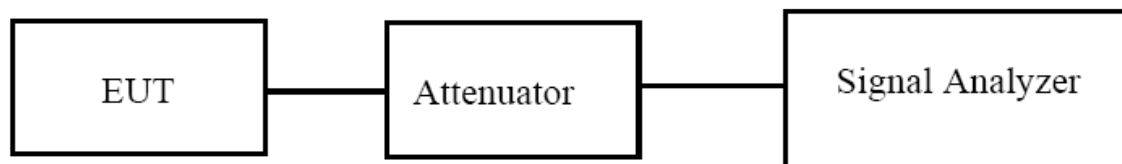


9. 26dB & 6dB & 99% Emission Bandwidth

9.1 Block Diagram Of Test Setup



9.2 Limit

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.
(6dB bandwidth)>500kHz

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.
- Set RBW = 1 % to 5 % of the OBW
- Set $VBW \geq 3 \cdot RBW$
- 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.
- Use the 99 % power bandwidth function of the instrument (if available).
- 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.

6dB

- Set RBW = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times RBW$.
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.

6. Allow the trace to stabilize.

7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

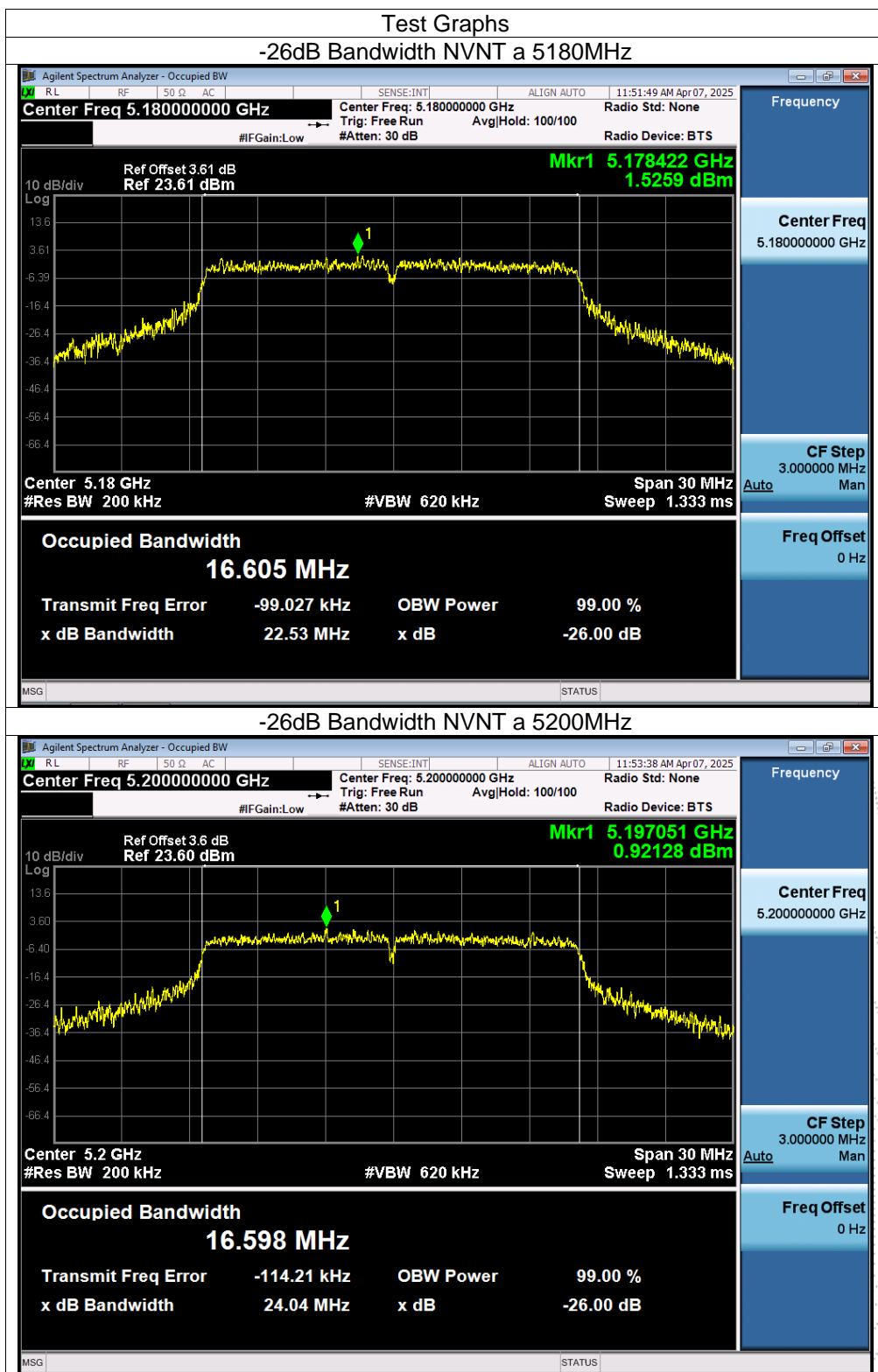
9.4 EUT Operating Conditions

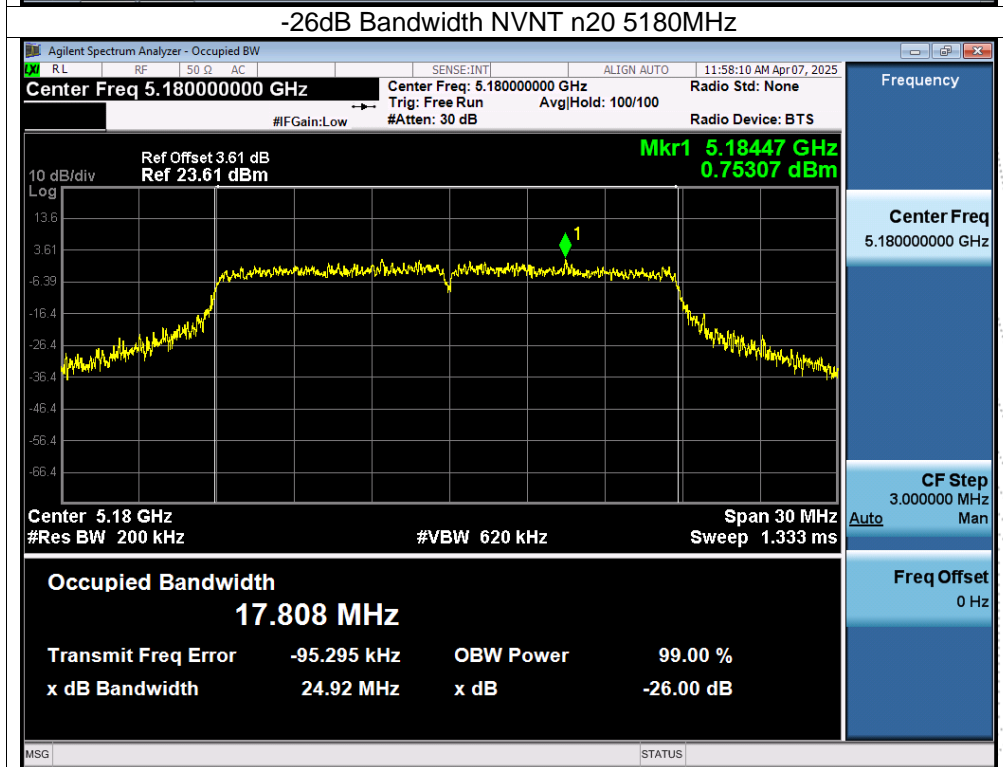
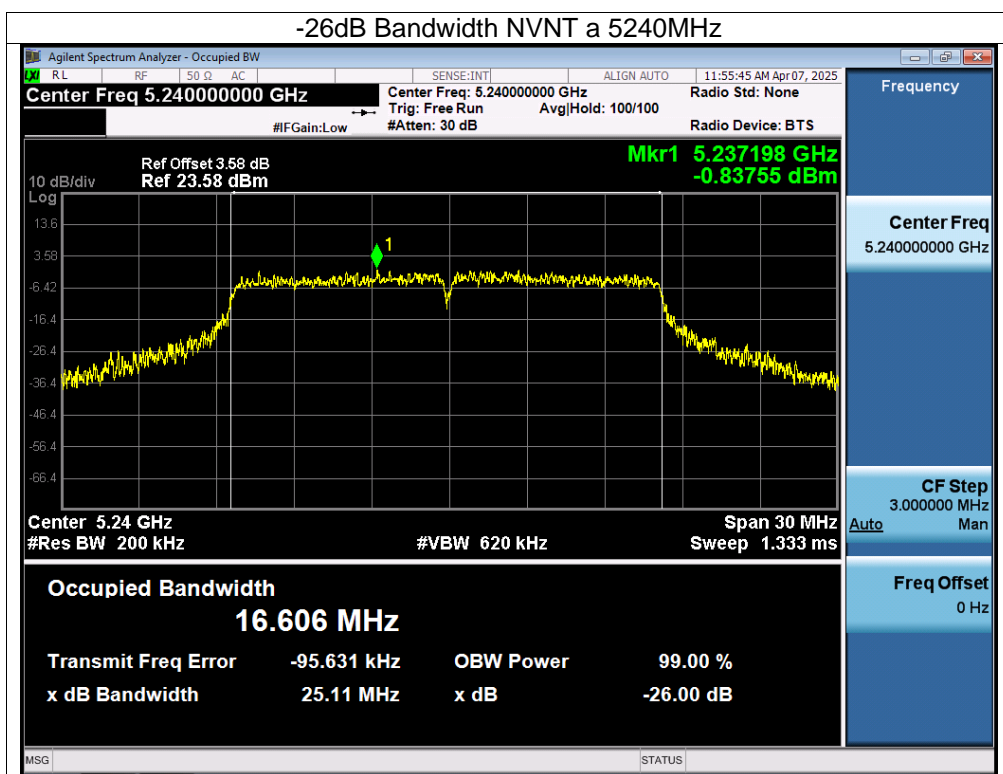
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

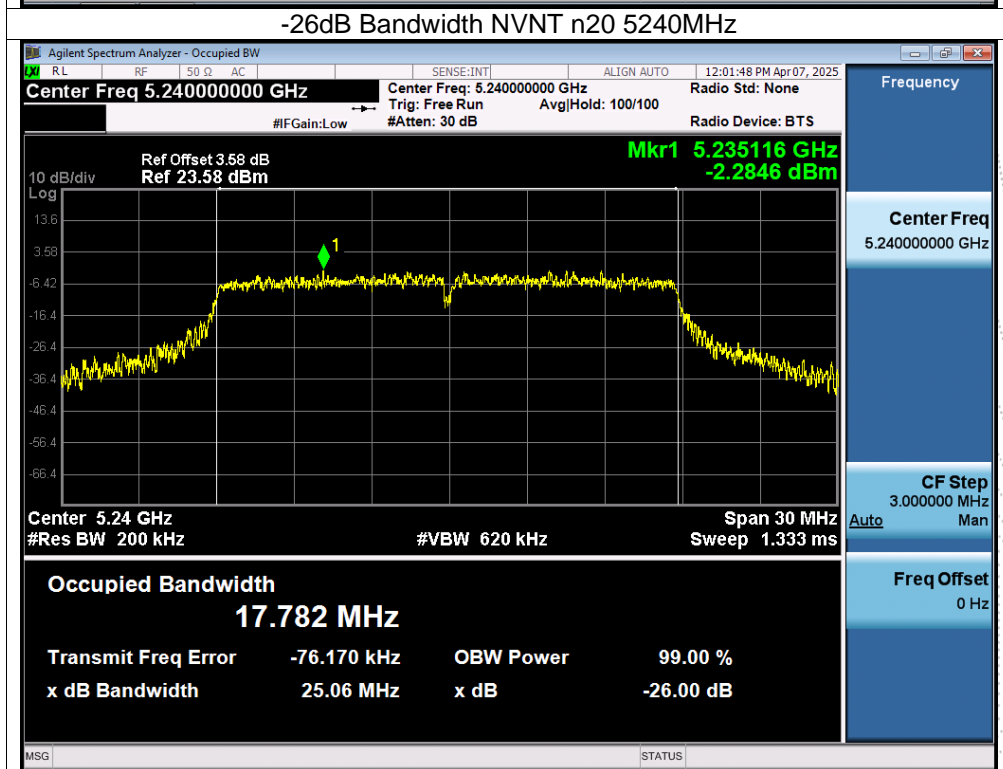
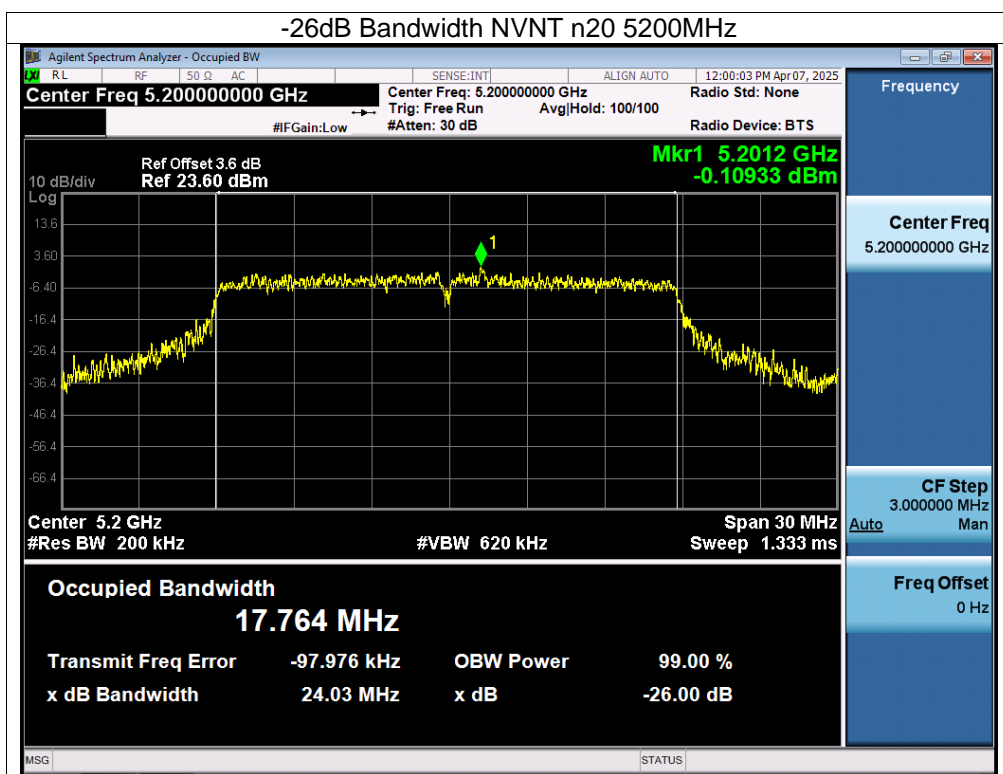
9.5 Test Result

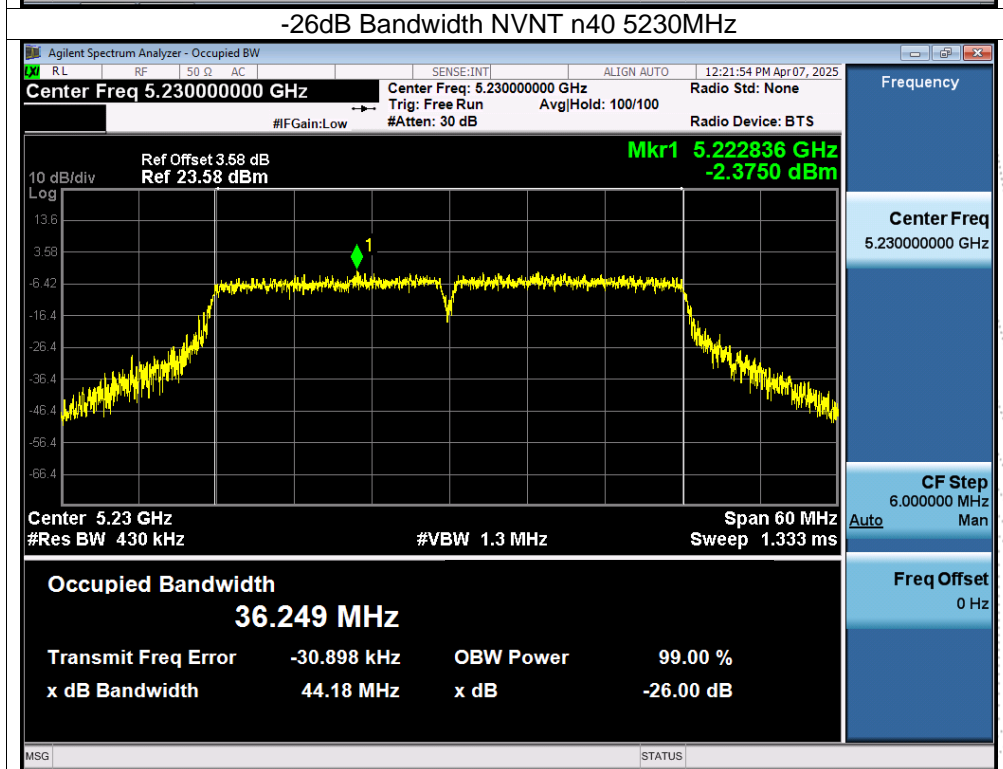
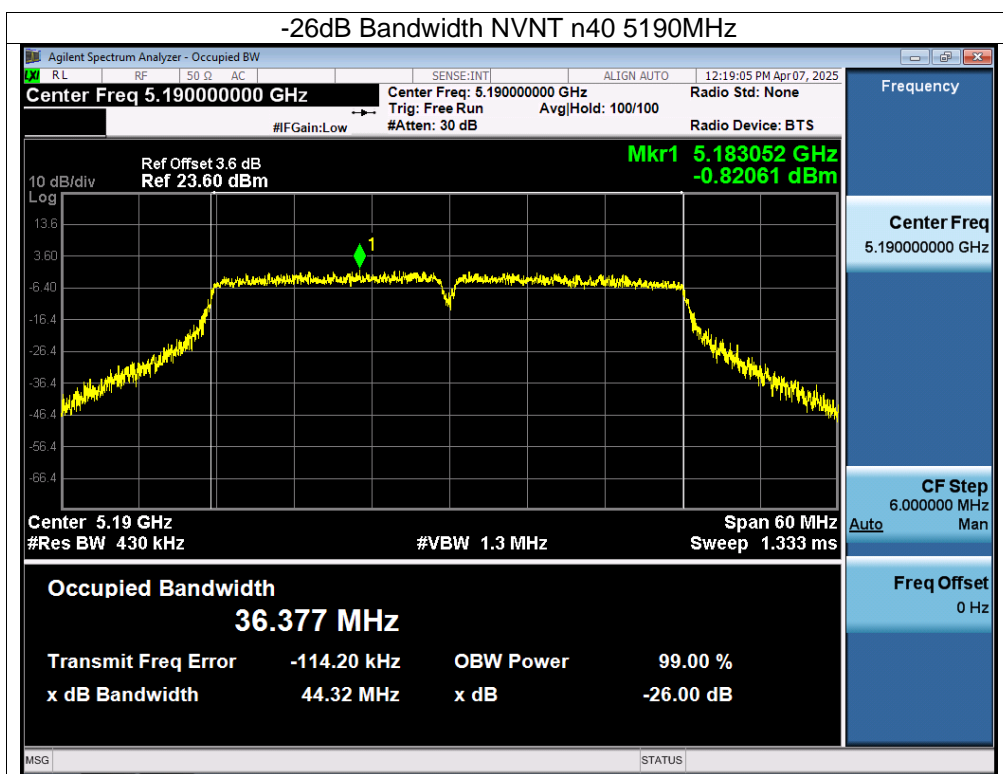
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX Frequency U-NII-1 (5180-5240MHz)		

