

Appendix

Test Data

for BTEK241111036A02E17

Start date	2024/11/28	Finish date	2024/11/28
Temperature	21.8℃	Humidity	28%
RF specifications	2.4G WIFI-Module 1 7663	Test Engineer	Zora



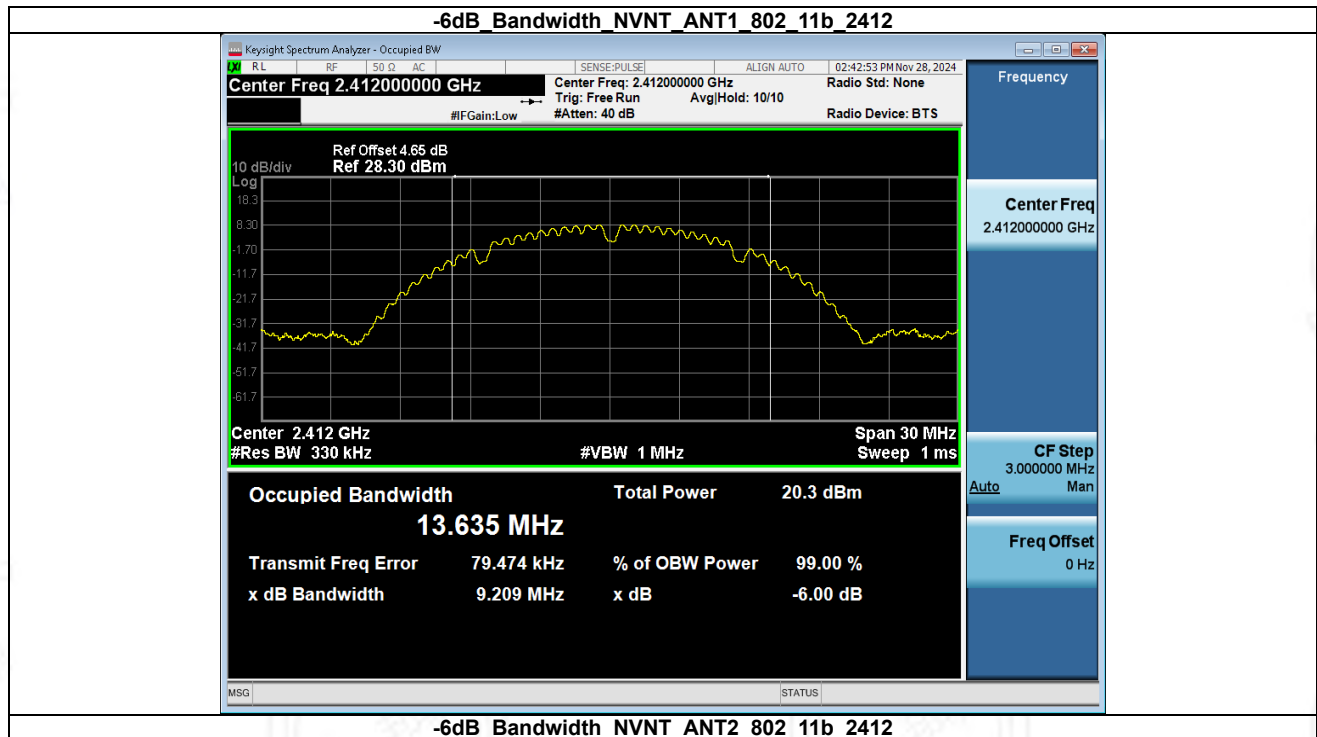
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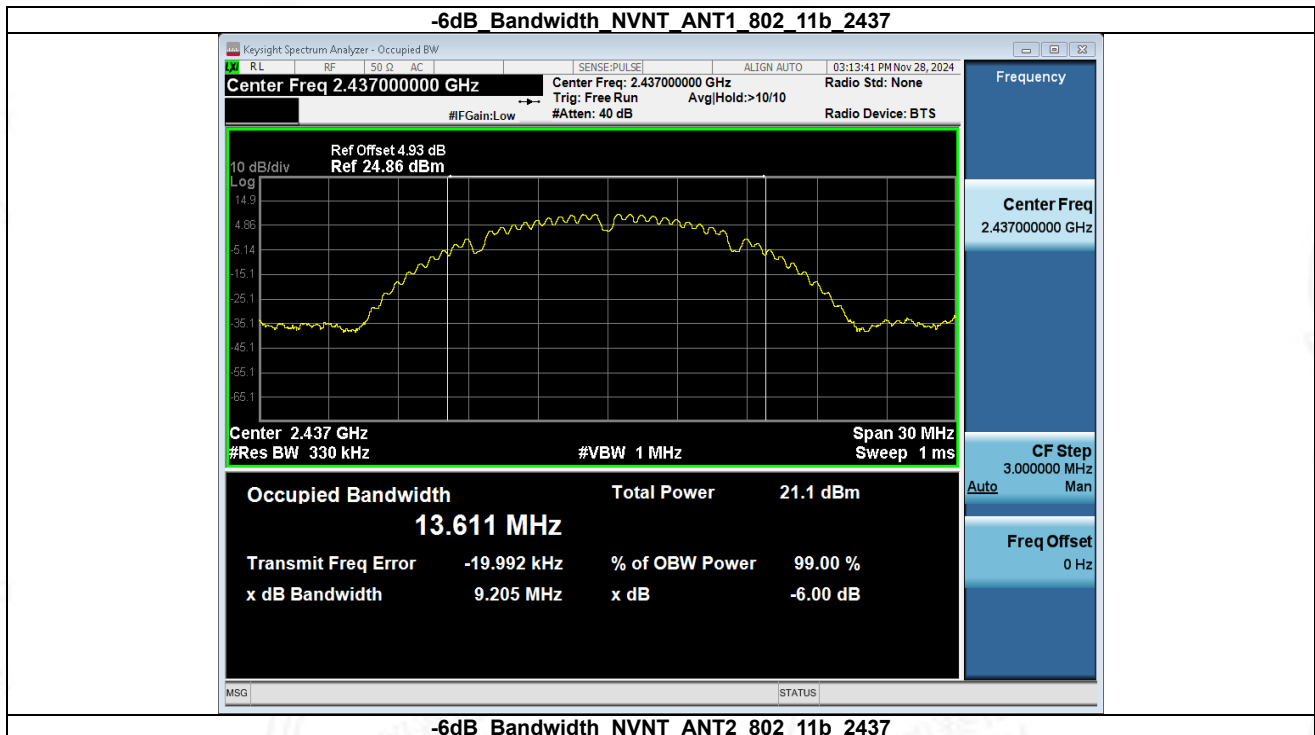
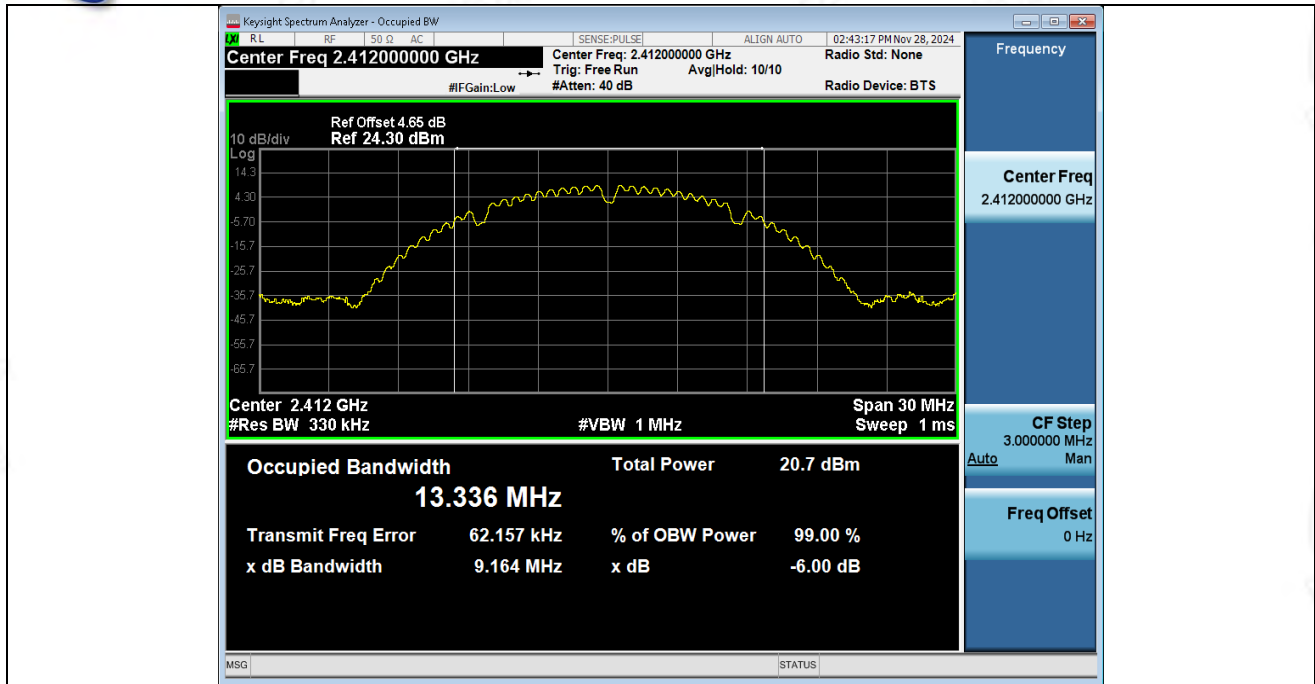
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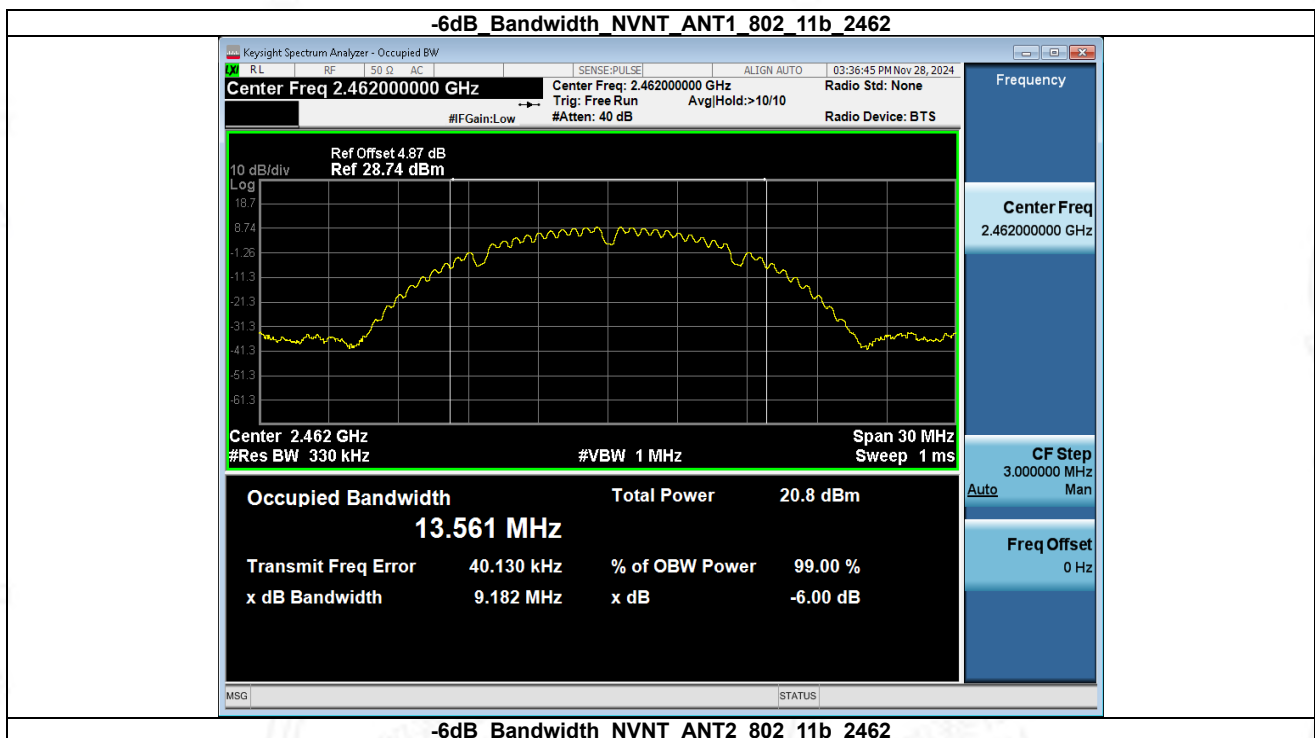
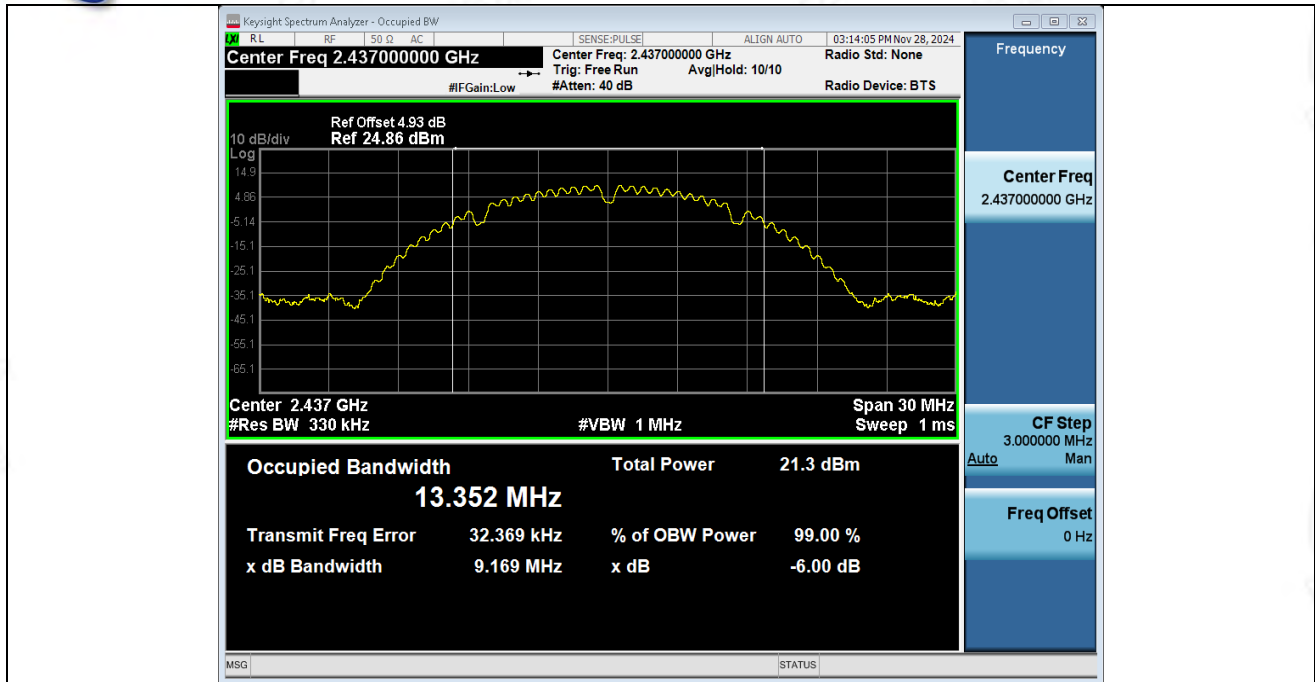


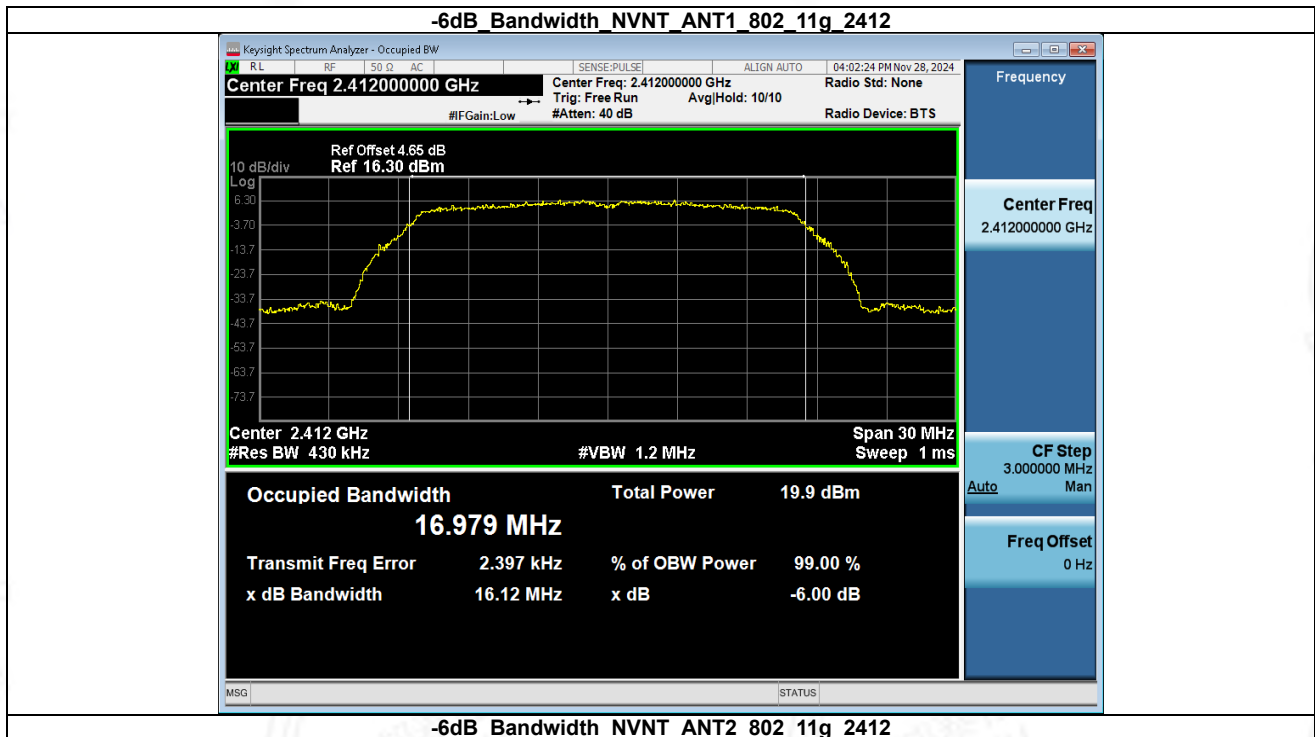
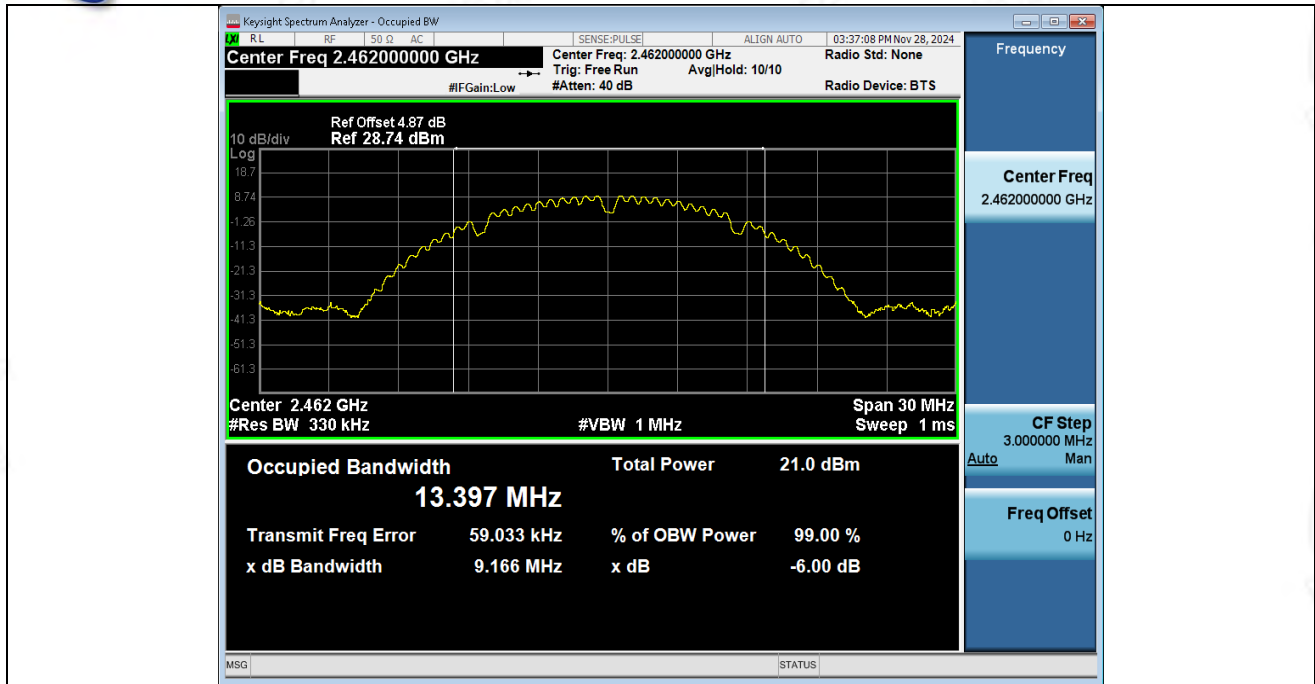
1. -6dB Bandwidth

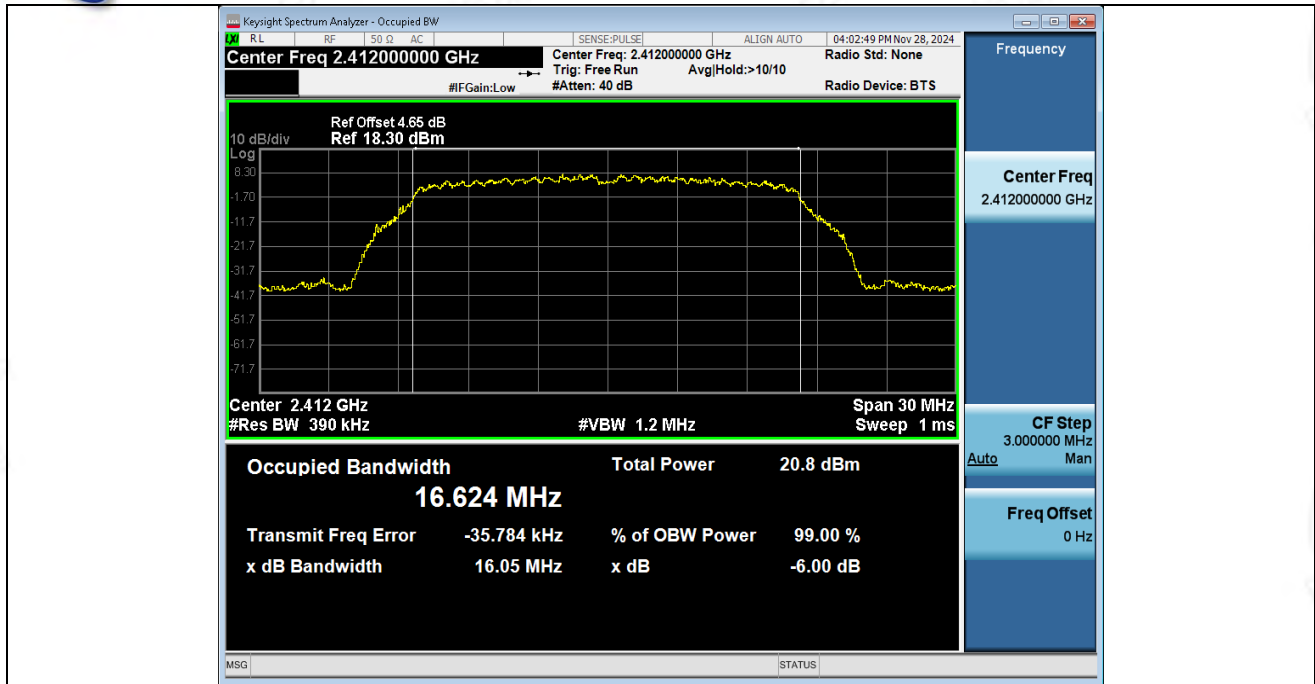
Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	9.21	500	Pass
NVNT	ANT2	802.11b	2412.00	9.16	500	Pass
NVNT	ANT1	802.11b	2437.00	9.21	500	Pass
NVNT	ANT2	802.11b	2437.00	9.17	500	Pass
NVNT	ANT1	802.11b	2462.00	9.18	500	Pass
NVNT	ANT2	802.11b	2462.00	9.17	500	Pass
NVNT	ANT1	802.11g	2412.00	16.12	500	Pass
NVNT	ANT2	802.11g	2412.00	16.05	500	Pass
NVNT	ANT1	802.11g	2437.00	15.99	500	Pass
NVNT	ANT2	802.11g	2437.00	16.15	500	Pass
NVNT	ANT1	802.11g	2462.00	16.12	500	Pass
NVNT	ANT2	802.11g	2462.00	15.74	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.36	500	Pass
NVNT	ANT2	802.11n(HT20)	2412.00	17.36	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.51	500	Pass
NVNT	ANT2	802.11n(HT20)	2437.00	16.70	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.44	500	Pass
NVNT	ANT2	802.11n(HT20)	2462.00	16.74	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	35.58	500	Pass
NVNT	ANT2	802.11n(HT40)	2422.00	35.76	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	34.72	500	Pass
NVNT	ANT2	802.11n(HT40)	2437.00	34.38	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	35.36	500	Pass
NVNT	ANT2	802.11n(HT40)	2452.00	35.39	500	Pass



