Appendix

Test Data

for BTEK241111036A01E04

Start date	2024/12/3	Finish date	2024/12/3
Temperature	22.5℃	Humidity	49%
RF specifications	5.2G_WIFI	Test Engineer	Zora

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1. -26dB and 99% Emission Bandwidth

Condition	Antenna	Modulation	Frequency(MHz)	-26dB_Emission_Bandwidth(MHz)	Occupied Bandwidth(MHz)
NVNT	ANT1	802.11a	5180.00	18.25	16.33
NVNT	ANT2	802.11a	5180.00	18.13	16.34
NVNT	ANT1	802.11a	5200.00	18.24	16.32
NVNT	ANT2	802.11a	5200.00	18.10	16.34
NVNT	ANT1	802.11a	5240.00	18.15	16.33
NVNT	ANT2	802.11a	5240.00	18.13	16.34
NVNT	ANT1	802.11n(HT20)	5180.00	19.30	17.51
NVNT	ANT2	802.11n(HT20)	5180.00	19.28	17.53
NVNT	ANT1	802.11n(HT20)	5200.00	19.22	17.53
NVNT	ANT2	802.11n(HT20)	5200.00	19.28	17.52
NVNT	ANT1	802.11n(HT20)	5240.00	19.28	17.52
NVNT	ANT2	802.11n(HT20)	5240.00	19.27	17.52
NVNT	ANT1	802.11ac(VHT20)	5180.00	19.44	17.52
NVNT	ANT2	802.11ac(VHT20)	5180.00	19.37	17.52
NVNT	ANT1	802.11ac(VHT20)	5200.00	19.34	17.52
NVNT	ANT2	802.11ac(VHT20)	5200.00	19.39	17.52
NVNT	ANT1	802.11ac(VHT20)	5240.00	19.24	17.52
NVNT	ANT2	802.11ac(VHT20)	5240.00	19.25	17.50
NVNT	ANT1	802.11n(HT40)	5190.00	40.91	36.06
NVNT	ANT2	802.11n(HT40)	5190.00	41.58	36.09
NVNT	ANT1	802.11n(HT40)	5230.00	40.61	36.11
NVNT	ANT2	802.11n(HT40)	5230.00	40.64	36.02
NVNT	ANT1	802.11ac(VHT40)	5190.00	41.56	36.06
NVNT	ANT2	802.11ac(VHT40)	5190.00	41.52	36.05
NVNT	ANT1	802.11ac(VHT40)	5230.00	41.05	36.09
NVNT	ANT2	802.11ac(VHT40)	5230.00	40.73	36.00
NVNT	ANT1	802.11ac(VHT80)	5210.00	80.90	74.68
NVNT	ANT2	802.11ac(VHT80)	5210.00	80.79	74.48

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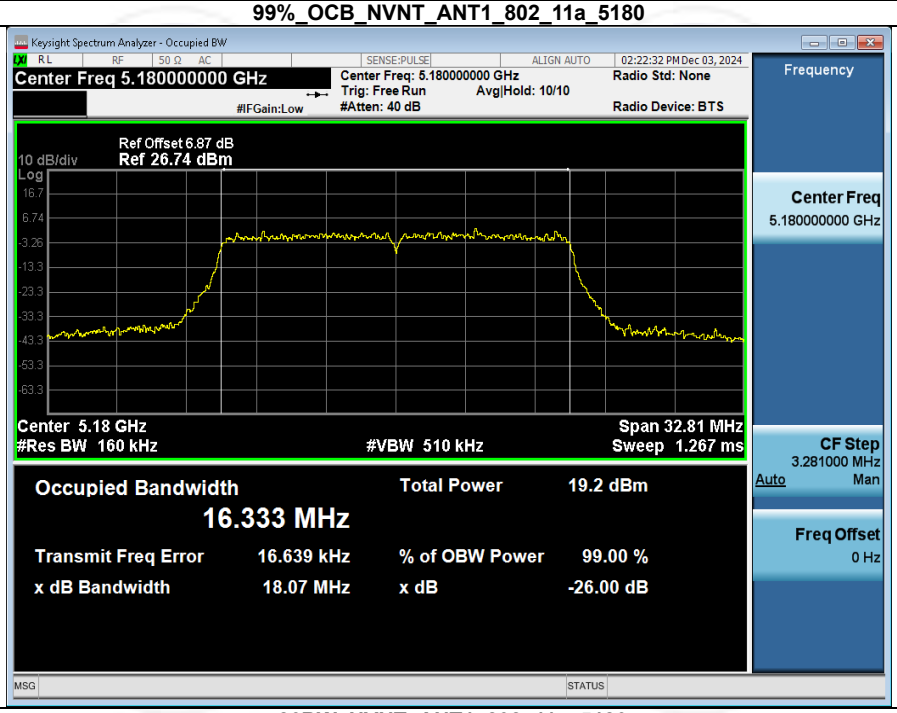

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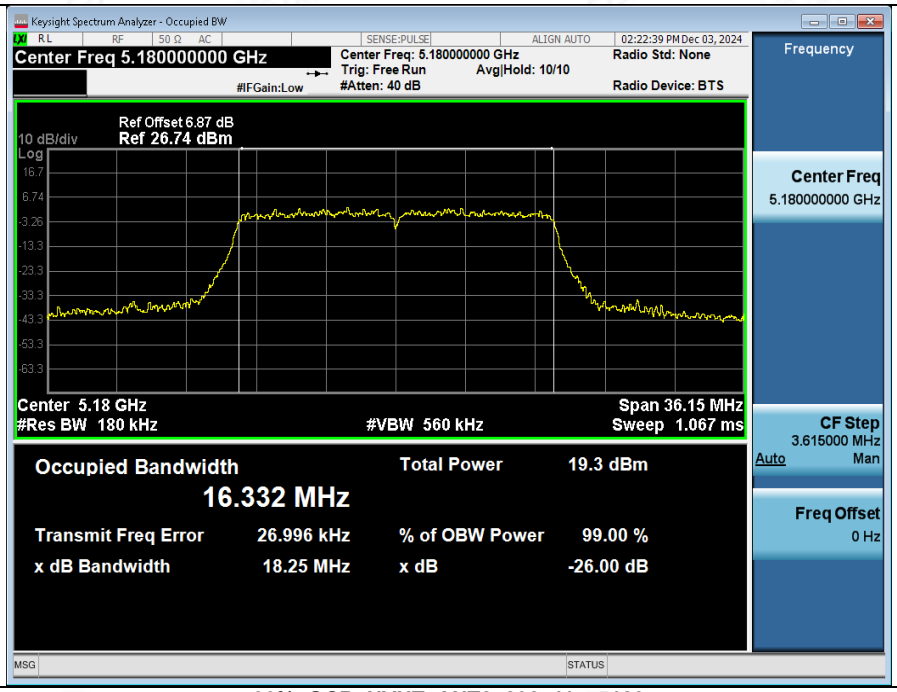

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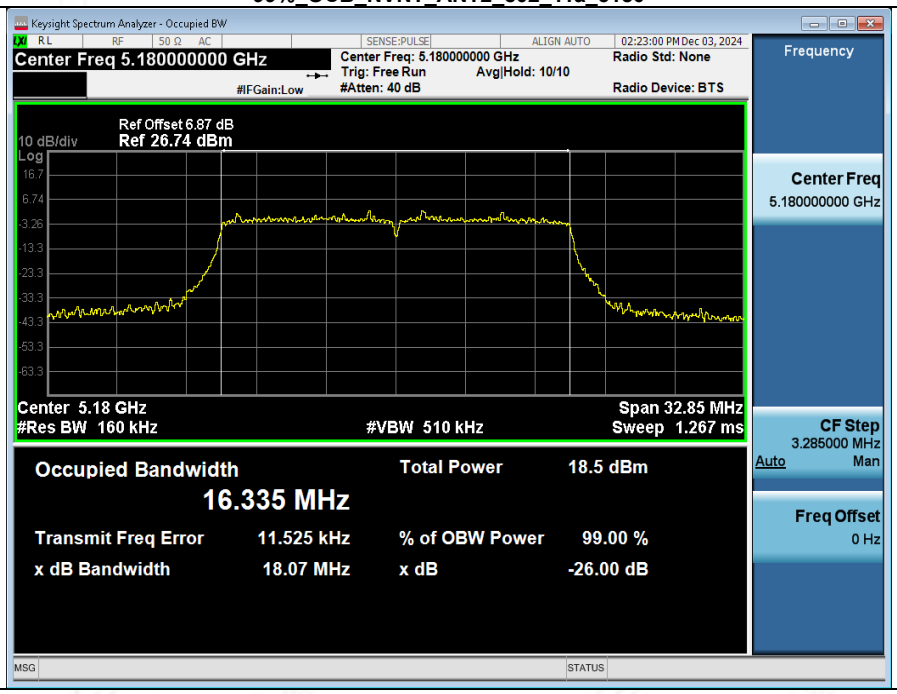

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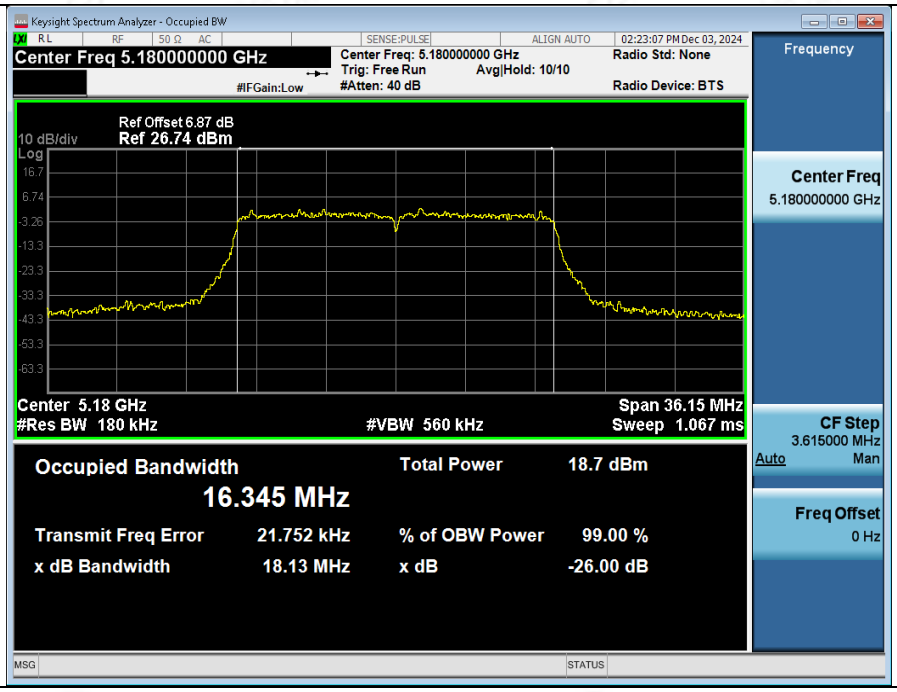

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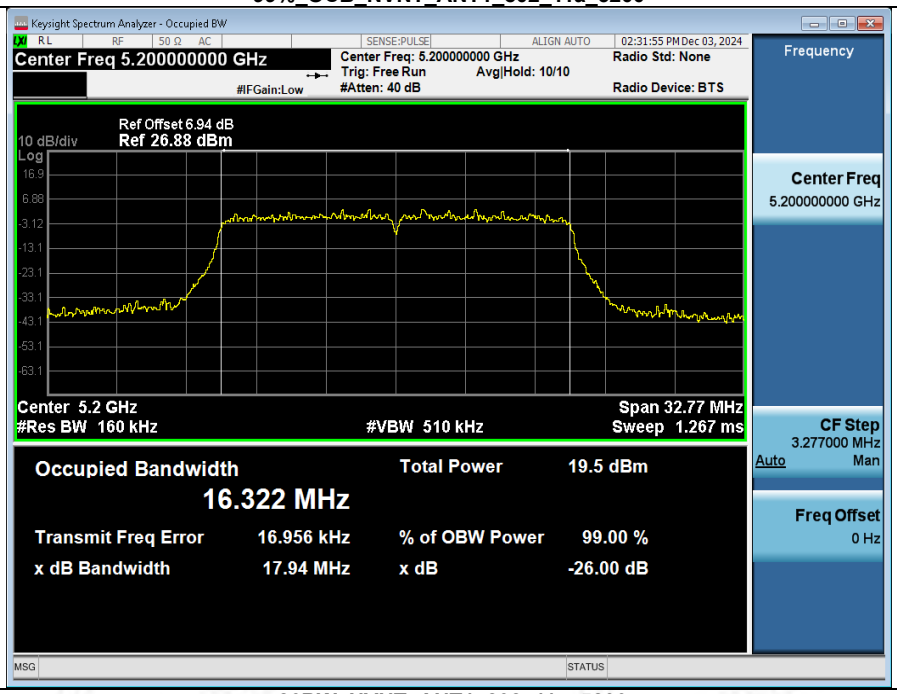

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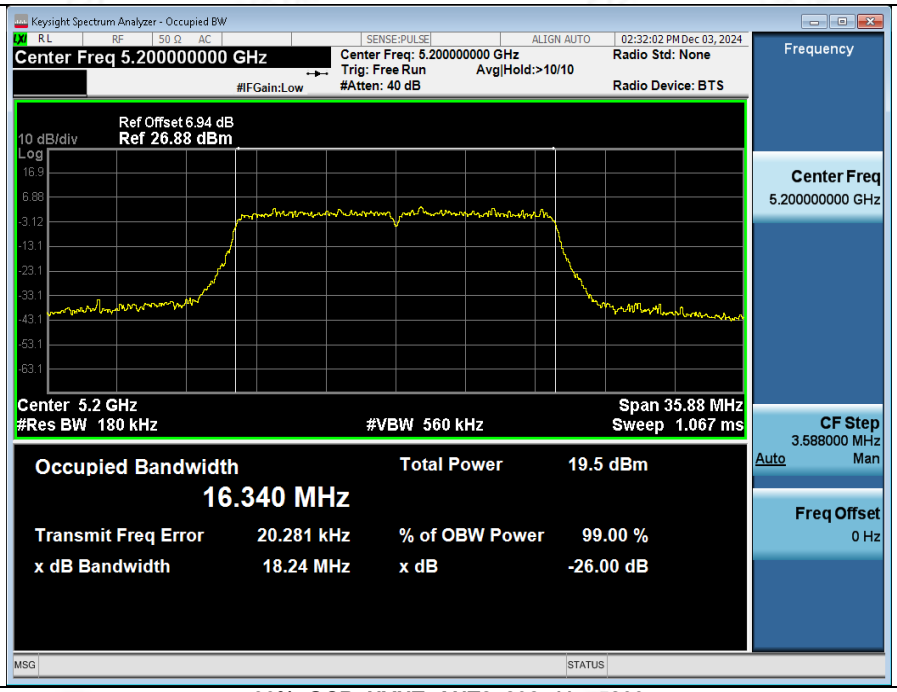

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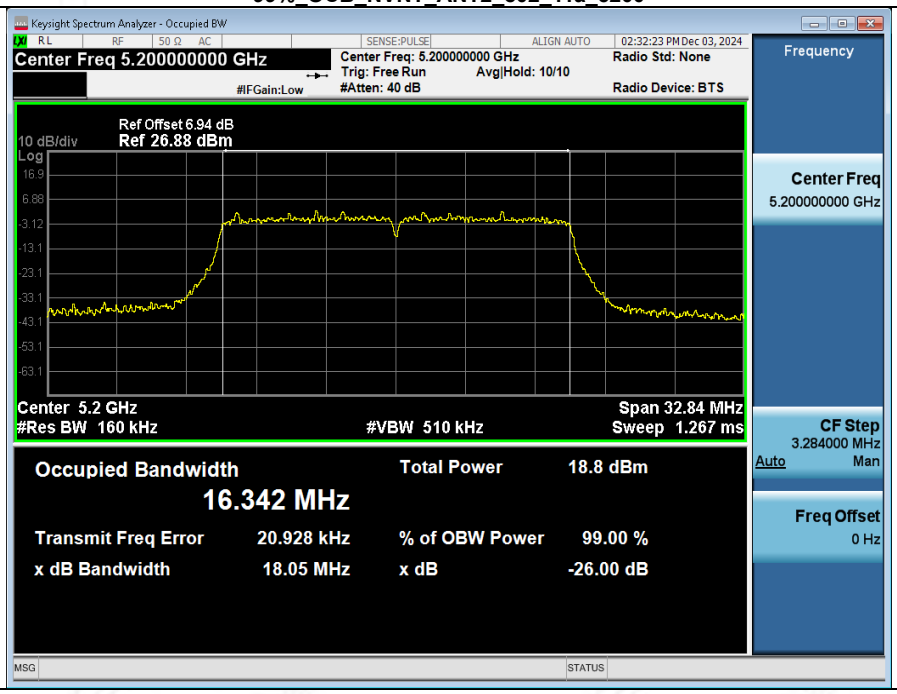

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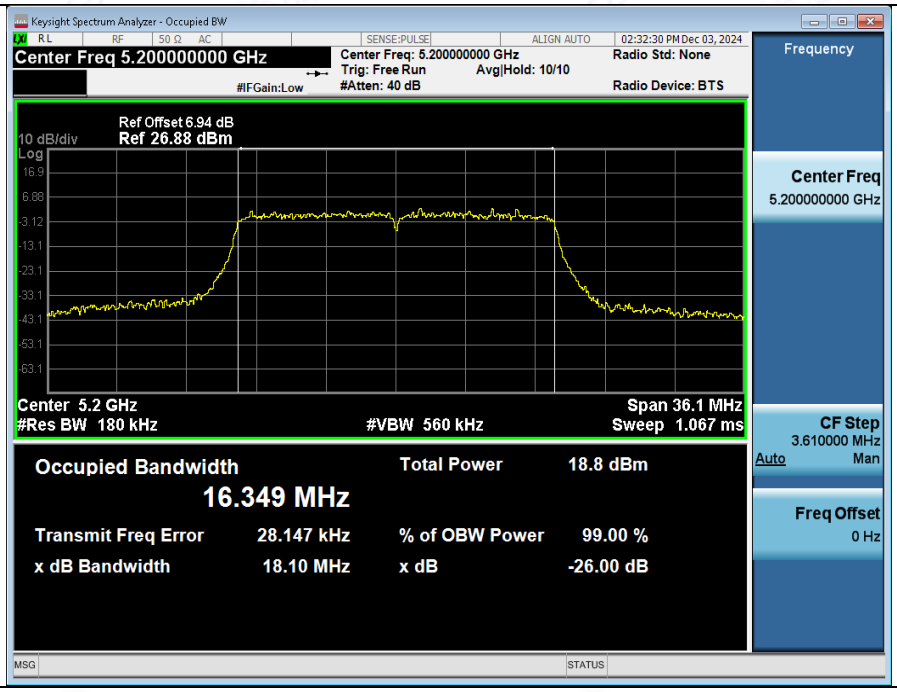

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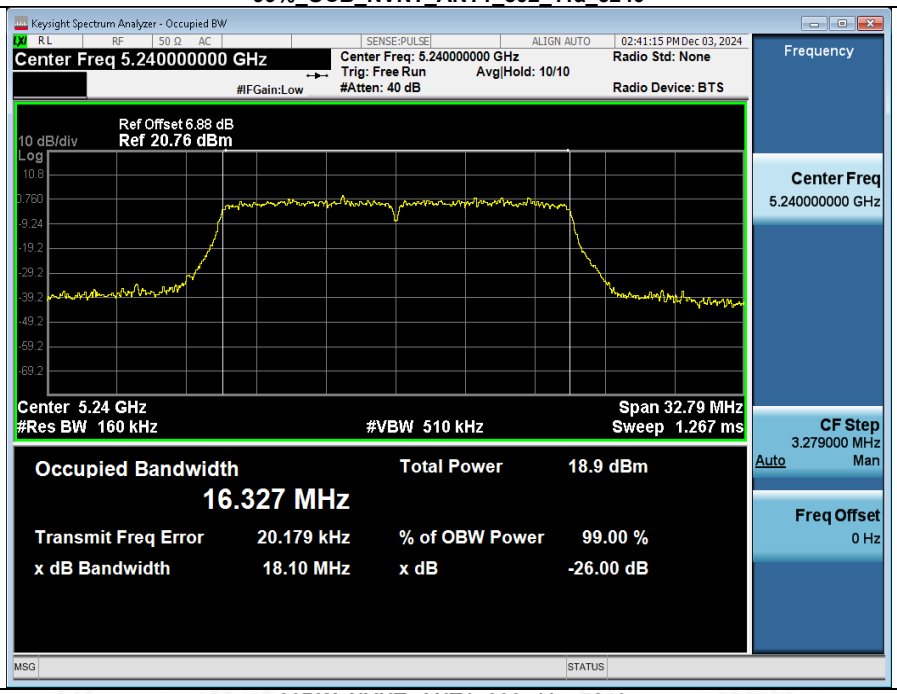

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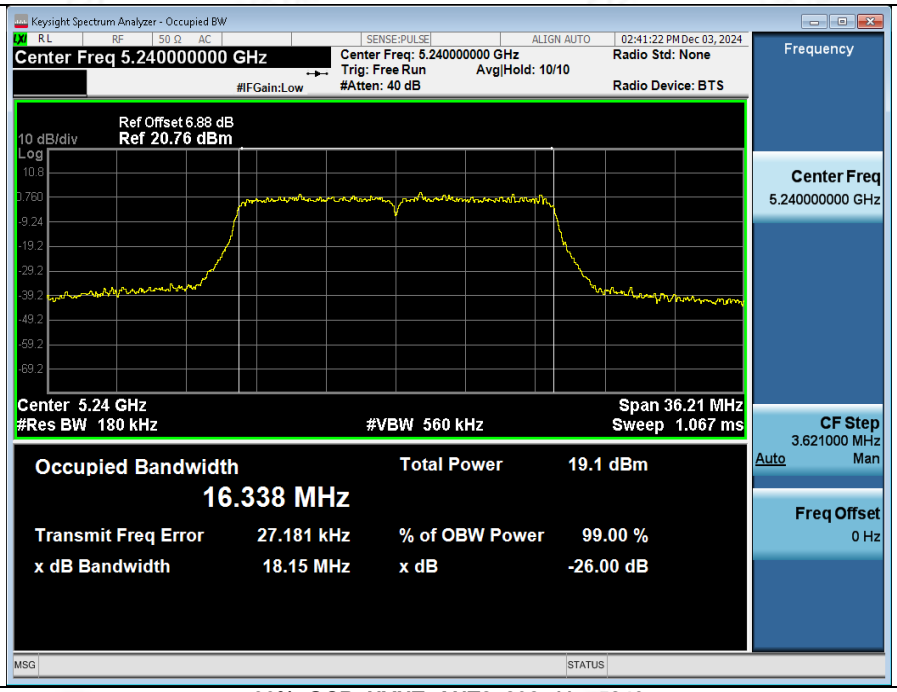

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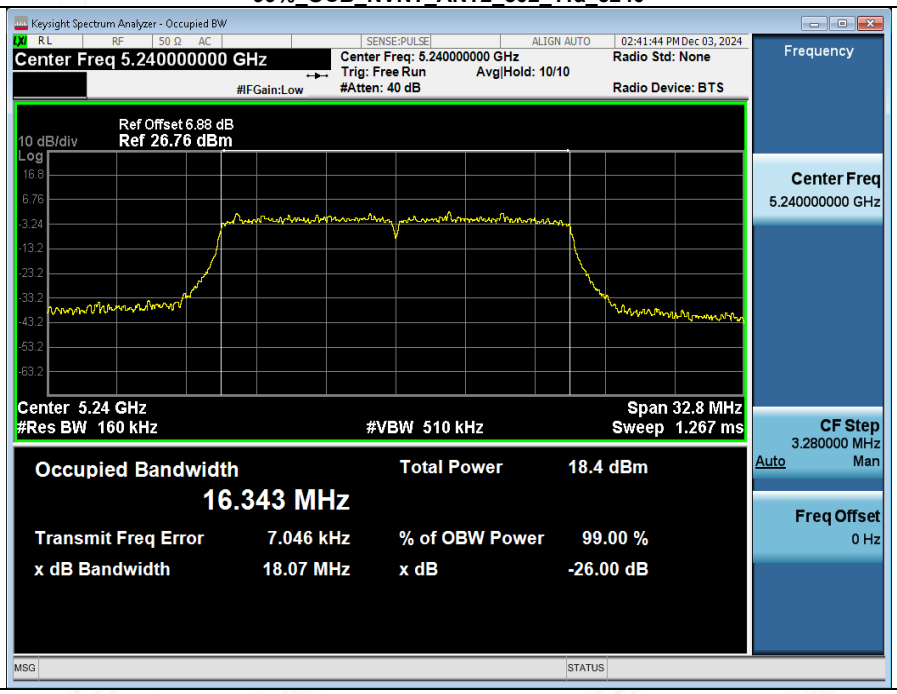

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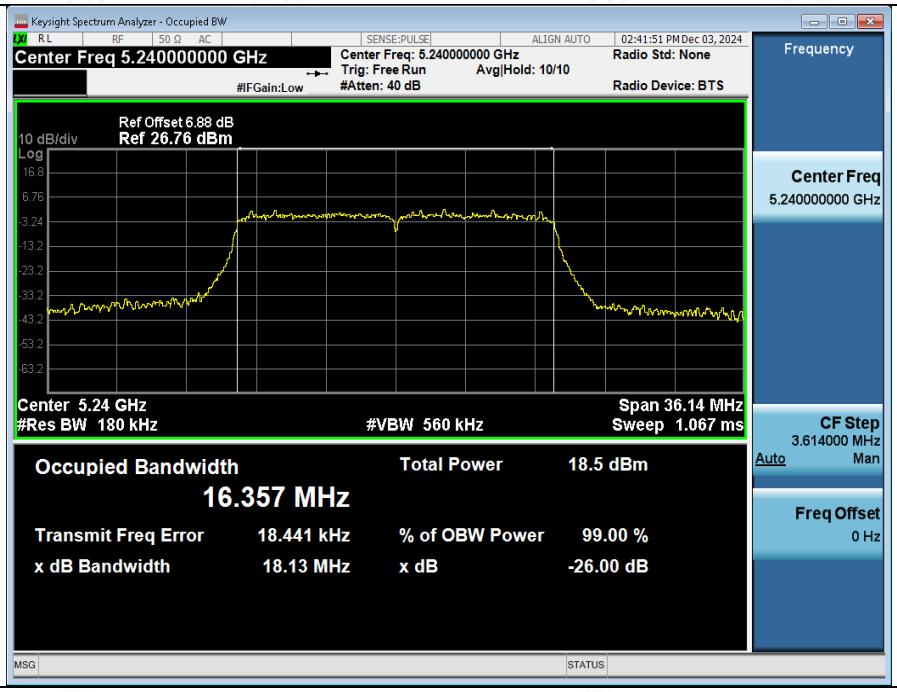

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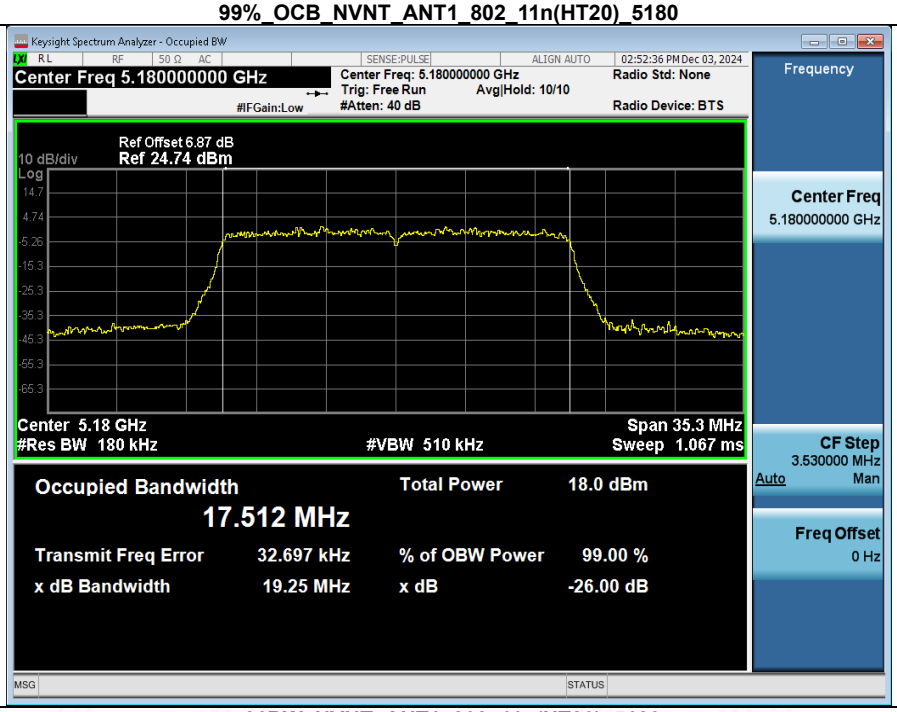

