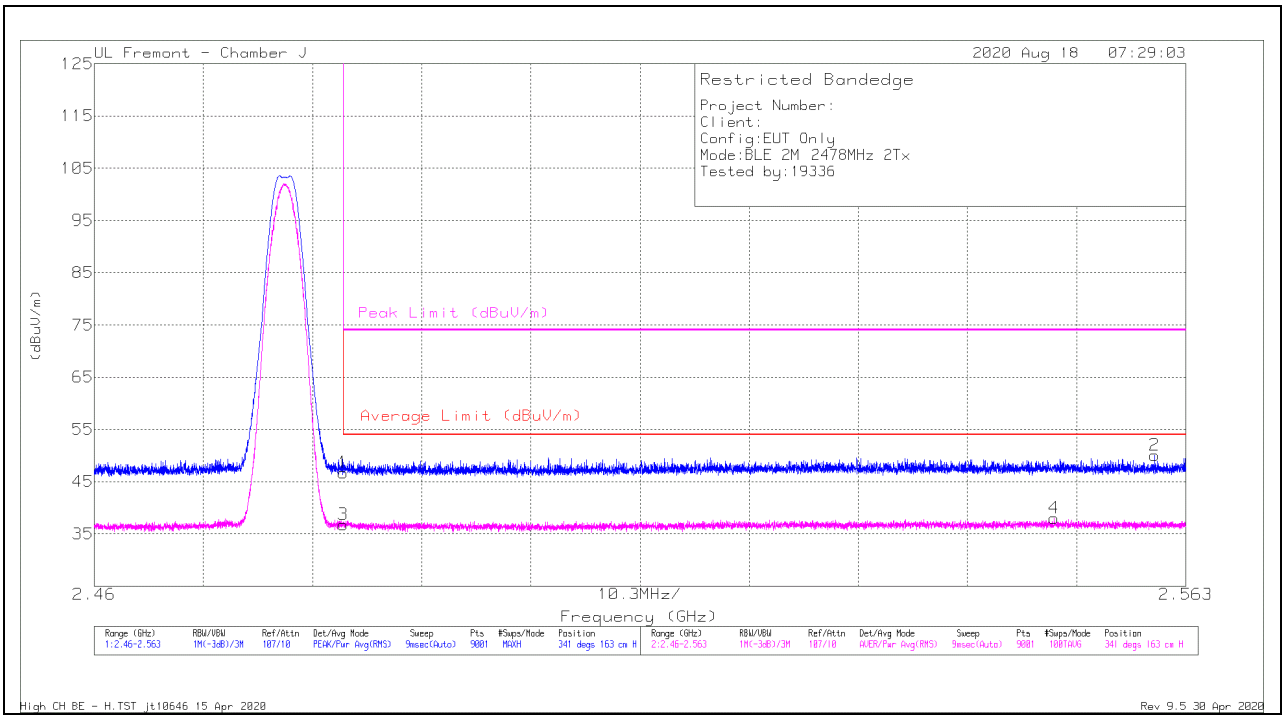
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	42.74	Pk	29.5	-25.5	46.74	-	-	74	-27.26	341	163	H
2	2.56005	45.65	Pk	29.8	-25.4	50.05	-	-	74	-23.95	341	163	H
3	* 2.48351	32.72	RMS	29.5	-25.5	36.72	54	-17.28	-	-	341	163	H
4	2.55058	33.45	RMS	29.9	-25.4	37.95	54	-16.05	-	-	341	163	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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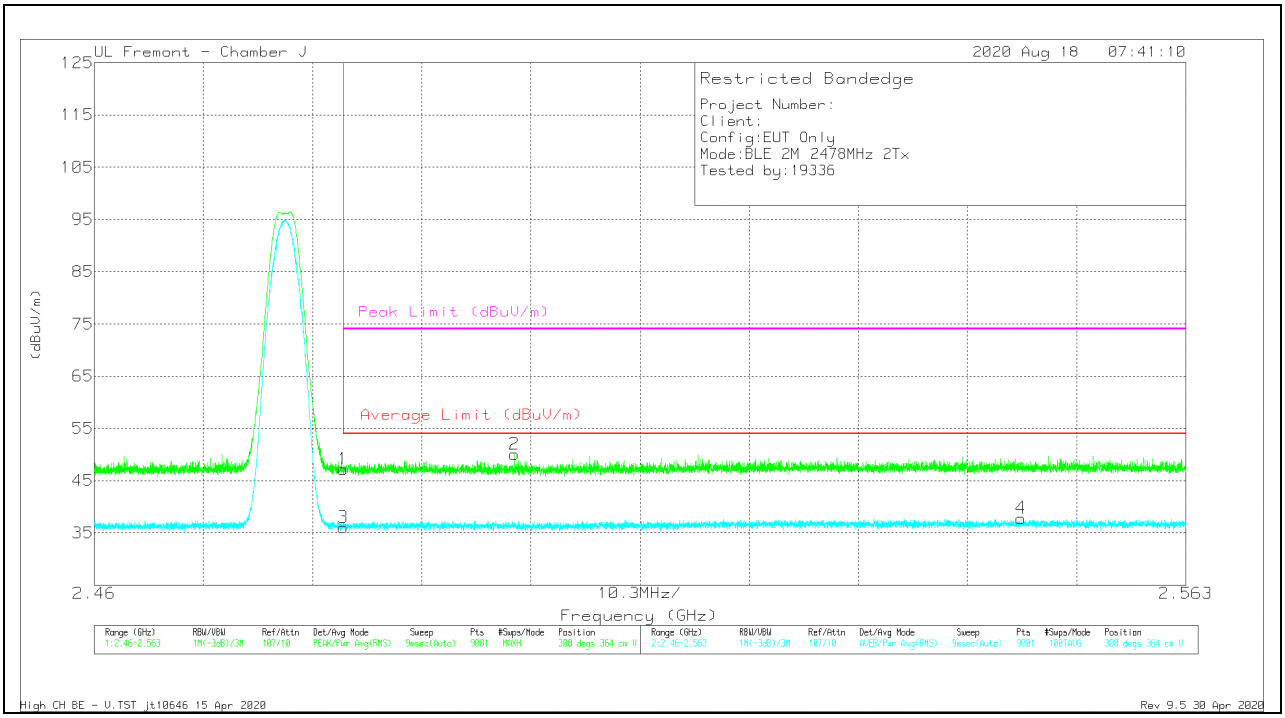
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/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	* 2.48351	43.17	Pk	29.5	-25.5	47.17	-	-	74	-26.83	308	364	V
2	* 2.49968	46.03	Pk	29.5	-25.5	50.03	-	-	74	-23.97	308	364	V
3	* 2.48351	32.05	RMS	29.5	-25.5	36.05	54	-17.95	-	-	308	364	V
4	2.54746	33.31	RMS	29.9	-25.4	37.81	54	-16.19	-	-	308	364	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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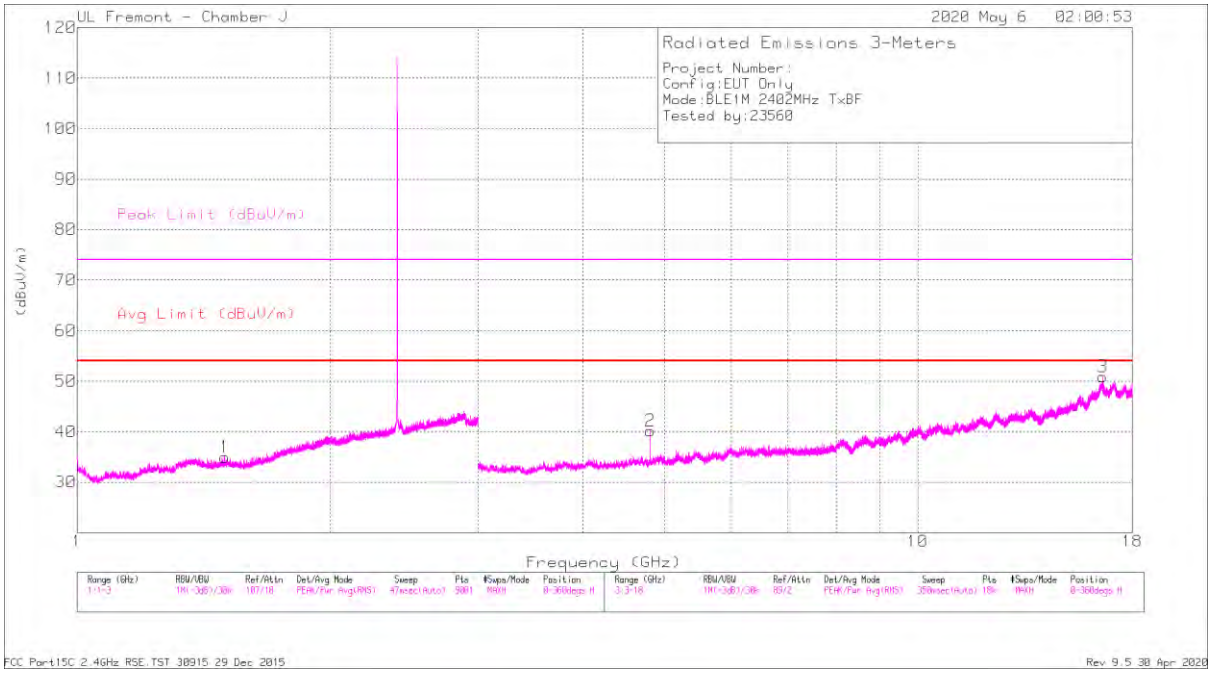
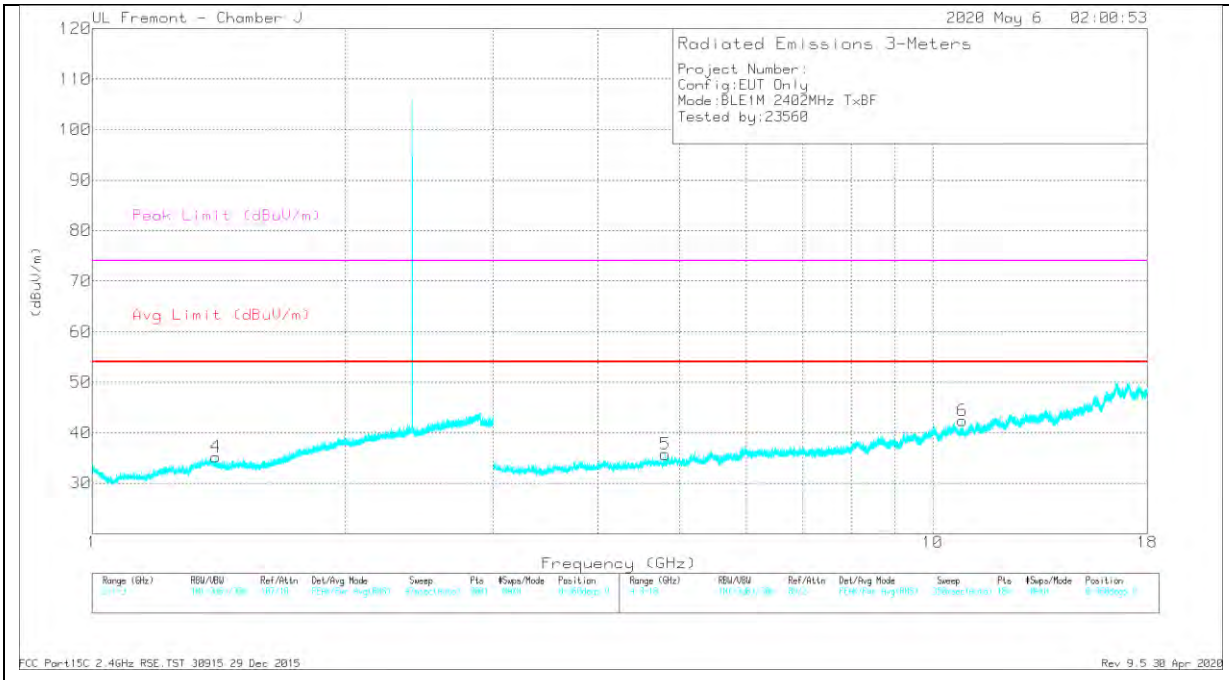
10.2.9. HIGH POWER HARMONICS AND SPURIOUS EMISSIONS TXBF BLE (1Mbps)

