

RF Test Data for 5G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	Smart Projector
Test Model:	M01 Pro
Sample ID:	202309-0009-4-2#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 19V
Test Engineer:	Zhou zhen
Note: For a more detailed features description, please refer to the report TBR-C-202309-0009-91 The report only show the worst case data.	

Contents

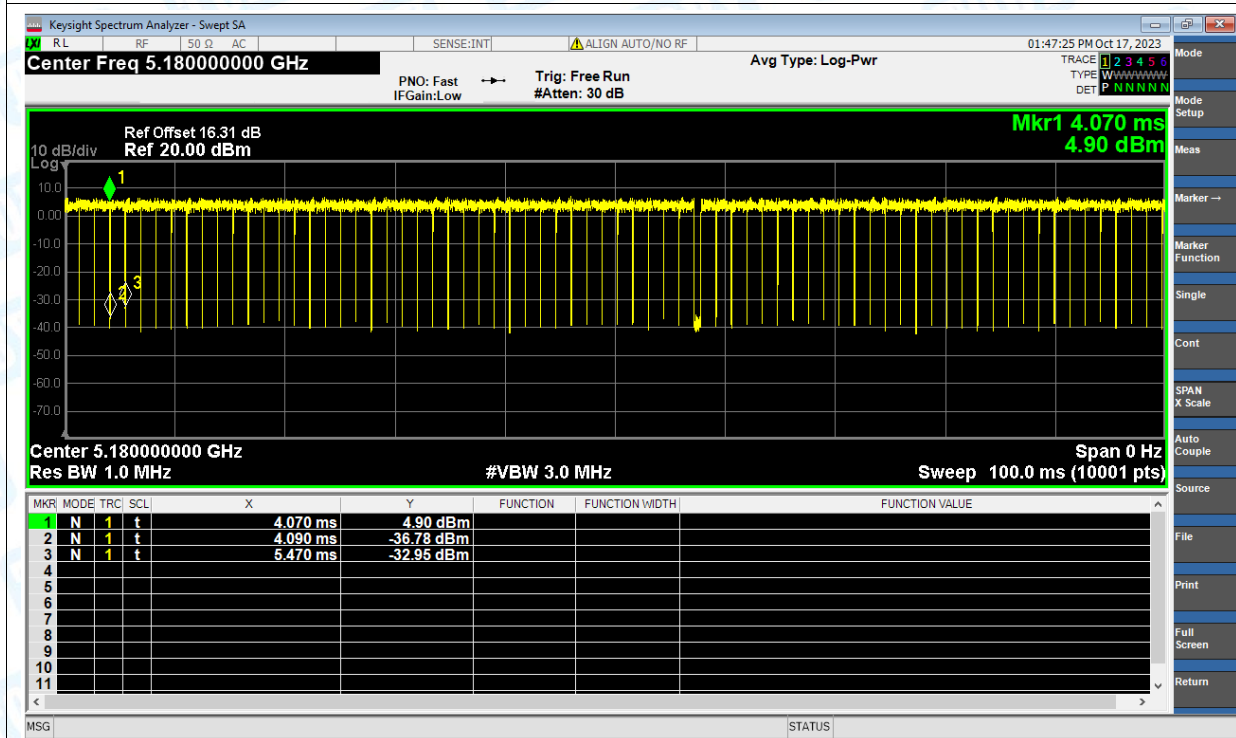
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1. Duty Cycle

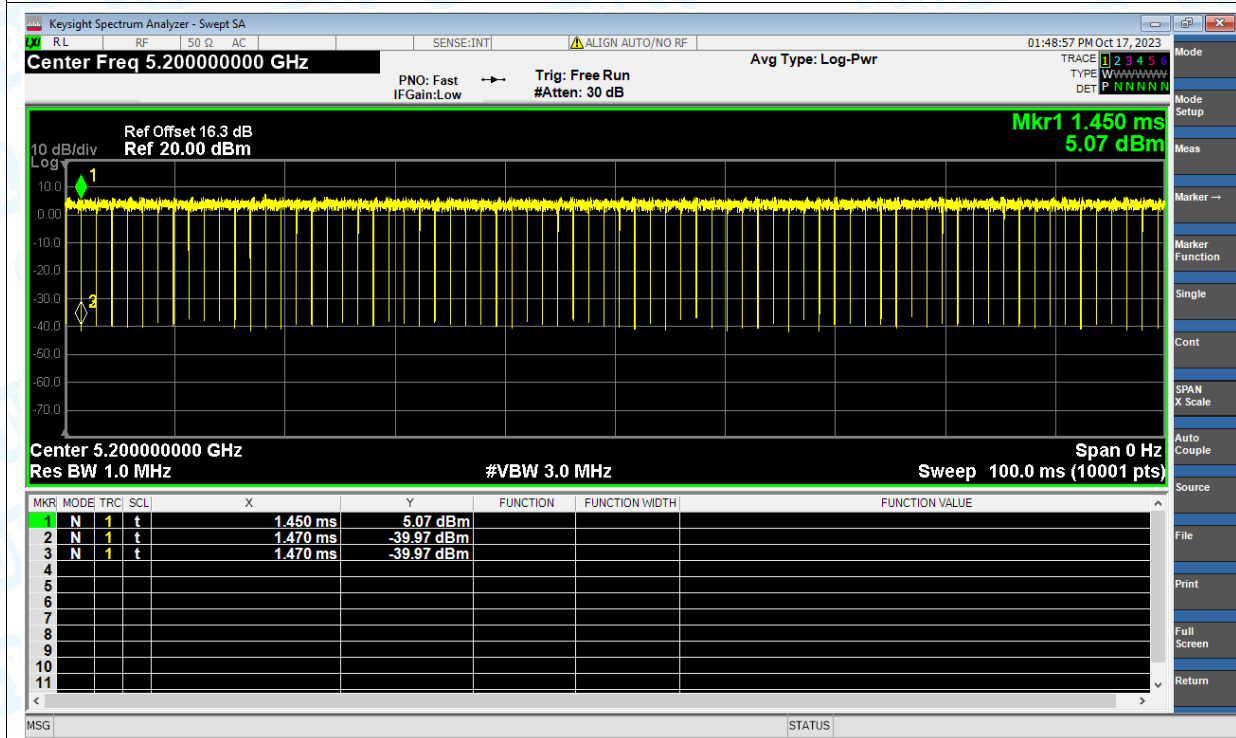
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	98.57	0.06	0.01
NVNT	a	5200	Ant1	99.28	0.03	0.01
NVNT	a	5240	Ant1	99.28	0.03	0.01
NVNT	ac(VHT20)	5180	Ant1	99.78	0.01	0.01
NVNT	ac(VHT20)	5200	Ant1	98.47	0.07	0.01
NVNT	ac(VHT20)	5240	Ant1	99.24	0.03	0.01
NVNT	ac(VHT40)	5190	Ant1	98.50	0.07	0.01
NVNT	ac(VHT40)	5230	Ant1	99.63	0.02	0.01
NVNT	ax(VHT20)	5180	Ant1	98.06	0.09	0.01
NVNT	ax(VHT20)	5200	Ant1	99.61	0.02	0.01
NVNT	ax(VHT20)	5240	Ant1	99.51	0.02	0.01
NVNT	ax(VHT40)	5190	Ant1	94.55	0.24	0.01
NVNT	ax(VHT40)	5230	Ant1	99.10	0.04	0.01
NVNT	n(HT20)	5180	Ant1	99.75	0.01	0.01
NVNT	n(HT20)	5200	Ant1	98.48	0.07	0.01
NVNT	n(HT20)	5240	Ant1	98.45	0.07	0.01
NVNT	n(HT40)	5190	Ant1	99.26	0.03	0.01
NVNT	n(HT40)	5230	Ant1	98.52	0.06	0.01

