

9.3. 11g 2TX CDD MIMO MODE IN THE 2.4GHZ BAND

9.3.1. 6 dB BANDWIDTH

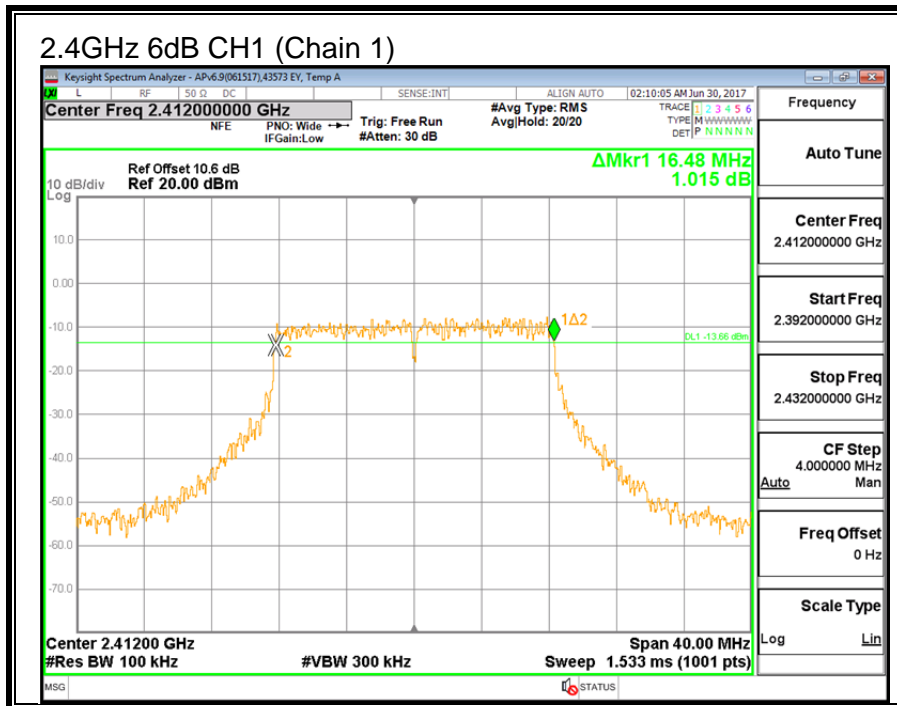
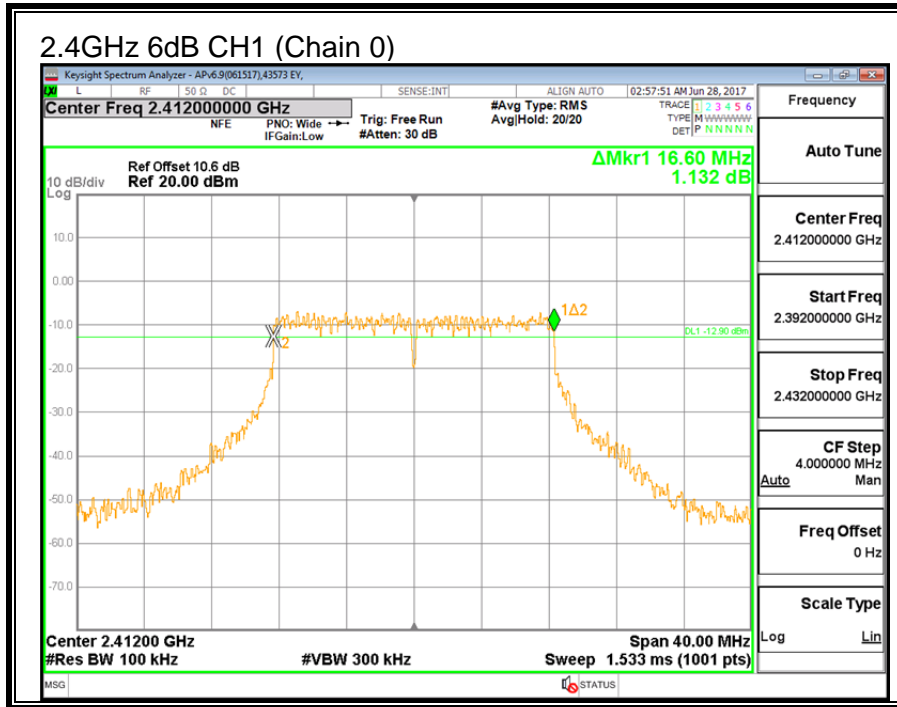
LIMITS

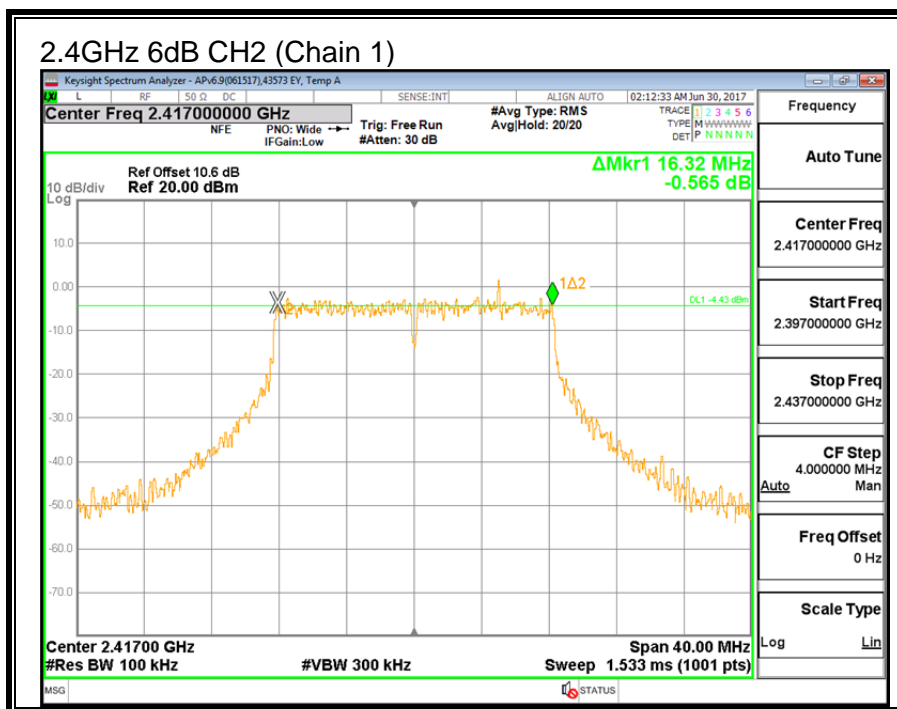
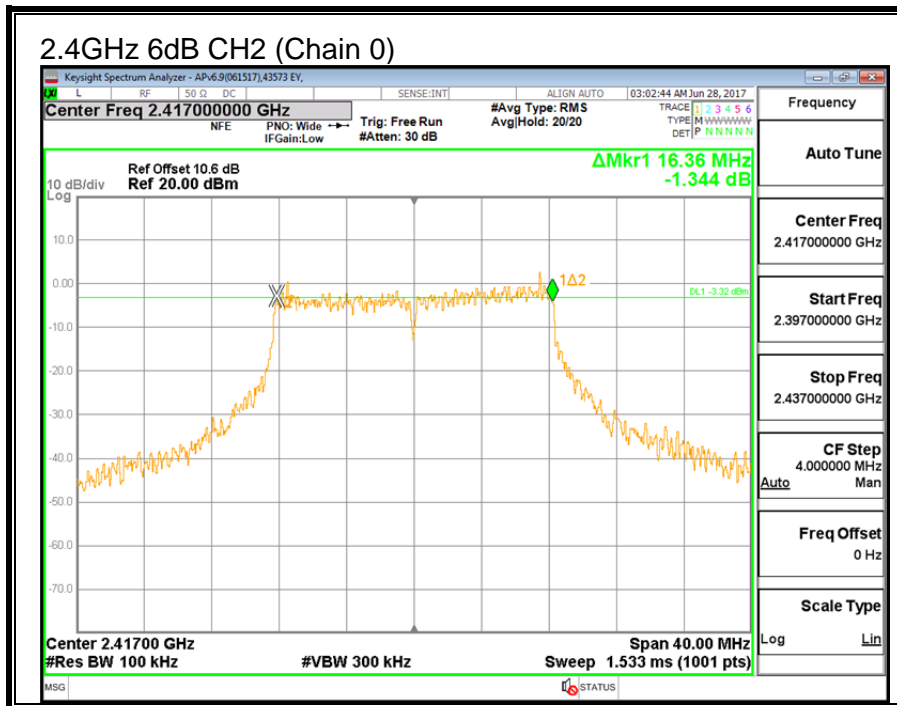
FCC §15.247 (a) (2)

