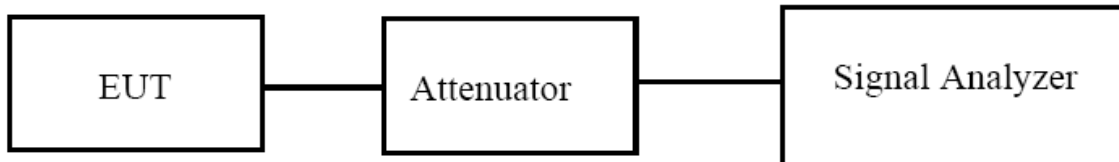


9. 26dB & 6dB & 99% Emission Bandwidth

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.

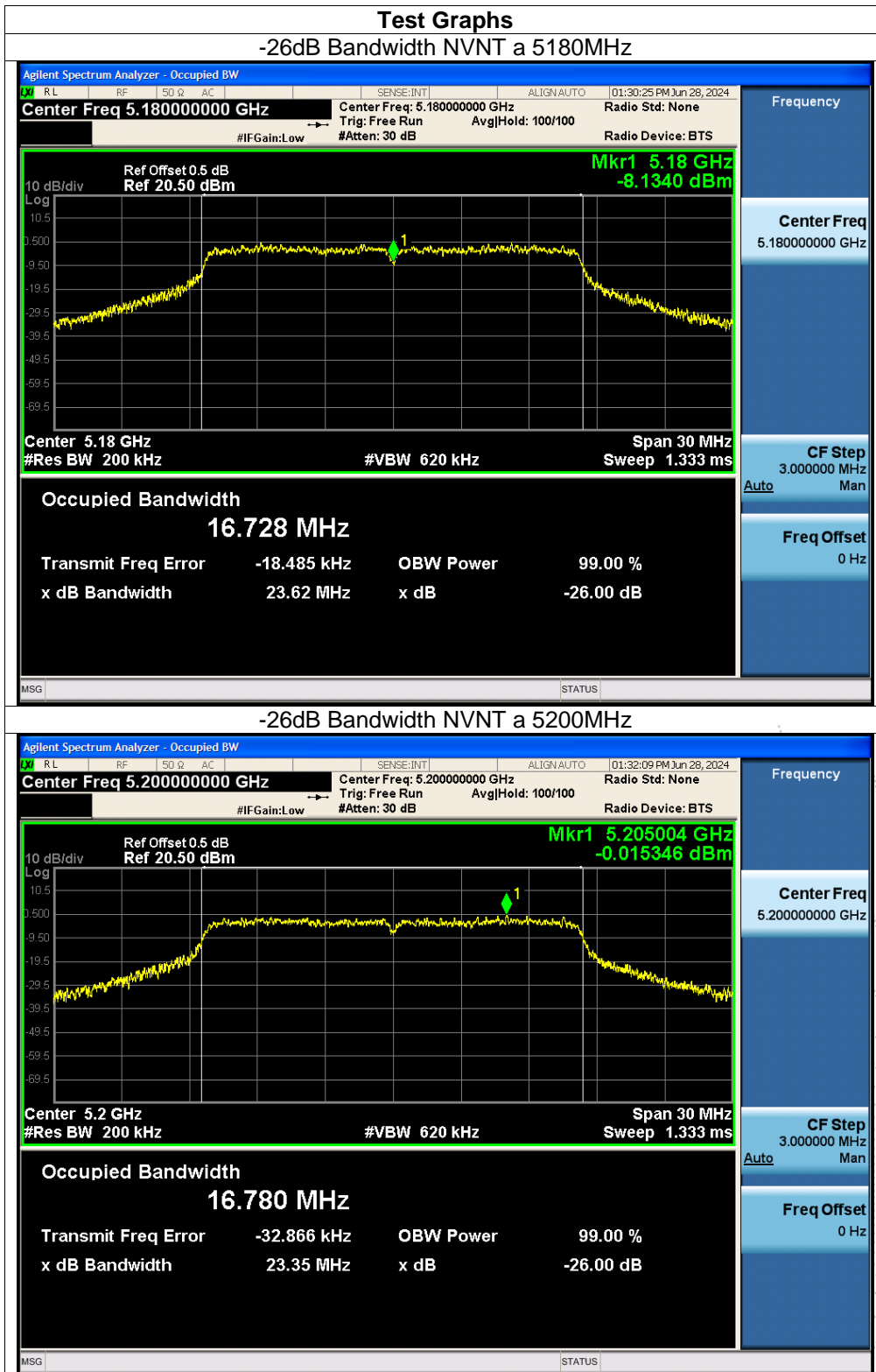
9.4 EUT Operating Conditions

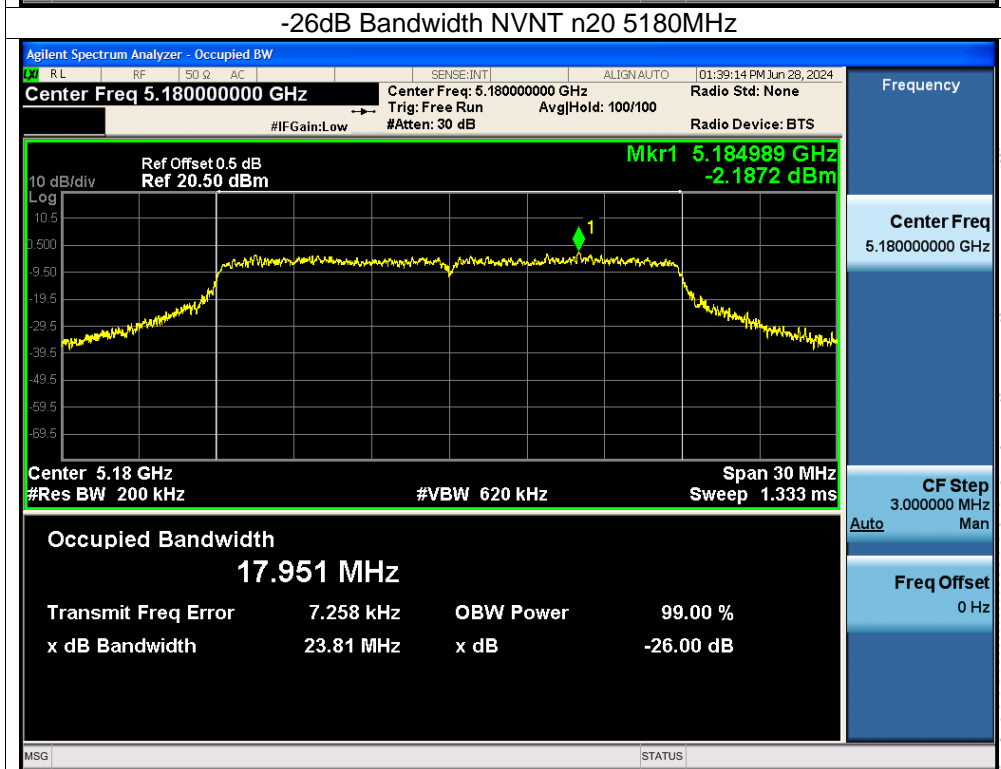
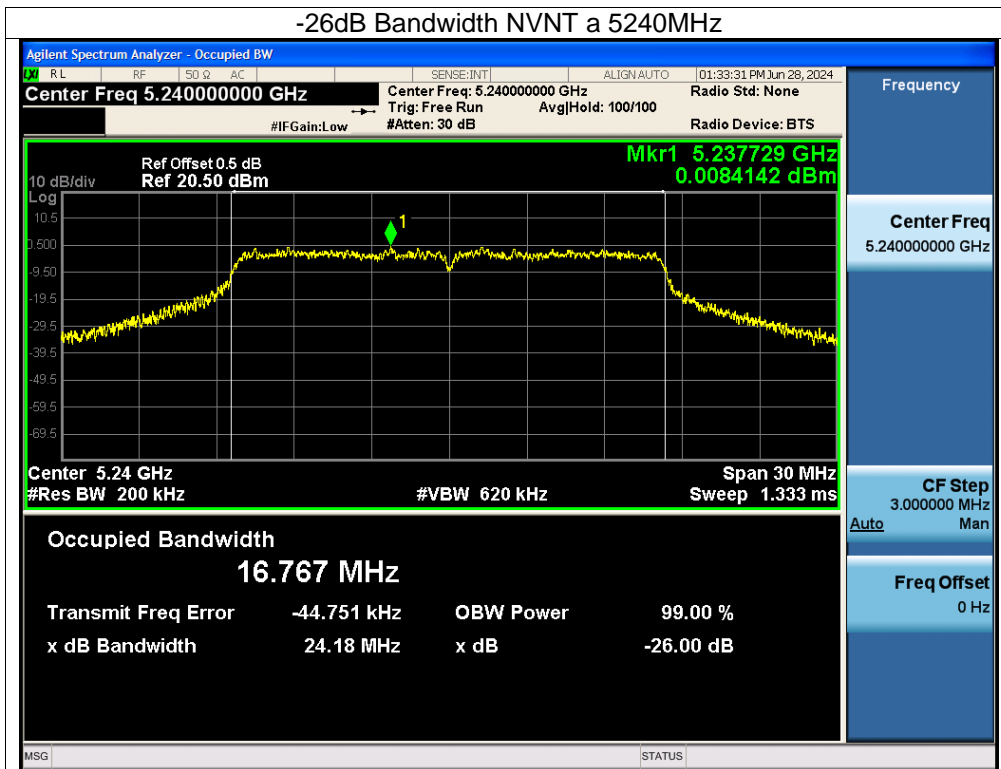
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