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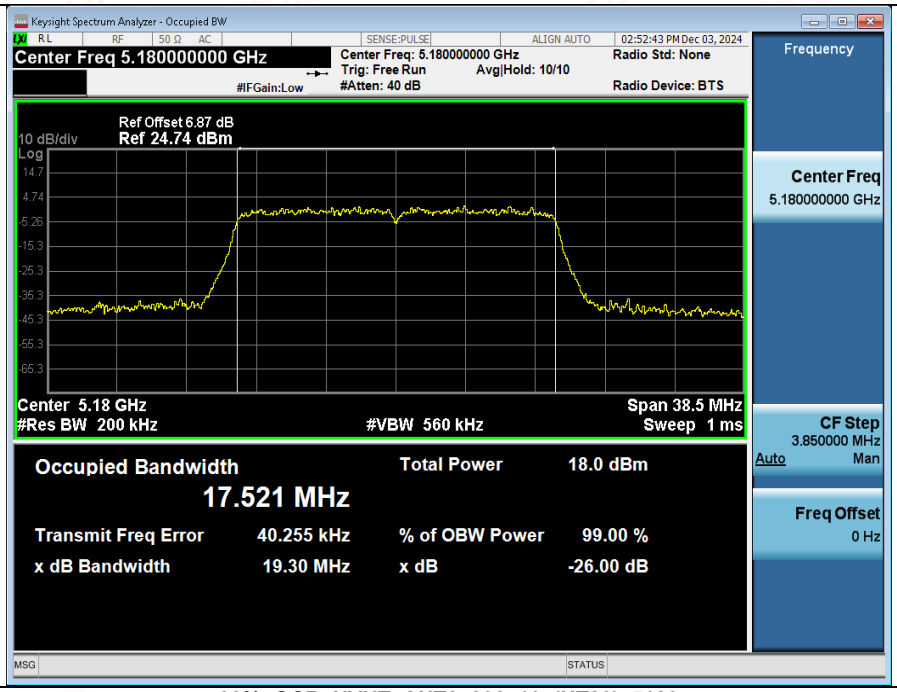

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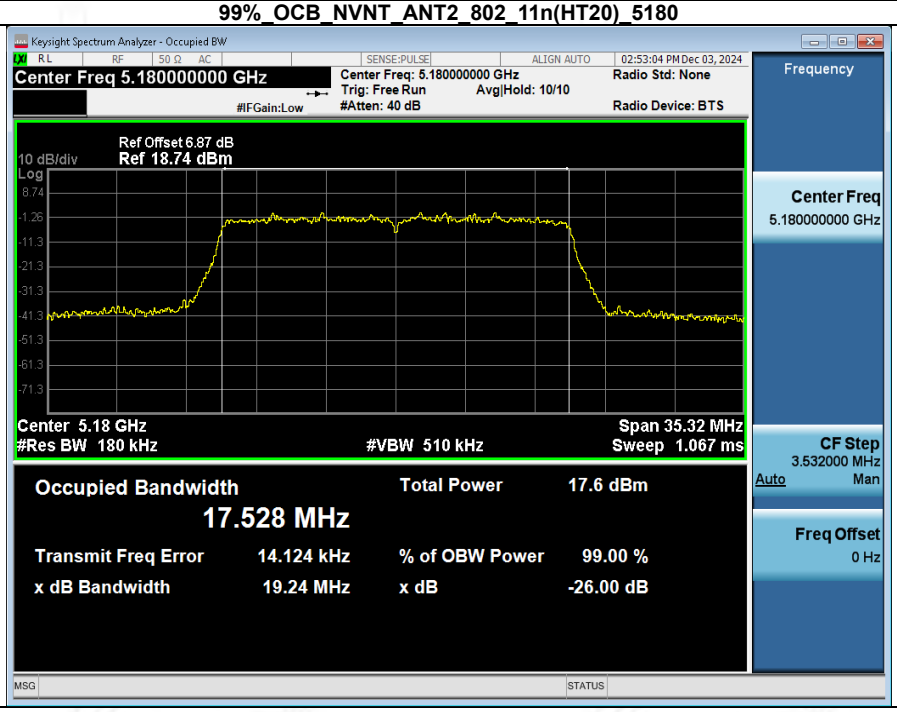

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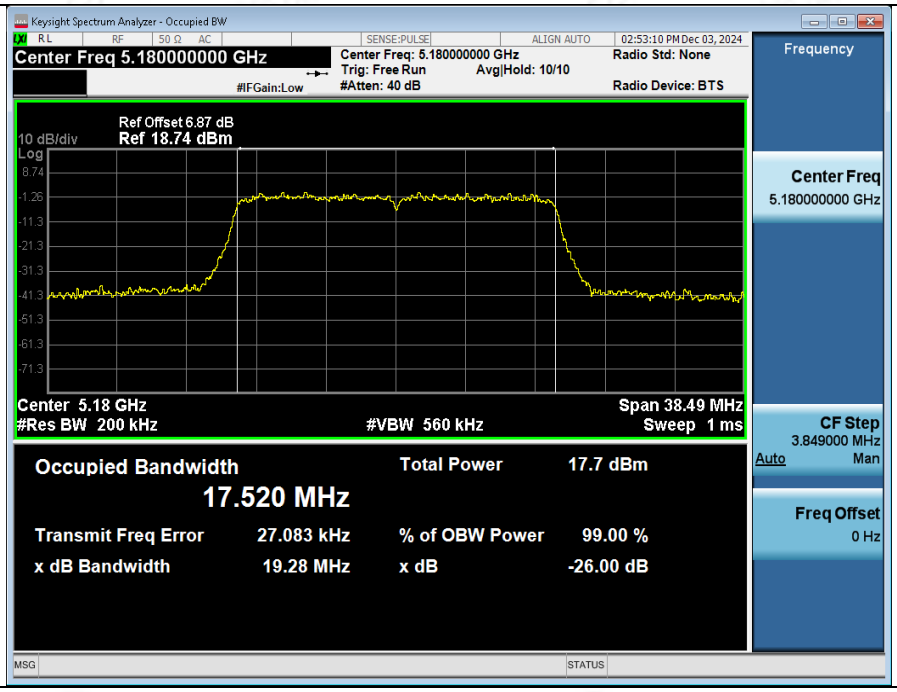

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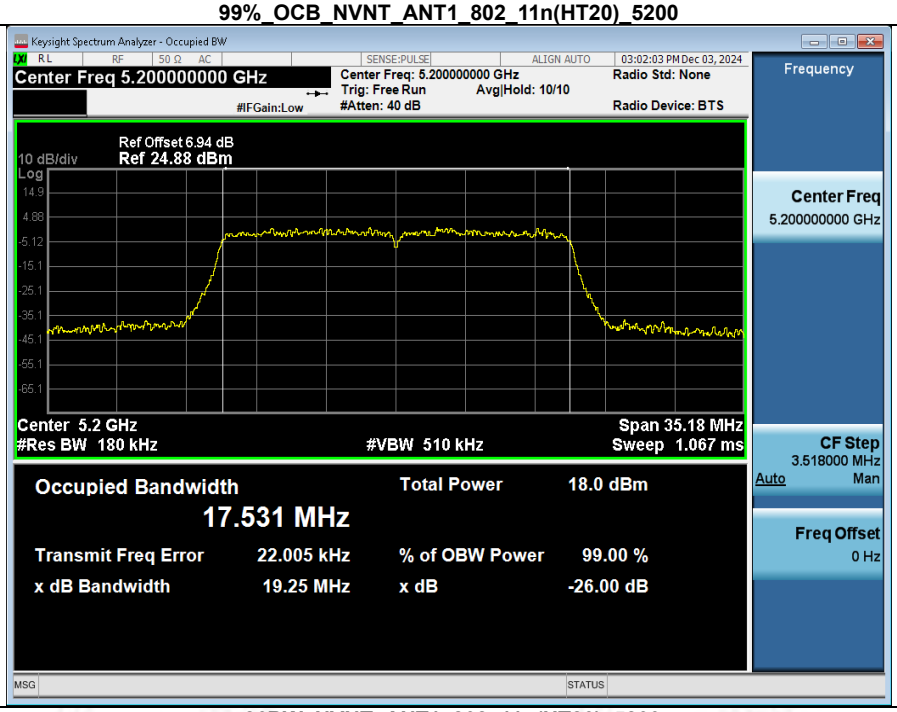

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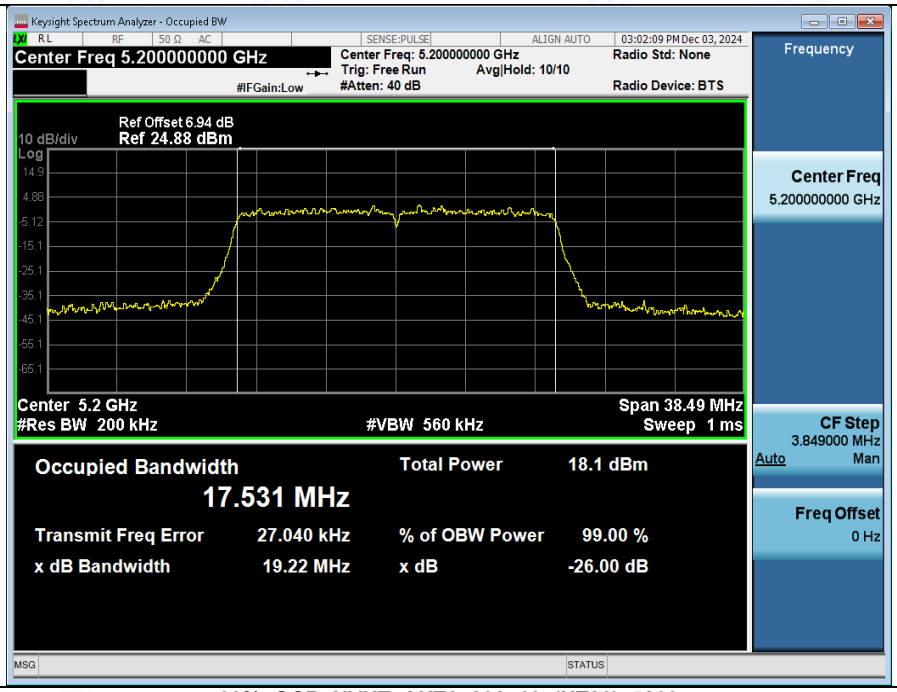

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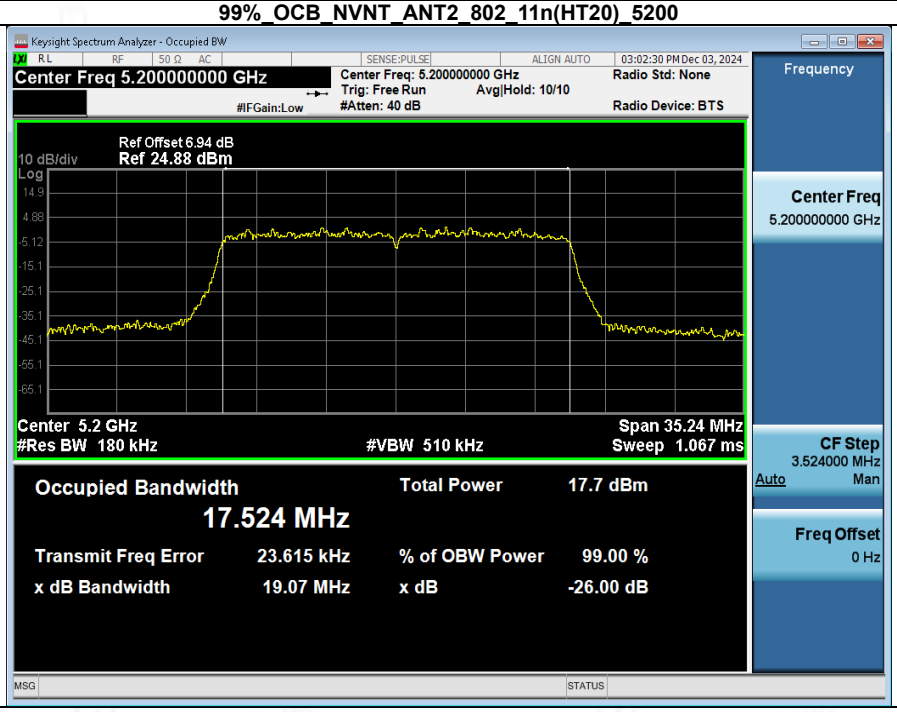

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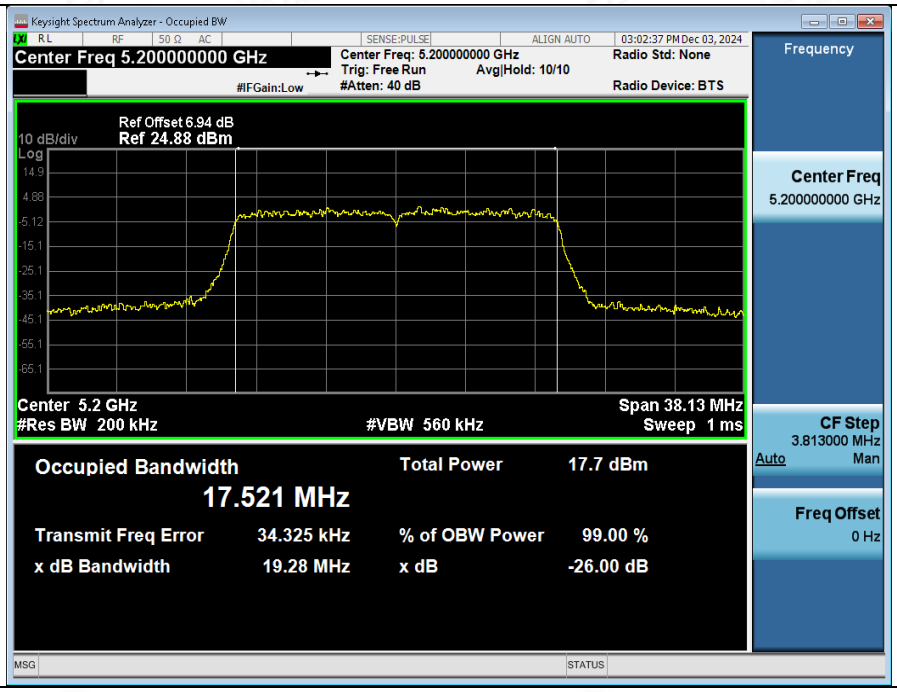

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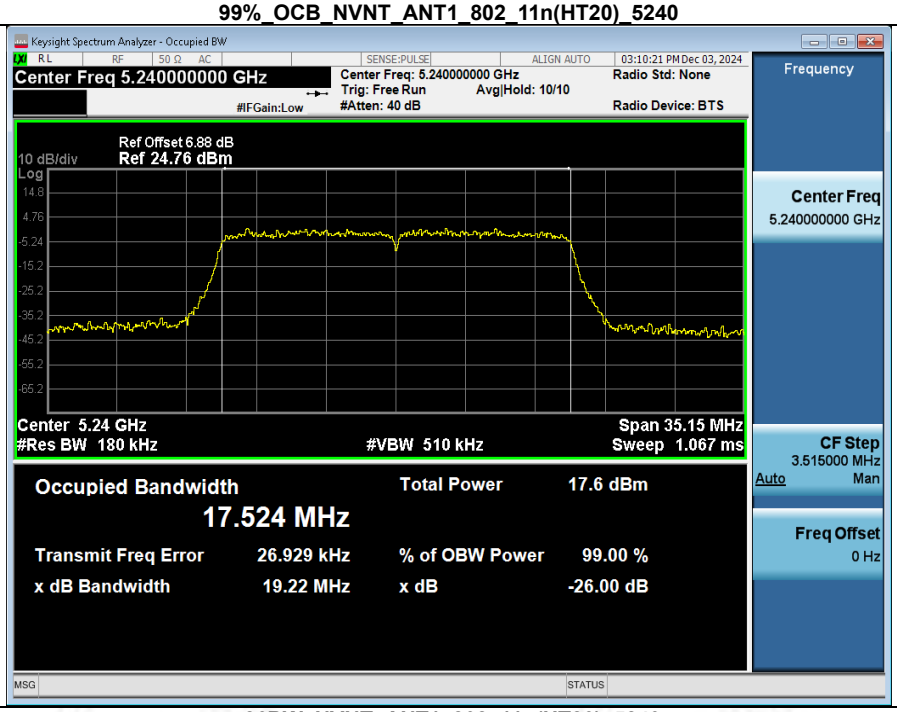

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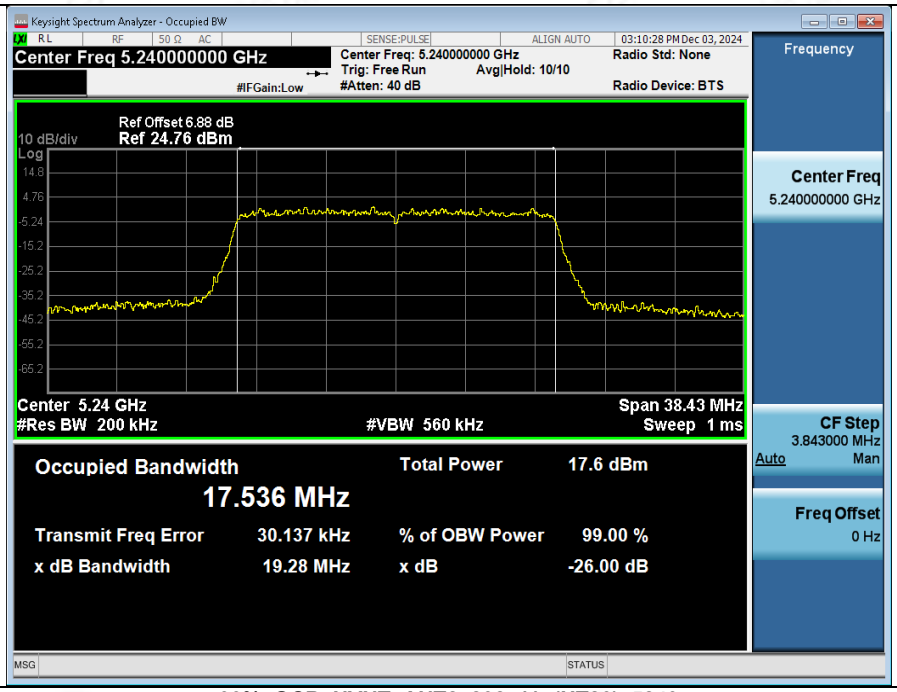

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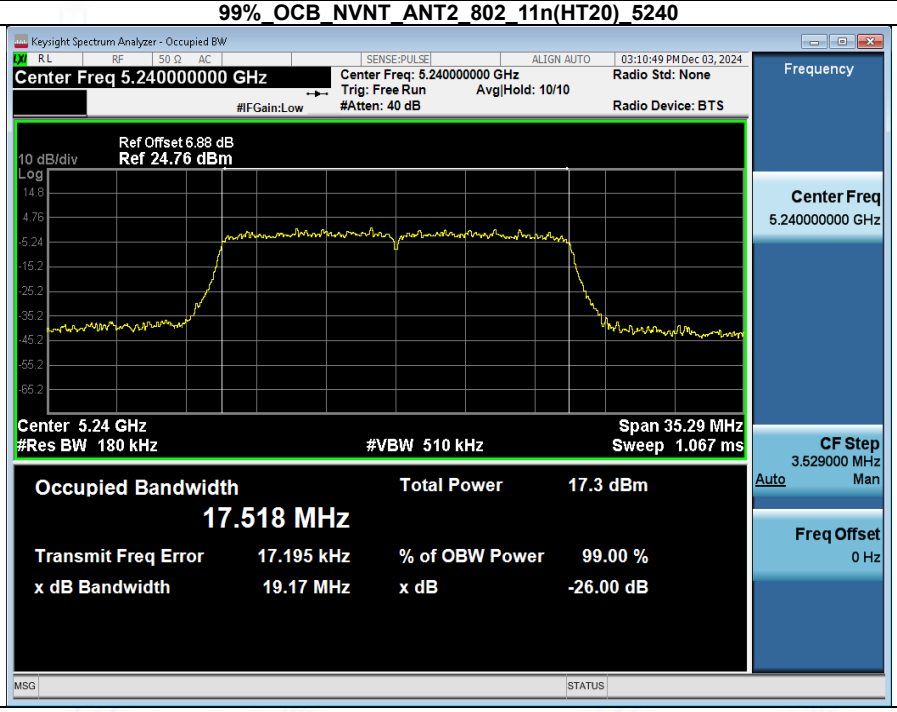

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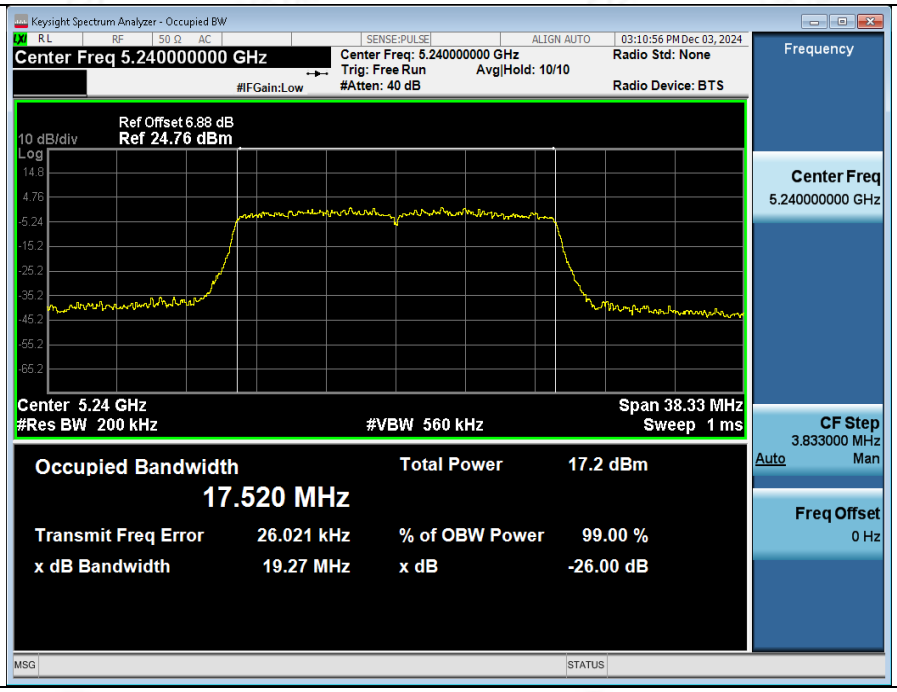

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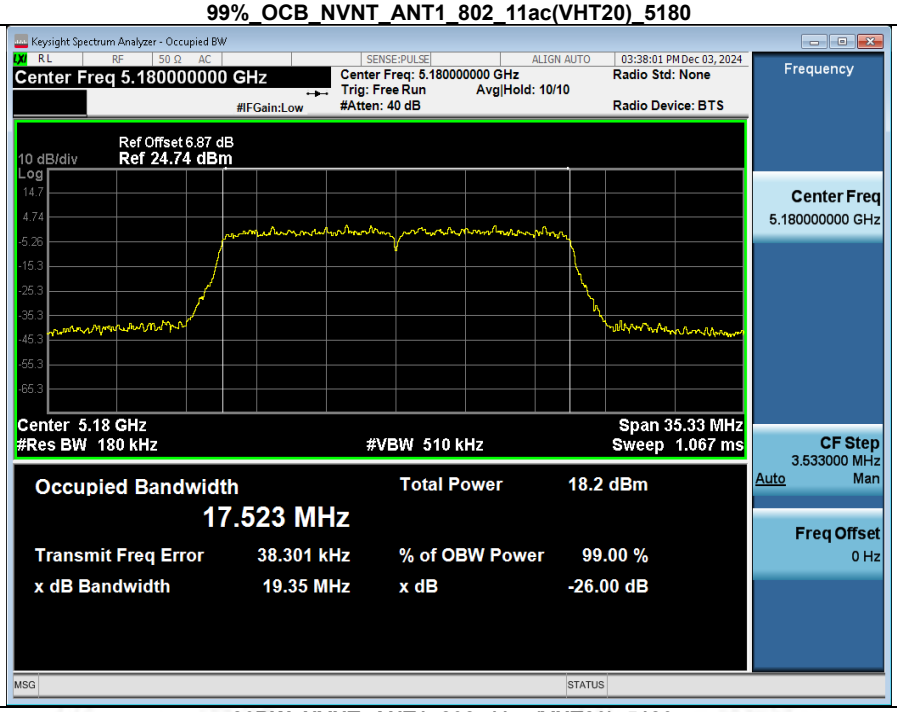

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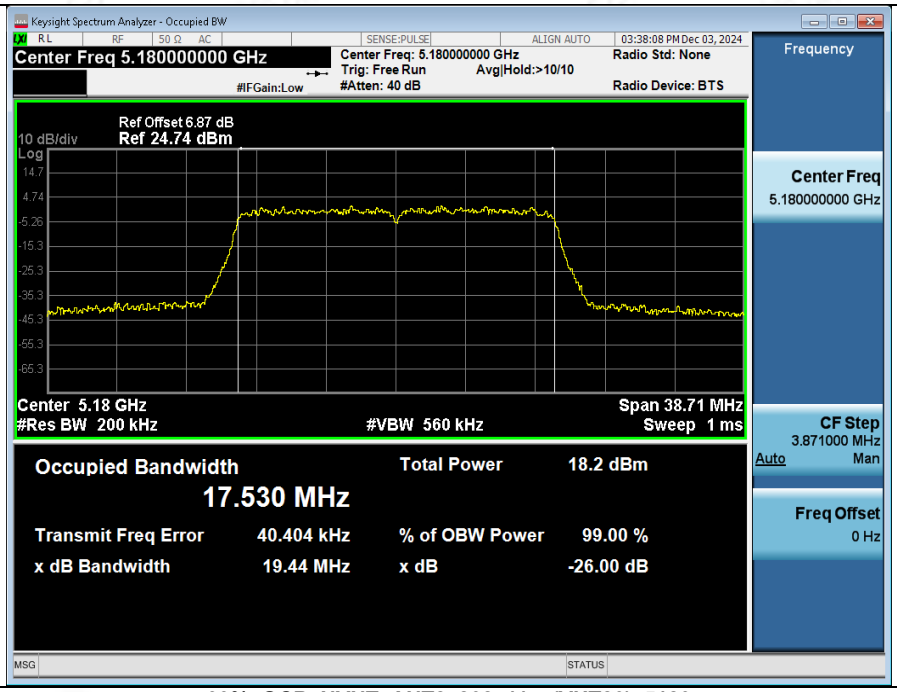

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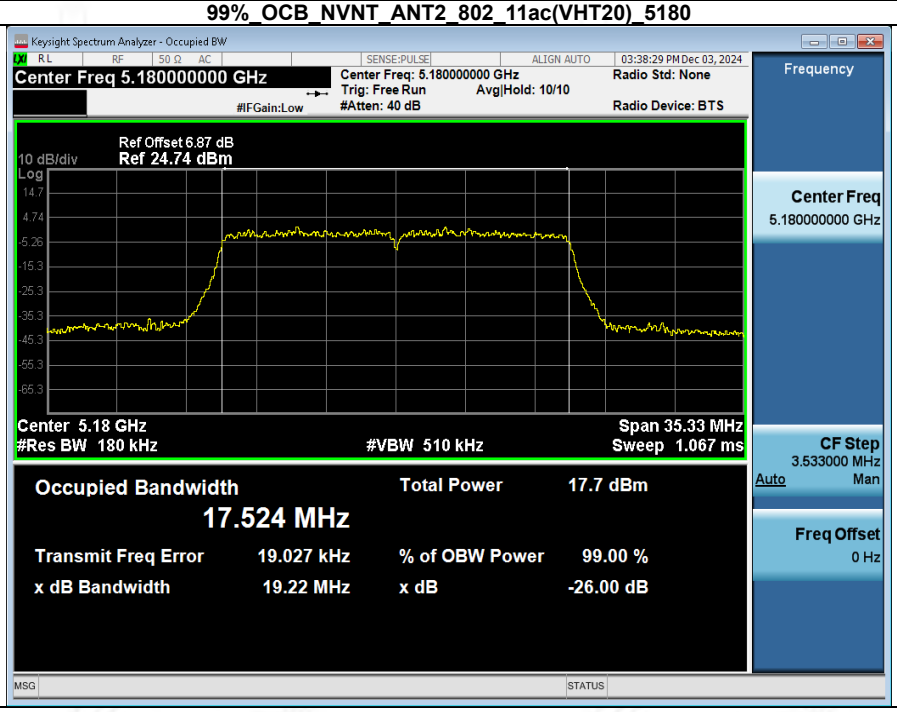