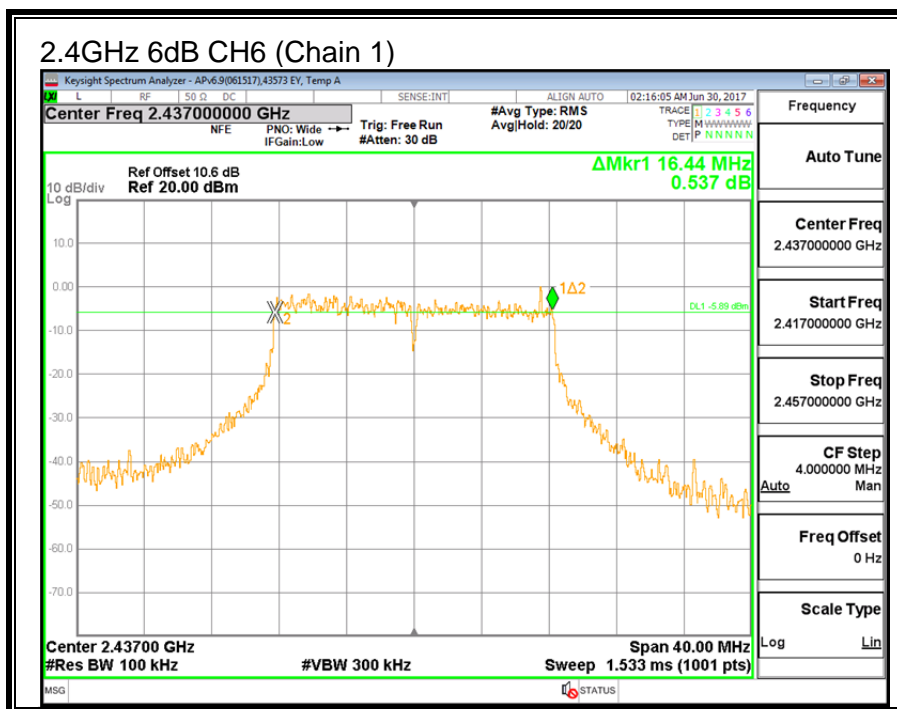
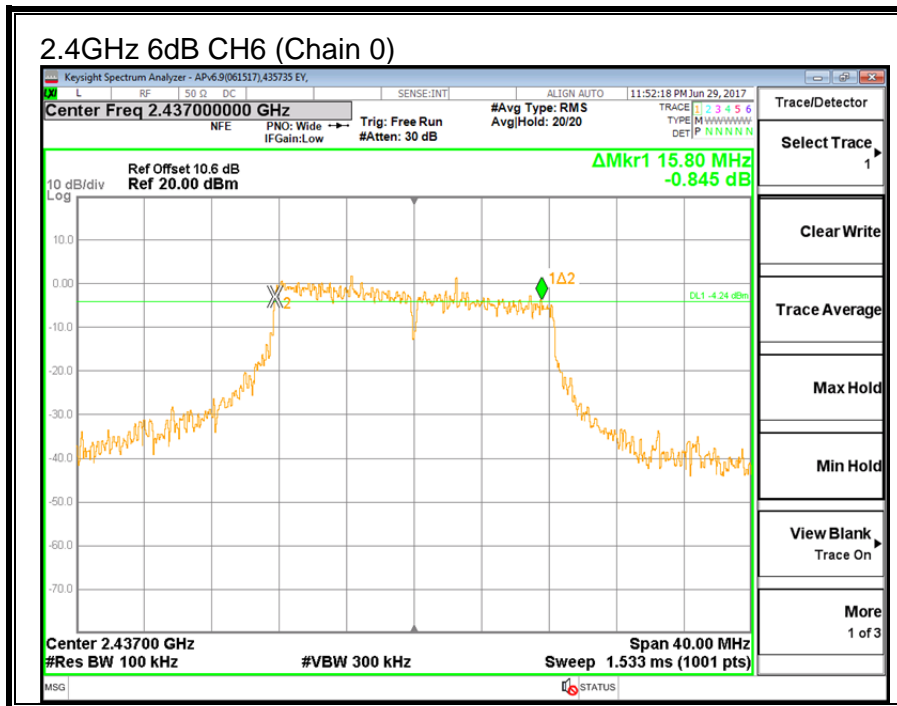
The minimum 6 dB bandwidth shall be at least 500 kHz.

