



Appendix D

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: GNSS RECEIVER

Test Model: G7Q

Environmental Conditions

Temperature:	24.5° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Jerry Chu
Supervised by:	Can Kun





D.1 -26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)
NVNT	a	5180	Ant1	28.56
NVNT	a	5200	Ant1	28.53
NVNT	a	5240	Ant1	29.53
NVNT	n20	5180	Ant1	29.79
NVNT	n20	5200	Ant1	28.74
NVNT	n20	5240	Ant1	29.65
NVNT	n40	5190	Ant1	44.35
NVNT	n40	5230	Ant1	46.74

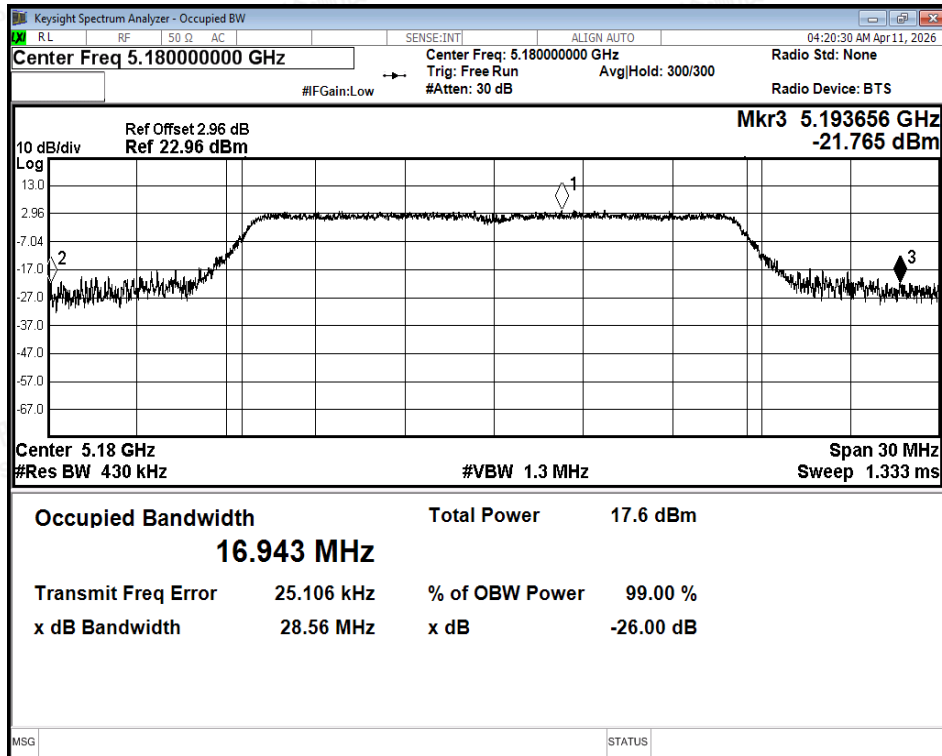


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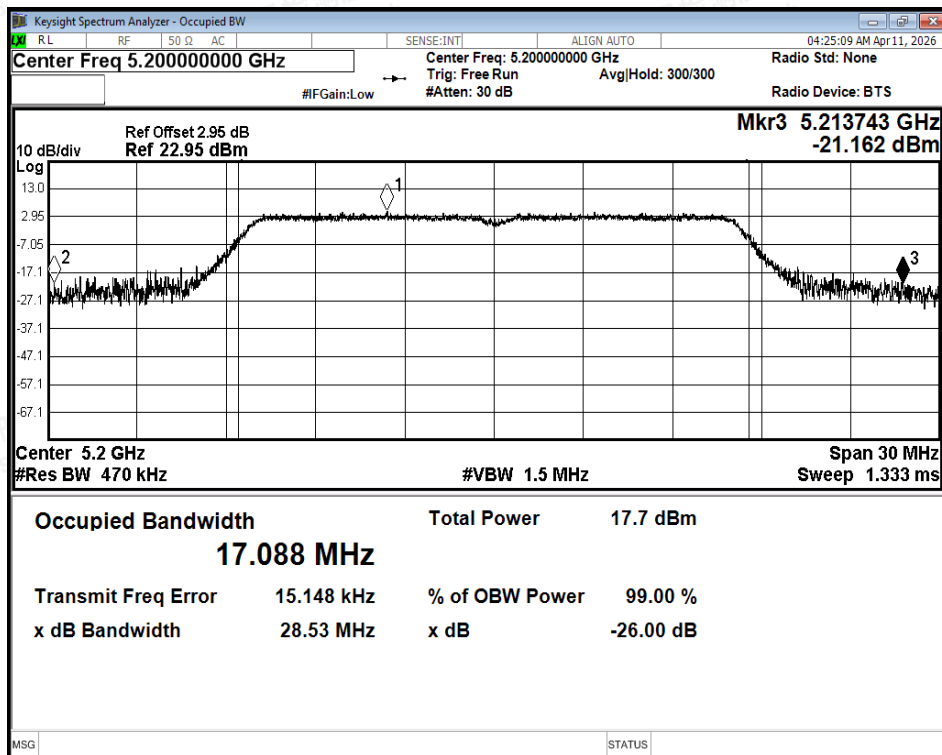
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-26dB Bandwidth NVNT a 5180MHz Ant1



-26dB Bandwidth NVNT a 5200MHz Ant1

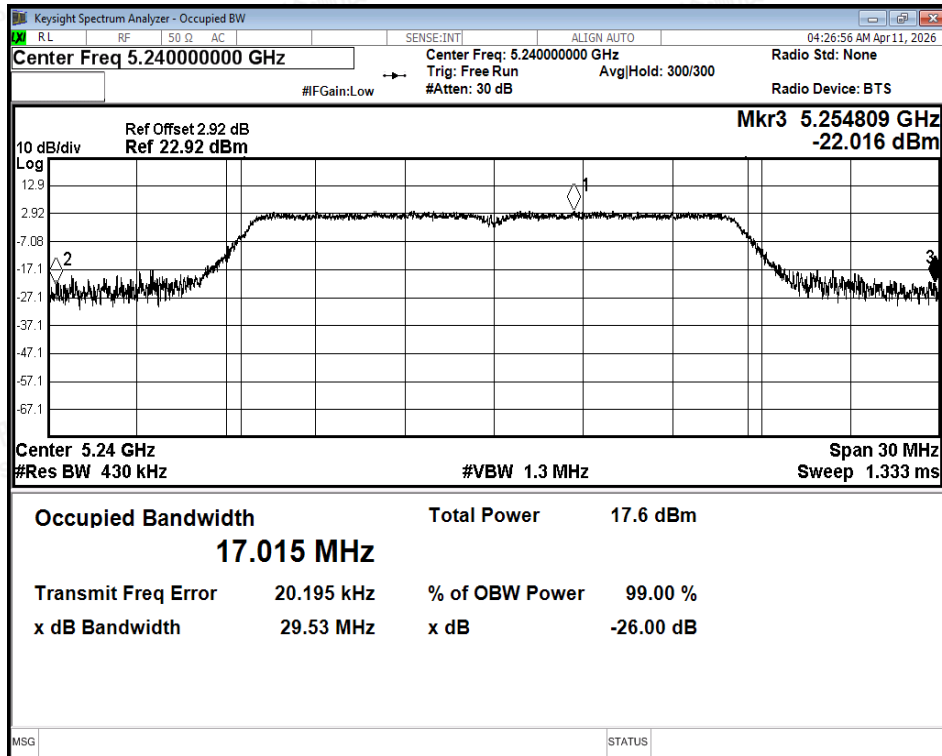


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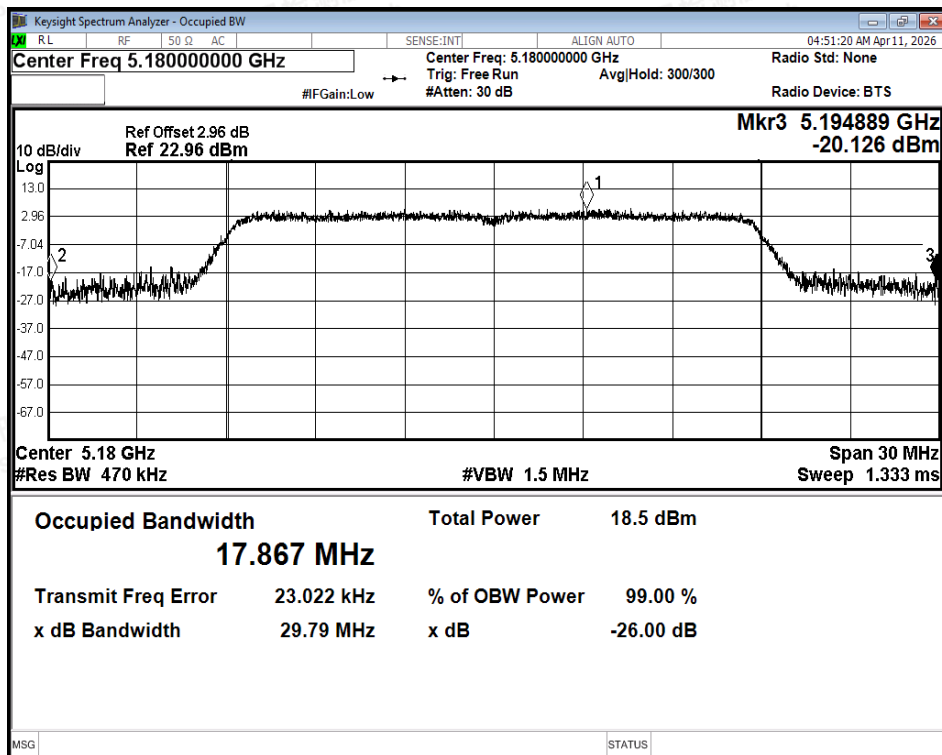
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-26dB Bandwidth NVNT a 5240MHz Ant1



-26dB Bandwidth NVNT n20 5180MHz Ant1

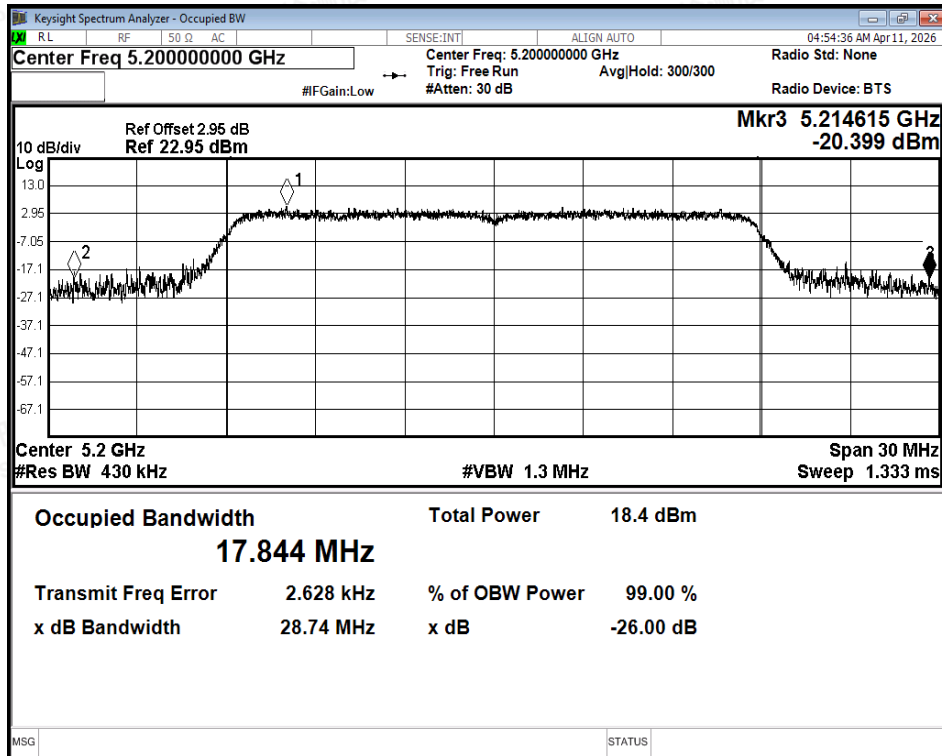


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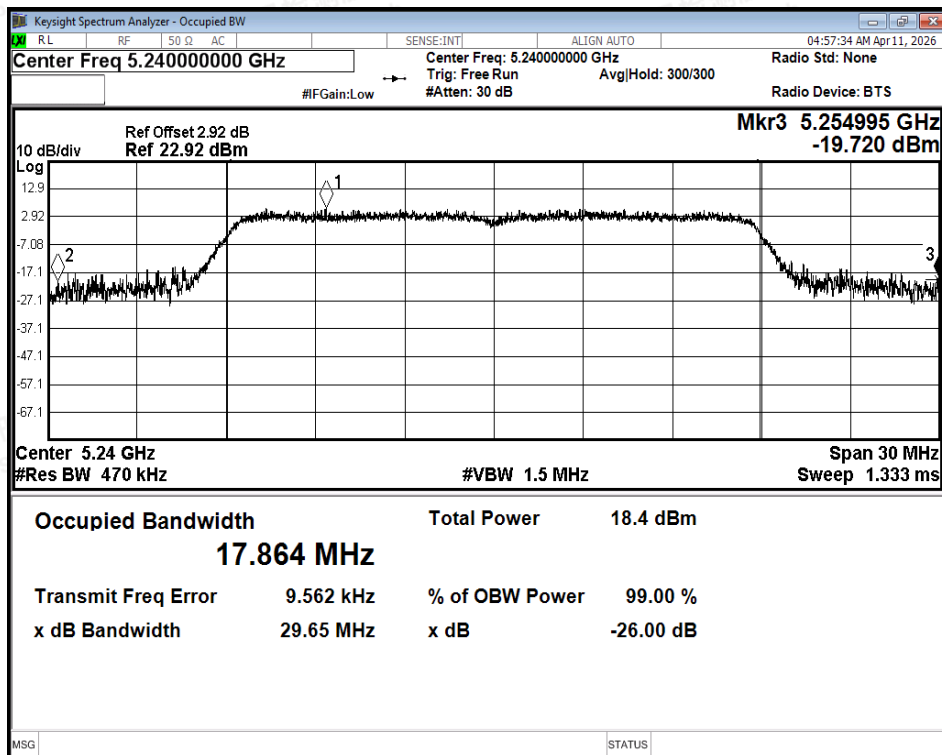
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-26dB Bandwidth NVNT n20 5200MHz Ant1



