

Appendix D

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: LED PROJECTOR

Test Model: L018

Environmental Conditions

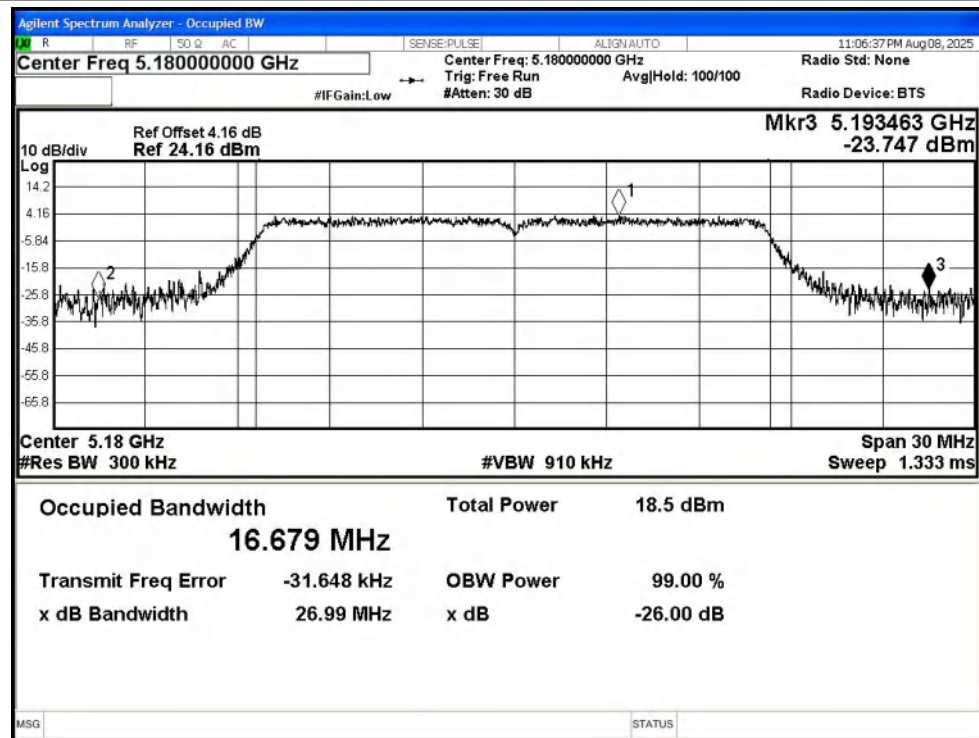
Temperature:	23.7°C
Relative Humidity:	52.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Jone Lee
Supervised by:	Fengliu Tang

D.1 -26dB Bandwidth

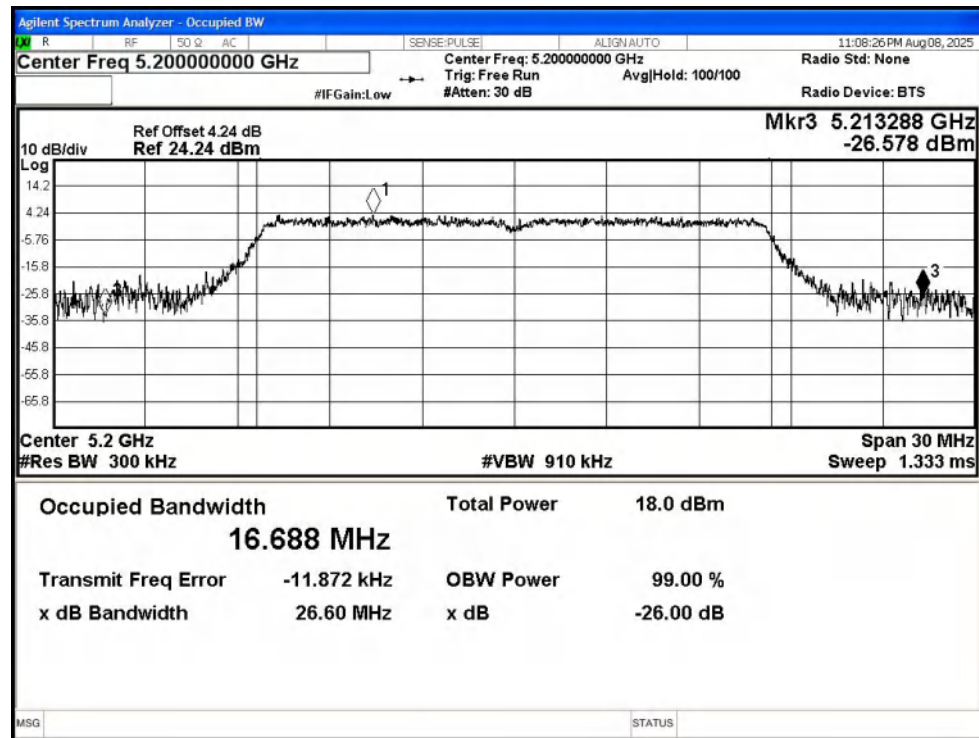
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	26.99	≥ 0.5	Pass
NVNT	a	5200	Ant1	26.6	≥ 0.5	Pass
NVNT	a	5240	Ant1	25.19	≥ 0.5	Pass
NVNT	n20	5180	Ant1	27.072	≥ 0.5	Pass
NVNT	n20	5200	Ant1	27.792	≥ 0.5	Pass
NVNT	n20	5240	Ant1	27.82	≥ 0.5	Pass
NVNT	n40	5190	Ant1	50.835	≥ 0.5	Pass
NVNT	n40	5230	Ant1	49.112	≥ 0.5	Pass

