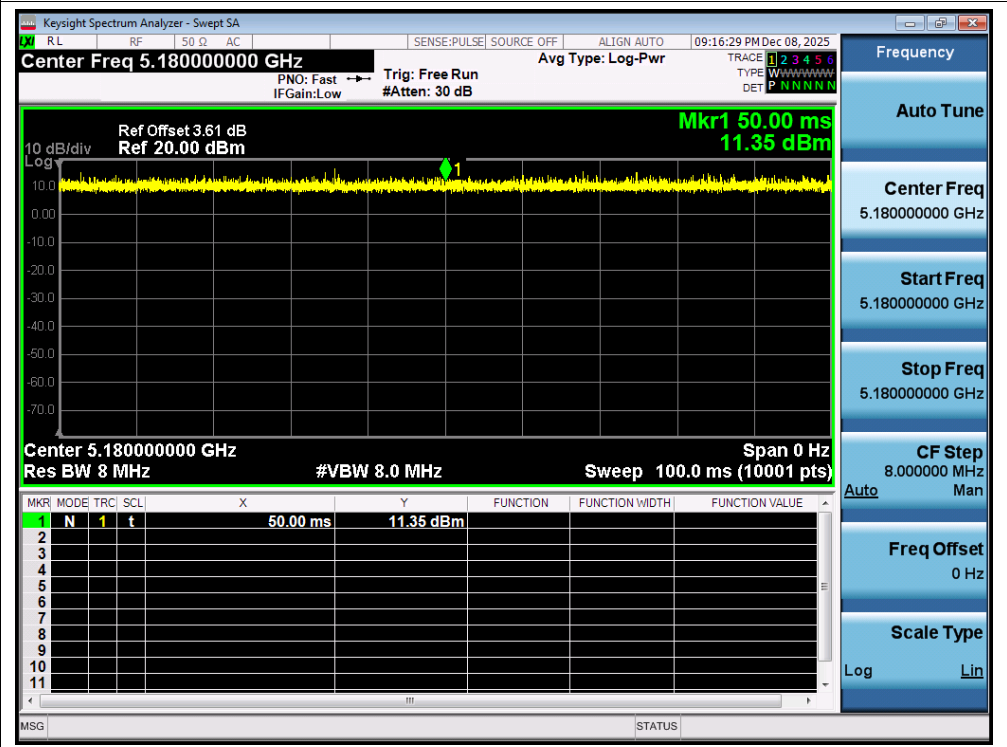


Duty Cycle

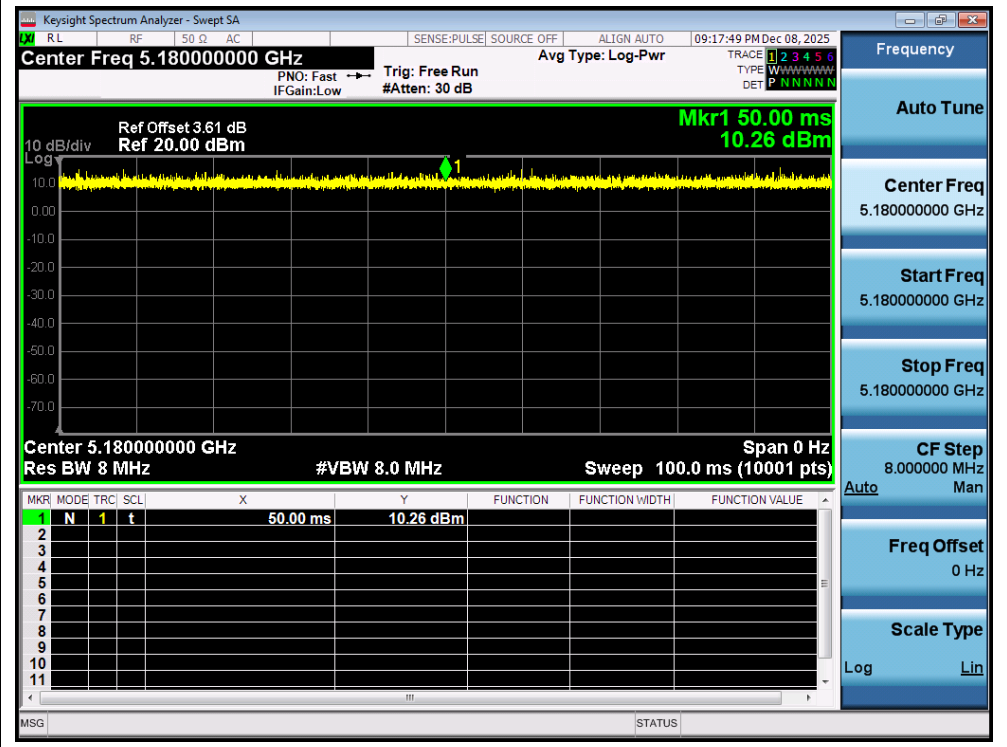
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5180	Ant B	100	0
NVNT	n20	5180	Ant B	100	0
NVNT	n40	5190	Ant B	100	0
NVNT	ac20	5180	Ant B	100	0
NVNT	ac40	5190	Ant B	100	0
NVNT	ac80	5210	Ant B	100	0
NVNT	ax20	5180	Ant B	100	0
NVNT	ax40	5190	Ant B	100	0
NVNT	ax80	5210	Ant B	100	0

Test Graphs

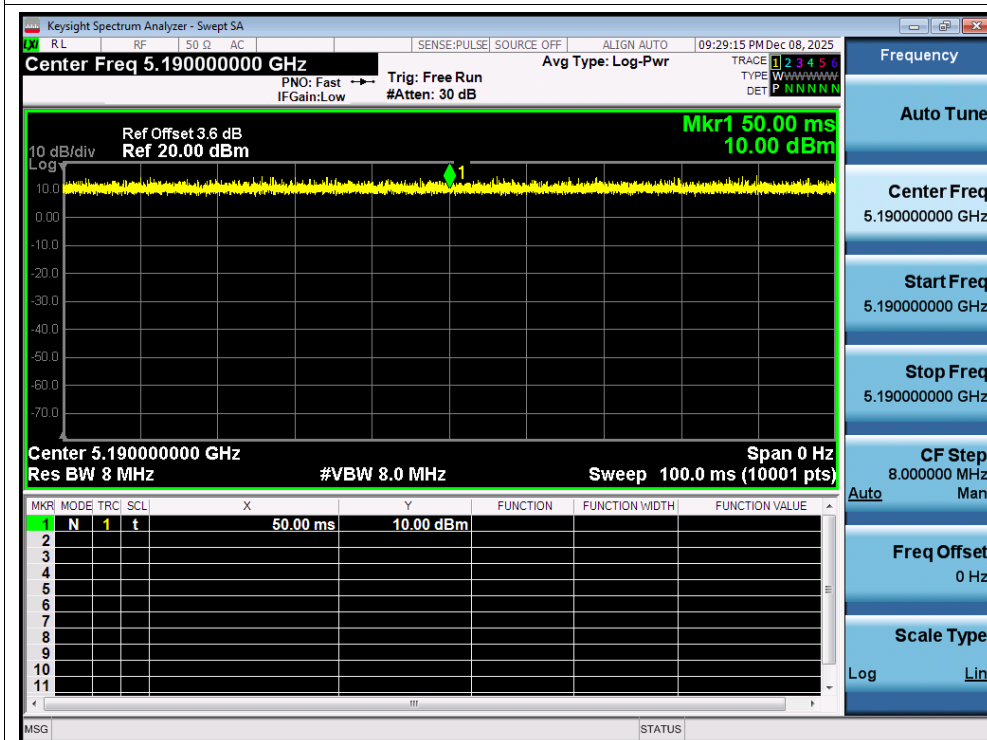
Duty Cycle NVNT a 5180MHz Ant B



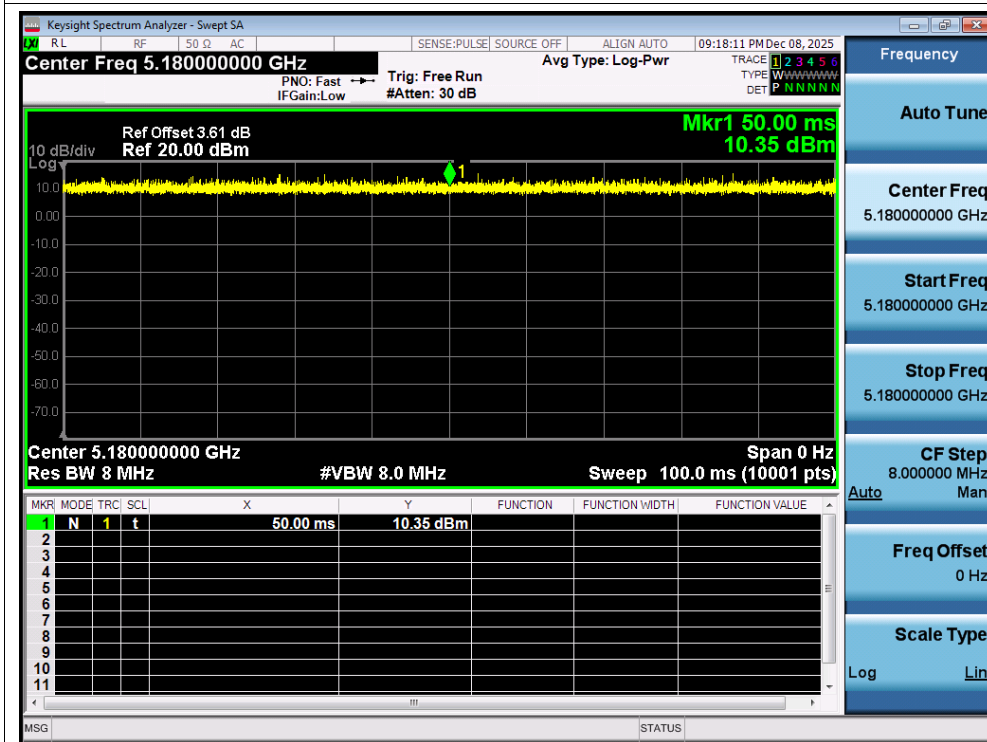
Duty Cycle NVNT n20 5180MHz Ant B



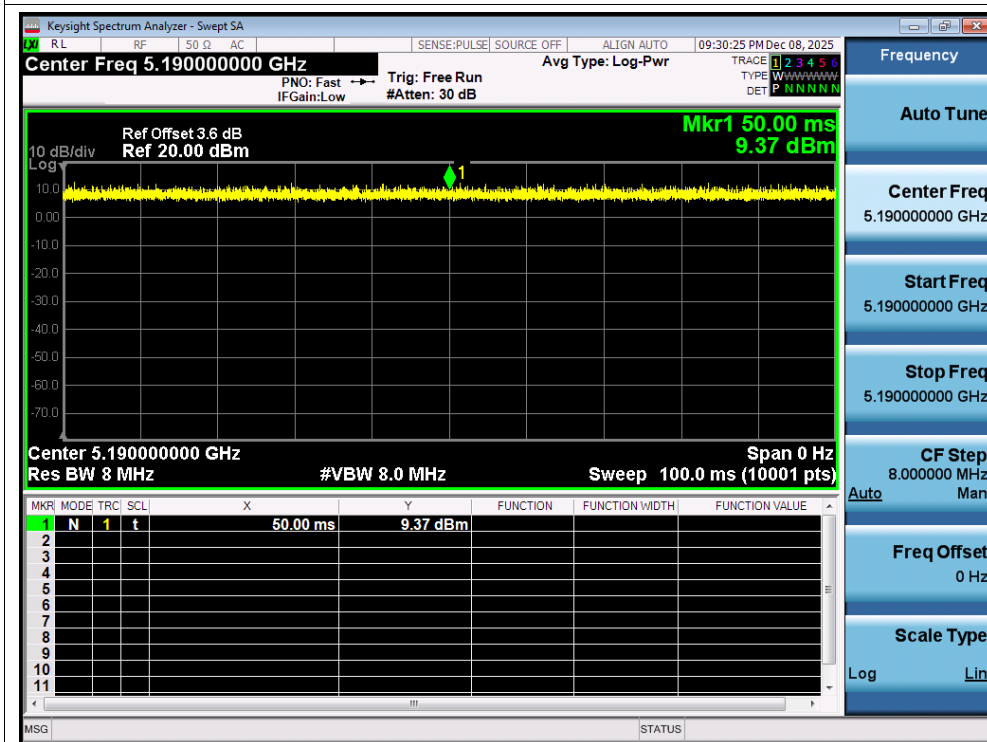
Duty Cycle NVNT n40 5190MHz Ant B



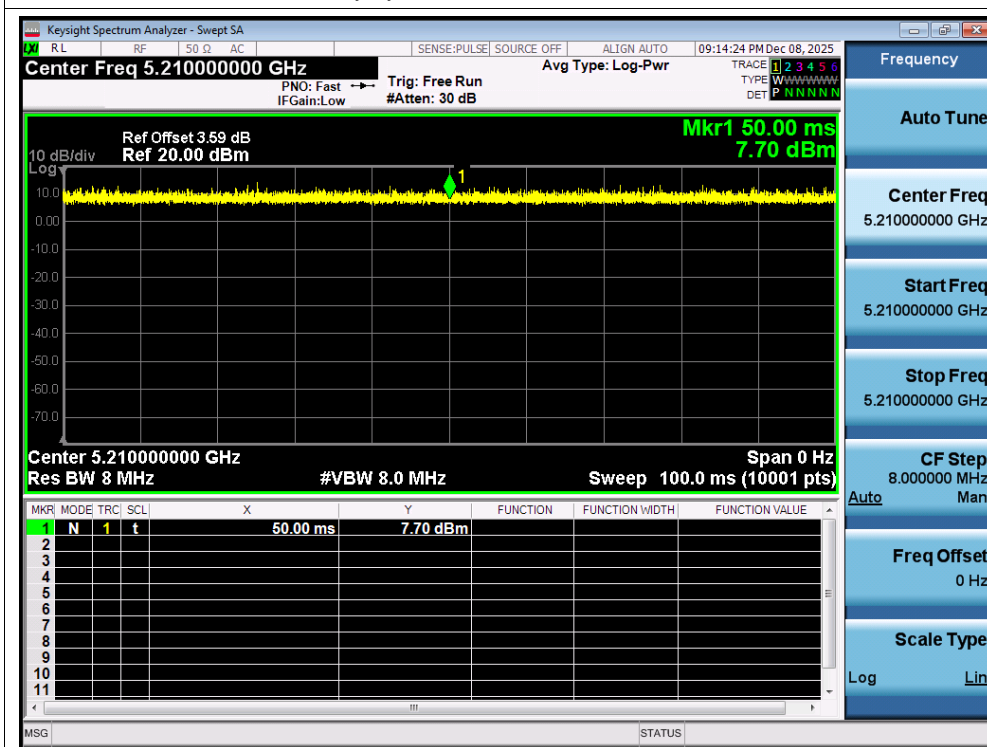
Duty Cycle NVNT ac20 5180MHz Ant B

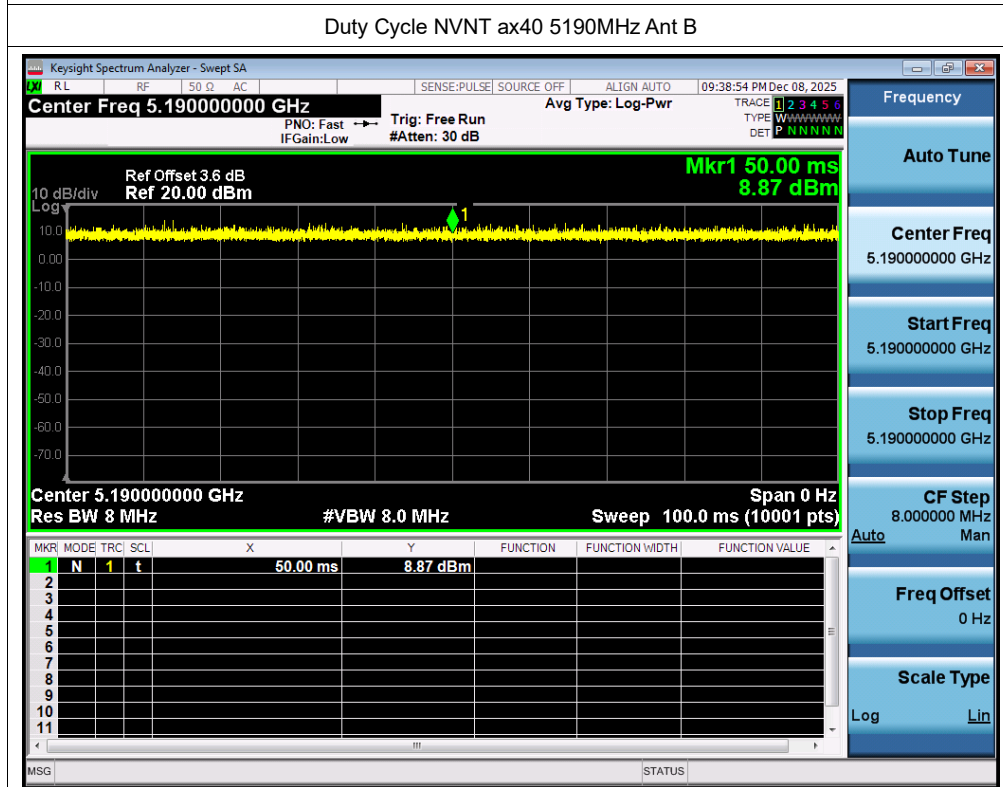
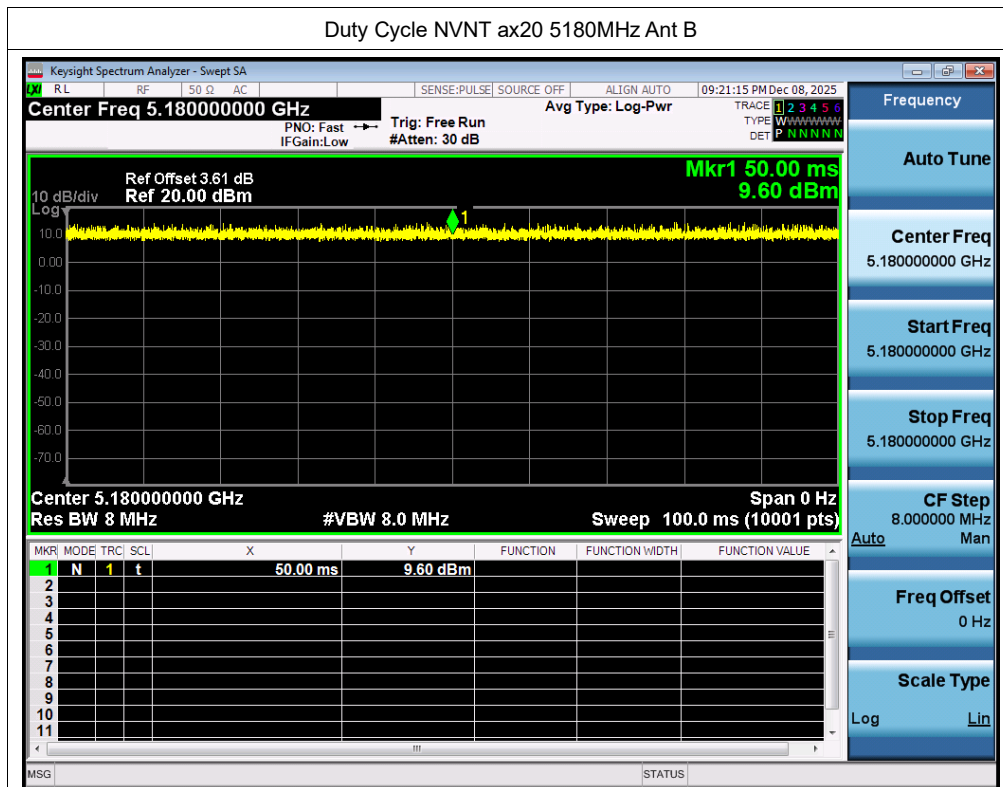