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.49853	30.23	PK2	28.1	-17.2	41.13	-	-	74	-32.87	12	116	H
	* 1.49948	19.07	MAv1	28.1	-17.2	29.97	54	-24.03	-	-	12	116	H
4	* 1.40472	30.46	PK2	28.6	-17.3	41.76	-	-	74	-32.24	117	149	V
	* 1.40442	19.28	MAv1	28.6	-17.3	30.58	54	-23.42	-	-	117	149	V
2	* 4.80346	41.45	PK2	34.2	-30.8	44.85	-	-	74	-29.15	29	107	H
	* 4.80347	32.69	MAv1	34.2	-30.8	36.09	54	-17.91	-	-	29	107	H
3	16.59944	32.16	PK2	42.2	-18.7	55.66	-	-	-	-	104	115	H
5	* 4.8019	39.98	PK2	34.2	-30.8	43.38	-	-	74	-30.62	308	271	V
	* 4.80323	29.89	MAv1	34.2	-30.8	33.29	54	-20.71	-	-	308	271	V
6	* 10.8447	33.11	PK2	38	-22.7	48.41	-	-	74	-25.59	71	214	V
	* 10.84098	23.01	MAv1	38	-22.8	38.21	54	-15.79	-	-	71	214	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015
Rev 9.5 30 Apr 2020

