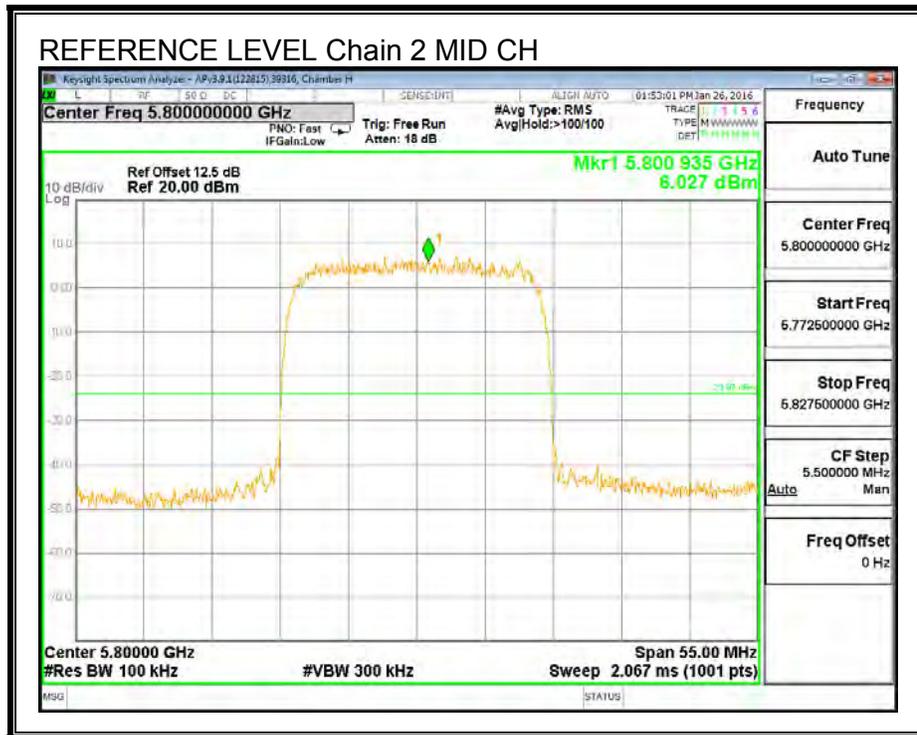
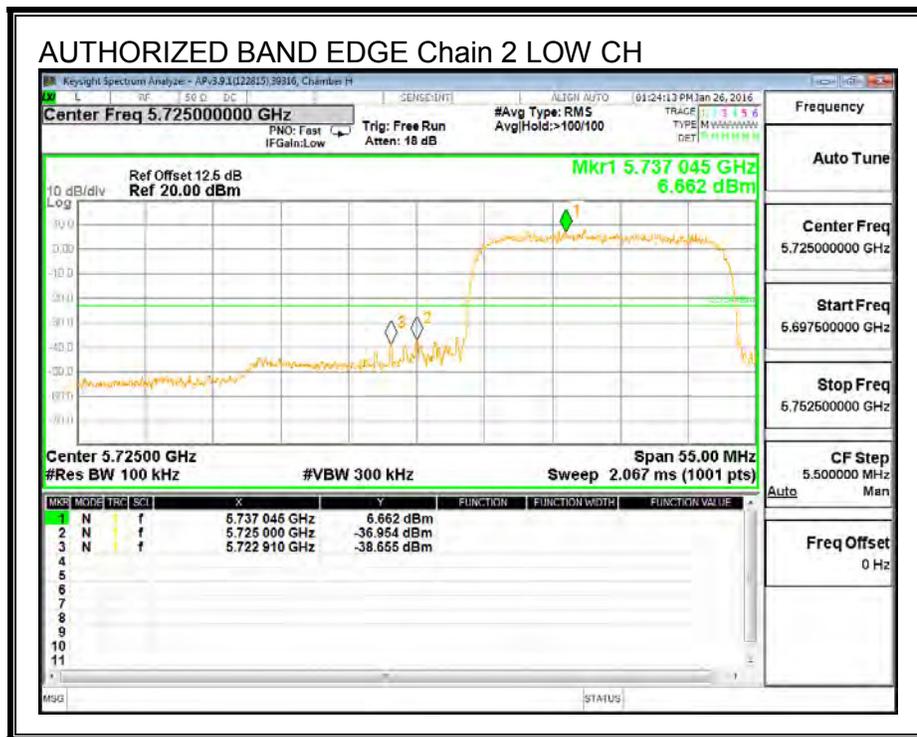


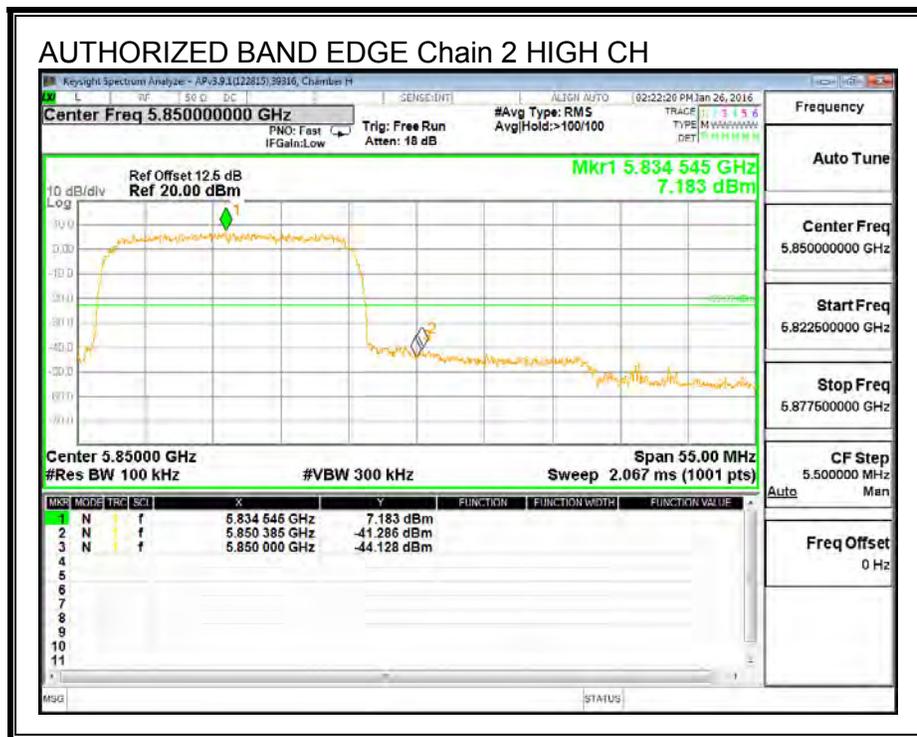
IN-BAND REFERENCE LEVEL, Chain 2



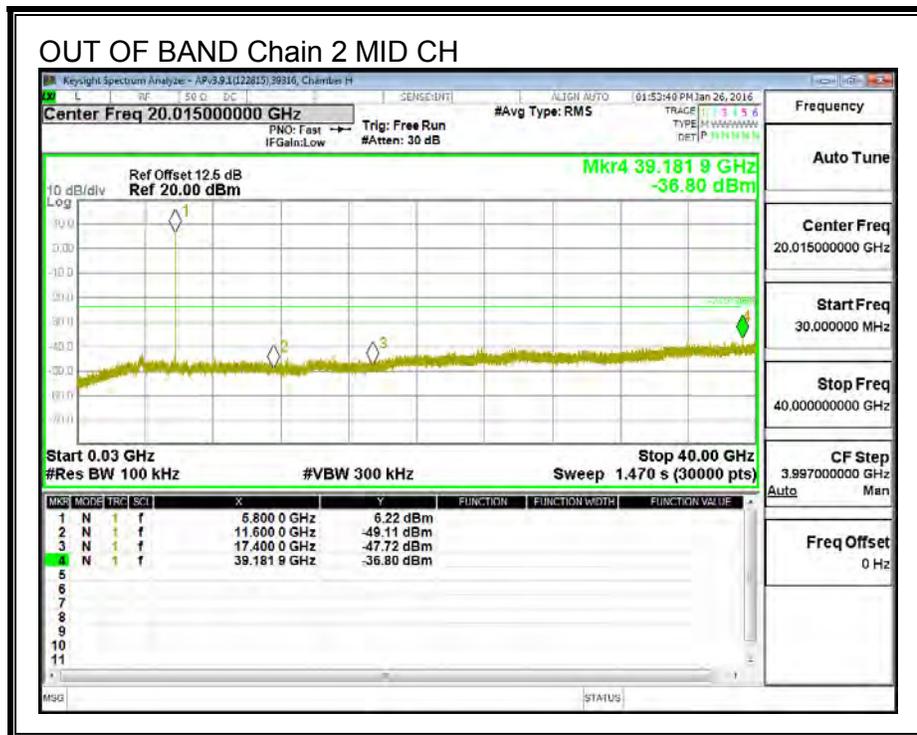
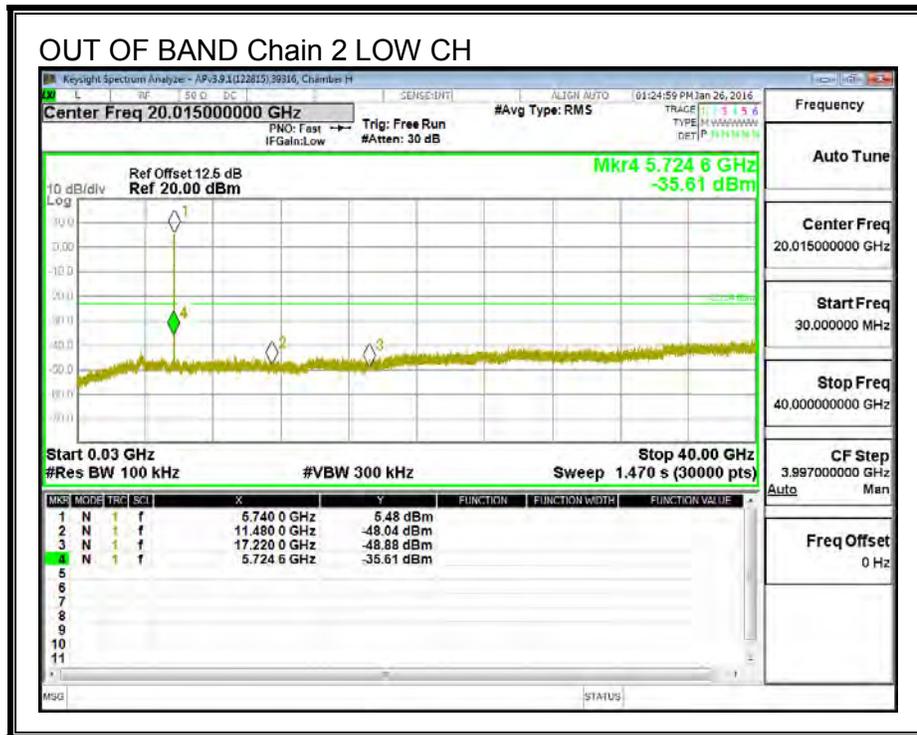
LOW CHANNEL BANDEDGE, Chain 2

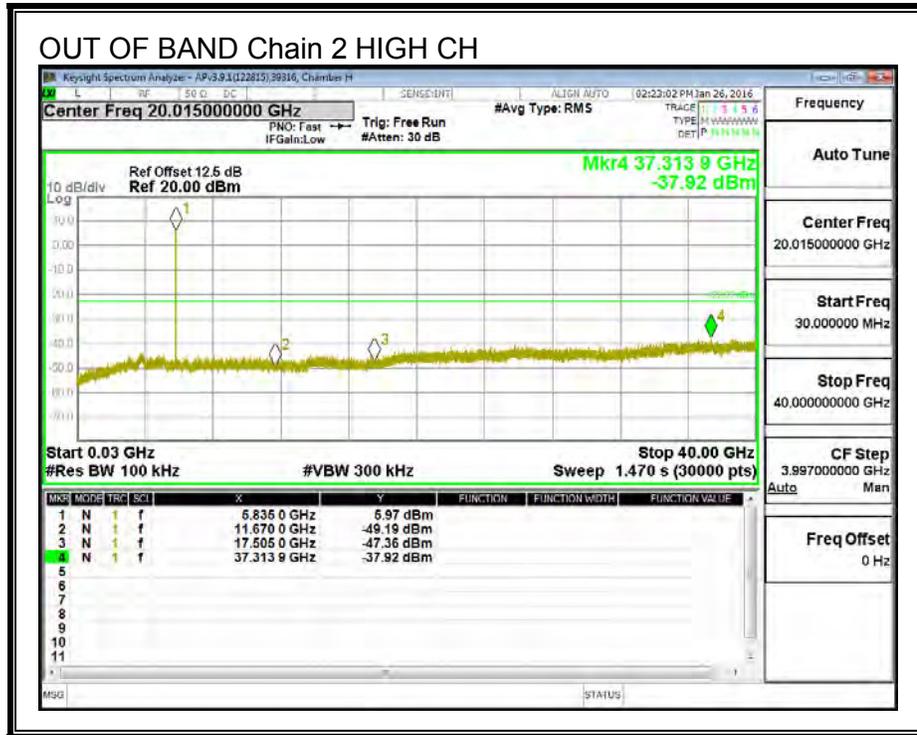


HIGH CHANNEL BANDEDGE, Chain 2

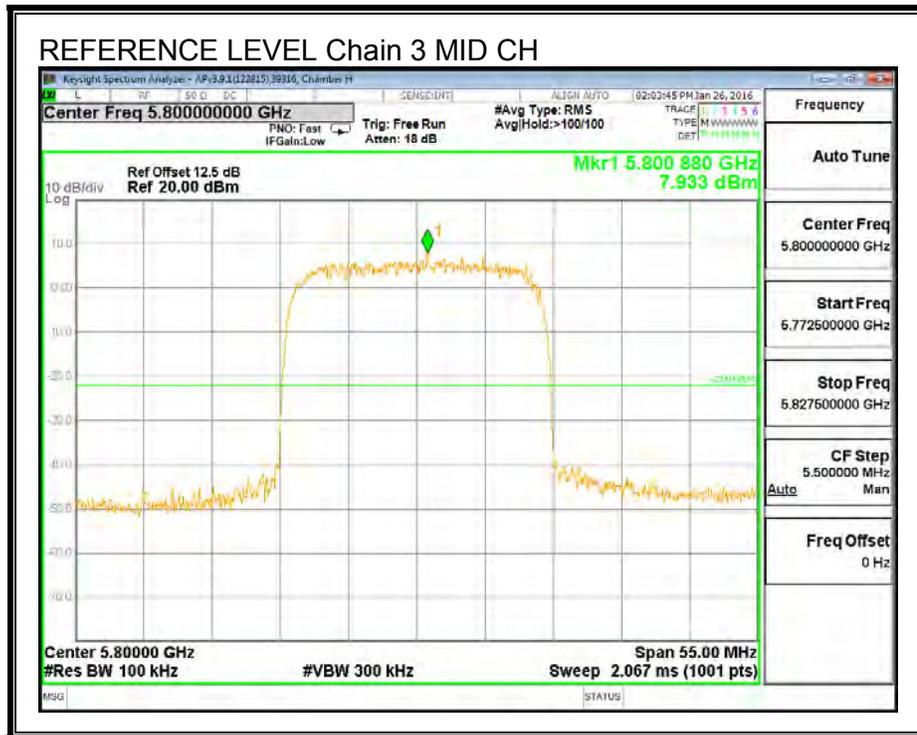


OUT-OF-BAND EMISSIONS, Chain 2

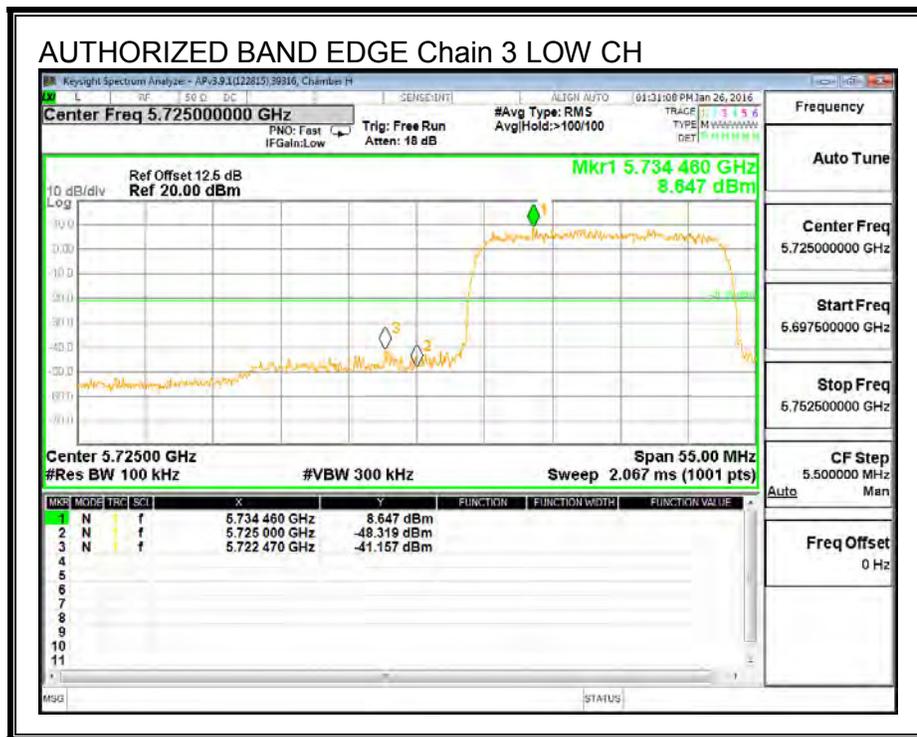




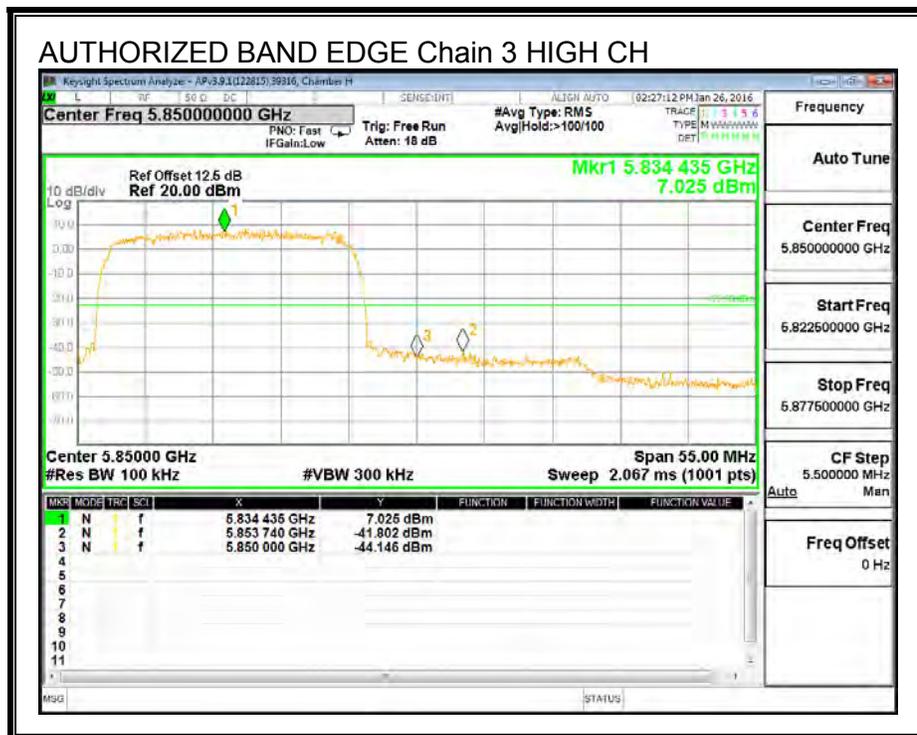
IN-BAND REFERENCE LEVEL, Chain 3



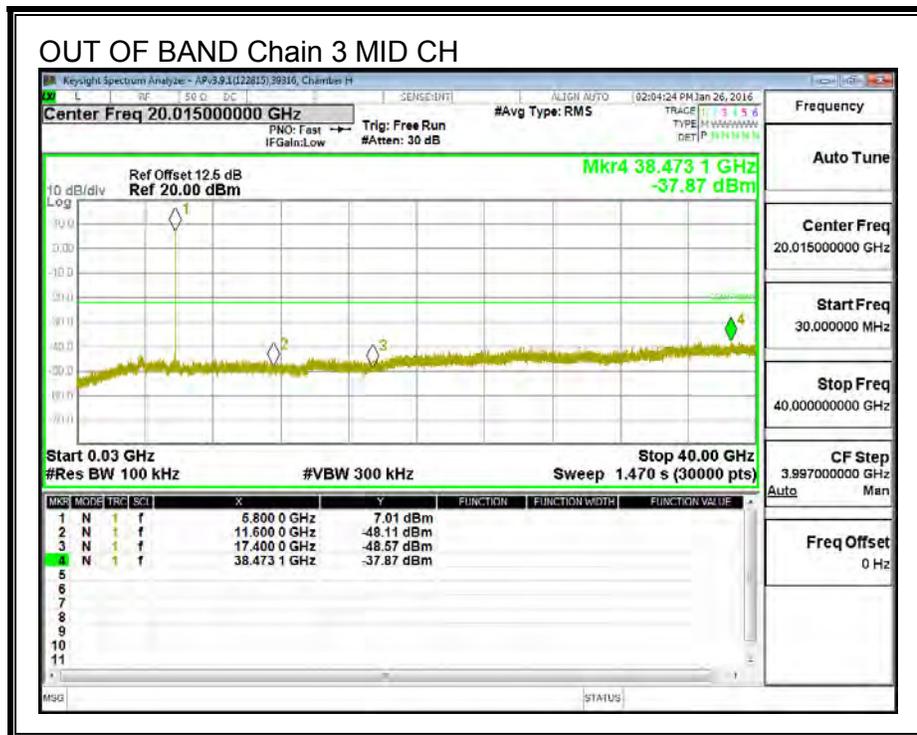
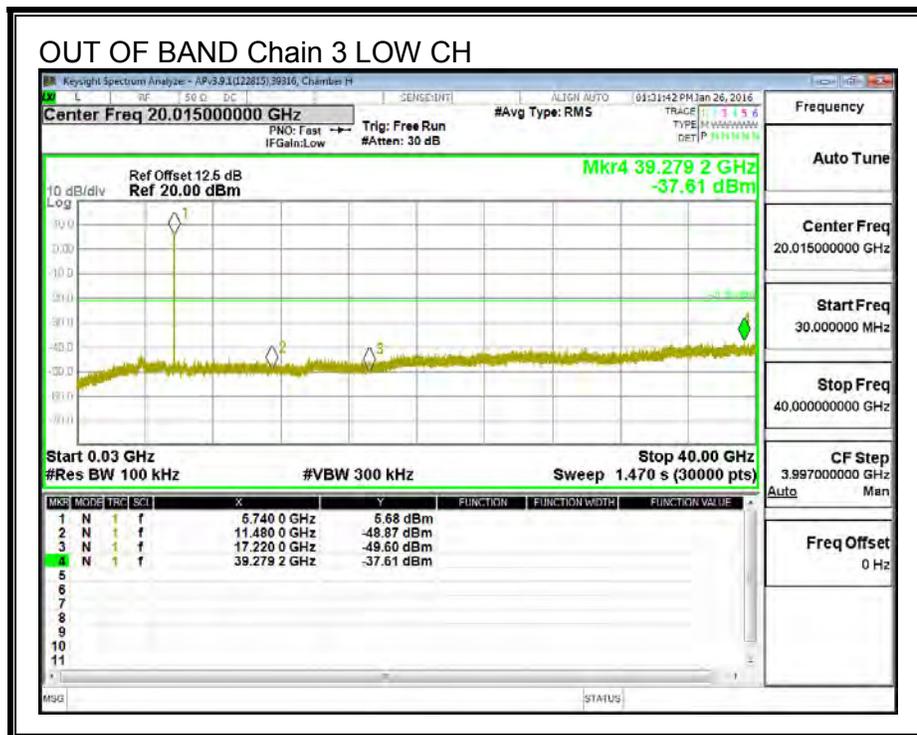
LOW CHANNEL BANDEDGE, Chain 3

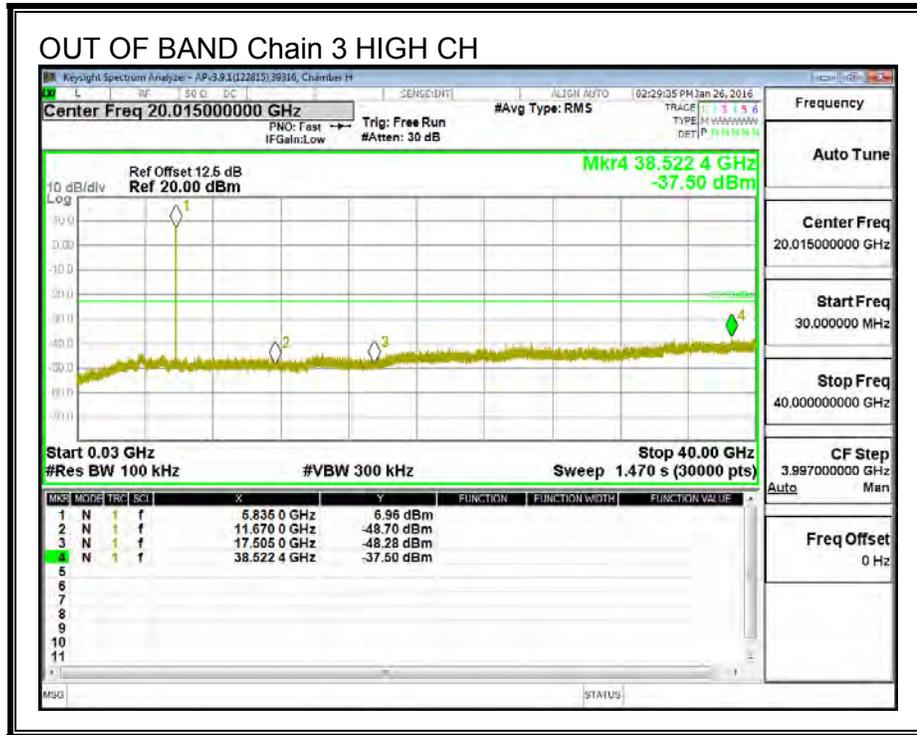


HIGH CHANNEL BANDEDGE, Chain 3



OUT-OF-BAND EMISSIONS, Chain 3





8.4. 40MHz BW 4TX MODE IN THE 5.8 GHz BAND

8.4.1. 6 dB BANDWIDTH

LIMITS

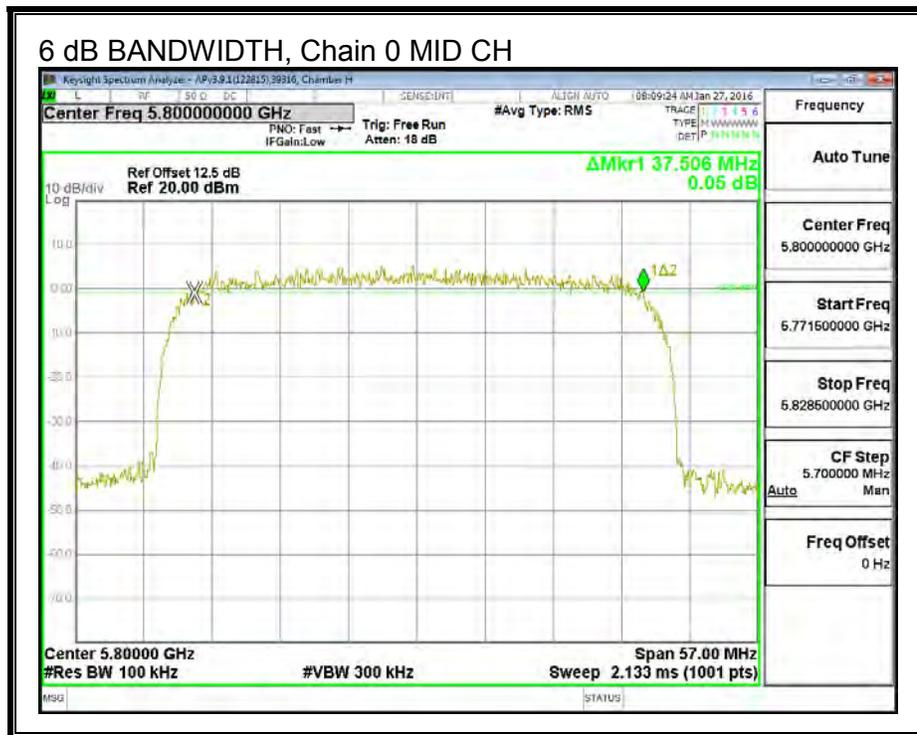
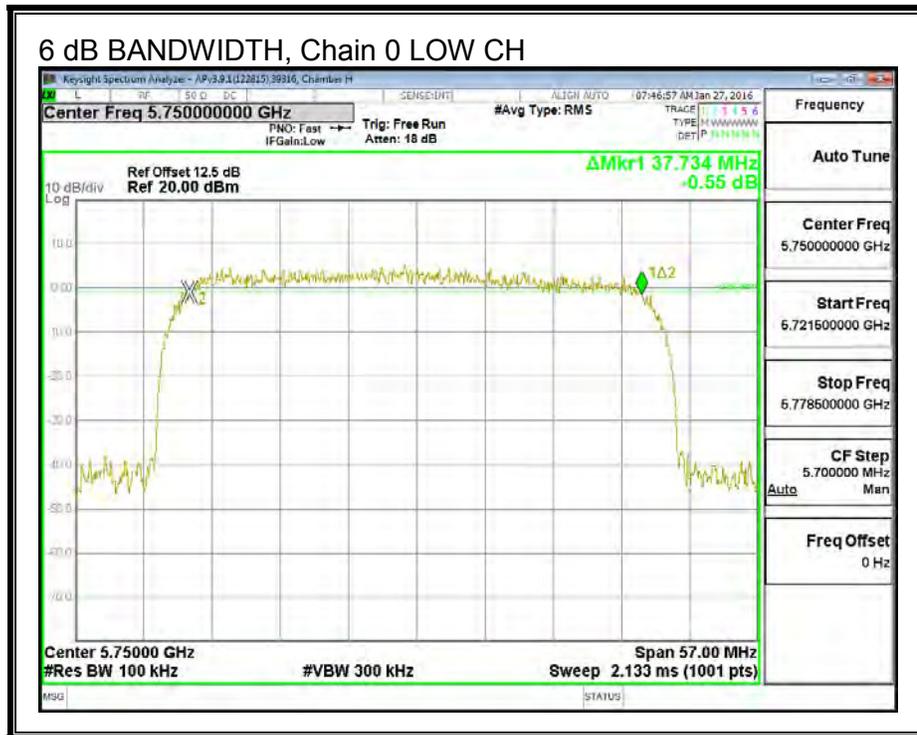
FCC §15.247 (a) (2)

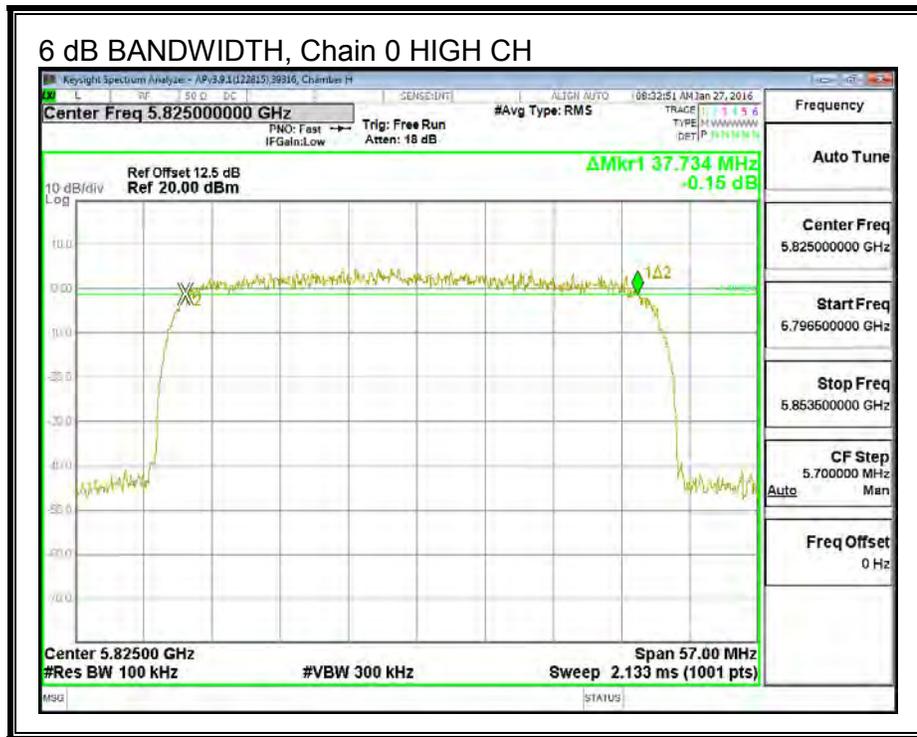
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

