Appendix A for 5GWIFI Test Data

Product Name: Car multimedia player

Test Model: D2WC7

Environmental Conditions

Temperature:	21.6° C
Relative Humidity:	54%
ATM Pressure:	101.2 kPa
Test Engineer:	Chris Liu
Supervised by:	Ryan.CJ

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A.1 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	94.98	0.22	0.48
NVNT	a	5200	Ant1	96.13	0.17	0.48
NVNT	a	5240	Ant1	96.13	0.17	0.48
NVNT	n20	5180	Ant1	93.39	0.3	0.52
NVNT	n20	5200	Ant1	96.73	0.14	0.52
NVNT	n20	5240	Ant1	95.00	0.22	0.52
NVNT	n40	5190	Ant1	97.87	0.09	0.48
NVNT	n40	5230	Ant1	94.54	0.24	0.52
NVNT	ac20	5180	Ant1	97.18	0.12	0.52
NVNT	ac20	5200	Ant1	92.57	0.34	0.52
NVNT	ac20	5240	Ant1	95.45	0.2	0.52
NVNT	ac40	5190	Ant1	98.12	0	0.52
NVNT	ac40	5230	Ant1	97.82	0.1	0.48
NVNT	ac80	5210	Ant1	93.83	0.28	0.52

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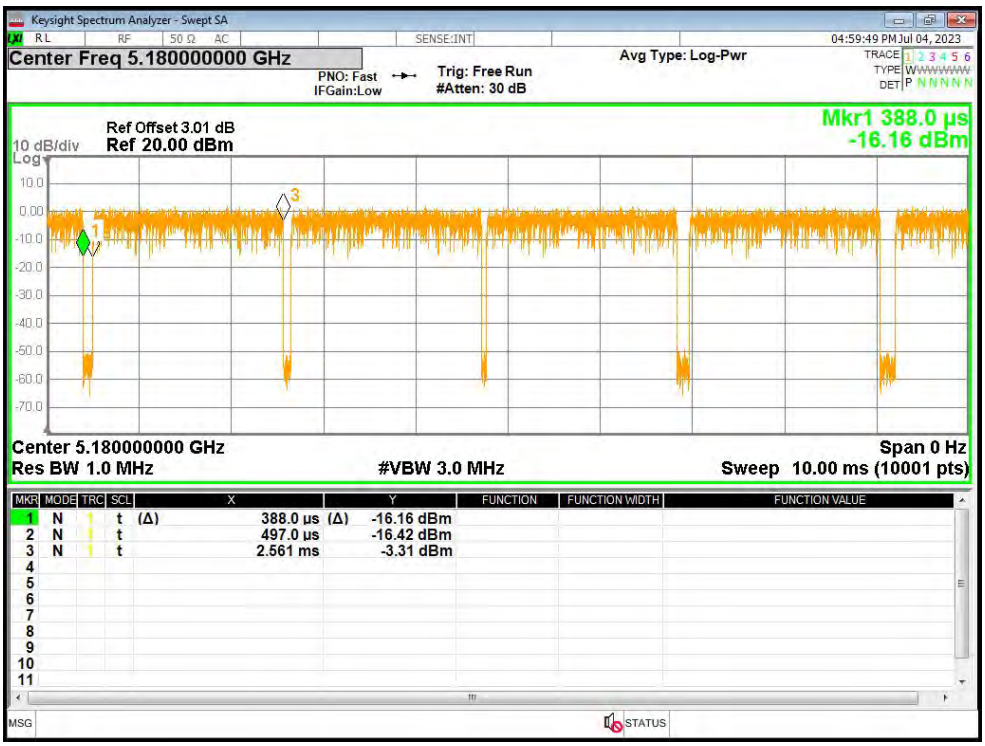
Test Graphs

Duty Cycle NVNT a 5180MHz Ant1



Duty Cycle NVNT a 5200MHz Ant1

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Duty Cycle NVNT a 5240MHz Ant1

Duty Cycle NVNT n20 5180MHz Ant1

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Duty Cycle NVNT n20 5200MHz Ant1

Duty Cycle NVNT n20 5240MHz Ant1

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Duty Cycle NVNT n40 5190MHz Ant1

Duty Cycle NVNT n40 5230MHz Ant1

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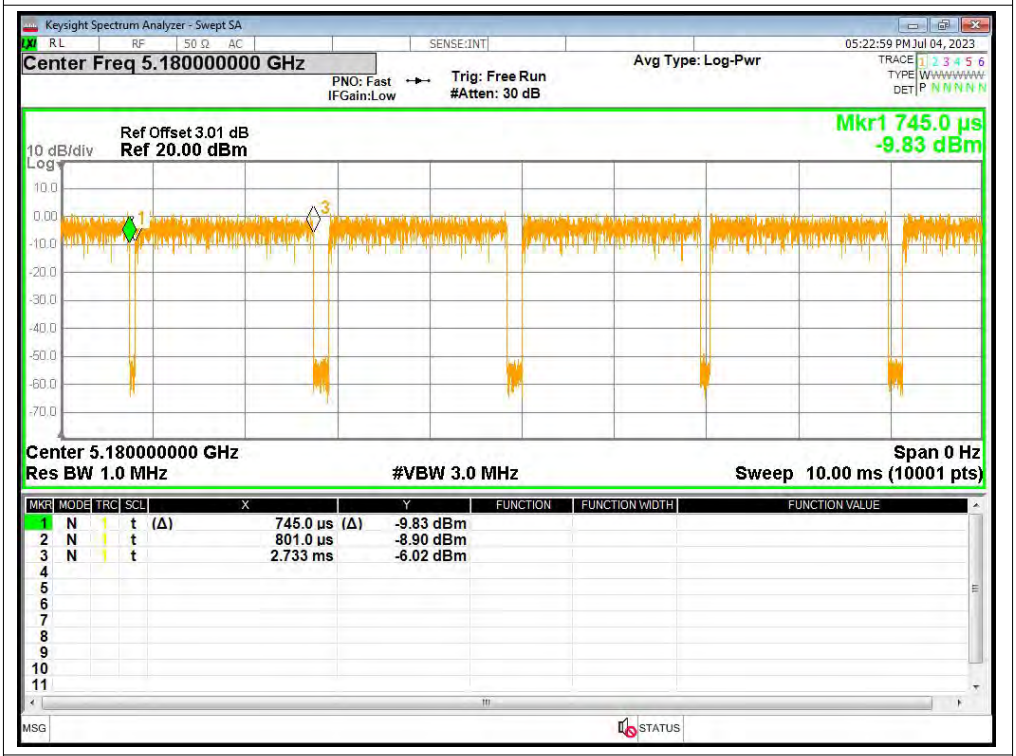
Duty Cycle NVNT ac20 5180MHz Ant1



Duty Cycle NVNT ac20 5200MHz Ant1

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Duty Cycle NVNT ac20 5240MHz Ant1

Duty Cycle NVNT ac40 5190MHz Ant1

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Duty Cycle NVNT ac40 5230MHz Ant1

Duty Cycle NVNT ac80 5210MHz Ant1

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A.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	7.61	0.22	7.83	22.88	Pass
NVNT	a	5200	Ant1	7.53	0.17	7.7	22.88	Pass
NVNT	a	5240	Ant1	7.34	0.17	7.51	22.88	Pass
NVNT	n20	5180	Ant1	6.93	0.3	7.23	22.88	Pass
NVNT	n20	5200	Ant1	7.38	0.14	7.52	22.88	Pass
NVNT	n20	5240	Ant1	6.86	0.22	7.08	22.88	Pass
NVNT	n40	5190	Ant1	7.84	0.09	7.93	22.88	Pass
NVNT	n40	5230	Ant1	7.52	0.24	7.76	22.88	Pass
NVNT	ac20	5180	Ant1	6.86	0.12	6.98	22.88	Pass
NVNT	ac20	5200	Ant1	7.37	0.34	7.71	22.88	Pass
NVNT	ac20	5240	Ant1	6.98	0.2	7.18	22.88	Pass
NVNT	ac40	5190	Ant1	7.48	0	7.48	22.88	Pass
NVNT	ac40	5230	Ant1	7.36	0.1	7.46	22.88	Pass
NVNT	ac80	5210	Ant1	7.23	0.28	7.51	22.88	Pass

Note: Limit =24-1.12=22.88 dBm

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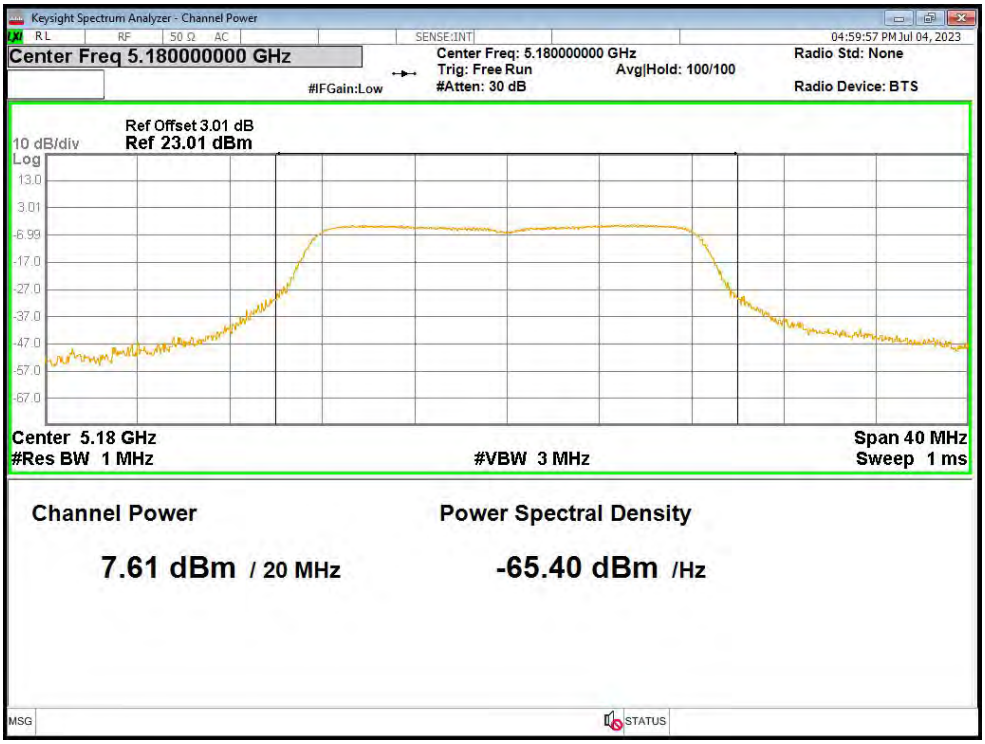
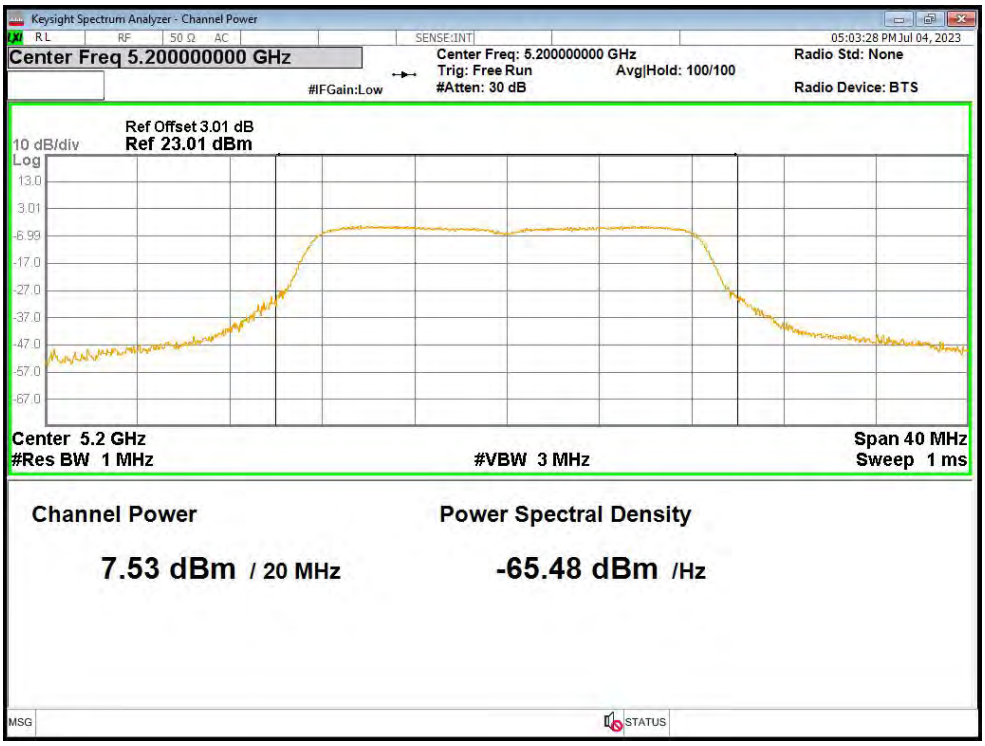
Test Graphs

Power NVNT a 5180MHz Ant1



Power NVNT a 5200MHz Ant1



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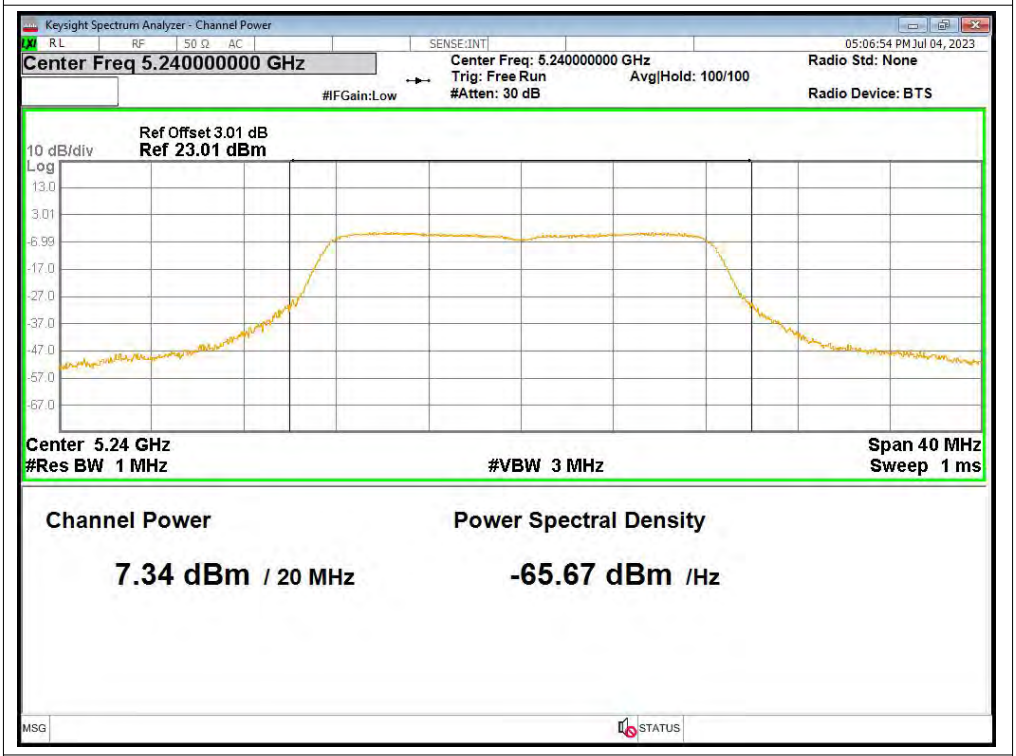
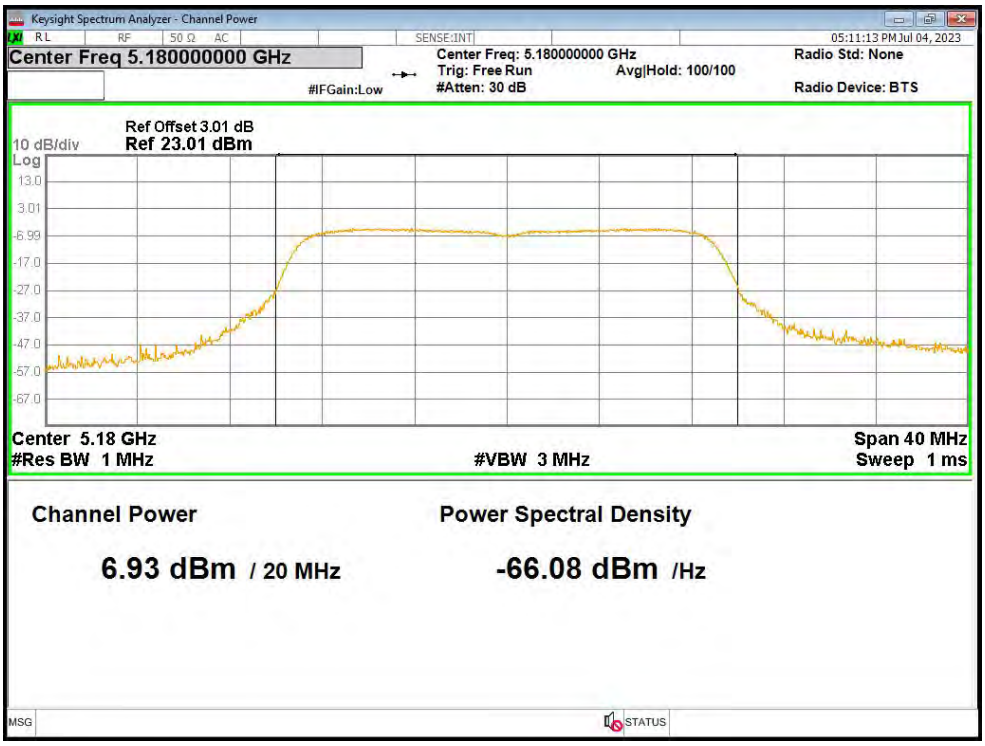
Power NVNT a 5240MHz Ant1



