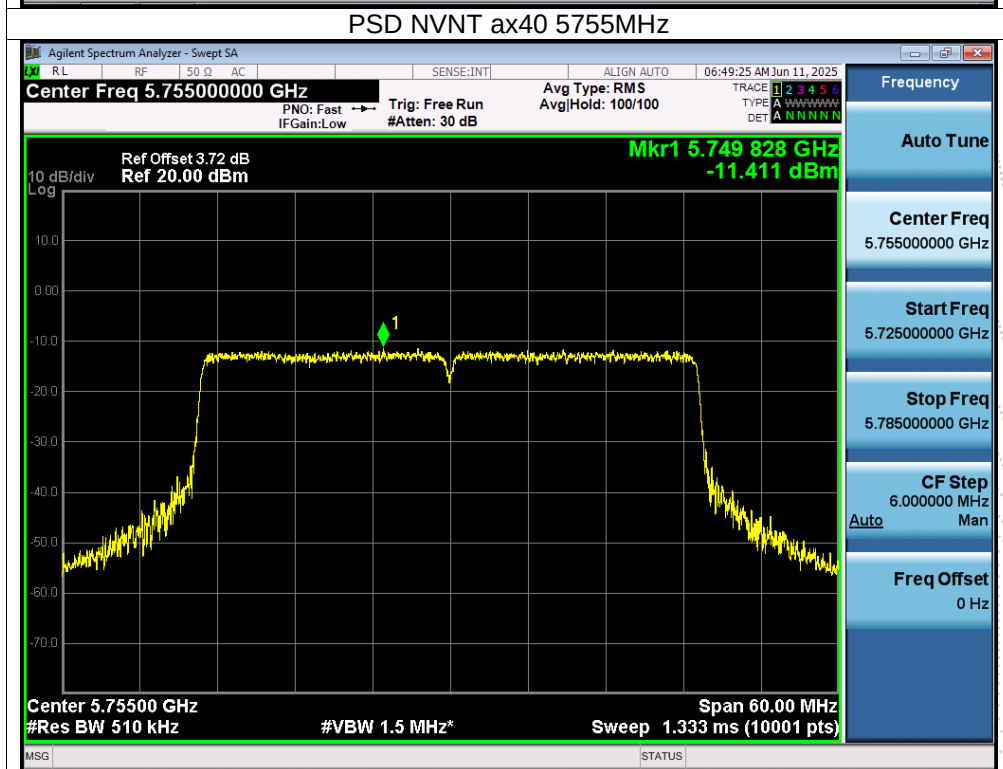
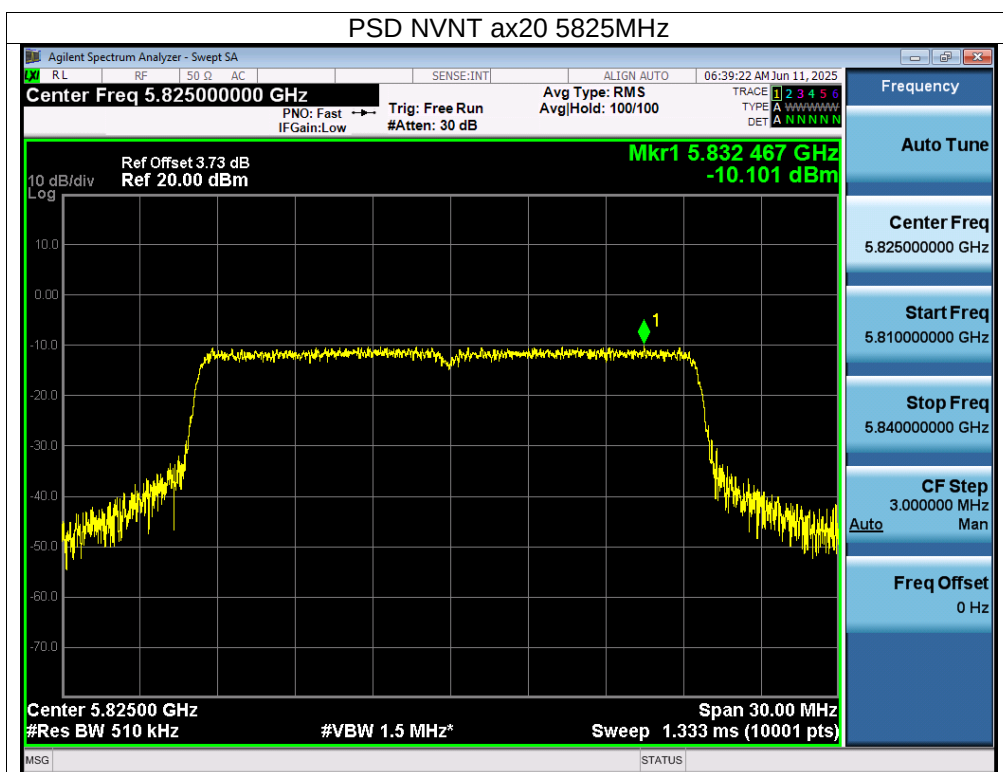
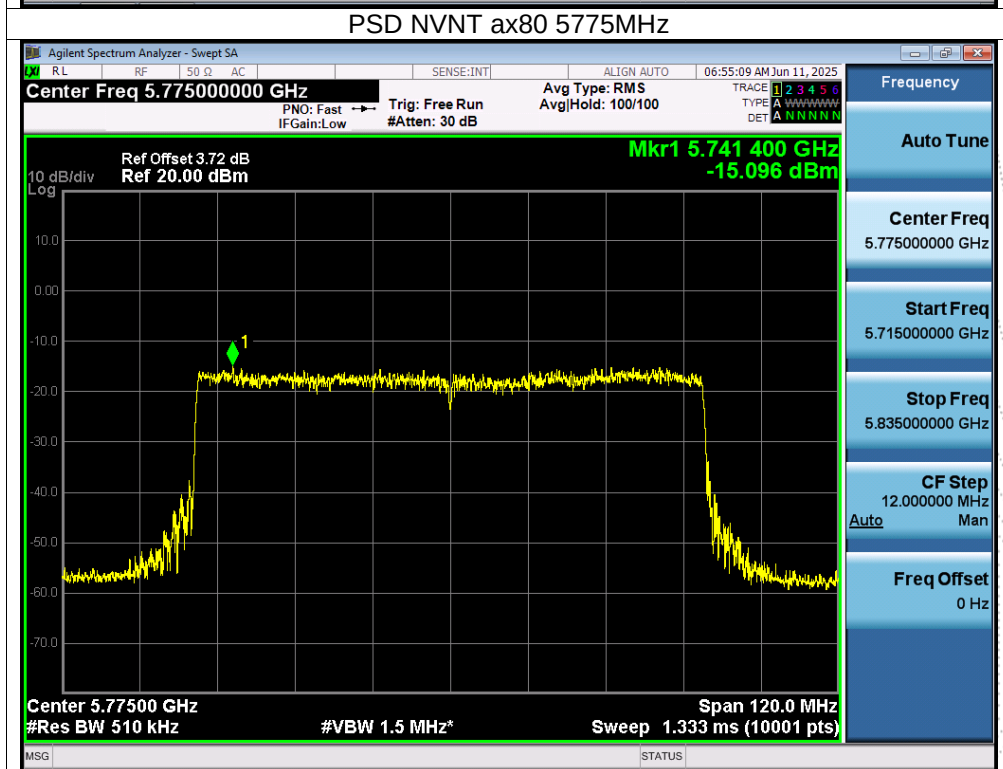
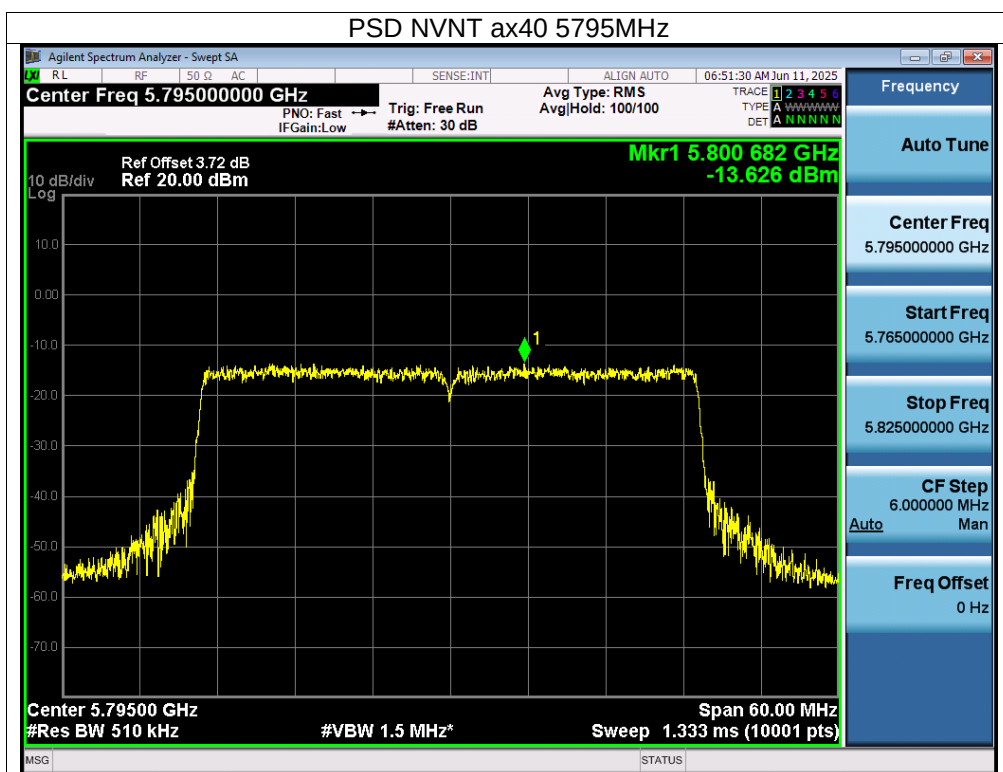
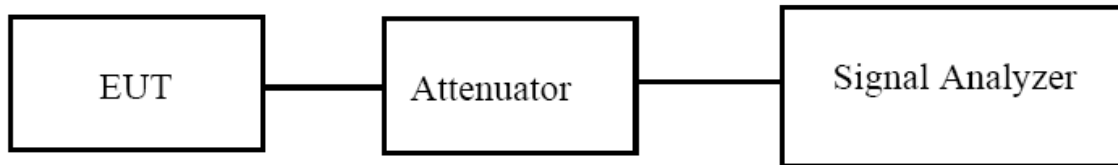






9. 26dB & 6dB Emission Bandwidth

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.

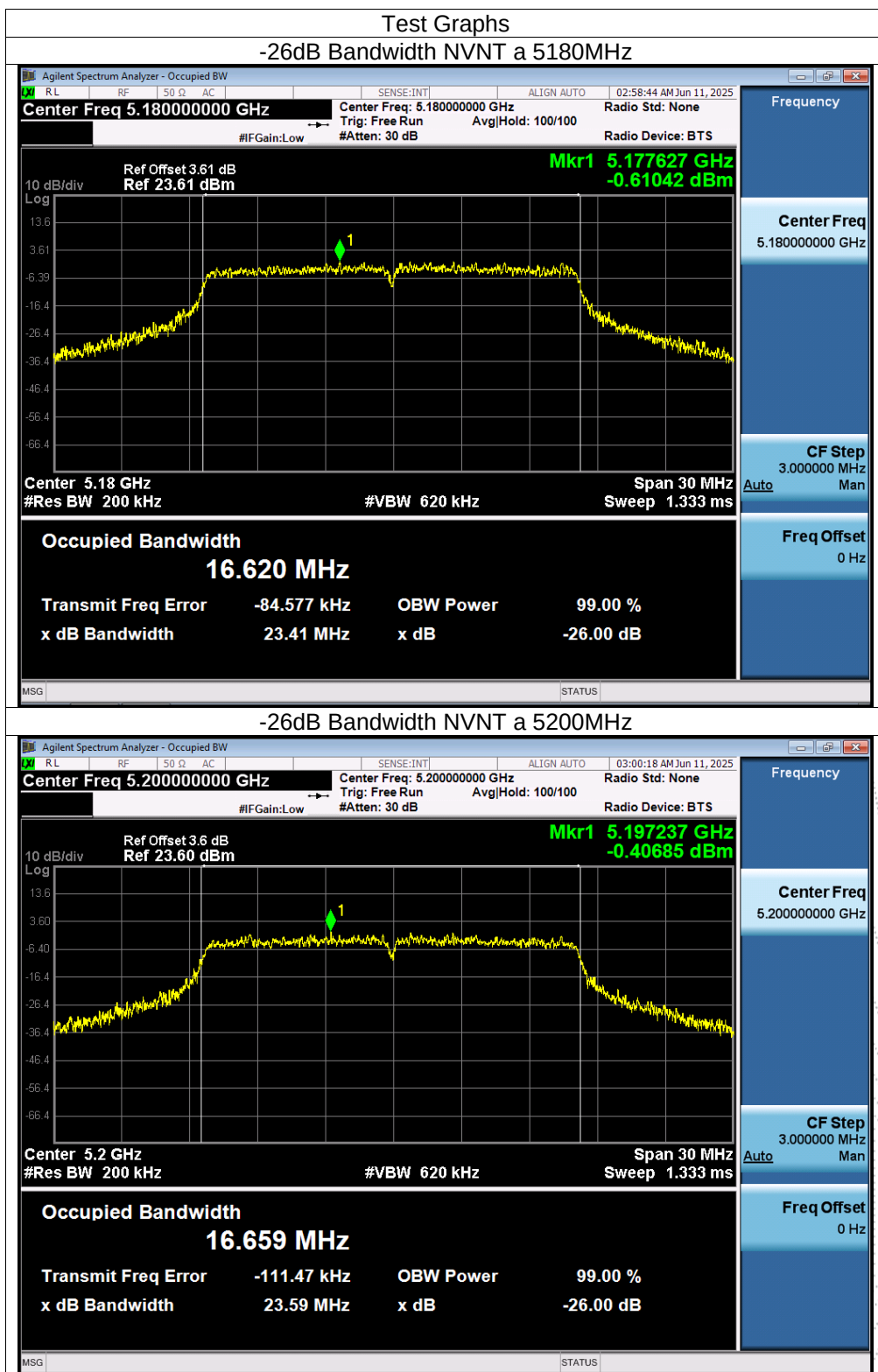
9.4 EUT Operating Conditions

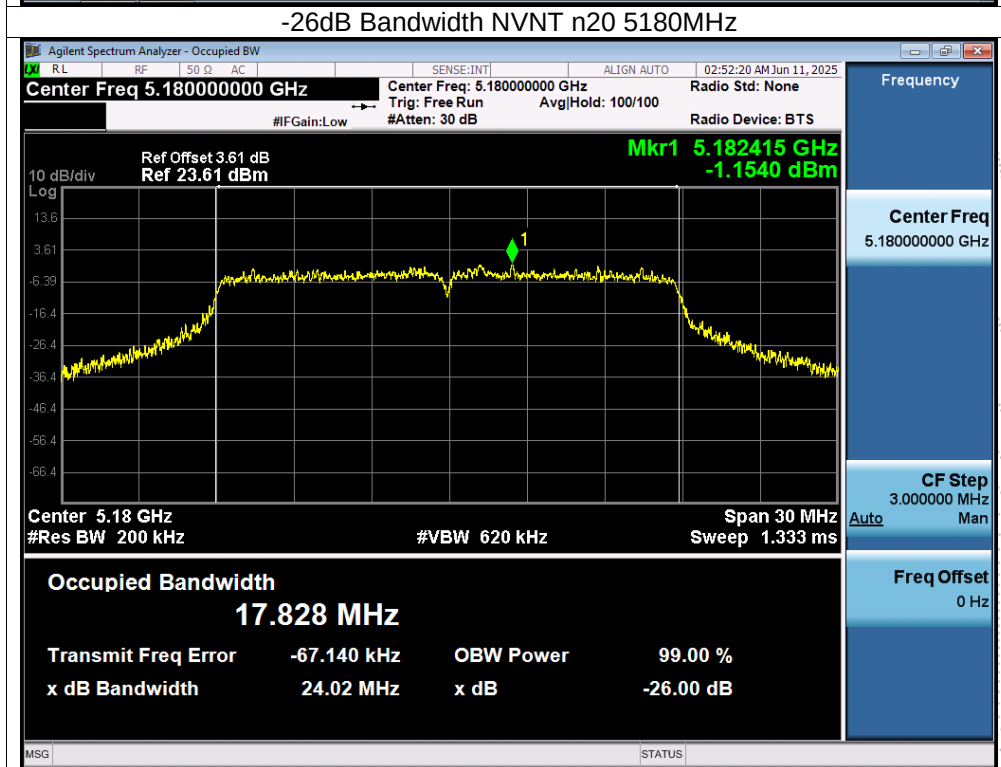
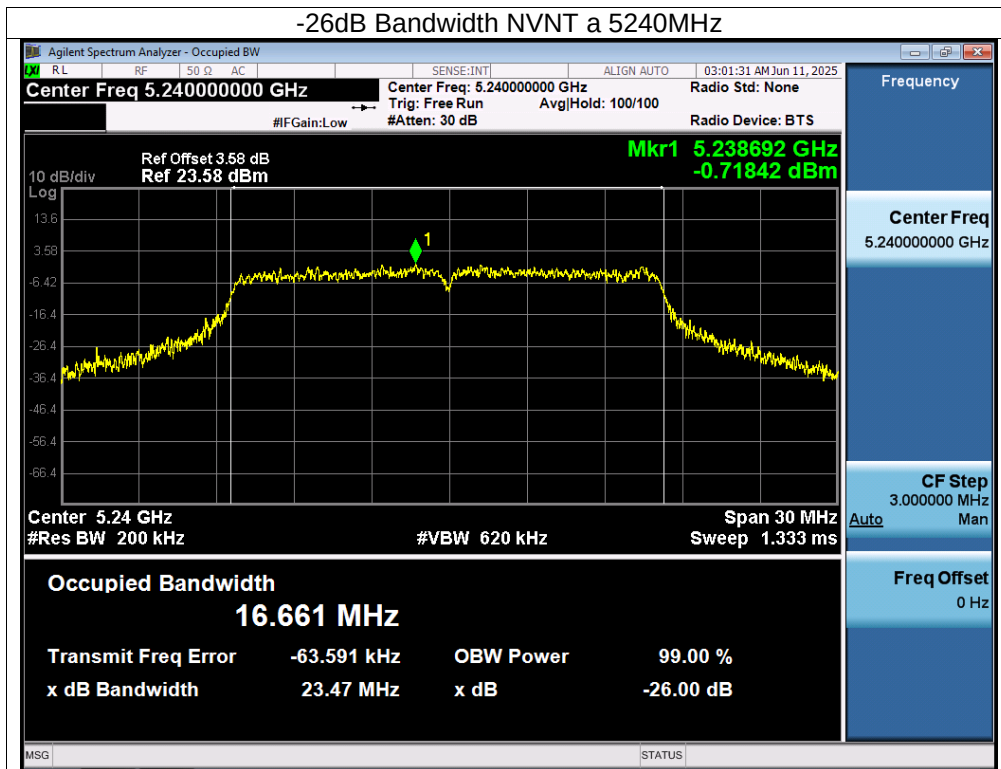
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