Test Graphs

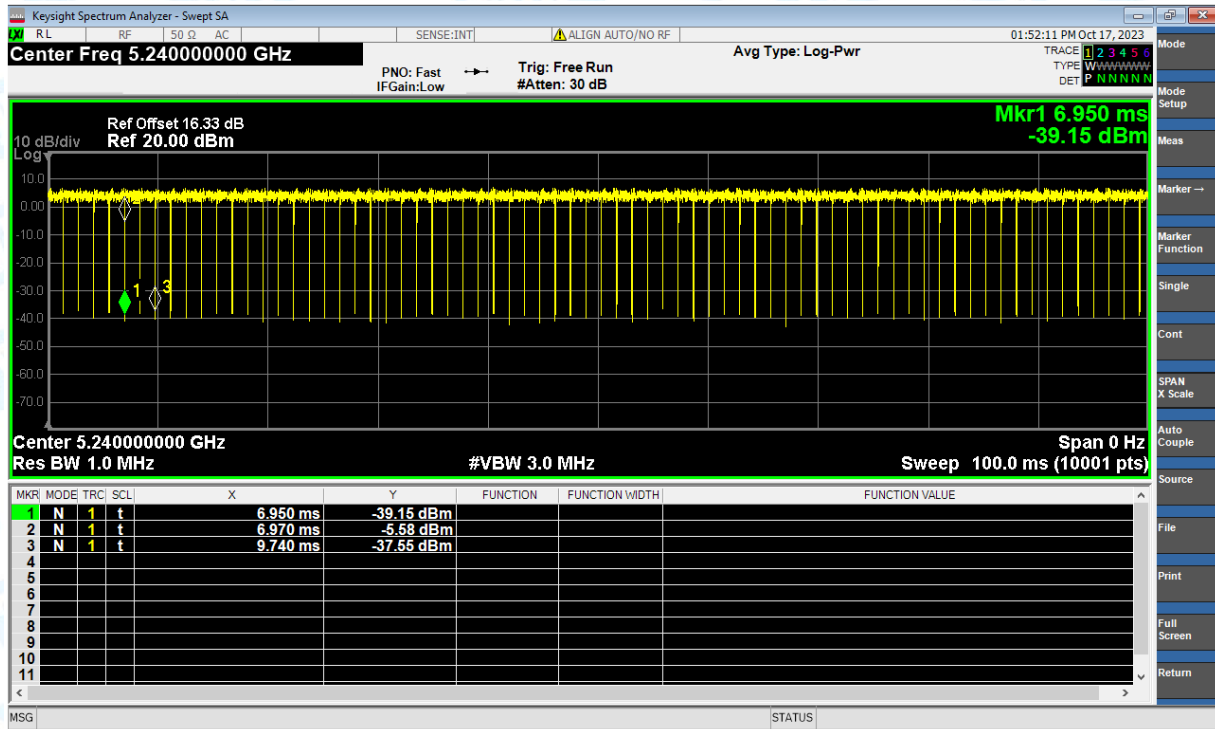
Duty Cycle NVNT a 5180MHz Ant1



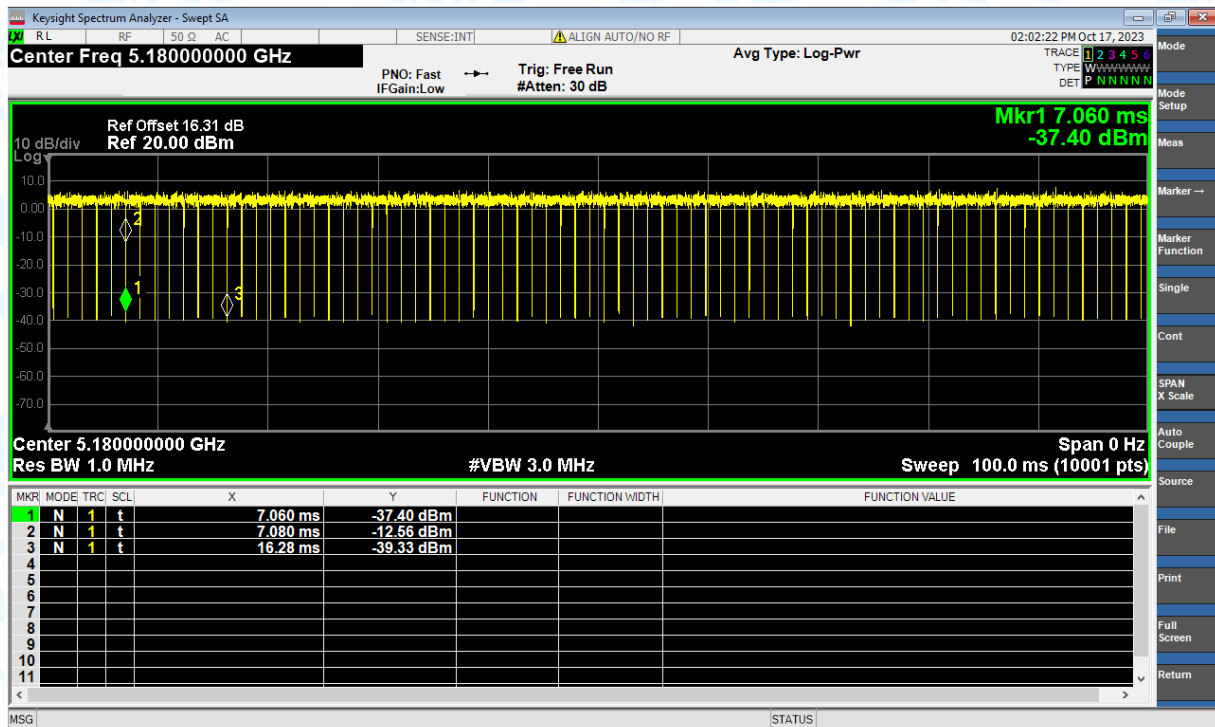
Duty Cycle NVNT a 5200MHz Ant1



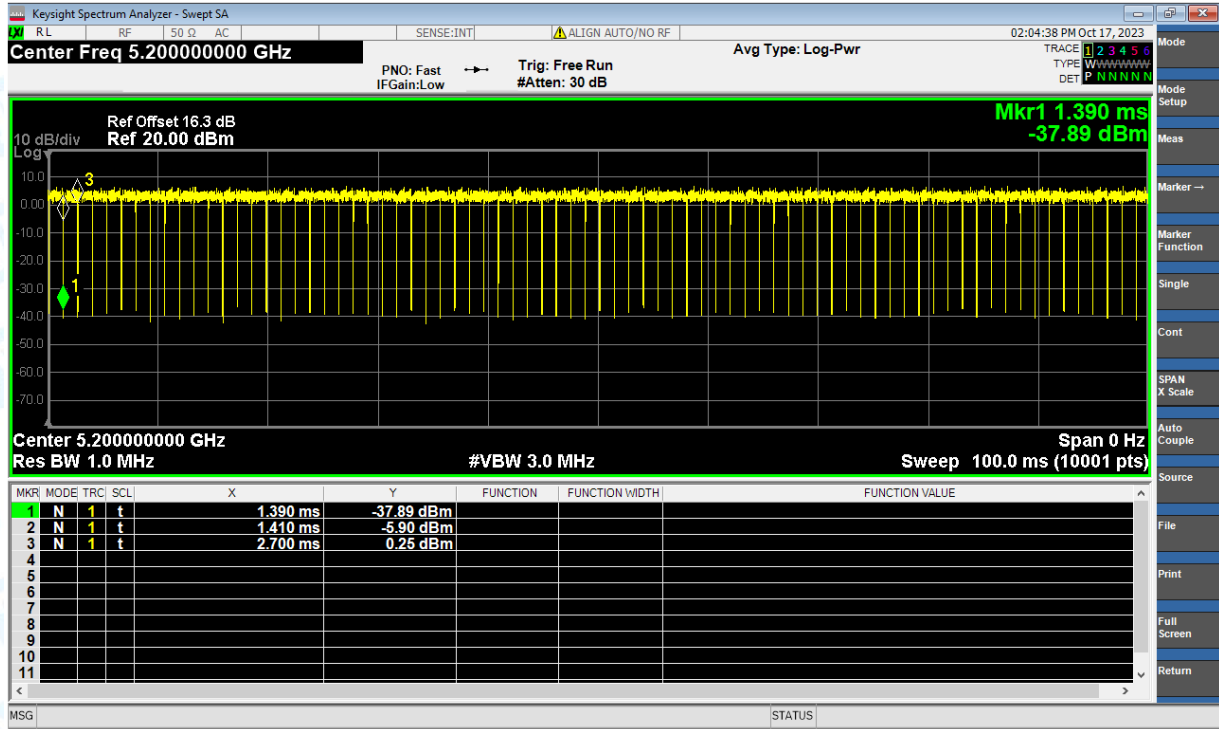
Duty Cycle NVNT a 5240MHz Ant1



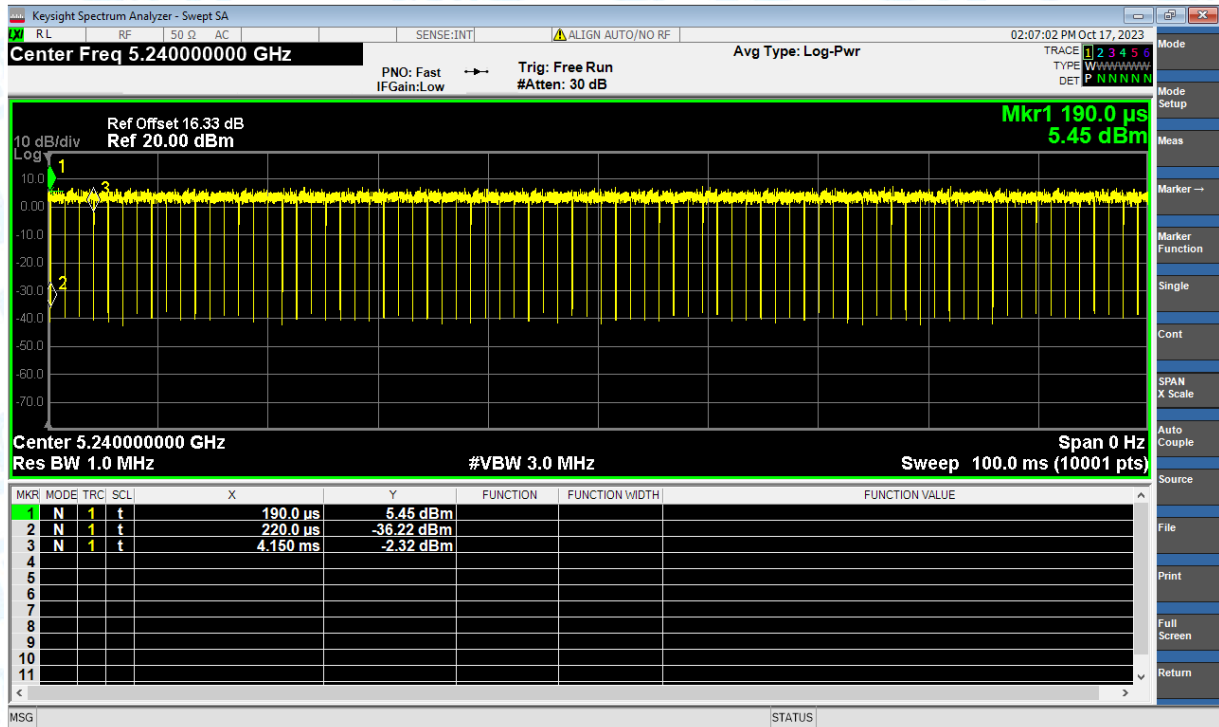
Duty Cycle NVNT ac(VHT20) 5180MHz Ant1



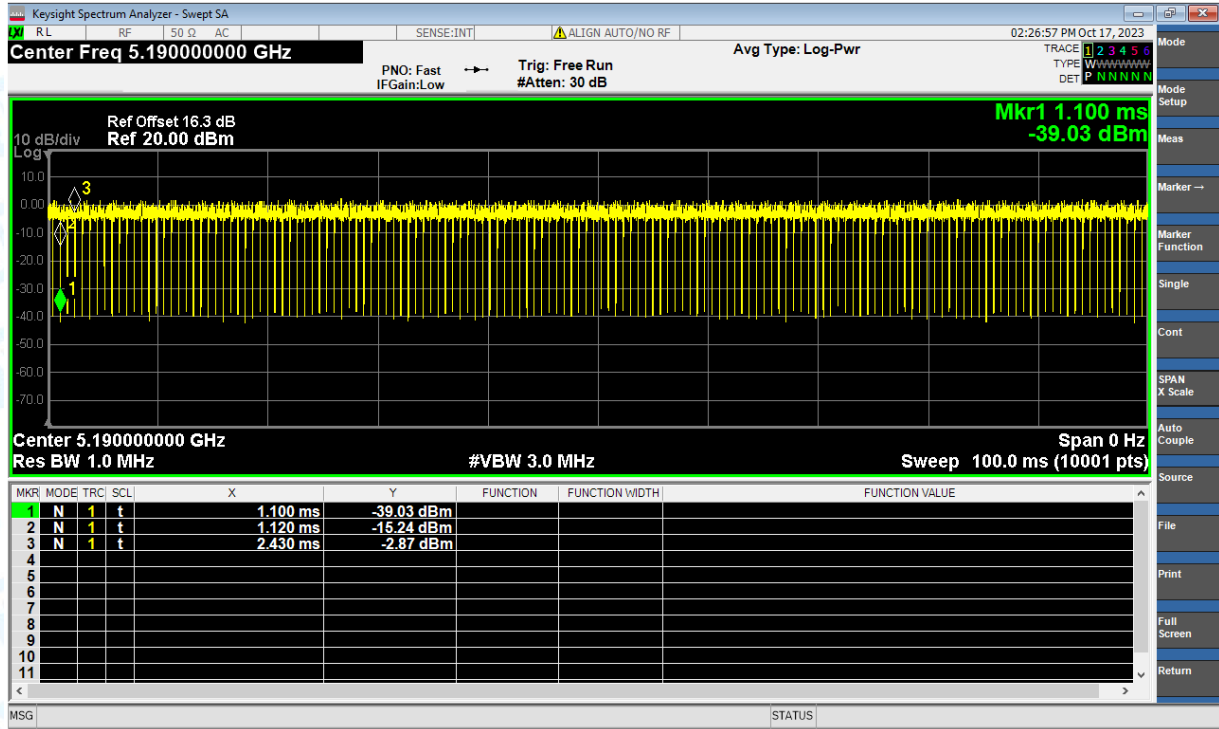
Duty Cycle NVNT ac(VHT20) 5200MHz Ant1



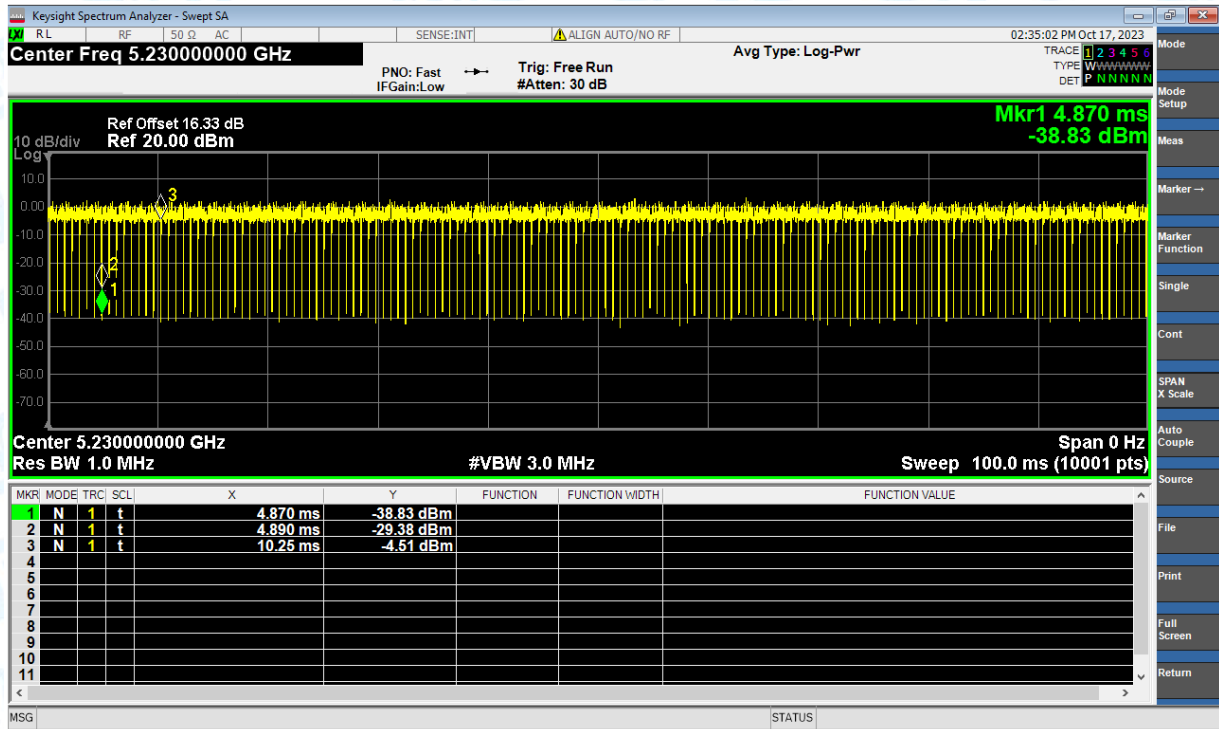
Duty Cycle NVNT ac(VHT20) 5240MHz Ant1



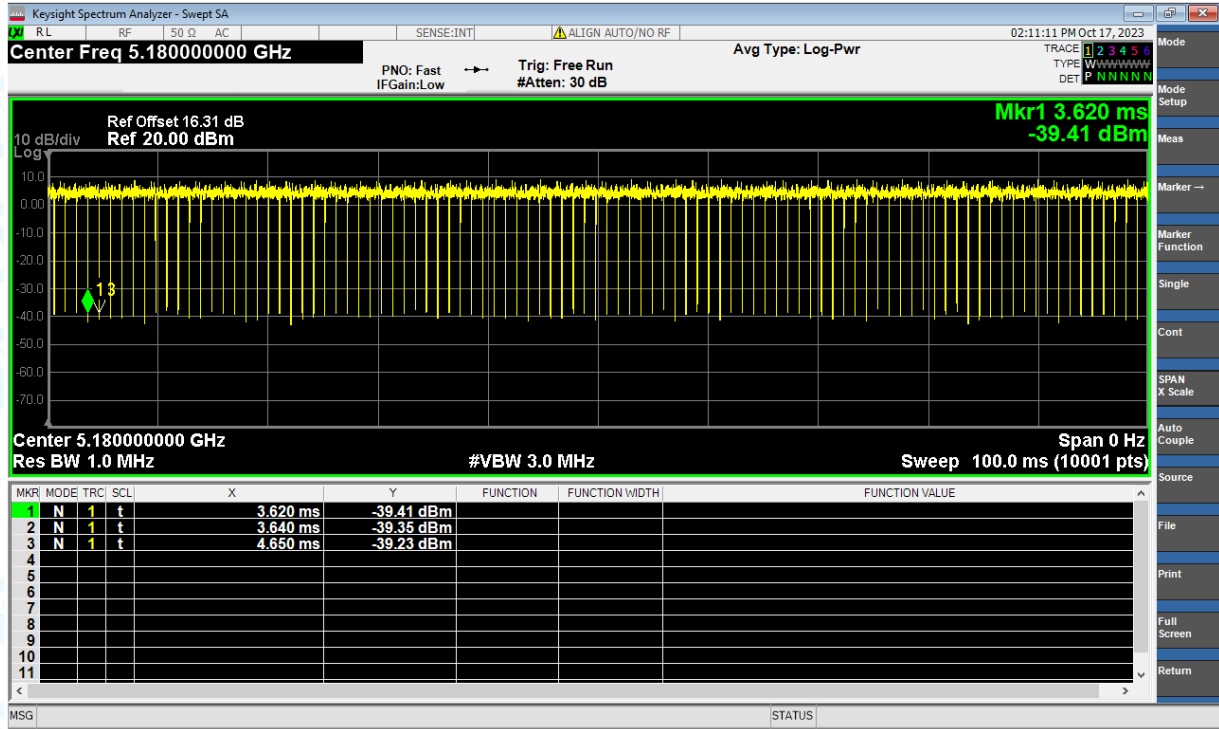
Duty Cycle NVNT ac(VHT40) 5190MHz Ant1



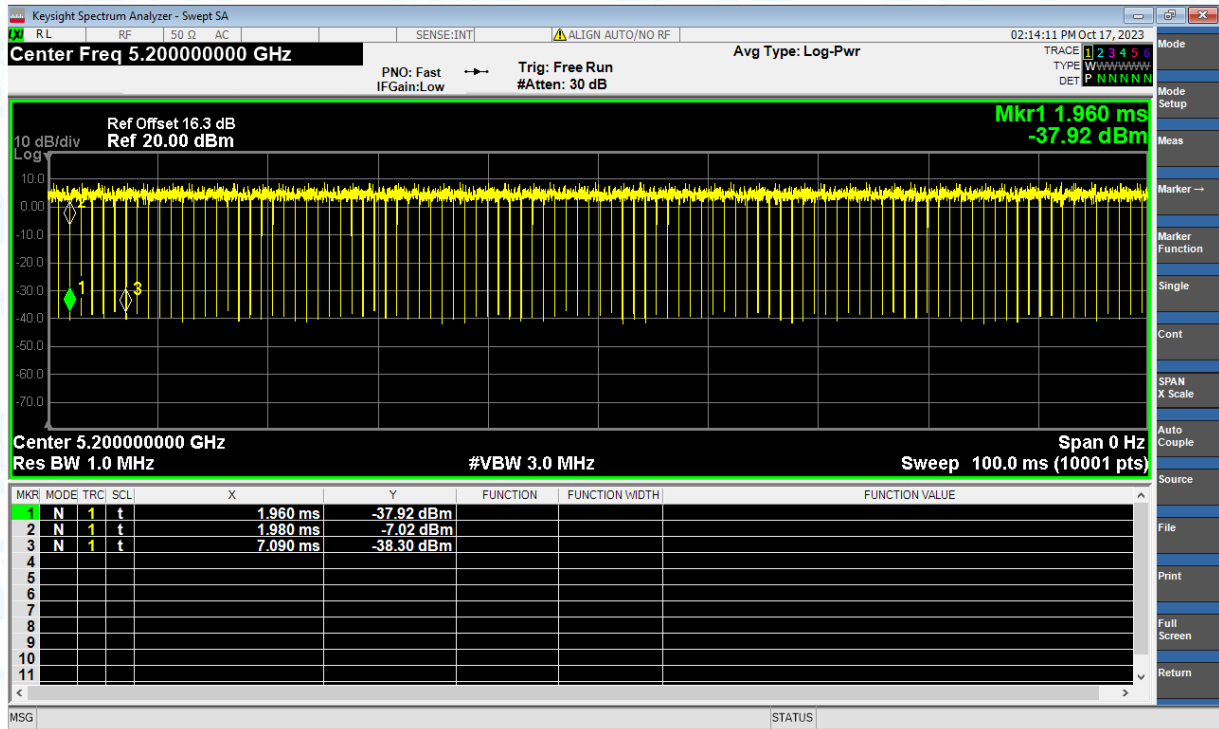
Duty Cycle NVNT ac(VHT40) 5230MHz Ant1



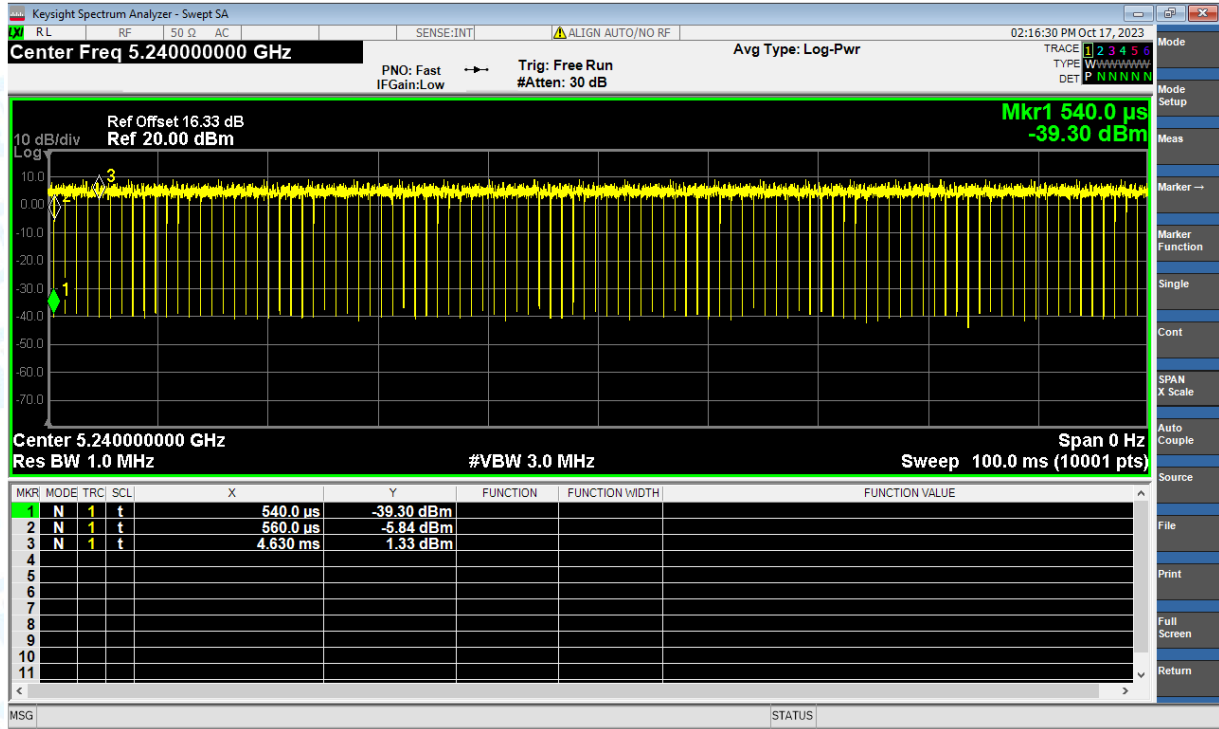
Duty Cycle NVNT ax(VHT20) 5180MHz Ant1



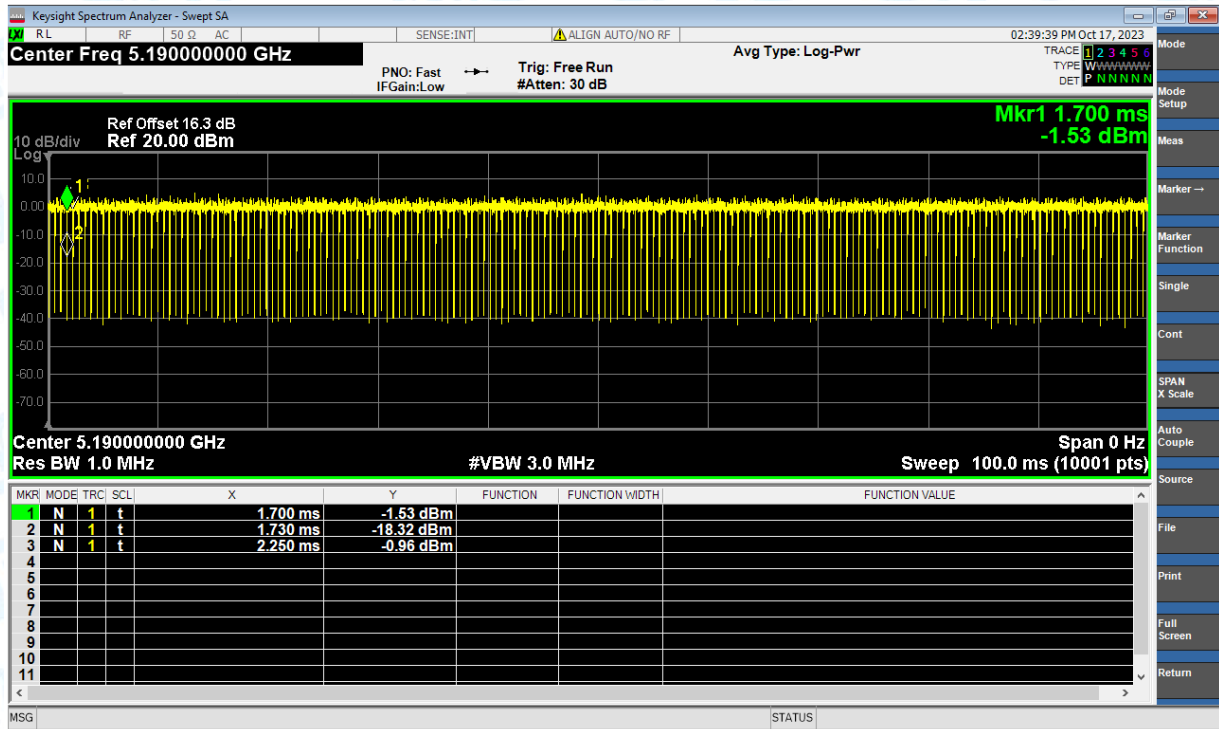
Duty Cycle NVNT ax(VHT20) 5200MHz Ant1



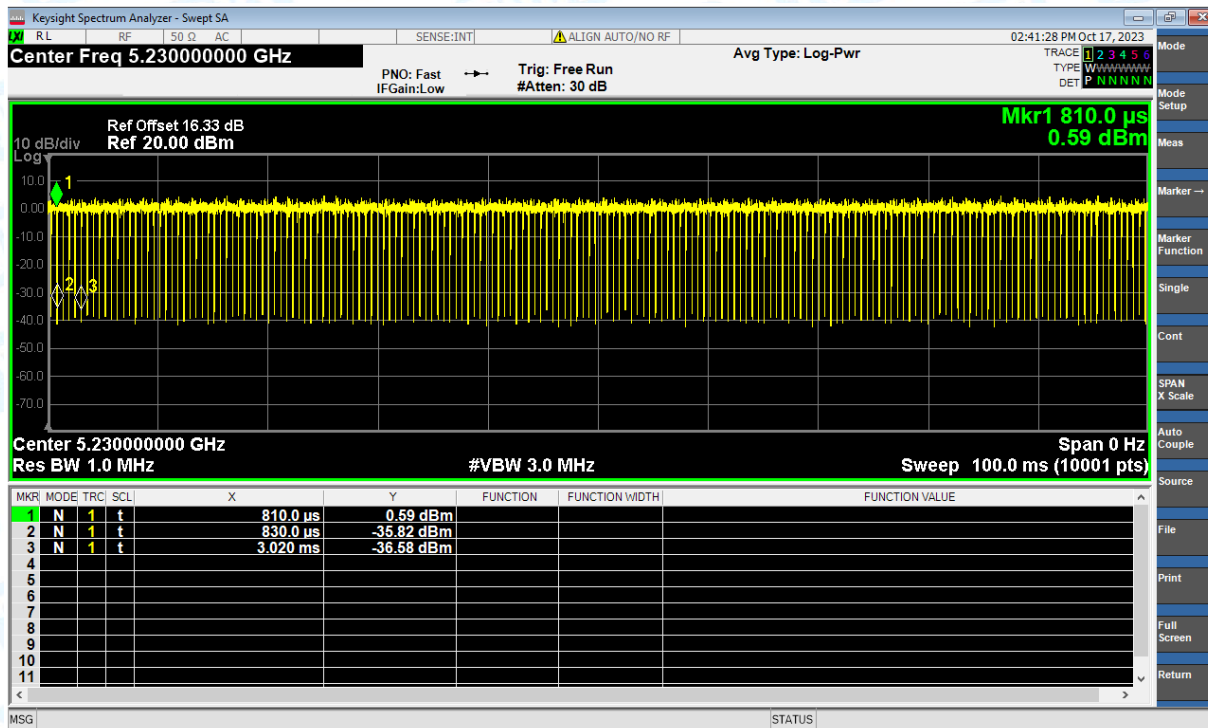
Duty Cycle NVNT ax(VHT20) 5240MHz Ant1



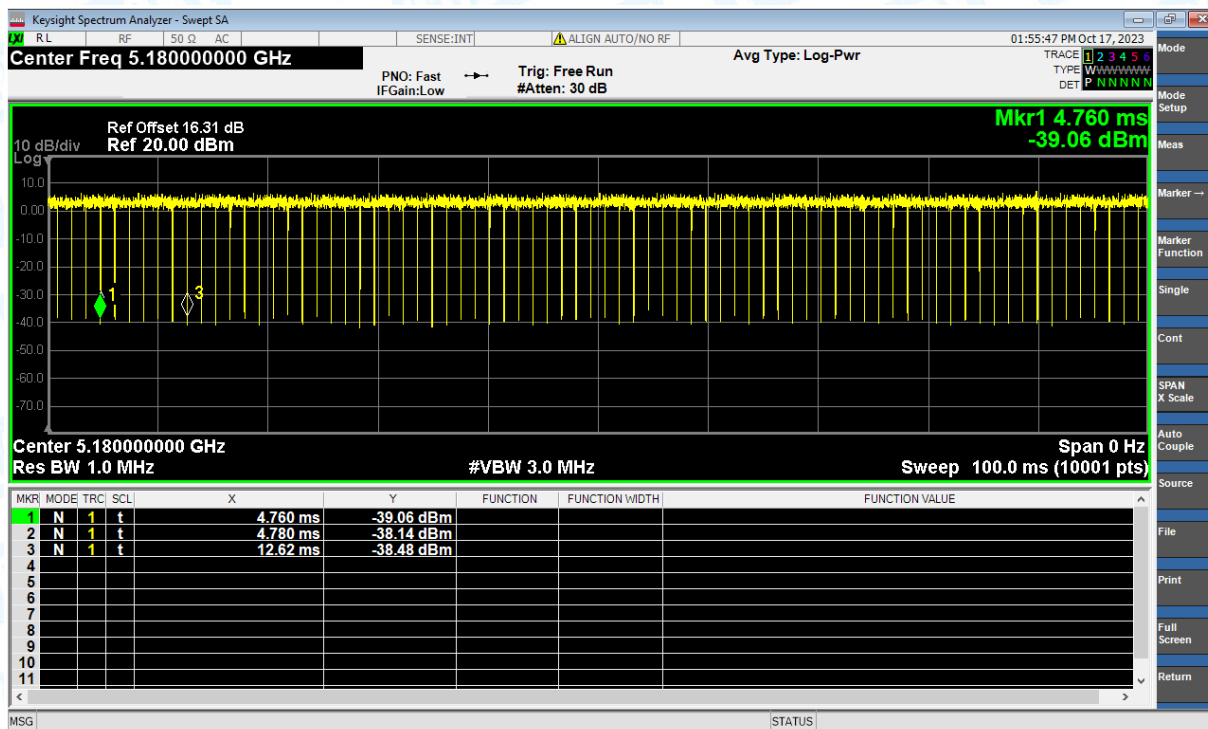
Duty Cycle NVNT ax(VHT40) 5190MHz Ant1



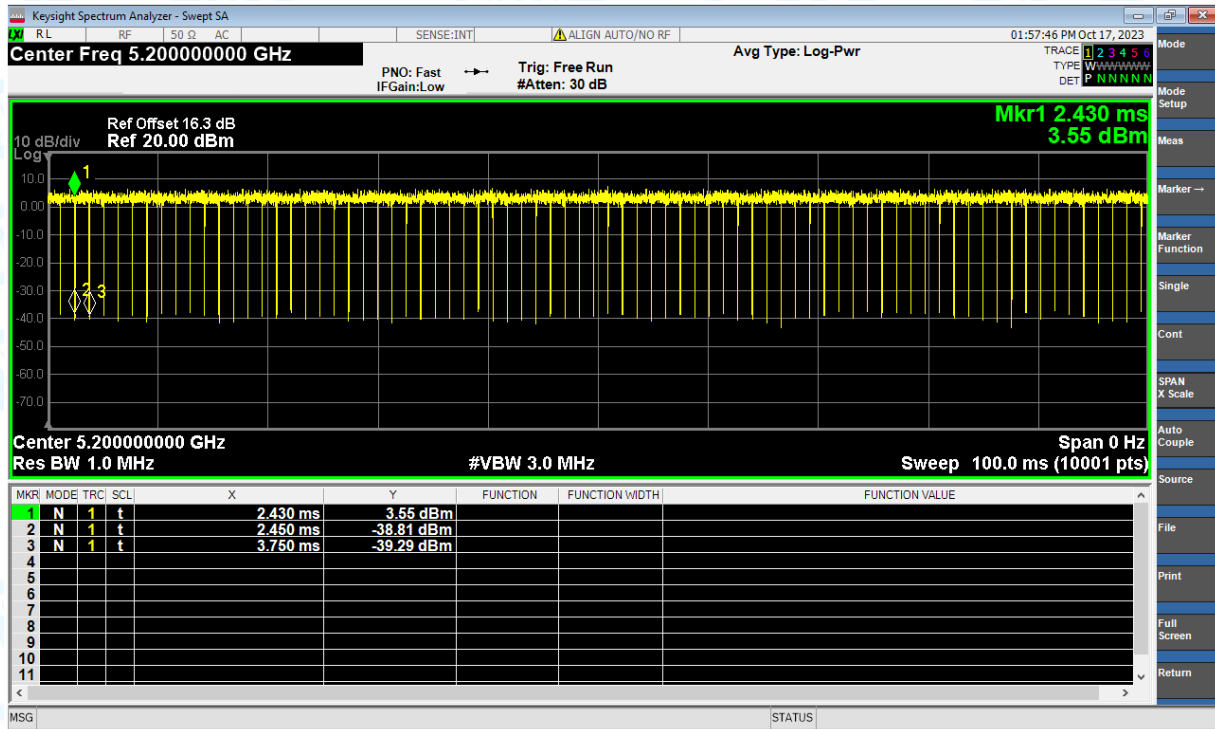
Duty Cycle NVNT ax(VHT40) 5230MHz Ant1



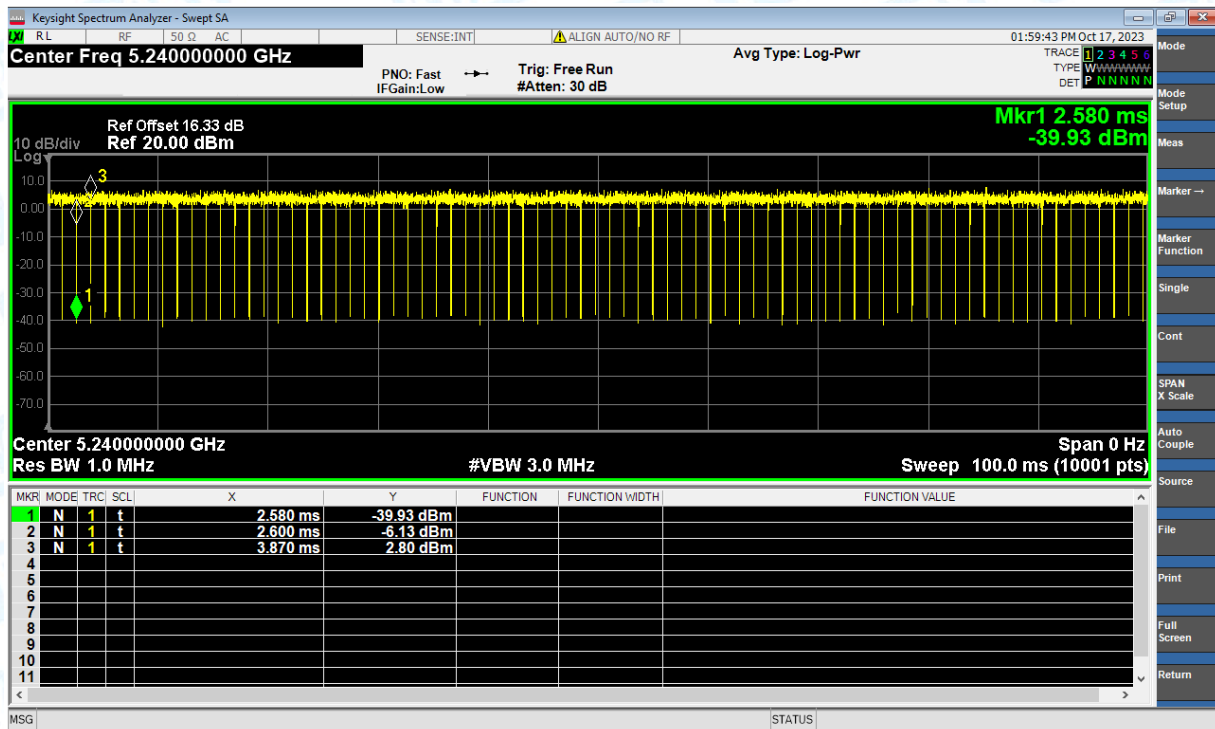
Duty Cycle NVNT n(HT20) 5180MHz Ant1



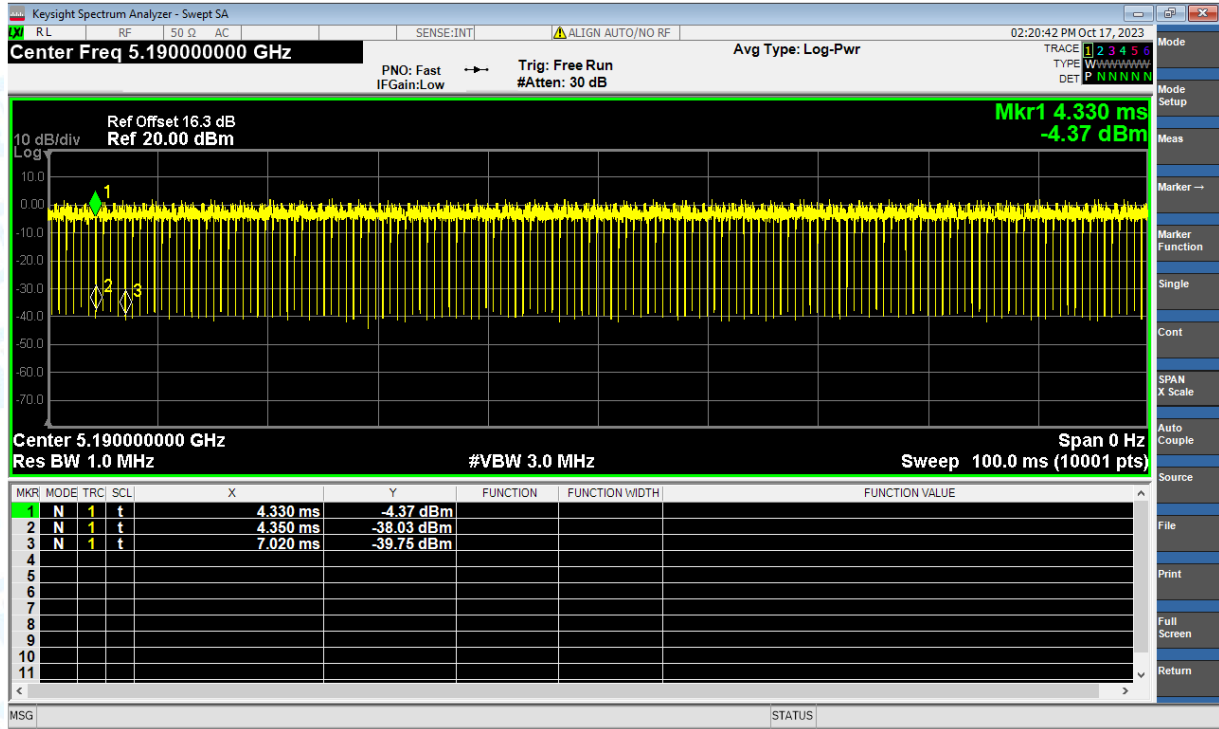
Duty Cycle NVNT n(HT20) 5200MHz Ant1



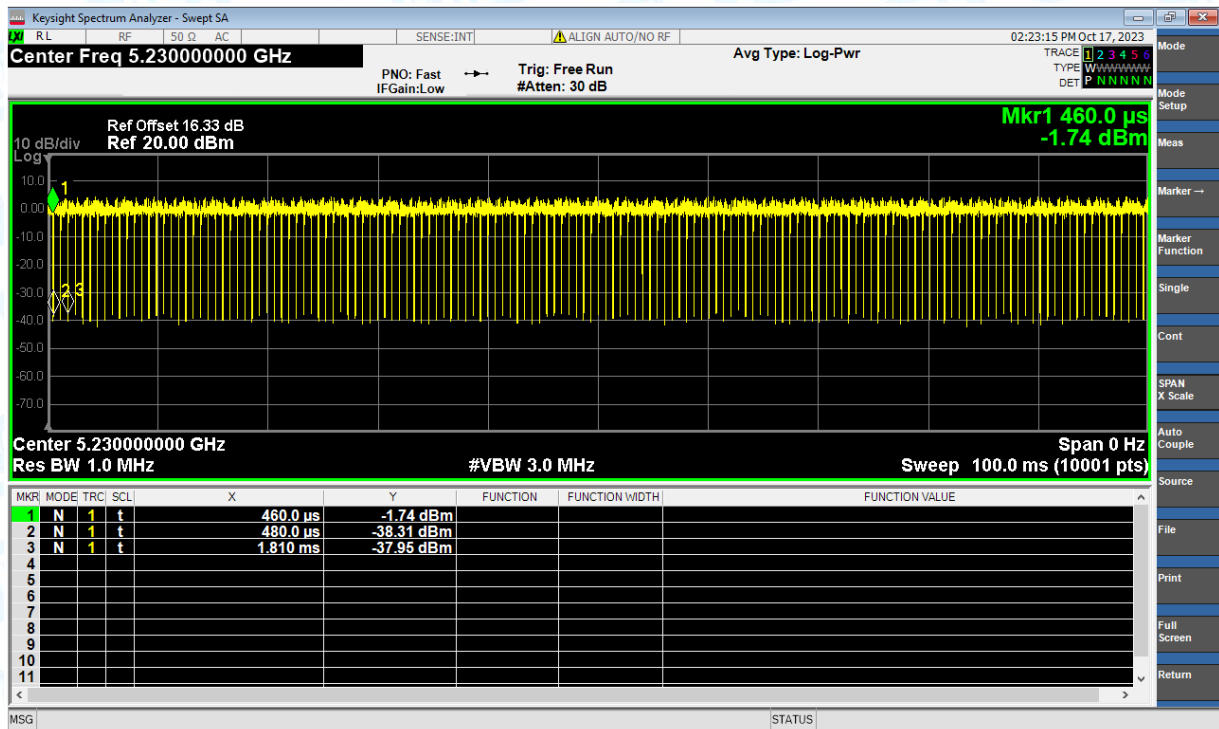
Duty Cycle NVNT n(HT20) 5240MHz Ant1



Duty Cycle NVNT n(HT40) 5190MHz Ant1



Duty Cycle NVNT n(HT40) 5230MHz Ant1



2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	FCC Limit (dBm)	EIRP (dBm)	IC Limit (dBm)	Verdict
NVNT	a	5180	Ant1	12.304	≤23.98	14.304	≤23.01	Pass
NVNT	a	5200	Ant1	10.786	≤23.98	12.786	≤23.01	Pass
NVNT	a	5240	Ant1	11.281	≤23.98	13.281	≤23.01	Pass
NVNT	ac(VHT20)	5180	Ant1	10.764	≤23.98	12.764	≤23.01	Pass
NVNT	ac(VHT20)	5200	Ant1	10.762	≤23.98	12.762	≤23.01	Pass
NVNT	ac(VHT20)	5240	Ant1	11.179	≤23.98	13.179	≤23.01	Pass
NVNT	ac(VHT40)	5190	Ant1	10.905	≤23.98	12.905	≤23.01	Pass
NVNT	ac(VHT40)	5230	Ant1	11.221	≤23.98	13.221	≤23.01	Pass
NVNT	ax(VHT20)	5180	Ant1	10.984	≤23.98	12.984	≤23.01	Pass
NVNT	ax(VHT20)	5200	Ant1	11.006	≤23.98	13.006	≤23.01	Pass
NVNT	ax(VHT20)	5240	Ant1	11.475	≤23.98	13.475	≤23.01	Pass
NVNT	ax(VHT40)	5190	Ant1	10.878	≤23.98	12.878	≤23.01	Pass
NVNT	ax(VHT40)	5230	Ant1	11.244	≤23.98	13.244	≤23.01	Pass
NVNT	n(HT20)	5180	Ant1	10.700	≤23.98	12.7	≤23.01	Pass
NVNT	n(HT20)	5200	Ant1	10.749	≤23.98	12.749	≤23.01	Pass
NVNT	n(HT20)	5240	Ant1	11.262	≤23.98	13.262	≤23.01	Pass
NVNT	n(HT40)	5190	Ant1	10.632	≤23.98	12.632	≤23.01	Pass
NVNT	n(HT40)	5230	Ant1	11.148	≤23.98	13.148	≤23.01	Pass

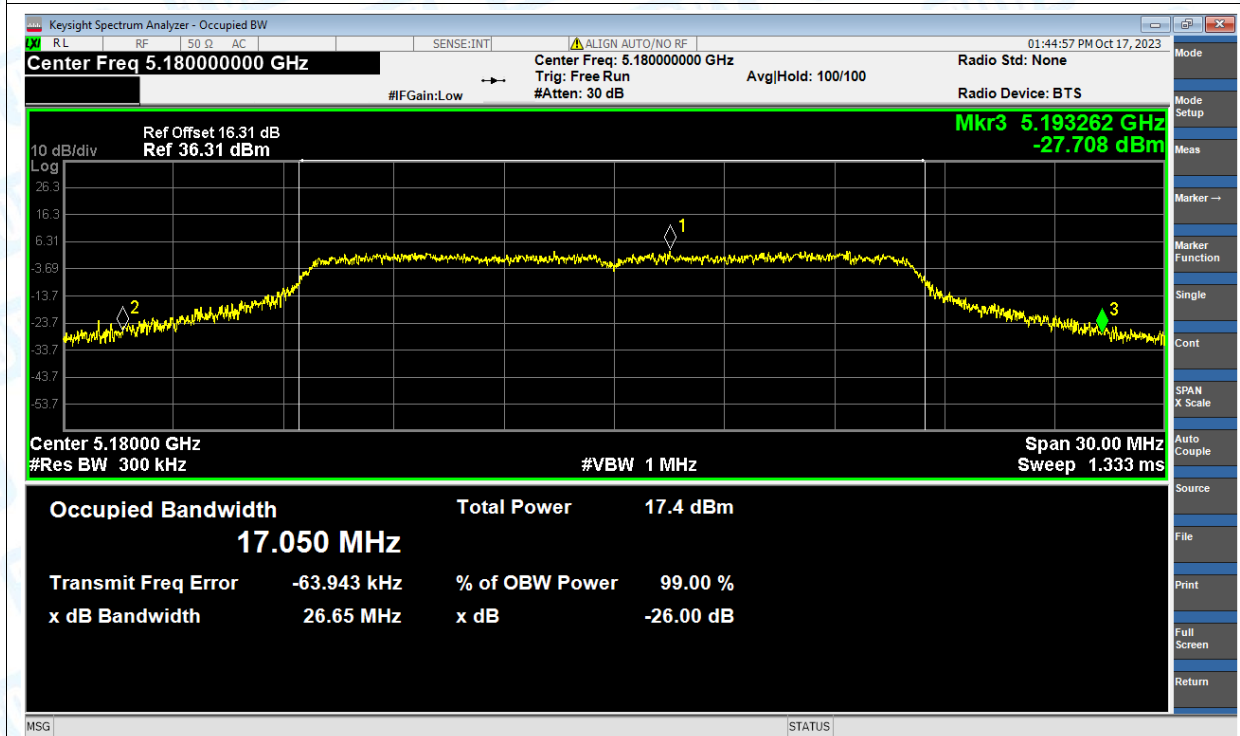
Note: The Duty Cycle Factor is compensated in the graph.