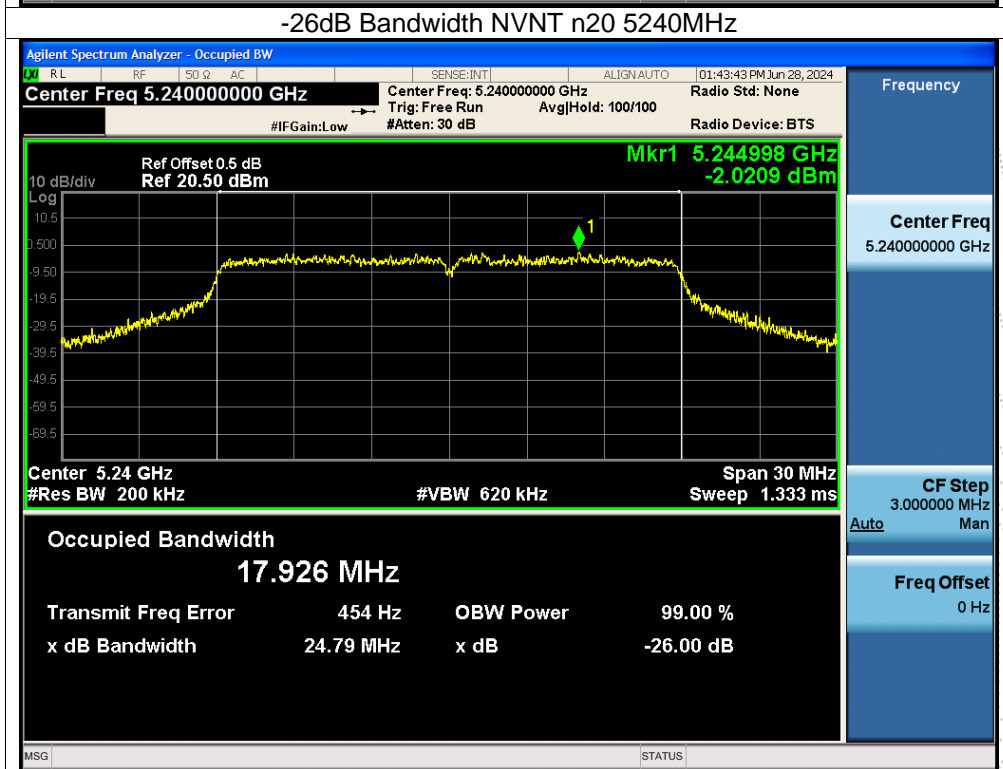
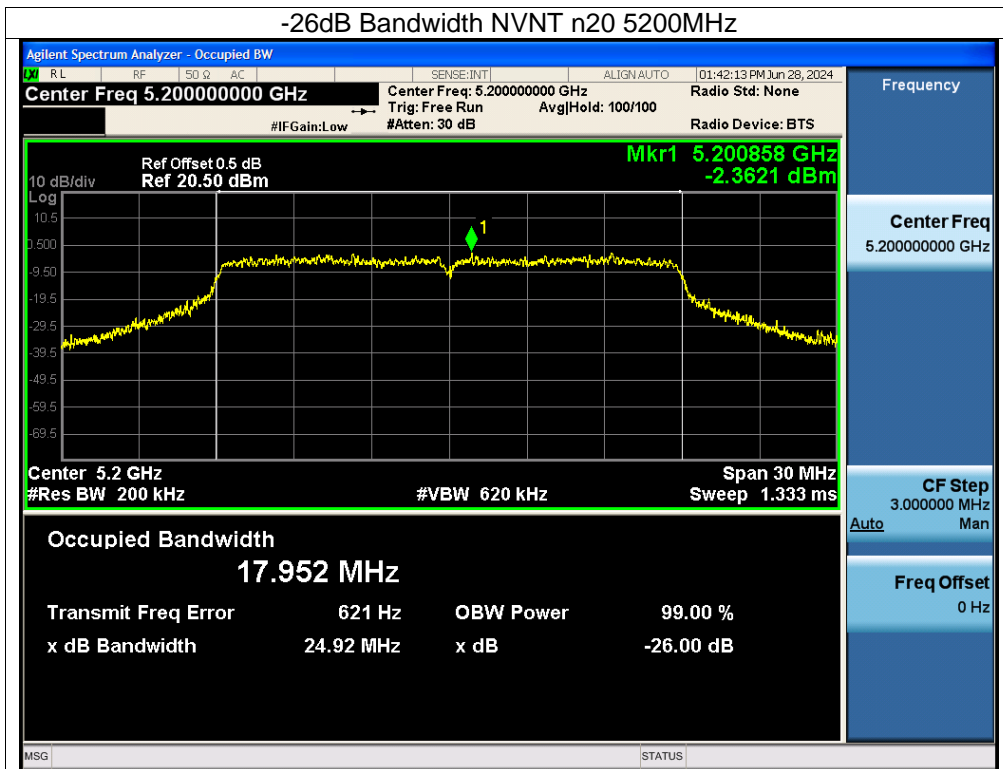
9.5 Test Result

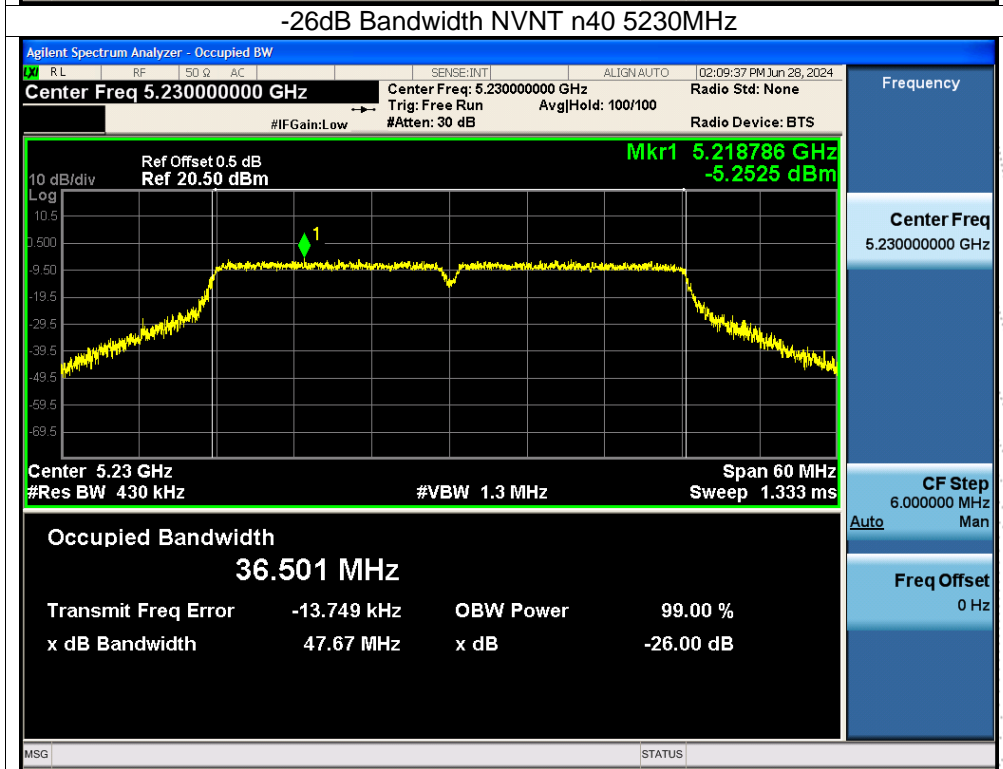
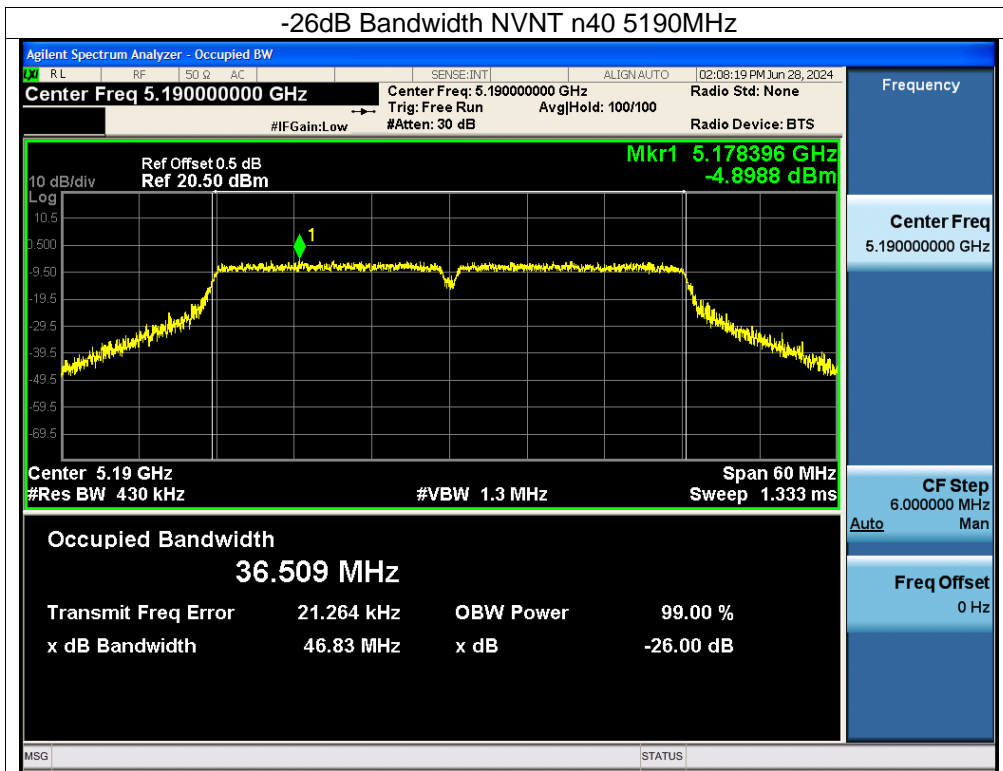
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(5180-5240MHz)		

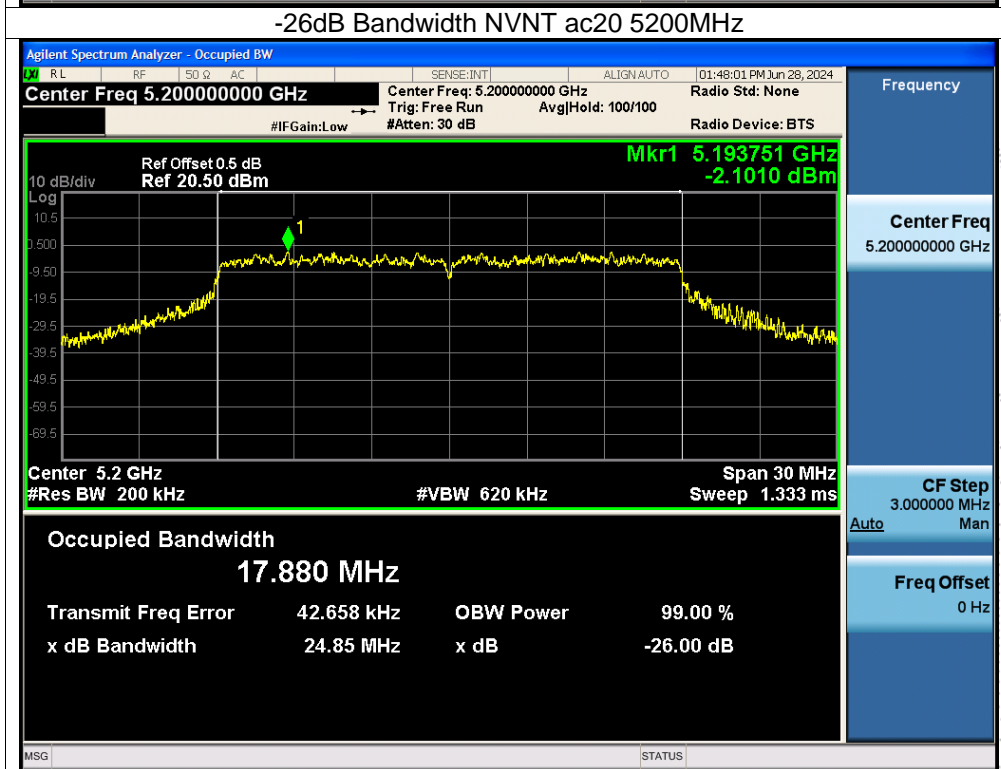
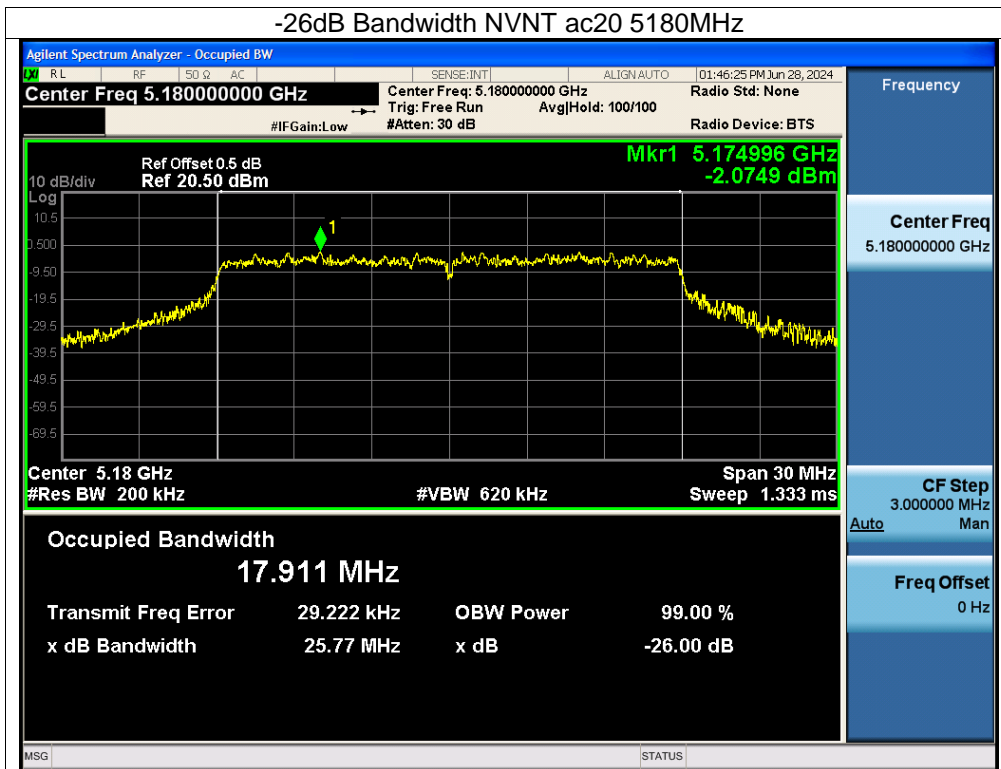
Condition	Mode	Frequency (MHz)	99% bandwidth (MHz)	26dB bandwidth (MHz)	Result
NVNT	a	5180	16.755	23.624	Pass
NVNT	a	5200	16.761	23.348	Pass
NVNT	a	5240	16.764	24.184	Pass
NVNT	n20	5180	17.915	23.81	Pass
NVNT	n20	5200	17.929	24.921	Pass
NVNT	n20	5240	17.916	24.793	Pass
NVNT	n40	5190	36.559	46.83	Pass
NVNT	n40	5230	36.493	47.67	Pass
NVNT	ac20	5180	17.838	25.766	Pass
NVNT	ac20	5200	17.869	24.851	Pass
NVNT	ac20	5240	17.863	25.123	Pass
NVNT	ac40	5190	36.496	47.923	Pass
NVNT	ac40	5230	36.503	47.401	Pass
NVNT	ax20	5180	19.104	24.008	Pass
NVNT	ax20	5200	19.085	24.746	Pass
NVNT	ax20	5240	19.078	25.179	Pass
NVNT	ax40	5190	37.908	45.522	Pass
NVNT	ax40	5230	37.881	44.73	Pass