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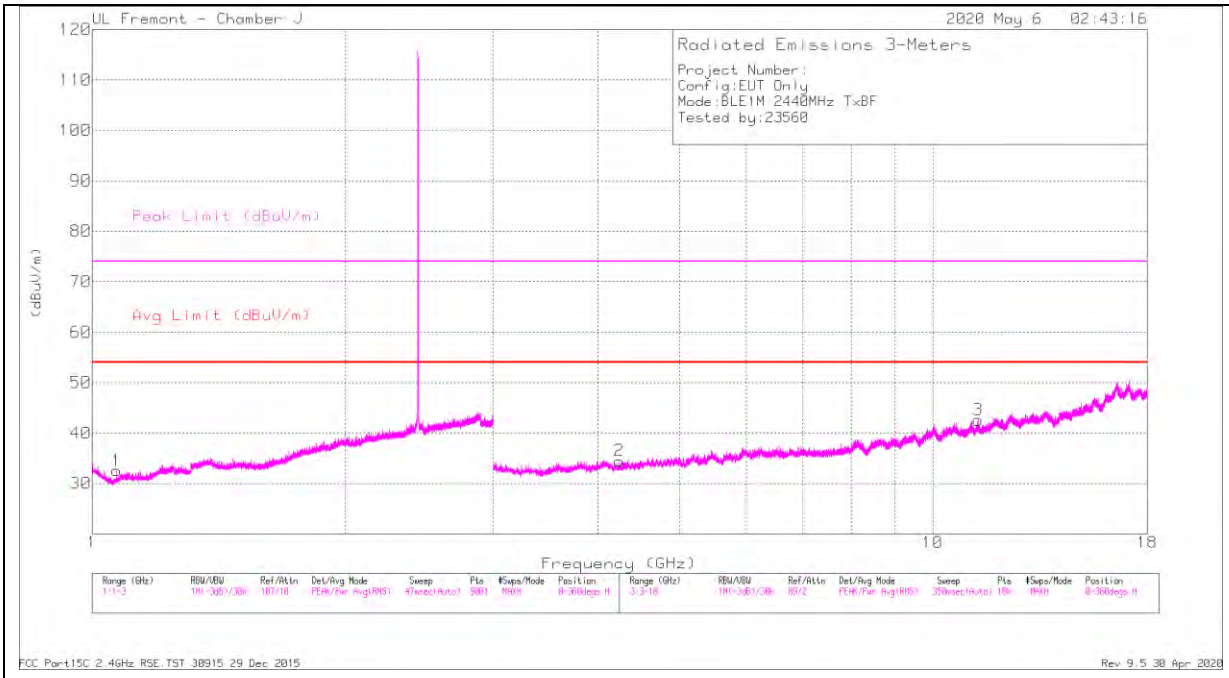
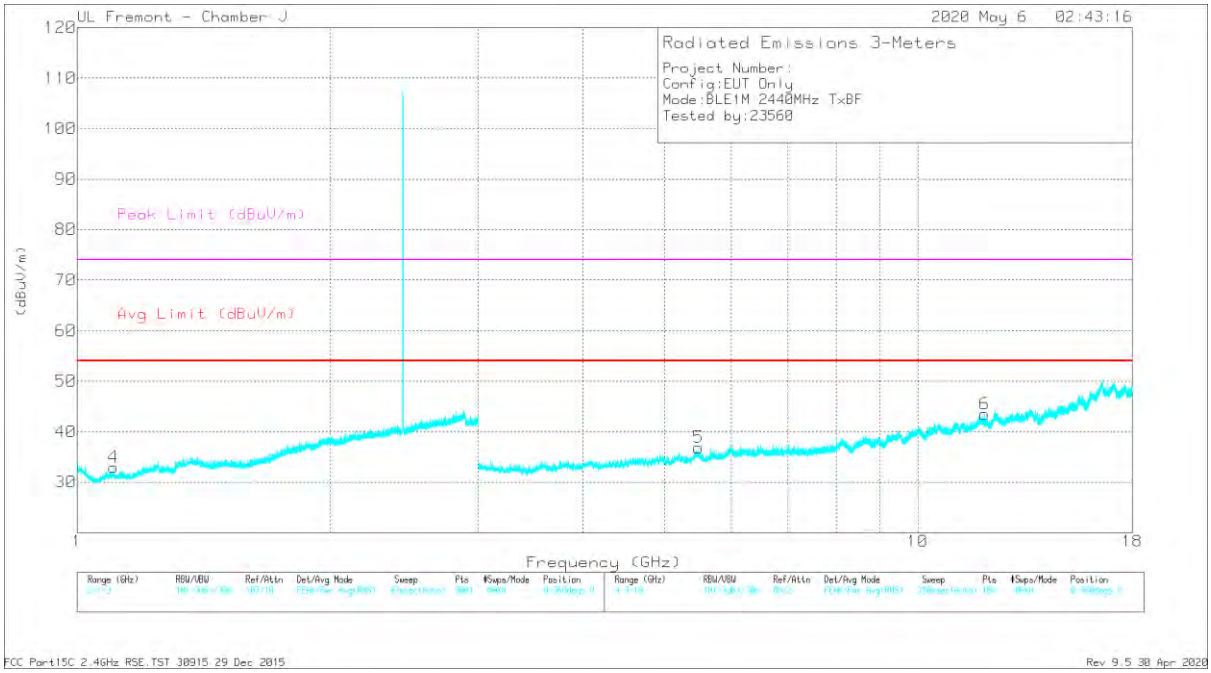
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.06958	29.73	PK2	27	-18.5	38.23	-	-	74	-35.77	115	101	H
	* 1.06756	19.09	MAv1	27	-18.5	27.59	54	-26.41	-	-	115	101	H
4	* 1.10311	29.11	PK2	27.4	-18.3	38.21	-	-	74	-35.79	198	112	V
	* 1.10361	19.17	MAv1	27.4	-18.3	28.27	54	-25.73	-	-	198	112	V
2	* 4.23818	39.72	PK2	33.5	-31.4	41.82	-	-	74	-32.18	145	192	H
	* 4.23797	29.09	MAv1	33.5	-31.4	31.19	54	-22.81	-	-	145	192	H
3	* 11.32913	34.25	PK2	38	-22.4	49.85	-	-	74	-24.15	341	132	H
	* 11.32748	23.74	MAv1	38	-22.4	39.34	54	-14.66	-	-	341	132	H
5	5.48714	38.14	PK2	34.6	-28.8	43.94	-	-	-	-	163	336	V
6	* 12.01574	33.59	PK2	38.7	-22	50.29	-	-	74	-23.71	133	304	V
	* 12.01521	23.19	MAv1	38.7	-22	39.89	54	-14.11	-	-	133	304	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015