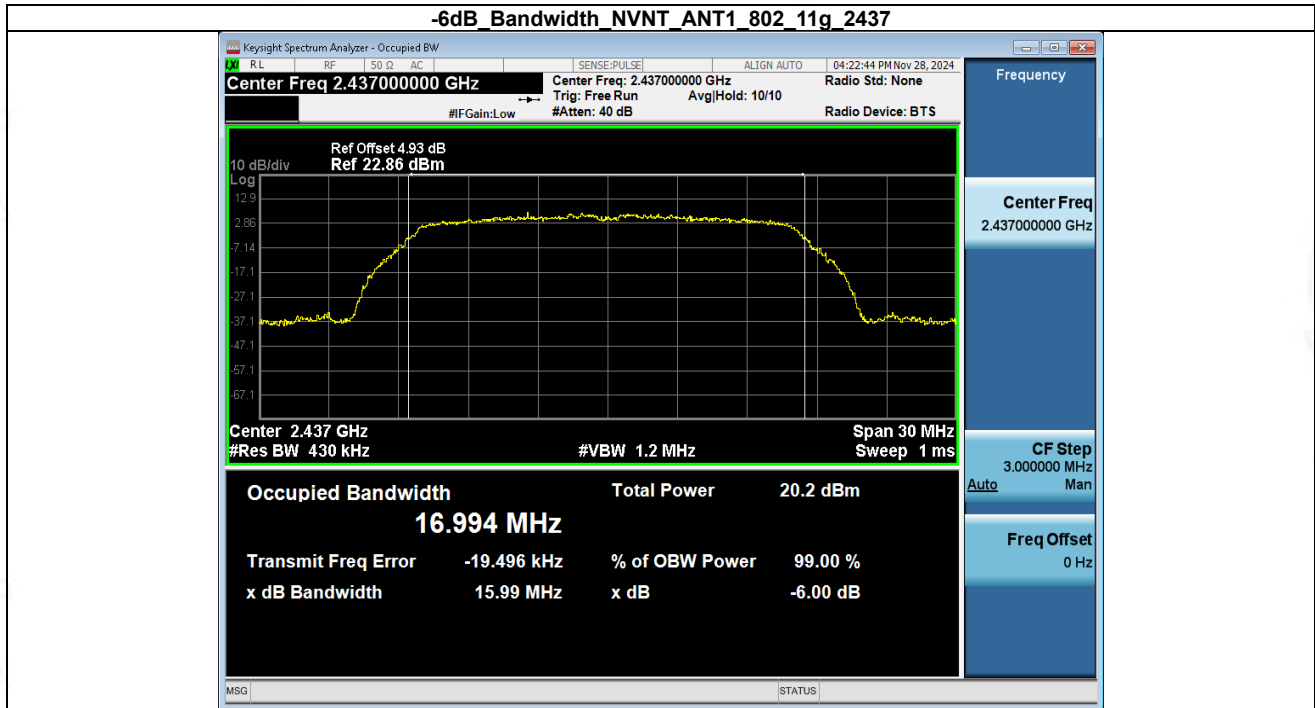






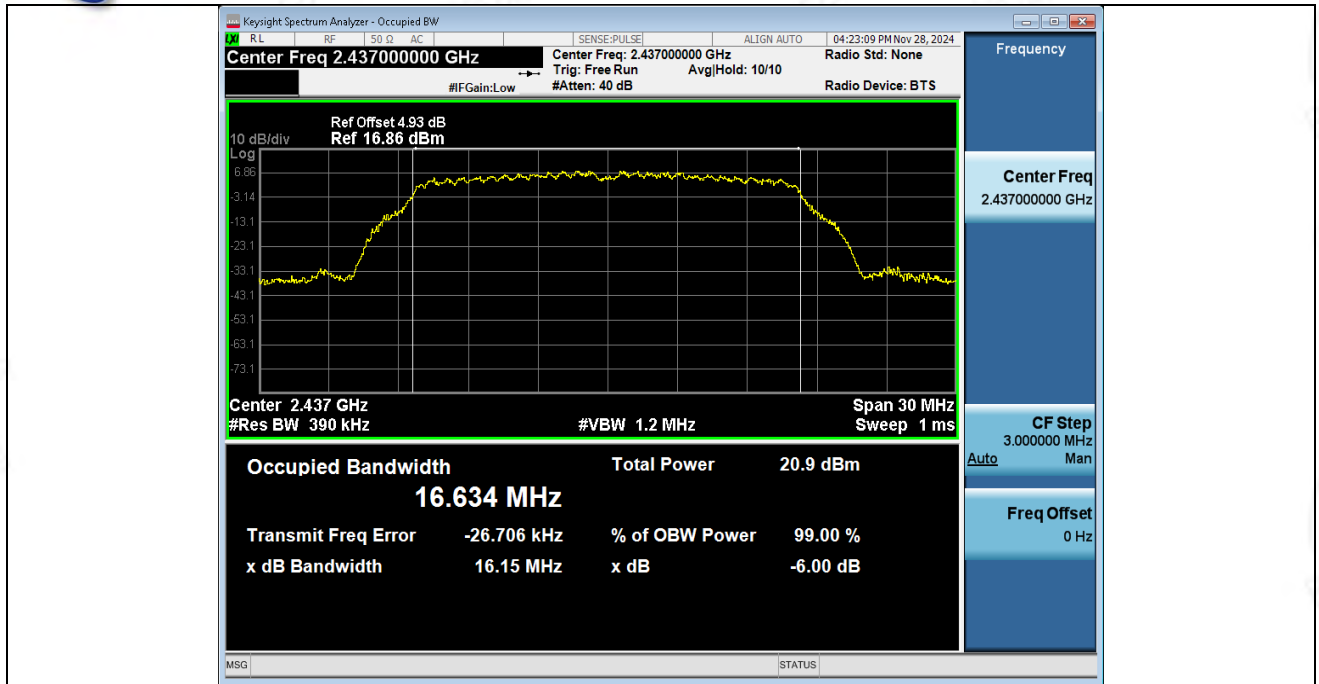


-6dB_Bandwidth_NVNT_ANT1_802_11g_2437

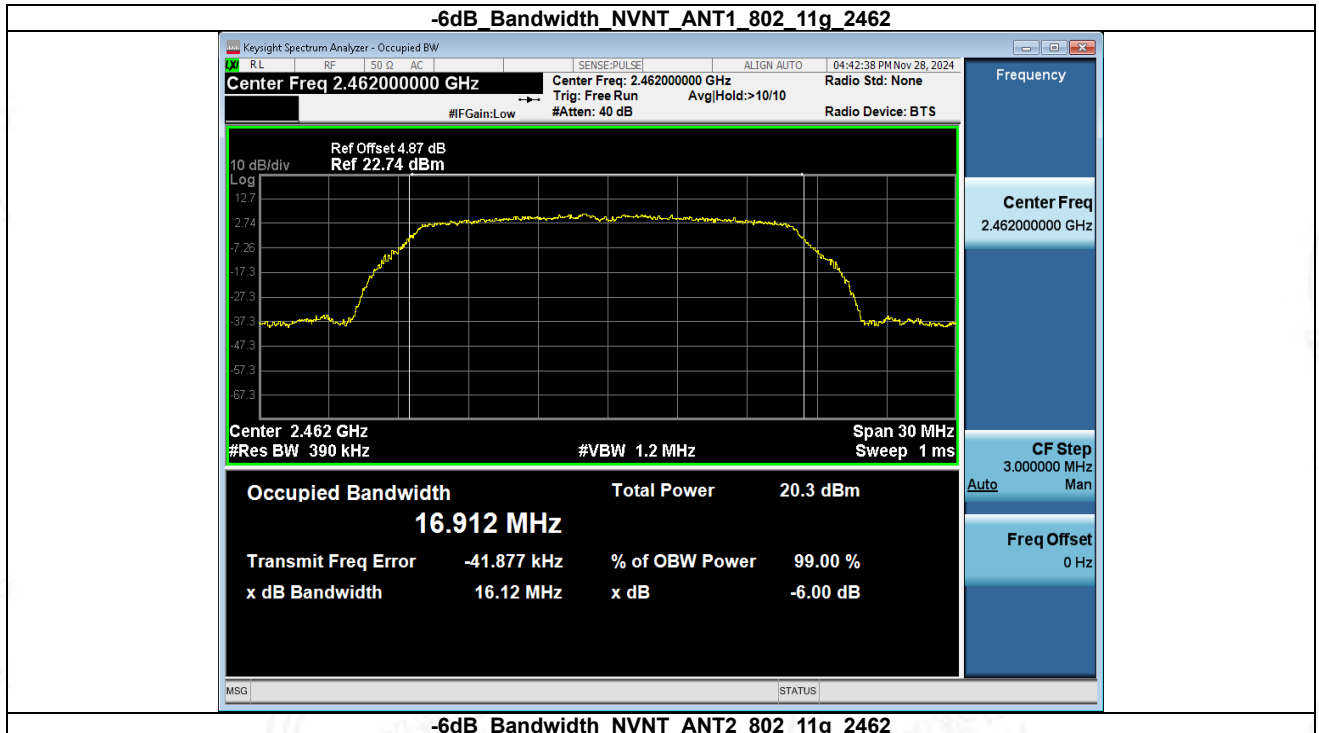


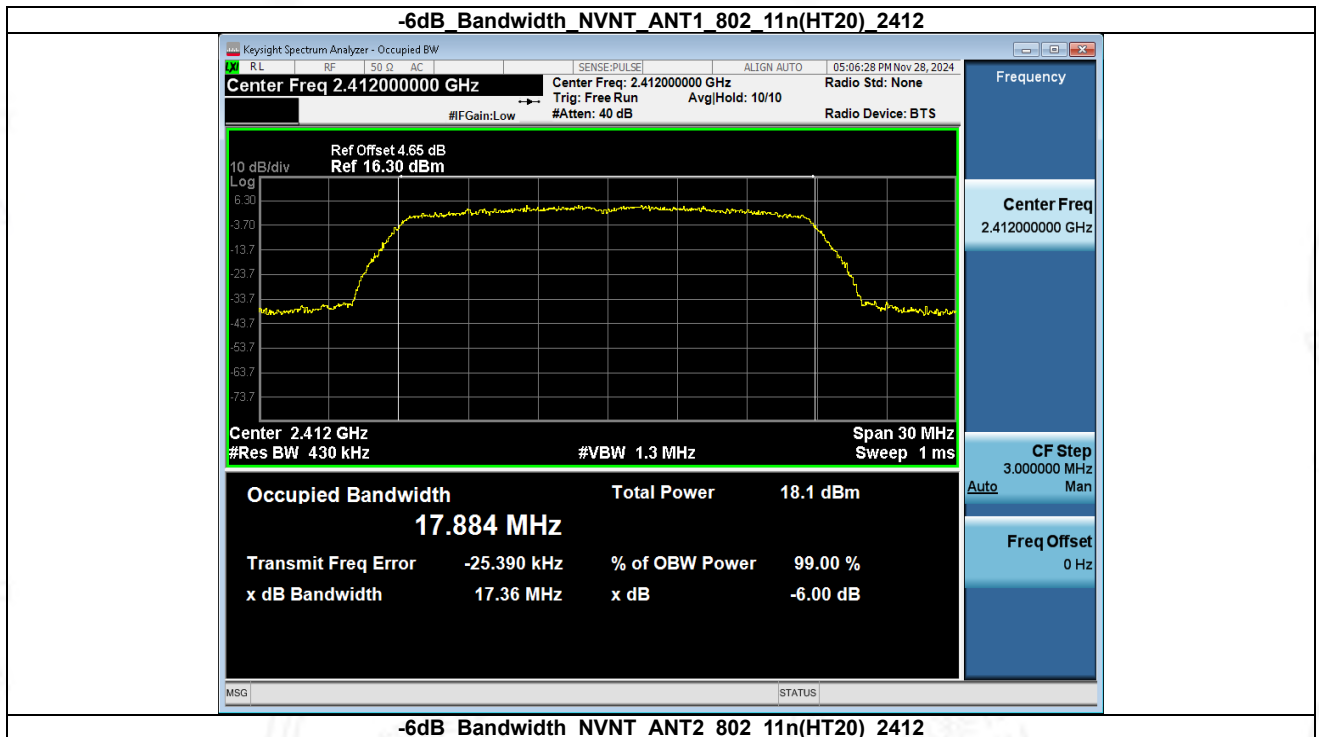
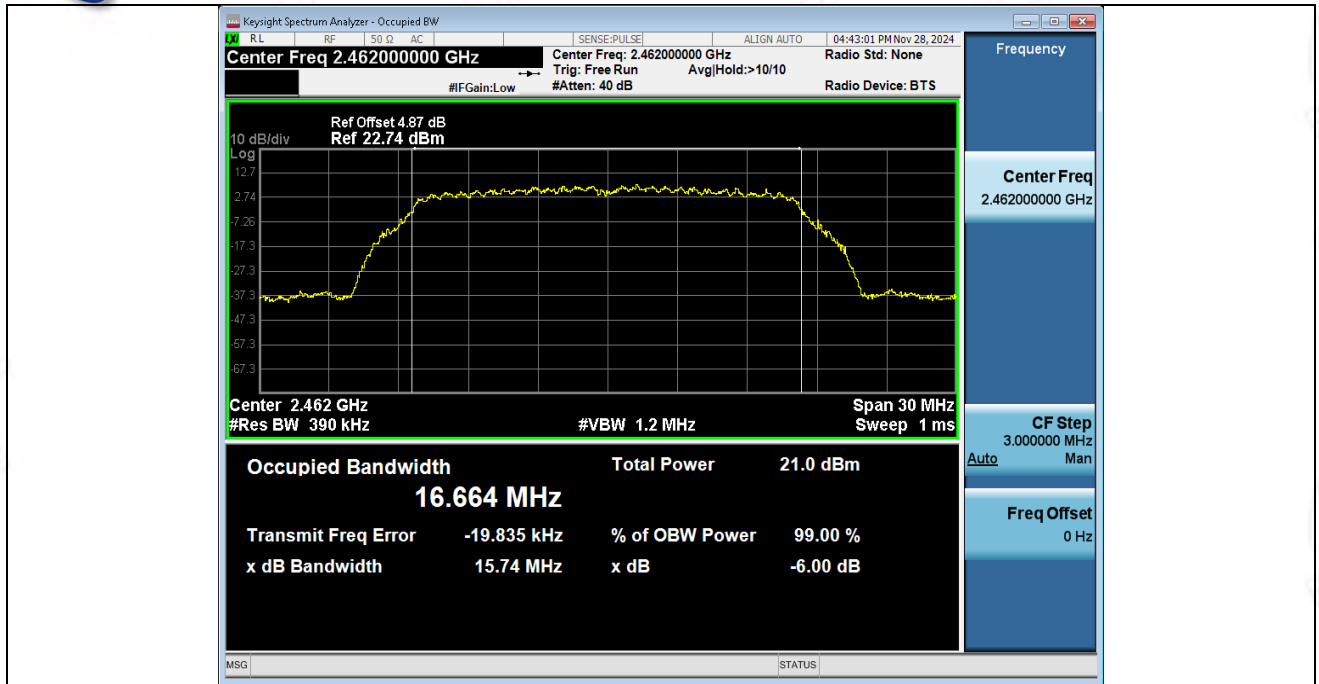
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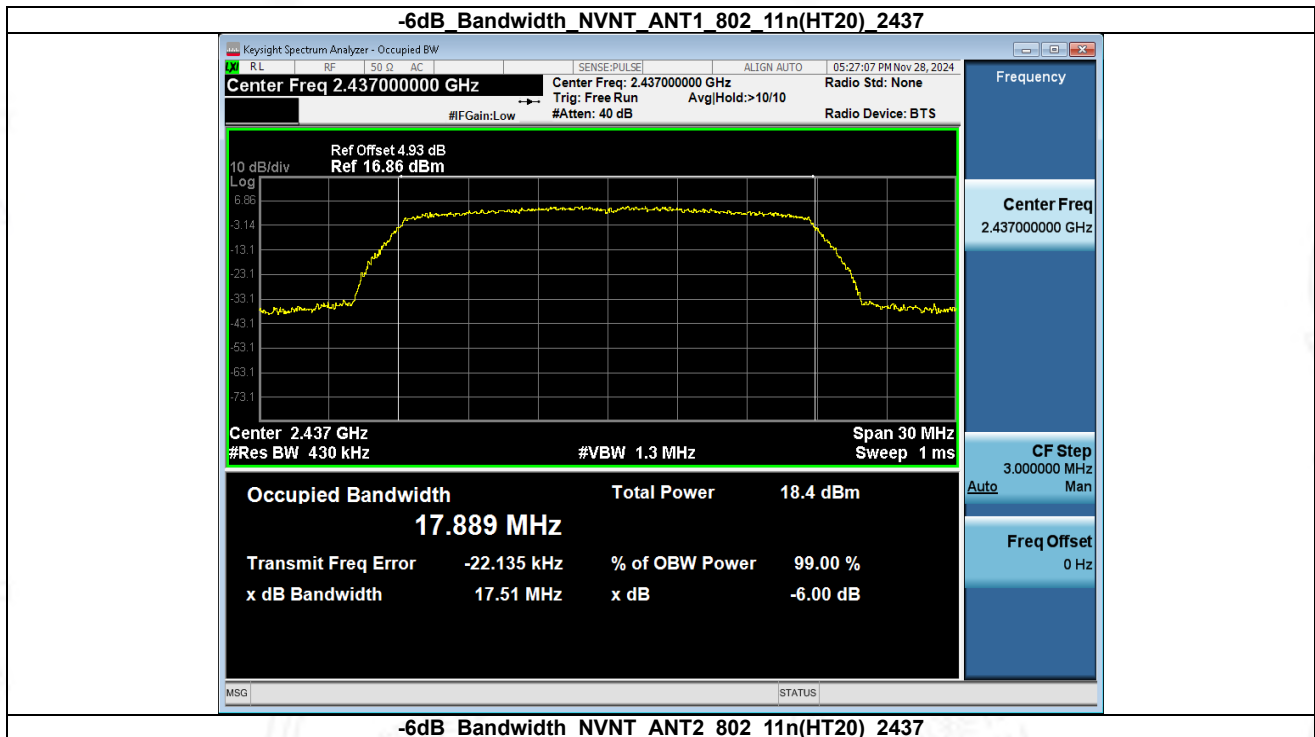
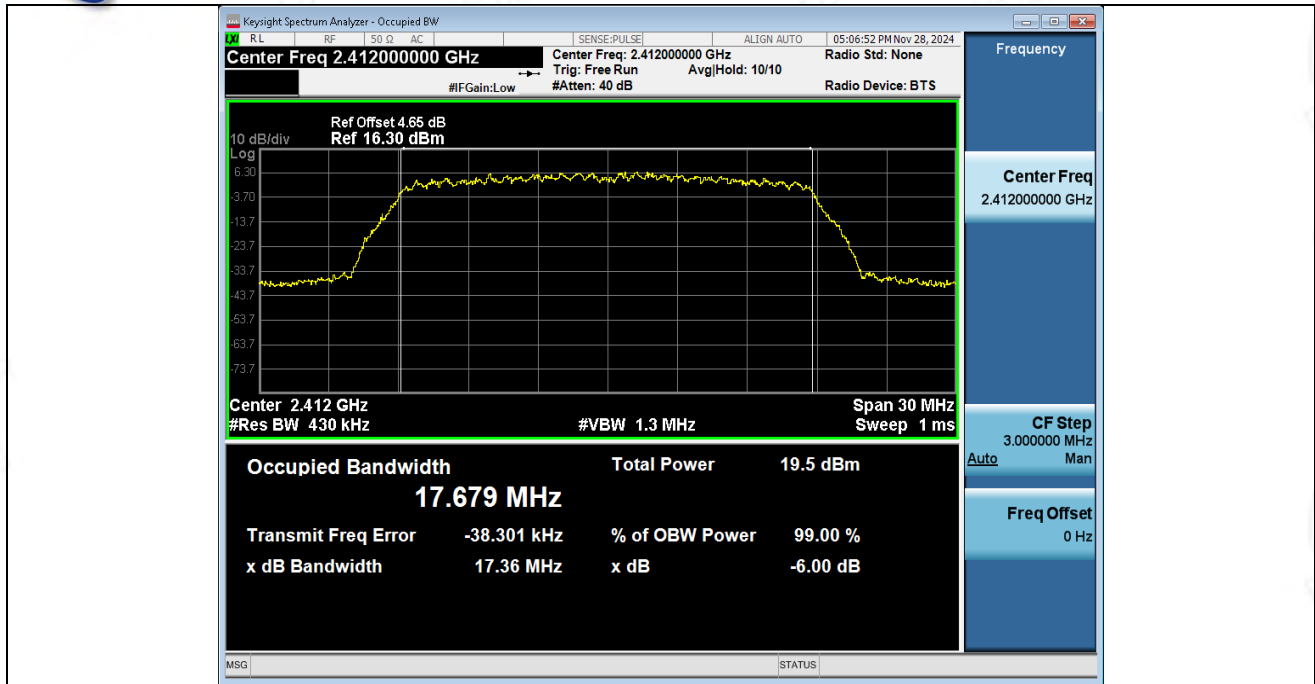


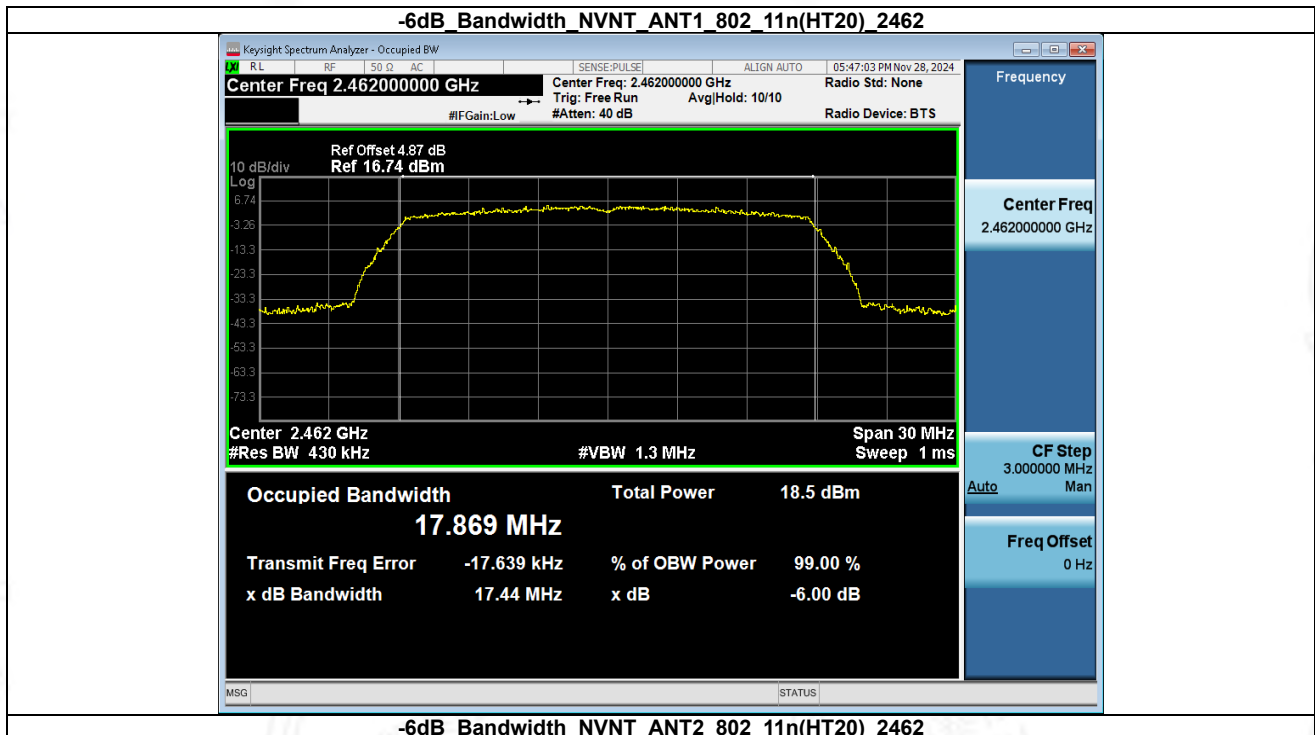
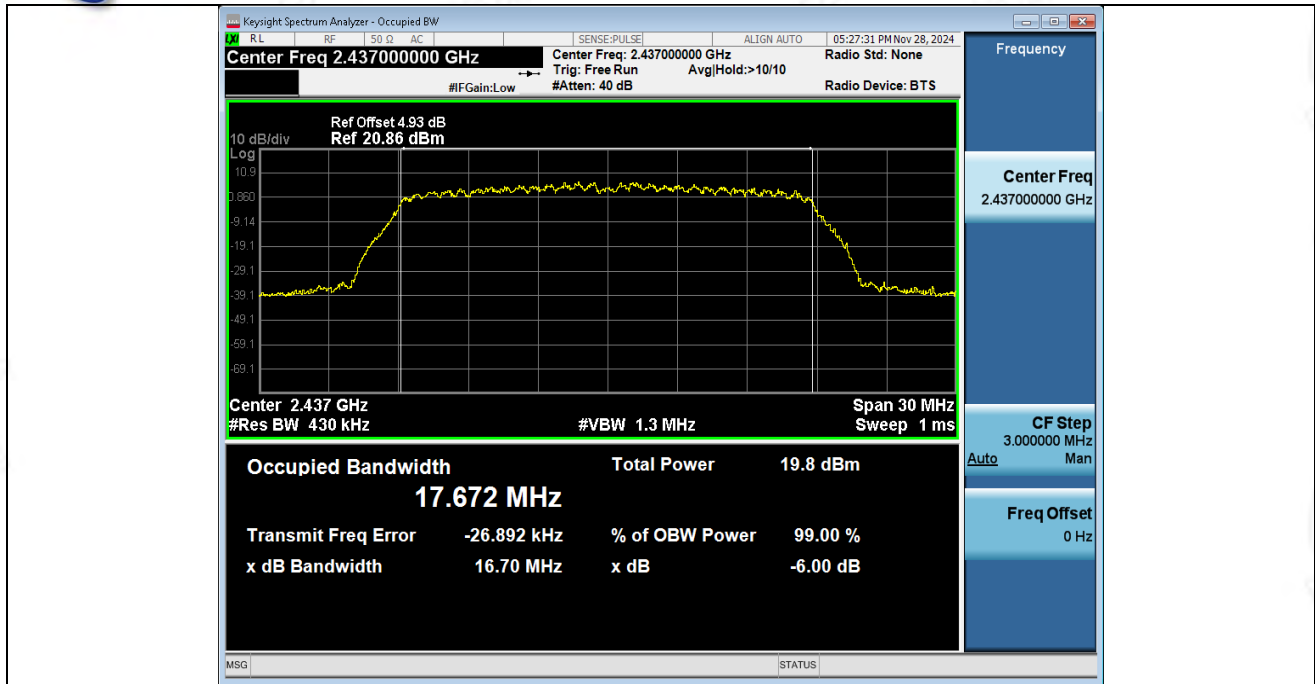


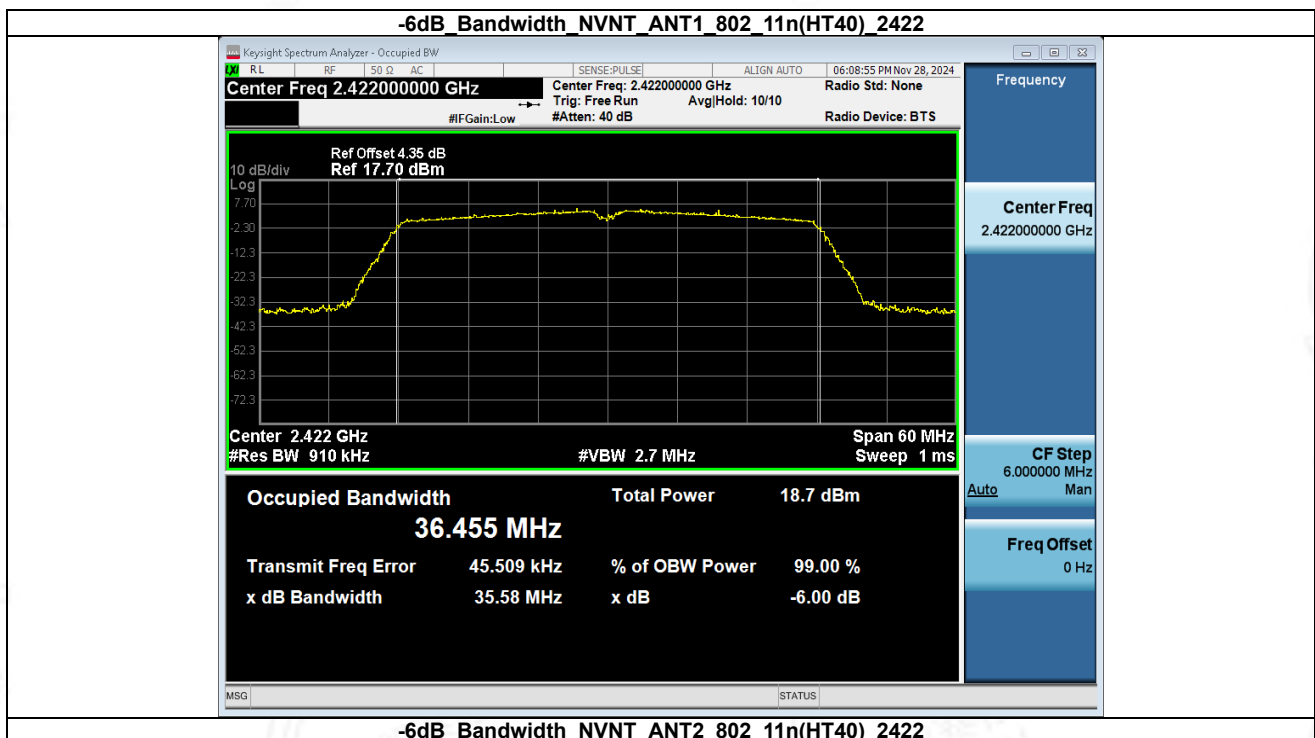
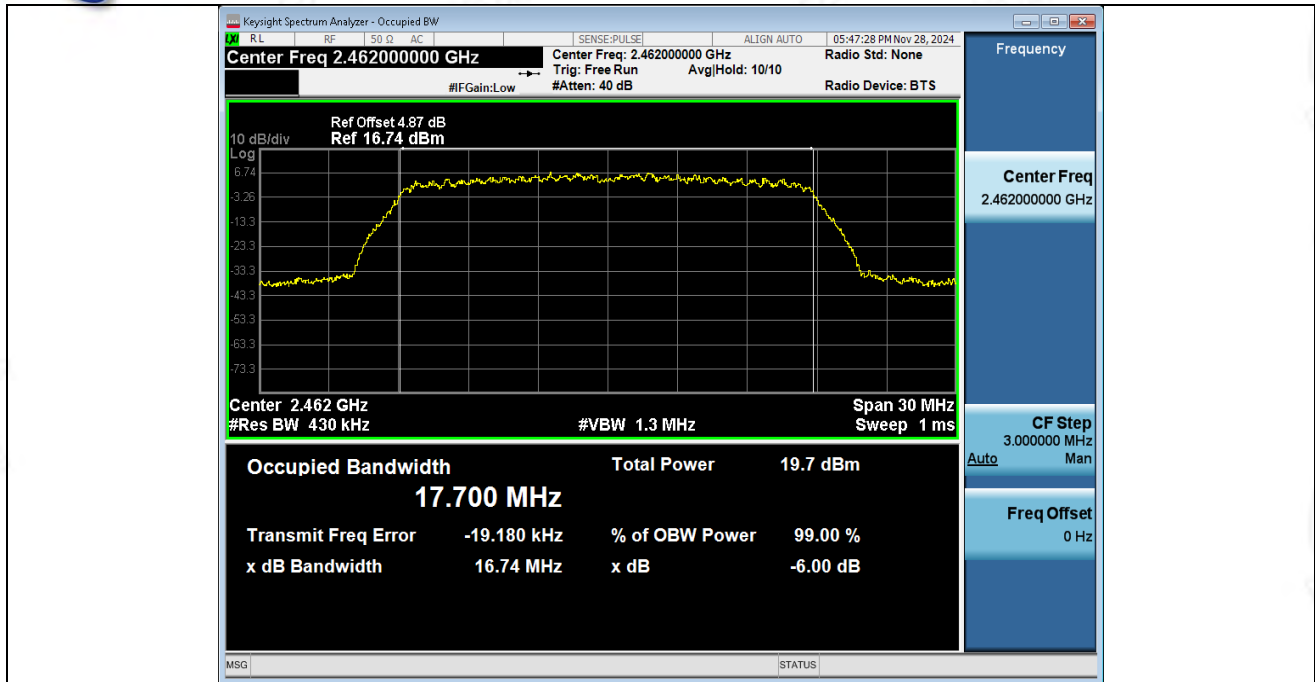
-6dB_Bandwidth_NVNT_ANT1_802_11g_2462





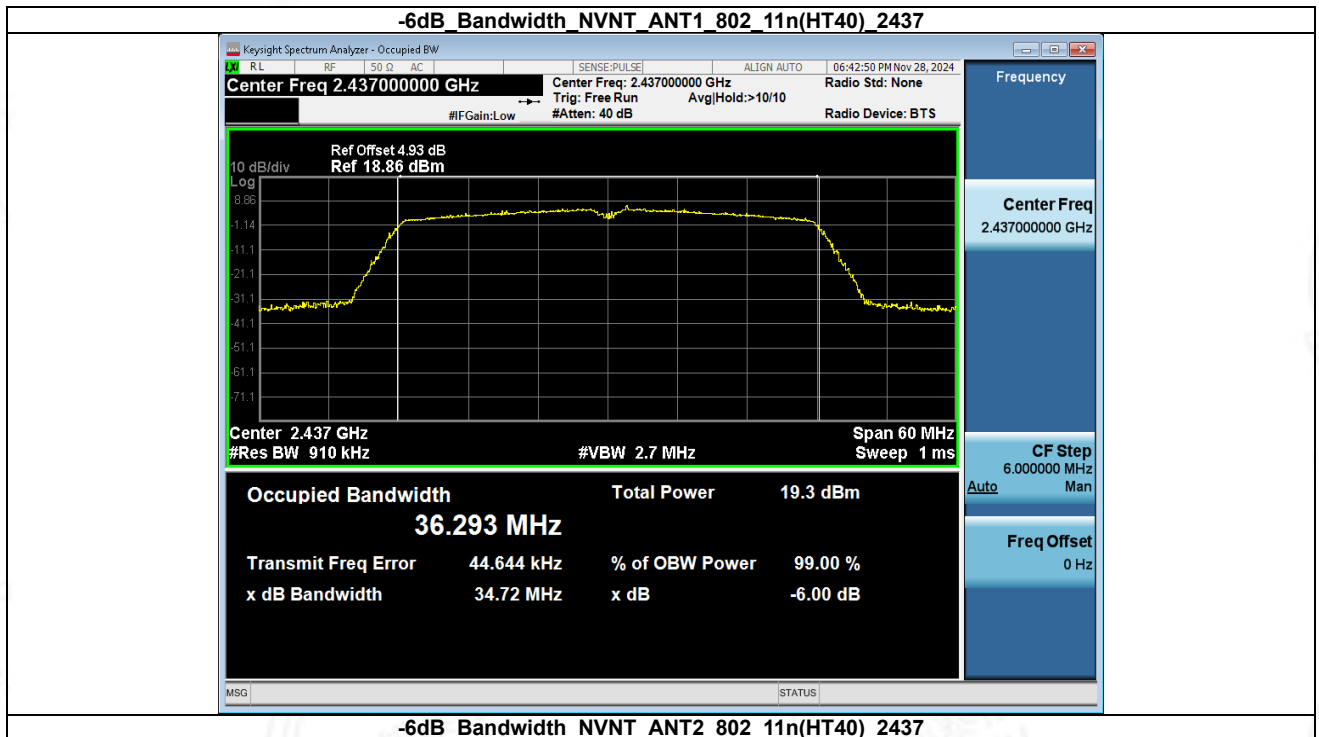
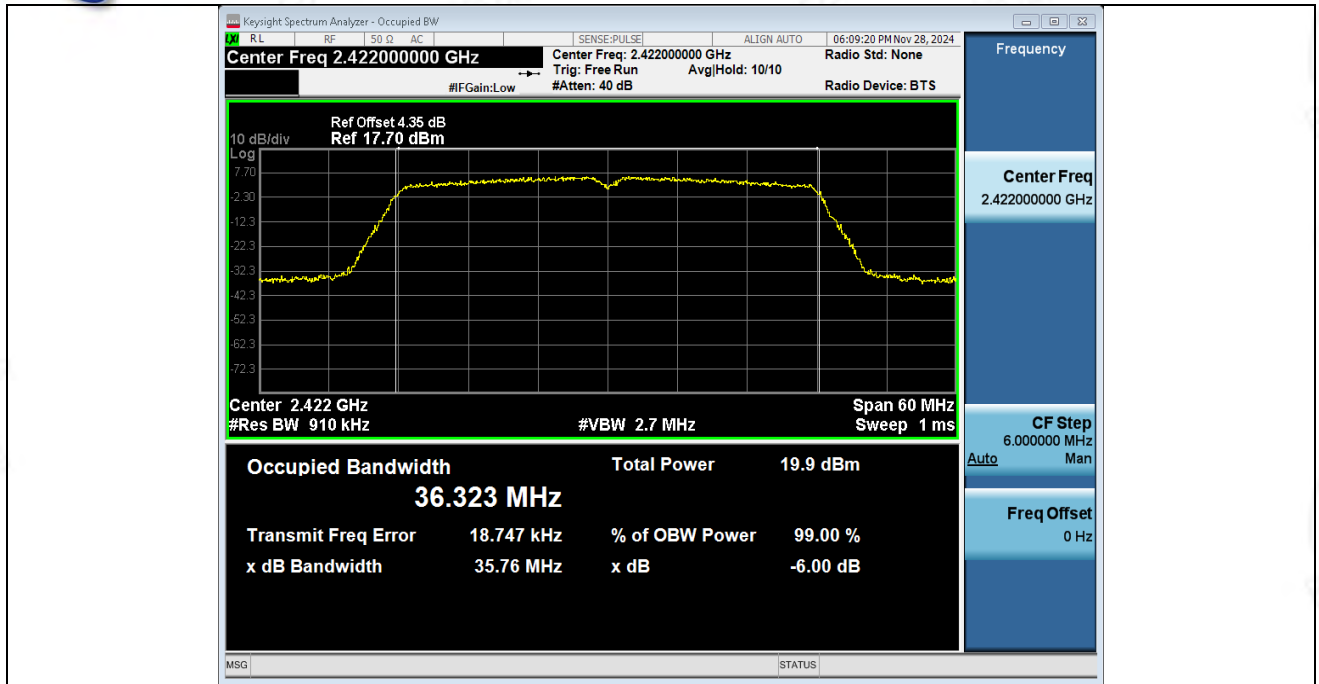


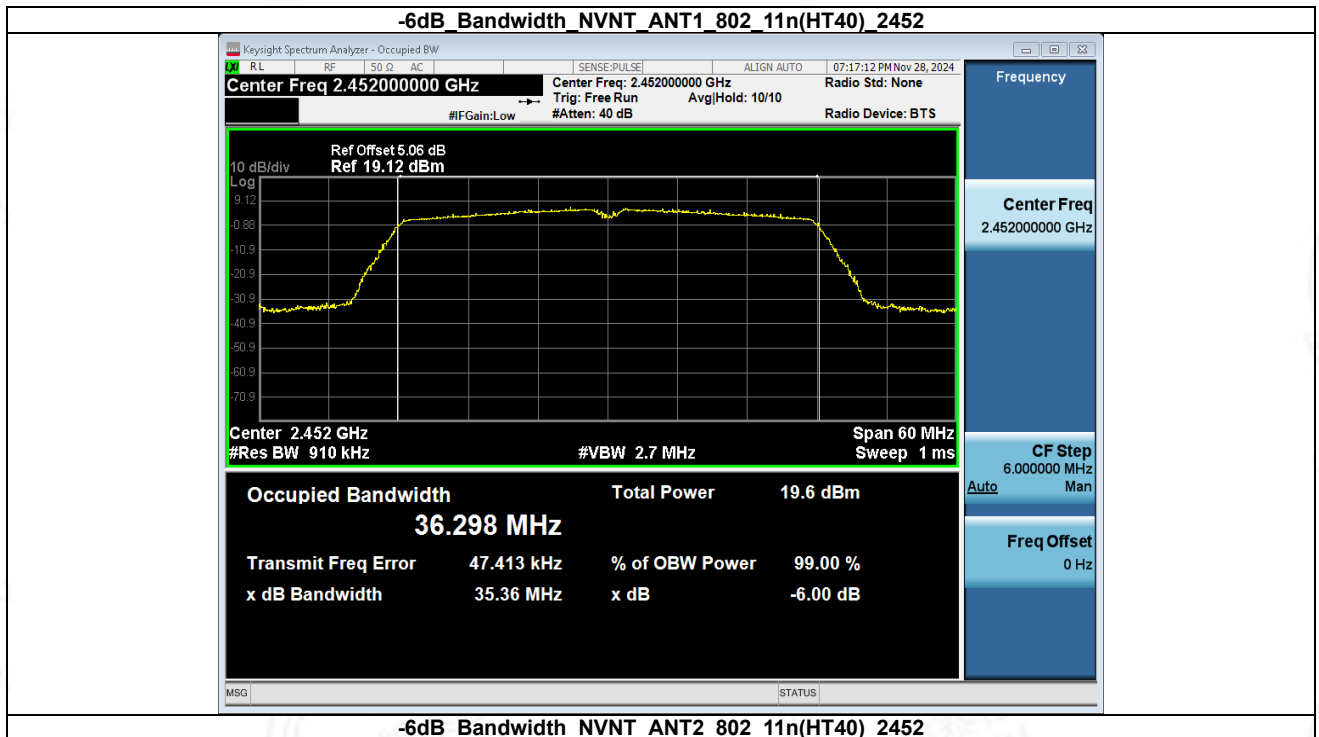
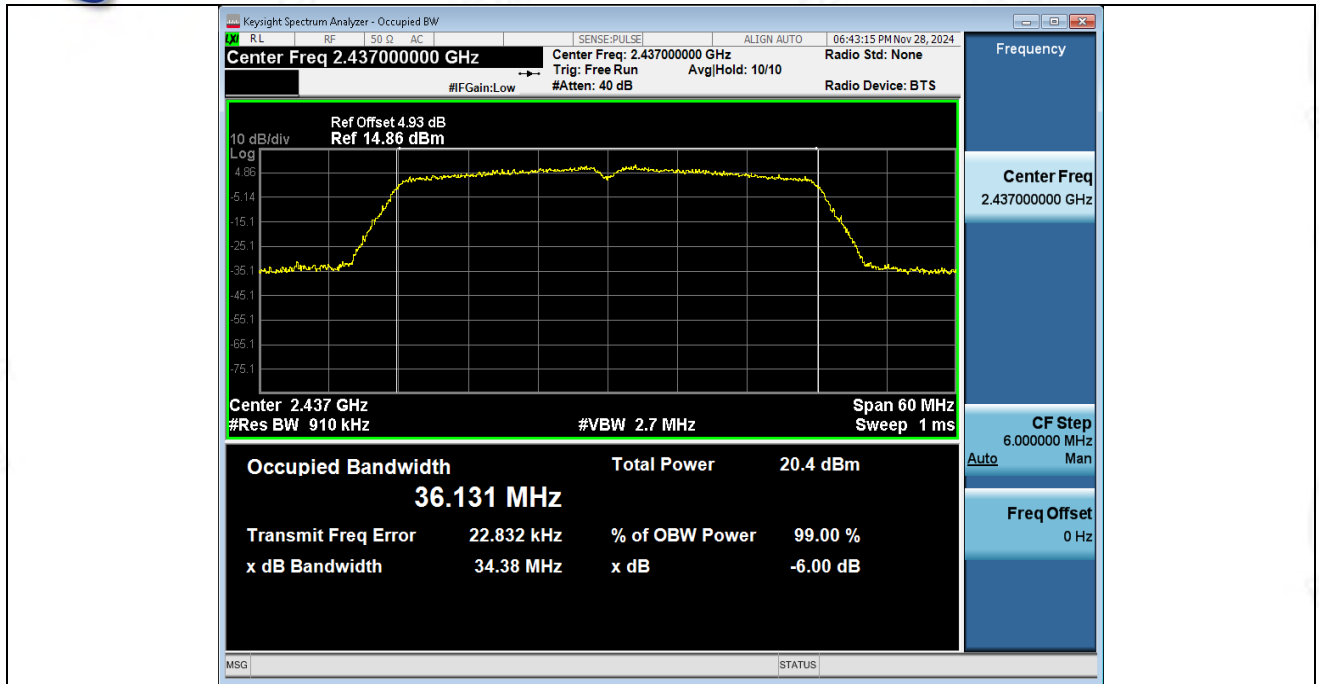


