

PSD NVNT n20 5785MHz Ant1



PSD NVNT n20 5825MHz Ant1



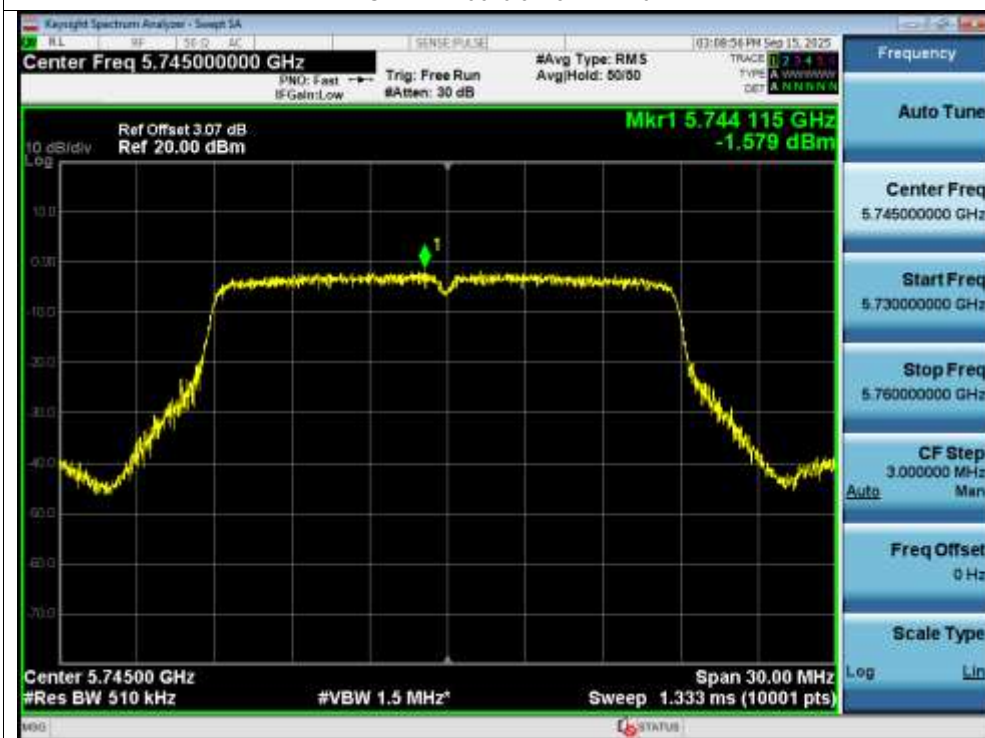
PSD NVNT n40 5755MHz Ant1



PSD NVNT n40 5795MHz Ant1



PSD NVNT ac20 5745MHz Ant1



PSD NVNT ac20 5785MHz Ant1



PSD NVNT ac20 5825MHz Ant1



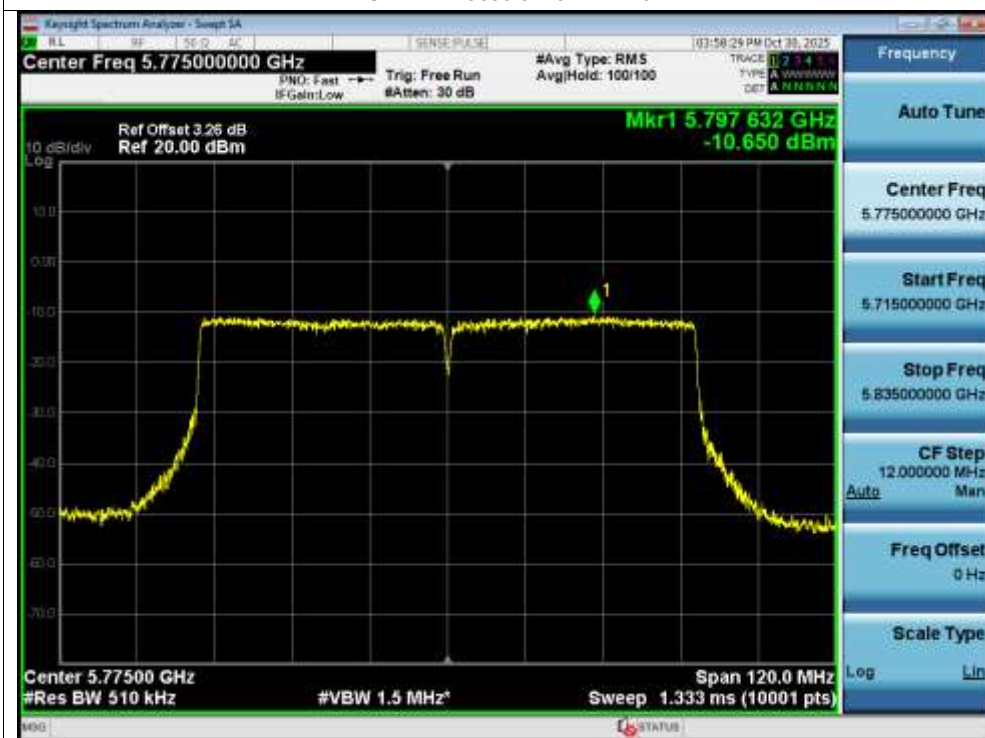
PSD NVNT ac40 5755MHz Ant1



PSD NVNT ac40 5795MHz Ant1



PSD NVNT ac80 5775MHz Ant1



PSD NVNT ax20 5745MHz Ant1



PSD NVNT ax20 5785MHz Ant1



PSD NVNT ax20 5825MHz Ant1



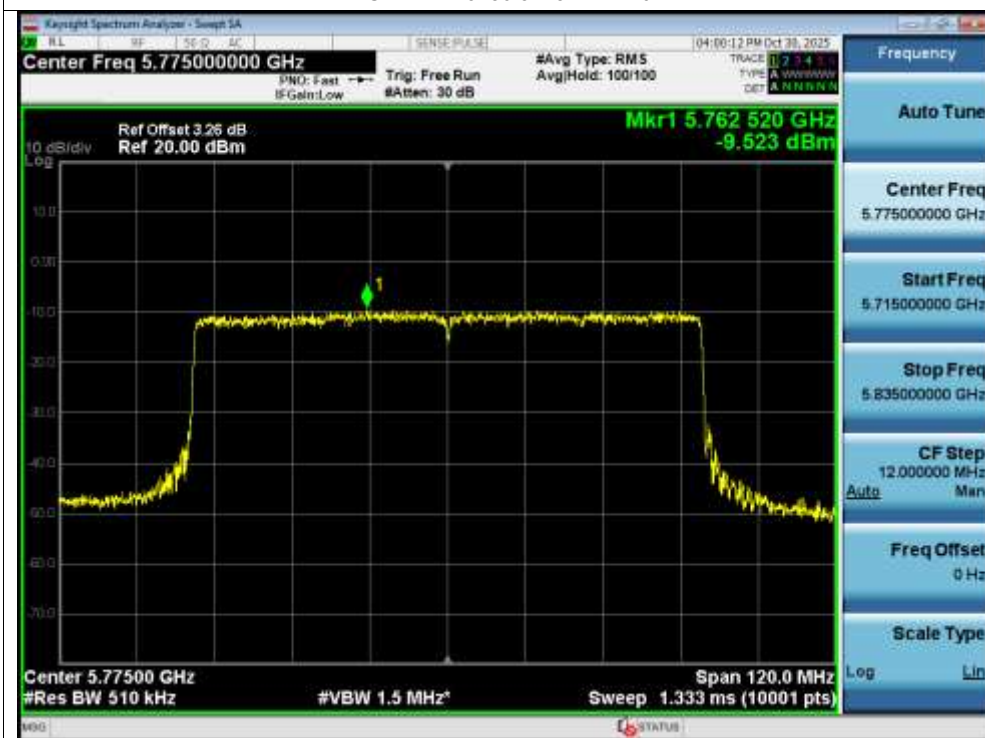
PSD NVNT ax40 5755MHz Ant1



PSD NVNT ax40 5795MHz Ant1

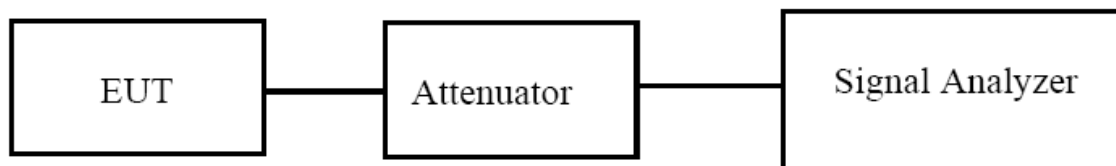


PSD NVNT ax80 5775MHz Ant1



9. 26dB & 6dB & 99% Emission Bandwidth

9.1 Block Diagram Of Test Setup



9.2 Limit

(1) For the band 5.15-5.25 GHz.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

