

Appendix

Test Data

for BTEK241111036A01E03

Start date	2024/12/3	Finish date	2024/12/4
Temperature	22.0℃	Humidity	53%
RF specifications	2.4G WIFI	Test Engineer	Zora



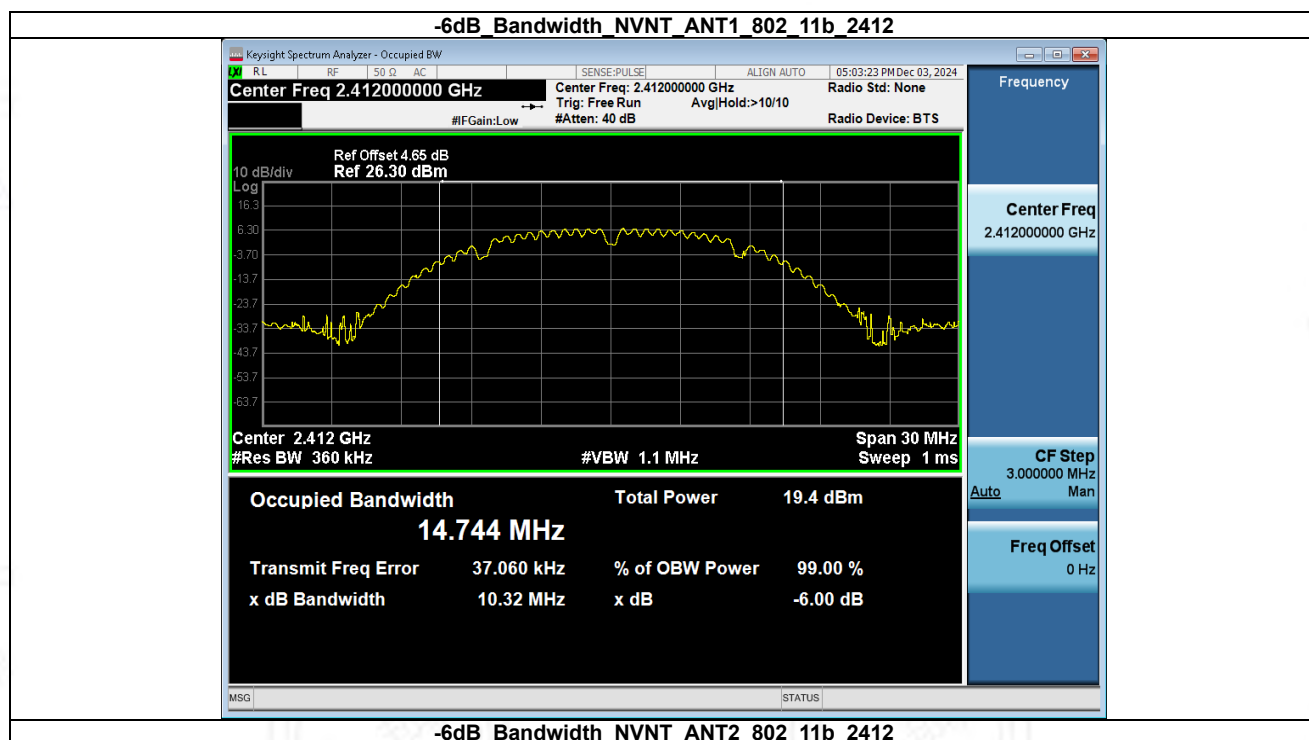
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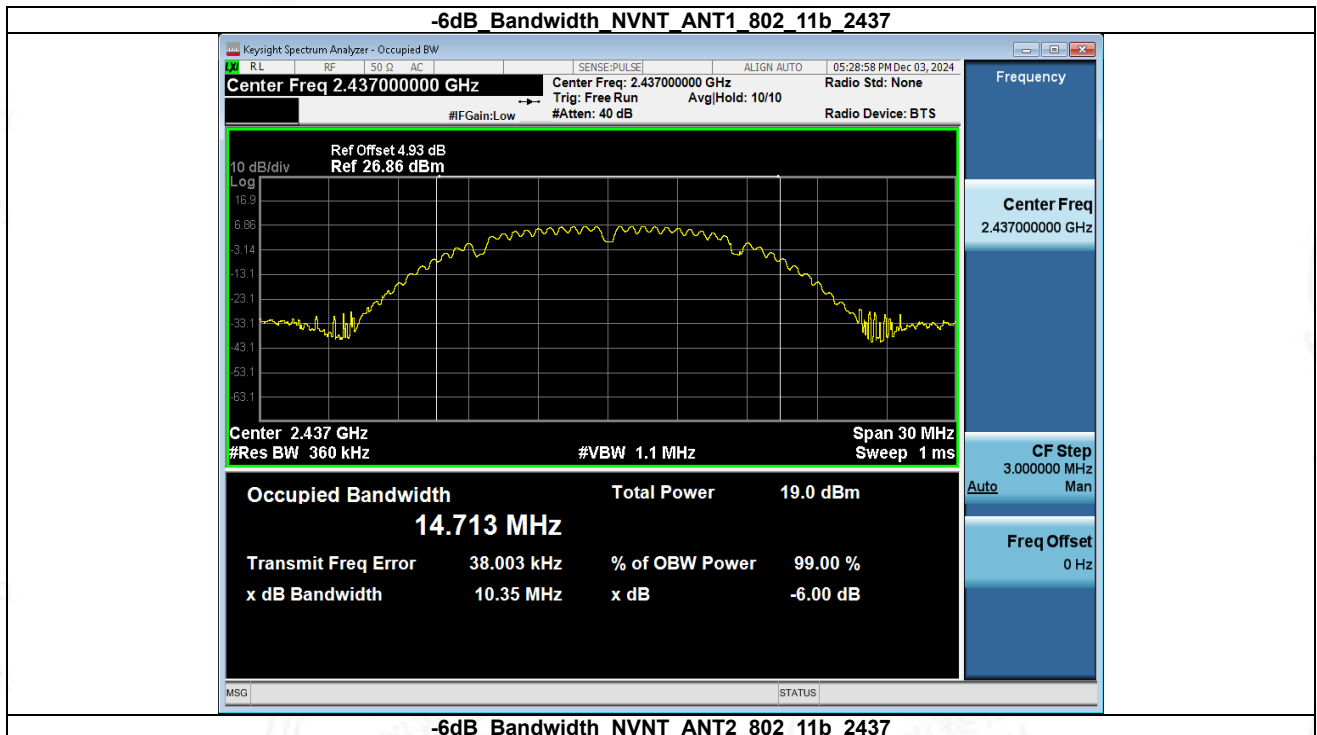
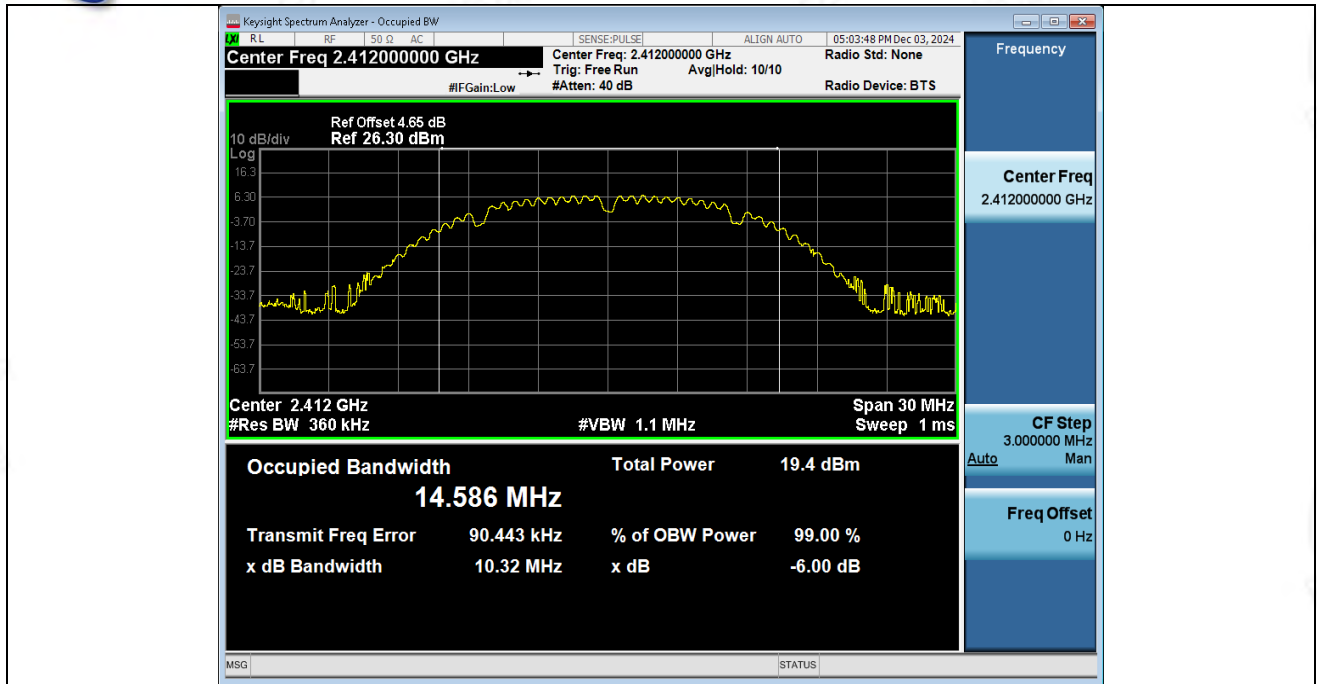
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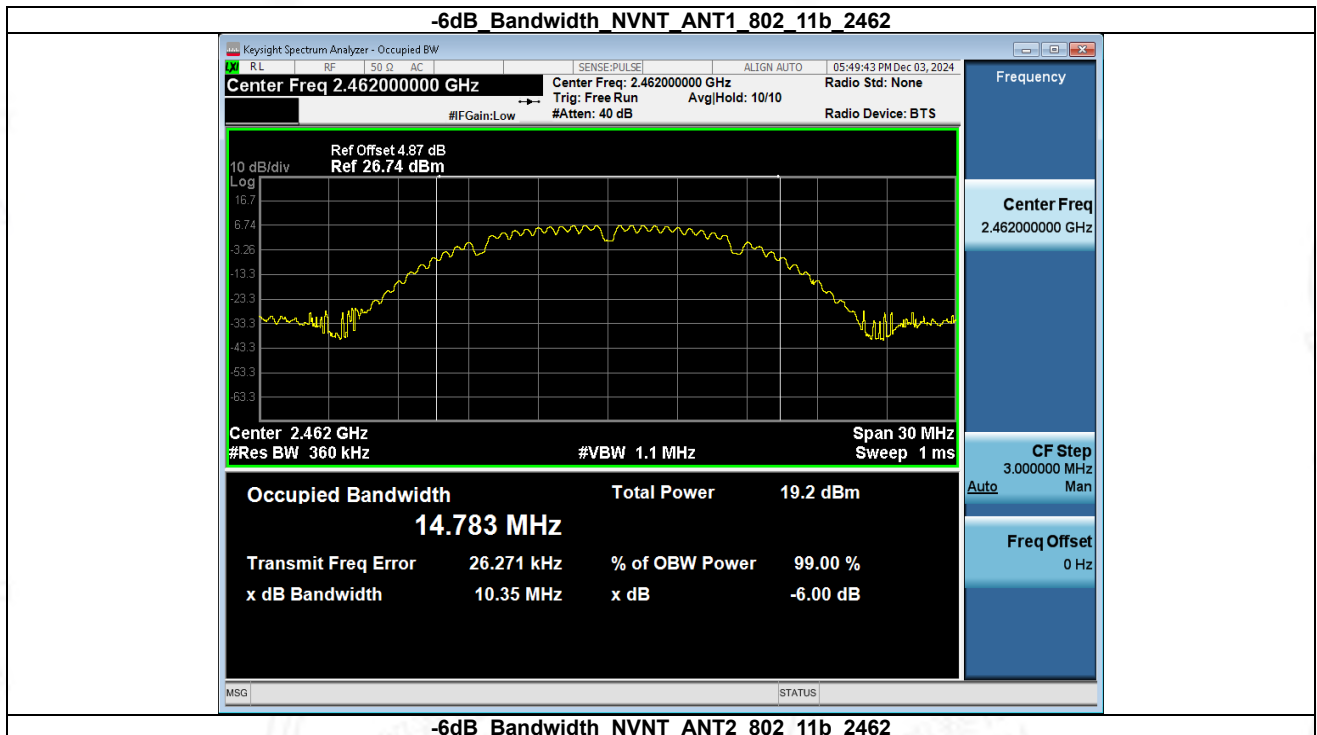
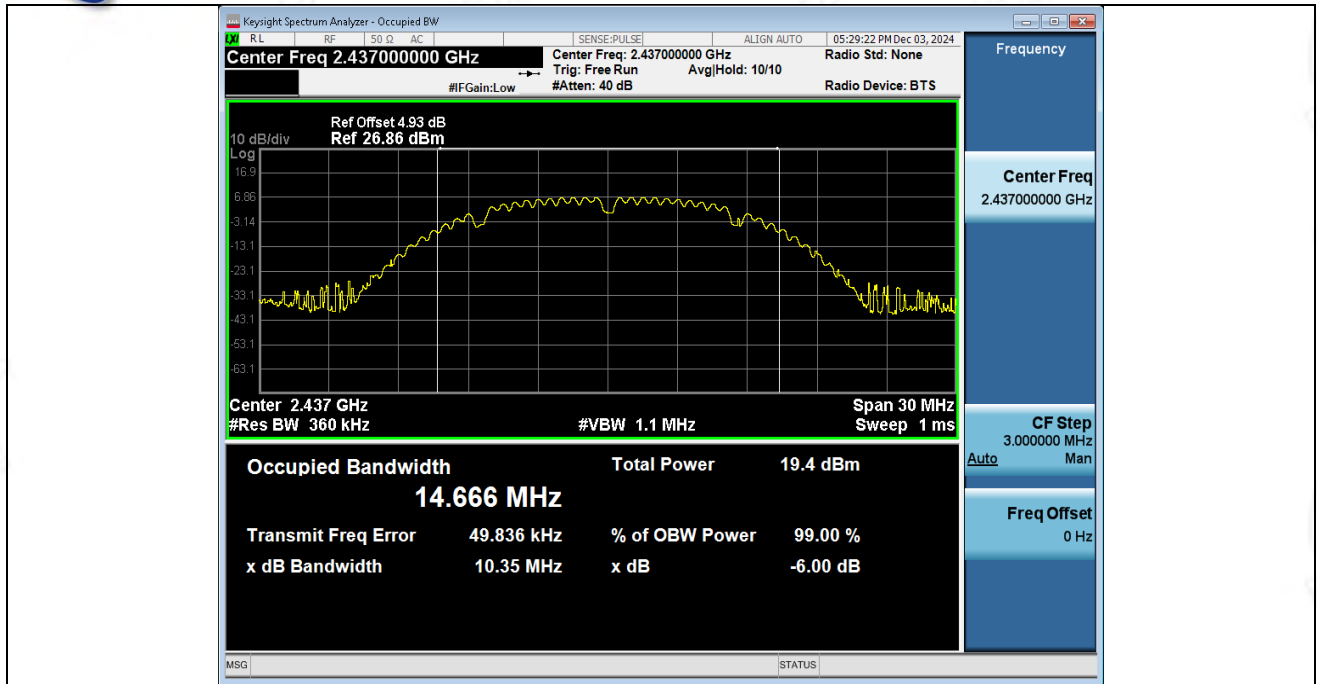


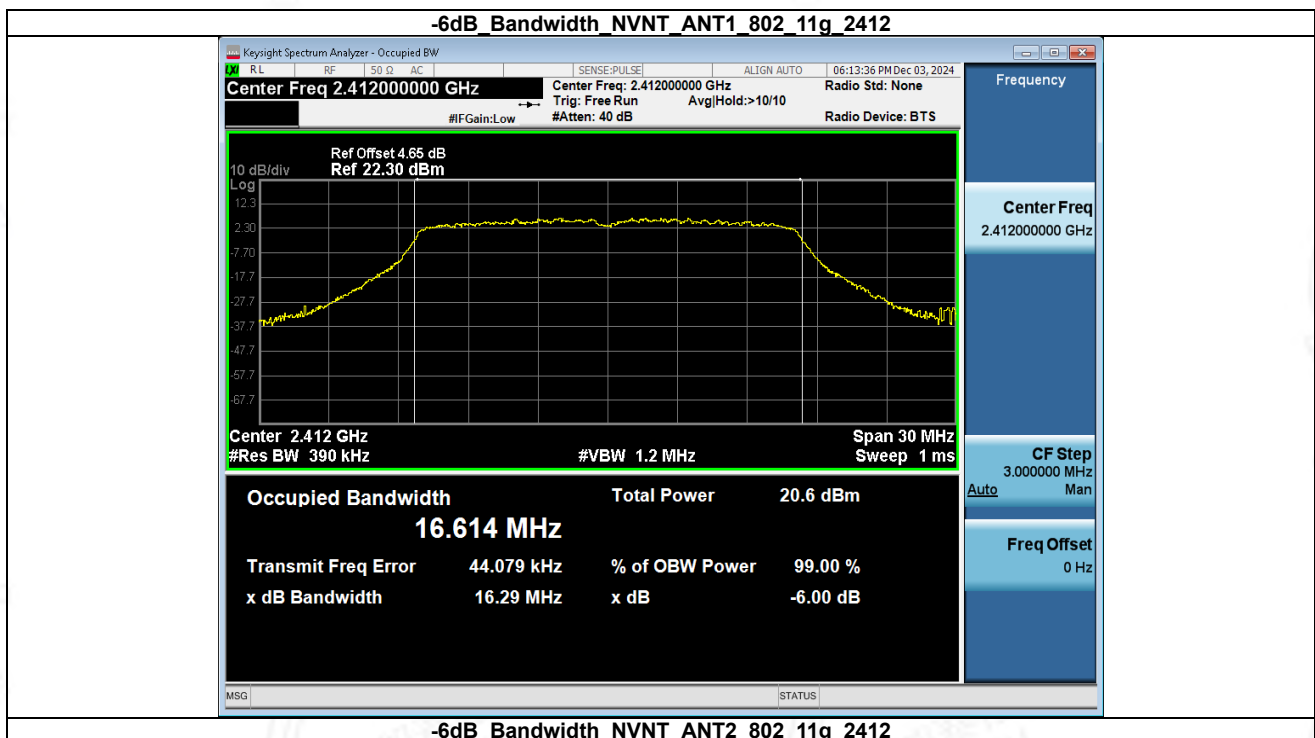
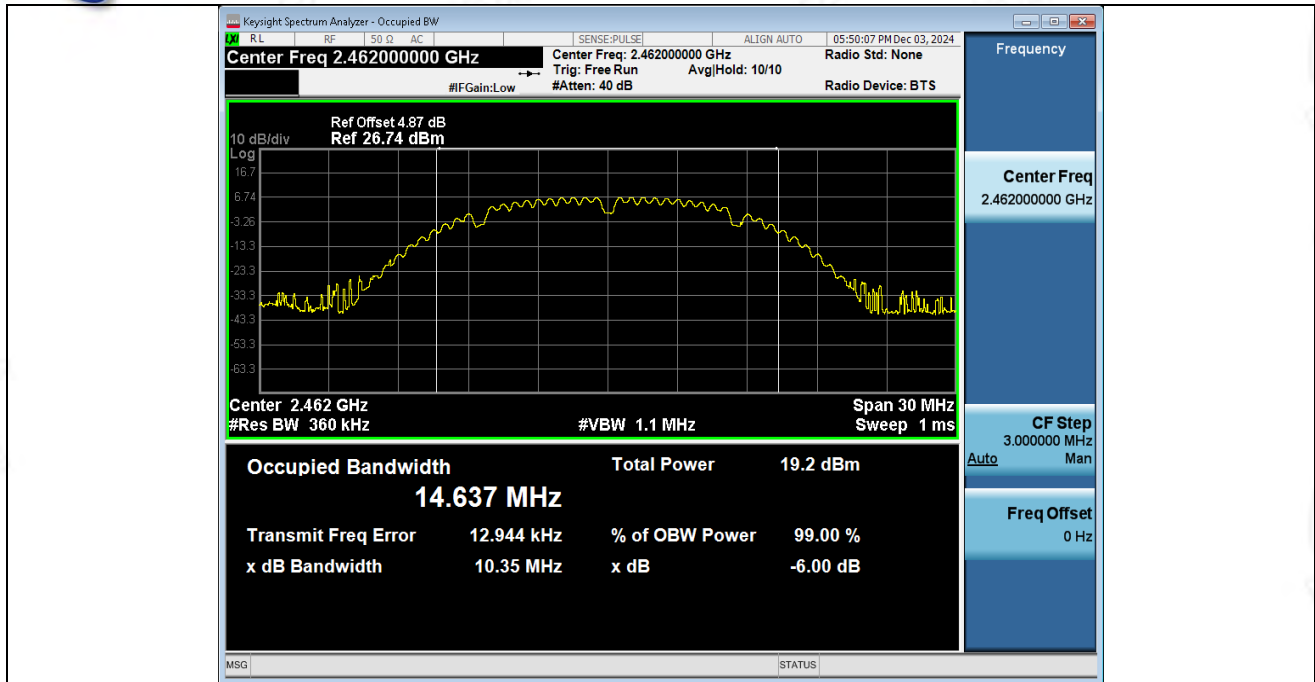
1. -6dB Bandwidth

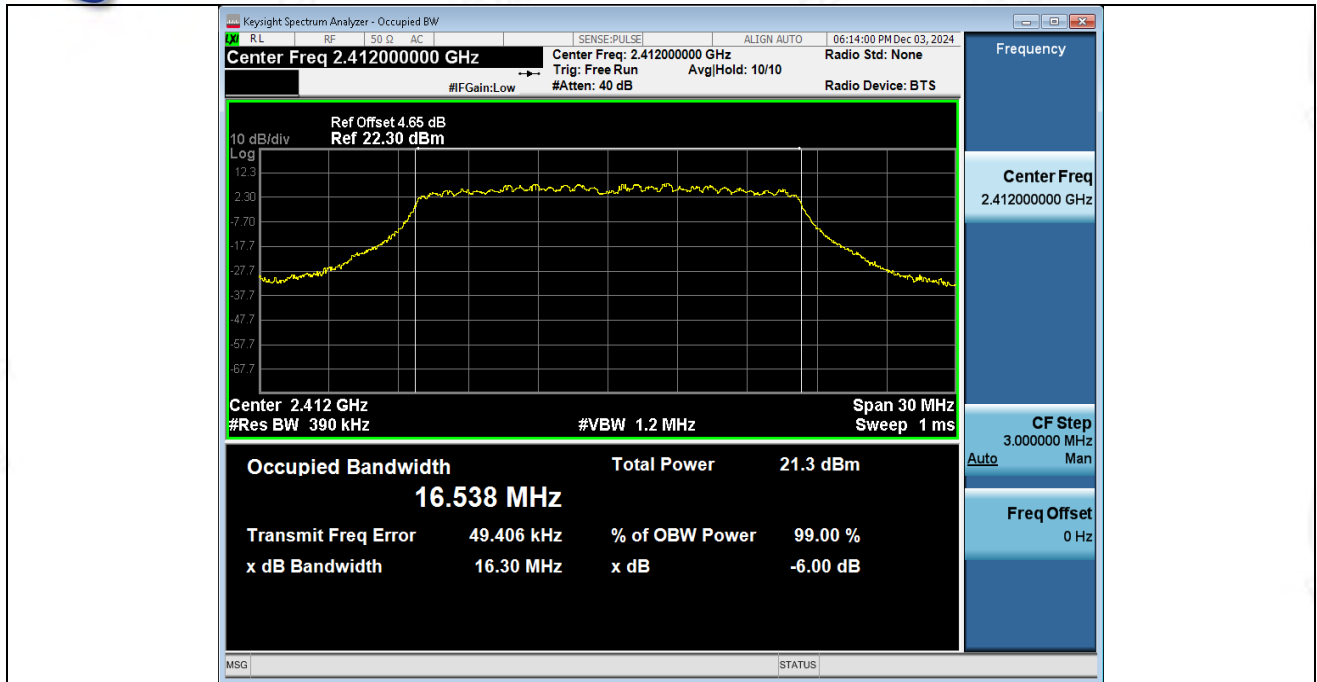
Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	10.32	500	Pass
NVNT	ANT2	802.11b	2412.00	10.32	500	Pass
NVNT	ANT1	802.11b	2437.00	10.35	500	Pass
NVNT	ANT2	802.11b	2437.00	10.35	500	Pass
NVNT	ANT1	802.11b	2462.00	10.35	500	Pass
NVNT	ANT2	802.11b	2462.00	10.35	500	Pass
NVNT	ANT1	802.11g	2412.00	16.29	500	Pass
NVNT	ANT2	802.11g	2412.00	16.30	500	Pass
NVNT	ANT1	802.11g	2437.00	16.31	500	Pass
NVNT	ANT2	802.11g	2437.00	16.37	500	Pass
NVNT	ANT1	802.11g	2462.00	16.39	500	Pass
NVNT	ANT2	802.11g	2462.00	16.22	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.31	500	Pass
NVNT	ANT2	802.11n(HT20)	2412.00	17.34	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.35	500	Pass
NVNT	ANT2	802.11n(HT20)	2437.00	17.48	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.46	500	Pass
NVNT	ANT2	802.11n(HT20)	2462.00	17.49	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	36.01	500	Pass
NVNT	ANT2	802.11n(HT40)	2422.00	36.17	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	36.15	500	Pass
NVNT	ANT2	802.11n(HT40)	2437.00	36.33	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	36.18	500	Pass
NVNT	ANT2	802.11n(HT40)	2452.00	36.12	500	Pass



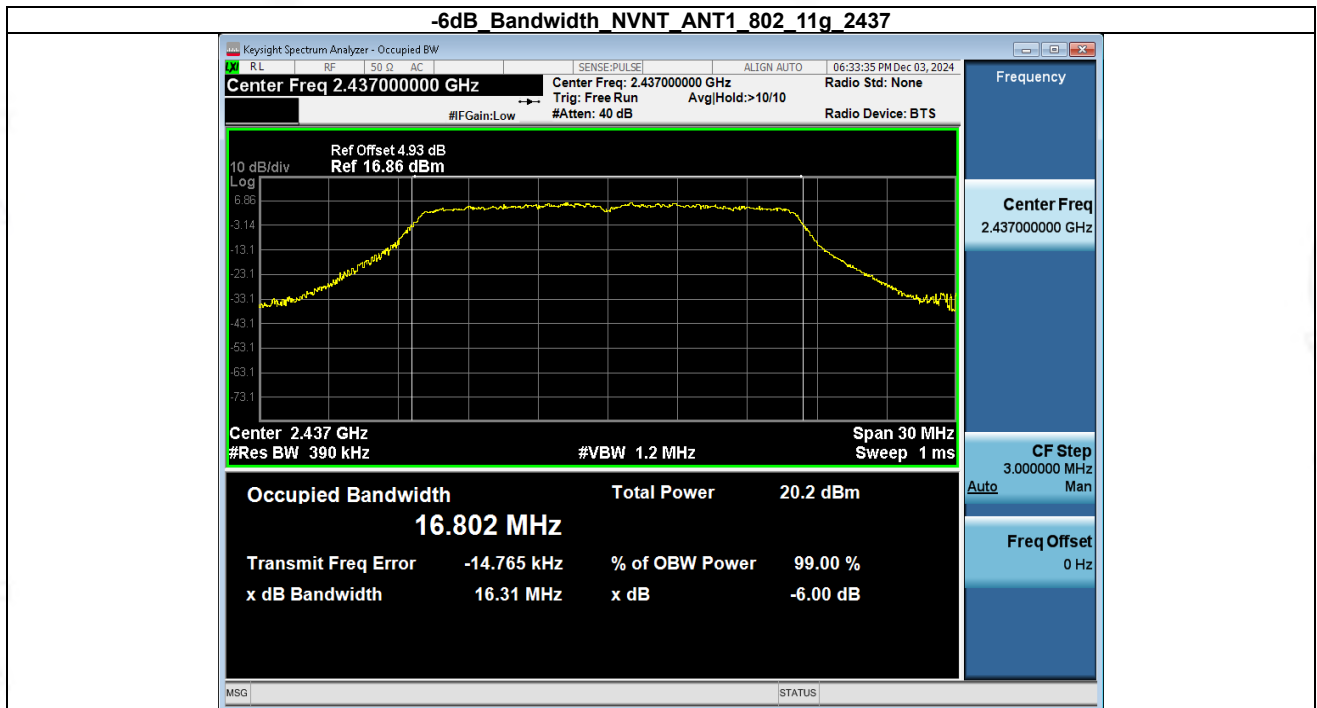






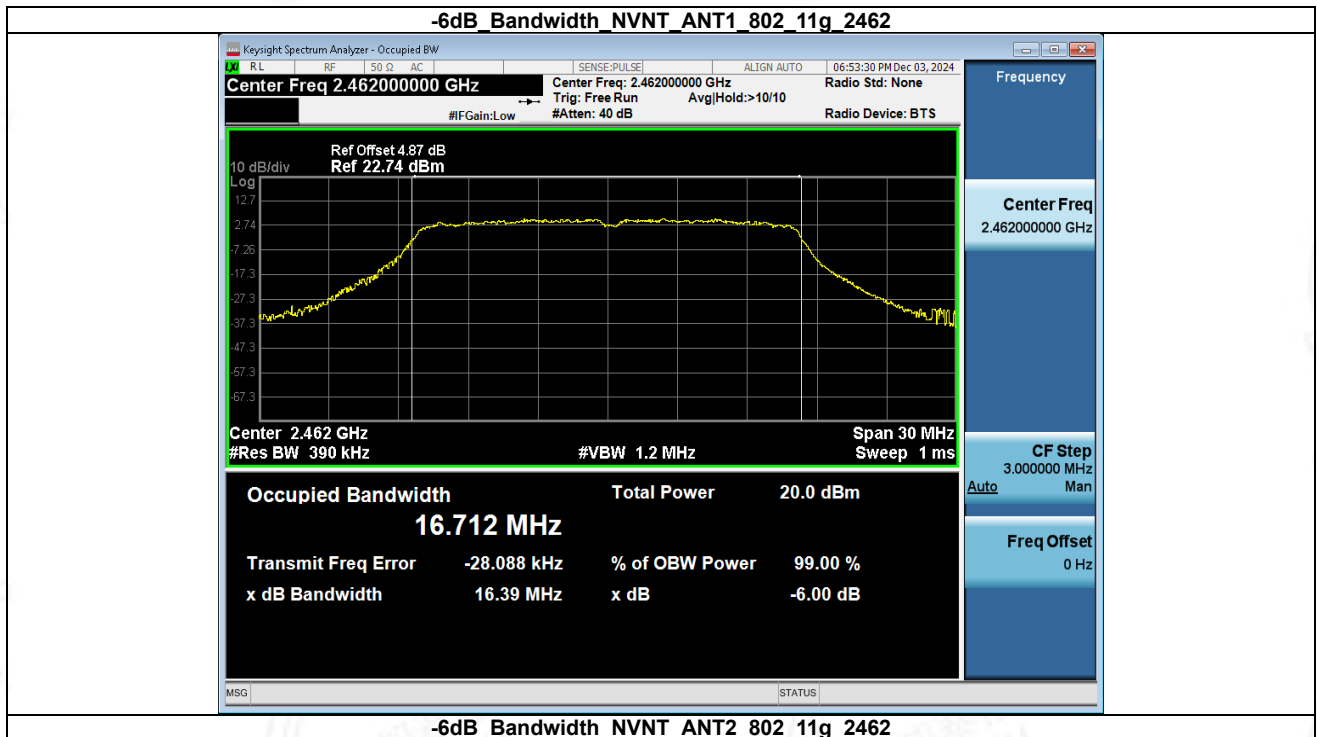
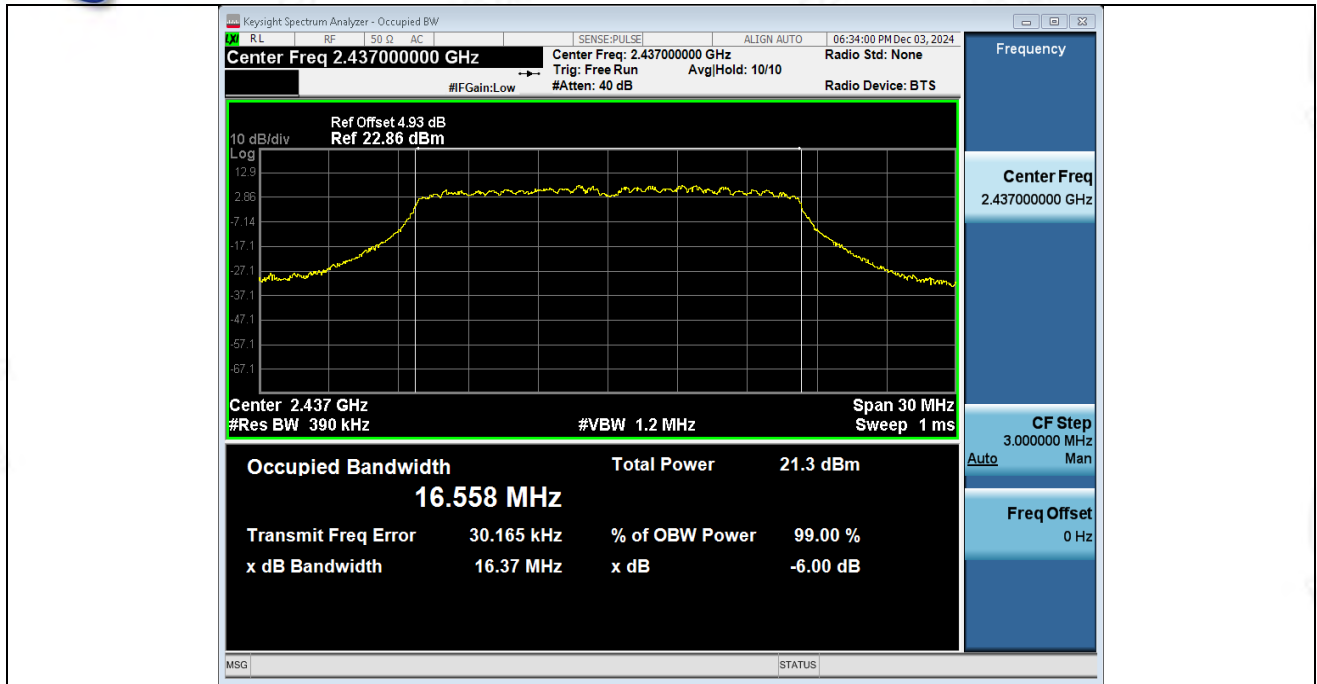


