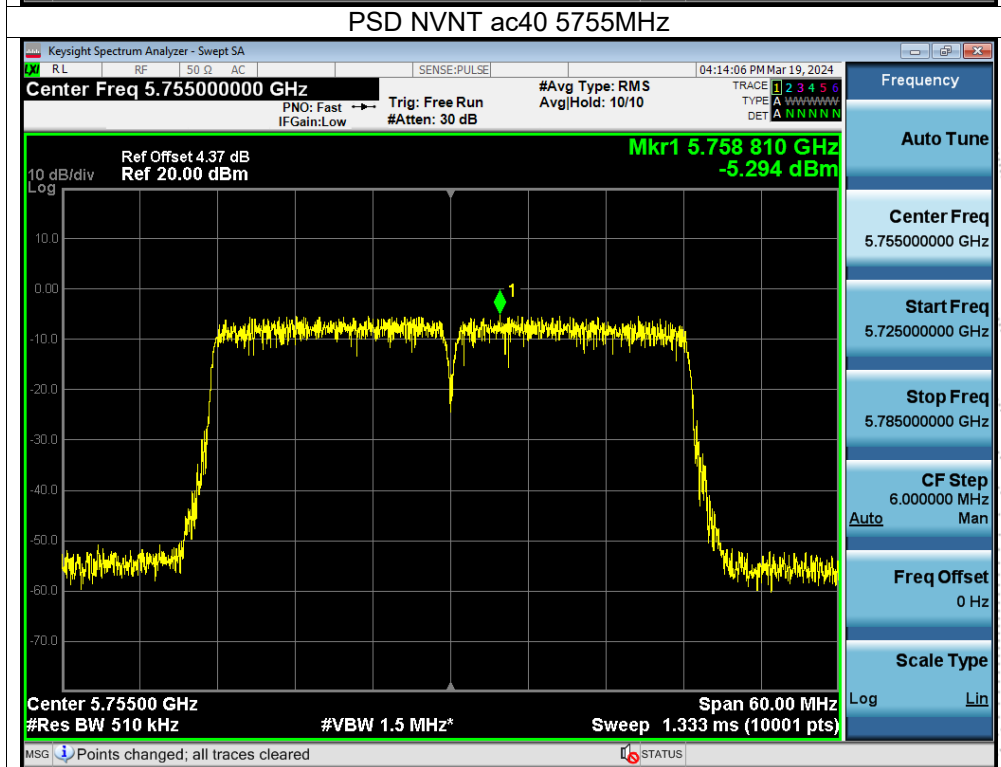
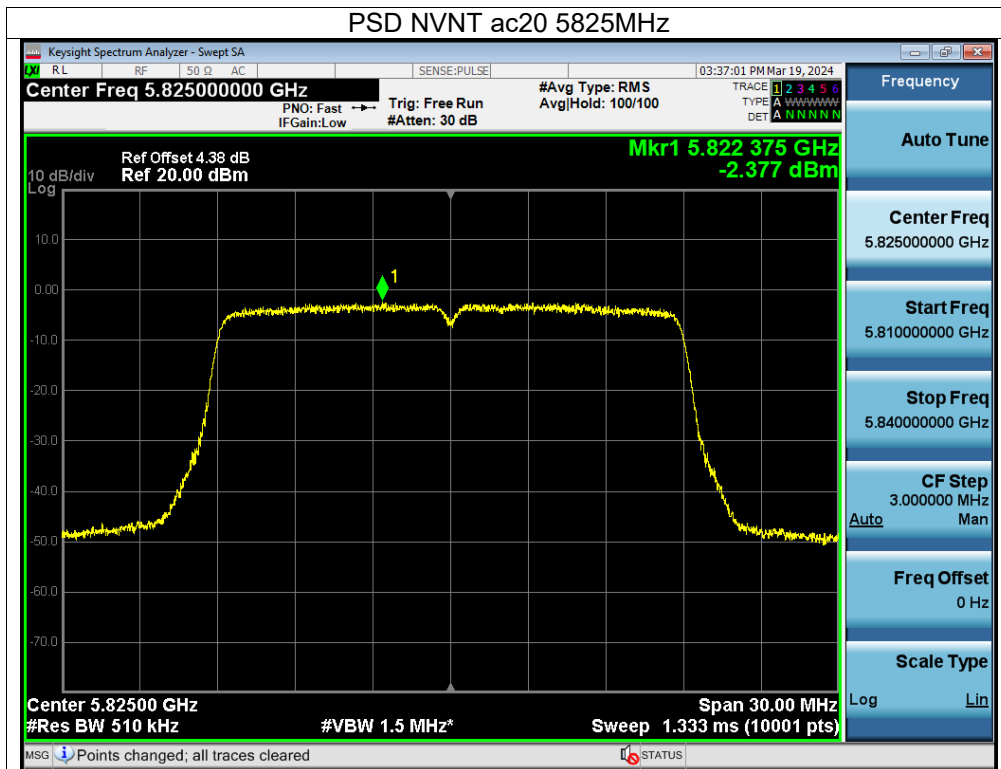
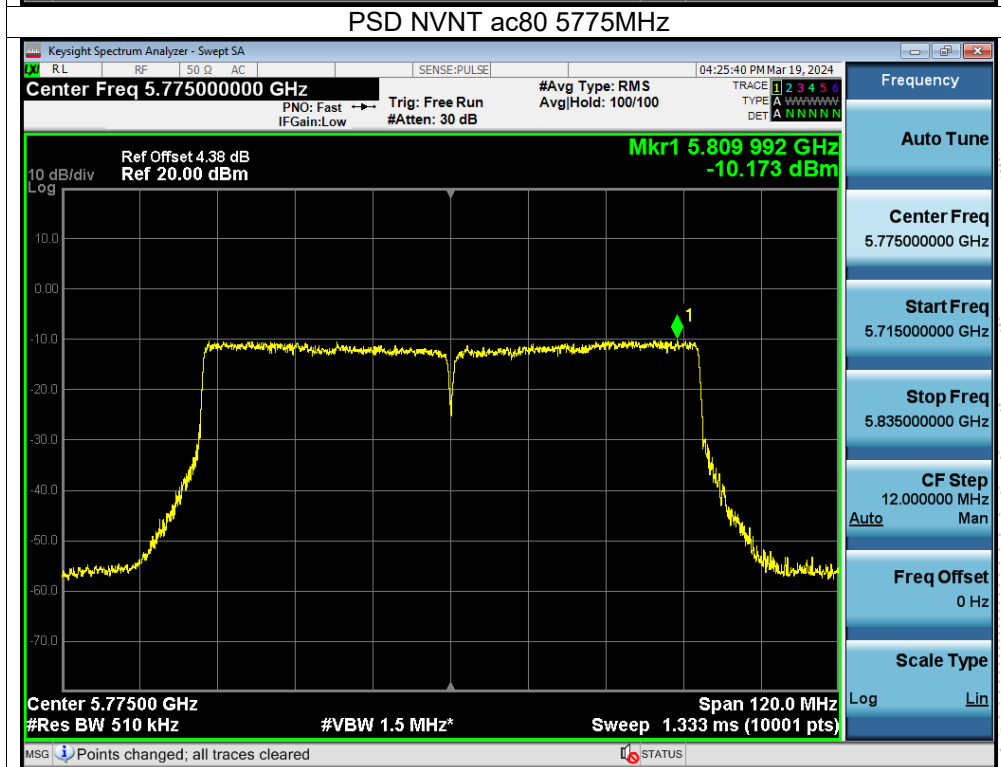
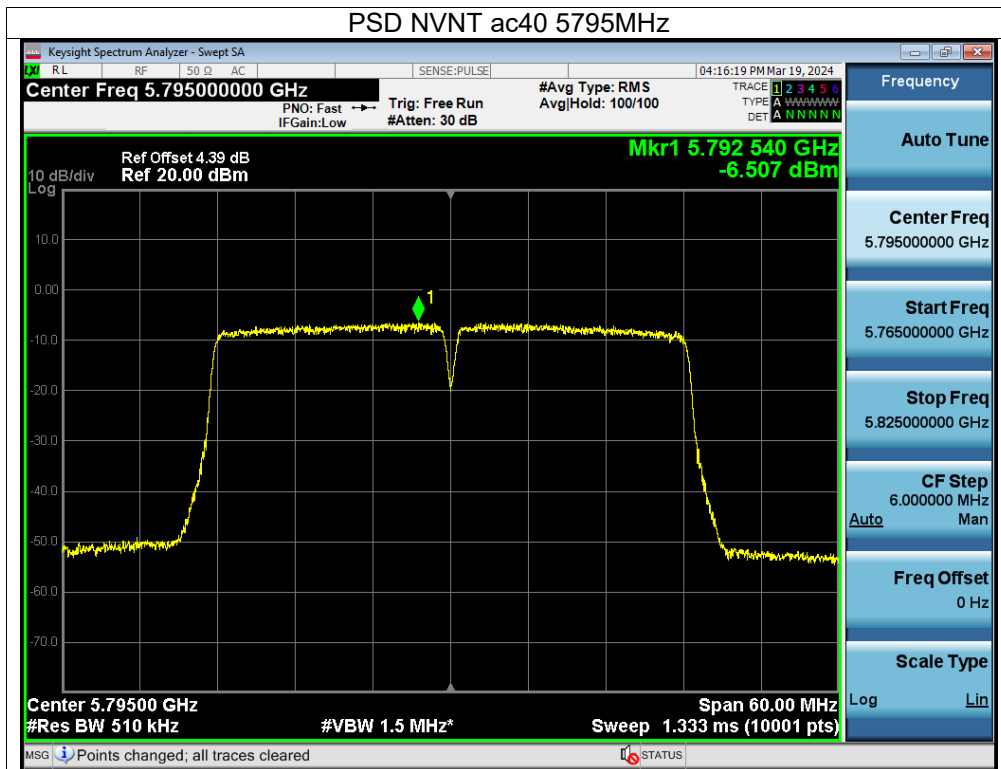
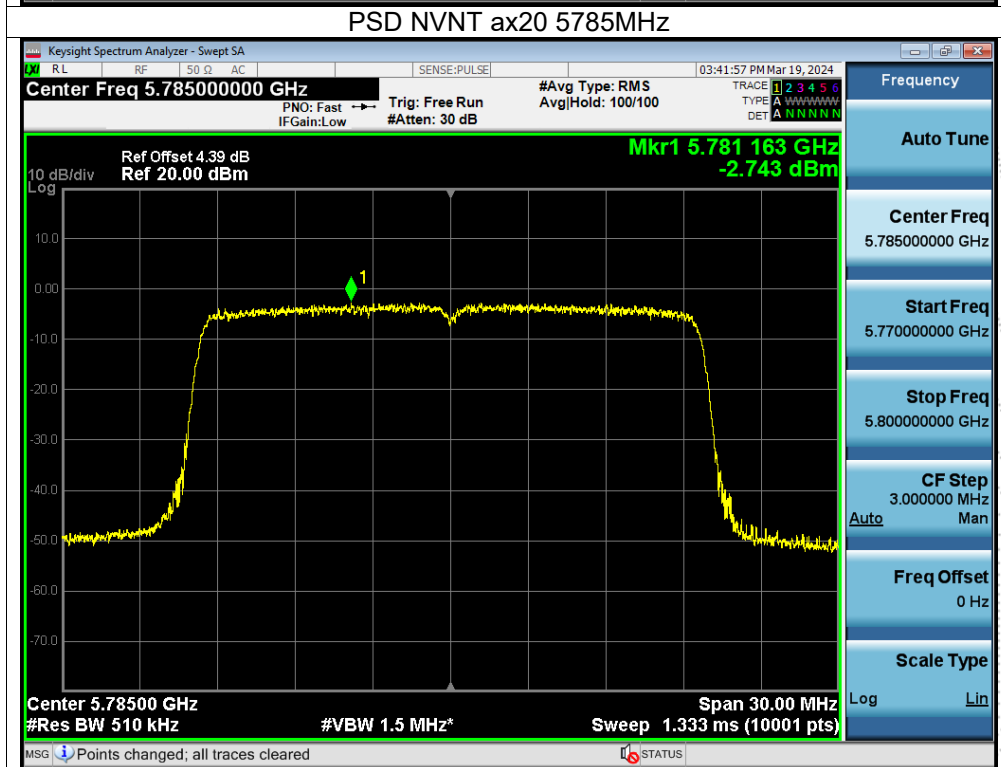
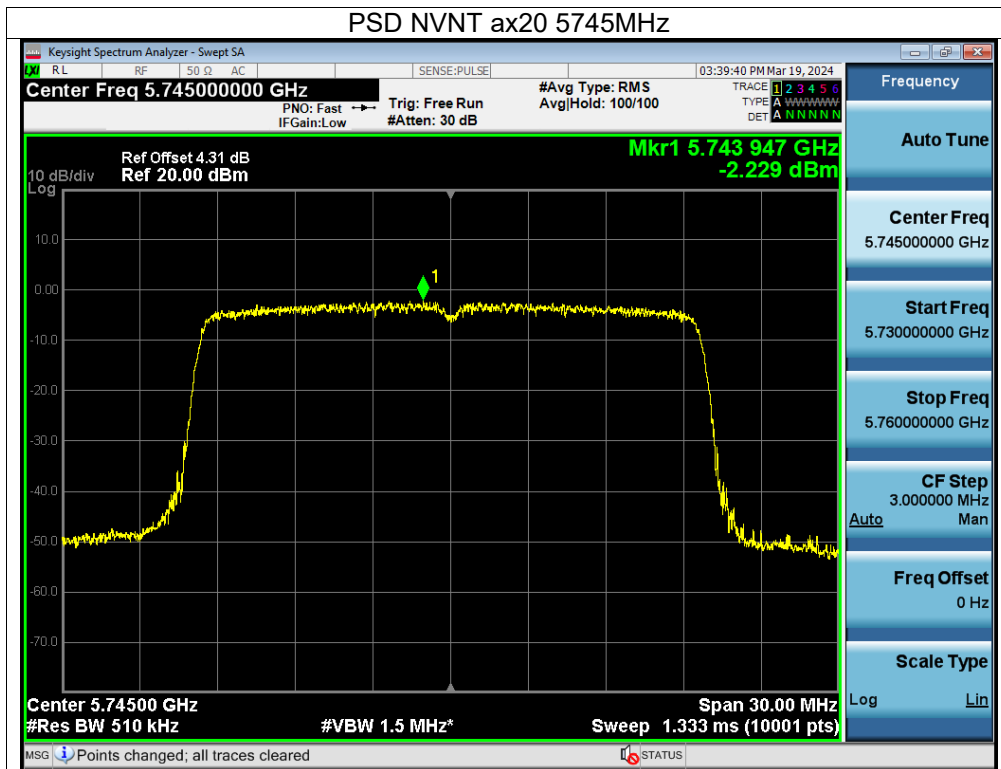
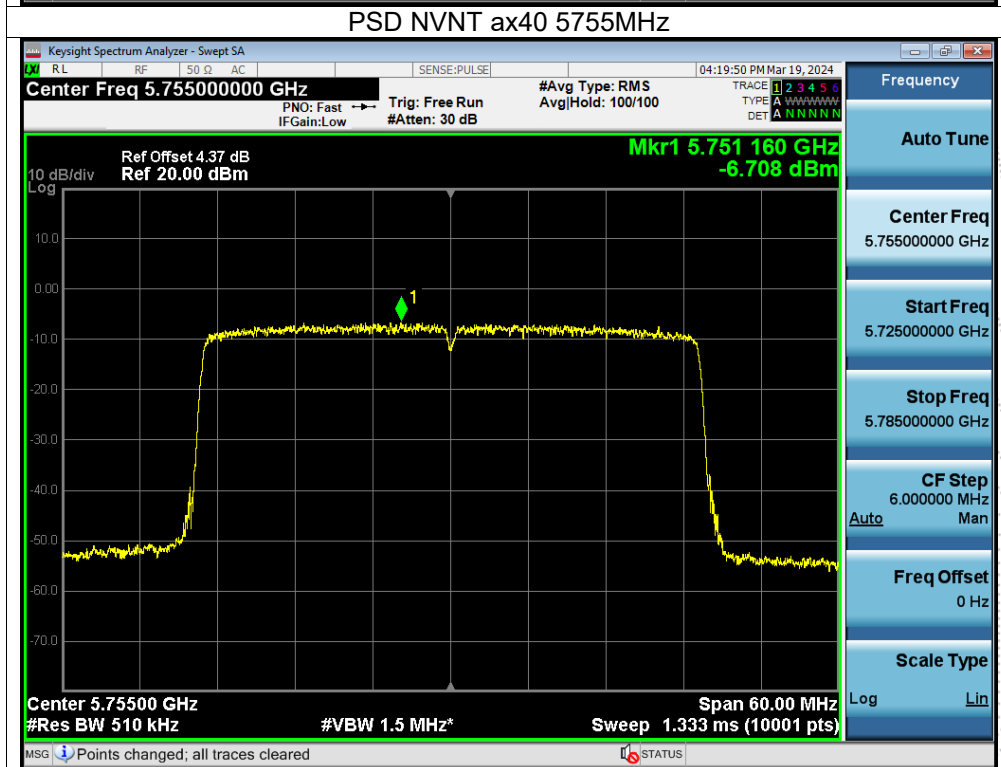
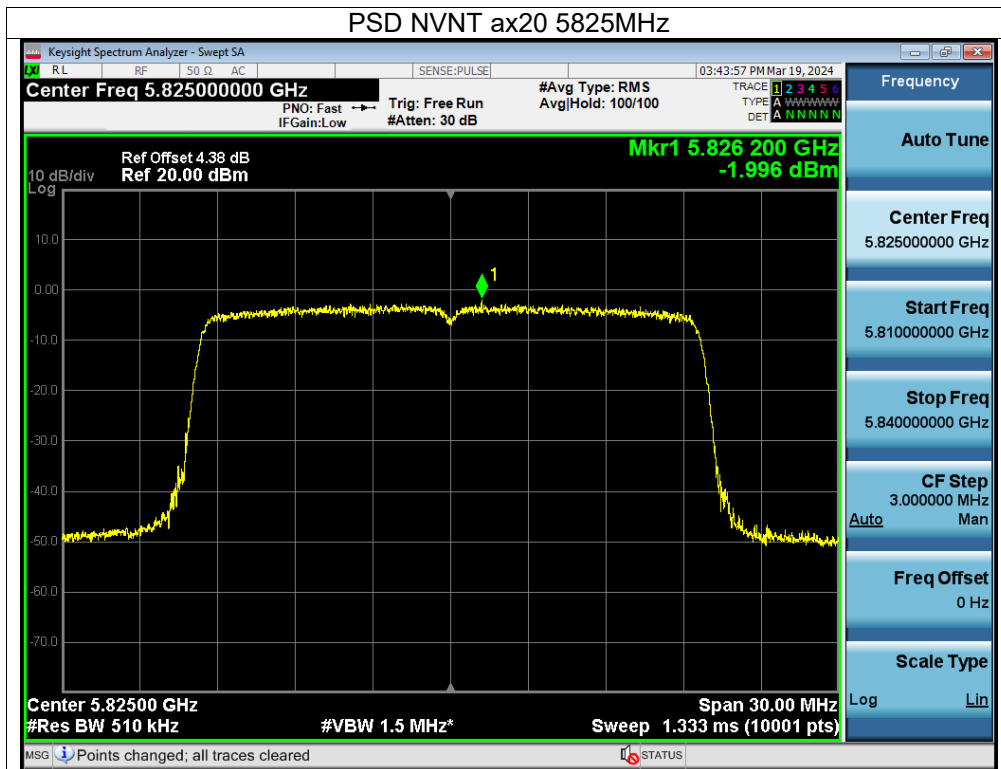






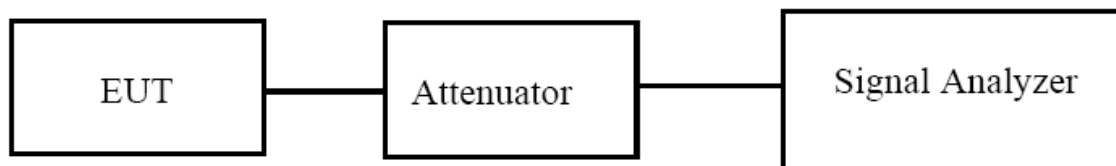






9. 26dB & 6dB & 99% Emission Bandwidth

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 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%.

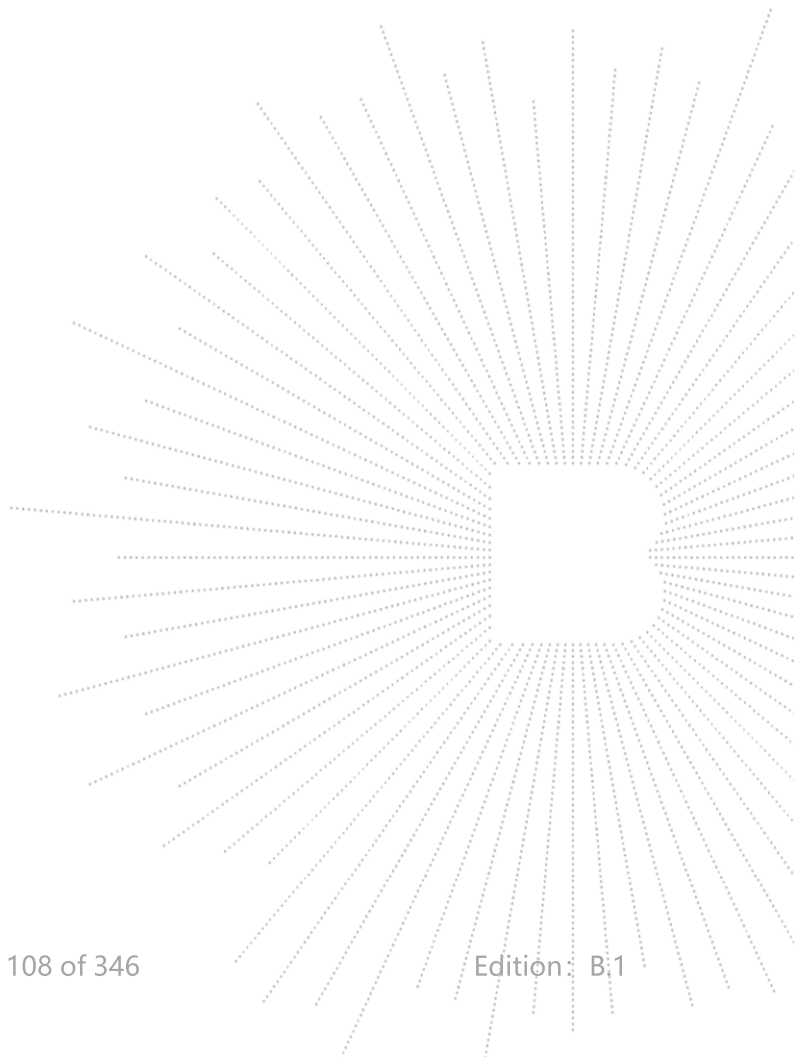
The following procedure shall be used for measuring (99 %) power bandwidth:

- 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.

