

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

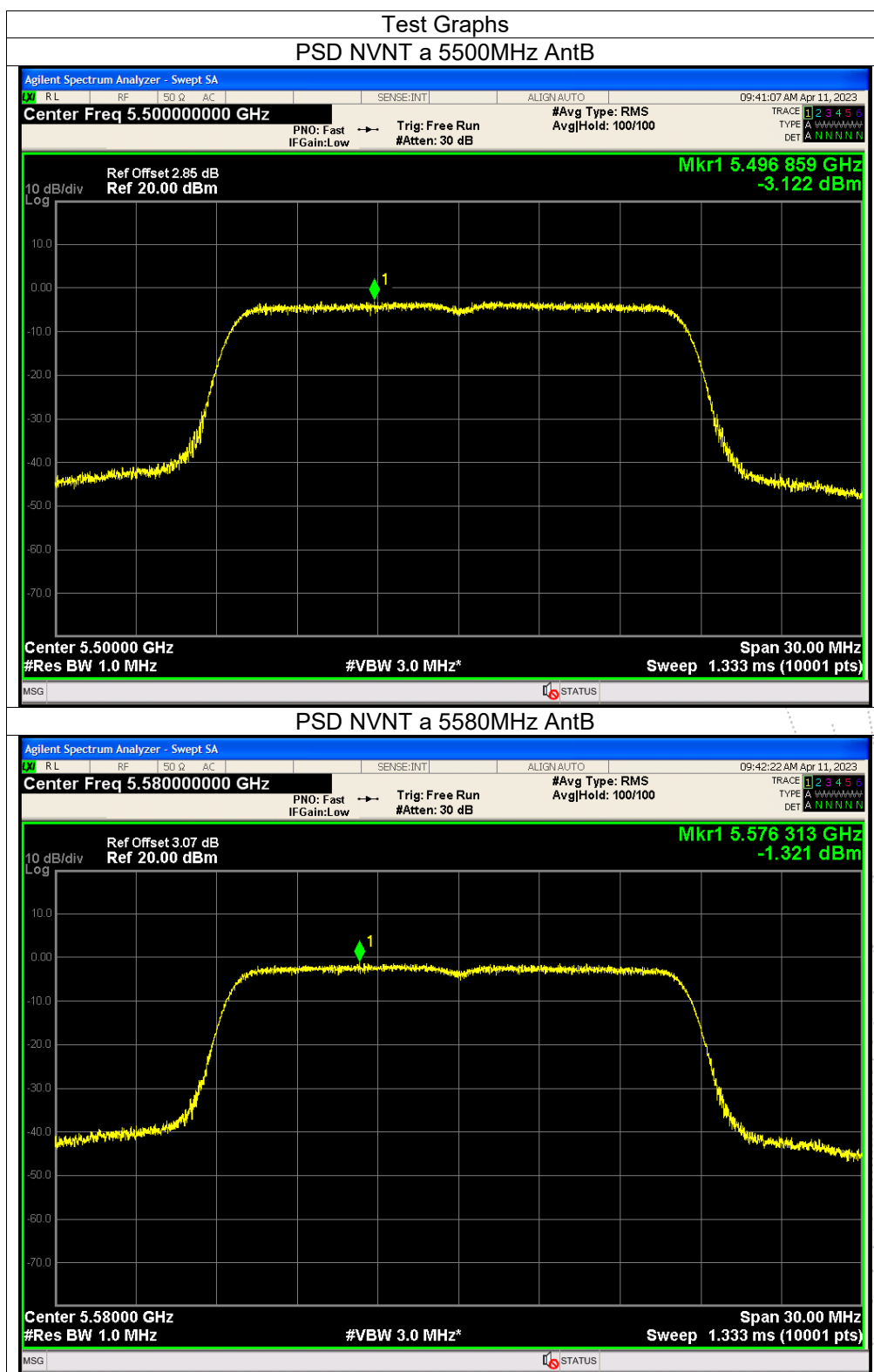
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm/MHz)		Total (dBm/MHz)	Limit (dBm/MHz)	Verdict
			Ant A	Ant B			
NVNT	a	5500	-1.68	-3.12	/	11	Pass
NVNT	a	5580	-0.48	-1.32	/	11	Pass
NVNT	a	5700	0.12	0.37	/	11	Pass
NVNT	n20	5500	-6.59	-7.52	-4.02	7.03	Pass
NVNT	n20	5580	-4.74	-5.84	-2.24	7.03	Pass
NVNT	n20	5700	-4.81	-4.48	-1.63	7.03	Pass
NVNT	n40	5510	-9.87	-10.78	-7.29	7.03	Pass
NVNT	n40	5590	-8.29	-9.62	-5.89	7.03	Pass
NVNT	n40	5670	-9.19	-8.37	-5.75	7.03	Pass
NVNT	ac20	5500	-6.43	-7.58	-3.96	7.03	Pass
NVNT	ac20	5580	-4.82	-6.02	-2.37	7.03	Pass
NVNT	ac20	5700	-5.08	-4.83	-1.94	7.03	Pass
NVNT	ac40	5510	-9.81	-9.59	-6.69	7.03	Pass
NVNT	ac40	5590	-8.51	-8.63	-5.56	7.03	Pass
NVNT	ac40	5670	-8.66	-7.43	-4.99	7.03	Pass
NVNT	ac80	5530	-12.01	-11.95	-8.97	7.03	Pass

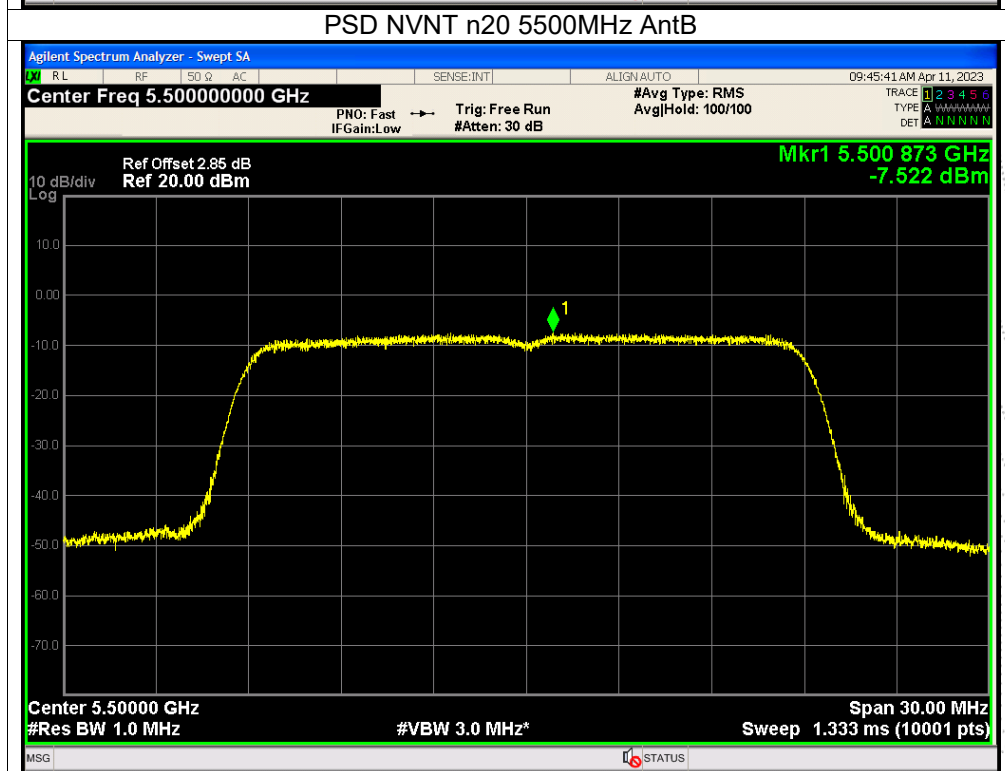
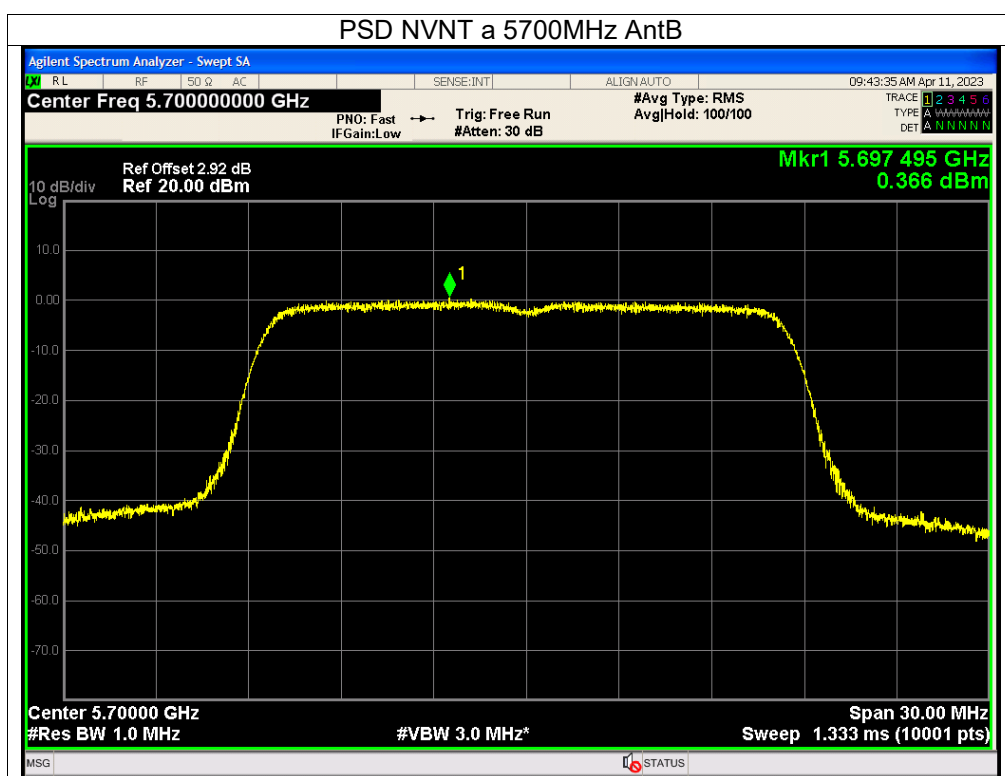
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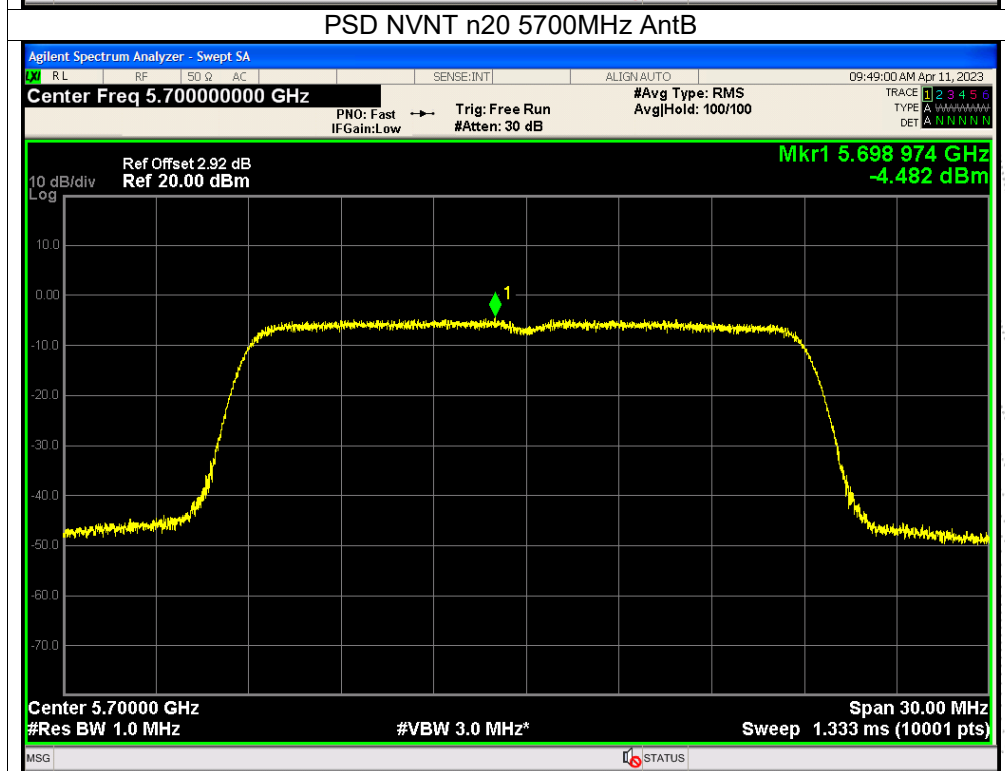
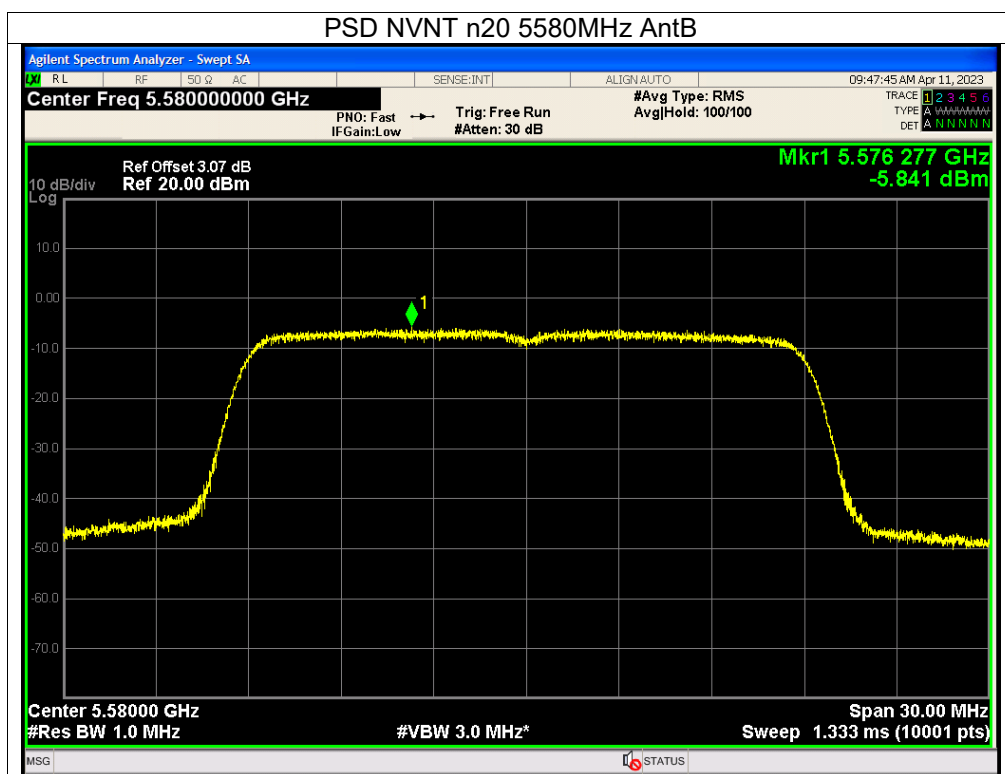
Antenna A gain:6.96 dBi, Antenna B gain: 6.96 dBi, Directional gain=[GainANT + 10 log(NANT/NSS) dBi]
=9.97 dBi>6dBi

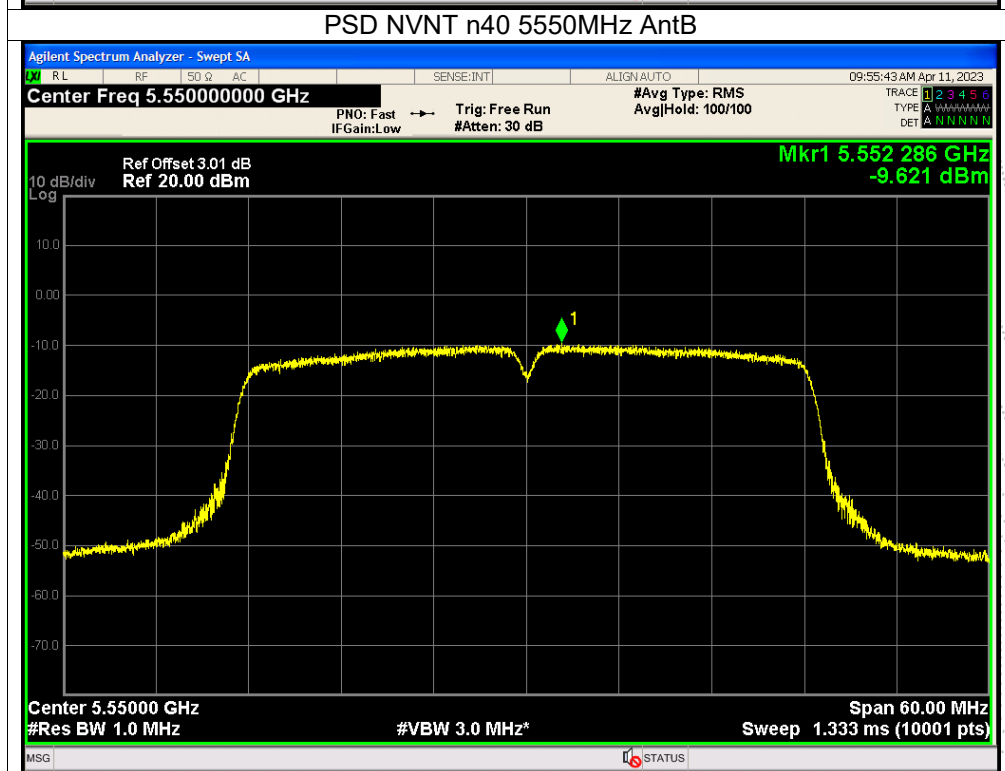
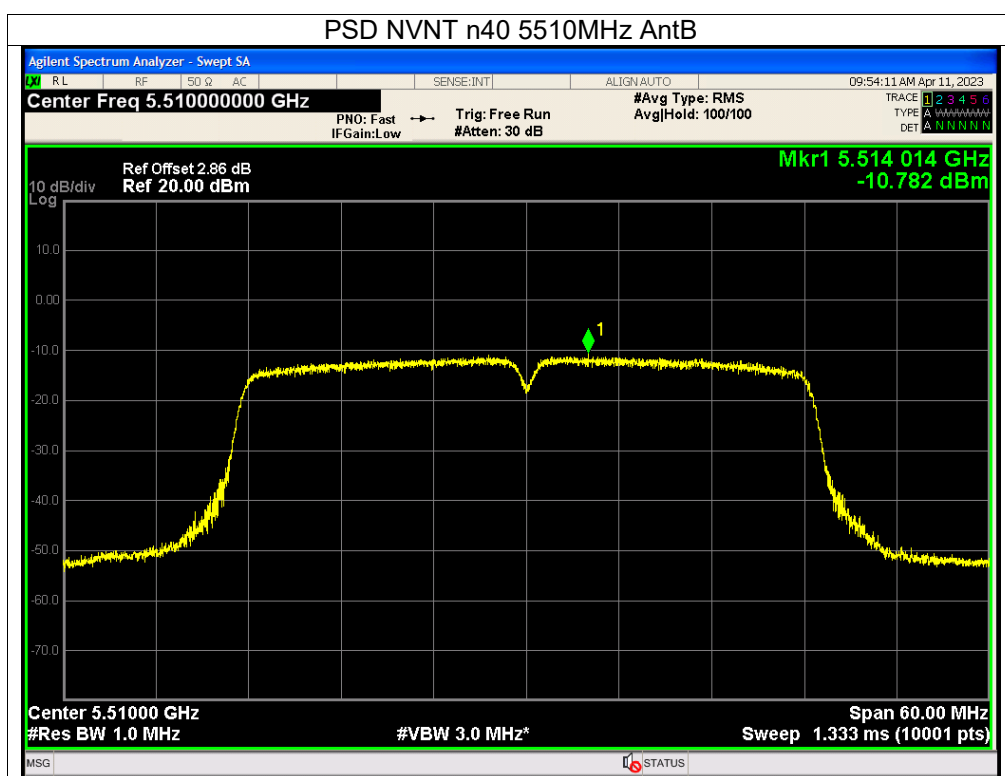
Limit=11-(9.97-6)=7.03 dBi

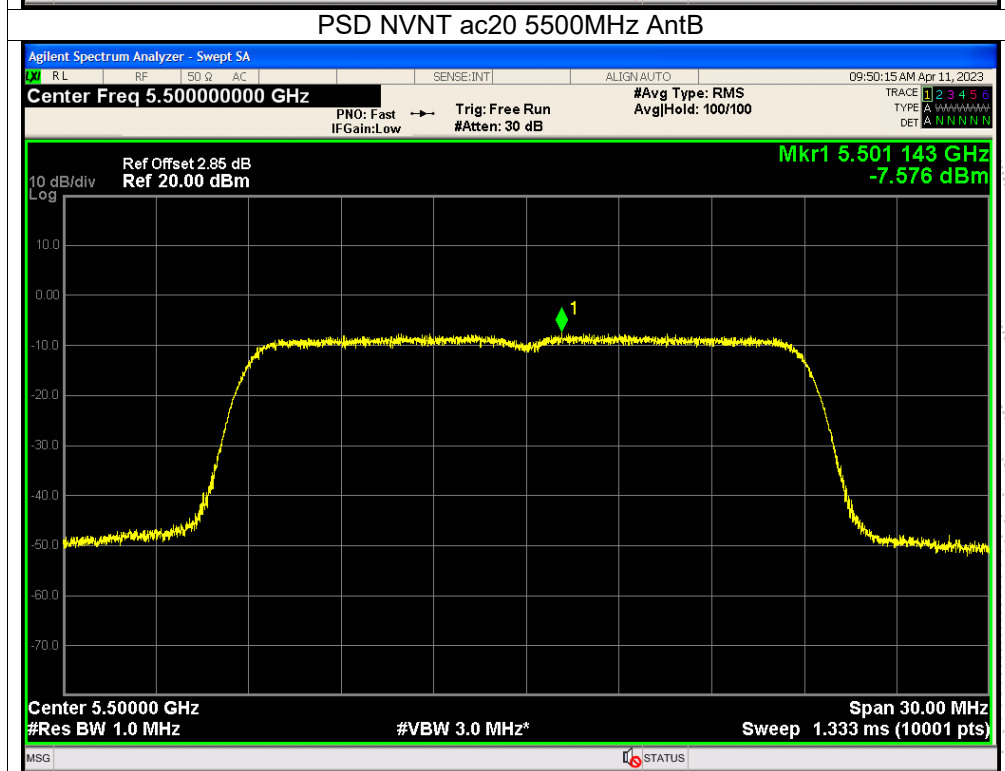
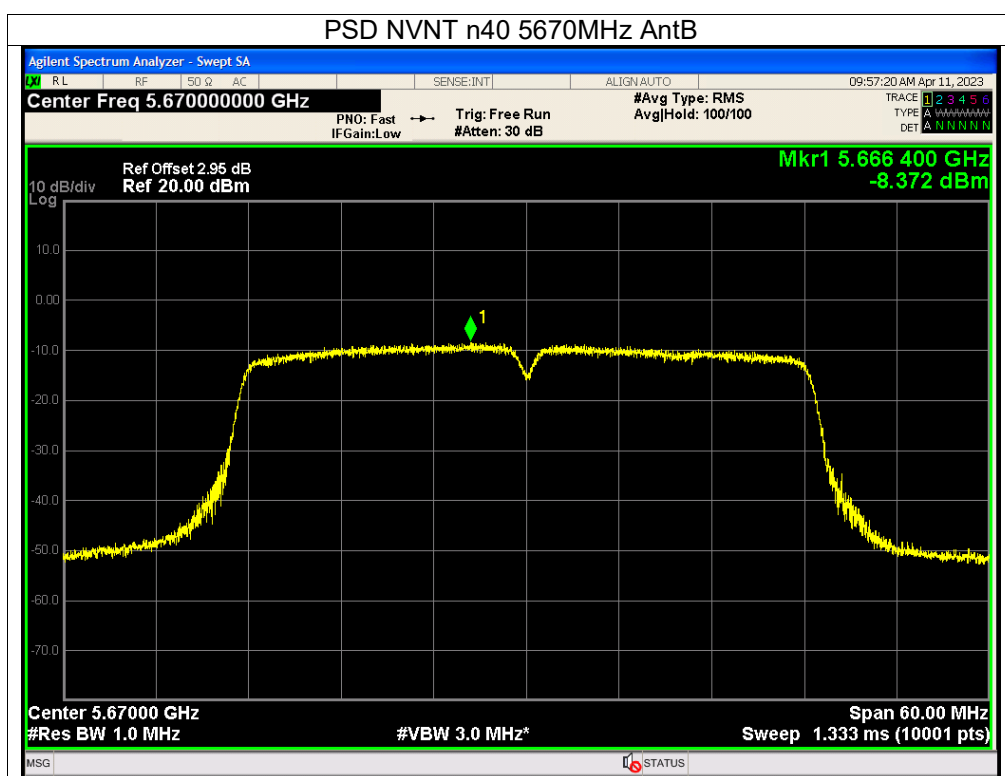
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna B, only shown Antenna B Plot.