9.3 Test Procedure

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

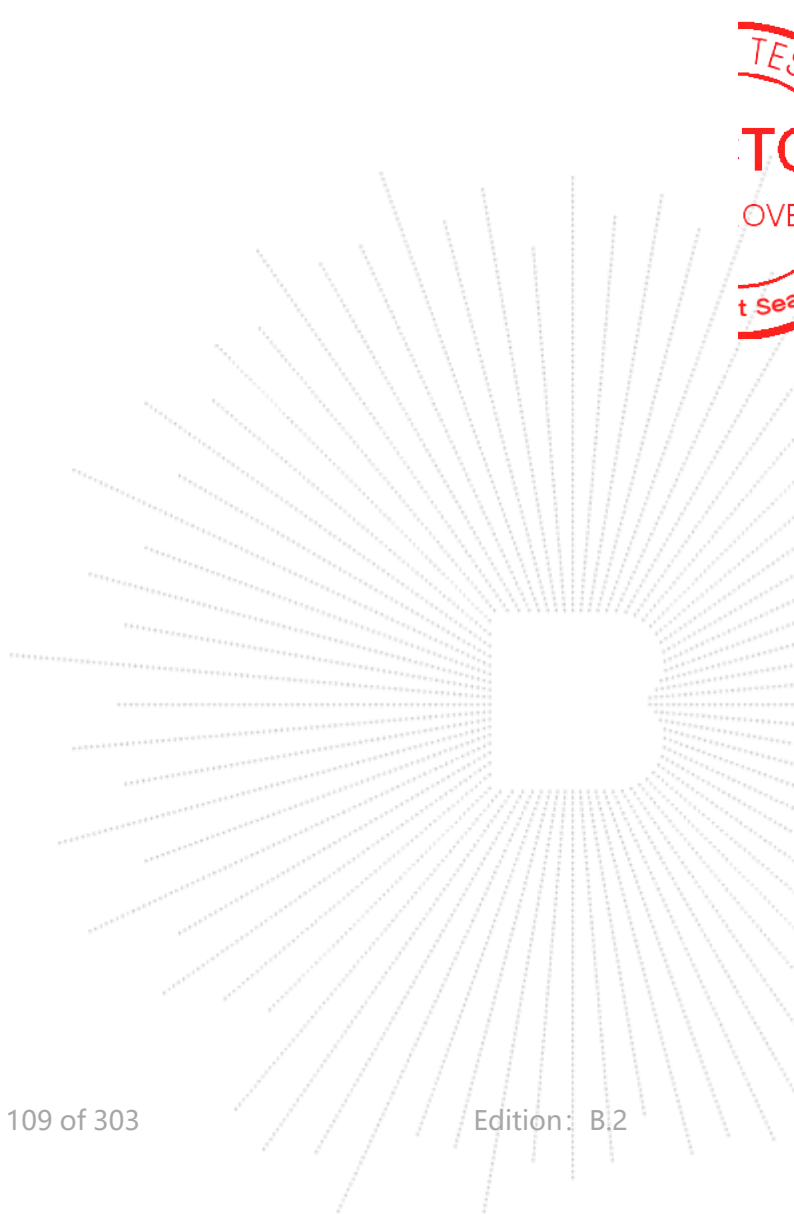
The following procedure shall be used for measuring (99 %) power bandwidth:

- Set center frequency to the nominal EUT channel center frequency.
- Set span = 1.5 times to 5.0 times the OBW.

3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 \cdot$ RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

9.4 EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



9.5 Test Result

Temperature:	26 °C	Relative Humidity:	54%RH
Pressure:	101KPa	Test Voltage:	DC 3.8V
Test Mode:	(5180-5240MHz)		

Condition	Mode	Frequency (MHz)	99% bandwidth (MHz)	-26dB bandwidth (MHz)	Result
NVNT	a	5180	16.408	19.939	Pass
NVNT	a	5200	16.396	20.629	Pass
NVNT	a	5240	16.43	20.661	Pass
NVNT	n20	5180	17.554	20.935	Pass
NVNT	n20	5200	17.563	21.049	Pass
NVNT	n20	5240	17.592	20.995	Pass
NVNT	n40	5190	36.067	40.958	Pass
NVNT	n40	5230	36.034	41.06	Pass
NVNT	ac20	5180	17.567	21.85	Pass
NVNT	ac20	5200	17.585	21.437	Pass
NVNT	ac20	5240	17.582	20.947	Pass
NVNT	ac40	5190	36.091	40.73	Pass
NVNT	ac40	5230	36.029	40.626	Pass
NVNT	ac80	5210	75.813	87.869	Pass
NVNT	ax20	5180	18.789	21.143	Pass
NVNT	ax20	5200	18.791	21.498	Pass
NVNT	ax20	5240	18.8	21.087	Pass
NVNT	ax40	5190	37.539	40.89	Pass
NVNT	ax40	5230	37.55	40.756	Pass
NVNT	ax80	5210	77.35	86.103	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



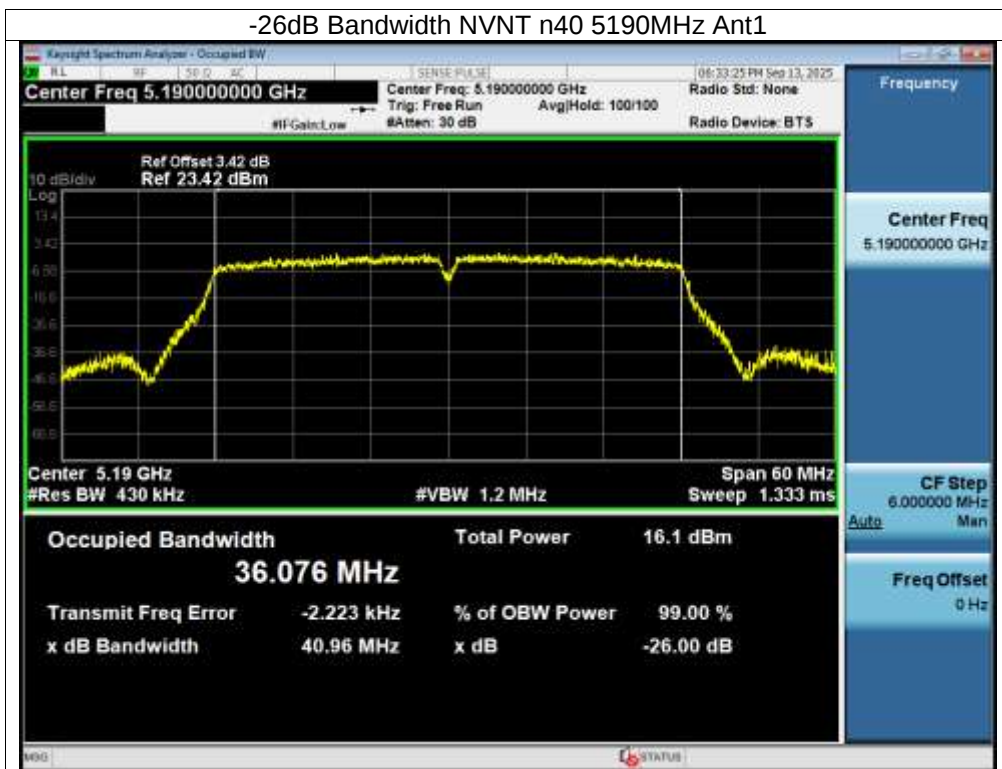
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-26dB Bandwidth NVNT n20 5240MHz Ant1



