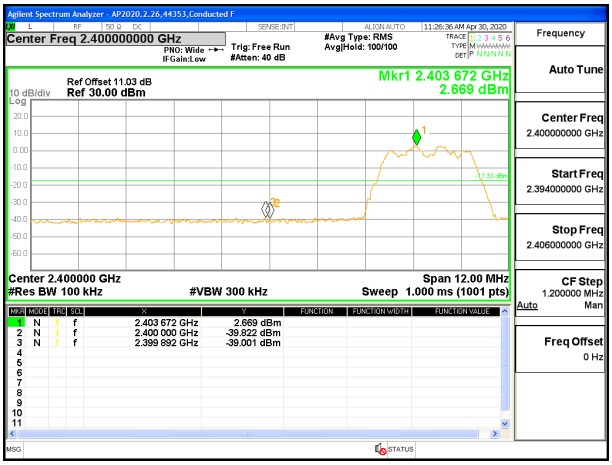
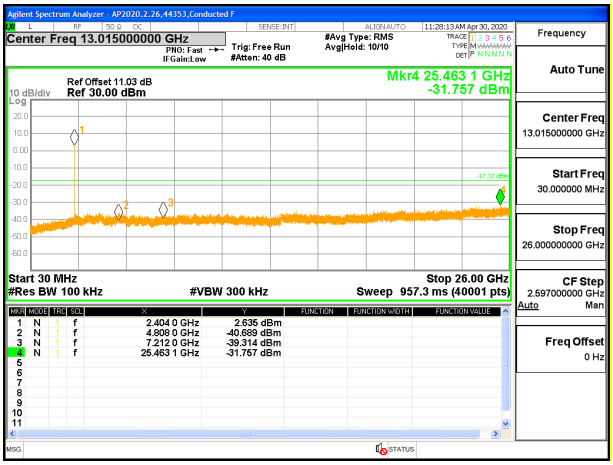
9.7.5. LOW POWER HDR (HDR4)

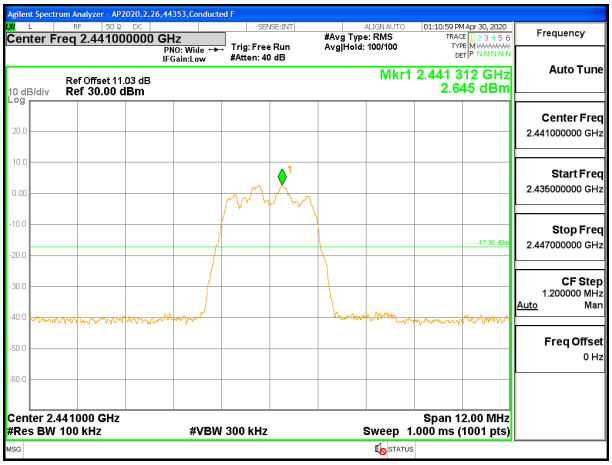
ANT 4



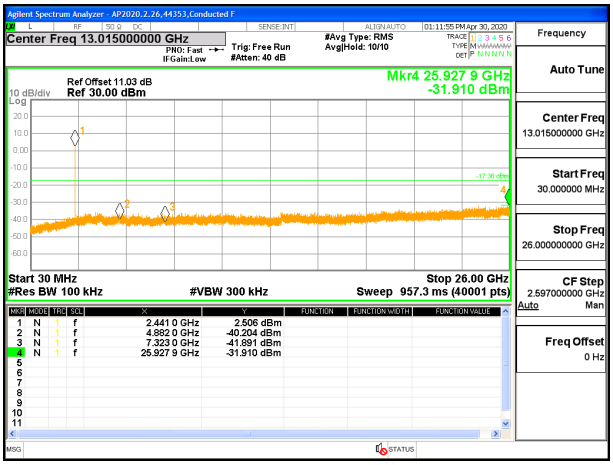
LOW CHANNEL BANDEDGE



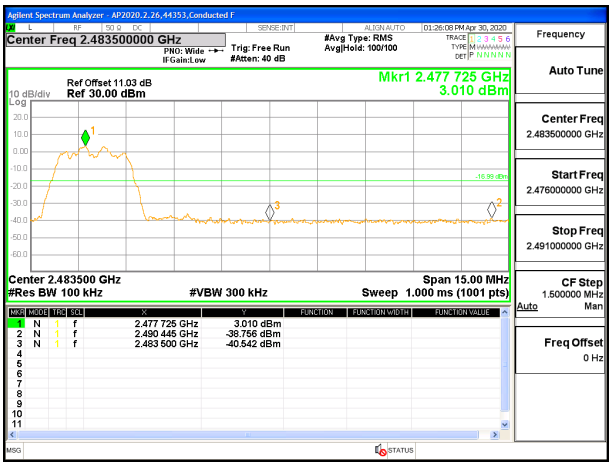
OUT-OF-BAND LOW CHANNEL



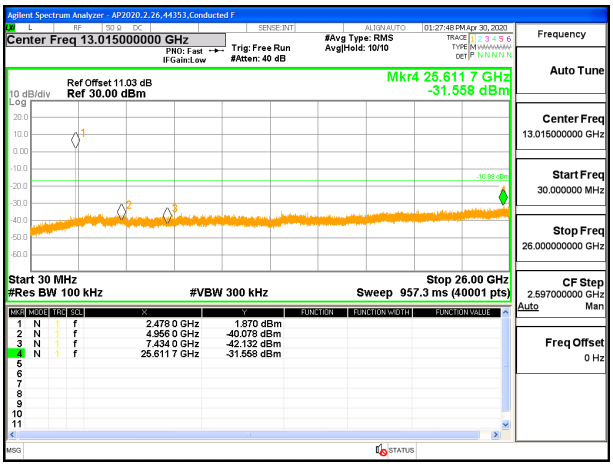
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL BANDEDGE



OUT-OF-BAND HIGH CHANNEL

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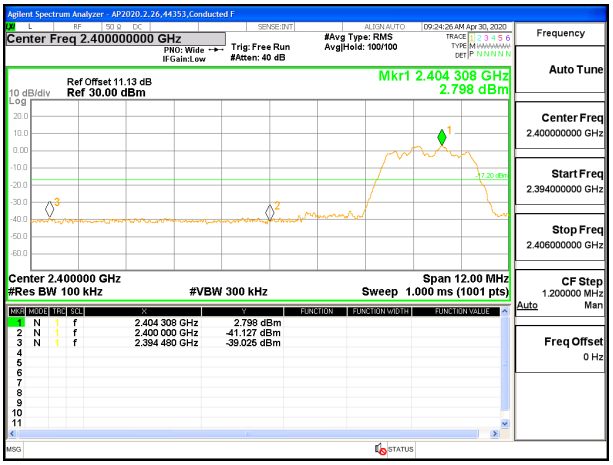
ANT 3



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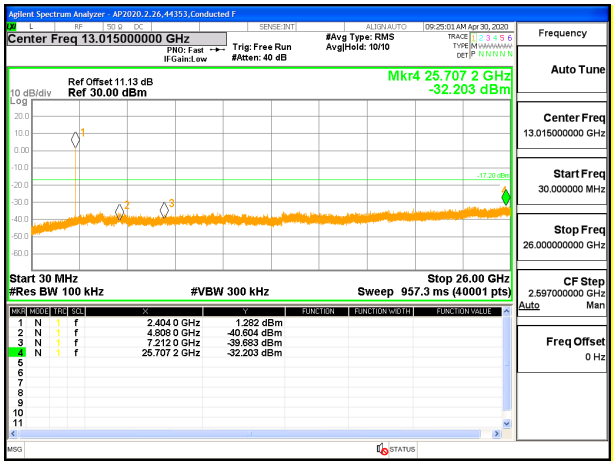

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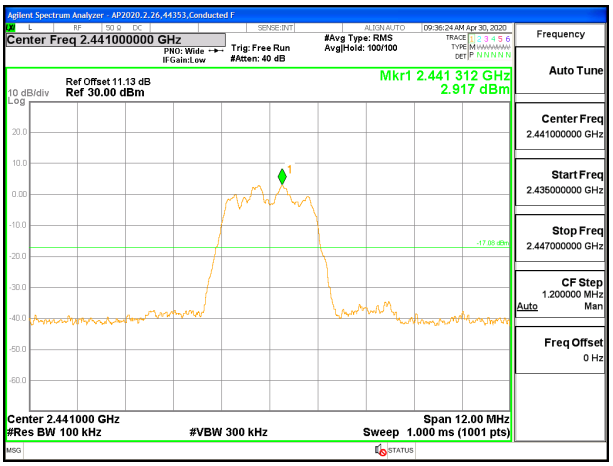
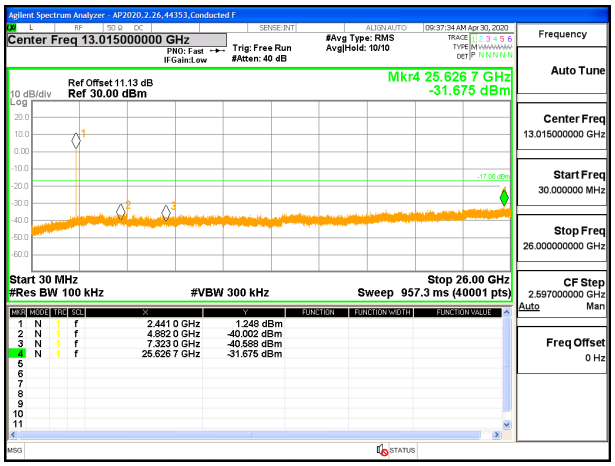
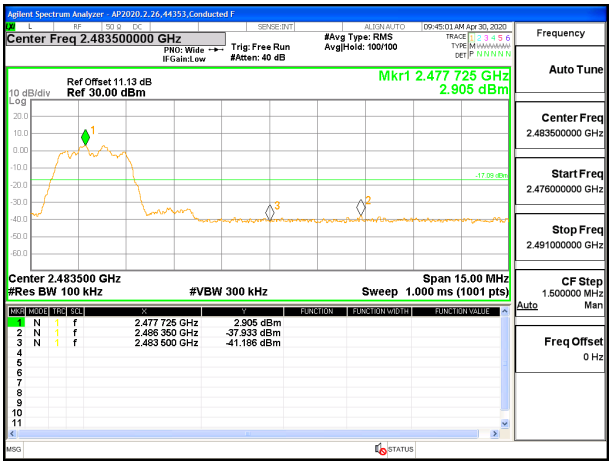


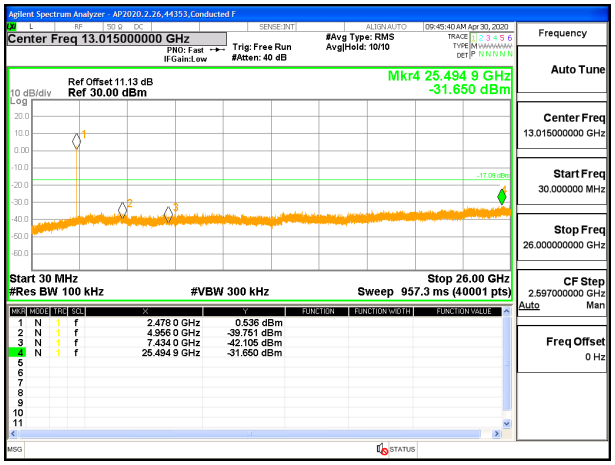
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL BANDEDGE



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9.7.6. LOW POWER HDR TXBF (HDR4)

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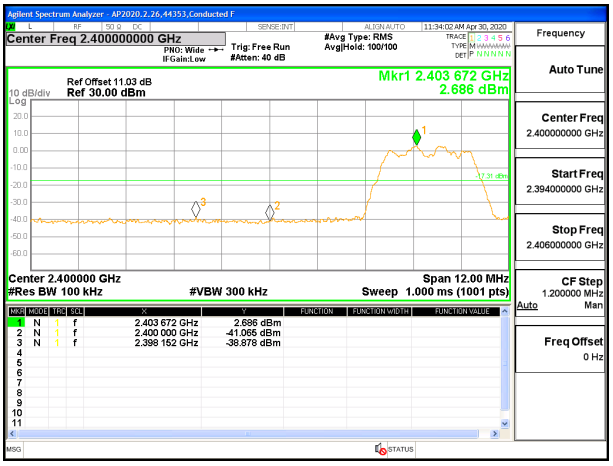

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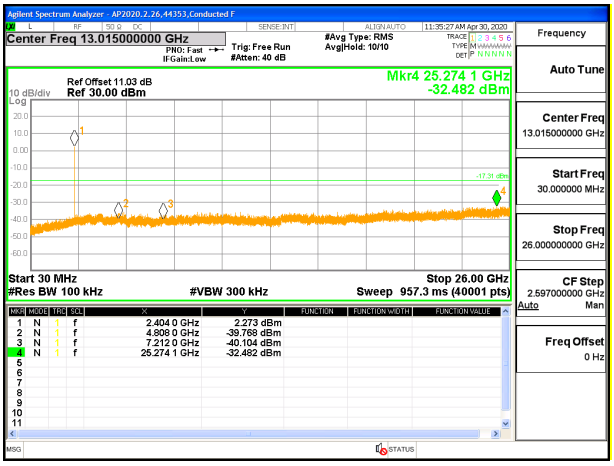
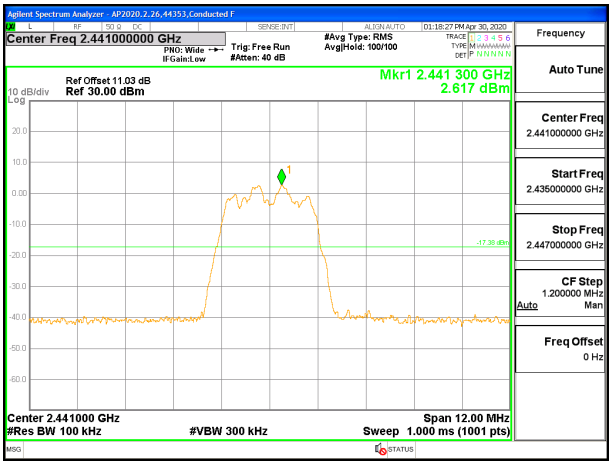
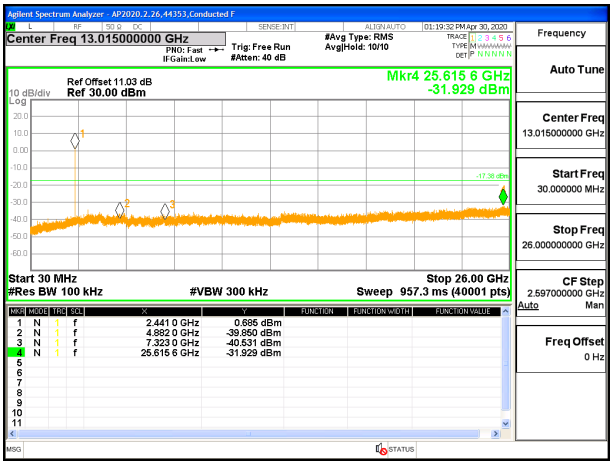


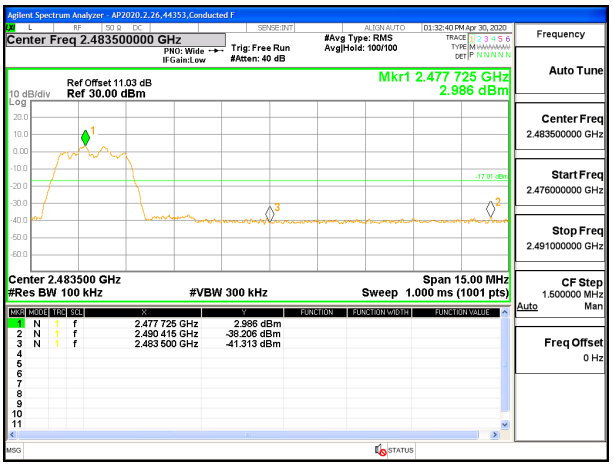
OUT-OF-BAND LOW CHANNEL ANT 4



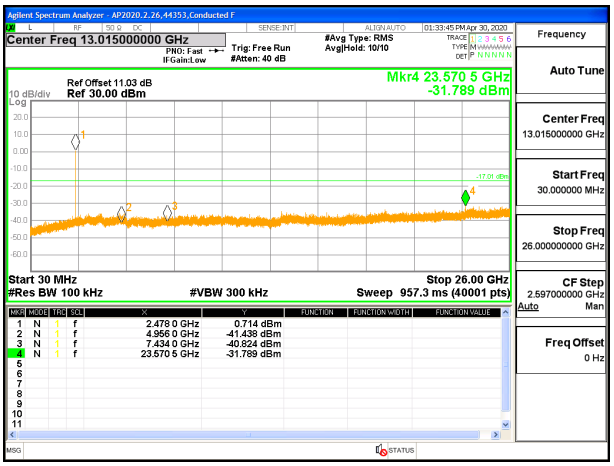
IN-BAND REFERENCE LEVEL ANT 4



OUT-OF-BAND MID CHANNEL ANT 4



HIGH CHANNEL BANDEDGE ANT 4



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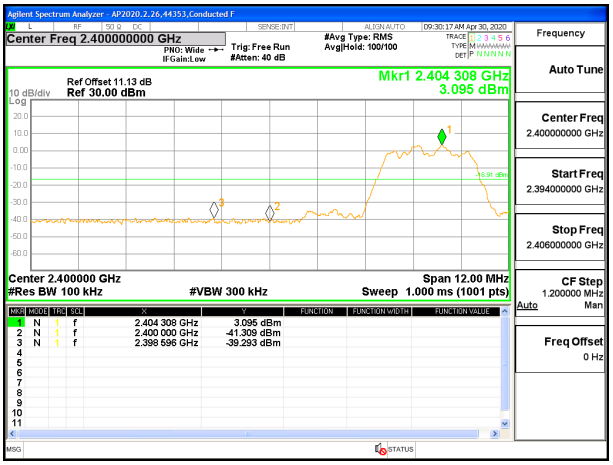
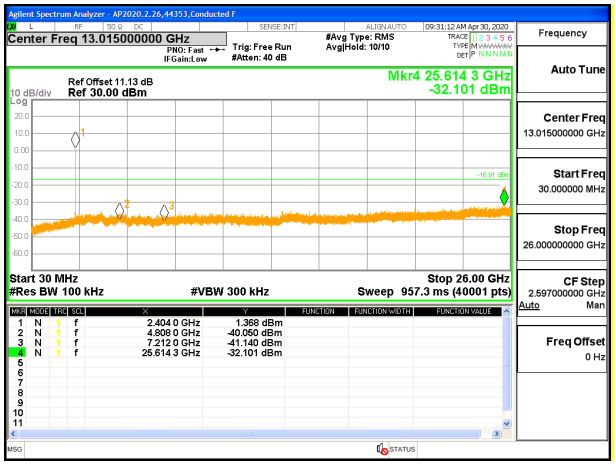
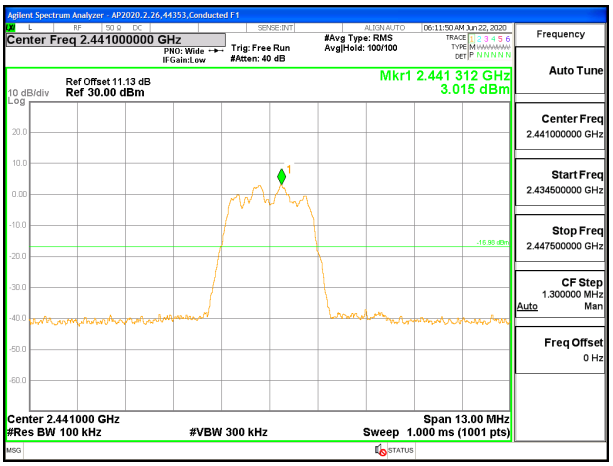


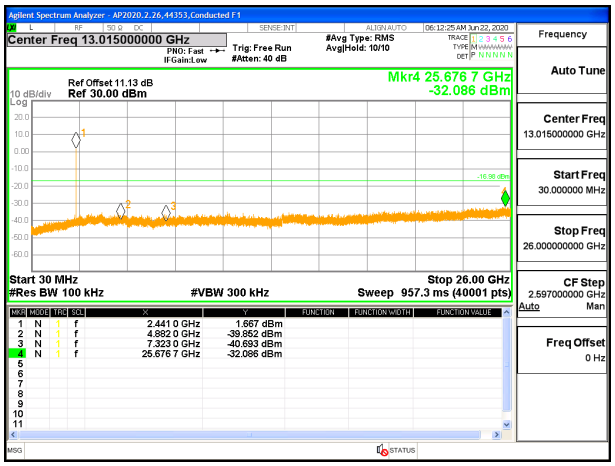
LOW CHANNEL BANDEDGE ANT 3



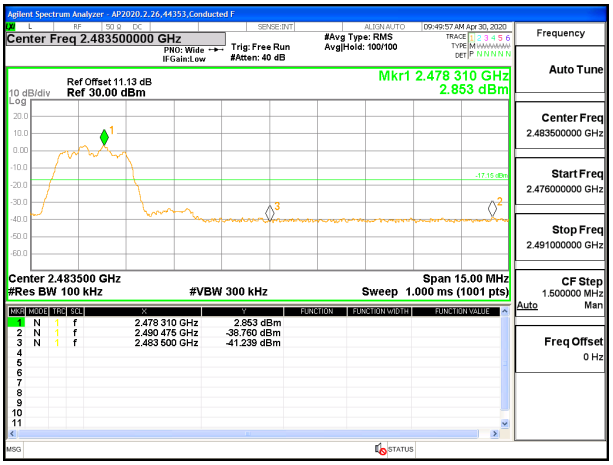
OUT-OF-BAND LOW CHANNEL ANT 3



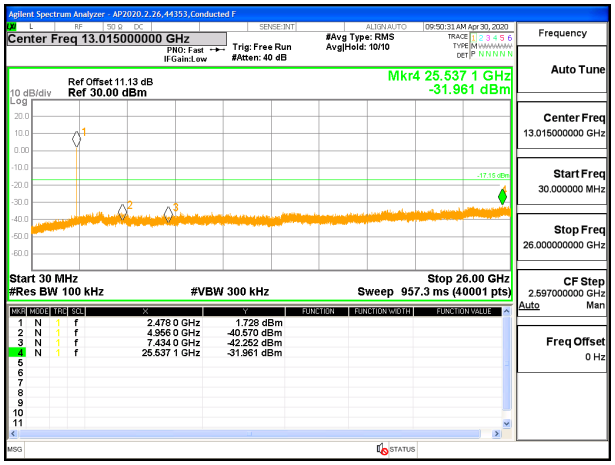
IN-BAND REFERENCE LEVEL ANT 3



OUT-OF-BAND MID CHANNEL ANT 3



HIGH CHANNEL BANDEDGE ANT 3



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9.7.7. LOW POWER HDR (HDR8)

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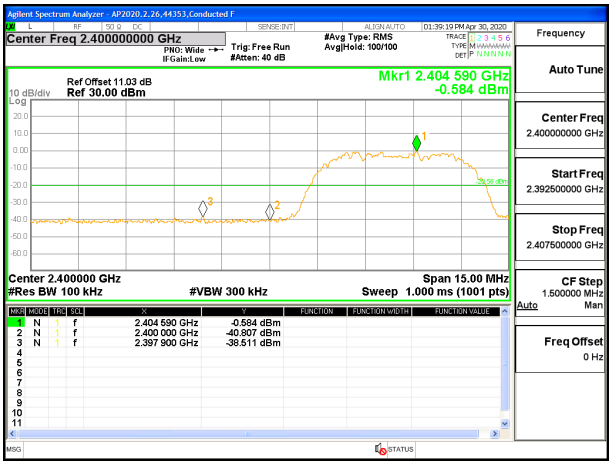
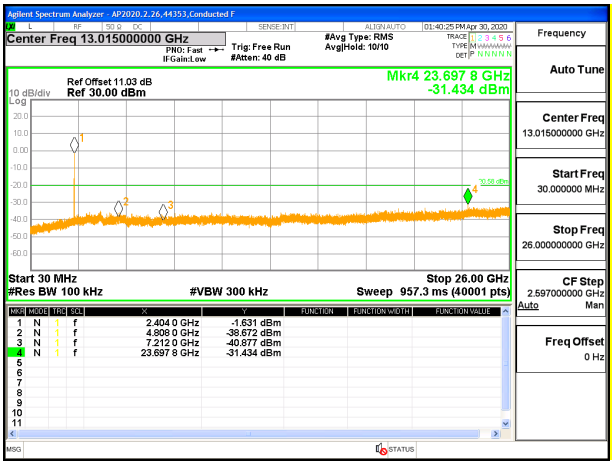
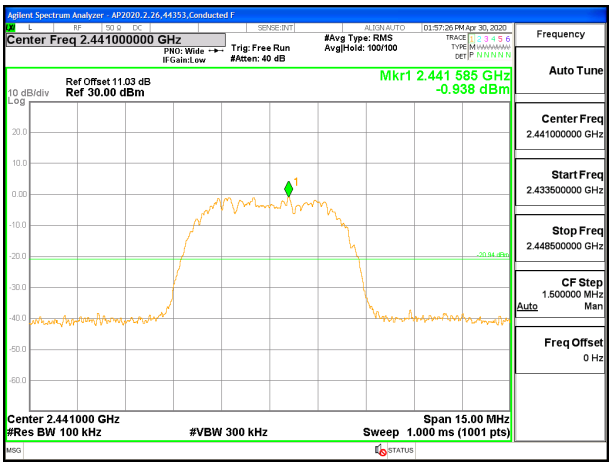


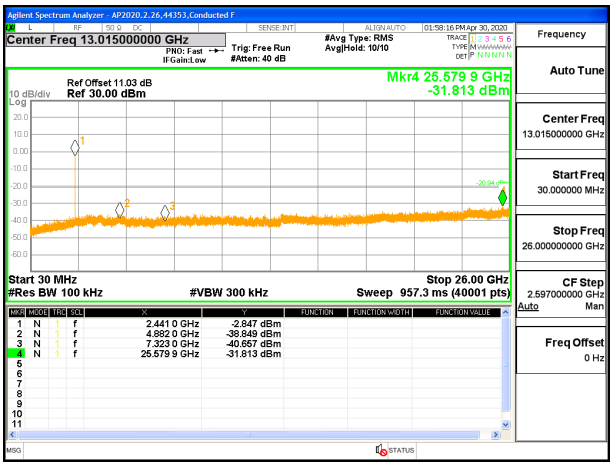
LOW CHANNEL BANDEDGE



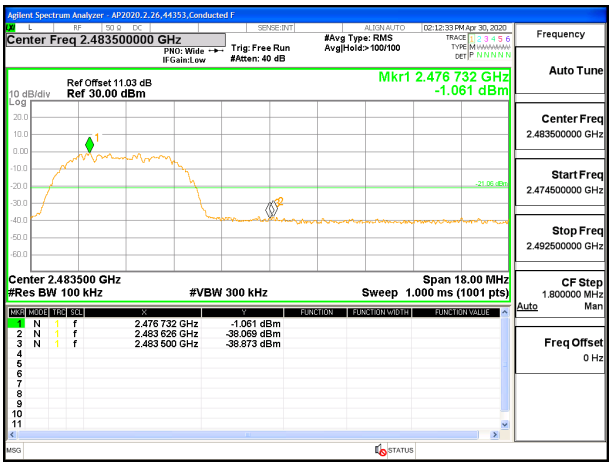
OUT-OF-BAND LOW CHANNEL



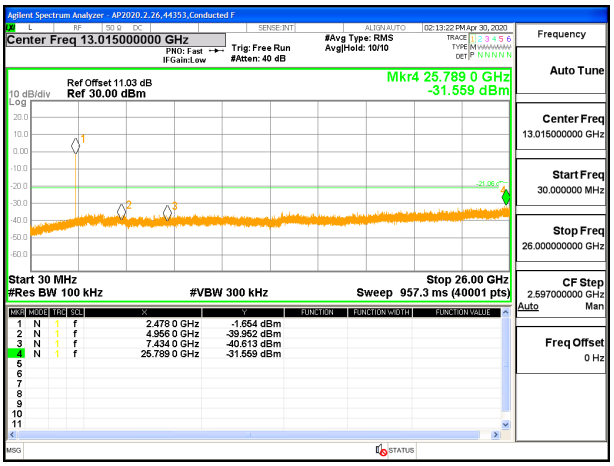
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL BANDEDGE



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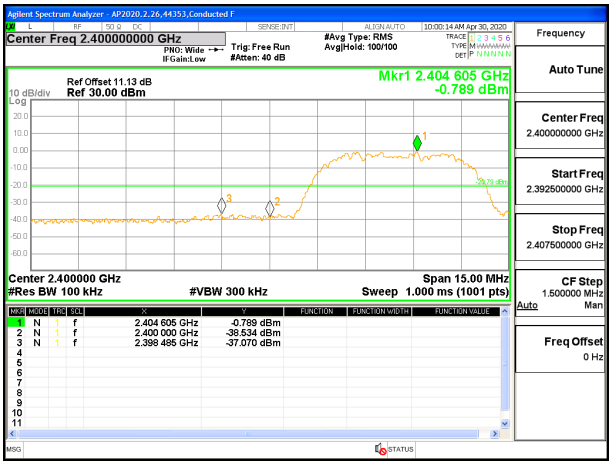
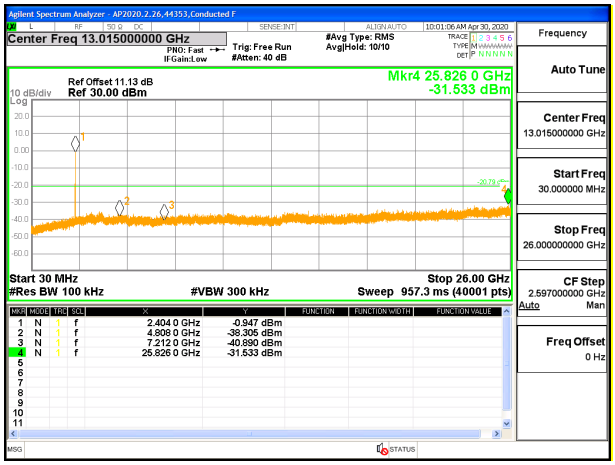
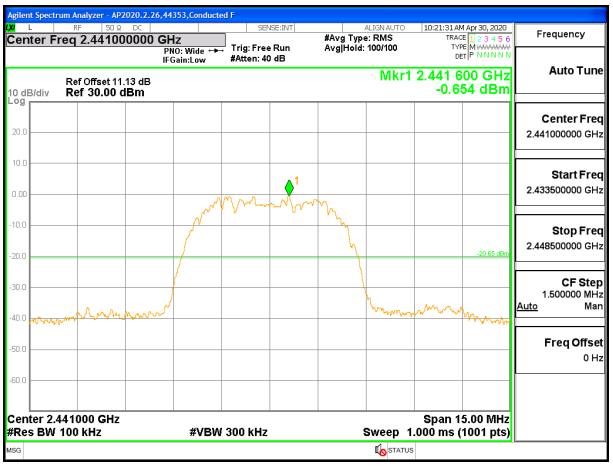