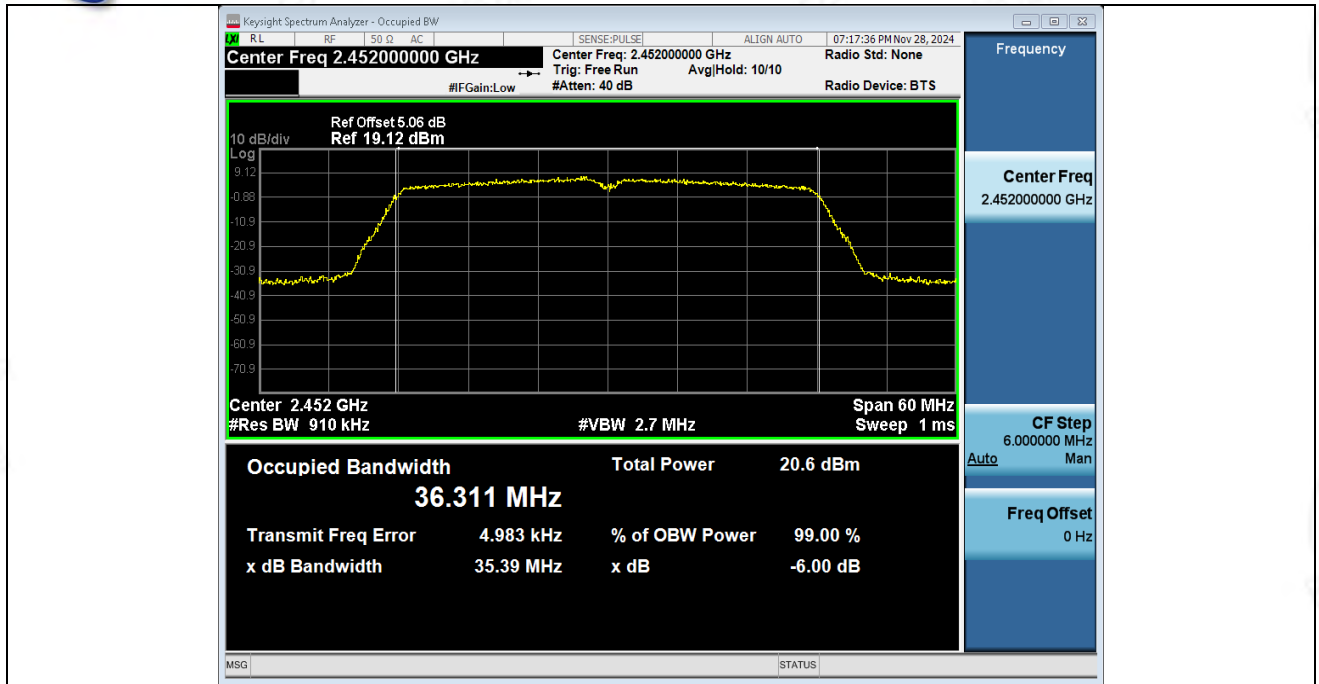


-6dB_Bandwidth_NVNT_ANT2_802_11n(HT40)_2422





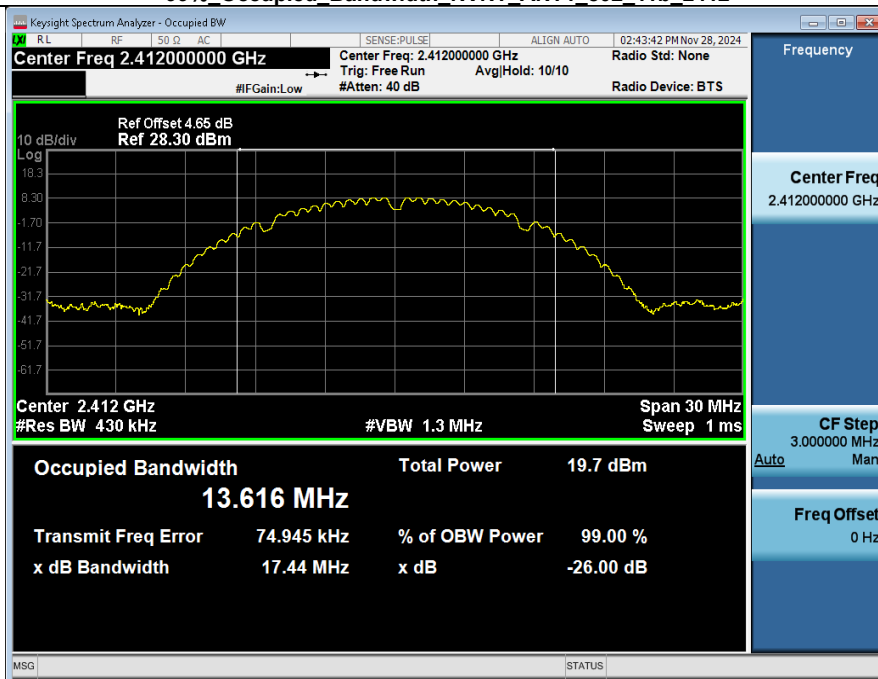




2. 99% Occupied Bandwidth

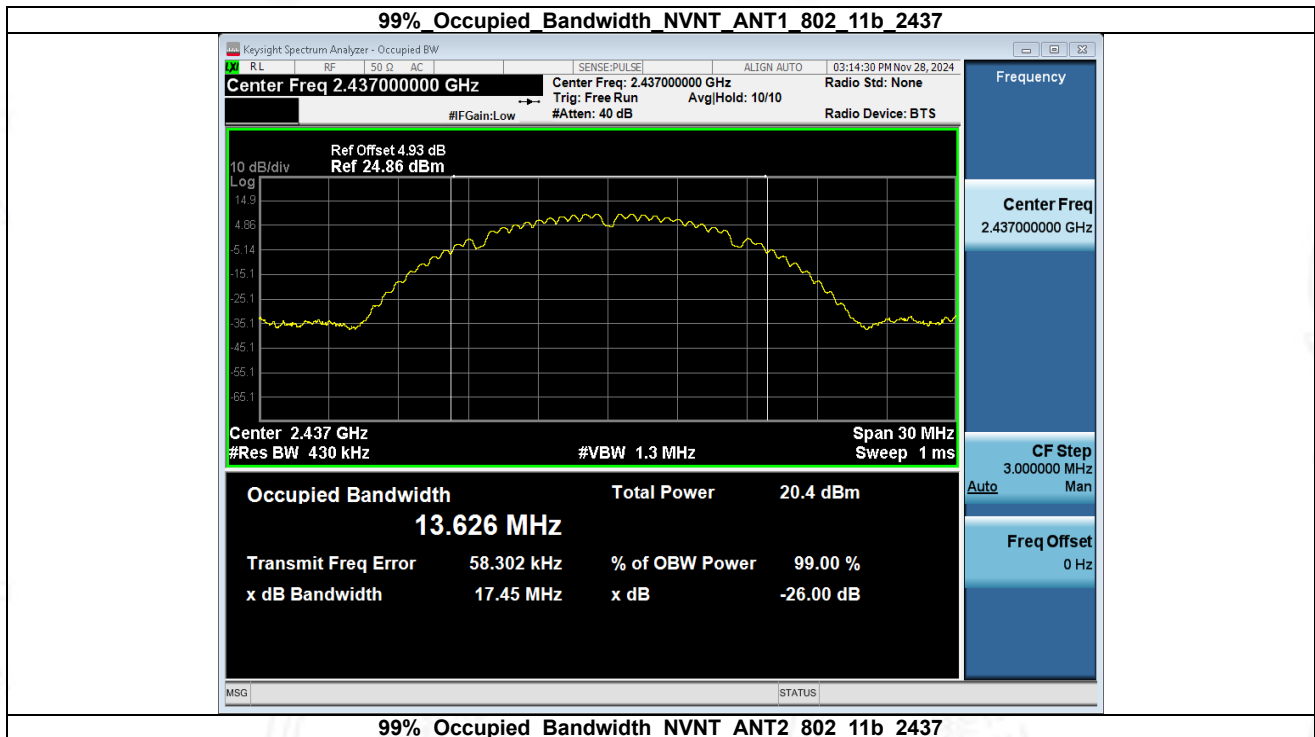
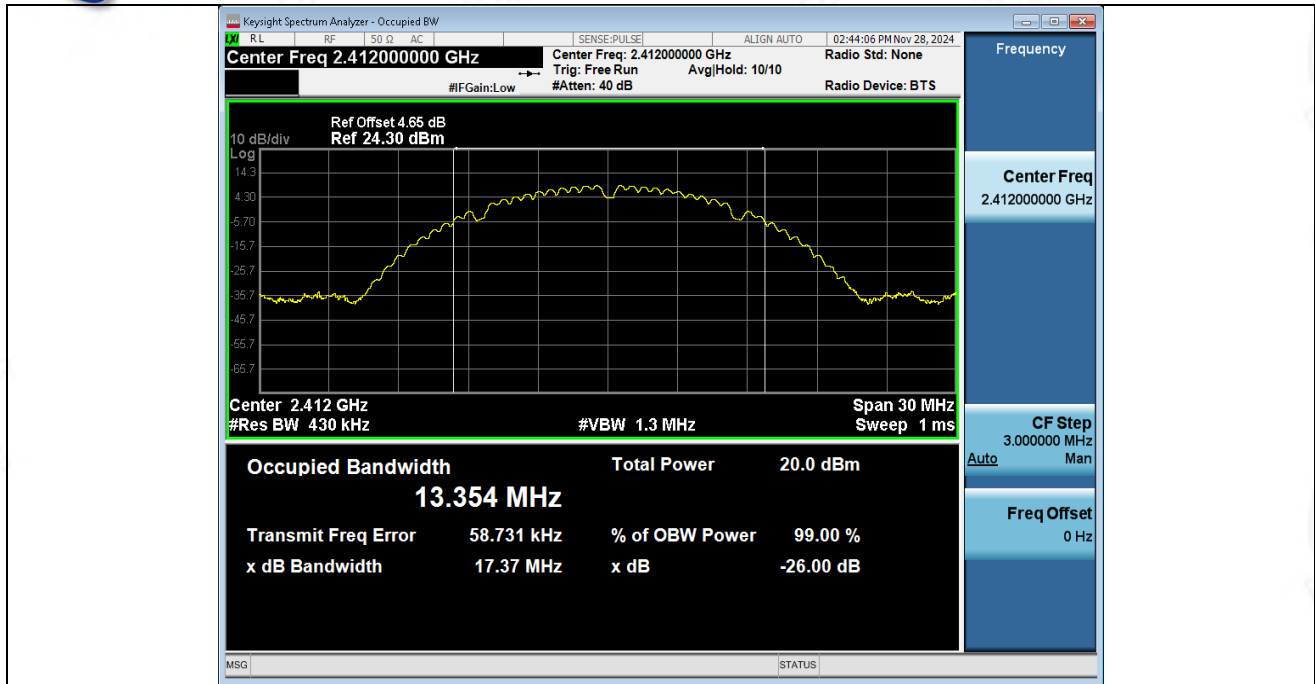
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NVNT	ANT1	802.11b	2412.00	13.616
NVNT	ANT2	802.11b	2412.00	13.354
NVNT	ANT1	802.11b	2437.00	13.626
NVNT	ANT2	802.11b	2437.00	13.371
NVNT	ANT1	802.11b	2462.00	13.550
NVNT	ANT2	802.11b	2462.00	13.414
NVNT	ANT1	802.11g	2412.00	17.041
NVNT	ANT2	802.11g	2412.00	16.738
NVNT	ANT1	802.11g	2437.00	17.125
NVNT	ANT2	802.11g	2437.00	16.763
NVNT	ANT1	802.11g	2462.00	17.070
NVNT	ANT2	802.11g	2462.00	16.827
NVNT	ANT1	802.11n(HT20)	2412.00	18.067
NVNT	ANT2	802.11n(HT20)	2412.00	17.731
NVNT	ANT1	802.11n(HT20)	2437.00	18.024
NVNT	ANT2	802.11n(HT20)	2437.00	17.774
NVNT	ANT1	802.11n(HT20)	2462.00	17.979
NVNT	ANT2	802.11n(HT20)	2462.00	17.795
NVNT	ANT1	802.11n(HT40)	2422.00	36.399
NVNT	ANT2	802.11n(HT40)	2422.00	36.386
NVNT	ANT1	802.11n(HT40)	2437.00	36.307
NVNT	ANT2	802.11n(HT40)	2437.00	36.140
NVNT	ANT1	802.11n(HT40)	2452.00	36.412
NVNT	ANT2	802.11n(HT40)	2452.00	36.323

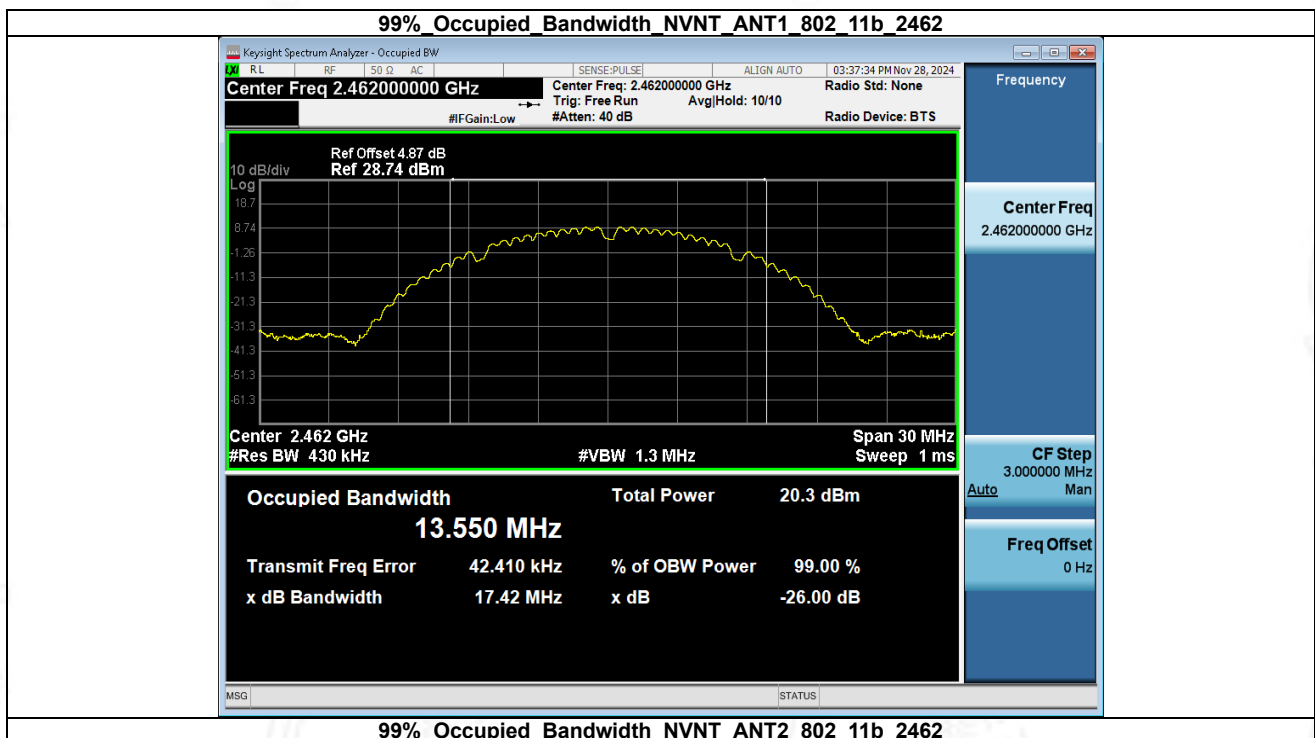
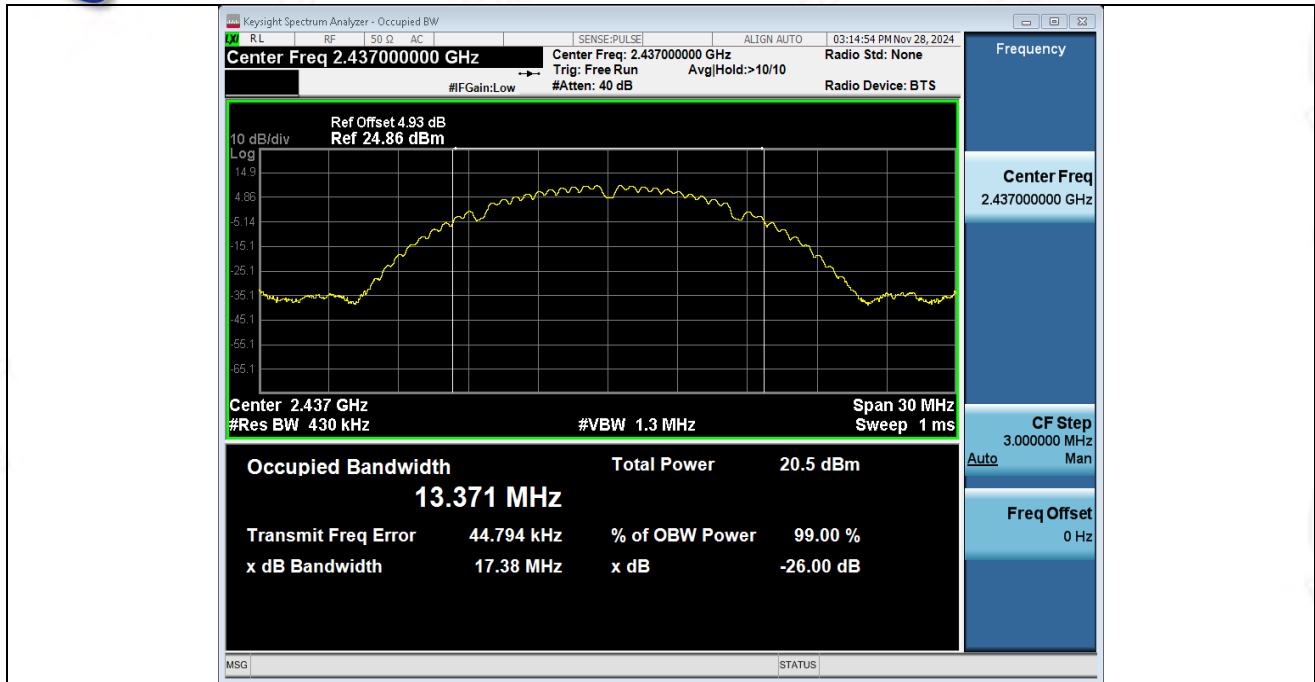
99% Occupied Bandwidth NVNT ANT1 802_11b_2412

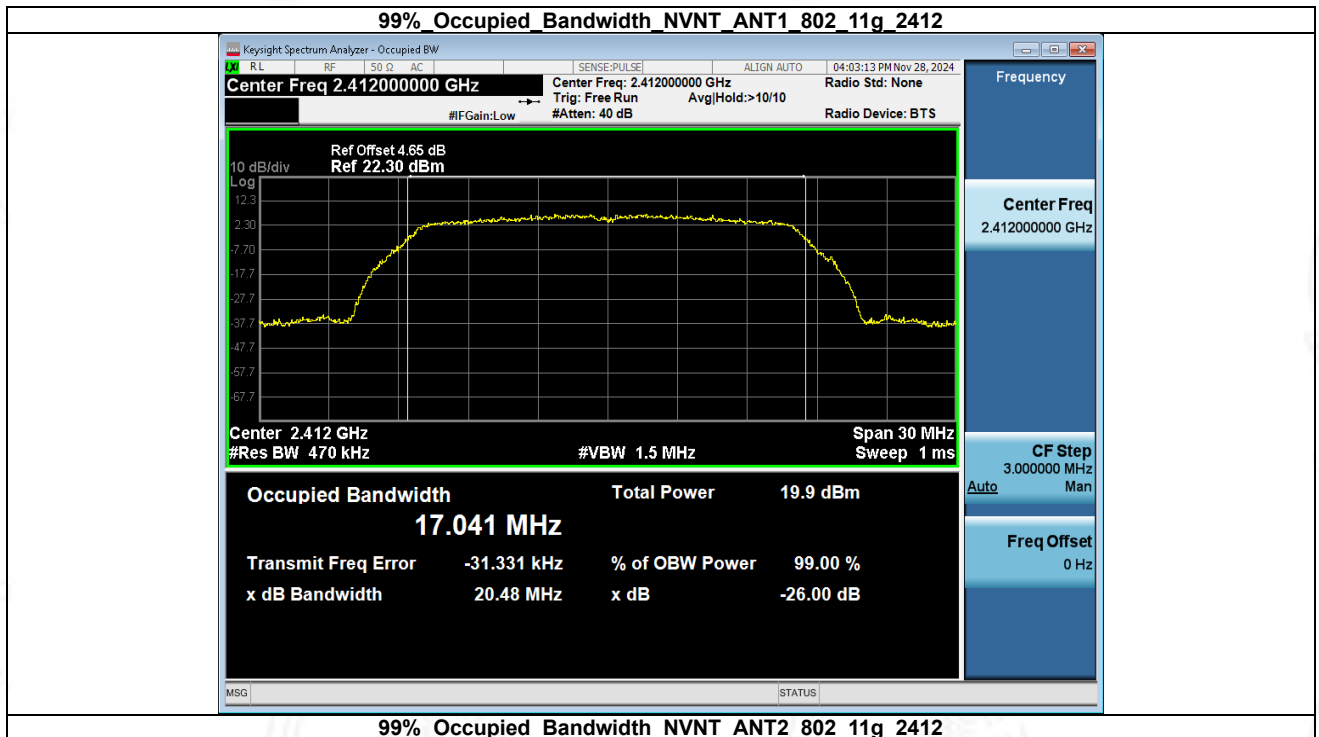
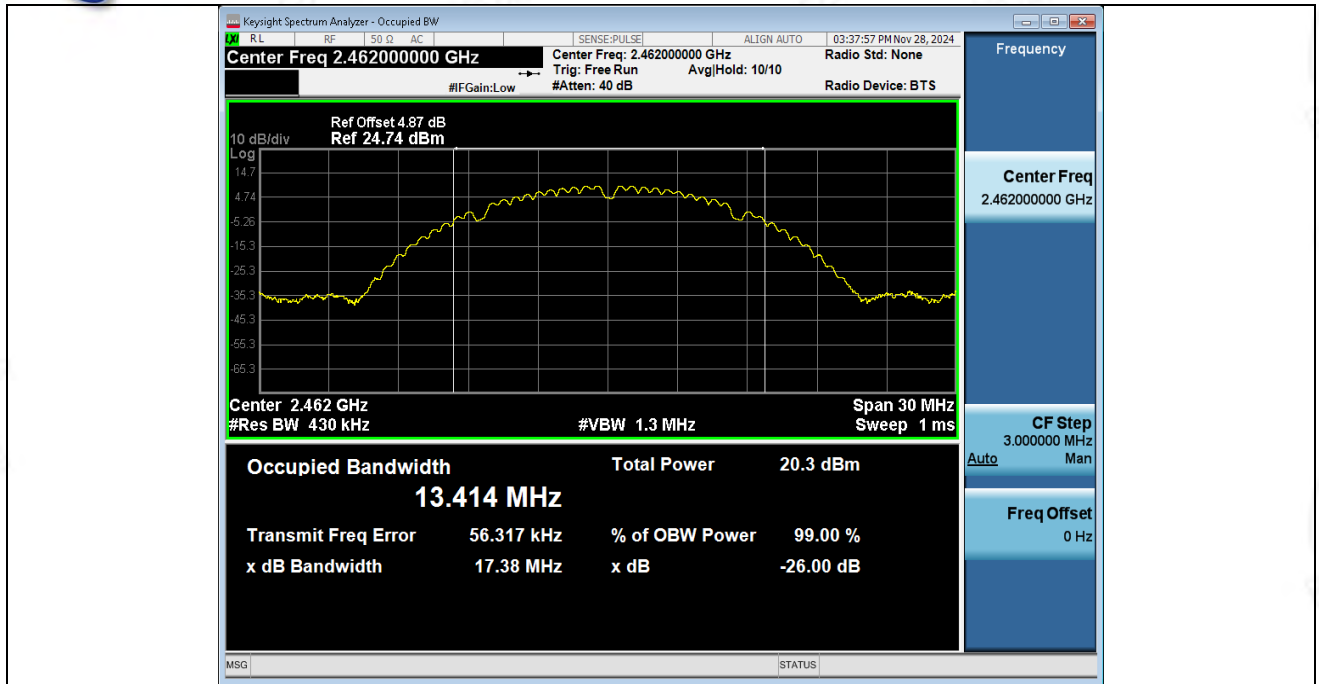


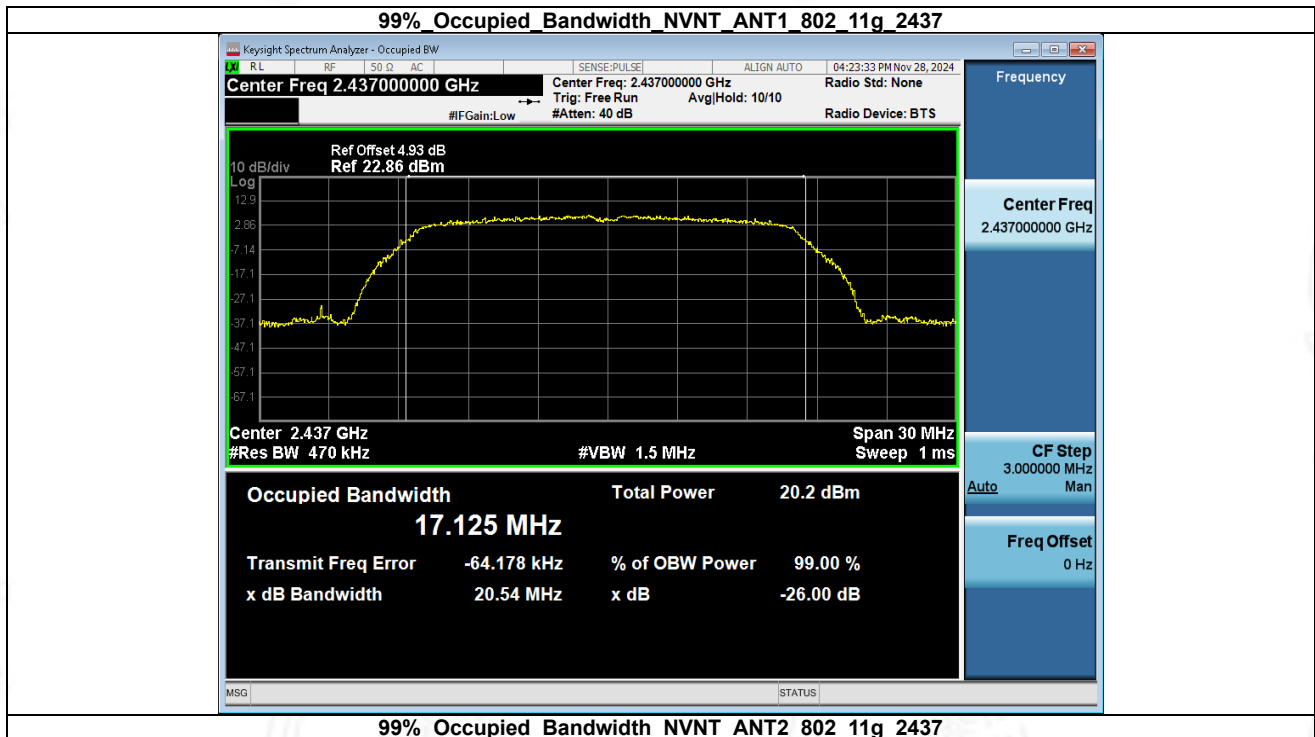
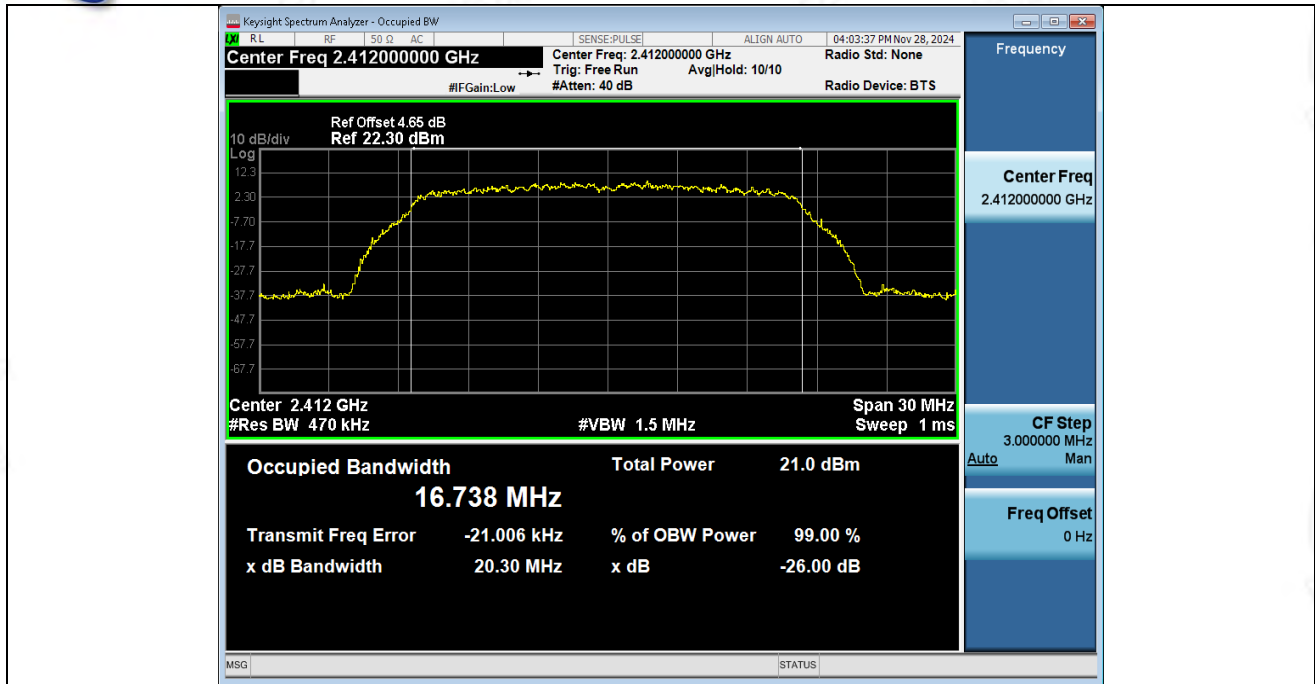
99% Occupied Bandwidth NVNT ANT2 802_11b_2412

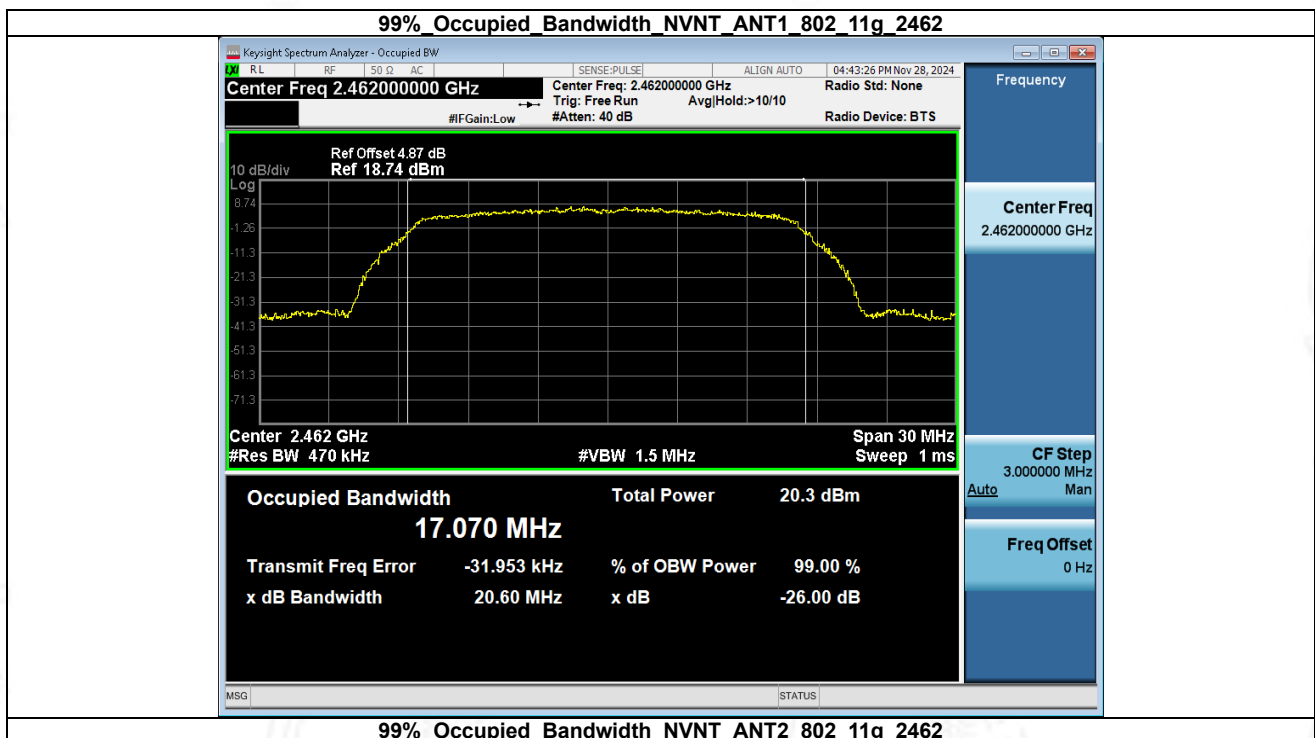
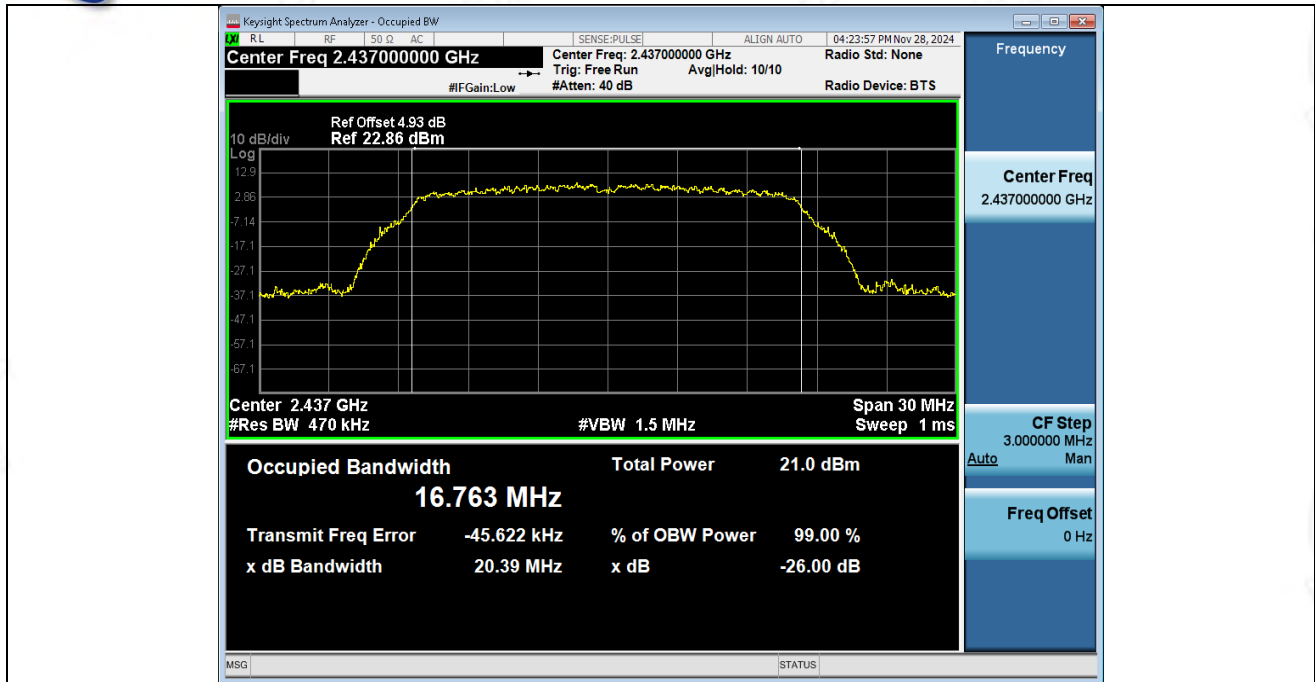


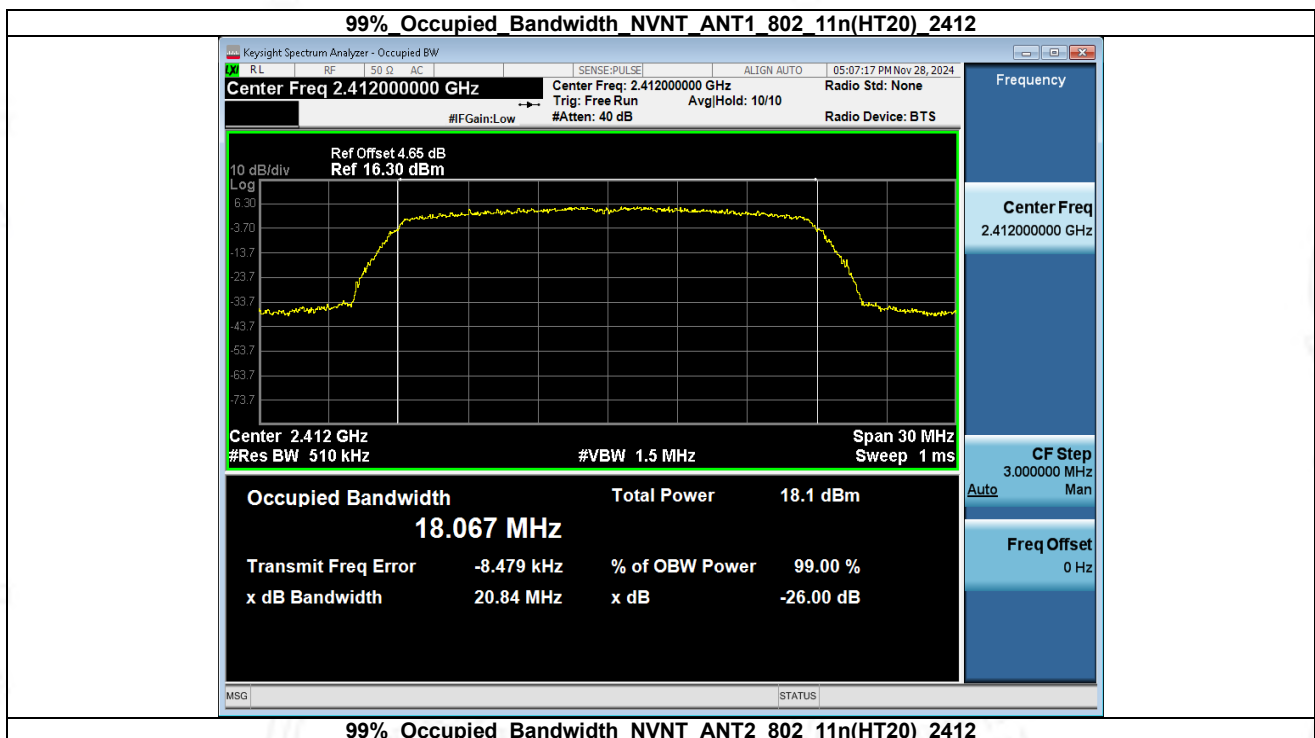
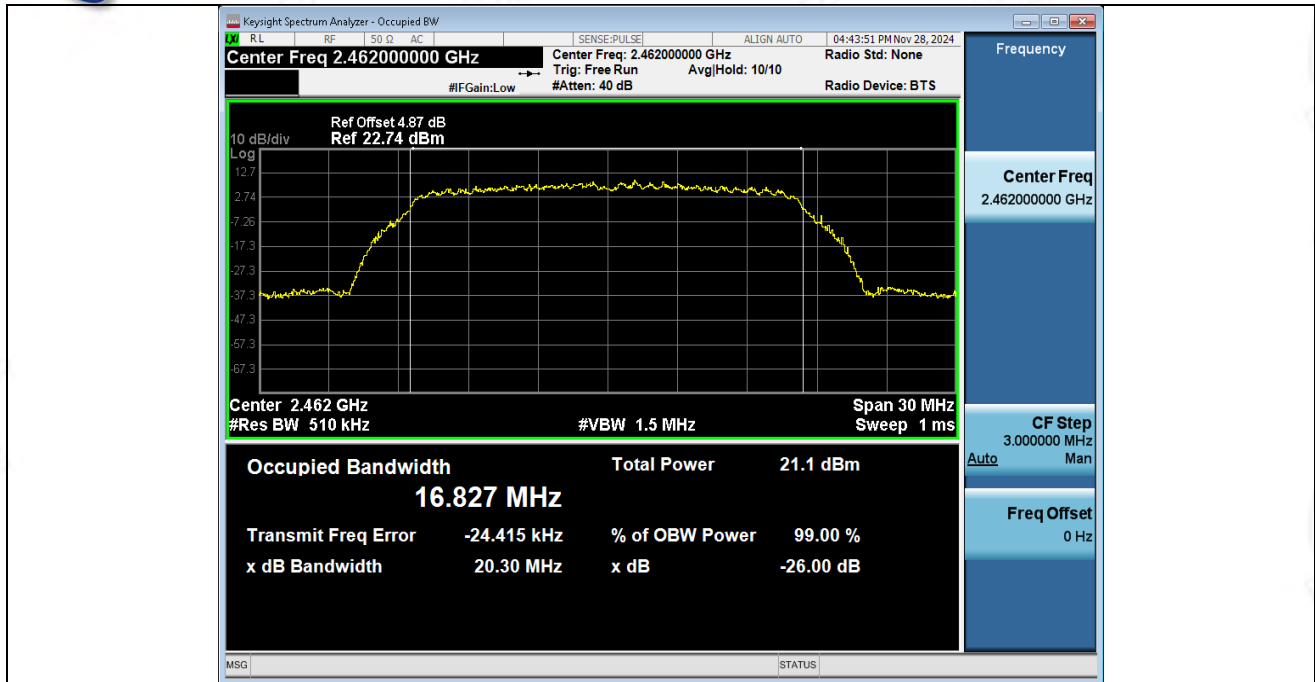


