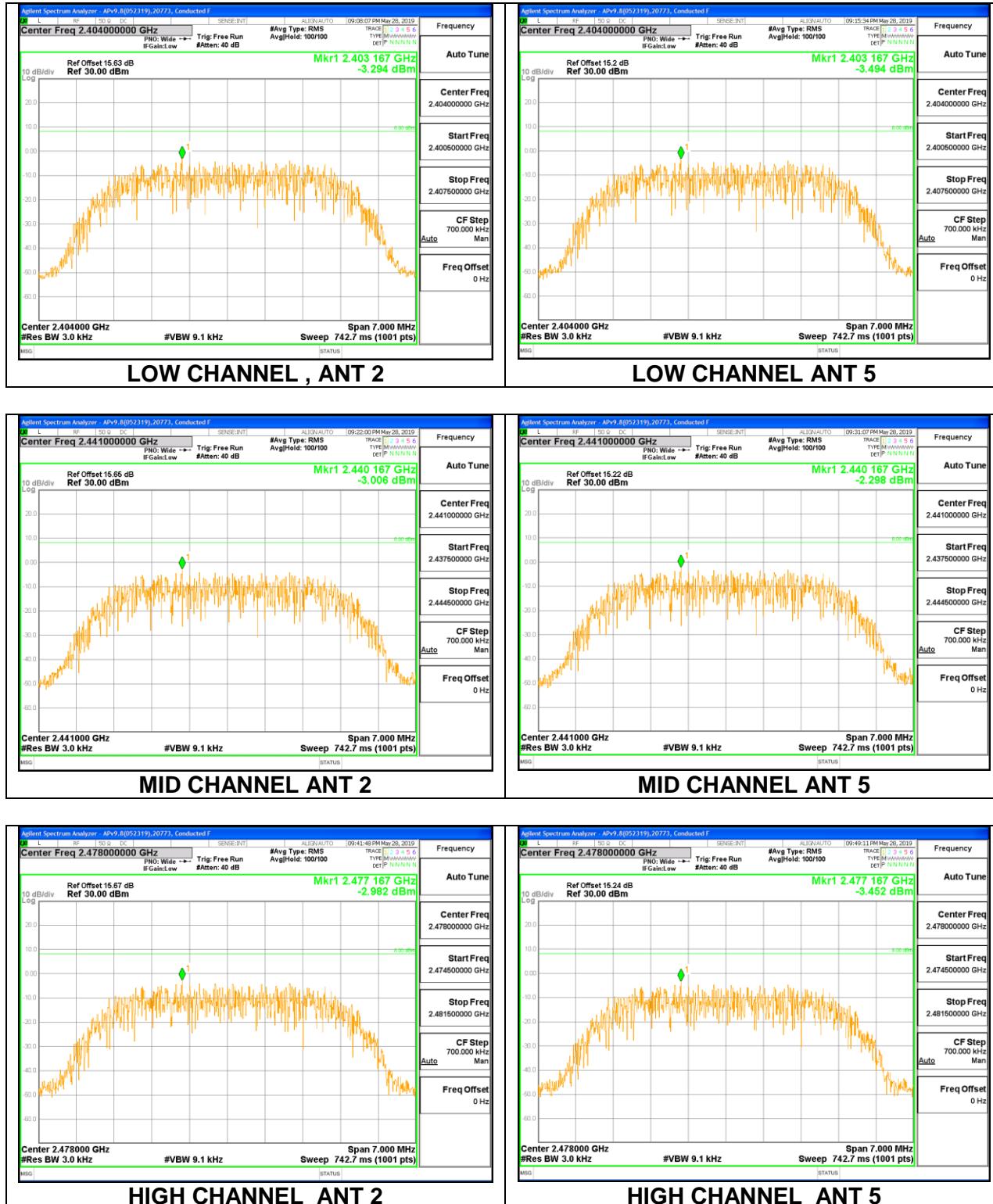


### 8.12.2. HIGH POWER HDR (HDR8)

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
--------------------	------	--

#### PSD Results

Channel	Frequency (MHz)	ANT 2 Meas (dBm/ 3kHz)	ANT 5 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low	2404	-3.29	-3.49	-0.38	8.0	-8.4
Mid	2441	-3.01	-2.30	0.37	8.0	-7.6
High	2478	-2.98	-3.45	-0.20	8.0	-8.2

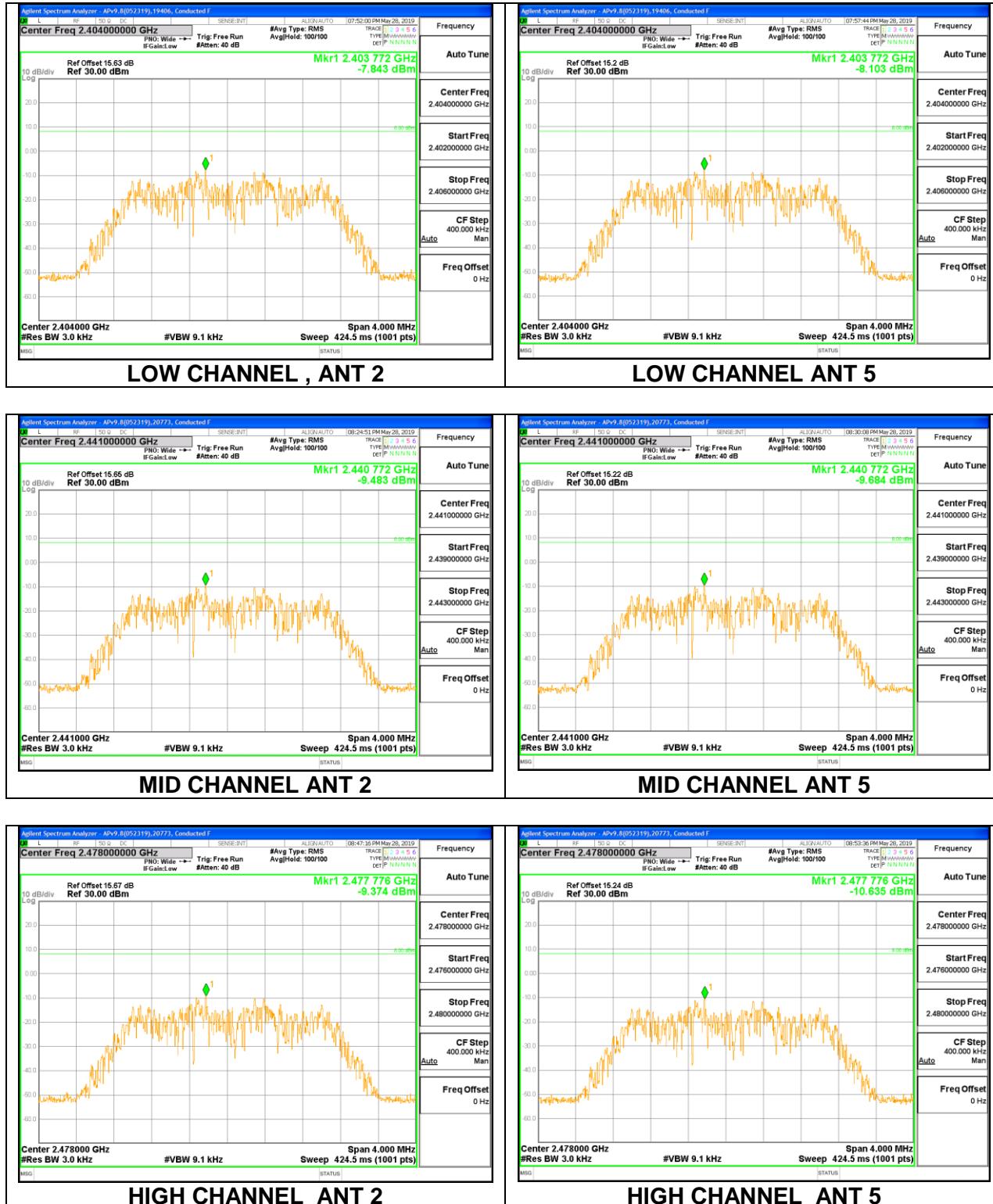


### 8.12.3. LOW POWER HDR (HDR4)

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
--------------------	------	--

#### PSD Results

Channel	Frequency (MHz)	ANT 2 Meas (dBm/3kHz)	ANT 5 Meas (dBm/3kHz)	Total Corr'd PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2404	-7.84	-8.10	-4.96	8.0	-13.0
Mid	2441	-9.48	-9.68	-6.57	8.0	-14.6
High	2478	-9.37	-10.64	-6.95	8.0	-14.9