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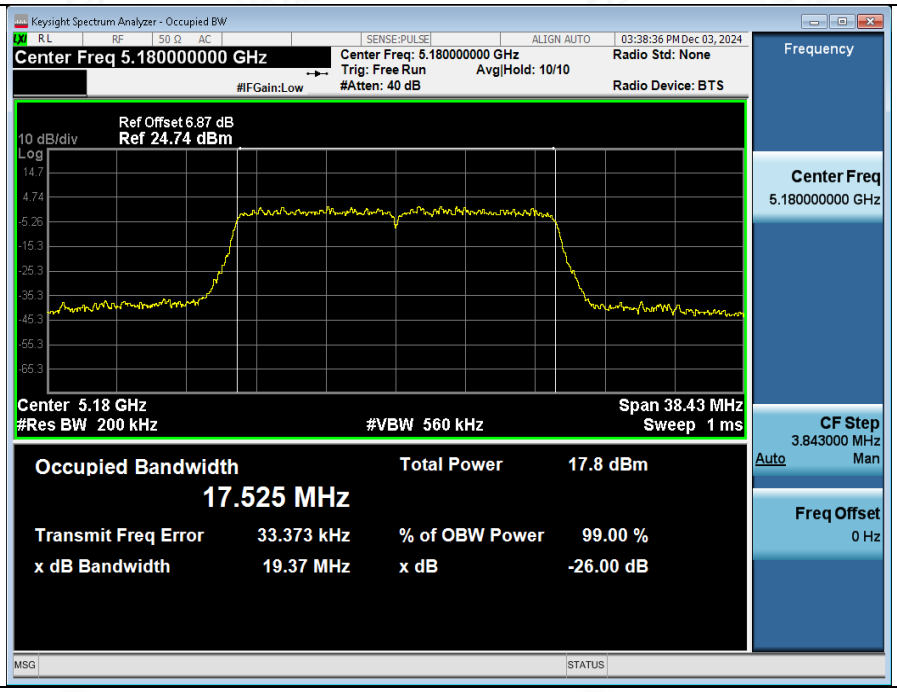

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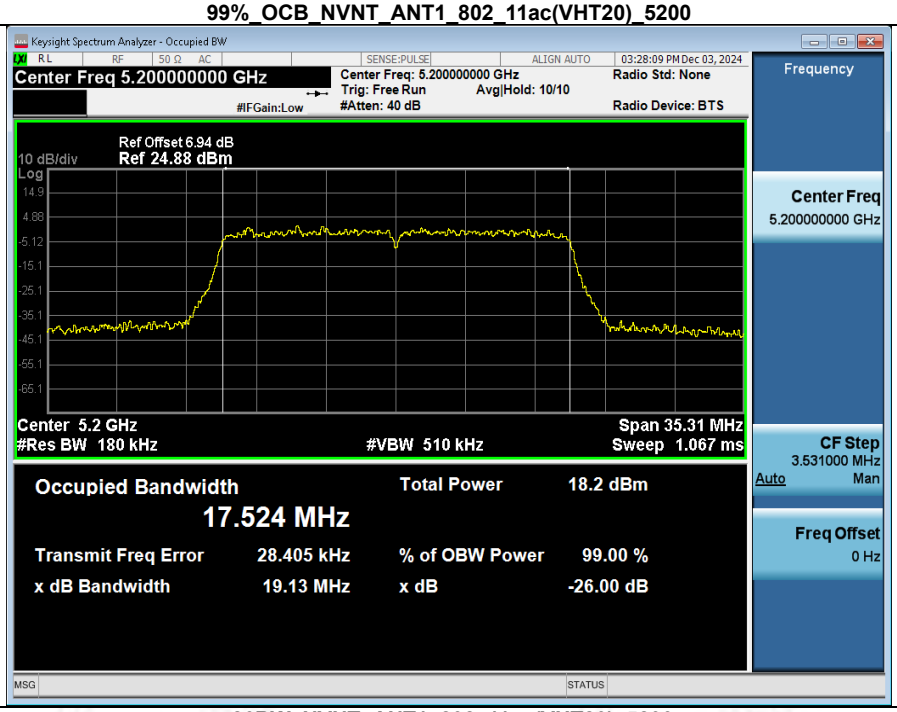

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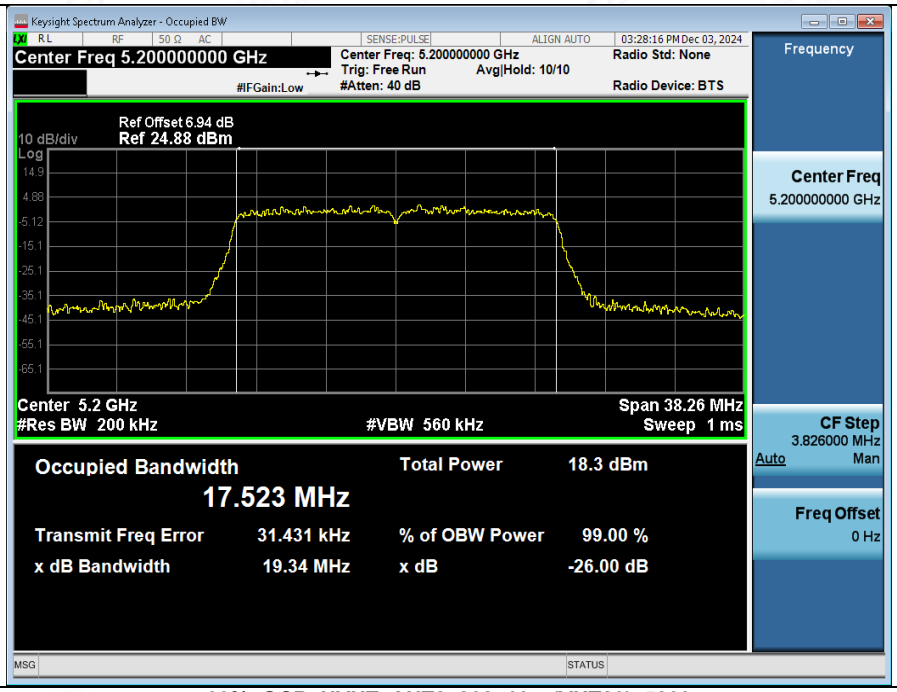

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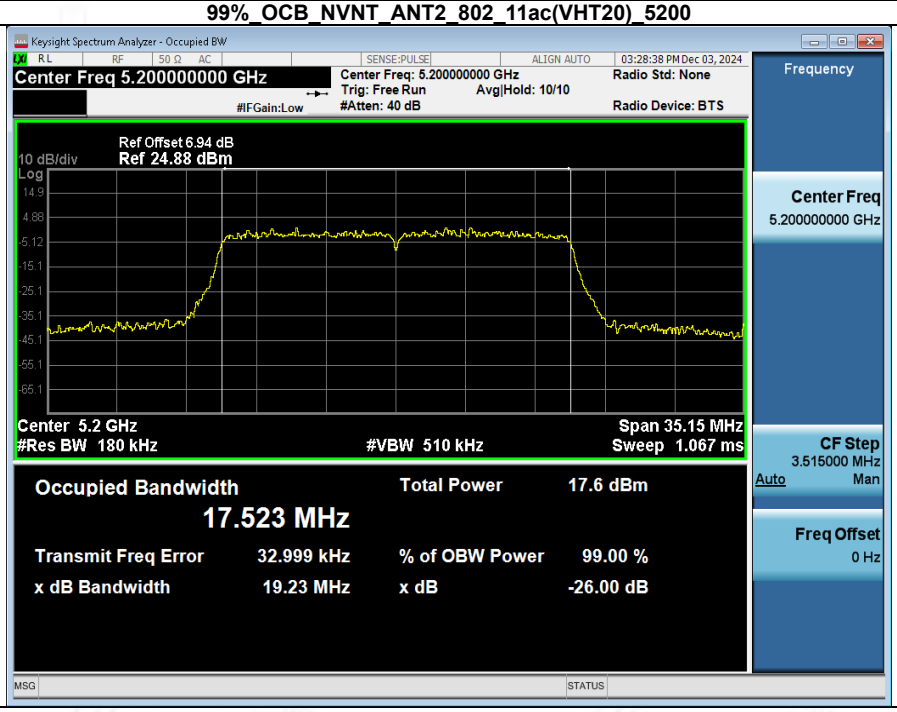

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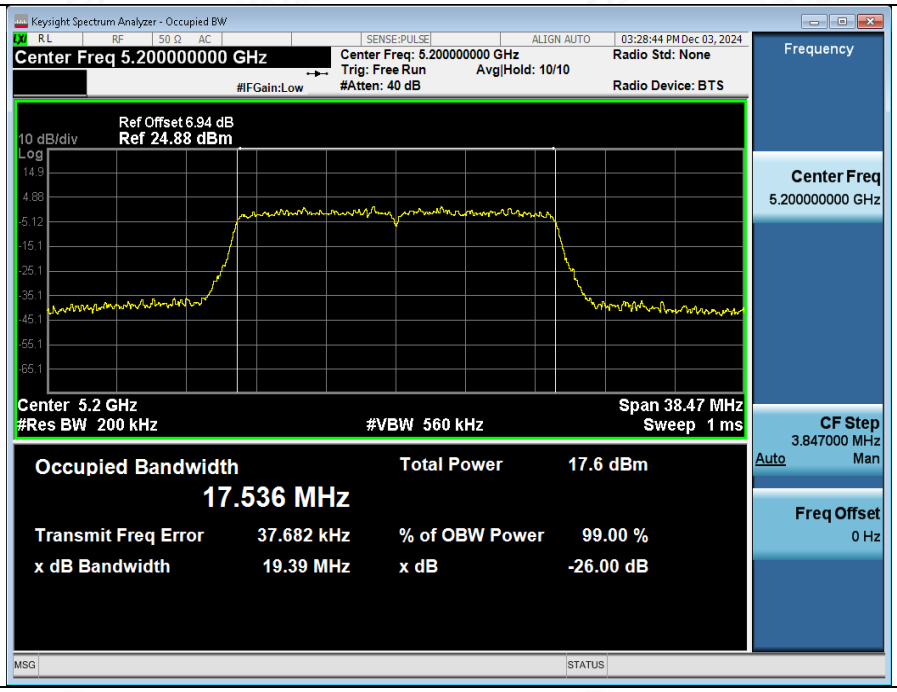

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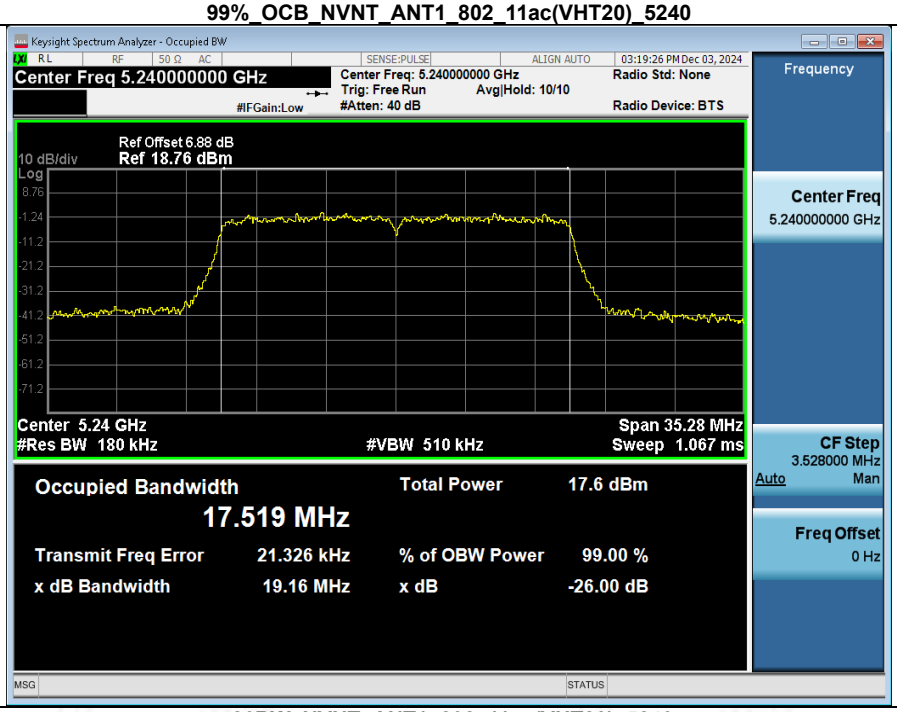

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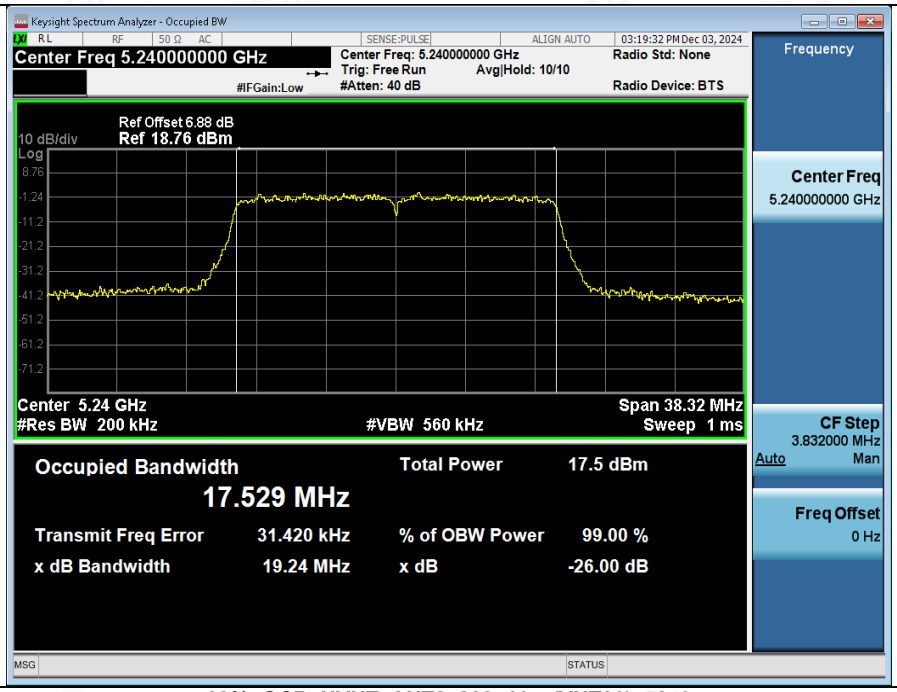

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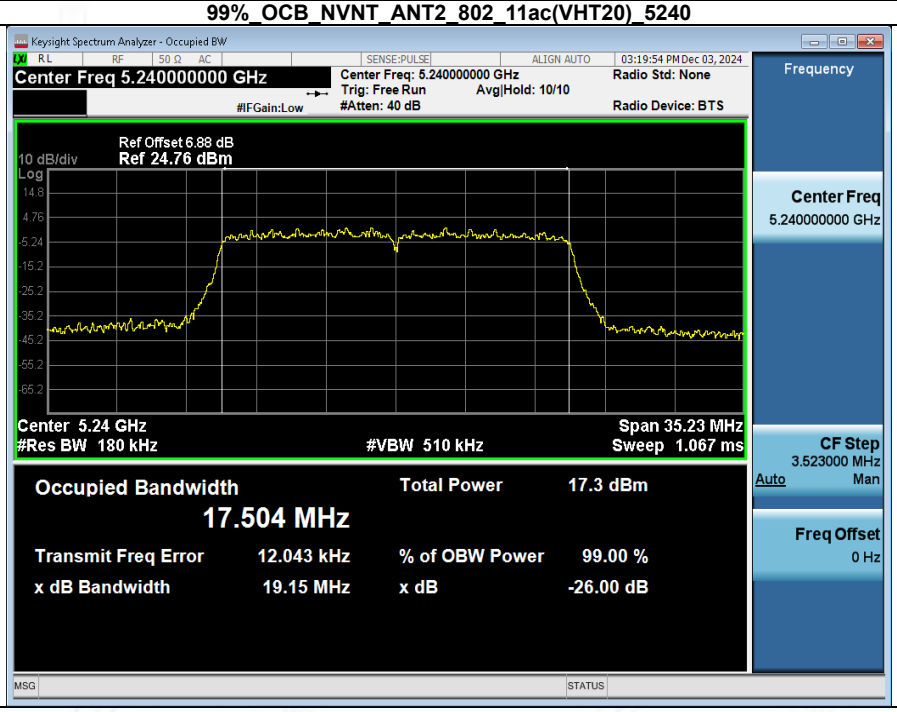

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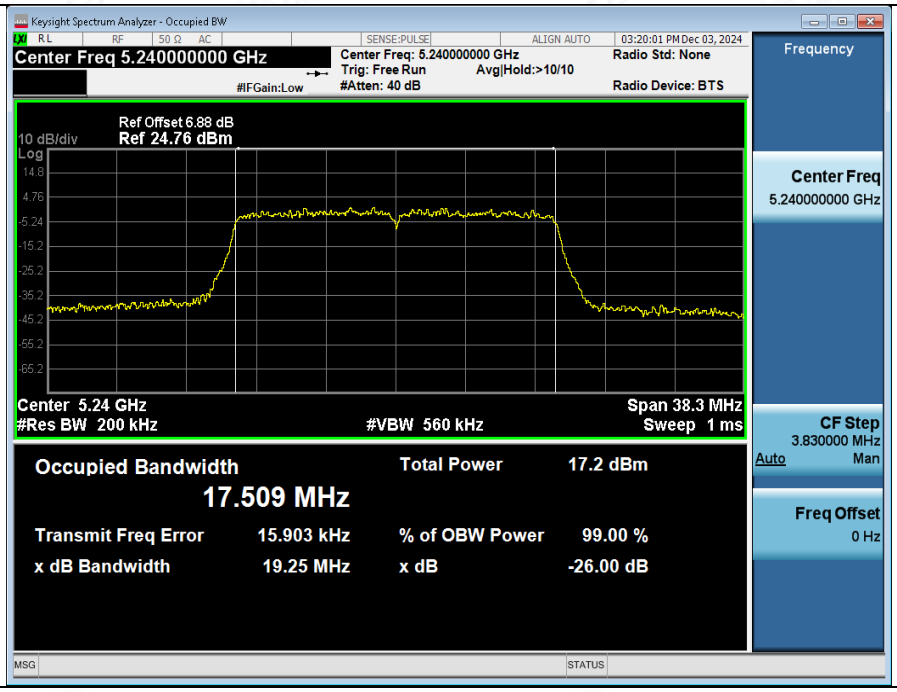

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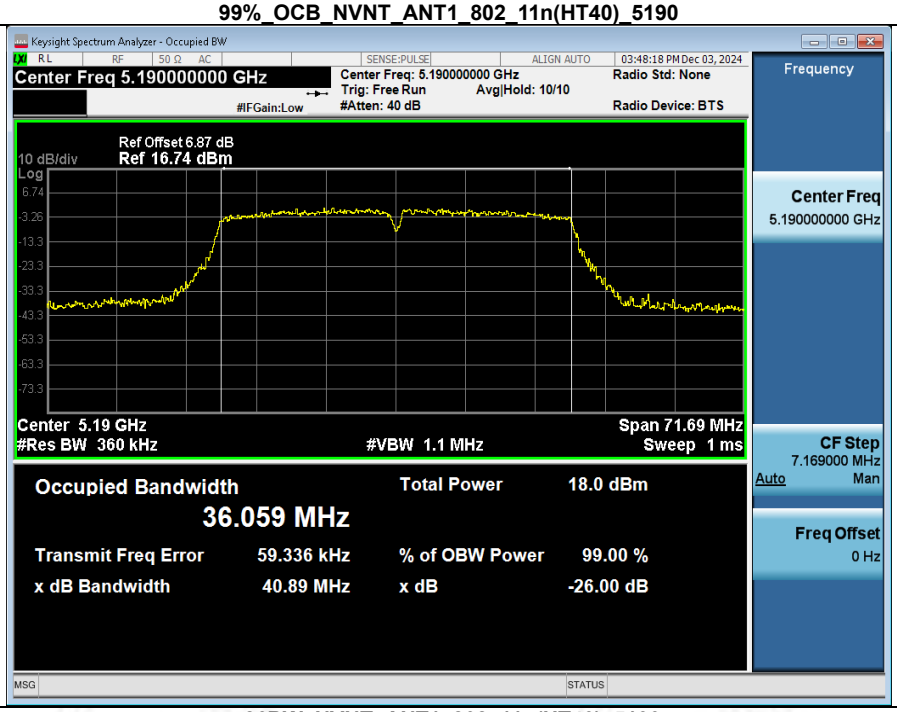

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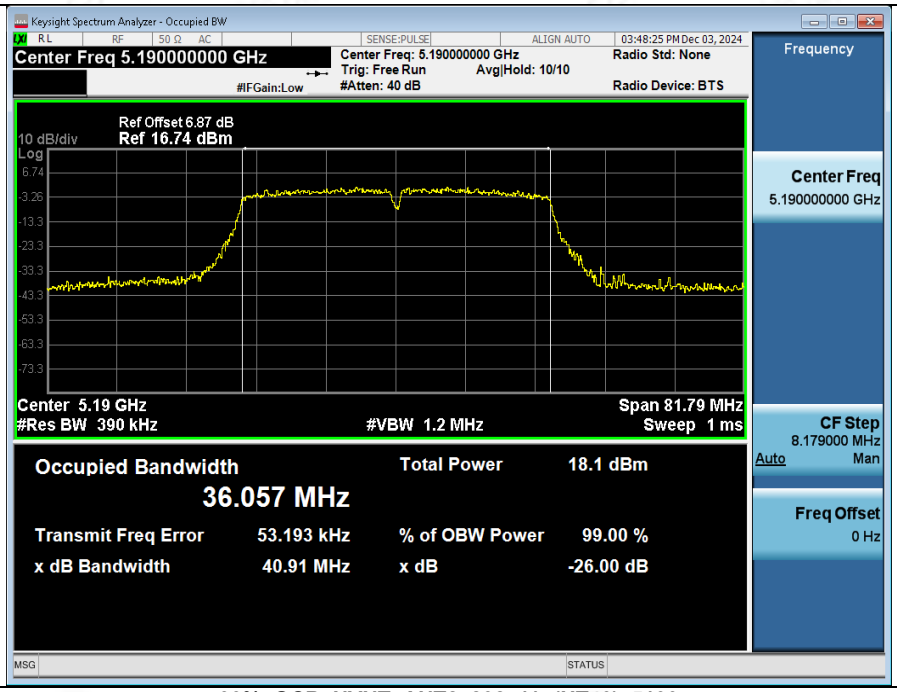

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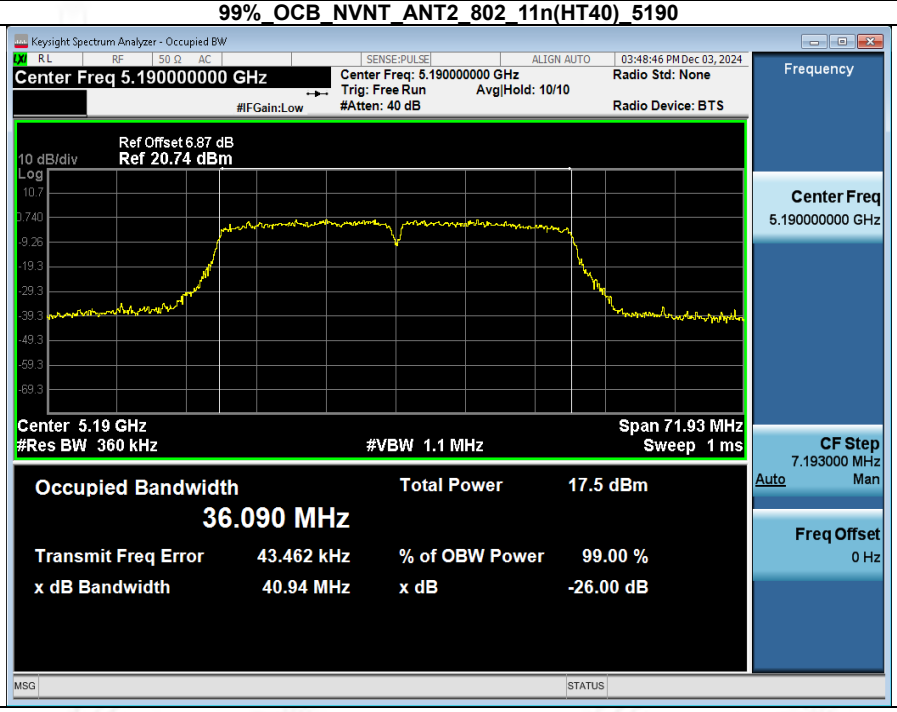

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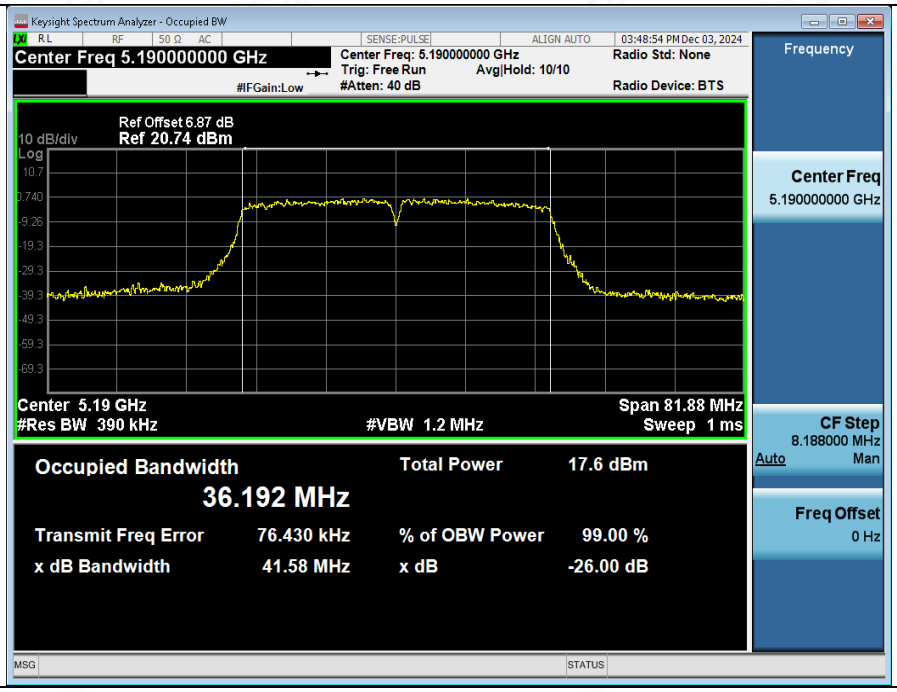

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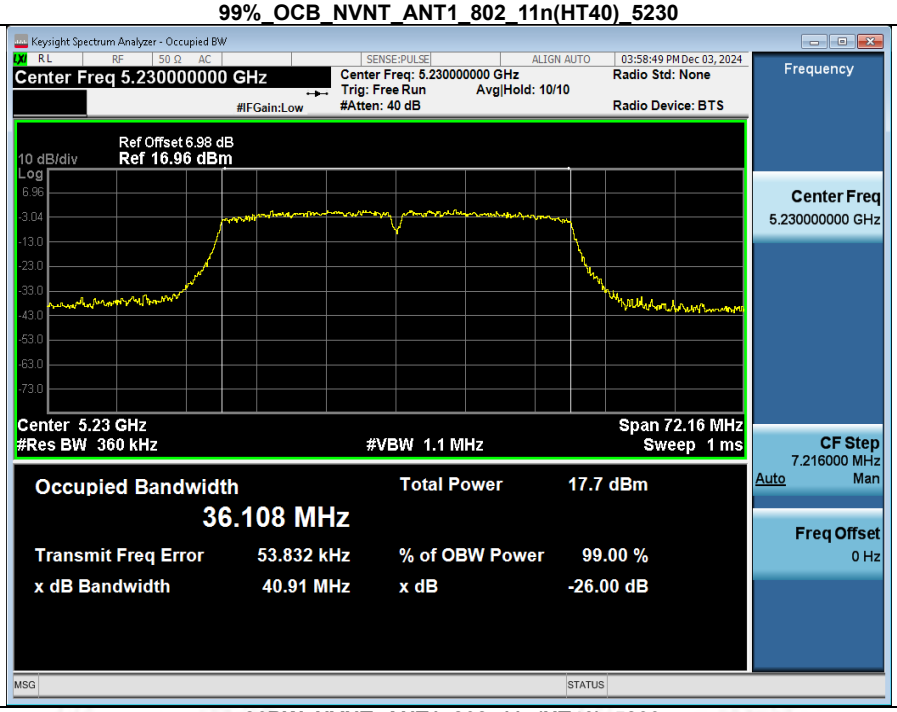

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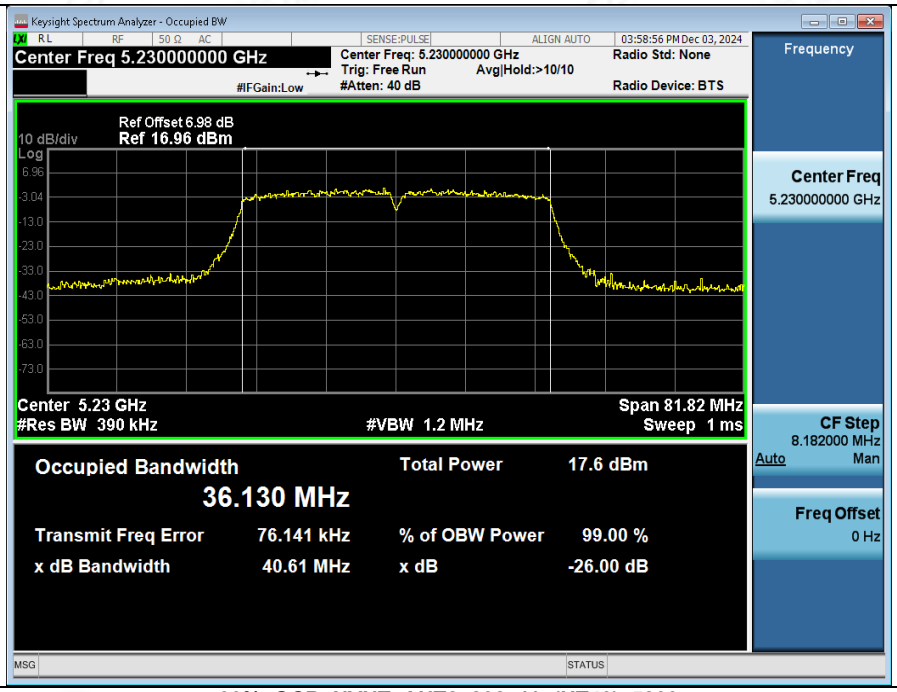