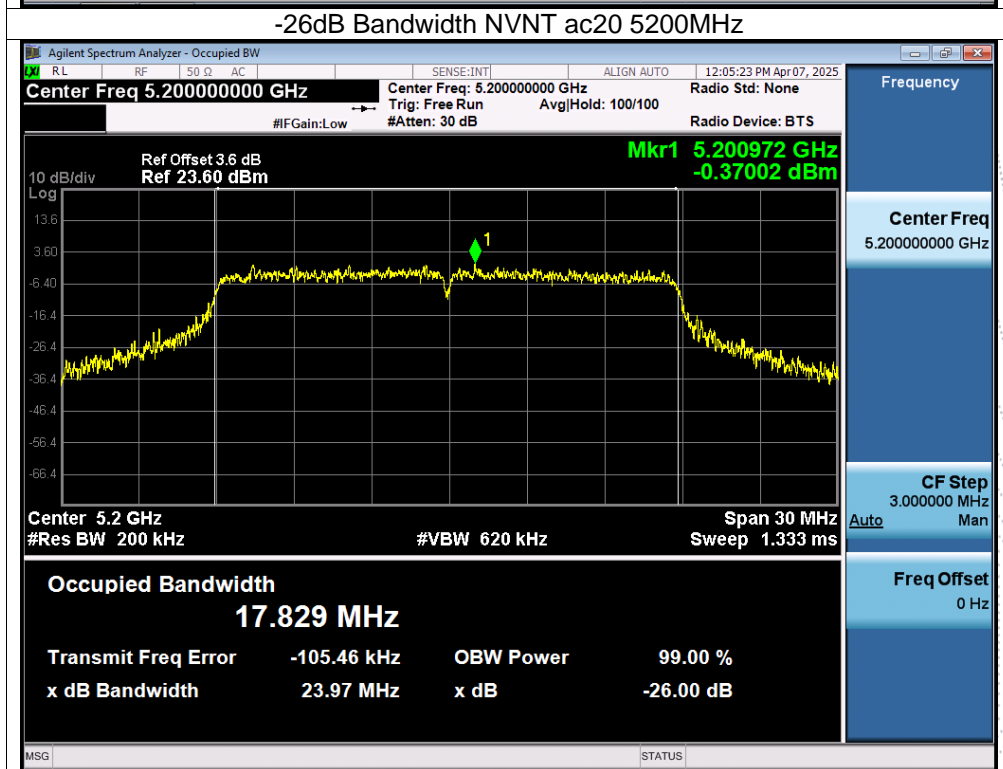
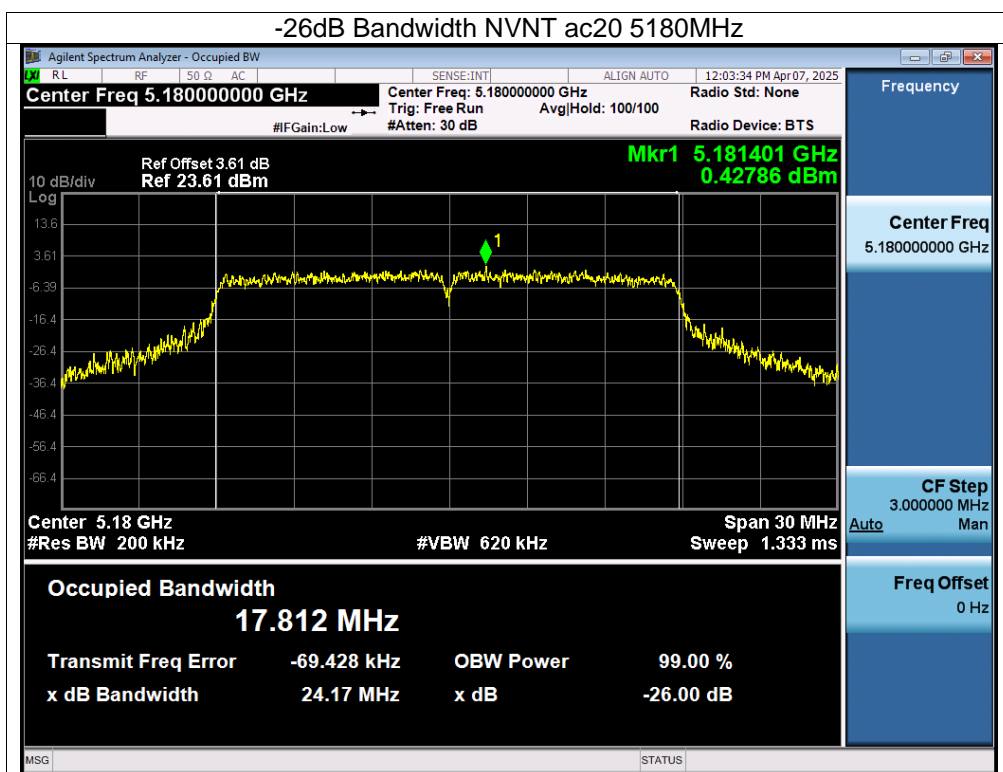
Condition	Mode	Frequency (MHz)	99% bandwidth (MHz)	-26dB bandwidth (MHz)	Result
NVNT	a	5180	16.563	22.529	Pass
NVNT	a	5200	16.611	24.036	Pass
NVNT	a	5240	16.6	25.113	Pass
NVNT	n20	5180	17.804	24.924	Pass
NVNT	n20	5200	17.795	24.03	Pass
NVNT	n20	5240	17.788	25.06	Pass
NVNT	n40	5190	36.297	44.324	Pass
NVNT	n40	5230	36.381	44.185	Pass
NVNT	ac20	5180	17.81	24.17	Pass
NVNT	ac20	5200	17.772	23.969	Pass
NVNT	ac20	5240	17.767	25.778	Pass
NVNT	ac40	5190	36.319	44.364	Pass
NVNT	ac40	5230	36.366	45.346	Pass
NVNT	ax20	5180	18.947	24.273	Pass
NVNT	ax20	5200	18.969	24.569	Pass
NVNT	ax20	5240	19.045	25.058	Pass
NVNT	ax40	5190	37.794	44.029	Pass
NVNT	ax40	5230	37.863	44.044	Pass

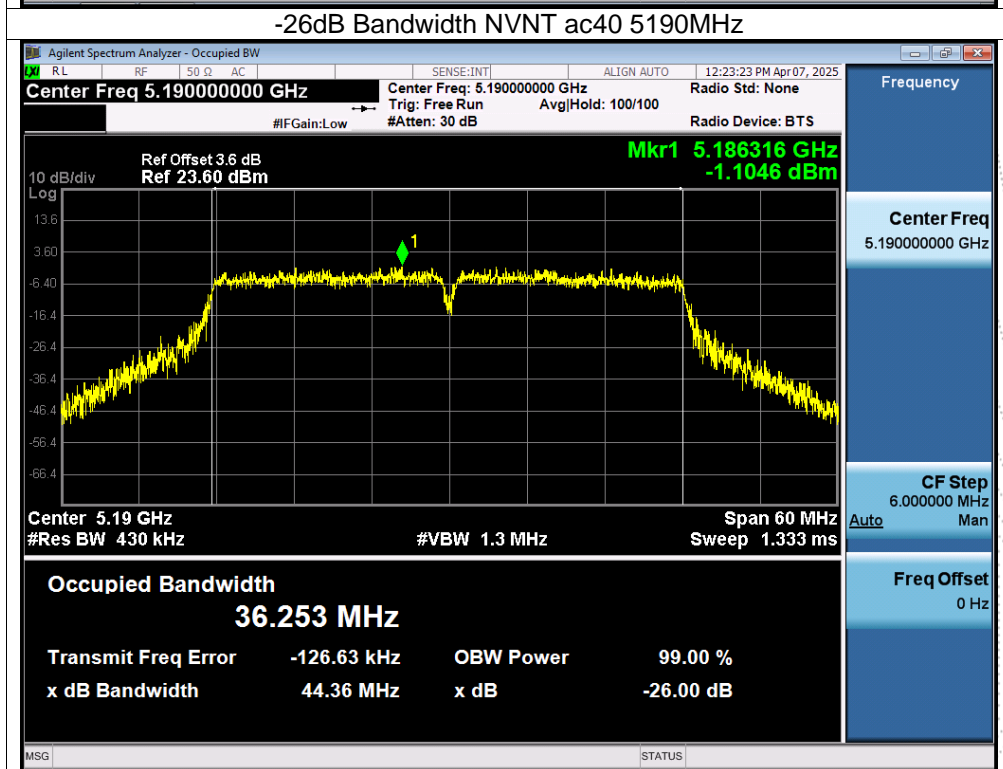
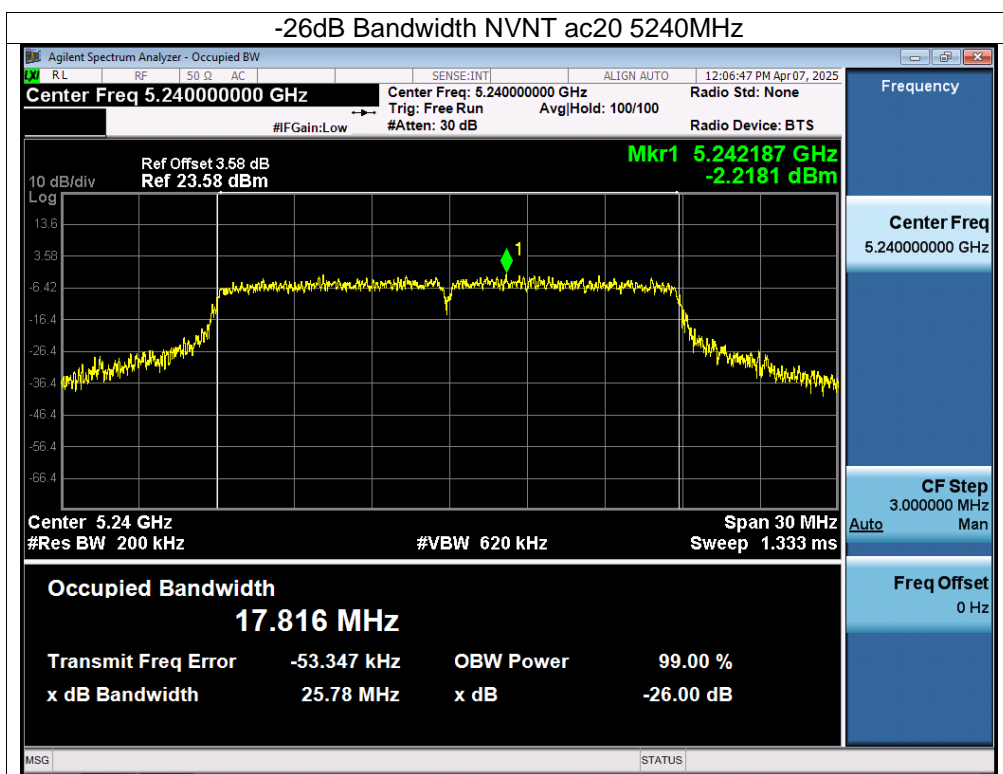


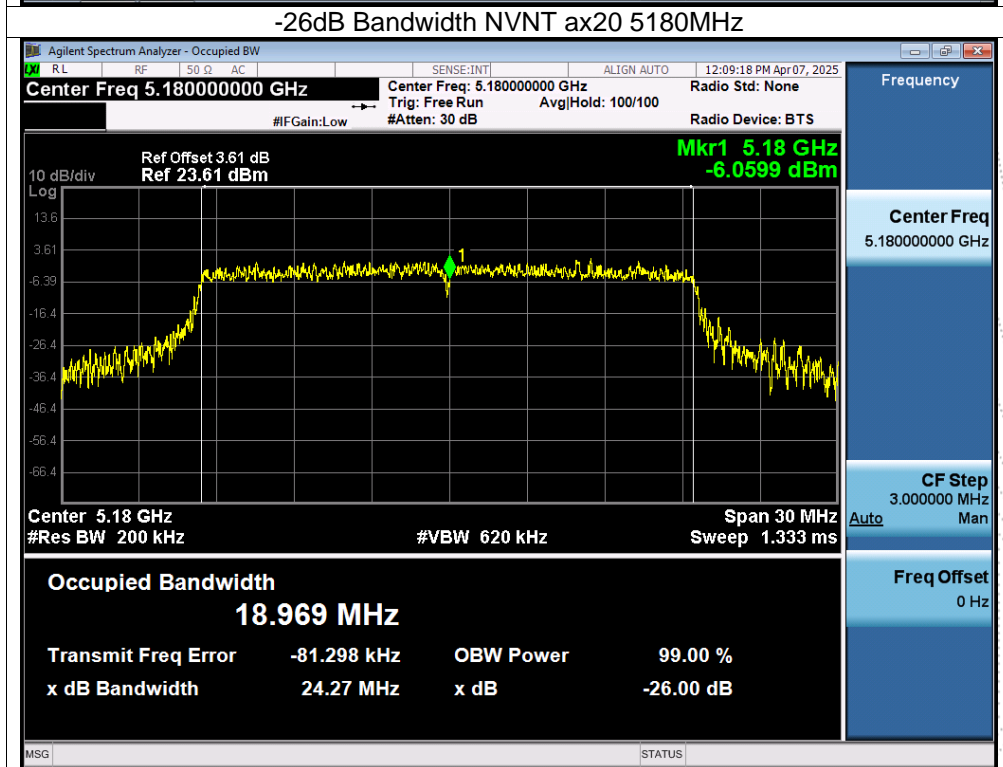
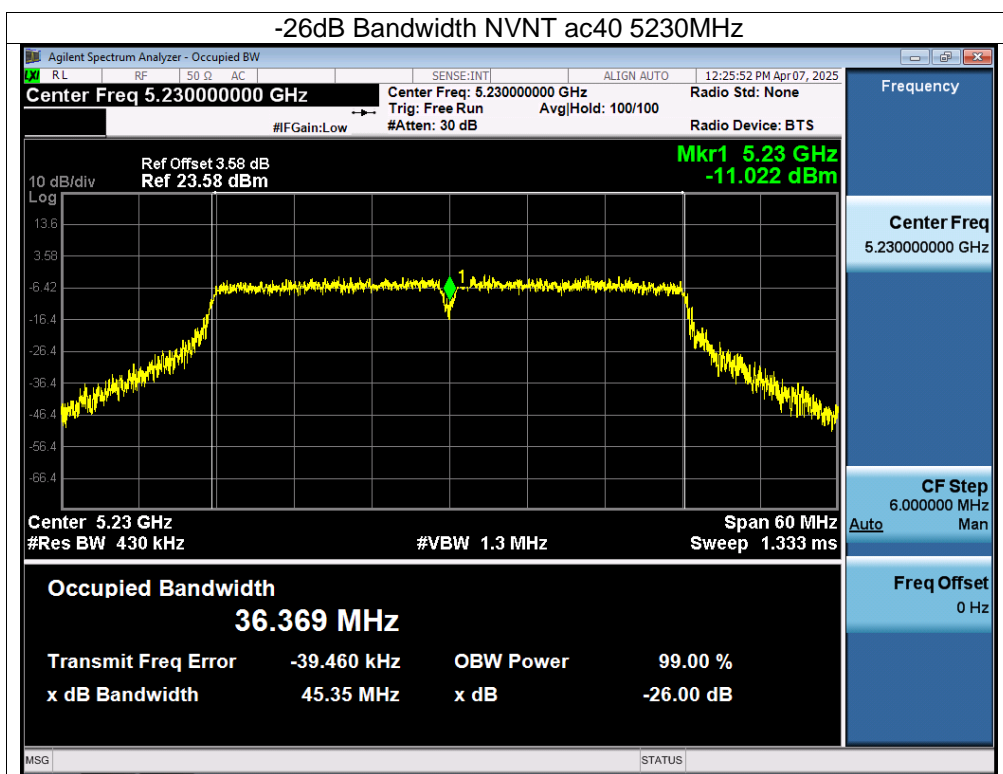