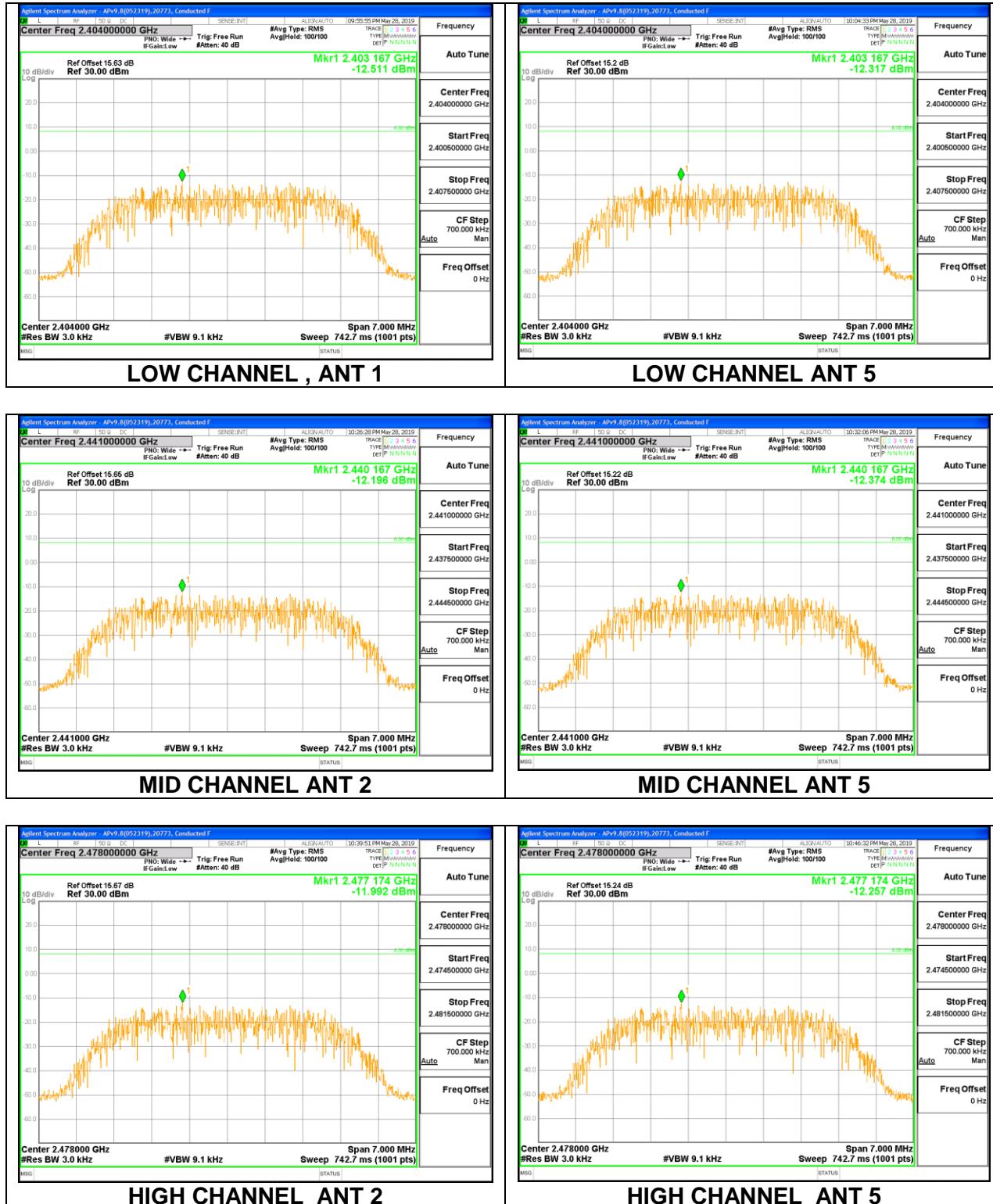


#### 8.12.4. LOW POWER HDR (HDR8)

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
--------------------	------	--

##### PSD Results

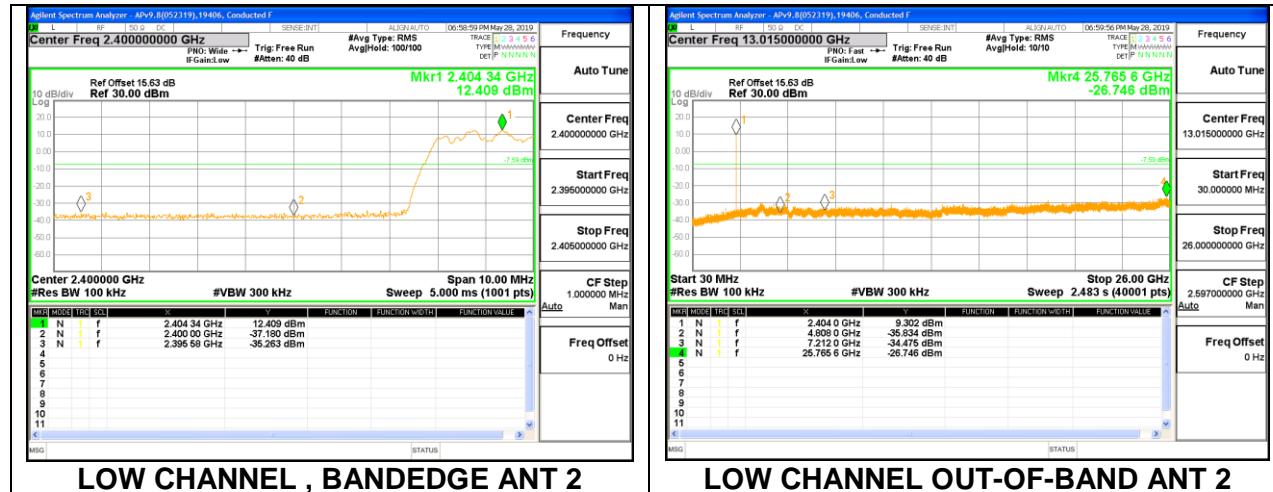
Channel	Frequency (MHz)	ANT 2 Meas (dBm/3kHz)	ANT 5 Meas (dBm/3kHz)	Total Corr'd PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2404	-12.51	-12.32	-9.40	8.0	-17.4
Mid	2441	-12.20	-12.37	-9.27	8.0	-17.3
High	2478	-11.99	-12.26	-9.11	8.0	-17.1



## 8.13. BEAMFORMING, CONDUCTED SPURIOUS

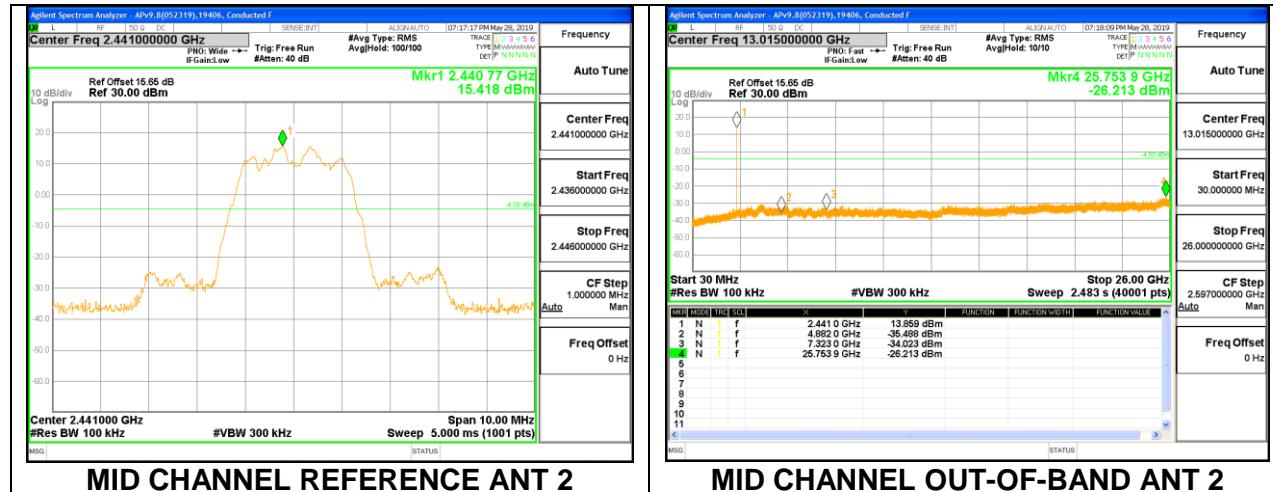
### 8.13.1. HIGH POWER HDR (HDR4)