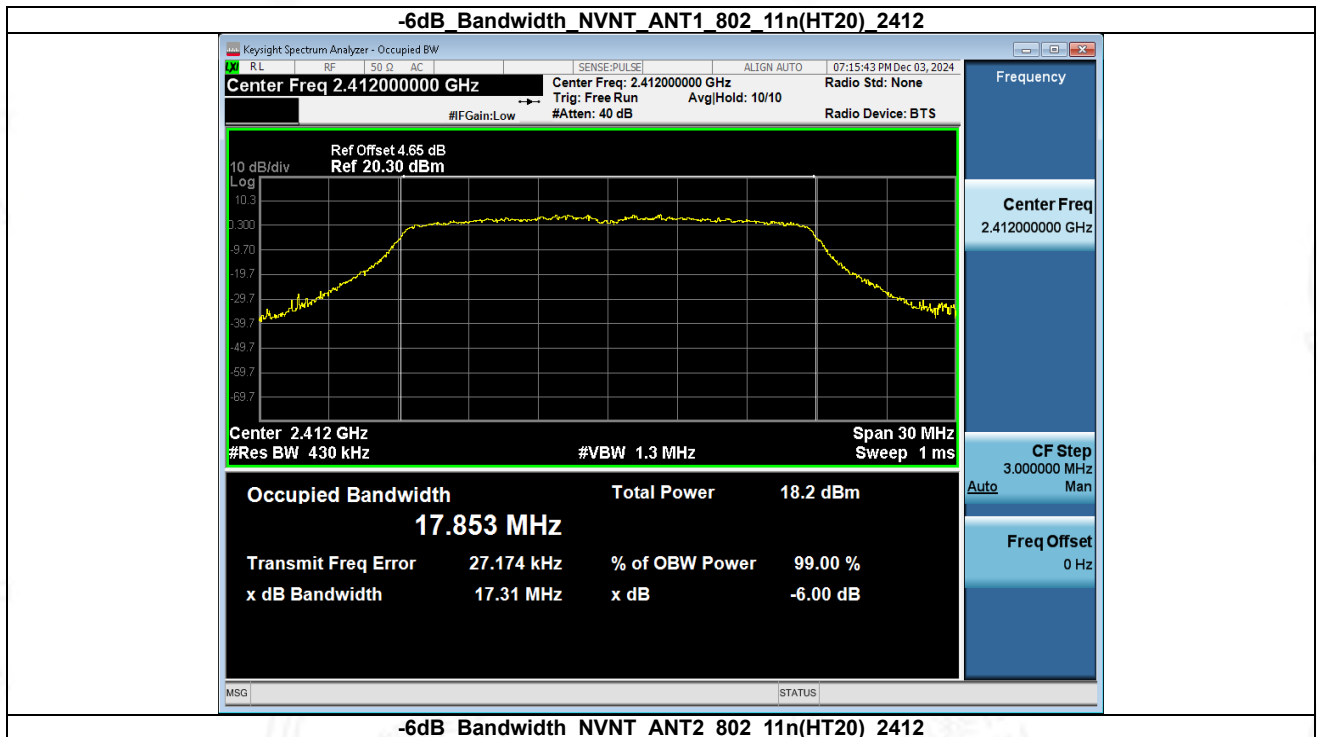
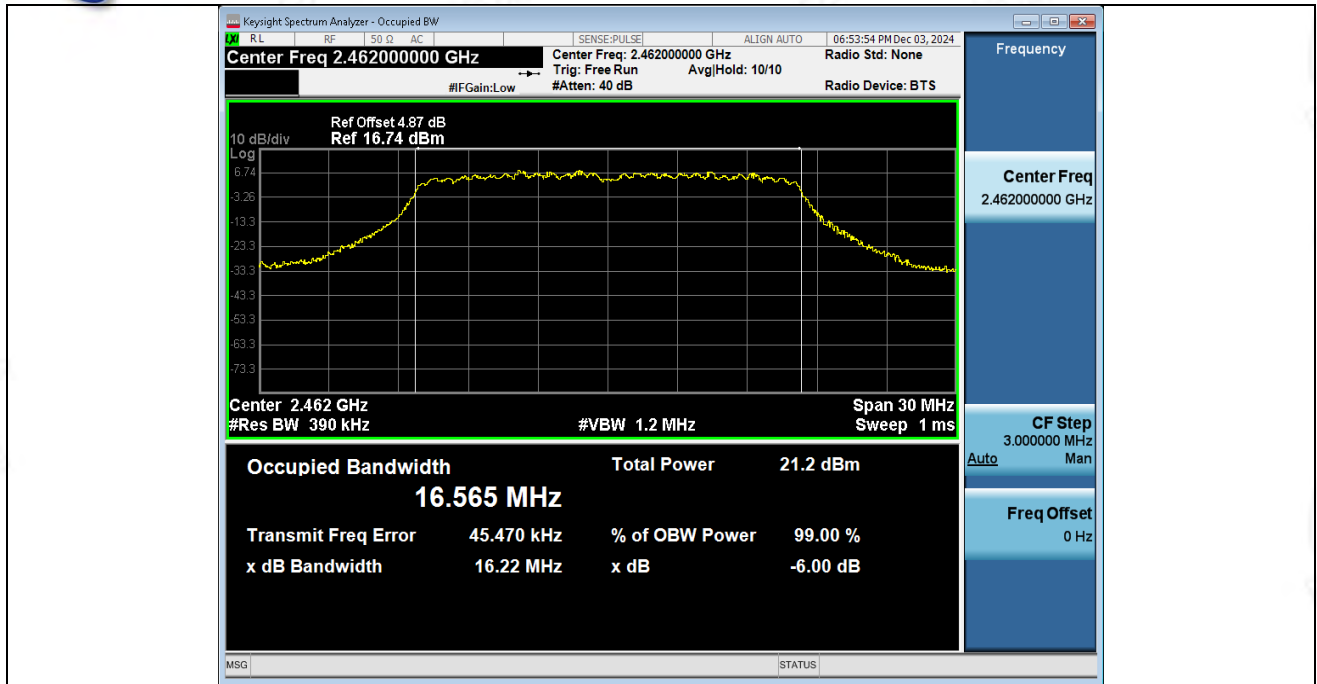
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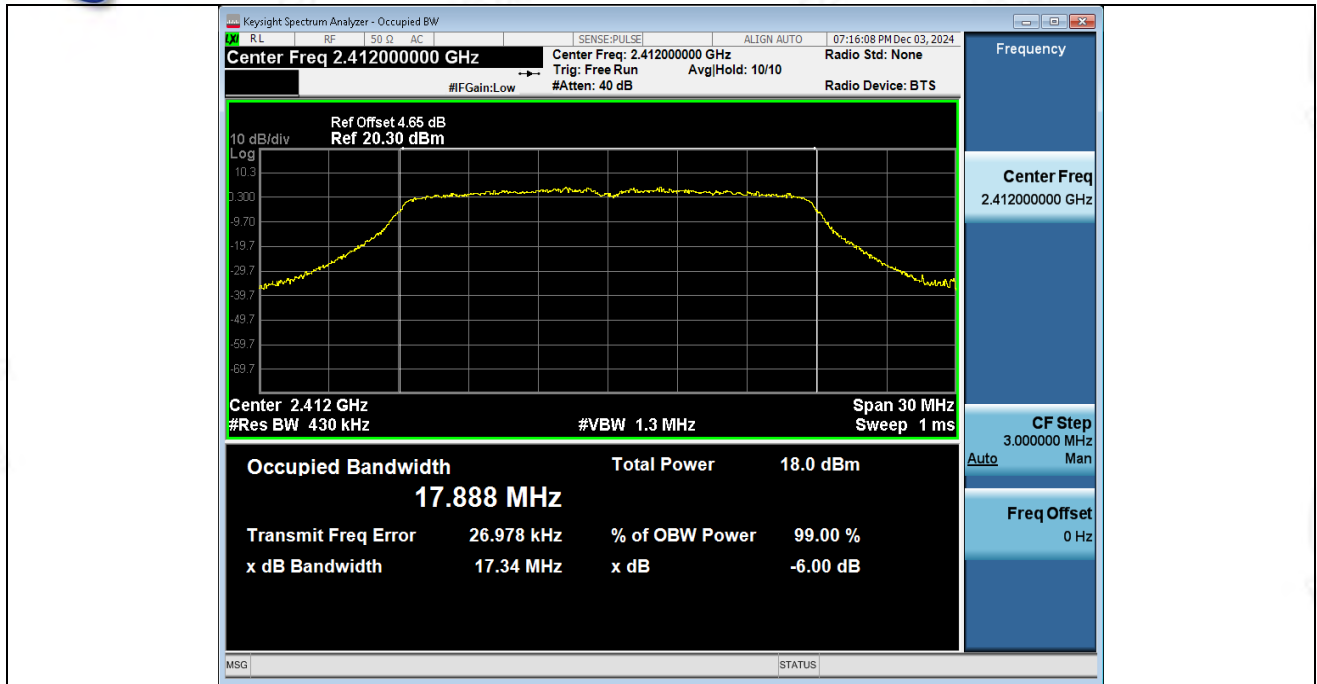


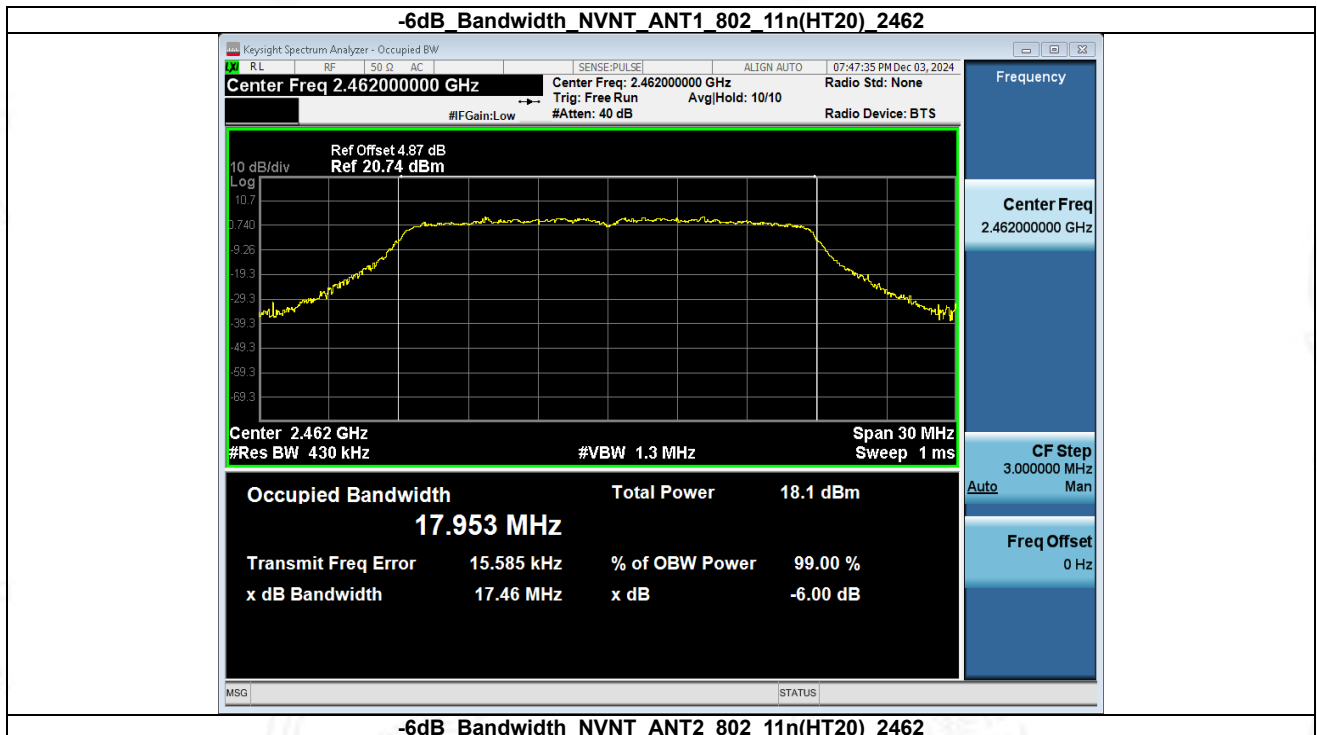
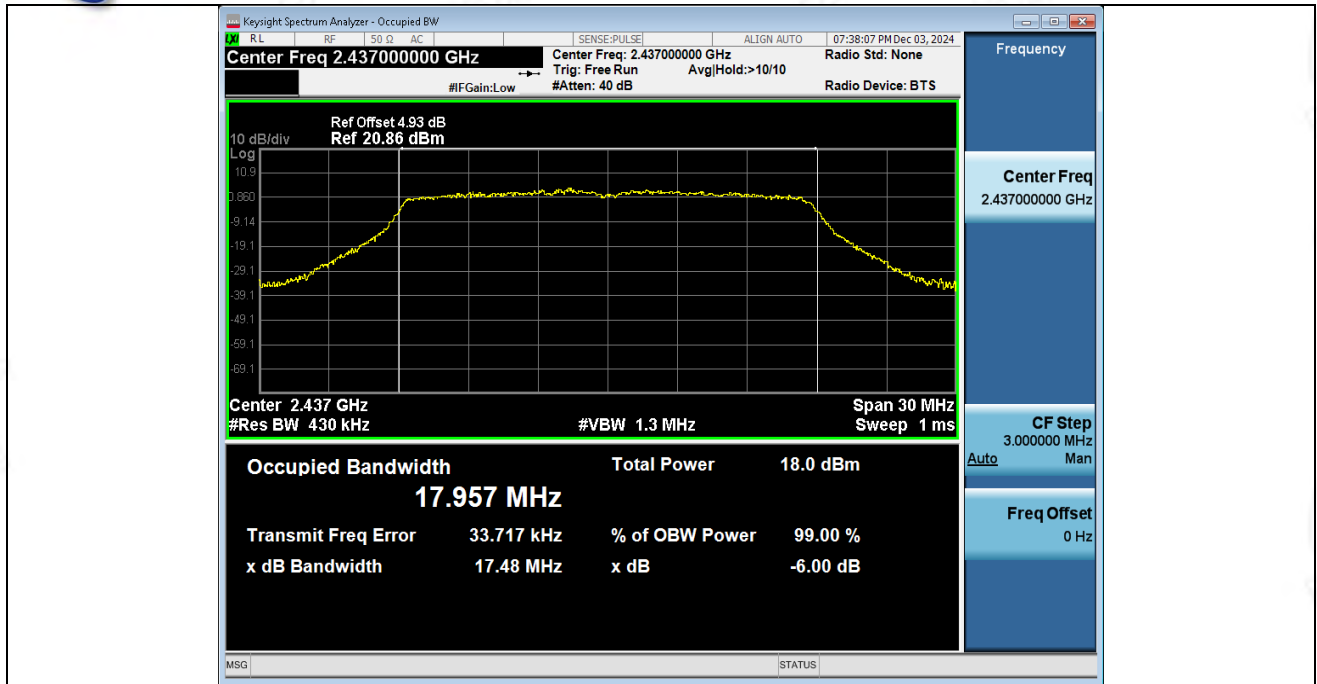
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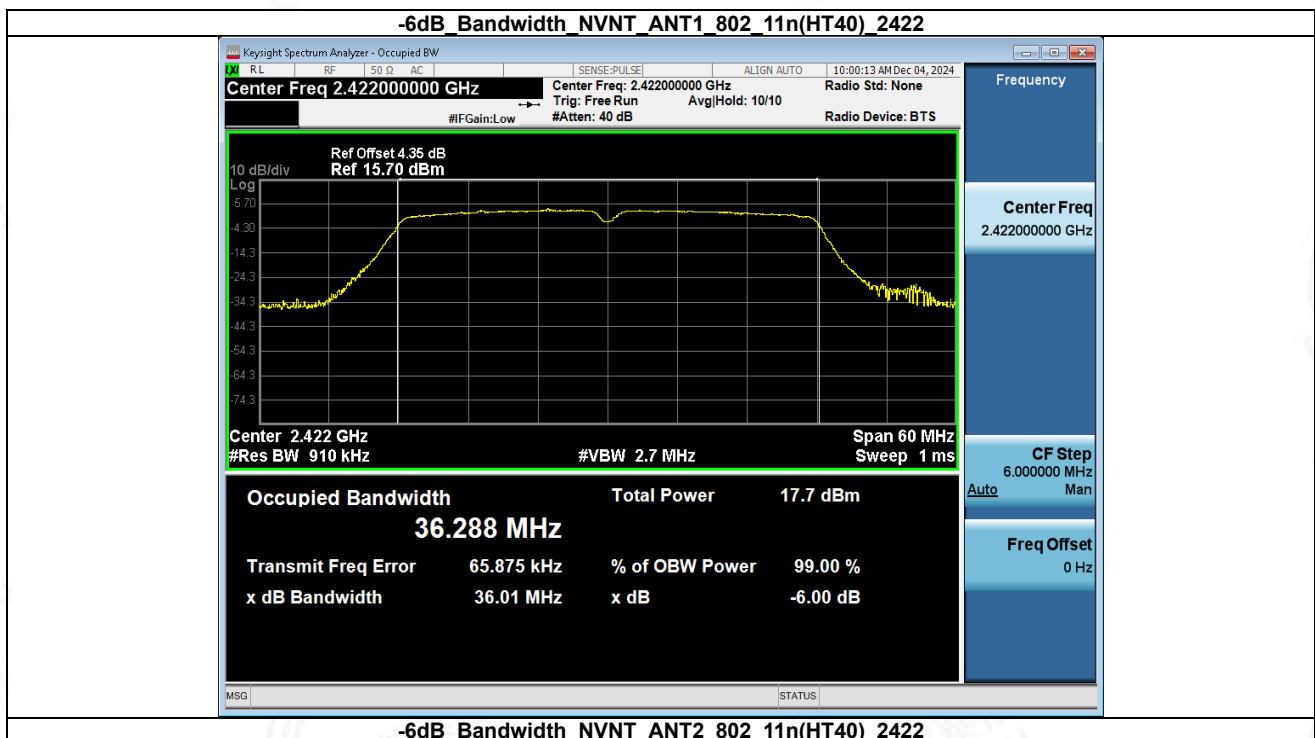
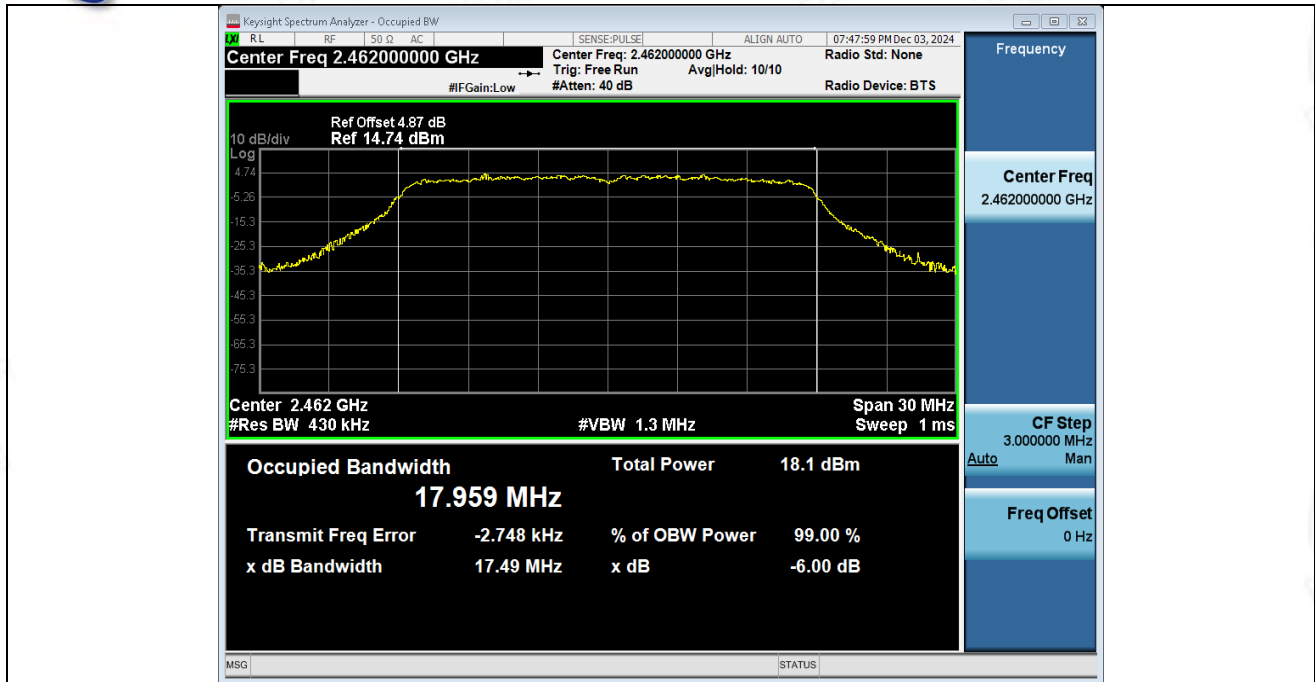


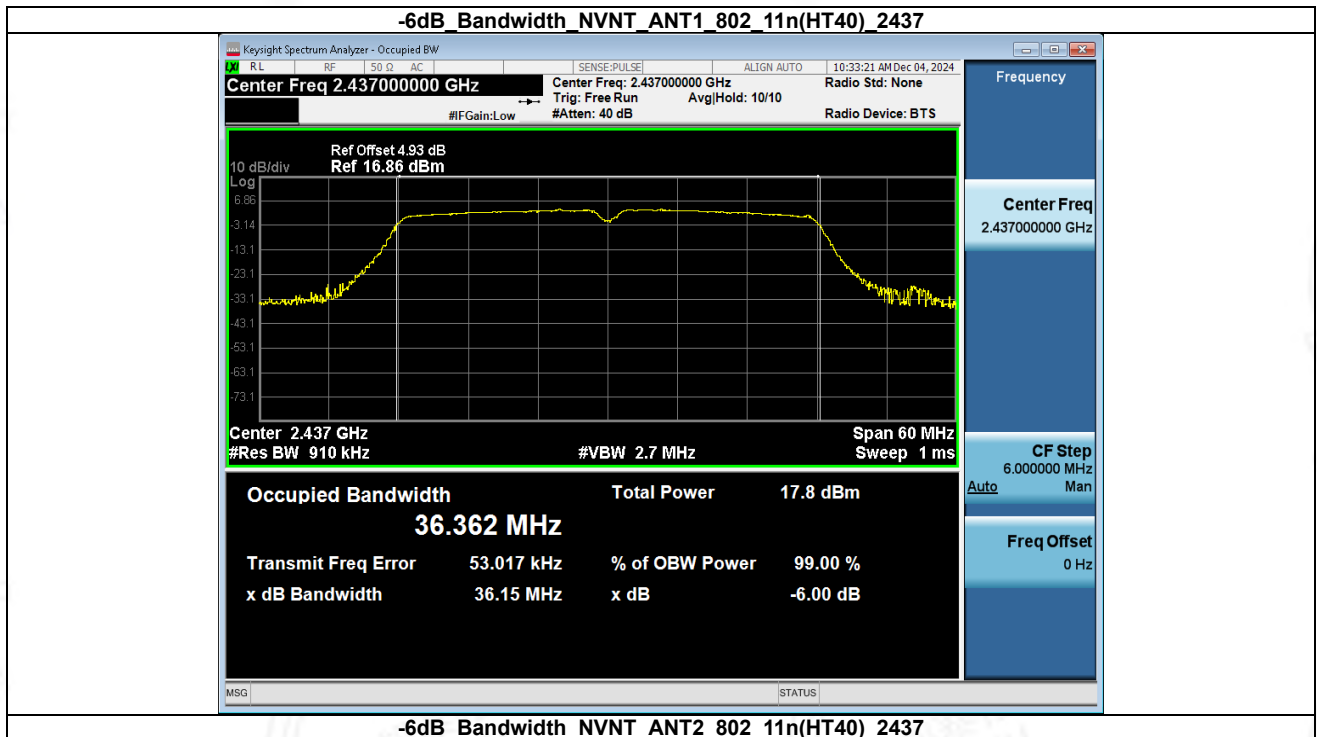
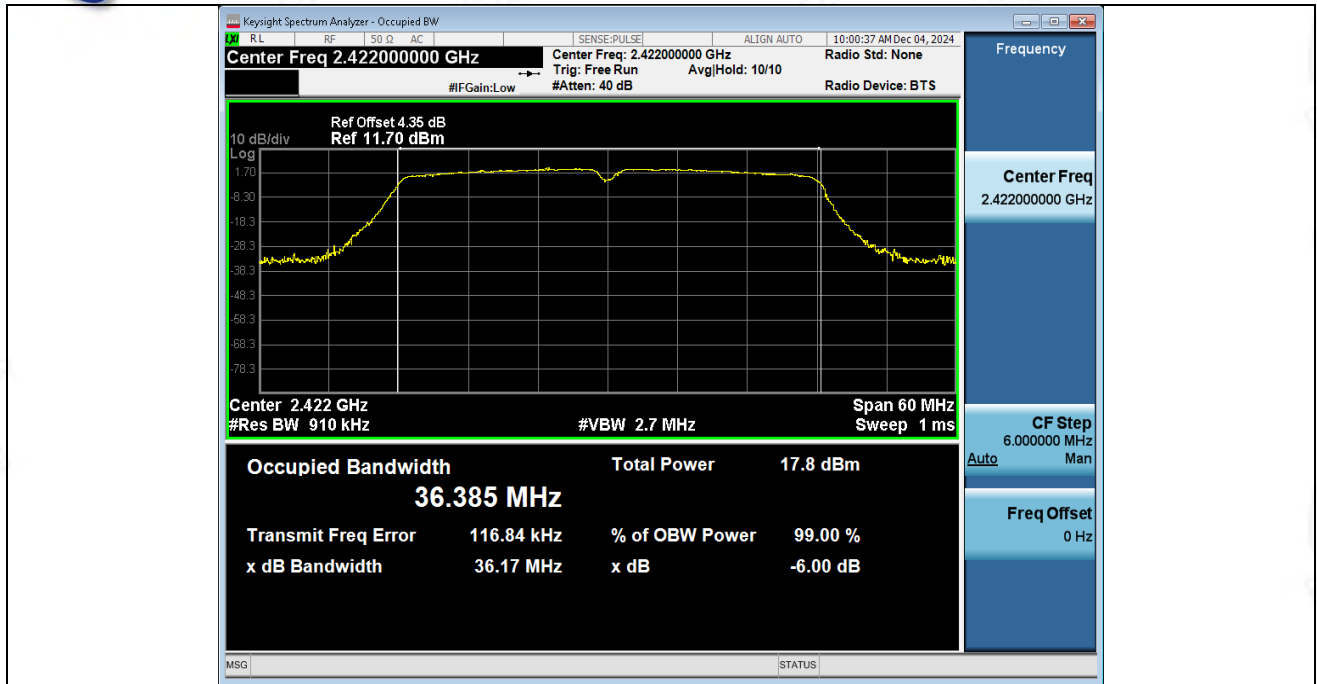


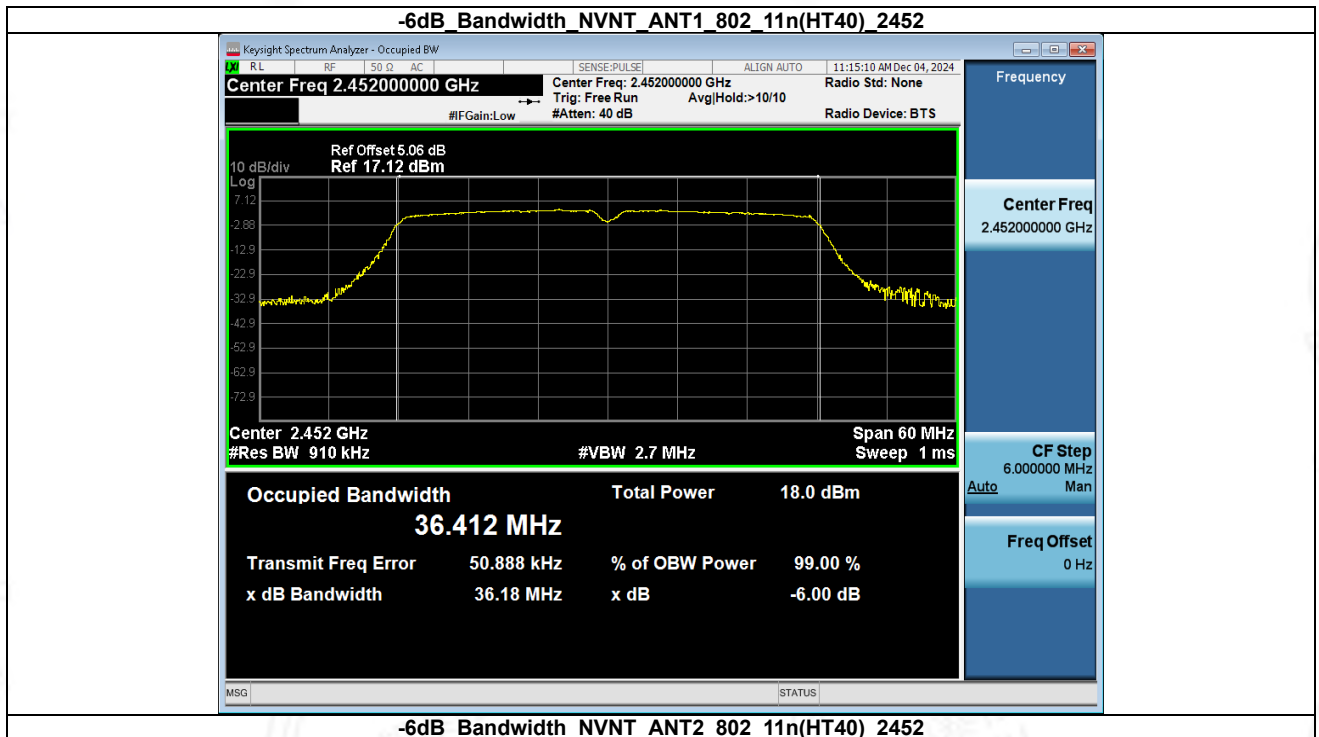
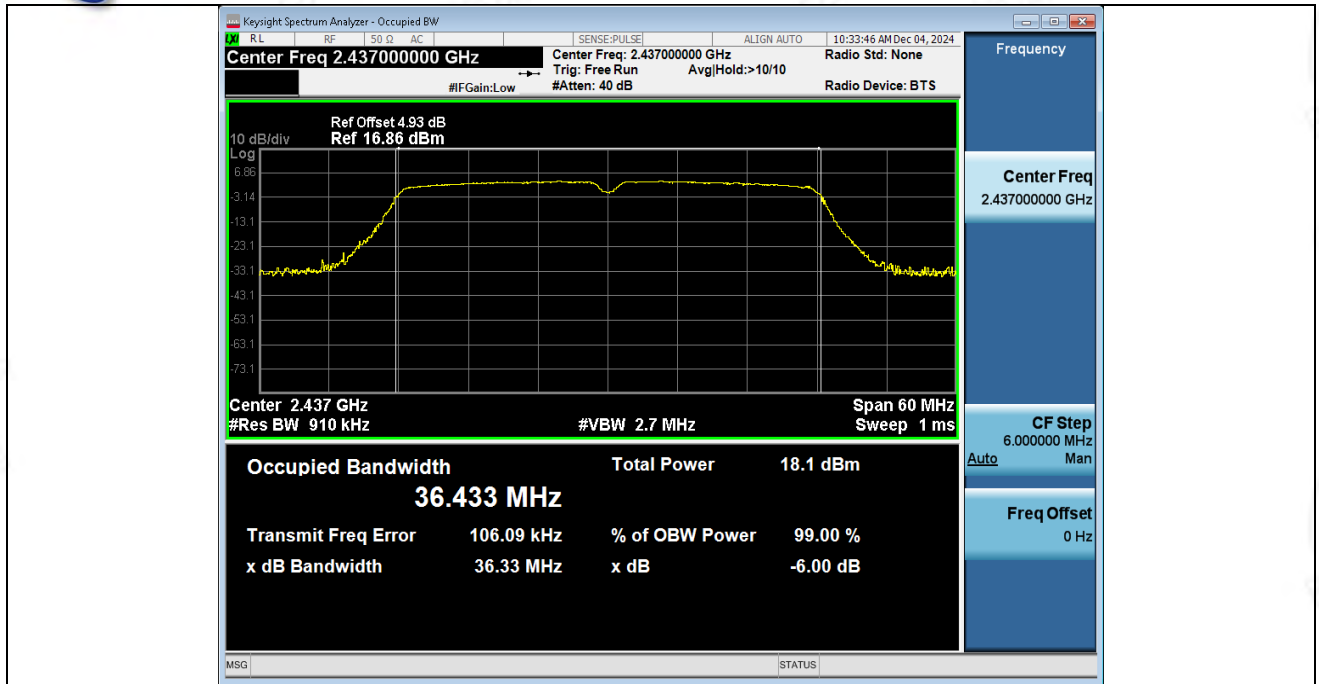