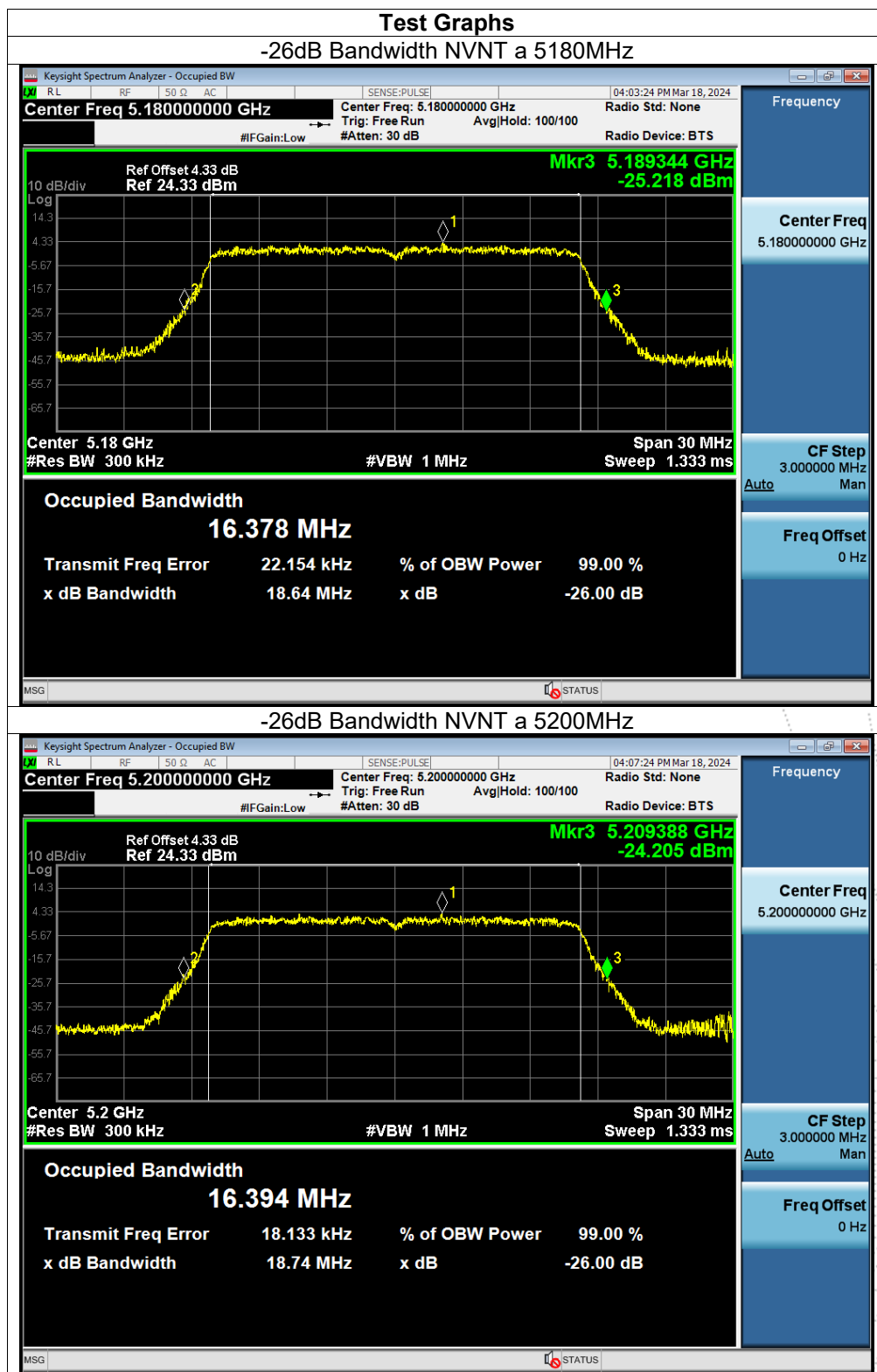


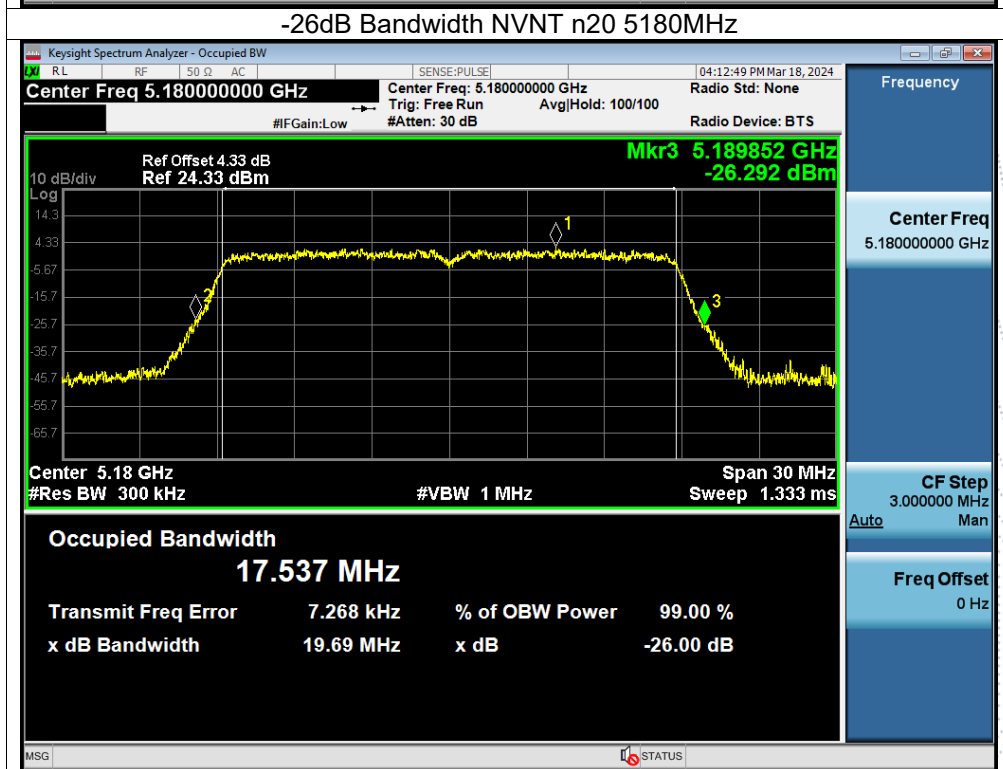
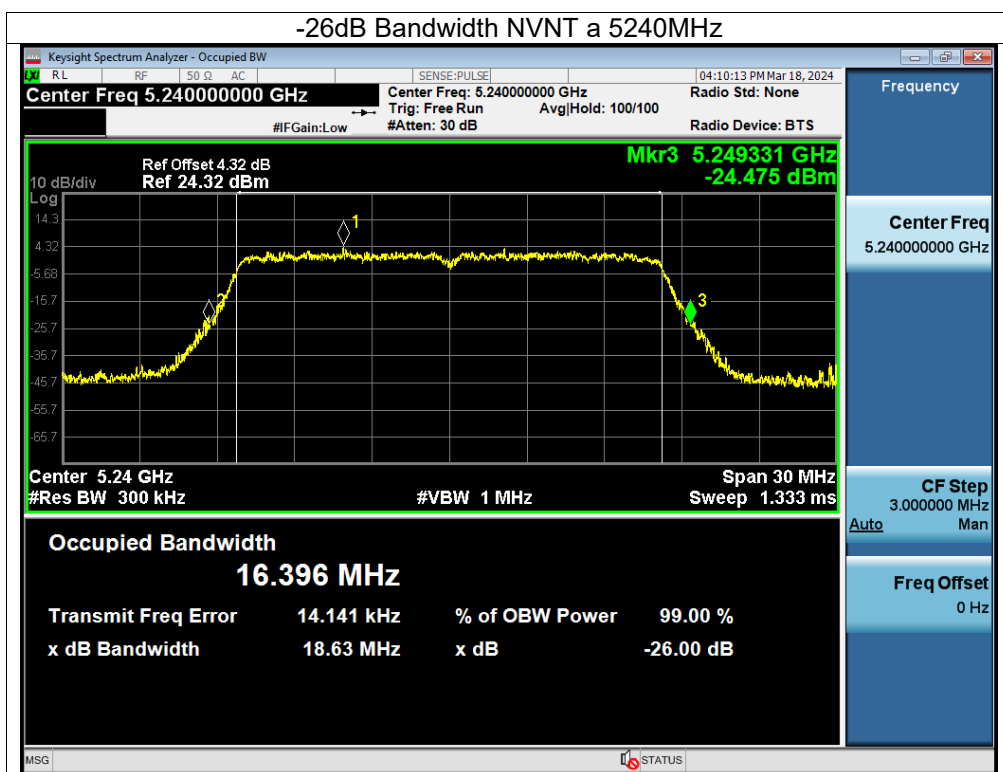
9.5 Test Result

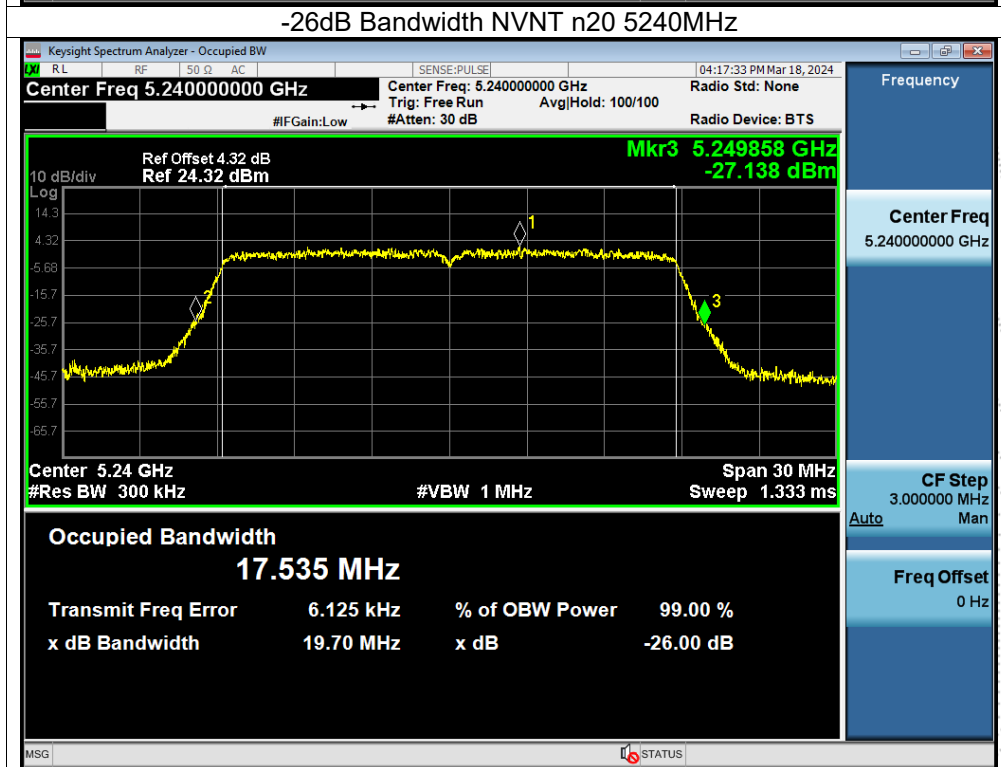
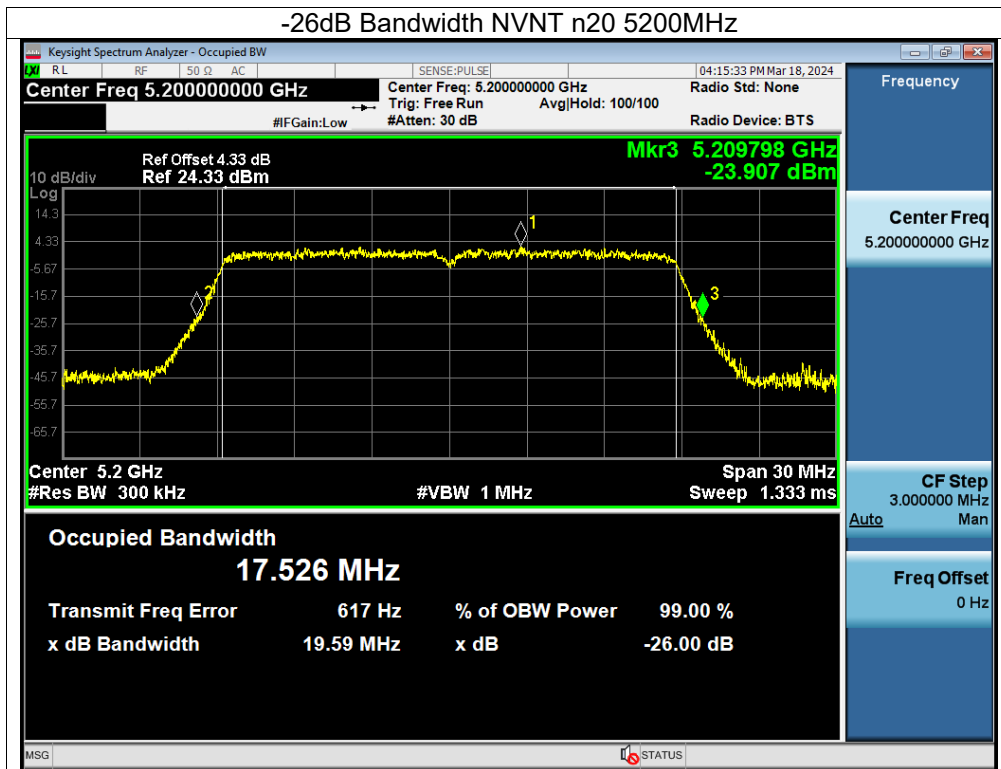
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(5180-5240MHz)		

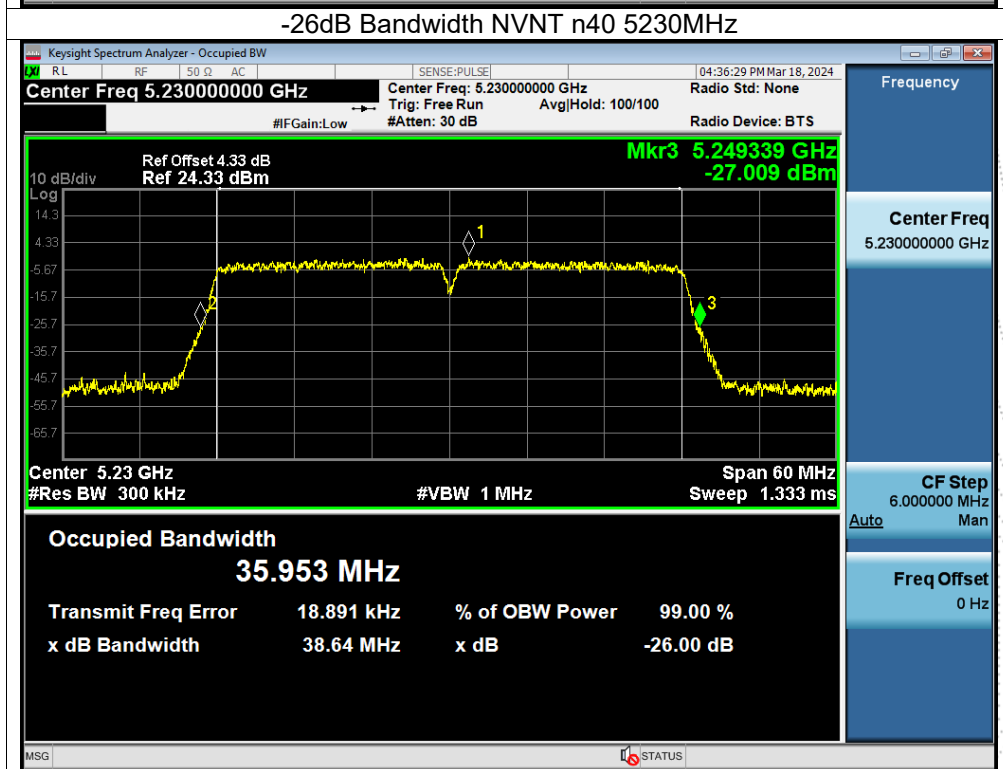
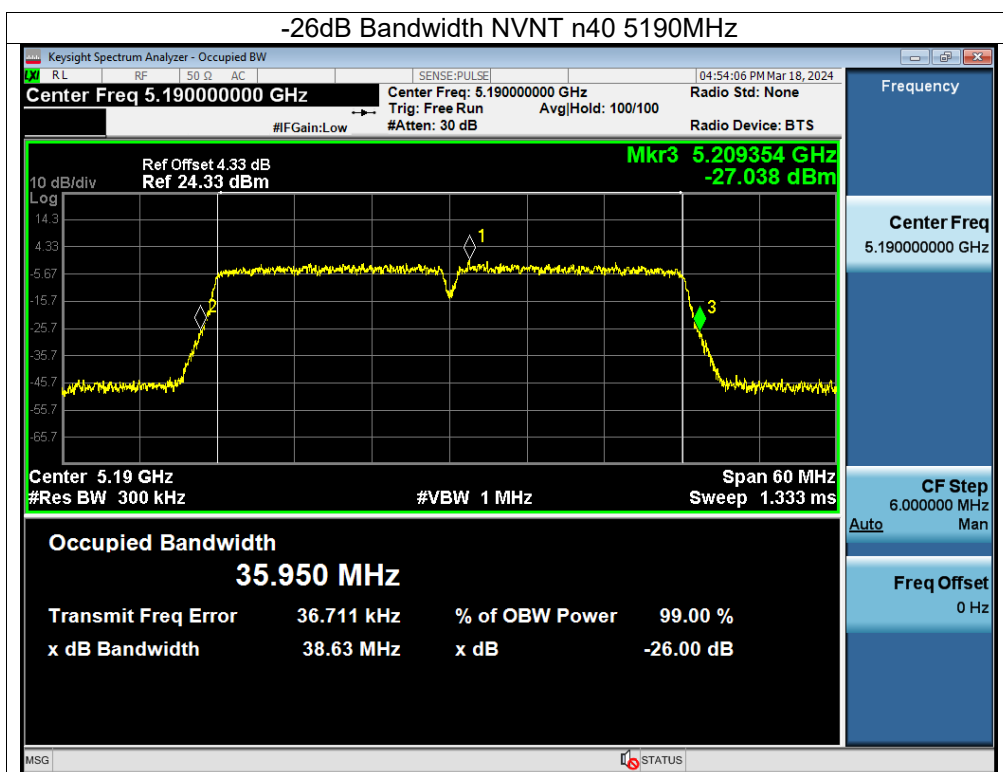
Condition	Mode	Frequency (MHz)	-26 dB Bandwidth (MHz)		99% OBW (MHz)		Verdict
			Ant A	Ant B	Ant A	Ant B	
NVNT	a	5180	18.645	18.586	16.333	16.338	Pass
NVNT	a	5200	18.739	18.731	16.329	16.343	Pass
NVNT	a	5240	18.634	18.585	16.342	16.342	Pass
NVNT	n20	5180	19.69	19.587	17.504	17.512	Pass
NVNT	n20	5200	19.594	19.641	17.498	17.512	Pass
NVNT	n20	5240	19.704	19.599	17.507	17.5	Pass
NVNT	n40	5190	38.635	38.819	36.006	36.018	Pass
NVNT	n40	5230	38.641	38.786	36.038	36.033	Pass
NVNT	ac20	5180	19.791	19.648	17.5	17.513	Pass
NVNT	ac20	5200	19.543	19.629	17.508	17.516	Pass
NVNT	ac20	5240	19.708	19.55	17.502	17.507	Pass
NVNT	ac40	5190	38.47	38.766	36.039	36.011	Pass
NVNT	ac40	5230	38.621	38.491	36.05	36.044	Pass
NVNT	ac80	5210	84.824	84.534	76.222	76.223	Pass
NVNT	ax20	5180	20.6	20.519	18.878	18.877	Pass
NVNT	ax20	5200	20.469	20.384	18.893	18.872	Pass
NVNT	ax20	5240	20.498	20.389	18.889	18.861	Pass
NVNT	ax40	5190	39.679	39.544	37.618	37.628	Pass
NVNT	ax40	5230	39.359	39.281	37.655	37.623	Pass
NVNT	ax80	5210	80.753	81.111	77.302	77.372	Pass

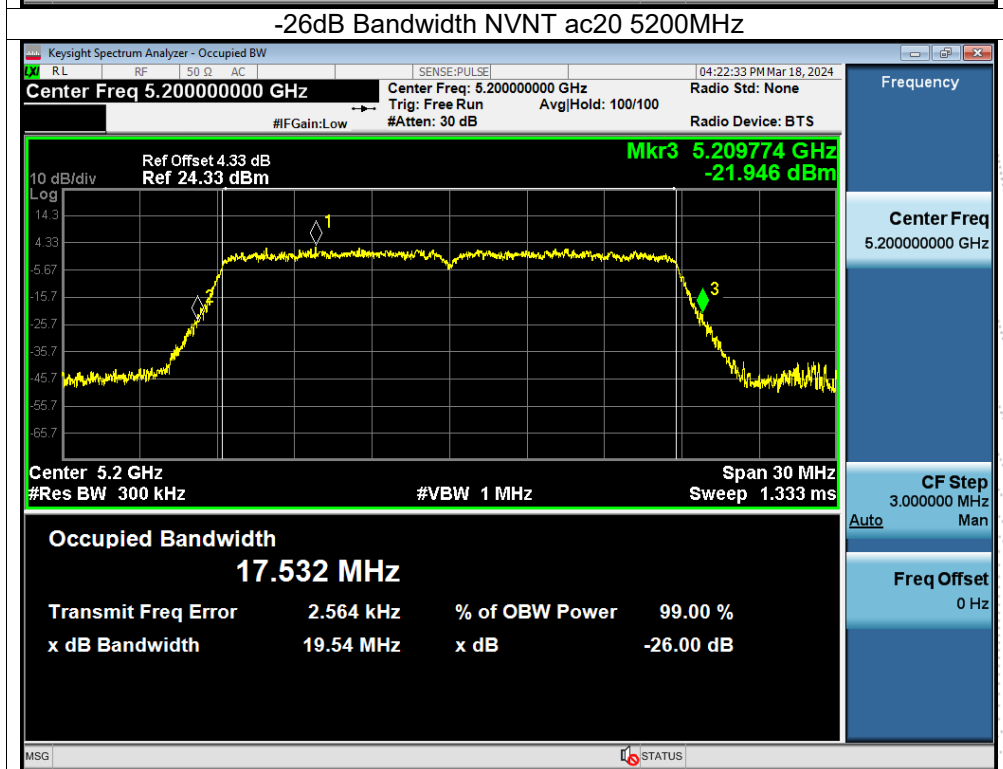
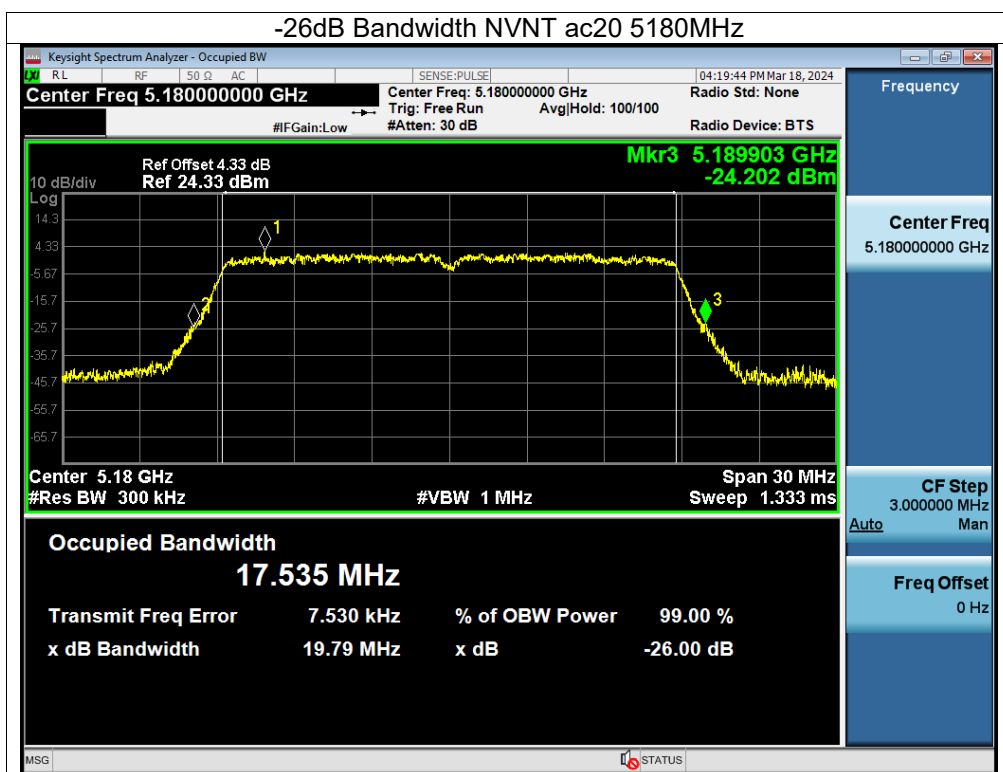
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

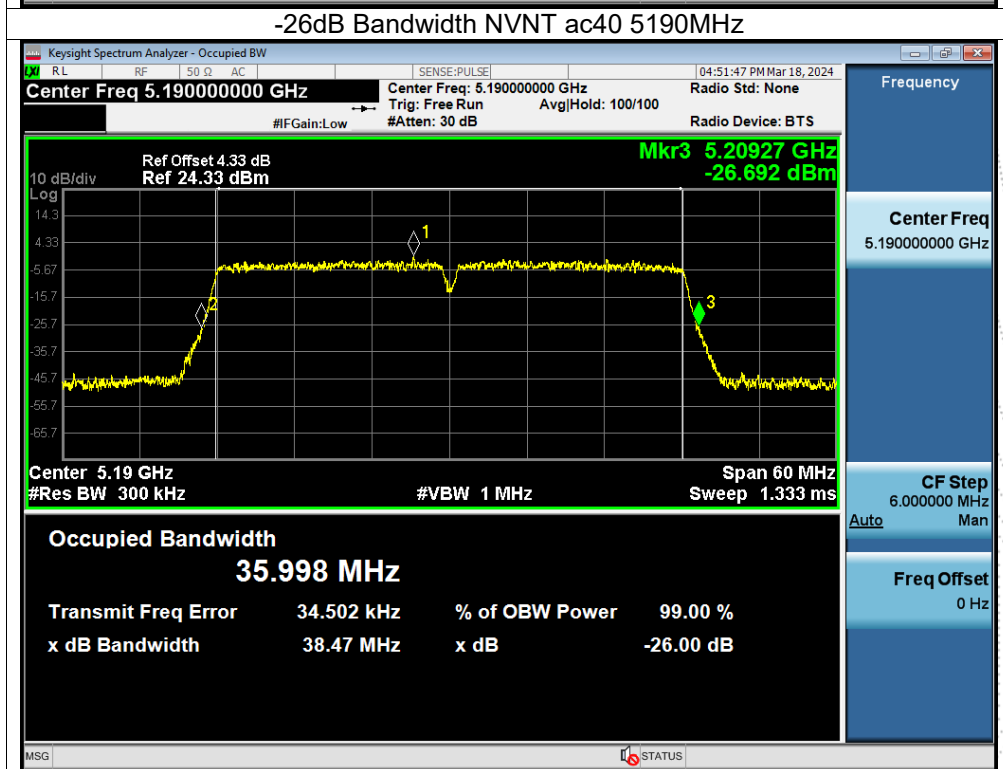
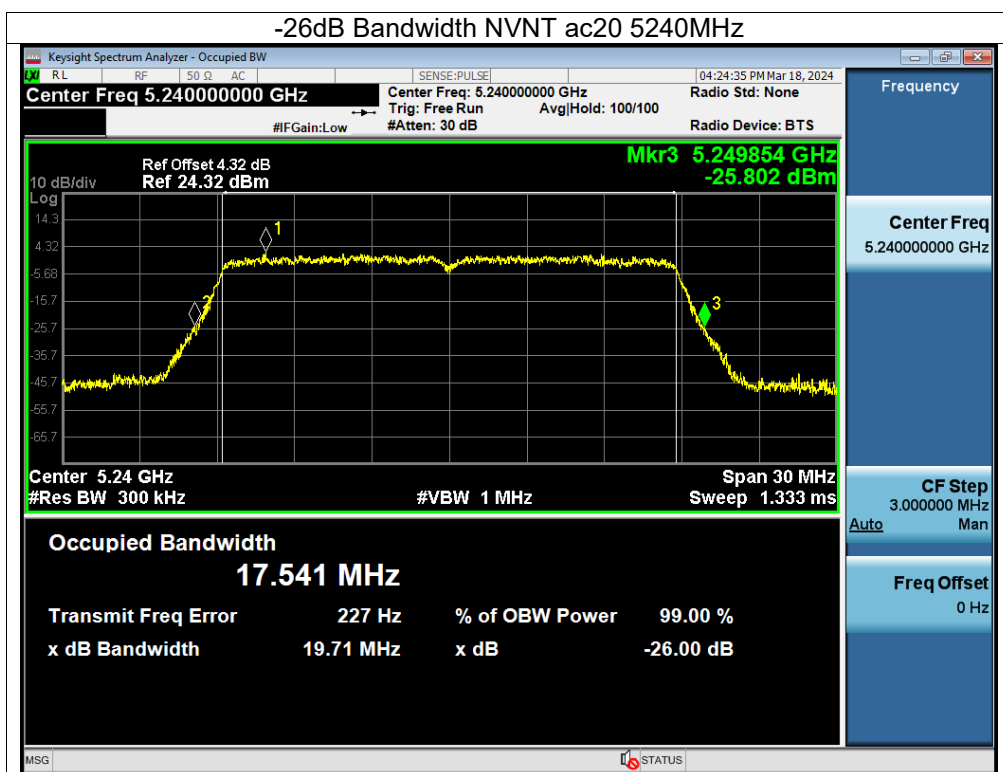