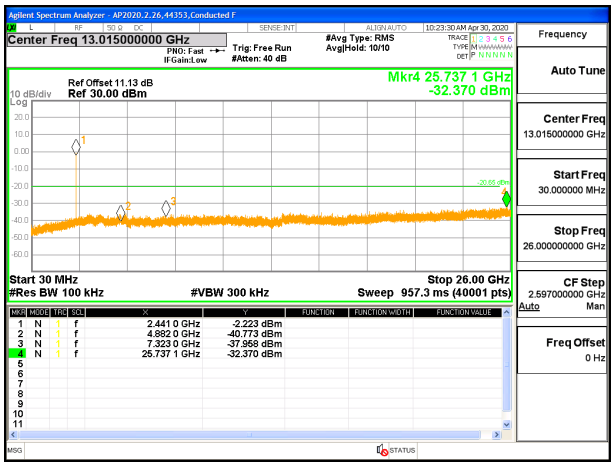
LOW CHANNEL BANDEDGE



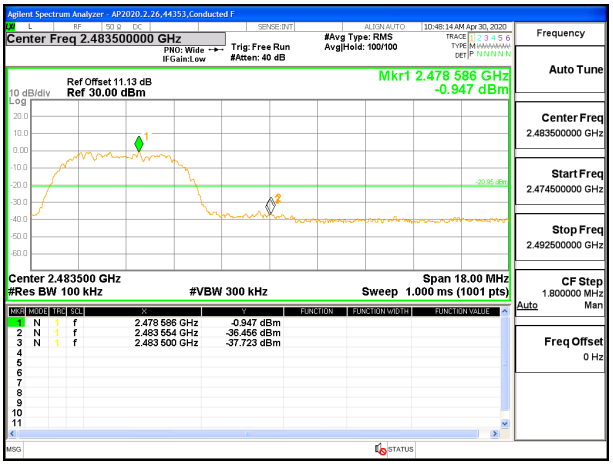
OUT-OF-BAND LOW CHANNEL



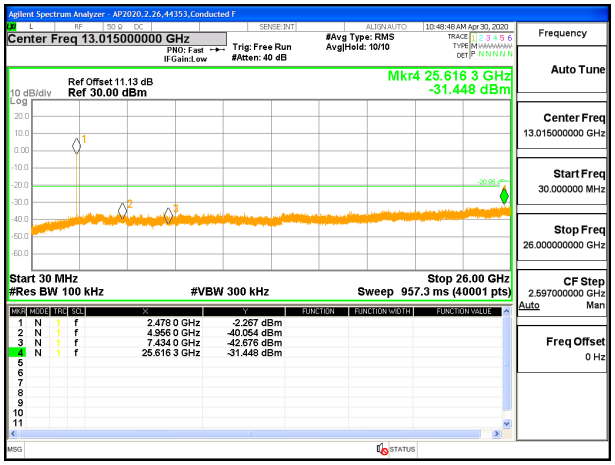
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL BANDEDGE



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9.7.8. LOW POWER HDR TXBF (HDR8)

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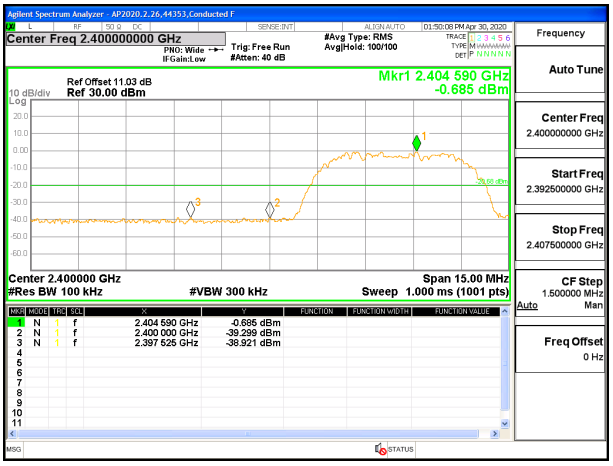
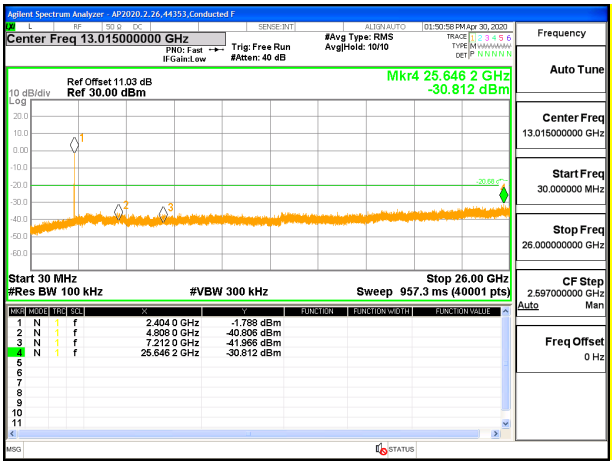
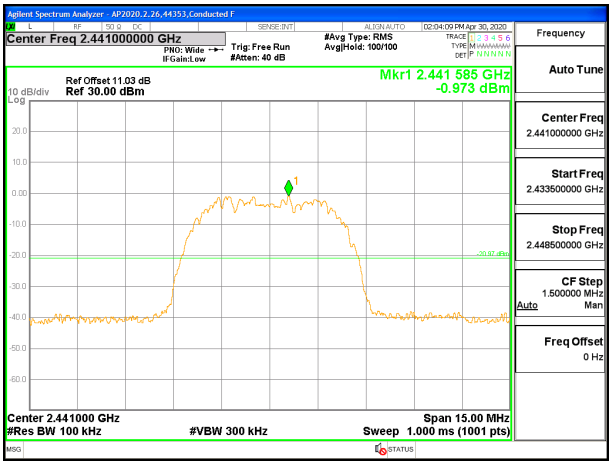


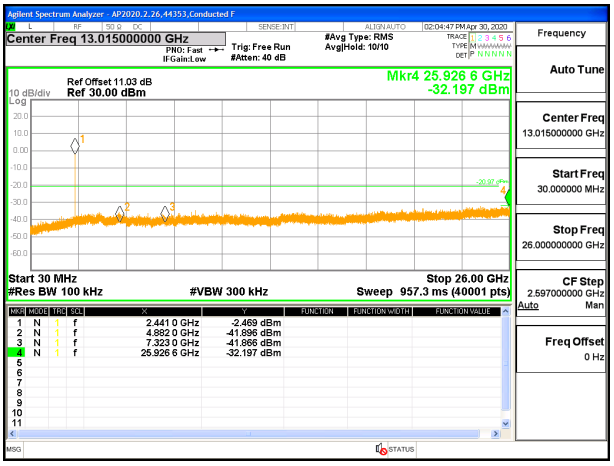
LOW CHANNEL BANDEDGE ANT 4



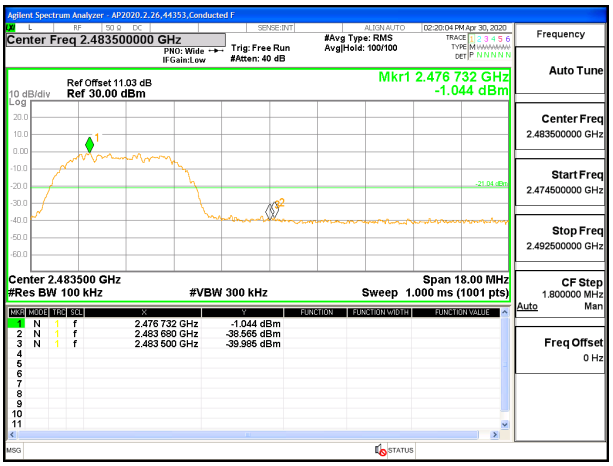
OUT-OF-BAND LOW CHANNEL ANT 4



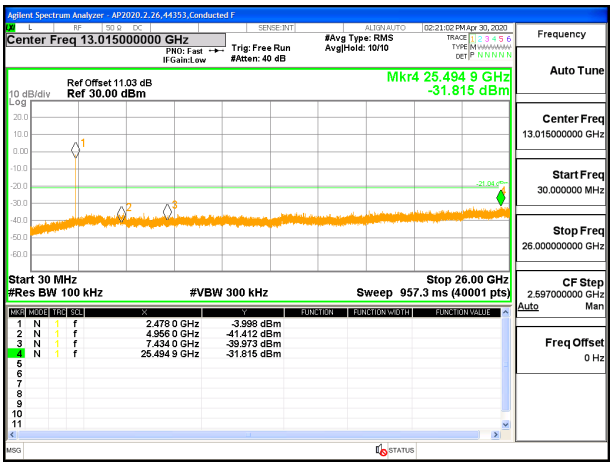
IN-BAND REFERENCE LEVEL ANT 4



OUT-OF-BAND MID CHANNEL ANT 4



HIGH CHANNEL BANDEDGE ANT 4



OUT-OF-BAND HIGH CHANNEL ANT 4

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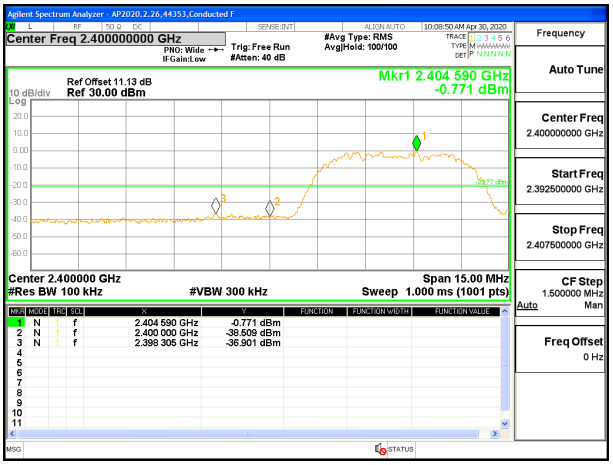
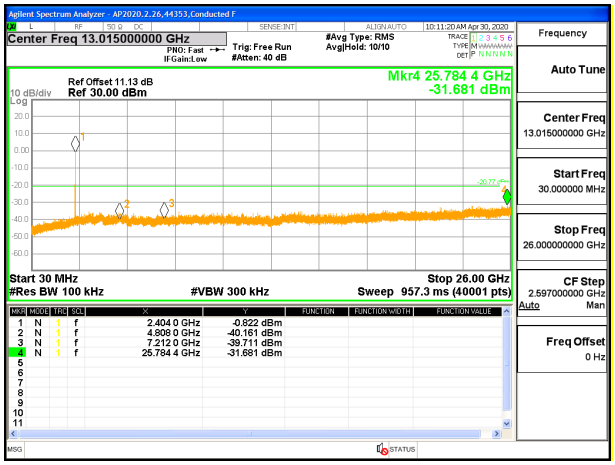
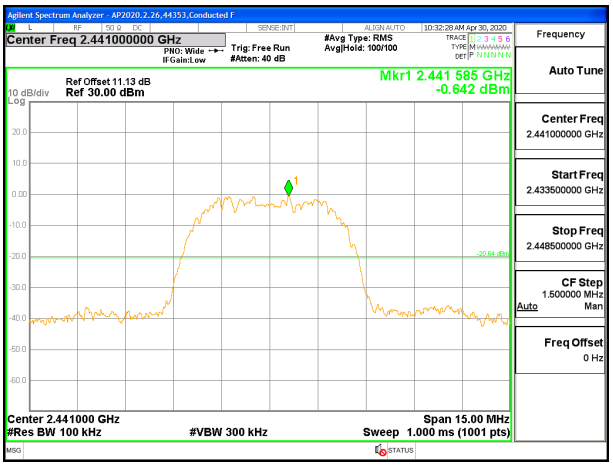


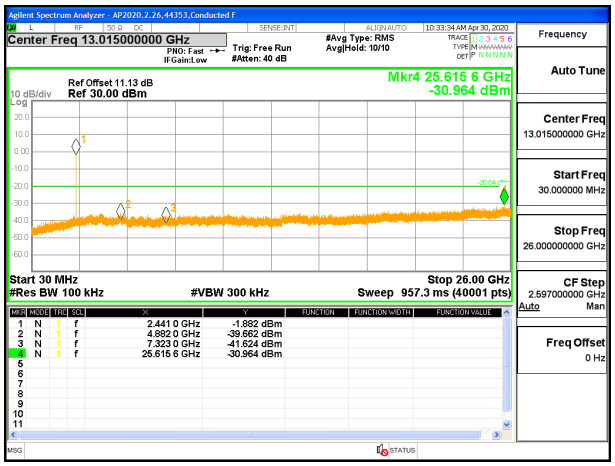
LOW CHANNEL BANDEDGE ANT 3



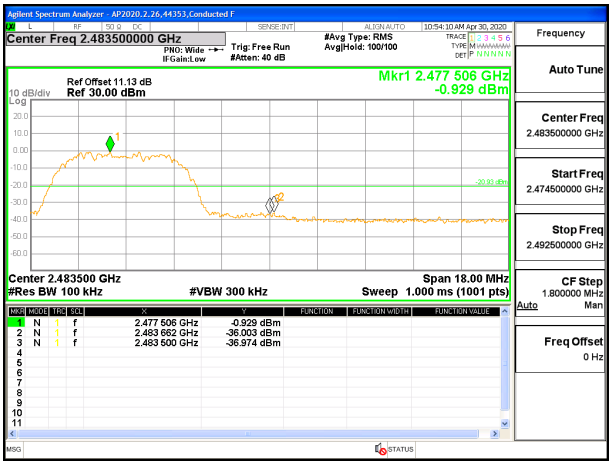
OUT-OF-BAND LOW CHANNEL ANT 3



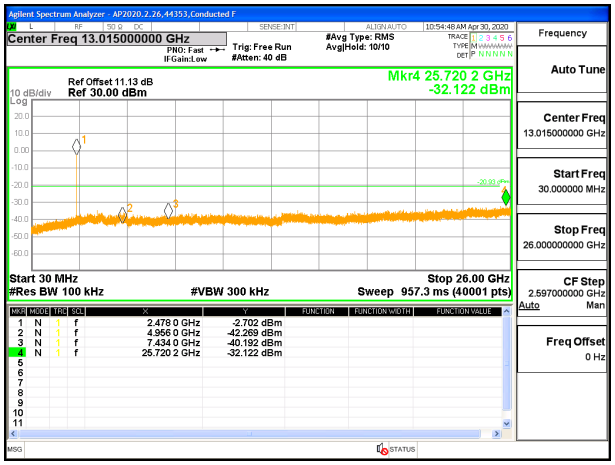
IN-BAND REFERENCE LEVEL ANT 3



OUT-OF-BAND MID CHANNEL ANT 3



HIGH CHANNEL BANDEDGE ANT 3



OUT-OF-BAND HIGH CHANNEL ANT 3

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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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Compliance with radiated spurious emissions limits in the restricted bands closest to the allocated 2404 – 2478 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 HDR8 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.

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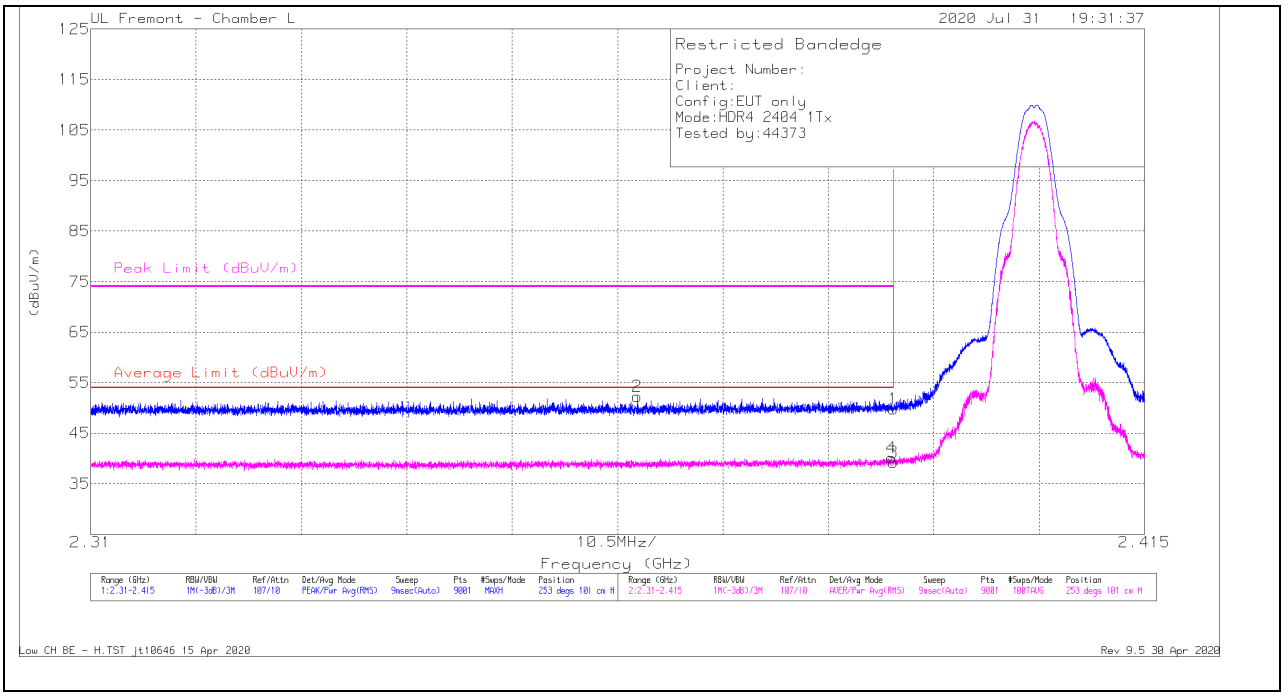
10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. HIGH POWER HDR (HDR4)

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.99	Pk	31.9	-21.1	49.79	-	-	74	-24.21	253	101	H
2	* 2.36448	41.77	Pk	31.7	-21.2	52.27	-	-	74	-21.73	253	101	H
3	* 2.38999	28.44	RMS	31.9	-21.1	39.24	54	-14.76	-	-	253	101	H
4	* 2.38979	29.28	RMS	31.9	-21.1	40.08	54	-13.92	-	-	253	101	H

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

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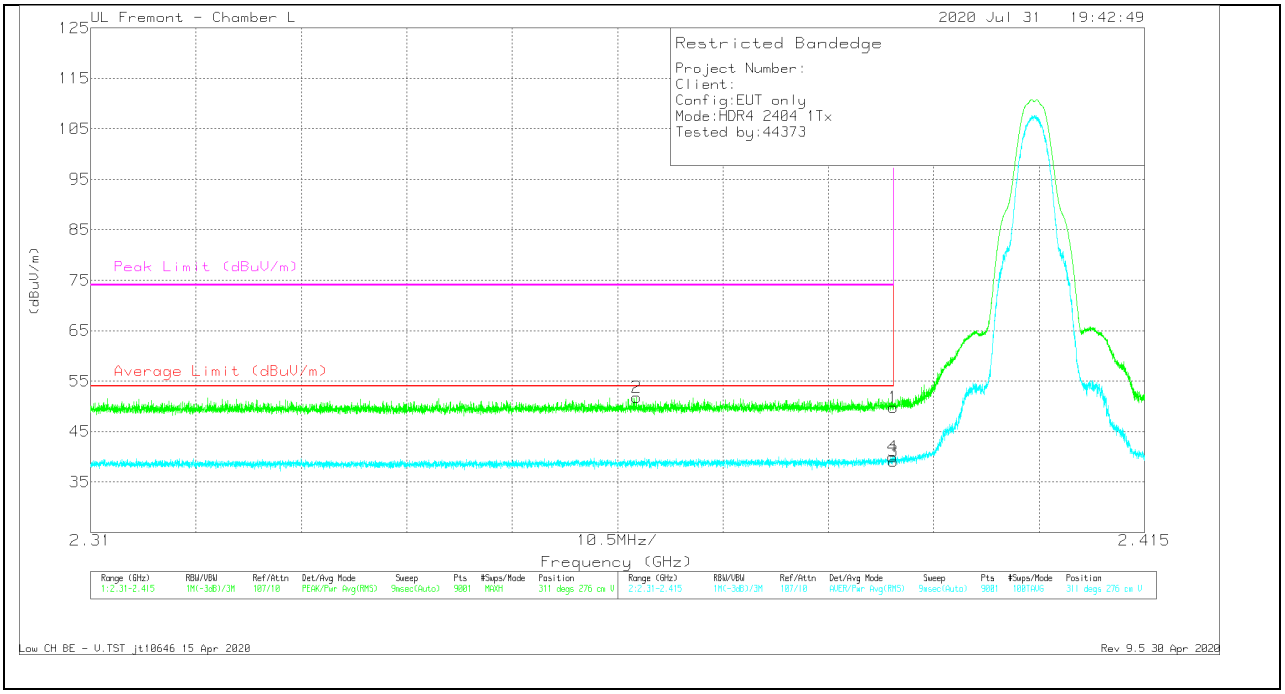
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39.01	Pk	31.9	-21.1	49.81	-	-	74	-24.19	311	276	V
2	* 2.36438	41.3	Pk	31.7	-21.2	51.8	-	-	74	-22.2	311	276	V
3	* 2.38999	28.3	RMS	31.9	-21.1	39.1	54	-14.9	-	-	311	276	V
4	* 2.3899	29.2	RMS	31.9	-21.1	40	54	-14	-	-	311	276	V

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

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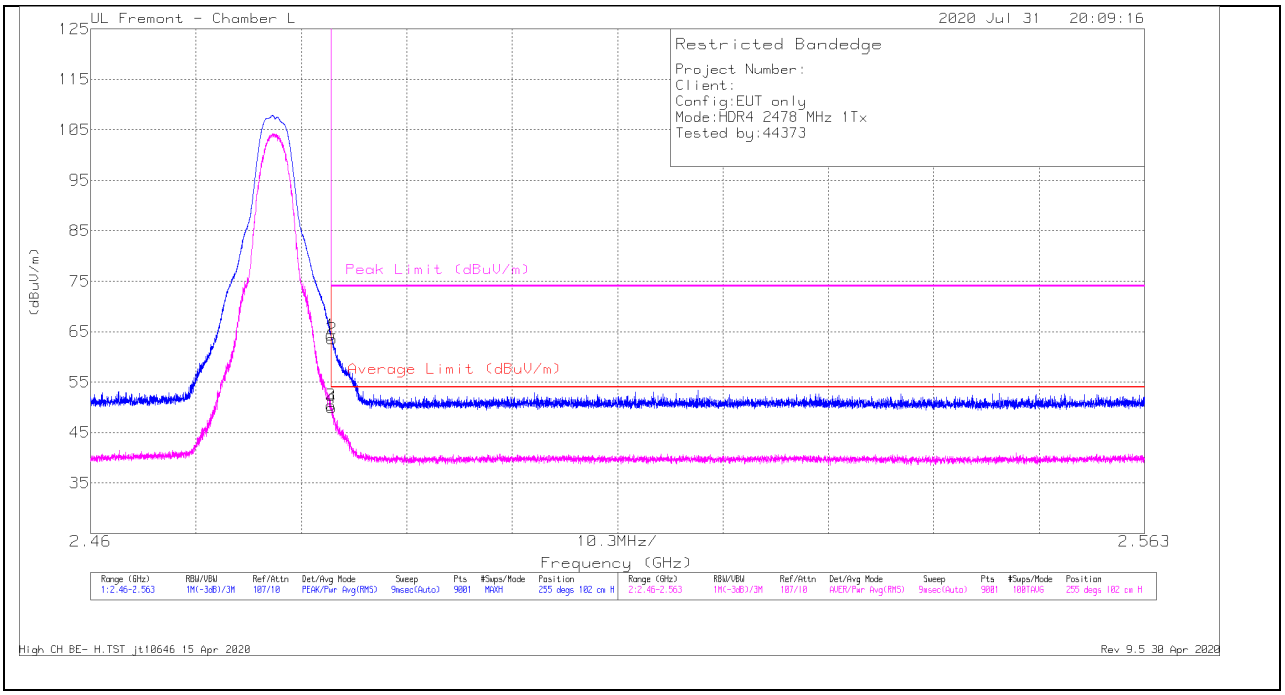
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	52.92	Pk	32.3	-20.9	64.32	-	-	74	-9.68	255	102	H
2	* 2.48359	52.18	Pk	32.3	-20.9	63.58	-	-	74	-10.42	255	102	H
3	* 2.48351	38.97	RMS	32.3	-20.9	50.37	54	-3.63	-	-	255	102	H
4	* 2.48356	38.5	RMS	32.3	-20.9	49.9	54	-4.1	-	-	255	102	H

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

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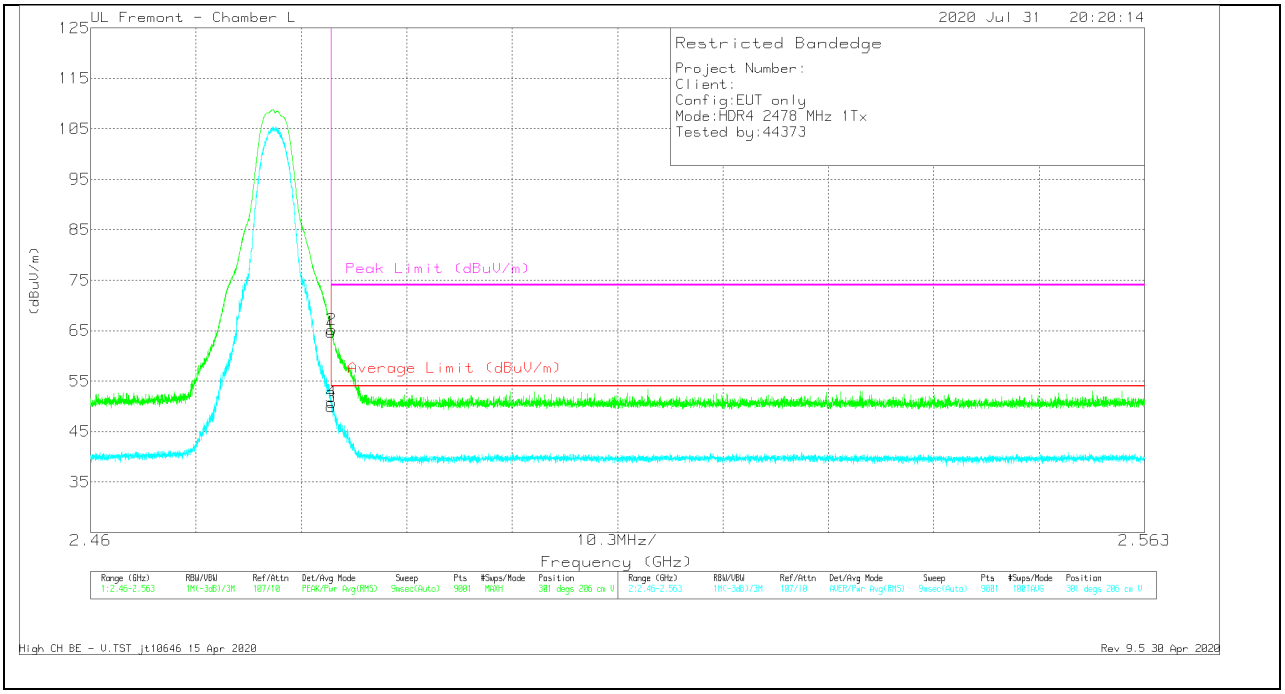
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	53.27	Pk	32.3	-20.9	64.67	-	-	74	-9.33	301	206	V
2	* 2.48357	53.8	Pk	32.3	-20.9	65.2	-	-	74	-8.8	301	206	V
3	* 2.48351	38.52	RMS	32.3	-20.9	49.92	54	-4.08	-	-	301	206	V
4	* 2.48355	39.35	RMS	32.3	-20.9	50.75	54	-3.25	-	-	301	206	V

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

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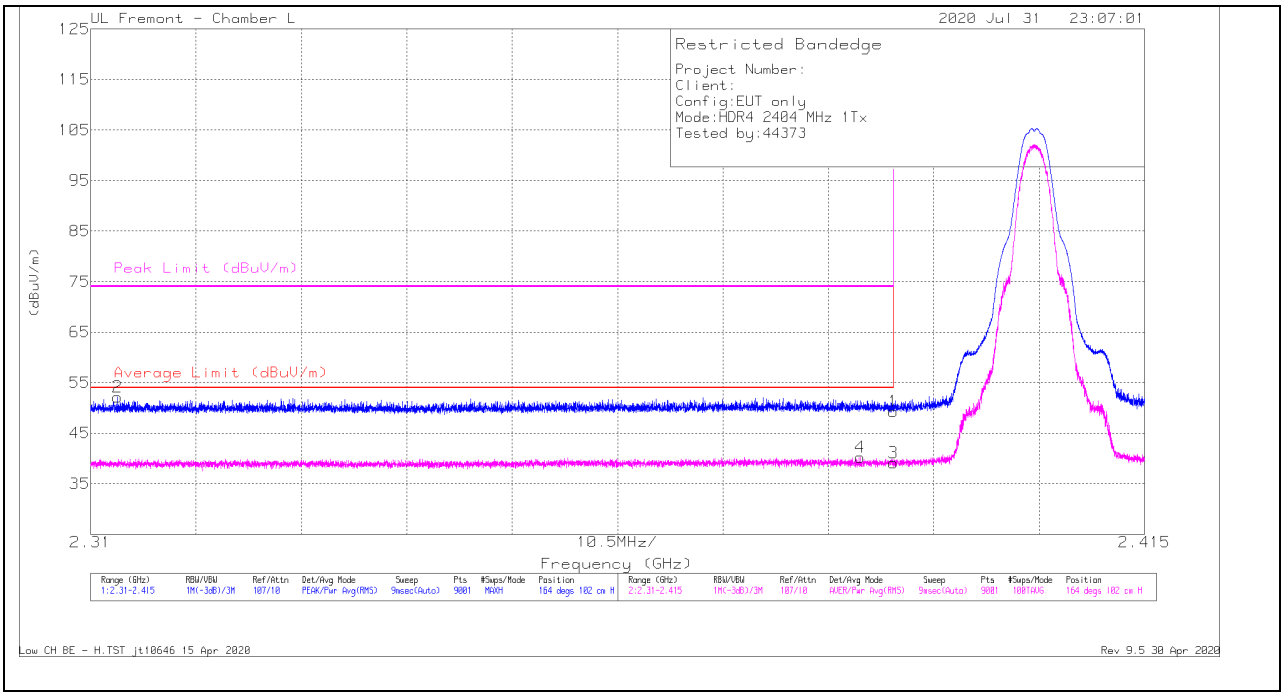
ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.53	Pk	31.9	-21.1	49.33	-	-	74	-24.67	164	102	H
2	* 2.3127	41.81	Pk	31.7	-21.3	52.21	-	-	74	-21.79	164	102	H
3	* 2.38999	28.29	RMS	31.9	-21.1	39.09	54	-14.91	-	-	164	102	H
4	* 2.38666	29.5	RMS	31.8	-21.1	40.2	54	-13.8	-	-	164	102	H