Test Graphs

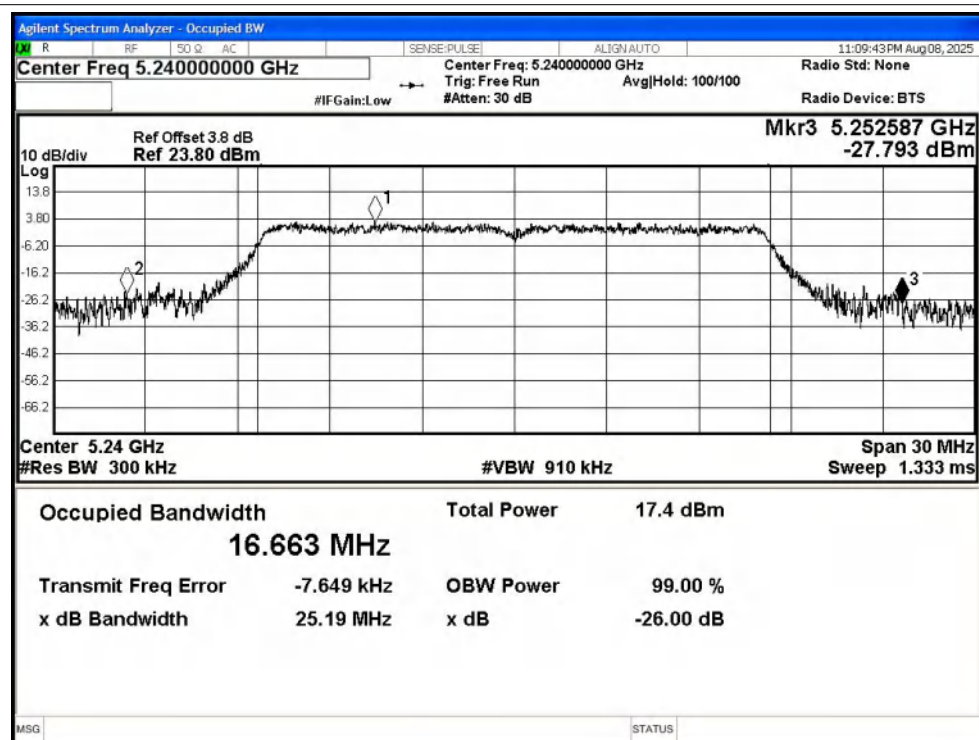
-26dB Bandwidth NVNT a 5180MHz Ant1



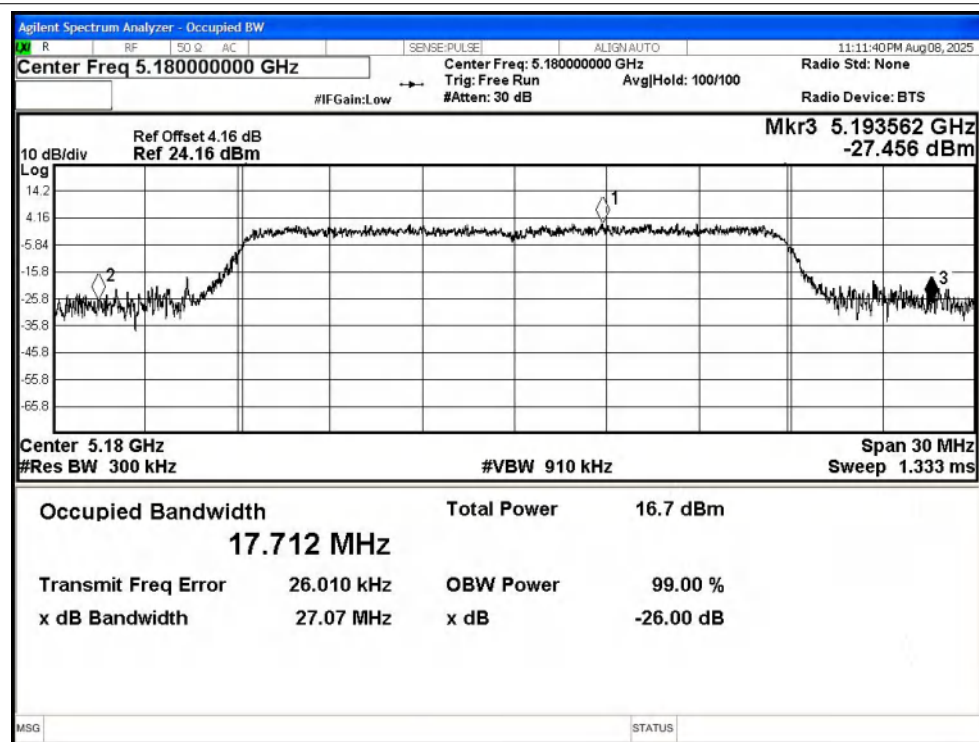
-26dB Bandwidth NVNT a 5200MHz Ant1



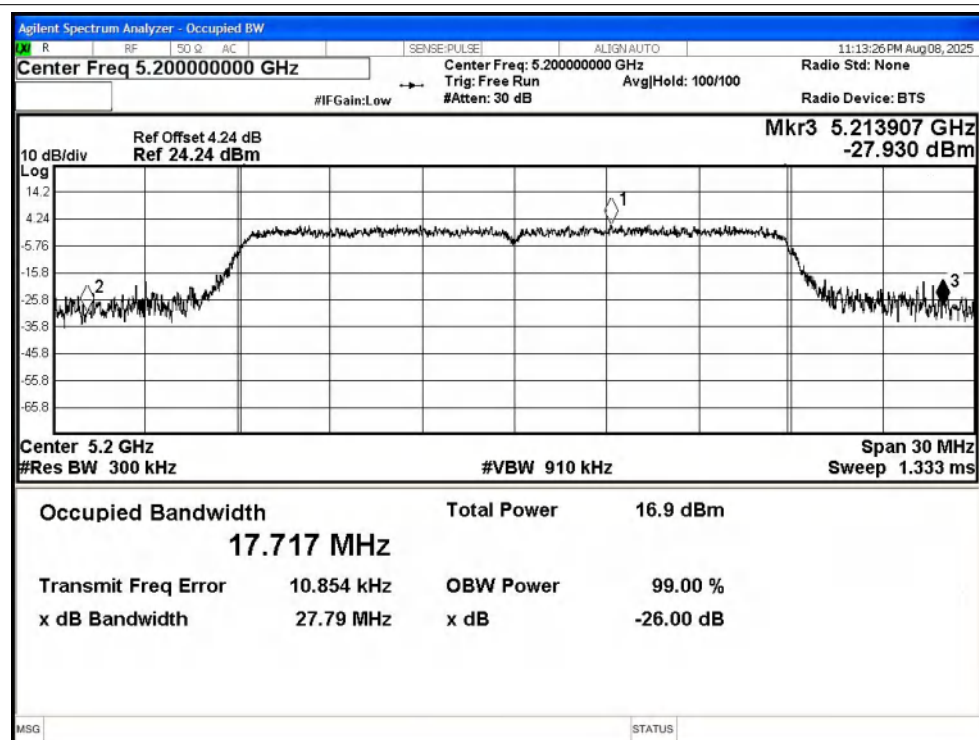
-26dB Bandwidth NVNT a 5240MHz Ant1



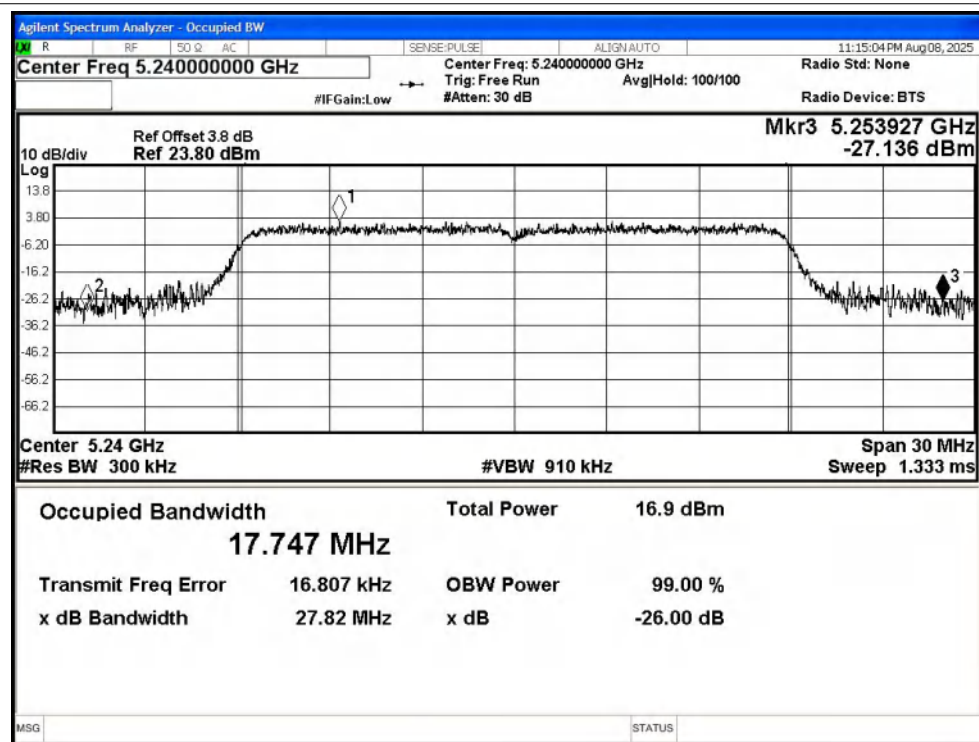
-26dB Bandwidth NVNT n20 5180MHz Ant1



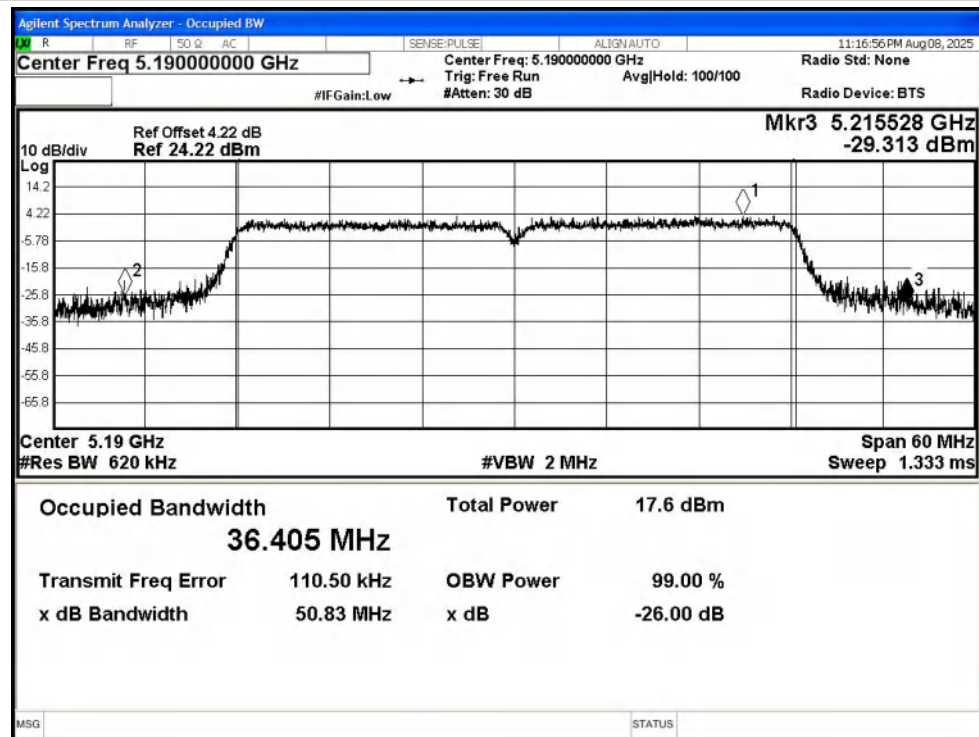
-26dB Bandwidth NVNT n20 5200MHz Ant1



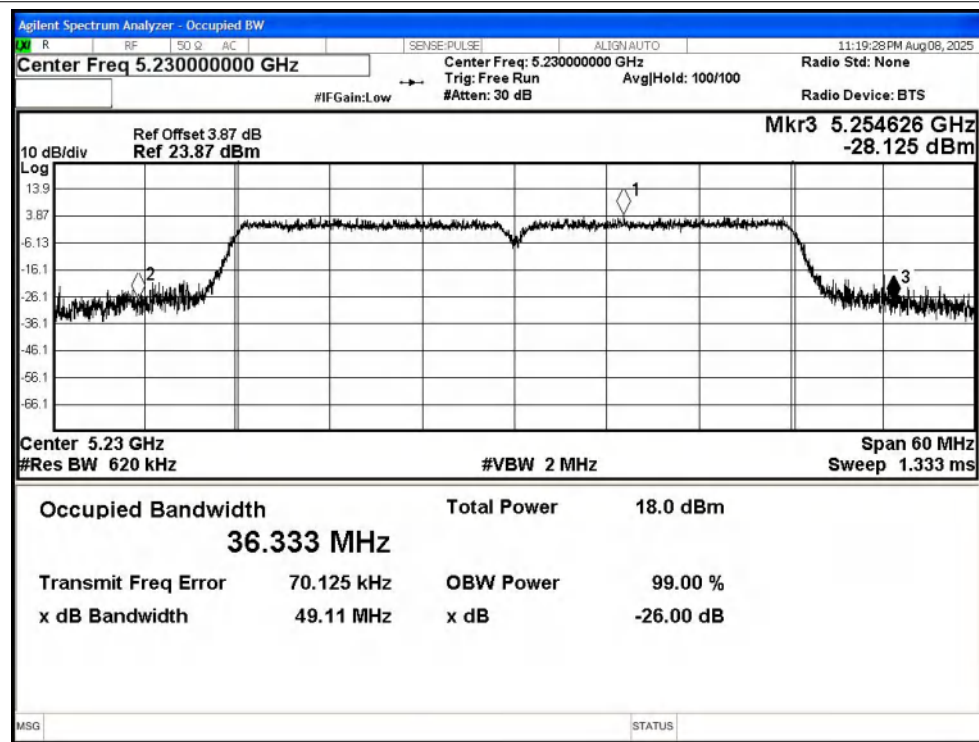
-26dB Bandwidth NVNT n20 5240MHz Ant1



-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz Ant1



D.2 Maximum Conducted Output Power

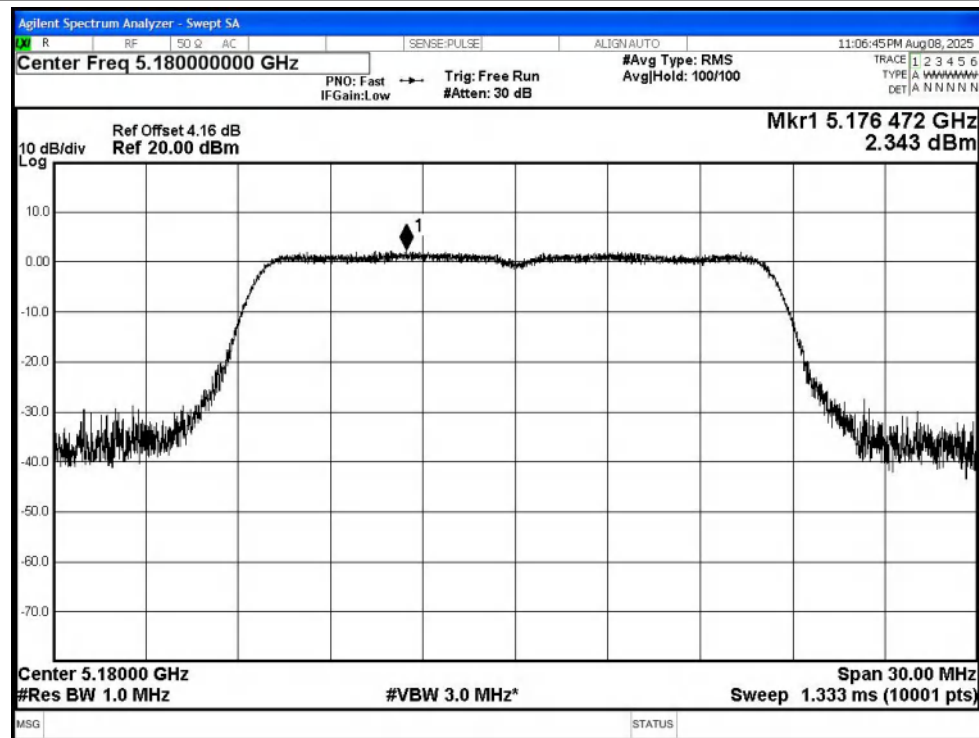
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	12.77	0.24	13.01	24	Pass
NVNT	a	5200	Ant1	12.40	0.24	12.64	24	Pass
NVNT	a	5240	Ant1	11.58	0.24	11.82	24	Pass
NVNT	n20	5180	Ant1	11.21	0.12	11.33	24	Pass
NVNT	n20	5200	Ant1	11.35	0.12	11.47	24	Pass
NVNT	n20	5240	Ant1	11.36	0.12	11.48	24	Pass
NVNT	n40	5190	Ant1	11.27	0.24	11.51	24	Pass
NVNT	n40	5230	Ant1	11.67	0.23	11.90	24	Pass

D.3 Maximum Power Spectral Density Level

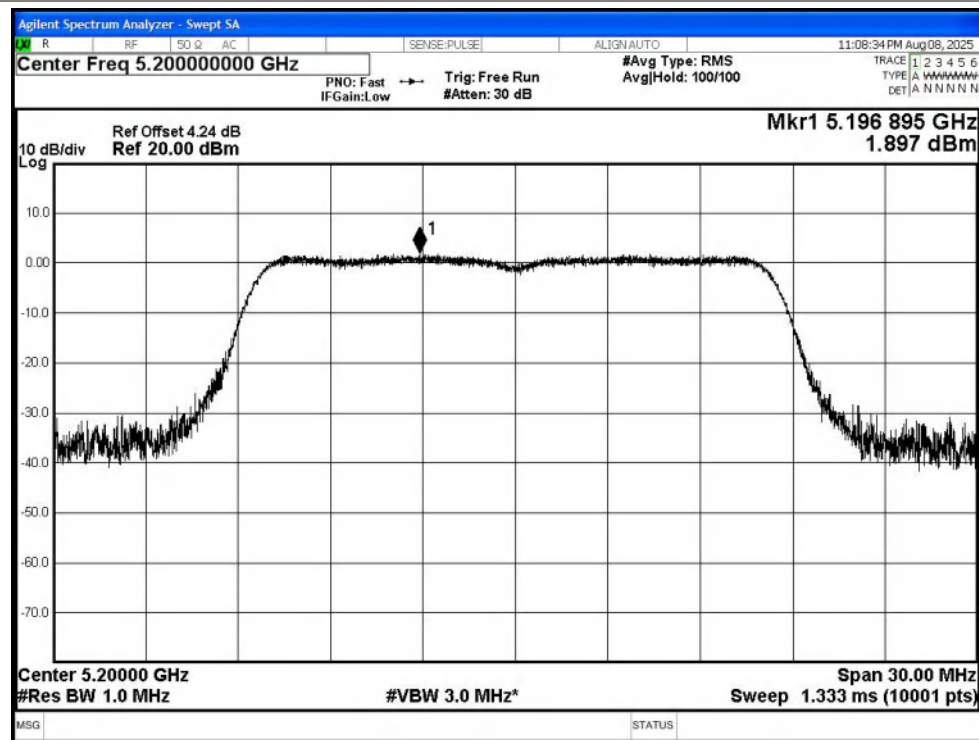
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	2.34	0.24	2.58	11	Pass
NVNT	a	5200	Ant1	1.9	0.24	2.14	11	Pass
NVNT	a	5240	Ant1	1.12	0.24	1.36	11	Pass
NVNT	n20	5180	Ant1	0.72	0.12	0.84	11	Pass
NVNT	n20	5200	Ant1	0.67	0.12	0.79	11	Pass
NVNT	n20	5240	Ant1	0.66	0.12	0.78	11	Pass
NVNT	n40	5190	Ant1	-2.2	0.24	-1.96	11	Pass
NVNT	n40	5230	Ant1	-2.07	0.23	-1.84	11	Pass