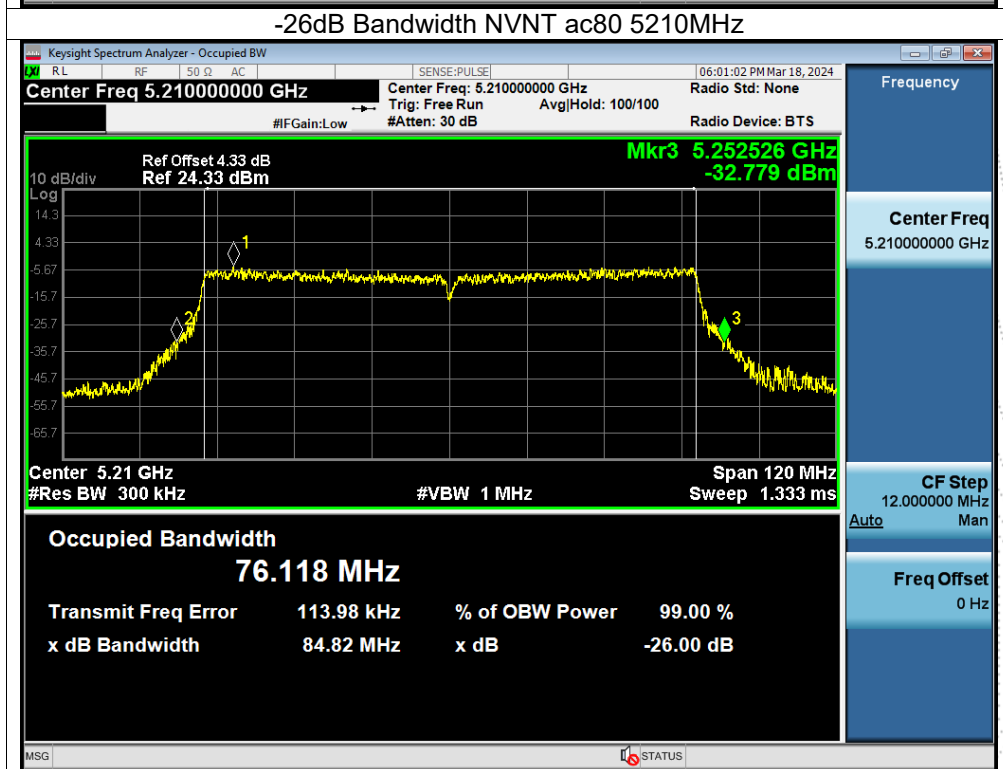
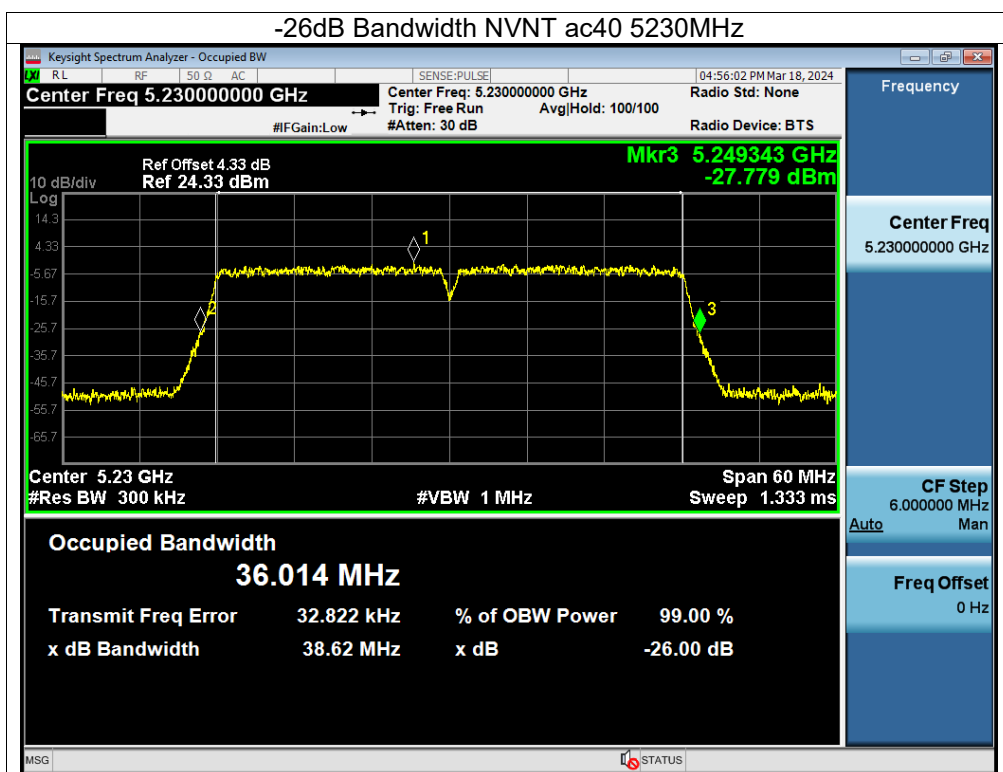


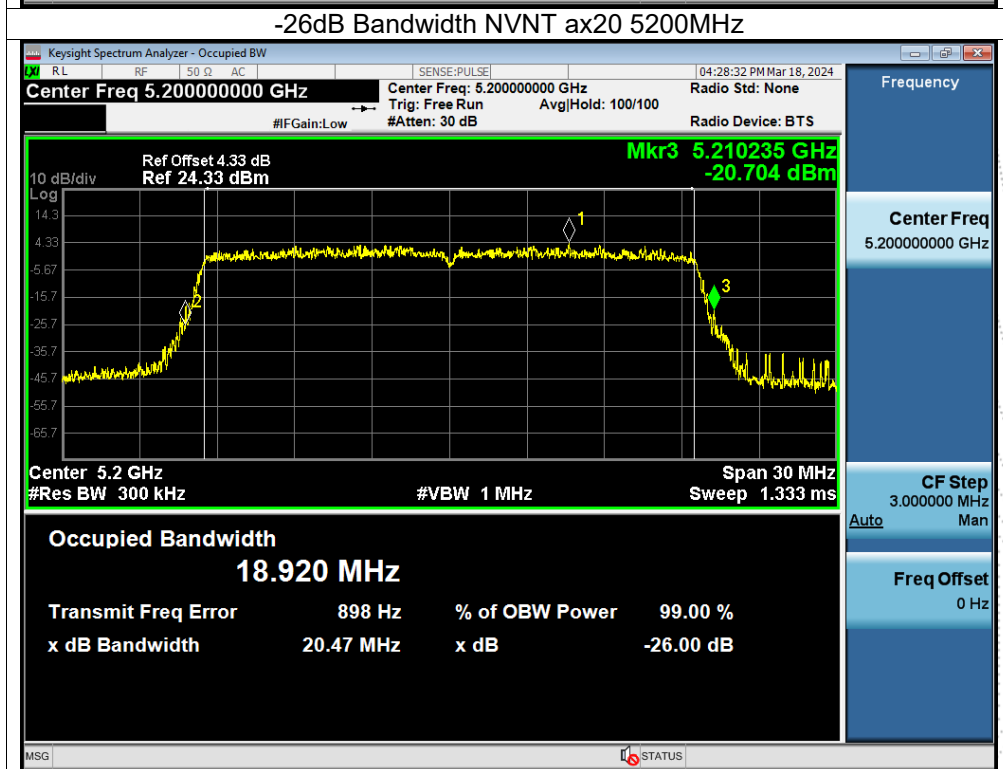
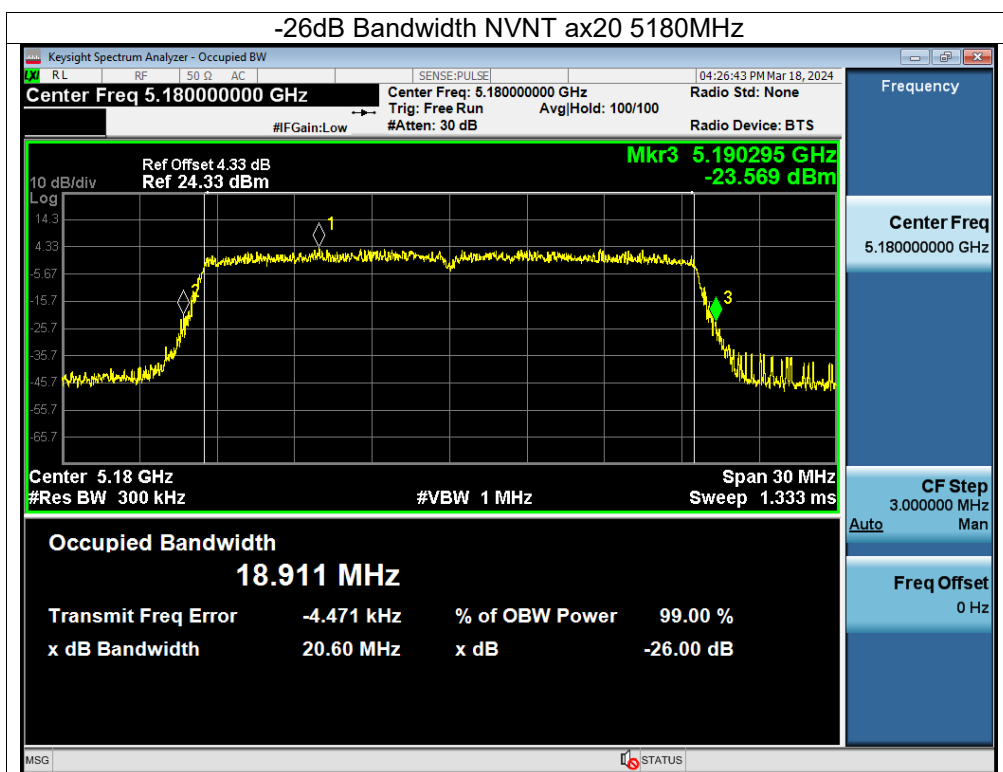


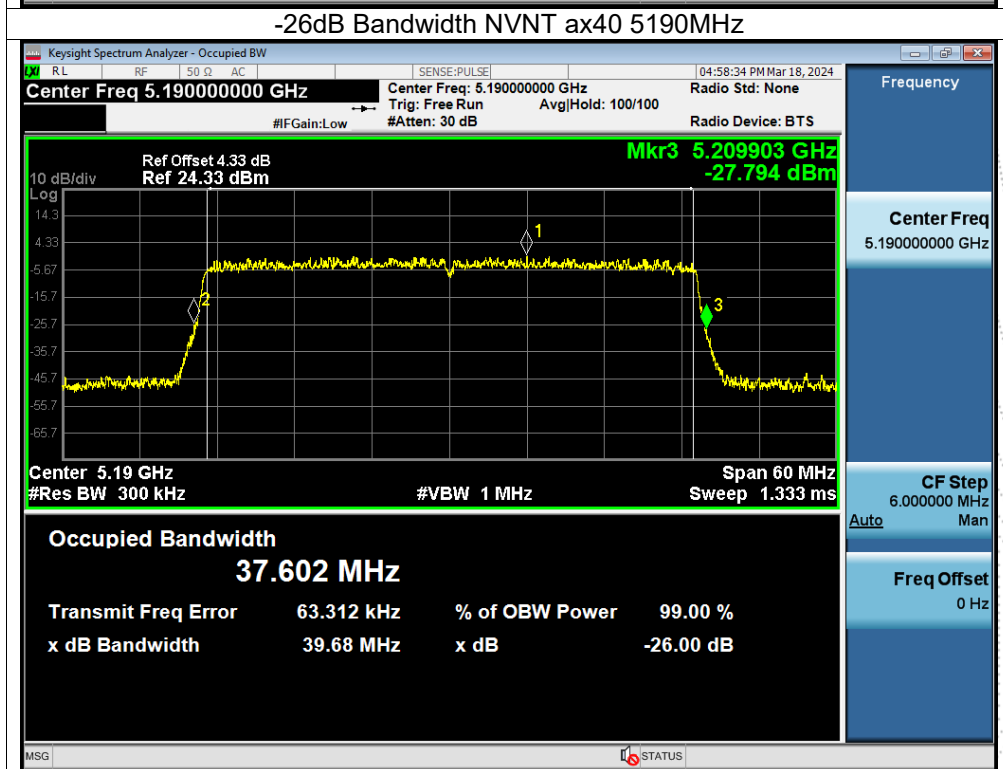
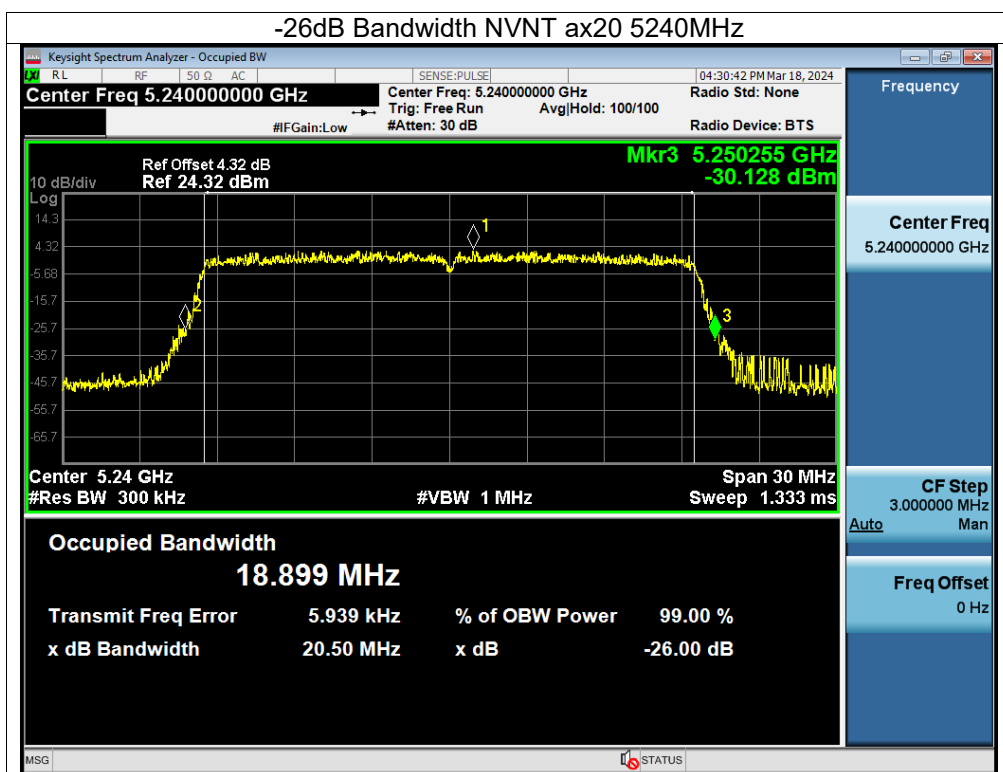


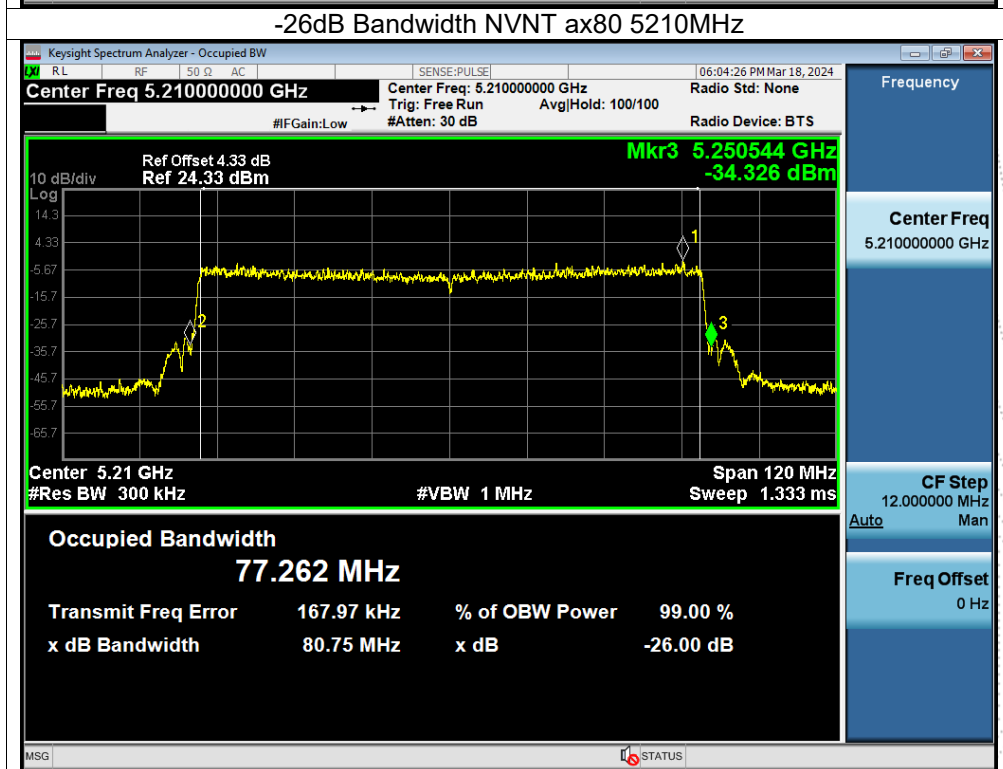
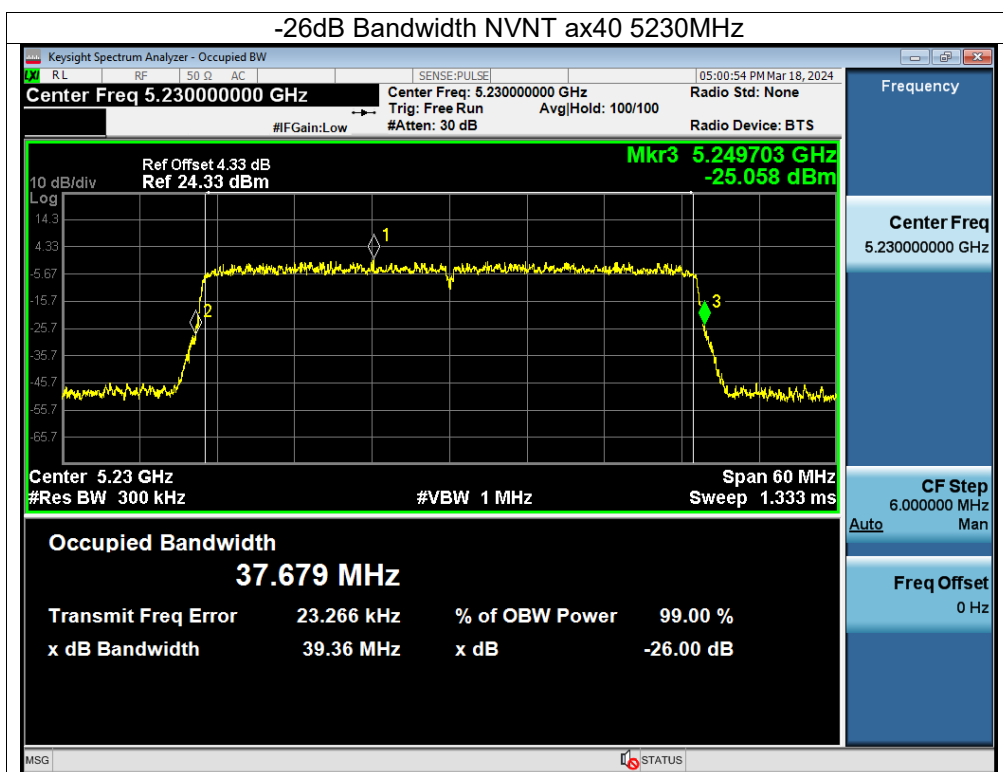




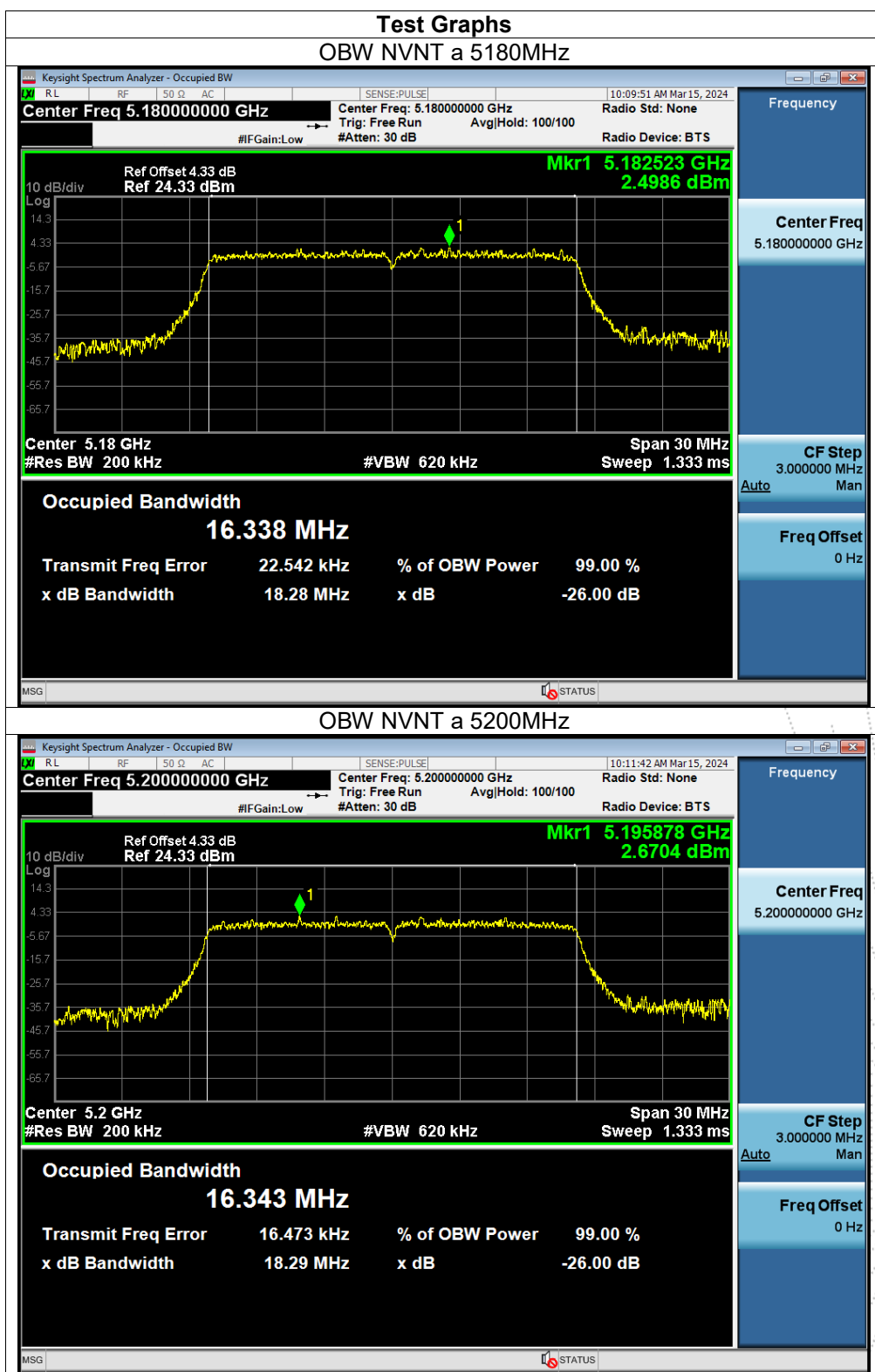


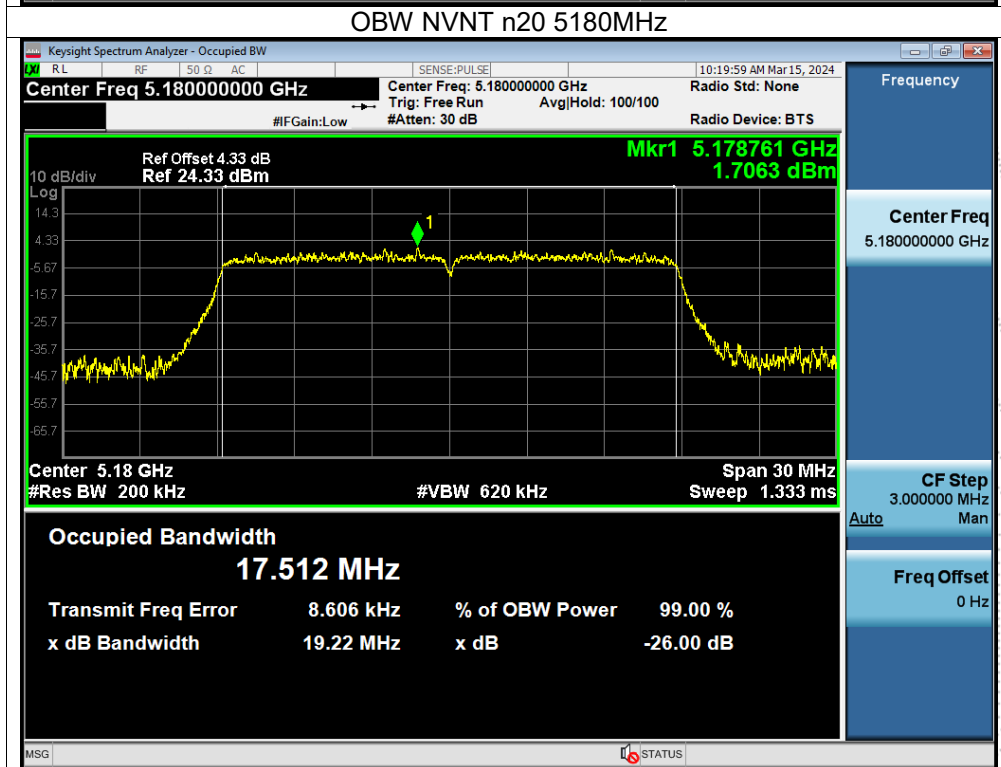
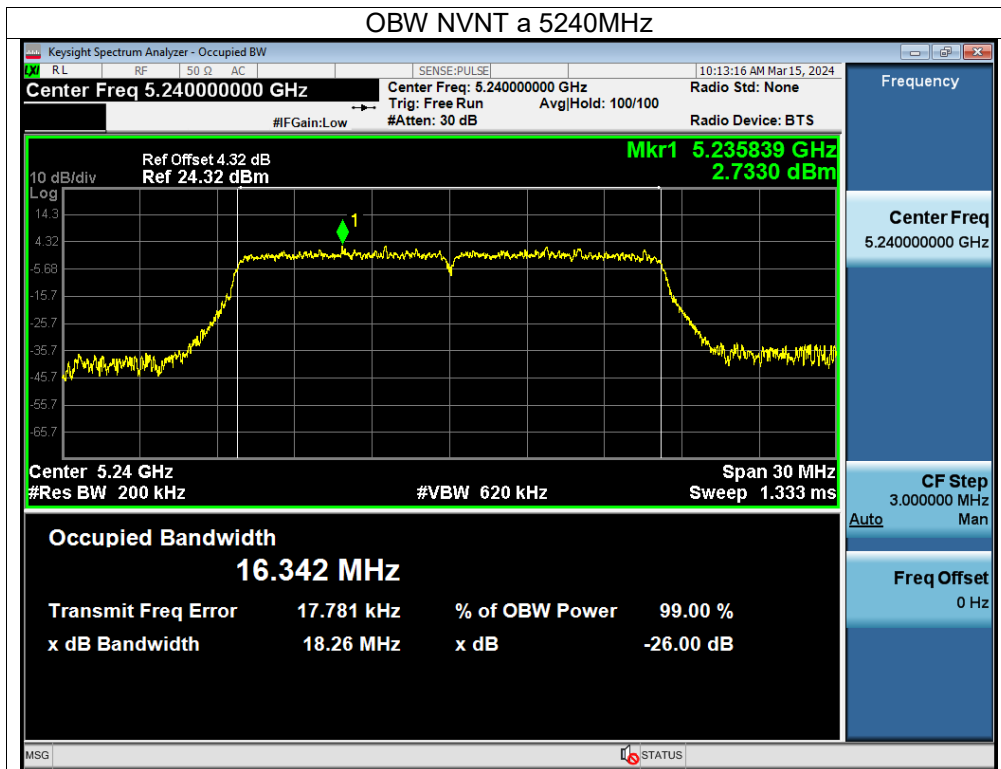