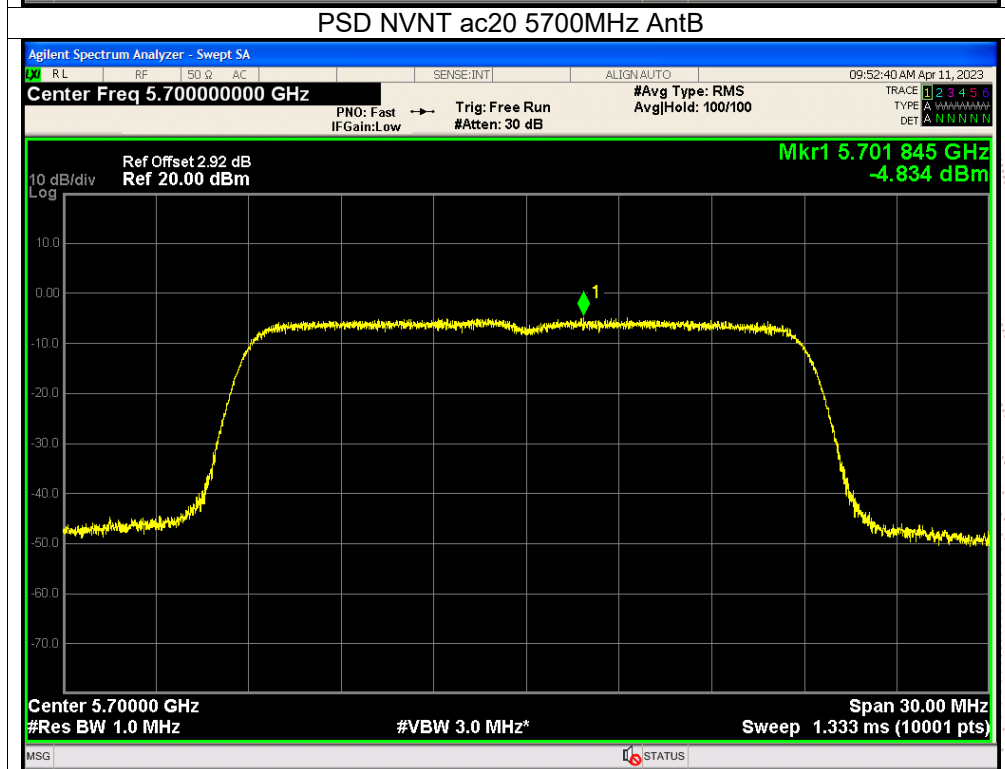
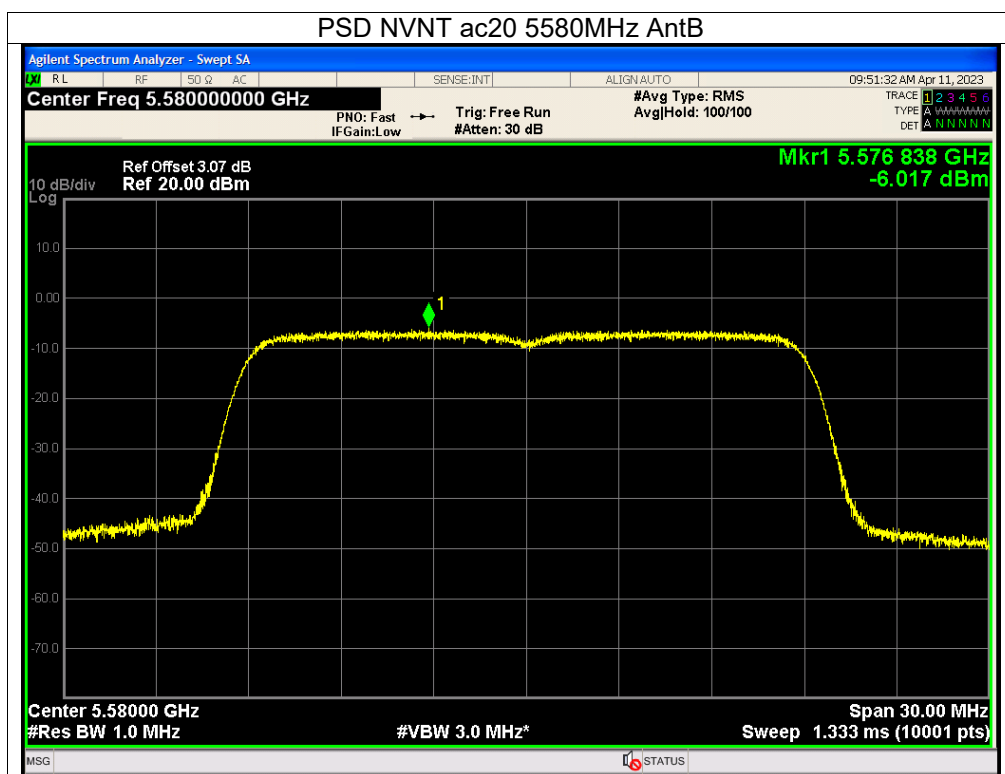


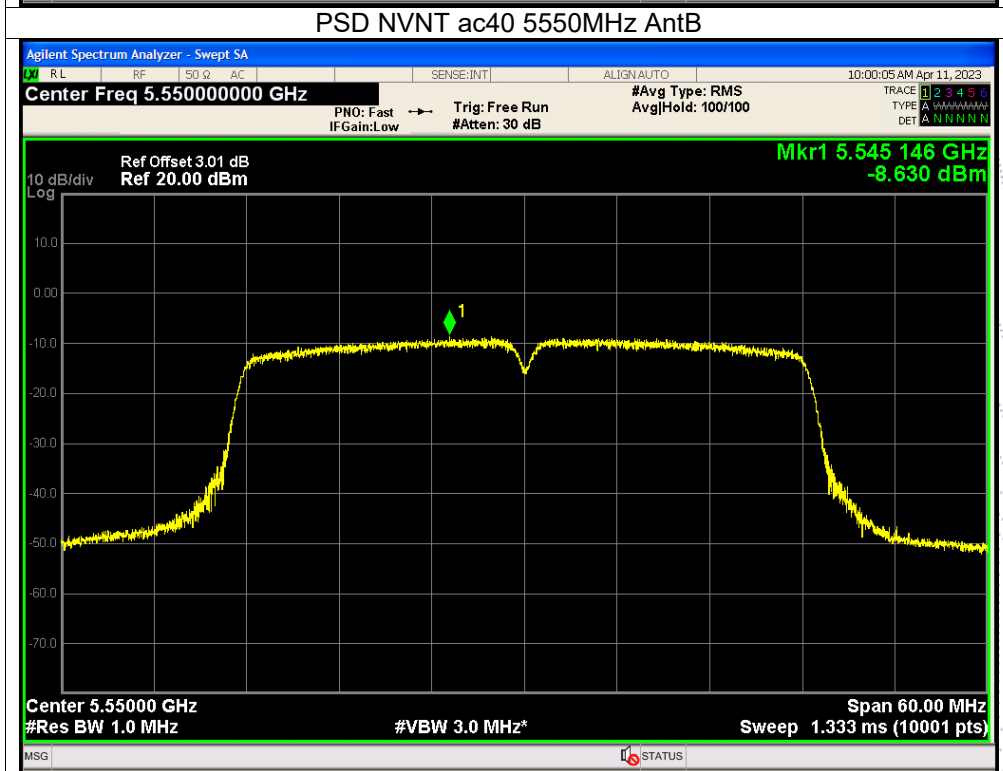
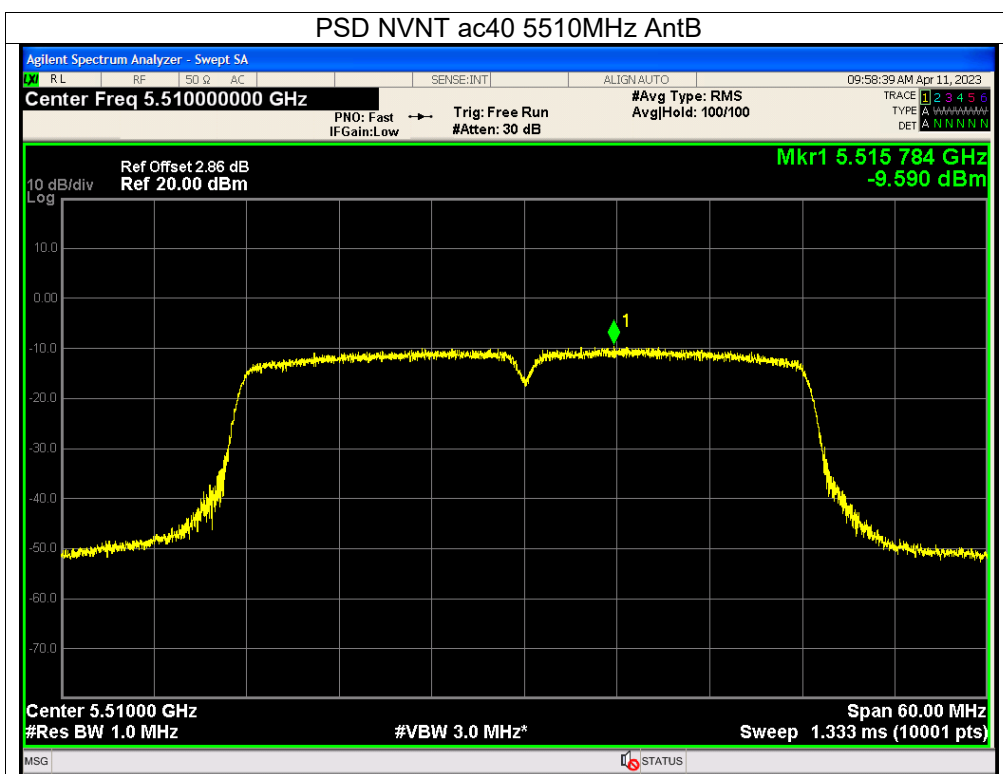


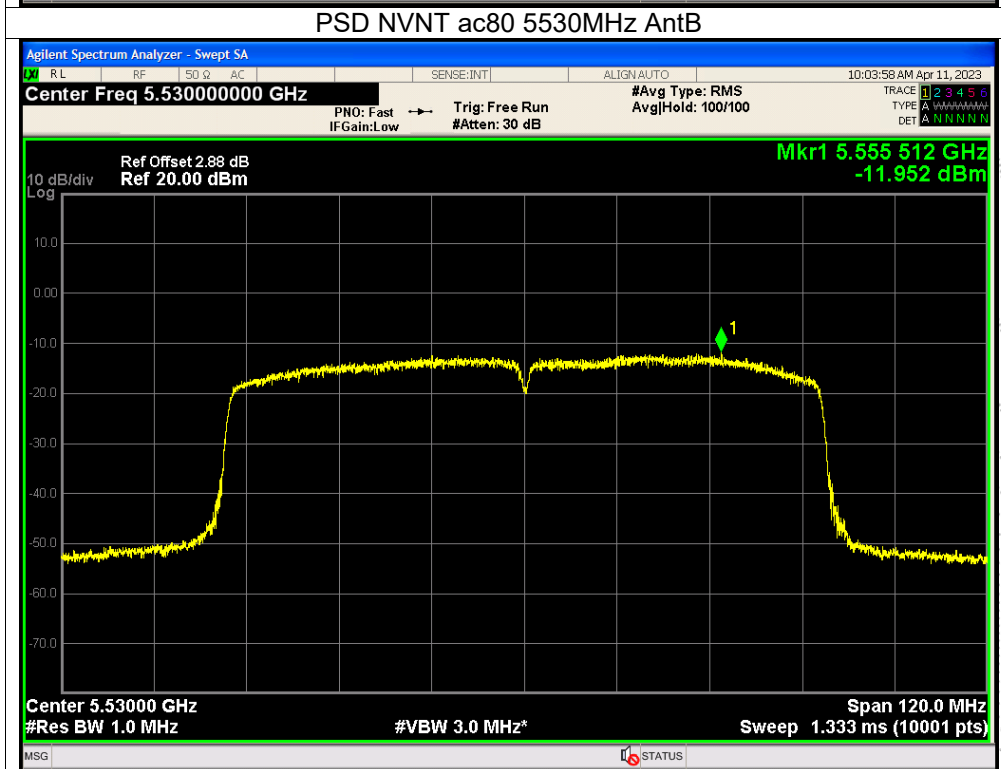
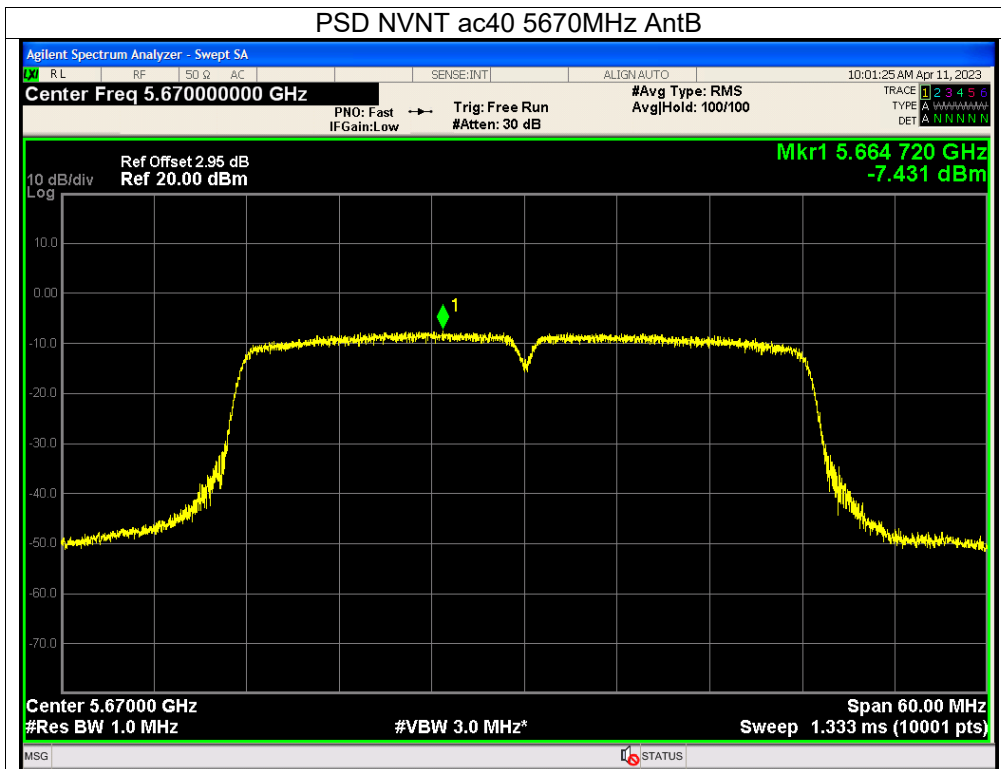












Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(5745-5825MHz)		

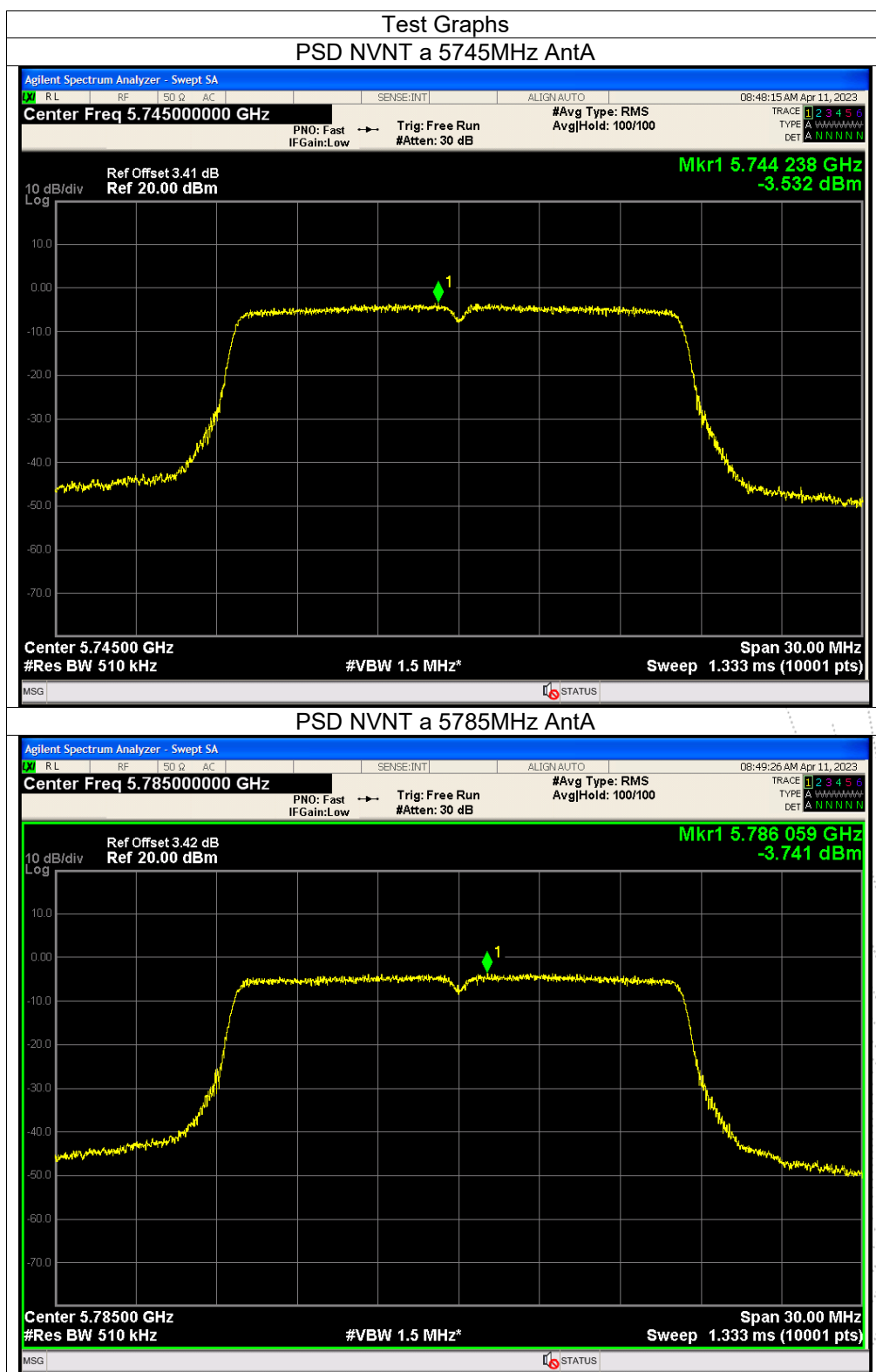
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm/500KHz)		Total (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
			Ant A	Ant B			
NVNT	a	5745	-3.53	-3.8	/	30	Pass
NVNT	a	5785	-3.74	-3.91	/	30	Pass
NVNT	a	5825	-4.3	-3.71	/	30	Pass
NVNT	n20	5745	-8.52	-7.74	-5.10	26.03	Pass
NVNT	n20	5785	-8.36	-7.99	-5.16	26.03	Pass
NVNT	n20	5825	-8.34	-8.41	-5.36	26.03	Pass
NVNT	n40	5755	-11.18	-10.38	-7.75	26.03	Pass
NVNT	n40	5795	-11.21	-10.68	-7.93	26.03	Pass
NVNT	ac20	5745	-8.21	-8.13	-5.16	26.03	Pass
NVNT	ac20	5785	-8.53	-8.24	-5.37	26.03	Pass
NVNT	ac20	5825	-8.81	-8.11	-5.44	26.03	Pass
NVNT	ac40	5755	-11.14	-10.84	-7.98	26.03	Pass
NVNT	ac40	5795	-11.24	-10.83	-8.02	26.03	Pass
NVNT	ac80	5775	-14.83	-14.71	-11.76	26.03	Pass

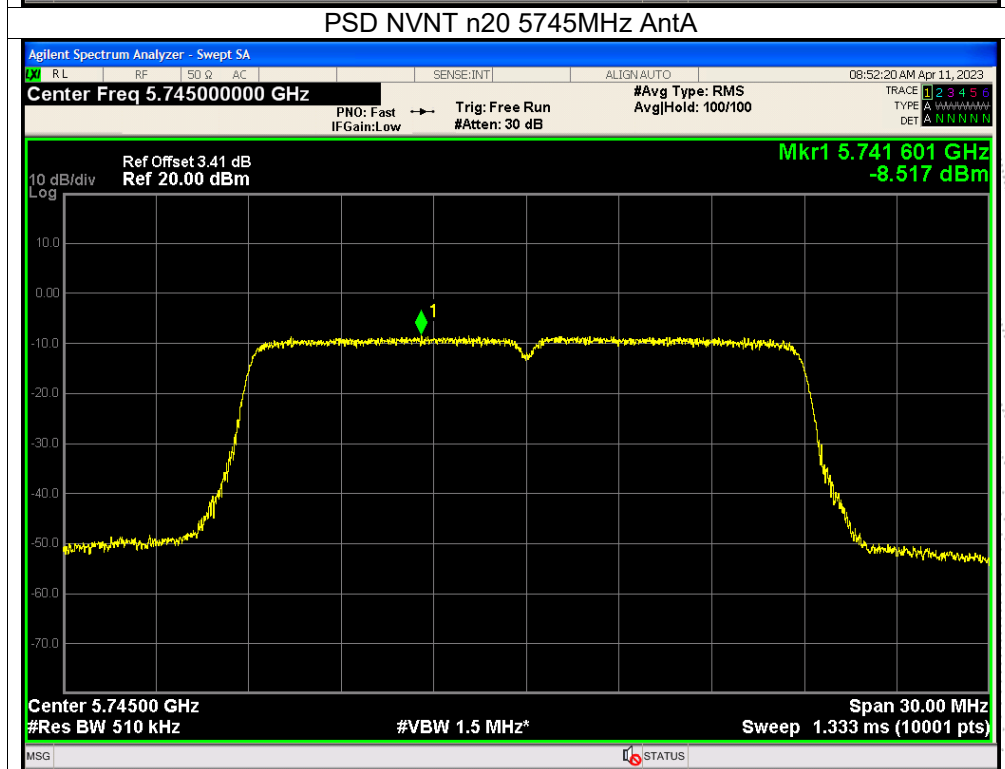
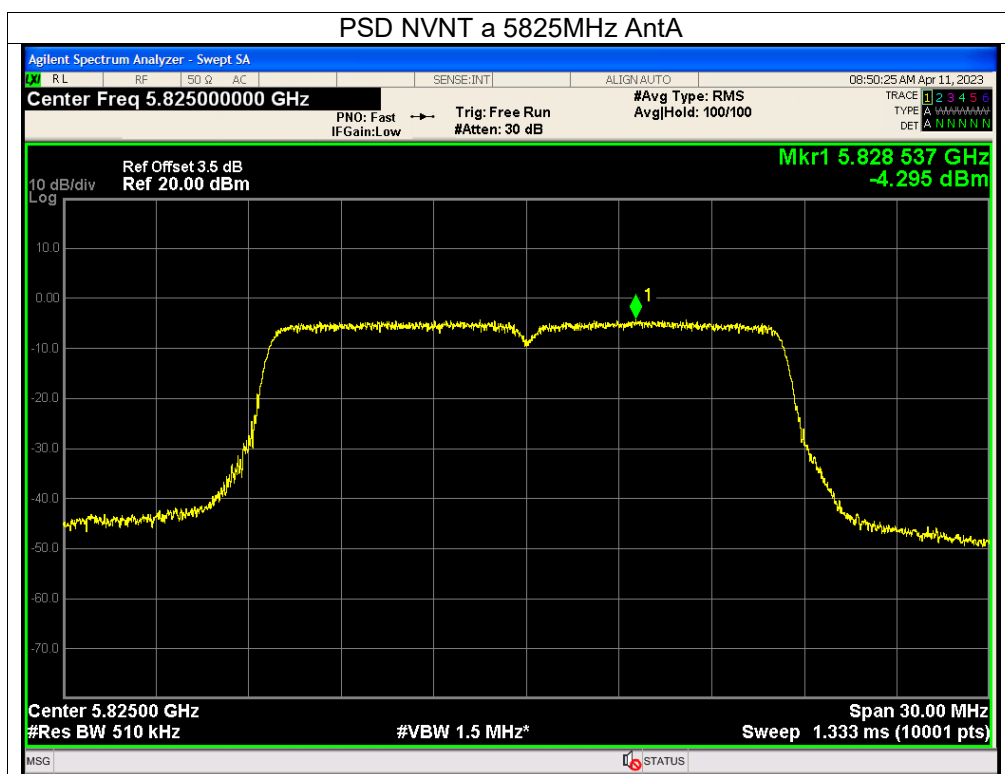
Note:

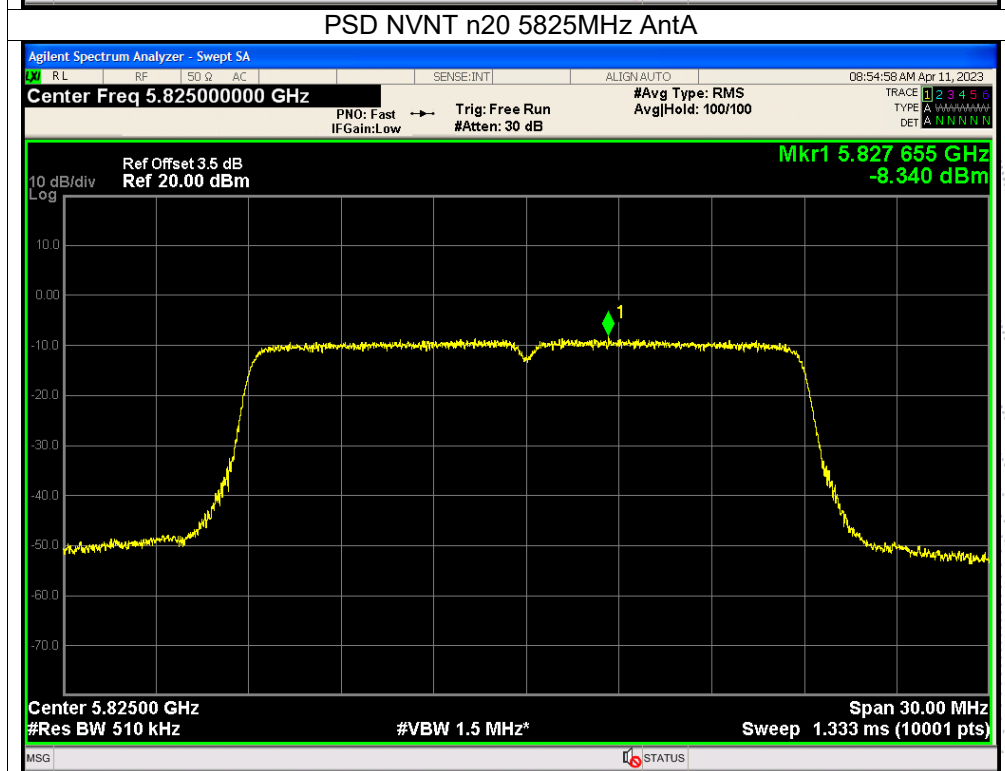
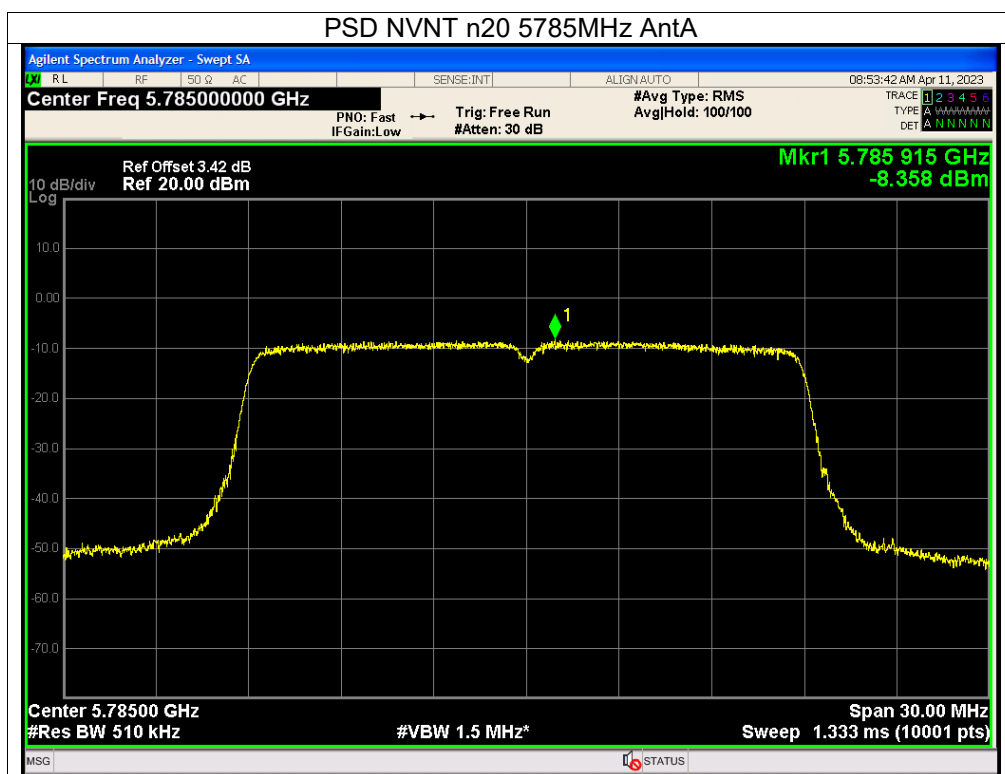
Antenna A gain:6.96 dBi, Antenna B gain: 6.96 dBi, Directional gain=[GainANT + 10 log(NANT/NSS) dBi]
=9.97 dBi>6dBi

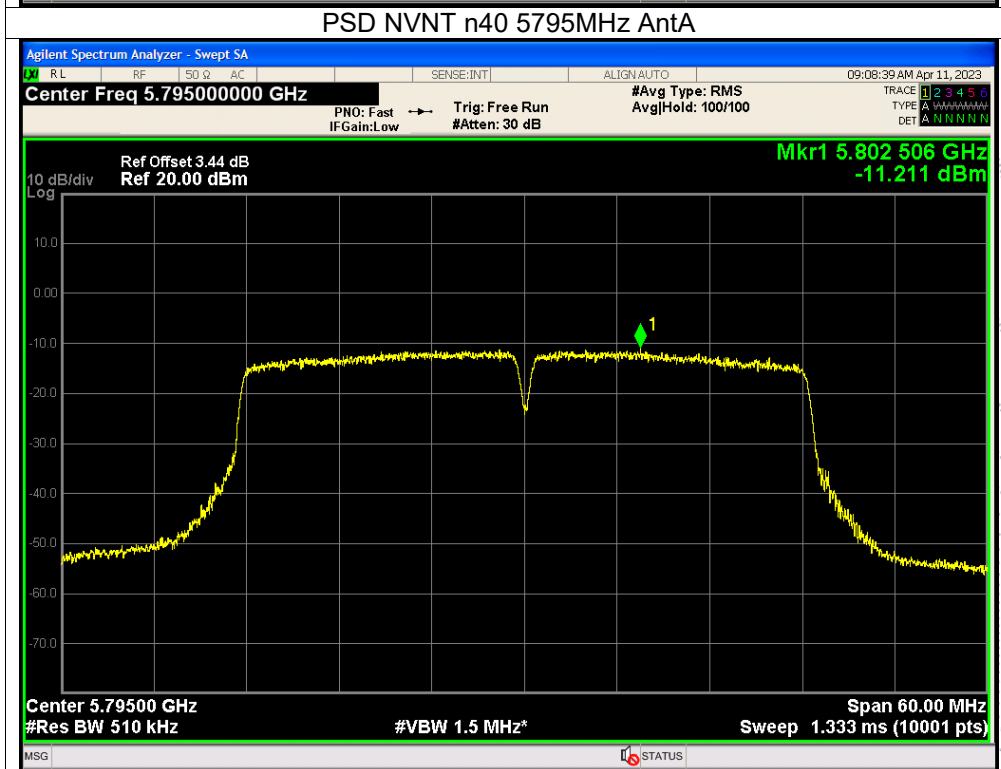
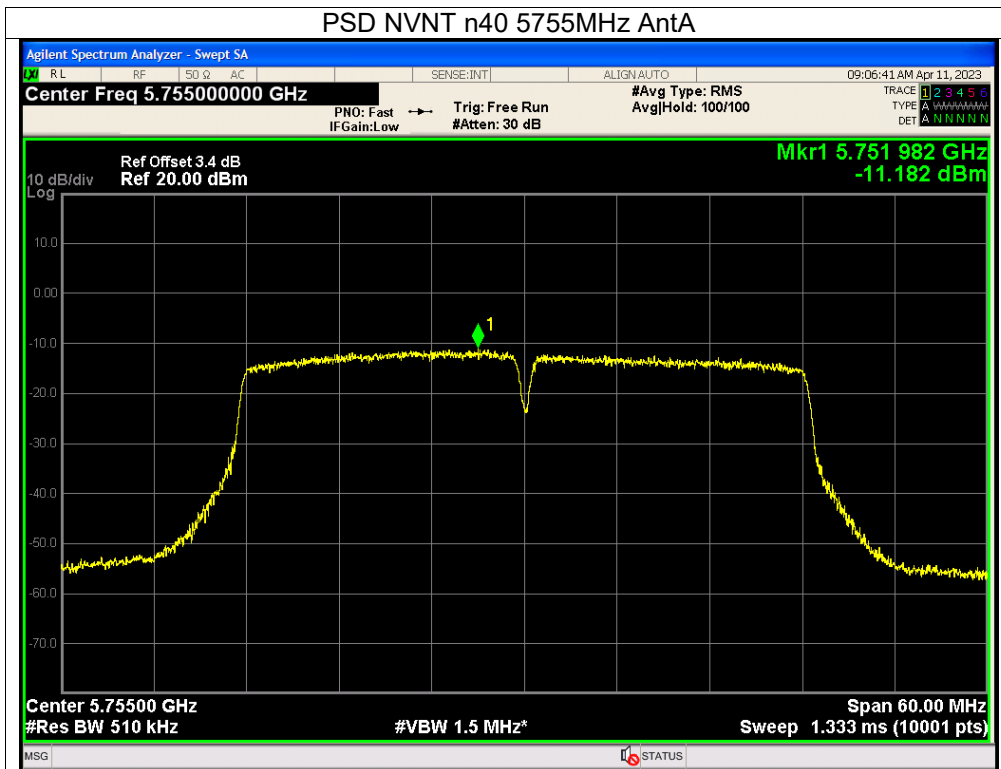
Limit=30-(9.97-6)=26.03 dBi

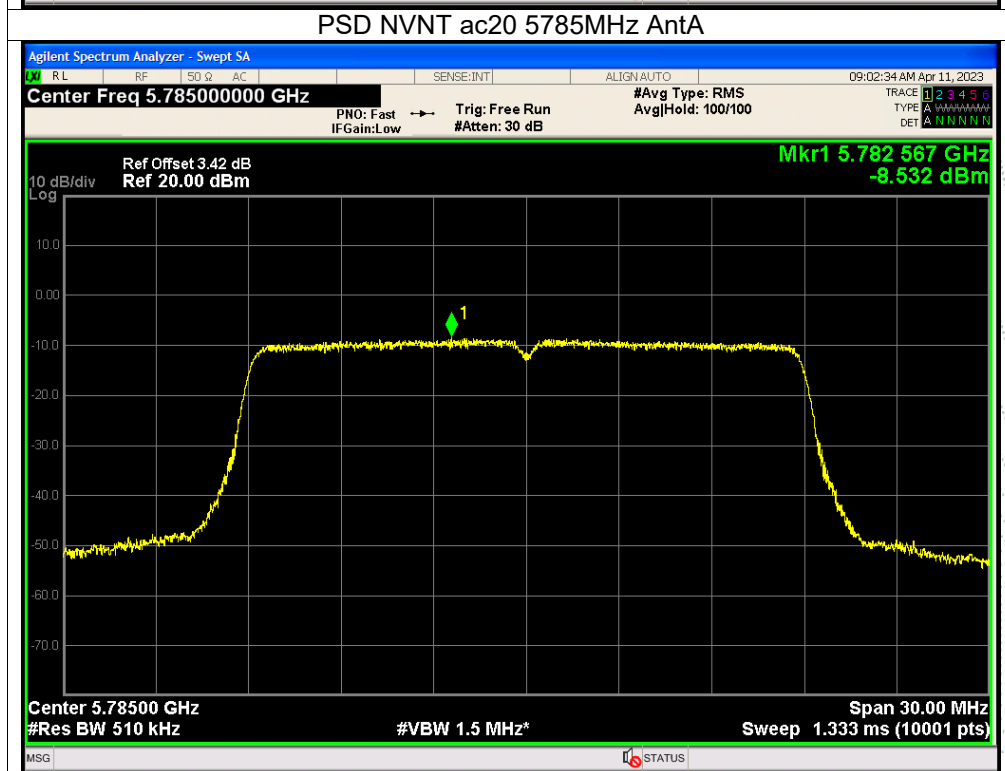
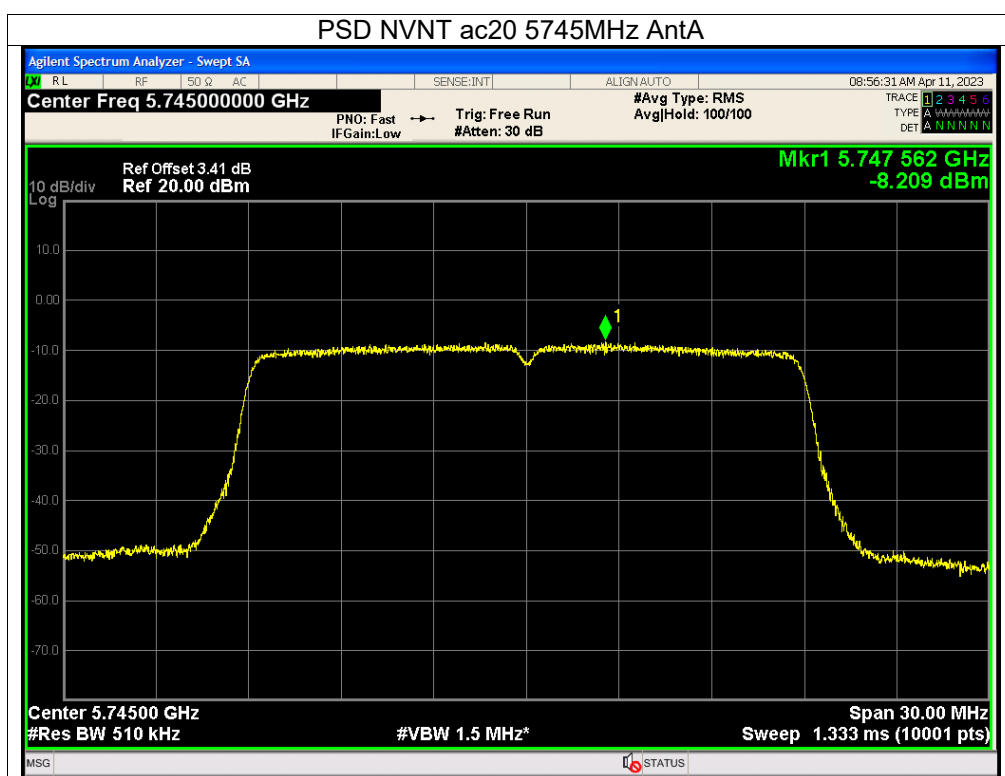
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

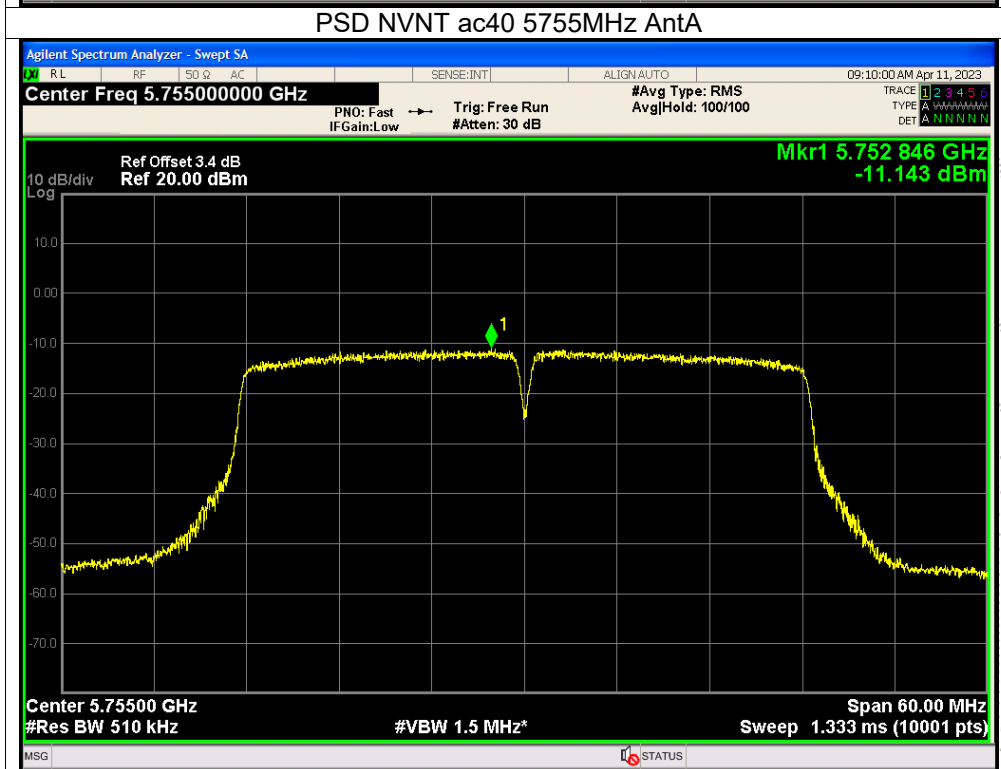
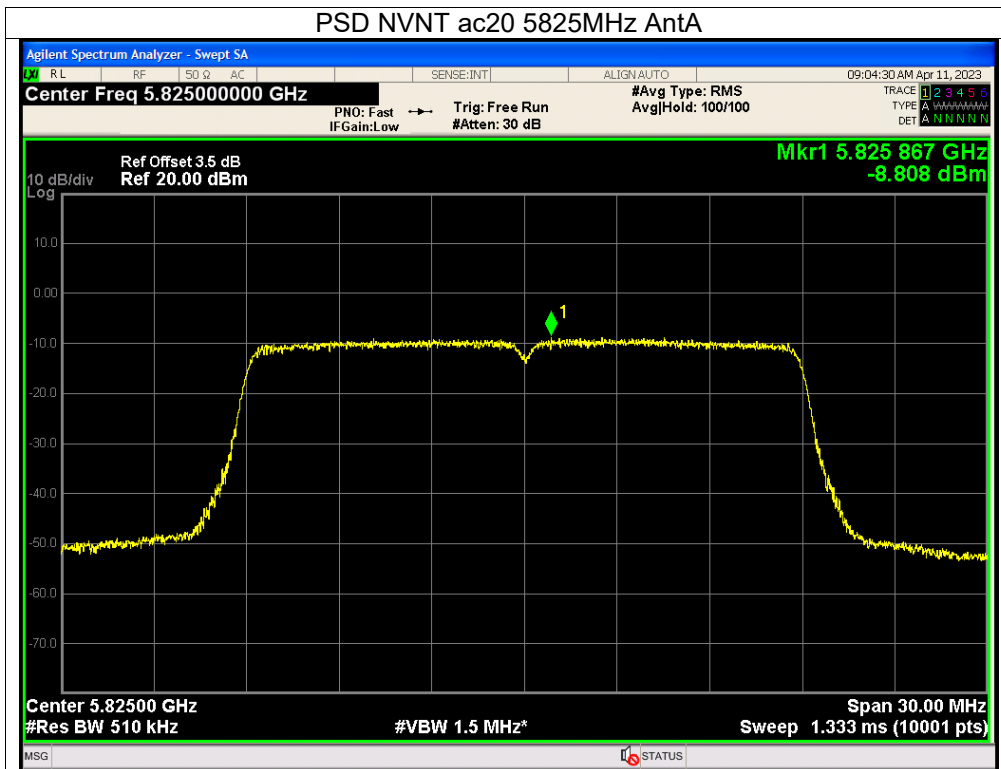


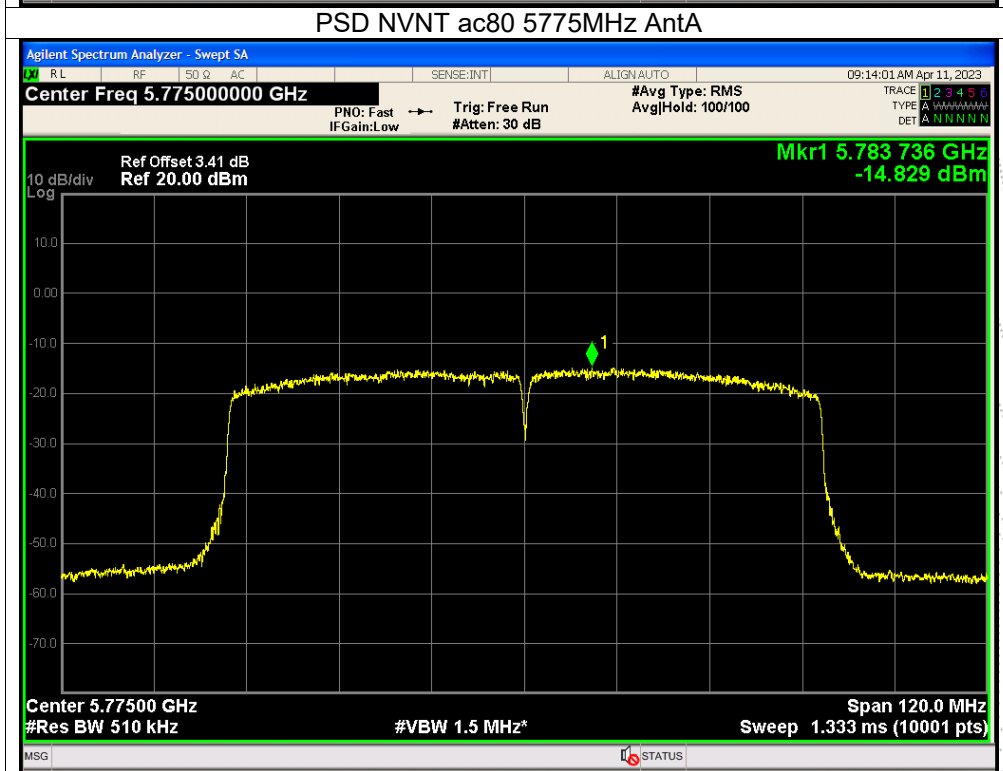
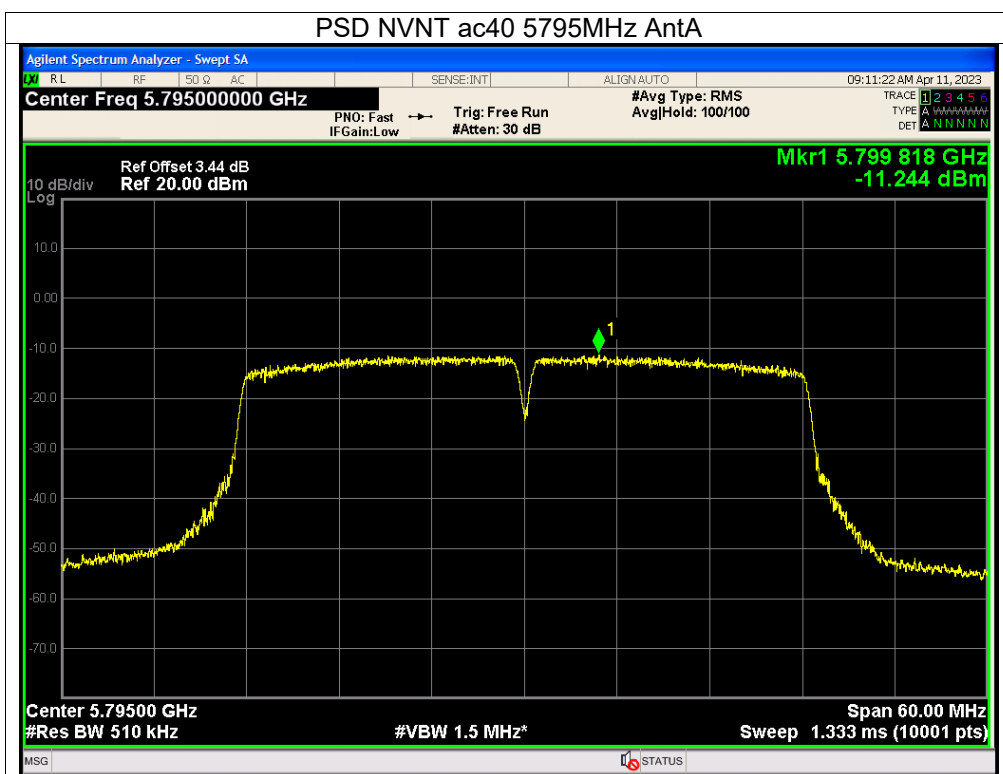






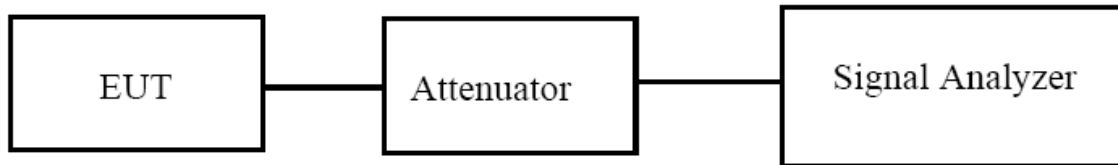






9. 26dB & 6dB & 99% Emission Bandwidth

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.
- Set RBW = 1 % to 5 % of the OBW

4. Set VBW $\geq 3 \cdot$ RBW

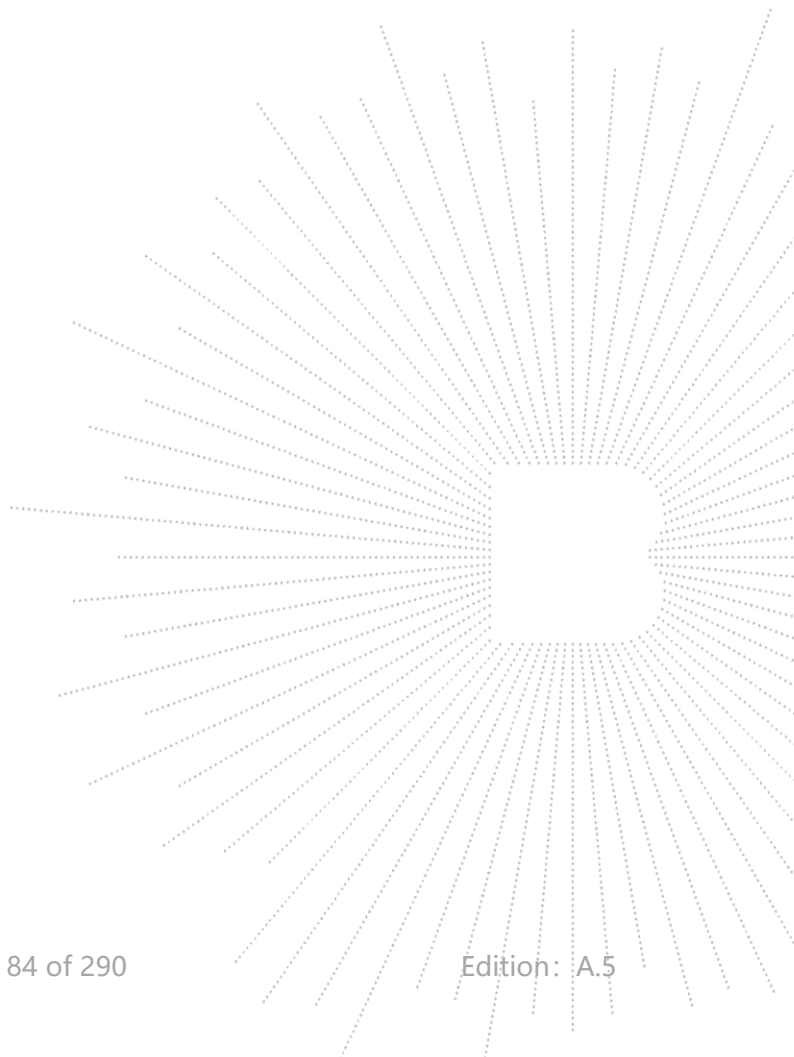
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.