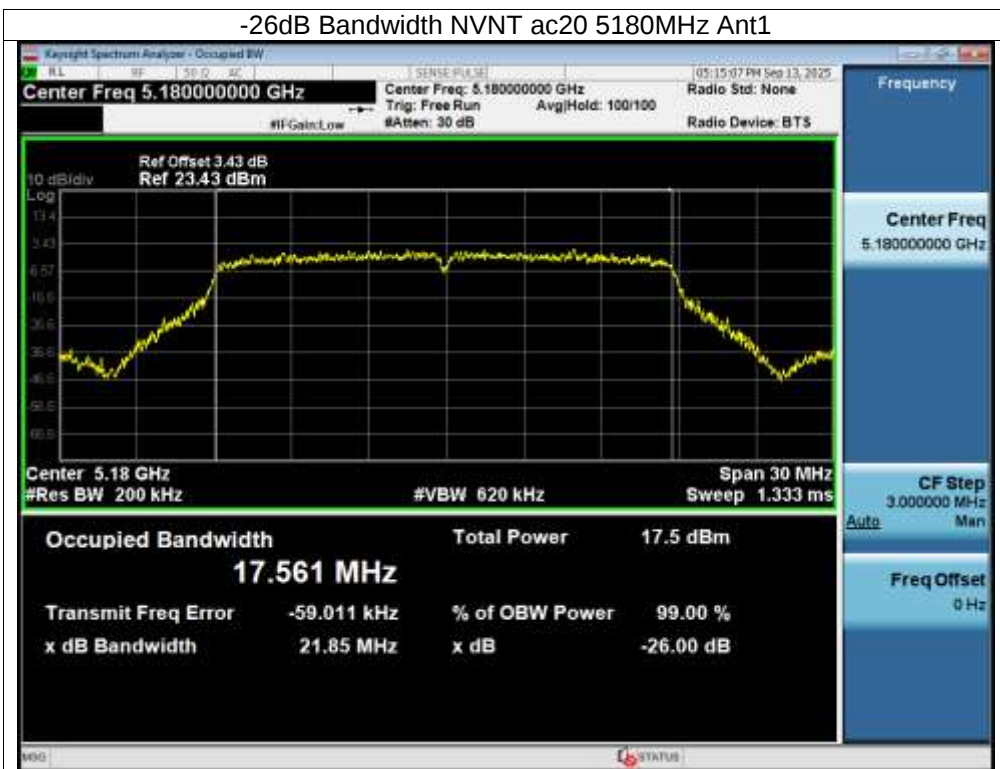
-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz Ant1



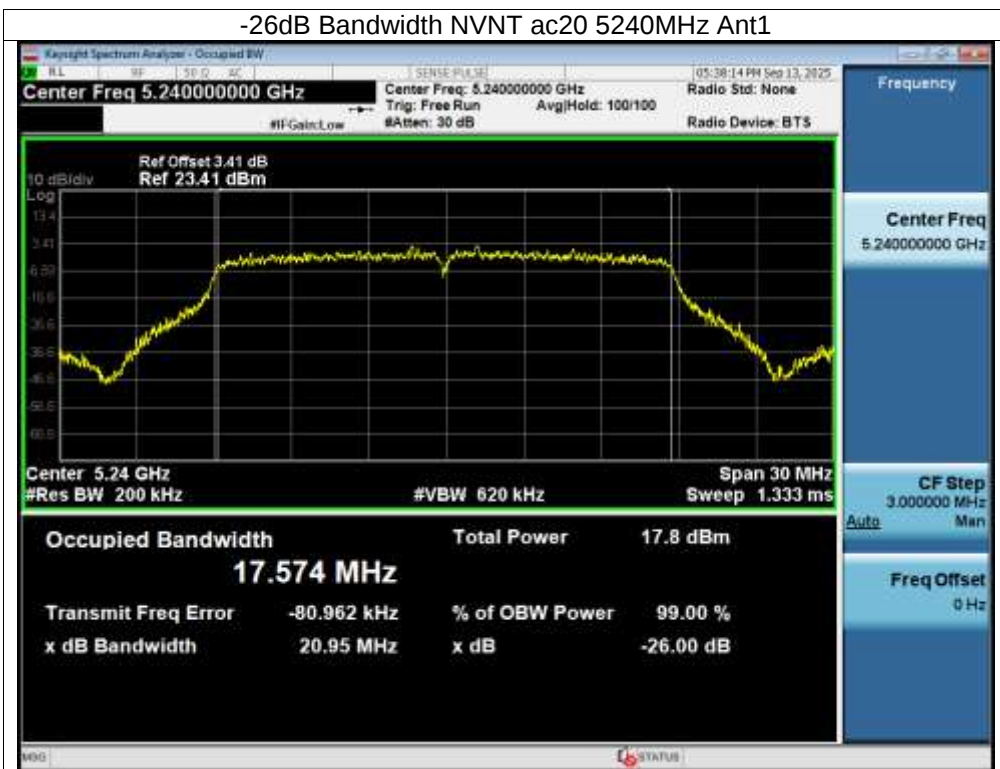
-26dB Bandwidth NVNT ac20 5180MHz Ant1



-26dB Bandwidth NVNT ac20 5200MHz Ant1



-26dB Bandwidth NVNT ac20 5240MHz Ant1



-26dB Bandwidth NVNT ac40 5190MHz Ant1



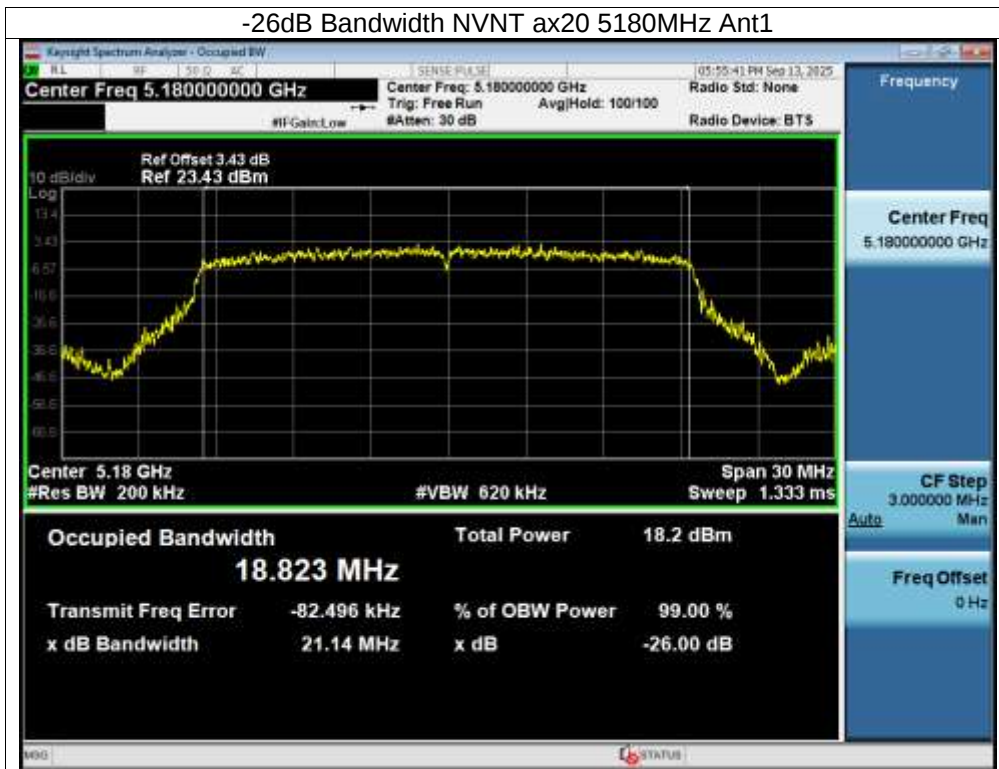
-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1