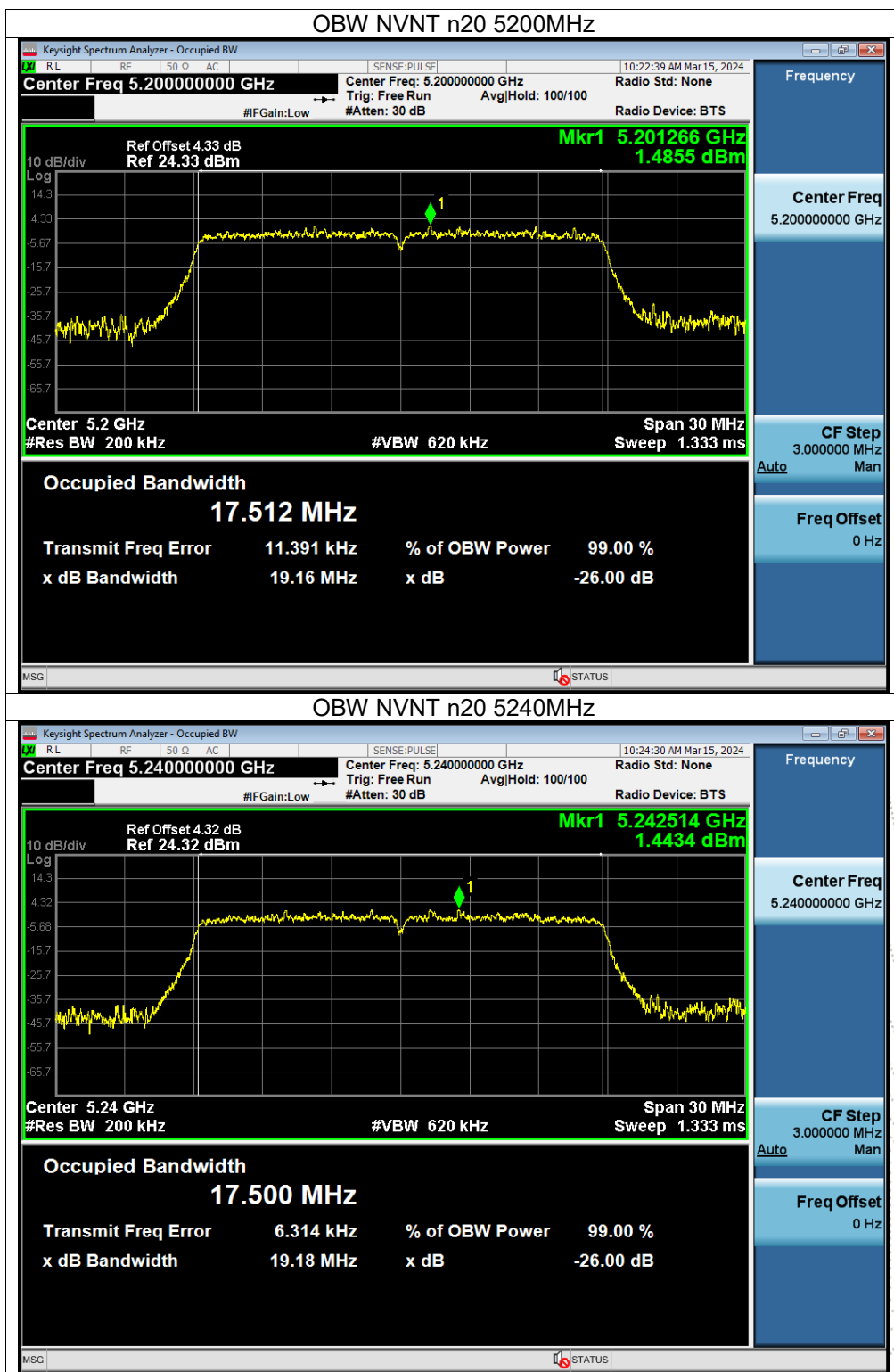


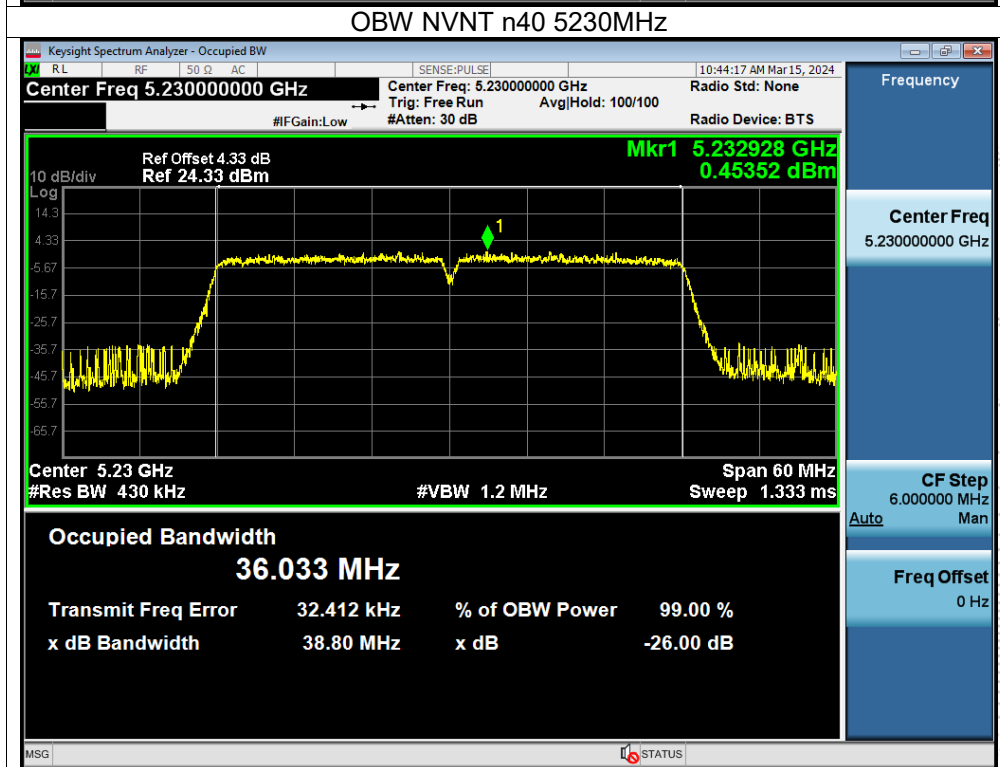
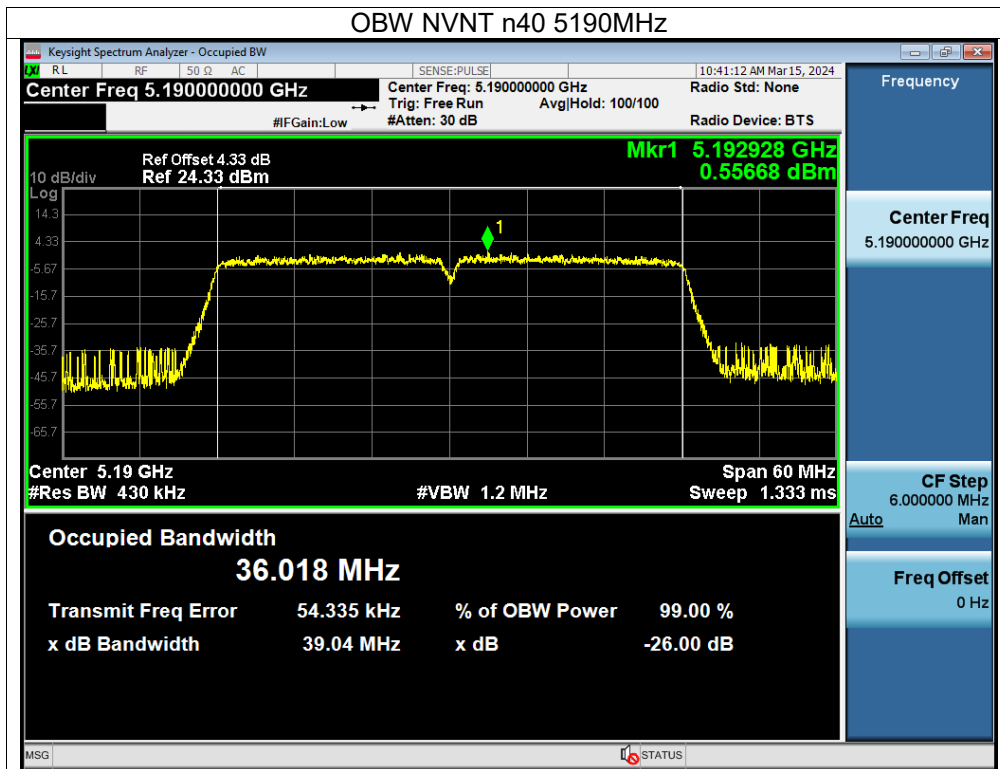


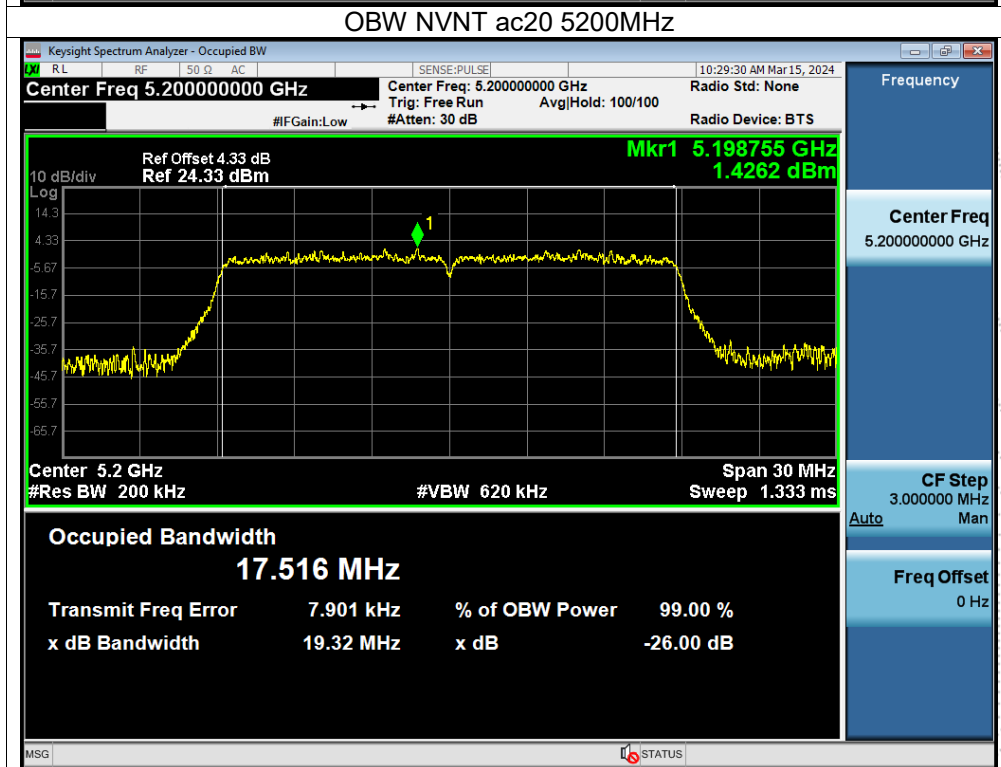
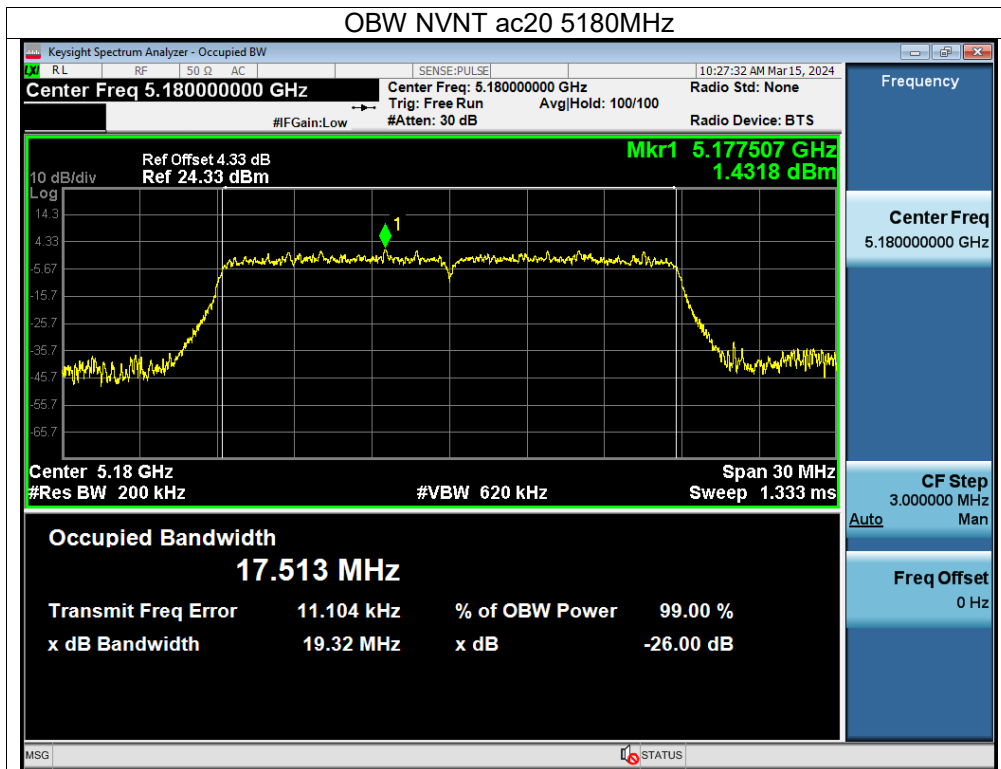
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna B, only shown Antenna B Plot.

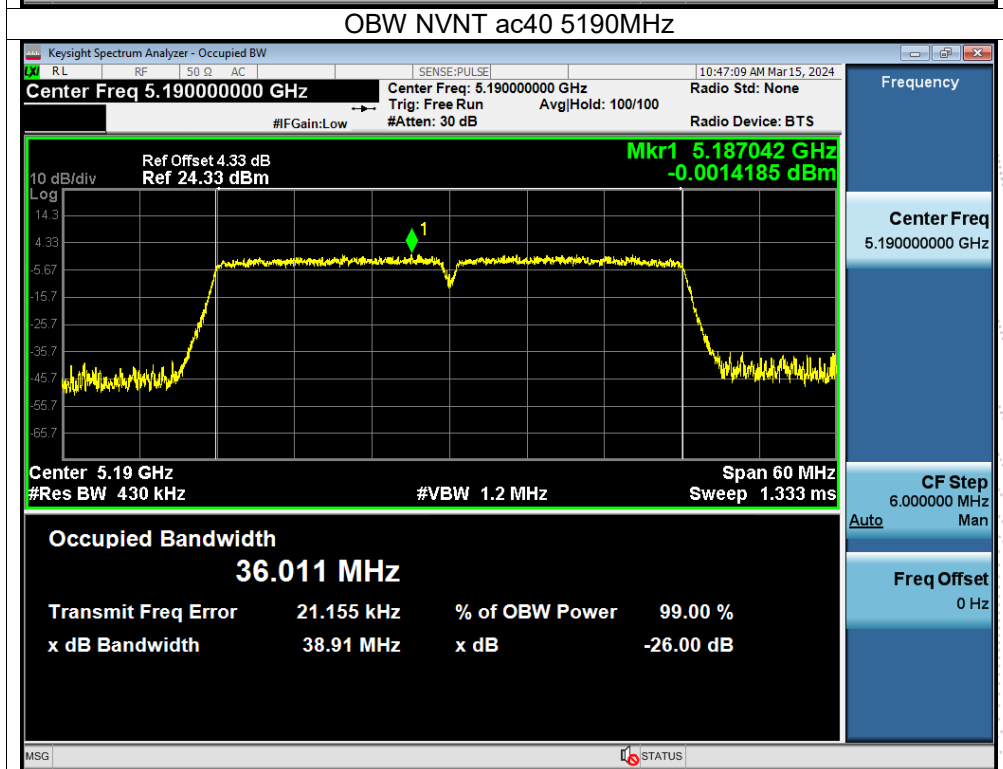
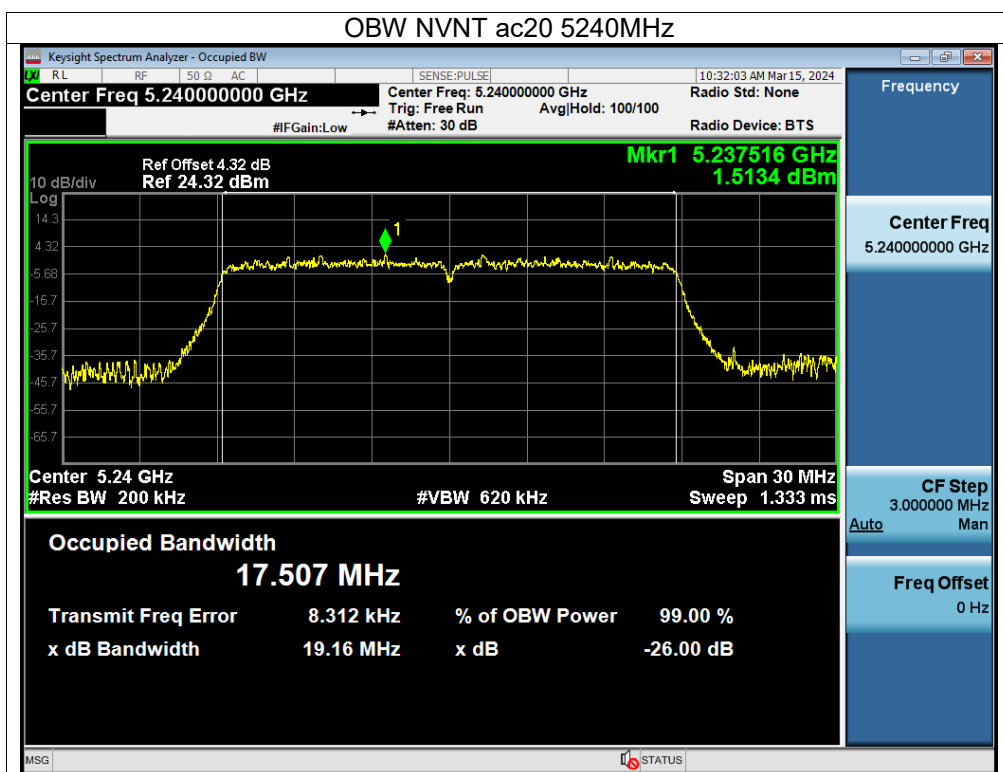


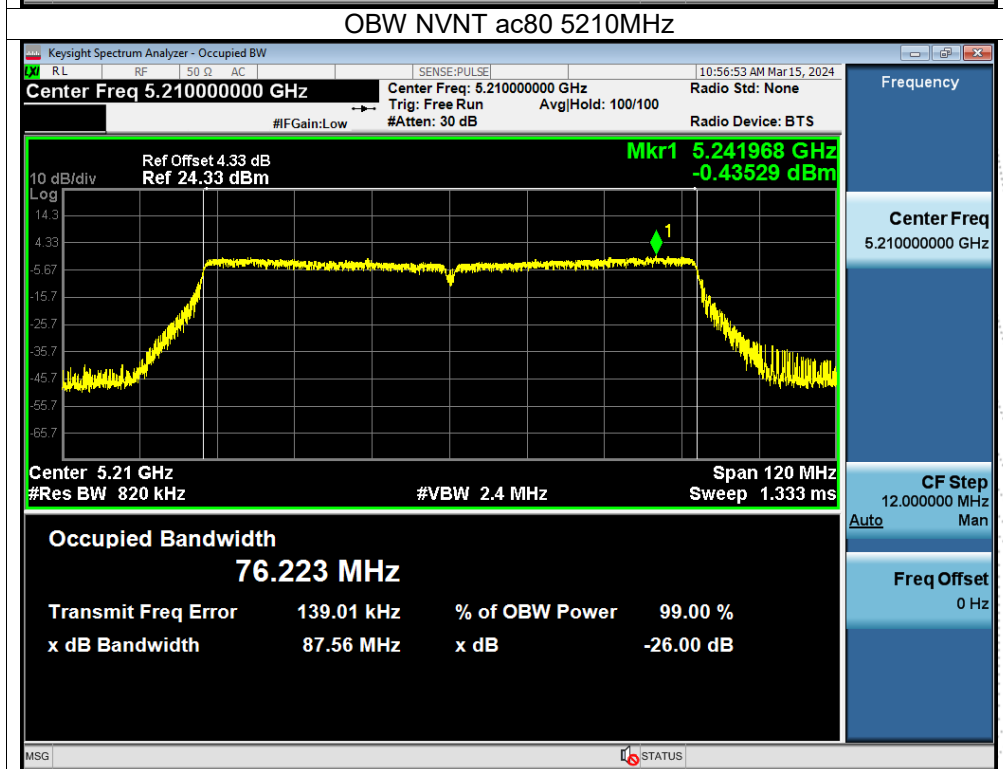
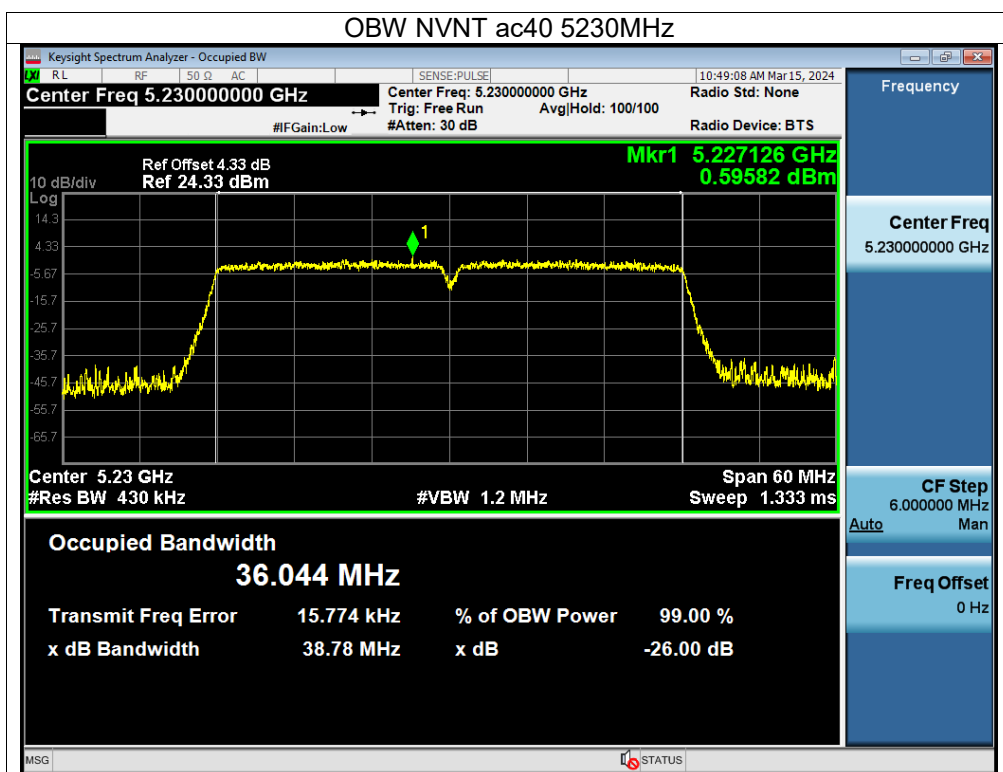


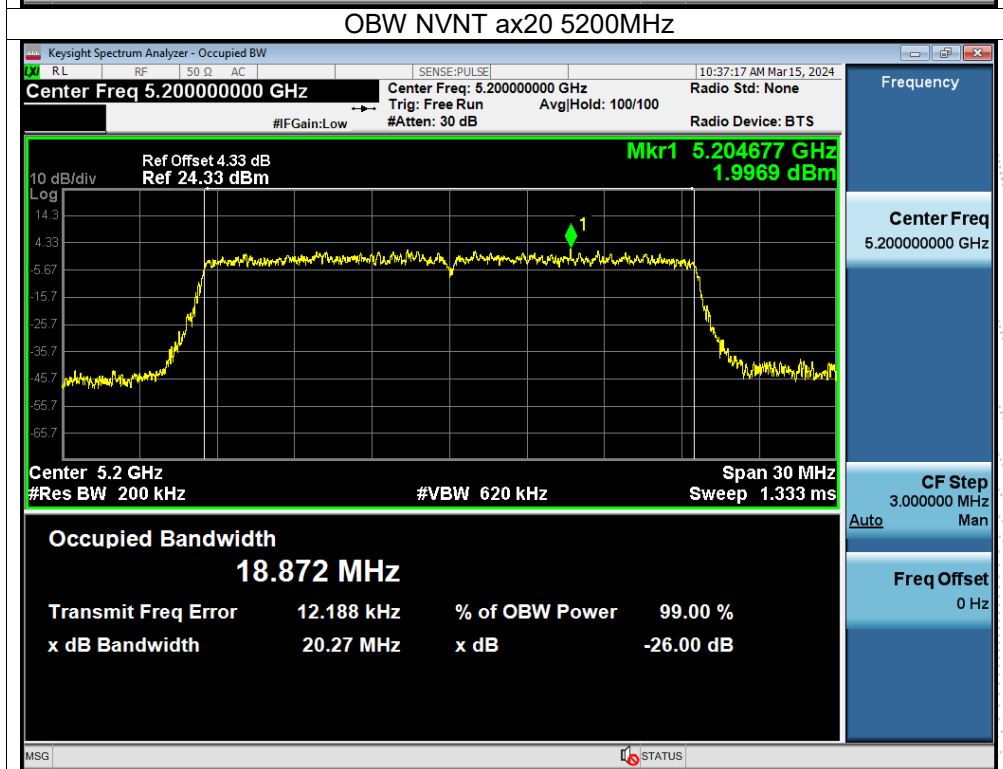
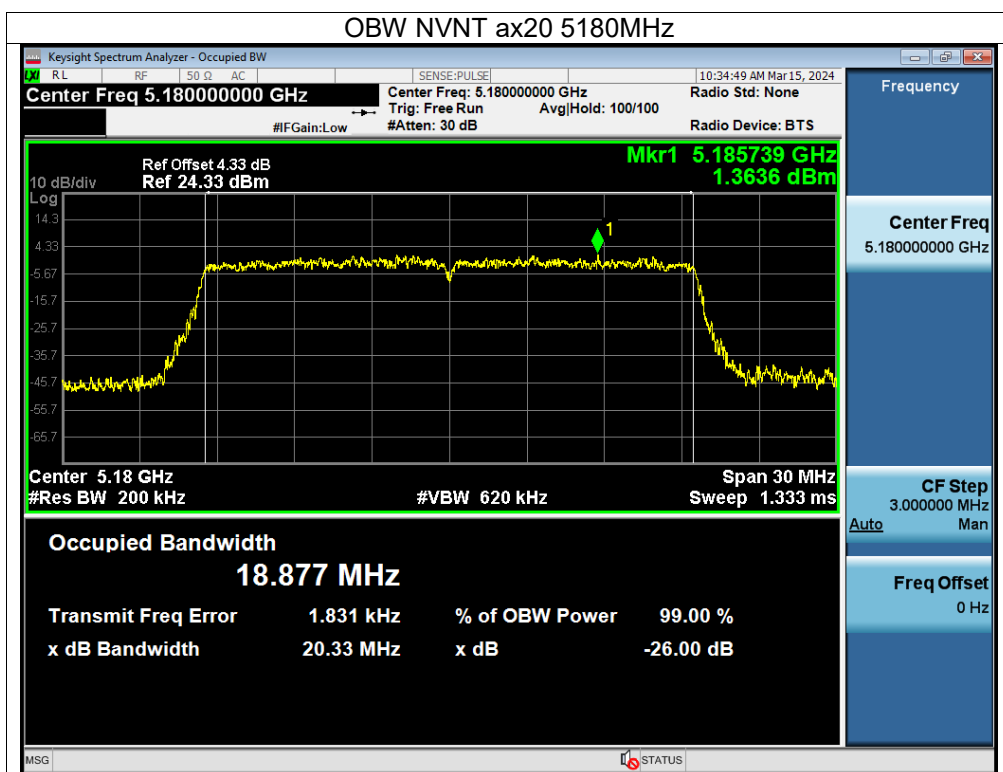