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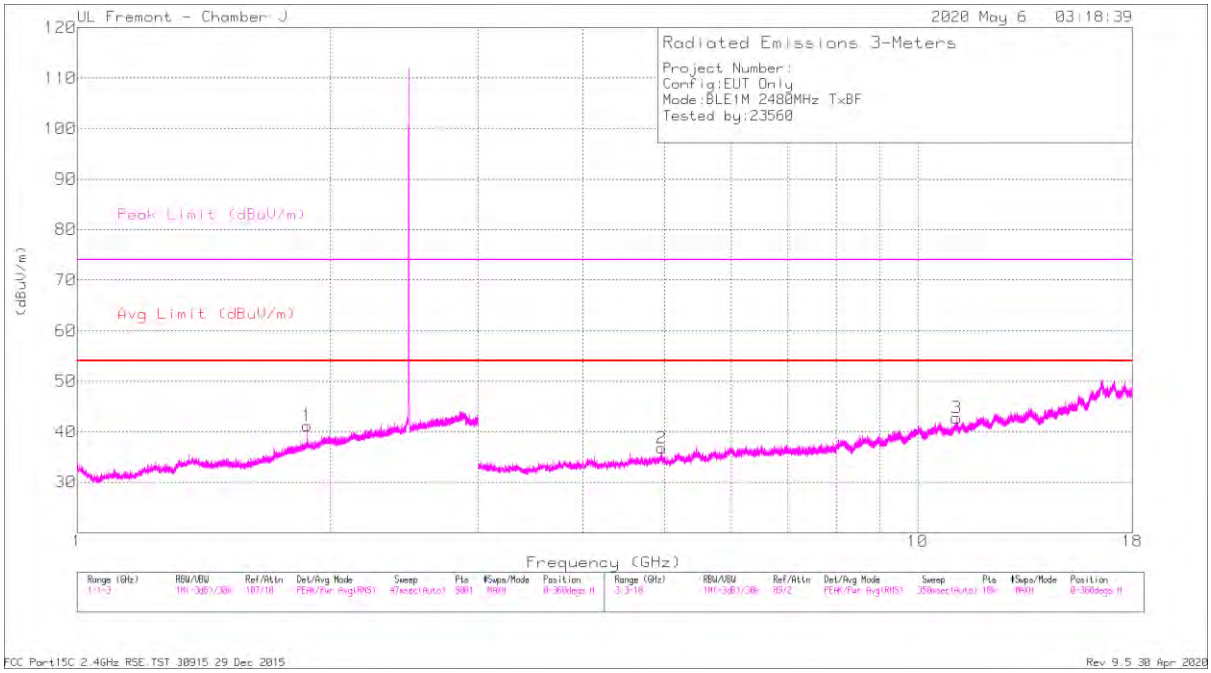
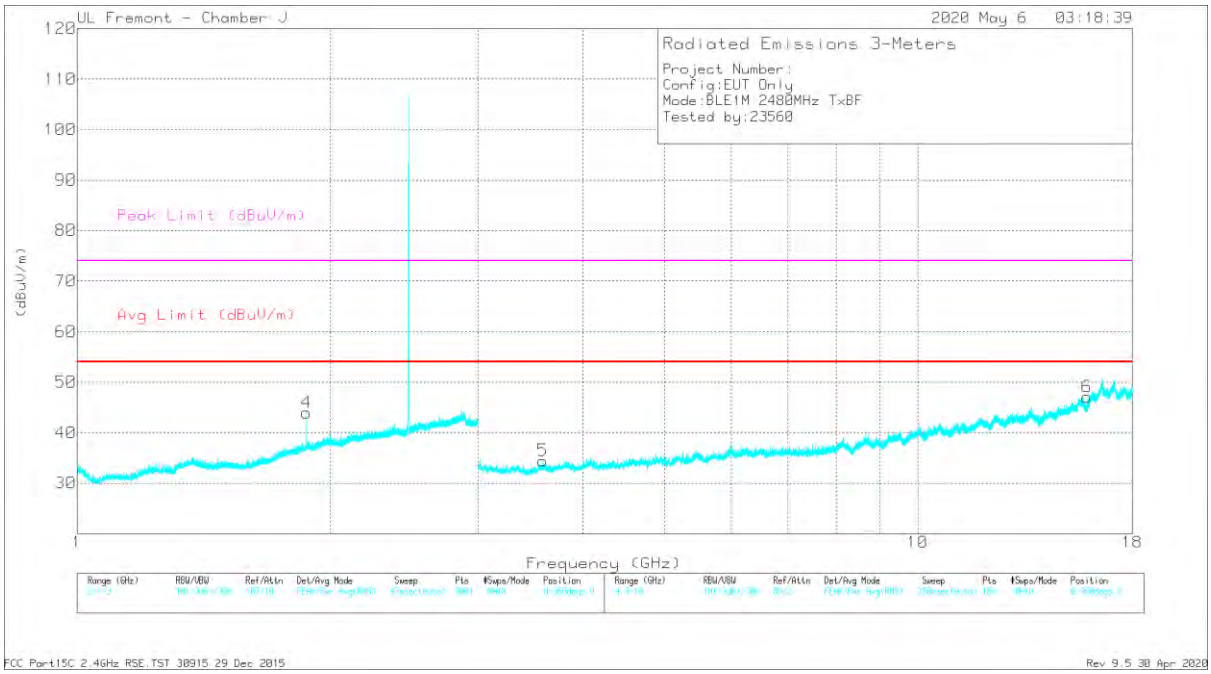
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.87636	29.58	PK2	30.7	-16.1	44.18	-	-	-	-	111	290	H
4	1.8744	30.98	PK2	30.8	-16.1	45.68	-	-	-	-	249	115	V
2	* 4.95728	39.83	PK2	34.1	-30	43.93	-	-	74	-30.07	268	104	H
	* 4.96128	28.67	MAv1	34.1	-30	32.77	54	-21.23	-	-	268	104	H
3	* 11.12612	35.2	PK2	38	-22.8	50.4	-	-	74	-23.6	120	231	H
	* 11.12437	23.99	MAv1	38	-22.8	39.19	54	-14.81	-	-	120	231	H
5	* 3.58216	42.16	PK2	33	-32.7	42.46	-	-	74	-31.54	223	336	V
	* 3.58032	31.21	MAv1	33	-32.7	31.51	54	-22.49	-	-	223	336	V
6	* 15.89948	32.44	PK2	41	-19.1	54.34	-	-	74	-19.66	301	150	V
	* 15.90182	21.51	MAv1	41	-19.1	43.41	54	-10.59	-	-	301	150	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015
Rev 9.5 30 Apr 2020