Power NVNT n20 5180MHz Ant1



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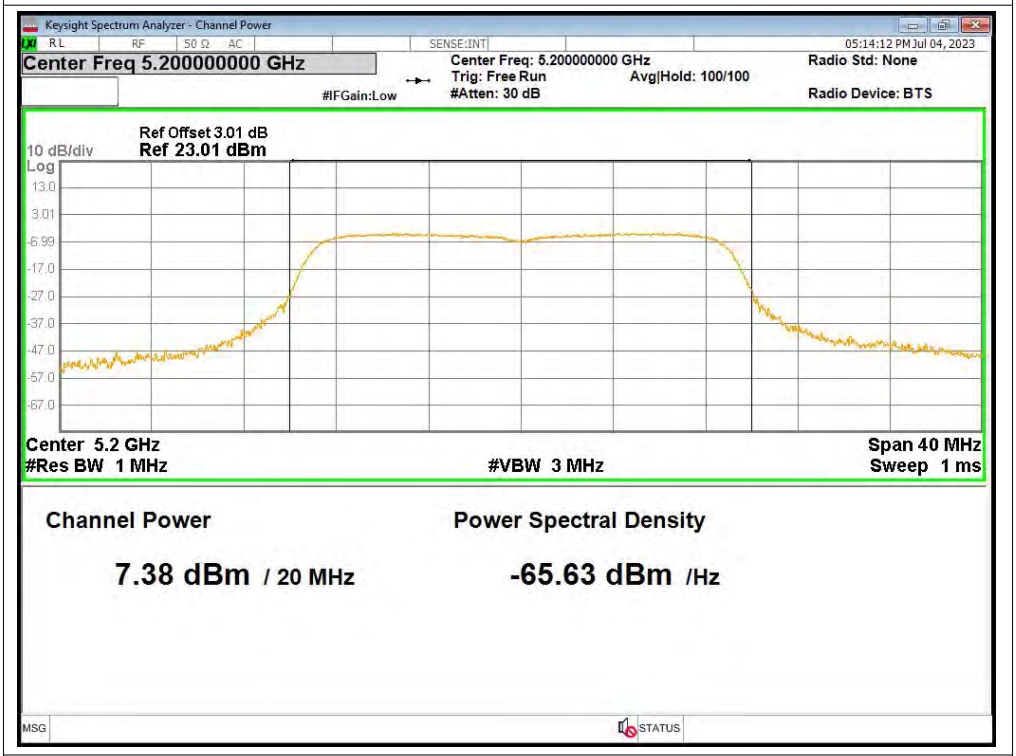
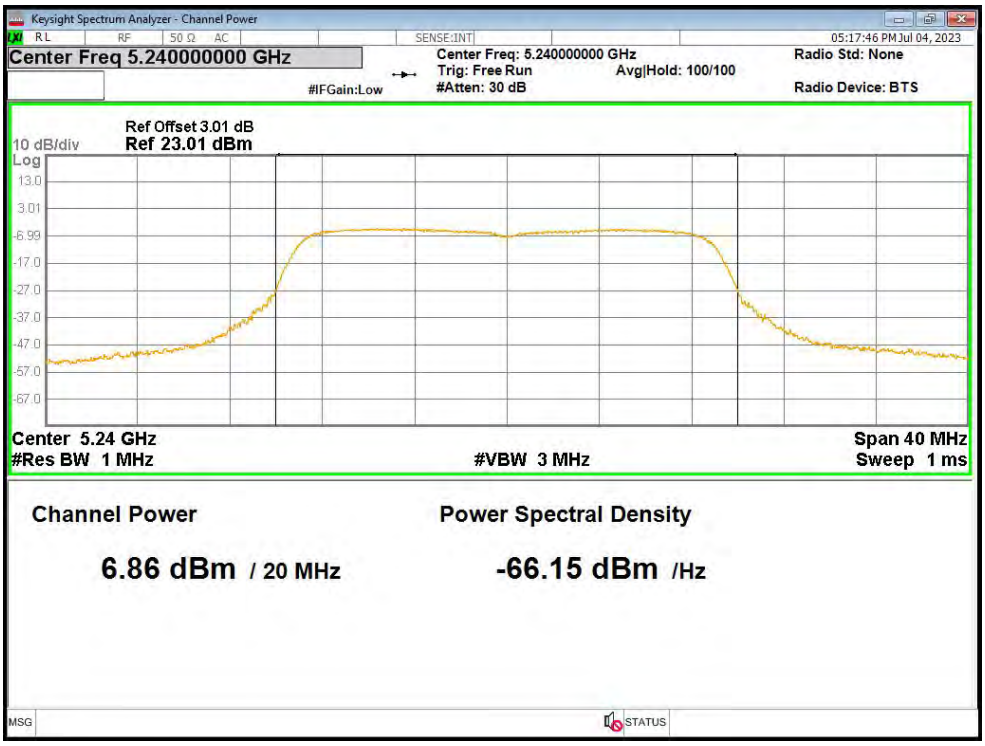
Power NVNT n20 5200MHz Ant1



Power NVNT n20 5240MHz Ant1



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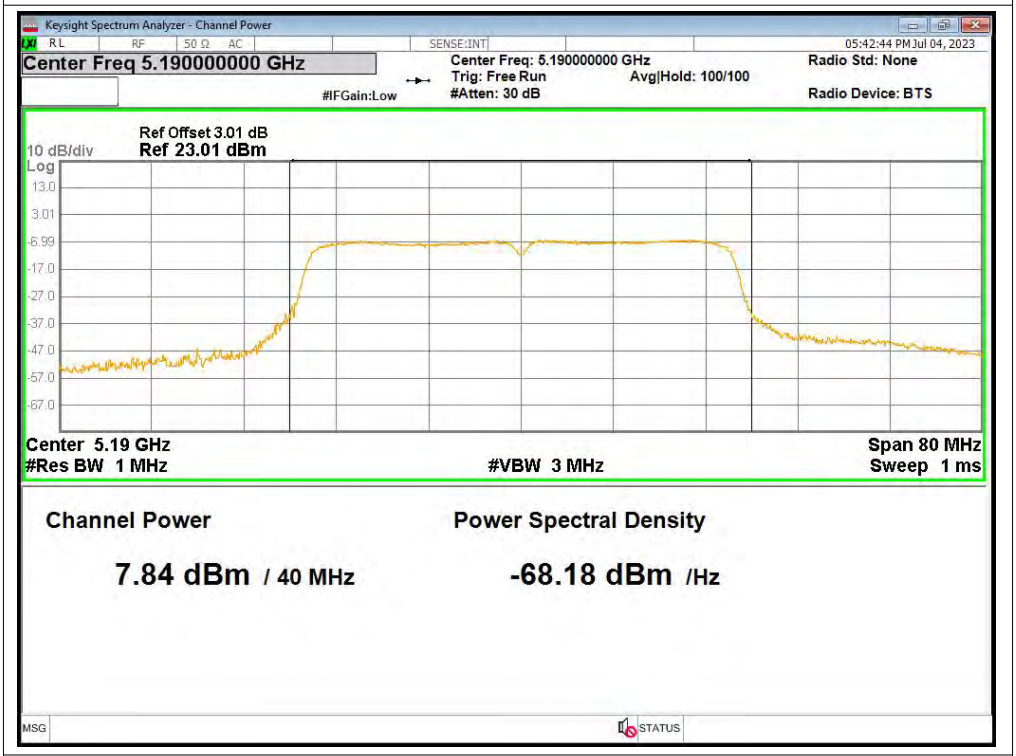
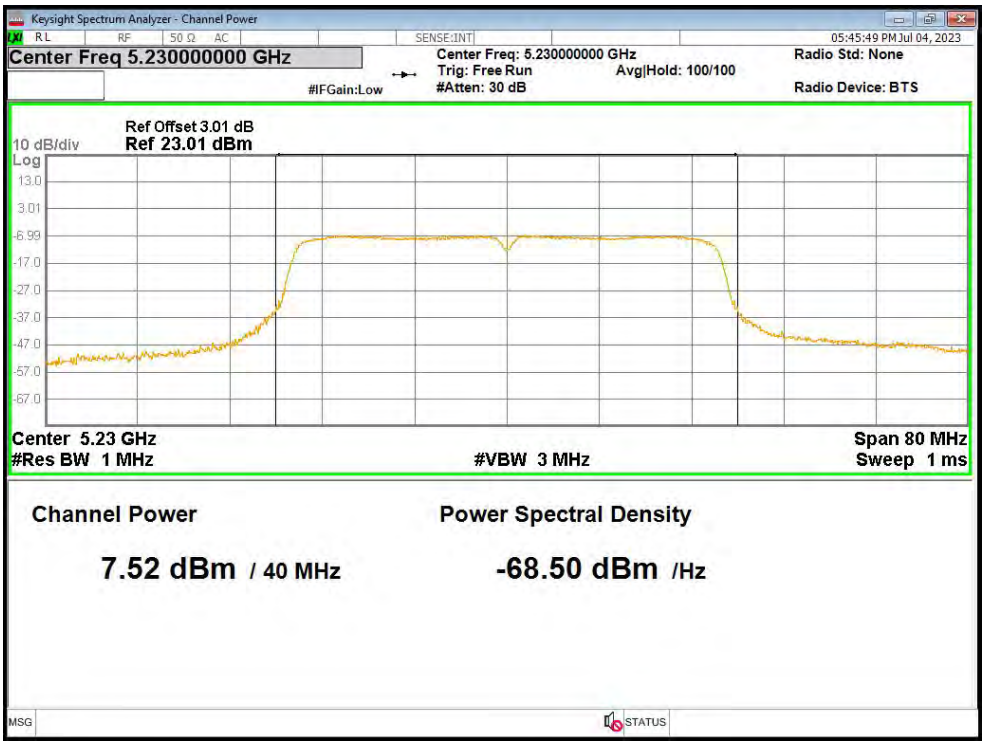
Power NVNT n40 5190MHz Ant1



Power NVNT n40 5230MHz Ant1



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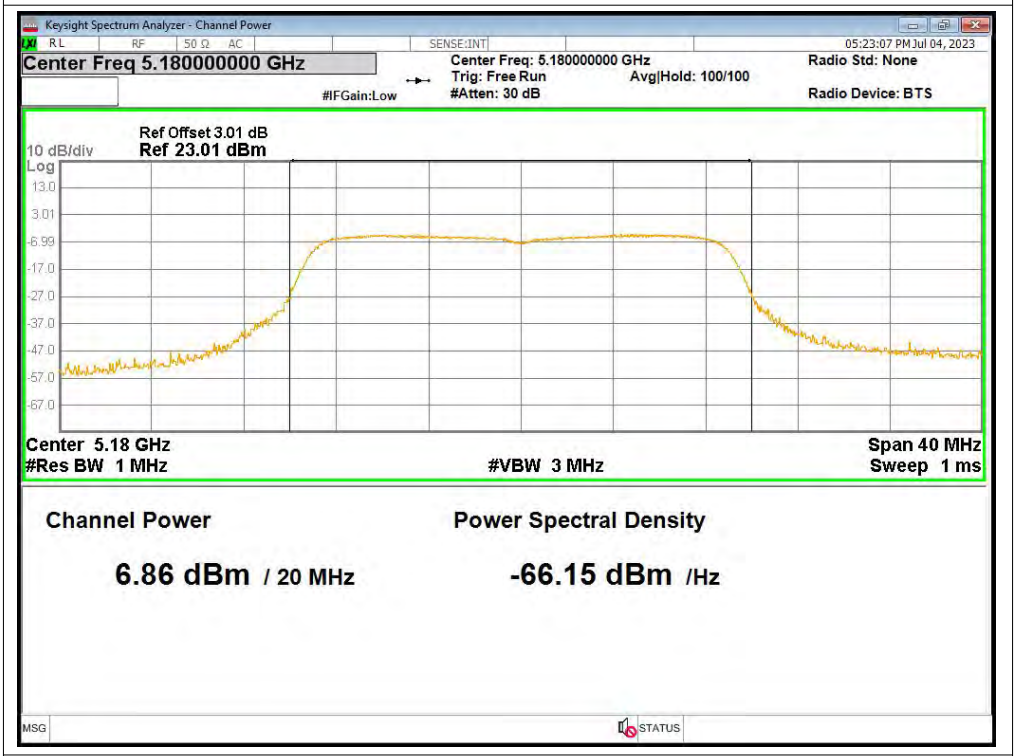
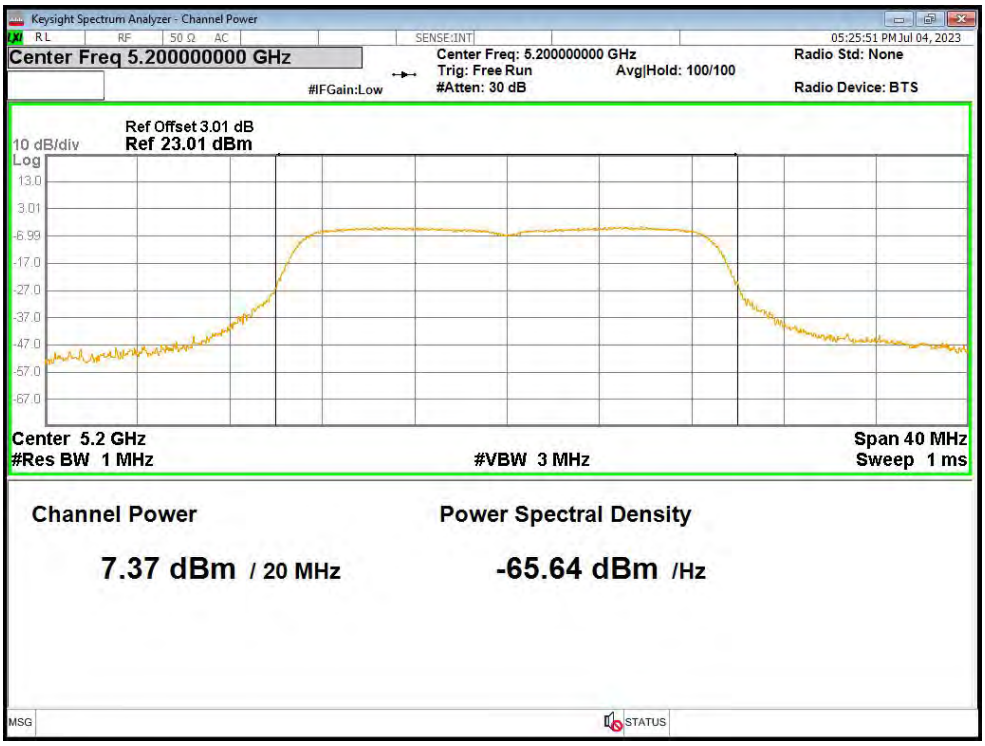
Power NVNT ac20 5180MHz Ant1