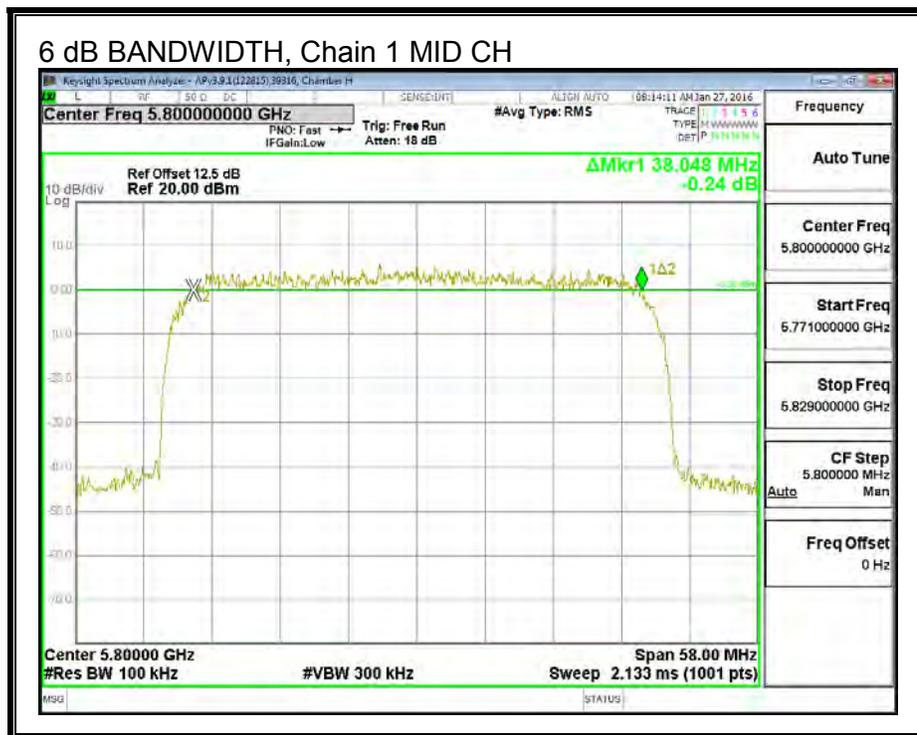
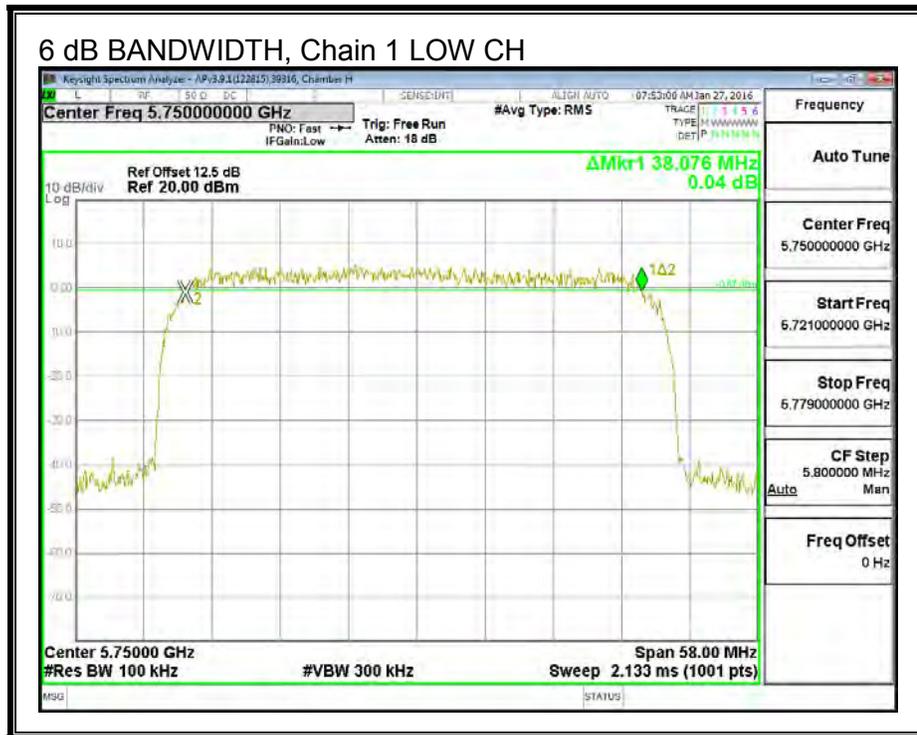
Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	6 dB BW Chain 2 (MHz)	6 dB BW Chain 3 (MHz)	Minimum Limit (MHz)
Low	5750	37.734	38.076	38.338	37.734	0.5
Mid	5800	37.506	38.048	37.791	37.677	0.5
High	5825	37.734	38.396	38.570	37.962	0.5

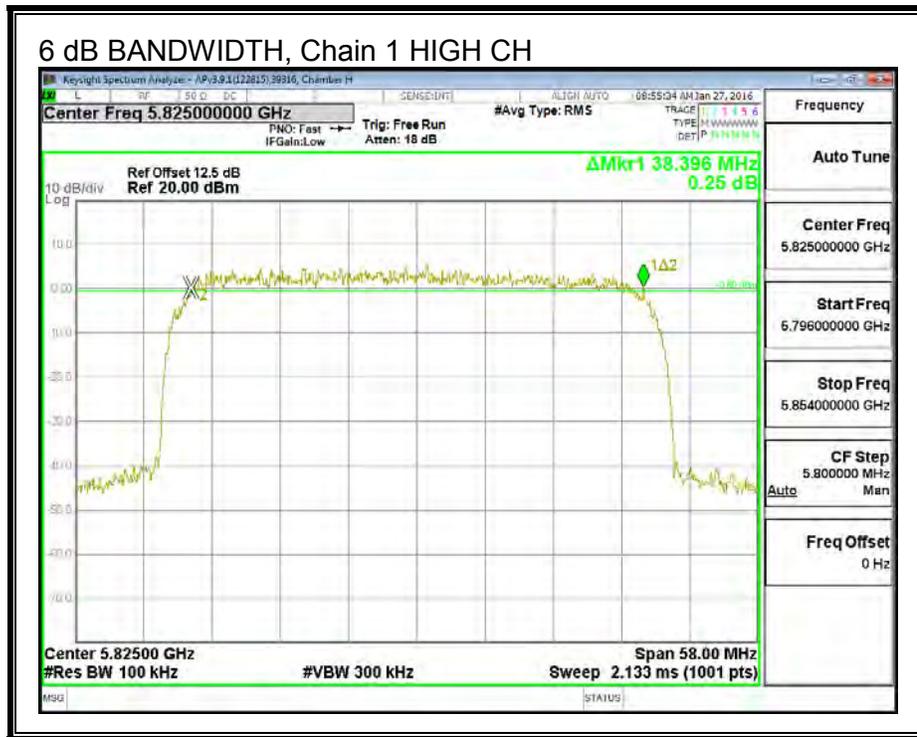
6 dB BANDWIDTH, Chain 0



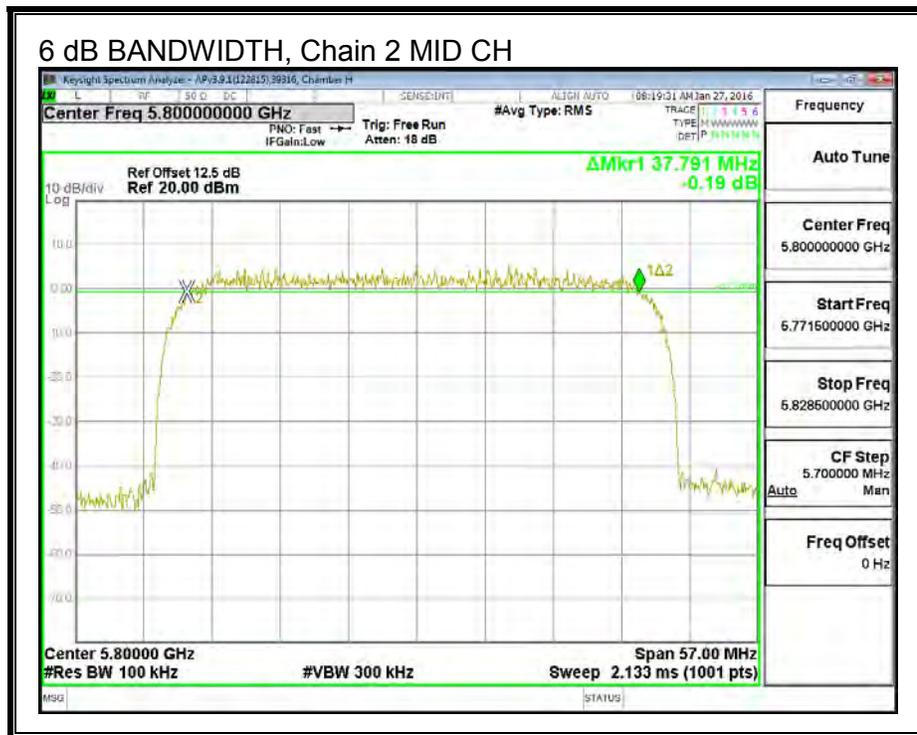
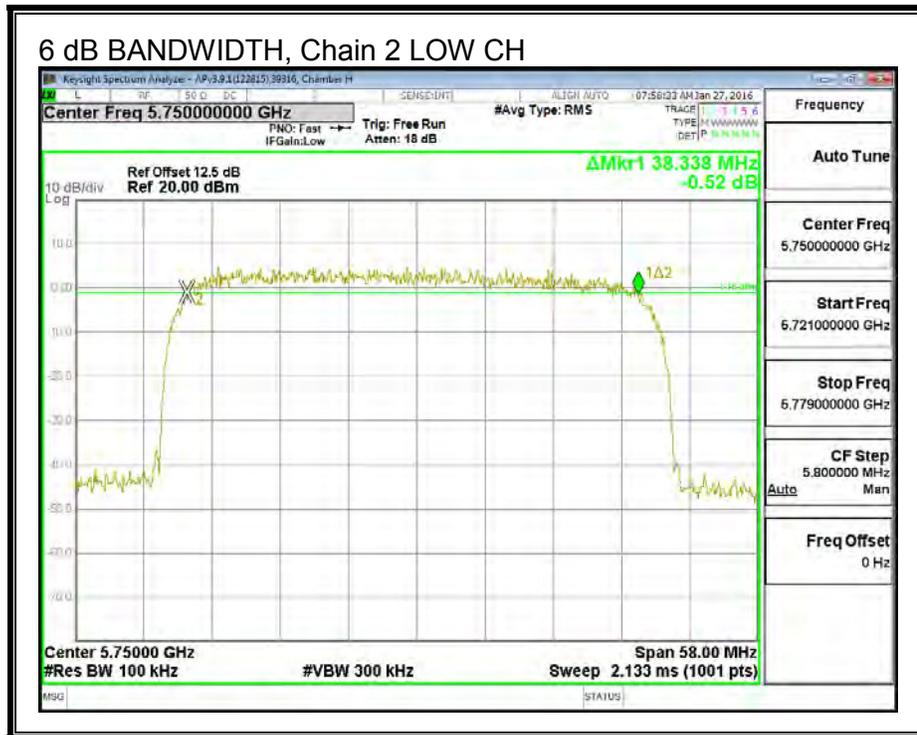


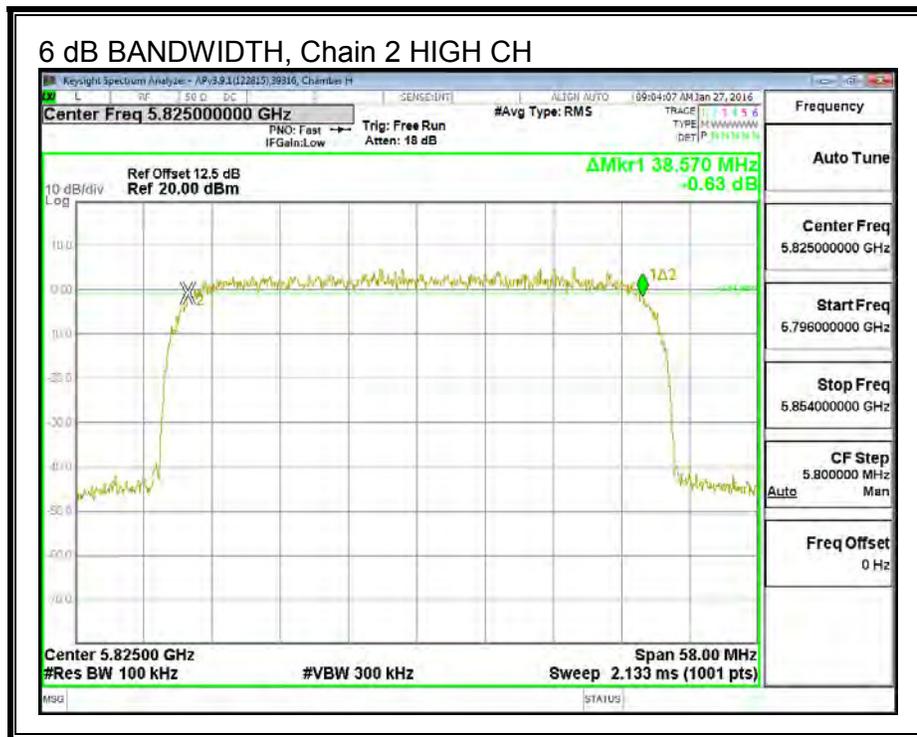
6 dB BANDWIDTH, Chain 1



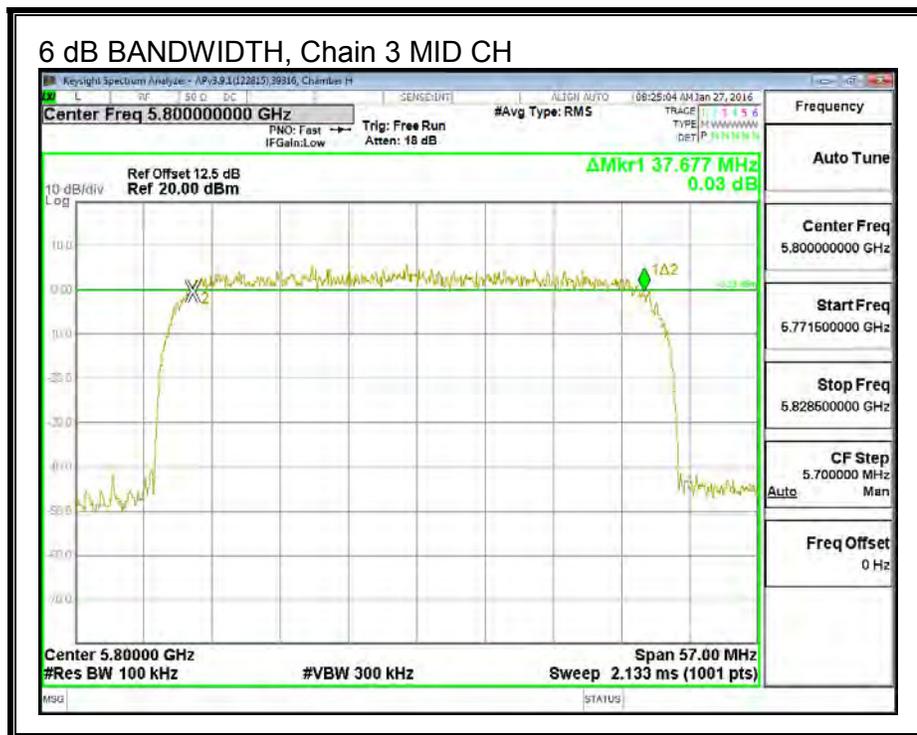
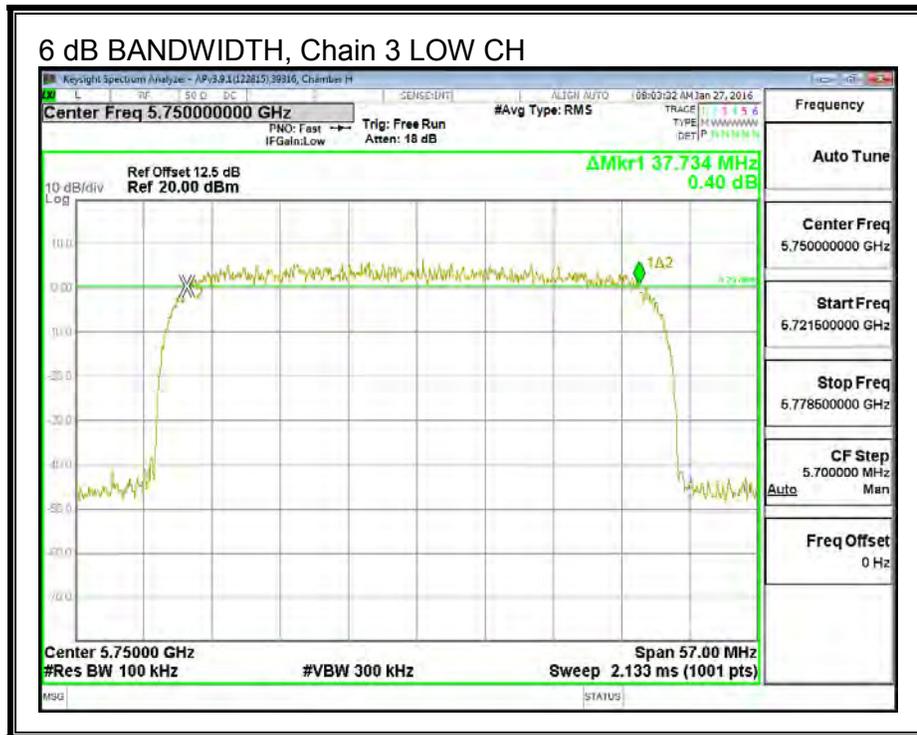


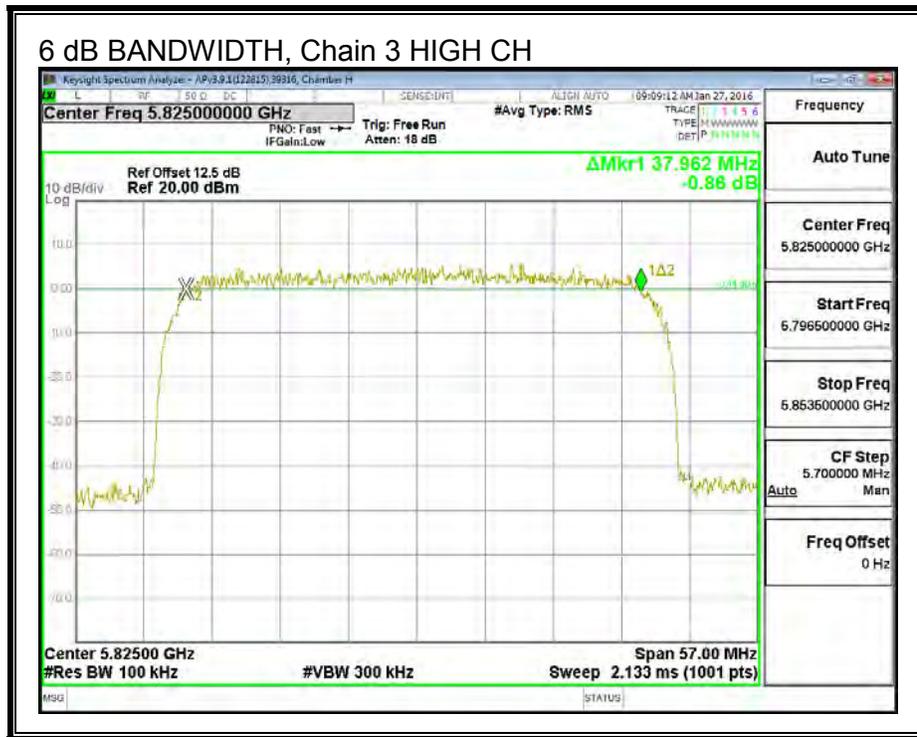
6 dB BANDWIDTH, Chain 2





6 dB BANDWIDTH, Chain 3





8.4.2. 99% BANDWIDTH

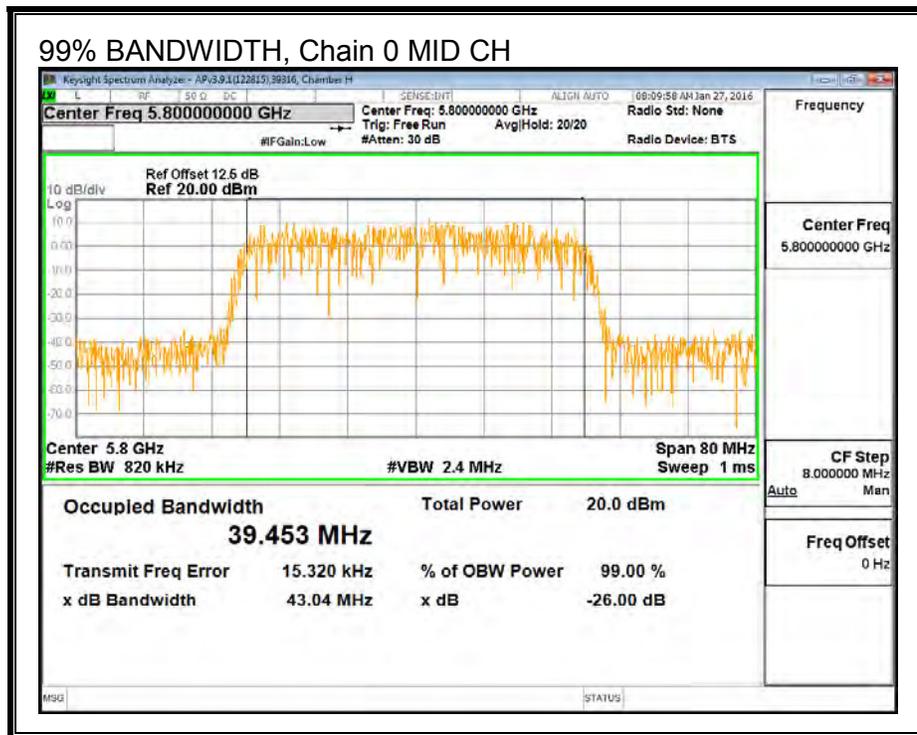
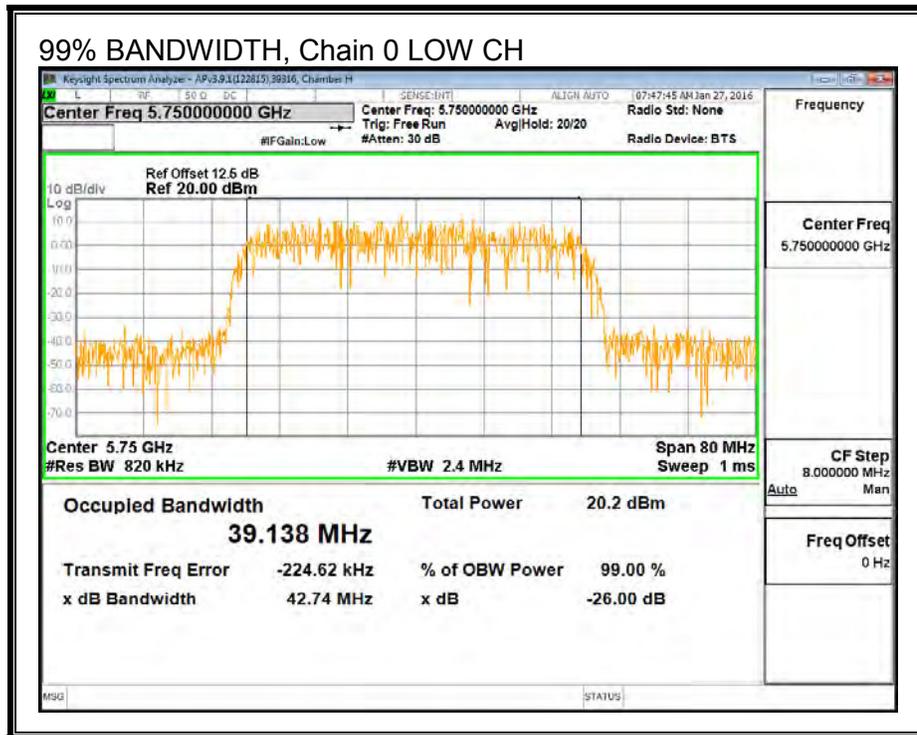
LIMITS

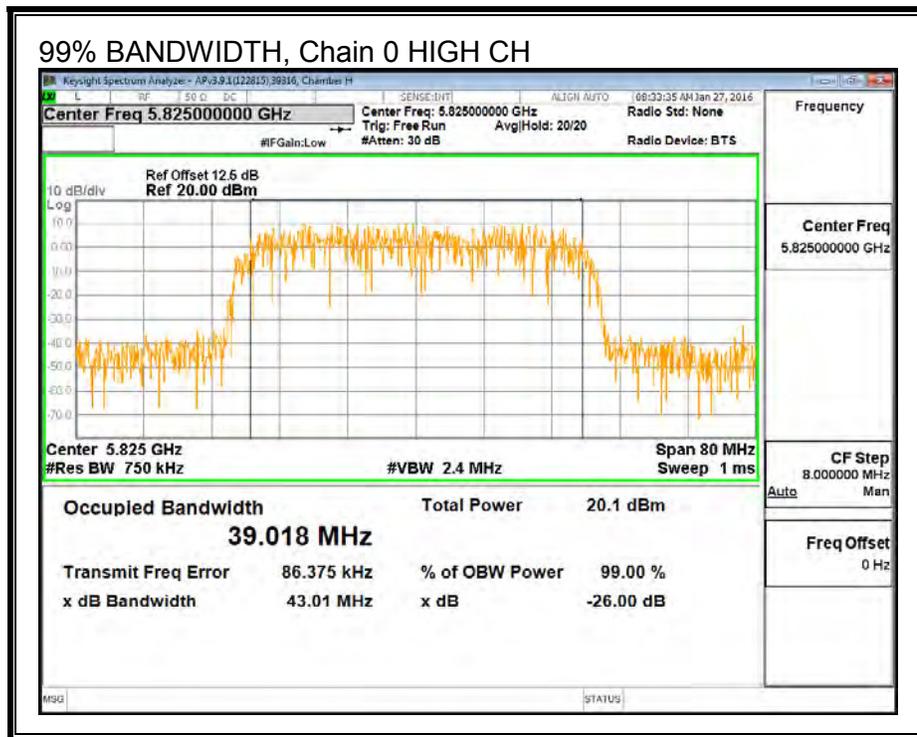
None; for reporting purposes only.

RESULTS

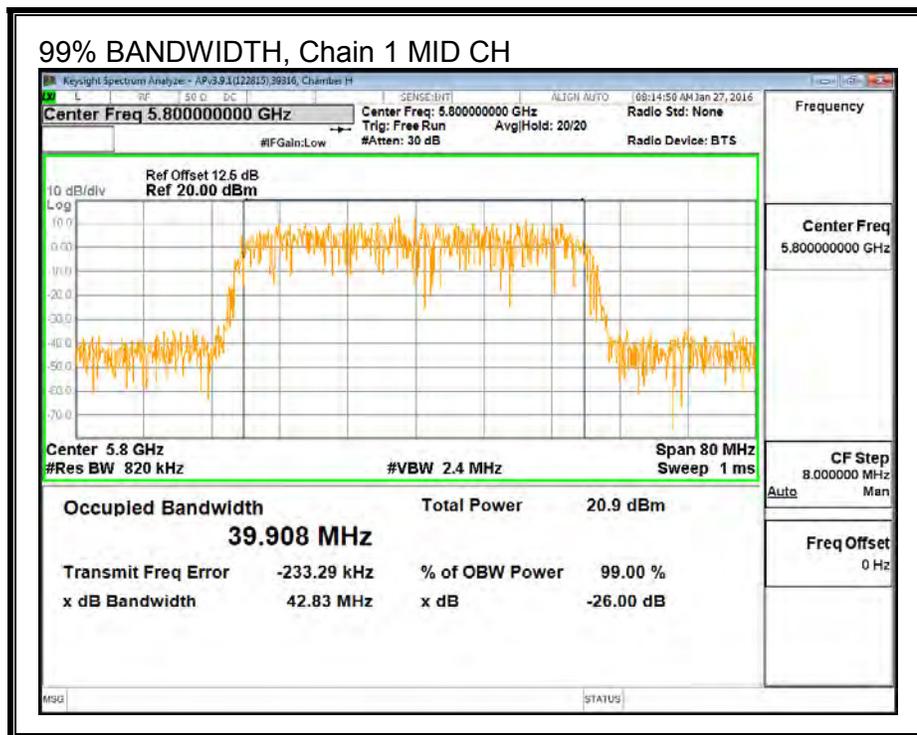
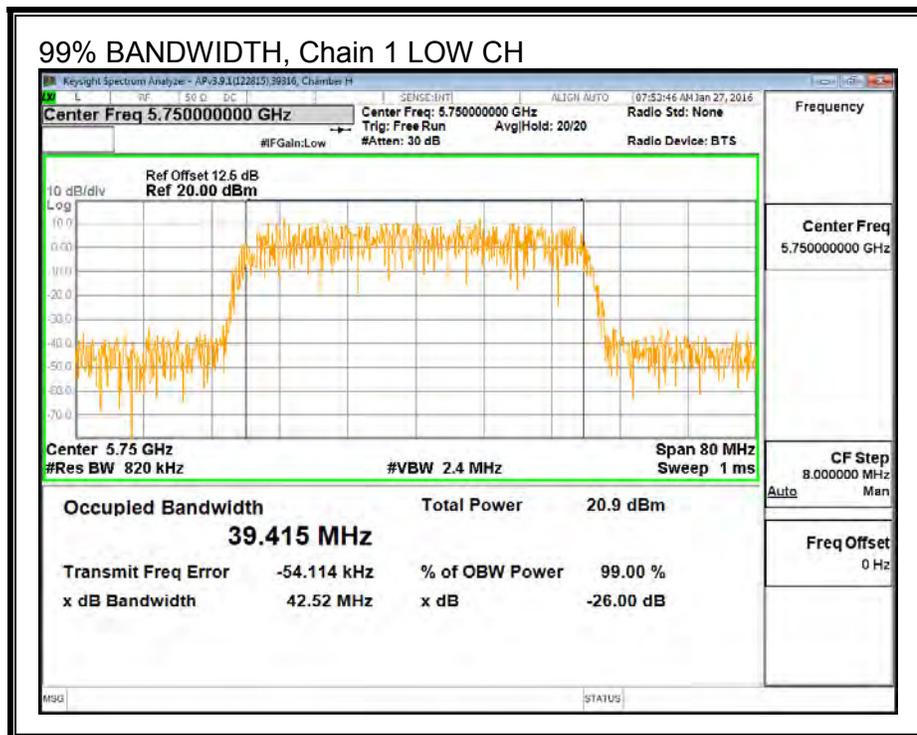
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)	99% BW Chain 3 (MHz)
Low	5750	39.138	39.415	39.246	39.793
Mid	5800	39.453	39.908	39.637	39.739
High	5825	39.018	39.363	39.464	39.104