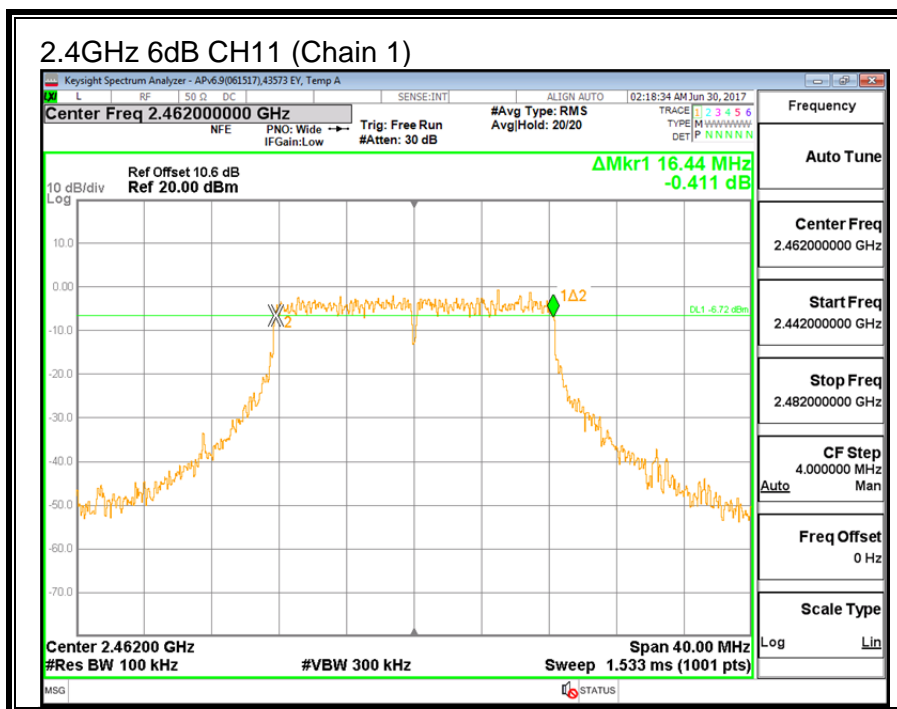
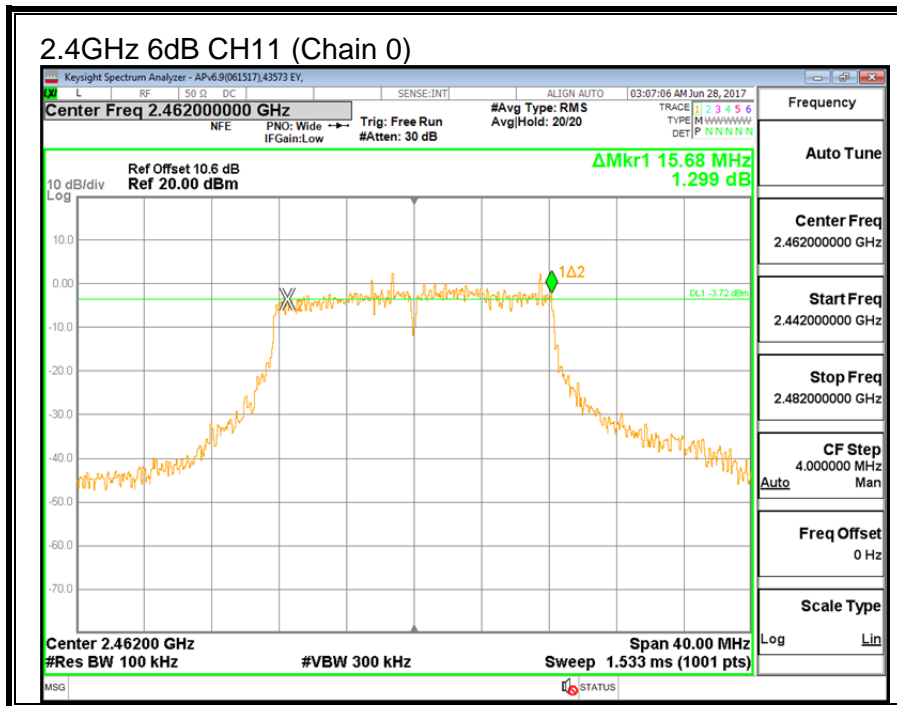
RESULTS

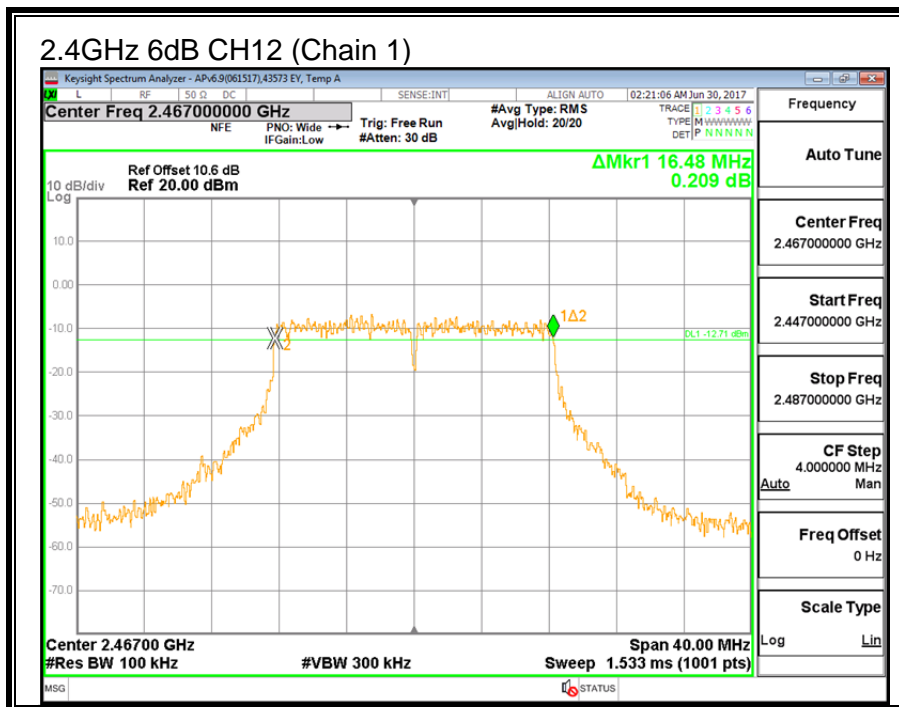
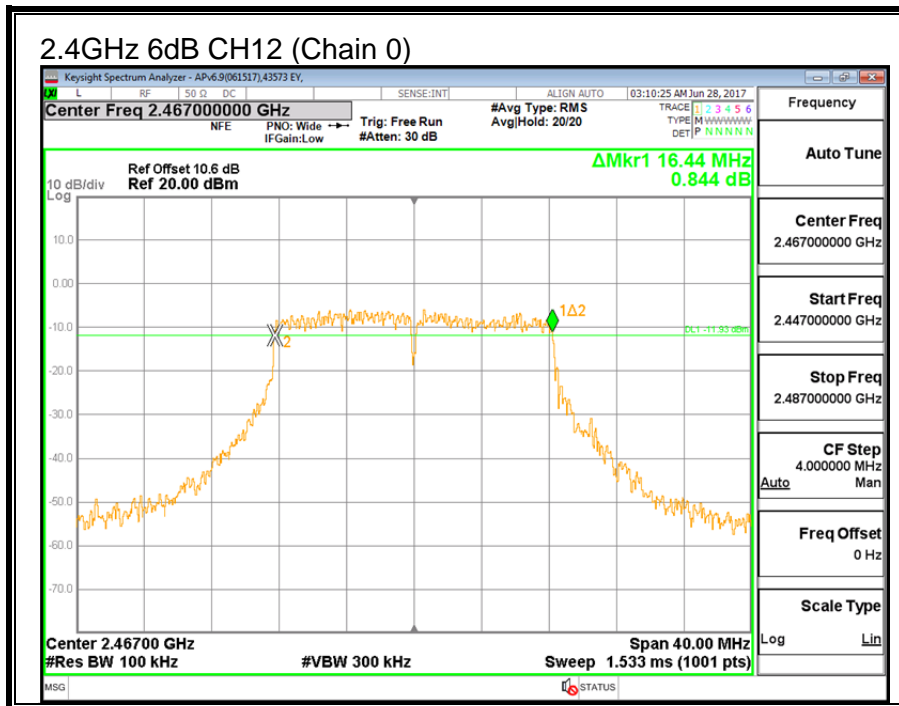
Channel	Frequency	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
CH1	2412	16.60	16.48	0.5
CH2	2417	16.36	16.32	0.5
CH6	2437	15.80	16.44	0.5
CH11	2462	15.68	16.44	0.5
CH12	2467	16.44	16.48	0.5
CH13	2472	16.48	16.48	0.5