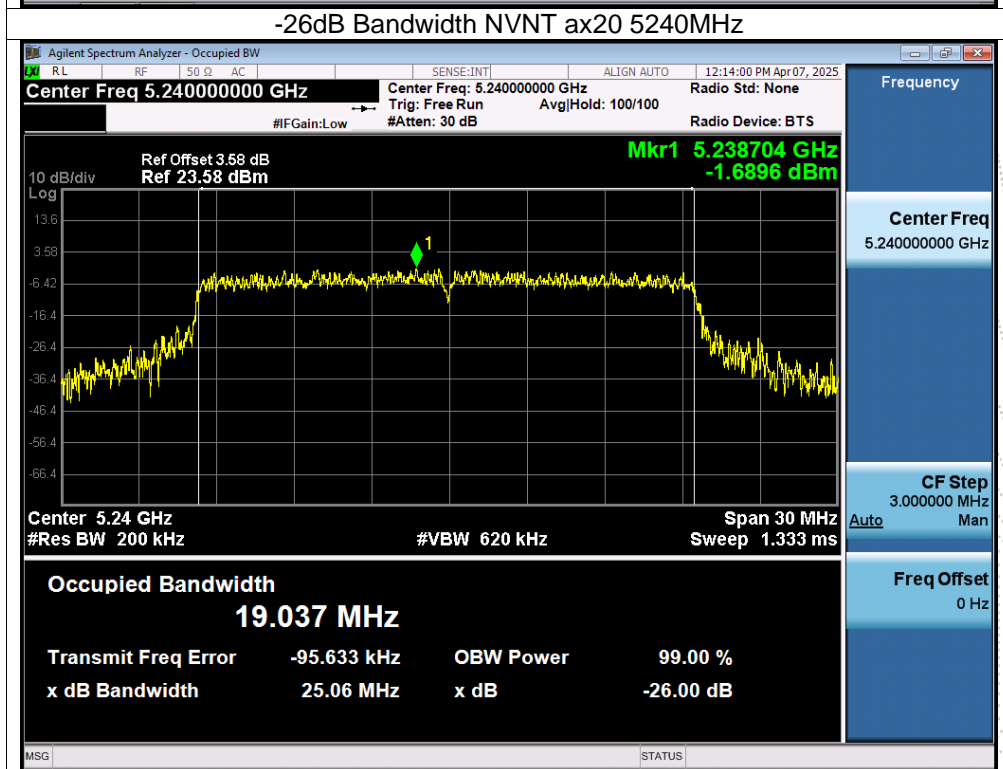
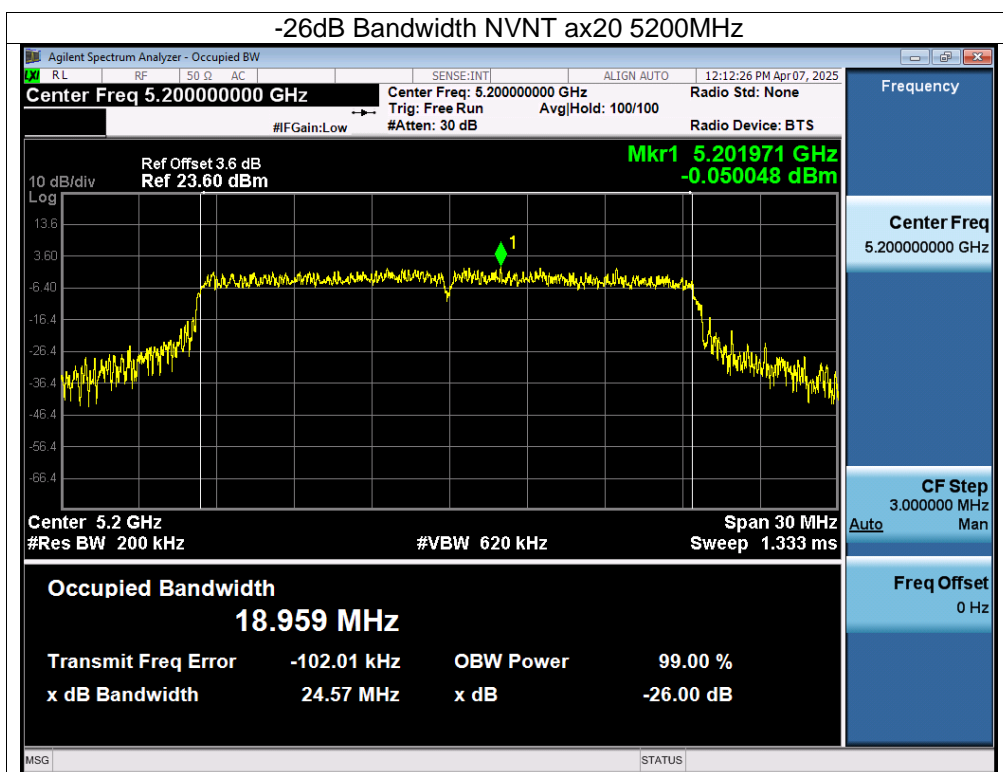


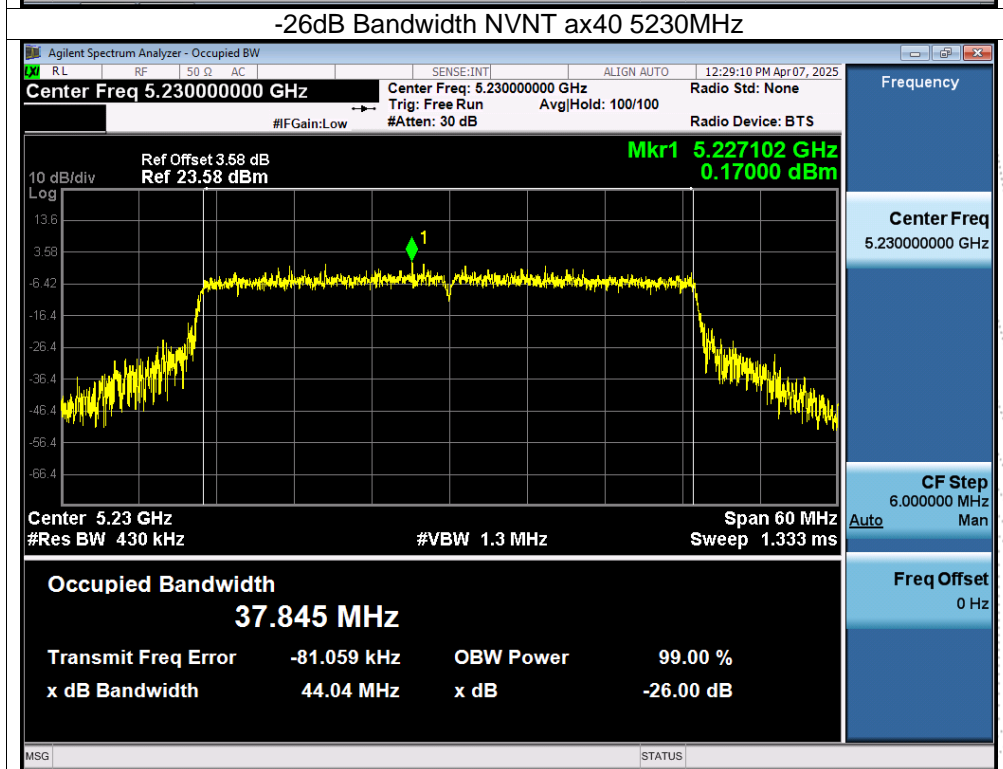
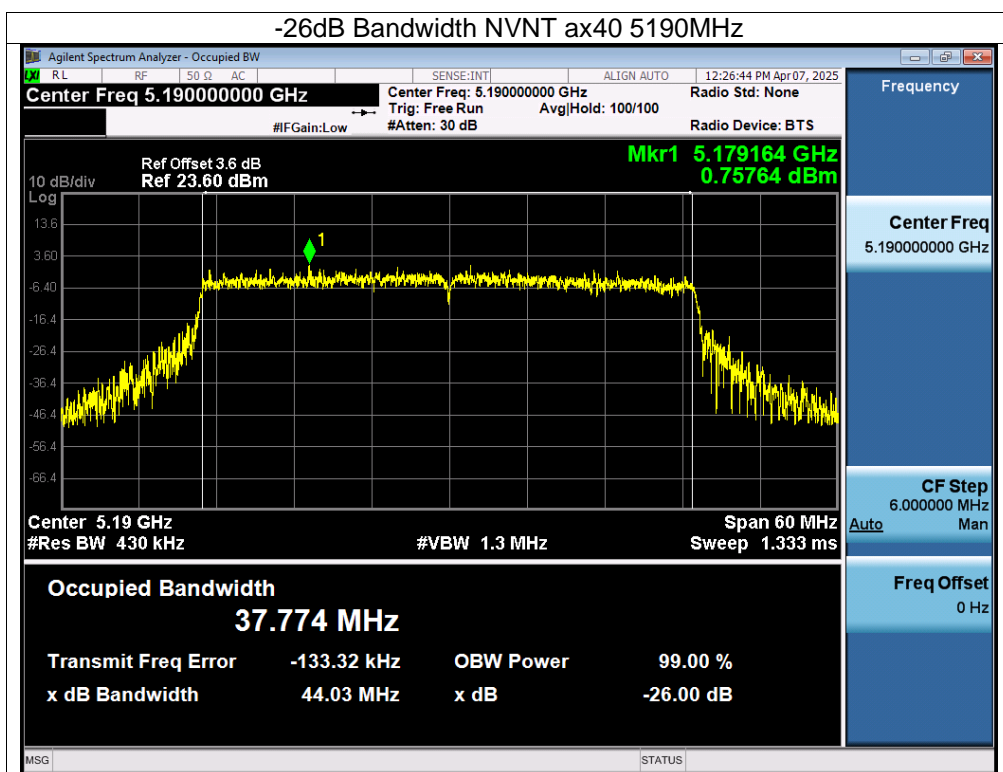


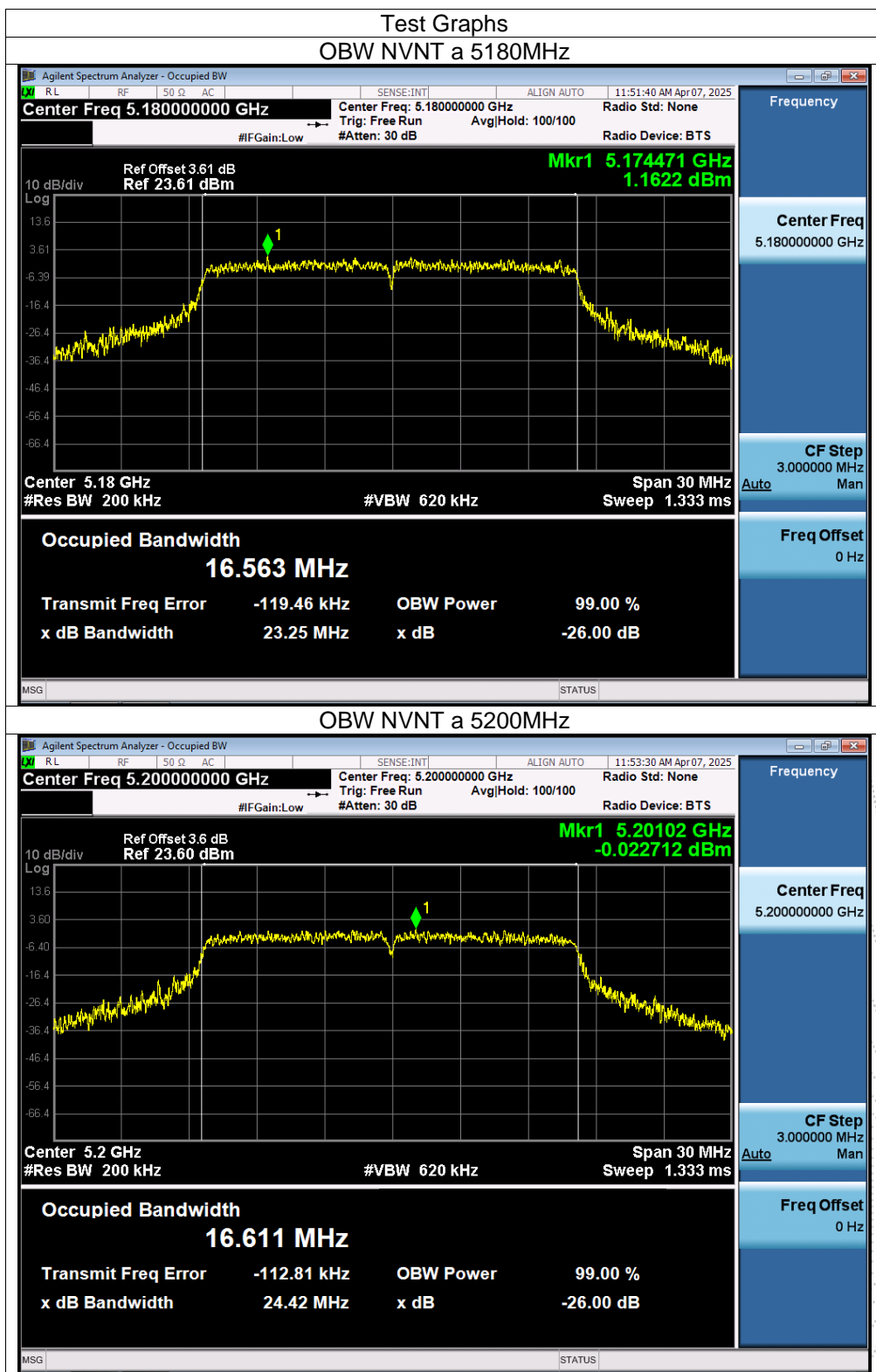


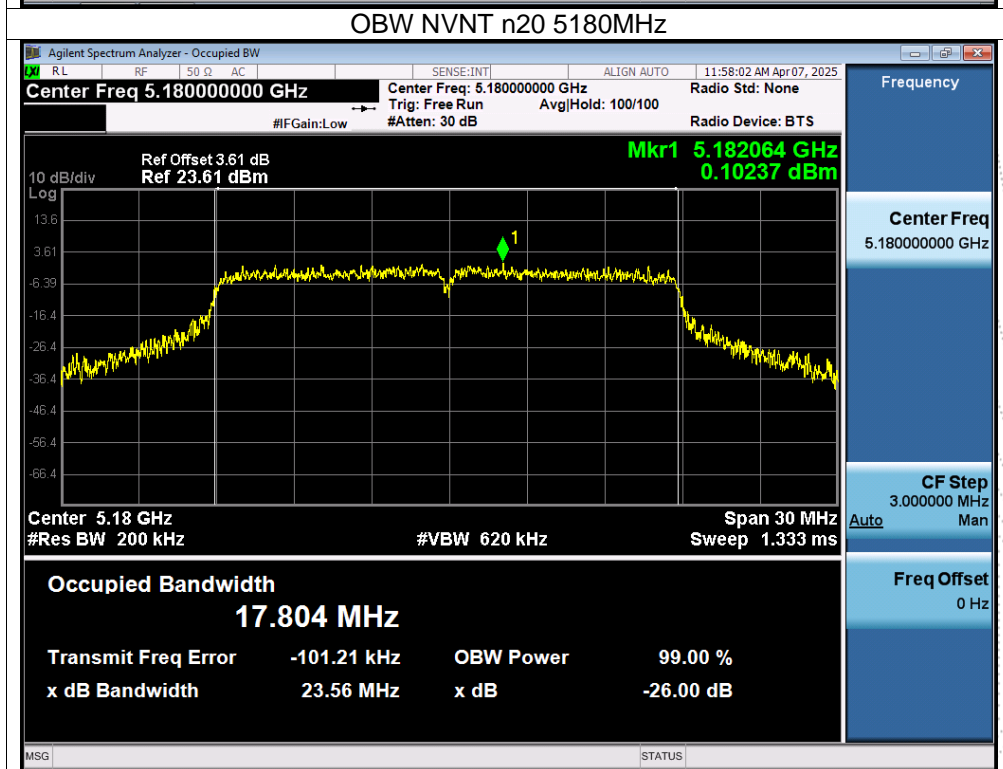
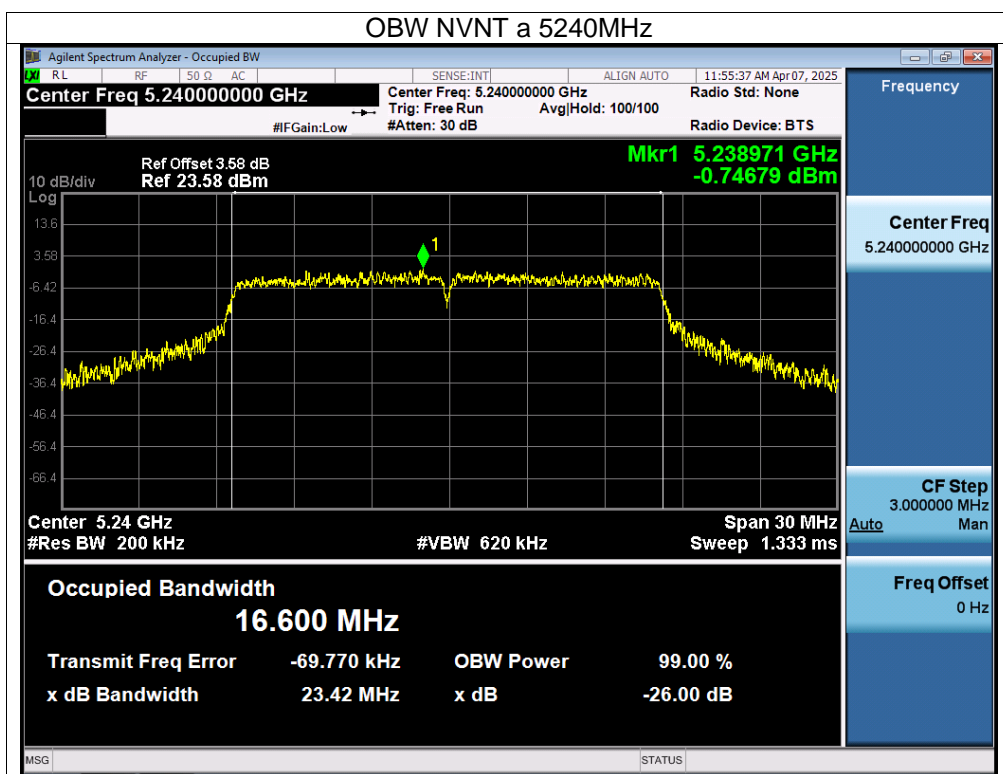