-26dB Bandwidth NVNT n20 5240MHz Ant1

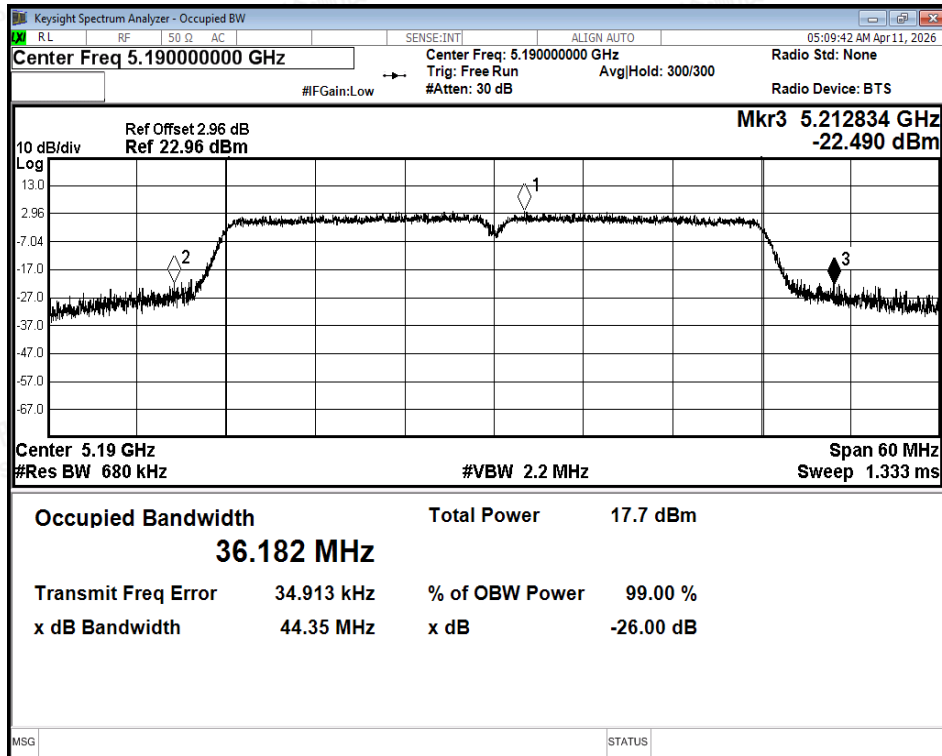


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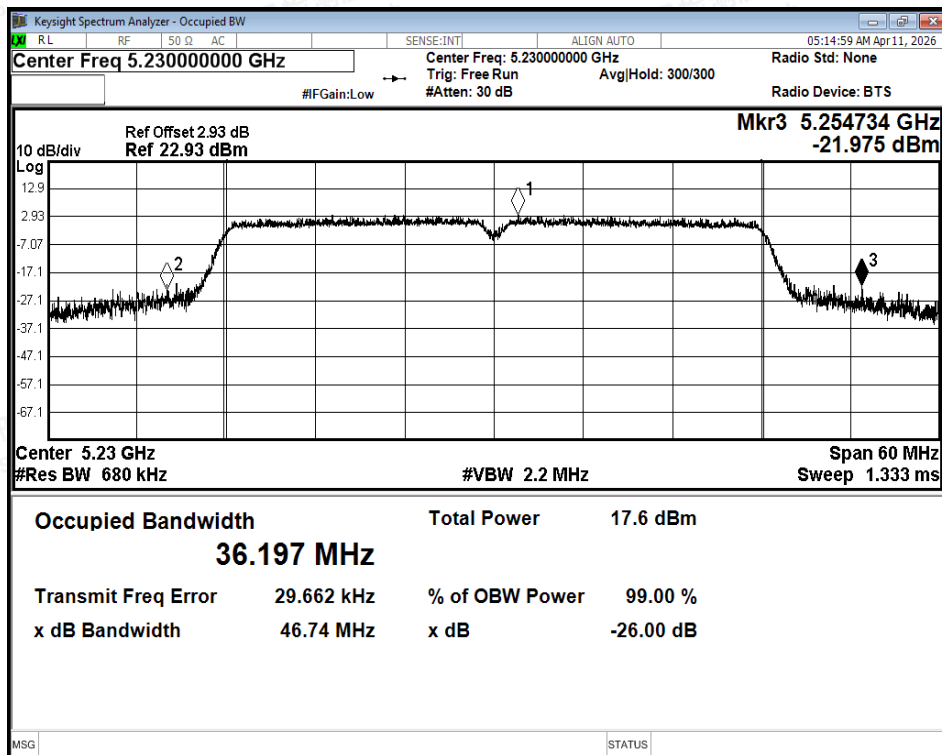
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-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz Ant1



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D.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Conducted Power (dBm)	Limit Conducted(dBm)	Verdict
NVNT	a	5180	Ant1	11.37	0.11	11.48	24	Pass
NVNT	a	5200	Ant1	11.44	0.1	11.54	24	Pass
NVNT	a	5240	Ant1	11.42	0.11	11.53	24	Pass
NVNT	n20	5180	Ant1	11.82	0.11	11.93	24	Pass
NVNT	n20	5200	Ant1	11.77	0.11	11.88	24	Pass
NVNT	n20	5240	Ant1	11.61	0.13	11.74	24	Pass
NVNT	n40	5190	Ant1	10.78	0.23	11.01	24	Pass
NVNT	n40	5230	Ant1	10.66	0.23	10.89	24	Pass



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D.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	0.06	0.11	0.17	11	Pass
NVNT	a	5200	Ant1	0.15	0.1	0.25	11	Pass
NVNT	a	5240	Ant1	0.28	0.11	0.39	11	Pass
NVNT	n20	5180	Ant1	0.36	0.11	0.47	11	Pass
NVNT	n20	5200	Ant1	0.22	0.11	0.33	11	Pass
NVNT	n20	5240	Ant1	0.28	0.13	0.41	11	Pass
NVNT	n40	5190	Ant1	-3.75	0.23	-3.52	11	Pass
NVNT	n40	5230	Ant1	-3.83	0.23	-3.6	11	Pass

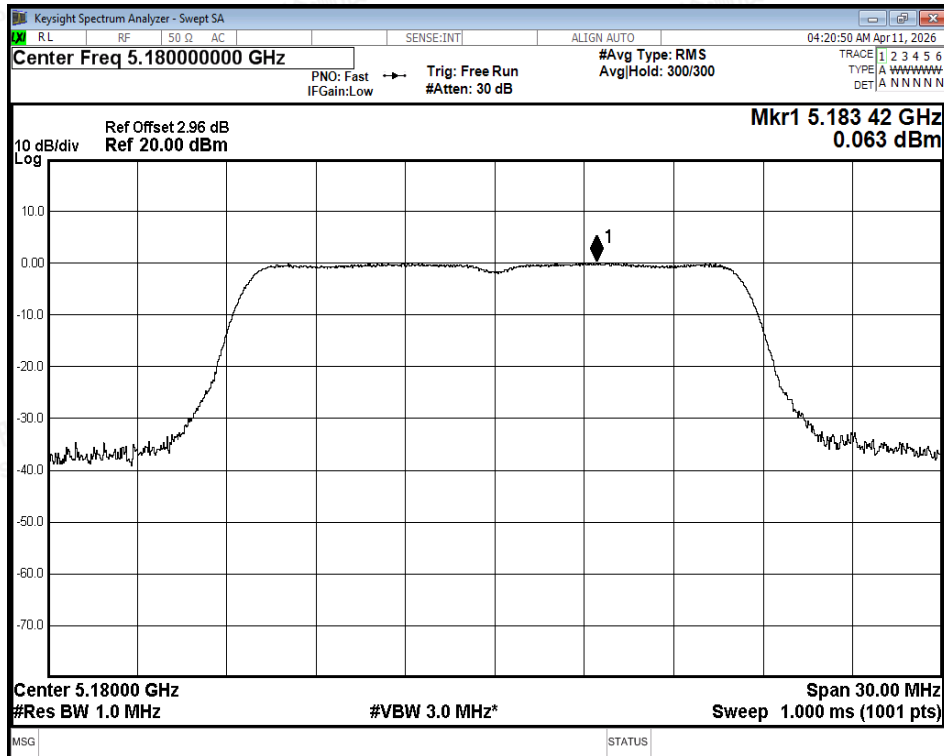


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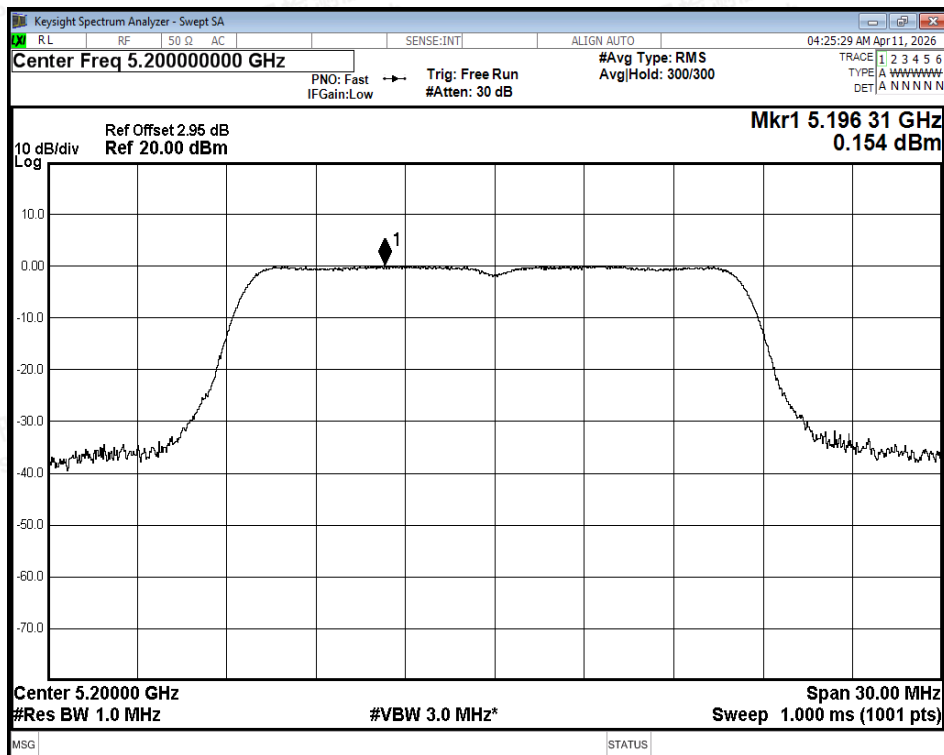
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PSD NVNT a 5180MHz Ant1