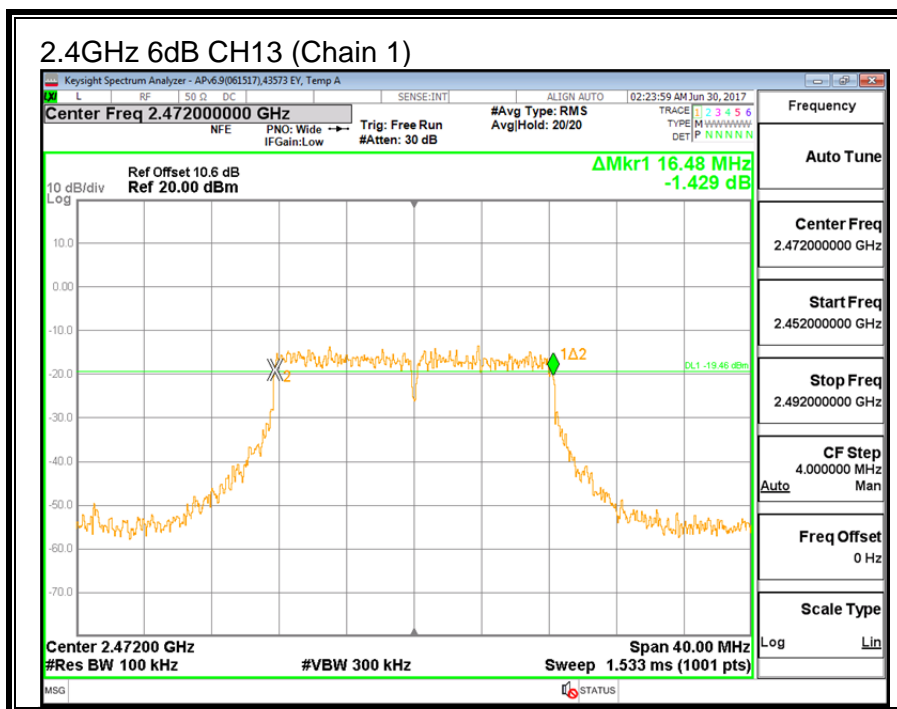
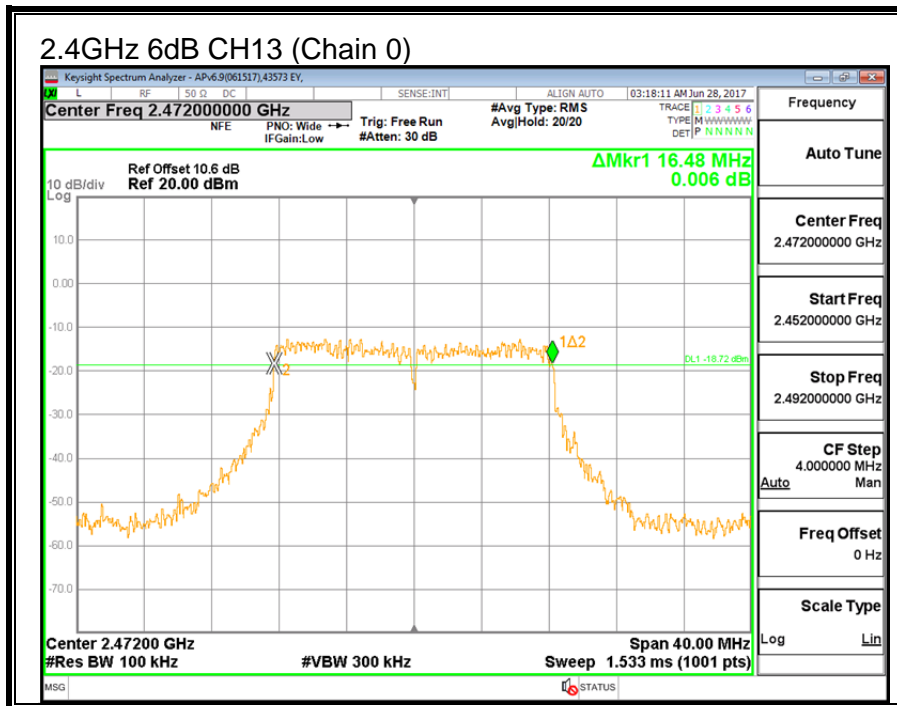