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

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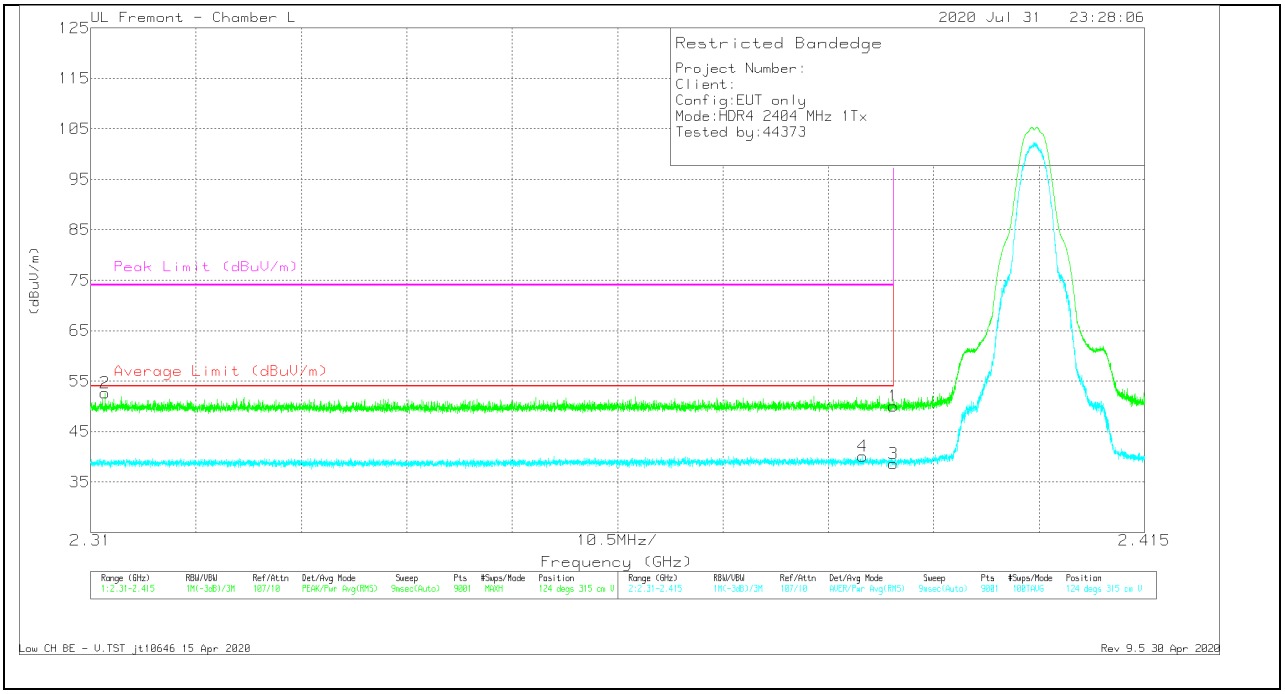
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39.24	Pk	31.9	-21.1	50.04	-	-	74	-23.96	124	315	V
2	* 2.31142	42.4	Pk	31.7	-21.4	52.7	-	-	74	-21.3	124	315	V
3	* 2.38999	27.77	RMS	31.9	-21.1	38.57	54	-15.43	-	-	124	315	V
4	* 2.38694	29.44	RMS	31.8	-21.1	40.14	54	-13.86	-	-	124	315	V

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

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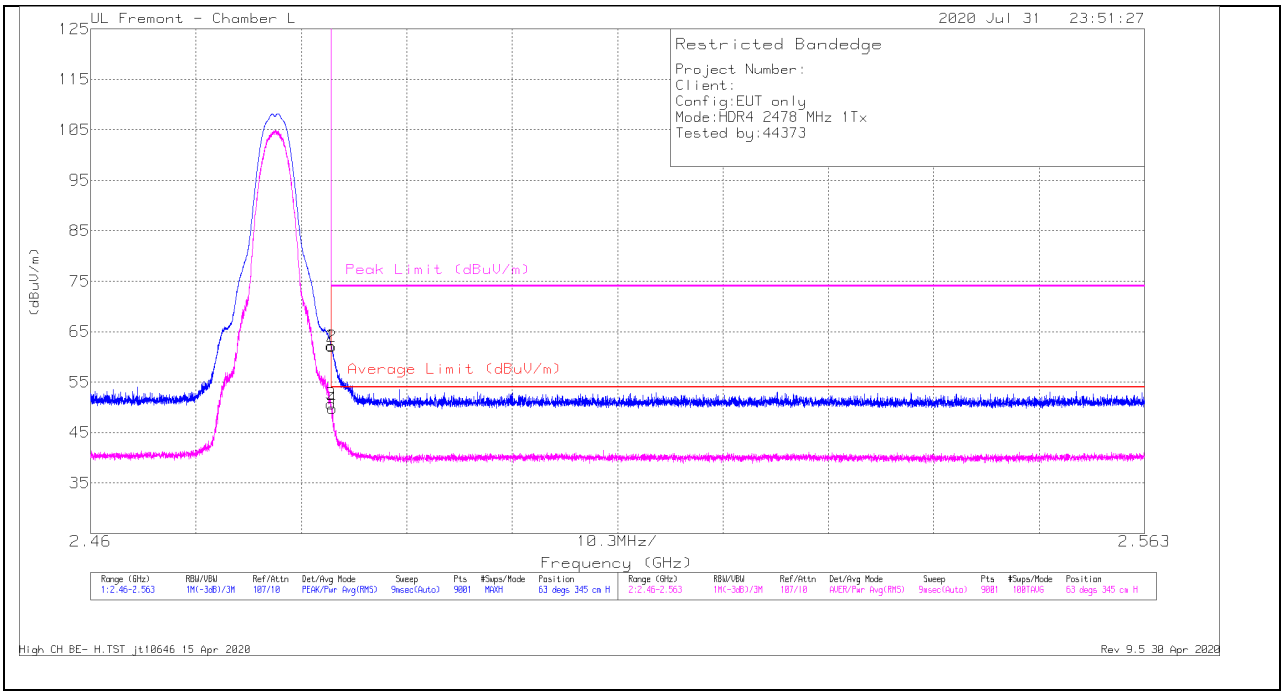
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	50.81	Pk	32.3	-20.9	62.21	-	-	74	-11.79	63	345	H
2	* 2.48354	50.64	Pk	32.3	-20.9	62.04	-	-	74	-11.96	63	345	H
3	* 2.48351	39.26	RMS	32.3	-20.9	50.66	54	-3.34	-	-	63	345	H
4	* 2.48362	38.43	RMS	32.3	-20.9	49.83	54	-4.17	-	-	63	345	H

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

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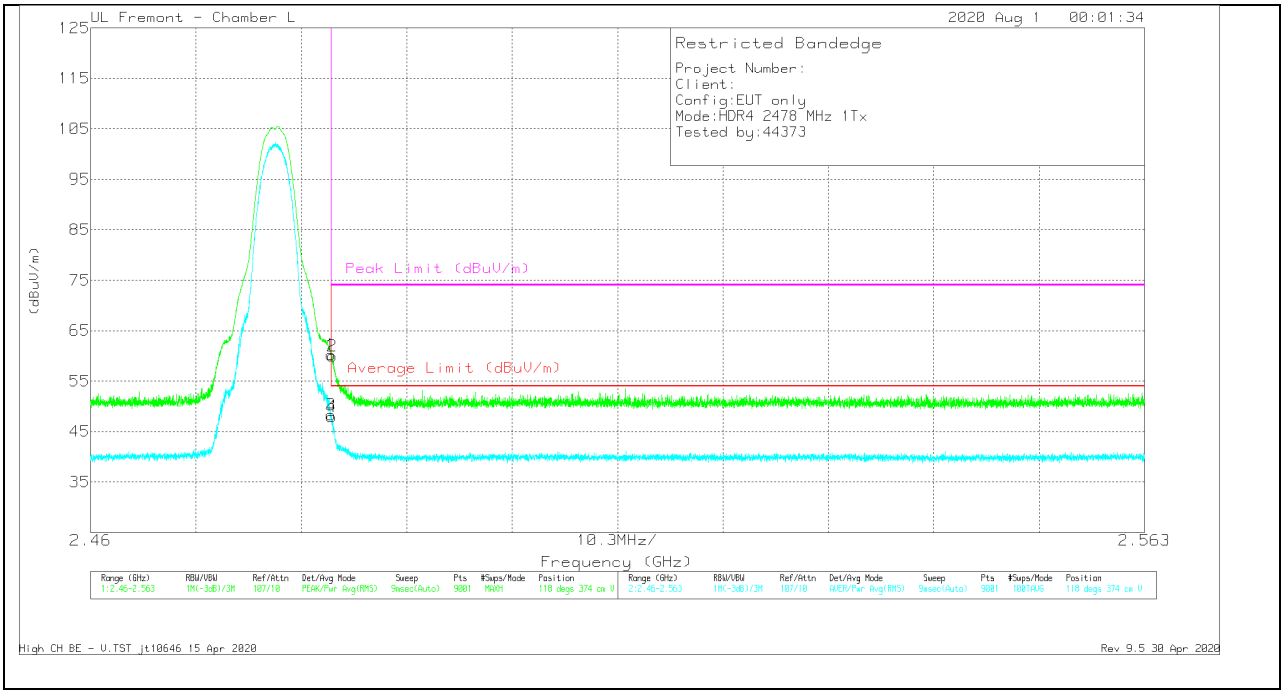
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	48.77	Pk	32.3	-20.9	60.17	-	-	74	-13.83	118	374	V
2	* 2.4836	48.62	Pk	32.3	-20.9	60.02	-	-	74	-13.98	118	374	V
3	* 2.48351	36.9	RMS	32.3	-20.9	48.3	54	-5.7	-	-	118	374	V
4	* 2.48353	36.55	RMS	32.3	-20.9	47.95	54	-6.05	-	-	118	374	V

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

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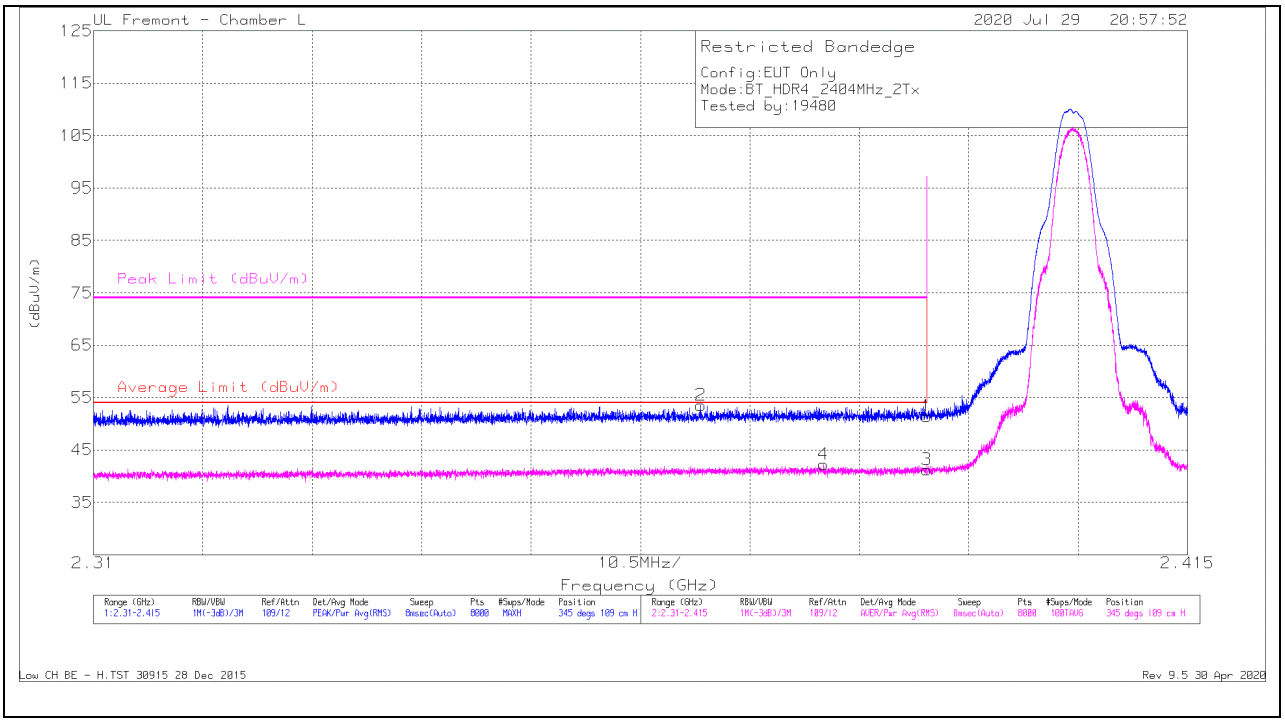
10.2.2. HIGH POWER HDR TXBF (HDR4)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	32.58	Pk	31.9	-13.1	51.38	-	-	74	-22.62	345	109	H
2	* 2.3683	34.84	Pk	31.8	-13.1	53.54	-	-	74	-20.46	345	109	H
3	* 2.39	22.47	RMS	31.9	-13.1	41.27	54	-12.73	-	-	345	109	H
4	* 2.38009	23.42	RMS	31.8	-13	42.22	54	-11.78	-	-	345	109	H

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

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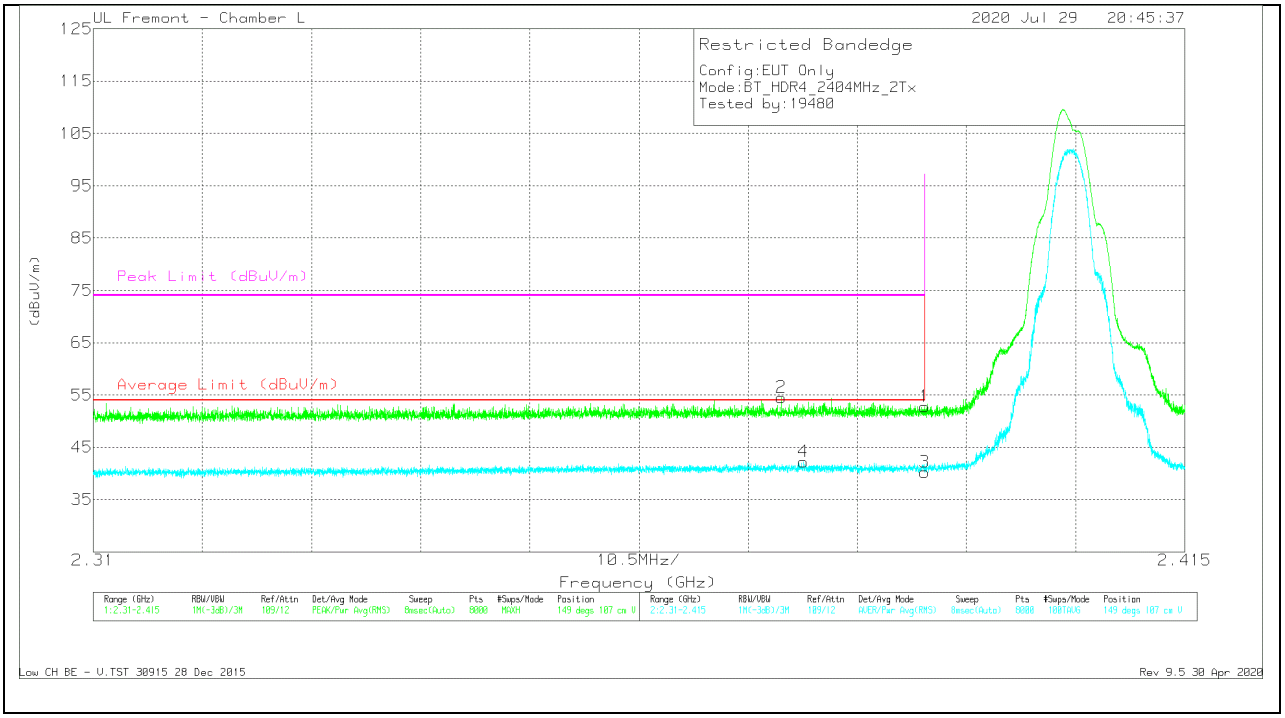
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	33.94	Pk	31.9	-13.1	52.74	-	-	74	-21.26	149	107	V
2	* 2.3762	35.74	Pk	31.8	-13	54.54	-	-	74	-19.46	149	107	V
3	* 2.39	21.45	RMS	31.9	-13.1	40.25	54	-13.75	-	-	149	107	V
4	* 2.37831	23.4	RMS	31.8	-13	42.2	54	-11.8	-	-	149	107	V

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

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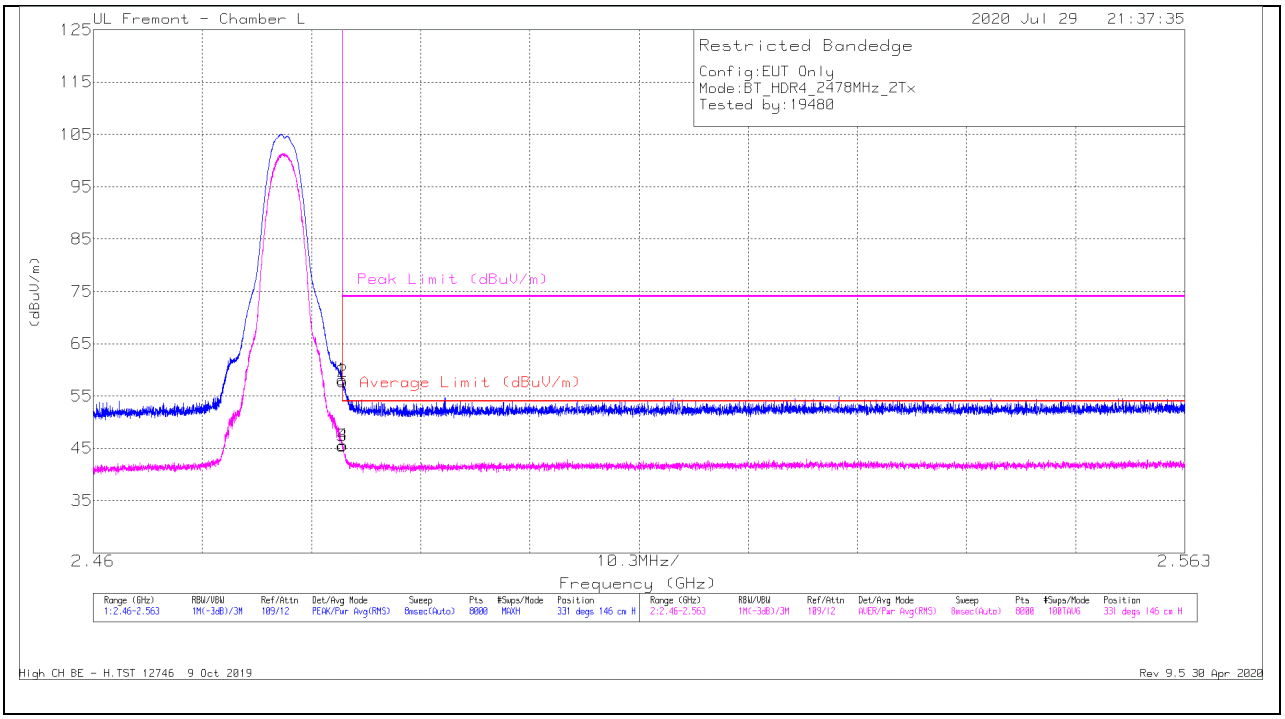
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.69	Pk	32.3	-12.9	58.09	-	-	74	-15.91	331	146	H
2	* 2.48355	38.39	Pk	32.3	-12.9	57.79	-	-	74	-16.21	331	146	H
3	* 2.4835	26.04	RMS	32.3	-12.9	45.44	54	-8.56	-	-	331	146	H
4	* 2.48354	26.13	RMS	32.3	-12.9	45.53	54	-8.47	-	-	331	146	H

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

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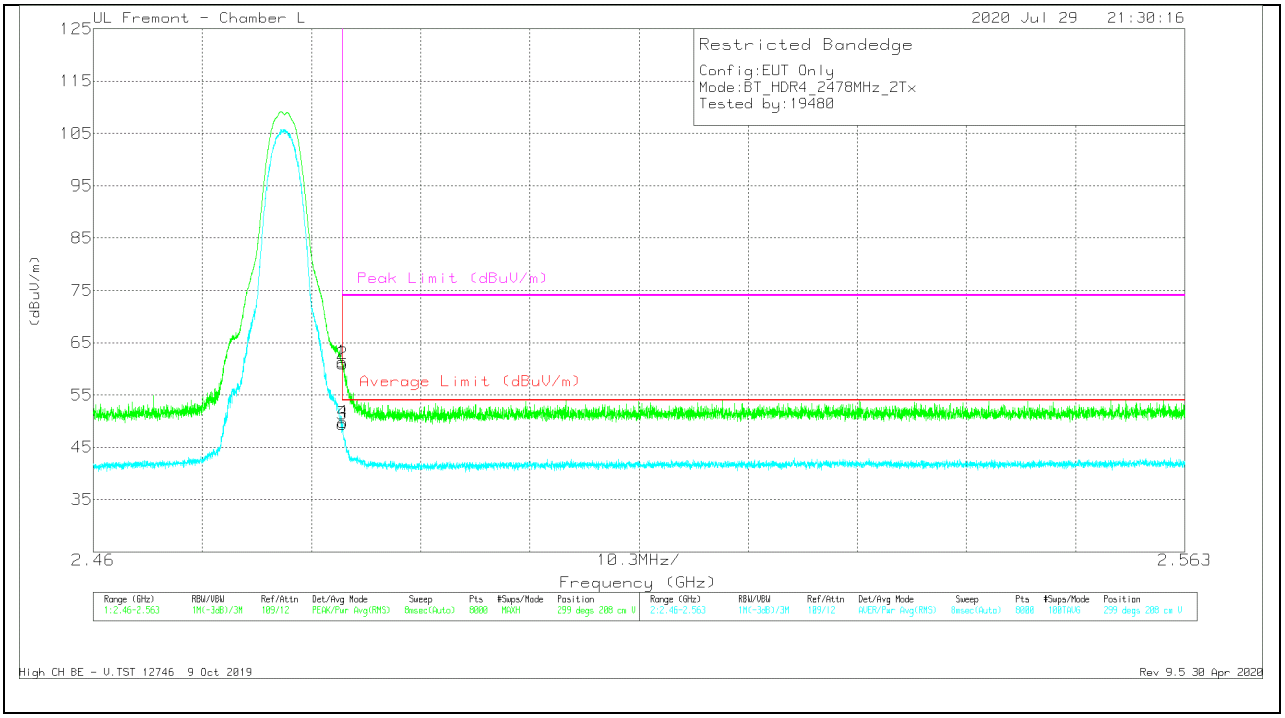
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	41.91	Pk	32.3	-12.9	61.31	-	-	74	-12.69	299	208	V
2	* 2.48353	41.61	Pk	32.3	-12.9	61.01	-	-	74	-12.99	299	208	V
3	* 2.4835	30.08	RMS	32.3	-12.9	49.48	54	-4.52	-	-	299	208	V
4	* 2.48354	30.35	RMS	32.3	-12.9	49.75	54	-4.25	-	-	299	208	V

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

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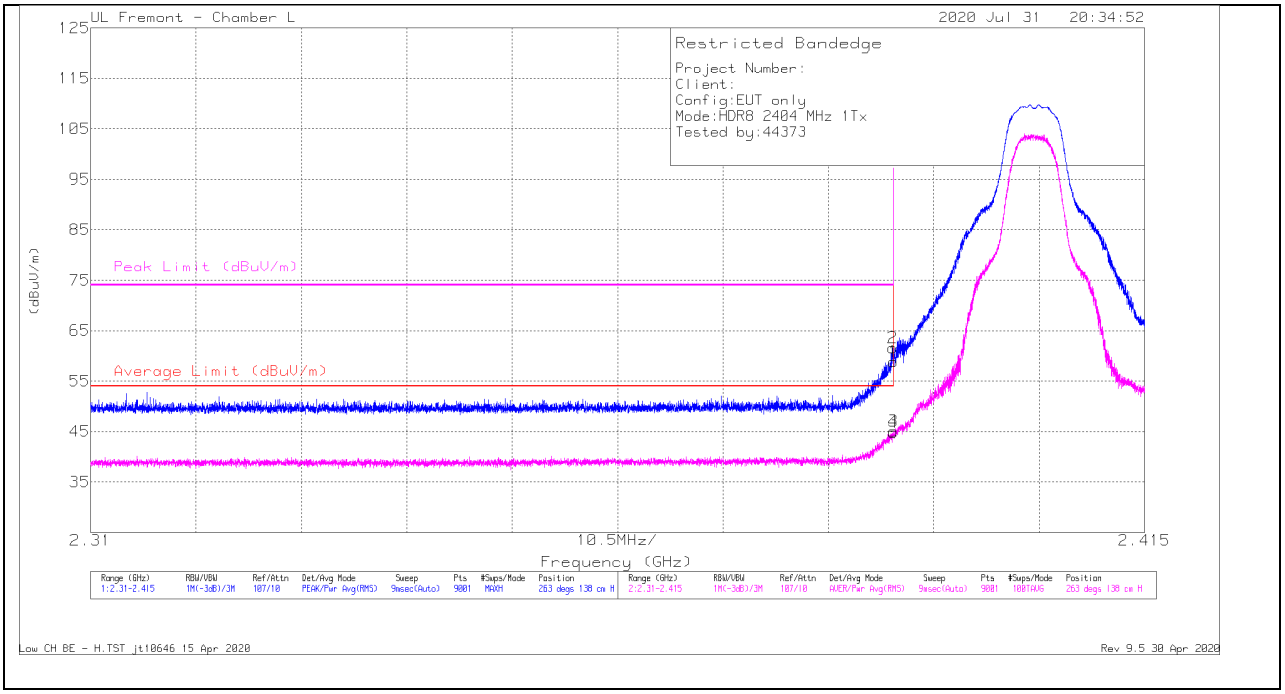
10.2.3. HIGH POWER HDR (HDR8)

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	48.02	Pk	31.9	-21.1	58.82	-	-	74	-15.18	263	138	H
2	* 2.38993	50.81	Pk	31.9	-21.1	61.61	-	-	74	-12.39	263	138	H
3	* 2.38999	34.31	RMS	31.9	-21.1	45.11	54	-8.89	-	-	263	138	H
4	* 2.38998	34.09	RMS	31.9	-21.1	44.89	54	-9.11	-	-	263	138	H

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

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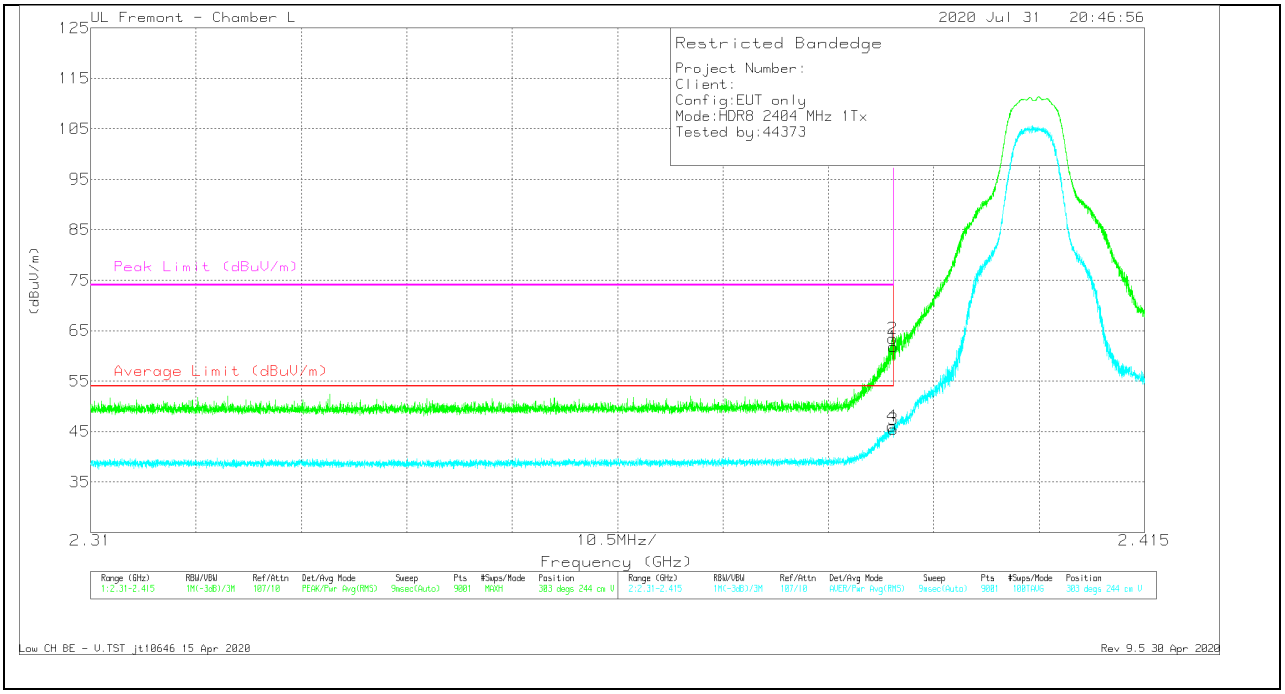
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	51.02	Pk	31.9	-21.1	61.82	-	-	74	-12.18	303	244	V
2	* 2.38991	52.7	Pk	31.9	-21.1	63.5	-	-	74	-10.5	303	244	V
3	* 2.38999	34.61	RMS	31.9	-21.1	45.41	54	-8.59	-	-	303	244	V
4	* 2.38987	35.31	RMS	31.9	-21.1	46.11	54	-7.89	-	-	303	244	V

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

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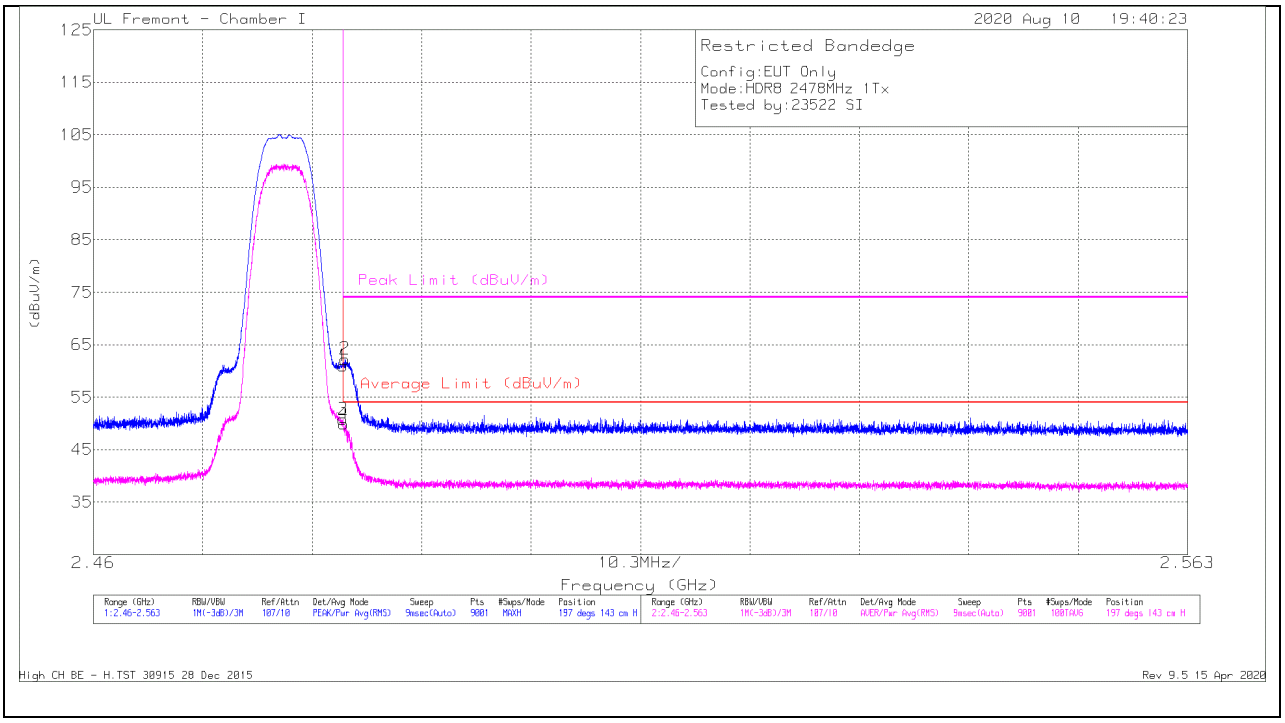
BANDEDGE (HIGH CHANNEL)