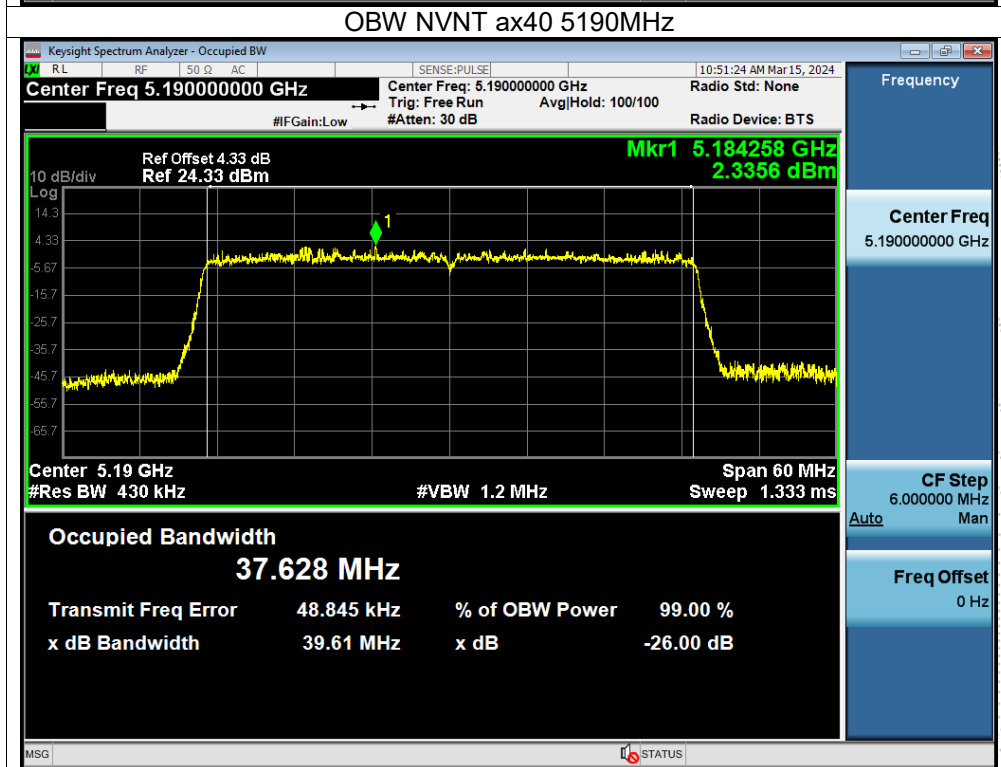
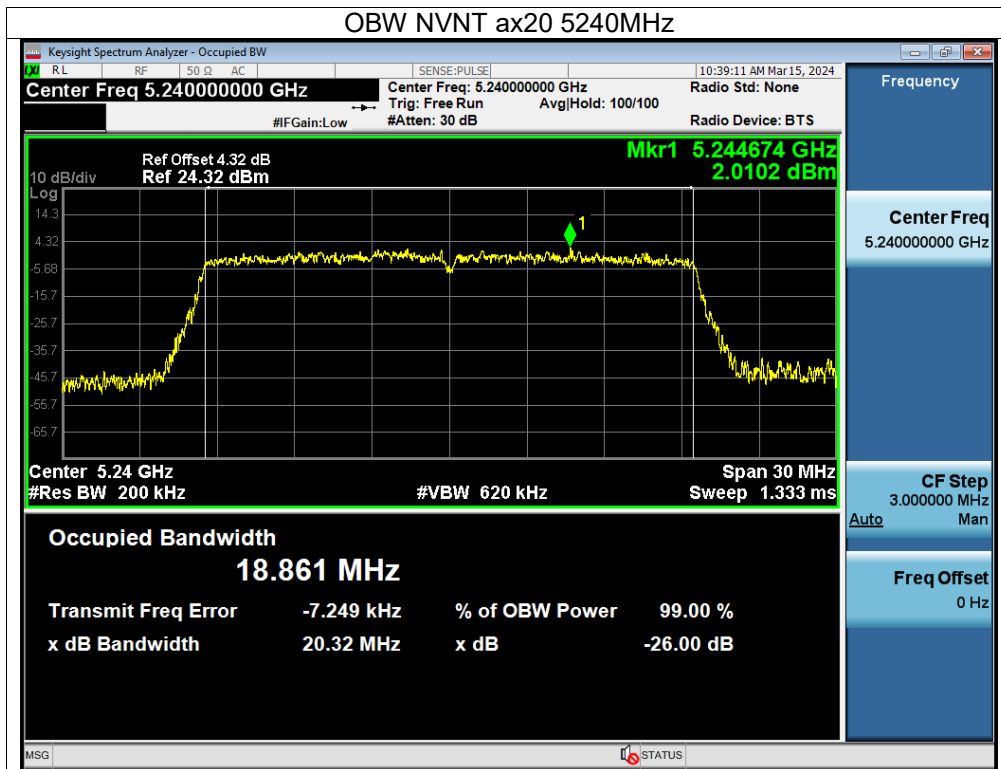


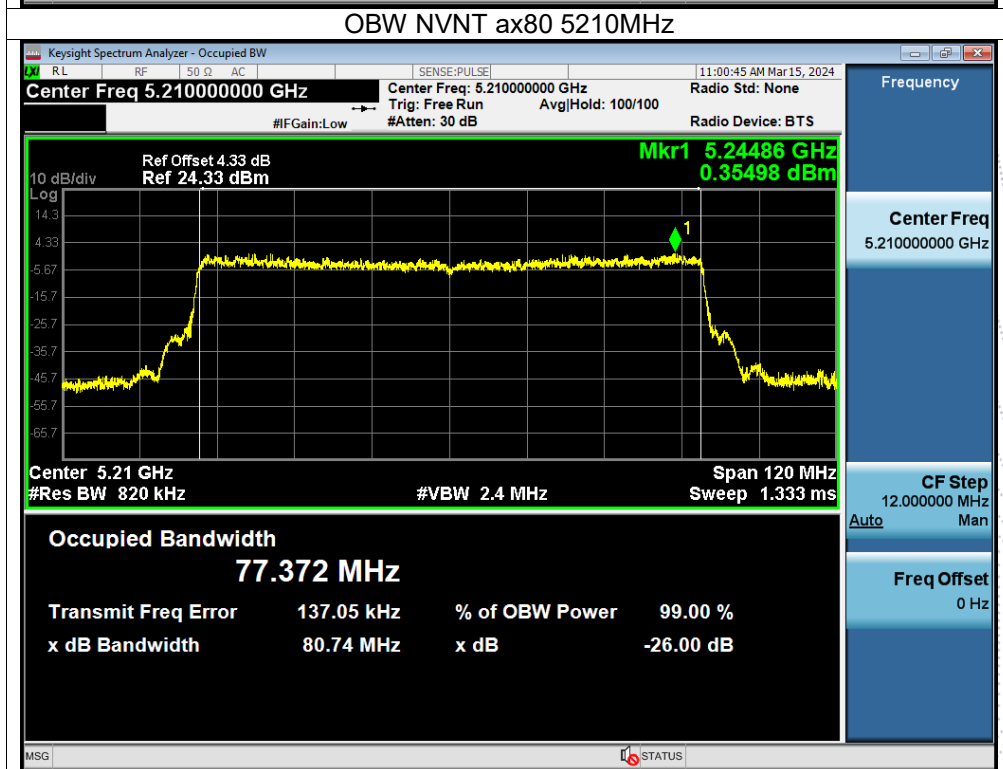
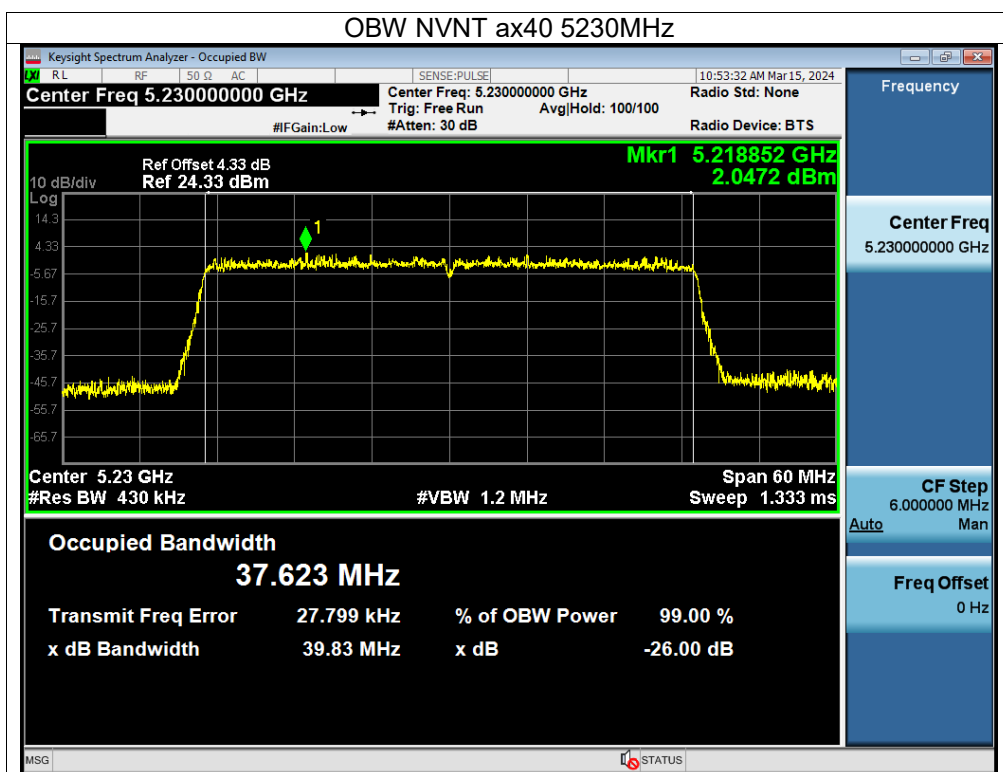








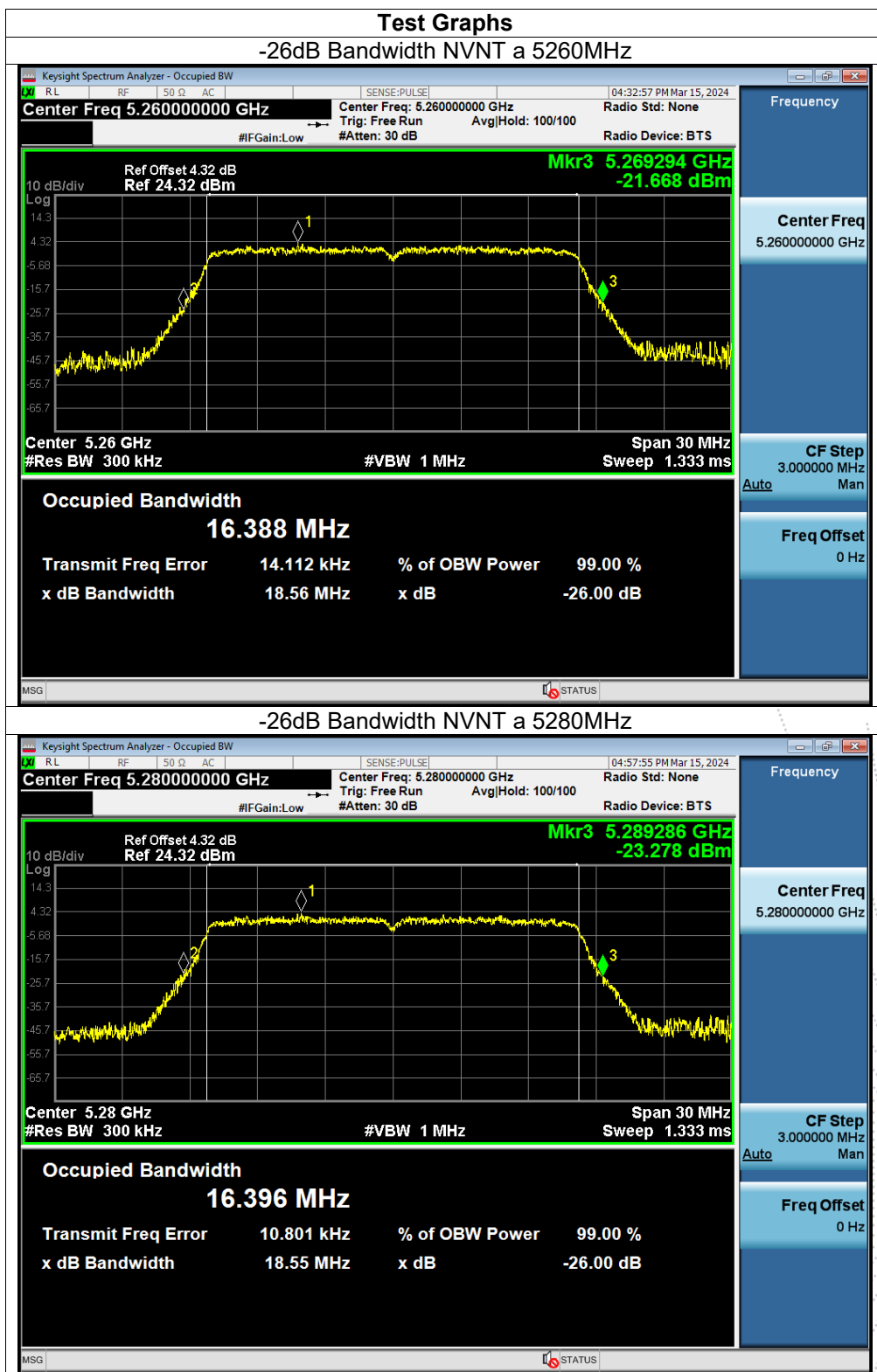


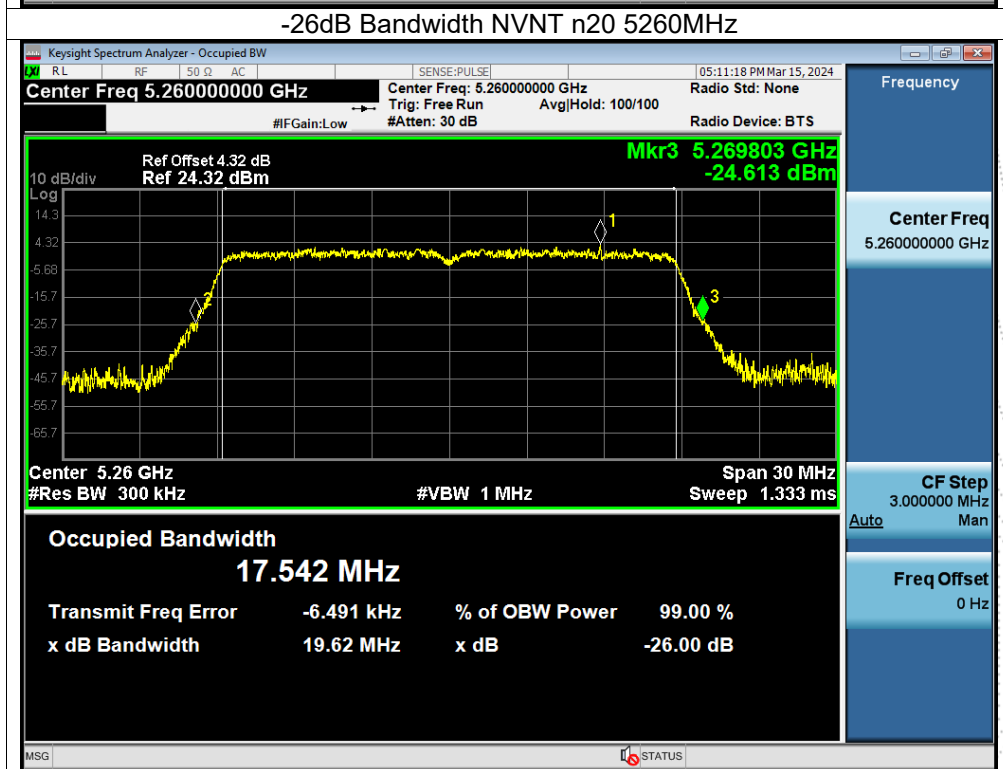
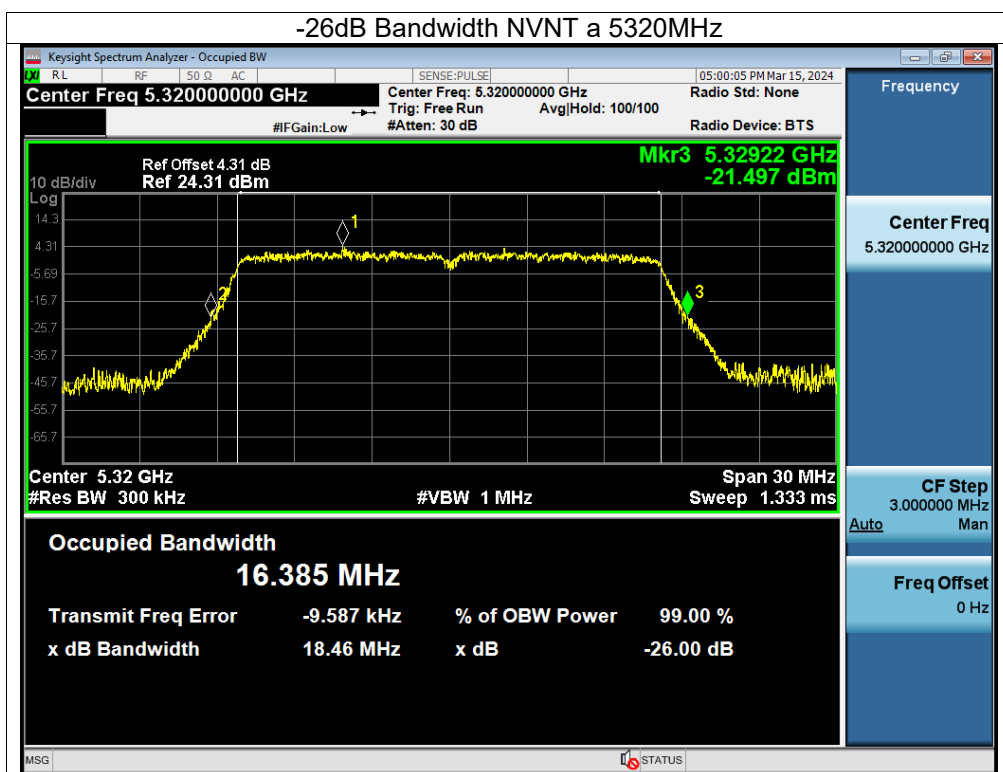


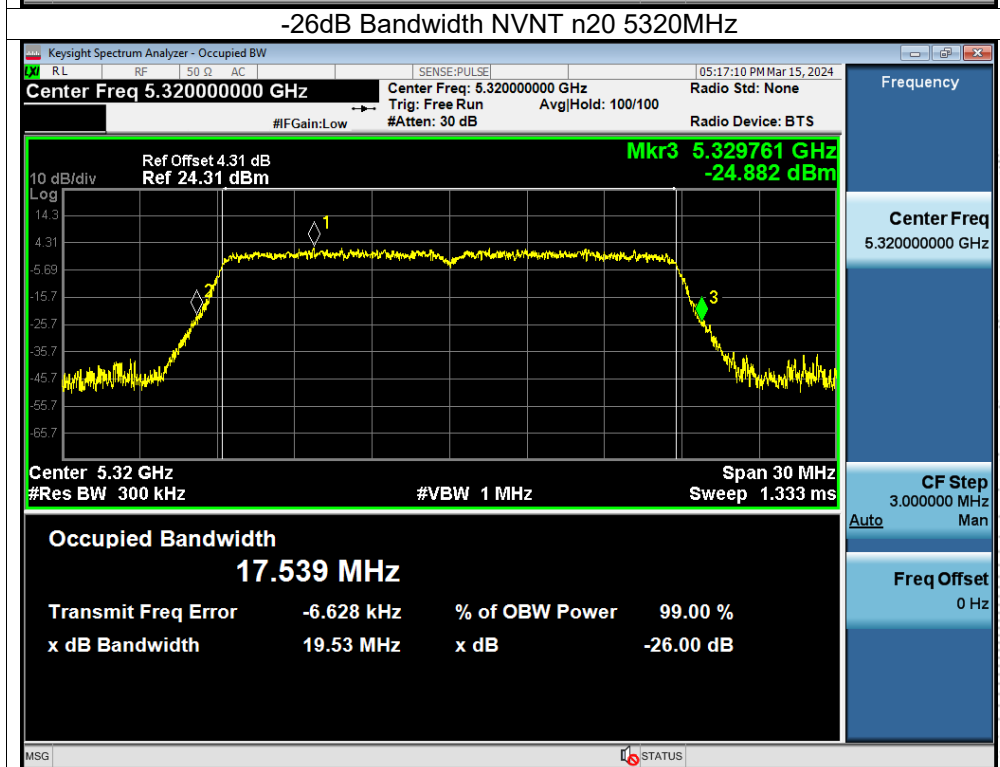
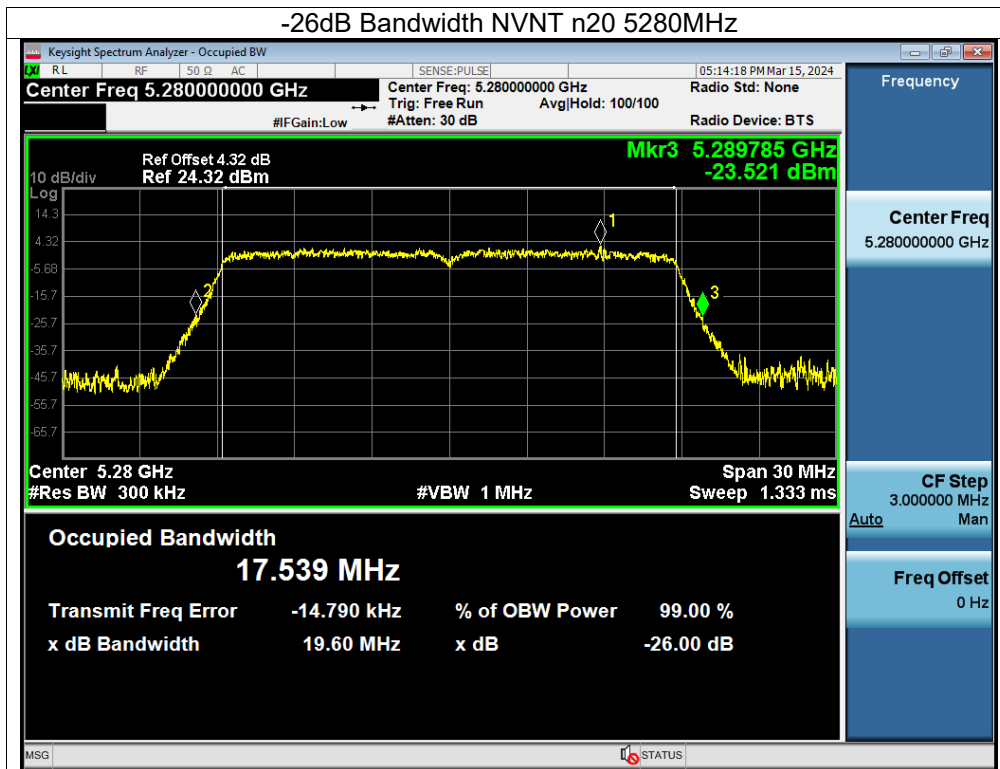
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(5260-5320MHz)		

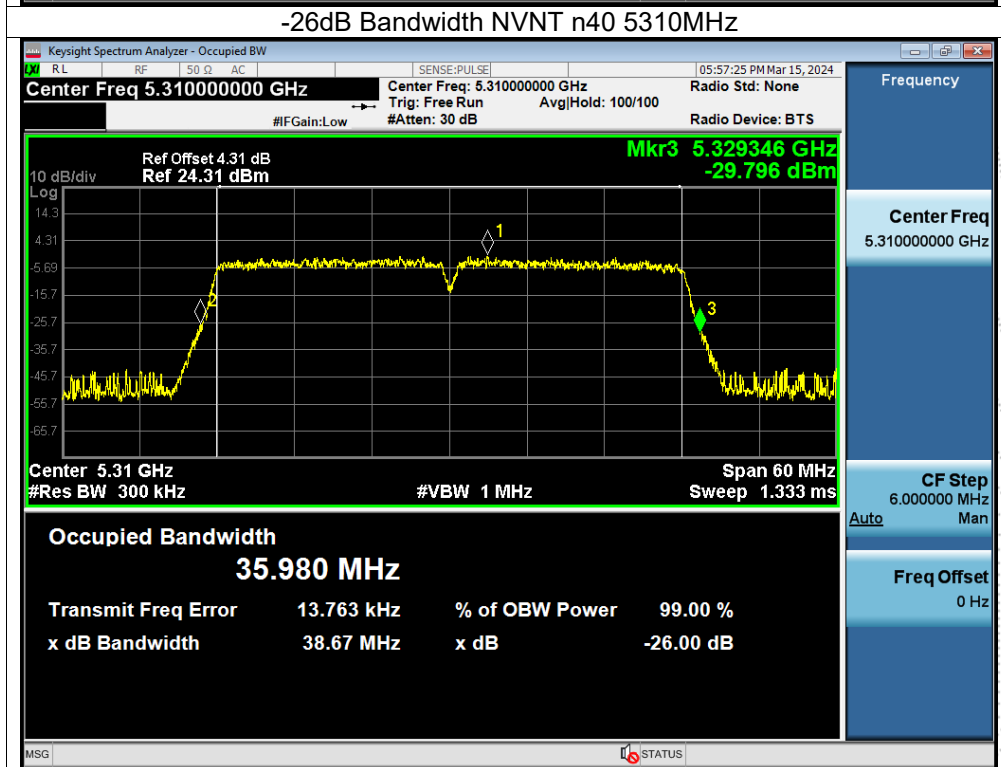
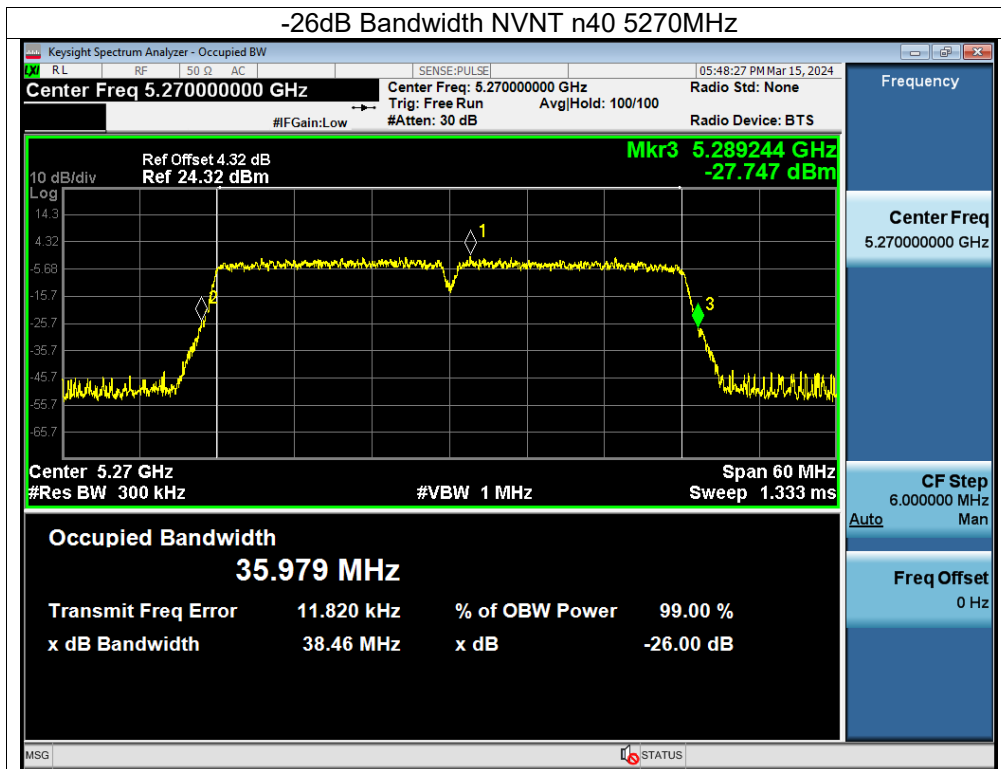
Condition	Mode	Frequency (MHz)	-26 dB Bandwidth (MHz)		99% OBW (MHz)		Verdict
			Ant A	Ant B	Ant A	Ant B	
NVNT	a	5260	18.493	18.56	16.34	16.335	Pass
NVNT	a	5280	18.551	18.55	16.344	16.33	Pass
NVNT	a	5320	18.56	18.459	16.327	16.333	Pass
NVNT	n20	5260	19.534	19.619	17.499	17.508	Pass
NVNT	n20	5280	19.687	19.599	17.502	17.514	Pass
NVNT	n20	5320	19.589	19.535	17.51	17.507	Pass
NVNT	n40	5270	38.766	38.463	36.012	36	Pass
NVNT	n40	5310	38.418	38.665	36.019	36.009	Pass
NVNT	ac20	5260	19.549	19.52	17.501	17.509	Pass
NVNT	ac20	5280	19.582	19.673	17.51	17.516	Pass
NVNT	ac20	5320	19.581	19.493	17.505	17.512	Pass
NVNT	ac40	5270	38.656	38.434	36.043	36.062	Pass
NVNT	ac40	5310	38.474	38.507	36.069	36.032	Pass
NVNT	ac80	5290	84.489	84.598	76.179	76.19	Pass
NVNT	ax20	5260	20.338	20.582	18.897	18.876	Pass
NVNT	ax20	5280	20.289	20.363	18.879	18.88	Pass
NVNT	ax20	5320	20.327	20.405	18.888	18.888	Pass
NVNT	ax40	5270	39.488	39.422	37.636	37.621	Pass
NVNT	ax40	5310	39.565	39.557	37.622	37.654	Pass
NVNT	ax80	5290	79.372	80.551	77.185	77.267	Pass