Power NVNT ac20 5200MHz Ant1



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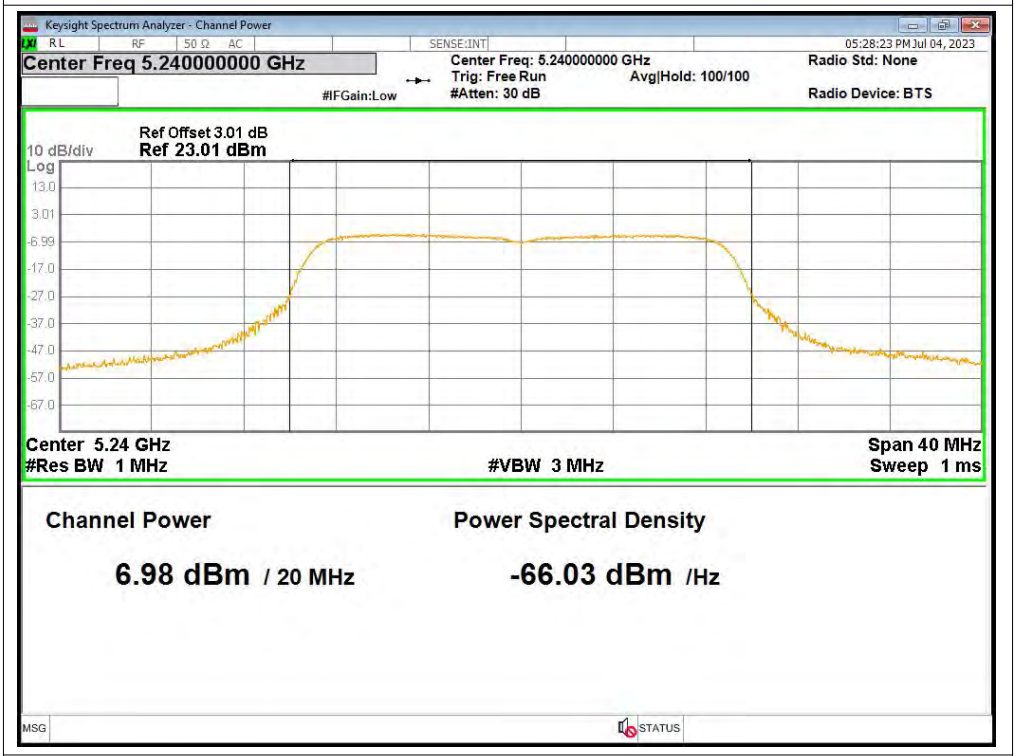
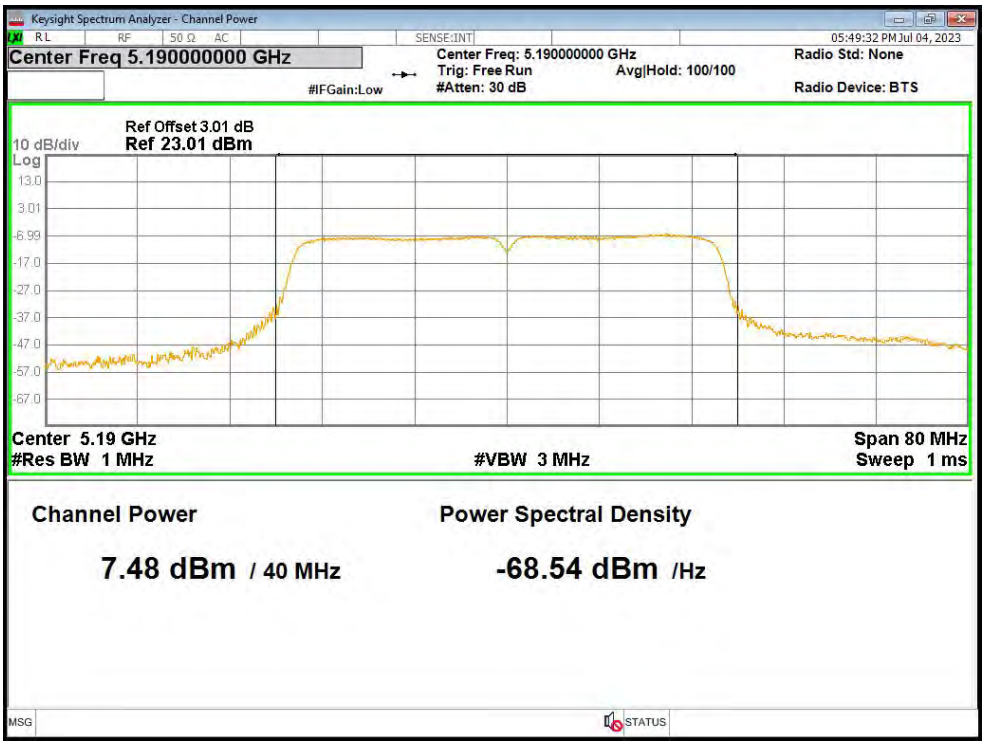
Power NVNT ac20 5240MHz Ant1



Power NVNT ac40 5190MHz Ant1



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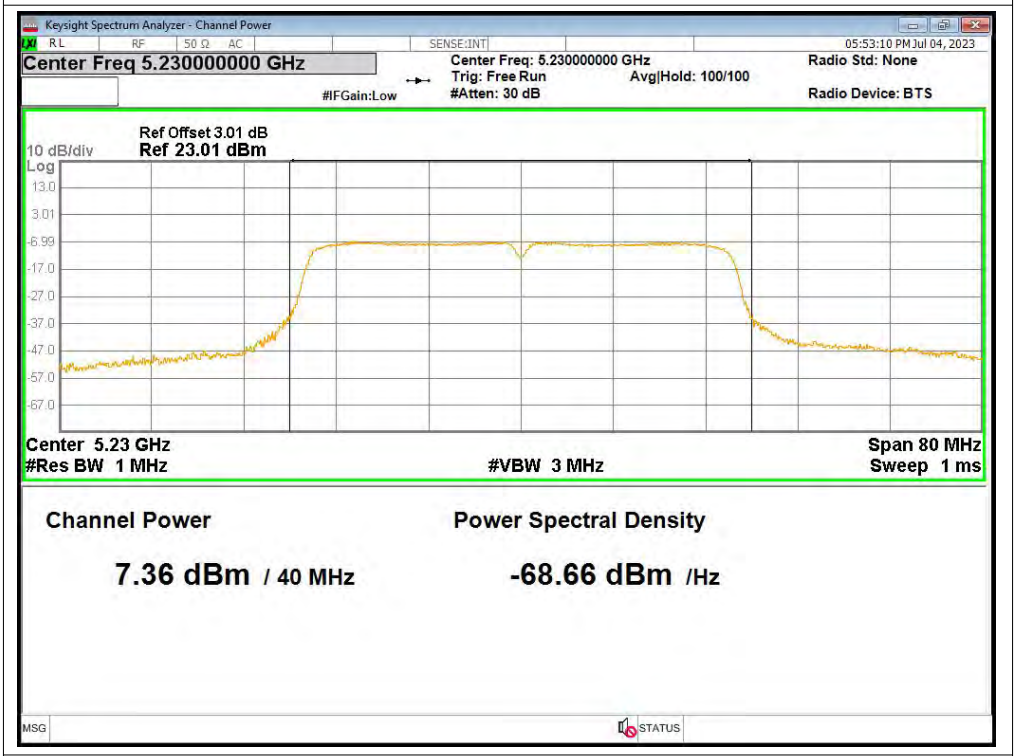
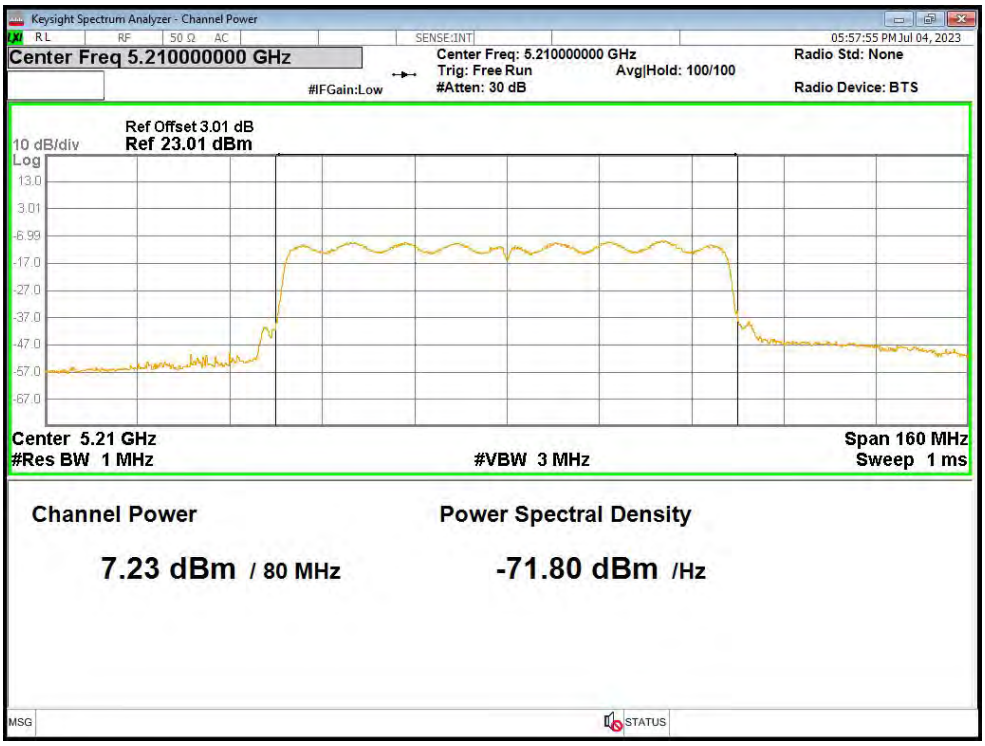
Power NVNT ac40 5230MHz Ant1



Power NVNT ac80 5210MHz Ant1



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A.3 -26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	20.633	0.5	Pass
NVNT	a	5200	Ant1	20.41	0.5	Pass
NVNT	a	5240	Ant1	20.858	0.5	Pass
NVNT	n20	5180	Ant1	21.392	0.5	Pass
NVNT	n20	5200	Ant1	21.577	0.5	Pass
NVNT	n20	5240	Ant1	20.906	0.5	Pass
NVNT	n40	5190	Ant1	40.348	0.5	Pass
NVNT	n40	5230	Ant1	40.08	0.5	Pass
NVNT	ac20	5180	Ant1	21.481	0.5	Pass
NVNT	ac20	5200	Ant1	21.416	0.5	Pass
NVNT	ac20	5240	Ant1	21.55	0.5	Pass
NVNT	ac40	5190	Ant1	40.449	0.5	Pass
NVNT	ac40	5230	Ant1	40.786	0.5	Pass
NVNT	ac80	5210	Ant1	79.679	0.5	Pass

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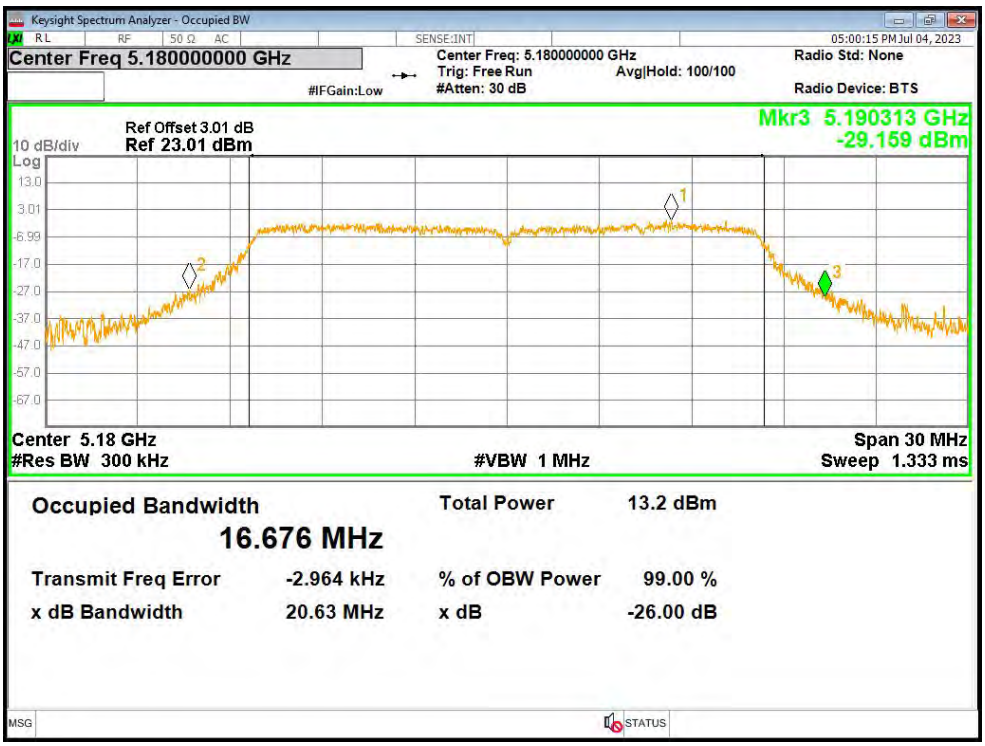
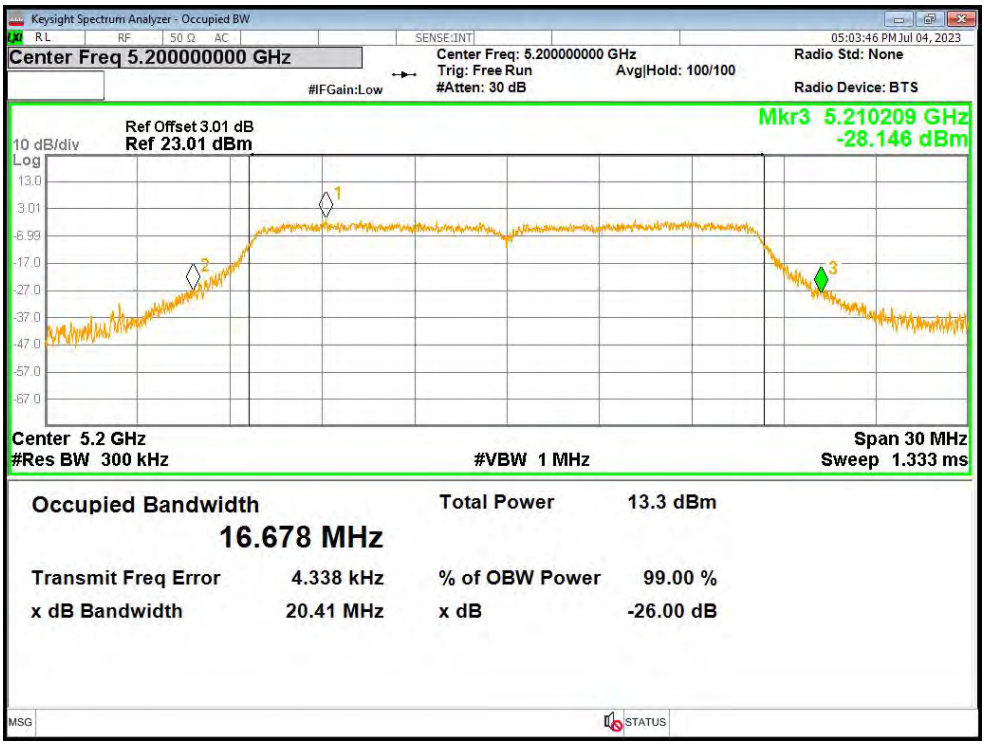
Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1