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	46.29	Pk	32.4	-17.7	60.99	-	-	74	-13.01	197	143	H
2	* 2.4837	47.57	Pk	32.4	-17.7	62.27	-	-	74	-11.73	197	143	H
3	* 2.48351	36.07	RMS	32.4	-17.7	50.77	54	-3.23	-	-	197	143	H
4	* 2.48355	35.27	RMS	32.4	-17.7	49.97	54	-4.03	-	-	197	143	H

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

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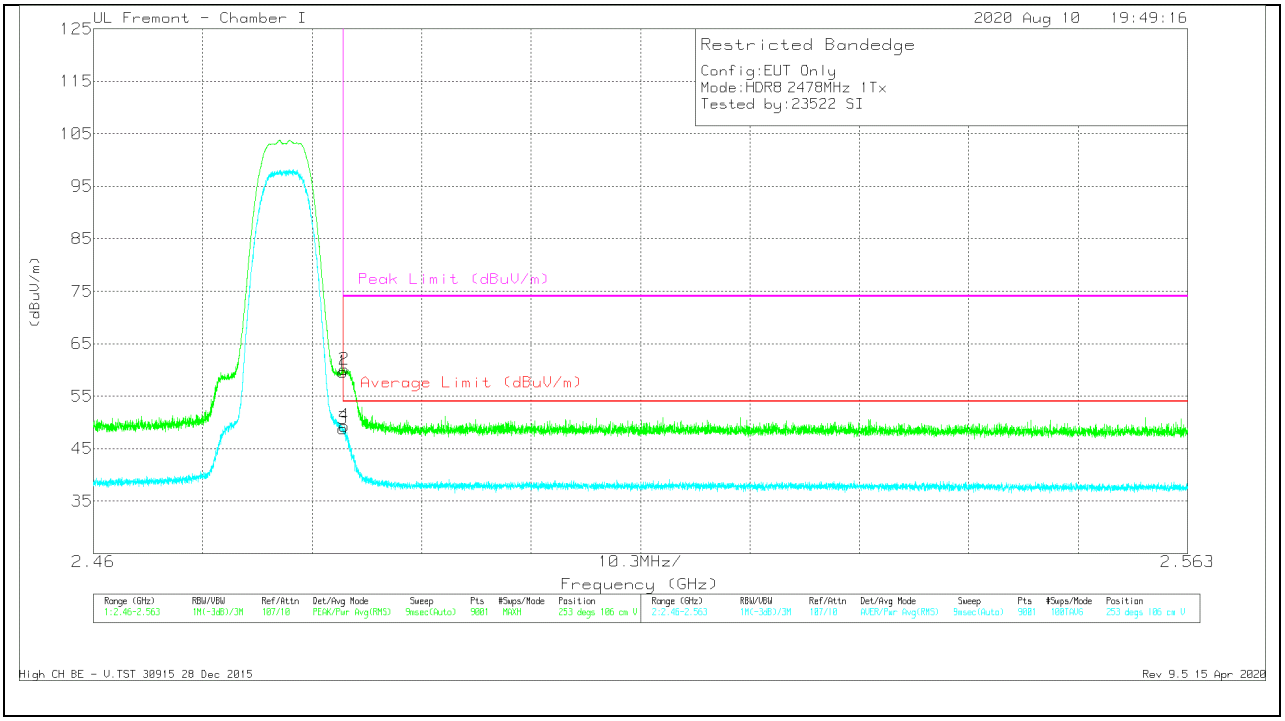
VERTICAL RESULT



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	44.88	Pk	32.4	-17.7	59.58	-	-	74	-14.42	253	106	V
2	* 2.48363	45.43	Pk	32.4	-17.7	60.13	-	-	74	-13.87	253	106	V
3	* 2.48351	34.14	RMS	32.4	-17.7	48.84	54	-5.16	-	-	253	106	V
4	* 2.48362	34.66	RMS	32.4	-17.7	49.36	54	-4.64	-	-	253	106	V

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

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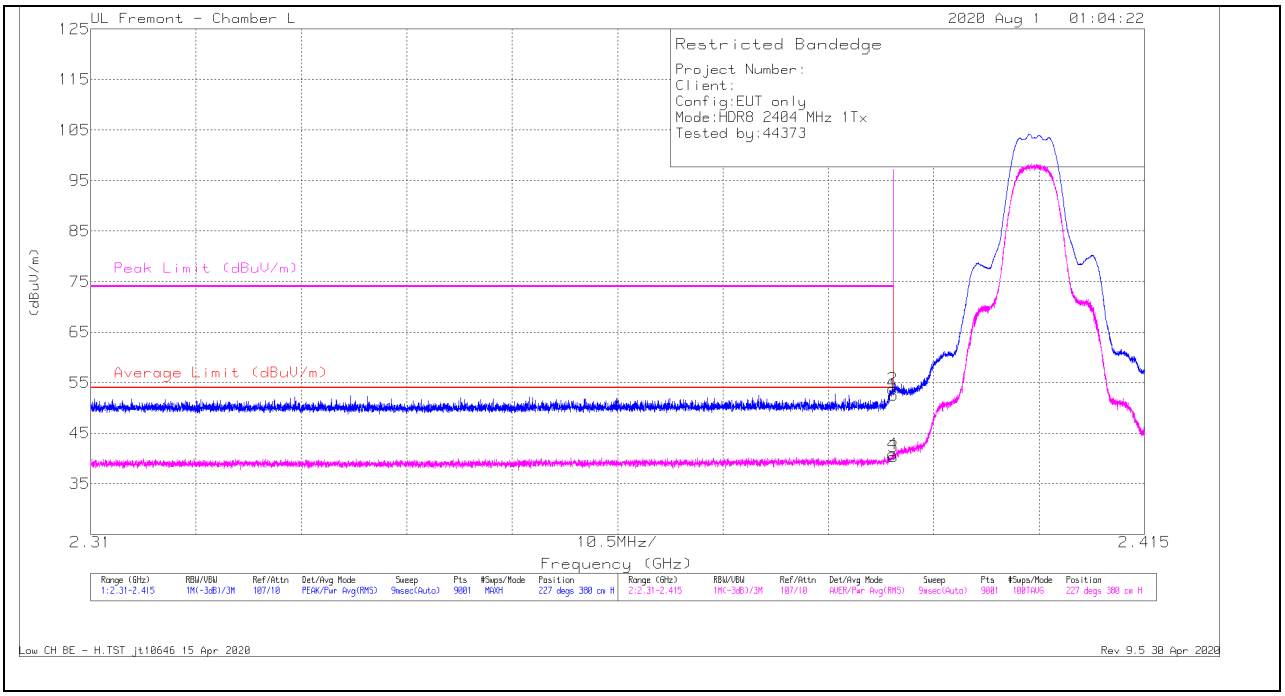
ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	41.71	Pk	31.9	-21.1	52.51	-	-	74	-21.49	227	380	H
2	* 2.38992	42.93	Pk	31.9	-21.1	53.73	-	-	74	-20.27	227	380	H
3	* 2.38999	29.6	RMS	31.9	-21.1	40.4	54	-13.6	-	-	227	380	H
4	* 2.38992	30	RMS	31.9	-21.1	40.8	54	-13.2	-	-	227	380	H

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

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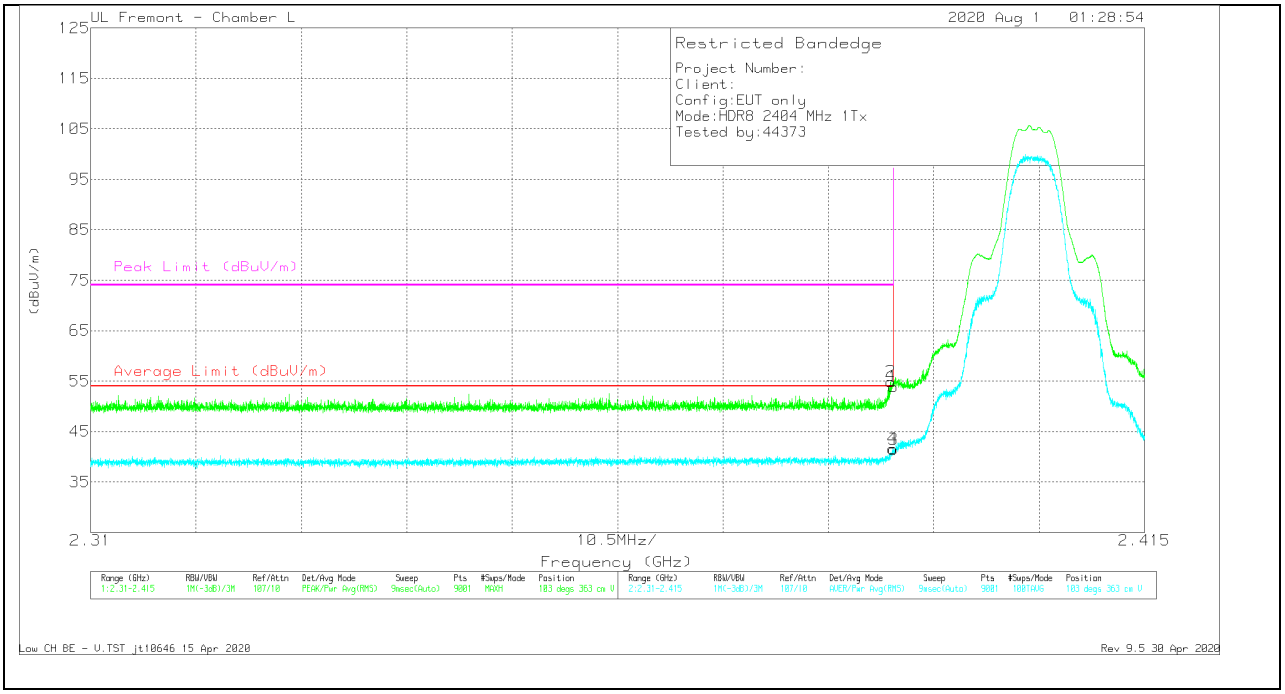
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	43.11	Pk	31.9	-21.1	53.91	-	-	74	-20.09	103	363	V
2	* 2.38971	44.1	Pk	31.9	-21.1	54.9	-	-	74	-19.1	103	363	V
3	* 2.38999	30.71	RMS	31.9	-21.1	41.51	54	-12.49	-	-	103	363	V
4	* 2.38994	30.83	RMS	31.9	-21.1	41.63	54	-12.37	-	-	103	363	V

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

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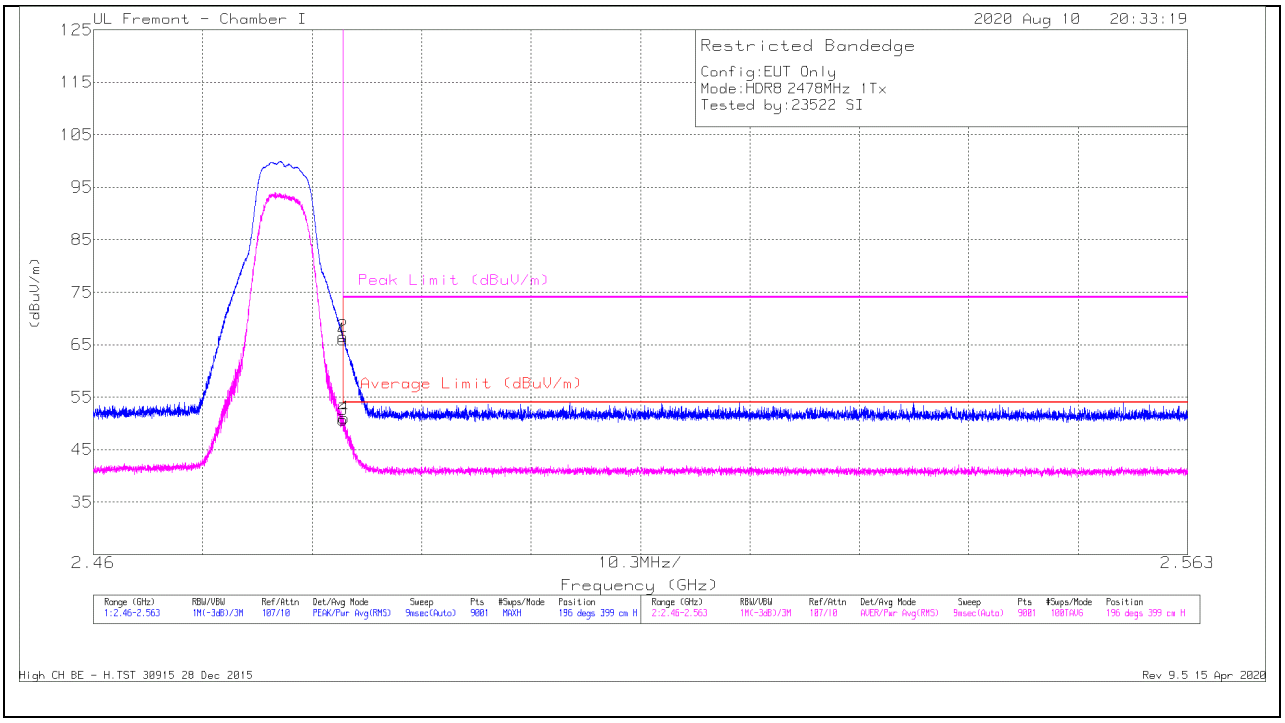
BANDEDGE (HIGH CHANNEL)

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	51.24	Pk	32.4	-17.7	65.94	-	-	74	-8.06	196	399	H
2	* 2.48352	51.88	Pk	32.4	-17.7	66.58	-	-	74	-7.42	196	399	H
3	* 2.48351	36.01	RMS	32.4	-17.7	50.71	54	-3.29	-	-	196	399	H
4	* 2.48359	36.38	RMS	32.4	-17.7	51.08	54	-2.92	-	-	196	399	H

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

High CH BE- H.TST jt10646 15 Apr 2020
Rev 9.5 30 Apr 2020

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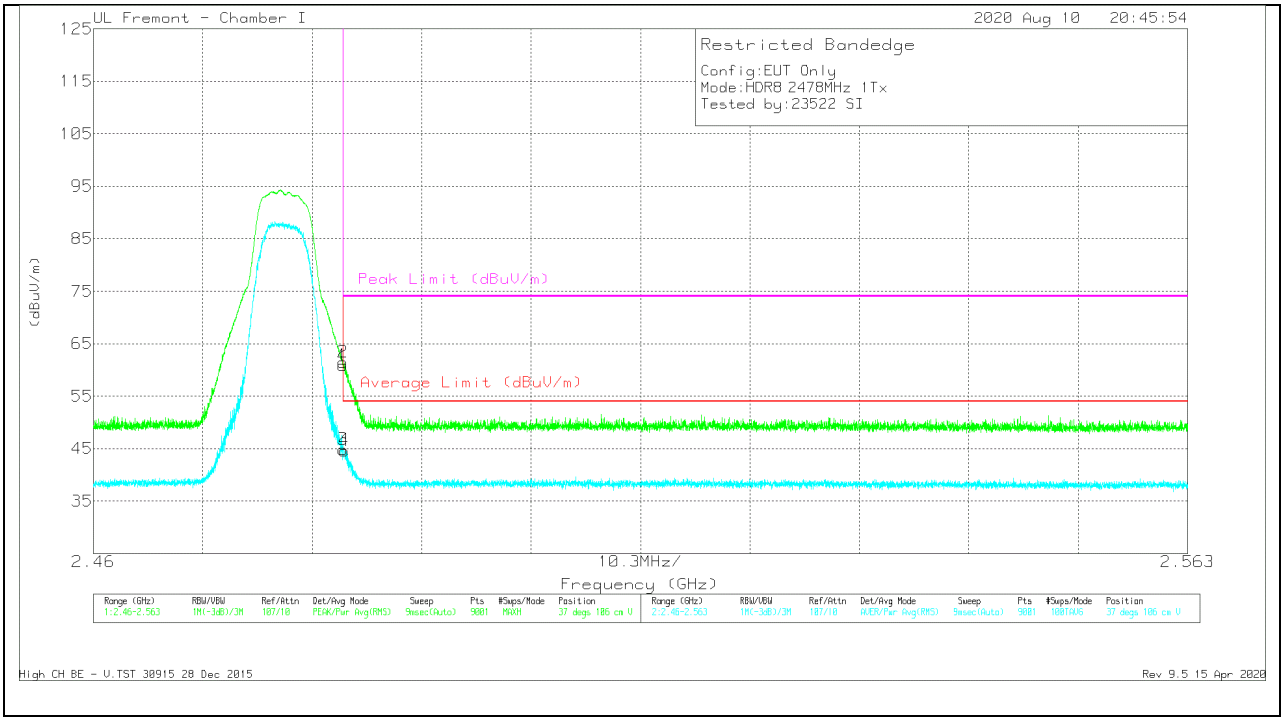
VERTICAL RESULT



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	46.11	Pk	32.4	-17.7	60.81	-	-	74	-13.19	37	106	V
2	* 2.48352	46.77	Pk	32.4	-17.7	61.47	-	-	74	-12.53	37	106	V
3	* 2.48351	30.14	RMS	32.4	-17.7	44.84	54	-9.16	-	-	37	106	V
4	* 2.48362	29.94	RMS	32.4	-17.7	44.64	54	-9.36	-	-	37	106	V

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

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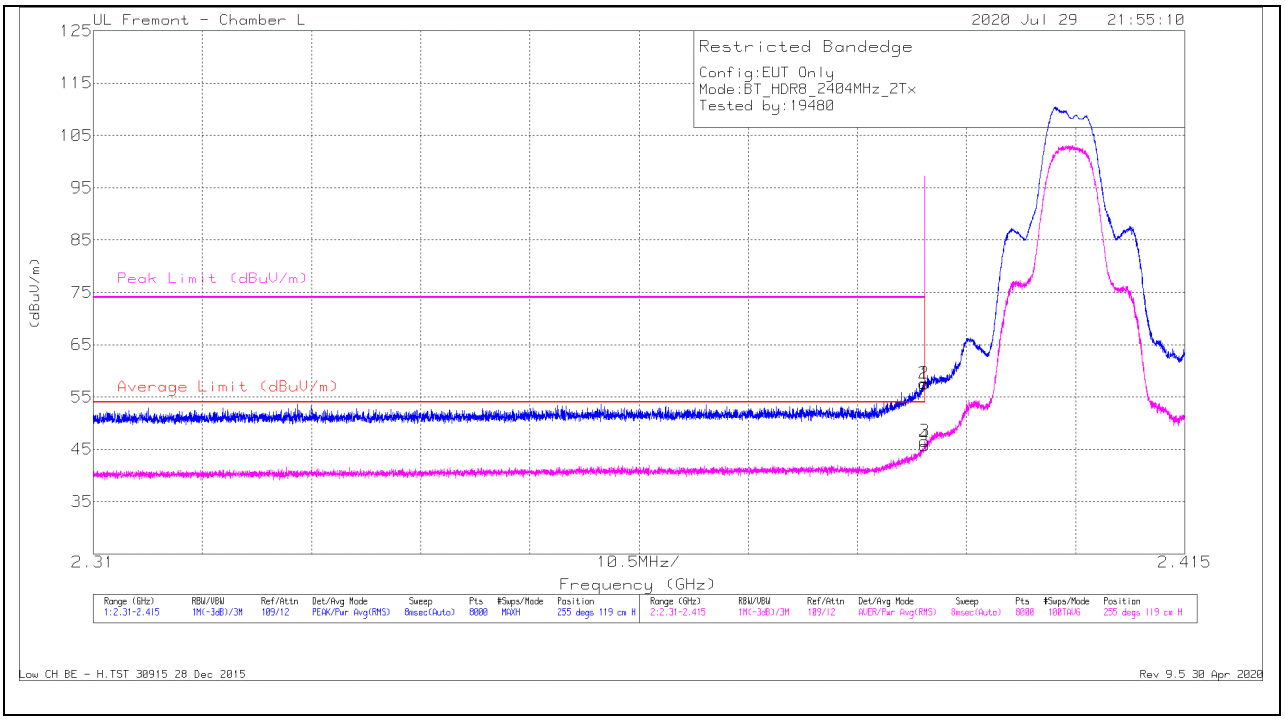
10.2.4. HIGH POWER HDR TXBF (HDR8)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.73	Pk	31.9	-13.1	57.53	-	-	74	-16.47	255	119	H
2	* 2.3899	38.8	Pk	31.9	-13.1	57.6	-	-	74	-16.4	255	119	H
3	* 2.39	27.72	RMS	31.9	-13.1	46.52	54	-7.48	-	-	255	119	H
4	* 2.38998	26.95	RMS	31.9	-13.1	45.75	54	-8.25	-	-	255	119	H

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

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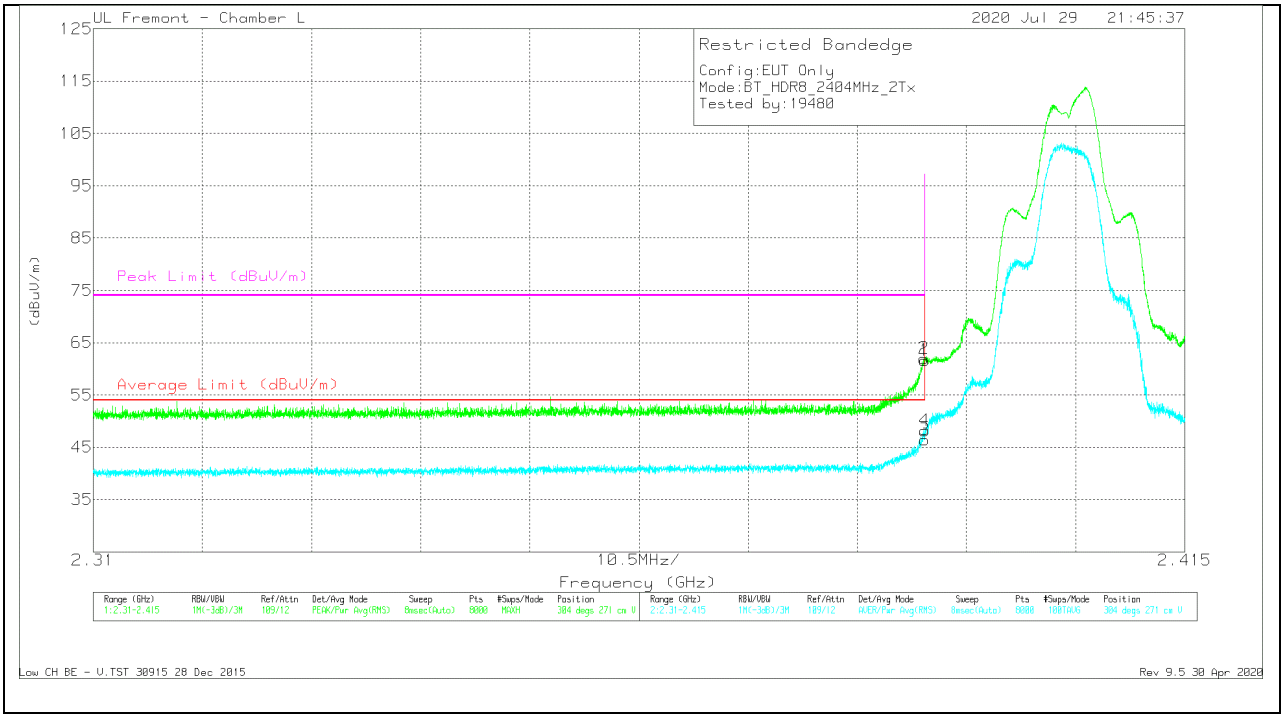
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	42.78	Pk	31.9	-13.1	61.58	-	-	74	-12.42	304	271	V
2	* 2.38989	43.2	Pk	31.9	-13.1	62	-	-	74	-12	304	271	V
3	* 2.39	27.69	RMS	31.9	-13.1	46.49	54	-7.51	-	-	304	271	V
4	* 2.38996	29.37	RMS	31.9	-13.1	48.17	54	-5.83	-	-	304	271	V

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

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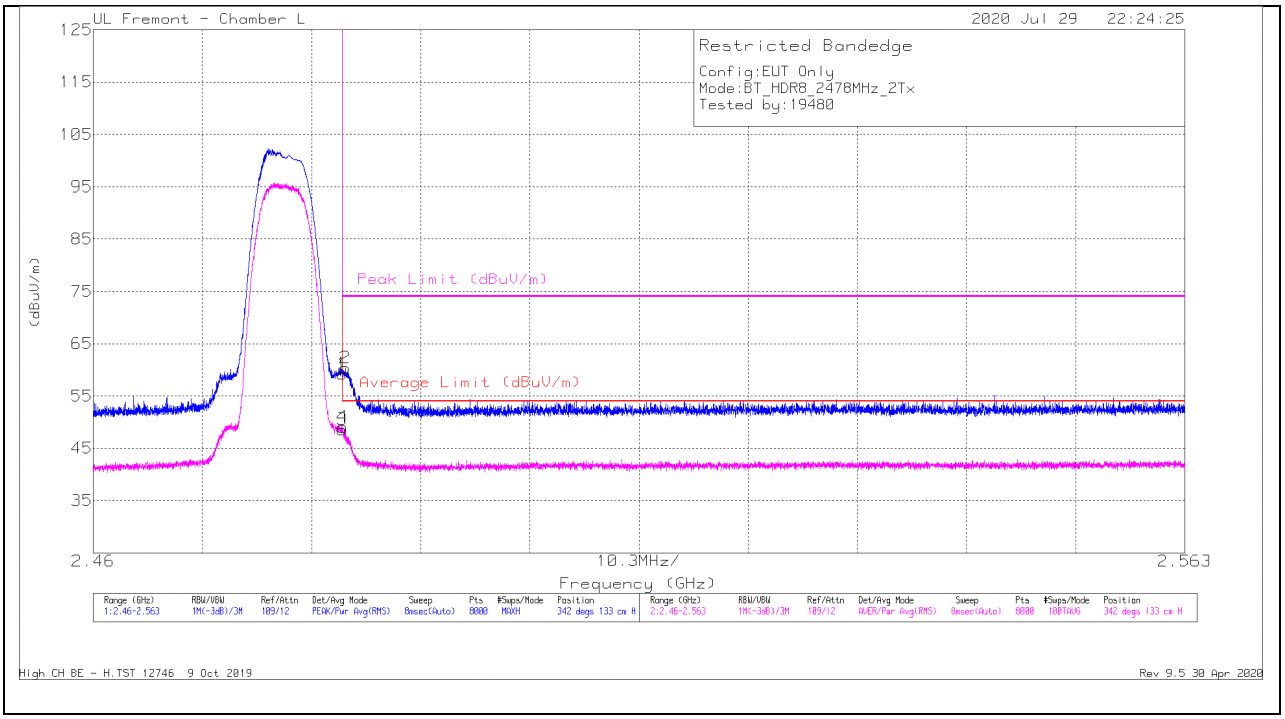
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39.81	Pk	32.3	-12.9	59.21	-	-	74	-14.79	342	133	H
2	* 2.48377	40.9	Pk	32.3	-12.9	60.3	-	-	74	-13.7	342	133	H
3	* 2.4835	29.14	RMS	32.3	-12.9	48.54	54	-5.46	-	-	342	133	H
4	* 2.48353	29.6	RMS	32.3	-12.9	49	54	-5	-	-	342	133	H

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

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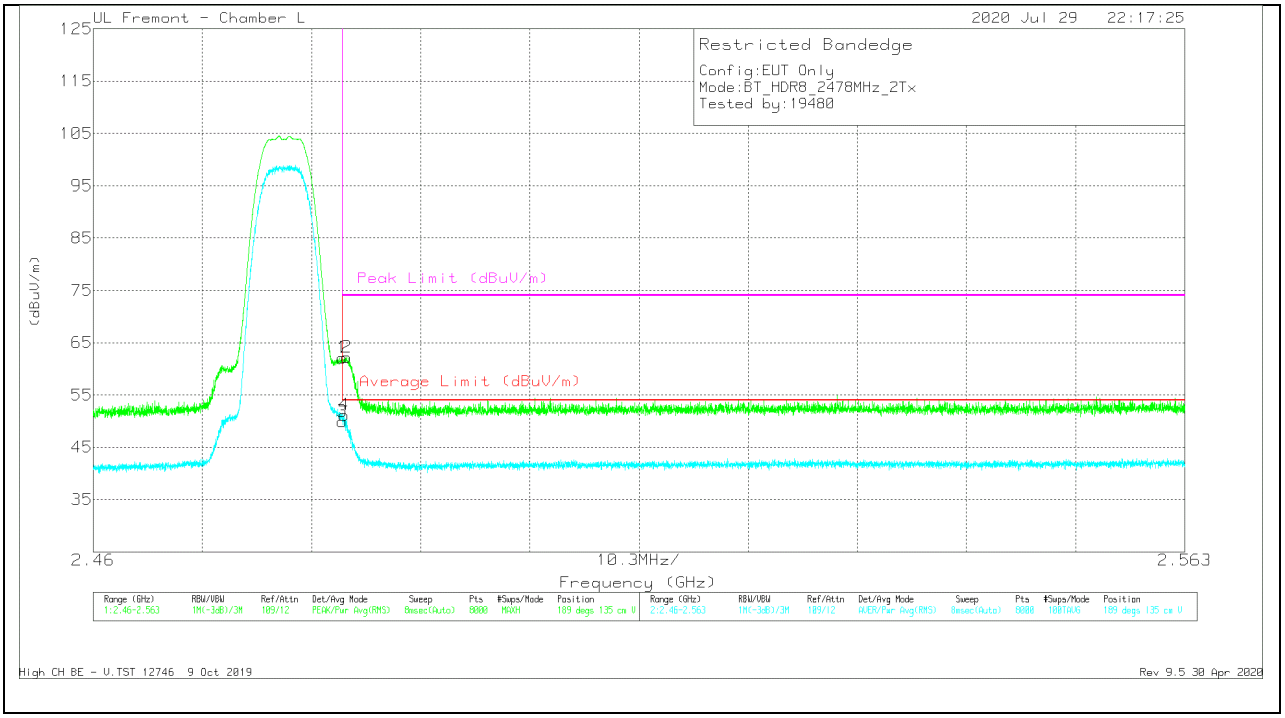
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	42.74	Pk	32.3	-12.9	62.14	-	-	74	-11.86	189	135	V
2	* 2.4839	42.86	Pk	32.3	-12.9	62.26	-	-	74	-11.74	189	135	V
3	* 2.4835	30.55	RMS	32.3	-12.9	49.95	54	-4.05	-	-	189	135	V
4	* 2.48369	31.73	RMS	32.3	-12.9	51.13	54	-2.87	-	-	189	135	V