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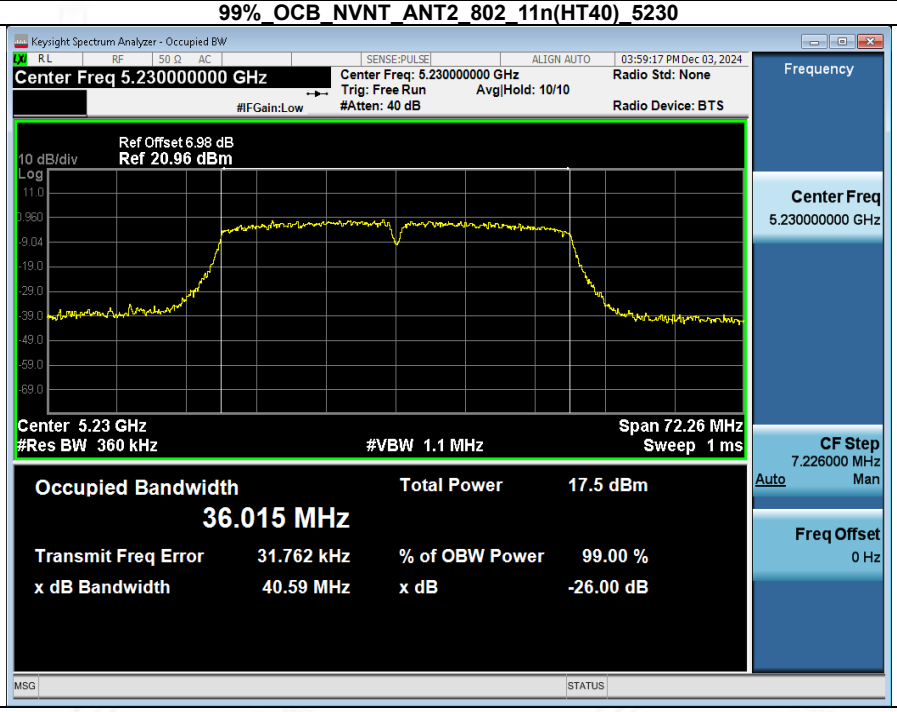

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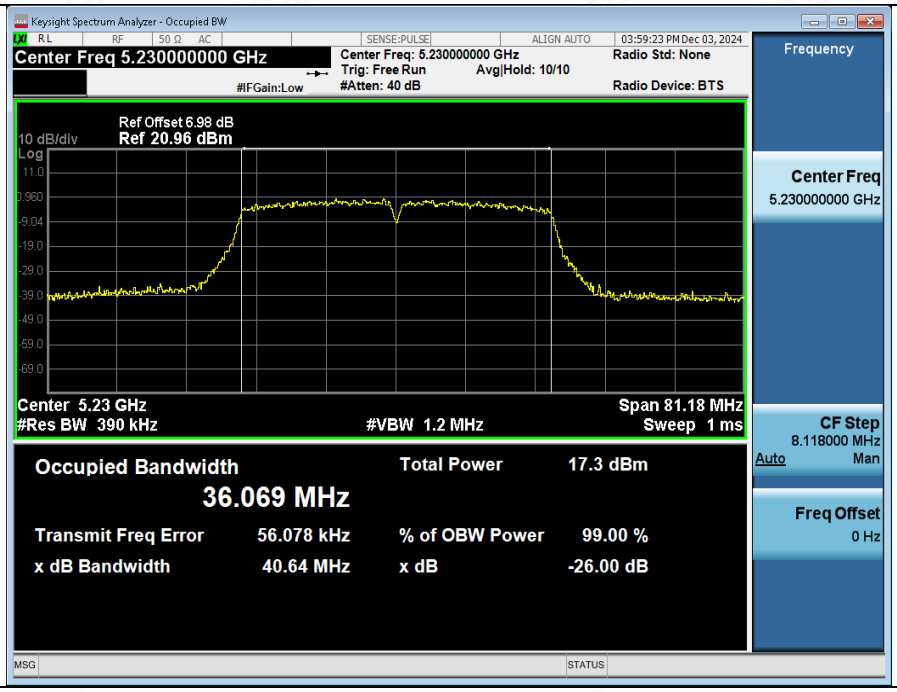
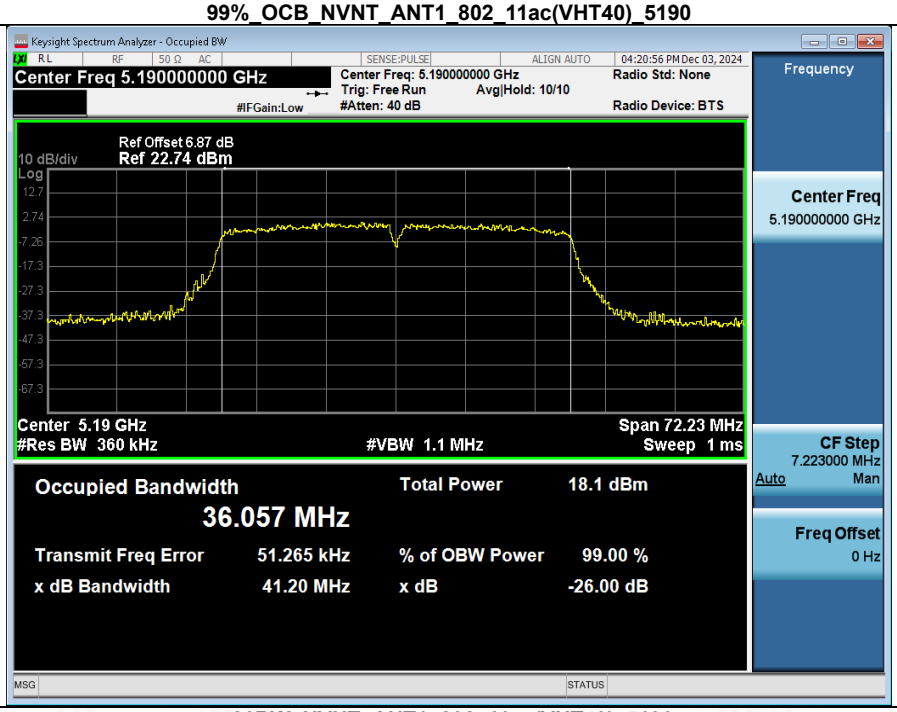


99%_OCB_NVNT_ANT1_802_11ac(VHT40)_5190



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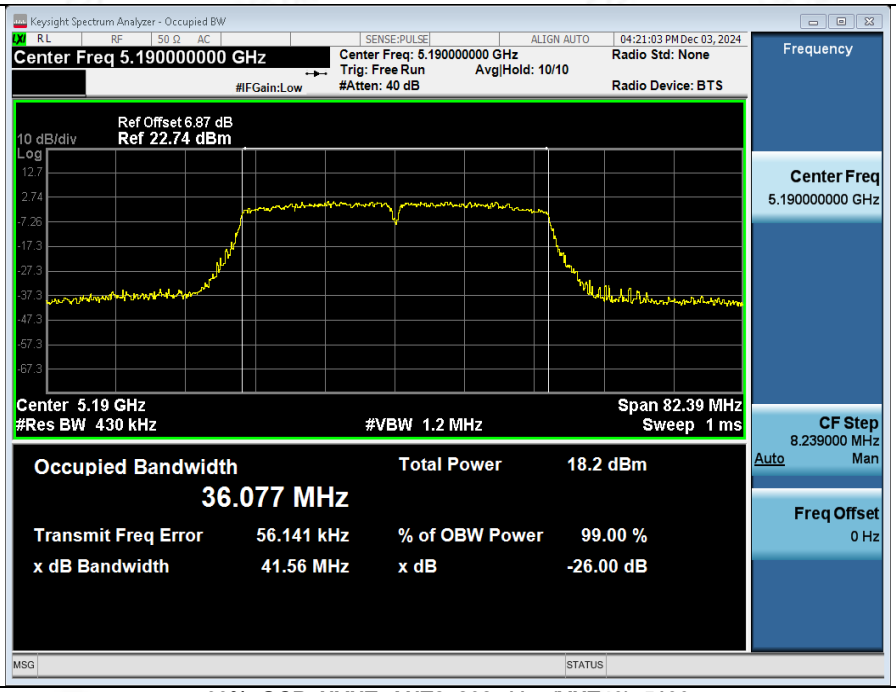

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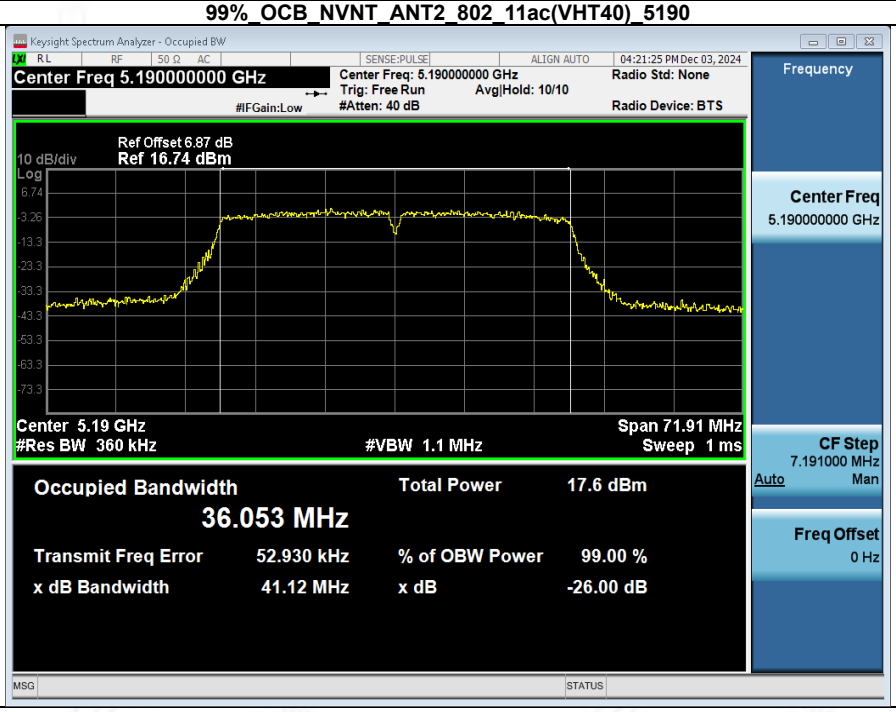

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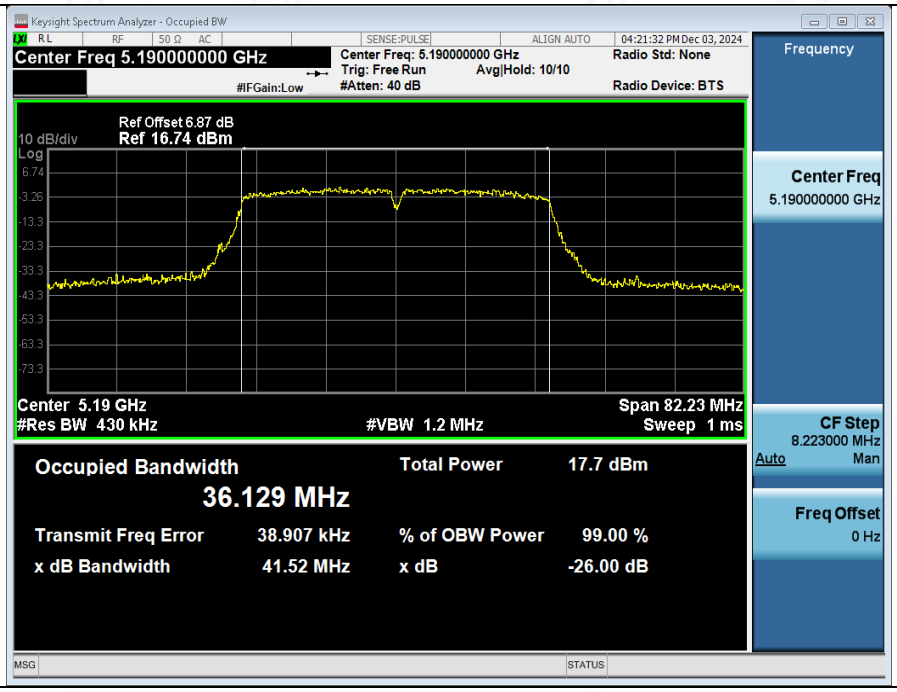
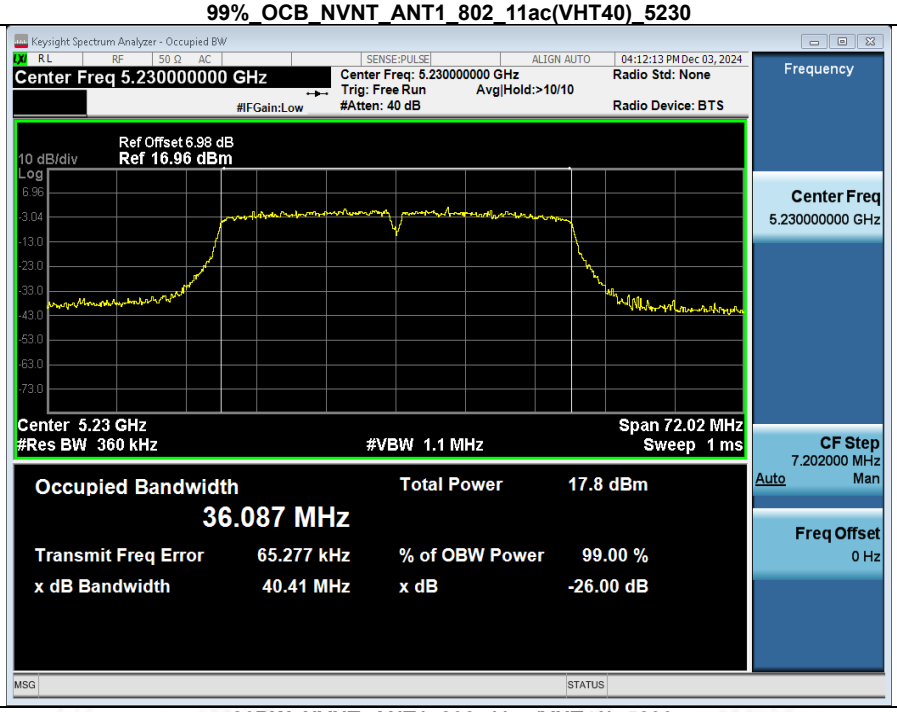


99%_OCB_NVNT_ANT1_802_11ac(VHT40)_5230



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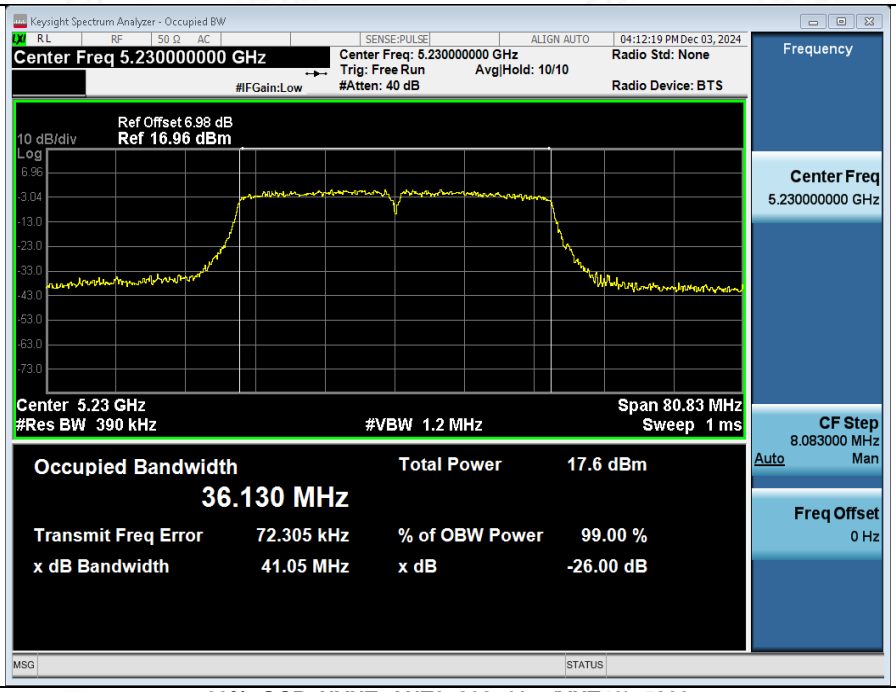

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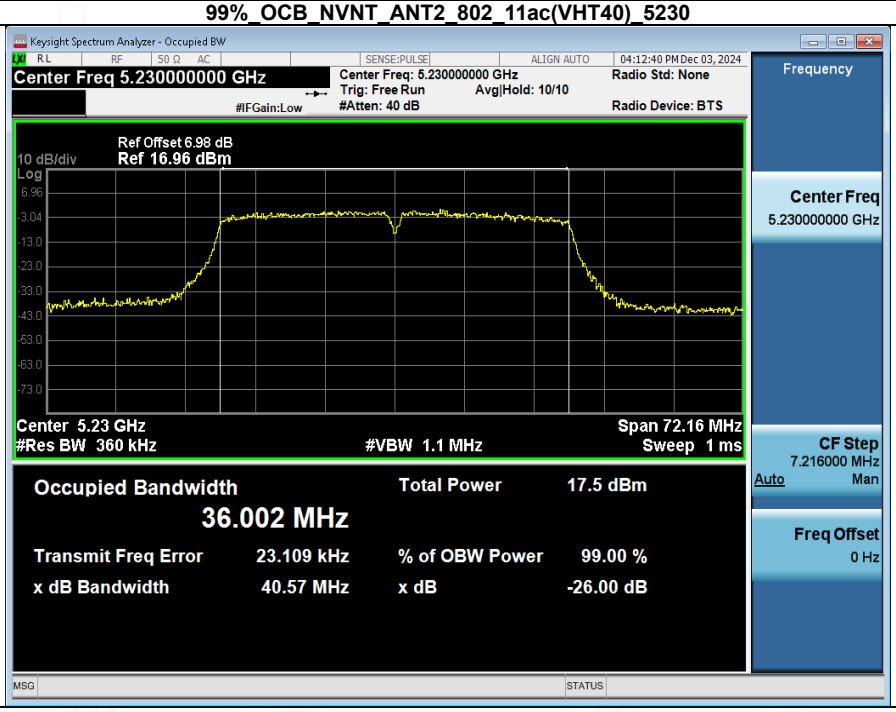
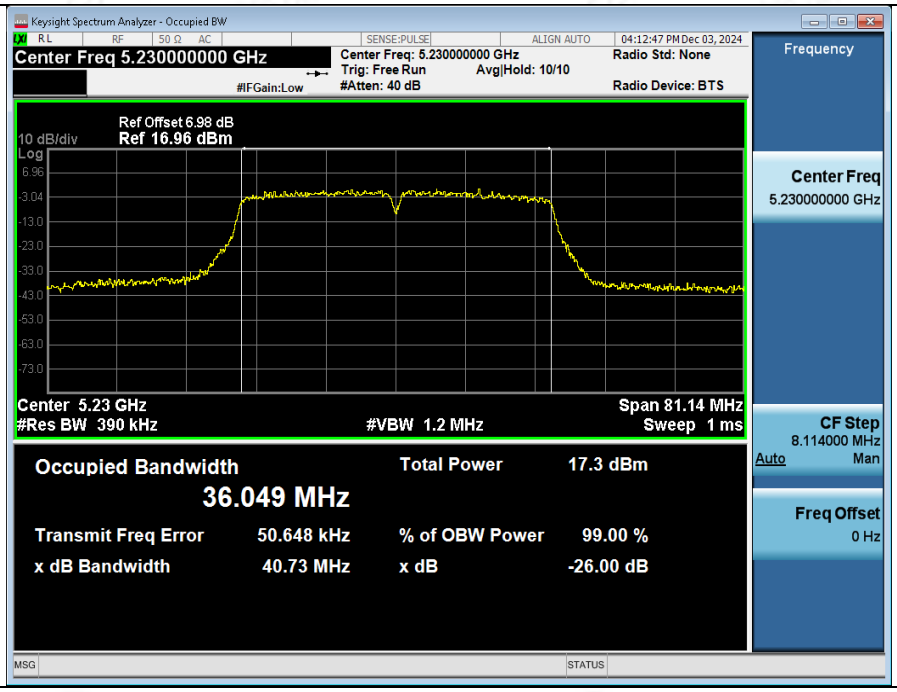
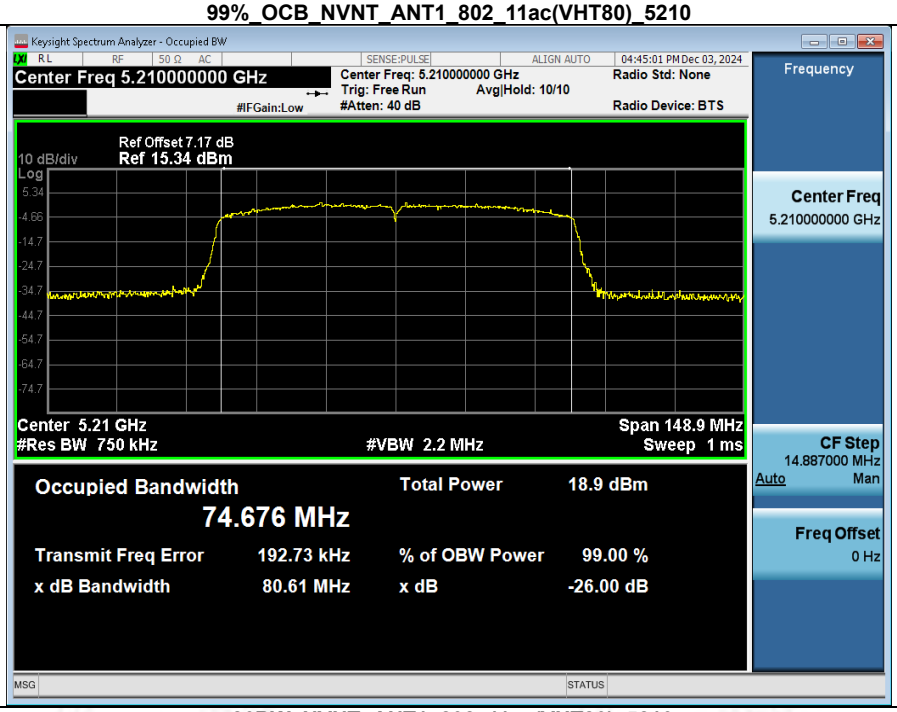


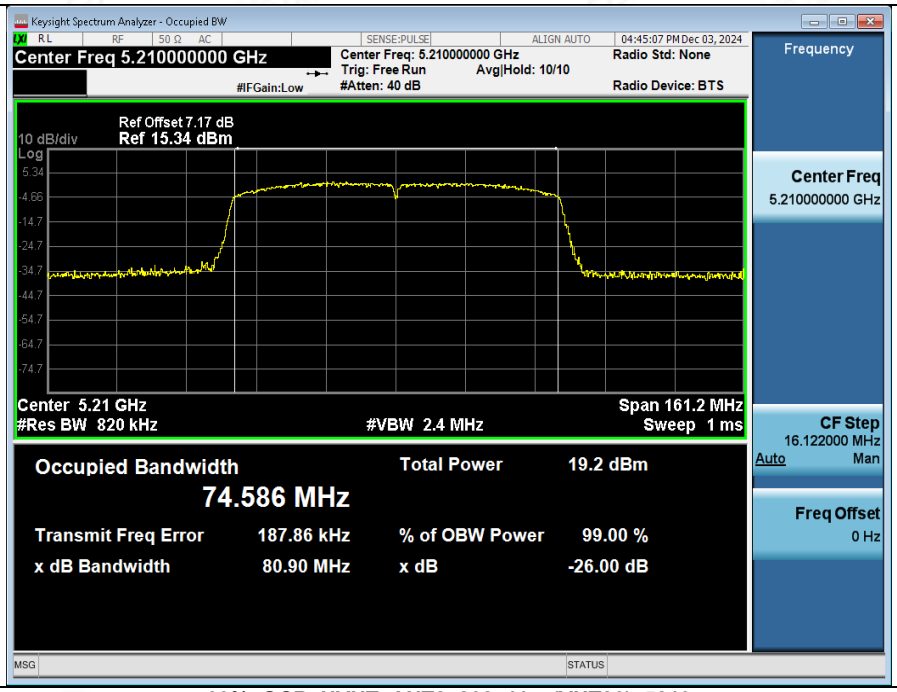
-26BW_NVNT_ANT2_802_11ac(VHT40)_5230



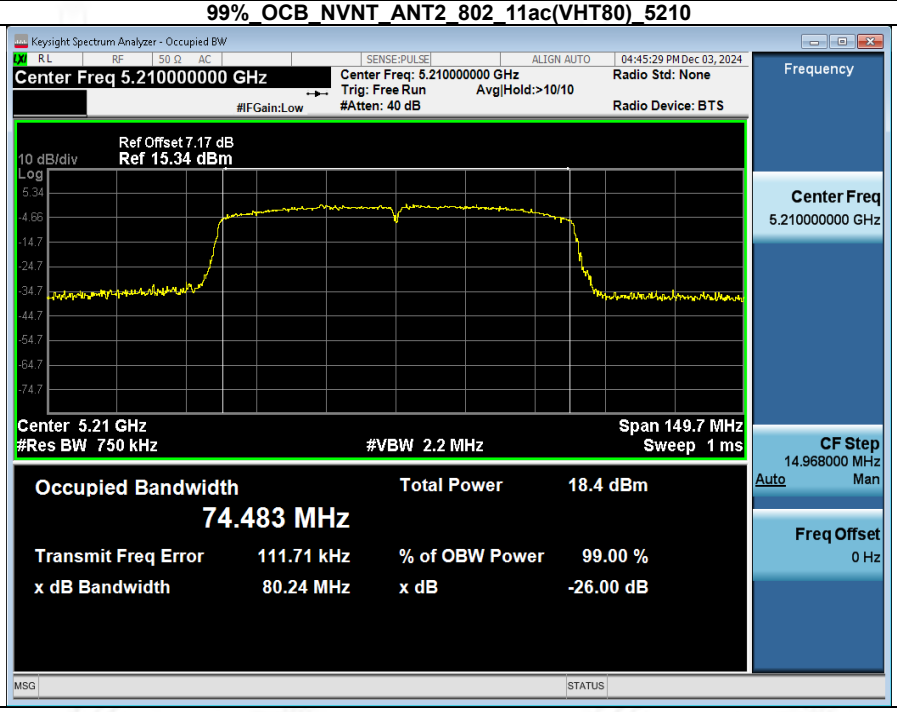
99%_OCB_NVNT_ANT1_802_11ac(VHT80)_5210



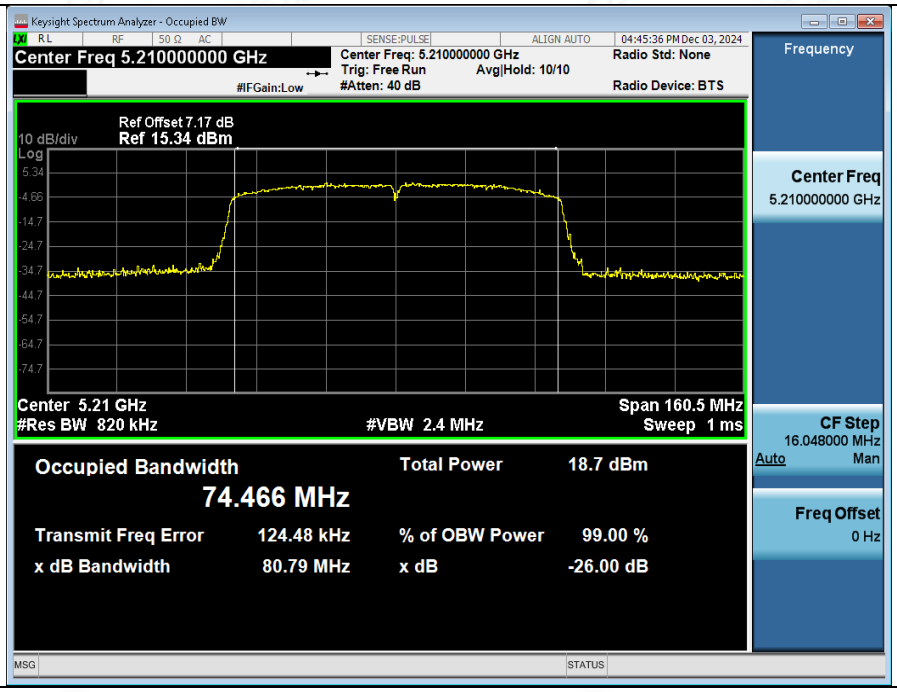
-26BW_NVNT_ANT1_802_11ac(VHT80)_5210



99%_OCB_NVNT_ANT2_802_11ac(VHT80)_5210



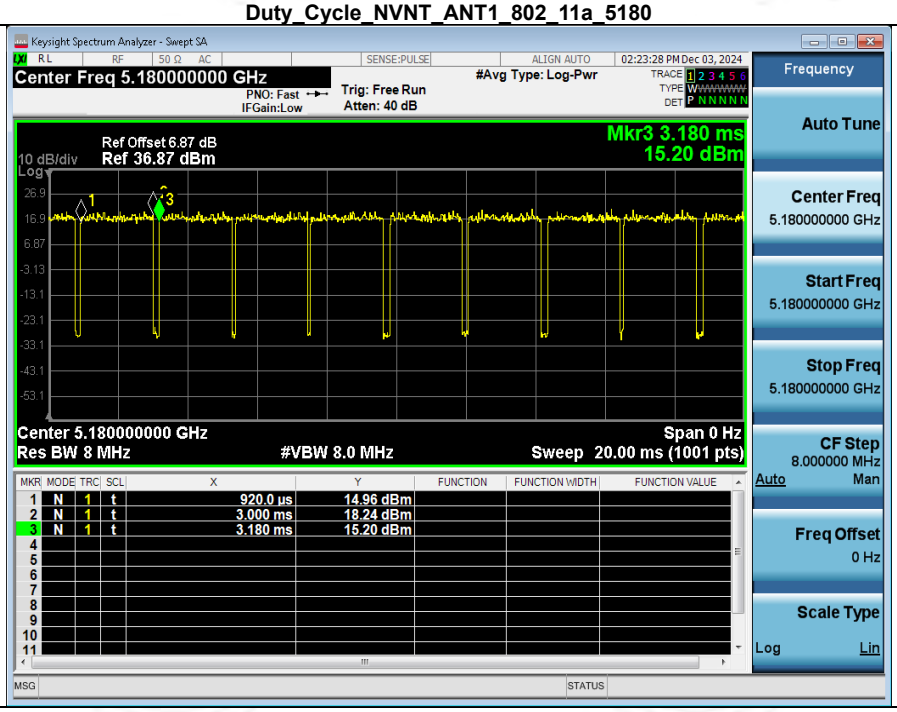
-26BW_NVNT_ANT2_802_11ac(VHT80)_5210


Keysight Spectrum Analyzer - Occupied BW
Center Freq 5.210000000 GHz
Center Freq: 5.210000000 GHz
Trig: Free Run
Avg|Hold: 10/10
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 7.17 dB
10 dB/div
Ref 15.34 dBm
Center Freq
5.210000000 GHz
Center 5.21 GHz
#Res BW 820 kHz
#VBW 2.4 MHz
Span 160.5 MHz
Sweep 1 ms
CF Step
16.048000 MHz
Auto
Man
Occupied Bandwidth
74.466 MHz
Total Power 18.7 dBm
Transmit Freq Error 124.48 kHz
% of OBW Power 99.00 %
x dB Bandwidth 80.79 MHz
x dB -26.00 dB
Freq Offset
0 Hz