Test Graphs

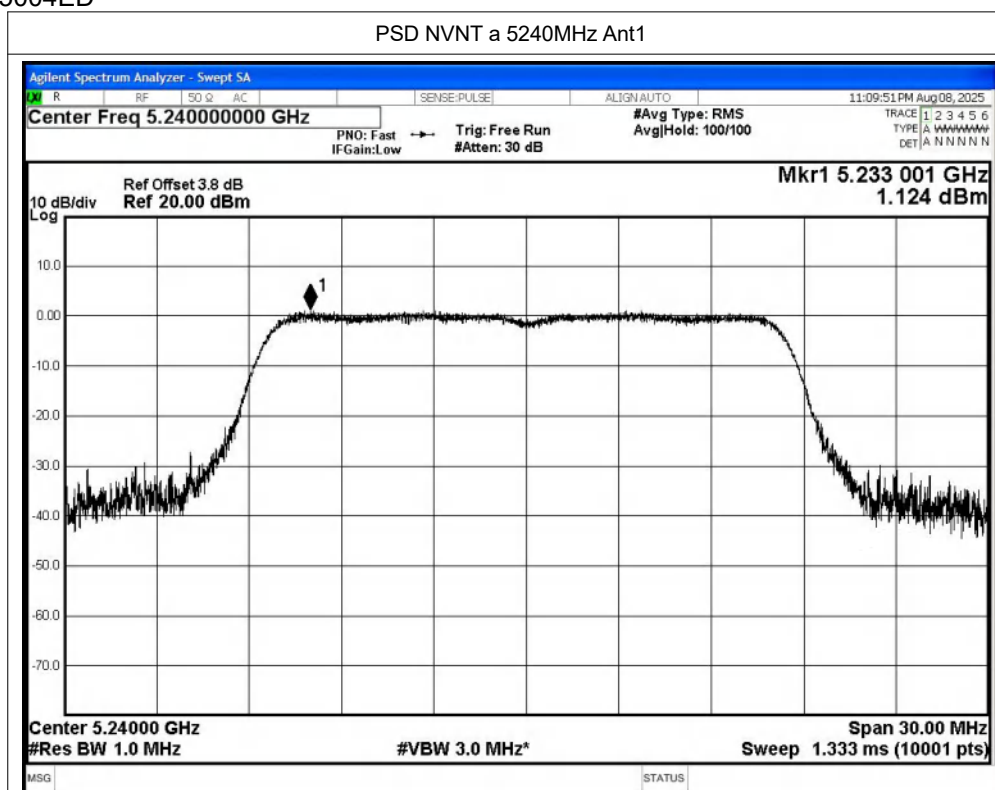
PSD NVNT a 5180MHz Ant1



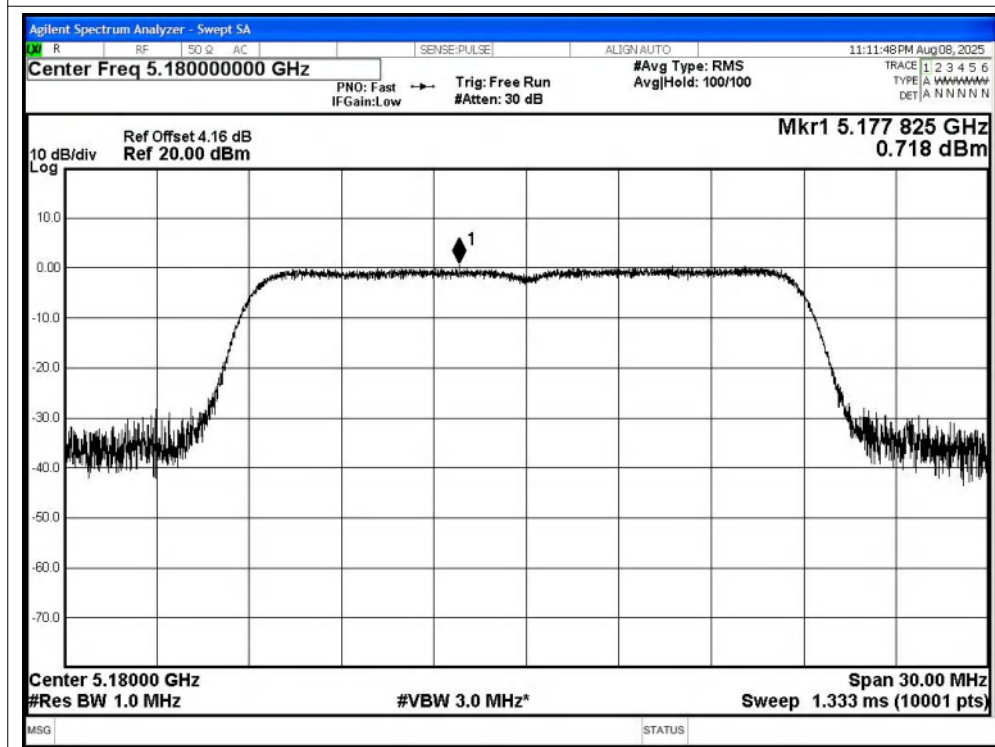
PSD NVNT a 5200MHz Ant1



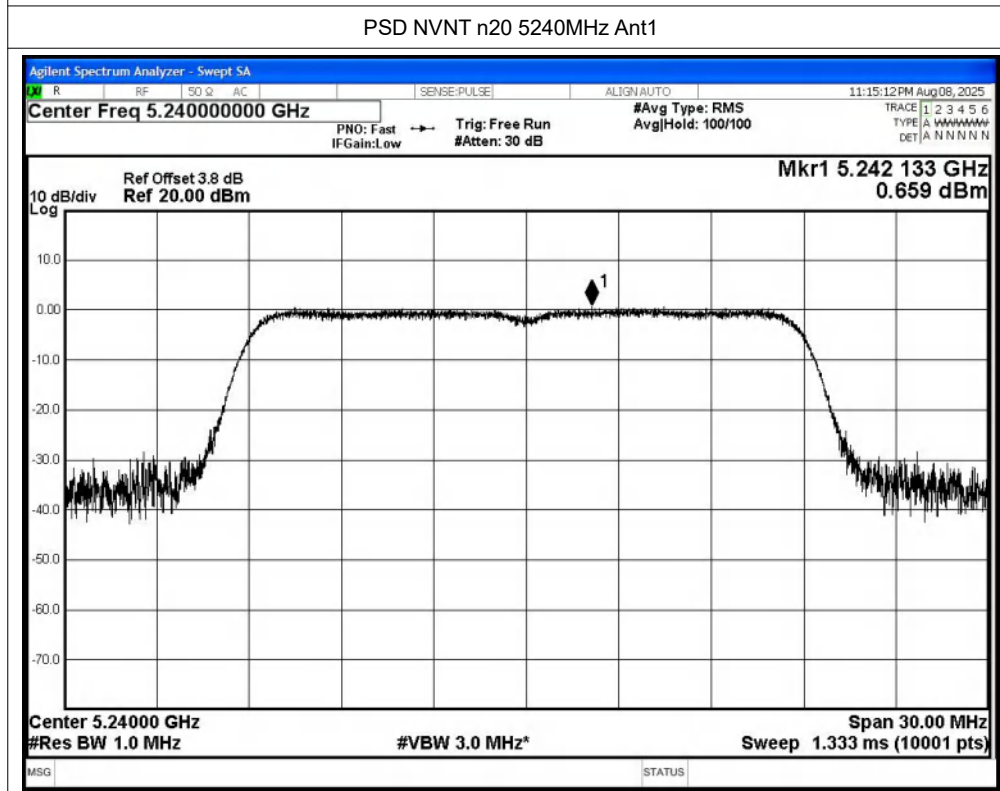
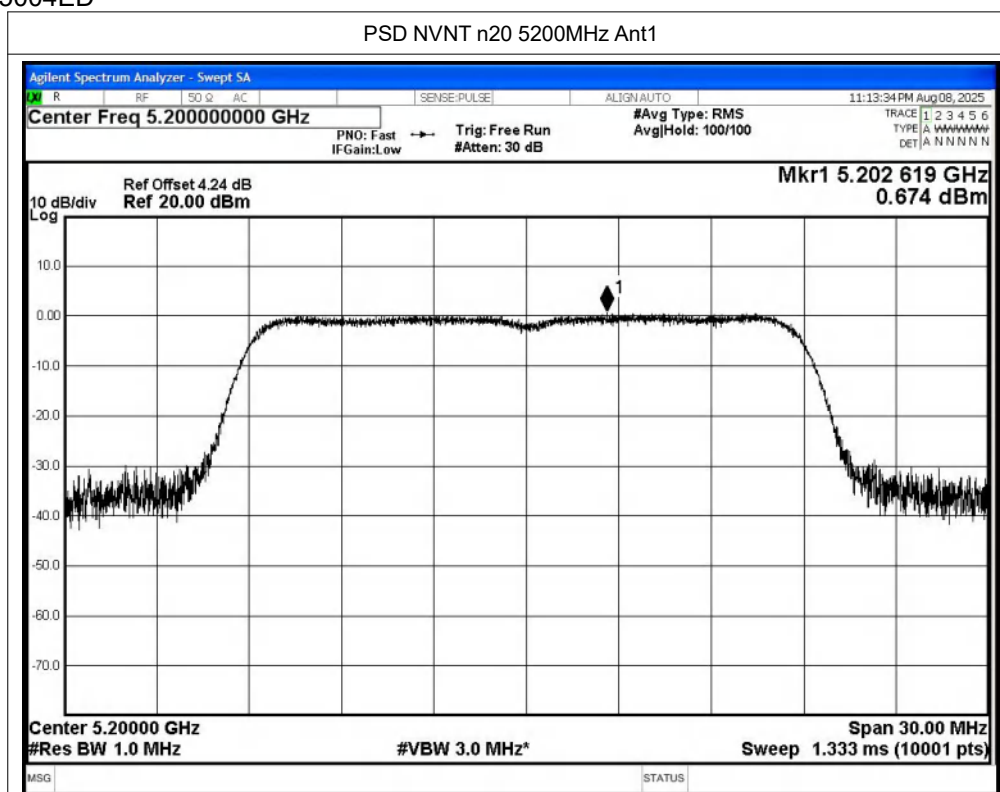
LCSC07315004ED



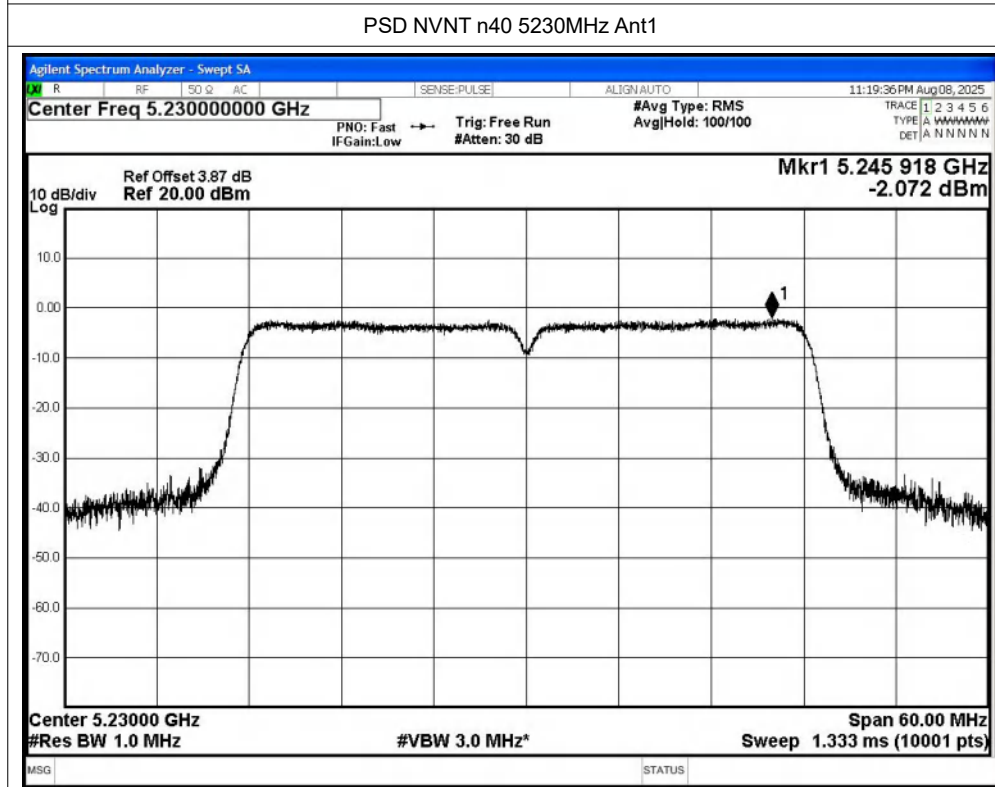
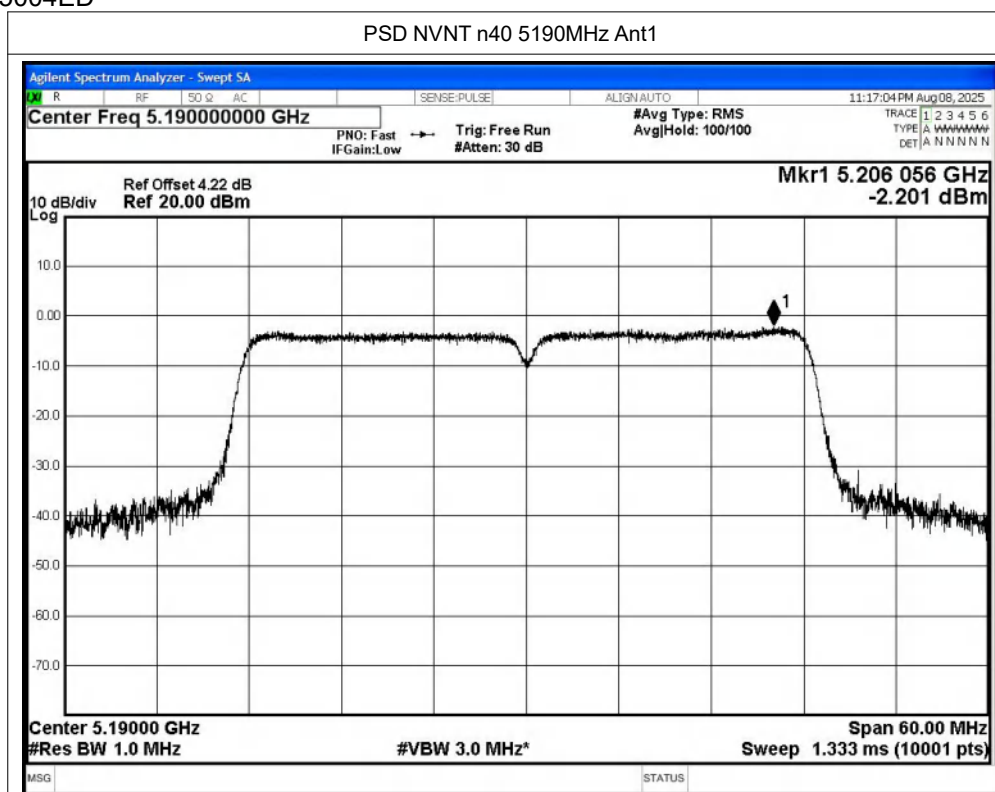
PSD NVNT n20 5180MHz Ant1