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

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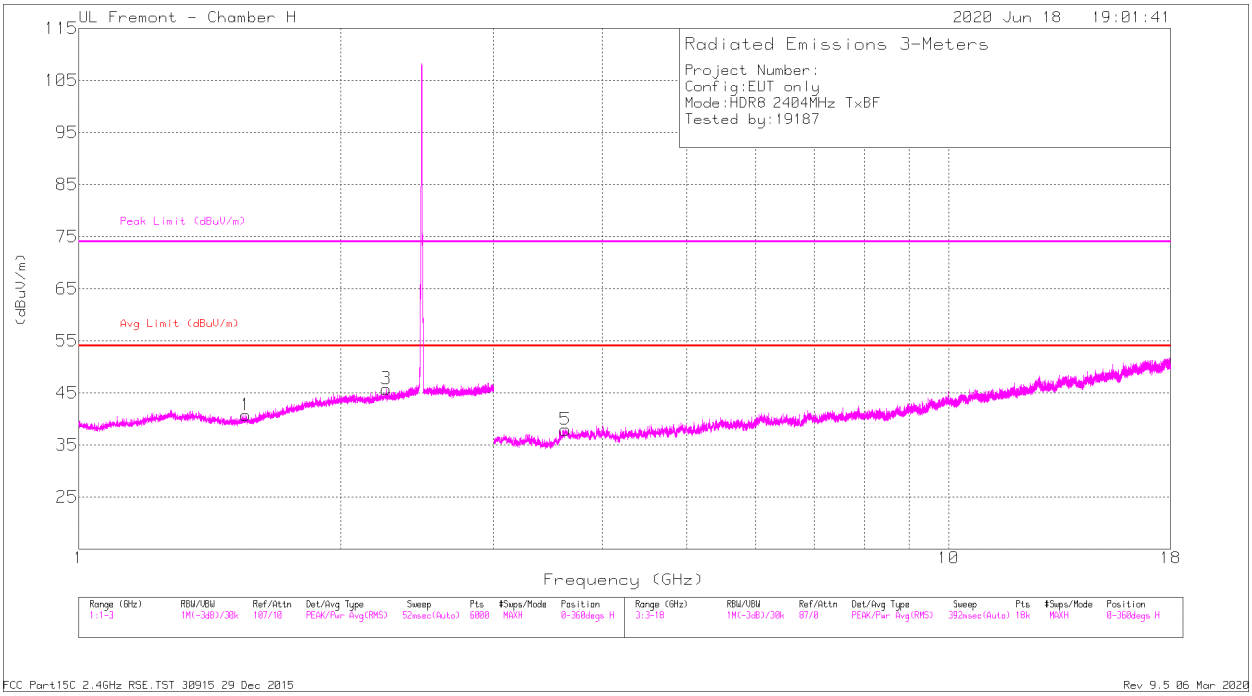
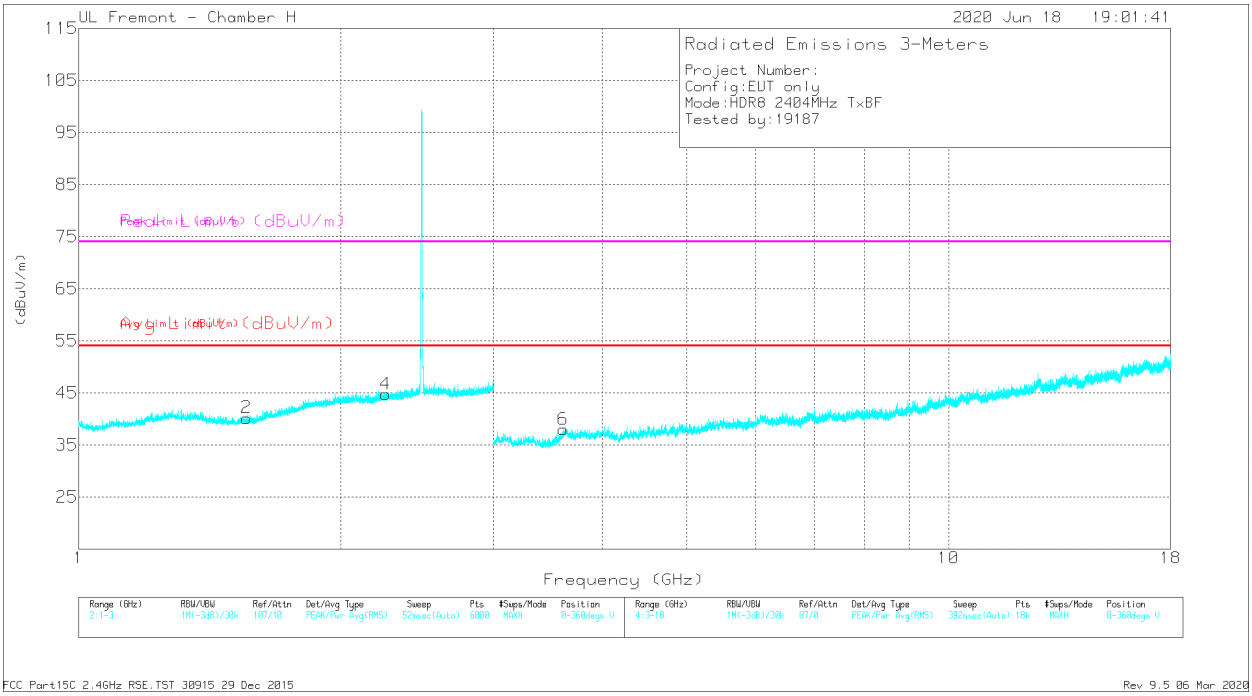
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 1.55758	44.51	PK2	28	-25	47.51	-	-	74	-26.49	6	111	H
	* 1.55721	32.71	MAv1	28	-25	35.71	54	-18.29	-	-	6	111	H
3	* 2.256	44.12	PK2	31.9	-24.1	51.92	-	-	74	-22.08	30	273	H
	* 2.25807	32.32	MAv1	31.9	-24.1	40.12	54	-13.88	-	-	30	273	H
2	* 1.55703	45.32	PK2	28	-25	48.32	-	-	74	-25.68	336	228	V
	* 1.56035	32.72	MAv1	27.9	-25	35.62	54	-18.38	-	-	336	228	V
4	* 2.2547	44.59	PK2	31.9	-24.1	52.39	-	-	74	-21.61	36	185	V
	* 2.25487	32.33	MAv1	31.9	-24.1	40.13	54	-13.87	-	-	36	185	V
5	* 3.6252	41.66	PK2	33.1	-30.5	44.26	-	-	74	-29.74	0	300	H
	* 3.62837	30.25	MAv1	33.1	-30.5	32.85	54	-21.15	-	-	0	300	H
6	* 3.60438	42.17	PK2	33	-30.9	44.27	-	-	74	-29.73	32	164	V
	* 3.60284	30.34	MAv1	33	-30.9	32.44	54	-21.56	-	-	32	164	V

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

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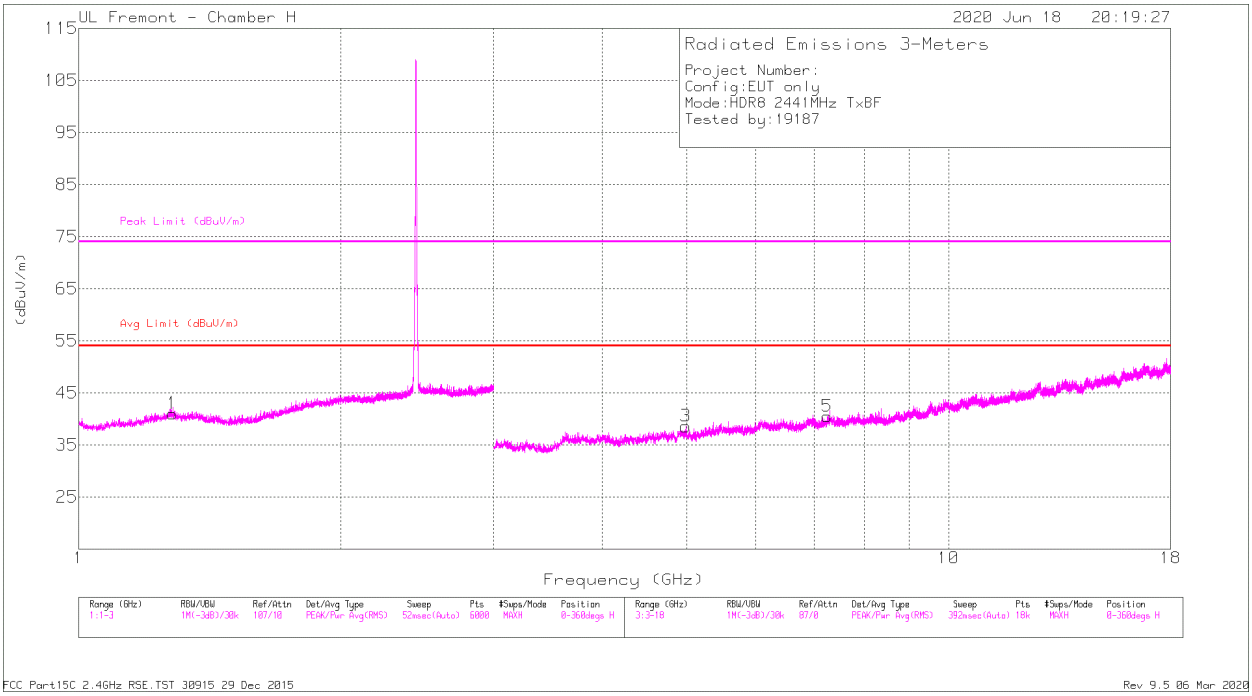
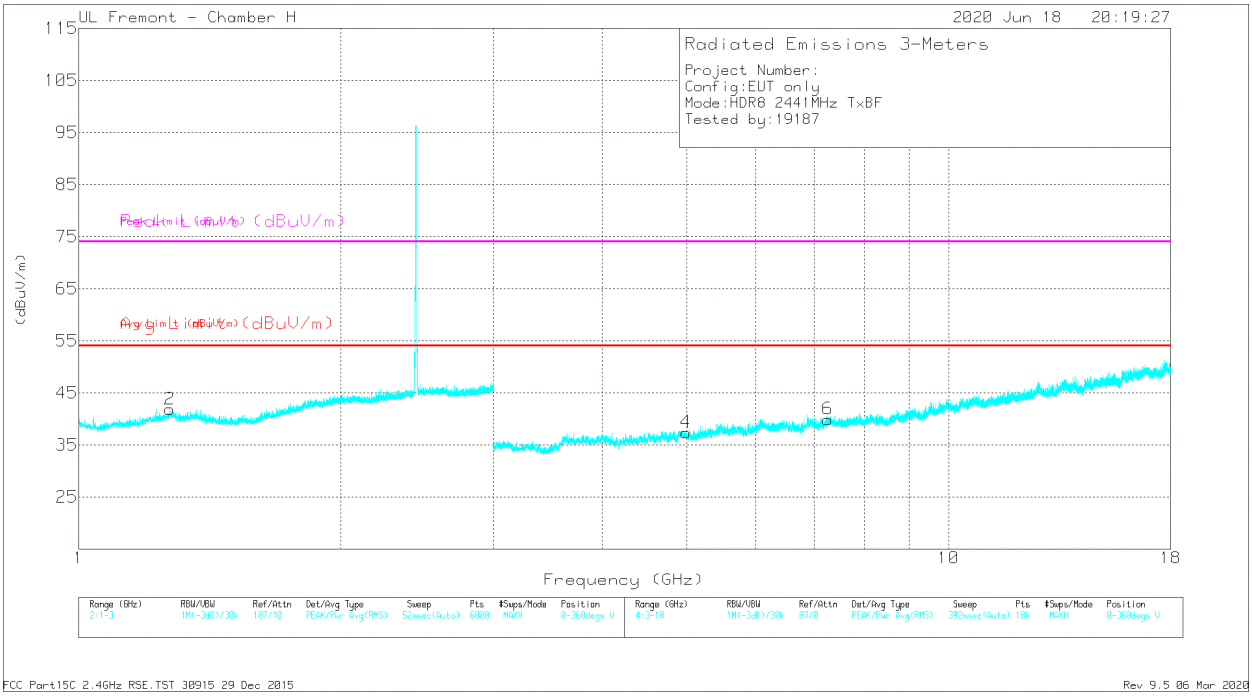
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 1.27977	45.03	PK2	29.2	-25.6	48.63	-	-	74	-25.37	298	379	H
	* 1.28101	33.15	MAv1	29.2	-25.6	36.75	54	-17.25	-	-	298	379	H
2	* 1.27222	44.99	PK2	29.3	-25.7	48.59	-	-	74	-25.41	163	315	V
	* 1.27303	33.12	MAv1	29.3	-25.7	36.72	54	-17.28	-	-	163	315	V
3	* 4.98598	41.37	PK2	34.2	-30.5	45.07	-	-	74	-28.93	311	111	H
	* 4.98525	29.92	MAv1	34.2	-30.5	33.62	54	-20.38	-	-	311	111	H
5	* 7.25608	39.46	PK2	36	-27.7	47.76	-	-	74	-26.24	124	320	H
	* 7.255	27.71	MAv1	36	-27.8	35.91	54	-18.09	-	-	124	320	H
4	* 4.99097	42.64	PK2	34.2	-30.6	46.24	-	-	74	-27.76	284	281	V
	* 4.98824	29.95	MAv1	34.2	-30.6	33.55	54	-20.45	-	-	284	281	V
6	* 7.26351	39.31	PK2	36	-27.6	47.71	-	-	74	-26.29	13	361	V
	* 7.26203	27.61	MAv1	36	-27.6	36.01	54	-17.99	-	-	13	361	V

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

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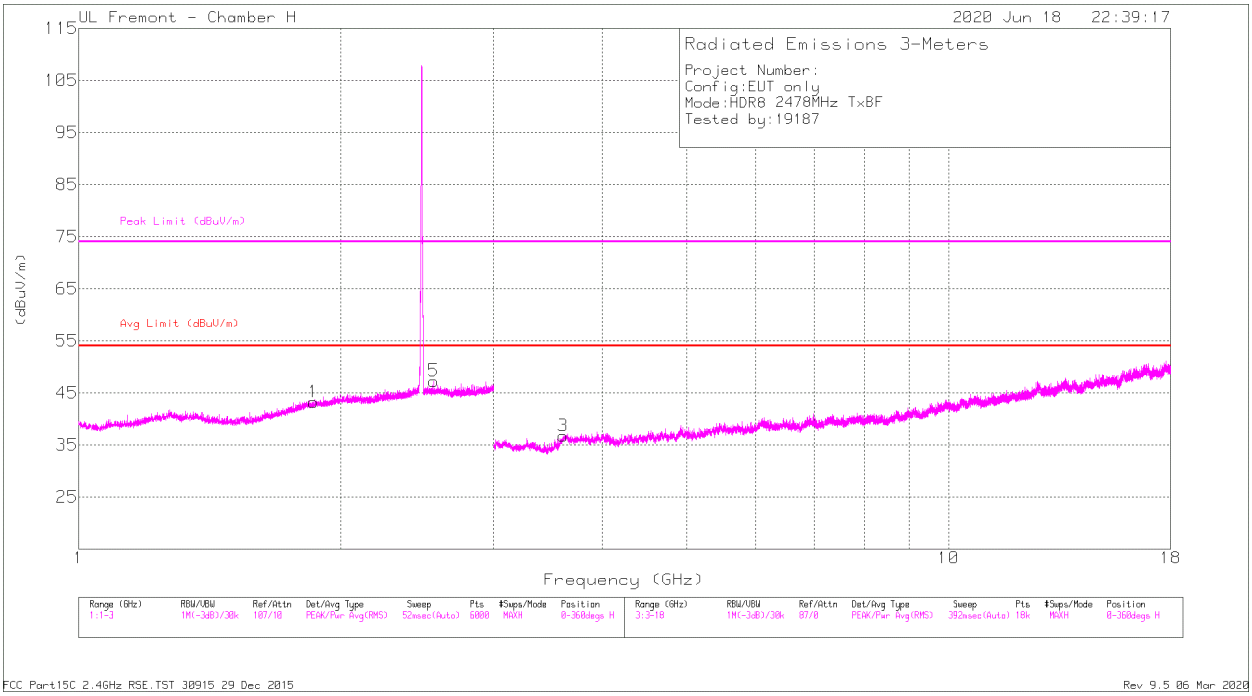
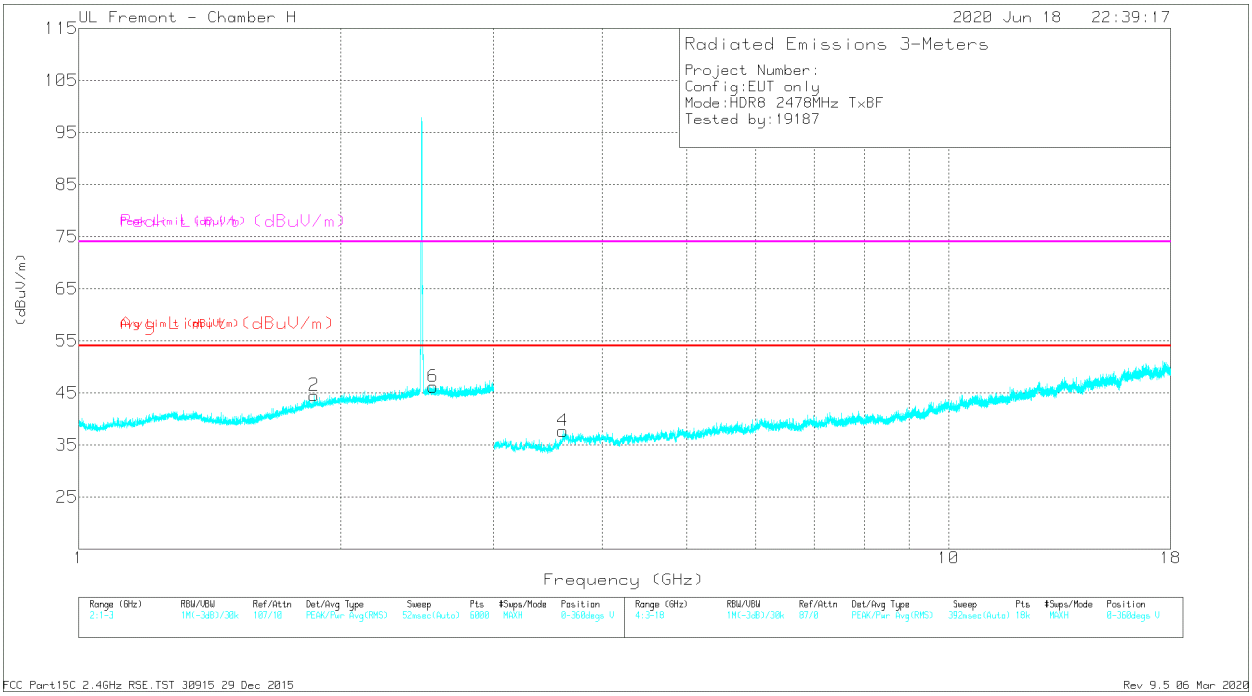
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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
3	* 3.60195	41.85	PK2	33	-30.9	43.95	-	-	74	-30.05	34	177	H
	* 3.60209	30.4	MAv1	33	-30.9	32.5	54	-21.5	-	-	34	177	H
4	* 3.60264	42.22	PK2	33	-30.9	44.32	-	-	74	-29.68	207	199	H
	* 3.60246	30.88	MAv1	33	-30.9	32.98	54	-21.02	-	-	207	199	H
1	1.85993	32.41	MAv1	30.9	-24.6	38.71	-	-	-	-	69	156	H
	1.86145	44.96	PK2	30.9	-24.6	51.26	-	-	-	-	69	156	H
2	1.86669	44.22	PK2	31	-24.6	50.62	-	-	-	-	308	290	V
	1.86684	32.48	MAv1	31	-24.6	38.88	-	-	-	-	308	290	V
6	2.55292	32.02	MAv1	32.5	-23.5	41.02	-	-	-	-	307	367	V
	2.5532	44.08	PK2	32.5	-23.5	53.08	-	-	-	-	307	367	V
5	2.55994	32.08	MAv1	32.5	-23.5	41.08	-	-	-	-	11	236	H
	2.56041	43.92	PK2	32.5	-23.5	52.92	-	-	-	-	11	236	H

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

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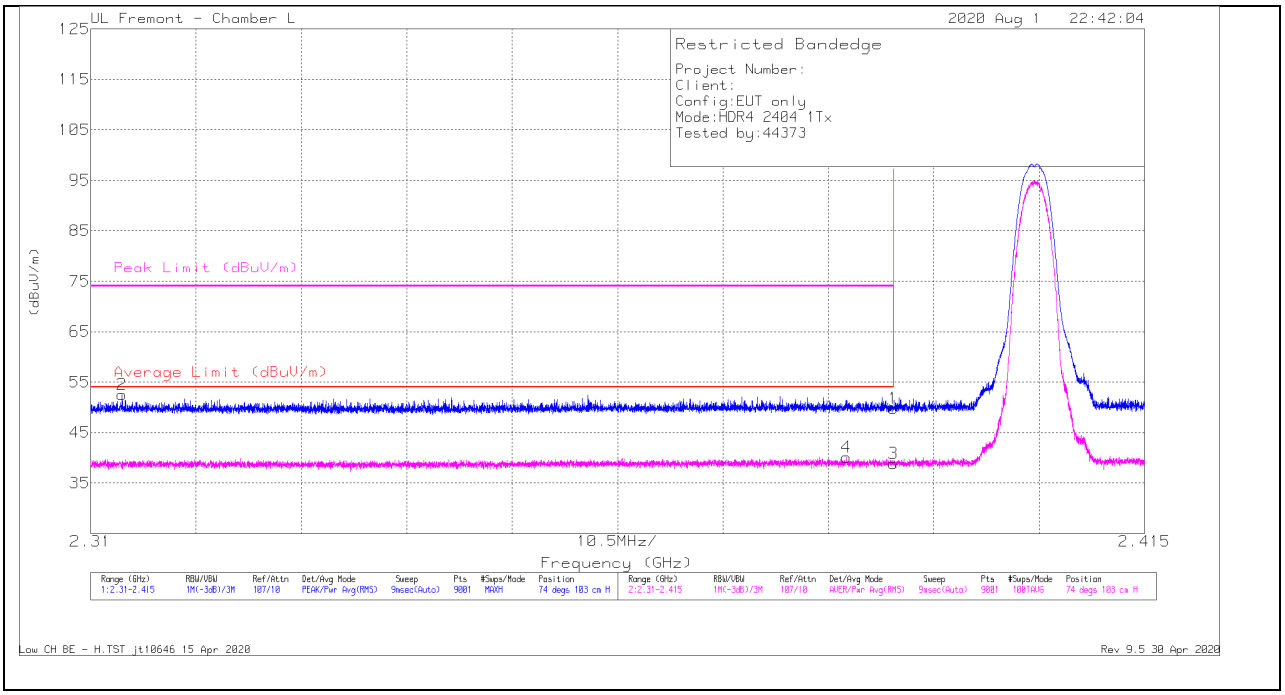
10.2.5. LOW POWER HDR (HDR4)

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.96	Pk	31.9	-21.1	49.76	-	-	74	-24.24	74	103	H
2	* 2.31313	42.18	Pk	31.7	-21.3	52.58	-	-	74	-21.42	74	103	H
3	* 2.38999	28.07	RMS	31.9	-21.1	38.87	54	-15.13	-	-	74	103	H
4	* 2.38529	29.39	RMS	31.8	-21.1	40.09	54	-13.91	-	-	74	103	H

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

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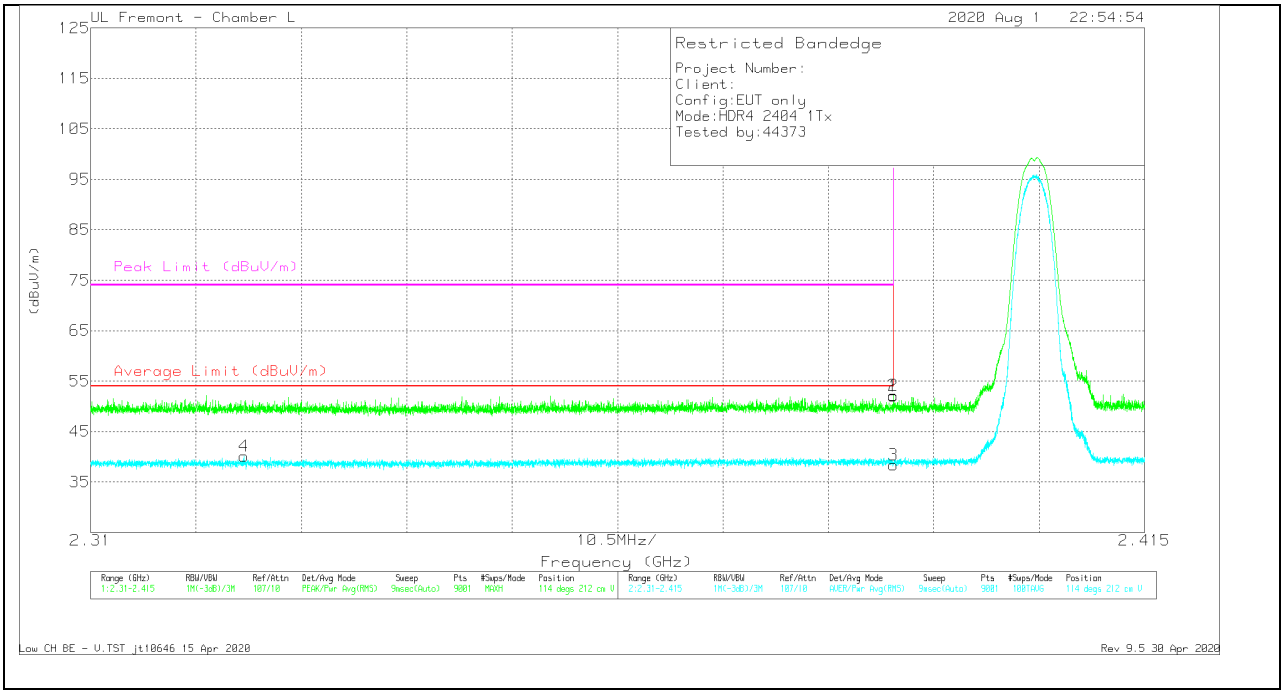
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	41.22	Pk	31.9	-21.1	52.02	-	-	74	-21.98	114	212	V
2	* 2.38998	41.36	Pk	31.9	-21.1	52.16	-	-	74	-21.84	114	212	V
3	* 2.38999	27.59	RMS	31.9	-21.1	38.39	54	-15.61	-	-	114	212	V
4	* 2.32525	29.69	RMS	31.7	-21.3	40.09	54	-13.91	-	-	114	212	V

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

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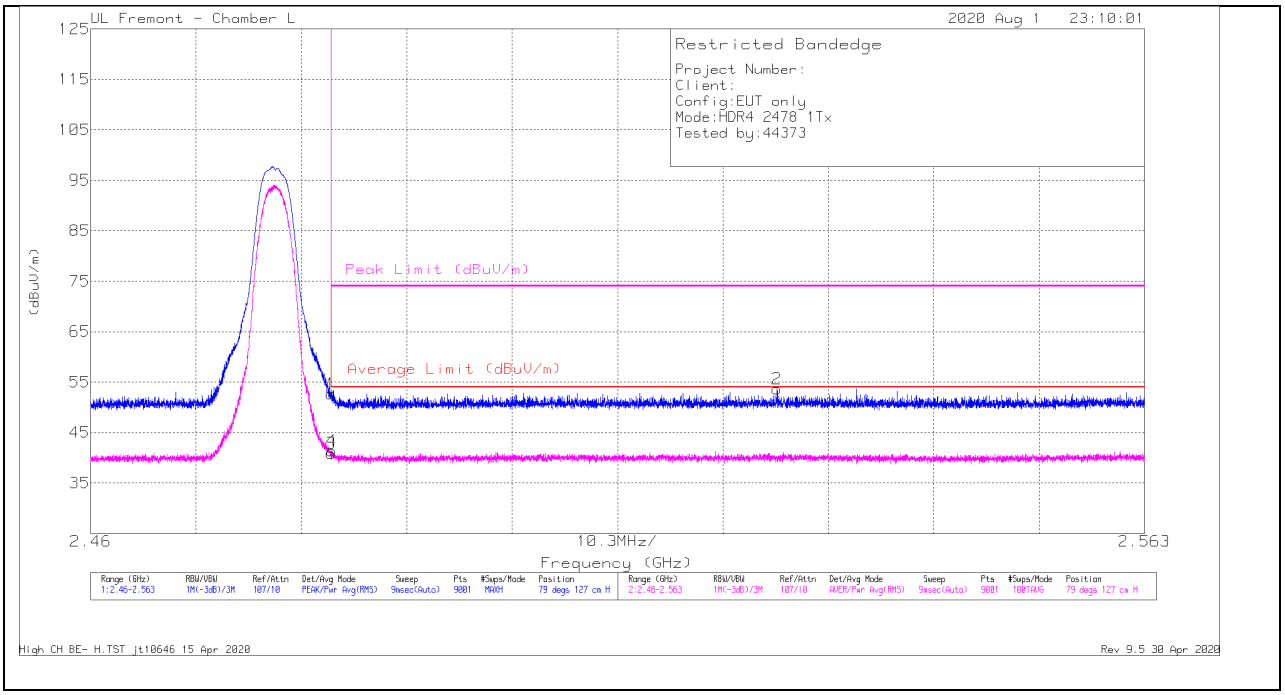
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	41.26	Pk	32.3	-20.9	52.66	-	-	74	-21.34	79	127	H
2	2.5271	42.02	Pk	32.4	-20.8	53.62	-	-	74	-20.38	79	127	H
3	* 2.48351	29.47	RMS	32.3	-20.9	40.87	54	-13.13	-	-	79	127	H
4	* 2.48357	29.94	RMS	32.3	-20.9	41.34	54	-12.66	-	-	79	127	H

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

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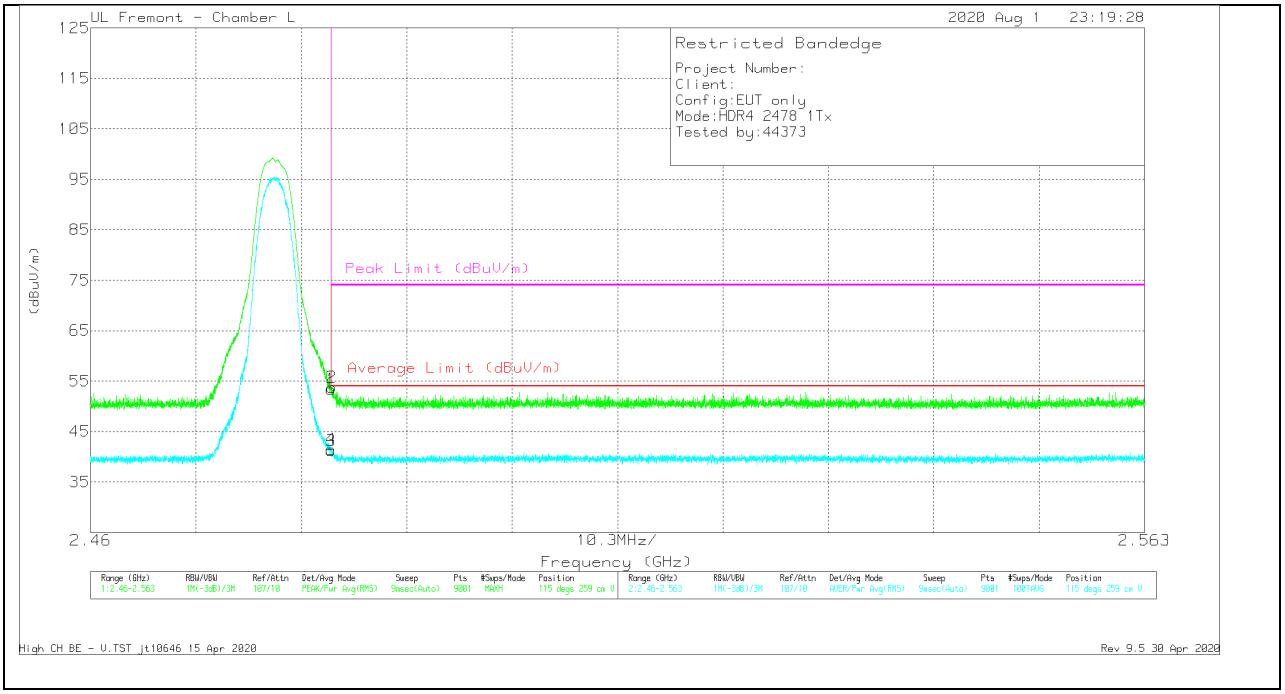
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	41.96	Pk	32.3	-20.9	53.36	-	-	74	-20.64	115	259	V
2	* 2.48356	42.35	Pk	32.3	-20.9	53.75	-	-	74	-20.25	115	259	V
3	* 2.48351	29.83	RMS	32.3	-20.9	41.23	54	-12.77	-	-	115	259	V
4	* 2.48352	30.07	RMS	32.3	-20.9	41.47	54	-12.53	-	-	115	259	V

