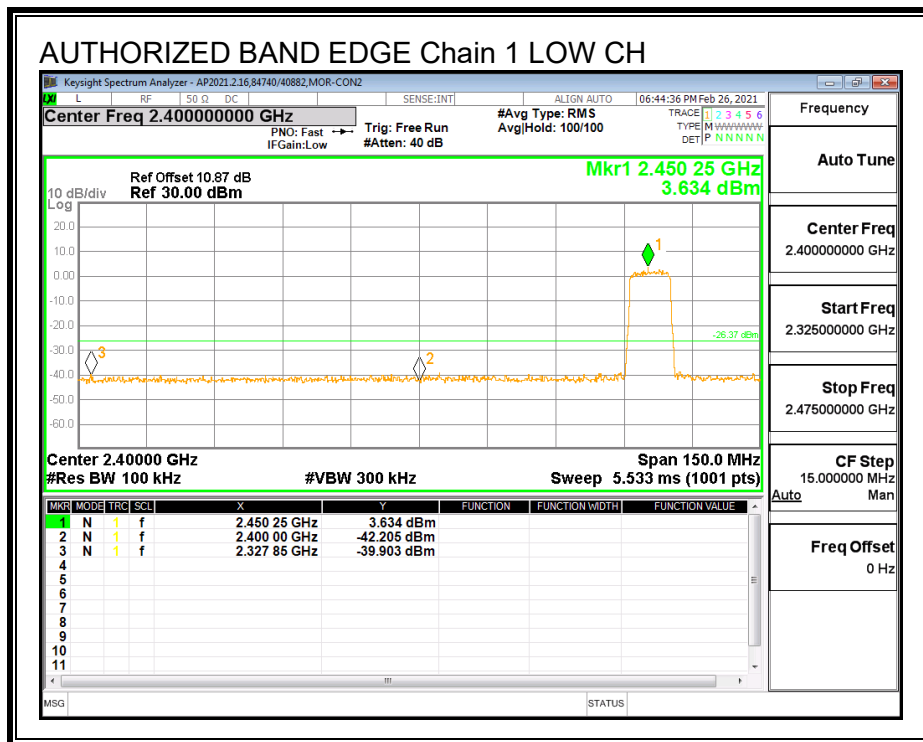
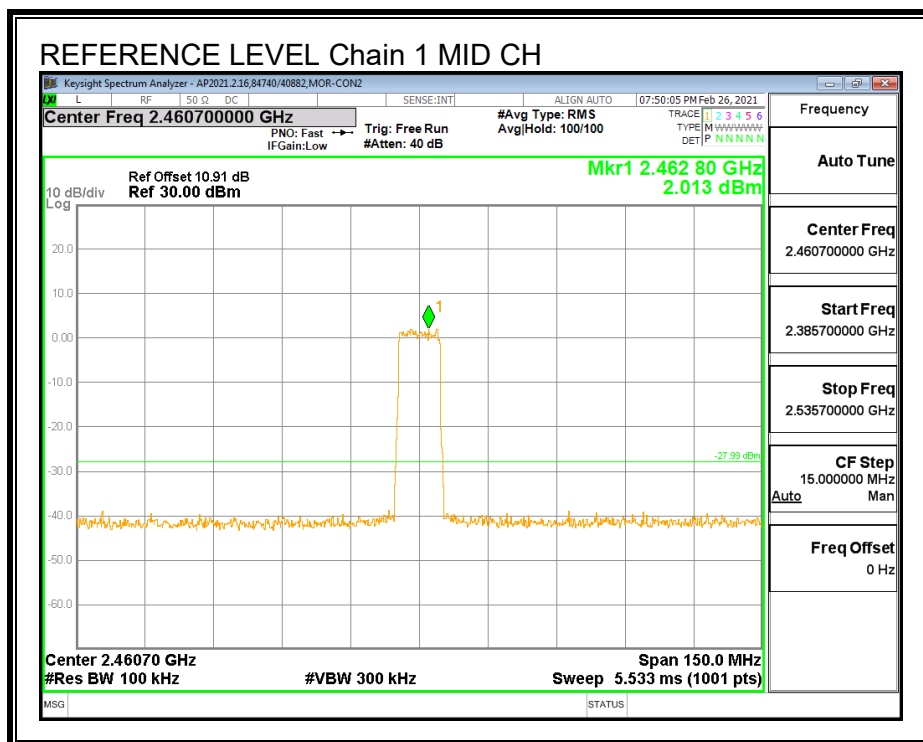
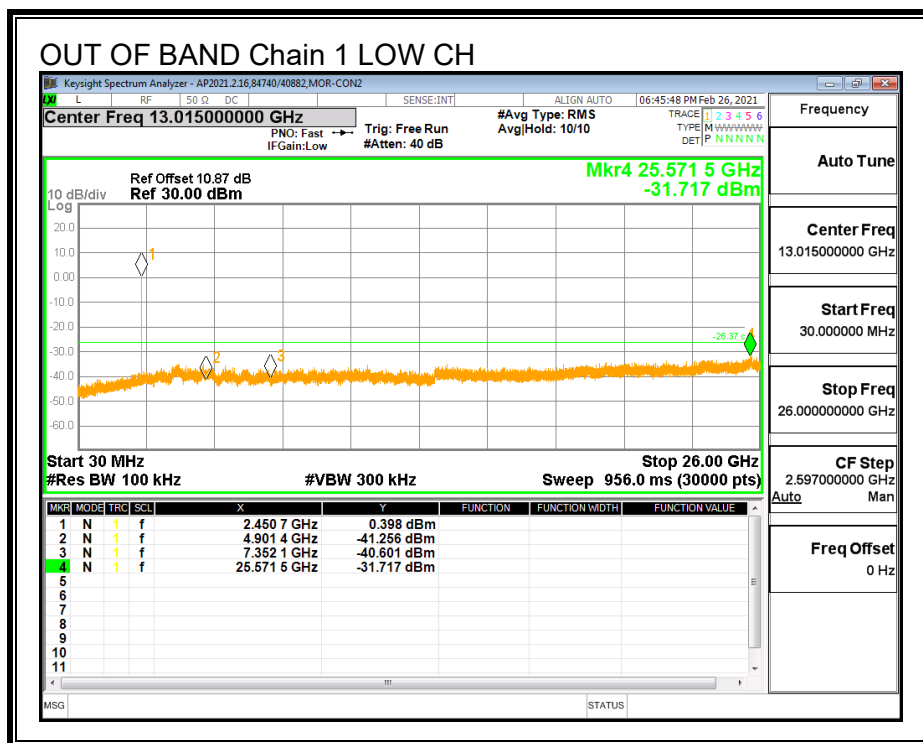
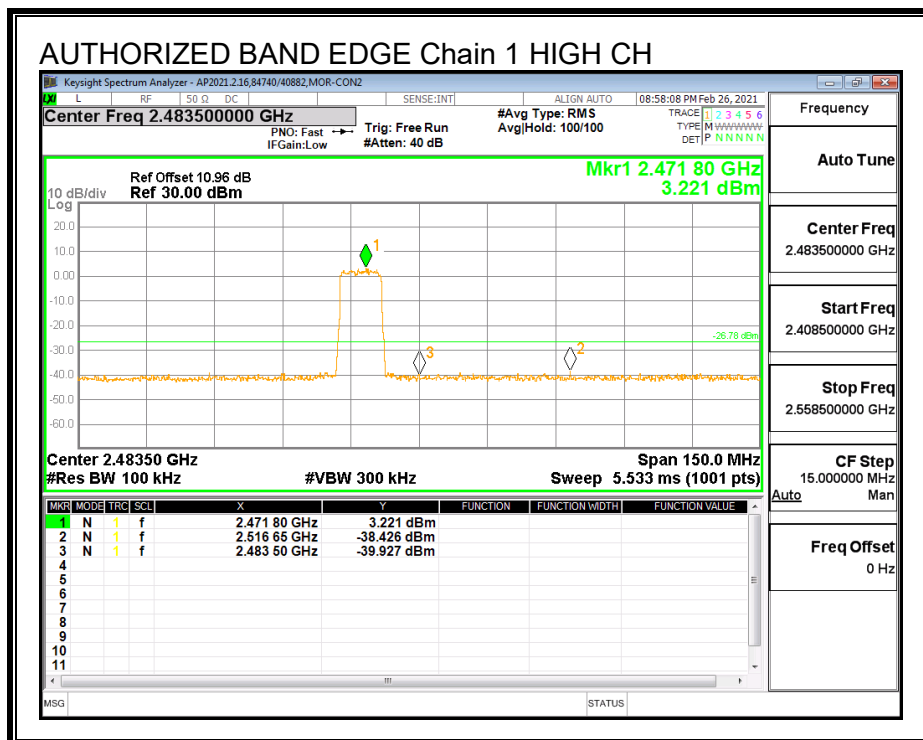
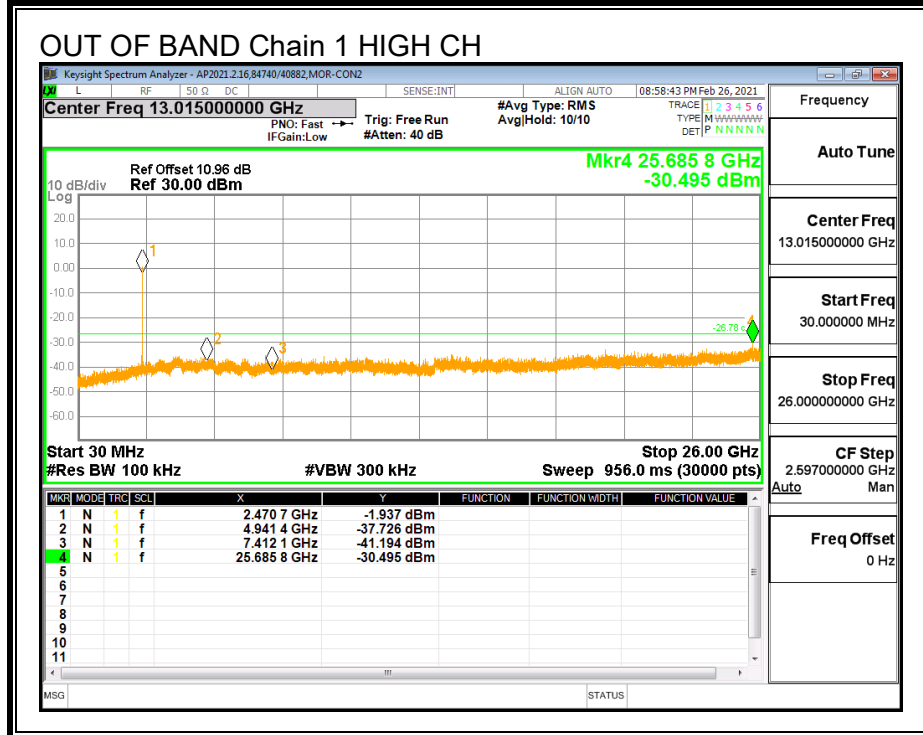
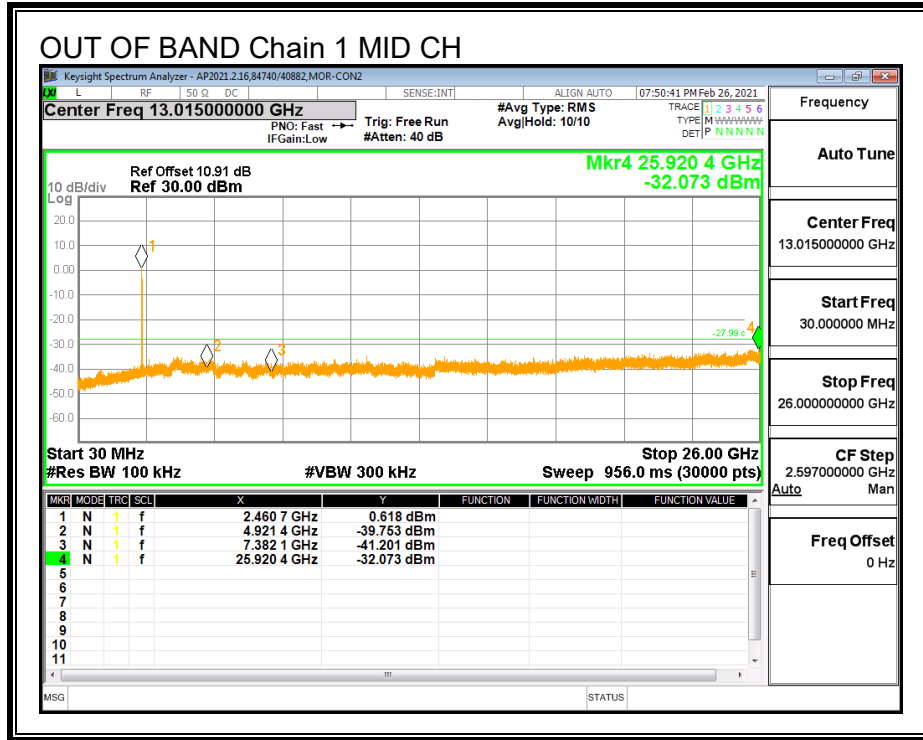
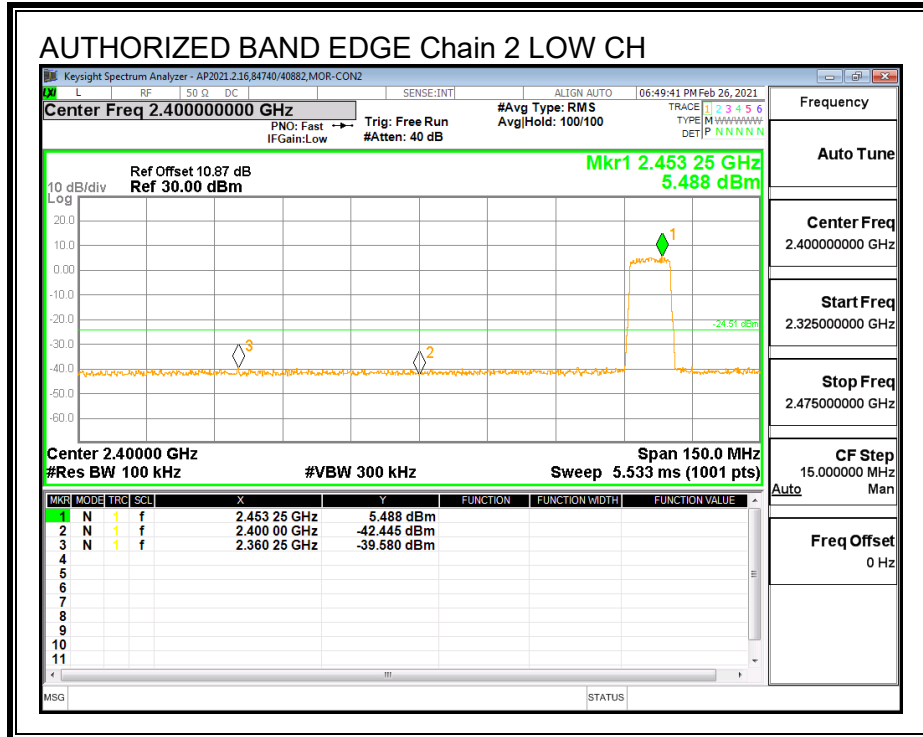
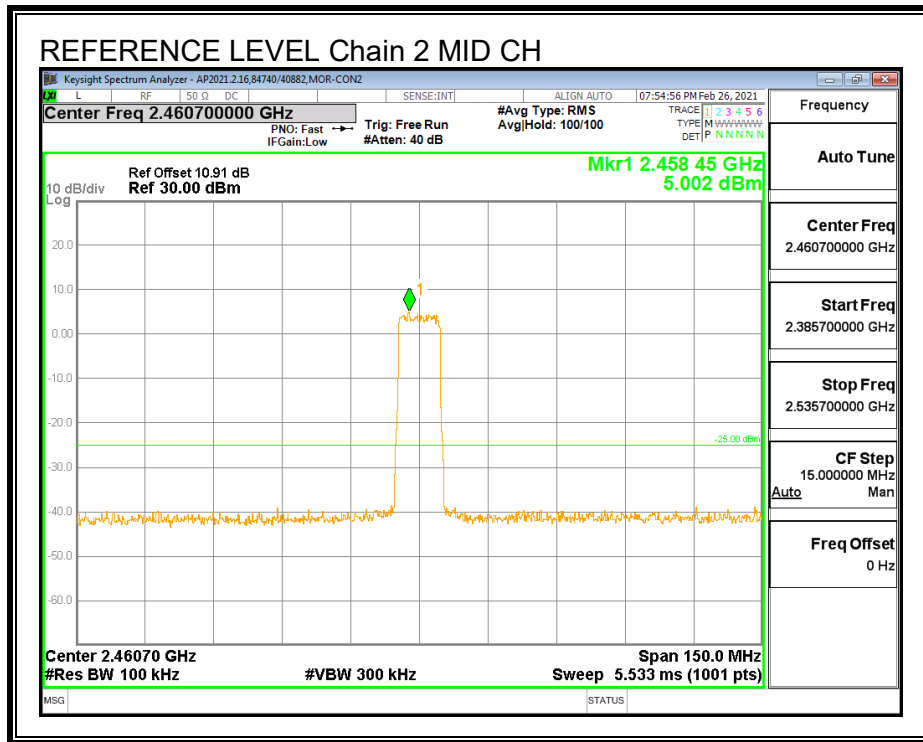


