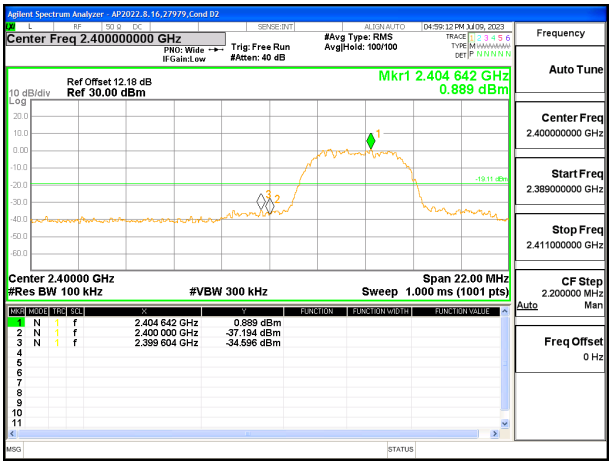
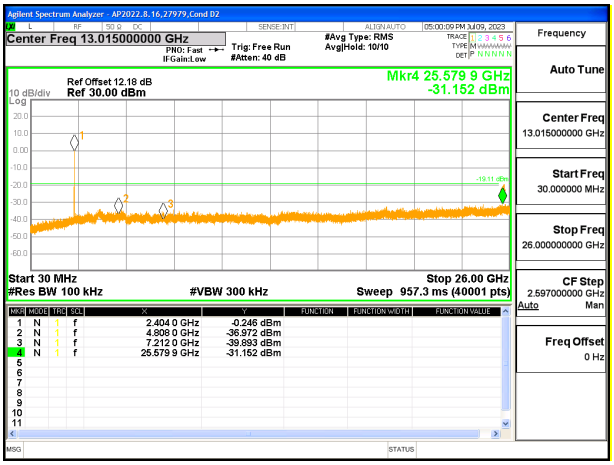
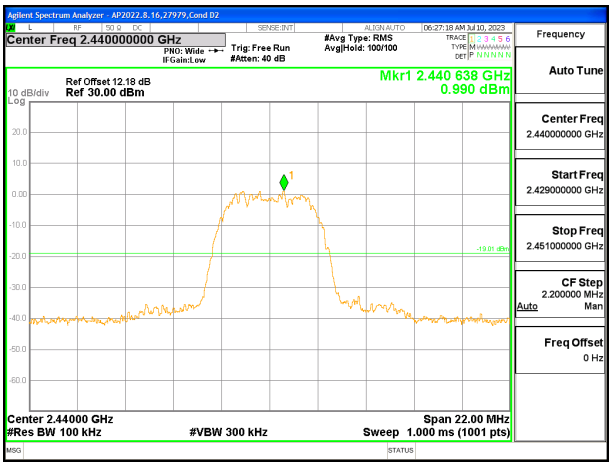
ANT 3



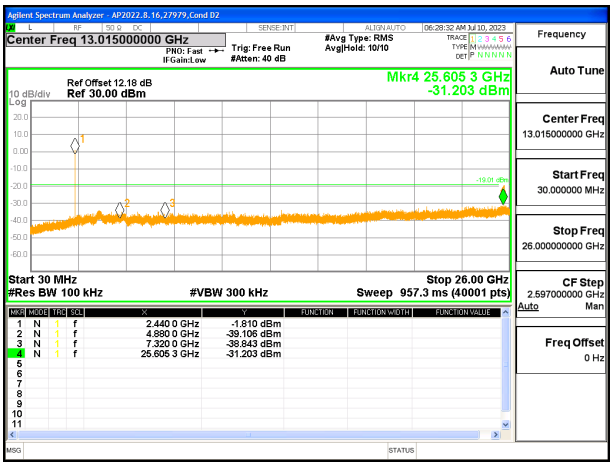
LOW CHANNEL BANDEDGE



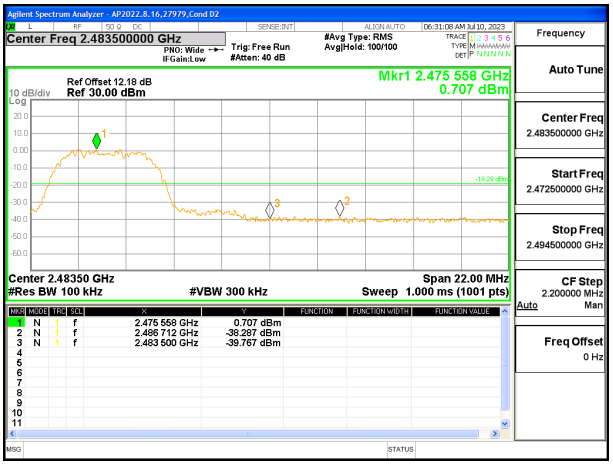
OUT-OF-BAND LOW CHANNEL



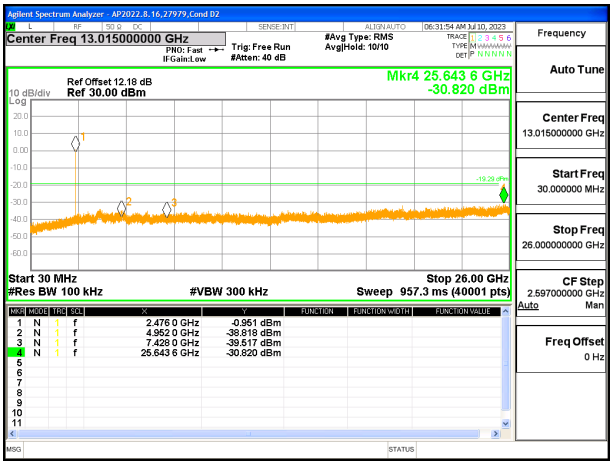
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL BANDEDGE



OUT-OF-BAND HIGH CHANNEL

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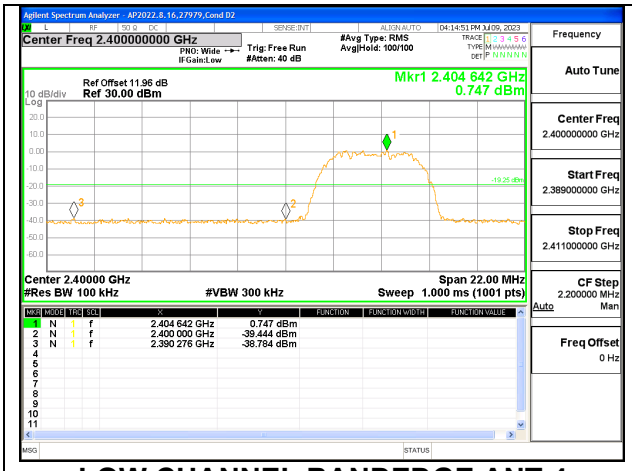
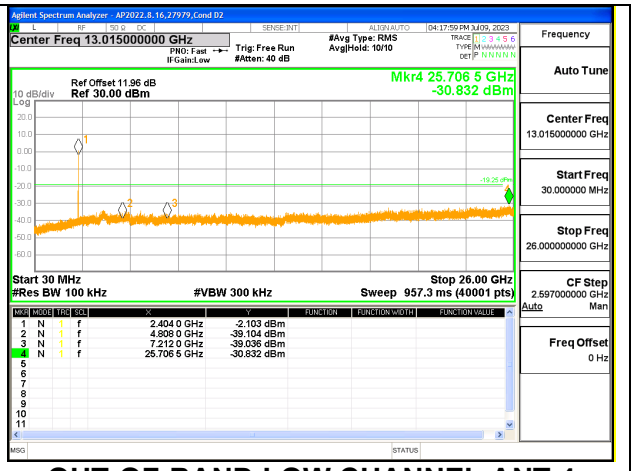
9.7.8. LOW POWER HDR TXBF (HDR8)

ANT 4



LOW CHANNEL BANDEDGE ANT 4



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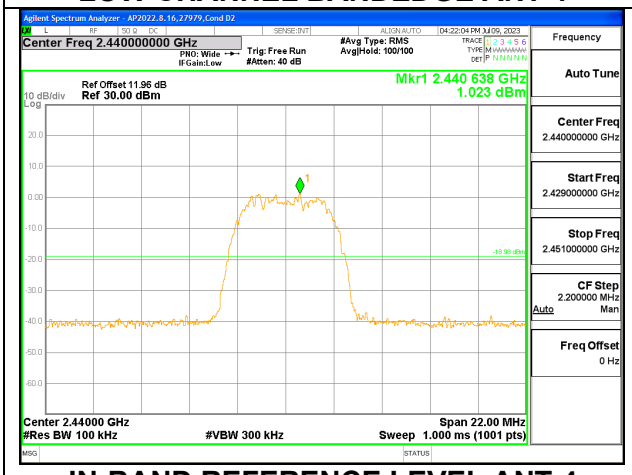
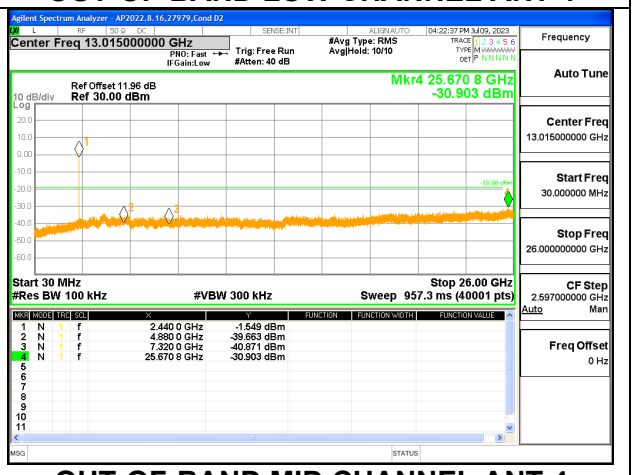
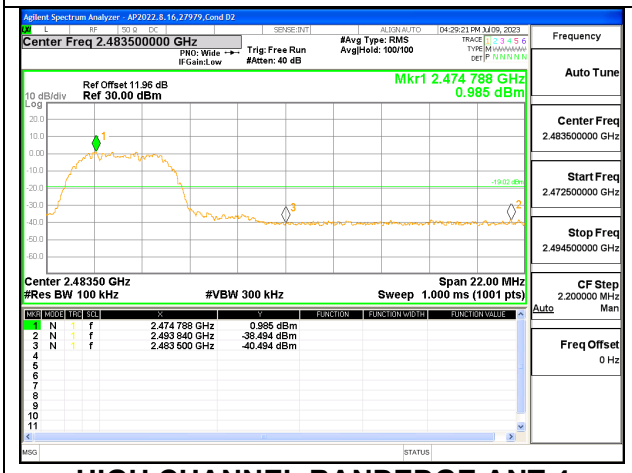


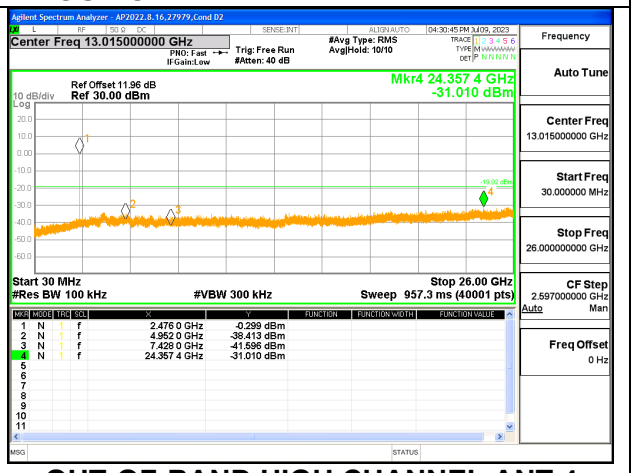
IN-BAND REFERENCE LEVEL ANT 4



OUT-OF-BAND MID CHANNEL ANT 4



HIGH CHANNEL BANDEDGE ANT 4



OUT-OF-BAND HIGH CHANNEL ANT 4

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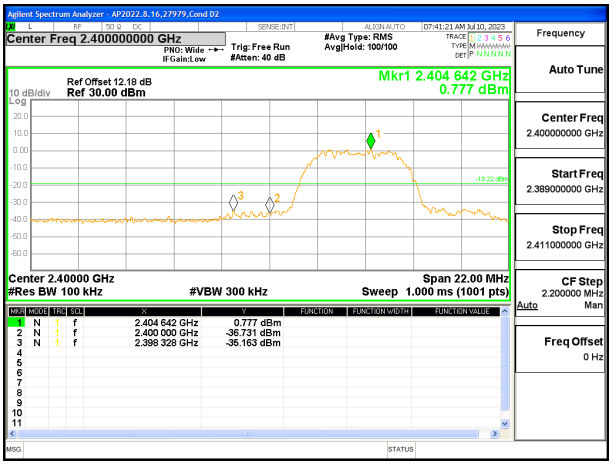
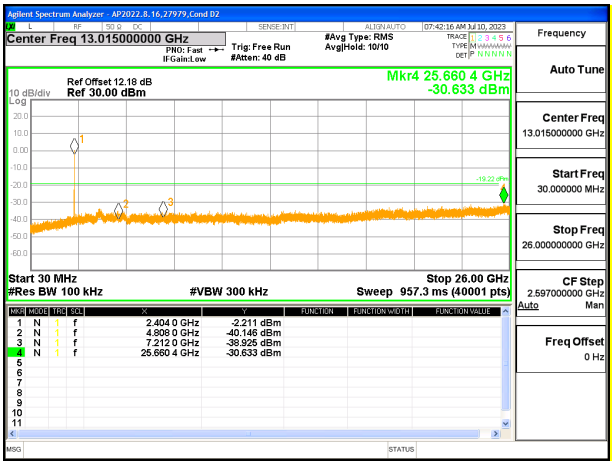
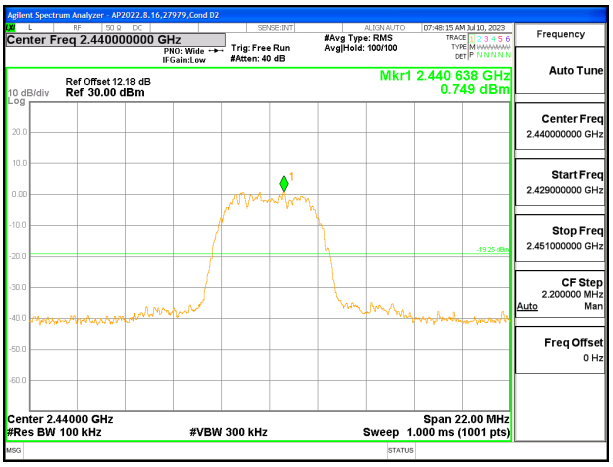
ANT 3



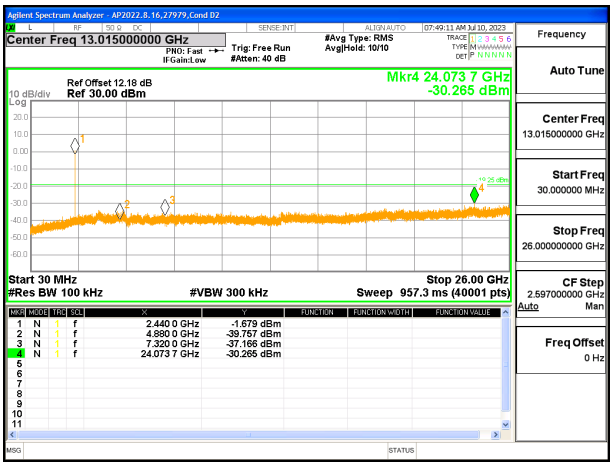
LOW CHANNEL BANDEDGE ANT 3



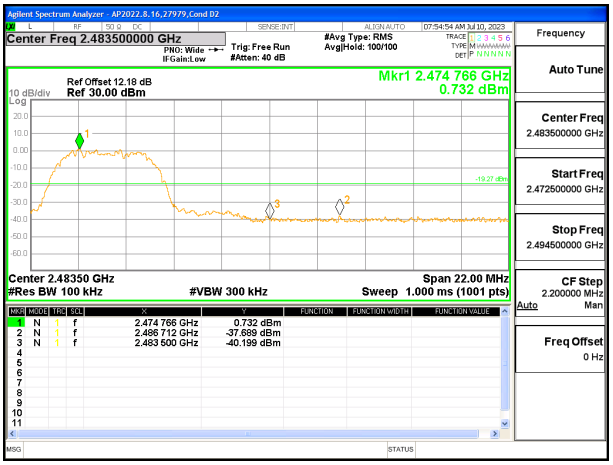
OUT-OF-BAND LOW CHANNEL ANT 3



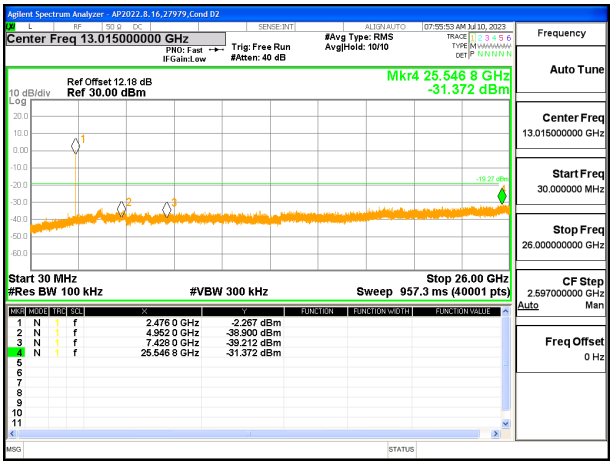
IN-BAND REFERENCE LEVEL ANT 3



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 scans above 1 GHz test, two methods are used: the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T (10 Hz) video bandwidth with peak detector for average measurements; and other method with 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.

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Note: The limits in CFR 47, Part 15, Subpart C, paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as report in the table) using free space impedance of 377 Ohms. For example, the measurement at frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.
In addition:

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

Based 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.

RESULTS:

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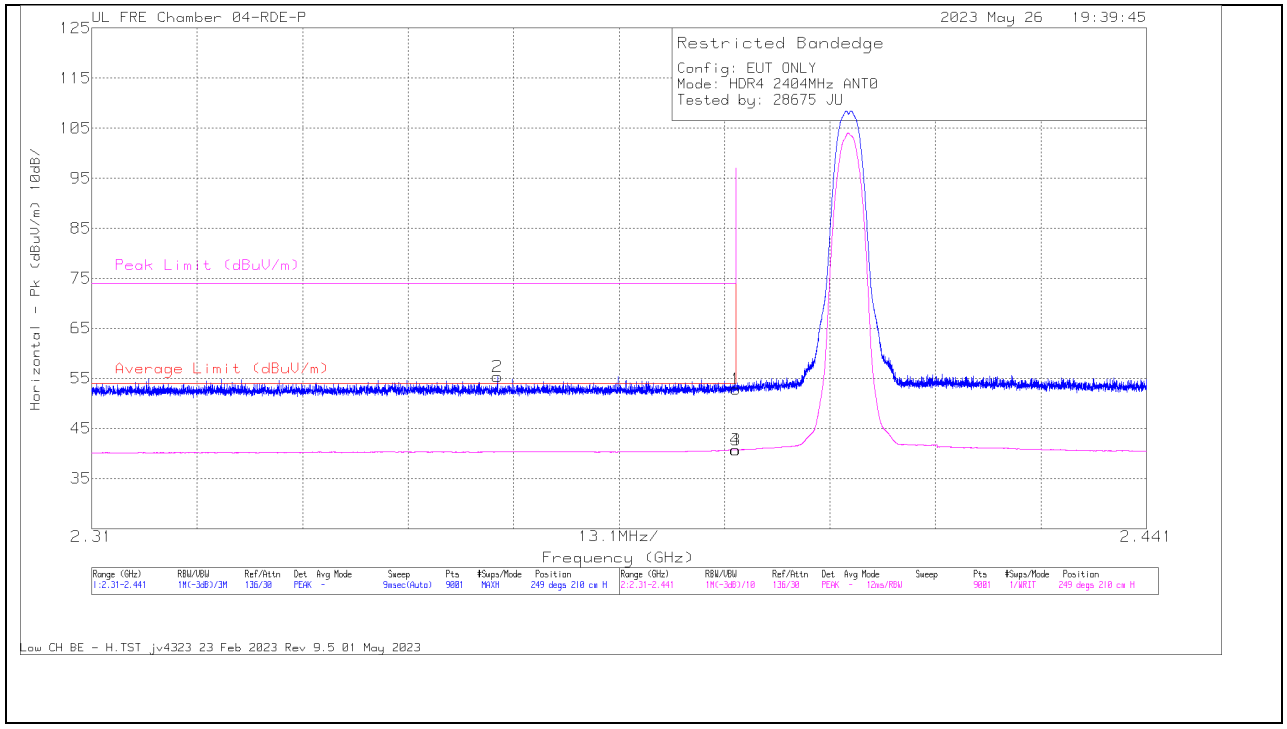
10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. HIGH POWER HDR (HDR4)

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.360393	63.69	Pk	31.5	-39.81	55.38	-	-	74	-18.62	249	210	H
4	2.389956	48.82	VA1T	31.7	-39.79	40.73	54	-13.27	-	-	249	210	H
1	2.39	60.89	Pk	31.7	-39.79	52.8	-	-	74	-21.2	249	210	H
3	2.39	48.8	VA1T	31.7	-39.79	40.71	54	-13.29	-	-	249	210	H

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

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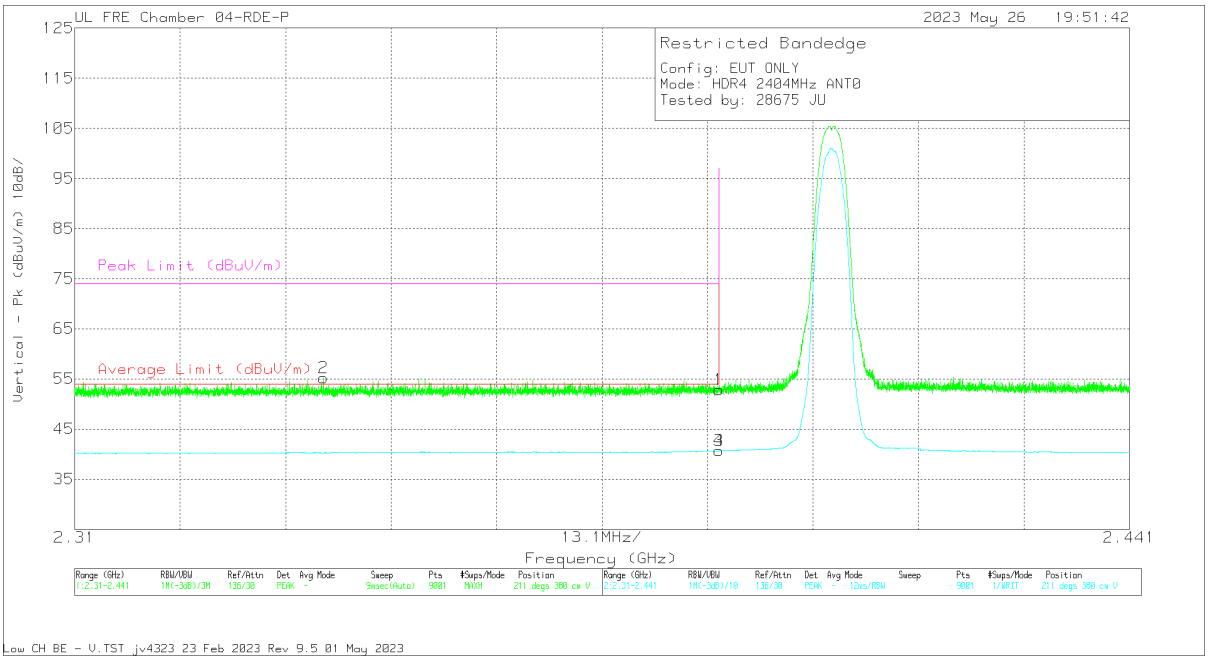
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.340873	63.6	Pk	31.4	-39.83	55.17	-	-	74	-18.83	211	380	V
1	2.39	60.96	Pk	31.7	-39.79	52.87	-	-	74	-21.13	211	380	V
3	2.39	48.75	VA1T	31.7	-39.79	40.66	54	-13.34	-	-	211	380	V
4	2.39	48.75	VA1T	31.7	-39.79	40.66	54	-13.34	-	-	211	380	V

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

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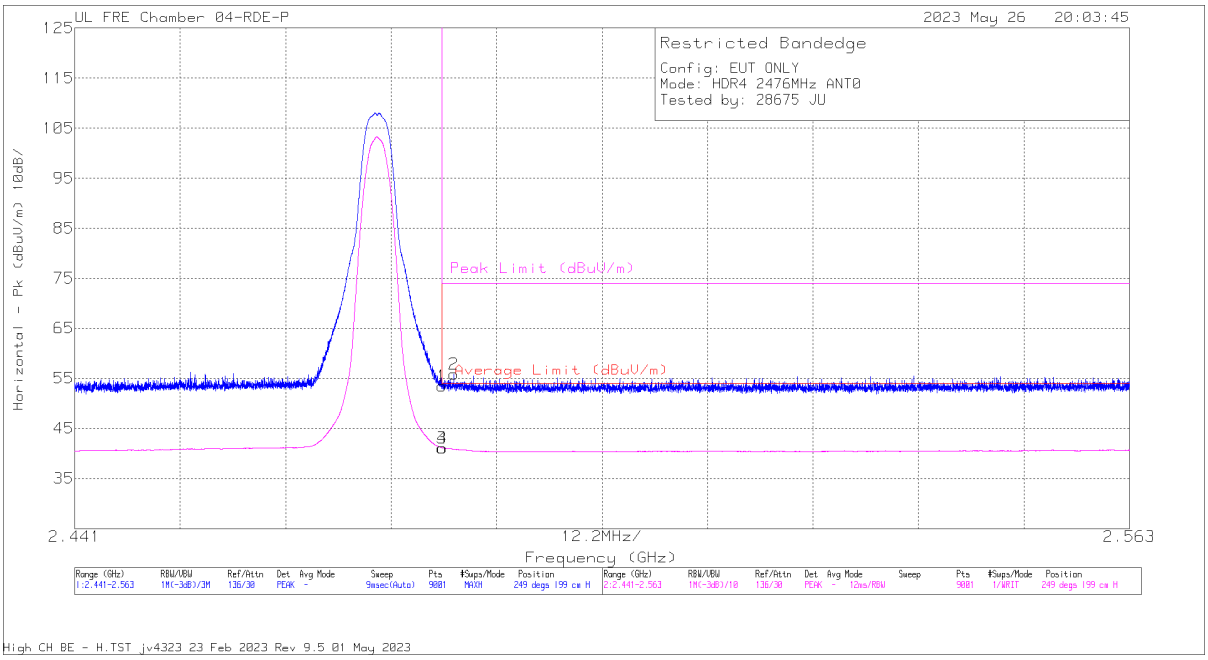
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (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	61.16	Pk	32.1	-39.76	53.5	-	-	74	-20.5	249	199	H
3	2.4835	48.78	VA1T	32.1	-39.76	41.12	54	-12.88	-	-	249	199	H
4	2.483512	48.78	VA1T	32.1	-39.75	41.13	54	-12.87	-	-	249	199	H
2	2.484867	63.45	Pk	32.1	-39.75	55.8	-	-	74	-18.2	249	199	H