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

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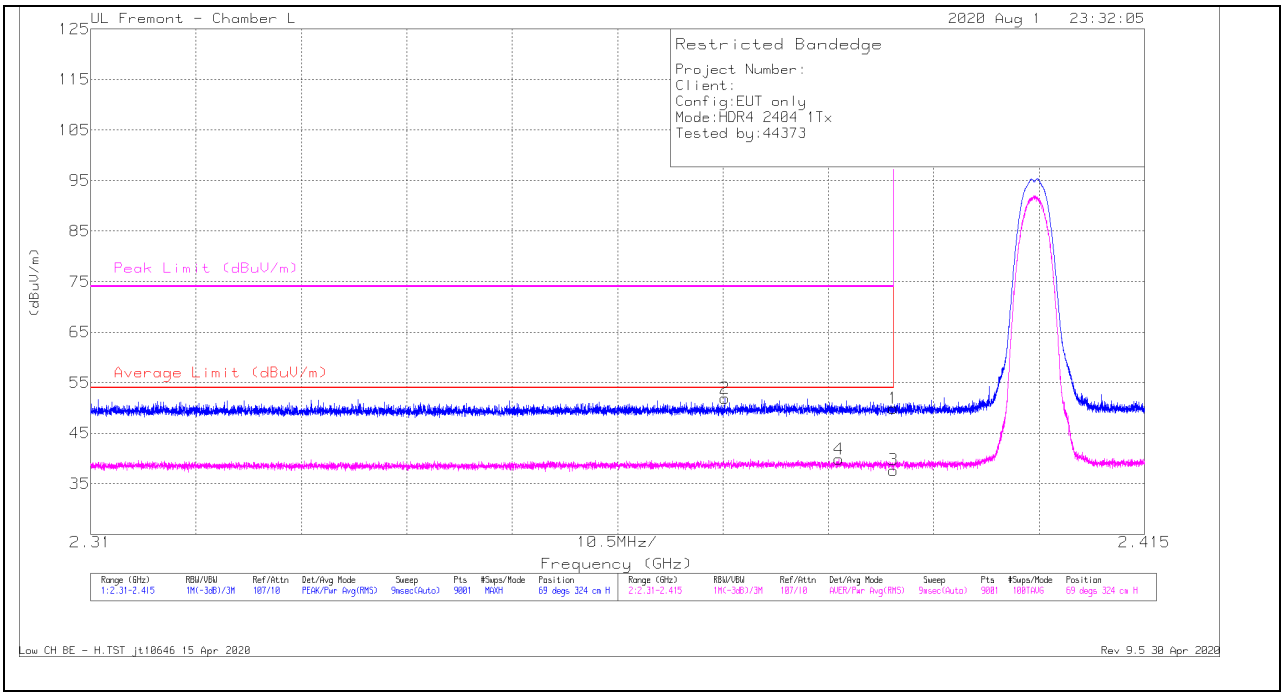
ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39.12	Pk	31.9	-21.1	49.92	-	-	74	-24.08	69	324	H
2	* 2.3732	41.3	Pk	31.8	-21.2	51.9	-	-	74	-22.1	69	324	H
3	* 2.38999	26.89	RMS	31.9	-21.1	37.69	54	-16.31	-	-	69	324	H
4	* 2.38455	29.15	RMS	31.8	-21.1	39.85	54	-14.15	-	-	69	324	H

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

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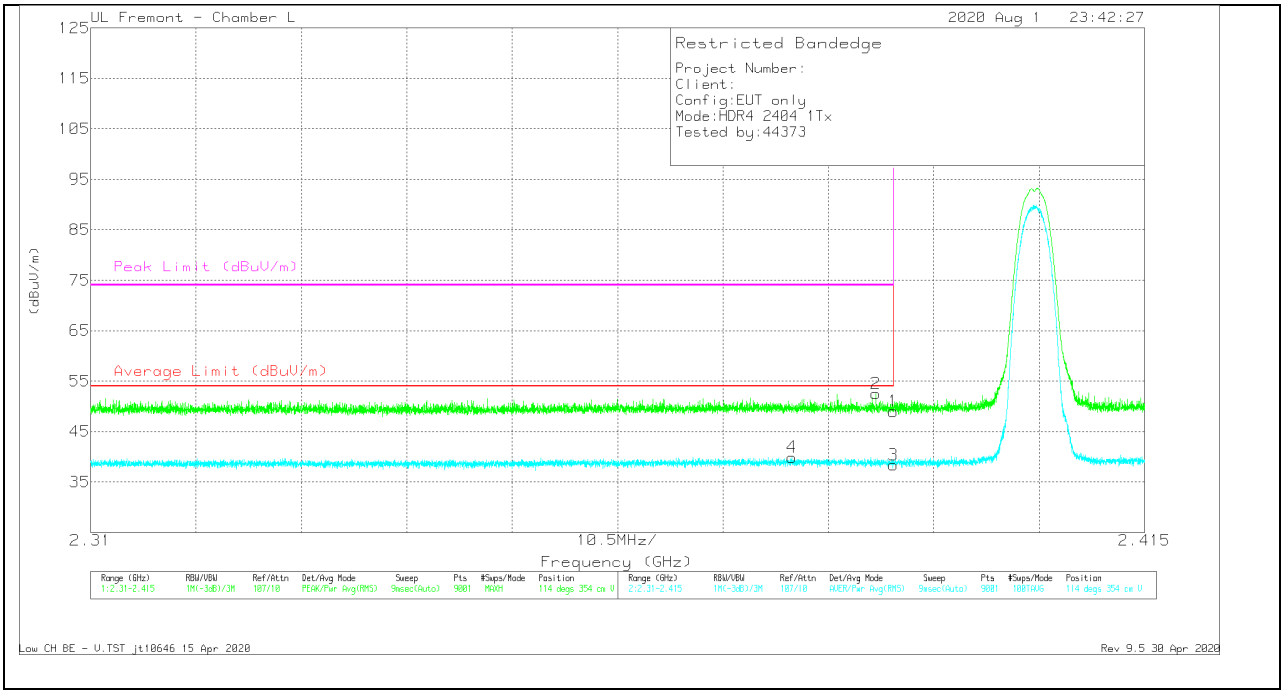
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.19	Pk	31.9	-21.1	48.99	-	-	74	-25.01	114	354	V
2	* 2.38822	41.75	Pk	31.9	-21.1	52.55	-	-	74	-21.45	114	354	V
3	* 2.38999	27.59	RMS	31.9	-21.1	38.39	54	-15.61	-	-	114	354	V
4	* 2.37985	29.22	RMS	31.8	-21.1	39.92	54	-14.08	-	-	114	354	V

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

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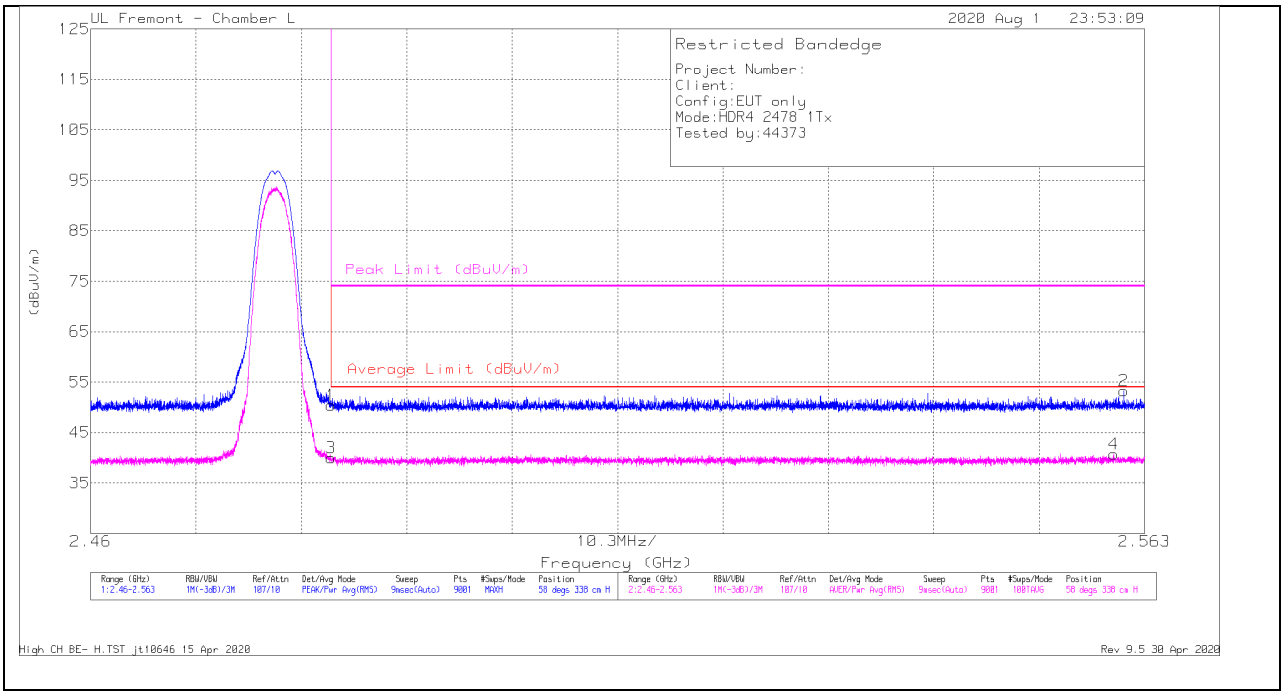
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39	Pk	32.3	-20.9	50.4	-	-	74	-23.6	58	338	H
2	2.561	41.62	Pk	32.4	-20.8	53.22	-	-	74	-20.78	58	338	H
3	* 2.48351	28.63	RMS	32.3	-20.9	40.03	54	-13.97	-	-	58	338	H
4	2.55997	29.17	RMS	32.4	-20.8	40.77	54	-13.23	-	-	58	338	H

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

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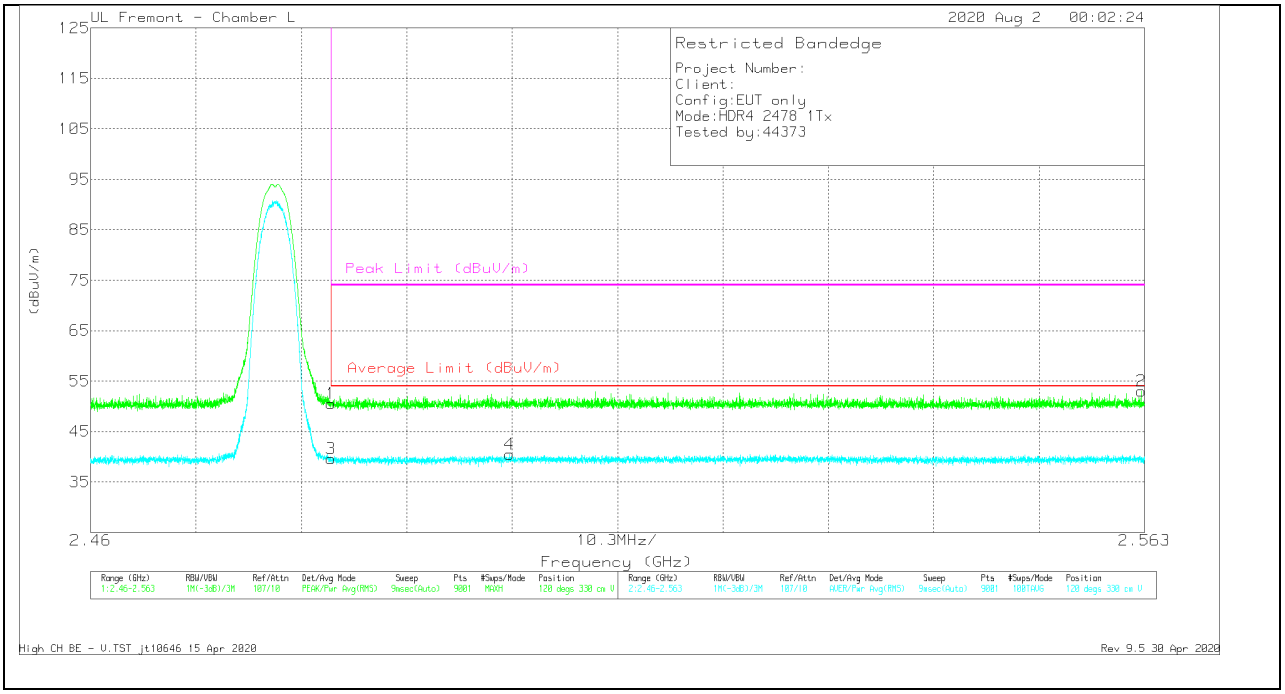
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39.11	Pk	32.3	-20.9	50.51	-	-	74	-23.49	120	330	V
2	2.56268	41.41	Pk	32.4	-20.8	53.01	-	-	74	-20.99	120	330	V
3	* 2.48351	28.17	RMS	32.3	-20.9	39.57	54	-14.43	-	-	120	330	V
4	2.50094	28.97	RMS	32.4	-20.9	40.47	54	-13.53	-	-	120	330	V

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

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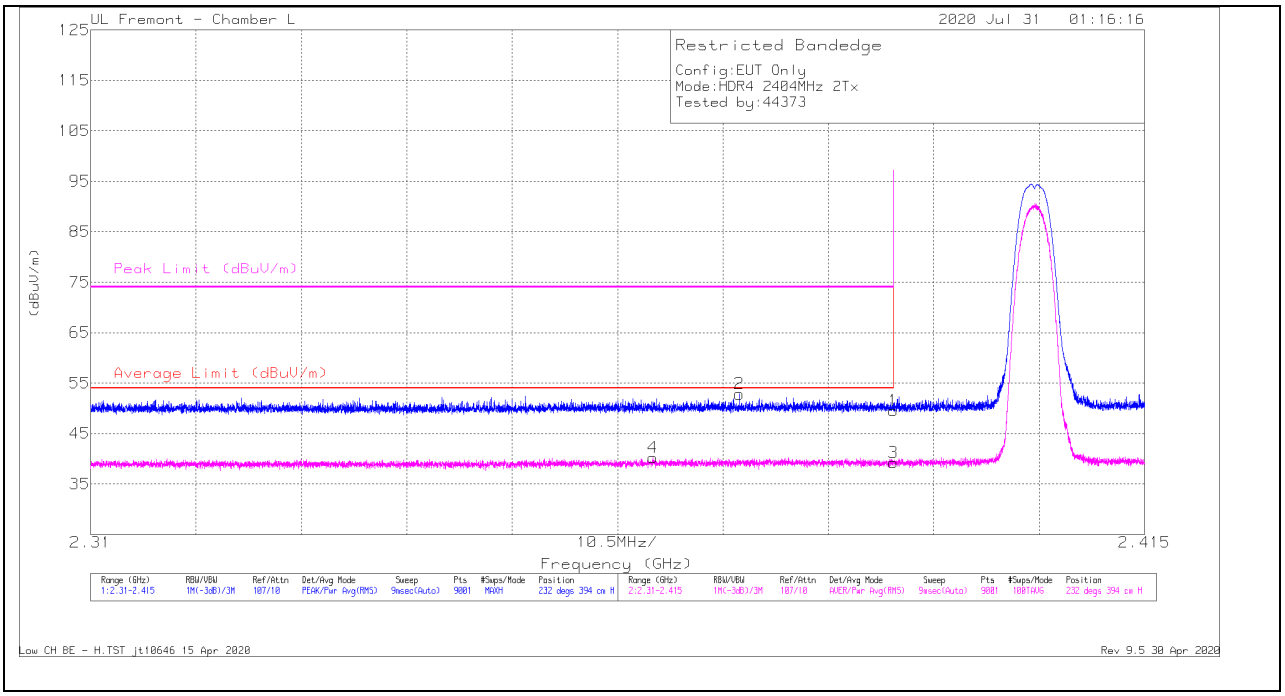
10.2.6. LOW POWER HDR TXBF (HDR4)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.8	Pk	31.9	-21.1	49.6	-	-	74	-24.4	232	394	H
2	* 2.37464	42.24	Pk	31.8	-21.2	52.84	-	-	74	-21.16	232	394	H
3	* 2.38999	28.48	RMS	31.9	-21.1	39.28	54	-14.72	-	-	232	394	H
4	* 2.36604	29.73	RMS	31.7	-21.2	40.23	54	-13.77	-	-	232	394	H

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

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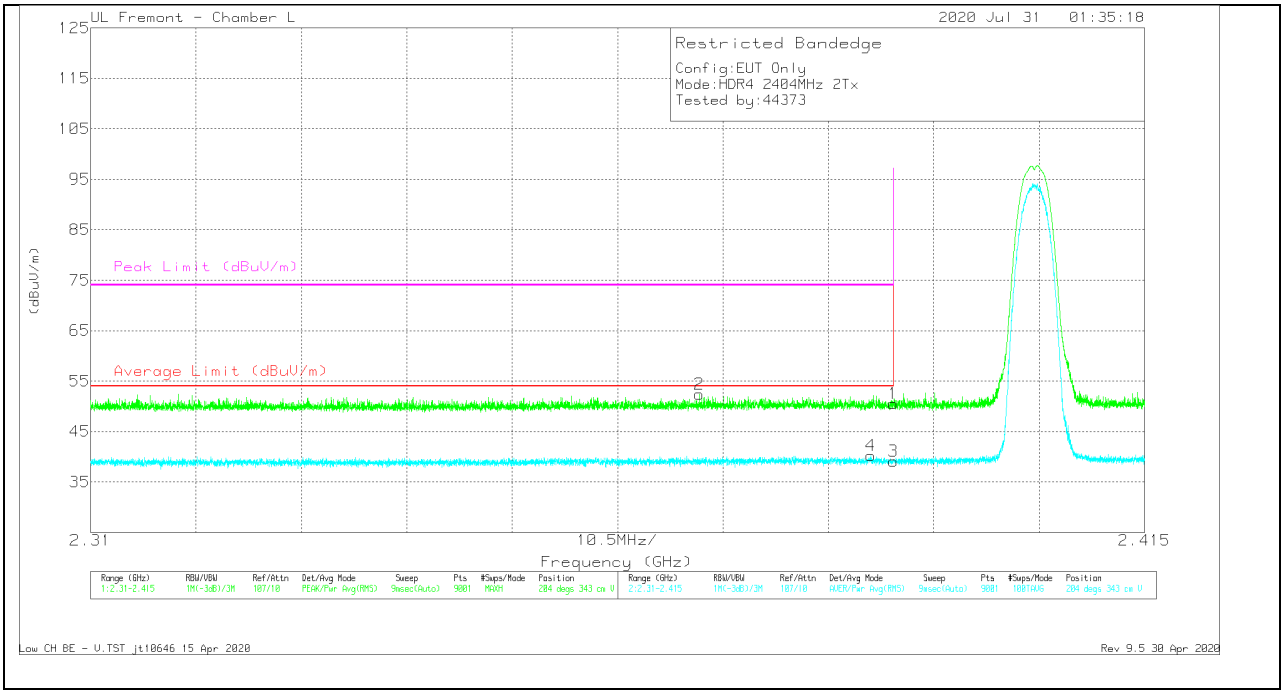
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39.74	Pk	31.9	-21.1	50.54	-	-	74	-23.46	204	343	V
2	* 2.37063	41.79	Pk	31.8	-21.2	52.39	-	-	74	-21.61	204	343	V
3	* 2.38999	28.36	RMS	31.9	-21.1	39.16	54	-14.84	-	-	204	343	V
4	* 2.38773	29.51	RMS	31.8	-21.1	40.21	54	-13.79	-	-	204	343	V

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

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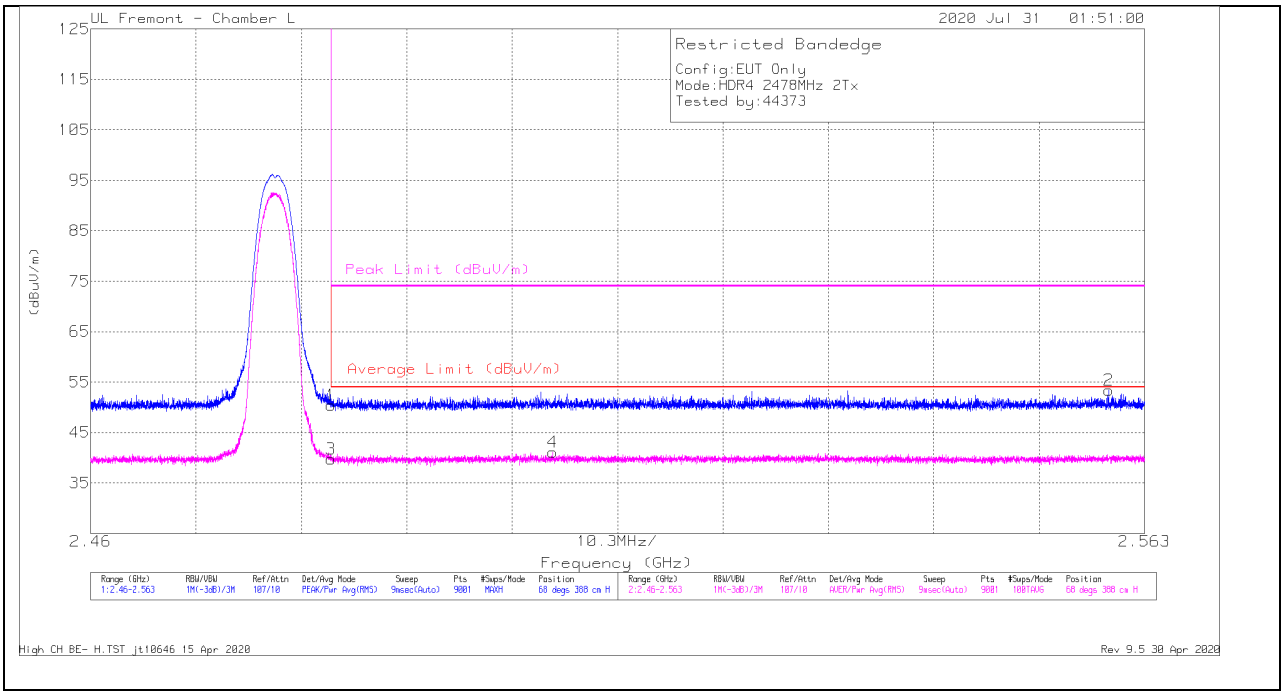
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39	Pk	32.3	-20.9	50.4	-	-	74	-23.6	68	388	H
2	2.55948	41.83	Pk	32.4	-20.8	53.43	-	-	74	-20.57	68	388	H
3	* 2.48351	28.34	RMS	32.3	-20.9	39.74	54	-14.26	-	-	68	388	H
4	2.50515	29.56	RMS	32.4	-20.9	41.06	54	-12.94	-	-	68	388	H

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

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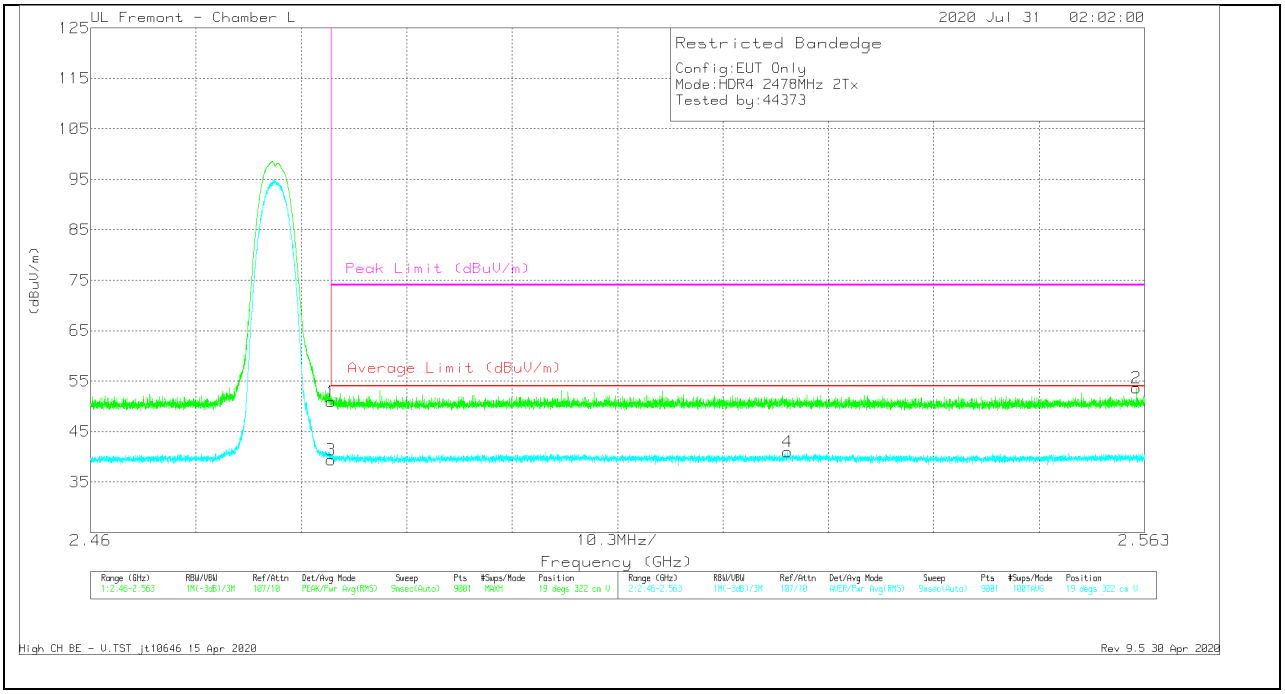
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39.47	Pk	32.3	-20.9	50.87	-	-	74	-23.13	19	322	V
2	2.56223	42	Pk	32.4	-20.8	53.6	-	-	74	-20.4	19	322	V
3	* 2.48351	28.01	RMS	32.3	-20.9	39.41	54	-14.59	-	-	19	322	V
4	2.52811	29.38	RMS	32.4	-20.8	40.98	54	-13.02	-	-	19	322	V

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

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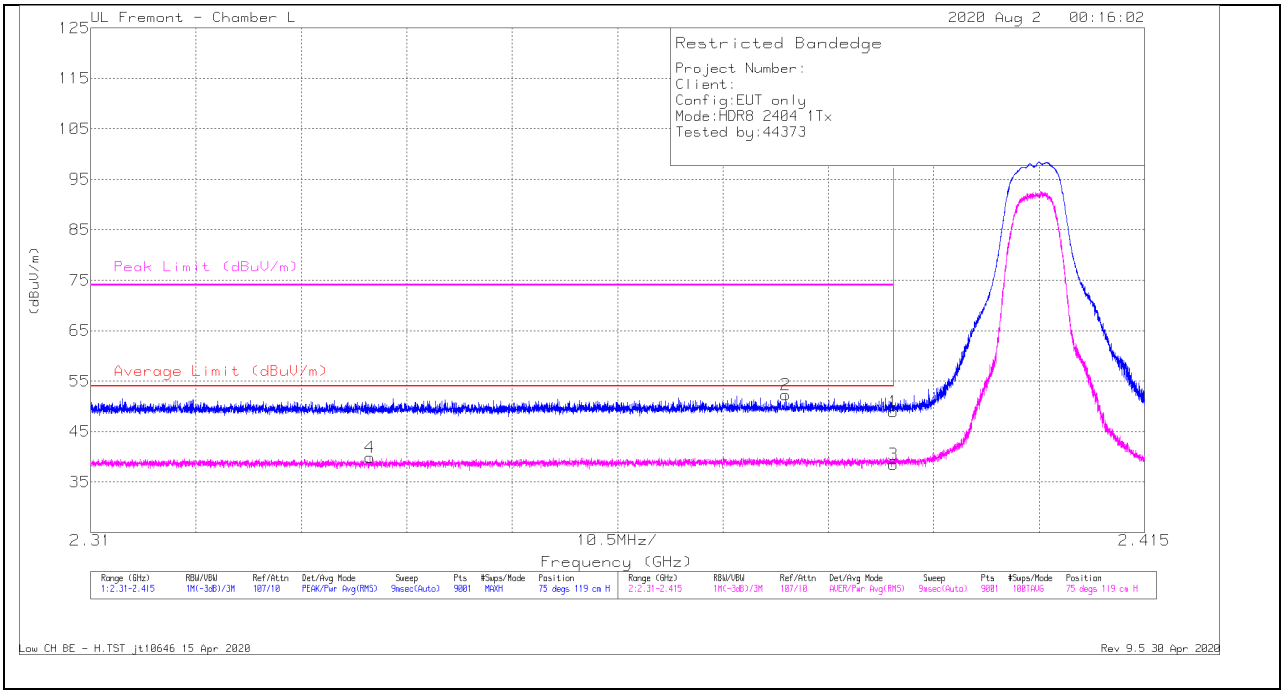
10.2.7. LOW POWER HDR (HDR8)

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.09	Pk	31.9	-21.1	48.89	-	-	74	-25.11	75	119	H
2	* 2.37923	41.63	Pk	31.8	-21.1	52.33	-	-	74	-21.67	75	119	H
3	* 2.38999	27.7	RMS	31.9	-21.1	38.5	54	-15.5	-	-	75	119	H
4	* 2.33785	29.69	RMS	31.5	-21.3	39.89	54	-14.11	-	-	75	119	H