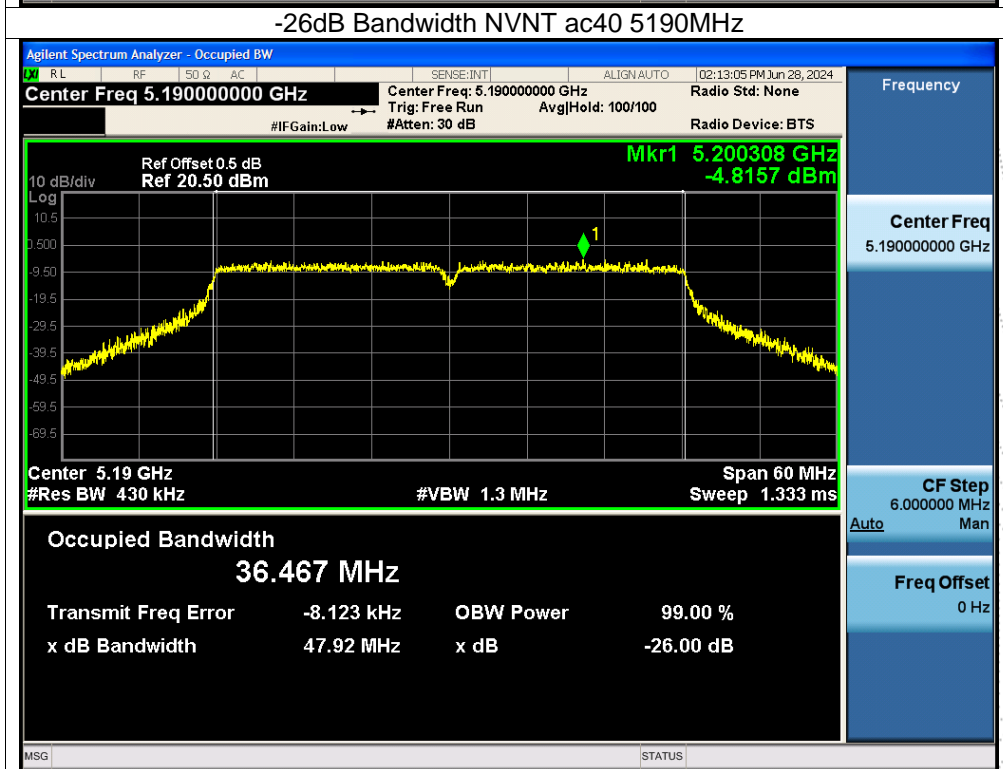
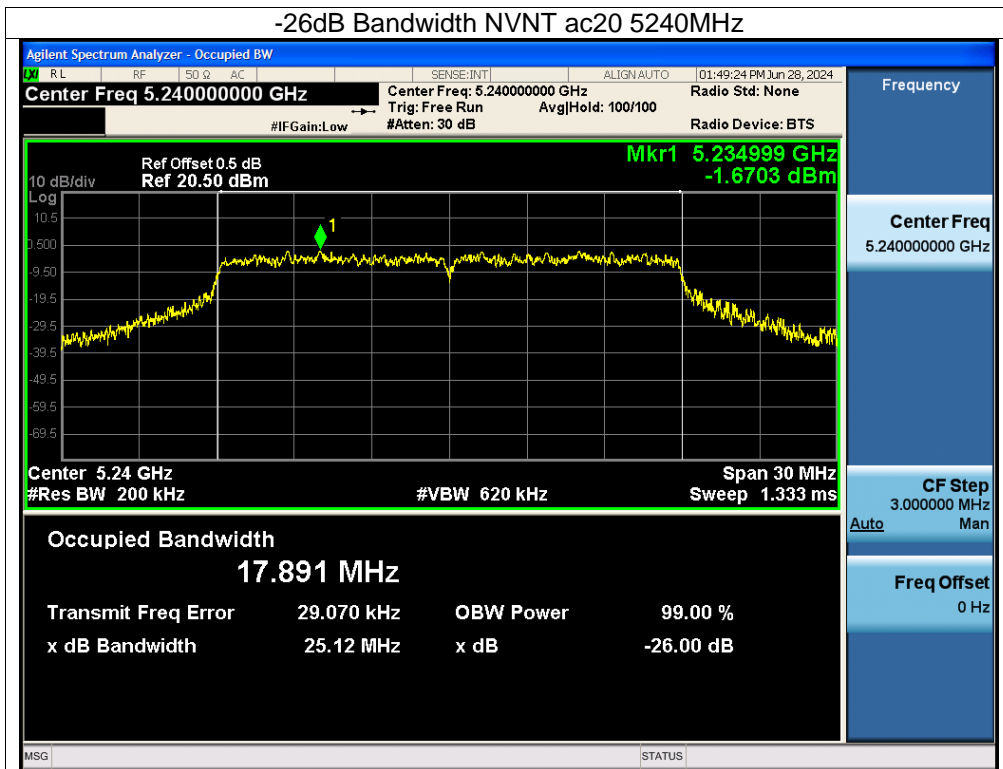


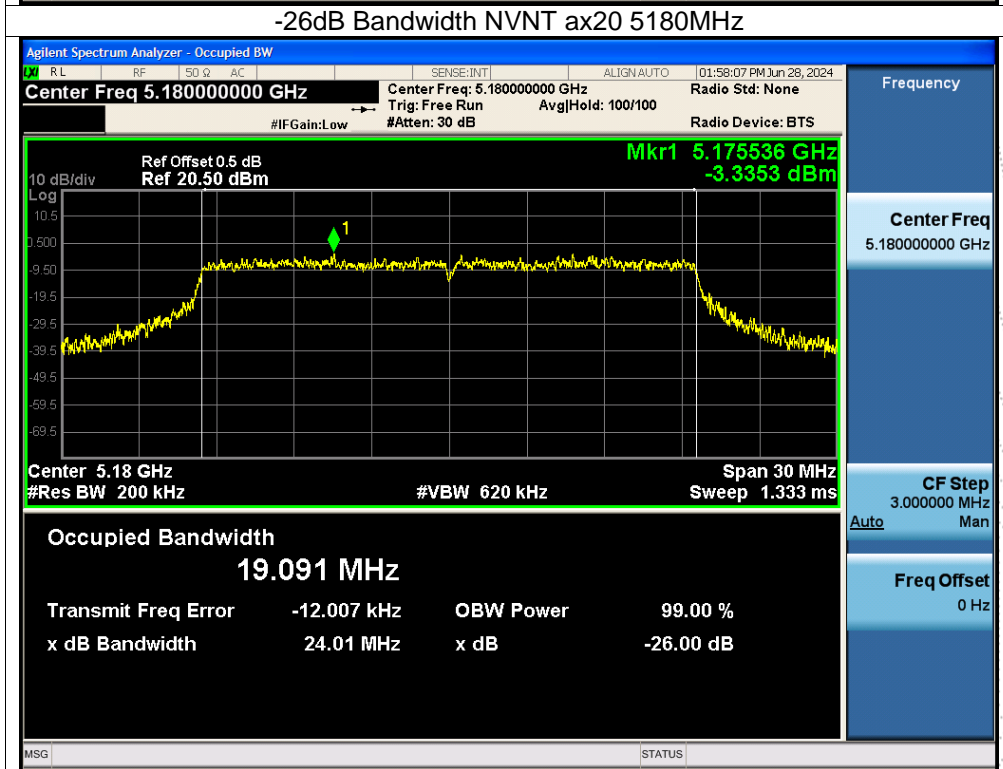
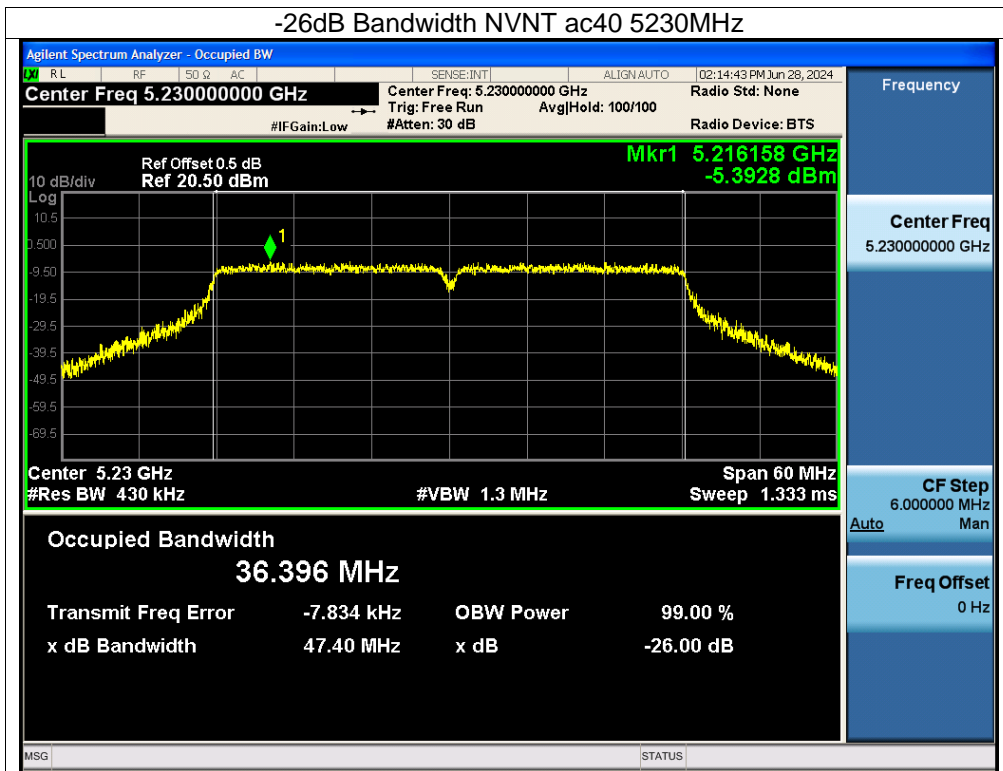