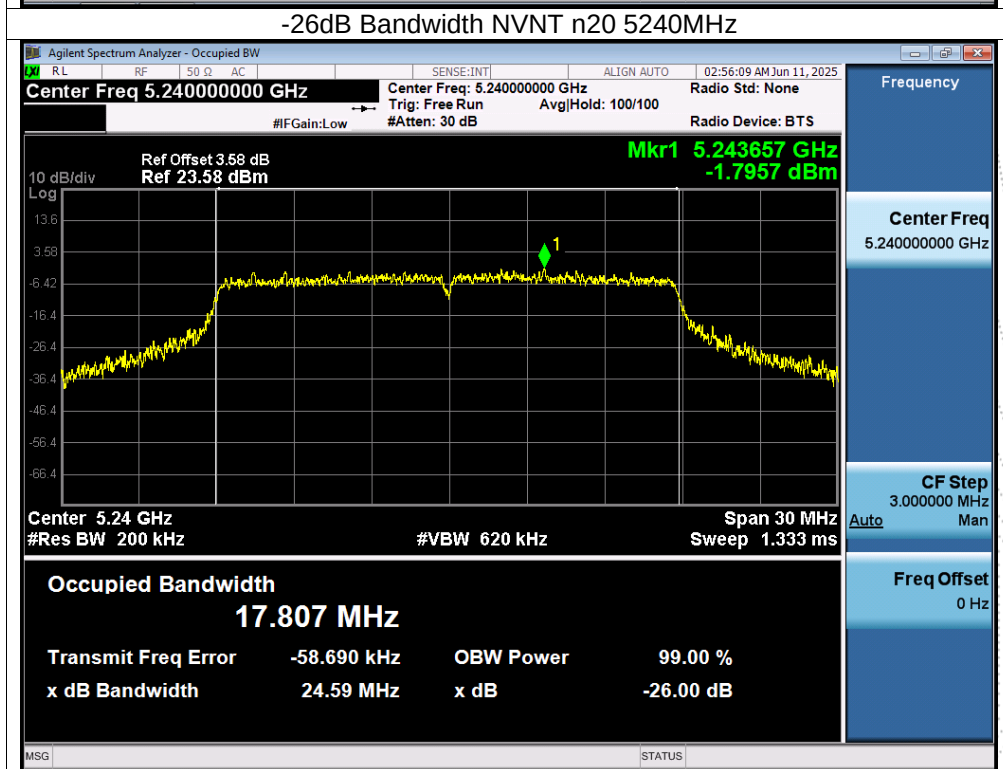
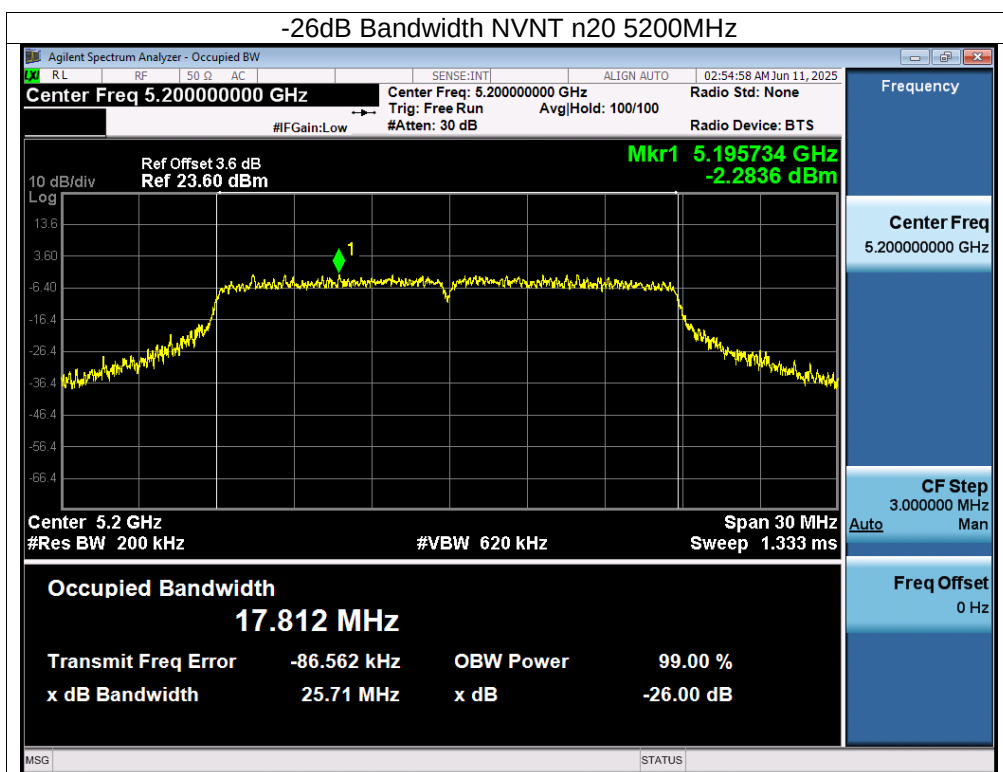
9.5 Test Result

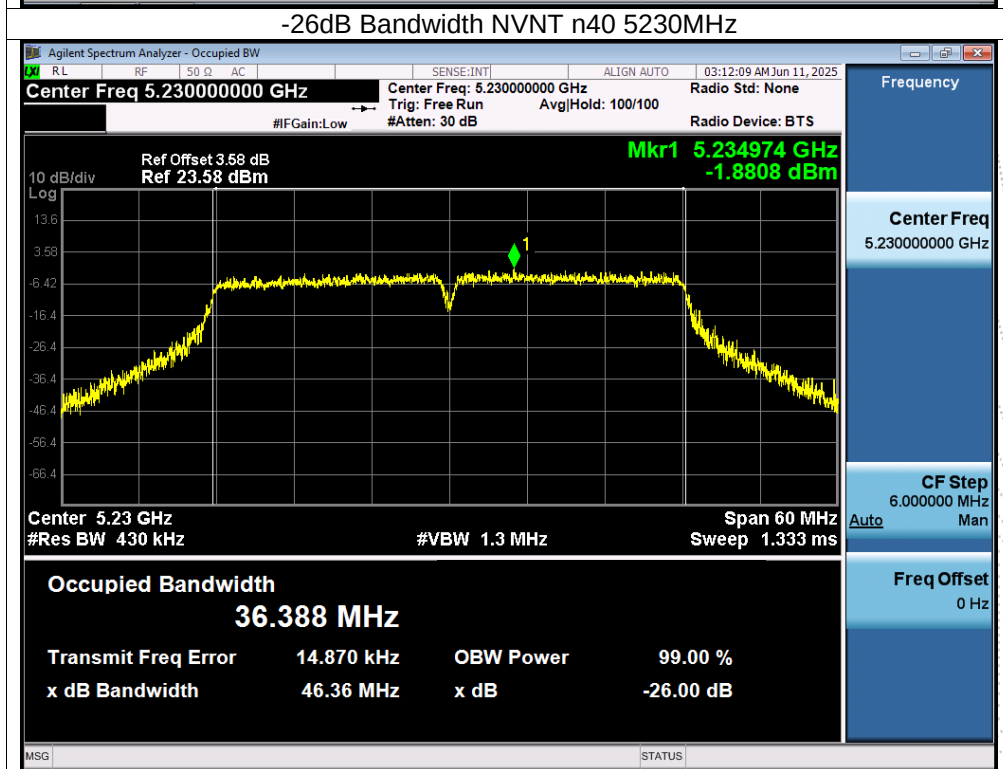
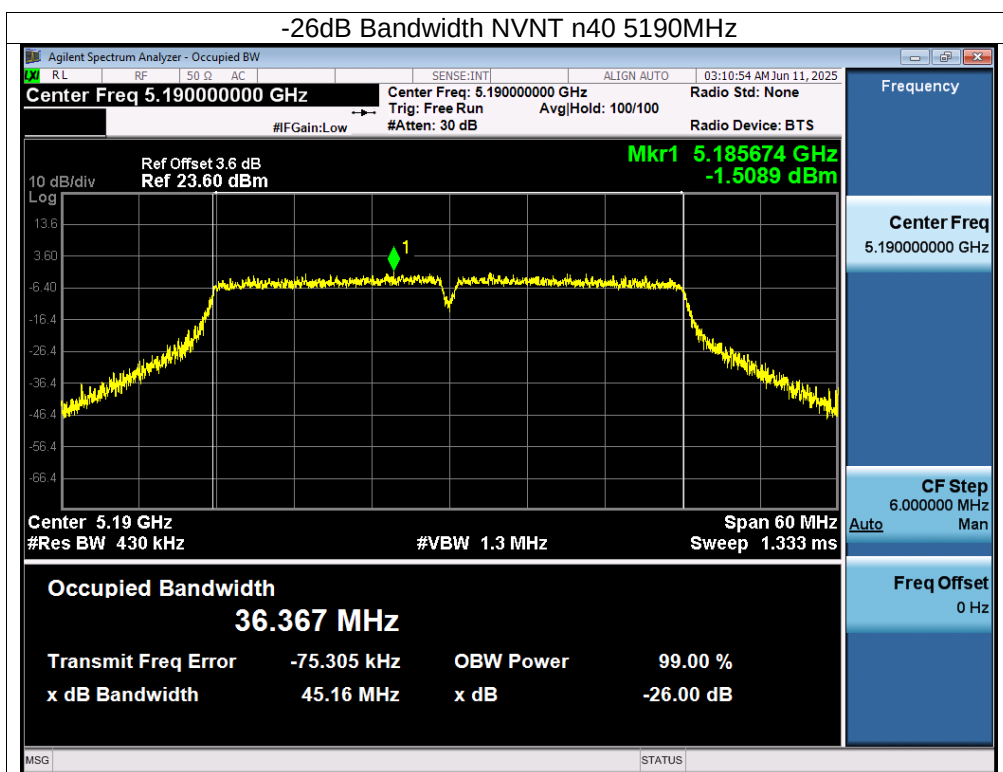
Temperature:	26 °C	Relative Humidity:	54 %
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(U-NII-1) 5180MHz-5240MHz		

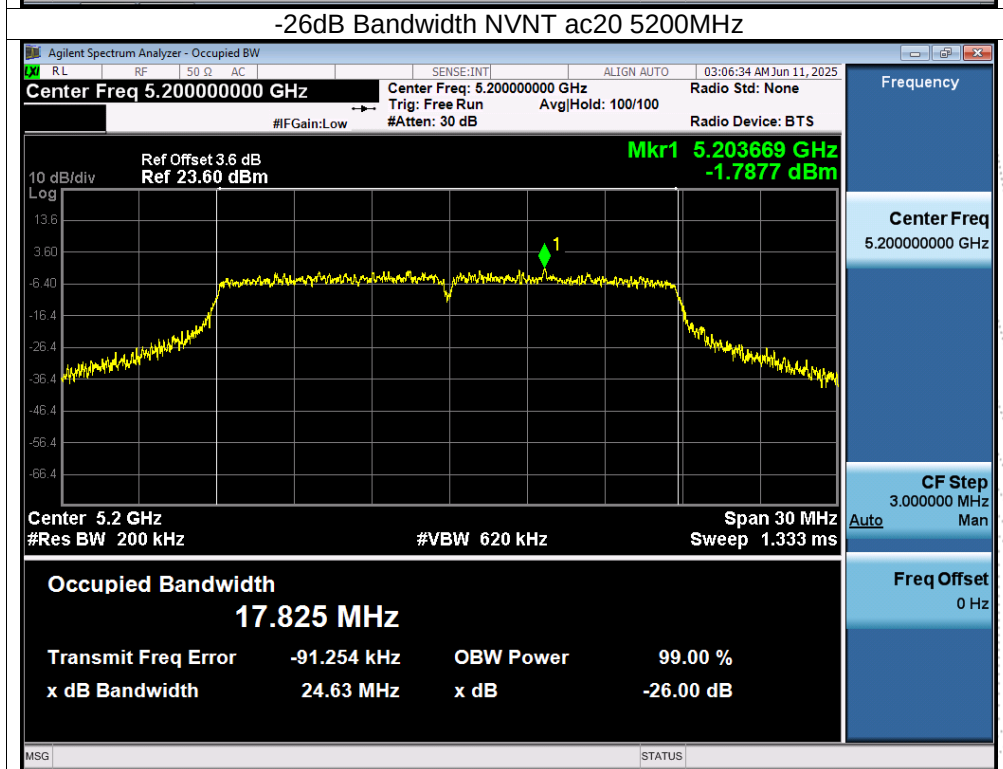
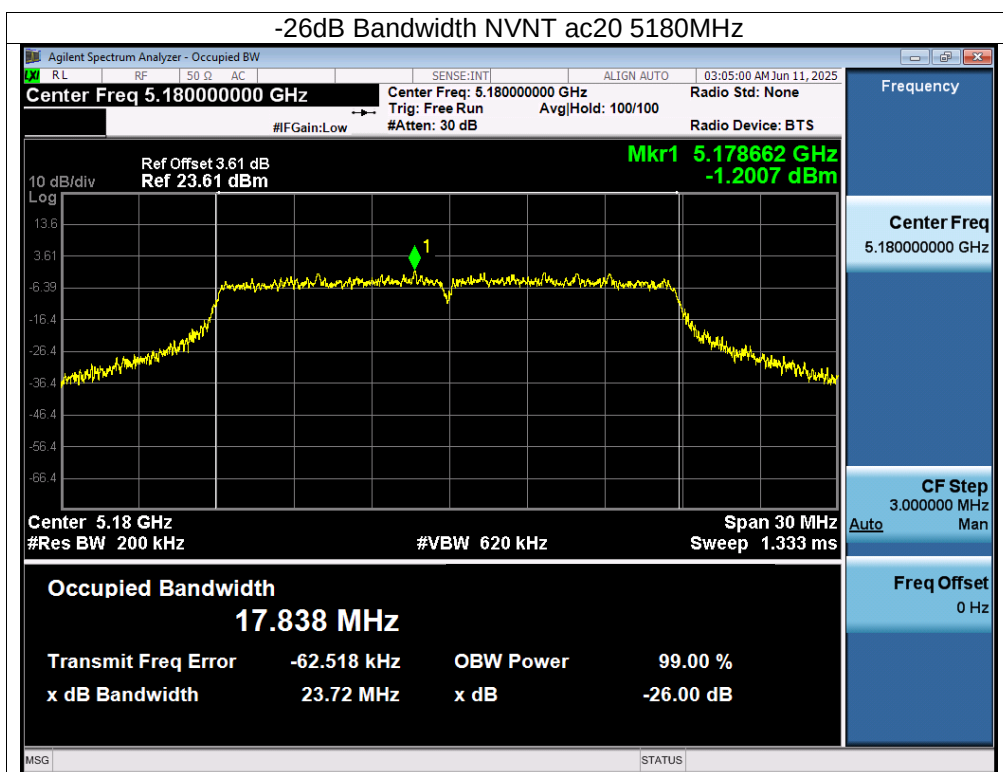
Condition	Mode	Frequency (MHz)	-26dB Bandwidth (MHz)	Result
NVNT	a	5180	23.415	Pass
NVNT	a	5200	23.589	Pass
NVNT	a	5240	23.475	Pass
NVNT	n20	5180	24.019	Pass
NVNT	n20	5200	25.711	Pass
NVNT	n20	5240	24.586	Pass
NVNT	n40	5190	45.159	Pass
NVNT	n40	5230	46.356	Pass
NVNT	ac20	5180	23.721	Pass
NVNT	ac20	5200	24.627	Pass
NVNT	ac20	5240	25.312	Pass
NVNT	ac40	5190	45.457	Pass
NVNT	ac40	5230	45.139	Pass
NVNT	ac80	5210	87.803	Pass
NVNT	ax20	5180	23.382	Pass
NVNT	ax20	5200	24.933	Pass
NVNT	ax20	5240	23.373	Pass
NVNT	ax40	5190	43.842	Pass
NVNT	ax40	5230	44.619	Pass
NVNT	ax80	5210	84.77	Pass

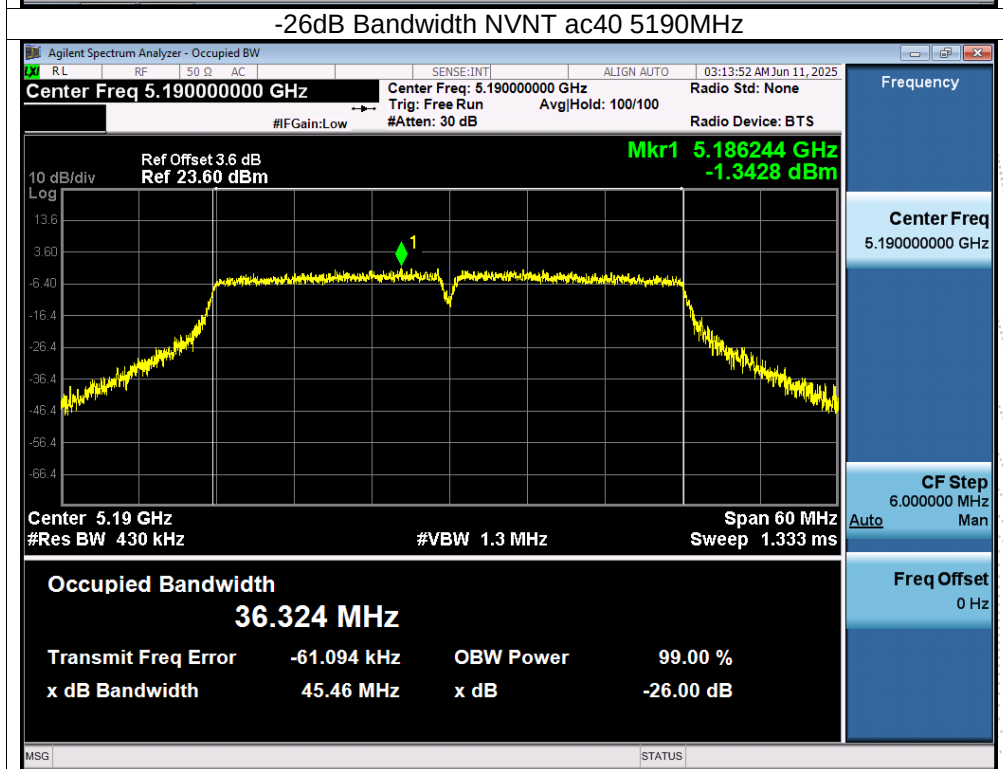
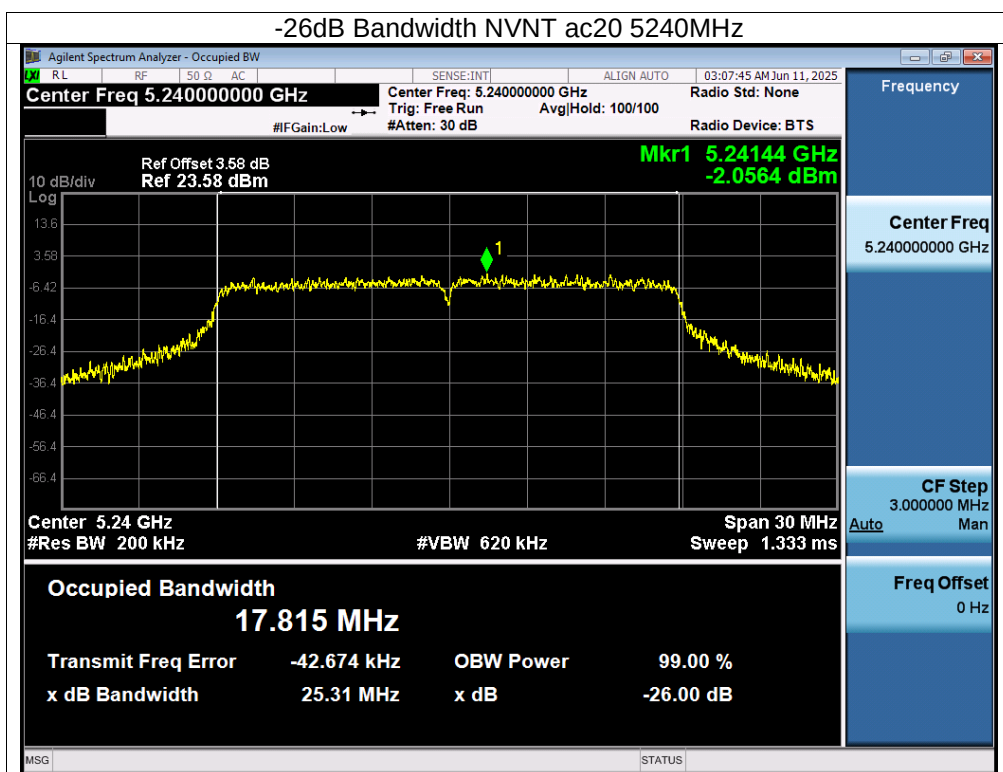