PSD NVNT a 5200MHz Ant1

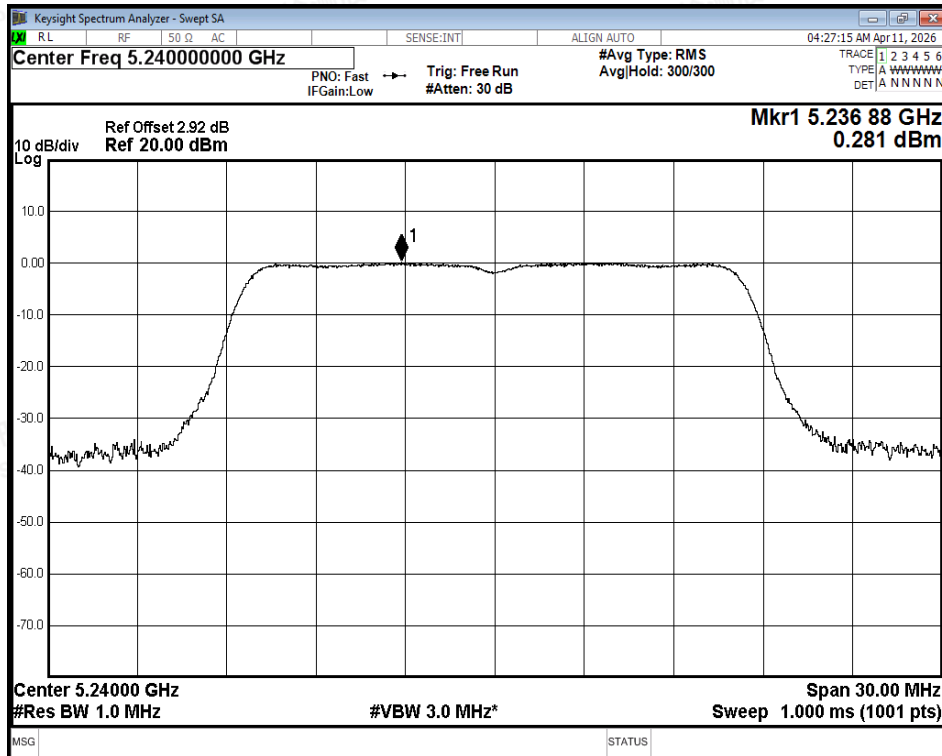


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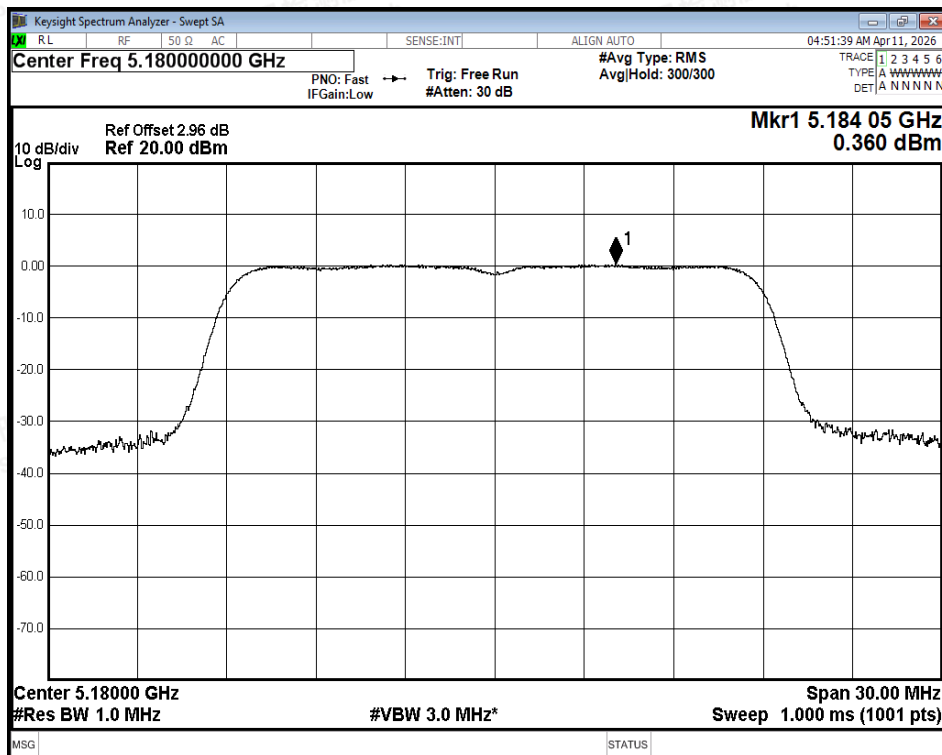
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PSD NVNT a 5240MHz Ant1



PSD NVNT n20 5180MHz Ant1

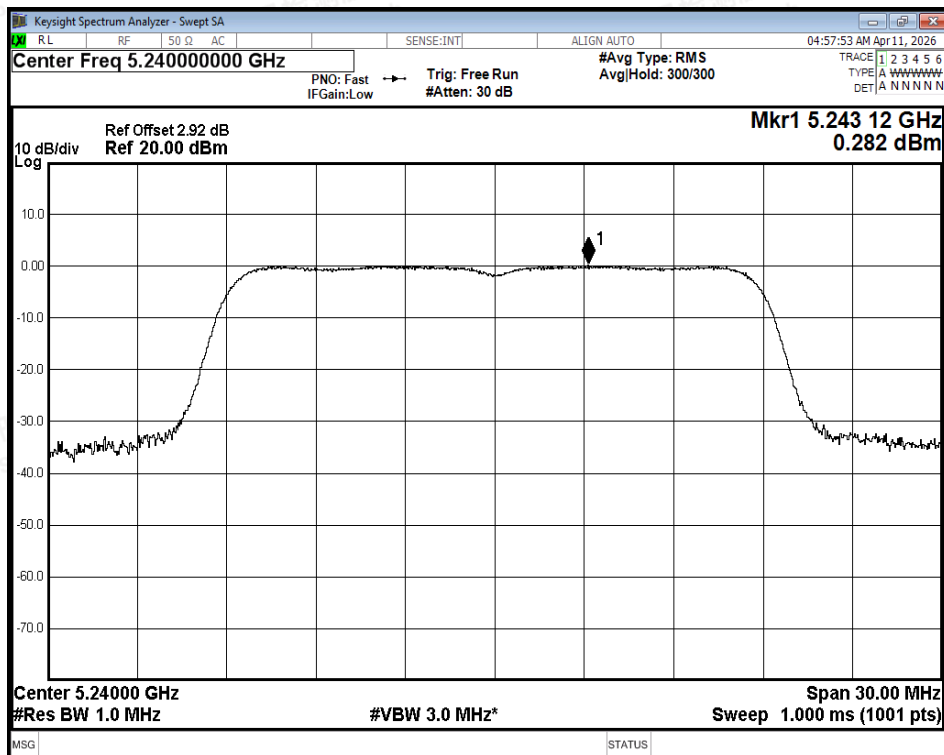
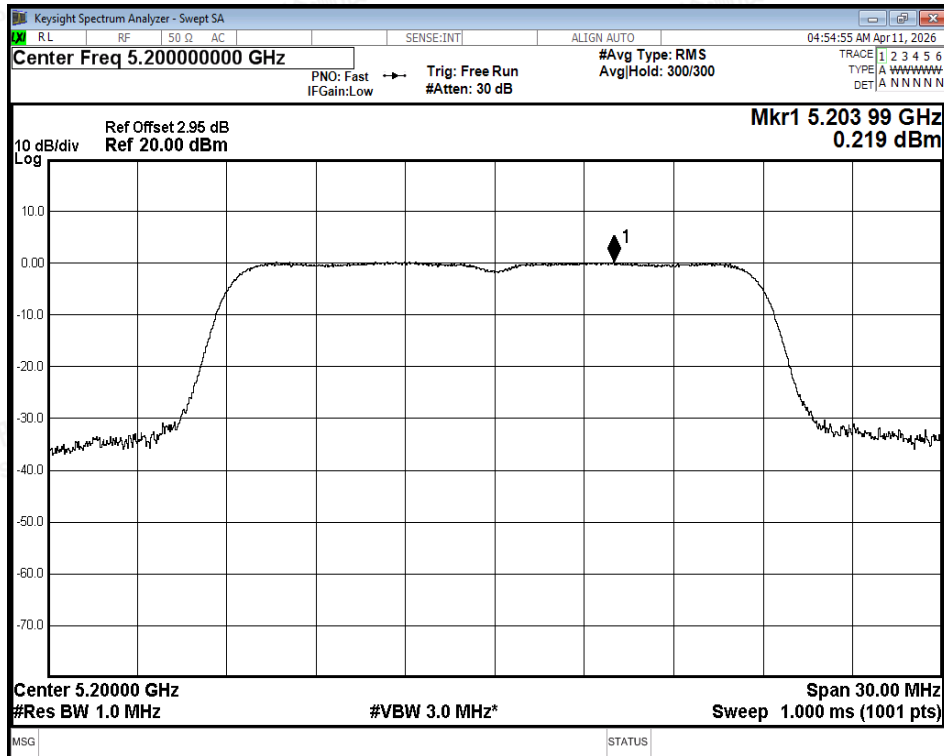


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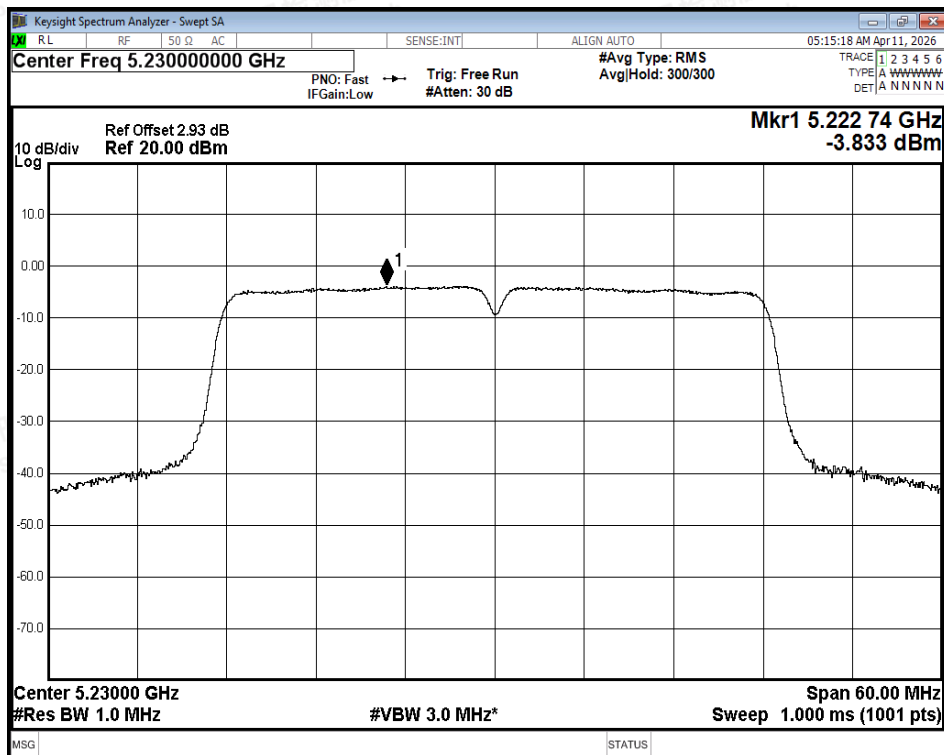
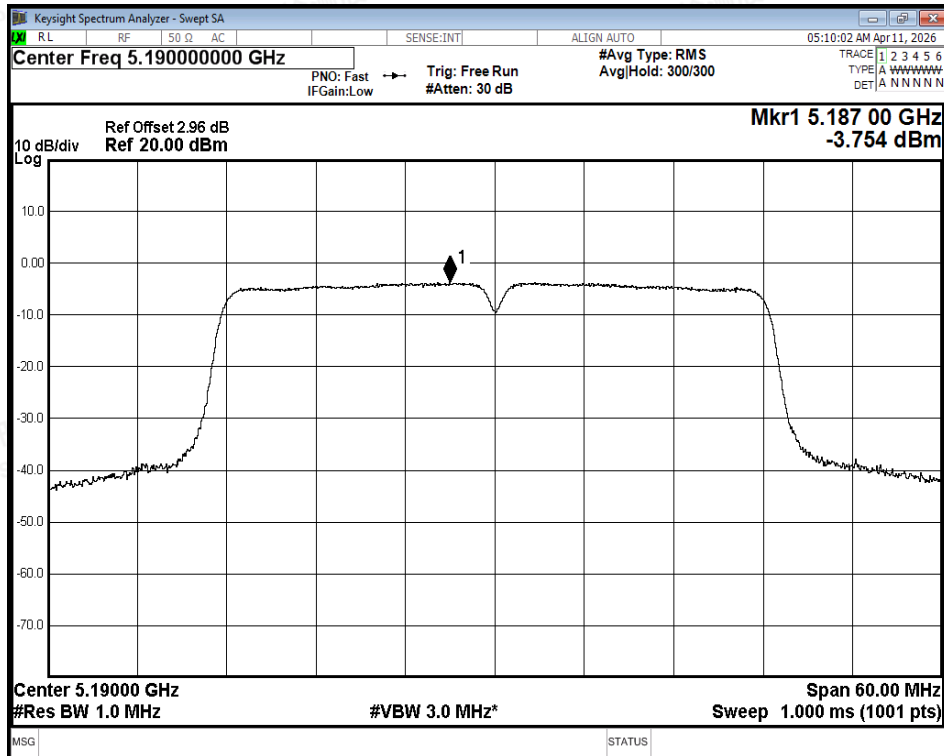


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D.4 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5180	Ant1	4500	-61.1	2	36.13	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-68.93	2	28.3	Average	54	Pass
NVNT	a	5180	Ant1	5148.9	-42.9	2	54.33	Peak	68.2	Pass
NVNT	a	5180	Ant1	5149.6	-49.03	2	48.2	Average	54	Pass
NVNT	a	5180	Ant1	5150	-41.54	2	55.69	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-48.57	2	48.66	Average	54	Pass
NVNT	a	5240	Ant1	5350	-48.88	2	48.35	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-56.7	2	40.53	Average	54	Pass
NVNT	a	5240	Ant1	5423.28	-47.37	2	49.86	Peak	68.2	Pass
NVNT	a	5240	Ant1	5351.28	-56.63	2	40.6	Average	54	Pass
NVNT	a	5240	Ant1	5460	-50.05	2	47.18	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-57.36	2	39.87	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-51.06	2	46.17	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-59.09	2	38.14	Average	54	Pass
NVNT	n20	5180	Ant1	5148.9	-40.08	2	57.15	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5149.6	-46.53	2	50.7	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-41.04	2	56.19	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-46.3	2	50.93	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-49.78	2	47.45	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-56.77	2	40.46	Average	54	Pass
NVNT	n20	5240	Ant1	5382.24	-46.25	2	50.98	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5351.52	-56.61	2	40.62	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-48.21	2	49.02	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-57.4	2	39.83	Average	54	Pass
NVNT	n40	5190	Ant1	4500	-60.31	2	36.92	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4500	-68.74	2	28.49	Average	54	Pass
NVNT	n40	5190	Ant1	5147.51	-42.15	2	55.08	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5149.7	-47.51	2	49.72	Average	54	Pass
NVNT	n40	5190	Ant1	5150	-42.26	2	54.97	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5150	-47.2	2	50.03	Average	54	Pass
NVNT	n40	5230	Ant1	5350	-50.8	2	46.43	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5350	-57.08	2	40.15	Average	54	Pass
NVNT	n40	5230	Ant1	5412.75	-47.53	2	49.7	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5427.33	-56.96	2	40.27	Average	54	Pass
NVNT	n40	5230	Ant1	5460	-49.94	2	47.29	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5460	-57.21	2	40.02	Average	54	Pass