-26dB Bandwidth NVNT a 5200MHz Ant1



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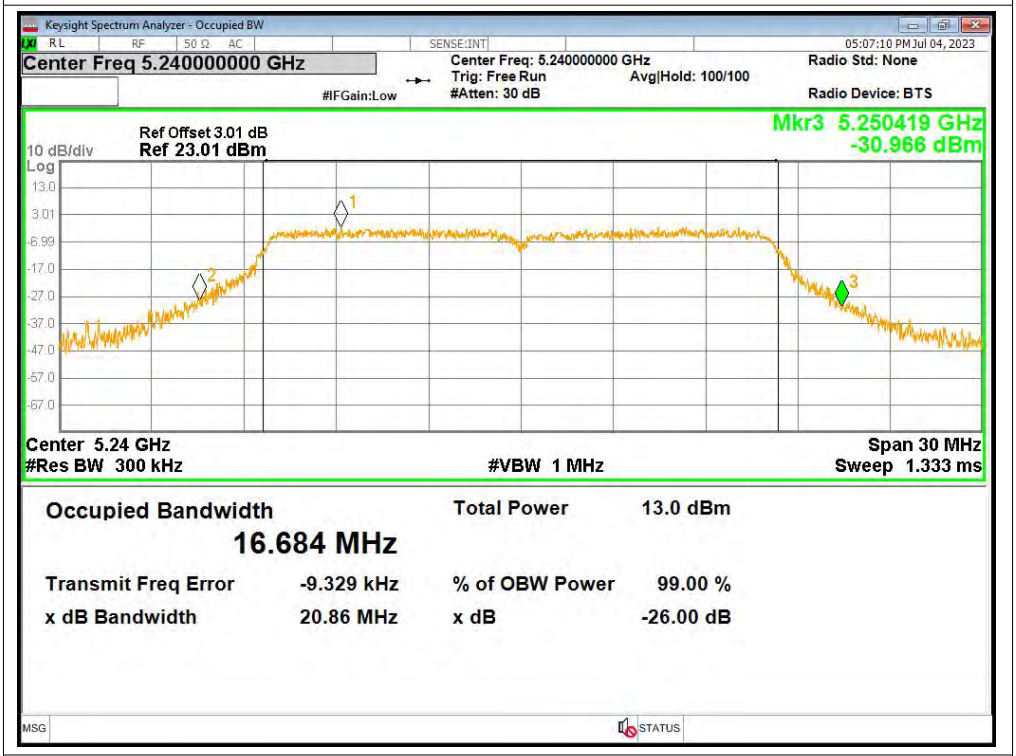
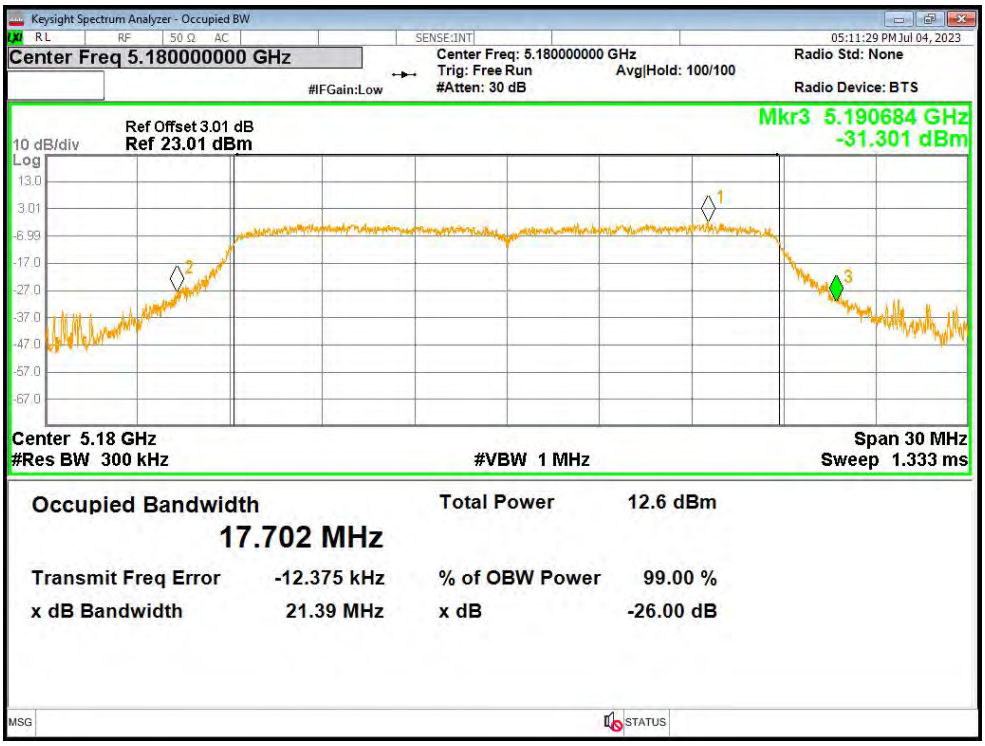
-26dB Bandwidth NVNT a 5240MHz Ant1



-26dB Bandwidth NVNT n20 5180MHz Ant1



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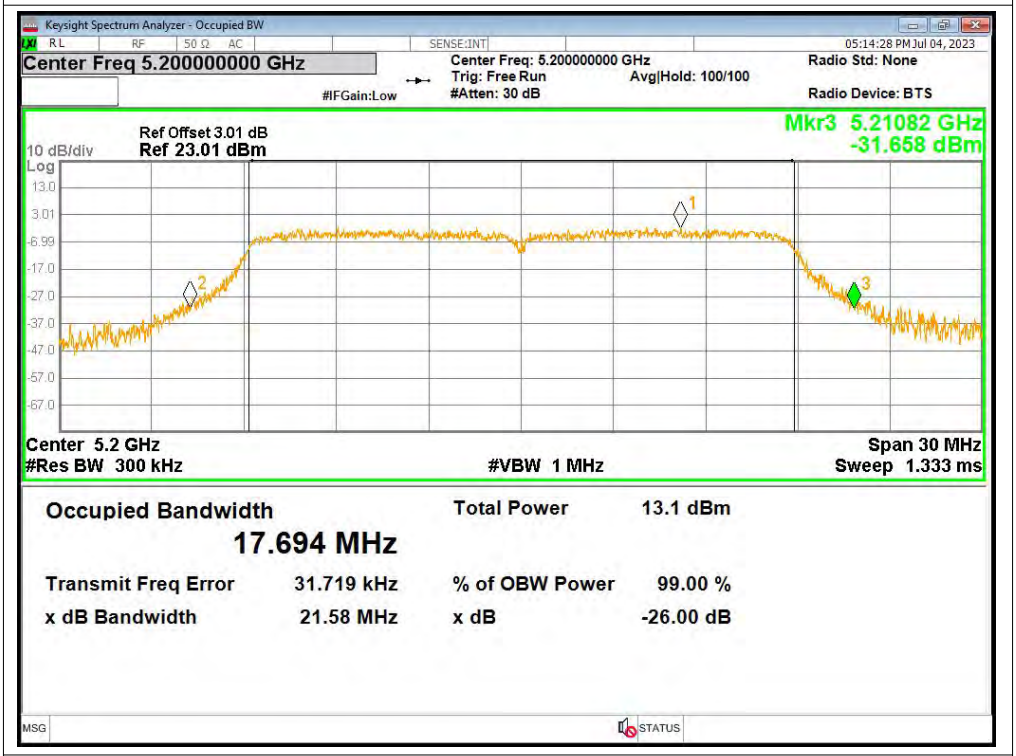
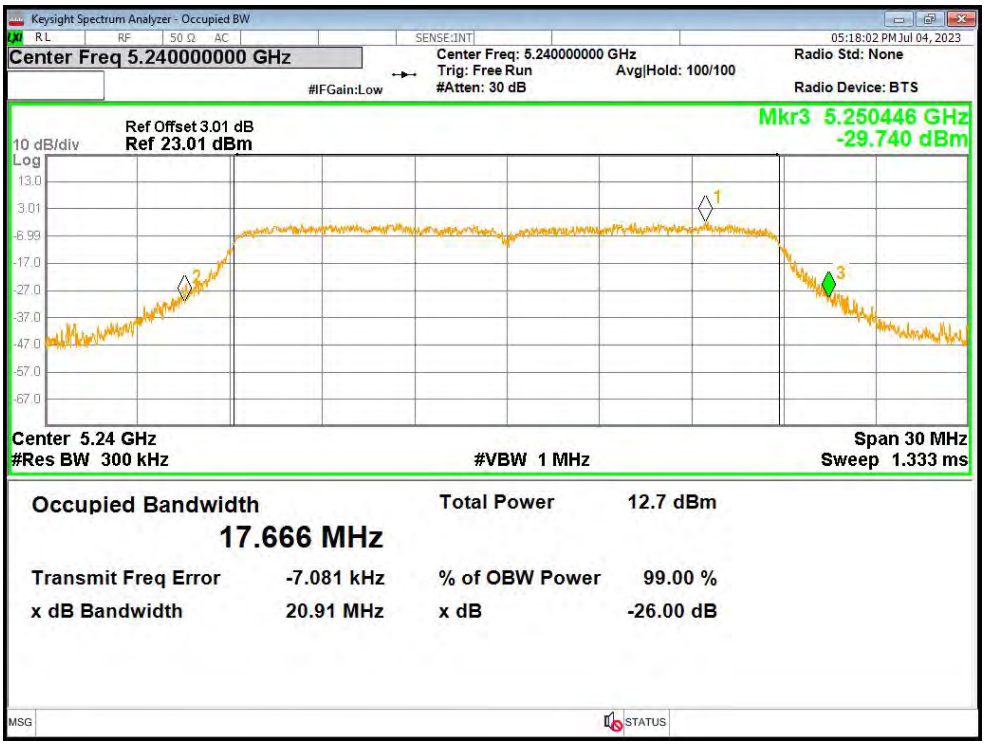
-26dB Bandwidth NVNT n20 5200MHz Ant1



-26dB Bandwidth NVNT n20 5240MHz Ant1



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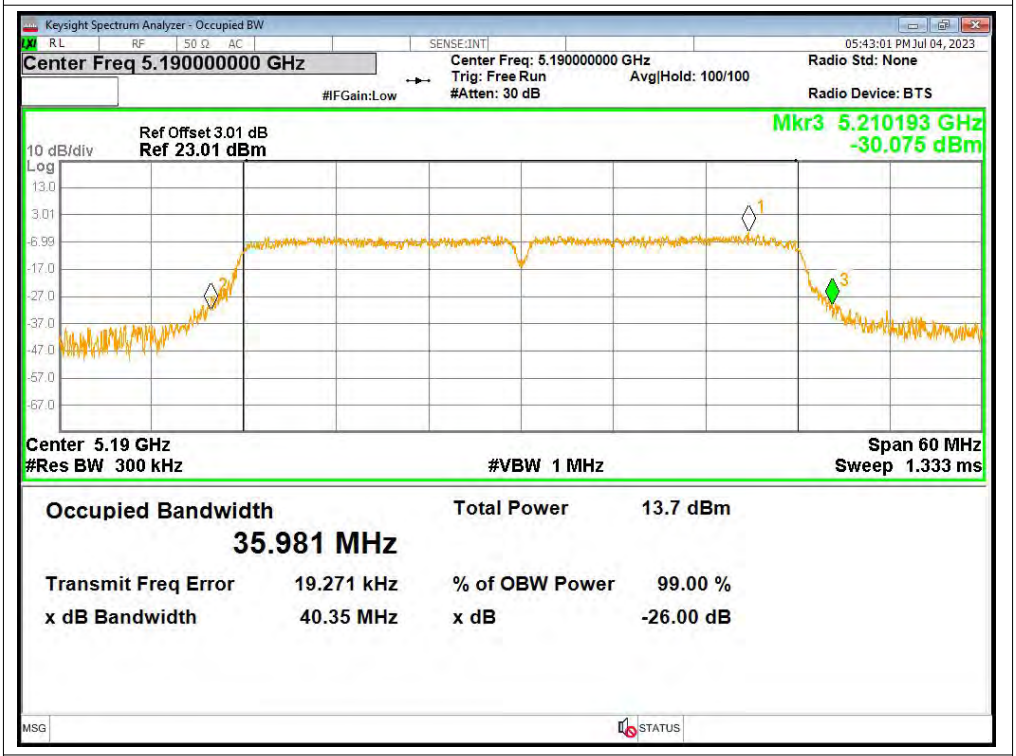
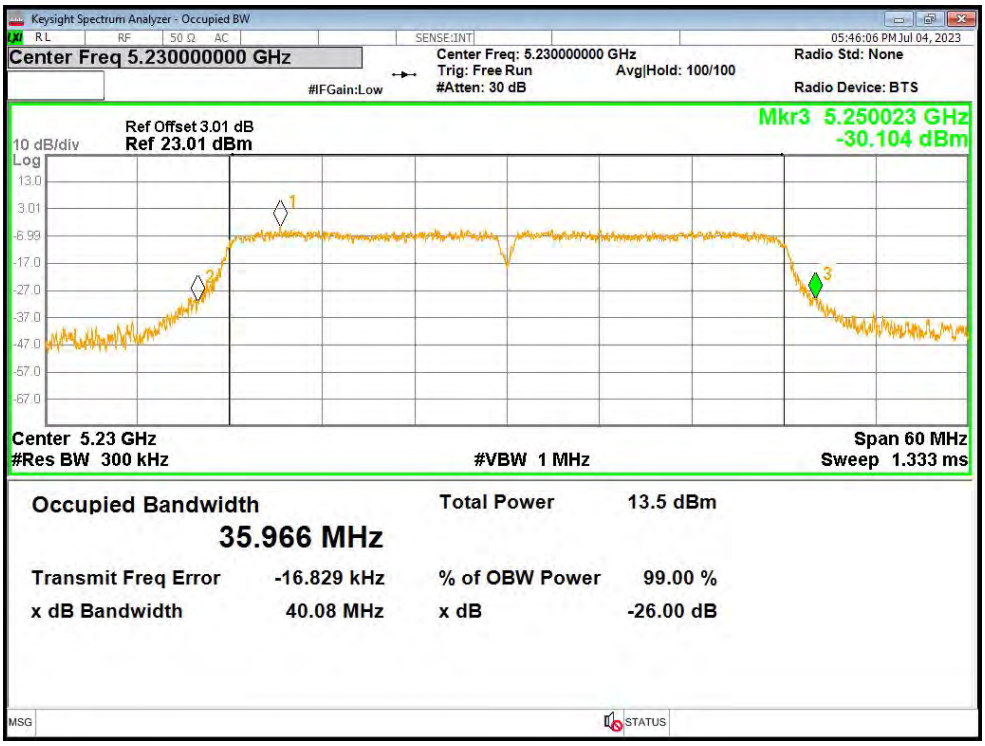
-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz Ant1