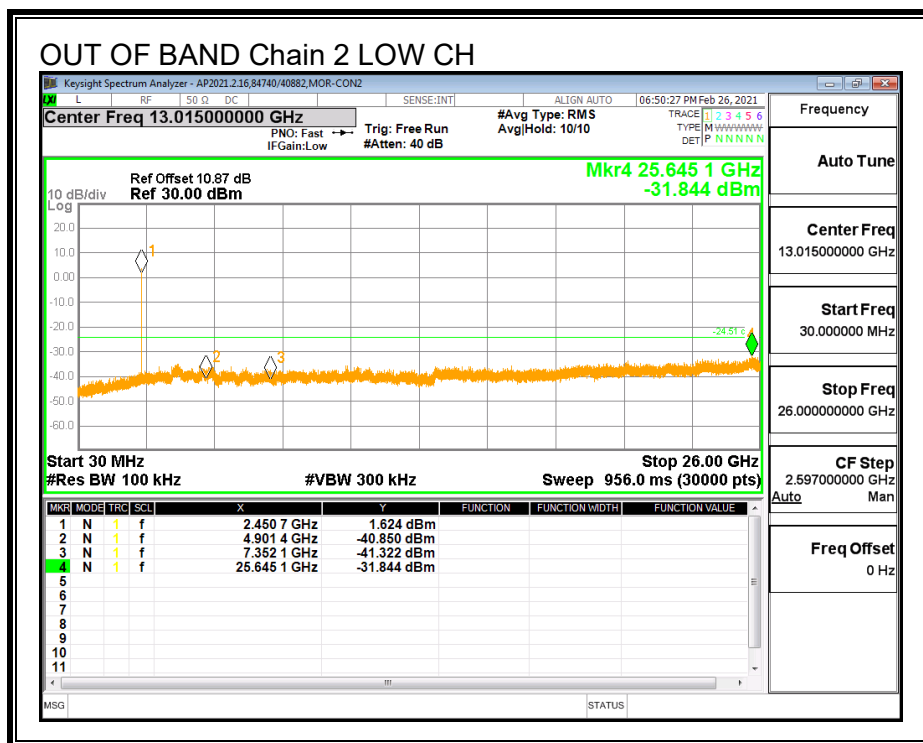
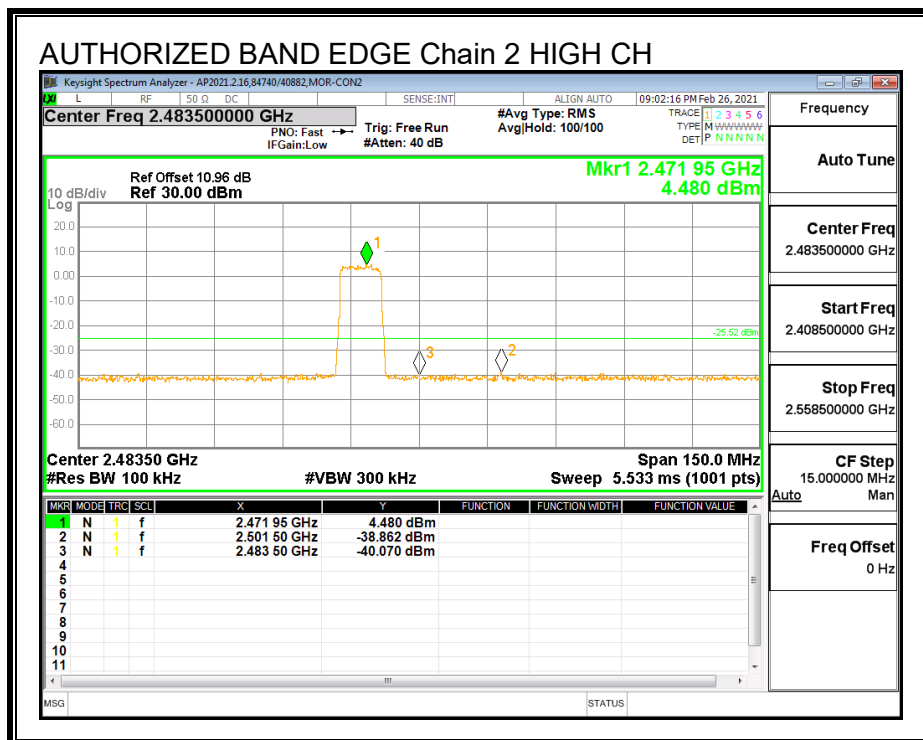
RESULTS – 16-QAM

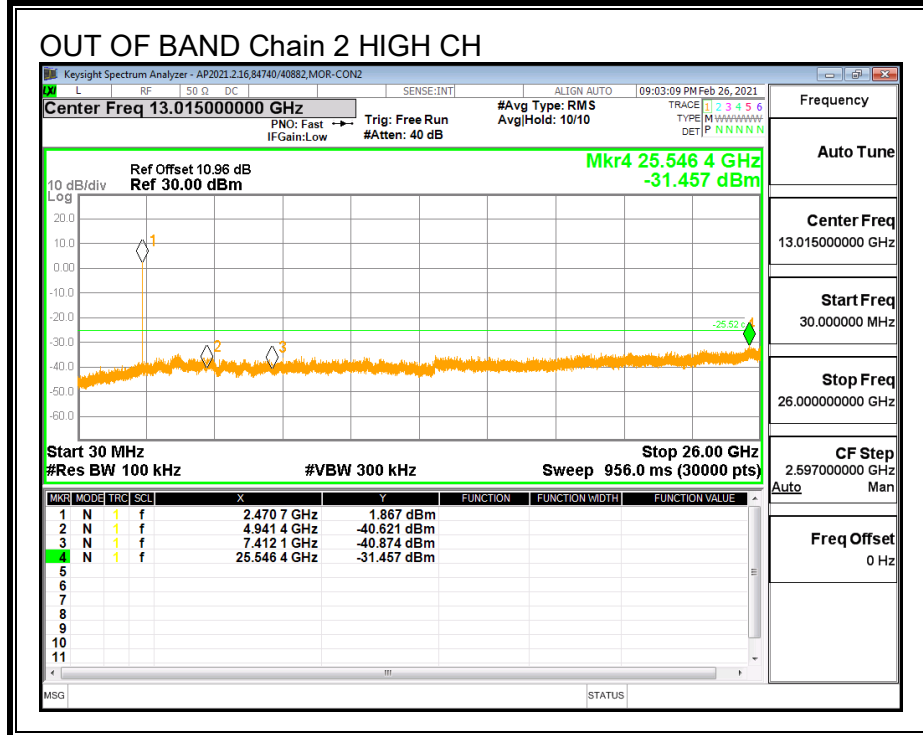
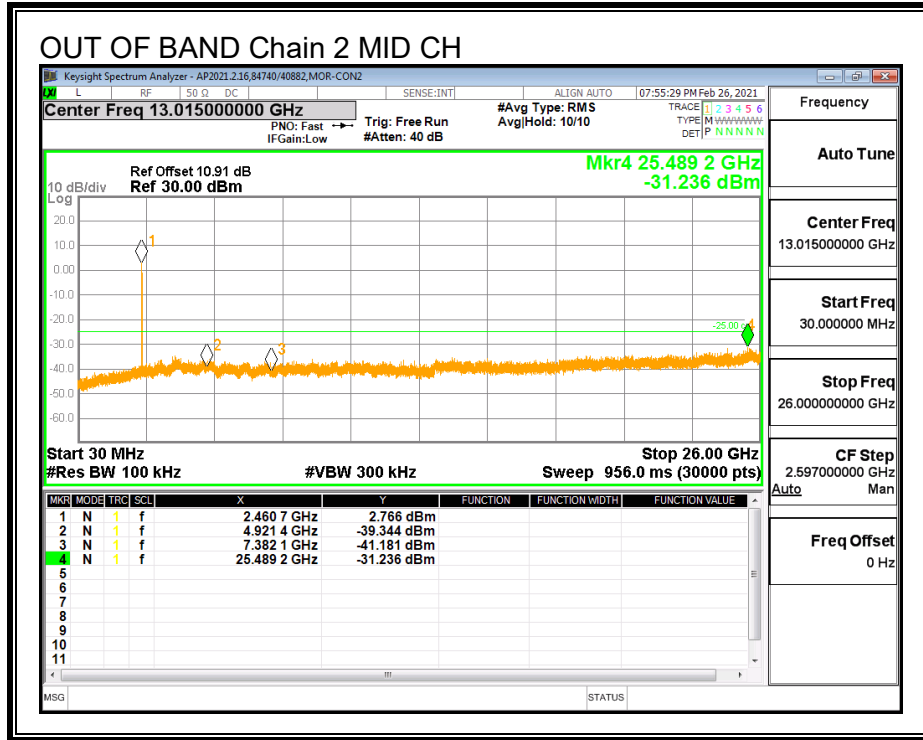


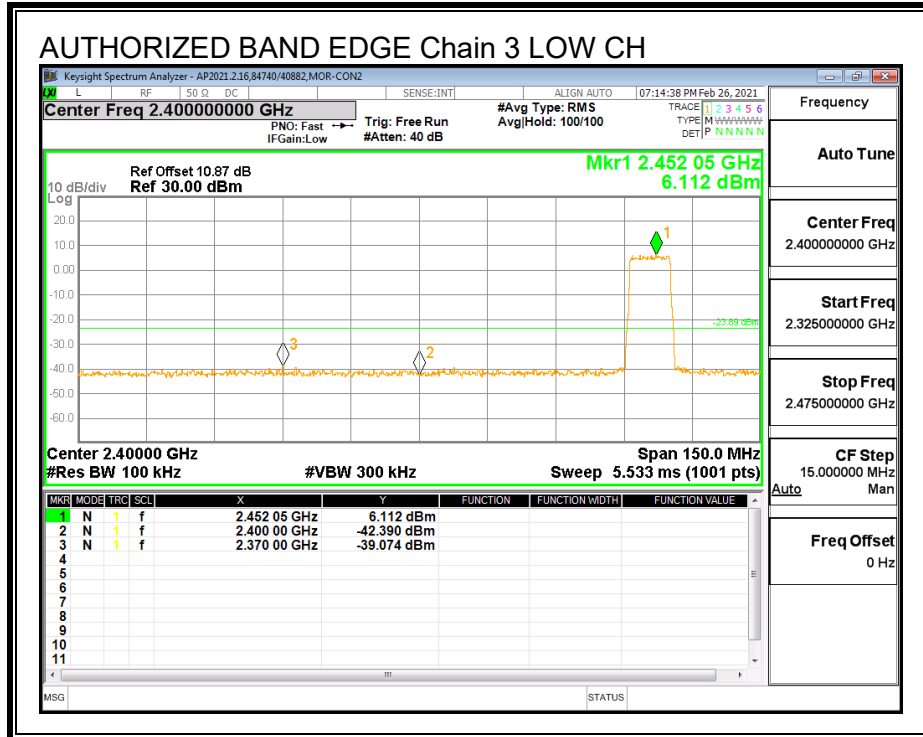
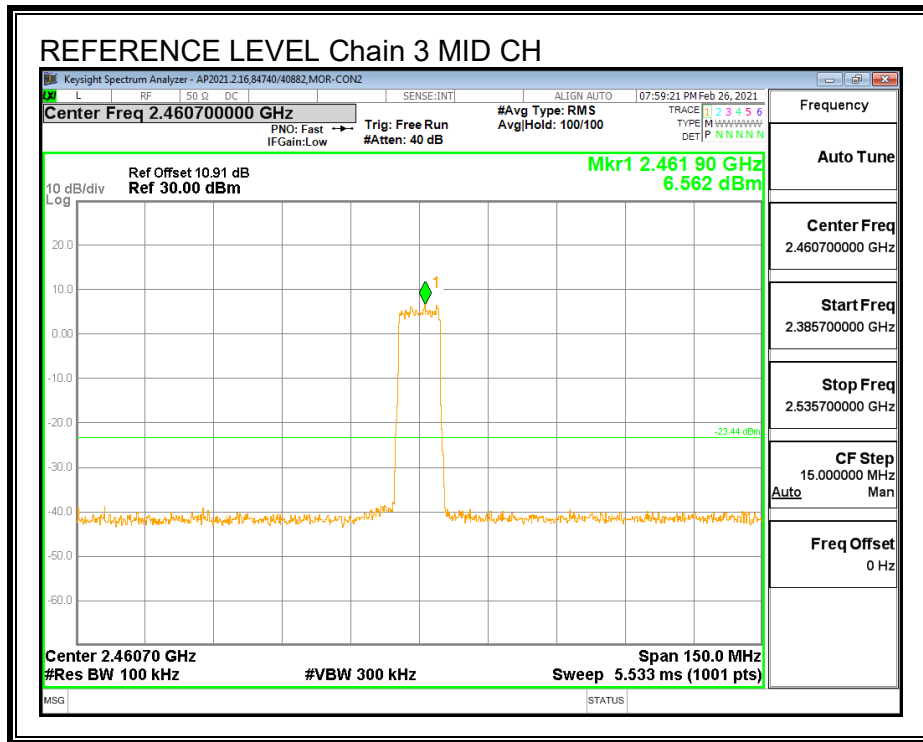


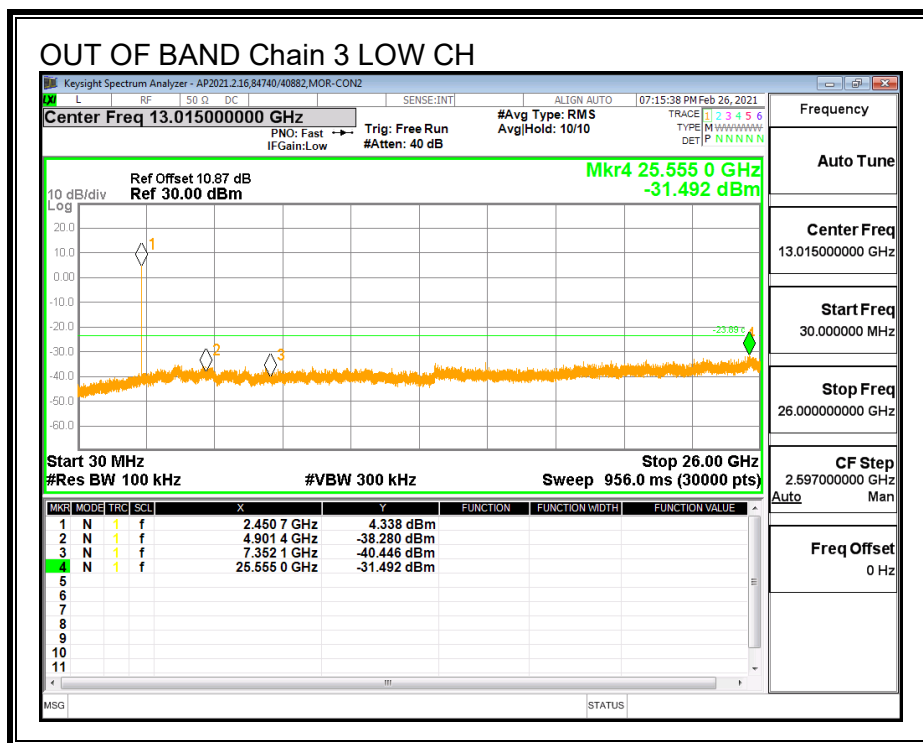
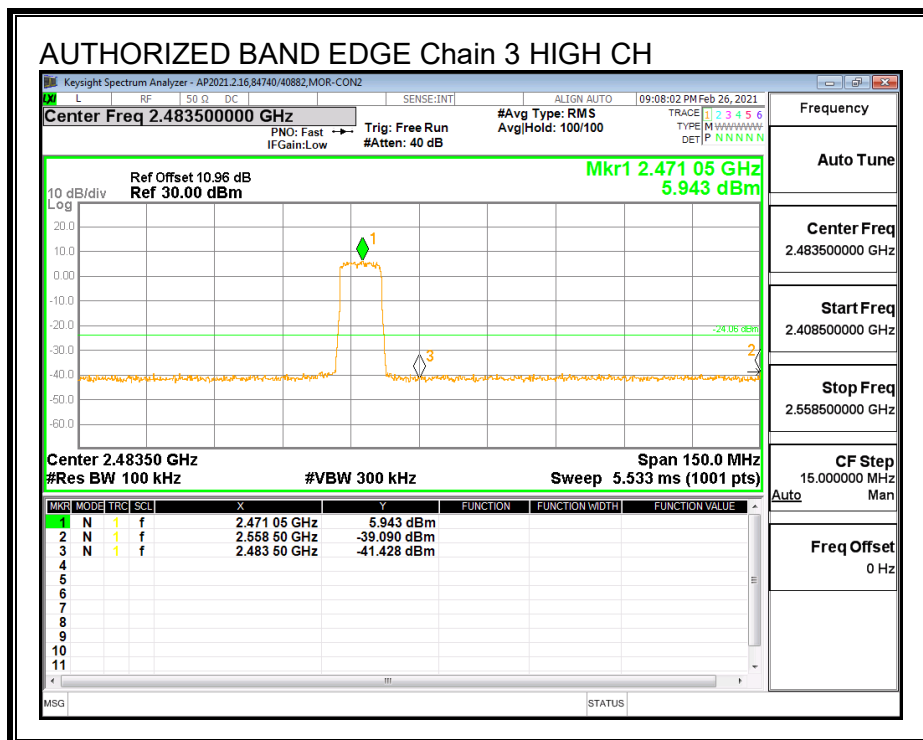


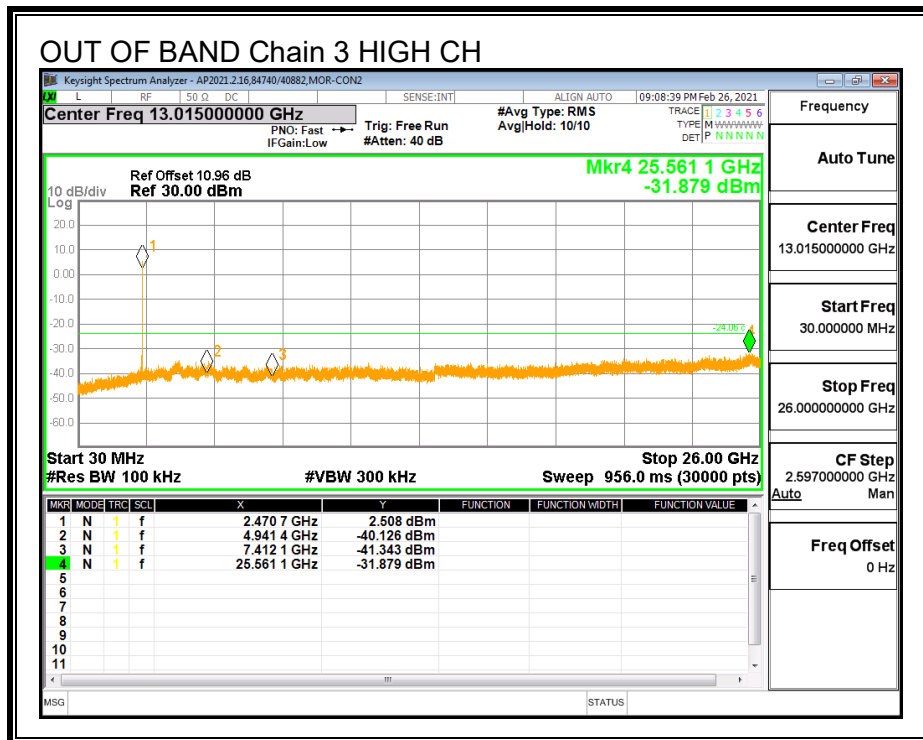
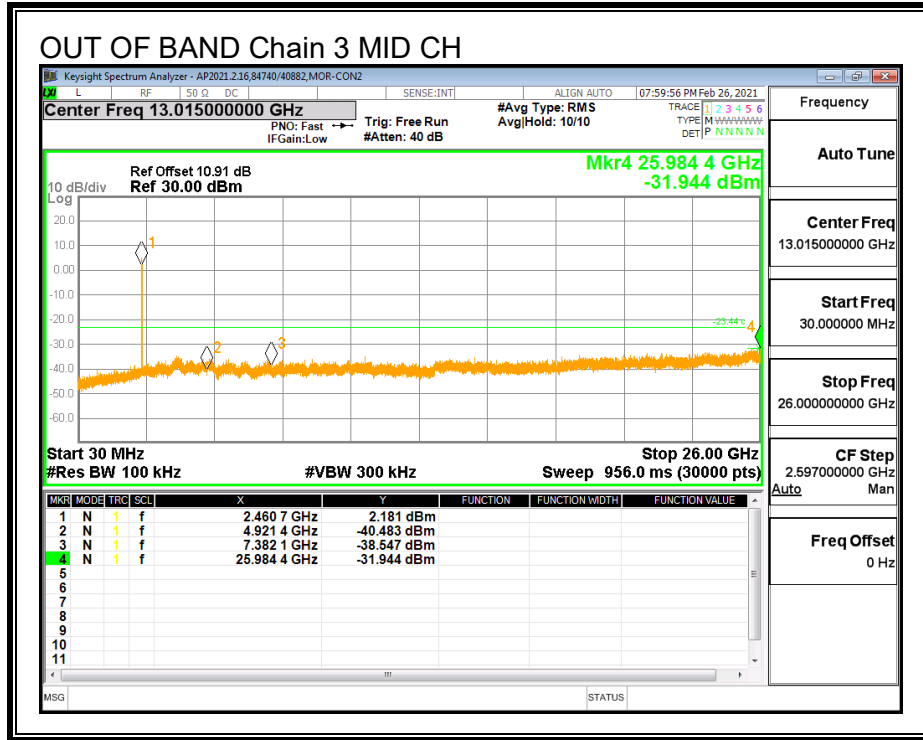