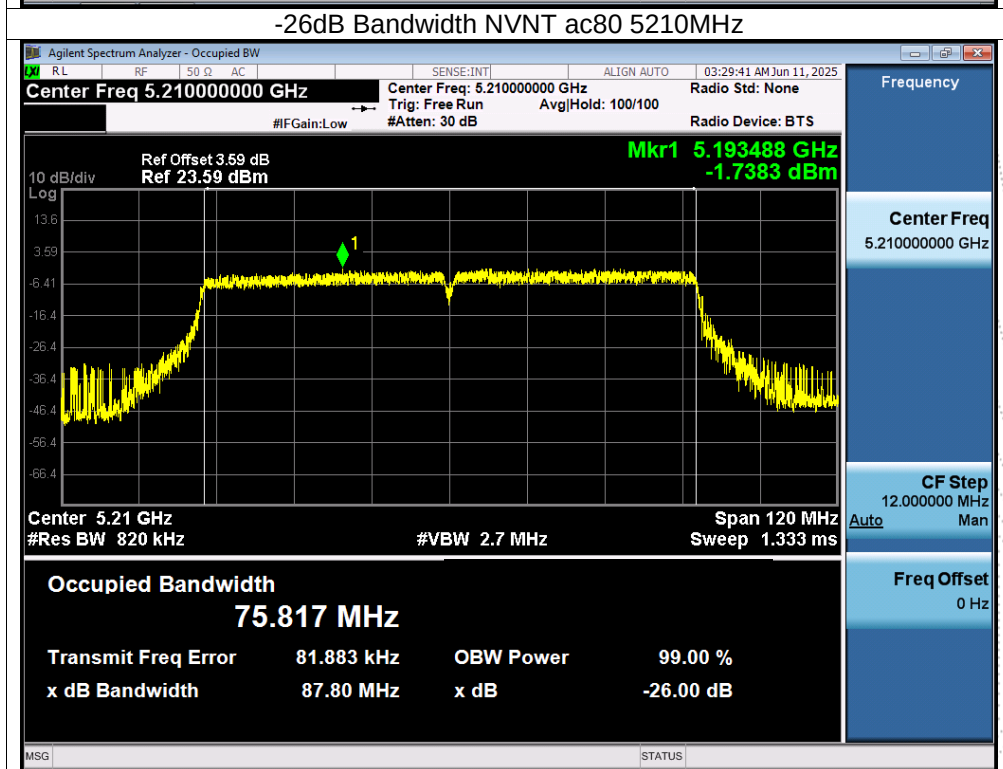
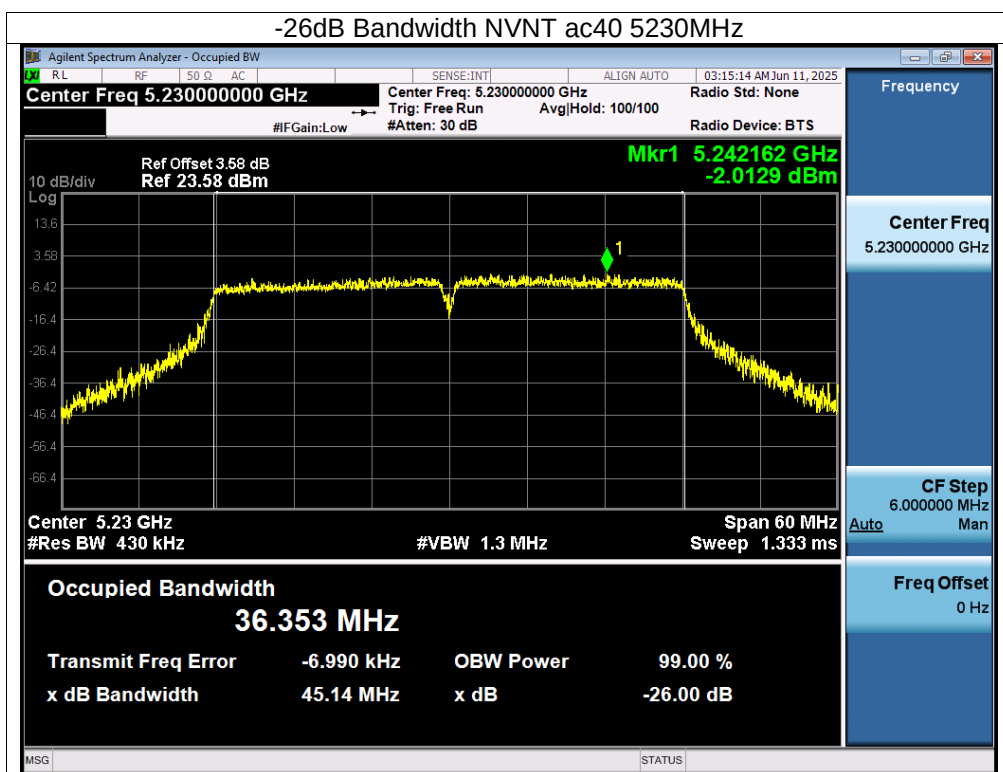


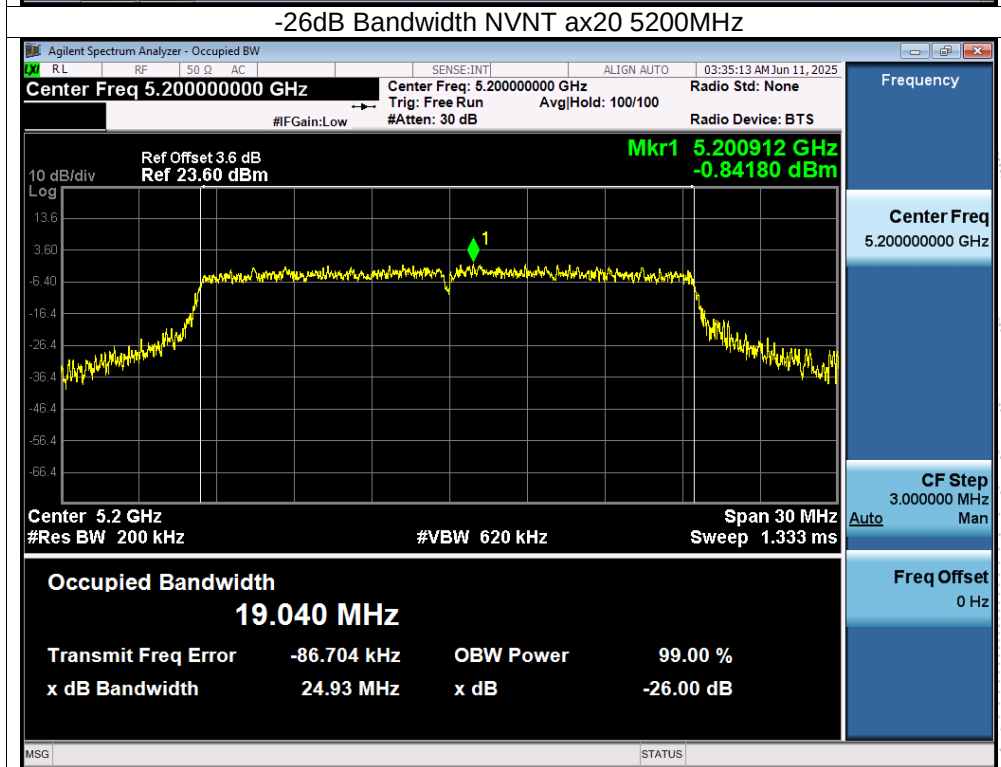
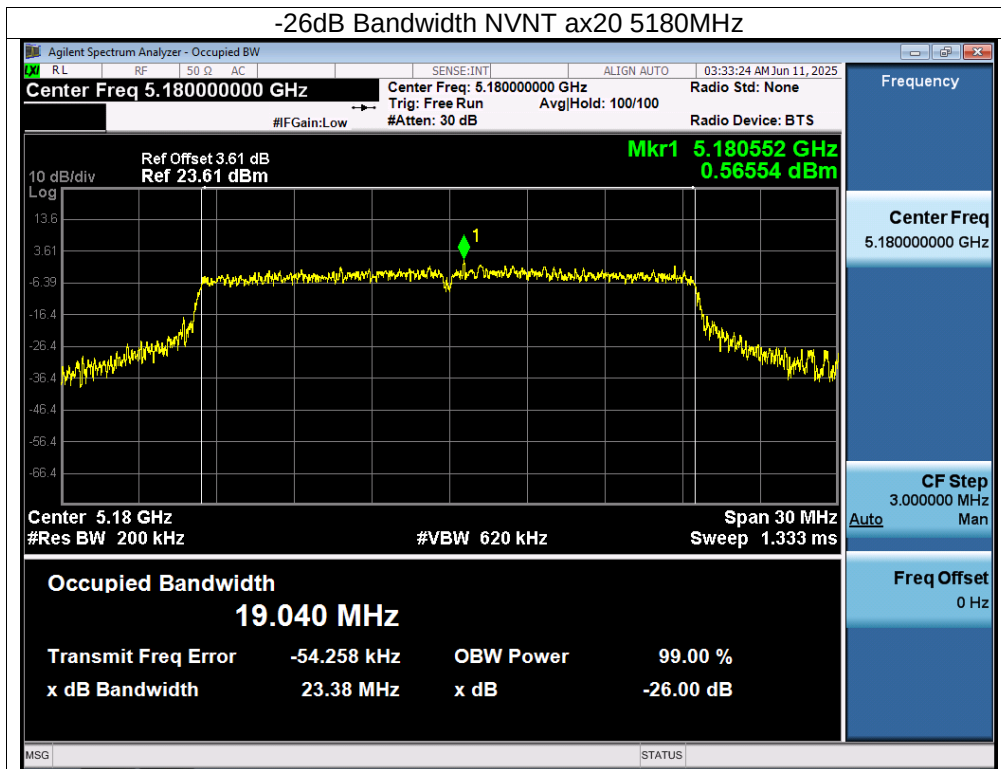


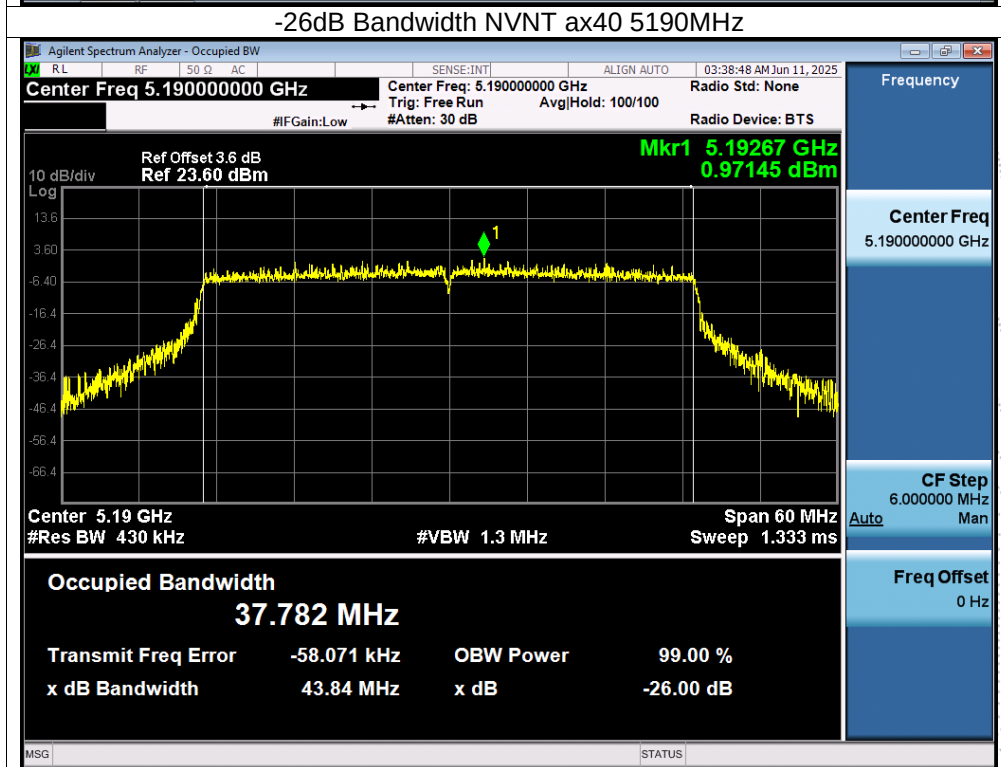
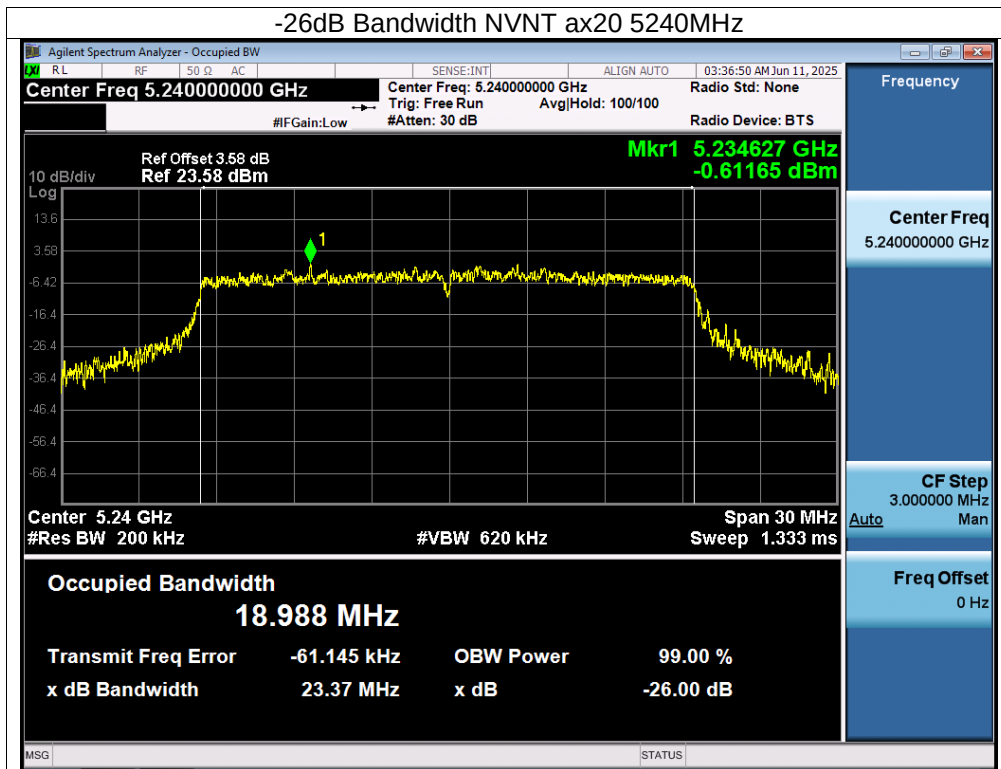


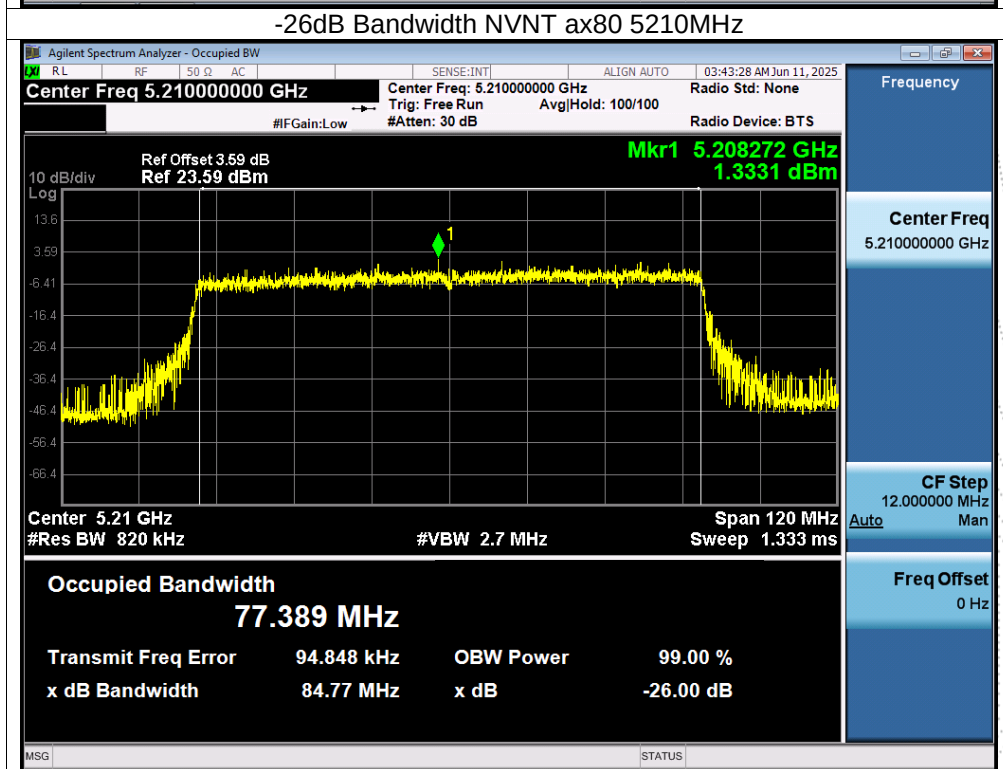
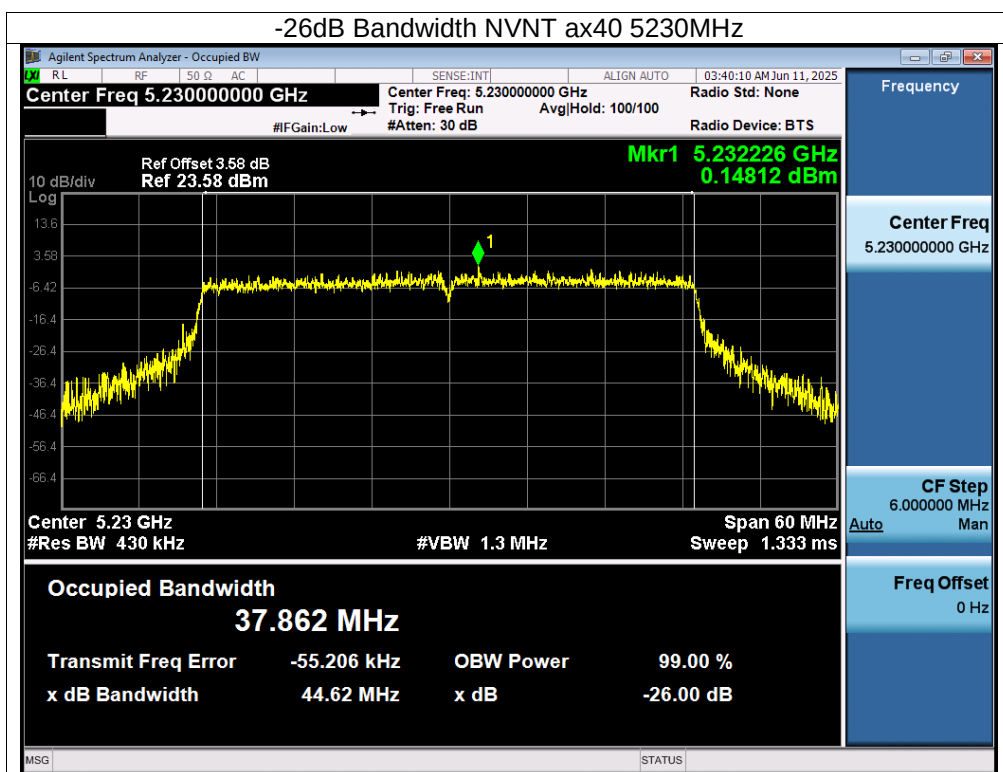