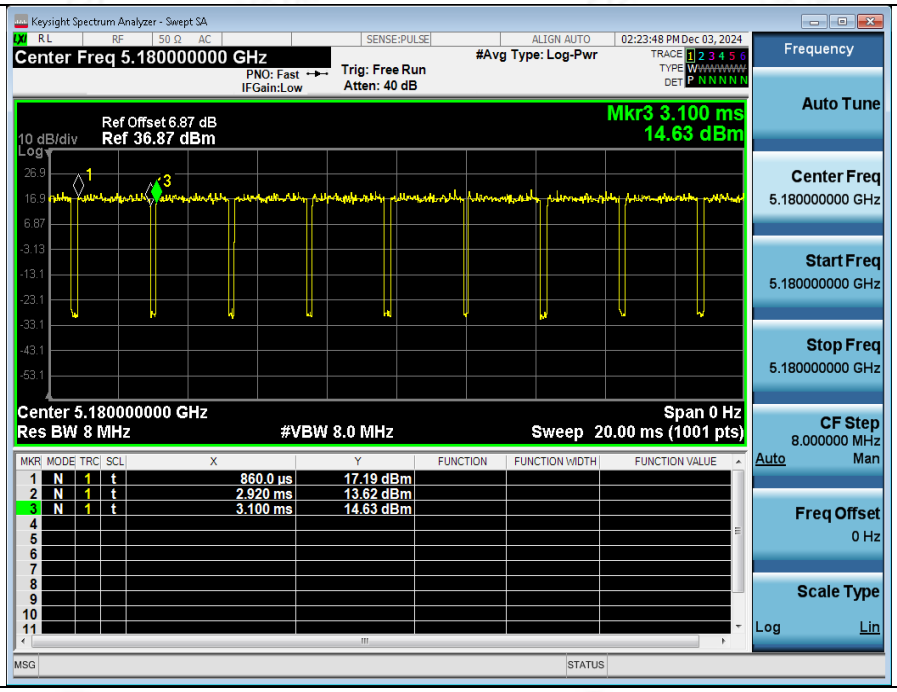
2. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty_factor
NVNT	ANT1	802.11a	5180.00	92.04	0.36
NVNT	ANT2	802.11a	5180.00	91.96	0.36
NVNT	ANT1	802.11a	5200.00	93.64	0.29
NVNT	ANT2	802.11a	5200.00	95.37	0.21
NVNT	ANT1	802.11a	5240.00	93.64	0.29
NVNT	ANT2	802.11a	5240.00	93.64	0.29
NVNT	ANT1	802.11n(HT20)	5180.00	92.31	0.35
NVNT	ANT2	802.11n(HT20)	5180.00	94.12	0.26
NVNT	ANT1	802.11n(HT20)	5200.00	92.31	0.35
NVNT	ANT2	802.11n(HT20)	5200.00	93.20	0.31
NVNT	ANT1	802.11n(HT20)	5240.00	90.57	0.43
NVNT	ANT2	802.11n(HT20)	5240.00	92.31	0.35
NVNT	ANT1	802.11ac(VHT20)	5180.00	92.38	0.34
NVNT	ANT2	802.11ac(VHT20)	5180.00	92.38	0.34
NVNT	ANT1	802.11ac(VHT20)	5200.00	90.65	0.43
NVNT	ANT2	802.11ac(VHT20)	5200.00	89.81	0.47
NVNT	ANT1	802.11ac(VHT20)	5240.00	94.17	0.26
NVNT	ANT2	802.11ac(VHT20)	5240.00	94.12	0.26
NVNT	ANT1	802.11n(HT40)	5190.00	81.03	0.91
NVNT	ANT2	802.11n(HT40)	5190.00	82.46	0.84
NVNT	ANT1	802.11n(HT40)	5230.00	87.04	0.60
NVNT	ANT2	802.11n(HT40)	5230.00	90.38	0.44
NVNT	ANT1	802.11ac(VHT40)	5190.00	80.00	0.97
NVNT	ANT2	802.11ac(VHT40)	5190.00	81.03	0.91
NVNT	ANT1	802.11ac(VHT40)	5230.00	85.71	0.67
NVNT	ANT2	802.11ac(VHT40)	5230.00	82.76	0.82
NVNT	ANT1	802.11ac(VHT80)	5210.00	69.70	1.57
NVNT	ANT2	802.11ac(VHT80)	5210.00	63.89	1.95

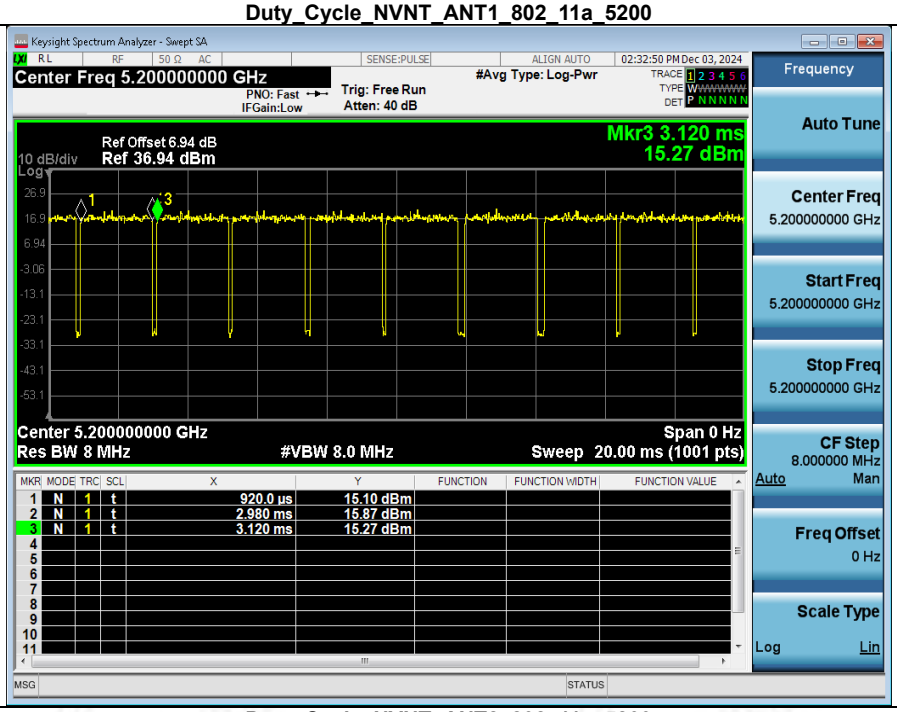
Duty_Cycle_NVNT_ANT1_802_11a_5180



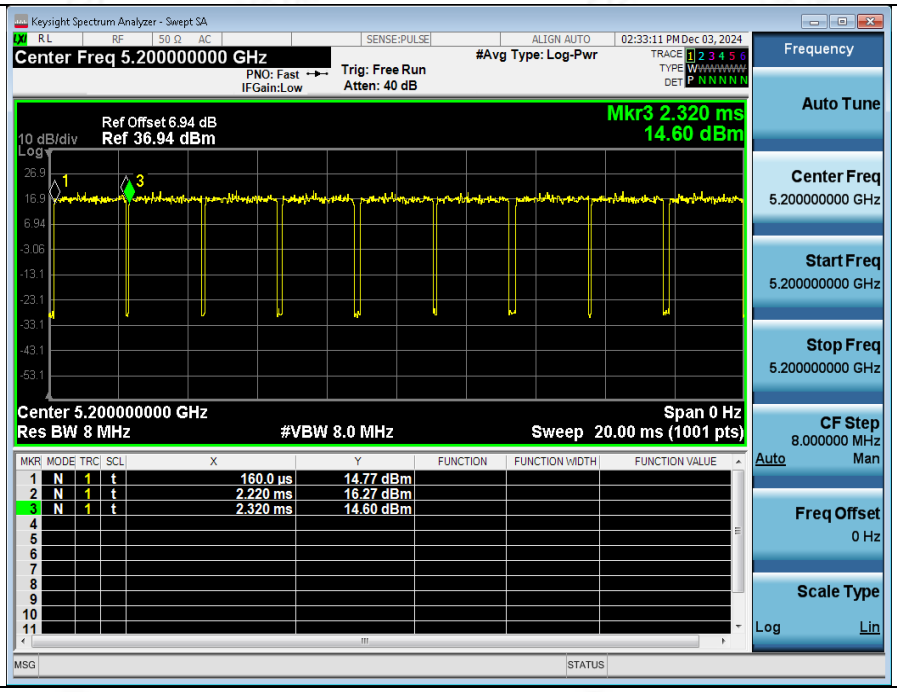
Duty_Cycle_NVNT_ANT2_802_11a_5180



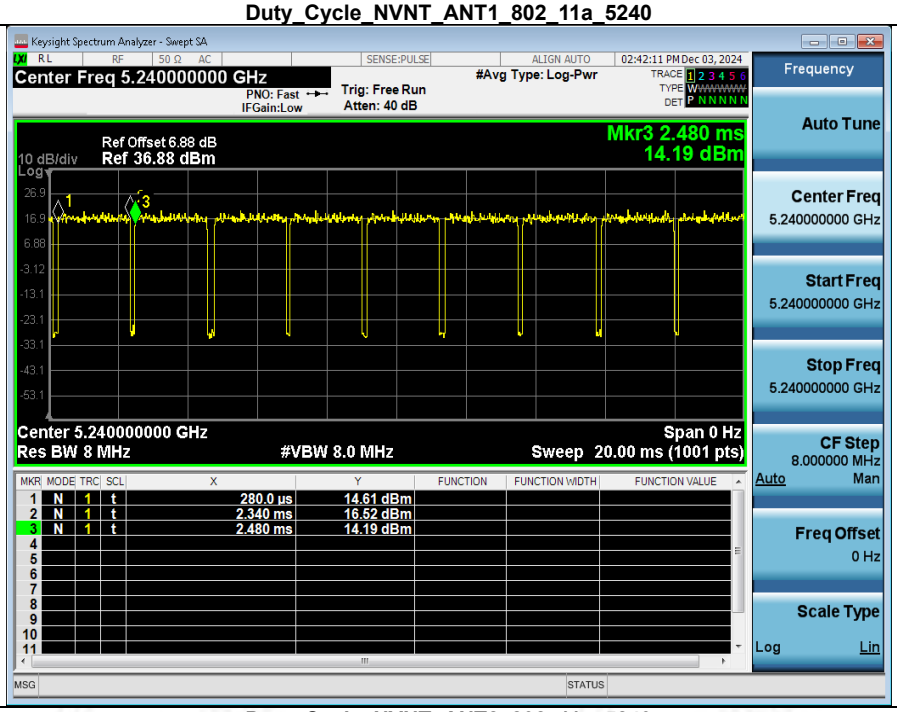
Duty_Cycle_NVNT_ANT1_802_11a_5200



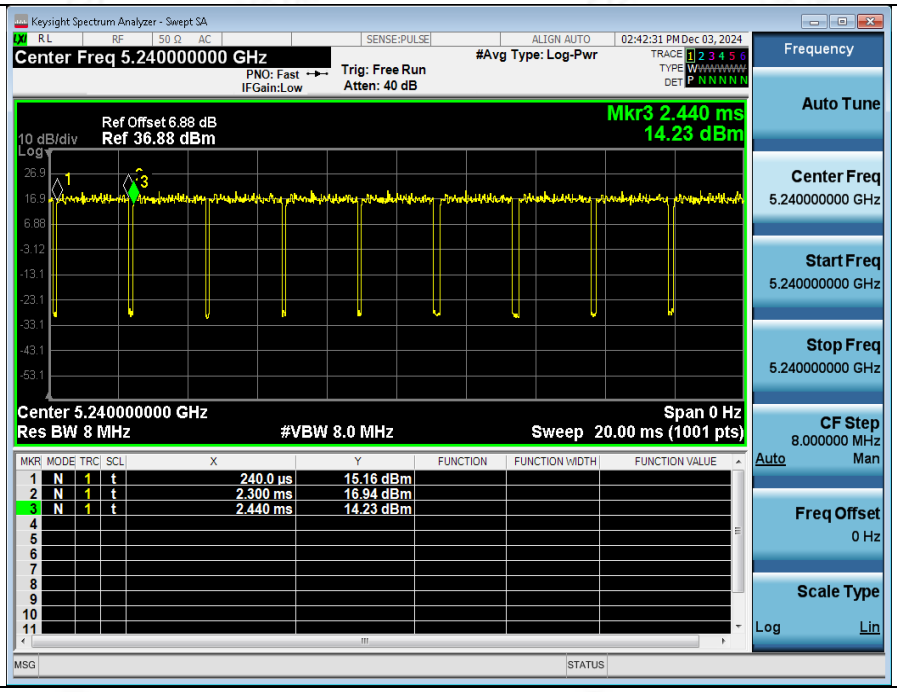
Duty_Cycle_NVNT_ANT2_802_11a_5200



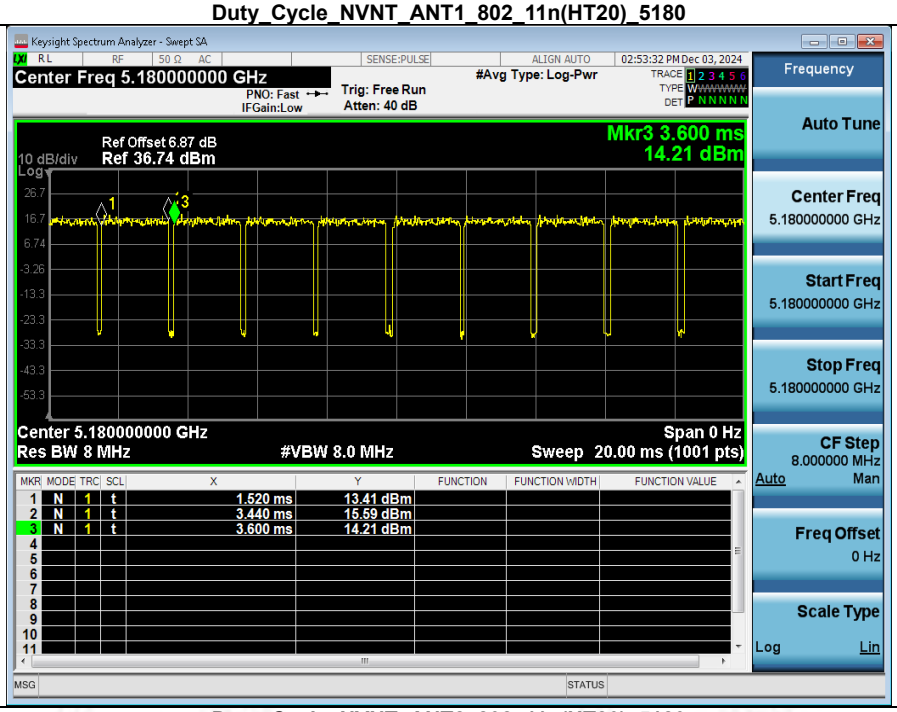
Duty_Cycle_NVNT_ANT1_802_11a_5240



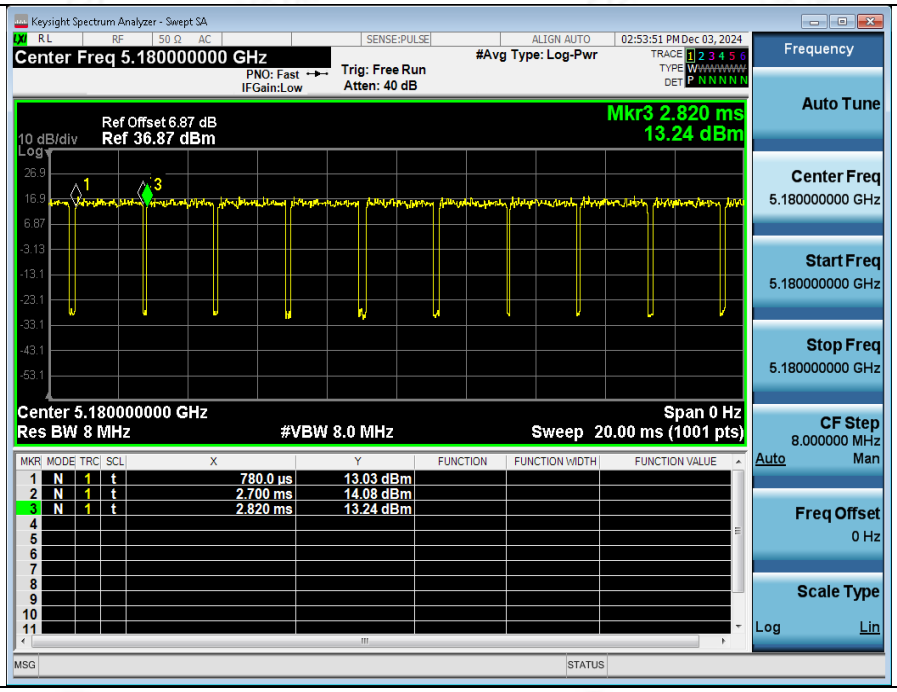
Duty_Cycle_NVNT_ANT2_802_11a_5240



Duty_Cycle_NVNT_ANT1_802_11n(HT20)_5180



Duty_Cycle_NVNT_ANT2_802_11n(HT20)_5180



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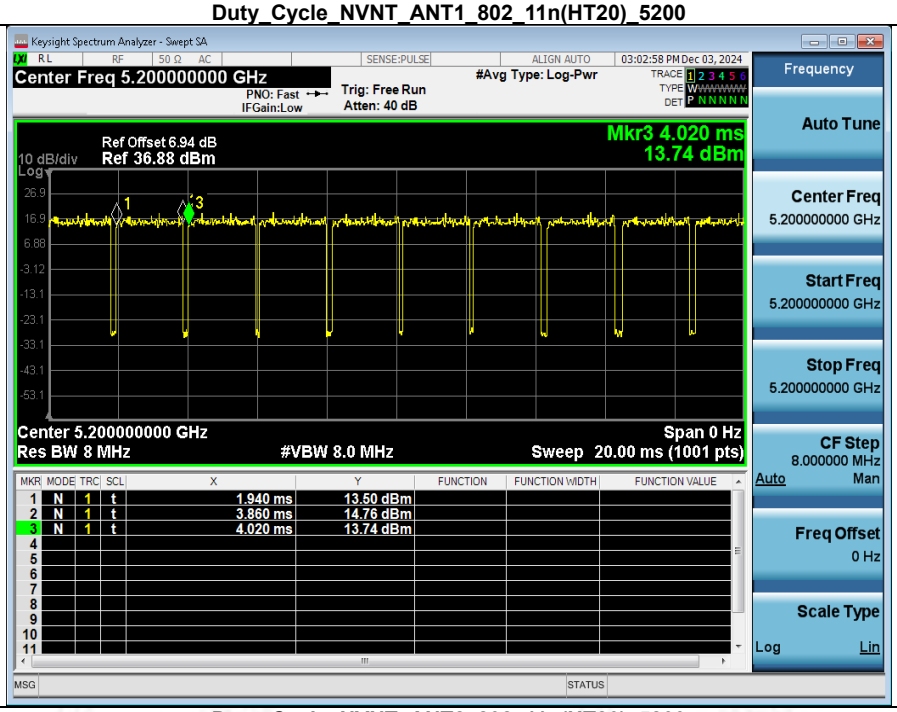
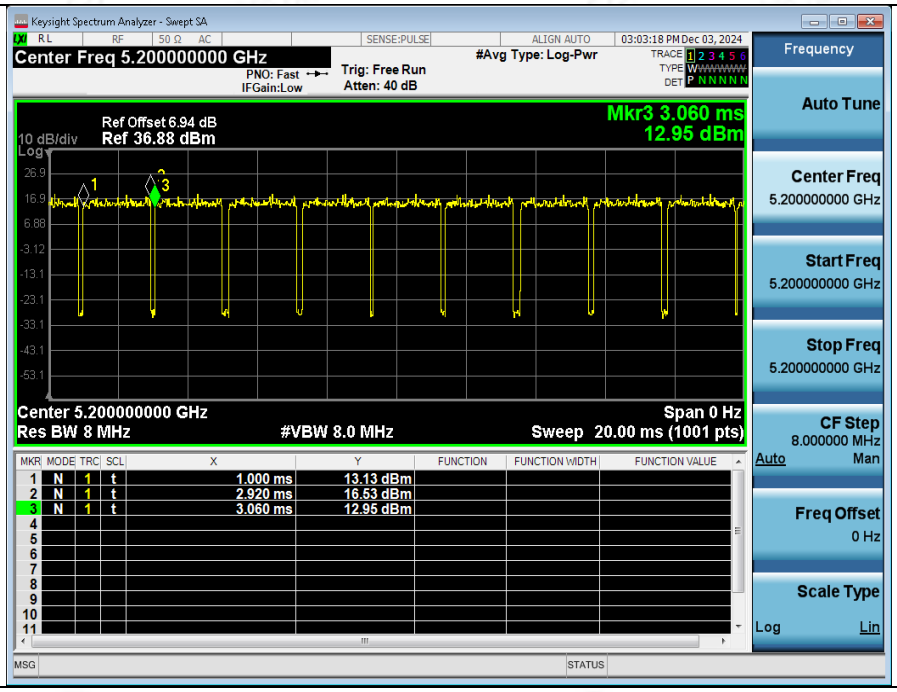


Duty_Cycle_NVNT_ANT2_802_11n(HT20)_5200



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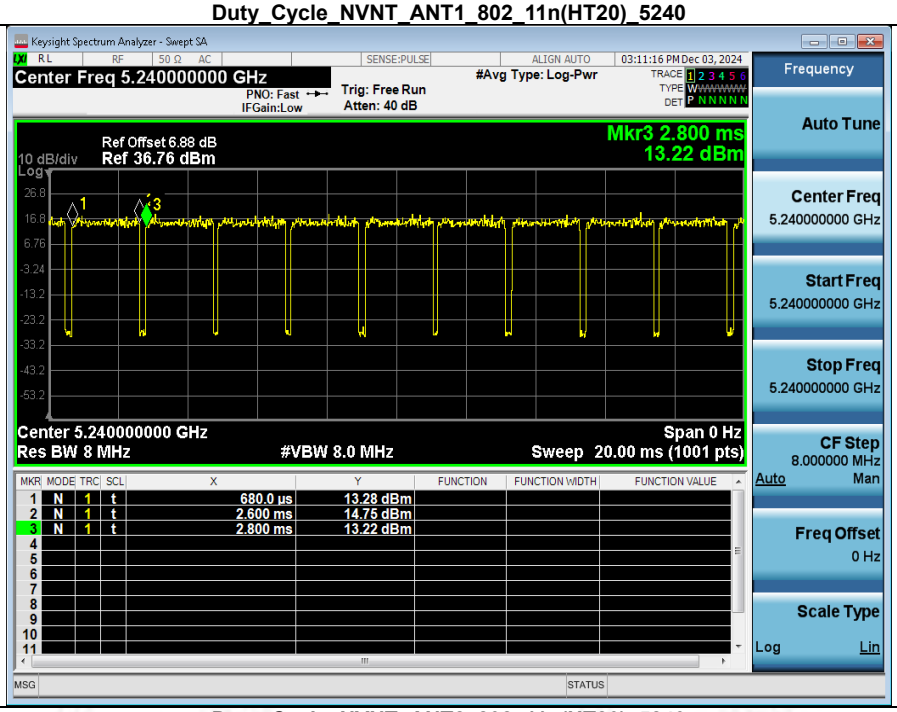

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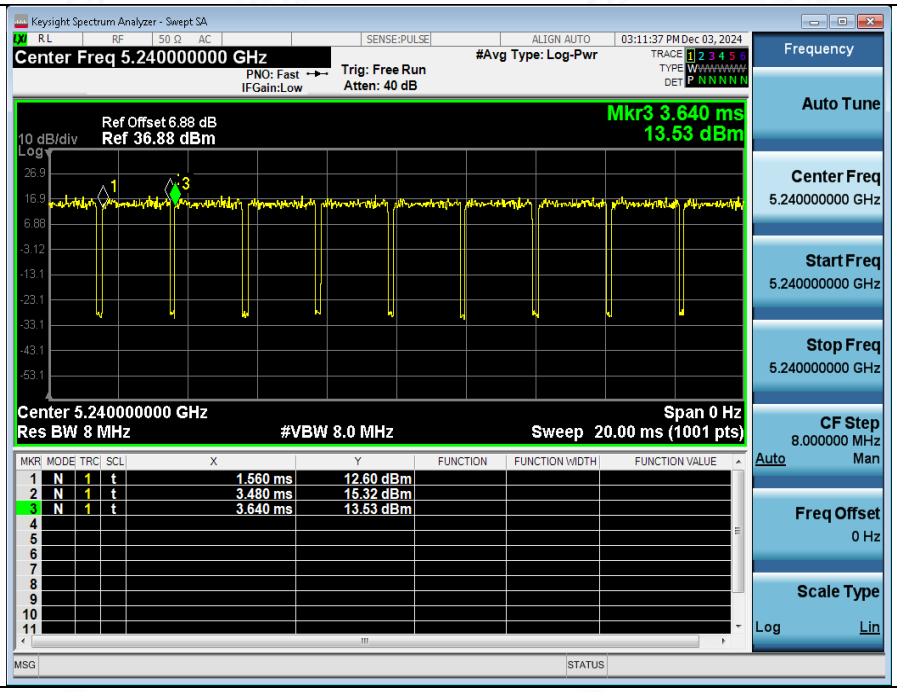
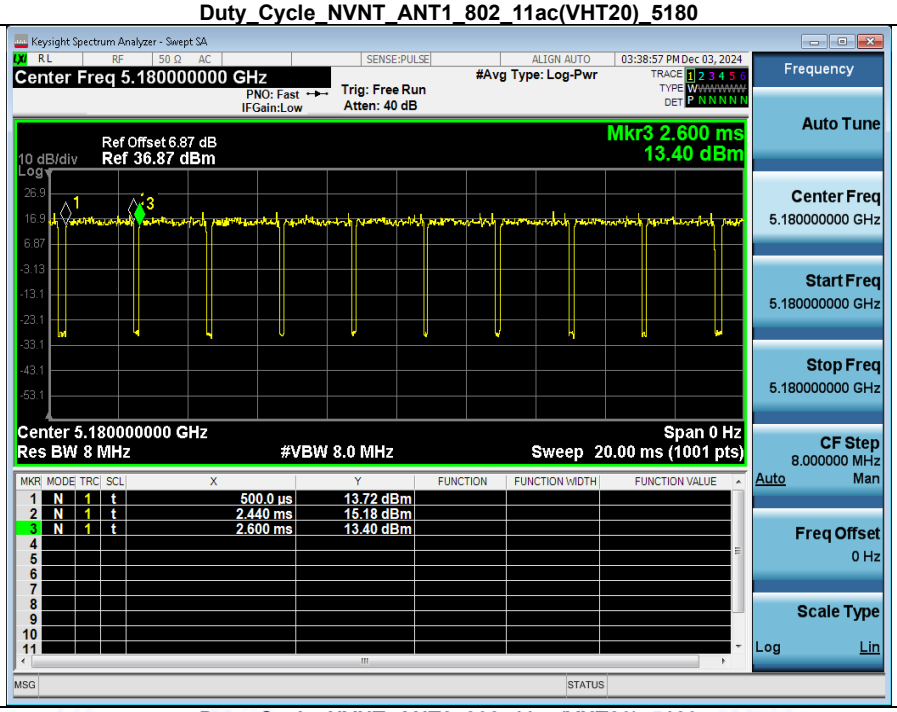