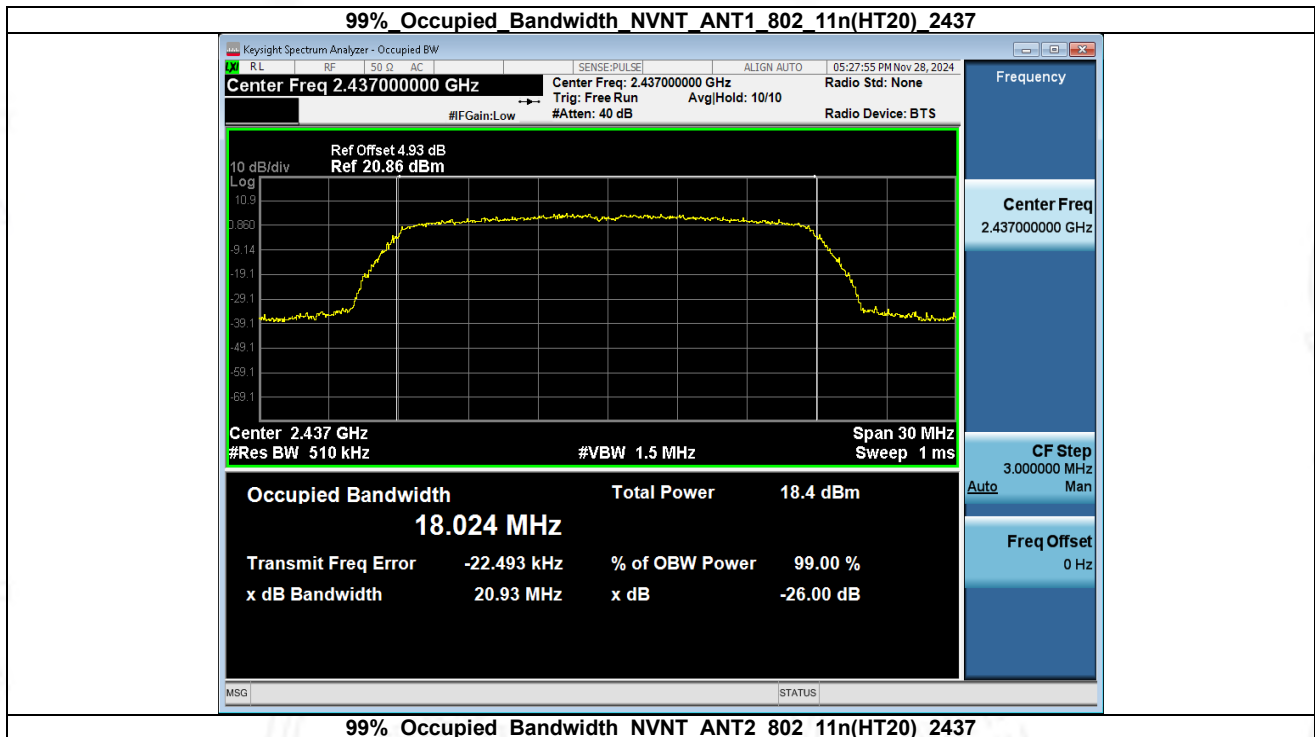
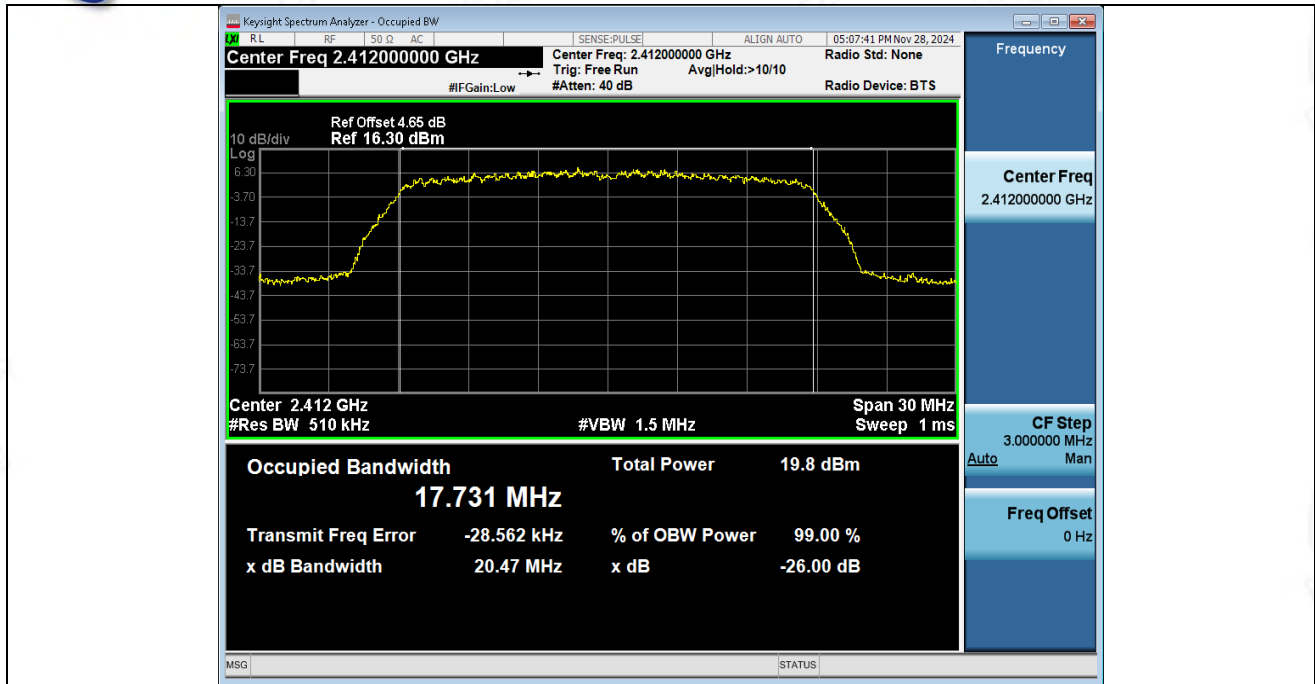


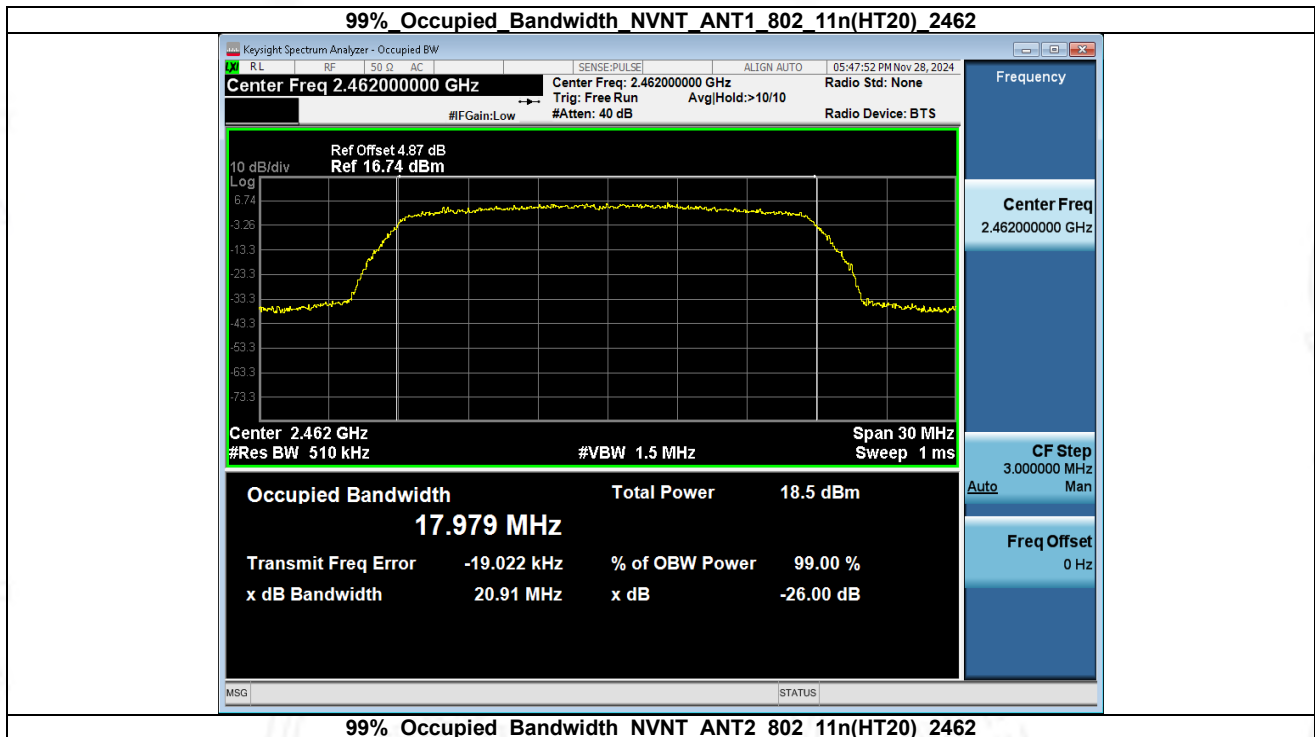
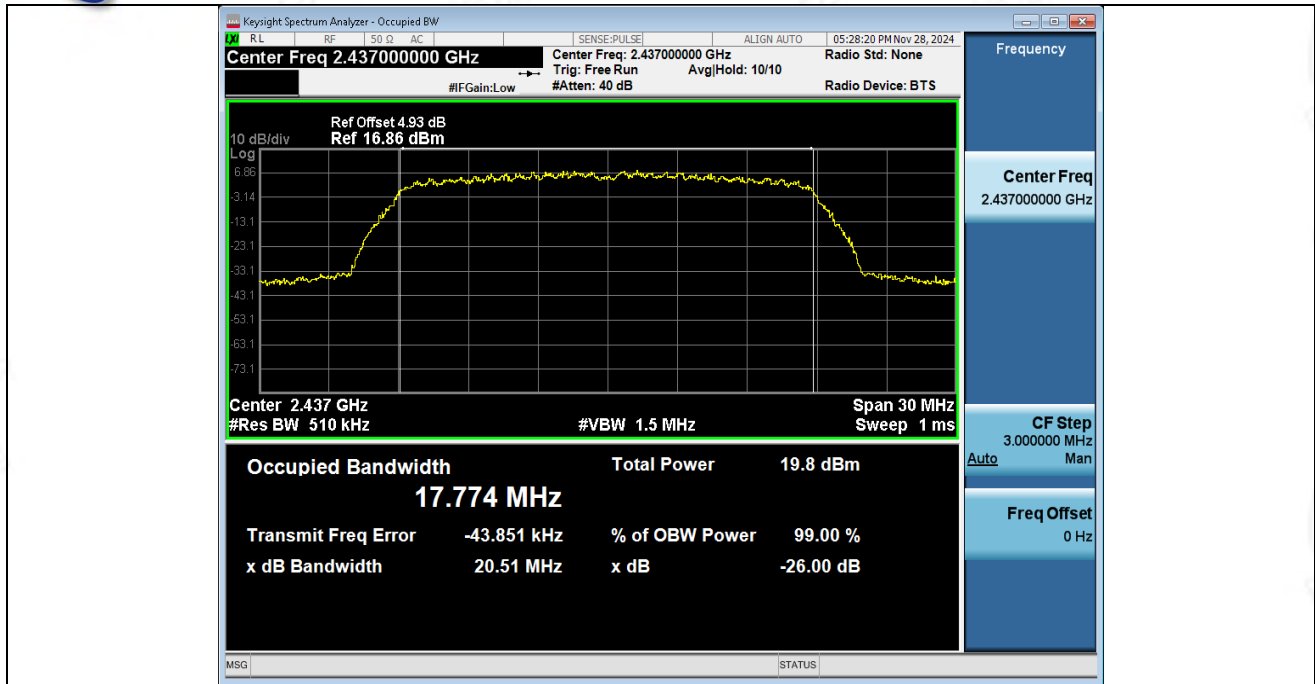


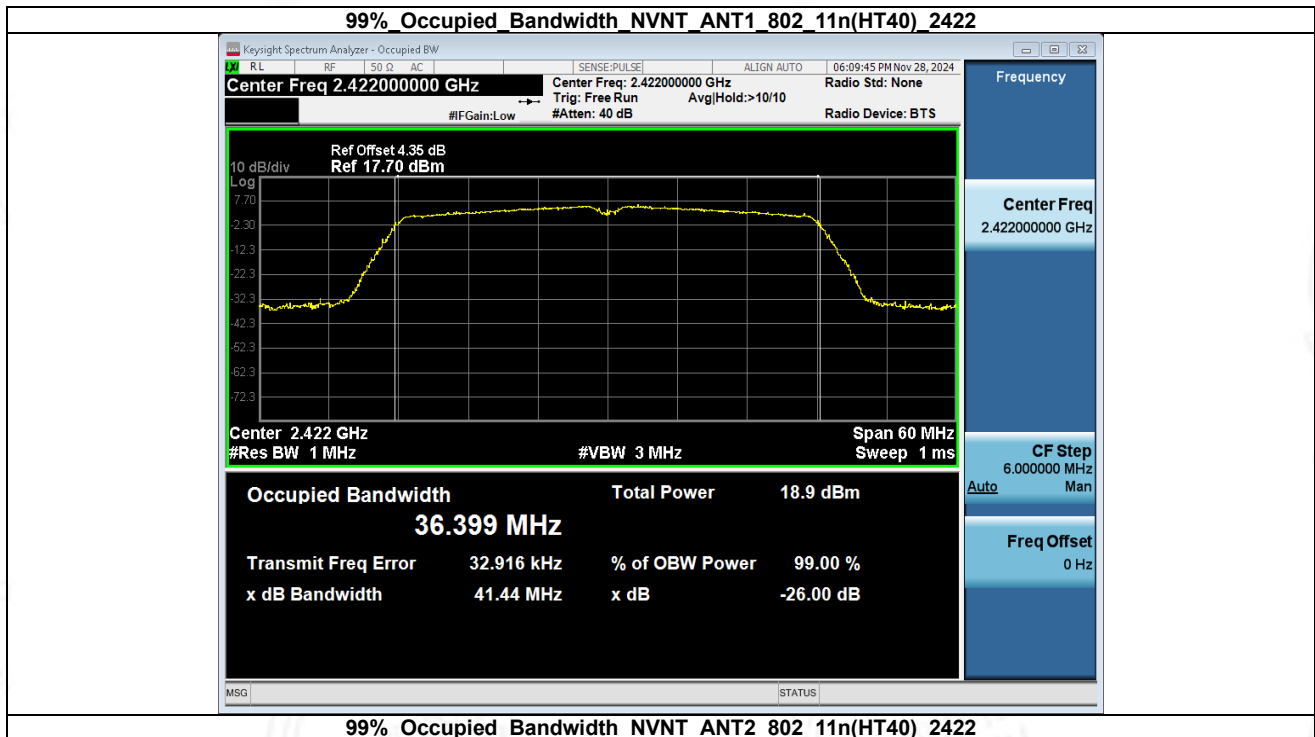
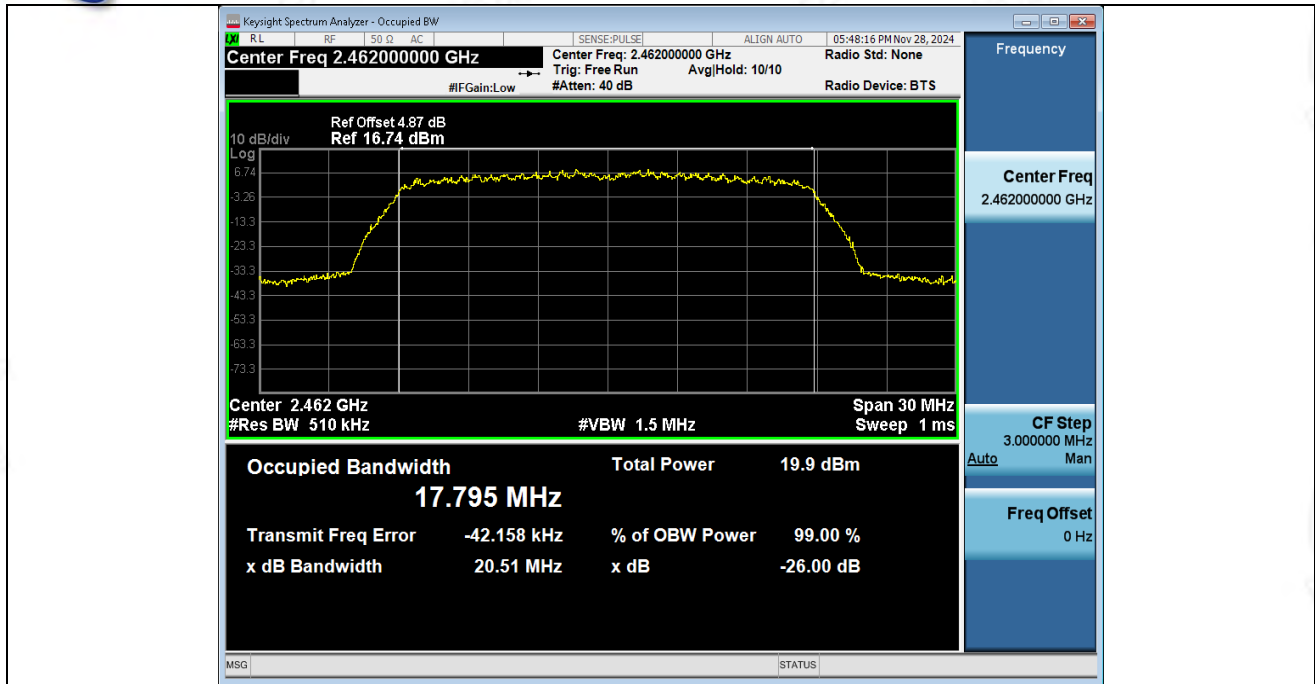


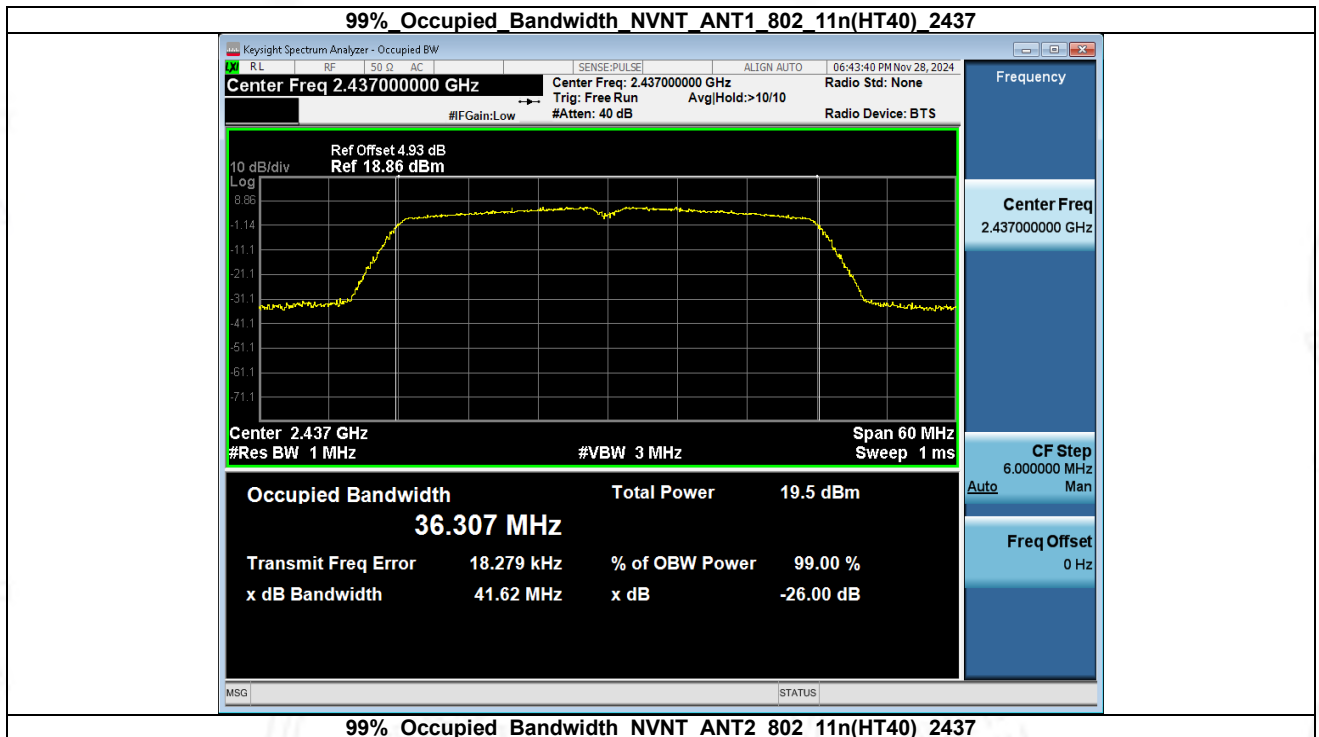
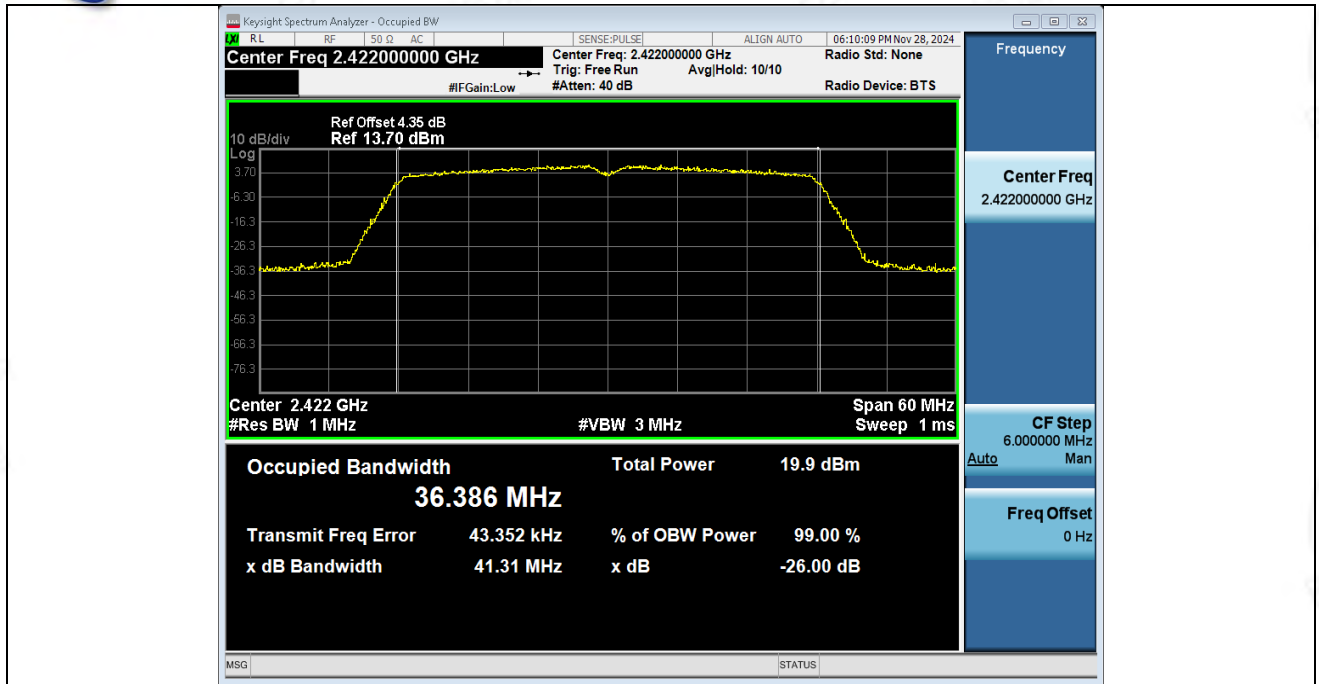


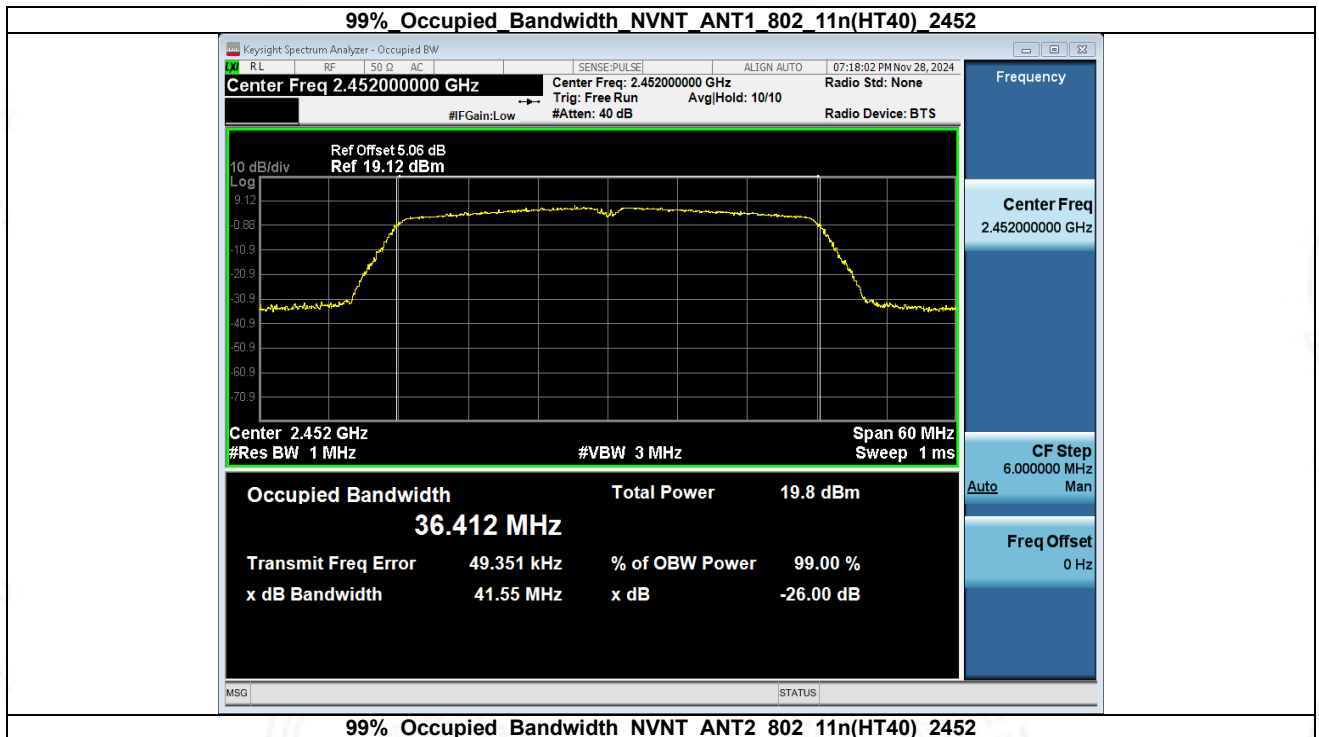
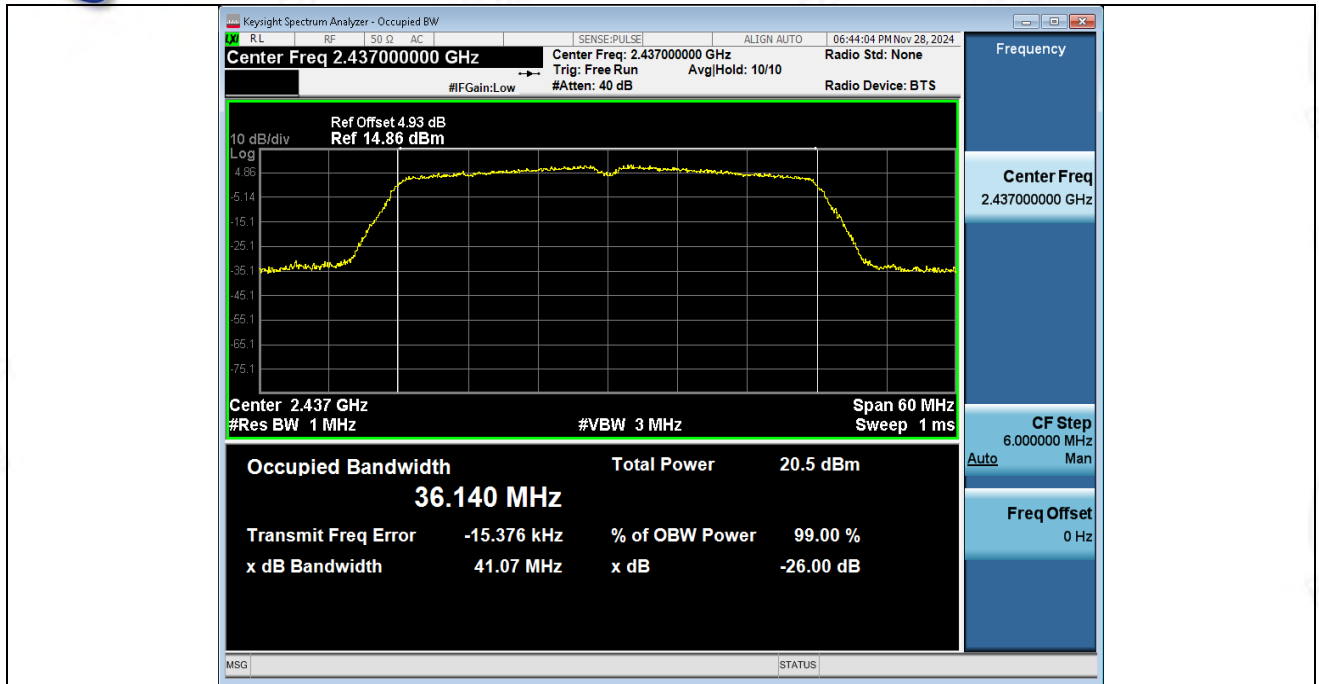