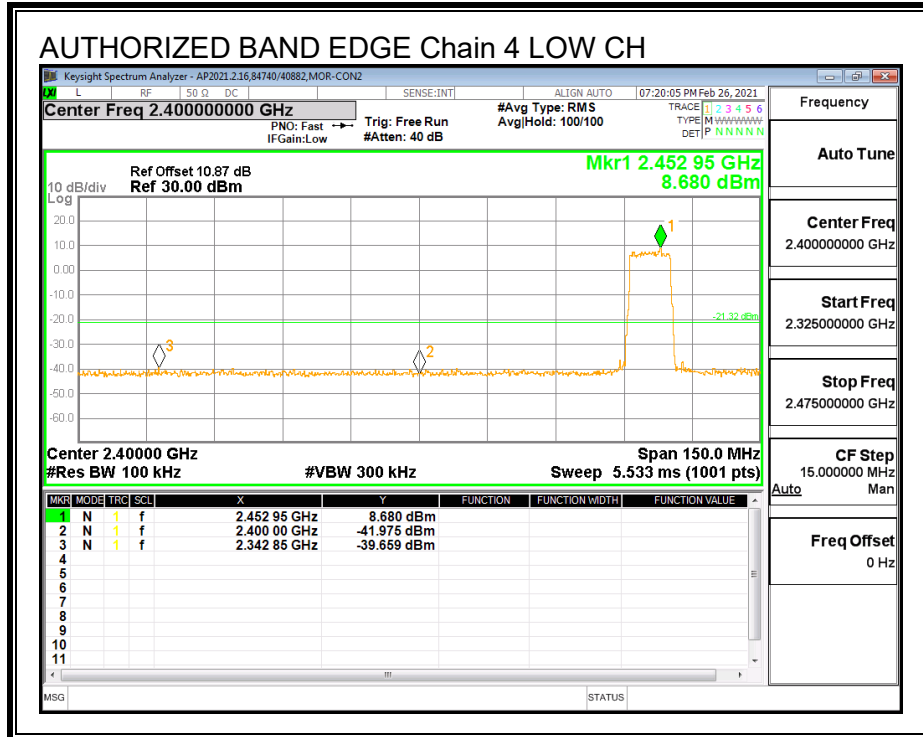
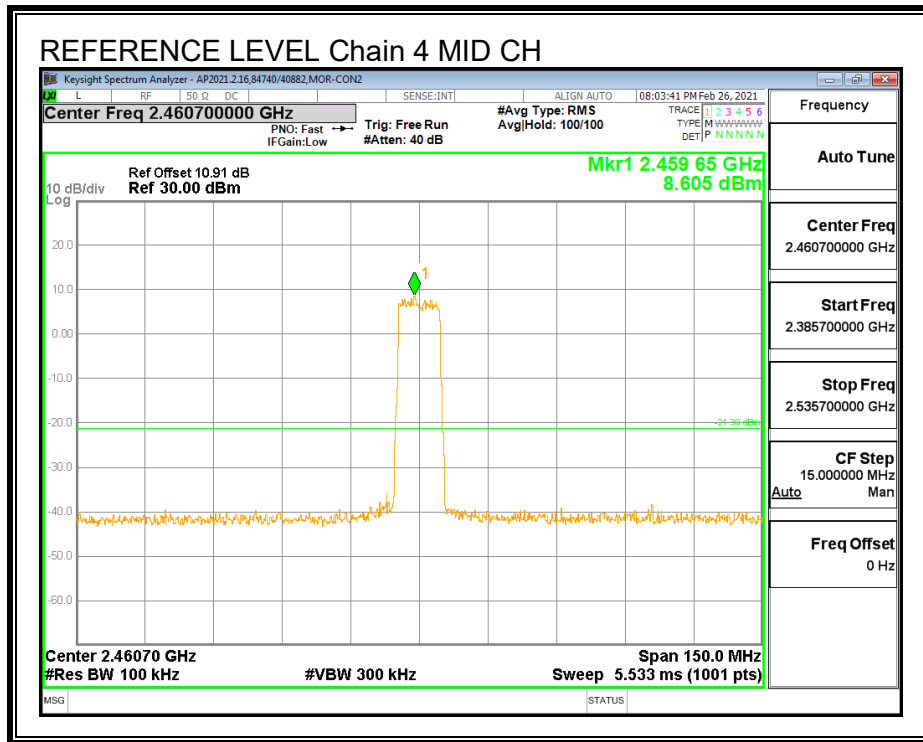


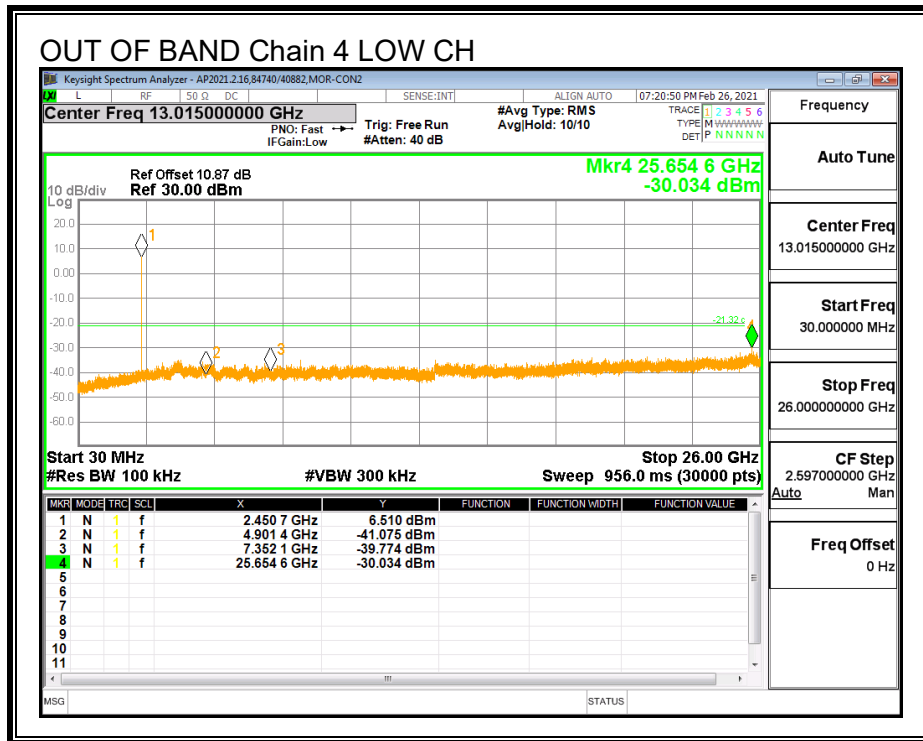
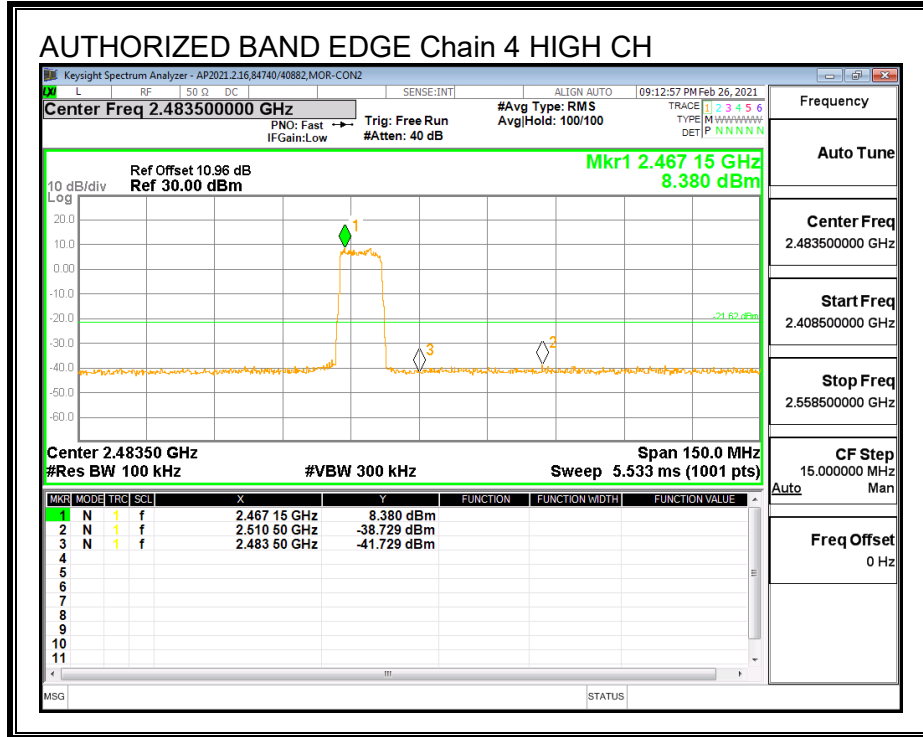


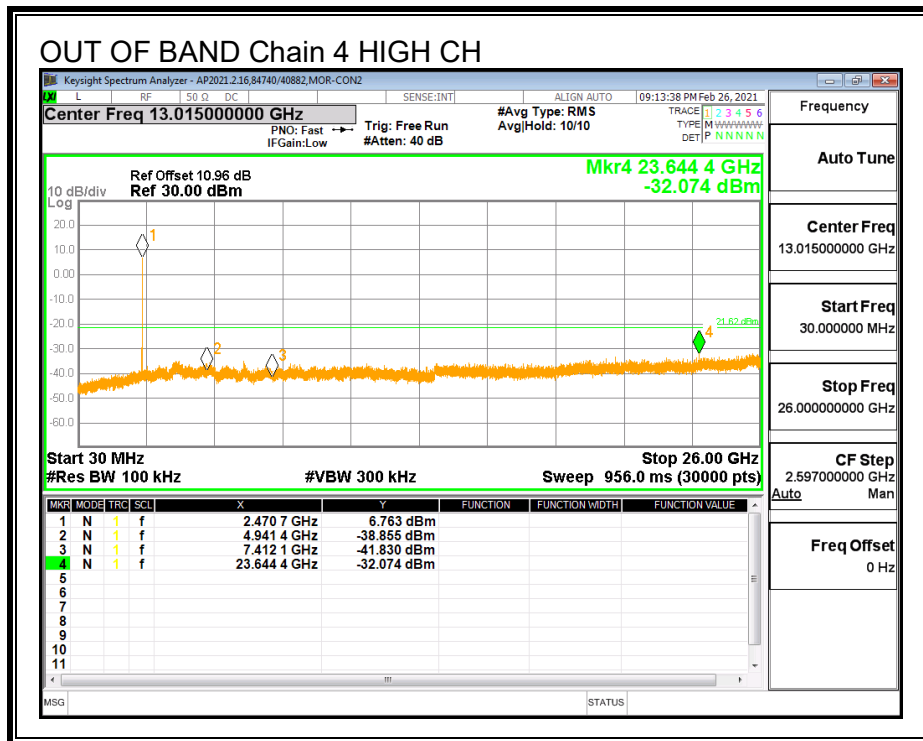
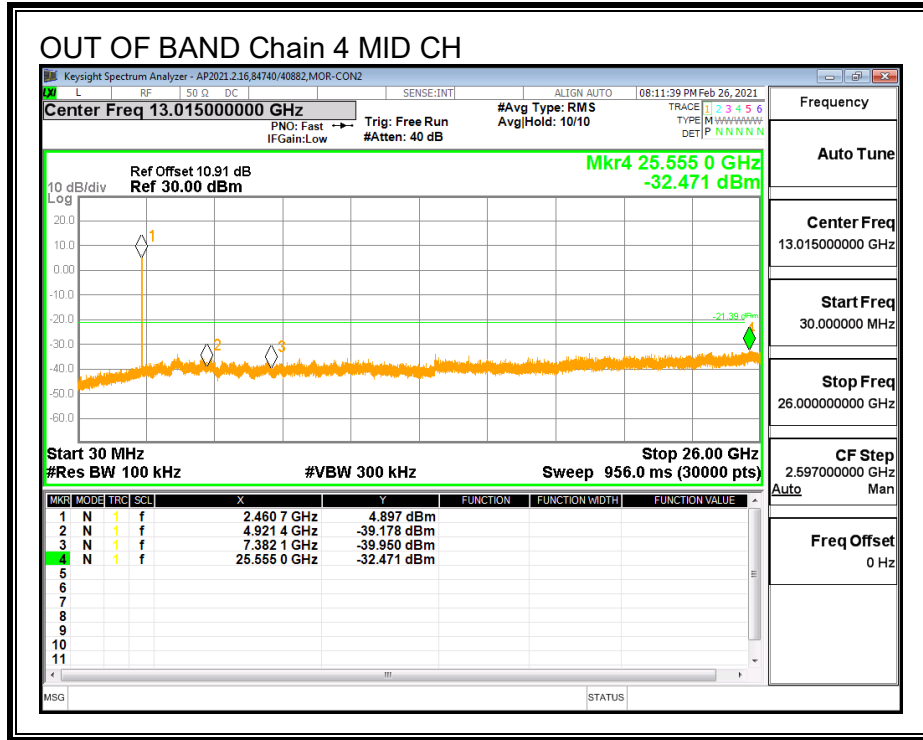


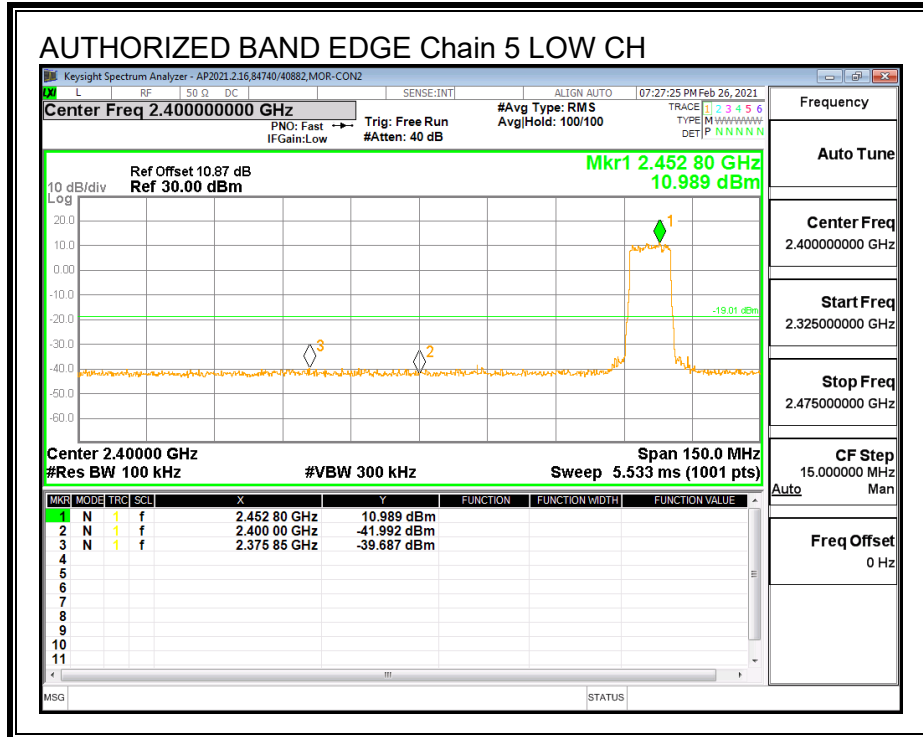
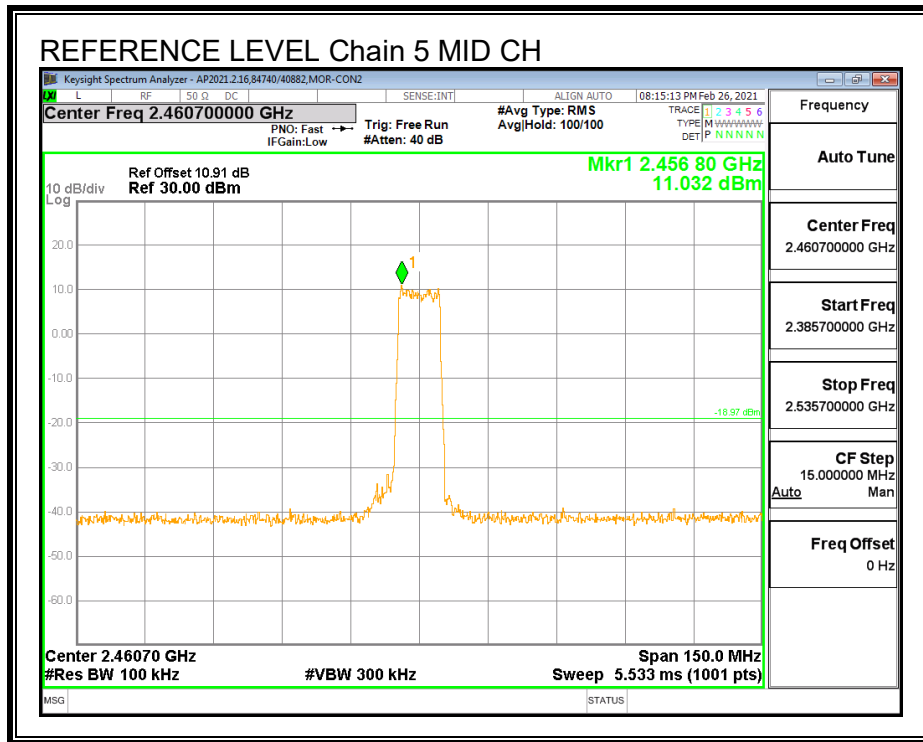