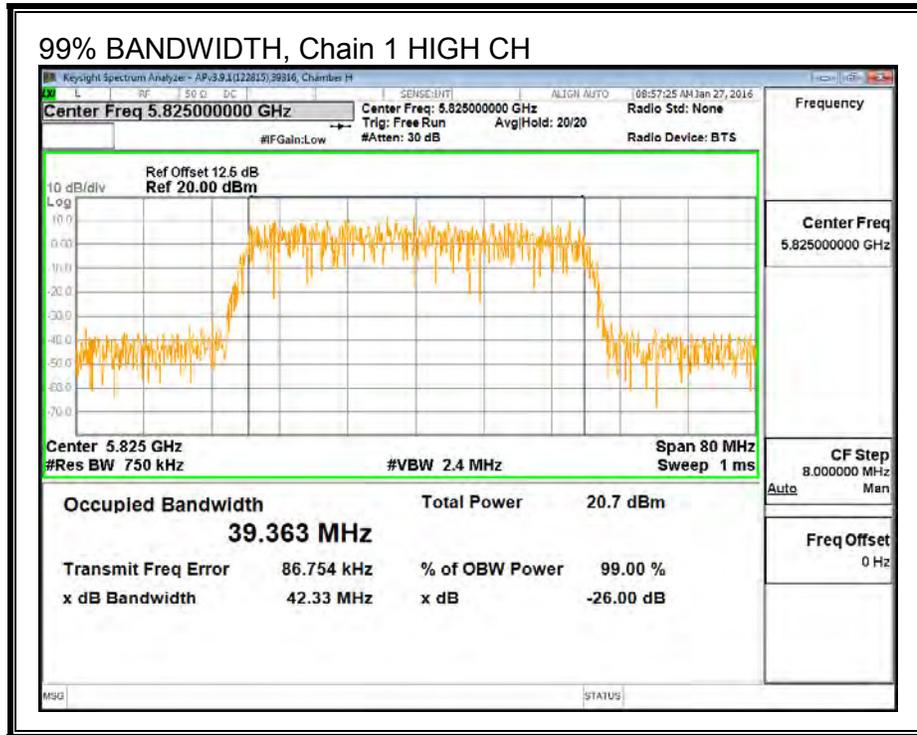
99% BANDWIDTH, Chain 0



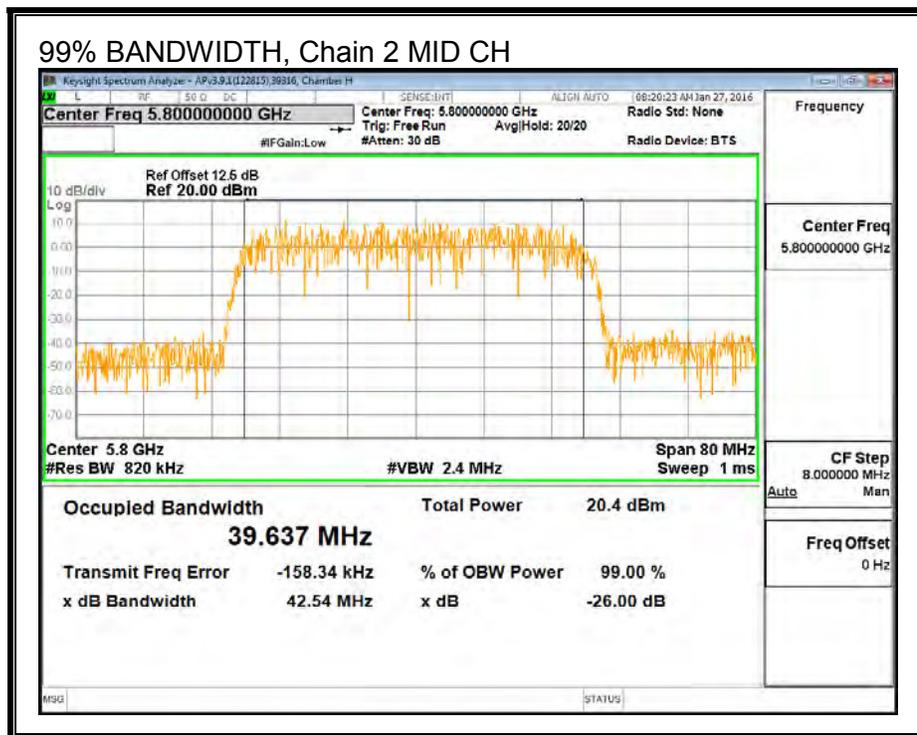
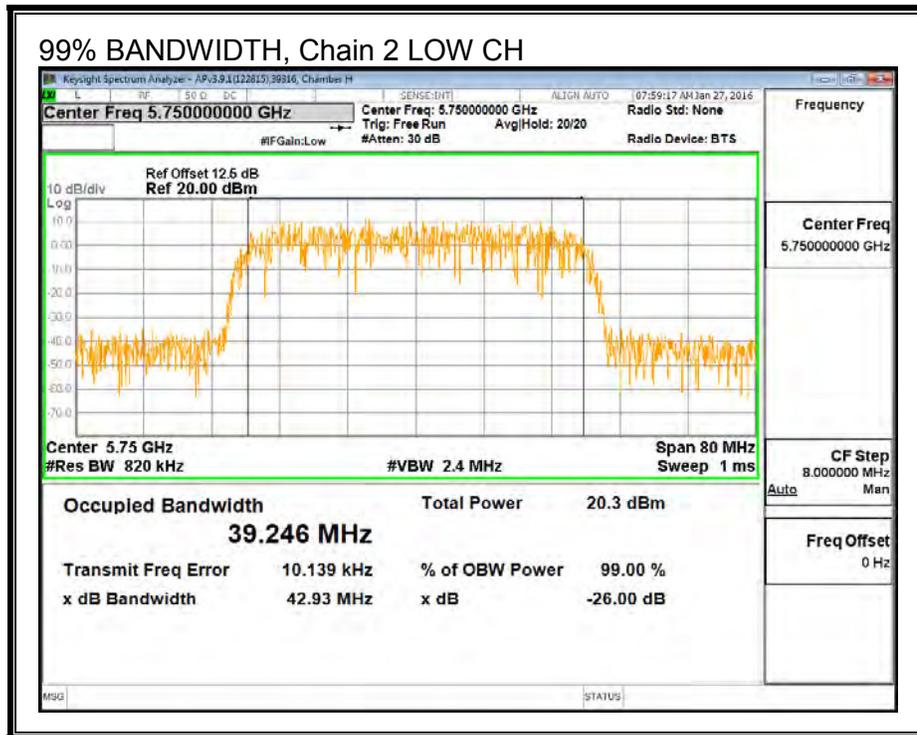


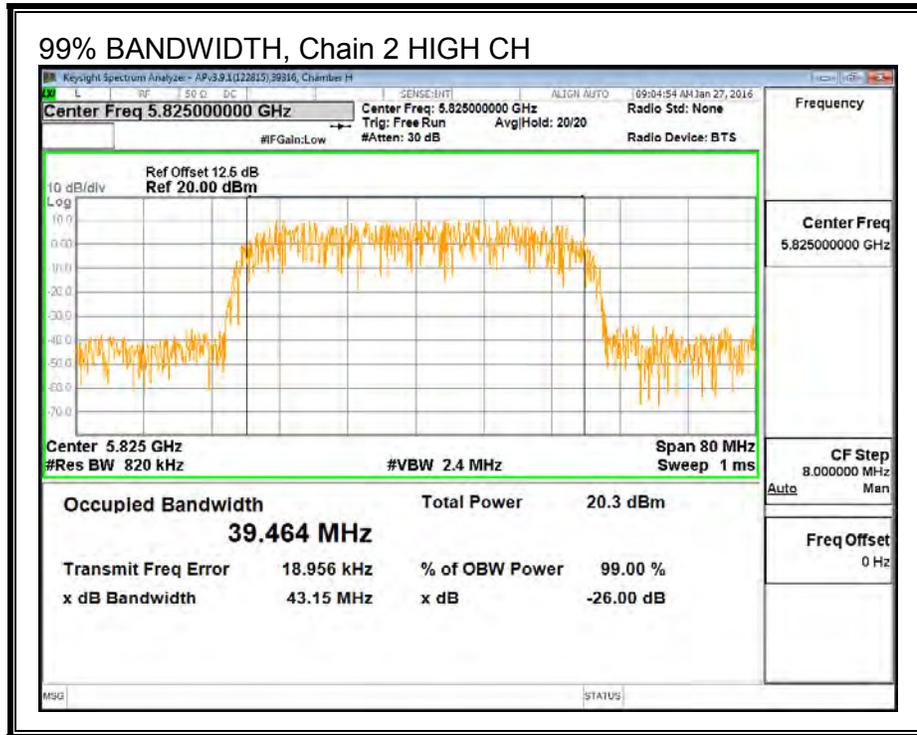
99% BANDWIDTH, Chain 1



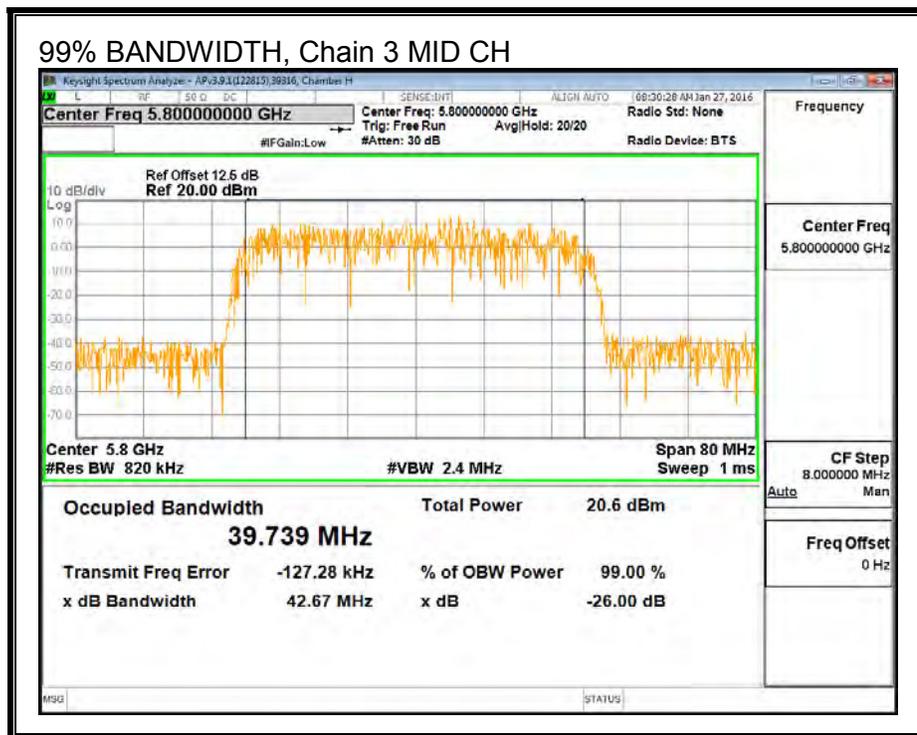
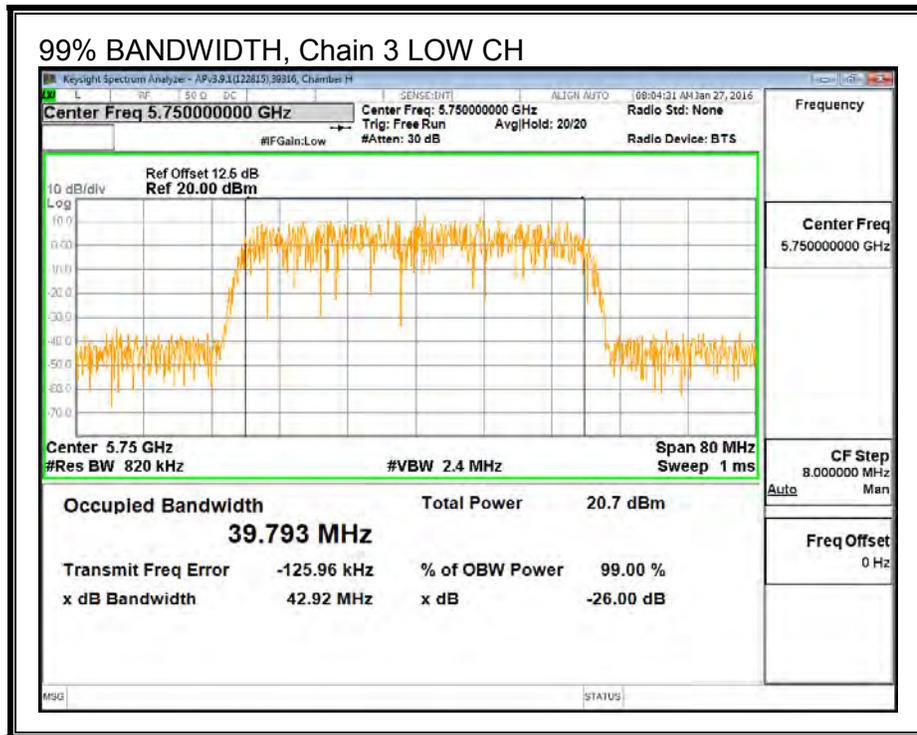


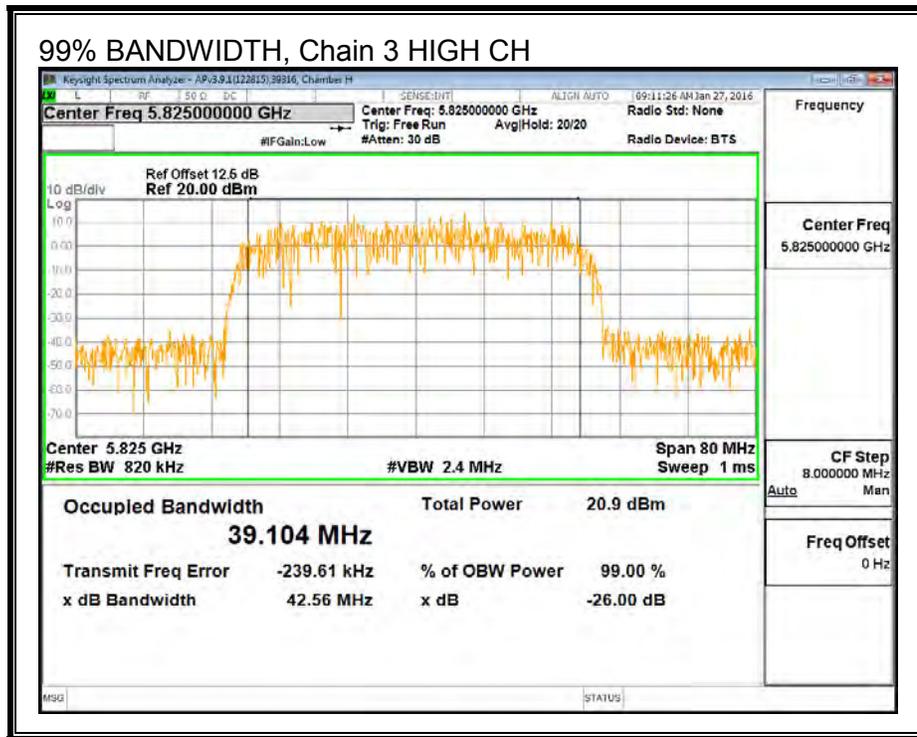
99% BANDWIDTH, Chain 2





99% BANDWIDTH, Chain 3





8.4.3. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3), (c)(1)(ii)

(b) The maximum peak conducted output power of the intentional radiator shall not exceed the following:

(3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the *maximum conducted output power* is the highest total transmit power occurring in any mode.

(c) Operation with directional antenna gains greater than 6 dBi.

(1) Fixed point-to-point operation:

(ii) Systems operating in the 5725-5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted output power.

DIRECTIONAL ANTENNA GAIN

There are a total of four antennas; two horizontal antennas (chains 0 and 2) and two vertical antennas (chains 1 and 3). Horizontal antennas are cross polarized with respect to vertical antennas

Two TX chains are correlated and two others are uncorrelated and the antenna gain is the same for each chain. The directional gain is;

Antenna Gain (dBi)	10 * Log (2 chains) (dB)	Correlated Chains Directional Gain (dBi)
15.00	3.01	18.01

RESULTS

Limits

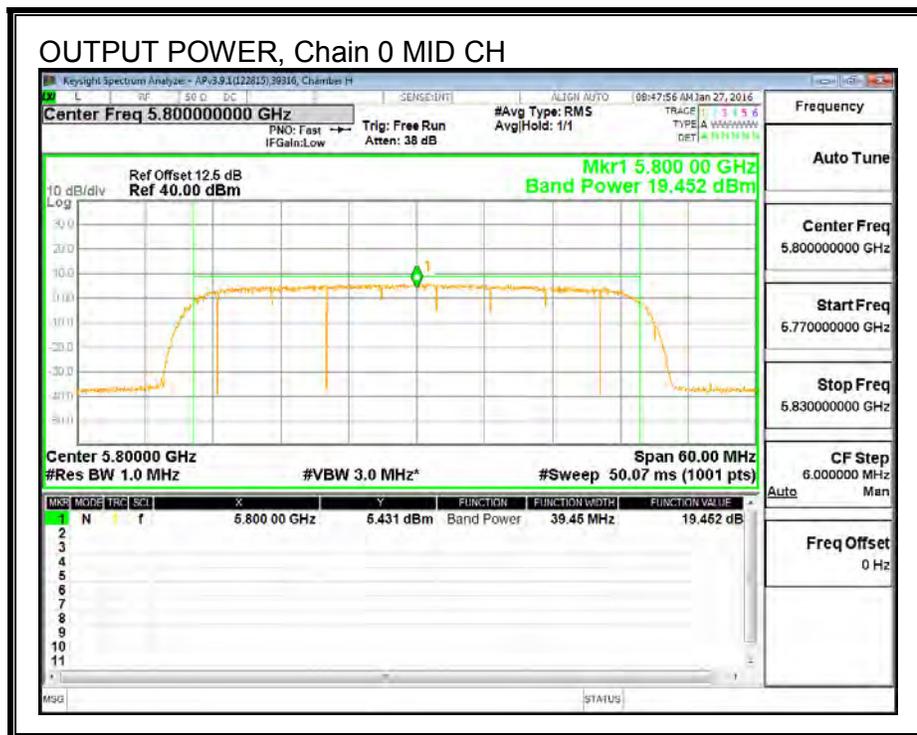
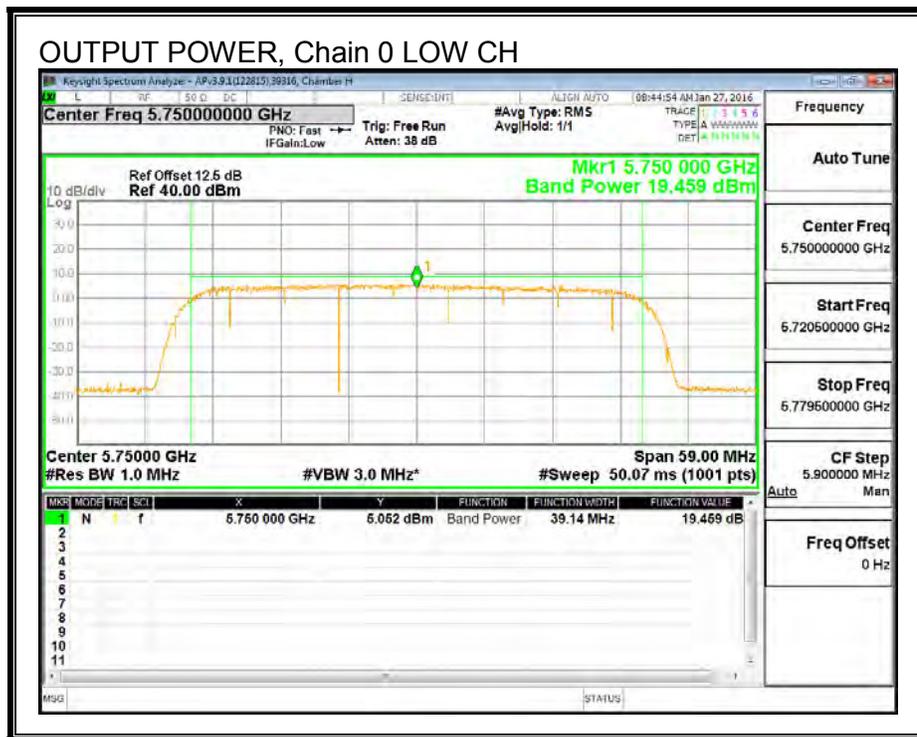
Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	5750	18.00	30.00	30	36	30.00
Mid	5800	18.00	30.00	30	36	30.00
High	5825	18.00	30.00	30	36	30.00

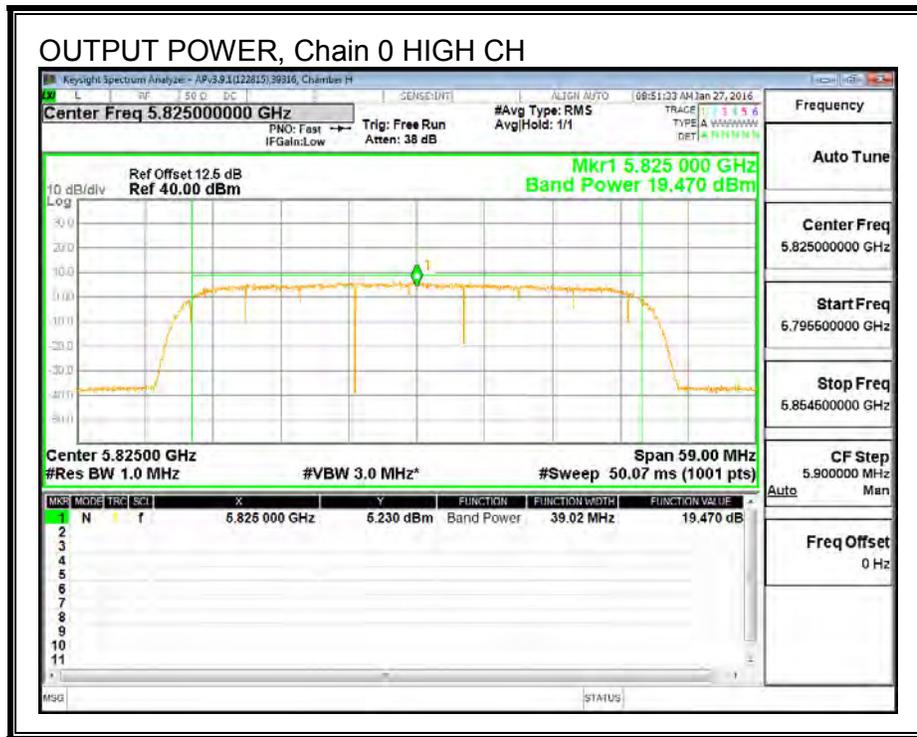
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power
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Results

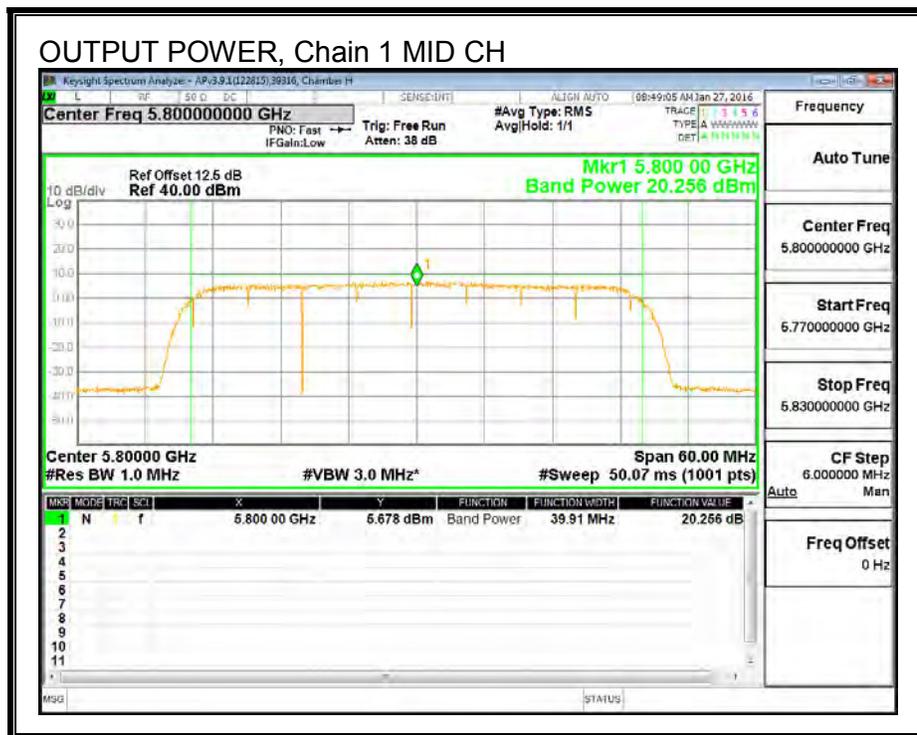
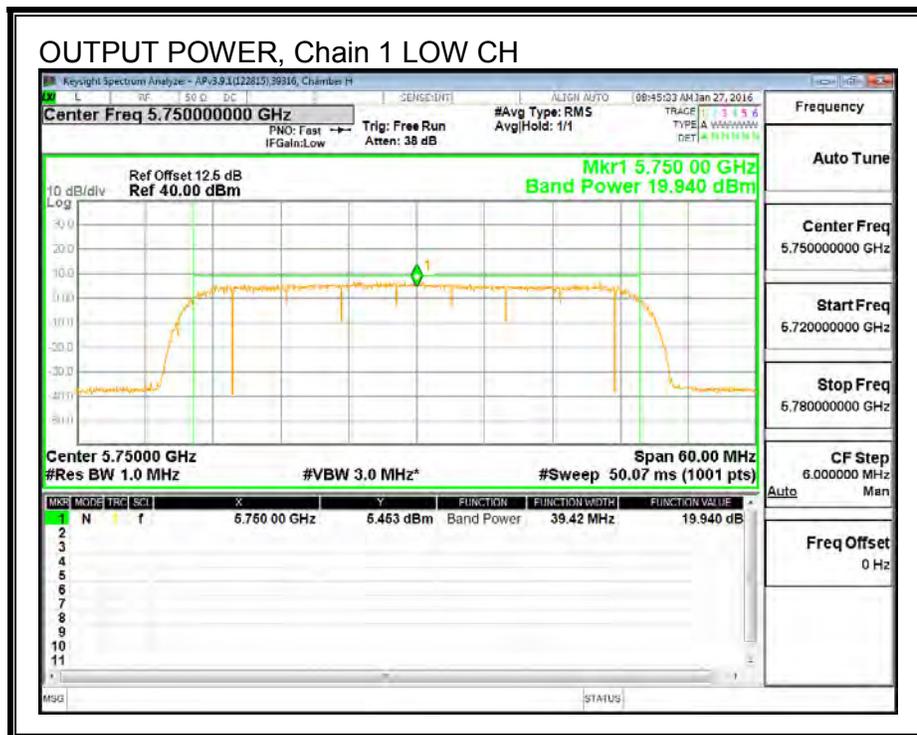
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Chain 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	5750	19.46	19.94	19.41	20.28	25.81	30.00	-4.19
Mid	5800	19.45	20.26	19.64	20.11	25.90	30.00	-4.10
High	5825	19.47	19.99	19.70	20.10	25.84	30.00	-4.16

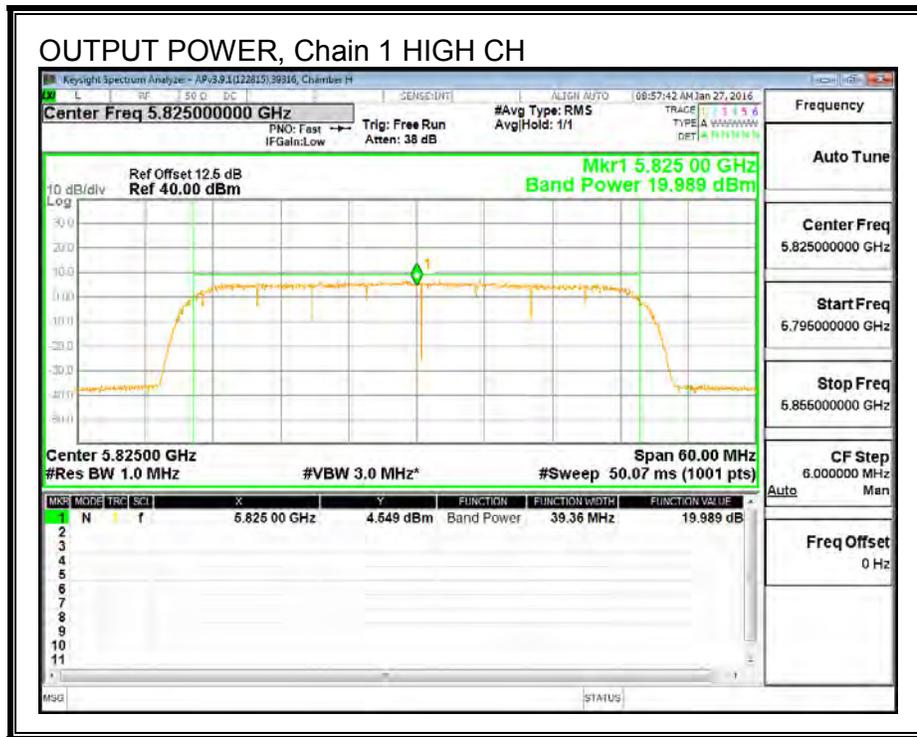
OUTPUT POWER, Chain 0



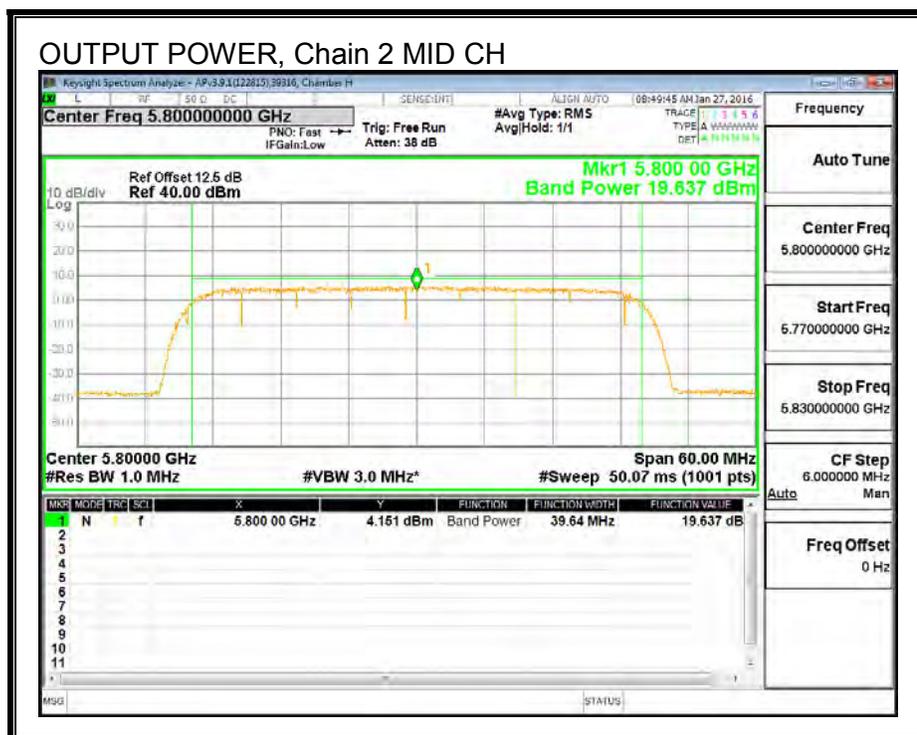
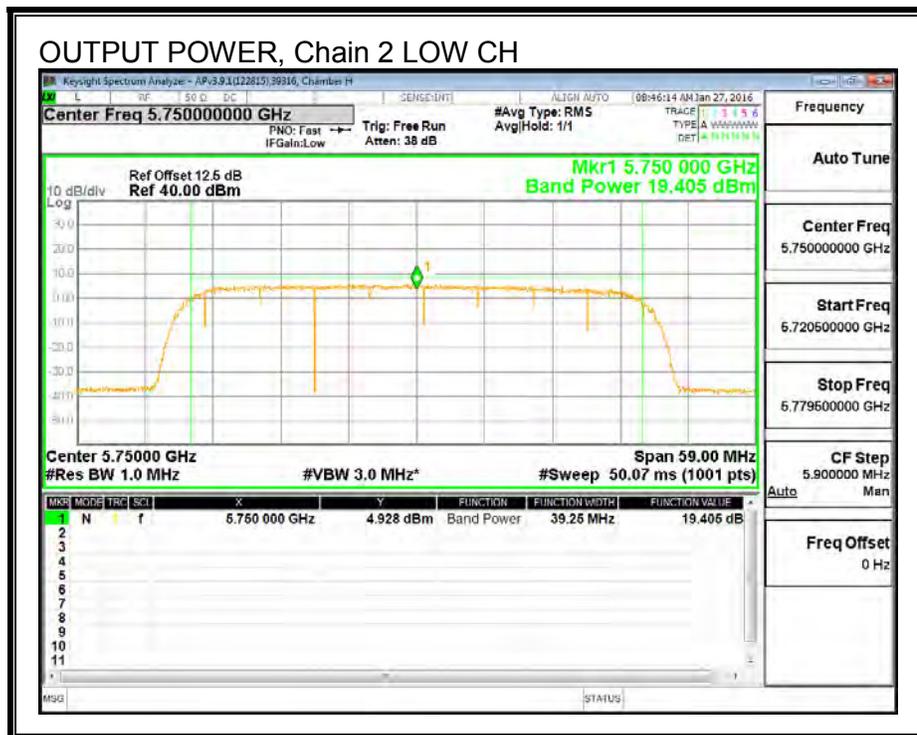