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

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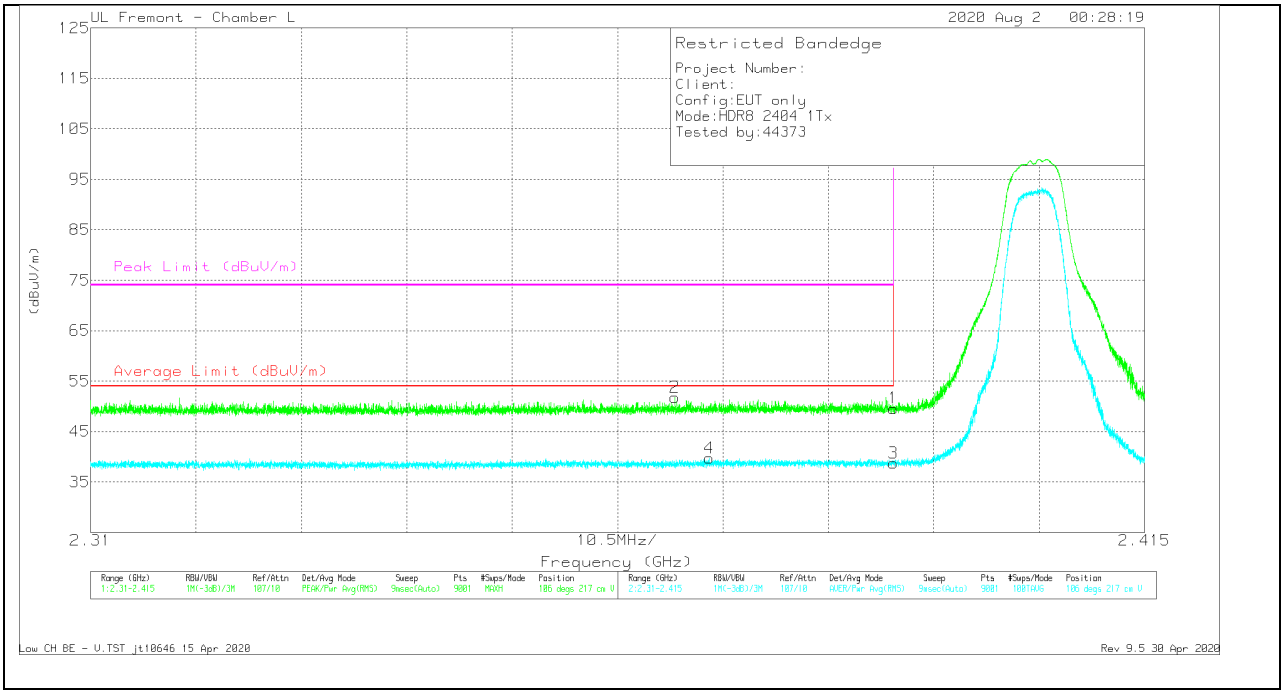
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.81	Pk	31.9	-21.1	49.61	-	-	74	-24.39	106	217	V
2	* 2.36821	41.21	Pk	31.8	-21.2	51.81	-	-	74	-22.19	106	217	V
3	* 2.38999	27.94	RMS	31.9	-21.1	38.74	54	-15.26	-	-	106	217	V
4	* 2.37161	29.18	RMS	31.8	-21.2	39.78	54	-14.22	-	-	106	217	V

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

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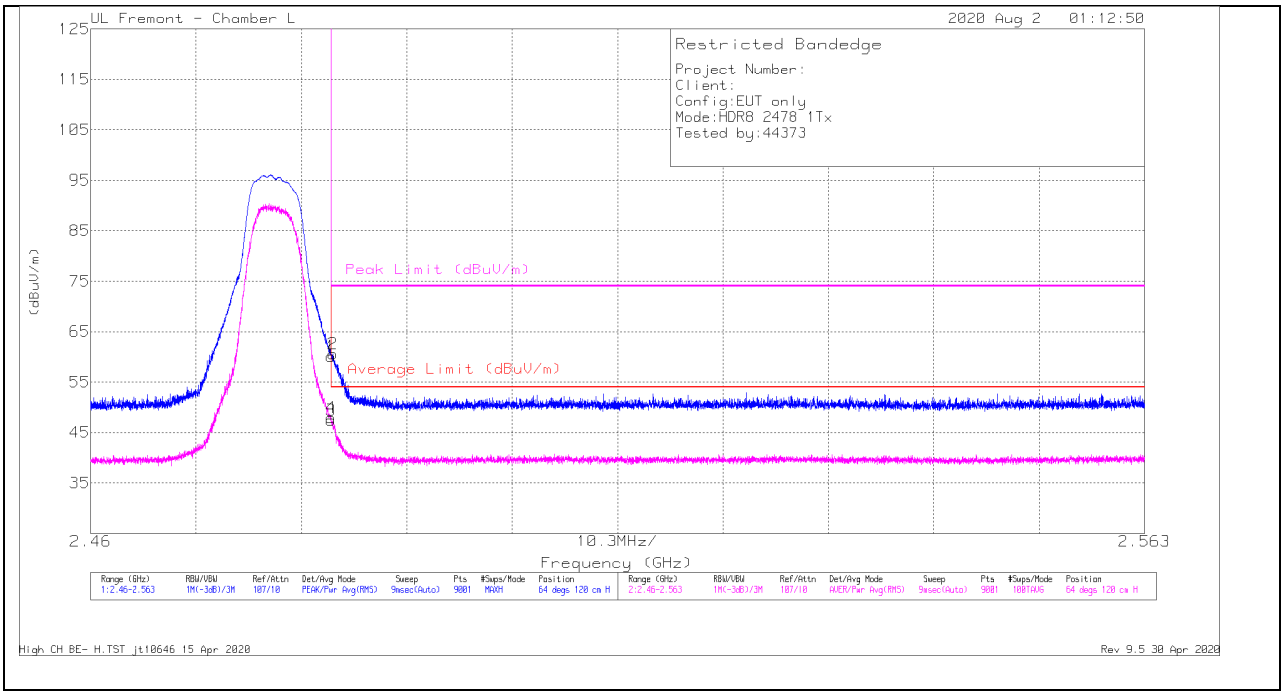
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	48.69	Pk	32.3	-20.9	60.09	-	-	74	-13.91	64	120	H
2	* 2.48367	49.21	Pk	32.3	-20.9	60.61	-	-	74	-13.39	64	120	H
3	* 2.48351	36.06	RMS	32.3	-20.9	47.46	54	-6.54	-	-	64	120	H
4	* 2.48352	36.54	RMS	32.3	-20.9	47.94	54	-6.06	-	-	64	120	H

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

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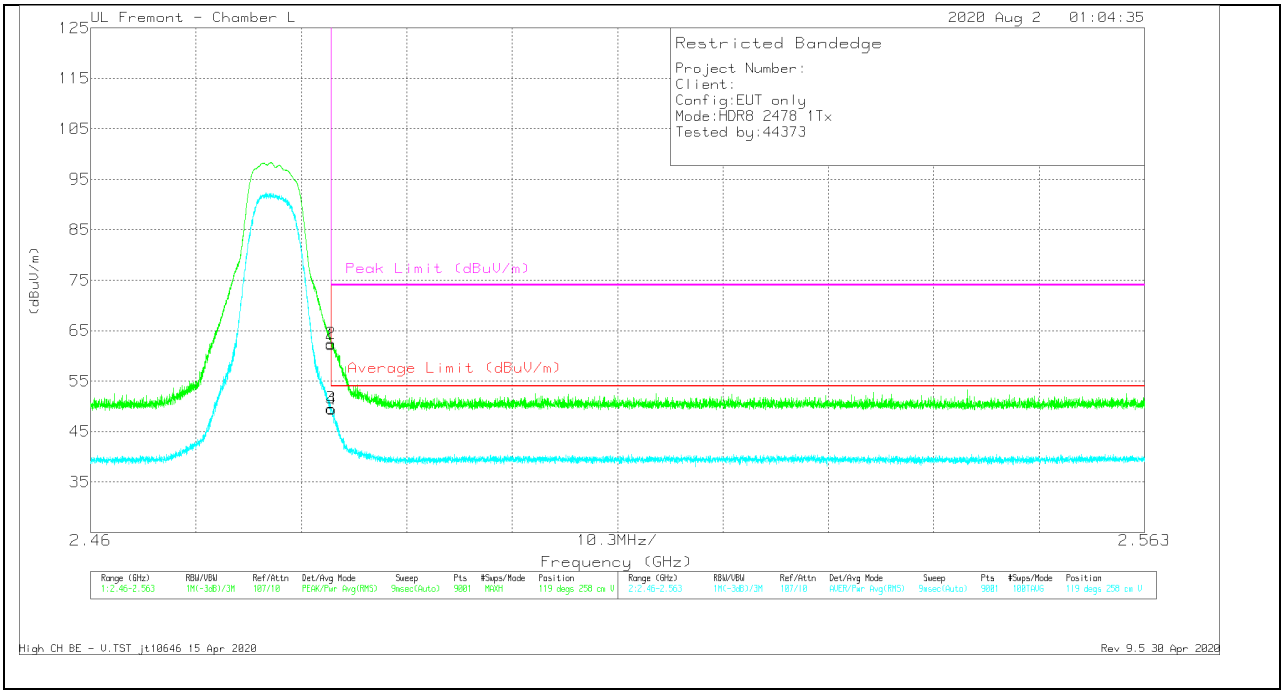
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	50.84	Pk	32.3	-20.9	62.24	-	-	74	-11.76	119	258	V
2	* 2.48352	51.11	Pk	32.3	-20.9	62.51	-	-	74	-11.49	119	258	V
3	* 2.48351	38.21	RMS	32.3	-20.9	49.61	54	-4.39	-	-	119	258	V
4	* 2.48353	38.08	RMS	32.3	-20.9	49.48	54	-4.52	-	-	119	258	V

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

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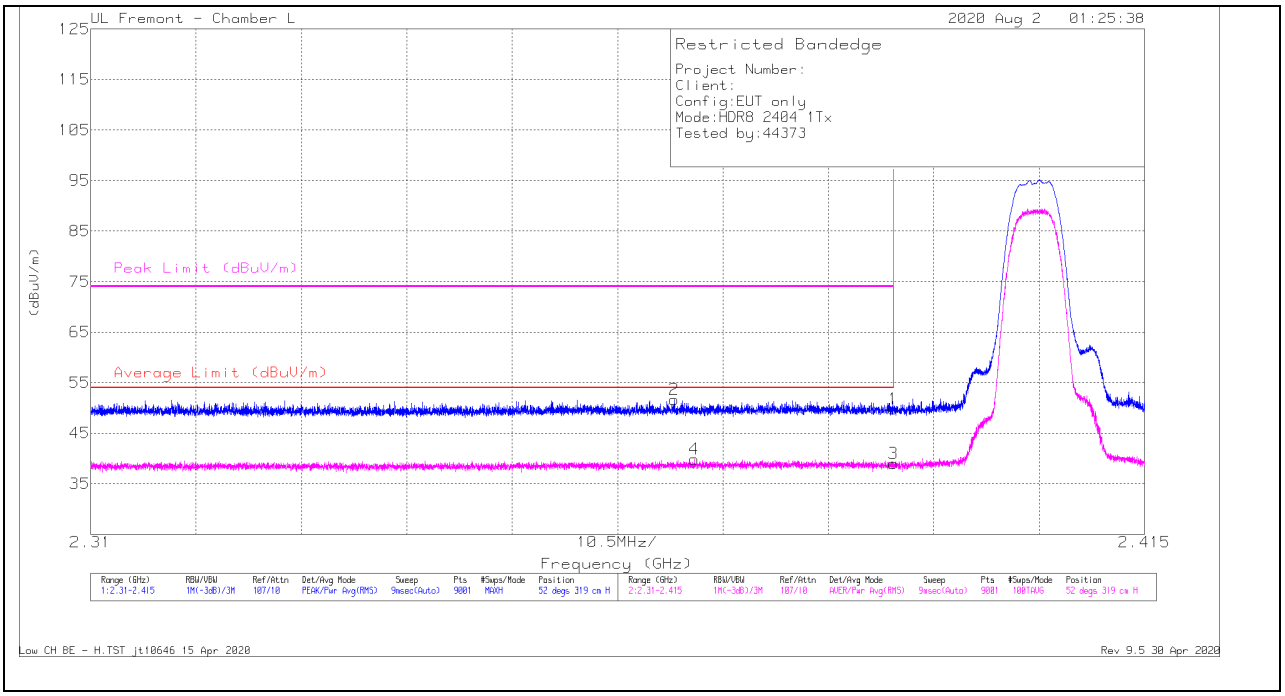
ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39	Pk	31.9	-21.1	49.8	-	-	74	-24.2	52	319	H
2	* 2.36814	41.04	Pk	31.8	-21.2	51.64	-	-	74	-22.36	52	319	H
3	* 2.38999	28.16	RMS	31.9	-21.1	38.96	54	-15.04	-	-	52	319	H
4	* 2.37014	29.21	RMS	31.8	-21.2	39.81	54	-14.19	-	-	52	319	H

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

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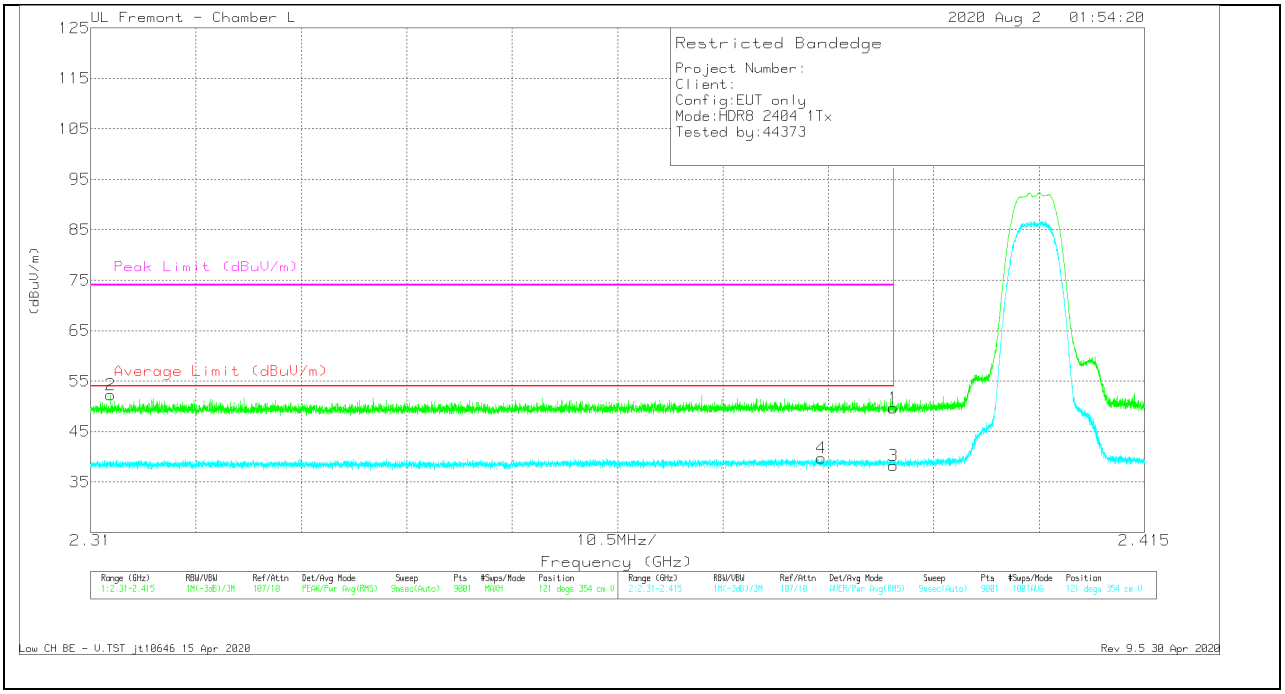
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.82	Pk	31.9	-21.1	49.62	-	-	74	-24.38	121	354	V
2	* 2.31198	41.97	Pk	31.7	-21.4	52.27	-	-	74	-21.73	121	354	V
3	* 2.38999	27.43	RMS	31.9	-21.1	38.23	54	-15.77	-	-	121	354	V
4	* 2.38279	29.05	RMS	31.8	-21.1	39.75	54	-14.25	-	-	121	354	V

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

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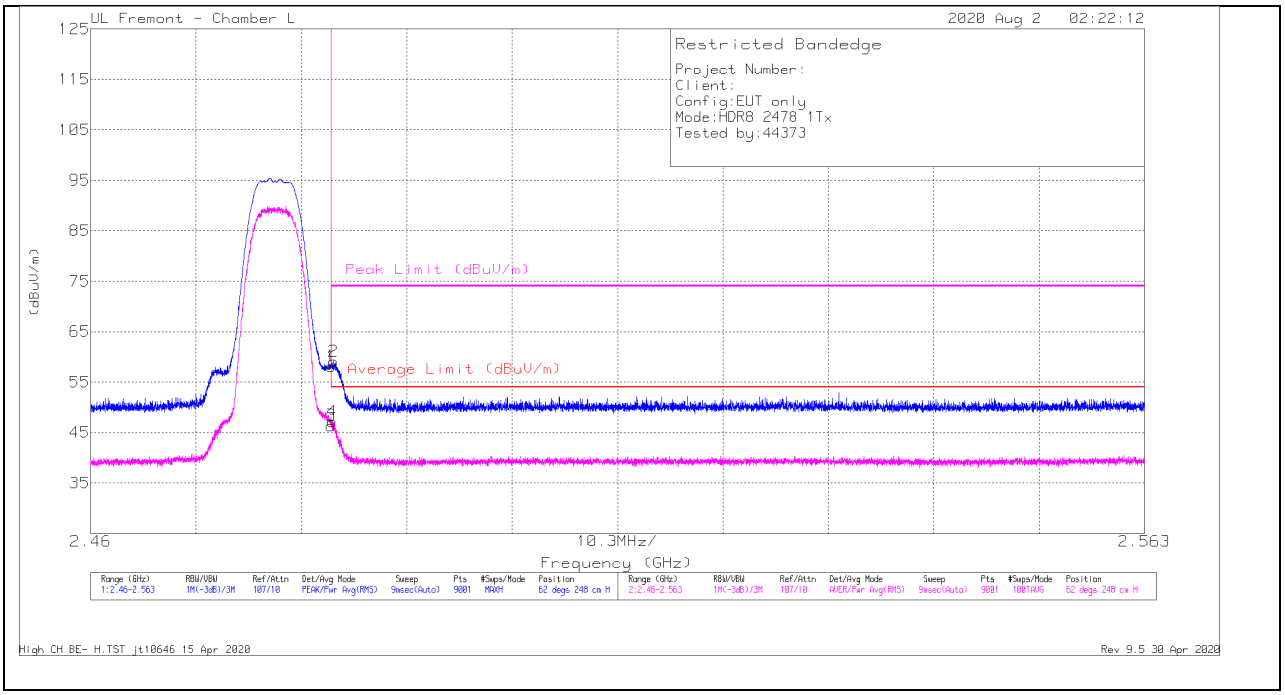
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	46.72	Pk	32.3	-20.9	58.12	-	-	74	-15.88	62	248	H
2	* 2.48373	47.67	Pk	32.3	-20.9	59.07	-	-	74	-14.93	62	248	H
3	* 2.48351	34.98	RMS	32.3	-20.9	46.38	54	-7.62	-	-	62	248	H
4	* 2.4836	35.81	RMS	32.3	-20.9	47.21	54	-6.79	-	-	62	248	H

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

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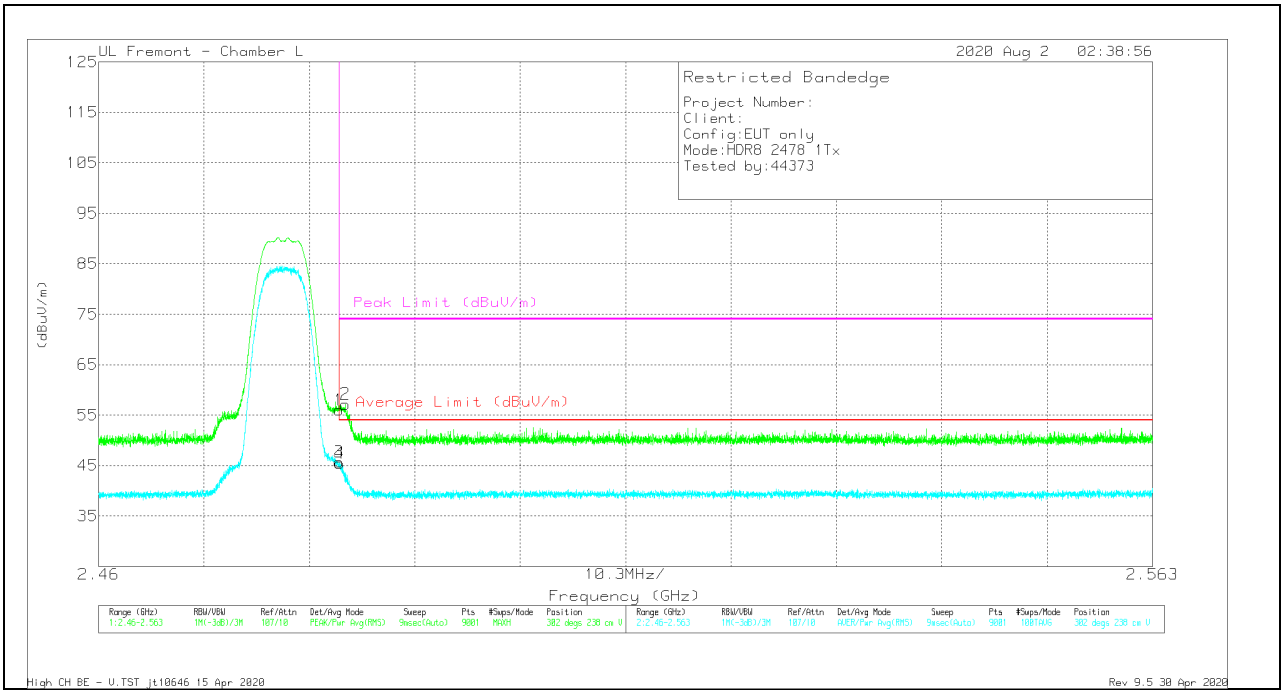
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	44.6	Pk	32.3	-20.9	56	-	-	74	-18	302	238	V
2	* 2.4841	45.78	Pk	32.3	-20.9	57.18	-	-	74	-16.82	302	238	V
3	* 2.48351	34.27	RMS	32.3	-20.9	45.67	54	-8.33	-	-	302	238	V
4	* 2.48354	34.01	RMS	32.3	-20.9	45.41	54	-8.59	-	-	302	238	V

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

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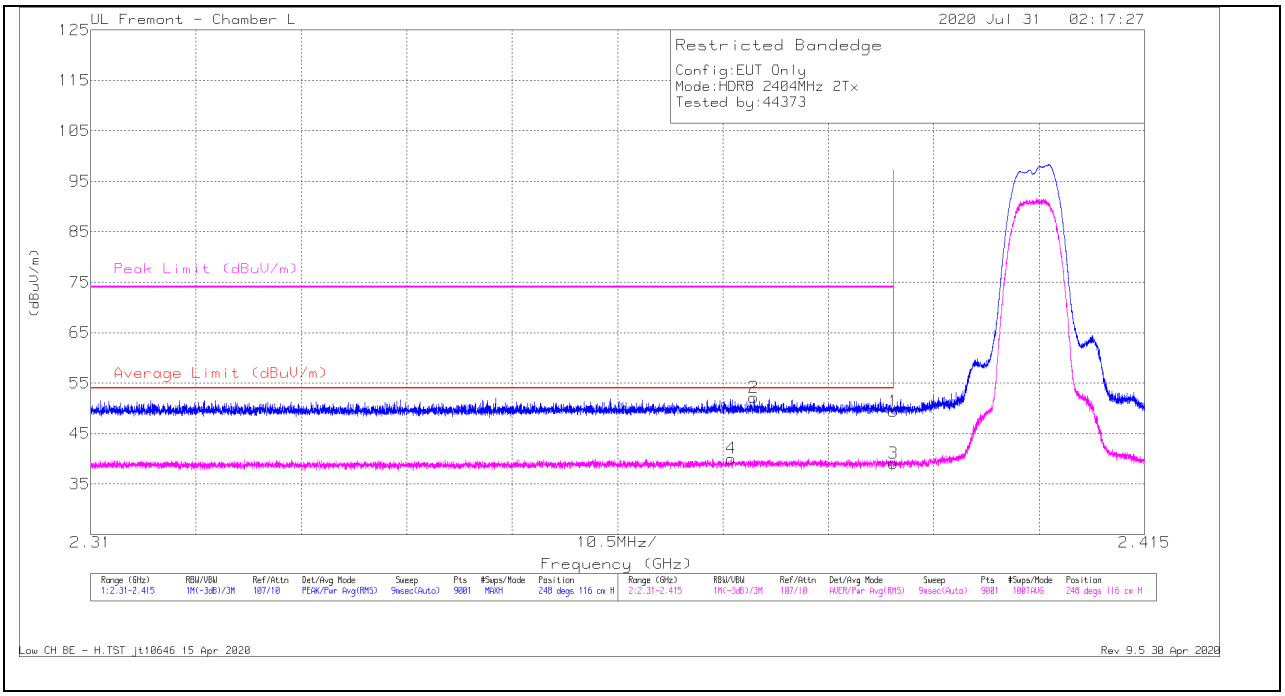
10.2.8. LOW POWER HDR TXBF (HDR8)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.57	Pk	31.9	-21.1	49.37	-	-	74	-24.63	248	116	H
2	* 2.37608	41.51	Pk	31.8	-21.2	52.11	-	-	74	-21.89	248	116	H
3	* 2.38999	28.37	RMS	31.9	-21.1	39.17	54	-14.83	-	-	248	116	H
4	* 2.37384	29.45	RMS	31.8	-21.2	40.05	54	-13.95	-	-	248	116	H

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

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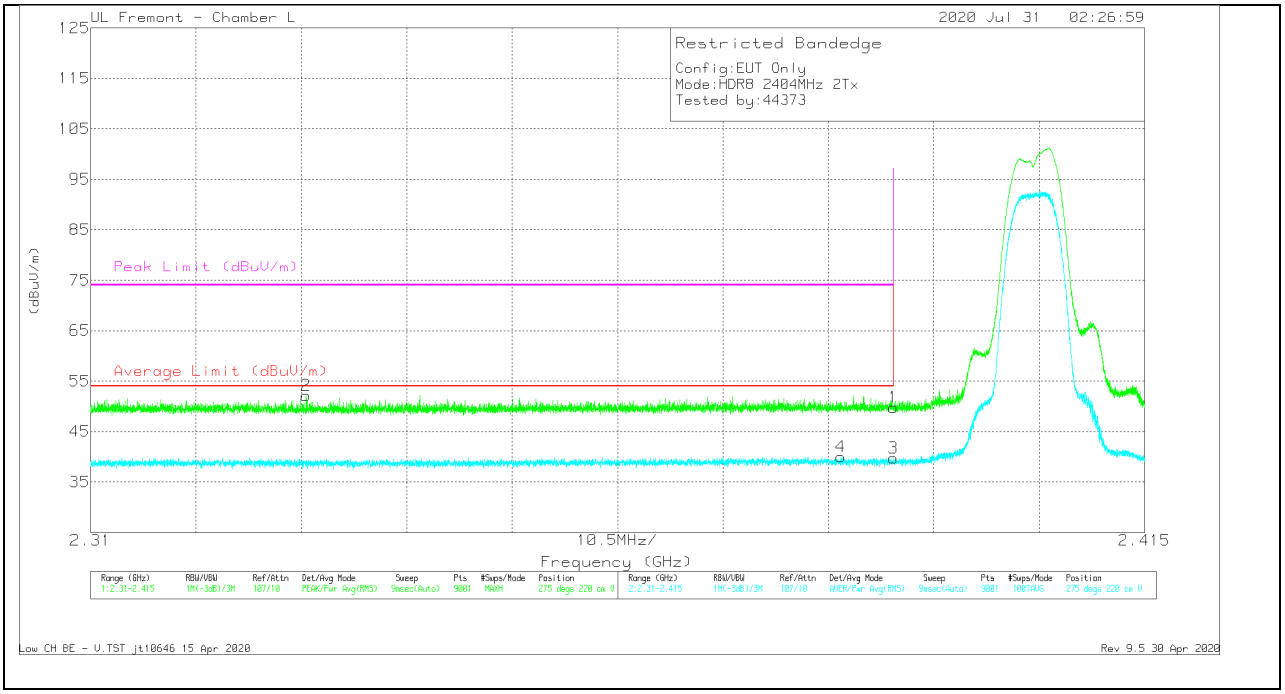
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	38.95	Pk	31.9	-21.1	49.75	-	-	74	-24.25	275	220	V
2	* 2.33148	41.87	Pk	31.6	-21.3	52.17	-	-	74	-21.83	275	220	V
3	* 2.38999	28.9	RMS	31.9	-21.1	39.7	54	-14.3	-	-	275	220	V
4	* 2.38473	29.23	RMS	31.8	-21.1	39.93	54	-14.07	-	-	275	220	V

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

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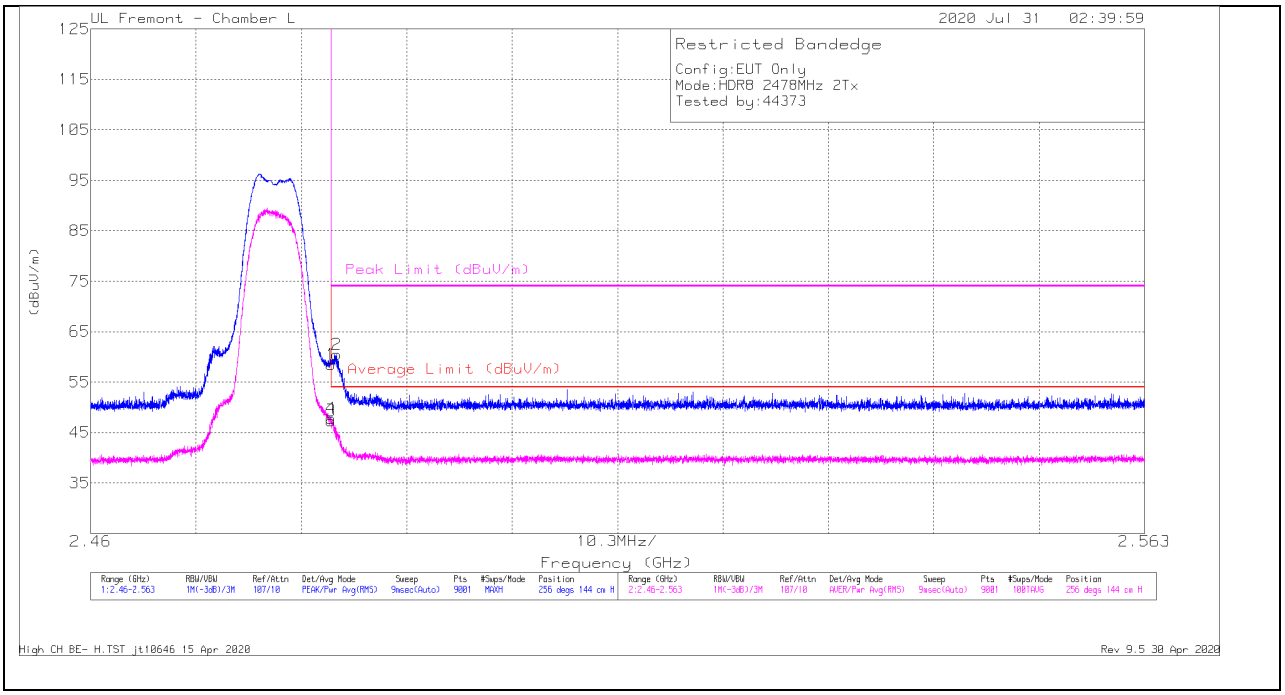
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	47.07	Pk	32.3	-20.9	58.47	-	-	74	-15.53	256	144	H
2	* 2.48403	49.07	Pk	32.3	-20.9	60.47	-	-	74	-13.53	256	144	H
3	* 2.48351	35.97	RMS	32.3	-20.9	47.37	54	-6.63	-	-	256	144	H
4	* 2.48352	36.44	RMS	32.3	-20.9	47.84	54	-6.16	-	-	256	144	H