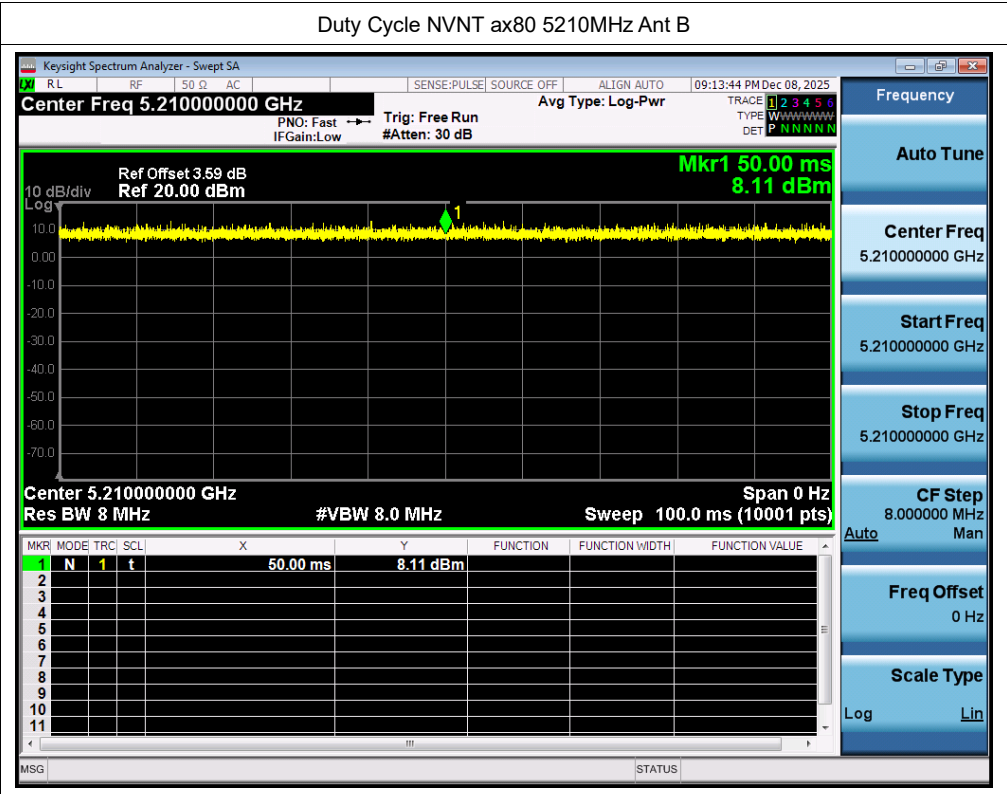
Duty Cycle NVNT ac40 5190MHz Ant B



Duty Cycle NVNT ac80 5210MHz Ant B







Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant B	11.57	24	Pass
NVNT	a	5200	Ant B	11.23	24	Pass
NVNT	a	5240	Ant B	12.59	24	Pass
NVNT	n20	5180	Ant B	10.57	24	Pass
NVNT	n20	5200	Ant B	10.42	24	Pass
NVNT	n20	5240	Ant B	11.17	24	Pass
NVNT	n40	5190	Ant B	10.25	24	Pass
NVNT	n40	5230	Ant B	10.38	24	Pass
NVNT	ac20	5180	Ant B	10.76	24	Pass
NVNT	ac20	5200	Ant B	10.79	24	Pass
NVNT	ac20	5240	Ant B	11.74	24	Pass
NVNT	ac40	5190	Ant B	9.43	24	Pass
NVNT	ac40	5230	Ant B	9.39	24	Pass
NVNT	ac80	5210	Ant B	7.98	24	Pass
NVNT	ax20	5180	Ant B	9.95	24	Pass
NVNT	ax20	5200	Ant B	10.39	24	Pass
NVNT	ax20	5240	Ant B	11.1	24	Pass
NVNT	ax40	5190	Ant B	9.3	24	Pass
NVNT	ax40	5230	Ant B	9.99	24	Pass
NVNT	ax80	5210	Ant B	8.31	24	Pass

Note:

Antenna A gain: 3.05 dBi, Antenna B gain: 3.27dBi

For power measurements,

The Array gain=0 for NANT≤4,

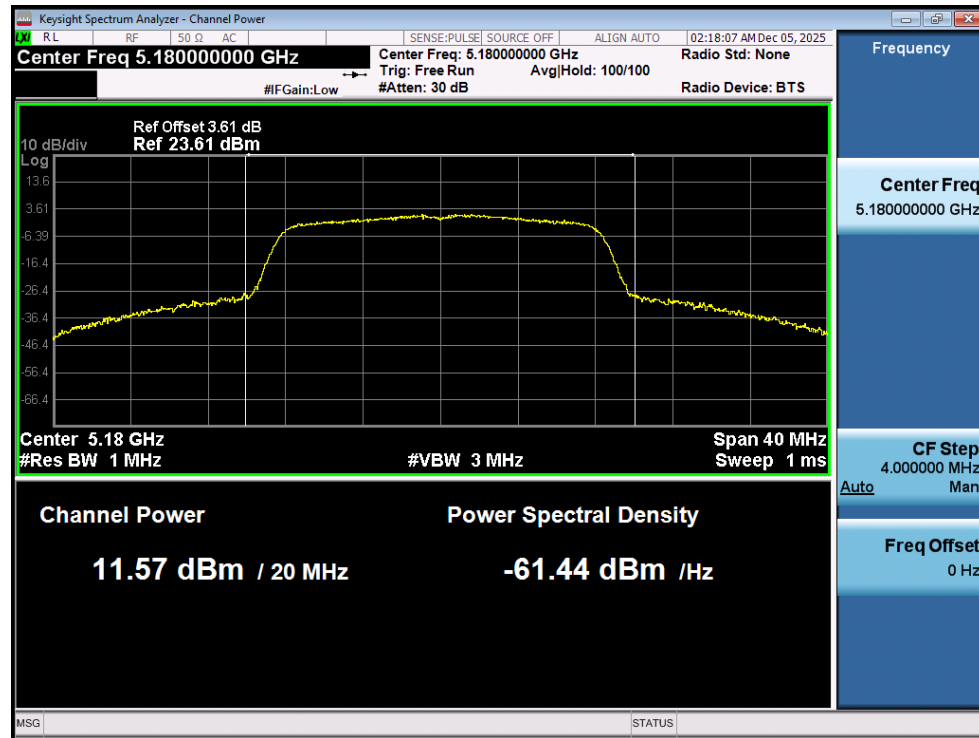
So the directional gain for Power measurements is 3.27 dBi

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain.

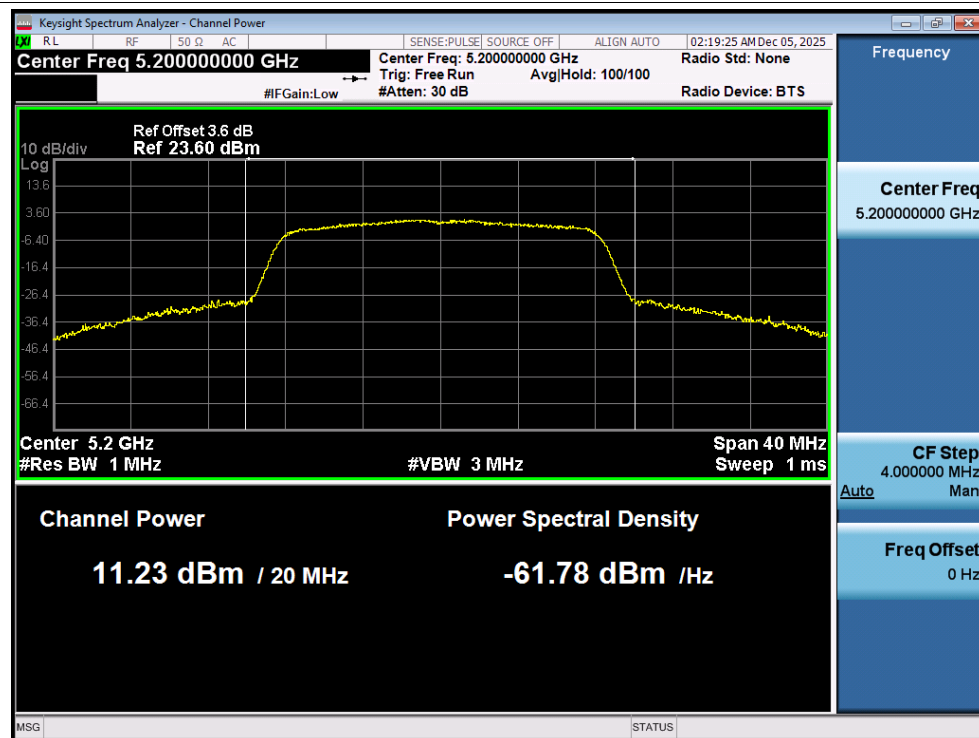
Condition	Mode	Frequency (MHz)	Ant A Conducted Power (dBm)	Ant B Conducted Power (dBm)	Total Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	12.76	11.57	/	24	Pass
NVNT	a	5200	12.28	11.23	/	24	Pass
NVNT	a	5240	12.78	12.59	/	24	Pass
NVNT	n20	5180	11.12	10.57	13.86	24	Pass
NVNT	n20	5200	11.2	10.42	13.84	24	Pass
NVNT	n20	5240	11.82	11.17	14.52	24	Pass
NVNT	n40	5190	10.63	10.25	13.45	24	Pass
NVNT	n40	5230	11.05	10.38	13.74	24	Pass
NVNT	ac20	5180	11.63	10.76	14.23	24	Pass
NVNT	ac20	5200	11.59	10.79	14.22	24	Pass
NVNT	ac20	5240	11.64	11.74	14.70	24	Pass
NVNT	ac40	5190	10.32	9.43	12.91	24	Pass
NVNT	ac40	5230	9.88	9.39	12.65	24	Pass
NVNT	ac80	5210	8.25	7.98	11.13	24	Pass
NVNT	ax20	5180	11.18	9.95	13.62	24	Pass
NVNT	ax20	5200	11.27	10.39	13.86	24	Pass
NVNT	ax20	5240	11.49	11.1	14.31	24	Pass
NVNT	ax40	5190	9.79	9.3	12.56	24	Pass
NVNT	ax40	5230	10.37	9.99	13.19	24	Pass
NVNT	ax80	5210	8.95	8.31	11.65	24	Pass

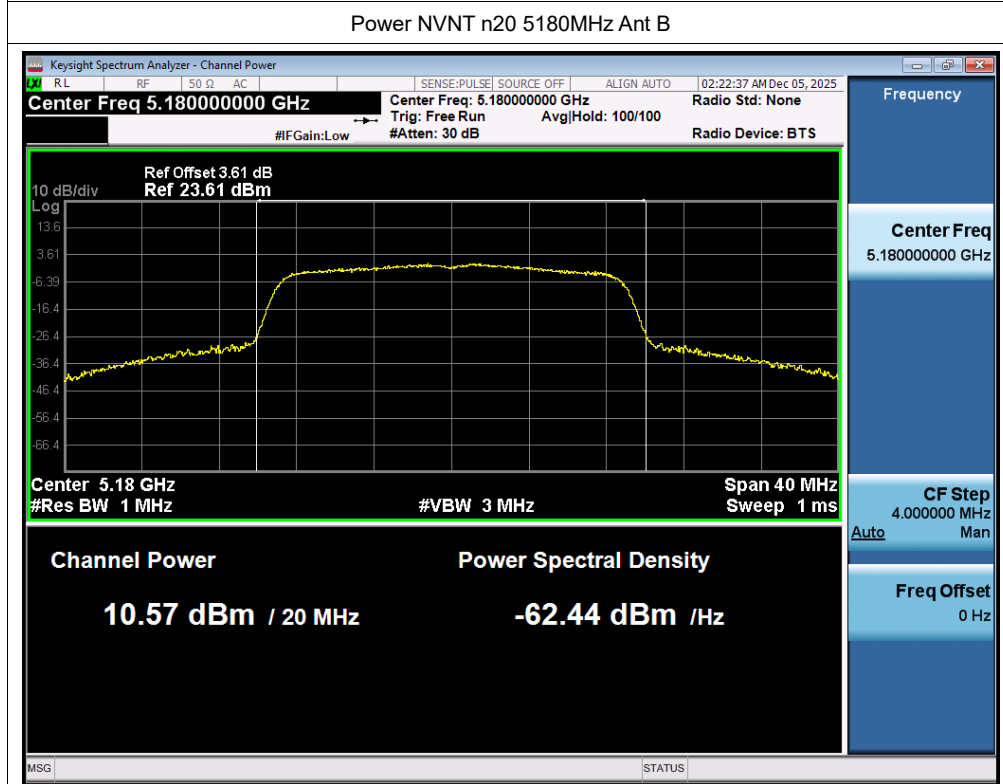
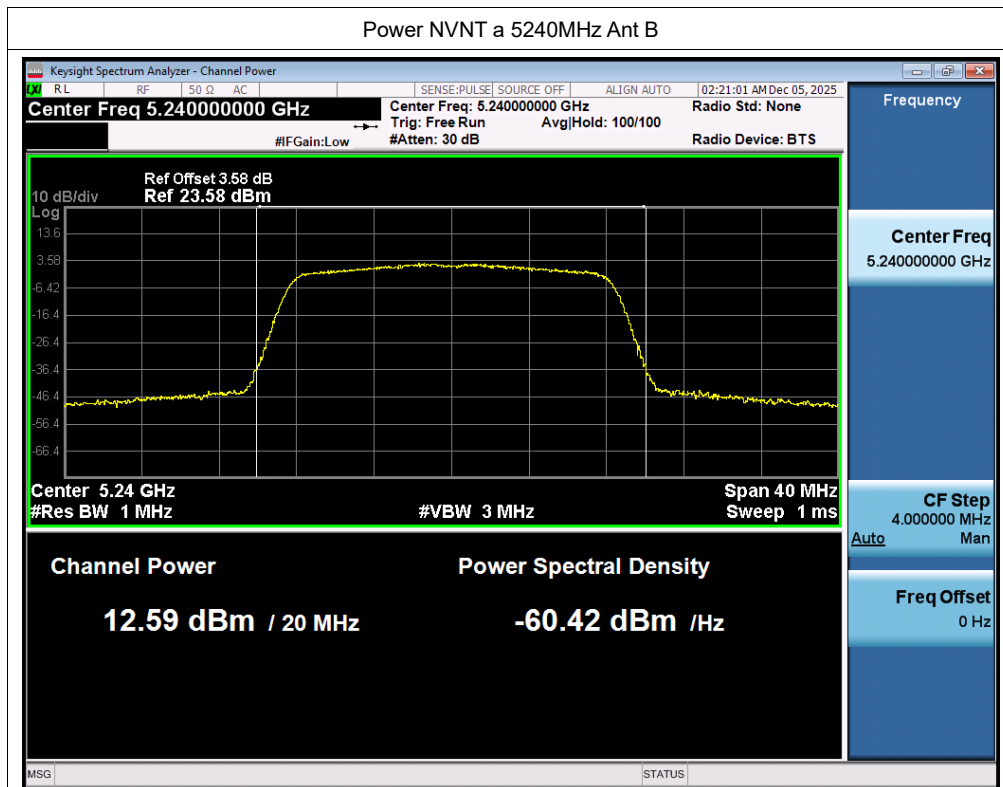
Test Graphs