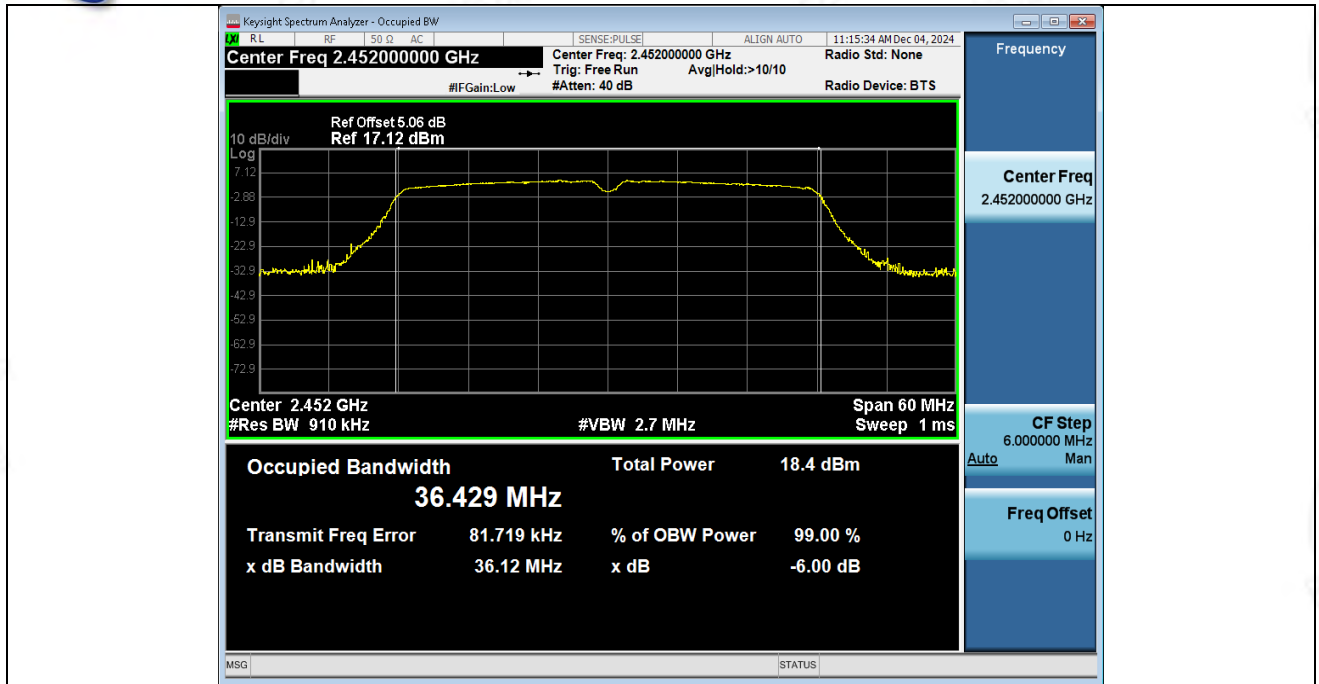








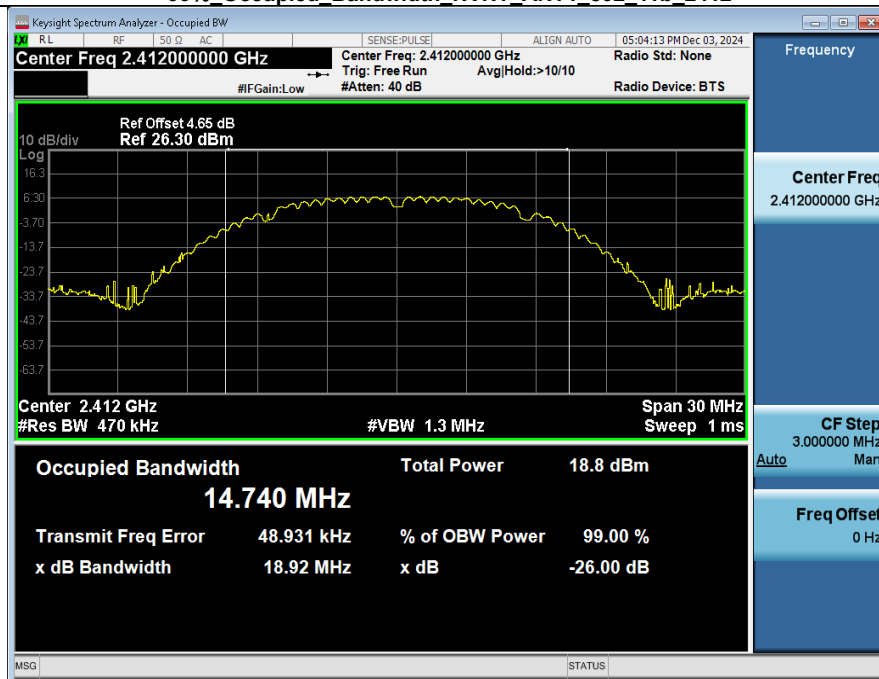




2. 99% Occupied Bandwidth

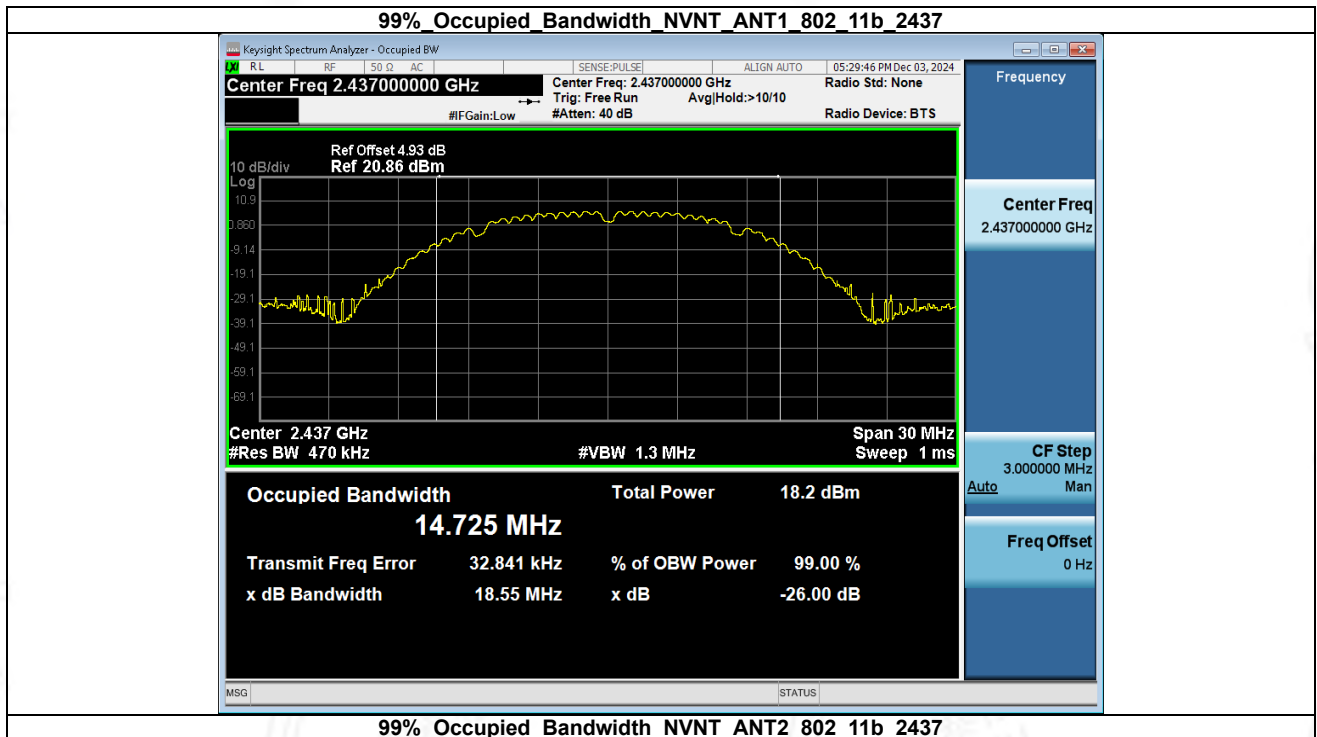
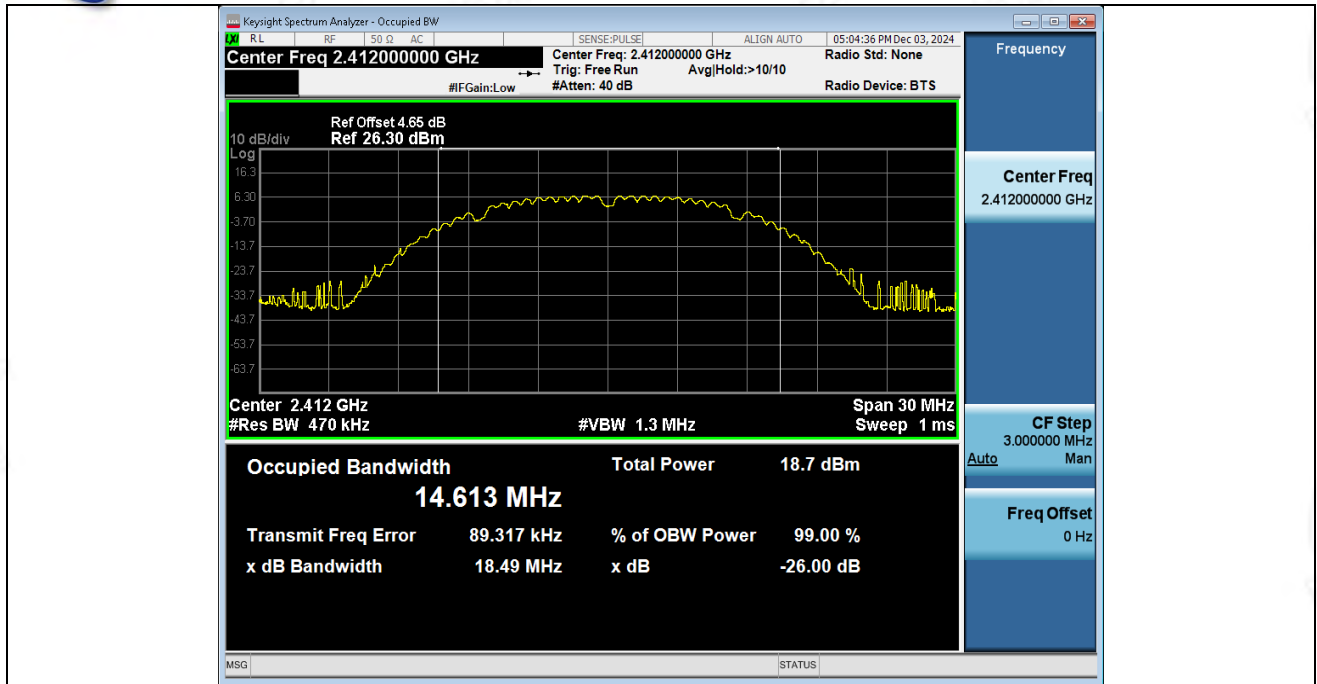
Condition	Antenna	Modulation	Frequency (MHz)	99% BW (MHz)
NVNT	ANT1	802.11b	2412.00	14.740
NVNT	ANT2	802.11b	2412.00	14.613
NVNT	ANT1	802.11b	2437.00	14.725
NVNT	ANT2	802.11b	2437.00	14.686
NVNT	ANT1	802.11b	2462.00	14.792
NVNT	ANT2	802.11b	2462.00	14.628
NVNT	ANT1	802.11g	2412.00	16.759
NVNT	ANT2	802.11g	2412.00	16.617
NVNT	ANT1	802.11g	2437.00	16.985
NVNT	ANT2	802.11g	2437.00	16.667
NVNT	ANT1	802.11g	2462.00	16.865
NVNT	ANT2	802.11g	2462.00	16.676
NVNT	ANT1	802.11n(HT20)	2412.00	17.942
NVNT	ANT2	802.11n(HT20)	2412.00	18.051
NVNT	ANT1	802.11n(HT20)	2437.00	18.099
NVNT	ANT2	802.11n(HT20)	2437.00	18.131
NVNT	ANT1	802.11n(HT20)	2462.00	18.120
NVNT	ANT2	802.11n(HT20)	2462.00	18.137
NVNT	ANT1	802.11n(HT40)	2422.00	36.282
NVNT	ANT2	802.11n(HT40)	2422.00	36.373
NVNT	ANT1	802.11n(HT40)	2437.00	36.401
NVNT	ANT2	802.11n(HT40)	2437.00	36.483
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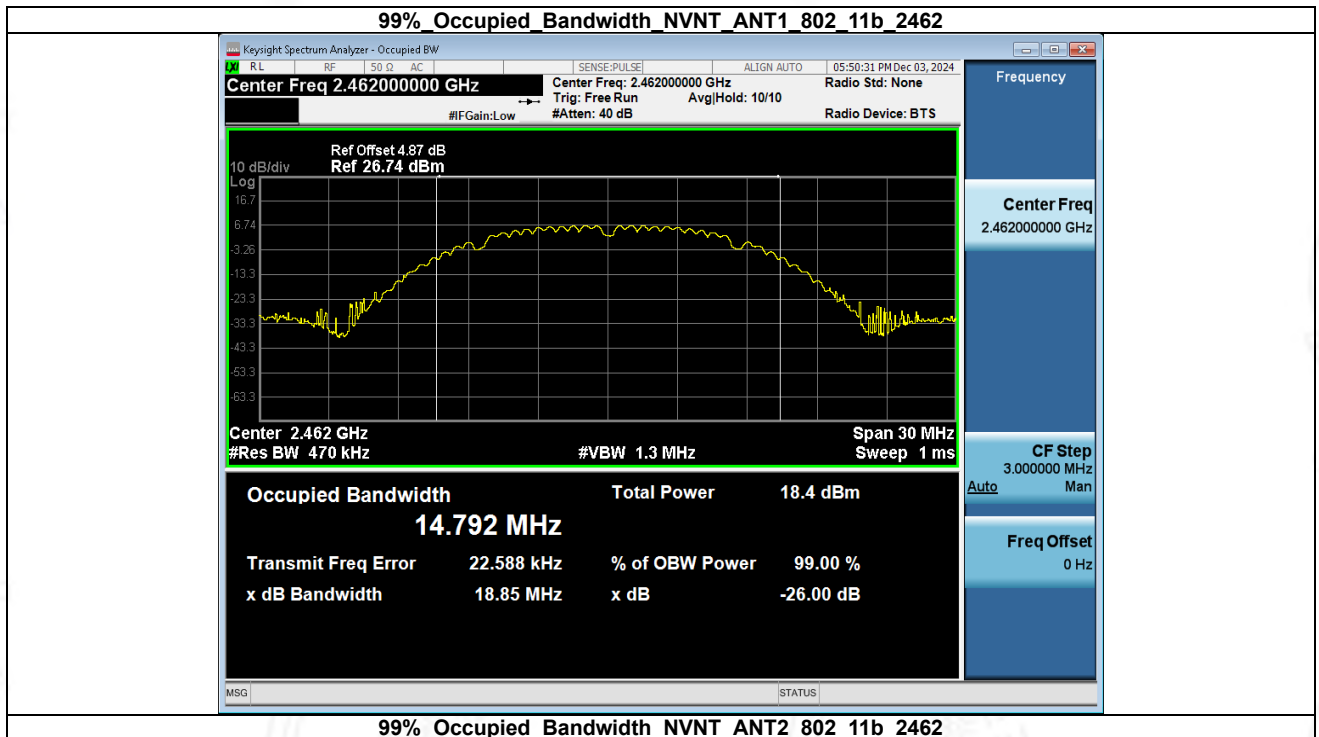
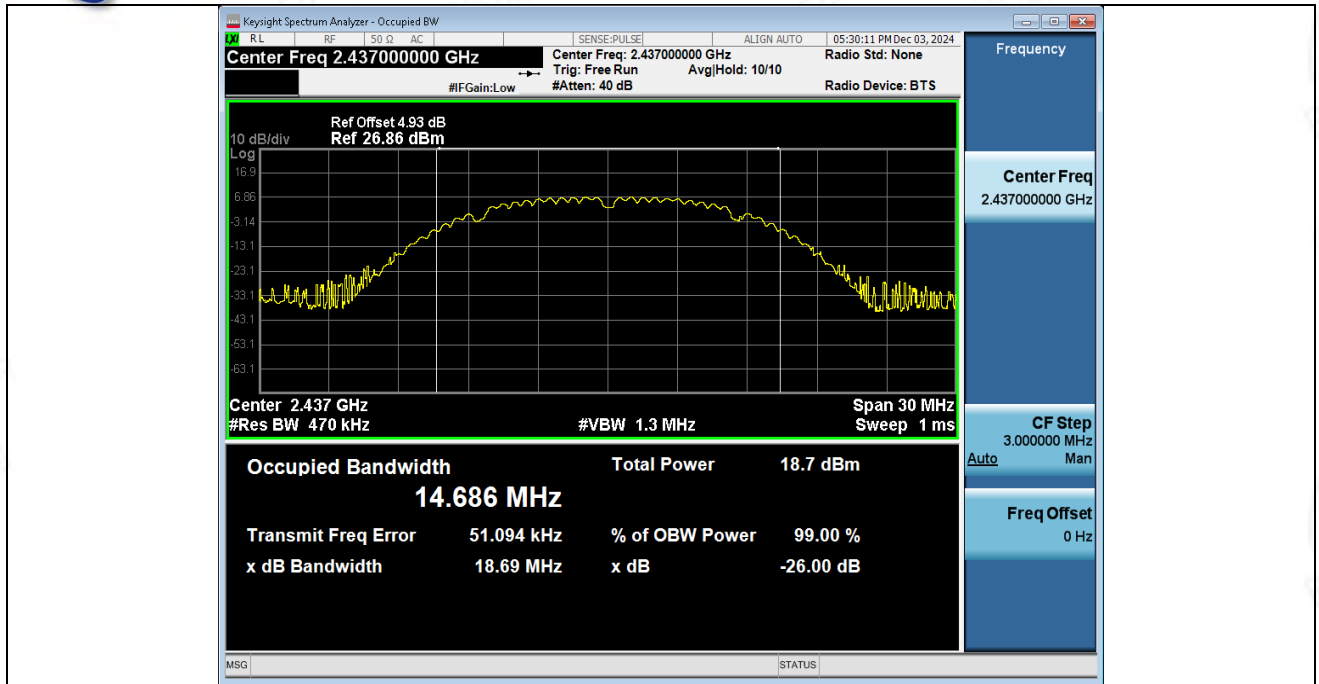
99% Occupied Bandwidth NVNT ANT1 802_11b_2412

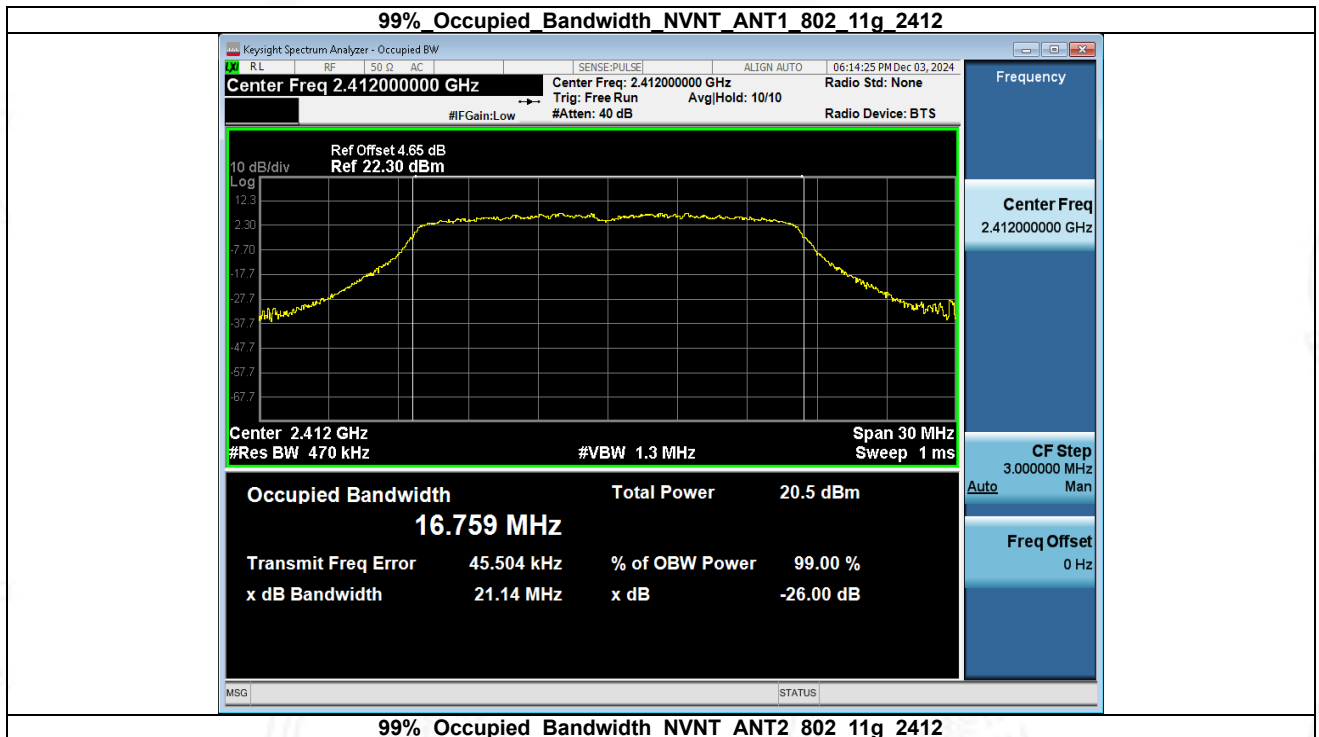
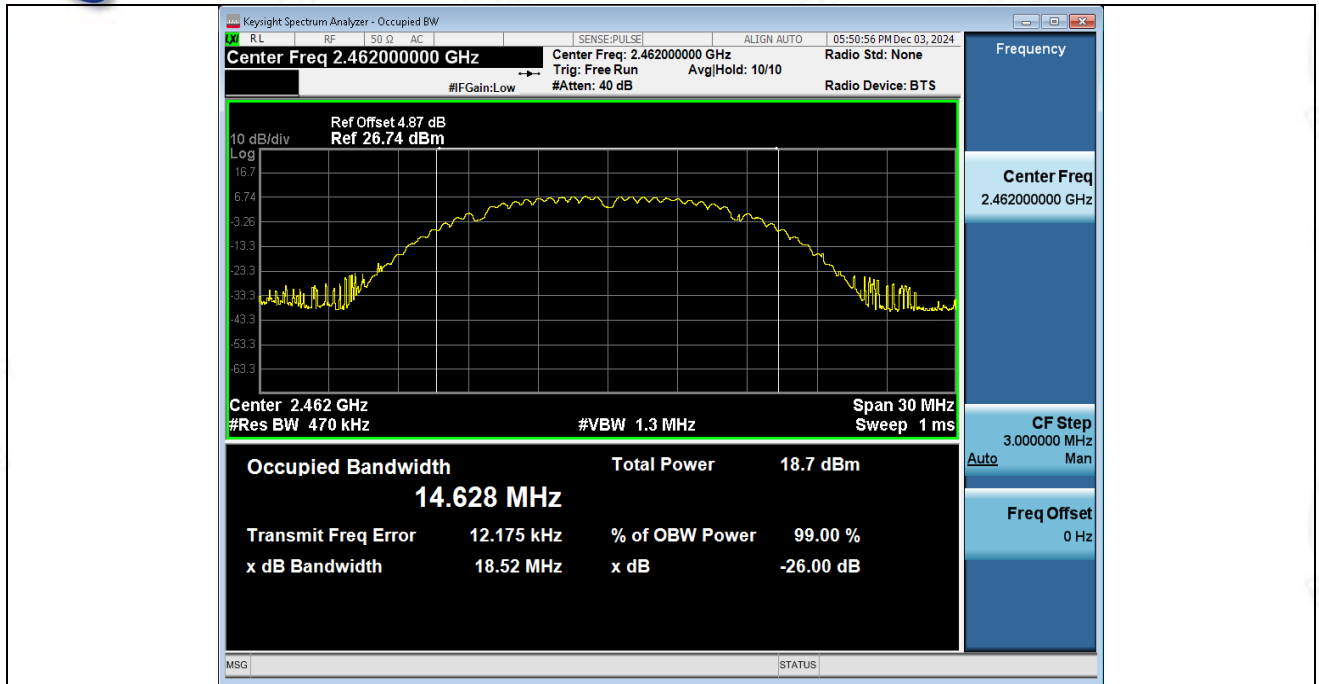


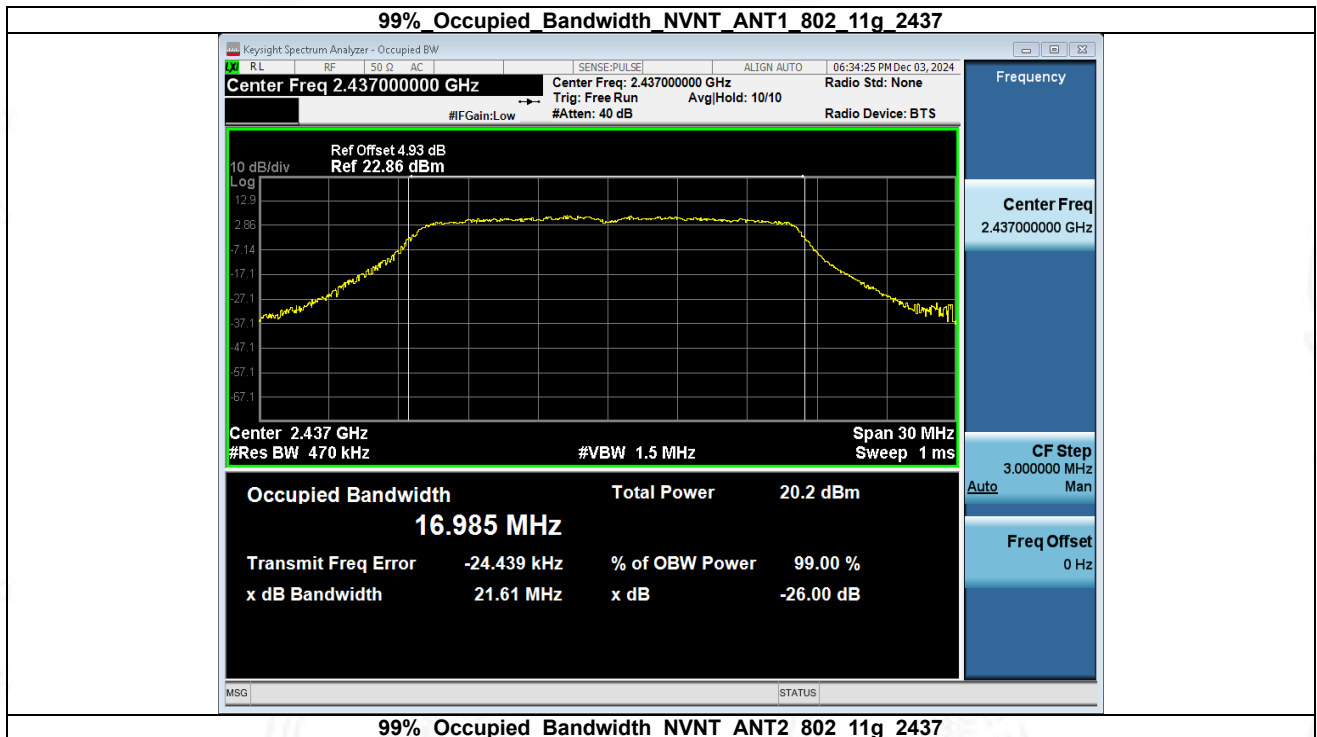
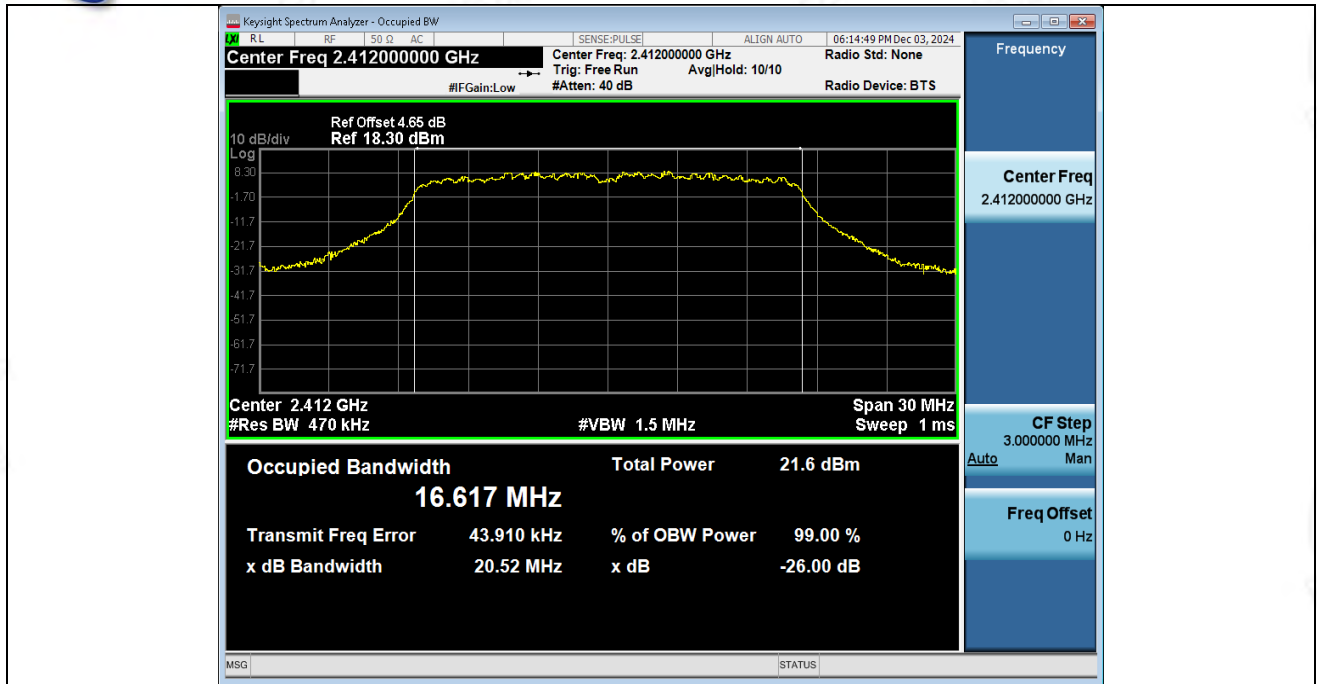
99% Occupied Bandwidth NVNT ANT2 802_11b_2412

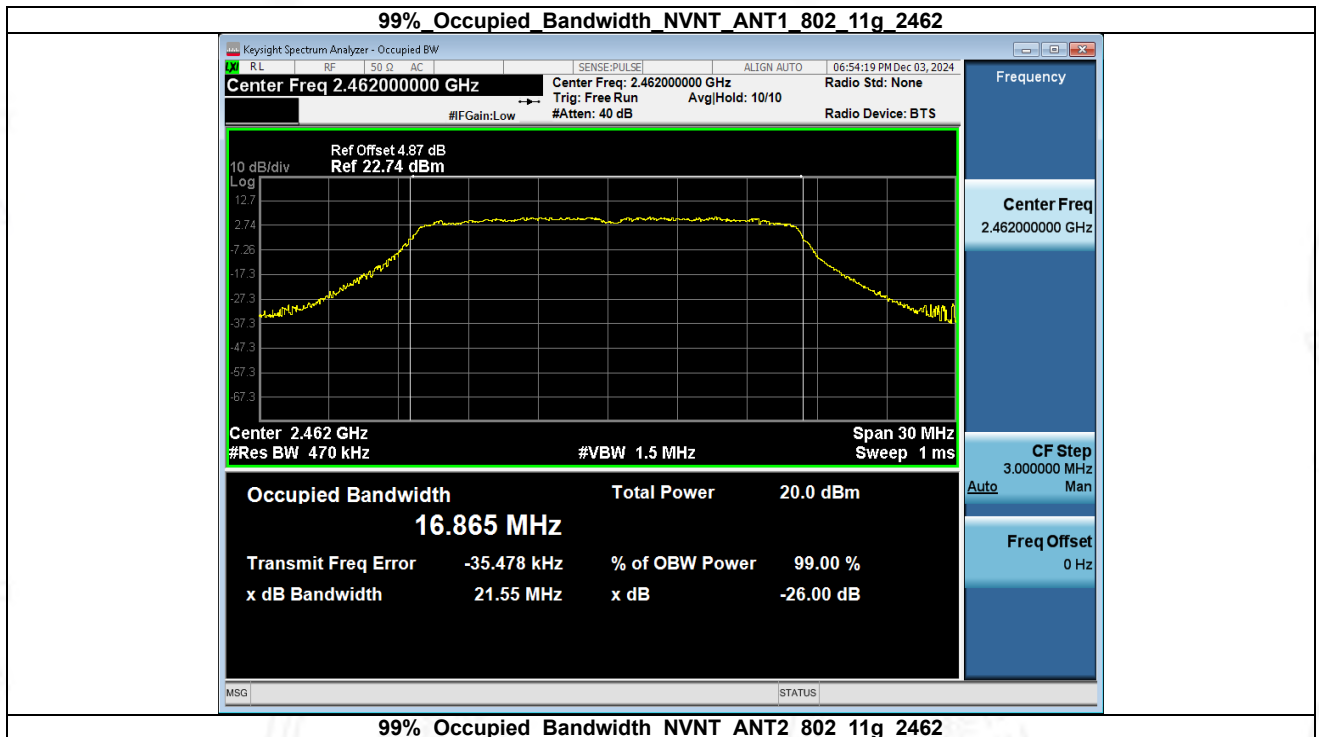
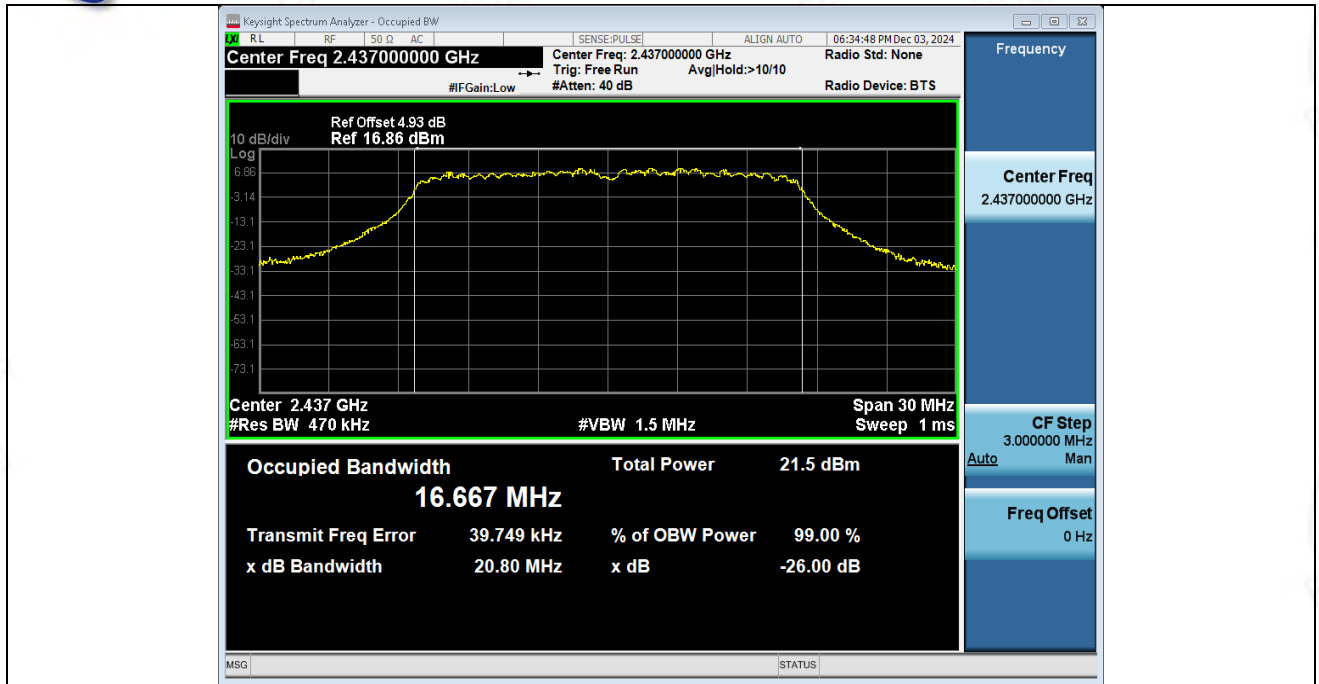