3. -26dB Bandwidth

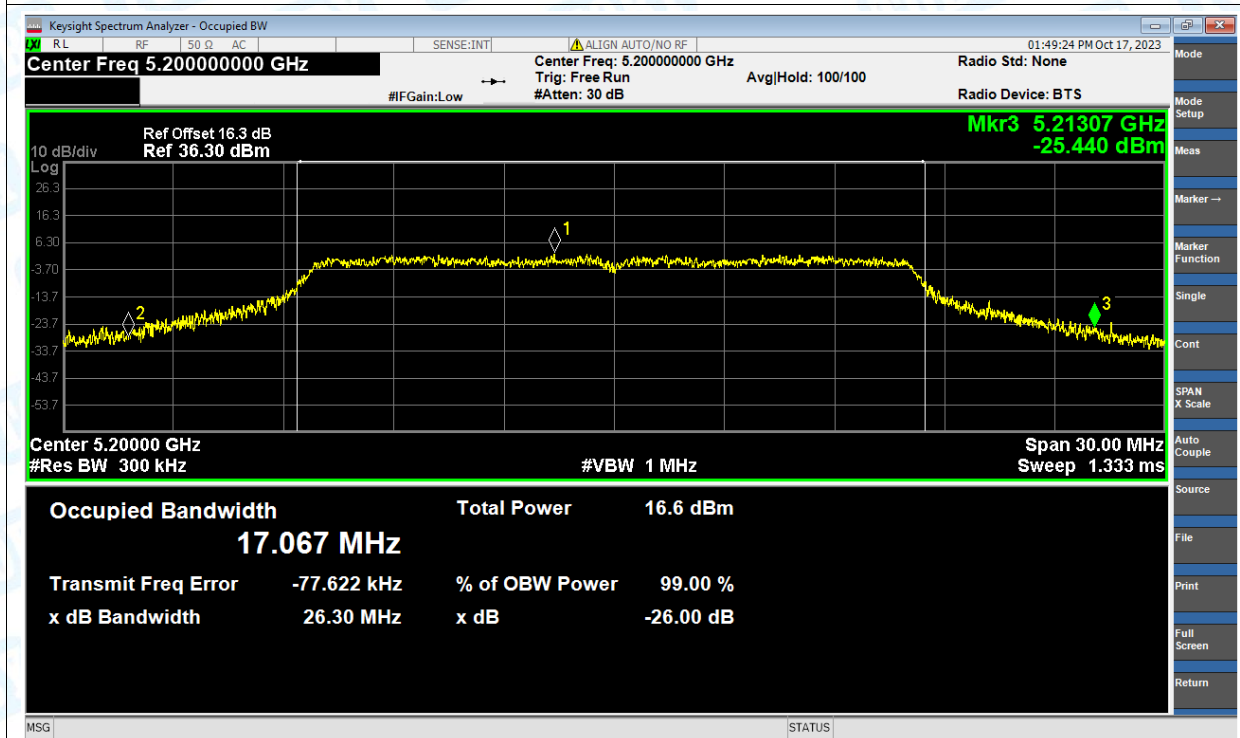
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	26.65	----	Pass
NVNT	a	5200	Ant1	26.30	----	Pass
NVNT	a	5240	Ant1	25.65	----	Pass
NVNT	ac(VHT20)	5180	Ant1	25.89	----	Pass
NVNT	ac(VHT20)	5200	Ant1	27.05	----	Pass
NVNT	ac(VHT20)	5240	Ant1	26.88	----	Pass
NVNT	ac(VHT40)	5190	Ant1	41.11	----	Pass
NVNT	ac(VHT40)	5230	Ant1	40.47	----	Pass
NVNT	ax(VHT20)	5180	Ant1	21.13	----	Pass
NVNT	ax(VHT20)	5200	Ant1	20.79	----	Pass
NVNT	ax(VHT20)	5240	Ant1	21.16	----	Pass
NVNT	ax(VHT40)	5190	Ant1	40.43	----	Pass
NVNT	ax(VHT40)	5230	Ant1	40.38	----	Pass
NVNT	n(HT20)	5180	Ant1	26.23	----	Pass
NVNT	n(HT20)	5200	Ant1	26.27	----	Pass
NVNT	n(HT20)	5240	Ant1	26.39	----	Pass
NVNT	n(HT40)	5190	Ant1	40.46	----	Pass
NVNT	n(HT40)	5230	Ant1	42.95	----	Pass

Test Graphs

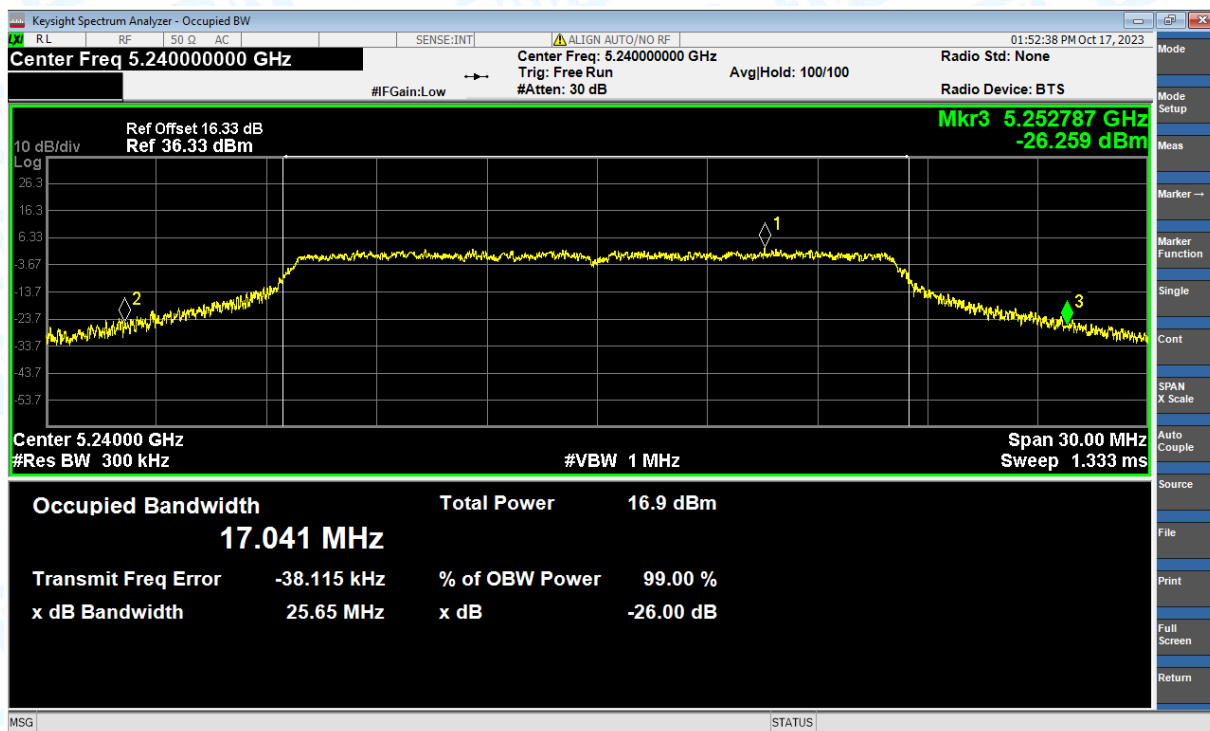
-26dB Bandwidth NVNT a 5180MHz Ant1



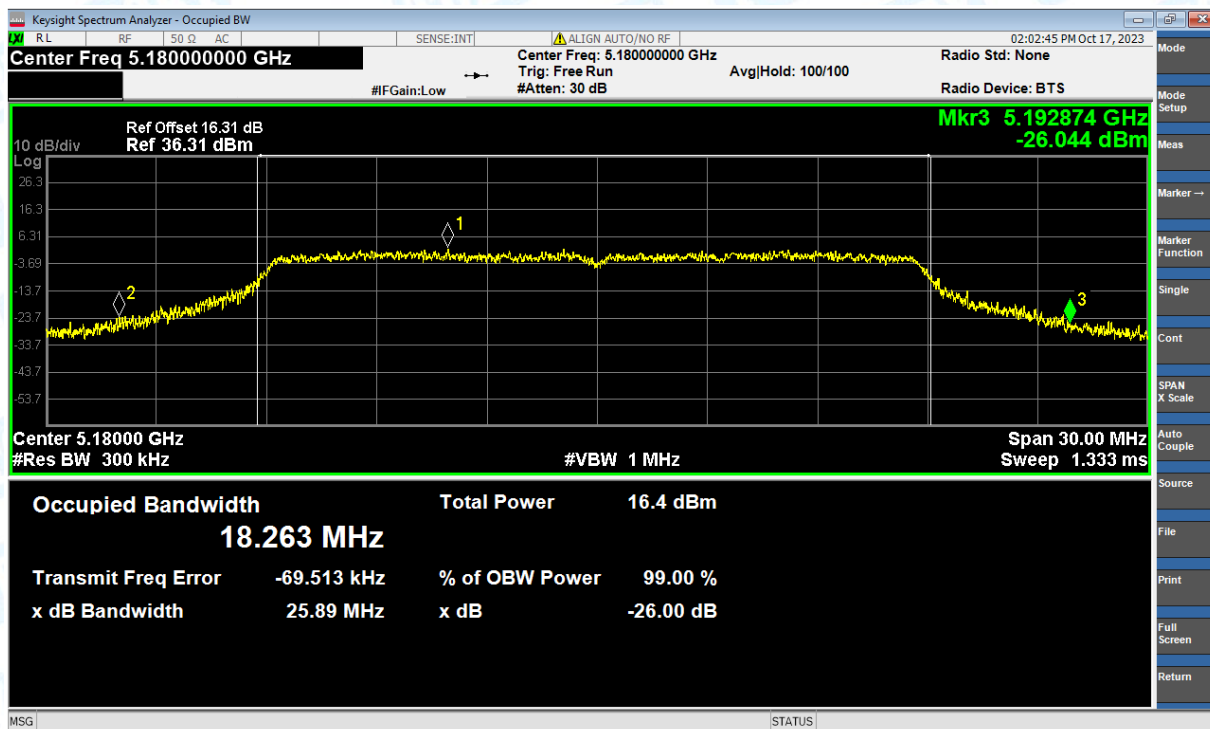
-26dB Bandwidth NVNT a 5200MHz Ant1



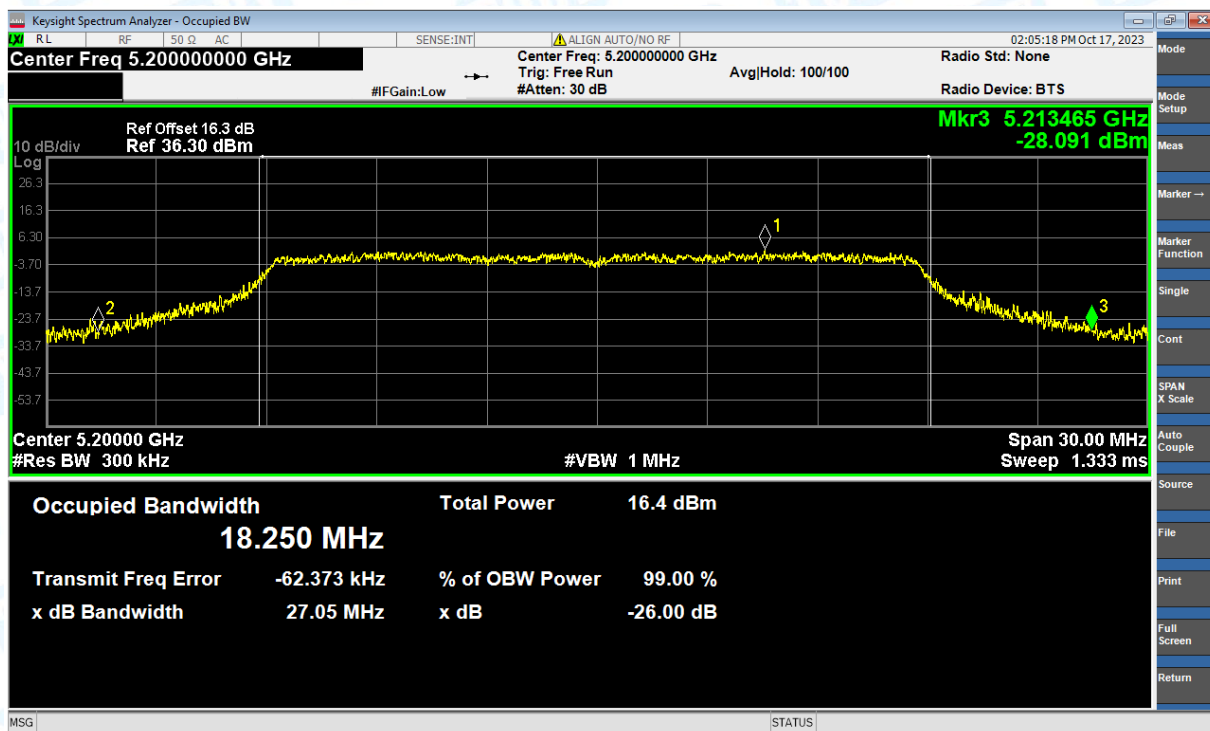
-26dB Bandwidth NVNT a 5240MHz Ant1



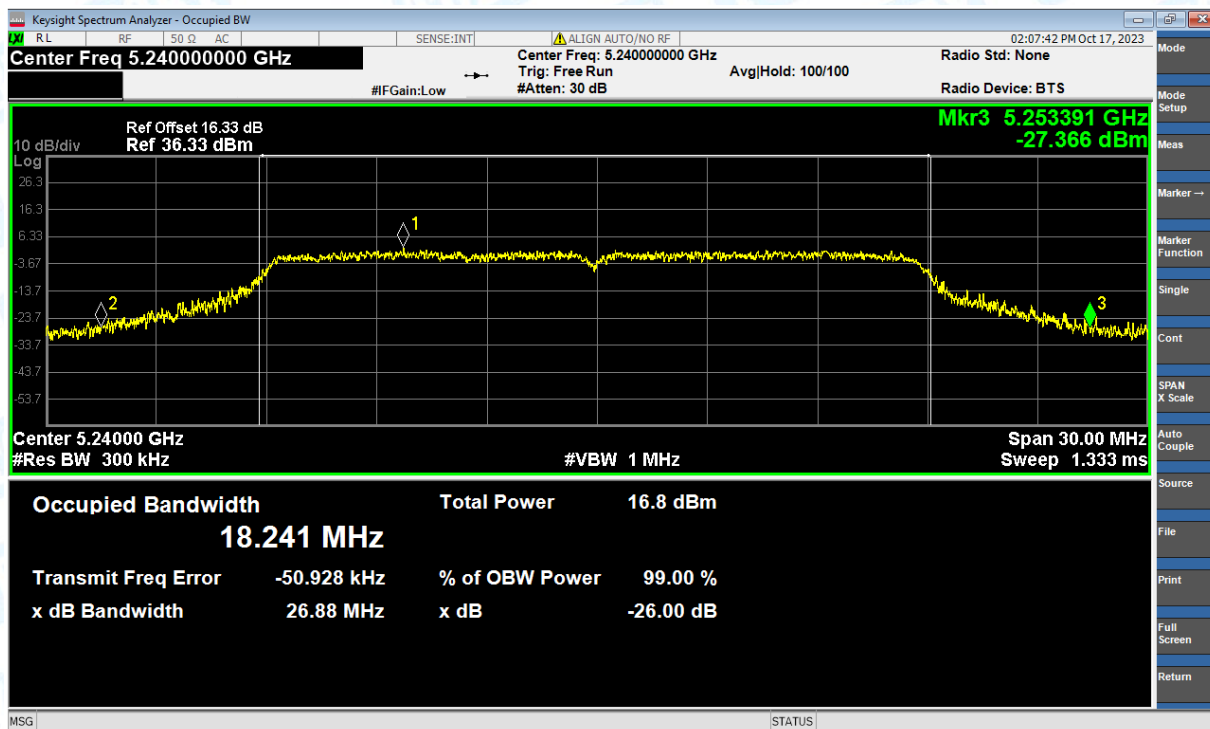
-26dB Bandwidth NVNT ac(VHT20) 5180MHz Ant1



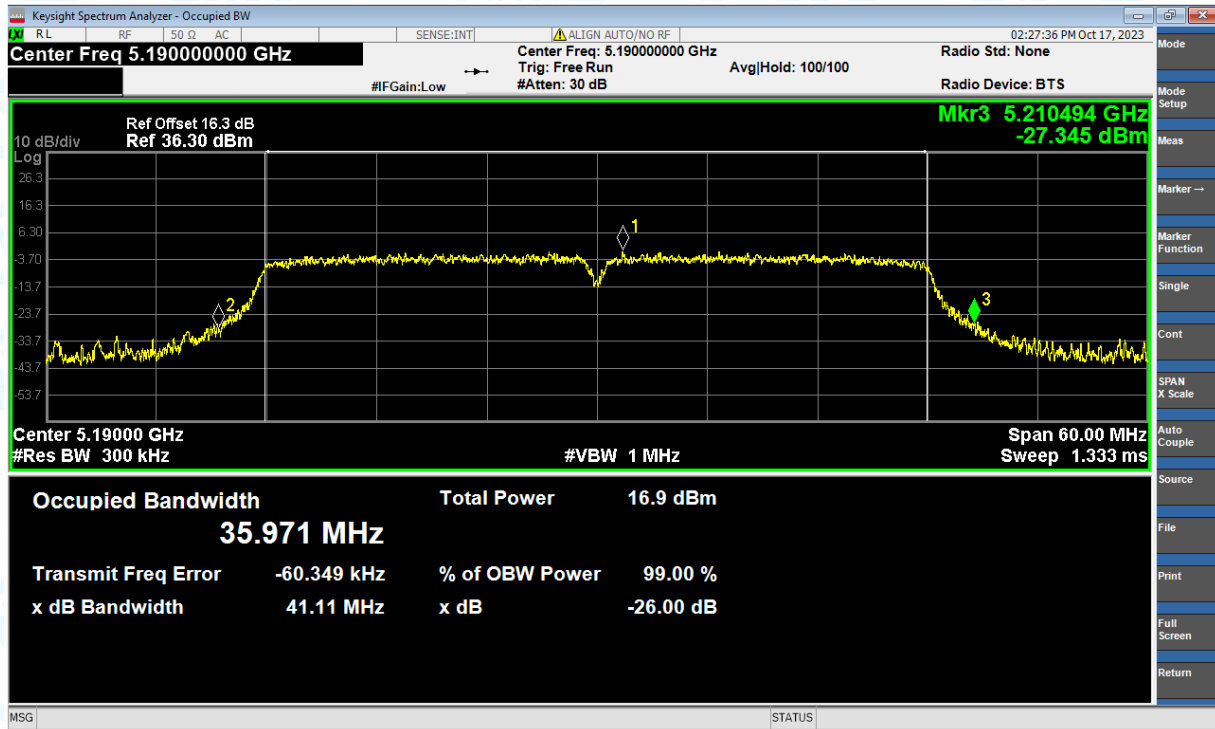
-26dB Bandwidth NVNT ac(VHT20) 5200MHz Ant1



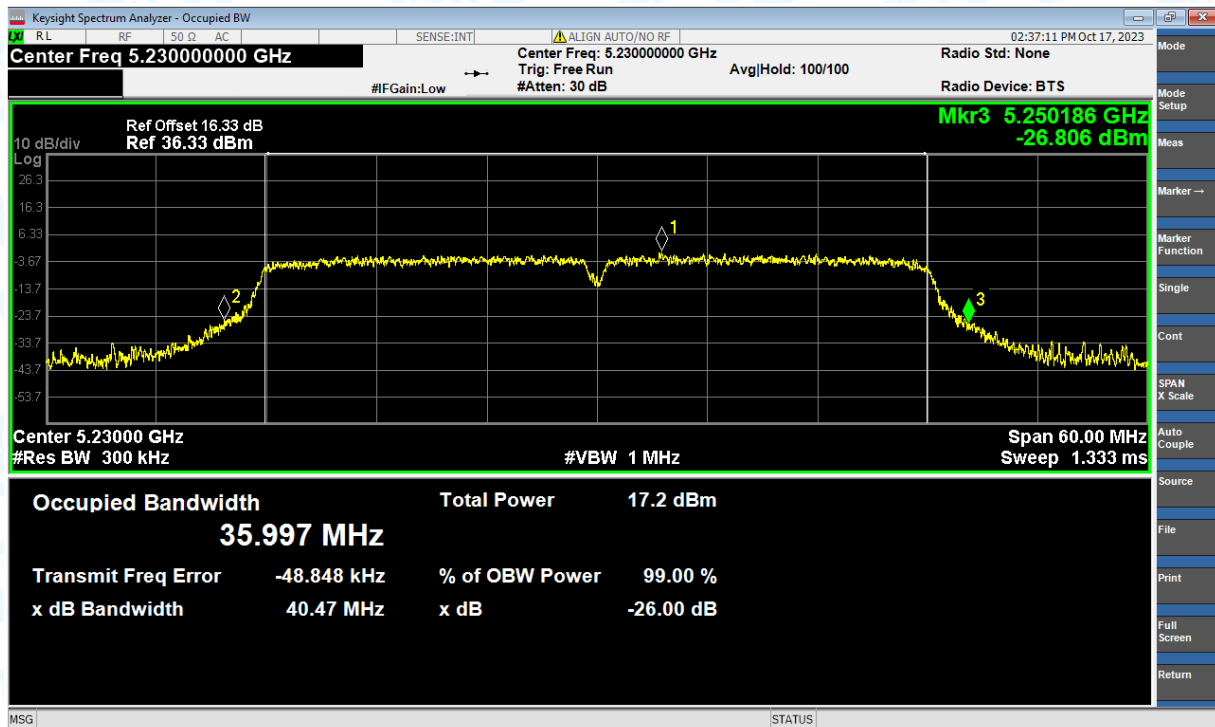
-26dB Bandwidth NVNT ac(VHT20) 5240MHz Ant1



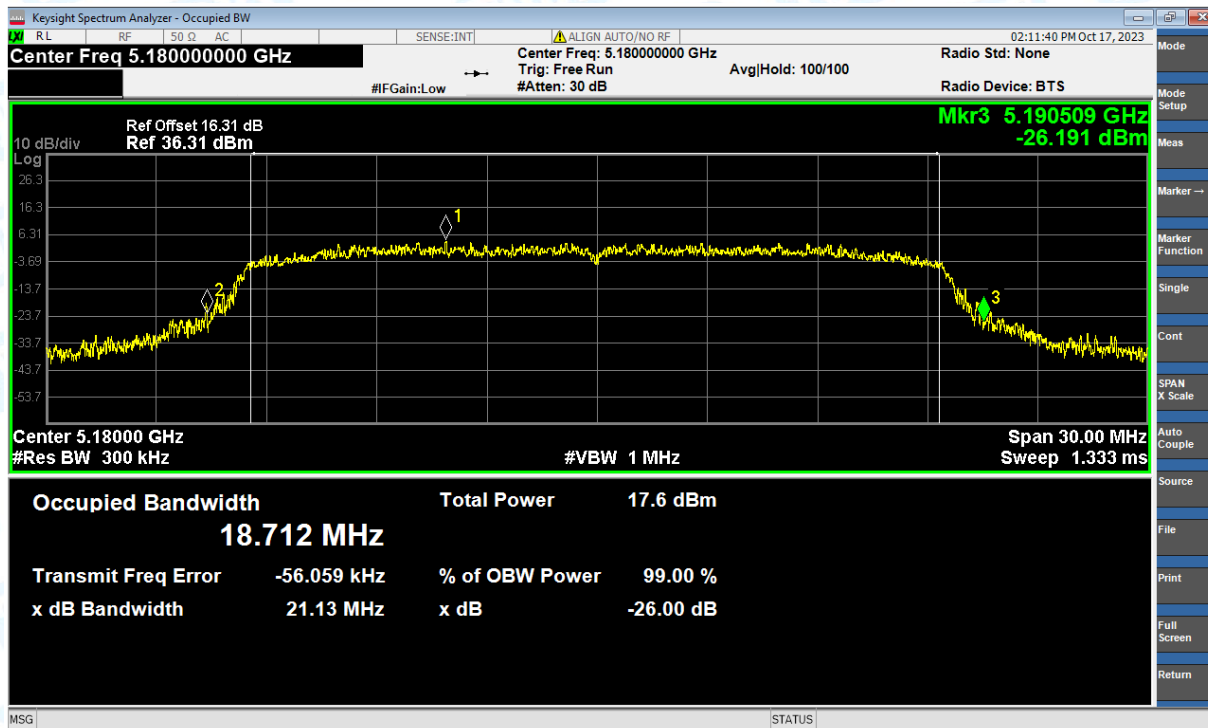
-26dB Bandwidth NVNT ac(VHT40) 5190MHz Ant1



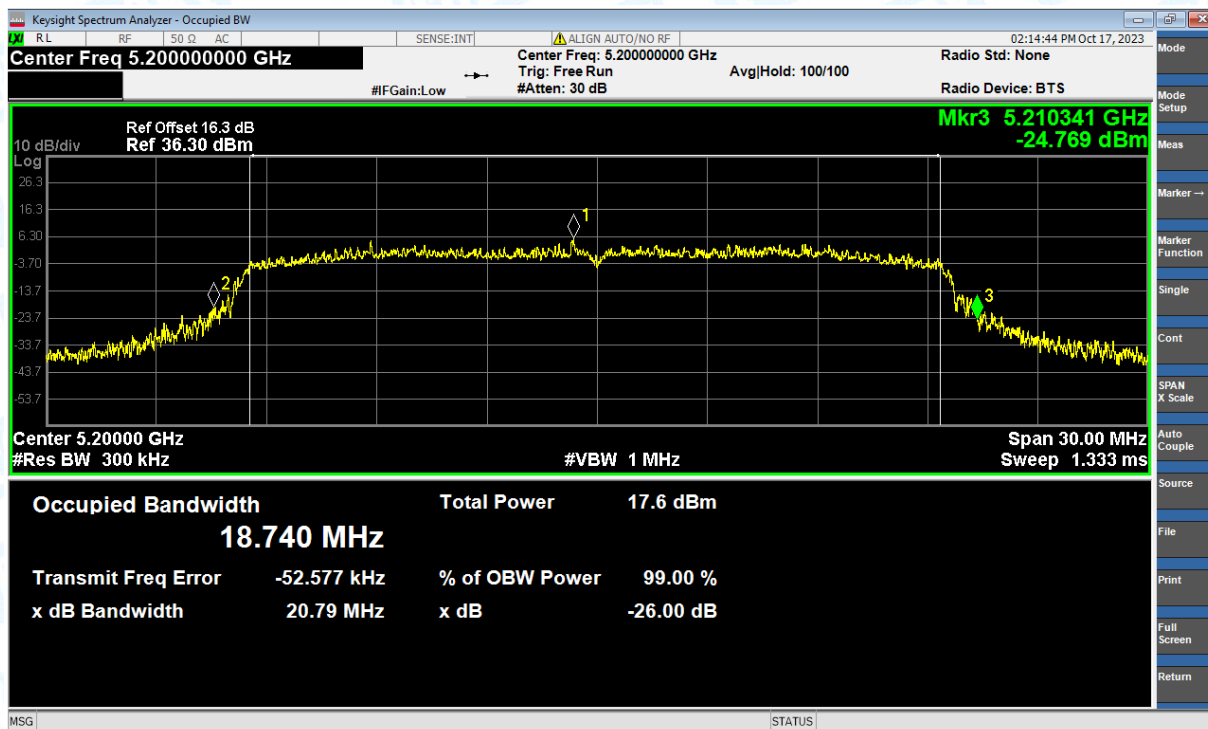
-26dB Bandwidth NVNT ac(VHT40) 5230MHz Ant1



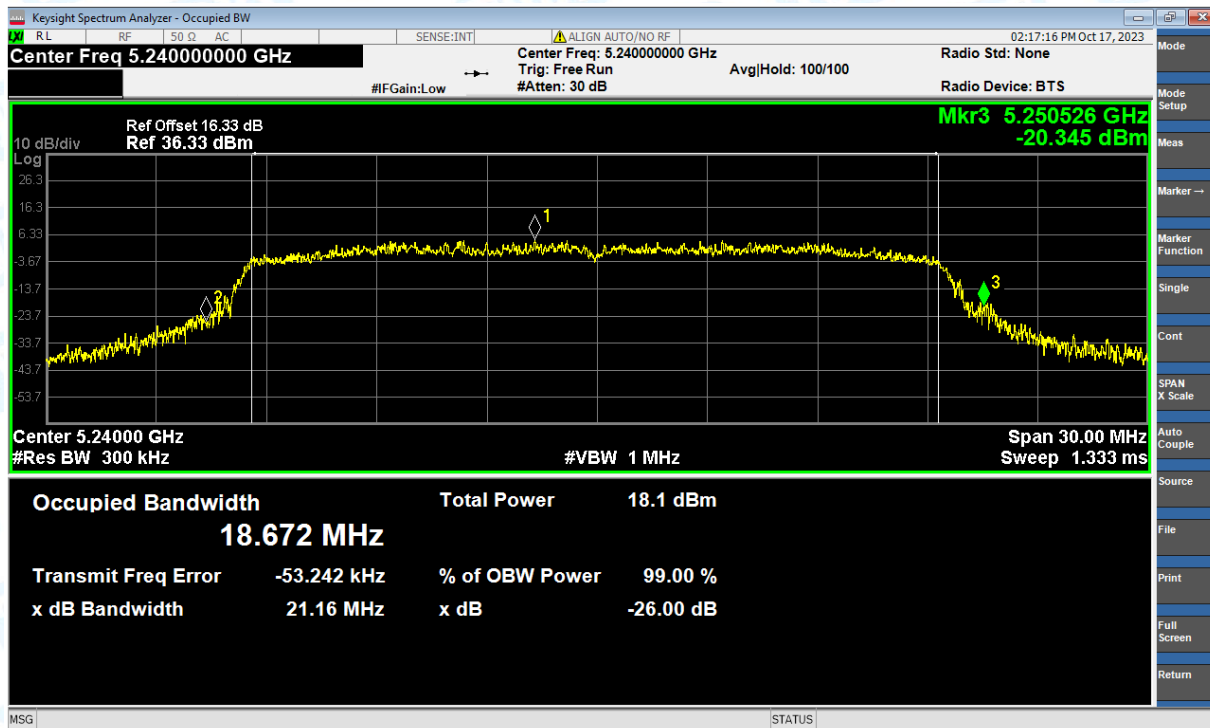
-26dB Bandwidth NVNT ax(VHT20) 5180MHz Ant1



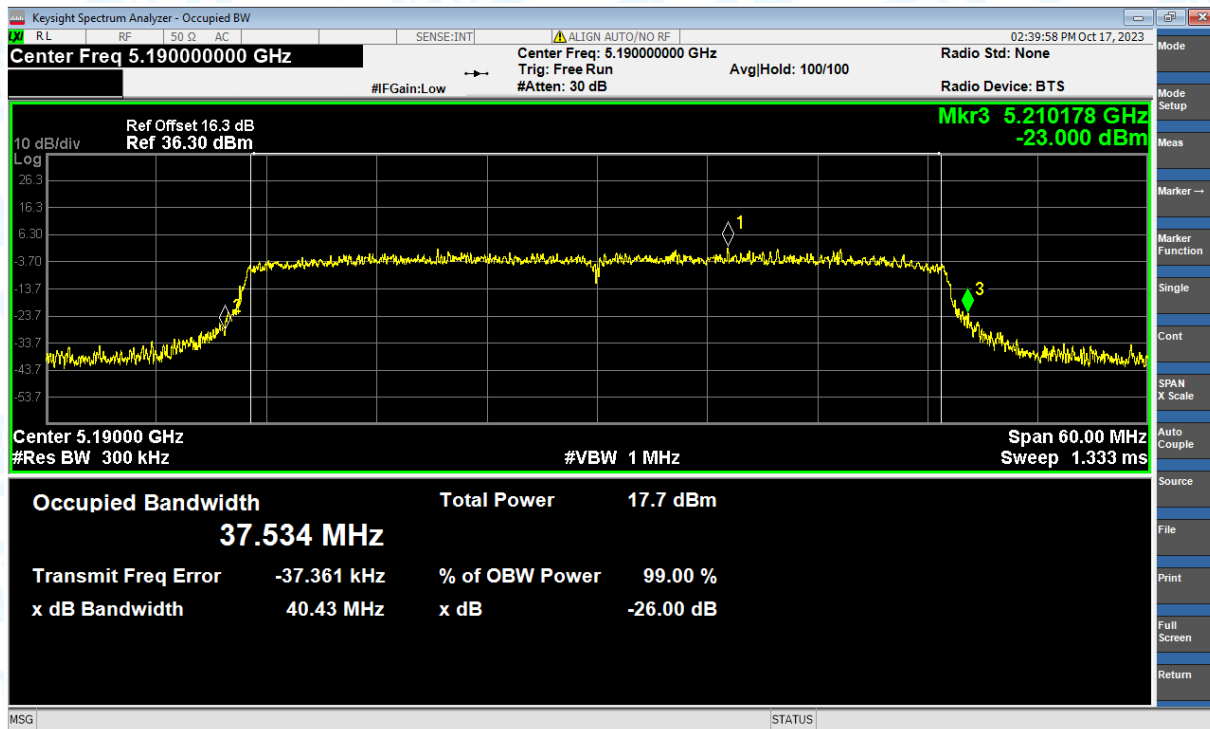
-26dB Bandwidth NVNT ax(VHT20) 5200MHz Ant1