Power NVNT a 5180MHz Ant B

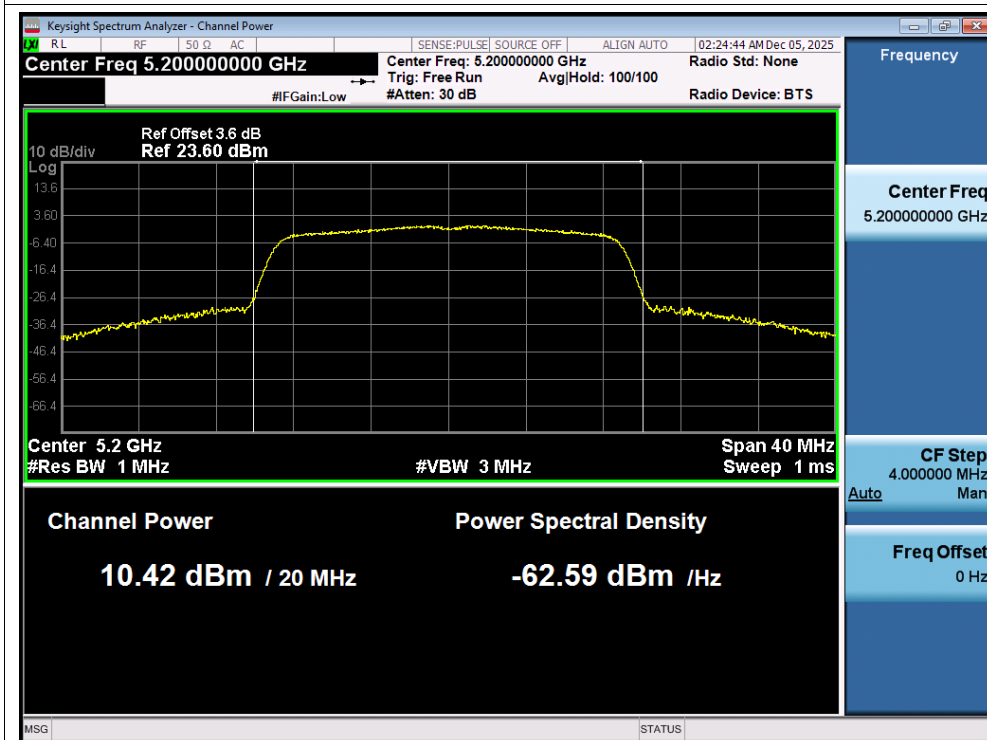


Power NVNT a 5200MHz Ant B

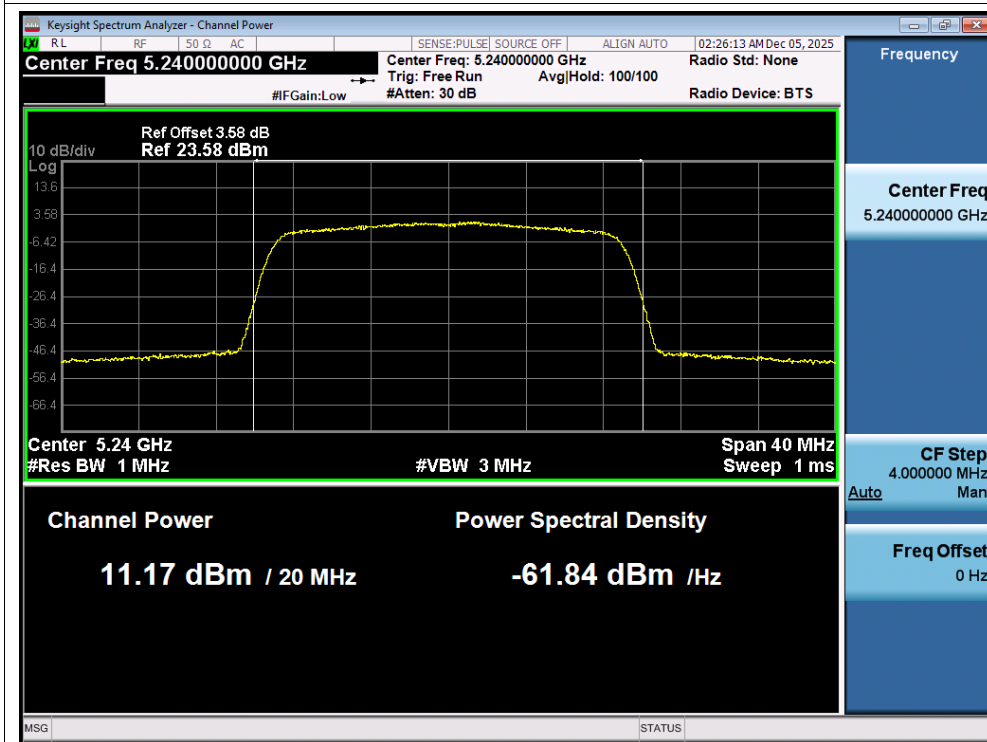




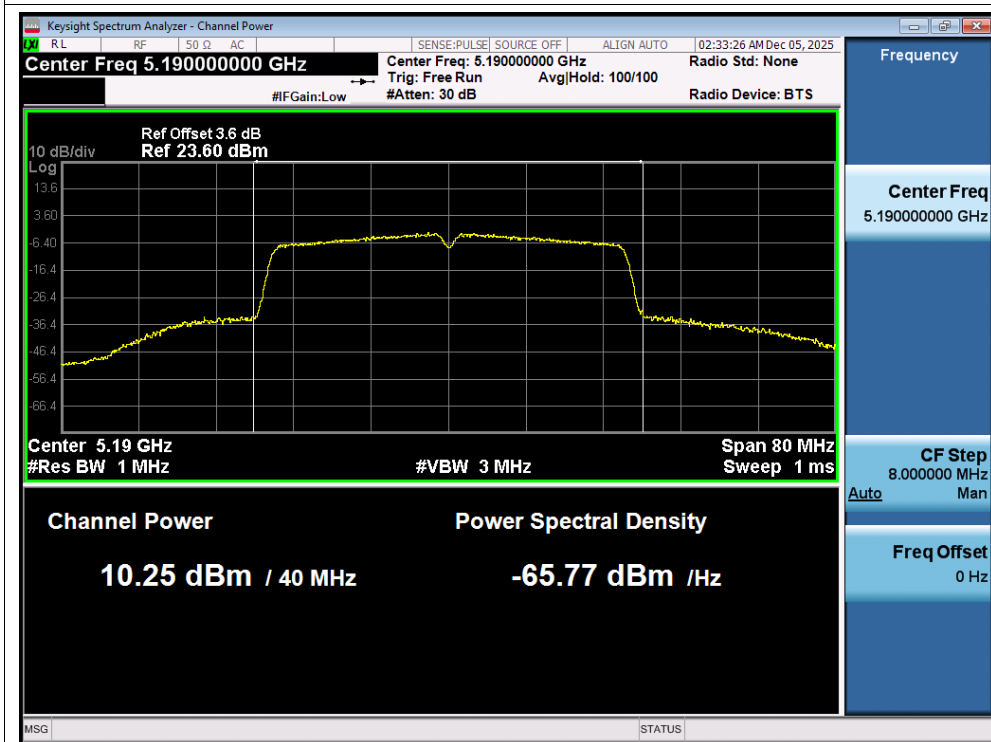
Power NVNT n20 5200MHz Ant B



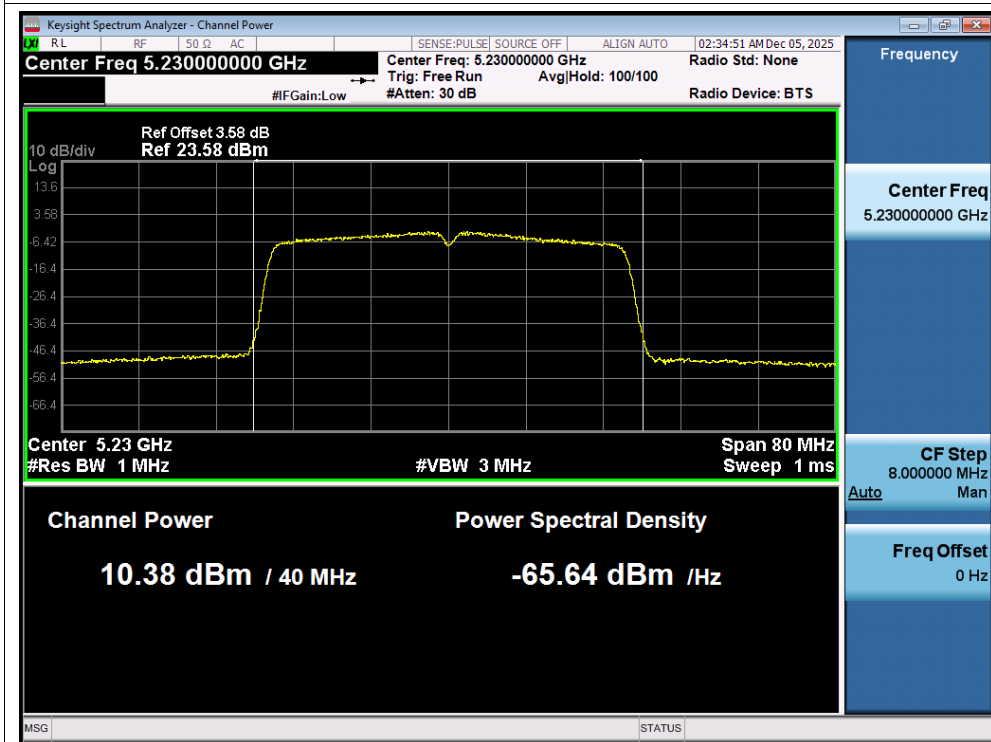
Power NVNT n20 5240MHz Ant B

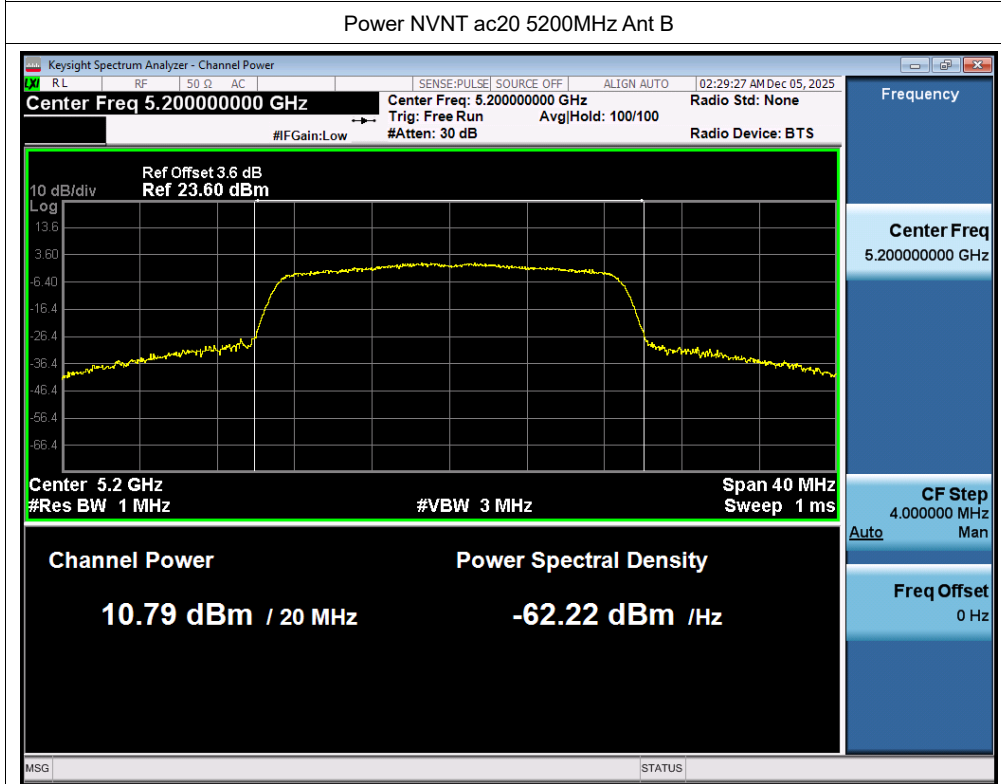
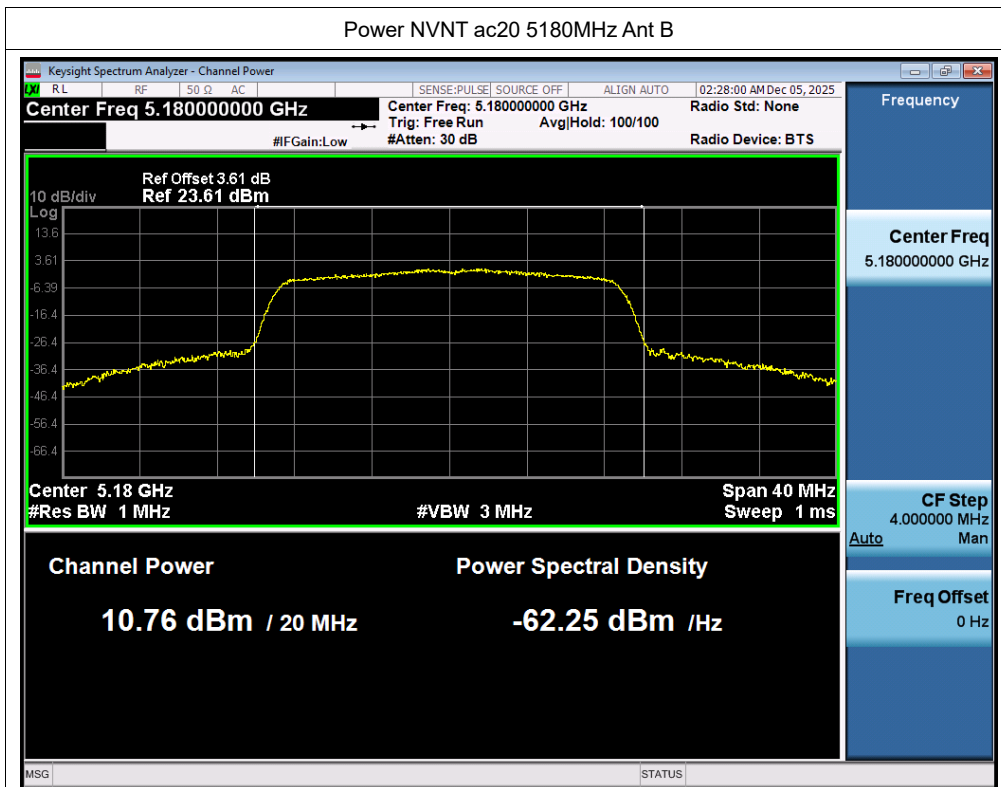


Power NVNT n40 5190MHz Ant B

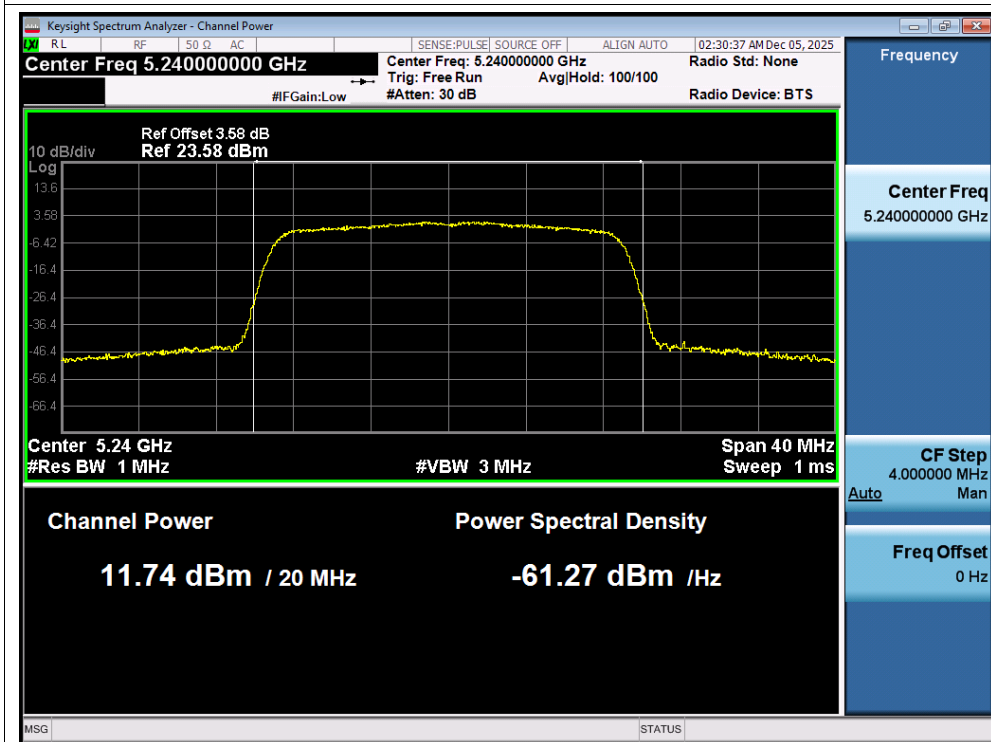


Power NVNT n40 5230MHz Ant B



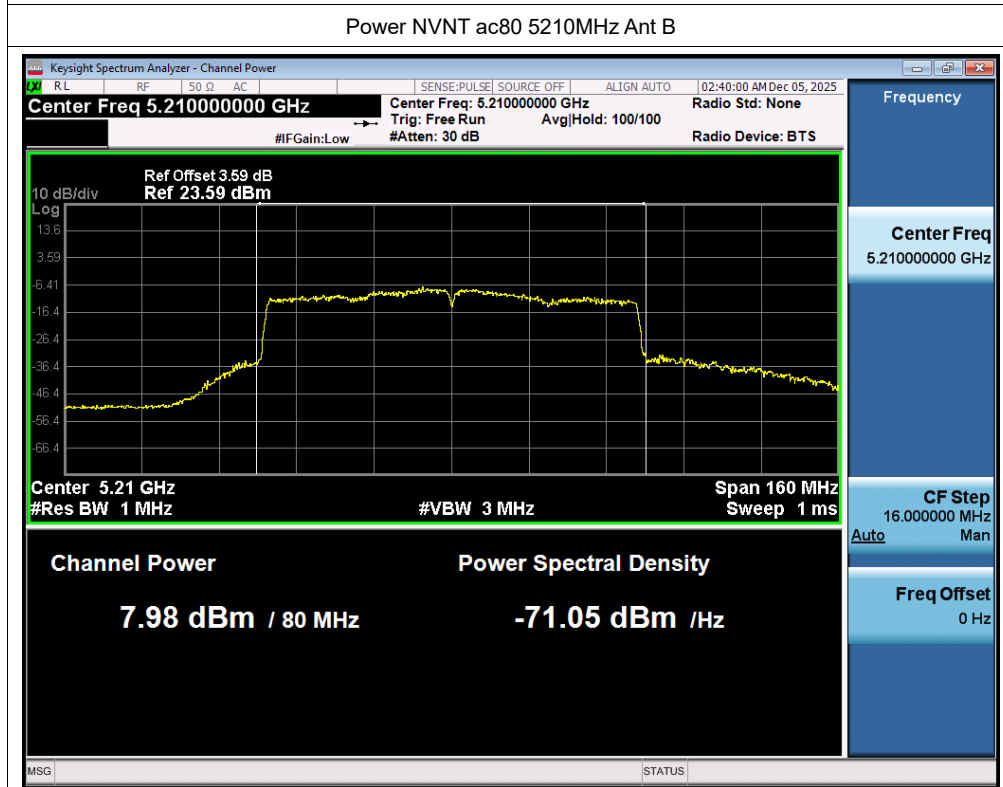
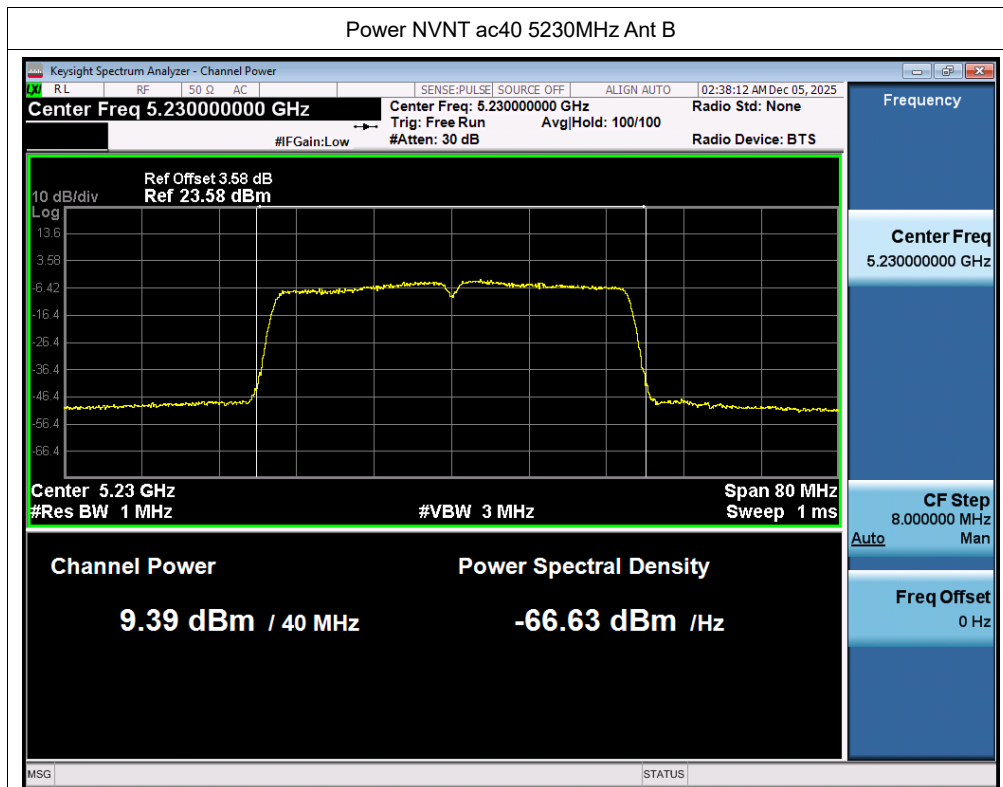


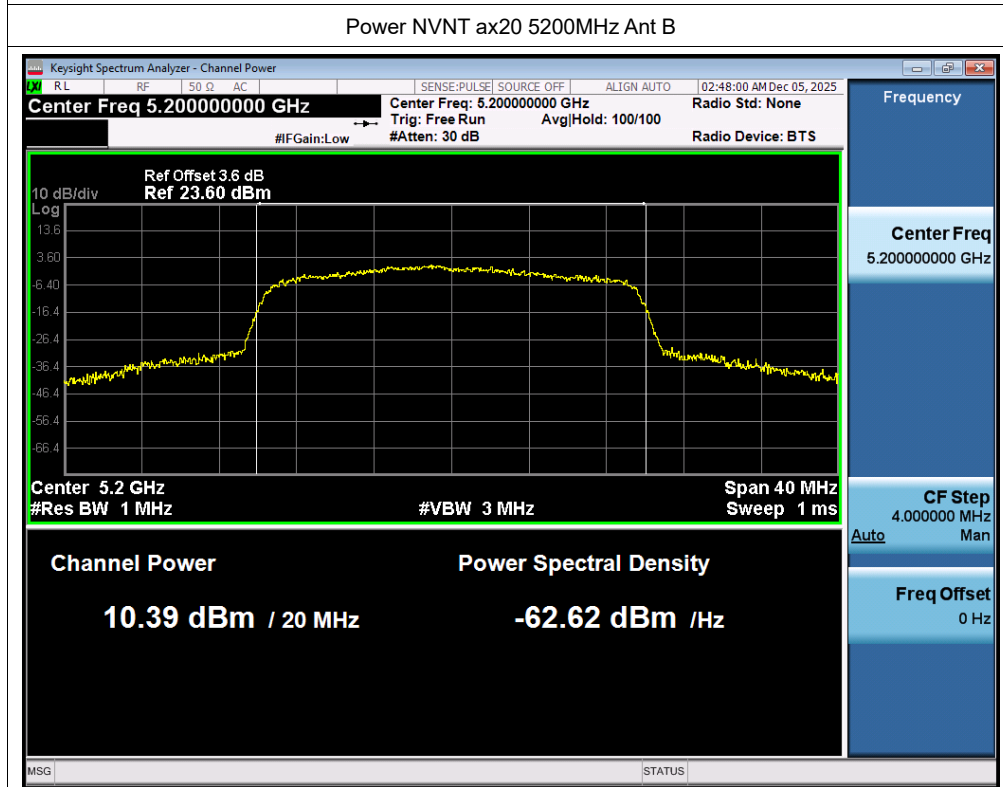
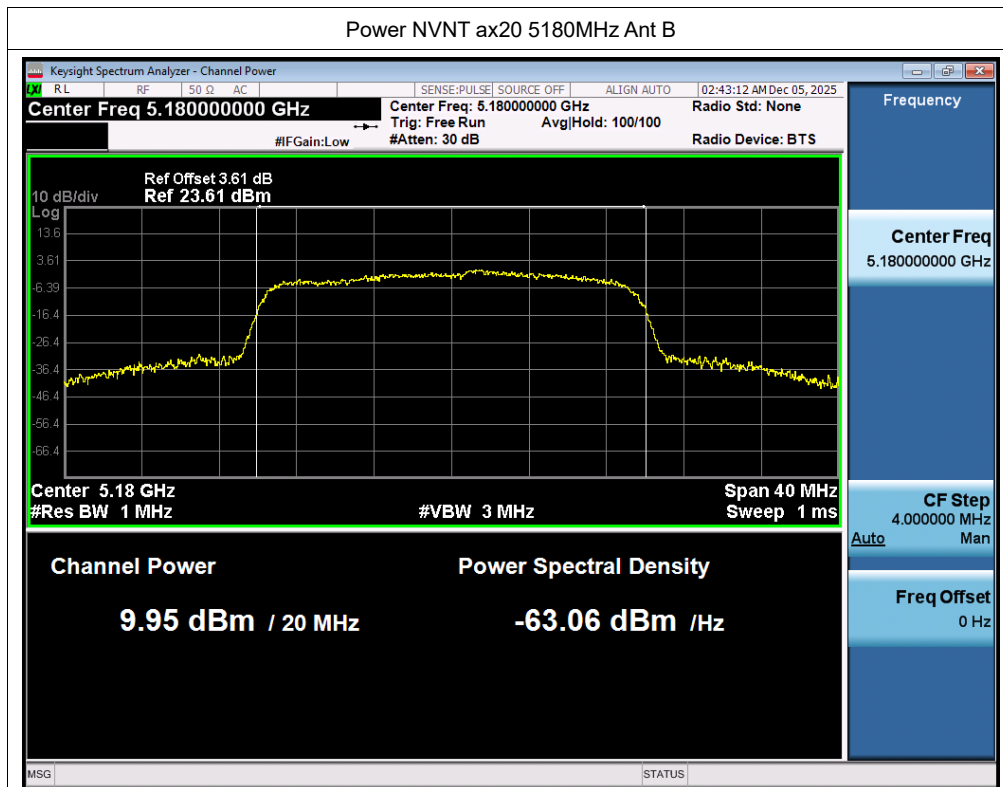
Power NVNT ac20 5240MHz Ant B