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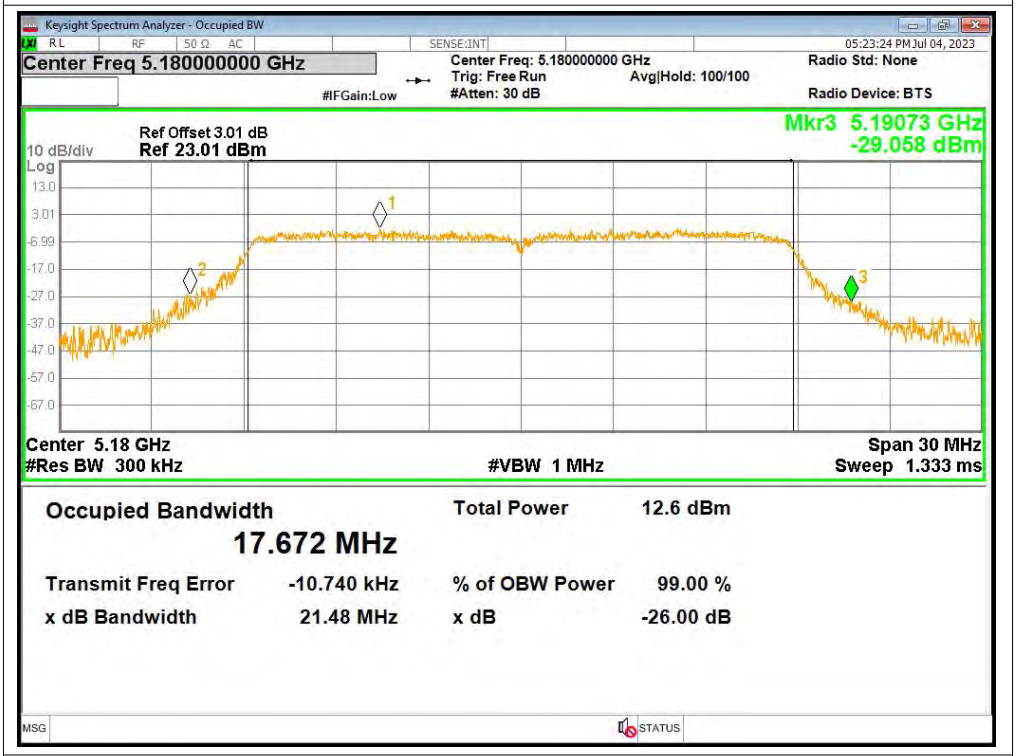
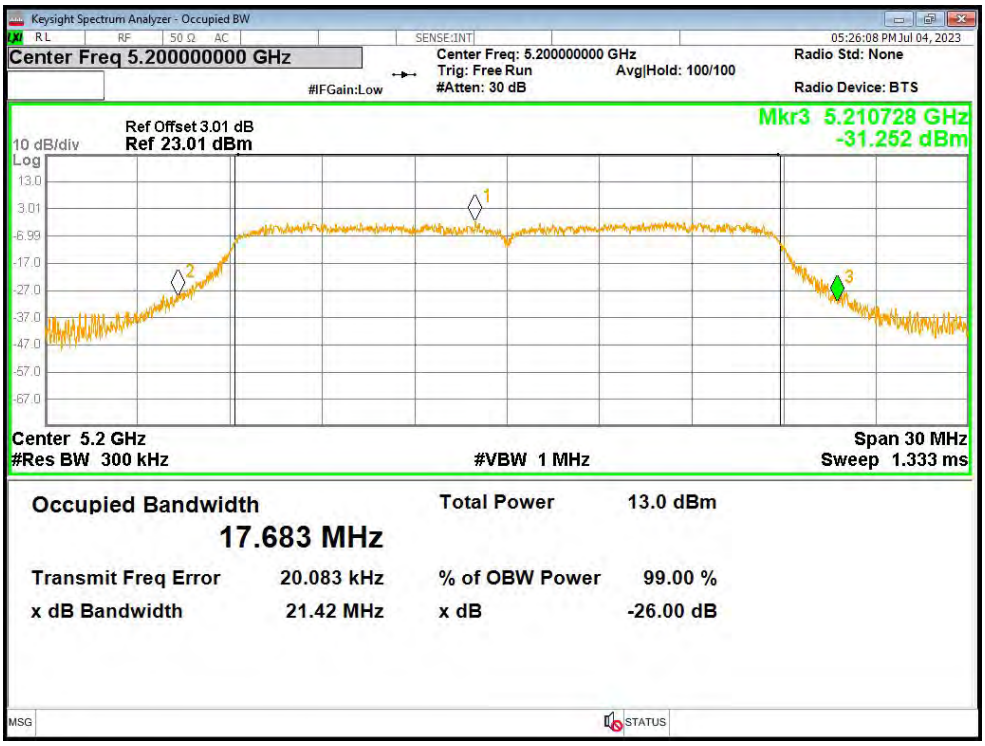
-26dB Bandwidth NVNT ac20 5180MHz Ant1



-26dB Bandwidth NVNT ac20 5200MHz Ant1



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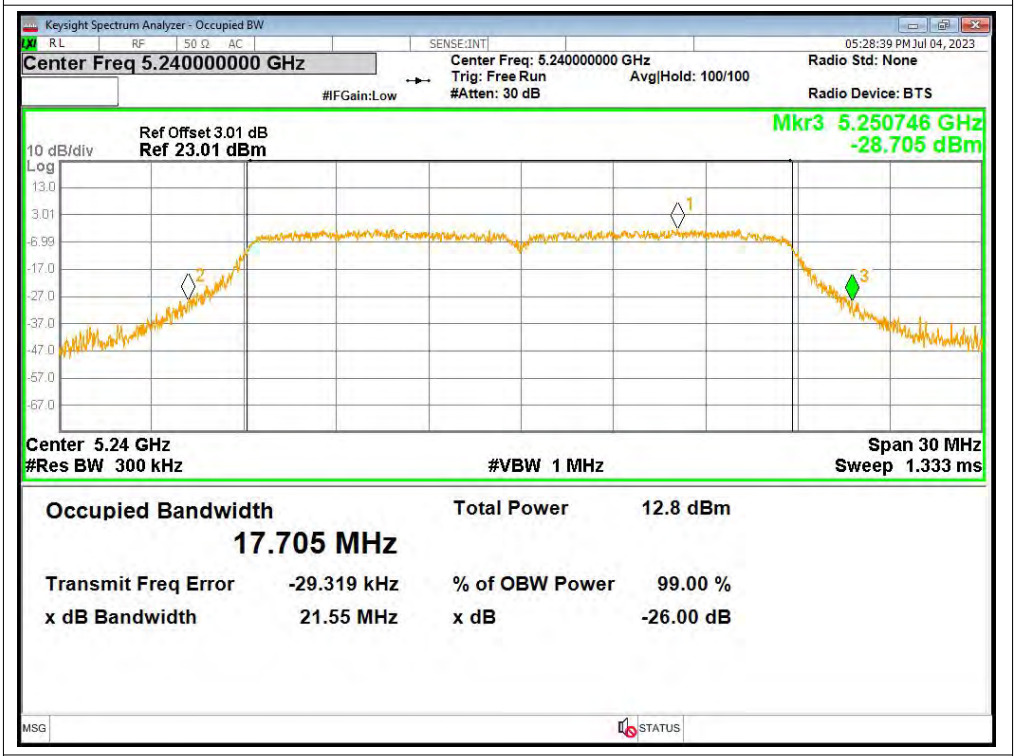
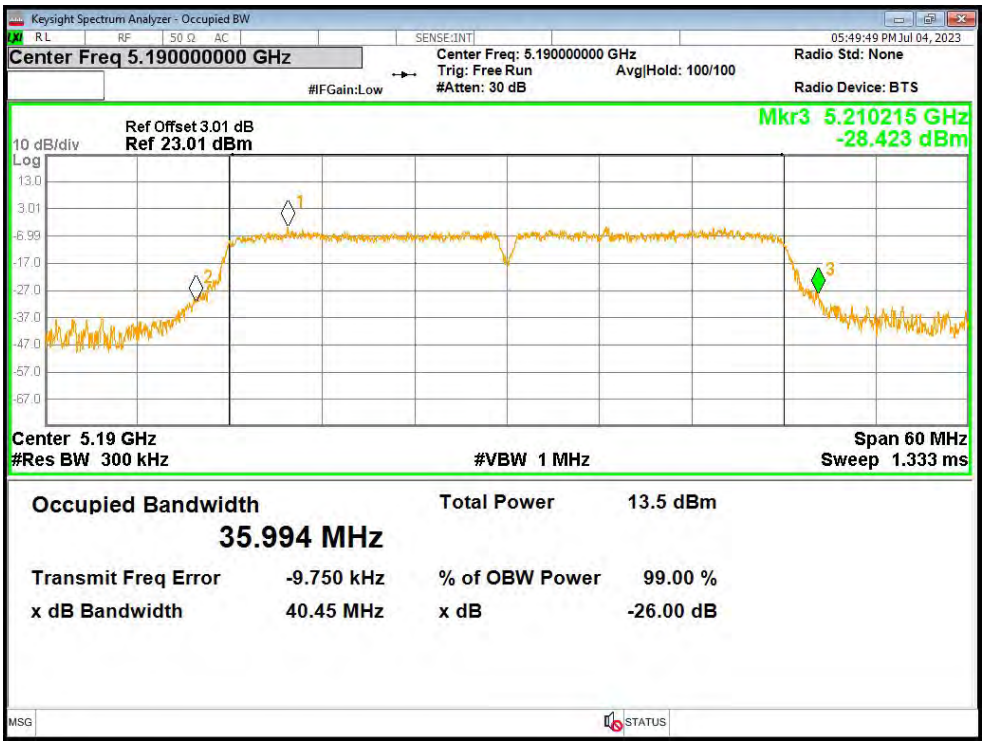
-26dB Bandwidth NVNT ac20 5240MHz Ant1



-26dB Bandwidth NVNT ac40 5190MHz Ant1



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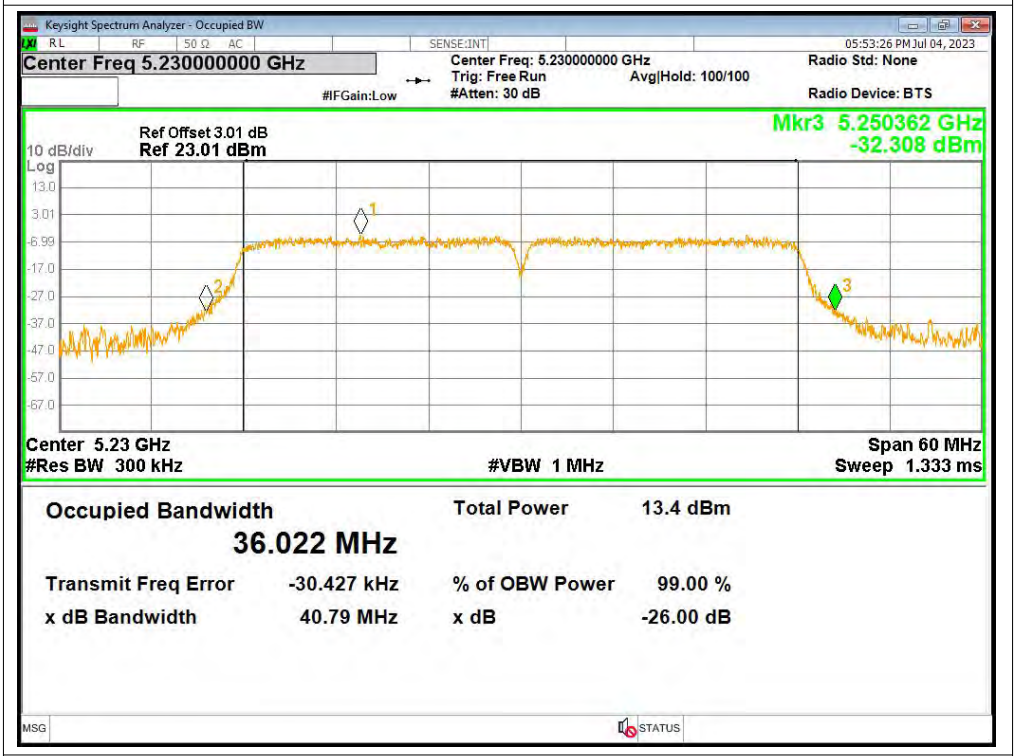
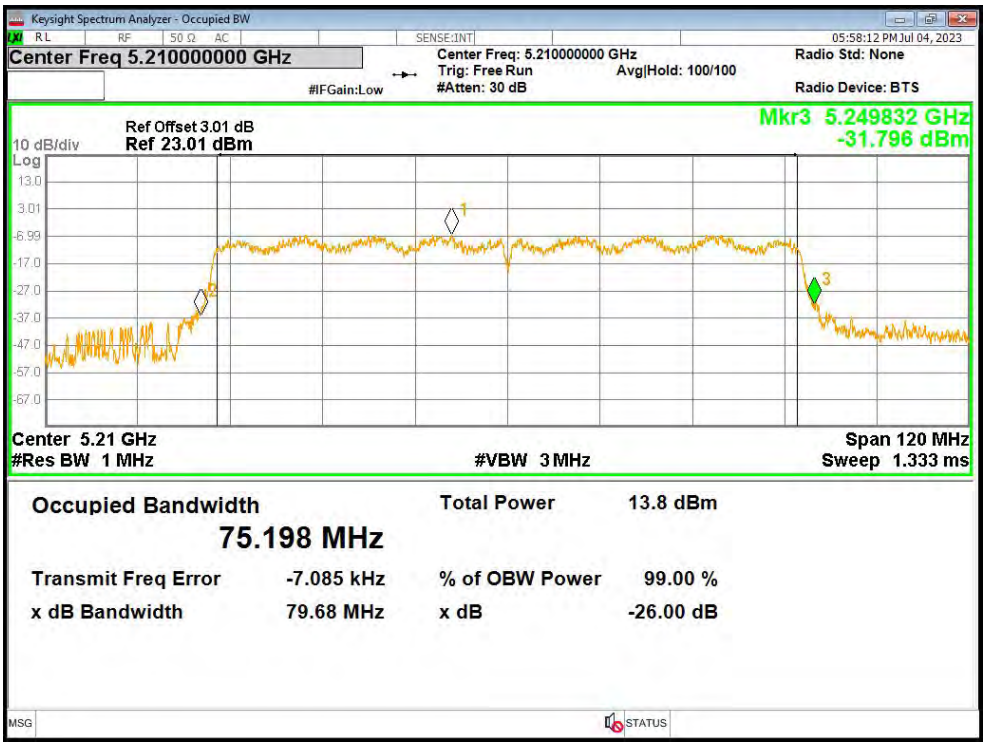
-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1



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A.4 Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.522
NVNT	a	5200	Ant1	16.487
NVNT	a	5240	Ant1	16.475
NVNT	n20	5180	Ant1	17.591
NVNT	n20	5200	Ant1	17.606
NVNT	n20	5240	Ant1	17.577
NVNT	n40	5190	Ant1	36.048
NVNT	n40	5230	Ant1	36.069
NVNT	ac20	5180	Ant1	17.618
NVNT	ac20	5200	Ant1	17.599
NVNT	ac20	5240	Ant1	17.596
NVNT	ac40	5190	Ant1	36.087
NVNT	ac40	5230	Ant1	36.081
NVNT	ac80	5210	Ant1	75.254