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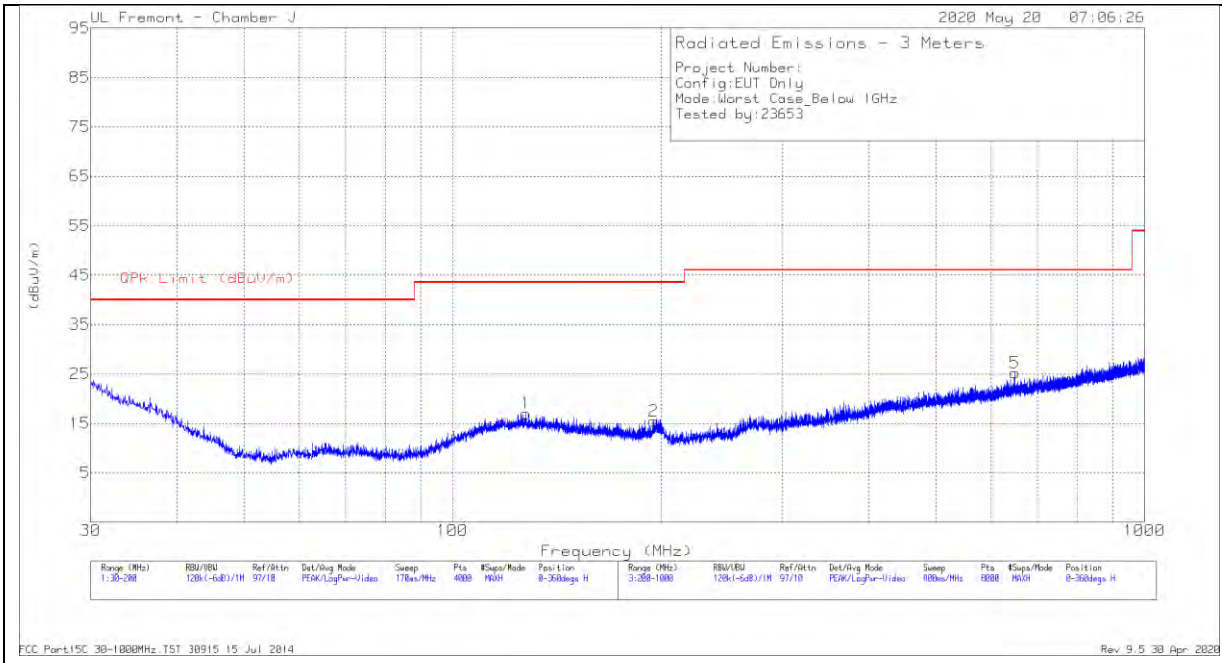
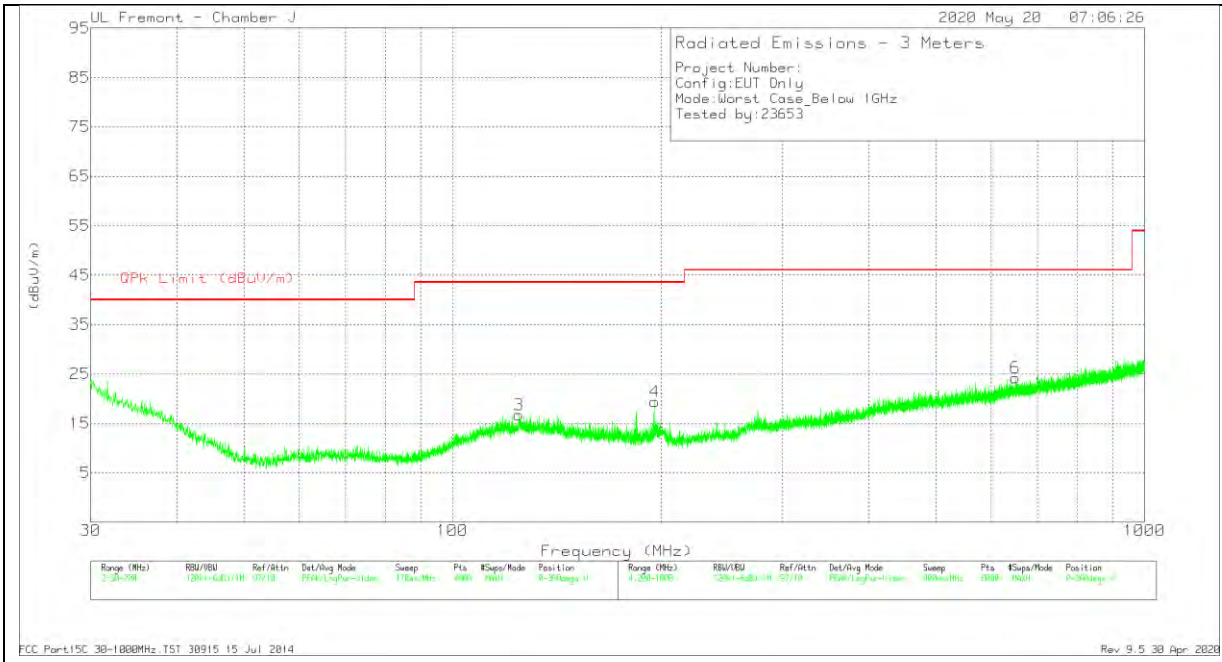
10.3. WORST CASE BELOW 1 GHz