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.



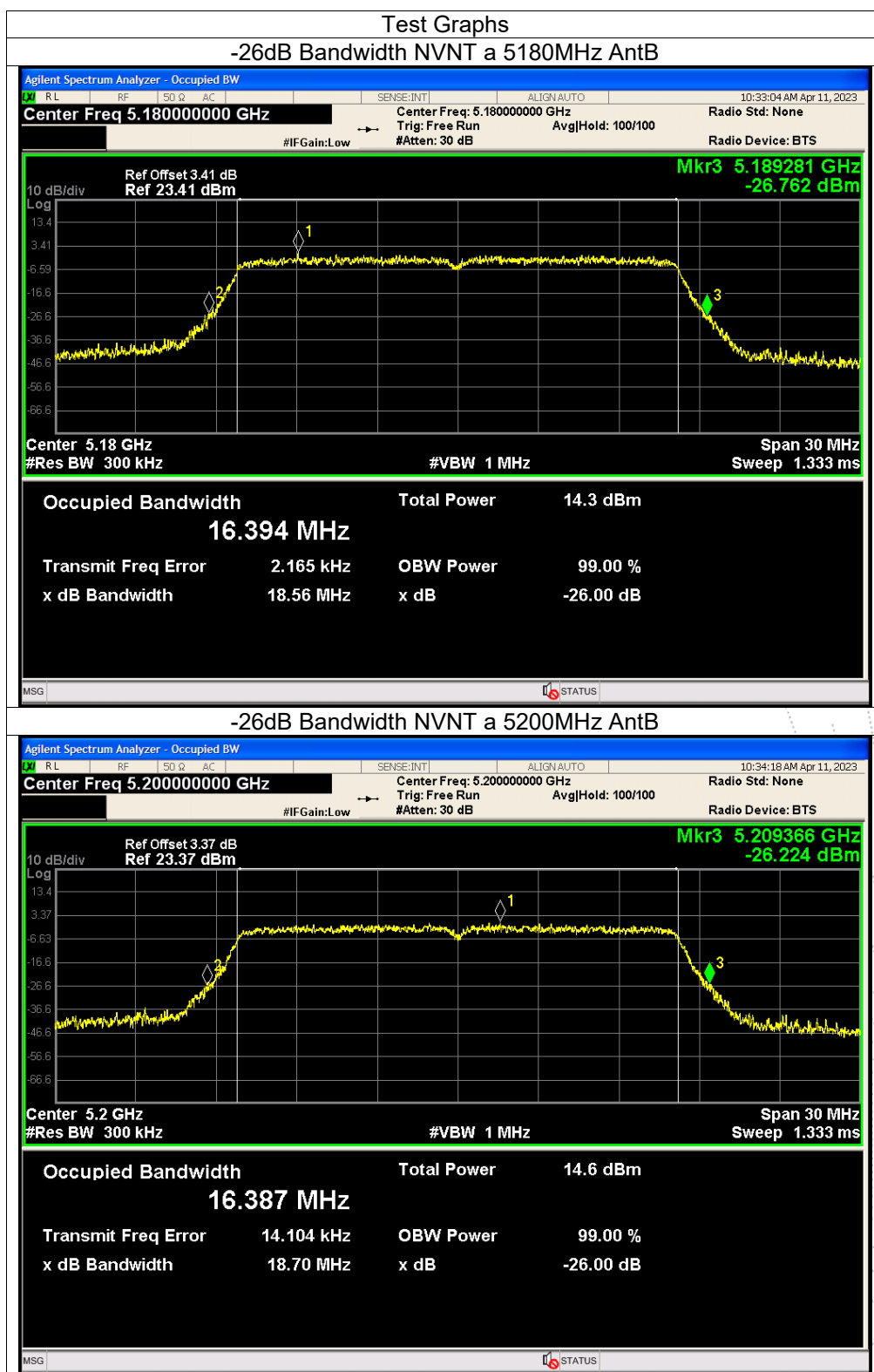
9.5 Test Result

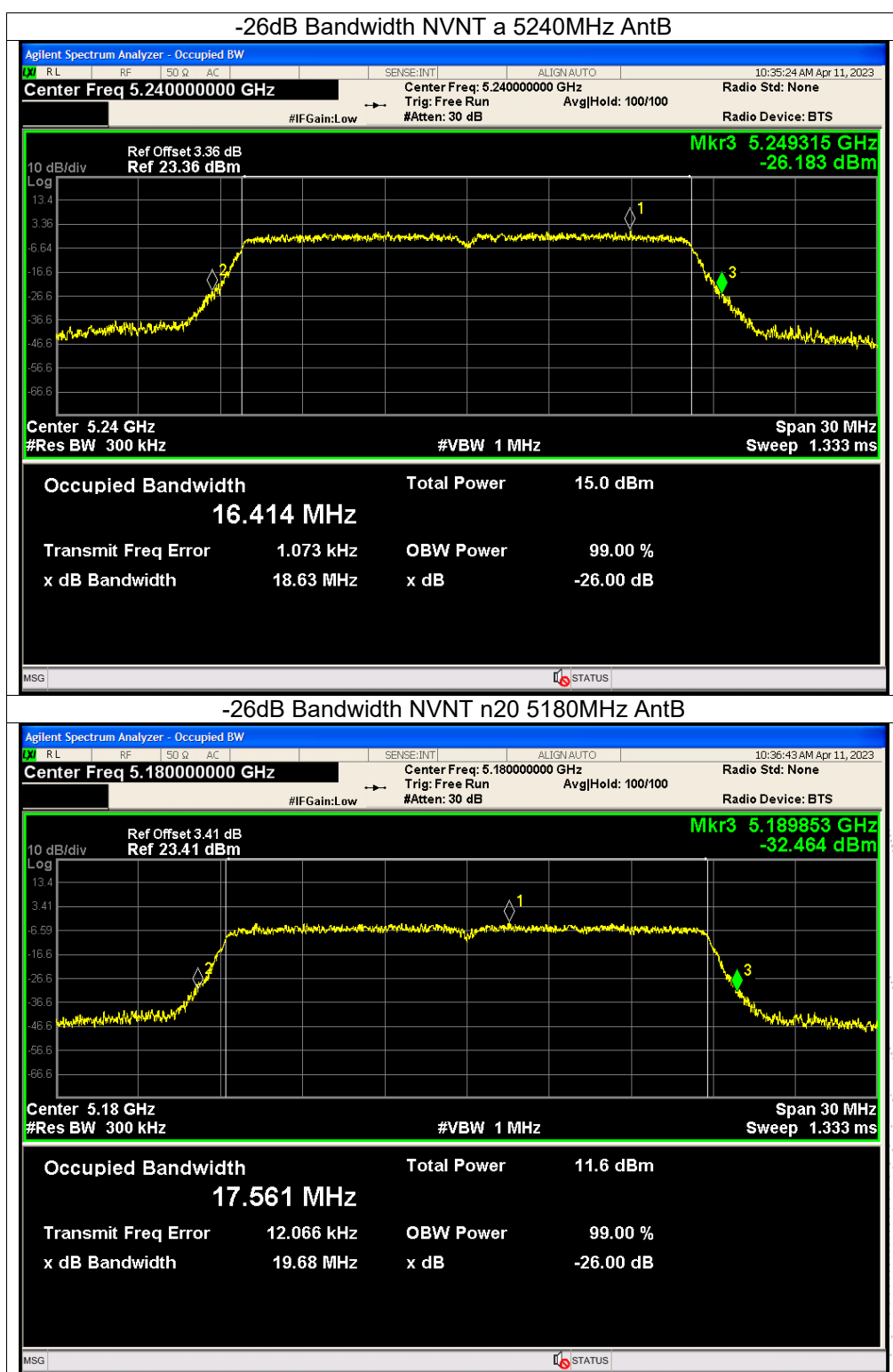
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(5180-5240MHz)		

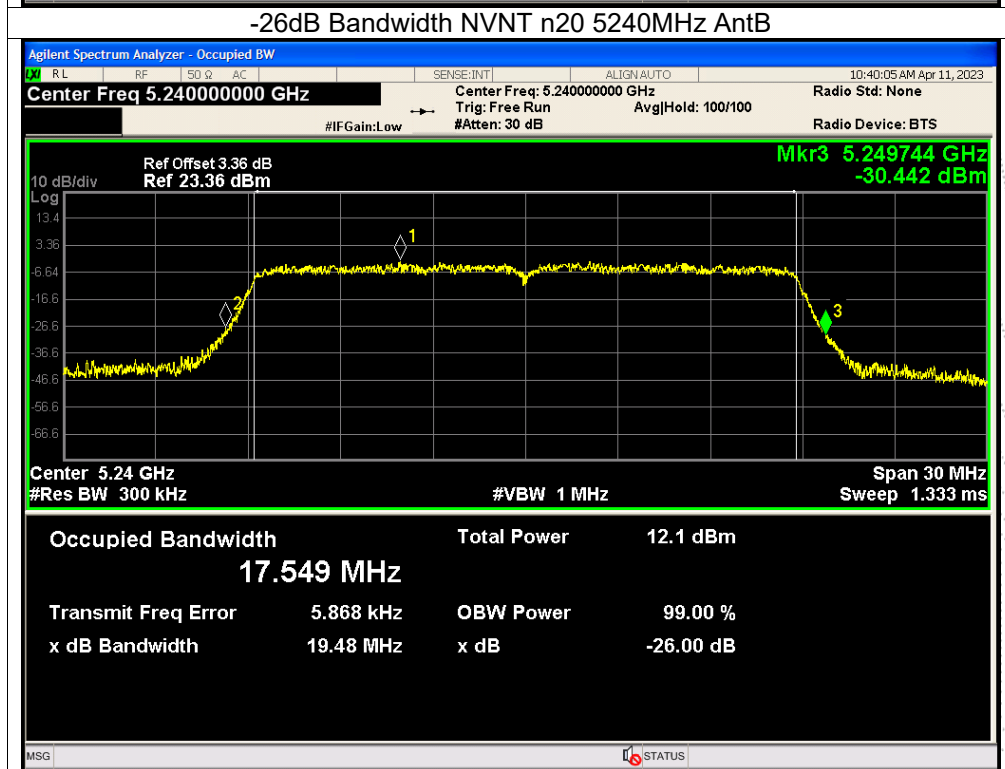
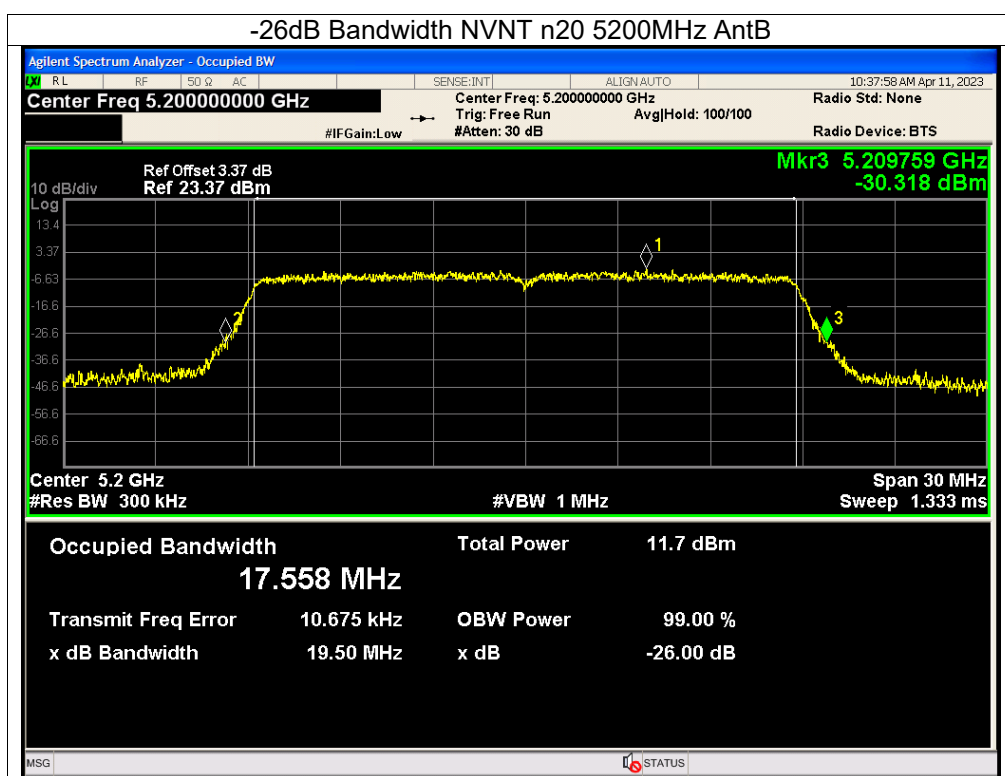
Condition	Mode	Frequency (MHz)	-26 dB Bandwidth (MHz)		Verdict
			Ant A	Ant B	
NVNT	a	5180	16.352	18.558	Pass
NVNT	a	5200	16.339	18.704	Pass
NVNT	a	5240	16.328	18.628	Pass
NVNT	n20	5180	17.541	19.682	Pass
NVNT	n20	5200	17.527	19.497	Pass
NVNT	n20	5240	17.536	19.477	Pass
NVNT	n40	5190	36.049	42.456	Pass
NVNT	n40	5230	36.064	42.453	Pass
NVNT	ac20	5180	17.528	19.449	Pass
NVNT	ac20	5200	17.527	19.525	Pass
NVNT	ac20	5240	17.52	19.56	Pass
NVNT	ac40	5190	36.108	42.533	Pass
NVNT	ac40	5230	36.036	42.246	Pass
NVNT	ac80	5210	74.636	81.19	Pass

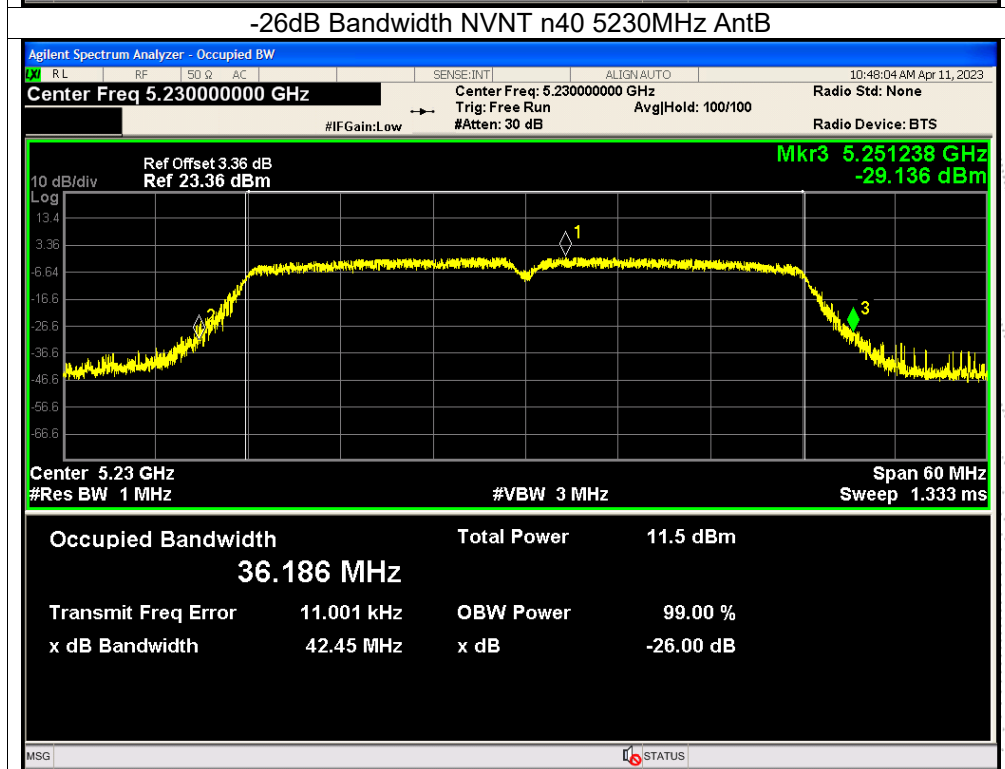
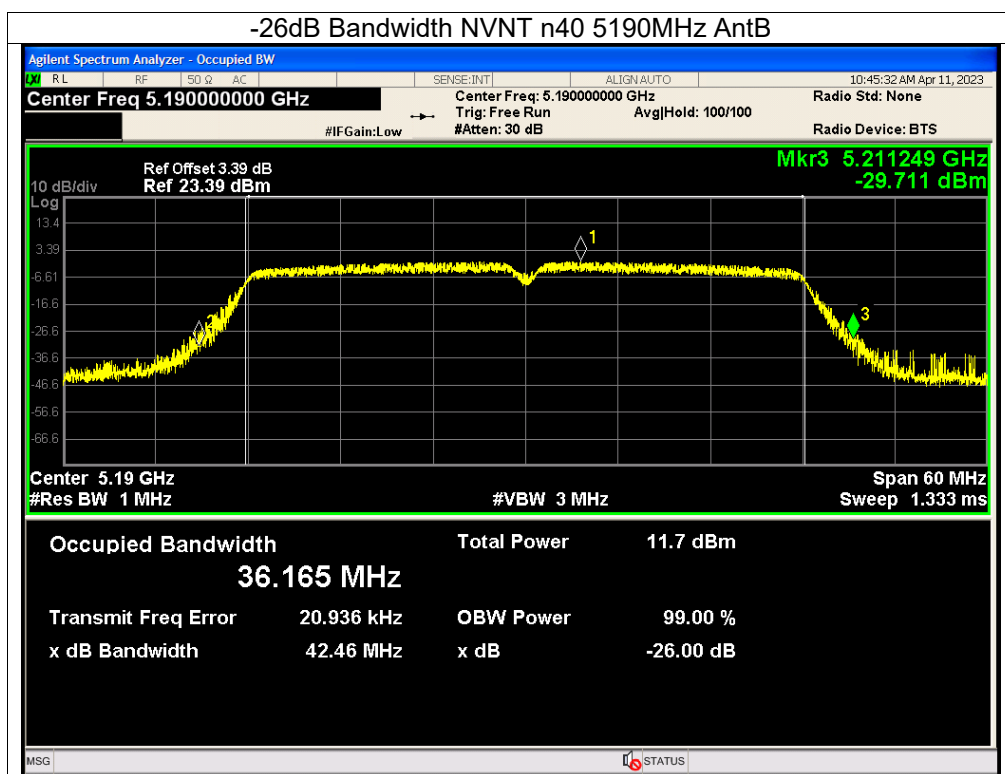
Condition	Mode	Frequency (MHz)	99% OBW (MHz)	
			Ant A	Ant B
NVNT	a	5180	16.352	16.348
NVNT	a	5200	16.339	16.328
NVNT	a	5240	16.328	16.344
NVNT	n20	5180	17.541	17.523
NVNT	n20	5200	17.527	17.519
NVNT	n20	5240	17.536	17.518
NVNT	n40	5190	36.049	36.064
NVNT	n40	5230	36.064	36.012
NVNT	ac20	5180	17.528	17.53
NVNT	ac20	5200	17.527	17.524
NVNT	ac20	5240	17.52	17.528
NVNT	ac40	5190	36.108	36.04
NVNT	ac40	5230	36.036	36.042
NVNT	ac80	5210	74.636	74.742

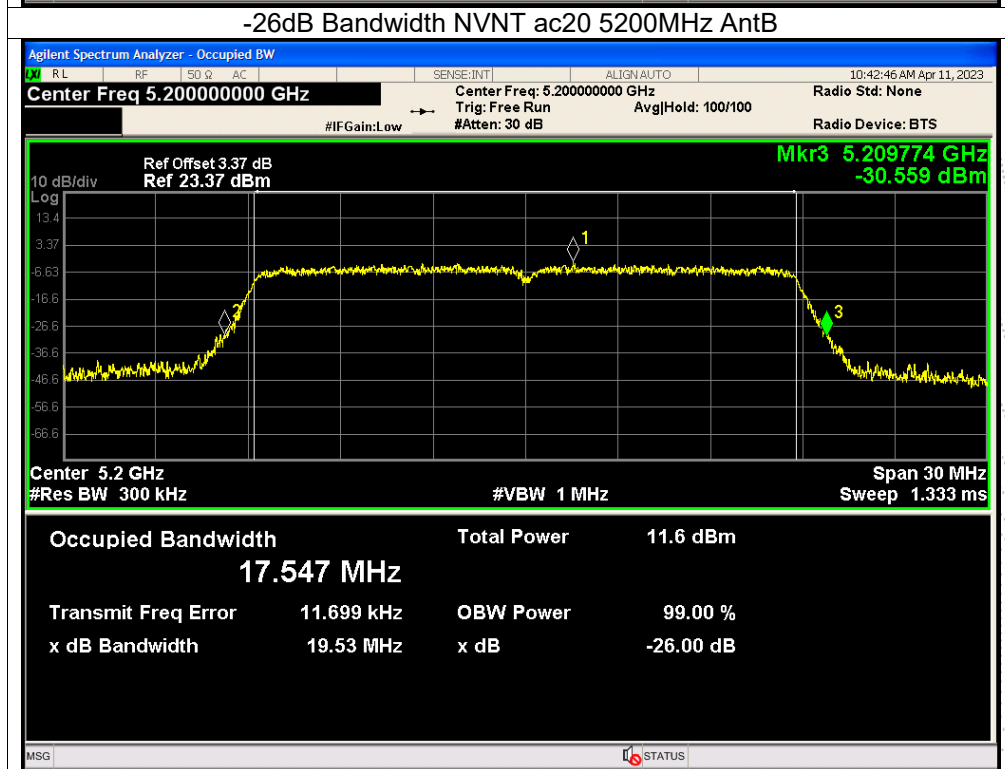
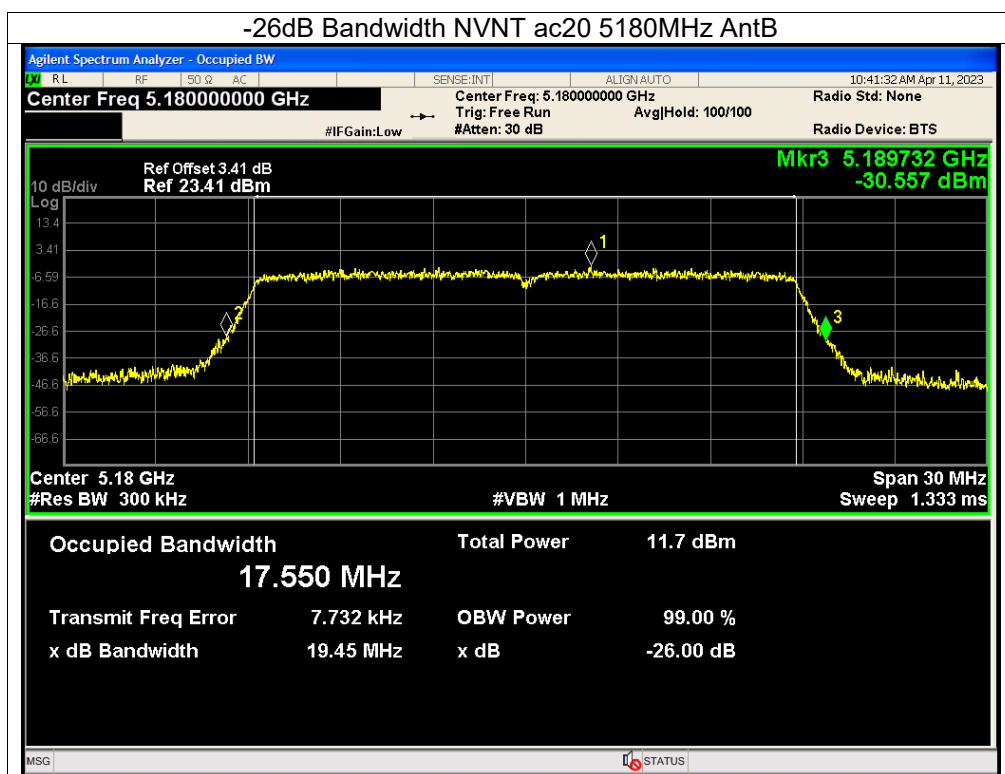
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna B, only shown Antenna B Plot.