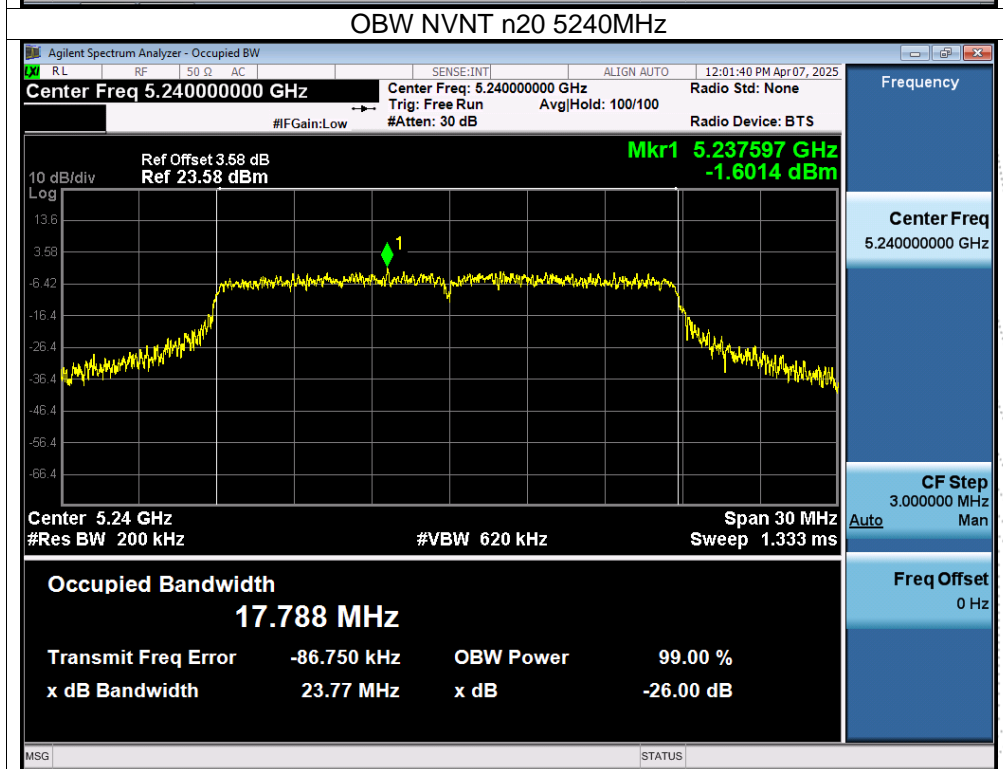
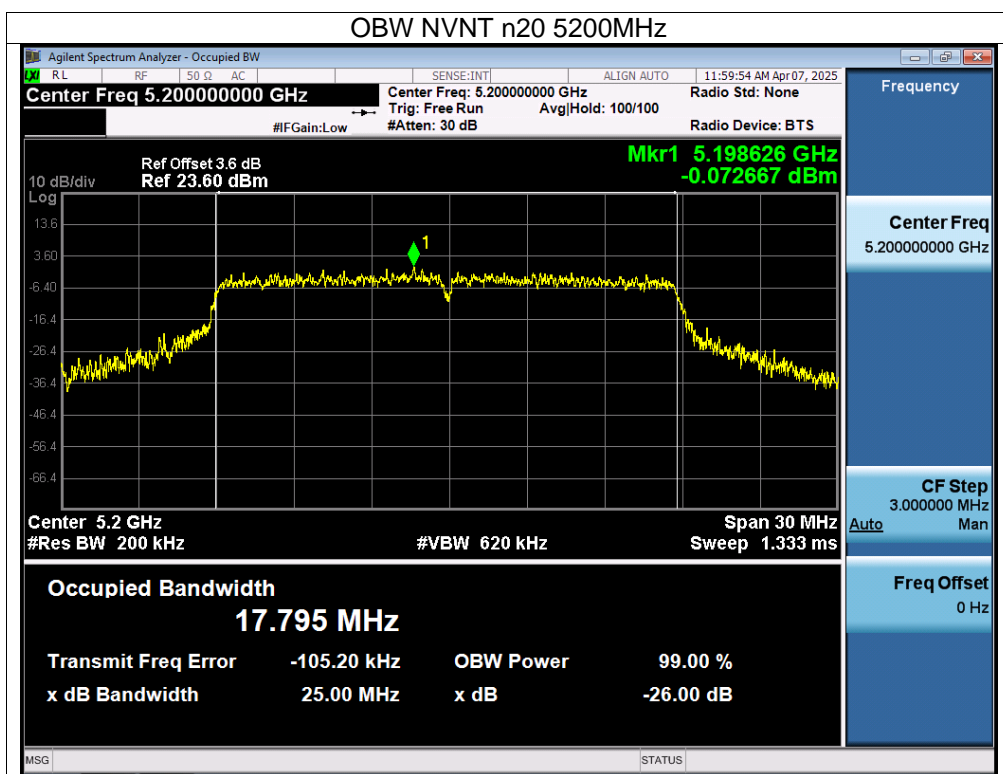


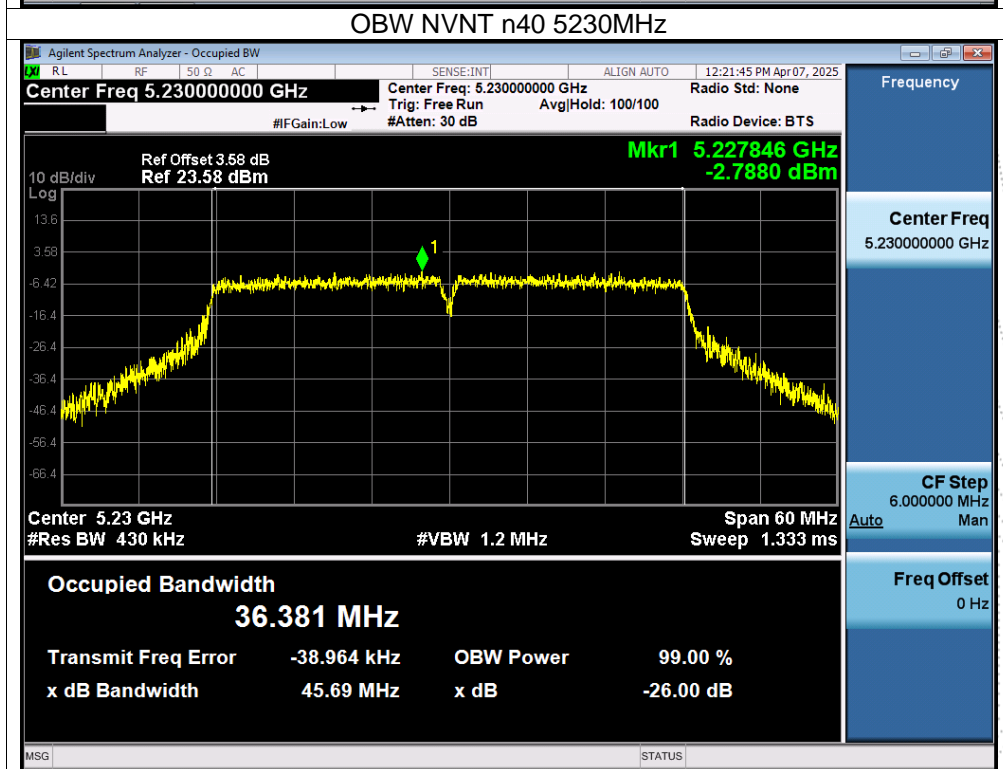
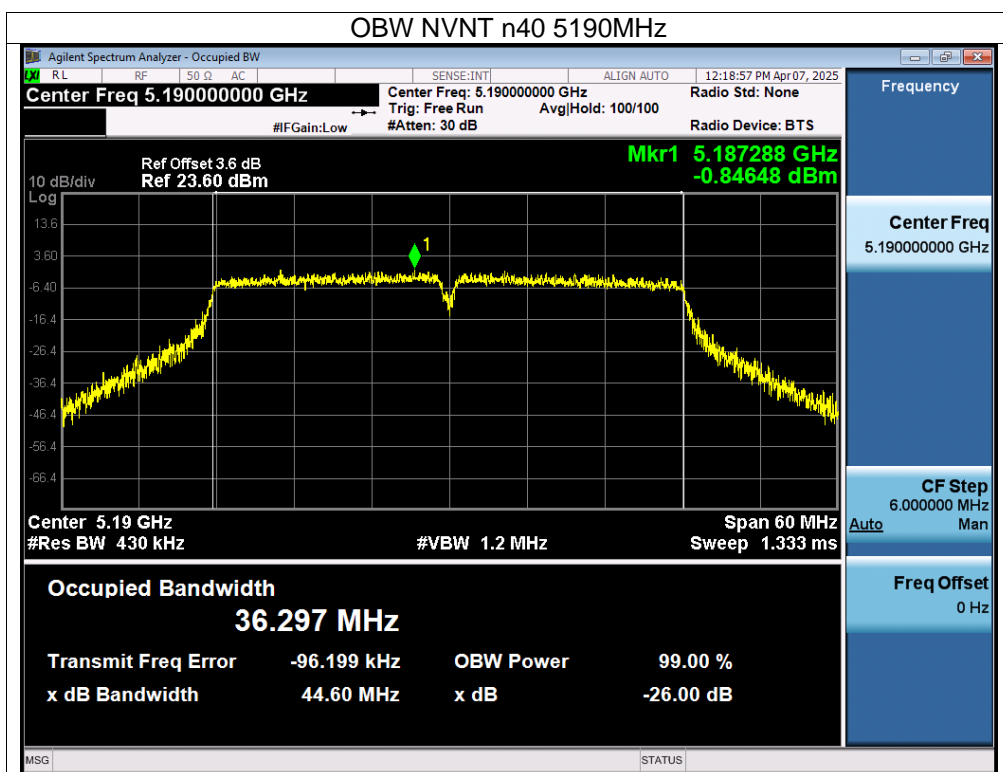


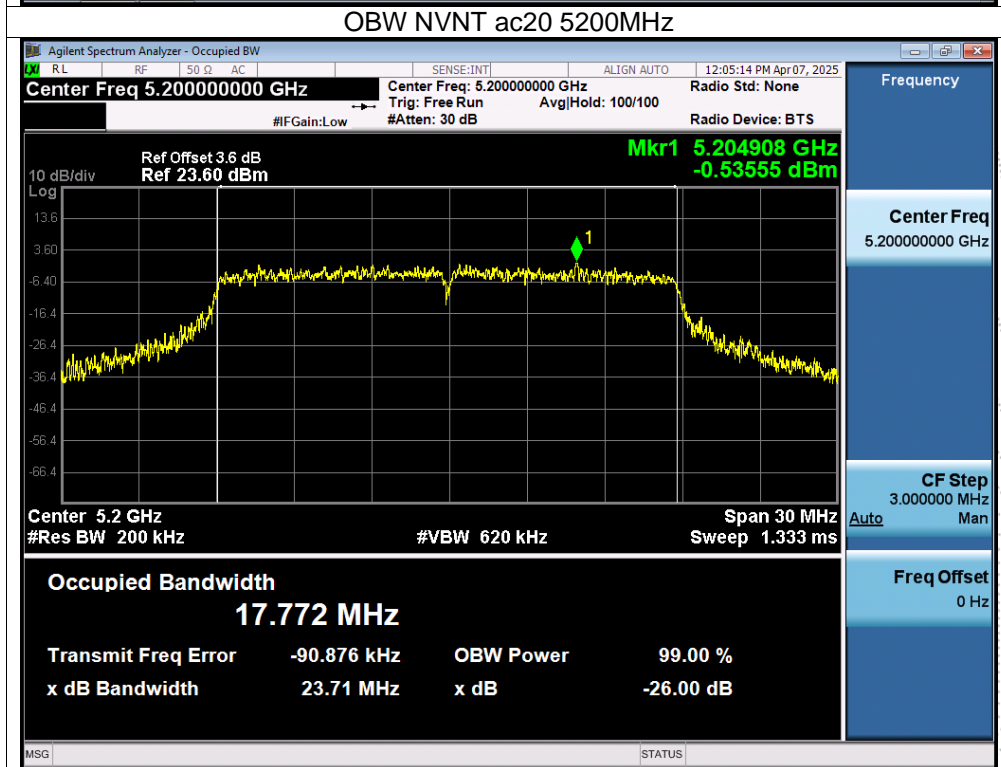
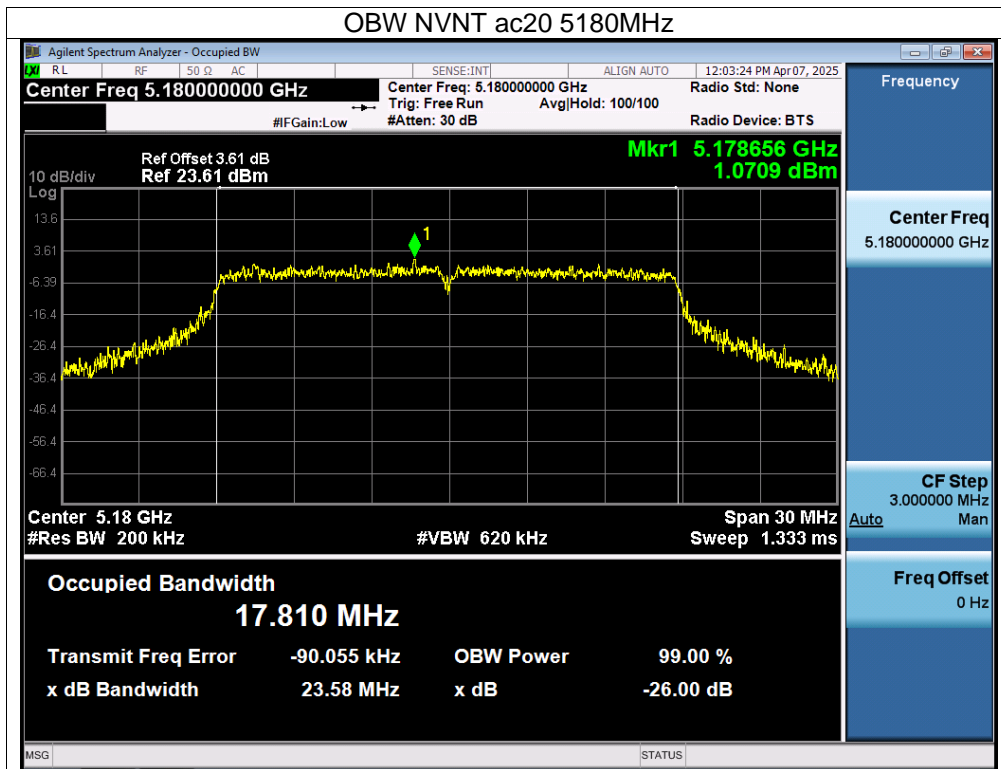