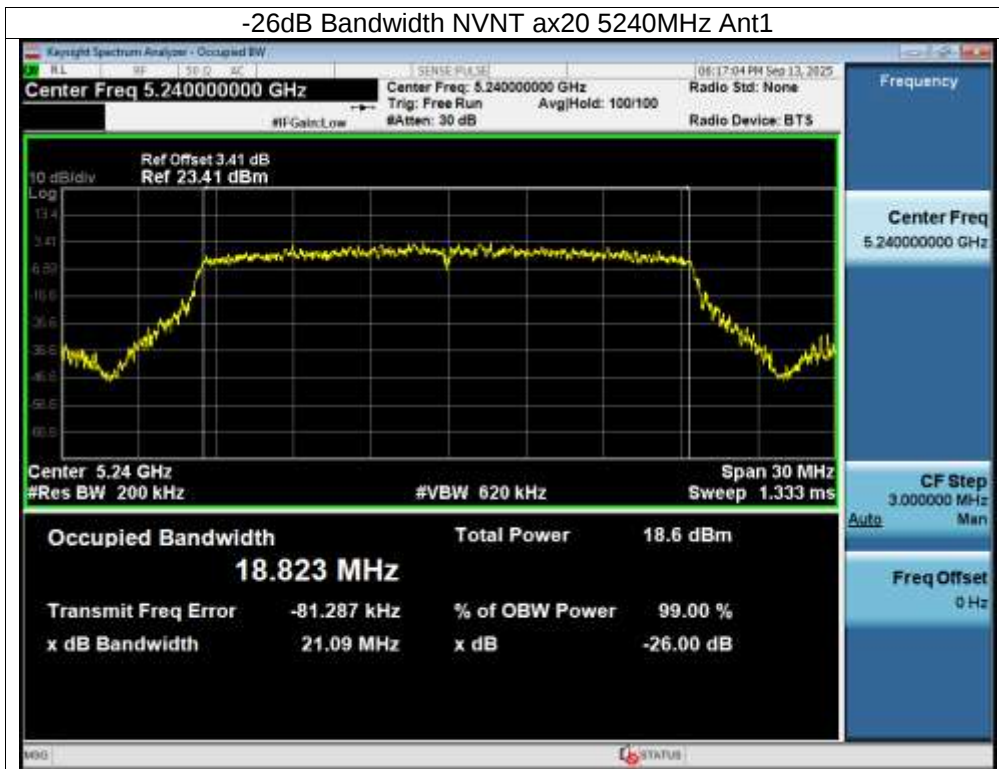
-26dB Bandwidth NVNT ax20 5180MHz Ant1



-26dB Bandwidth NVNT ax20 5200MHz Ant1



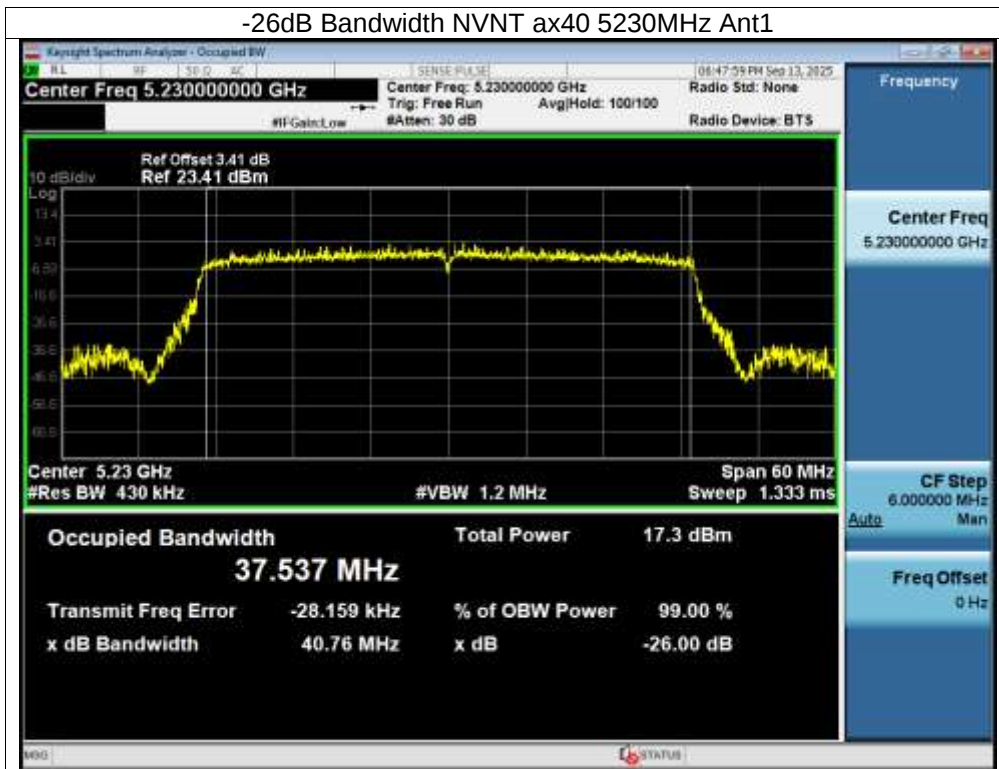
-26dB Bandwidth NVNT ax20 5240MHz Ant1



-26dB Bandwidth NVNT ax40 5190MHz Ant1



-26dB Bandwidth NVNT ax40 5230MHz Ant1



-26dB Bandwidth NVNT ax80 5210MHz Ant1



Test Graphs

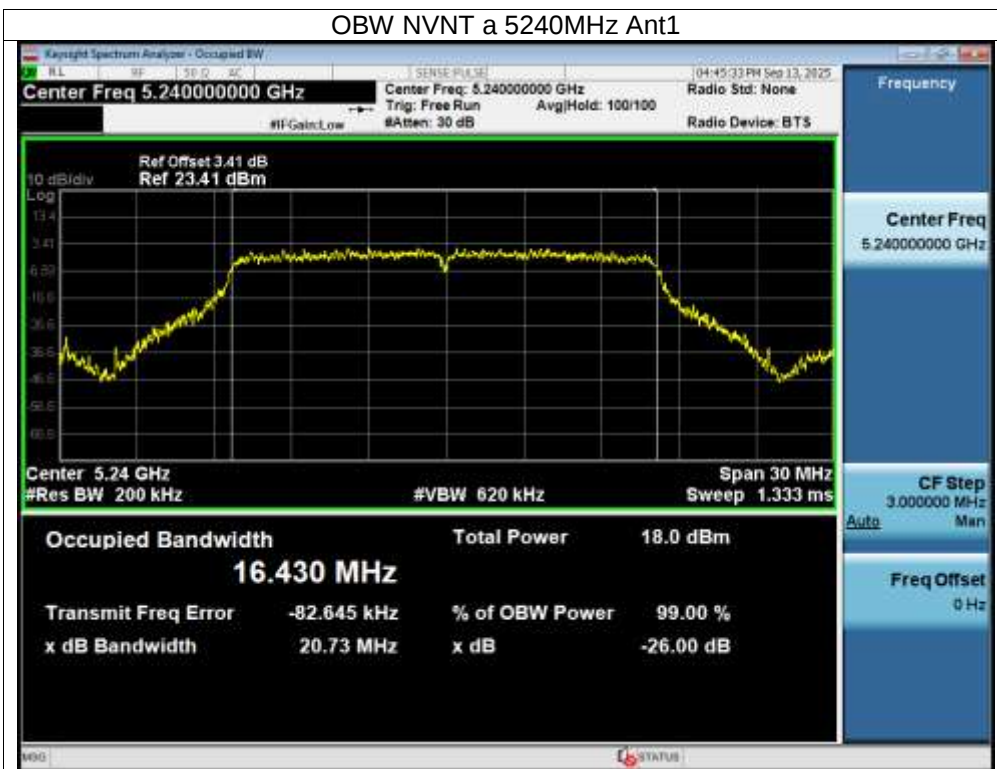
OBW NVNT a 5180MHz Ant1



OBW NVNT a 5200MHz Ant1



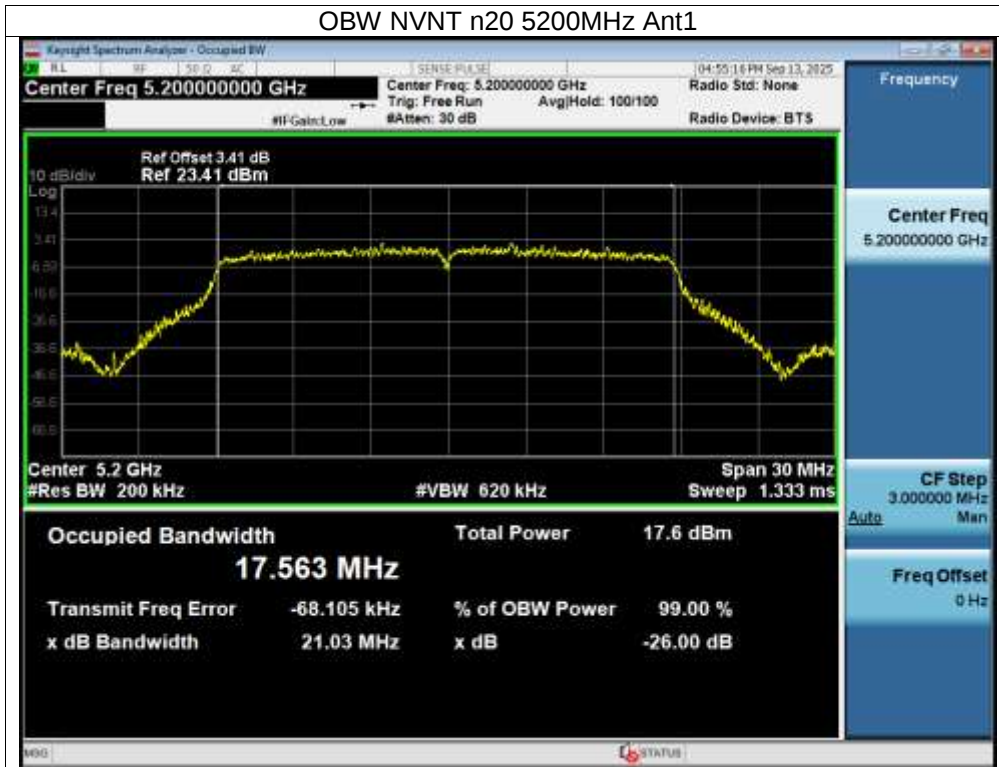
OBW NVNT a 5240MHz Ant1



OBW NVNT n20 5180MHz Ant1



OBW NVNT n20 5200MHz Ant1



OBW NVNT n20 5240MHz Ant1



OBW NVNT n40 5190MHz Ant1



OBW NVNT n40 5230MHz Ant1



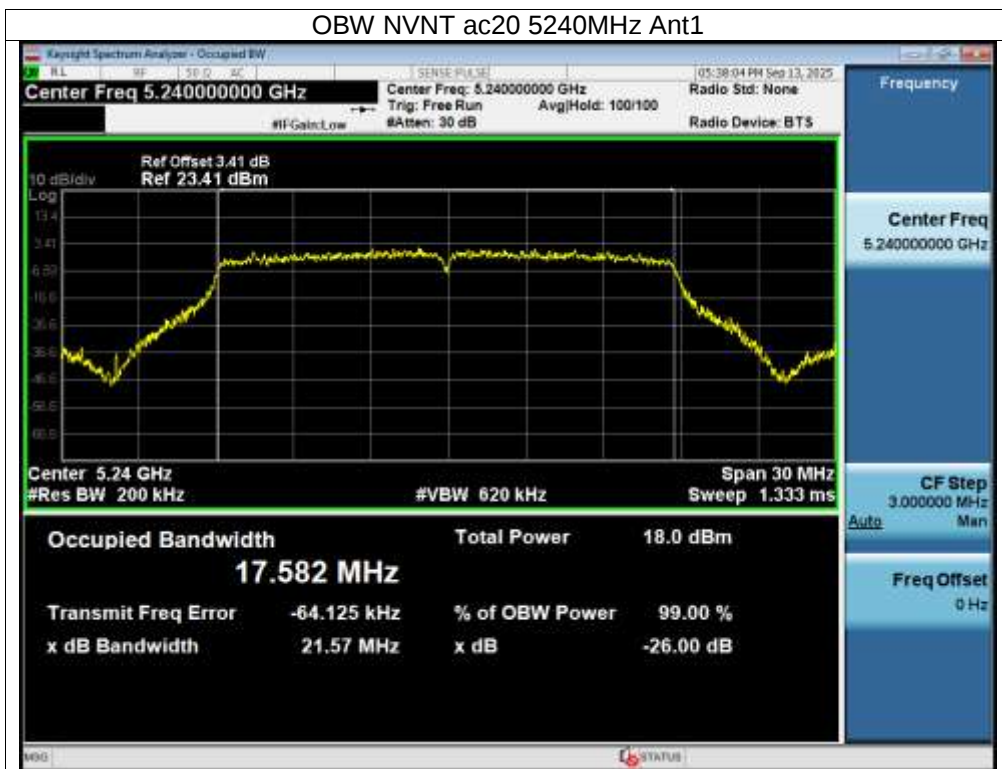
OBW NVNT ac20 5180MHz Ant1



OBW NVNT ac20 5200MHz Ant1



OBW NVNT ac20 5240MHz Ant1



OBW NVNT ac40 5190MHz Ant1



OBW NVNT ac40 5230MHz Ant1



OBW NVNT ac80 5210MHz Ant1



OBW NVNT ax20 5180MHz Ant1



OBW NVNT ax20 5200MHz Ant1



OBW NVNT ax20 5240MHz Ant1