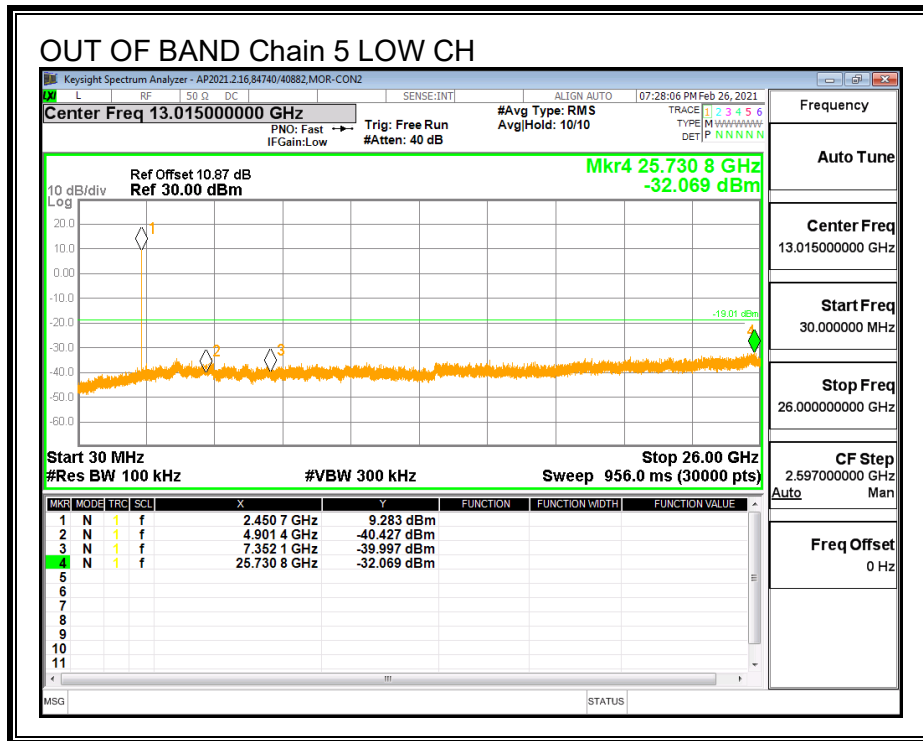
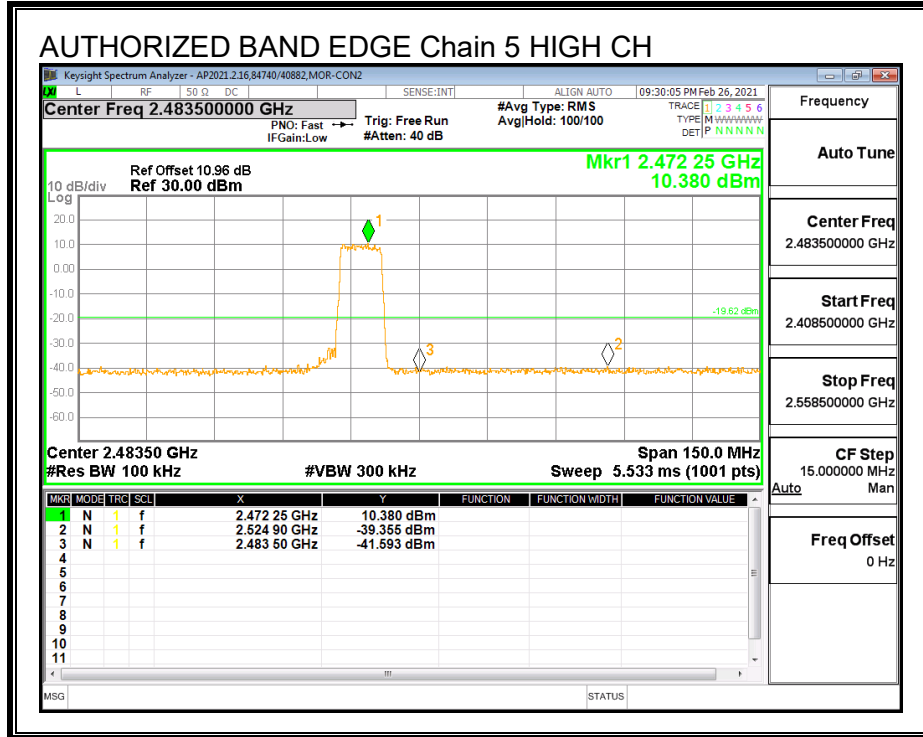


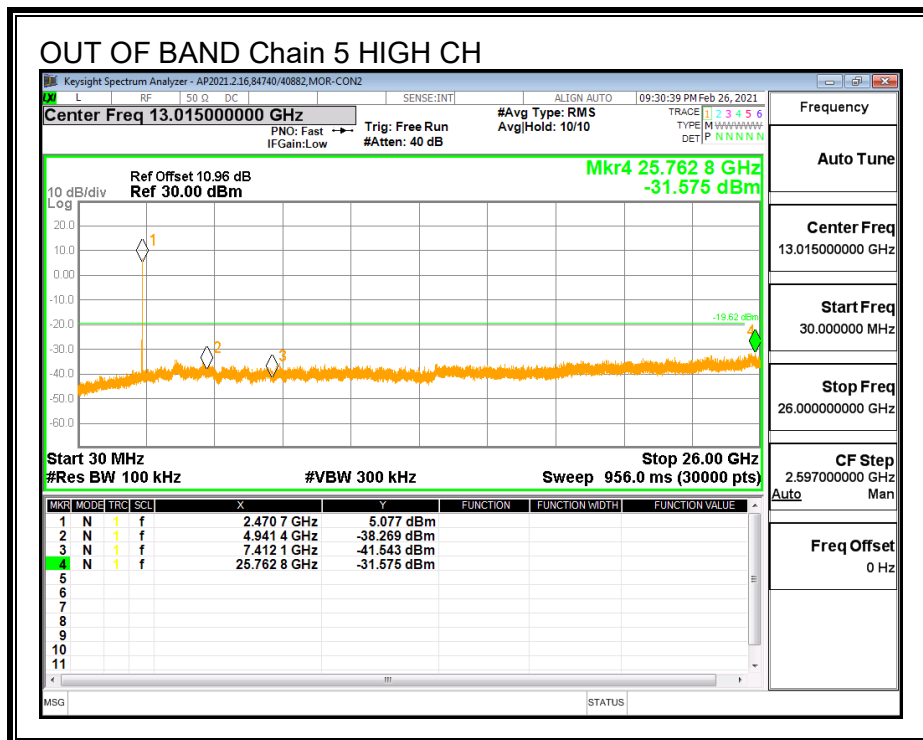
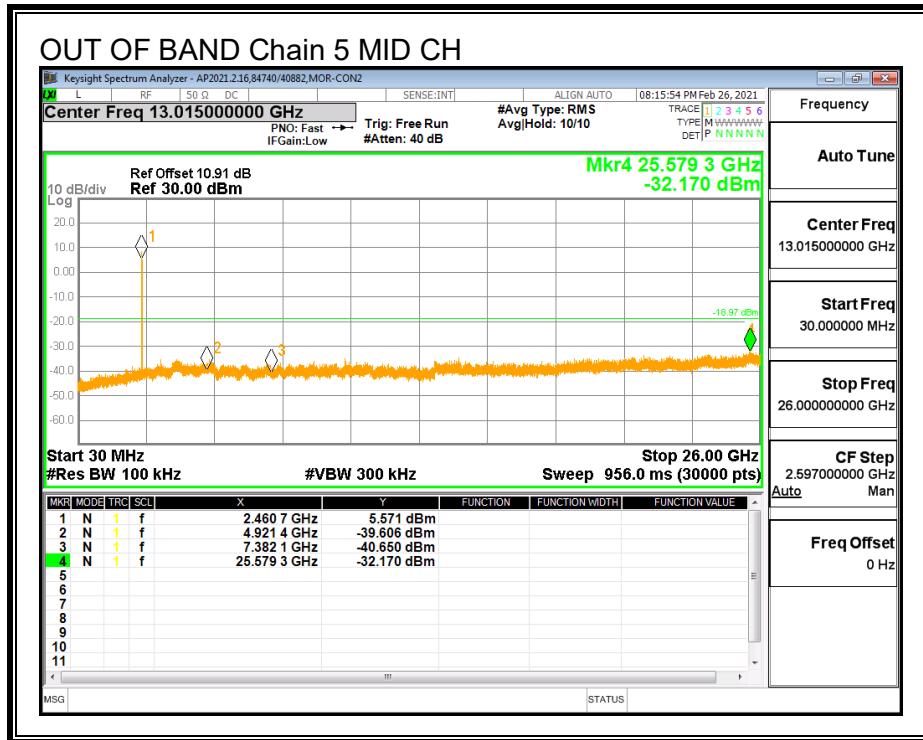


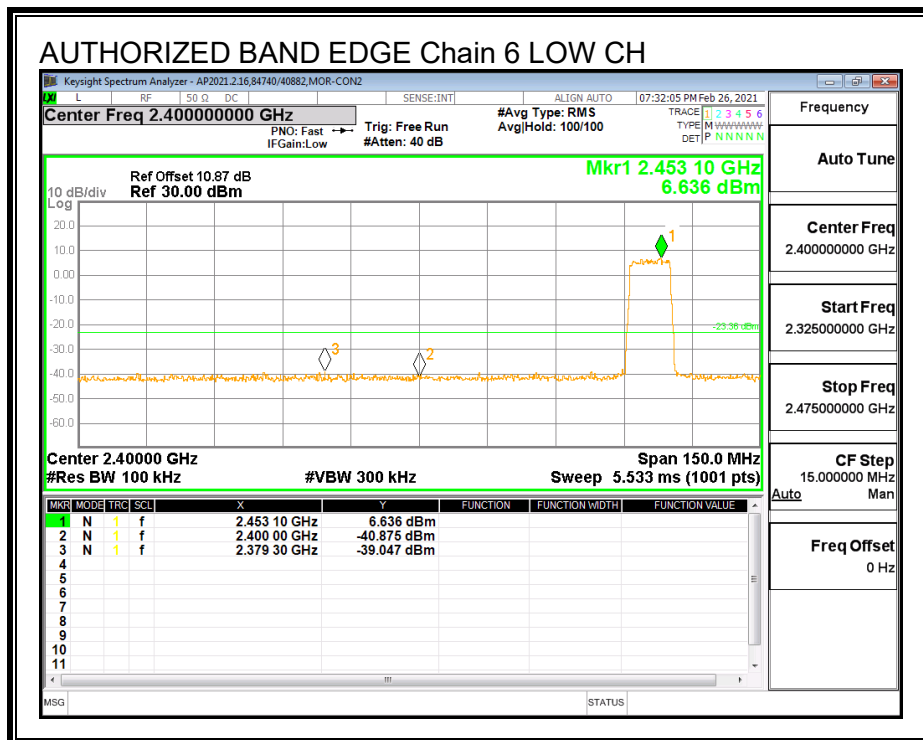
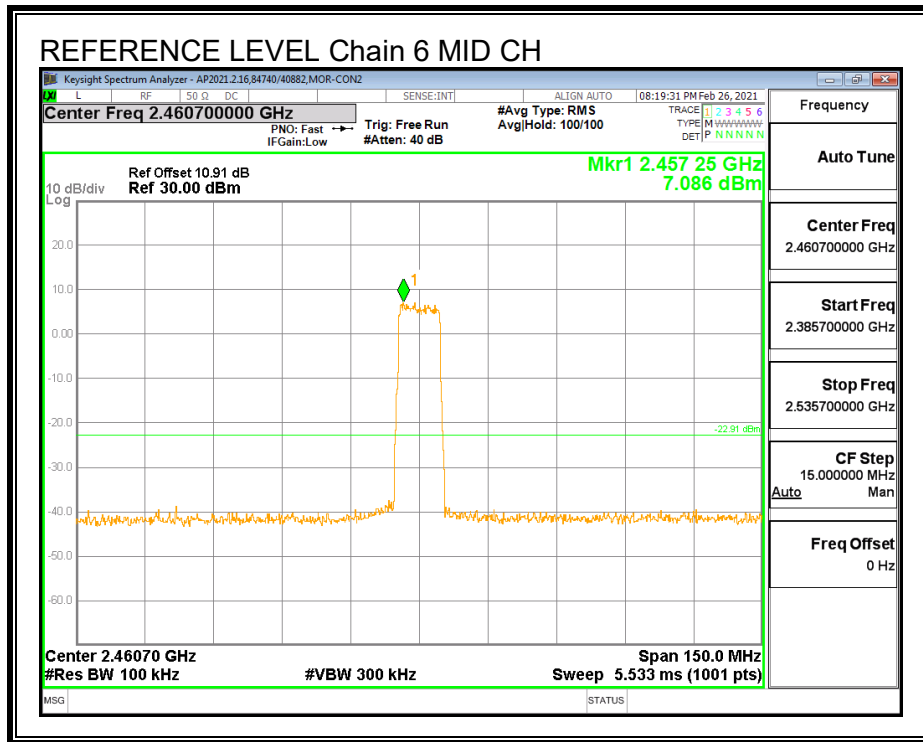


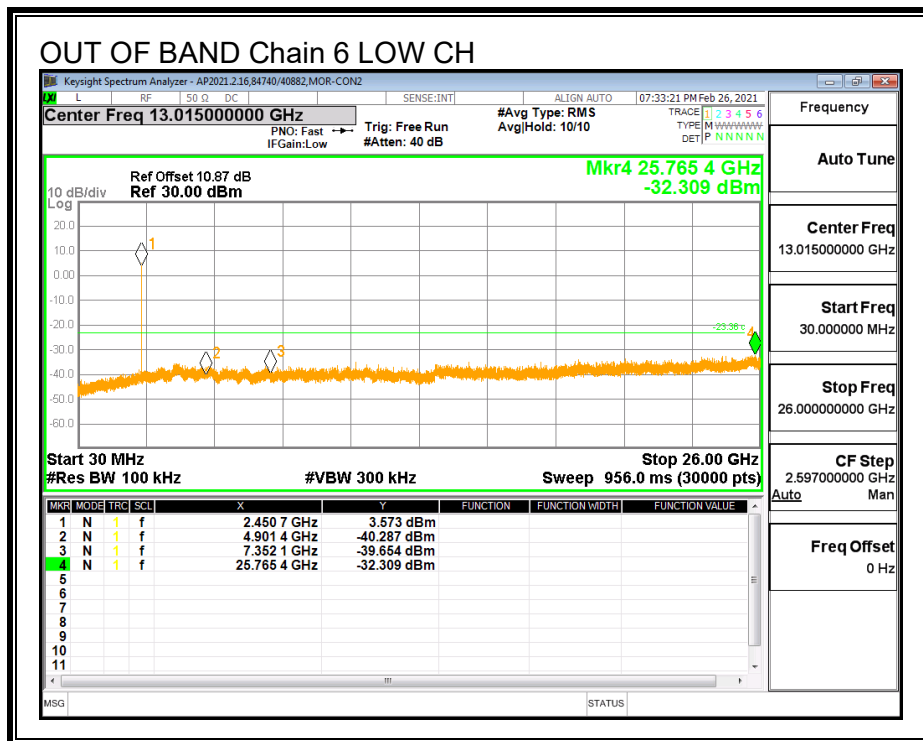
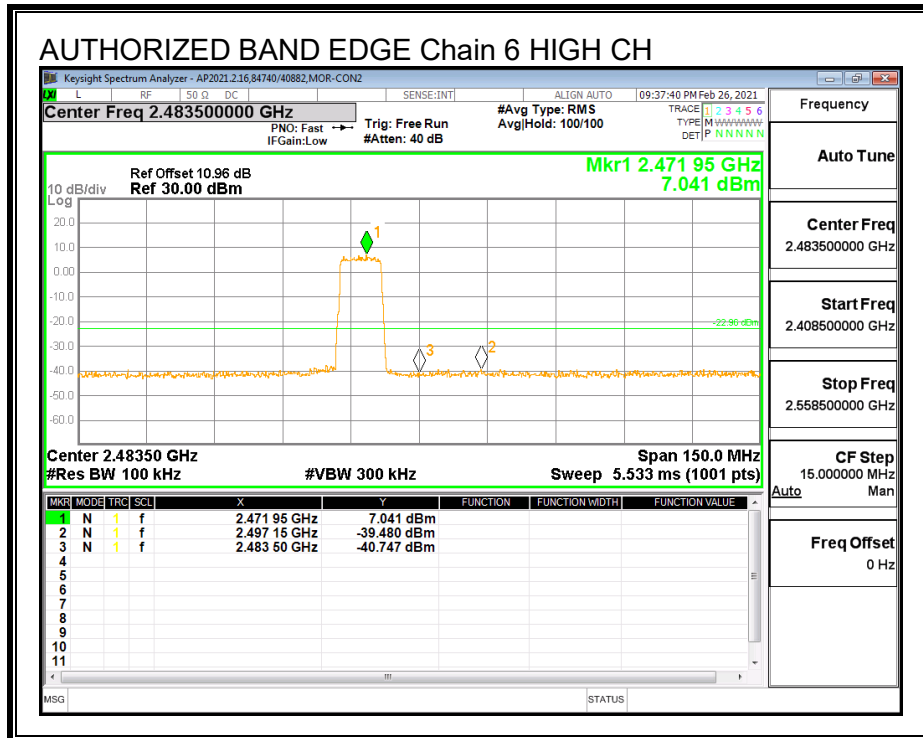


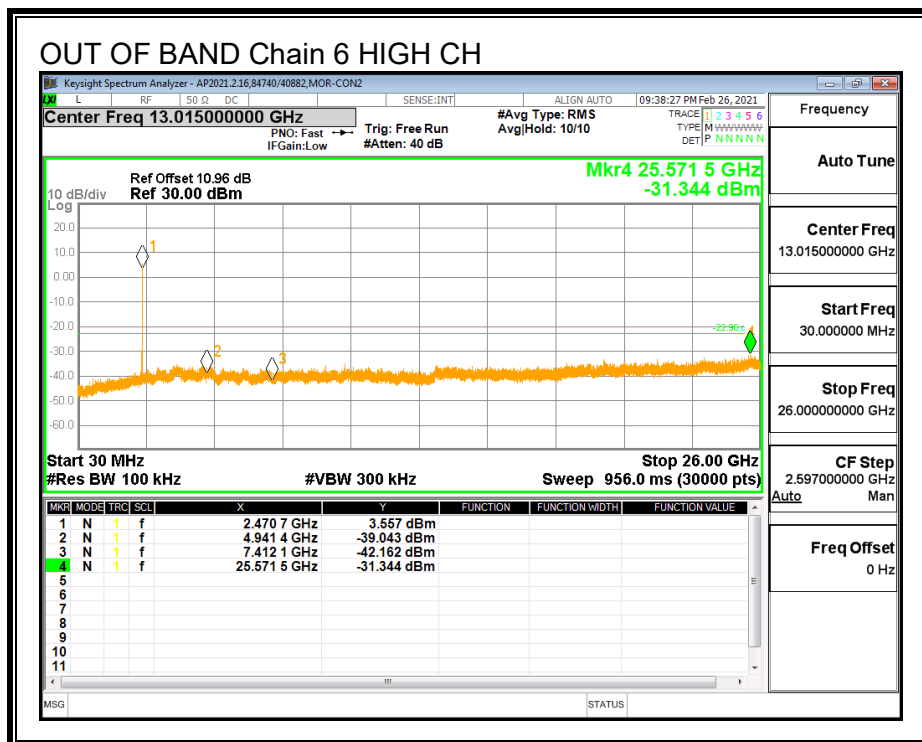
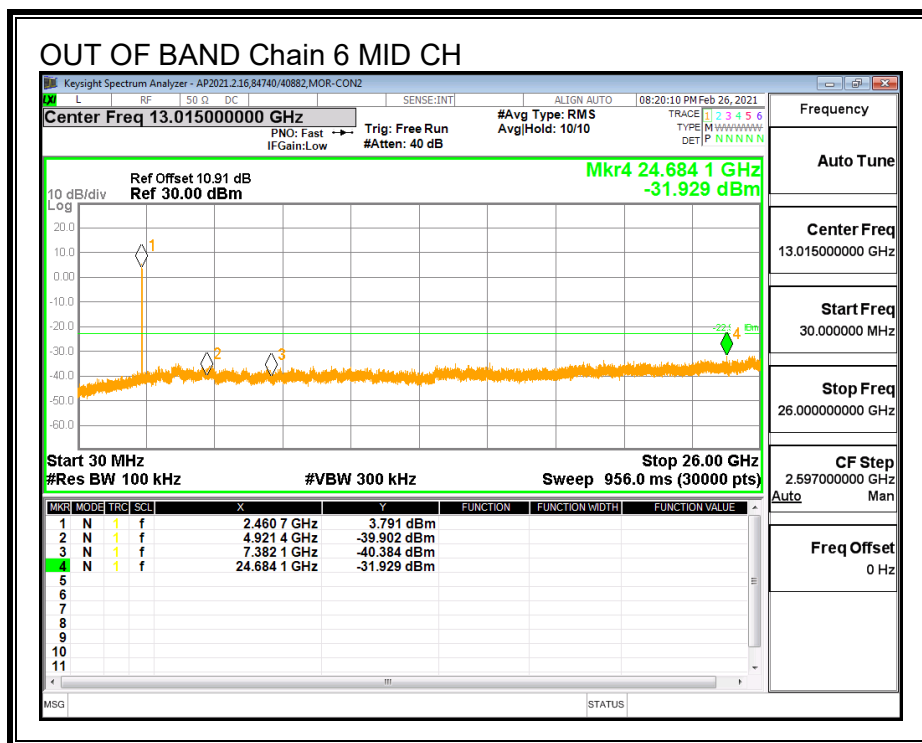