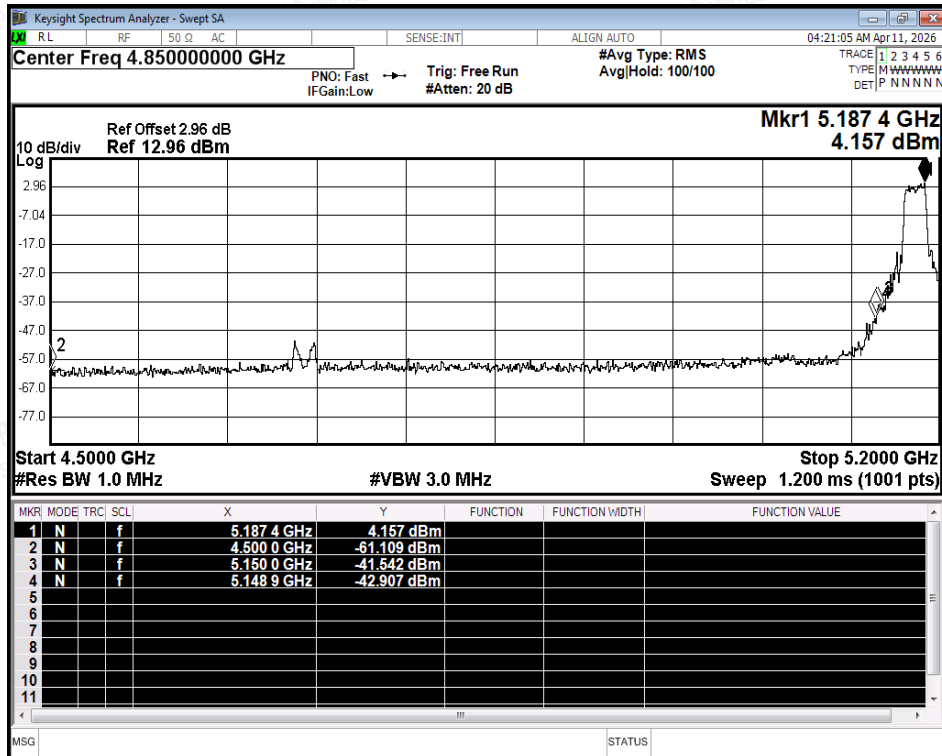


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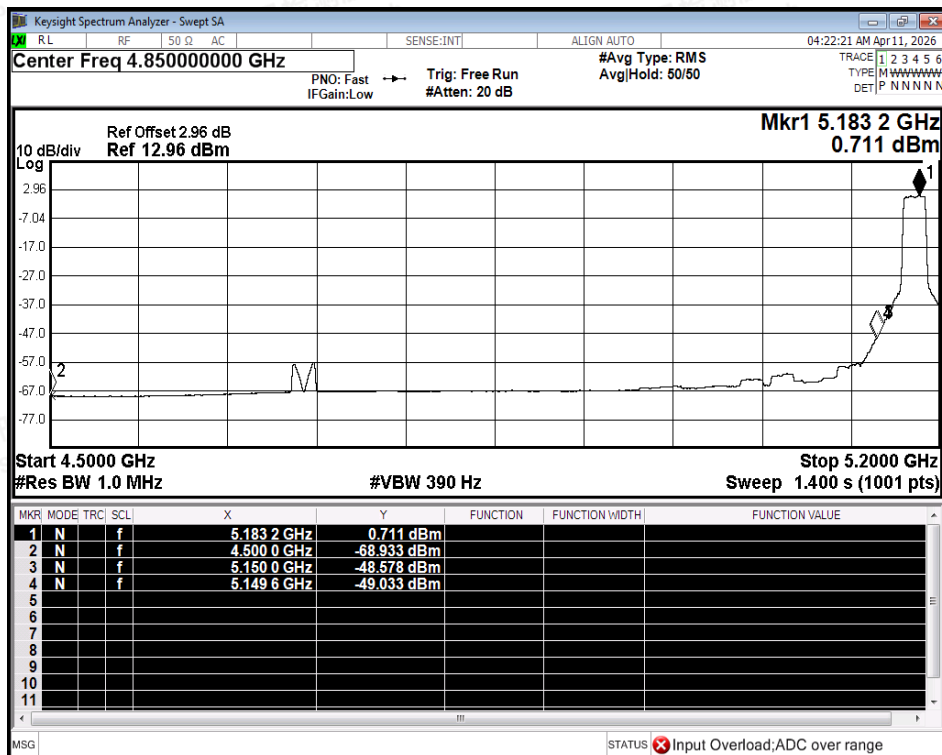
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Restrict Band NVNT a 5180MHz Ant1 Peak



Restrict Band NVNT a 5180MHz Ant1 Average

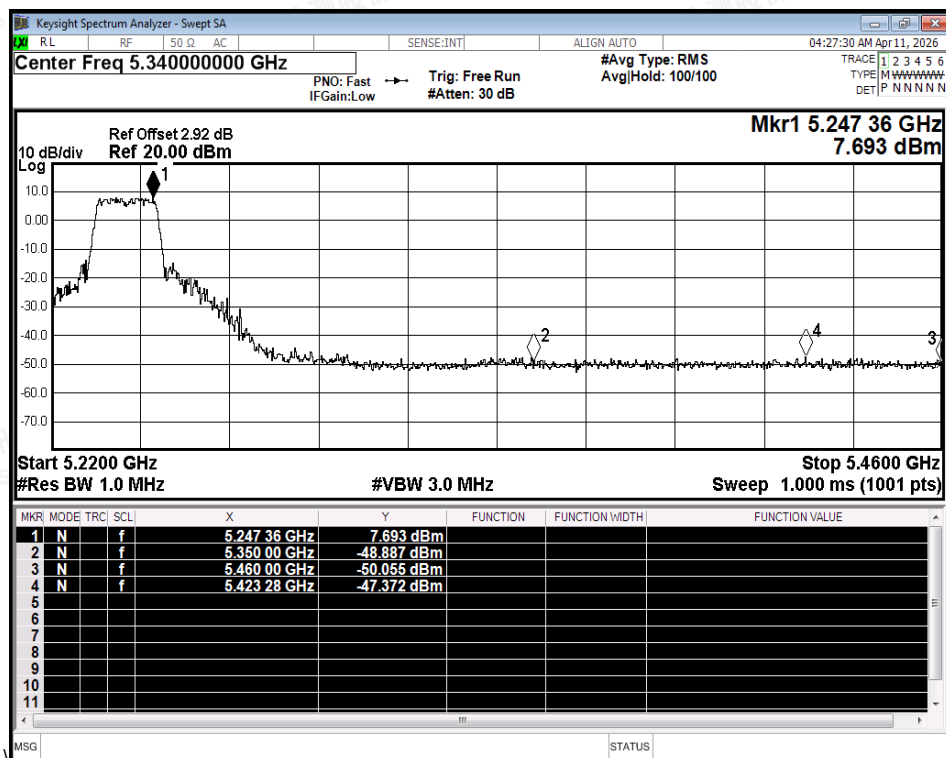


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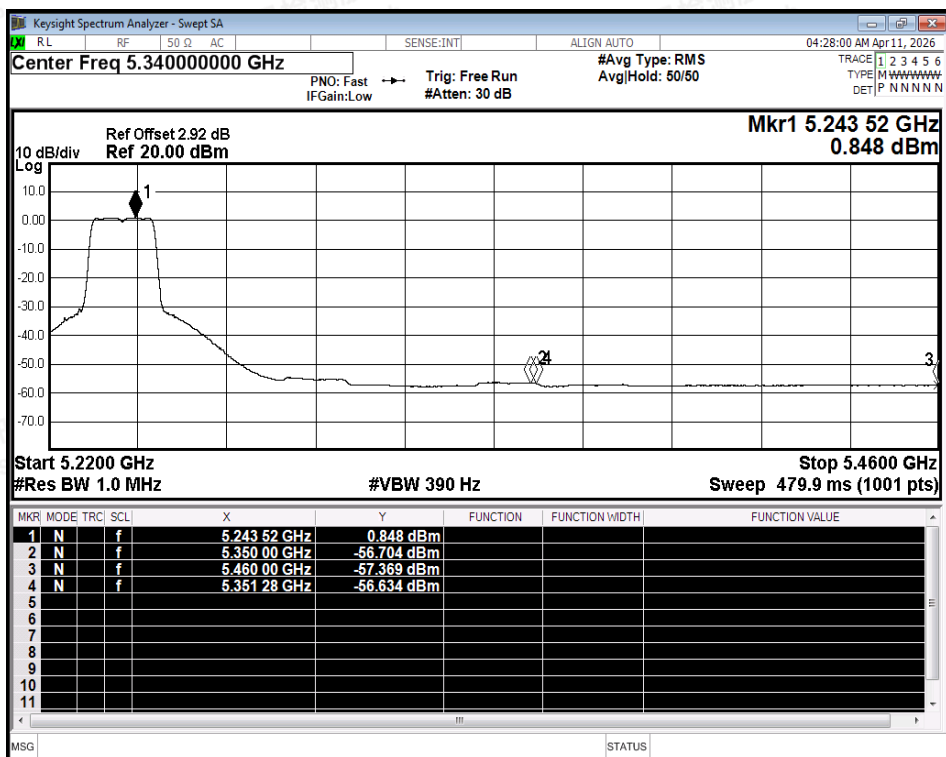
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Restrict Band NVNT a 5240MHz Ant1 Peak



Restrict Band NVNT a 5240MHz Ant1 Average

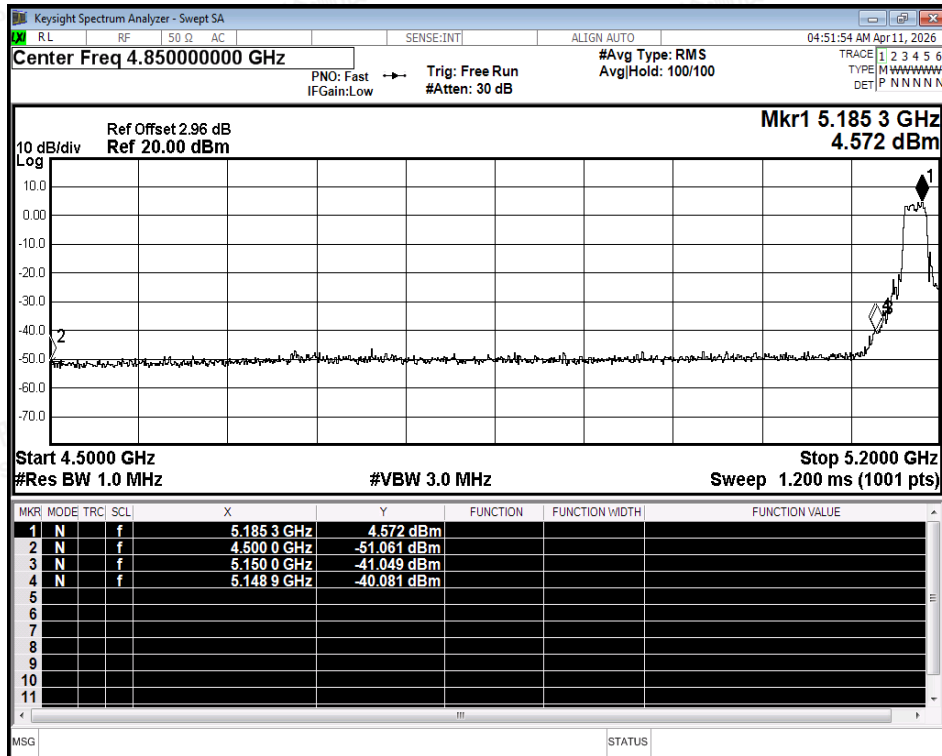


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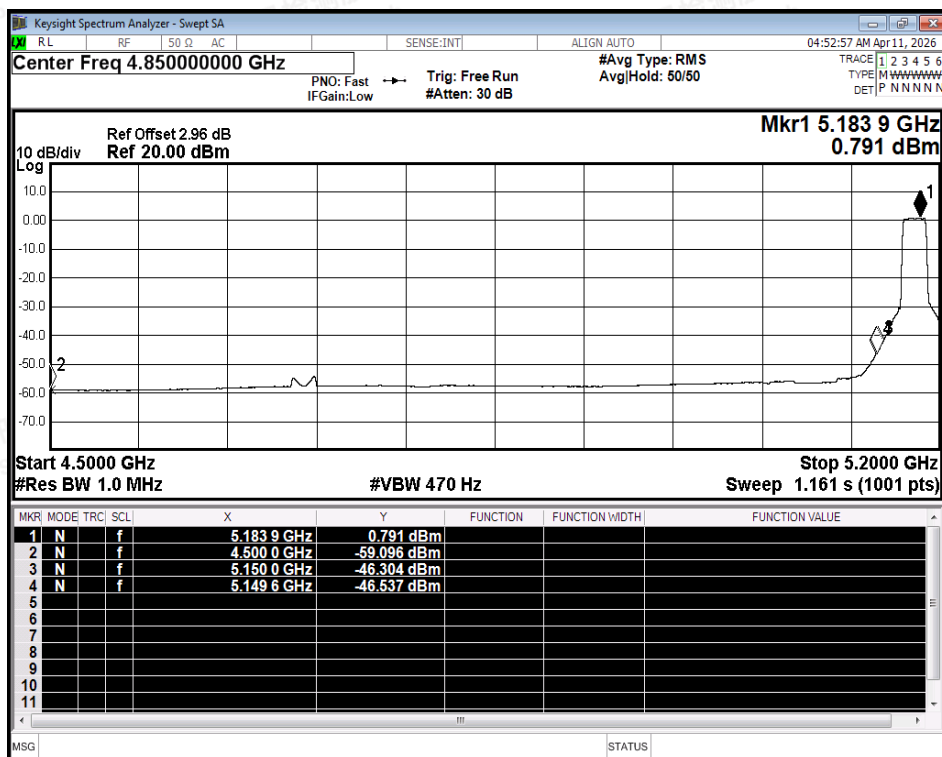
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Restrict Band NVNT n20 5180MHz Ant1 Peak