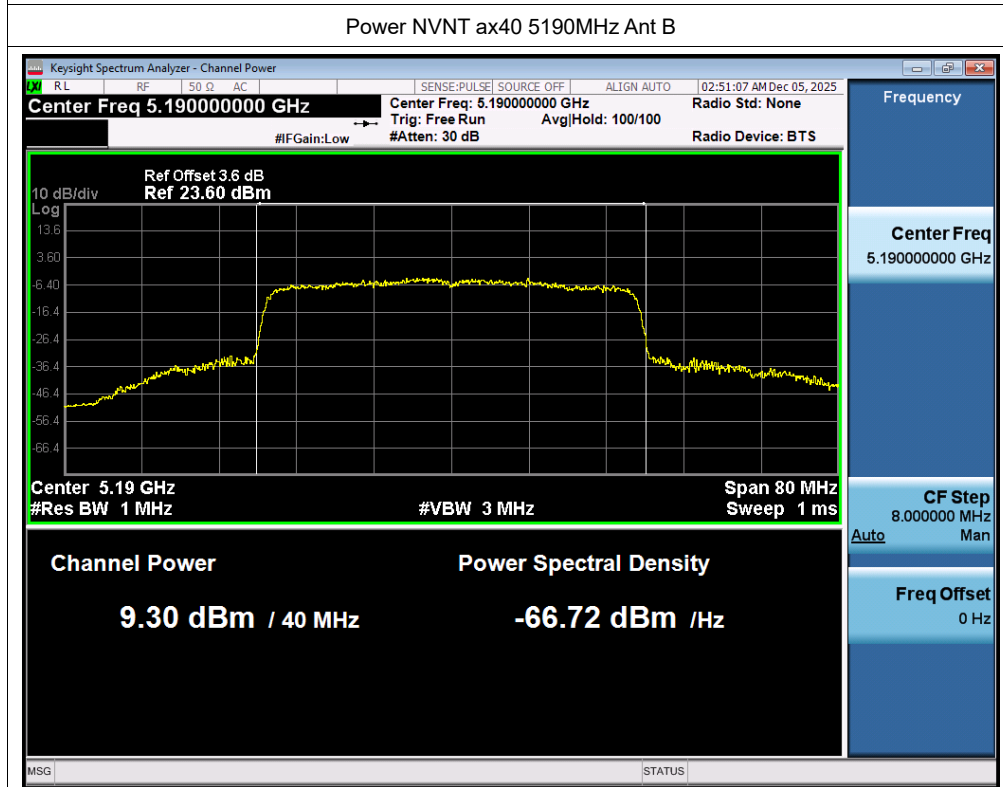
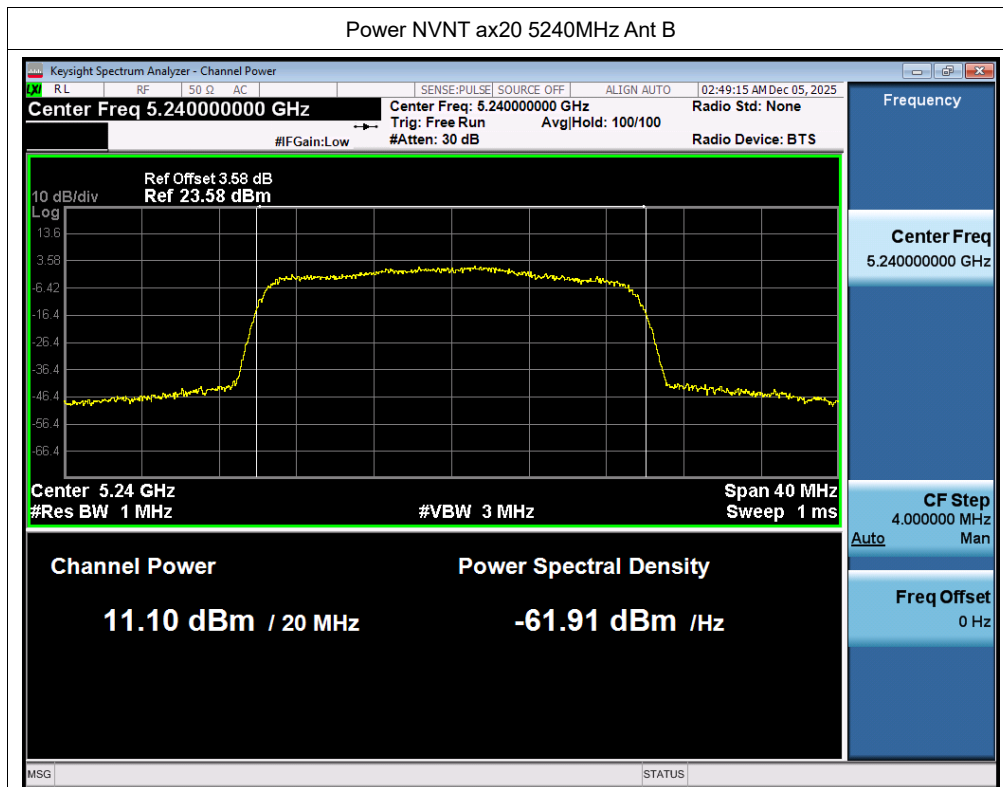


Power NVNT ac40 5190MHz Ant B

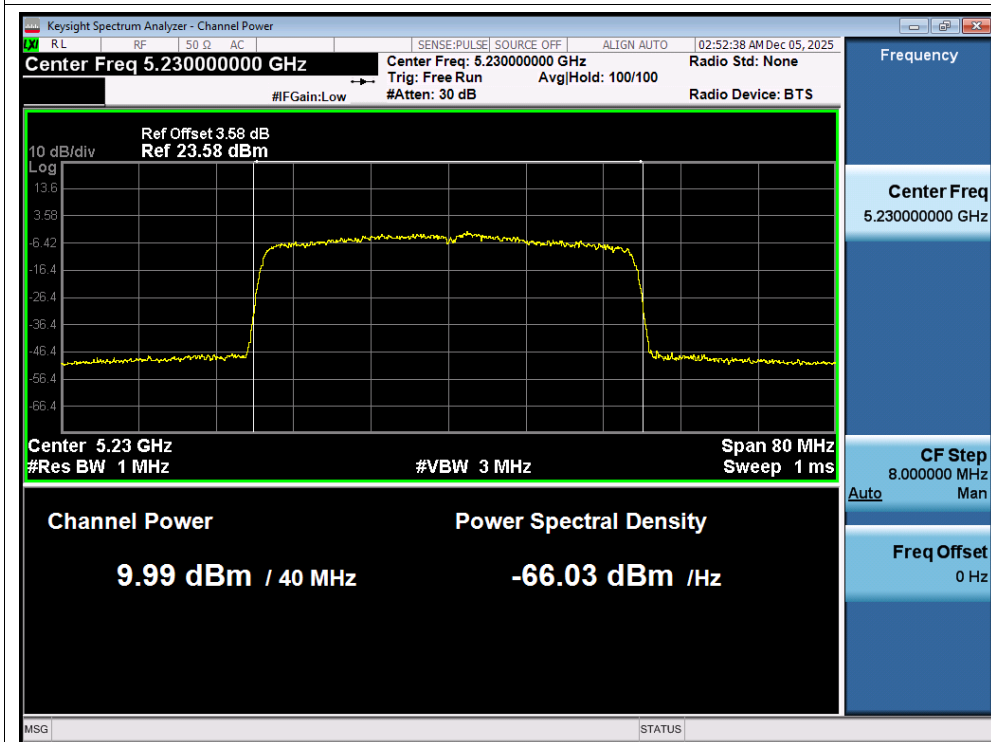








Power NVNT ax40 5230MHz Ant B



Power NVNT ax80 5210MHz Ant B



-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant B	19.313	0.5	Pass
		5200		21.151	0.5	Pass
		5240		18.033	0.5	Pass
	n20	5180		19.43	0.5	Pass
		5200		19.446	0.5	Pass
		5240		18.644	0.5	Pass
	n40	5190		41.678	0.5	Pass
		5230		38.077	0.5	Pass
	ac20	5180		19.14	0.5	Pass
		5200		18.841	0.5	Pass
		5240		18.555	0.5	Pass
	ac40	5190		37.891	0.5	Pass
		5230		37.708	0.5	Pass
	ac80	5210		99.796	0.5	Pass
	ax20	5180		20.333	0.5	Pass
		5200		19.809	0.5	Pass
		5240		19.643	0.5	Pass
	ax40	5190		39.039	0.5	Pass
		5230		39.095	0.5	Pass
	ax80	5210		100.68	0.5	Pass

Test Graphs

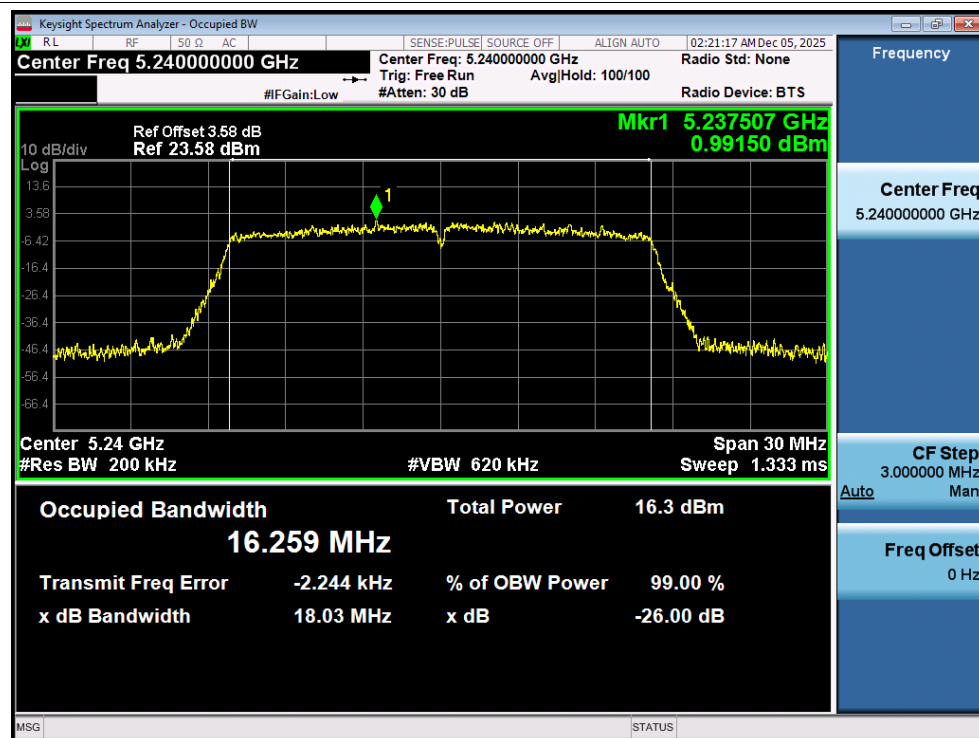
-26dB Bandwidth NVNT a 5180MHz Ant B



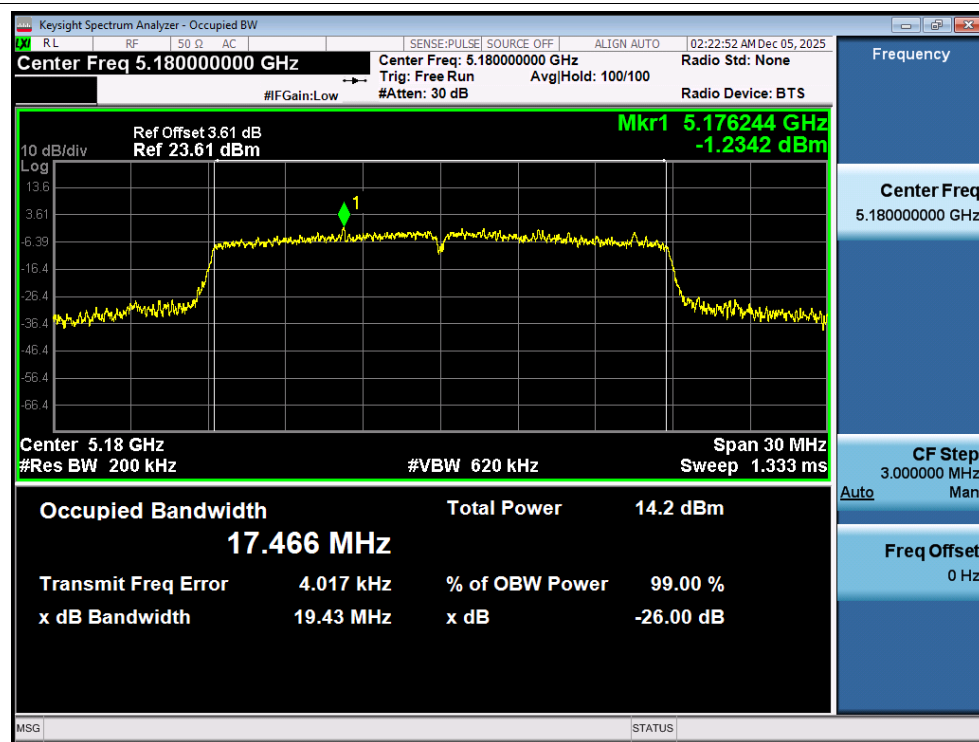
-26dB Bandwidth NVNT a 5200MHz Ant B



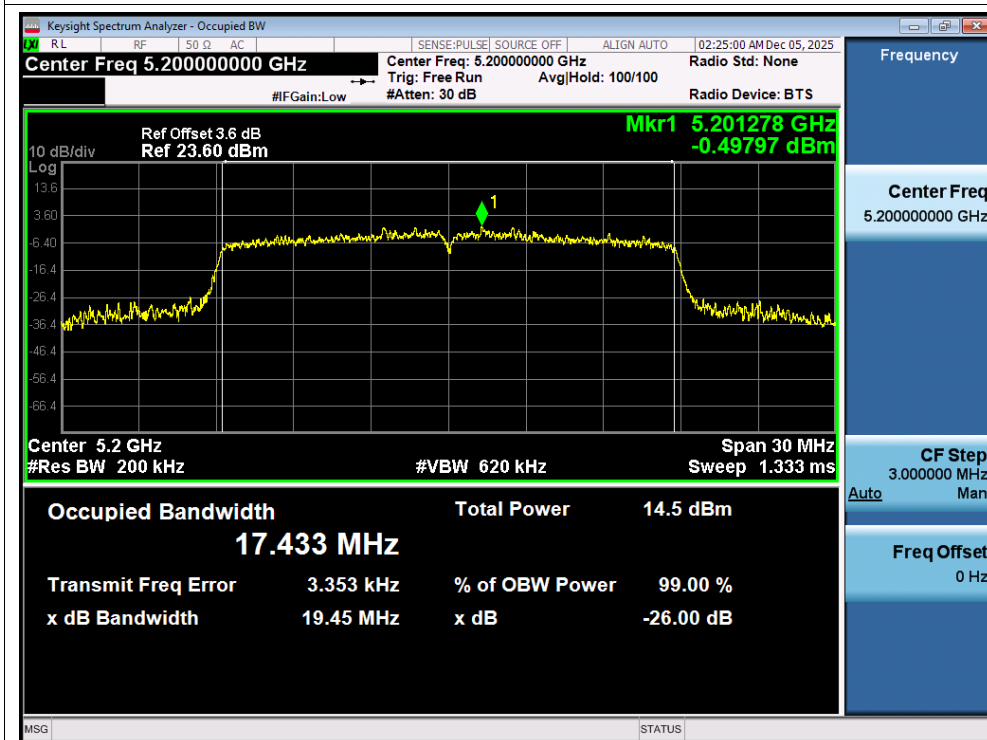
-26dB Bandwidth NVNT a 5240MHz Ant B



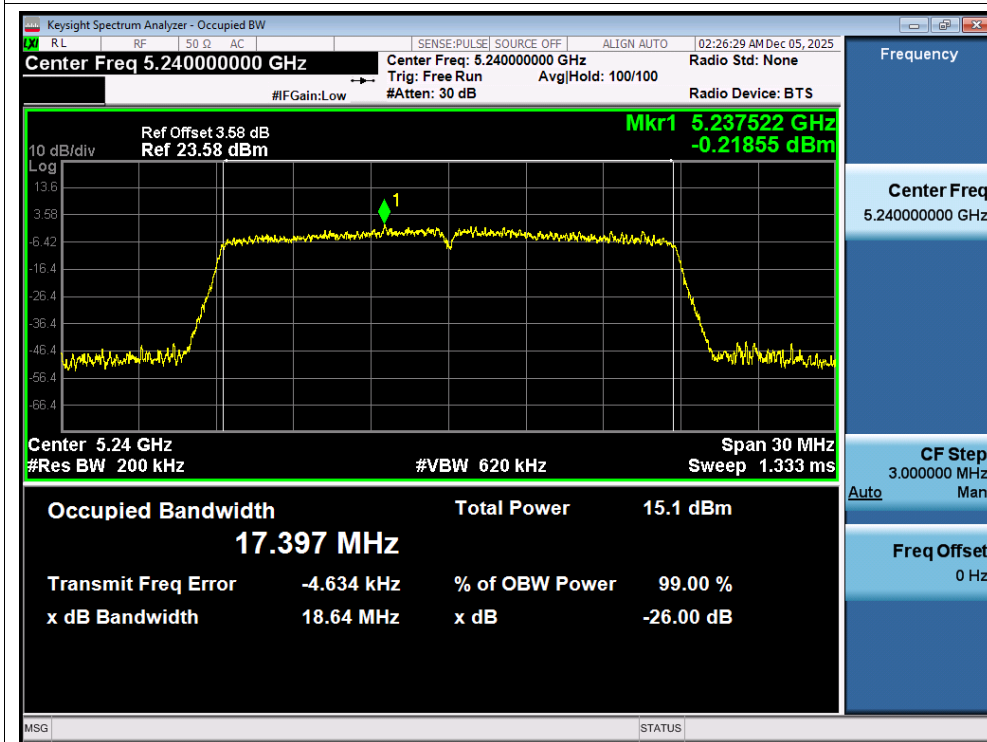
-26dB Bandwidth NVNT n20 5180MHz Ant B

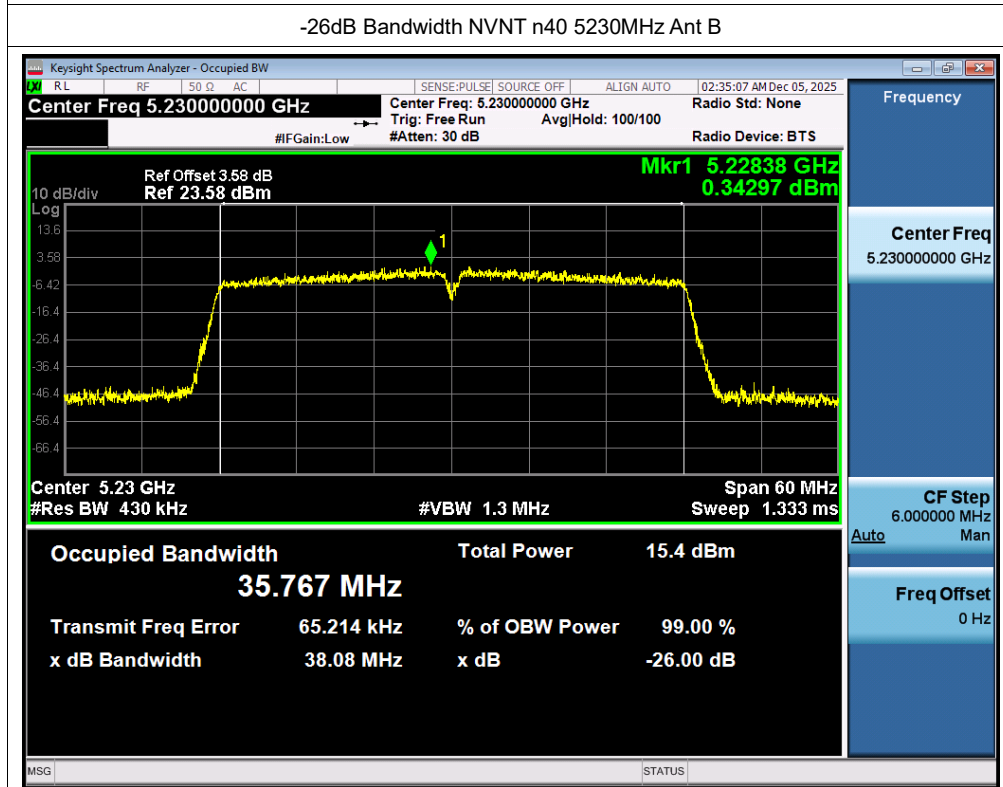
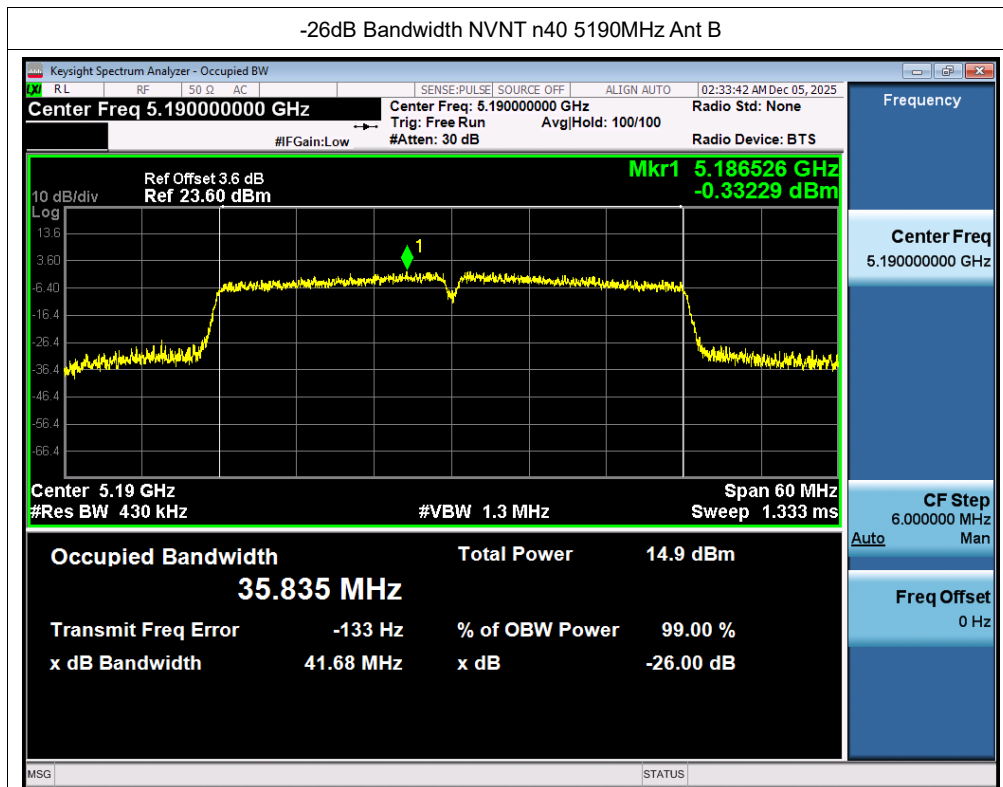