Duty_Cycle_NVNT_ANT1_802_11ac(VHT20)_5180



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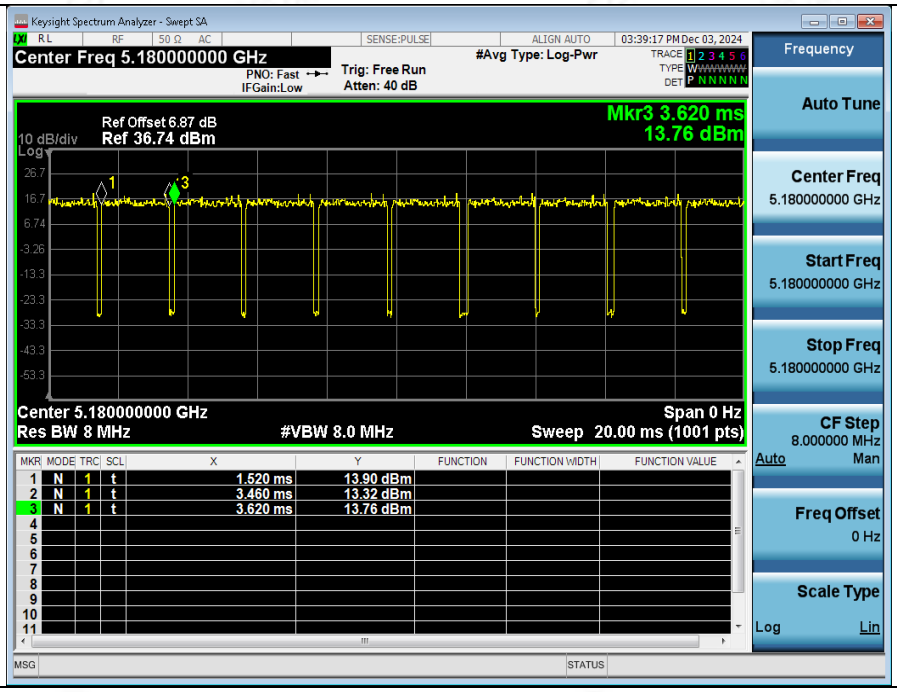
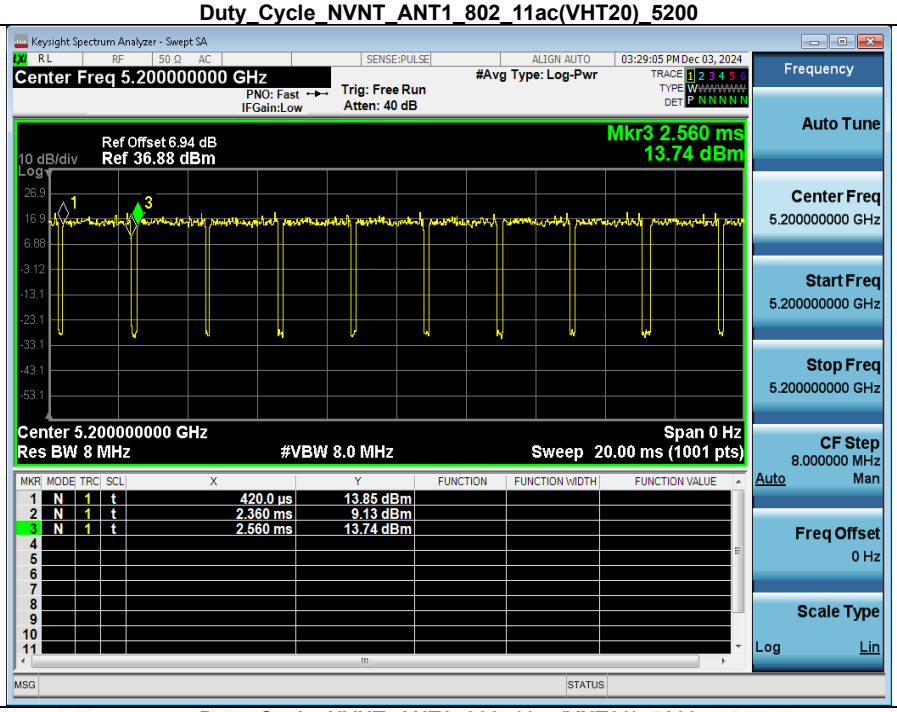
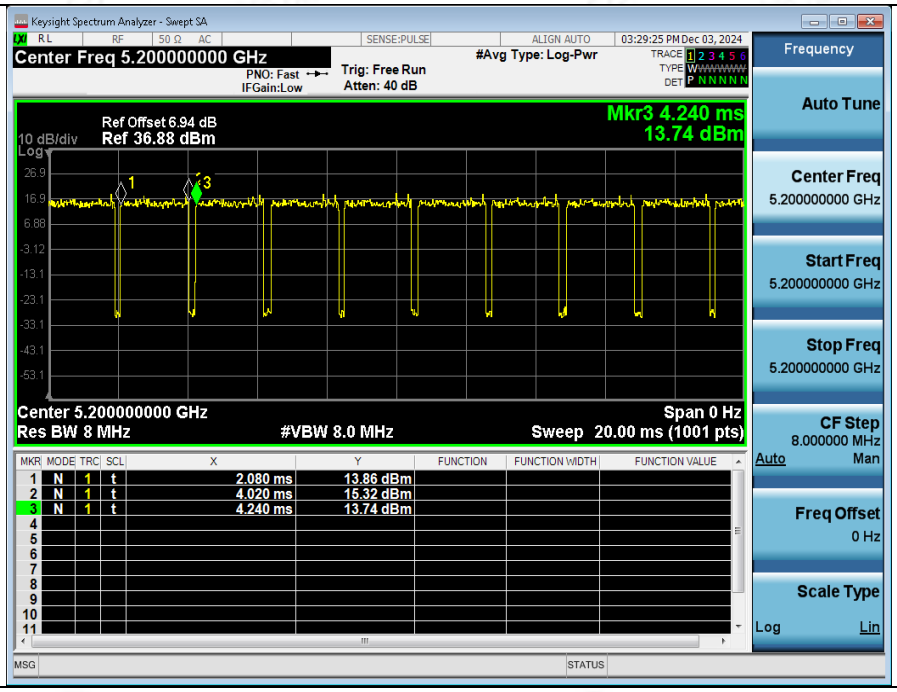


Duty_Cycle_NVNT_ANT1_802_11ac(VHT20)_5200



Duty_Cycle_NVNT_ANT2_802_11ac(VHT20)_5200



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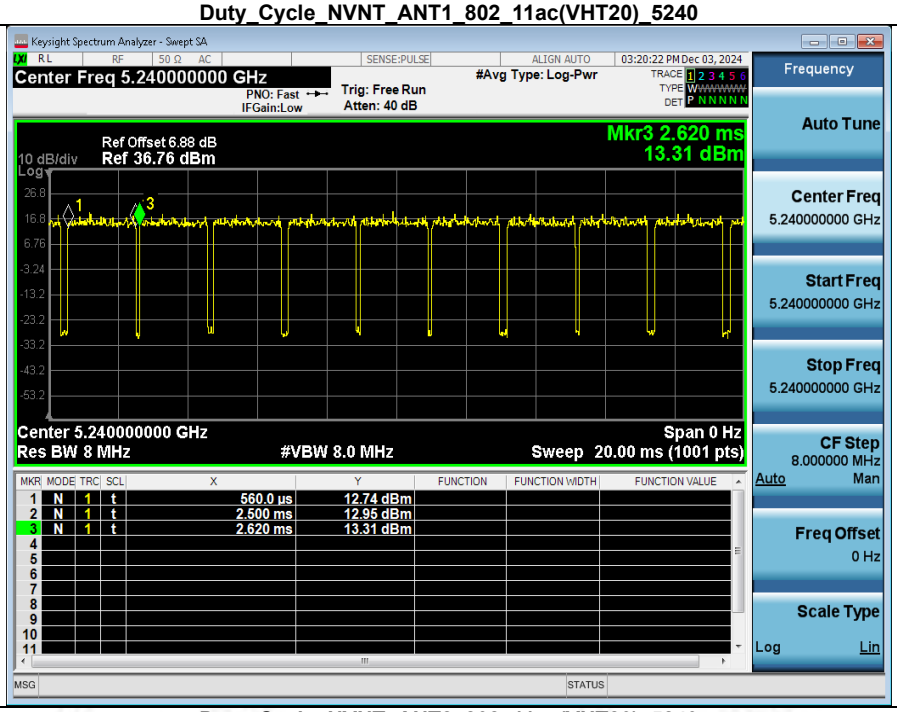
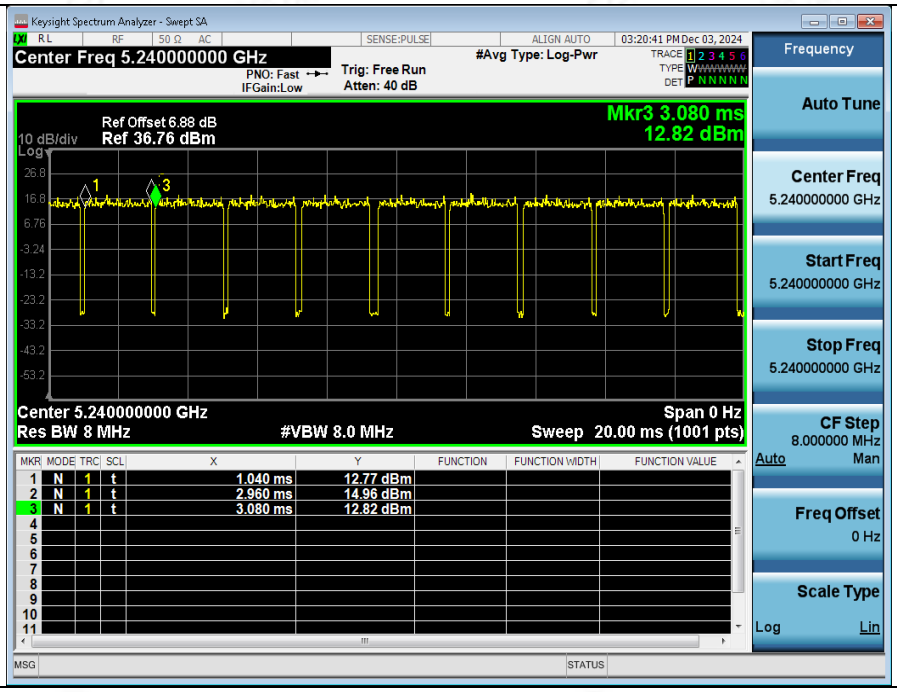
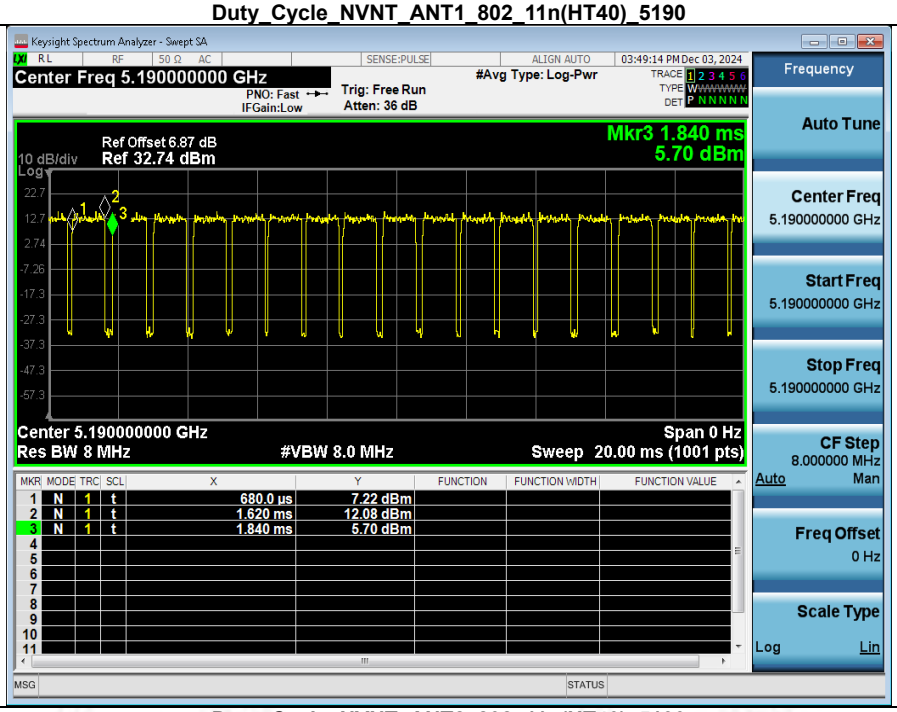


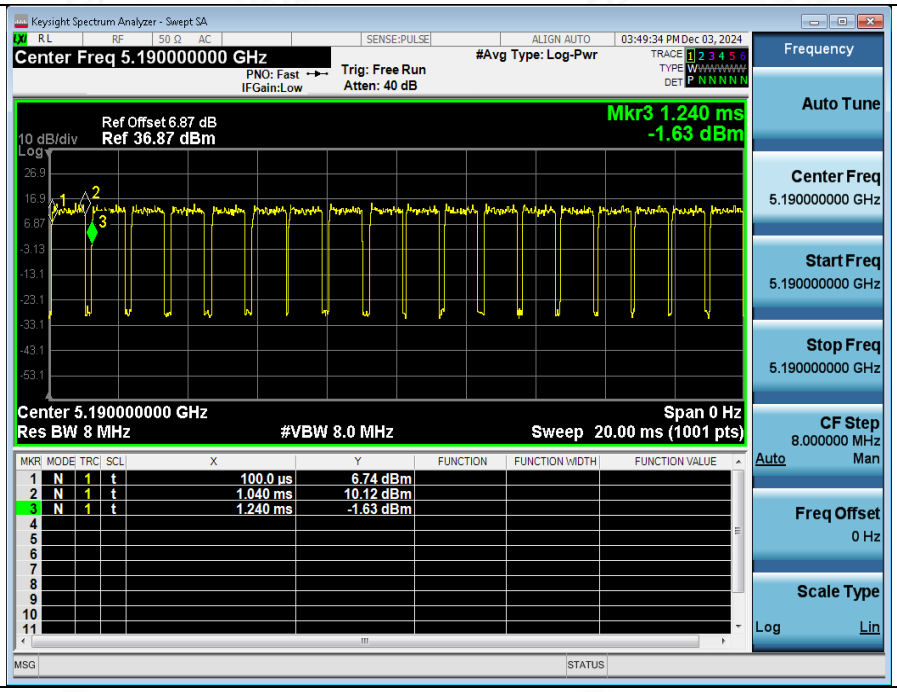
Duty_Cycle_NVNT_ANT2_802_11ac(VHT20)_5240



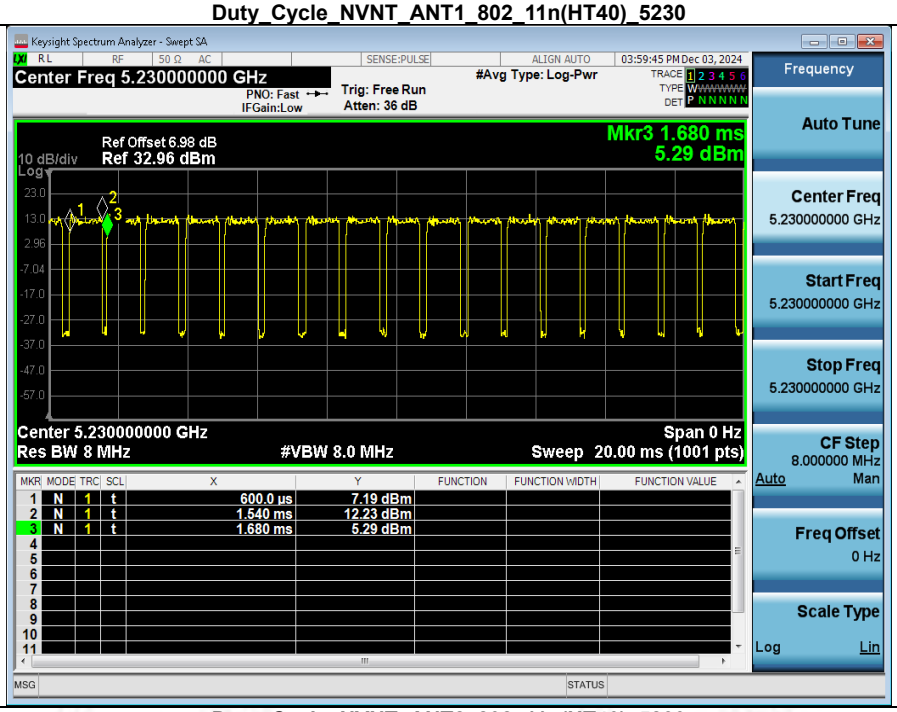
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_5190



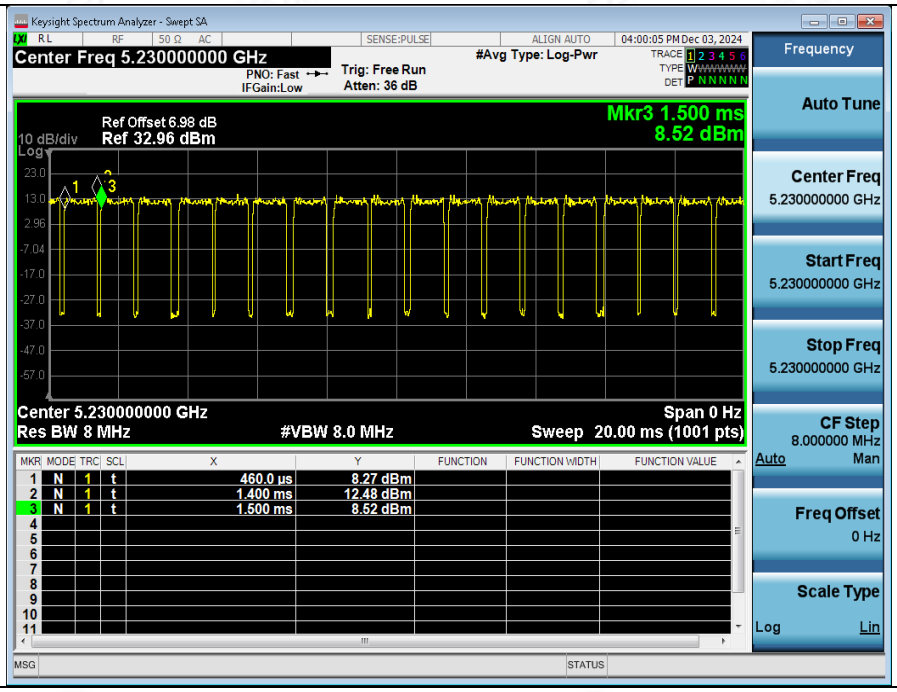
Duty_Cycle_NVNT_ANT2_802_11n(HT40)_5190



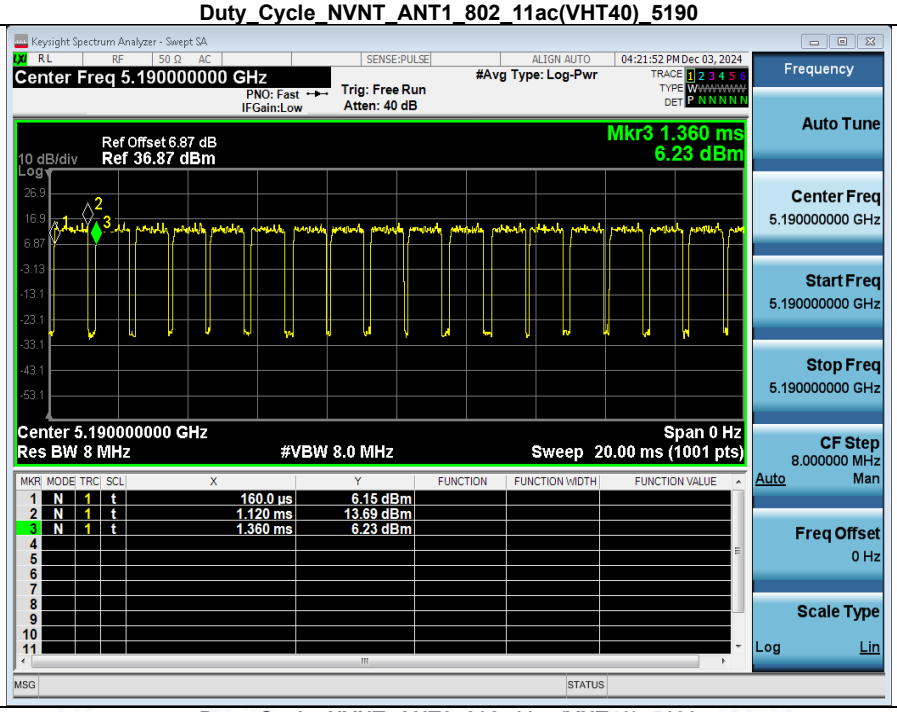
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_5230



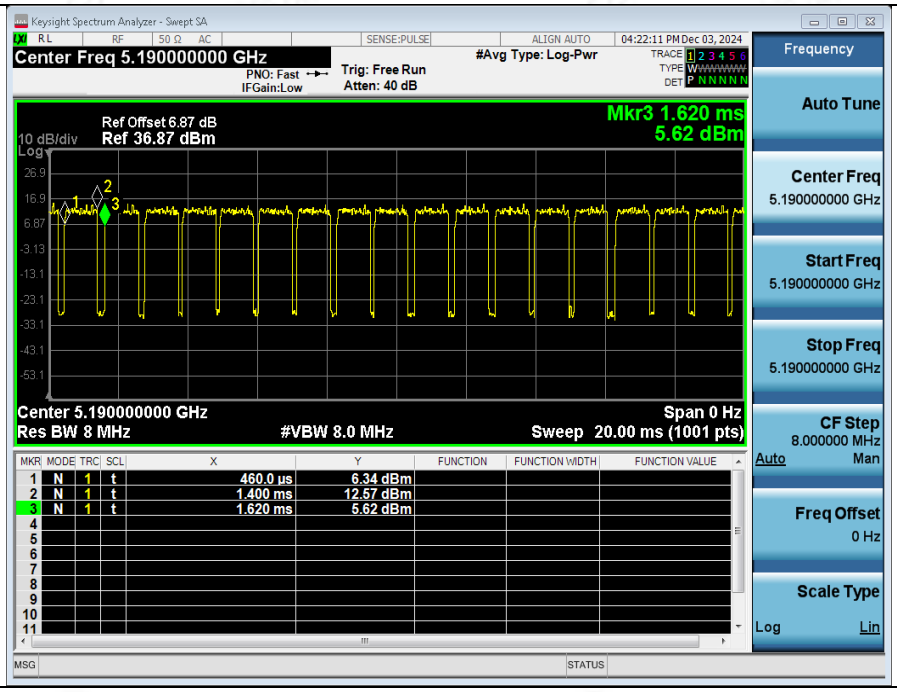
Duty_Cycle_NVNT_ANT2_802_11n(HT40)_5230



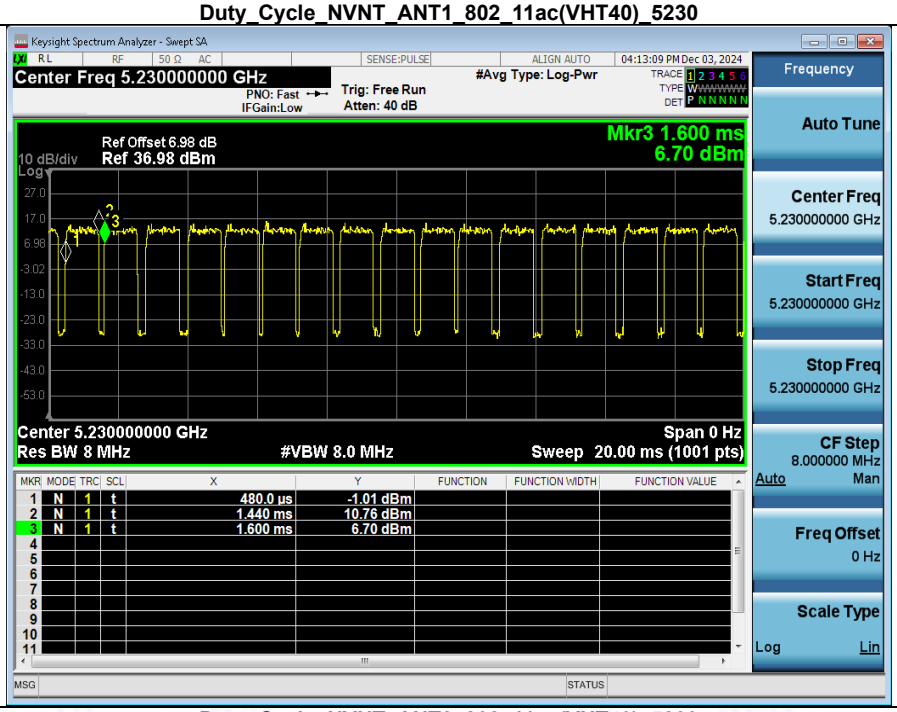
Duty_Cycle_NVNT_ANT1_802_11ac(VHT40)_5190



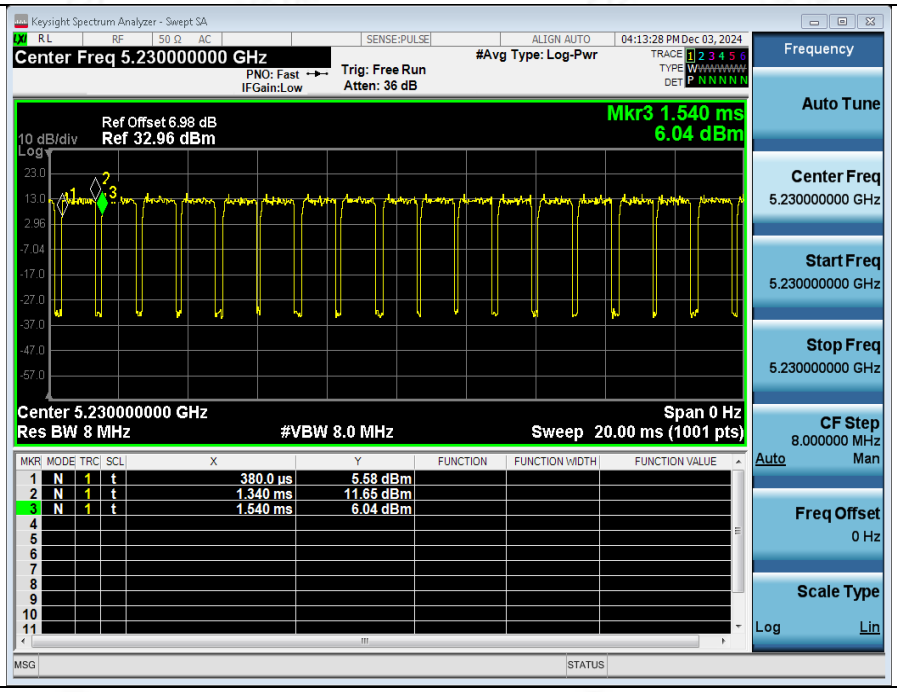
Duty_Cycle_NVNT_ANT2_802_11ac(VHT40)_5190