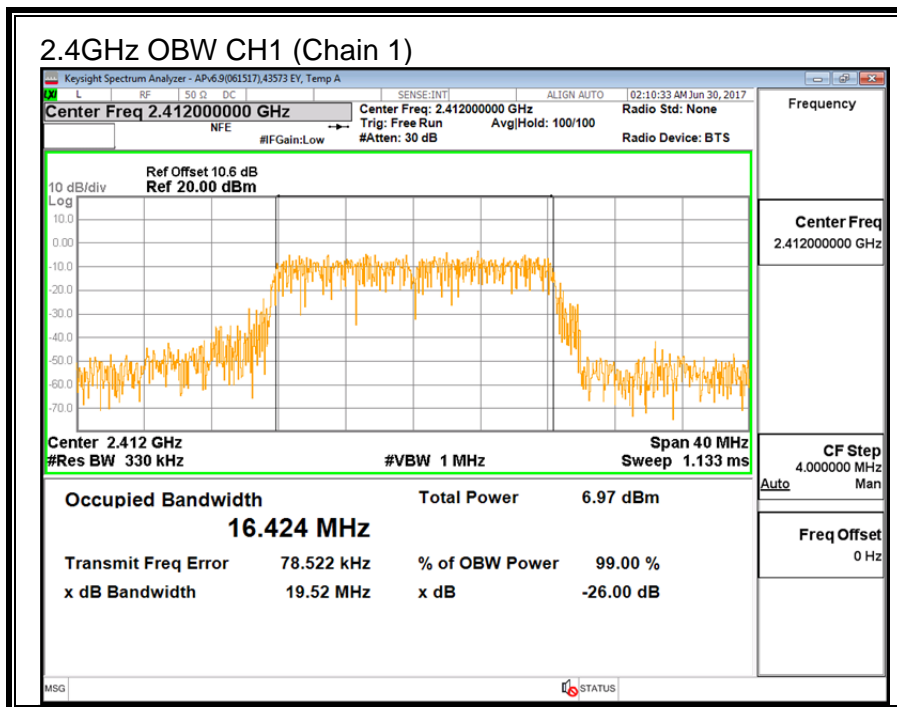
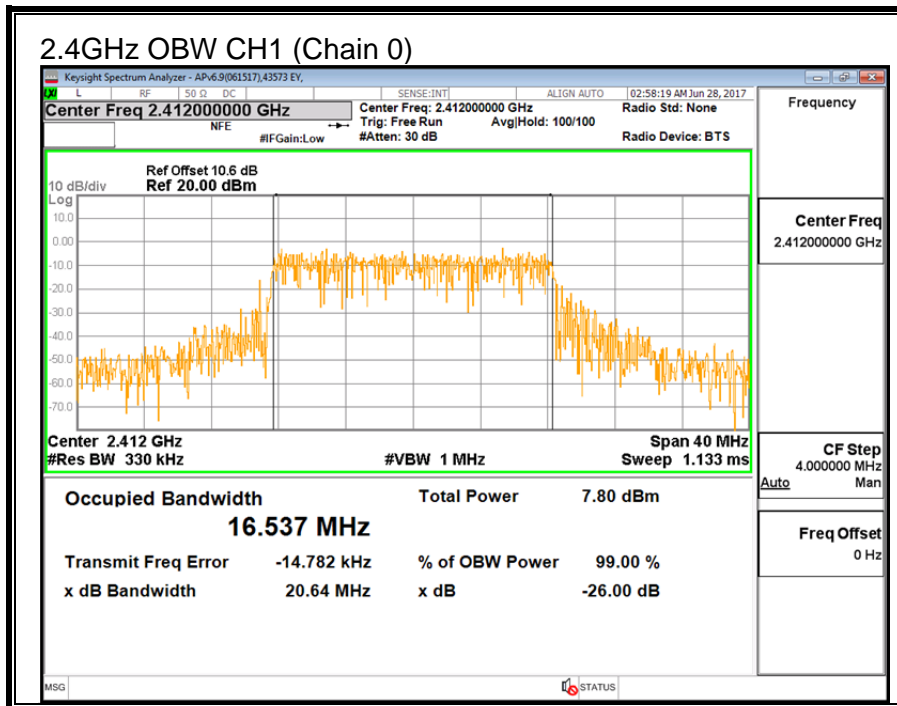
9.3.2. 99% BANDWIDTH

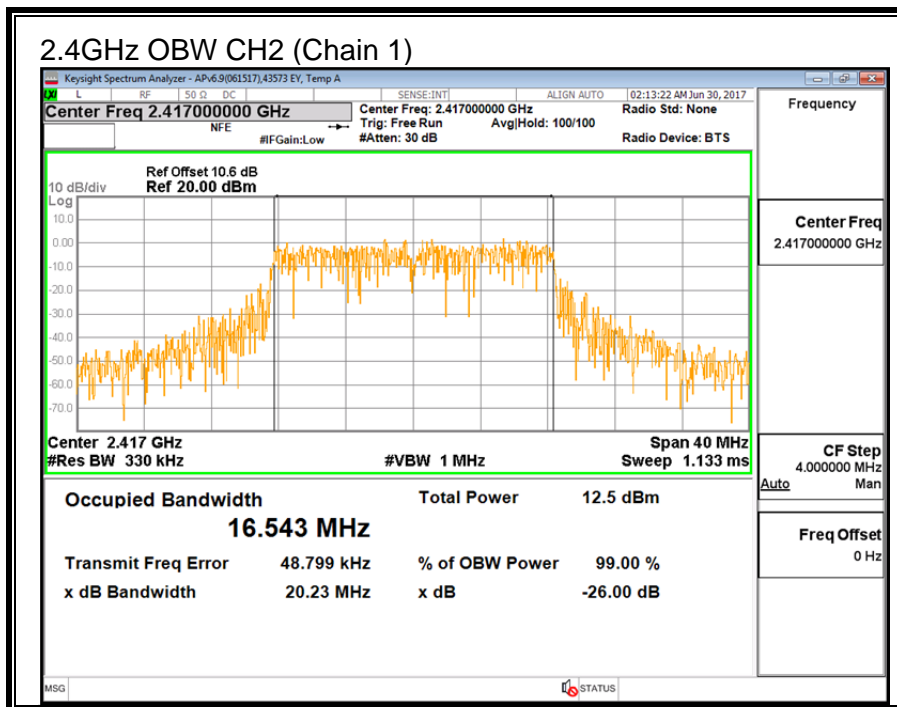
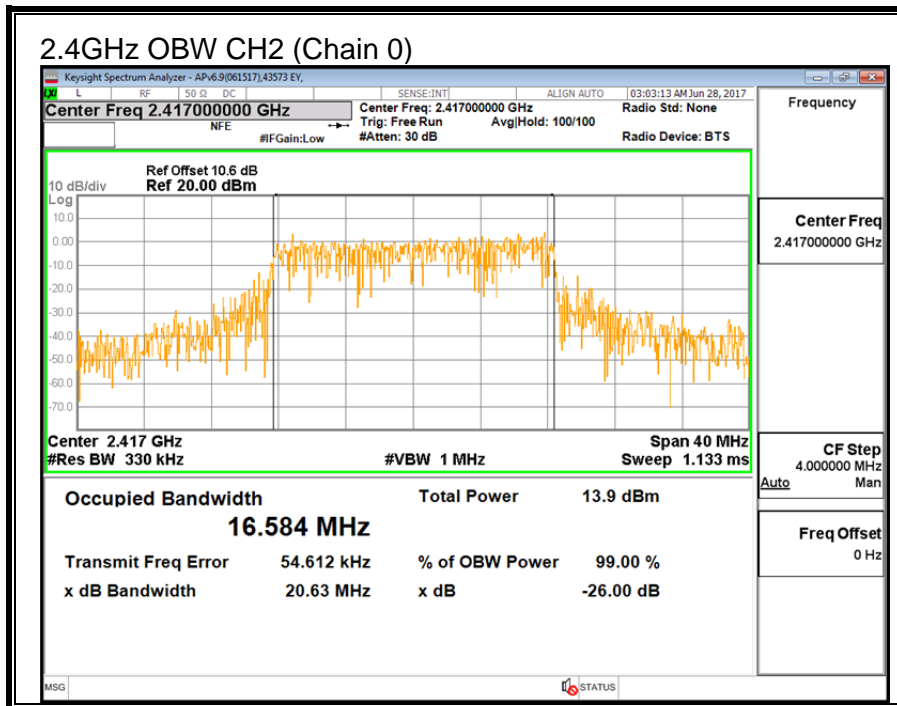
LIMITS