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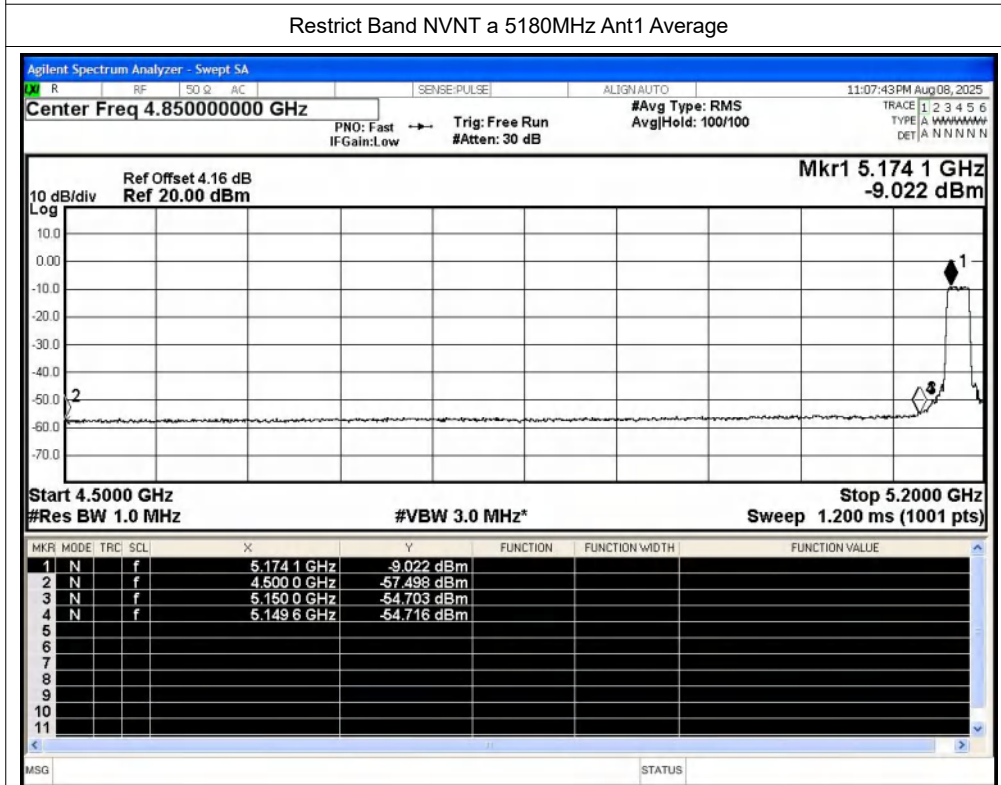
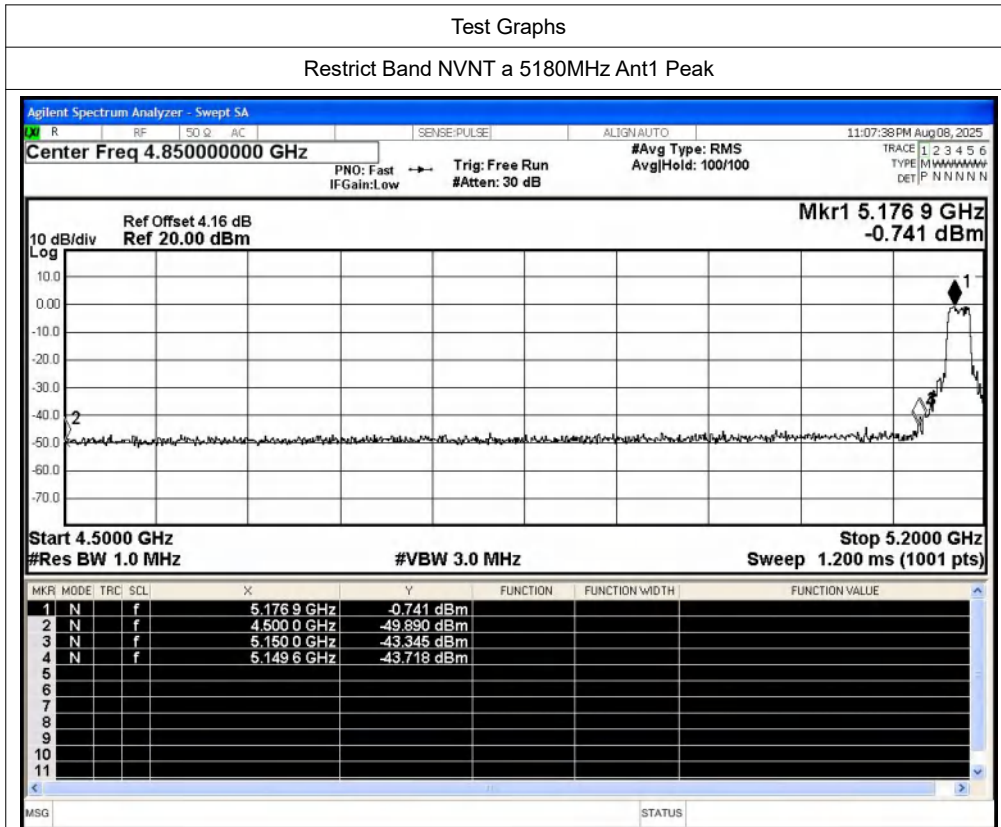


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D.4 Restrict Band

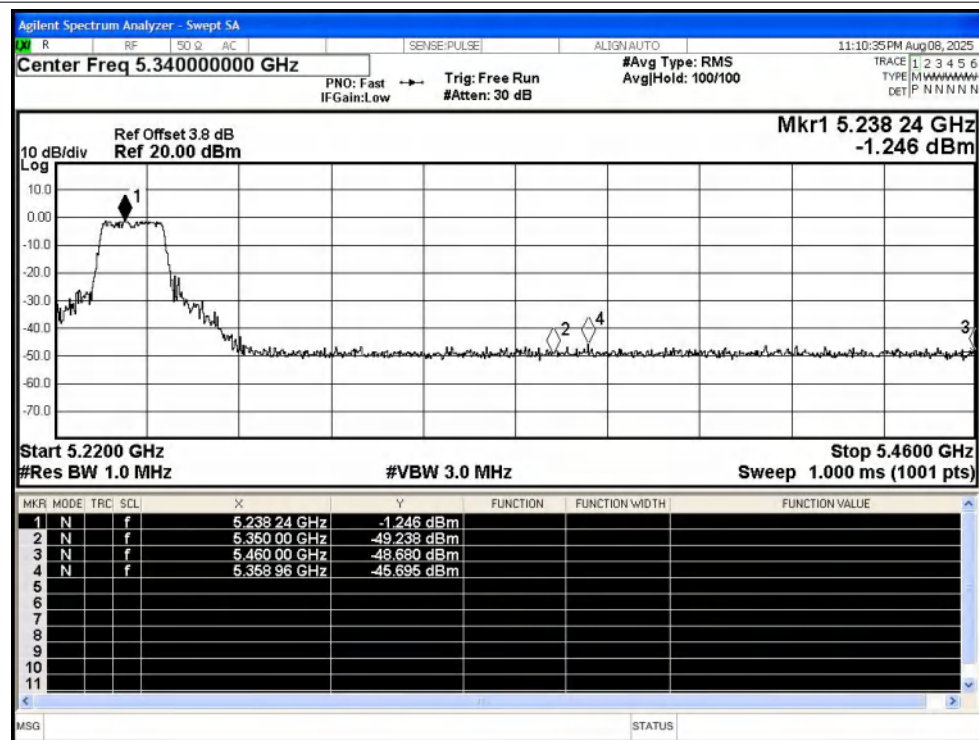
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5180	Ant1	4500	-49.89	2.23	-	47.57	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-57.5	2.23	0.24	40.2	Average	54	Pass
NVNT	a	5180	Ant1	5149.6	-43.72	2.23	-	53.74	Peak	68.2	Pass
NVNT	a	5180	Ant1	5149.6	-54.72	2.23	0.24	42.98	Average	54	Pass
NVNT	a	5180	Ant1	5150	-43.35	2.23	-	54.11	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-54.7	2.23	0.24	43	Average	54	Pass
NVNT	a	5240	Ant1	5350	-49.24	2.23	-	48.22	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-56.9	2.23	0.24	40.8	Average	54	Pass
NVNT	a	5240	Ant1	5358.96	-45.7	2.23	-	51.76	Peak	68.2	Pass
NVNT	a	5240	Ant1	5367.6	-56.37	2.23	0.24	41.33	Average	54	Pass
NVNT	a	5240	Ant1	5460	-48.68	2.23	-	48.78	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-56.77	2.23	0.24	40.93	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-50.09	2.23	-	47.37	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-57.58	2.23	0.12	40	Average	54	Pass
NVNT	n20	5180	Ant1	5148.9	-42.83	2.23	-	54.63	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5148.2	-54.77	2.23	0.12	42.81	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-44.37	2.23	-	53.09	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-55.4	2.23	0.12	42.18	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-48.93	2.23	-	48.53	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-57.11	2.23	0.12	40.47	Average	54	Pass
NVNT	n20	5240	Ant1	5395.44	-46.24	2.23	-	51.22	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5387.52	-56.38	2.23	0.12	41.2	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-49.1	2.23	-	48.36	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-57.15	2.23	0.12	40.43	Average	54	Pass
NVNT	n40	5190	Ant1	4500	-49.65	2.23	-	47.81	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4500	-57.88	2.23	0.24	39.82	Average	54	Pass
NVNT	n40	5190	Ant1	5148.24	-43.48	2.23	-	53.98	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5148.97	-54.47	2.23	0.24	43.23	Average	54	Pass
NVNT	n40	5190	Ant1	5150	-43.51	2.23	-	53.95	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5150	-54.56	2.23	0.24	43.14	Average	54	Pass
NVNT	n40	5230	Ant1	5350	-48.68	2.23	-	48.78	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5350	-57.11	2.23	0.23	40.58	Average	54	Pass
NVNT	n40	5230	Ant1	5381.97	-46.18	2.23	-	51.28	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5379.54	-56.52	2.23	0.23	41.17	Average	54	Pass
NVNT	n40	5230	Ant1	5460	-49.59	2.23	-	47.87	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5460	-57.49	2.23	0.23	40.2	Average	54	Pass

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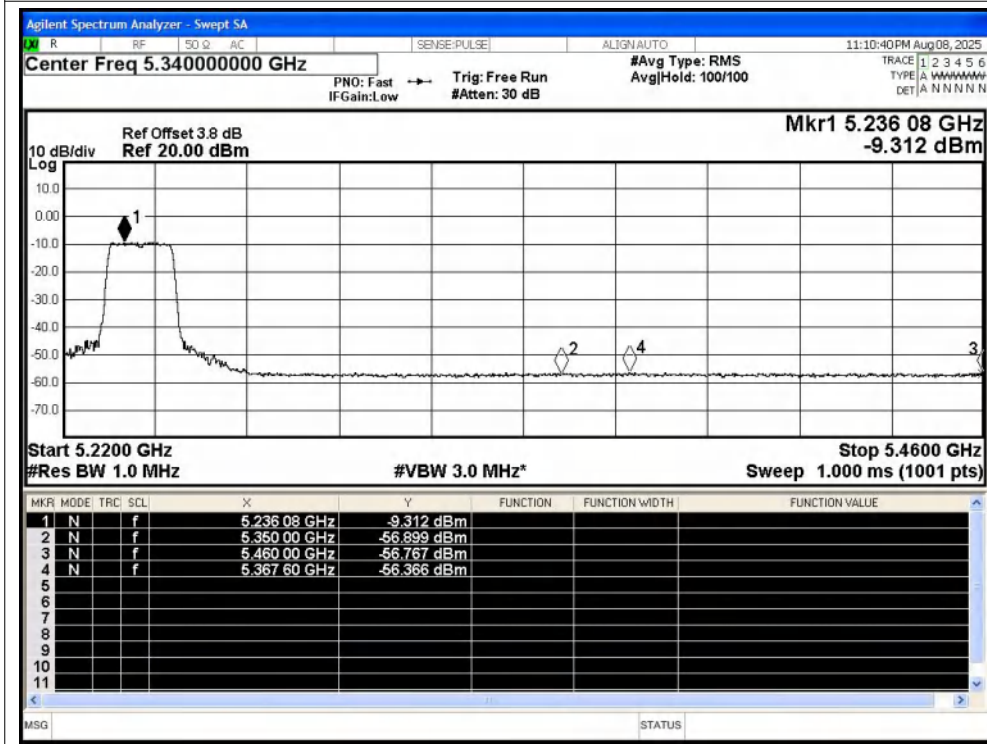


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Restrict Band NVNT a 5240MHz Ant1 Peak