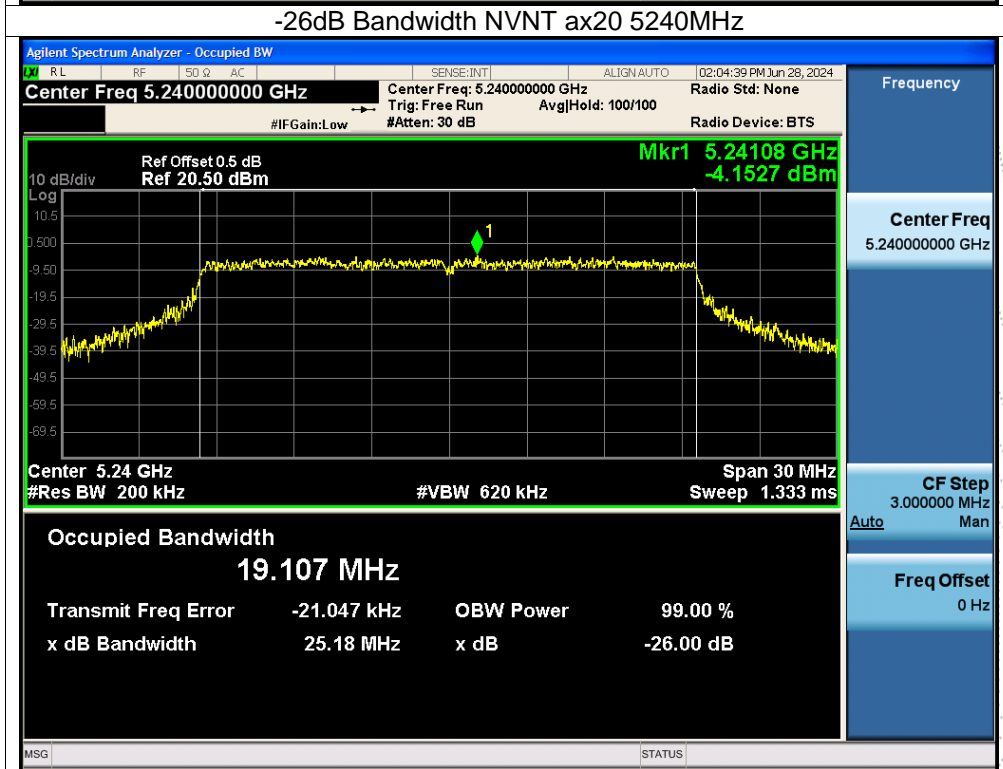
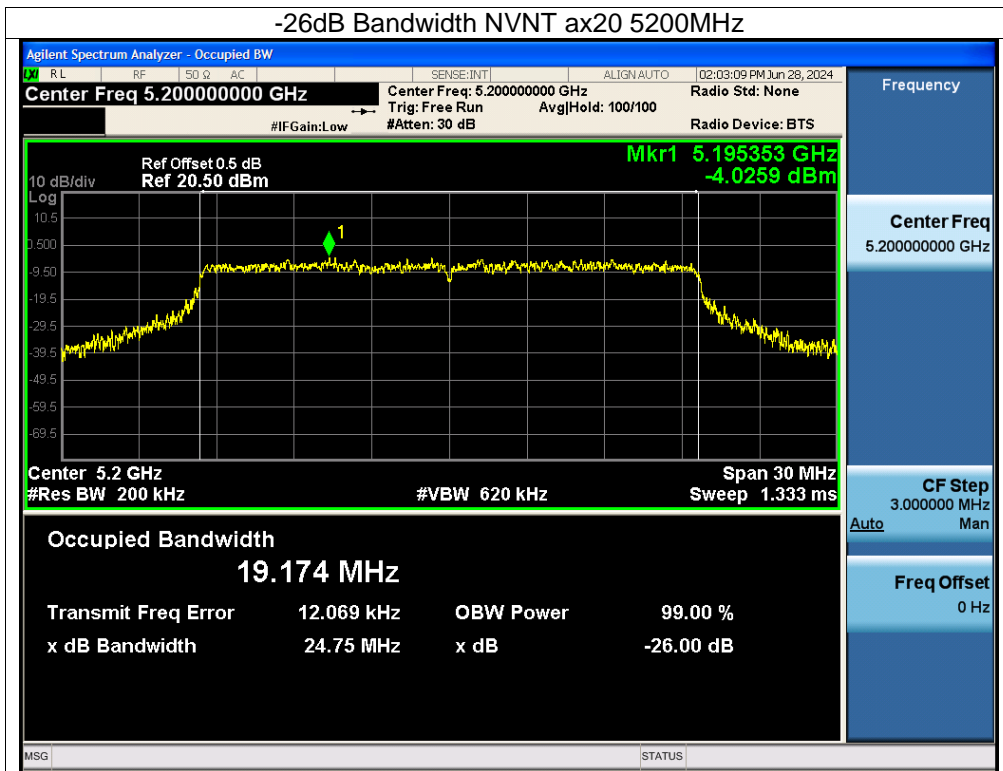


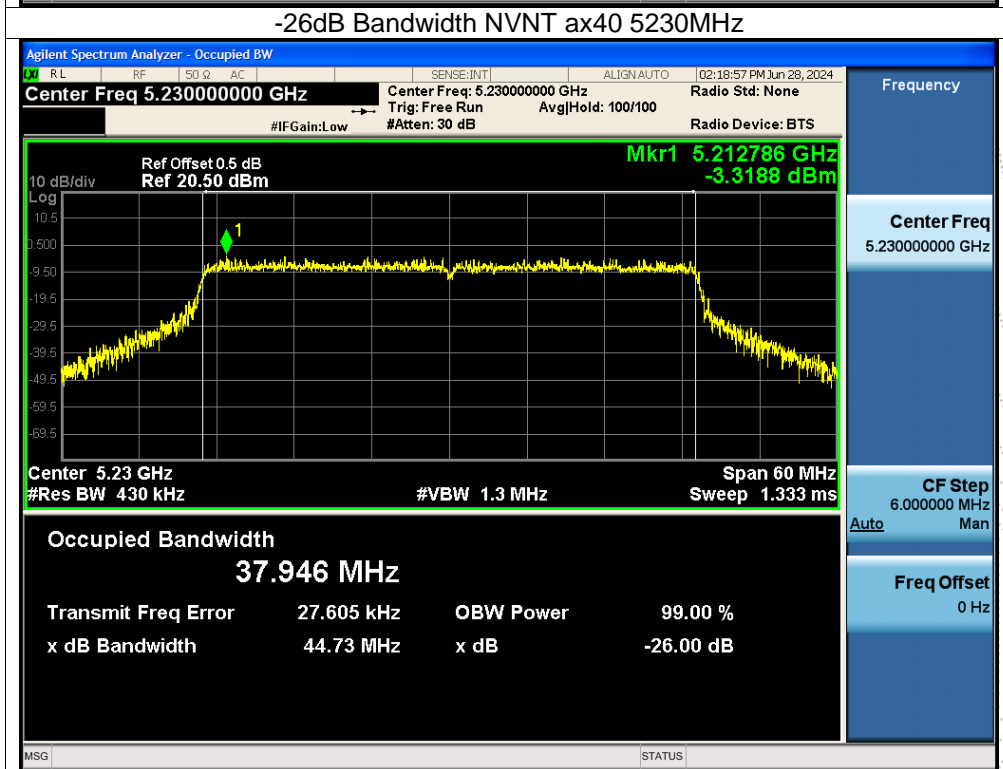
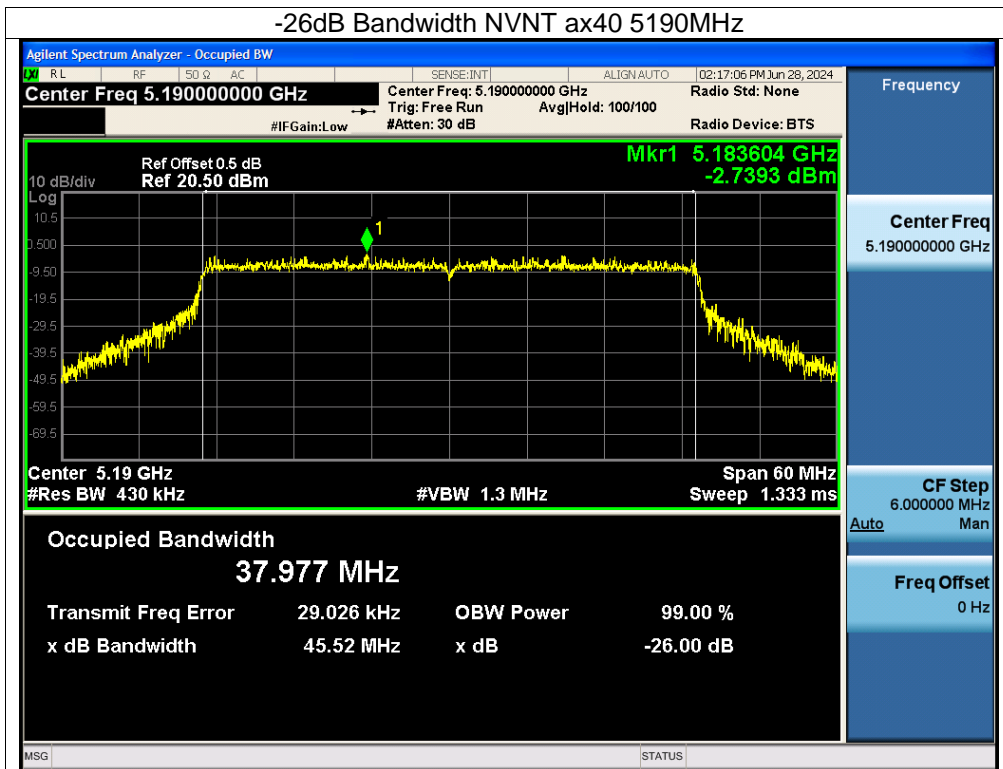