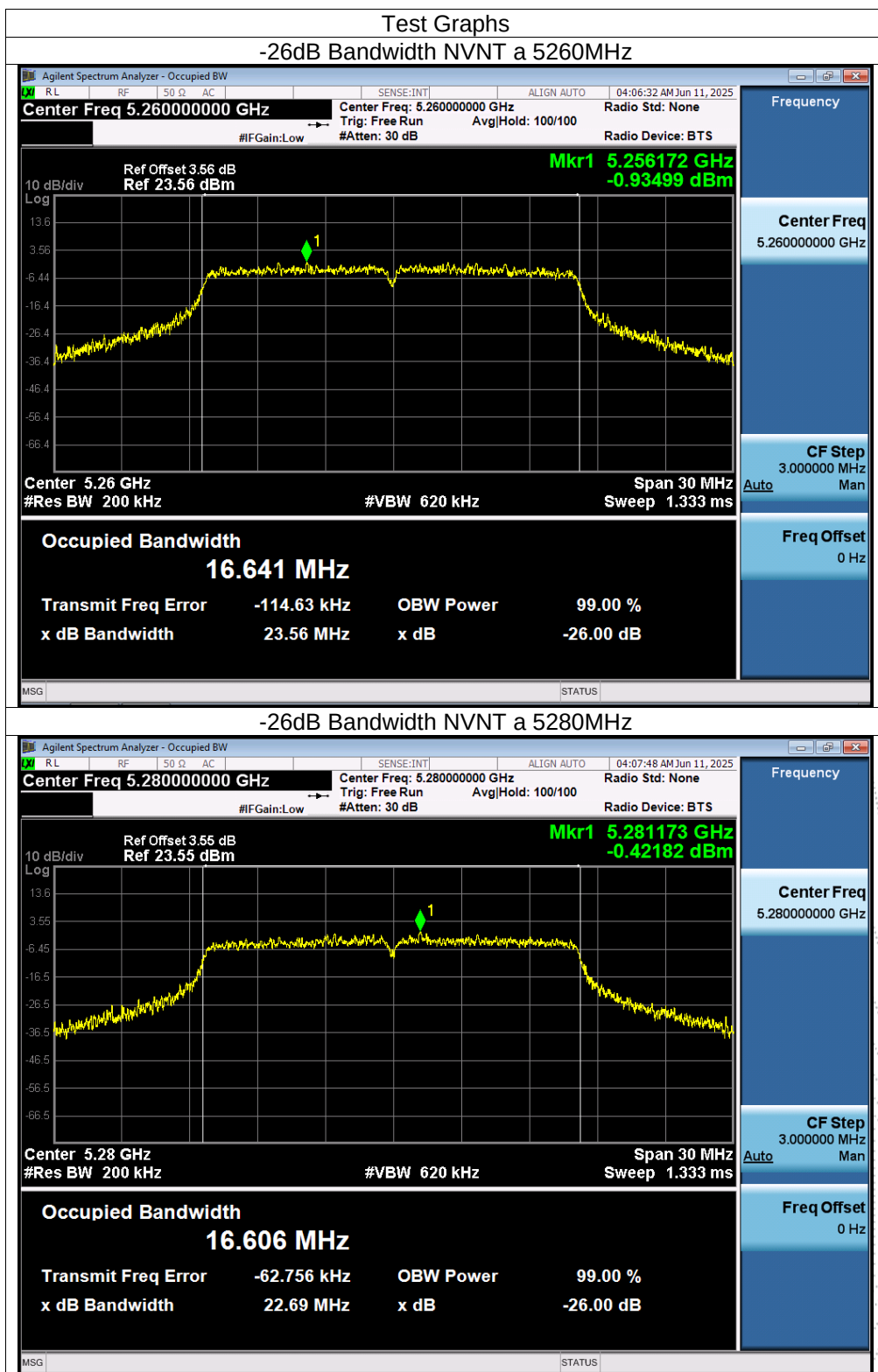


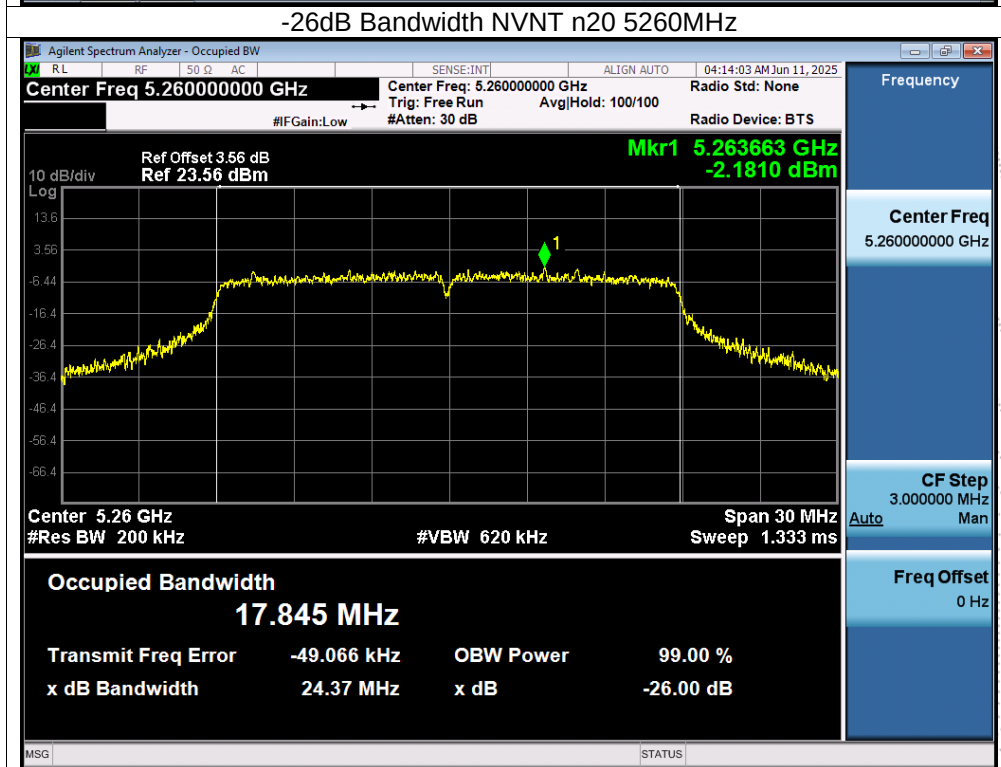
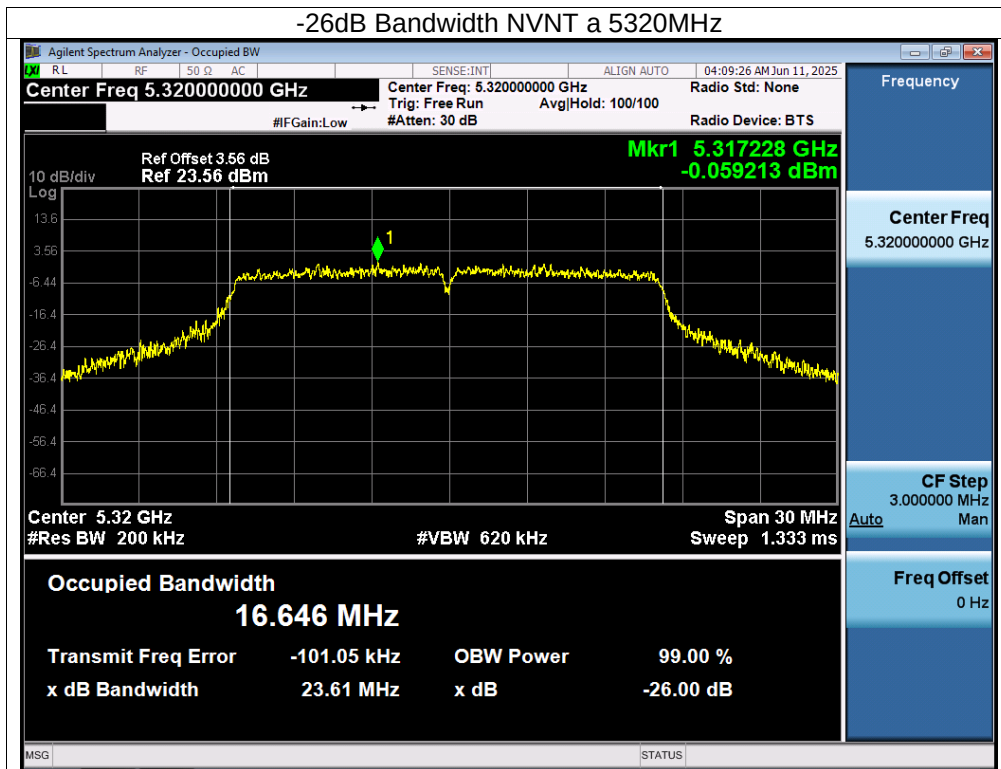


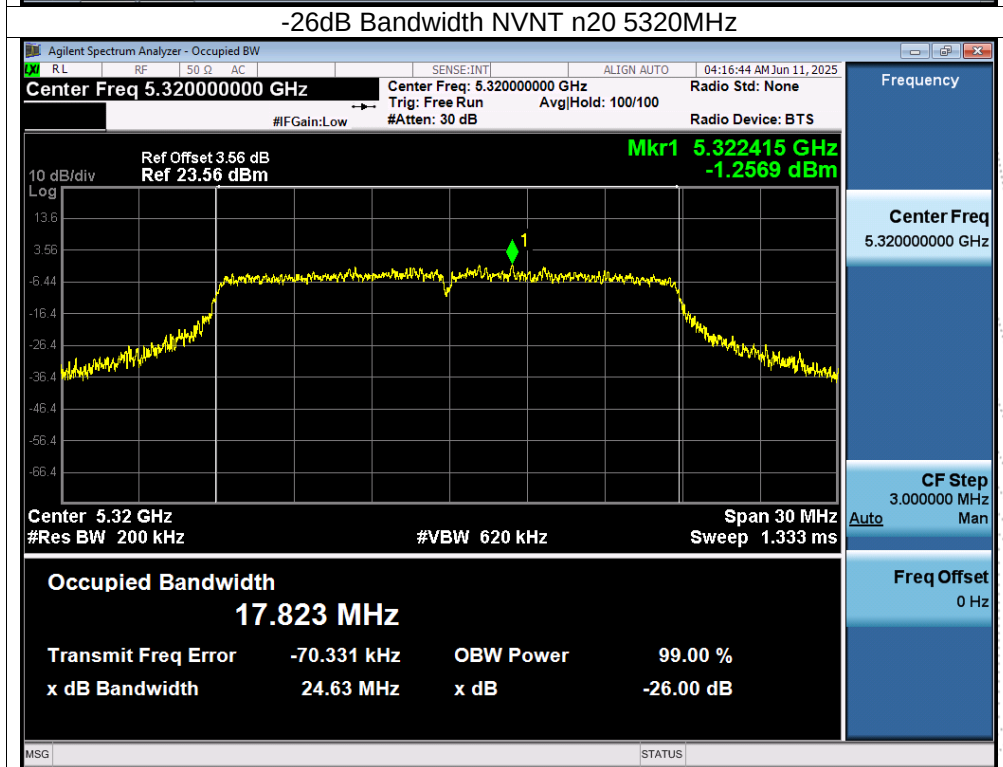
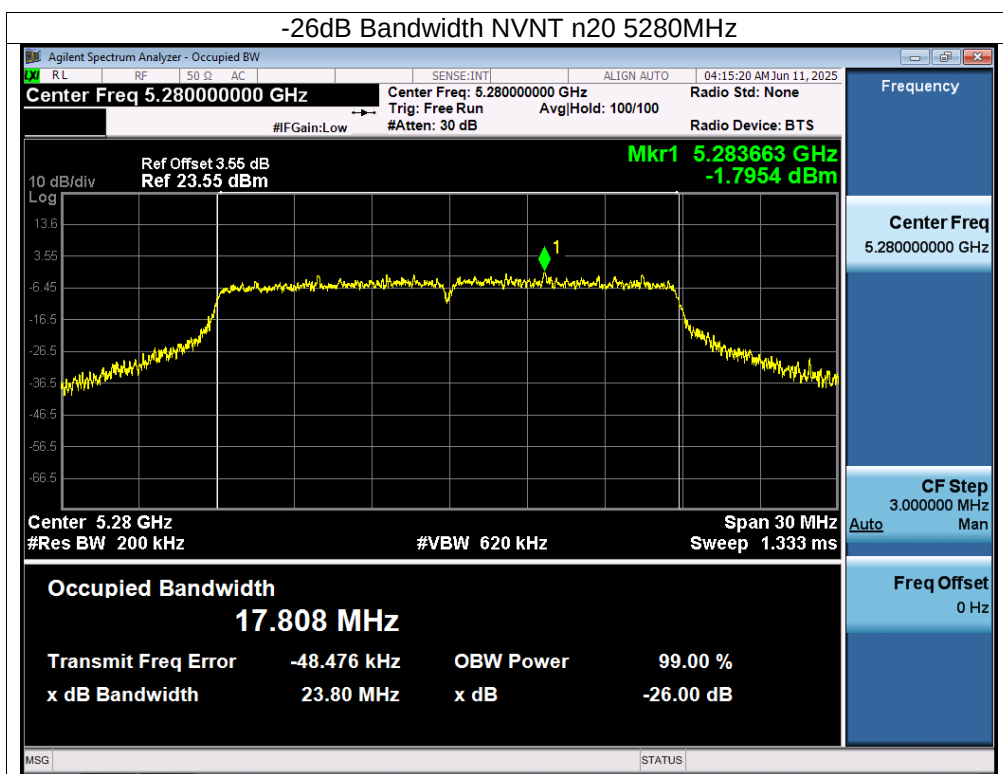


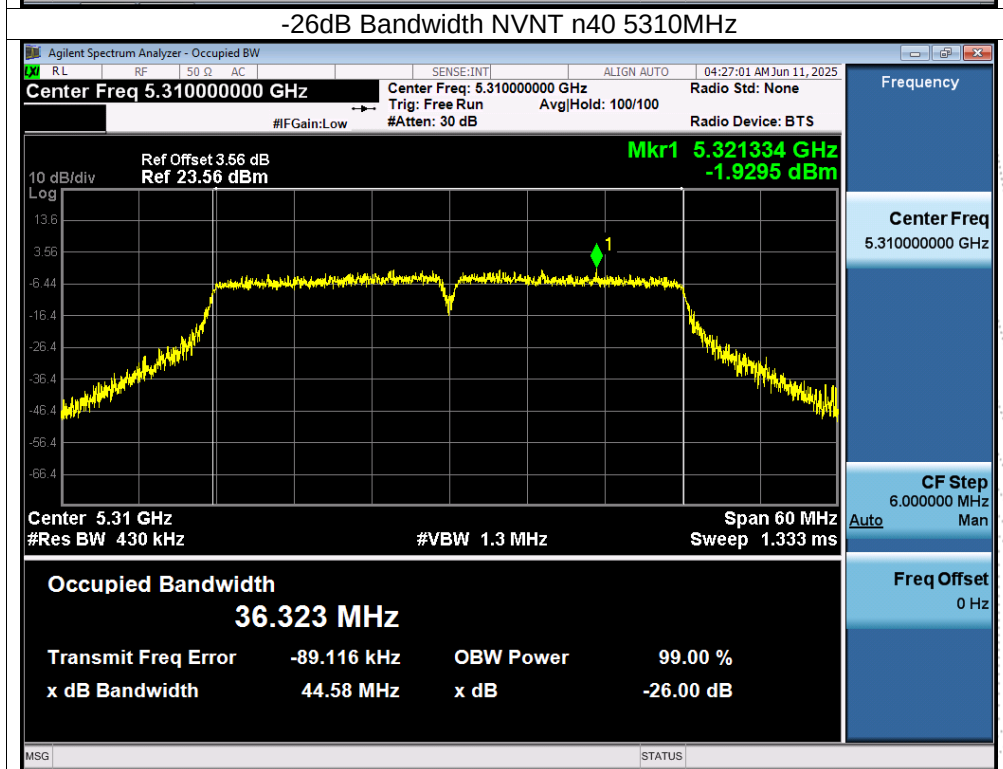
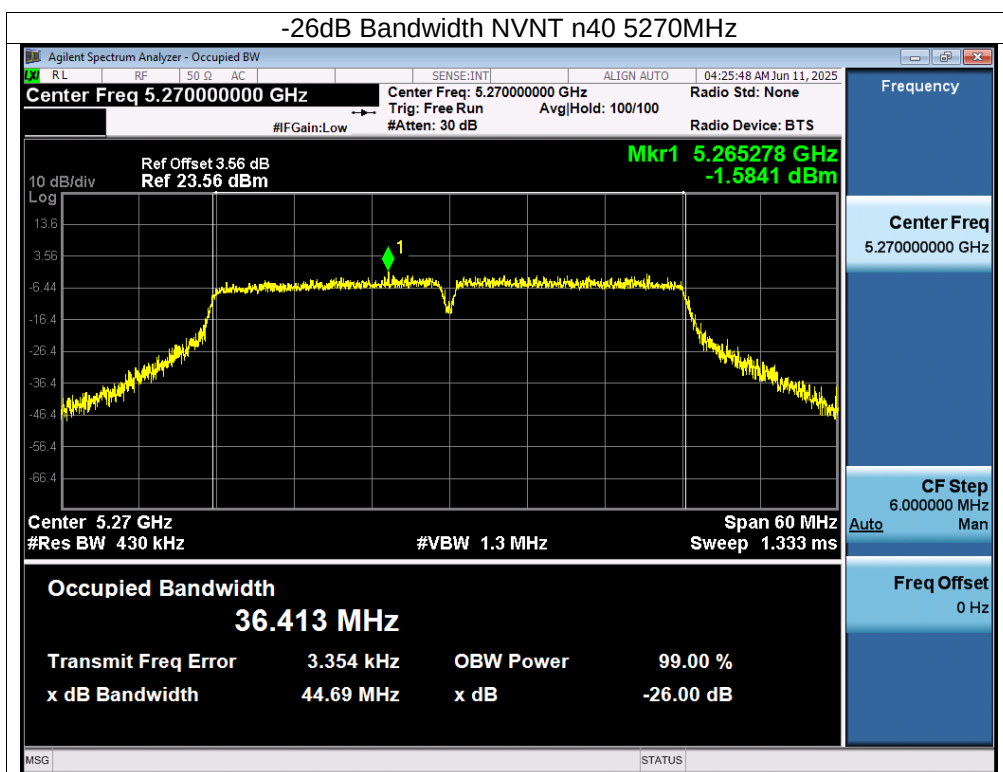
Temperature:	26 °C	Relative Humidity:	54 %
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(U-NII-2A) 5260MHz-5320MHz		

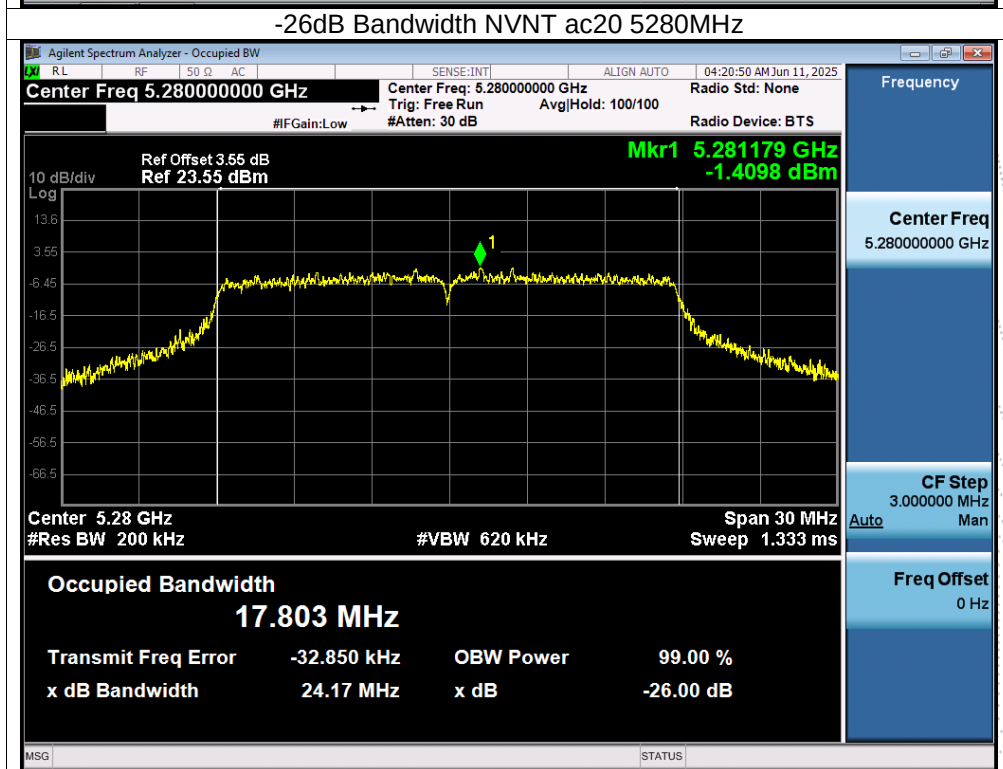
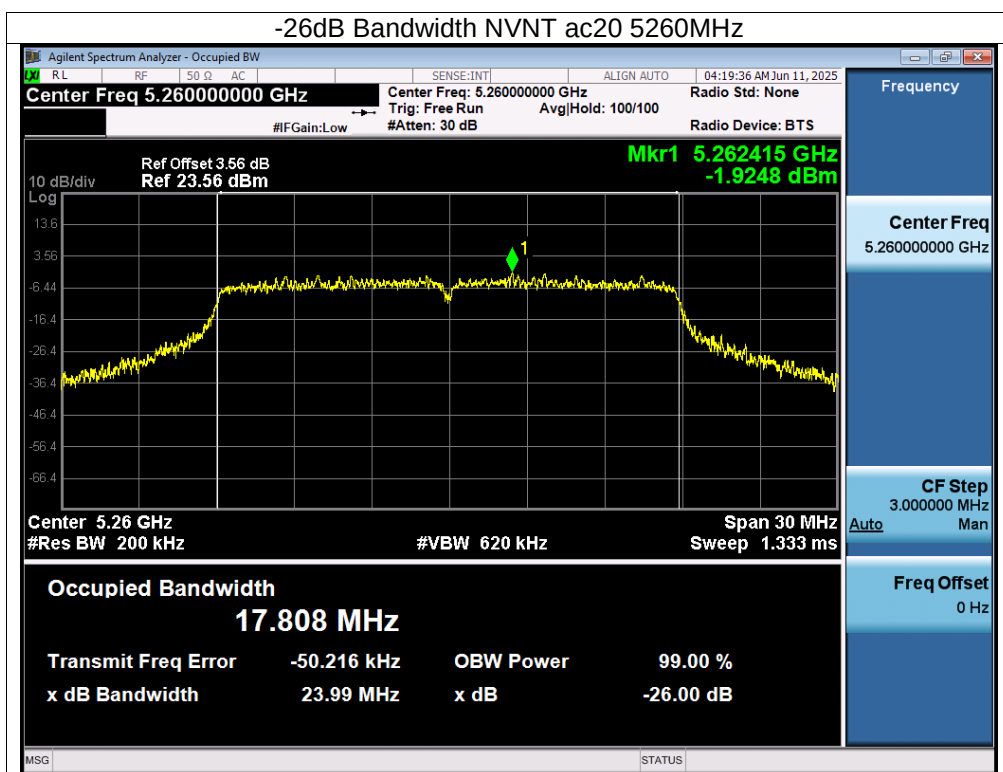
Condition	Mode	Frequency (MHz)	26dB Bandwidth (MHz)	Result
NVNT	a	5260	23.557	Pass
NVNT	a	5280	22.685	Pass
NVNT	a	5320	23.61	Pass
NVNT	n20	5260	24.371	Pass
NVNT	n20	5280	23.797	Pass
NVNT	n20	5320	24.634	Pass
NVNT	n40	5270	44.693	Pass
NVNT	n40	5310	44.583	Pass
NVNT	ac20	5260	23.99	Pass
NVNT	ac20	5280	24.171	Pass
NVNT	ac20	5320	23.797	Pass
NVNT	ac40	5270	44.813	Pass
NVNT	ac40	5310	45.288	Pass
NVNT	ac80	5290	86.277	Pass
NVNT	ax20	5260	23.752	Pass
NVNT	ax20	5280	24.364	Pass
NVNT	ax20	5320	24.127	Pass
NVNT	ax40	5270	44.551	Pass
NVNT	ax40	5310	43.246	Pass
NVNT	ax80	5290	84.295	Pass