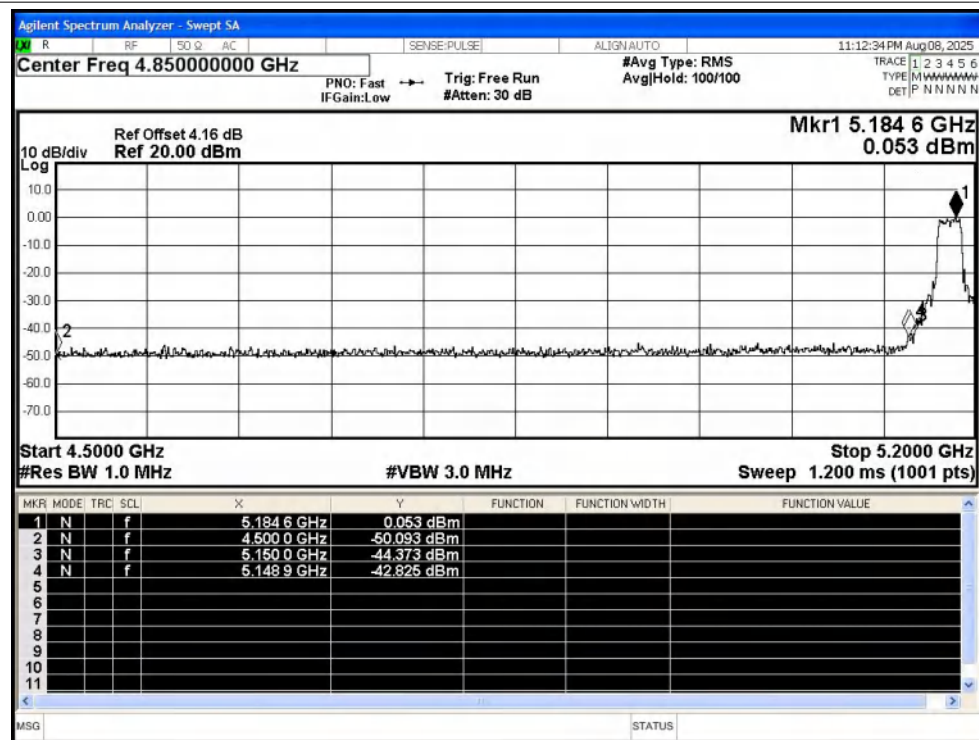


Restrict Band NVNT a 5240MHz Ant1 Average

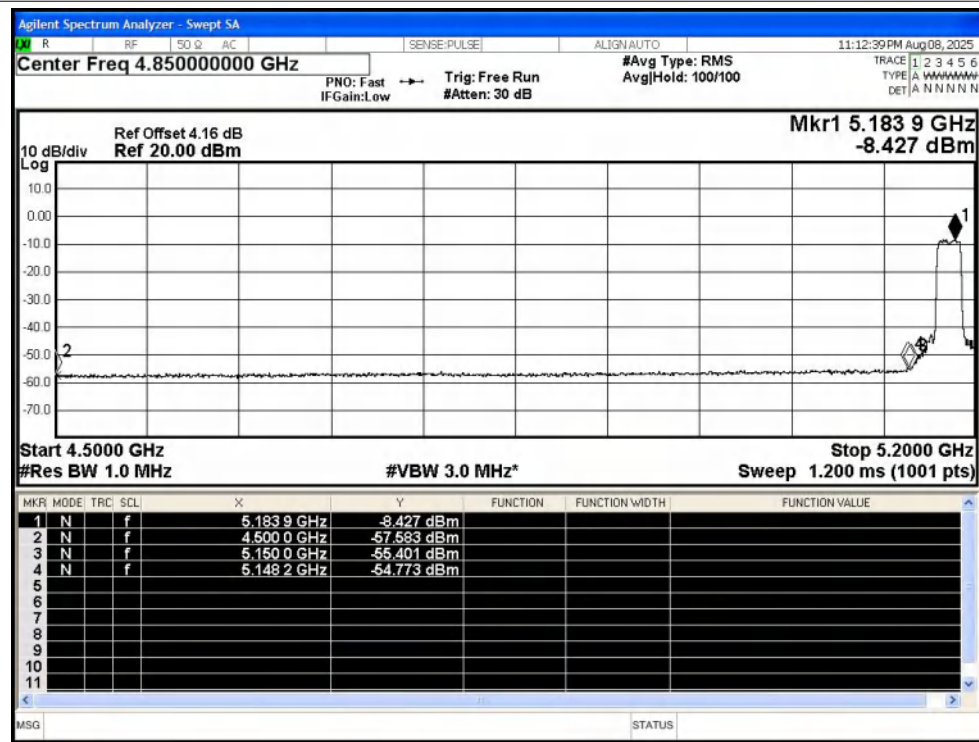


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Restrict Band NVNT n20 5180MHz Ant1 Peak

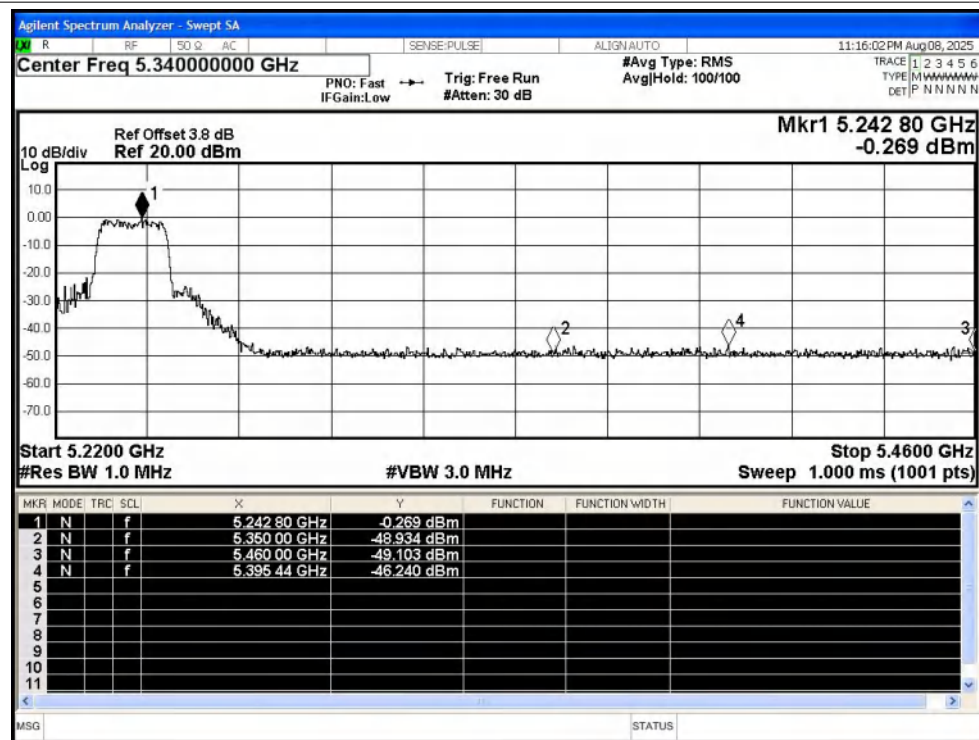


Restrict Band NVNT n20 5180MHz Ant1 Average

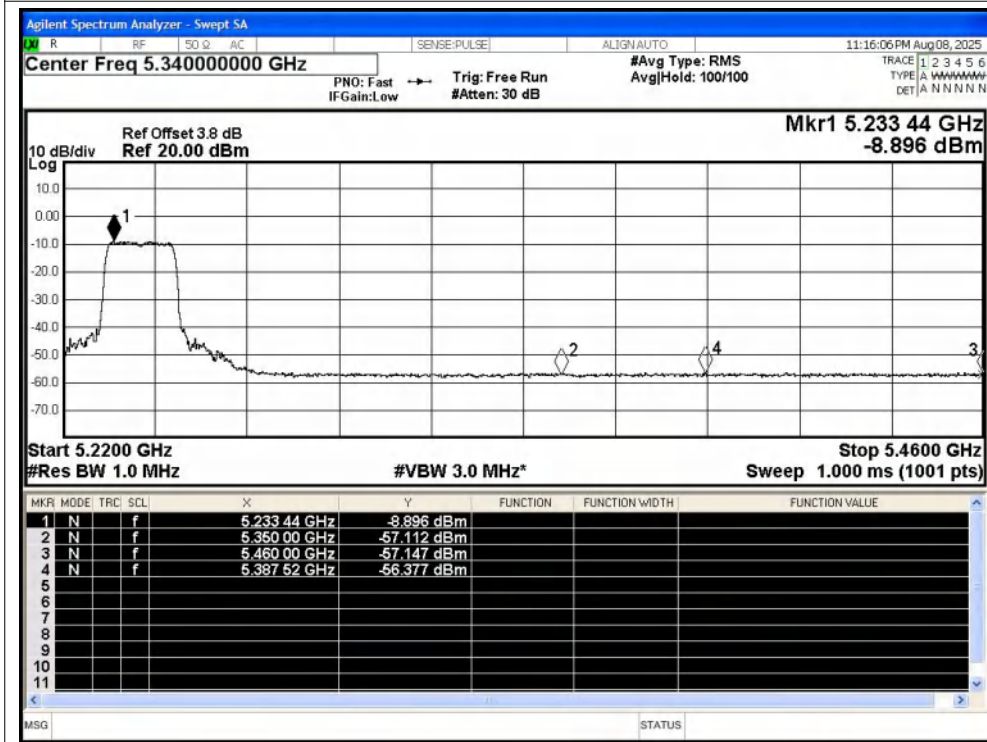


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Restrict Band NVNT n20 5240MHz Ant1 Peak