#### Antenna 2



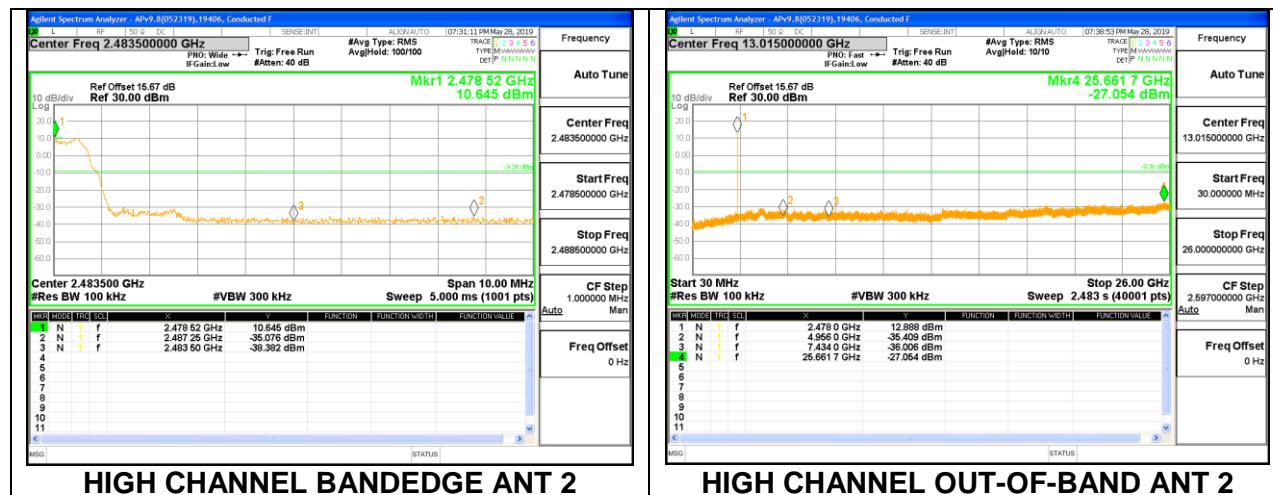
LOW CHANNEL , BANDEDGE ANT 2

LOW CHANNEL OUT-OF-BAND ANT 2



MID CHANNEL REFERENCE ANT 2

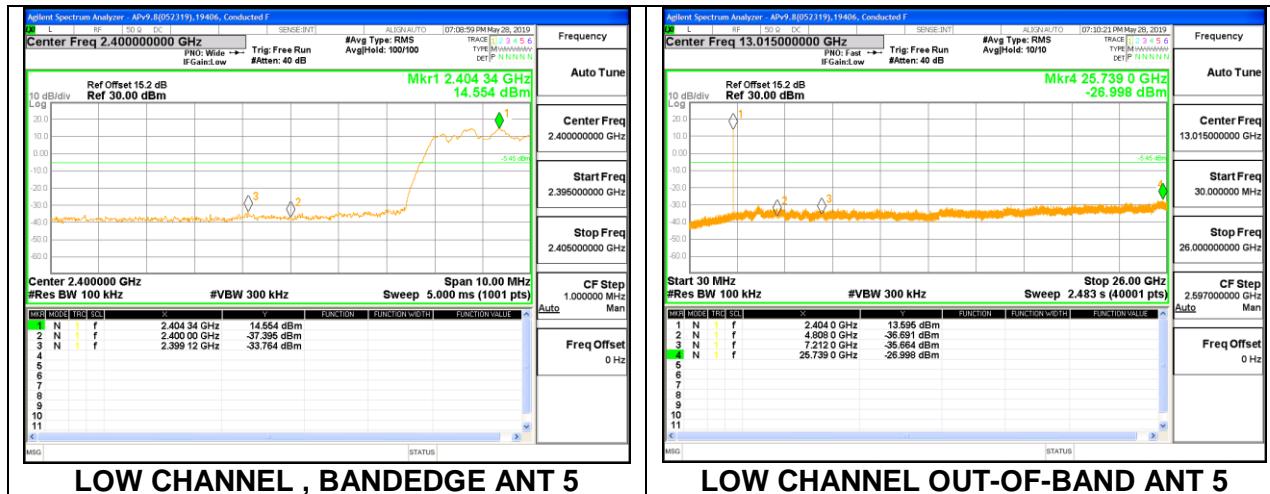
MID CHANNEL OUT-OF-BAND ANT 2



HIGH CHANNEL BANDEDGE ANT 2

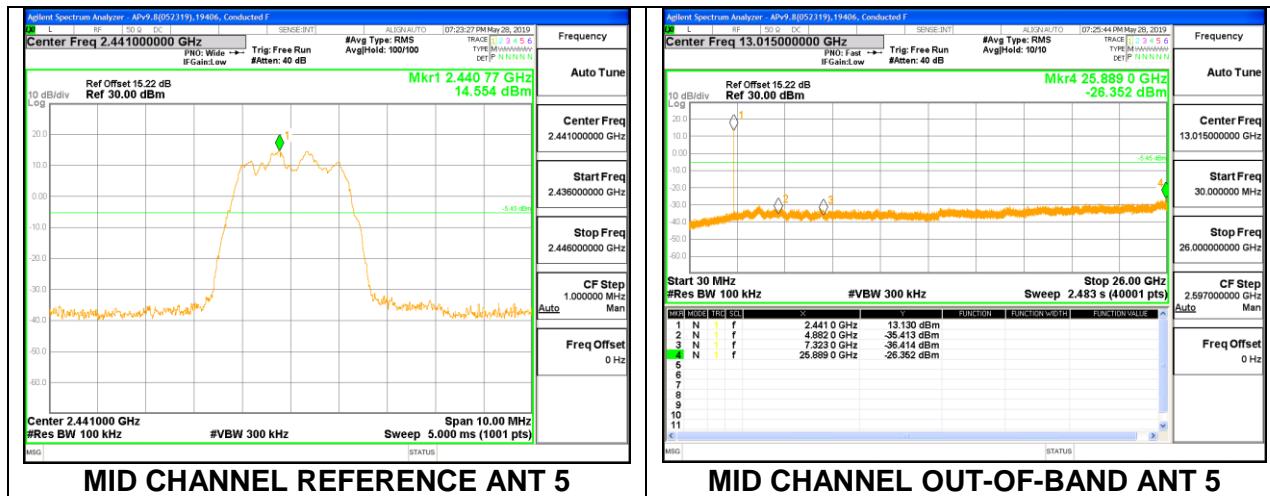
HIGH CHANNEL OUT-OF-BAND ANT 2

**Antenna 5**



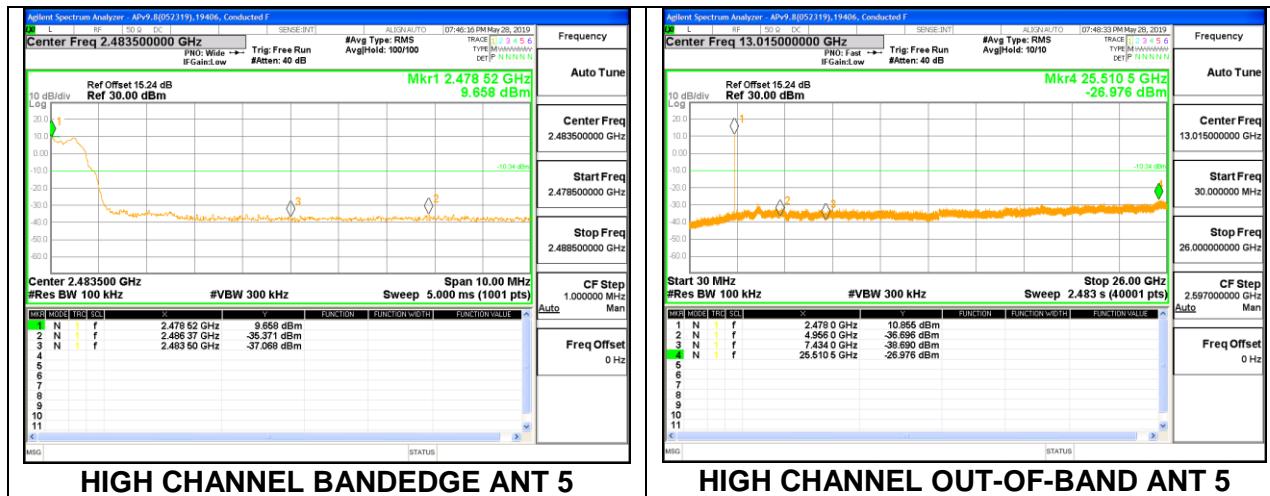
**LOW CHANNEL , BANDEDGE ANT 5**

**LOW CHANNEL OUT-OF-BAND ANT 5**



**MID CHANNEL REFERENCE ANT 5**

**MID CHANNEL OUT-OF-BAND ANT 5**



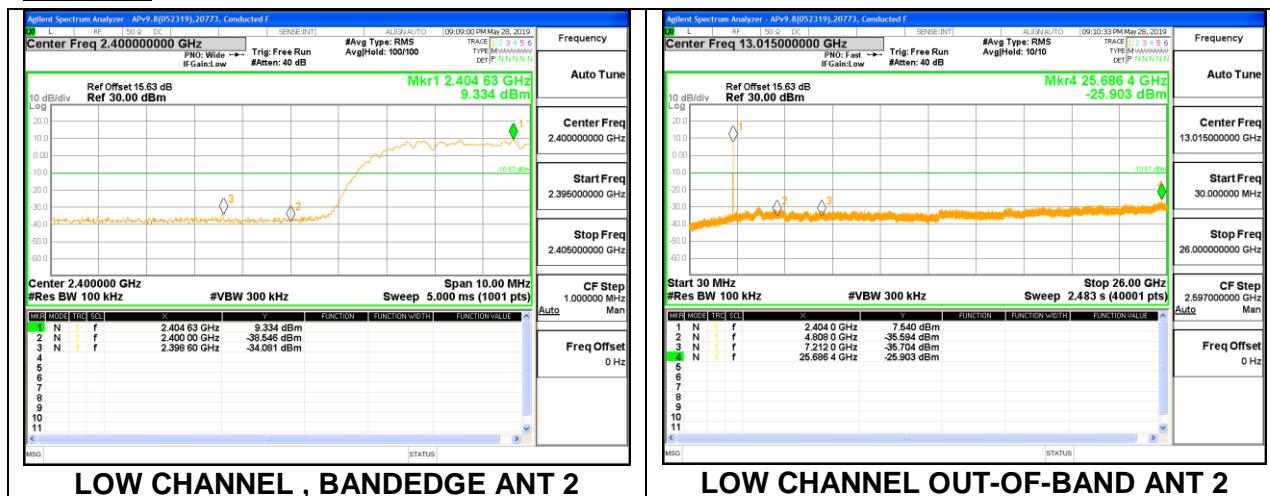
**HIGH CHANNEL BANDEDGE ANT 5**

**HIGH CHANNEL OUT-OF-BAND ANT 5**

Note: Test procedures and setting on beamforming are the same as BT HDR normal modes.

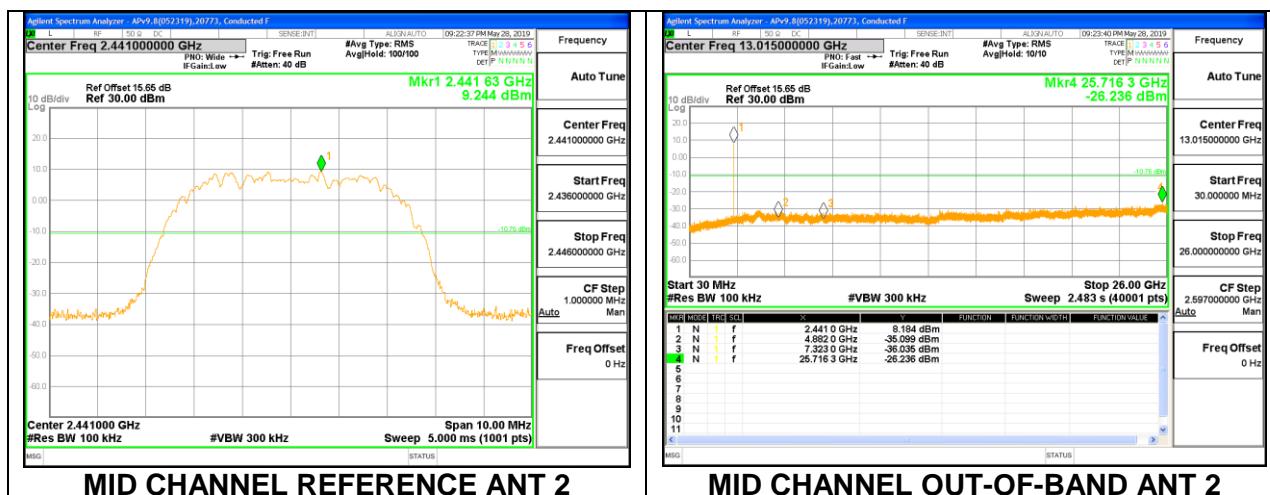
### 8.13.2. HIGH POWER HDR (HDR8)