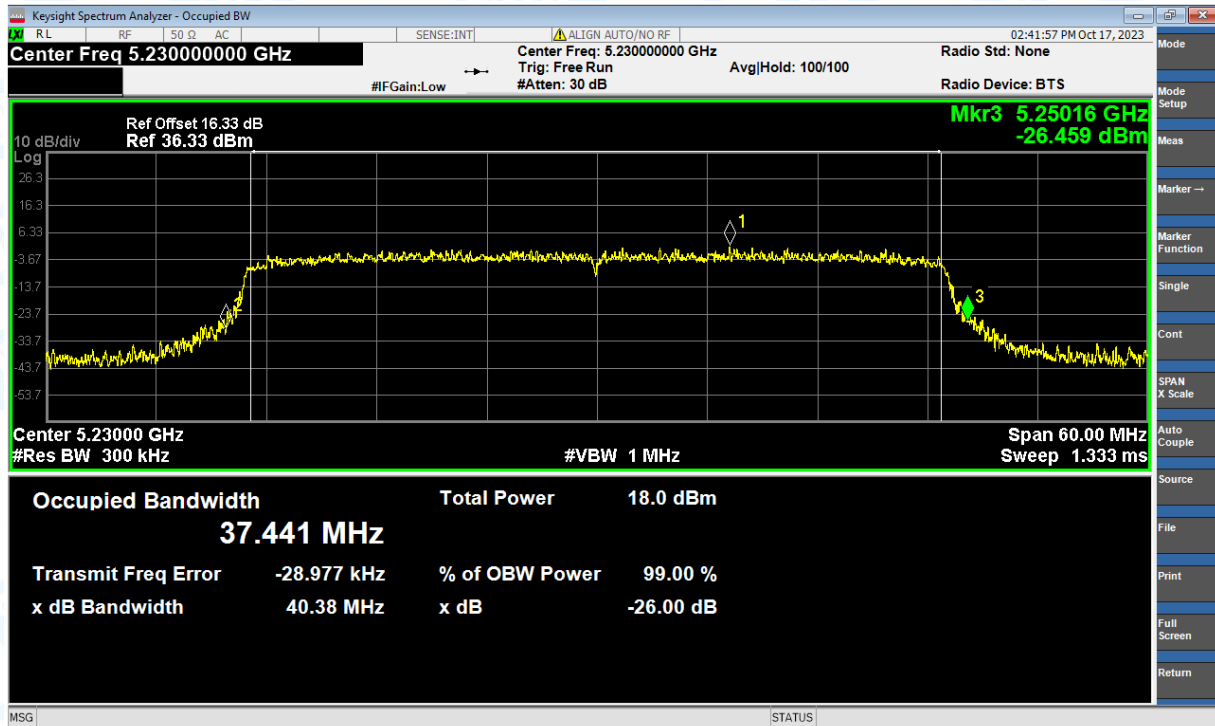
-26dB Bandwidth NVNT ax(VHT20) 5240MHz Ant1



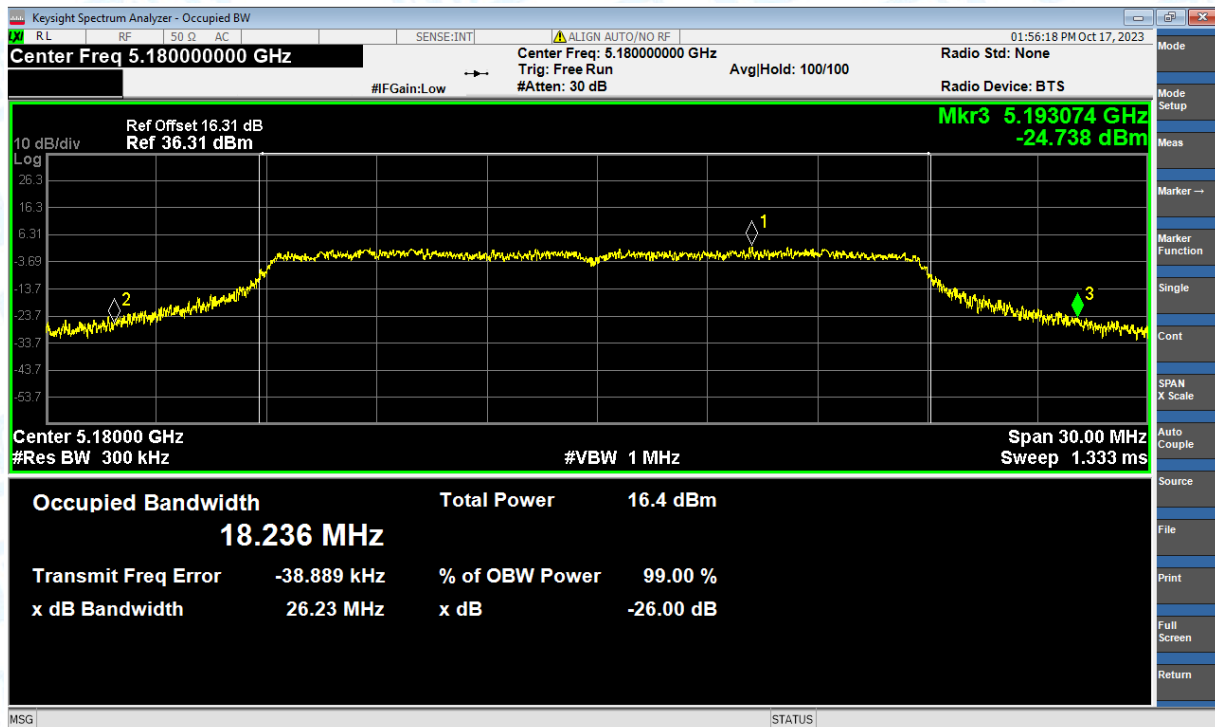
-26dB Bandwidth NVNT ax(VHT40) 5190MHz Ant1



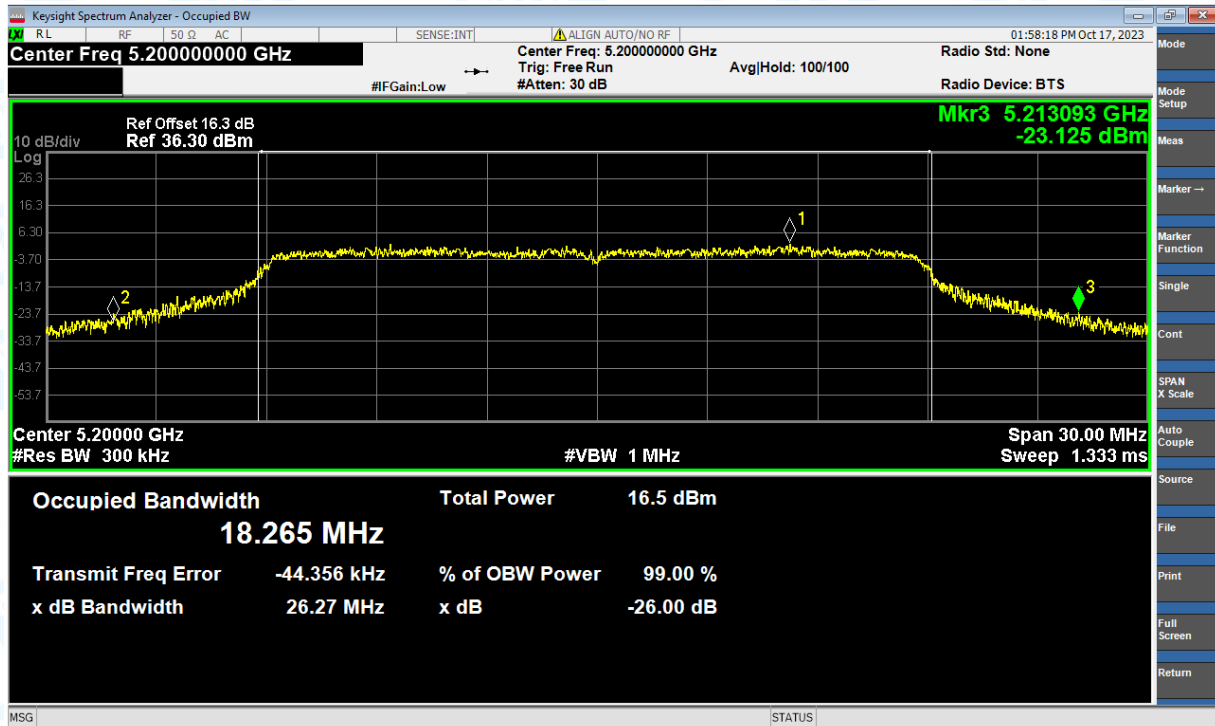
-26dB Bandwidth NVNT ax(VHT40) 5230MHz Ant1



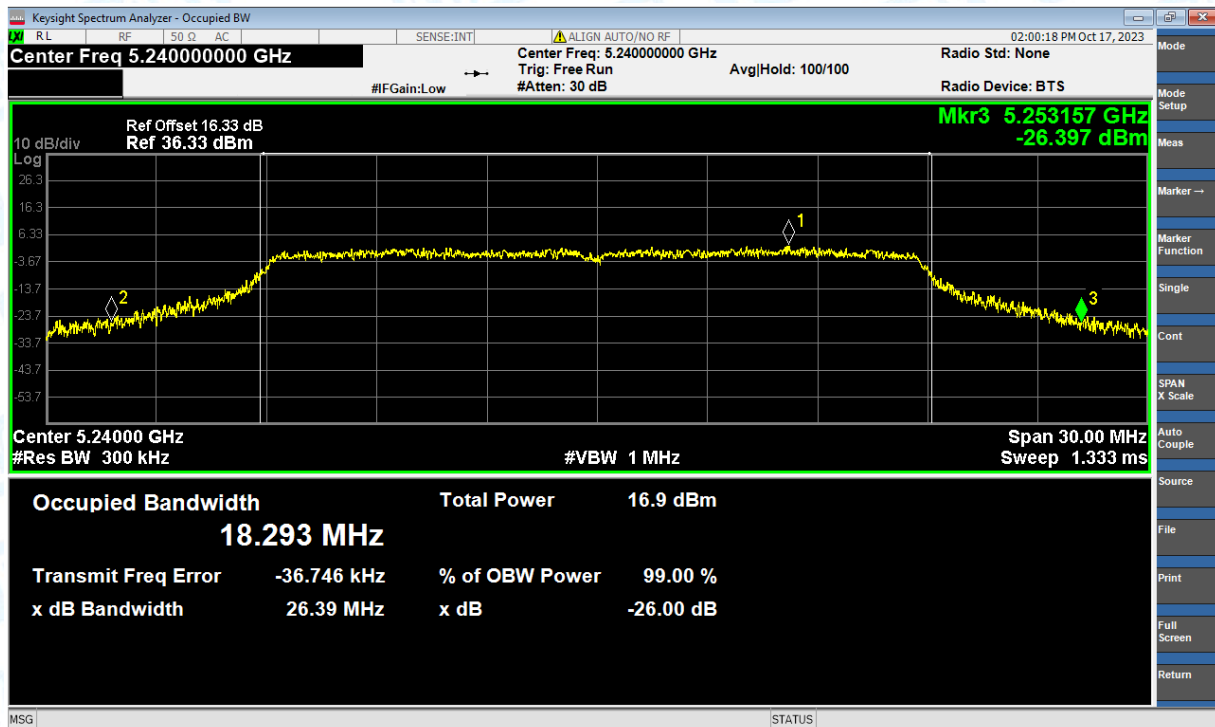
-26dB Bandwidth NVNT n(HT20) 5180MHz Ant1



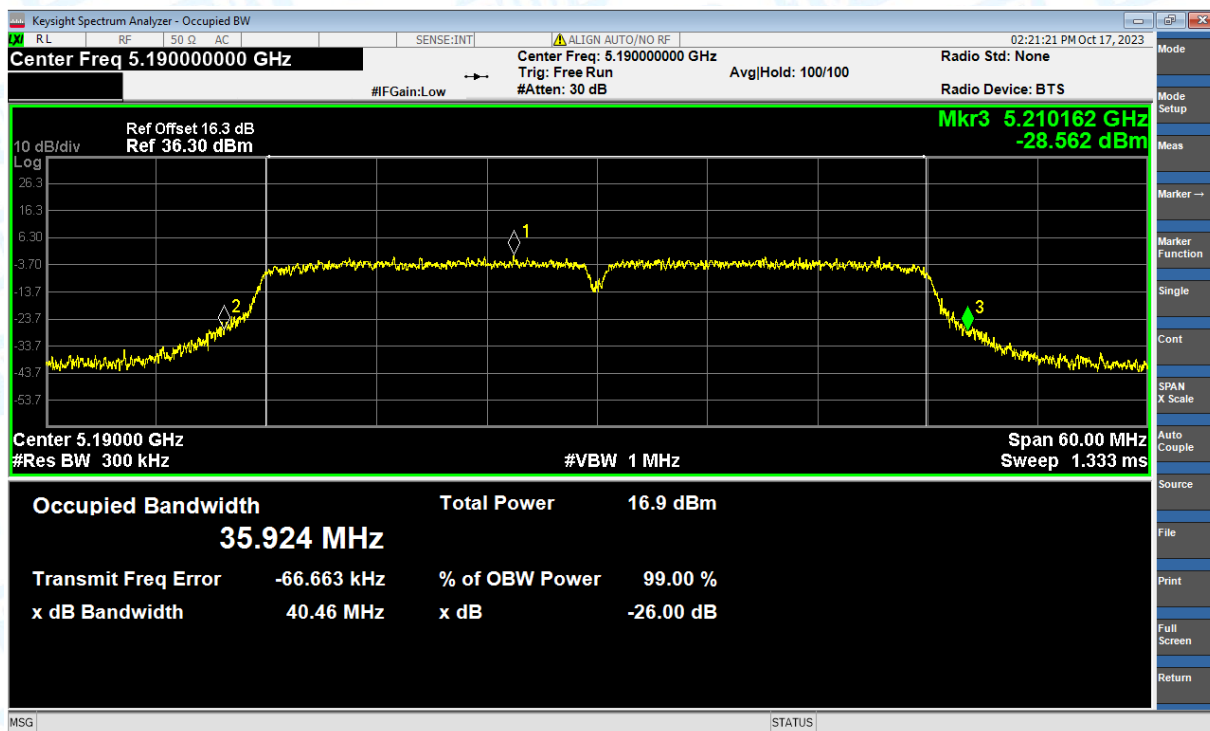
-26dB Bandwidth NVNT n(HT20) 5200MHz Ant1



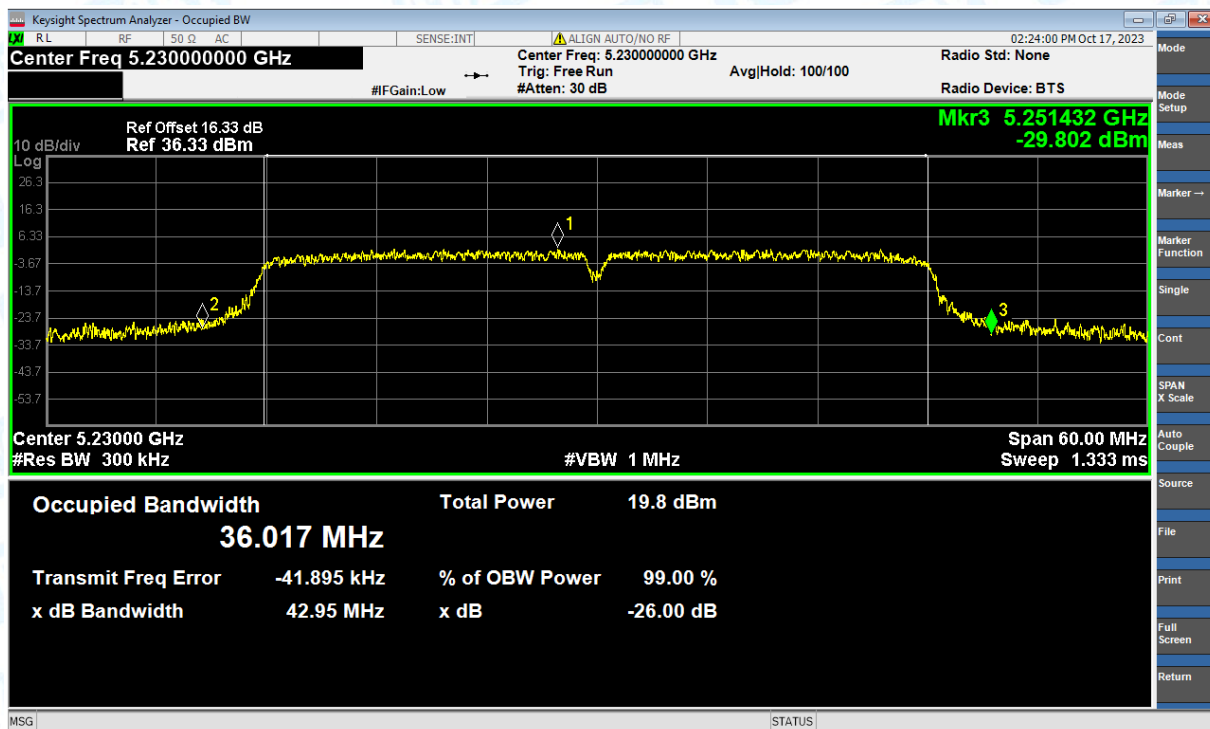
-26dB Bandwidth NVNT n(HT20) 5240MHz Ant1



-26dB Bandwidth NVNT n(HT40) 5190MHz Ant1



-26dB Bandwidth NVNT n(HT40) 5230MHz Ant1

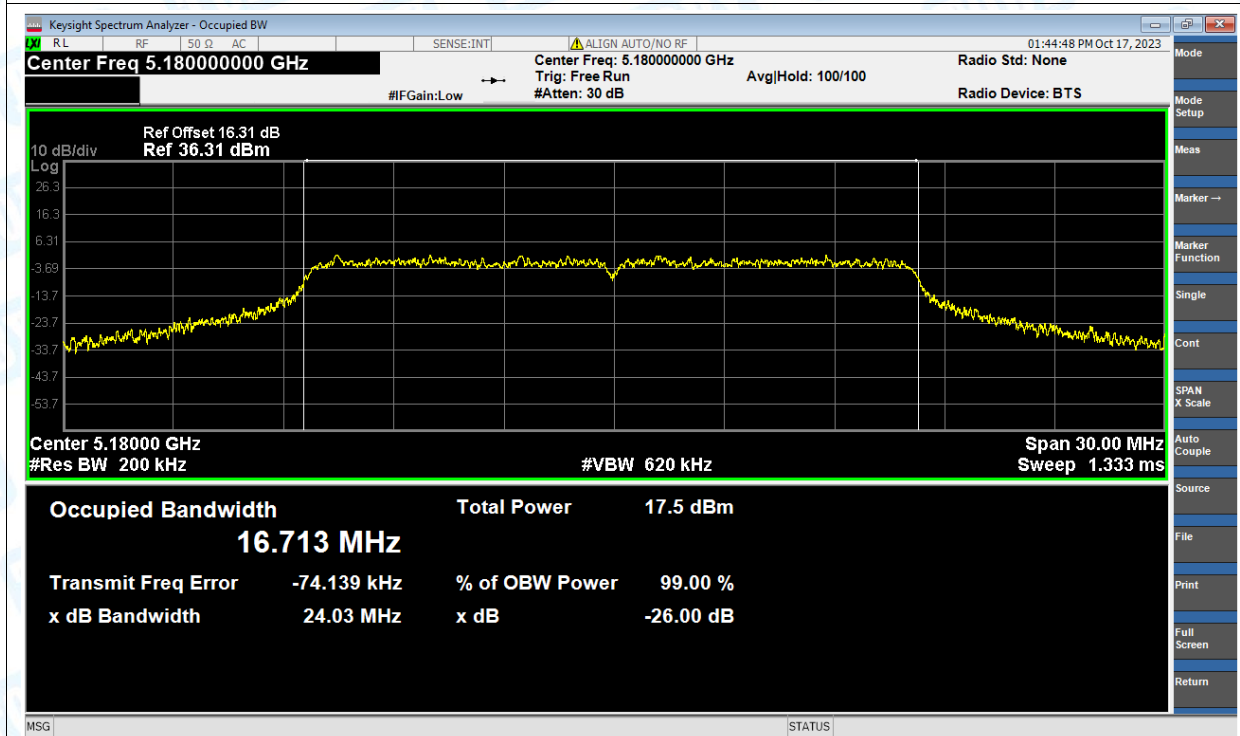


4. Occupied Channel Bandwidth

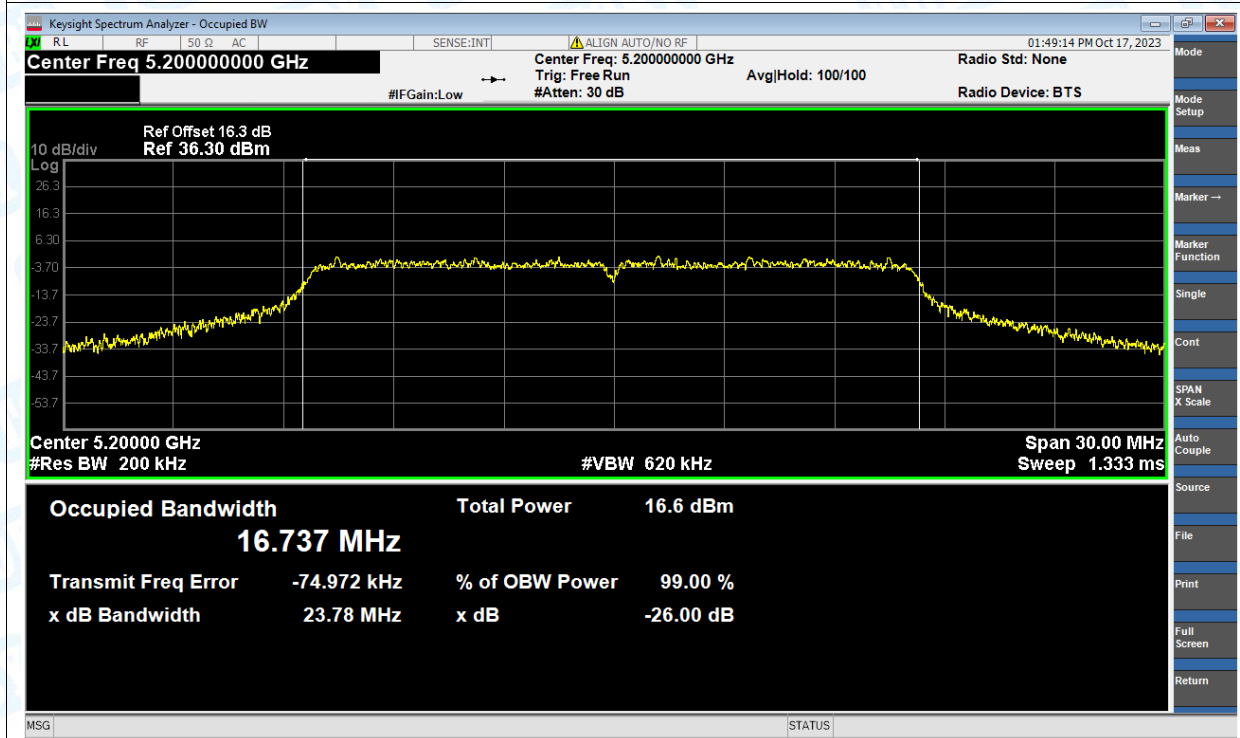
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.713
NVNT	a	5200	Ant1	16.737
NVNT	a	5240	Ant1	16.712
NVNT	ac(VHT20)	5180	Ant1	17.960
NVNT	ac(VHT20)	5200	Ant1	17.956
NVNT	ac(VHT20)	5240	Ant1	17.956
NVNT	ac(VHT40)	5190	Ant1	36.085
NVNT	ac(VHT40)	5230	Ant1	36.103
NVNT	ax(VHT20)	5180	Ant1	18.708
NVNT	ax(VHT20)	5200	Ant1	18.732
NVNT	ax(VHT20)	5240	Ant1	18.693
NVNT	ax(VHT40)	5190	Ant1	37.497
NVNT	ax(VHT40)	5230	Ant1	37.394
NVNT	n(HT20)	5180	Ant1	17.914
NVNT	n(HT20)	5200	Ant1	17.918
NVNT	n(HT20)	5240	Ant1	17.949
NVNT	n(HT40)	5190	Ant1	36.051
NVNT	n(HT40)	5230	Ant1	36.126