OBW NVNT ax40 5190MHz Ant1



OBW NVNT ax40 5230MHz Ant1



OBW NVNT ax80 5210MHz Ant1



Temperature:	26 °C	Relative Humidity:	54%RH
Pressure:	101KPa	Test Voltage:	DC 3.8V
Test Mode:	(5260-5320MHz)		

Condition	Mode	Frequency (MHz)	99% bandwidth (MHz)	26dB bandwidth (MHz)	Result
NVNT	a	5260	16.413	20.193	Pass
NVNT	a	5280	16.425	20.063	Pass
NVNT	a	5320	16.386	20.898	Pass
NVNT	n20	5260	17.576	21.368	Pass
NVNT	n20	5280	17.558	21.344	Pass
NVNT	n20	5320	17.572	21.02	Pass
NVNT	n40	5270	36.031	41.514	Pass
NVNT	n40	5310	36.101	41.013	Pass
NVNT	ac20	5260	17.573	21.262	Pass
NVNT	ac20	5280	17.557	20.44	Pass
NVNT	ac20	5320	17.569	21.385	Pass
NVNT	ac40	5270	36.051	41.218	Pass
NVNT	ac40	5310	36.056	41.133	Pass
NVNT	ac80	5290	75.658	86.145	Pass
NVNT	ax20	5260	18.747	21.497	Pass
NVNT	ax20	5280	18.808	21.407	Pass
NVNT	ax20	5320	18.826	21.667	Pass
NVNT	ax40	5270	37.481	41.132	Pass
NVNT	ax40	5310	37.478	40.623	Pass
NVNT	ax80	5290	77.208	84.871	Pass