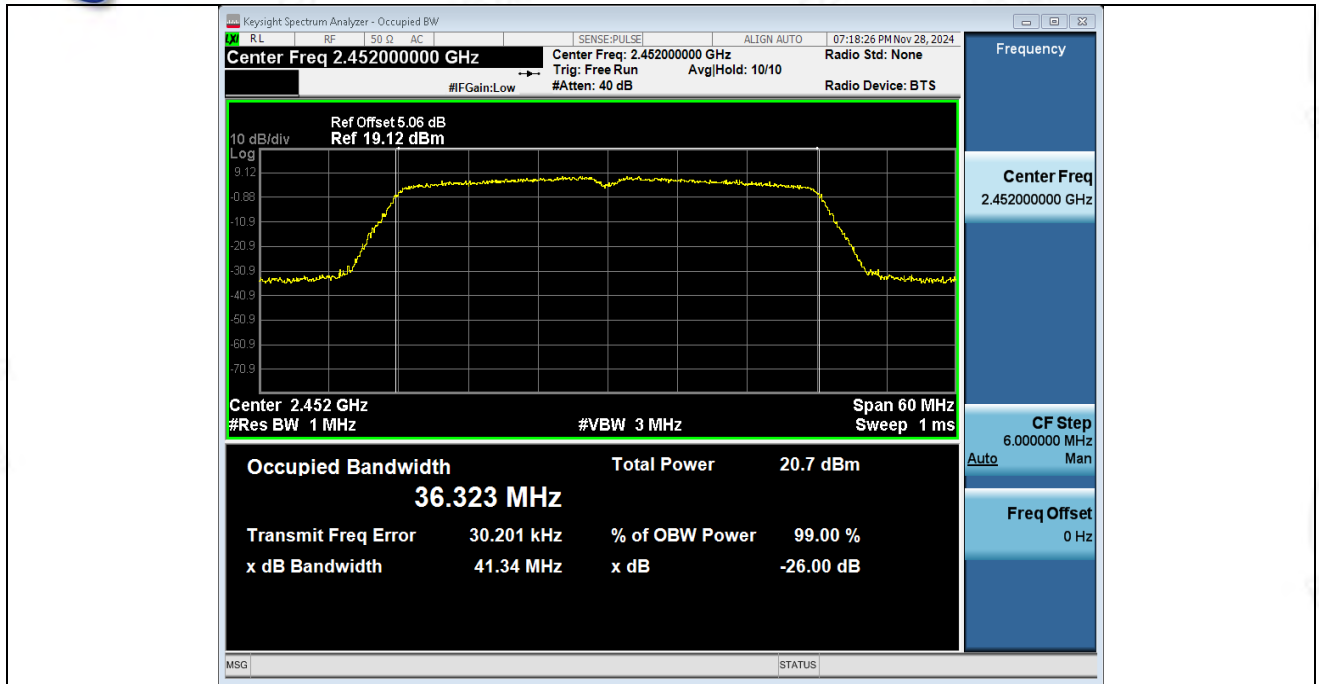






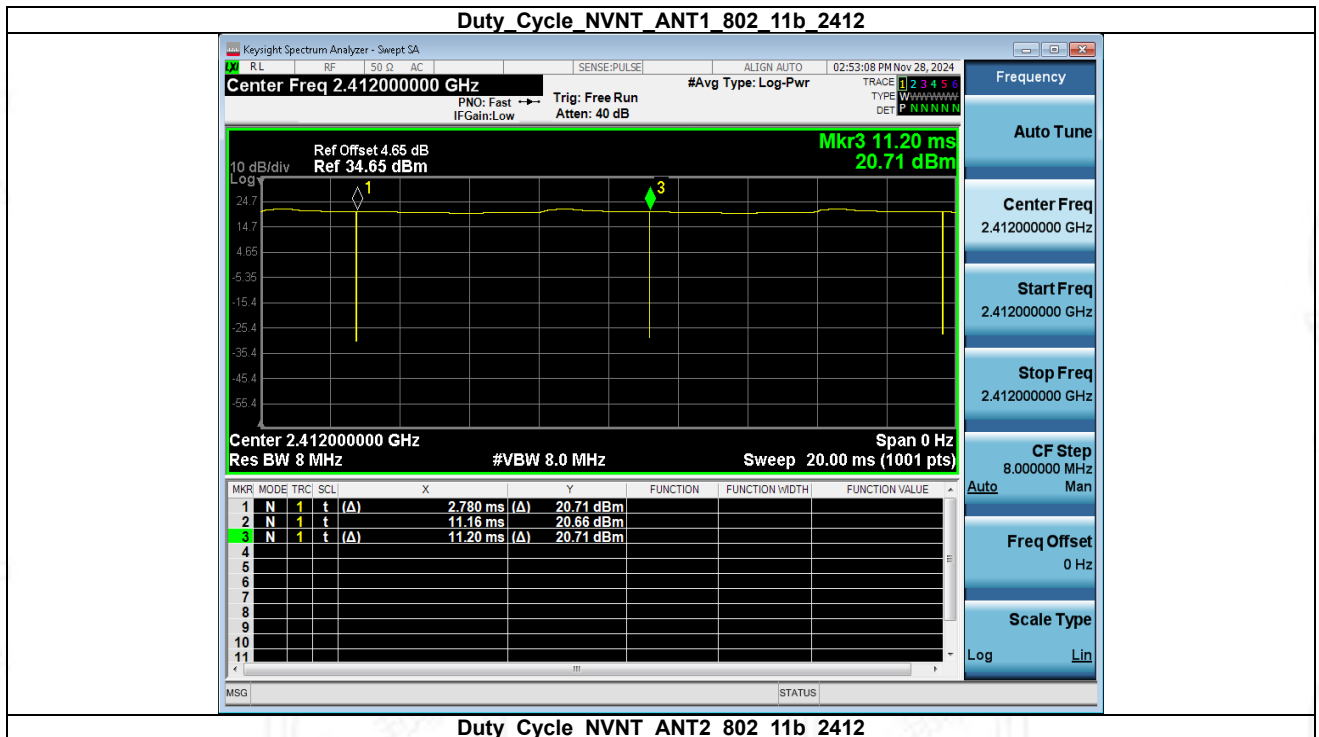


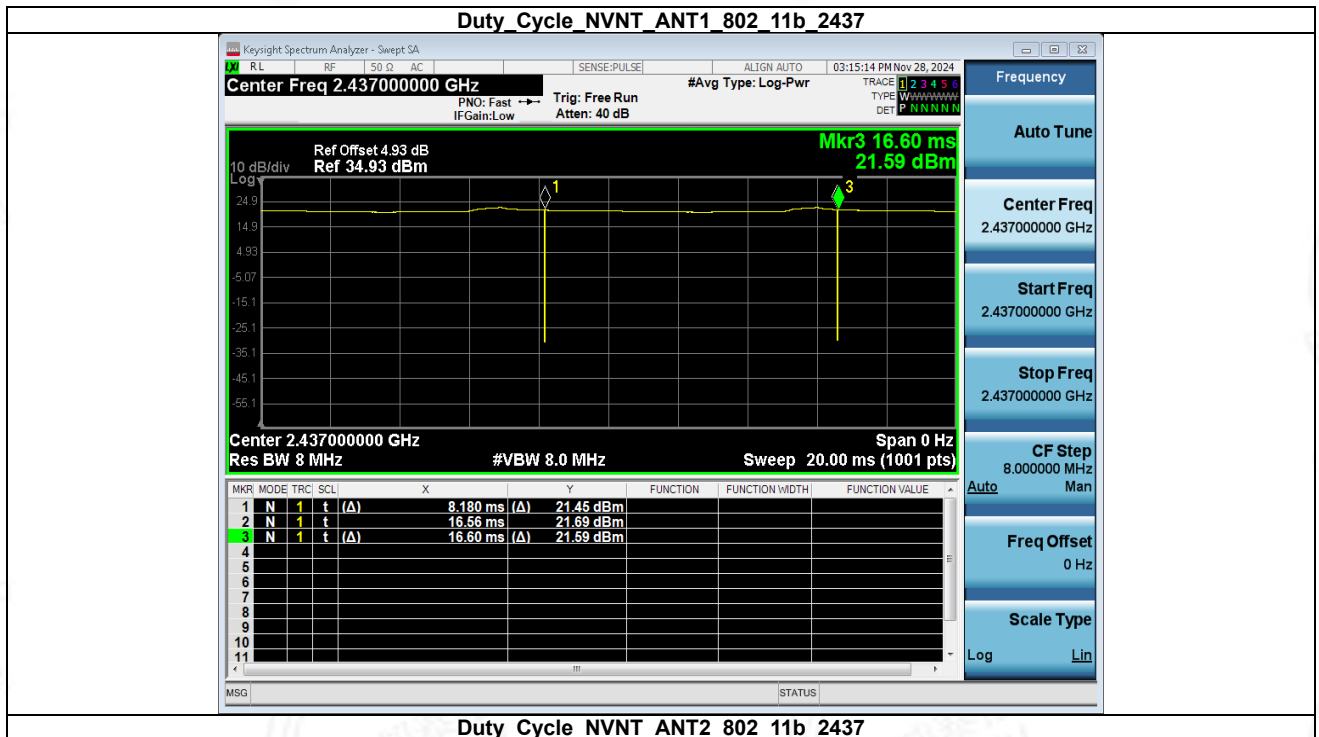
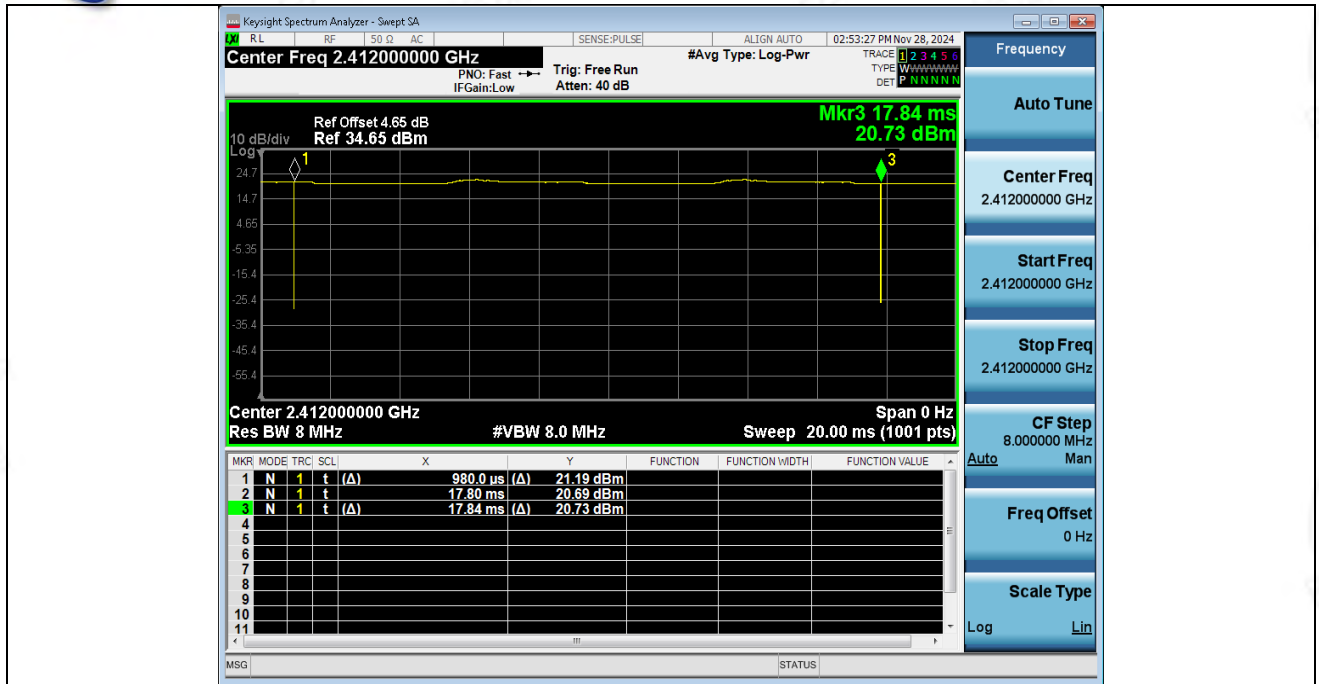


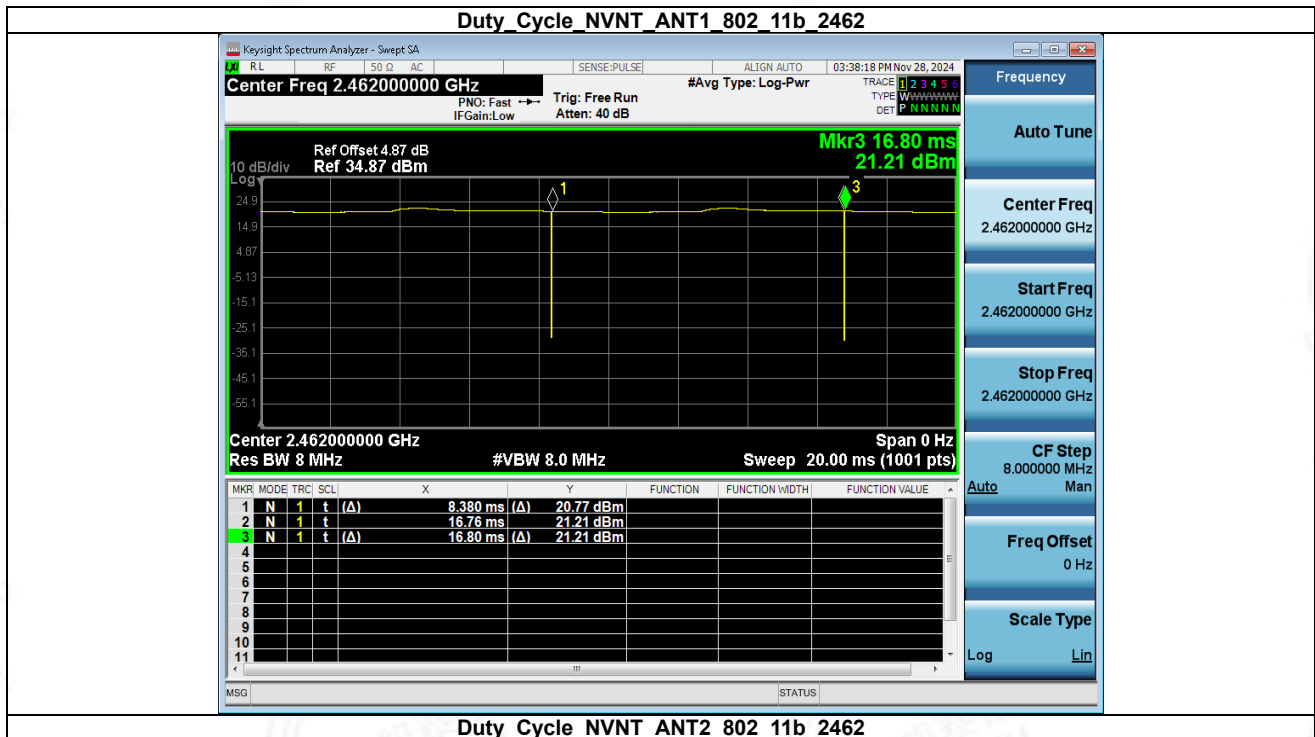
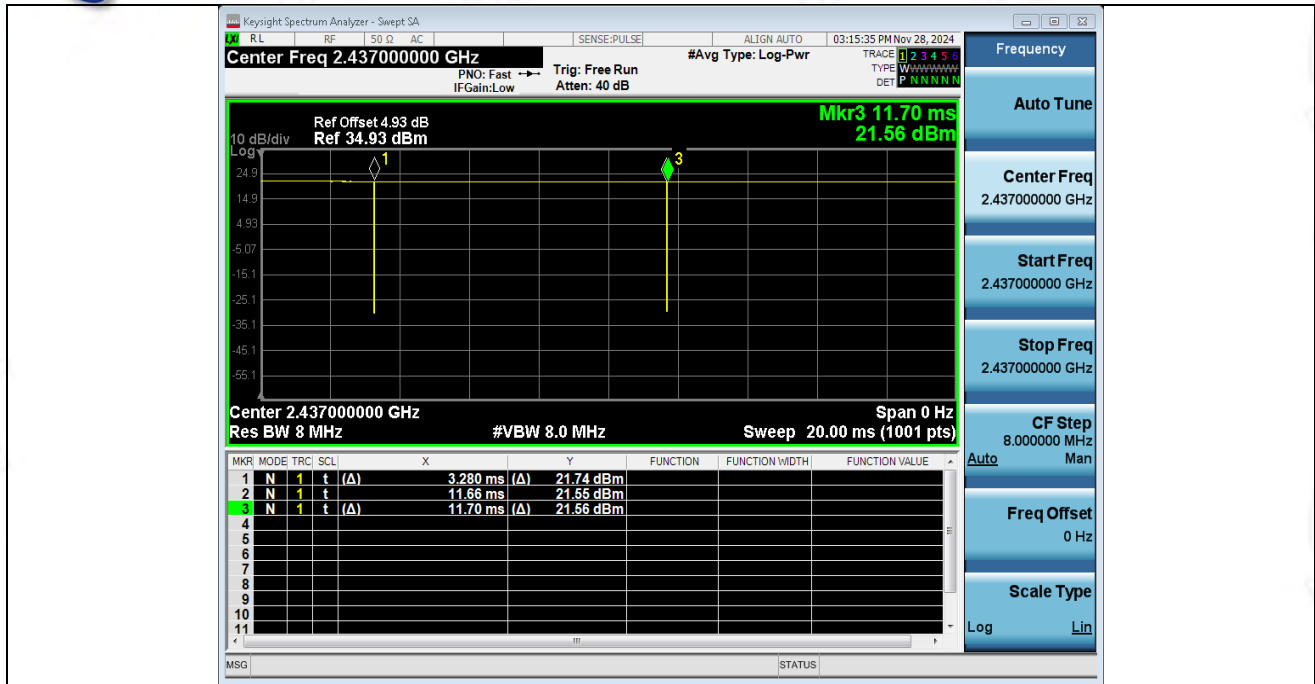


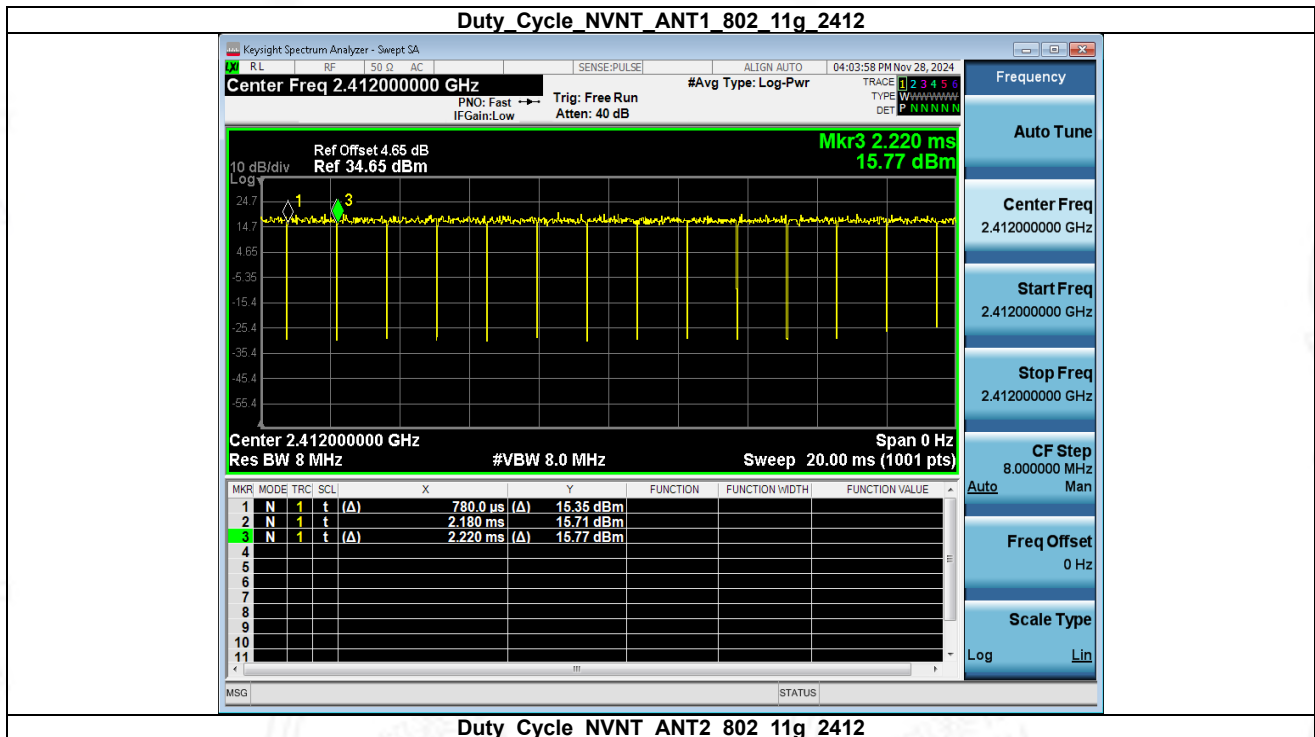
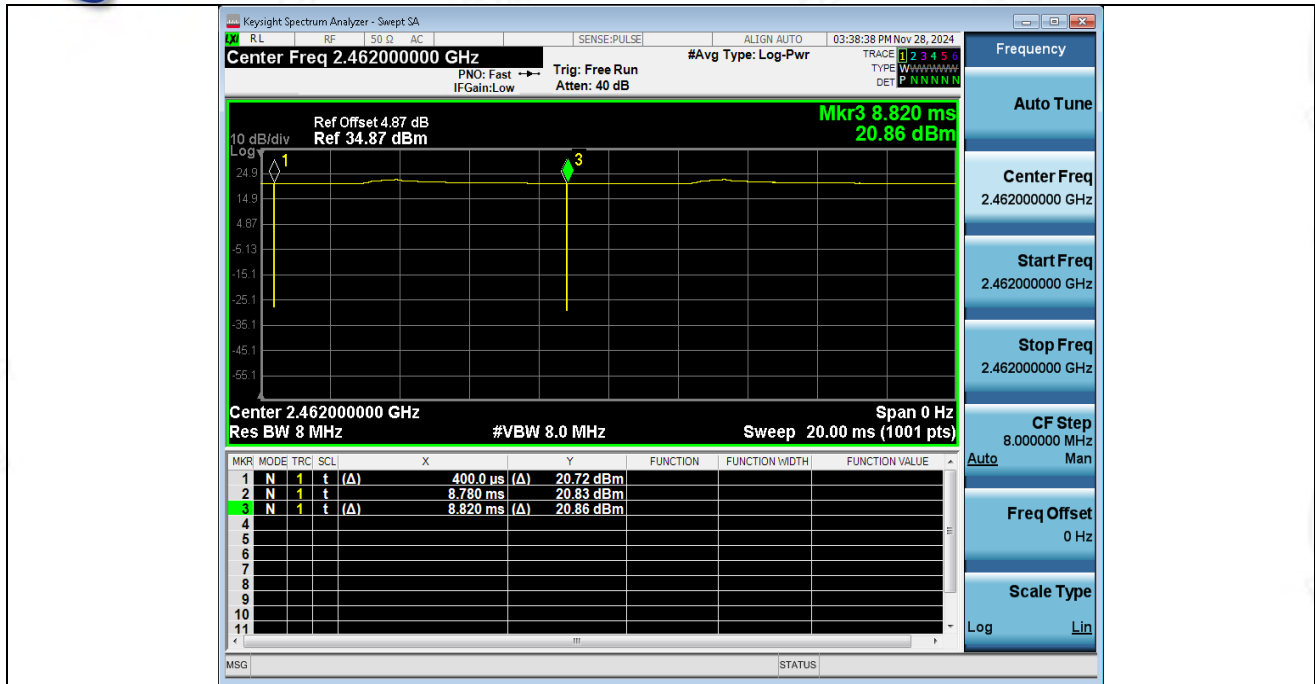
3. Duty Cycle

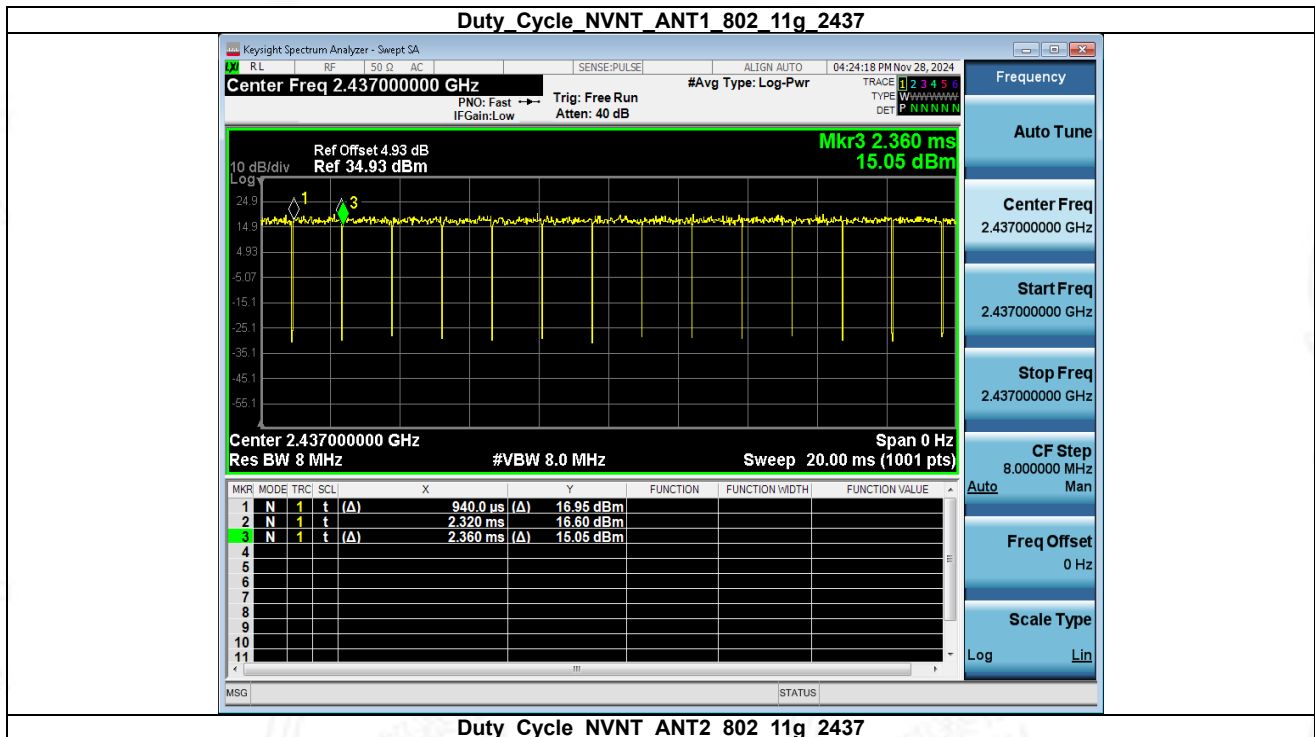
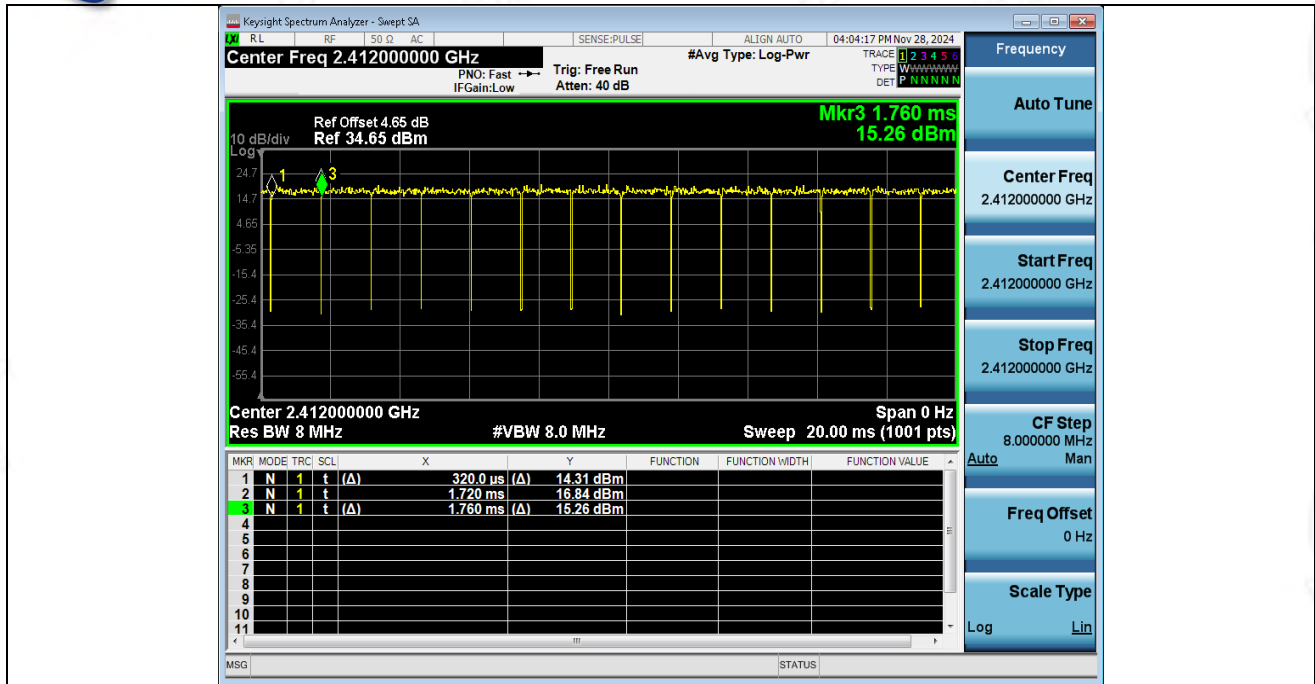
Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	99.76	0.00
NVNT	ANT2	802.11b	2412.00	99.88	0.00
NVNT	ANT1	802.11b	2437.00	99.76	0.00
NVNT	ANT2	802.11b	2437.00	99.76	0.00
NVNT	ANT1	802.11b	2462.00	99.76	0.00
NVNT	ANT2	802.11b	2462.00	99.76	0.00
NVNT	ANT1	802.11g	2412.00	98.61	0.00
NVNT	ANT2	802.11g	2412.00	98.61	0.00
NVNT	ANT1	802.11g	2437.00	98.59	0.00
NVNT	ANT2	802.11g	2437.00	98.61	0.00
NVNT	ANT1	802.11g	2462.00	98.61	0.00
NVNT	ANT2	802.11g	2462.00	97.22	0.12
NVNT	ANT1	802.11n(HT20)	2412.00	98.51	0.00
NVNT	ANT2	802.11n(HT20)	2412.00	98.51	0.00
NVNT	ANT1	802.11n(HT20)	2437.00	97.06	0.13
NVNT	ANT2	802.11n(HT20)	2437.00	98.51	0.00
NVNT	ANT1	802.11n(HT20)	2462.00	98.51	0.00
NVNT	ANT2	802.11n(HT20)	2462.00	97.06	0.13
NVNT	ANT1	802.11n(HT40)	2422.00	97.14	0.13
NVNT	ANT2	802.11n(HT40)	2422.00	94.29	0.26
NVNT	ANT1	802.11n(HT40)	2437.00	94.12	0.26
NVNT	ANT2	802.11n(HT40)	2437.00	97.14	0.13
NVNT	ANT1	802.11n(HT40)	2452.00	97.14	0.13
NVNT	ANT2	802.11n(HT40)	2452.00	97.06	0.13

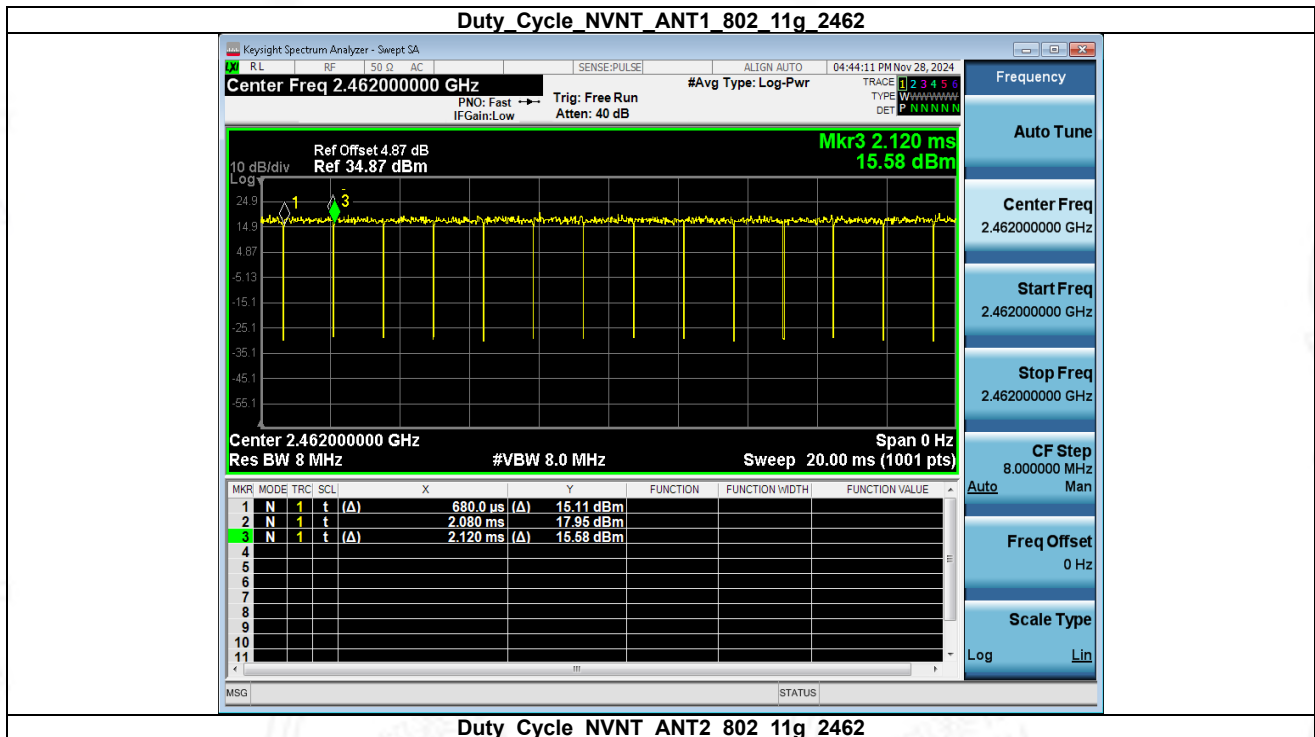
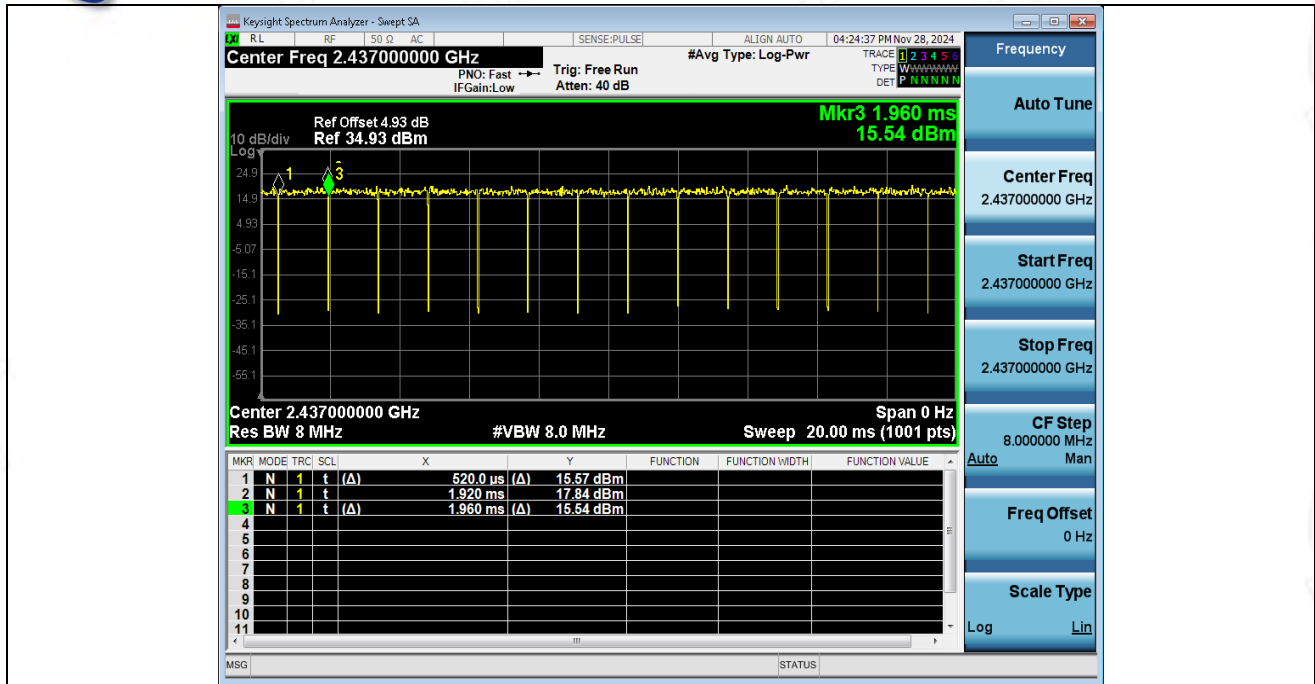


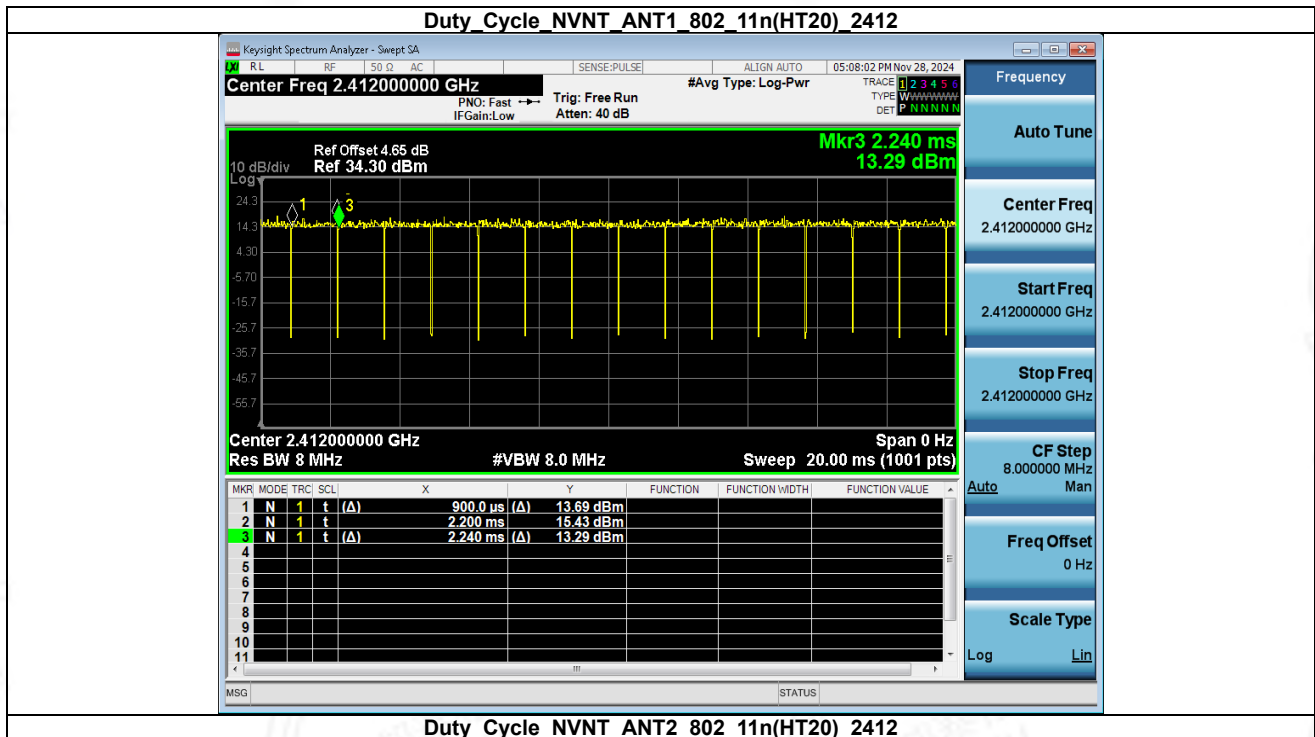
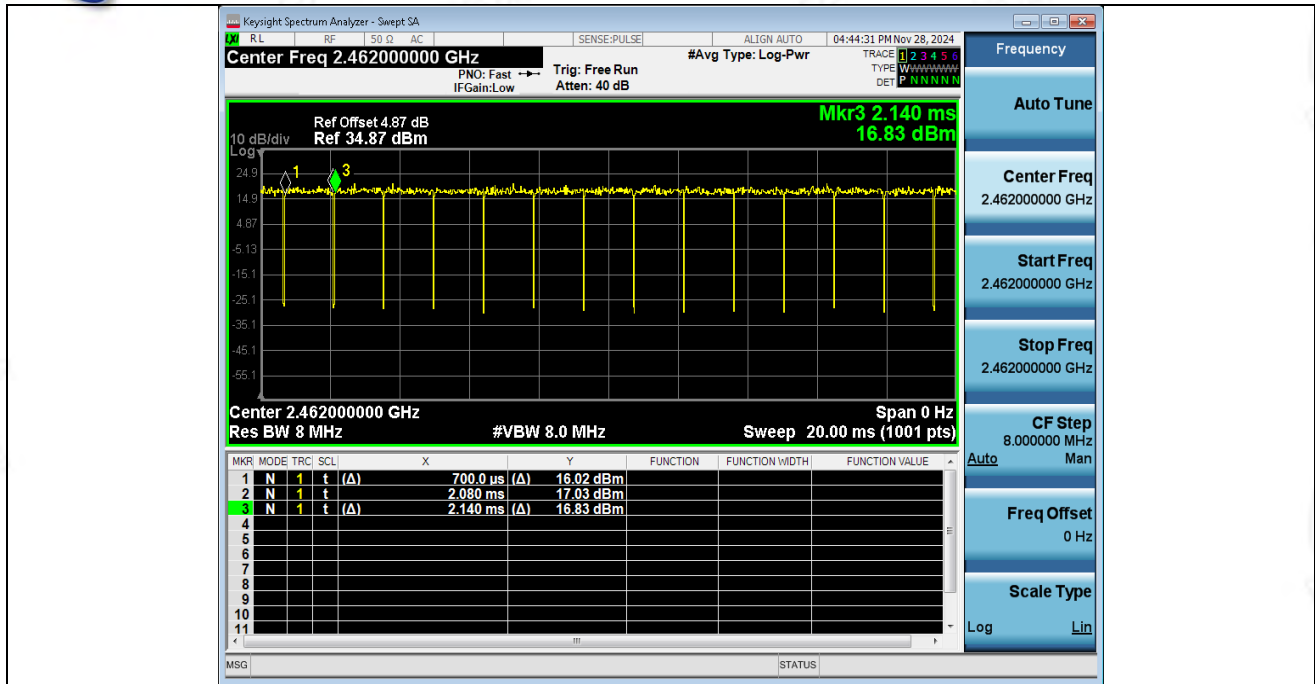