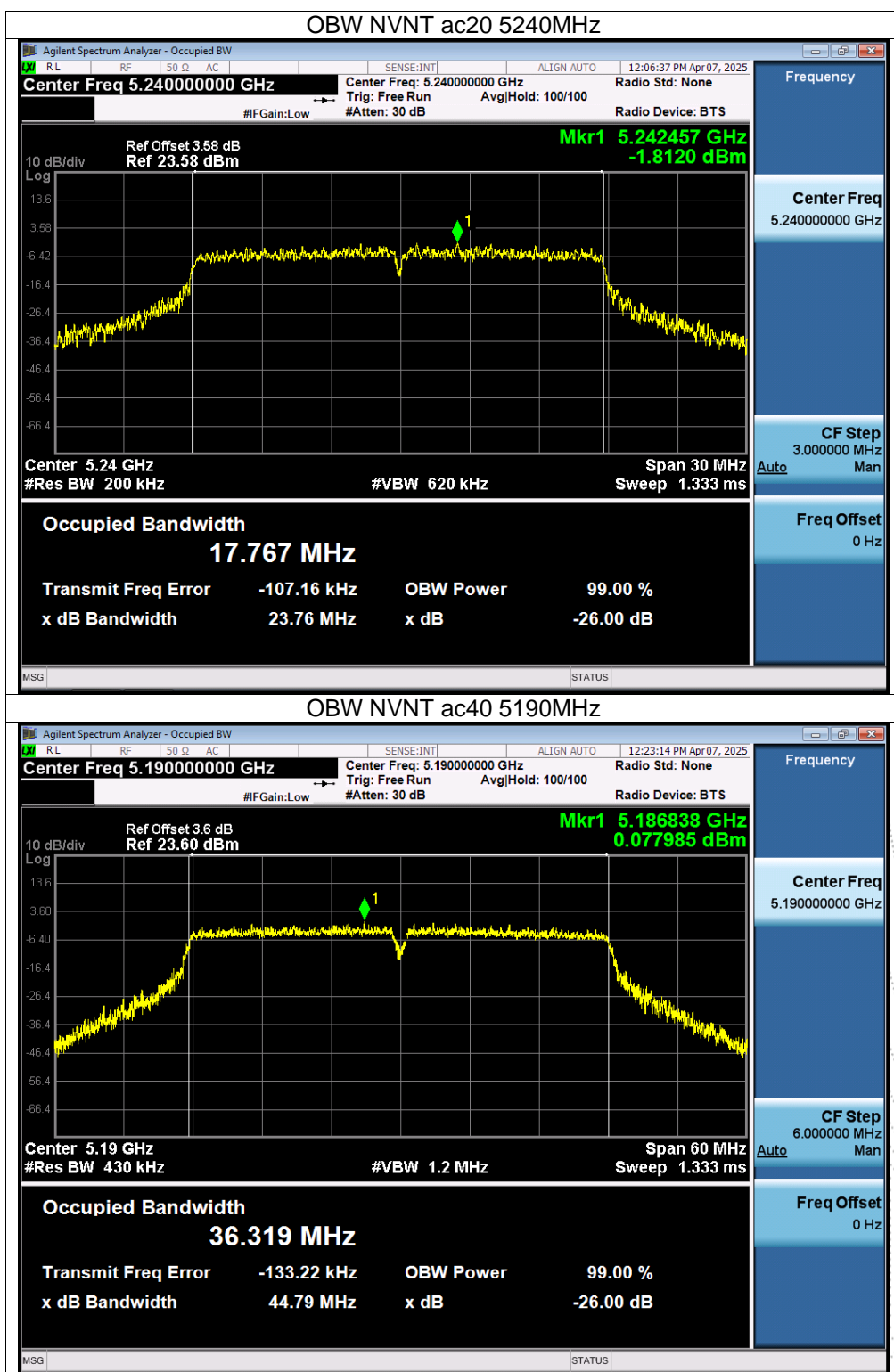


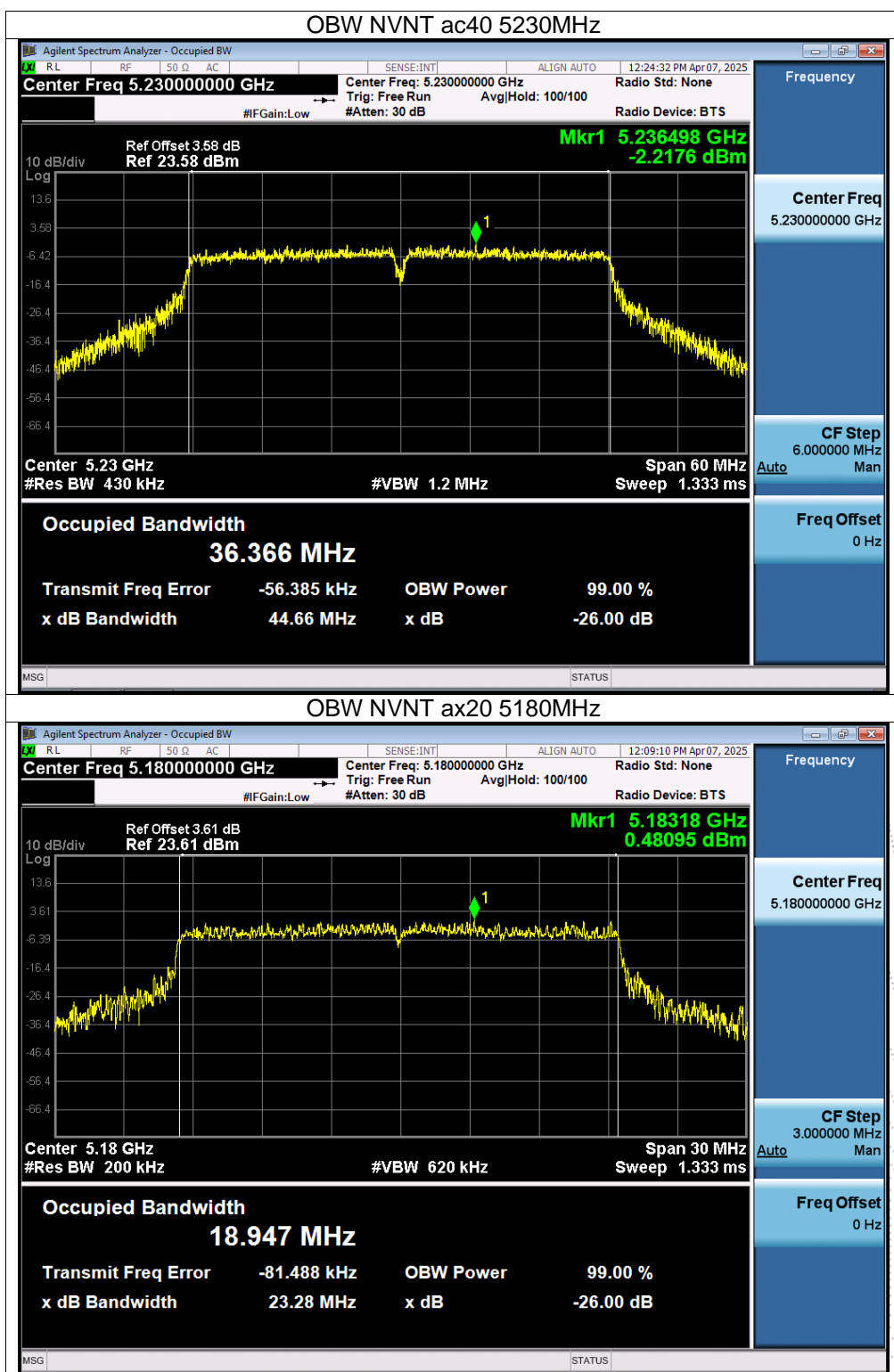


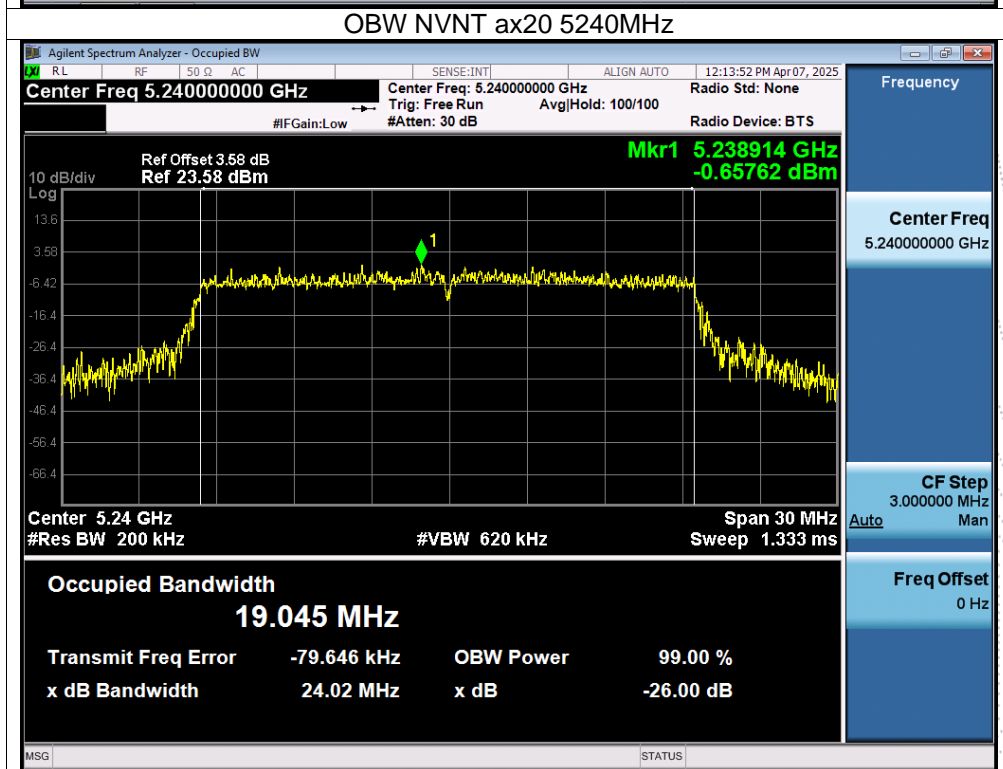
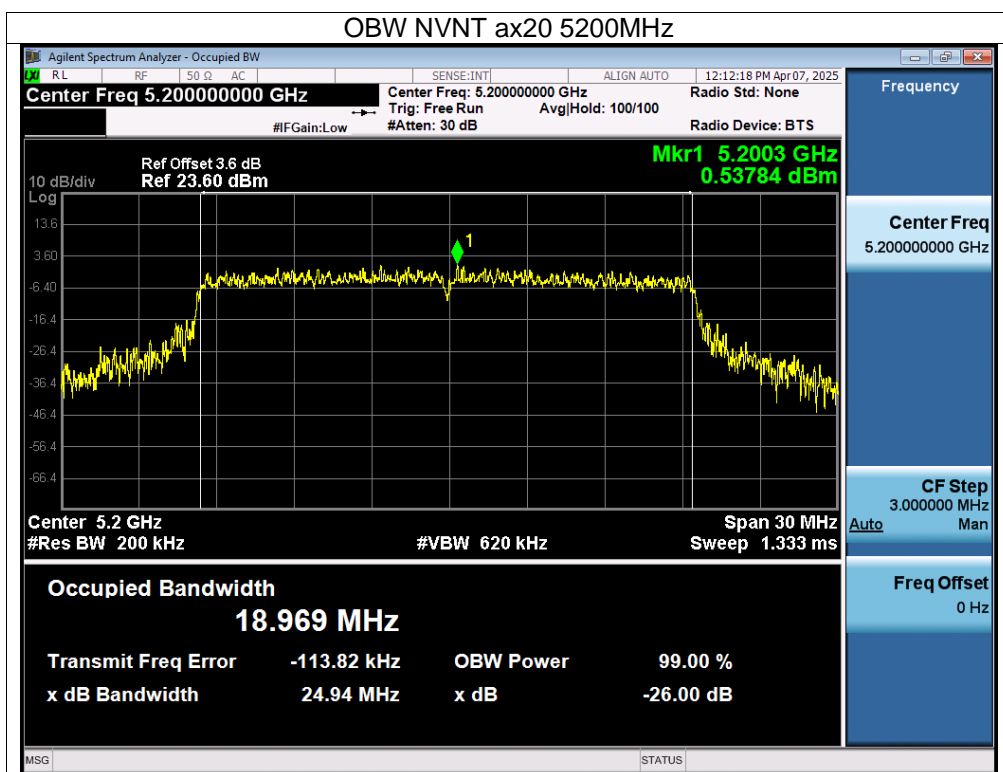


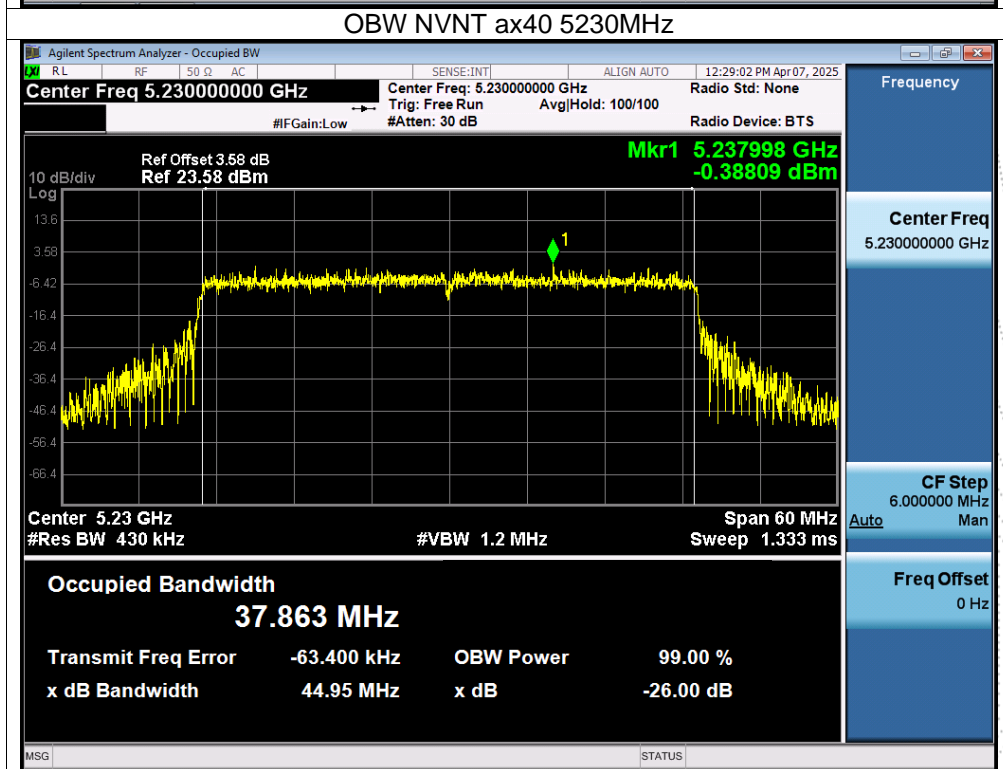
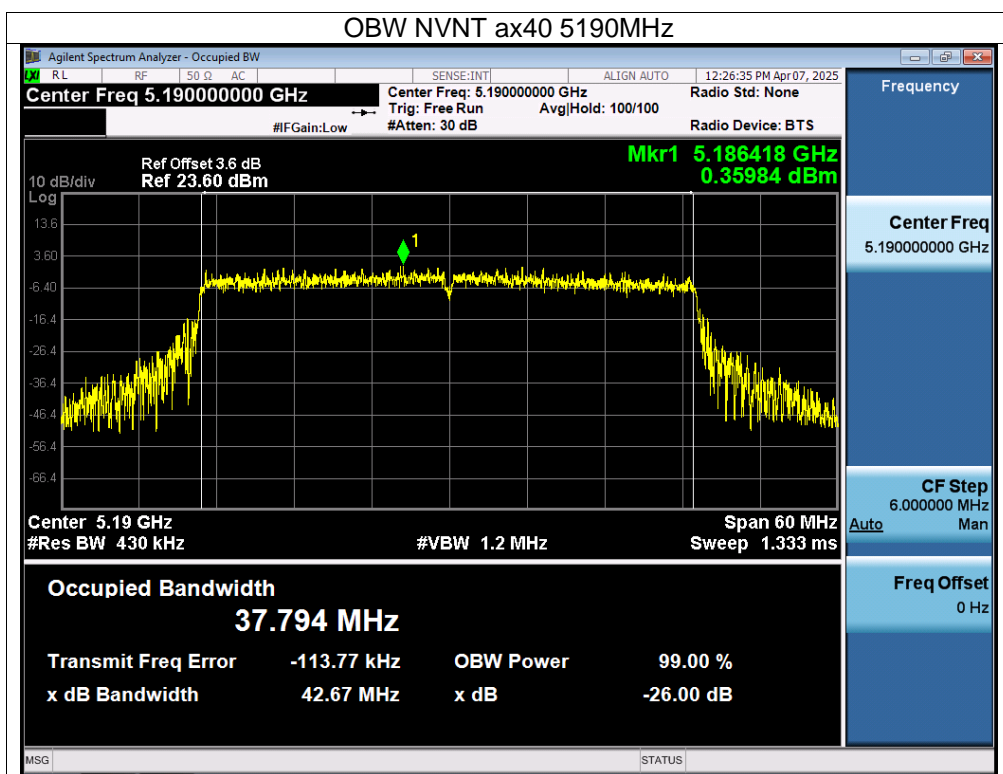