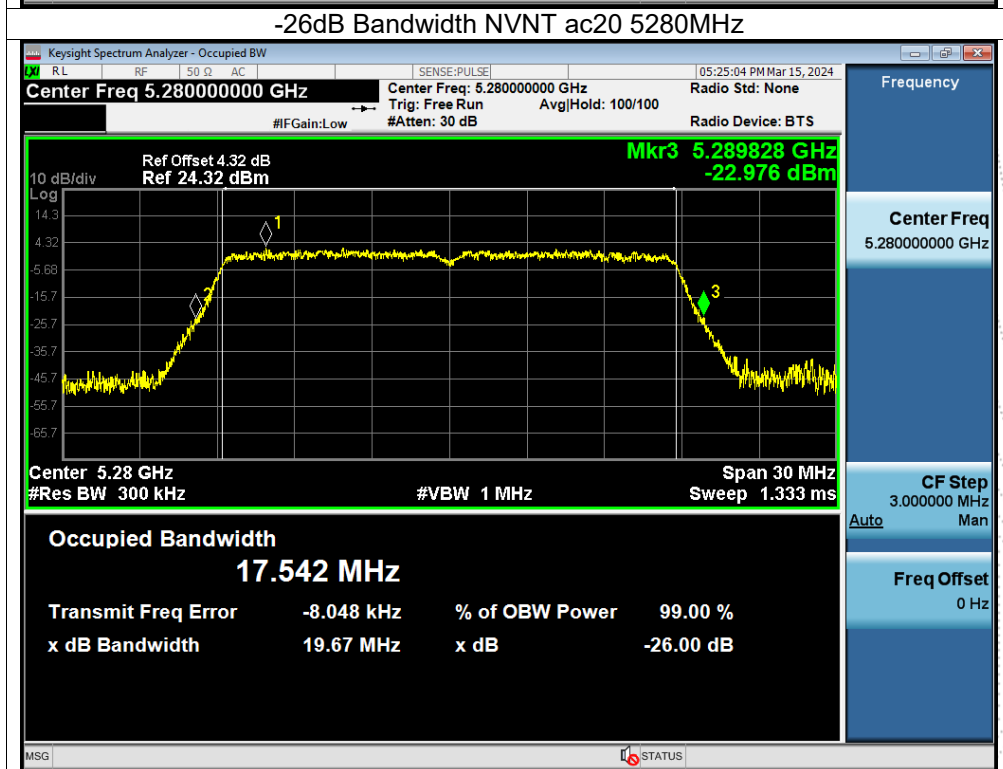
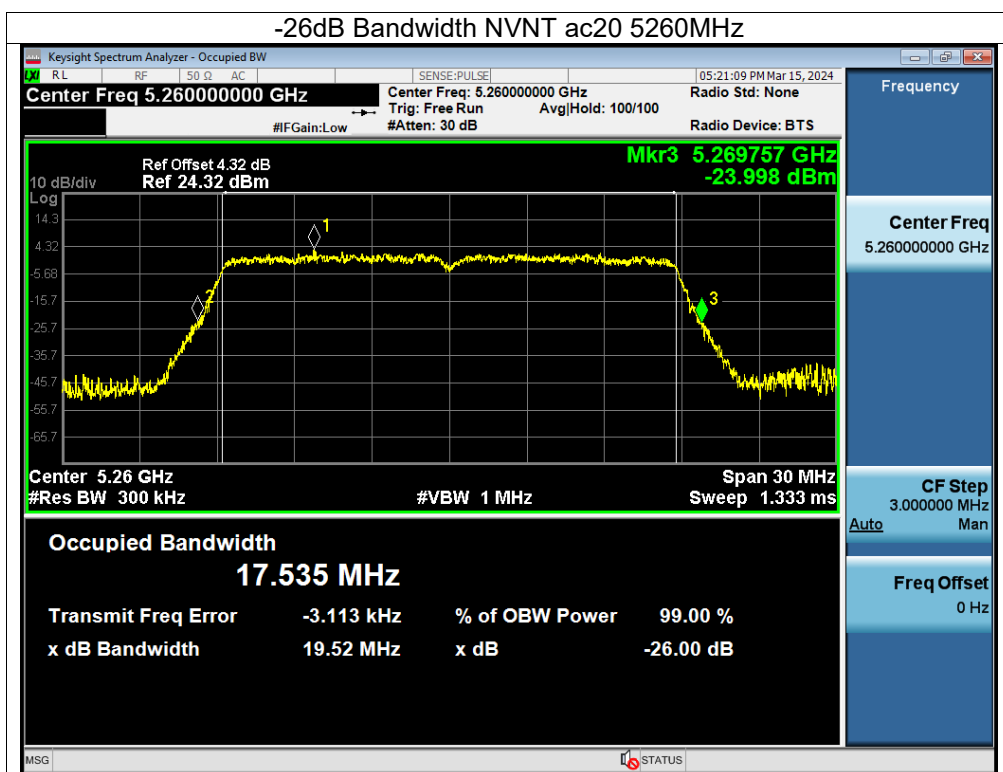
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna B, only shown Antenna B Plot.

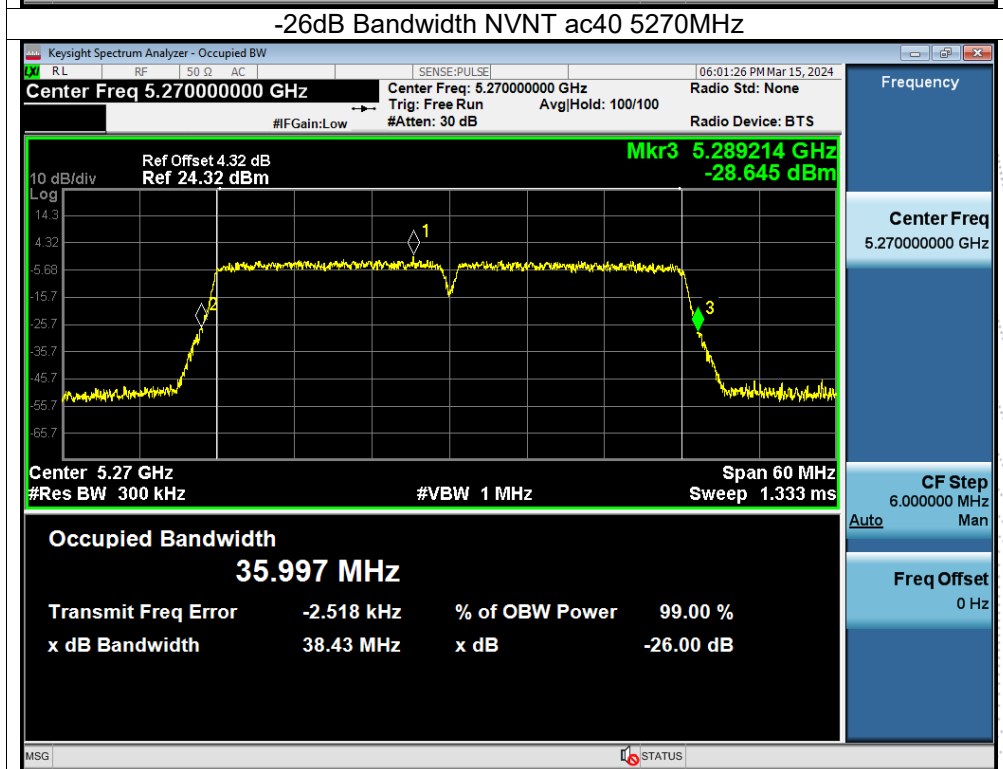
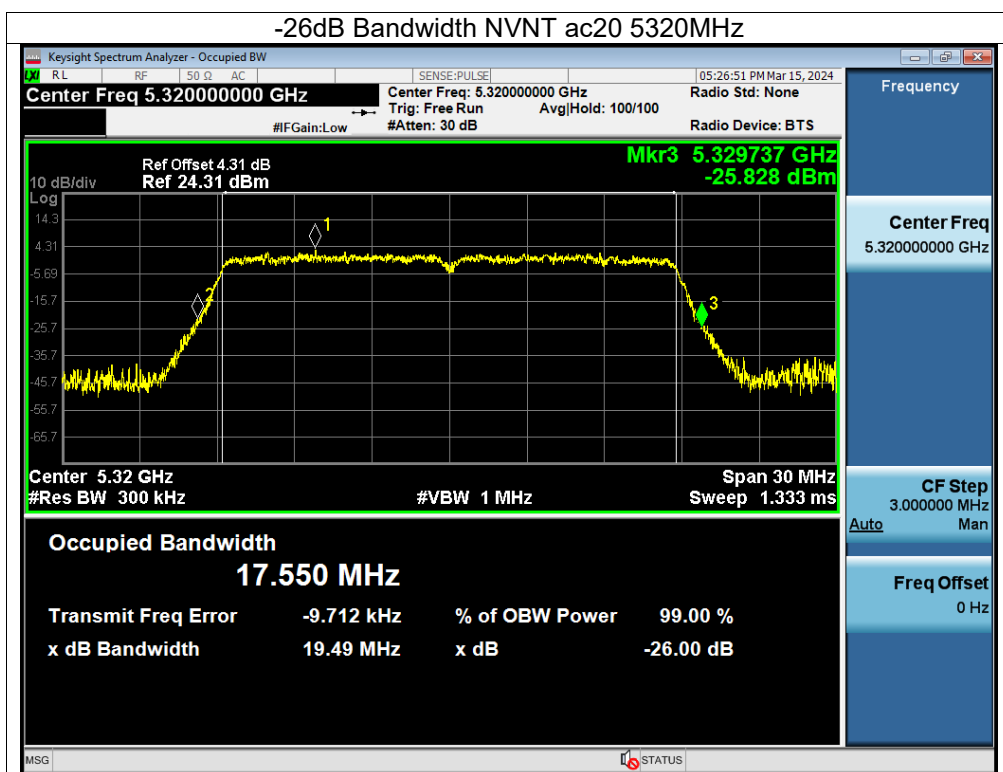


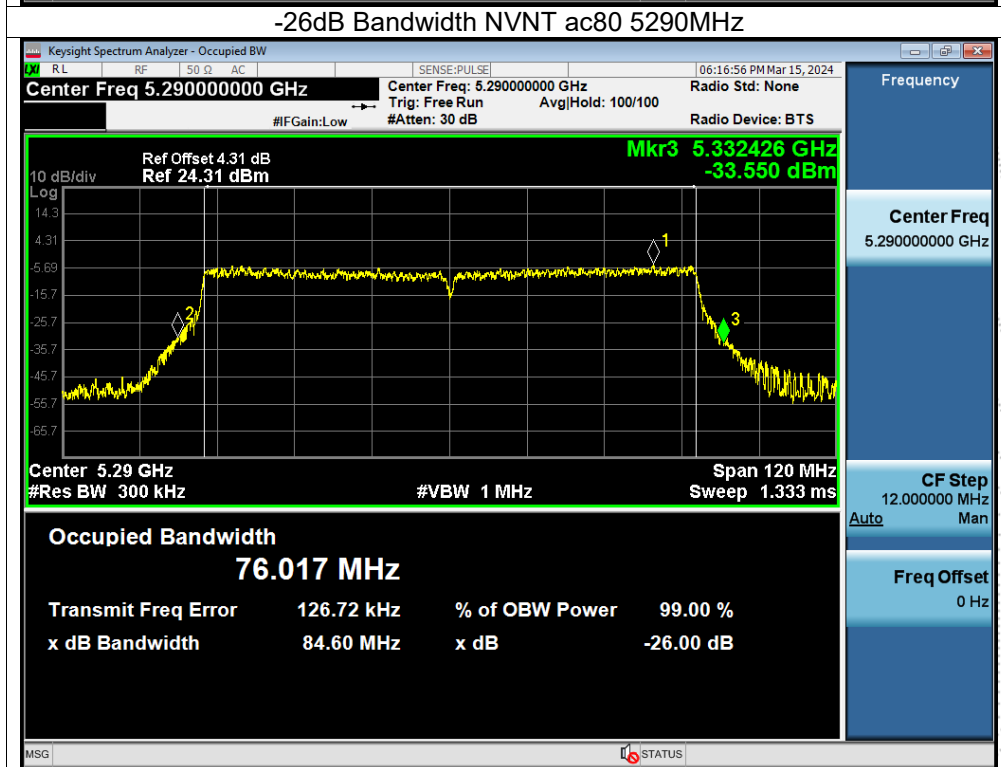
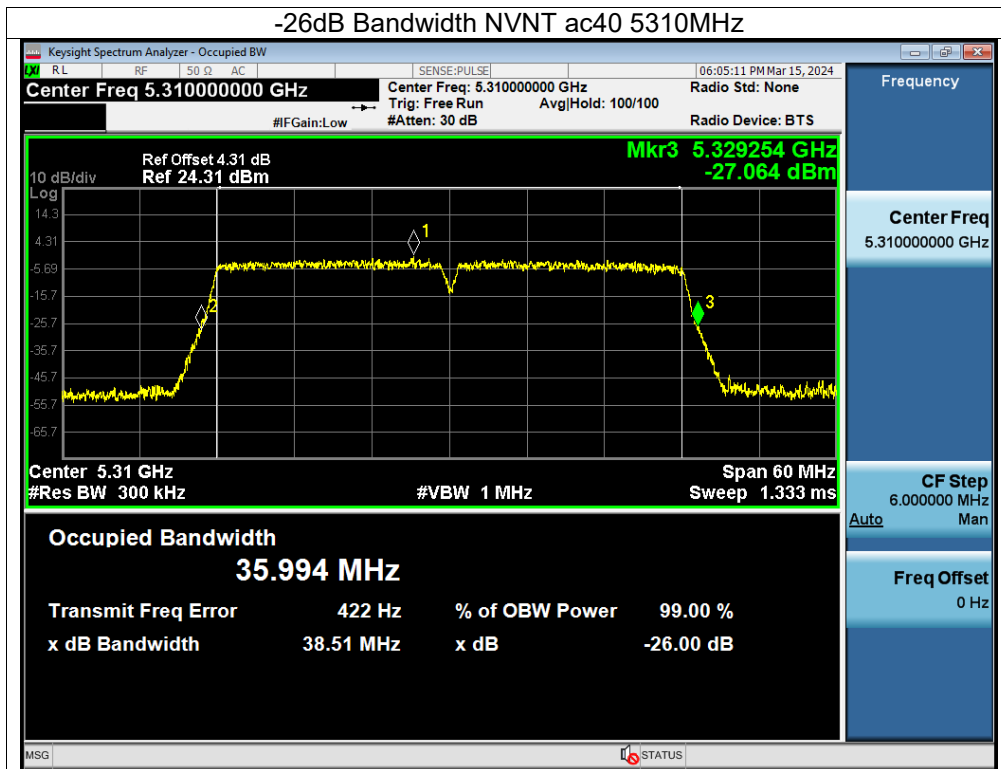


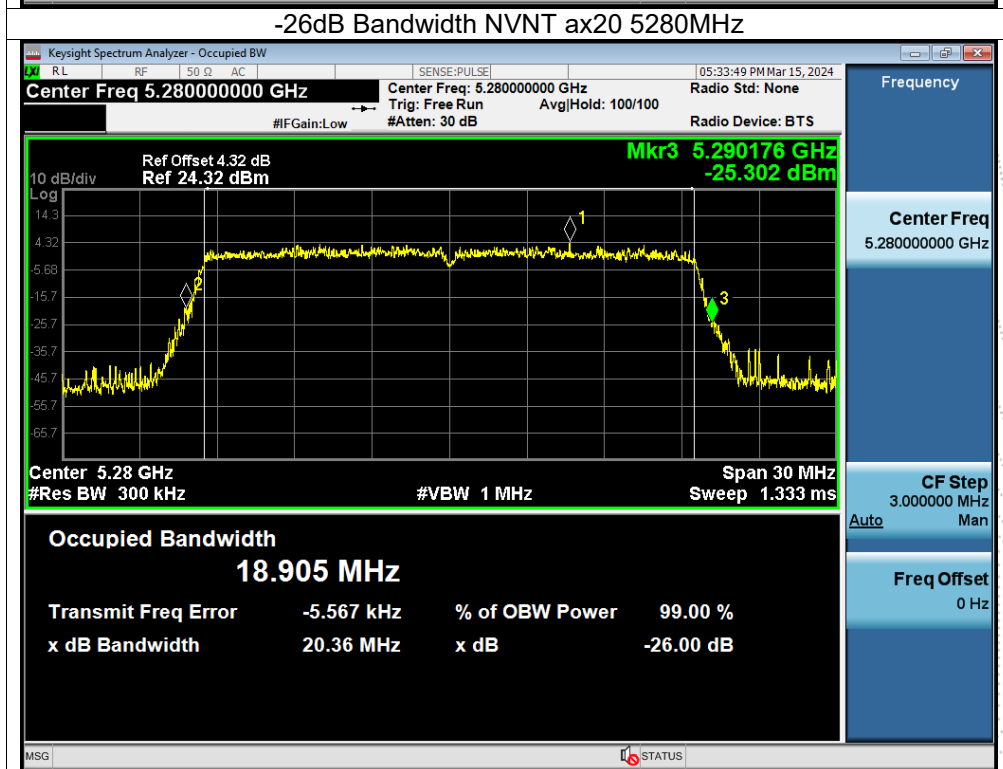
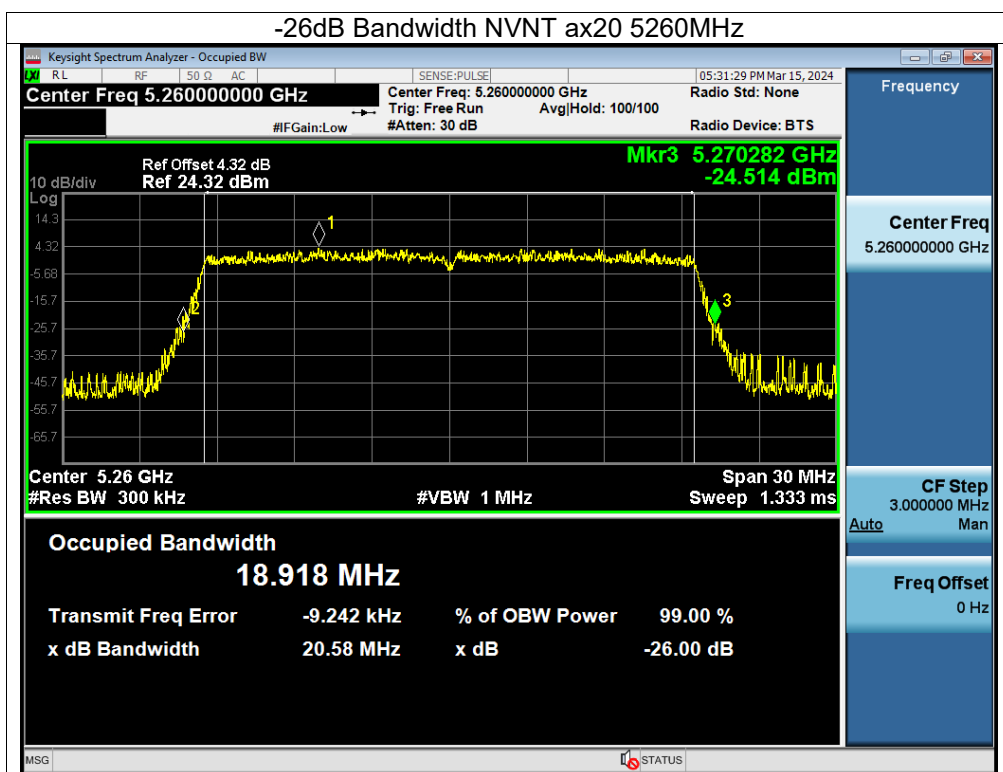


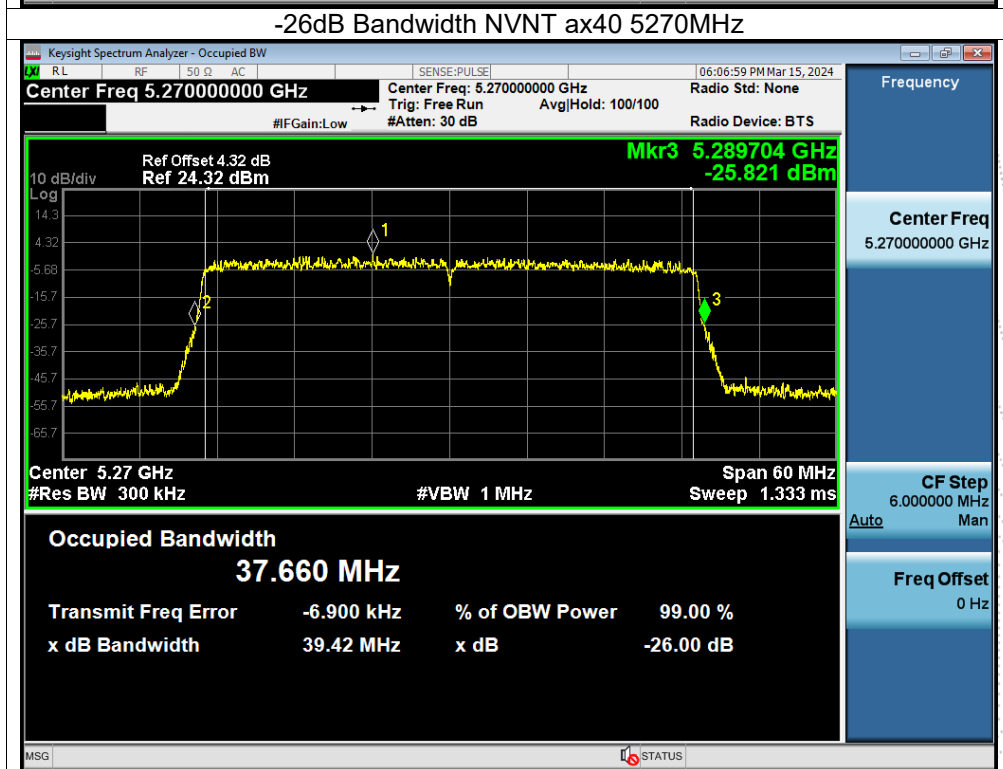
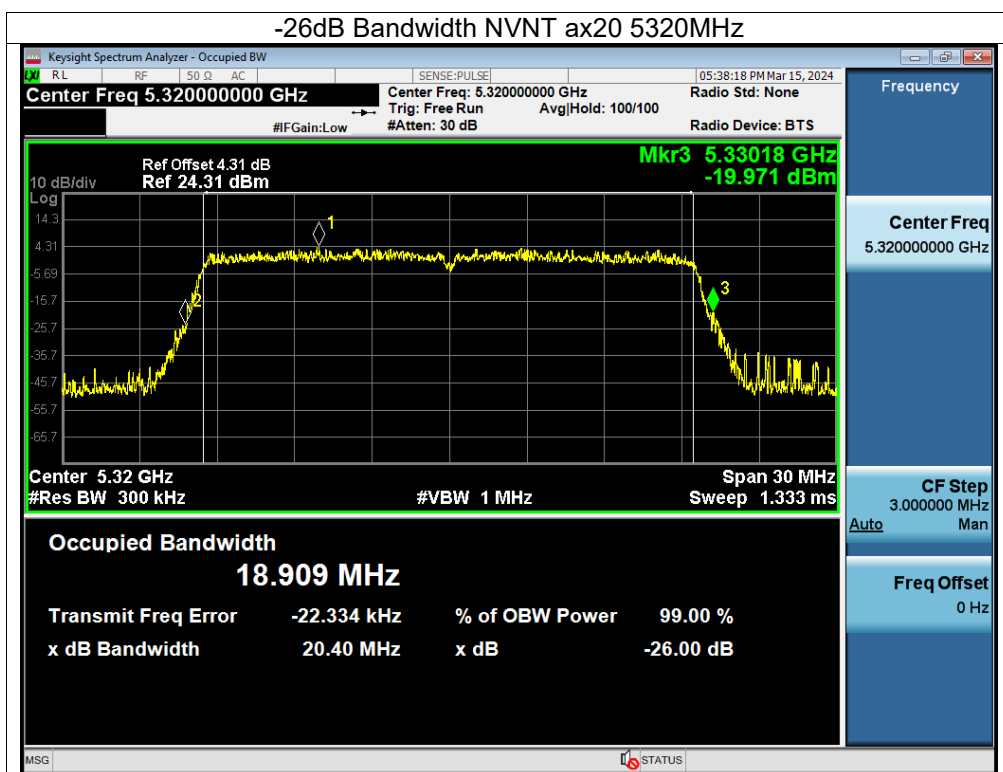