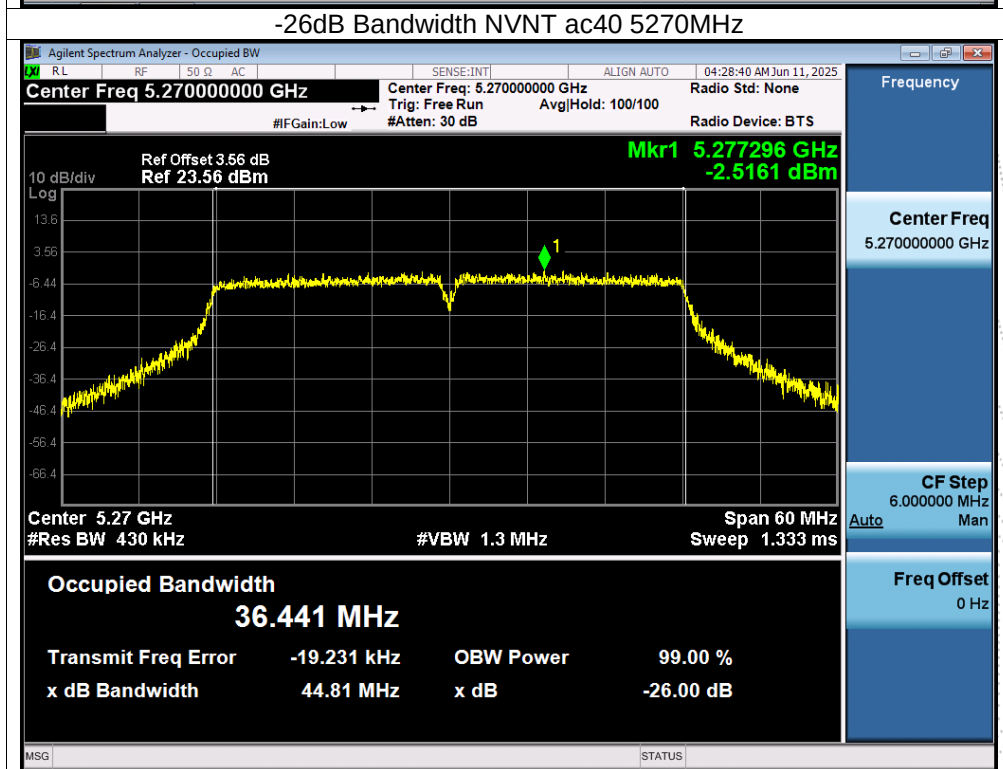
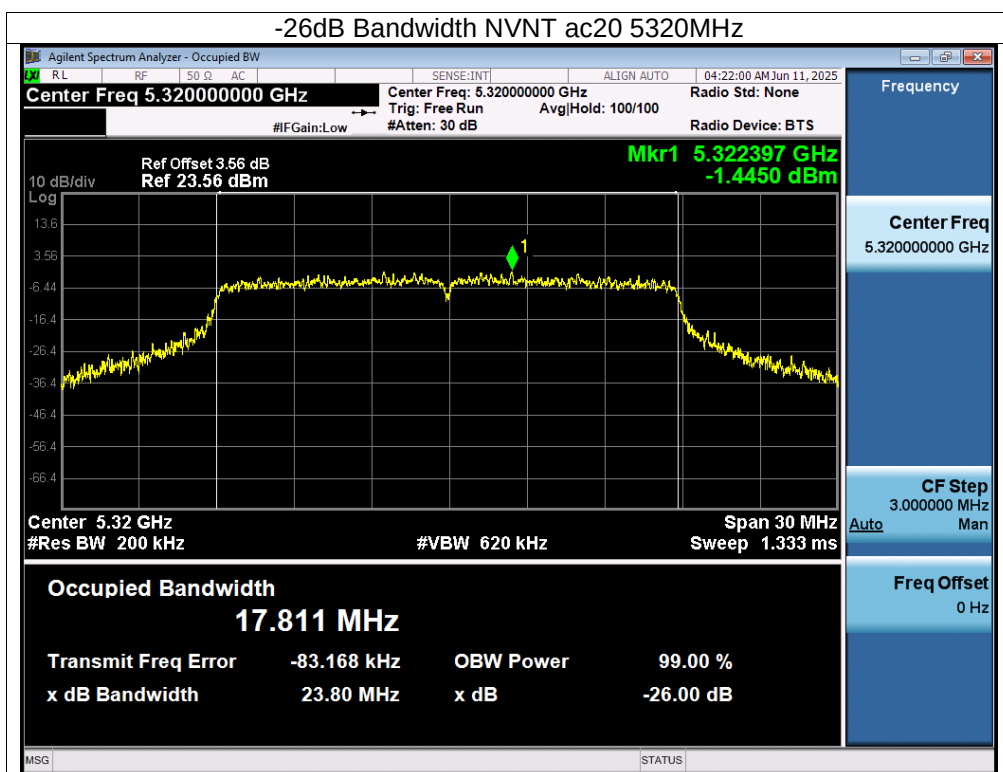


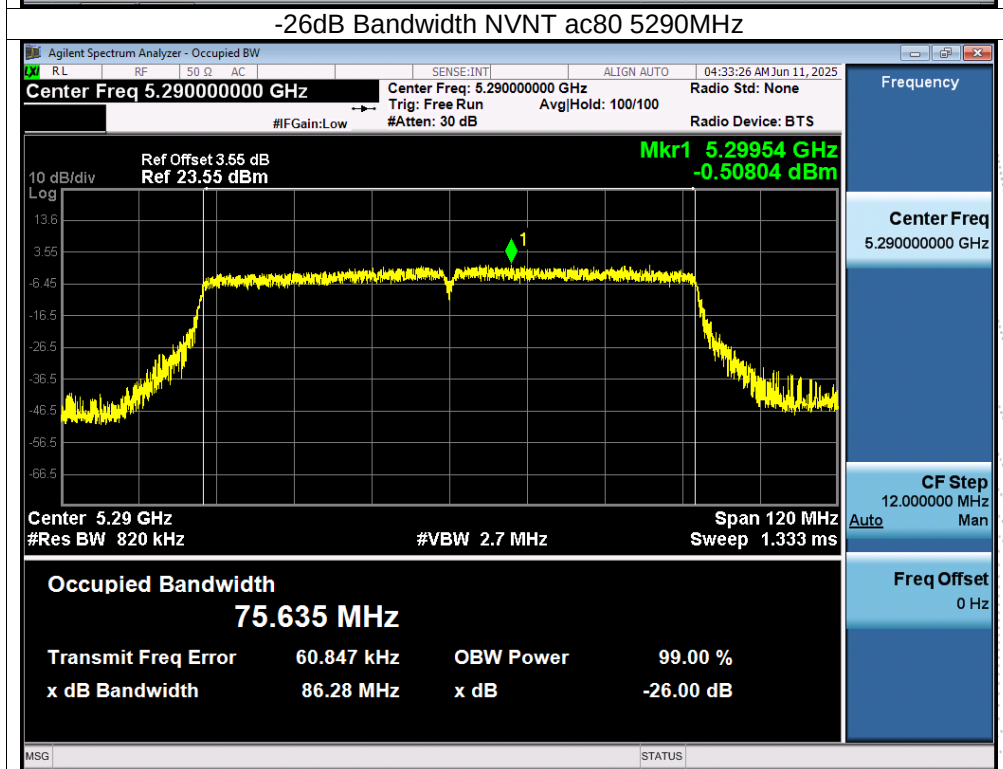
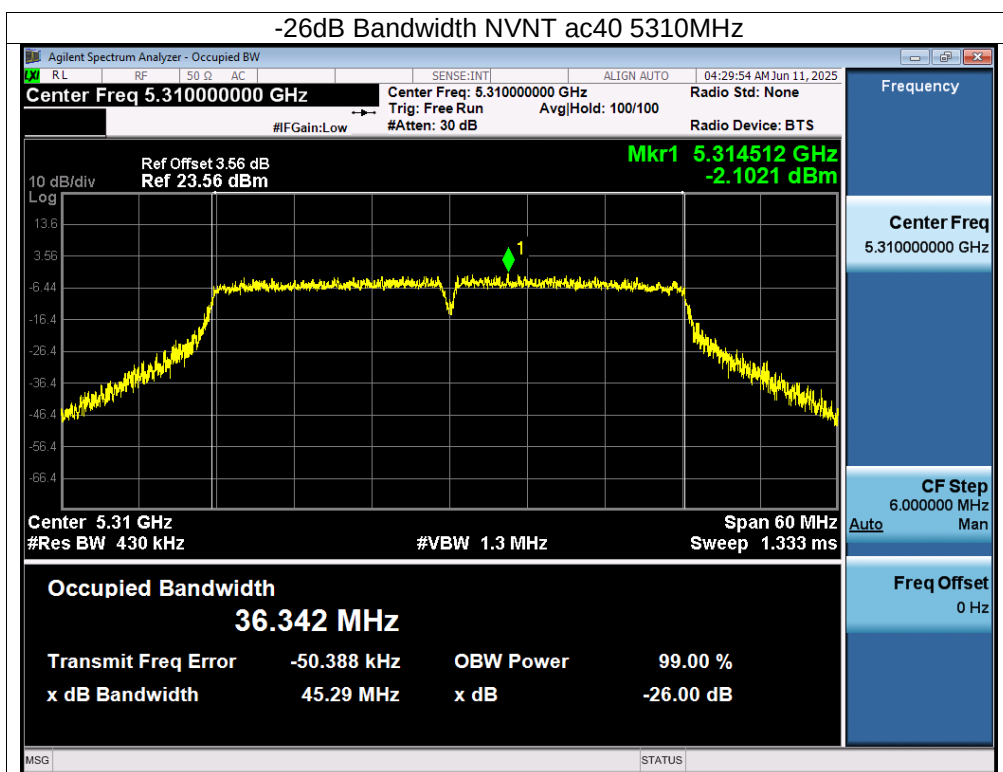


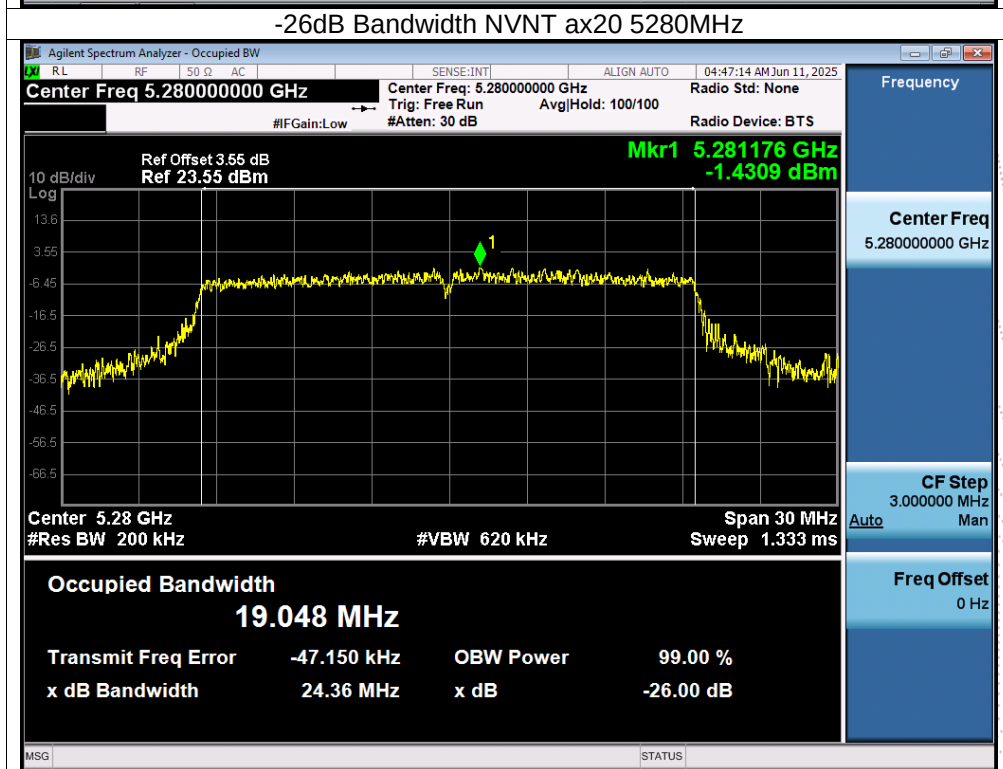
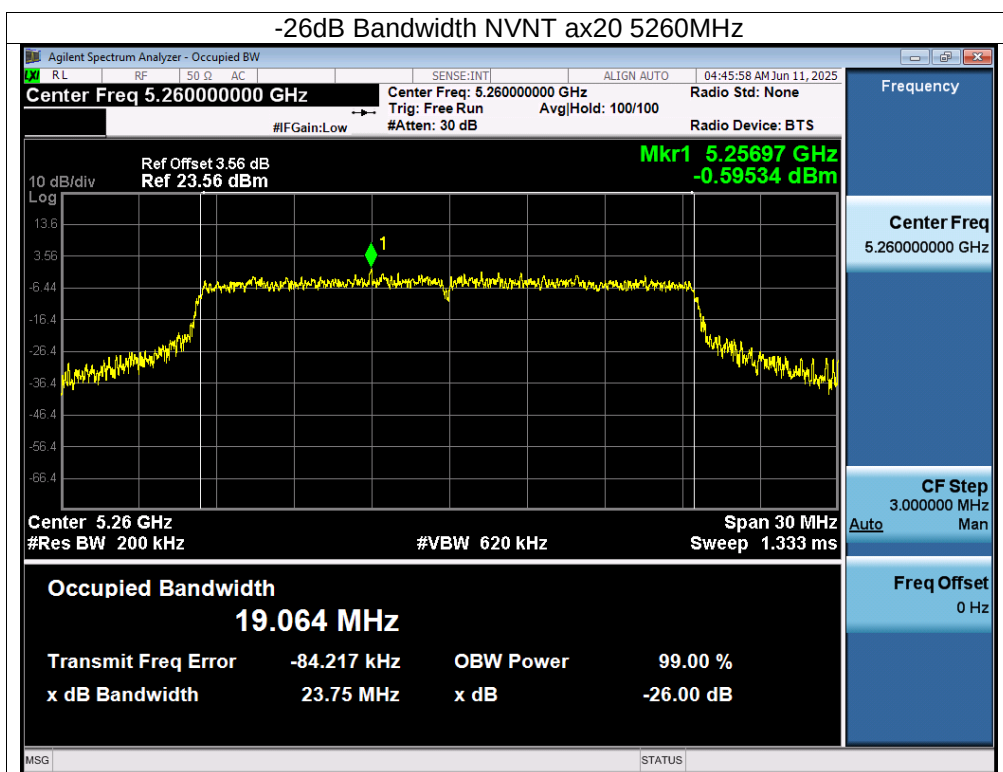


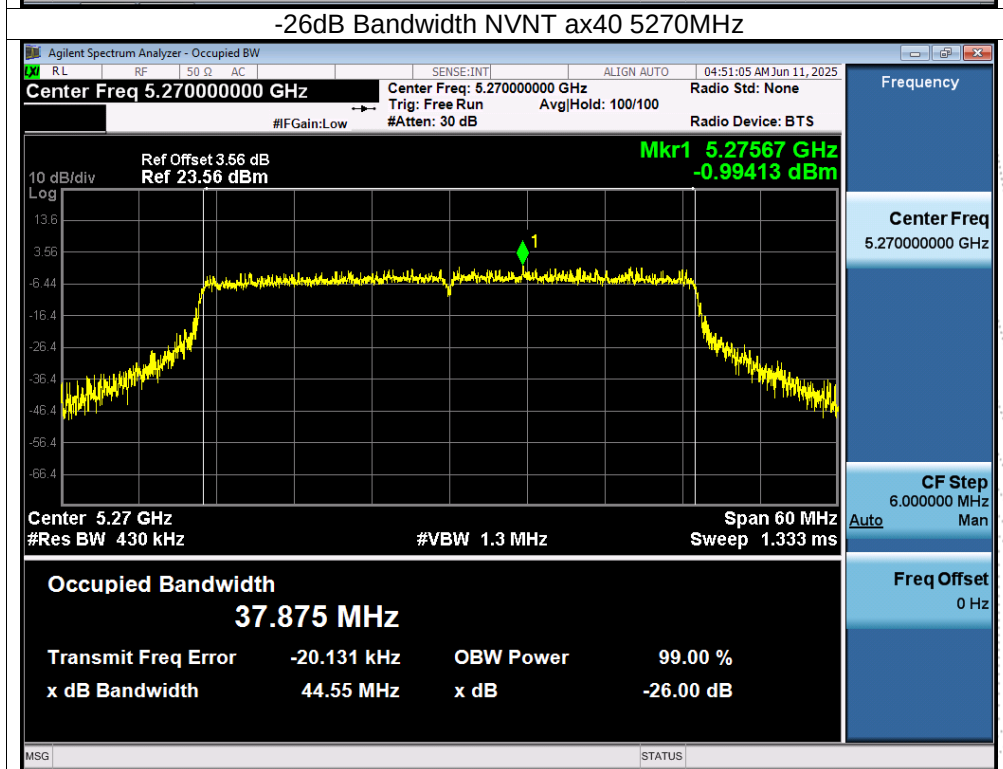
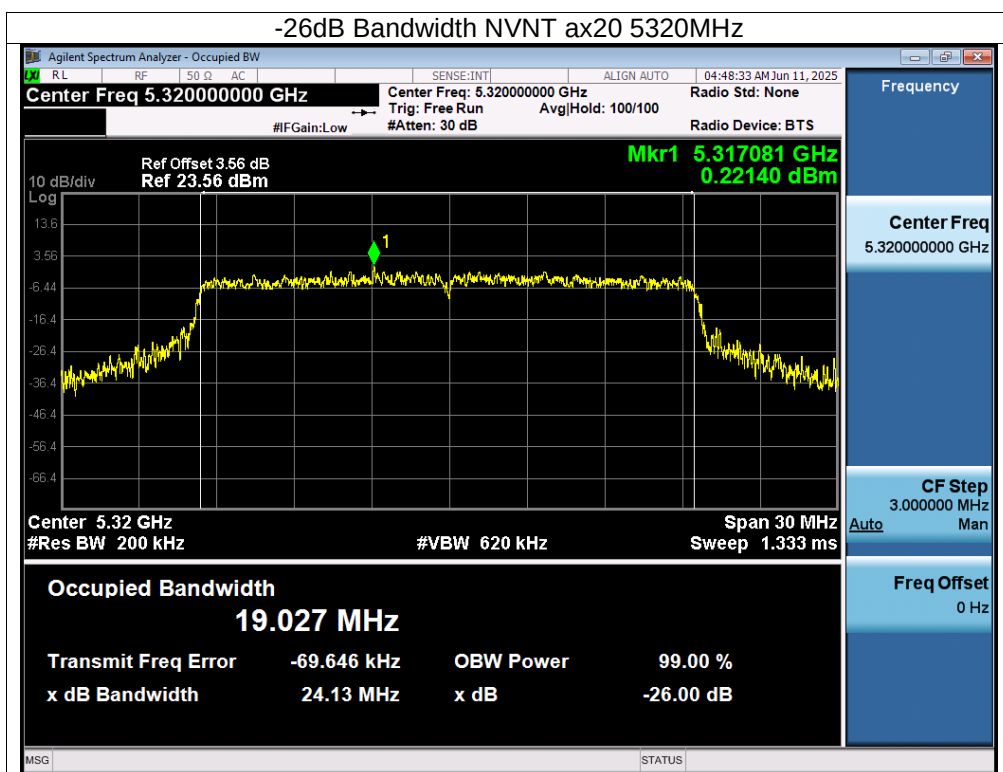