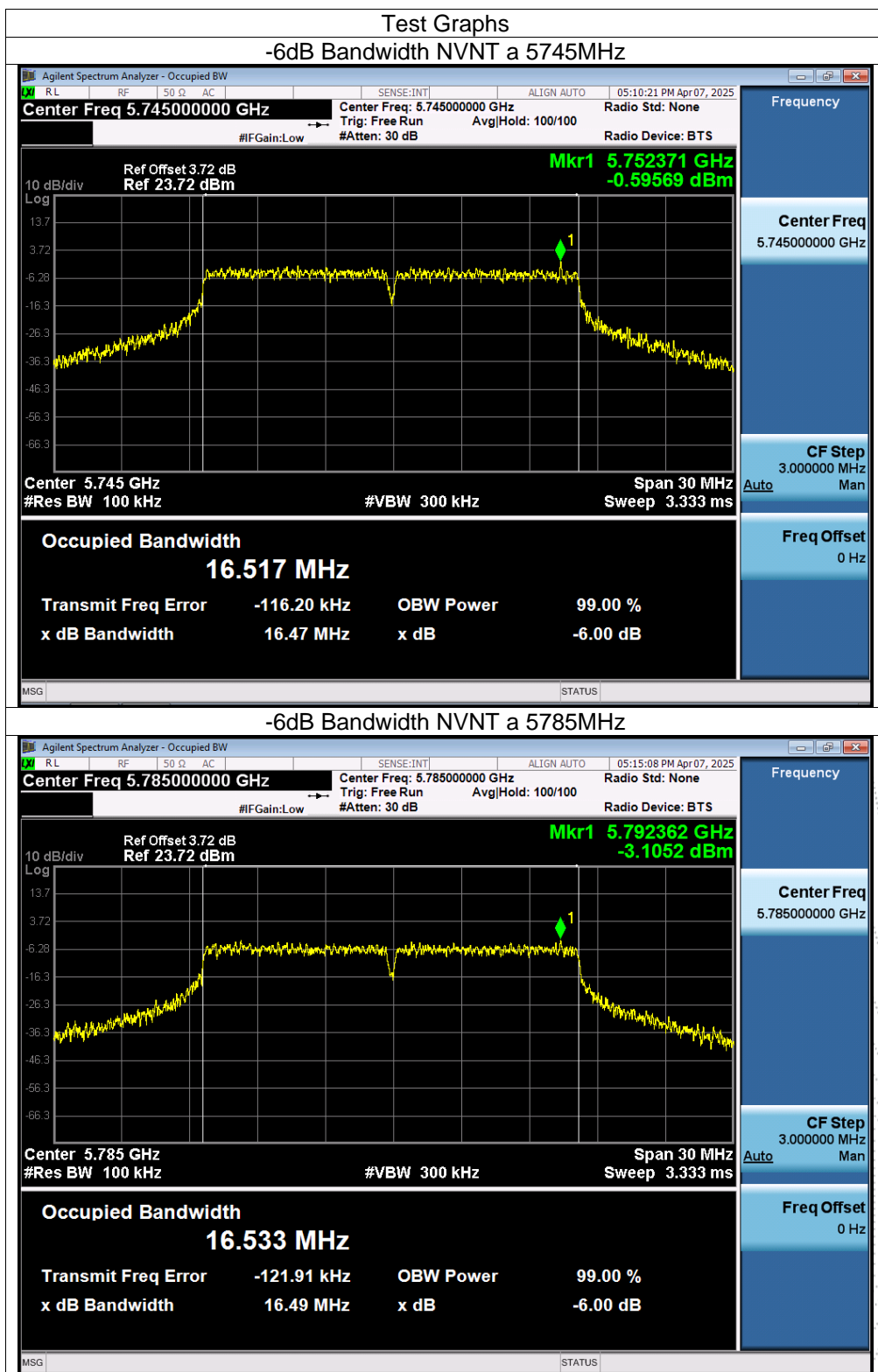


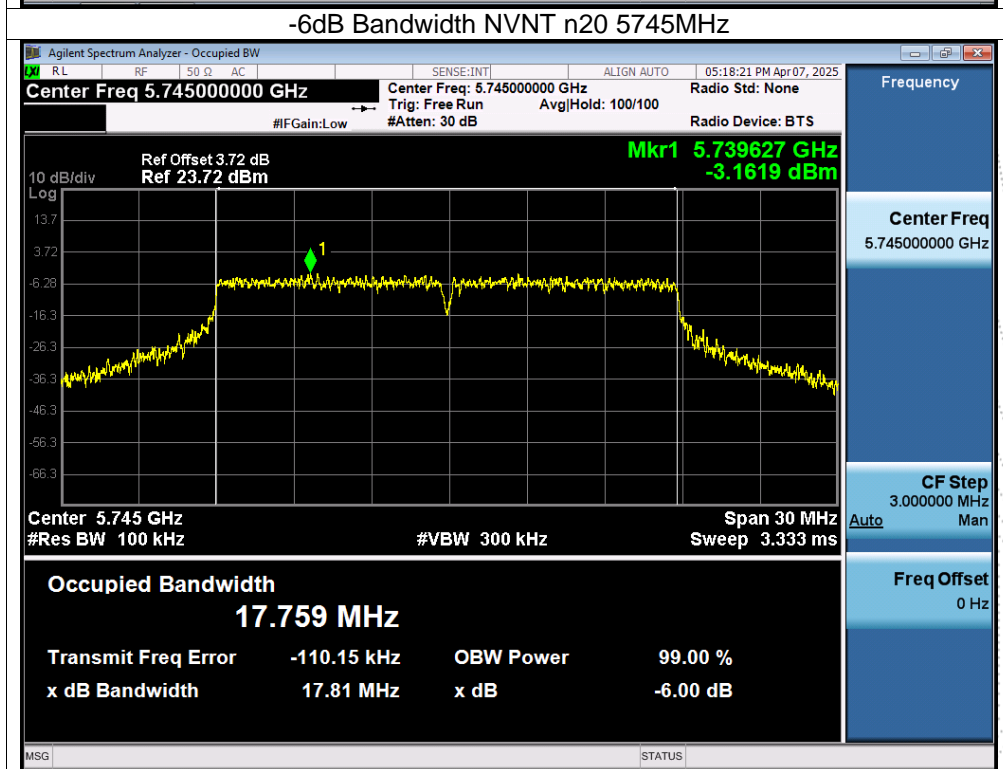
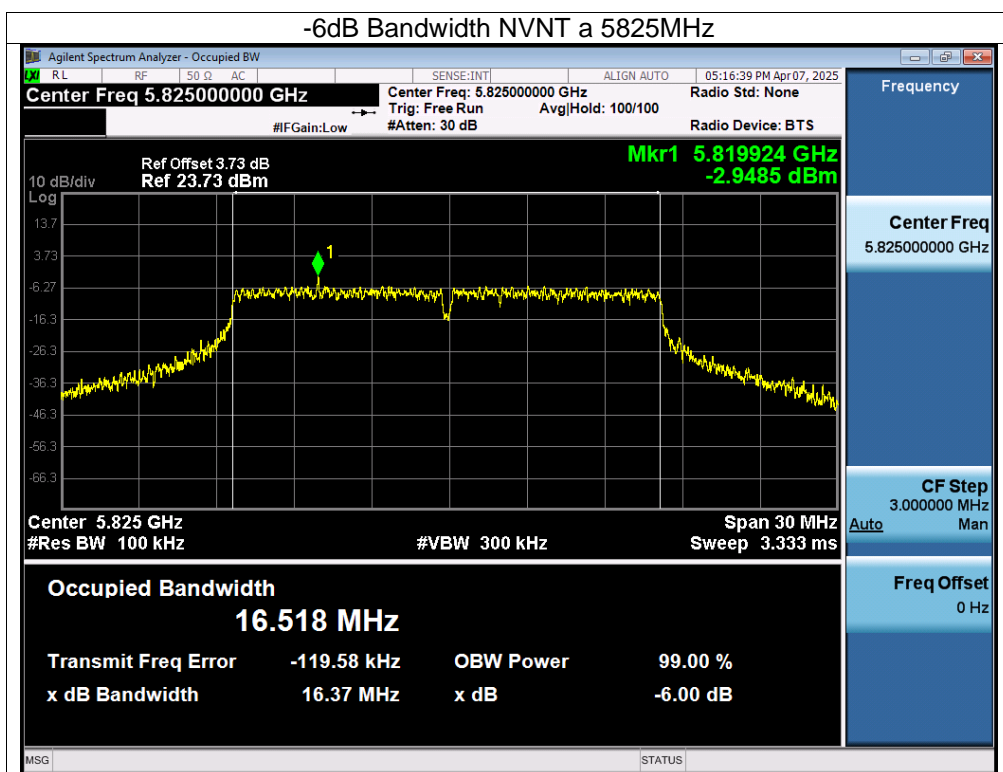


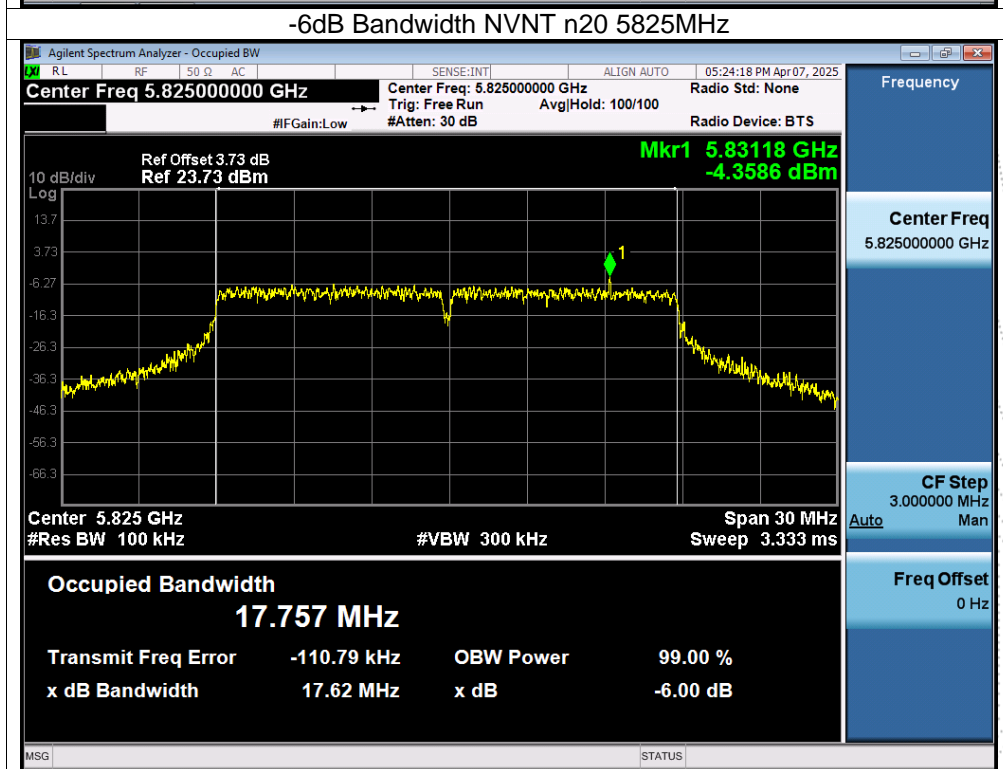
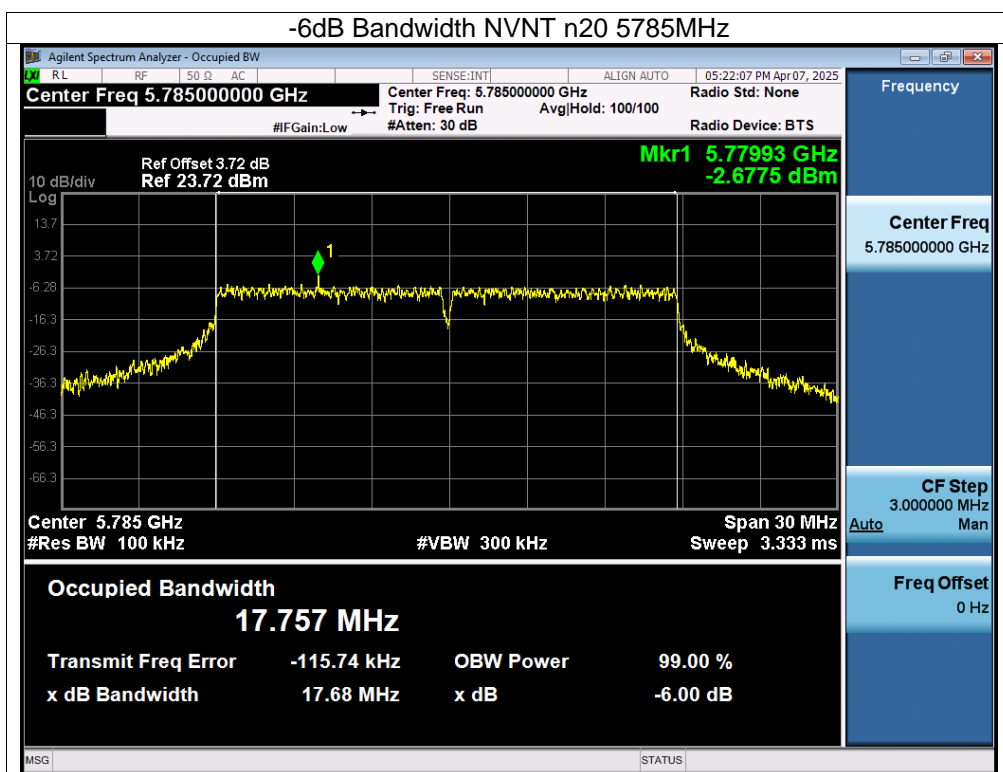
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	AC 120V/60Hz
Test Mode :	TX Frequency U-NII-3(5745-5825MHz)		

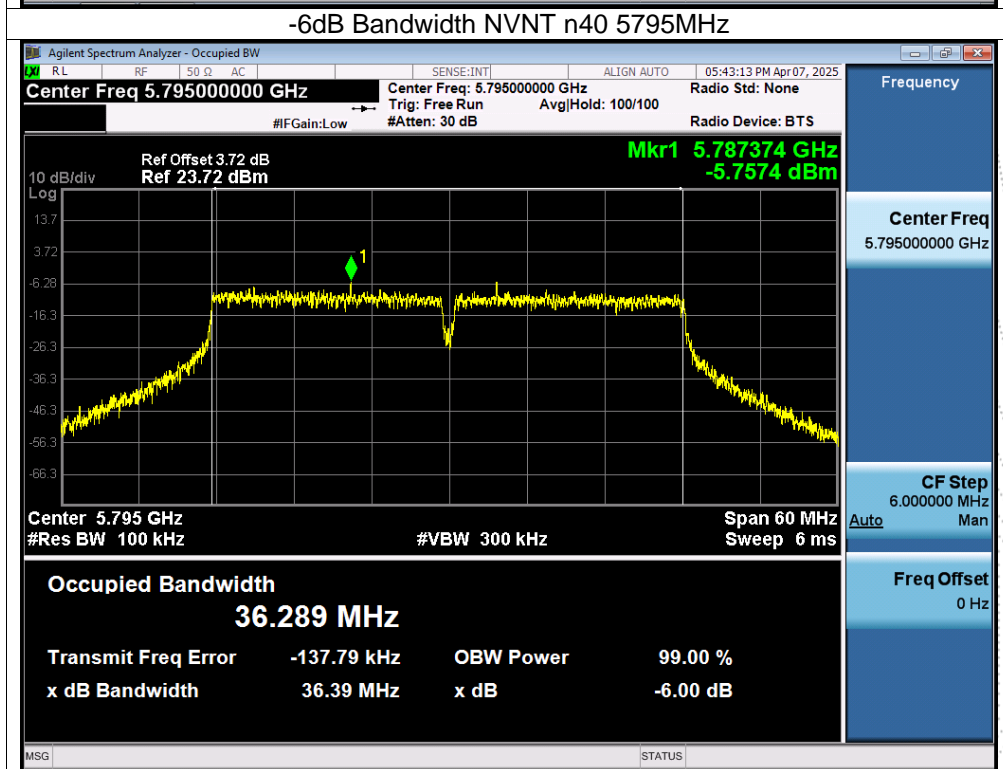
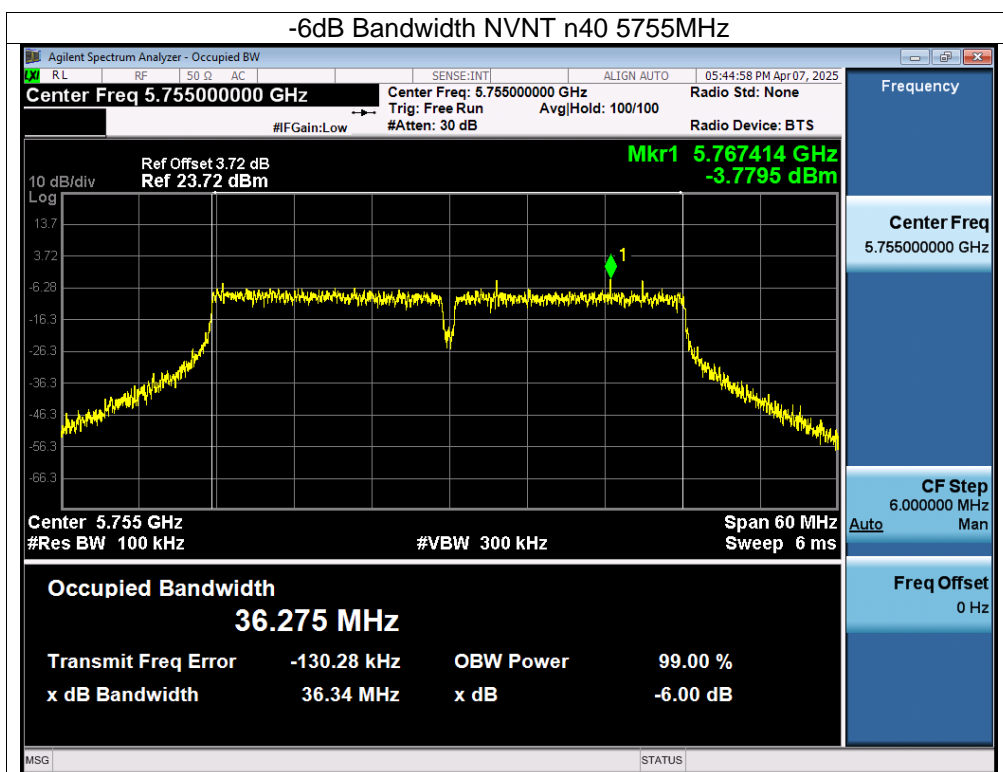
Condition	Mode	Frequency (MHz)	99% bandwidth (MHz)	-6dB bandwidth (MHz)	Limit -6dB bandwidth (MHz)	Result
NVNT	a	5745	16.658	16.473	0.5	Pass
NVNT	a	5785	16.68	16.487	0.5	Pass
NVNT	a	5825	16.723	16.369	0.5	Pass
NVNT	n20	5745	17.885	17.81	0.5	Pass
NVNT	n20	5785	17.922	17.684	0.5	Pass
NVNT	n20	5825	17.858	17.622	0.5	Pass
NVNT	n40	5755	36.446	36.339	0.5	Pass
NVNT	n40	5795	36.418	36.391	0.5	Pass
NVNT	ac20	5745	17.92	17.571	0.5	Pass
NVNT	ac20	5785	17.9	17.665	0.5	Pass
NVNT	ac20	5825	17.915	17.801	0.5	Pass
NVNT	ac40	5755	36.445	36.335	0.5	Pass
NVNT	ac40	5795	36.451	36.301	0.5	Pass
NVNT	ax20	5745	17.928	17.581	0.5	Pass
NVNT	ax20	5785	17.89	17.642	0.5	Pass
NVNT	ax20	5825	17.868	17.777	0.5	Pass
NVNT	ax40	5755	37.867	37.467	0.5	Pass
NVNT	ax40	5795	37.907	36.781	0.5	Pass