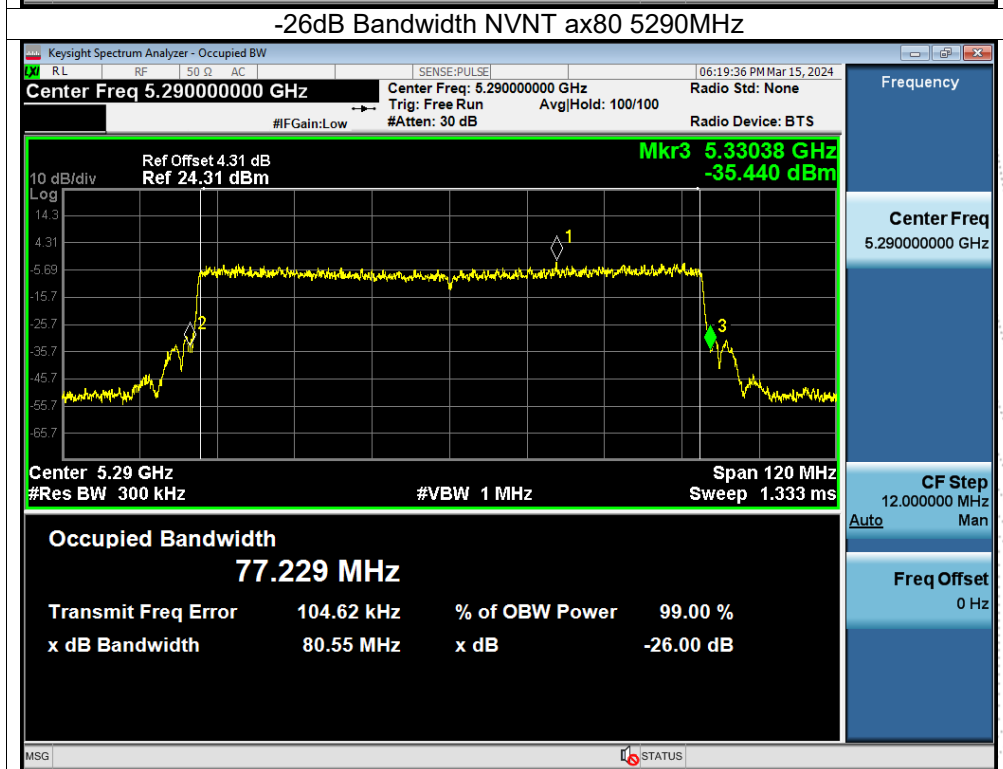
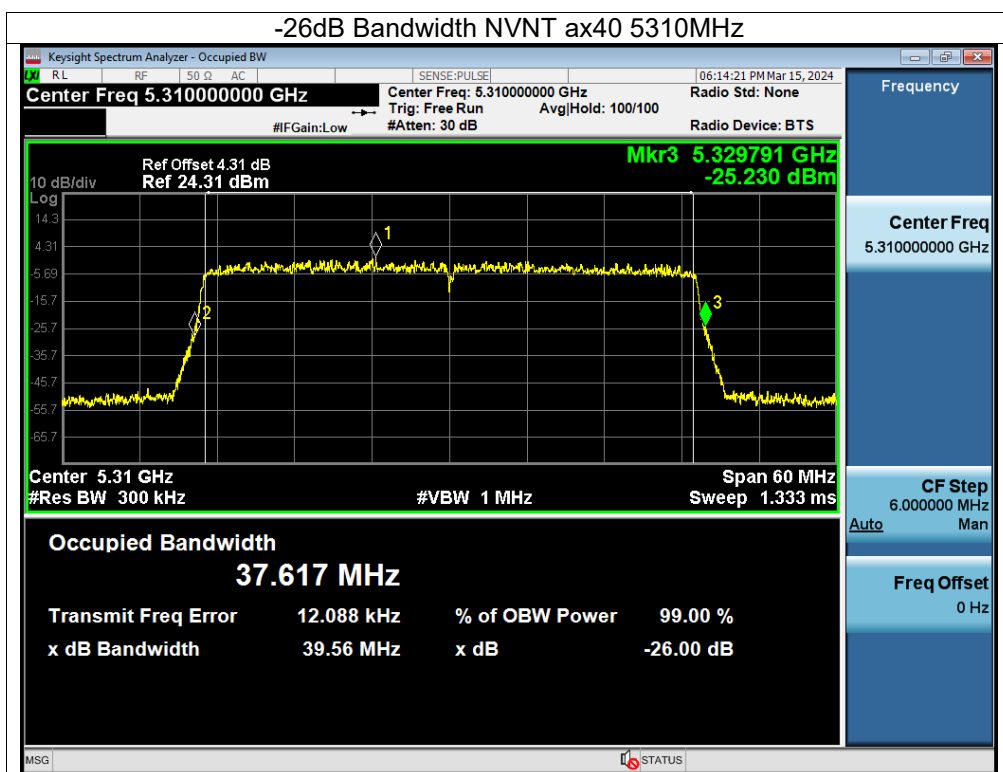




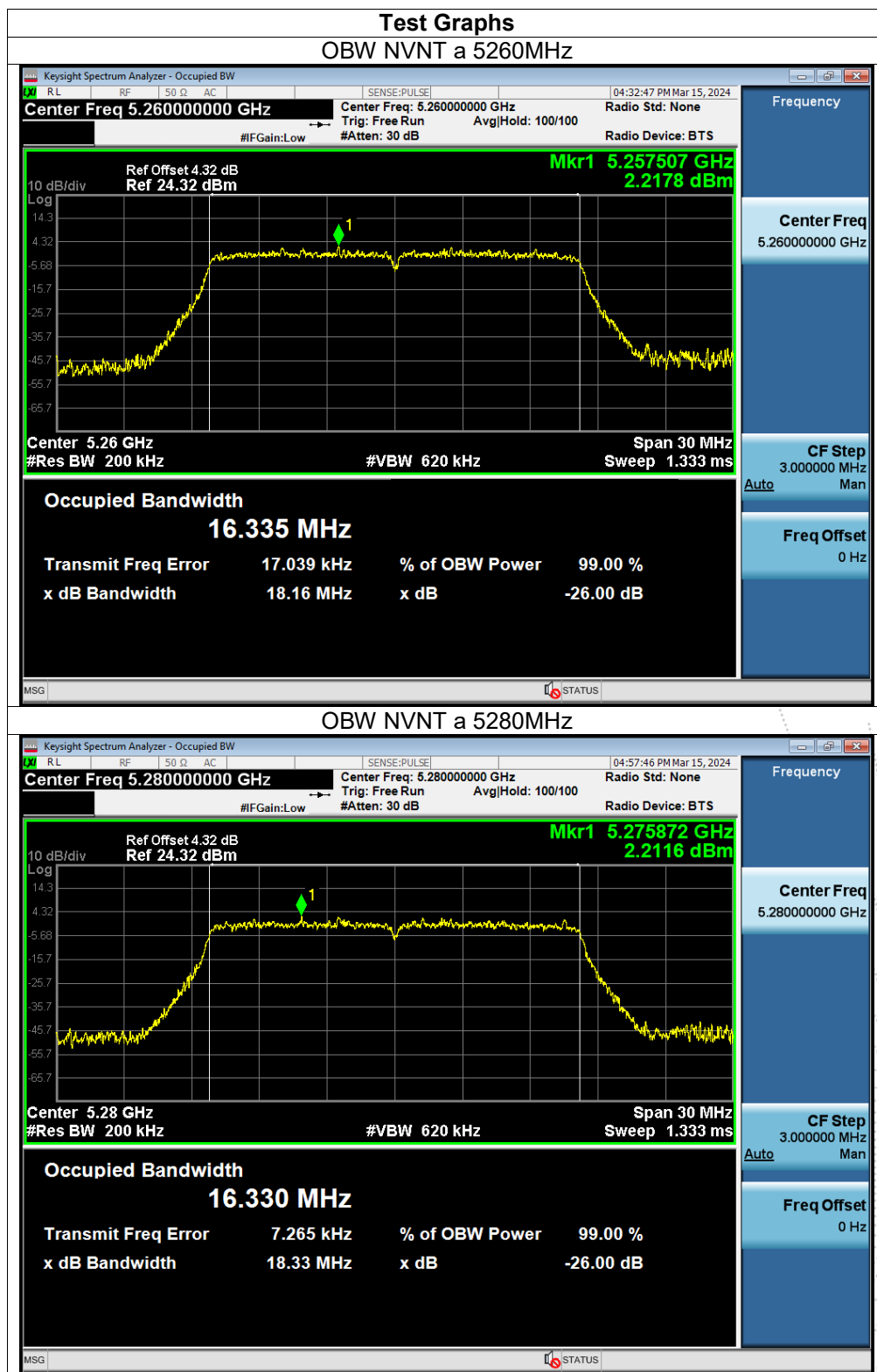


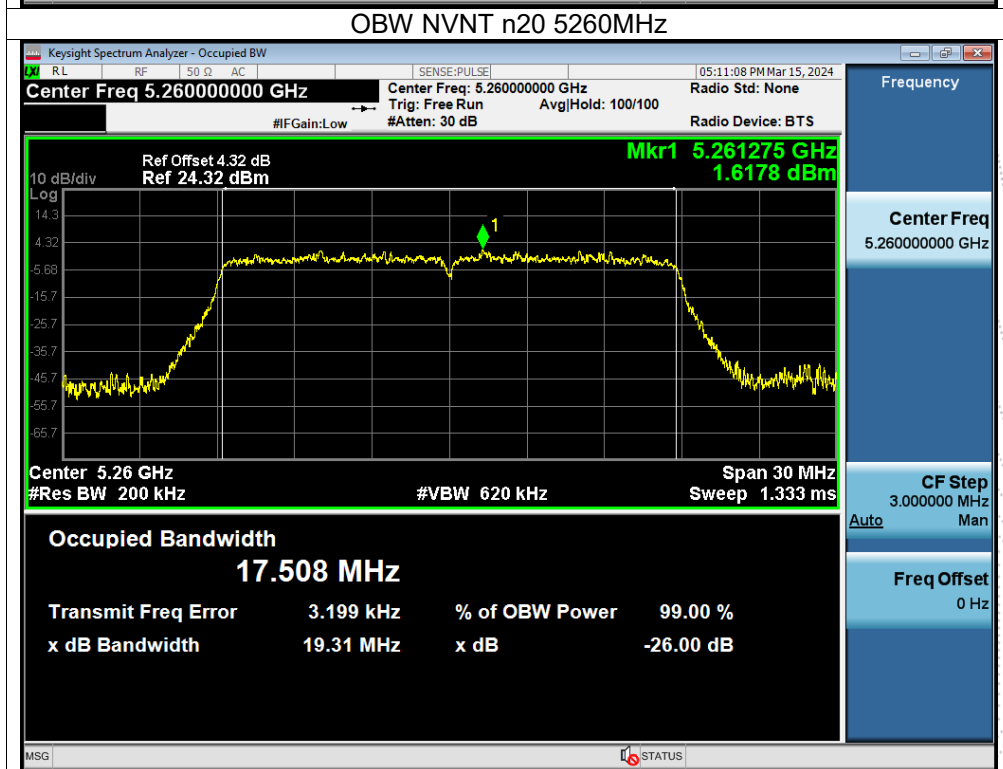
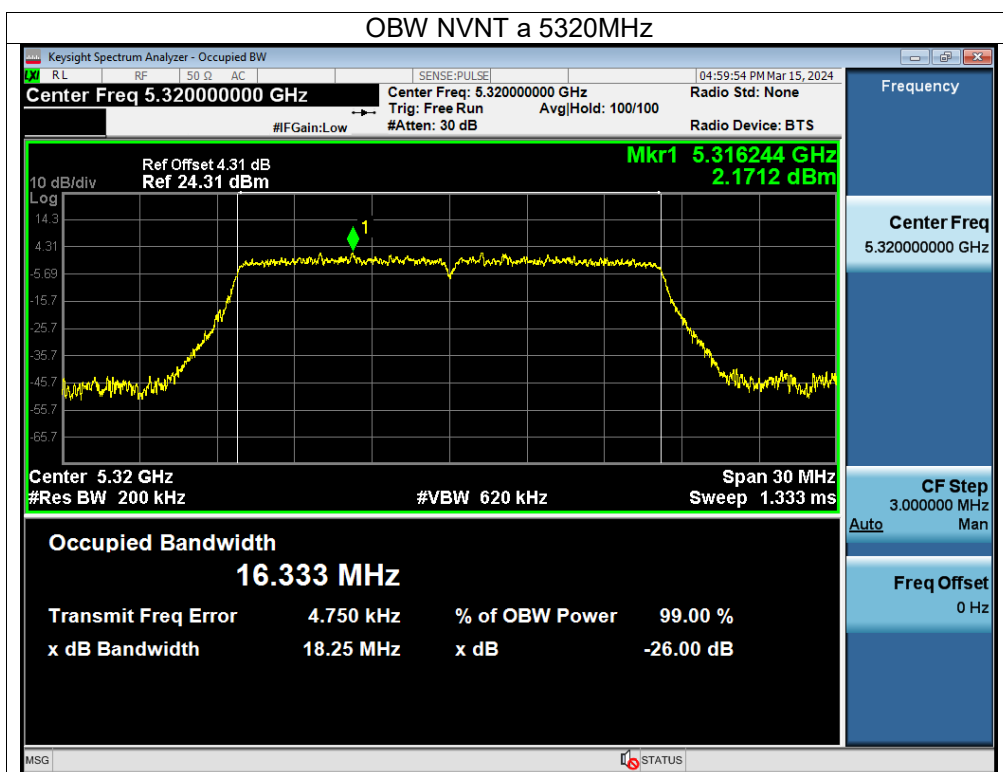


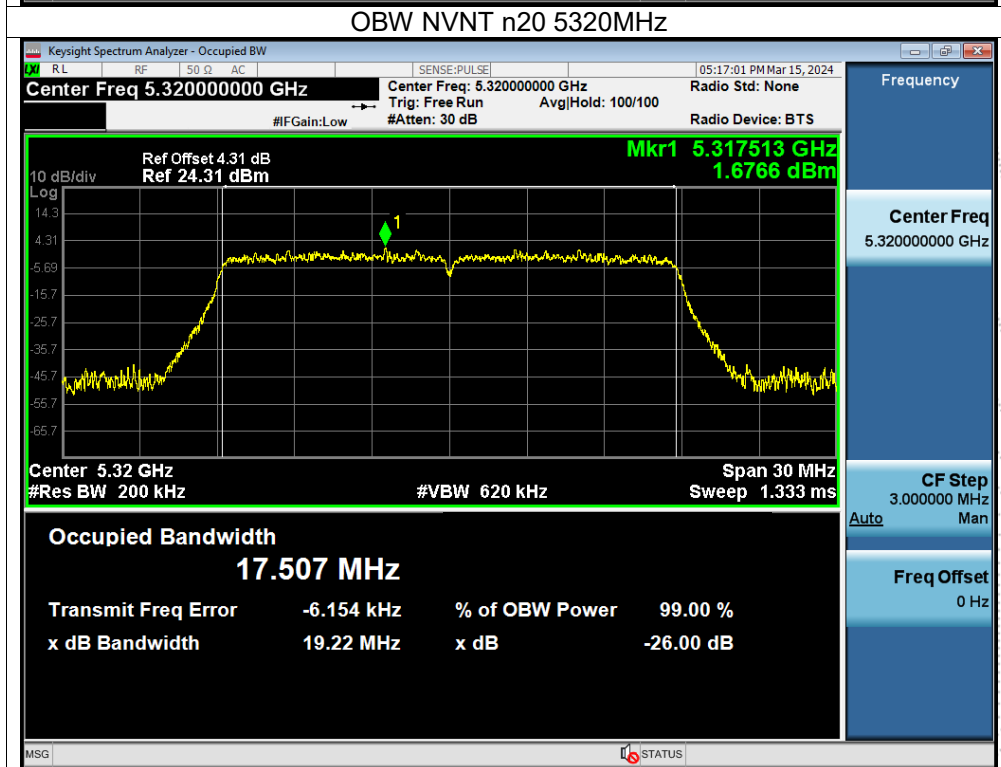
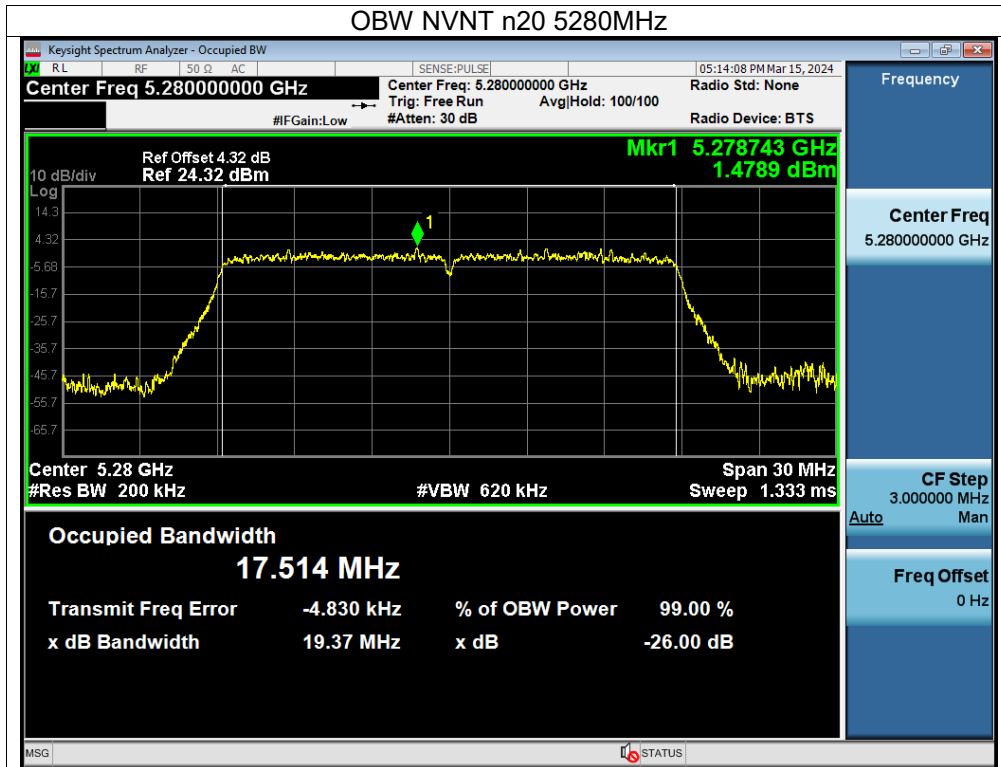


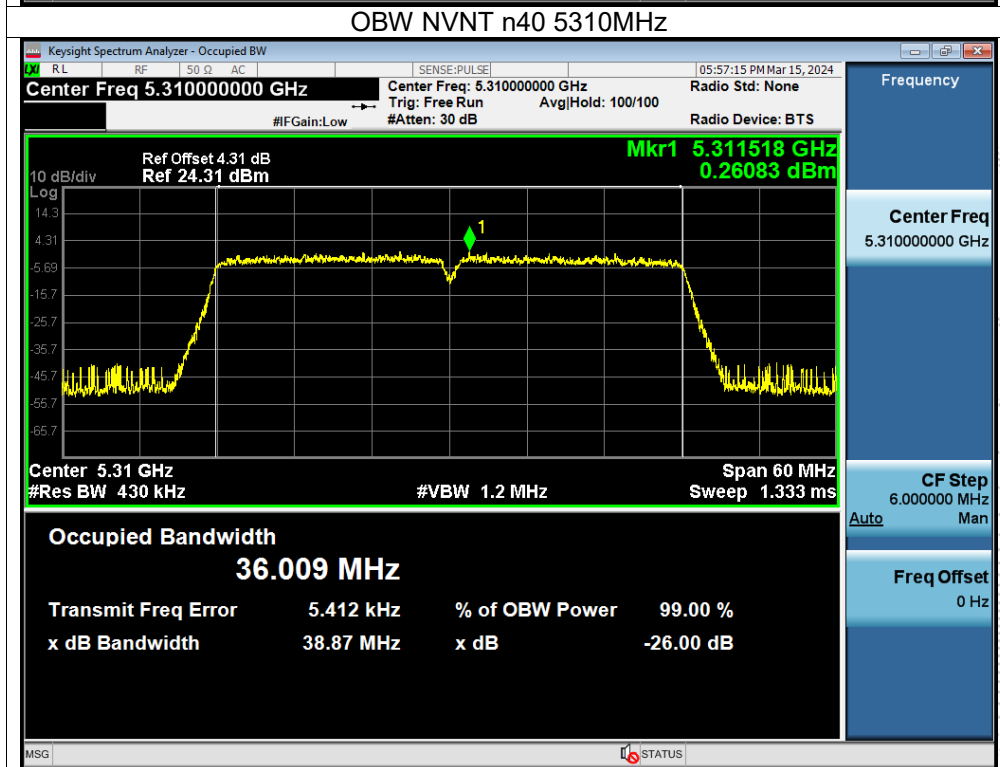
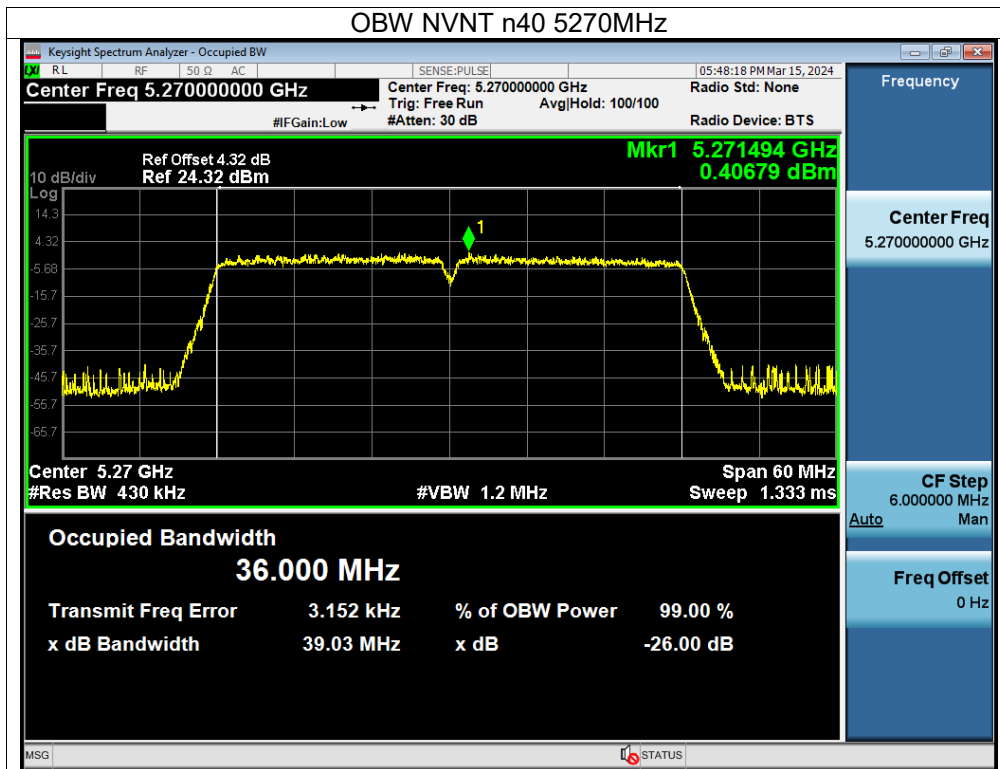


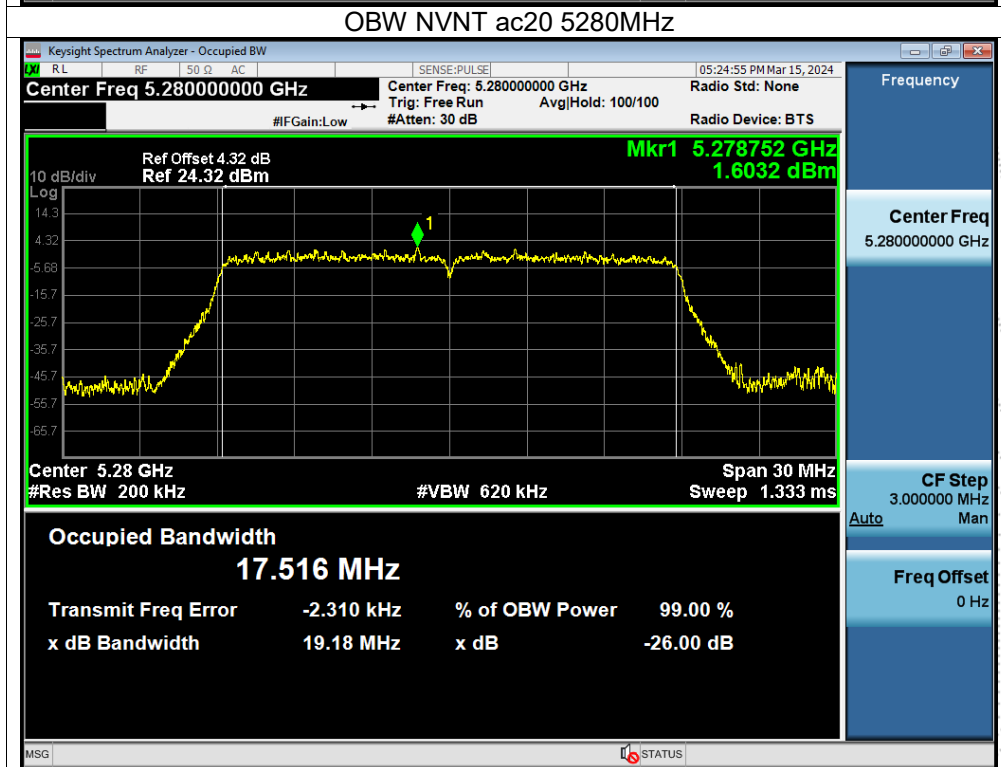
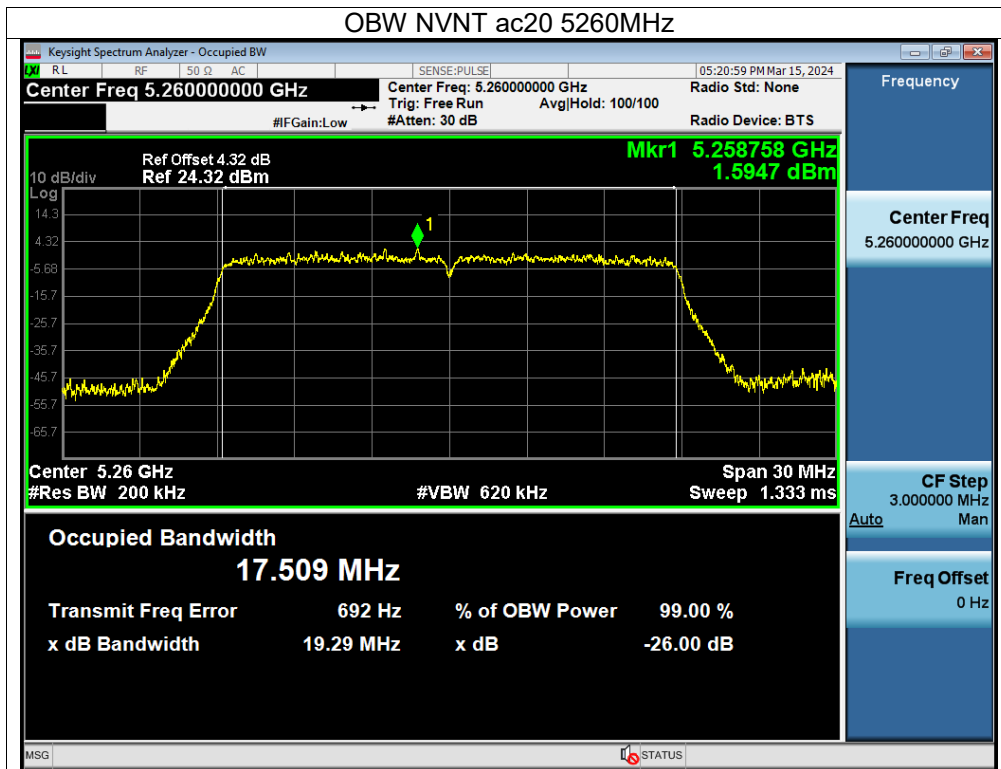
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna B, only shown Antenna B Plot.