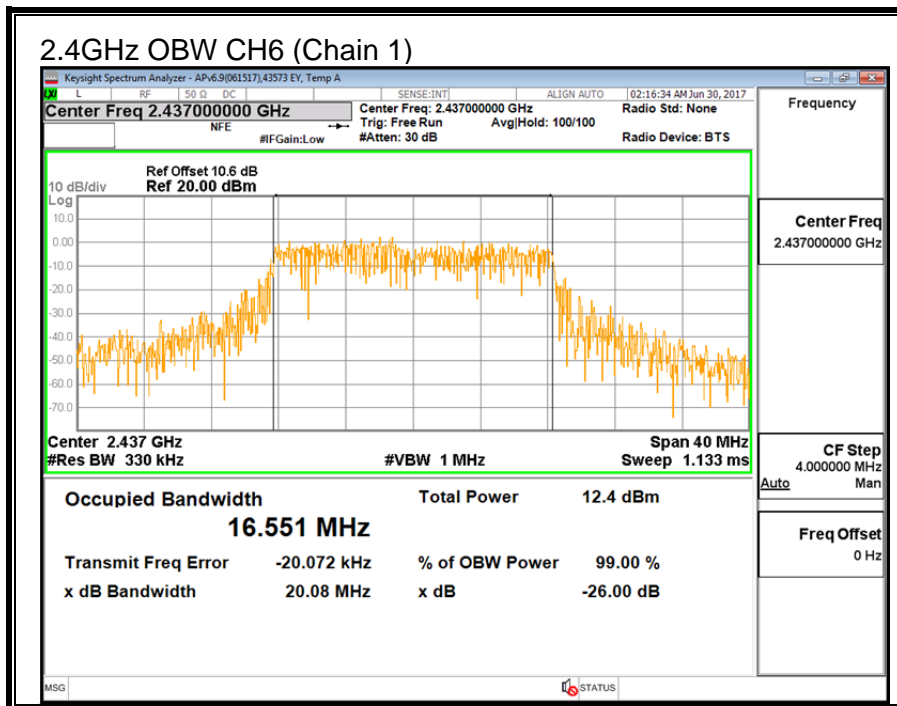
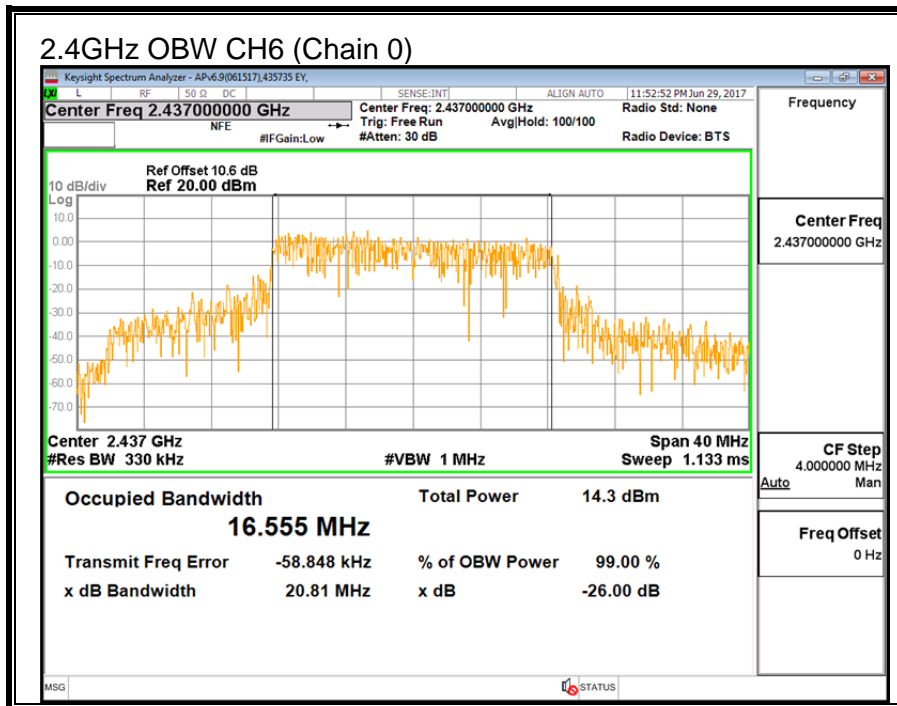
None; for reporting purposes only.