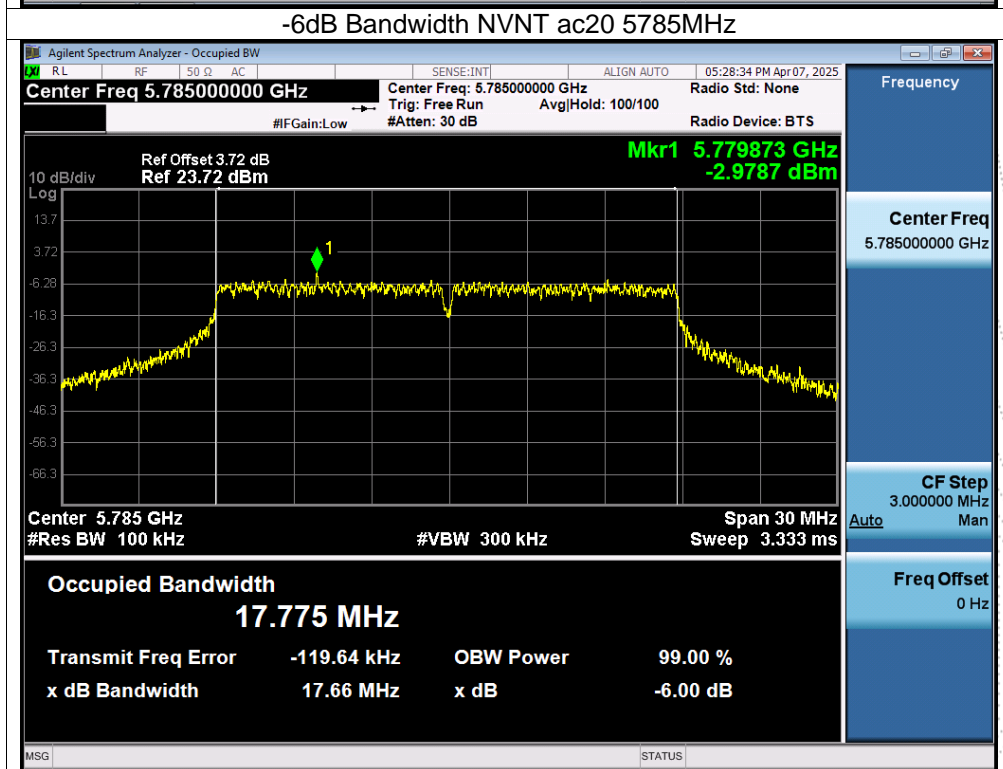
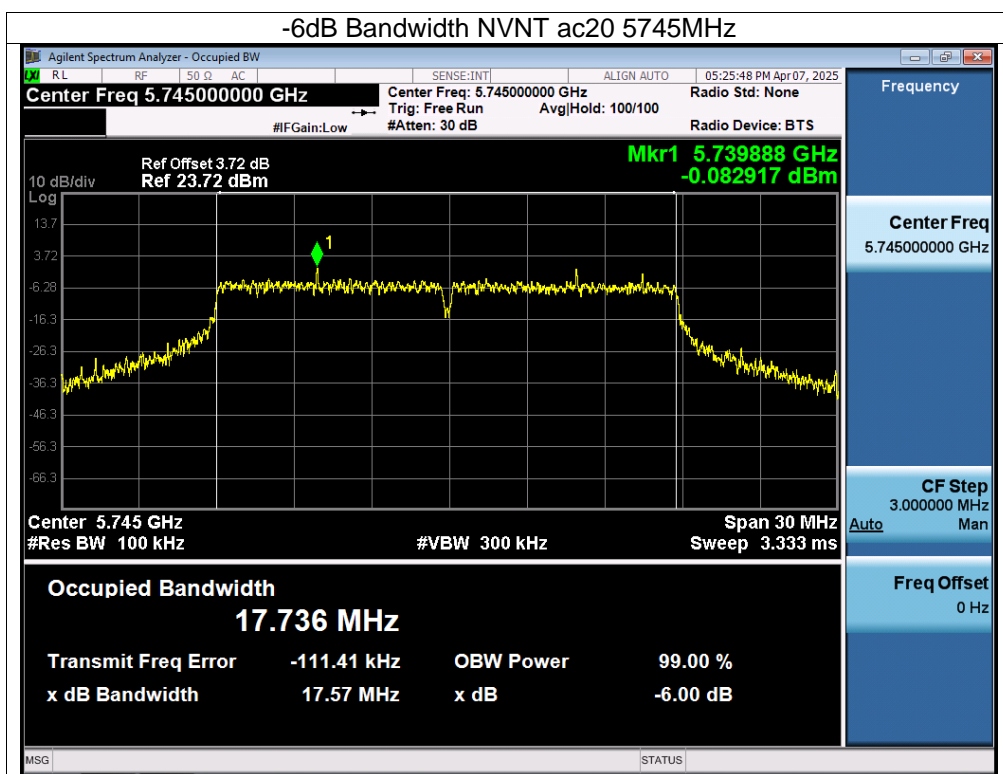
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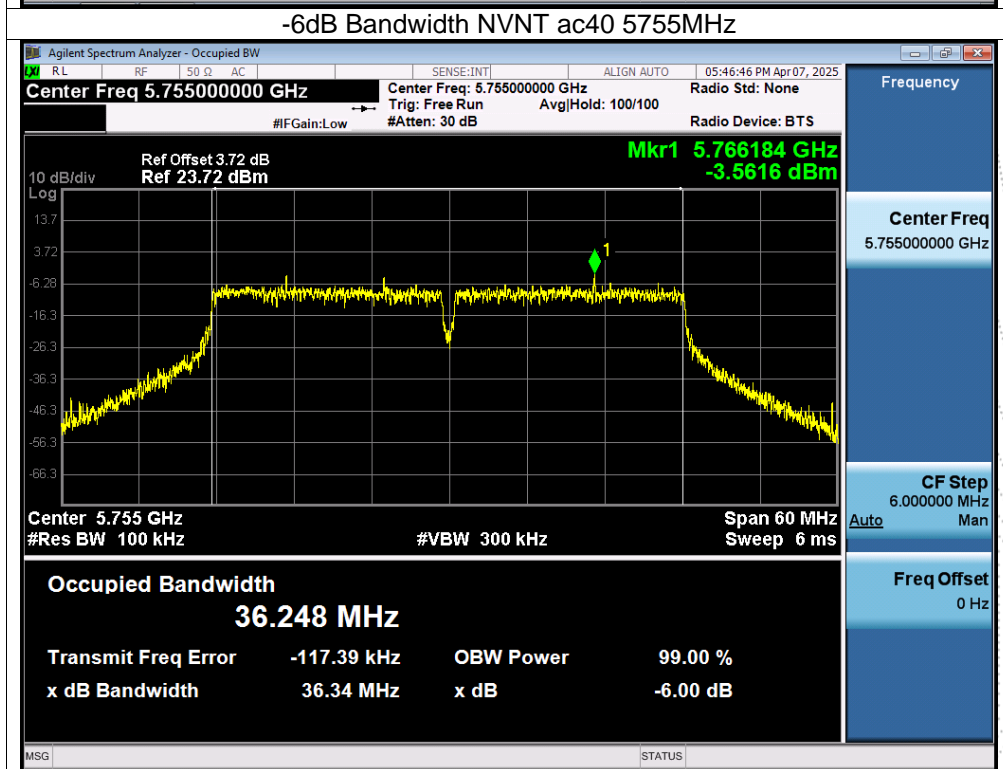
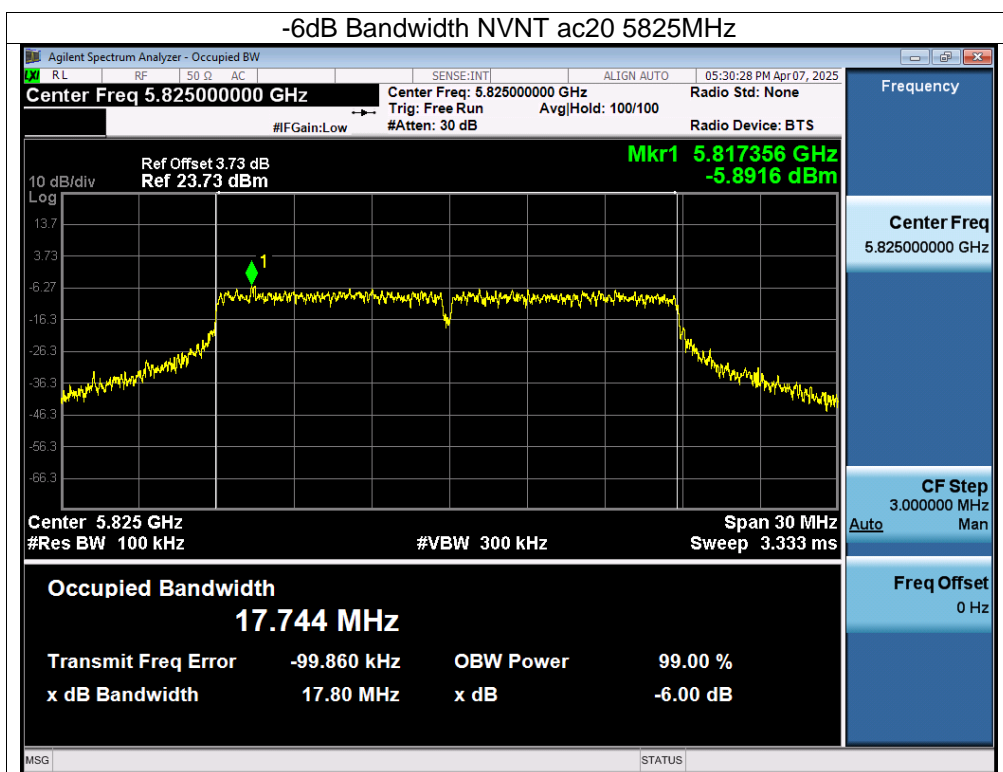


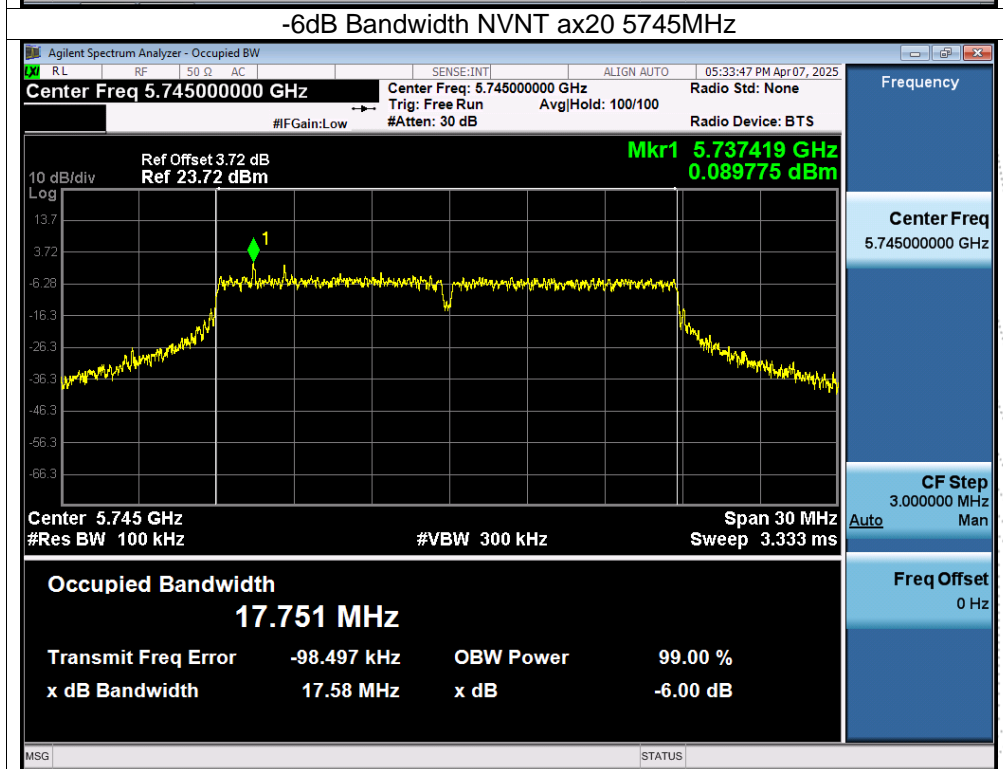
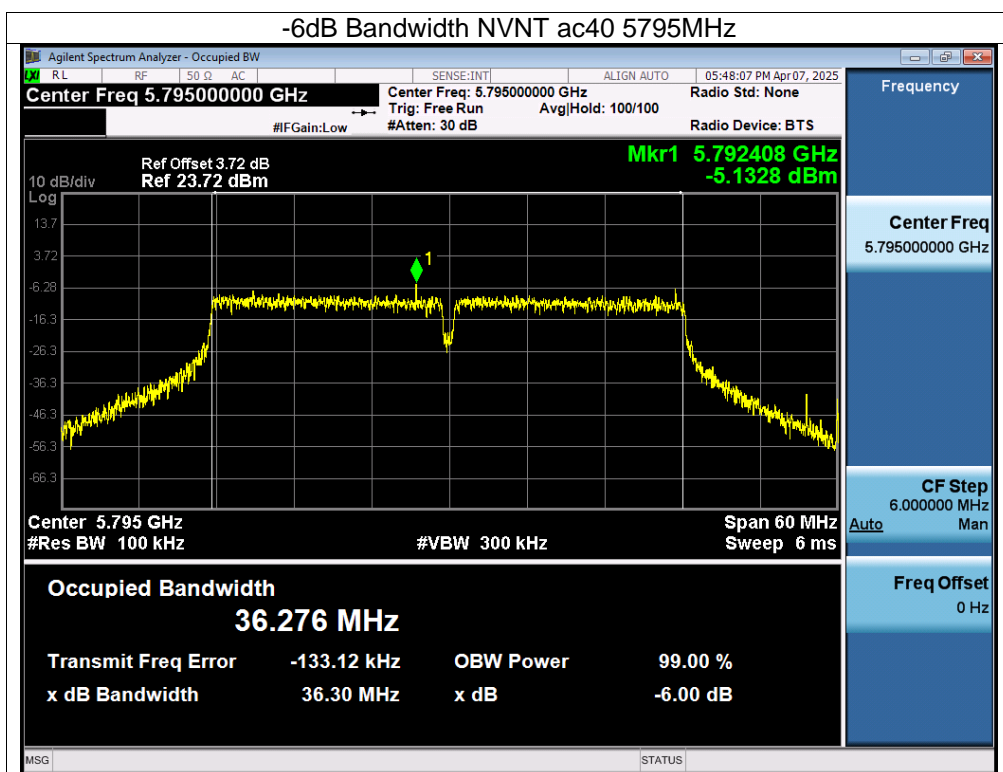