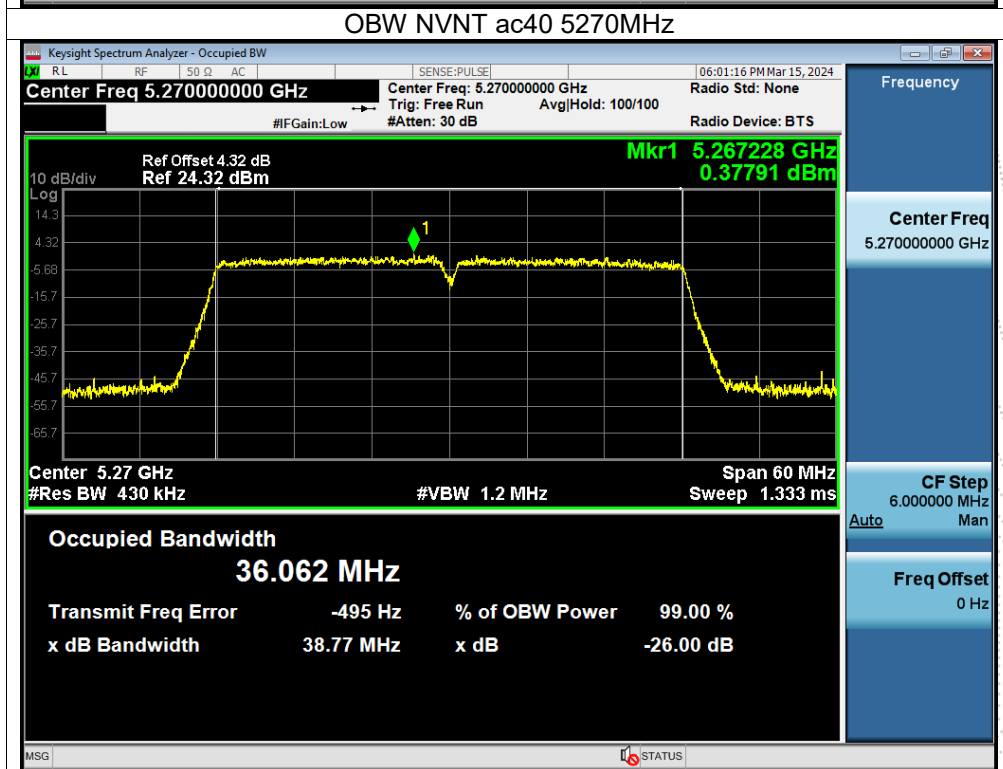
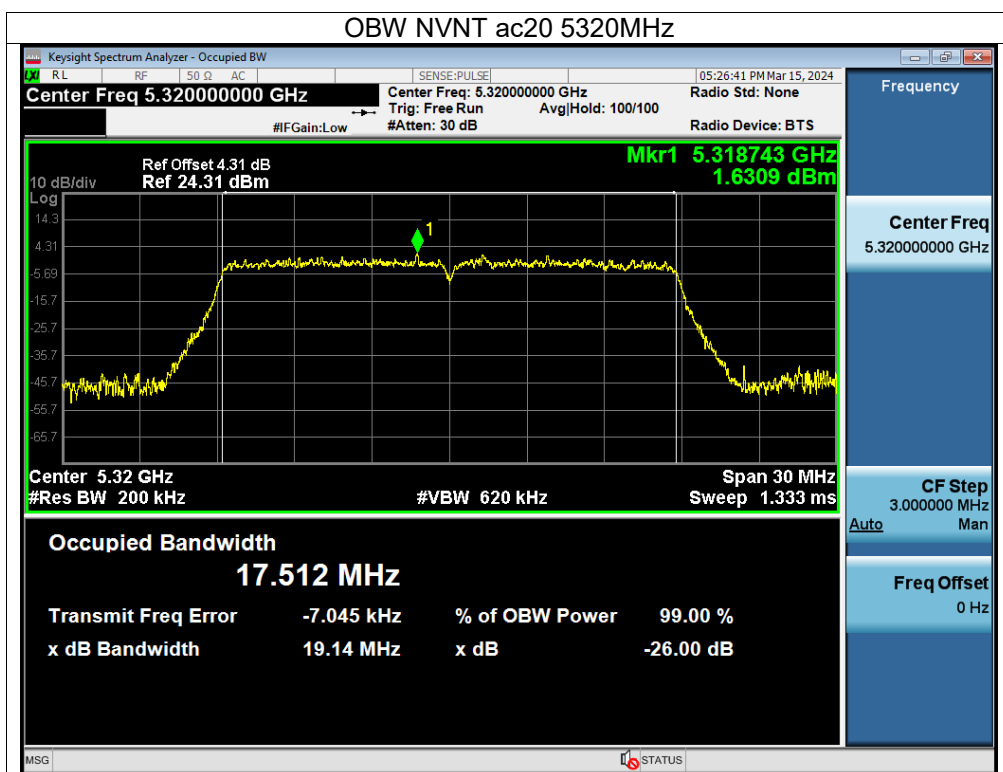


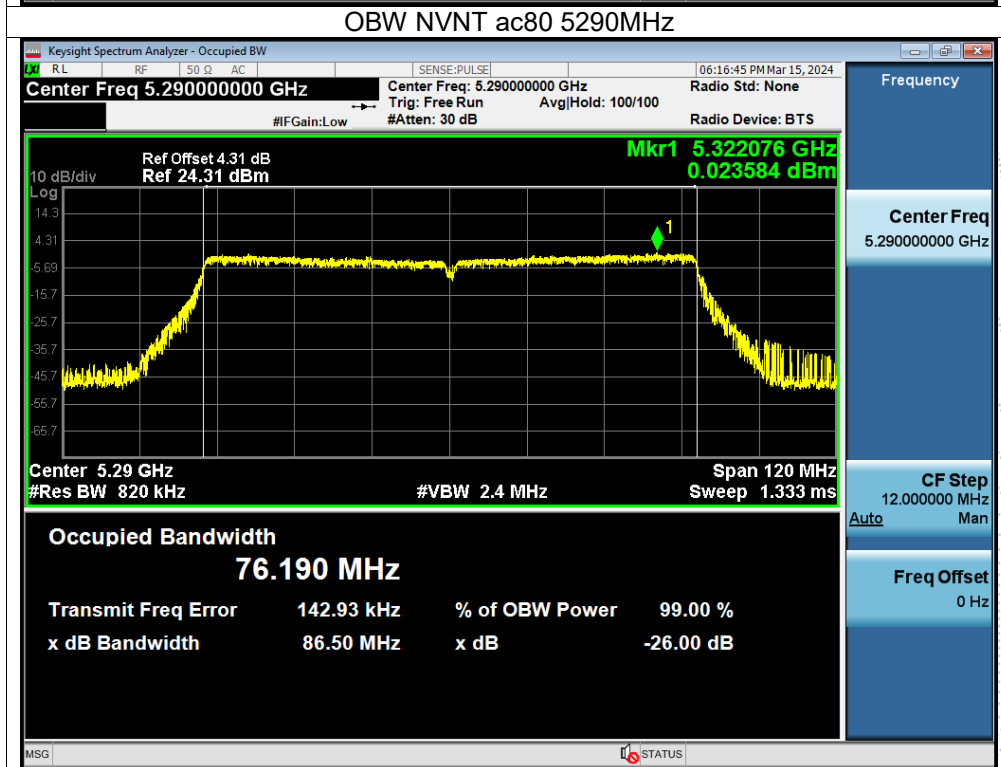
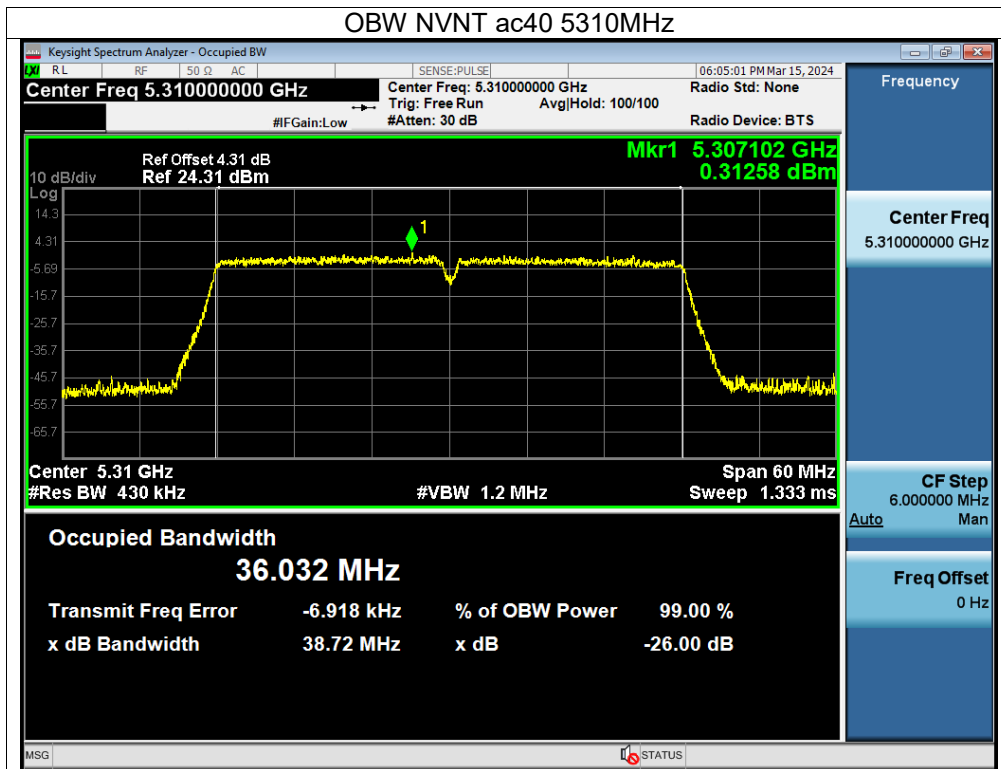


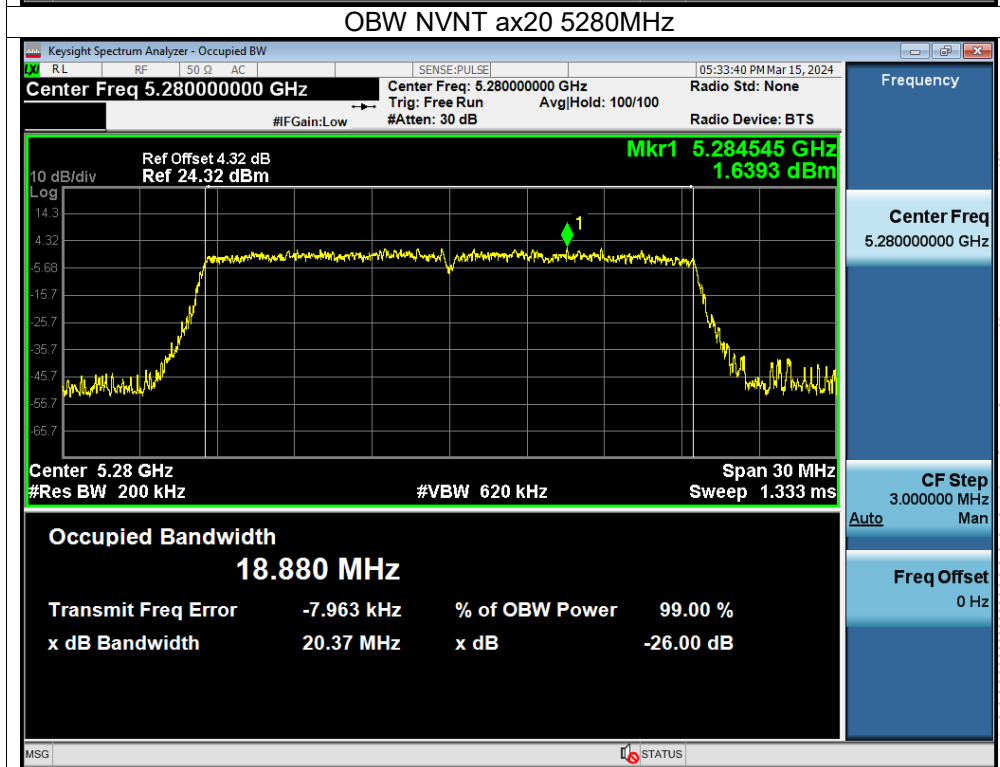
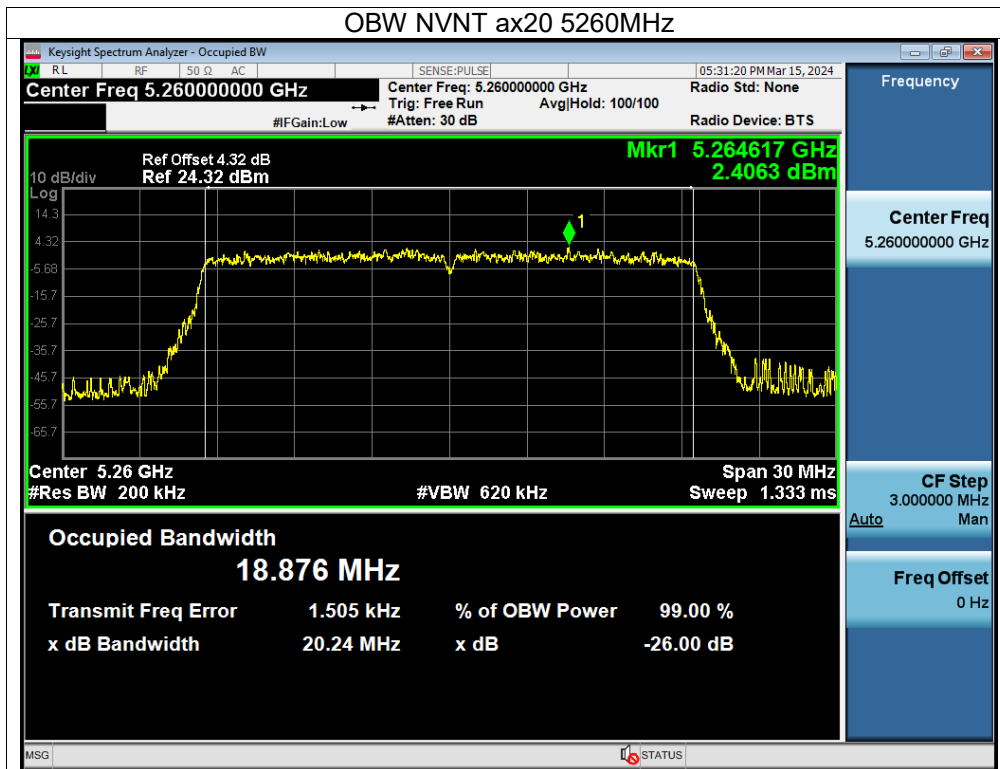


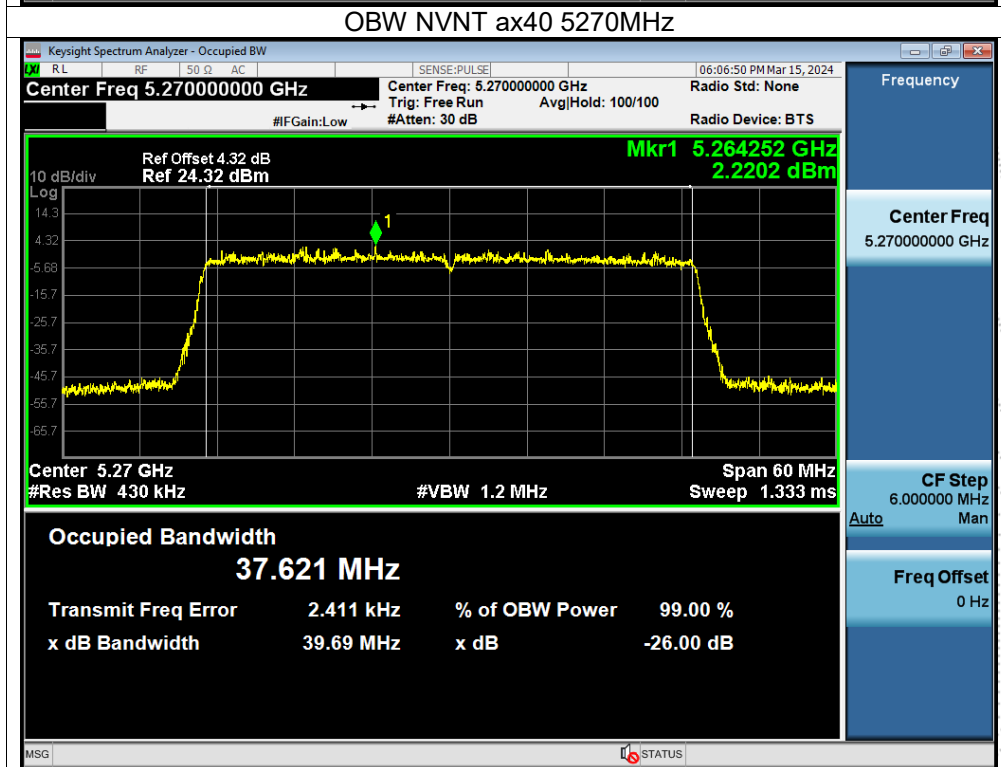
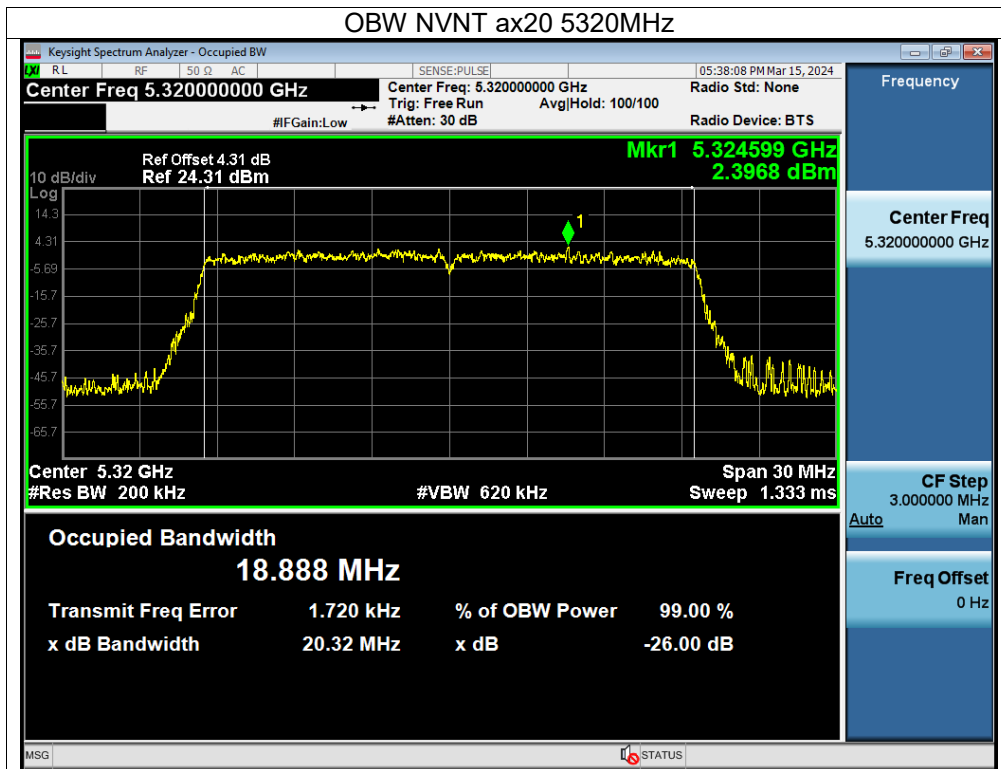


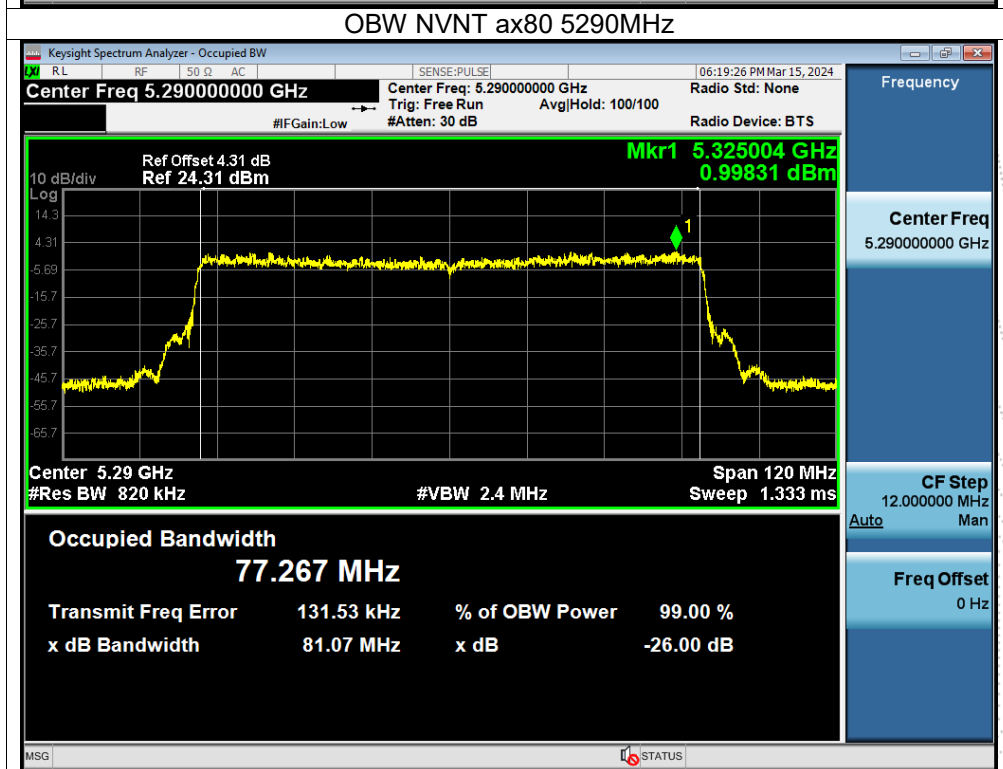
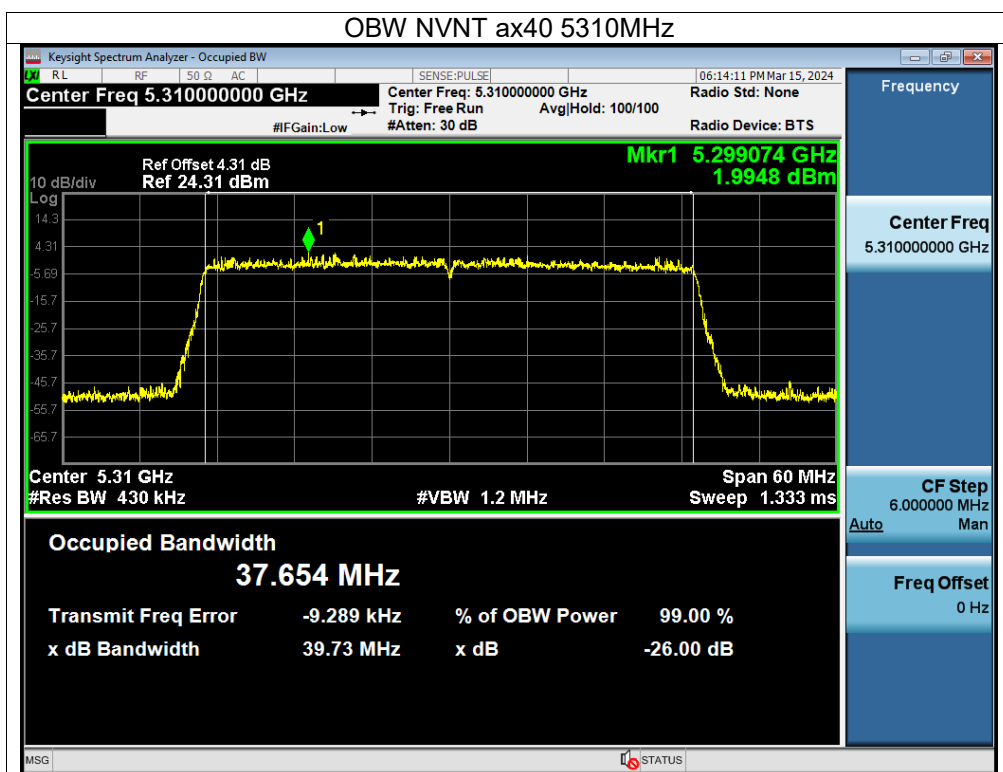












Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(5500-5700MHz)		

Condition	Mode	Frequency (MHz)	-26 dB Bandwidth (MHz)		99% OBW (MHz)		Verdict
			Ant A	Ant B	Ant A	Ant B	
NVNT	a	5500	18.661	18.593	16.323	16.341	Pass
NVNT	a	5580	18.729	18.714	16.336	16.34	Pass
NVNT	a	5700	18.446	18.549	16.336	16.326	Pass
NVNT	n20	5500	19.408	19.668	17.502	17.509	Pass
NVNT	n20	5580	19.593	19.607	17.5	17.501	Pass
NVNT	n20	5700	19.666	19.571	17.49	17.506	Pass
NVNT	n40	5510	39.977	39.971	36	36.013	Pass
NVNT	n40	5550	39.94	40.021	36.022	36.027	Pass
NVNT	n40	5670	39.934	39.825	35.997	36.002	Pass
NVNT	ac20	5500	19.73	19.616	17.51	17.505	Pass
NVNT	ac20	5580	19.607	19.724	17.498	17.508	Pass
NVNT	ac20	5700	19.702	19.586	17.512	17.51	Pass
NVNT	ac40	5510	39.745	39.753	36.038	36.008	Pass
NVNT	ac40	5550	39.791	39.713	36.06	36.032	Pass
NVNT	ac40	5670	39.765	39.711	36.028	36.04	Pass
NVNT	ac80	5530	88.015	87.907	76.172	76.102	Pass
NVNT	ax20	5500	20.481	20.441	18.899	18.903	Pass
NVNT	ax20	5580	20.445	20.351	18.866	18.881	Pass
NVNT	ax20	5700	20.438	20.382	18.874	18.904	Pass
NVNT	ax40	5510	39.551	39.458	37.64	37.618	Pass
NVNT	ax40	5550	39.48	39.585	37.655	37.669	Pass
NVNT	ax40	5670	39.504	39.425	37.626	37.624	Pass
NVNT	ax80	5530	80.613	82.035	77.209	77.242	Pass

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