-26dB Bandwidth NVNT n20 5200MHz Ant B

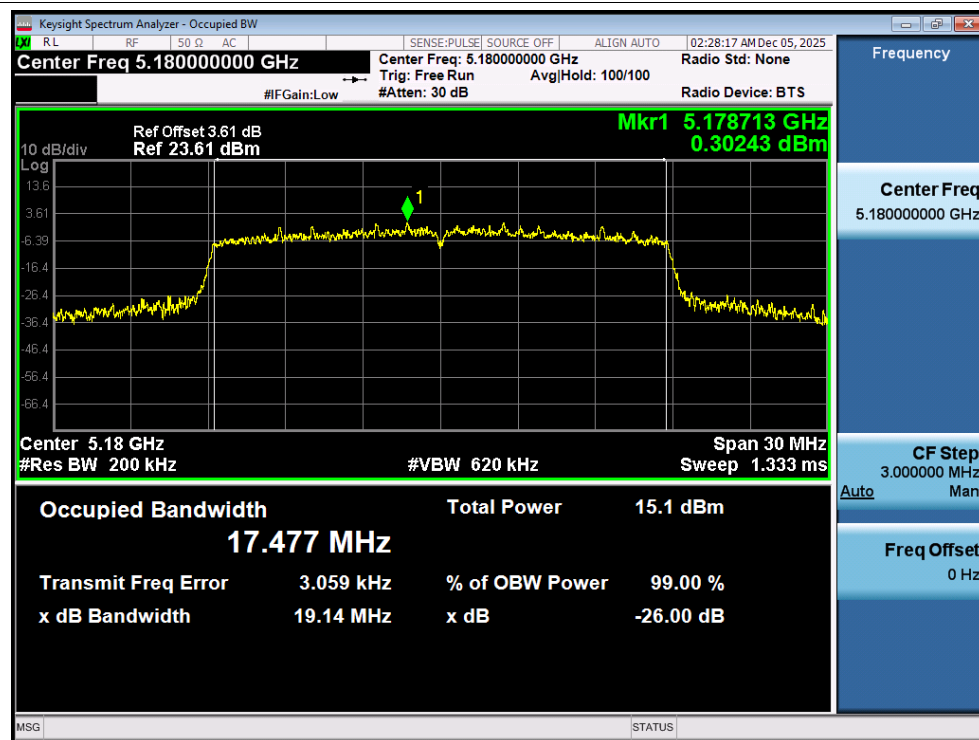


-26dB Bandwidth NVNT n20 5240MHz Ant B

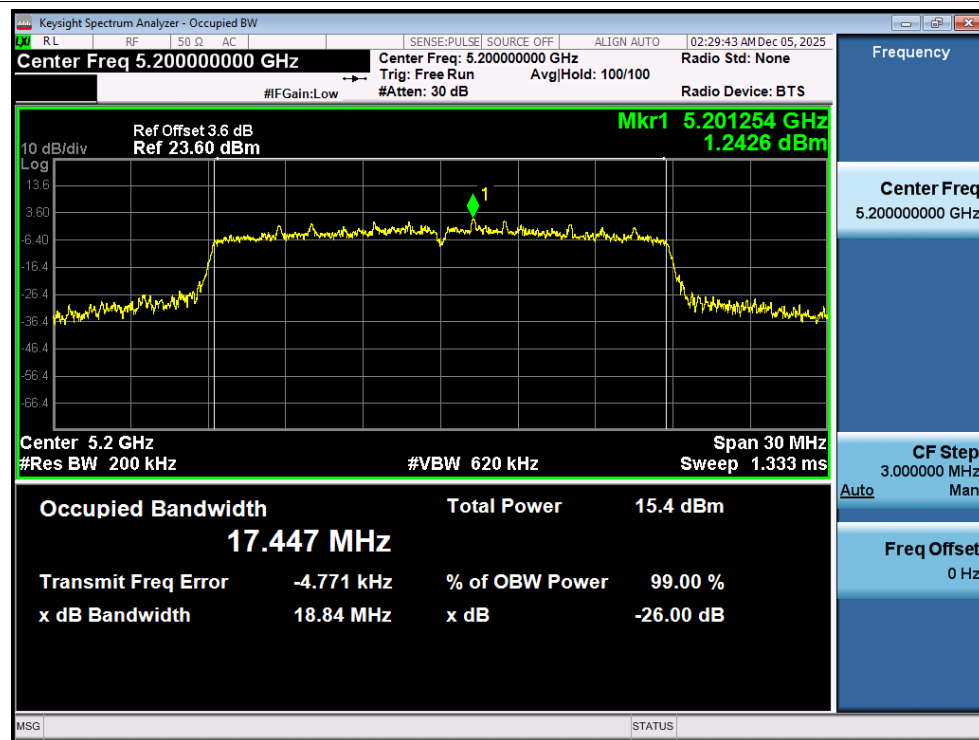




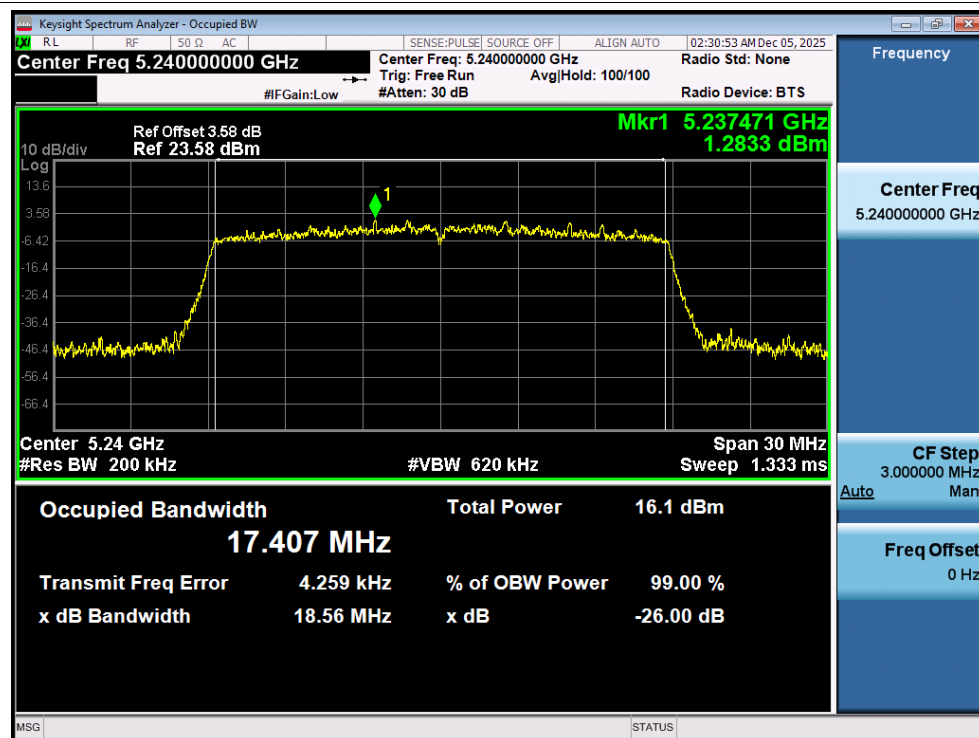
-26dB Bandwidth NVNT ac20 5180MHz Ant B



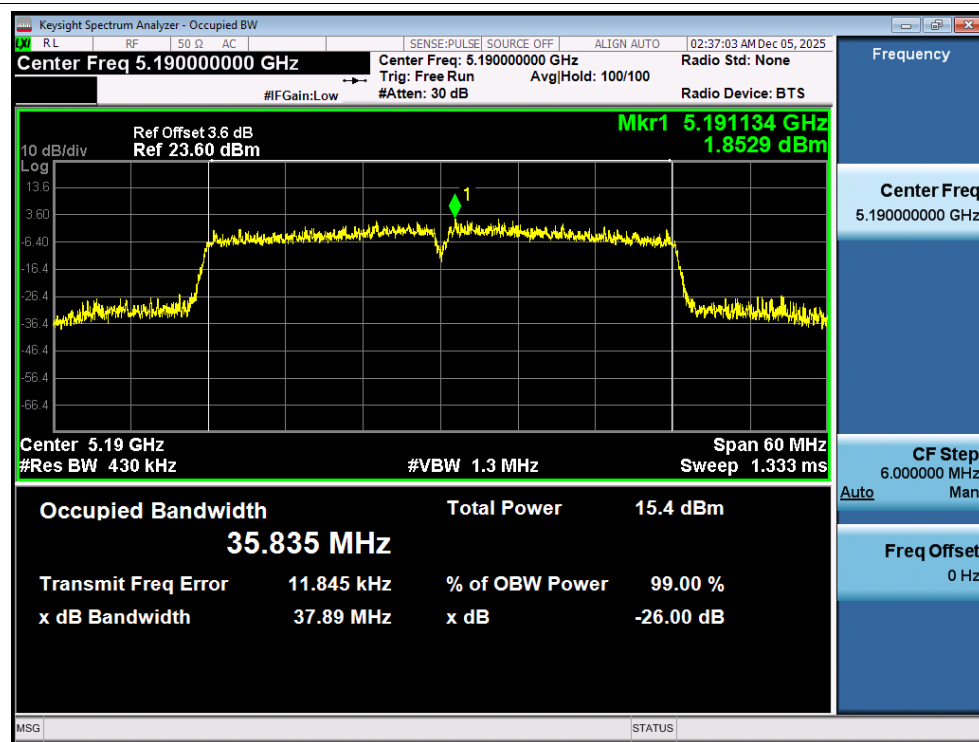
-26dB Bandwidth NVNT ac20 5200MHz Ant B



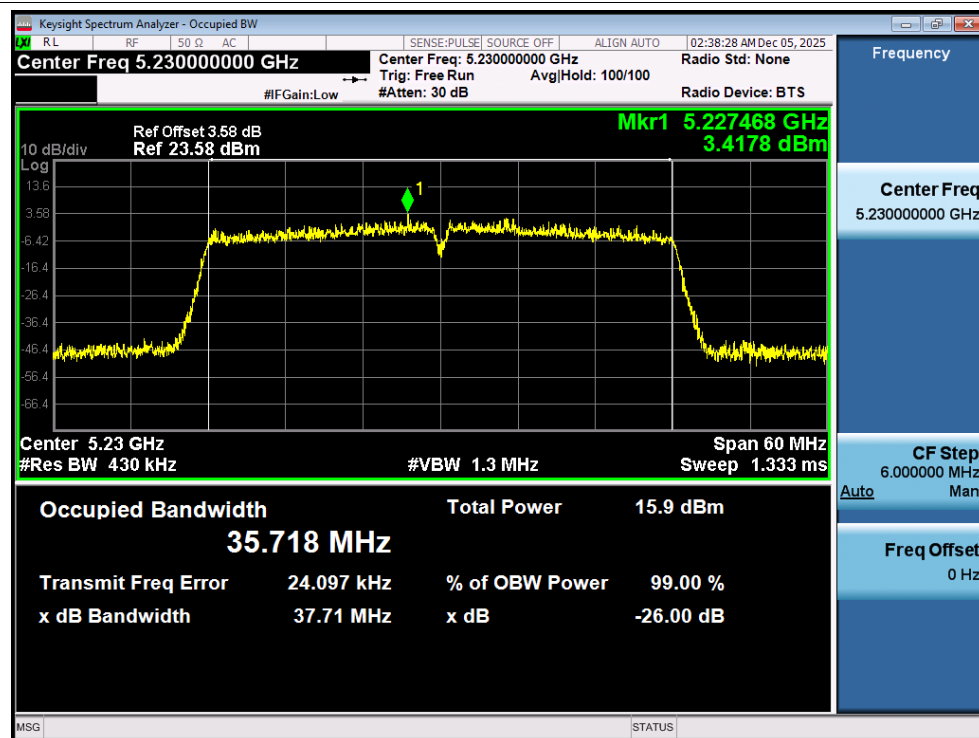
-26dB Bandwidth NVNT ac20 5240MHz Ant B



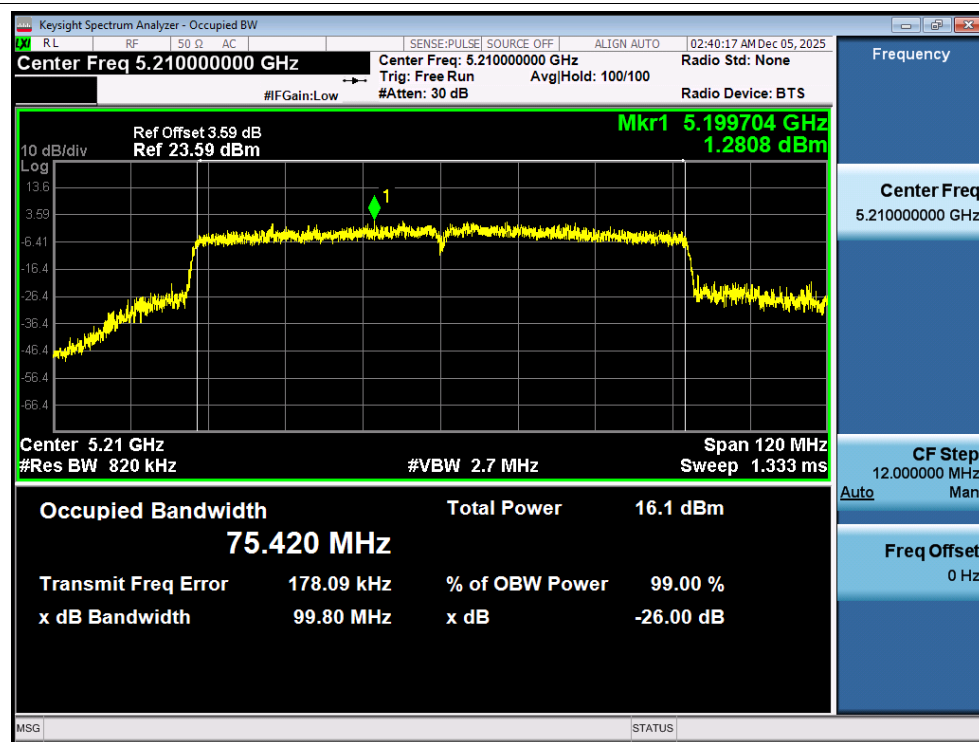
-26dB Bandwidth NVNT ac40 5190MHz Ant B



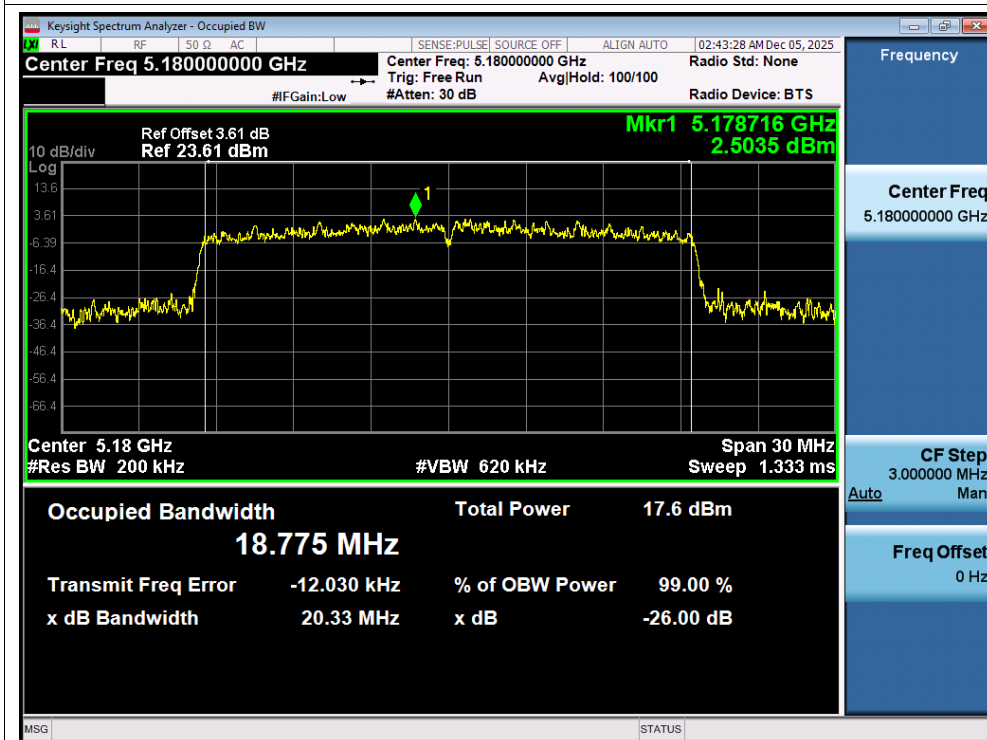
-26dB Bandwidth NVNT ac40 5230MHz Ant B



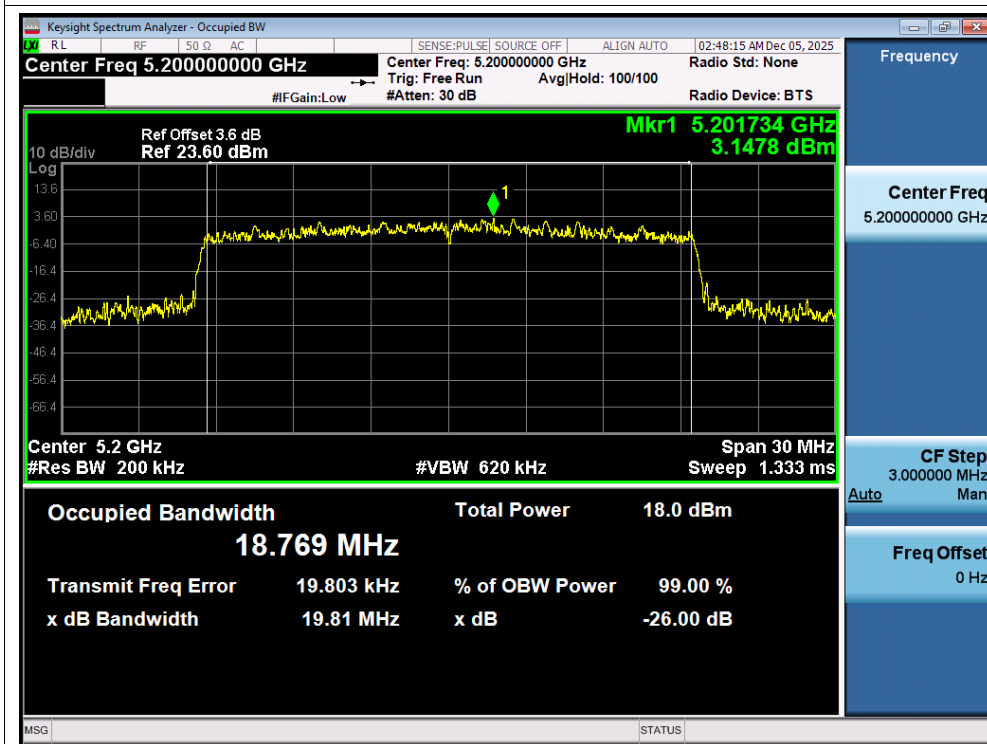
-26dB Bandwidth NVNT ac80 5210MHz Ant B



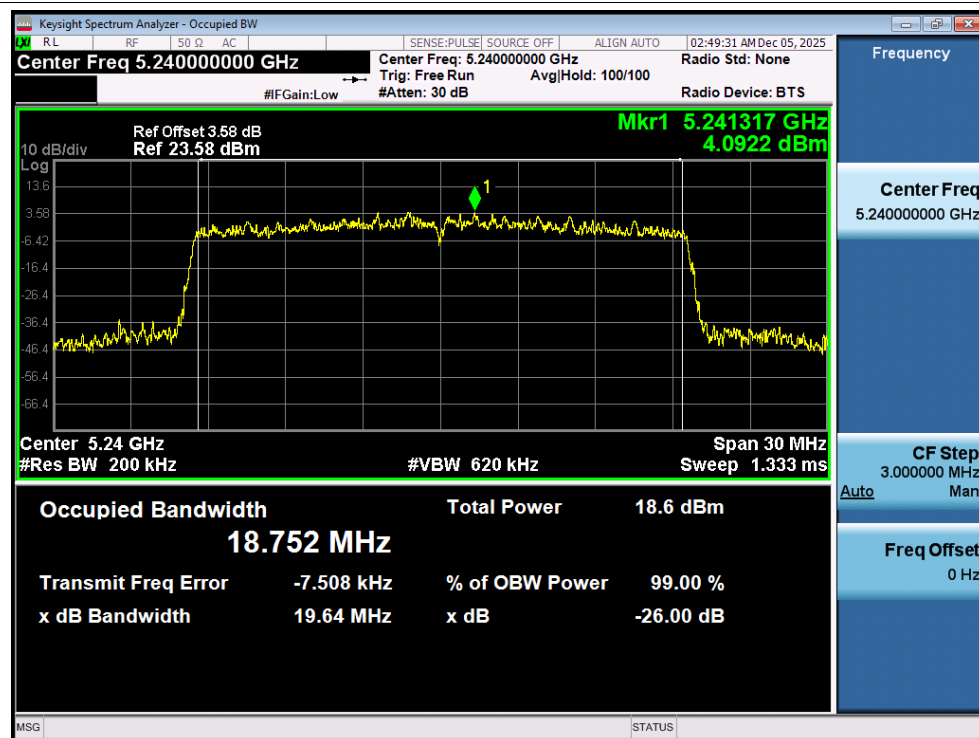
-26dB Bandwidth NVNT ax20 5180MHz Ant B