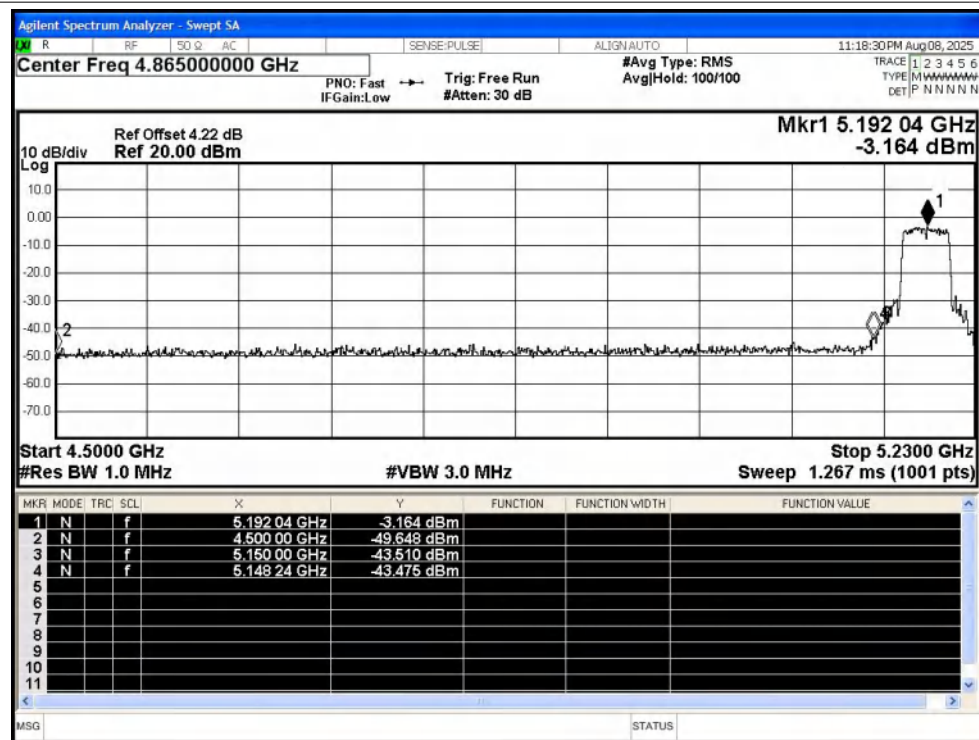


Restrict Band NVNT n20 5240MHz Ant1 Average

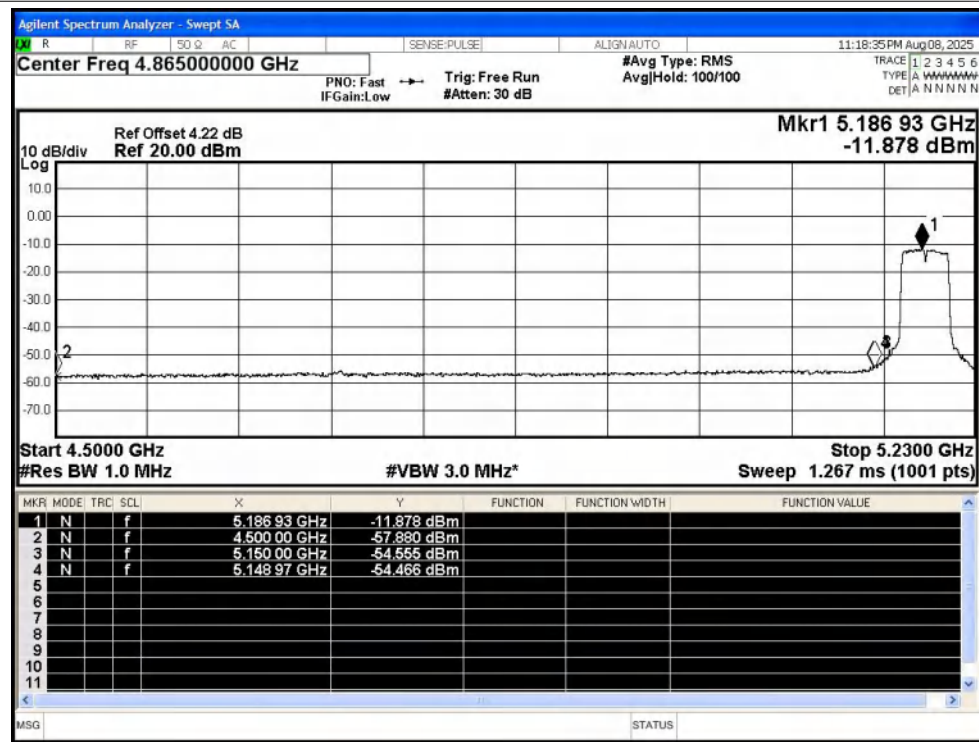


LCSC07315004ED

Restrict Band NVNT n40 5190MHz Ant1 Peak

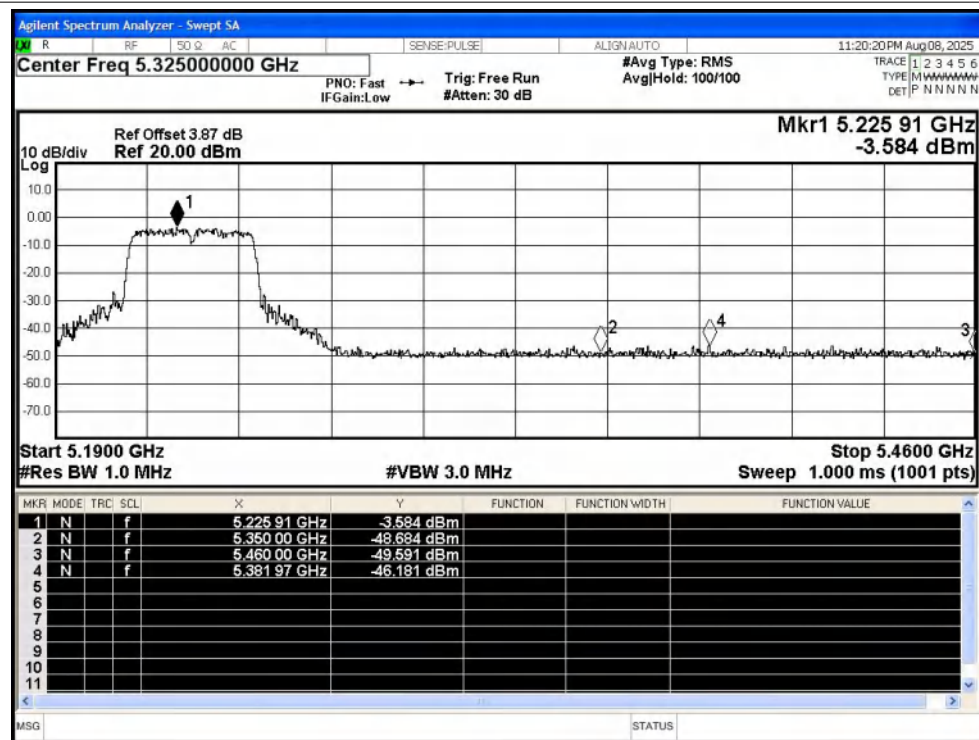


Restrict Band NVNT n40 5190MHz Ant1 Average

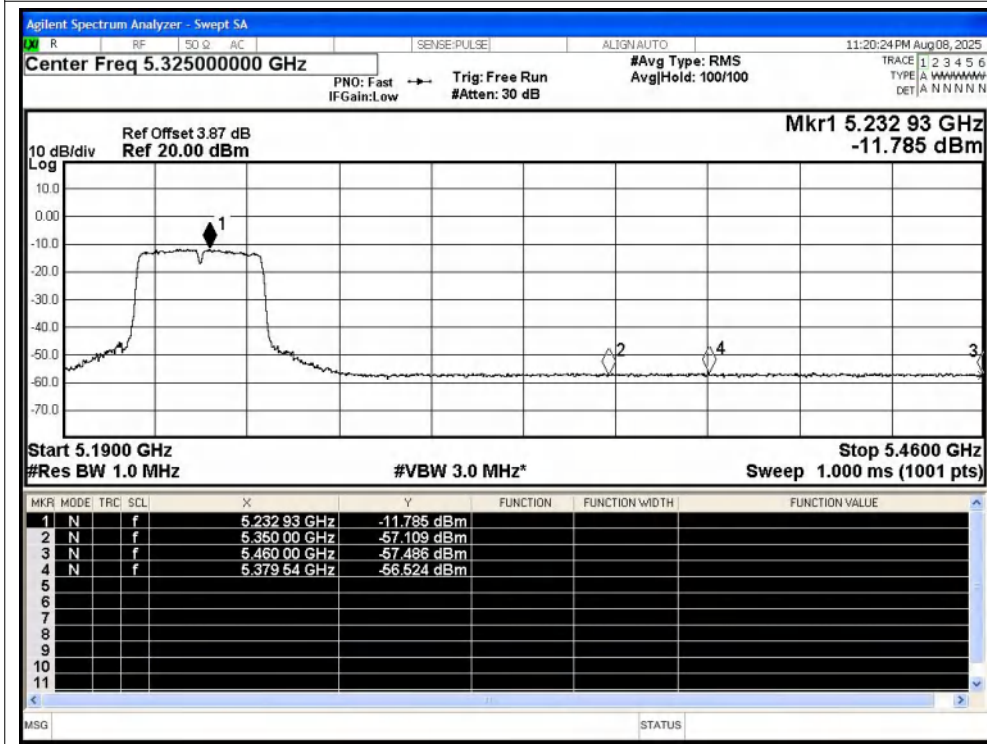


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Restrict Band NVNT n40 5230MHz Ant1 Peak



Restrict Band NVNT n40 5230MHz Ant1 Average



LCSC07315004ED

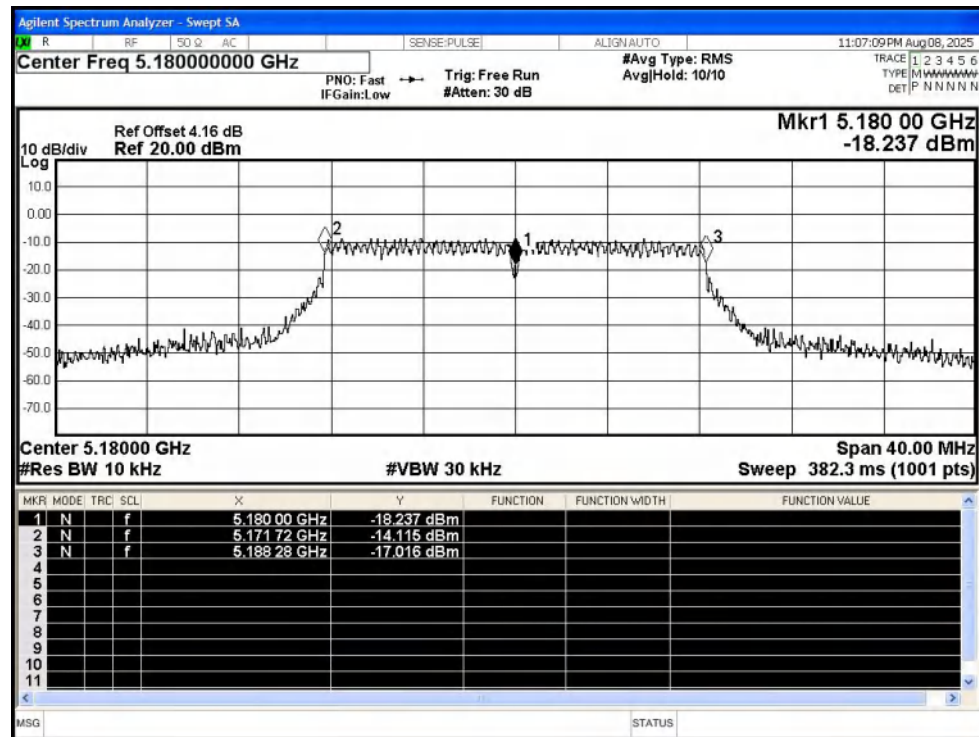
D.5 Frequency Stability

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	5239.98	-20000	-3.82	25	Pass
NVNT	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
NVNT	n20	5200	Ant1	5200	0	0	25	Pass
NVNT	n20	5240	Ant1	5240	0	0	25	Pass
NVNT	n40	5190	Ant1	5190	0	0	25	Pass
NVNT	n40	5230	Ant1	5230	0	0	25	Pass

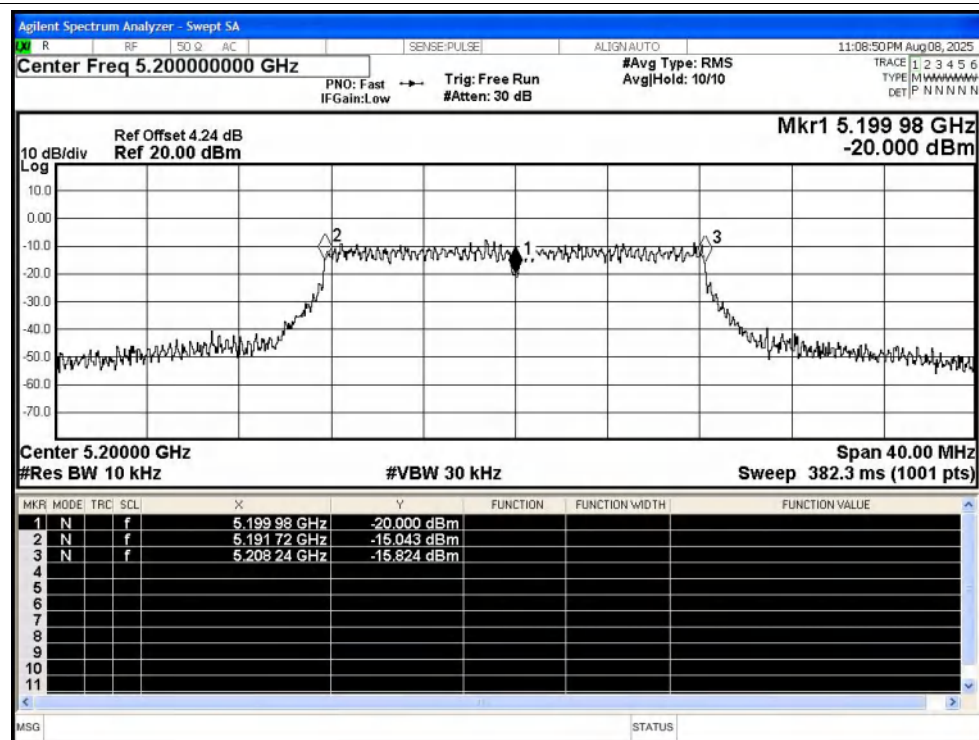
LCSC07315004ED

Test Graphs

Freq. Stability NVNT a 5180MHz Ant1

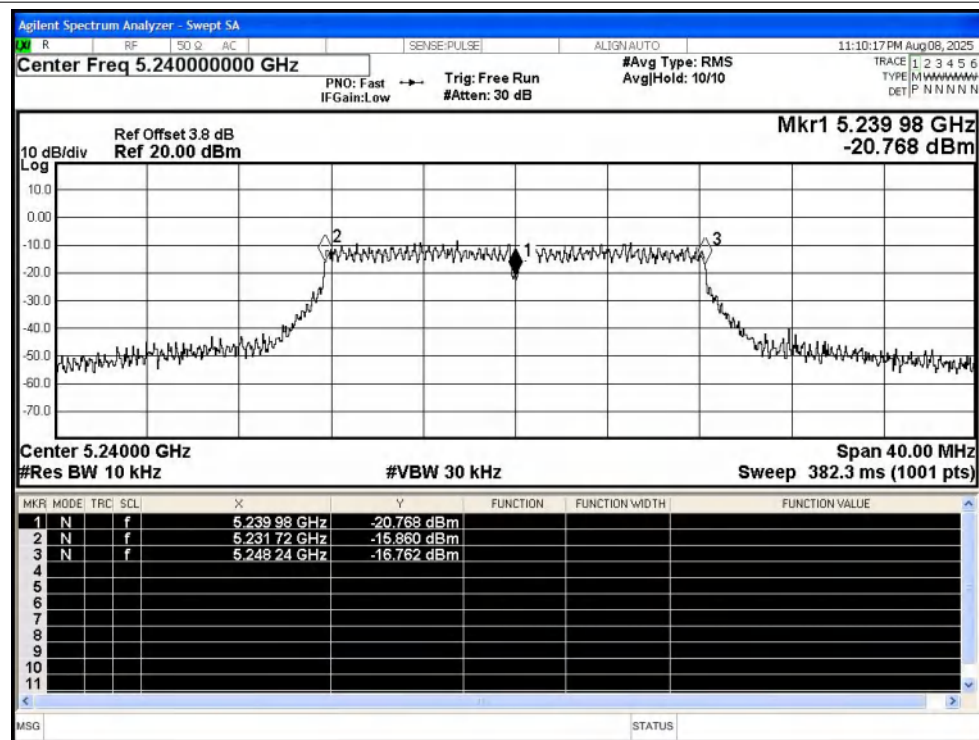


Freq. Stability NVNT a 5200MHz Ant1

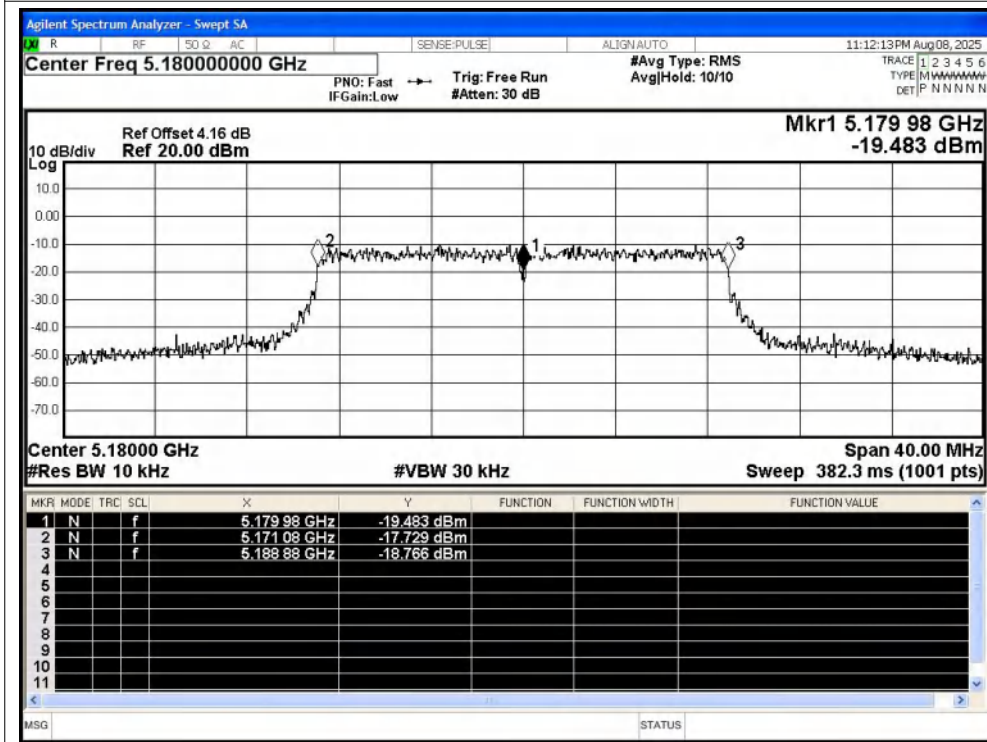


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Freq. Stability NVNT a 5240MHz Ant1