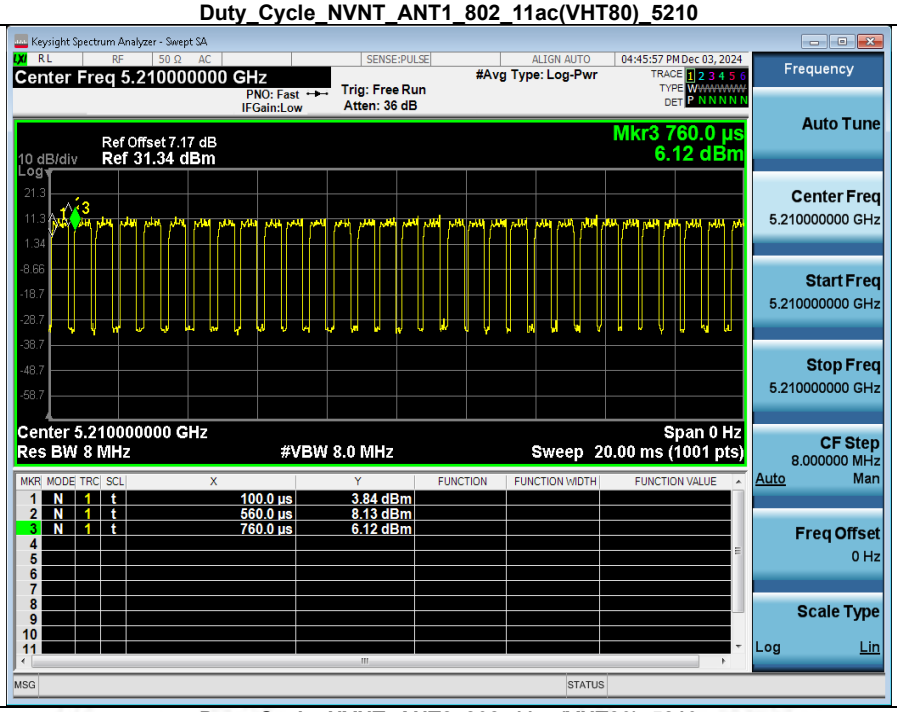
Duty_Cycle_NVNT_ANT1_802_11ac(VHT40)_5230



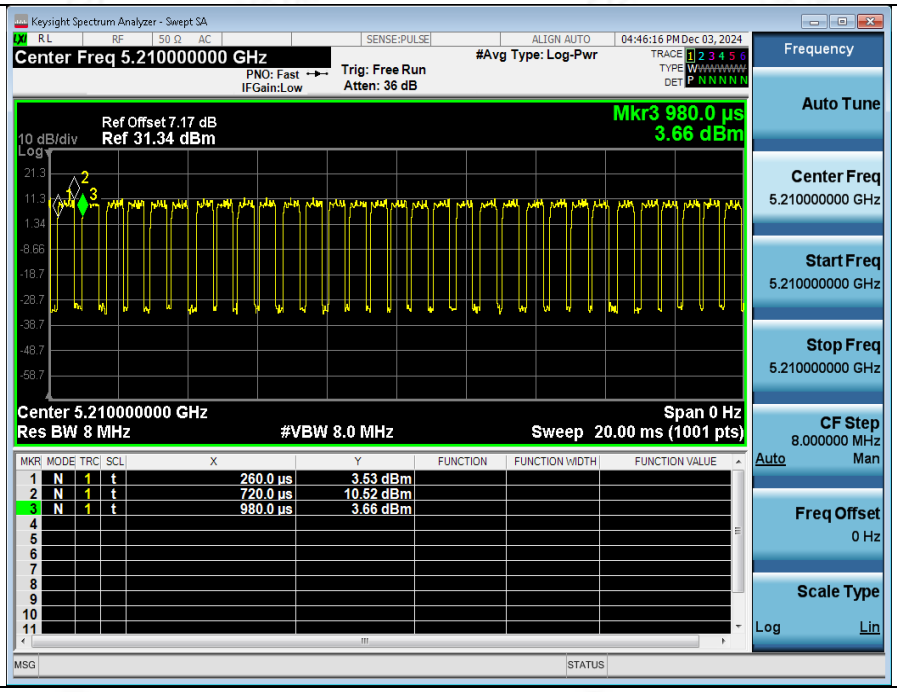
Duty_Cycle_NVNT_ANT2_802_11ac(VHT40)_5230



Duty_Cycle_NVNT_ANT1_802_11ac(VHT80)_5210



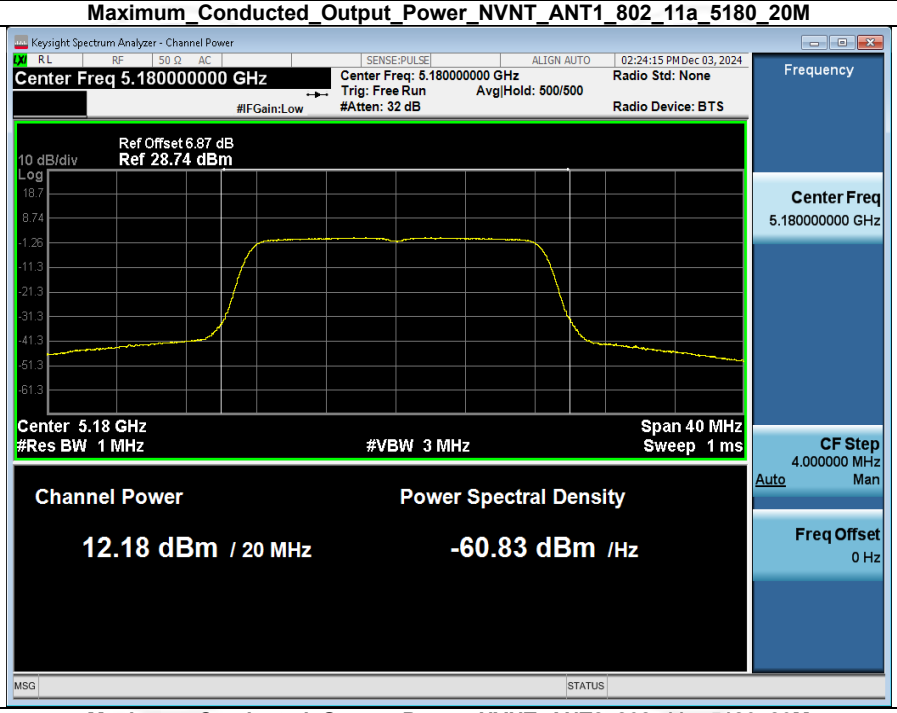
Duty_Cycle_NVNT_ANT2_802_11ac(VHT80)_5210


Keysight Spectrum Analyzer - Swept SA
Center Freq 5.210000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 36 dB
#Avg Type: Log-Pwr
04:46:16 PM Dec 03, 2024
Ref Offset 7.17 dB
10 dB/div
Ref 31.34 dBm
Mkr3 980.0 µs
3.66 dBm
Center 5.210000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 20.00 ms (1001 pts)
1 N 1 t 260.0 µs 3.53 dBm
2 N 1 t 720.0 µs 10.52 dBm
3 N 1 t 980.0 µs 3.66 dBm
Frequency
Auto Tune
Center Freq
5.210000000 GHz
Start Freq
5.210000000 GHz
Stop Freq
5.210000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
Scale Type
Log
Lin

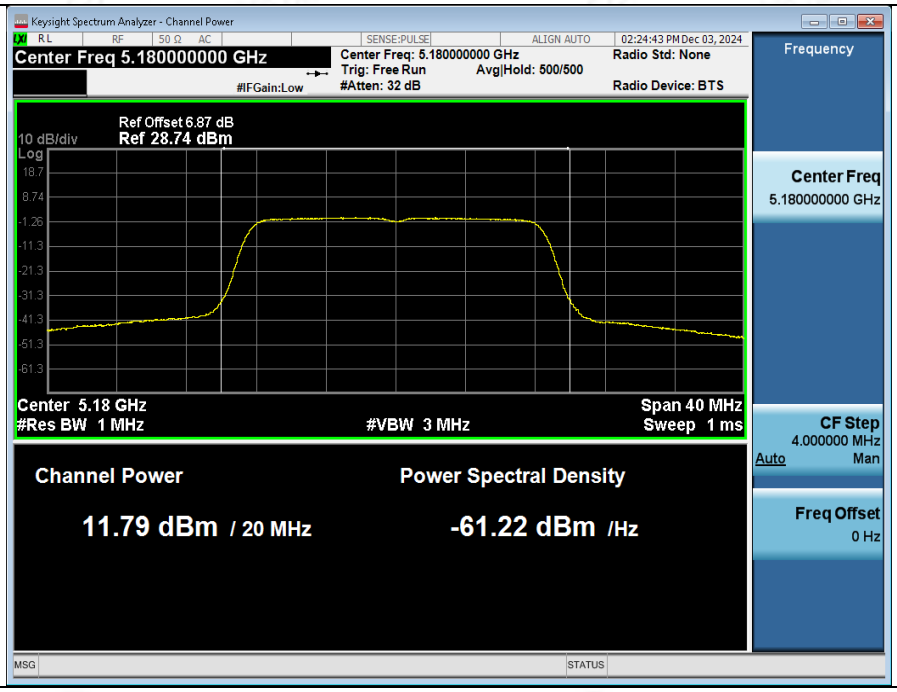
3. Maximum Conducted Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	12.18	0.36	12.54	24	Pass
NVNT	ANT2	802.11a	5180.00	11.79	0.36	12.15	24	Pass
NVNT	ANT1	802.11a	5200.00	12.70	0.29	12.99	24	Pass
NVNT	ANT2	802.11a	5200.00	12.25	0.21	12.46	24	Pass
NVNT	ANT1	802.11a	5240.00	12.37	0.29	12.66	24	Pass
NVNT	ANT2	802.11a	5240.00	12.02	0.29	12.31	24	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	11.26	0.35	11.61	24	Pass
NVNT	ANT2	802.11n(HT20)	5180.00	10.79	0.26	11.05	24	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	11.30	0.35	11.65	24	Pass
NVNT	ANT2	802.11n(HT20)	5200.00	10.70	0.31	11.01	24	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	10.86	0.43	11.29	24	Pass
NVNT	ANT2	802.11n(HT20)	5240.00	10.44	0.35	10.79	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	11.40	0.34	11.74	24	Pass
NVNT	ANT2	802.11ac(VHT20)	5180.00	10.96	0.34	11.30	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5200.00	11.35	0.43	11.78	24	Pass
NVNT	ANT2	802.11ac(VHT20)	5200.00	10.84	0.47	11.31	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	10.85	0.26	11.11	24	Pass
NVNT	ANT2	802.11ac(VHT20)	5240.00	10.35	0.26	10.61	24	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	11.02	0.91	11.93	24	Pass
NVNT	ANT2	802.11n(HT40)	5190.00	10.51	0.84	11.35	24	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	10.61	0.60	11.21	24	Pass
NVNT	ANT2	802.11n(HT40)	5230.00	10.35	0.44	10.79	24	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	10.99	0.97	11.96	24	Pass
NVNT	ANT2	802.11ac(VHT40)	5190.00	10.53	0.91	11.44	24	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	10.56	0.67	11.23	24	Pass
NVNT	ANT2	802.11ac(VHT40)	5230.00	10.26	0.82	11.08	24	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	10.38	1.57	11.95	24	Pass
NVNT	ANT2	802.11ac(VHT80)	5210.00	9.90	1.95	11.85	24	Pass

Maximum_Conducted_Output_Power_NVNT_ANT1_802_11a_5180_20M



Maximum_Conducted_Output_Power_NVNT_ANT2_802_11a_5180_20M



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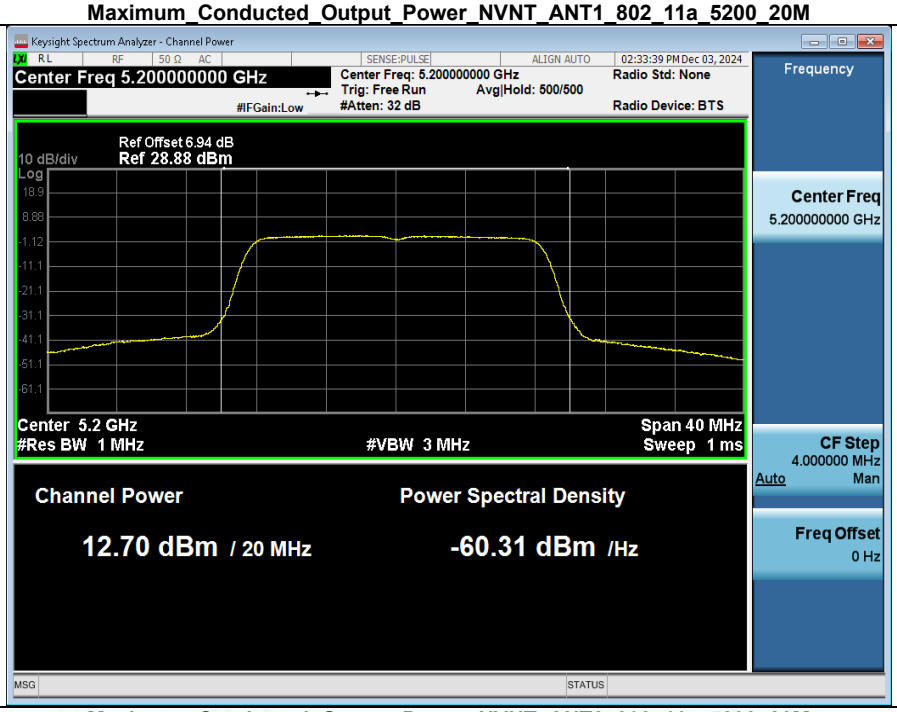

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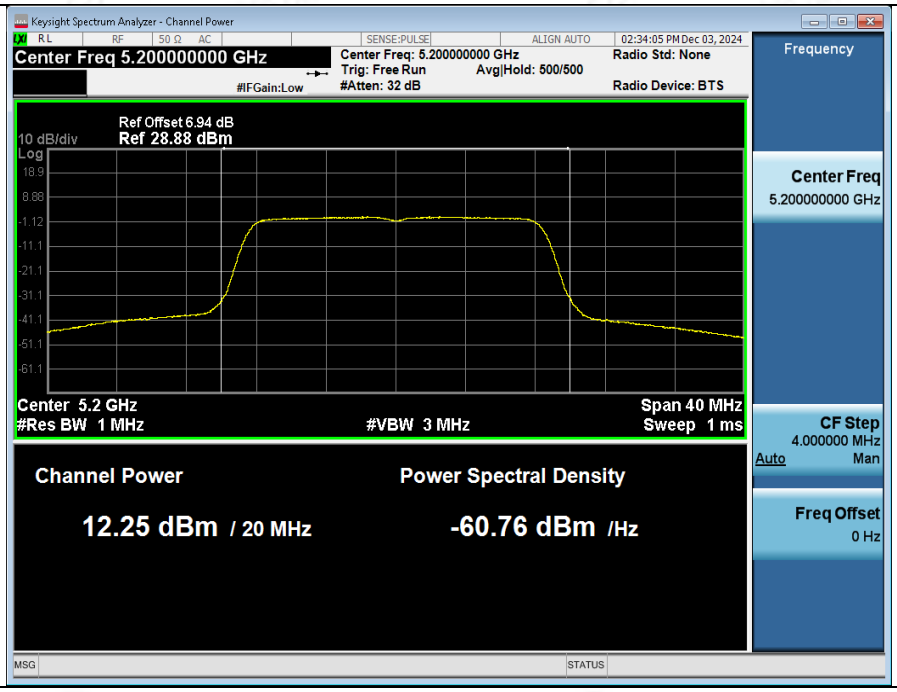
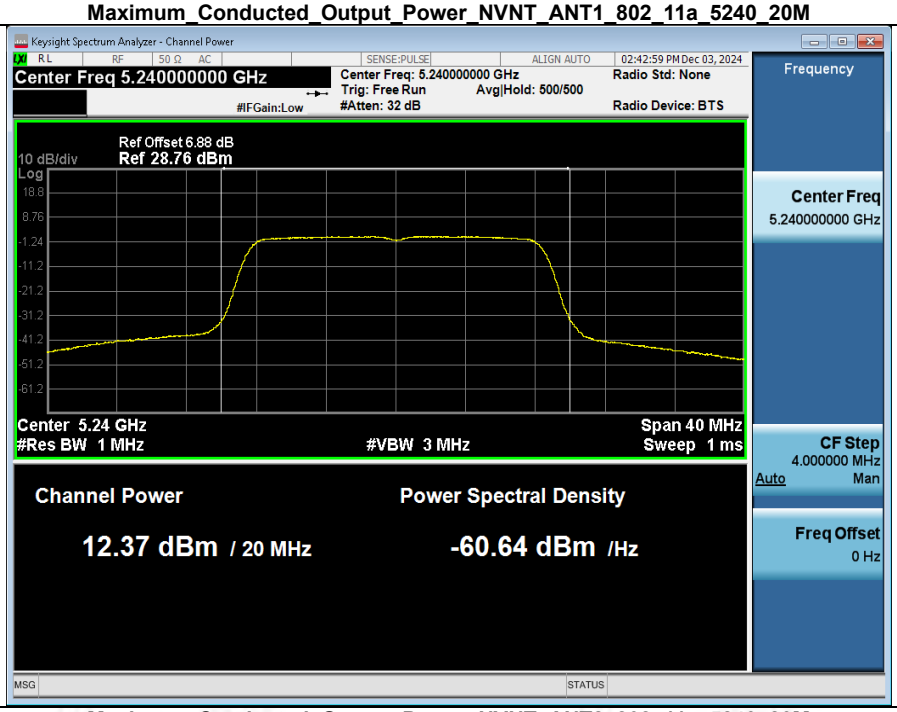


Maximum_Conducted_Output_Power_NVNT_ANT1_802_11a_5240_20M



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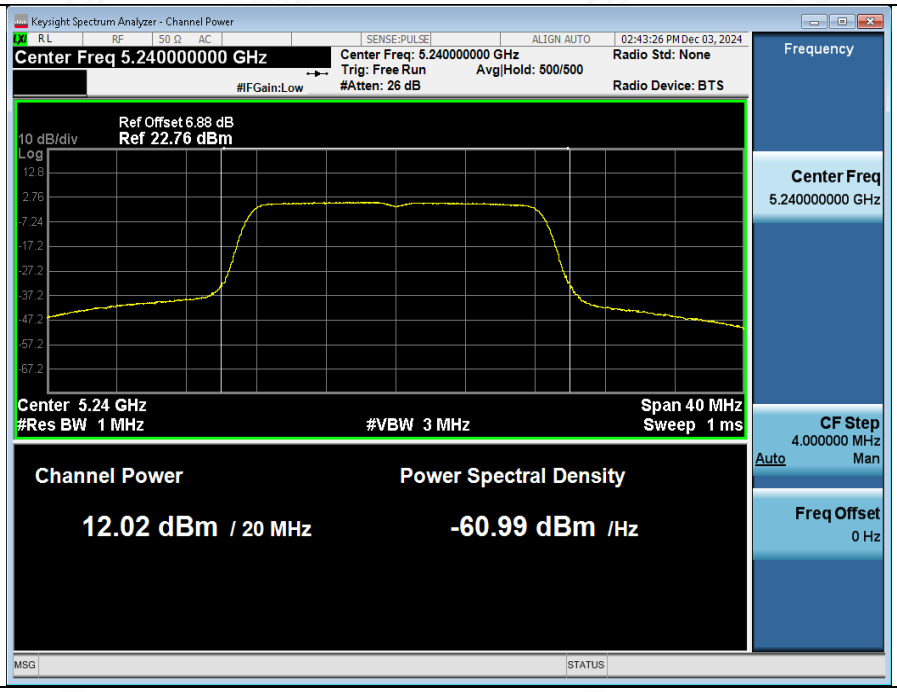

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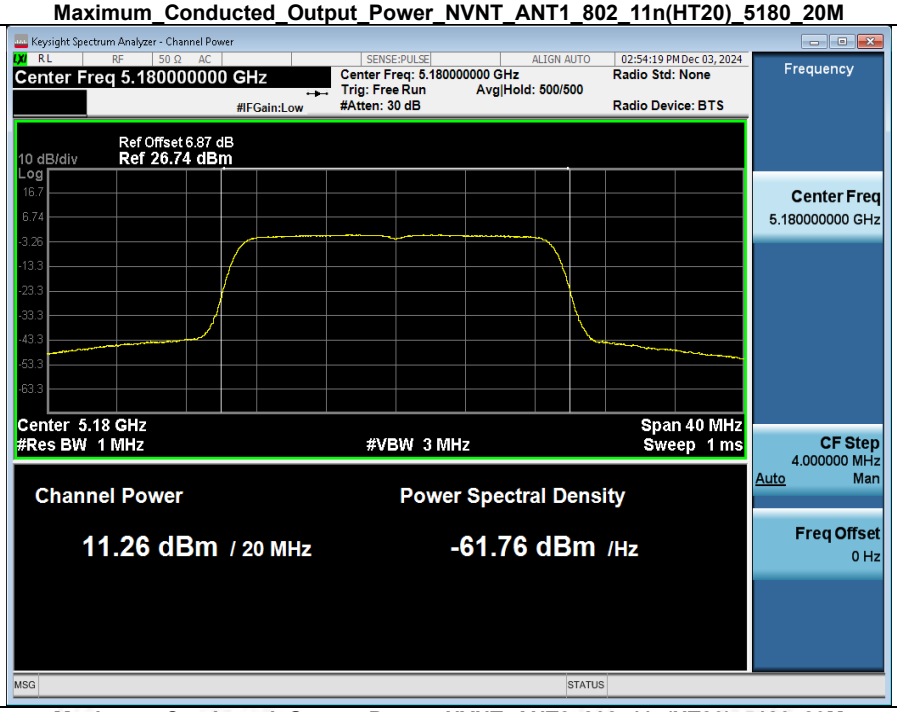

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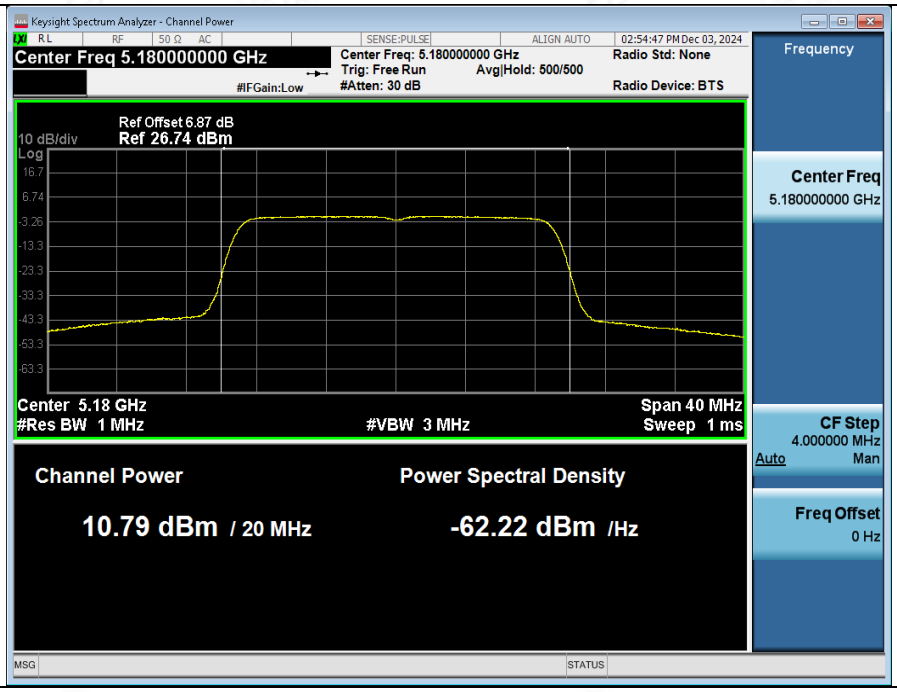

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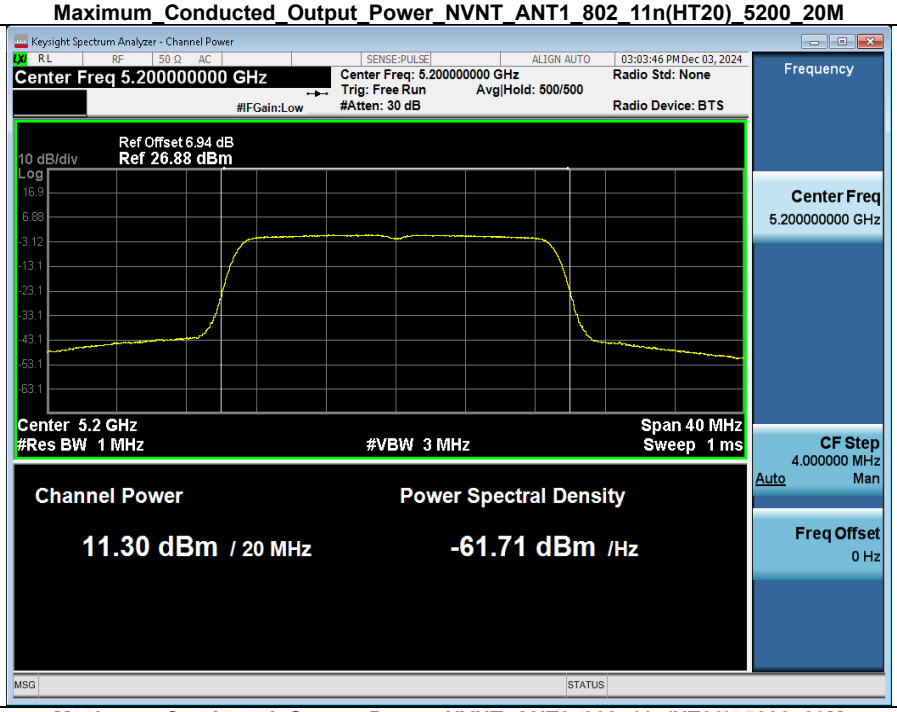

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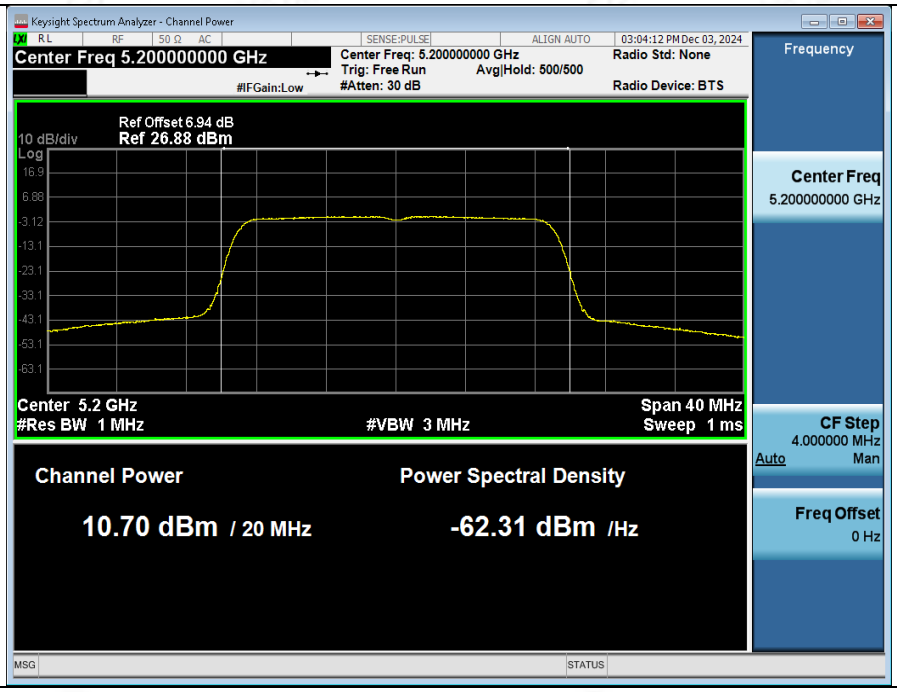

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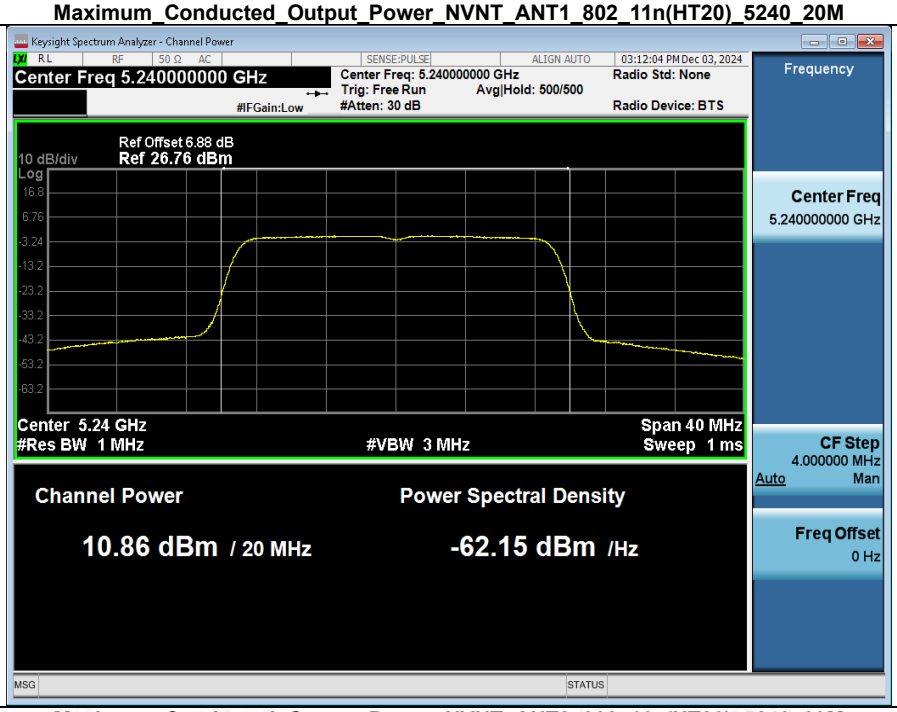