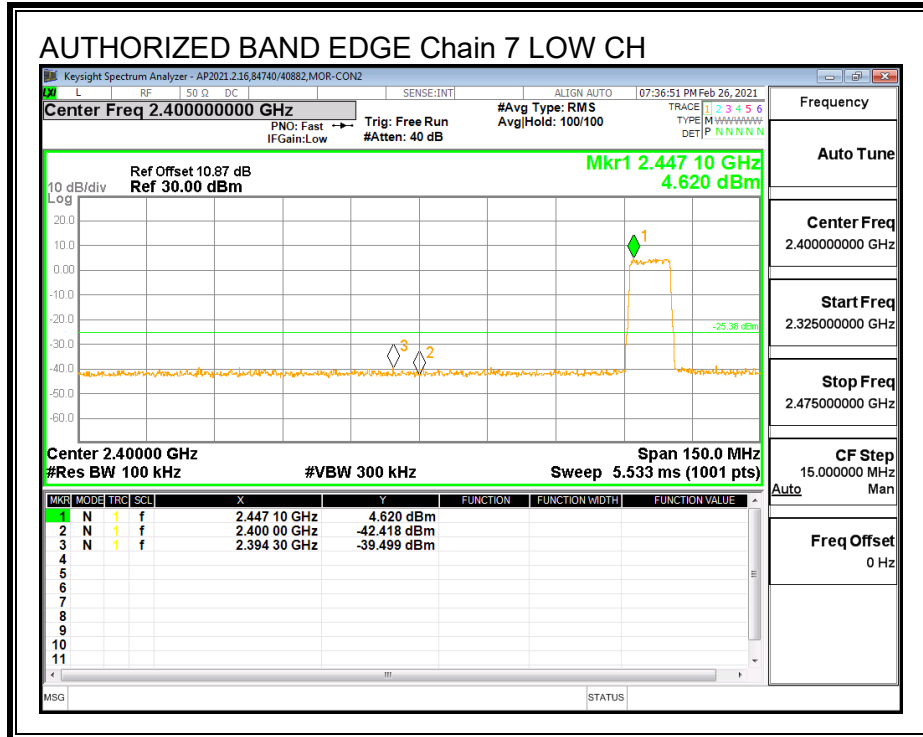
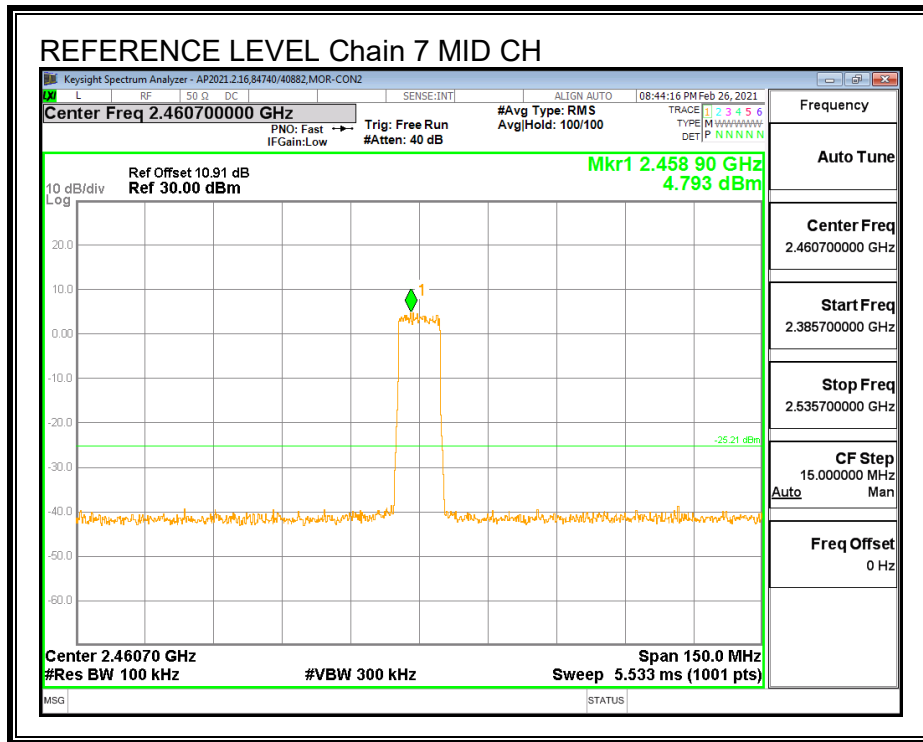


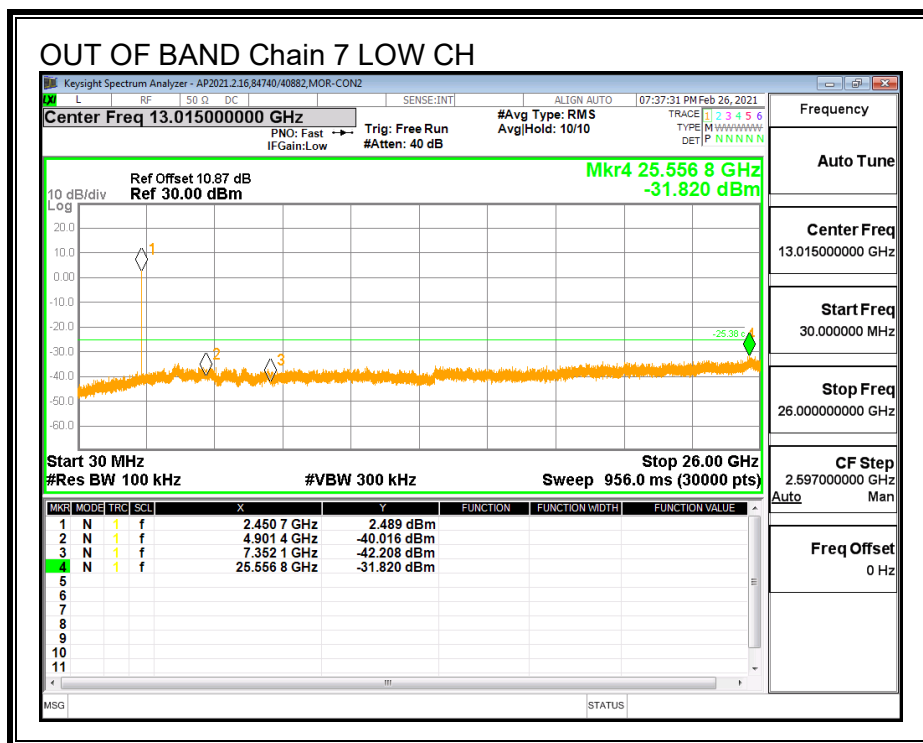
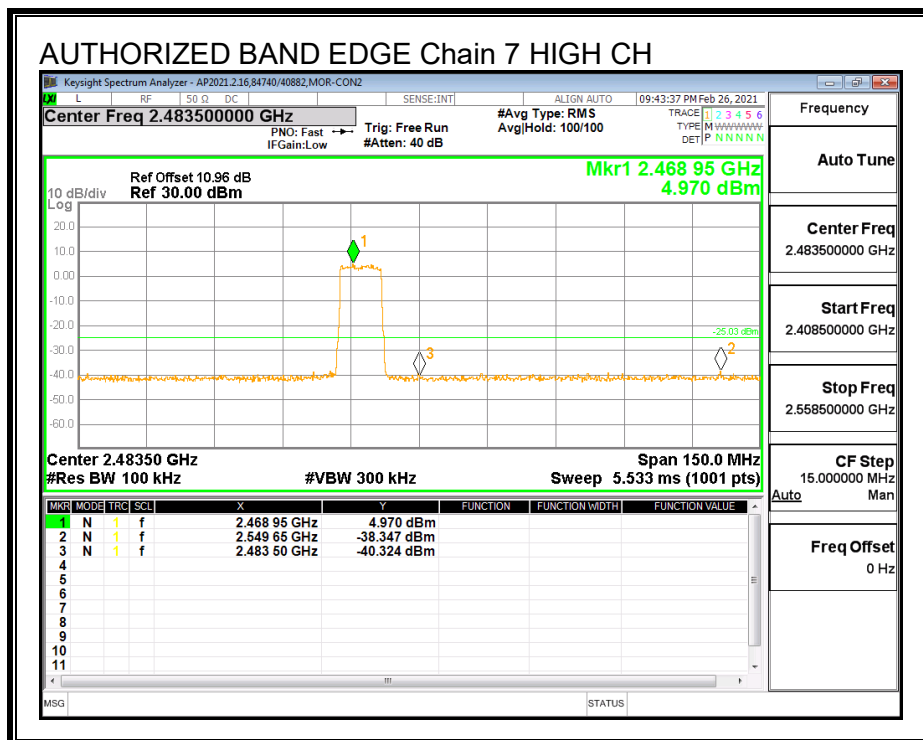


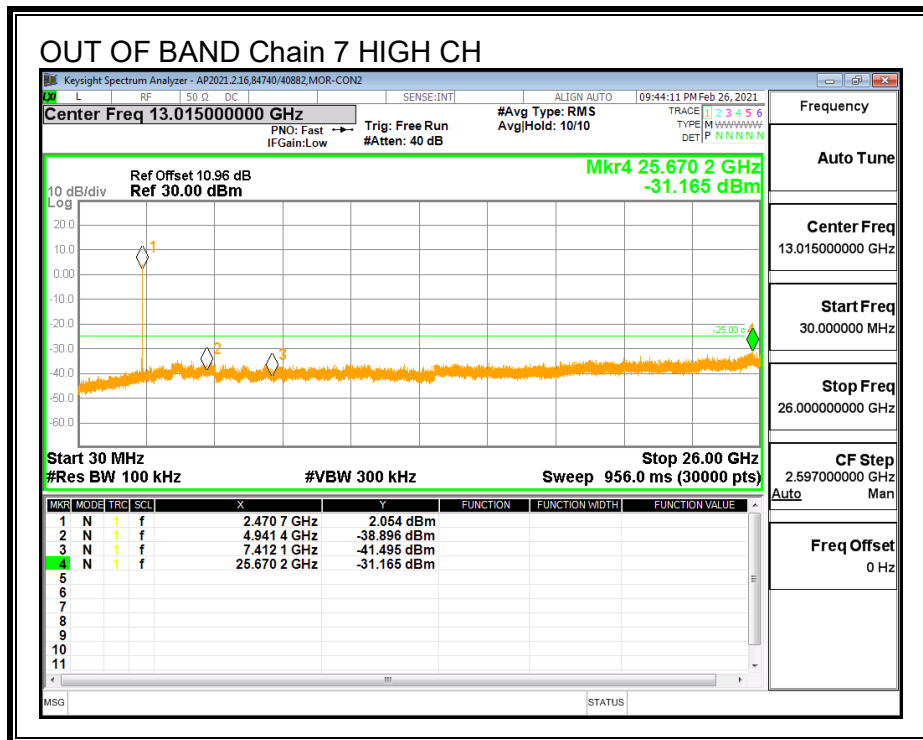
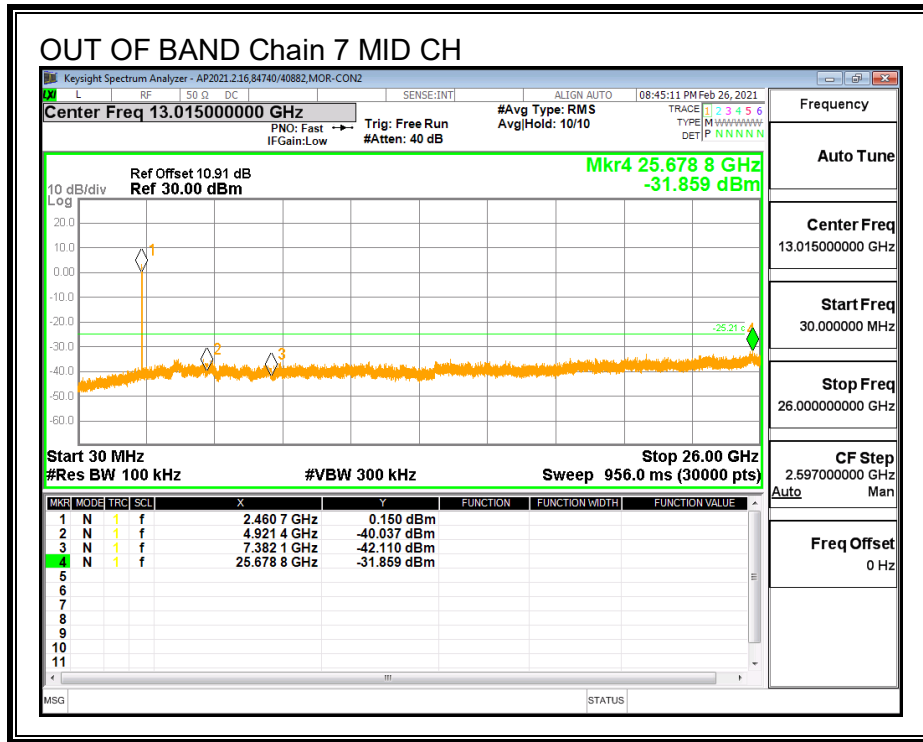


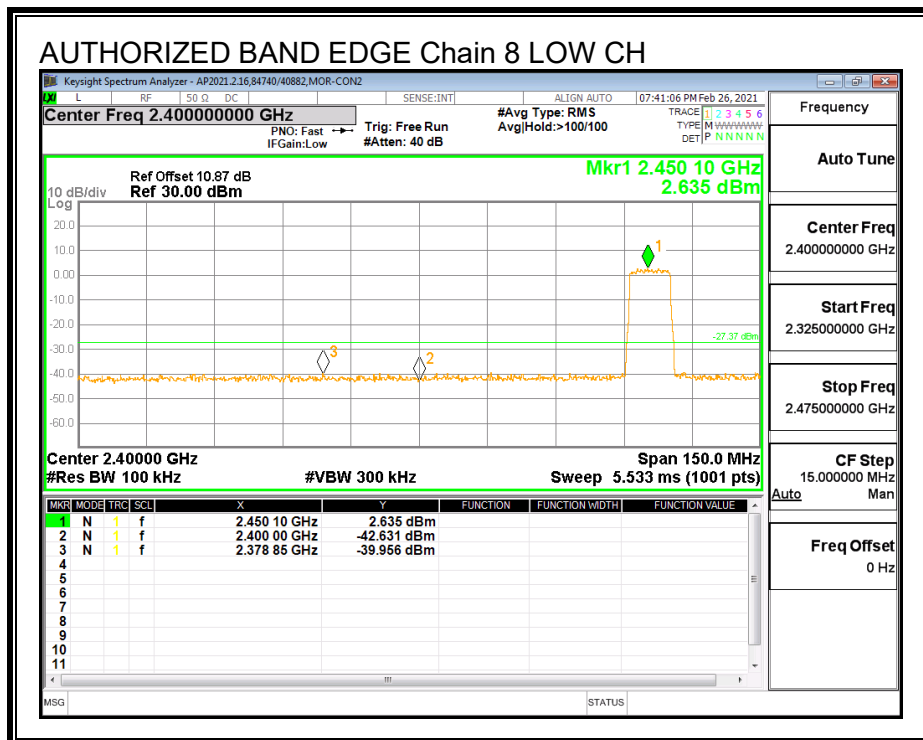
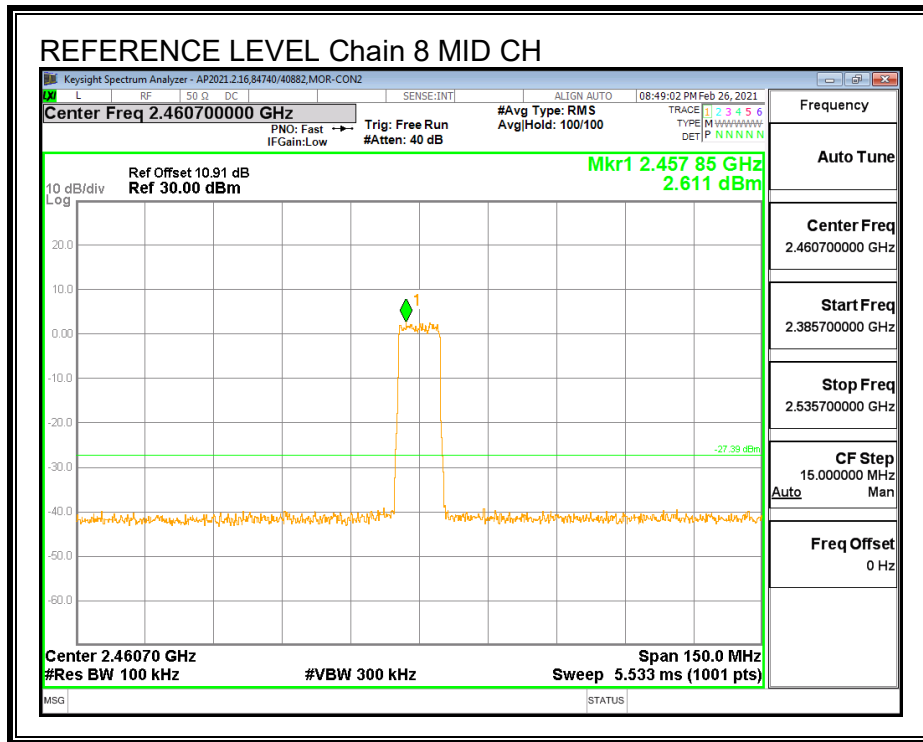