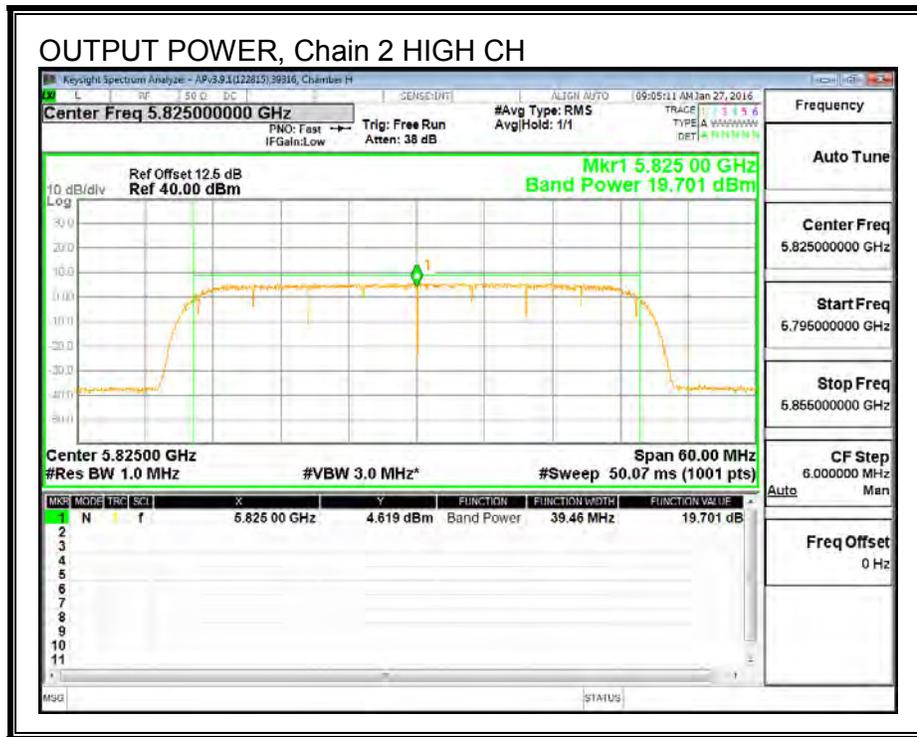
OUTPUT POWER, Chain 1



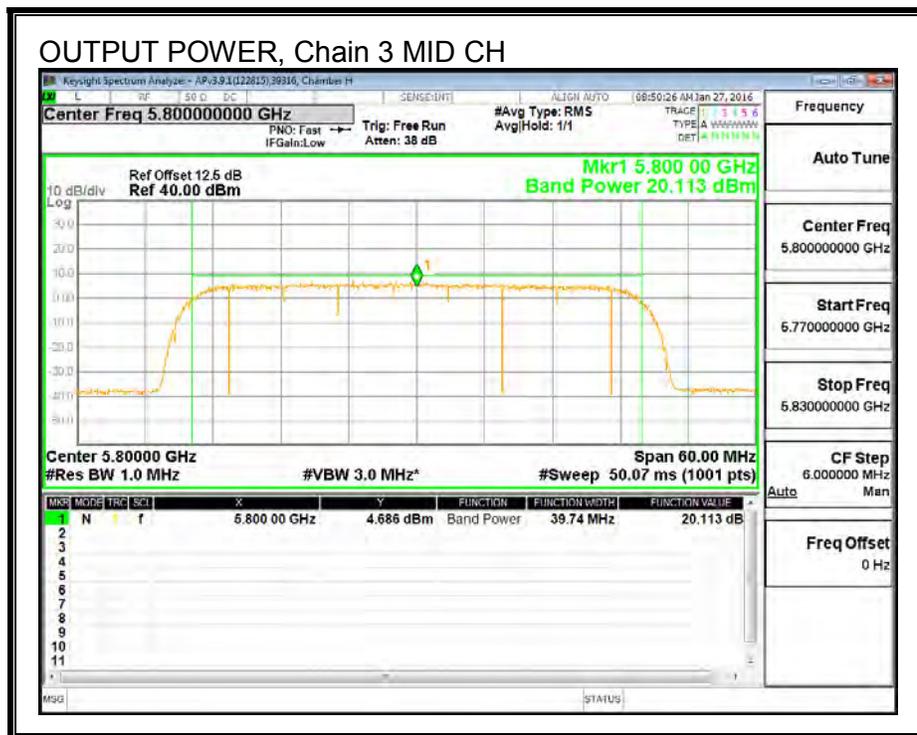
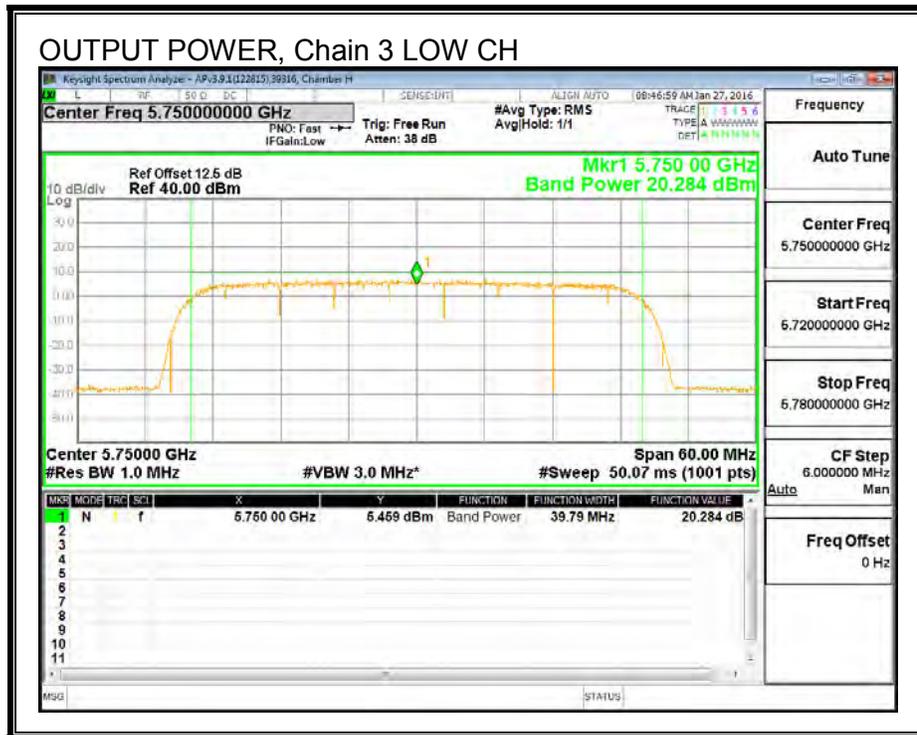


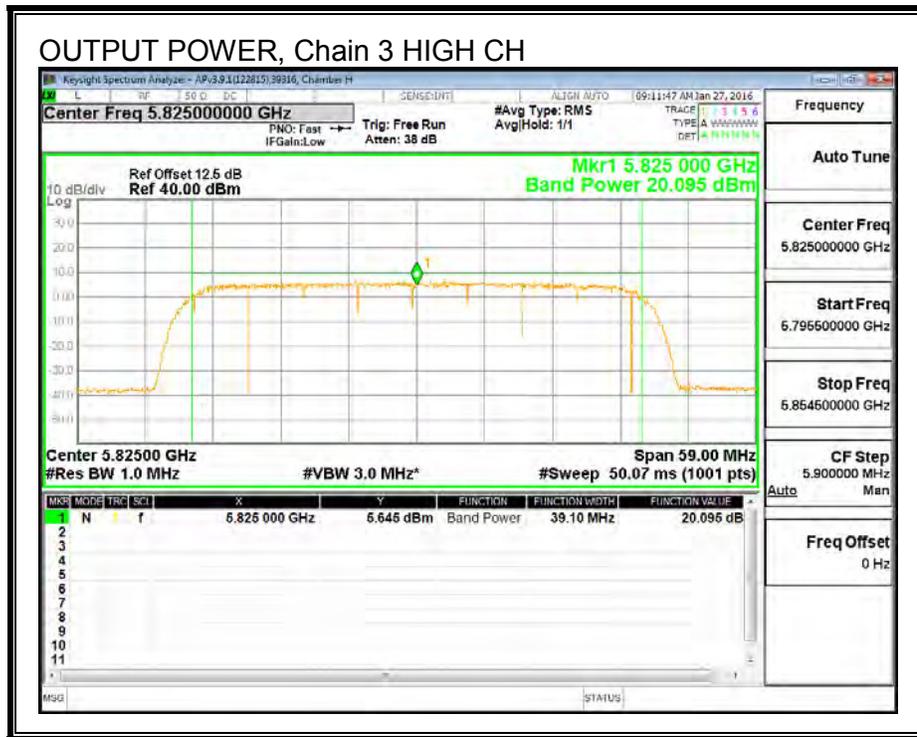
OUTPUT POWER, Chain 2





OUTPUT POWER, Chain 3





8.4.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 KHz band during any time interval of continuous transmissions.

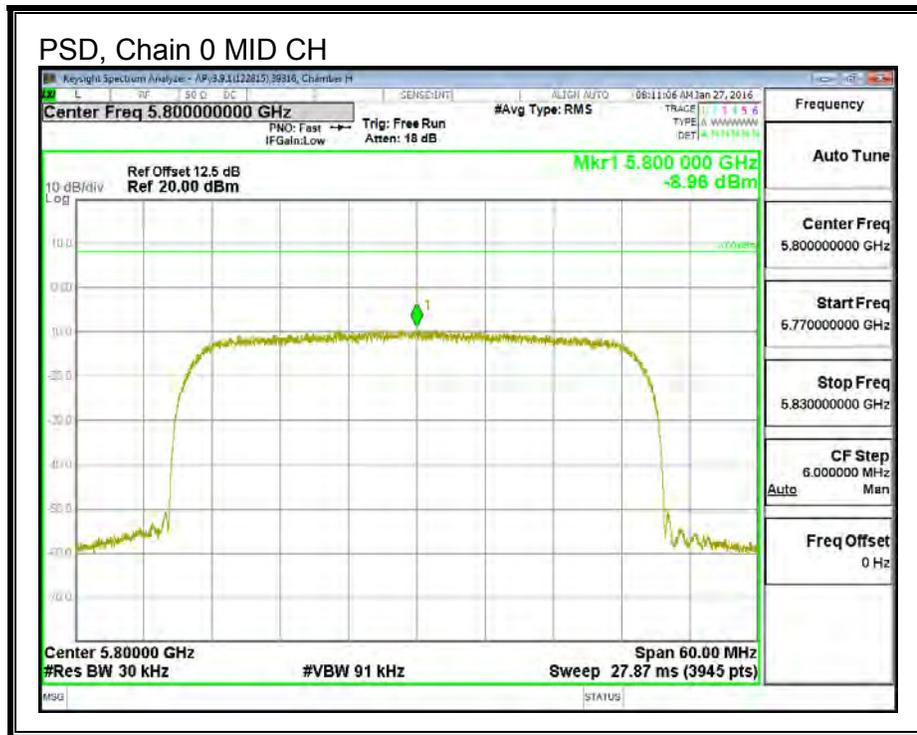
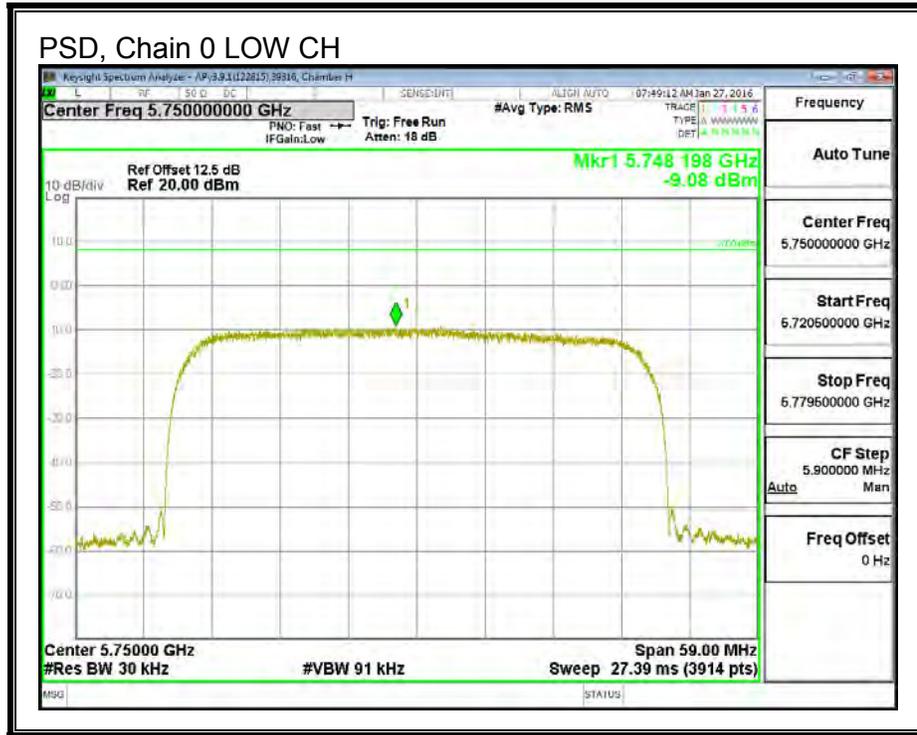
RESULTS

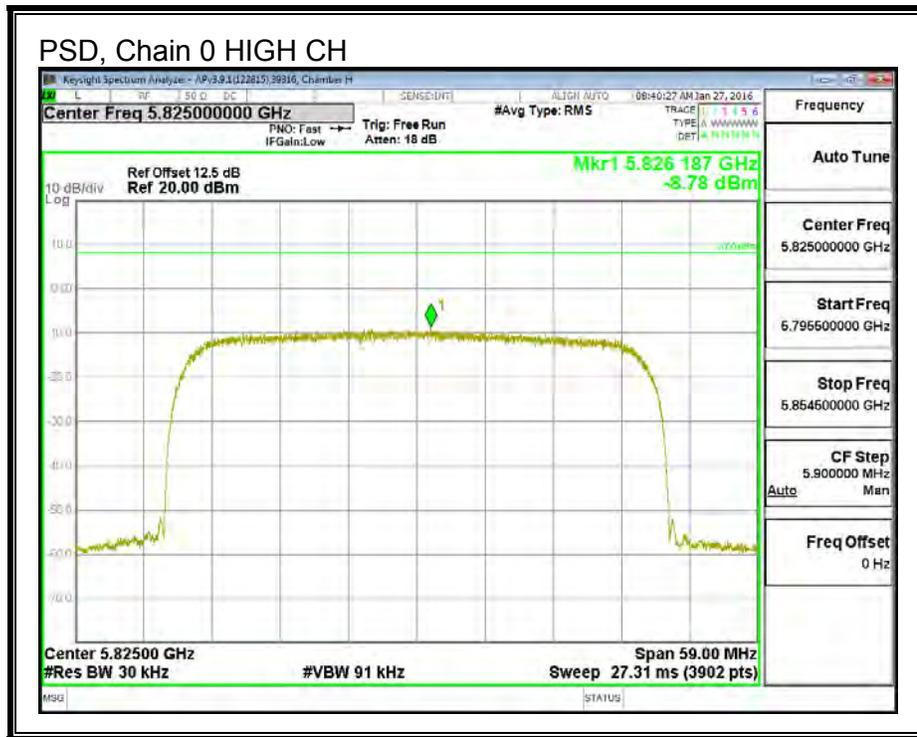
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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PSD Results

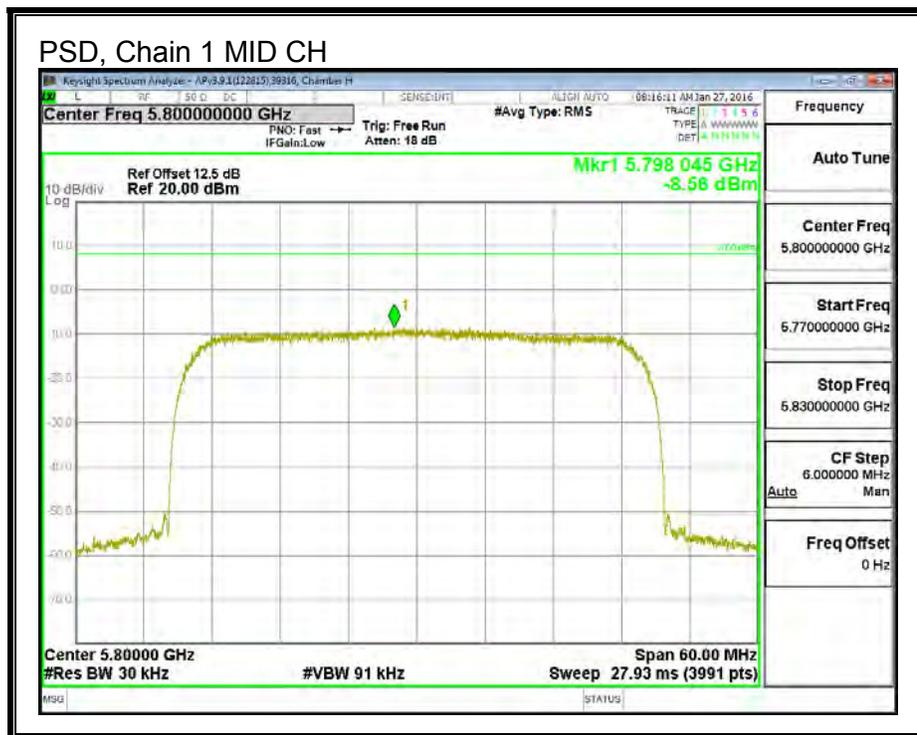
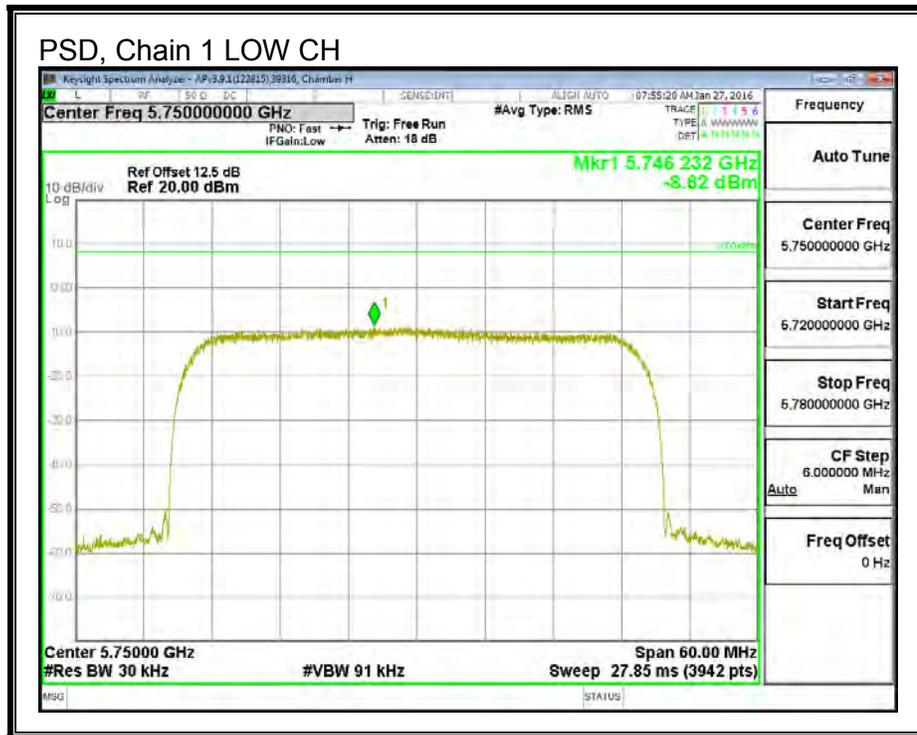
Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Chain 2 Meas (dBm)	Chain 3 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	5750	-9.08	-8.62	-9.19	-8.43	-2.80	8.0	-10.8
Mid	5800	-8.96	-8.56	-8.82	-8.59	-2.71	9.0	-11.7
High	5825	-8.78	-8.30	-8.95	-8.33	-2.56	8.0	-10.6

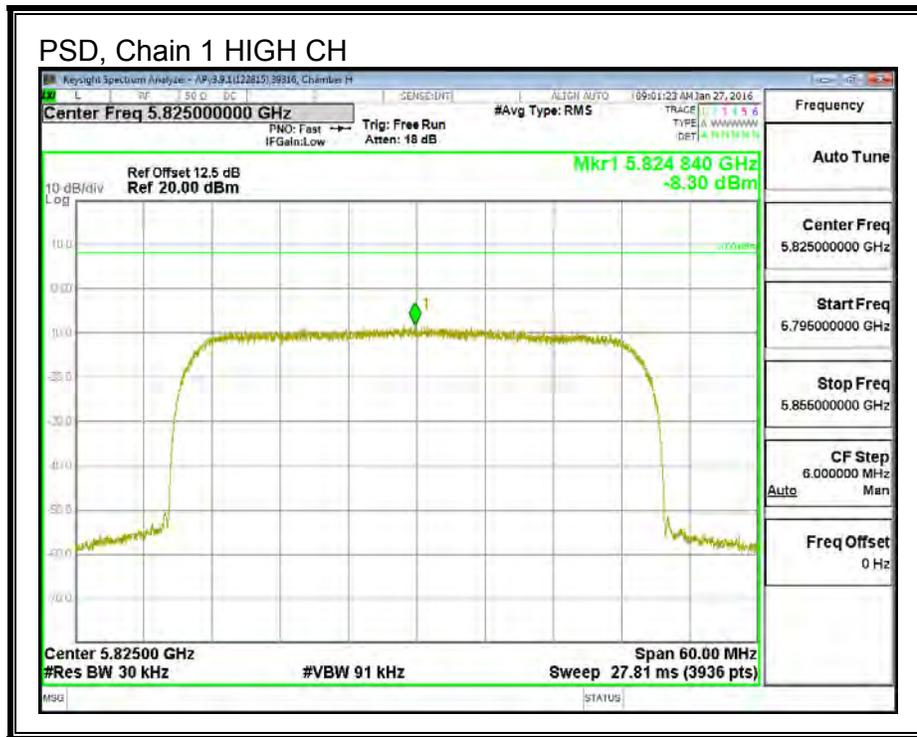
PSD, Chain 0



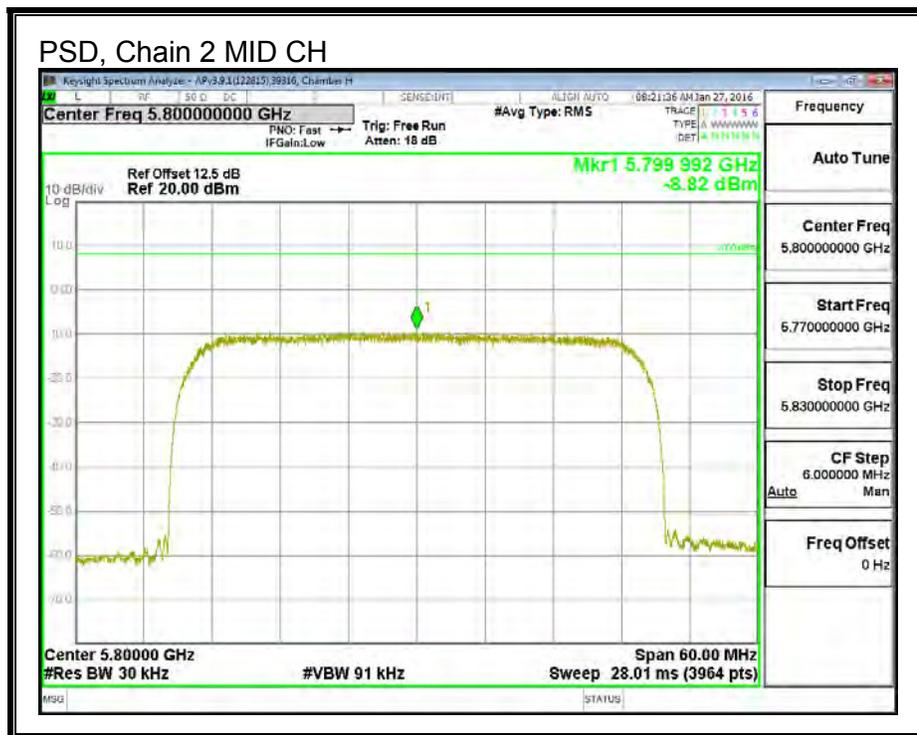
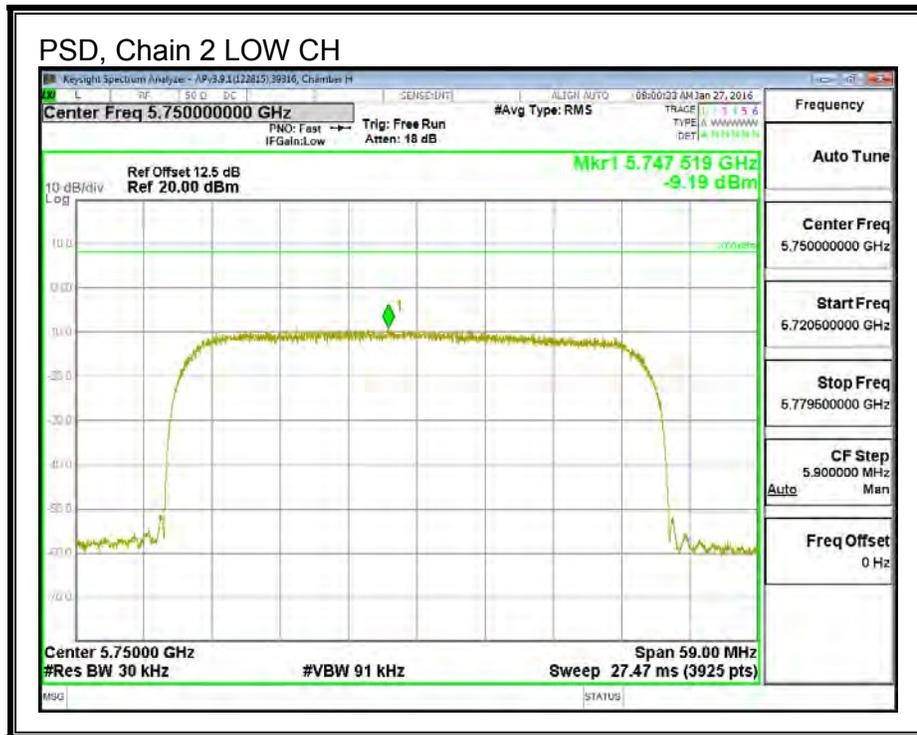


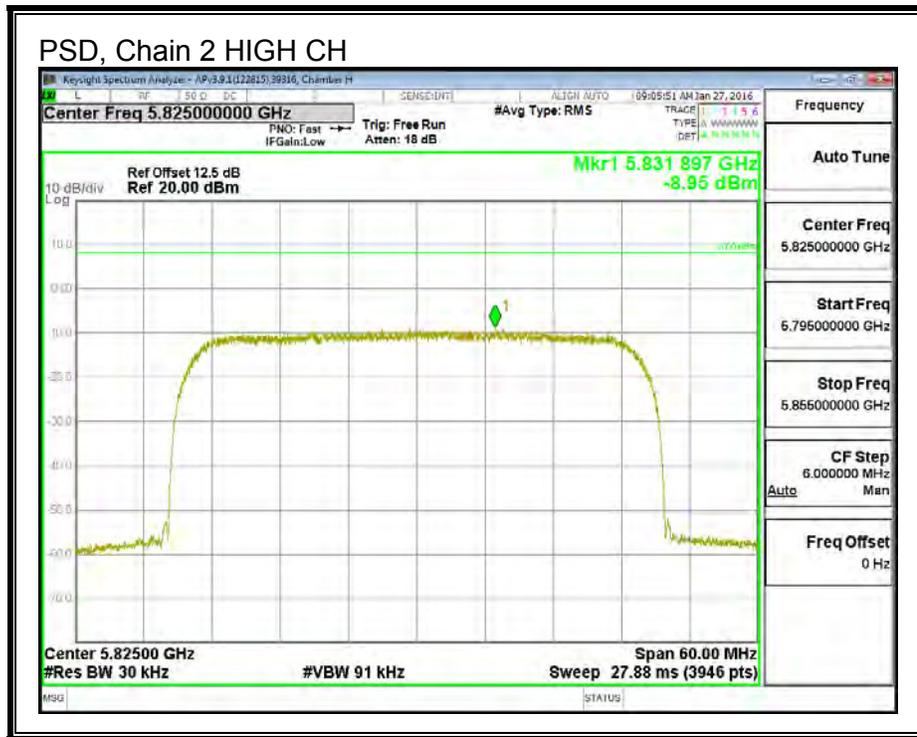
PSD, Chain 1



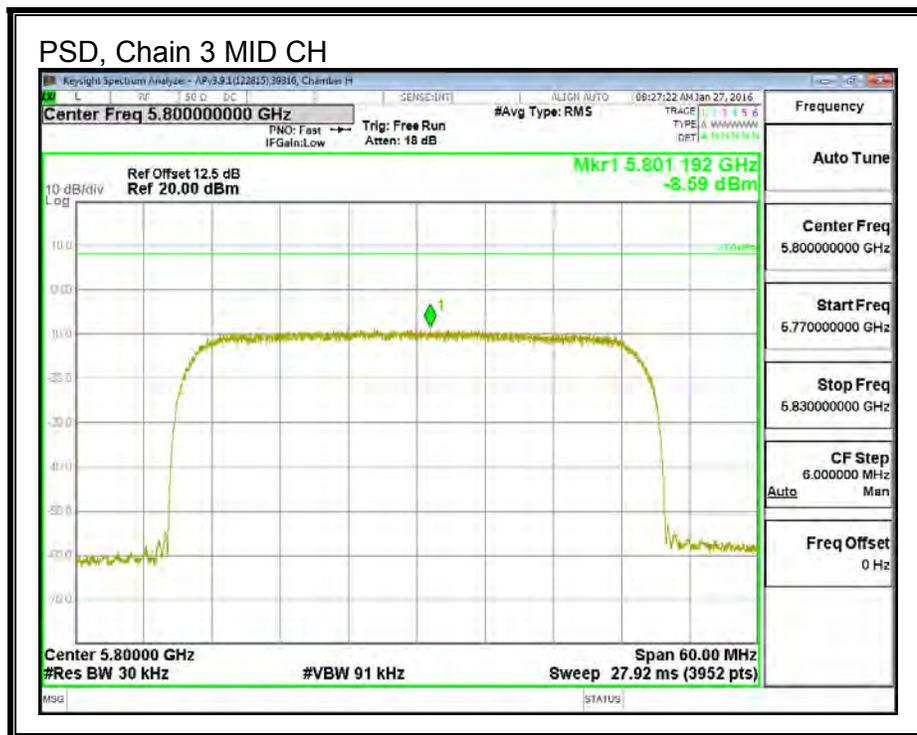
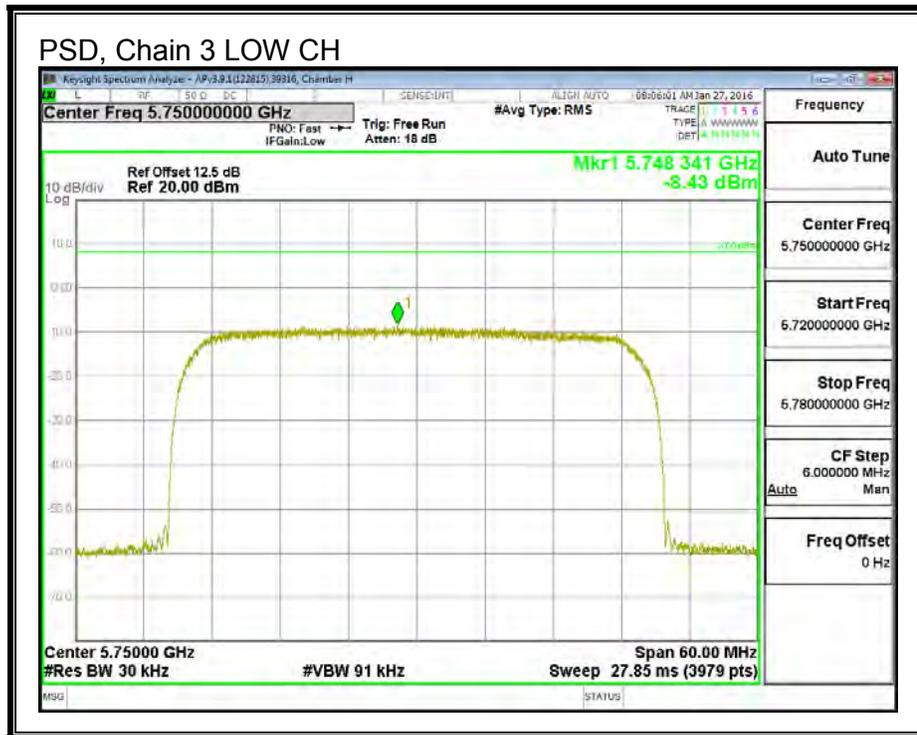


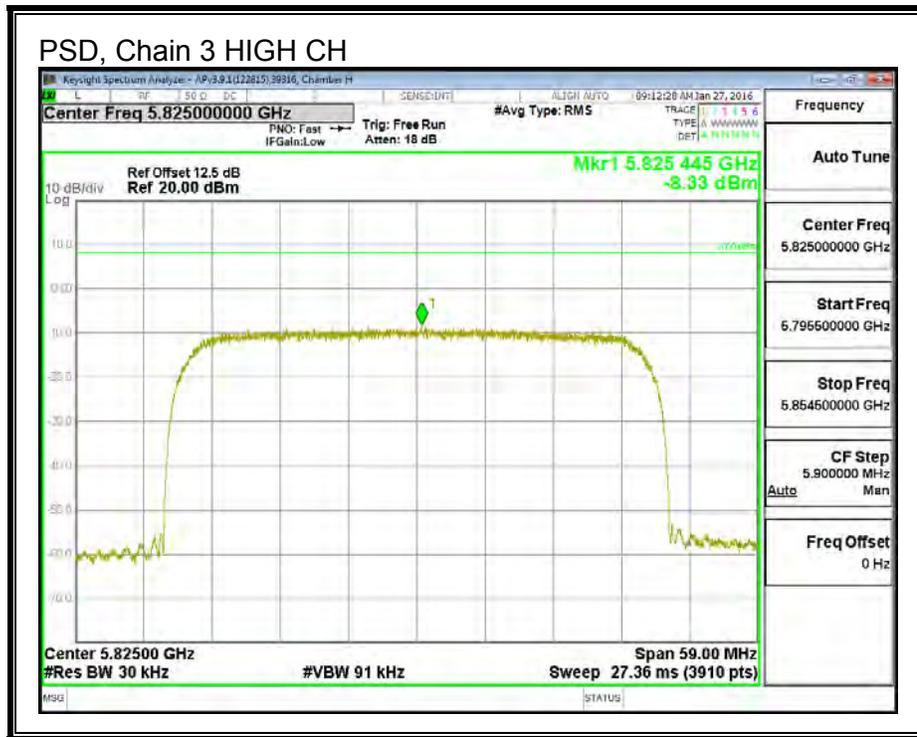
PSD, Chain 2





PSD, Chain 3





8.4.5. OUT-OF-BAND EMISSIONS

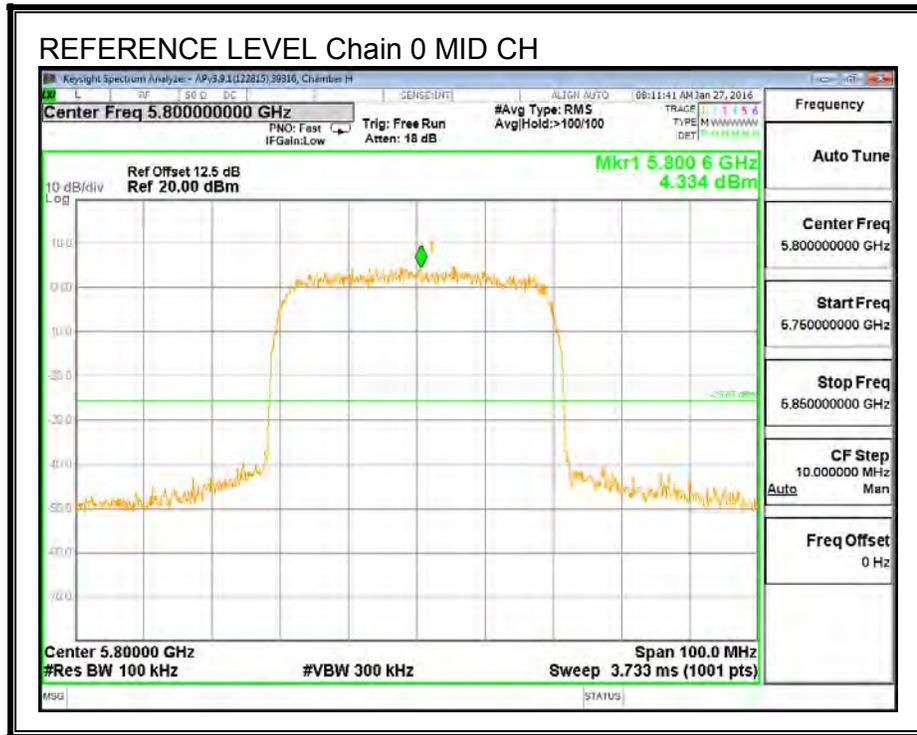
LIMITS

FCC §15.247 (d)