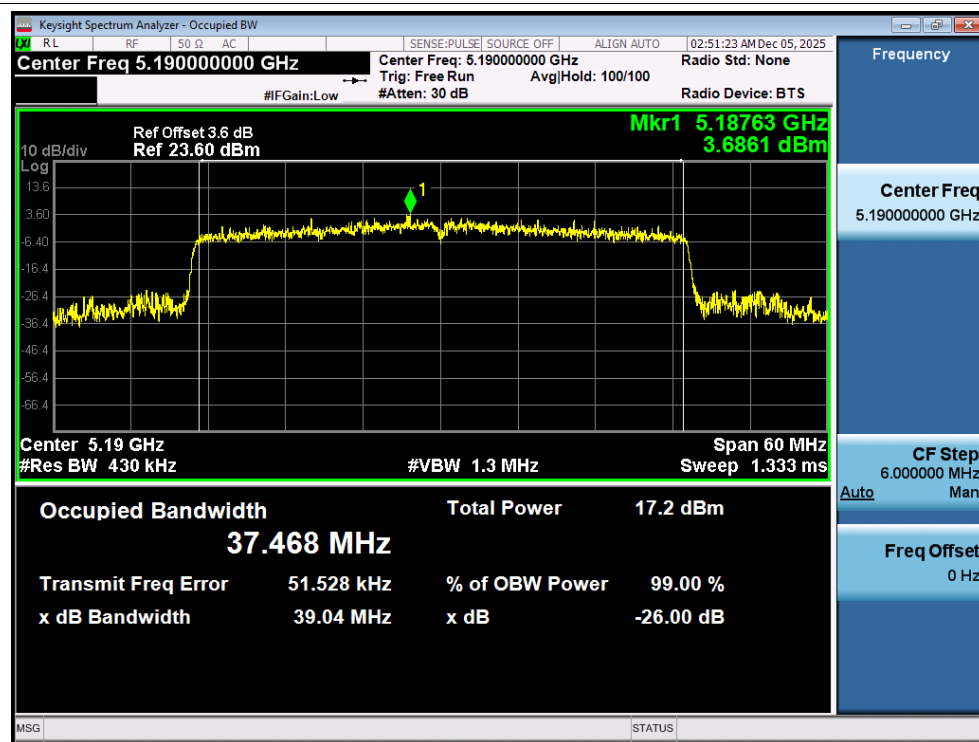
-26dB Bandwidth NVNT ax20 5200MHz Ant B



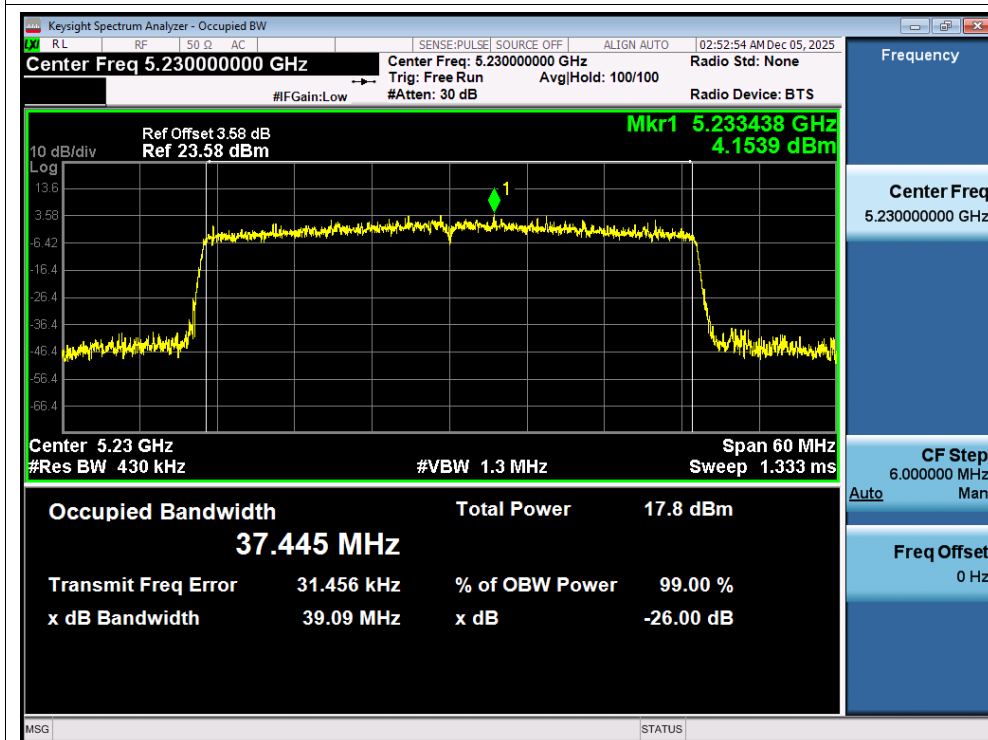
-26dB Bandwidth NVNT ax20 5240MHz Ant B



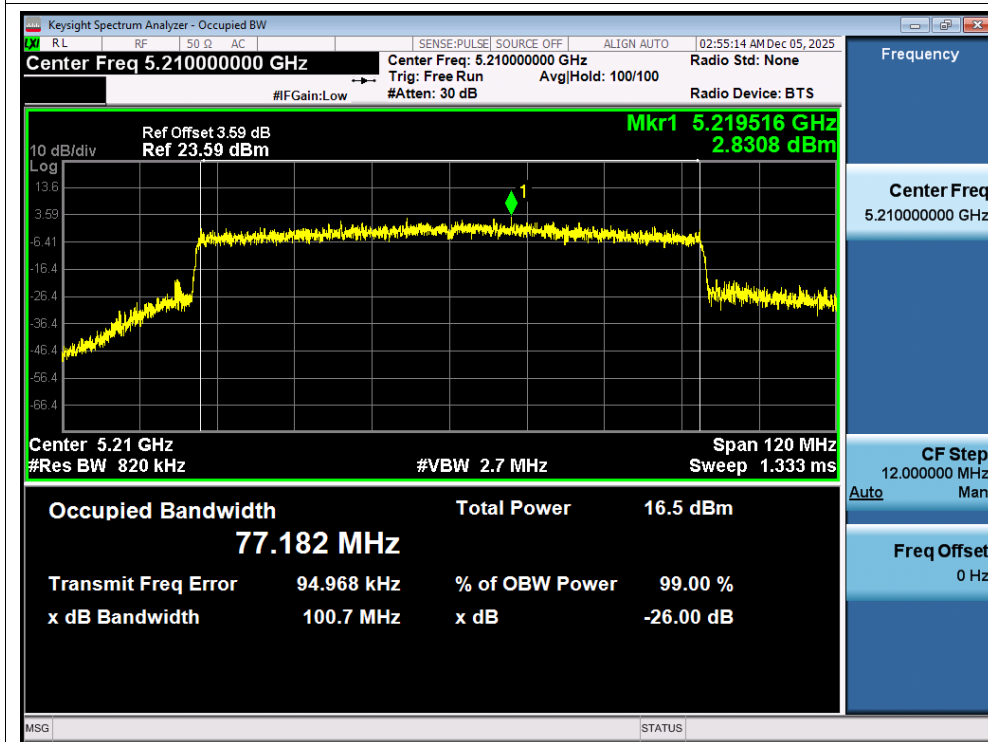
-26dB Bandwidth NVNT ax40 5190MHz Ant B



-26dB Bandwidth NVNT ax40 5230MHz Ant B



-26dB Bandwidth NVNT ax80 5210MHz Ant B

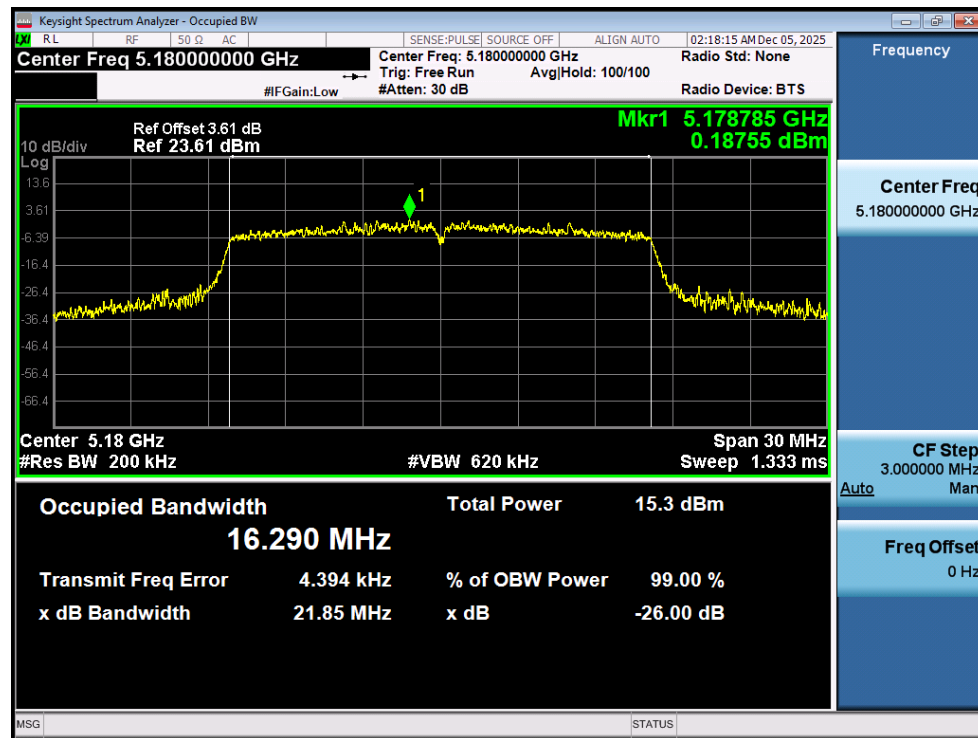


Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant B	16.29
		5200		16.294
		5240		16.26
	n20	5180		17.459
		5200		17.429
		5240		17.384
	n40	5190		35.872
		5230		35.821
	ac20	5180		17.462
		5200		17.452
		5240		17.412
	ac40	5190		35.824
		5230		35.831
	ac80	5210		75.484
	ax20	5180		18.755
		5200		18.759
		5240		18.704
	ax40	5190		37.446
		5230		37.444
	ax80	5210		77.171