Test Graphs

-26dB Bandwidth NVNT a 5260MHz Ant1



-26dB Bandwidth NVNT a 5280MHz Ant1



-26dB Bandwidth NVNT a 5320MHz Ant1



-26dB Bandwidth NVNT n20 5260MHz Ant1



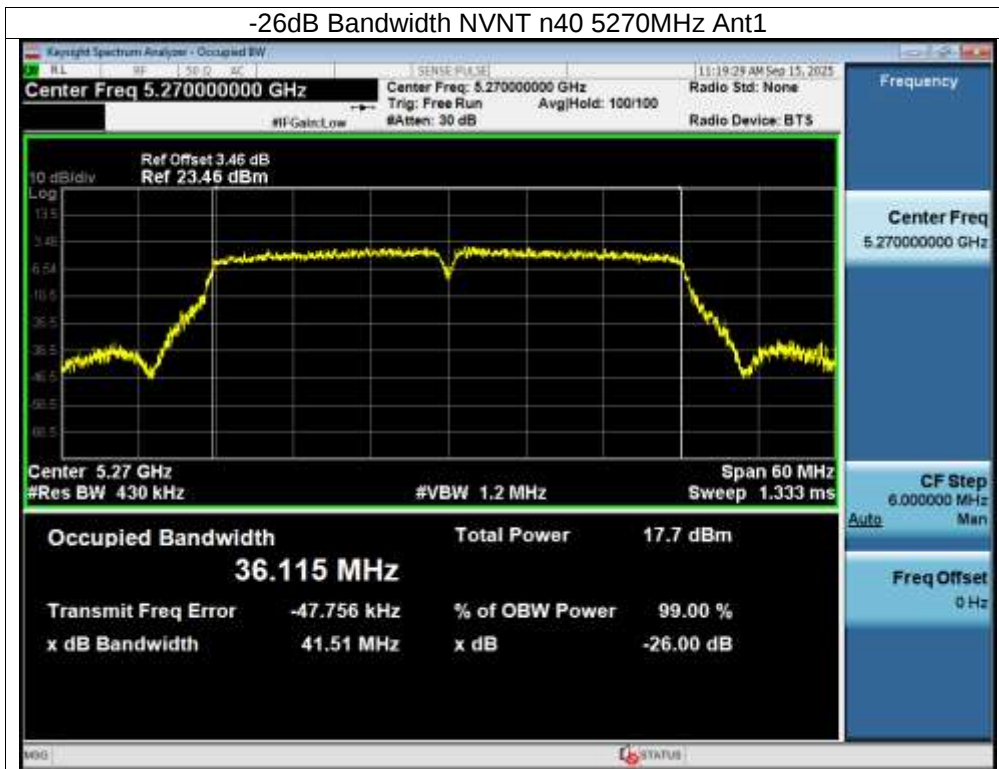
-26dB Bandwidth NVNT n20 5280MHz Ant1



-26dB Bandwidth NVNT n20 5320MHz Ant1



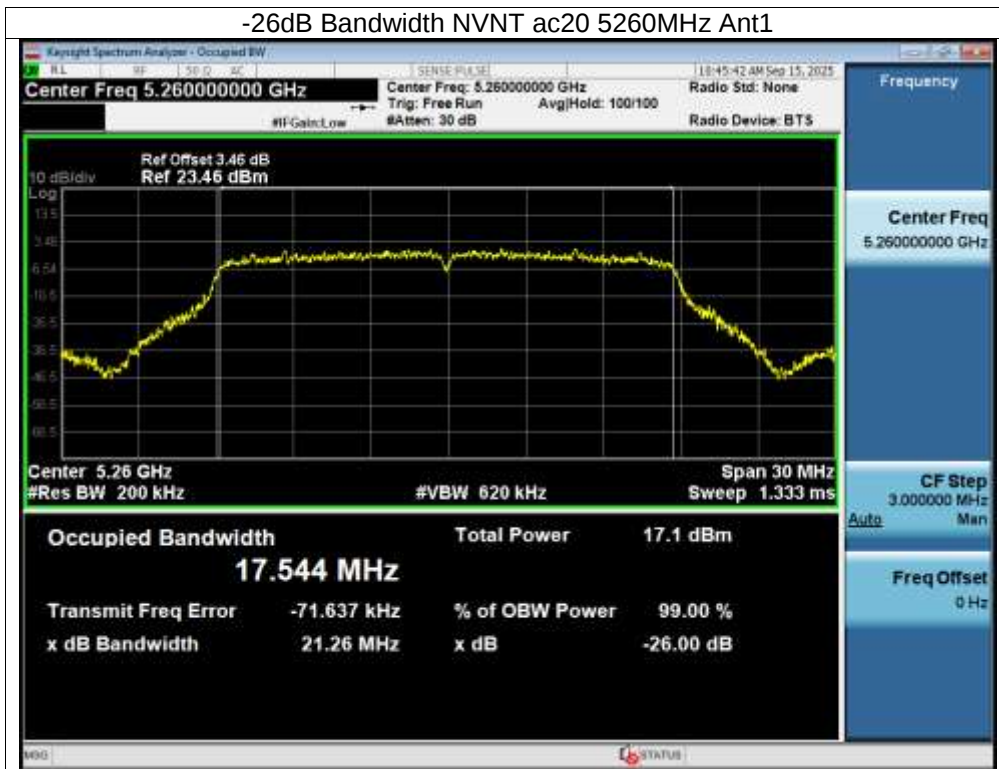
-26dB Bandwidth NVNT n40 5270MHz Ant1



-26dB Bandwidth NVNT n40 5310MHz Ant1



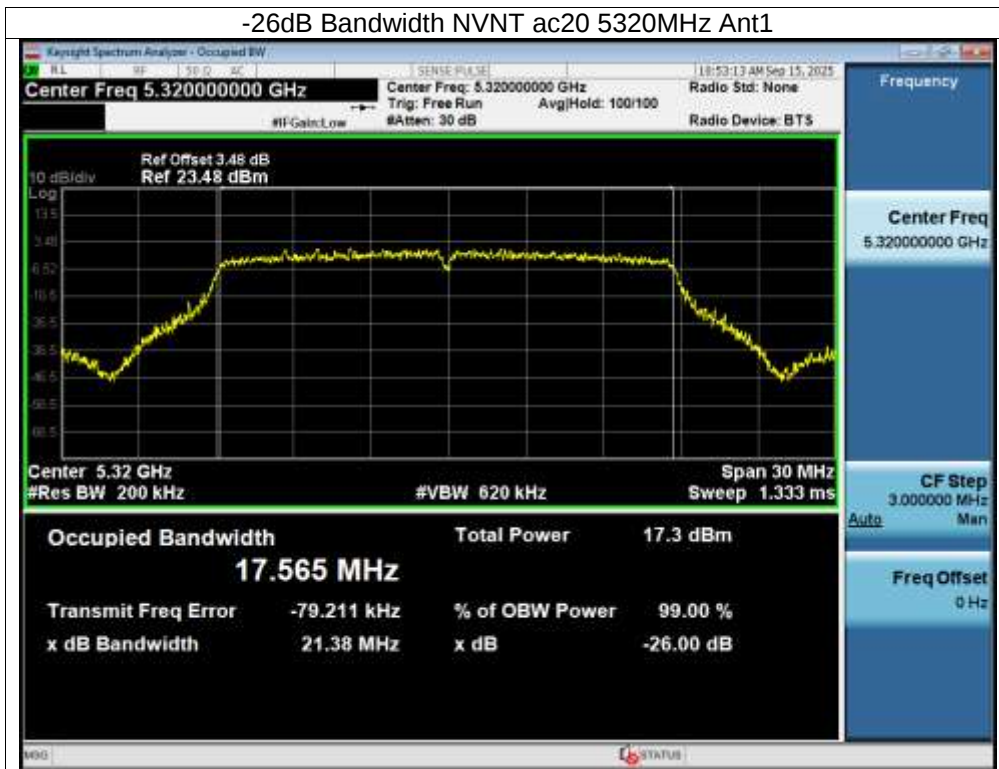
-26dB Bandwidth NVNT ac20 5260MHz Ant1



-26dB Bandwidth NVNT ac20 5280MHz Ant1



-26dB Bandwidth NVNT ac20 5320MHz Ant1



-26dB Bandwidth NVNT ac40 5270MHz Ant1



-26dB Bandwidth NVNT ac40 5310MHz Ant1



-26dB Bandwidth NVNT ac80 5290MHz Ant1



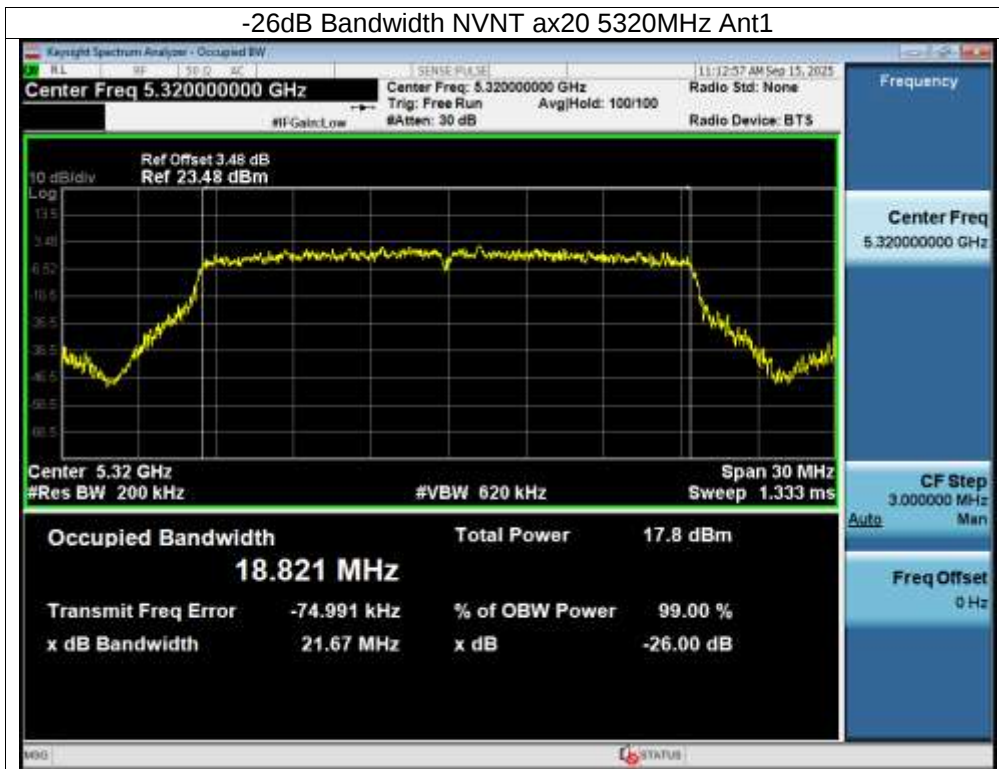
-26dB Bandwidth NVNT ax20 5260MHz Ant1



-26dB Bandwidth NVNT ax20 5280MHz Ant1



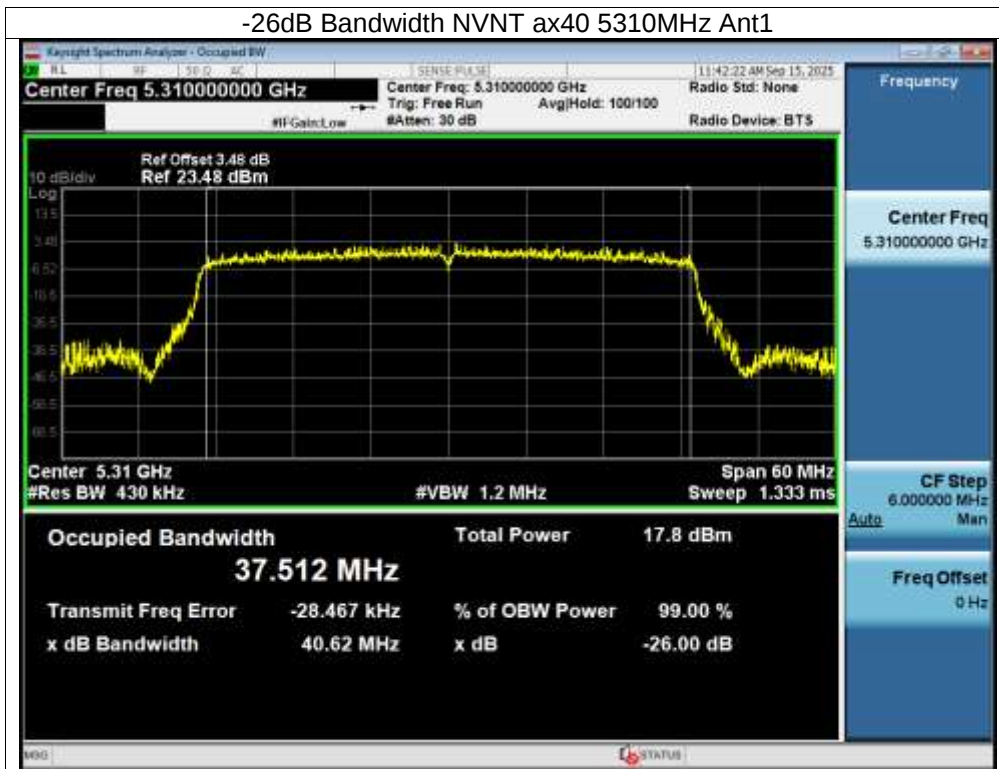
-26dB Bandwidth NVNT ax20 5320MHz Ant1



-26dB Bandwidth NVNT ax40 5270MHz Ant1



-26dB Bandwidth NVNT ax40 5310MHz Ant1



-26dB Bandwidth NVNT ax80 5290MHz Ant1



Test Graphs

OBW NVNT a 5260MHz Ant1



OBW NVNT a 5280MHz Ant1



OBW NVNT a 5320MHz Ant1



OBW NVNT n20 5260MHz Ant1



OBW NVNT n20 5280MHz Ant1



OBW NVNT n20 5320MHz Ant1



OBW NVNT n40 5270MHz Ant1



OBW NVNT n40 5310MHz Ant1



OBW NVNT ac20 5260MHz Ant1