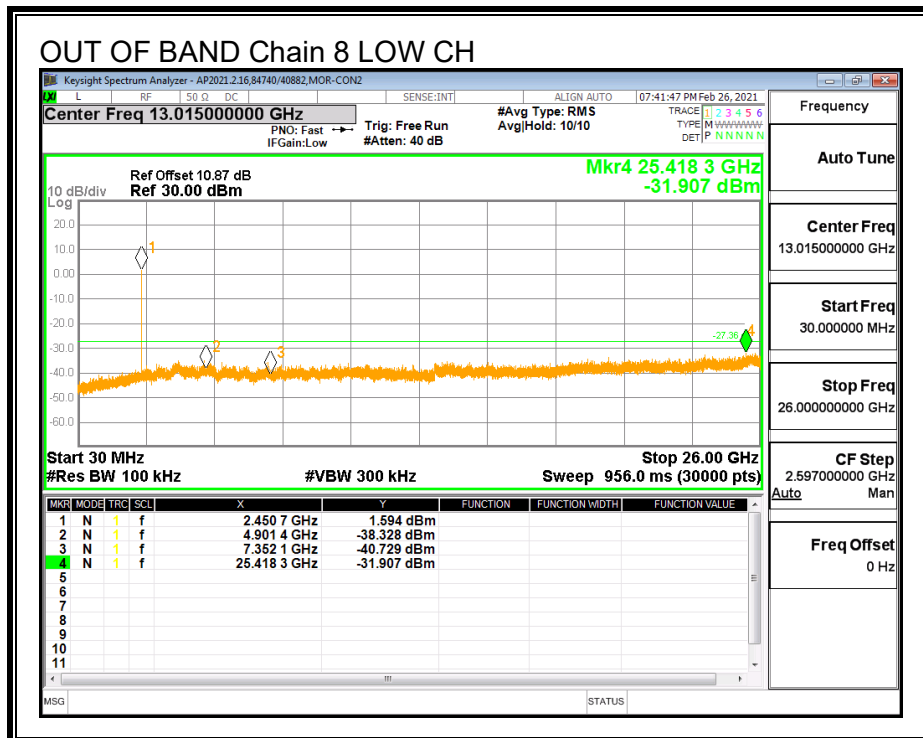
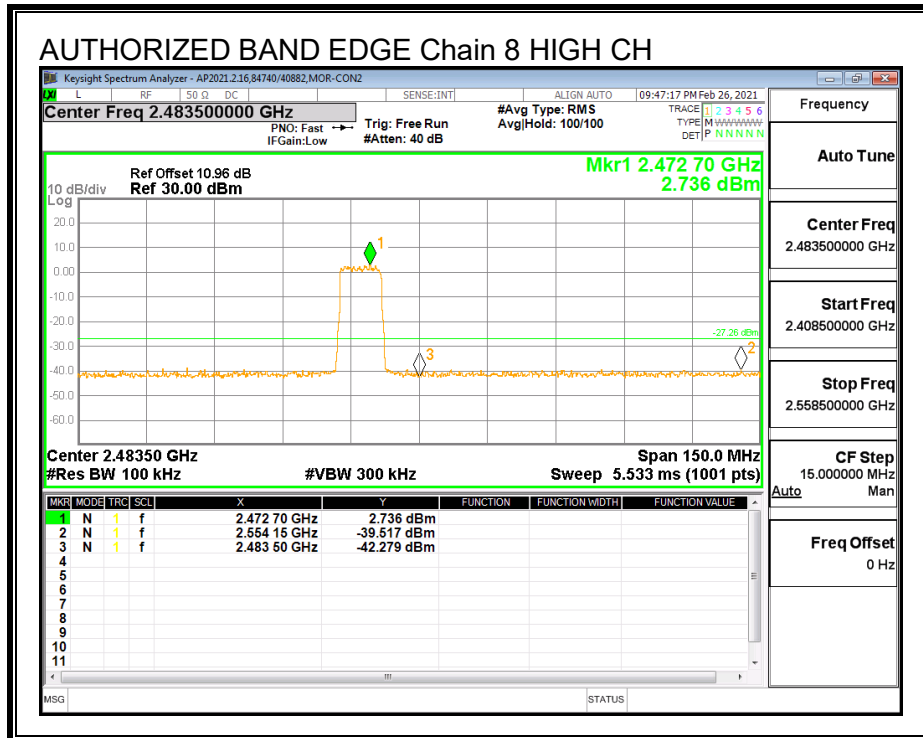


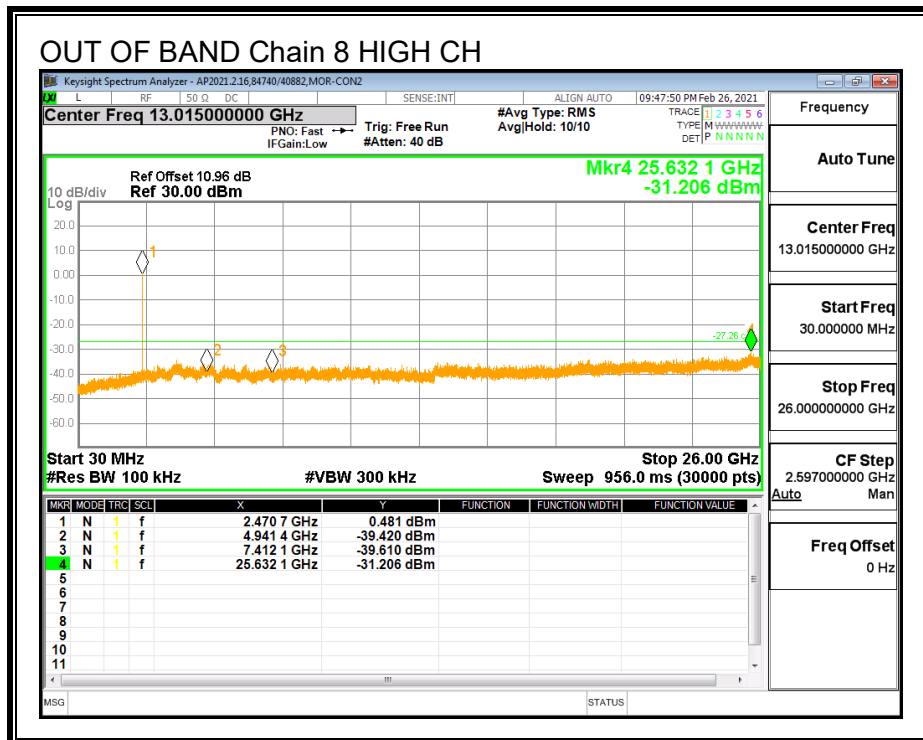
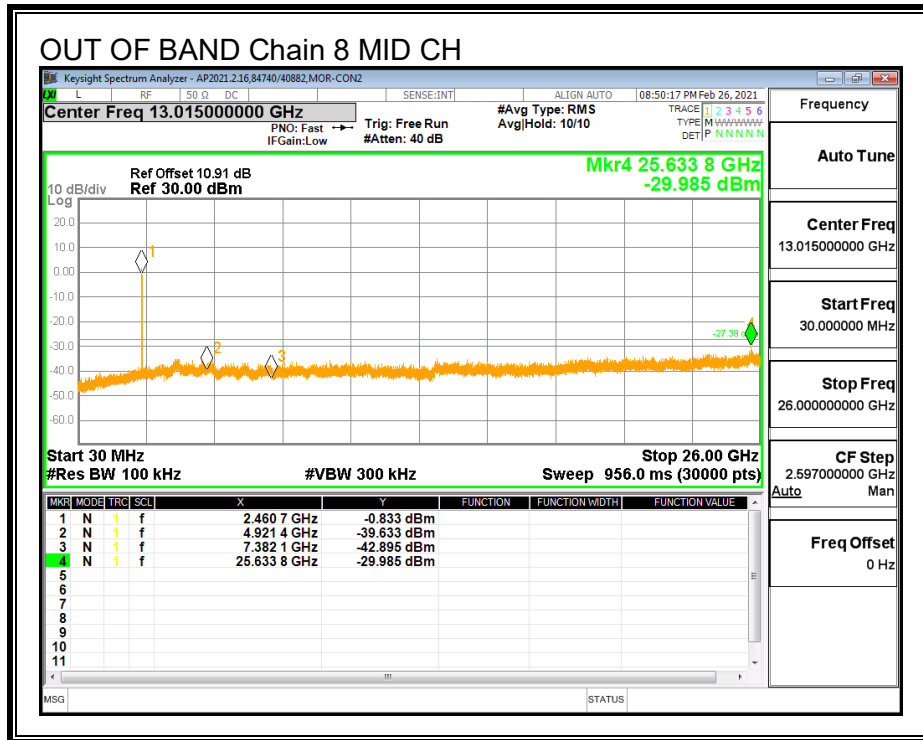












11. ANTENNA PORT RESTRICTED BAND LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength (dBuV/m)	Measurement Distance (m)
0.009 - 0.490	$20 \cdot \log[2400/F(\text{kHz})]$	300
0.490 - 1.705	$20 \cdot \log[24000/F(\text{kHz})]$	30
1.705 - 30	29.5	30
30 - 88	40	3
88 - 216	43.5	3
216 - 960	46	3
Above 960	54	3

TEST PROCEDURE

The conducted measurements were made for this test.

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 in the 30-1000MHz range, 9kHz for peak and/or quasi-peak detection measurements in the 0.15-30MHz range and 200Hz for peak and/or quasi-peak detection measurements in the 9 to 150kHz range. Peak detection is used unless otherwise noted as quasi-peak or average (9-90kHz and 110-490kHz).

For peak measurements above 1 GHz, the resolution bandwidth is set to 1 MHz and the video bandwidth is set to 3 MHz. For average measurements above 1GHz, the resolution bandwidth and video bandwidth are set as described in ANSI C63.10: 2013 for the applicable measurement.

For this evaluation, RMS Power Averaging was used and the resolution/video bandwidth settings were 1MHz/3MHz when testing in FRB mode as this mode utilizes a constant duty cycle. Reduced Video Bandwidth Averaging was used in 3RB mode as this mode has duty cycles that are not constant. The worse-case minimum VBW in this mode is 20kHz.

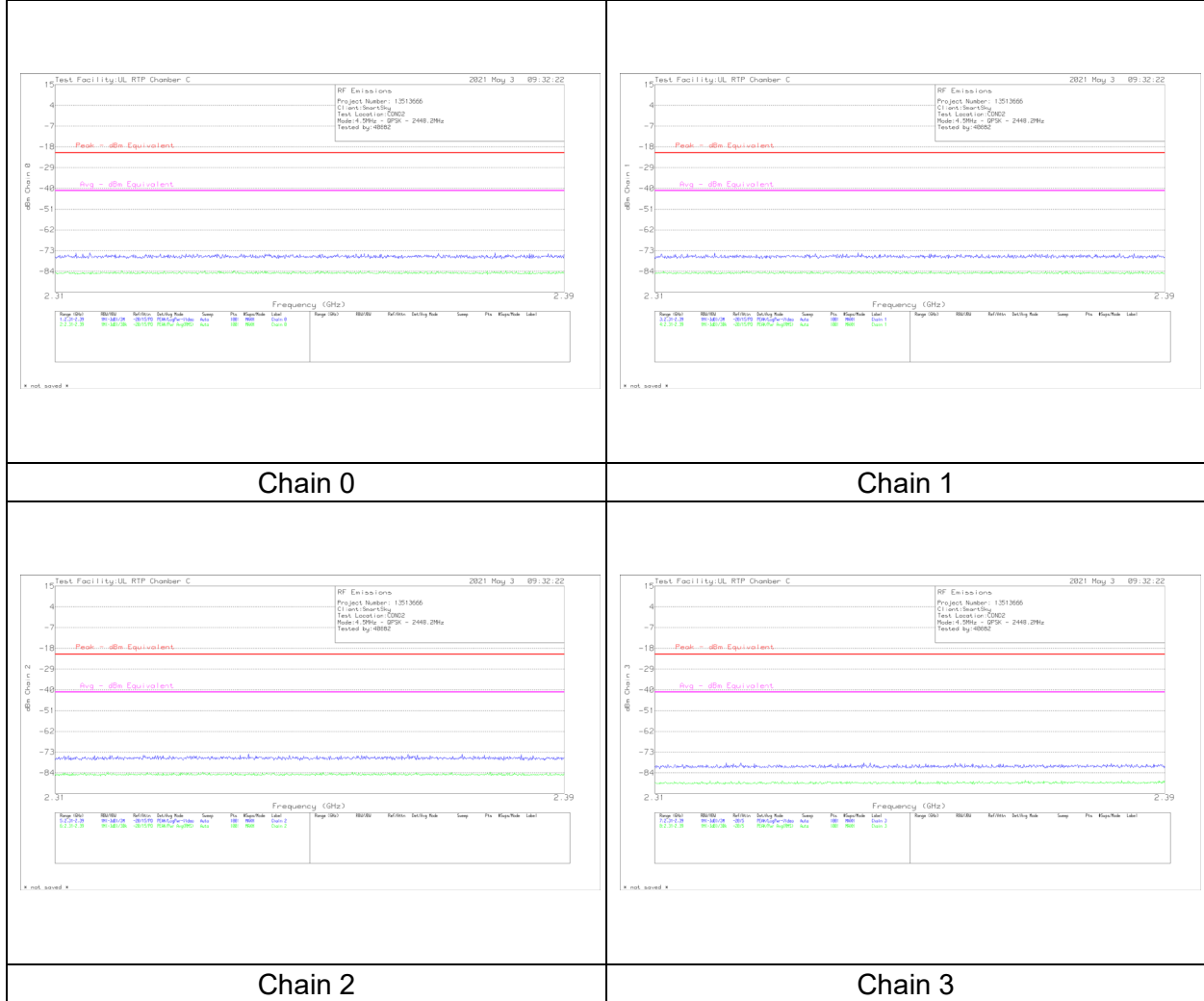
The spectrum from 9 kHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

All 8 antenna ports were measured individually and then the ports and their associated antenna gained were summed as described in ANSI C63.10: 2013, Section 11.12.2.2.

No emissions detected below 30MHz.