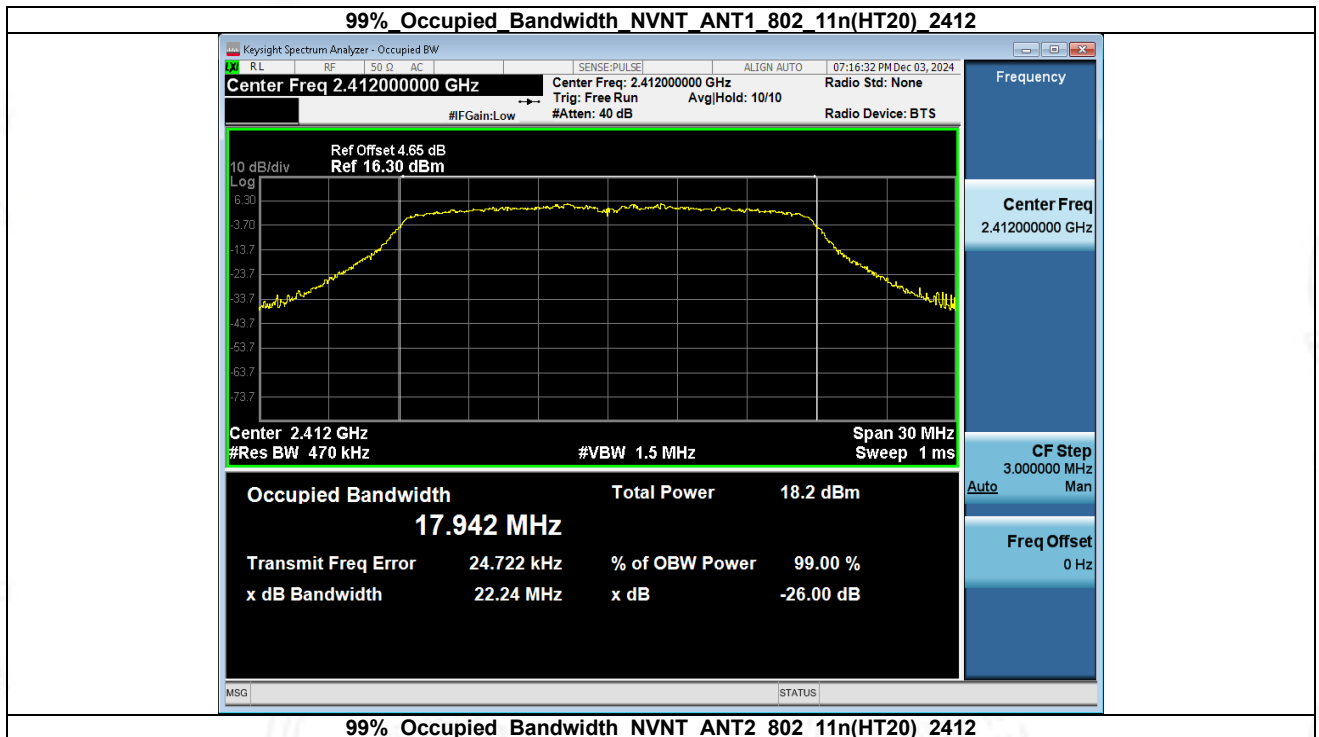
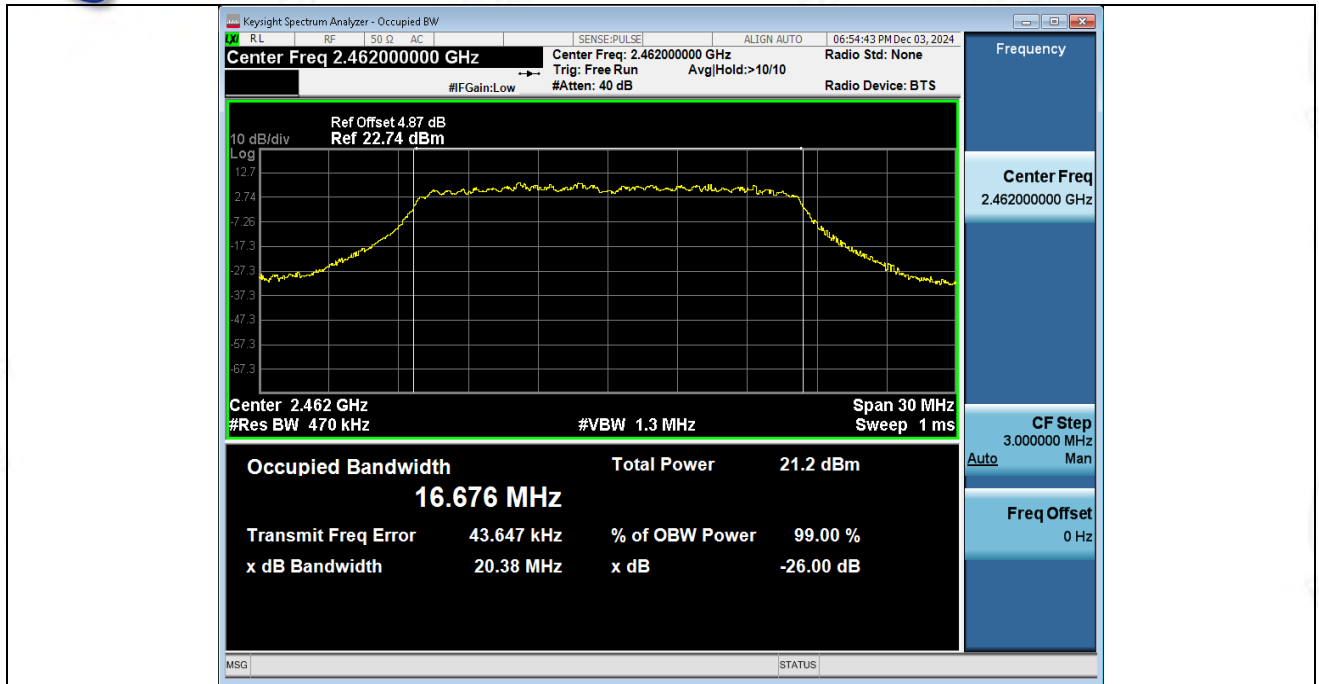


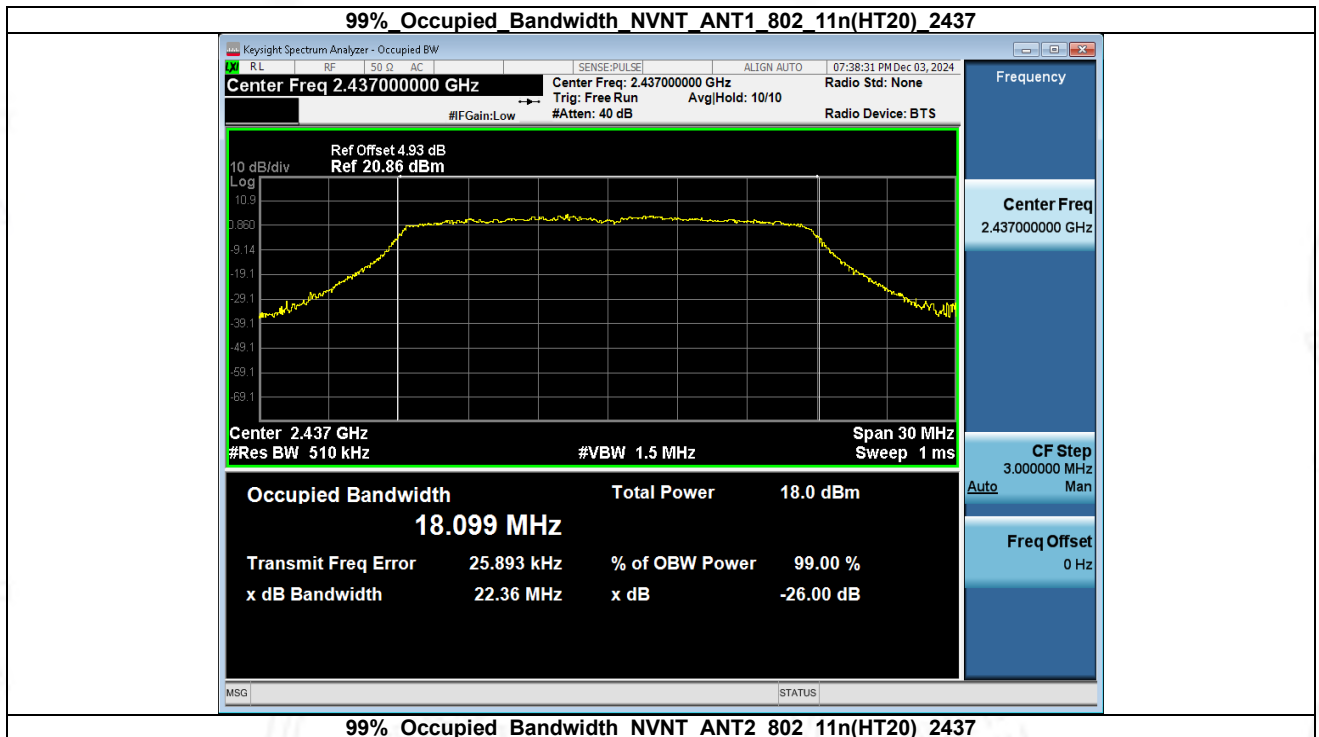
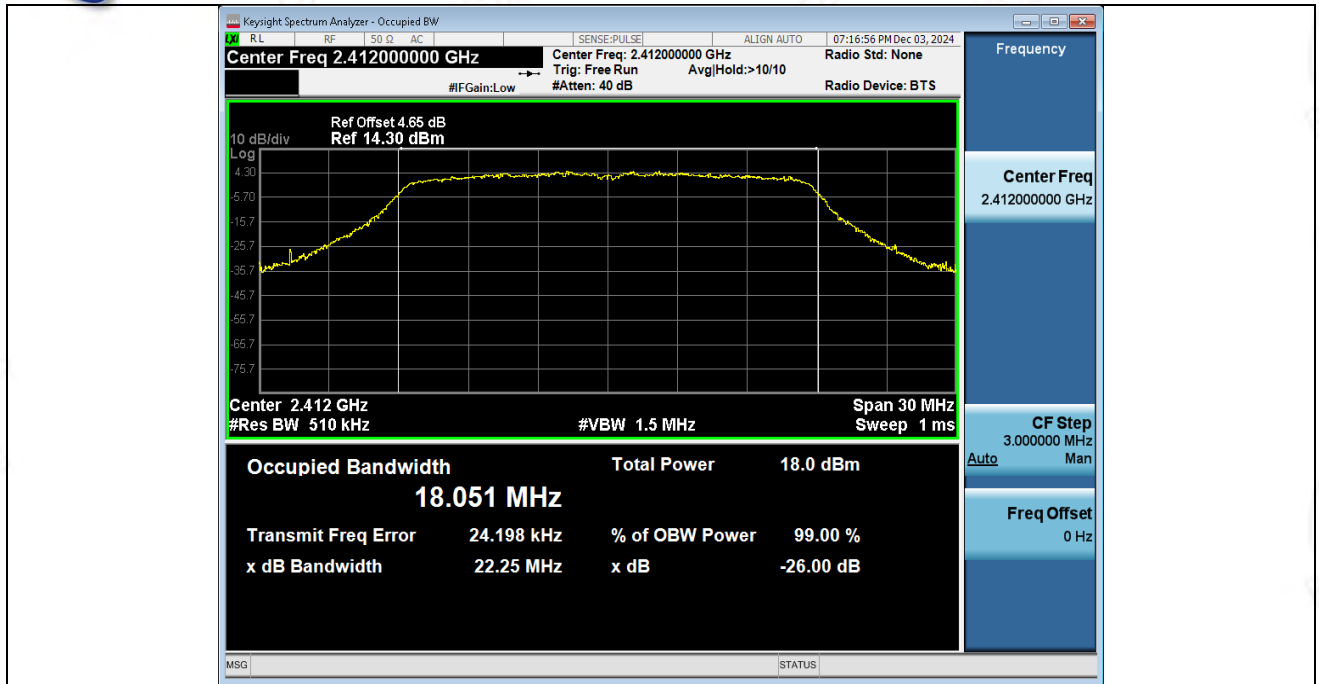


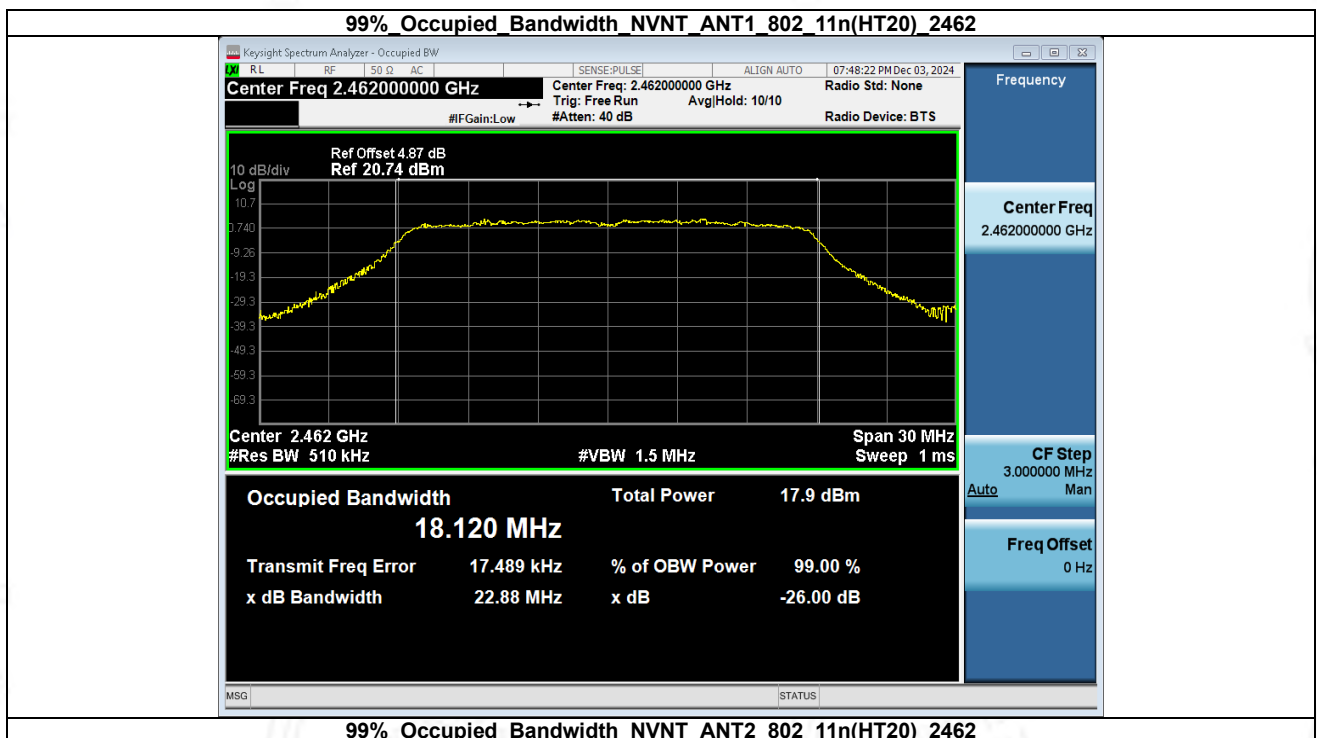
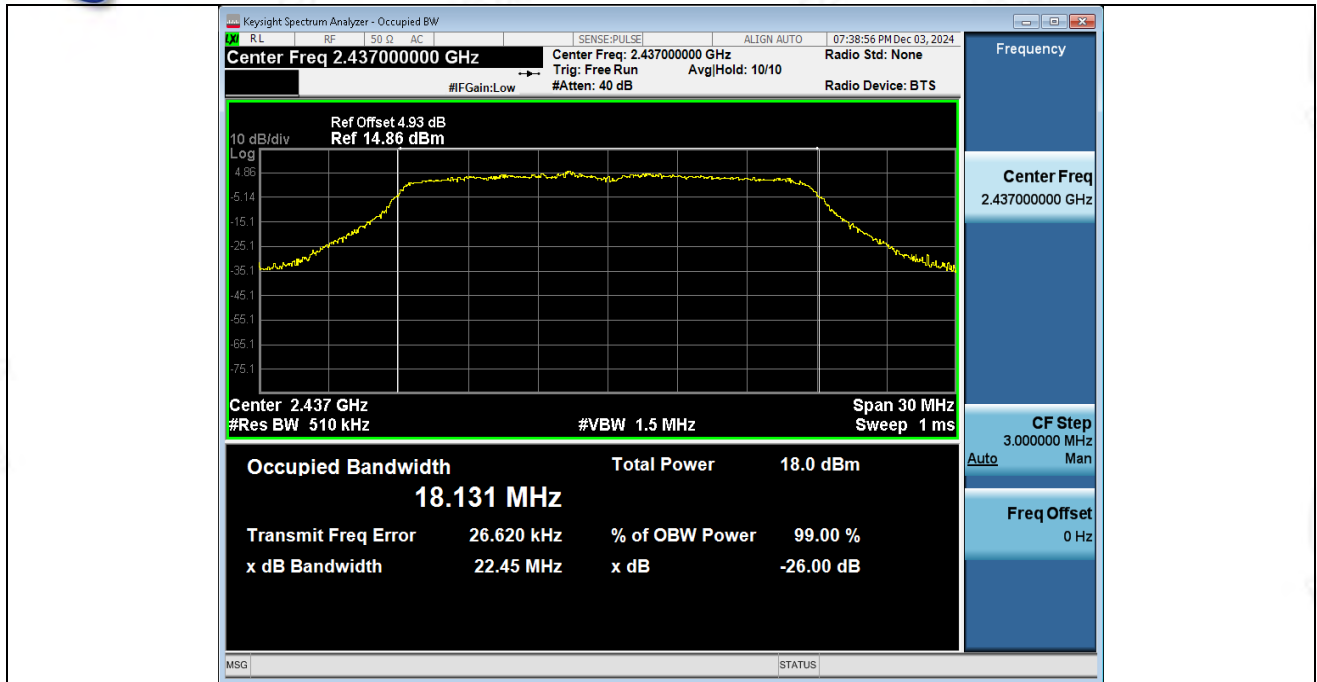


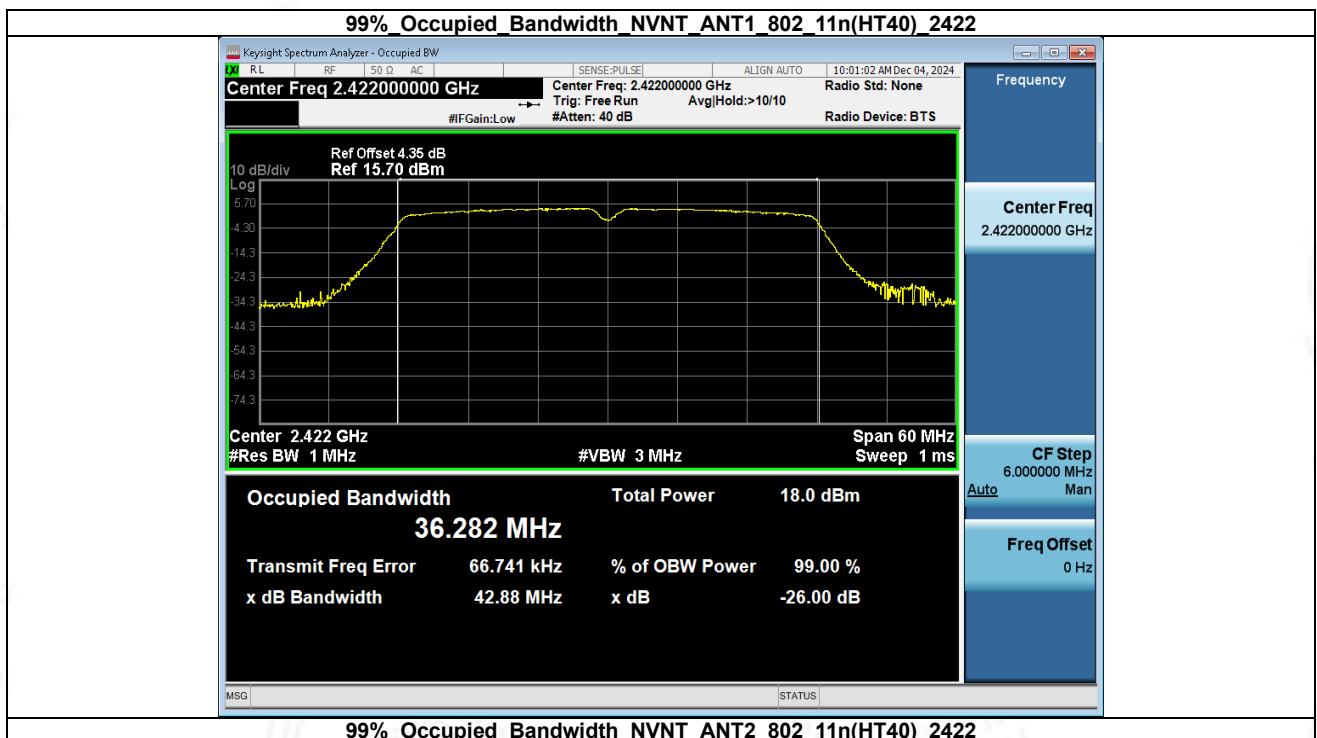
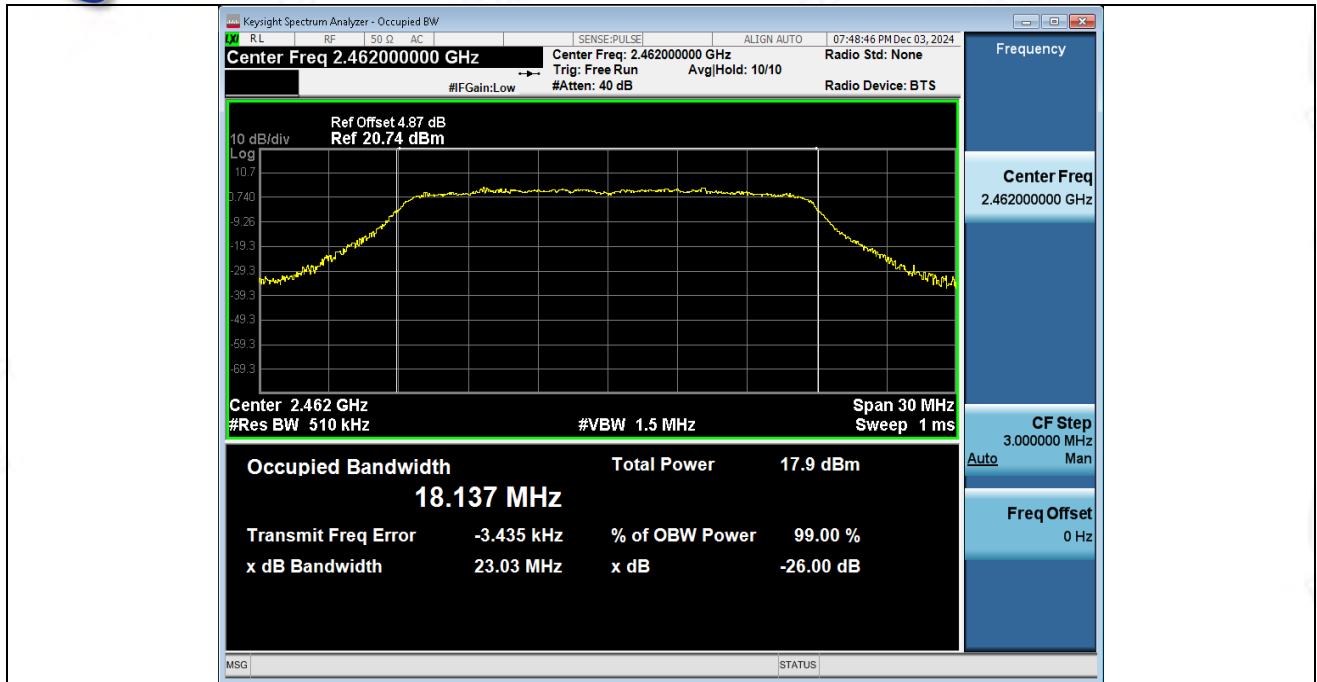


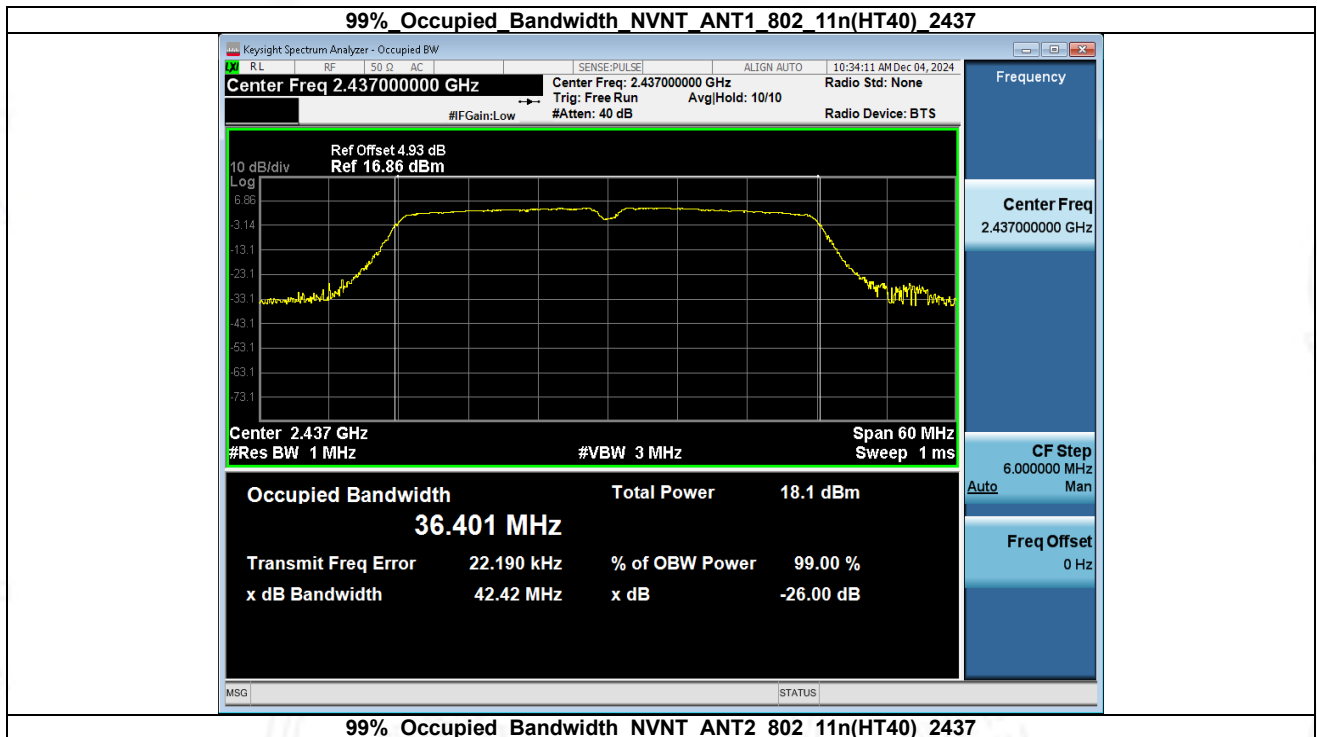
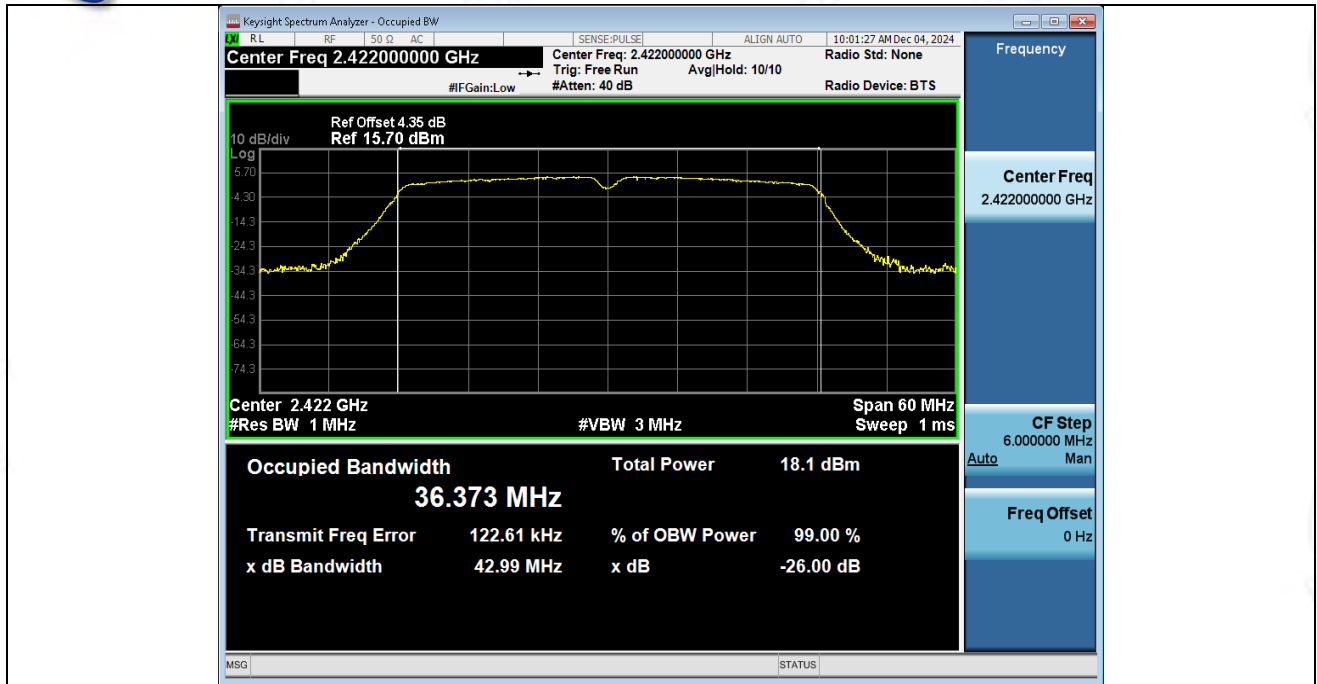