#### Antenna 2



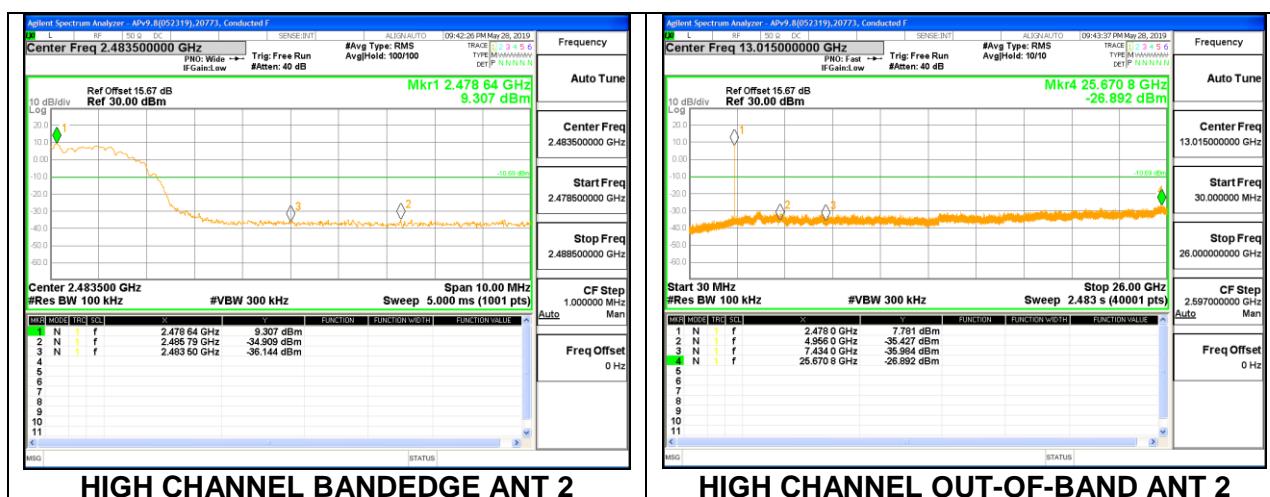
LOW CHANNEL , BANDEDGE ANT 2

LOW CHANNEL OUT-OF-BAND ANT 2



MID CHANNEL REFERENCE ANT 2

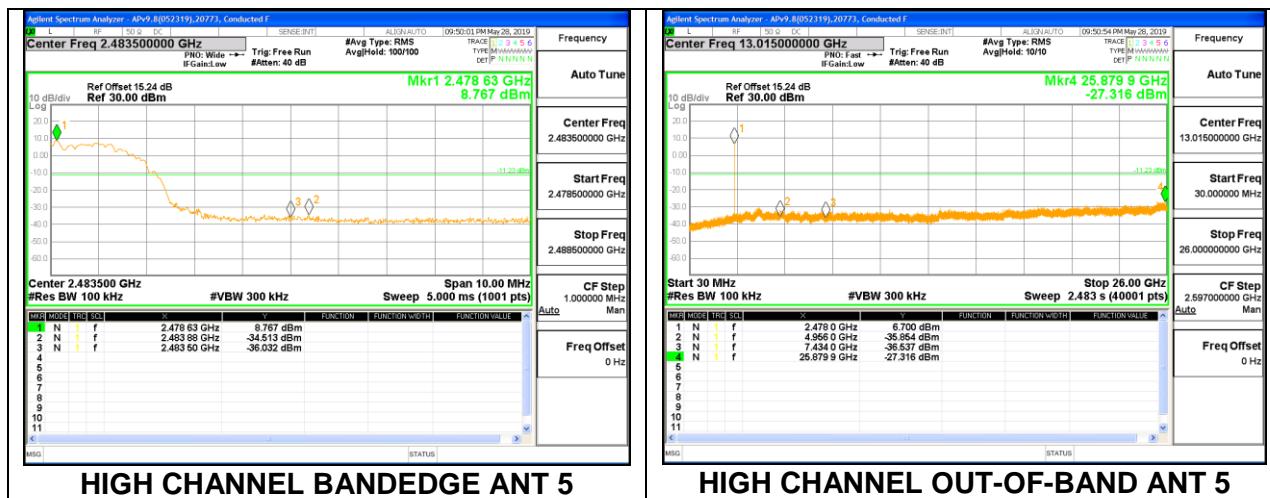
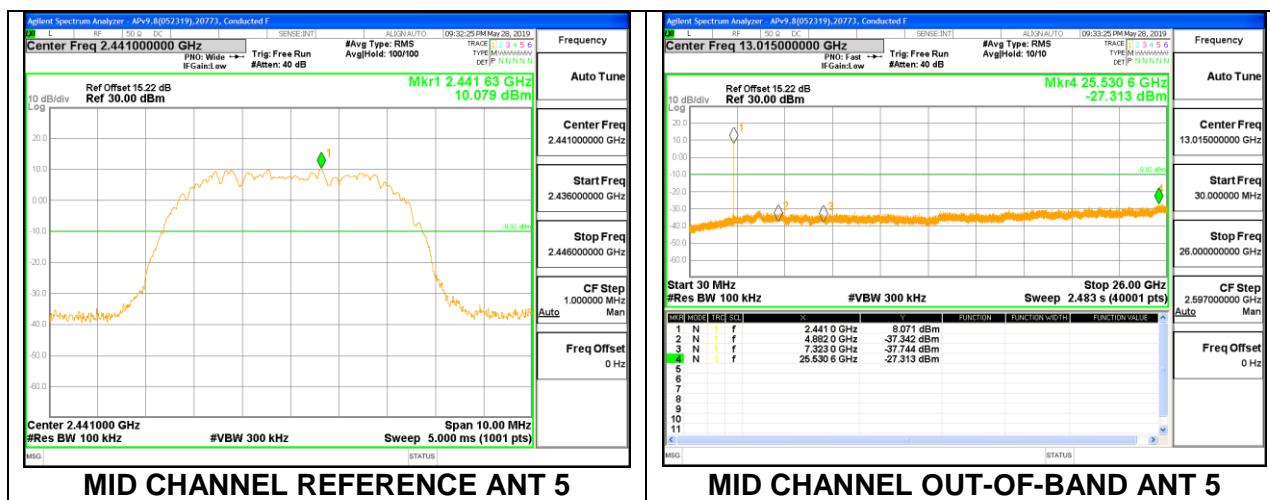
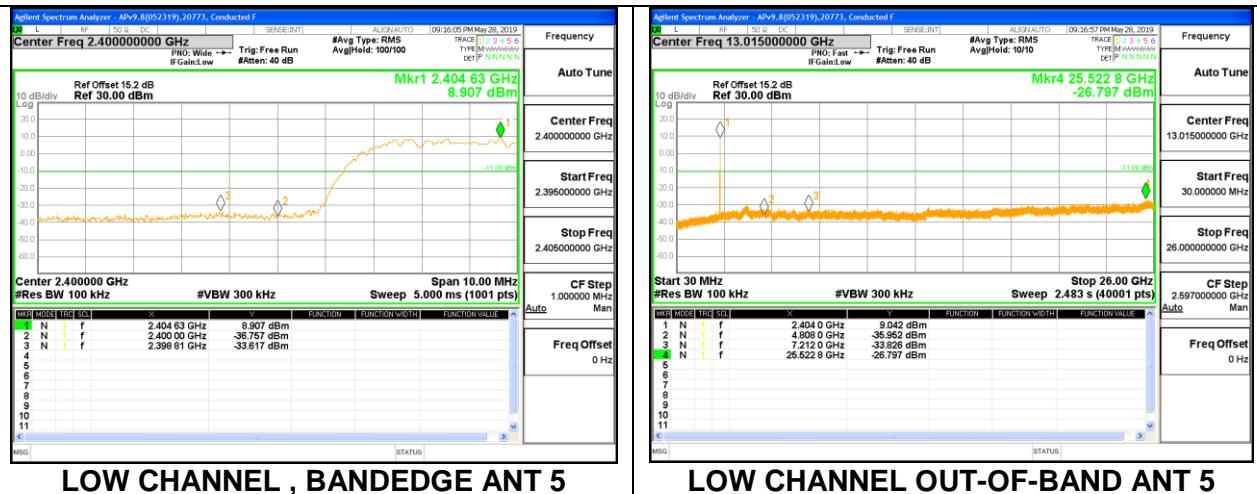
MID CHANNEL OUT-OF-BAND ANT 2



HIGH CHANNEL BANDEDGE ANT 2

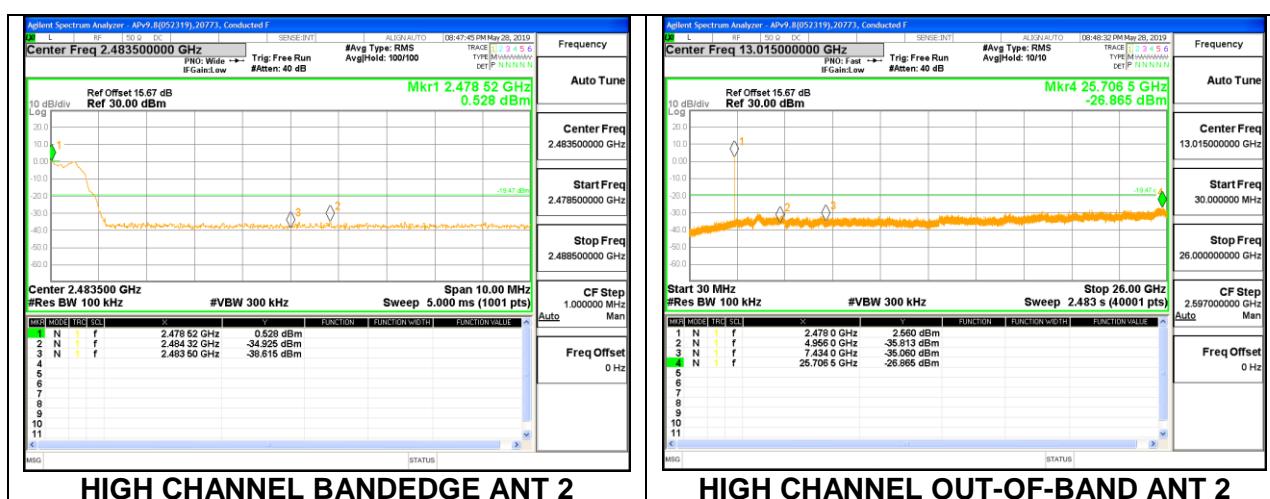
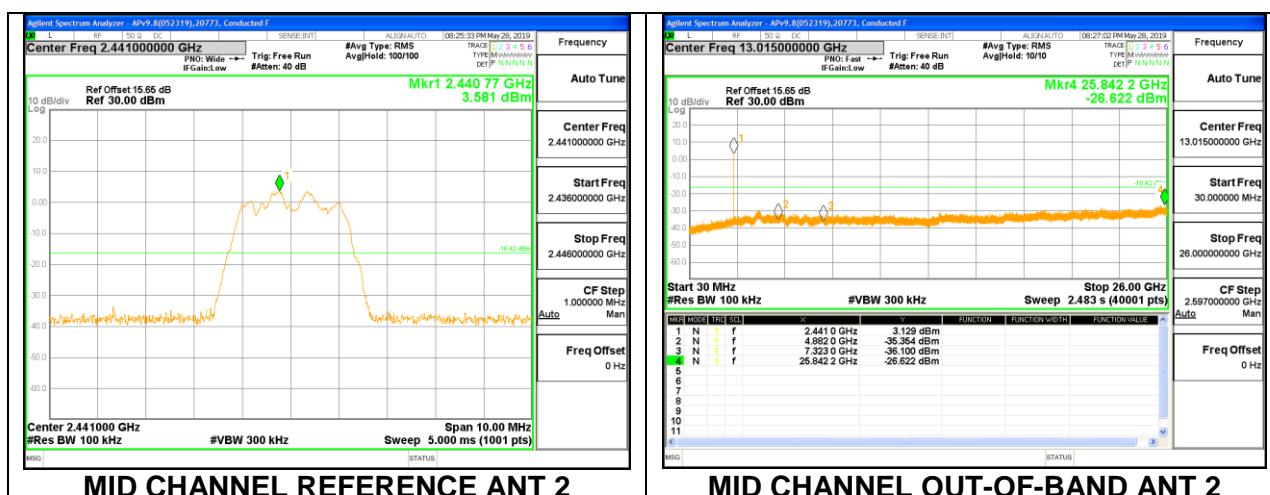
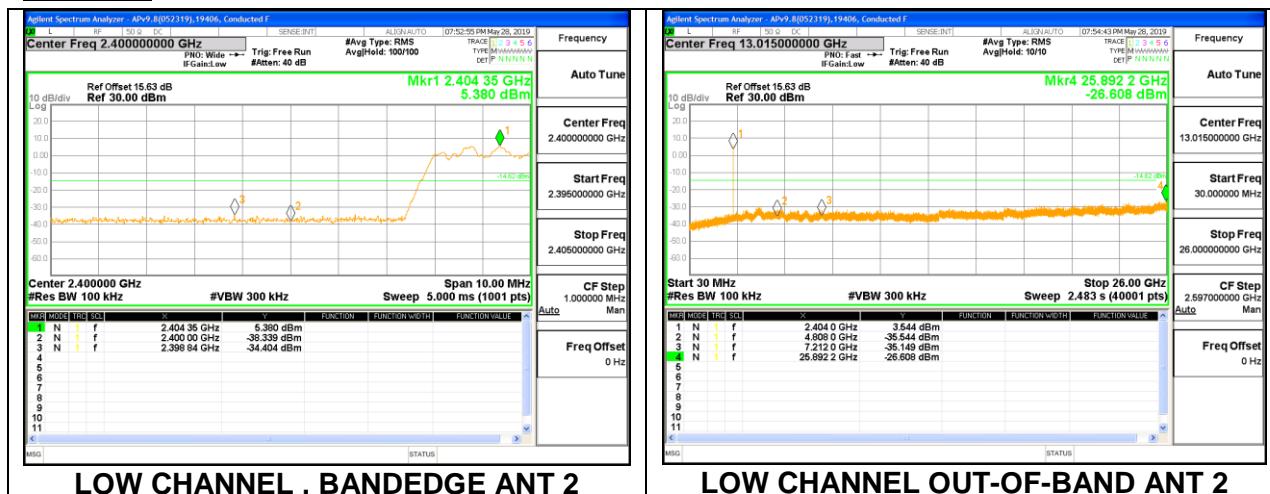
HIGH CHANNEL OUT-OF-BAND ANT 2