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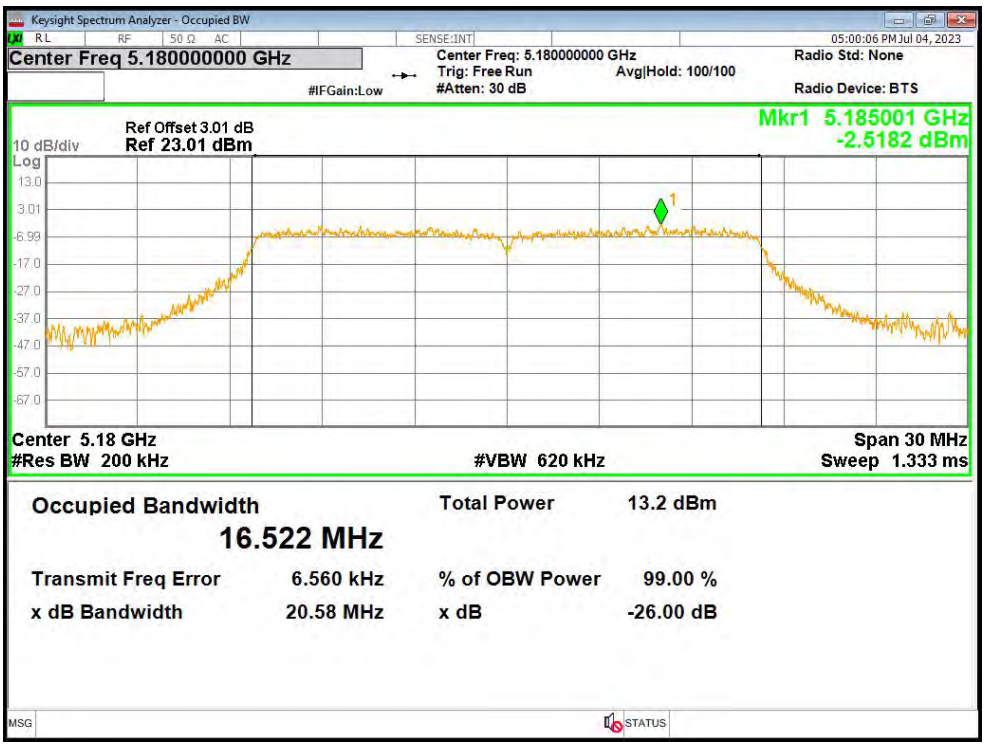
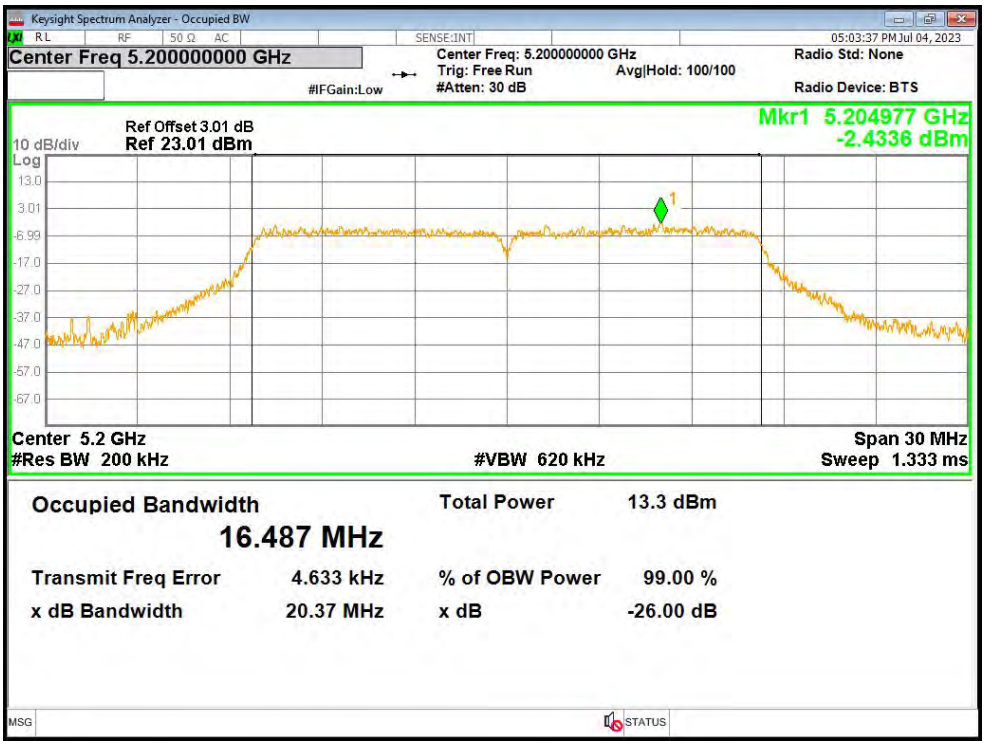
Test Graphs

OBW NVNT a 5180MHz Ant1



OBW NVNT a 5200MHz Ant1



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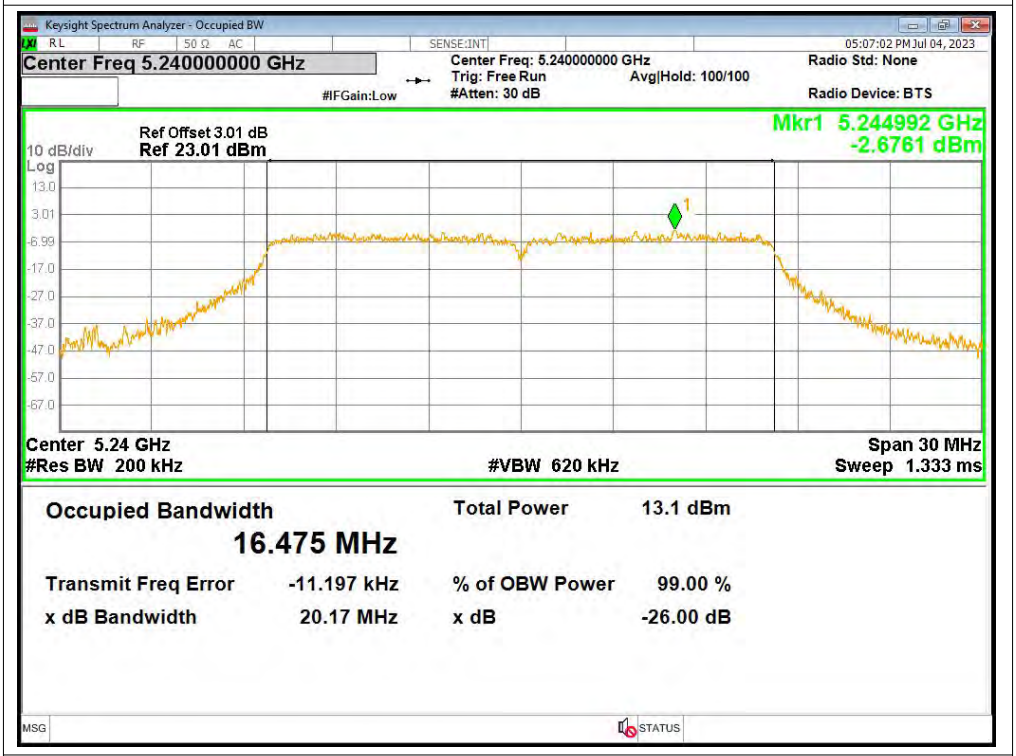
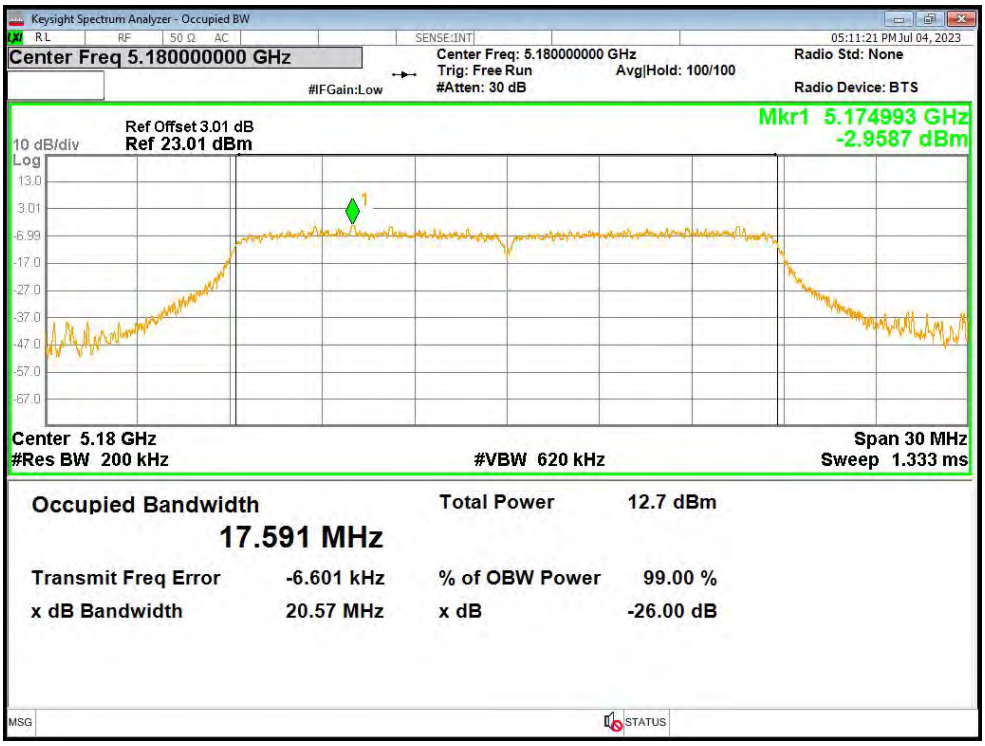
OBW NVNT a 5240MHz Ant1



OBW NVNT n20 5180MHz Ant1



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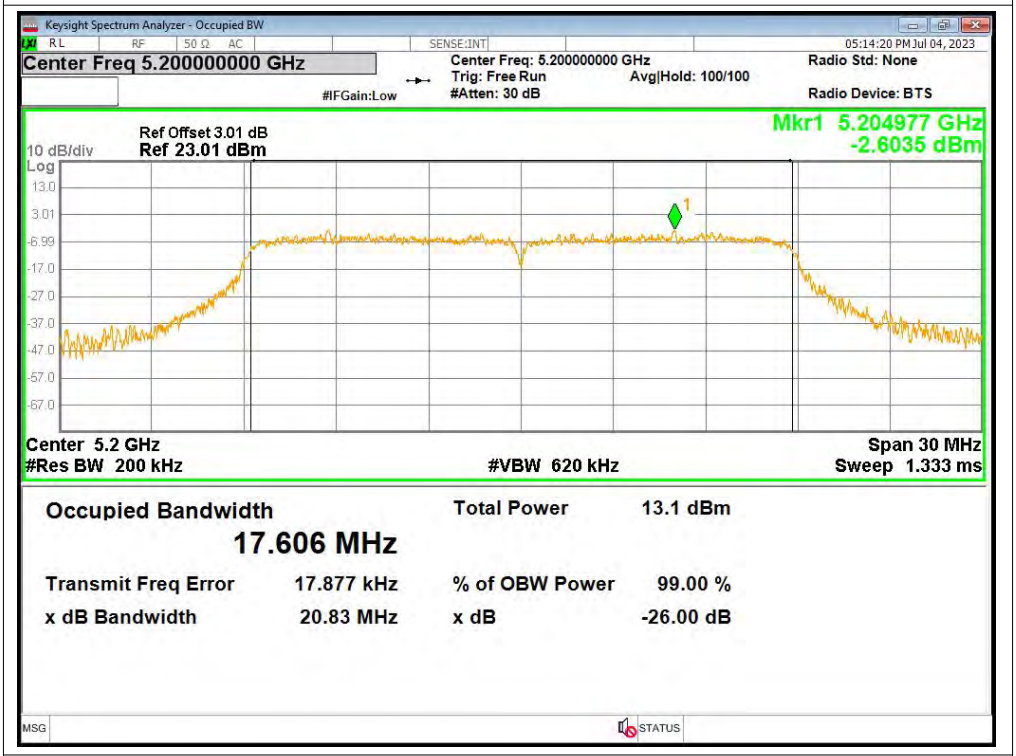
OBW NVNT n20 5200MHz Ant1



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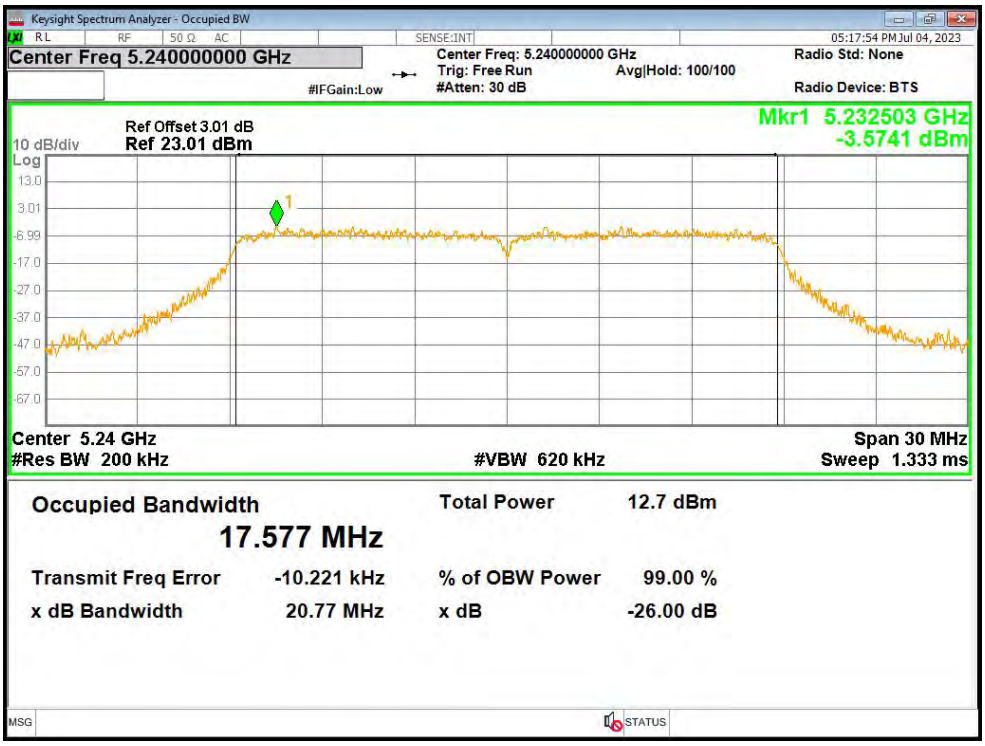