Test Graphs

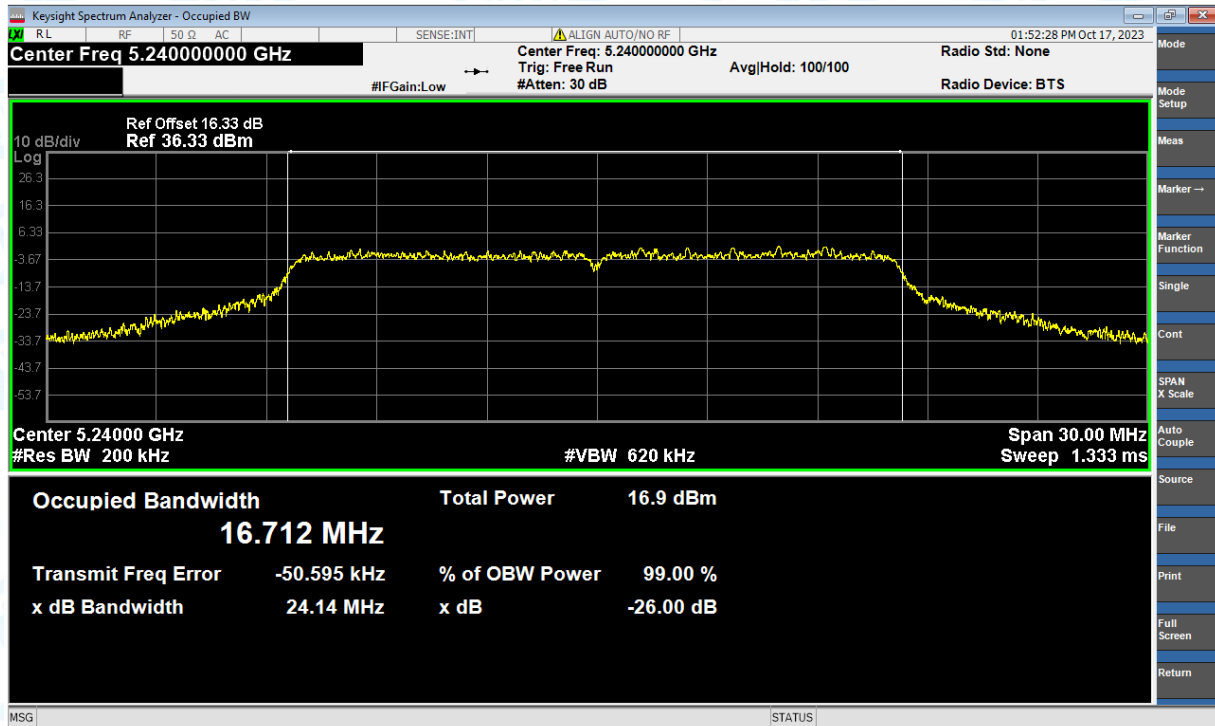
OBW NVNT a 5180MHz Ant1



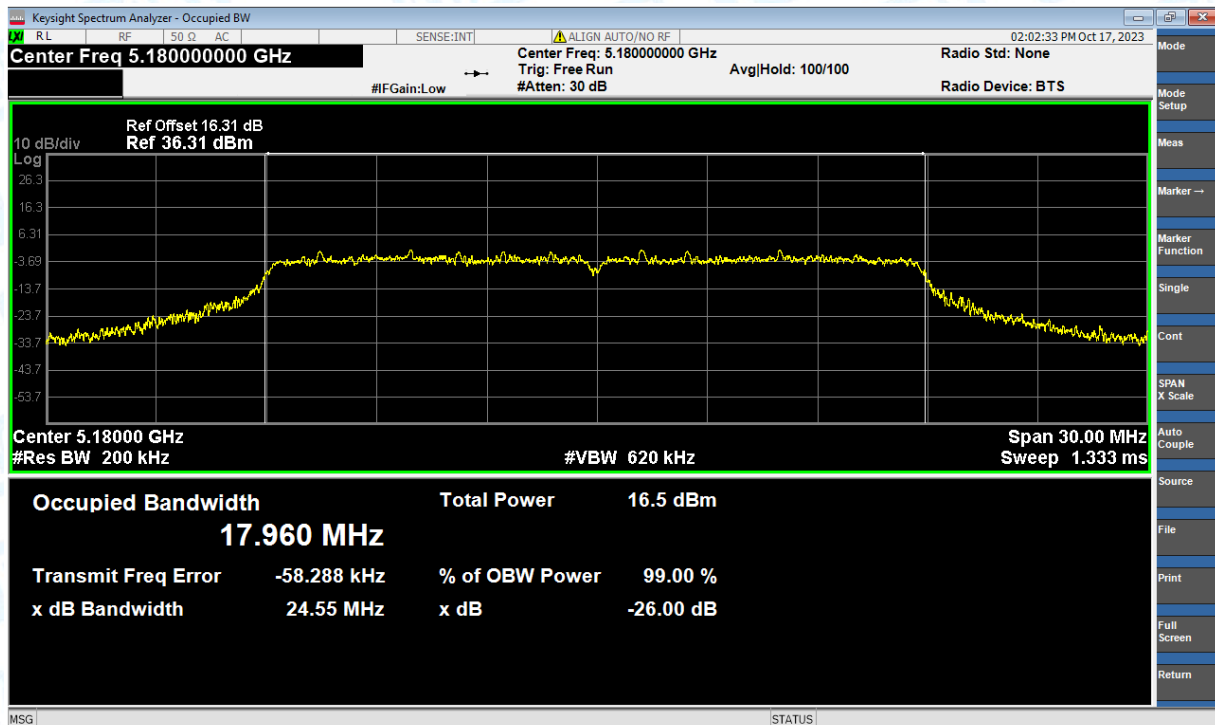
OBW NVNT a 5200MHz Ant1



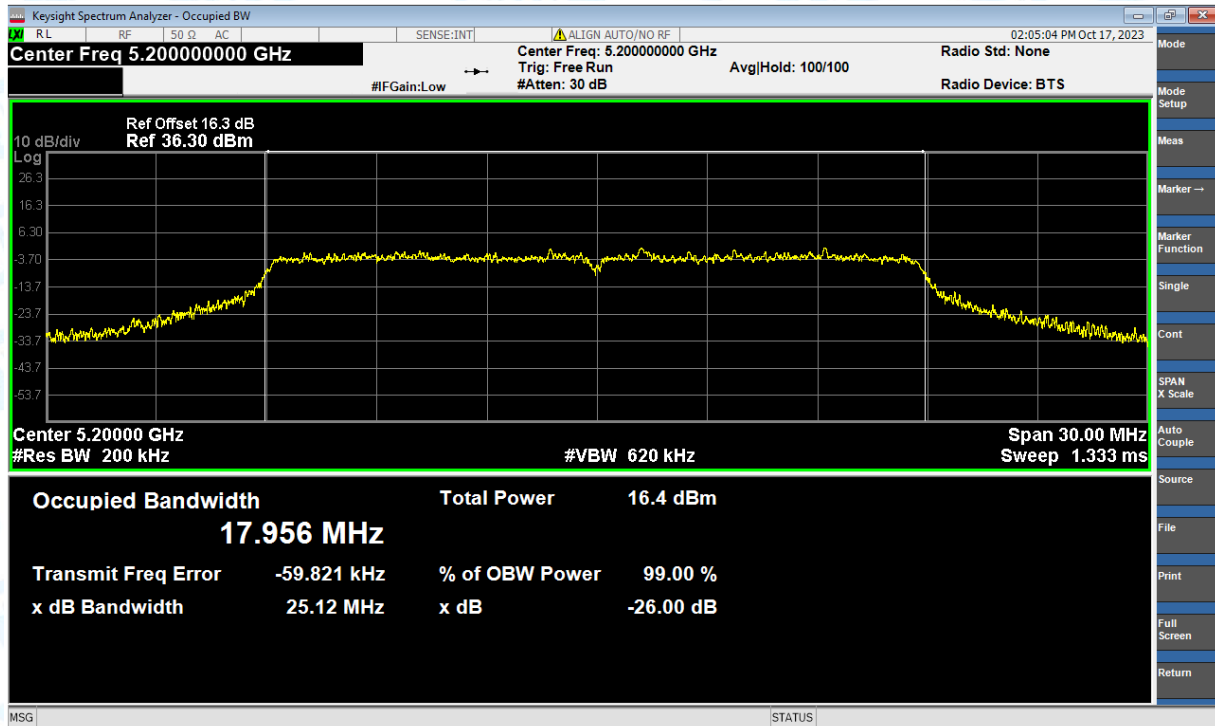
OBW NVNT a 5240MHz Ant1



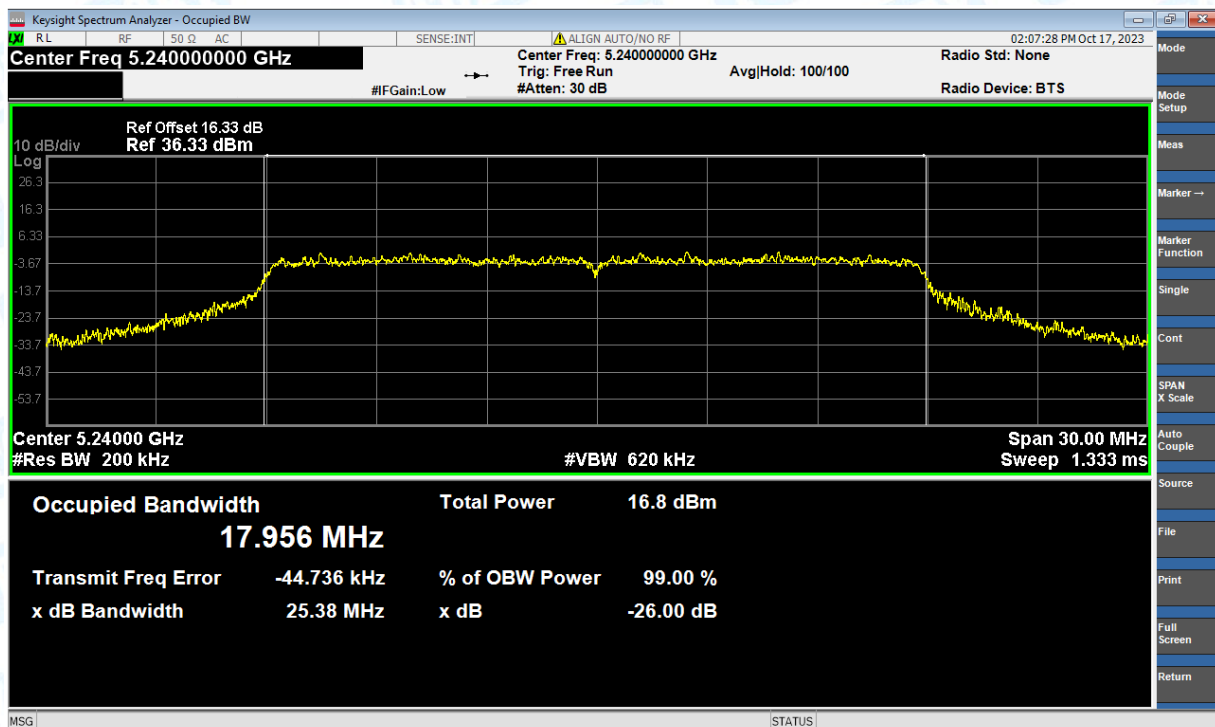
OBW NVNT ac(VHT20) 5180MHz Ant1



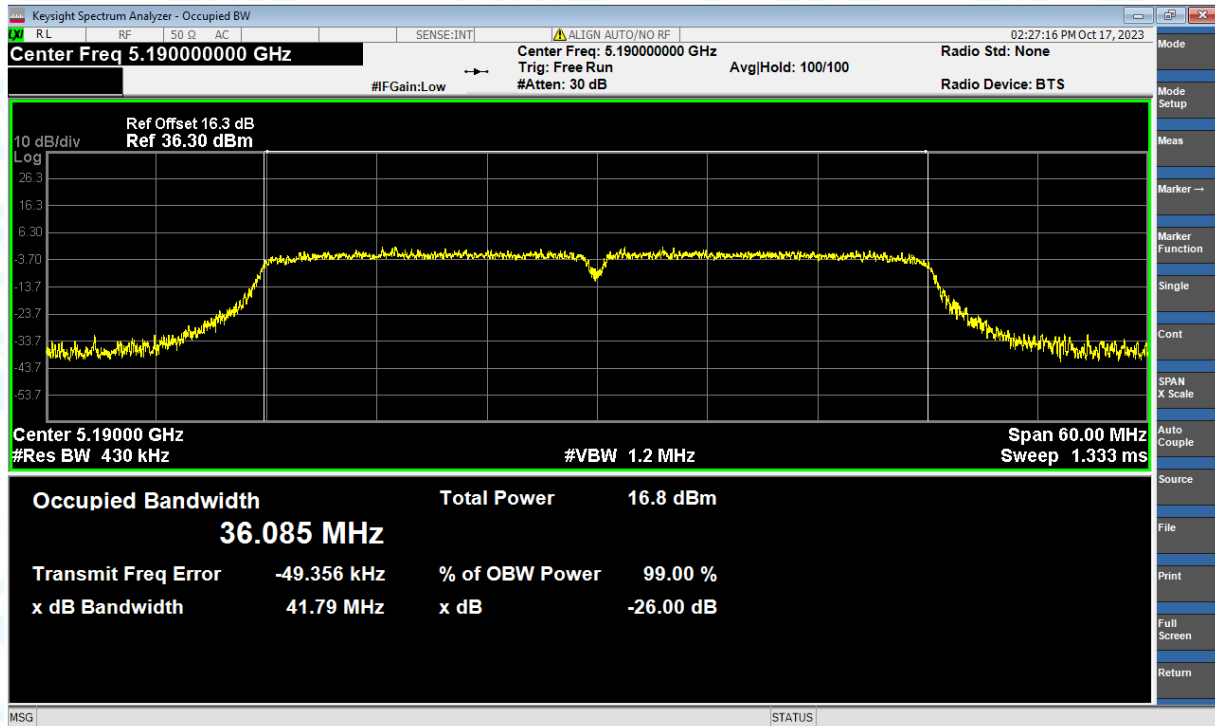
OBW NVNT ac(VHT20) 5200MHz Ant1



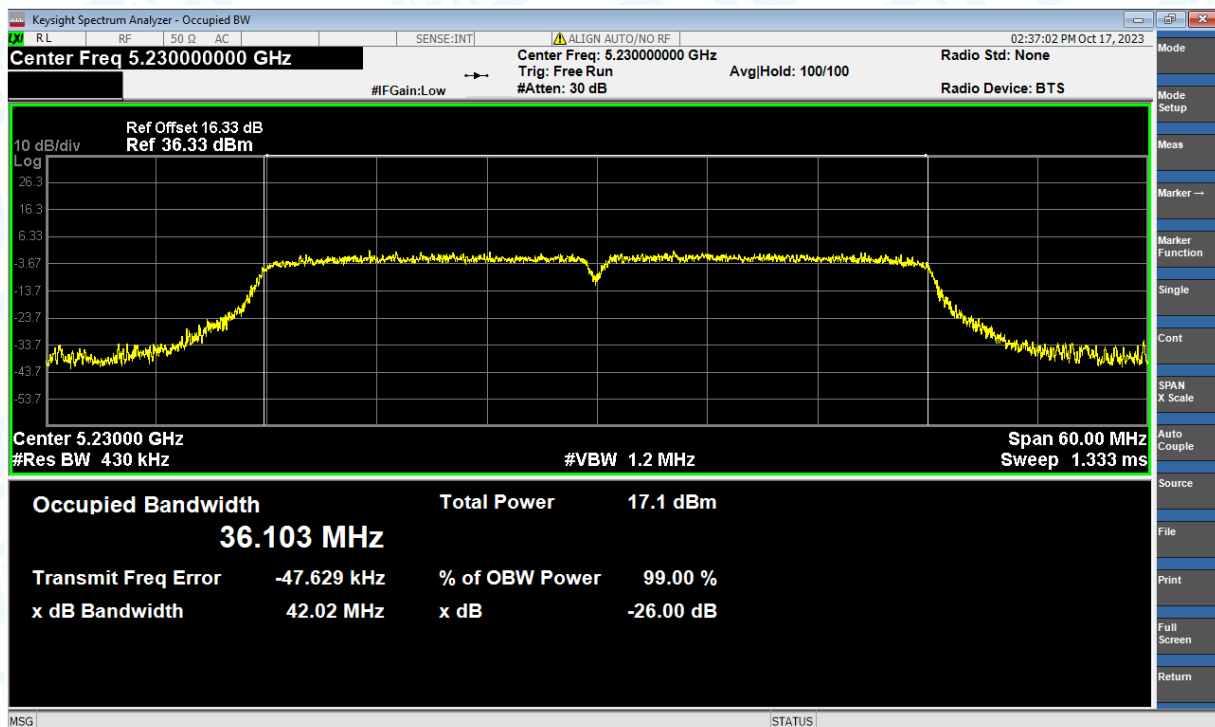
OBW NVNT ac(VHT20) 5240MHz Ant1



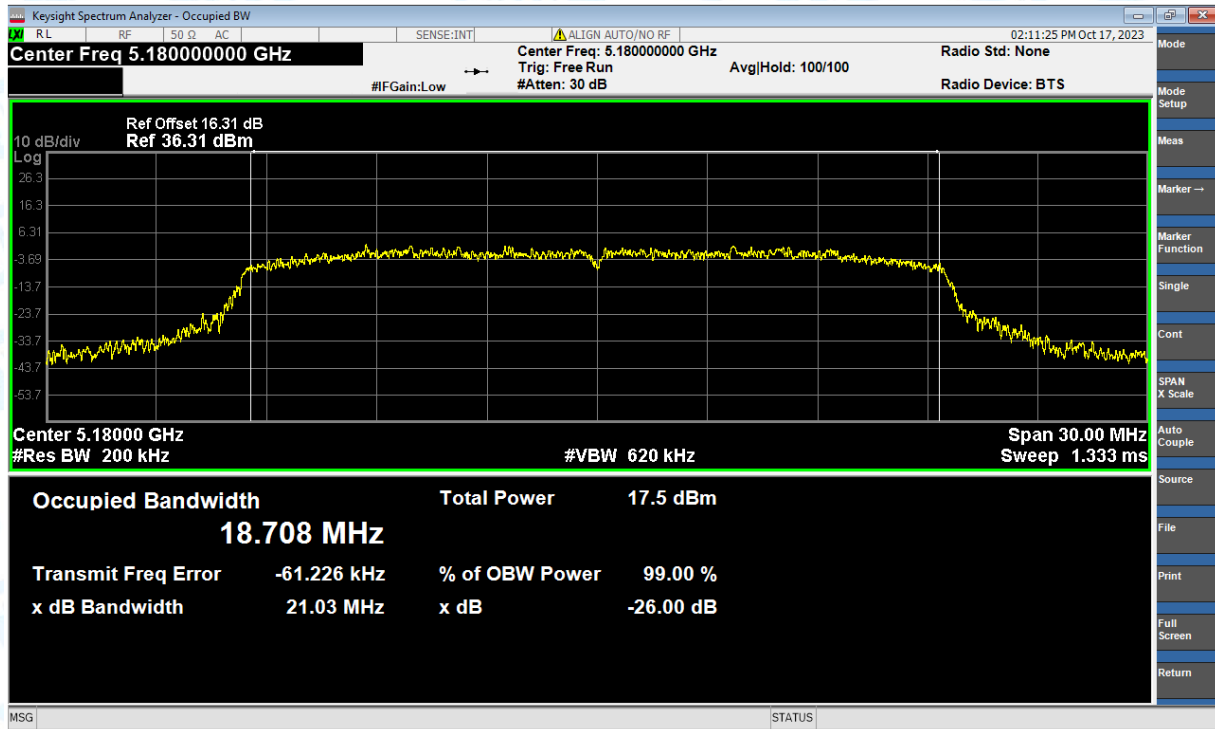
OBW NVNT ac(VHT40) 5190MHz Ant1



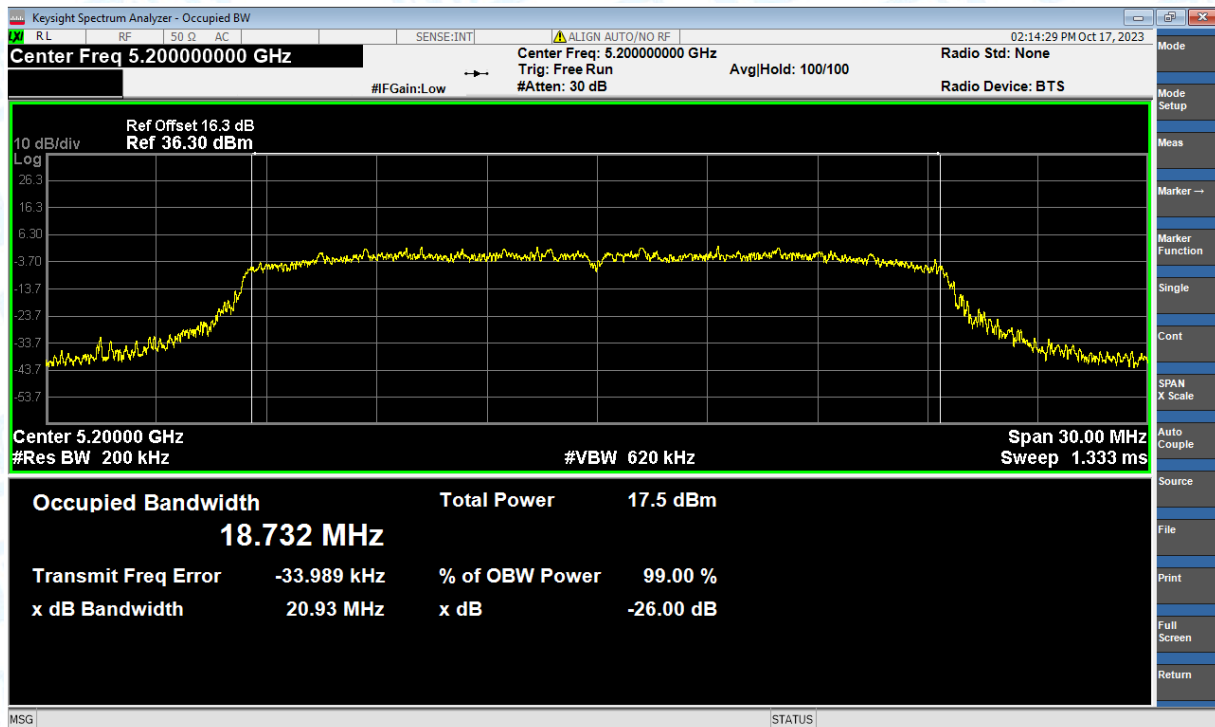
OBW NVNT ac(VHT40) 5230MHz Ant1



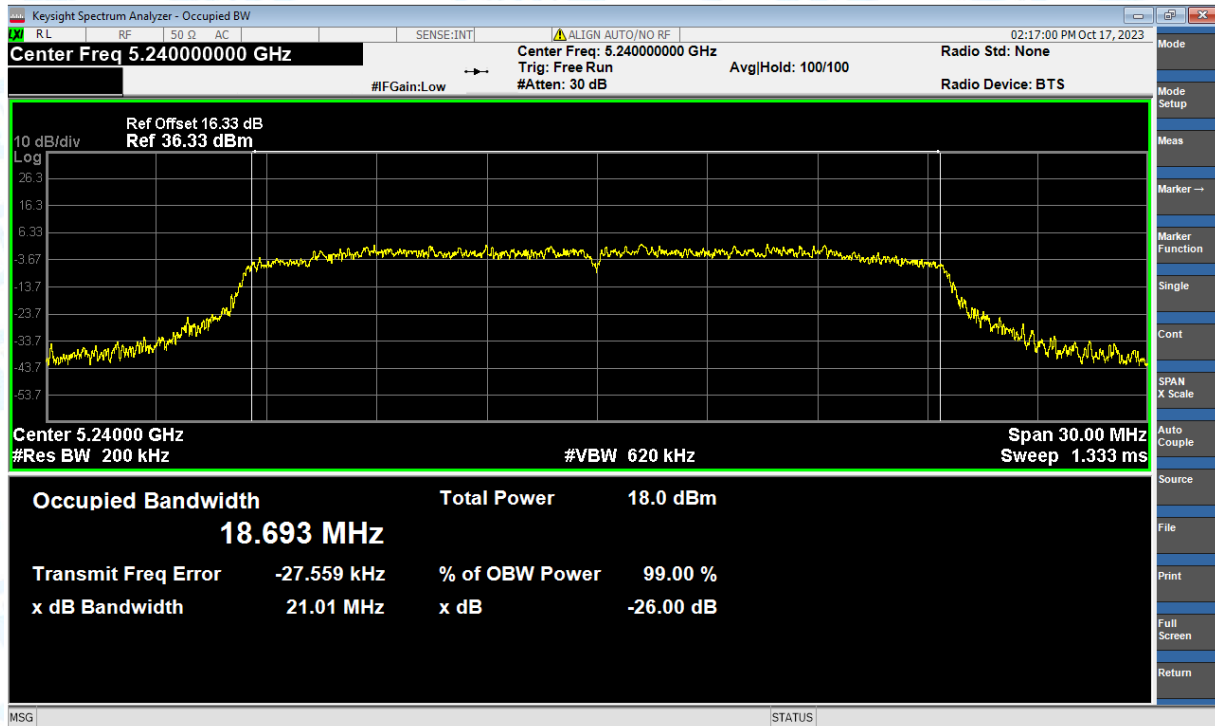
OBW NVNT ax(VHT20) 5180MHz Ant1



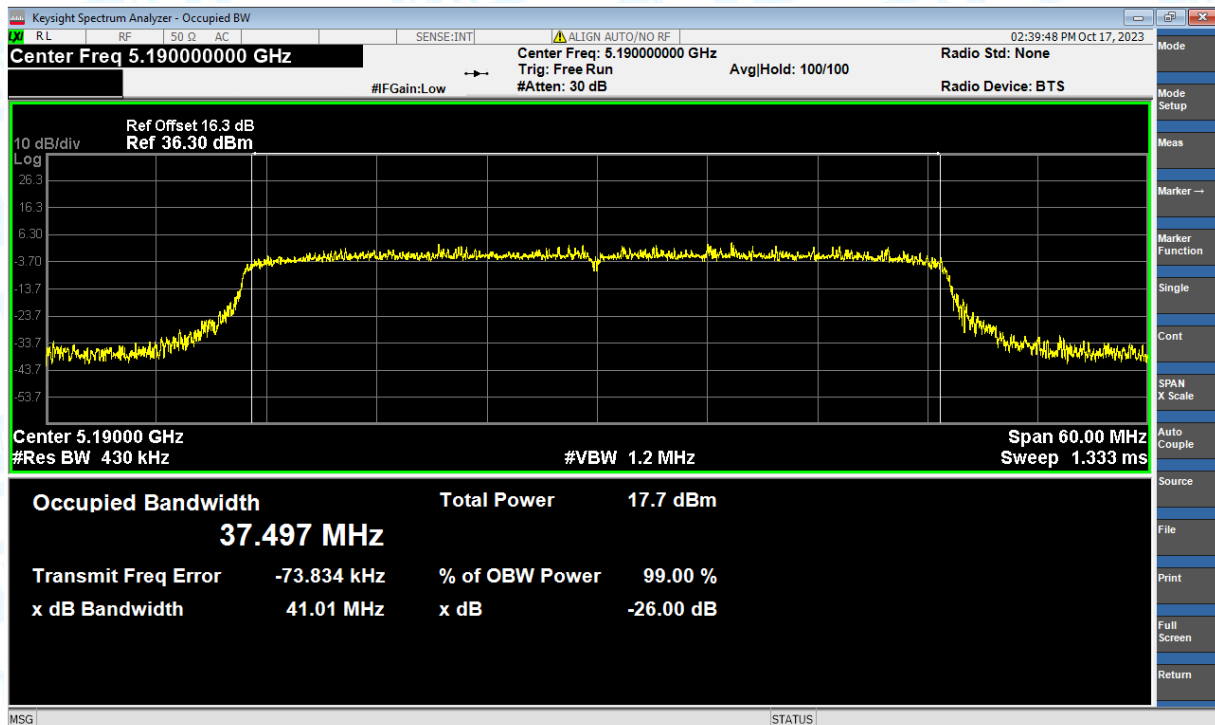
OBW NVNT ax(VHT20) 5200MHz Ant1



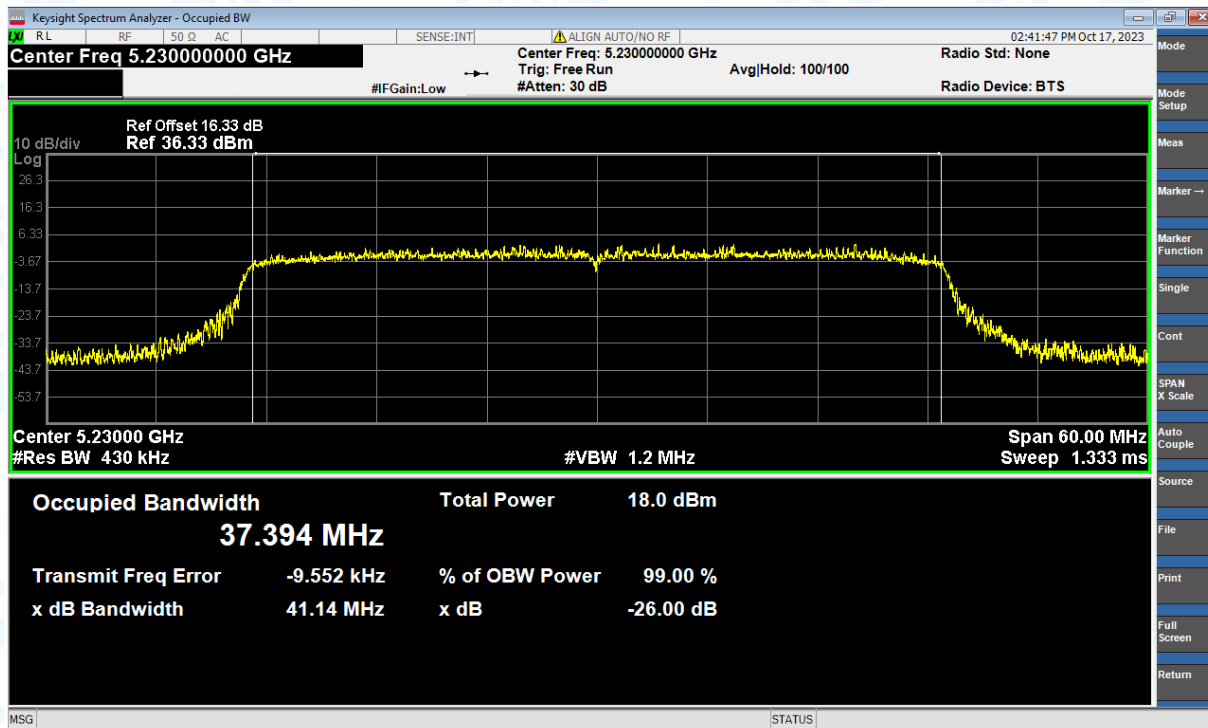
OBW NVNT ax(VHT20) 5240MHz Ant1



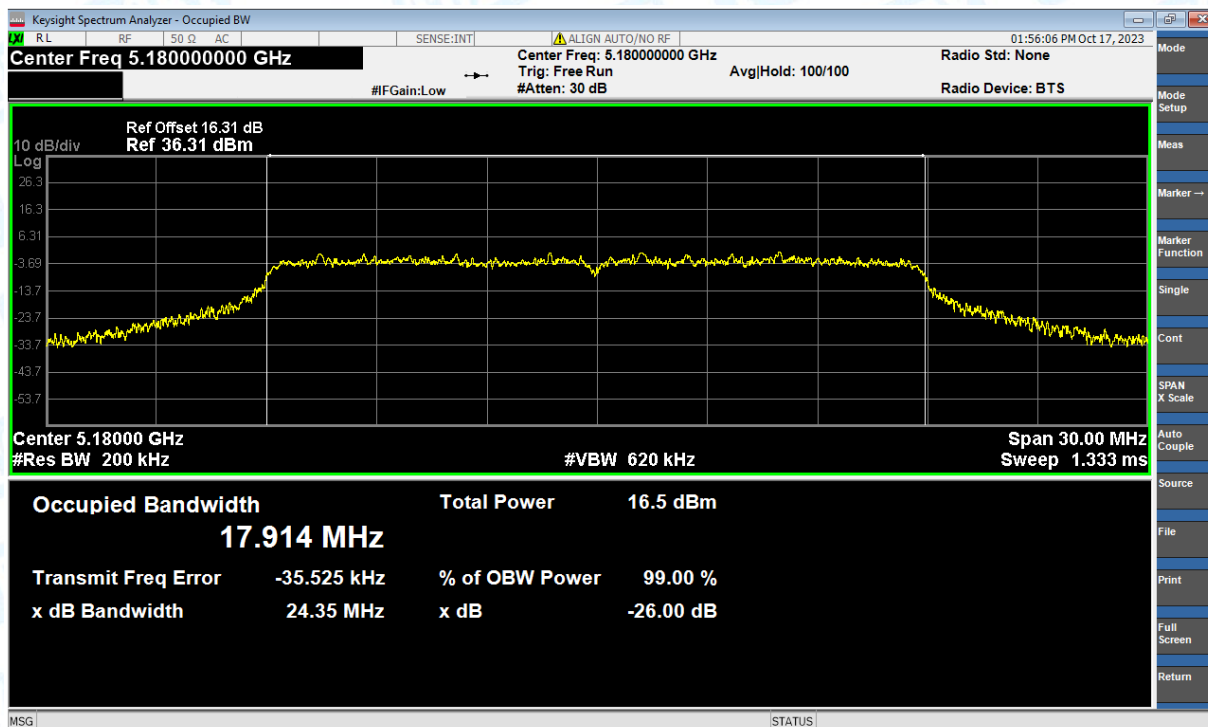
OBW NVNT ax(VHT40) 5190MHz Ant1



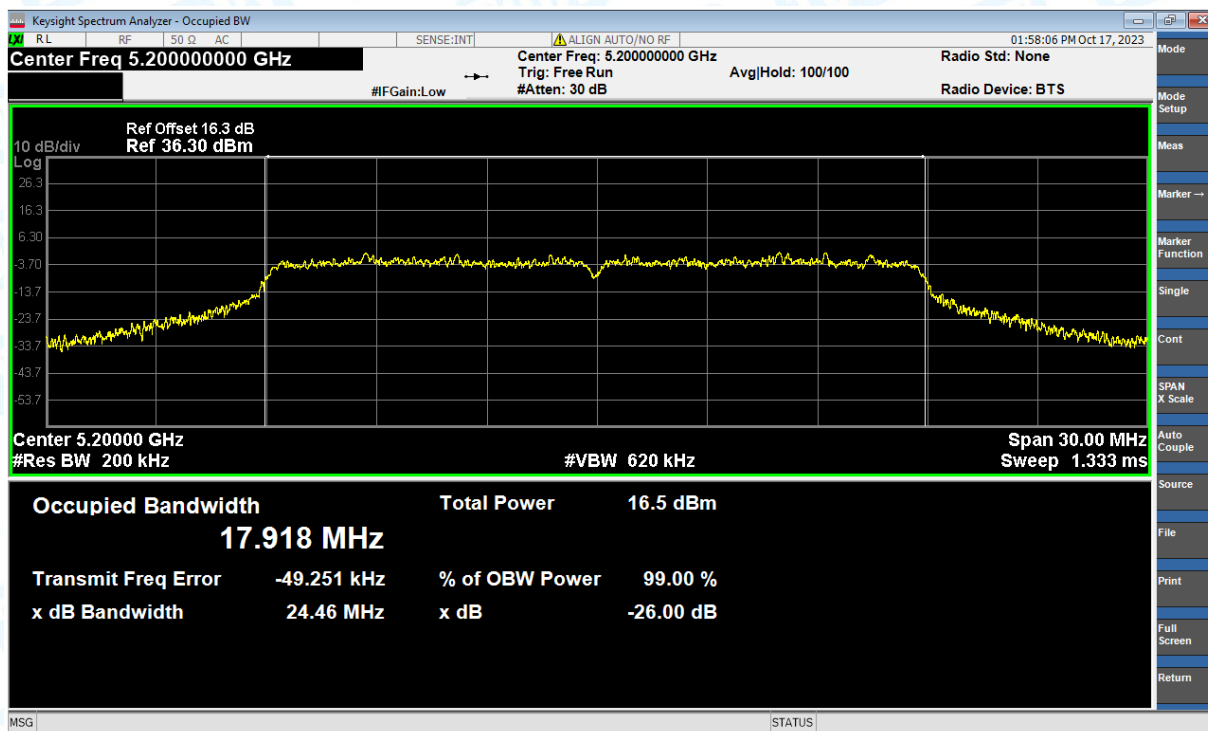
OBW NVNT ax(VHT40) 5230MHz Ant1



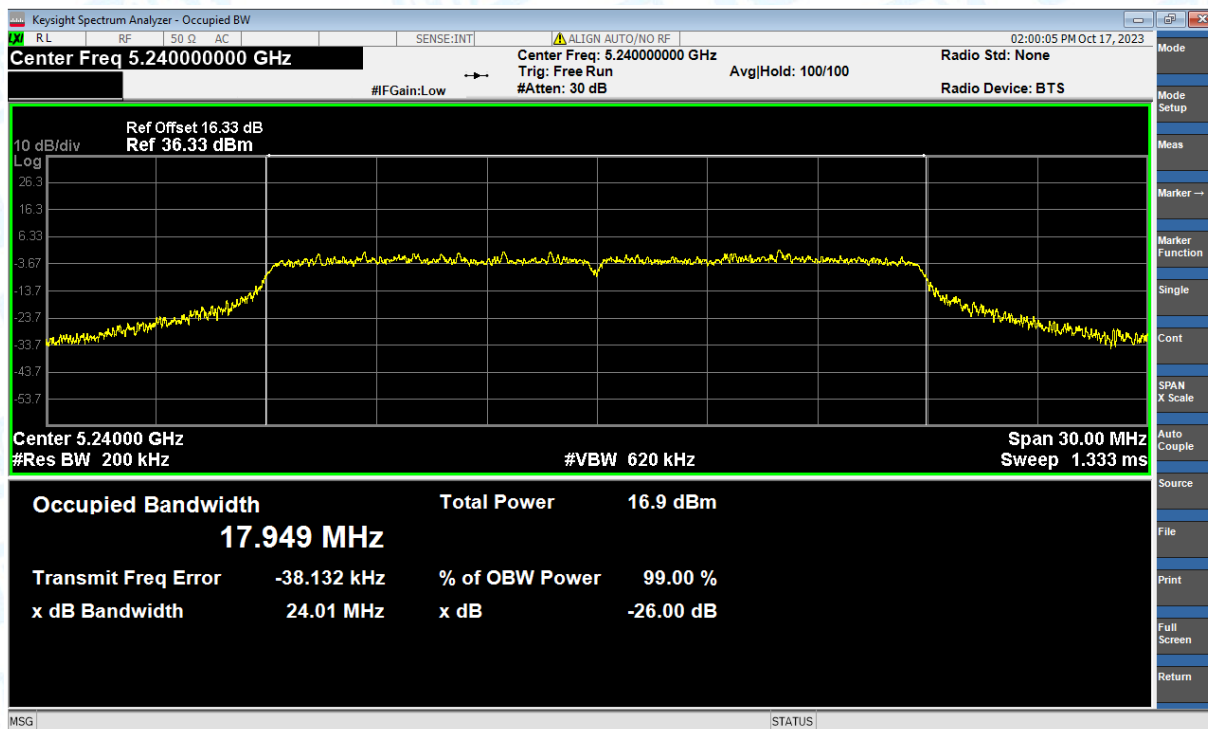
OBW NVNT n(HT20) 5180MHz Ant1



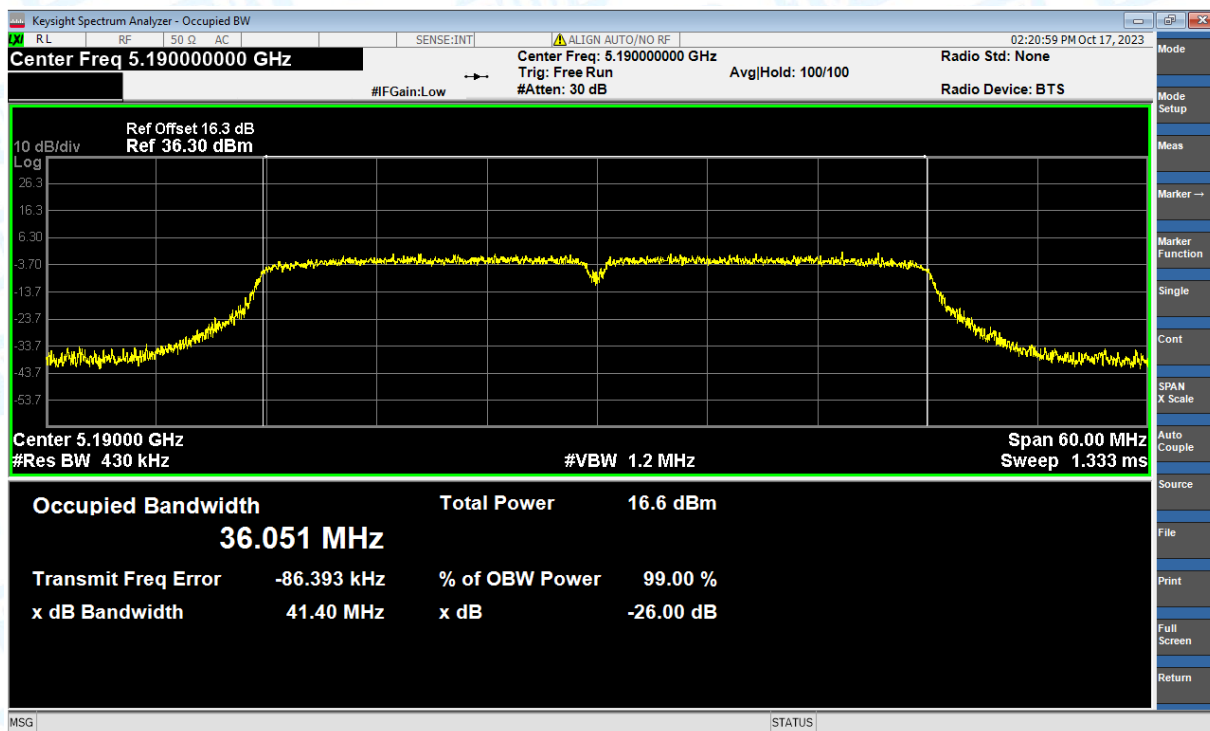
OBW NVNT n(HT20) 5200MHz Ant1



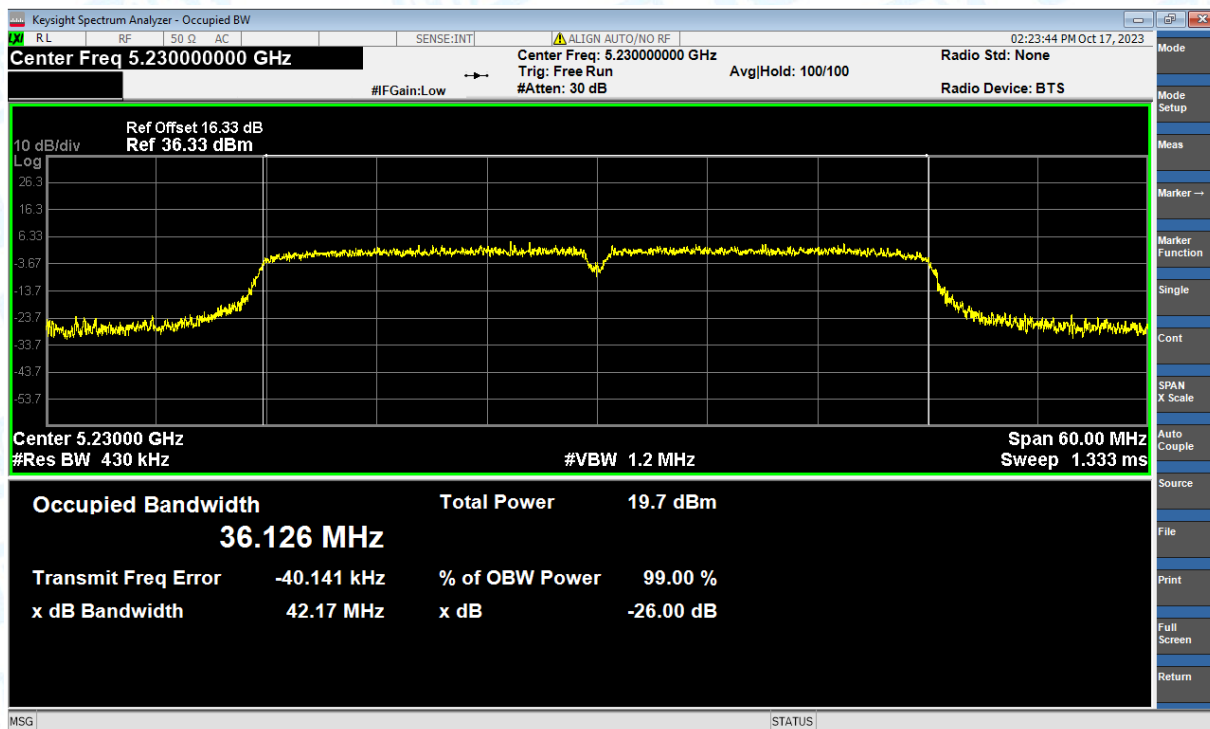
OBW NVNT n(HT20) 5240MHz Ant1



OBW NVNT n(HT40) 5190MHz Ant1



OBW NVNT n(HT40) 5230MHz Ant1