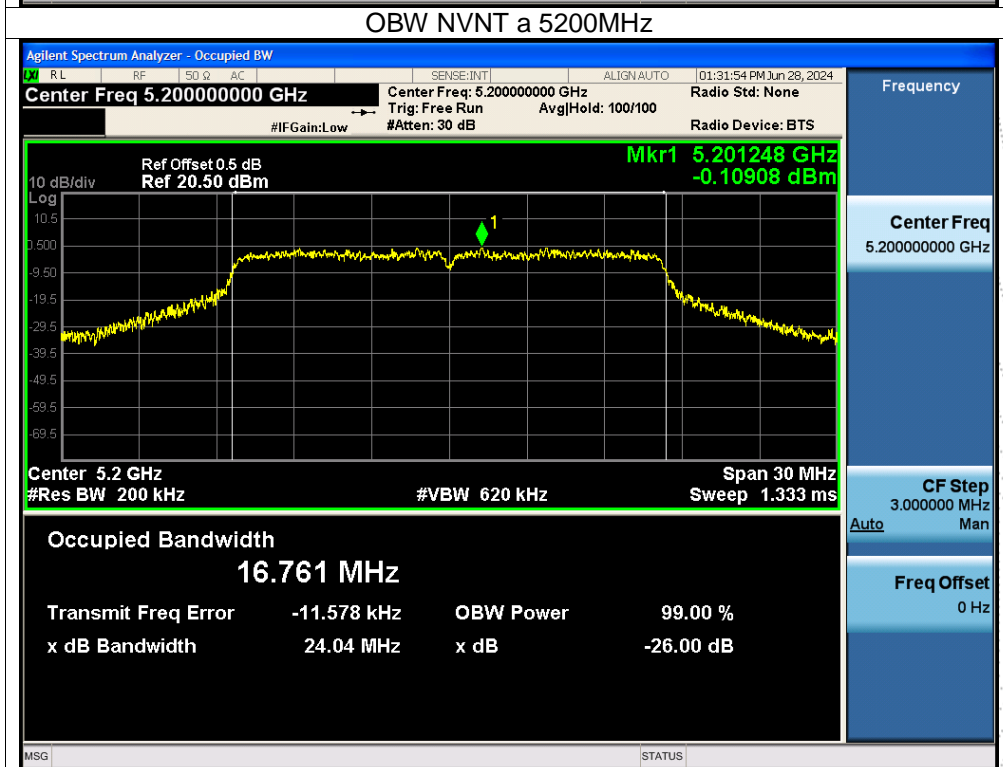
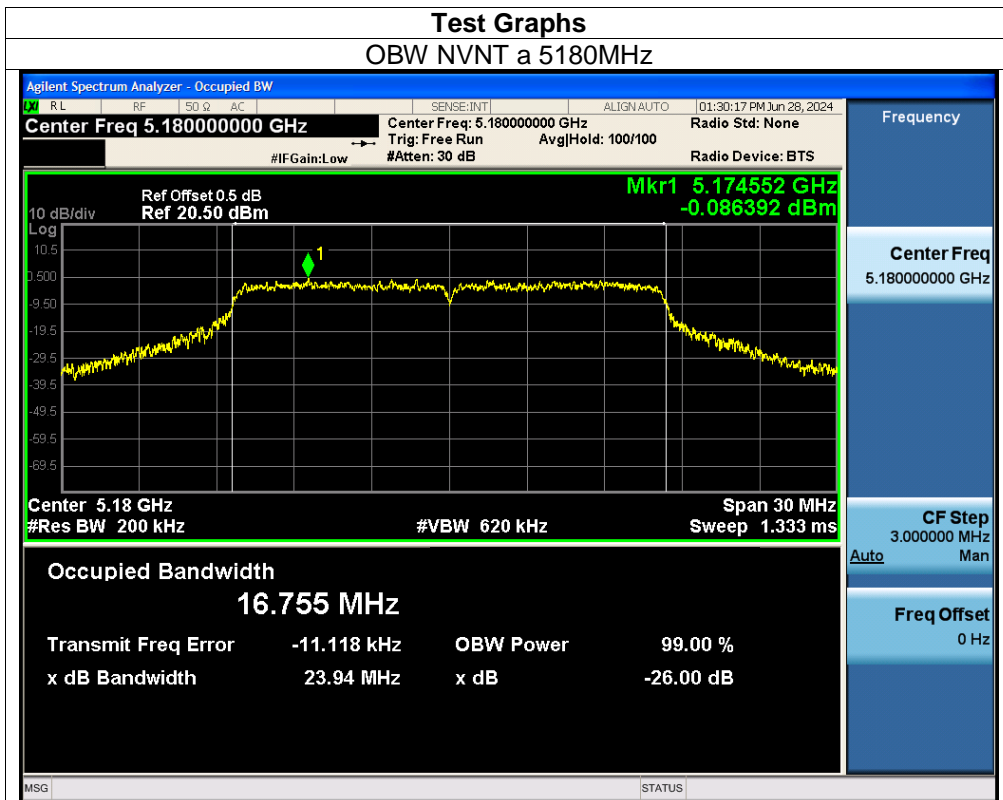


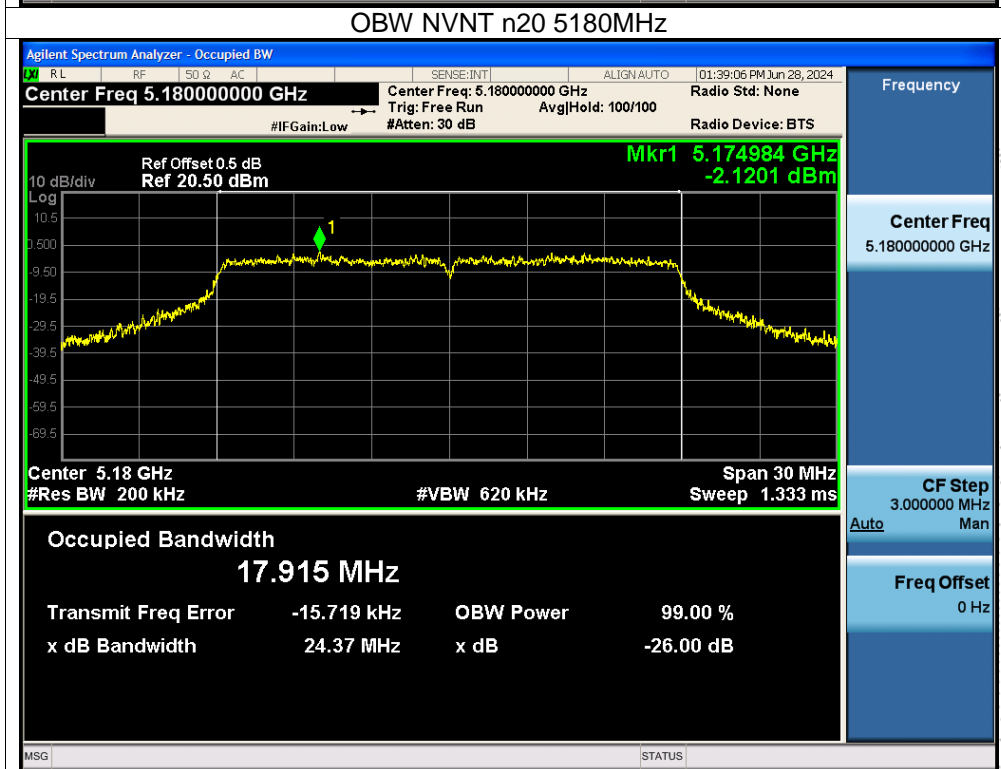
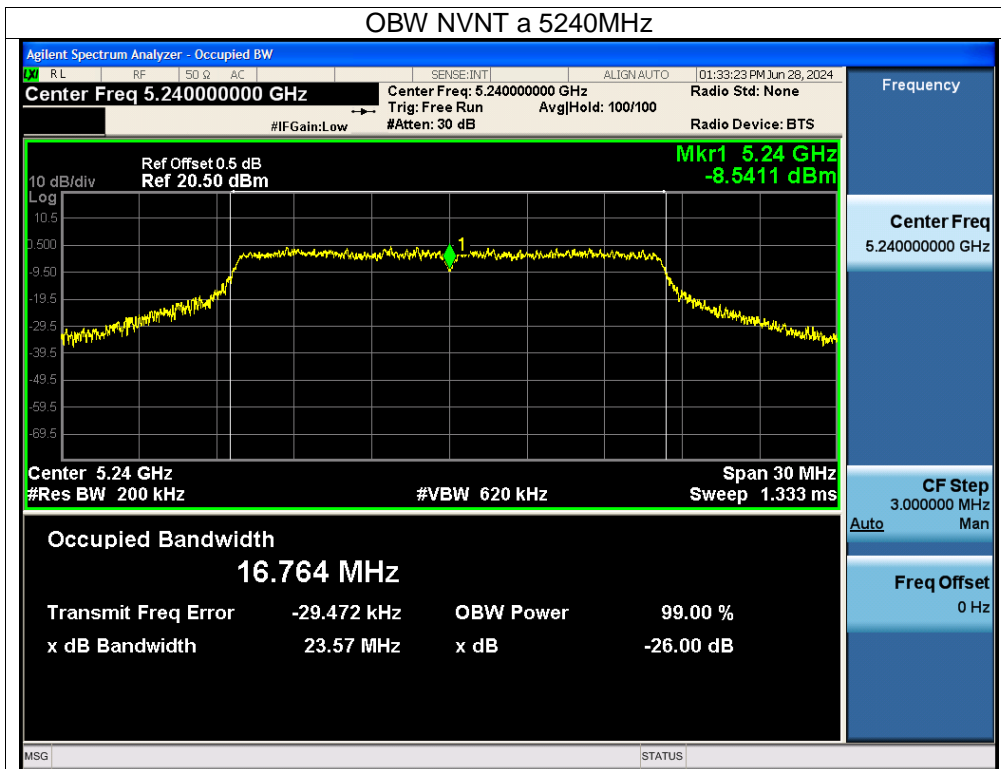