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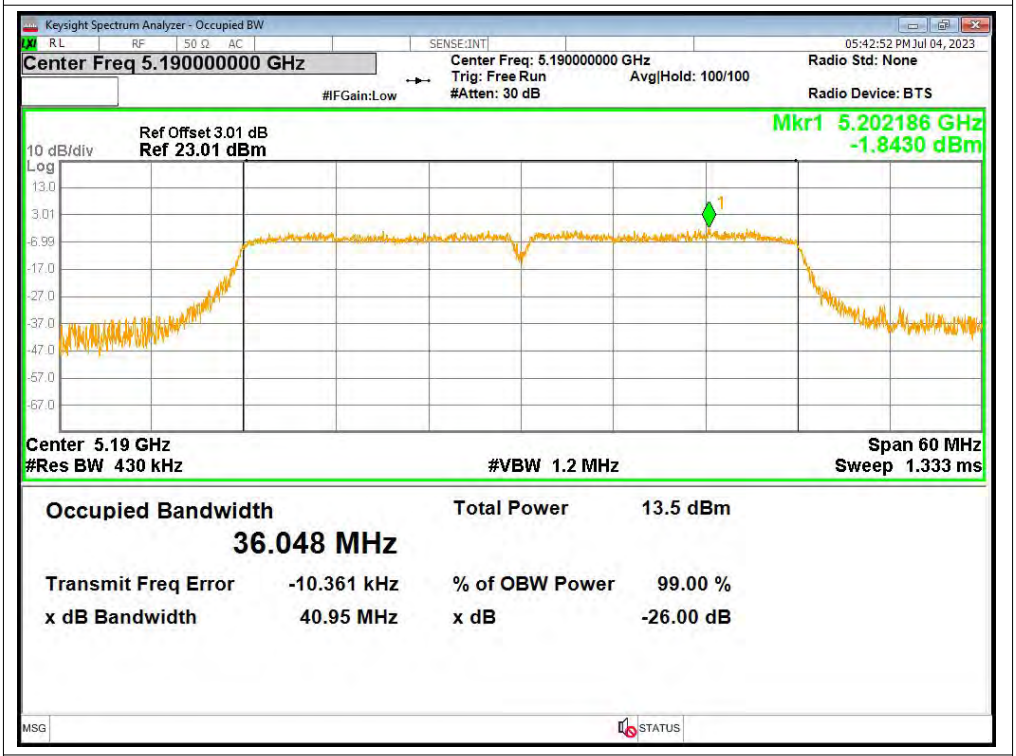
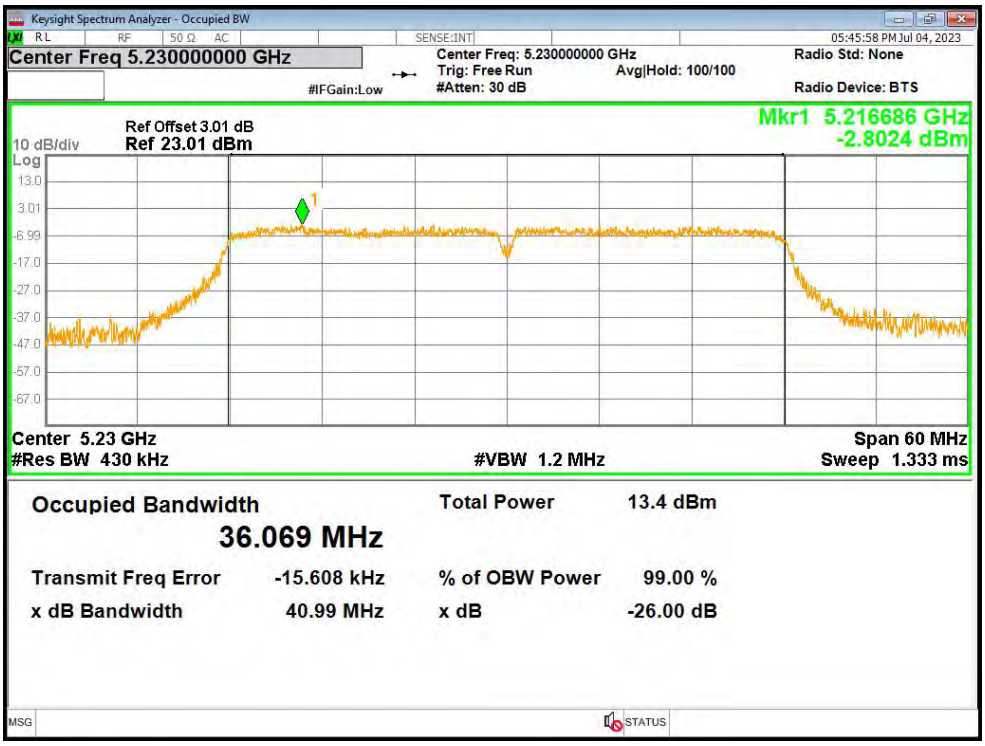
OBW NVNT n40 5190MHz Ant1



OBW NVNT n40 5230MHz Ant1



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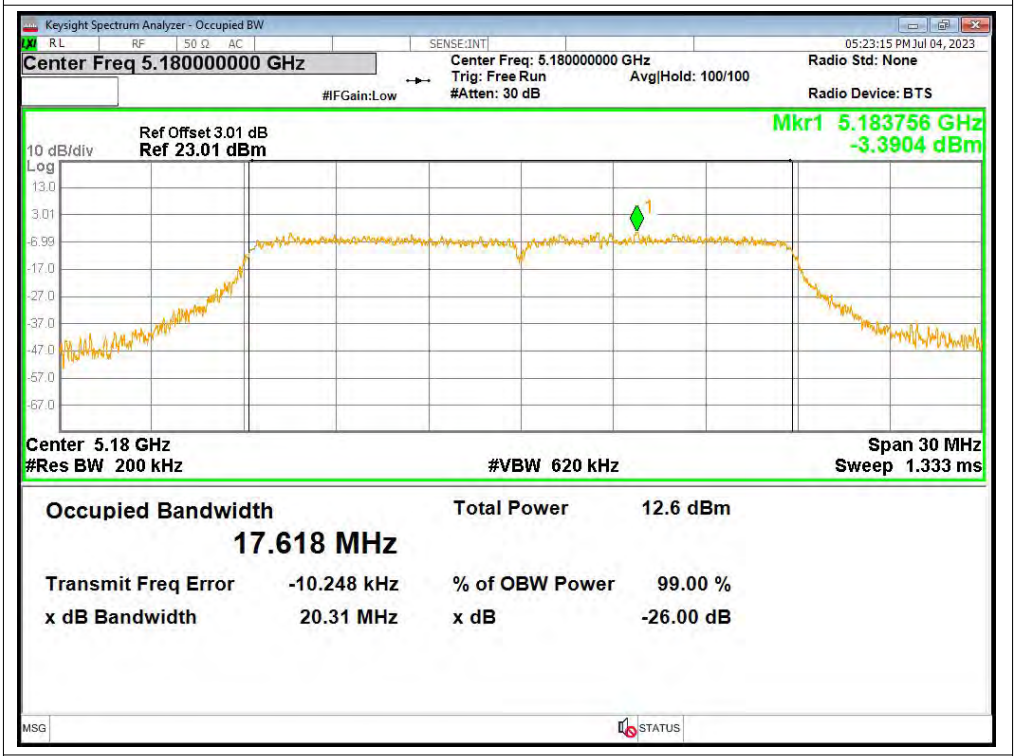
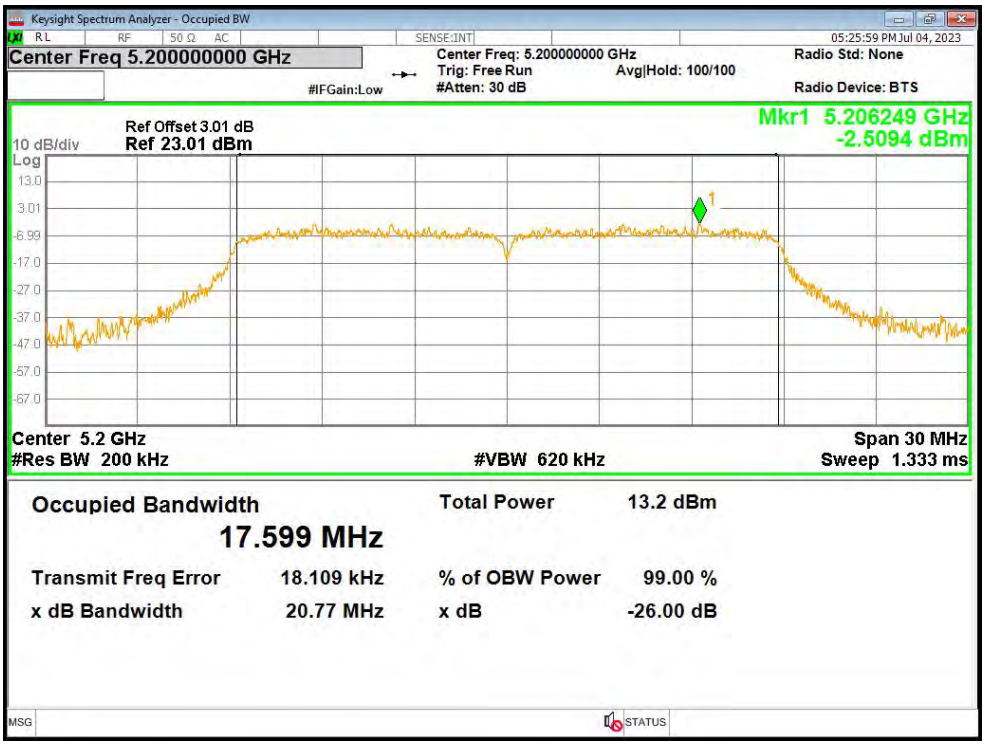
OBW NVNT ac20 5180MHz Ant1



OBW NVNT ac20 5200MHz Ant1



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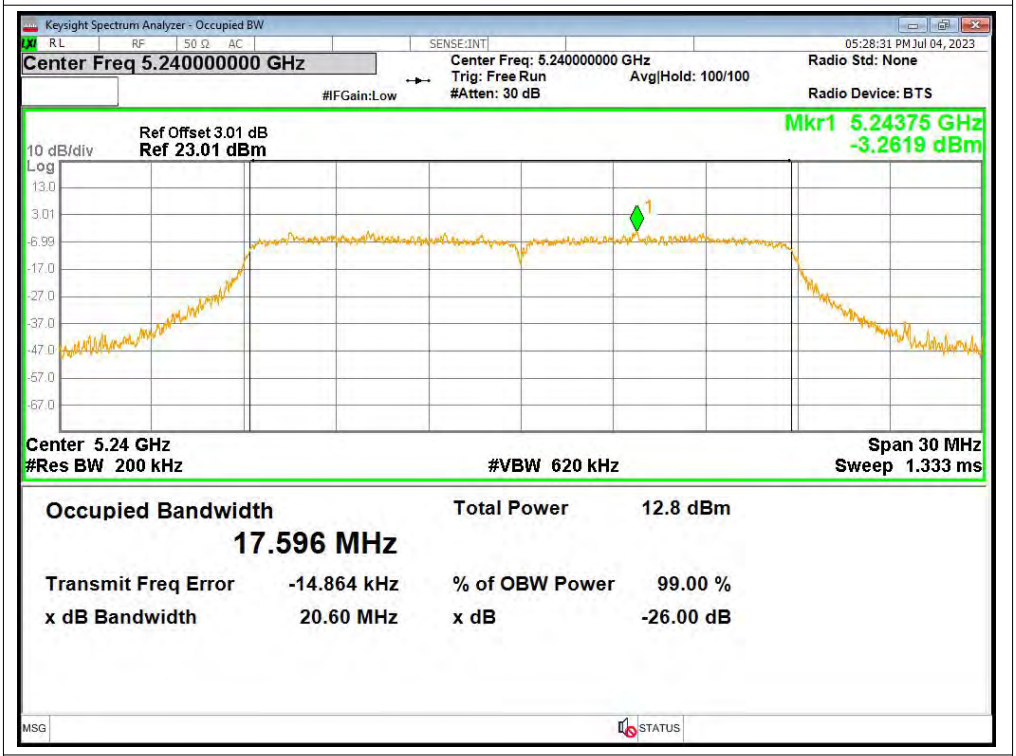
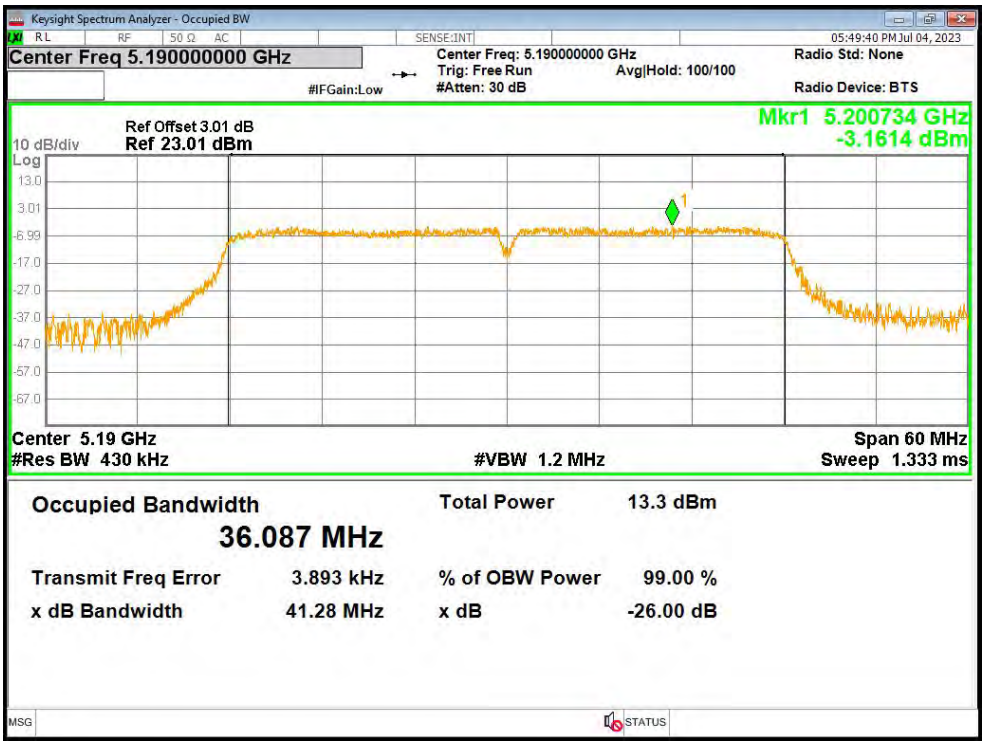
OBW NVNT ac20 5240MHz Ant1



OBW NVNT ac40 5190MHz Ant1



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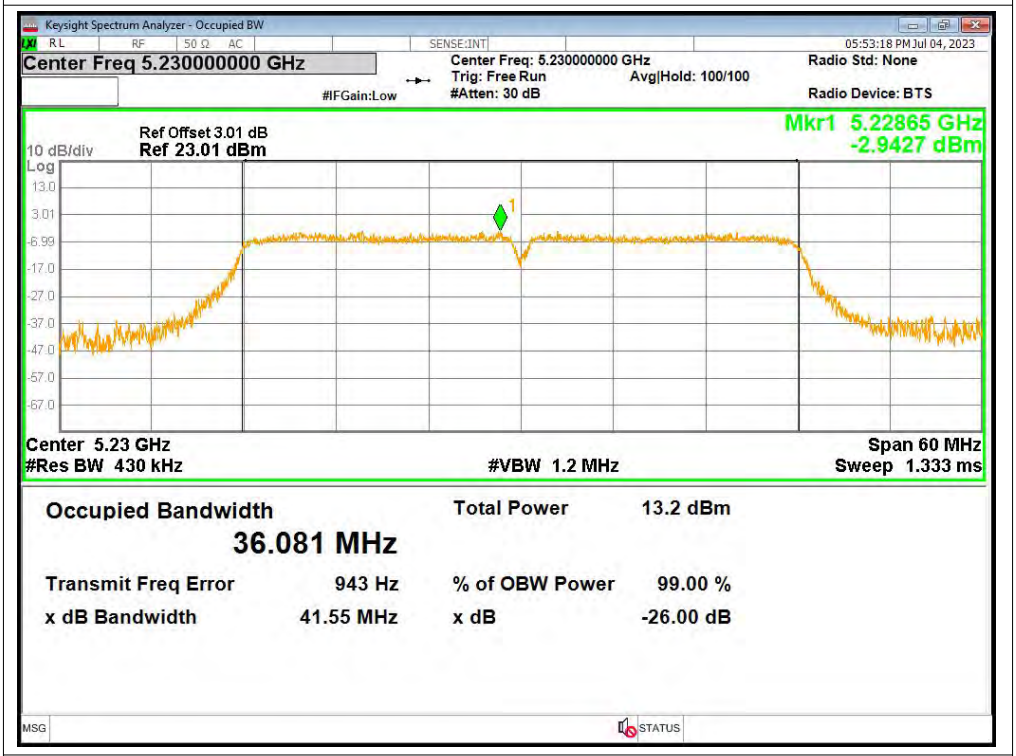
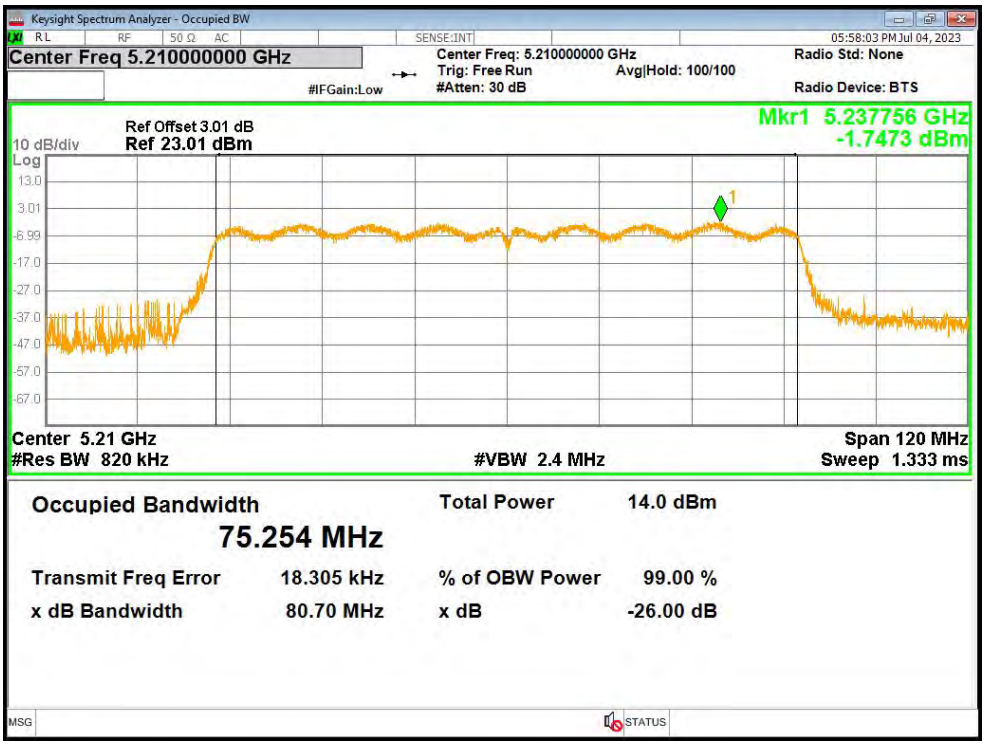
OBW NVNT ac40 5230MHz Ant1