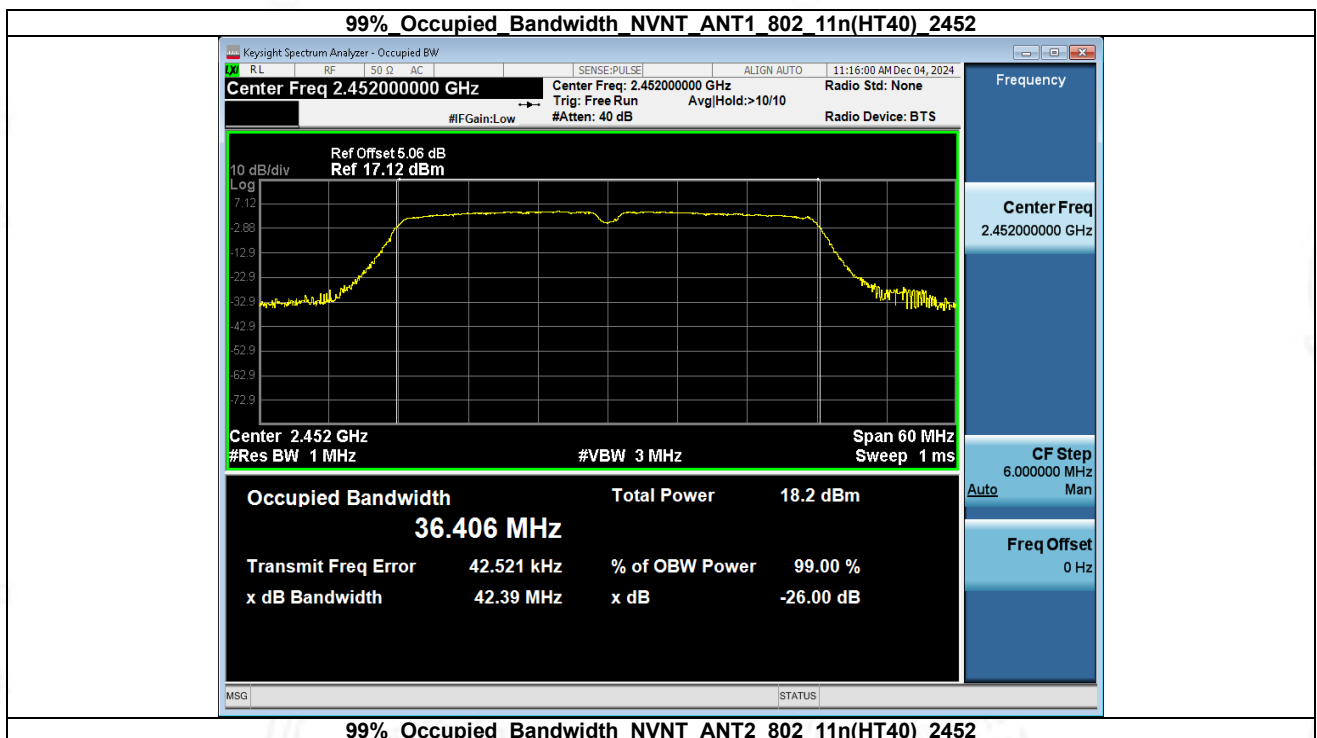


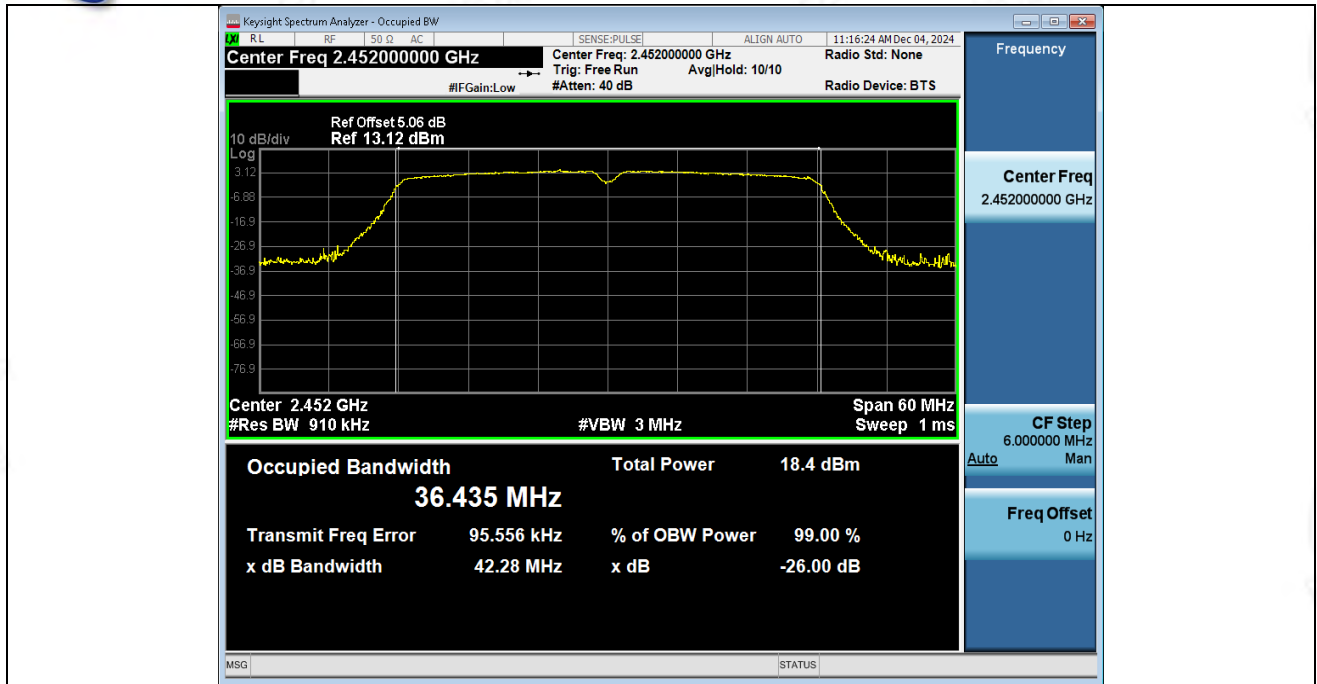






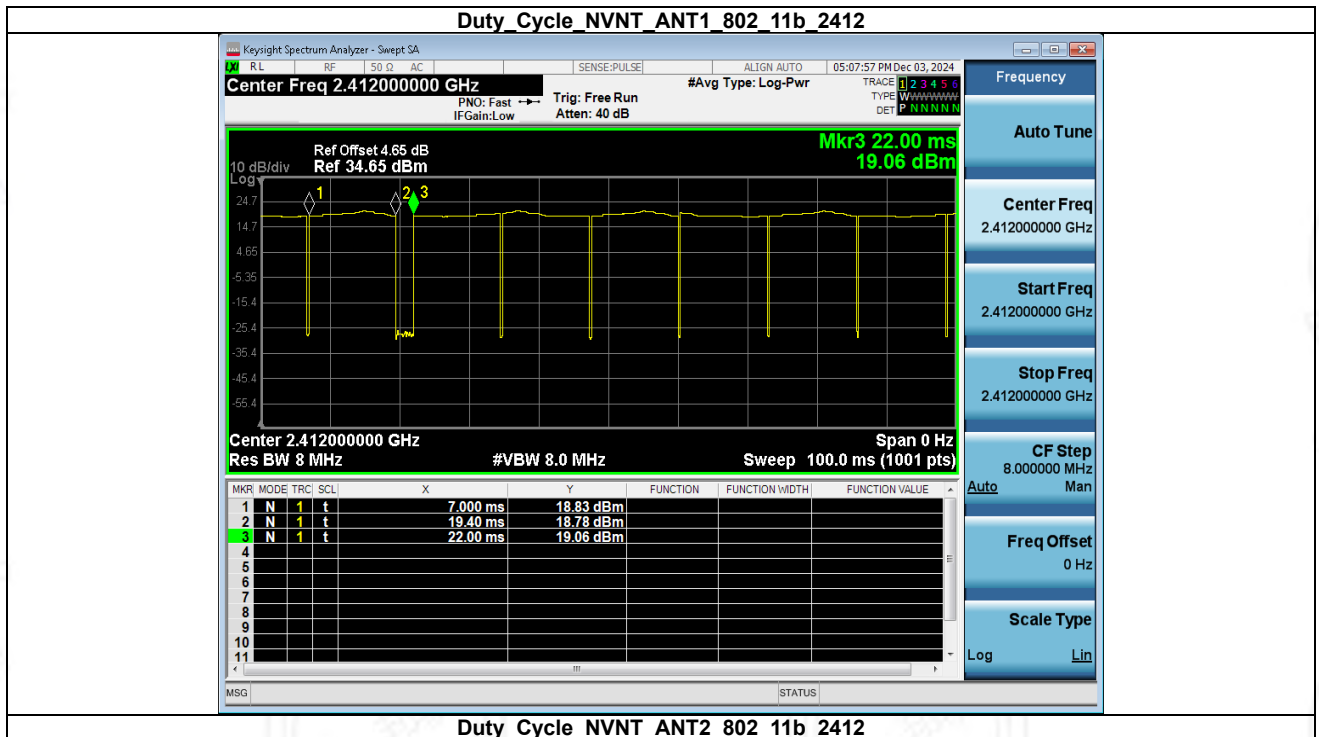


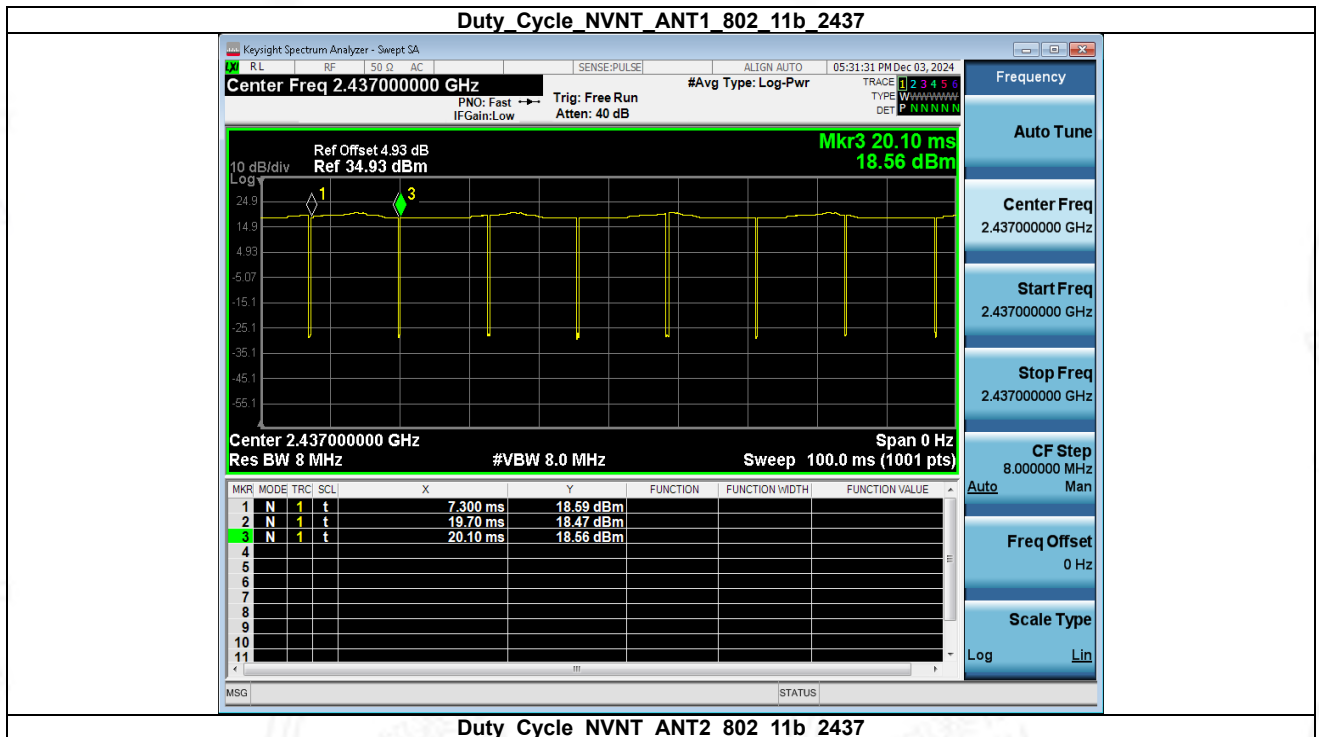
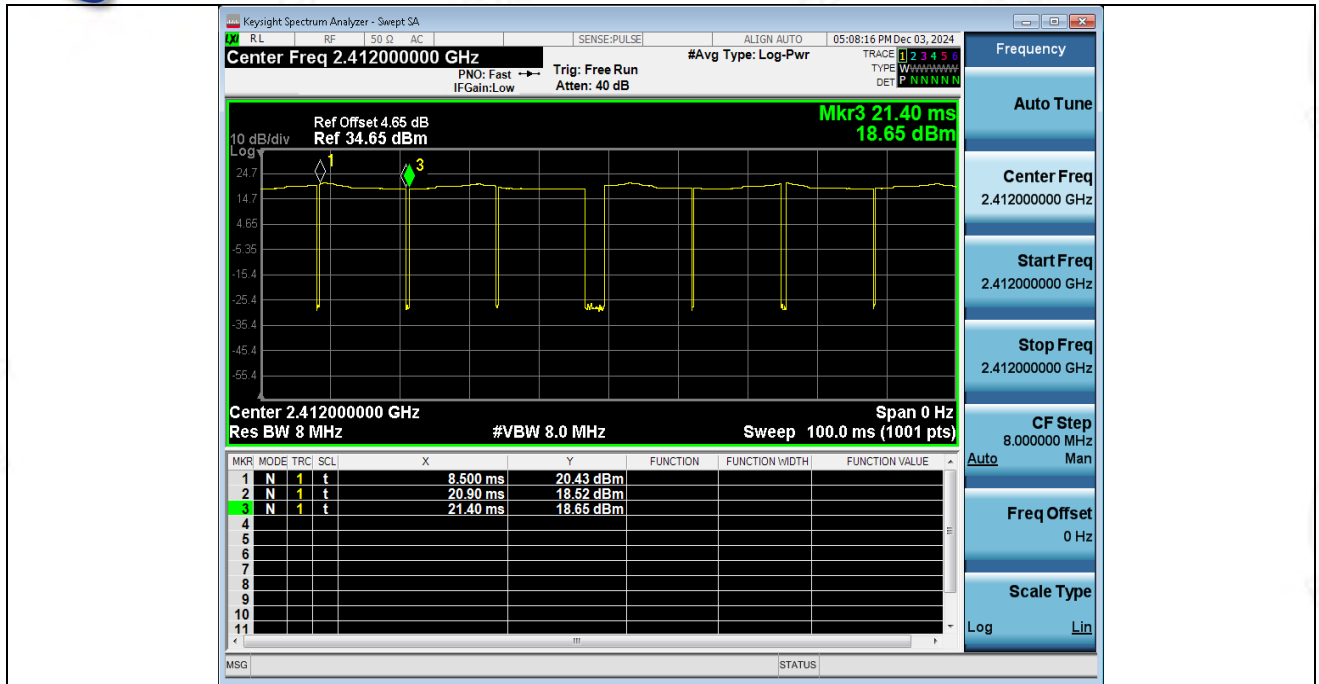


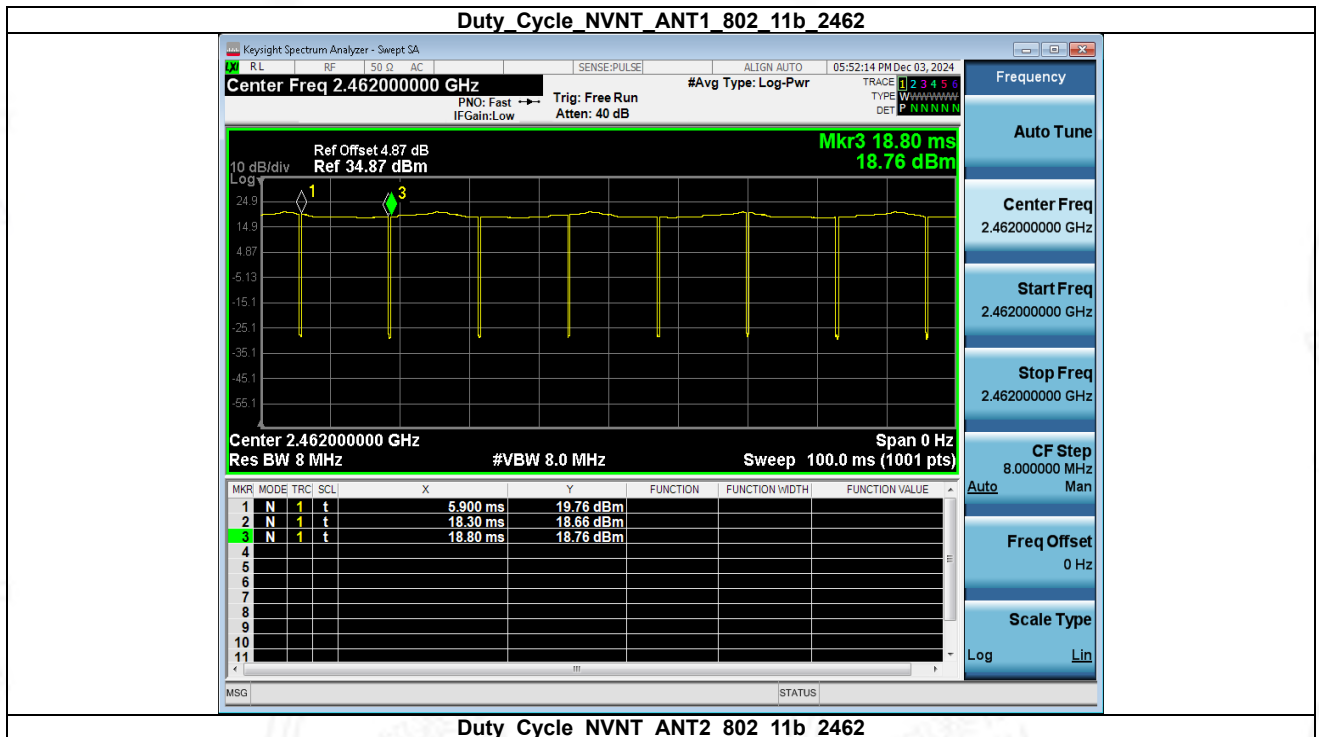
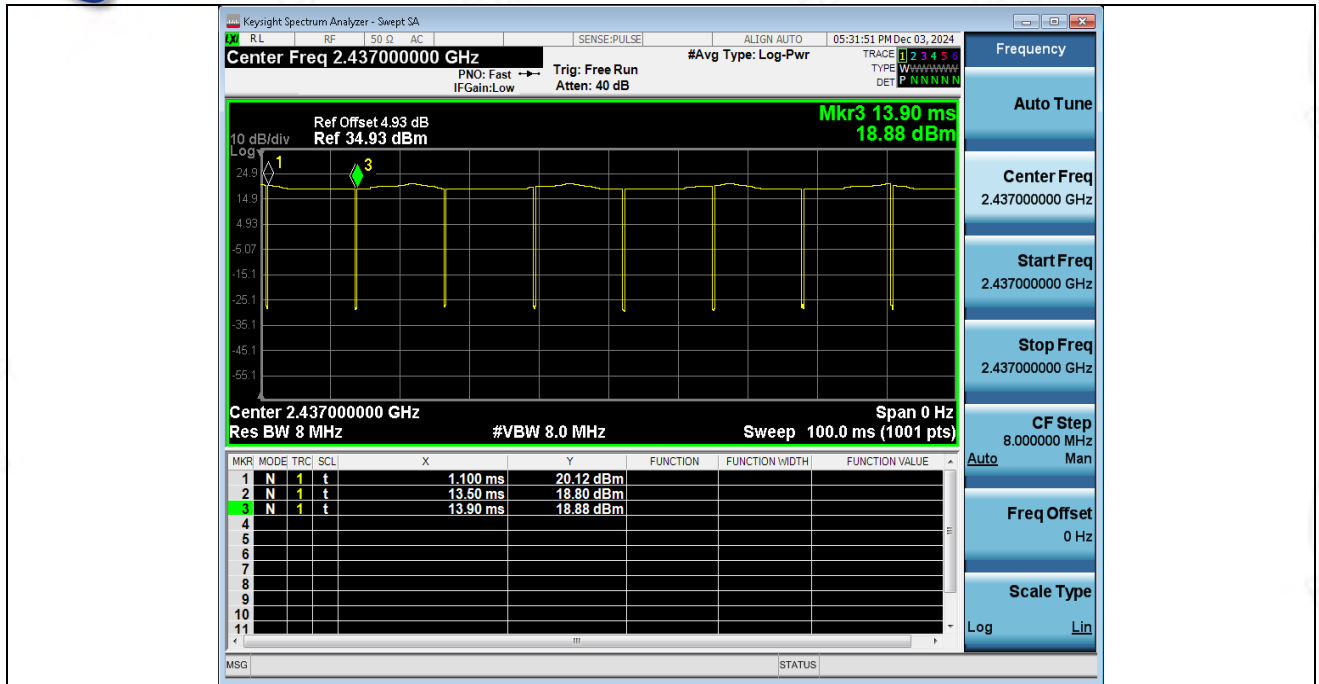


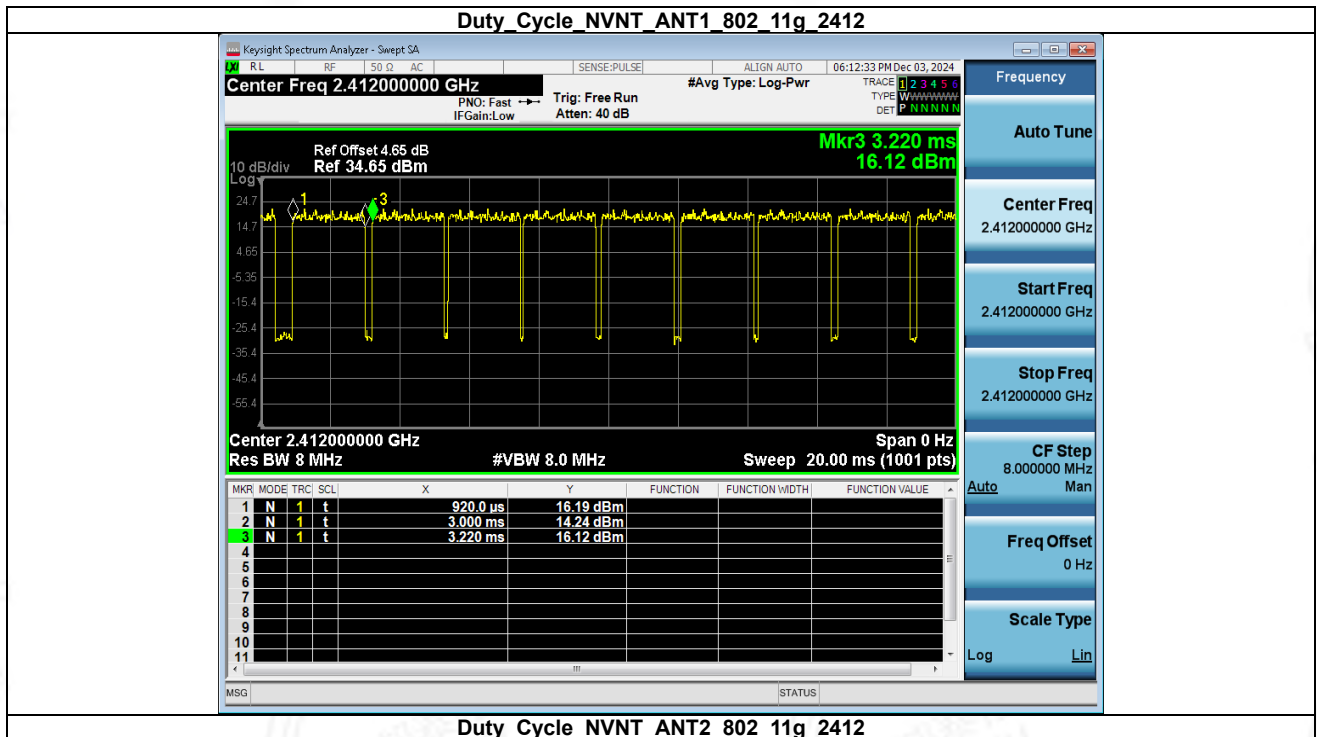
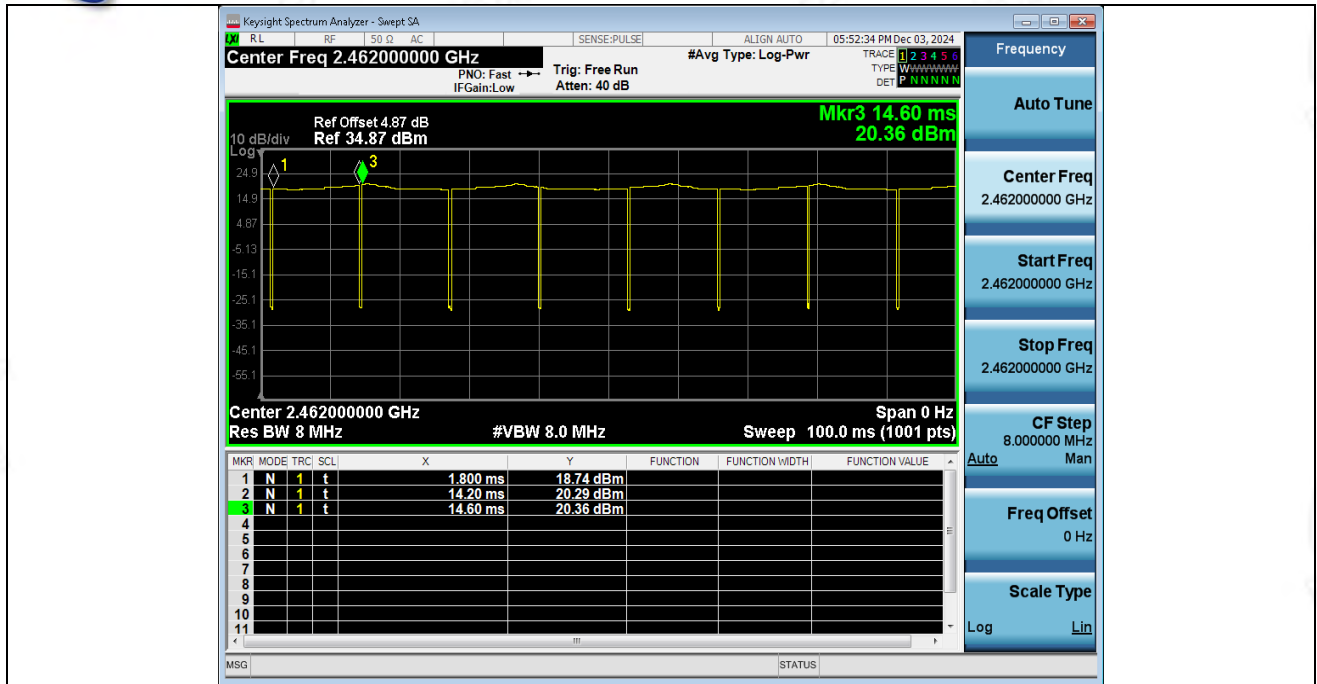
3. Duty Cycle

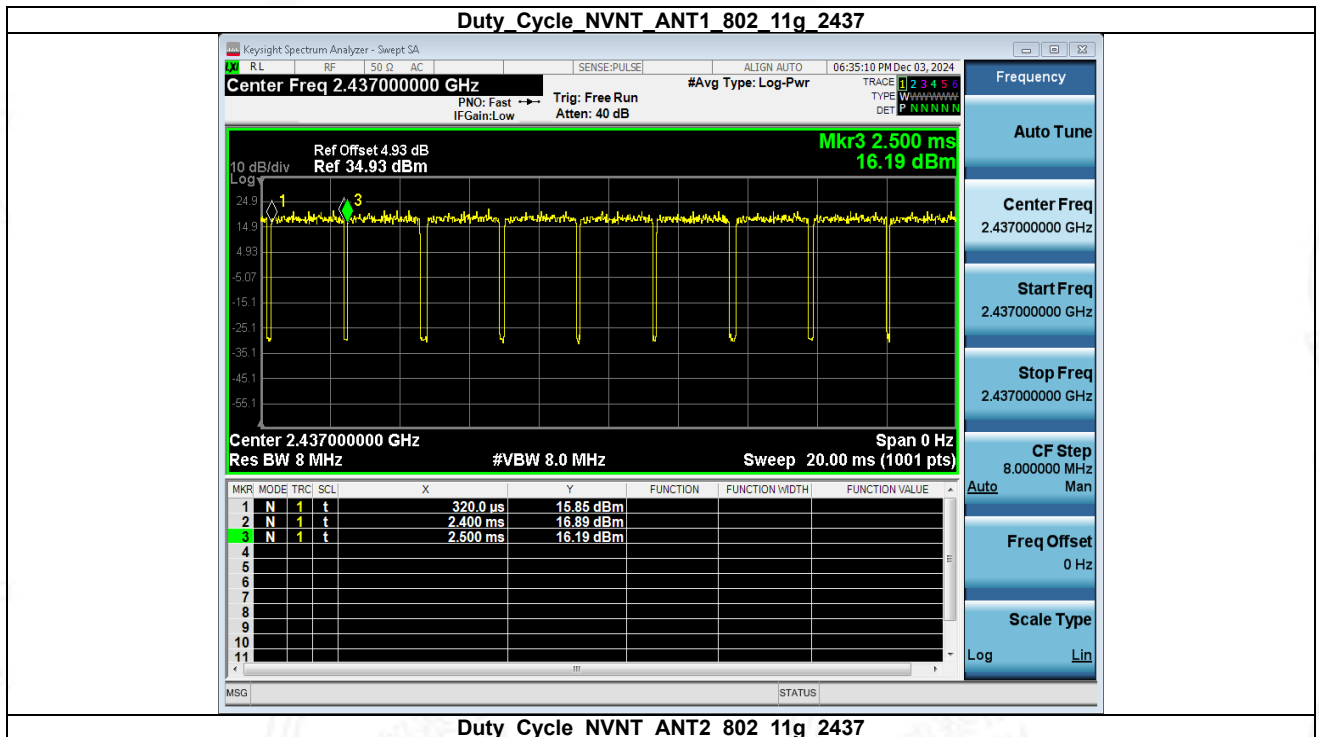
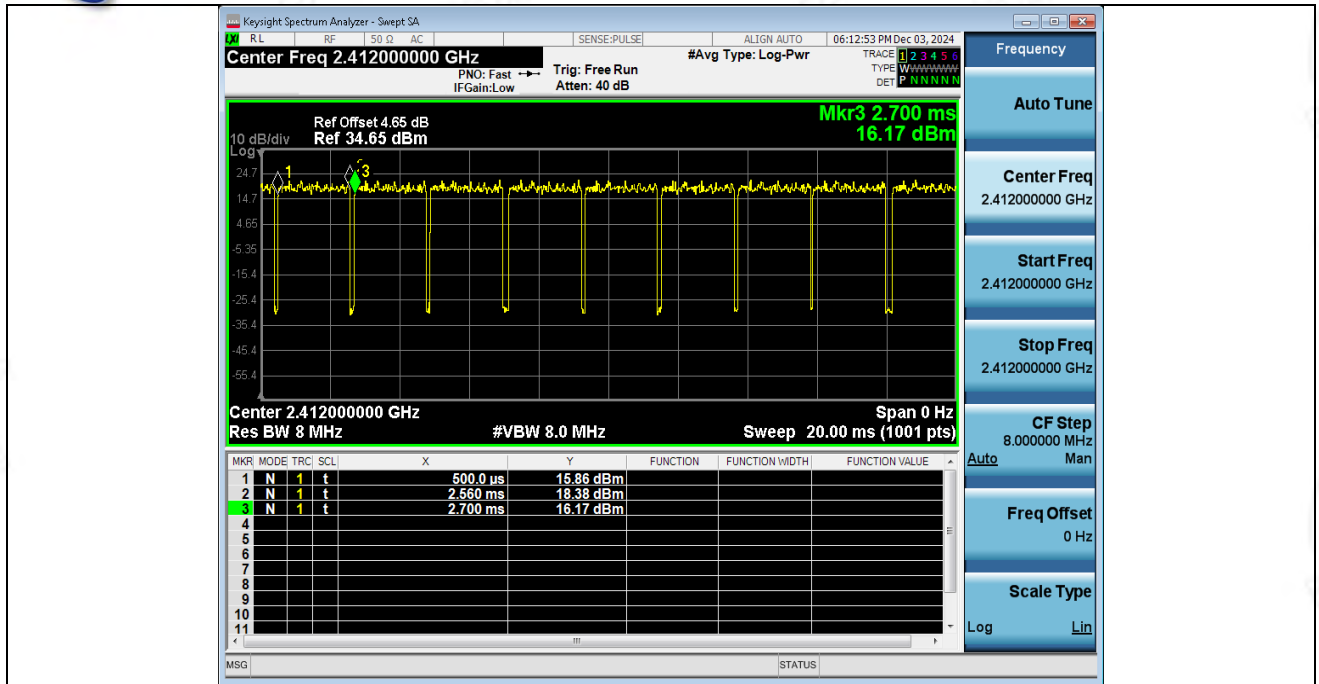
Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	83.33	0.79
NVNT	ANT2	802.11b	2412.00	96.90	0.14
NVNT	ANT1	802.11b	2437.00	97.66	0.10
NVNT	ANT2	802.11b	2437.00	97.66	0.10
NVNT	ANT1	802.11b	2462.00	96.90	0.14
NVNT	ANT2	802.11b	2462.00	97.66	0.10
NVNT	ANT1	802.11g	2412.00	91.30	0.40
NVNT	ANT2	802.11g	2412.00	94.55	0.24
NVNT	ANT1	802.11g	2437.00	96.33	0.16
NVNT	ANT2	802.11g	2437.00	92.86	0.32
NVNT	ANT1	802.11g	2462.00	95.41	0.20
NVNT	ANT2	802.11g	2462.00	93.69	0.28
NVNT	ANT1	802.11n(HT20)	2412.00	92.38	0.34
NVNT	ANT2	802.11n(HT20)	2412.00	92.38	0.34
NVNT	ANT1	802.11n(HT20)	2437.00	90.65	0.43
NVNT	ANT2	802.11n(HT20)	2437.00	91.51	0.39
NVNT	ANT1	802.11n(HT20)	2462.00	95.10	0.22
NVNT	ANT2	802.11n(HT20)	2462.00	89.81	0.47
NVNT	ANT1	802.11n(HT40)	2422.00	84.48	0.73
NVNT	ANT2	802.11n(HT40)	2422.00	92.31	0.35
NVNT	ANT1	802.11n(HT40)	2437.00	85.71	0.67
NVNT	ANT2	802.11n(HT40)	2437.00	92.31	0.35
NVNT	ANT1	802.11n(HT40)	2452.00	88.89	0.51
NVNT	ANT2	802.11n(HT40)	2452.00	85.71	0.67

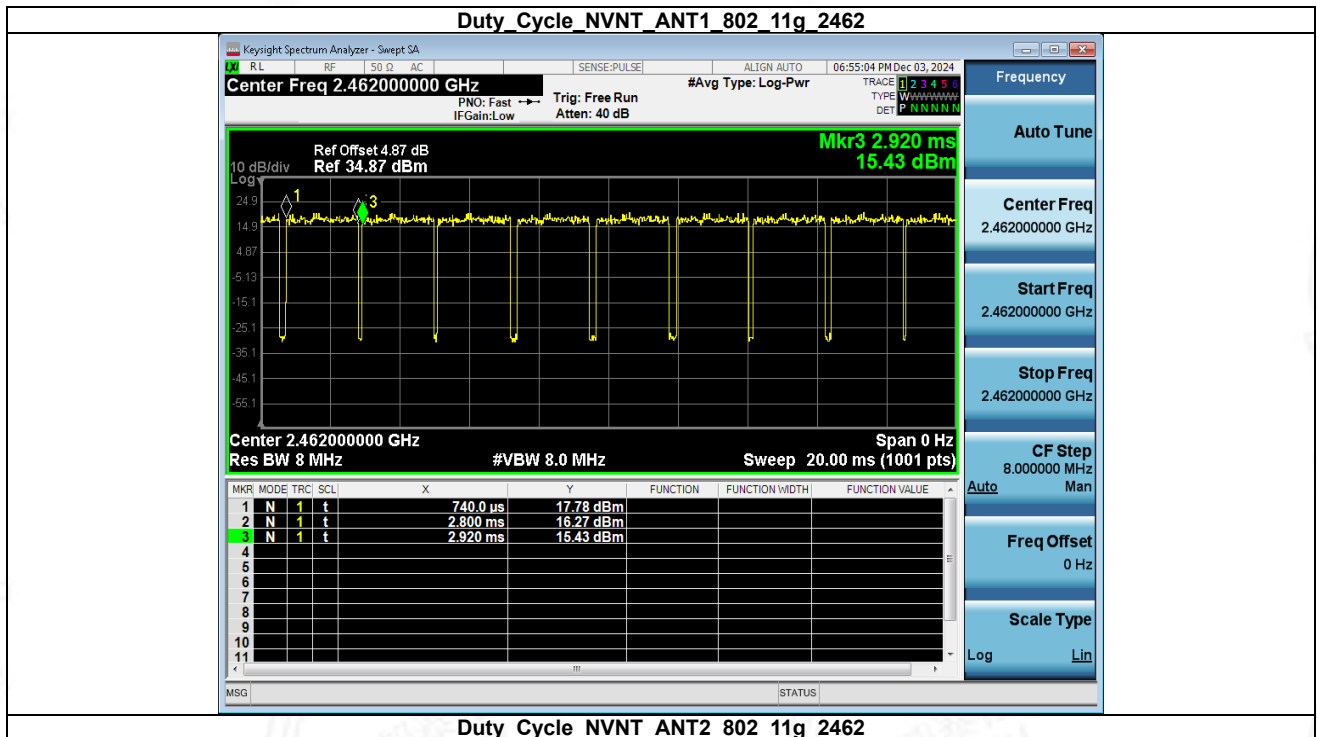
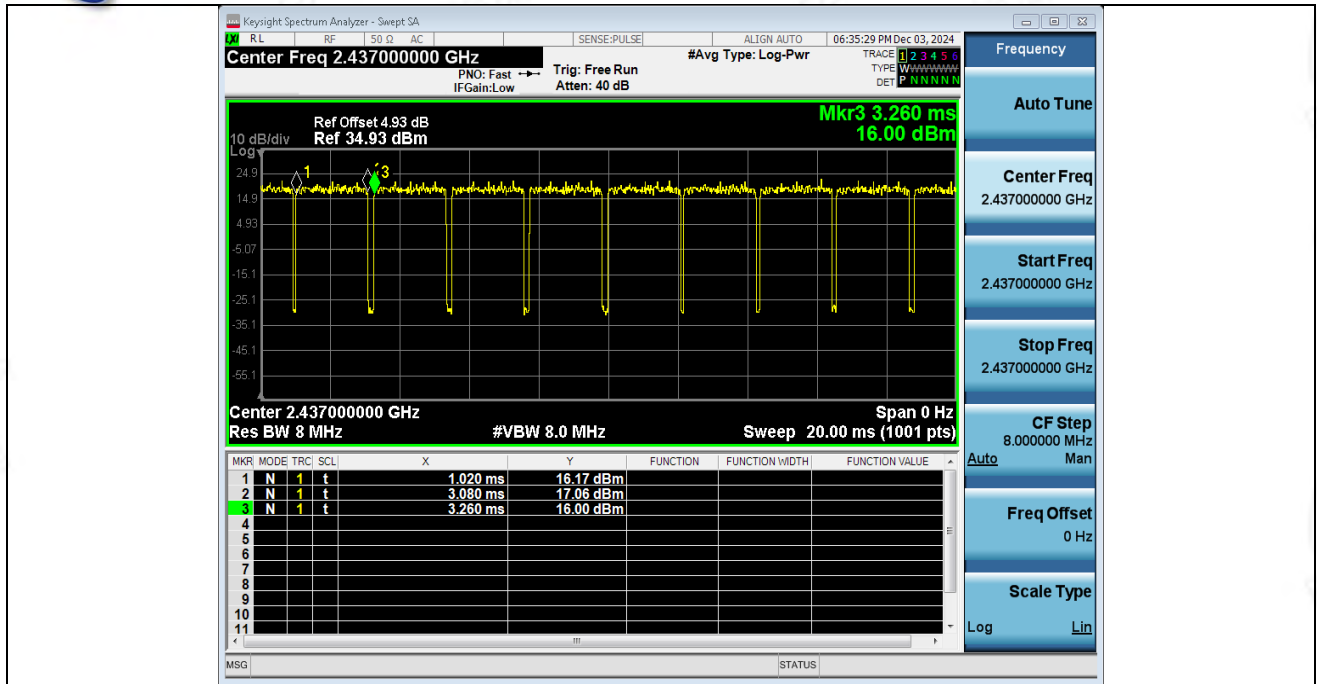