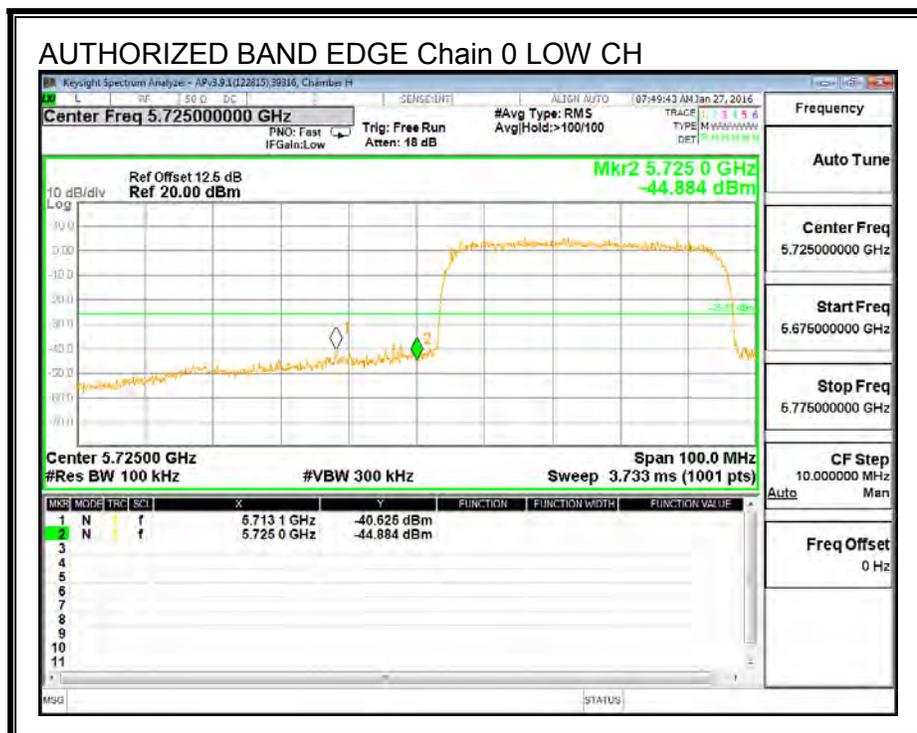
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

RESULTS

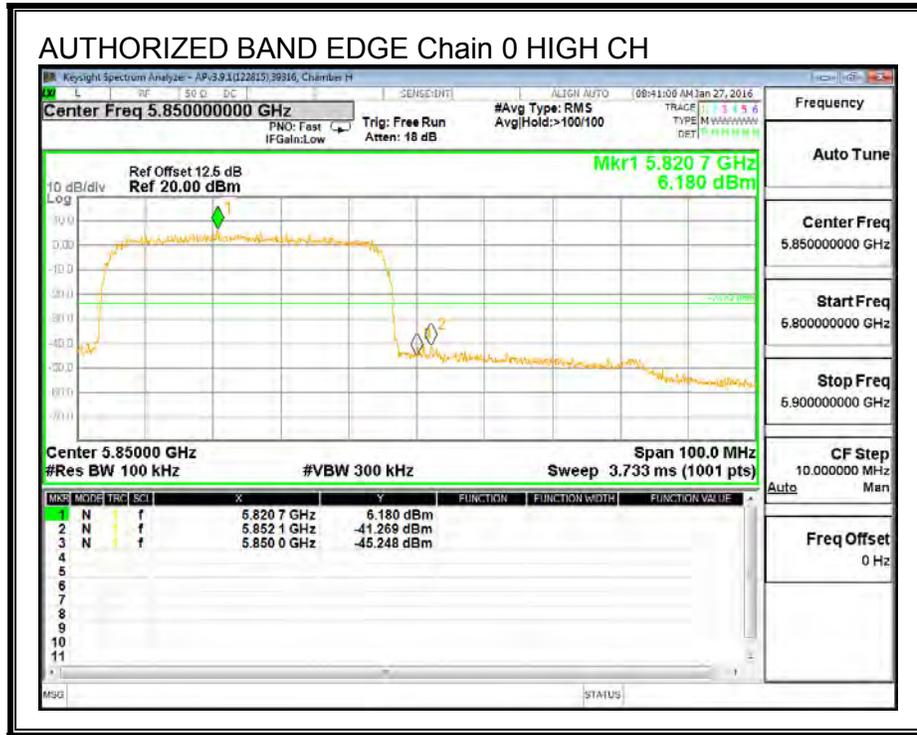
IN-BAND REFERENCE LEVEL, Chain 0



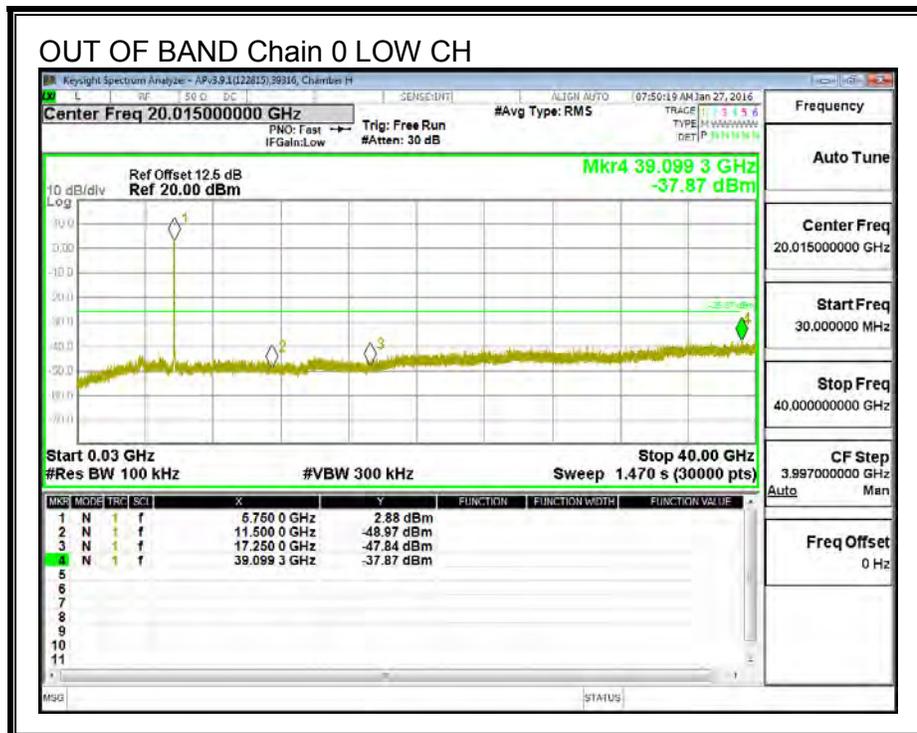
LOW CHANNEL BANDEDGE, Chain 0

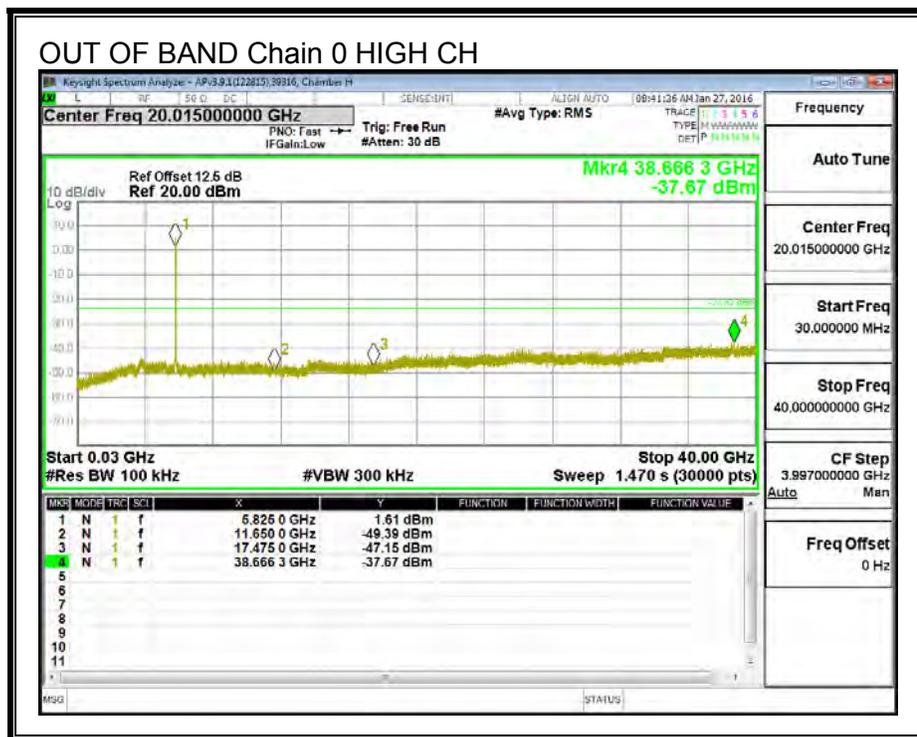
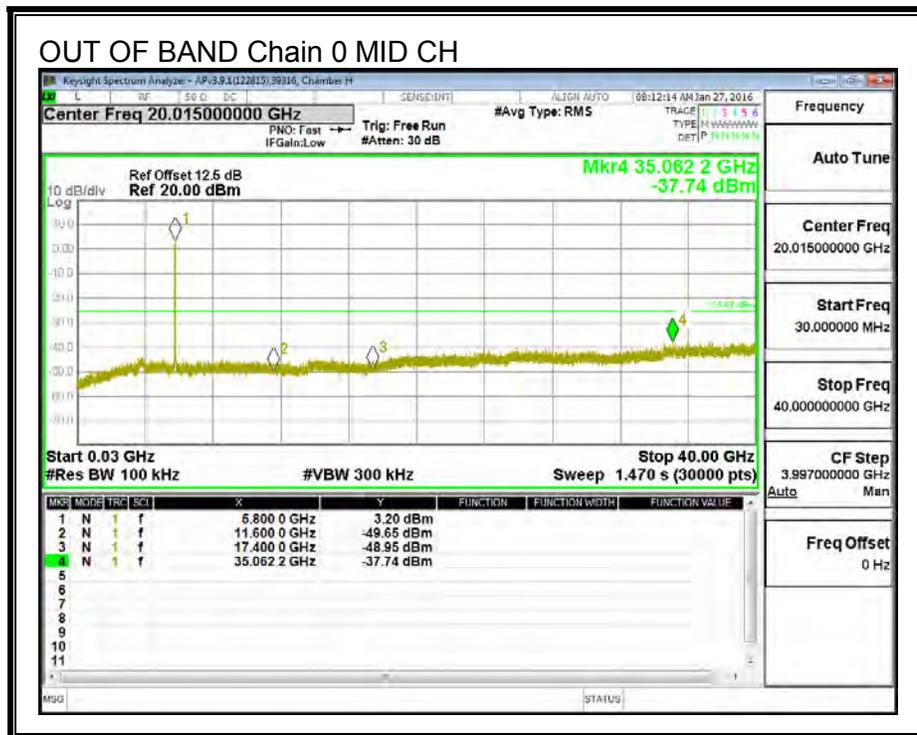


HIGH CHANNEL BANDEDGE, Chain 0

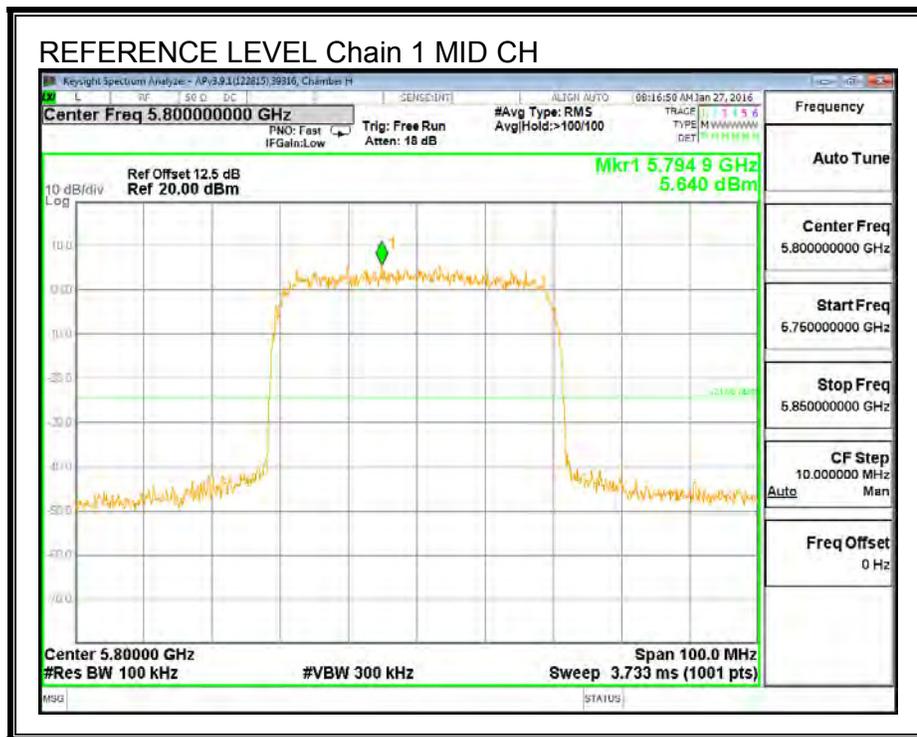


OUT-OF-BAND EMISSIONS, Chain 0

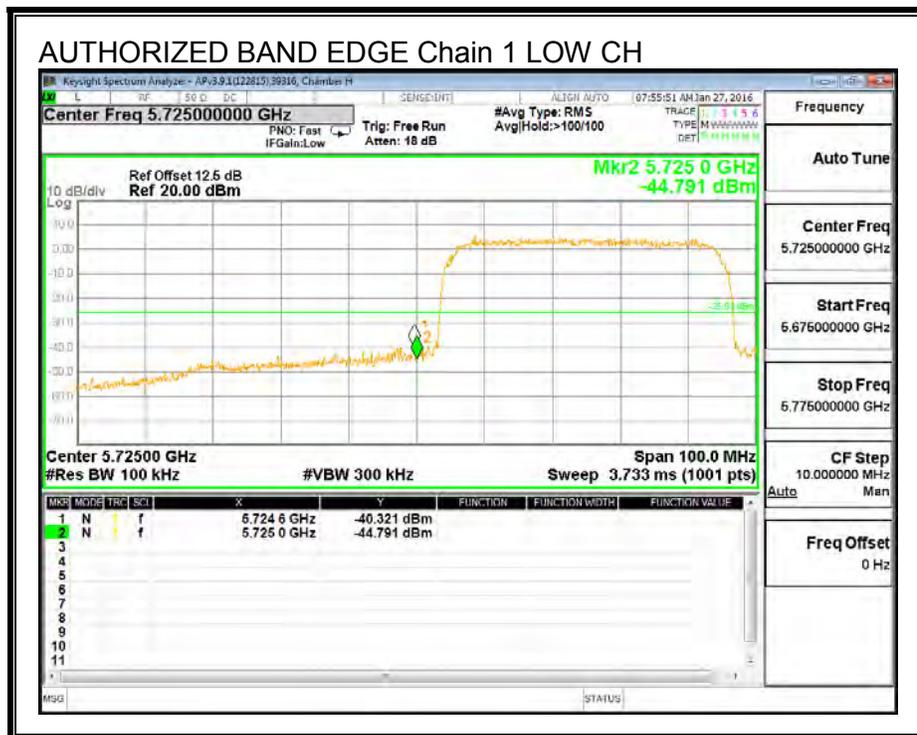




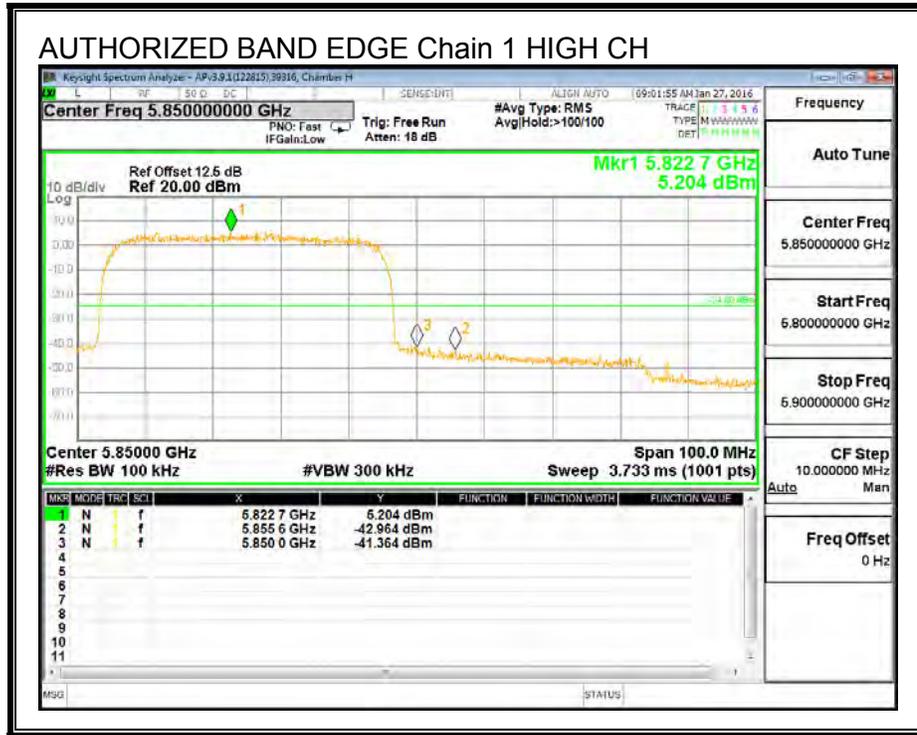
IN-BAND REFERENCE LEVEL, Chain 1



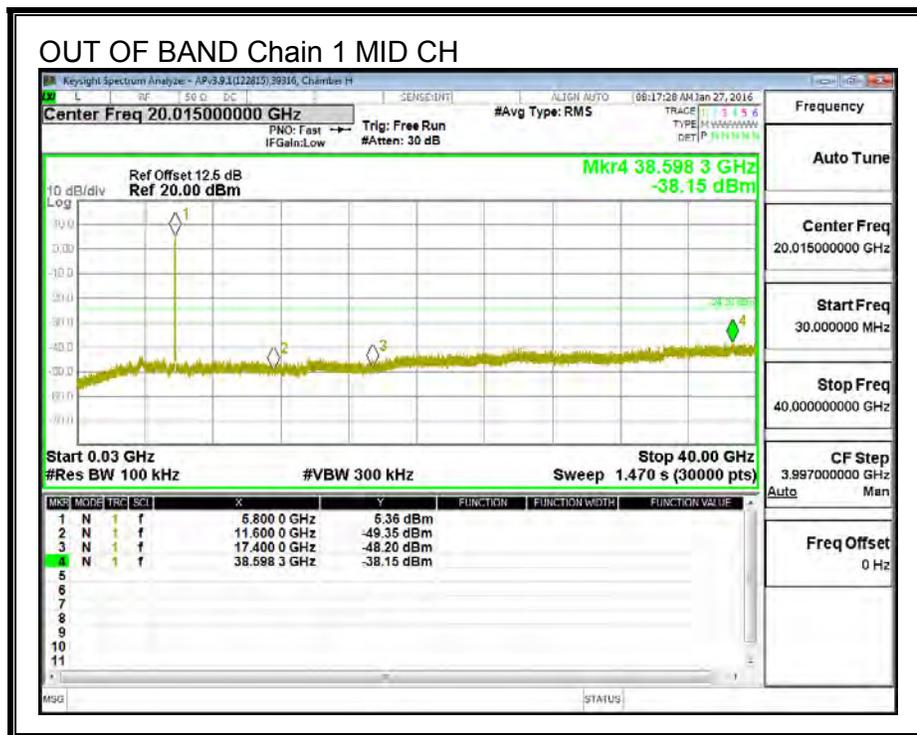
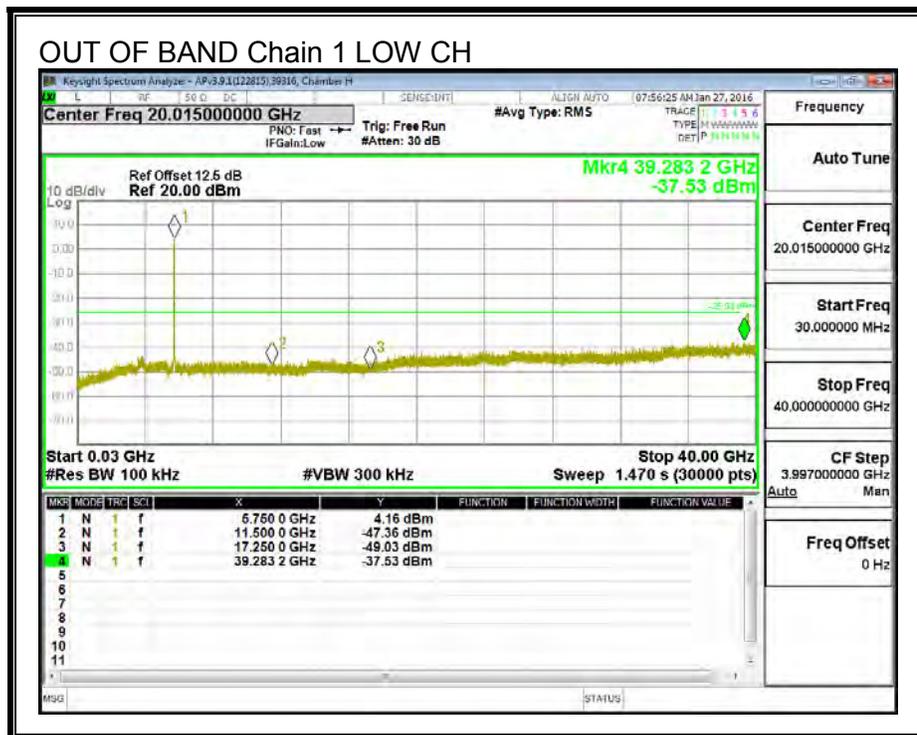
LOW CHANNEL BANDEDGE, Chain 1

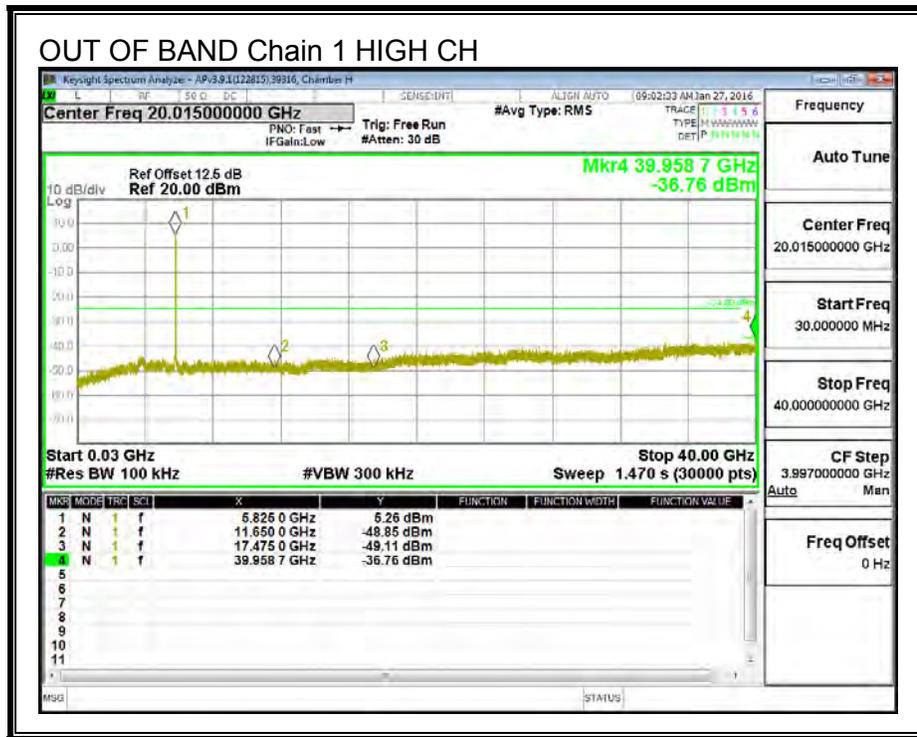


HIGH CHANNEL BANDEDGE, Chain 1

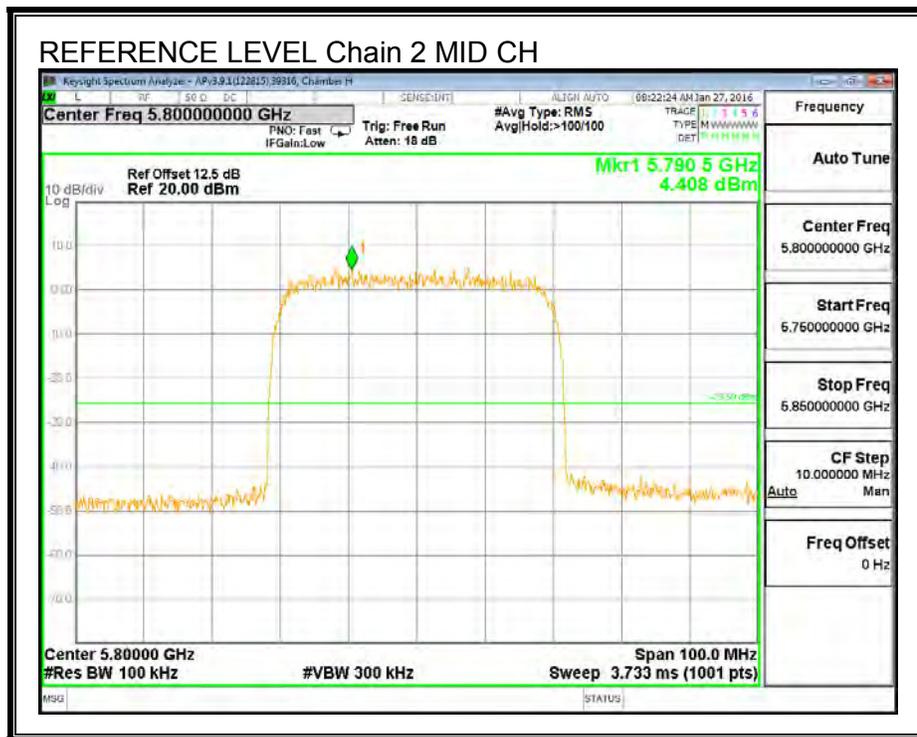


OUT-OF-BAND EMISSIONS, Chain 1

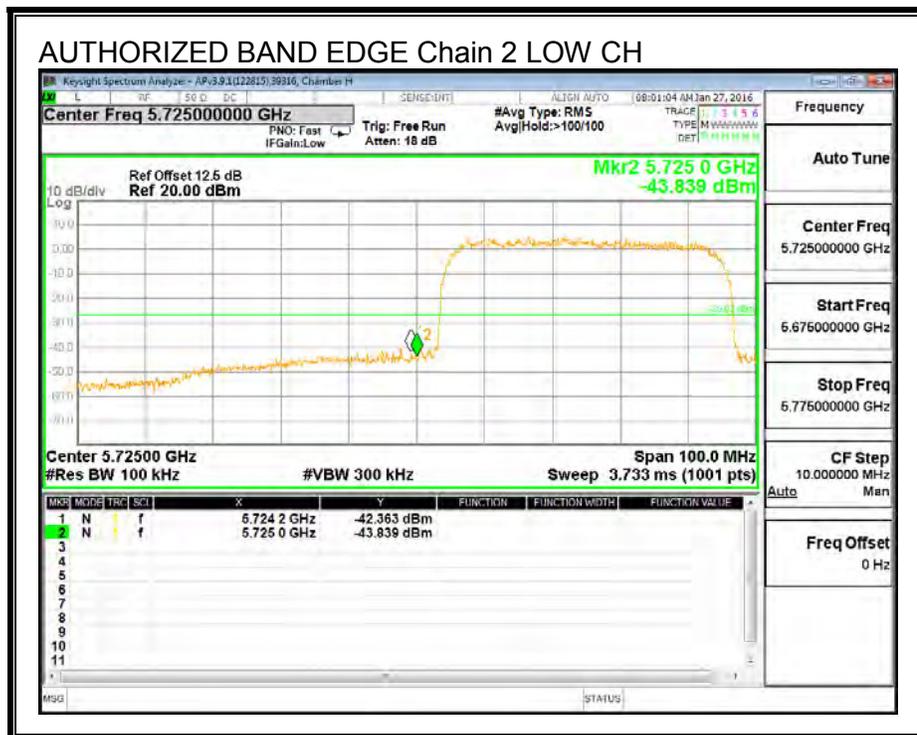




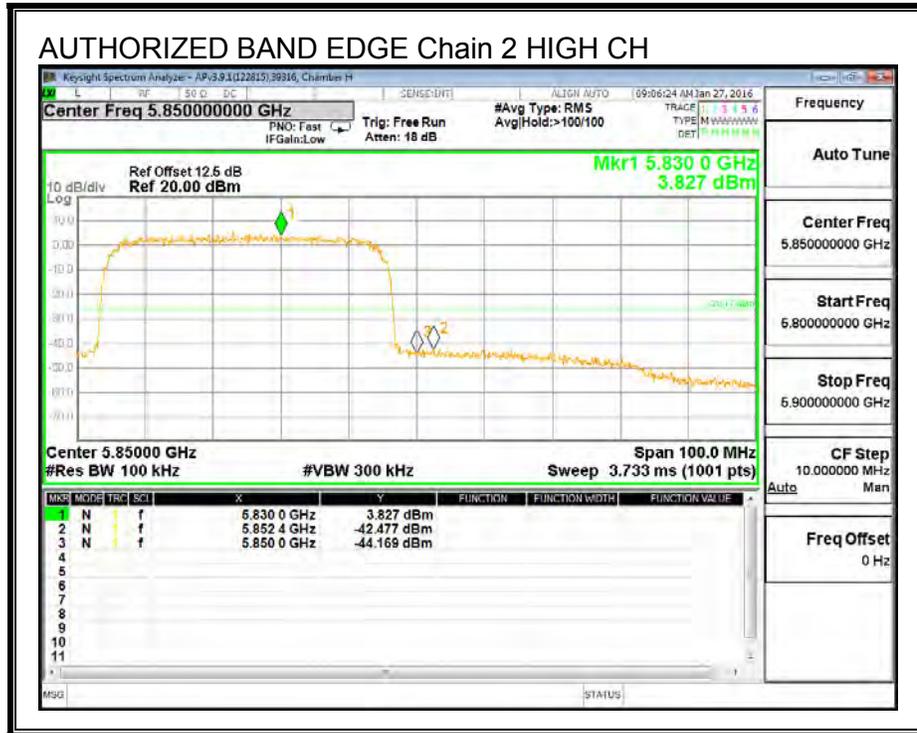
IN-BAND REFERENCE LEVEL, Chain 2



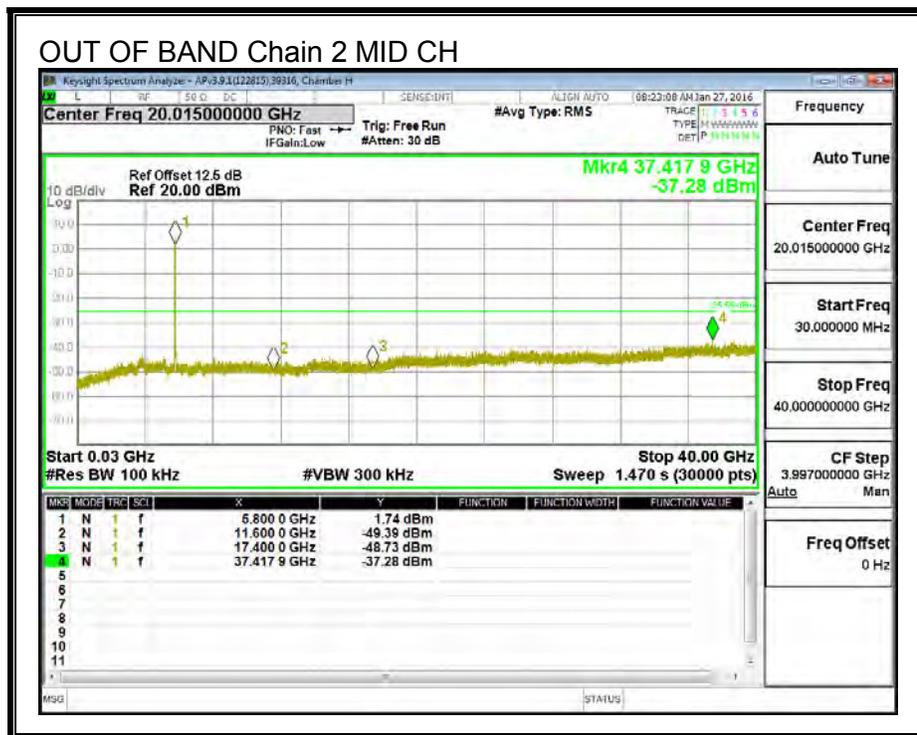
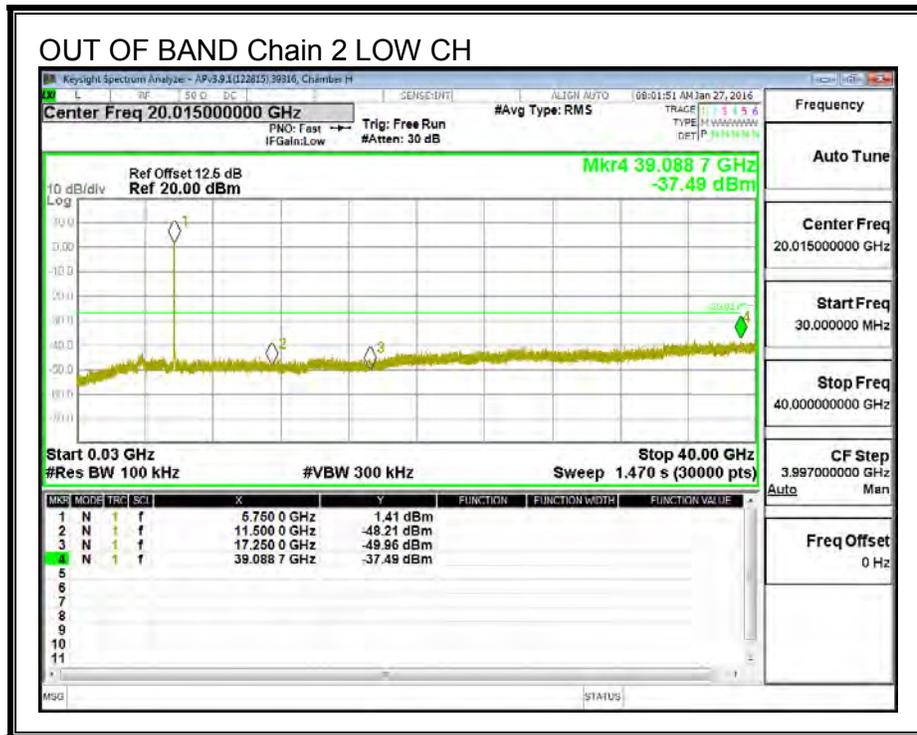
LOW CHANNEL BANDEDGE, Chain 2