Test Graphs

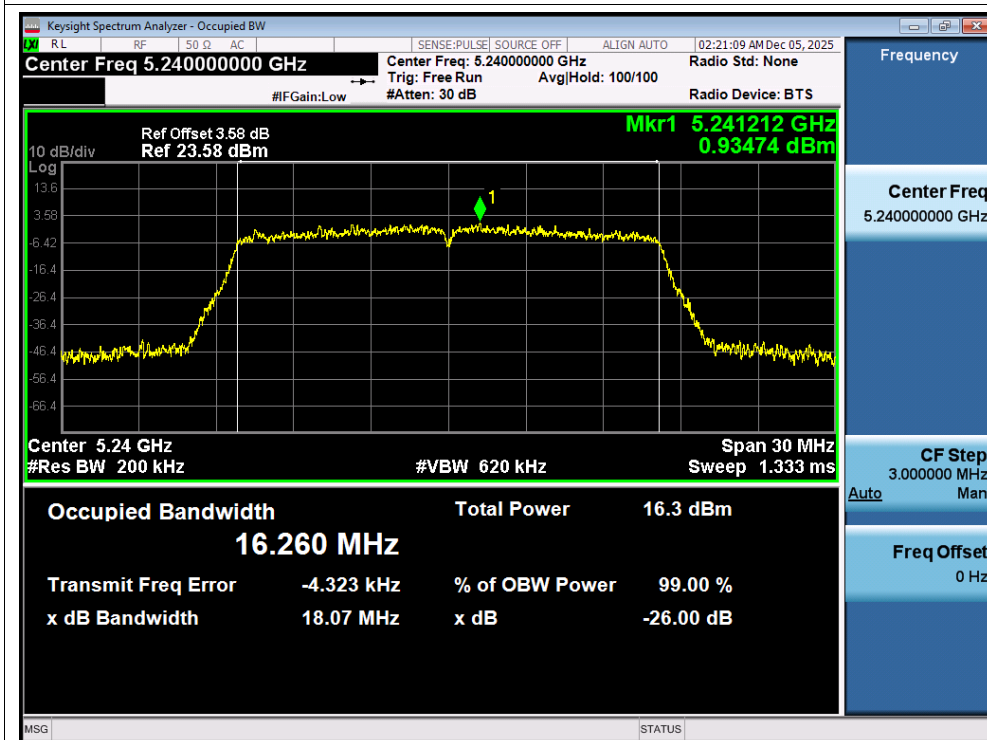
OBW NVNT a 5180MHz Ant B



OBW NVNT a 5200MHz Ant B



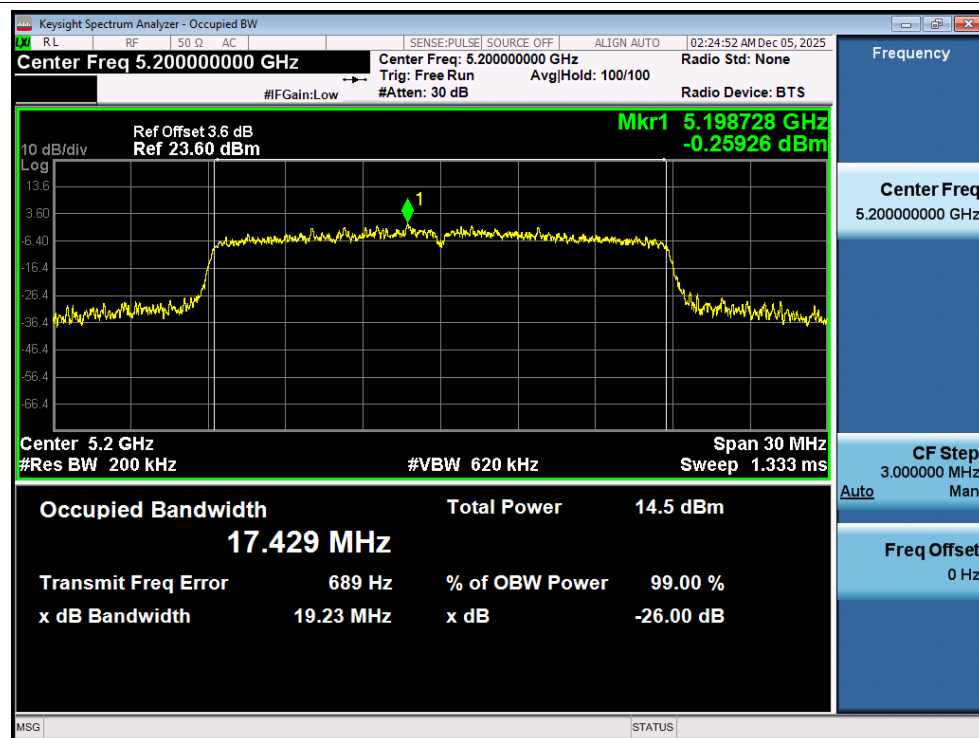
OBW NVNT a 5240MHz Ant B



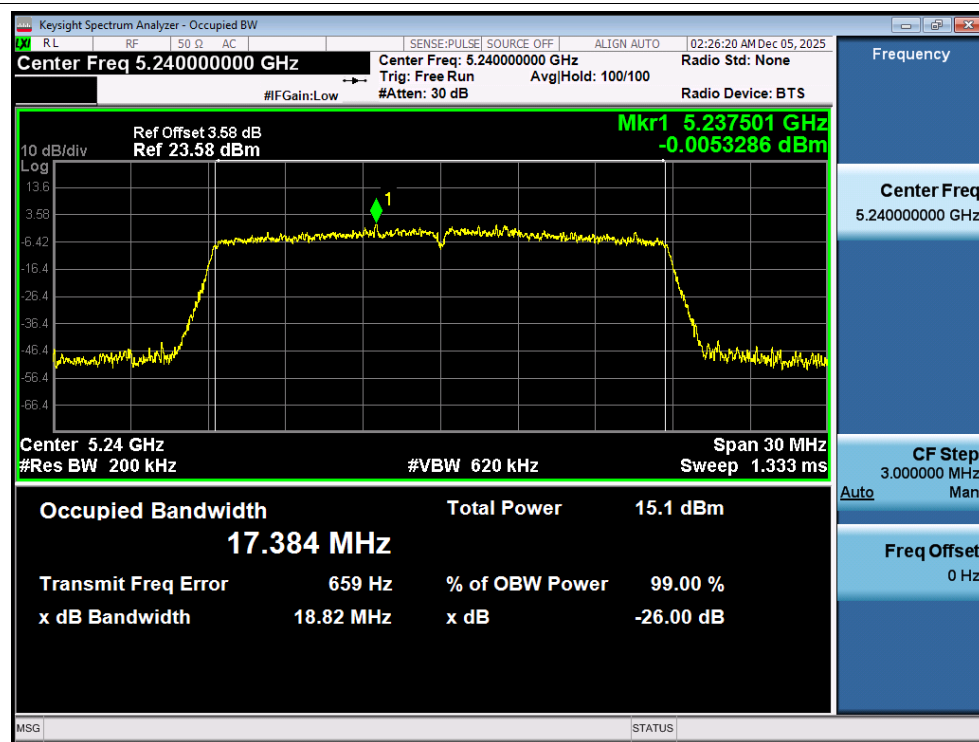
OBW NVNT n20 5180MHz Ant B



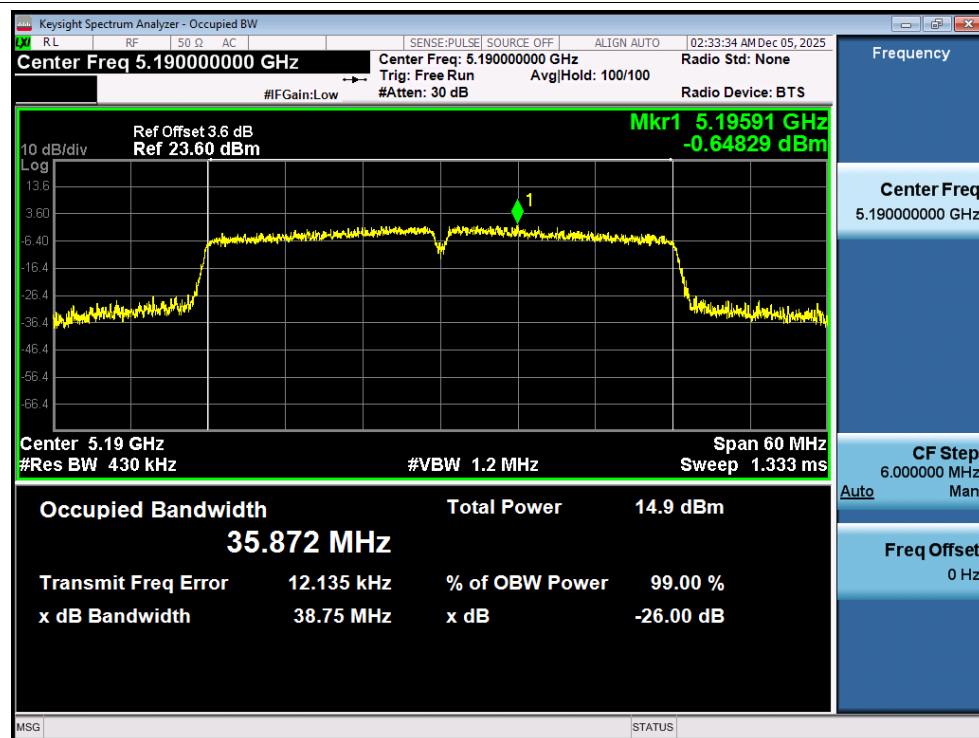
OBW NVNT n20 5200MHz Ant B



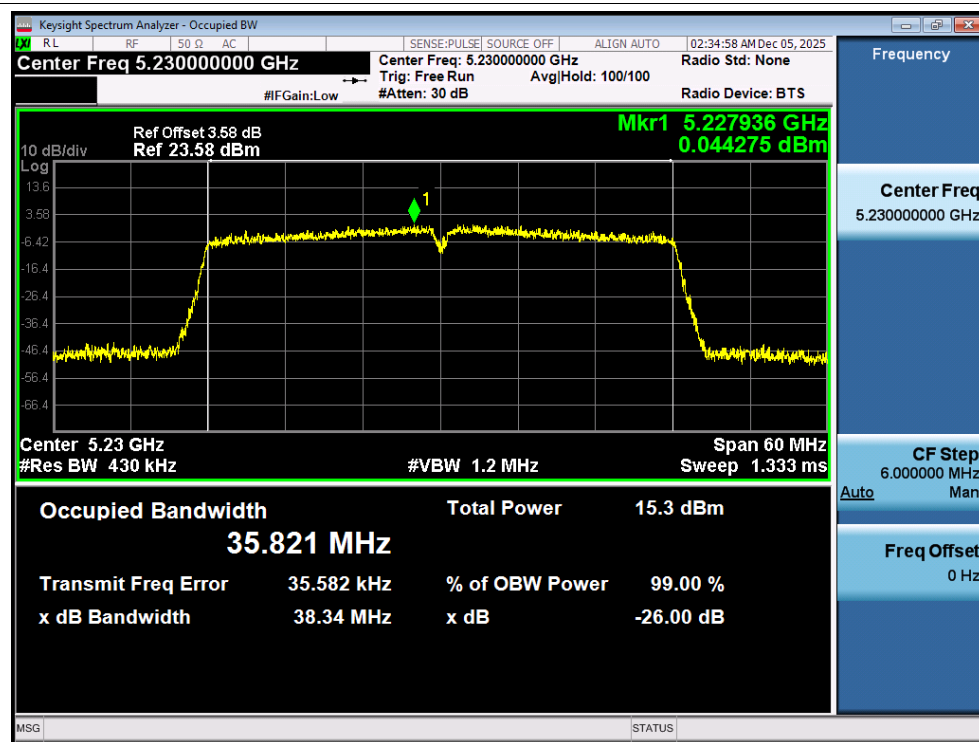
OBW NVNT n20 5240MHz Ant B



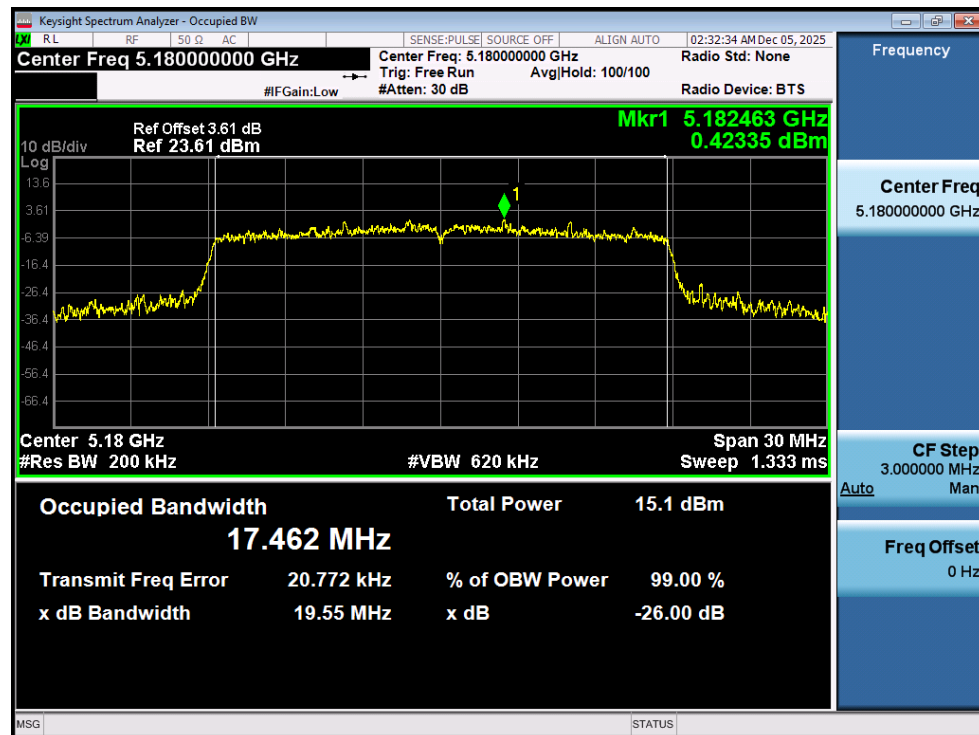
OBW NVNT n40 5190MHz Ant B



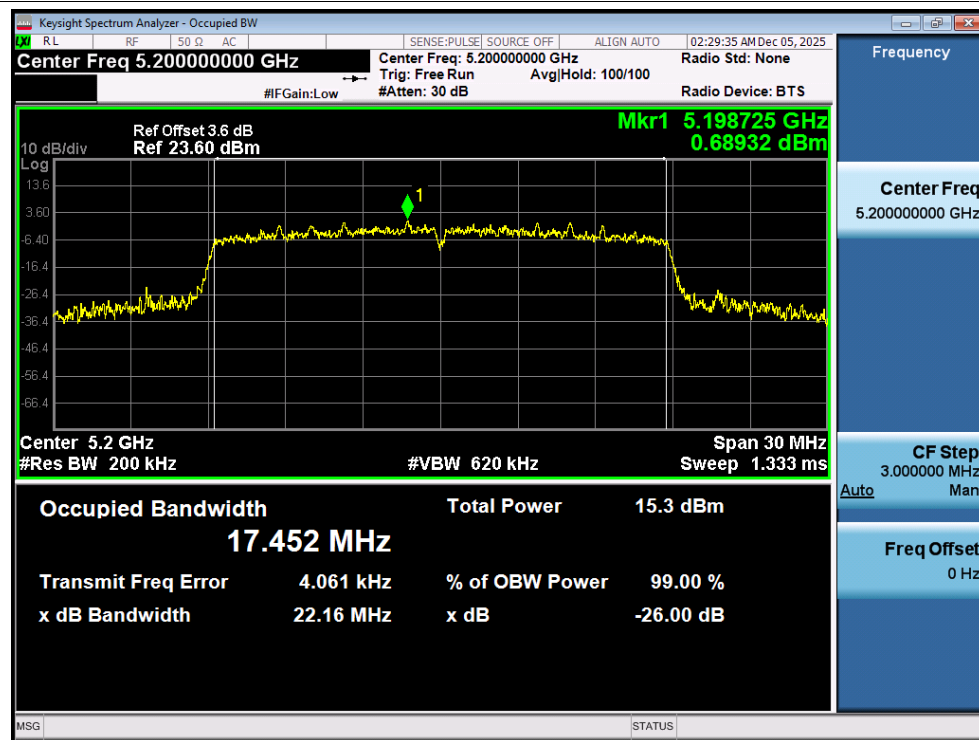
OBW NVNT n40 5230MHz Ant B



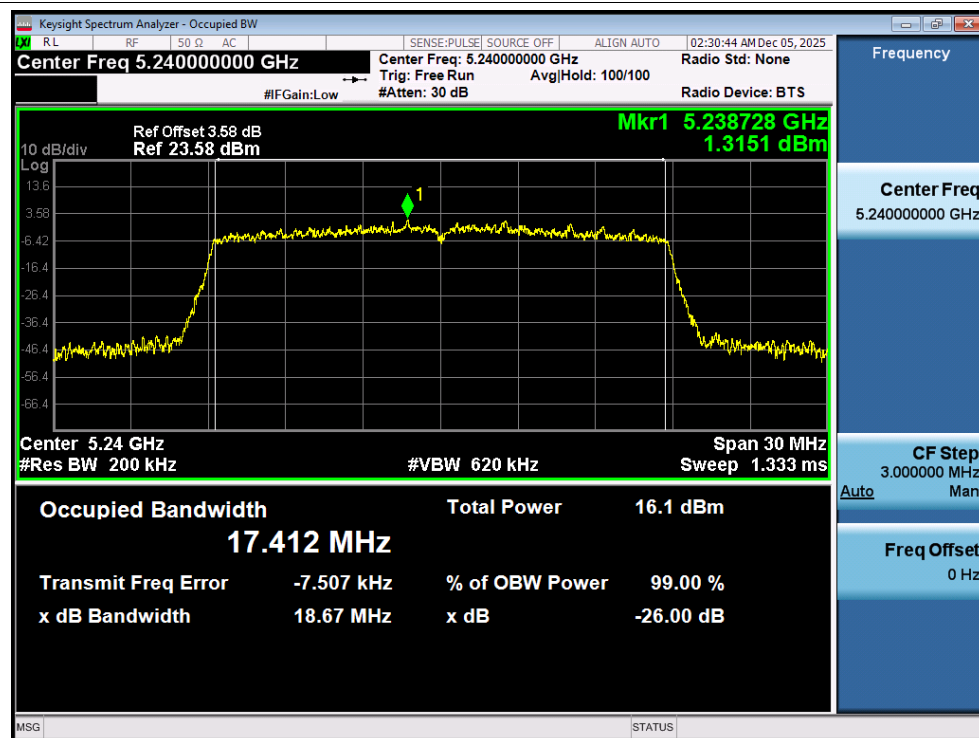
OBW NVNT ac20 5180MHz Ant B



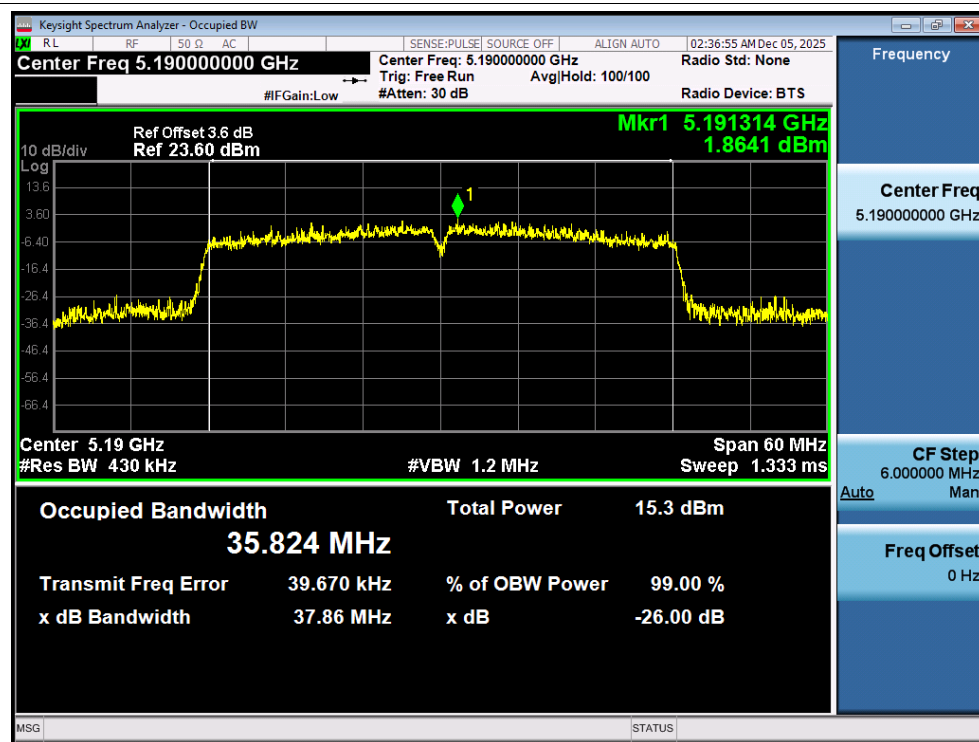
OBW NVNT ac20 5200MHz Ant B



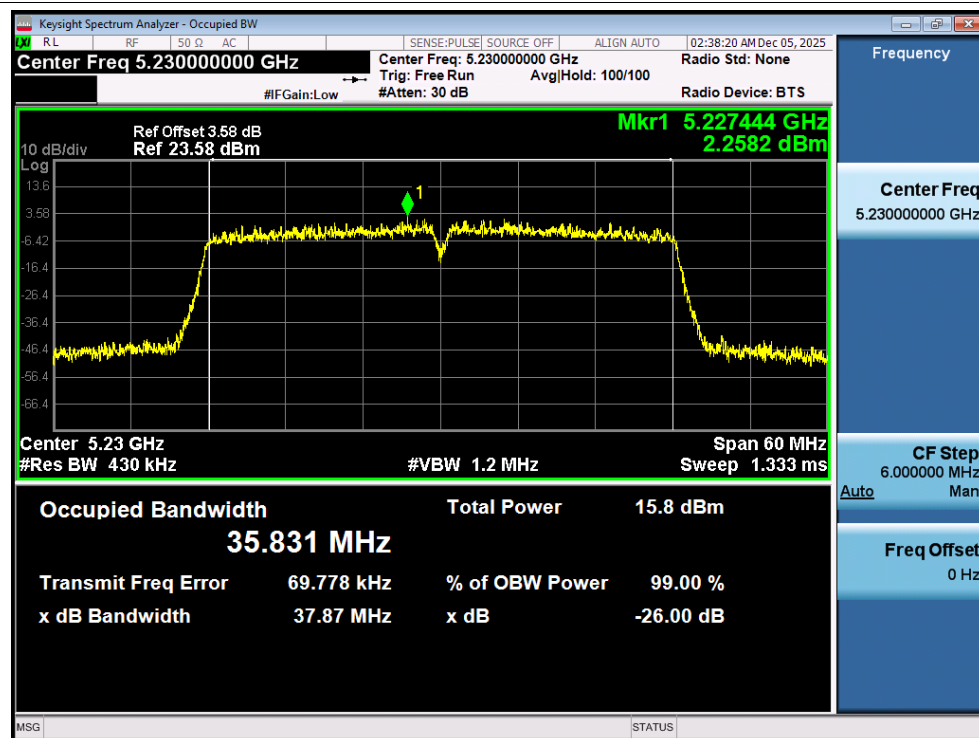
OBW NVNT ac20 5240MHz Ant B



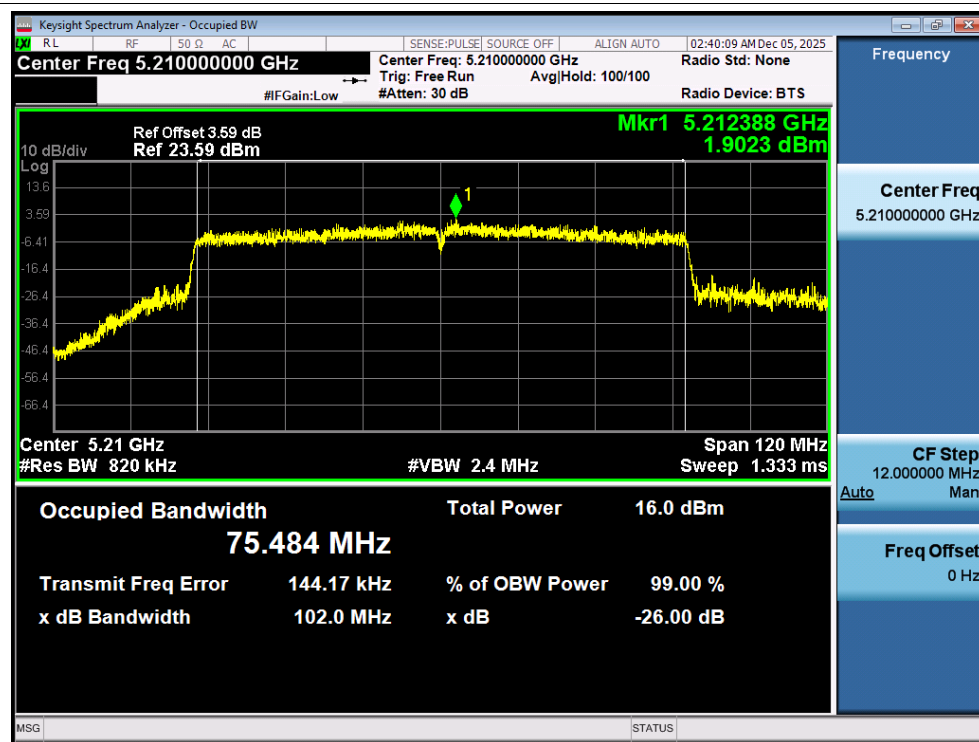
OBW NVNT ac40 5190MHz Ant B



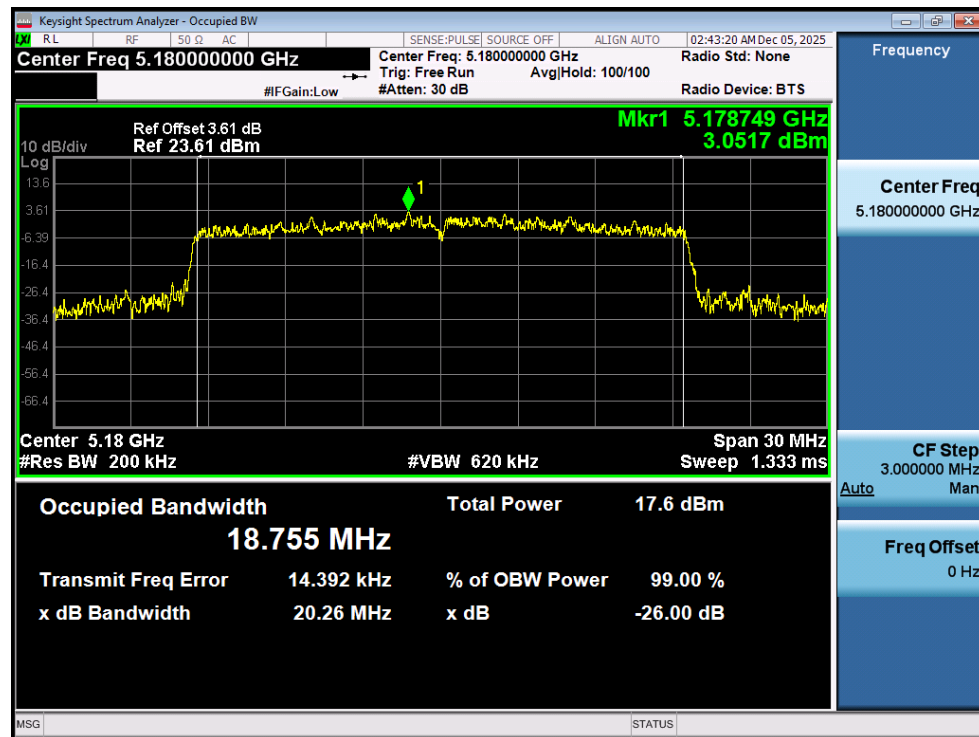
OBW NVNT ac40 5230MHz Ant B



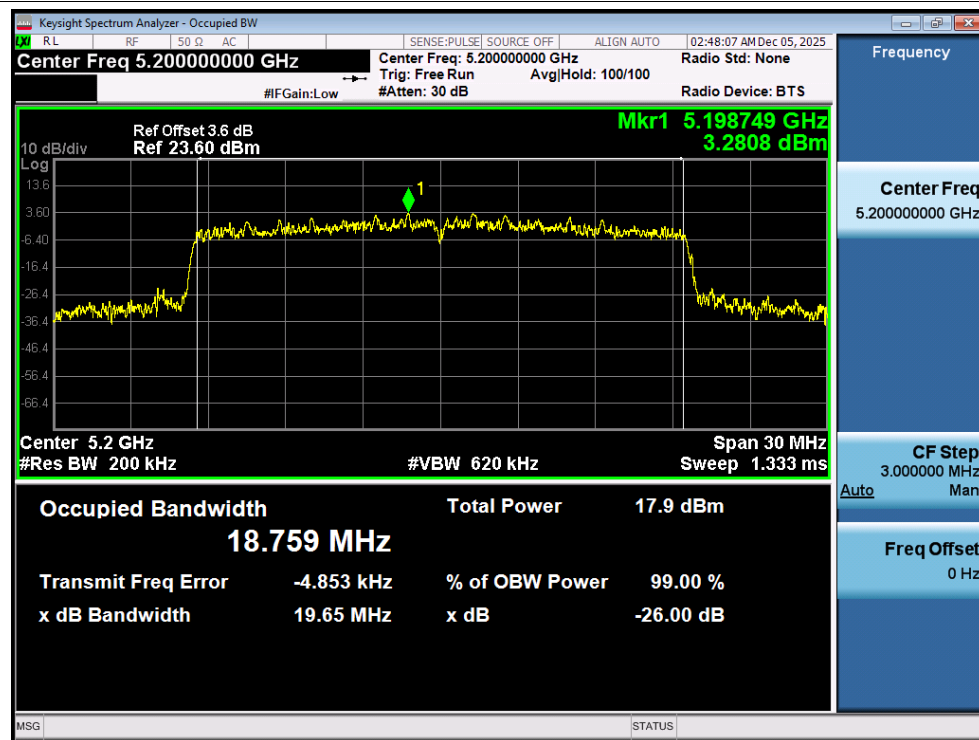
OBW NVNT ac80 5210MHz Ant B



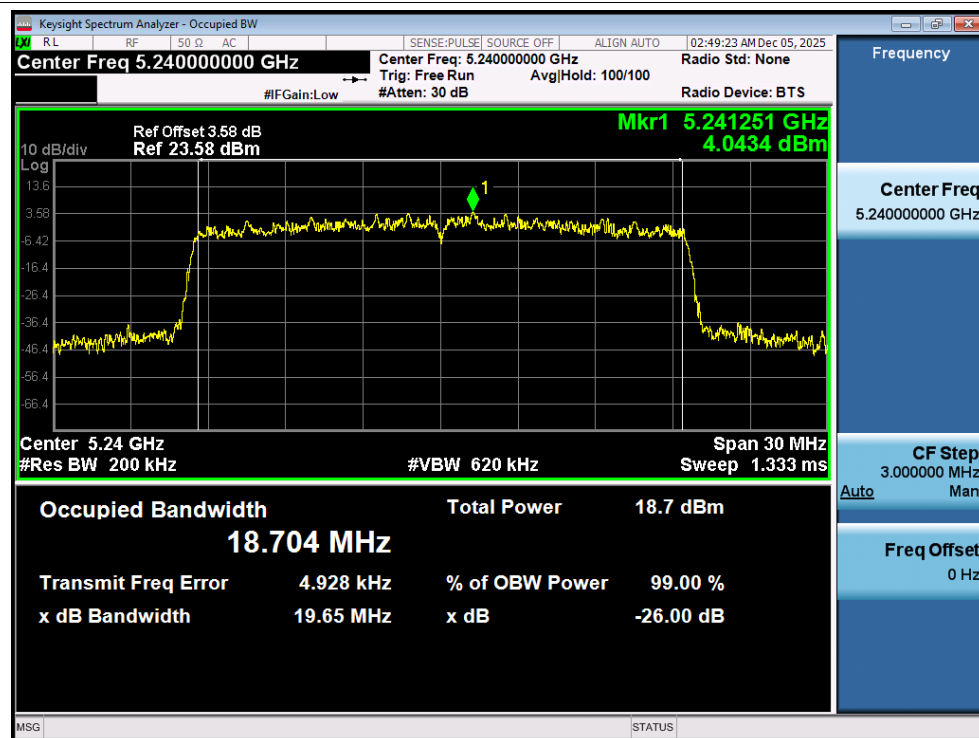
OBW NVNT ax20 5180MHz Ant B



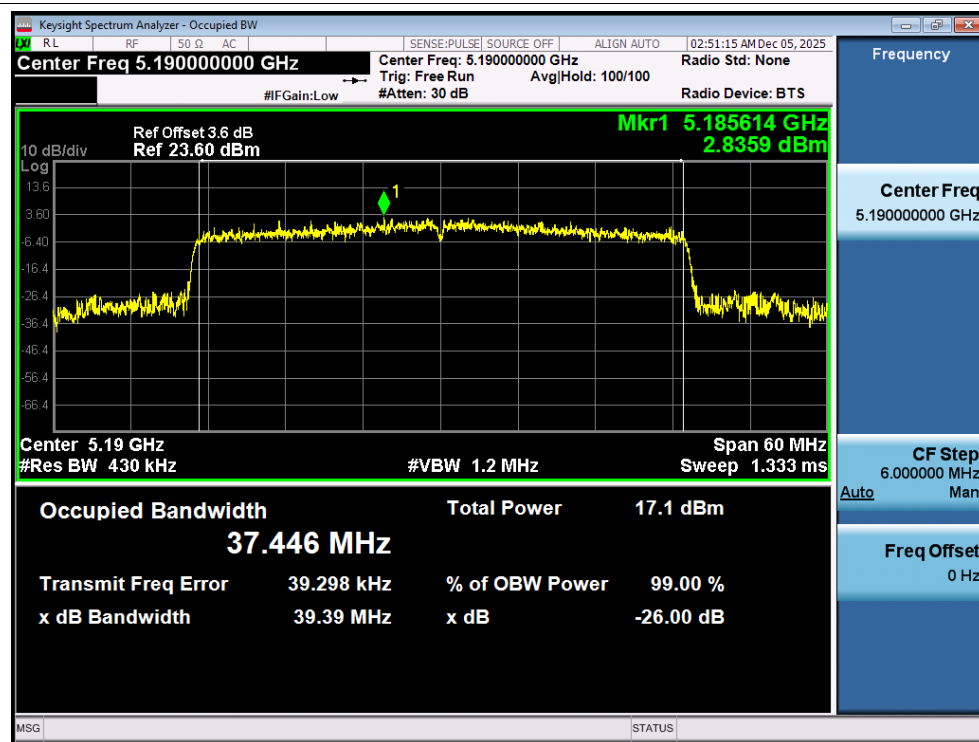
OBW NVNT ax20 5200MHz Ant B



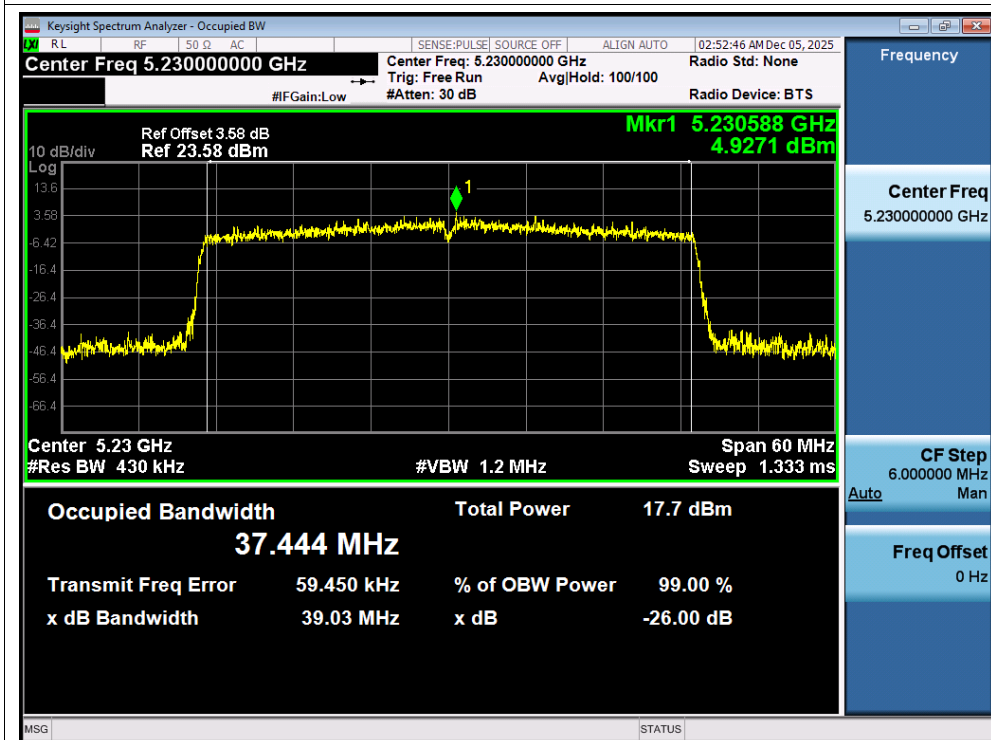
OBW NVNT ax20 5240MHz Ant B



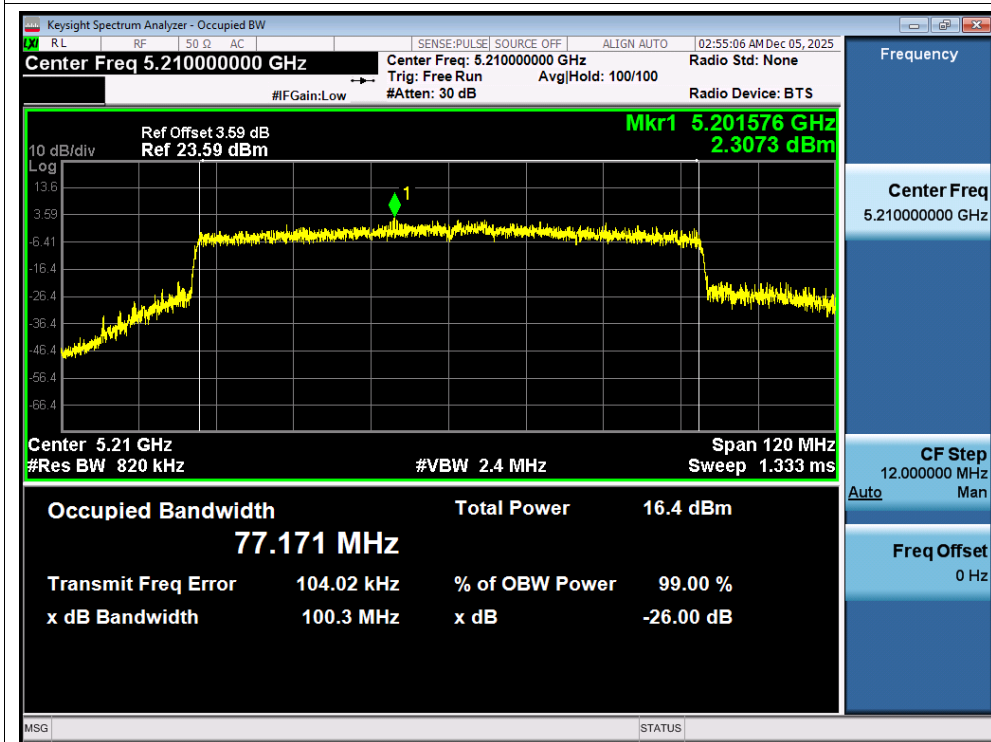
OBW NVNT ax40 5190MHz Ant B



OBW NVNT ax40 5230MHz Ant B



OBW NVNT ax80 5210MHz Ant B



Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Ant A Conducted PSD (dBm)	Ant B Conducted PSD (dBm)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	0.92	-0.65	/	11	Pass