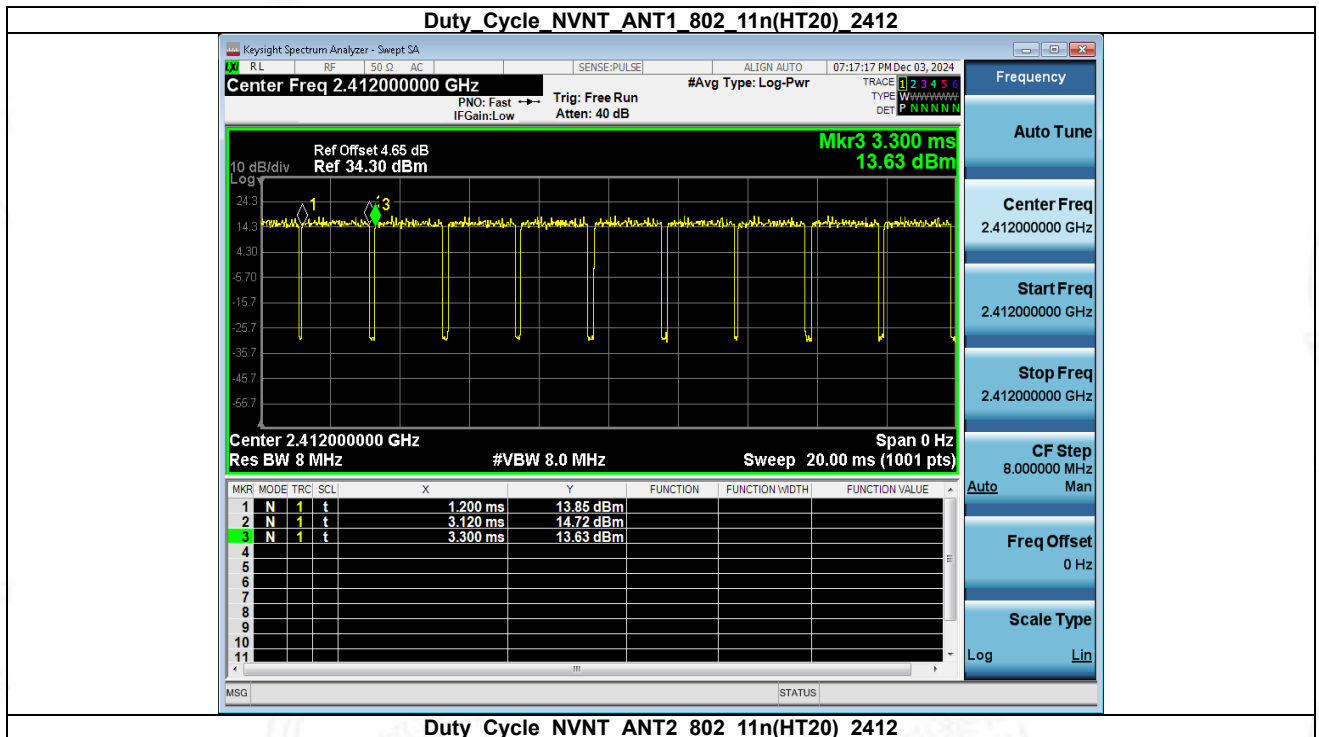
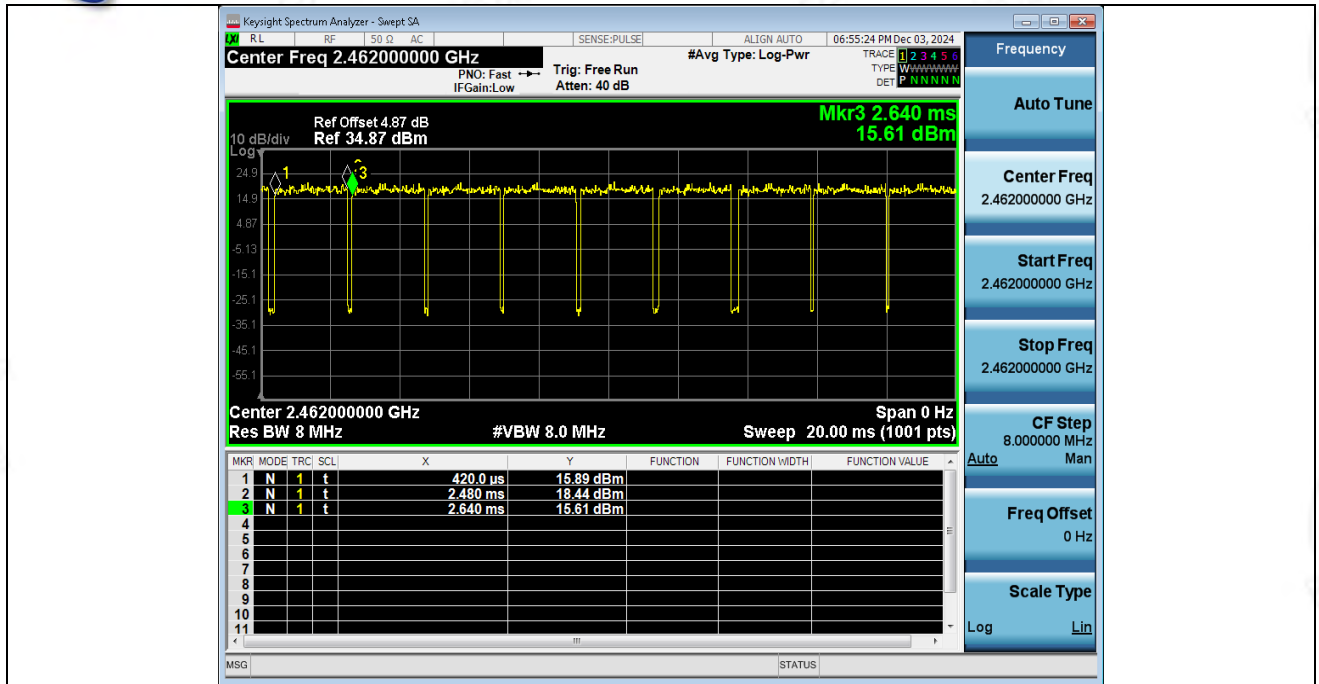


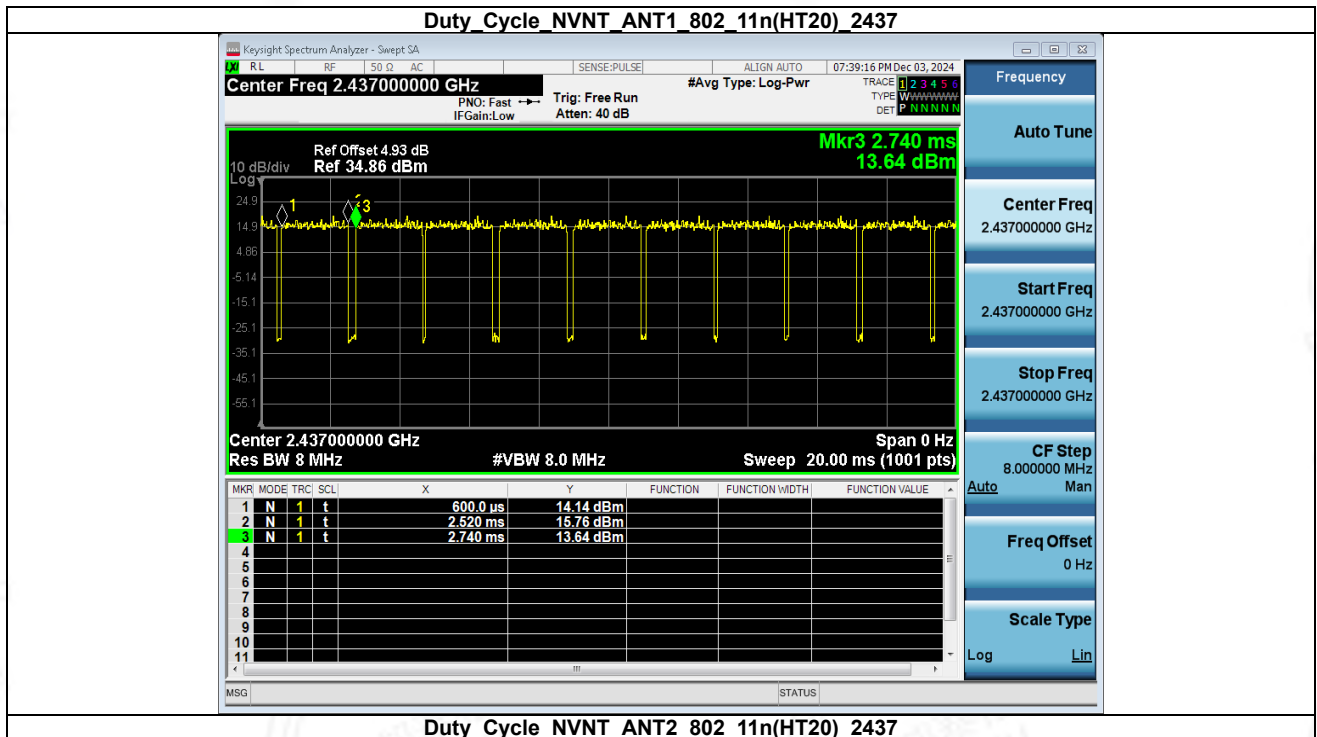
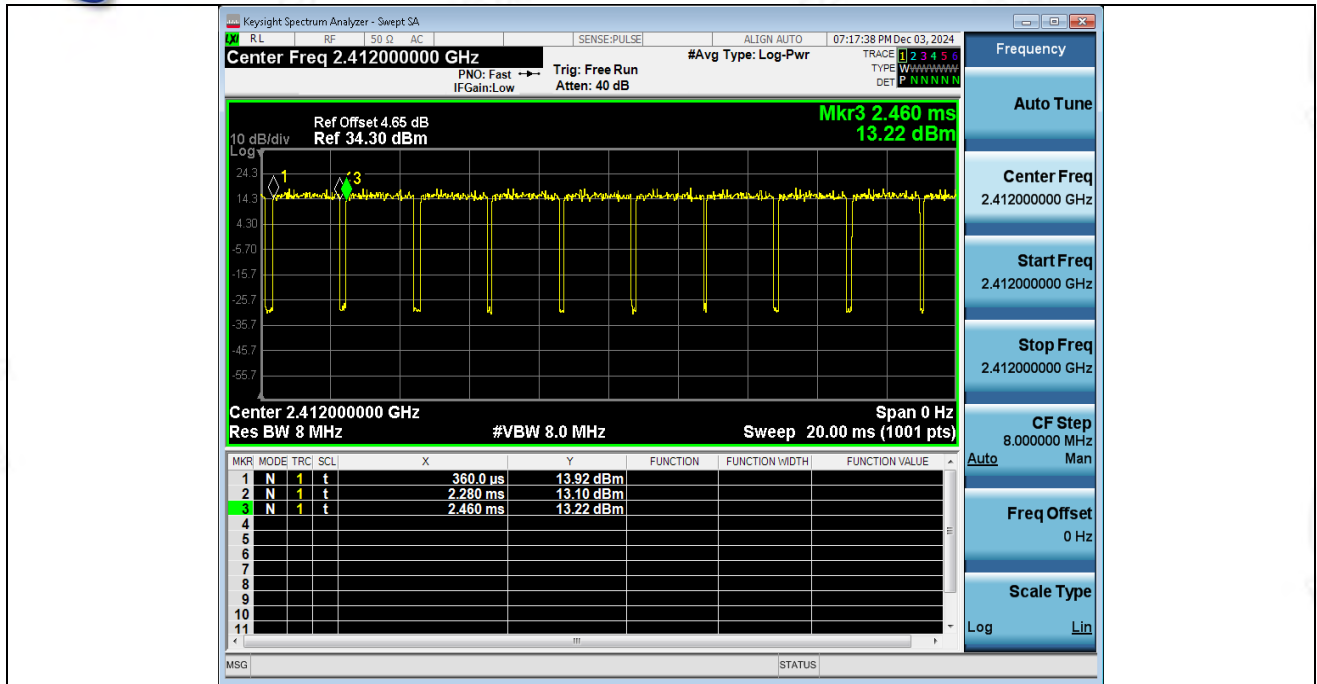


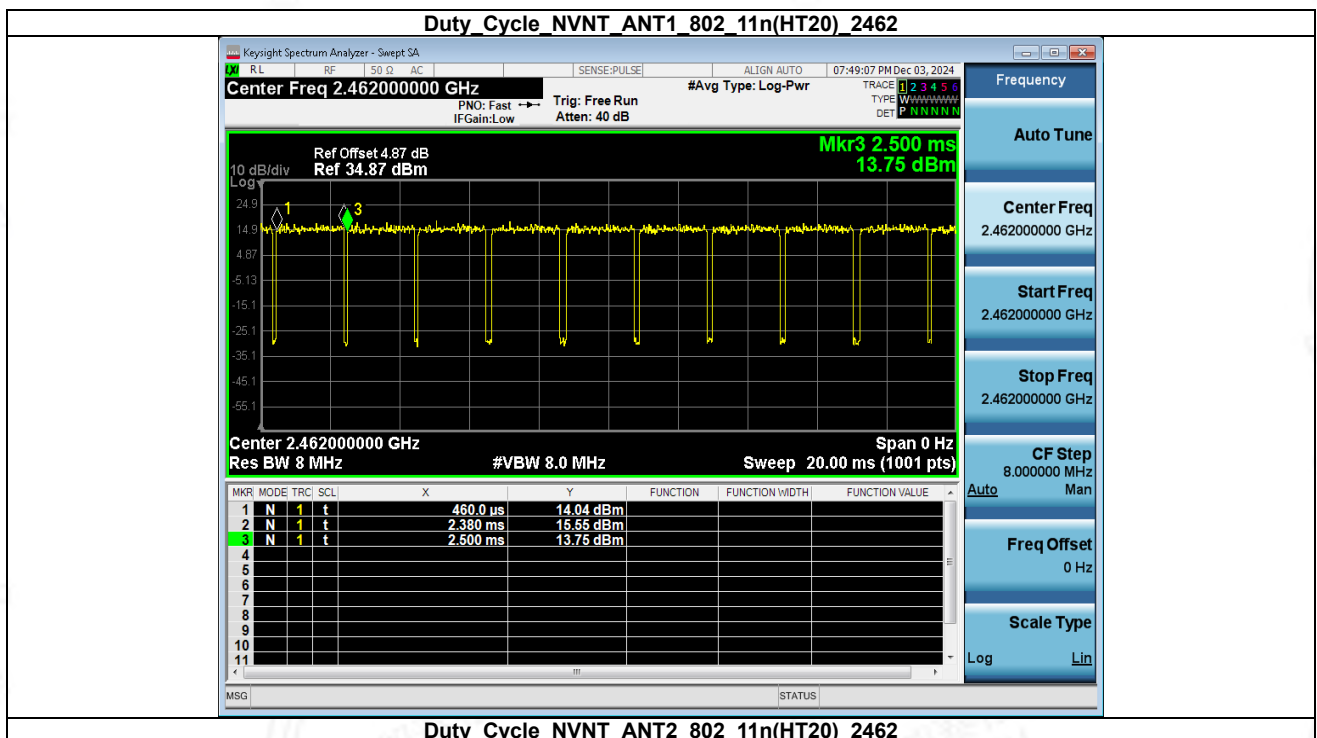
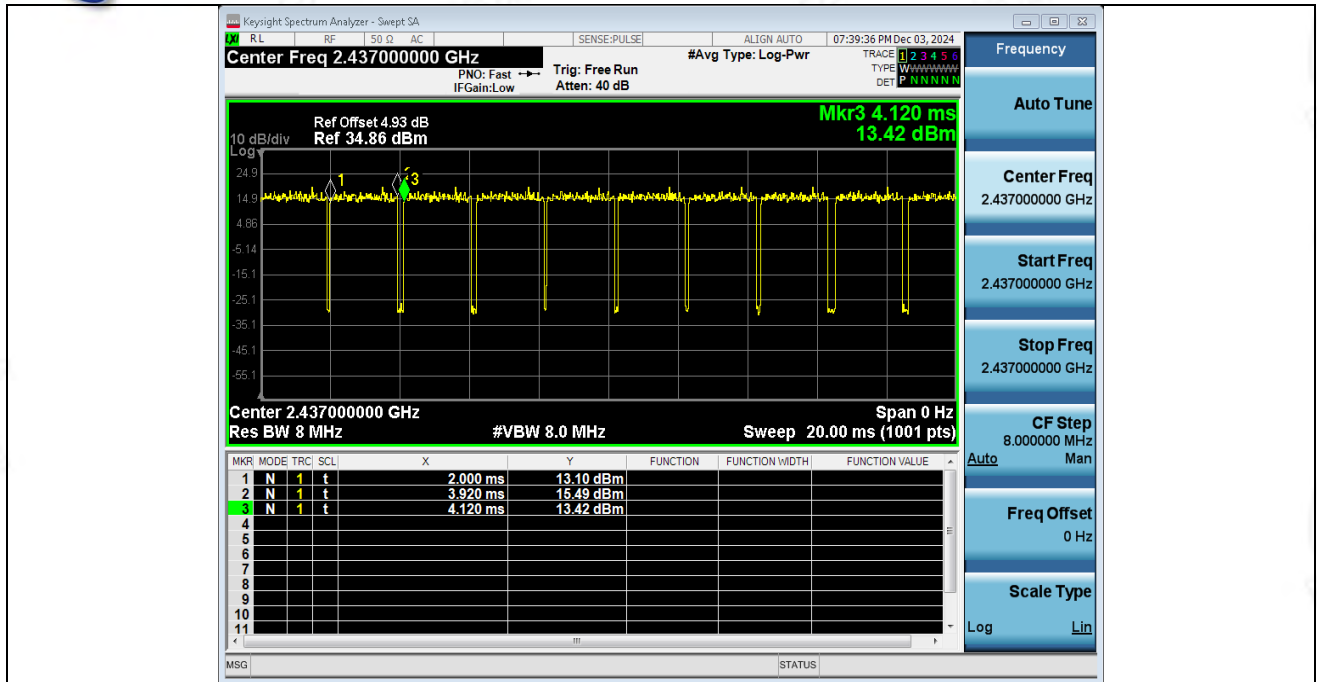


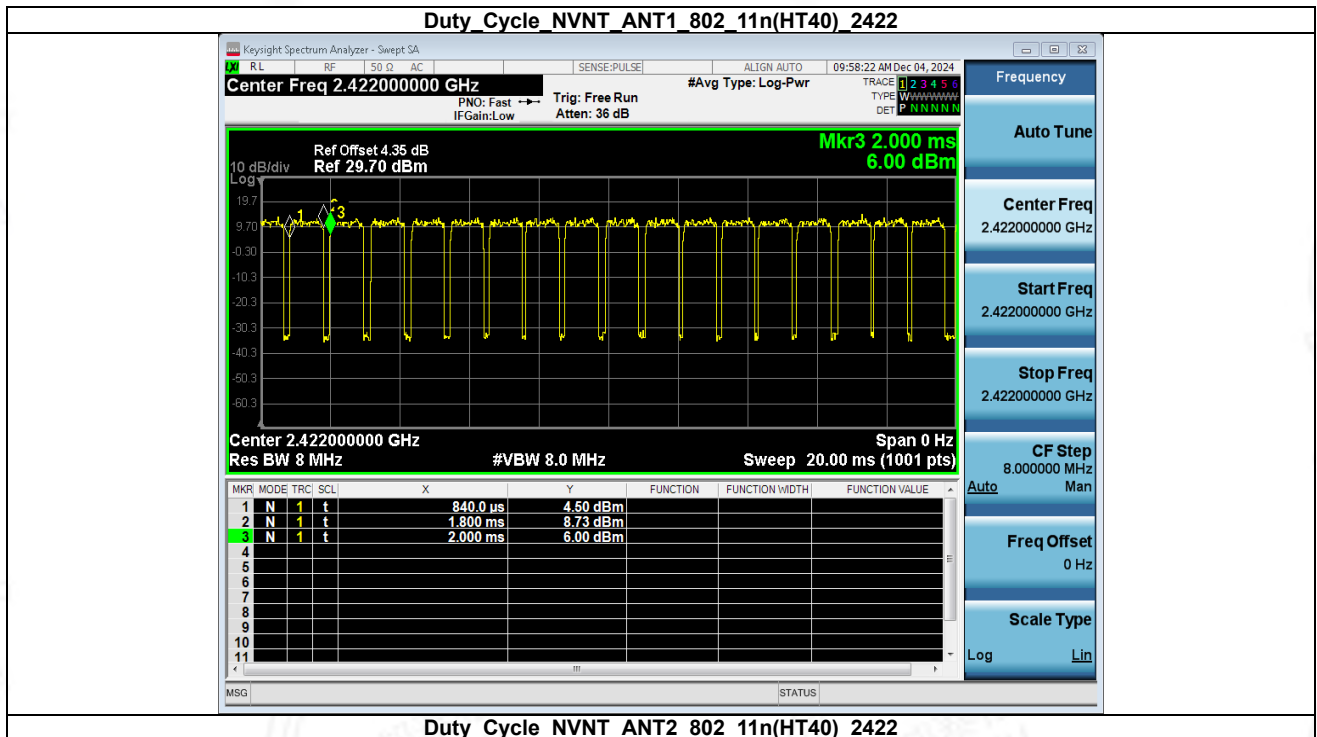
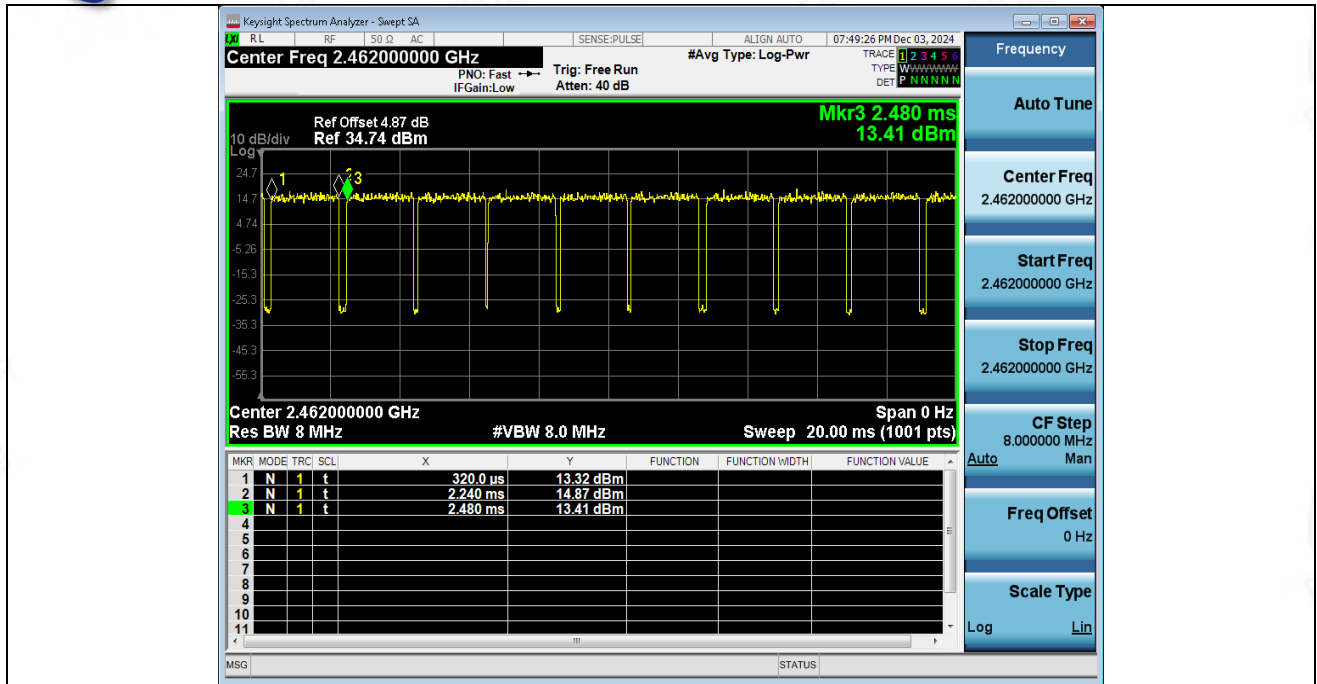


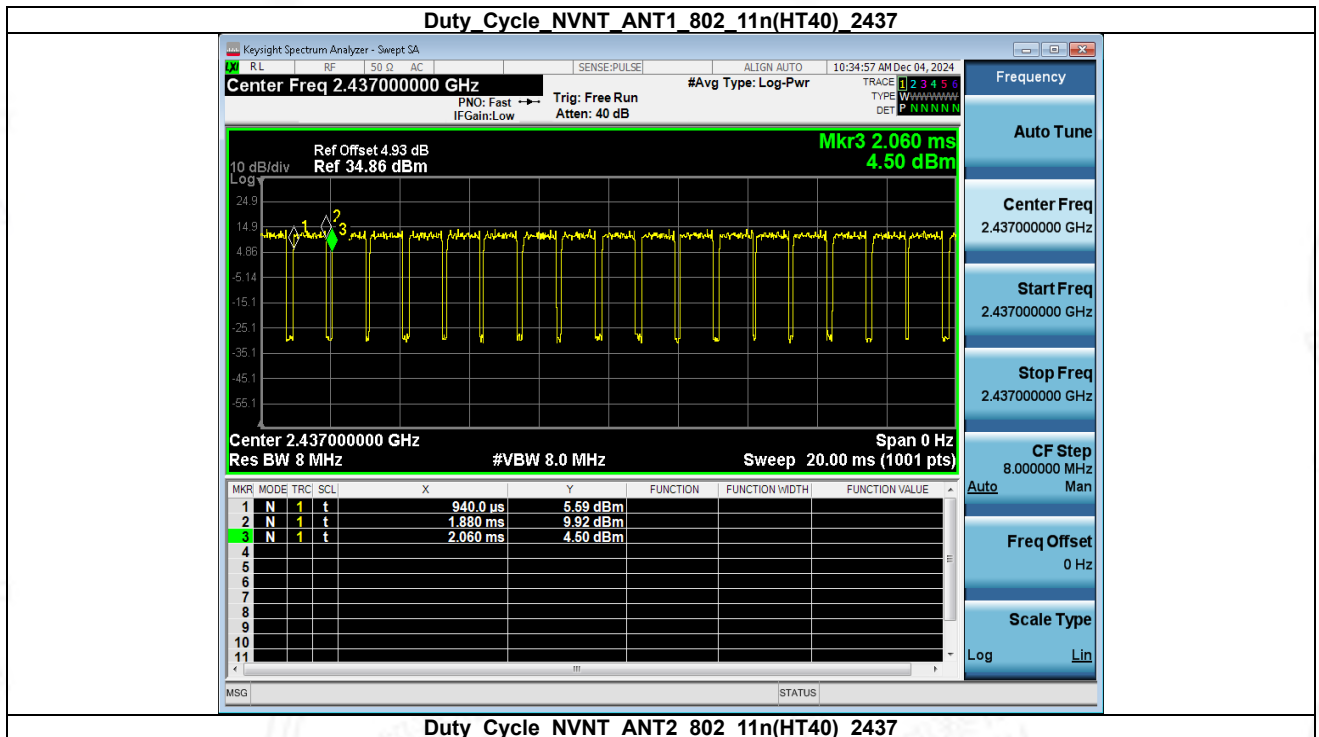
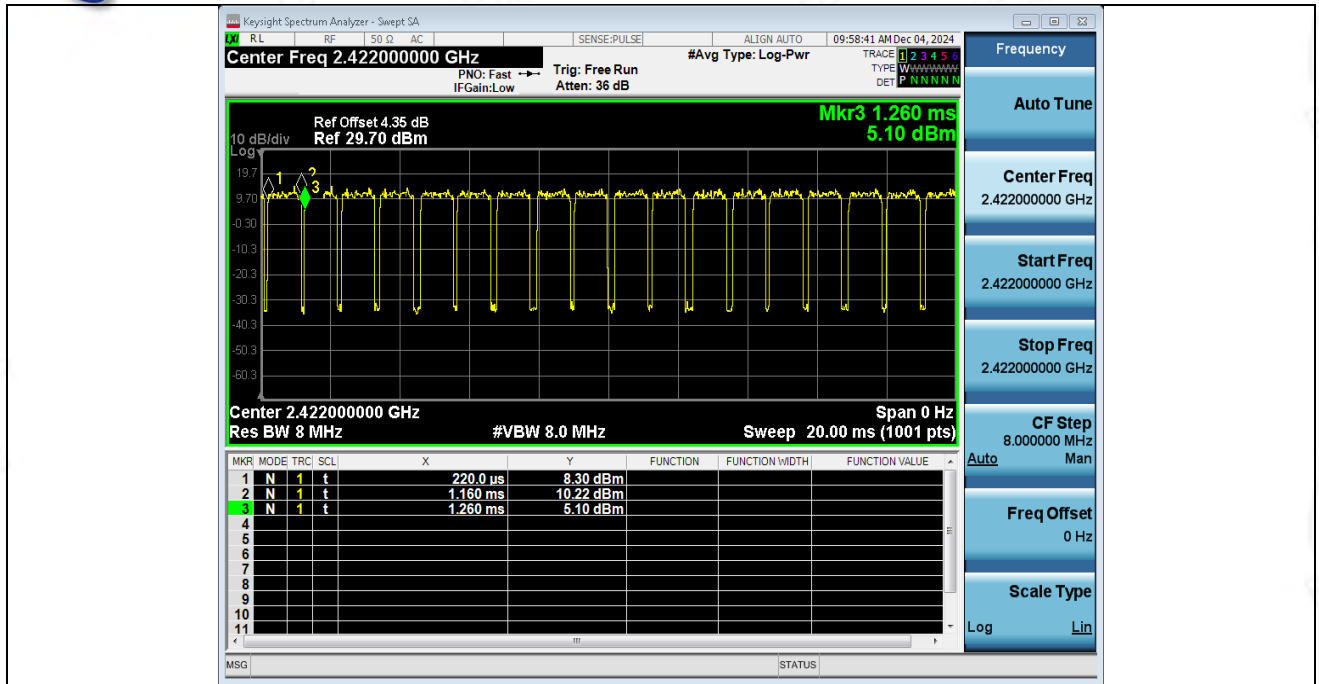


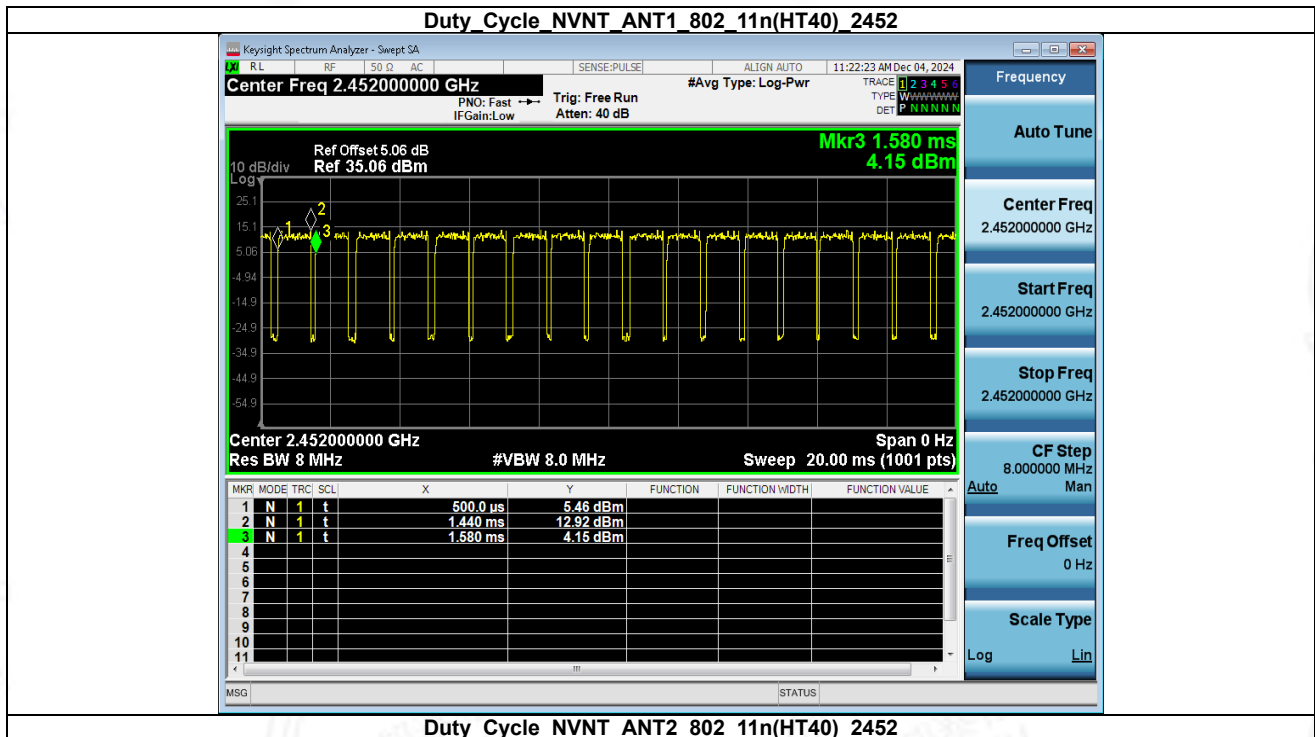
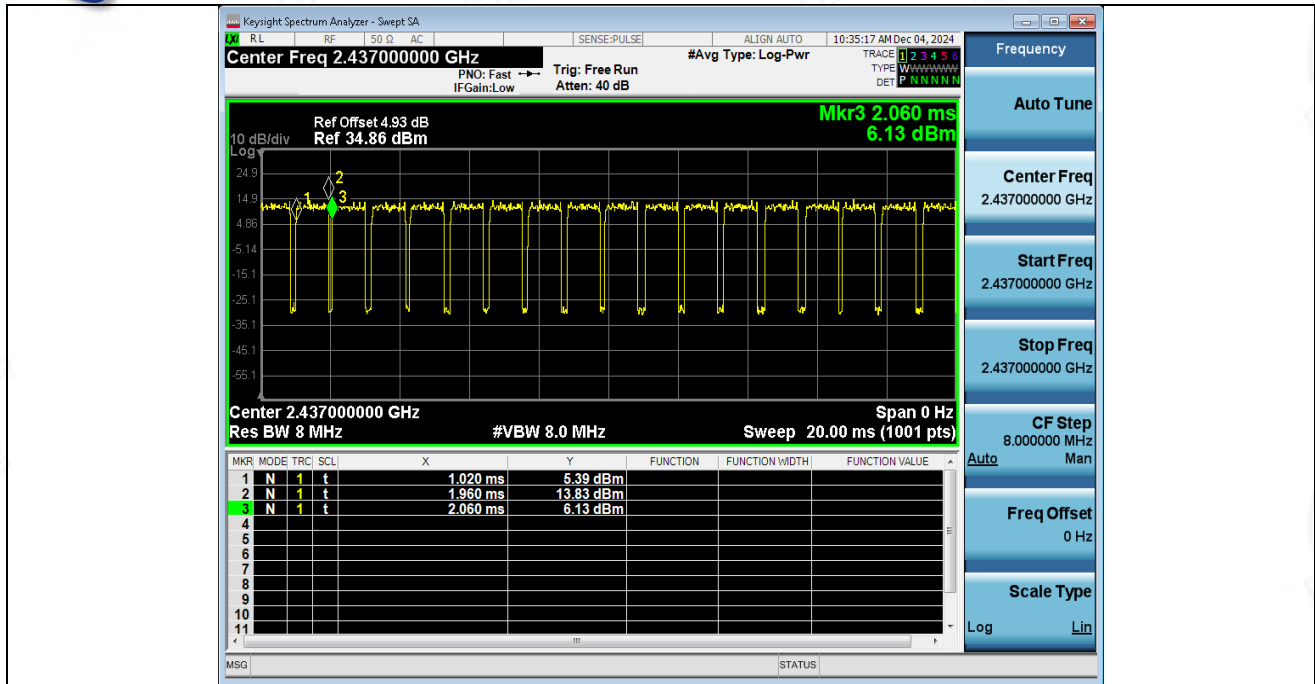