Restrict Band NVNT n20 5180MHz Ant1 Average

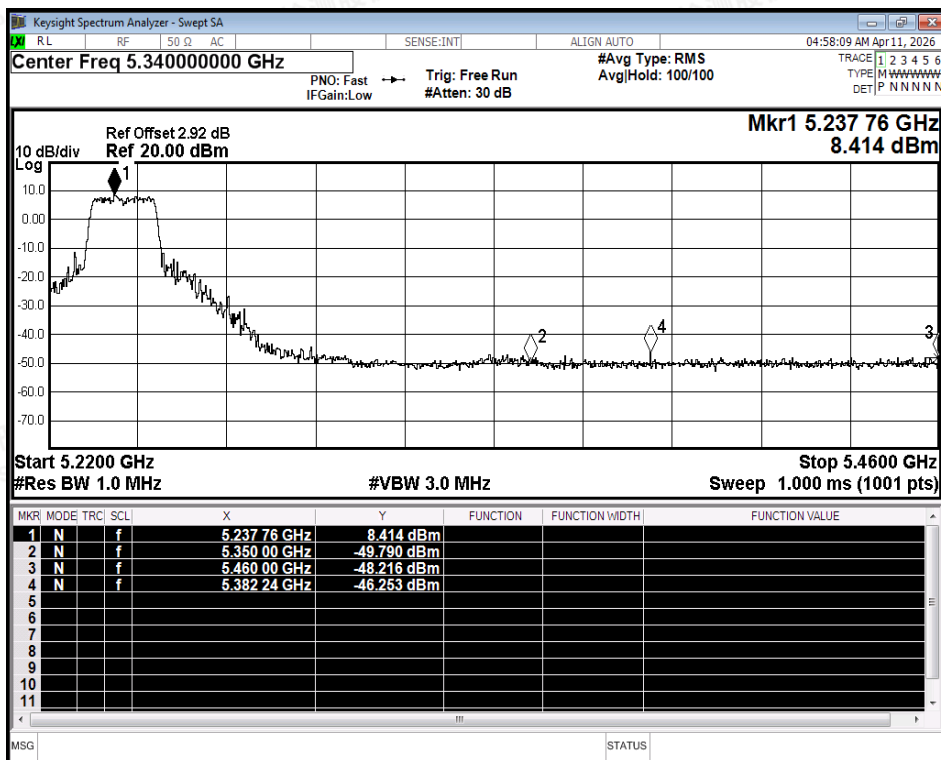


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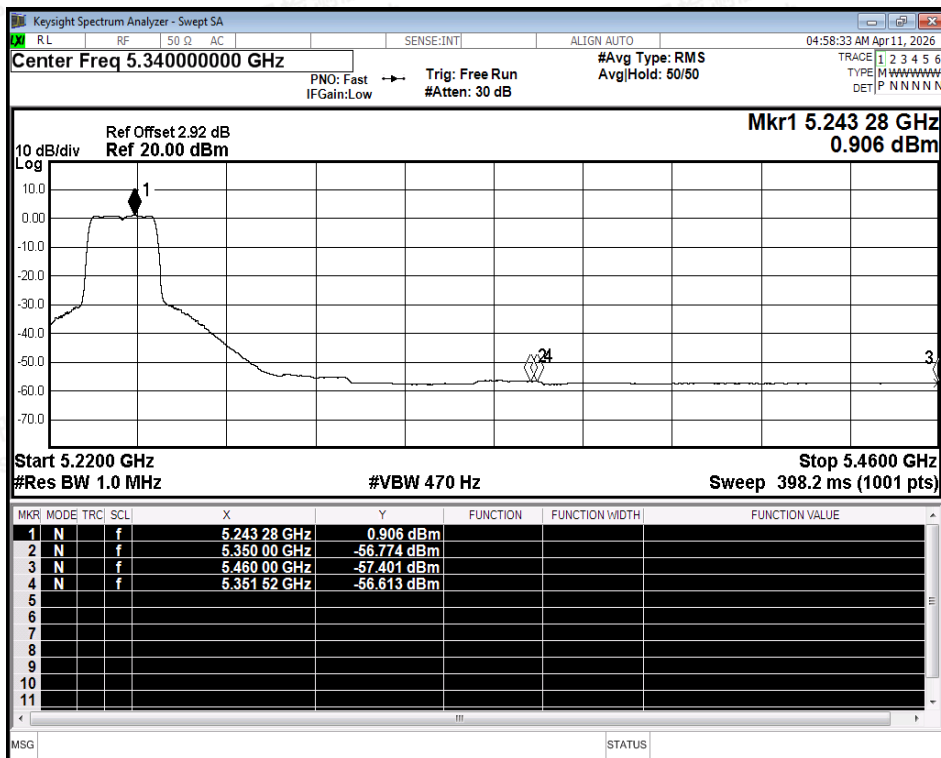
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Restrict Band NVNT n20 5240MHz Ant1 Peak



Restrict Band NVNT n20 5240MHz Ant1 Average

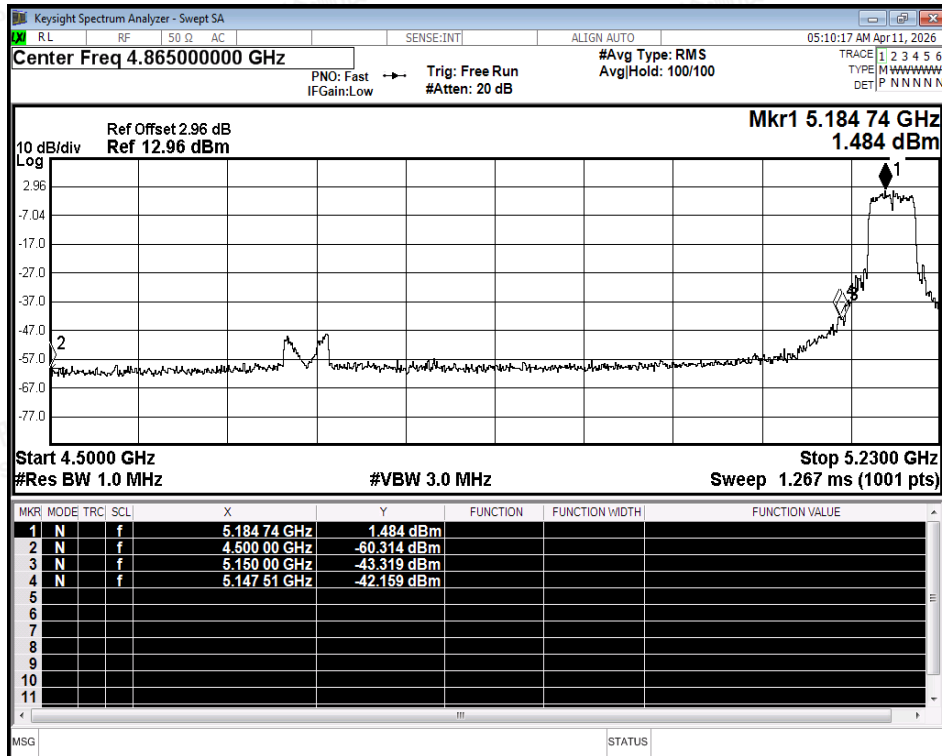


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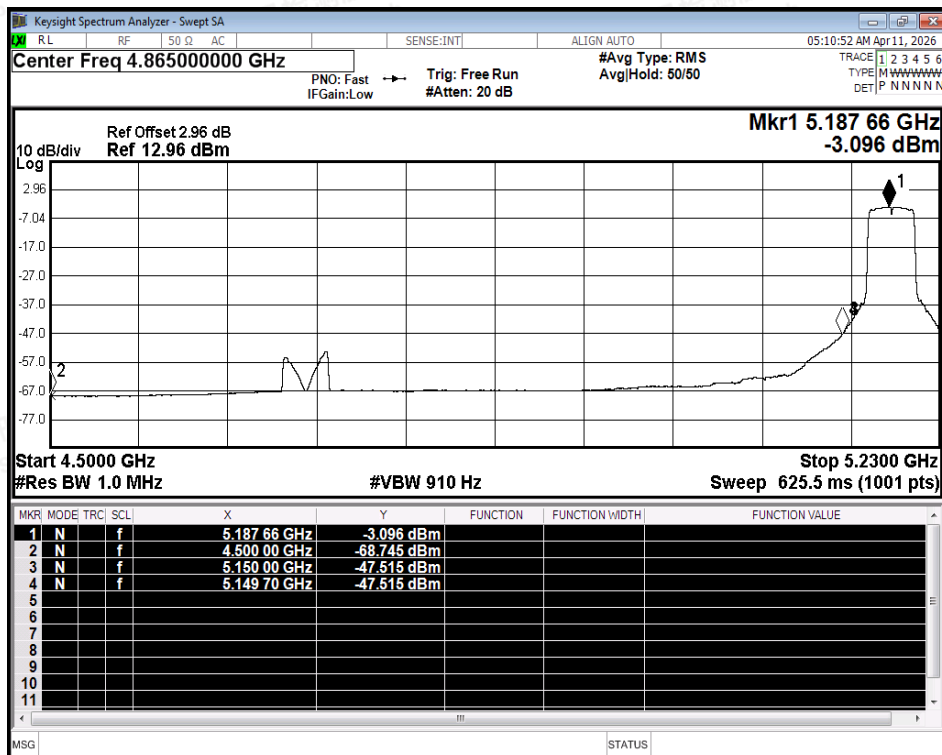
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Restrict Band NVNT n40 5190MHz Ant1 Peak



Restrict Band NVNT n40 5190MHz Ant1 Average

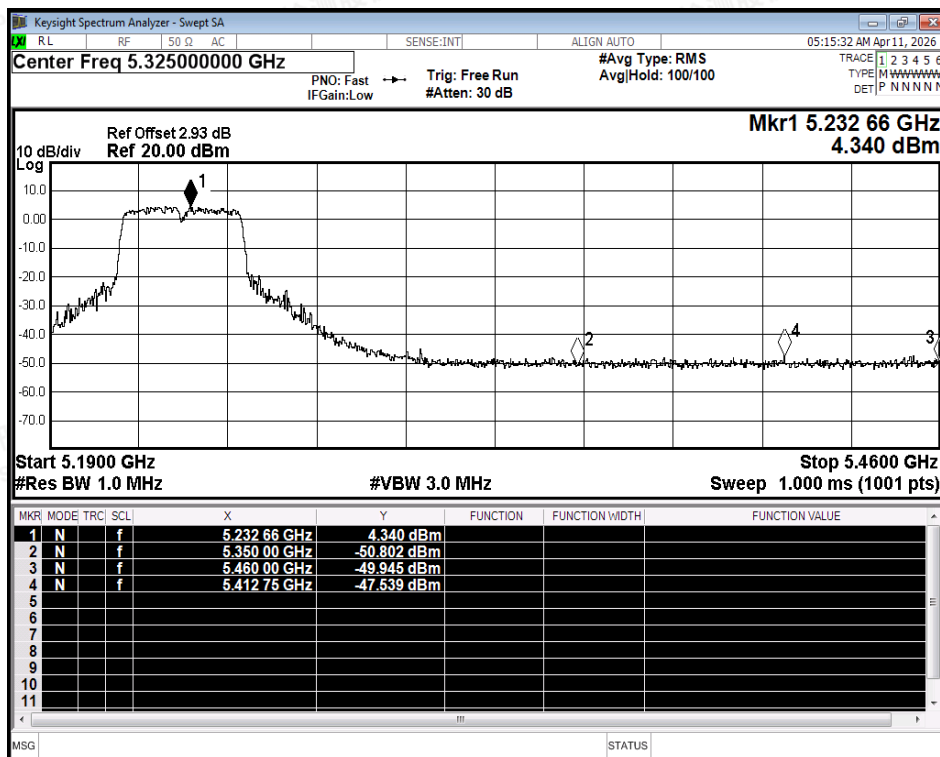


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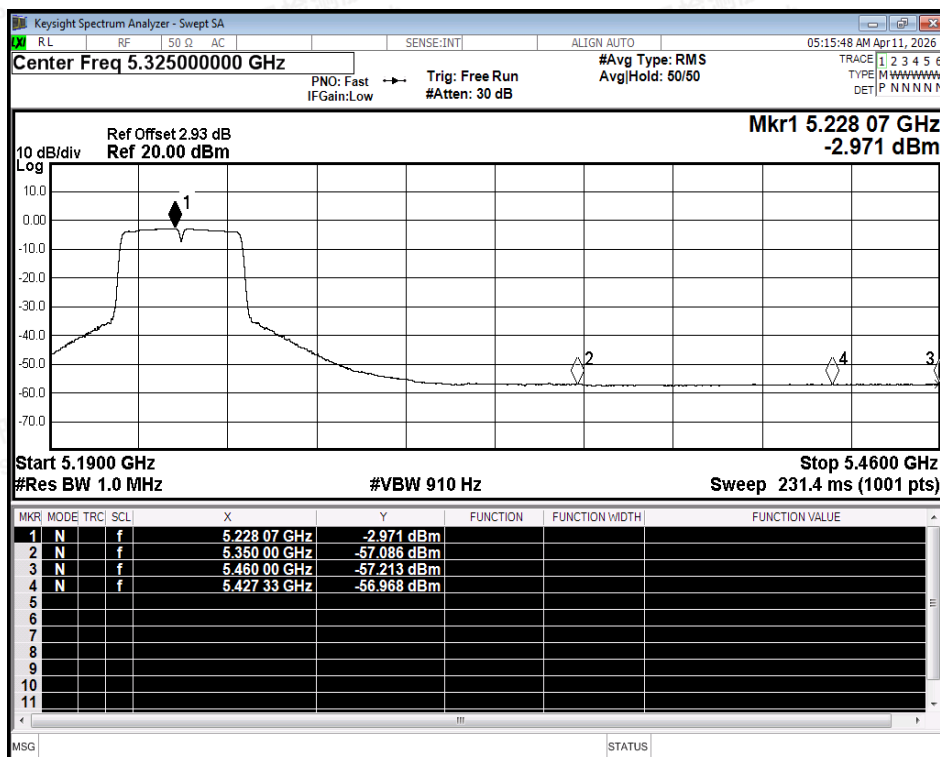
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Restrict Band NVNT n40 5230MHz Ant1 Peak