OBW NVNT ac20 5280MHz Ant1



OBW NVNT ac20 5320MHz Ant1



OBW NVNT ac40 5270MHz Ant1



OBW NVNT ac40 5310MHz Ant1



OBW NVNT ac80 5290MHz Ant1



OBW NVNT ax20 5260MHz Ant1



OBW NVNT ax20 5280MHz Ant1



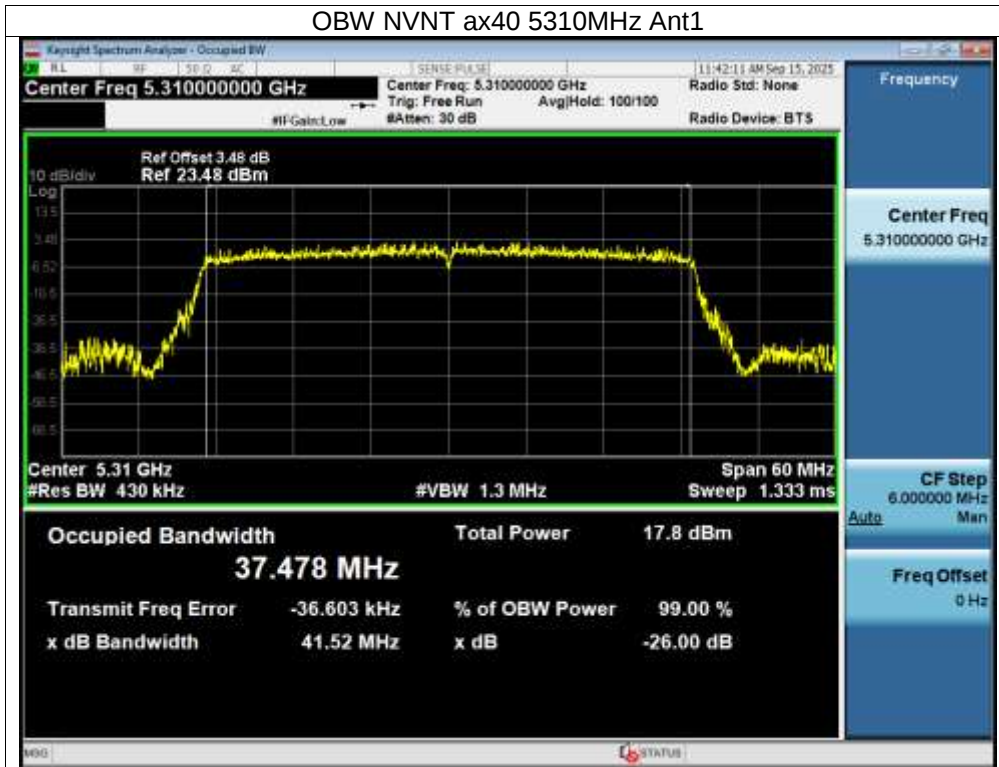
OBW NVNT ax20 5320MHz Ant1



OBW NVNT ax40 5270MHz Ant1



OBW NVNT ax40 5310MHz Ant1



OBW NVNT ax80 5290MHz Ant1



Temperature:	26 °C	Relative Humidity:	54%RH
Pressure:	101KPa	Test Voltage:	DC 3.8V
Test Mode:	(5500-5700MHz)		

Condition	Mode	Frequency (MHz)	99% bandwidth (MHz)	-26dB bandwidth (MHz)	Result
NVNT	a	5500	16.516	20.859	Pass
NVNT	a	5580	16.532	21.114	Pass
NVNT	a	5700	16.467	20.896	Pass
NVNT	n20	5500	17.669	21.512	Pass
NVNT	n20	5580	17.649	21.565	Pass
NVNT	n20	5700	17.665	21.073	Pass
NVNT	n40	5510	36.254	41.496	Pass
NVNT	n40	5550	36.233	42.034	Pass
NVNT	n40	5670	36.189	41.59	Pass
NVNT	ac20	5500	17.644	21.266	Pass
NVNT	ac20	5580	17.669	21.433	Pass
NVNT	ac20	5700	17.621	21.383	Pass
NVNT	ac40	5510	36.254	41.066	Pass
NVNT	ac40	5550	36.222	41.441	Pass
NVNT	ac40	5670	36.261	41.275	Pass
NVNT	ac80	5530	76.075	90.874	Pass
NVNT	ax20	5500	18.938	21.382	Pass
NVNT	ax20	5580	18.87	21.783	Pass
NVNT	ax20	5700	18.888	21.069	Pass
NVNT	ax40	5510	37.679	41.105	Pass
NVNT	ax40	5550	37.688	41.555	Pass
NVNT	ax40	5670	37.7	41.036	Pass
NVNT	ax80	5530	77.618	84.403	Pass