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

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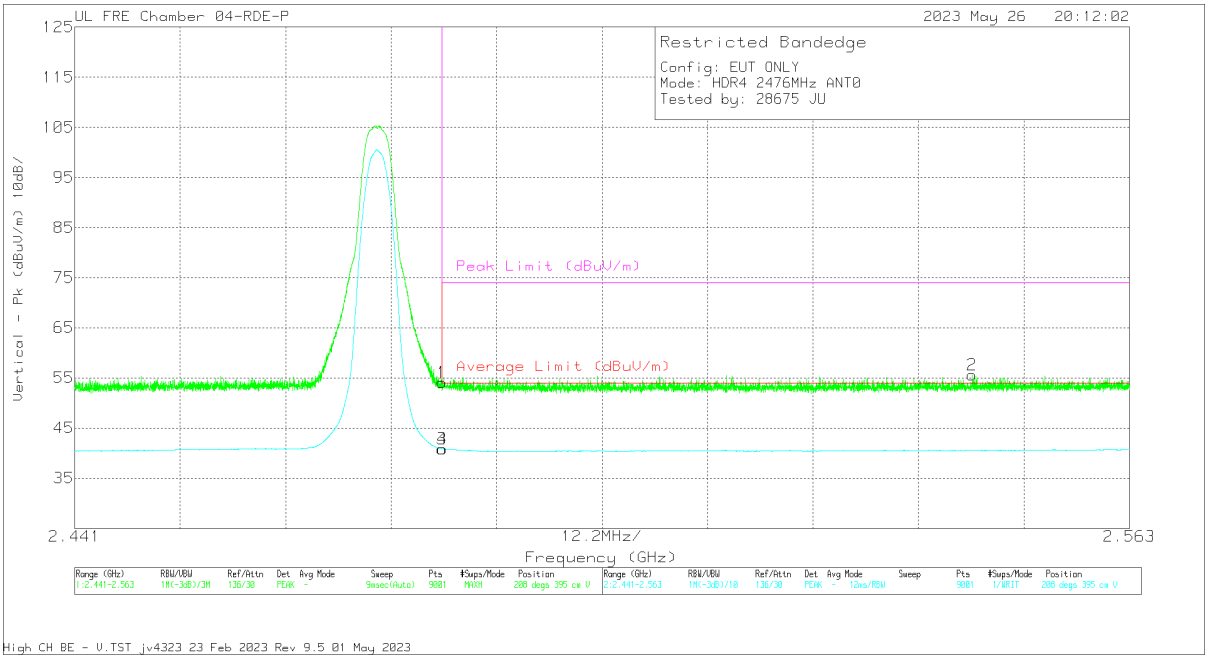
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (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	61.72	Pk	32.1	-39.76	54.06	-	-	74	-19.94	208	395	V
3	2.4835	48.53	VA1T	32.1	-39.76	40.87	54	-13.13	-	-	208	395	V
4	2.483512	48.53	VA1T	32.1	-39.75	40.88	54	-13.12	-	-	208	395	V
2	2.544825	63.09	Pk	32.2	-39.64	55.65	-	-	74	-18.35	208	395	V

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

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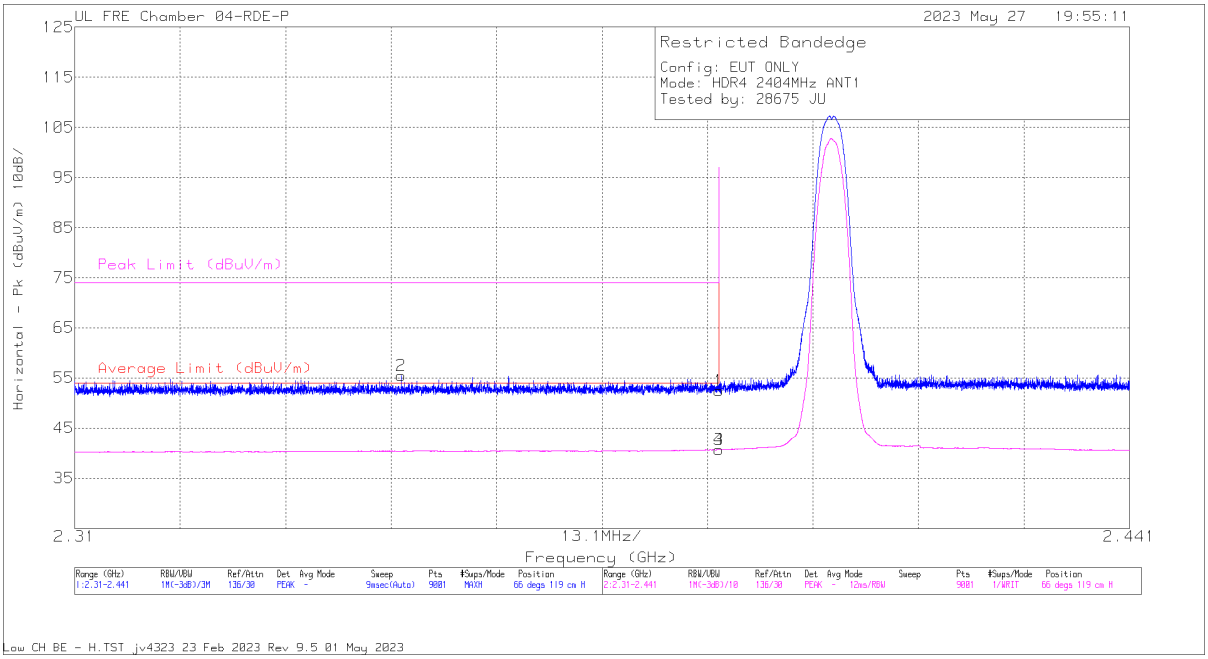
ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.350553	63.84	Pk	31.5	-39.81	55.53	-	-	74	-18.47	66	119	H
1	2.39	60.51	Pk	31.7	-39.79	52.42	-	-	74	-21.58	66	119	H
3	2.39	48.79	VA1T	31.7	-39.79	40.7	54	-13.3	-	-	66	119	H
4	2.39	48.79	VA1T	31.7	-39.79	40.7	54	-13.3	-	-	66	119	H

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

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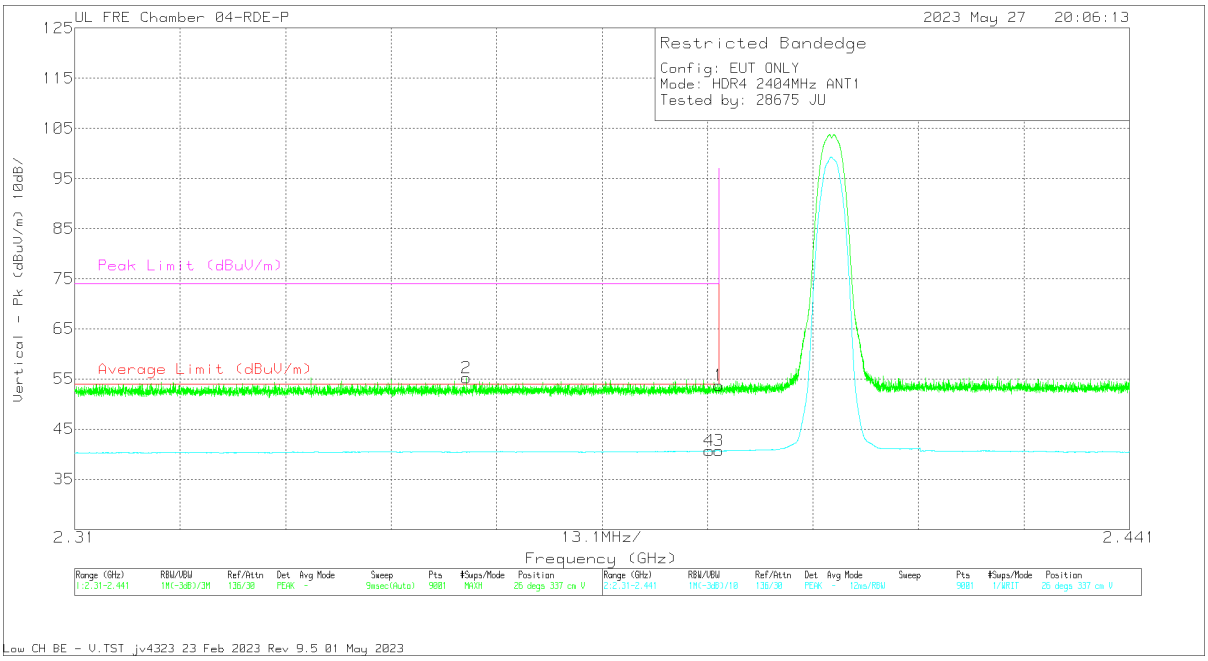
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.358646	63.58	Pk	31.5	-39.81	55.27	-	-	74	-18.73	26	337	V
4	2.388806	48.78	VA1T	31.7	-39.77	40.71	54	-13.29	-	-	26	337	V
1	2.39	61.83	Pk	31.7	-39.79	53.74	-	-	74	-20.26	26	337	V
3	2.39	48.76	VA1T	31.7	-39.79	40.67	54	-13.33	-	-	26	337	V

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

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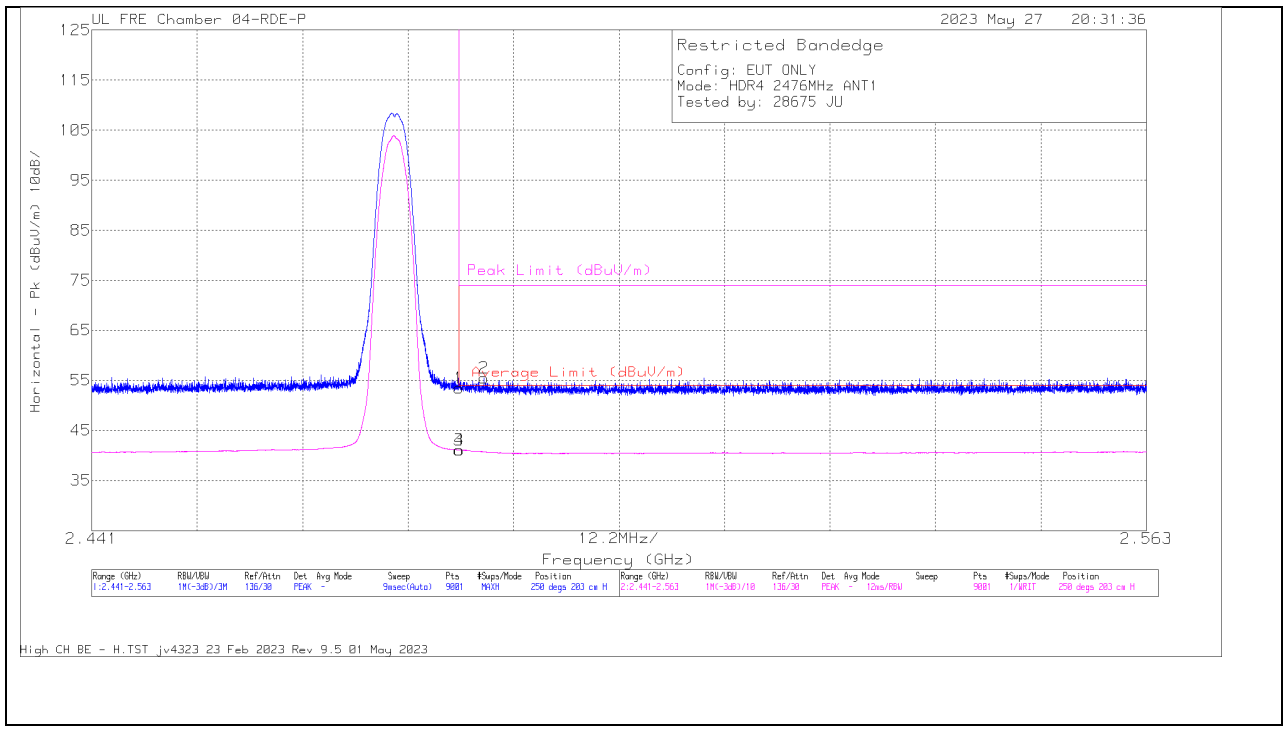
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (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	61.12	Pk	32.1	-39.76	53.46	-	-	74	-20.54	250	203	H
3	2.4835	48.76	VA1T	32.1	-39.76	41.1	54	-12.9	-	-	250	203	H
4	2.483512	48.76	VA1T	32.1	-39.75	41.11	54	-12.89	-	-	250	203	H
2	2.486385	63.17	Pk	32.1	-39.77	55.5	-	-	74	-18.5	250	203	H

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

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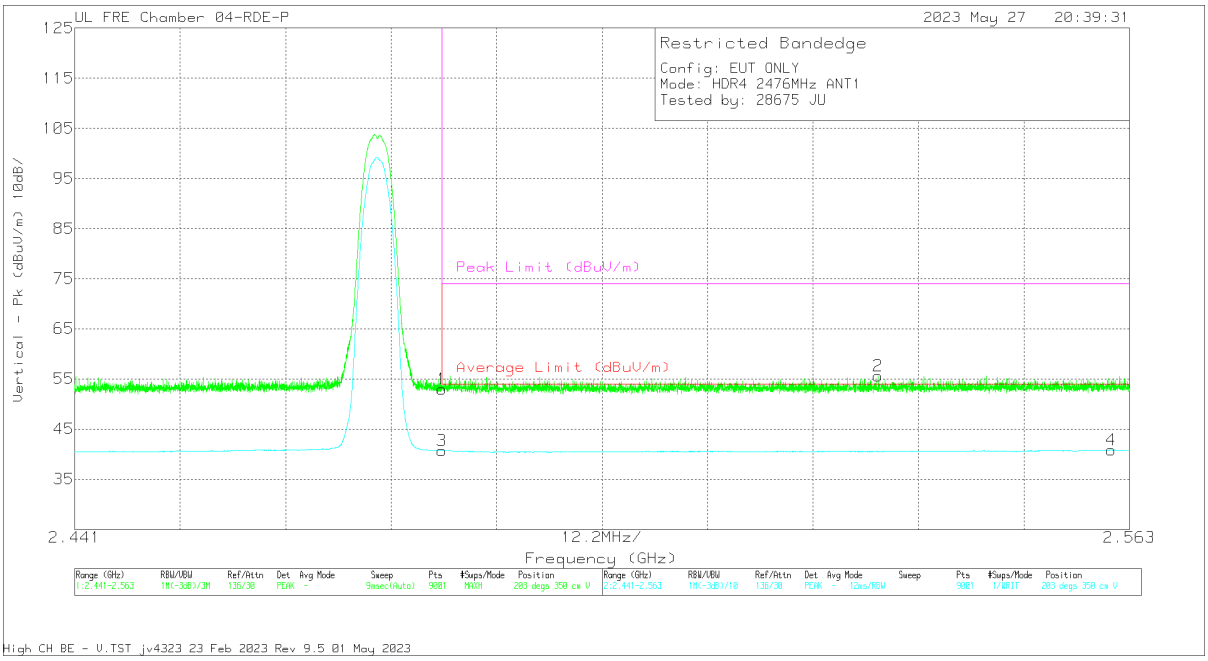
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (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	60.66	Pk	32.1	-39.76	53	-	-	74	-21	203	350	V
3	2.4835	48.34	VA1T	32.1	-39.76	40.68	54	-13.32	-	-	203	350	V
2	2.533926	63.26	Pk	32.1	-39.72	55.64	-	-	74	-18.36	203	350	V
4	2.560876	48.2	VA1T	32.2	-39.55	40.85	54	-13.15	-	-	203	350	V

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

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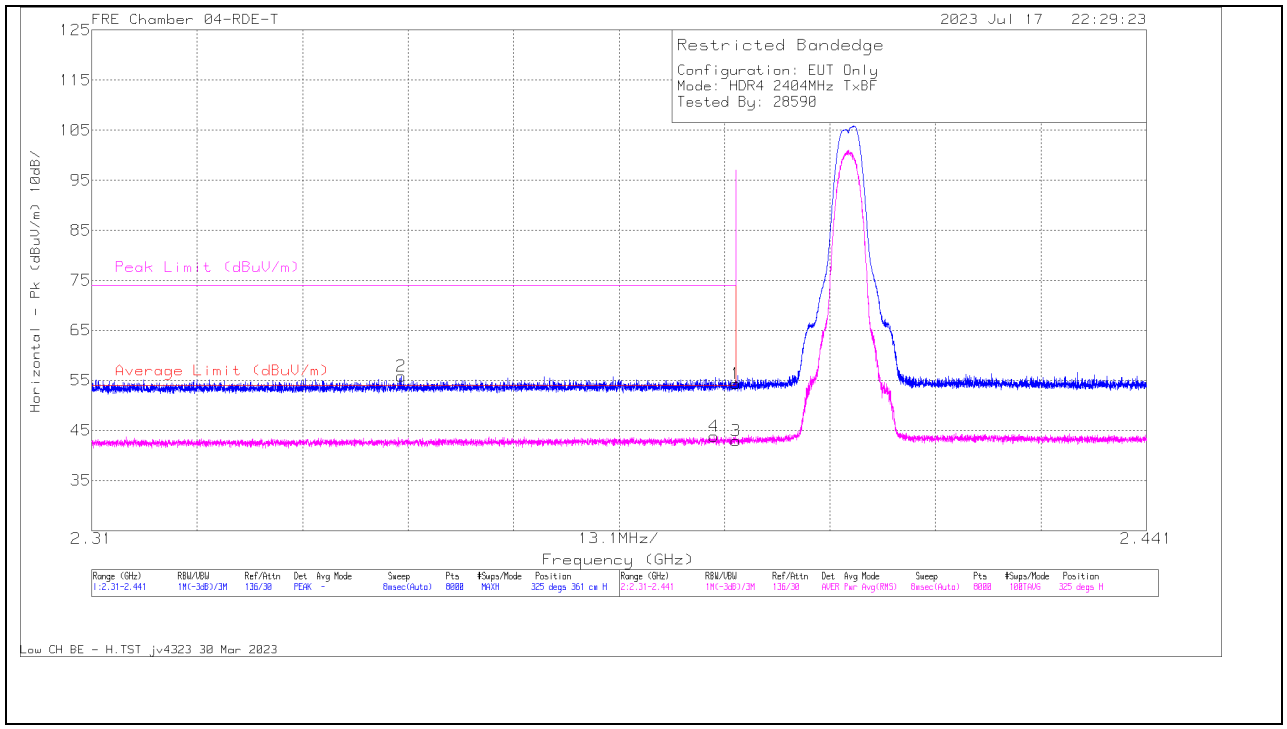
10.2.2. HIGH POWER HDR TXBF (HDR4)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	60.18	Pk	32.1	-37.89	54.39	-	-	74	-19.61	325	361	H
2	* 2.34842	61.88	Pk	31.9	-37.88	55.9	-	-	74	-18.1	325	361	H
3	* 2.39	48.75	RMS	32.1	-37.89	42.96	54	-11.04	-	-	325	361	H
4	* 2.387283	49.58	RMS	32.1	-37.86	43.82	54	-10.18	-	-	325	361	H

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

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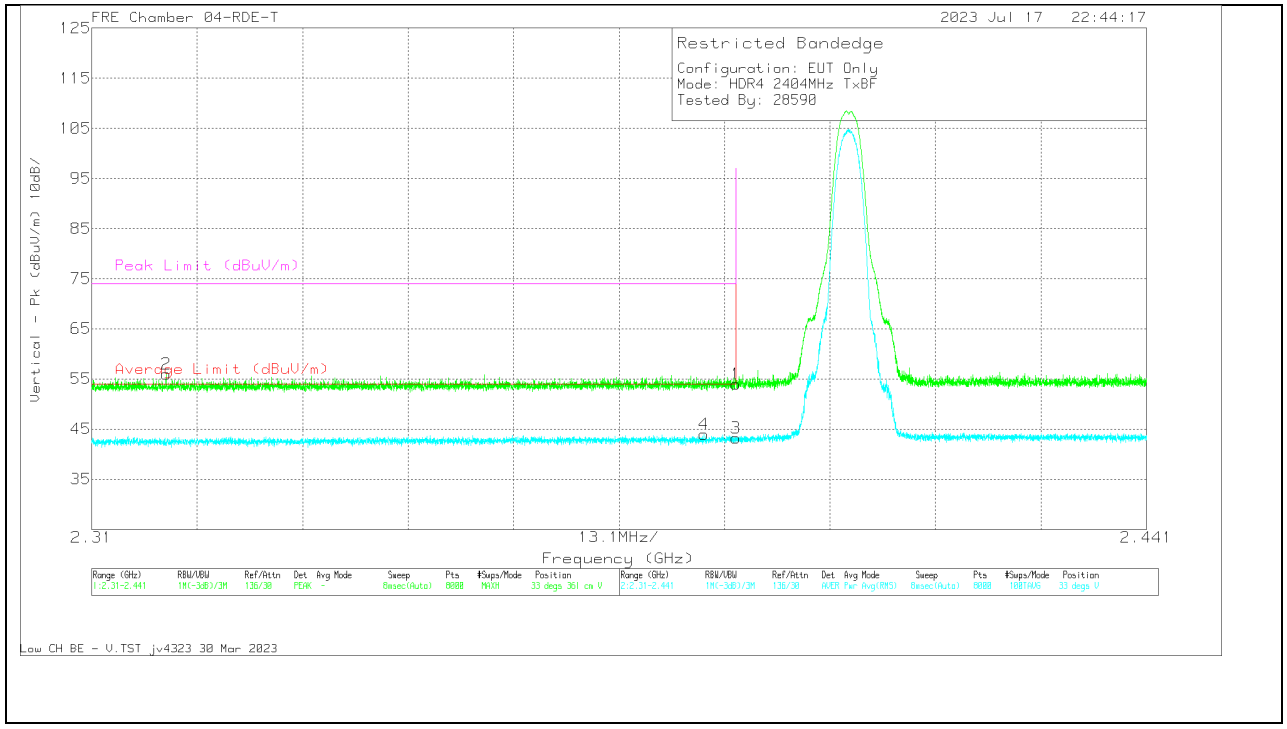
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.81	Pk	32.1	-37.89	54.02	-	-	74	-19.98	33	361	V
2	* 2.31922	62.06	Pk	31.8	-37.92	55.94	-	-	74	-18.06	33	361	V
3	* 2.39	48.96	RMS	32.1	-37.89	43.17	54	-10.83	-	-	33	361	V
4	* 2.386022	49.68	RMS	32.1	-37.86	43.92	54	-10.08	-	-	33	361	V

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

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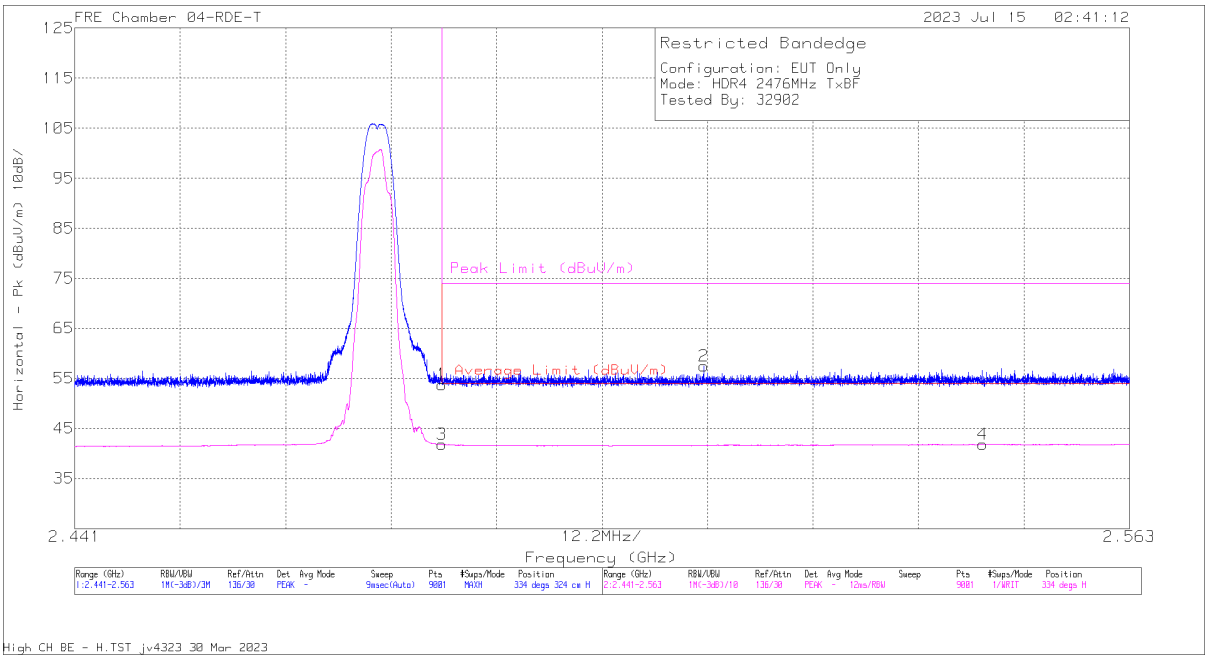
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.39	Pk	32.2	-37.81	53.78	-	-	74	-20.22	334	324	H
3	* 2.4835	47.42	VA1T	32.2	-37.81	41.81	54	-12.19	-	-	334	324	H
2	2.513782	62.96	Pk	32.3	-37.79	57.47	-	-	74	-16.53	334	324	H
4	2.546032	47.28	VA1T	32.3	-37.73	41.85	54	-12.15	-	-	334	324	H

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

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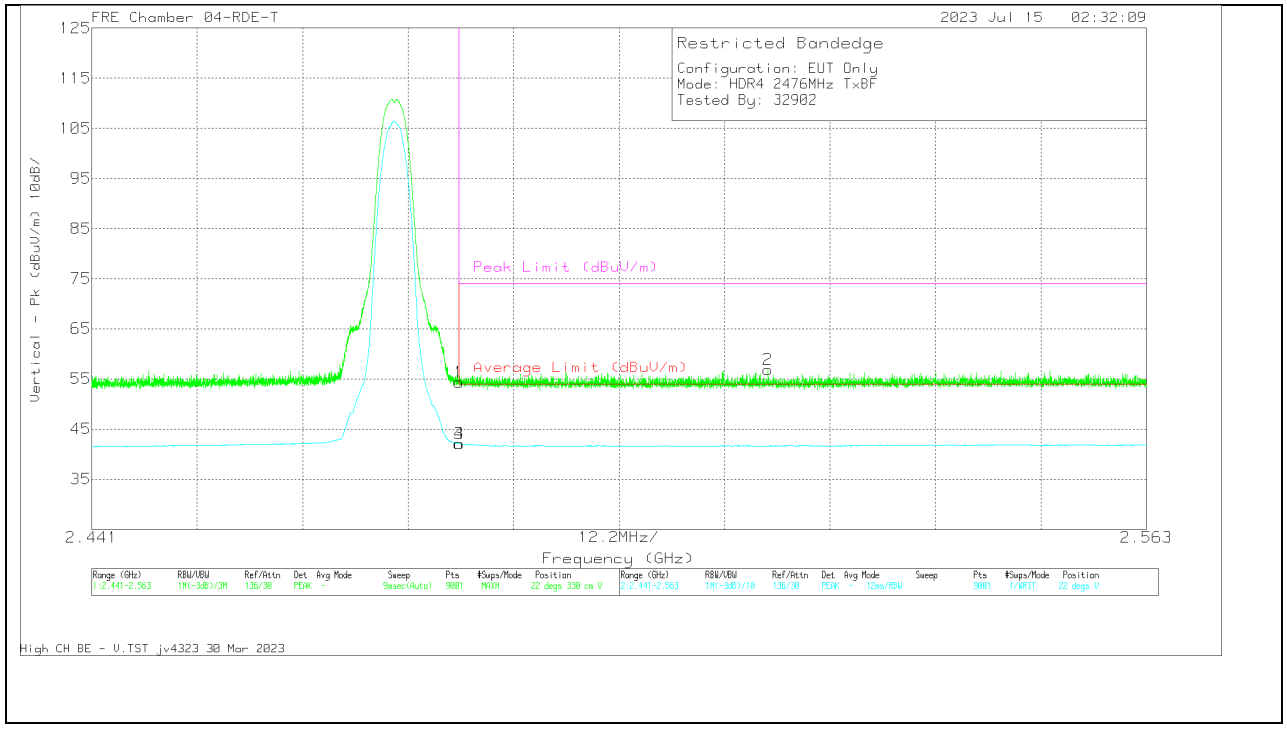
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.9	Pk	32.2	-37.81	54.29	-	-	74	-19.71	22	330	V
3	* 2.4835	47.74	VA1T	32.2	-37.81	42.13	54	-11.87	-	-	22	330	V
4	* 2.483512	47.73	VA1T	32.2	-37.81	42.12	54	-11.88	-	-	22	330	V
2	2.519245	62.36	Pk	32.3	-37.81	56.85	-	-	74	-17.15	22	330	V