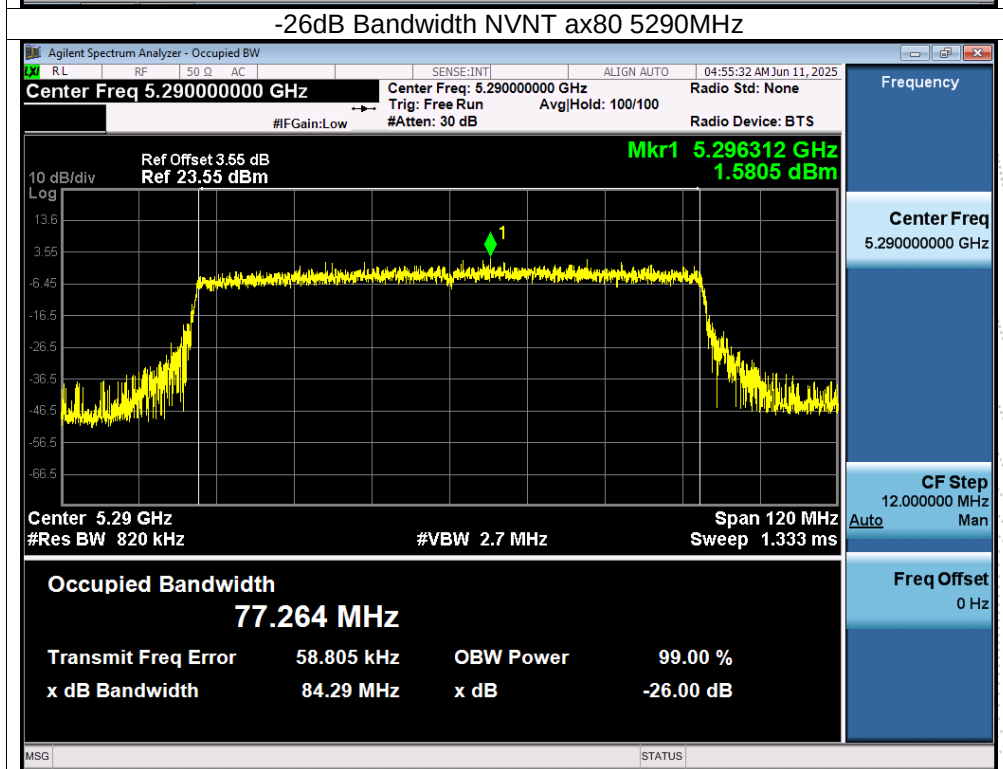
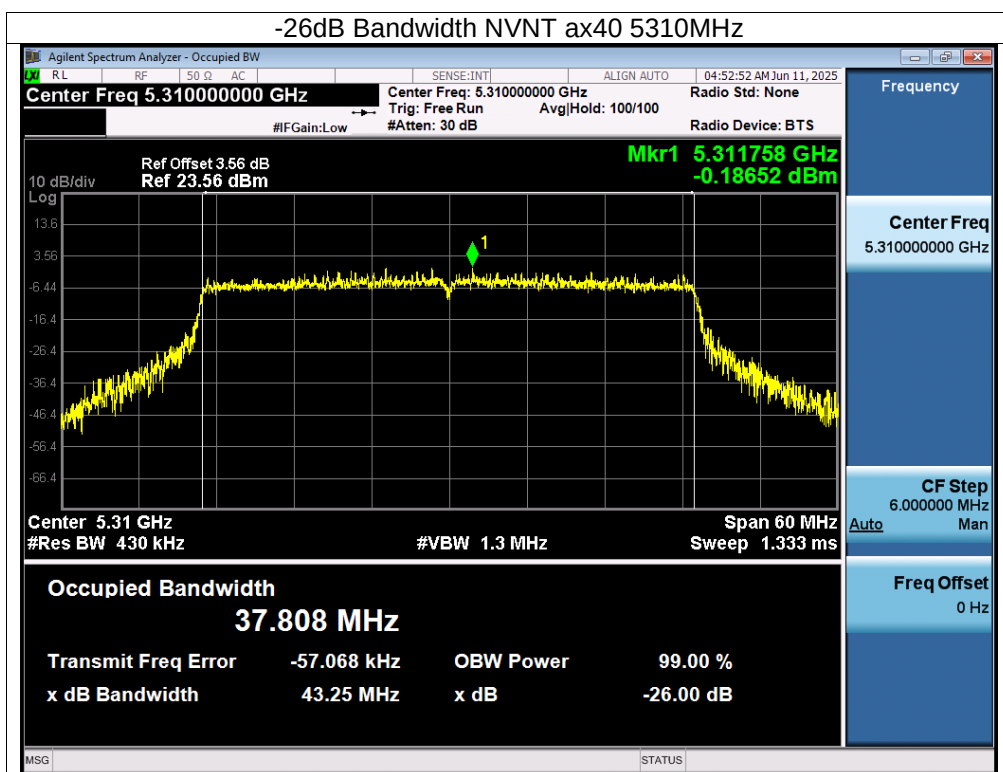






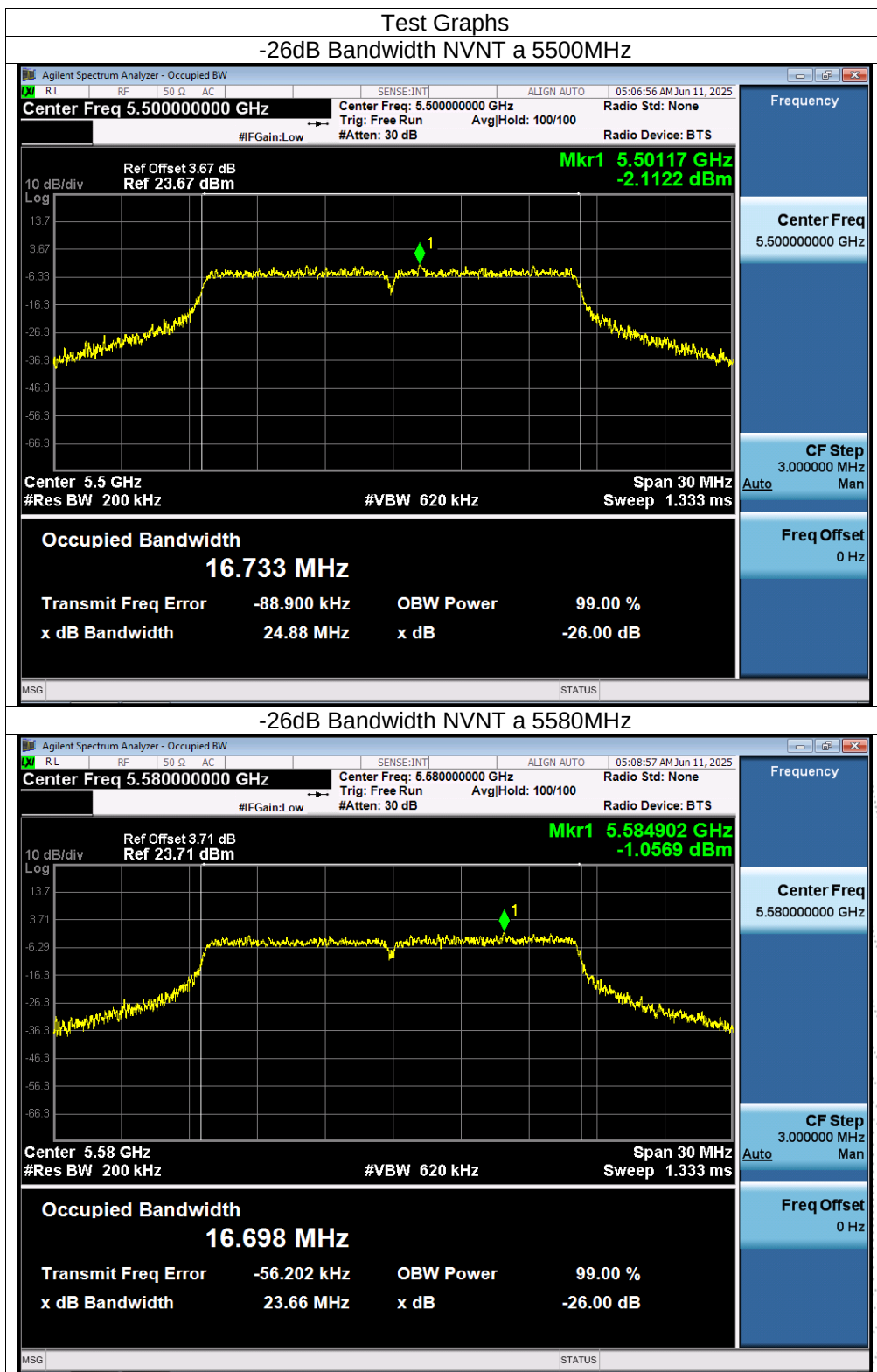


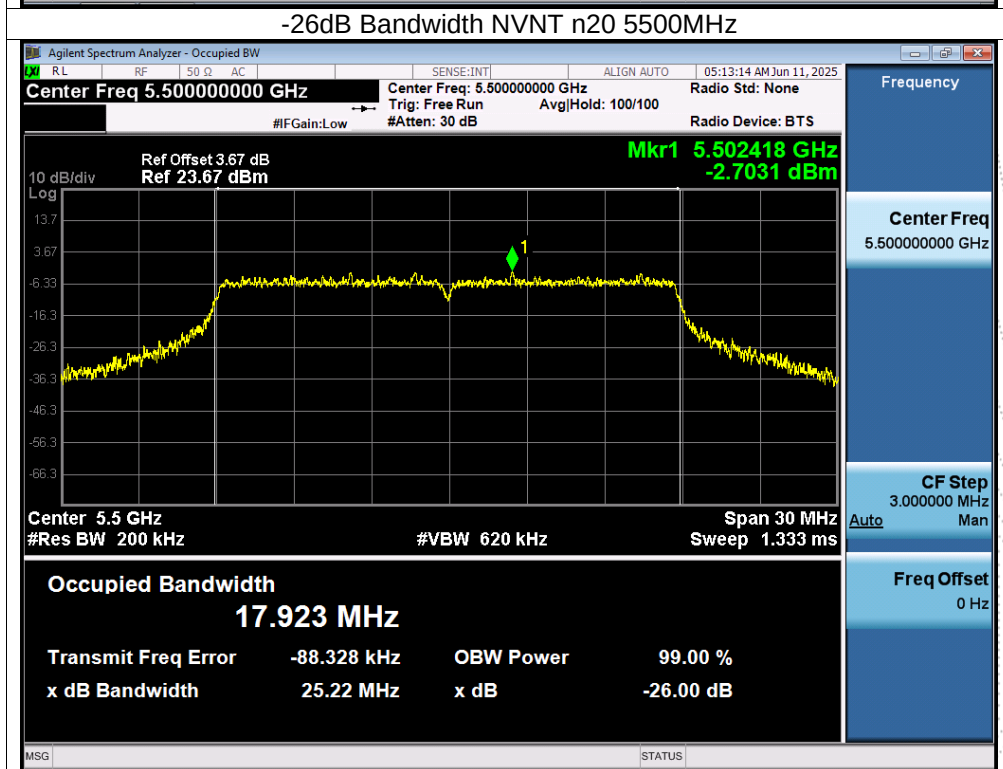
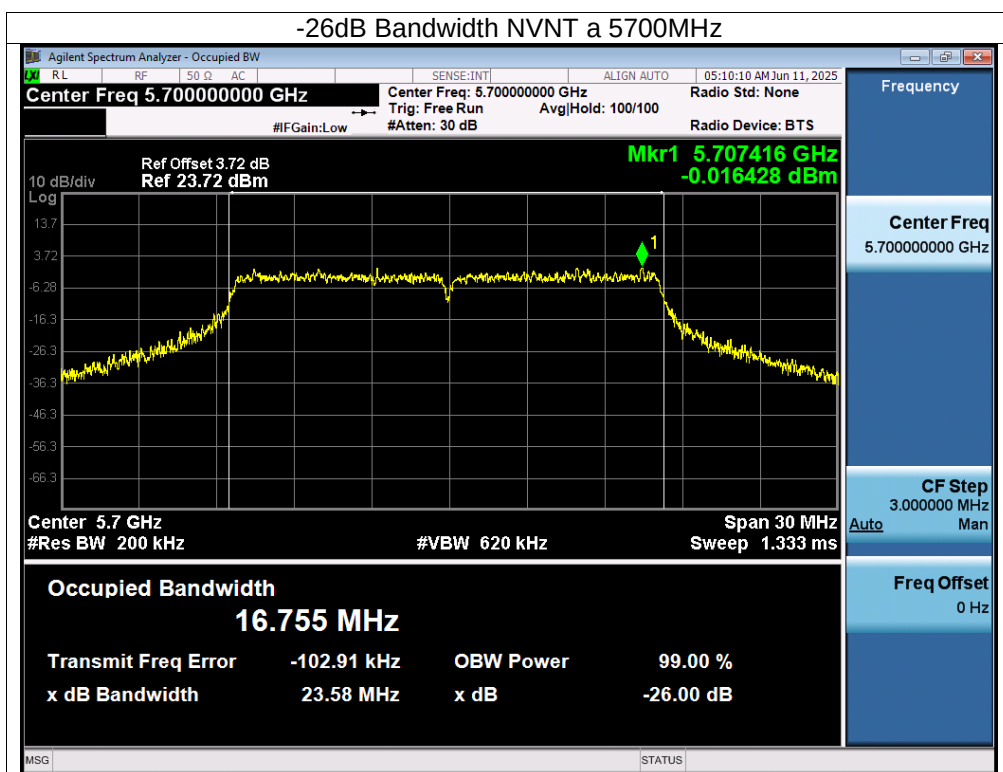


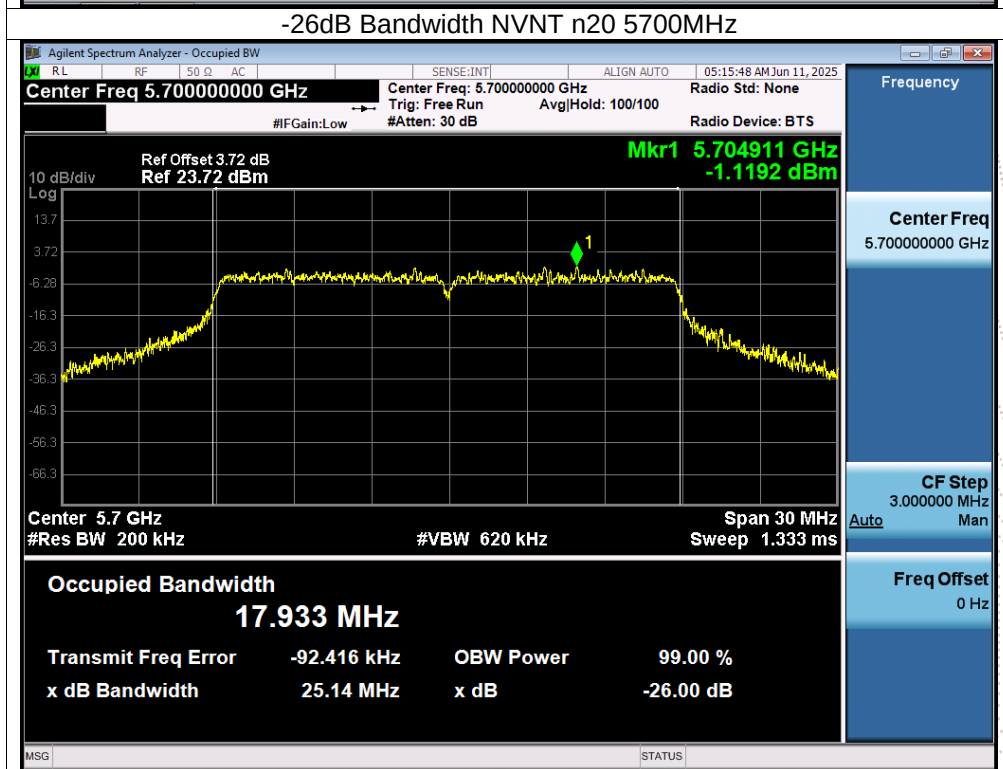
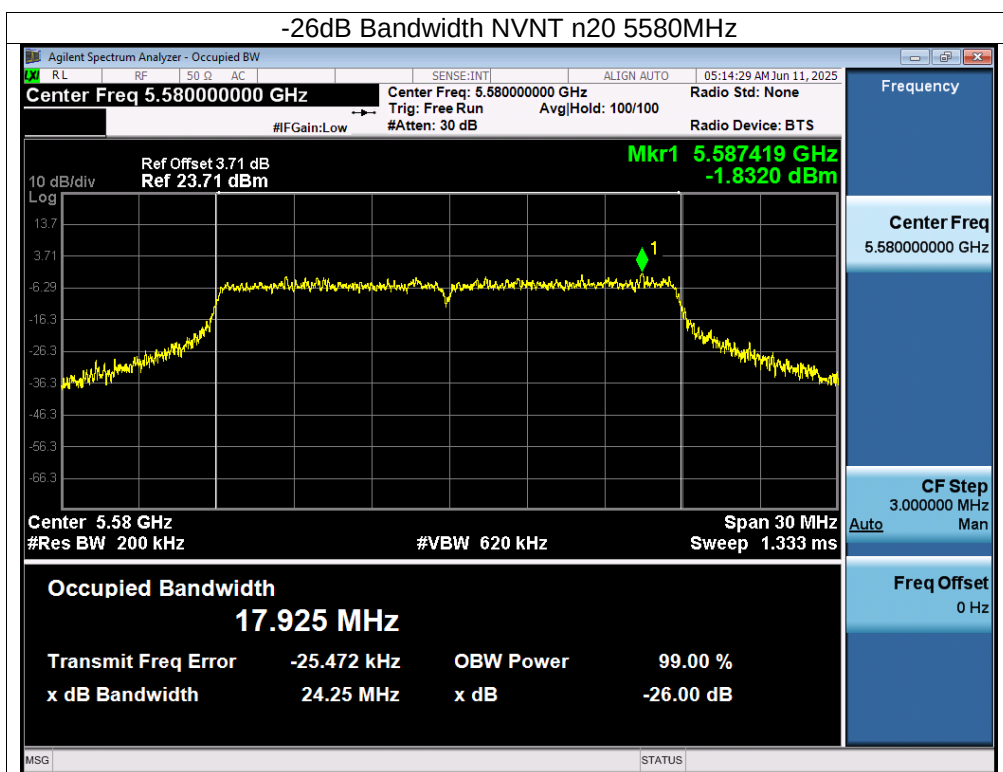


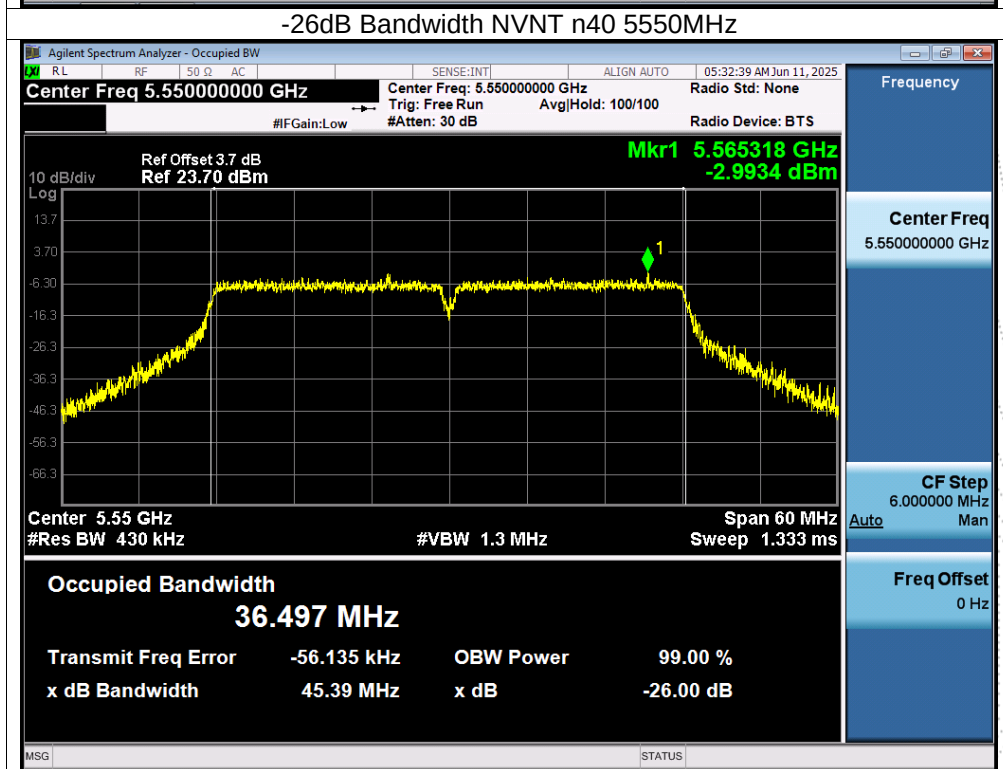
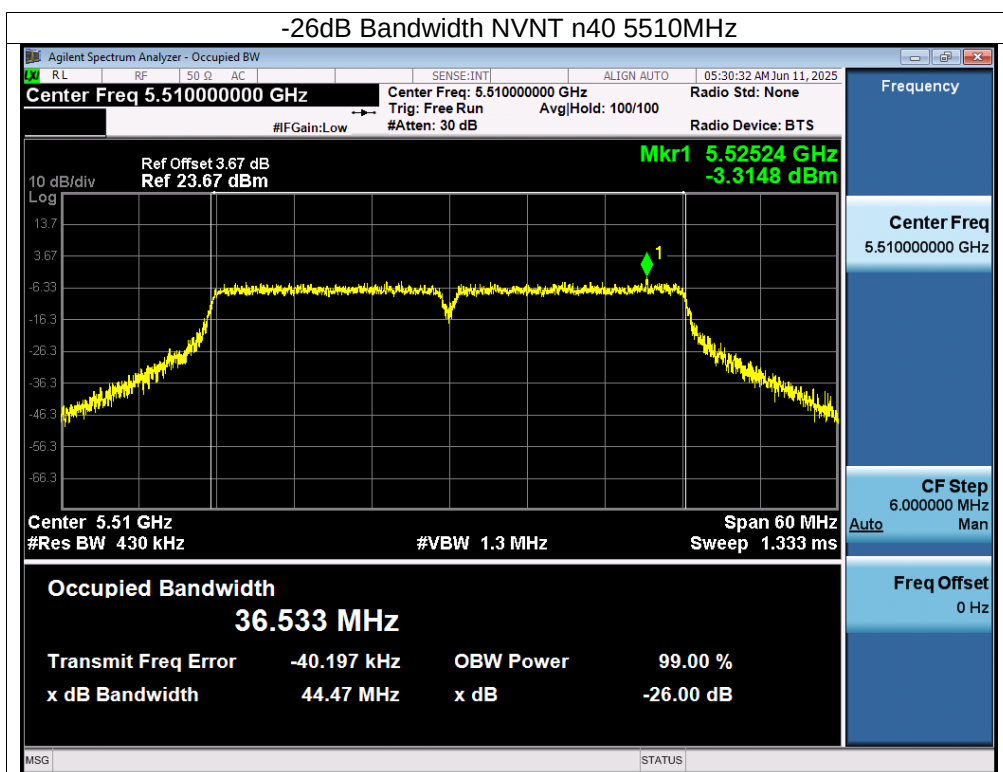
Temperature:	26 °C	Relative Humidity:	54 %
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(U-NII-2C) 5500MHz-5700MHz		