**Antenna 5**

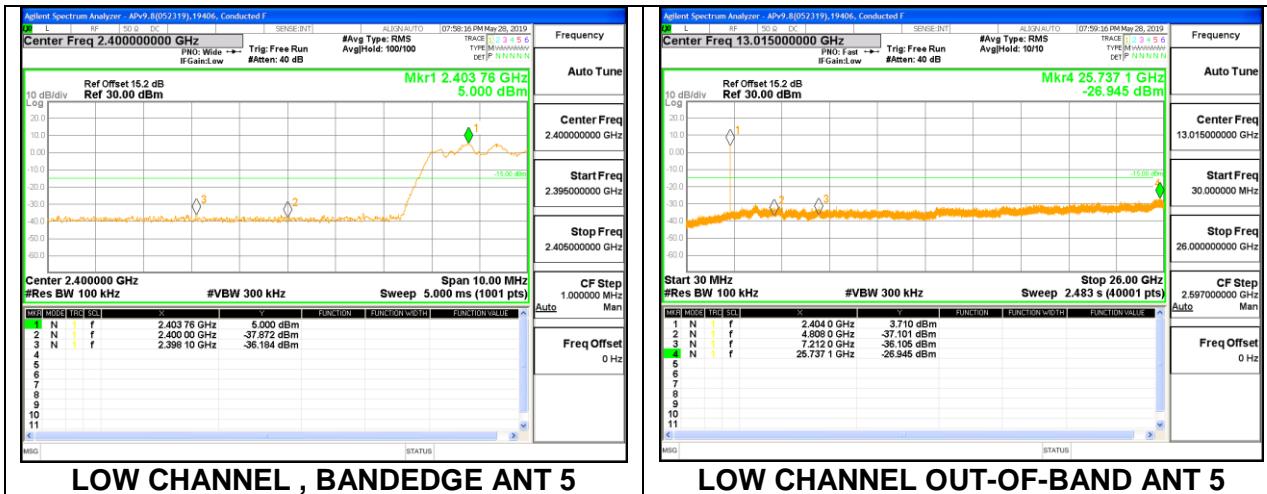


### 8.13.3. LOW POWER HDR (HDR4)

#### Antenna 2

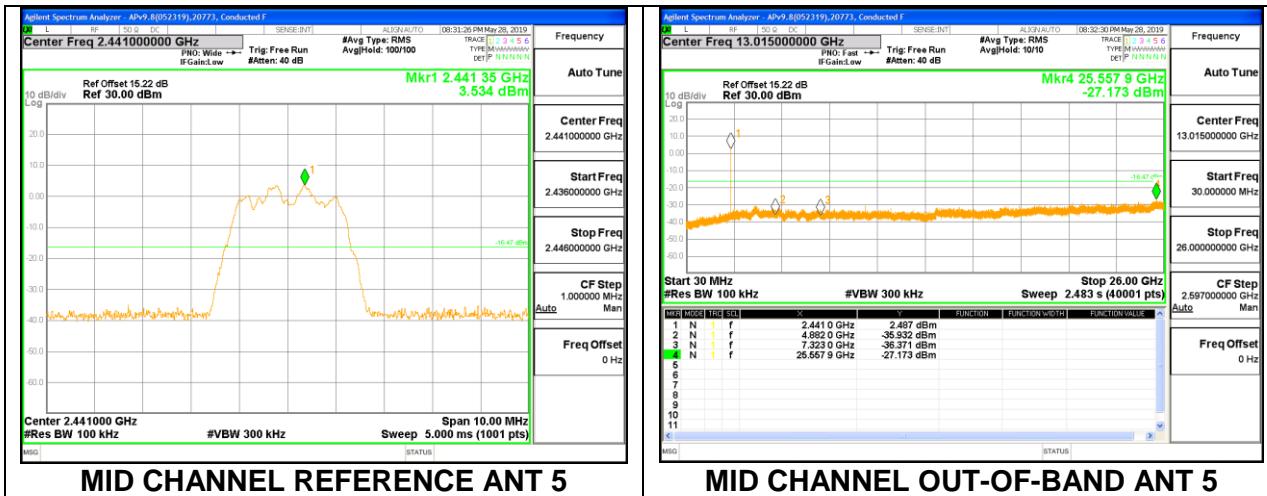


Antenna 5



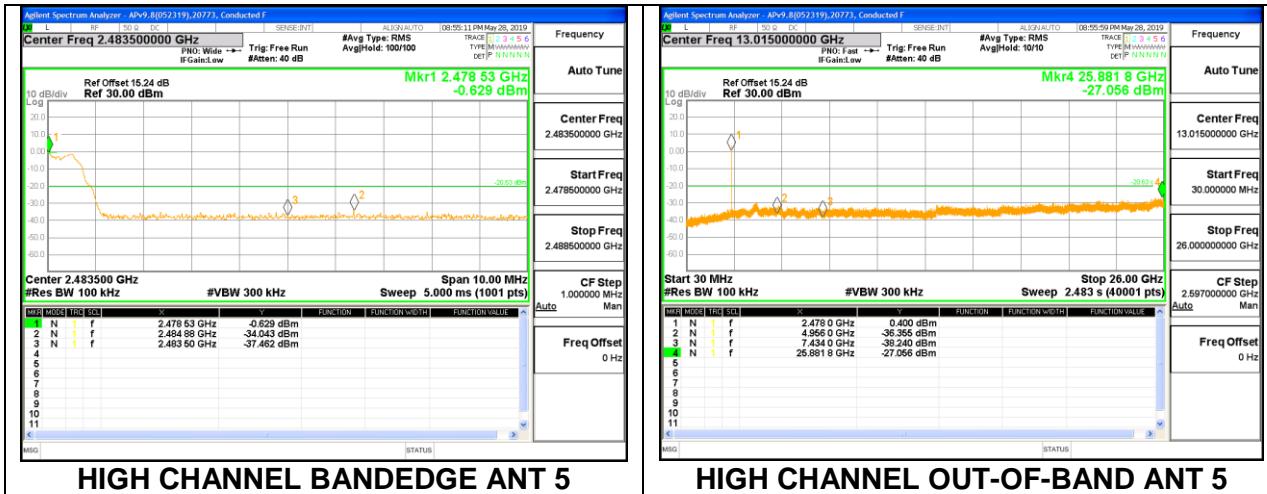
LOW CHANNEL , BANDEDGE ANT 5

LOW CHANNEL OUT-OF-BAND ANT 5



MID CHANNEL REFERENCE ANT 5

MID CHANNEL OUT-OF-BAND ANT 5

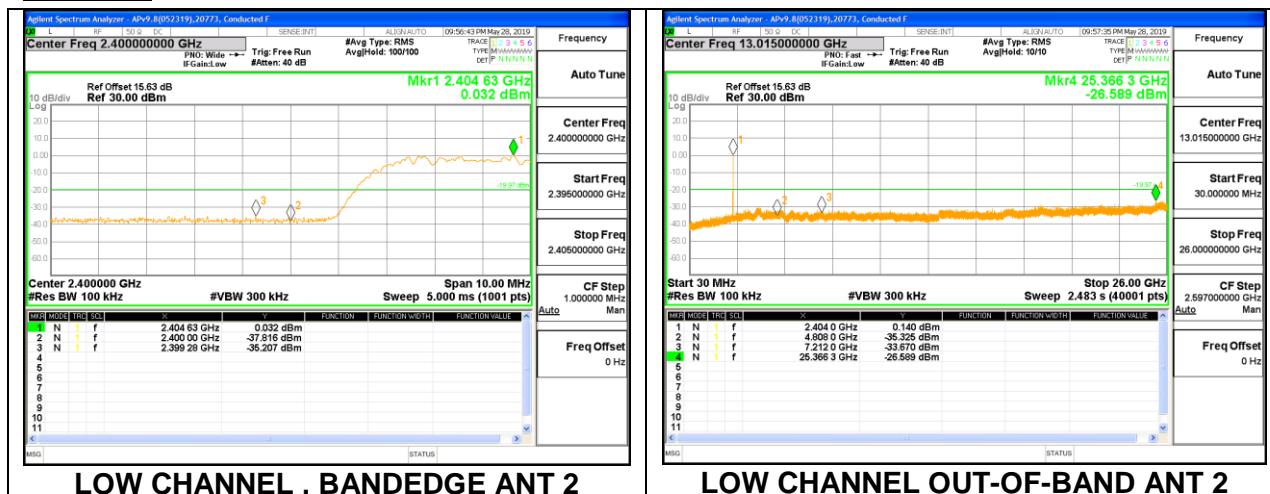


HIGH CHANNEL BANDEDGE ANT 5

HIGH CHANNEL OUT-OF-BAND ANT 5

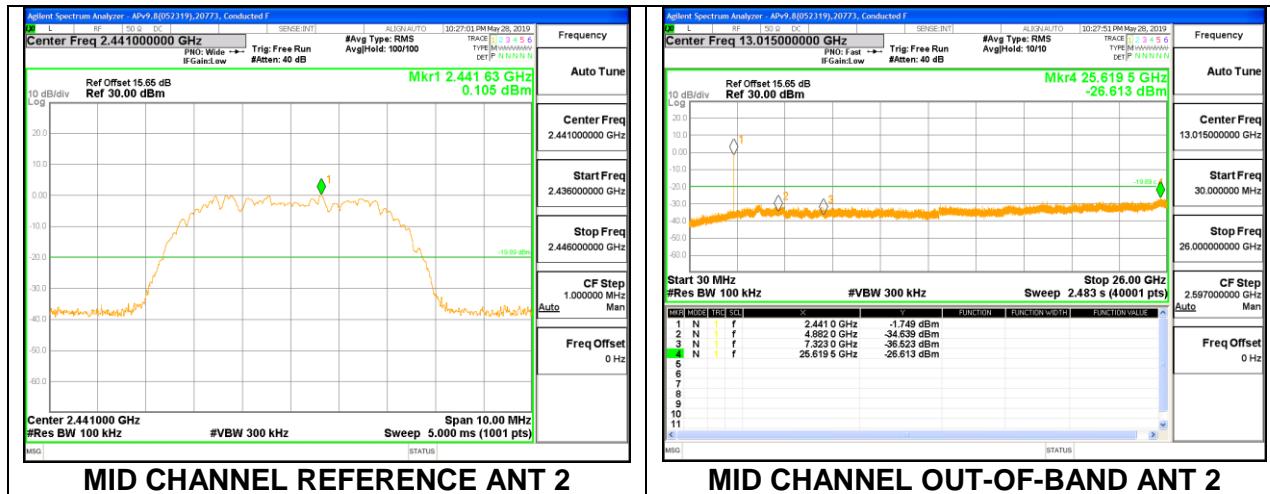