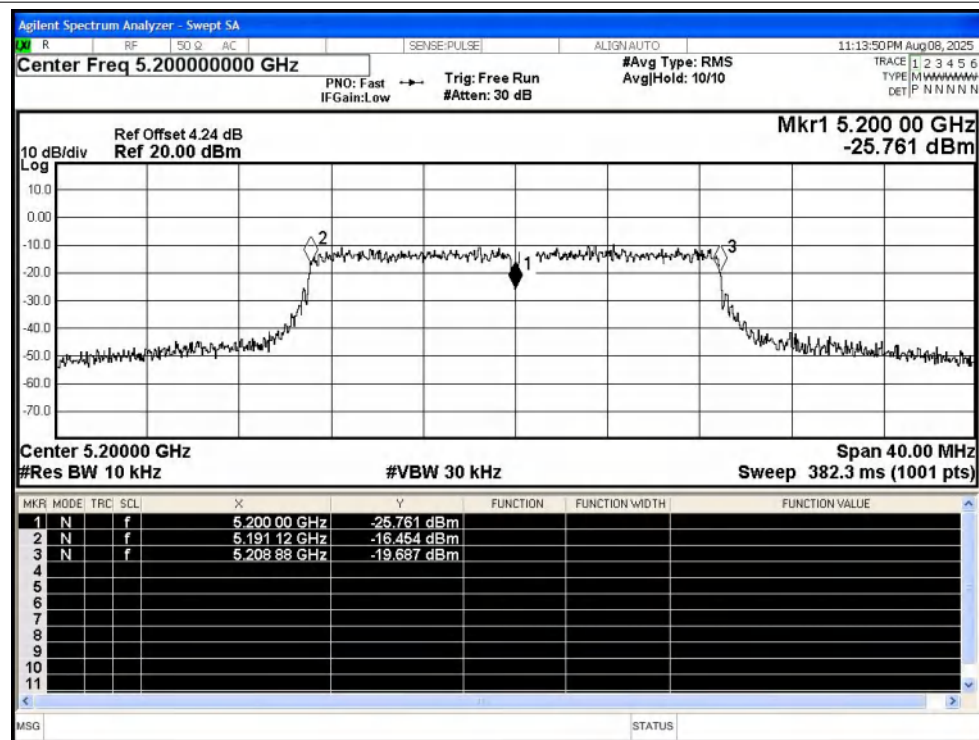


Freq. Stability NVNT n20 5180MHz Ant1

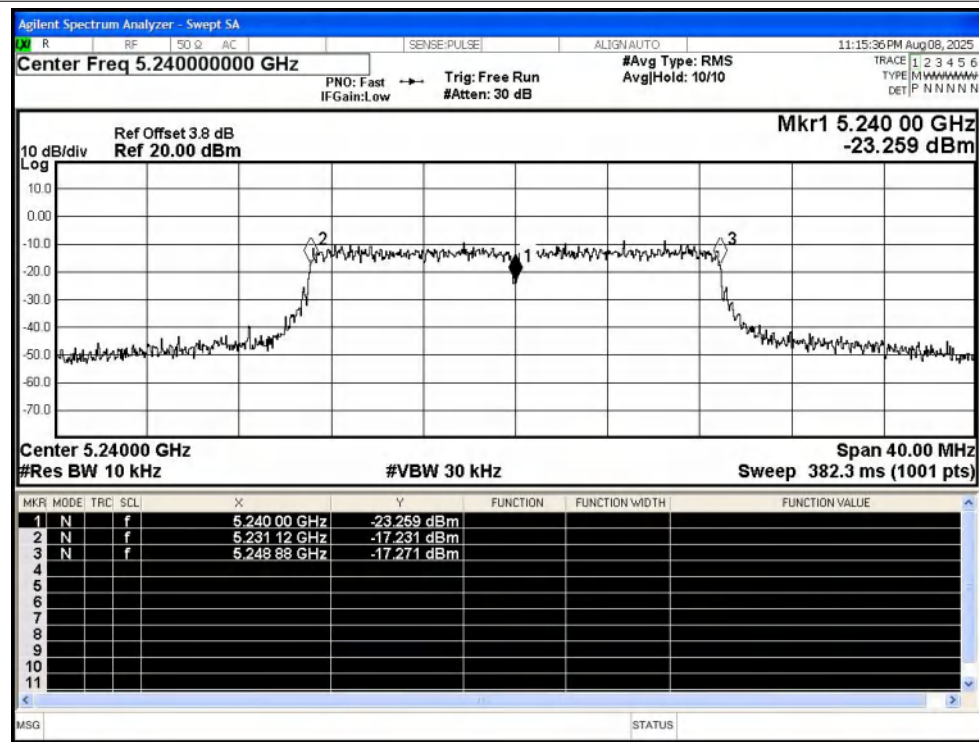


LCSC07315004ED

Freq. Stability NVNT n20 5200MHz Ant1

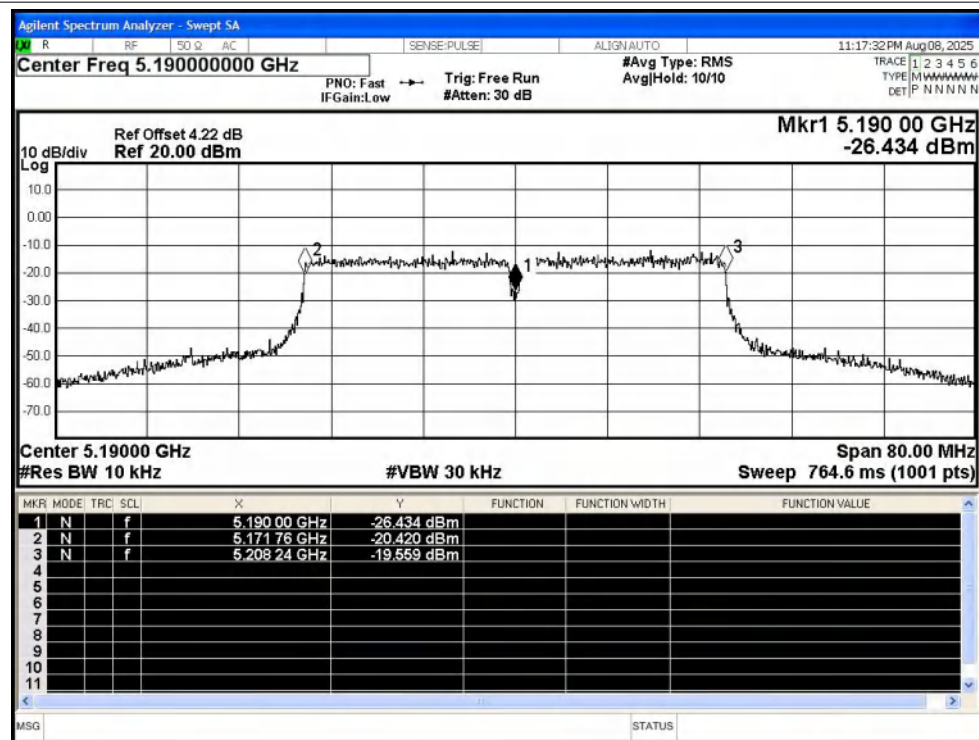


Freq. Stability NVNT n20 5240MHz Ant1

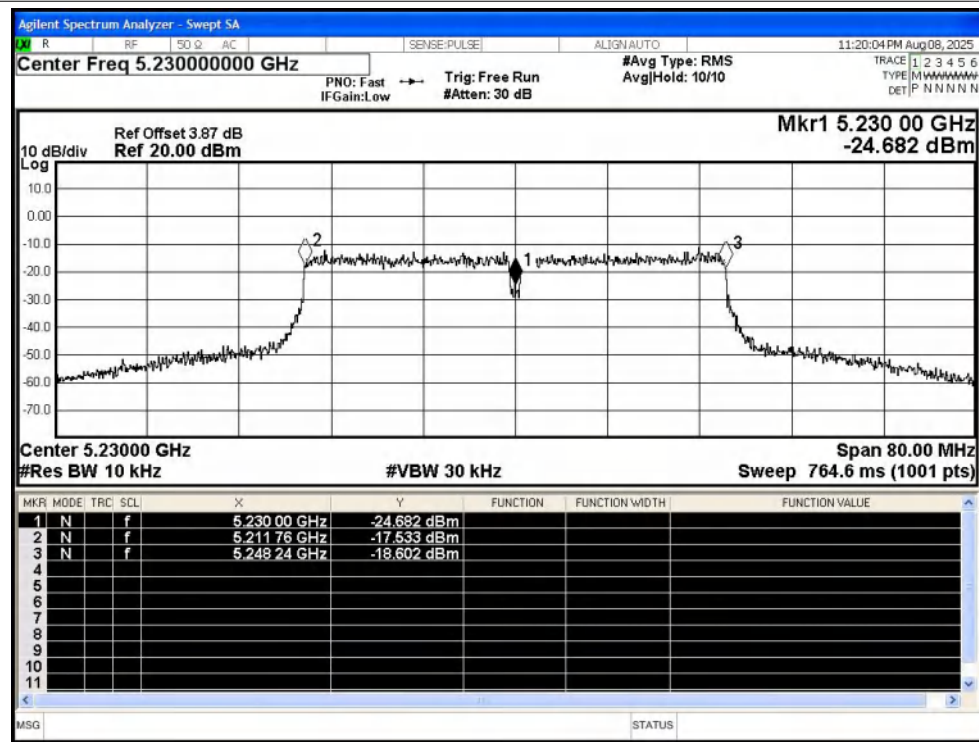


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Freq. Stability NVNT n40 5190MHz Ant1



Freq. Stability NVNT n40 5230MHz Ant1



LCSC07315004ED

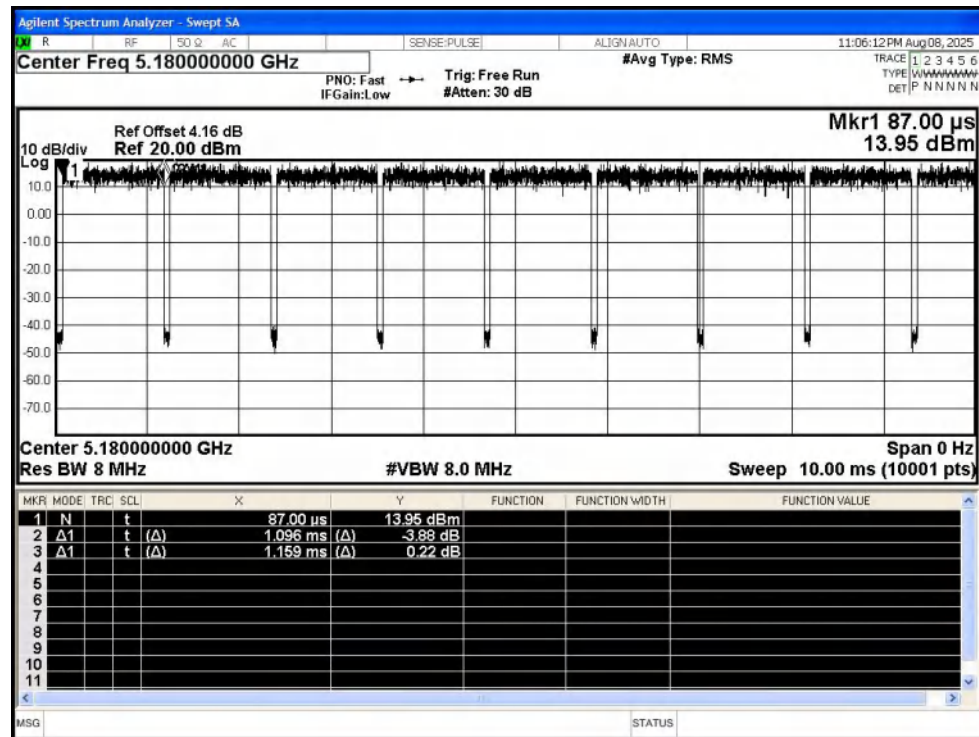
D.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	94.56	0.24	0.91
NVNT	a	5200	Ant1	94.65	0.24	0.91
NVNT	a	5240	Ant1	94.56	0.24	0.91
NVNT	n20	5180	Ant1	97.29	0.12	0.44
NVNT	n20	5200	Ant1	97.29	0.12	0.44
NVNT	n20	5240	Ant1	97.29	0.12	0.44
NVNT	n40	5190	Ant1	94.71	0.24	0.9
NVNT	n40	5230	Ant1	94.79	0.23	0.9