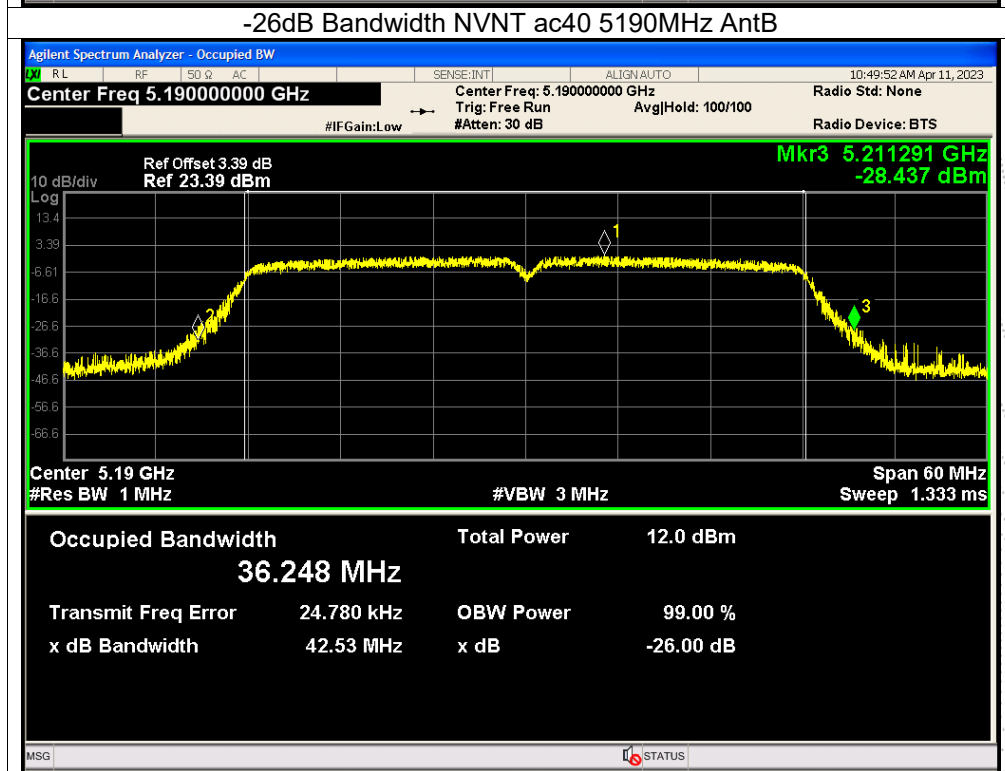
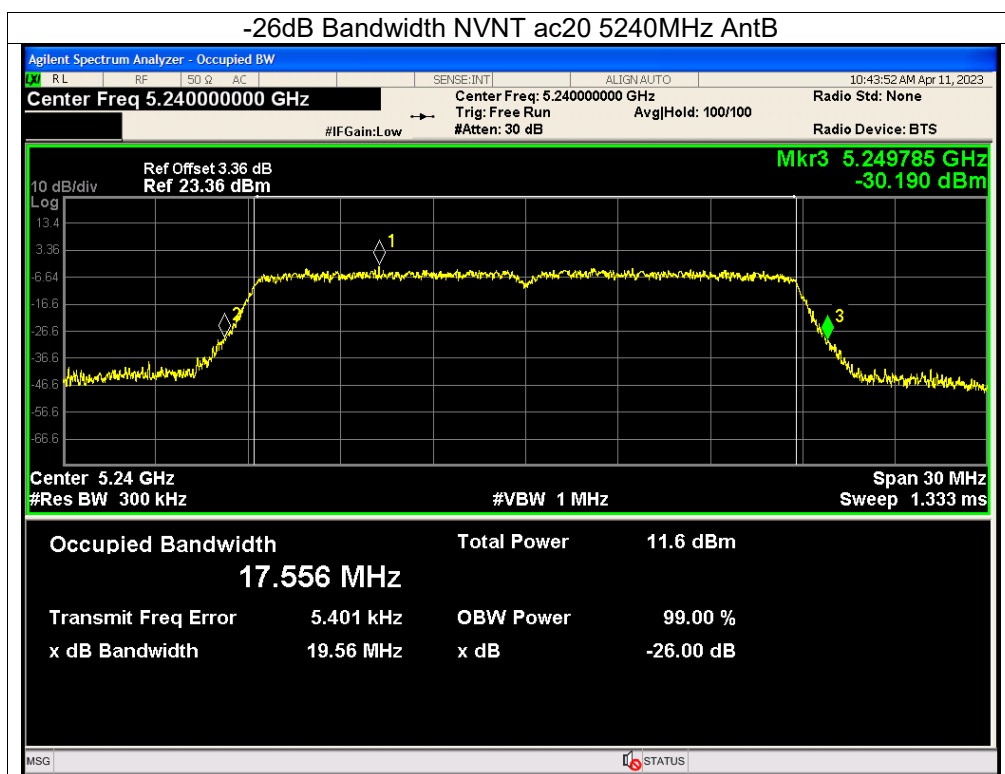


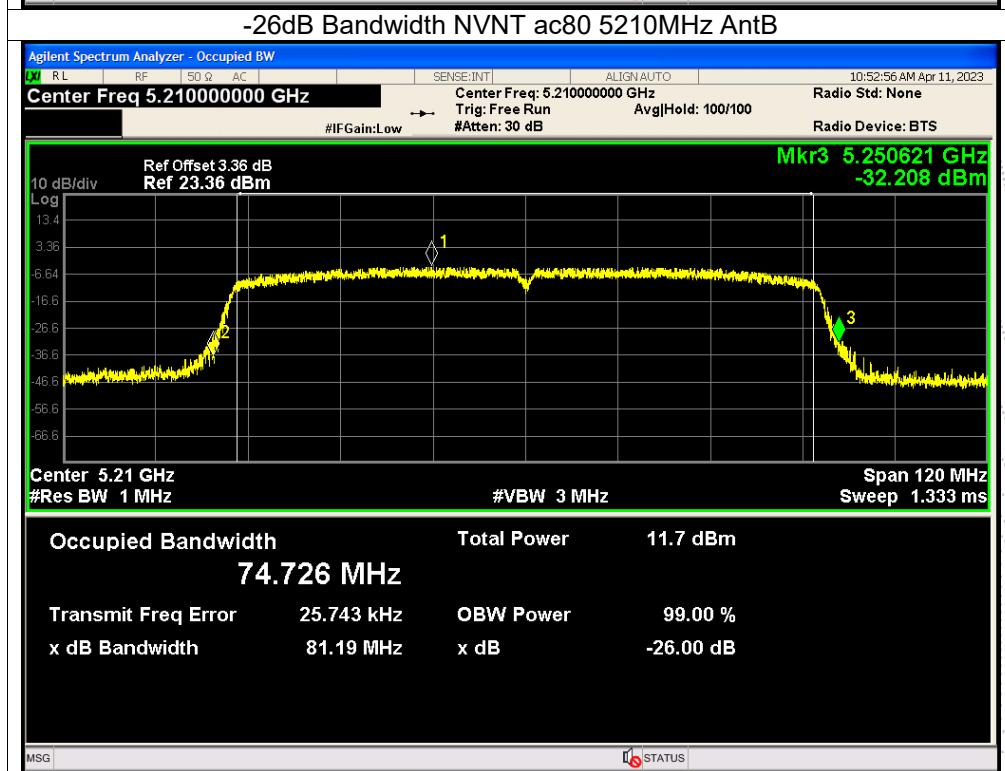
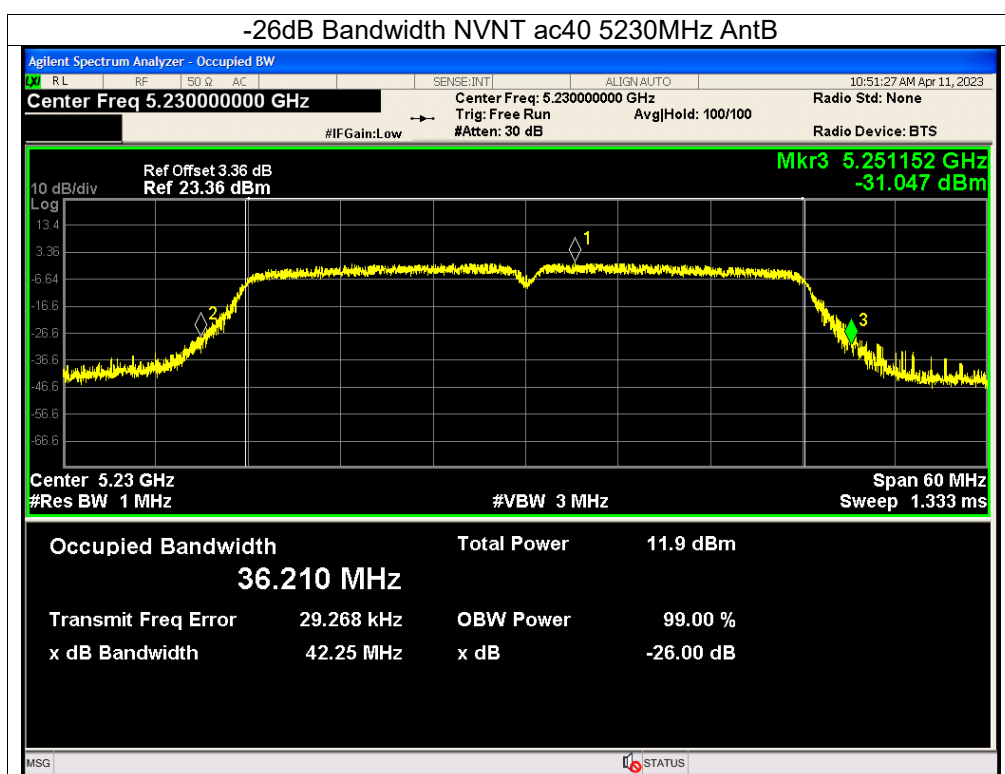


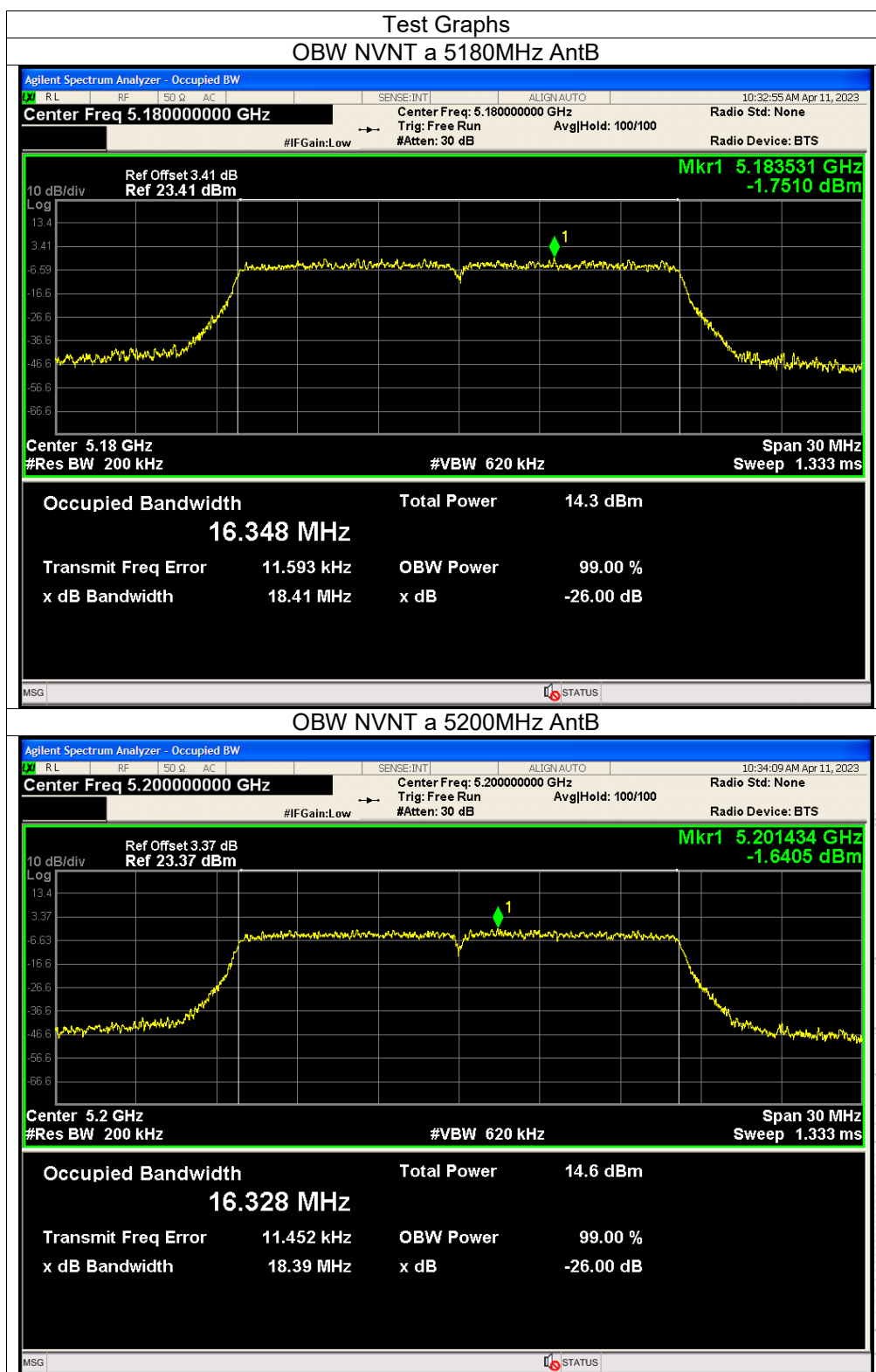


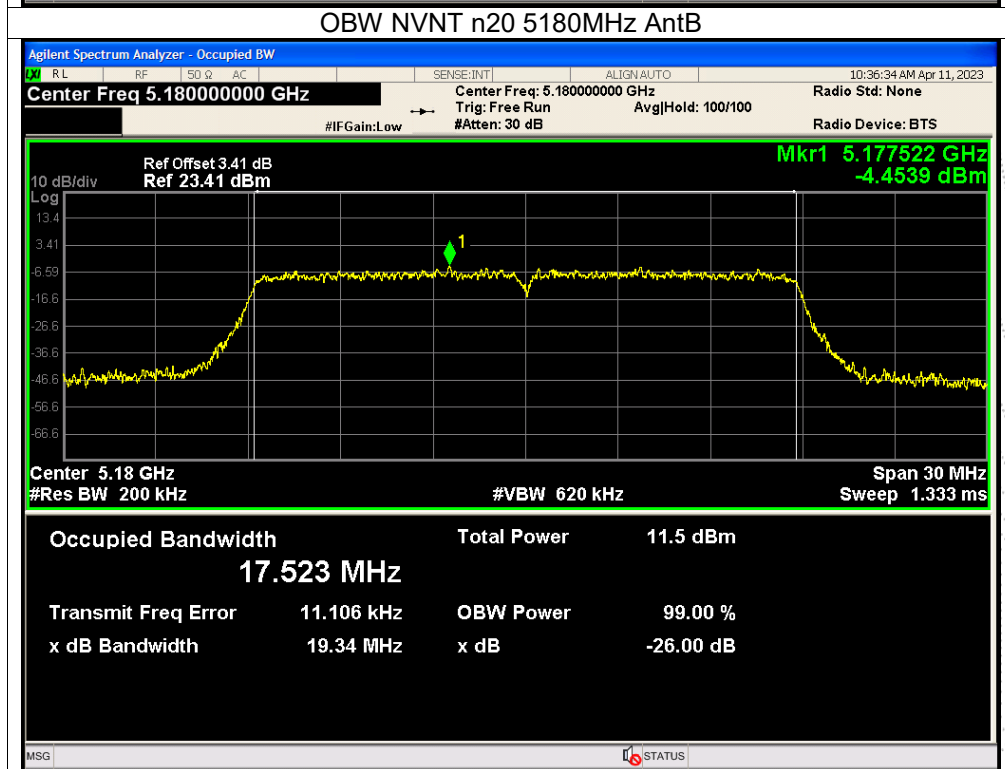
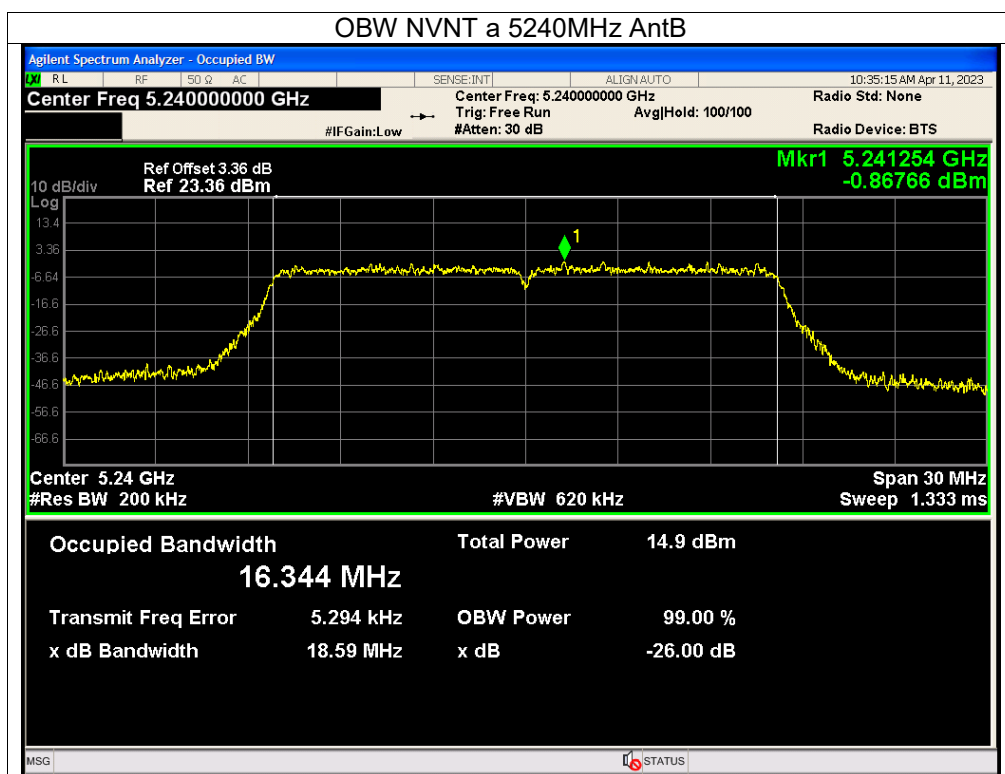


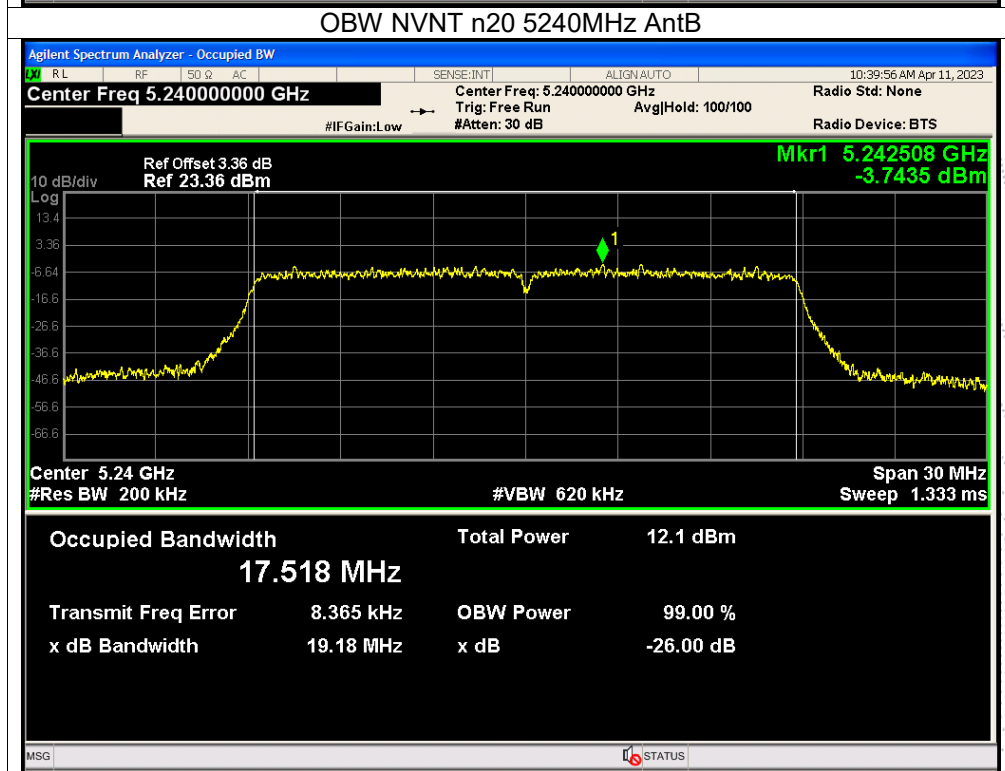
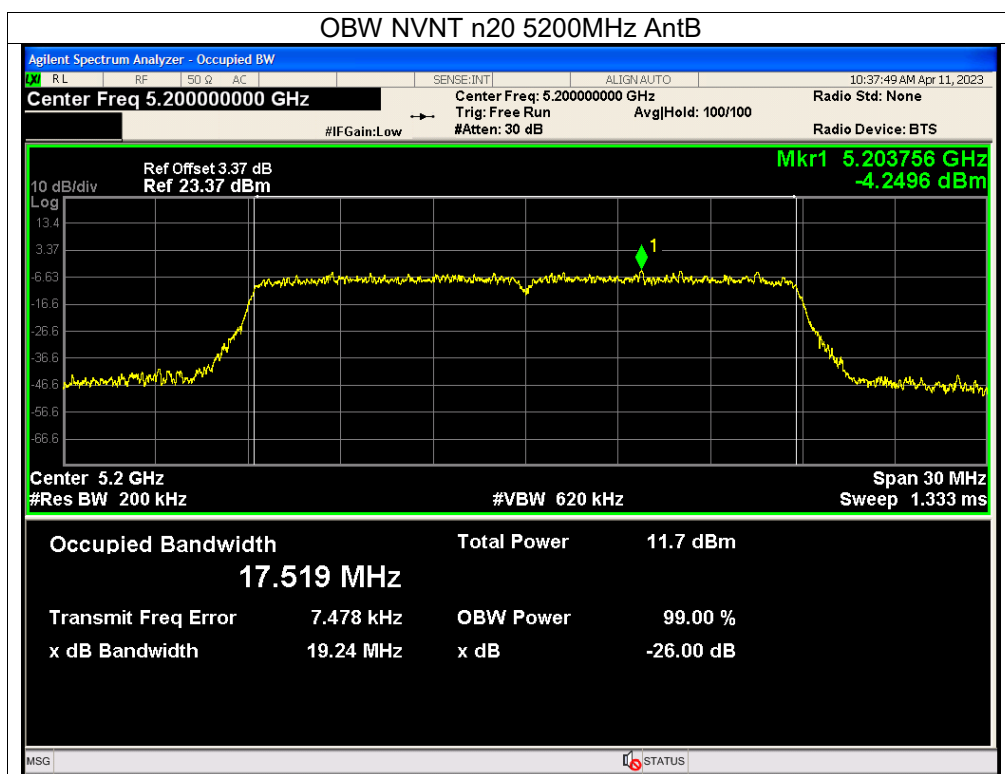


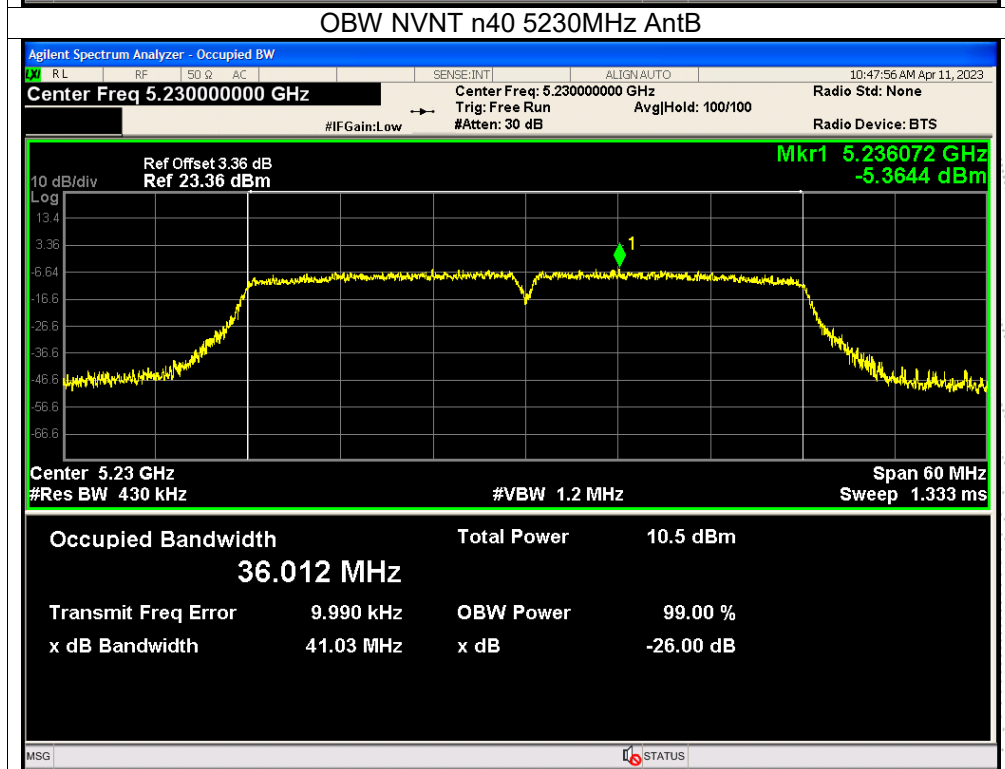
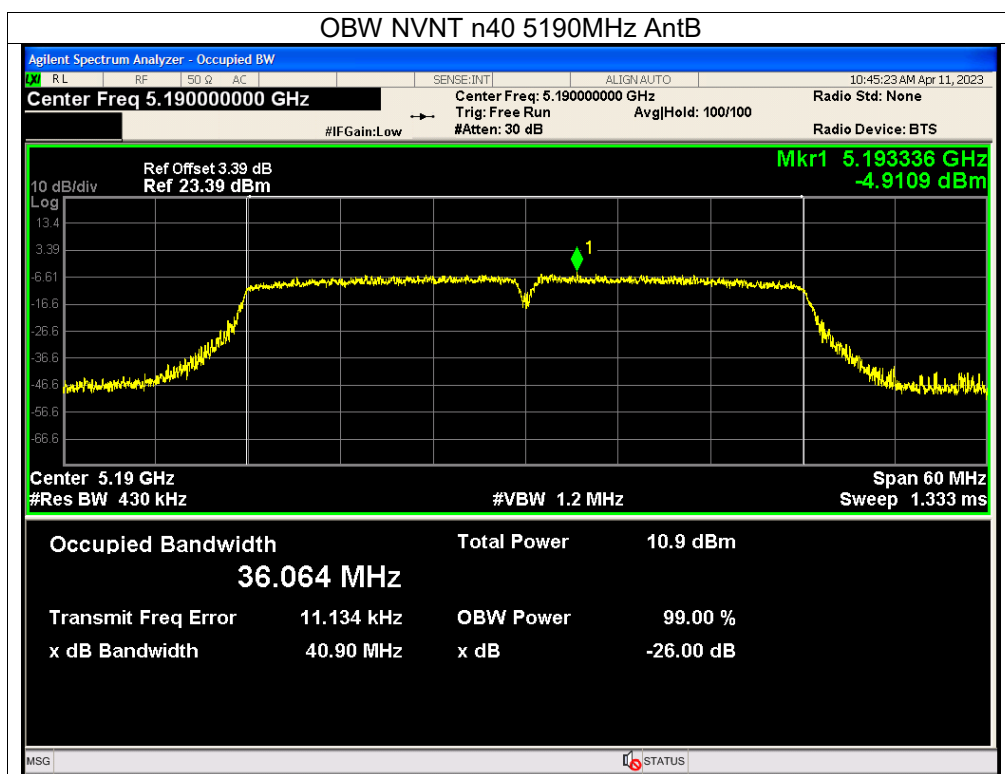