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

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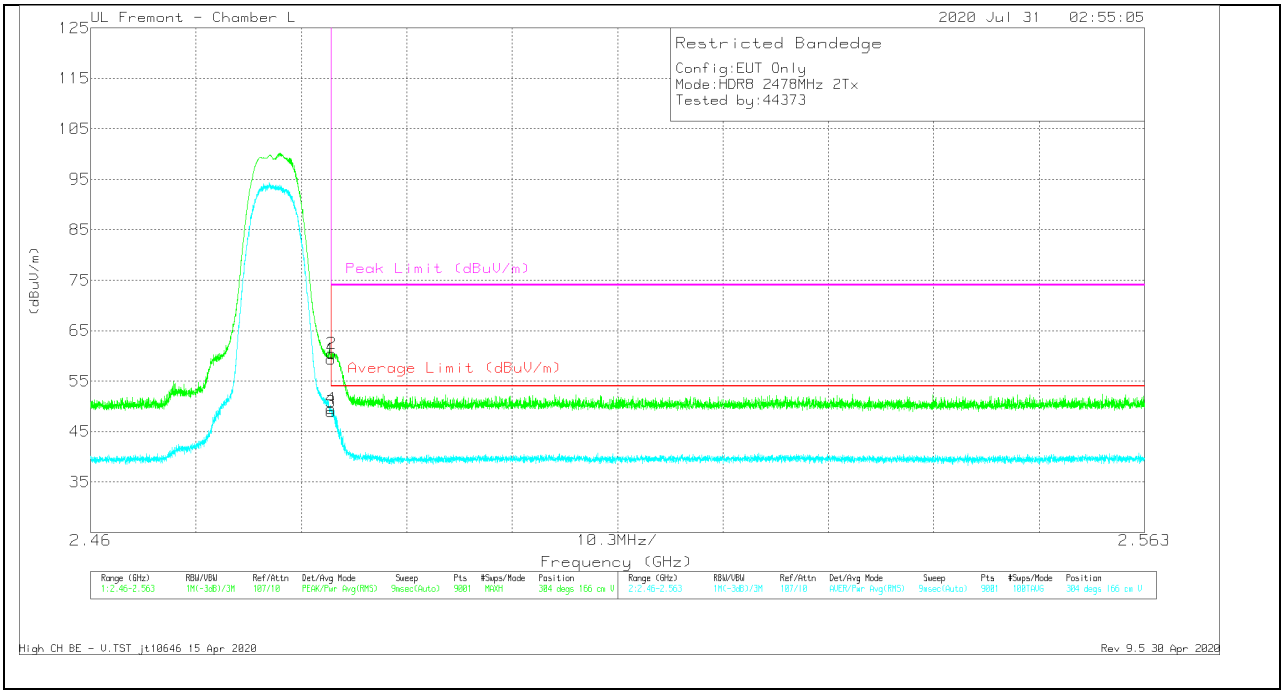
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	48.01	Pk	32.3	-20.9	59.41	-	-	74	-14.59	304	166	V
2	* 2.48355	49.09	Pk	32.3	-20.9	60.49	-	-	74	-13.51	304	166	V
3	* 2.48351	37.56	RMS	32.3	-20.9	48.96	54	-5.04	-	-	304	166	V
4	* 2.48352	38.1	RMS	32.3	-20.9	49.5	54	-4.5	-	-	304	166	V

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

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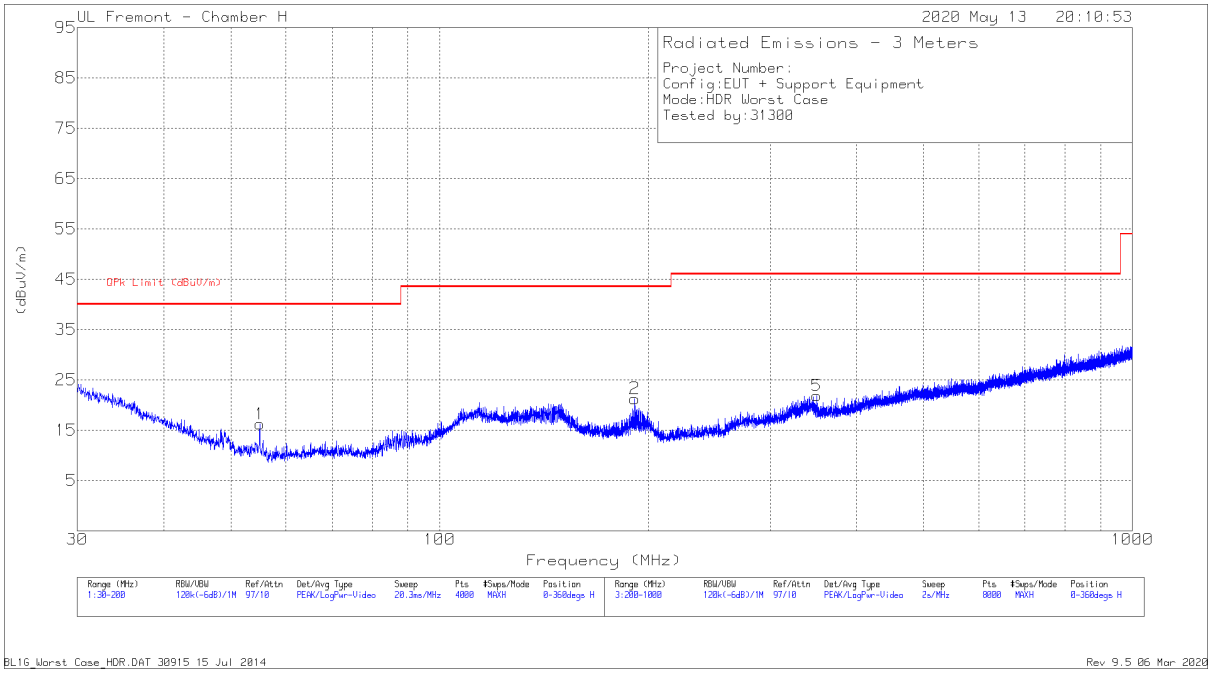
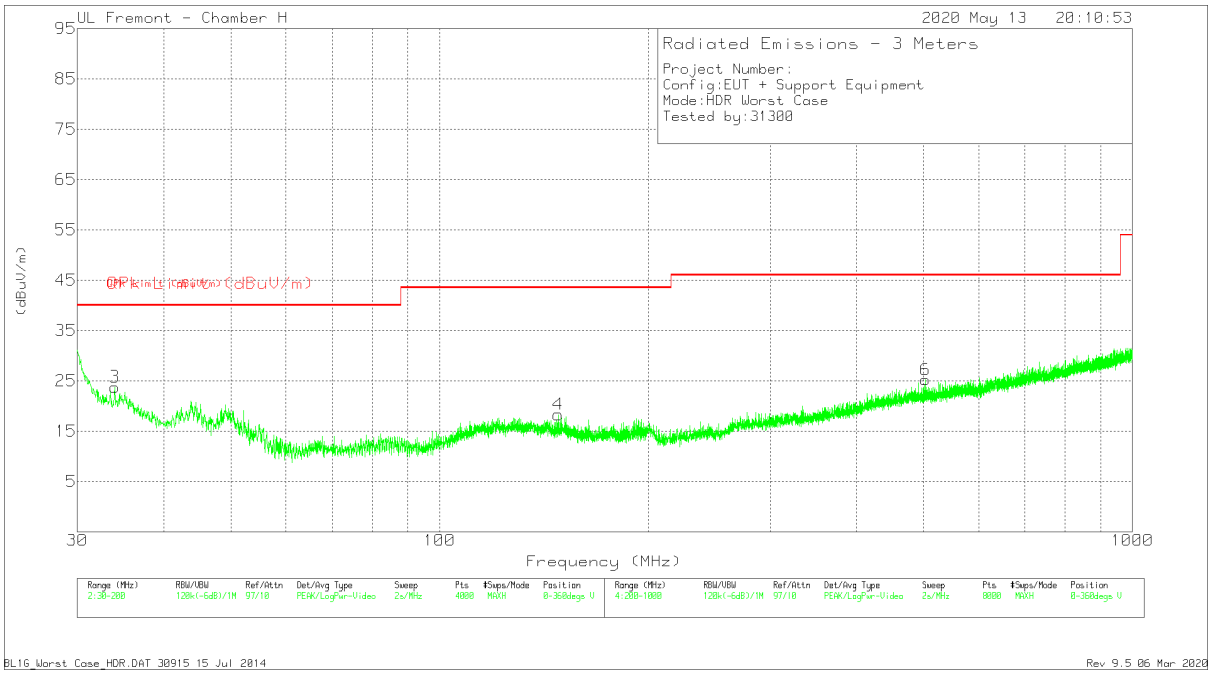
10.3. WORST CASE BELOW 1 GHz

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



HORIZONTAL



VERTICAL

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Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T900 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	33.996	30.57	Pk	24.4	-31.2	23.77	40	-16.23	0-360	100	V
1	55.039	34.32	Pk	12.8	-30.9	16.22	40	-23.78	0-360	200	H
4	148.3506	29.8	Pk	18.5	-30	18.3	43.52	-25.22	0-360	100	V
2	191.3718	33.95	Pk	17	-29.7	21.25	43.52	-22.27	0-360	99	H
5	350.5196	30.35	Pk	20.2	-28.7	21.85	46.02	-24.17	0-360	99	H
6	502.8394	29.62	Pk	23.6	-28	25.22	46.02	-20.8	0-360	300	V

Pk - Peak detector

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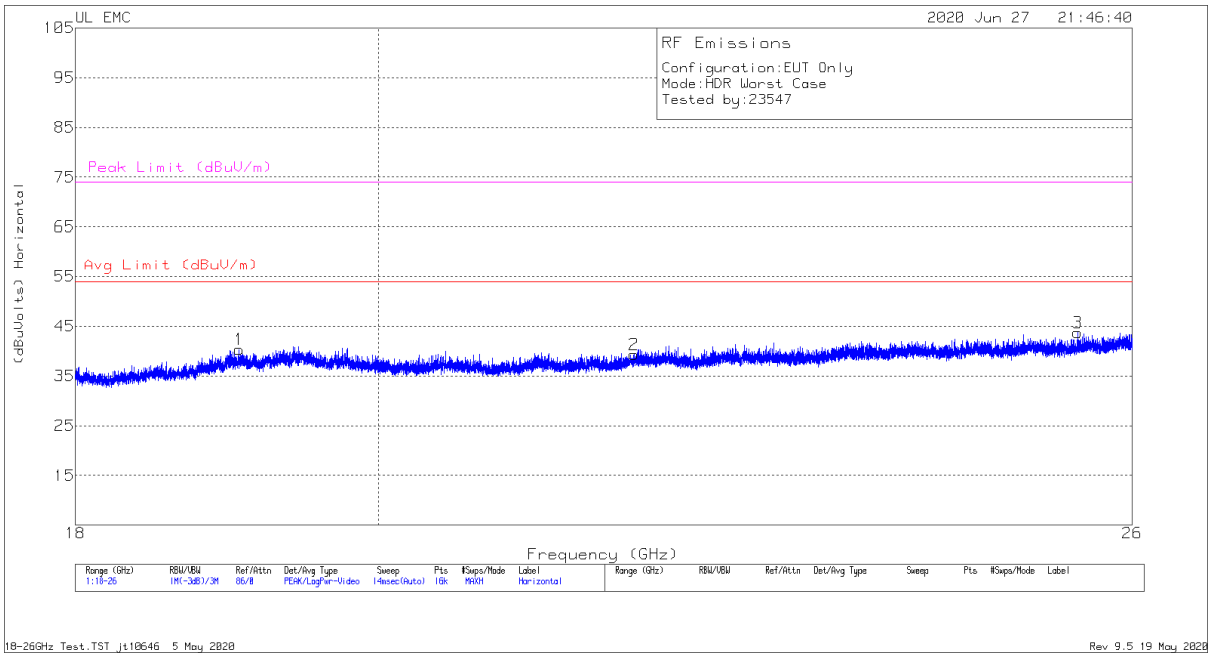
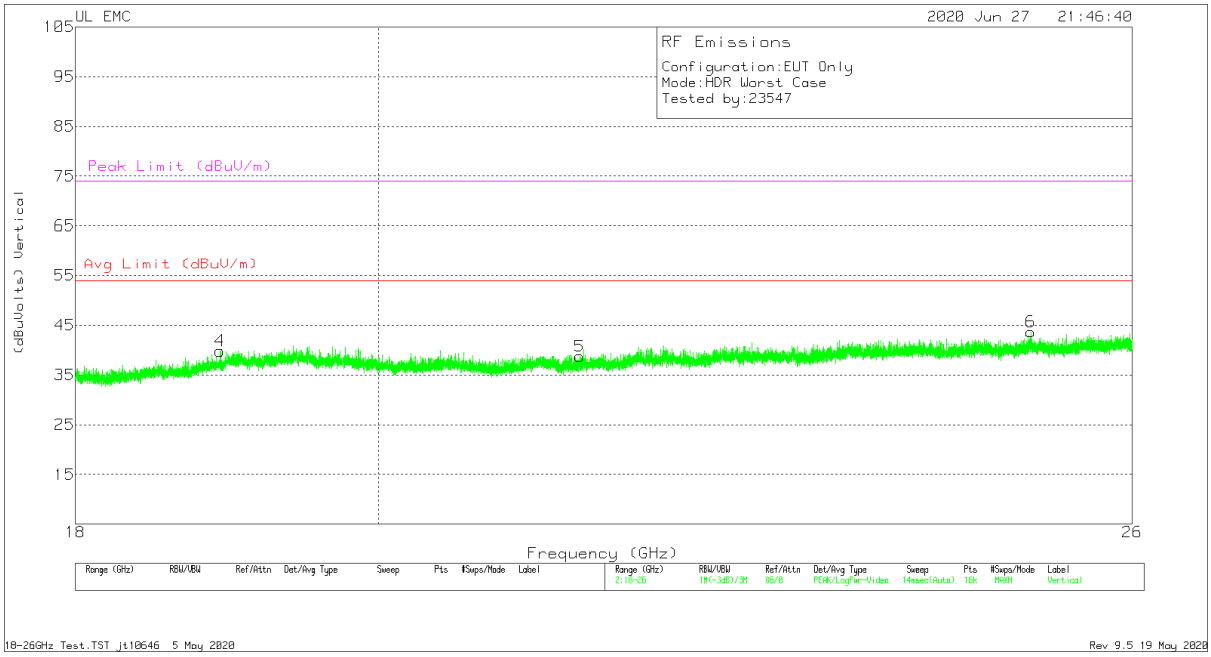
10.4. WORST CASE 18-26 GHz

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



HORIZONTAL



VERTICAL

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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	19.05443	36.8	Pk	32.7	-19.7	-9.5	40.3	54	-13.7	74	-33.7
2	21.86076	36.34	Pk	33.3	-20.8	-9.5	39.34	54	-14.66	74	-34.66
3	25.51053	38.73	Pk	34.1	-19.6	-9.5	43.73	54	-10.27	74	-30.27
4	18.92894	37.04	Pk	32.5	-20.2	-9.5	39.84	54	-14.16	74	-34.16
5	21.45129	36.24	Pk	33.2	-21.2	-9.5	38.74	54	-15.26	74	-35.26
6	25.09656	37.96	Pk	34.3	-19.1	-9.5	43.66	54	-10.34	74	-30.34

Pk - Peak detector

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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 (dBµV)	
	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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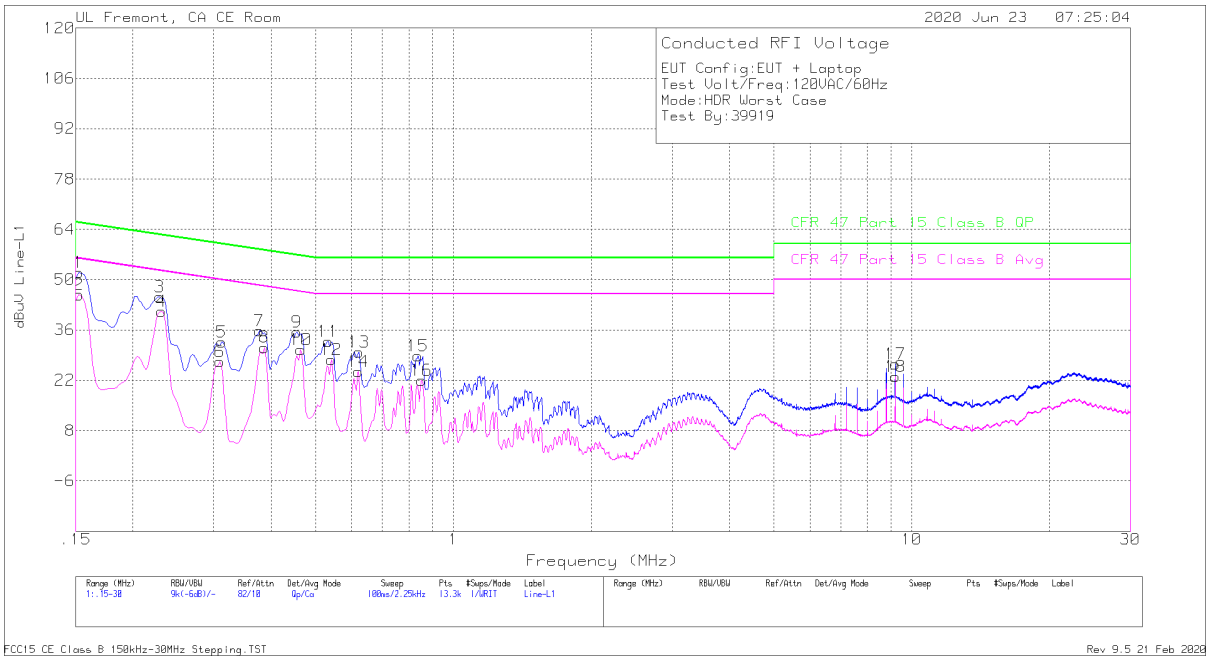
11.1. AC Power Line Host

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	.15225	41.86	Qp	.1	0	10	51.96	65.88	-13.92	-	-
2	.15225	35.71	Ca	.1	0	10	45.81	-	-	55.88	-10.07
3	.22875	35.25	Qp	0	0	10	45.25	62.49	-17.24	-	-
4	.231	31.15	Ca	0	0	10	41.15	-	-	52.41	-11.26
5	.312	22.66	Qp	0	0	10	32.66	59.92	-27.26	-	-
6	.30975	17.15	Ca	0	0	10	27.15	-	-	49.98	-22.83
7	.37725	25.81	Qp	0	0	10	35.81	58.34	-22.53	-	-
8	.38625	21.15	Ca	0	0	10	31.15	-	-	48.14	-16.99
9	.456	25.36	Qp	0	0	10	35.36	56.77	-21.41	-	-
10	.465	20.5	Ca	0	0	10	30.5	-	-	46.6	-16.1
11	.5325	22.85	Qp	0	0	10	32.85	56	-23.15	-	-
12	.5415	17.8	Ca	0	0	10	27.8	-	-	46	-18.2
13	.6225	19.85	Qp	0	0	10	29.85	56	-26.15	-	-
14	.62025	14.42	Ca	0	0	10	24.42	-	-	46	-21.58
15	.83625	18.78	Qp	0	0	10	28.78	56	-27.22	-	-
16	.852	12.02	Ca	0	0	10	22.02	-	-	46	-23.98
17	9.20175	16.25	Qp	0	.2	10.1	26.55	60	-33.45	-	-
18	9.20175	12.68	Ca	0	.2	10.1	22.98	-	-	50	-27.02

Qp - Quasi-Peak detector
Ca - CISPR average detection

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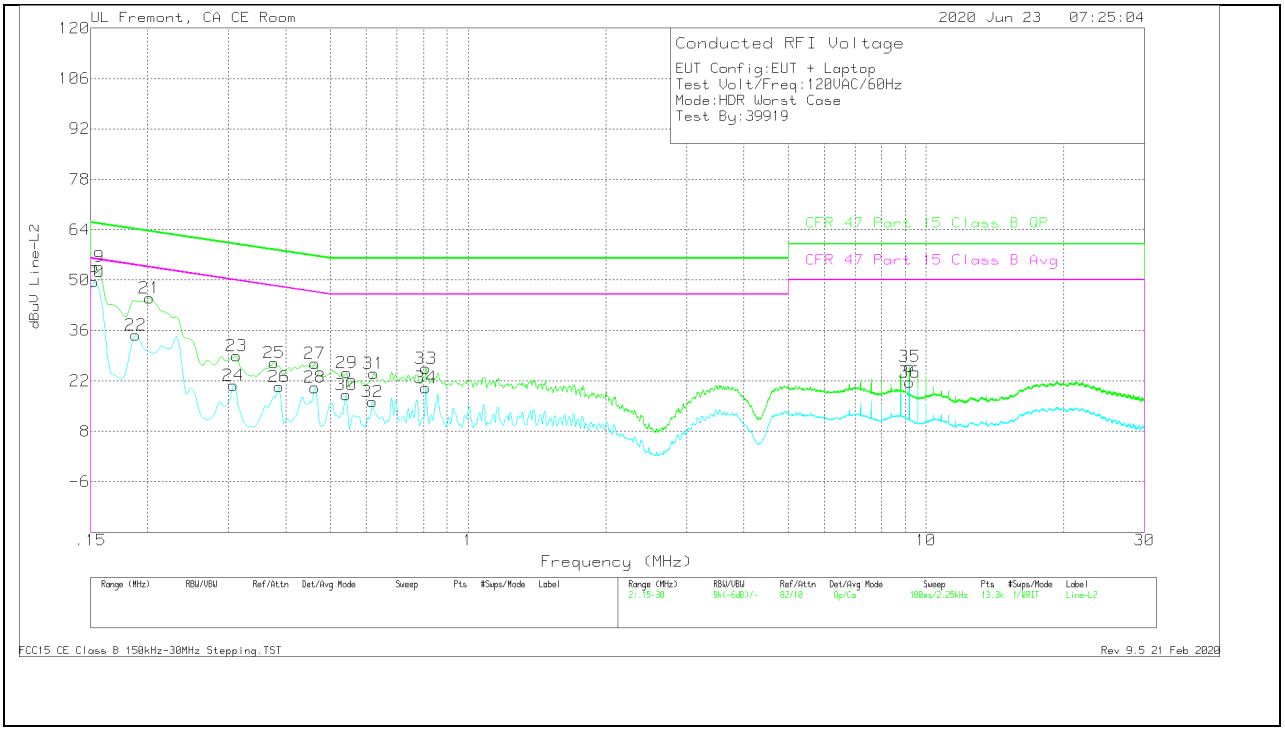
LINE 2 RESULTS



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)M argin (dB)
19	.15225	43.69	Qp	0	0	10	53.69	65.88	-12.19	-	-
20	.15225	39.53	Ca	0	0	10	49.53	-	-	55.88	-6.35
21	.20175	35.02	Qp	0	0	10	45.02	63.54	-18.52	-	-
22	.18825	24.7	Ca	0	0	10	34.7	-	-	54.11	-19.41
23	.312	18.93	Qp	0	0	10	28.93	59.92	-30.99	-	-
24	.3075	10.78	Ca	0	0	10	20.78	-	-	50.04	-29.26
25	.37725	17.11	Qp	0	0	10	27.11	58.34	-31.23	-	-
26	.38625	10.36	Ca	0	0	10	20.36	-	-	48.14	-27.78
27	.46275	16.92	Qp	0	0	10	26.92	56.64	-29.72	-	-
28	.46275	10.16	Ca	0	0	10	20.16	-	-	46.64	-26.48
29	.54375	14.23	Qp	0	0	10	24.23	56	-31.77	-	-
30	.5415	8.12	Ca	0	0	10	18.12	-	-	46	-27.88
31	.6225	14.09	Qp	0	0	10	24.09	56	-31.91	-	-
32	.618	6.3	Ca	0	0	10	16.3	-	-	46	-29.7
33	.80925	15.52	Qp	0	0	10	25.52	56	-30.48	-	-
34	.80925	10.15	Ca	0	0	10	20.15	-	-	46	-25.85
35	9.1995	15.76	Qp	0	.2	10.1	26.06	60	-33.94	-	-
36	9.1995	11.4	Ca	0	.2	10.1	21.7	-	-	50	-28.3

Qp - Quasi-Peak detector
Ca - CISPR average detection

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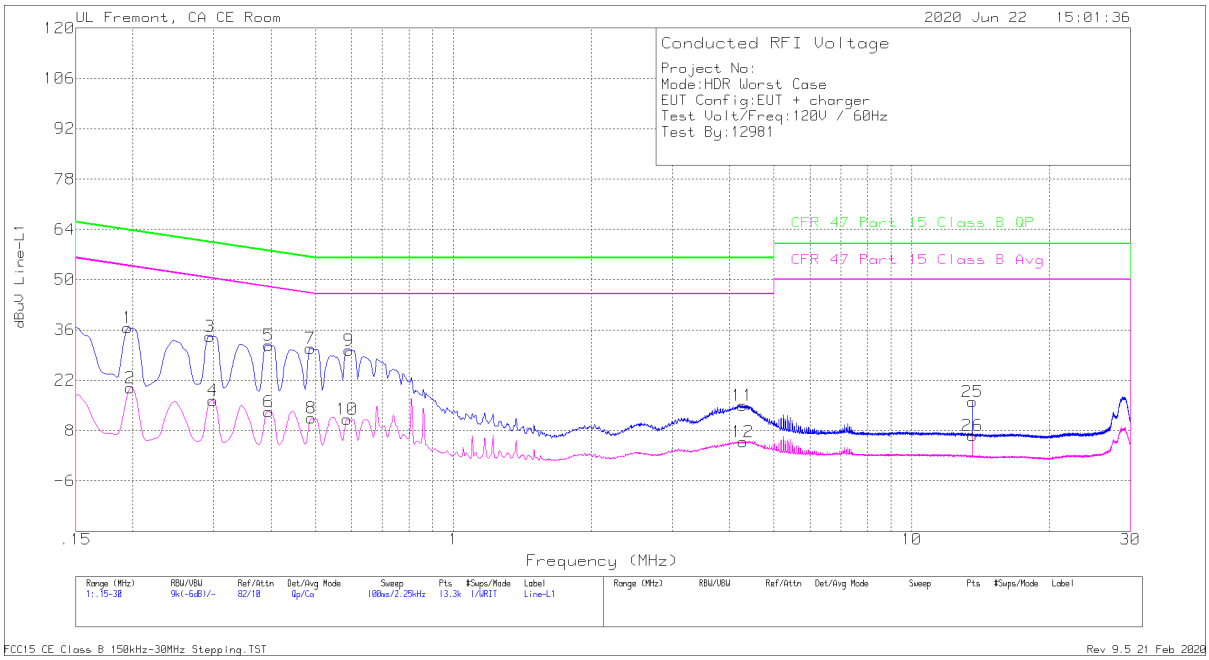
11.2. AC Power Line Norm

LINE 1 RESULTS



Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE0186446 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	26.62	Qp	0	0	10	36.62	63.82	-27.2	-	-
2	.19725	9.97	Ca	0	0	10	19.97	-	-	53.73	-33.76
3	.294	24.24	Qp	0	0	10	34.24	60.41	-26.17	-	-
4	.2985	6.47	Ca	0	0	10	16.47	-	-	50.28	-33.81
5	.39525	21.71	Qp	0	0	10	31.71	57.95	-26.24	-	-
6	.39525	3.21	Ca	0	0	10	13.21	-	-	47.95	-34.74
7	.4875	20.92	Qp	0	0	10	30.92	56.21	-25.29	-	-
8	.48975	1.51	Ca	0	0	10	11.51	-	-	46.17	-34.66
9	.591	20.32	Qp	0	0	10	30.32	56	-25.68	-	-
10	.5865	1.21	Ca	0	0	10	11.21	-	-	46	-34.79
11	4.2765	4.77	Qp	0	.1	10.1	14.97	56	-41.03	-	-
12	4.27988	-5.34	Ca	0	.1	10.1	4.86	-	-	46	-41.14
*25	13.56	5.73	Qp	.1	.2	10.1	16.13	60	-43.87	-	-
*26	13.56	-3.75	Ca	.1	.2	10.1	6.65	-	-	50	-43.35

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

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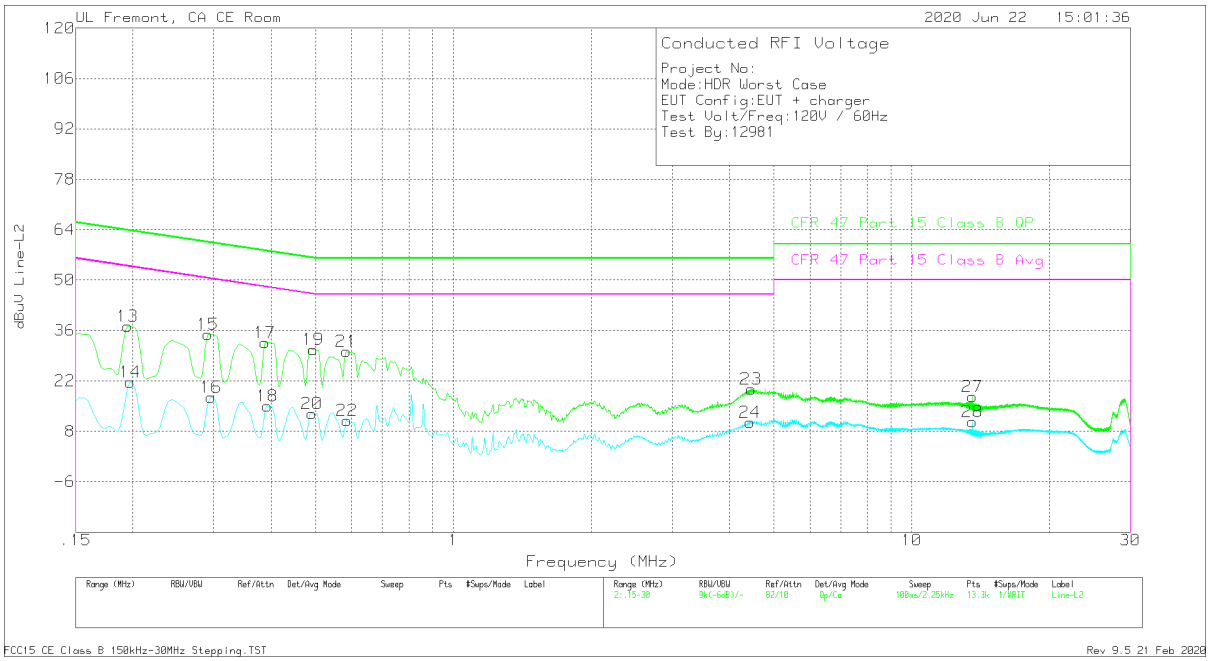
LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE0186446 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)
13	.195	27.19	Qp	0	0	10	37.19	63.82	-26.63	-	-
14	.19725	11.56	Ca	0	0	10	21.56	-	-	53.73	-32.17
15	.29175	24.86	Qp	0	0	10	34.86	60.47	-25.61	-	-
16	.29625	7.41	Ca	0	0	10	17.41	-	-	50.35	-32.94
17	.3885	22.7	Qp	0	0	10	32.7	58.1	-25.4	-	-
18	.393	5.06	Ca	0	0	10	15.06	-	-	48	-32.94
19	.49425	20.78	Qp	0	0	10	30.78	56.1	-25.32	-	-
20	.492	2.99	Ca	0	0	10	12.99	-	-	46.13	-33.14
21	.58425	20.12	Qp	0	0	10	30.12	56	-25.88	-	-
22	.5865	.97	Ca	0	0	10	10.97	-	-	46	-35.03
23	4.45875	9.52	Qp	0	.1	10.1	19.72	56	-36.28	-	-
24	4.443	.34	Ca	0	.1	10.1	10.54	-	-	46	-35.46
*27	13.56	7.21	Qp	.1	.2	10.1	17.61	60	-42.39	-	-
*28	13.56	.22	Ca	.1	.2	10.1	10.62	-	-	50	-39.38

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

Please refer to 13179116-EP1V1 for setup photos

END OF TEST REPORT

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