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



HORIZONTAL



VERTICAL

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DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T899 (dB/m)	Amp Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 127.6903	28.31	Pk	19.6	-30.9	17.01	43.52	-26.51	0-360	100	H
2	195.0277	28.1	Pk	17.9	-30.5	15.5	43.52	-28.02	0-360	196	H
3	* 124.842	27.96	Pk	19.6	-30.9	16.66	43.52	-26.86	0-360	100	V
4	195.8779	31.86	Pk	18	-30.5	19.36	43.52	-24.16	0-360	100	V
5	649.3584	28.57	Pk	25.6	-29	25.17	46.02	-20.85	0-360	199	H
6	651.0586	27.6	Pk	25.6	-29	24.2	46.02	-21.82	0-360	199	V

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

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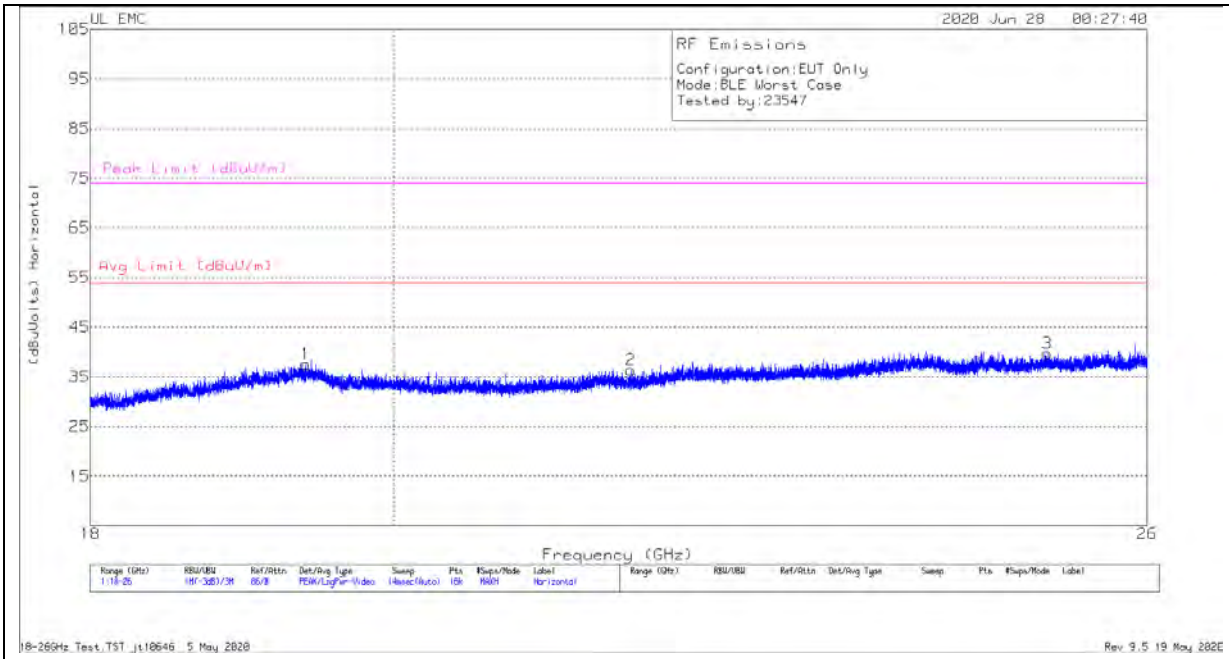
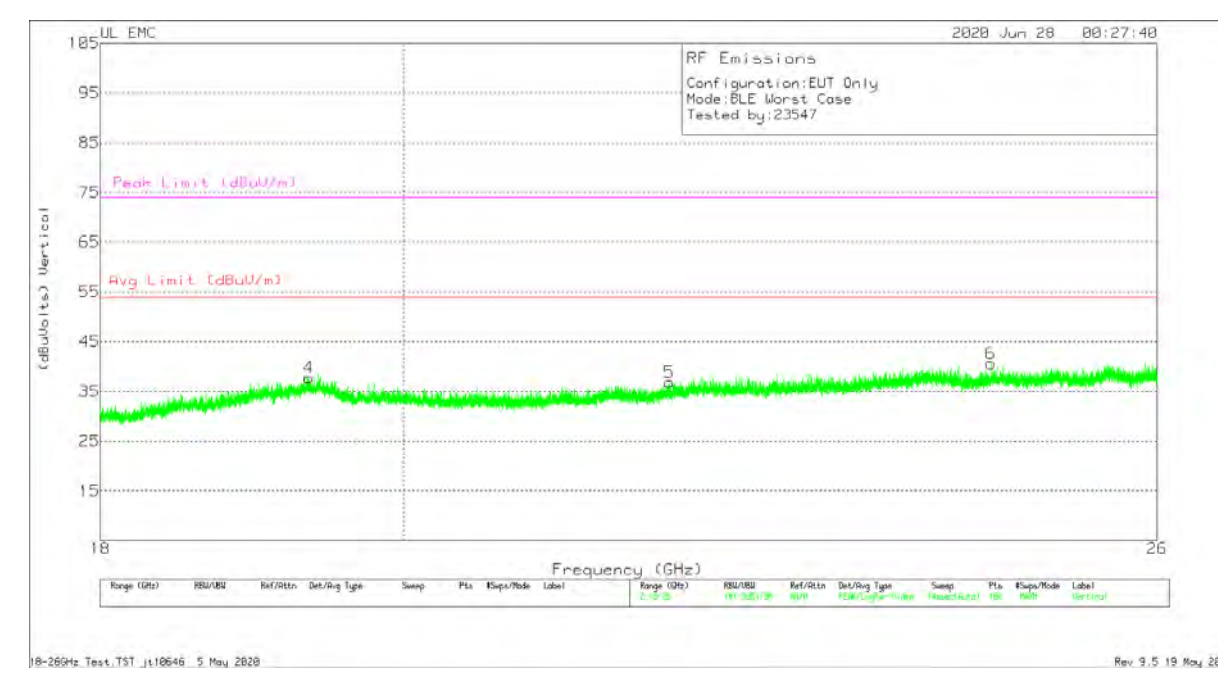
10.4. WORST CASE 18-26 GHz

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

HORIZONTAL



VERTICAL



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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	19.40141	33.44	Pk	32.6	-19	-9.5	37.54	54	-16.46	74	-36.46
2	21.72327	33.36	Pk	33.2	-20.7	-9.5	36.36	54	-17.64	74	-37.64
3	25.11106	34.08	Pk	34.3	-19.2	-9.5	39.68	54	-14.32	74	-34.32
4	19.35242	33.32	Pk	32.6	-18.7	-9.5	37.72	54	-16.28	74	-36.28
5	21.94176	33.51	Pk	33.4	-20.6	-9.5	36.81	54	-17.19	74	-37.19
6	24.53709	35.09	Pk	34.1	-19.1	-9.5	40.59	54	-13.41	74	-33.41

Pk - Peak detector

18-26GHz Test.TST jt10646 5 May 2020
Rev 9.5 19 May 2020

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11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	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

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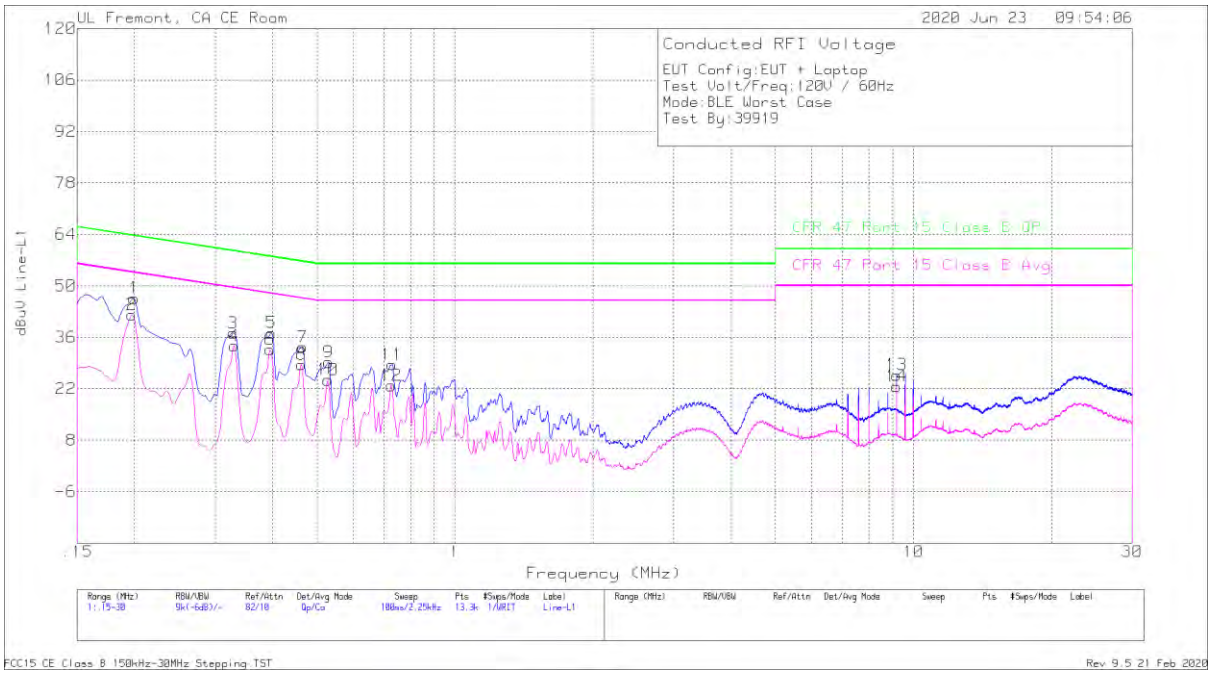
11.1. AC POWER LINE WITH LAPTOP