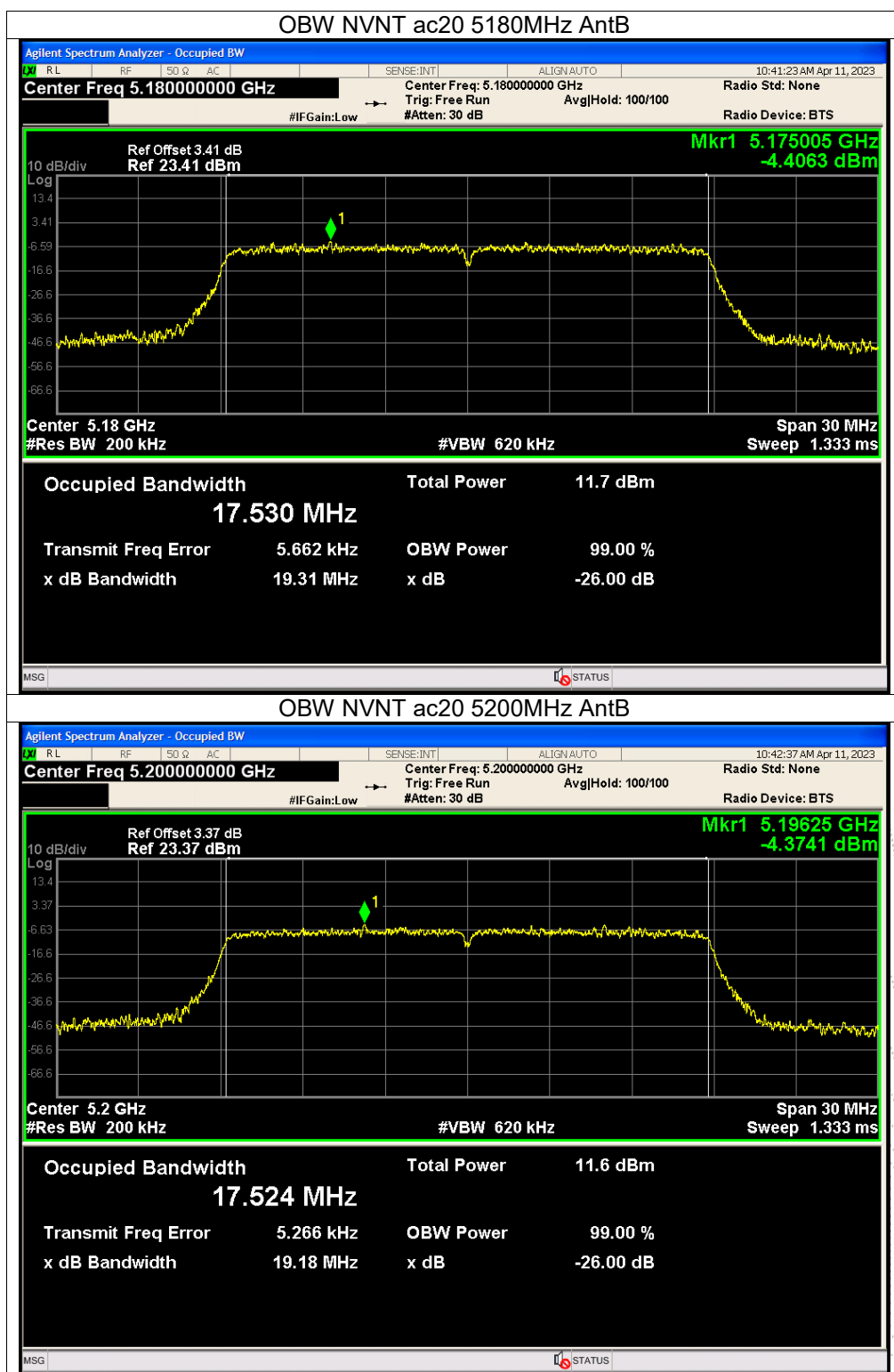


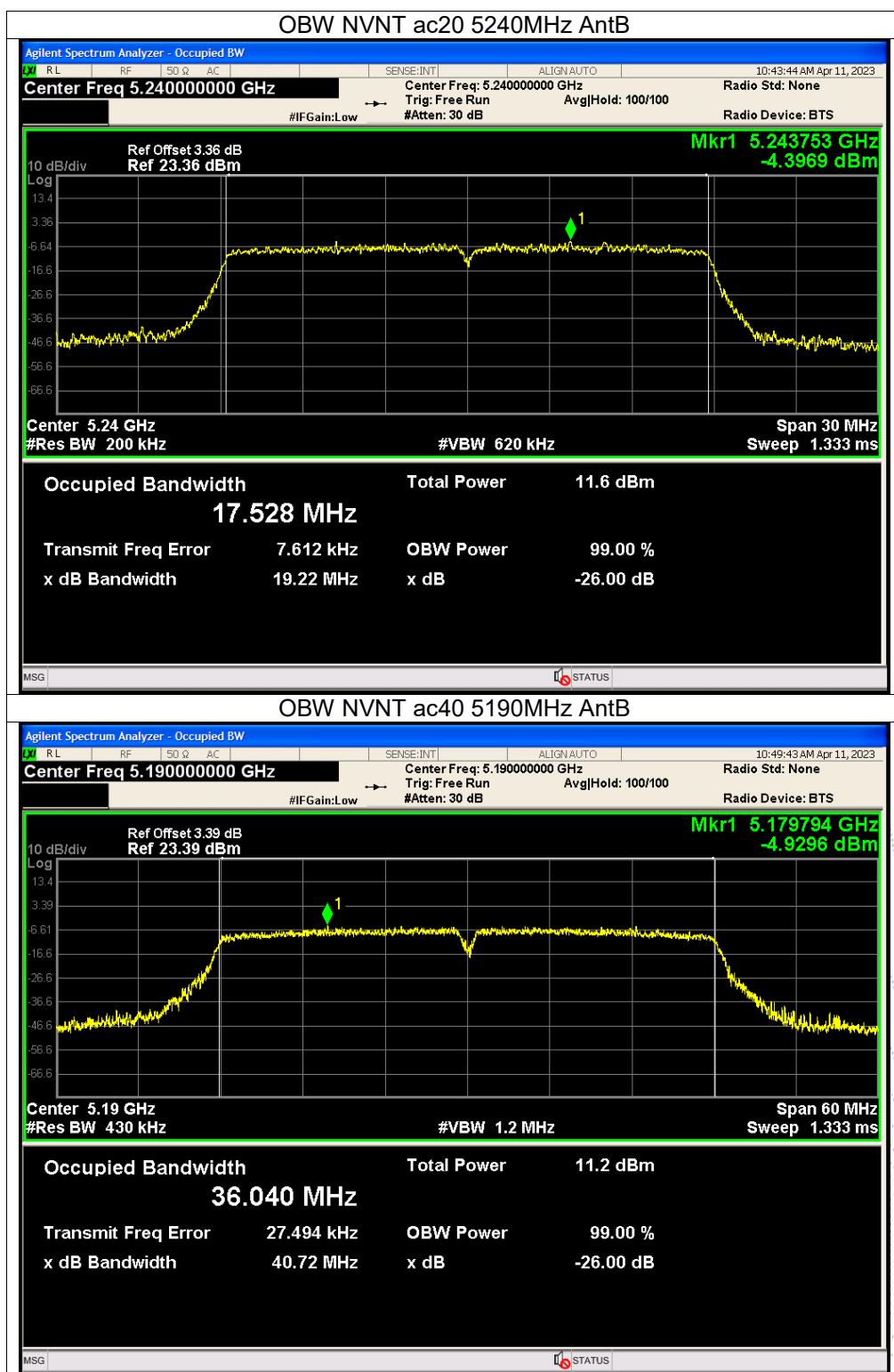


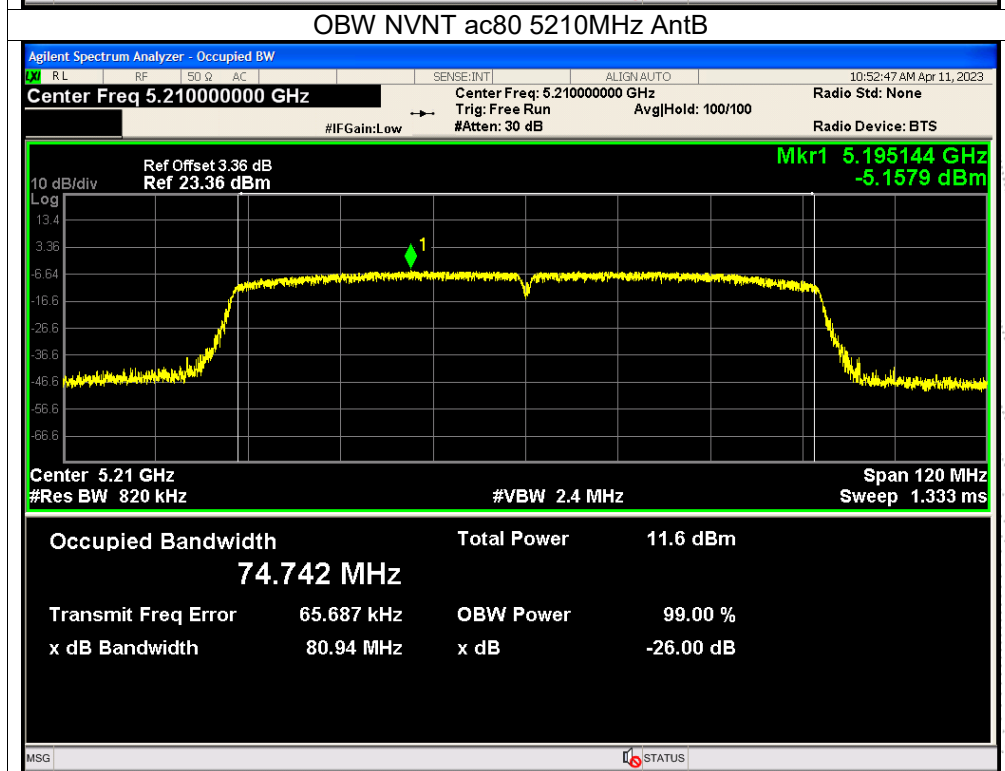
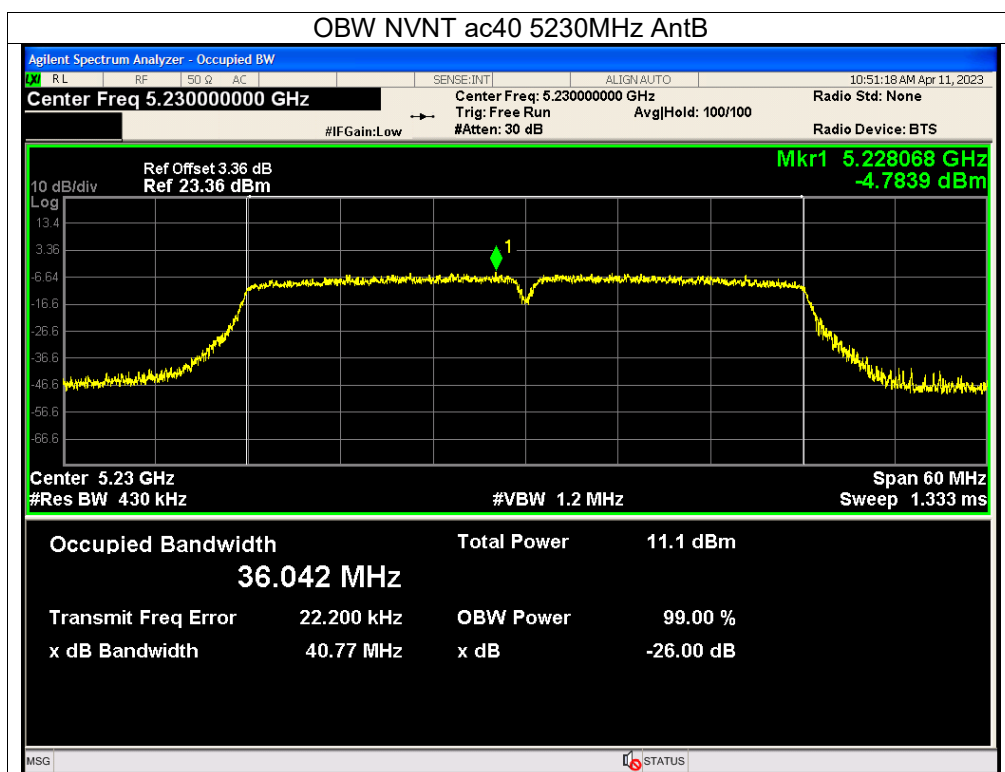










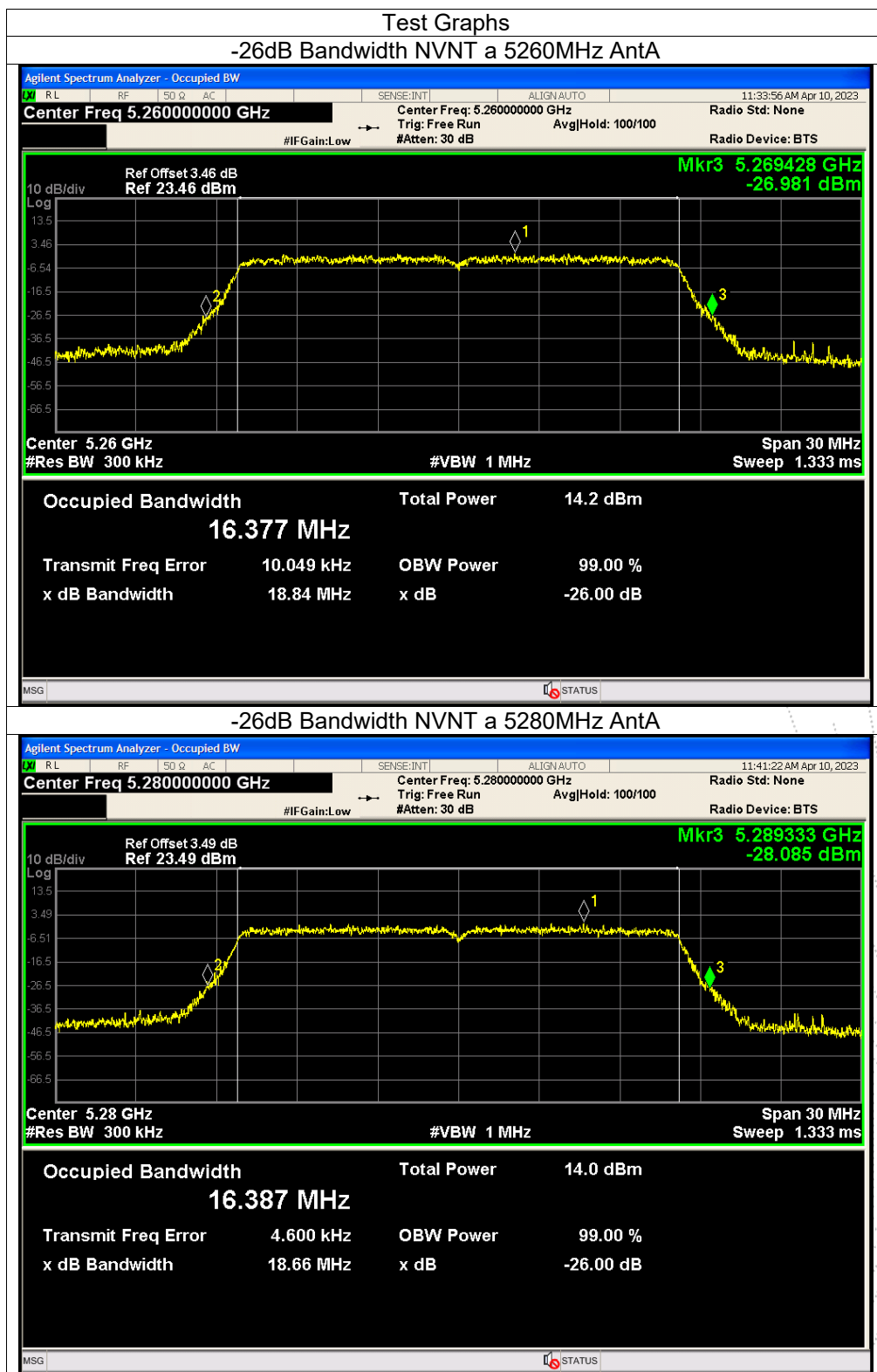


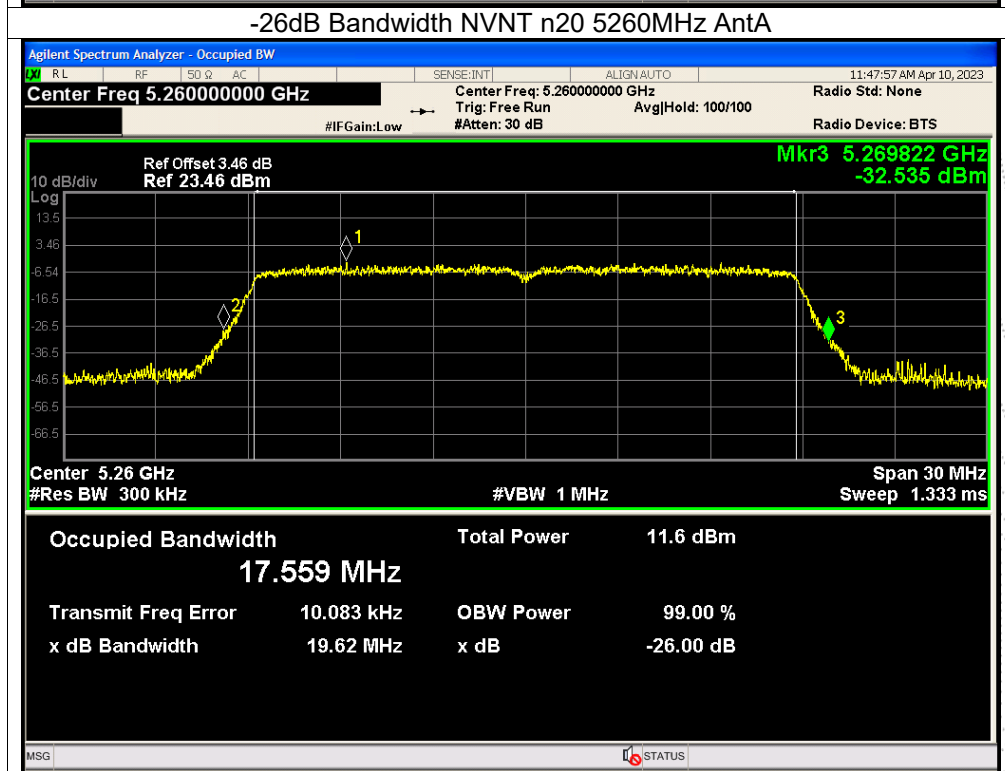
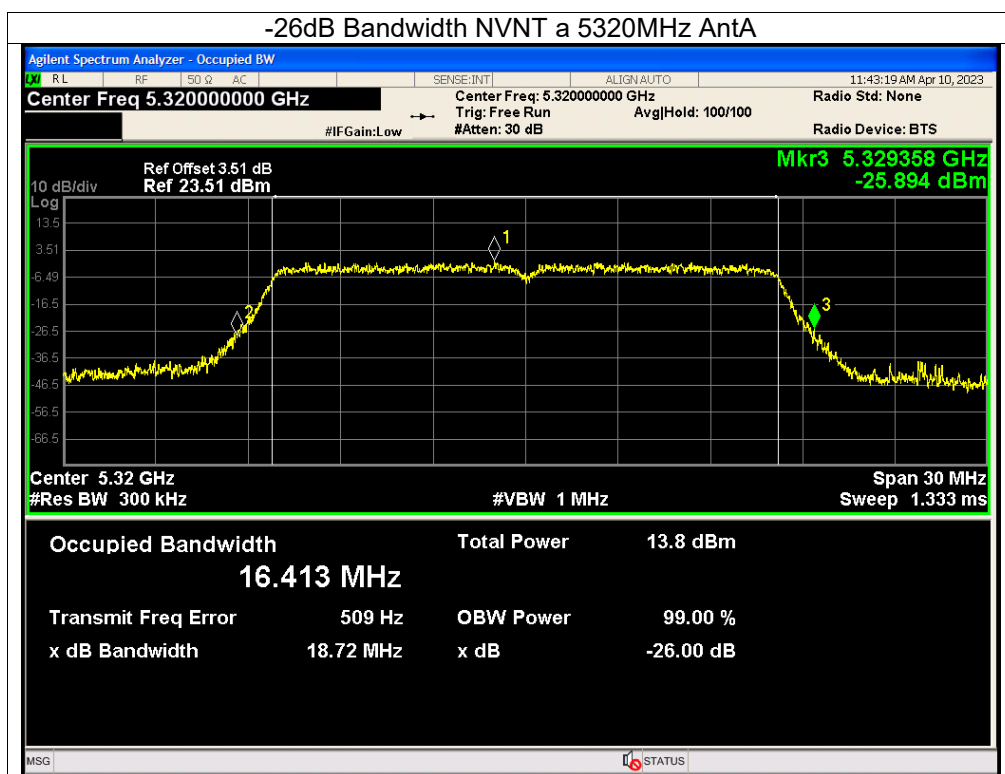
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(5260-5320MHz)		