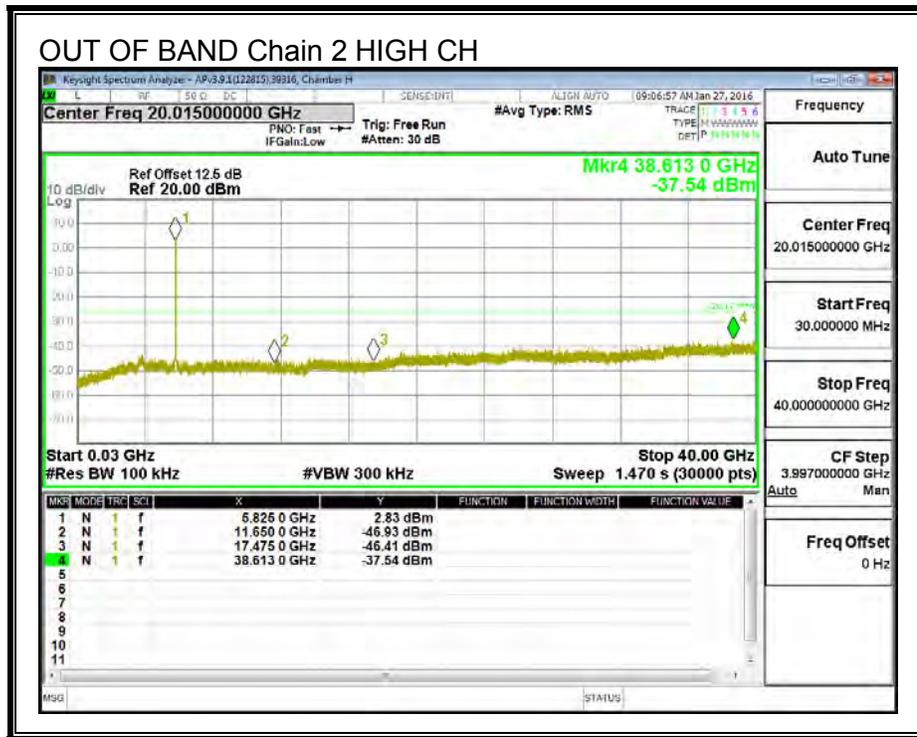


HIGH CHANNEL BANDEDGE, Chain 2

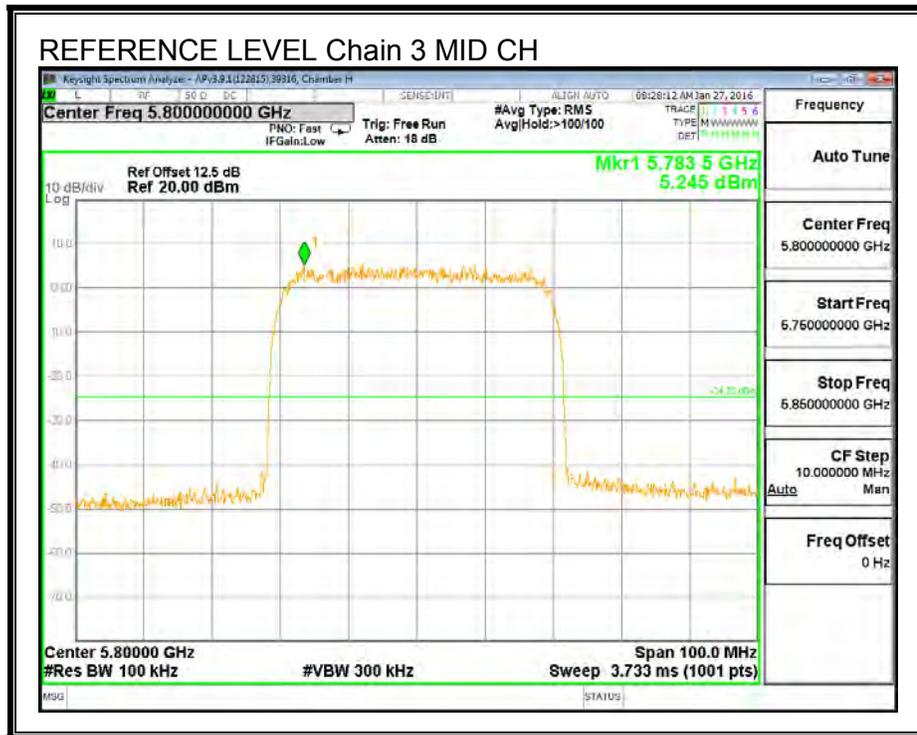


OUT-OF-BAND EMISSIONS, Chain 2

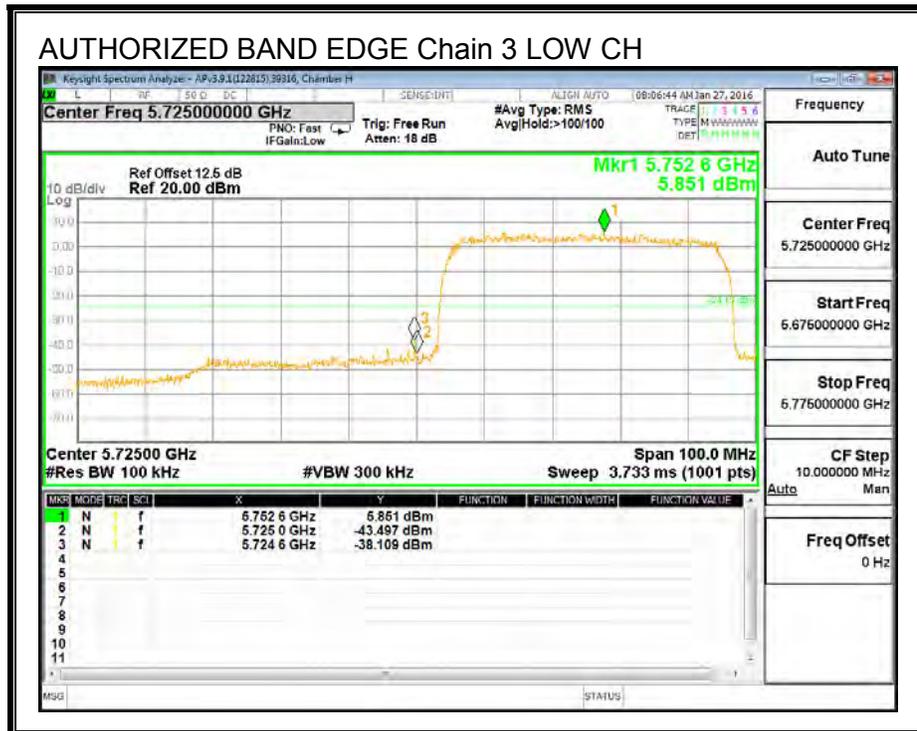




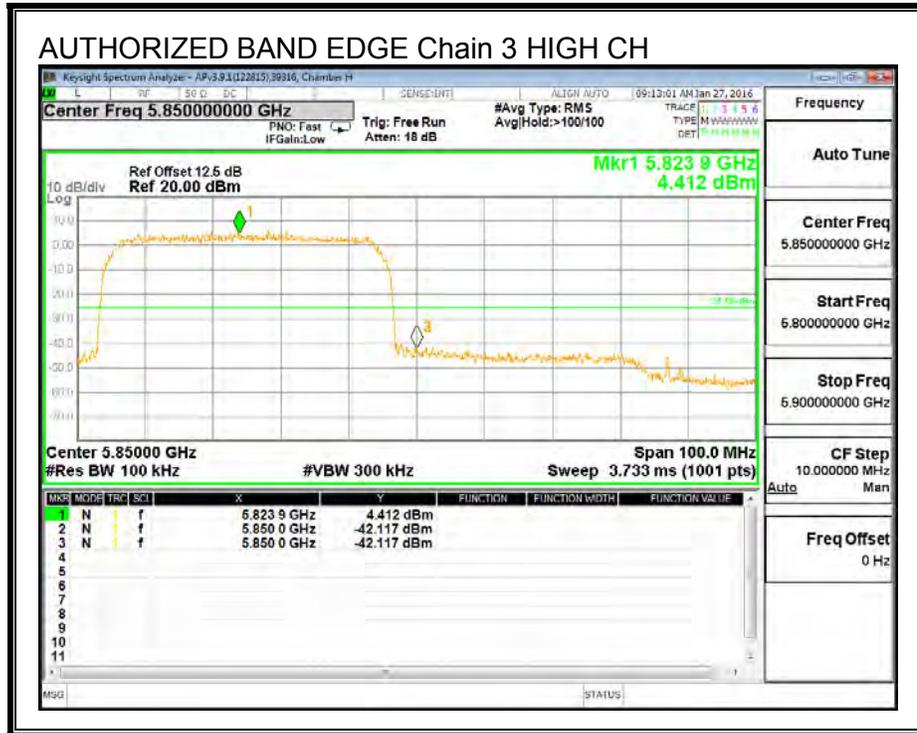
IN-BAND REFERENCE LEVEL, Chain 3



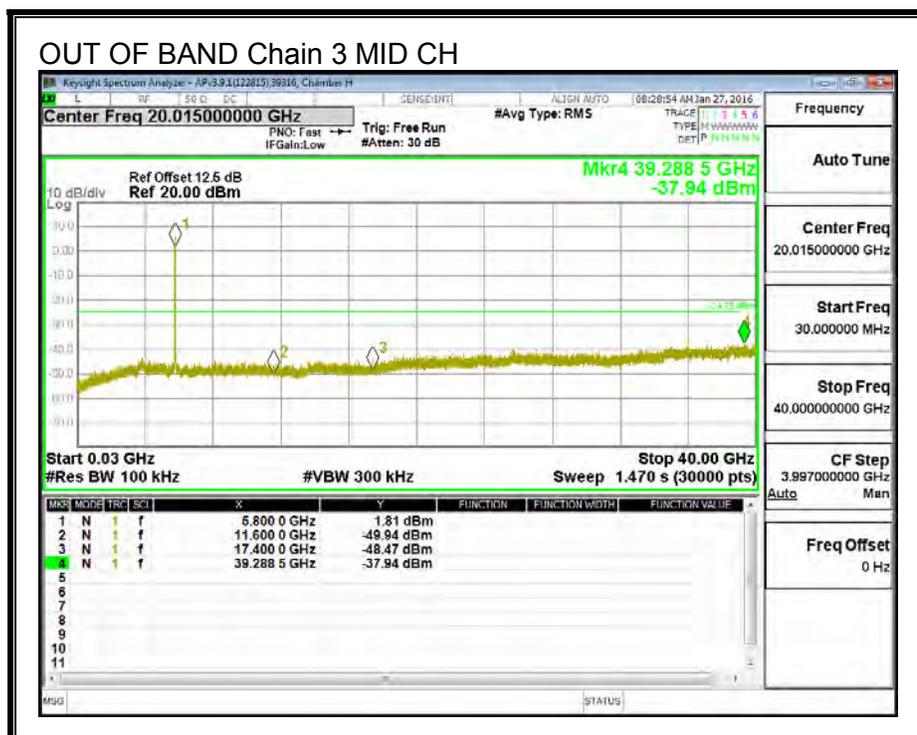
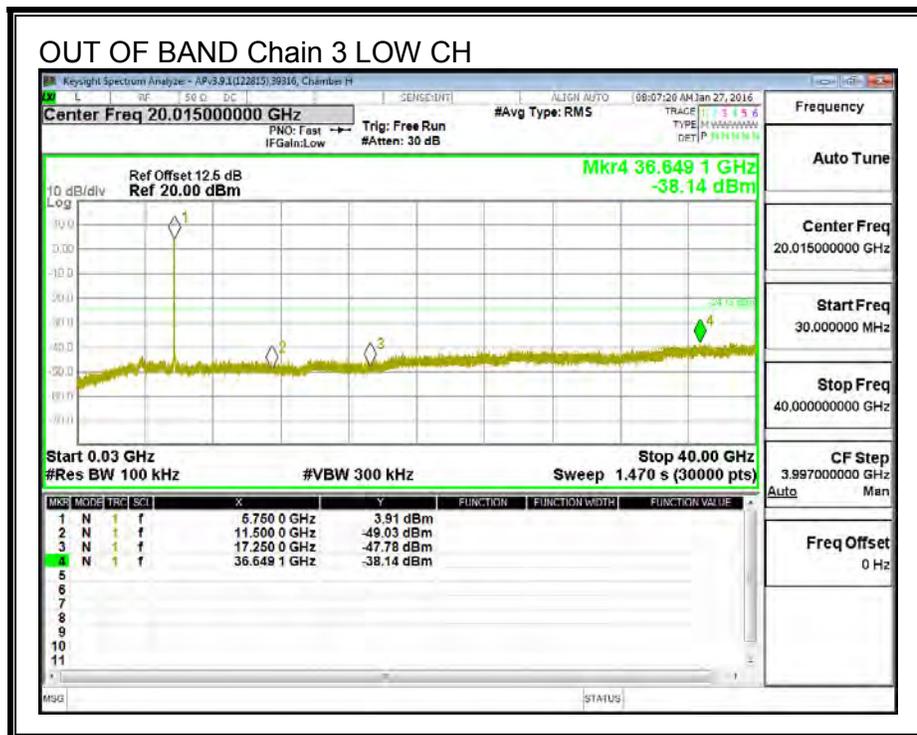
LOW CHANNEL BANDEDGE, Chain 3

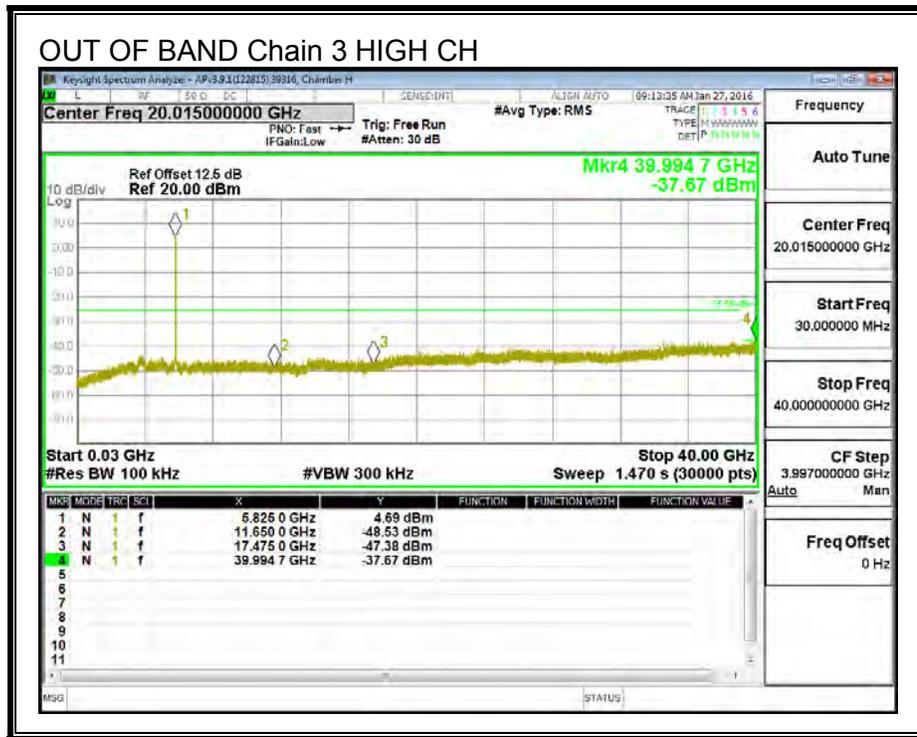


HIGH CHANNEL BANDEDGE, Chain 3



OUT-OF-BAND EMISSIONS, Chain 3





9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
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 below 1GHz and 150 cm for above 1GHz. The antenna to EUT distance is 3 meters.

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 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.

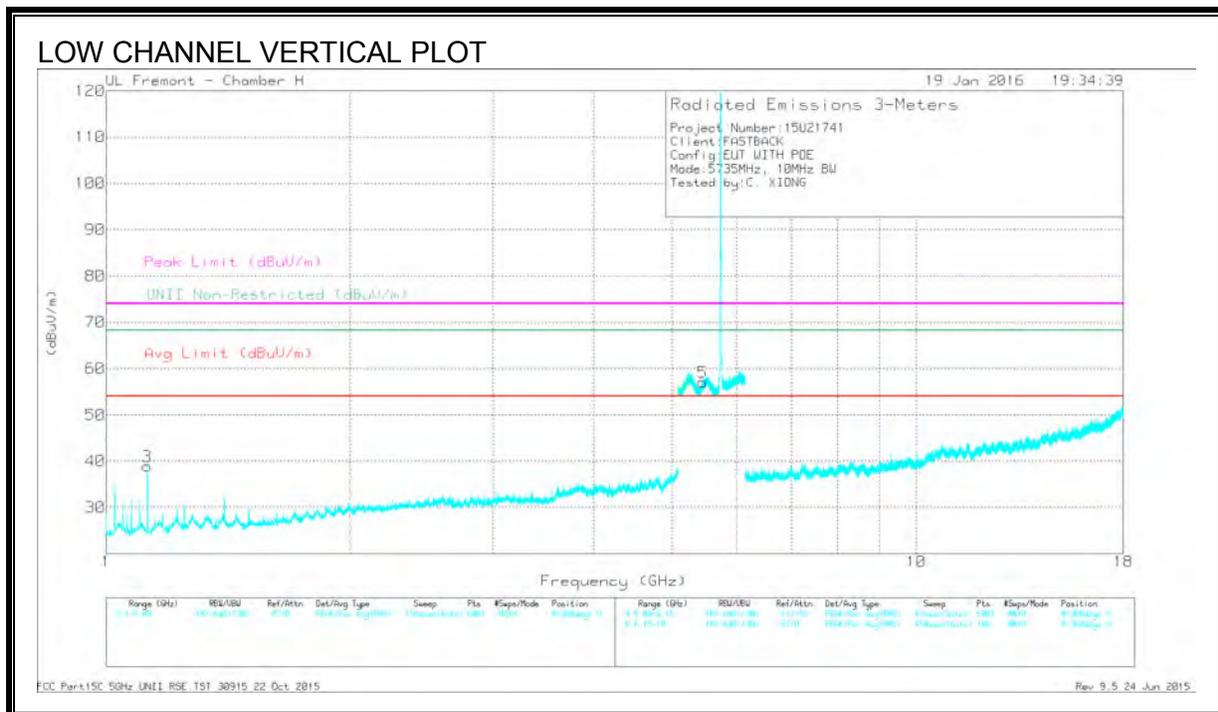
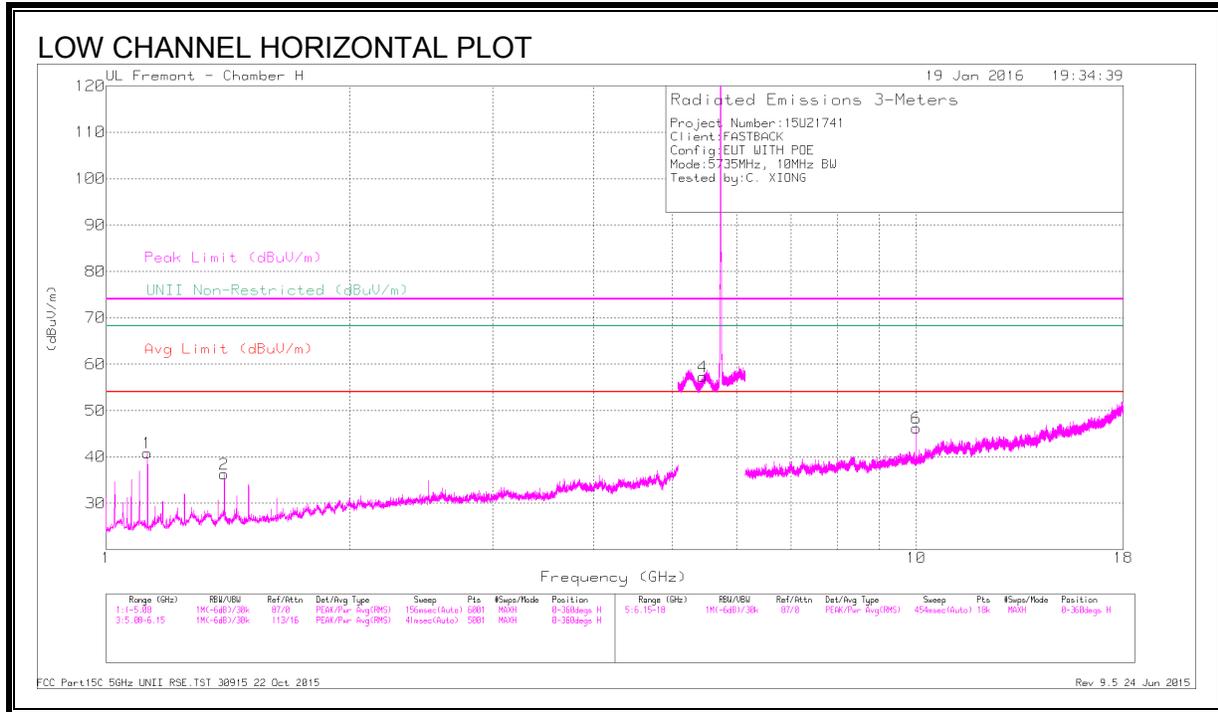
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

9.2. TRANSMITTER ABOVE 1 GHz

9.2.1. TX ABOVE 1 GHz 10MHz BW 4TX MODE IN THE 5.8 GHz BAND

HARMONICS AND SPURIOUS EMISSIONS



DATA

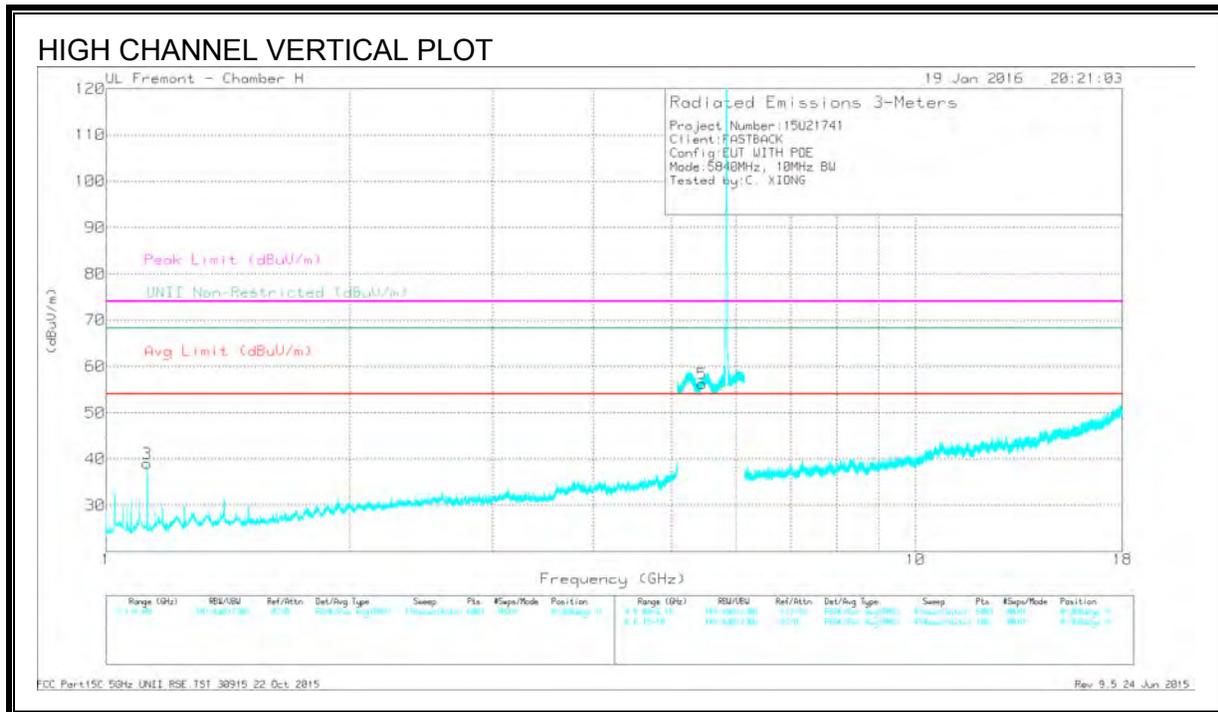
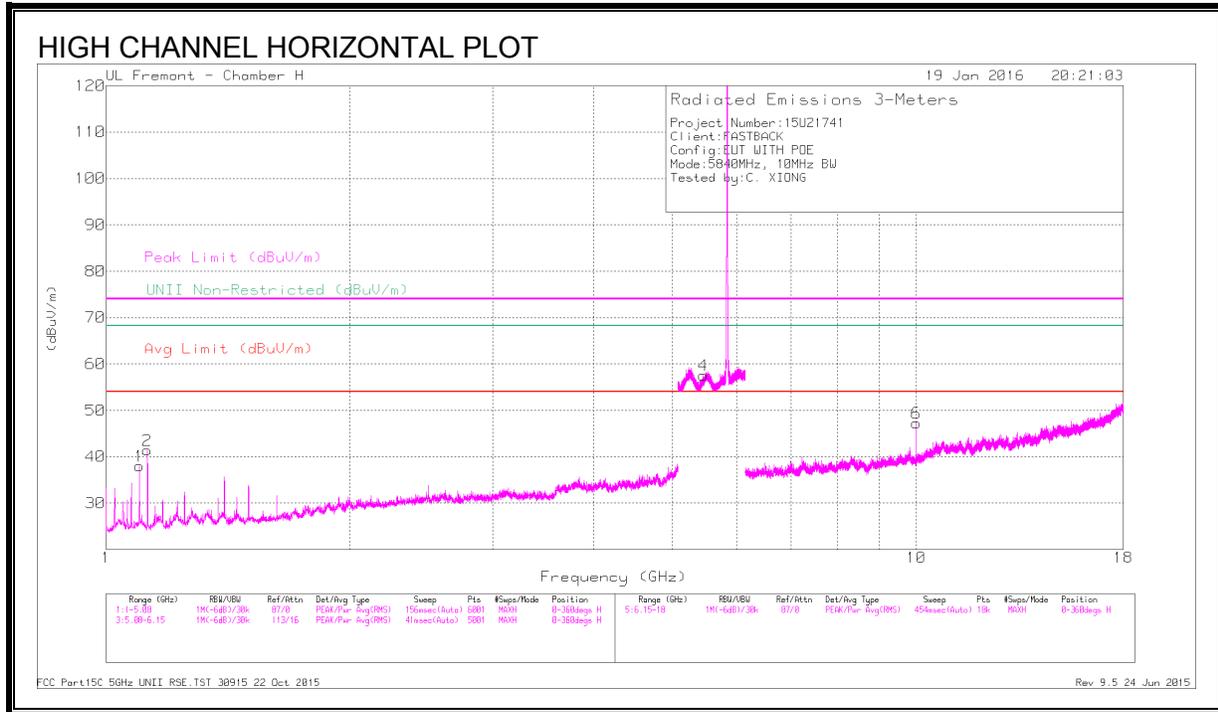
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.125	51.51	PK2	27.4	-34.4	44.51	-	-	74	-29.49	-	-	32	138	H
	* 1.125	47.02	MAv1	27.4	-34.4	40.02	54	-13.98	-	-	-	-	32	138	H
2	* 1.4	47.33	PK2	28.5	-34	41.83	-	-	74	-32.17	-	-	92	103	H
	* 1.4	39.59	MAv1	28.5	-34	34.09	54	-19.91	-	-	-	-	92	103	H
3	* 1.125	51.01	PK2	27.4	-34.4	44.01	-	-	74	-29.99	-	-	57	212	V
	* 1.125	46.63	MAv1	27.4	-34.4	39.63	54	-14.37	-	-	-	-	57	212	V
4	* 5.447	48.42	PK2	35.4	-18.7	65.12	-	-	74	-8.88	-	-	173	200	H
	* 5.451	36.65	MAv1	35.4	-18.7	53.35	54	-65	-	-	-	-	173	200	H
5	* 5.448	48.82	PK2	35.4	-18.7	65.52	-	-	74	-8.48	-	-	356	392	V
	* 5.448	36.61	MAv1	35.4	-18.7	53.31	54	-69	-	-	-	-	356	392	V
6	10	33.48	Pk	36.9	-24.1	46.28	-	-	-	-	-	-	0-360	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.1	47.99	PK2	27.1	-34.4	40.69	-	-	74	-33.31	-	-	26	102	H
	* 1.1	39.16	MAv1	27.1	-34.4	31.86	54	-22.14	-	-	-	-	26	102	H
2	* 1.125	47.76	PK2	27.4	-34.4	40.76	-	-	74	-33.24	-	-	106	105	H
	* 1.125	40.7	MAv1	27.4	-34.4	33.7	54	-20.3	-	-	-	-	106	105	H
3	* 1.125	47.03	PK2	27.4	-34.4	40.03	-	-	74	-33.97	-	-	51	222	V
	* 1.125	39.64	MAv1	27.4	-34.4	32.64	54	-21.36	-	-	-	-	51	222	V
5	* 5.451	48.49	PK2	35.4	-18.7	65.19	-	-	74	-8.81	-	-	205	106	V
	* 5.453	36.75	MAv1	35.4	-18.7	53.45	54	-5.55	-	-	-	-	205	106	V
4	5.461	40.9	Pk	35.4	-18.7	57.6	-	-	-	-	-	-	0-360	100	H
6	10	34.46	Pk	36.9	-24.1	47.26	-	-	-	-	-	-	0-360	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