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

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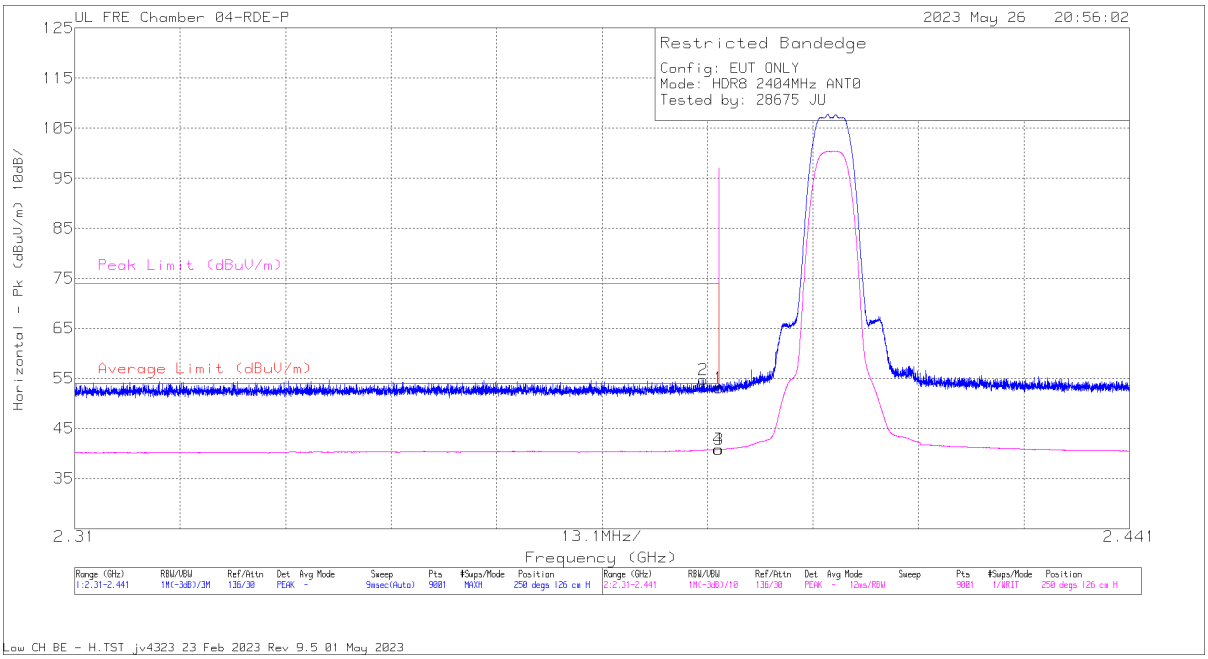
10.2.3. HIGH POWER HDR (HDR8)

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.388093	62.83	Pk	31.7	-39.76	54.77	-	-	74	-19.23	250	126	H
4	2.389971	48.94	VA1T	31.7	-39.79	40.85	54	-13.15	-	-	250	126	H
1	2.39	61.24	Pk	31.7	-39.79	53.15	-	-	74	-20.85	250	126	H
3	2.39	48.93	VA1T	31.7	-39.79	40.84	54	-13.16	-	-	250	126	H

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

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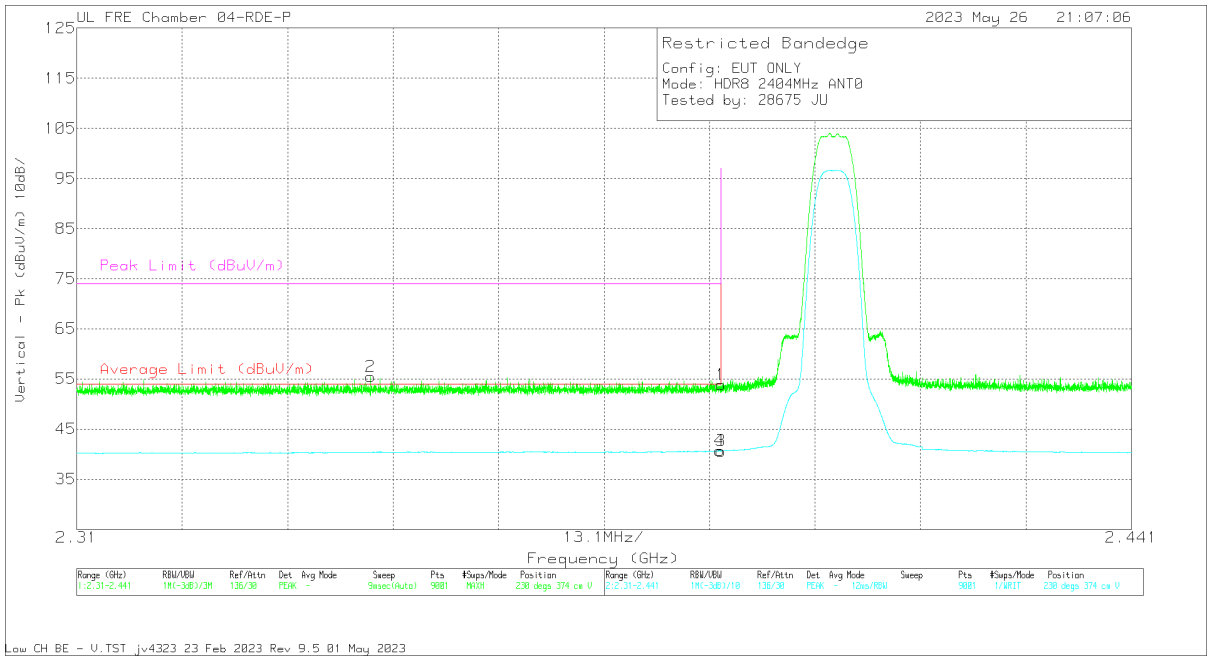
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.346492	63.84	Pk	31.4	-39.78	55.46	-	-	74	-18.54	230	374	V
4	2.389825	48.77	VA1T	31.7	-39.79	40.68	54	-13.32	-	-	230	374	V
1	2.39	61.92	Pk	31.7	-39.79	53.83	-	-	74	-20.17	230	374	V
3	2.39	48.74	VA1T	31.7	-39.79	40.65	54	-13.35	-	-	230	374	V

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

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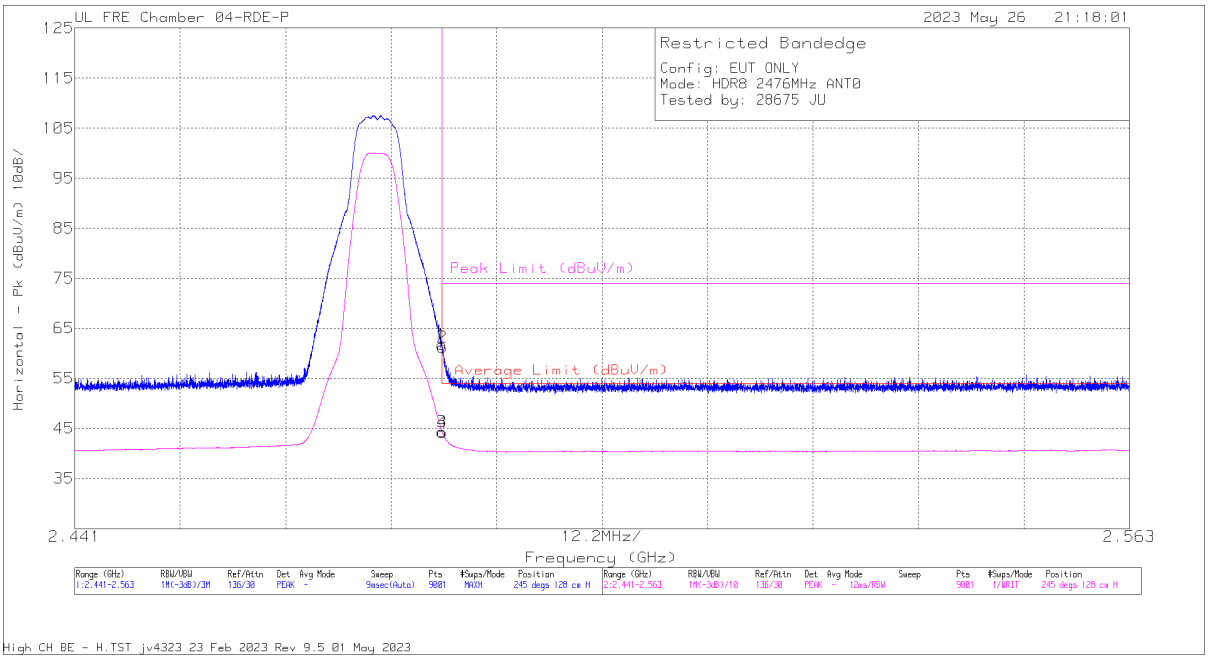
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (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	69.43	Pk	32.1	-39.76	61.77	-	-	74	-12.23	245	128	H
3	2.4835	51.96	VA1T	32.1	-39.76	44.3	54	-9.7	-	-	245	128	H
4	2.483512	51.92	VA1T	32.1	-39.75	44.27	54	-9.73	-	-	245	128	H
2	2.483566	68.87	Pk	32.1	-39.75	61.22	-	-	74	-12.78	245	128	H

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

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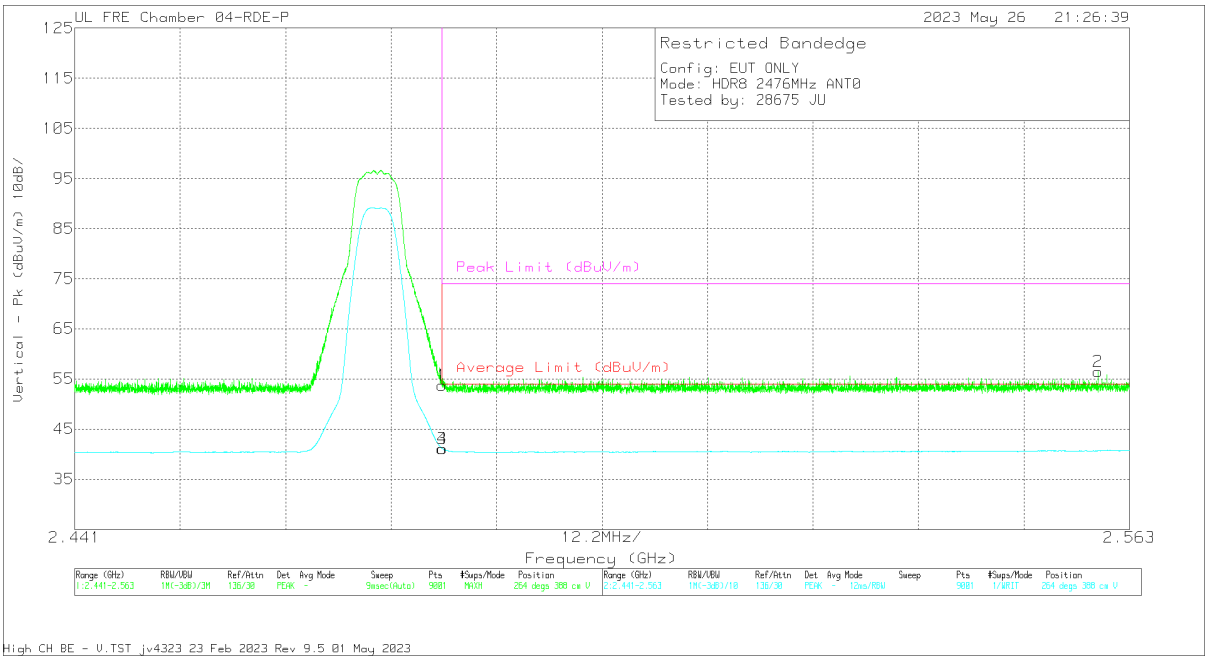
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (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	61.42	Pk	32.1	-39.76	53.76	-	-	74	-20.24	264	388	V
3	2.4835	48.79	VA1T	32.1	-39.76	41.13	54	-12.87	-	-	264	388	V
4	2.483512	48.78	VA1T	32.1	-39.75	41.13	54	-12.87	-	-	264	388	V
2	2.559371	63.91	Pk	32.2	-39.62	56.49	-	-	74	-17.51	264	388	V

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

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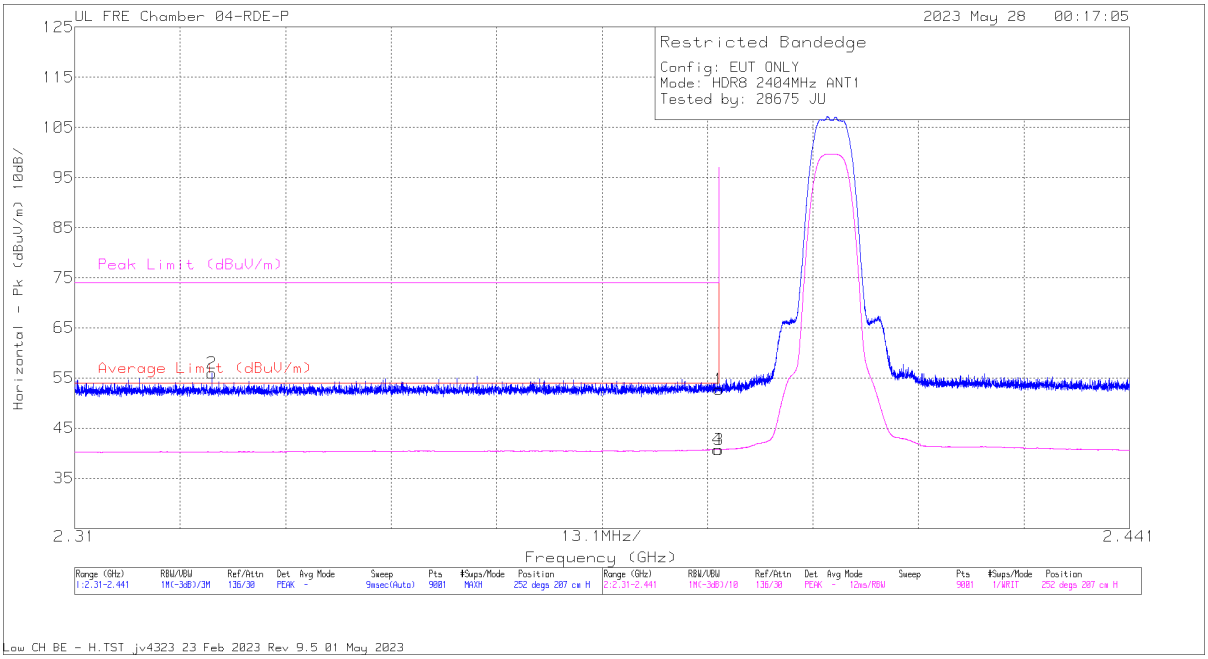
ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.327045	64.51	Pk	31.3	-39.82	55.99	-	-	74	-18.01	252	207	H
4	2.389869	48.81	VA1T	31.7	-39.79	40.72	54	-13.28	-	-	252	207	H
1	2.39	60.84	Pk	31.7	-39.79	52.75	-	-	74	-21.25	252	207	H
3	2.39	48.79	VA1T	31.7	-39.79	40.7	54	-13.3	-	-	252	207	H

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

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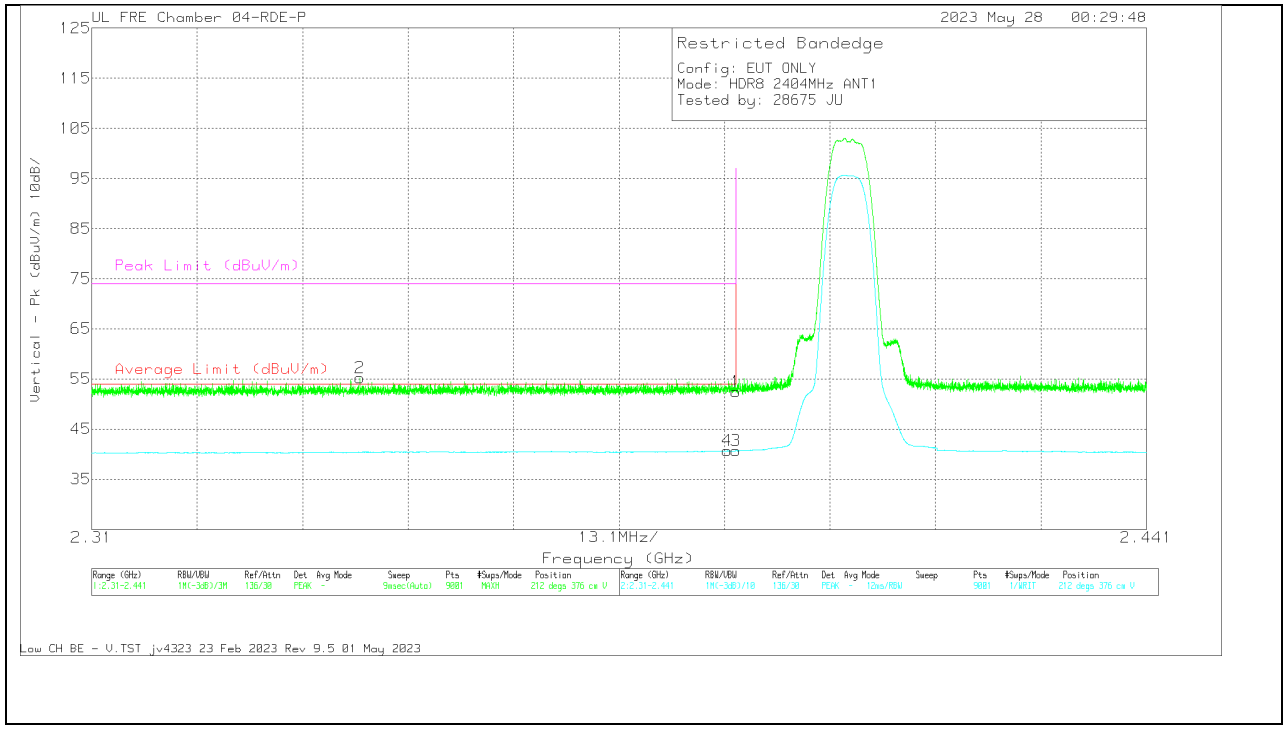
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.343319	63.64	Pk	31.4	-39.79	55.25	-	-	74	-18.75	212	376	V
4	2.388952	48.75	VA1T	31.7	-39.77	40.68	54	-13.32	-	-	212	376	V
1	2.39	60.51	Pk	31.7	-39.79	52.42	-	-	74	-21.58	212	376	V
3	2.39	48.76	VA1T	31.7	-39.79	40.67	54	-13.33	-	-	212	376	V

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

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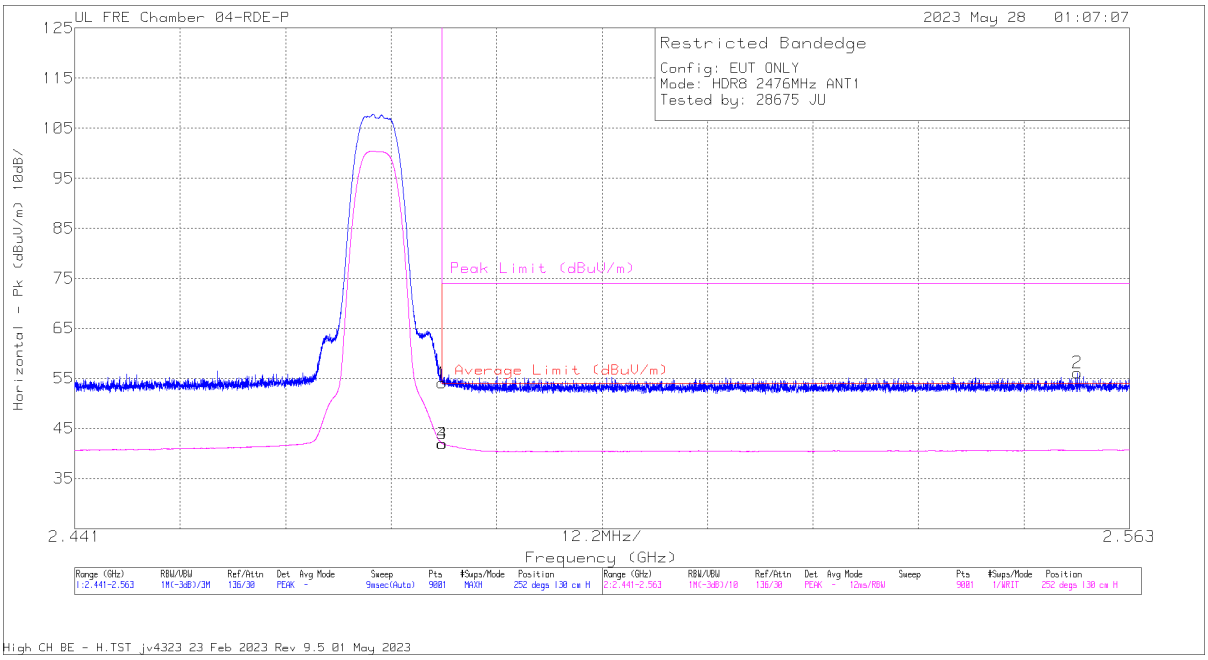
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (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	61.75	Pk	32.1	-39.76	54.09	-	-	74	-19.91	252	130	H
3	2.4835	49.68	VA1T	32.1	-39.76	42.02	54	-11.98	-	-	252	130	H
4	2.483512	49.67	VA1T	32.1	-39.75	42.02	54	-11.98	-	-	252	130	H
2	2.556958	63.64	Pk	32.2	-39.68	56.16	-	-	74	-17.84	252	130	H

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

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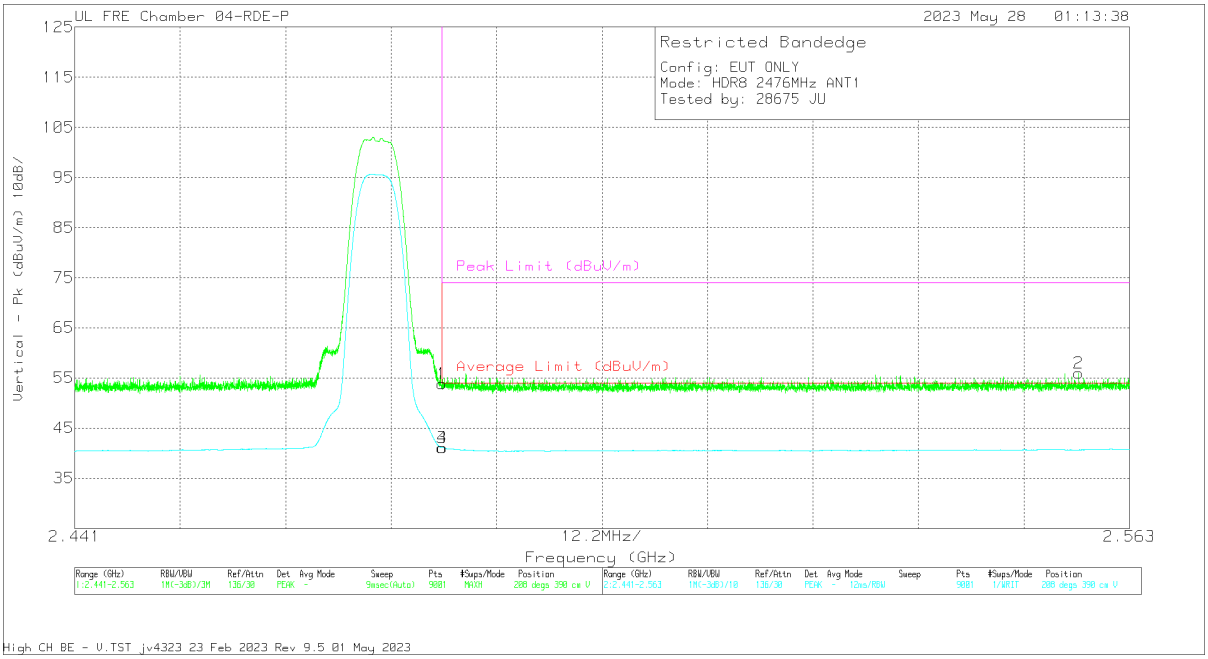
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	Gain/Loss (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	61.56	Pk	32.1	-39.76	53.9	-	-	74	-20.1	208	390	V
3	2.4835	48.72	VA1T	32.1	-39.76	41.06	54	-12.94	-	-	208	390	V
4	2.483539	48.73	VA1T	32.1	-39.75	41.08	54	-12.92	-	-	208	390	V
2	2.557107	63.51	Pk	32.2	-39.68	56.03	-	-	74	-17.97	208	390	V

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

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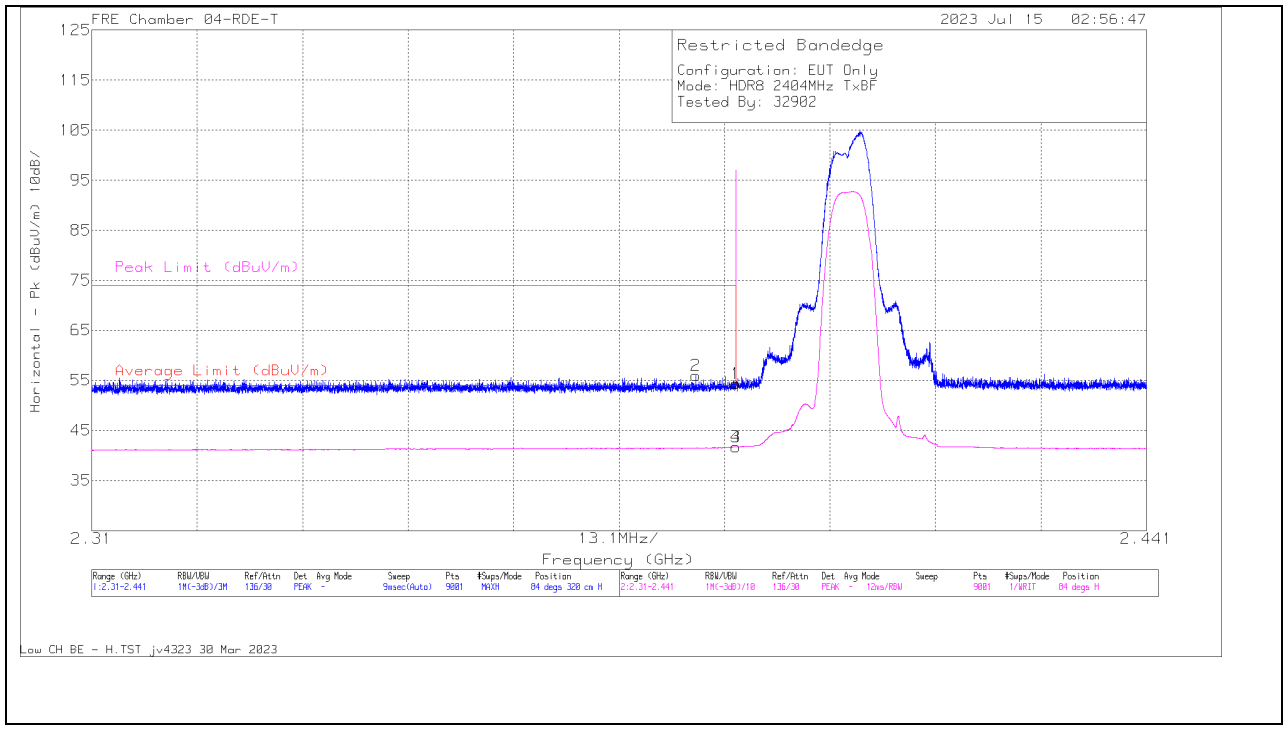
10.2.4. HIGH POWER HDR TXBF (HDR8)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	60.13	Pk	32.1	-37.89	54.34	-	-	74	-19.66	84	320	H
2	* 2.385051	61.77	Pk	32.1	-37.87	56	-	-	74	-18	84	320	H
3	* 2.39	47.49	VA1T	32.1	-37.89	41.7	54	-12.3	-	-	84	319	H
4	* 2.39	47.49	VA1T	32.1	-37.89	41.7	54	-12.3	-	-	84	319	H