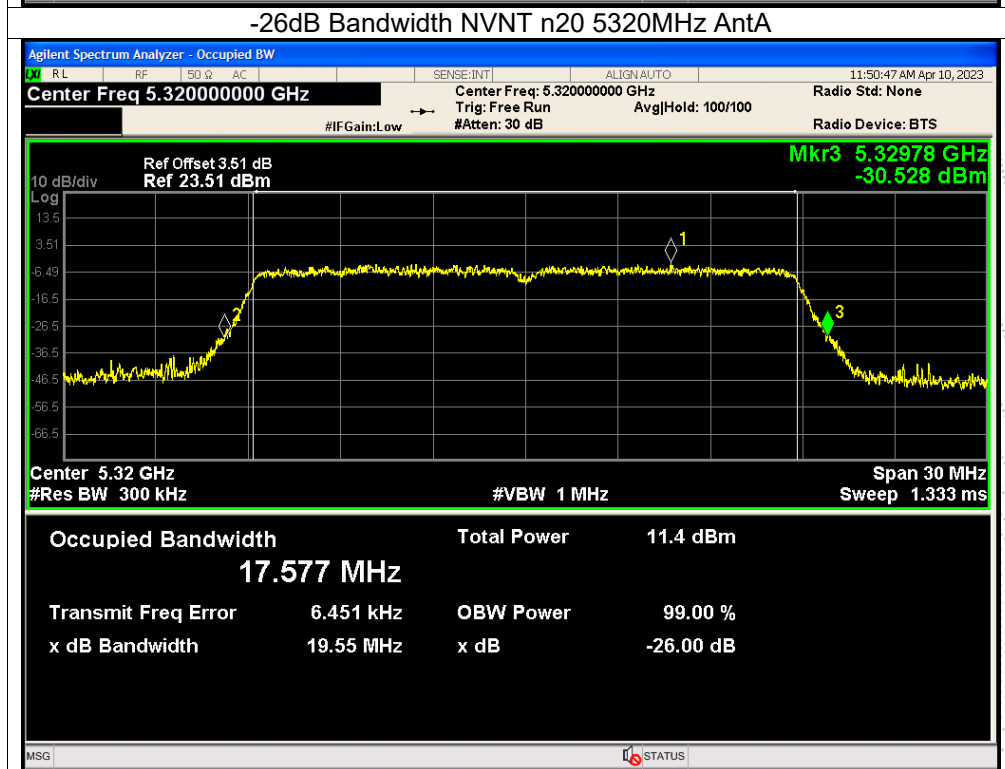
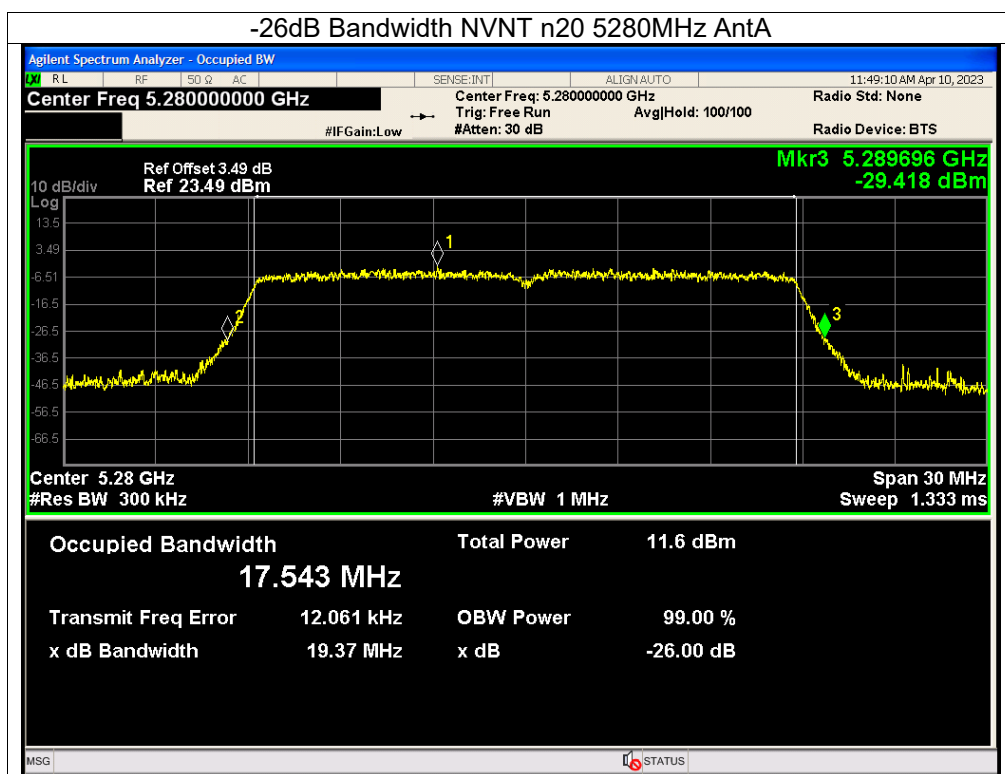
Condition	Mode	Frequency (MHz)	-26 dB Bandwidth (MHz)		Verdict
			Ant A	Ant B	
NVNT	a	5260	18.837	18.647	Pass
NVNT	a	5280	18.656	18.673	Pass
NVNT	a	5320	18.715	18.754	Pass
NVNT	n20	5260	19.623	19.641	Pass
NVNT	n20	5280	19.368	19.494	Pass
NVNT	n20	5320	19.548	19.475	Pass
NVNT	n40	5270	42.185	42.383	Pass
NVNT	n40	5310	42.701	41.943	Pass
NVNT	ac20	5260	19.62	19.614	Pass
NVNT	ac20	5280	19.664	19.425	Pass
NVNT	ac20	5320	19.582	19.64	Pass
NVNT	ac40	5270	42.403	42.095	Pass
NVNT	ac40	5310	42.393	42.103	Pass
NVNT	ac80	5290	81.532	81.173	Pass

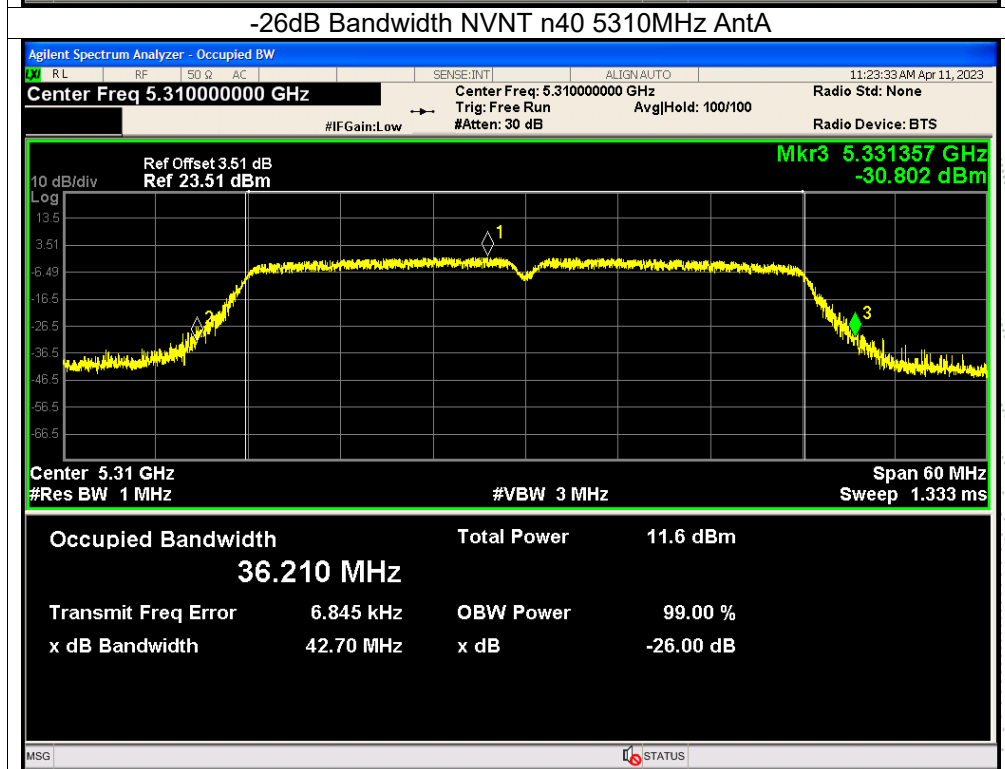
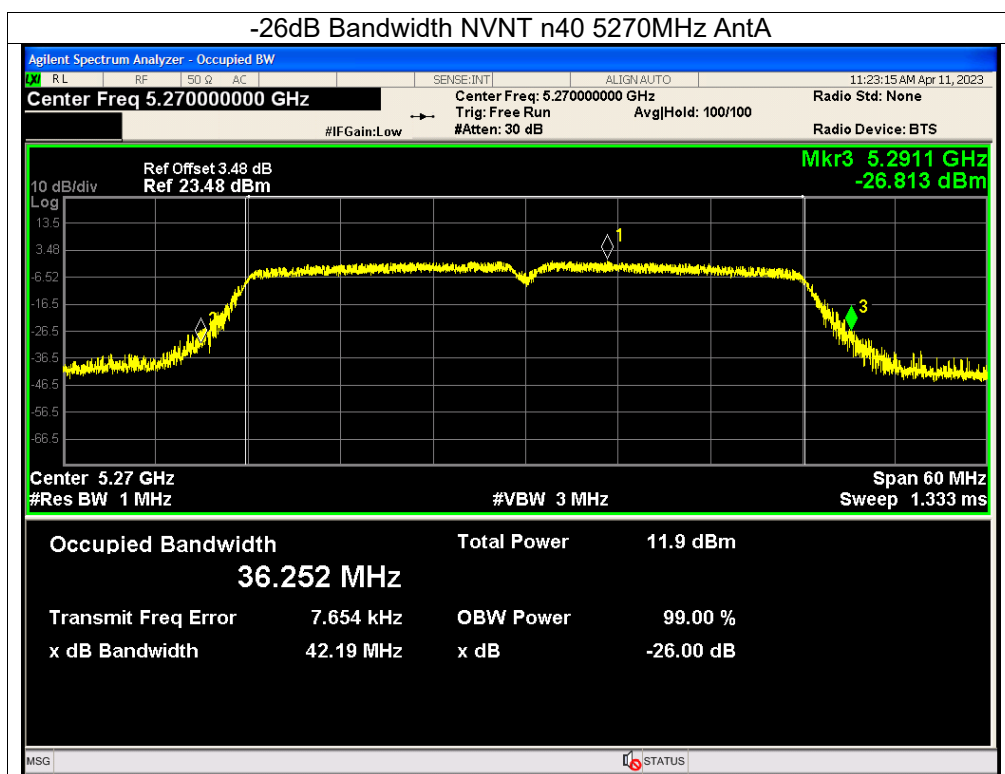
Condition	Mode	Frequency (MHz)	99% OBW (MHz)	
			Ant A	Ant B
NVNT	a	5260	16.35	16.351
NVNT	a	5280	16.34	16.351
NVNT	a	5320	16.355	16.343
NVNT	n20	5260	17.512	17.512
NVNT	n20	5280	17.515	17.526
NVNT	n20	5320	17.538	17.533
NVNT	n40	5270	35.992	36.075
NVNT	n40	5310	36.062	36.026
NVNT	ac20	5260	17.532	17.529
NVNT	ac20	5280	17.535	17.526
NVNT	ac20	5320	17.528	17.537
NVNT	ac40	5270	35.992	36.051
NVNT	ac40	5310	36.08	35.958
NVNT	ac80	5290	74.66	74.565

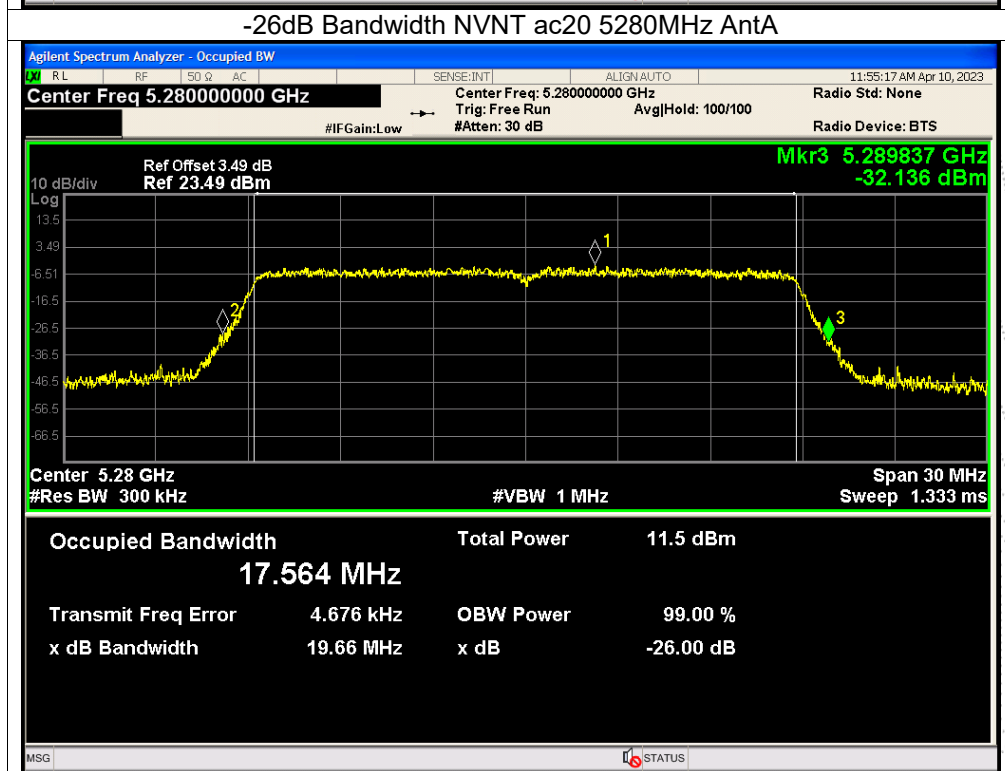
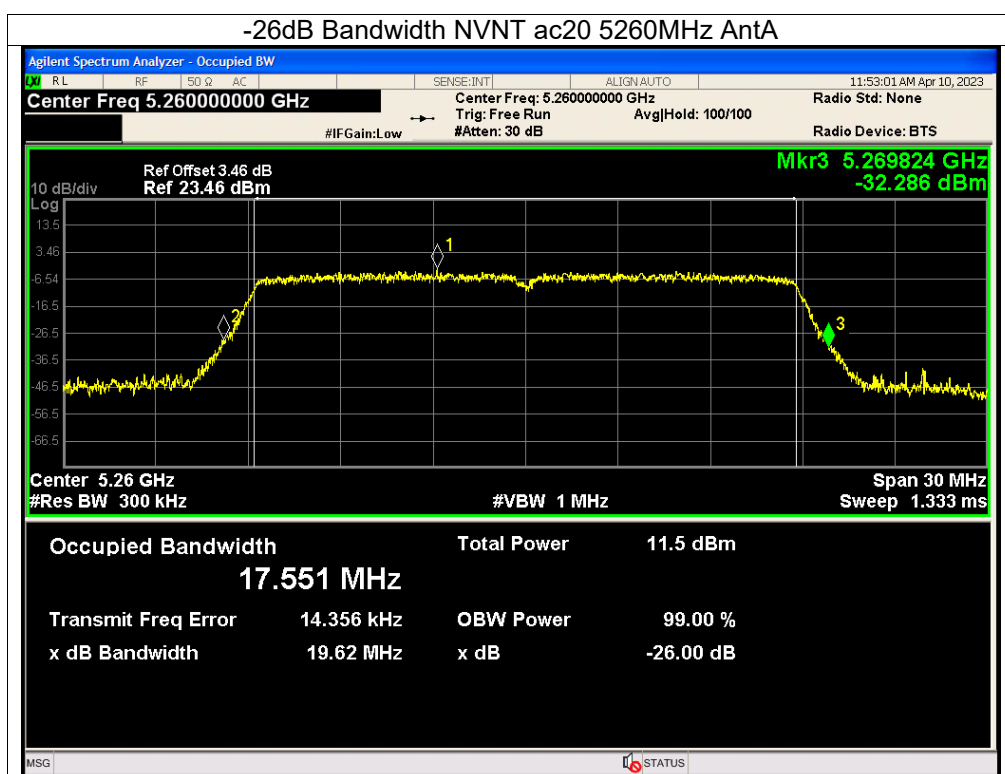
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

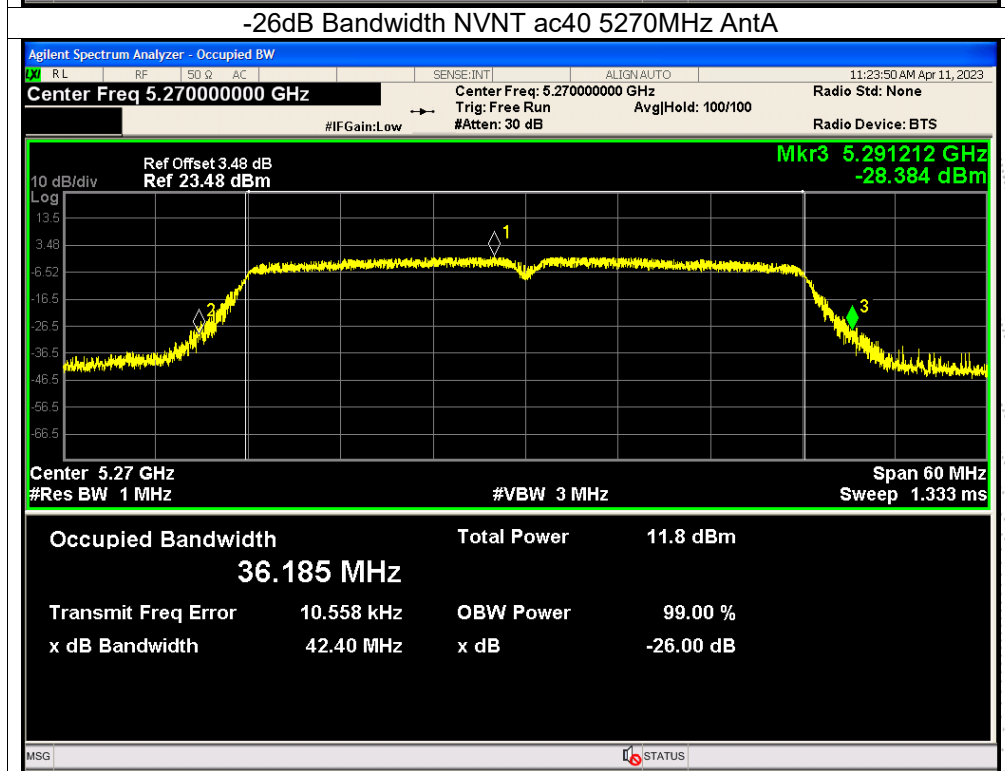
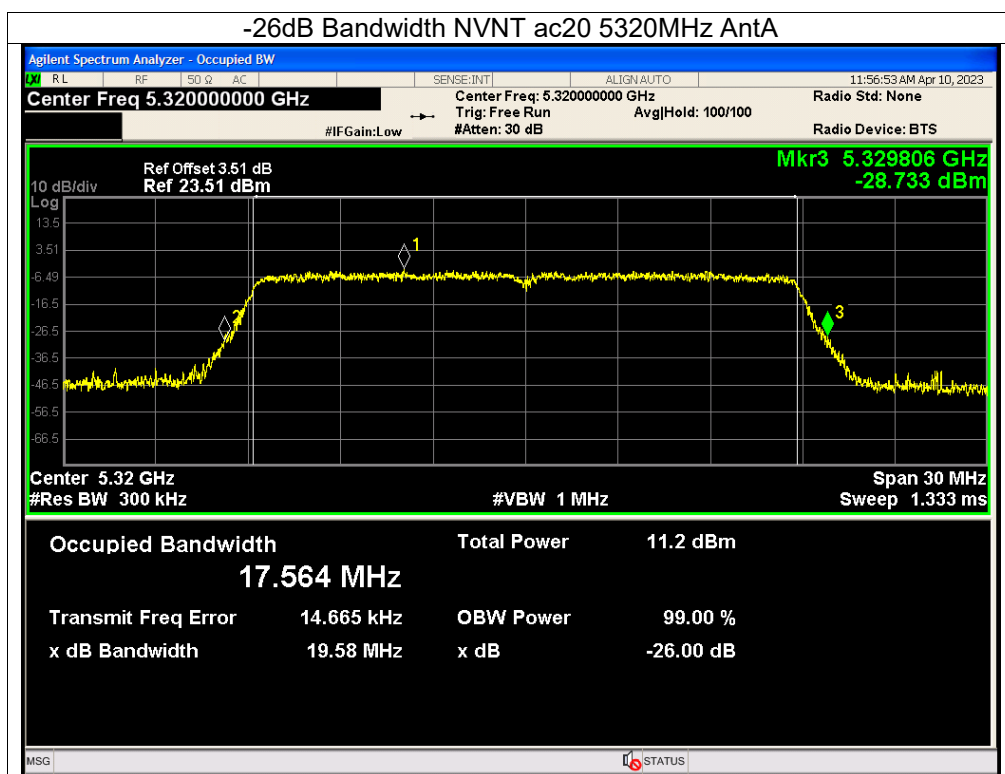


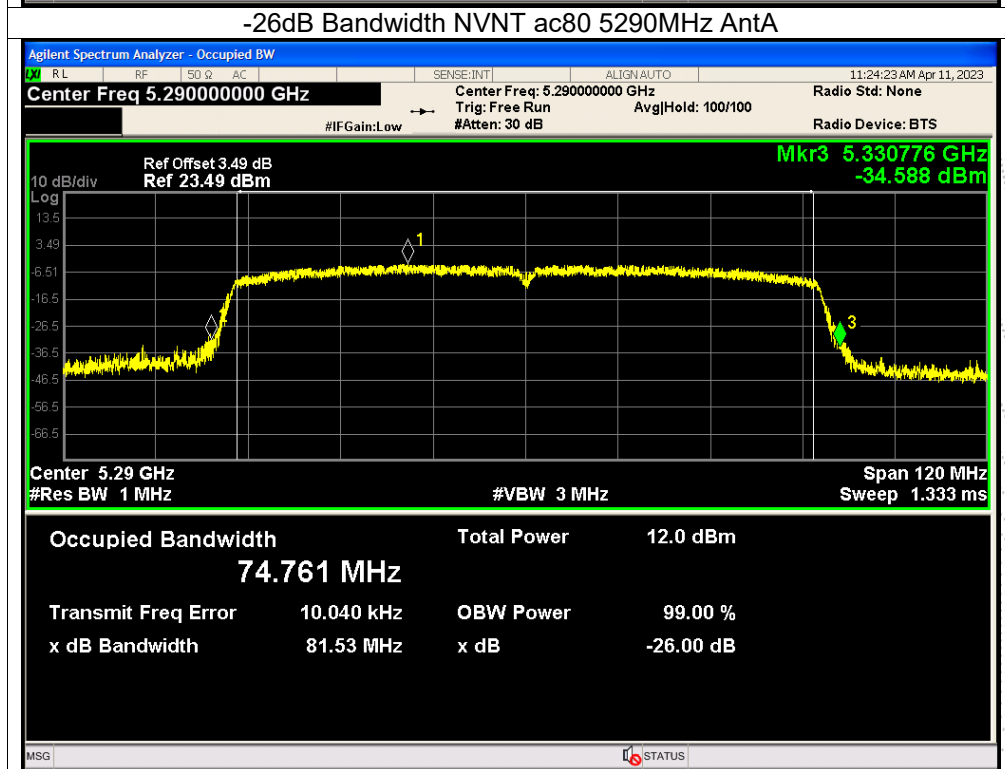
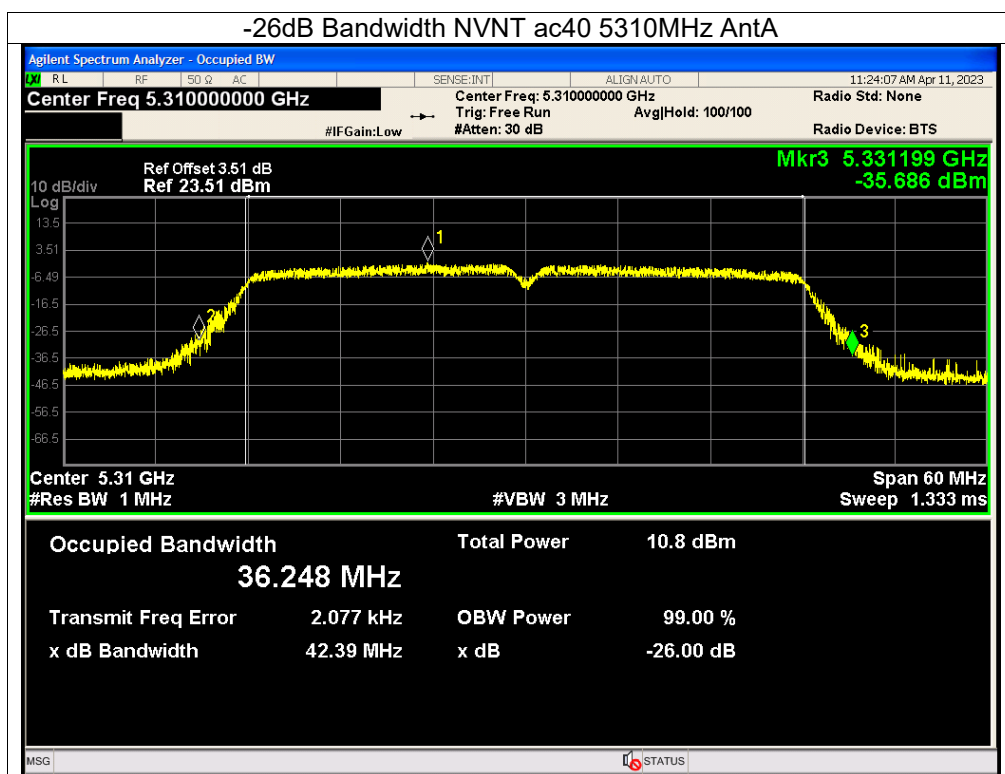