NVNT	a	5200	0.62	-0.37	/	11	Pass
NVNT	a	5240	1.23	0.34	/	11	Pass
NVNT	n20	5180	-1.19	-1.94	1.46	10.72	Pass
NVNT	n20	5200	-0.96	-2.09	1.52	10.72	Pass
NVNT	n20	5240	-0.78	-1.11	2.07	10.72	Pass
NVNT	n40	5190	-4.9	-5.21	-2.04	10.72	Pass
NVNT	n40	5230	-4.04	-4.41	-1.21	10.72	Pass
NVNT	ac20	5180	-0.71	-1.33	2.00	10.72	Pass
NVNT	ac20	5200	-0.65	-1.26	2.07	10.72	Pass
NVNT	ac20	5240	-0.3	-0.37	2.68	10.72	Pass
NVNT	ac40	5190	-5.12	-5.93	-2.50	10.72	Pass
NVNT	ac40	5230	-4.98	-4.67	-1.81	10.72	Pass
NVNT	ac80	5210	-9.73	-9.77	-6.74	10.72	Pass
NVNT	ax20	5180	-0.58	-0.86	2.29	10.72	Pass
NVNT	ax20	5200	-0.2	-0.98	2.44	10.72	Pass
NVNT	ax20	5240	0.08	-0.15	2.98	10.72	Pass
NVNT	ax40	5190	-3.54	-4.67	-1.06	10.72	Pass
NVNT	ax40	5230	-4.01	-4.37	-1.18	10.72	Pass
NVNT	ax80	5210	-9.66	-9.19	-6.41	10.72	Pass

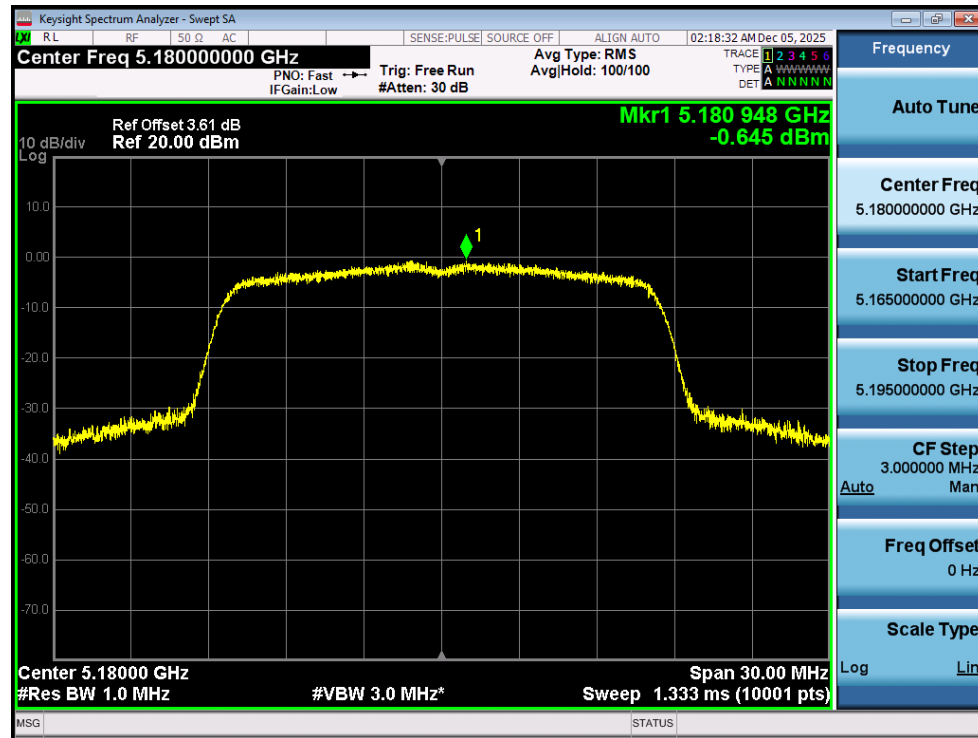
Note:

Antenna A gain: 3.05 dBi, Antenna B gain: 3.27dBi
 For power spectral density(PSD) measurements,
 $\text{Array Gain} = 10\log(\text{NANT}/\text{NSS})\text{dB} = 10\log(2/1) = 3.01 \text{ dBi}$,
 So the directional gain for PSD is 6.28 dBi > 6dbi
 $\text{Limit} = 11 - (6.28 - 6) = 10.72 \text{ dbm}$

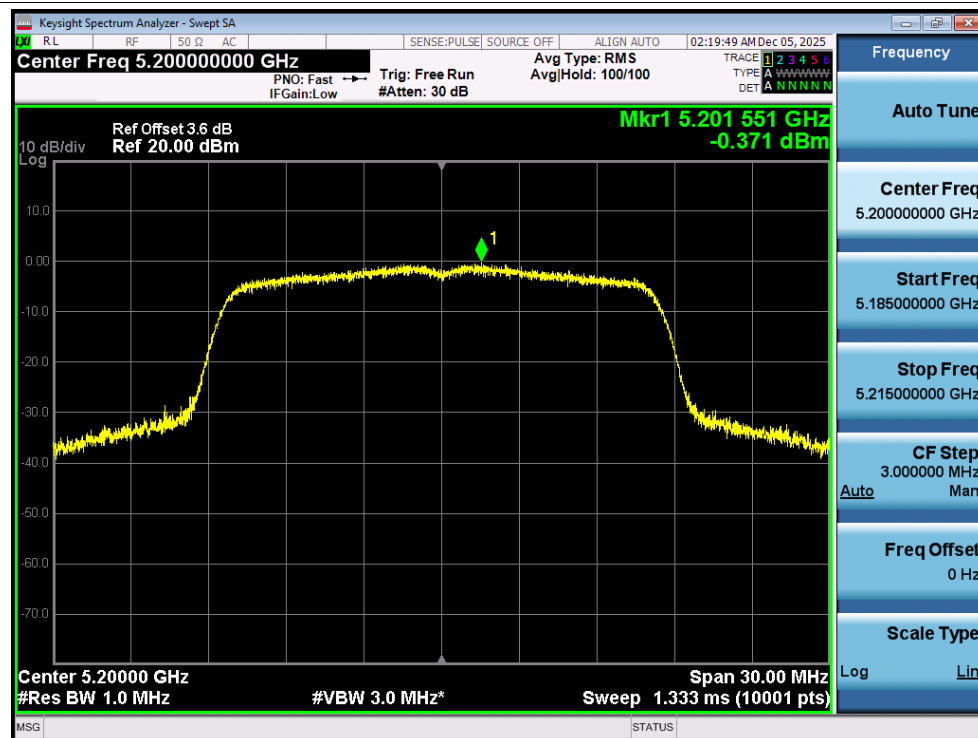
Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain.

Test Graphs

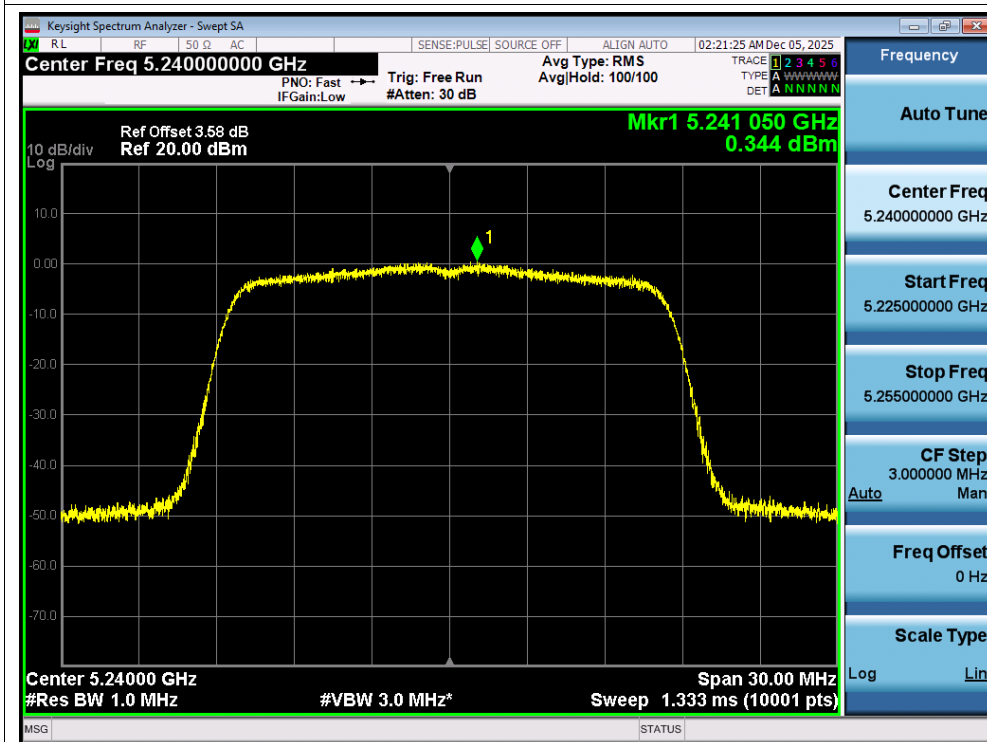
PSD NVNT a 5180MHz Ant B



PSD NVNT a 5200MHz Ant B



PSD NVNT a 5240MHz Ant B



PSD NVNT n20 5180MHz Ant B