Restrict Band NVNT n40 5230MHz Ant1 Average



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D.5 Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5180	Ant1	5180	0	0	25	Pass
NVNT	a	5200	Ant1	5199.98	-20000	-3.85	25	Pass
NVNT	a	5240	Ant1	5240	0	0	25	Pass
NVNT	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
NVNT	n20	5200	Ant1	5199.98	-20000	-3.85	25	Pass
NVNT	n20	5240	Ant1	5239.98	-20000	-3.82	25	Pass
NVNT	n40	5190	Ant1	5190	0	0	25	Pass
NVNT	n40	5230	Ant1	5230	0	0	25	Pass

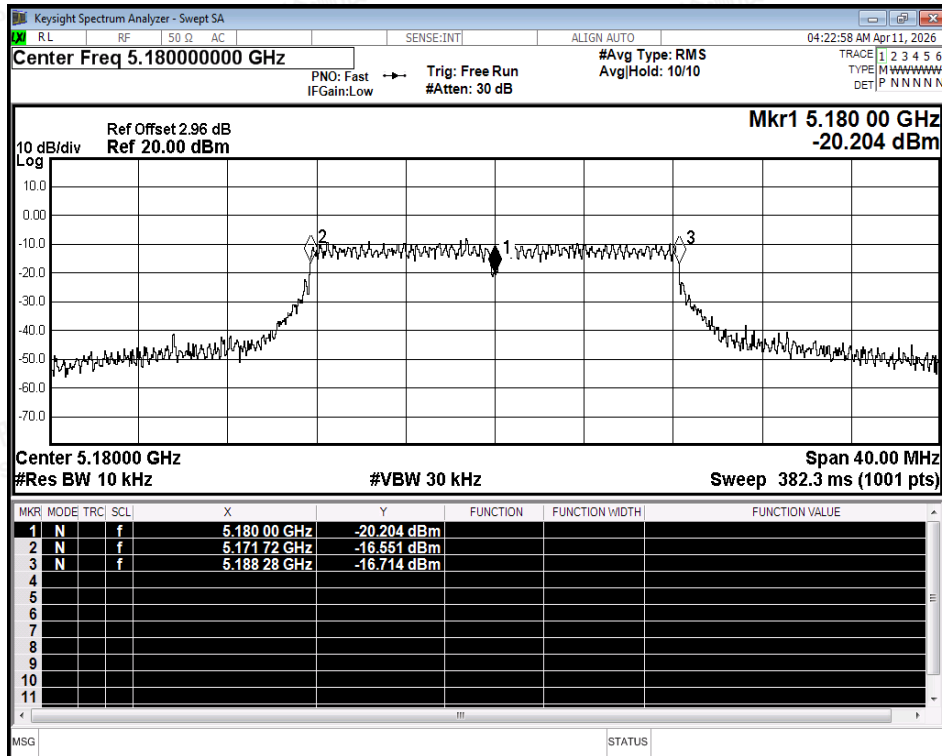


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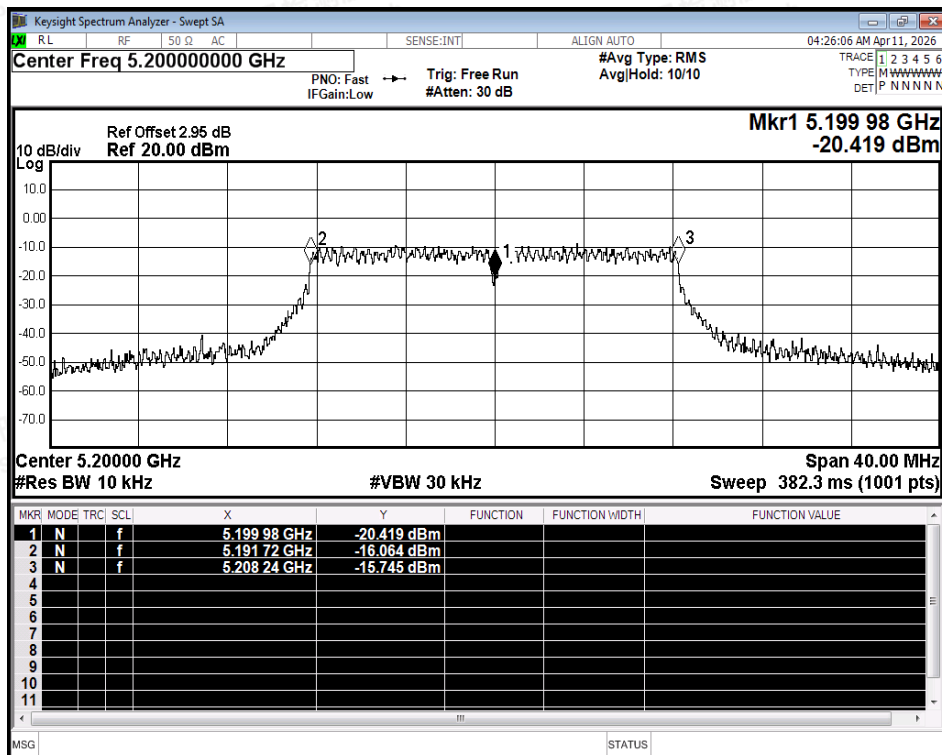
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Freq. Stability NVNT a 5180MHz Ant1



Freq. Stability NVNT a 5200MHz Ant1

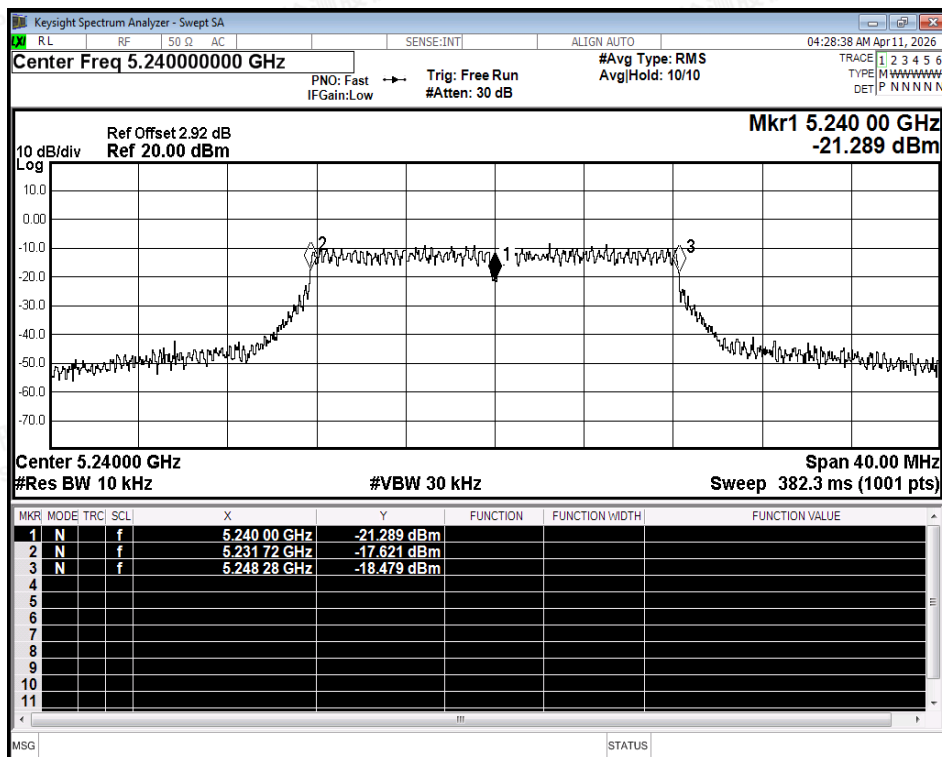


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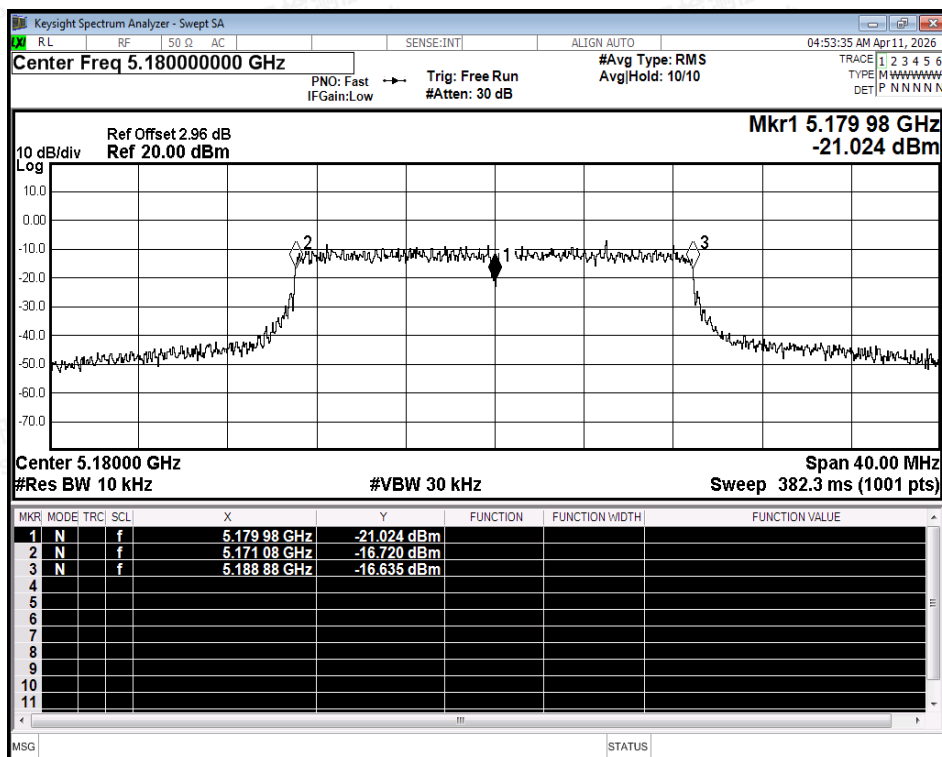
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Freq. Stability NVNT a 5240MHz Ant1