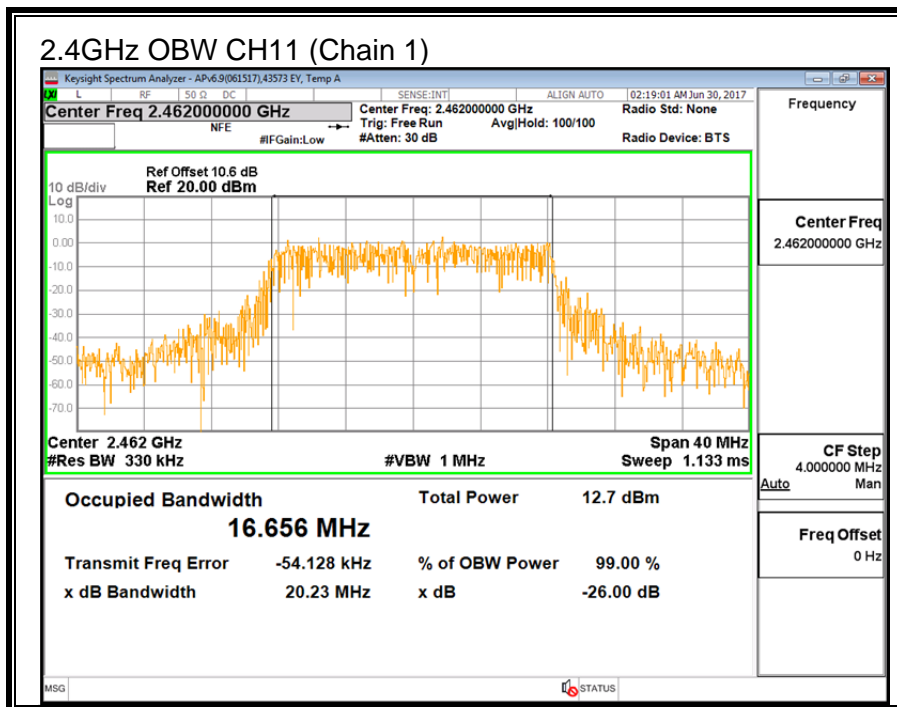
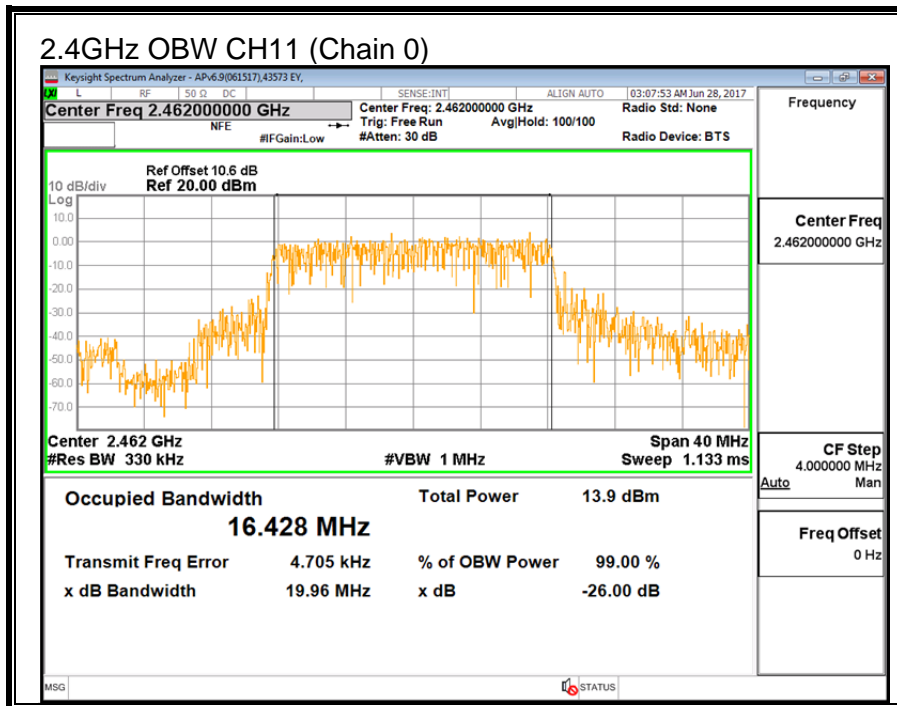
RESULTS

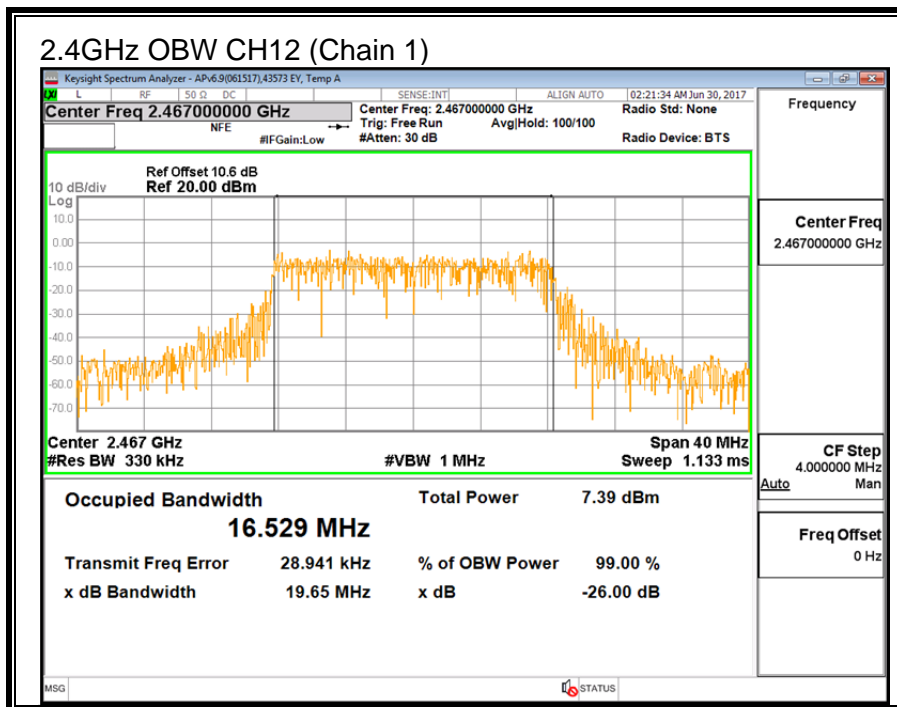
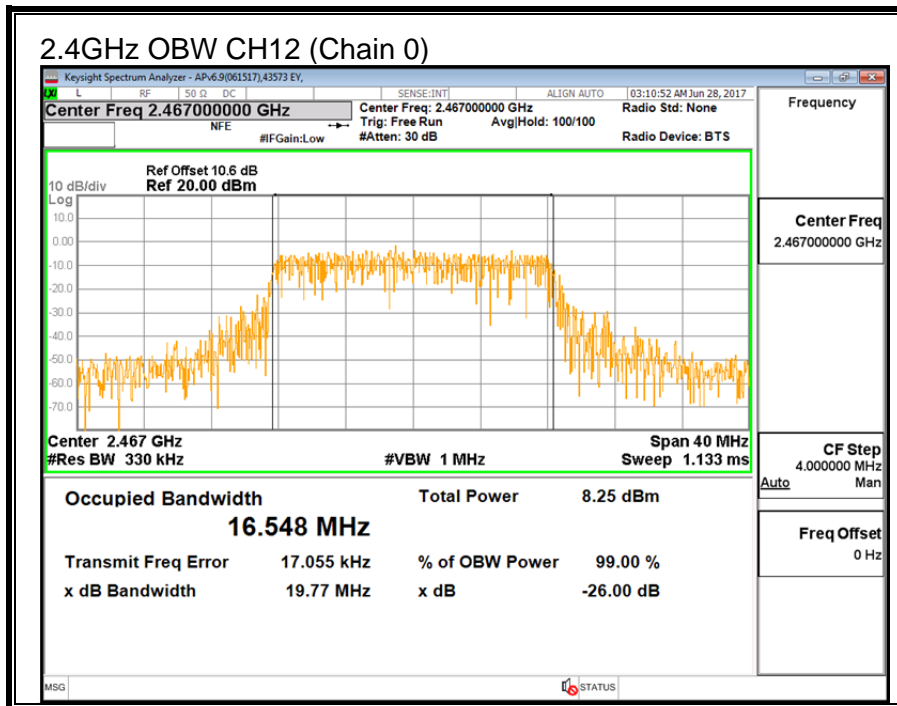
Channel	Frequency (MHz)	99% Bandwidth Chain 0 (MHz)	99% Bandwidth Chain 1 (MHz)
CH1	2412	16.54	16.42
CH2	2417	16.58	16.54
CH6	2437	16.56	16.55
CH11	2462	16.43	16.66
CH12	2467	16.55	16.53
CH13	2472	16.62	16.48