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

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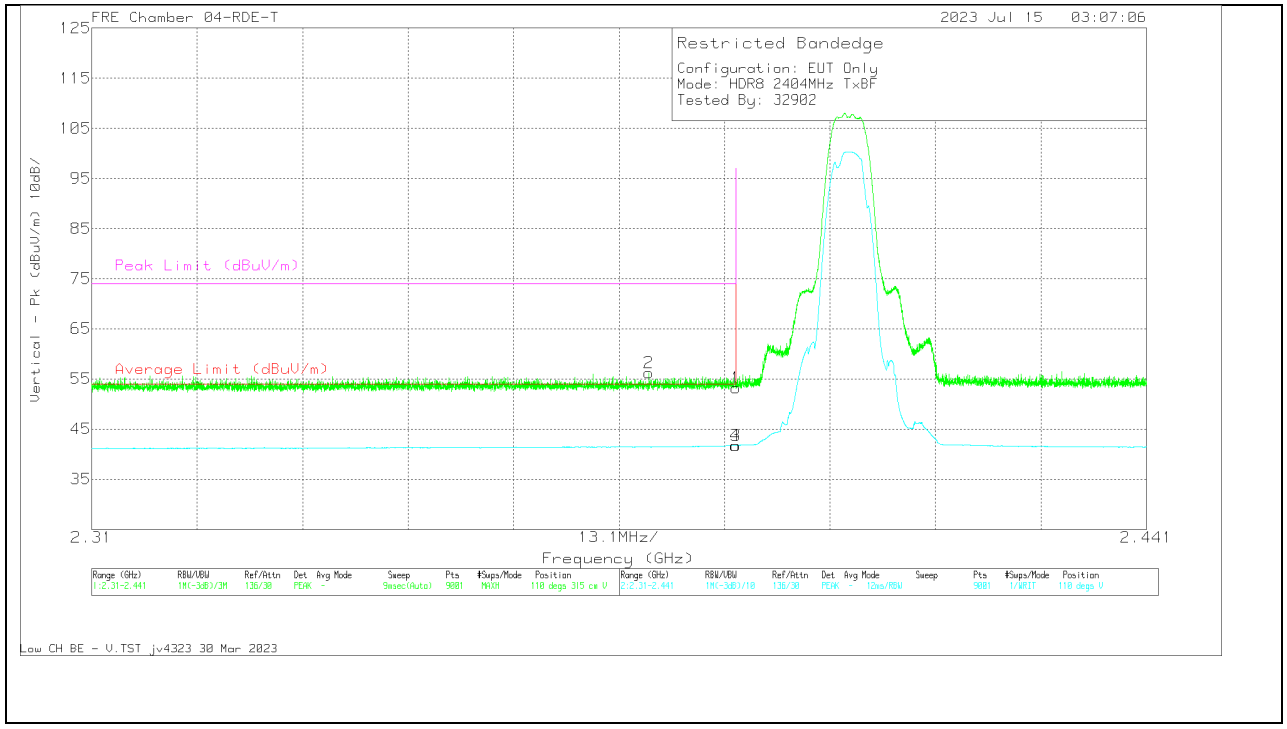
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	58.96	Pk	32.1	-37.89	53.17	-	-	74	-20.83	110	315	V
2	* 2.379199	61.94	Pk	32.1	-37.86	56.18	-	-	74	-17.82	110	315	V
3	* 2.39	47.51	VA1T	32.1	-37.89	41.72	54	-12.28	-	-	110	315	V
4	* 2.389942	47.52	VA1T	32.1	-37.89	41.73	54	-12.27	-	-	110	315	V

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

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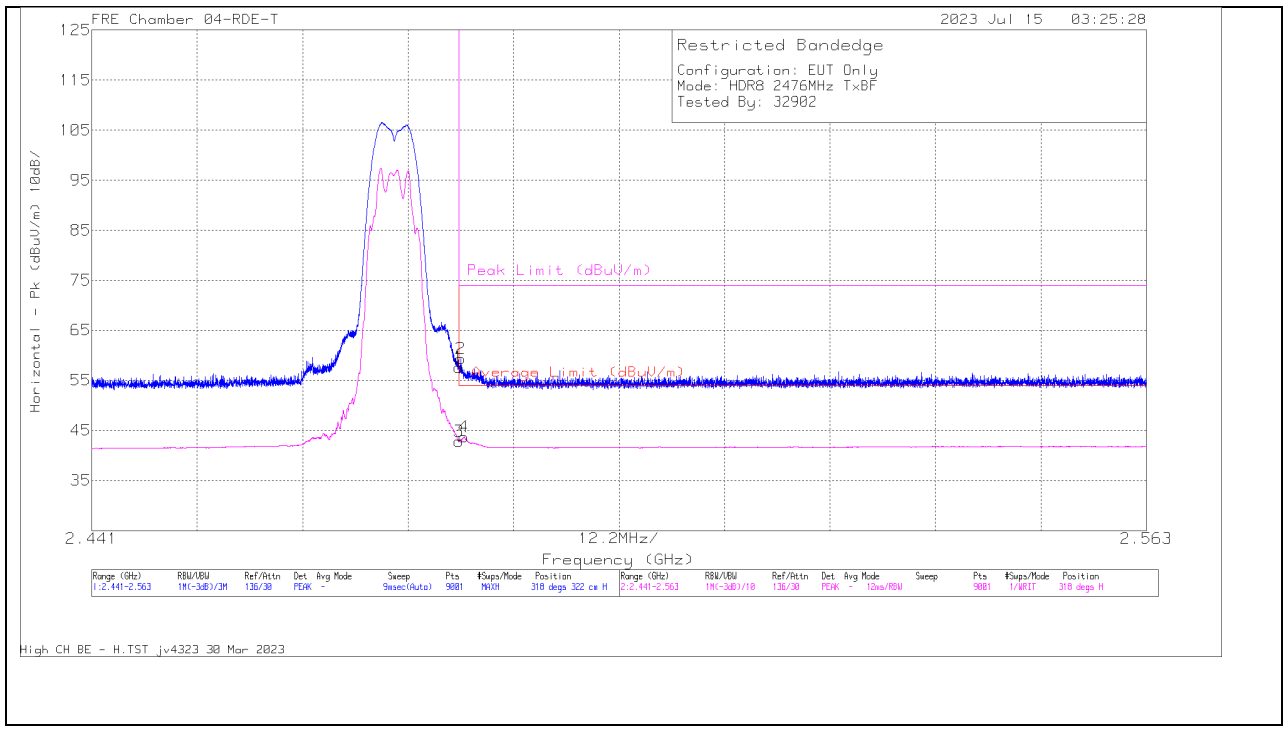
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	63.21	Pk	32.2	-37.81	57.6	-	-	74	-16.4	318	322	H
2	* 2.483661	64.92	Pk	32.2	-37.81	59.31	-	-	74	-14.69	318	322	H
3	* 2.4835	48.43	VA1T	32.2	-37.81	42.82	54	-11.18	-	-	318	322	H
4	* 2.484054	49.28	VA1T	32.2	-37.81	43.67	54	-10.33	-	-	318	322	H

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

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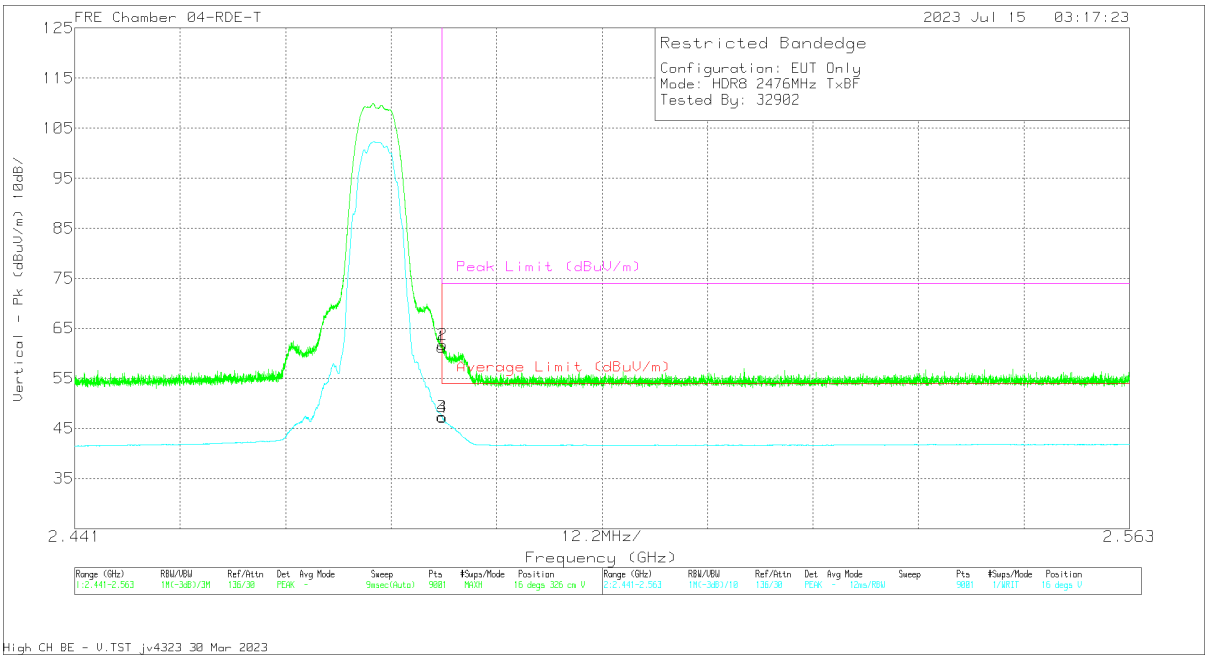
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	66.87	Pk	32.2	-37.81	61.26	-	-	74	-12.74	16	326	V
2	* 2.483525	67.29	Pk	32.2	-37.81	61.68	-	-	74	-12.32	16	326	V
3	* 2.4835	52.9	VA1T	32.2	-37.81	47.29	54	-6.71	-	-	16	326	V
4	* 2.483512	52.86	VA1T	32.2	-37.81	47.25	54	-6.75	-	-	16	326	V

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

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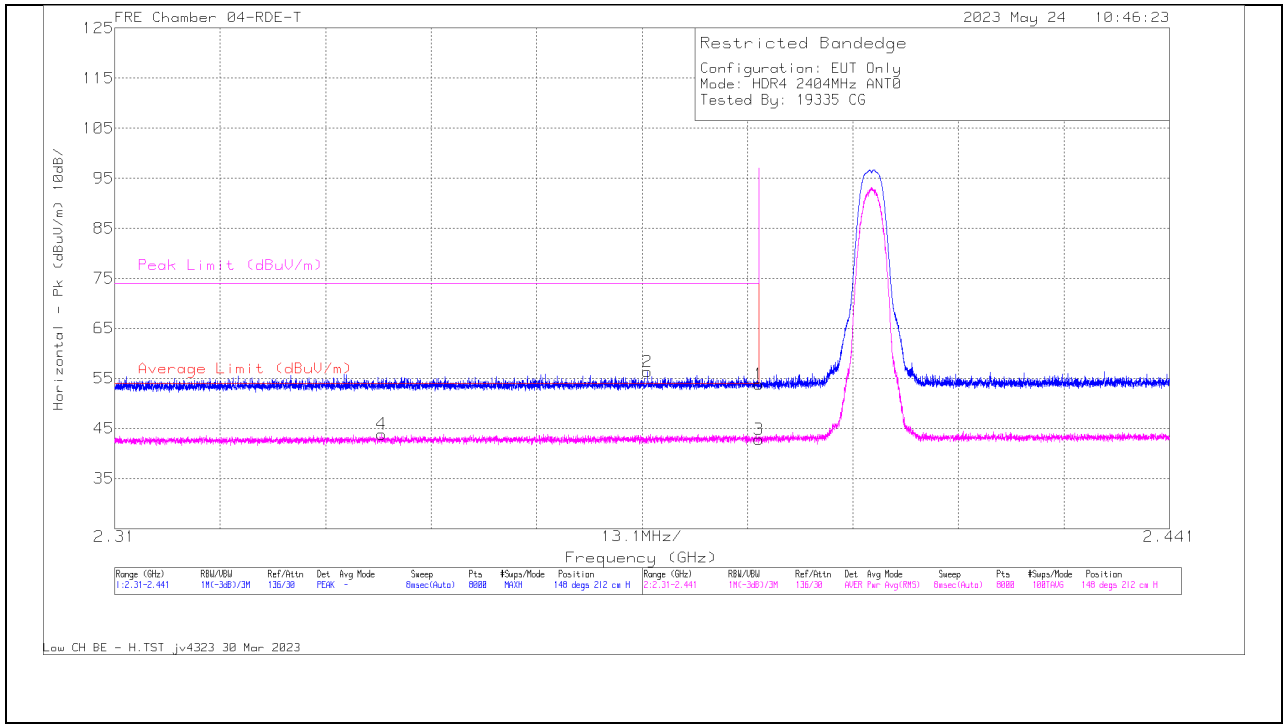
10.2.5. LOW POWER HDR (HDR4)

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.68	Pk	32.1	-37.89	53.89	-	-	74	-20.11	148	212	H
2	* 2.376147	62.18	Pk	32.1	-37.89	56.39	-	-	74	-17.61	148	212	H
3	* 2.39	48.58	RMS	32.1	-37.89	42.79	54	-11.21	-	-	148	212	H
4	* 2.343147	49.9	RMS	31.9	-37.9	43.9	54	-10.1	-	-	148	212	H

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

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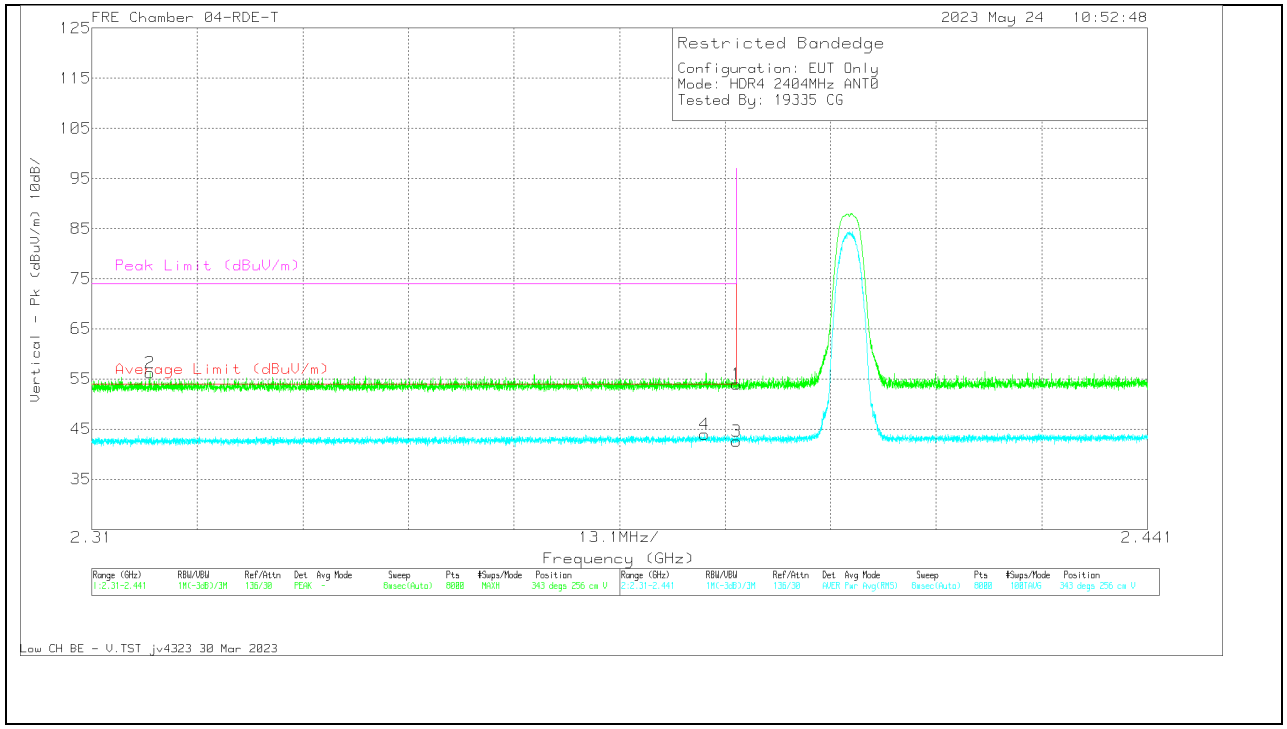
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.73	Pk	32.1	-37.89	53.94	-	-	74	-20.06	343	256	V
2	* 2.317206	62.38	Pk	31.8	-37.9	56.28	-	-	74	-17.72	343	256	V
3	* 2.39	48.4	RMS	32.1	-37.89	42.61	54	-11.39	-	-	343	256	V
4	* 2.386038	49.74	RMS	32.1	-37.86	43.98	54	-10.02	-	-	343	256	V

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

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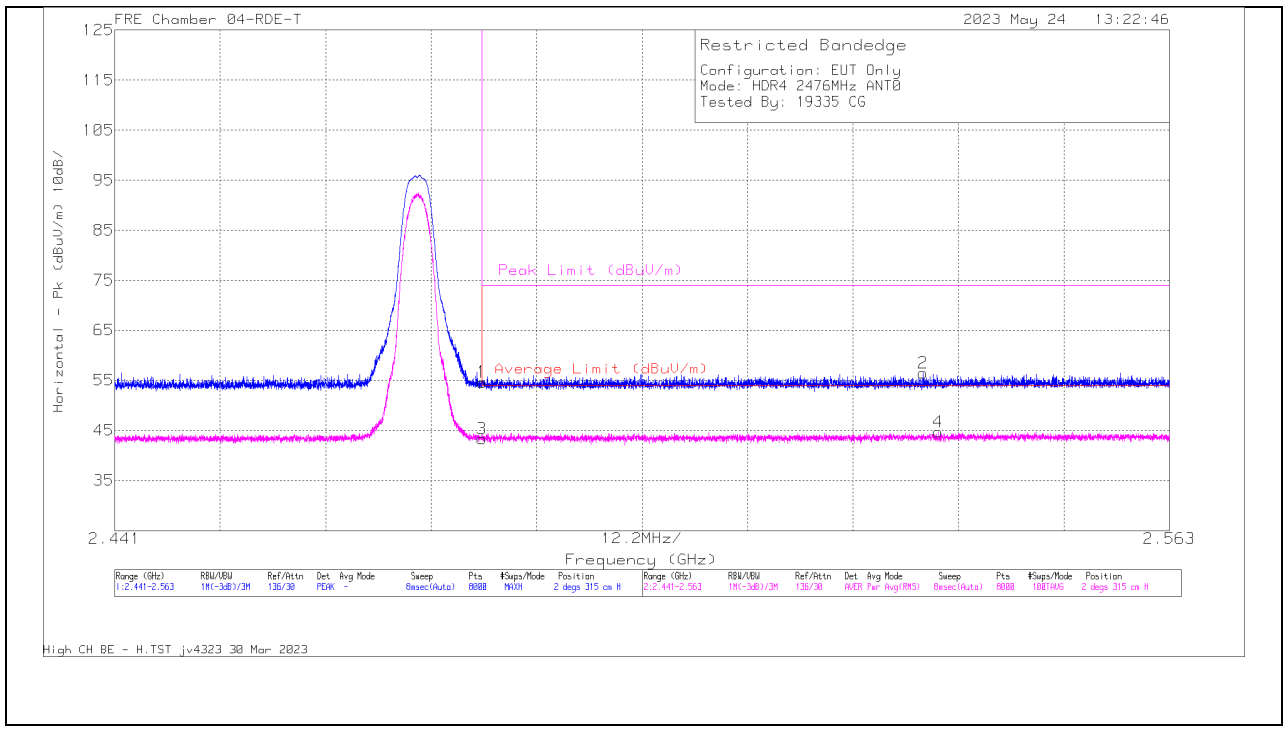
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	60.27	Pk	32.2	-37.81	54.66	-	-	74	-19.34	2	315	H
3	* 2.4835	48.97	RMS	32.2	-37.81	43.36	54	-10.64	-	-	2	315	H
2	2.534541	61.96	Pk	32.3	-37.75	56.51	-	-	74	-17.49	2	315	H
4	2.536264	50.24	RMS	32.3	-37.77	44.77	54	-9.23	-	-	2	315	H

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

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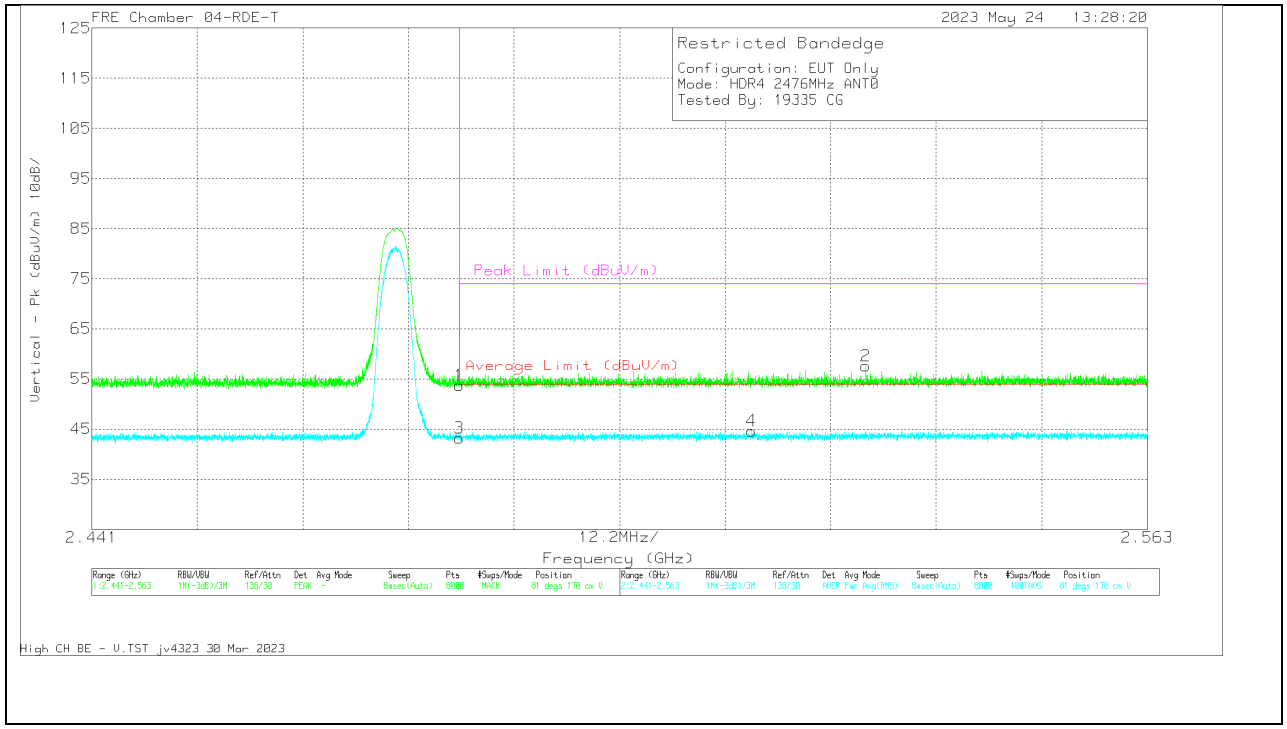
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.38	Pk	32.2	-37.81	53.77	-	-	74	-20.23	81	170	V
3	* 2.4835	48.86	RMS	32.2	-37.81	43.25	54	-10.75	-	-	81	170	V
4	2.517245	50.14	RMS	32.3	-37.79	44.65	54	-9.35	-	-	81	170	V
2	2.530438	63.02	Pk	32.3	-37.71	57.61	-	-	74	-16.39	81	170	V

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

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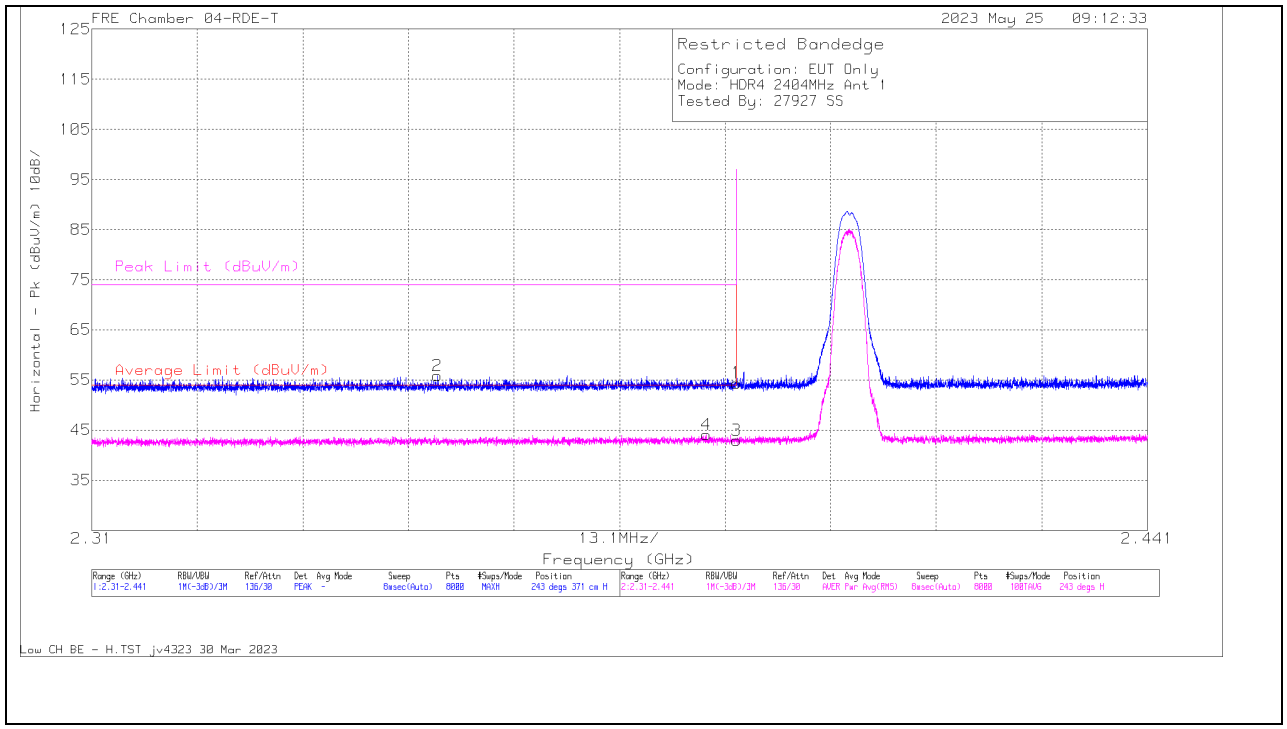
ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	60.2	Pk	32.1	-37.89	54.41	-	-	74	-19.59	243	371	H
2	* 2.352875	61.8	Pk	32	-37.9	55.9	-	-	74	-18.1	243	371	H
3	* 2.39	48.7	RMS	32.1	-37.89	42.91	54	-11.09	-	-	243	371	H
4	* 2.386284	49.86	RMS	32.1	-37.86	44.1	54	-9.9	-	-	243	371	H