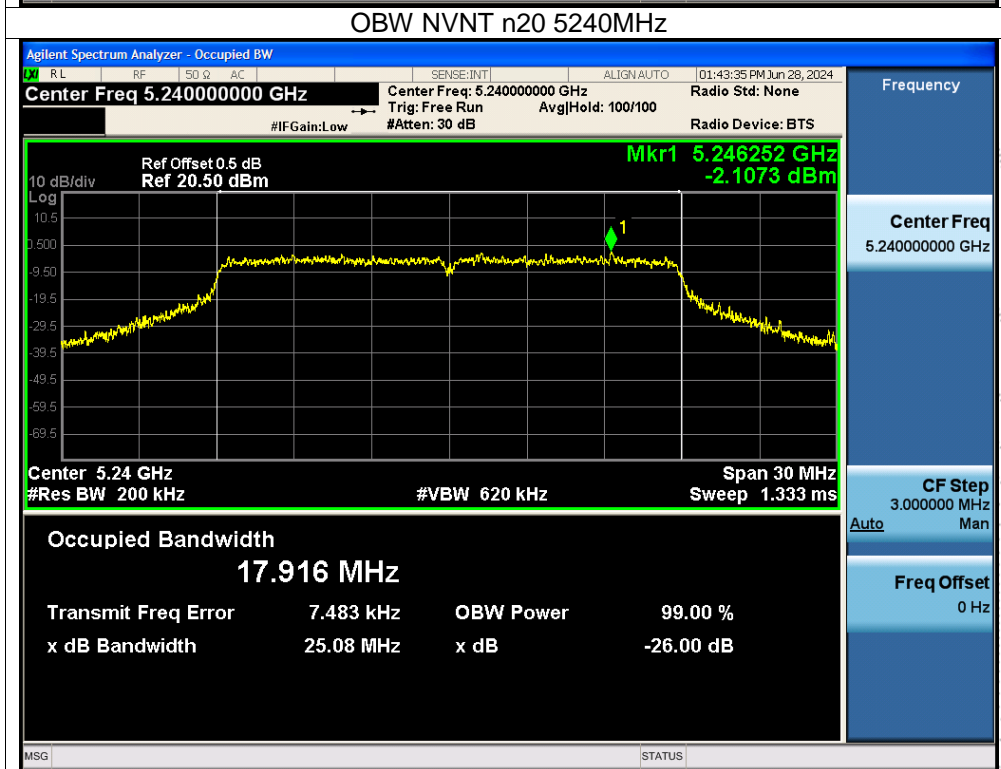
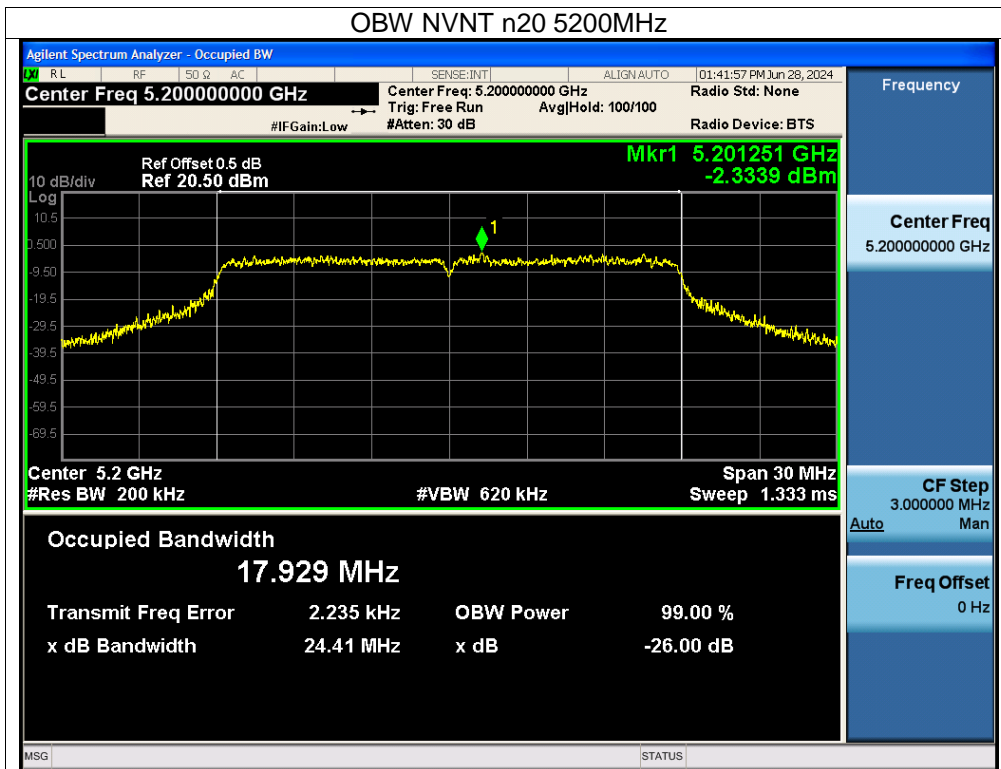


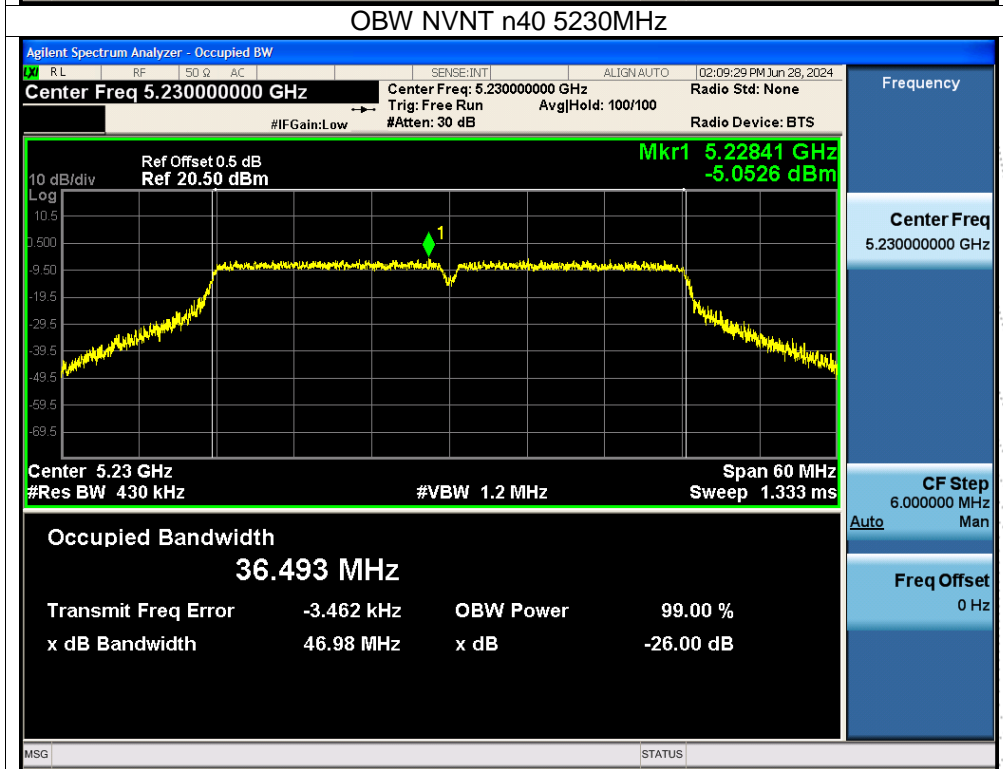
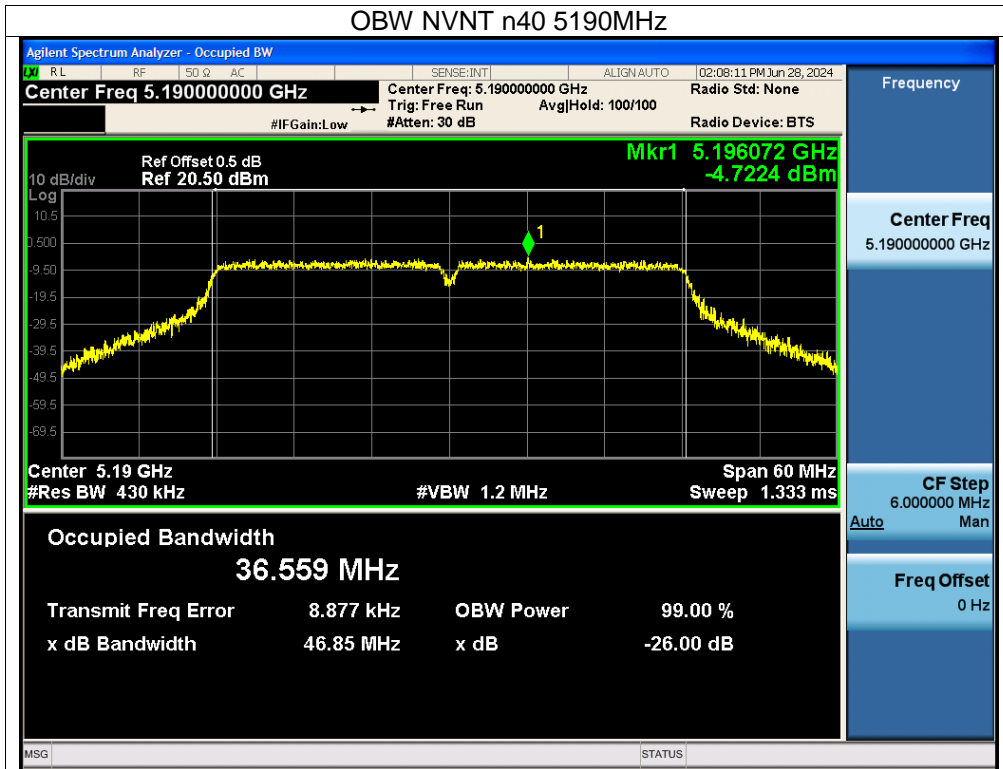


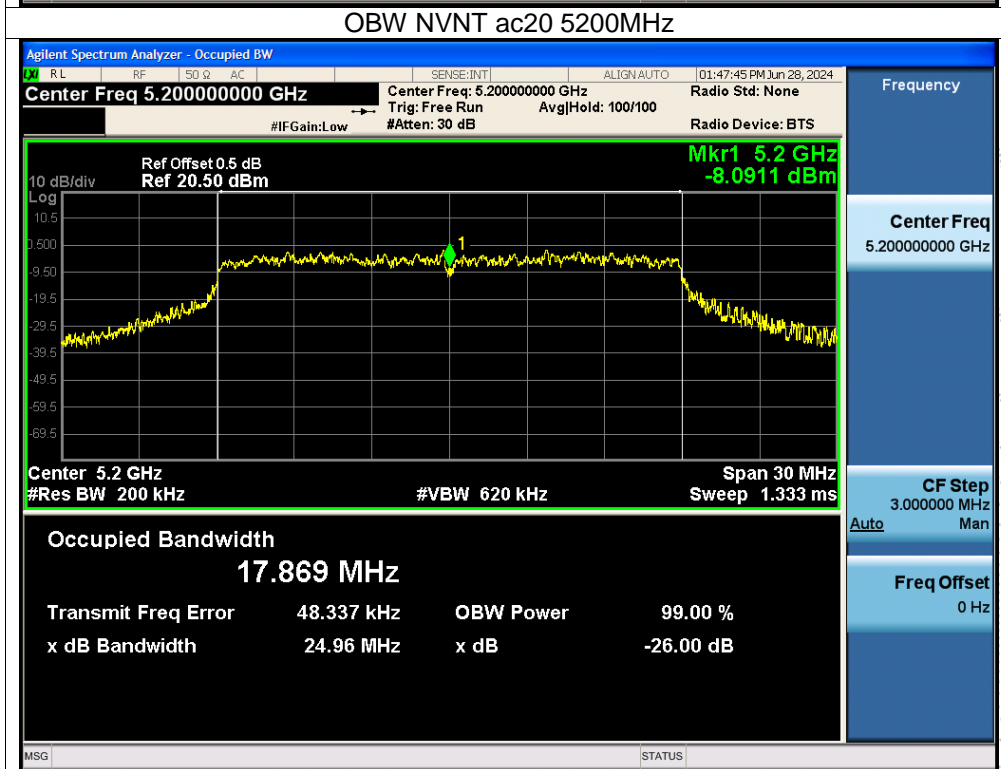
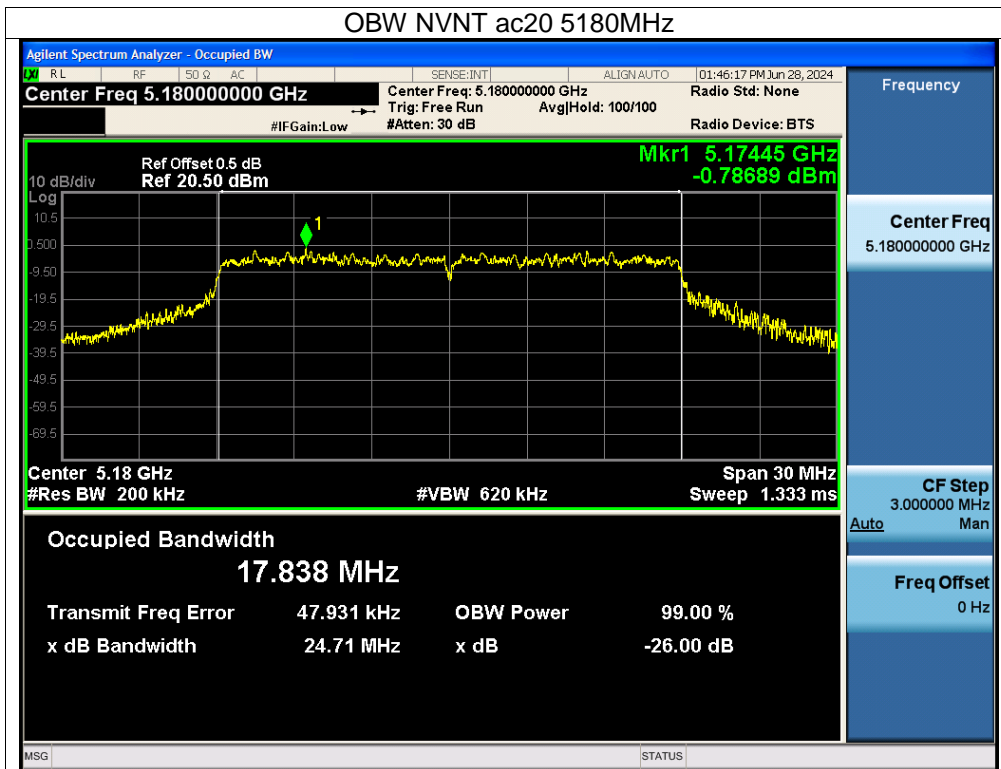