11.1. 3RB, 4.5MHz BW, QPSK MODE, TX ABOVE 1 GHz IN THE 2.4 GHz BAND

11.1.1. LOW CHANNEL RESTRICTED BAND EDGE

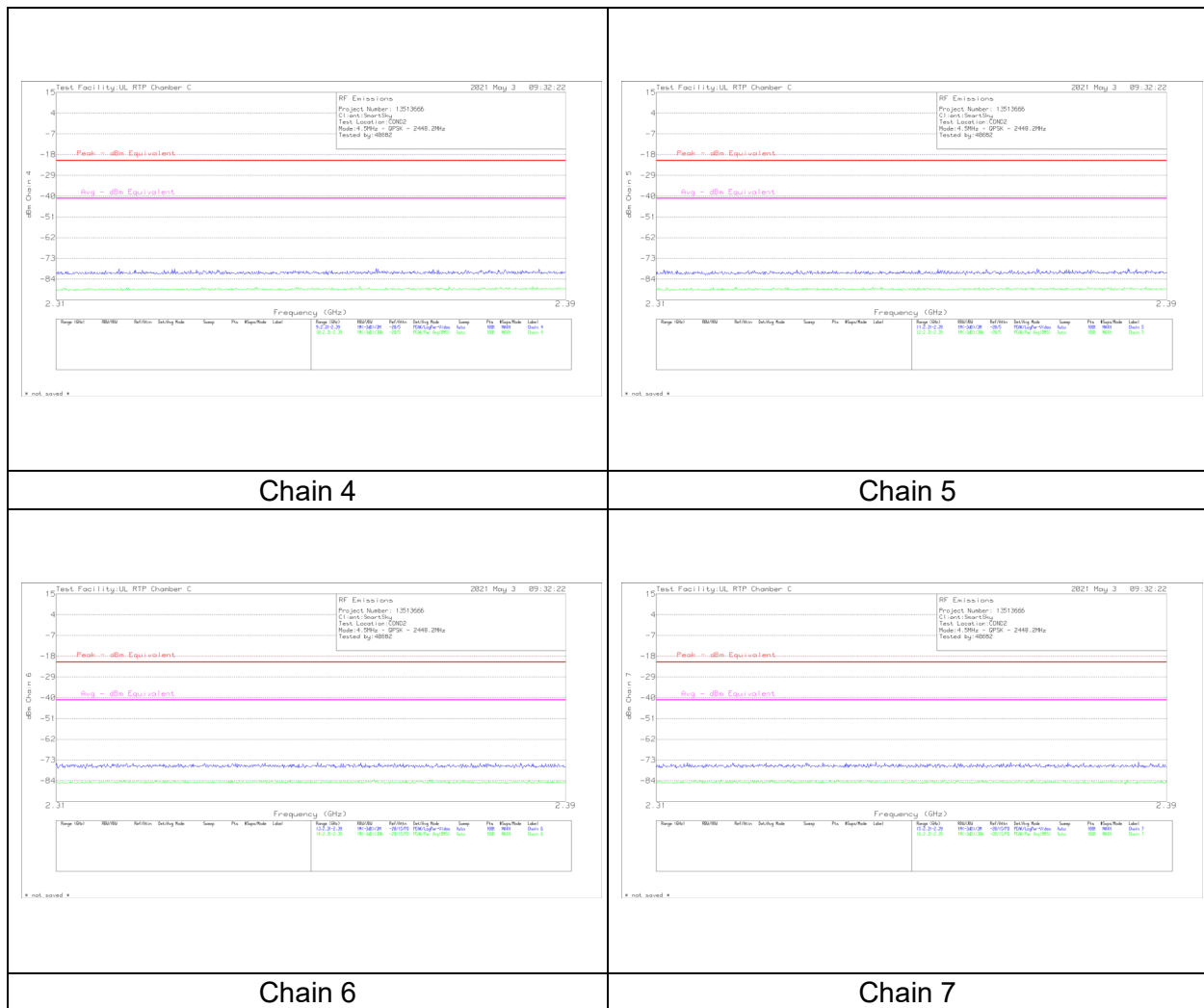


Chain 0

Chain 1

Chain 2

Chain 3

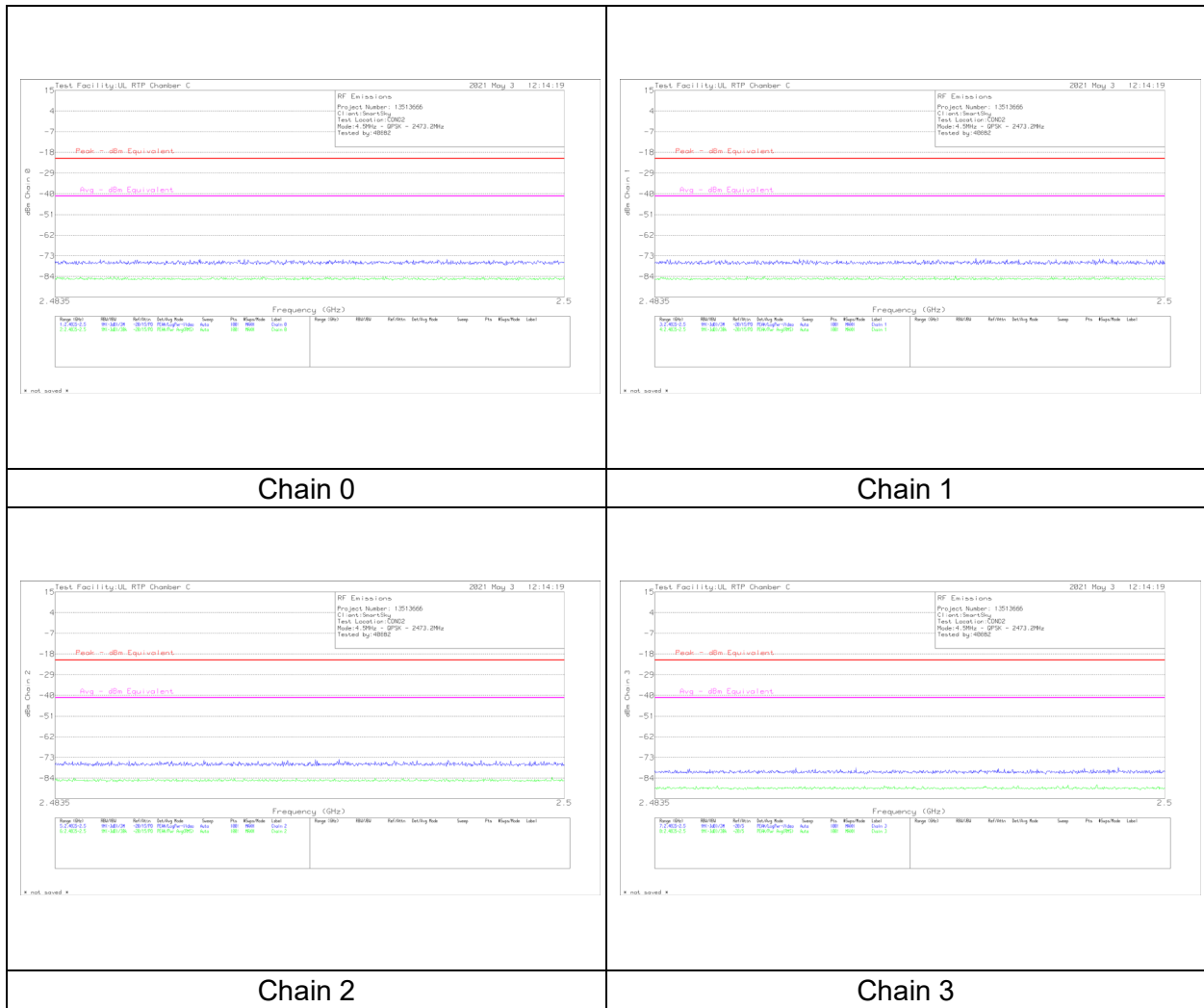


Restricted Band (Low Channel) Tabular Summed Data, Worse-case Frequency:

Chain	0	1	2	3	4	5	6	7	GRF (dB)	Array Gain (dBi)	Meas. Dist (m)	
Gain (dBi)	-	-	-	-	-	-	-	-	0	26.8	3	
Frequency (GHz)	PK Value Chain 0 (dBm)	PK Value Chain 1 (dBm)	PK Value Chain 2 (dBm)	PK Value Chain 3 (dBm)	PK Value Chain 4 (dBm)	PK Value Chain 5 (dBm)	PK Value Chain 6 (dBm)	PK Value Chain 7 (dBm)	PK EIRP (dBm)	PK E-field (dBuV/m)	PK E-field Limit (dBuV/m)	PK E-field Margin (dB)
2.37	-75.72	-74.77	-74.21	-80.55	-80.63	-79.71	-76.28	-76.5	-40.84	54.42	74	-19.58
Frequency (GHz)	AV Value Chain 0 (dBm)	AV Value Chain 1 (dBm)	AV Value Chain 2 (dBm)	AV Value Chain 3 (dBm)	AV Value Chain 4 (dBm)	AV Value Chain 5 (dBm)	AV Value Chain 6 (dBm)	AV Value Chain 7 (dBm)	AV EIRP (dBm)	AV E-field (dBuV/m)	AV E-field Limit (dBuV/m)	AV E-field Margin (dB)
2.37	-85.01	-84.58	-84.89	-88.54	-88.93	-88.69	-83.49	-83.28	-49.57	45.69	54	-8.31

Note: GRF = Ground Reflection Factor per C63.10, Section 11.12.2.2

11.1.2. HIGH CHANNEL RESTRICTED BAND EDGE

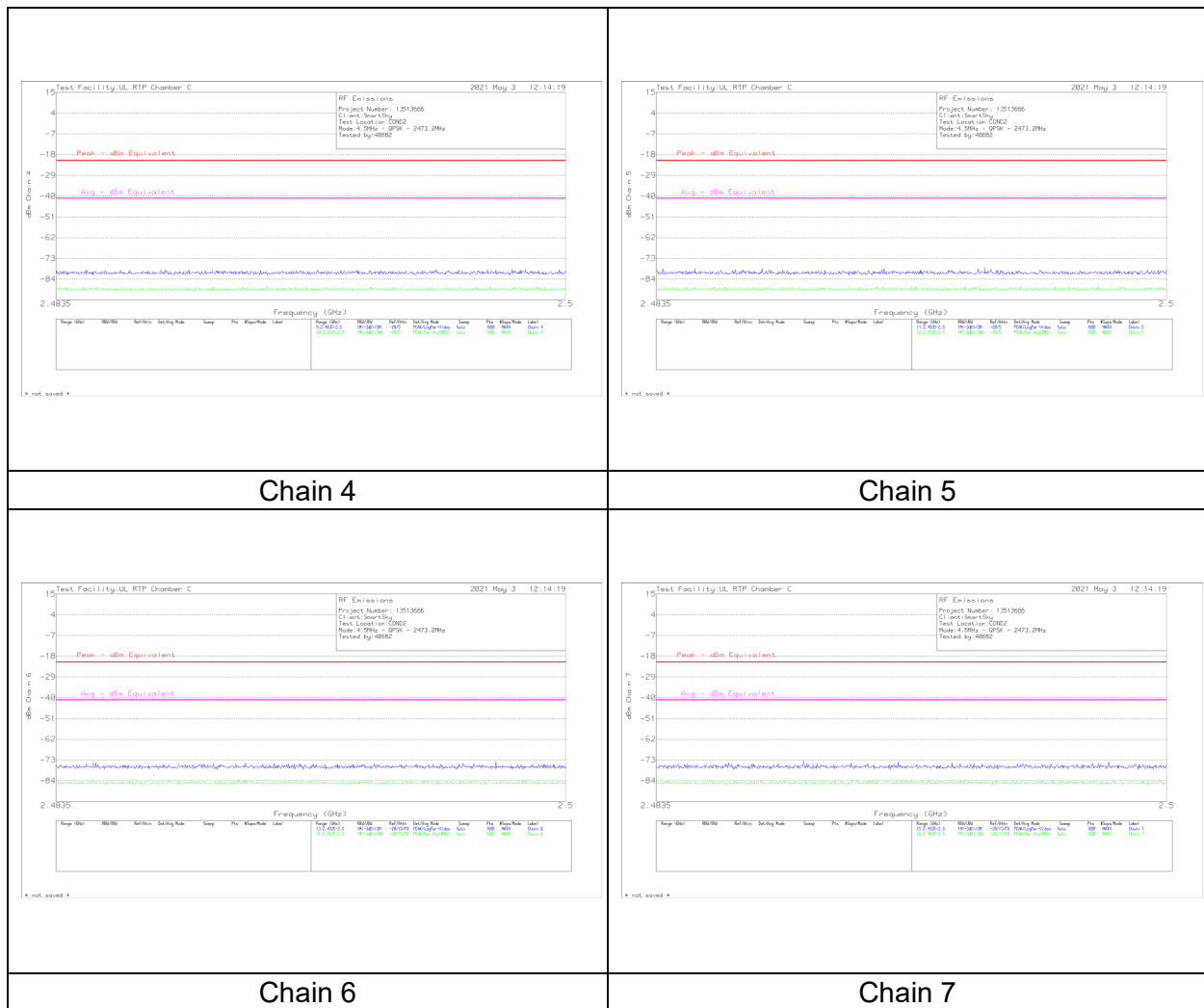


Chain 0

Chain 1

Chain 2

Chain 3

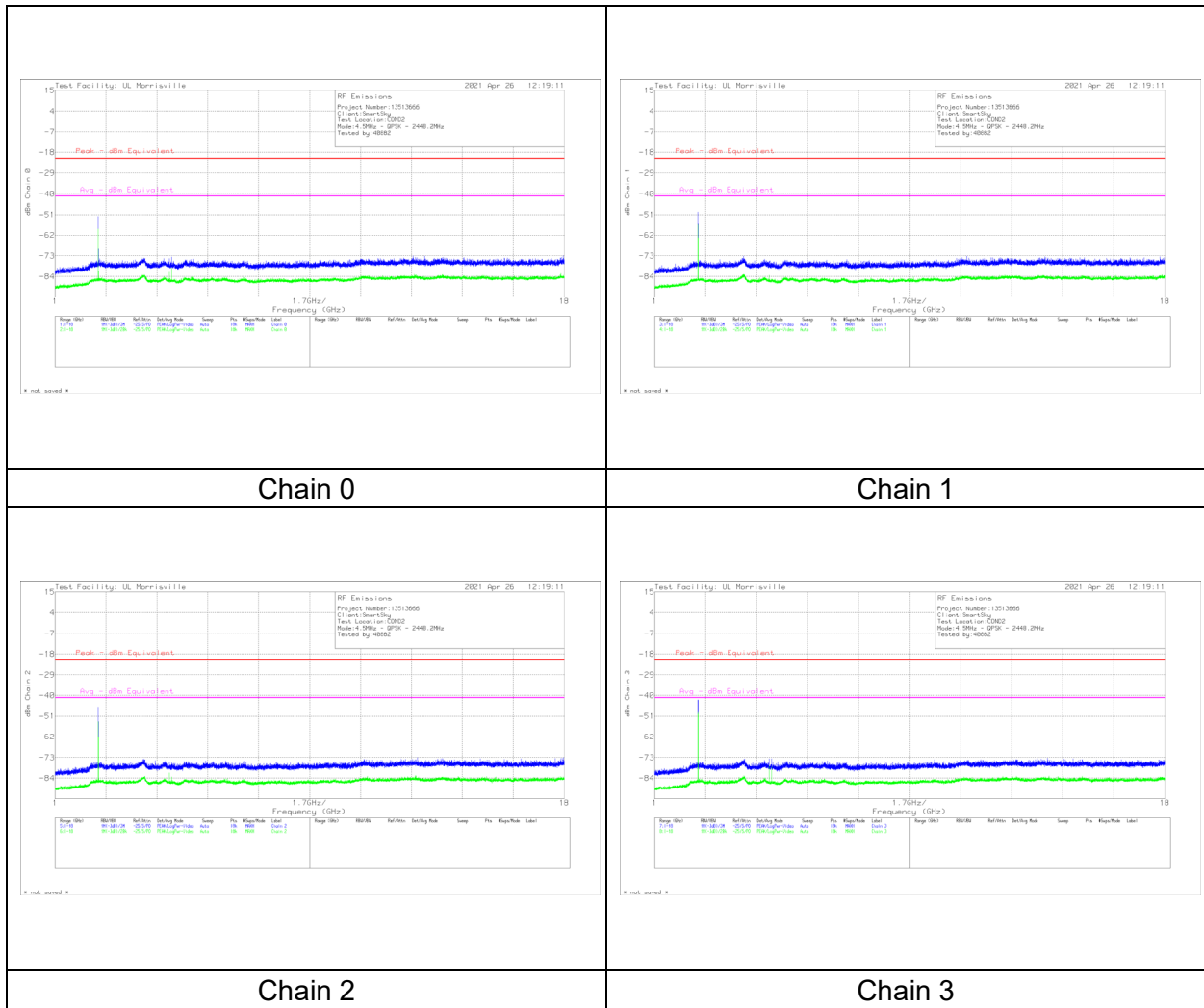


Restricted Band (High Channel) Tabular Summed Data, Worse-case Frequency:

Chain	0	1	2	3	4	5	6	7	GRF (dB)	Array Gain (dBi)	Meas. Dist (m)	
Gain (dBi)	-	-	-	-	-	-	-	-	0	26.8	3	
Frequency (GHz)	PK Value Chain 0 (dBm)	PK Value Chain 1 (dBm)	PK Value Chain 2 (dBm)	PK Value Chain 3 (dBm)	PK Value Chain 4 (dBm)	PK Value Chain 5 (dBm)	PK Value Chain 6 (dBm)	PK Value Chain 7 (dBm)	PK EIRP (dBm)	PK E-field (dBuV/m)	PK E-field Limit (dBuV/m)	PK E-field Margin (dB)
2.49774	-76.44	-75.38	-76.52	-80.56	-79.13	-80.43	-73.86	-76.5	-40.96	54.30	74	-19.70
Frequency (GHz)	AV Value Chain 0 (dBm)	AV Value Chain 1 (dBm)	AV Value Chain 2 (dBm)	AV Value Chain 3 (dBm)	AV Value Chain 4 (dBm)	AV Value Chain 5 (dBm)	AV Value Chain 6 (dBm)	AV Value Chain 7 (dBm)	AV EIRP (dBm)	AV E-field (dBuV/m)	AV E-field Limit (dBuV/m)	AV E-field Margin (dB)
2.491552	-84.71	-84	-84.98	-89.5	-89.37	-88.82	-85.17	-84.07	-49.96	45.30	54	-8.70

Note: GRF = Ground Reflection Factor per C63.10, Section 11.12.2.2

11.1.1. LOW CHANNEL SPURIOUS: 1-18 GHz

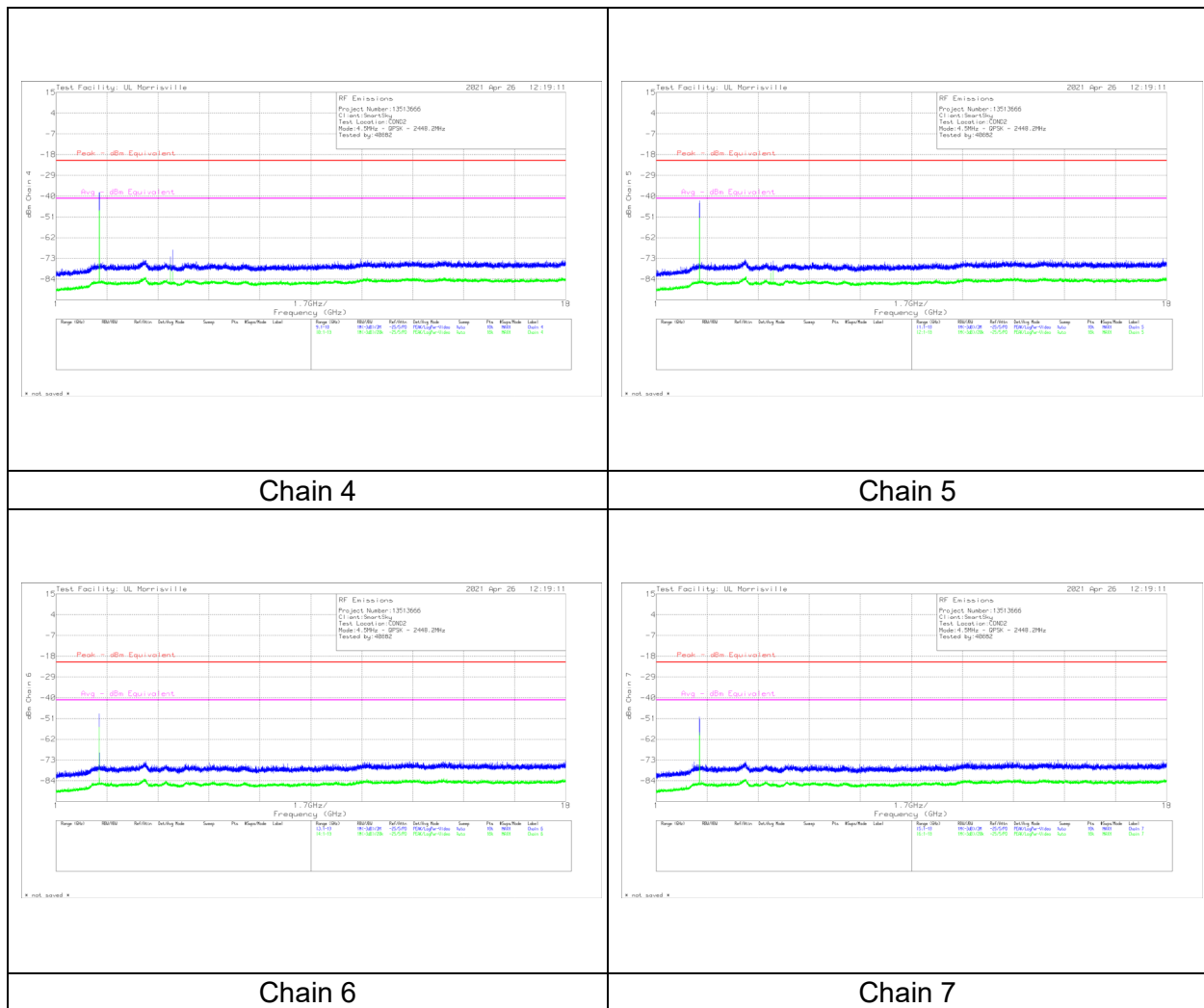


Chain 0

Chain 1

Chain 2

Chain 3

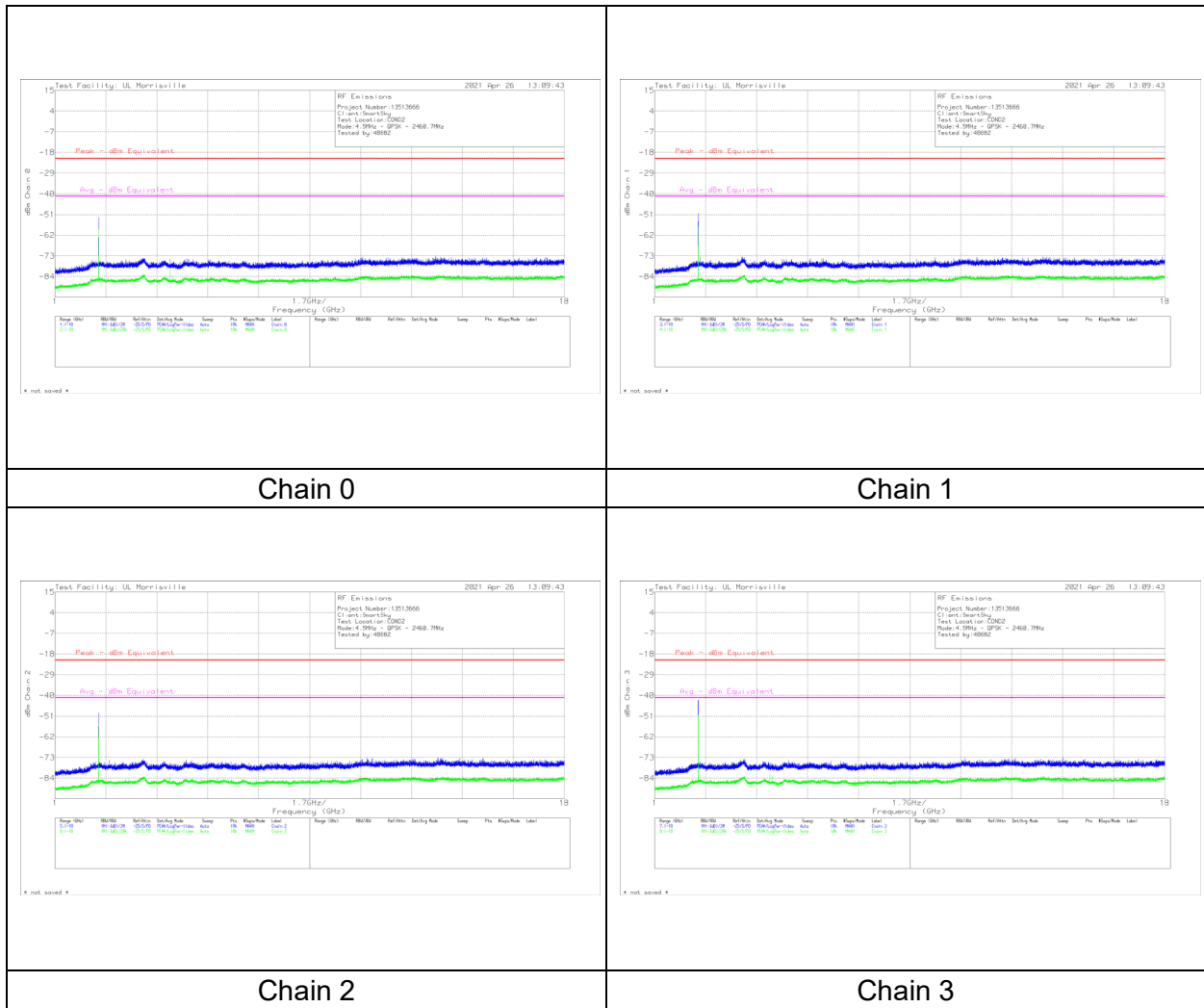


Spurious Low Channel Tabular Summed Data, Worse-case Frequency:

Chain	0	1	2	3	4	5	6	7	GRF (dB)	Array Gain (dBi)	Meas. Dist (m)	
Gain (dBi)	-	-	-	-	-	-	-	-	0	26.8	3	
Frequency (GHz)	PK Value Chain 0 (dBm)	PK Value Chain 1 (dBm)	PK Value Chain 2 (dBm)	PK Value Chain 3 (dBm)	PK Value Chain 4 (dBm)	PK Value Chain 5 (dBm)	PK Value Chain 6 (dBm)	PK Value Chain 7 (dBm)	PK EIRP (dBm)	PK E-field (dBuV/m)	PK E-field Limit (dBuV/m)	PK E-field Margin (dB)
4.895832	-74.55	-77.06	-75.73	-73.7	-68.42	-74.29	-78.14	-76.77	-37.86	57.39	74	-16.61
Frequency (GHz)	AV Value Chain 0 (dBm)	AV Value Chain 1 (dBm)	AV Value Chain 2 (dBm)	AV Value Chain 3 (dBm)	AV Value Chain 4 (dBm)	AV Value Chain 5 (dBm)	AV Value Chain 6 (dBm)	AV Value Chain 7 (dBm)	AV EIRP (dBm)	AV E-field (dBuV/m)	AV E-field Limit (dBuV/m)	AV E-field Margin (dB)
4.820276	-81.66	-83.36	-81.09	-77.19	-76.09	-80.66	-84.59	-86.49	-44.32	50.94	54	-3.06

Note: GRF = Ground Reflection Factor per C63.10, Section 11.12.2.2. Fundamental emission not identified in tabular data.

11.1.2. MID CHANNEL SPURIOUS: 1-18 GHz

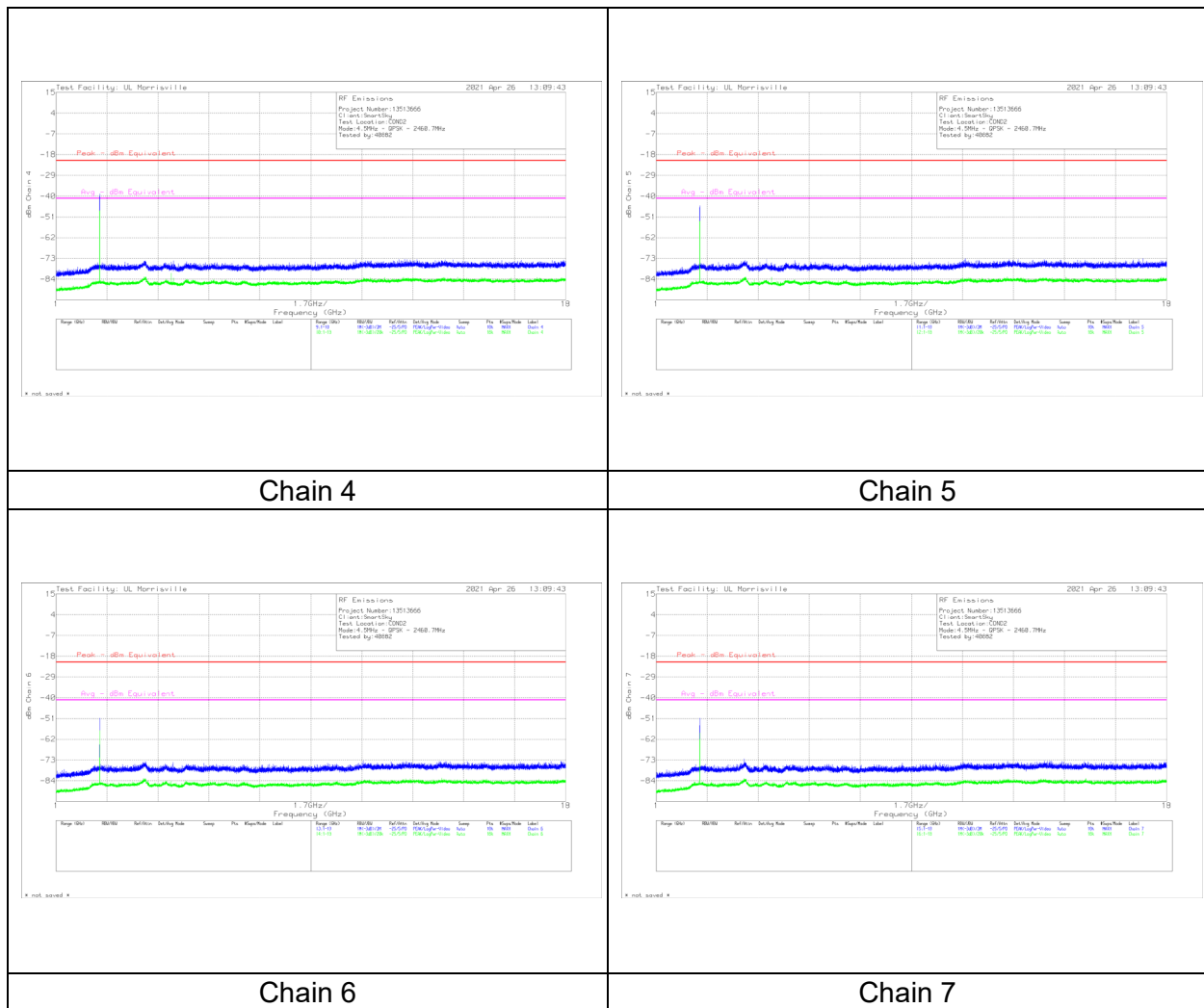


Chain 0

Chain 1

Chain 2

Chain 3

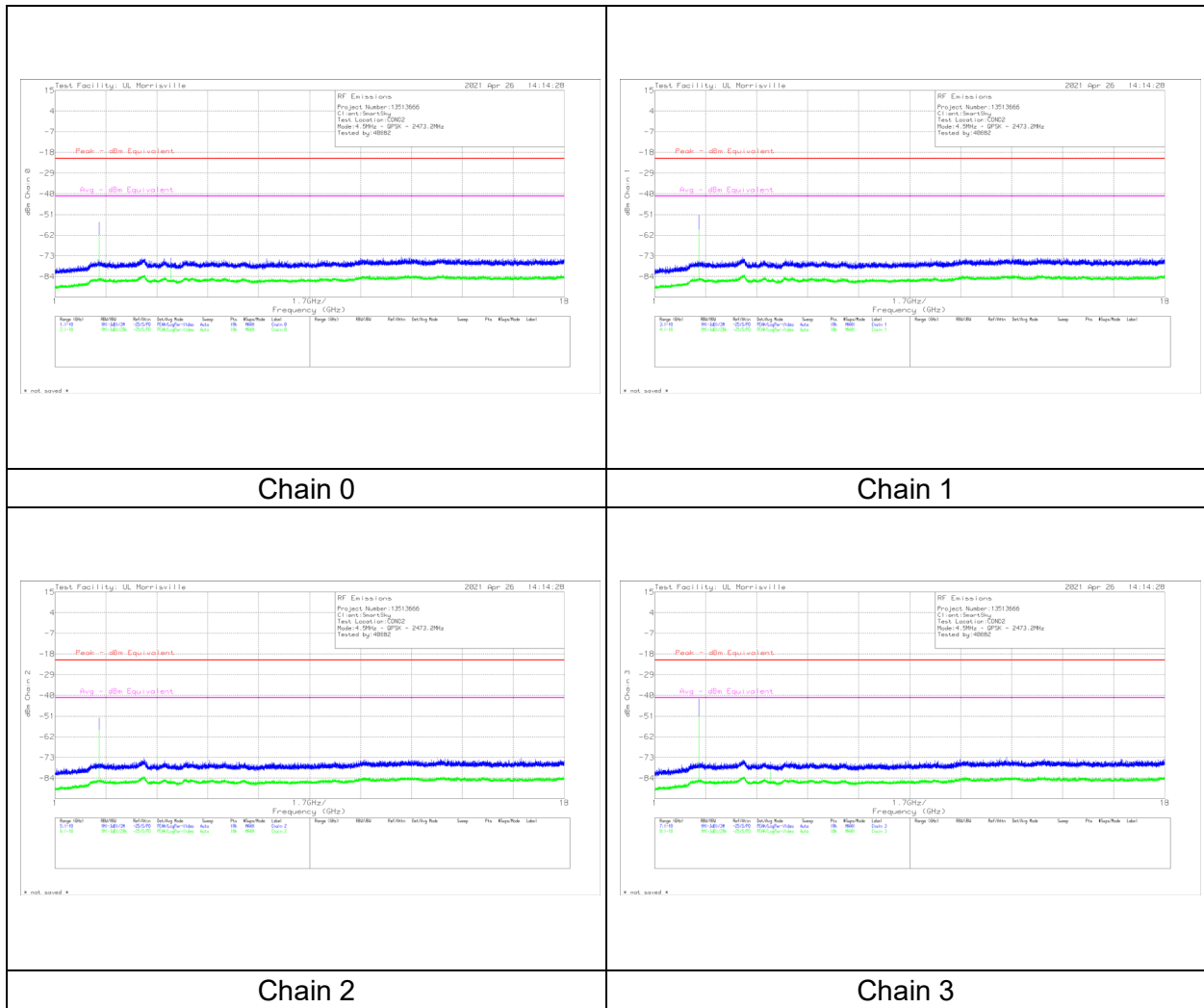


Spurious Mid Channel Tabular Summed Data, Worse-case Frequency:

Chain	0	1	2	3	4	5	6	7	GRF (dB)	Array Gain (dBi)	Meas. Dist (m)	
Gain (dBi)	-	-	-	-	-	-	-	-	0	26.8	3	
Frequency (GHz)	PK Value Chain 0 (dBm)	PK Value Chain 1 (dBm)	PK Value Chain 2 (dBm)	PK Value Chain 3 (dBm)	PK Value Chain 4 (dBm)	PK Value Chain 5 (dBm)	PK Value Chain 6 (dBm)	PK Value Chain 7 (dBm)	PK EIRP (dBm)	PK E-field (dBuV/m)	PK E-field Limit (dBuV/m)	PK E-field Margin (dB)
2.456333	-77.66	-77.11	-78.44	-72.45	-71.97	-73.94	-77.67	-77.45	-39.28	55.98	74	-18.02
Frequency (GHz)	AV Value Chain 0 (dBm)	AV Value Chain 1 (dBm)	AV Value Chain 2 (dBm)	AV Value Chain 3 (dBm)	AV Value Chain 4 (dBm)	AV Value Chain 5 (dBm)	AV Value Chain 6 (dBm)	AV Value Chain 7 (dBm)	AV EIRP (dBm)	AV E-field (dBuV/m)	AV E-field Limit (dBuV/m)	AV E-field Margin (dB)
4.844832	-80.33	-85.72	-83.35	-81.67	-80.89	-83.34	-84.38	-85.83	-46.92	48.33	54	-5.67

Note: GRF = Ground Reflection Factor per C63.10, Section 11.12.2.2. Fundamental emission not identified in tabular data.

11.1.1. HIGH CHANNEL SPURIOUS: 1-18 GHz

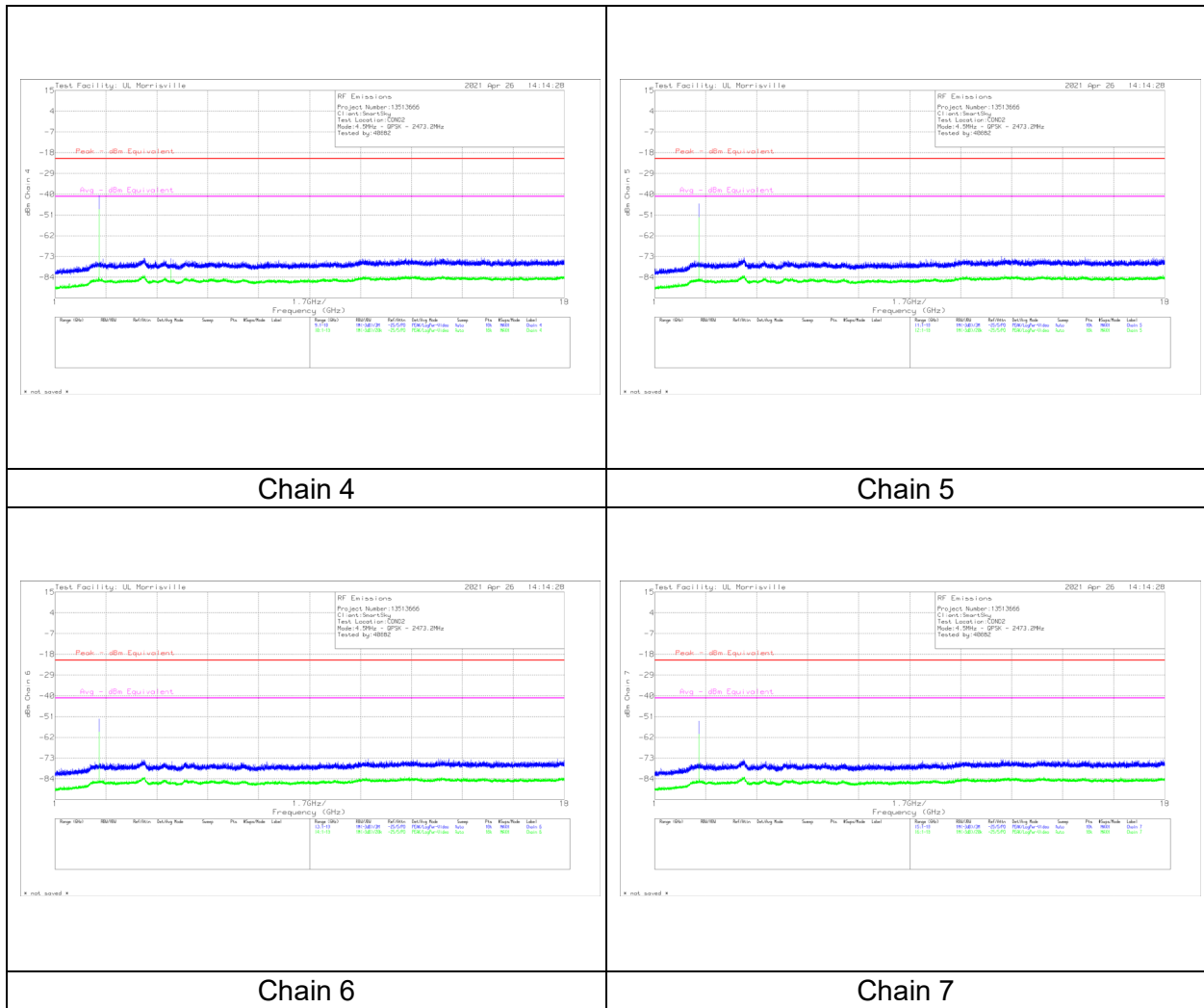


Chain 0

Chain 1

Chain 2

Chain 3



Spurious High Channel Tabular Summed Data, Worse-case Frequency:

Chain	0	1	2	3	4	5	6	7	GRF (dB)	Array Gain (dBi)	Meas. Dist (m)	
Gain (dBi)	-	-	-	-	-	-	-	-	0	26.8	3	
Frequency (GHz)	PK Value Chain 0 (dBm)	PK Value Chain 1 (dBm)	PK Value Chain 2 (dBm)	PK Value Chain 3 (dBm)	PK Value Chain 4 (dBm)	PK Value Chain 5 (dBm)	PK Value Chain 6 (dBm)	PK Value Chain 7 (dBm)	PK EIRP (dBm)	PK E-field (dBuV/m)	PK E-field Limit (dBuV/m)	PK E-field Margin (dB)
12.562828	-73.74	-75.12	-76.21	-74.47	-75.66	-73	-75.22	-77.26	-39.07	56.19	74	-17.81
Frequency (GHz)	AV Value Chain 0 (dBm)	AV Value Chain 1 (dBm)	AV Value Chain 2 (dBm)	AV Value Chain 3 (dBm)	AV Value Chain 4 (dBm)	AV Value Chain 5 (dBm)	AV Value Chain 6 (dBm)	AV Value Chain 7 (dBm)	AV EIRP (dBm)	AV E-field (dBuV/m)	AV E-field Limit (dBuV/m)	AV E-field Margin (dB)
4.870332	-78.13	-85.94	-84.31	-80.03	-79.6	-84	-83.92	-84.06	-45.84	49.42	54	-4.58

Note: GRF = Ground Reflection Factor per C63.10, Section 11.12.2.2. Fundamental emission not identified in tabular data.