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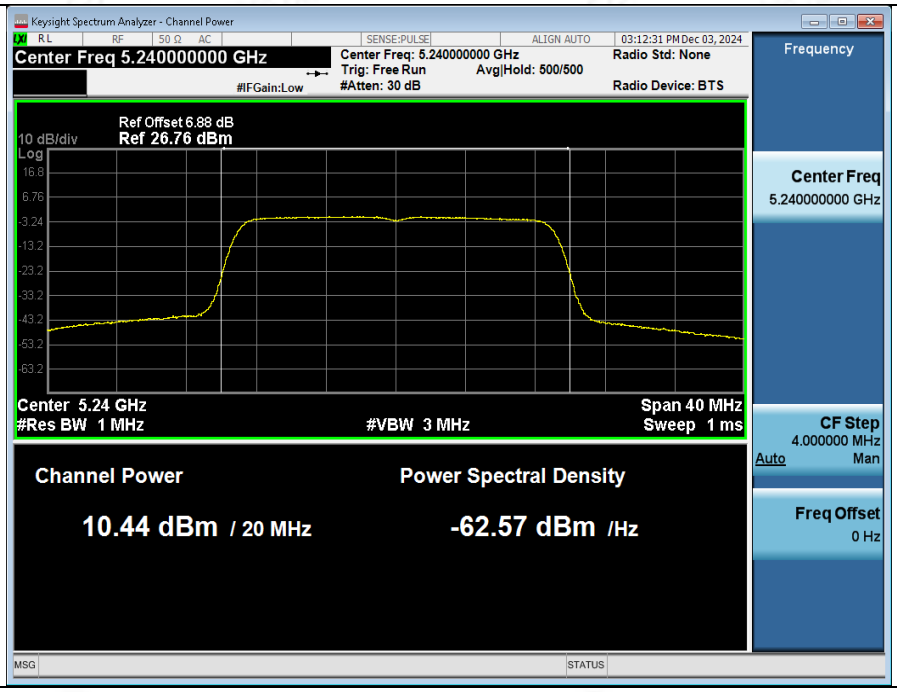

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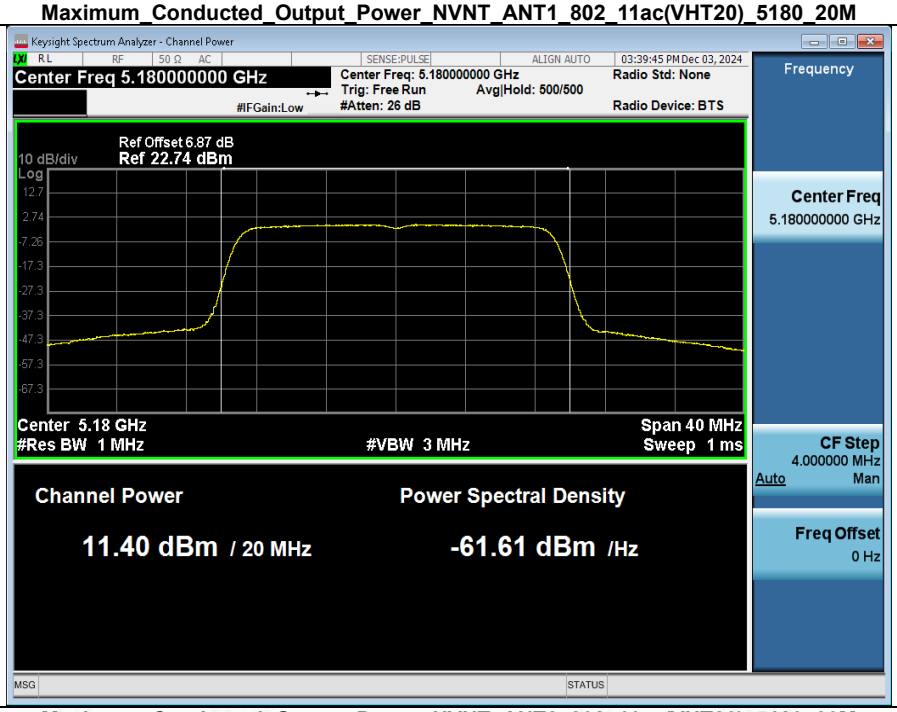

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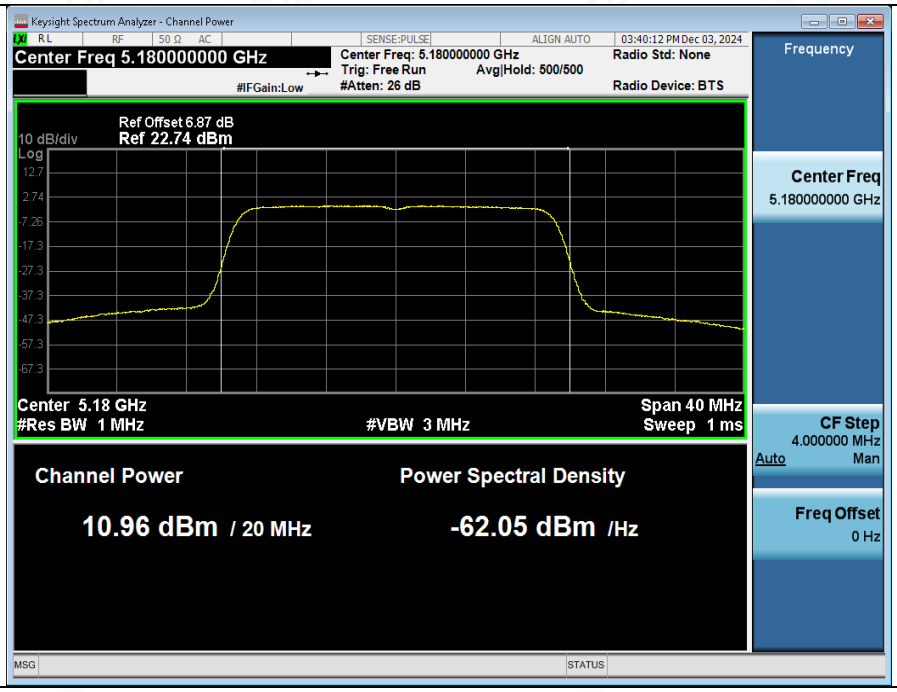

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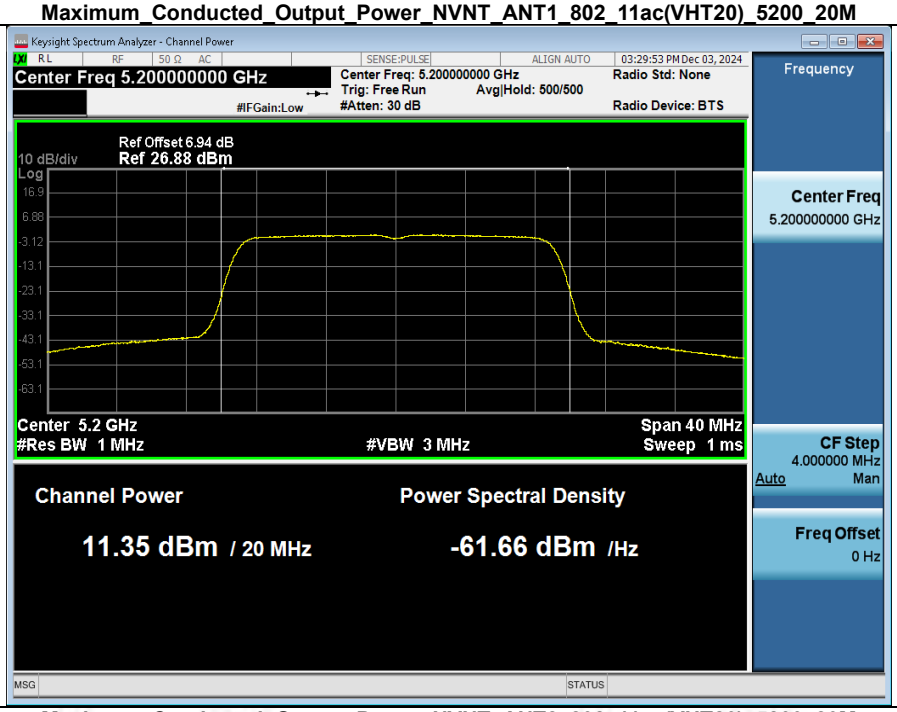
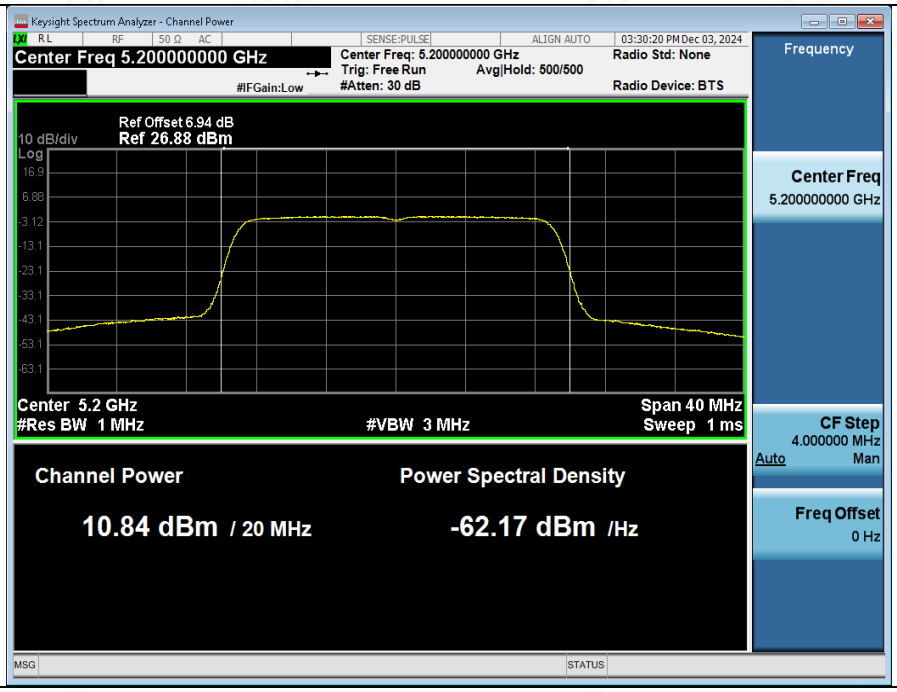
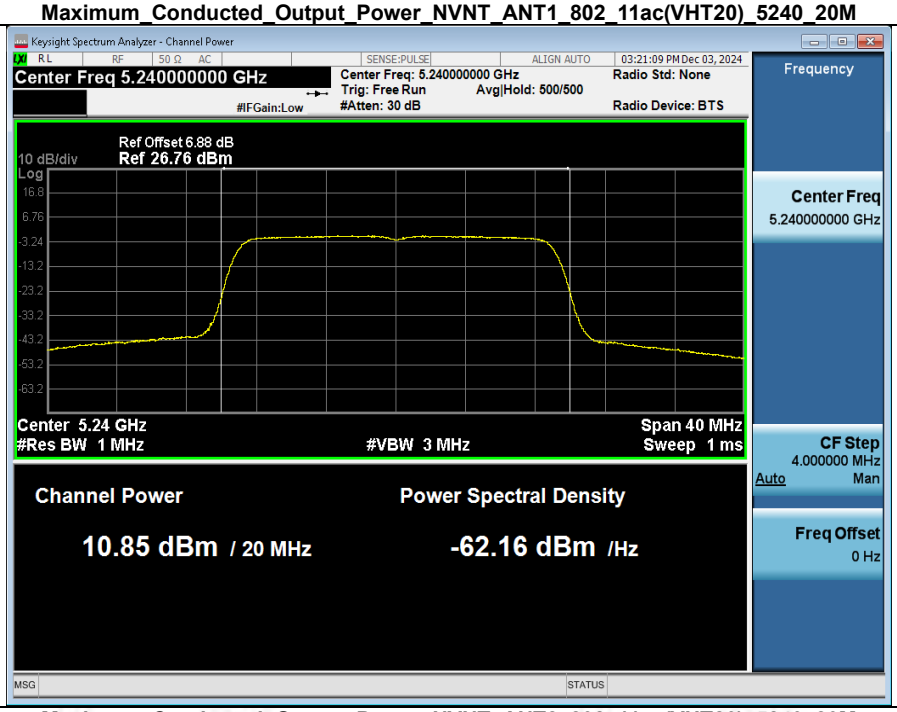


Maximum_Conducted_Output_Power_NVNT_ANT2_802_11ac(VHT20)_5200_20M



Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT20)_5240_20M



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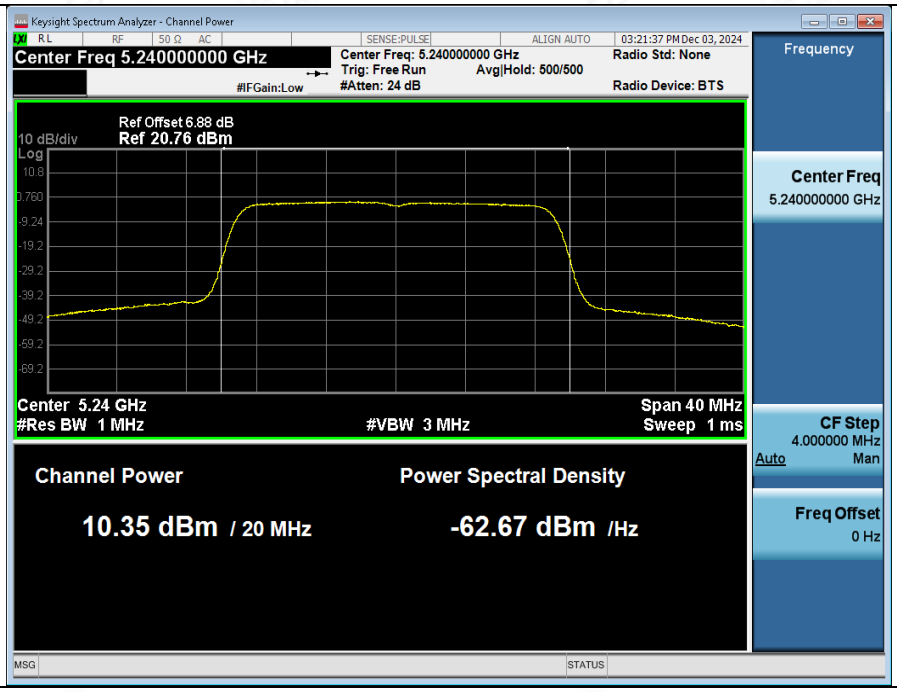

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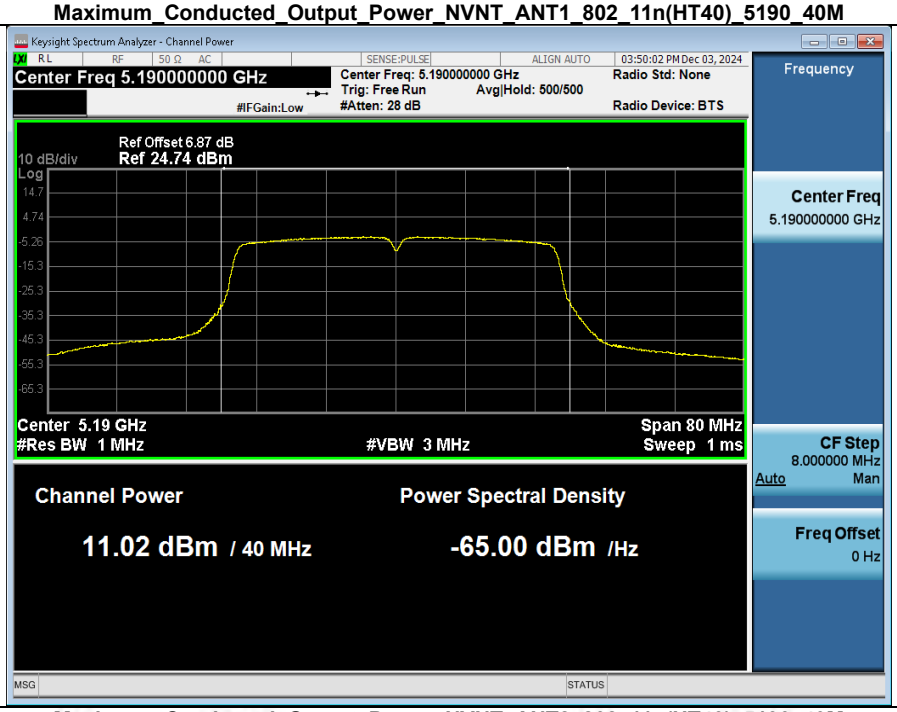

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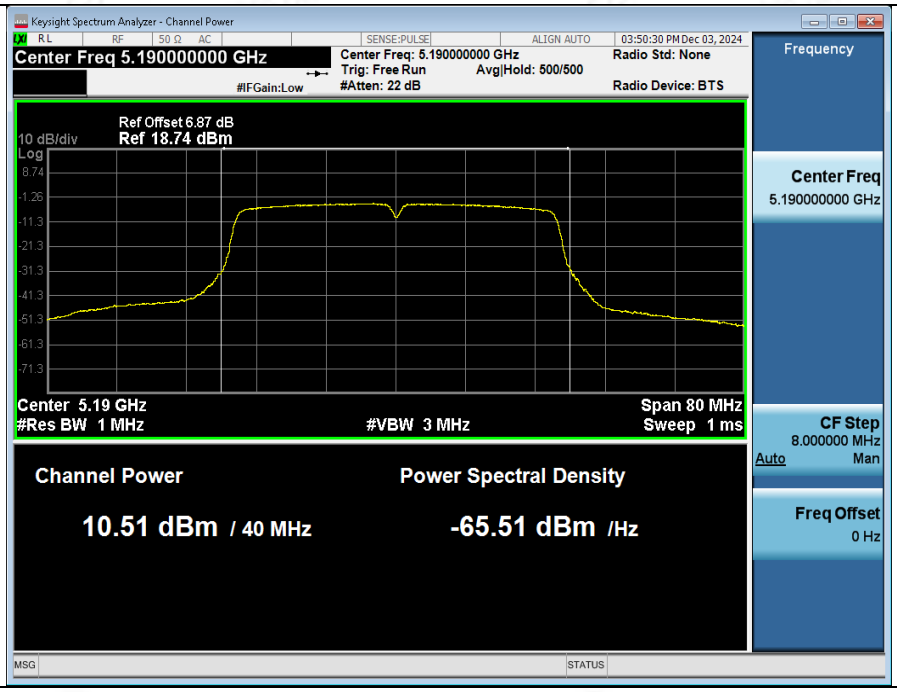

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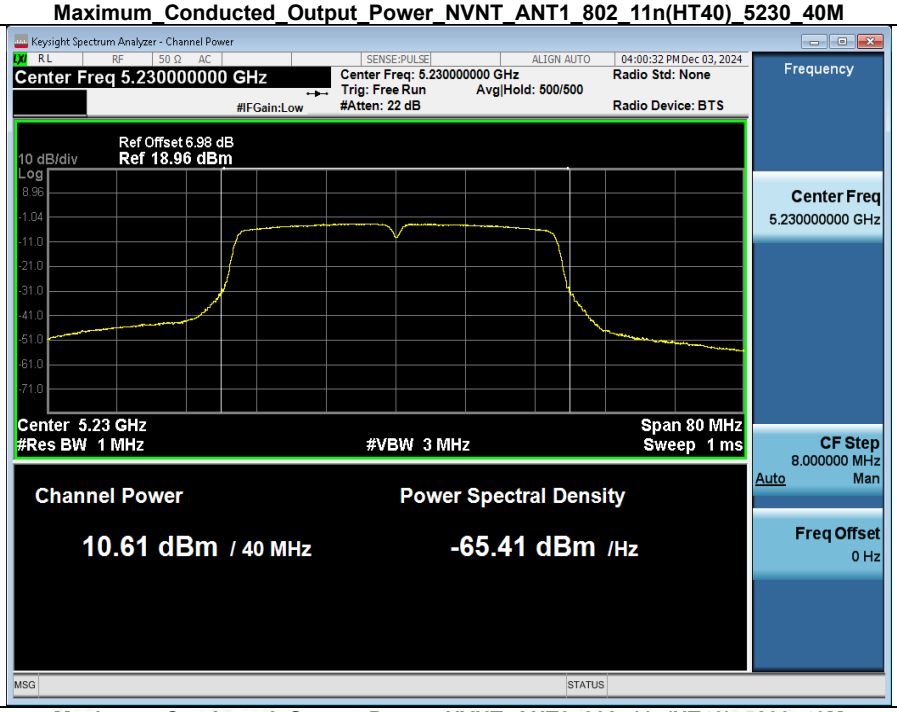
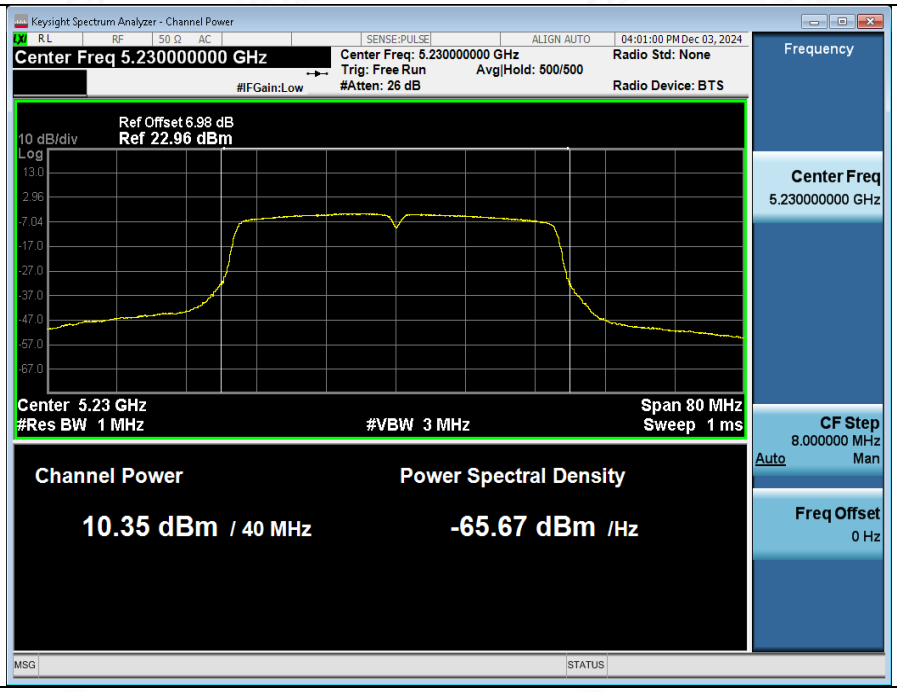


Maximum_Conducted_Output_Power_NVNT_ANT2_802_11n(HT40)_5230_40M



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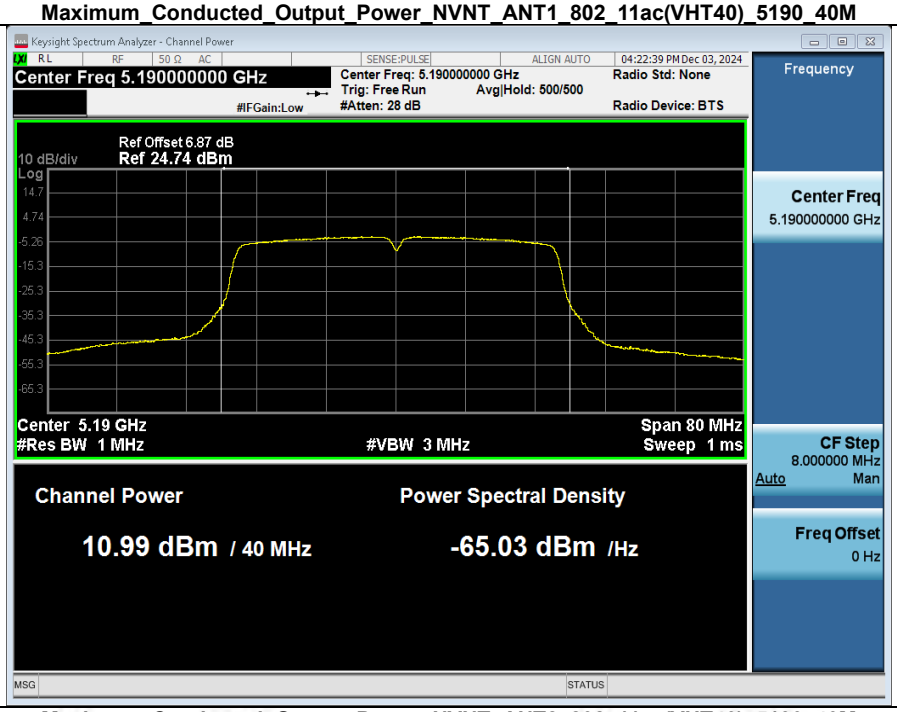
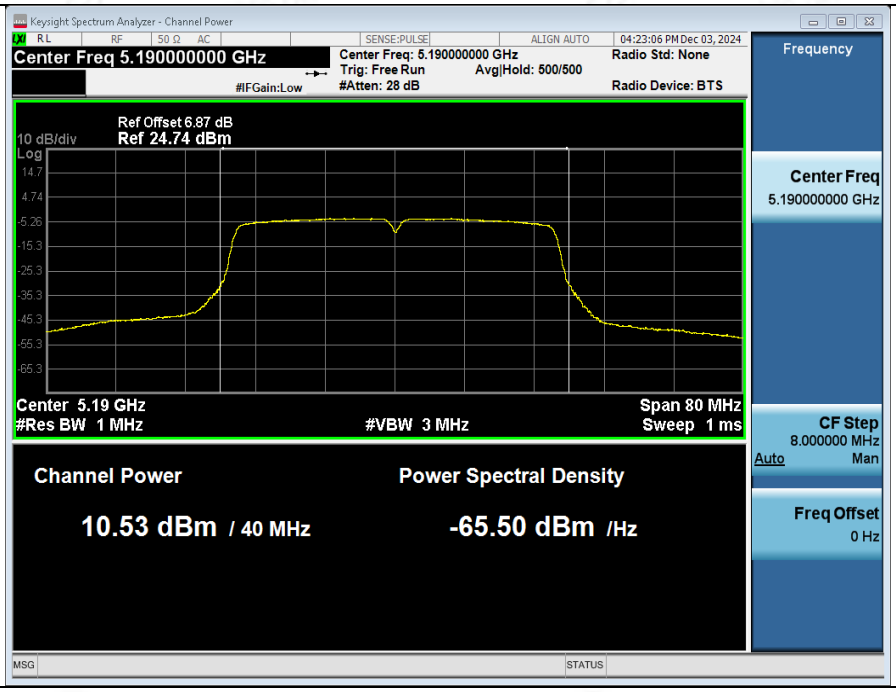


Maximum_Conducted_Output_Power_NVNT_ANT2_802_11ac(VHT40)_5190_40M



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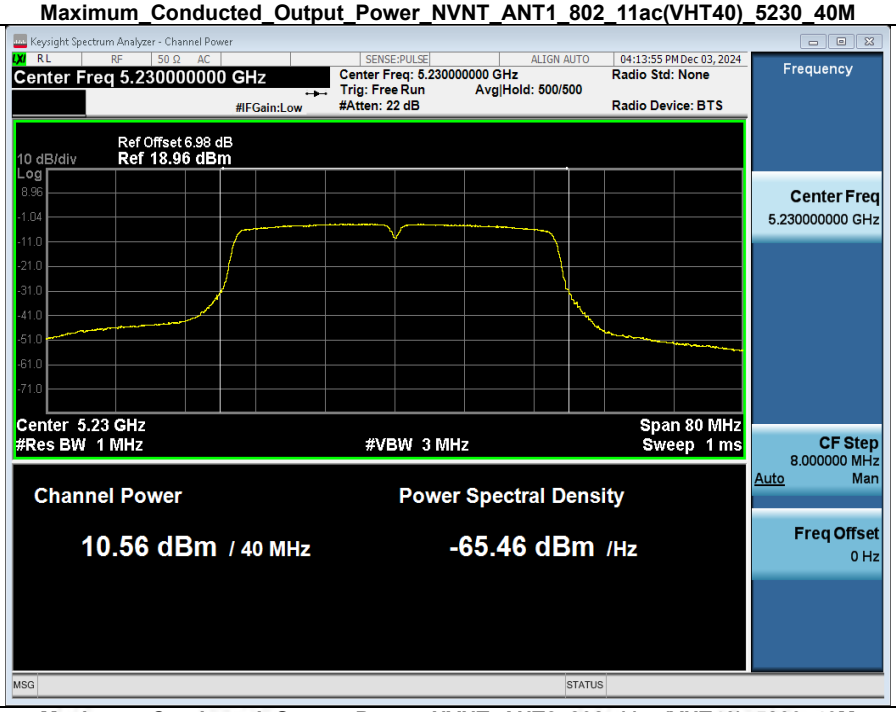

Maximum_Conducted_Output_Power_NVNT_ANT2_802_11ac(VHT40)_5230_40M