Freq. Stability NVNT n20 5180MHz Ant1

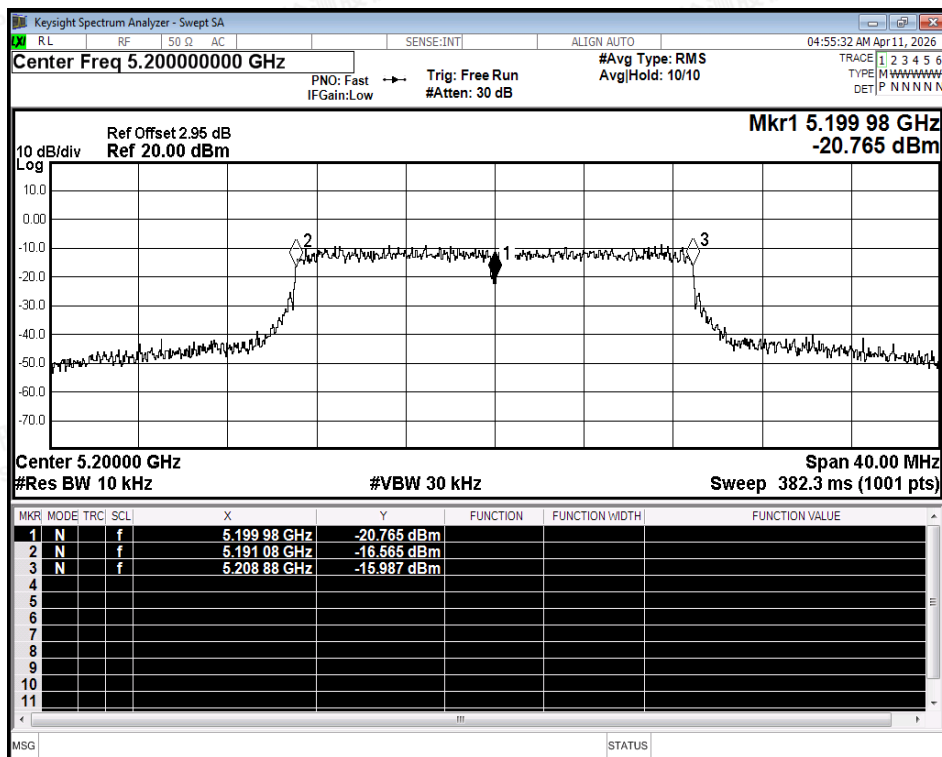


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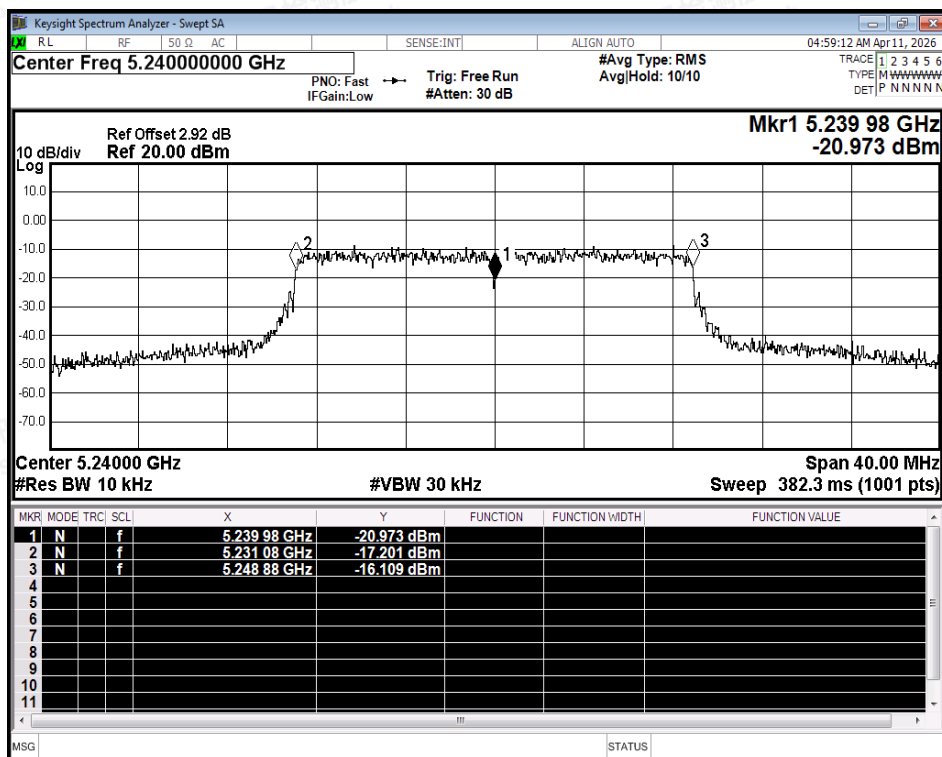
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Freq. Stability NVNT n20 5200MHz Ant1



Freq. Stability NVNT n20 5240MHz Ant1

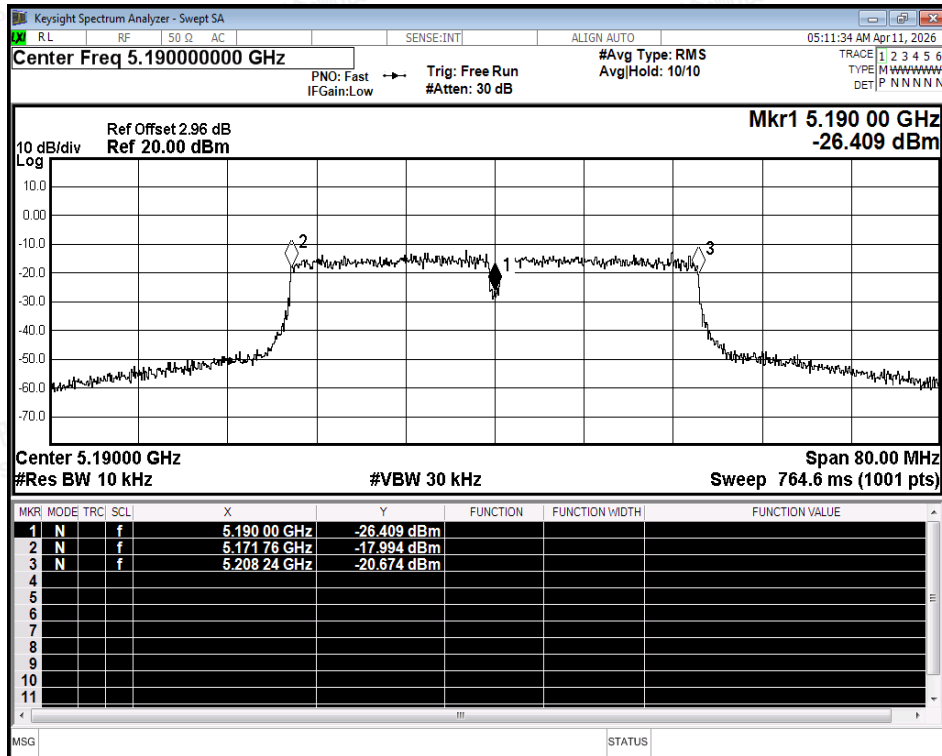


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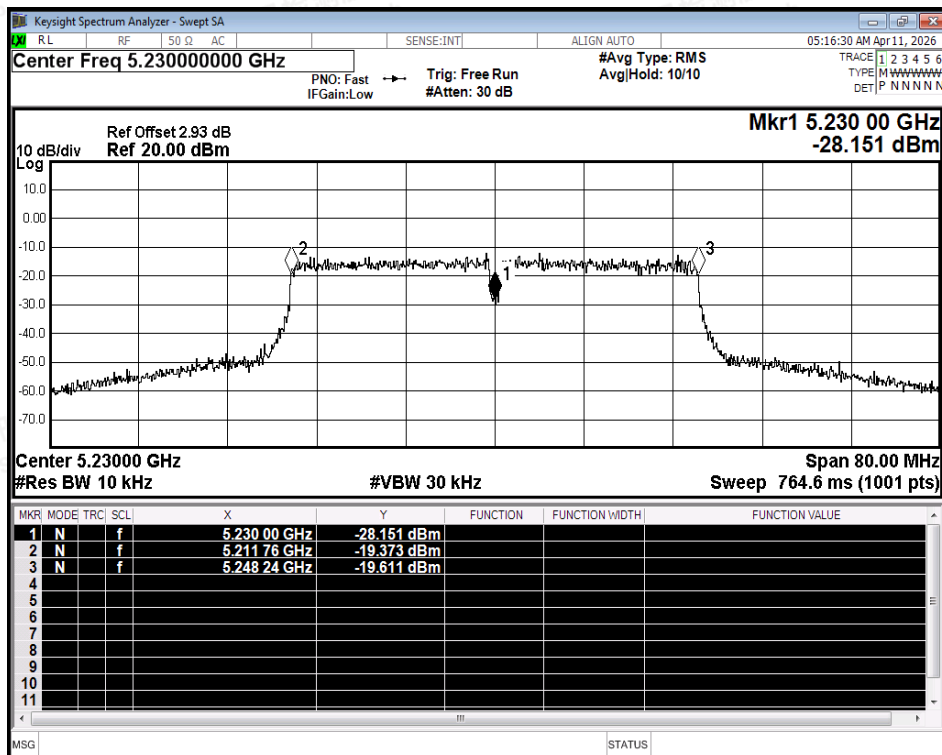
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Freq. Stability NVNT n40 5190MHz Ant1



Freq. Stability NVNT n40 5230MHz Ant1



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D.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	97.46	0.11	0.37
NVNT	a	5200	Ant1	97.83	0.1	0.37
NVNT	a	5240	Ant1	97.46	0.11	0.37
NVNT	n20	5180	Ant1	97.41	0.11	0.44
NVNT	n20	5200	Ant1	97.41	0.11	0.44
NVNT	n20	5240	Ant1	97	0.13	0.44
NVNT	n40	5190	Ant1	94.87	0.23	0.9
NVNT	n40	5230	Ant1	94.87	0.23	0.9

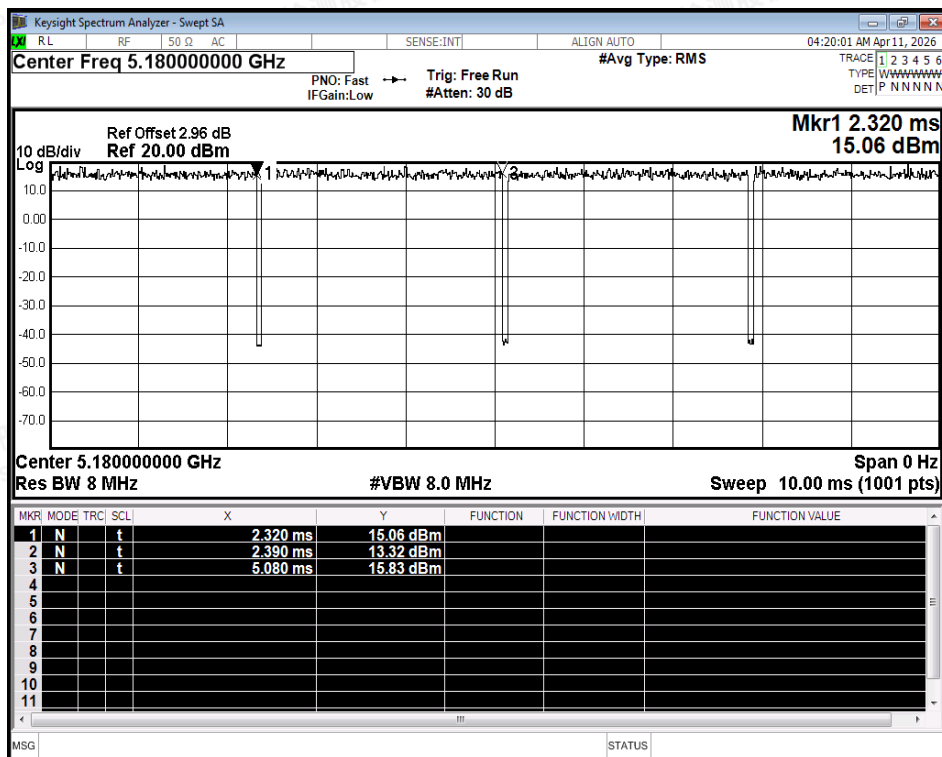


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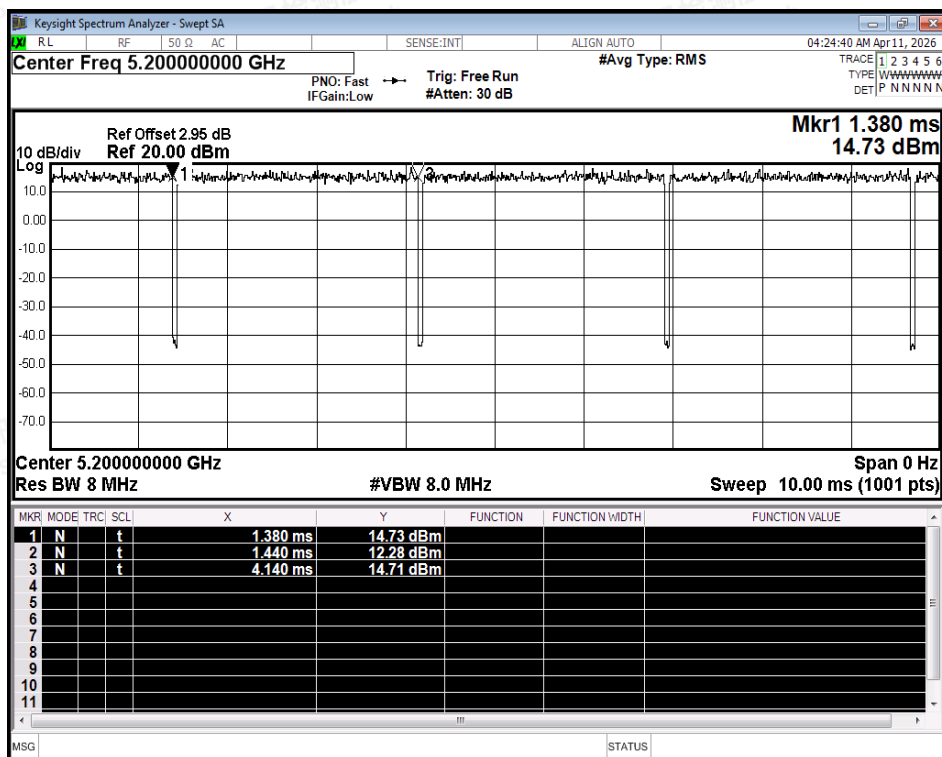
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Duty Cycle NVNT a 5180MHz Ant1