STING
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Test Graphs

-26dB Bandwidth NVNT a 5500MHz Ant1



-26dB Bandwidth NVNT a 5580MHz Ant1



-26dB Bandwidth NVNT a 5700MHz Ant1



-26dB Bandwidth NVNT n20 5500MHz Ant1



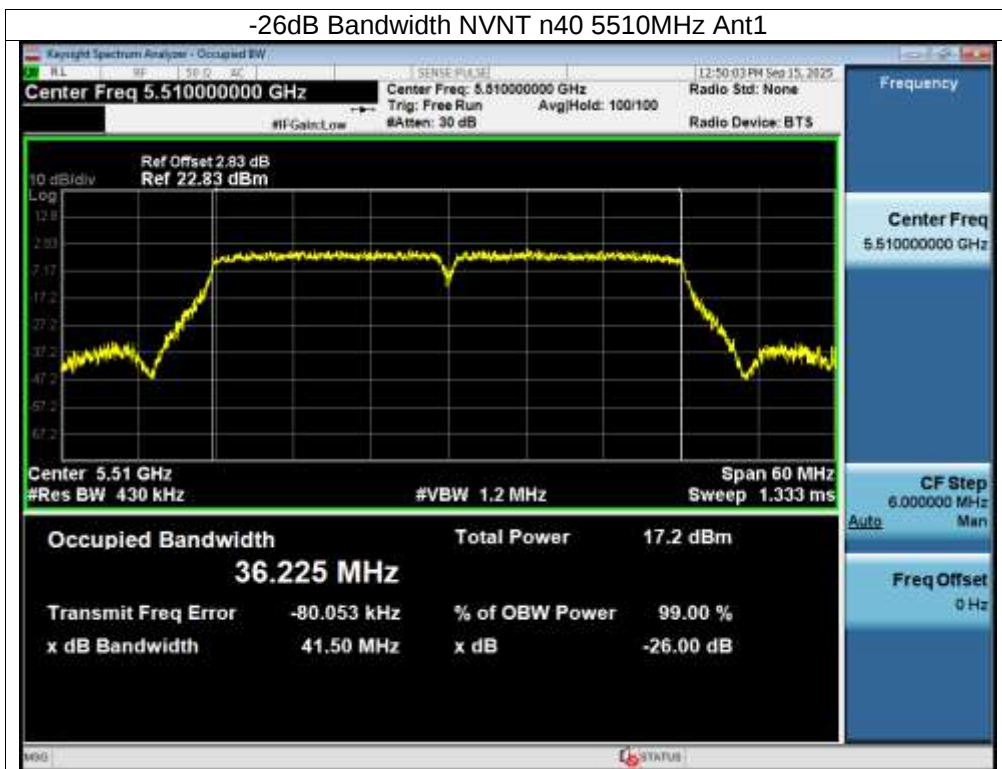
-26dB Bandwidth NVNT n20 5580MHz Ant1



-26dB Bandwidth NVNT n20 5700MHz Ant1



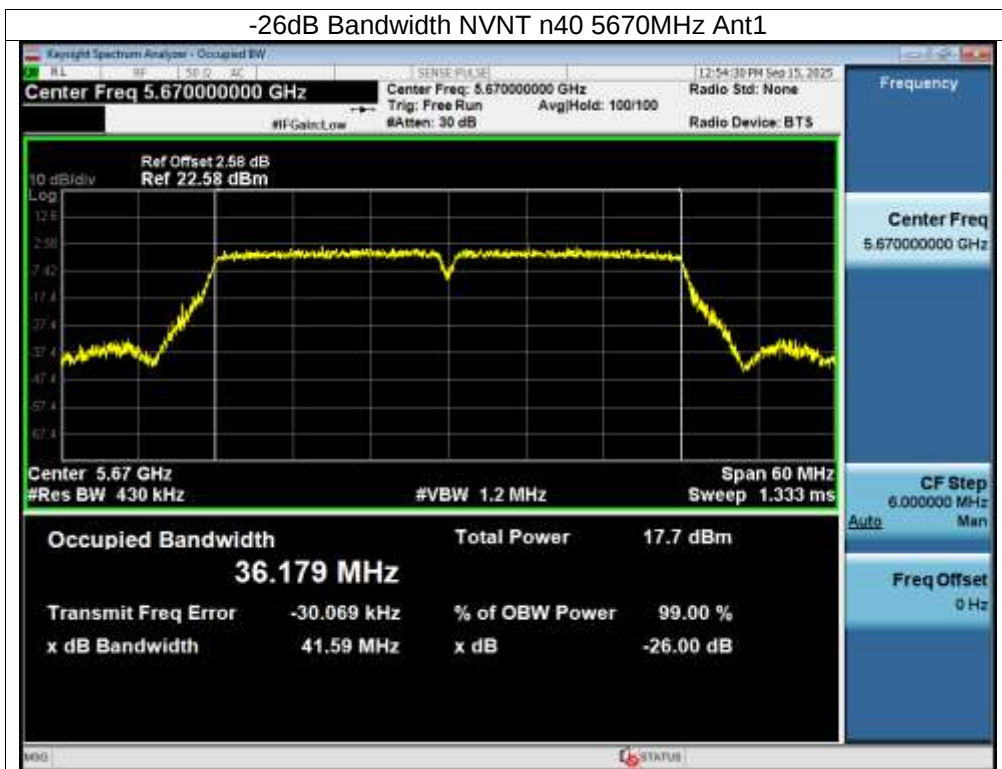
-26dB Bandwidth NVNT n40 5510MHz Ant1



-26dB Bandwidth NVNT n40 5550MHz Ant1



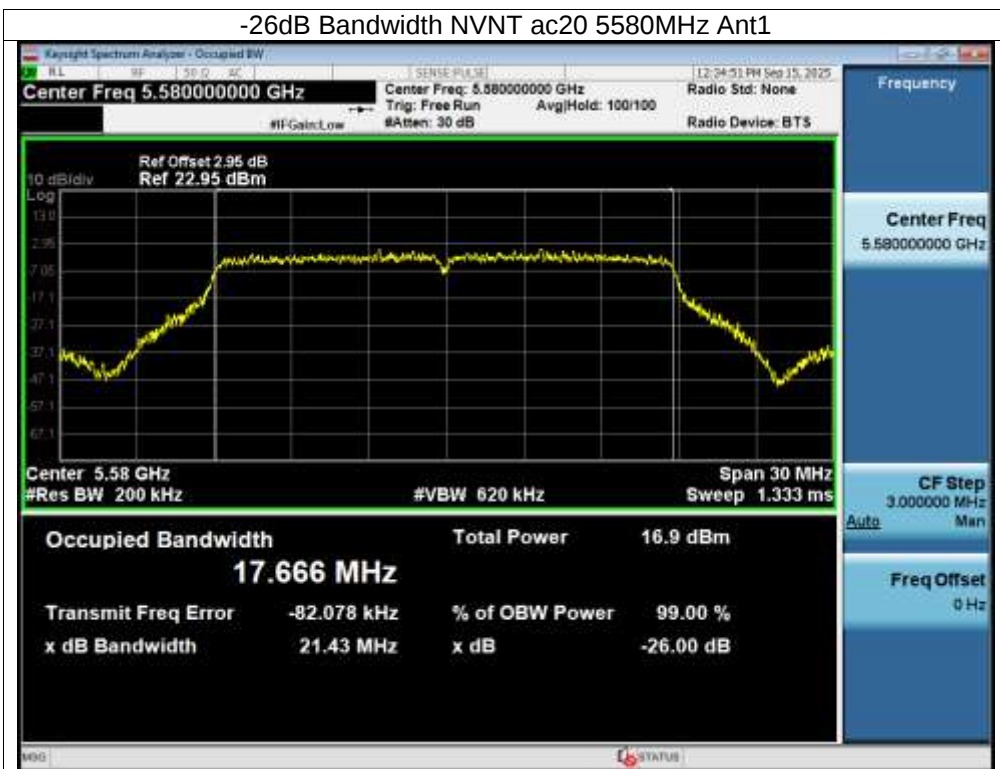
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-26dB Bandwidth NVNT ac20 5500MHz Ant1



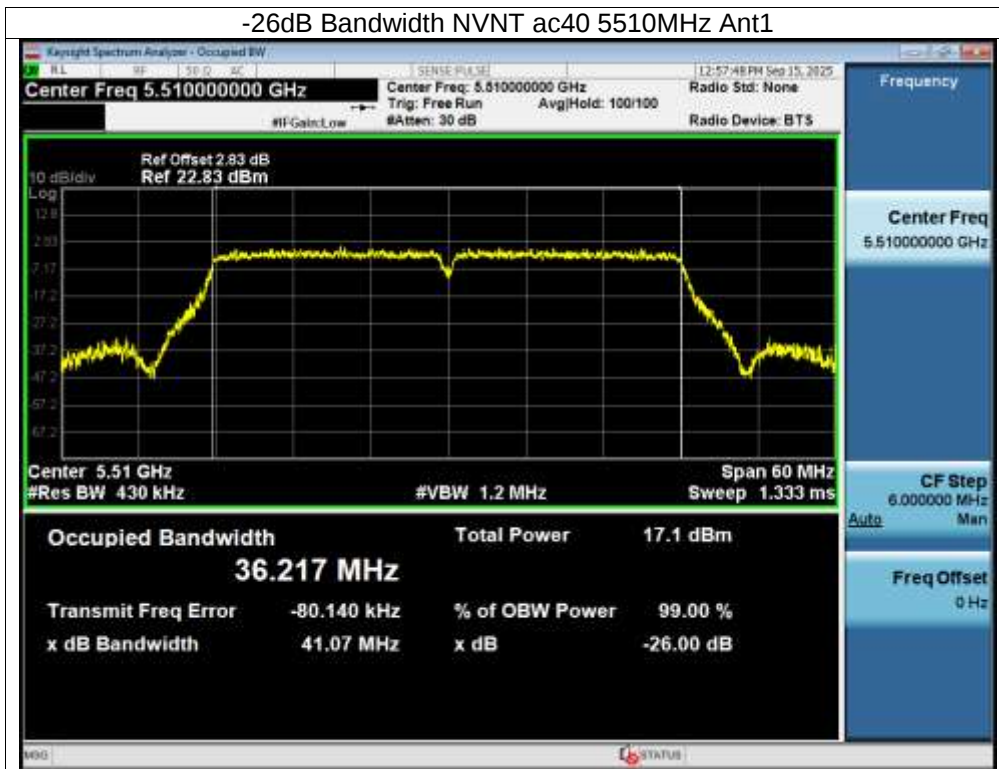
-26dB Bandwidth NVNT ac20 5580MHz Ant1



-26dB Bandwidth NVNT ac20 5700MHz Ant1



-26dB Bandwidth NVNT ac40 5510MHz Ant1



-26dB Bandwidth NVNT ac40 5550MHz Ant1