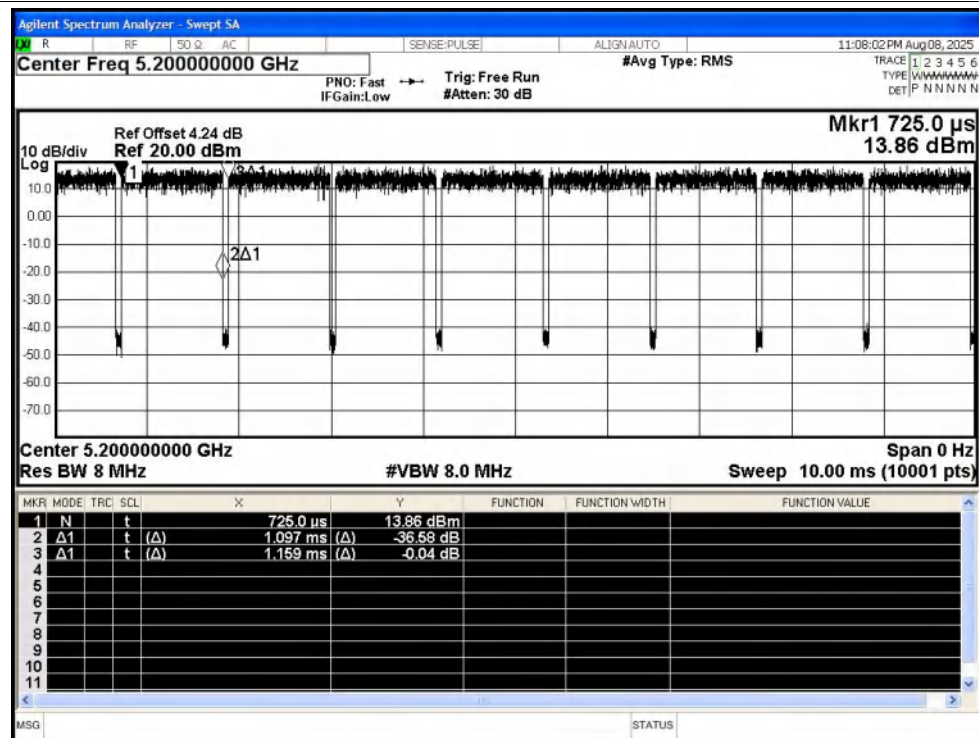
LCSC07315004ED

Test Graphs

Duty Cycle NVNT a 5180MHz Ant1

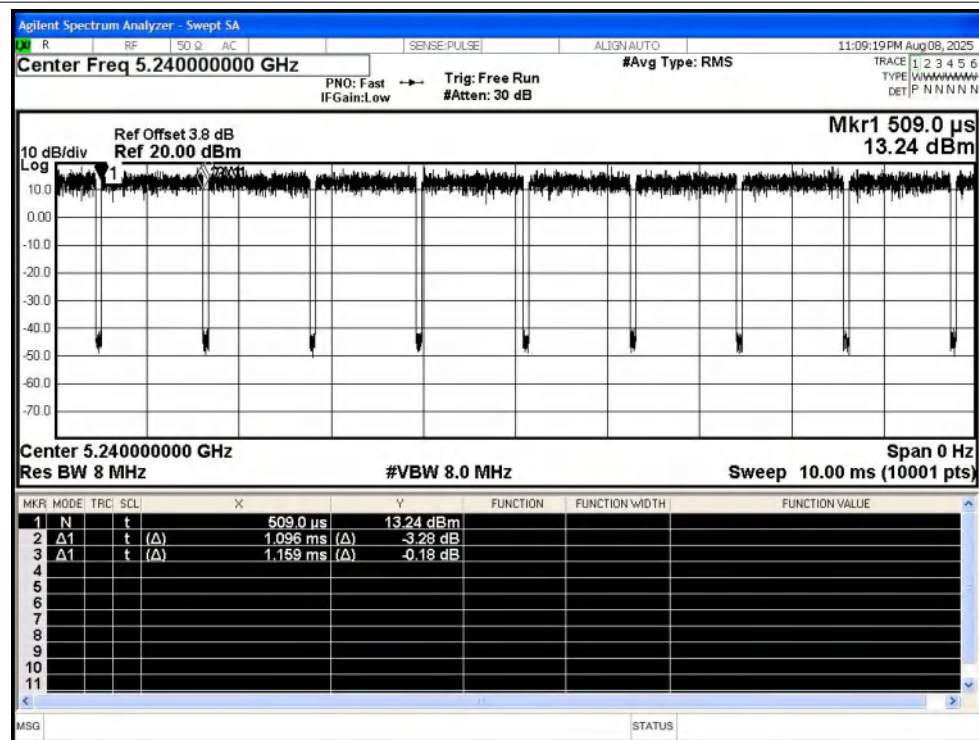


Duty Cycle NVNT a 5200MHz Ant1

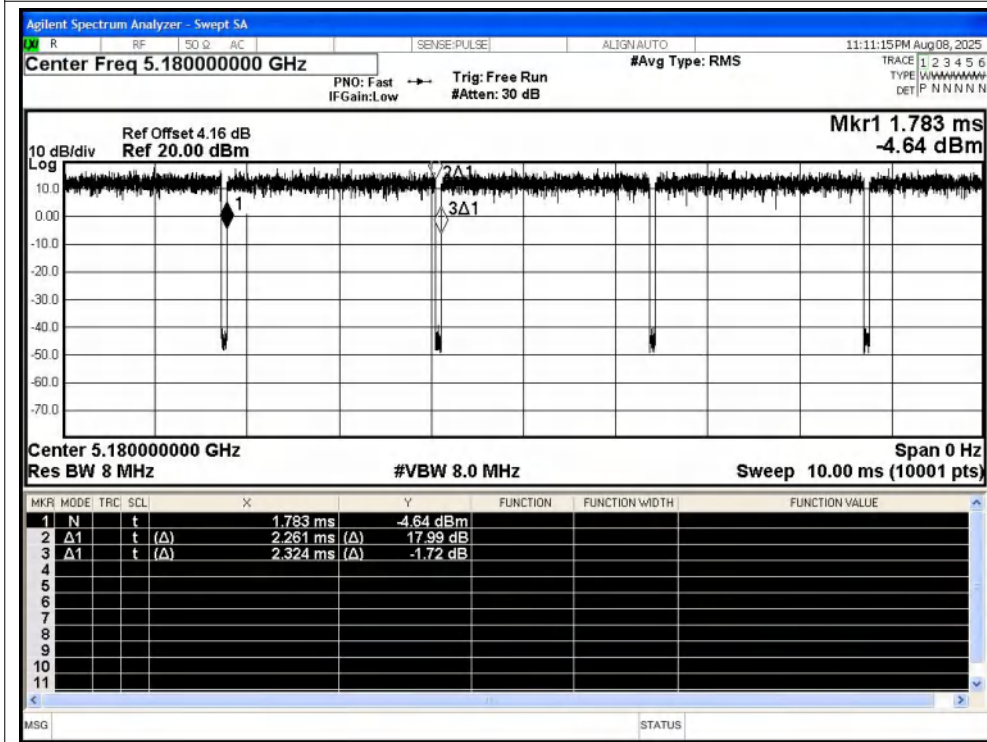


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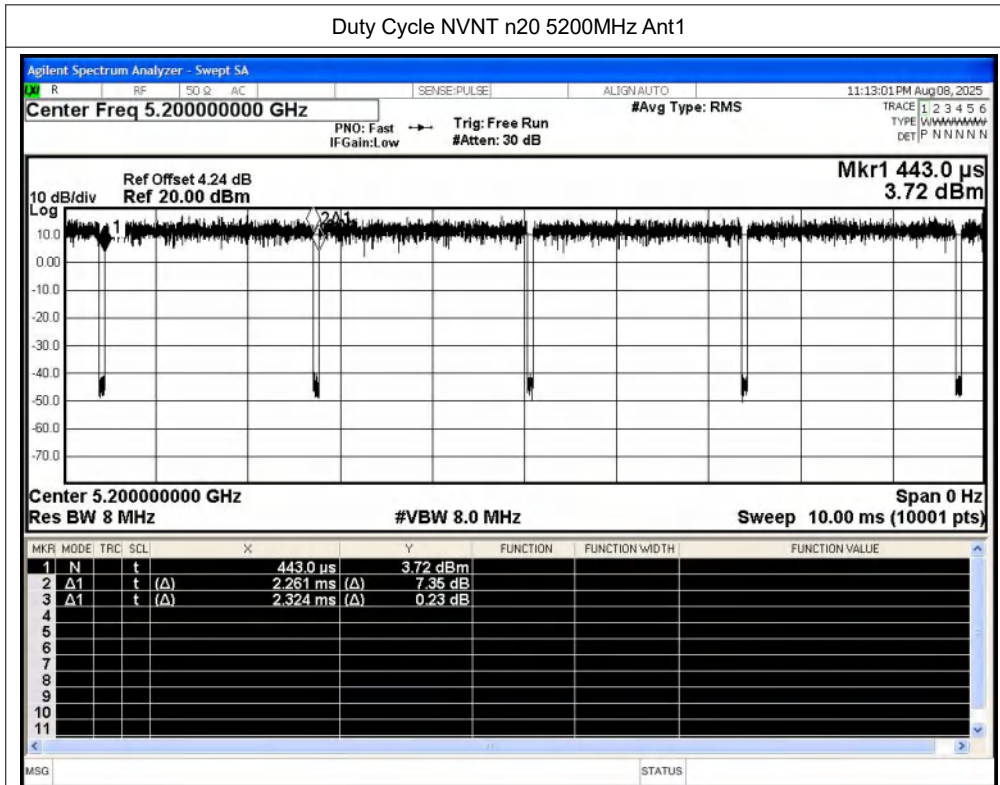
Duty Cycle NVNT a 5240MHz Ant1



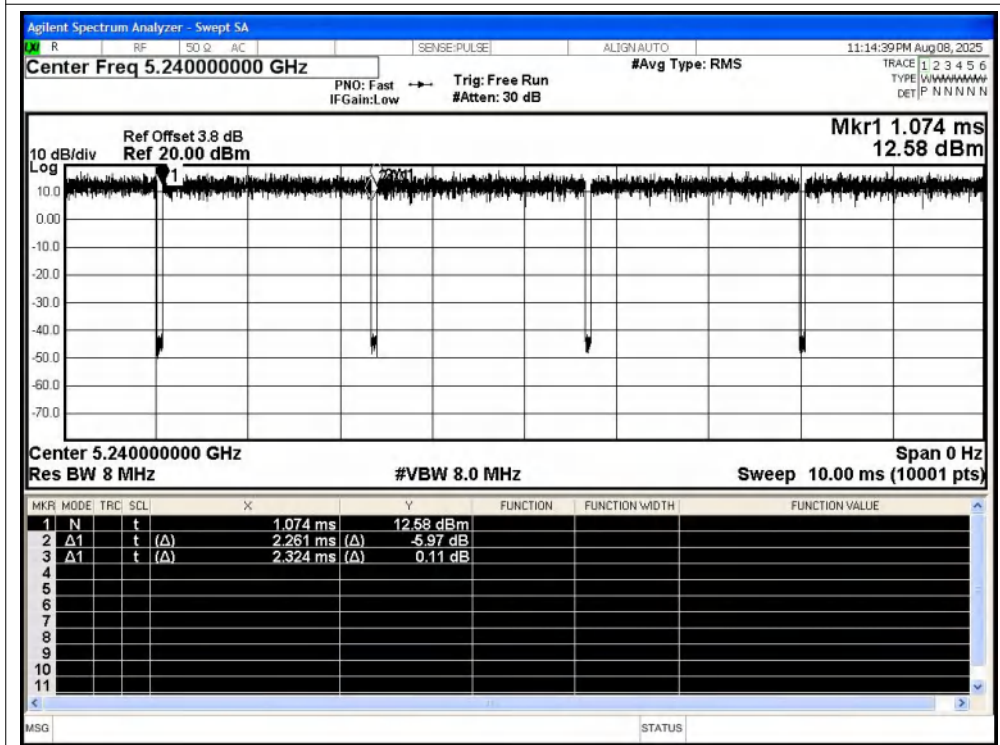
Duty Cycle NVNT n20 5180MHz Ant1



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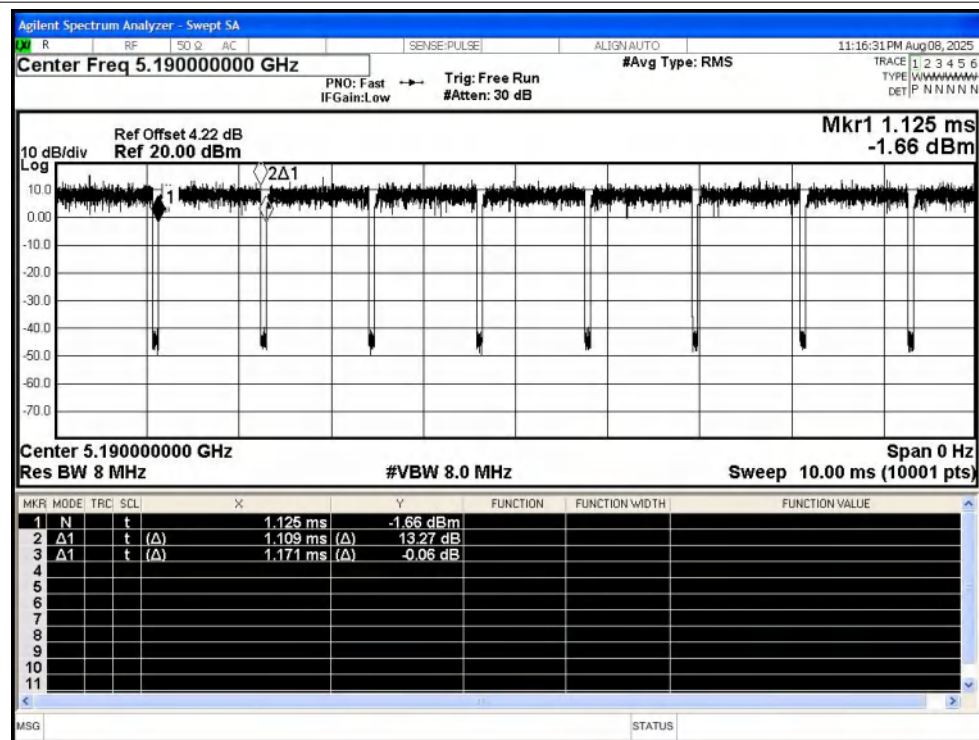


Duty Cycle NVNT n20 5240MHz Ant1



LCSC07315004ED

Duty Cycle NVNT n40 5190MHz Ant1



Duty Cycle NVNT n40 5230MHz Ant1