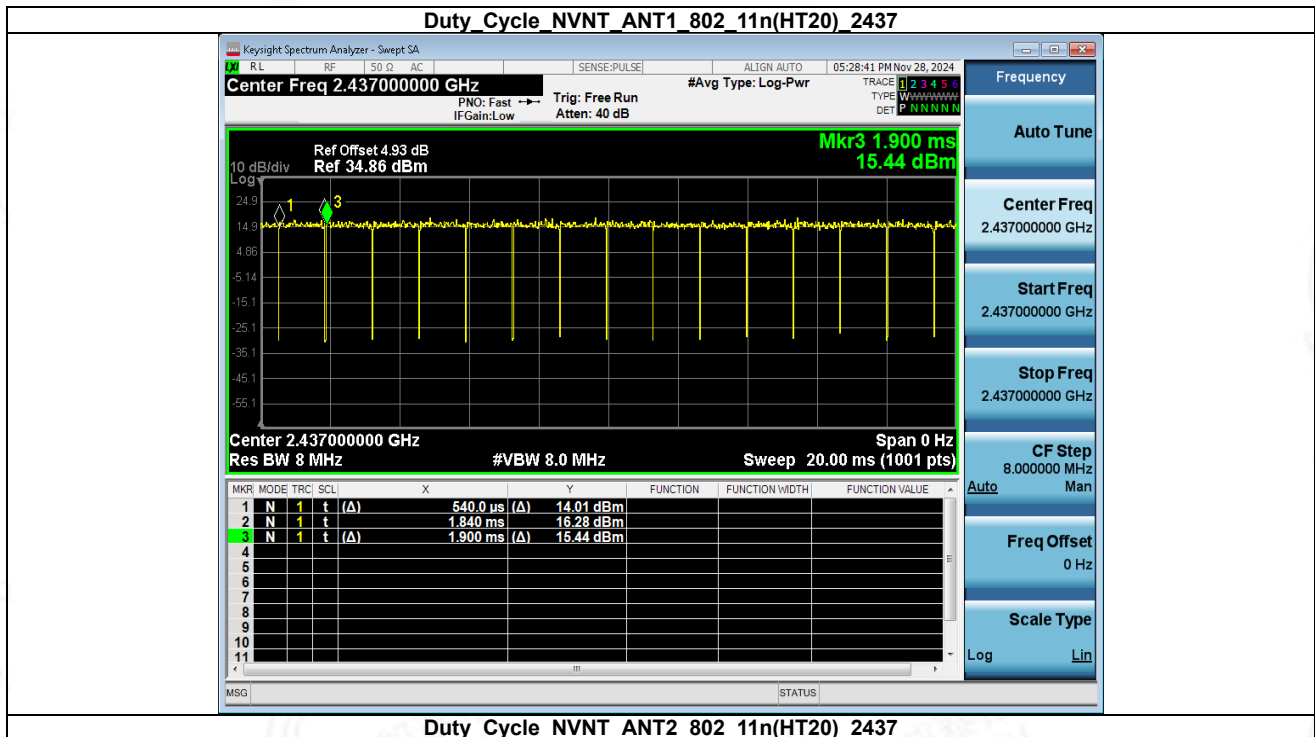
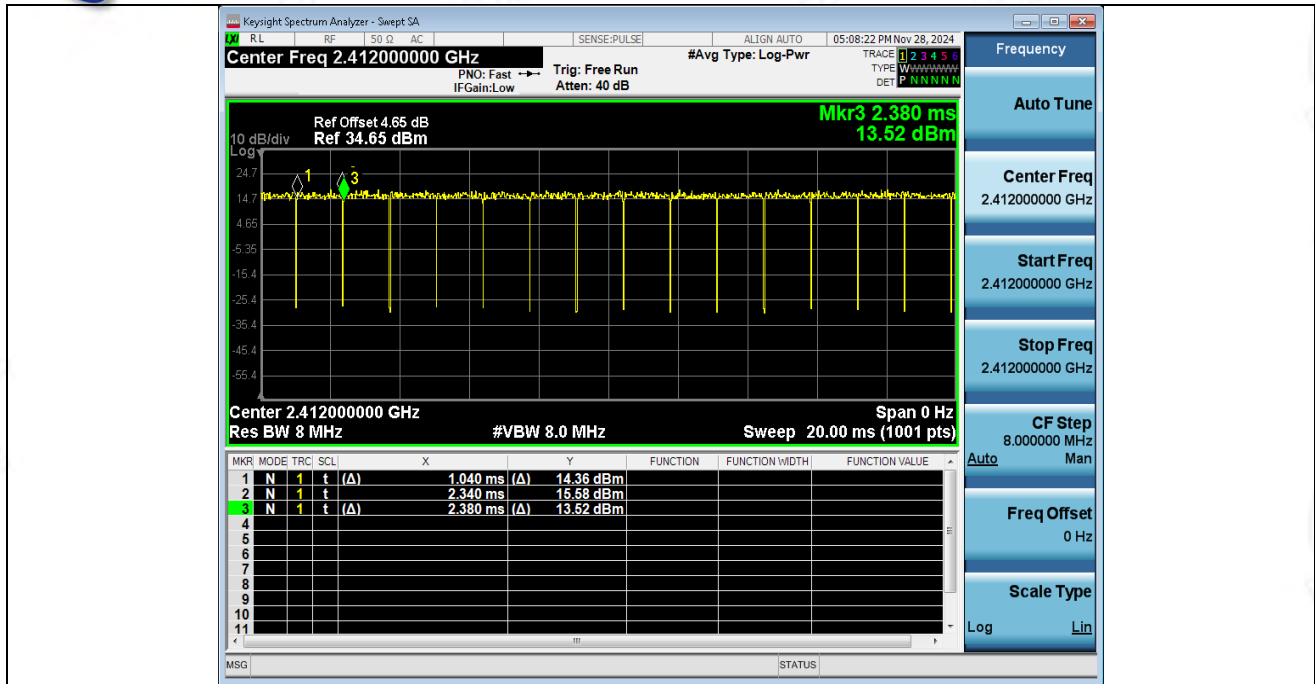


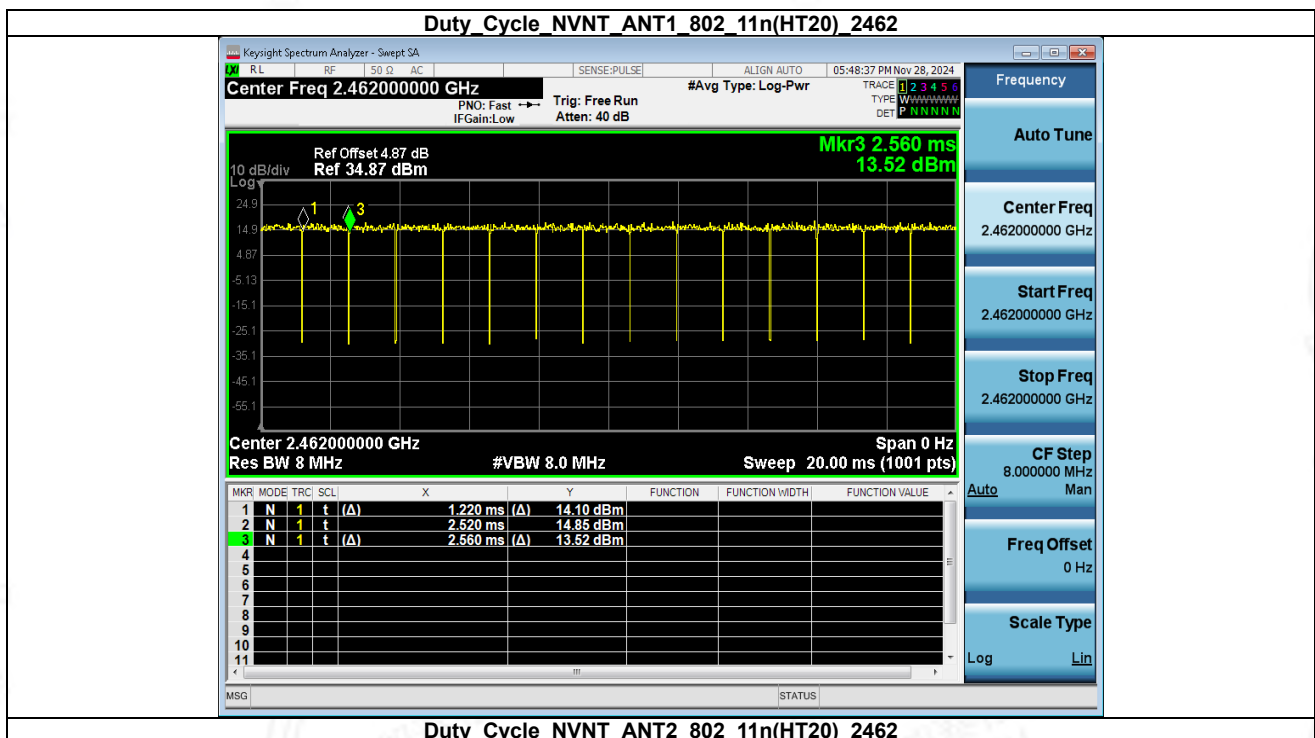
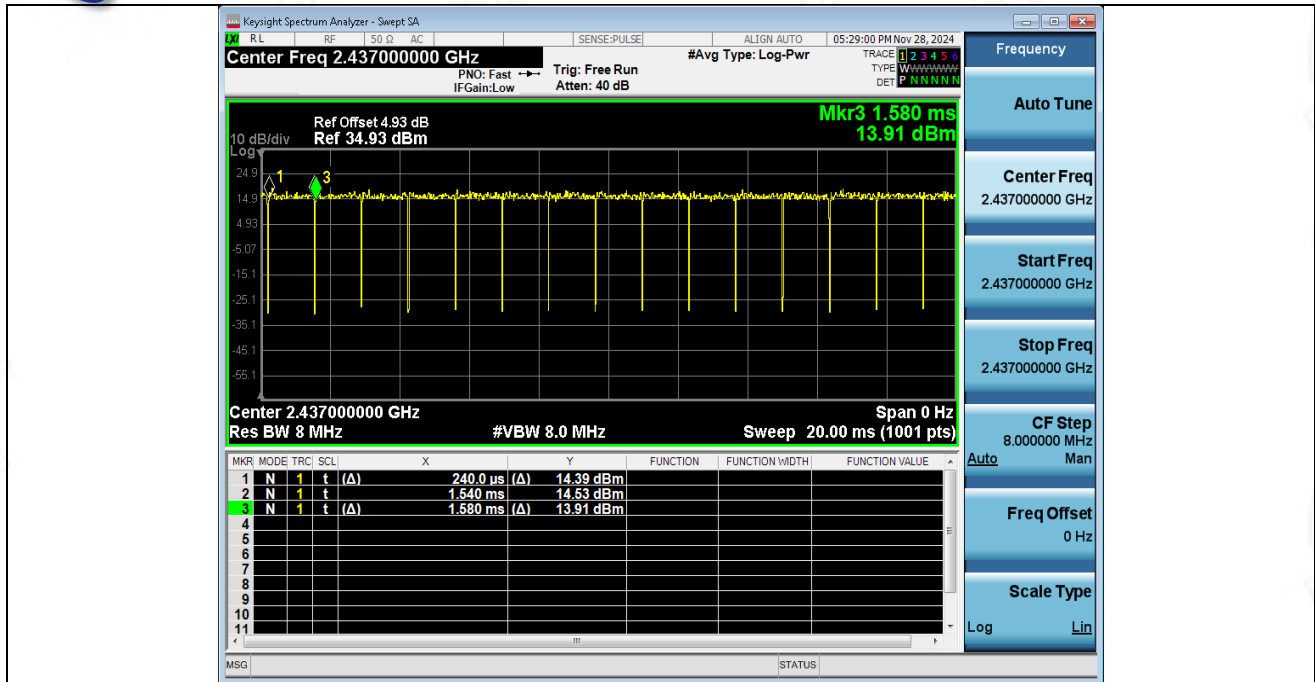


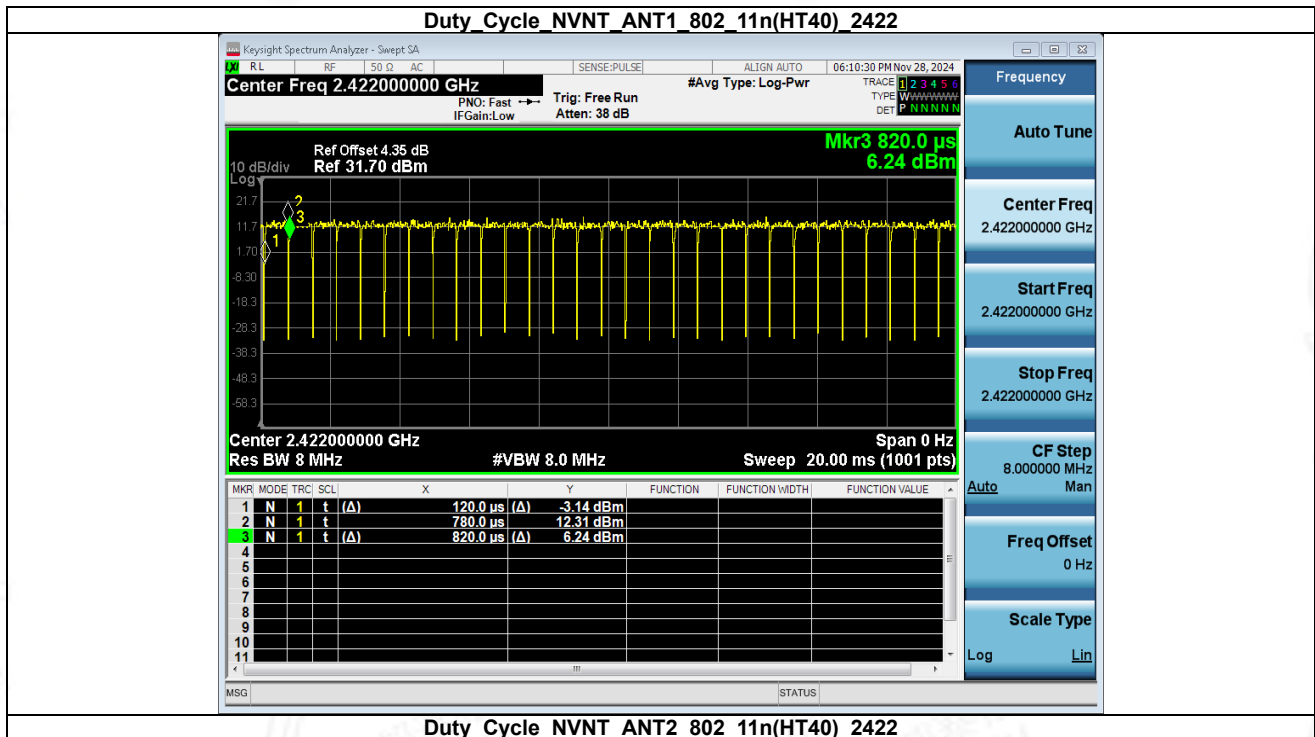
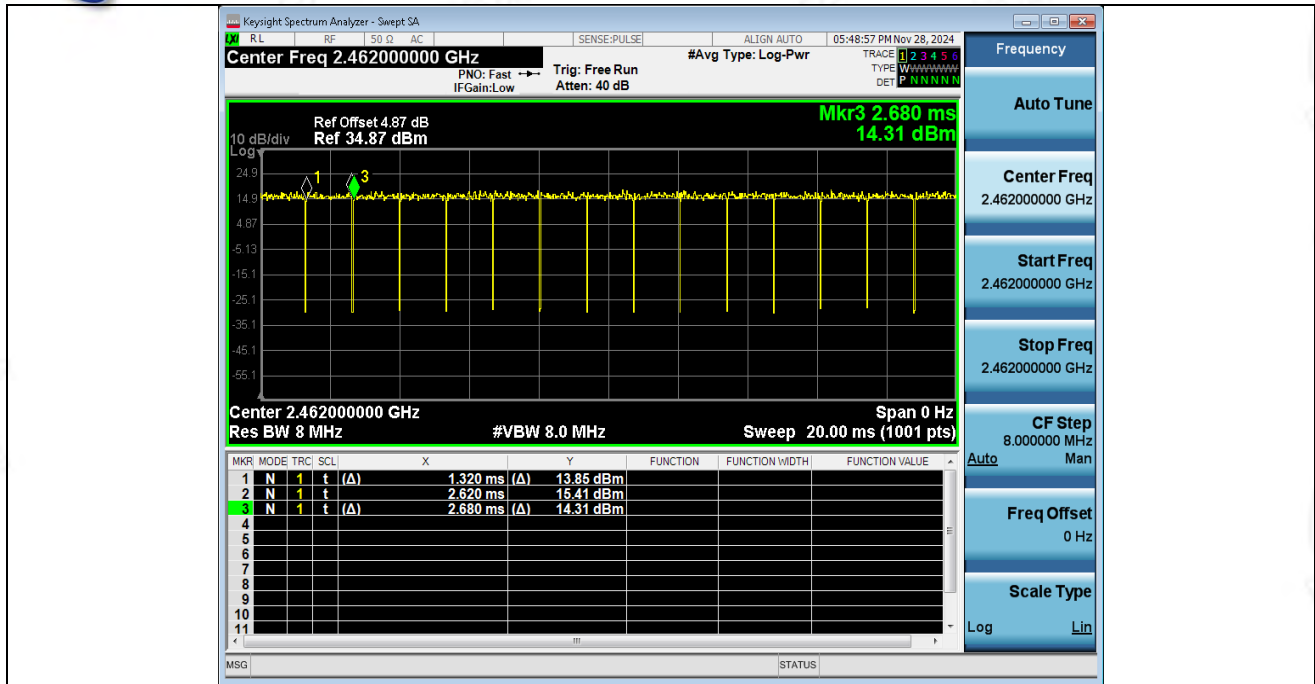


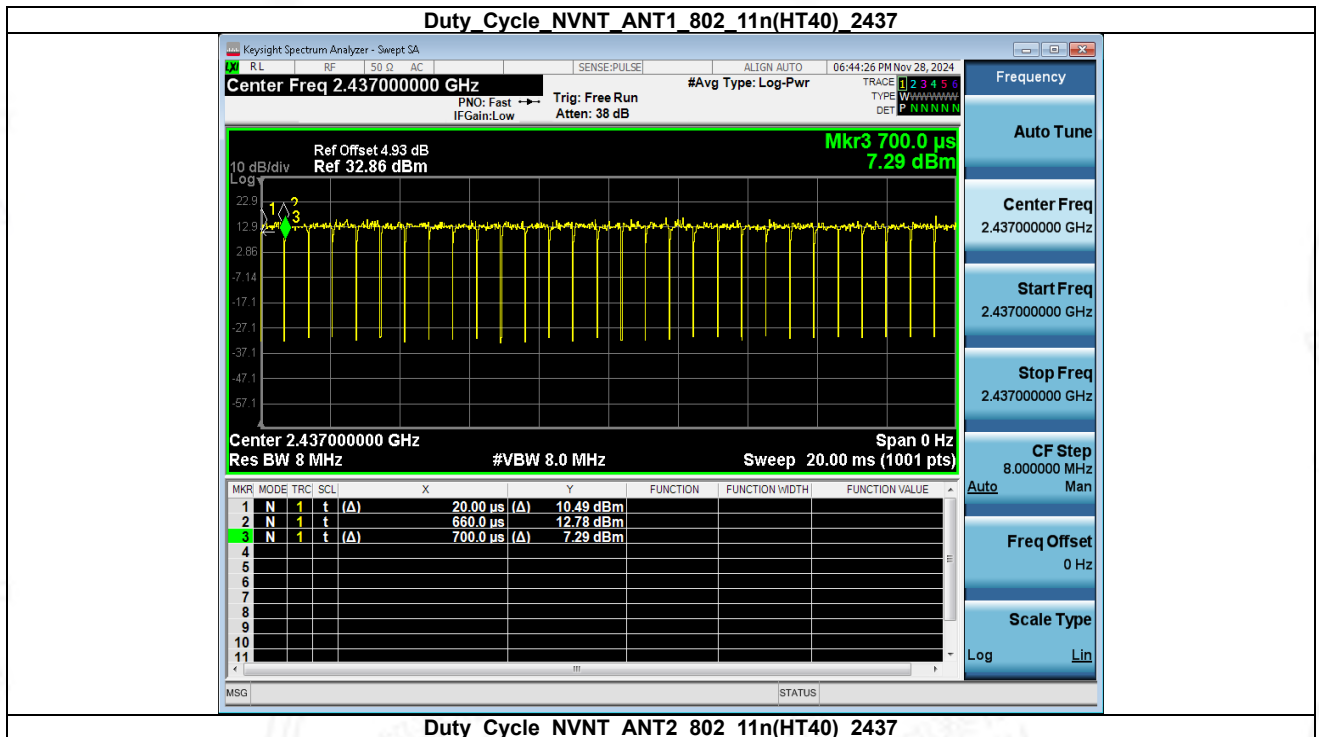
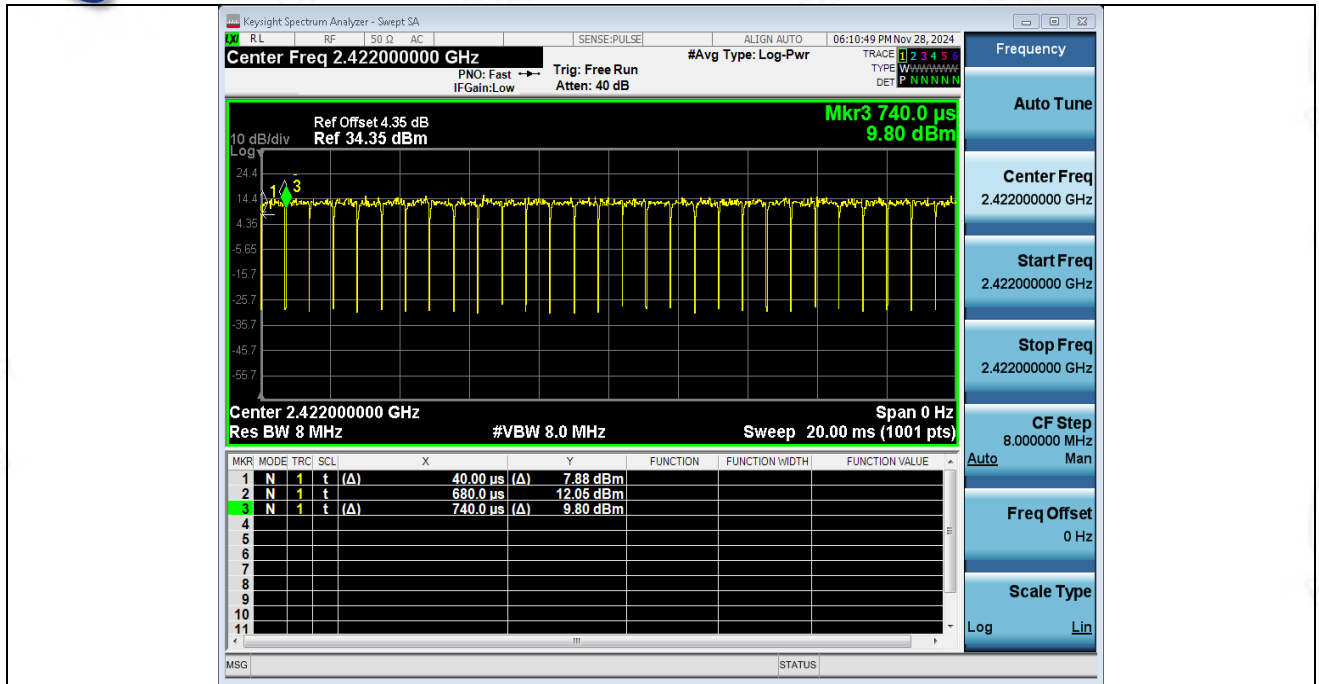


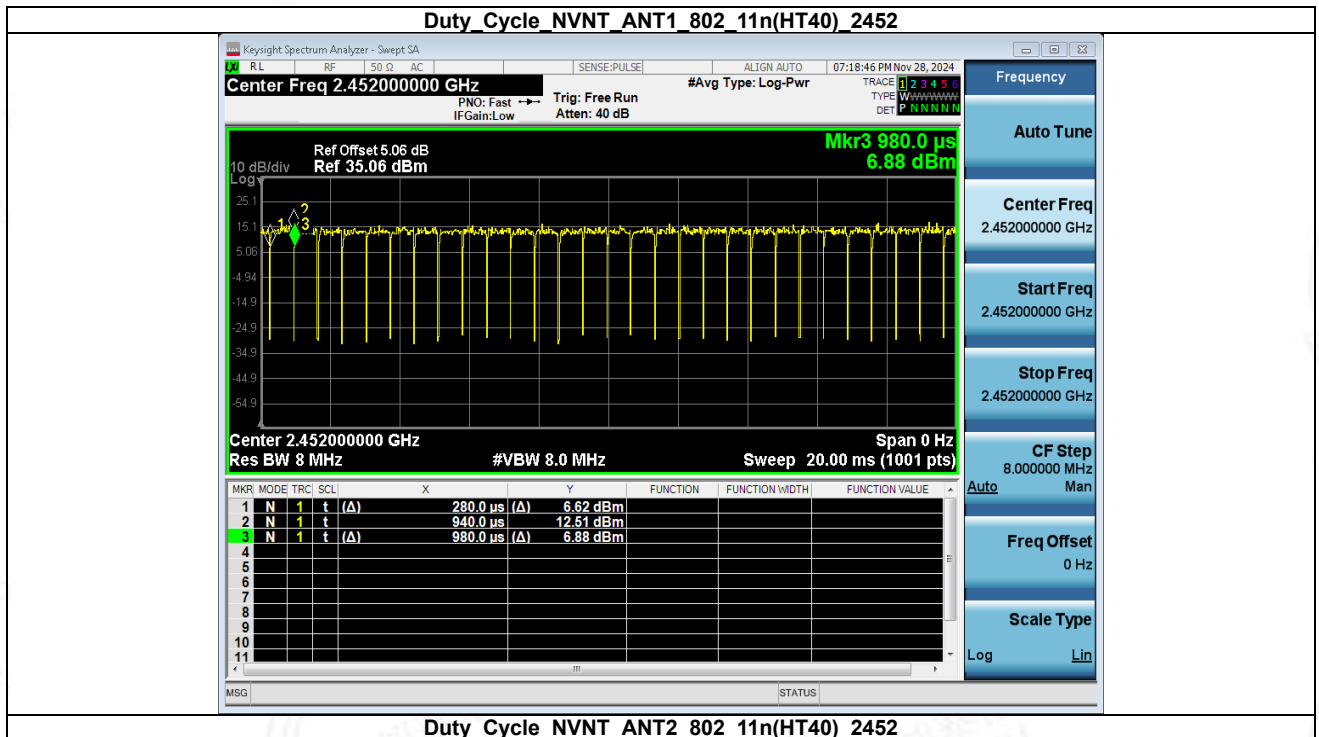
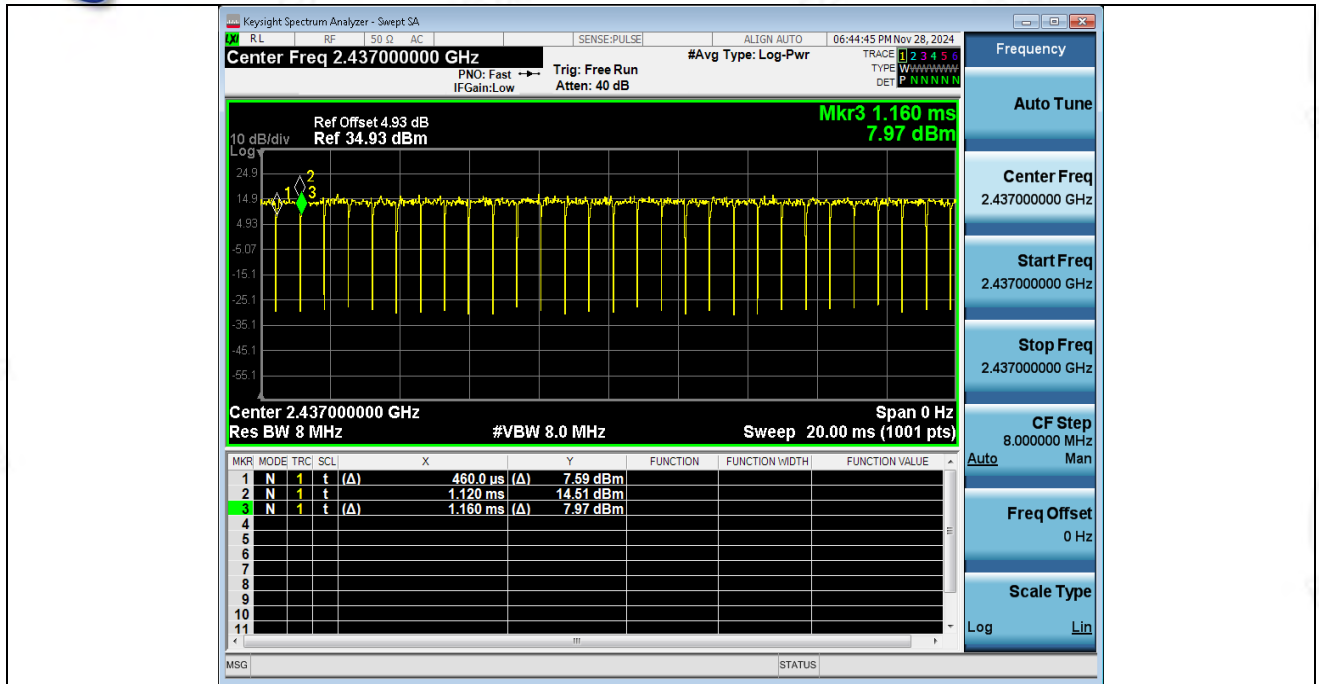