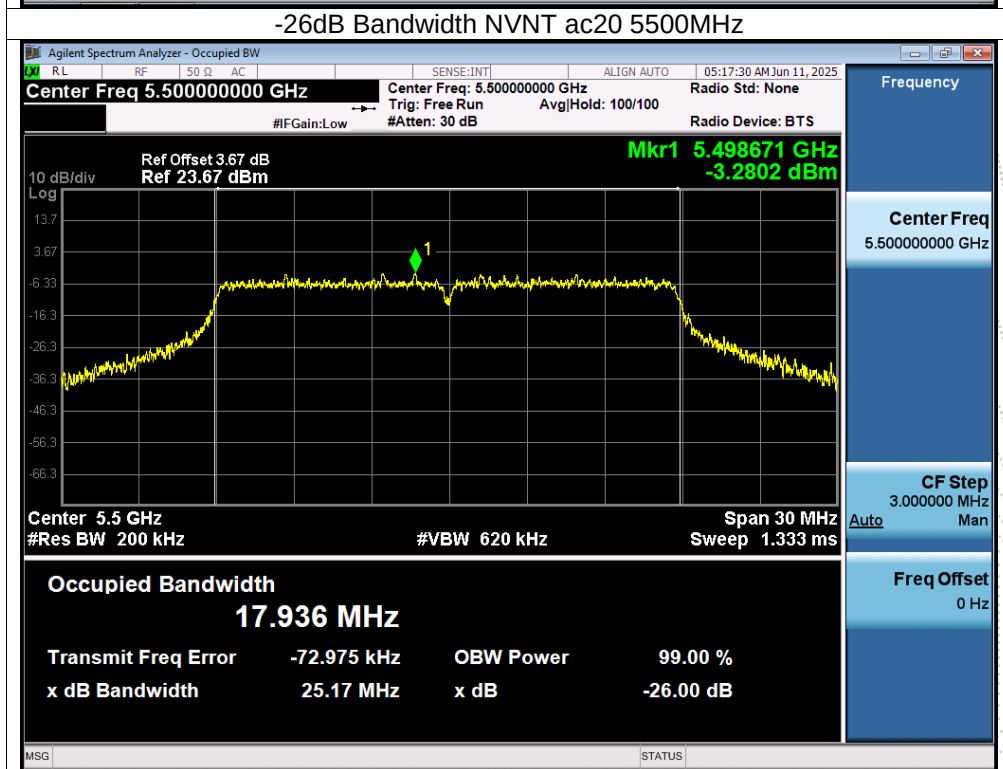
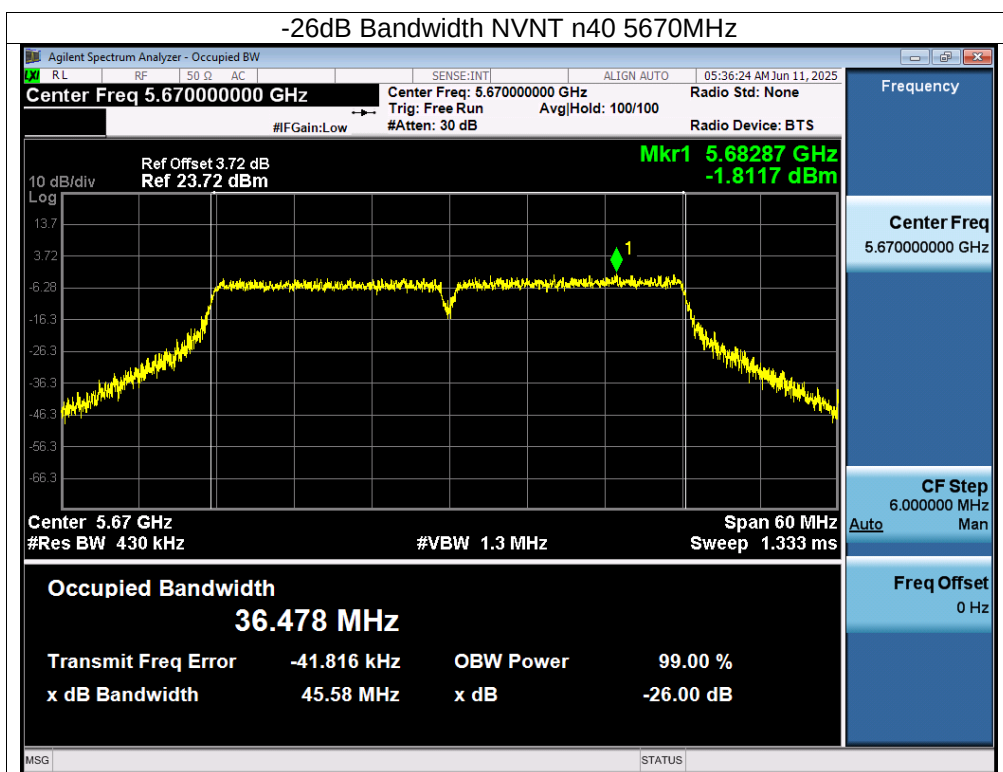
Condition	Mode	Frequency (MHz)	-26dB Bandwidth (MHz)	Result
NVNT	a	5500	24.881	Pass
NVNT	a	5580	23.656	Pass
NVNT	a	5700	23.581	Pass
NVNT	n20	5500	25.224	Pass
NVNT	n20	5580	24.253	Pass
NVNT	n20	5700	25.144	Pass
NVNT	n40	5510	44.473	Pass
NVNT	n40	5550	45.392	Pass
NVNT	n40	5670	45.579	Pass
NVNT	ac20	5500	25.171	Pass
NVNT	ac20	5580	25.03	Pass
NVNT	ac20	5700	25.173	Pass
NVNT	ac40	5510	46.849	Pass
NVNT	ac40	5550	45.988	Pass
NVNT	ac40	5670	46.154	Pass
NVNT	ac80	5530	88.04	Pass
NVNT	ax20	5500	25.383	Pass
NVNT	ax20	5580	25.176	Pass
NVNT	ax20	5700	24.712	Pass
NVNT	ax40	5510	43.951	Pass
NVNT	ax40	5550	44.183	Pass
NVNT	ax40	5670	43.997	Pass
NVNT	ax80	5530	85.701	Pass

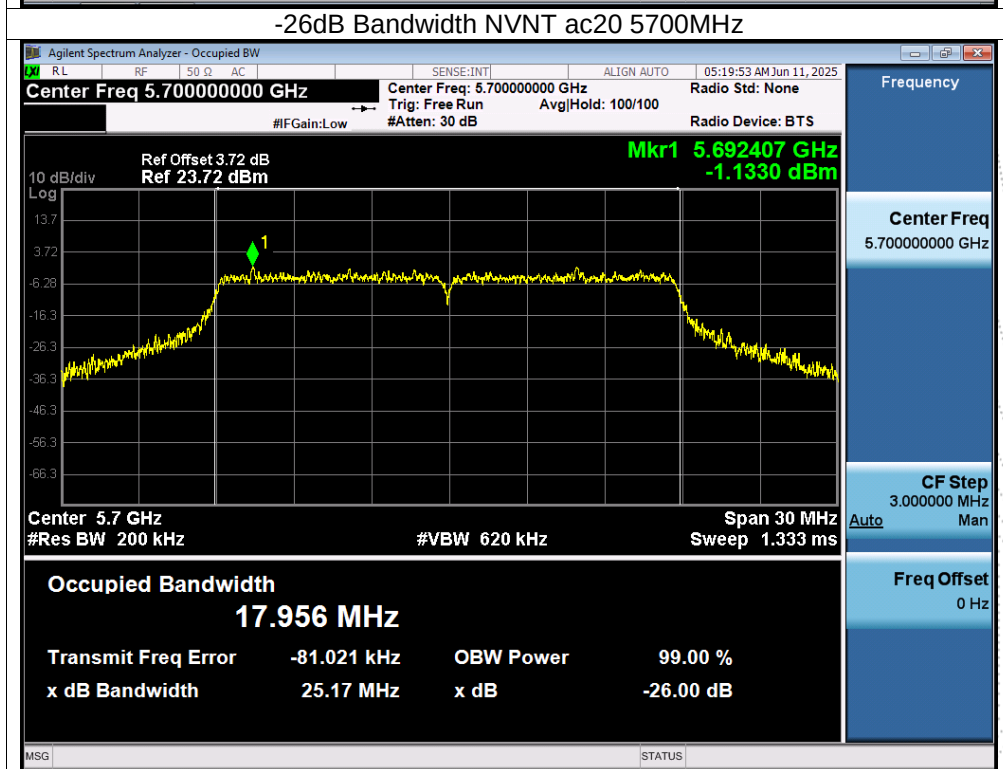
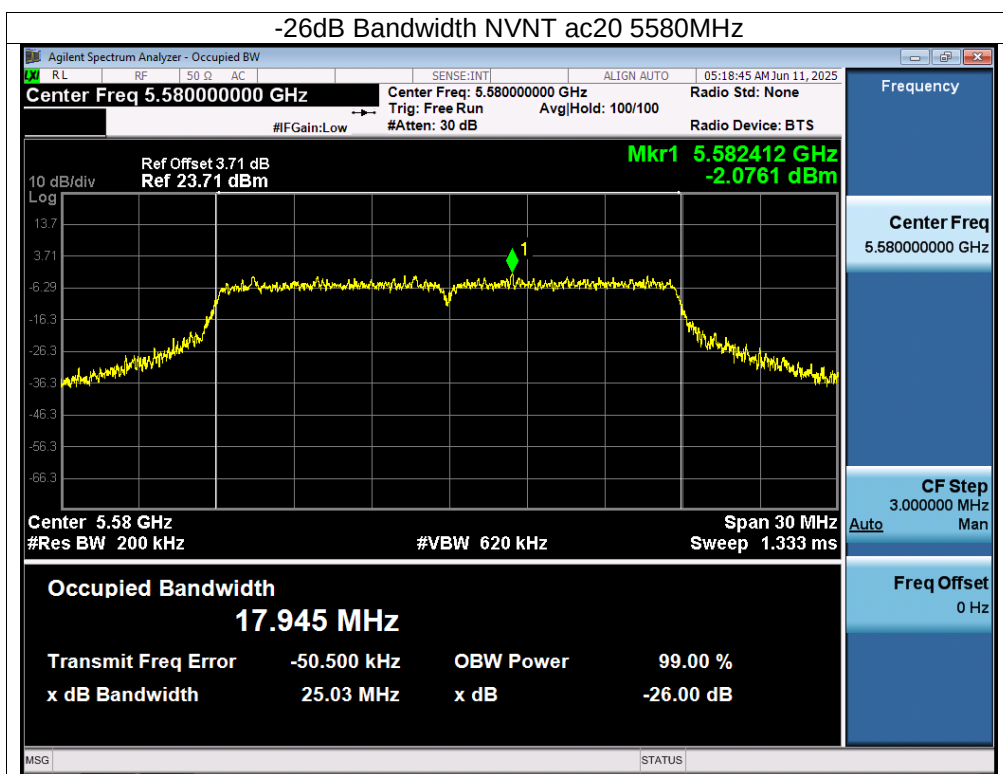


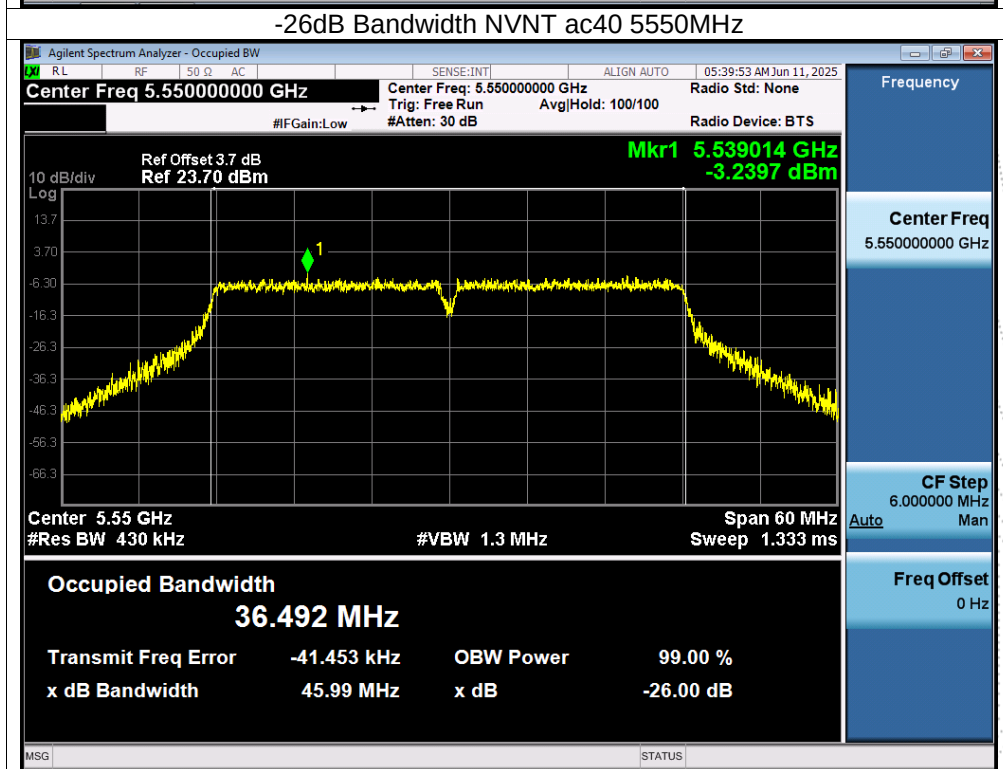
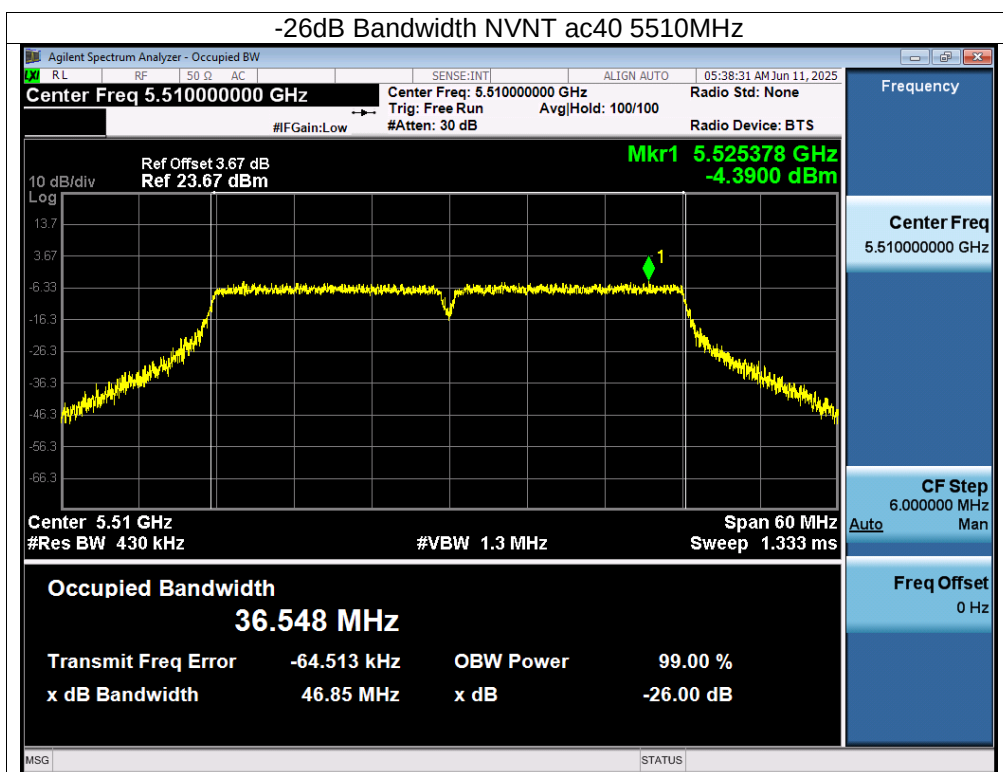


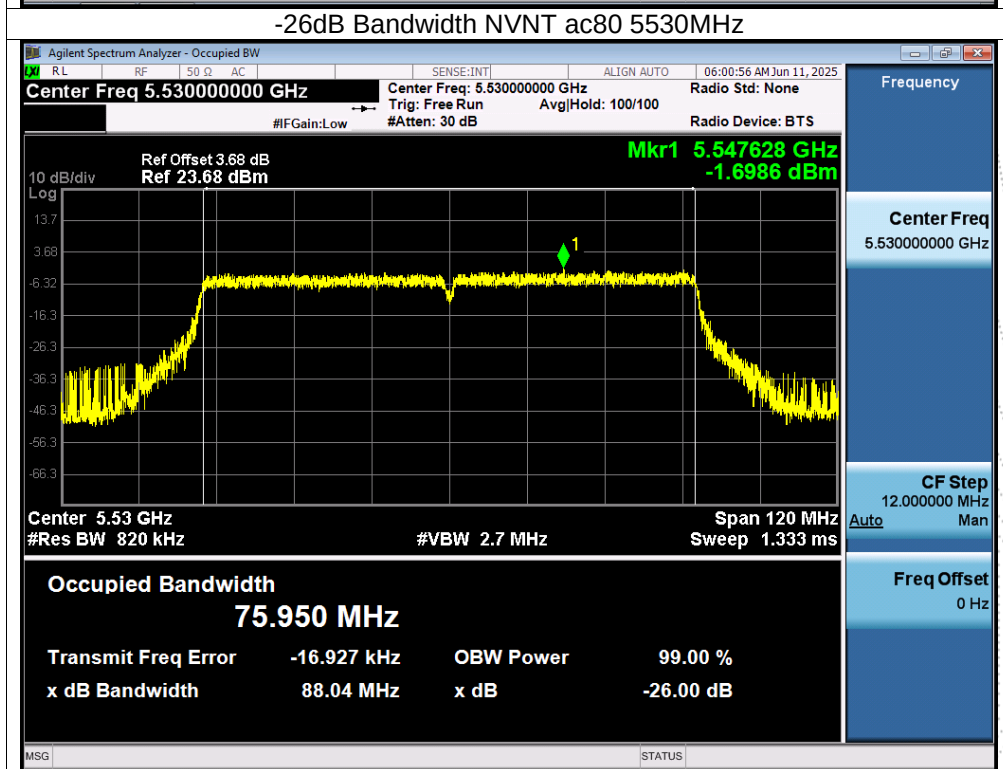
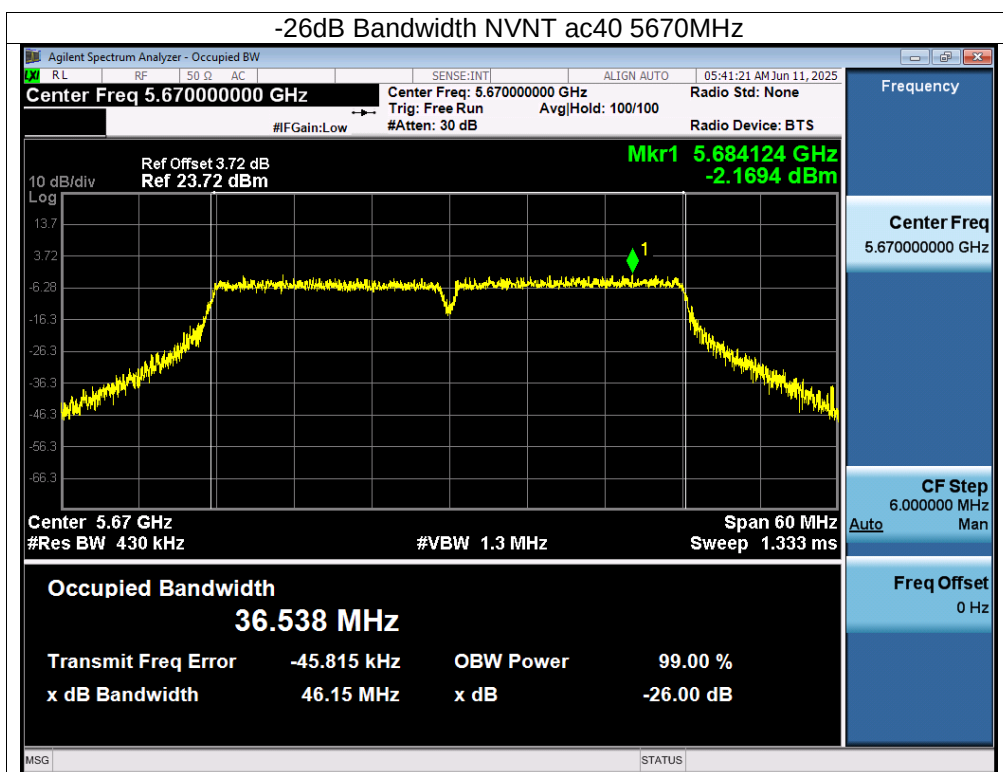