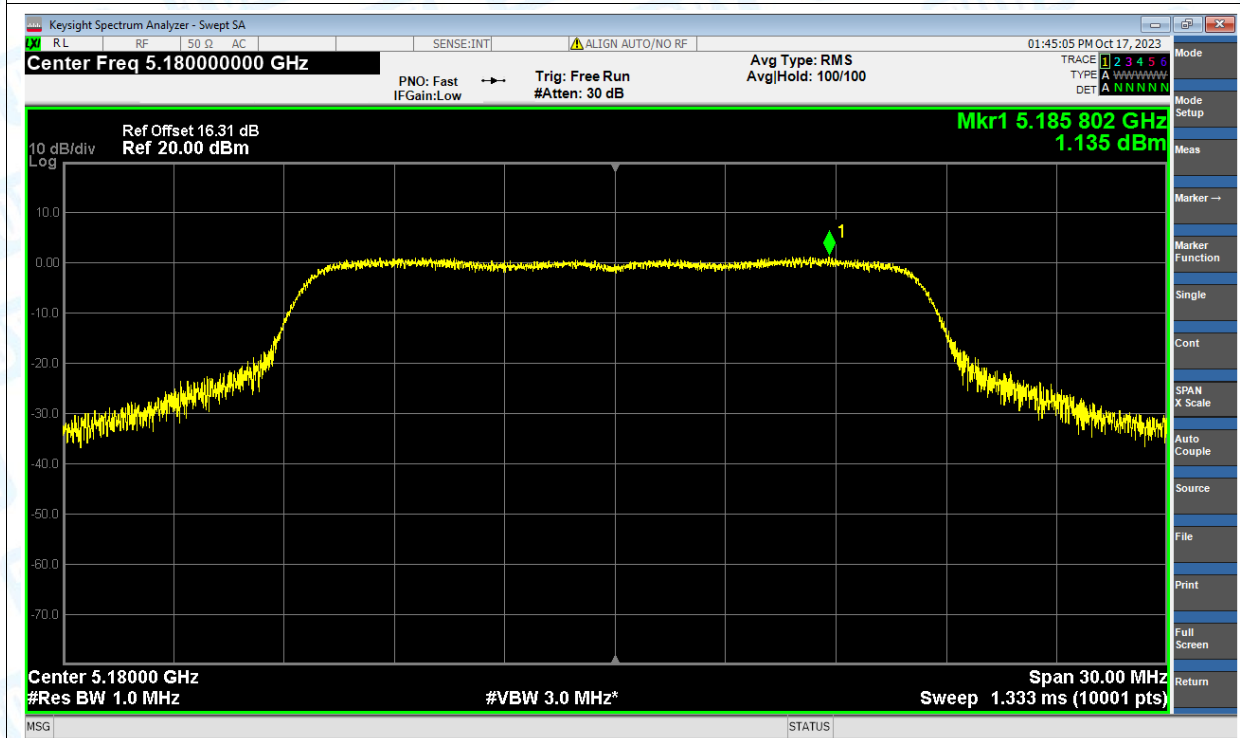
5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/MHz)	FCC Limit (dBm/MHz)	EIRP (dBm/MHz)	IC Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	1.135	≤11.00	3.135	≤10.00	Pass
NVNT	a	5200	Ant1	0.436	≤11.00	2.436	≤10.00	Pass
NVNT	a	5240	Ant1	0.740	≤11.00	2.74	≤10.00	Pass
NVNT	ac(VHT20)	5180	Ant1	0.261	≤11.00	2.261	≤10.00	Pass
NVNT	ac(VHT20)	5200	Ant1	0.398	≤11.00	2.398	≤10.00	Pass
NVNT	ac(VHT20)	5240	Ant1	0.807	≤11.00	2.807	≤10.00	Pass
NVNT	ac(VHT40)	5190	Ant1	-2.762	≤11.00	-0.762	≤10.00	Pass
NVNT	ac(VHT40)	5230	Ant1	-2.306	≤11.00	-0.306	≤10.00	Pass
NVNT	ax(VHT20)	5180	Ant1	0.603	≤11.00	2.603	≤10.00	Pass
NVNT	ax(VHT20)	5200	Ant1	0.724	≤11.00	2.724	≤10.00	Pass
NVNT	ax(VHT20)	5240	Ant1	0.944	≤11.00	2.944	≤10.00	Pass
NVNT	ax(VHT40)	5190	Ant1	-2.584	≤11.00	-0.584	≤10.00	Pass
NVNT	ax(VHT40)	5230	Ant1	-2.420	≤11.00	-0.42	≤10.00	Pass
NVNT	n(HT20)	5180	Ant1	-0.123	≤11.00	1.877	≤10.00	Pass
NVNT	n(HT20)	5200	Ant1	-0.005	≤11.00	1.995	≤10.00	Pass
NVNT	n(HT20)	5240	Ant1	0.503	≤11.00	2.503	≤10.00	Pass
NVNT	n(HT40)	5190	Ant1	-2.874	≤11.00	-0.874	≤10.00	Pass
NVNT	n(HT40)	5230	Ant1	-0.051	≤11.00	1.949	≤10.00	Pass

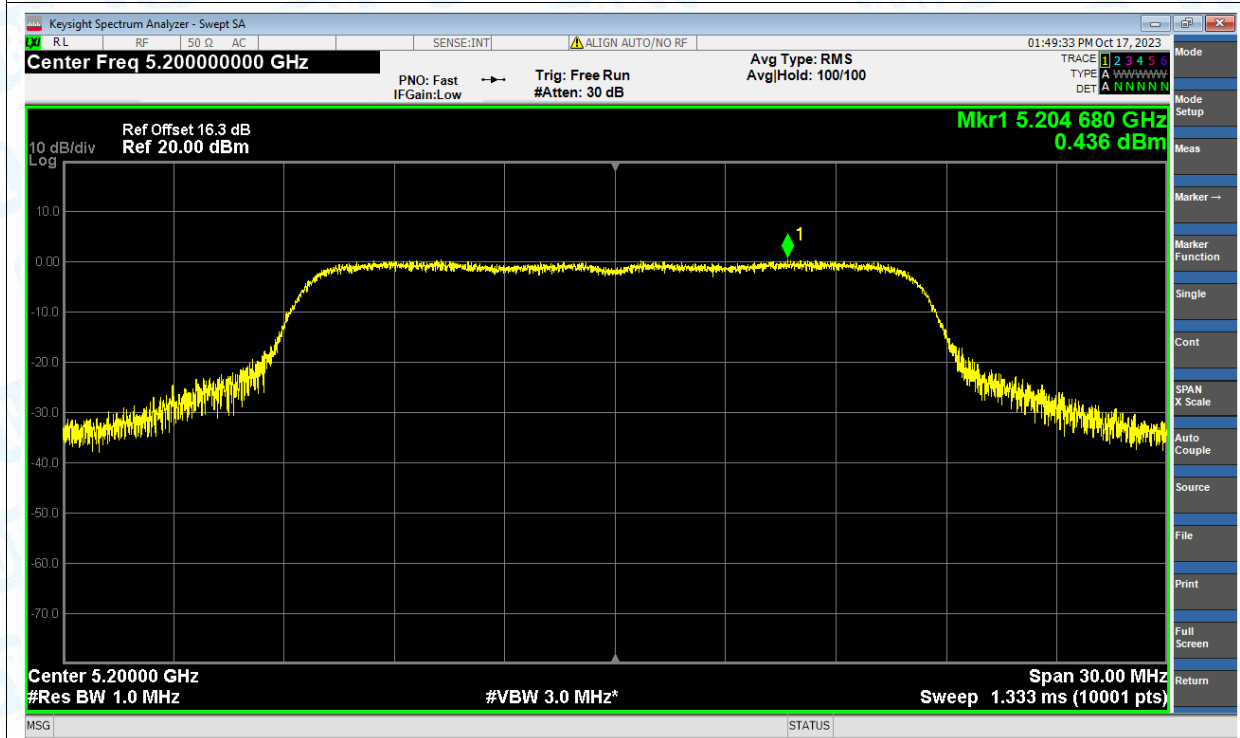
Note: The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