### 8.13.4. LOW POWER HDR (HDR8)

#### Antenna 2



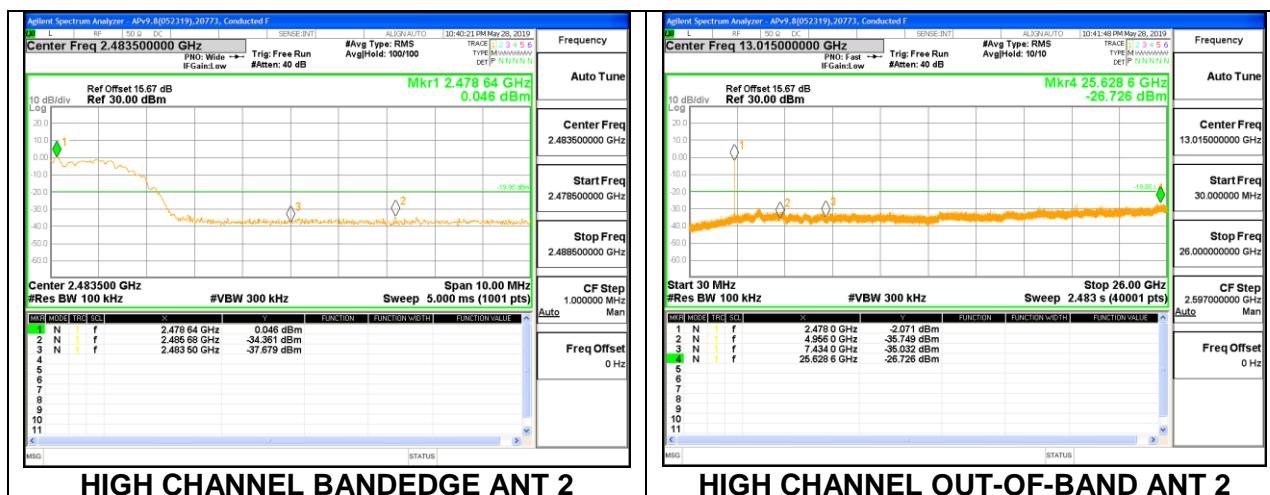
LOW CHANNEL, BANDEDGE ANT 2

LOW CHANNEL OUT-OF-BAND ANT 2



MID CHANNEL REFERENCE ANT 2

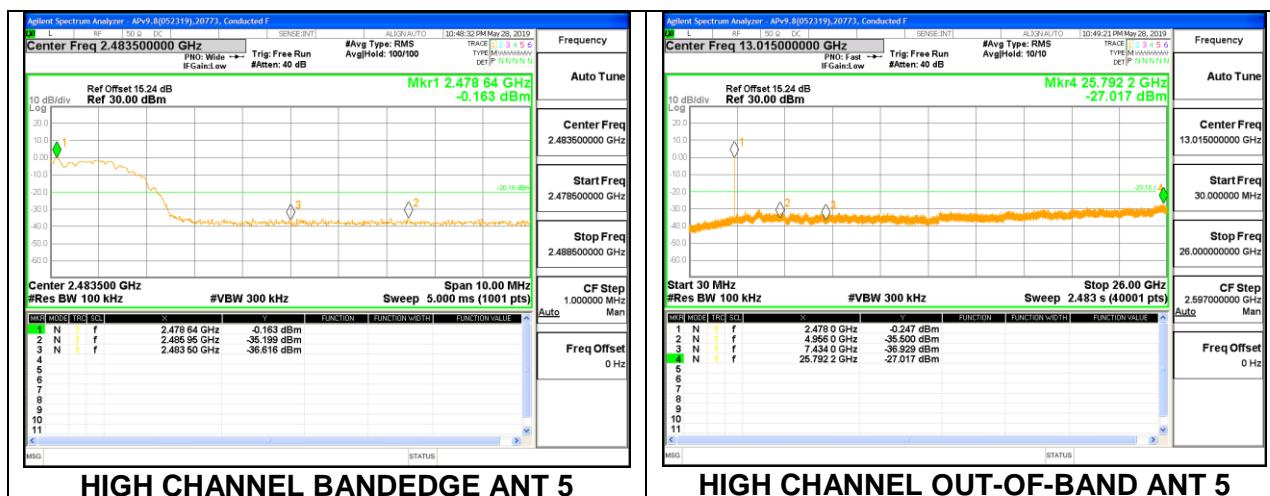
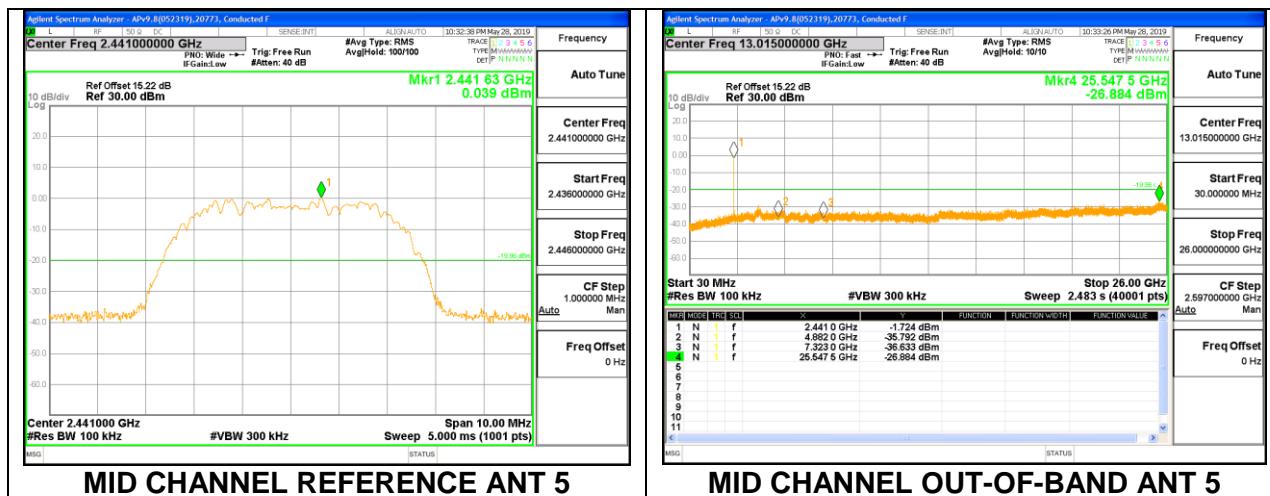
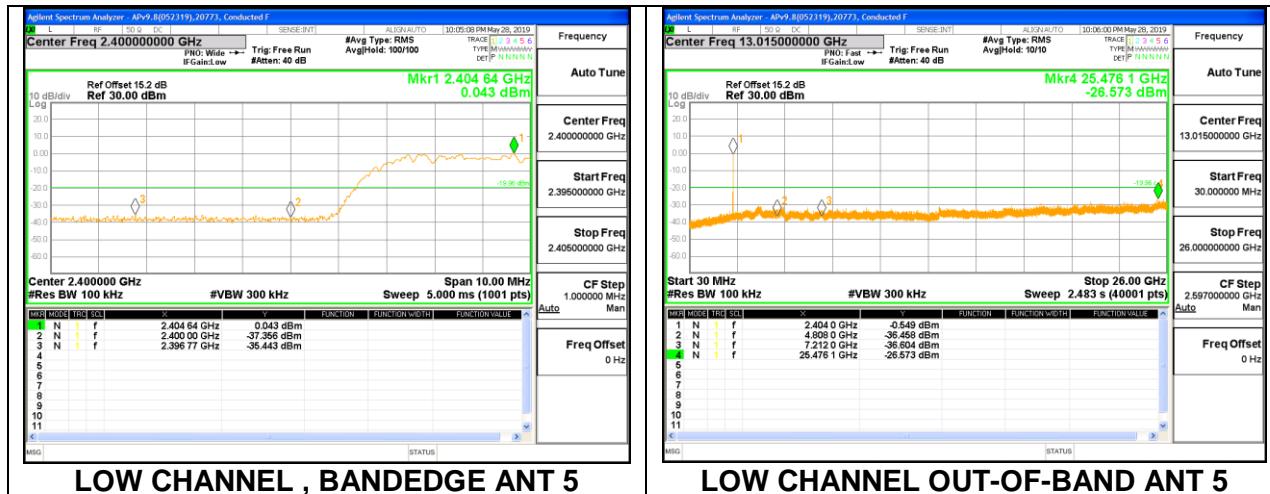
MID CHANNEL OUT-OF-BAND ANT 2



HIGH CHANNEL BANDEDGE ANT 2

HIGH CHANNEL OUT-OF-BAND ANT 2

## Antenna 5



Note: Test procedures and setting on beamforming are same as BT HDR normal modes.