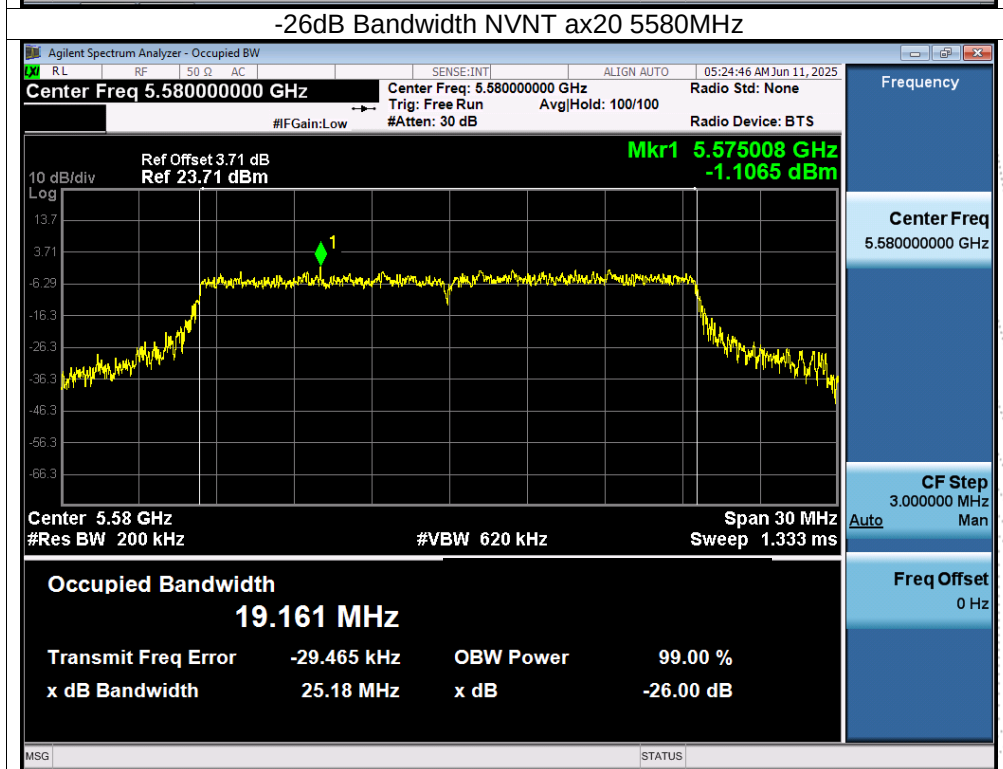
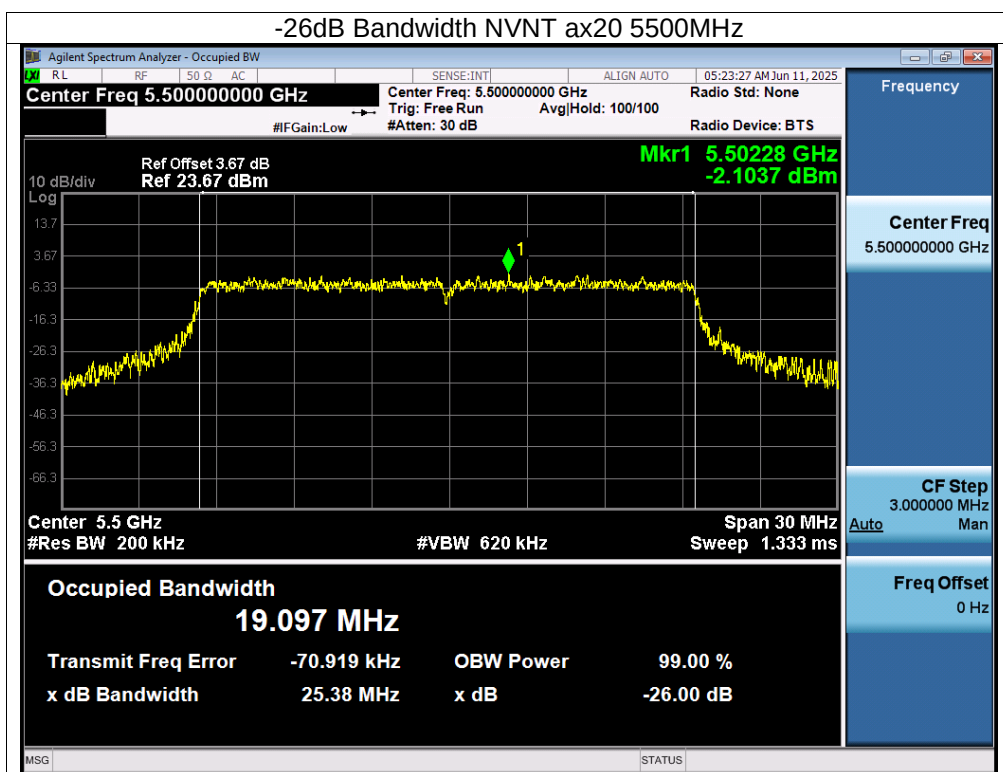


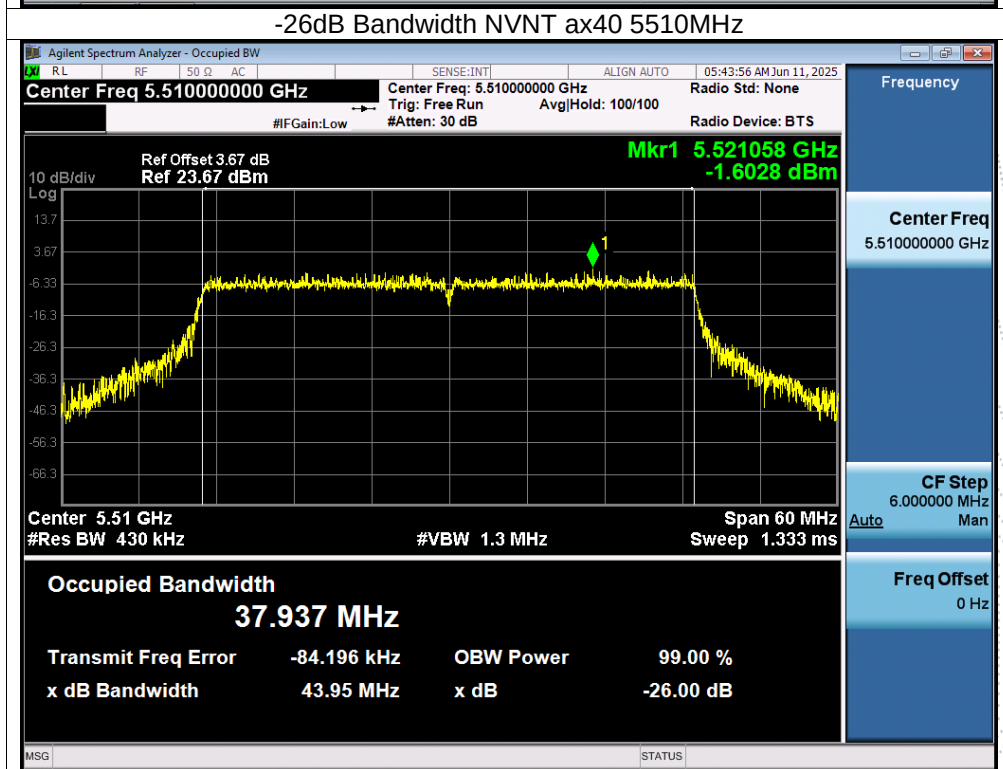
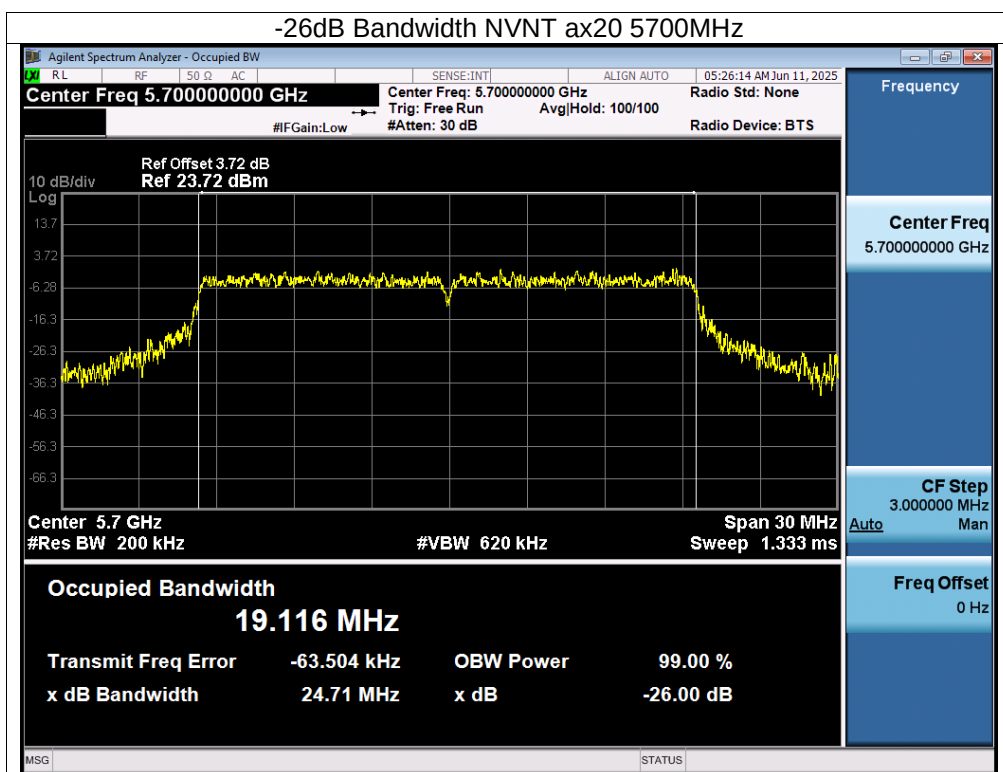


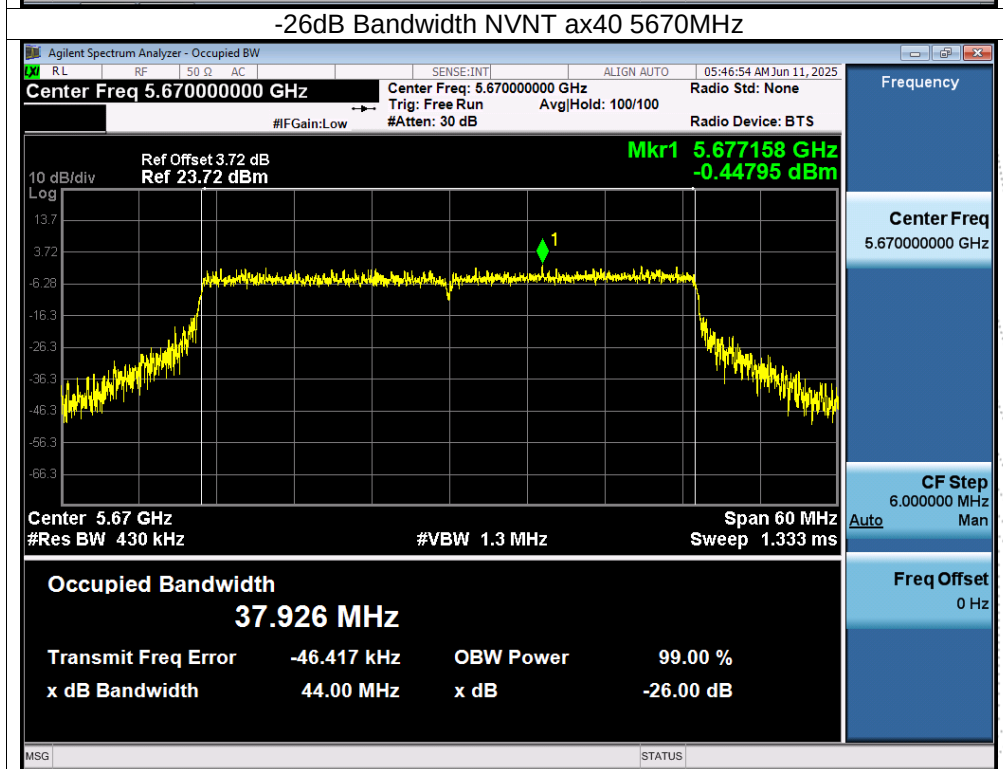
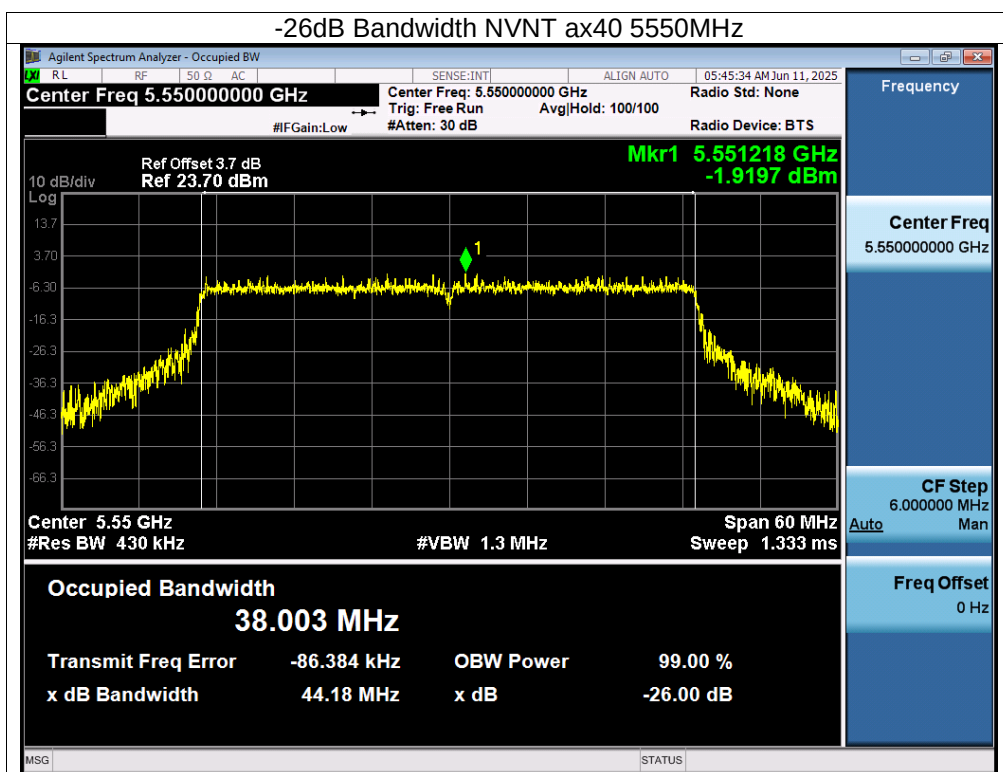


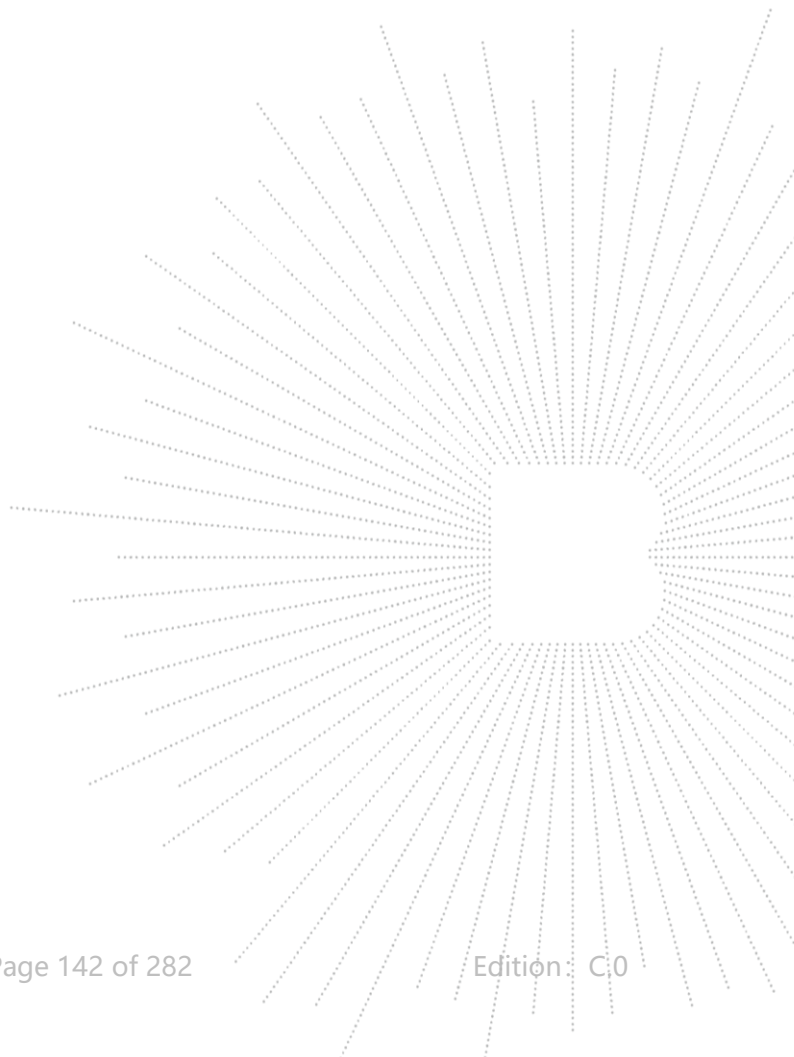
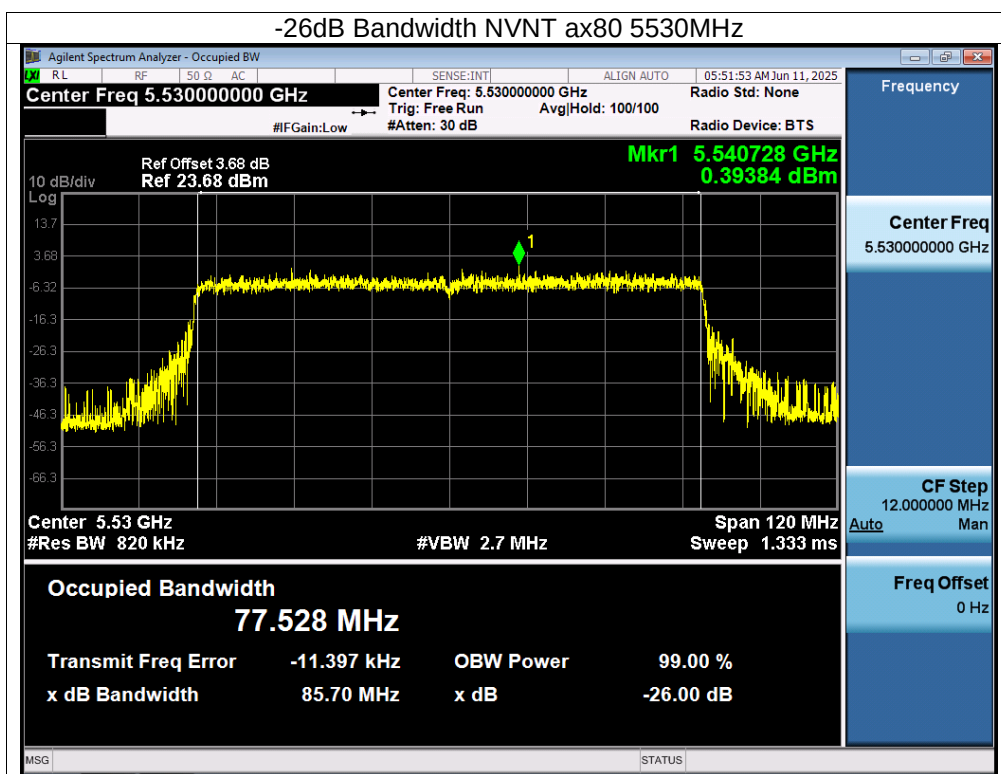












Temperature:	26 °C	Relative Humidity:	54 %
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(U-NII-3) 5745MHz-5825MHz		

Condition	Mode	Frequency (MHz)	-6dB Bandwidth (MHz)	Limit -6dB Bandwidth (MHz)	Result
NVNT	a	5745	16.387	0.5	Pass
NVNT	a	5785	16.365	0.5	Pass
NVNT	a	5825	16.417	0.5	Pass
NVNT	n20	5745	17.592	0.5	Pass
NVNT	n20	5785	17.588	0.5	Pass
NVNT	n20	5825	17.619	0.5	Pass
NVNT	n40	5755	36.346	0.5	Pass
NVNT	n40	5795	36.338	0.5	Pass
NVNT	ac20	5745	17.604	0.5	Pass
NVNT	ac20	5785	17.584	0.5	Pass
NVNT	ac20	5825	17.605	0.5	Pass
NVNT	ac40	5755	36.34	0.5	Pass
NVNT	ac40	5795	36.303	0.5	Pass
NVNT	ac80	5775	76.307	0.5	Pass
NVNT	ax20	5745	18.934	0.5	Pass
NVNT	ax20	5785	18.906	0.5	Pass
NVNT	ax20	5825	18.86	0.5	Pass
NVNT	ax40	5755	37.882	0.5	Pass
NVNT	ax40	5795	38.028	0.5	Pass
NVNT	ax80	5775	77.743	0.5	Pass