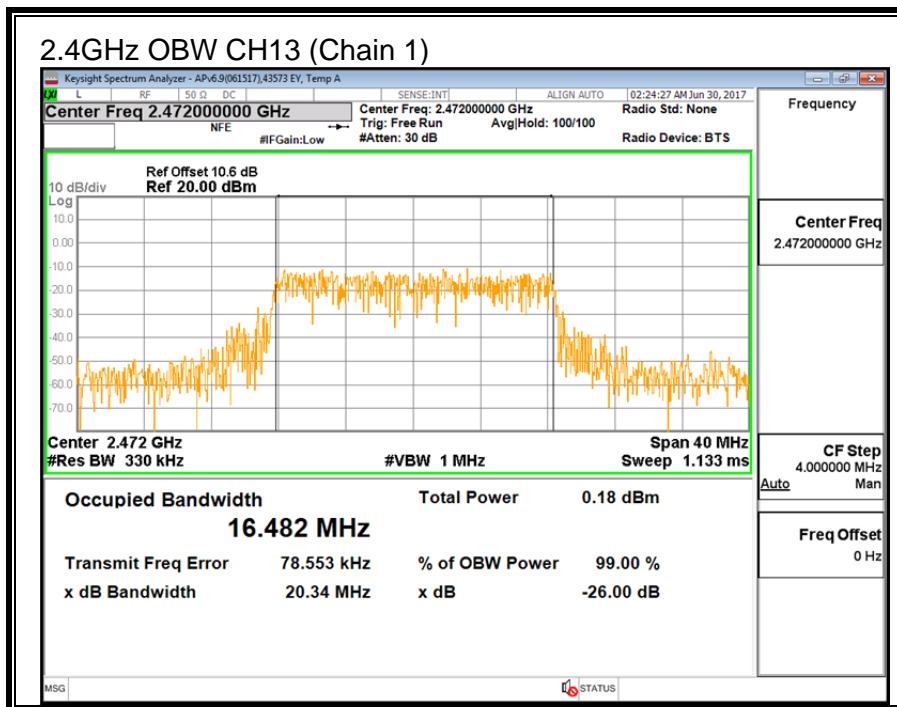
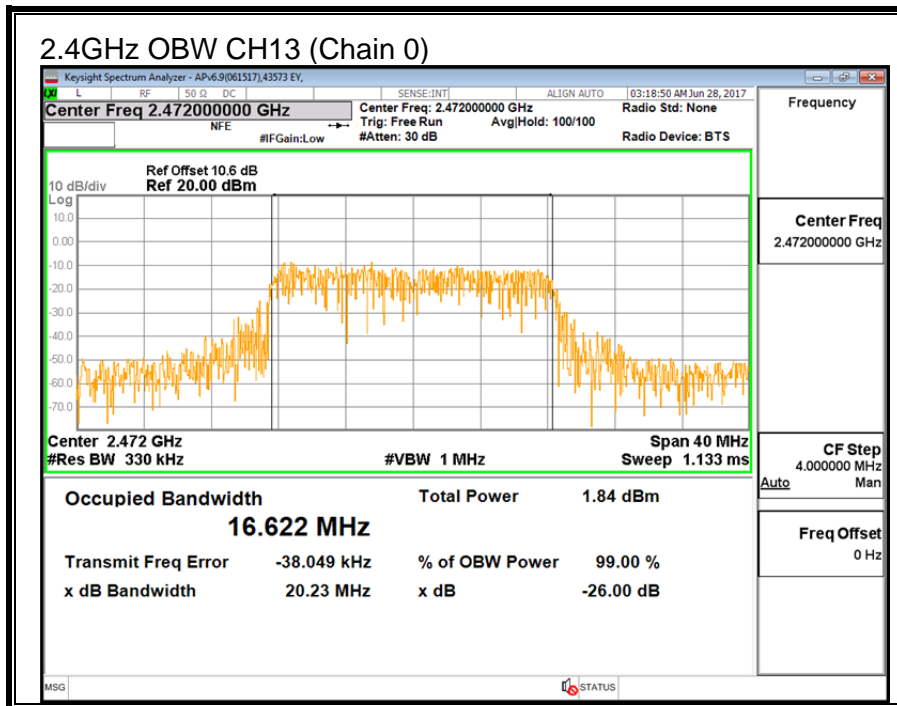












9.3.3. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)

For systems using digital modulation in the 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

KDB 558074 D01 v04Section 9.2.3.2

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
-2.80	-7.00	-4.41

RESULTS

ID:	29435	Date:	06/26/2017
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Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
CH1	2412	-4.41	30.00	30	36	30.00
CH2	2417	-4.41	30.00	30	36	30.00
CH3	2422	-4.41	30.00	30	36	30.00
CH6	2437	-4.41	30.00	30	36	30.00
CH10	2457	-4.41	30.00	30	36	30.00
CH11	2462	-4.41	30.00	30	36	30.00
CH12	2467	-4.41	30.00	30	36	30.00
CH13	2472	-4.41	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
CH1	2412	8.07	7.15	10.64	30.00	-19.36
CH2	2417	14.21	13.12	16.71	30.00	-13.29
CH3	2422	14.25	12.98	16.67	30.00	-13.33
CH6	2437	14.41	12.88	16.72	30.00	-13.28
CH10	2457	13.98	12.77	16.43	30.00	-13.57
CH11	2462	13.4	12.37	15.93	30.00	-14.07
CH12	2467	8.31	7.42	10.90	30.00	-19.10
CH13	2472	2.15	0.78	4.53	30.00	-25.47

Note: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

9.3.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

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)		0.26		Included in Calculations of Corr'd PSD		
PSD Results						
Channel	Frequency (MHz)	Chain 0 Meas (dBm/3kHz)	Chain 1 Meas (dBm/3kHz)	Total Corr'd PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
CH1	2412	-17.05	-18.37	-14.39	8.0	-22.4
CH2	2412	-10.43	-12.41	-8.04	8.0	-16.0
CH6	2437	-8.82	-12.17	-6.91	8.0	-14.9
CH11	2462	-9.99	-11.88	-7.56	8.0	-15.6
CH12	2467	-16.11	-17.50	-13.48	8.0	-21.5
CH13	2472	-22.30	-24.42	-19.96	8.0	-28.0