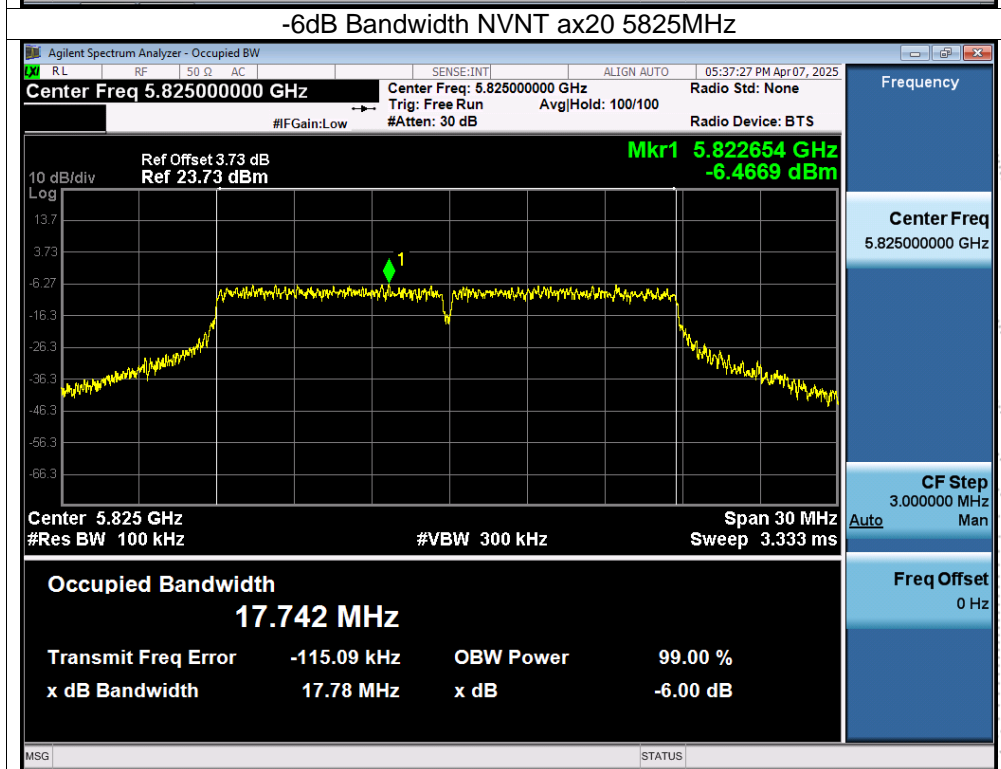
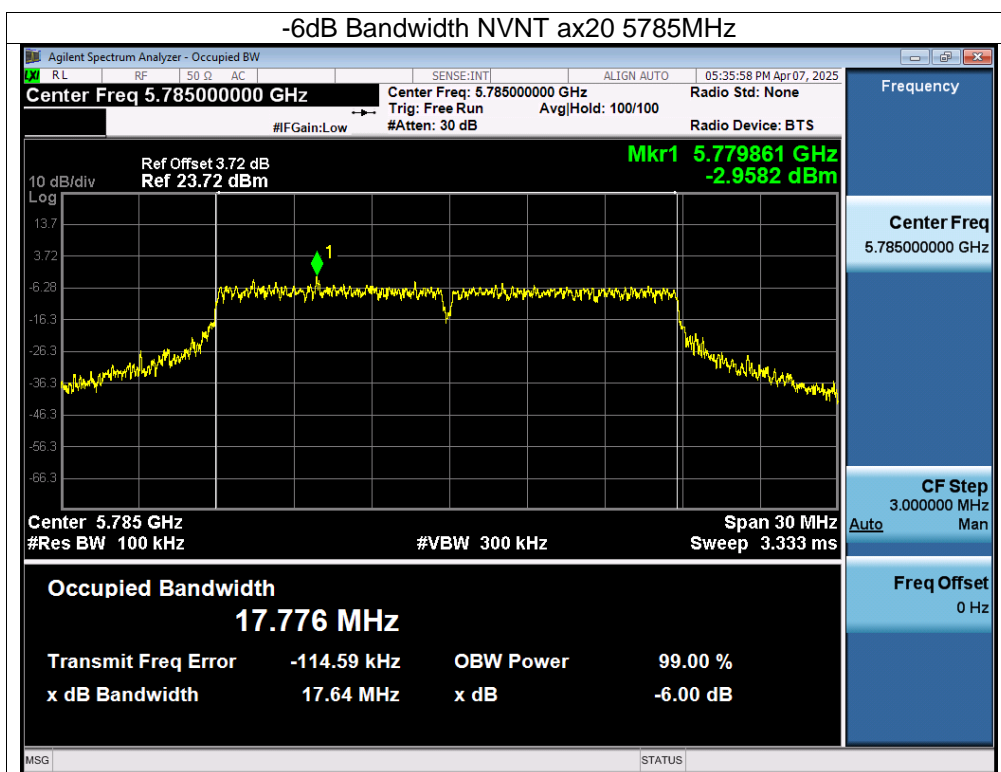


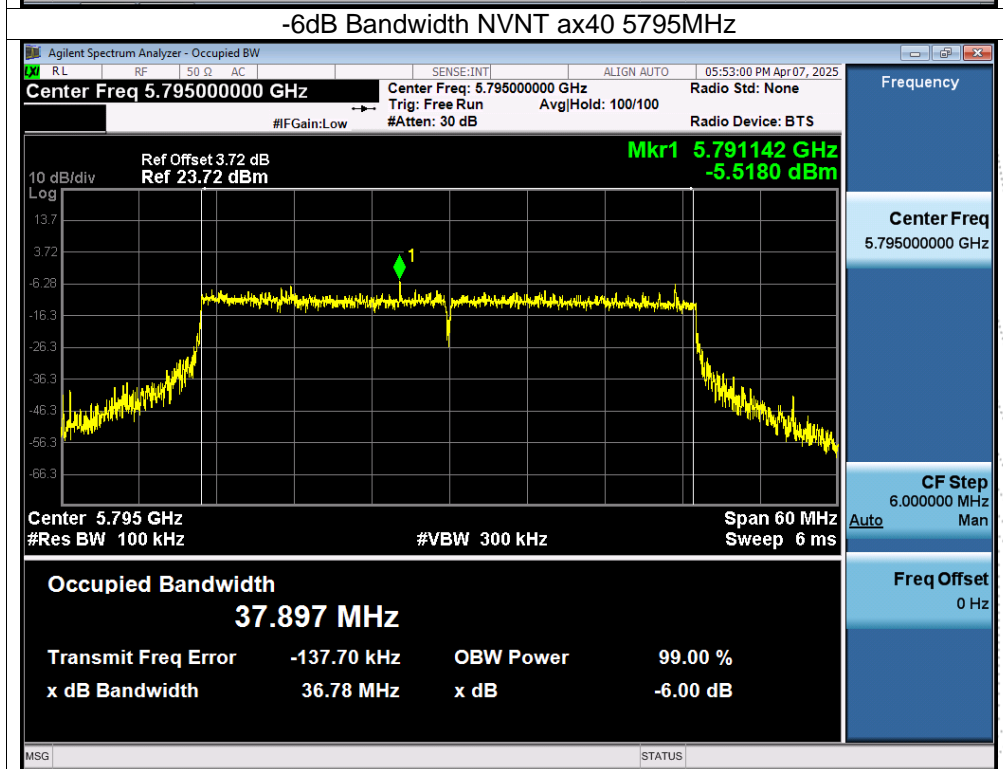
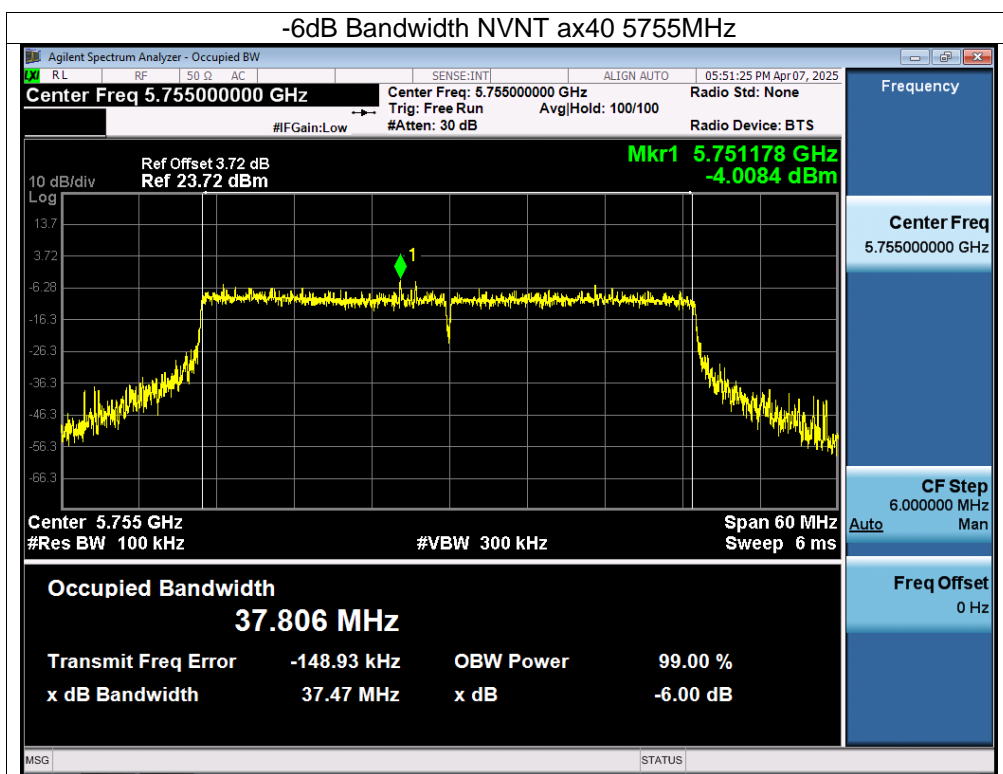


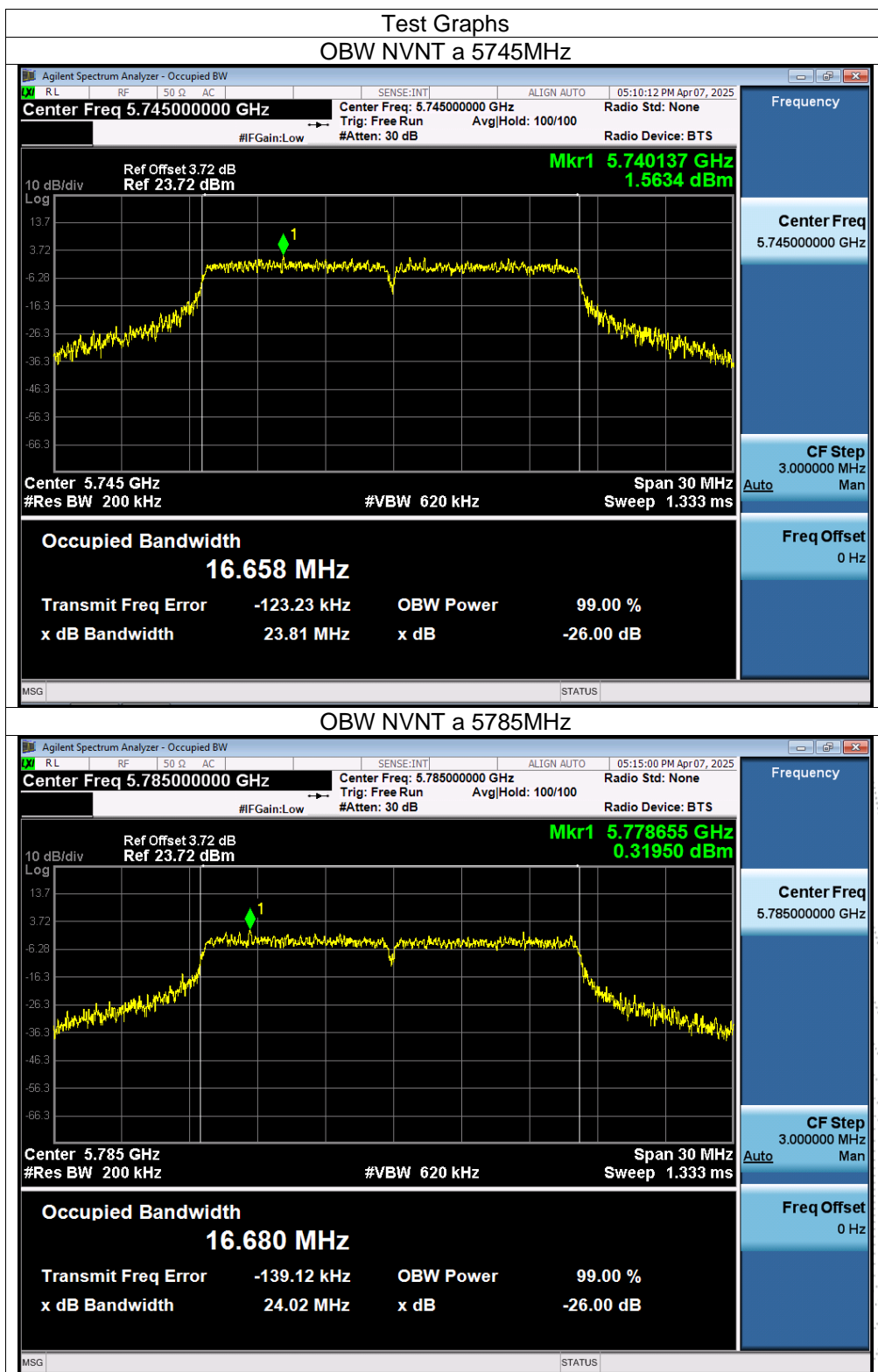


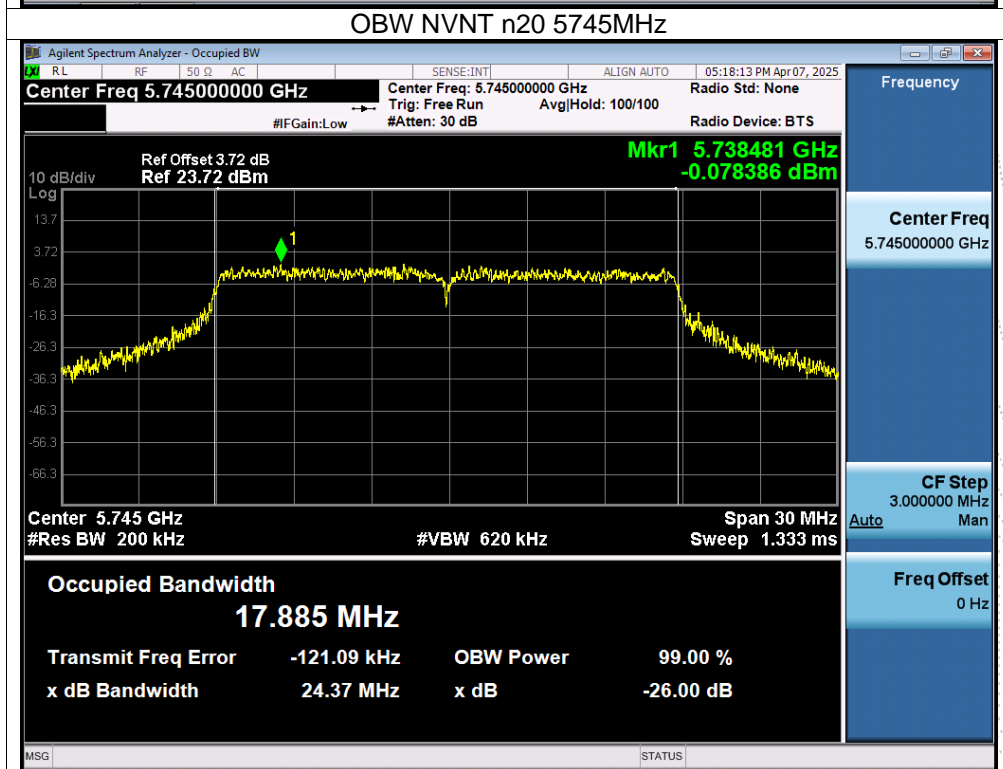
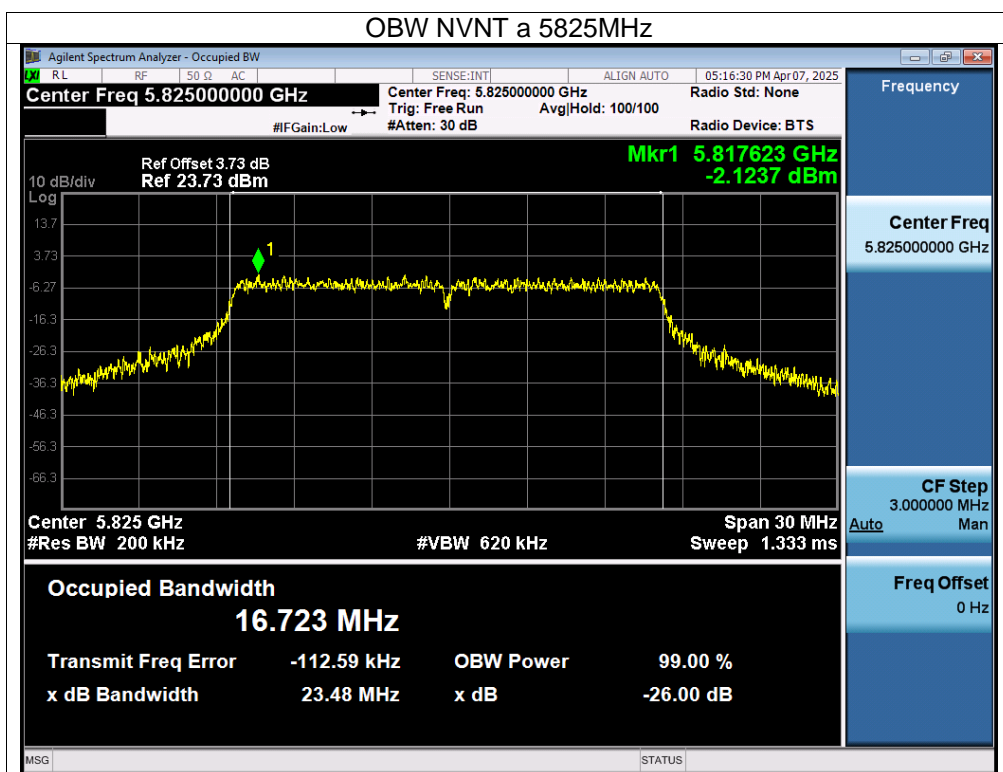












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