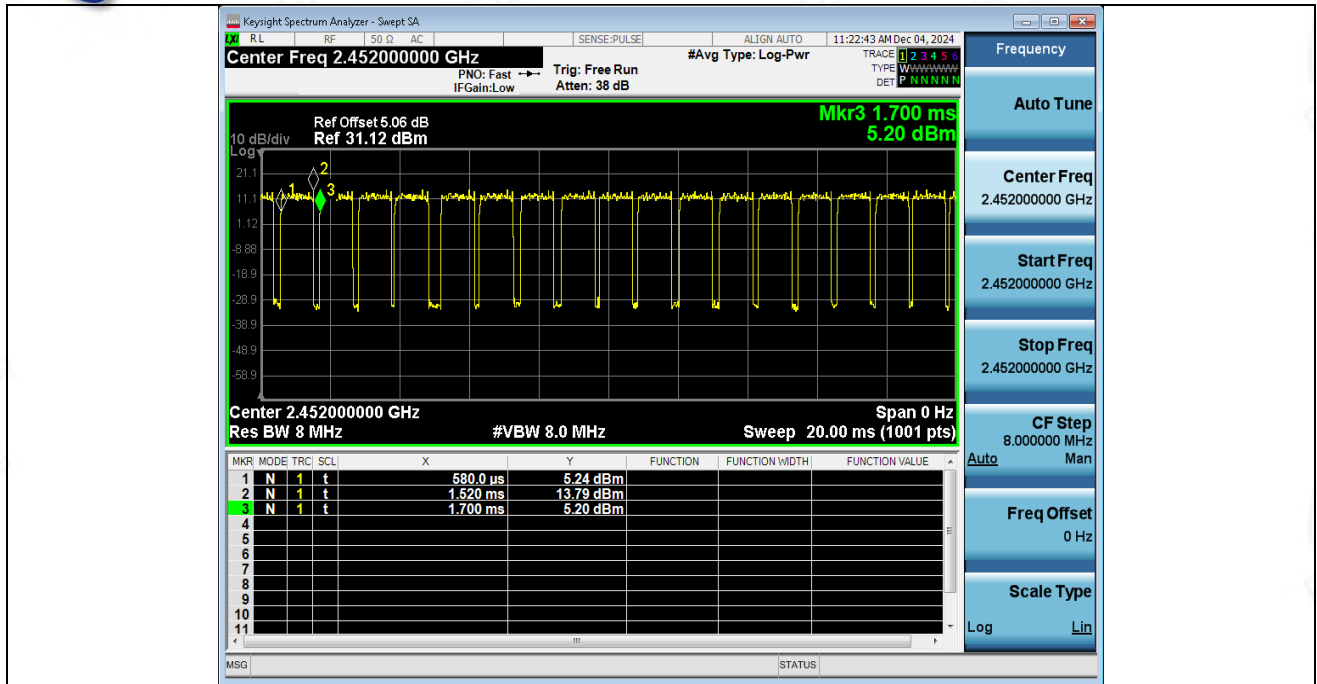








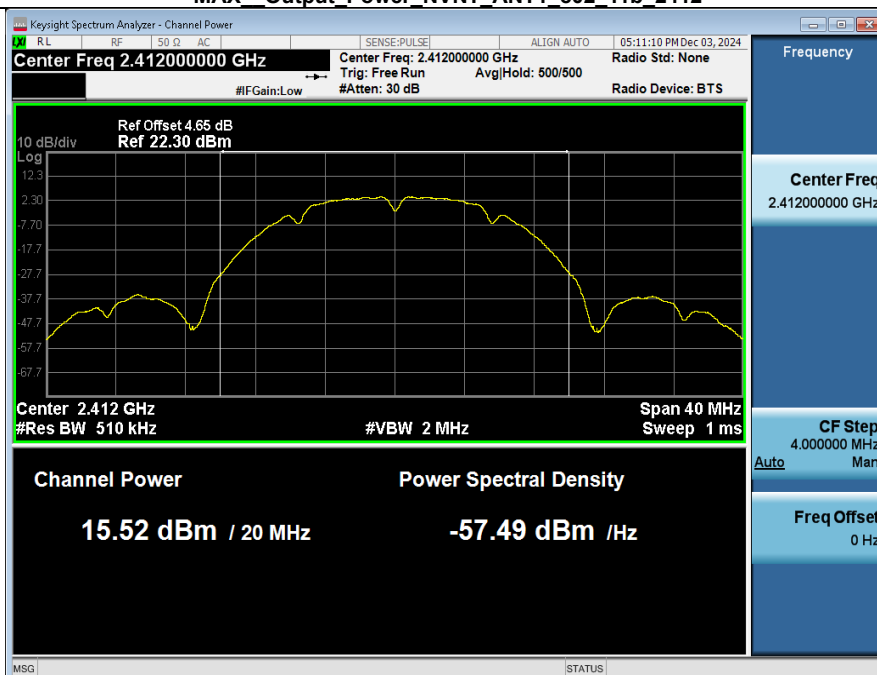




4. MAX. Output Power

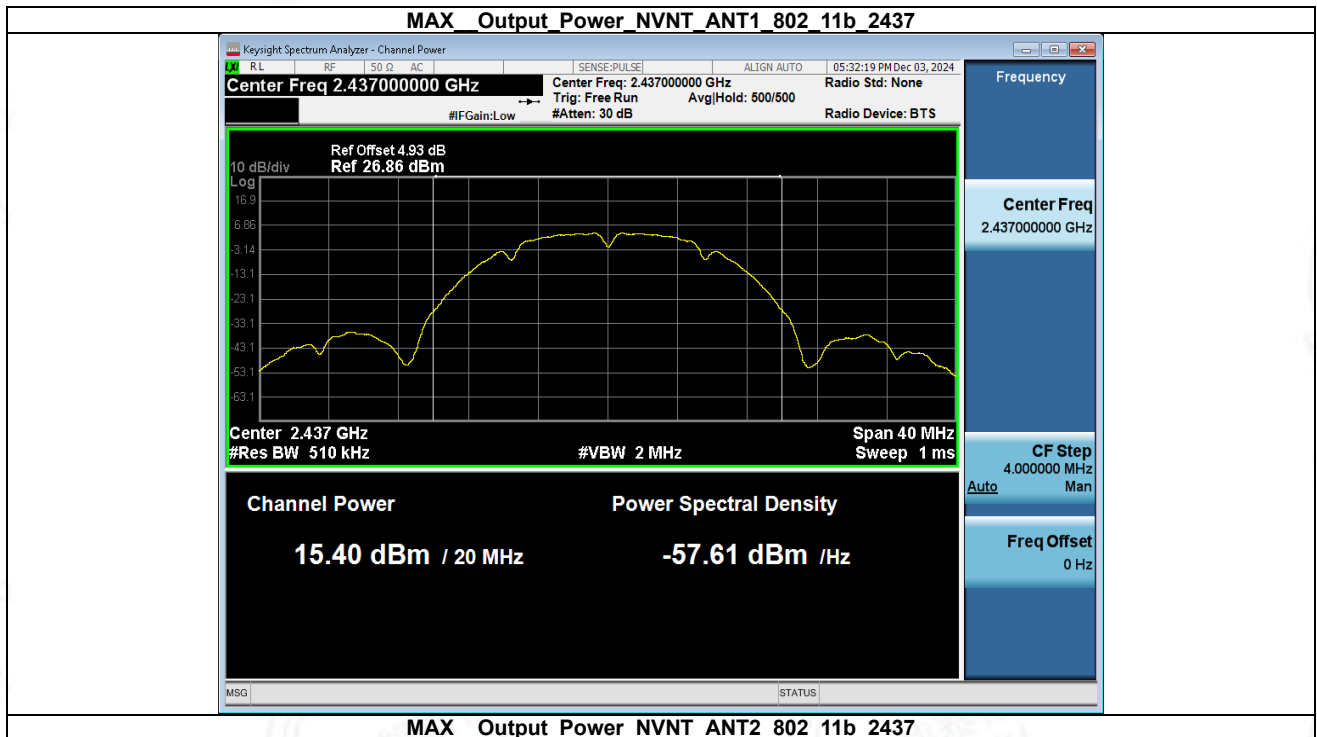
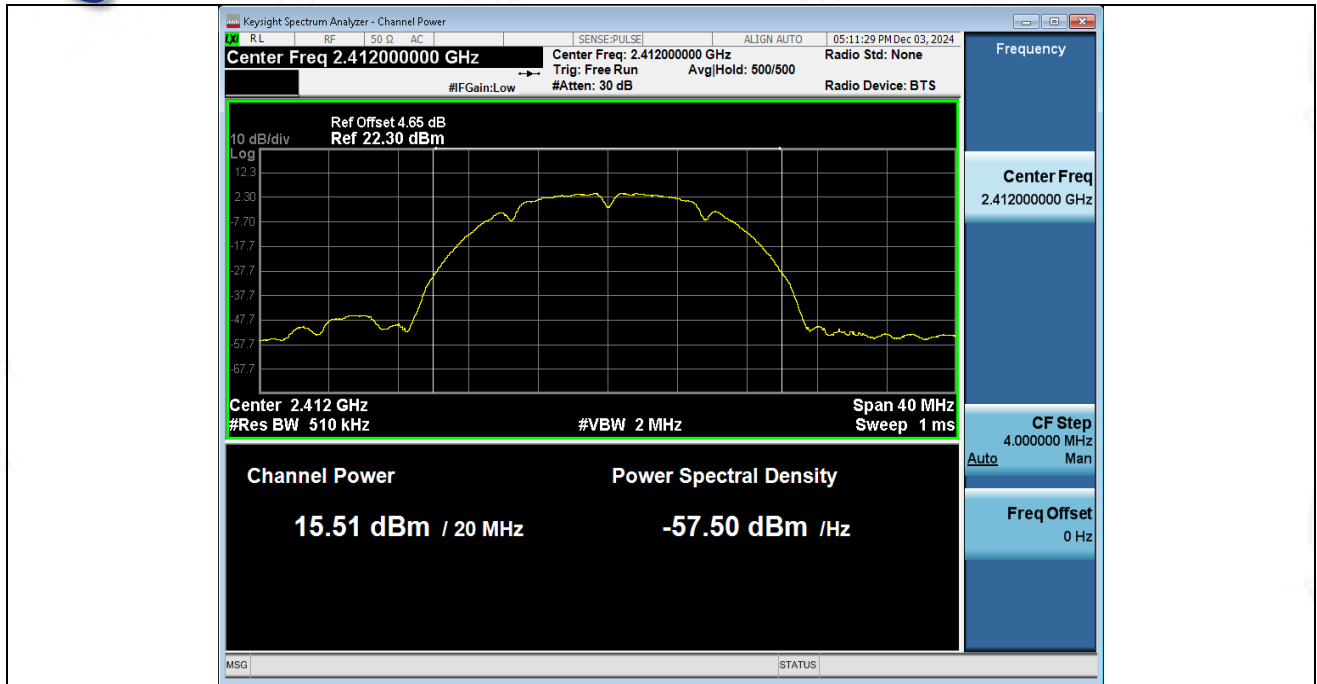
Condition	Antenna	Modulation	Frequency (MHz)	Detector	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	RMS	15.52	0.79	16.31	30	Pass
NVNT	ANT2	802.11b	2412.00	RMS	15.51	0.14	15.65	30	Pass
NVNT	ANT1	802.11b	2437.00	RMS	15.40	0.10	15.50	30	Pass
NVNT	ANT2	802.11b	2437.00	RMS	15.82	0.10	15.92	30	Pass
NVNT	ANT1	802.11b	2462.00	RMS	15.62	0.14	15.76	30	Pass
NVNT	ANT2	802.11b	2462.00	RMS	15.65	0.10	15.75	30	Pass
NVNT	ANT1	802.11g	2412.00	RMS	13.21	0.40	13.61	30	Pass
NVNT	ANT2	802.11g	2412.00	RMS	13.46	0.24	13.70	30	Pass
NVNT	ANT1	802.11g	2437.00	RMS	12.98	0.16	13.14	30	Pass
NVNT	ANT2	802.11g	2437.00	RMS	13.48	0.32	13.80	30	Pass
NVNT	ANT1	802.11g	2462.00	RMS	12.75	0.20	12.95	30	Pass
NVNT	ANT2	802.11g	2462.00	RMS	13.37	0.28	13.65	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	RMS	10.71	0.34	11.05	30	Pass
NVNT	ANT2	802.11n(HT20)	2412.00	RMS	10.50	0.34	10.84	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	RMS	9.76	0.43	10.19	30	Pass
NVNT	ANT2	802.11n(HT20)	2437.00	RMS	9.74	0.39	10.13	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	RMS	10.50	0.22	10.72	30	Pass
NVNT	ANT2	802.11n(HT20)	2462.00	RMS	10.67	0.47	11.14	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	RMS	9.35	0.73	10.08	30	Pass
NVNT	ANT2	802.11n(HT40)	2422.00	RMS	9.34	0.35	9.69	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	RMS	9.40	0.67	10.07	30	Pass
NVNT	ANT2	802.11n(HT40)	2437.00	RMS	9.76	0.35	10.11	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	RMS	9.38	0.51	9.89	30	Pass
NVNT	ANT2	802.11n(HT40)	2452.00	RMS	9.80	0.67	10.47	30	Pass

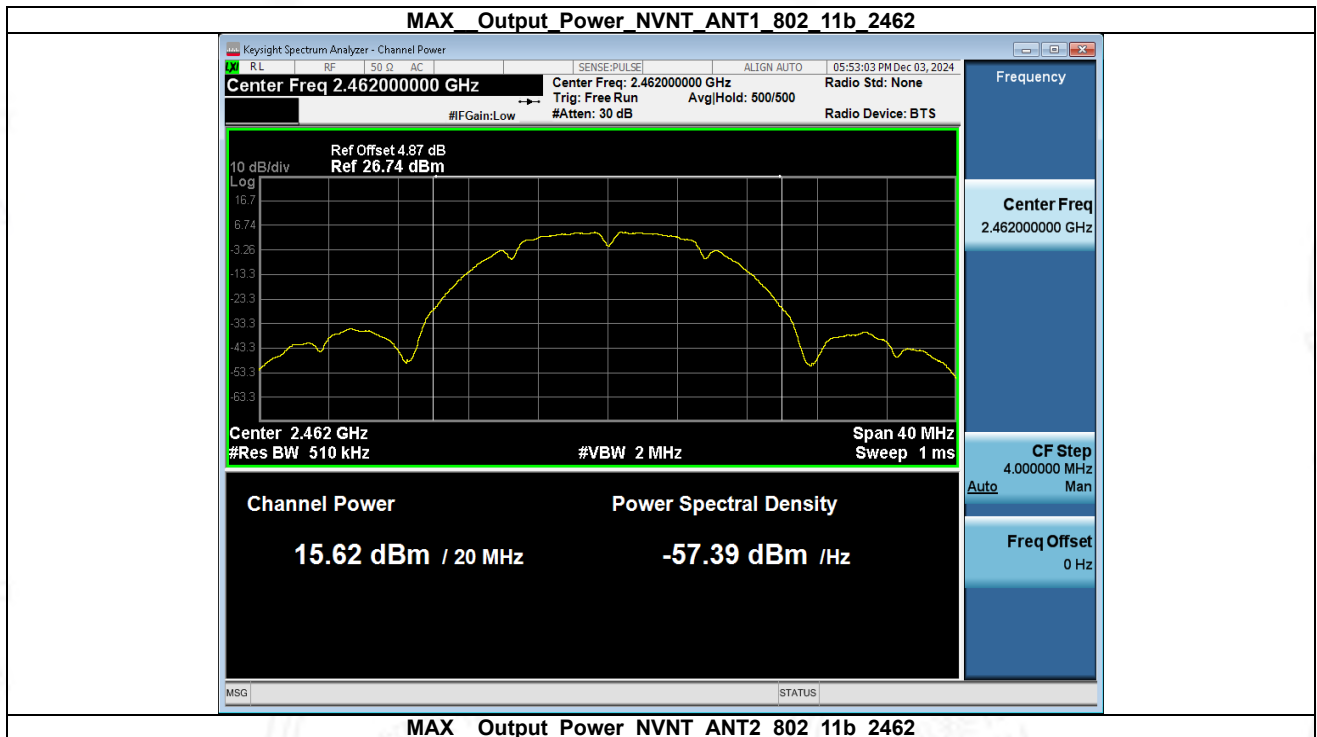
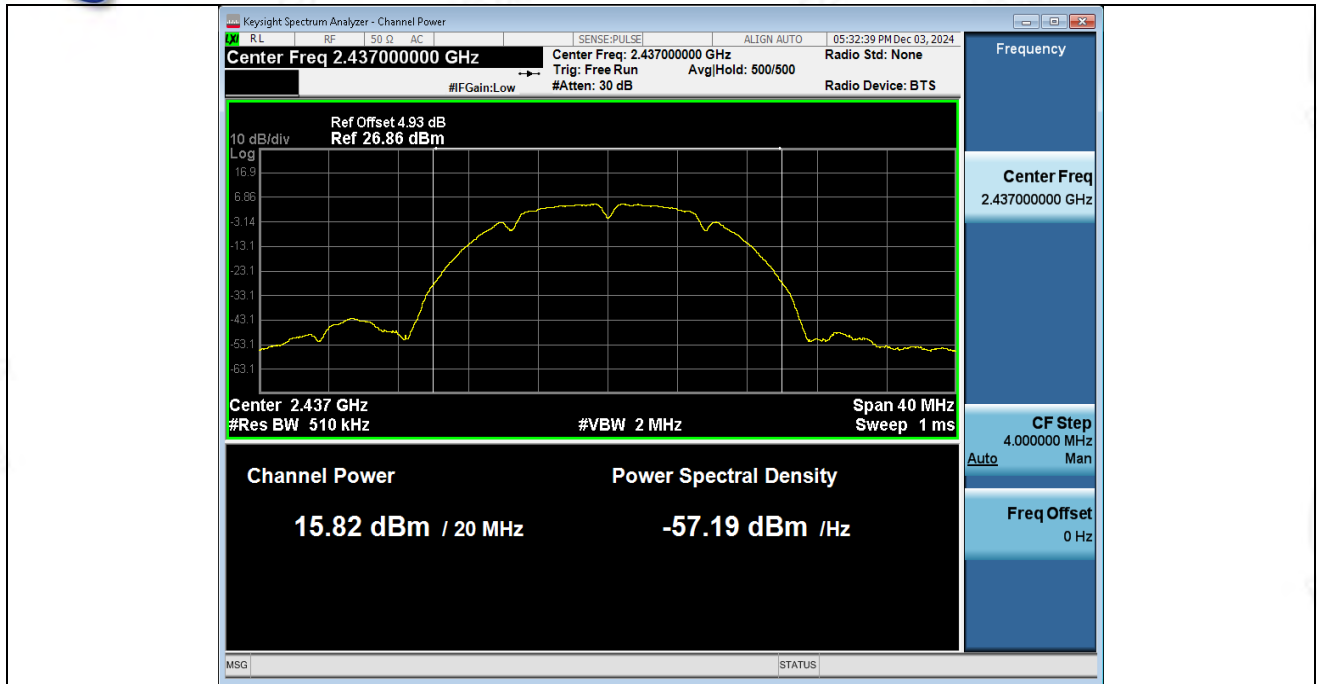
MAX Output Power_NVNT_ANT1_802_11b_2412

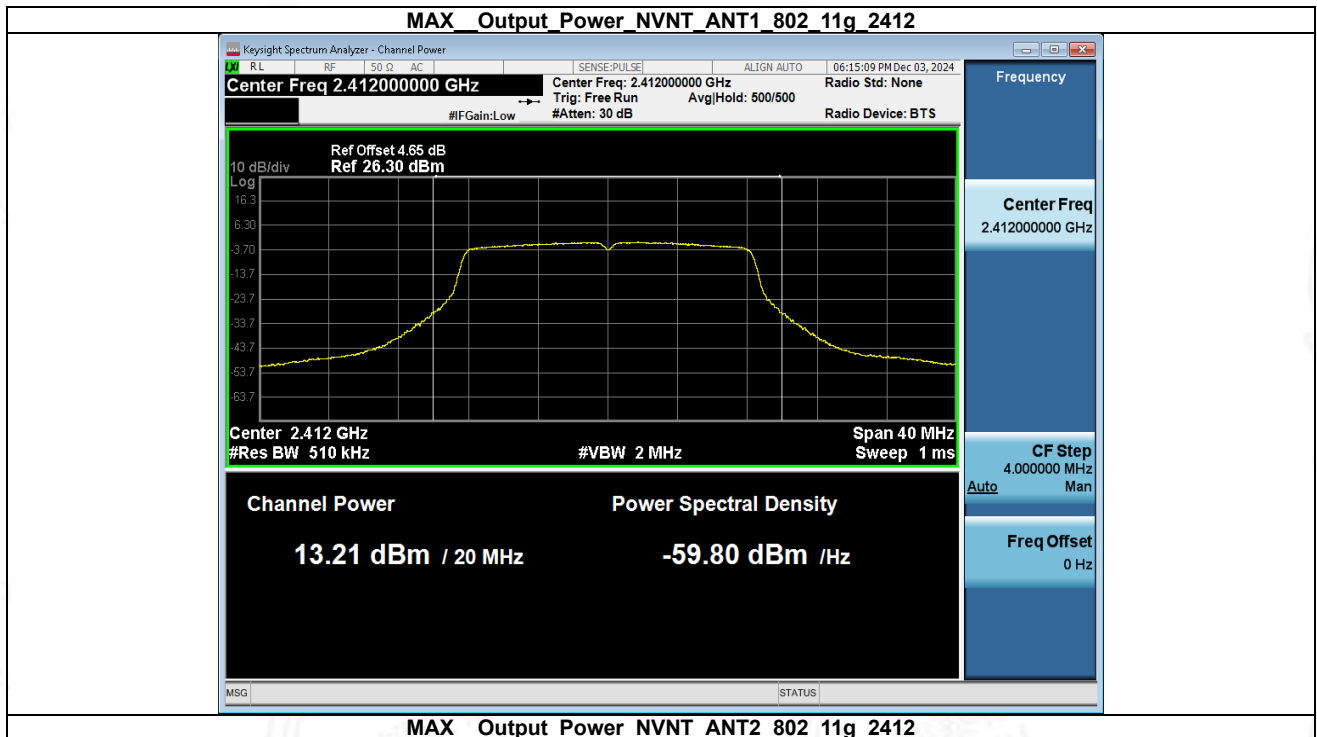
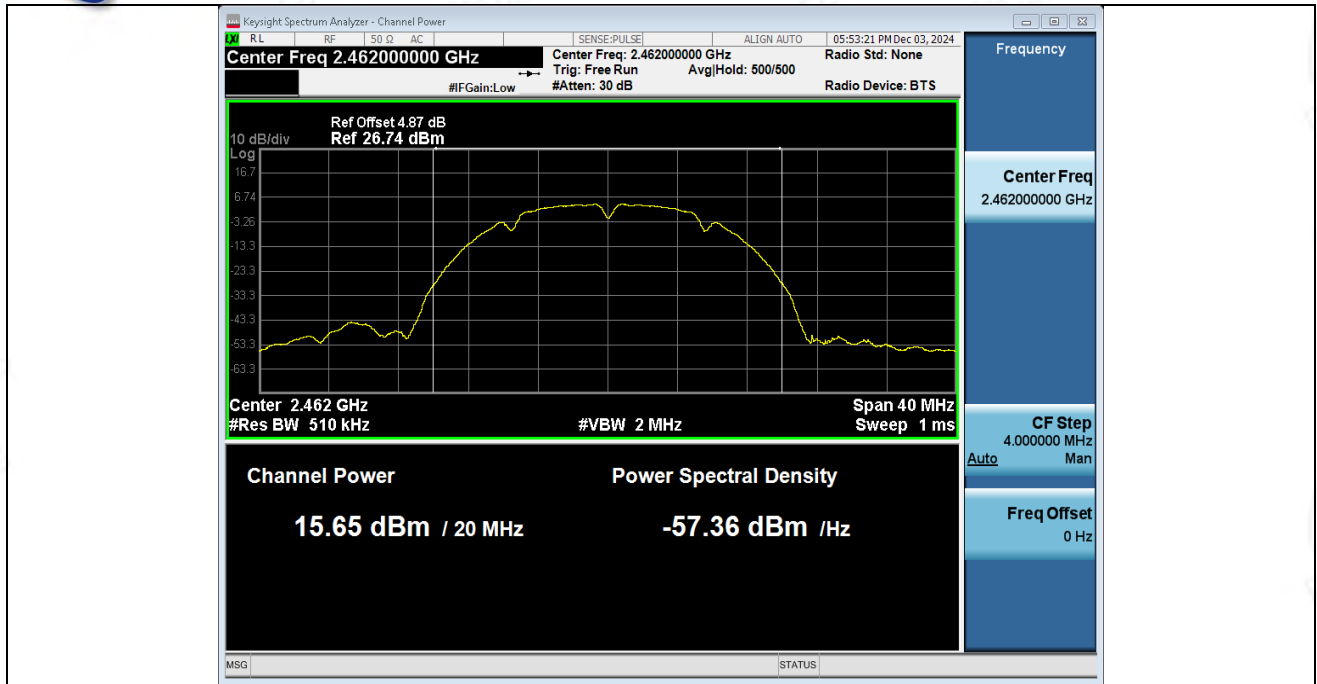


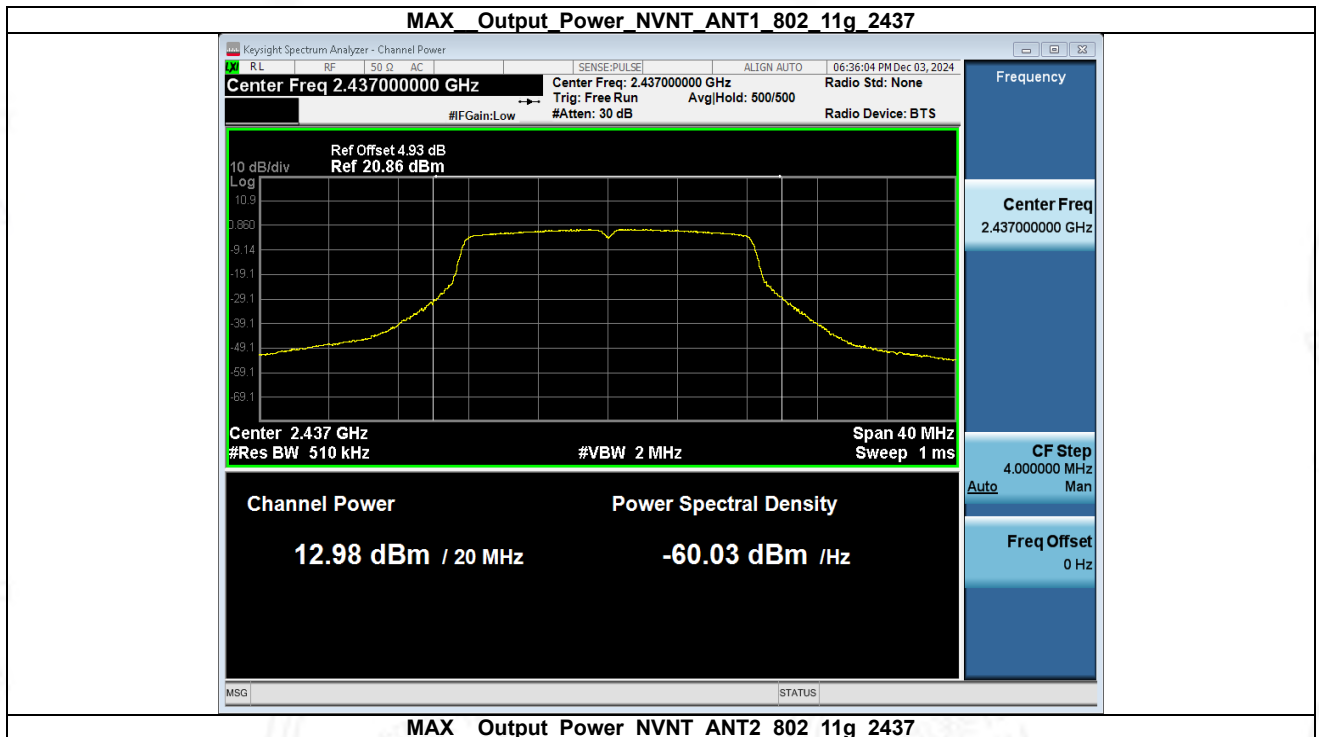
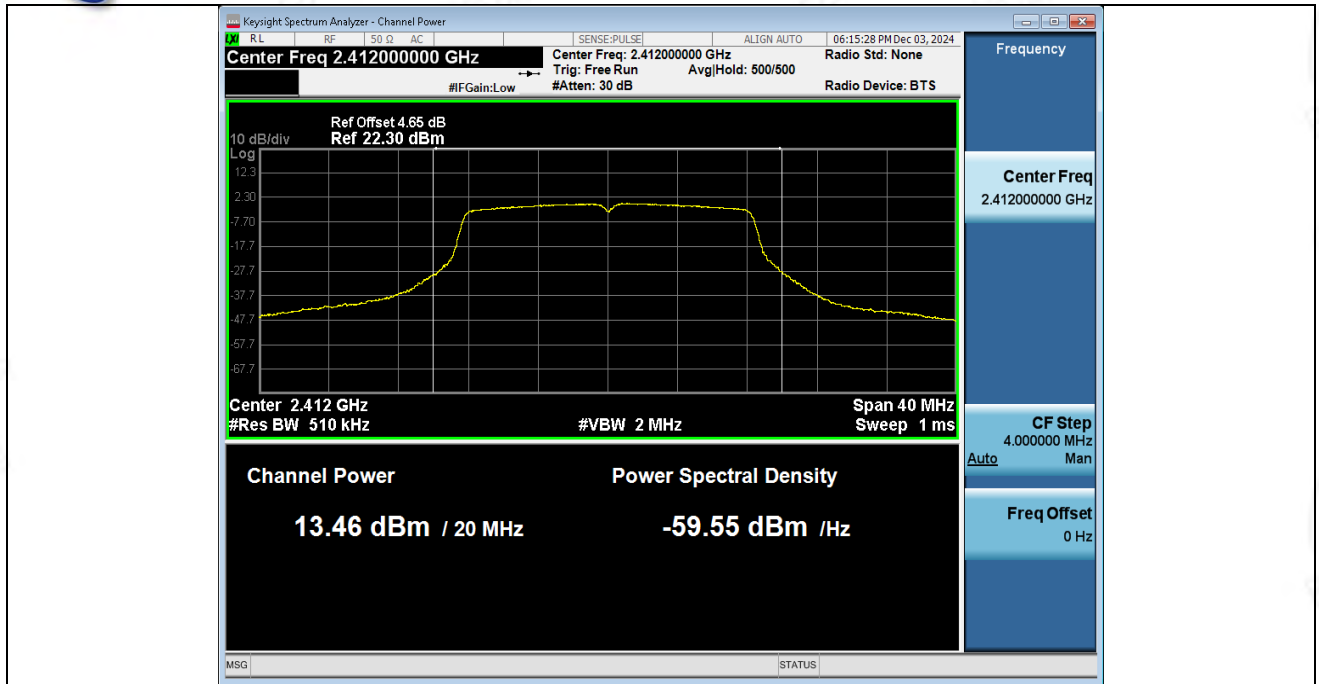
MAX Output Power_NVNT_ANT2_802_11b_2412

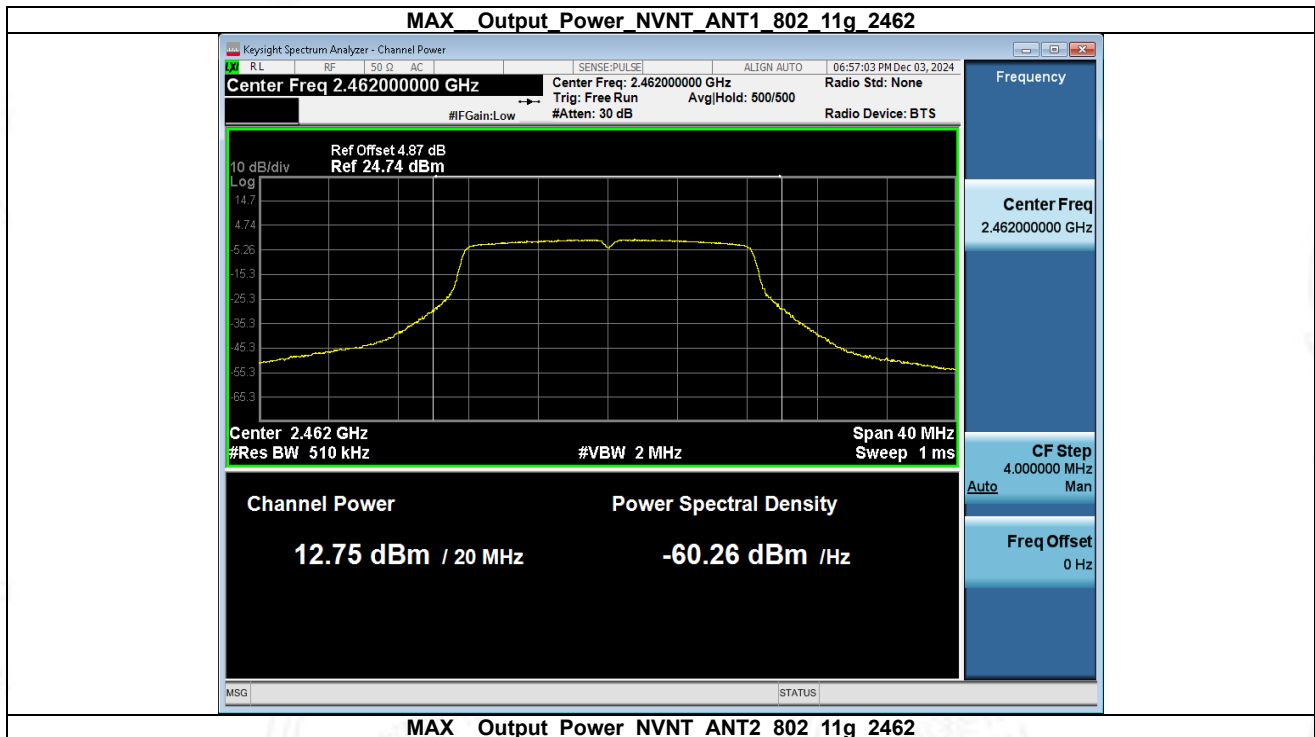
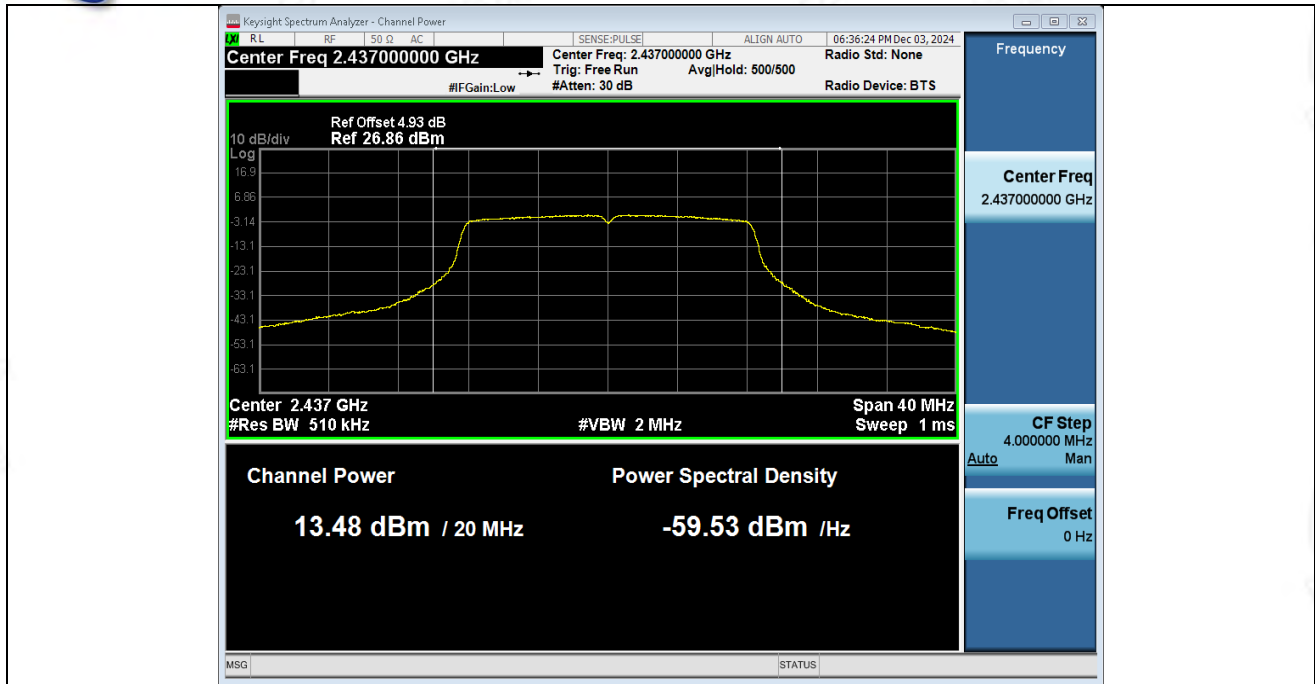