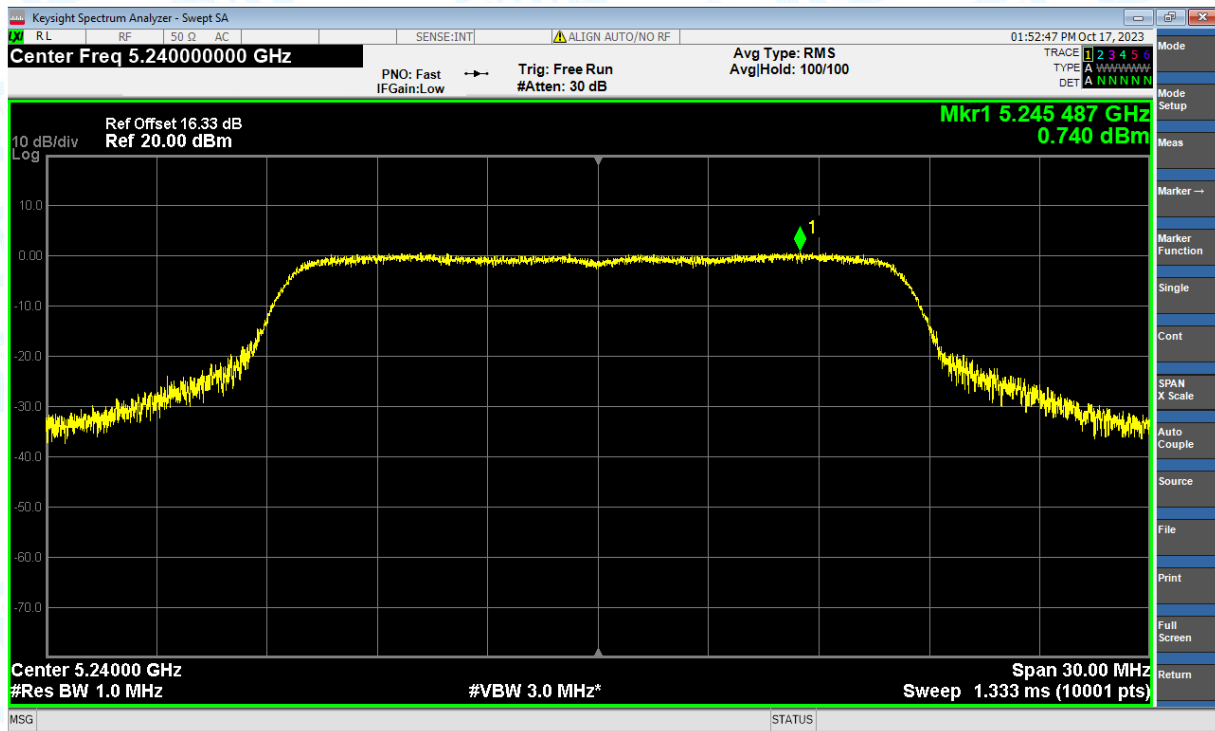
PSD NVNT a 5180MHz Ant1



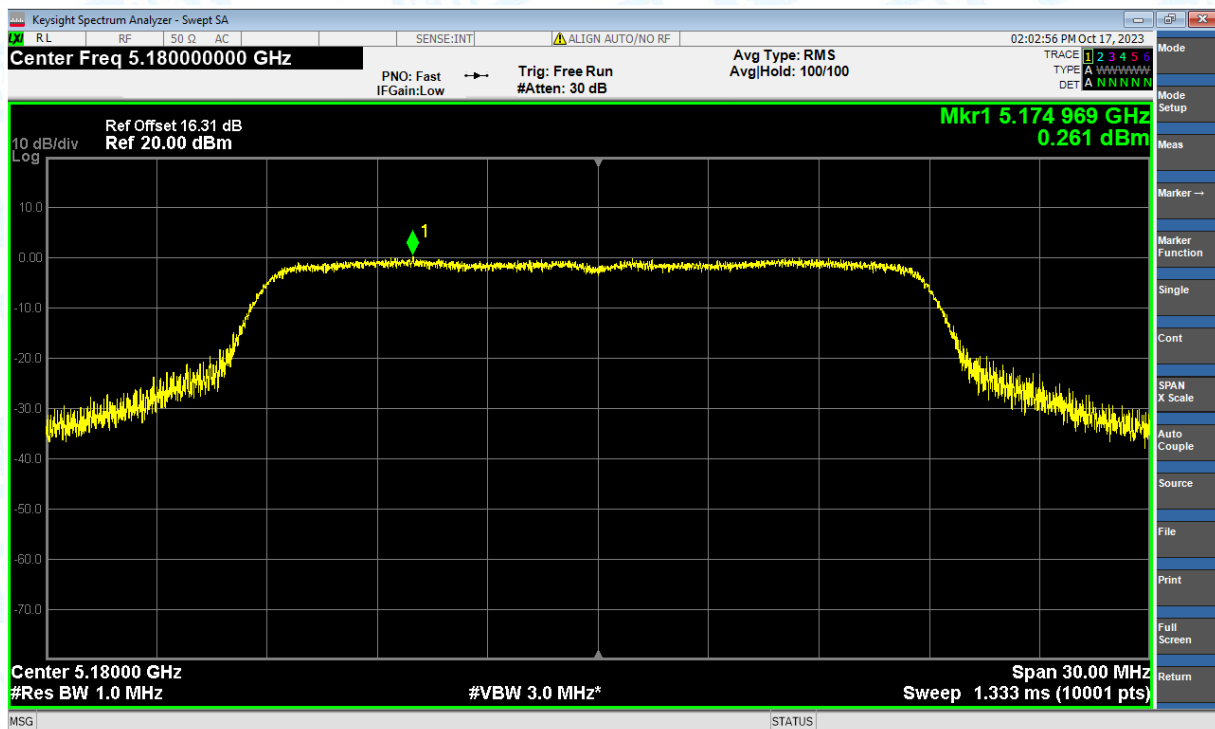
PSD NVNT a 5200MHz Ant1



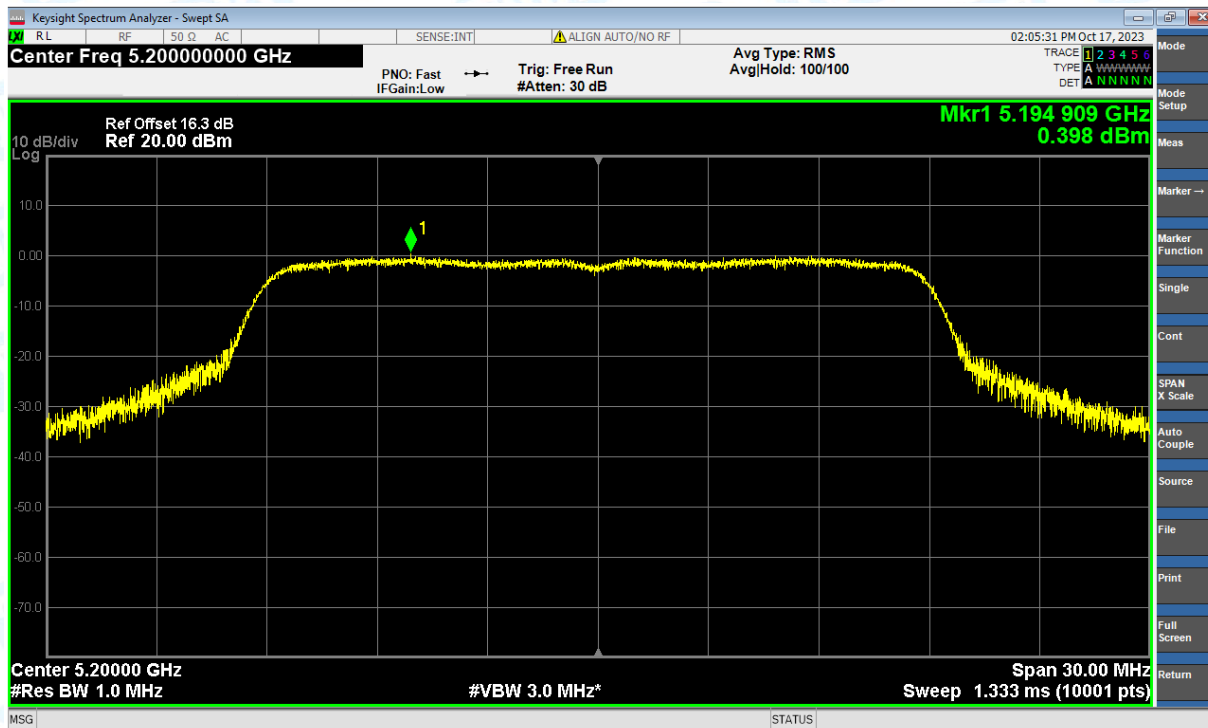
PSD NVNT a 5240MHz Ant1



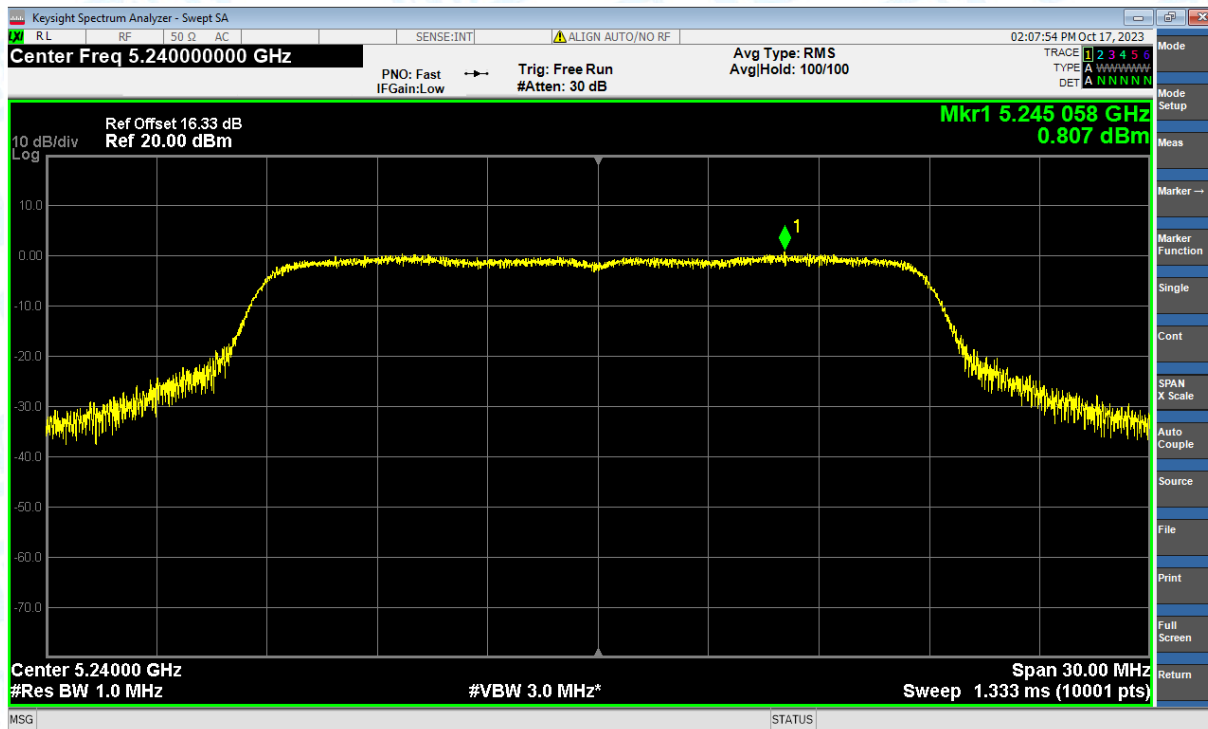
PSD NVNT ac(VHT20) 5180MHz Ant1



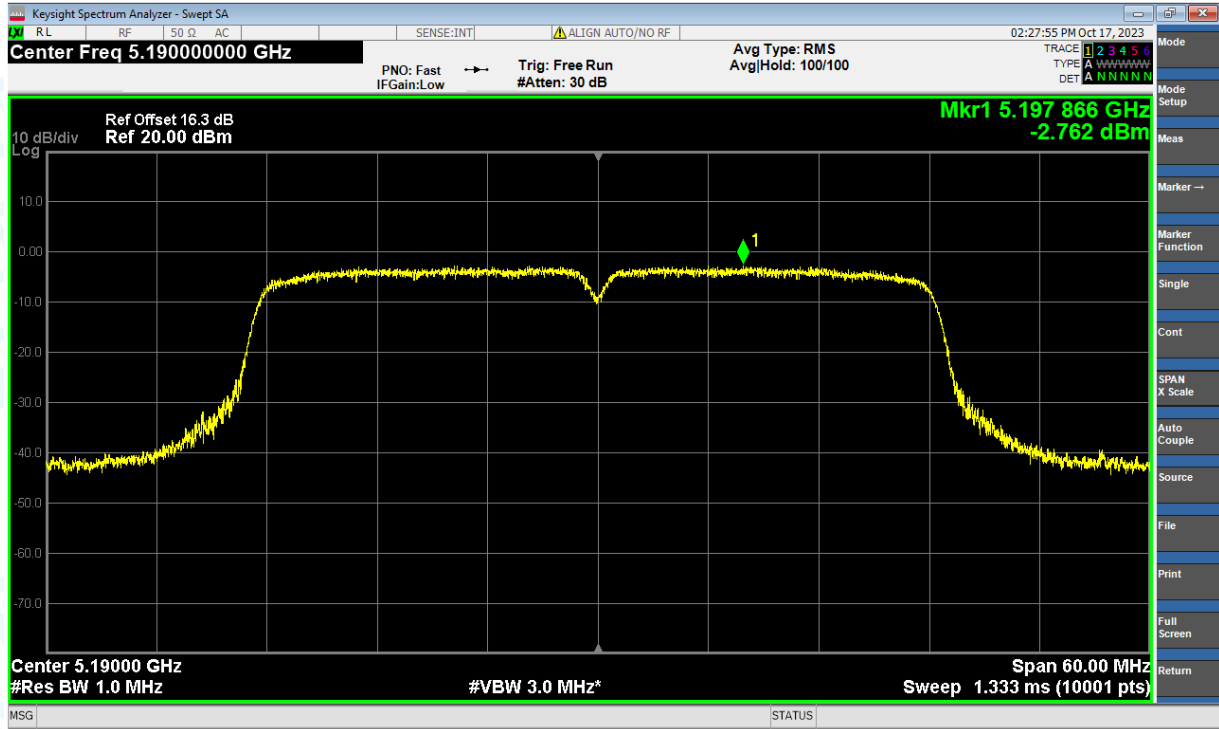
PSD NVNT ac(VHT20) 5200MHz Ant1



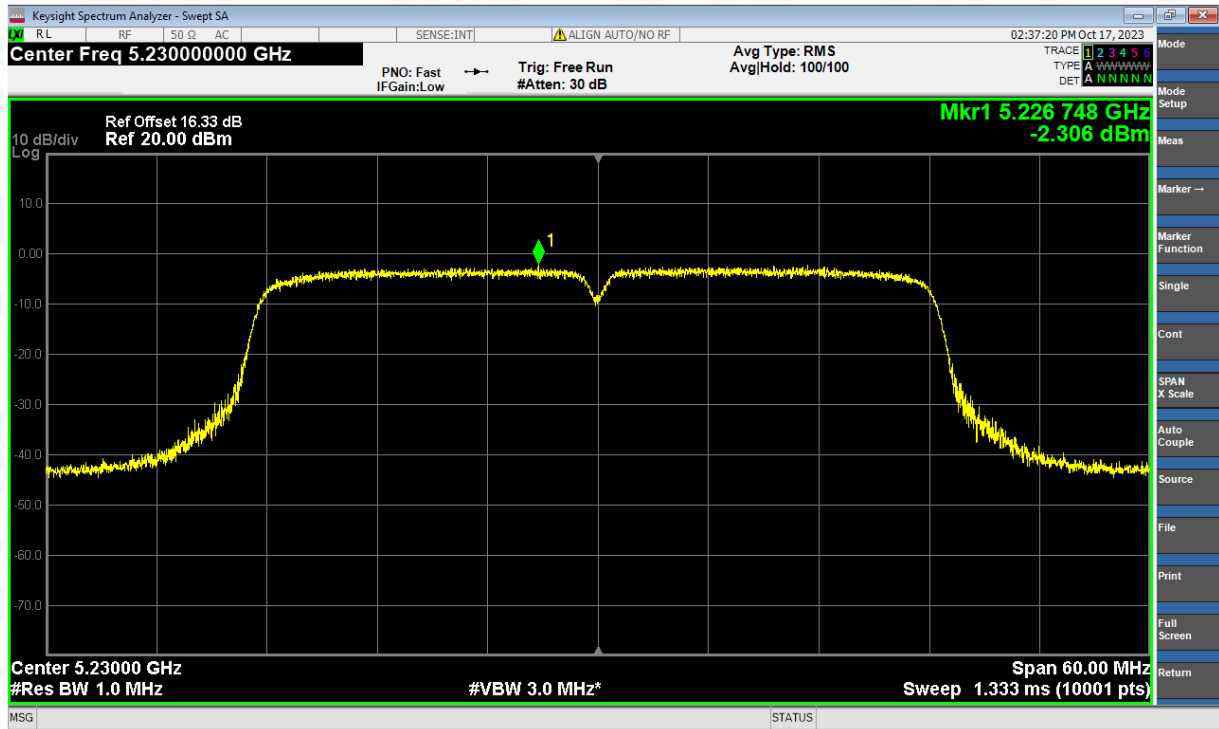
PSD NVNT ac(VHT20) 5240MHz Ant1



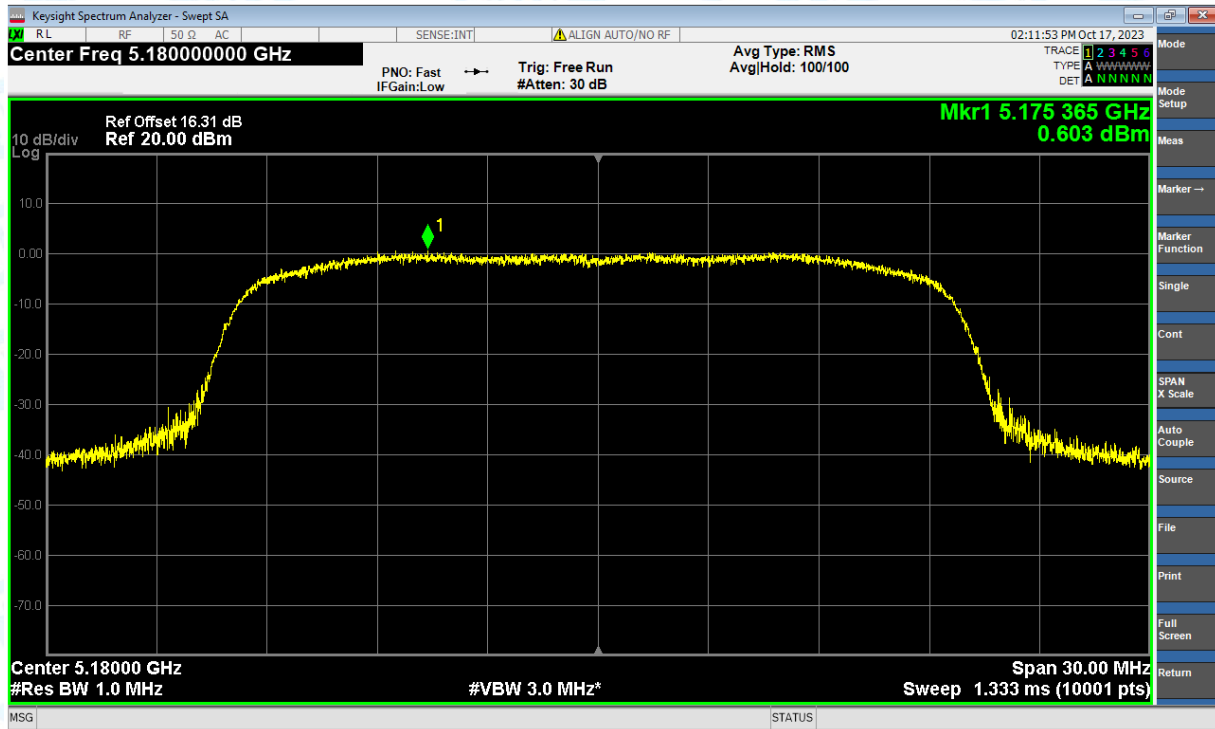
PSD NVNT ac(VHT40) 5190MHz Ant1



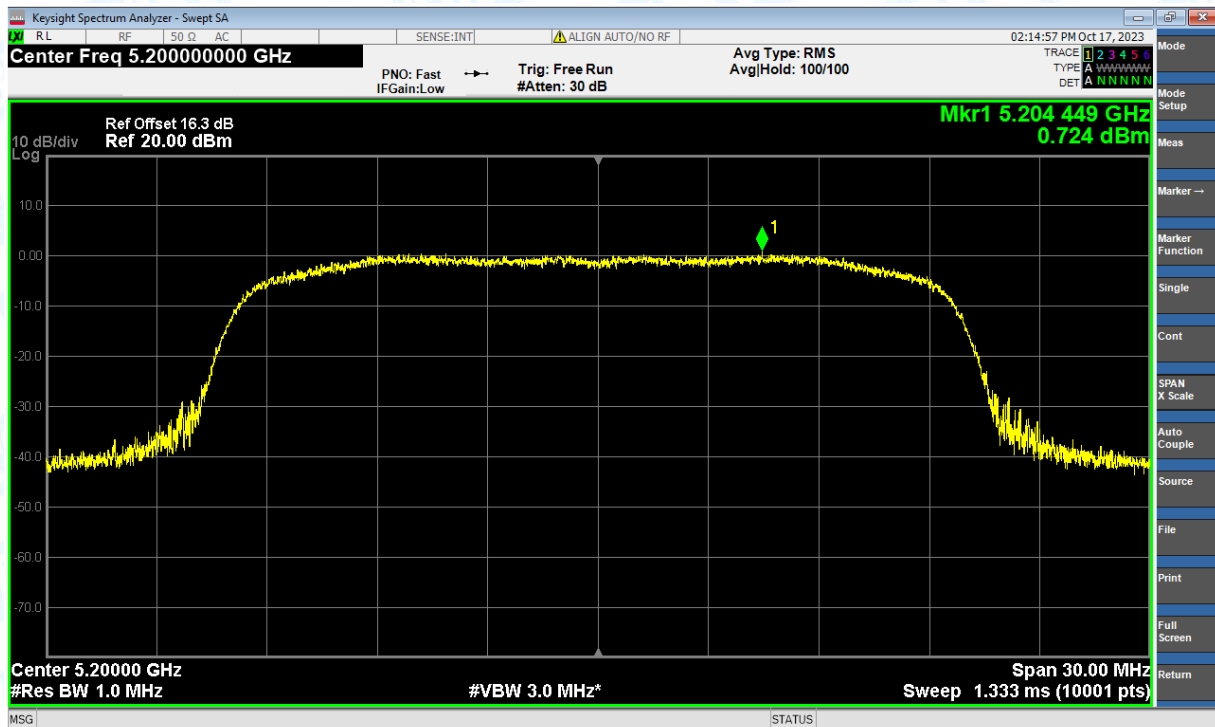
PSD NVNT ac(VHT40) 5230MHz Ant1



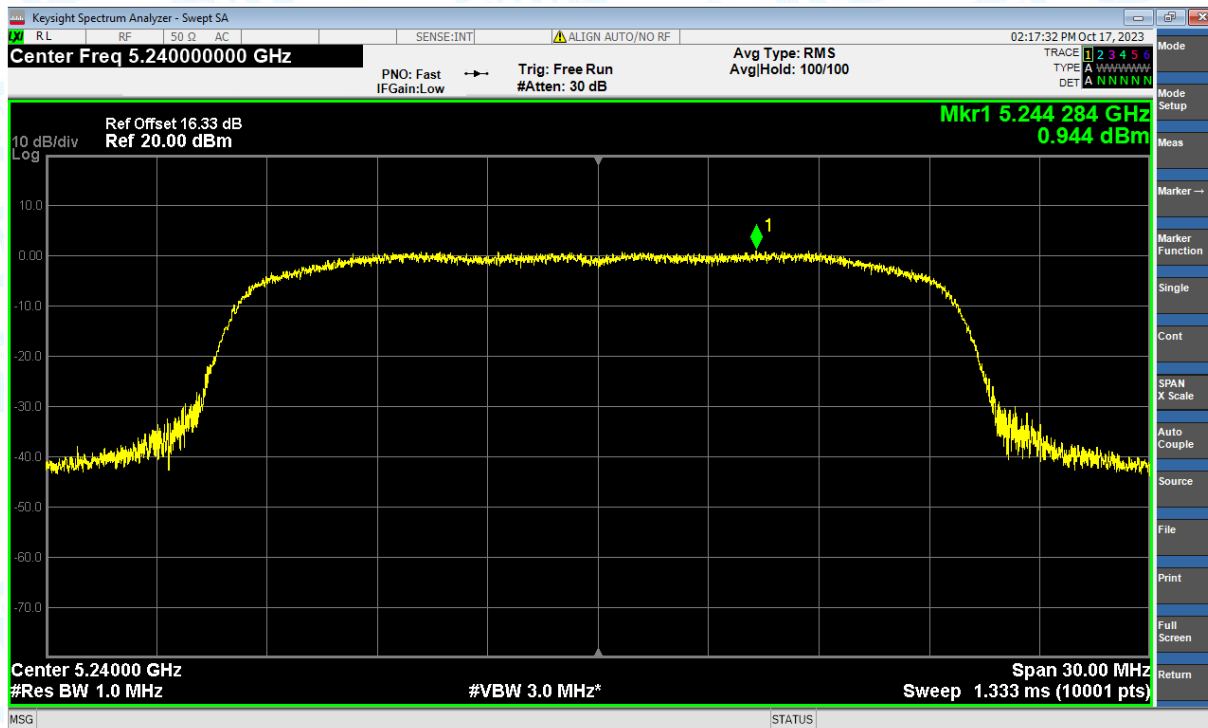
PSD NVNT ax(VHT20) 5180MHz Ant1



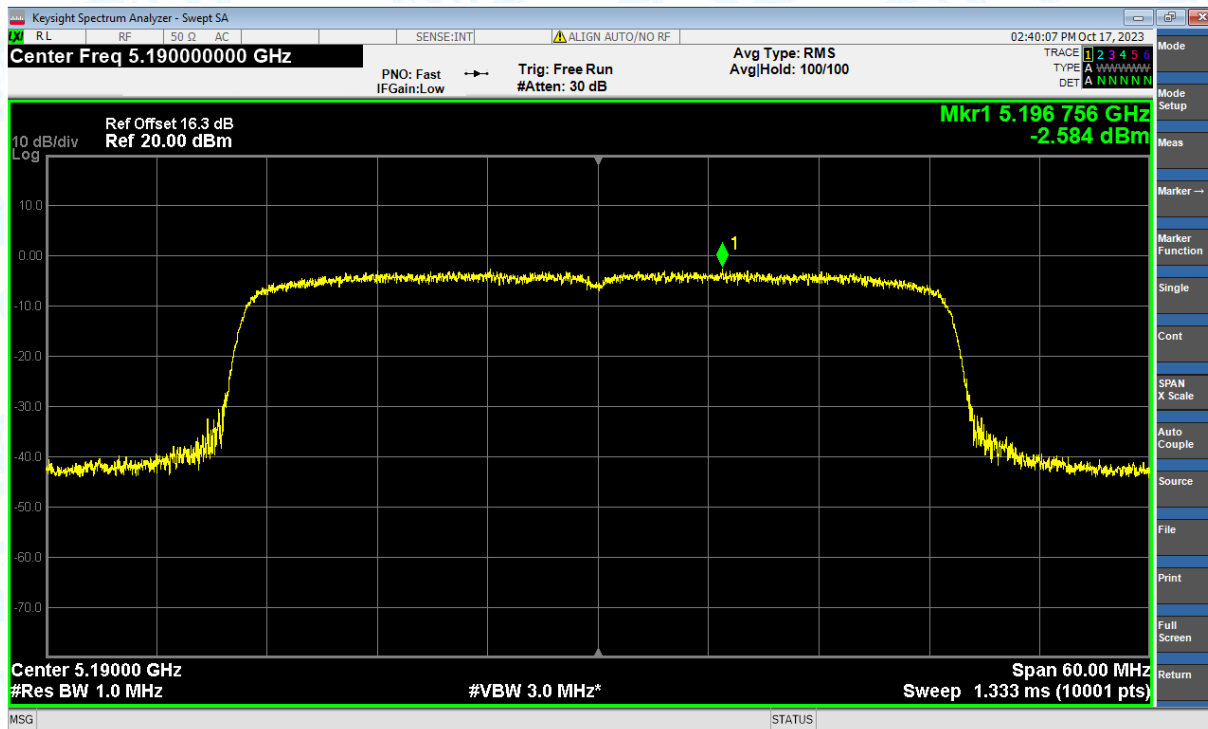
PSD NVNT ax(VHT20) 5200MHz Ant1



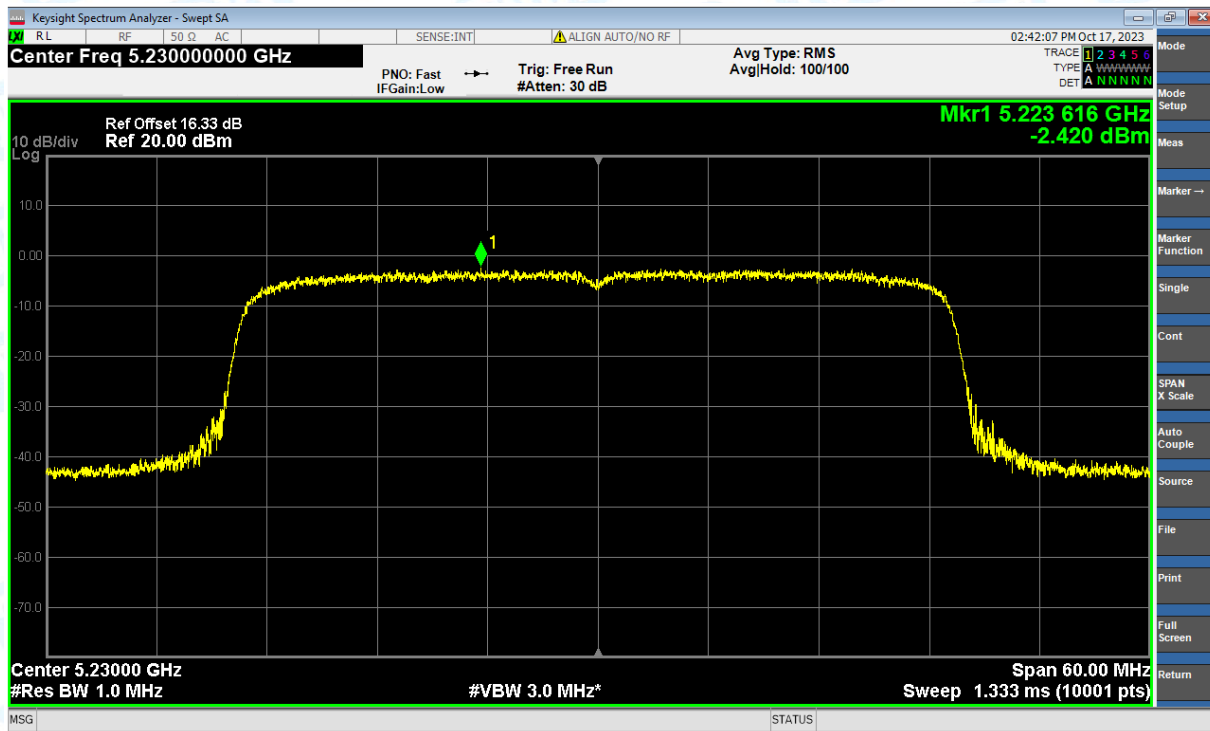
PSD NVNT ax(VHT20) 5240MHz Ant1



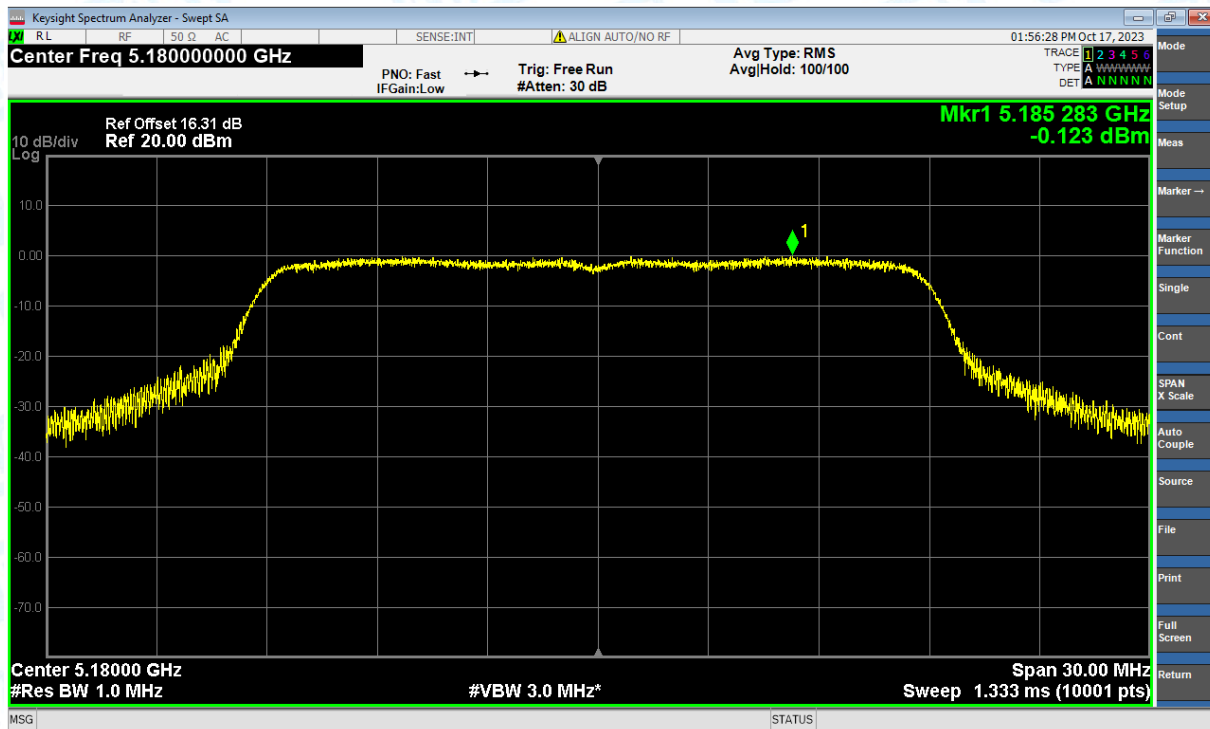
PSD NVNT ax(VHT40) 5190MHz Ant1



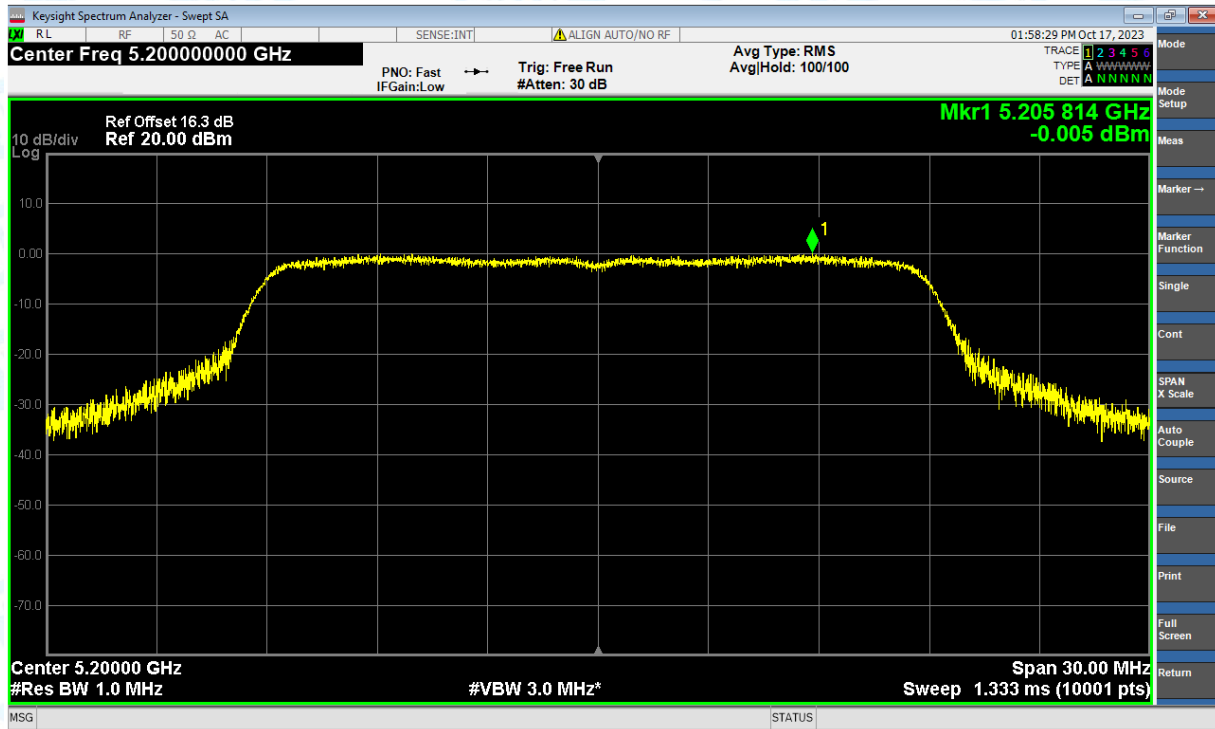
PSD NVNT ax(VHT40) 5230MHz Ant1



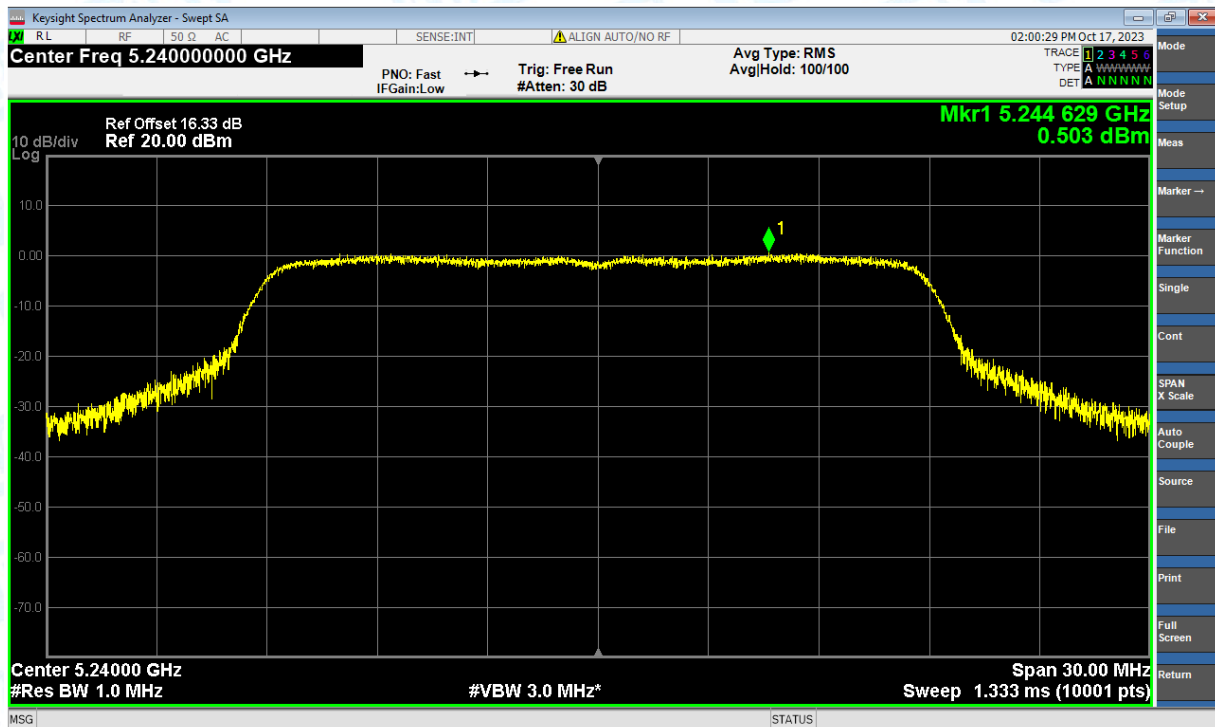
PSD NVNT n(HT20) 5180MHz Ant1



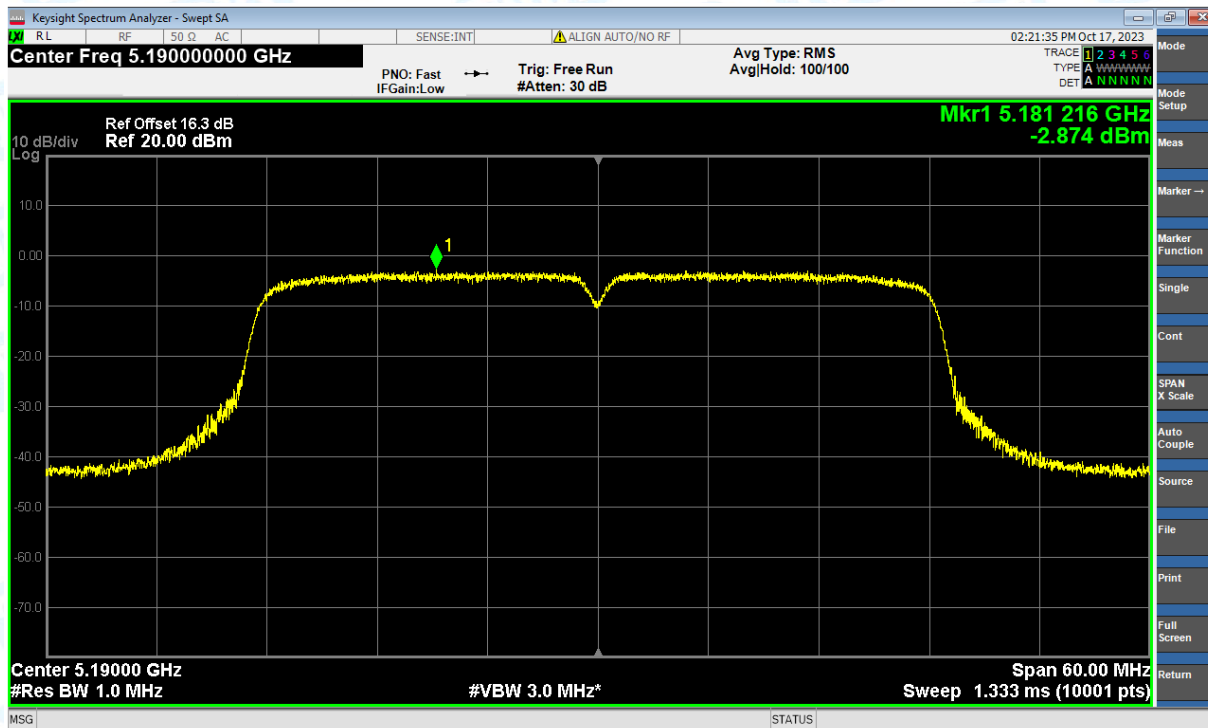
PSD NVNT n(HT20) 5200MHz Ant1



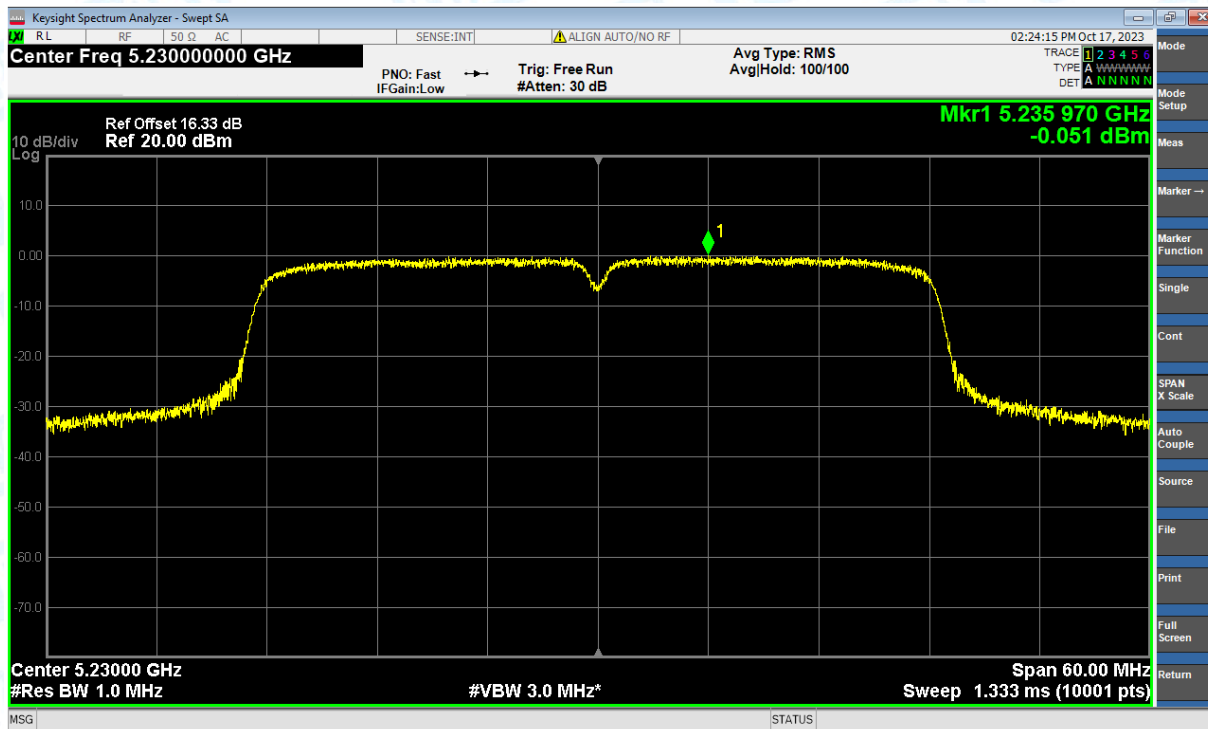
PSD NVNT n(HT20) 5240MHz Ant1



PSD NVNT n(HT40) 5190MHz Ant1



PSD NVNT n(HT40) 5230MHz Ant1

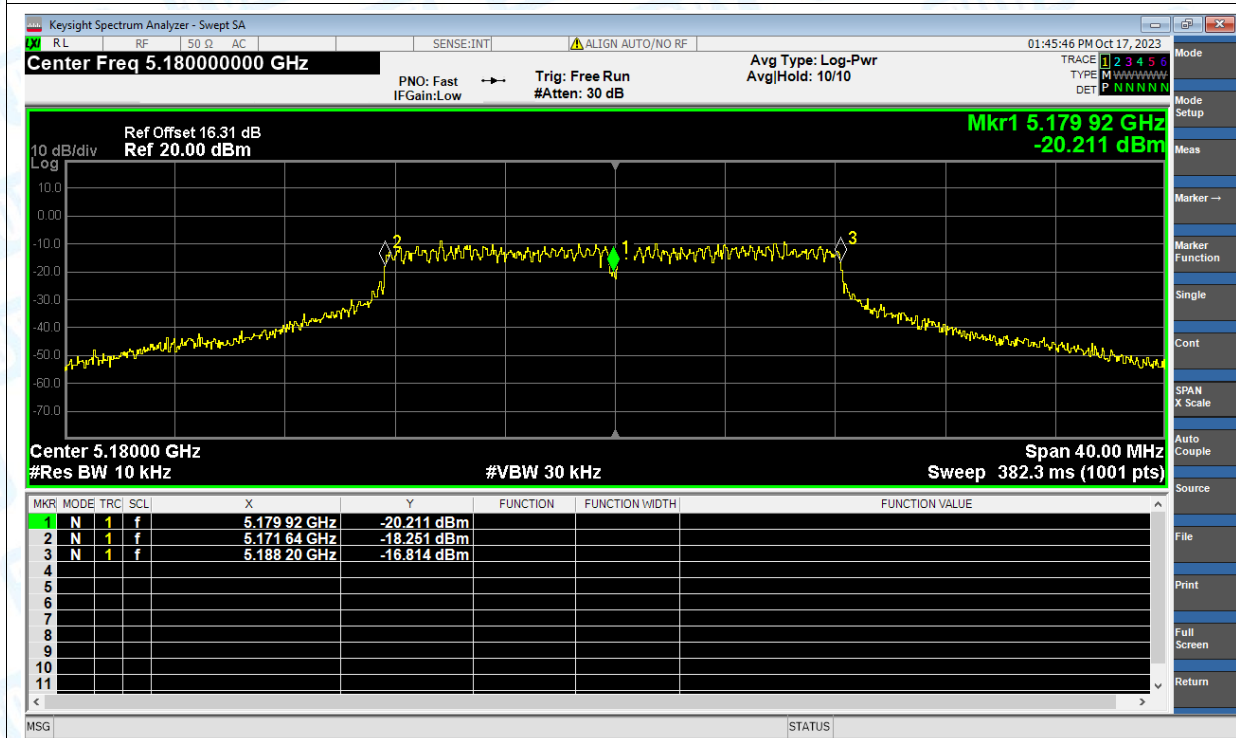


6. Frequency Stability

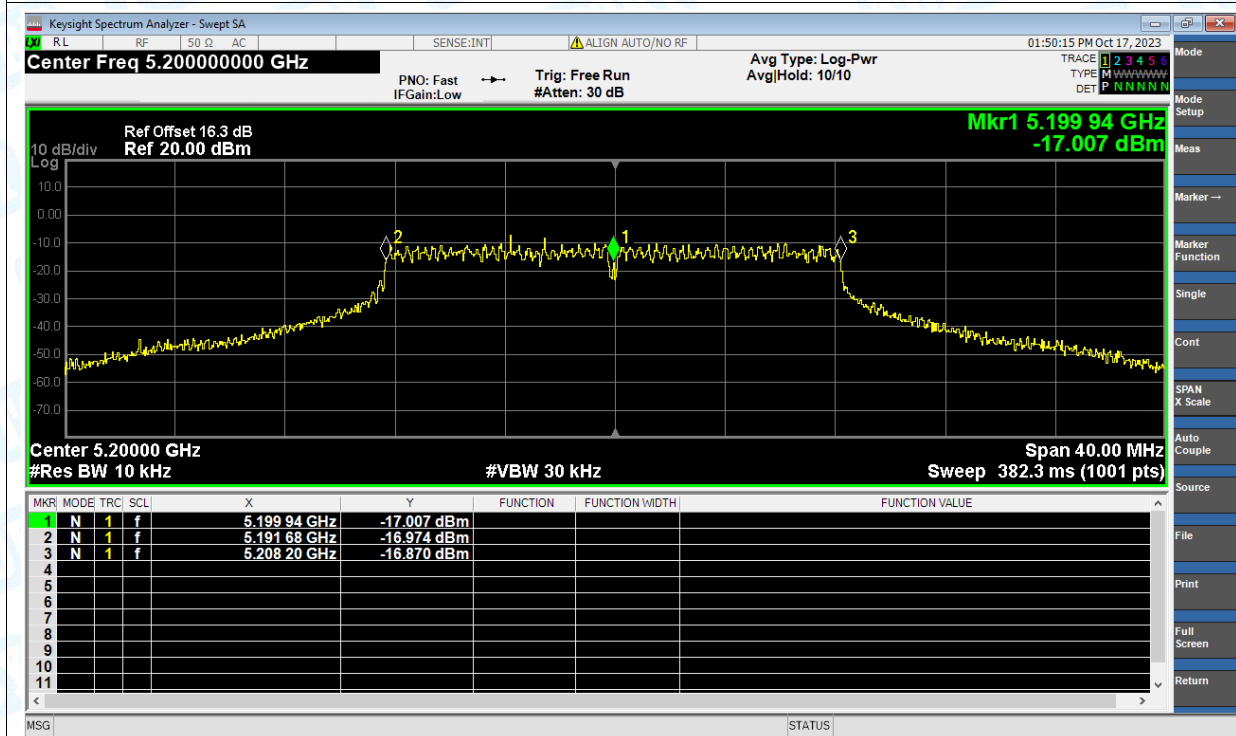
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5180	Ant1	5179.92	-15.44	20	Pass
NVNT	a	5200	Ant1	5199.94	-11.54	20	Pass