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

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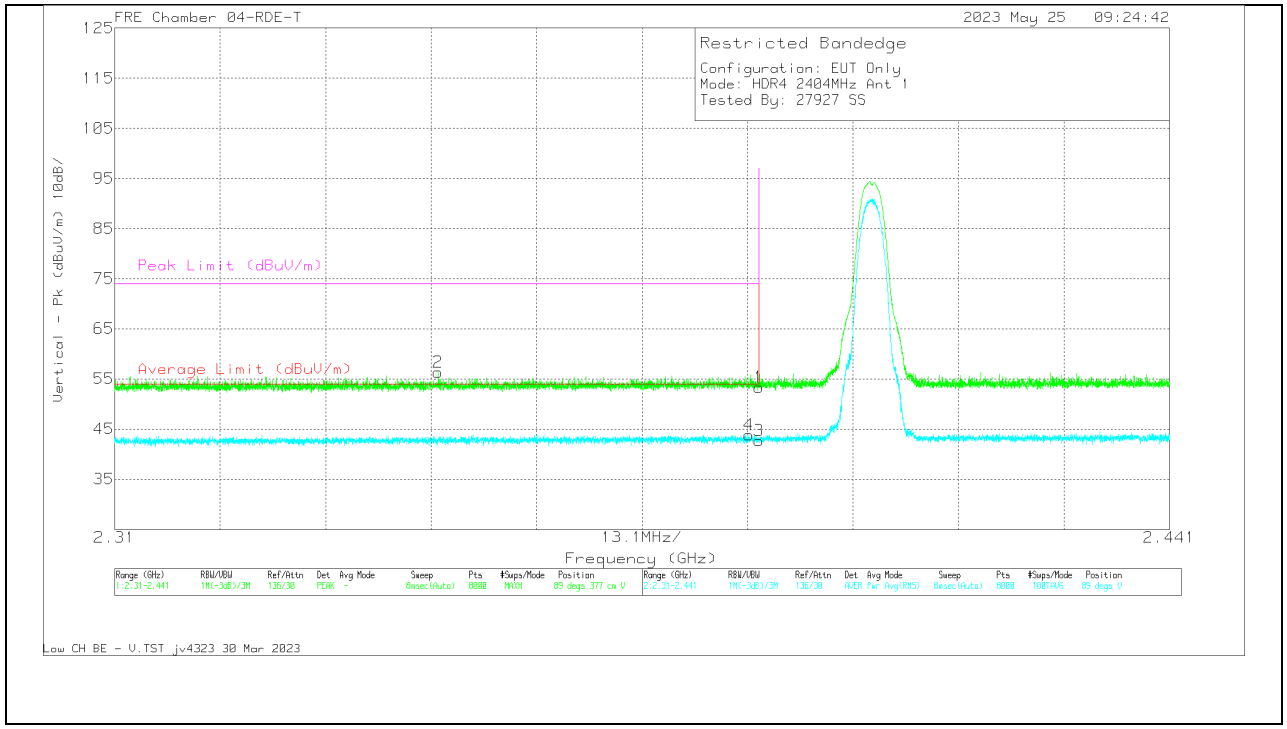
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.18	Pk	32.1	-37.89	53.39	-	-	74	-20.61	89	377	V
2	* 2.350189	62.3	Pk	32	-37.9	56.4	-	-	74	-17.6	89	377	V
3	* 2.39	48.49	RMS	32.1	-37.89	42.7	54	-11.3	-	-	89	377	V
4	* 2.38879	49.65	RMS	32.1	-37.88	43.87	54	-10.13	-	-	89	377	V

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

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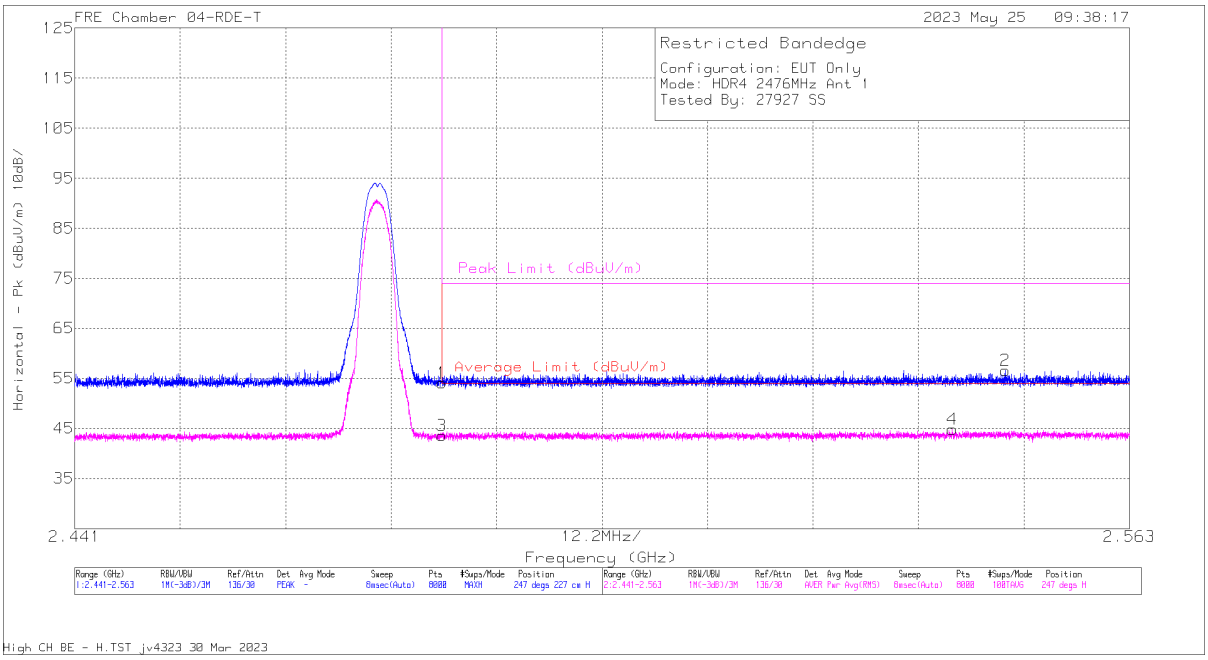
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.68	Pk	32.2	-37.81	54.07	-	-	74	-19.93	247	227	H
3	* 2.4835	49.21	RMS	32.2	-37.81	43.6	54	-10.4	-	-	247	227	H
4	2.542517	50.28	RMS	32.3	-37.78	44.8	54	-9.2	-	-	247	227	H
2	2.548618	62.09	Pk	32.3	-37.76	56.63	-	-	74	-17.37	247	227	H

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

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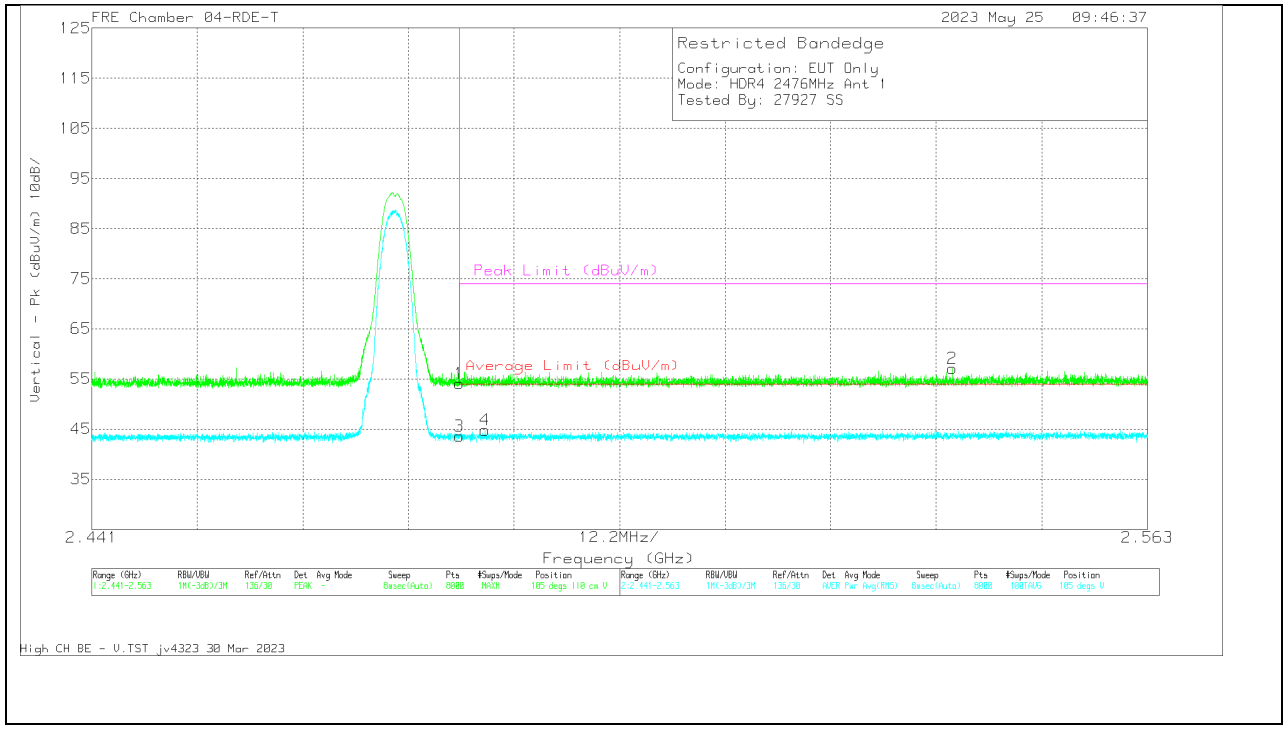
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.7	Pk	32.2	-37.81	54.09	-	-	74	-19.91	105	110	V
3	* 2.4835	49.18	RMS	32.2	-37.81	43.57	54	-10.43	-	-	105	110	V
4	* 2.486466	50.31	RMS	32.3	-37.83	44.78	54	-9.22	-	-	105	110	V
2	2.540458	62.51	Pk	32.3	-37.75	57.06	-	-	74	-16.94	105	110	V

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

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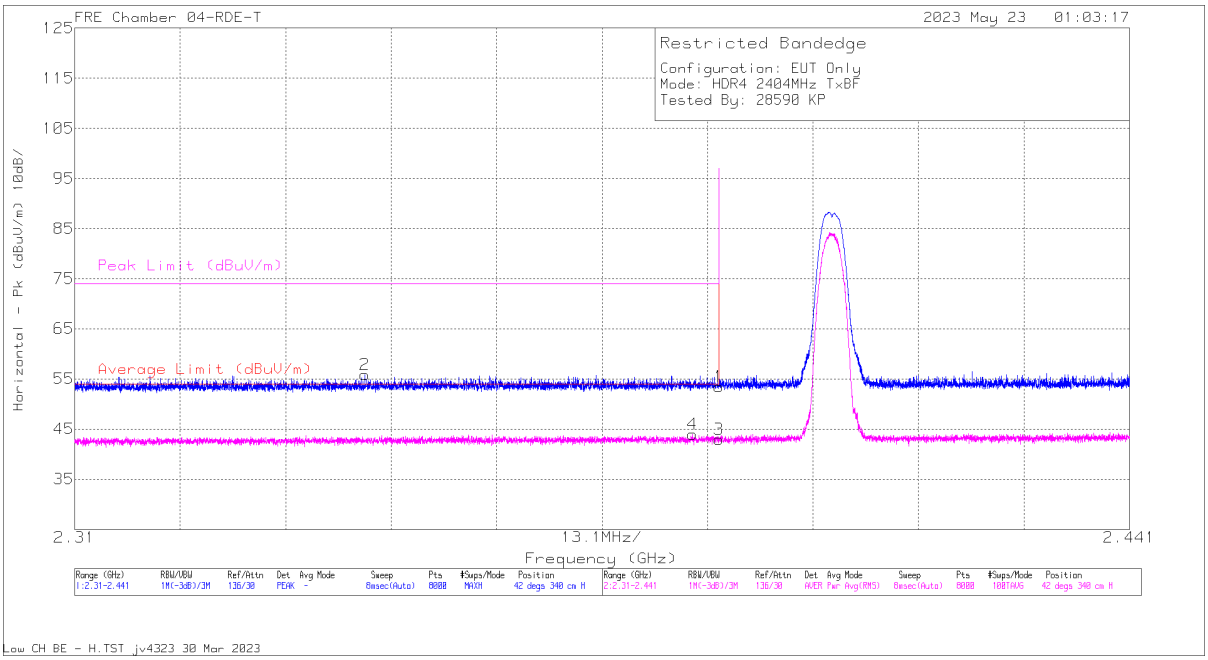
10.2.6. LOW POWER HDR TXBF (HDR4)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.23	Pk	32.1	-37.89	53.44	-	-	74	-20.56	42	340	H
2	* 2.346013	61.78	Pk	31.9	-37.88	55.8	-	-	74	-18.2	42	340	H
3	* 2.39	48.79	RMS	32.1	-37.89	43	54	-11	-	-	42	340	H
4	* 2.38671	49.71	RMS	32.1	-37.86	43.95	54	-10.05	-	-	42	340	H

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

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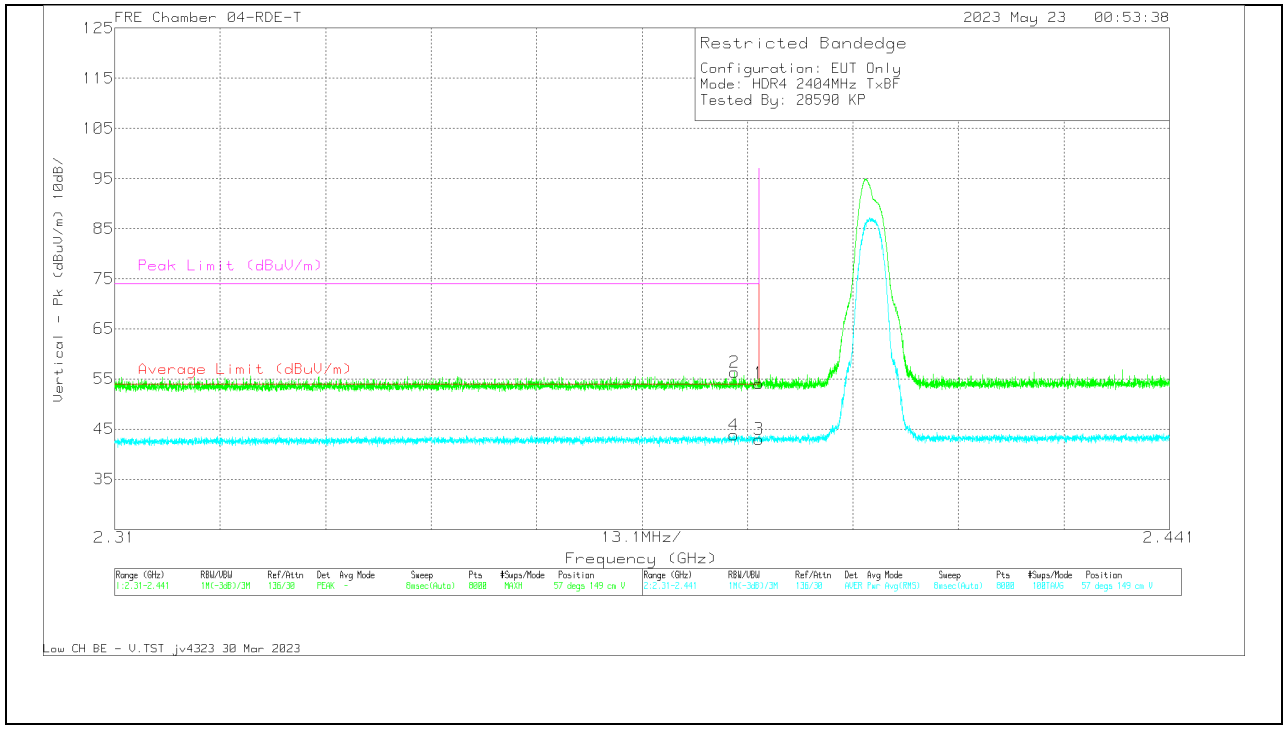
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.95	Pk	32.1	-37.89	54.16	-	-	74	-19.84	57	149	V
2	* 2.386988	62.13	Pk	32.1	-37.86	56.37	-	-	74	-17.63	57	149	V
3	* 2.39	48.81	RMS	32.1	-37.89	43.02	54	-10.98	-	-	57	149	V
4	* 2.386874	49.63	RMS	32.1	-37.86	43.87	54	-10.13	-	-	57	149	V

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

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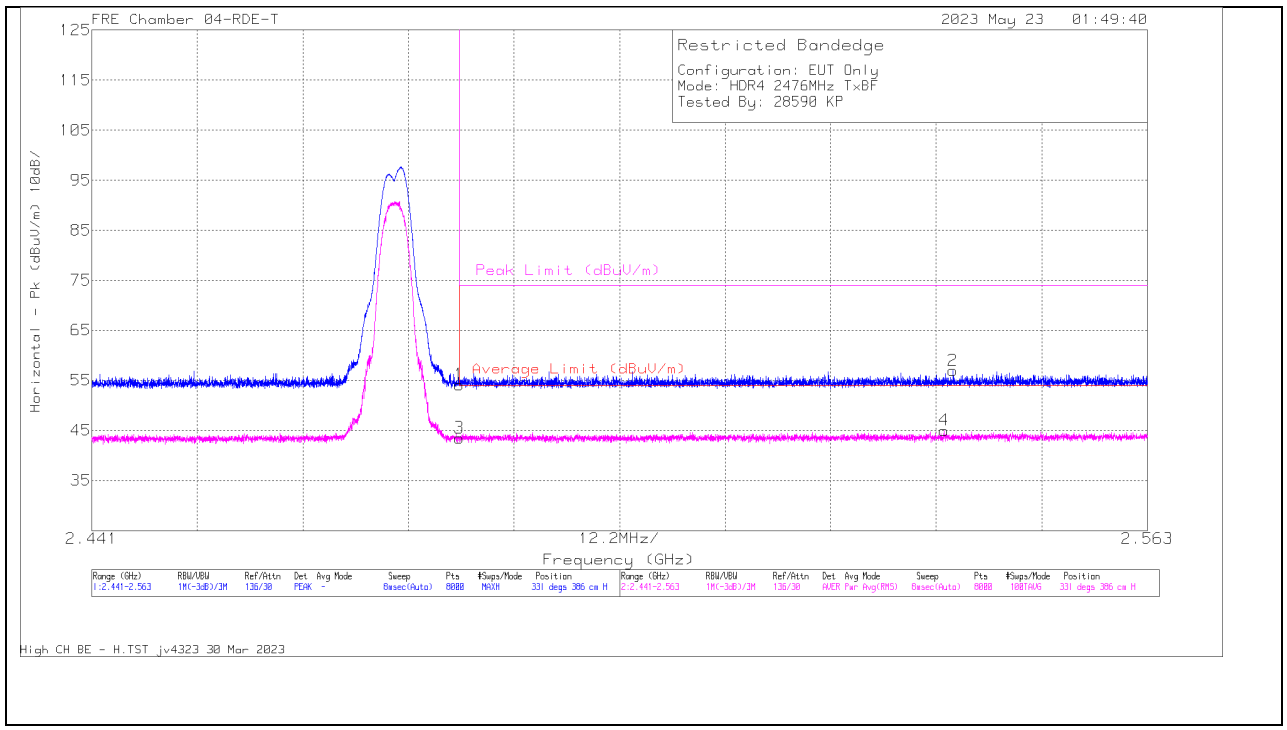
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.77	Pk	32.2	-37.81	54.16	-	-	74	-19.84	331	386	H
3	* 2.4835	49.14	RMS	32.2	-37.81	43.53	54	-10.47	-	-	331	386	H
4	2.539482	50.48	RMS	32.3	-37.75	45.03	54	-8.97	-	-	331	386	H
2	2.540535	62.46	Pk	32.3	-37.76	57	-	-	74	-17	331	386	H

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

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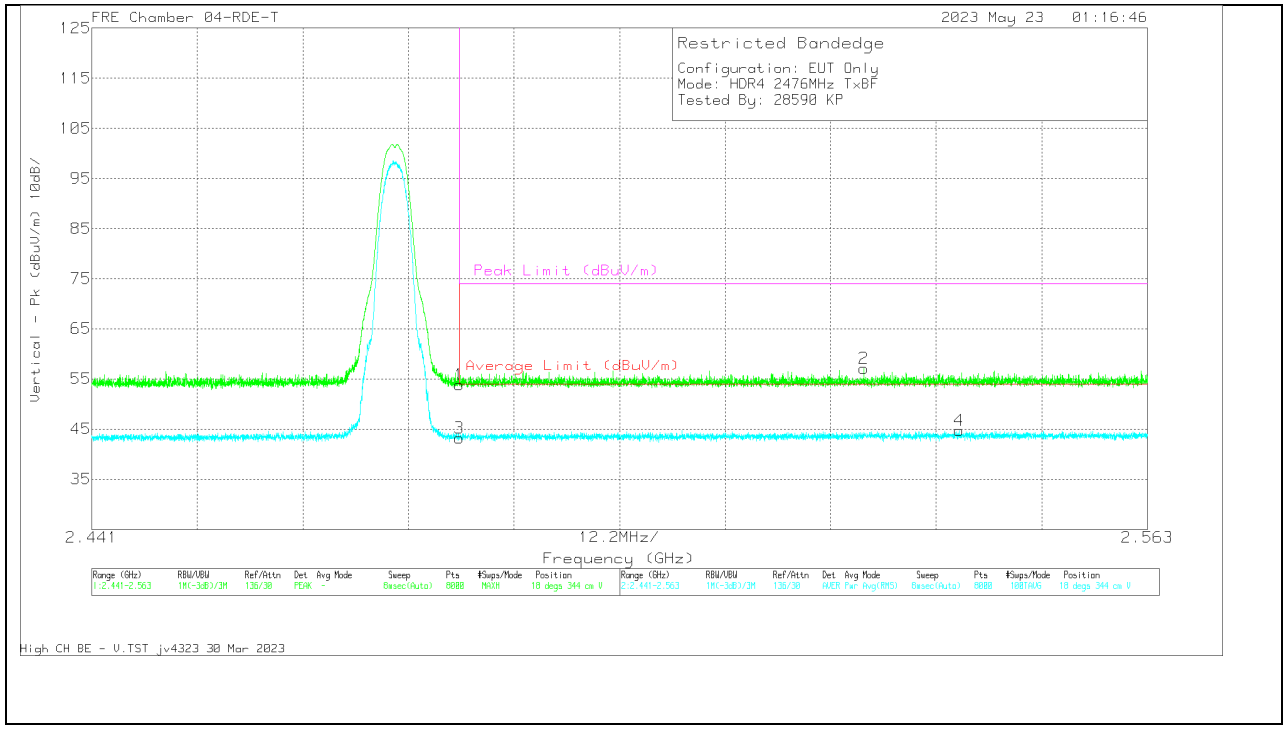
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.49	Pk	32.2	-37.81	53.88	-	-	74	-20.12	18	344	V
3	* 2.4835	48.77	RMS	32.2	-37.81	43.16	54	-10.84	-	-	18	344	V
2	2.530224	62.47	Pk	32.3	-37.72	57.05	-	-	74	-16.95	18	344	V
4	2.541251	50.23	RMS	32.3	-37.76	44.77	54	-9.23	-	-	18	344	V

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

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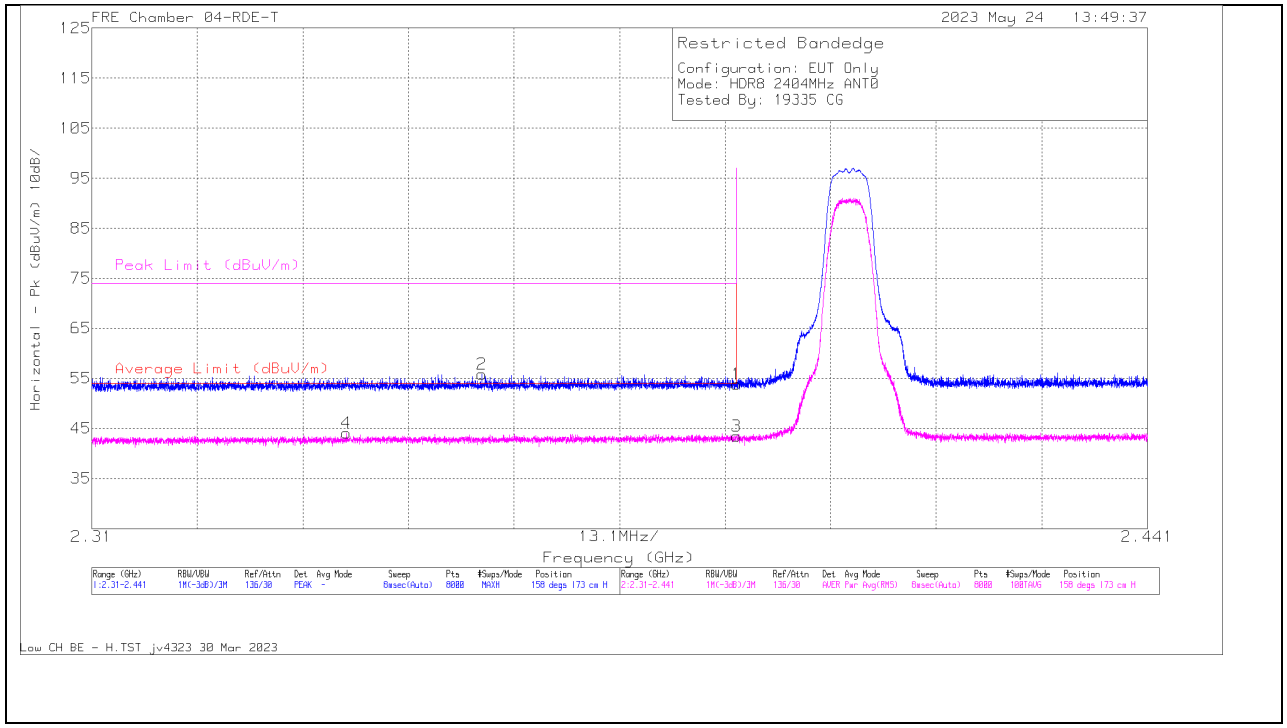
10.2.7. LOW POWER HDR (HDR8)

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.65	Pk	32.1	-37.89	53.86	-	-	74	-20.14	158	173	H
2	* 2.358427	61.75	Pk	32	-37.91	55.84	-	-	74	-18.16	158	173	H
3	* 2.39	49.27	RMS	32.1	-37.89	43.48	54	-10.52	-	-	158	173	H
4	* 2.341624	50.14	RMS	31.9	-37.9	44.14	54	-9.86	-	-	158	173	H