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	.1995	36.64	Qp	0	0	10	46.64	63.63	-16.99	-	-
2	.19725	32.15	Ca	0	0	10	42.15	-	-	53.73	-11.58
3	.32775	27.12	Qp	0	0	10	37.12	59.51	-22.39	-	-
4	.33	23.68	Ca	0	0	10	33.68	-	-	49.45	-15.77
5	.3975	27.21	Qp	0	0	10	37.21	57.91	-20.7	-	-
6	.39525	22.73	Ca	0	0	10	32.73	-	-	47.95	-15.22
7	.465	23.34	Qp	0	0	10	33.34	56.6	-23.26	-	-
8	.46275	18.62	Ca	0	0	10	28.62	-	-	46.64	-18.02
9	.53025	19.2	Qp	0	0	10	29.2	56	-26.8	-	-
10	.528	14.39	Ca	0	0	10	24.39	-	-	46	-21.61
11	.72825	18.56	Qp	0	0	10	28.56	56	-27.44	-	-
12	.726	12.86	Ca	0	0	10	22.86	-	-	46	-23.14
13	9.18825	15.45	Qp	0	.2	10.1	25.75	60	-34.25	-	-
14	9.18825	12.36	Ca	0	.2	10.1	22.66	-	-	50	-27.34

Qp - Quasi-Peak detector
Ca - CISPR average detection

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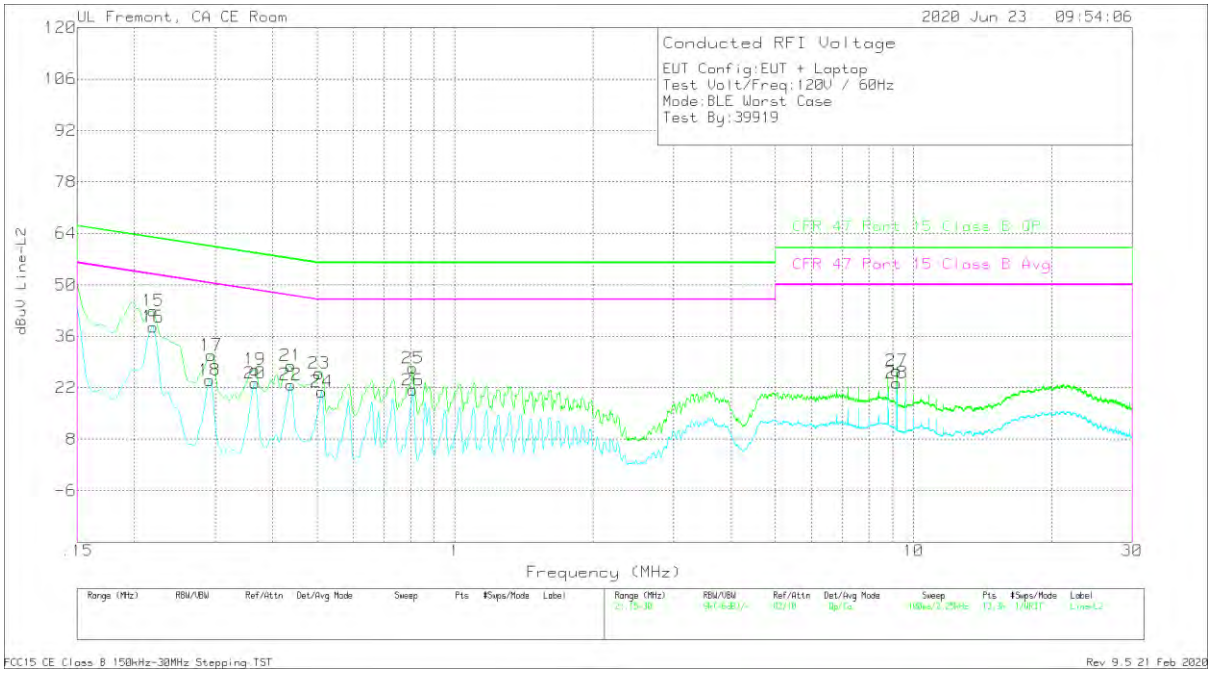
LINE 2 RESULTS



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)Margin (dB)
15	.21975	32.95	Qp	0	0	10	42.95	62.83	-19.88	-	-
16	.21975	28.55	Ca	0	0	10	38.55	-	-	52.83	-14.28
17	.294	20.83	Qp	0	0	10	30.83	60.41	-29.58	-	-
18	.29175	14.07	Ca	0	0	10	24.07	-	-	50.47	-26.4
19	.366	16.94	Qp	0	0	10	26.94	58.59	-31.65	-	-
20	.366	13.27	Ca	0	0	10	23.27	-	-	48.59	-25.32
21	.438	17.99	Qp	0	0	10	27.99	57.1	-29.11	-	-
22	.438	12.81	Ca	0	0	10	22.81	-	-	47.1	-24.29
23	.5055	15.93	Qp	0	0	10	25.93	56	-30.07	-	-
24	.51225	10.91	Ca	0	0	10	20.91	-	-	46	-25.09
25	.80925	17.36	Qp	0	0	10	27.36	56	-28.64	-	-
26	.80925	11.36	Ca	0	0	10	21.36	-	-	46	-24.64
27	9.195	16.34	Qp	0	.2	10.1	26.64	60	-33.36	-	-
28	9.195	13.03	Ca	0	.2	10.1	23.33	-	-	50	-26.67

Qp - Quasi-Peak detector
Ca - CISPR average detection

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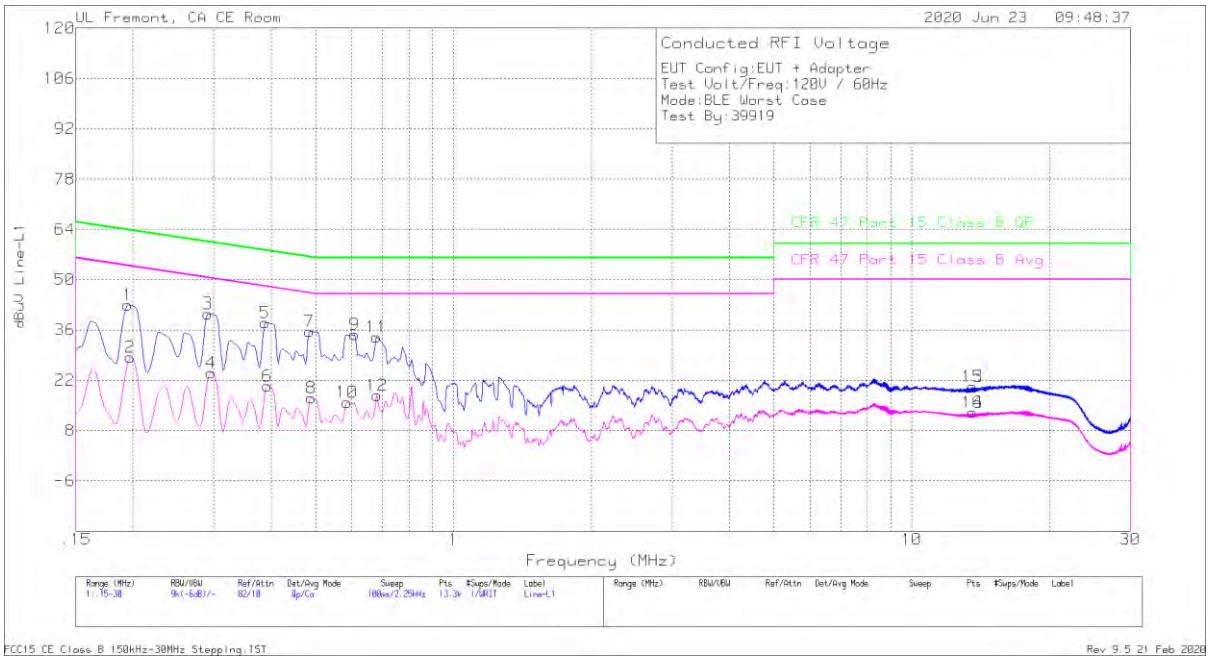
11.2. AC POWER LINE WITH AC/DC ADAPTER