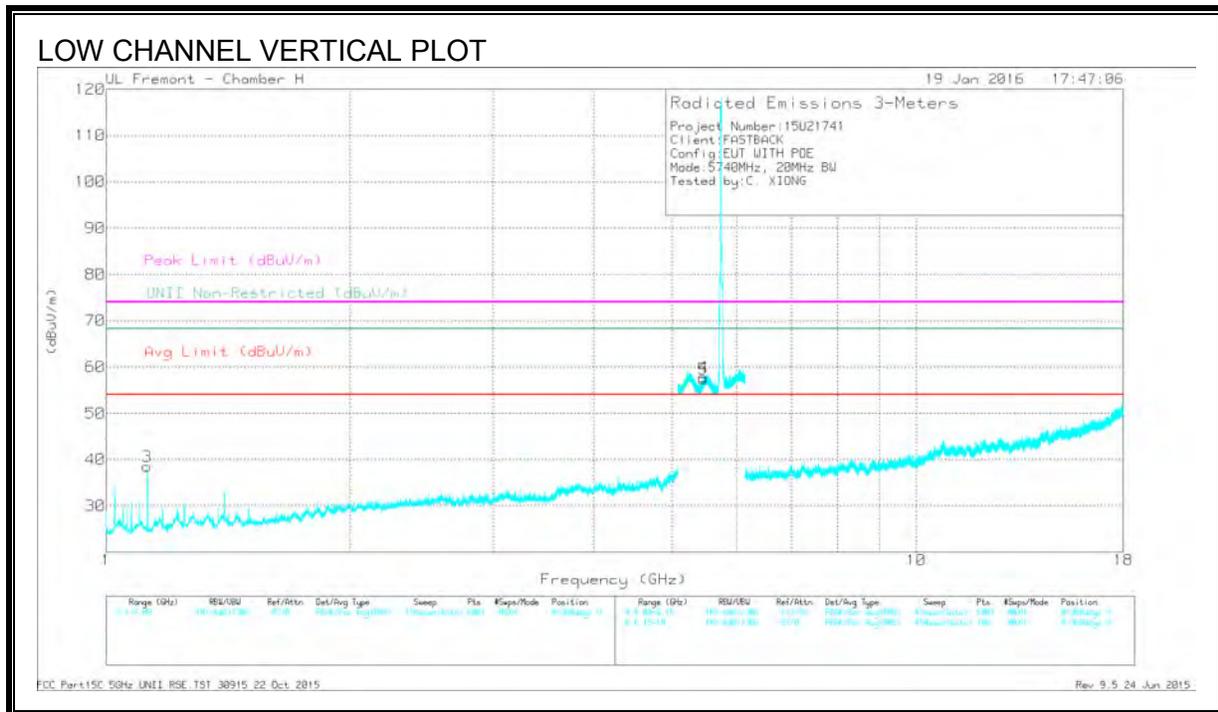
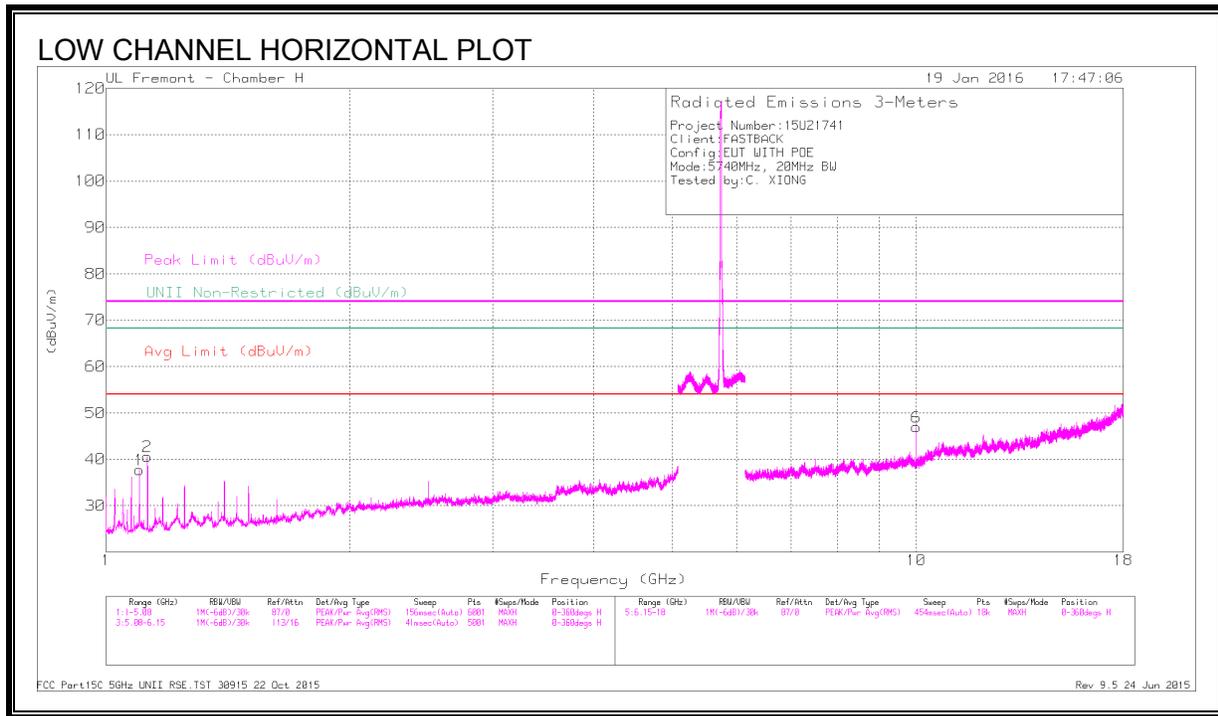
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.2.2. TX ABOVE 1 GHz 20MHz BW 4TX MODE IN THE 5.8 GHz BAND

HARMONICS AND SPURIOUS EMISSIONS



DATA

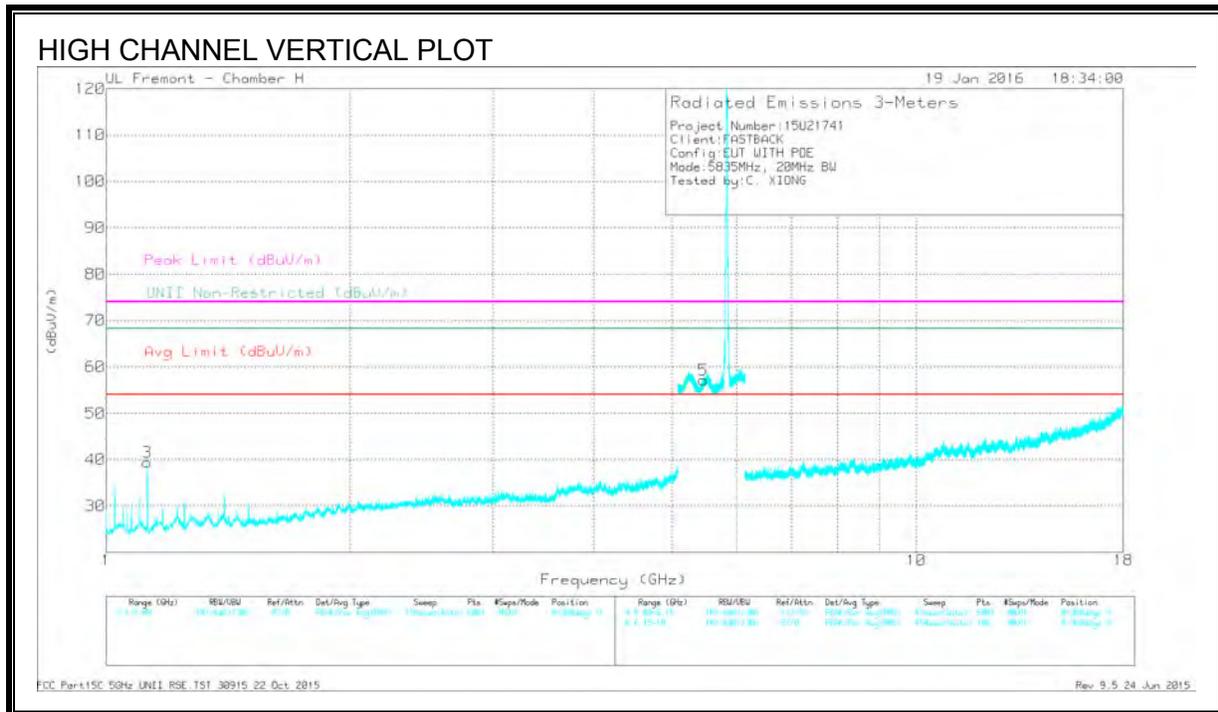
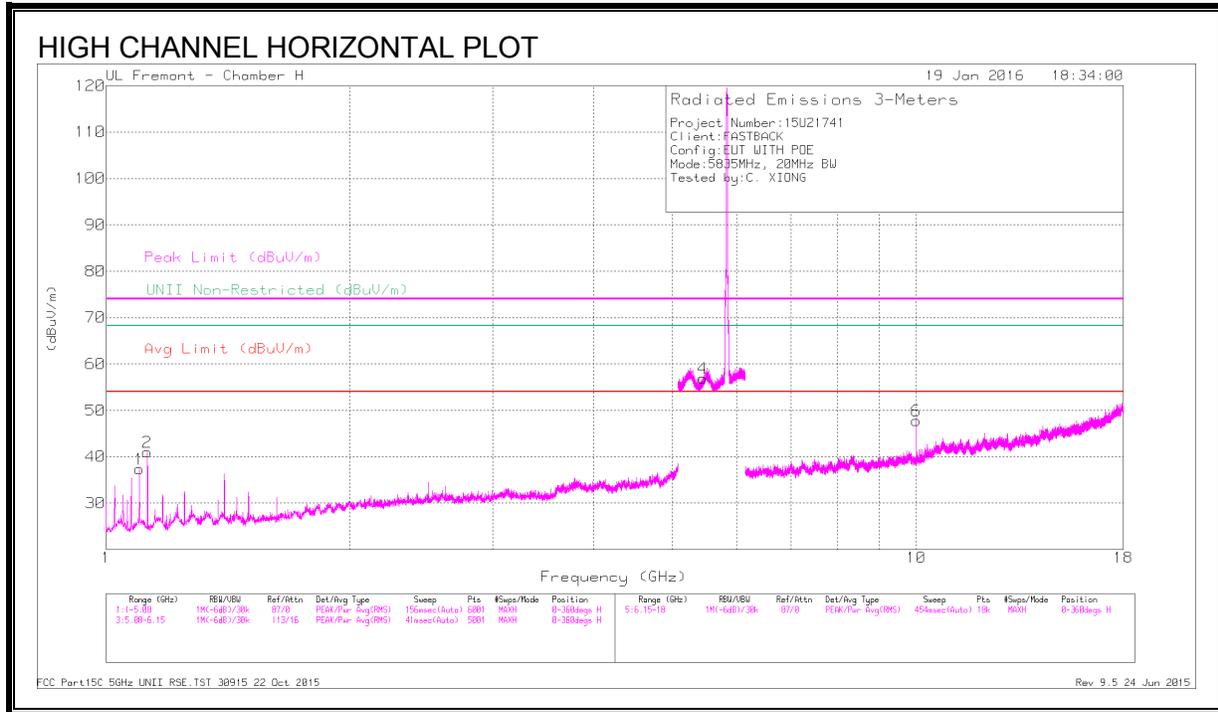
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.1	48.81	PK2	27.1	-34.4	41.51	-	-	74	-32.49	-	-	26	101	H
	* 1.1	43.04	MAv1	27.1	-34.4	35.74	54	-18.26	-	-	-	-	26	101	H
2	* 1.125	51.89	PK2	27.4	-34.4	44.89	-	-	74	-29.11	-	-	37	138	H
	* 1.125	47.58	MAv1	27.4	-34.4	40.58	54	-13.42	-	-	-	-	37	138	H
3	* 1.125	52.07	PK2	27.4	-34.4	45.07	-	-	74	-28.93	-	-	56	218	V
	* 1.125	47.42	MAv1	27.4	-34.4	40.42	54	-13.58	-	-	-	-	56	218	V
4	* 5.459	49.39	PK2	35.4	-18.7	66.09	-	-	74	-7.91	-	-	355	127	V
	* 5.459	36.94	MAv1	35.4	-18.7	53.64	54	-3.36	-	-	-	-	355	127	V
5	* 5.457	48.78	PK2	35.4	-18.7	65.48	-	-	74	-8.52	-	-	314	217	V
	* 5.457	36.85	MAv1	35.4	-18.7	53.55	54	-4.45	-	-	-	-	314	217	V
6	10	34.15	Pk	36.9	-24.1	46.95	-	-	-	-	-	-	0-360	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.1	48.8	PK2	27.1	-34.4	41.5	-	-	74	-32.5	-	-	27	100	H
	* 1.1	42.99	MAv1	27.1	-34.4	35.69	54	-18.31	-	-	-	-	27	100	H
2	* 1.125	51.76	PK2	27.4	-34.4	44.76	-	-	74	-29.24	-	-	33	141	H
	* 1.125	47.56	MAv1	27.4	-34.4	40.56	54	-13.44	-	-	-	-	33	141	H
3	* 1.125	51.5	PK2	27.4	-34.4	44.5	-	-	74	-29.5	-	-	54	216	V
	* 1.125	47.43	MAv1	27.4	-34.4	40.43	54	-13.57	-	-	-	-	54	216	V
4	* 5.453	48.91	PK2	35.4	-18.7	65.61	-	-	74	-8.39	-	-	54	216	H
	* 5.451	37.1	MAv1	35.4	-18.7	53.8	54	-.2	-	-	-	-	54	216	H
5	* 5.455	48.53	PK2	35.4	-18.7	65.23	-	-	74	-8.77	-	-	33	307	V
	* 5.454	36.81	MAv1	35.4	-18.7	53.51	54	-.49	-	-	-	-	33	307	V
6	10	34.98	Pk	36.9	-24.1	47.78	-	-	-	-	-	-	0-360	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

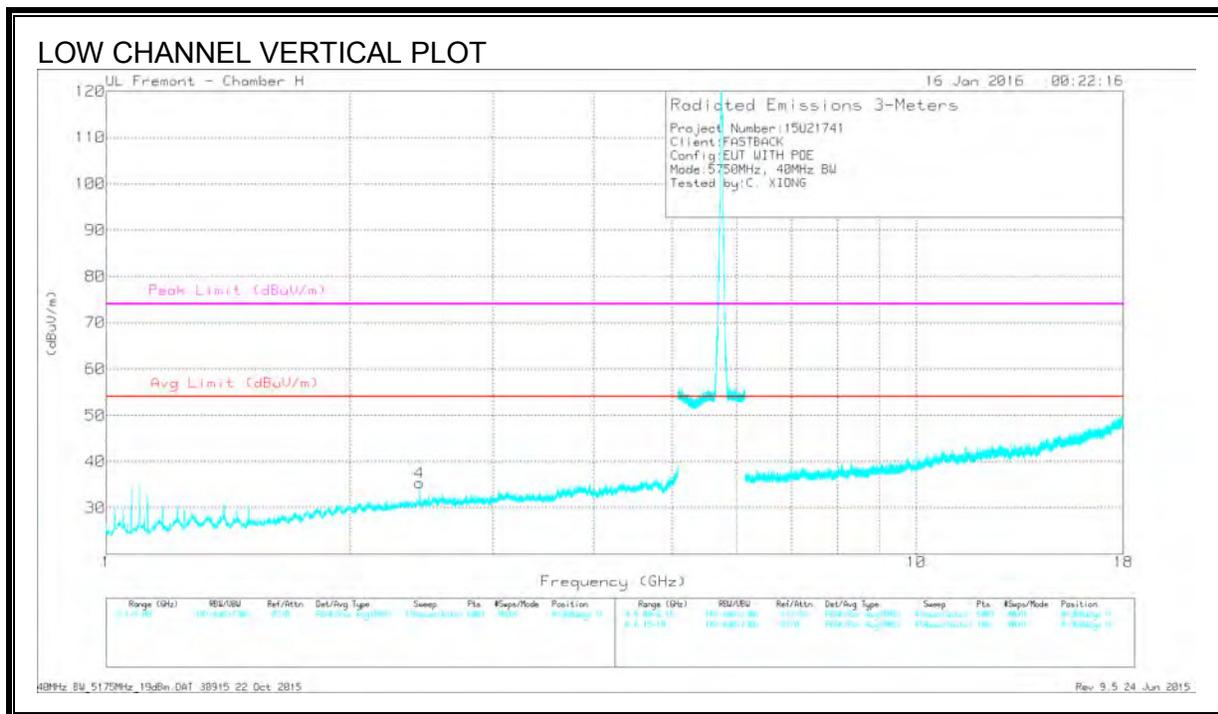
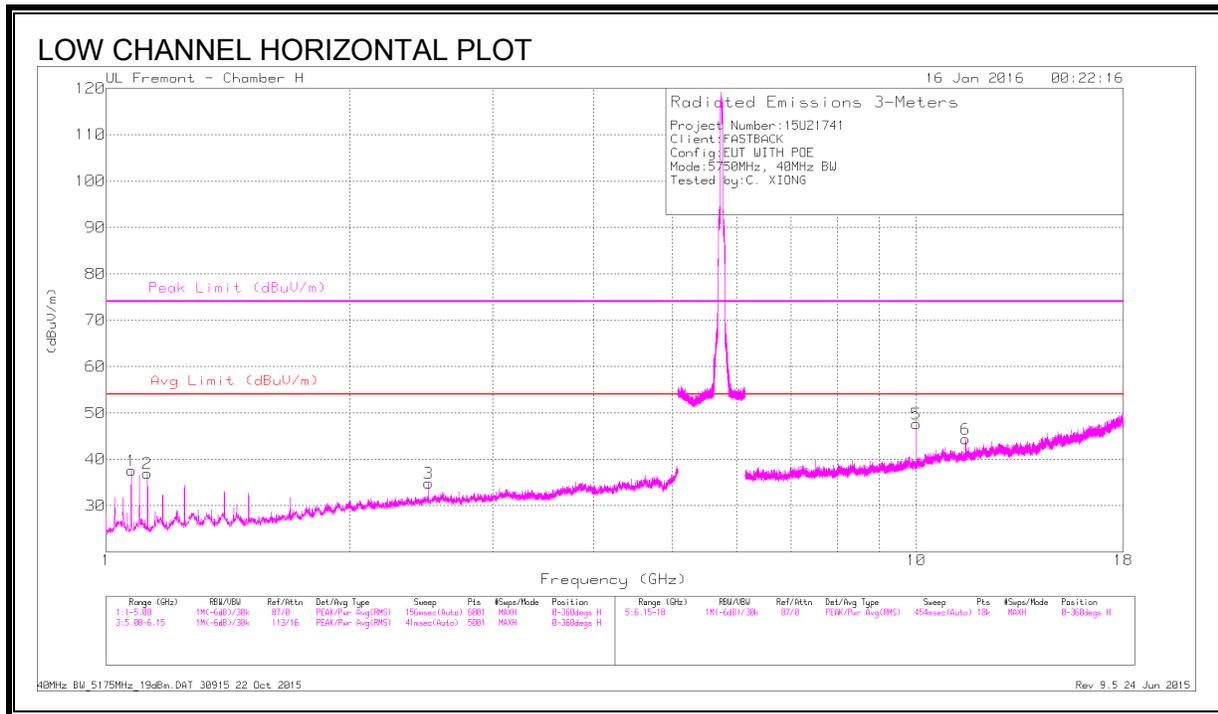
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.2.3. TX ABOVE 1 GHz 40MHz BW 4TX MODE IN THE 5.8 GHz BAND

HARMONICS AND SPURIOUS EMISSIONS



DATA

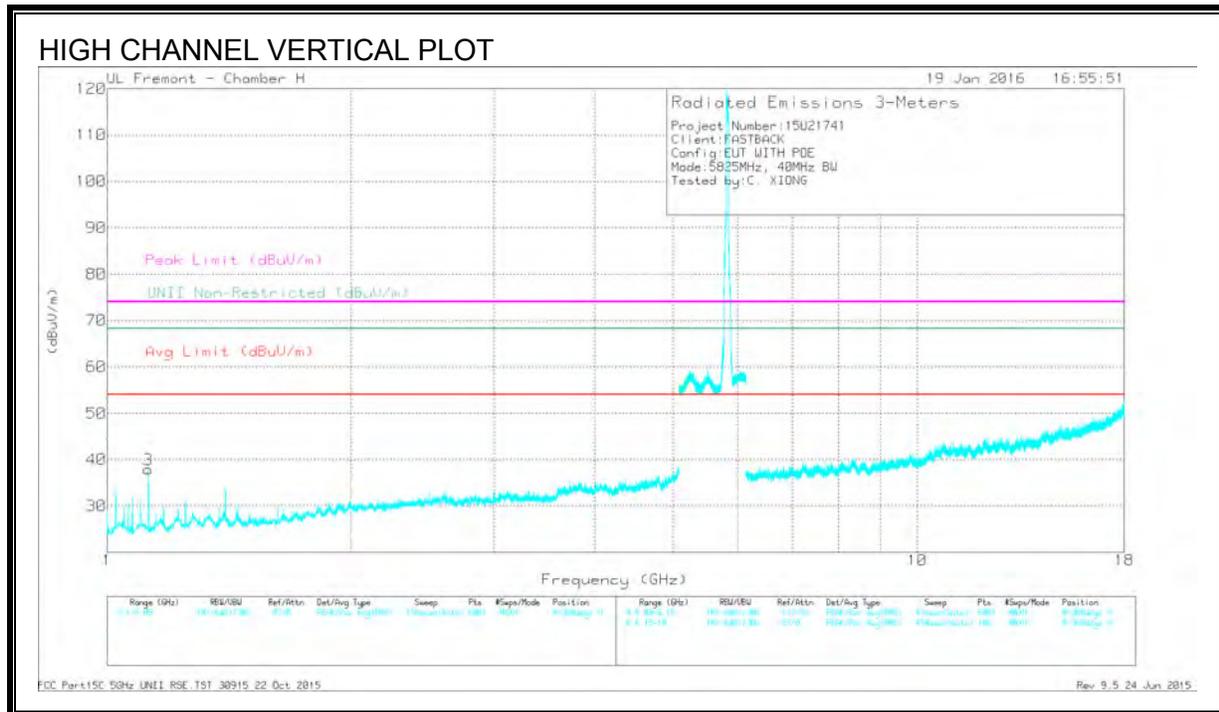
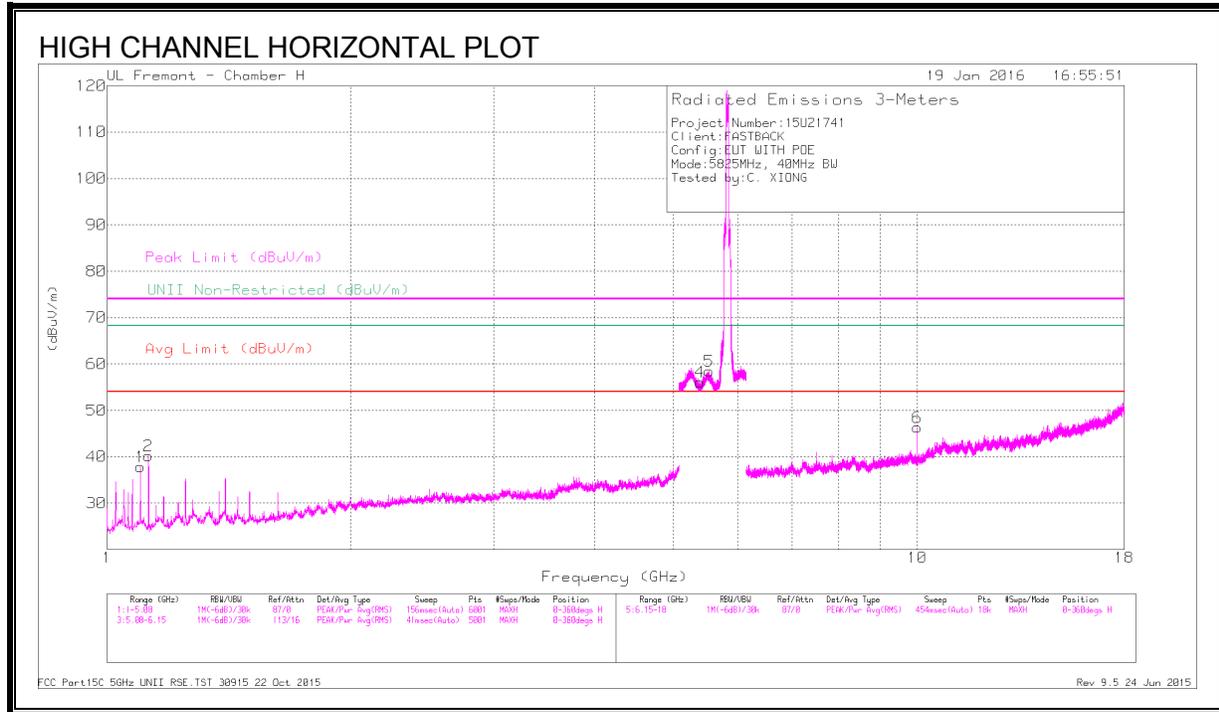
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.075	49.61	PK2	27.1	-34.3	42.41	-	-	74	-31.59	95	100	H
	* 1.075	44.51	MAv1	27.1	-34.3	37.31	54	-16.69	-	-	95	100	H
2	* 1.125	48.52	PK2	27.4	-34.4	41.52	-	-	74	-32.48	101	223	H
	* 1.125	41.55	MAv1	27.4	-34.4	34.55	54	-19.45	-	-	101	223	H
3	* 2.5	43.21	PK2	32.5	-33.3	42.41	-	-	74	-31.59	34	113	H
	* 2.5	33.74	MAv1	32.5	-33.3	32.94	54	-21.06	-	-	34	113	H
6	* 11.5	37.64	PK2	38	-23.4	52.24	-	-	74	-21.76	33	194	H
	* 11.5	29.75	MAv1	38	-23.4	44.35	54	-9.65	-	-	33	194	H
4	2.438	36.61	Pk	32.2	-33.4	35.41	-	-	-	-	0-360	200	V
5	10	34.82	Pk	36.9	-24.1	47.62	-	-	-	-	0-360	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/Filter/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.1	48.91	PK2	27.1	-34.4	41.61	-	-	74	-32.39	-	-	27	101	H
	* 1.1	43.08	MAv1	27.1	-34.4	35.78	54	-18.22	-	-	-	-	27	101	H
2	* 1.125	52.33	PK2	27.4	-34.4	45.33	-	-	74	-28.67	-	-	35	141	H
	* 1.125	47.87	MAv1	27.4	-34.4	40.87	54	-13.13	-	-	-	-	35	141	H
3	* 1.125	51.63	PK2	27.4	-34.4	44.63	-	-	74	-29.37	-	-	57	213	V
	* 1.125	47.13	MAv1	27.4	-34.4	40.13	54	-13.87	-	-	-	-	57	213	V
4	* 5.393	47.78	PK2	35.3	-18.6	64.48	-	-	74	-9.52	-	-	4	130	H
	* 5.392	35.69	MAv1	35.3	-18.6	52.39	54	-1.61	-	-	-	-	4	130	H
5	5.531	41.84	Pk	35.3	-18.7	58.44	-	-	-	-	-	-	0-360	100	H
6	10	33.6	Pk	36.9	-24.1	46.4	-	-	-	-	-	-	0-360	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

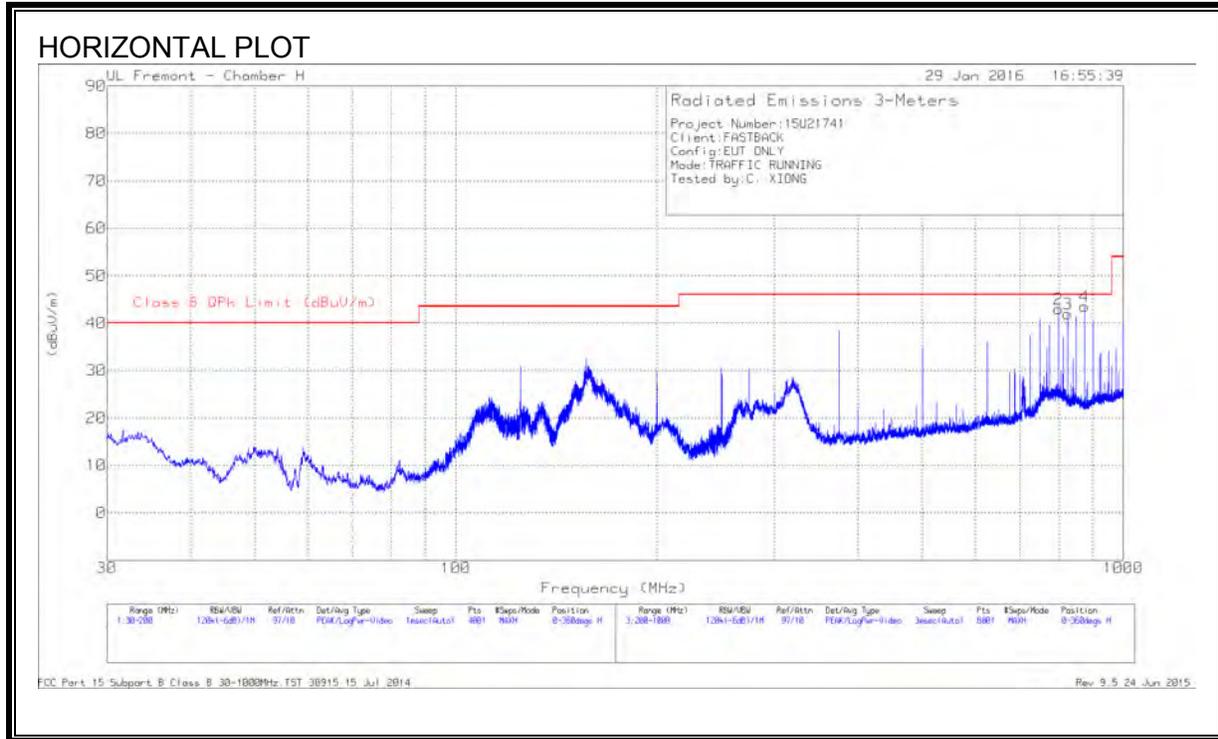
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

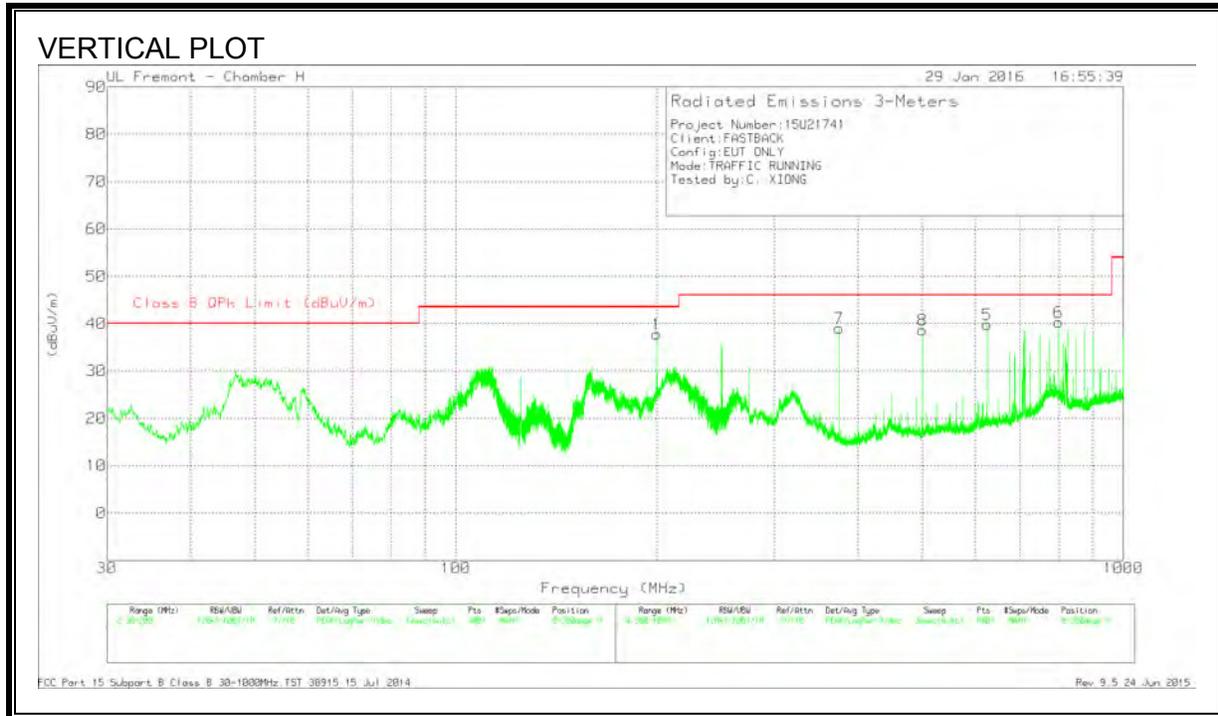
9.3. WORST-CASE BELOW 1 GHz

PoE setup:

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



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



DATA

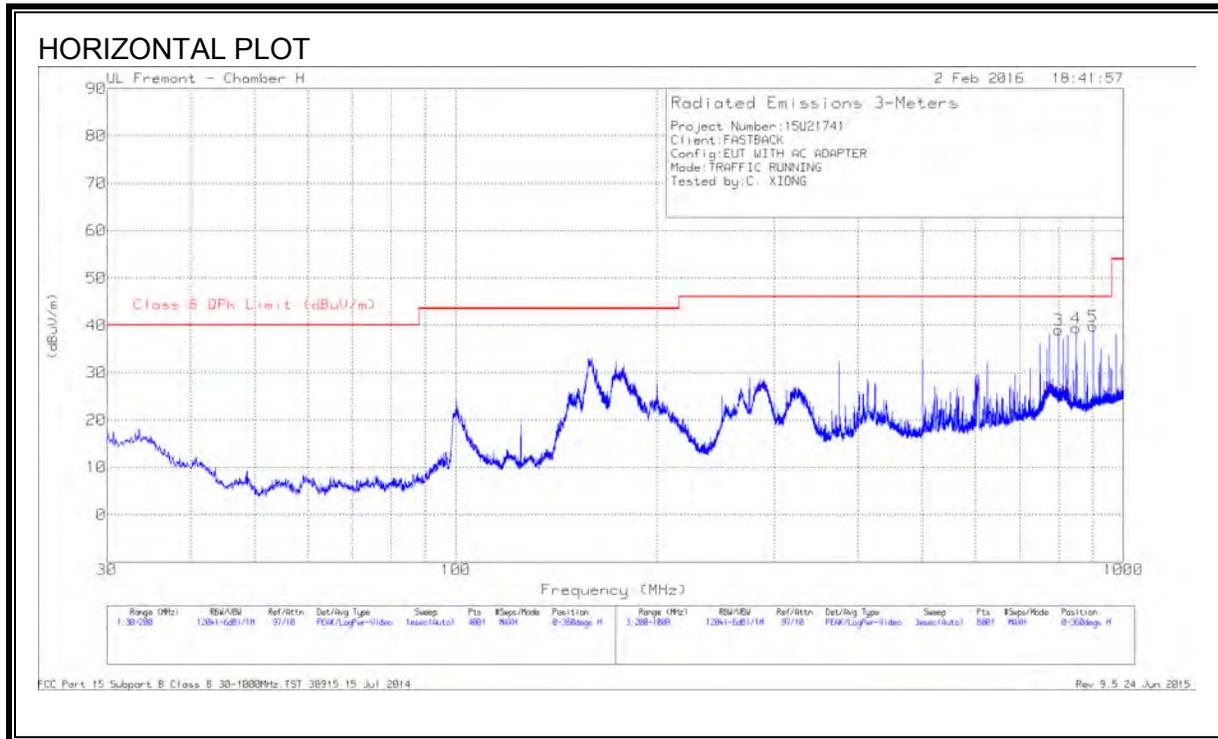
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T900 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	199.993	48	Qp	12.4	-29.8	30.6	43.52	-12.92	331	116	V
7	375	52.52	Pk	15.3	-28.8	39.02	46.02	-7	0-360	100	V
8	500	49.45	Pk	17.5	-28.3	38.65	46.02	-7.37	0-360	100	V
5	625	48.12	Pk	19.6	-27.9	39.82	46.02	-6.2	0-360	100	V
2	800.004	49.47	Qp	21.4	-27.4	43.47	46.02	-2.55	24	104	H
6	800.016	45.58	Qp	21.4	-27.4	39.58	46.02	-6.44	76	100	V
3	825.002	47.08	Qp	21.4	-27.1	41.38	46.02	-4.64	24	103	H
4	875.007	48.41	Qp	21.3	-26.7	43.01	46.02	-3.01	34	170	H

Pk - Peak detector

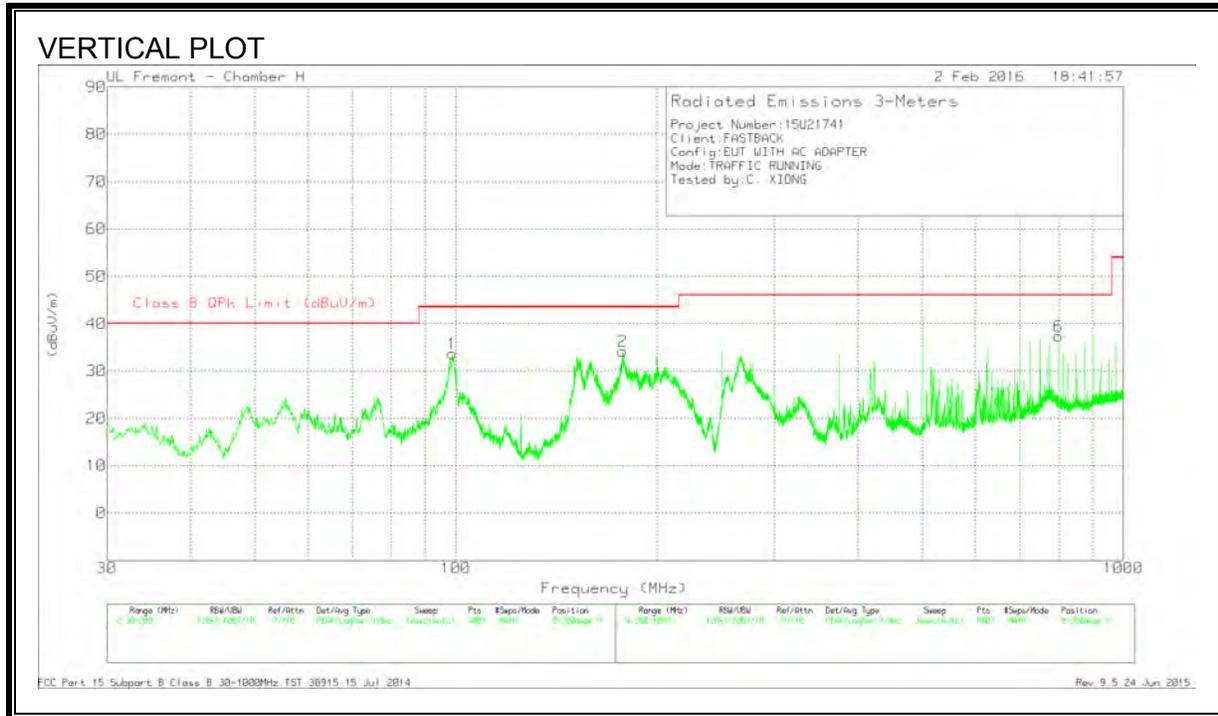
Qp - Quasi-Peak detector

AC mains setup:

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



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



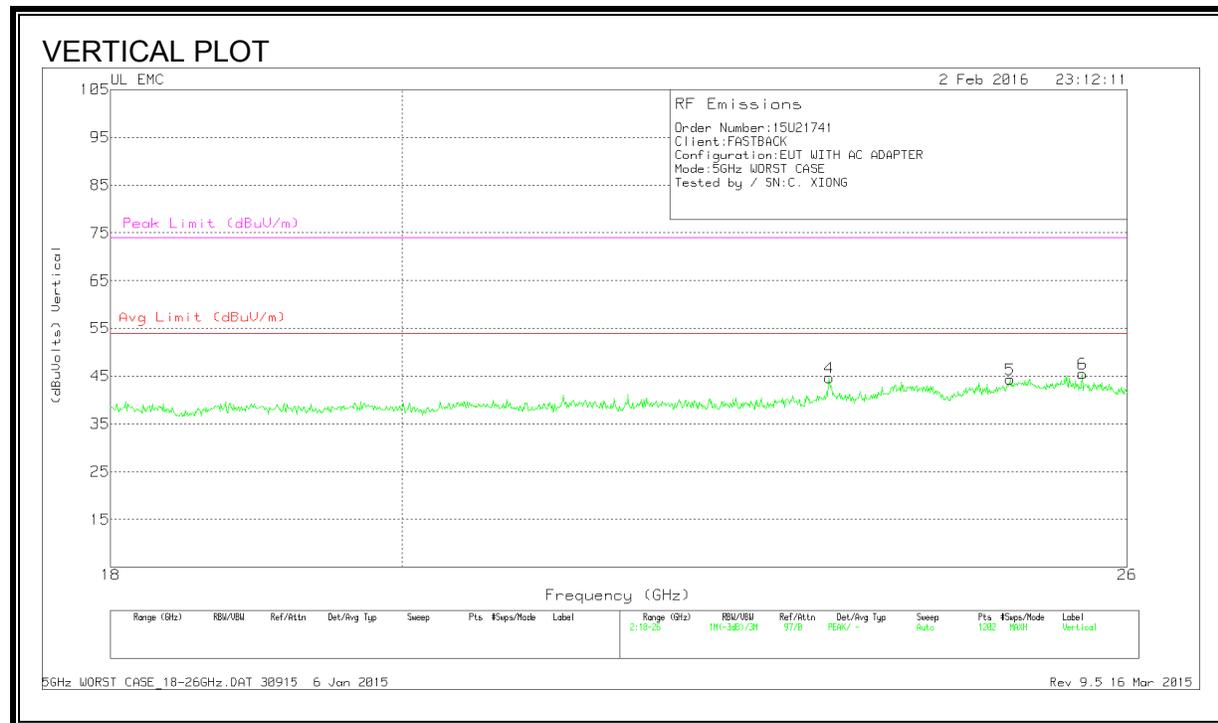
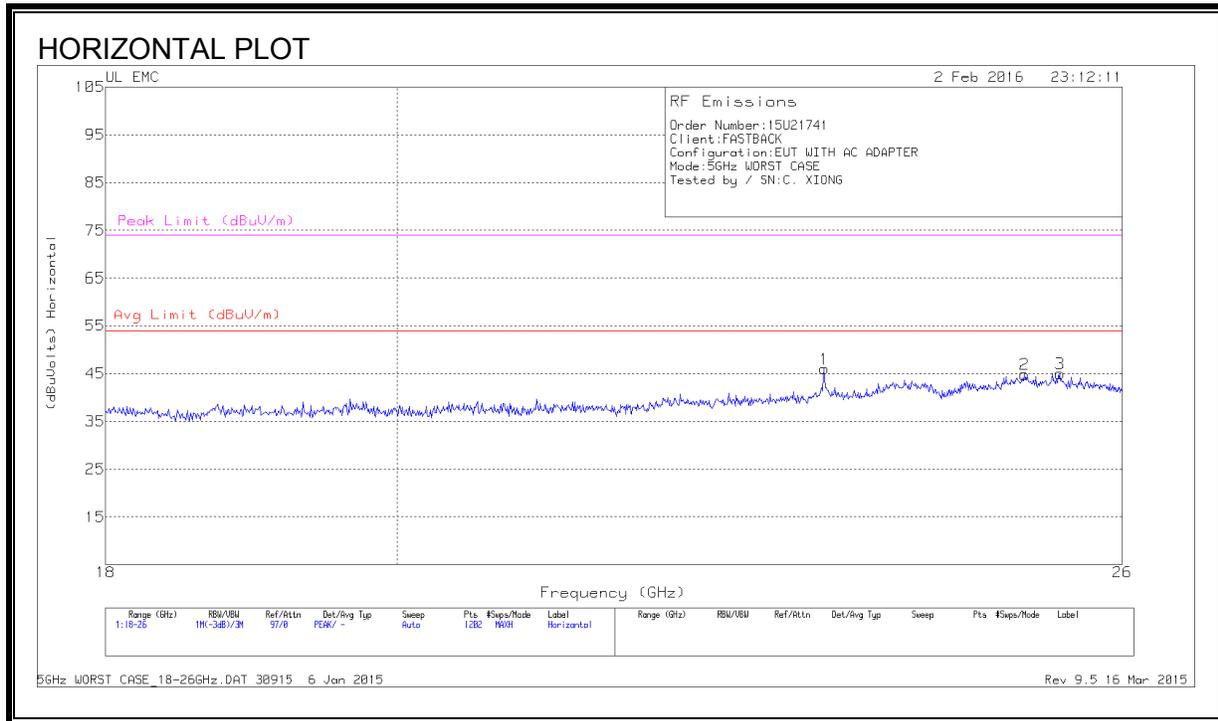
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T900 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	98.7225	54.34	Pk	9.8	-30.5	33.64	43.52	-9.88	0-360	100	V
2	177.985	52.54	Pk	11.5	-29.9	34.14	43.52	-9.38	0-360	100	V
3	800.3	44.96	Pk	21.4	-27.3	39.06	46.02	-6.96	0-360	201	H
6	800.3	43.25	Pk	21.4	-27.3	37.35	46.02	-8.67	0-360	100	V
4	850.3	44.37	Pk	22	-26.9	39.47	46.02	-6.55	0-360	201	H
5	900.3	44.02	Pk	22.3	-26.5	39.82	46.02	-6.2	0-360	100	H

Pk - Peak detector

9.4. WORST-CASE 18 to 26 GHz

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



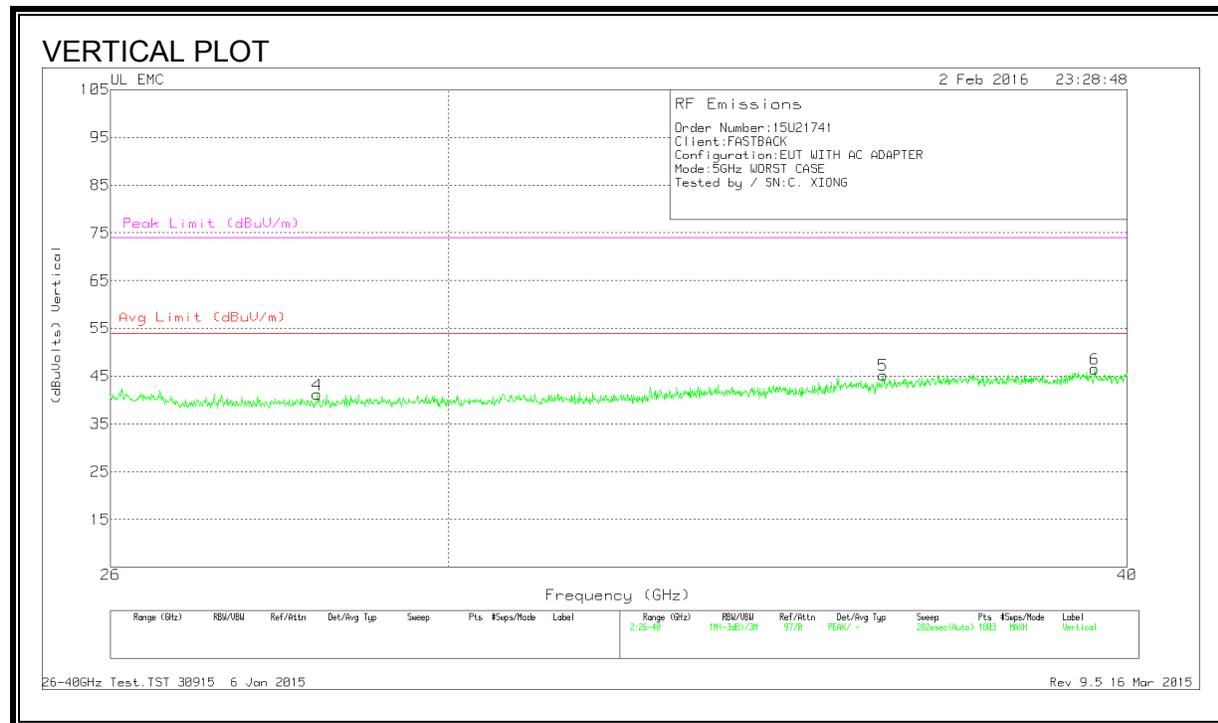
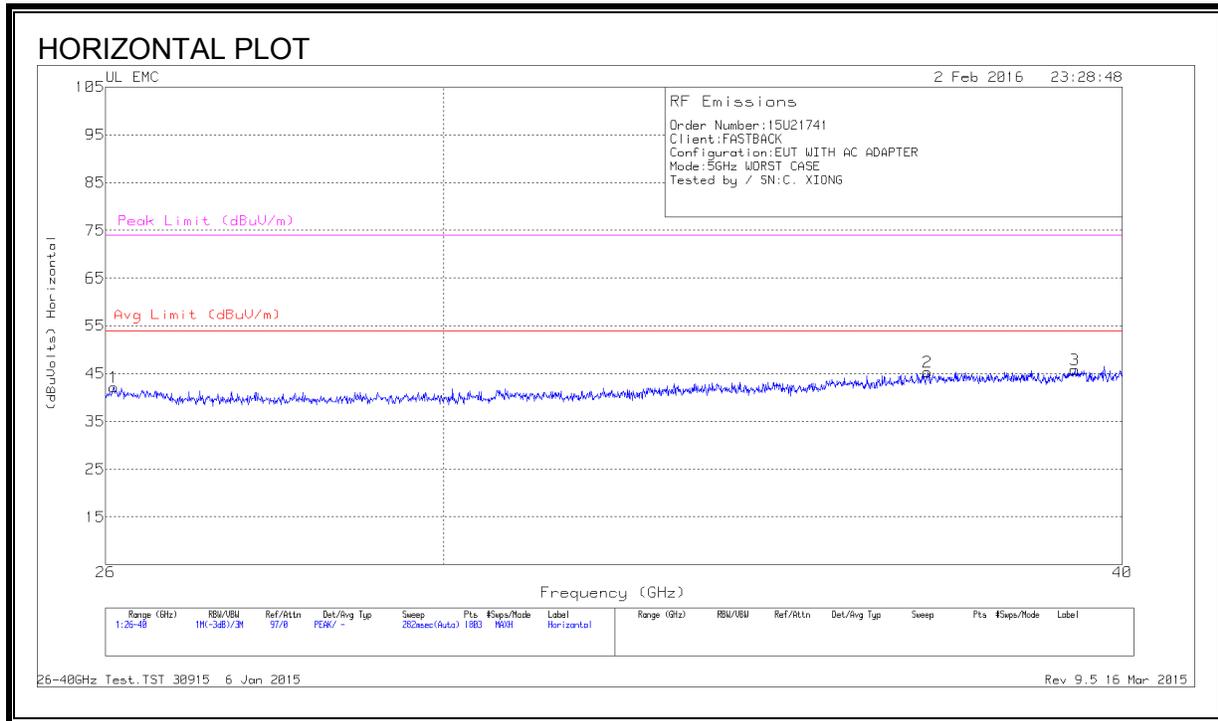
HORIZONTAL & VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T477 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	23.342	46.7	Pk	33.7	-24.9	-9.5	46	54	-8	74	-28
2	25.094	44.63	Pk	34.2	-24.5	-9.5	44.83	54	-9.166	74	-29.16
3	25.42	44.6	Pk	34.2	-24.3	-9.5	45	54	-9	74	-29
4	23.342	45.37	Pk	33.7	-24.9	-9.5	44.66	54	-9.33	74	-29.33
5	24.921	44.03	Pk	34	-24.2	-9.5	44.33	54	-9.66	74	-29.66
6	25.58	45.8	Pk	34.3	-25.1	-9.5	45.5	54	-8.5	74	-28.5

Pk - Peak detector

9.5. WORST-CASE 26 to 40 GHz

SPURIOUS EMISSIONS 26 TO 40 GHz (WORST-CASE CONFIGURATION)



HORIZONTAL & VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T90 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	26.089	46.27	Pk	35.6	-30.2	-9.5	42.166	54	-11.833	74	-31.833
2	36.83	50.63	Pk	37.1	-32.9	-9.5	45.333	54	-8.666	74	-28.666
3	39.2	49.23	Pk	38.3	-32.2	-9.5	45.833	54	-8.166	74	-28.166
4	28.377	46.47	Pk	35.8	-31.6	-9.5	41.166	54	-12.833	74	-32.833
5	36.069	50.57	Pk	37.2	-33.1	-9.5	45.166	54	-8.833	74	-28.833
6	39.448	50.1	Pk	37.6	-31.7	-9.5	46.5	54	-7.5	74	-27.5

Pk - Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

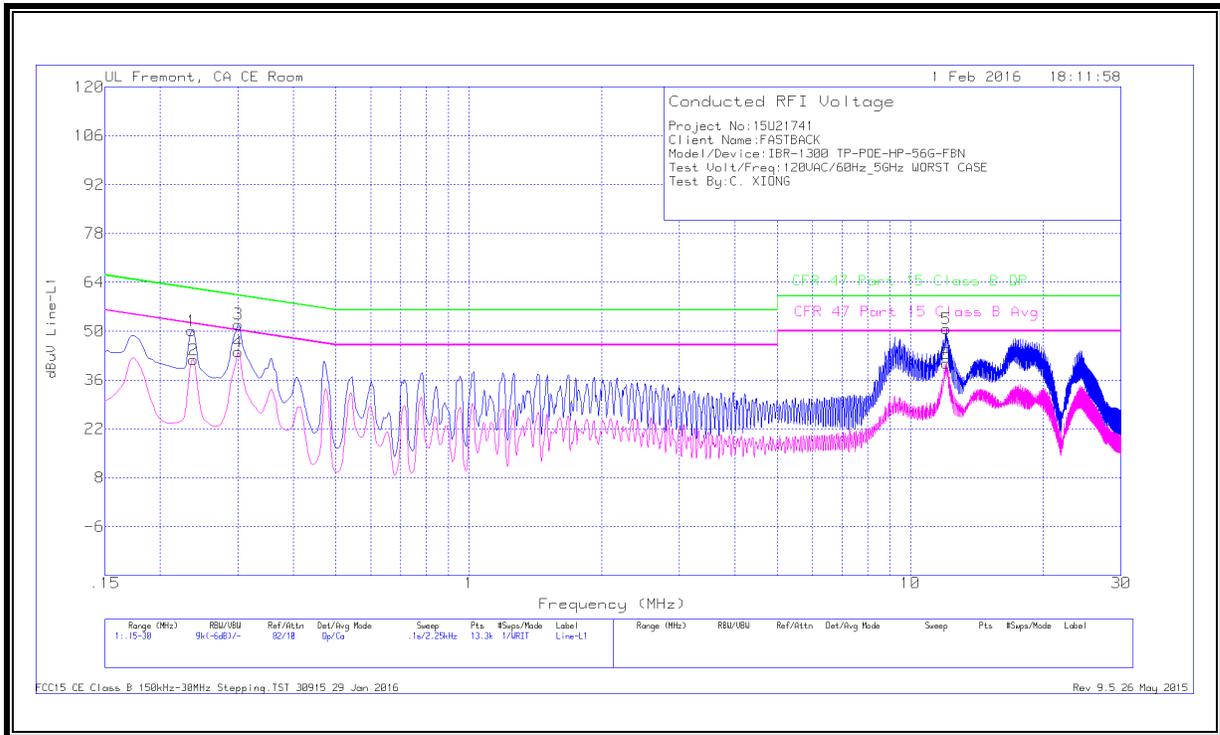
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines

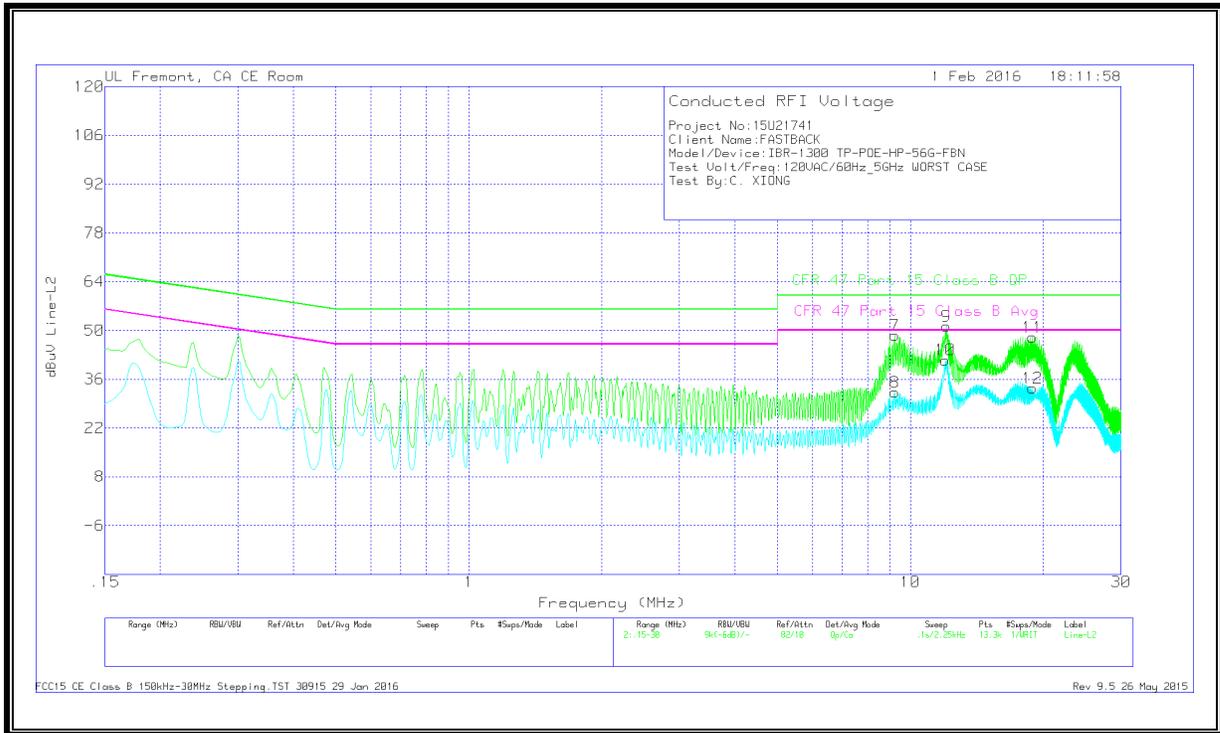
RESULTS

Model IBR-1300-NA (PoE Option) setup:

LINE 1 RESULTS



LINE 2 RESULTS



DATA

Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L1	LC Cables 1&3	10dB Pad	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
1	.2355	40.21	Qp	0	0	10	50.21	62.25	-12.04	-	-
2	.23775	31.77	Ca	0	0	10	41.77	-	-	52.17	-10.4
3	.30075	42	Qp	0	0	10	52	60.22	-8.22	-	-
4	.30075	34.05	Ca	0	0	10	44.05	-	-	50.22	-6.17
5	12.066	40.32	Qp	.1	.2	10	50.62	60	-9.38	-	-
6	12.066	30.48	Ca	.1	.2	10	40.78	-	-	50	-9.22

Range 2: Line-L2 .15 - 30MHz

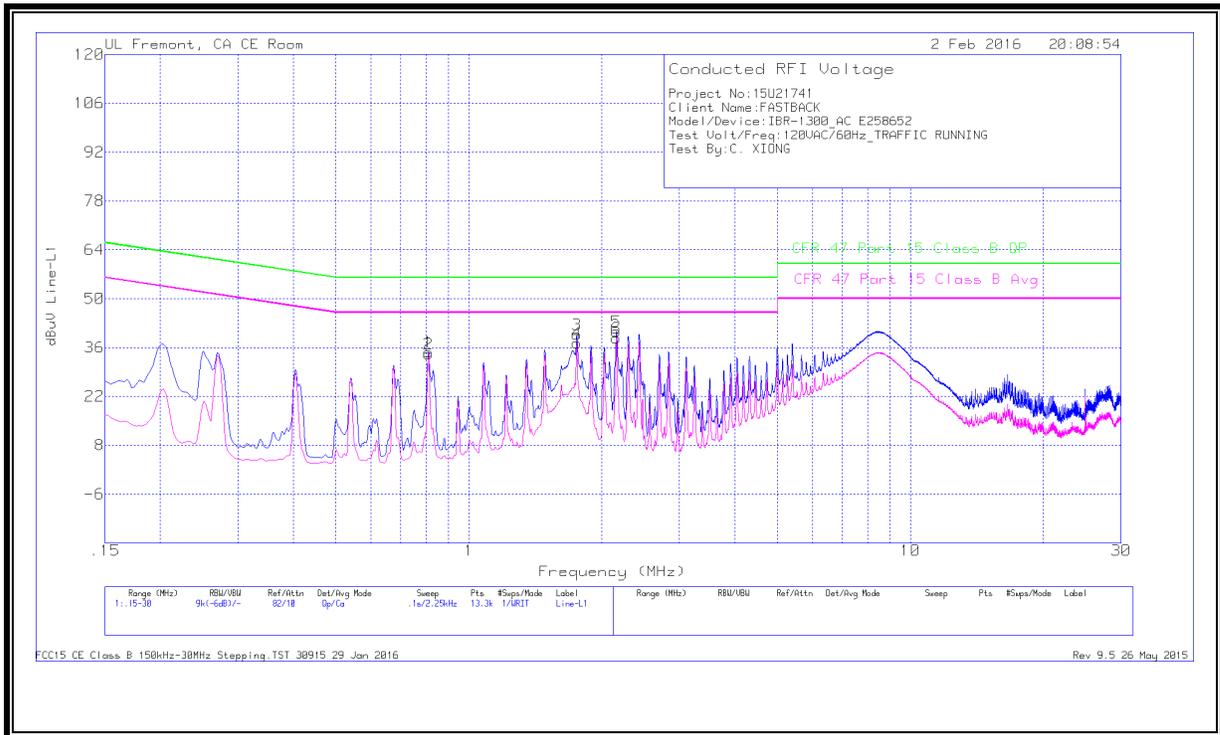
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L2	LC Cables 2&3	10dB Pad	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
7	9.231	38.45	Qp	0	.1	10	48.55	60	-11.45	-	-
8	9.22875	22.18	Ca	0	.1	10	32.28	-	-	50	-17.72
9	12.06375	40.98	Qp	0	.2	10	51.18	60	-8.82	-	-
10	11.994	31.37	Ca	0	.2	10	41.57	-	-	50	-8.43
11	18.88125	37.87	Qp	0	.2	10	48.07	60	-11.93	-	-
12	18.88125	23.32	Ca	0	.2	10	33.52	-	-	50	-16.48

Qp - Quasi-Peak detector

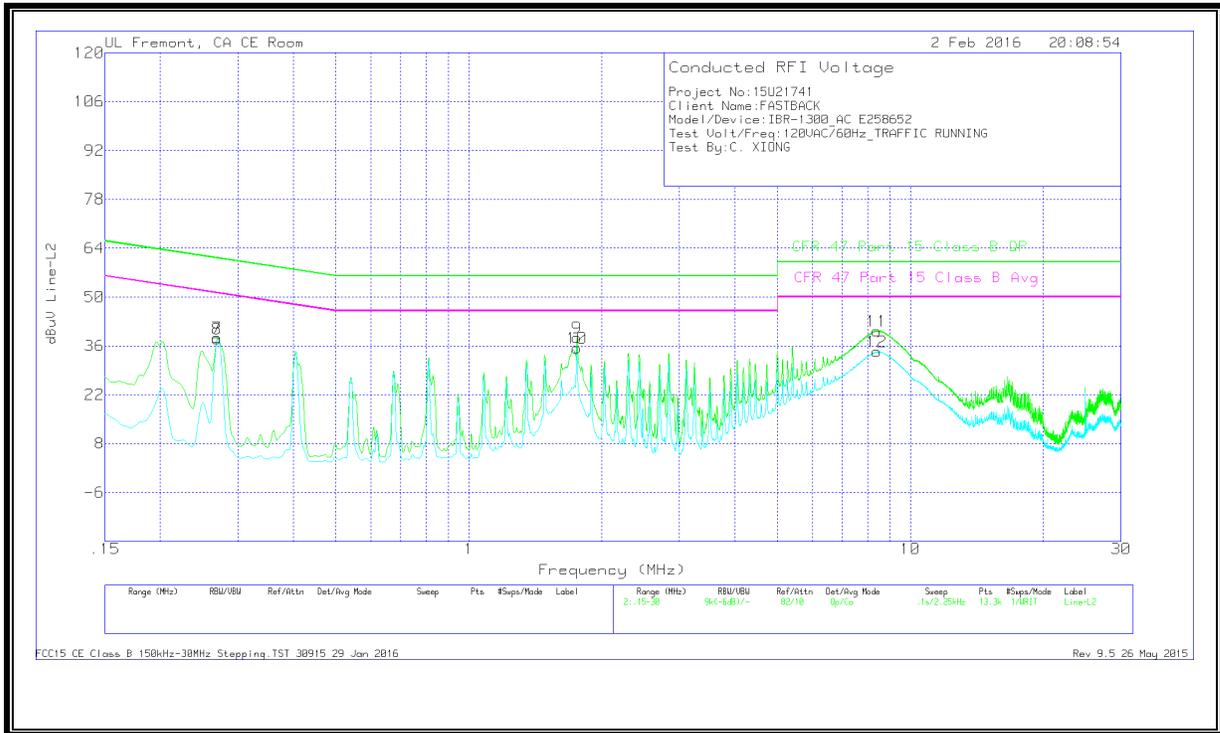
Ca - CISPR average detection

Model IBR-1301-NA (AC Option) setup:

LINE 1 RESULTS



LINE 2 RESULTS



DATA

Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L1	LC Cables 1&3	10dB Pad	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
1	.80925	24.7	Qp	0	0	10	34.7	56	-21.3	-	-
2	.80925	24.19	Ca	0	0	10	34.19	-	-	46	-11.81
3	1.7565	29.58	Qp	0	.1	10	39.68	56	-16.32	-	-
4	1.75425	27.18	Ca	0	.1	10	37.28	-	-	46	-8.72
5	2.15925	30.51	Qp	0	.1	10	40.61	56	-15.39	-	-
6	2.15925	28.59	Ca	0	.1	10	38.69	-	-	46	-7.31

Qp - Quasi-Peak detector

Ca - CISPR average detection

Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L2	LC Cables 2&3	10dB Pad	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
7	.26925	28.41	Qp	0	0	10	38.41	61.14	-22.73	-	-
8	.26925	27.95	Ca	0	0	10	37.95	-	-	51.14	-13.19
9	1.7565	28.21	Qp	0	.1	10	38.31	56	-17.69	-	-
10	1.7565	25.32	Ca	0	.1	10	35.42	-	-	46	-10.58
11	8.39625	30.21	Qp	0	.1	10	40.31	60	-19.69	-	-
12	8.385	24.22	Ca	0	.1	10	34.32	-	-	50	-15.68

Qp - Quasi-Peak detector

Ca - CISPR average detection

FCC15 CE Class B 150kHz-30MHz Stepping.TST 30915 29 Jan 2016

Rev 9.5 26 May 2015