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

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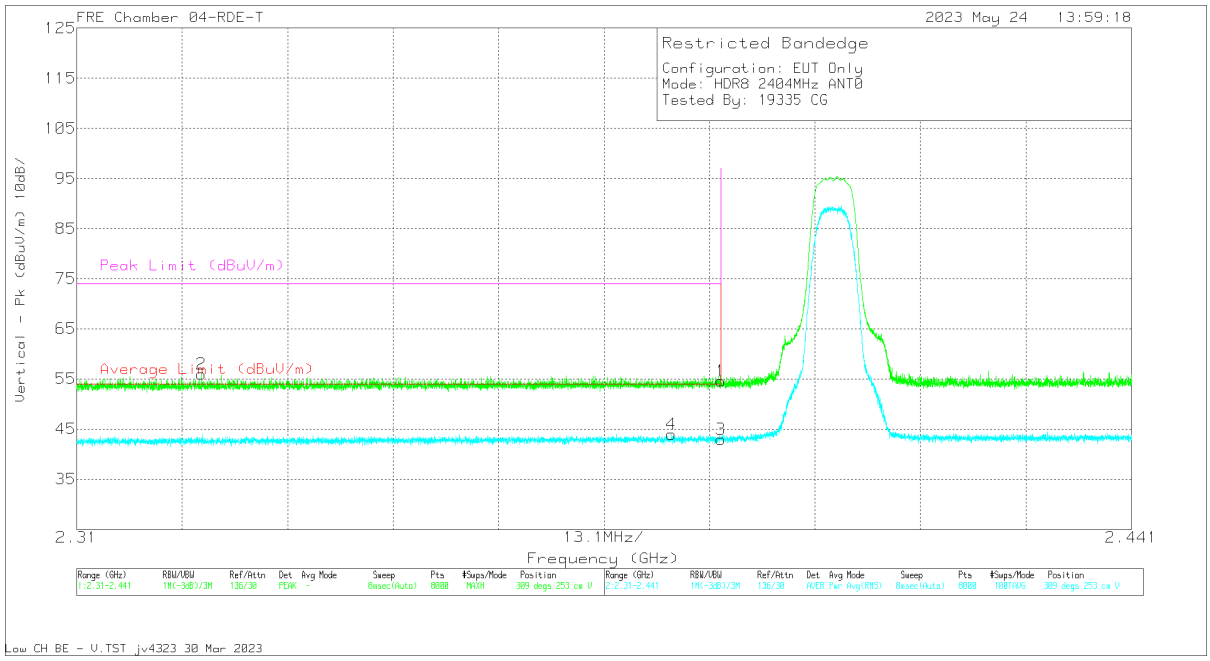
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	60.33	Pk	32.1	-37.89	54.54	-	-	74	-19.46	309	253	V
2	* 2.325476	62.06	Pk	31.8	-37.89	55.97	-	-	74	-18.03	309	253	V
3	* 2.39	48.74	RMS	32.1	-37.89	42.95	54	-11.05	-	-	309	253	V
4	* 2.38386	49.73	RMS	32.1	-37.88	43.95	54	-10.05	-	-	309	253	V

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

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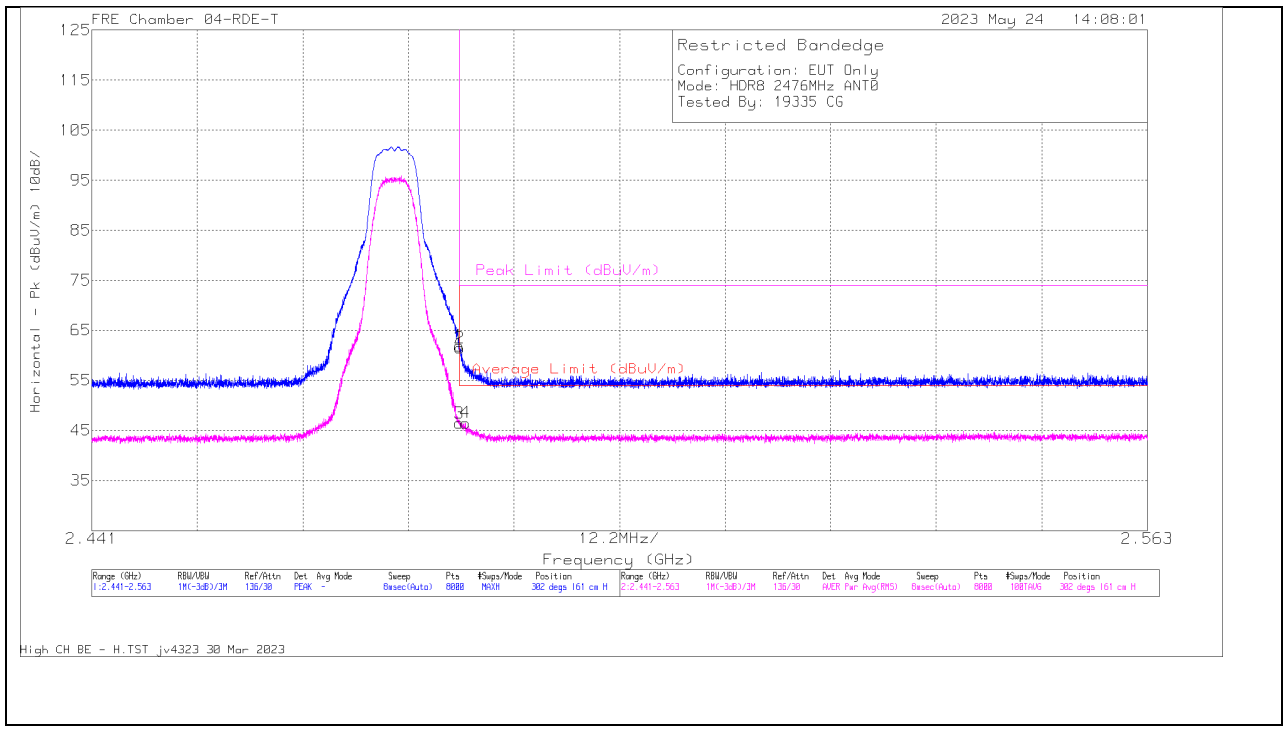
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	67.53	Pk	32.2	-37.81	61.92	-	-	74	-12.08	302	161	H
2	* 2.483568	67.11	Pk	32.2	-37.81	61.5	-	-	74	-12.5	302	161	H
3	* 2.4835	52.08	RMS	32.2	-37.81	46.47	54	-7.53	-	-	302	161	H
4	* 2.484163	52.14	RMS	32.2	-37.81	46.53	54	-7.47	-	-	302	161	H

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

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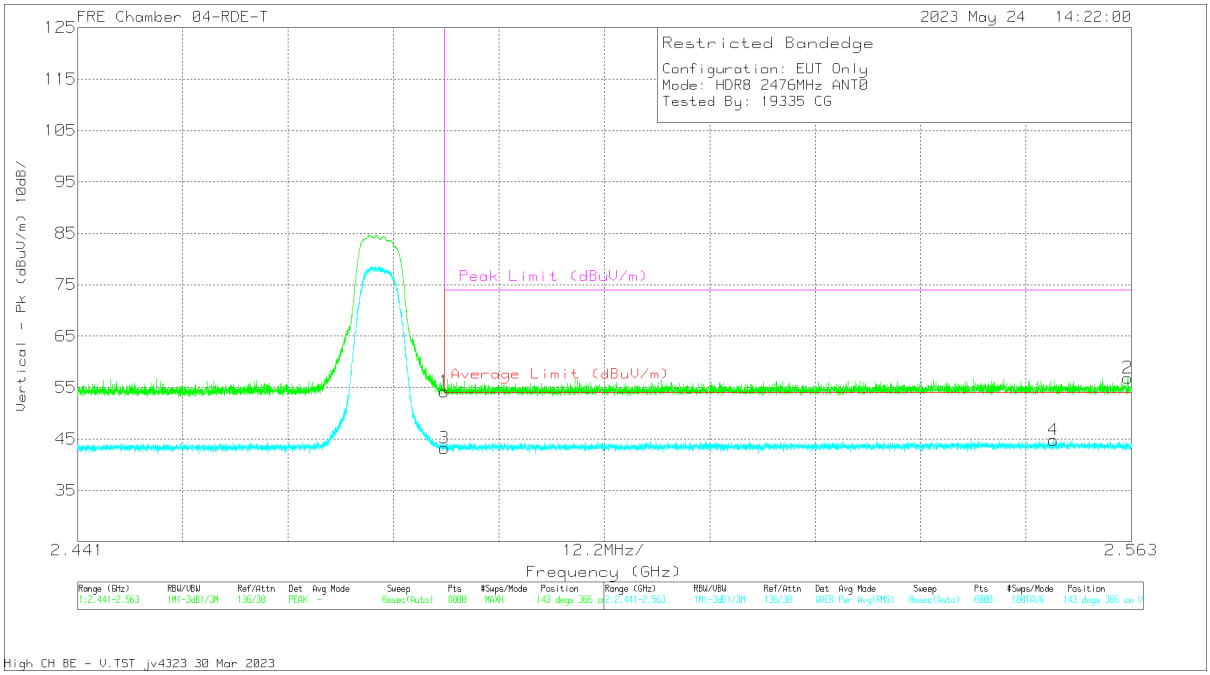
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.84	Pk	32.2	-37.81	54.23	-	-	74	-19.77	143	366	V
3	* 2.4835	48.84	RMS	32.2	-37.81	43.23	54	-10.77	-	-	143	366	V
4	2.553956	50.27	RMS	32.3	-37.76	44.81	54	-9.19	-	-	143	366	V
2	2.562589	62.4	Pk	32.2	-37.75	56.85	-	-	74	-17.15	143	366	V

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

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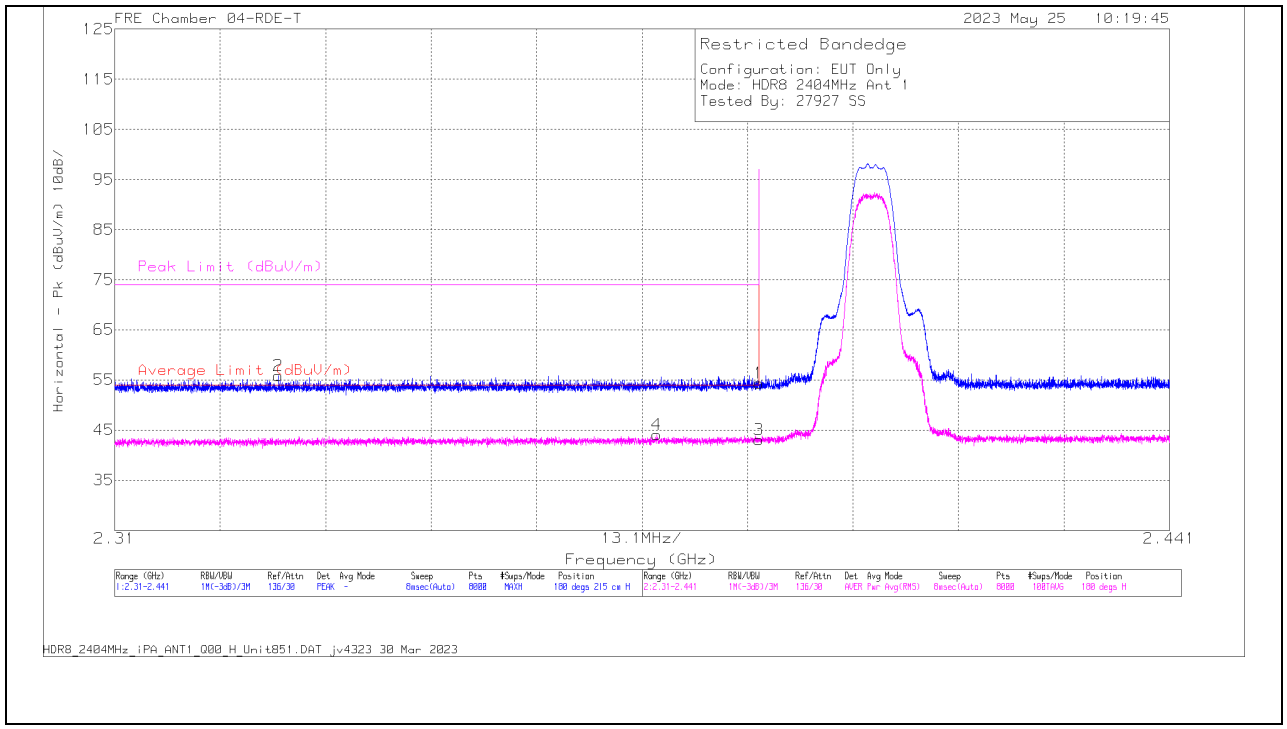
ANT 3

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	60.11	Pk	32.1	-37.89	54.32	-	-	74	-19.68	180	215	H
2	* 2.330291	61.99	Pk	31.8	-37.89	55.9	-	-	74	-18.1	180	215	H
3	* 2.39	48.93	RMS	32.1	-37.89	43.14	54	-10.86	-	-	180	215	H
4	* 2.377359	49.9	RMS	32.1	-37.88	44.12	54	-9.88	-	-	180	215	H

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

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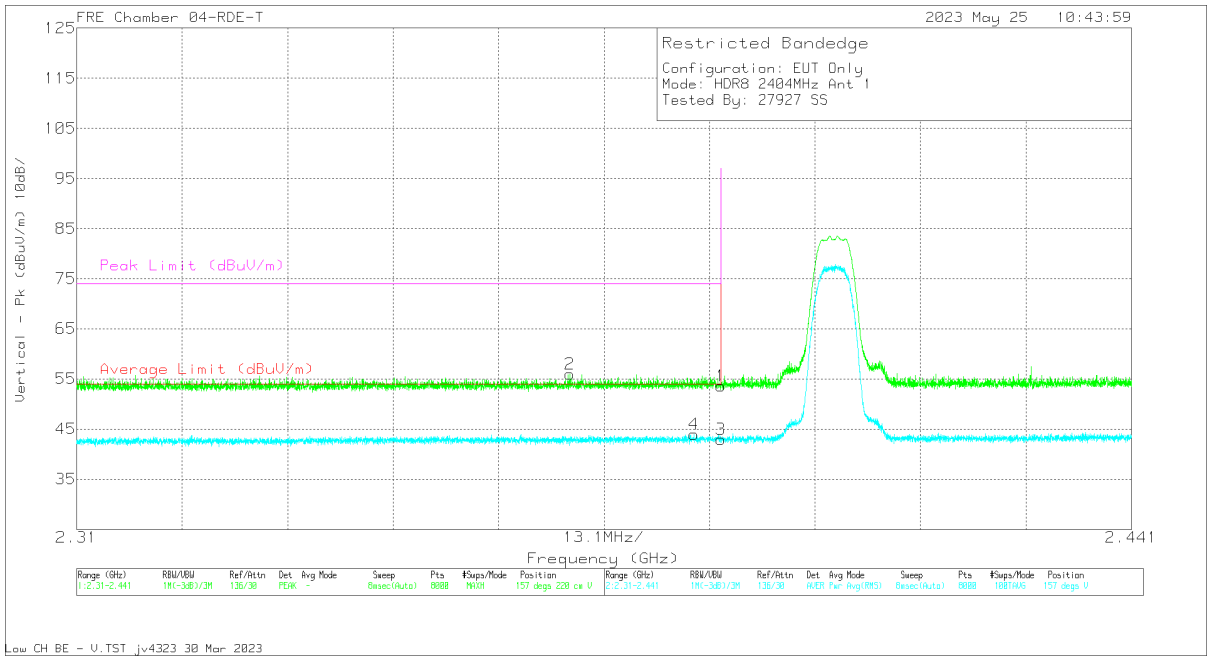
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.37	Pk	32.1	-37.89	53.58	-	-	74	-20.42	157	220	V
2	* 2.371266	61.76	Pk	32.1	-37.86	56	-	-	74	-18	157	220	V
3	* 2.39	48.73	RMS	32.1	-37.89	42.94	54	-11.06	-	-	157	220	V
4	* 2.386628	49.76	RMS	32.1	-37.86	44	54	-10	-	-	157	220	V

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

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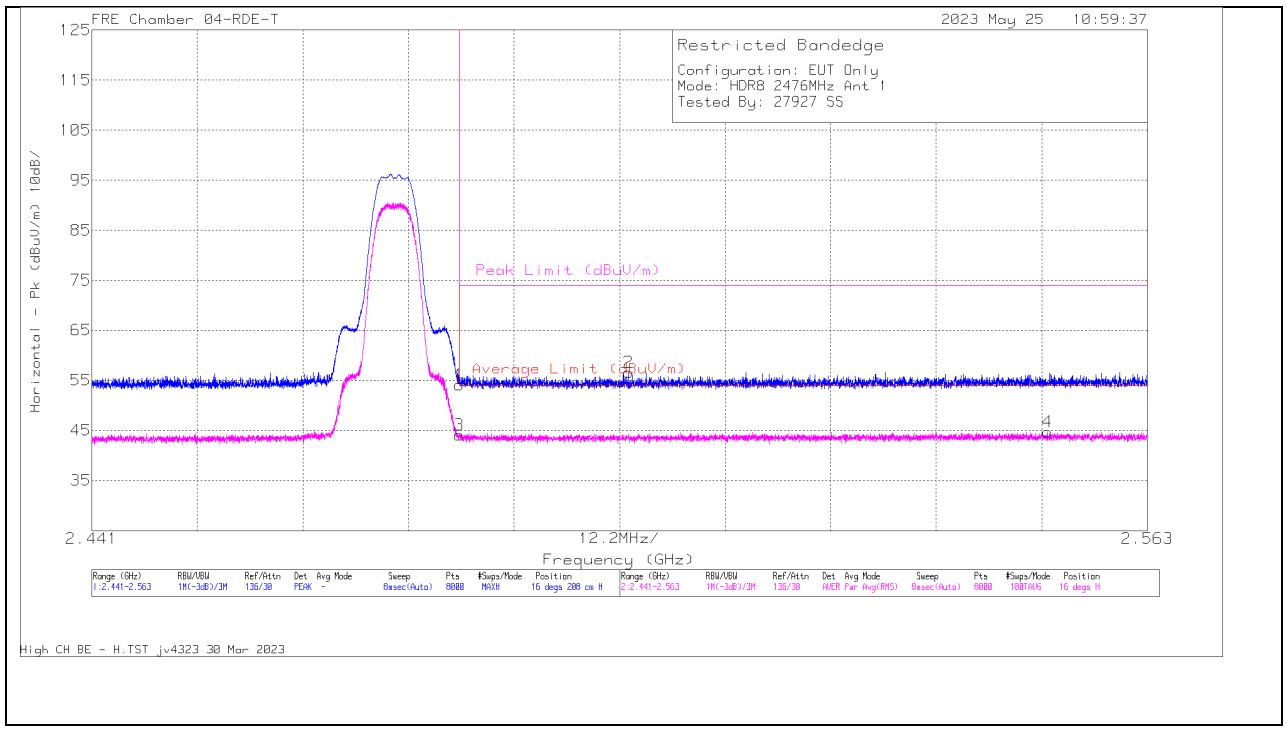
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.75	Pk	32.2	-37.81	54.14	-	-	74	-19.86	16	208	H
3	* 2.4835	49.69	RMS	32.2	-37.81	44.08	54	-9.92	-	-	16	208	H
2	2.503045	62.15	Pk	32.3	-37.83	56.62	-	-	74	-17.38	16	208	H
4	2.55144	50.27	RMS	32.3	-37.8	44.77	54	-9.23	-	-	16	208	H

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

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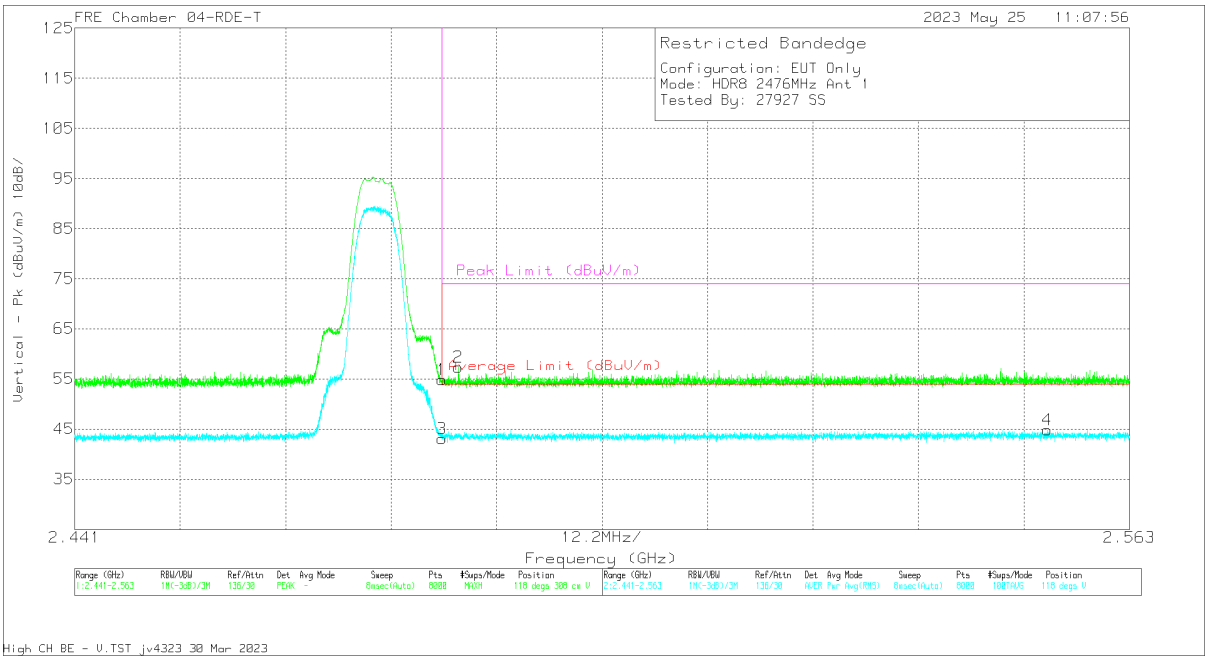
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	60.4	Pk	32.2	-37.81	54.79	-	-	74	-19.21	118	308	V
2	* 2.485383	62.91	Pk	32.3	-37.82	57.39	-	-	74	-16.61	118	308	V
3	* 2.4835	48.73	RMS	32.2	-37.81	43.12	54	-10.88	-	-	118	308	V
4	2.553529	50.27	RMS	32.3	-37.77	44.8	54	-9.2	-	-	118	308	V

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

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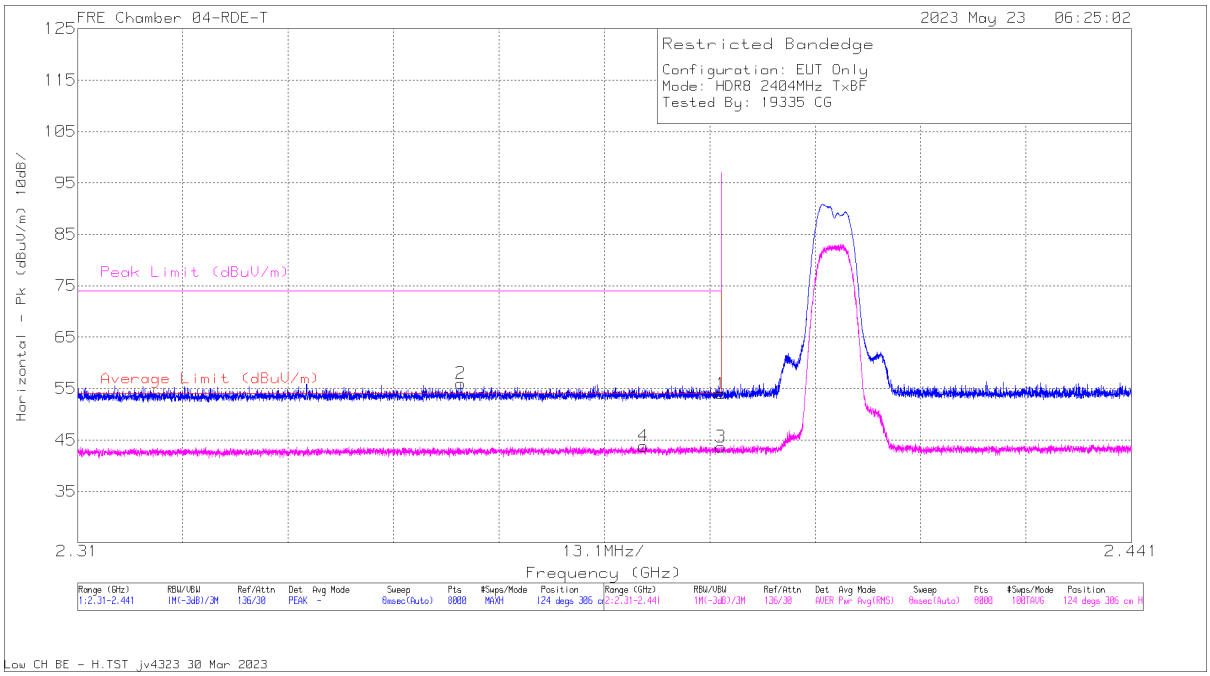
10.2.8. LOW POWER HDR TXBF (HDR8)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.81	Pk	32.1	-37.89	54.02	-	-	74	-19.98	124	306	H
2	* 2.357657	61.91	Pk	32	-37.91	56	-	-	74	-18	124	306	H
3	* 2.39	49.45	RMS	32.1	-37.89	43.66	54	-10.34	-	-	124	306	H
4	* 2.380356	49.61	RMS	32.1	-37.87	43.84	54	-10.16	-	-	124	306	H

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

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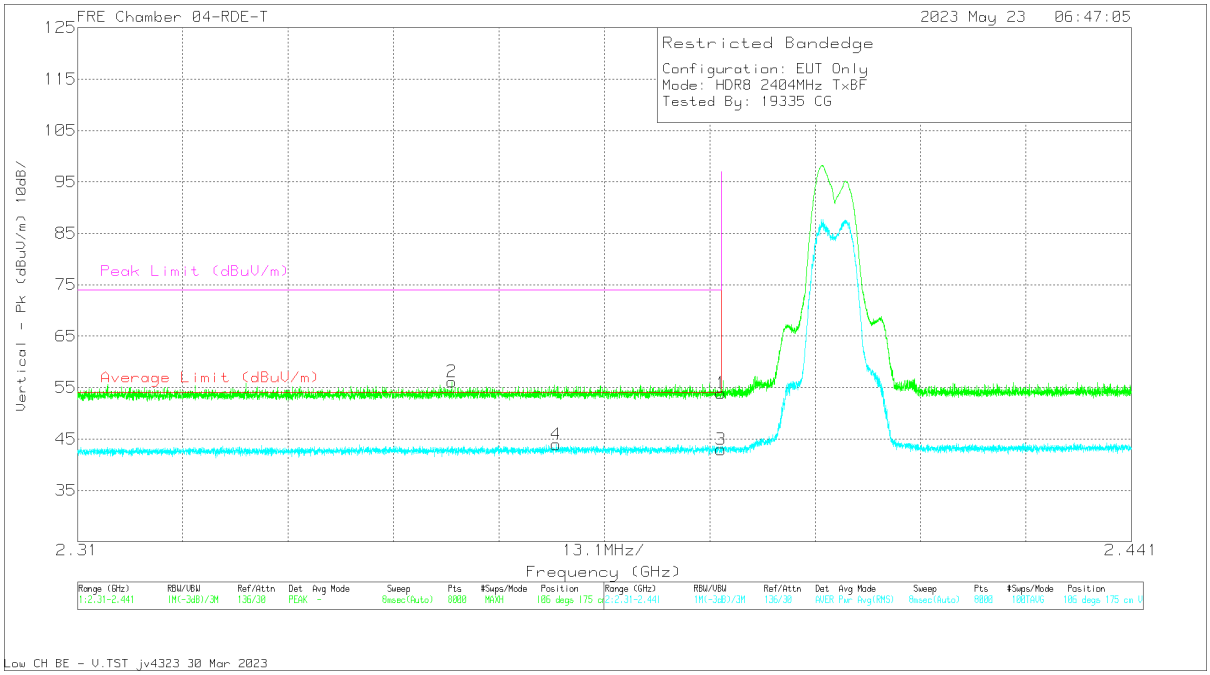
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.7	Pk	32.1	-37.89	53.91	-	-	74	-20.09	106	175	V
2	* 2.35656	62.05	Pk	32	-37.9	56.15	-	-	74	-17.85	106	175	V
3	* 2.39	48.78	RMS	32.1	-37.89	42.99	54	-11.01	-	-	106	175	V
4	* 2.369514	49.73	RMS	32.1	-37.88	43.95	54	-10.05	-	-	106	175	V