## 9. RADIATED TEST RESULTS

### 9.1. 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.

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

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

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

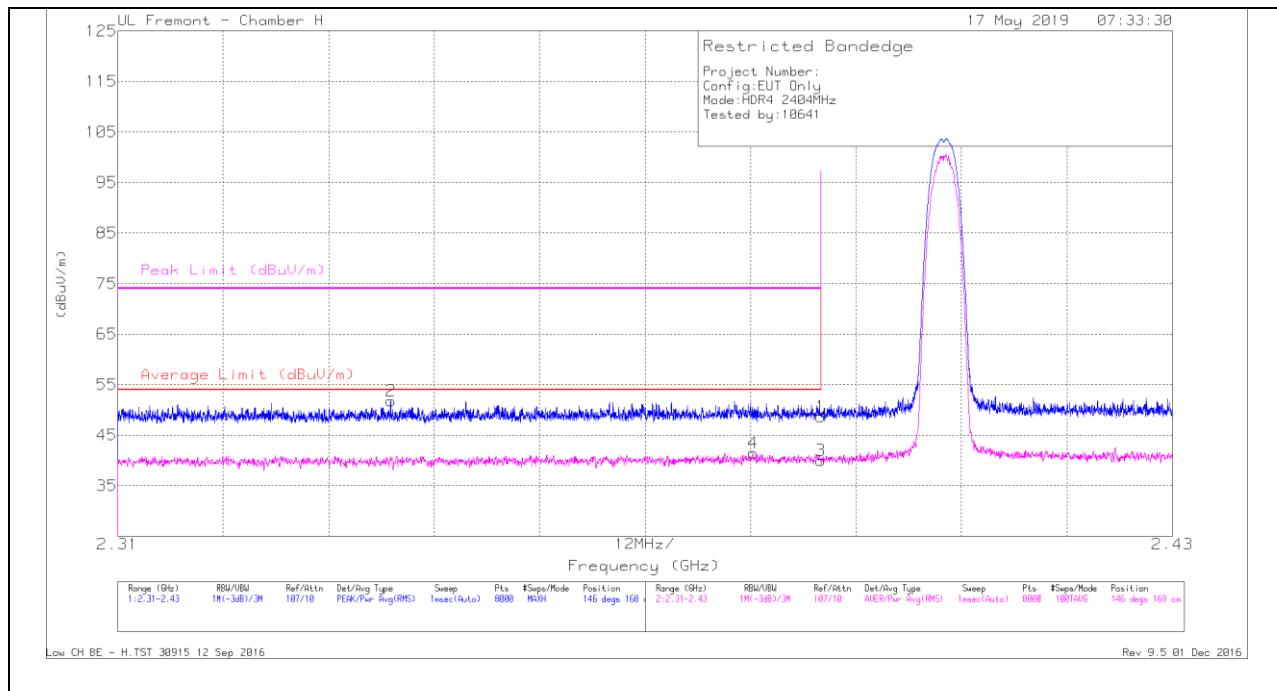
## 9.2. TRANSMITTER ABOVE 1 GHz

### 9.2.1. HIGH POWER HDR (HDR4)

#### Antenna 2

#### BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULT



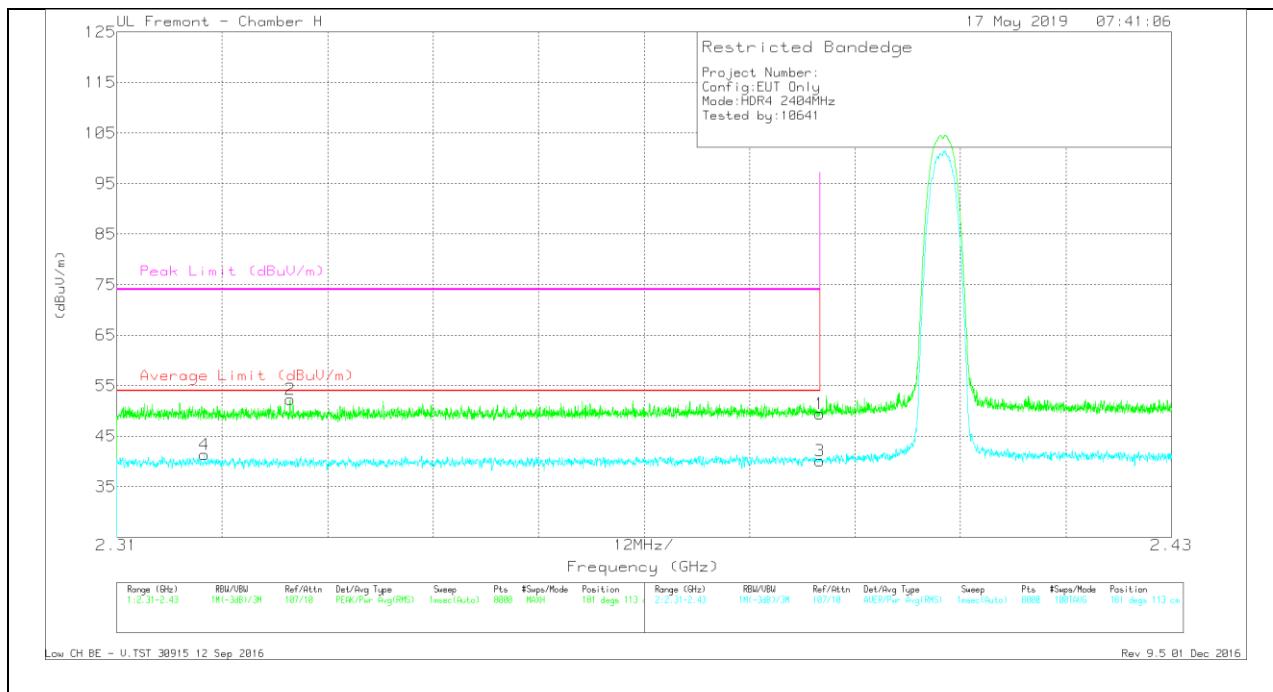
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.57	Pk	31.6	-23.5	48.67	-	-	74	-25.33	146	168	H
2	* 2.341	44.03	Pk	31.3	-23.6	51.73	-	-	74	-22.27	146	168	H
3	* 2.39	31.83	RMS	31.6	-23.5	39.93	54	-14.07	-	-	146	168	H
4	* 2.382	33.33	RMS	31.6	-23.5	41.43	54	-12.57	-	-	146	168	H

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

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filt/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	41.32	Pk	31.6	-23.5	49.42	-	-	74	-24.58	181	113	V
2	* 2.33	44.56	Pk	31.3	-23.6	52.26	-	-	74	-21.74	181	113	V
3	* 2.39	32.01	RMS	31.6	-23.5	40.11	54	-13.89	-	-	181	113	V
4	* 2.32	33.8	RMS	31.3	-23.7	41.4	54	-12.6	-	-	181	113	V

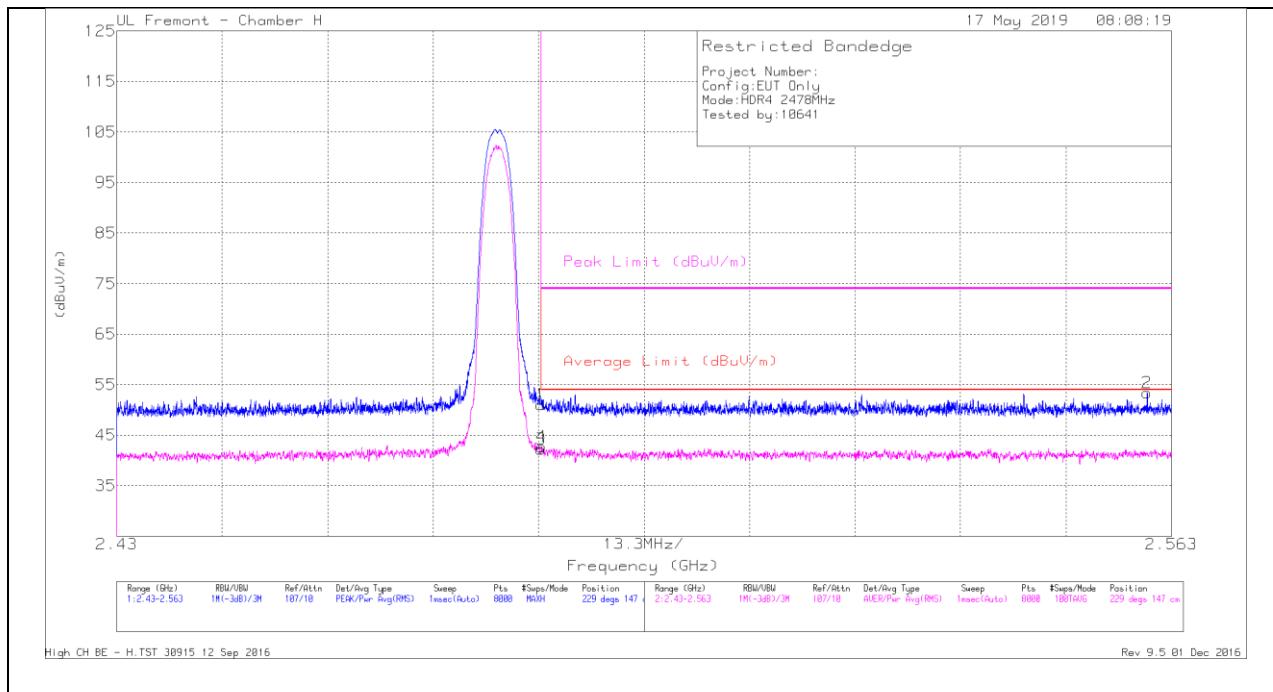
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## BANDEDGE (HIGH CHANNEL)