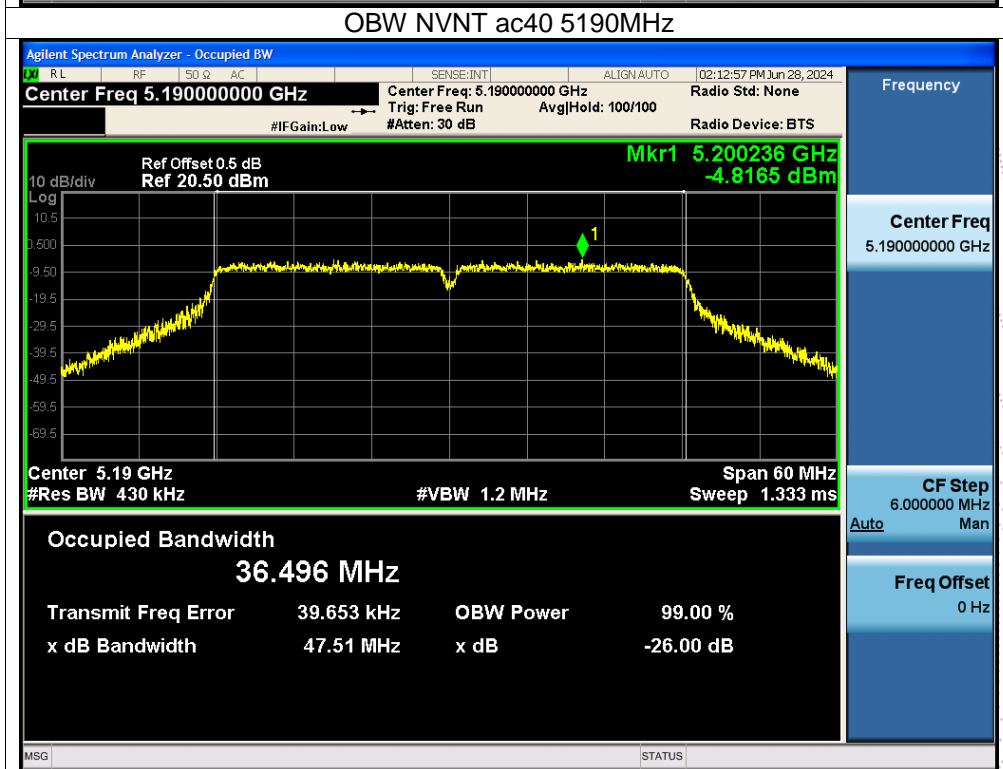
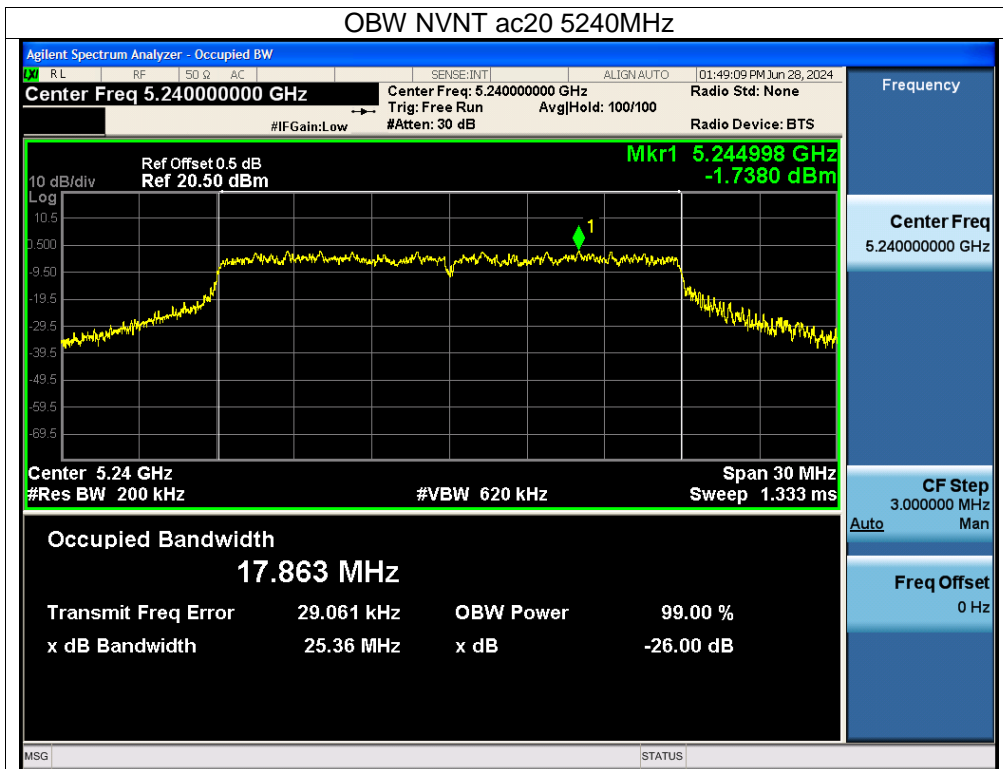


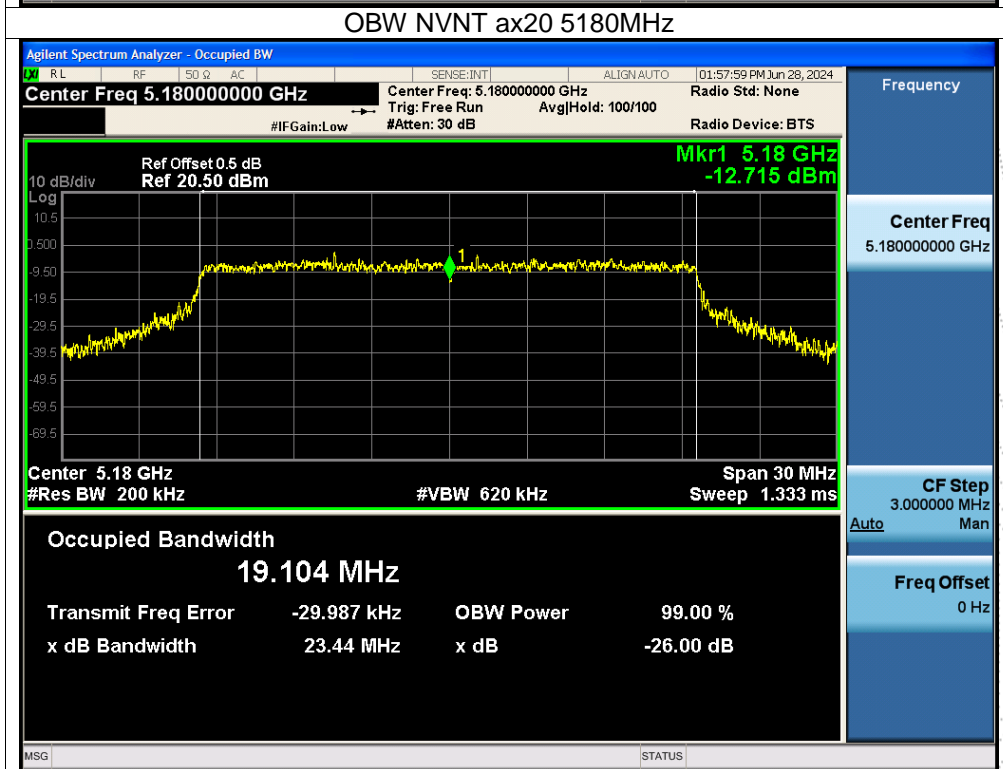
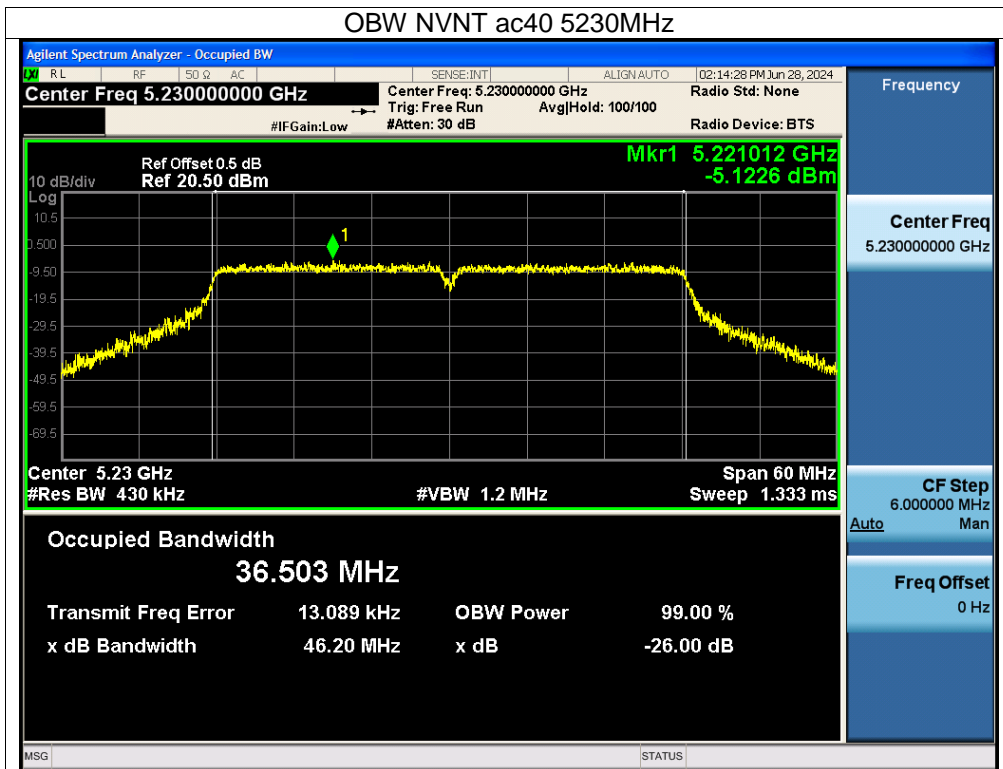