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

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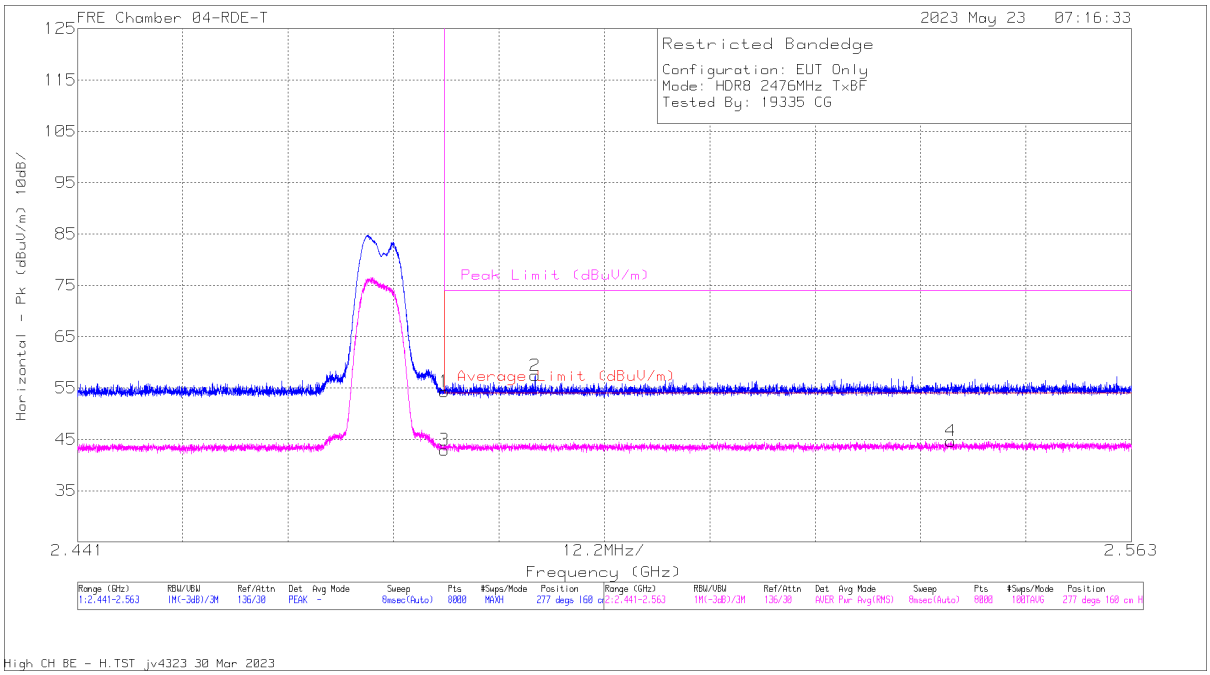
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	59.9	Pk	32.2	-37.81	54.29	-	-	74	-19.71	277	160	H
2	* 2.493985	62.99	Pk	32.3	-37.84	57.45	-	-	74	-16.55	277	160	H
3	* 2.4835	48.54	RMS	32.2	-37.81	42.93	54	-11.07	-	-	277	160	H
4	2.542106	50.15	RMS	32.3	-37.77	44.68	54	-9.32	-	-	277	160	H

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

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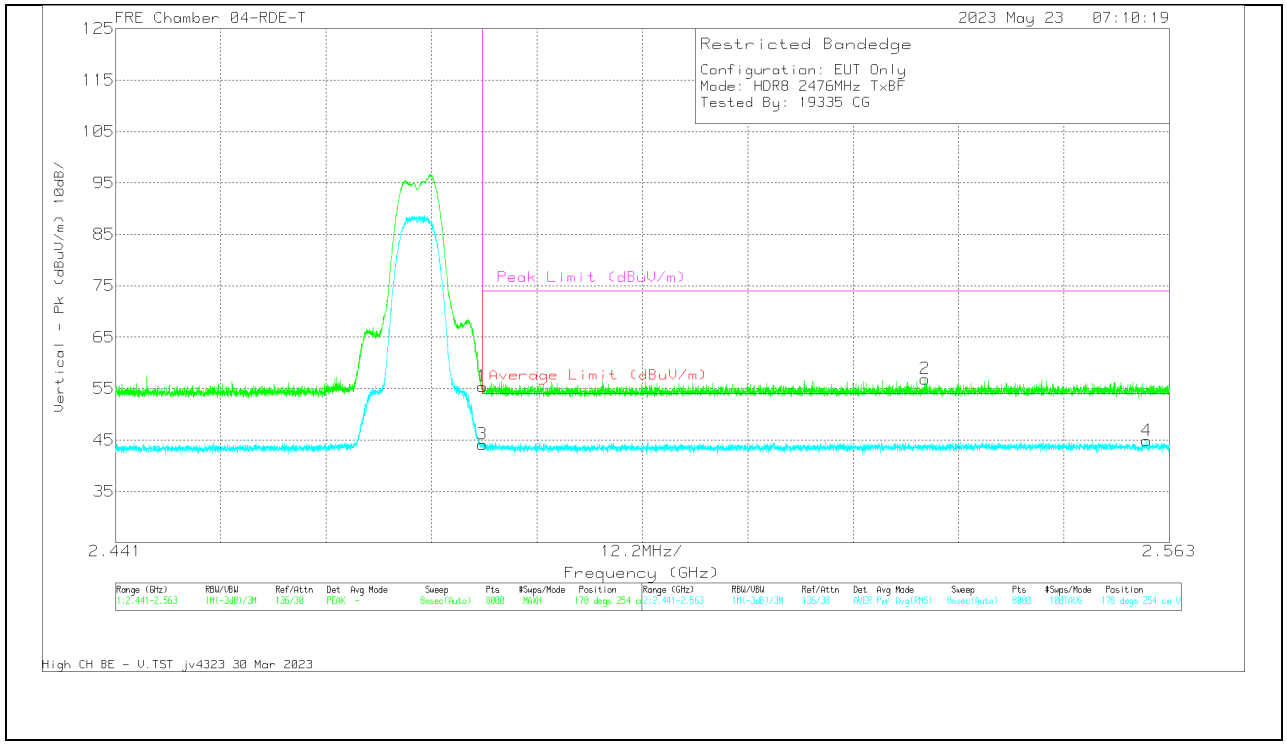
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	Gain/Loss (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	61	Pk	32.2	-37.81	55.39	-	-	74	-18.61	178	254	V
3	* 2.4835	49.78	RMS	32.2	-37.81	44.17	54	-9.83	-	-	178	254	V
2	2.534739	62.35	Pk	32.3	-37.75	56.9	-	-	74	-17.1	178	254	V
4	2.560393	50.47	RMS	32.2	-37.79	44.88	54	-9.12	-	-	178	254	V

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

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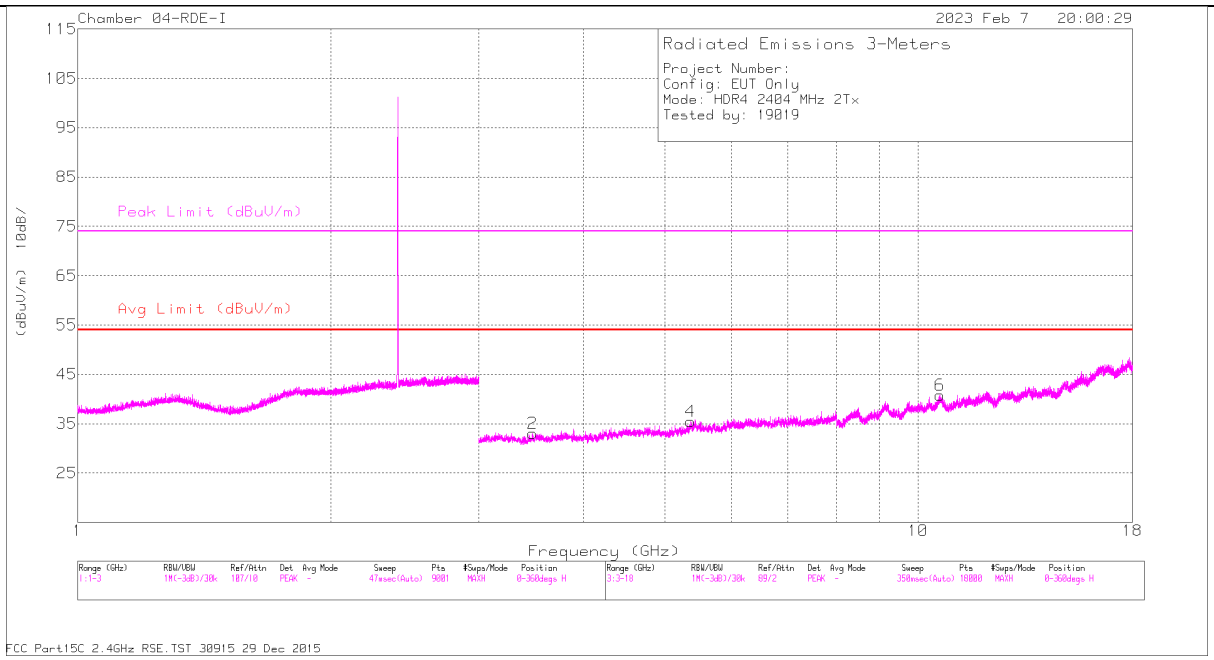
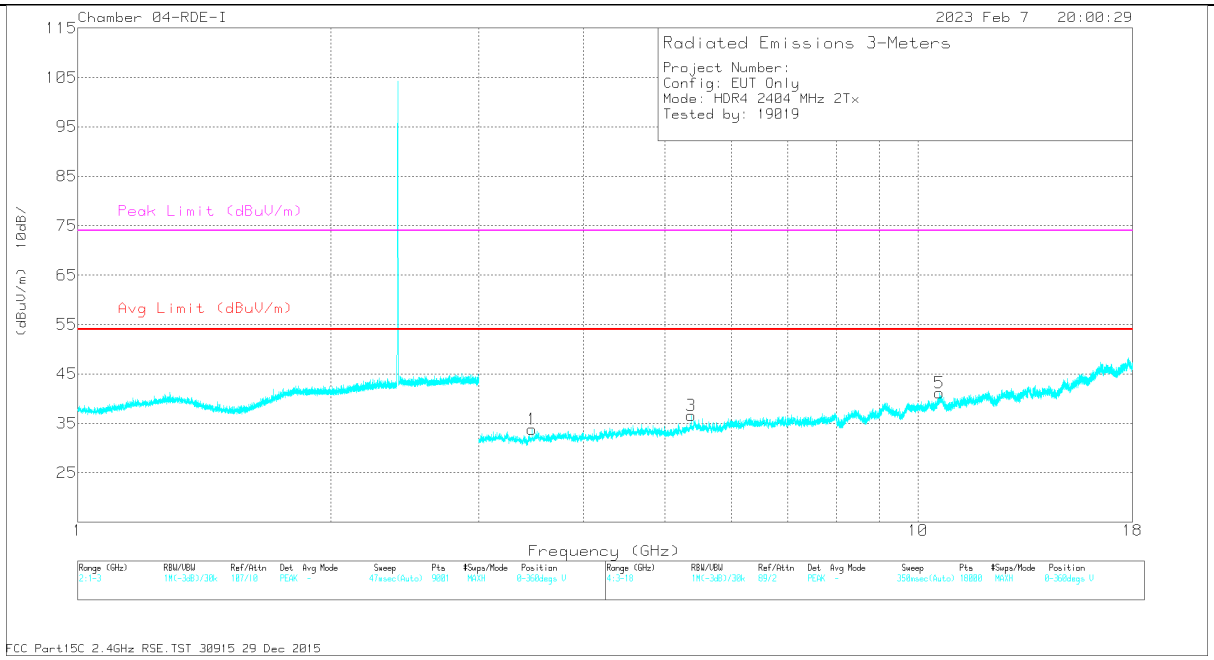
10.2.9. HARMONICS AND SPURIOUS EMISSIONS

HDR4

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB) - 3mH	Amp/Cbl /Fltr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	3.476071	38.98	PK2	32.7	-29.4	42.28	-	-	-	-	217	214	H
	3.475506	27.1	MAv1	32.7	-29.4	30.4	-	-	-	-	217	214	H
4	* 5.359145	35.92	PK2	34.8	-26.3	44.42	-	-	74	-29.58	258	211	H
	* 5.362973	24.69	MAv1	34.8	-26.2	33.29	54	-20.71	-	-	258	211	H
6	* 10.618893	33.67	PK2	37.6	-21	50.27	-	-	74	-23.73	180	323	H
	* 10.619759	22.53	MAv1	37.6	-21	39.13	54	-14.87	-	-	180	323	H
1	3.470613	39.24	PK2	32.7	-29.4	42.54	-	-	-	-	286	157	V
	3.470015	27.41	MAv1	32.7	-29.4	30.71	-	-	-	-	286	157	V
3	* 5.366593	36.09	PK2	34.8	-26.3	44.59	-	-	74	-29.41	31	236	V
	* 5.365086	24.88	MAv1	34.8	-26.3	33.38	54	-20.62	-	-	31	236	V
5	10.598763	34.54	PK2	37.5	-21.4	50.64	-	-	-	-	124	284	V
	10.596712	22.07	MAv1	37.5	-21.5	38.07	-	-	-	-	124	284	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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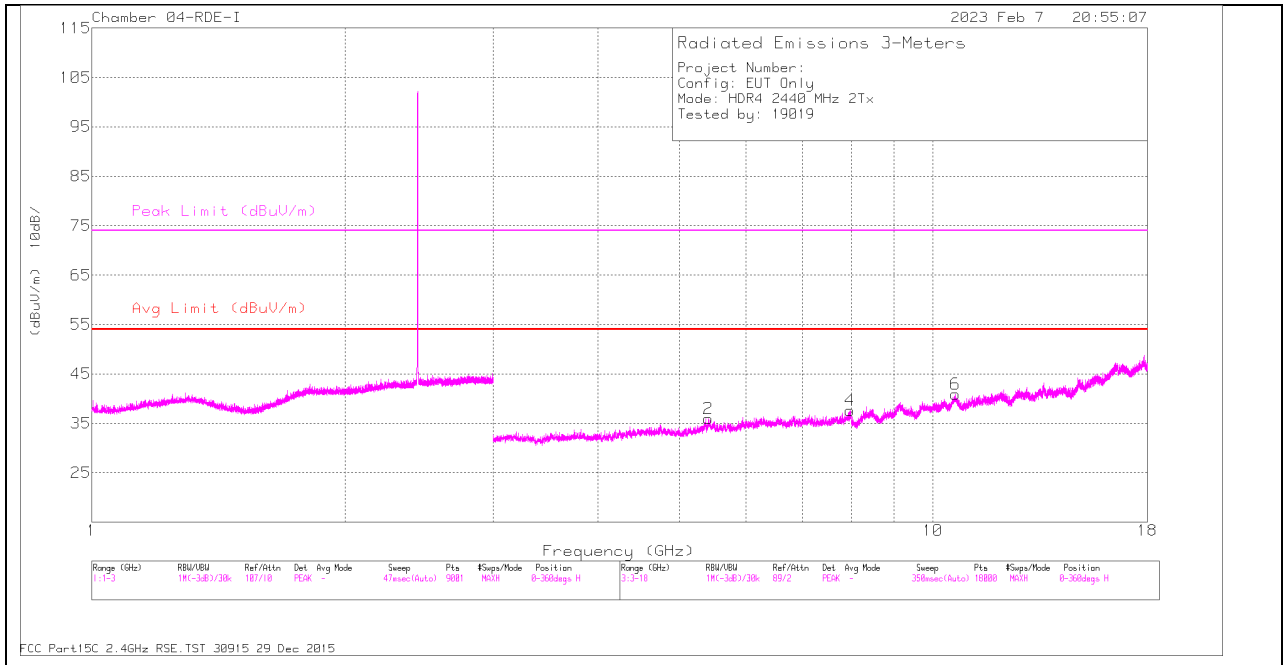
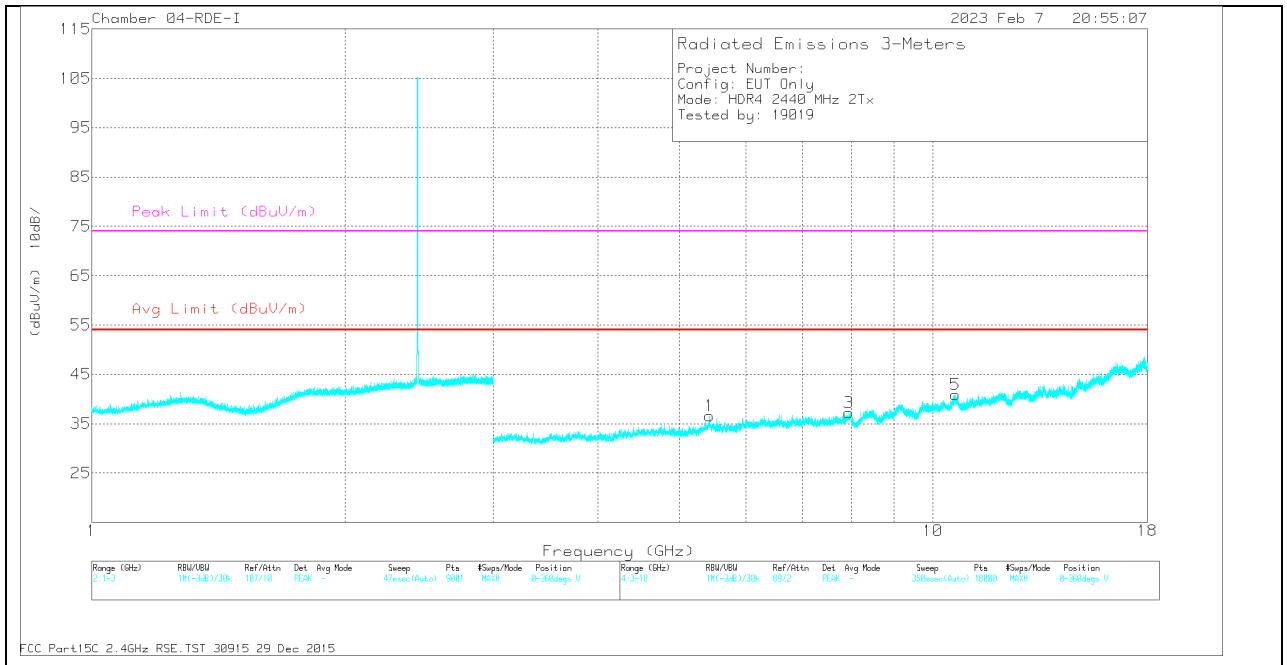
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB) - 3mH	Amp/Cbl /Fltr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.40491	35.77	PK2	35	-26.2	44.57	-	-	74	-29.43	35	143	H
	* 5.403879	24.18	MAv1	35	-26.2	32.98	54	-21.02	-	-	35	143	H
4	7.974001	34.93	PK2	35.8	-23.9	46.83	-	-	-	-	201	155	H
	7.975371	23.12	MAv1	35.8	-23.9	35.02	-	-	-	-	201	155	H
6	* 10.647821	33.85	PK2	37.6	-21.2	50.25	-	-	74	-23.75	294	200	H
	* 10.650598	22.01	MAv1	37.6	-21.2	38.41	54	-15.59	-	-	294	200	H
1	* 5.430927	36.29	PK2	35	-26.2	45.09	-	-	74	-28.91	186	115	V
	* 5.431921	24.73	MAv1	35.1	-26.2	33.63	54	-20.37	-	-	186	115	V
3	7.95462	35.01	PK2	35.8	-24.1	46.71	-	-	-	-	324	120	V
	7.954762	23.24	MAv1	35.8	-24.1	34.94	-	-	-	-	324	120	V
5	* 10.641961	33.21	PK2	37.6	-21.2	49.61	-	-	74	-24.39	155	124	V
	* 10.643712	21.96	MAv1	37.6	-21.2	38.36	54	-15.64	-	-	155	124	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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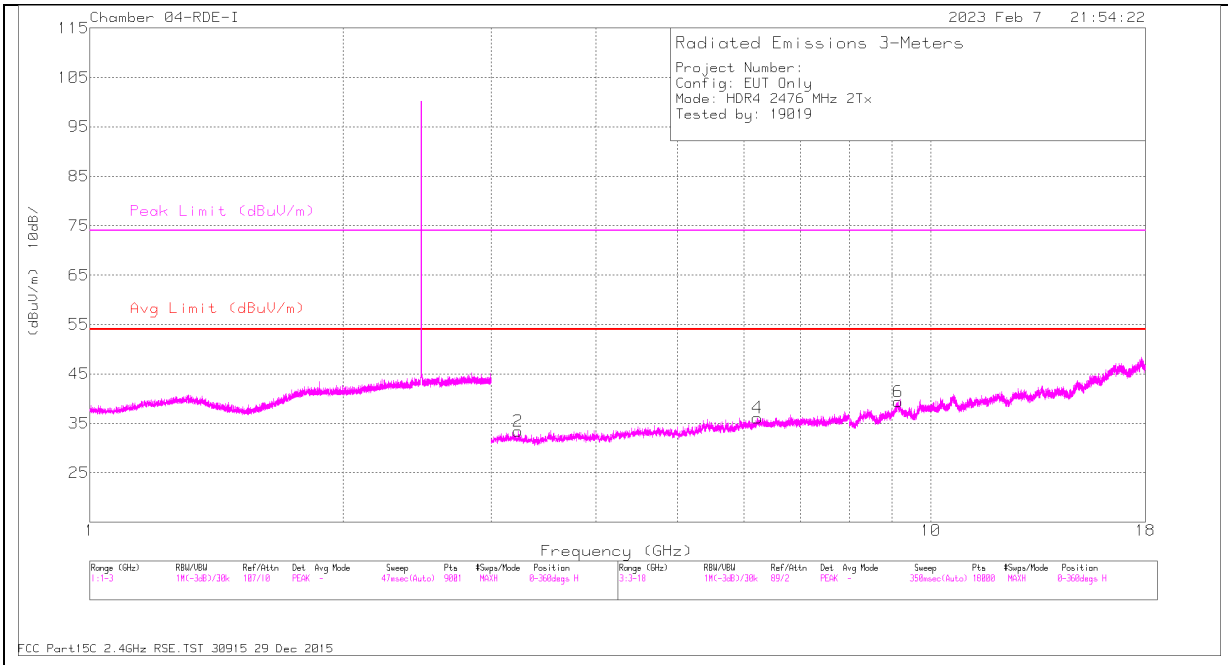
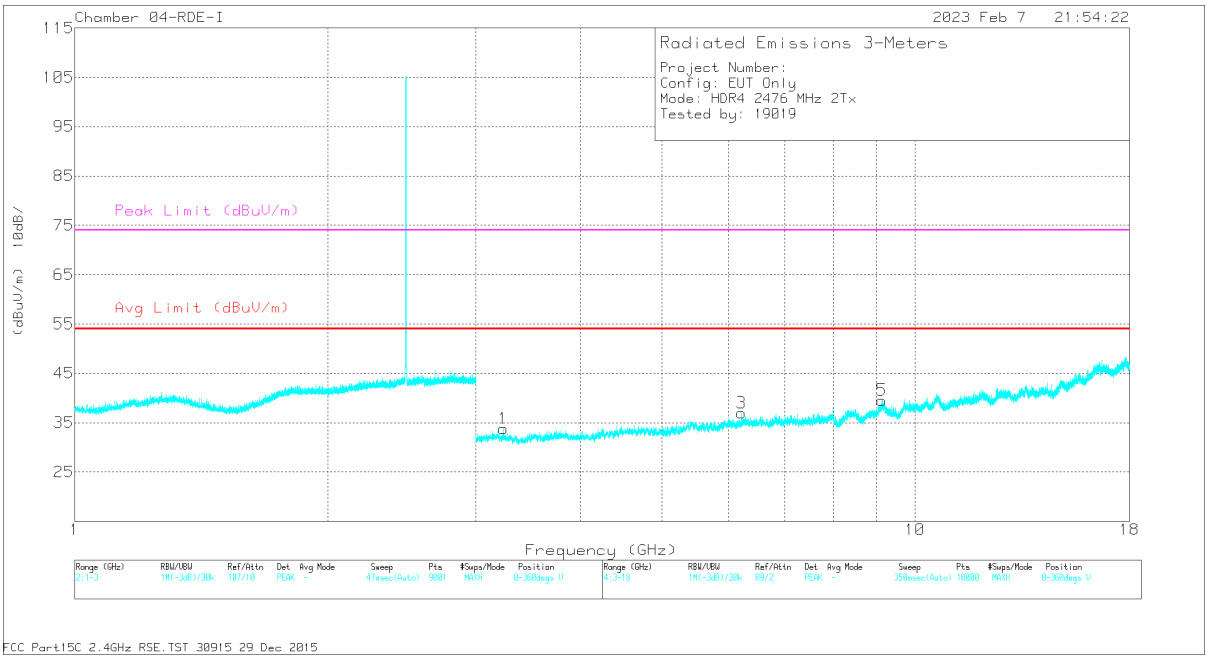
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB) - 3mH	Amp/Cbl/Flt r (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	3.234189	39.19	PK2	32.9	-29.4	42.69	-	-	-	-	14	385	H
	3.232894	27.64	MAv1	32.9	-29.5	31.04	-	-	-	-	14	385	H
4	6.22187	36.27	PK2	35.7	-26.3	45.67	-	-	-	-	284	215	H
	6.221125	24.63	MAv1	35.7	-26.3	34.03	-	-	-	-	284	215	H
6	* 9.142891	34.19	PK2	36.2	-21.5	48.89	-	-	74	-25.11	47	101	H
	* 9.141671	22.66	MAv1	36.2	-21.5	37.36	54	-16.64	-	-	47	101	H
13	3.237255	39.83	PK2	32.9	-29.3	43.43	-	-	-	-	122	219	V
	3.240001	27.54	MAv1	32.9	-29.5	30.94	-	-	-	-	122	219	V
	6.218346	36.74	PK2	35.7	-26.5	45.94	-	-	-	-	286	156	V
	6.218376	24.89	MAv1	35.7	-26.5	34.09	-	-	-	-	286	156	V
5	* 9.125036	34.24	PK2	36.2	-21.4	49.04	-	-	74	-24.96	198	243	V
	* 9.125619	22.43	MAv1	36.2	-21.4	37.23	54	-16.77	-	-	198	243	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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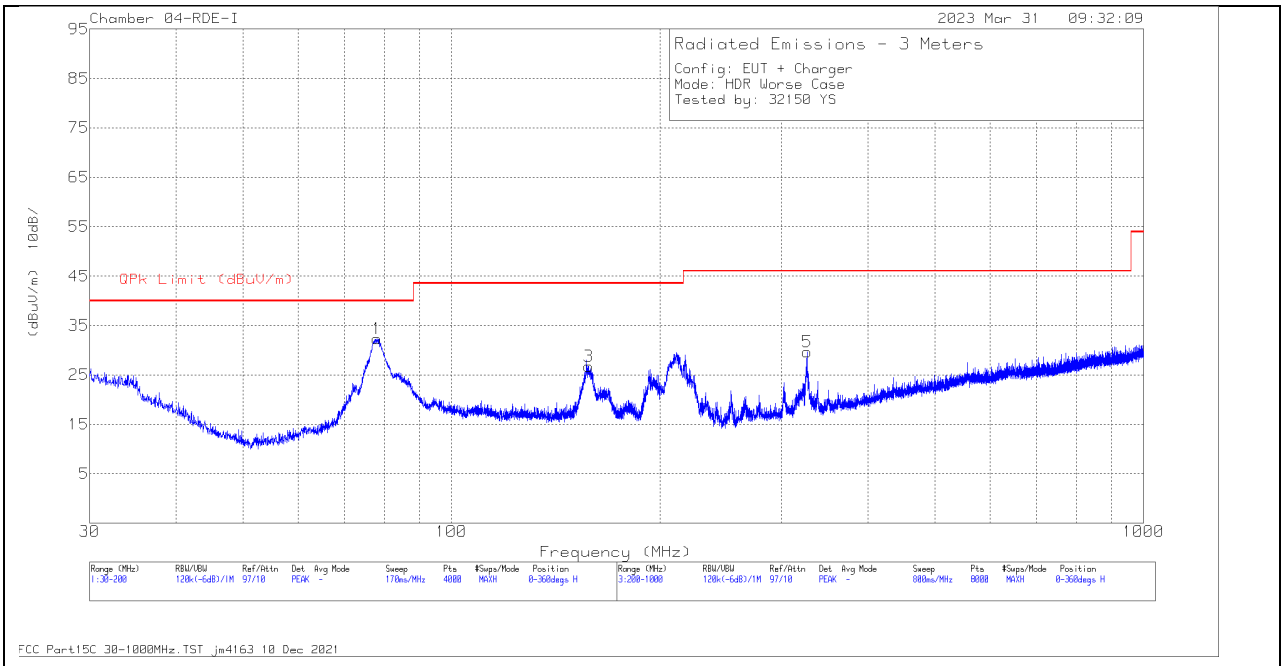
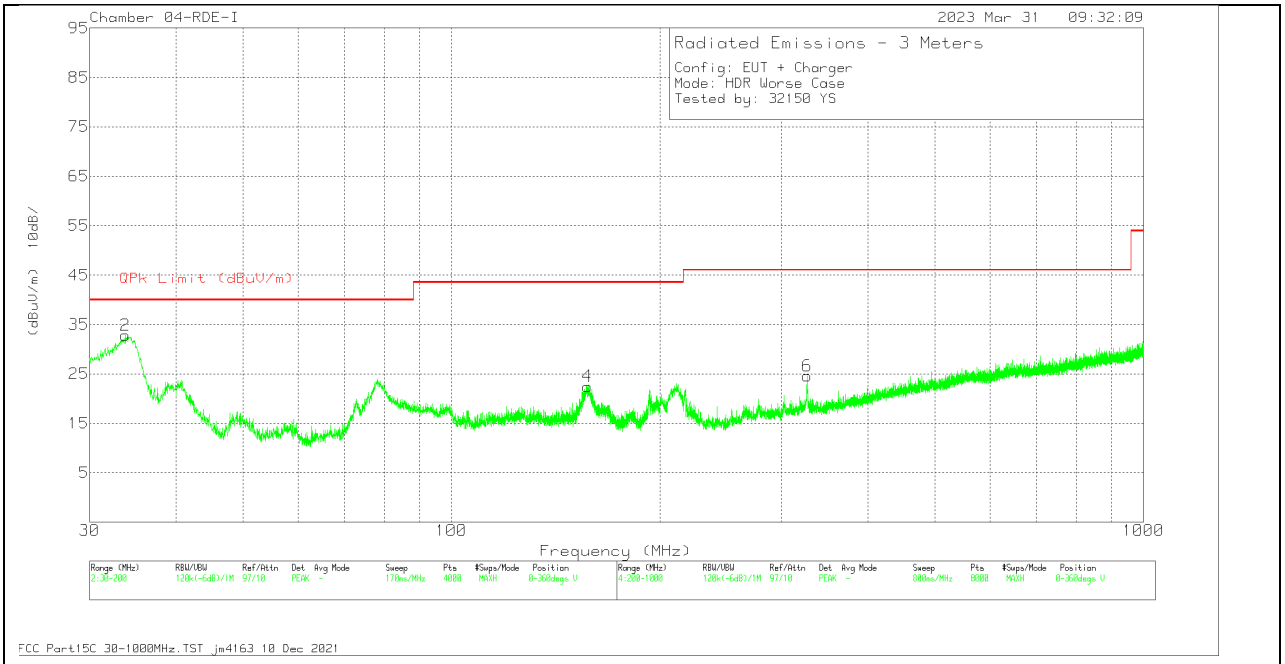
10.3. WORST CASE BELOW 1 GHz