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)Margin (dB)
1	.195	32.94	Qp	0	0	10	42.94	63.82	-20.88	-	-
2	.19725	18.5	Ca	0	0	10	28.5	-	-	53.73	-25.23
3	.29175	30.57	Qp	0	0	10	40.57	60.47	-19.9	-	-
4	.29625	14.16	Ca	0	0	10	24.16	-	-	50.35	-26.19
5	.3885	28.07	Qp	0	0	10	38.07	58.1	-20.03	-	-
6	.393	10.42	Ca	0	0	10	20.42	-	-	48	-27.58
7	.48525	25.6	Qp	0	0	10	35.6	56.25	-20.65	-	-
8	.48975	7.16	Ca	0	0	10	17.16	-	-	46.17	-29.01
9	.609	24.7	Qp	0	0	10	34.7	56	-21.3	-	-
10	.5865	5.96	Ca	0	0	10	15.96	-	-	46	-30.04
11	.67875	24.02	Qp	0	0	10	34.02	56	-21.98	-	-
12	.681	7.74	Ca	0	0	10	17.74	-	-	46	-28.26
13	13.56	9.85	Qp	.1	.2	10.1	20.25	60	-39.75	-	-
14	13.56225	2.67	Ca	.1	.2	10.1	13.07	-	-	50	-36.93
*15	13.56	9.85	Qp	.1	.2	10.1	20.25	60	-39.75	-	-
*16	13.56225	2.67	Ca	.1	.2	10.1	13.07	-	-	50	-36.93

Qp - Quasi-Peak detector
Ca - CISPR average detection
*Indicates UL RFID signal. Not from device.

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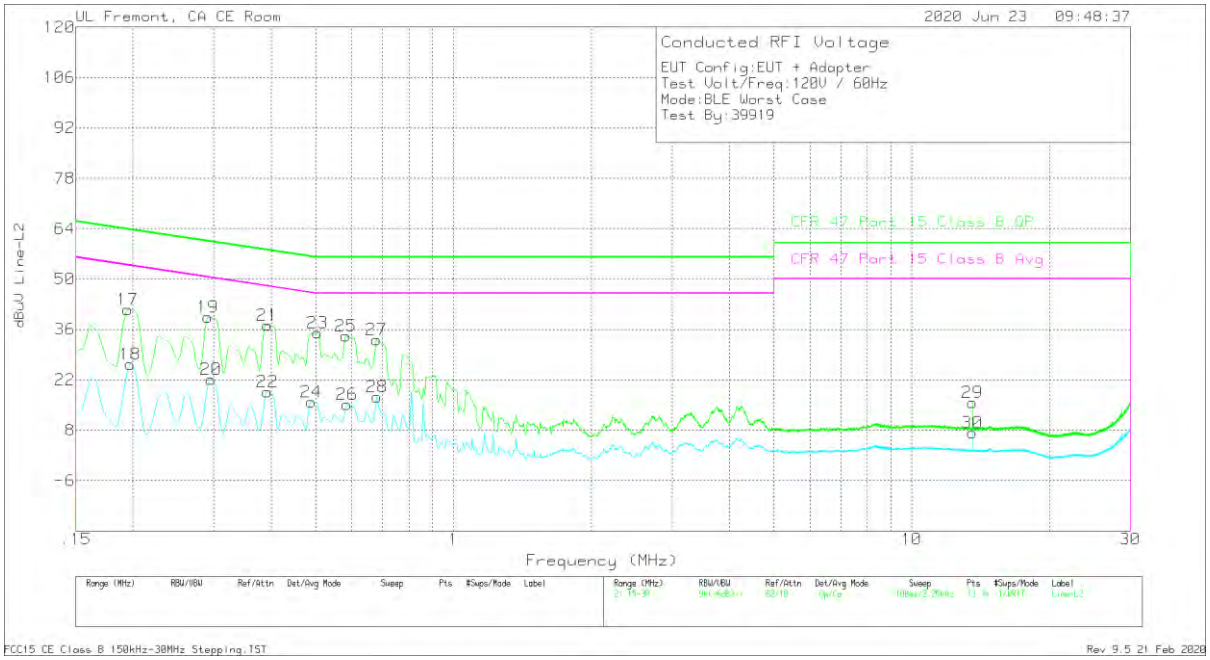
LINE 2 RESULTS



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)Margin (dB)
17	.195	31.52	Qp	0	0	10	41.52	63.82	-22.3	-	-
18	.19725	16.34	Ca	0	0	10	26.34	-	-	53.73	-27.39
19	.29175	29.4	Qp	0	0	10	39.4	60.47	-21.07	-	-
20	.29625	12.23	Ca	0	0	10	22.23	-	-	50.35	-28.12
21	.393	27.16	Qp	0	0	10	37.16	58	-20.84	-	-
22	.393	8.7	Ca	0	0	10	18.7	-	-	48	-29.3
23	.5055	25.06	Qp	0	0	10	35.06	56	-20.94	-	-
24	.48975	5.88	Ca	0	0	10	15.88	-	-	46.17	-30.29
25	.582	24.23	Qp	0	0	10	34.23	56	-21.77	-	-
26	.5865	5.11	Ca	0	0	10	15.11	-	-	46	-30.89
27	.67875	23.12	Qp	0	0	10	33.12	56	-22.88	-	-
28	.681	7.29	Ca	0	0	10	17.29	-	-	46	-28.71
*29	13.56	5.37	Qp	.1	.2	10.1	15.77	60	-44.23	-	-
*30	13.56	-3.11	Ca	.1	.2	10.1	7.29	-	-	50	-42.71

Qp - Quasi-Peak detector
Ca - CISPR average detection
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12. SETUP PHOTOS

Please refer to 13179110-EP1 for setup photos

END OF TEST REPORT

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