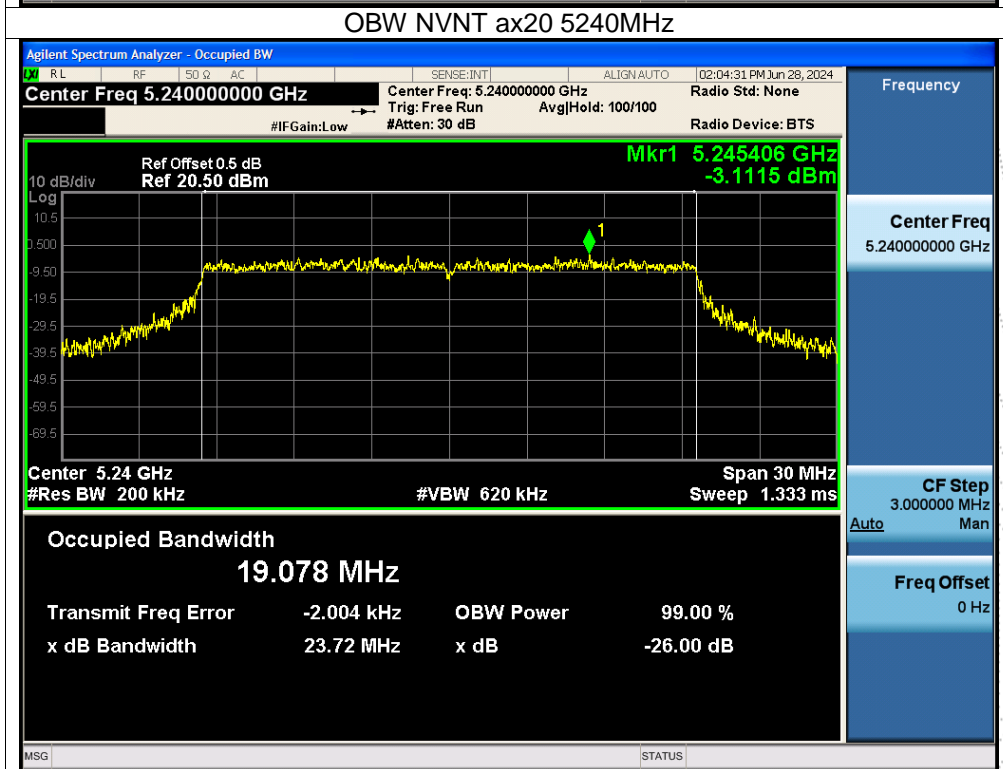
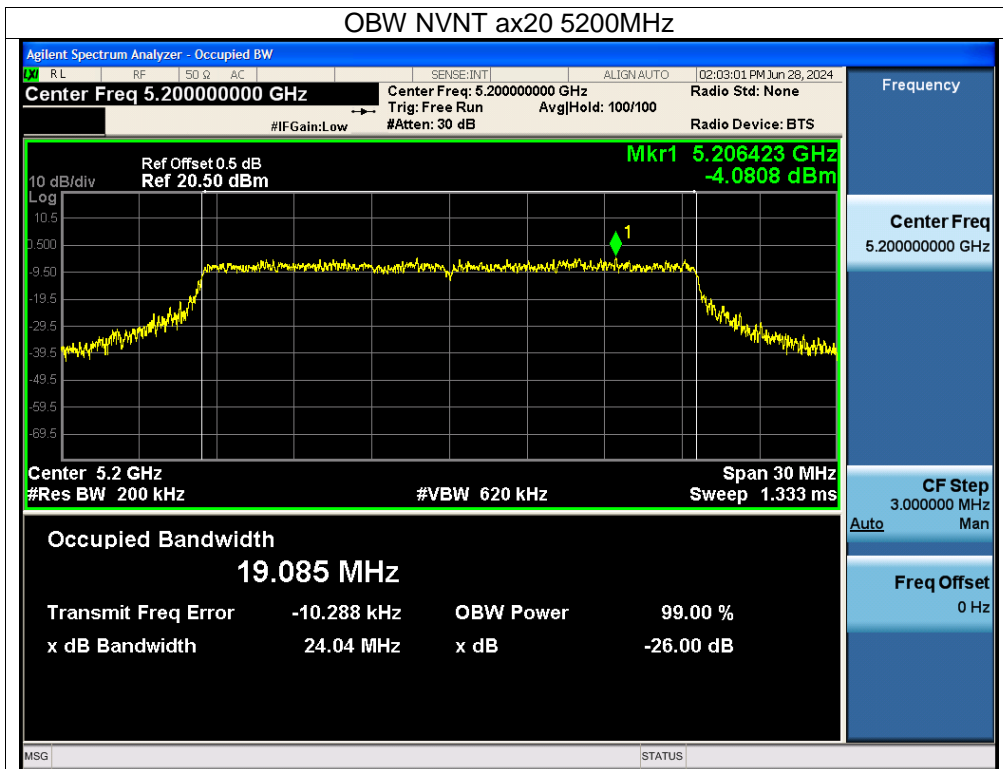


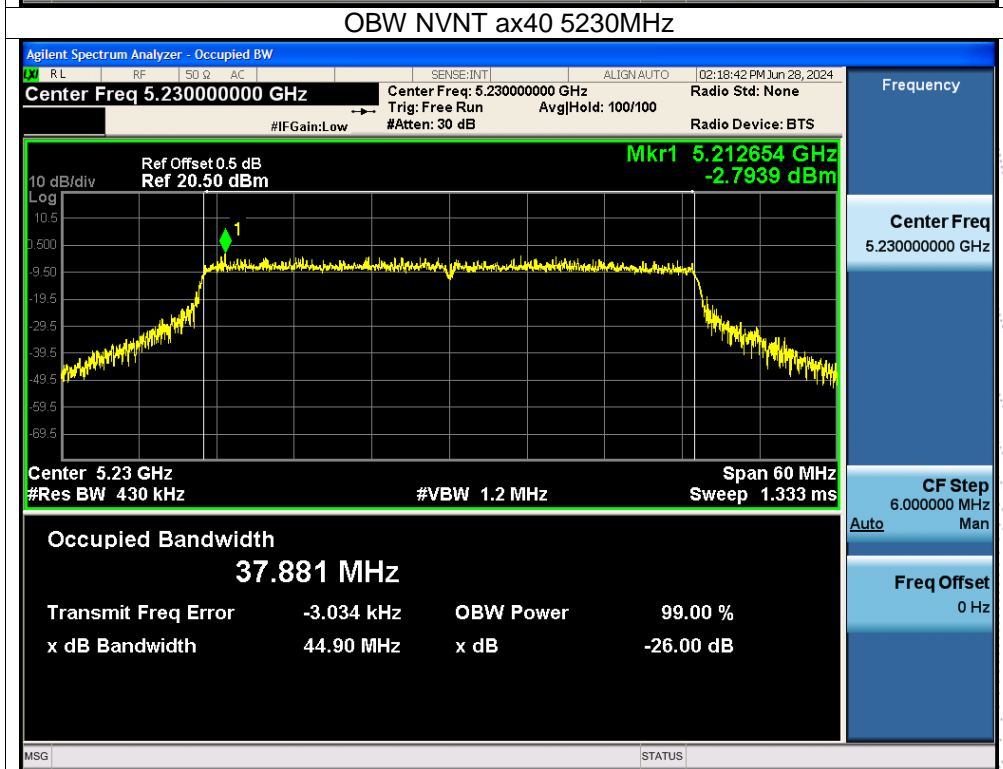
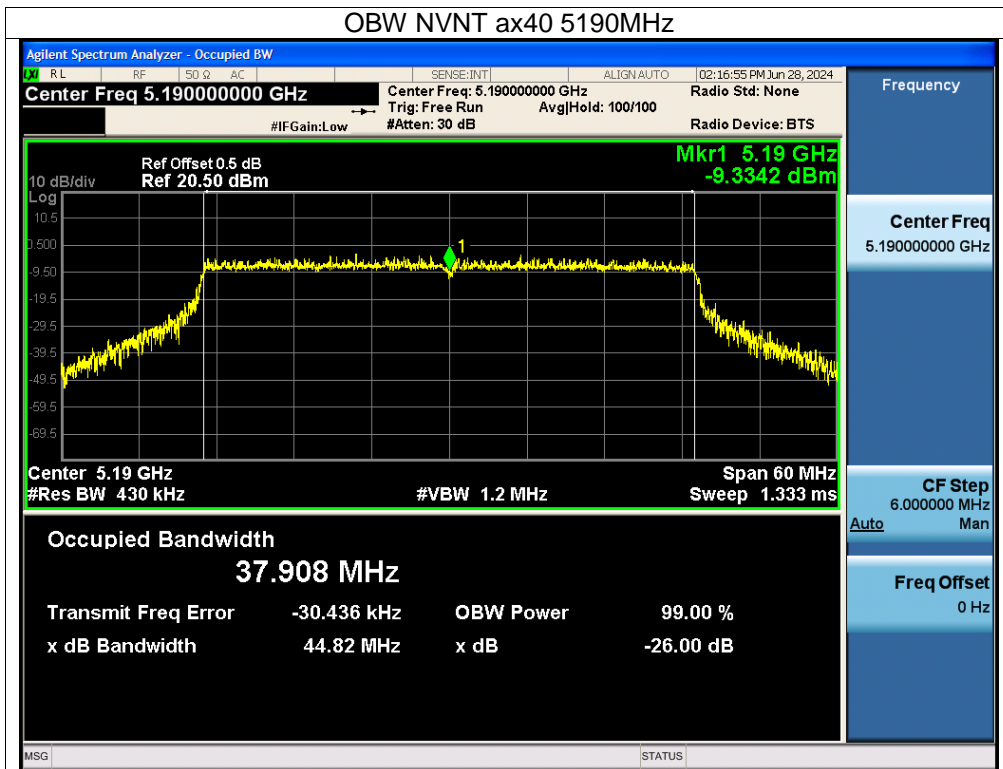












Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(5745-5825MHz)		

Condition	Mode	Frequency (MHz)	99% bandwidth (MHz)	-6dB bandwidth (MHz)	Limit -6dB bandwidth (MHz)	Result
NVNT	a	5745	16.75	16.325	0.5	Pass
NVNT	a	5785	16.717	16.361	0.5	Pass
NVNT	a	5825	16.737	16.333	0.5	Pass
NVNT	n20	5745	17.962	17.615	0.5	Pass
NVNT	n20	5785	17.925	17.606	0.5	Pass
NVNT	n20	5825	17.946	17.593	0.5	Pass
NVNT	n40	5755	36.506	36.302	0.5	Pass
NVNT	n40	5795	36.46	36.328	0.5	Pass
NVNT	ac20	5745	17.904	17.565	0.5	Pass
NVNT	ac20	5785	17.933	17.577	0.5	Pass
NVNT	ac20	5825	17.931	17.583	0.5	Pass
NVNT	ac40	5755	36.534	36.299	0.5	Pass
NVNT	ac40	5795	36.494	36.322	0.5	Pass
NVNT	ax20	5745	17.948	17.597	0.5	Pass
NVNT	ax20	5785	17.936	17.599	0.5	Pass
NVNT	ax20	5825	17.952	17.585	0.5	Pass
NVNT	ax40	5755	37.894	38.042	0.5	Pass
NVNT	ax40	5795	37.903	37.818	0.5	Pass