Duty Cycle NVNT a 5200MHz Ant1

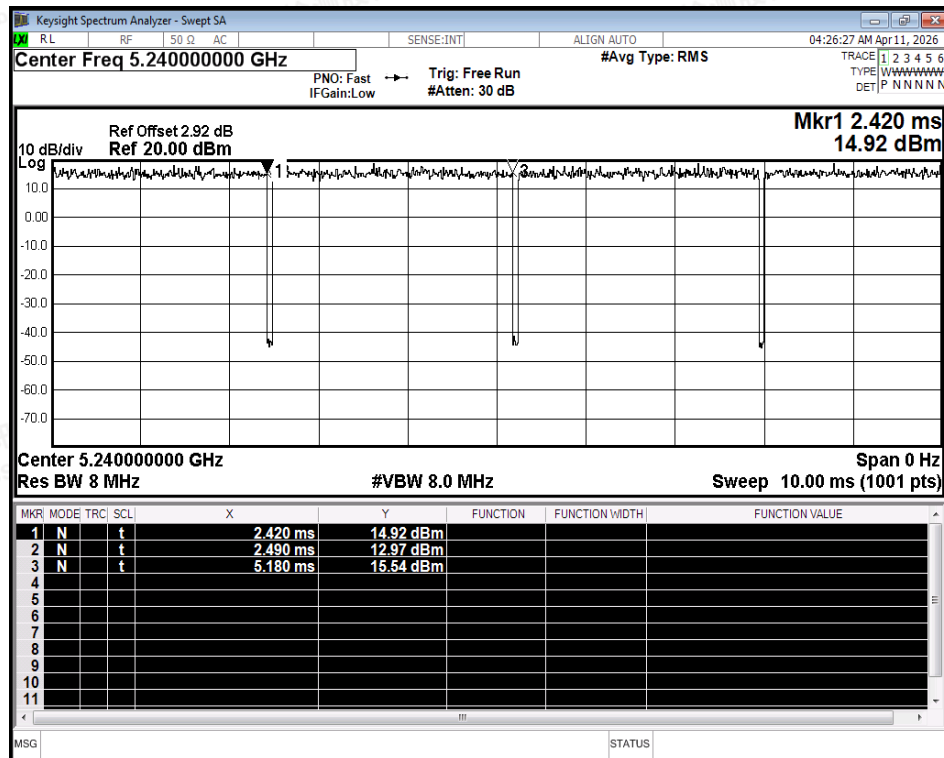


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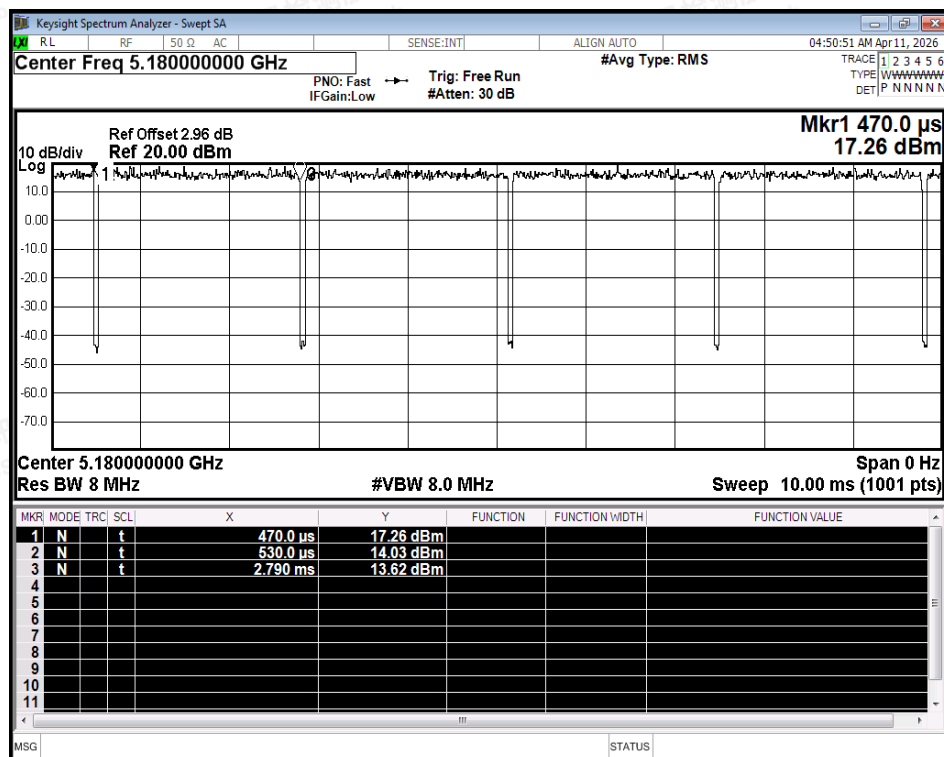
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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Duty Cycle NVNT a 5240MHz Ant1



Duty Cycle NVNT n20 5180MHz Ant1

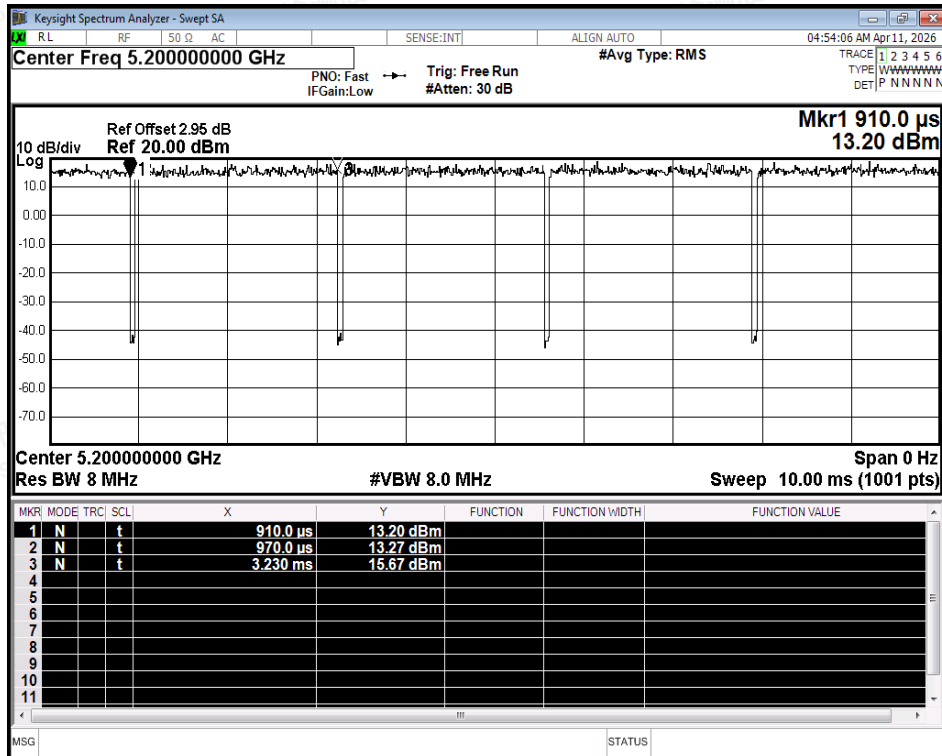


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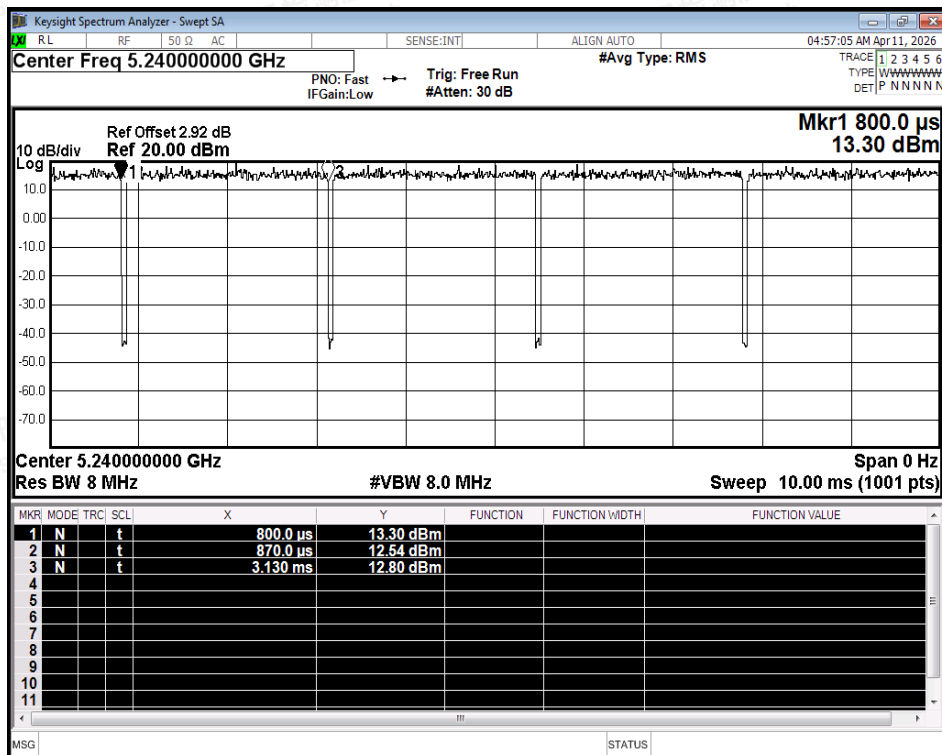
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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Duty Cycle NVNT n20 5200MHz Ant1



Duty Cycle NVNT n20 5240MHz Ant1

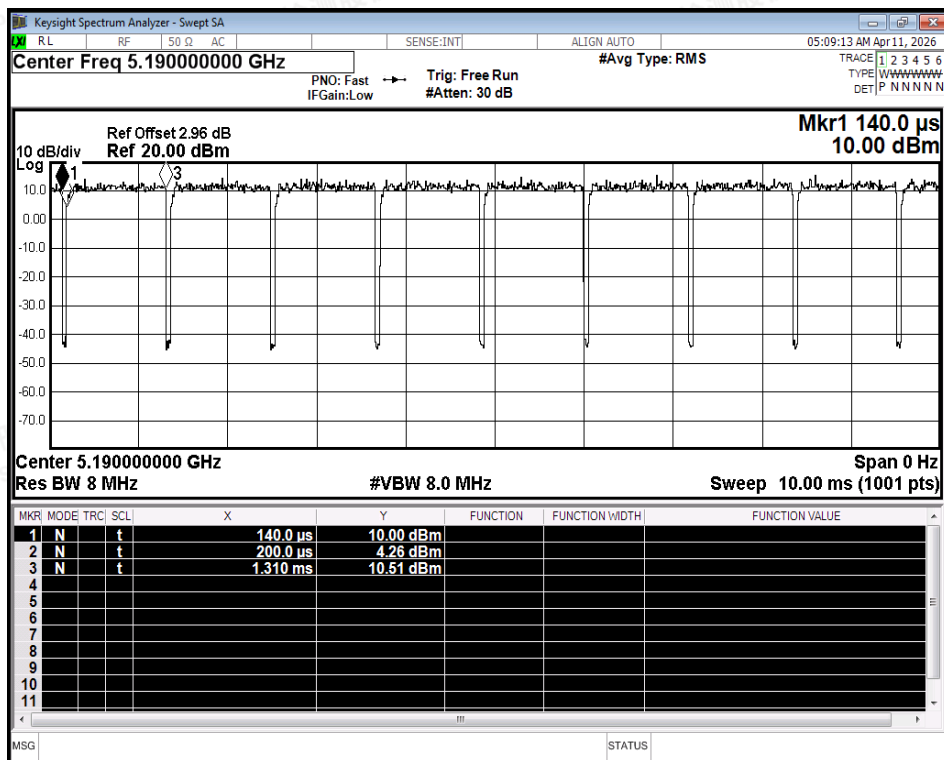


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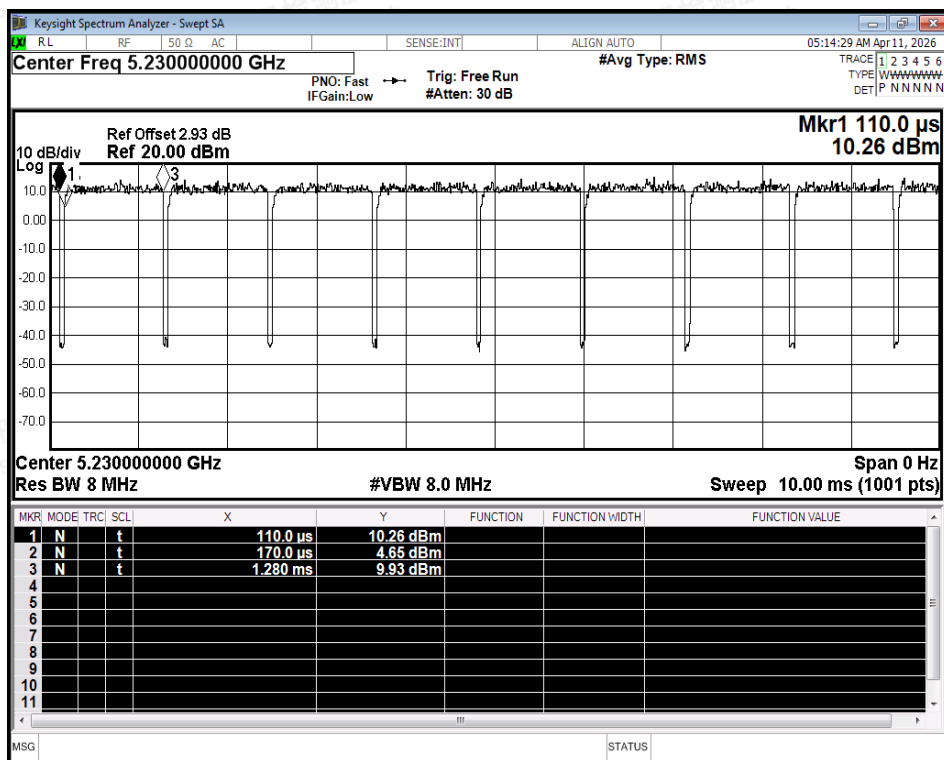
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Duty Cycle NVNT n40 5190MHz Ant1



Duty Cycle NVNT n40 5230MHz Ant1



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