NVNT	a	5240	Ant1	5239.94	-11.45	20	Pass
NVNT	ac(VHT20)	5180	Ant1	5179.94	-11.58	20	Pass
NVNT	ac(VHT20)	5200	Ant1	5199.96	-7.69	20	Pass
NVNT	ac(VHT20)	5240	Ant1	5239.94	-11.45	20	Pass
NVNT	ac(VHT40)	5190	Ant1	5189.92	-15.41	20	Pass
NVNT	ac(VHT40)	5230	Ant1	5229.96	-7.65	20	Pass
NVNT	ax(VHT20)	5180	Ant1	5179.94	-11.58	20	Pass
NVNT	ax(VHT20)	5200	Ant1	5199.94	-11.54	20	Pass
NVNT	ax(VHT20)	5240	Ant1	5239.98	-3.82	20	Pass
NVNT	ax(VHT40)	5190	Ant1	5189.96	-7.71	20	Pass
NVNT	ax(VHT40)	5230	Ant1	5229.96	-7.65	20	Pass
NVNT	n(HT20)	5180	Ant1	5179.94	-11.58	20	Pass
NVNT	n(HT20)	5200	Ant1	5199.94	-11.54	20	Pass
NVNT	n(HT20)	5240	Ant1	5239.94	-11.45	20	Pass
NVNT	n(HT40)	5190	Ant1	5189.92	-15.41	20	Pass
NVNT	n(HT40)	5230	Ant1	5229.96	-7.65	20	Pass

Test Graphs

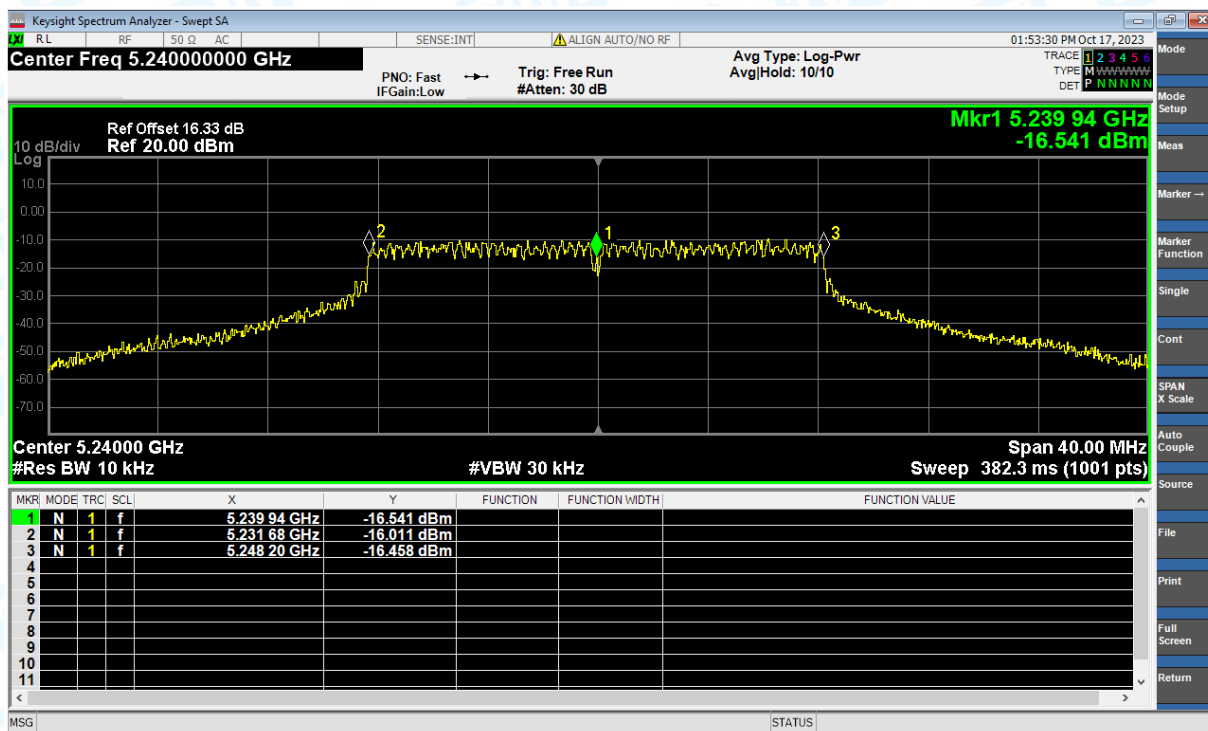
Freq. Stability NVNT a 5180MHz Ant1



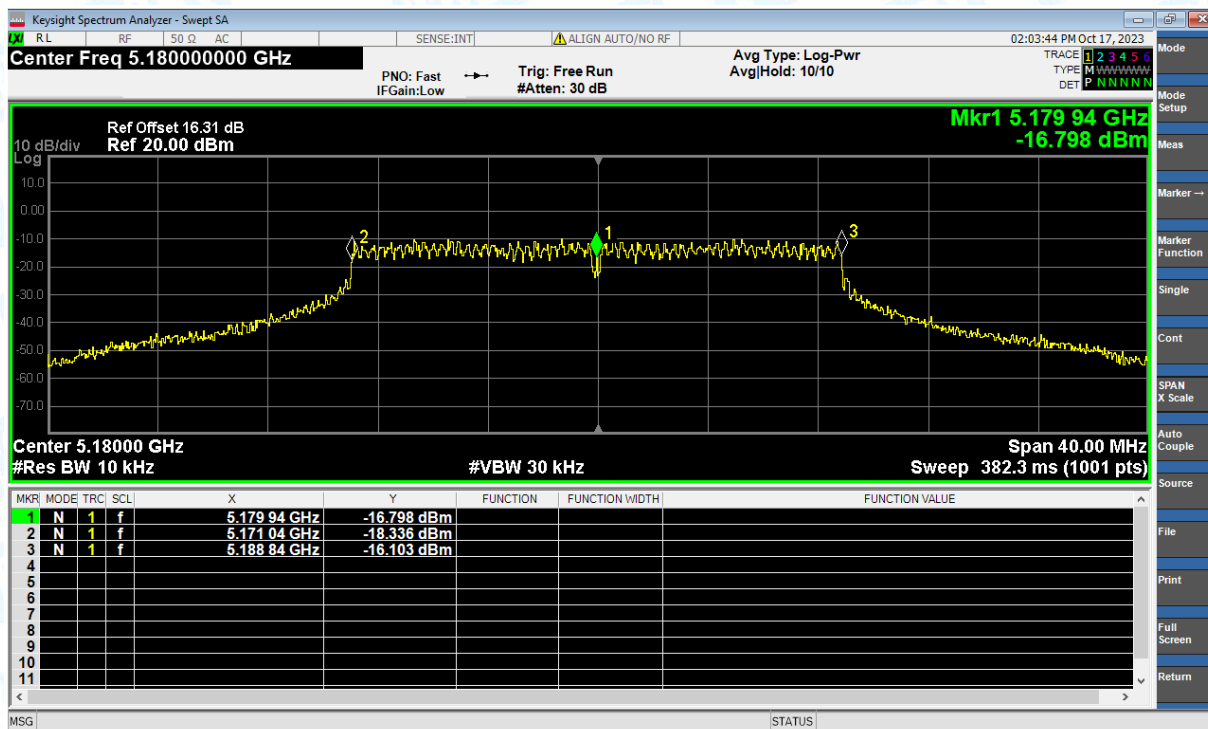
Freq. Stability NVNT a 5200MHz Ant1



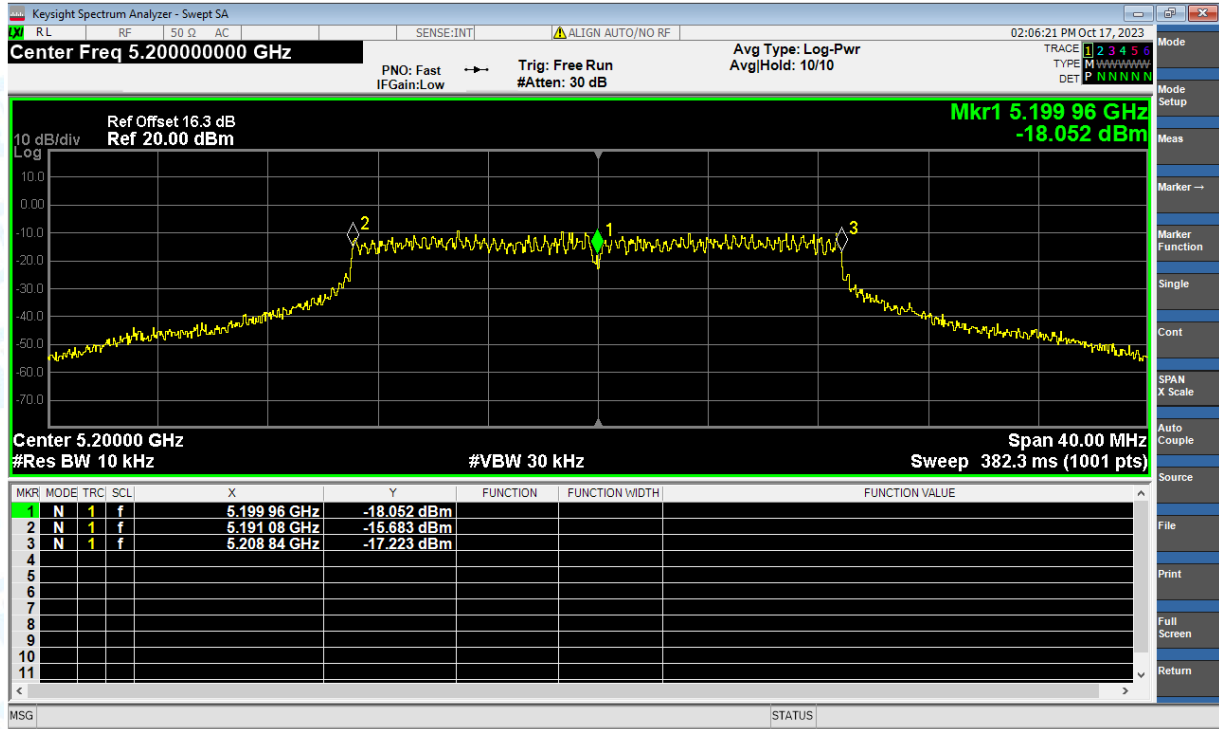
Freq. Stability NVNT a 5240MHz Ant1



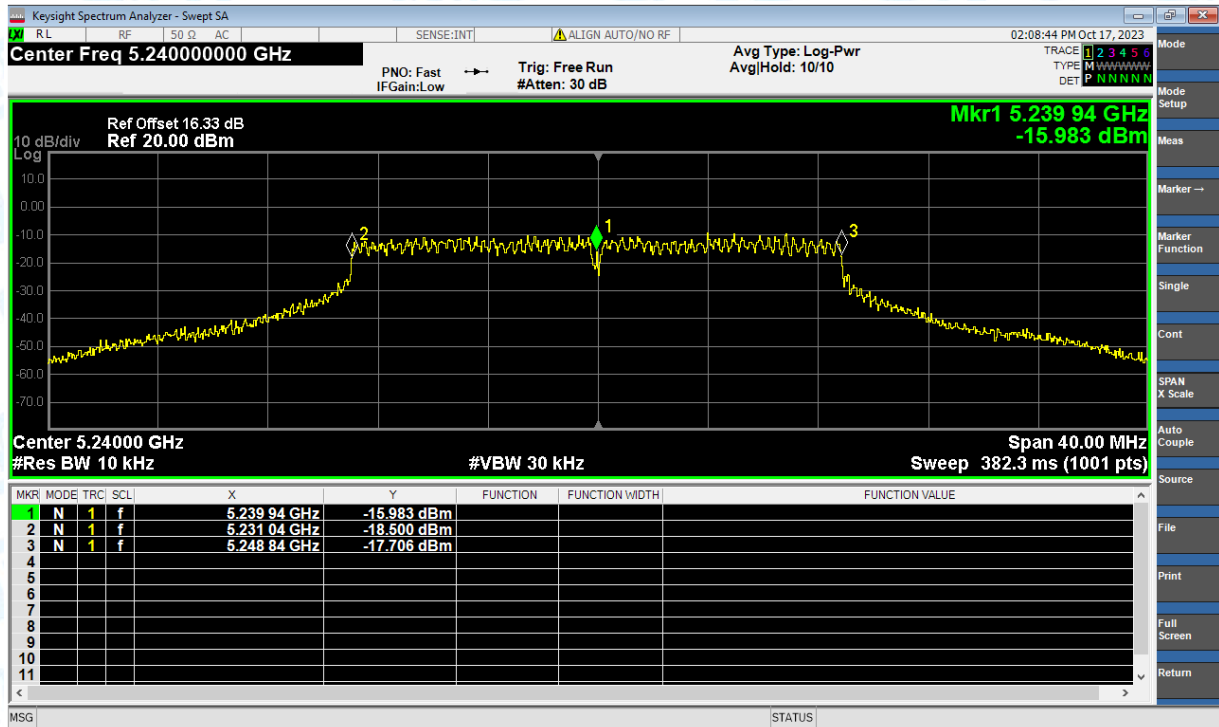
Freq. Stability NVNT ac(VHT20) 5180MHz Ant1



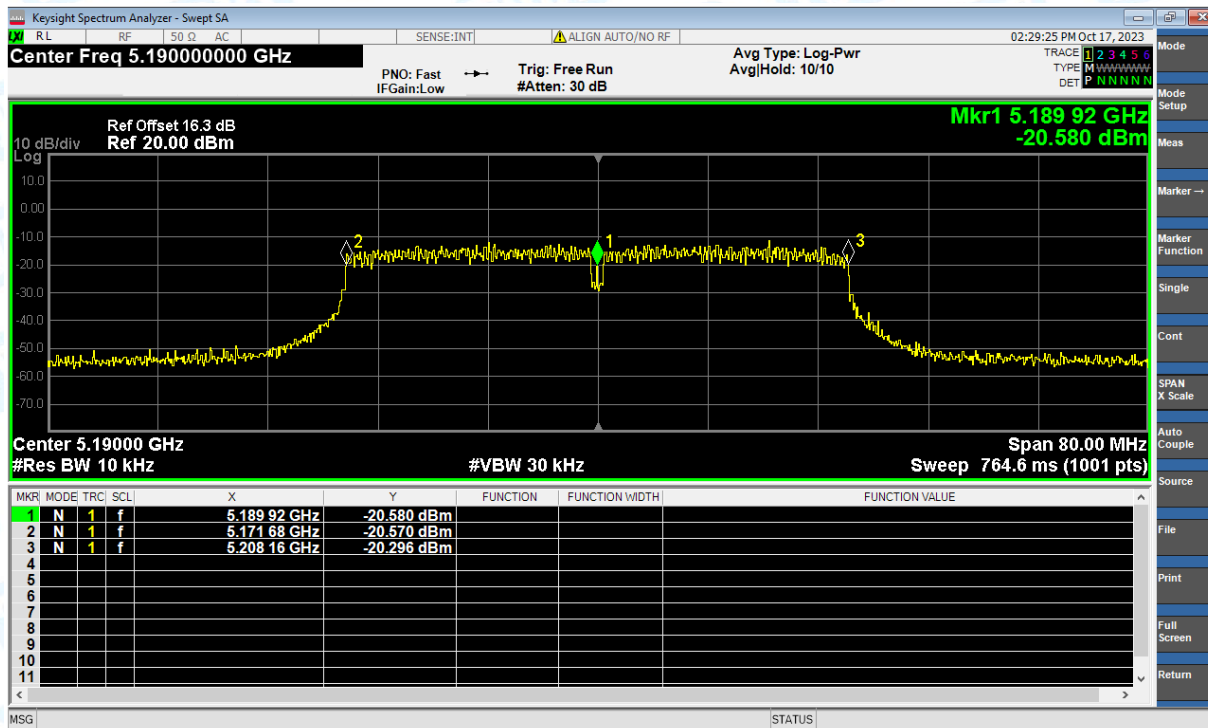
Freq. Stability NVNT ac(VHT20) 5200MHz Ant1



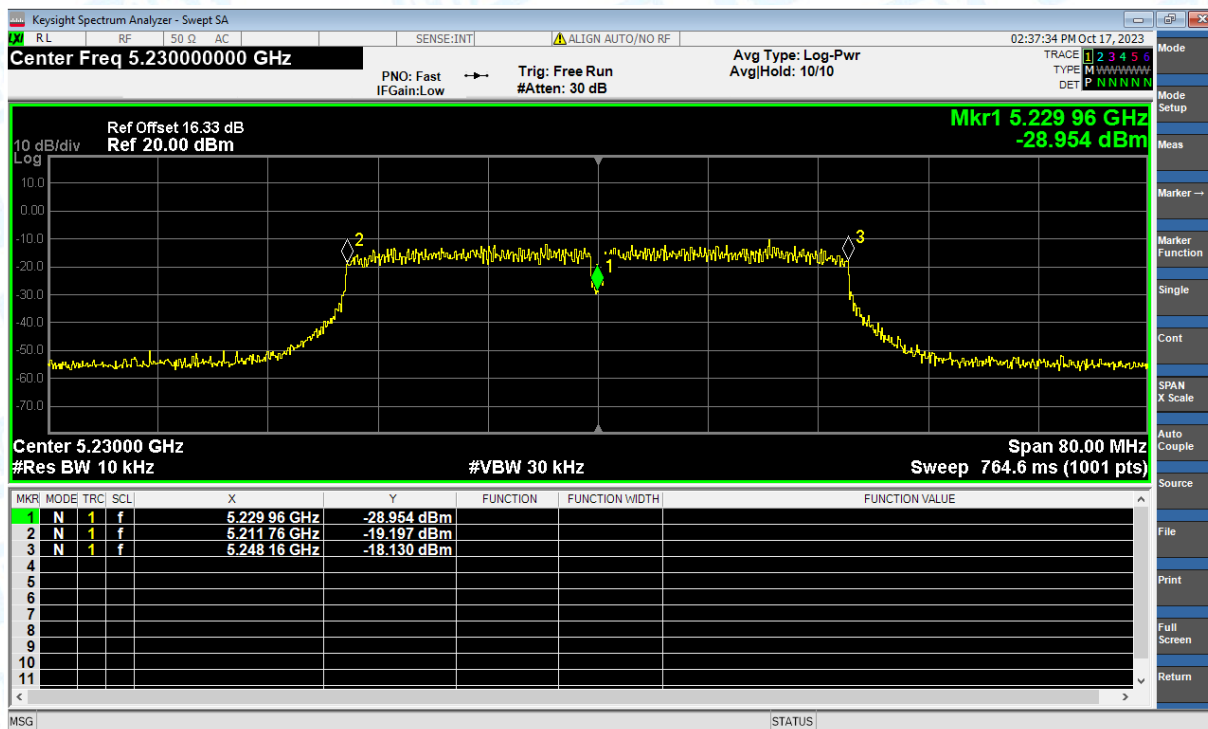
Freq. Stability NVNT ac(VHT20) 5240MHz Ant1



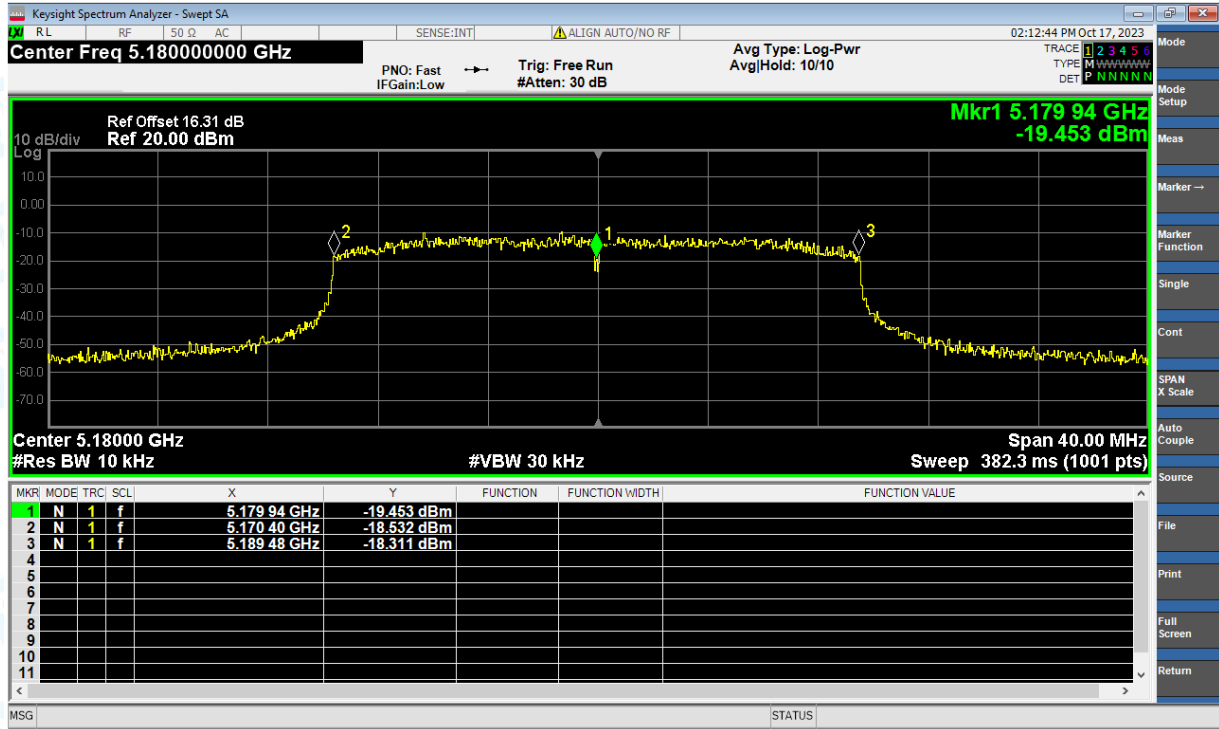
Freq. Stability NVNT ac(VHT40) 5190MHz Ant1



Freq. Stability NVNT ac(VHT40) 5230MHz Ant1



Freq. Stability NVNT ax(VHT20) 5180MHz Ant1



Freq. Stability NVNT ax(VHT20) 5200MHz Ant1