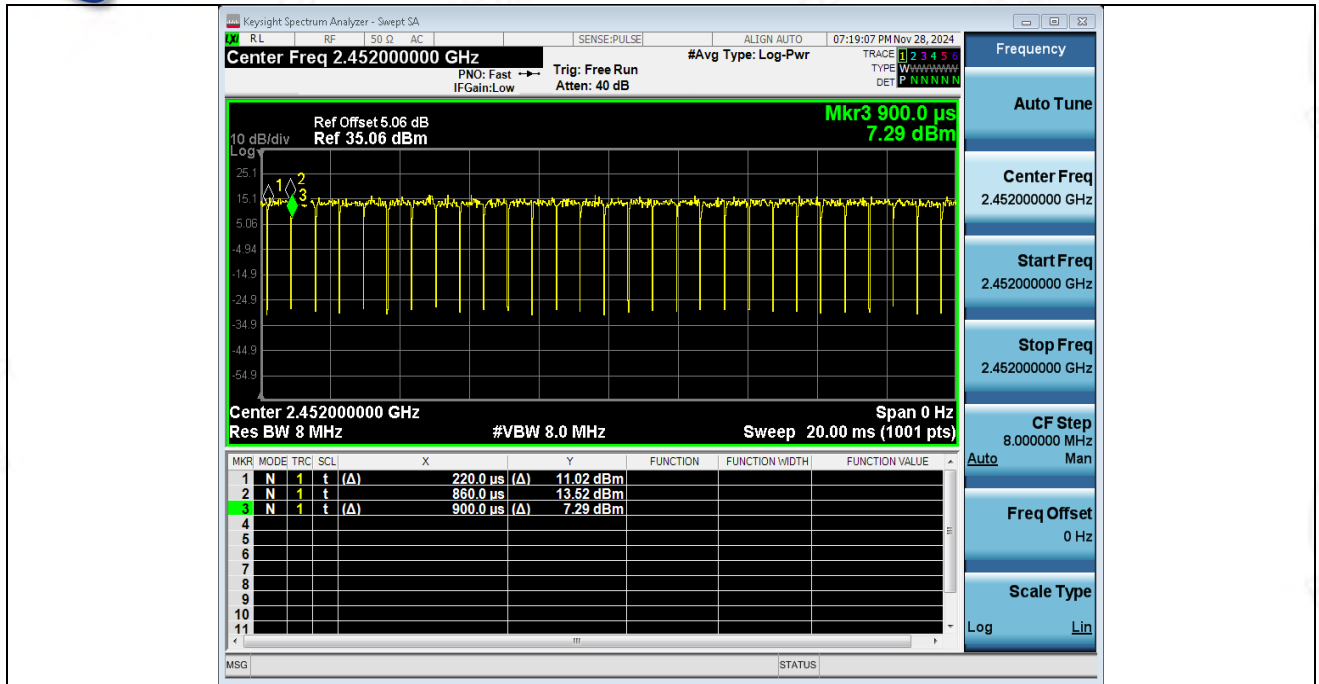








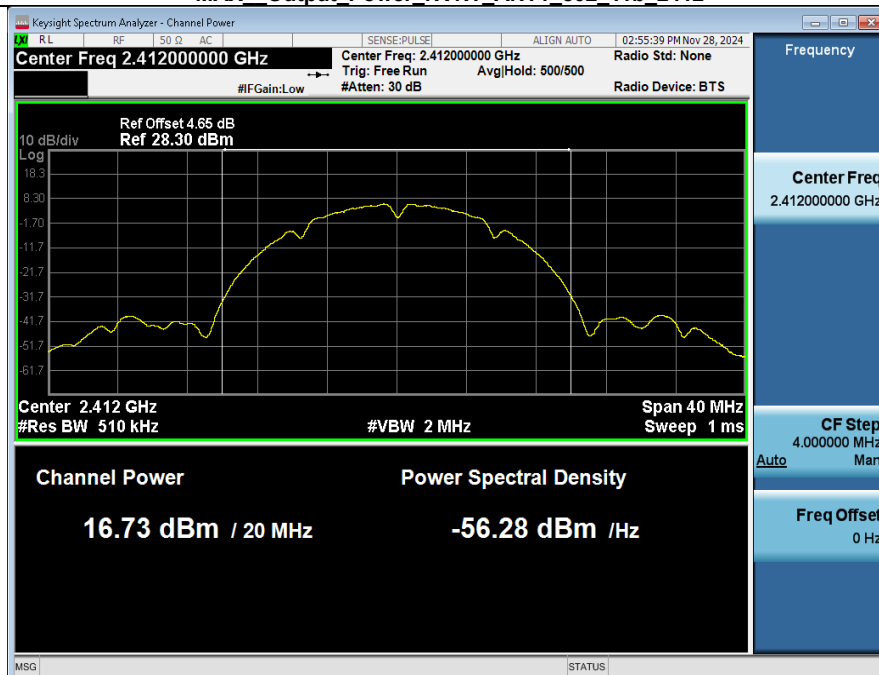




4. MAX. Output Power

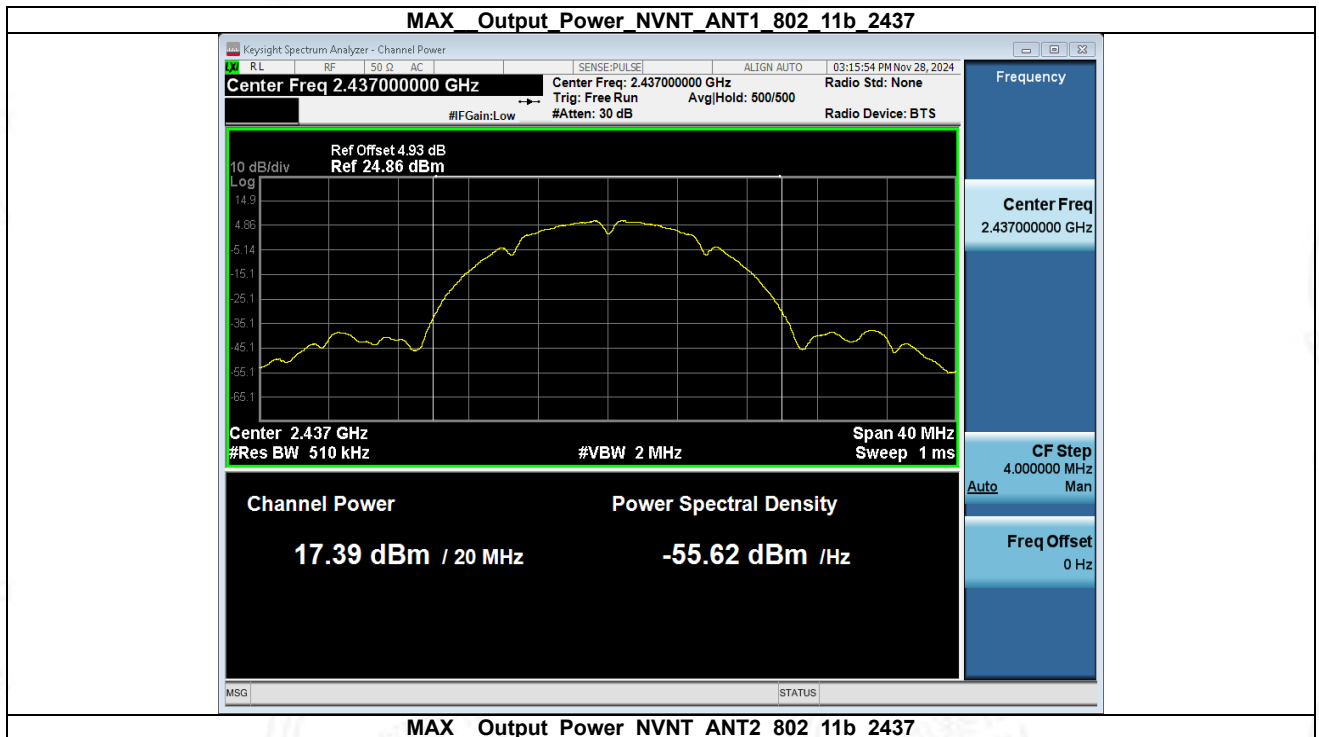
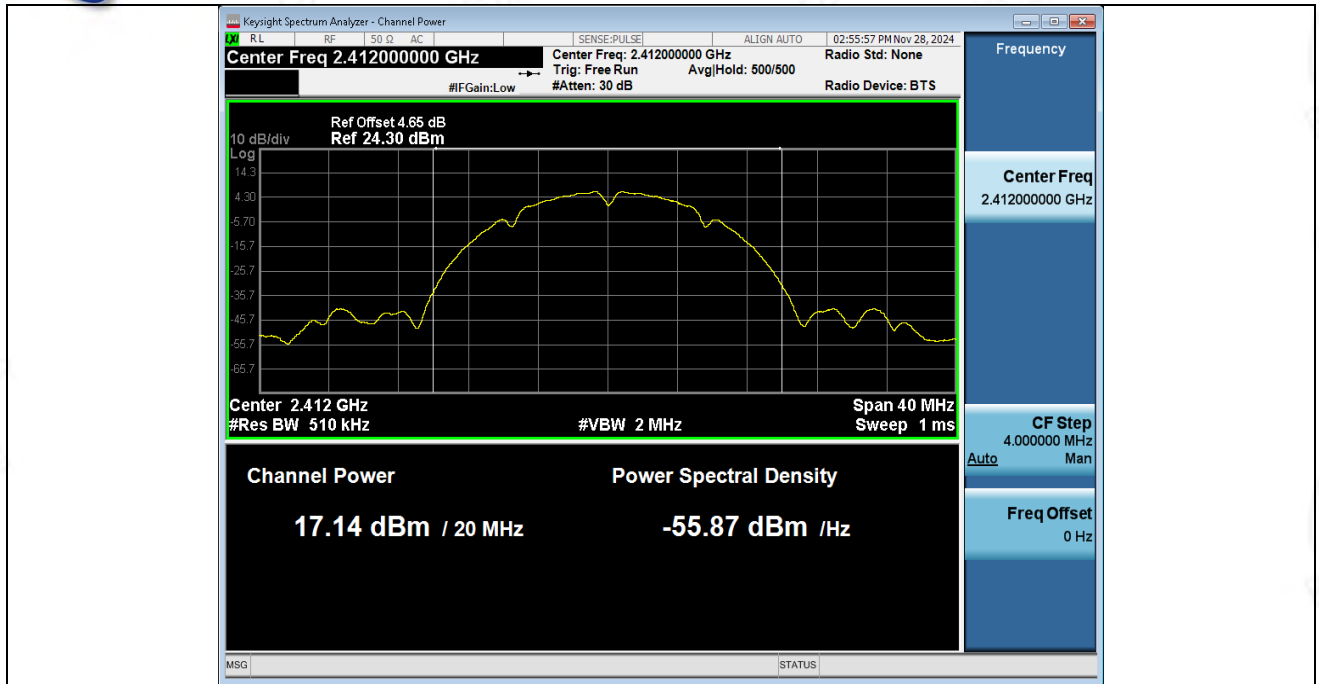
Condition	Antenna	Modulation	Frequency (MHz)	Detector	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	RMS	16.73	0.00	16.73	30	Pass
NVNT	ANT2	802.11b	2412.00	RMS	17.14	0.00	17.14	30	Pass
NVNT	ANT1	802.11b	2437.00	RMS	17.39	0.00	17.39	30	Pass
NVNT	ANT2	802.11b	2437.00	RMS	17.52	0.00	17.52	30	Pass
NVNT	ANT1	802.11b	2462.00	RMS	17.34	0.00	17.34	30	Pass
NVNT	ANT2	802.11b	2462.00	RMS	17.36	0.00	17.36	30	Pass
NVNT	ANT1	802.11g	2412.00	RMS	12.55	0.00	12.55	30	Pass
NVNT	ANT2	802.11g	2412.00	RMS	12.94	0.00	12.94	30	Pass
NVNT	ANT1	802.11g	2437.00	RMS	12.79	0.00	12.79	30	Pass
NVNT	ANT2	802.11g	2437.00	RMS	13.03	0.00	13.03	30	Pass
NVNT	ANT1	802.11g	2462.00	RMS	12.97	0.00	12.97	30	Pass
NVNT	ANT2	802.11g	2462.00	RMS	13.20	0.12	13.32	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	RMS	10.85	0.00	10.85	30	Pass
NVNT	ANT2	802.11n(HT20)	2412.00	RMS	11.29	0.00	11.29	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	RMS	11.09	0.13	11.22	30	Pass
NVNT	ANT2	802.11n(HT20)	2437.00	RMS	11.46	0.00	11.46	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	RMS	11.26	0.00	11.26	30	Pass
NVNT	ANT2	802.11n(HT20)	2462.00	RMS	11.55	0.13	11.68	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	RMS	10.41	0.13	10.54	30	Pass
NVNT	ANT2	802.11n(HT40)	2422.00	RMS	10.89	0.26	11.15	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	RMS	11.09	0.26	11.35	30	Pass
NVNT	ANT2	802.11n(HT40)	2437.00	RMS	11.49	0.13	11.62	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	RMS	11.40	0.13	11.53	30	Pass
NVNT	ANT2	802.11n(HT40)	2452.00	RMS	11.75	0.13	11.88	30	Pass

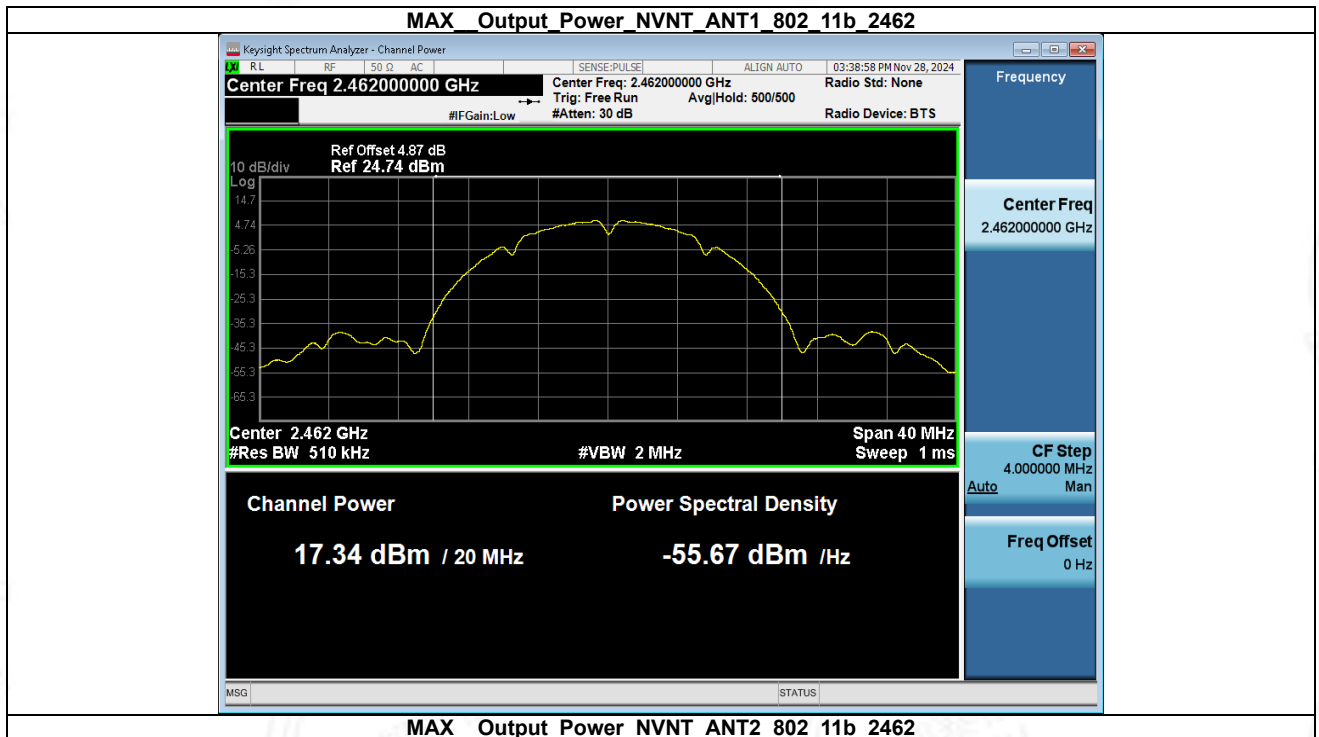
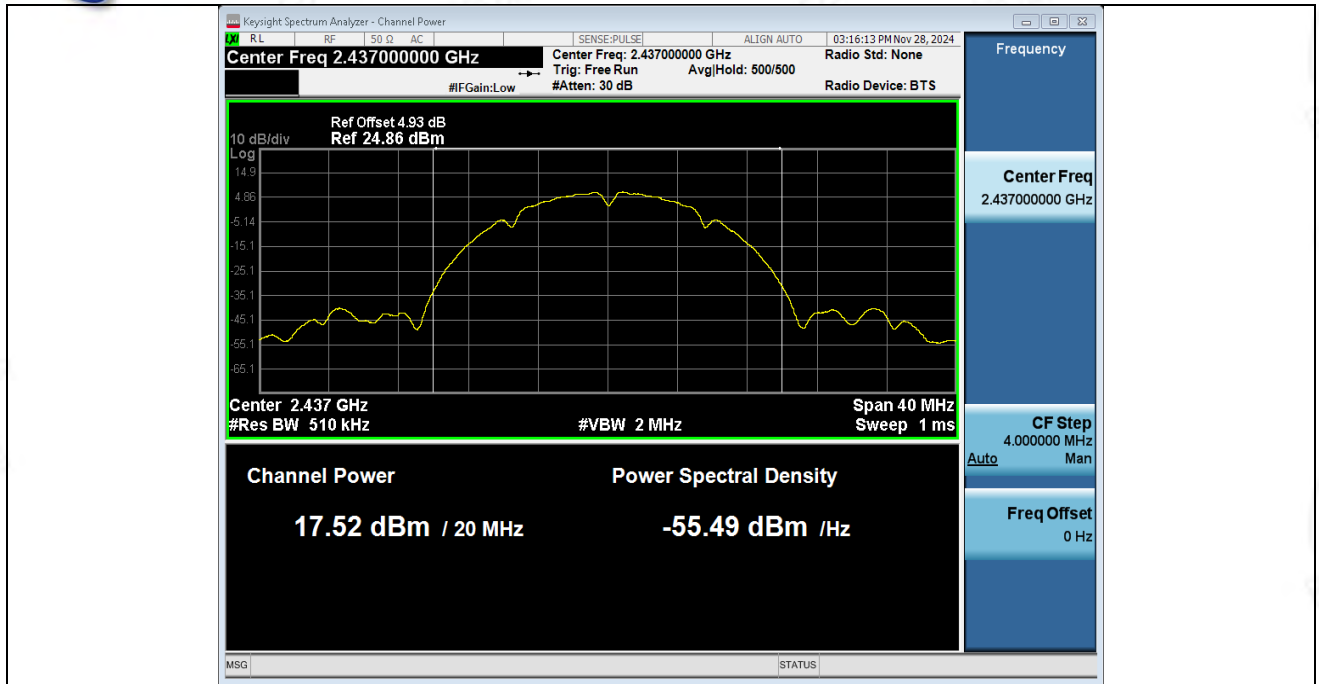
MAX Output Power_NVNT_ANT1_802_11b_2412

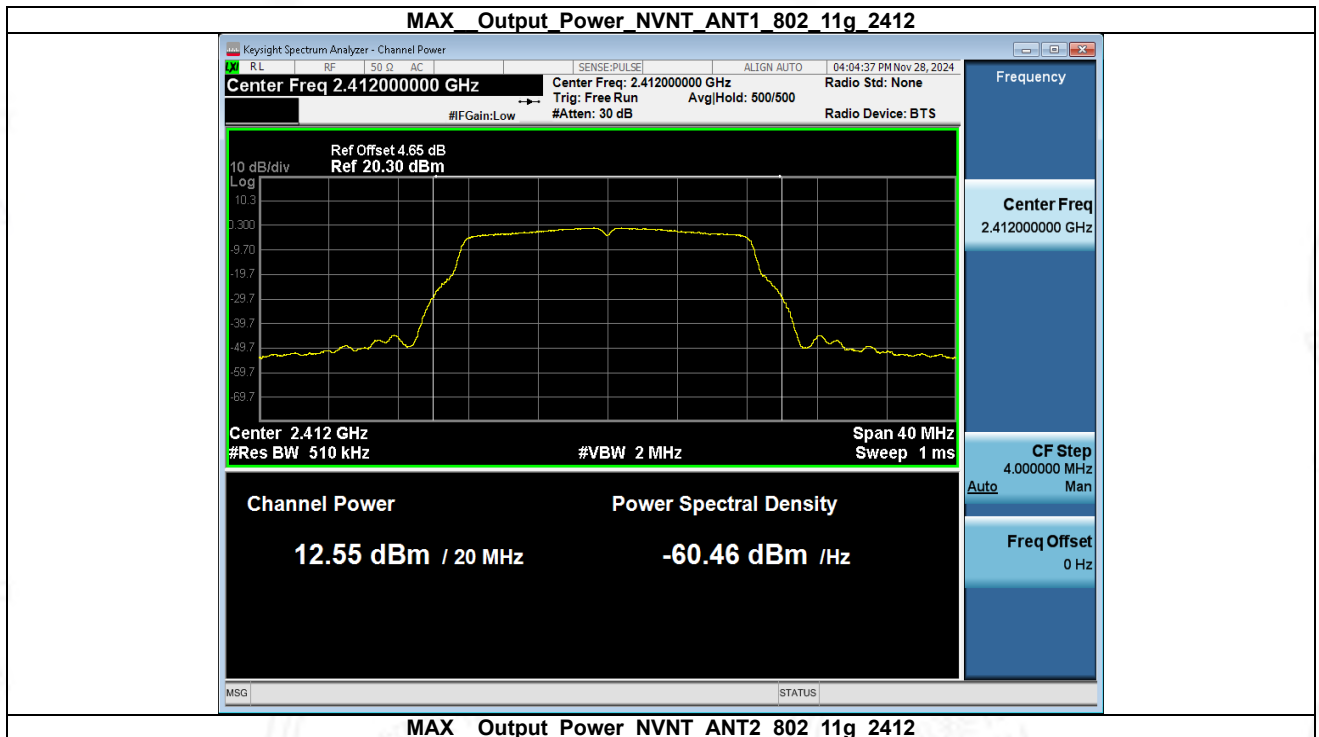
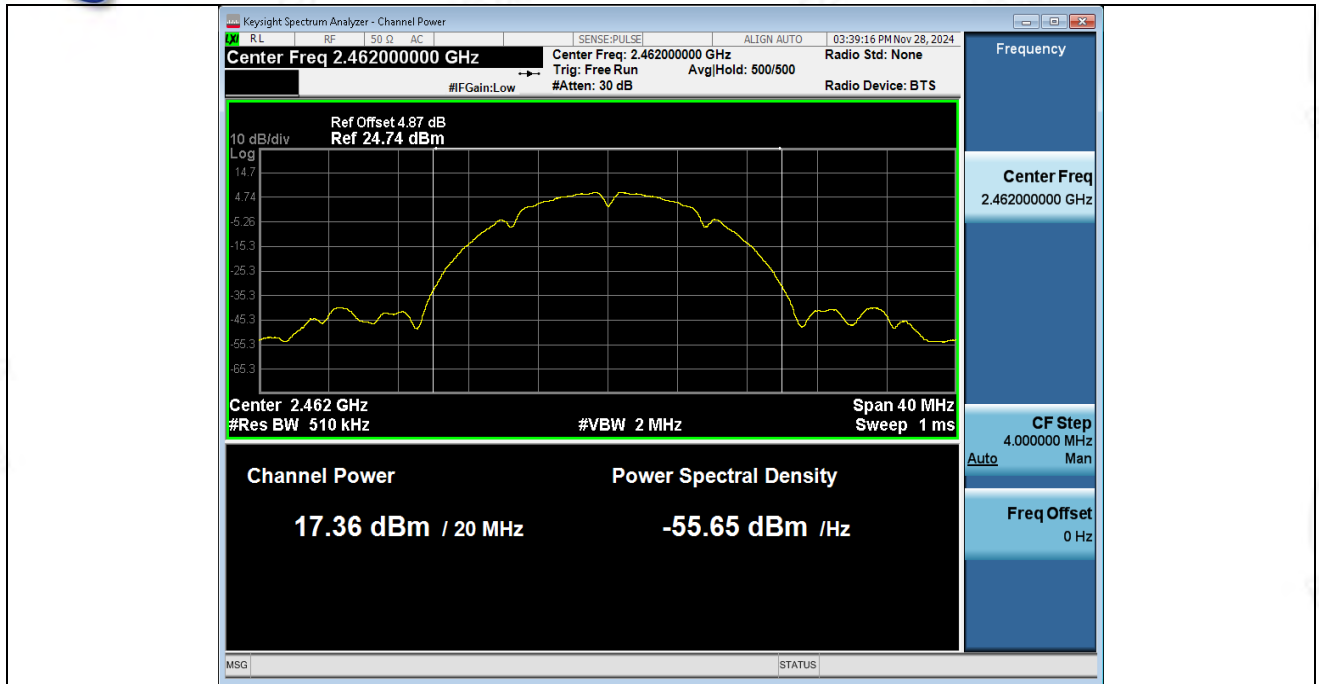


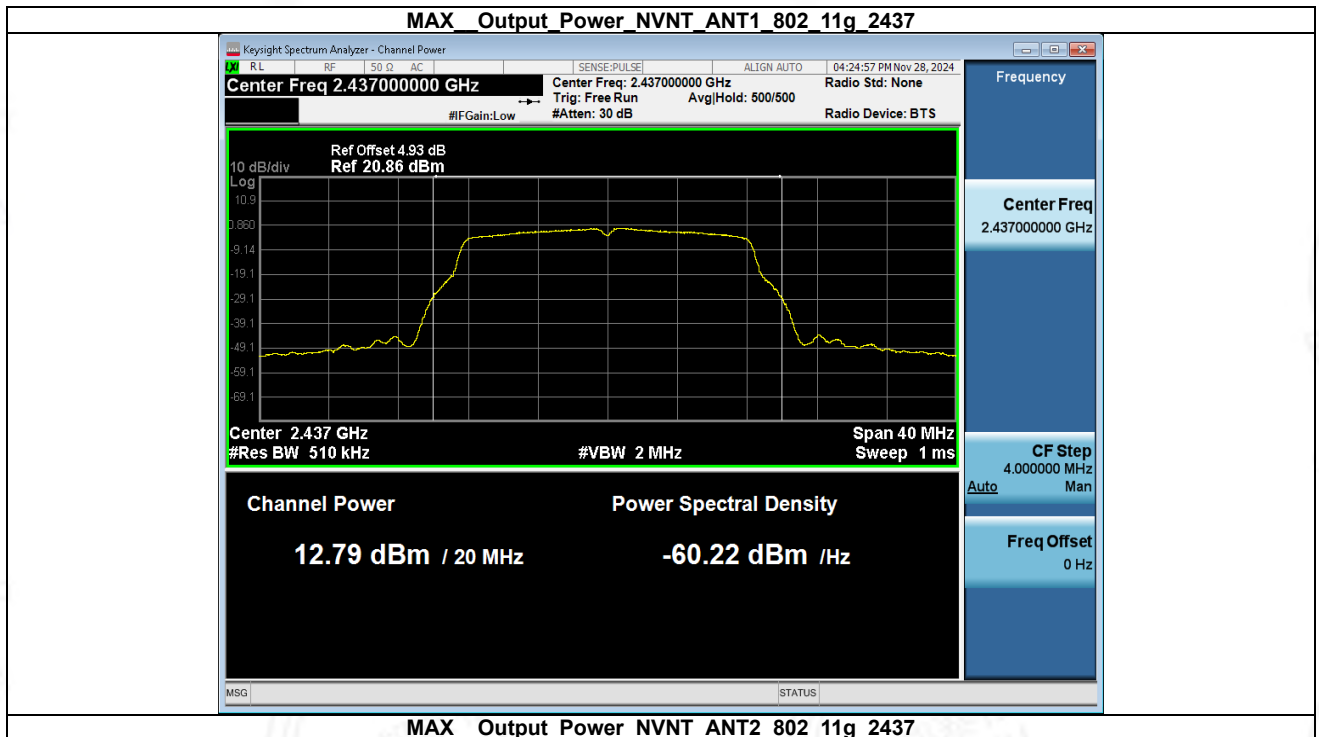
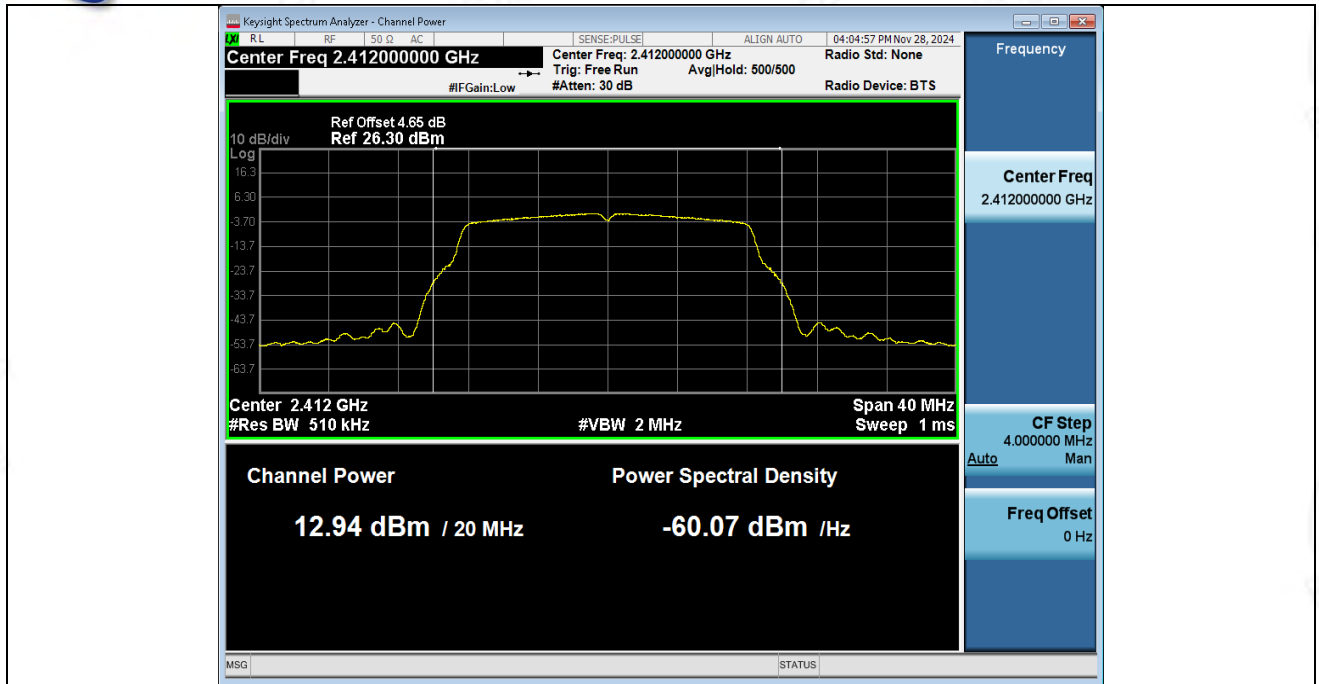
MAX Output Power_NVNT_ANT2_802_11b_2412

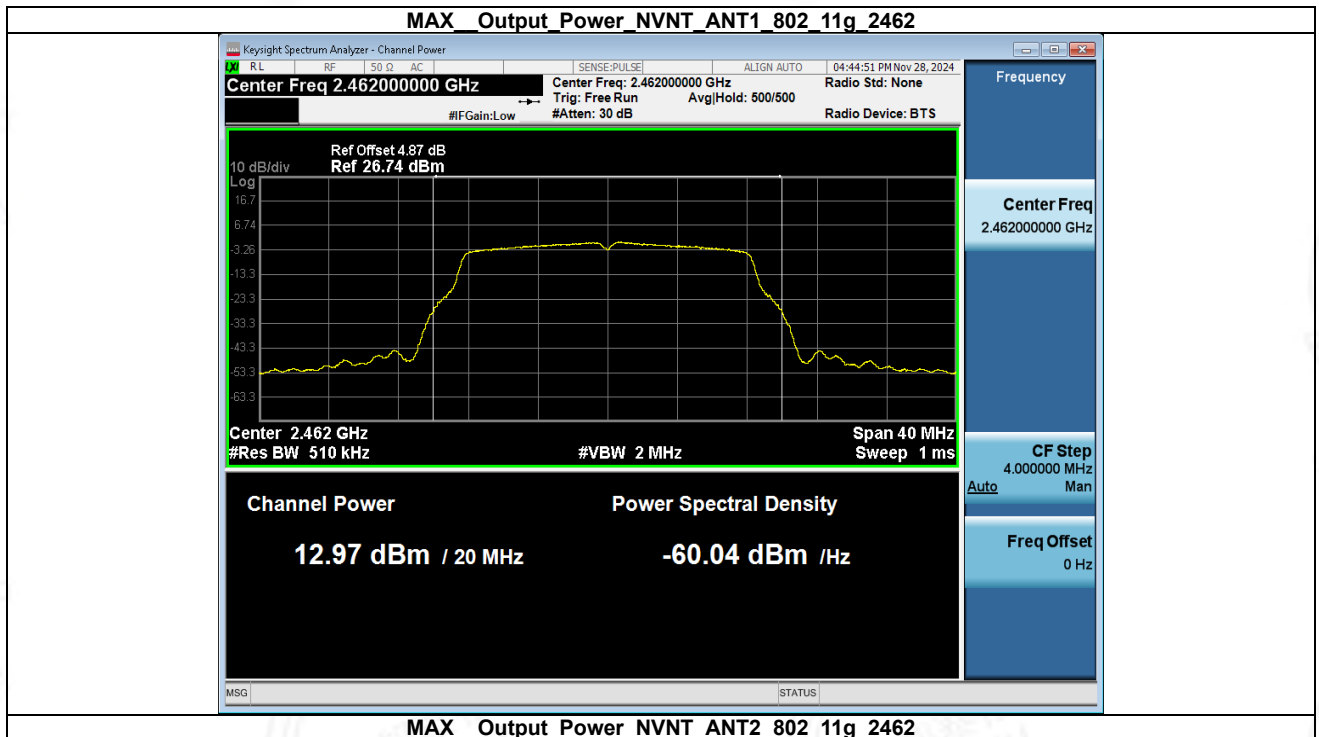
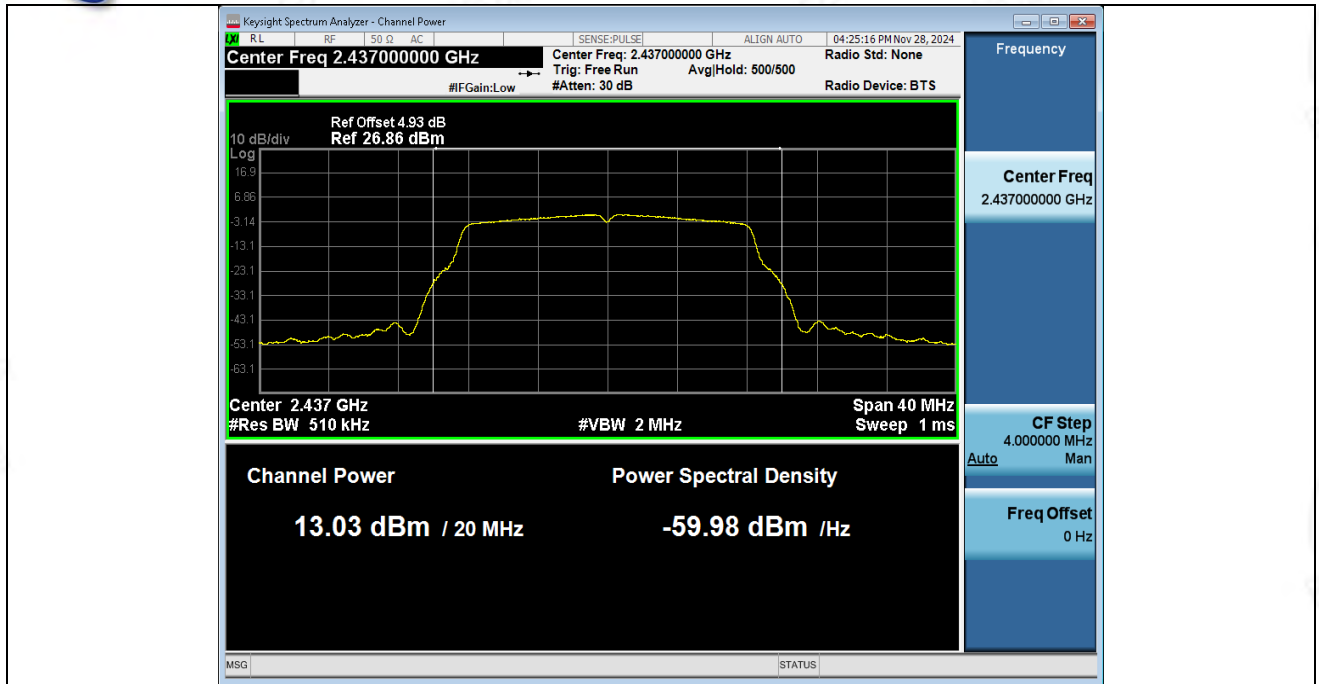


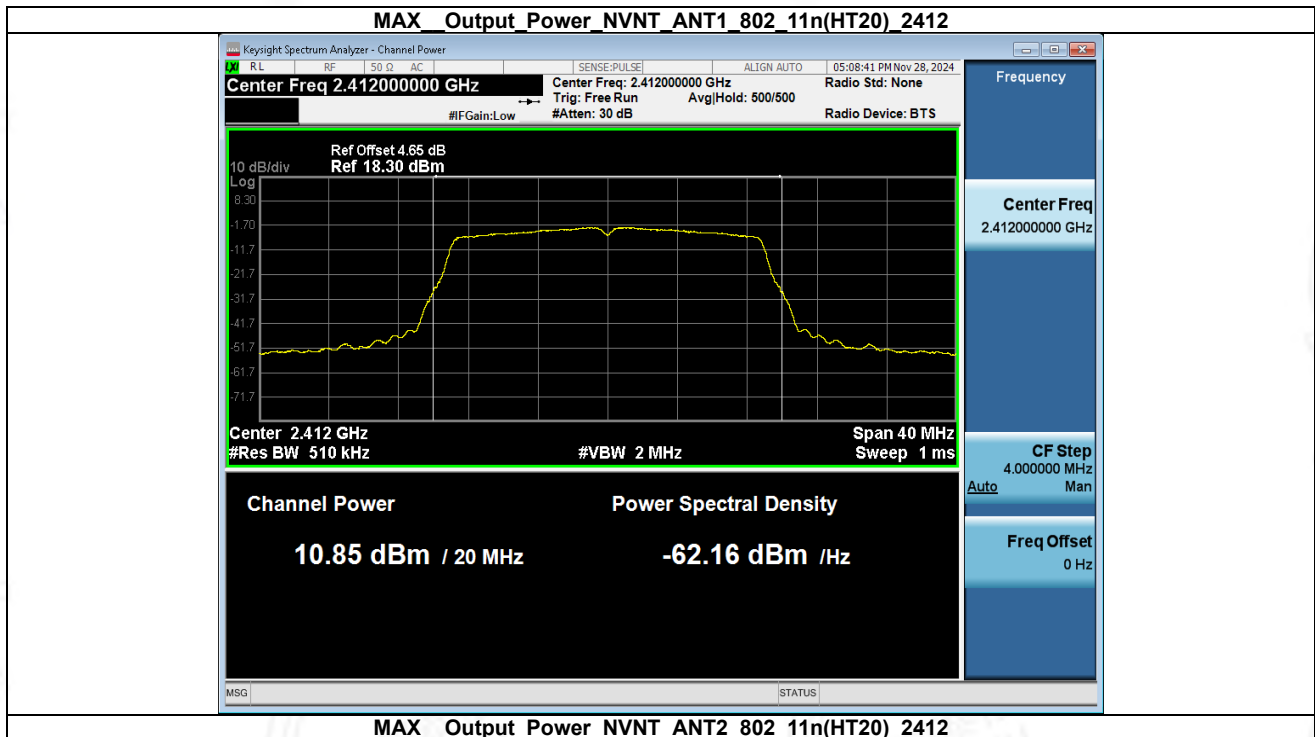
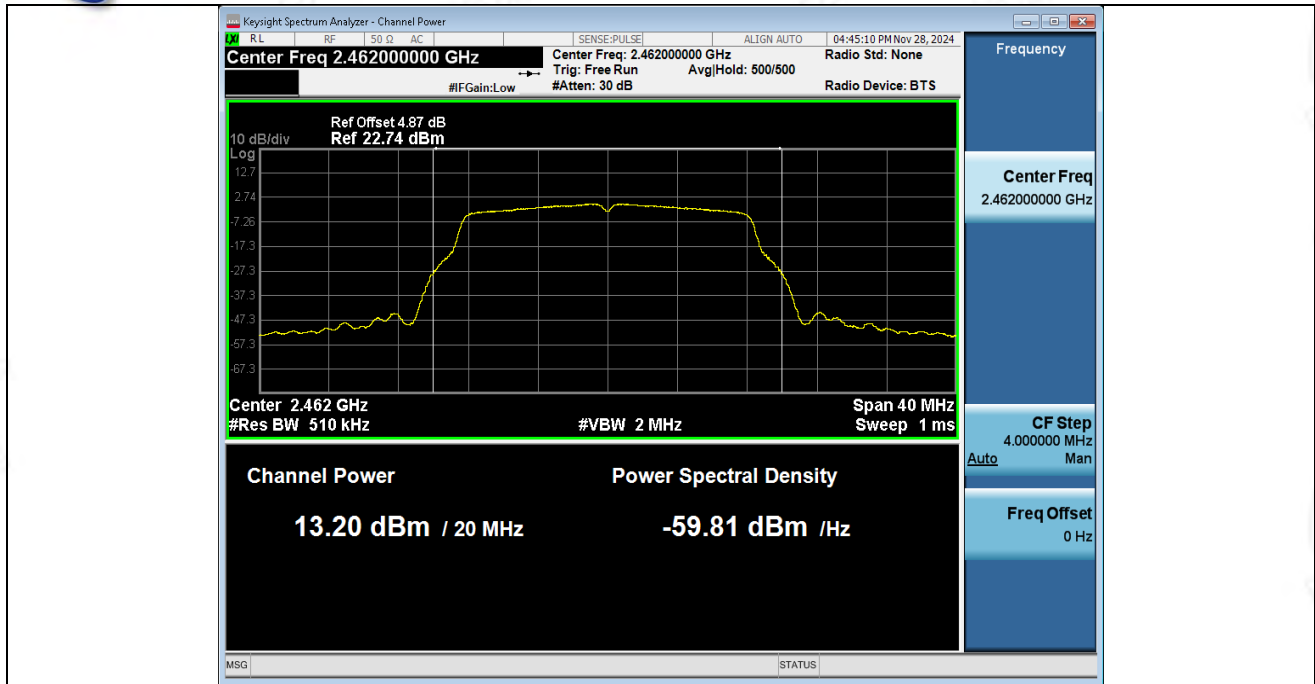