### HORIZONTAL RESULT



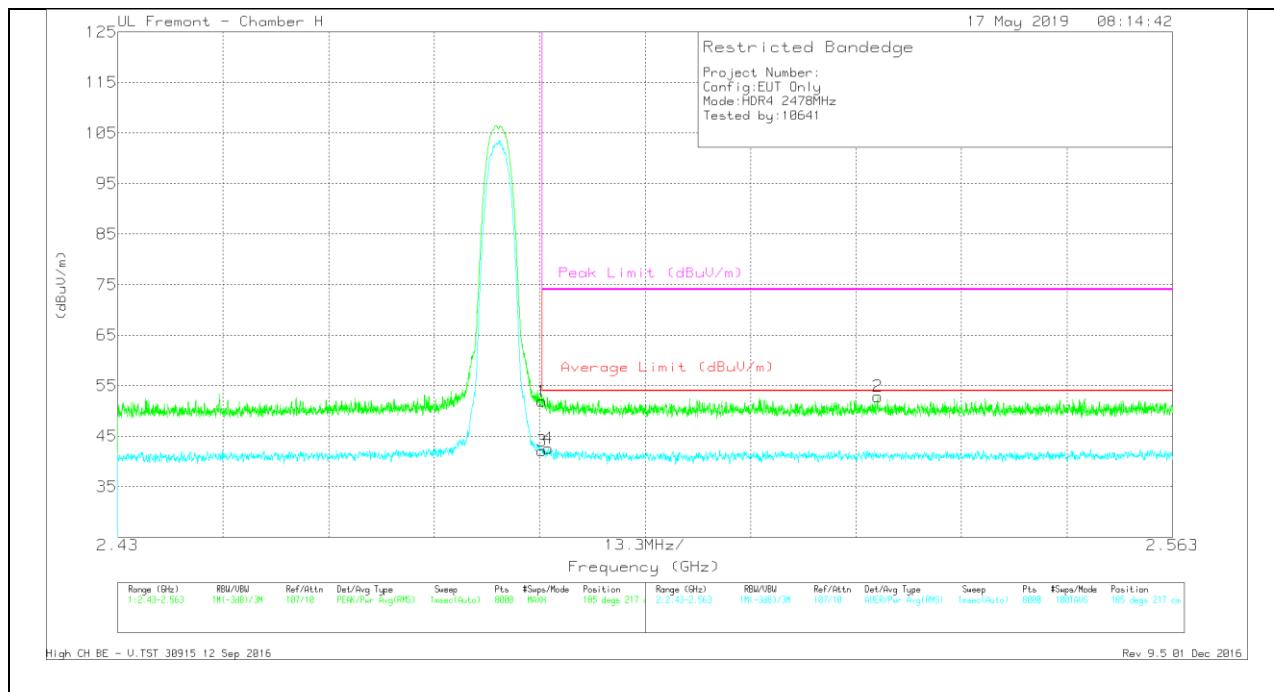
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.08	Pk	32.3	-23.3	51.08	-	-	74	-22.92	229	147	H
3	* 2.484	33.19	RMS	32.3	-23.3	42.19	54	-11.81	-	-	229	147	H
4	* 2.484	33.7	RMS	32.3	-23.3	42.7	54	-11.3	-	-	229	147	H
2	2.56	44.15	Pk	32.4	-23.1	53.45	-	-	74	-20.55	229	147	H

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

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filt/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	* 2.484	42.92	Pk	32.3	-23.3	51.92	-	-	74	-22.08	185	217	V
3	* 2.484	33.05	RMS	32.3	-23.3	42.05	54	-11.95	-	-	185	217	V
4	* 2.484	33.56	RMS	32.3	-23.3	42.56	54	-11.44	-	-	185	217	V
2	2.526	43.54	Pk	32.4	-23.1	52.84	-	-	74	-21.16	185	217	V

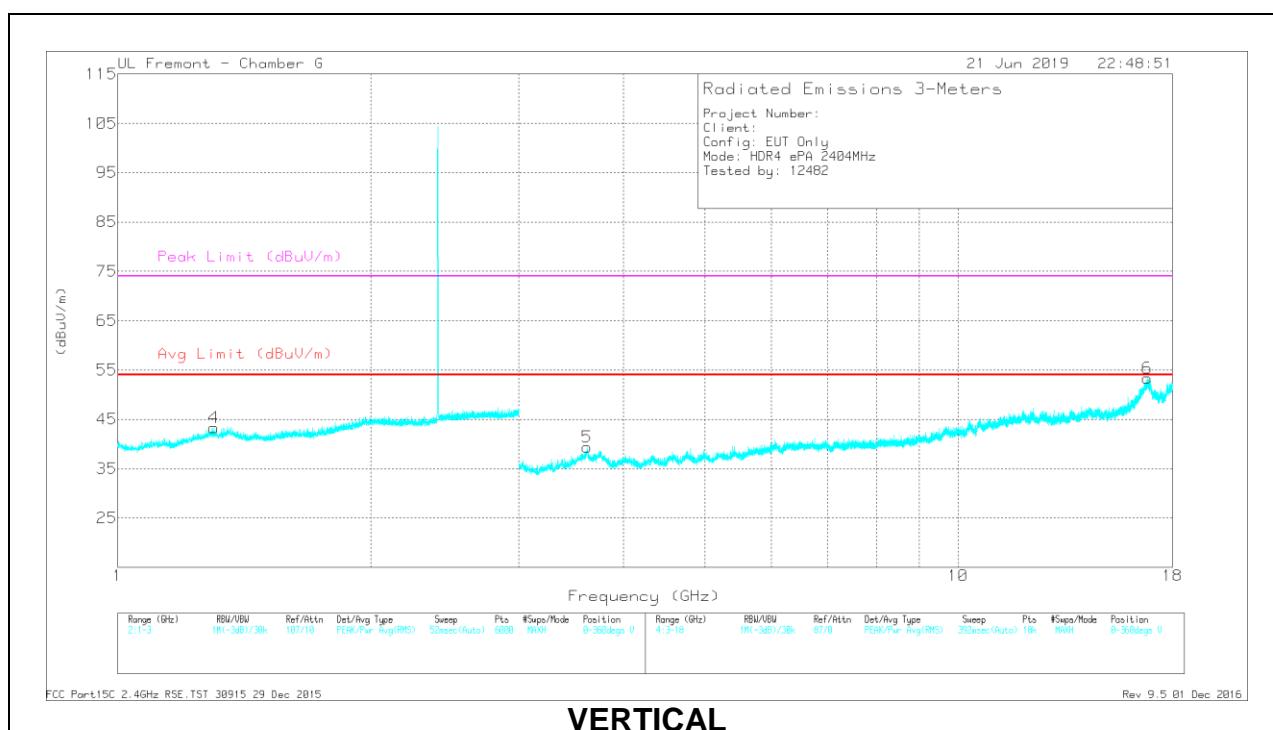
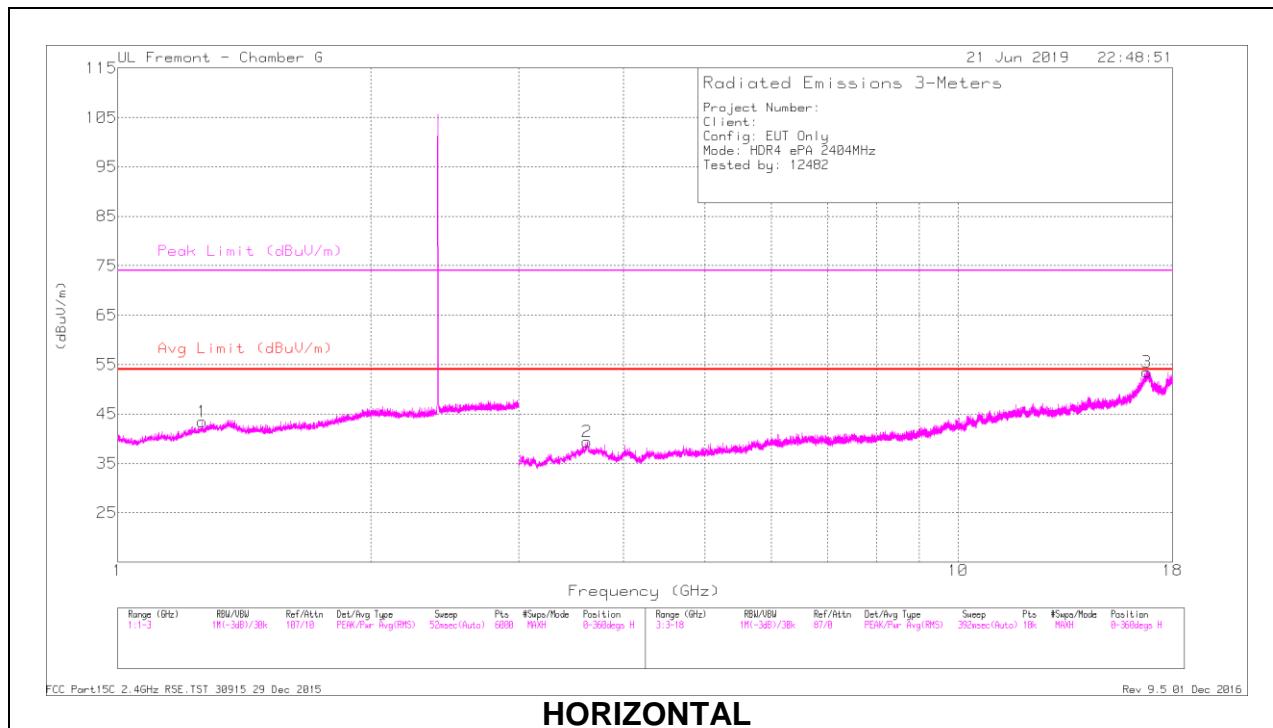
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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	* 1.261	43.68	PK2	29.3	-23.7	49.28	-	-	74	-24.72	347	135	H
	* 1.262	32.04	MAv1	29.4	-23.6	37.84	54	-16.16	-	-	347	135	H
4	* 1.301	43.57	PK2	29.6	-23.5	49.67	-	-	74	-24.33	354	109	V
	* 1.302	32.06	MAv1	29.7	-23.5	38.26	54	-15.74	-	-	354	109	V
2	* 3.618	41.1	PK2	35.7	-30.1	46.7	-	-	74	-27.3	254	302	H
	* 3.618	30.25	MAv1	35.7	-30.1	35.85	54	-18.15	-	-	254	302	H
5	* 3.617	40.97	PK2	35.7	-30.1	46.57	-	-	74	-27.43	104	188	V
	* 3.618	30.09	MAv1	35.7	-30.1	35.69	54	-18.31	-	-	104	188	V
3	16.787	36.62	PK2	41.7	-17.4	60.92	-	-	-	-	14	168	H
6	16.793	35.53	PK2	41.7	-17.4	59.83	-	-	-	-	0	157	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average