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



HORIZONTAL



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Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80714 ACF (dB) - 10mH	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	78.0799	48.84	Pk	14.3	-30.8	32.34	40	-7.66	0-360	298	H
3	157.873	38.98	Pk	18	-30.2	26.78	43.52	-16.74	0-360	199	H
2	33.7835	38.99	Pk	25	-31.1	32.89	40	-7.11	0-360	100	V
	33.9182	34.81	QP	24.9	-31.1	28.61	40	-11.39	89	183	V
4	157.108	34.69	Pk	18	-30.2	22.49	43.52	-21.03	0-360	100	V
5	* 326.716	39.41	Pk	19.7	-29.5	29.61	46.02	-16.41	0-360	100	H
6	* 326.816	34.36	Pk	19.7	-29.5	24.56	46.02	-21.46	0-360	199	V

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

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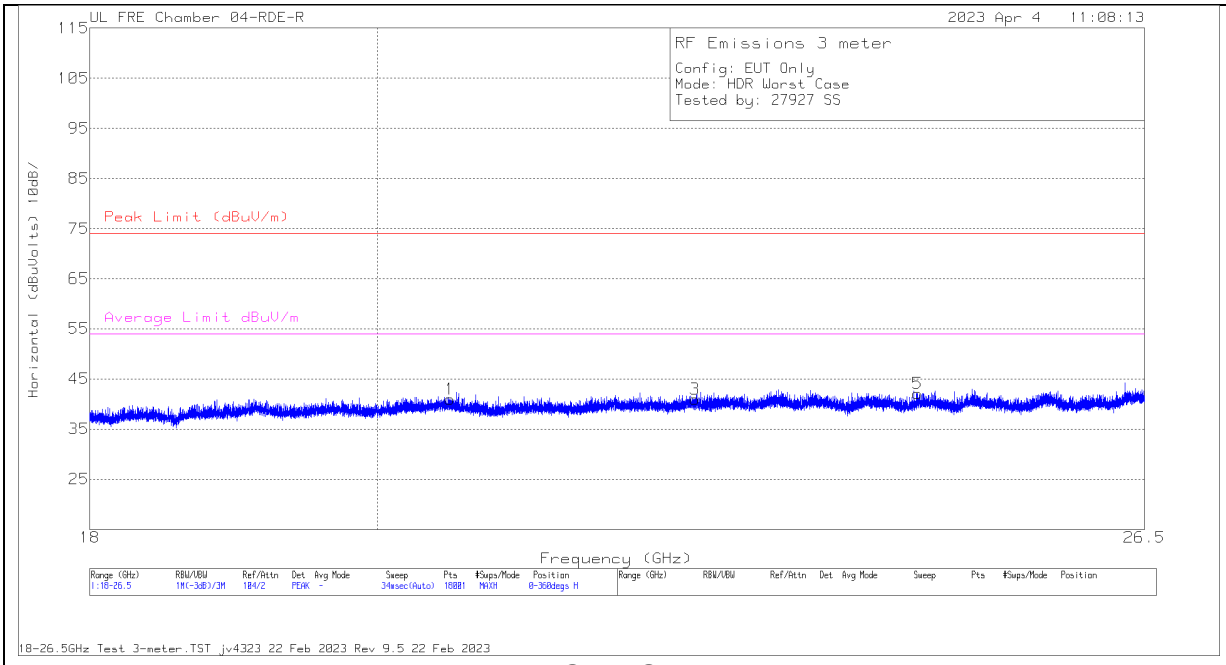
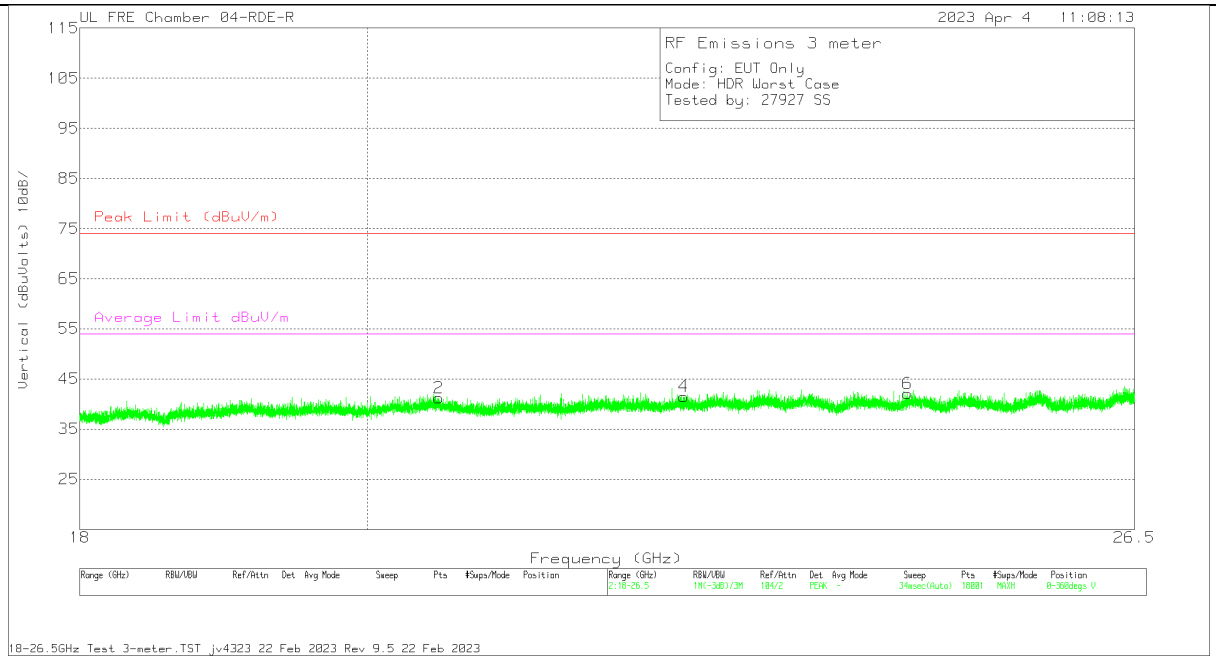
10.4. WORST CASE 18-26 GHz

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



HORIZONTAL



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18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	172353 ACF (dB) - 3mH	171583 Amp Assembly (dB)	Cables (dB)	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	PK Margin (dB)	Average Limit dBuV/m	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	20.53111	55.5	Pk	33.4	-63.8	16.1	41.2	74	-32.8	54	-12.8	0-360	99	V
1	20.541971	55.26	Pk	33.4	-63.8	16.1	40.96	74	-33.04	54	-13.04	0-360	100	H
4	22.463915	56.53	Pk	33.8	-65.6	16.8	41.53	74	-32.47	54	-12.47	0-360	99	V
3	22.473831	55.99	Pk	33.8	-65.6	16.8	40.99	74	-33.01	54	-13.01	0-360	100	H
6	24.38208	54.85	Pk	34.4	-64.6	17.5	42.15	74	-31.85	54	-11.85	0-360	99	V
5	24.383497	54.84	Pk	34.4	-64.6	17.5	42.14	74	-31.86	54	-11.86	0-360	100	H

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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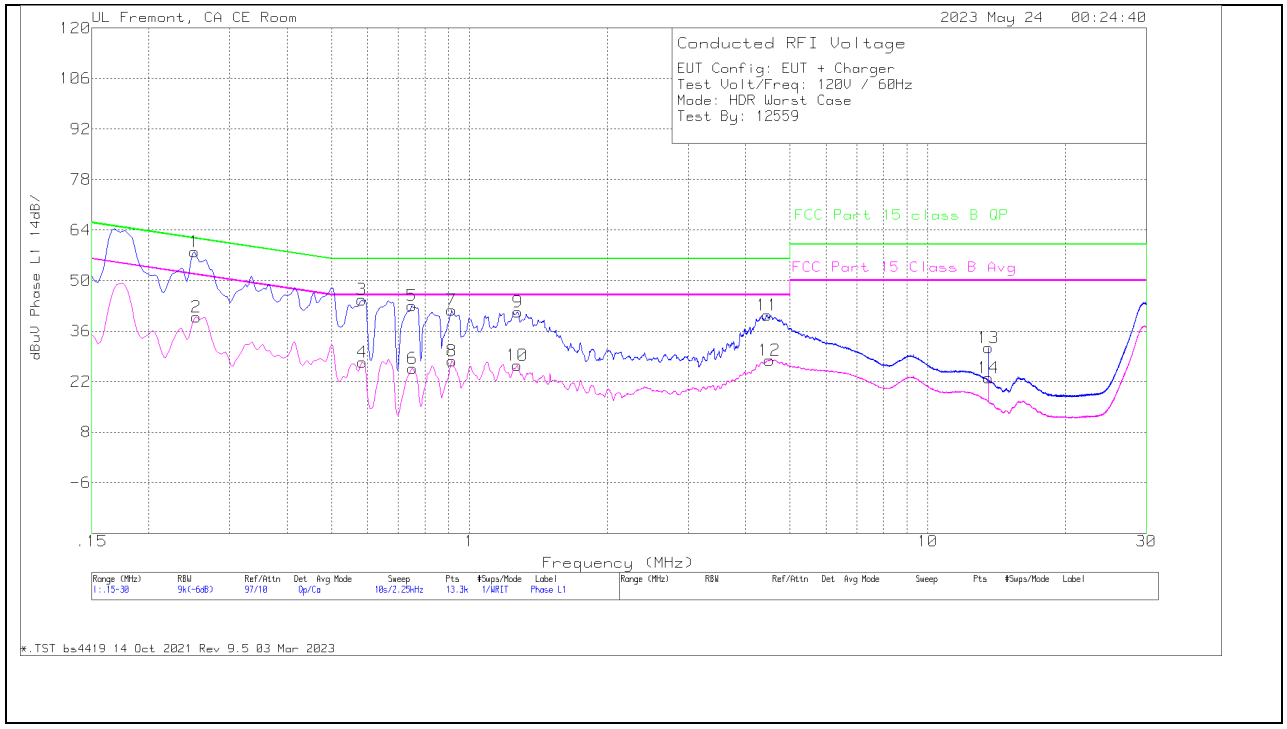
11.1. AC Power Line With AC/DC Adapter

LINE 1 RESULTS



Range 1: Phase L1 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	C1&C3 cable path loss dB	PRE0186447 LISN L1 dB	207996 Limiter with short cable dB	10 dB Pad	Corrected Reading dBuV	FCC Part 15 Class B Avg dBuV	Margin (dB)	FCC Part 15 class B QP dBuV	Margin (dB)
2	.2535	20.61	Ca	0	0	9.3	10	39.91	51.64	-11.73	-	-
4	.5843	8.01	Ca	.1	0	9.3	10	27.41	46	-18.59	-	-
6	.7508	6.31	Ca	.1	0	9.3	10	25.71	46	-20.29	-	-
8	.9161	8.38	Ca	.1	0	9.3	10	27.78	46	-18.22	-	-
10	1.2705	7.06	Ca	.1	0	9.3	10	26.46	46	-19.54	-	-
12	4.515	8.48	Ca	.1	0	9.3	10	27.88	46	-18.12	-	-
14	13.56	3.38	Ca	.2	.1	9.3	10	22.98	50	-27.02	-	-
1	.2513	38.63	Qp	0	0	9.3	10	57.93	-	-	61.72	-3.79
3	.582	25.3	Qp	.1	0	9.3	10	44.7	-	-	56	-11.3
5	.7485	23.57	Qp	.1	0	9.3	10	42.97	-	-	56	-13.03
7	.915	22.48	Qp	.1	0	9.3	10	41.88	-	-	56	-14.12
9	1.2773	21.91	Qp	.1	0	9.3	10	41.31	-	-	56	-14.69
11	4.4633	21.01	Qp	.1	0	9.3	10	40.41	-	-	56	-15.59
13	13.56	11.81	Qp	.2	.1	9.3	10	31.41	-	-	60	-28.59

Qp - Quasi-Peak detector
Ca - CISPR average detection

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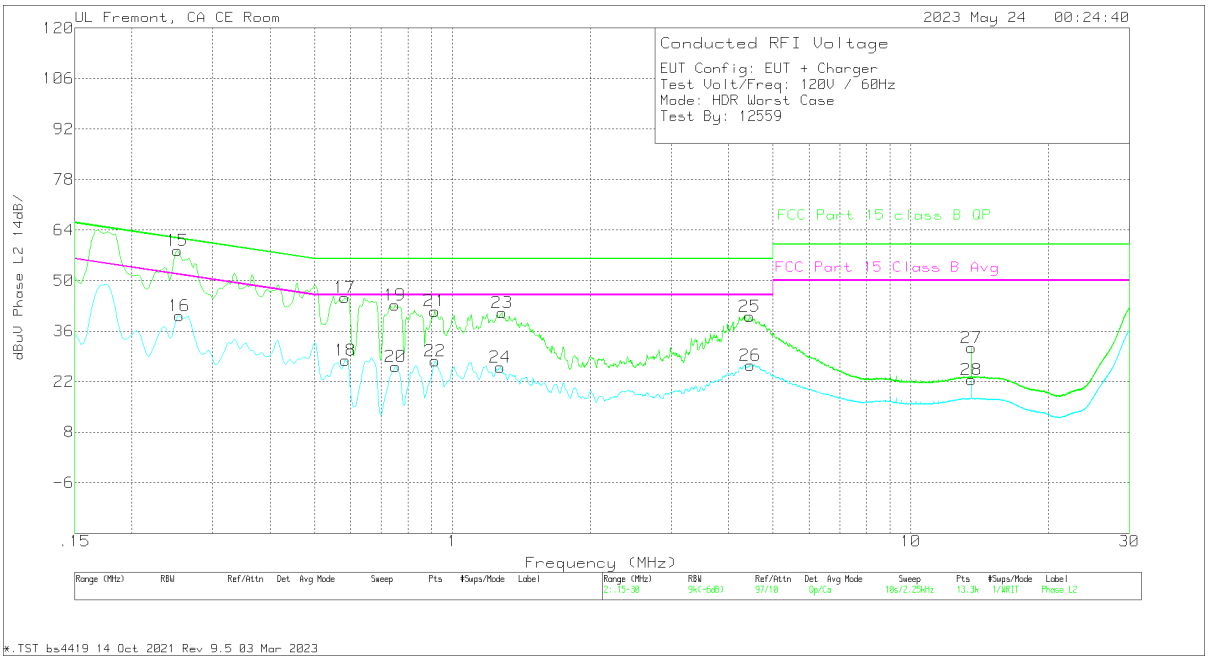
LINE 2 RESULTS



Range 2: Phase L2 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	C2&C3 cable path loss dB	LISN L2 dB	207996 Limiter with short cable dB	10 dB Pad	Corrected Reading dBuV	FCC Part 15 Class B Avg dBuV	Margin (dB)	FCC Part 15 class B QP dBuV	Margin (dB)
16	.2535	20.93	Ca	0	0	9.3	10	40.23	51.64	-11.41	-	-
18	.5843	8.52	Ca	.1	0	9.3	10	27.92	46	-18.08	-	-
20	.7508	6.83	Ca	.1	0	9.3	10	26.23	46	-19.77	-	-
22	.9173	8.29	Ca	.1	0	9.3	10	27.69	46	-18.31	-	-
24	1.2705	6.56	Ca	.1	0	9.3	10	25.96	46	-20.04	-	-
26	4.4633	7.17	Ca	.1	0	9.3	10	26.57	46	-19.43	-	-
28	13.56	2.92	Ca	.2	.1	9.3	10	22.52	50	-27.48	-	-
15	.2513	39.04	Qp	0	0	9.3	10	58.34	-	-	61.72	-3.38
17	.582	25.95	Qp	.1	0	9.3	10	45.35	-	-	56	-10.65
19	.7485	23.74	Qp	.1	0	9.3	10	43.14	-	-	56	-12.86
21	.915	22.17	Qp	.1	0	9.3	10	41.57	-	-	56	-14.43
23	1.2818	21.69	Qp	.1	0	9.3	10	41.09	-	-	56	-14.91
25	4.452	20.65	Qp	.1	0	9.3	10	40.05	-	-	56	-15.95
27	13.56	11.86	Qp	.2	.1	9.3	10	31.46	-	-	60	-28.54

Qp - Quasi-Peak detector
Ca - CISPR average detection

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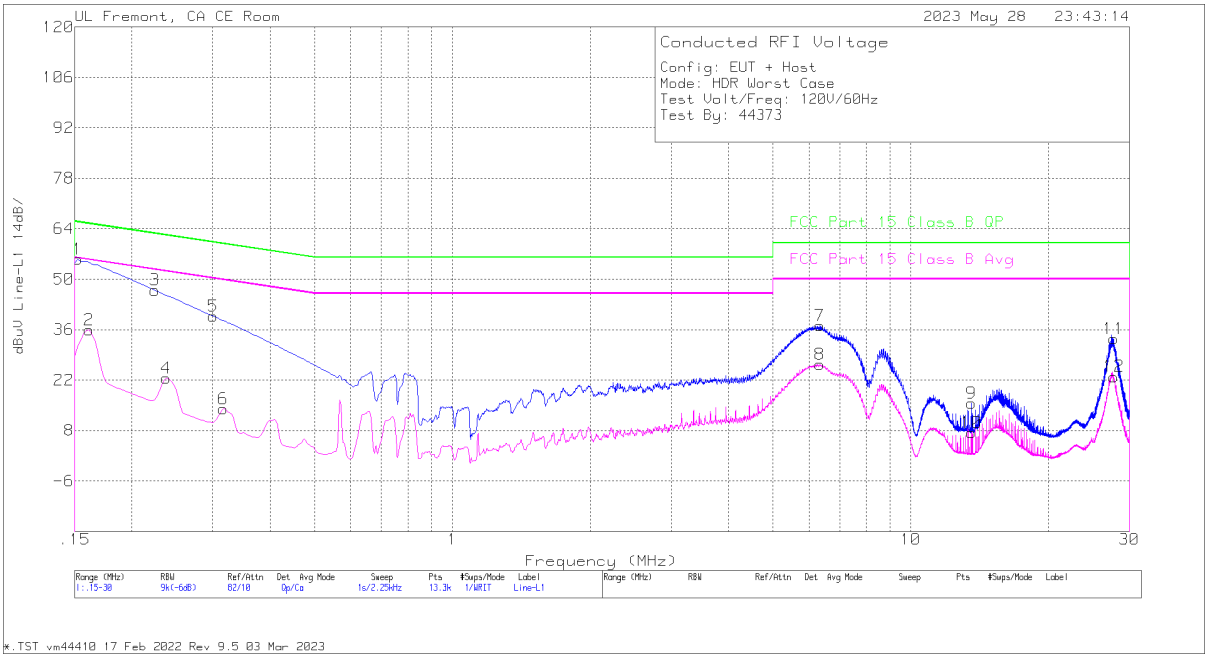
11.2. AC Power Line With Laptop

LINE 1 RESULTS



Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L1 (dB)	C1&C3 cable (dB)	TekBox Limiter TBFL1 Model 207 (dB)	Corrected Reading dBuV	FCC Part 15 Class B QP (dBuV)	QP Margin (dB)	FCC Part 15 Class B Avg (dBuV)	Av(CISPR) Margin (dB)
2	.1613	26.58	Ca	0	0	9.4	35.98	-	-	55.4	-19.42
4	.2378	13.21	Ca	0	0	9.3	22.51	-	-	52.17	-29.66
6	.3165	4.75	Ca	0	0	9.3	14.05	-	-	49.8	-35.75
8	6.3341	16.93	Ca	0	.1	9.3	26.33	-	-	50	-23.67
10	13.56	-2.22	Ca	.1	.2	9.3	7.38	-	-	50	-42.62
12	27.753	12.97	Ca	.3	.3	9.4	22.97	-	-	50	-27.03
1	.1523	46.1	Qp	0	0	9.4	55.5	65.88	-10.38	-	-
3	.2243	37.66	Qp	0	0	9.3	46.96	62.66	-15.7	-	-
5	.3008	30.4	Qp	0	0	9.3	39.7	60.22	-20.52	-	-
7	6.3341	27.67	Qp	0	.1	9.3	37.07	60	-22.93	-	-
9	13.56	5.97	Qp	.1	.2	9.3	15.57	60	-44.43	-	-
11	27.7283	23.53	Qp	.3	.3	9.4	33.53	60	-26.47	-	-

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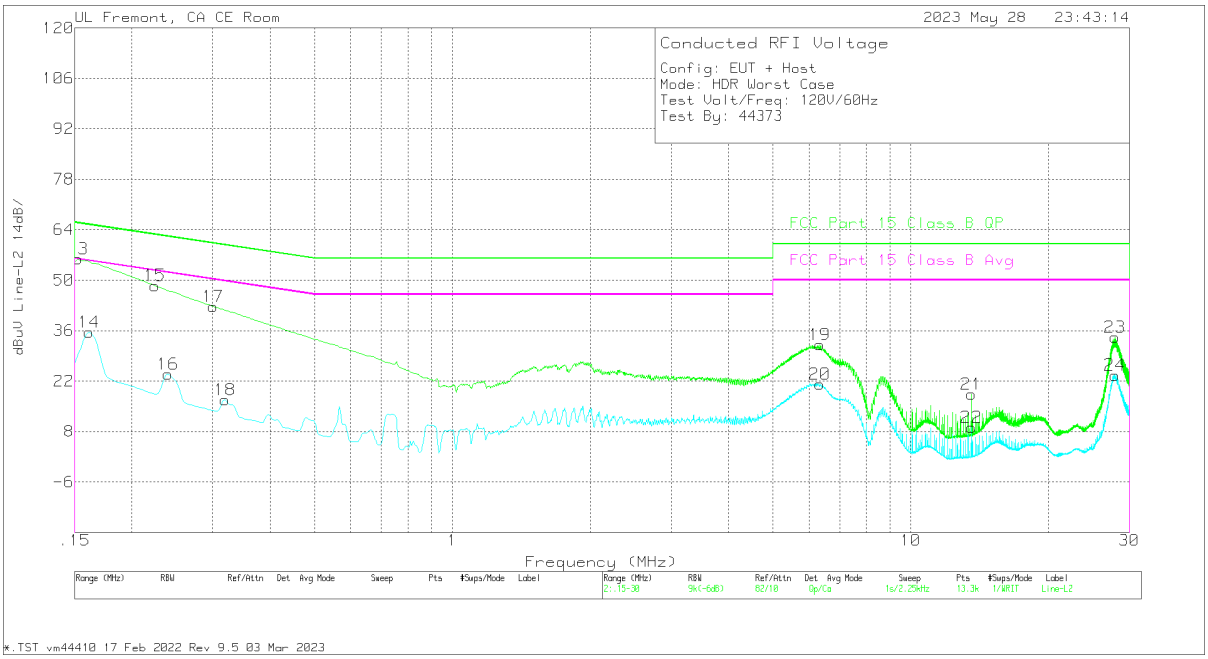
LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	L2_LISN dB	C2&C3 cable path loss dB	207996 Limiter with short cable dB	Corrected Reading dBuV	FCC Part 15 Class B QP dBuV	QP Margin (dB)	FCC Part 15 Class B Avg dBuV	Av(CISPR) Margin (dB)
14	.1613	26.19	Ca	0	0	9.4	35.59	-	-	55.4	-19.81
16	.24	14.58	Ca	0	0	9.3	23.88	-	-	52.1	-28.22
18	.3188	7.43	Ca	0	0	9.3	16.73	-	-	49.74	-33.01
20	6.3308	11.73	Ca	0	.1	9.3	21.13	-	-	50	-28.87
22	13.56	-.52	Ca	.1	.2	9.3	9.08	-	-	50	-40.92
24	27.8993	13.66	Ca	.3	.3	9.4	23.66	-	-	50	-26.34
13	.1523	46.56	Qp	0	0	9.4	55.96	65.88	-9.92	-	-
15	.2243	39.22	Qp	0	0	9.3	48.52	62.66	-14.14	-	-
17	.3008	33.44	Qp	0	0	9.3	42.74	60.22	-17.48	-	-
19	6.333	22.64	Qp	0	.1	9.3	32.04	60	-27.96	-	-
21	13.56	8.73	Qp	.1	.2	9.3	18.33	60	-41.67	-	-
23	27.8678	24.15	Qp	.3	.3	9.4	34.15	60	-25.85	-	-

Qp - Quasi-Peak detector
Ca - CISPR average detection

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12. SETUP PHOTOS

Please refer to setup photos

END OF TEST REPORT

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