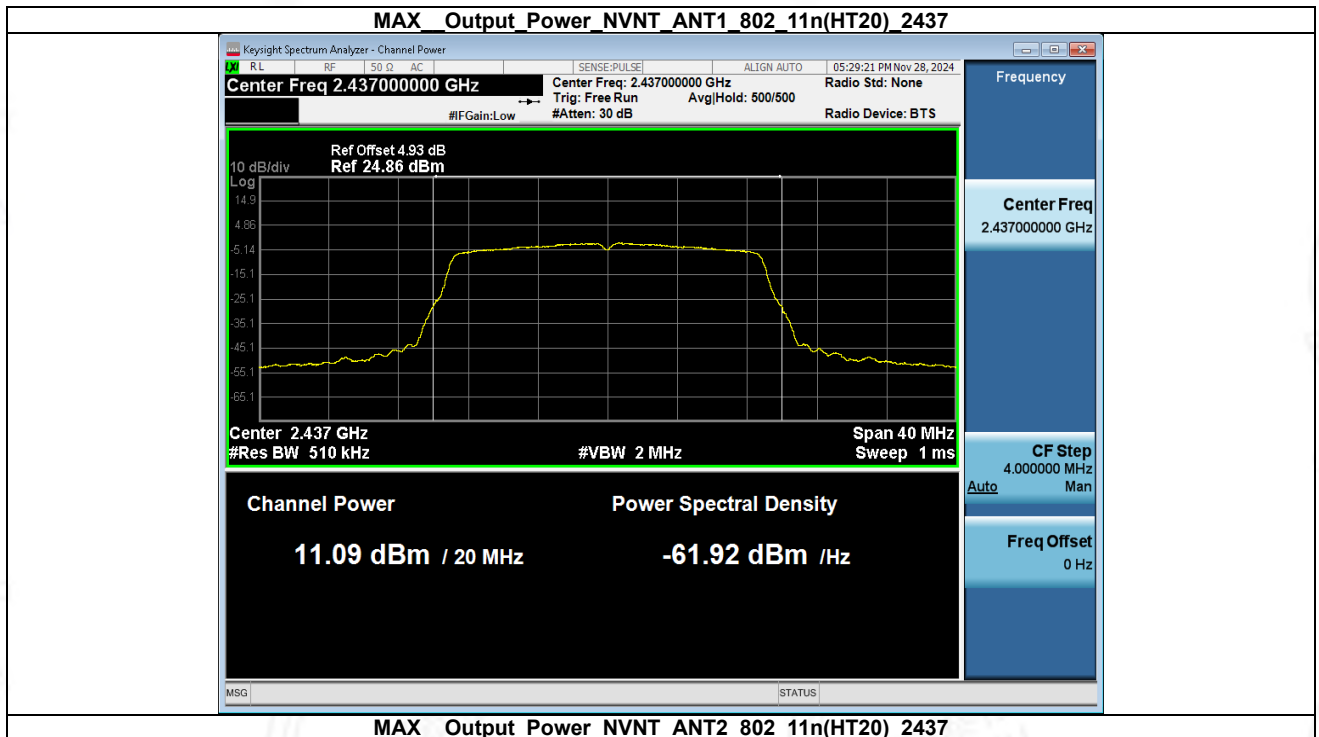
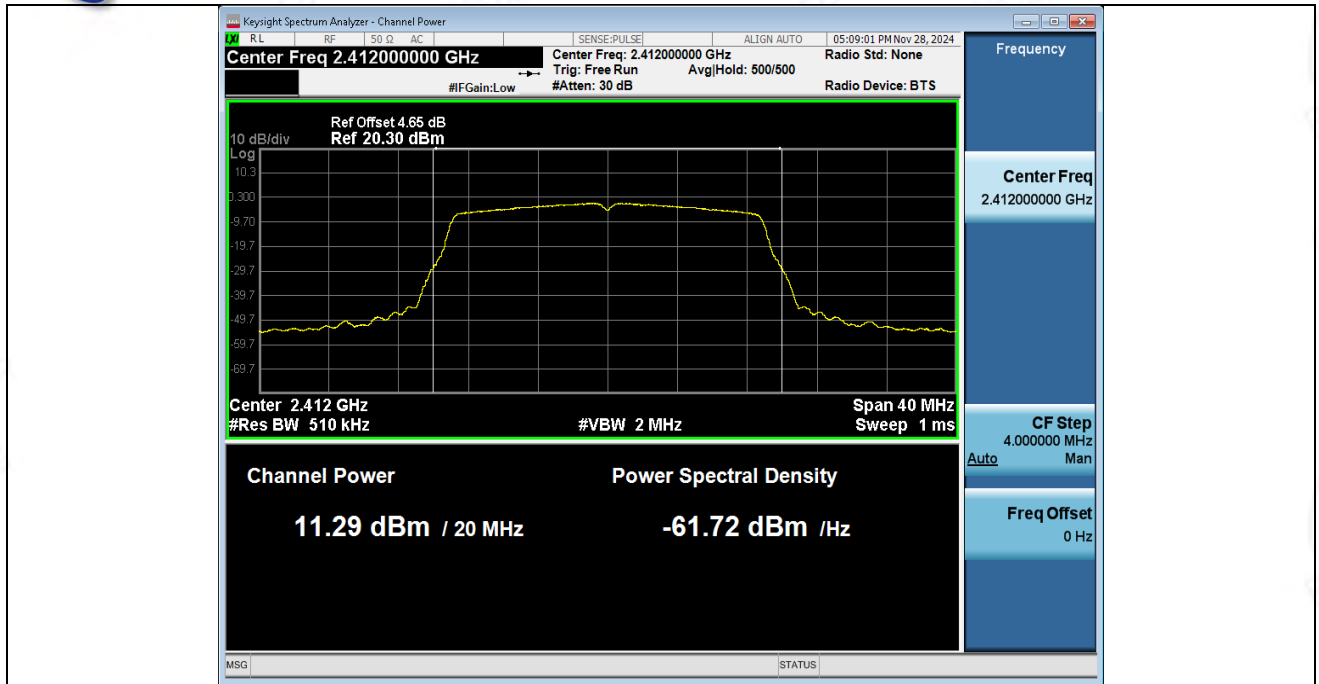


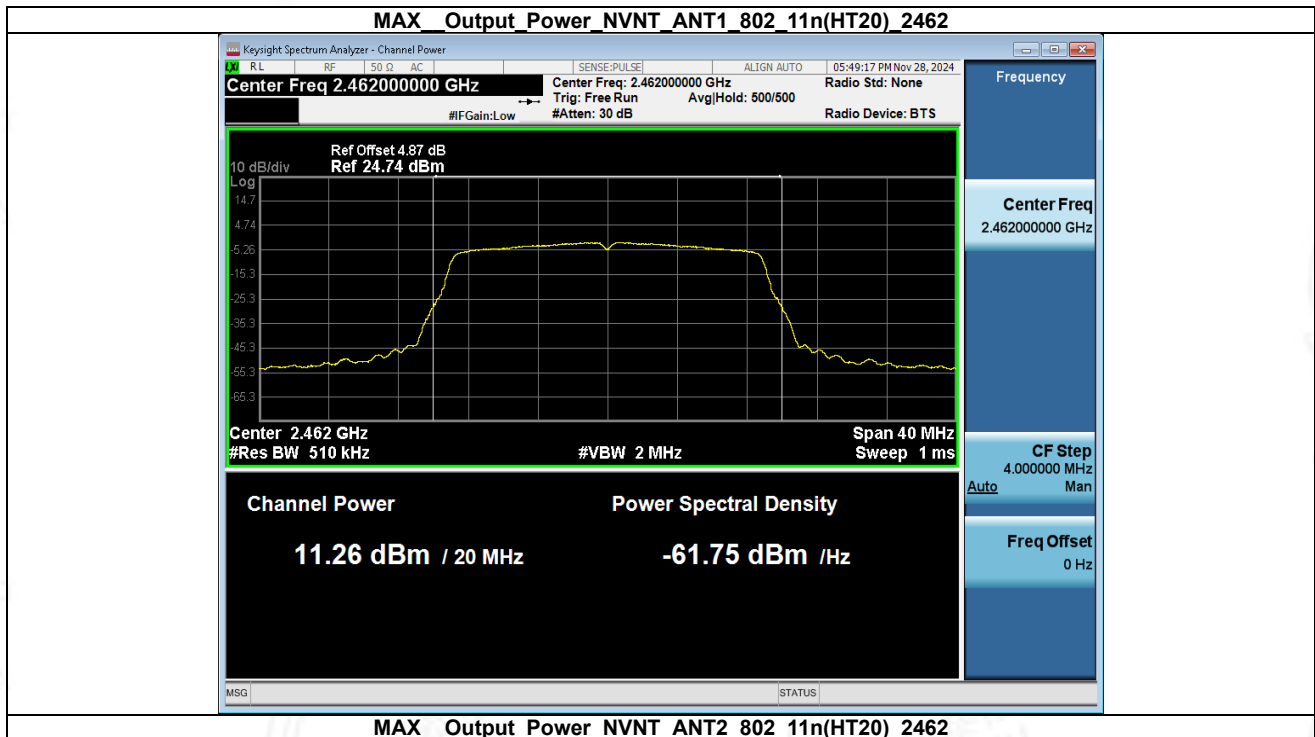
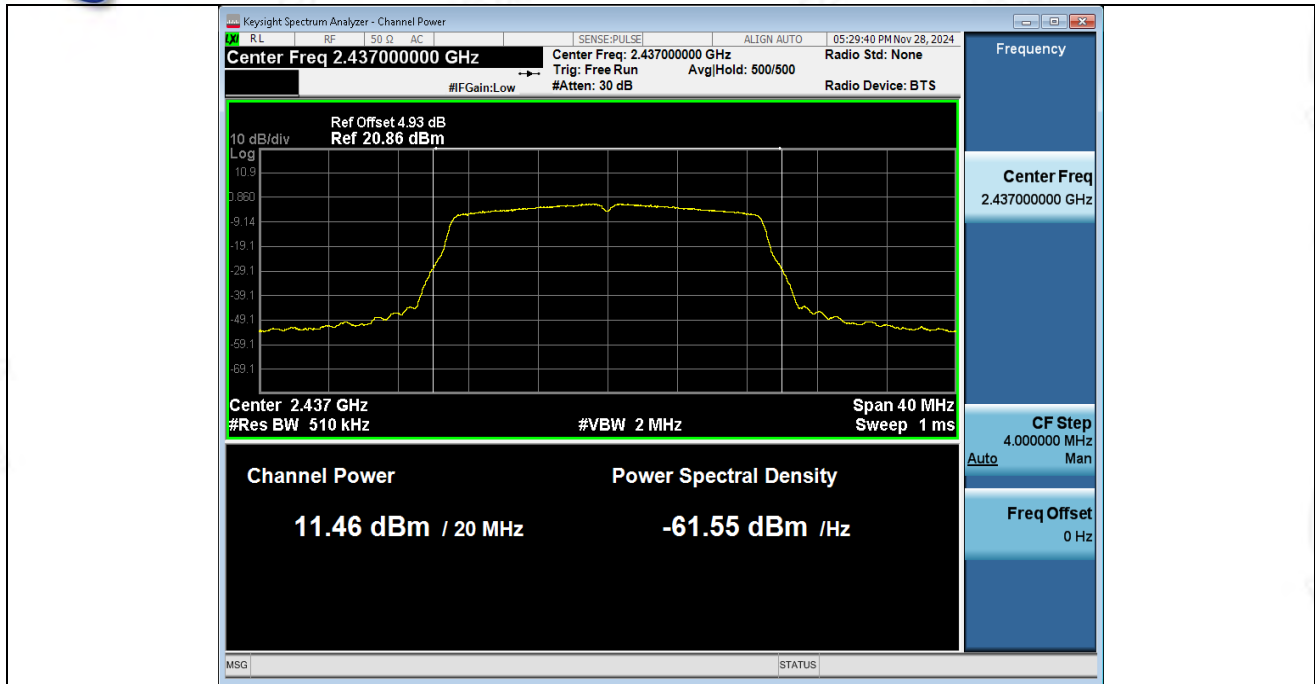


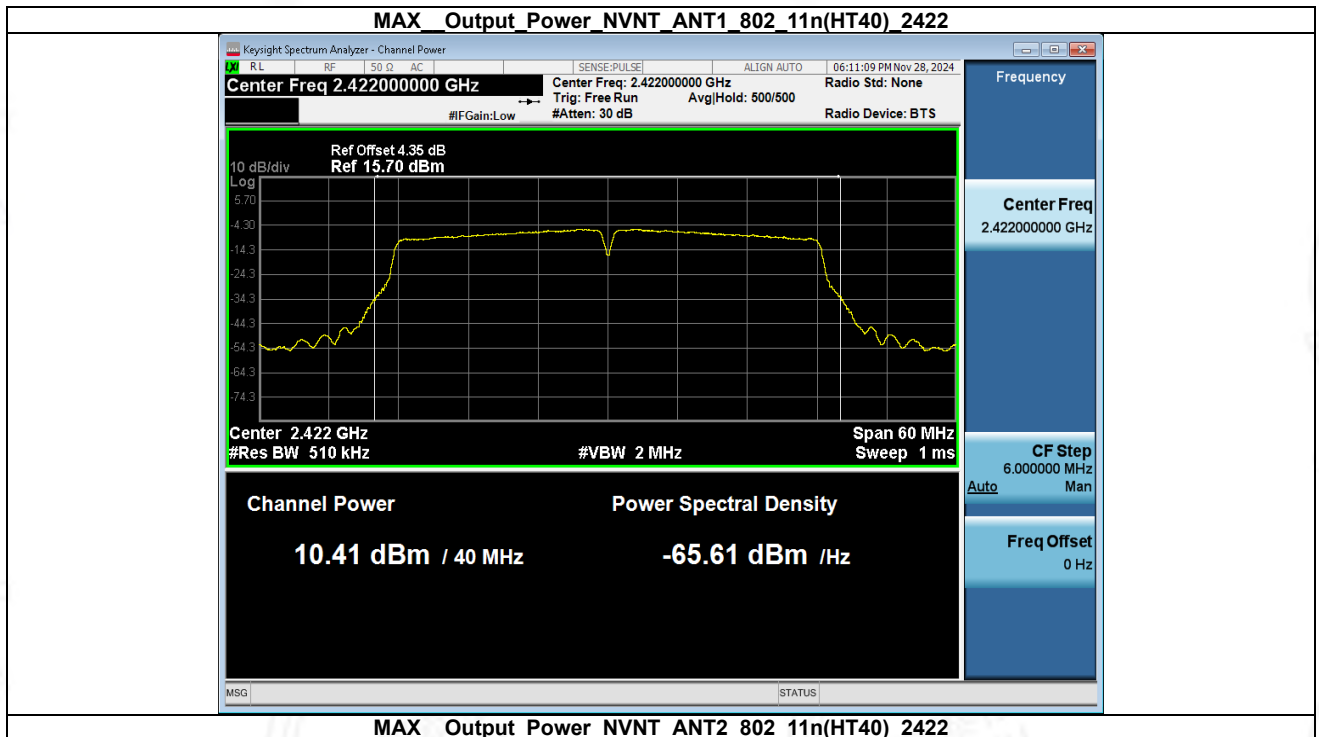
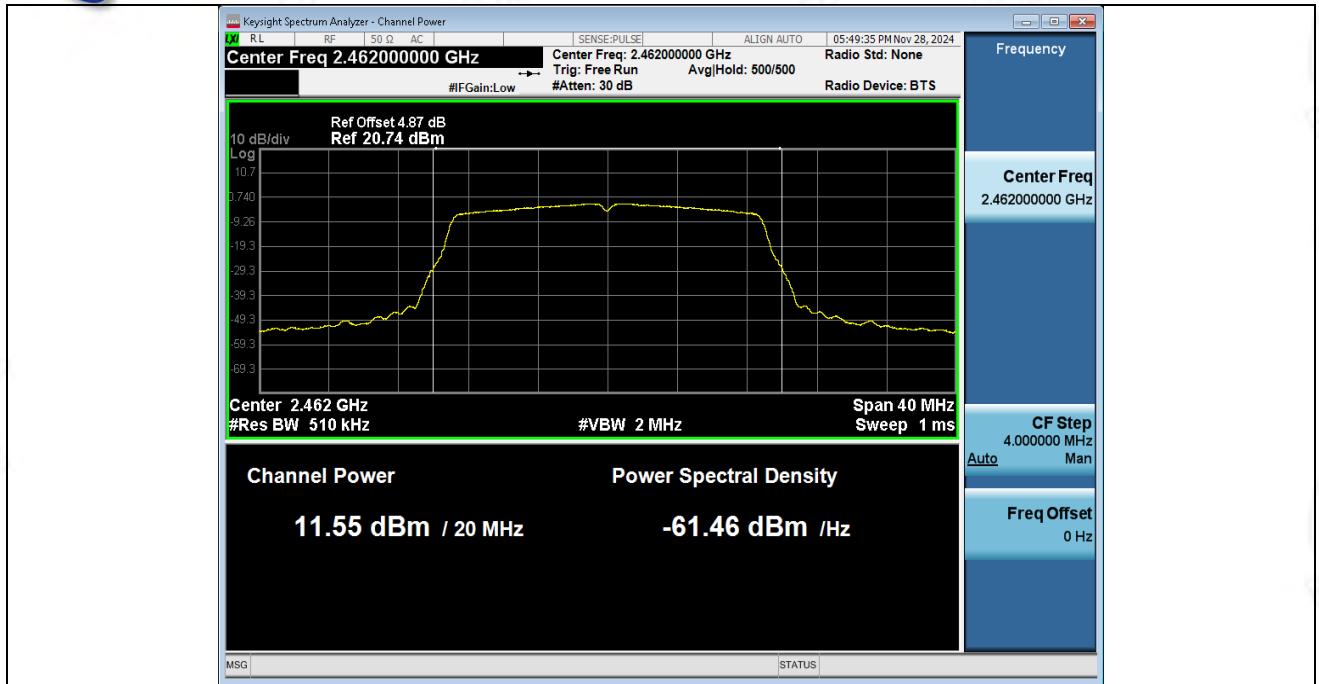


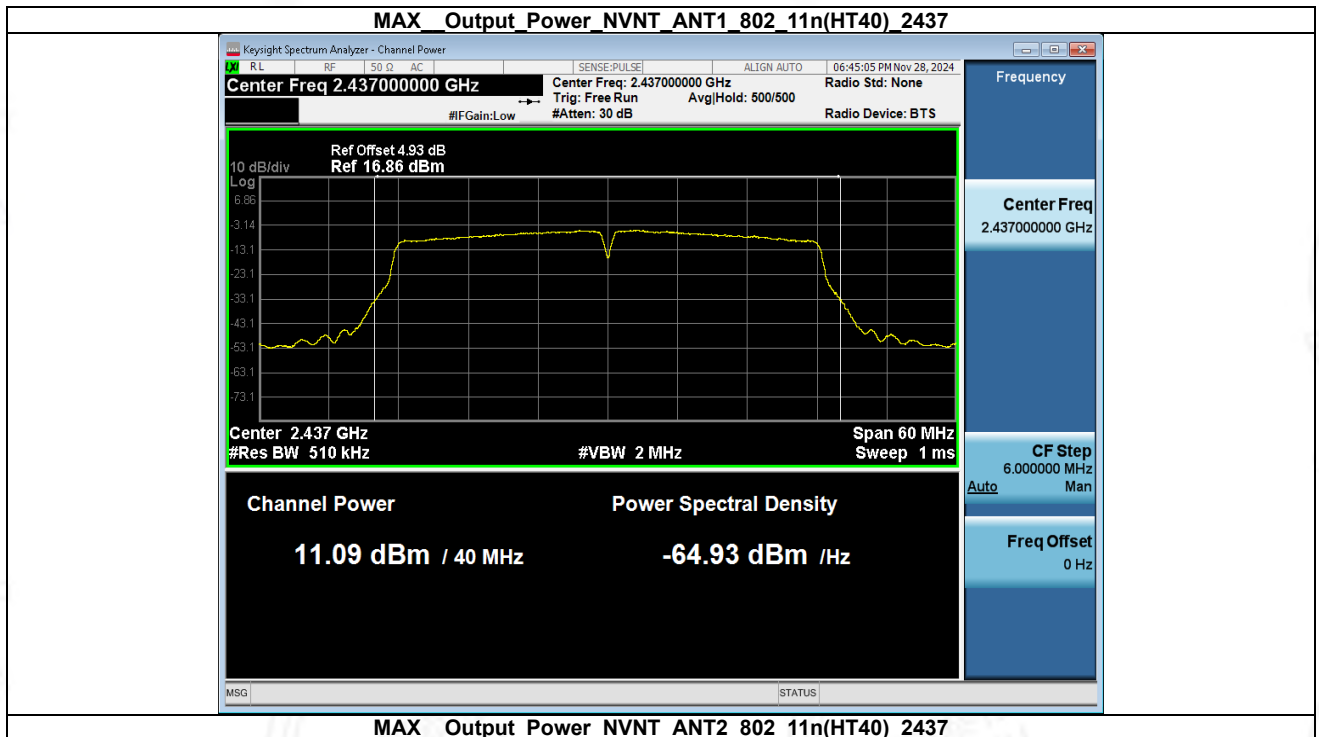
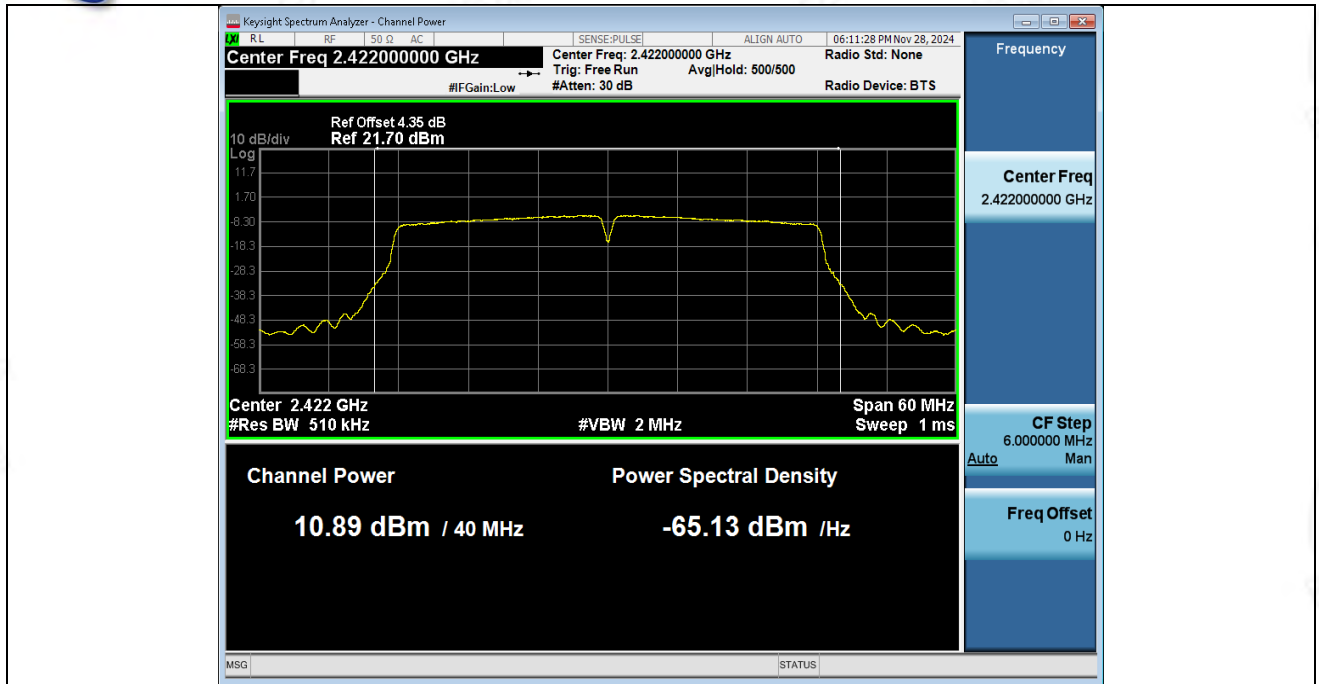


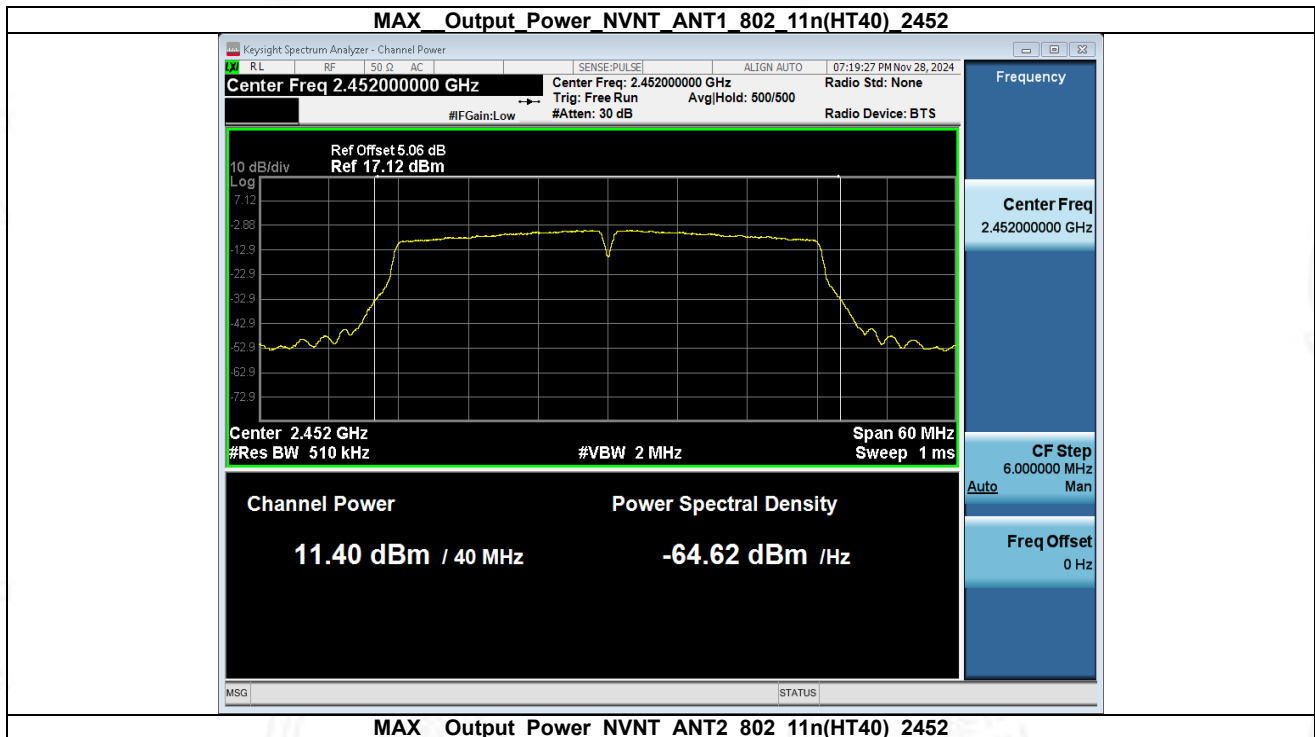
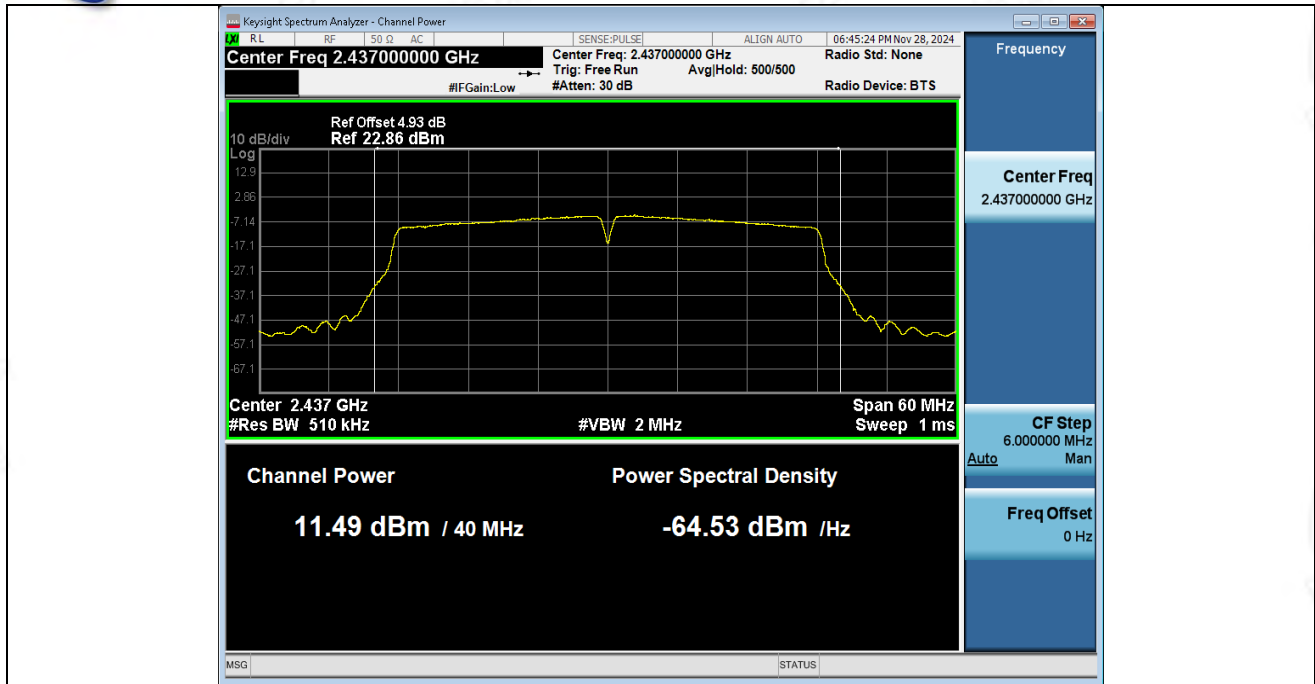


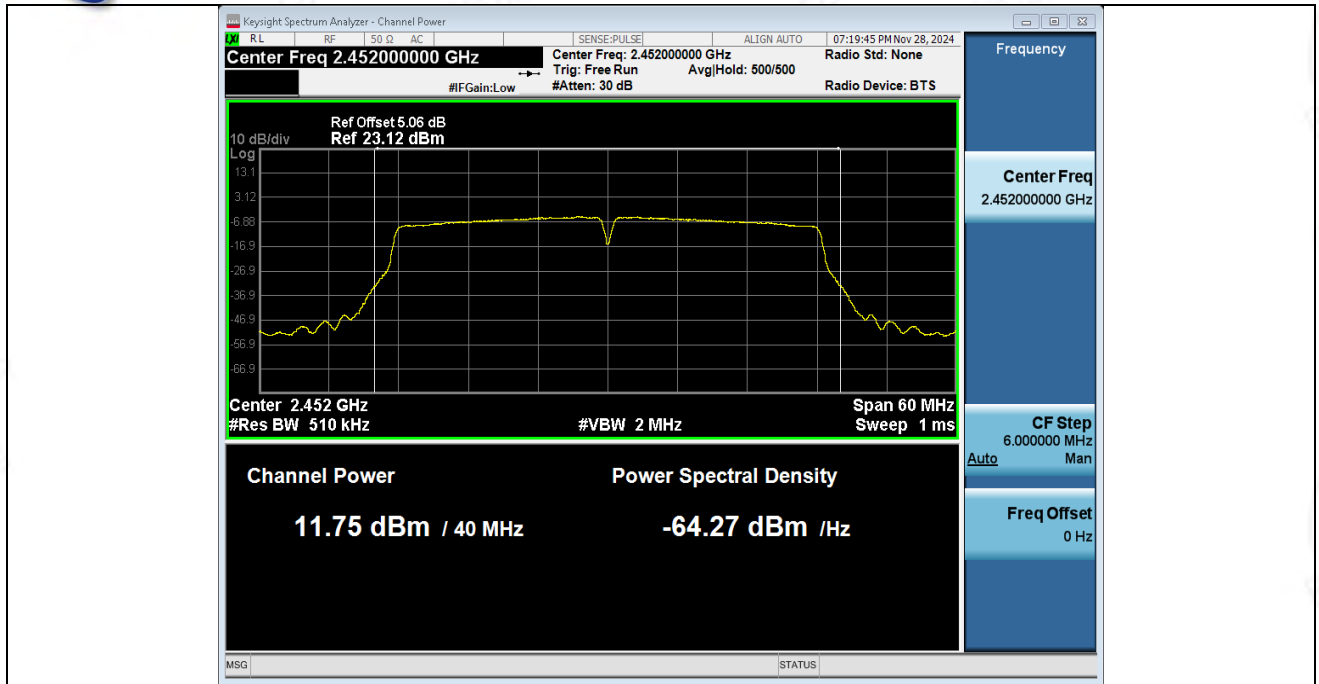












Condition	Antenna	Mode	Frequency(MHz)	MIMO_Conducted_Power(dBm)	Limit(dBm)	Result
NVNT	MIMO_TX	802.11n(HT20)	2412.00	14.09	30	Pass
NVNT	MIMO_TX	802.11n(HT20)	2437.00	14.35	30	Pass
NVNT	MIMO_TX	802.11n(HT20)	2462.00	14.49	30	Pass
NVNT	MIMO_TX	802.11n(HT40)	2422.00	13.87	30	Pass
NVNT	MIMO_TX	802.11n(HT40)	2437.00	14.50	30	Pass
NVNT	MIMO_TX	802.11n(HT40)	2452.00	14.72	30	Pass



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	-17.31	0.00	0.00	-17.31	8	Pass
NVNT	ANT2	802.11b	2412.00	-16.78	0.00	0.00	-16.78	8	Pass
NVNT	ANT1	802.11b	2437.00	-16.74	0.00	0.00	-16.74	8	Pass
NVNT	ANT2	802.11b	2437.00	-16.58	0.00	0.00	-16.58	8	Pass
NVNT	ANT1	802.11b	2462.00	-16.86	0.00	0.00	-16.86	8	Pass
NVNT	ANT2	802.11b	2462.00	-16.65	0.00	0.00	-16.65	8	Pass
NVNT	ANT1	802.11g	2412.00	-22.61	0.00	0.00	-22.61	8	Pass
NVNT	ANT2	802.11g	2412.00	-22.36	0.00	0.00	-22.36	8	Pass
NVNT	ANT1	802.11g	2437.00	-22.77	0.00	0.00	-22.77	8	Pass
NVNT	ANT2	802.11g	2437.00	-22.40	0.00	0.00	-22.40	8	Pass
NVNT	ANT1	802.11g	2462.00	-22.56	0.00	0.00	-22.56	8	Pass
NVNT	ANT2	802.11g	2462.00	-22.14	0.12	0.00	-22.02	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-24.80	0.00	0.00	-24.80	8	Pass
NVNT	ANT2	802.11n(HT20)	2412.00	-23.93	0.00	0.00	-23.93	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-24.55	0.13	0.00	-24.42	8	Pass
NVNT	ANT2	802.11n(HT20)	2437.00	-23.97	0.00	0.00	-23.97	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-23.96	0.00	0.00	-23.96	8	Pass
NVNT	ANT2	802.11n(HT20)	2462.00	-23.80	0.13	0.00	-23.67	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-27.05	0.13	0.00	-26.92	8	Pass
NVNT	ANT2	802.11n(HT40)	2422.00	-26.65	0.26	0.00	-26.39	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-26.43	0.26	0.00	-26.17	8	Pass
NVNT	ANT2	802.11n(HT40)	2437.00	-25.67	0.13	0.00	-25.54	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-25.58	0.13	0.00	-25.45	8	Pass
NVNT	ANT2	802.11n(HT40)	2452.00	-26.28	0.13	0.00	-26.15	8	Pass