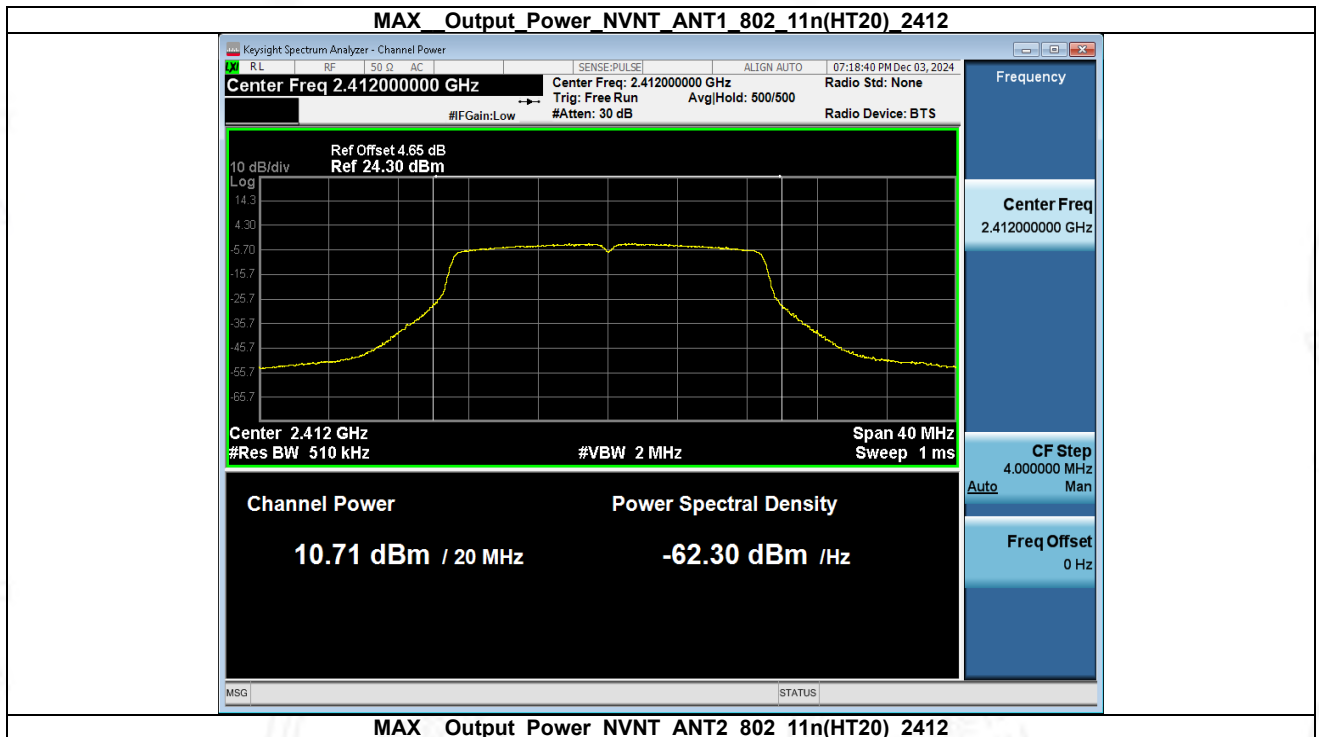
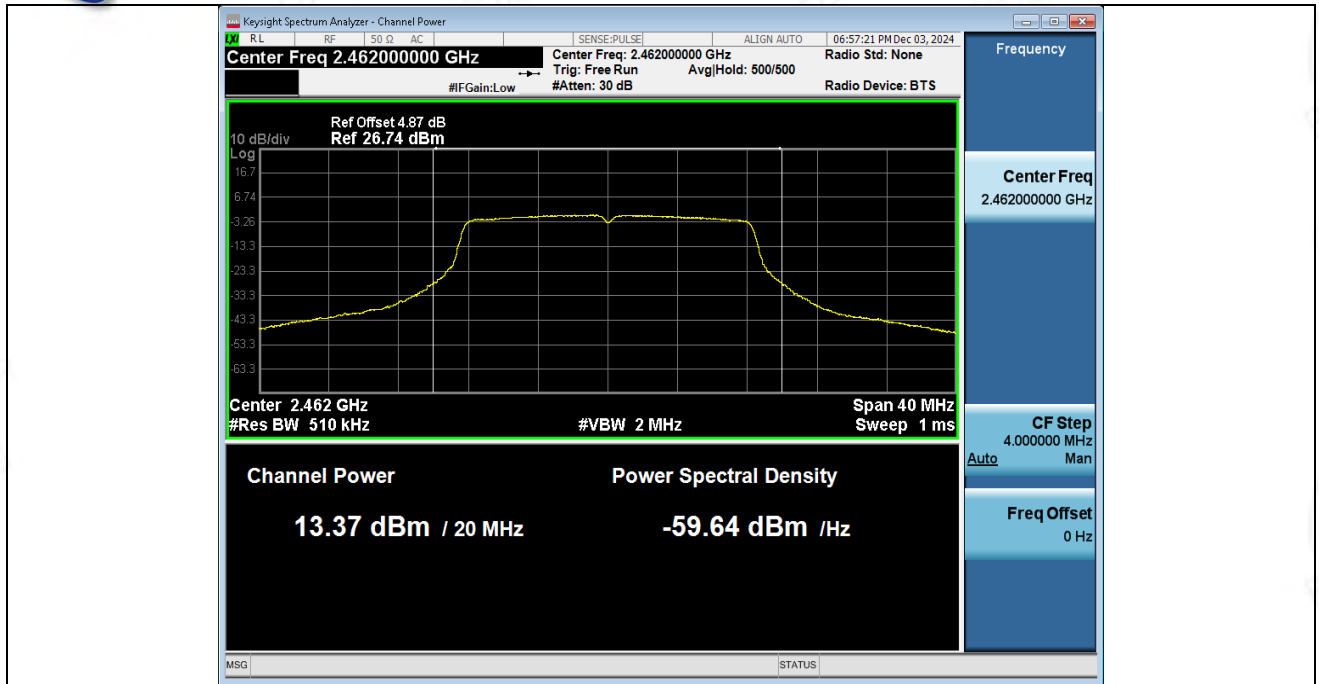


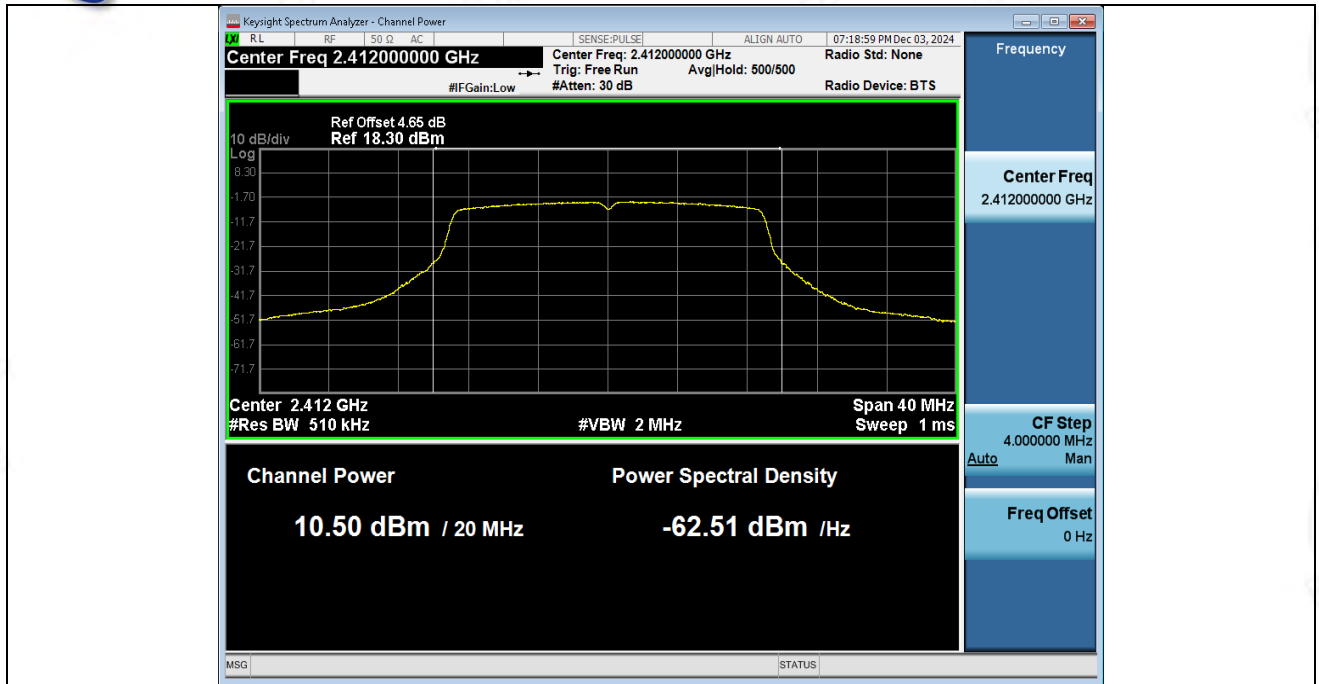


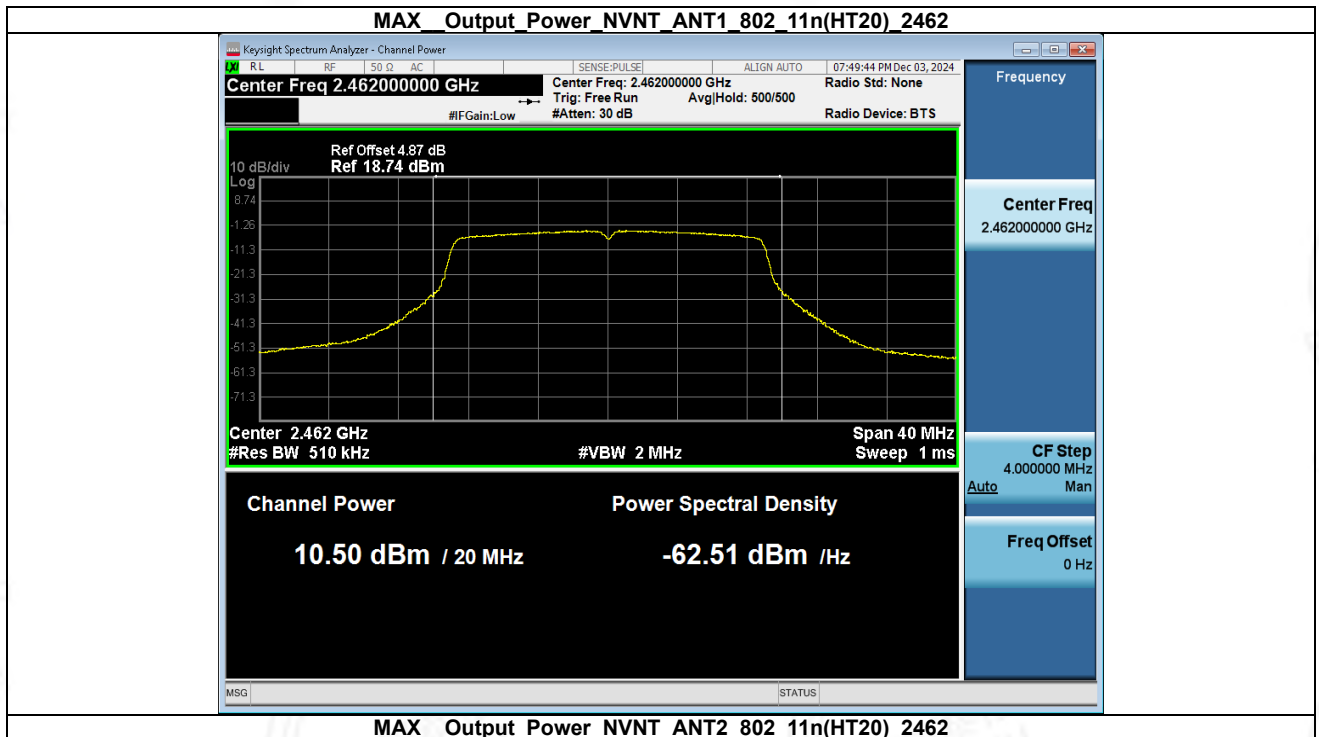
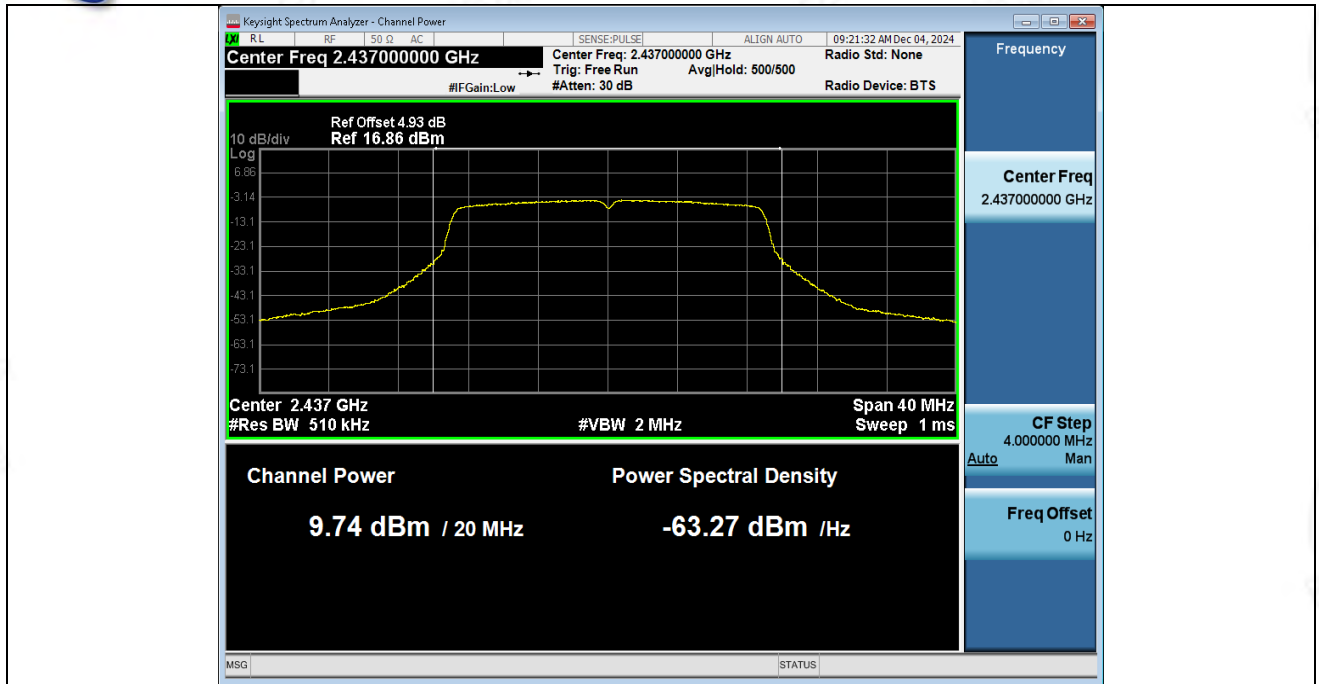


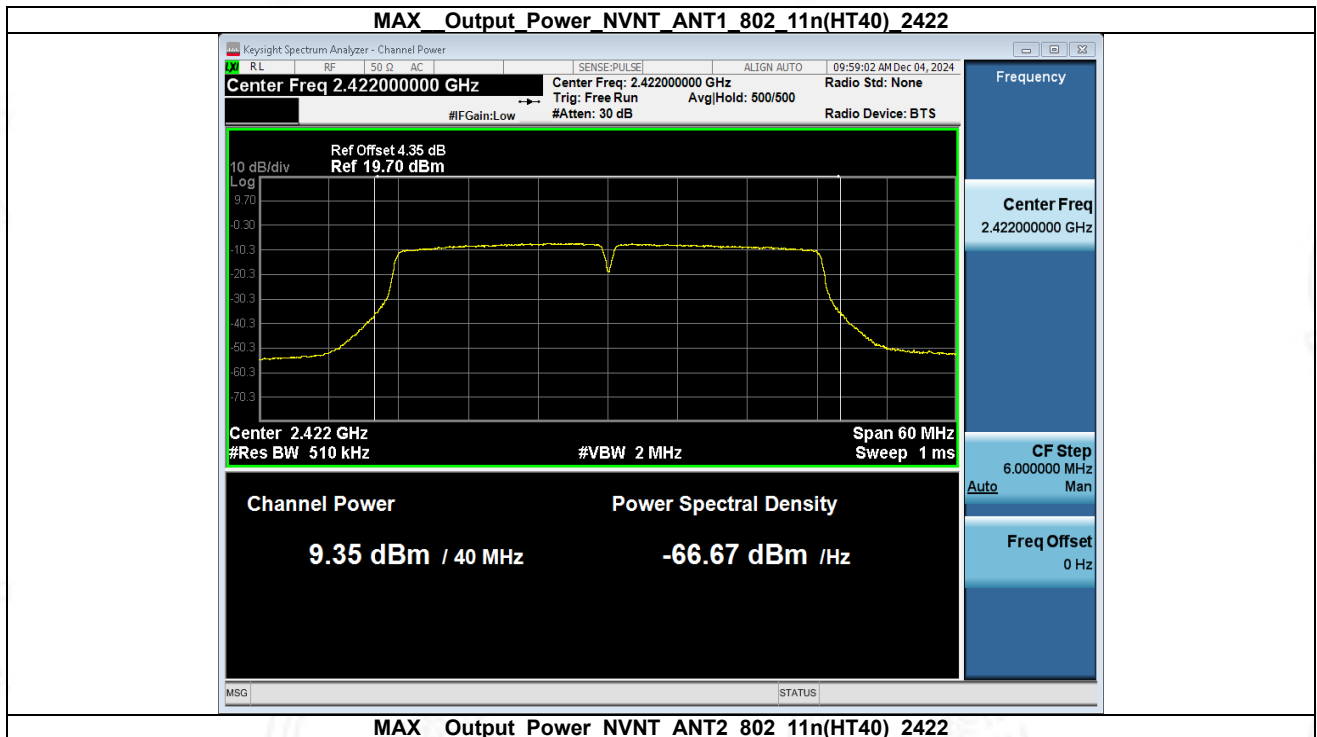
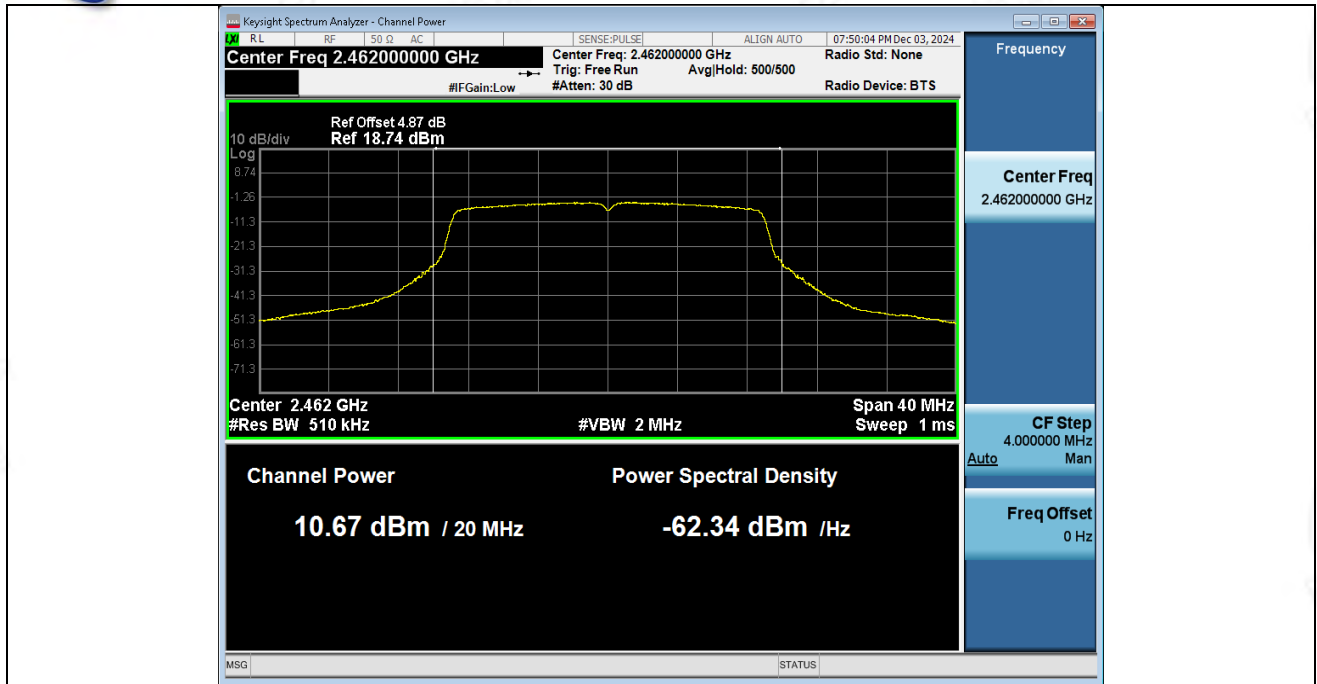


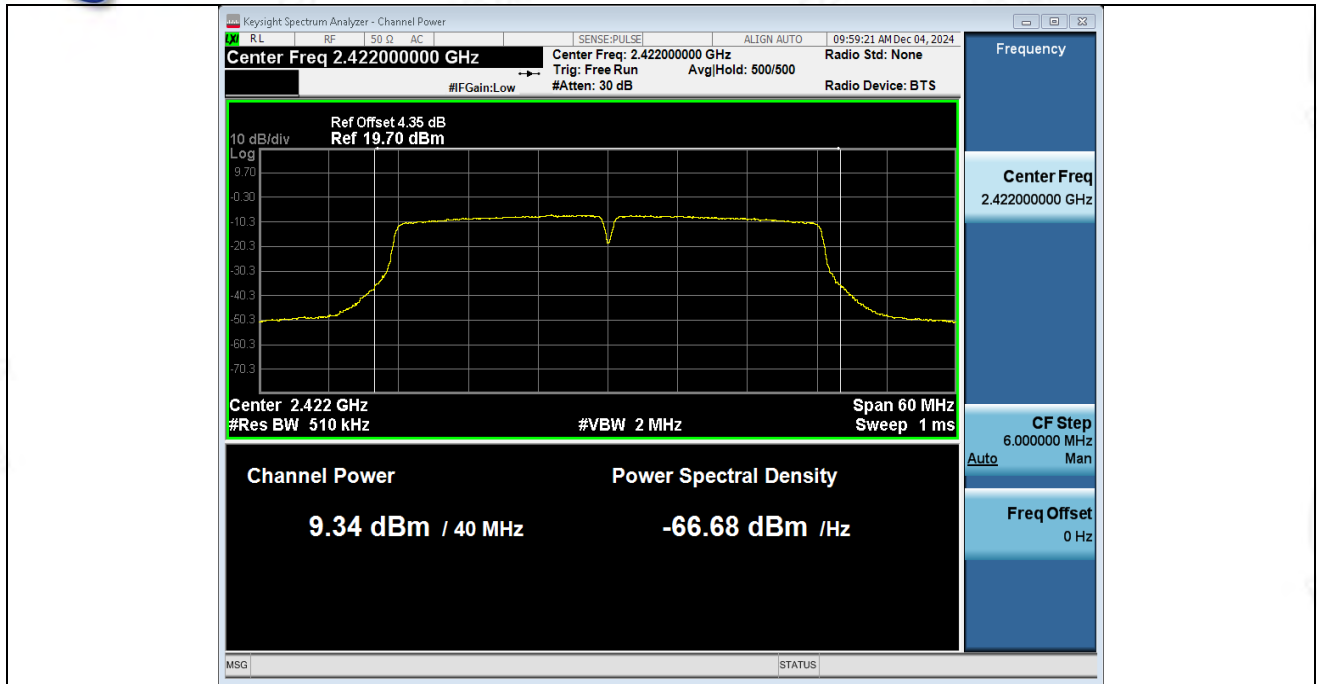


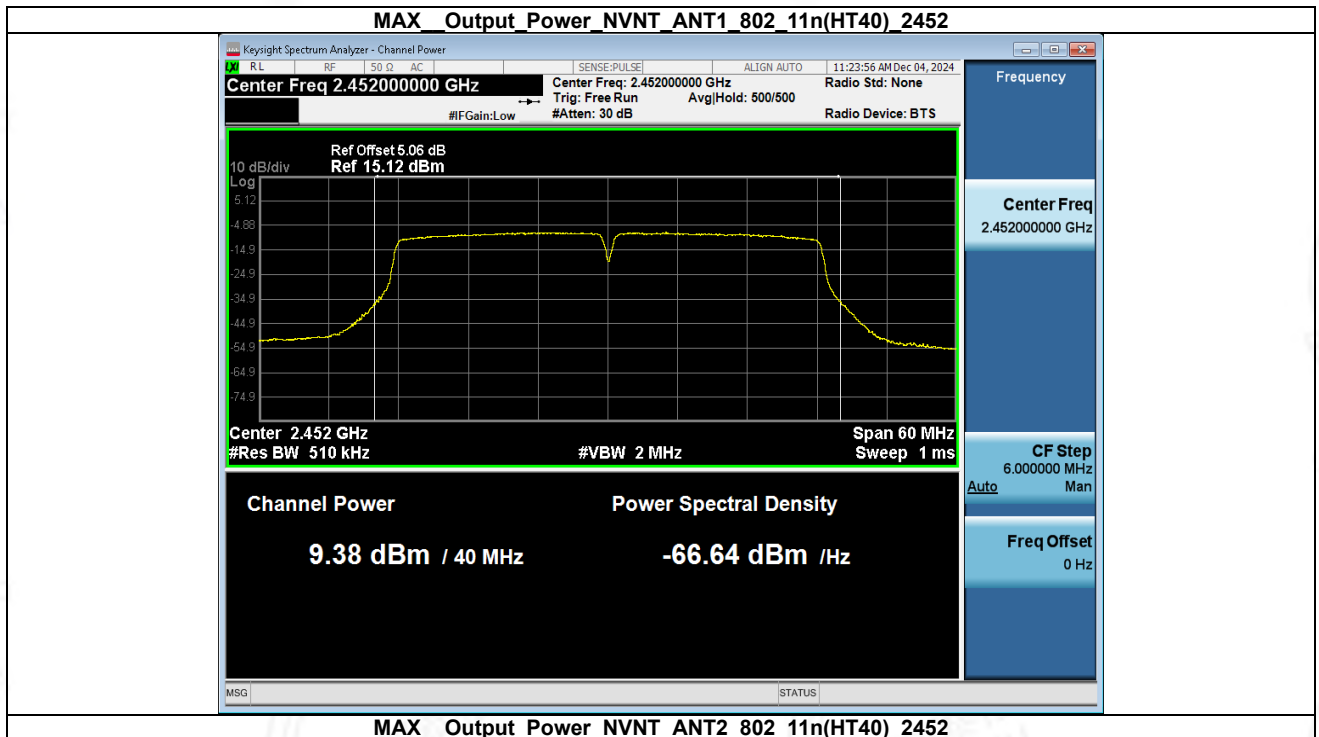
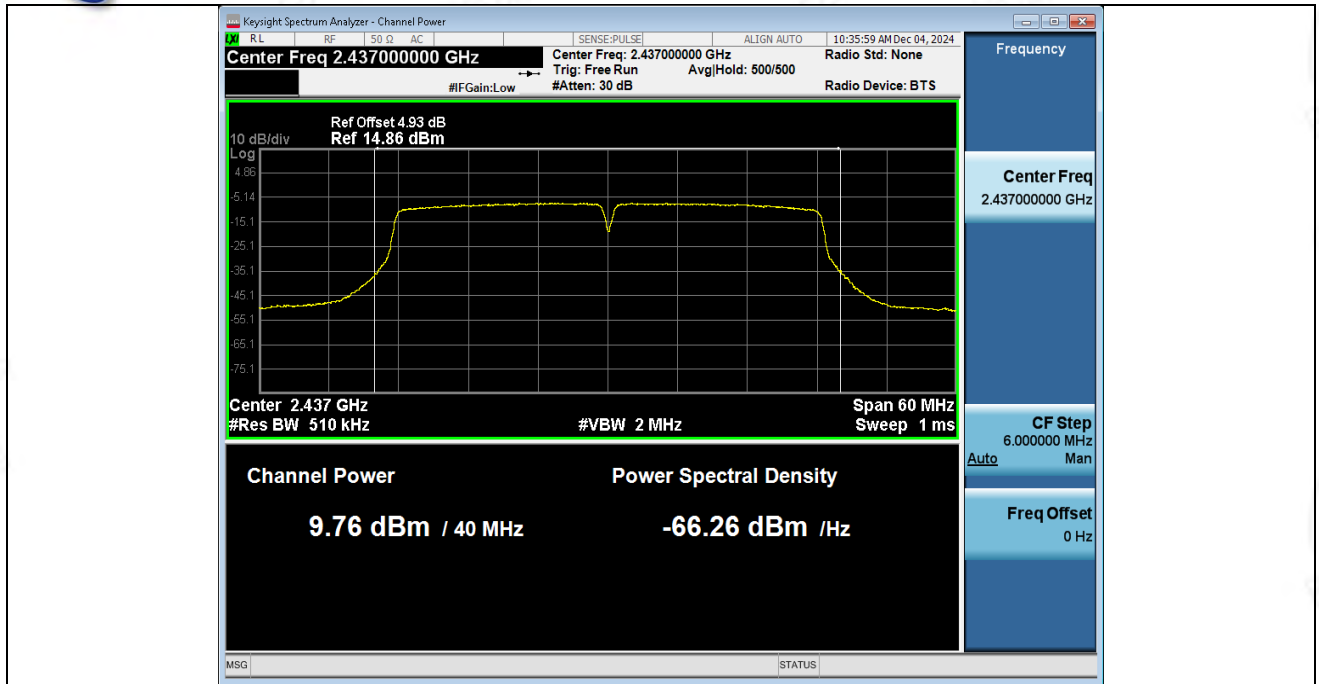


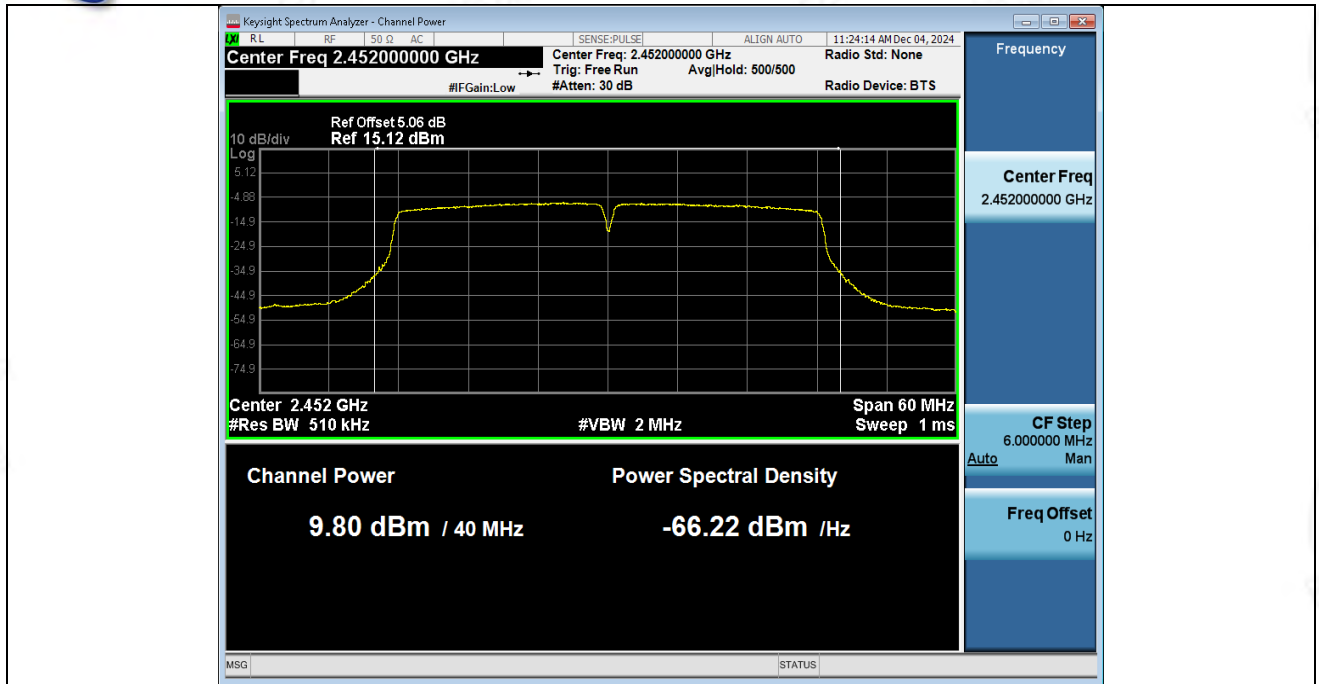












Condition	Antenna	Mode	Frequency(MHz)	MIMO_Conducted_Power(dBm)	Limit(dBm)	Result
NVNT	MIMO_TX	802.11n(HT20)	2412.00	13.96	30	Pass
NVNT	MIMO_TX	802.11n(HT20)	2437.00	13.17	30	Pass
NVNT	MIMO_TX	802.11n(HT20)	2462.00	13.95	30	Pass
NVNT	MIMO_TX	802.11n(HT40)	2422.00	12.90	30	Pass
NVNT	MIMO_TX	802.11n(HT40)	2437.00	13.10	30	Pass
NVNT	MIMO_TX	802.11n(HT40)	2452.00	13.20	30	Pass



5. Power Spectral Density

Condition	Antenna	Modulation	Frequency (MHz)	SA_PSD(dBm/3kHz)	Duty factor(dB)	RB factor(dB)	PSD(dBm/3kHz)	limit(dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412.00	-20.25	0.79	0.00	-19.46	8	Pass
NVNT	ANT2	802.11b	2412.00	-20.35	0.14	0.00	-20.21	8	Pass
NVNT	ANT1	802.11b	2437.00	-20.06	0.10	0.00	-19.96	8	Pass
NVNT	ANT2	802.11b	2437.00	-19.81	0.10	0.00	-19.71	8	Pass
NVNT	ANT1	802.11b	2462.00	-20.05	0.14	0.00	-19.91	8	Pass
NVNT	ANT2	802.11b	2462.00	-19.91	0.10	0.00	-19.81	8	Pass
NVNT	ANT1	802.11g	2412.00	-21.32	0.40	0.00	-20.92	8	Pass
NVNT	ANT2	802.11g	2412.00	-21.65	0.24	0.00	-21.41	8	Pass
NVNT	ANT1	802.11g	2437.00	-20.99	0.16	0.00	-20.83	8	Pass
NVNT	ANT2	802.11g	2437.00	-19.80	0.32	0.00	-19.48	8	Pass
NVNT	ANT1	802.11g	2462.00	-21.51	0.20	0.00	-21.31	8	Pass
NVNT	ANT2	802.11g	2462.00	-20.46	0.28	0.00	-20.18	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-23.34	0.34	0.00	-23.00	8	Pass
NVNT	ANT2	802.11n(HT20)	2412.00	-24.38	0.34	0.00	-24.04	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-24.46	0.43	0.00	-24.04	8	Pass
NVNT	ANT2	802.11n(HT20)	2437.00	-24.67	0.39	0.00	-24.28	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-24.01	0.22	0.00	-23.79	8	Pass
NVNT	ANT2	802.11n(HT20)	2462.00	-23.57	0.47	0.00	-23.10	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-27.43	0.73	0.00	-26.70	8	Pass
NVNT	ANT2	802.11n(HT40)	2422.00	-27.64	0.35	0.00	-27.29	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-27.68	0.67	0.00	-27.01	8	Pass
NVNT	ANT2	802.11n(HT40)	2437.00	-27.32	0.35	0.00	-26.97	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-26.19	0.51	0.00	-25.68	8	Pass
NVNT	ANT2	802.11n(HT40)	2452.00	-25.13	0.67	0.00	-24.46	8	Pass

Power Spectral Density_NVNT_ANT1_802_11b_2412



Power Spectral Density_NVNT_ANT2_802_11b_2412