OBW NVNT ac80 5210MHz Ant1



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A.5 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-6.41	0.22	-6.19	9.88	Pass
NVNT	a	5200	Ant1	-5.85	0.17	-5.68	9.88	Pass
NVNT	a	5240	Ant1	-7.07	0.17	-6.9	9.88	Pass
NVNT	n20	5180	Ant1	-5.86	0.3	-5.56	9.88	Pass
NVNT	n20	5200	Ant1	-6.08	0.14	-5.94	9.88	Pass
NVNT	n20	5240	Ant1	-6.56	0.22	-6.34	9.88	Pass
NVNT	n40	5190	Ant1	-11.3	0.09	-11.21	9.88	Pass
NVNT	n40	5230	Ant1	-11.44	0.24	-11.2	9.88	Pass
NVNT	ac20	5180	Ant1	-5.6	0.12	-5.48	9.88	Pass
NVNT	ac20	5200	Ant1	-6.35	0.34	-6.01	9.88	Pass
NVNT	ac20	5240	Ant1	-6.56	0.2	-6.36	9.88	Pass
NVNT	ac40	5190	Ant1	-9.48	0	-9.48	9.88	Pass
NVNT	ac40	5230	Ant1	-10.46	0.1	-10.36	9.88	Pass
NVNT	ac80	5210	Ant1	-17.62	0.28	-17.34	9.88	Pass

Note: Limit =11-1.12=9.88 dBm

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Test Graphs

PSD NVNT a 5180MHz Ant1

PSD NVNT a 5200MHz Ant1

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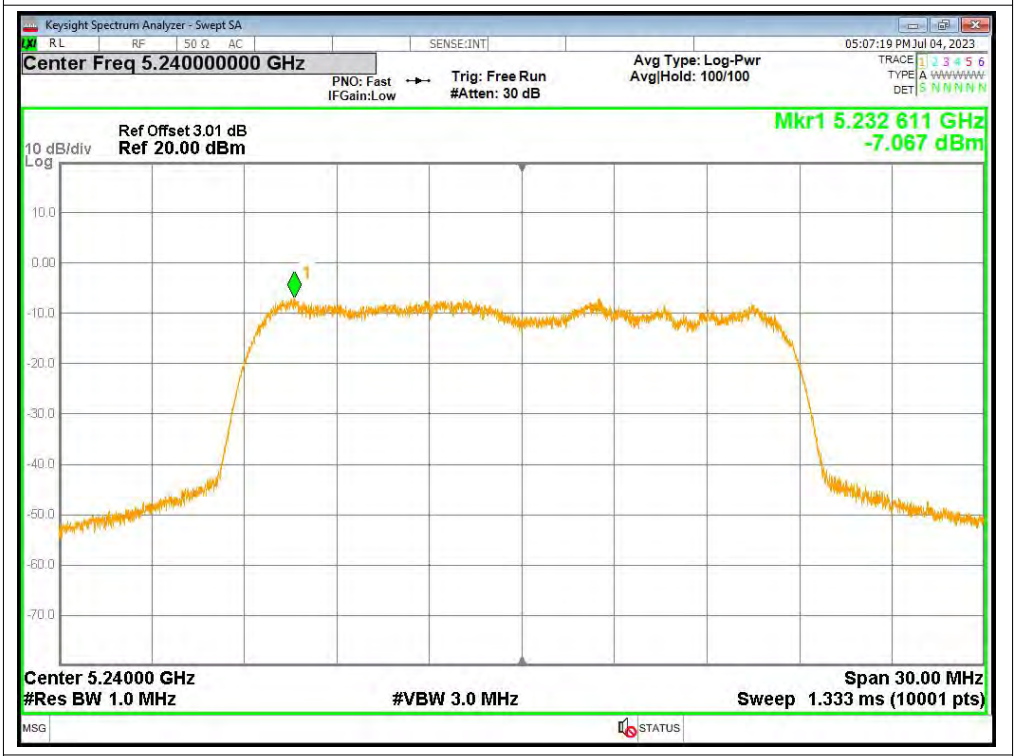
PSD NVNT a 5240MHz Ant1



PSD NVNT n20 5180MHz Ant1

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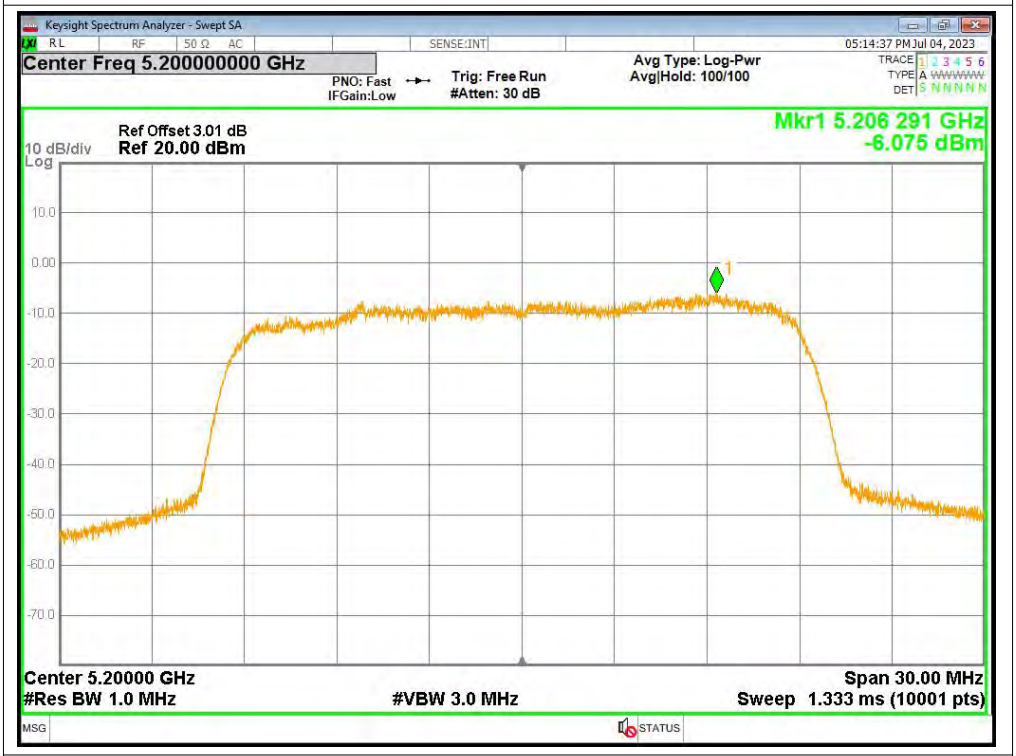
PSD NVNT n20 5200MHz Ant1



PSD NVNT n20 5240MHz Ant1

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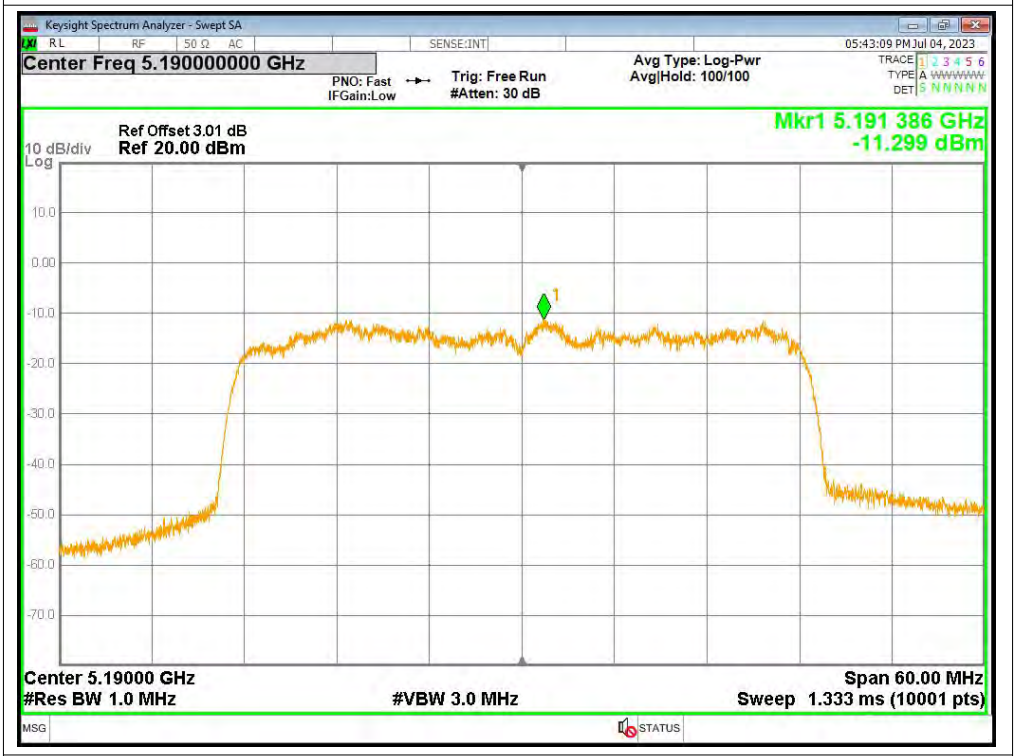
PSD NVNT n40 5190MHz Ant1



PSD NVNT n40 5230MHz Ant1

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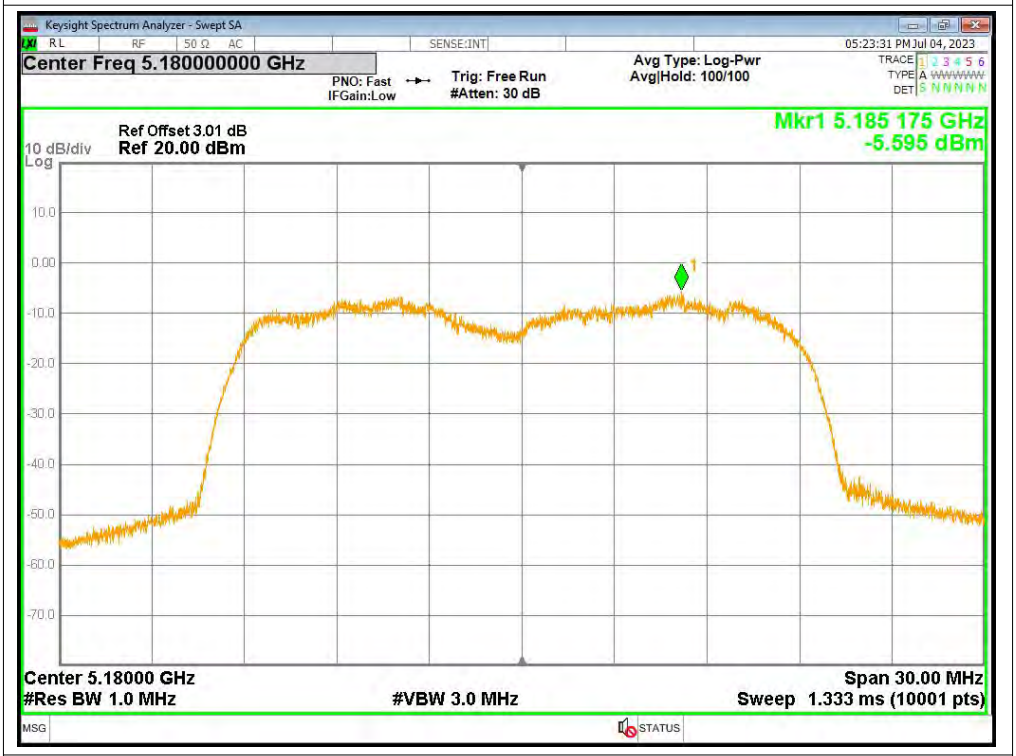
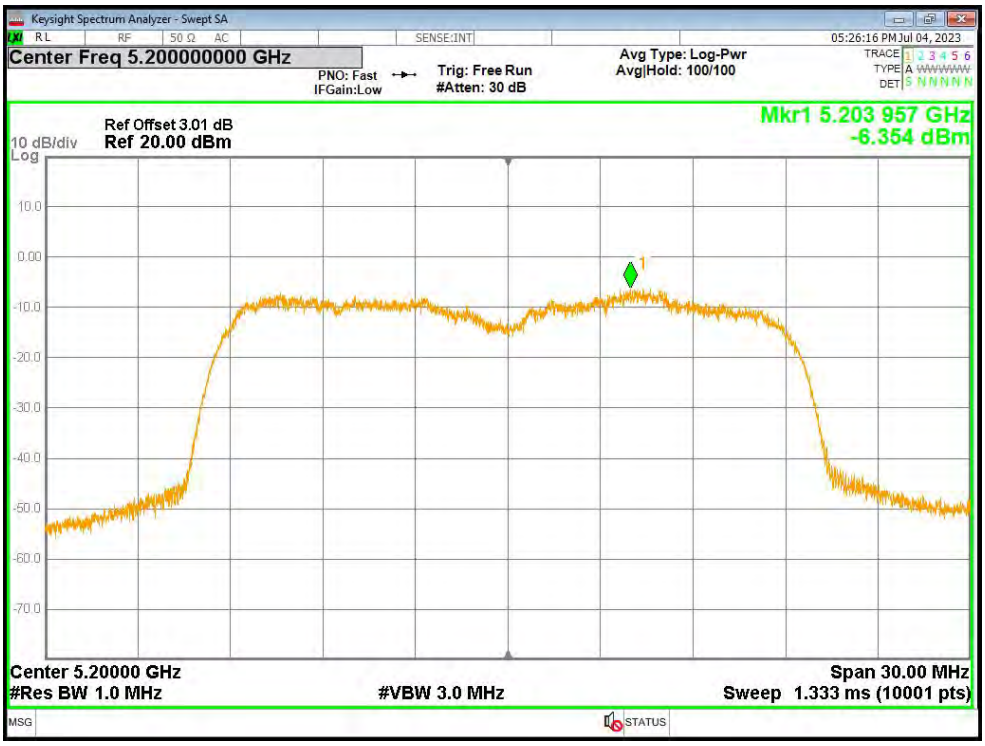
PSD NVNT ac20 5180MHz Ant1



PSD NVNT ac20 5200MHz Ant1



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