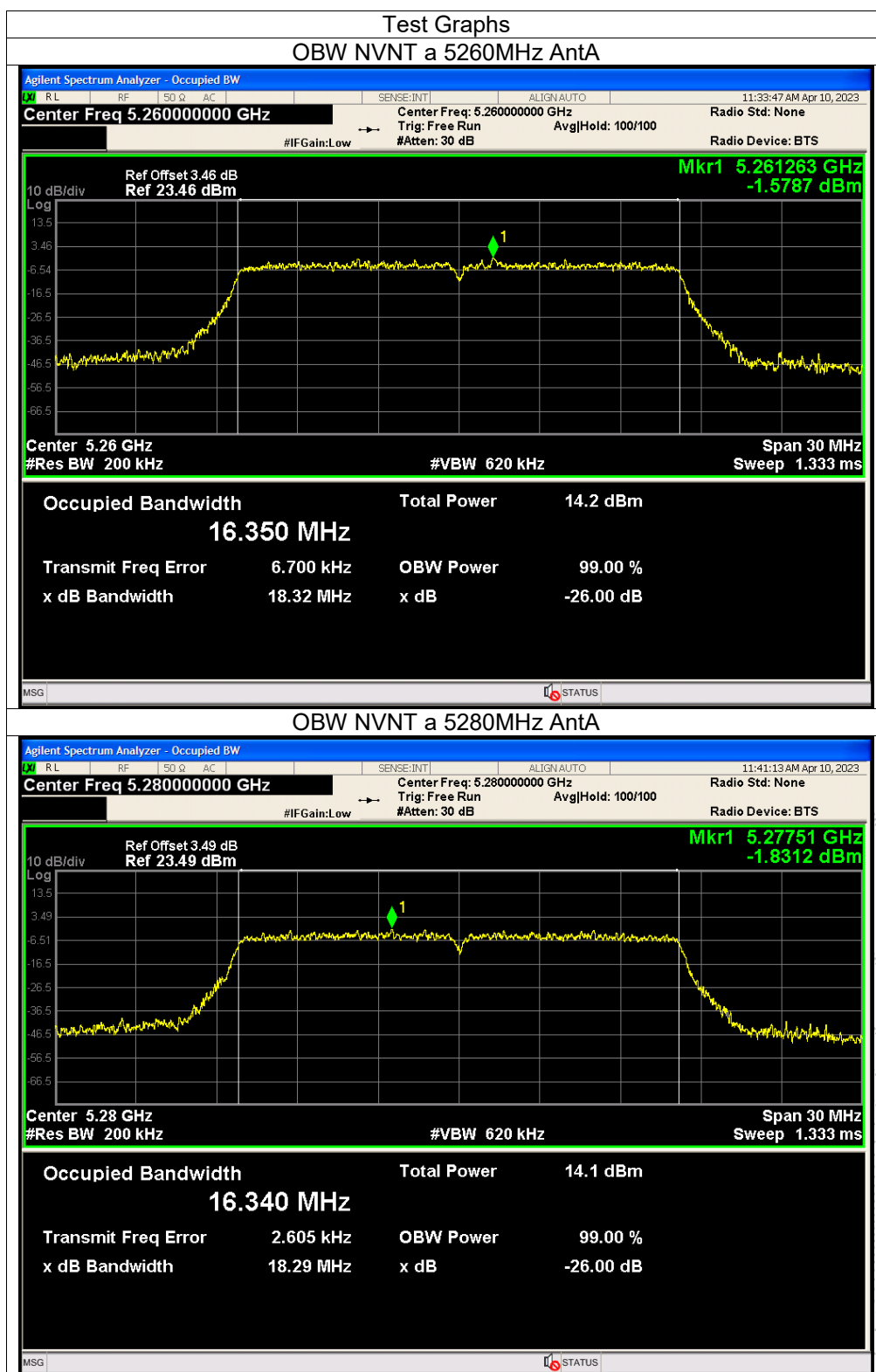


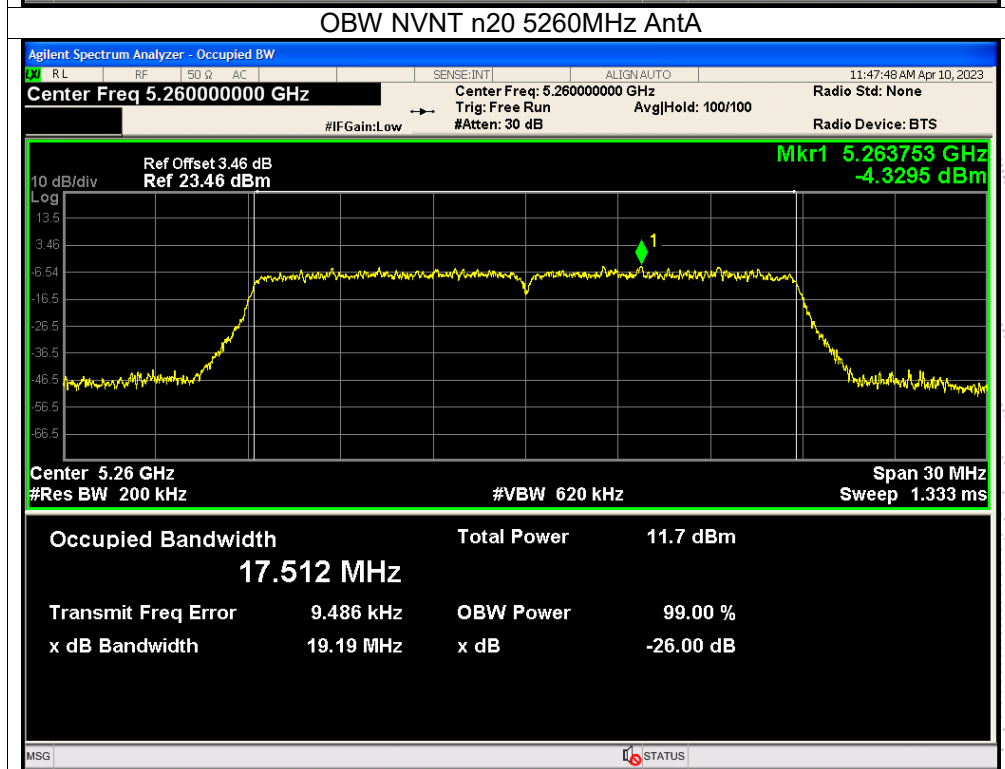
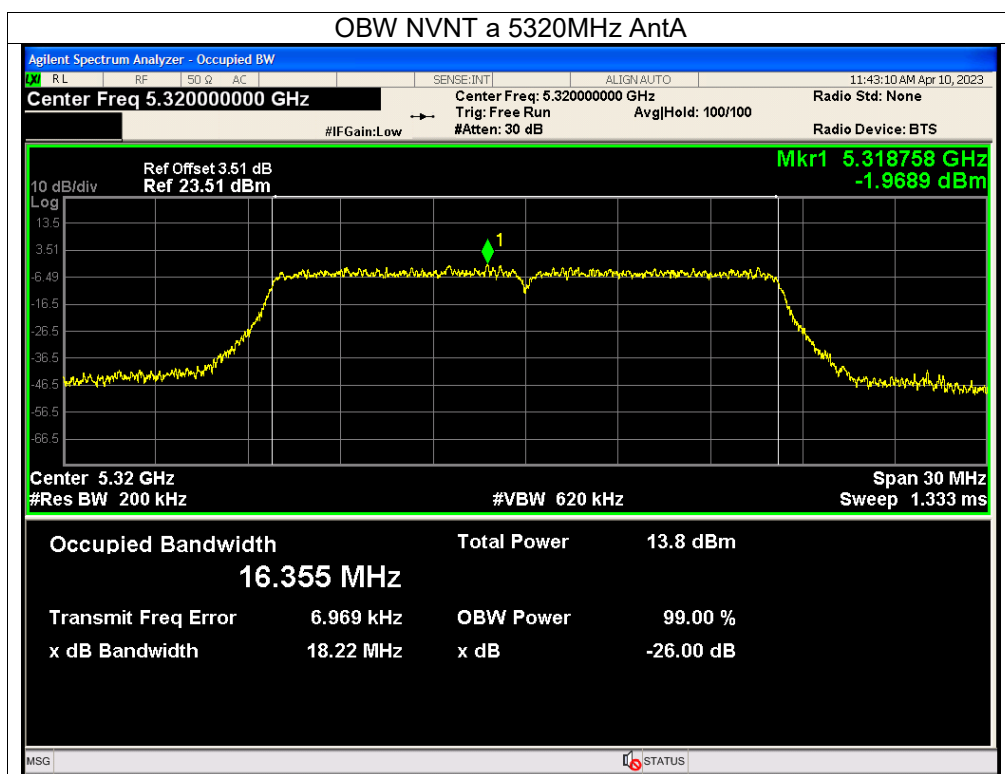


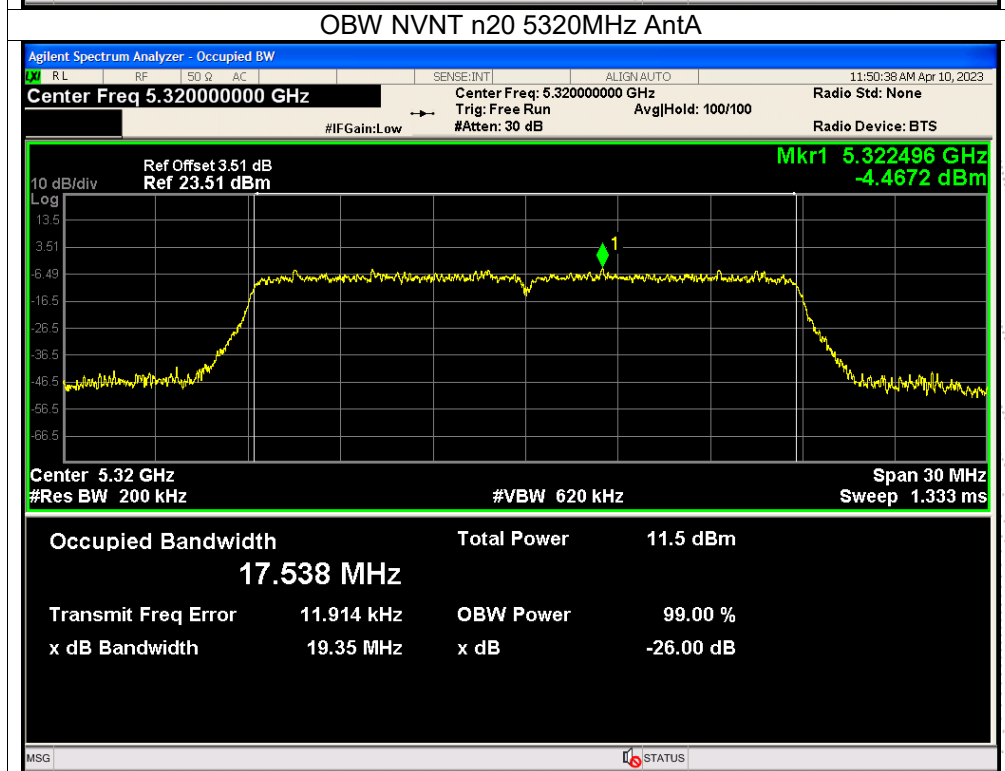
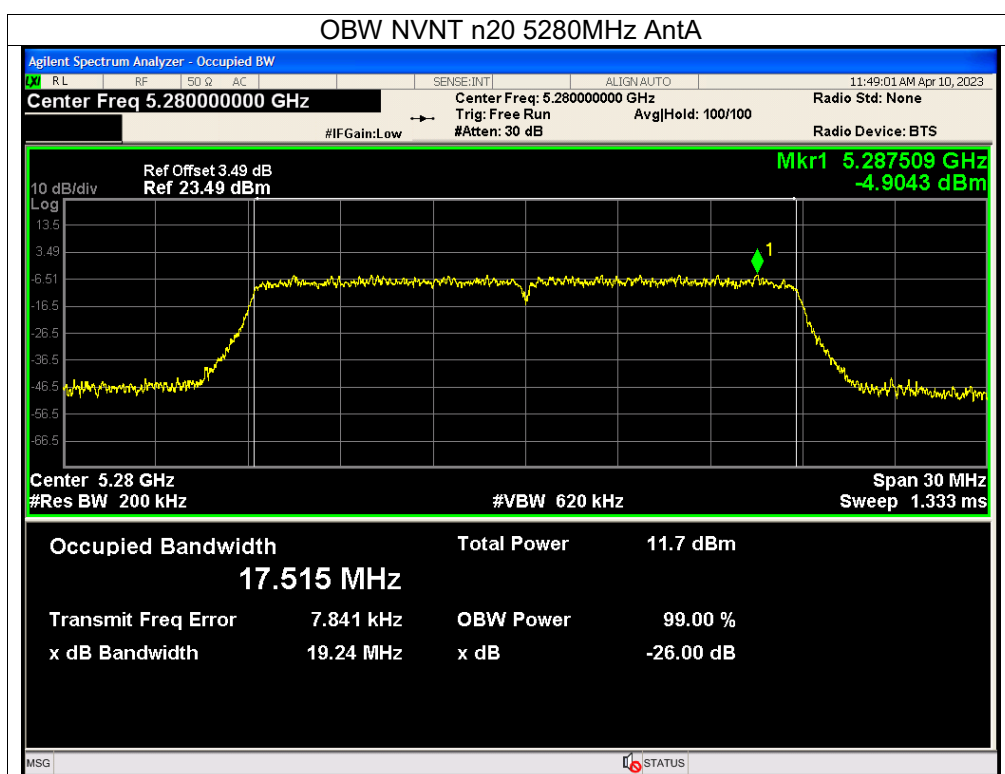


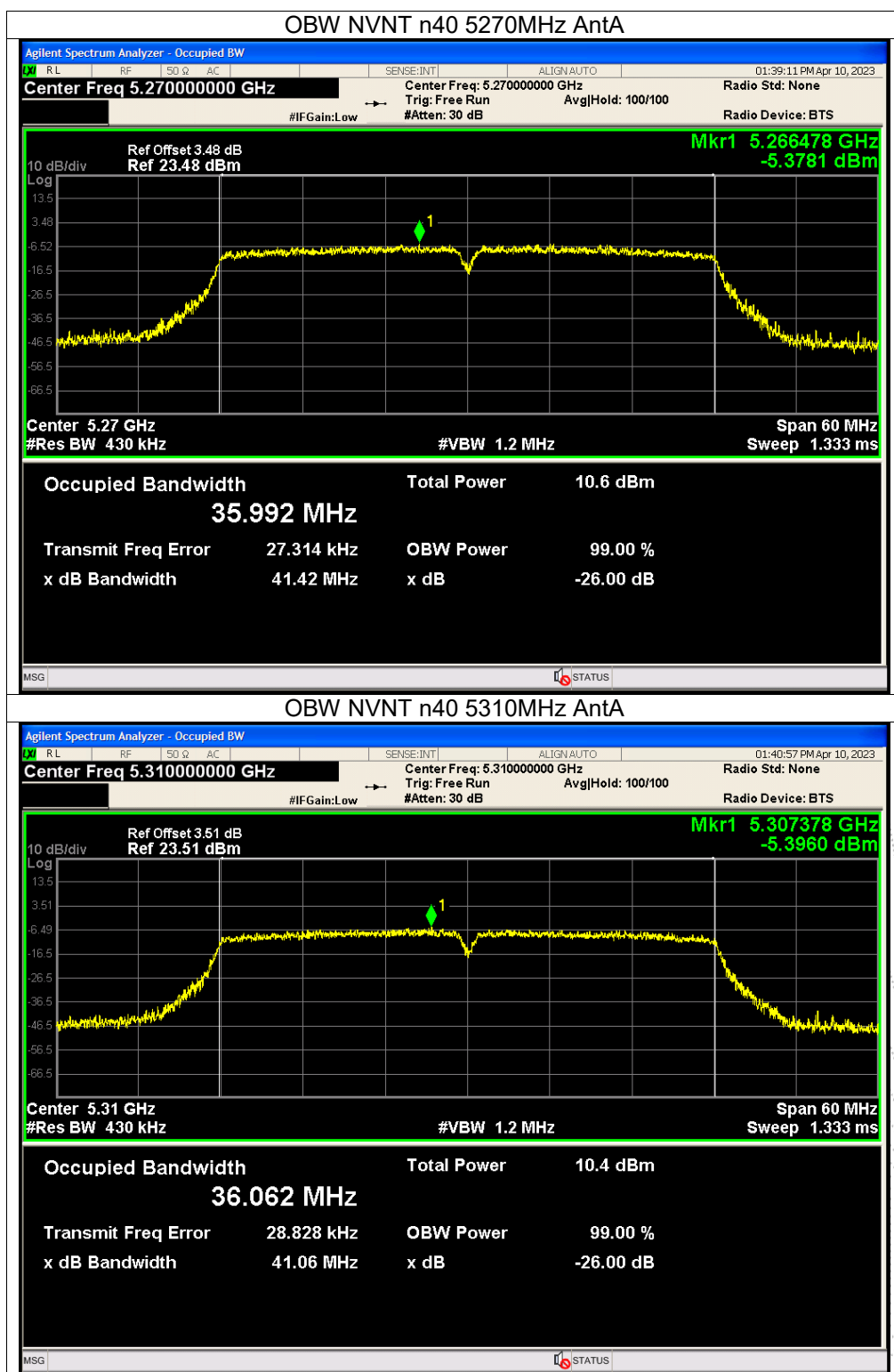


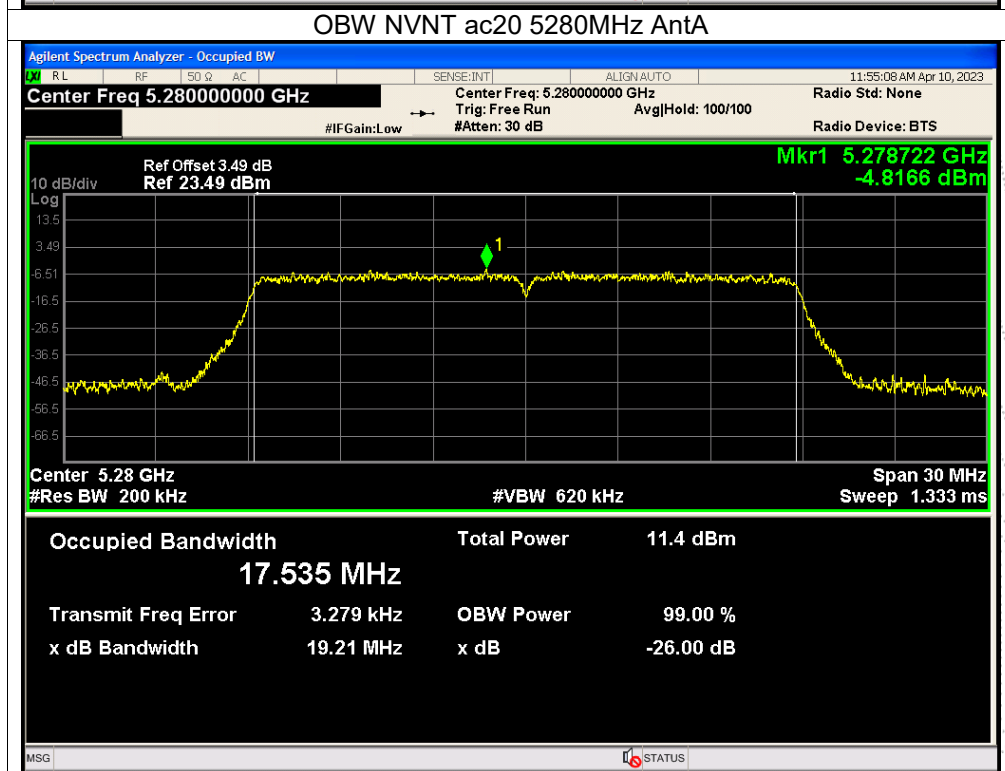
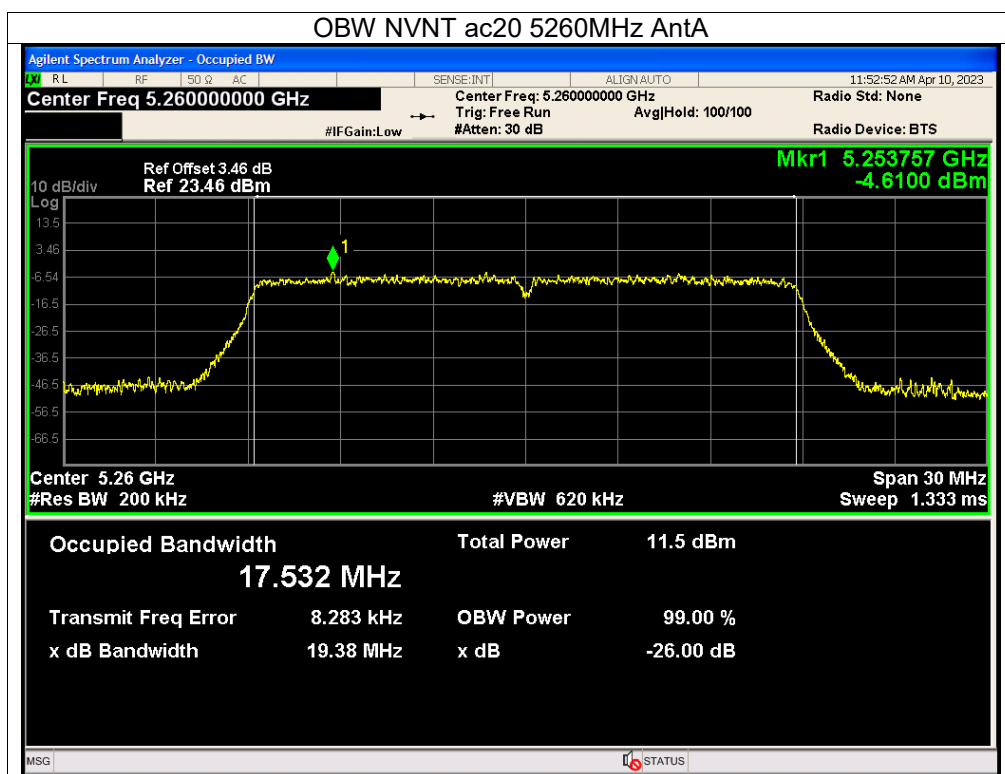


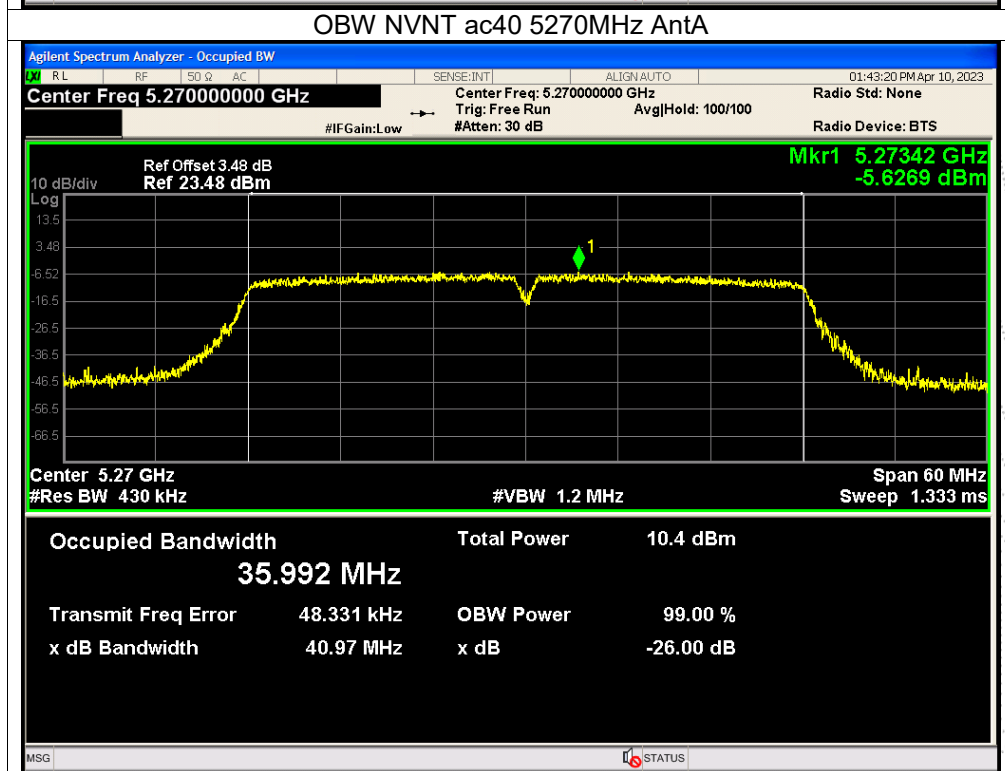
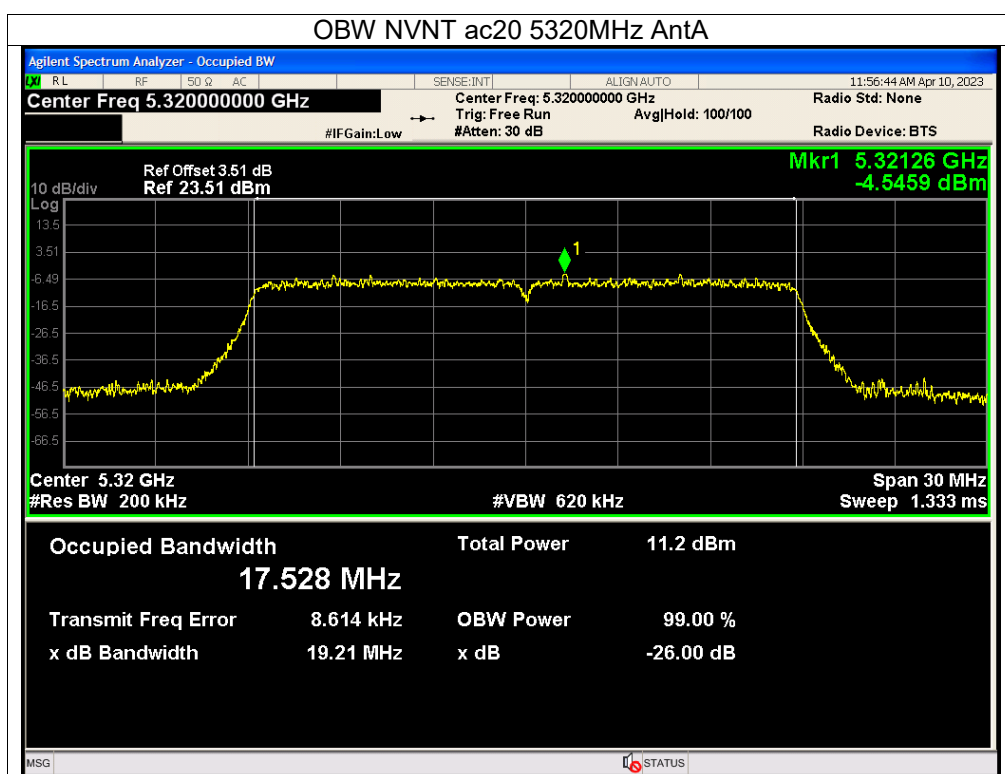


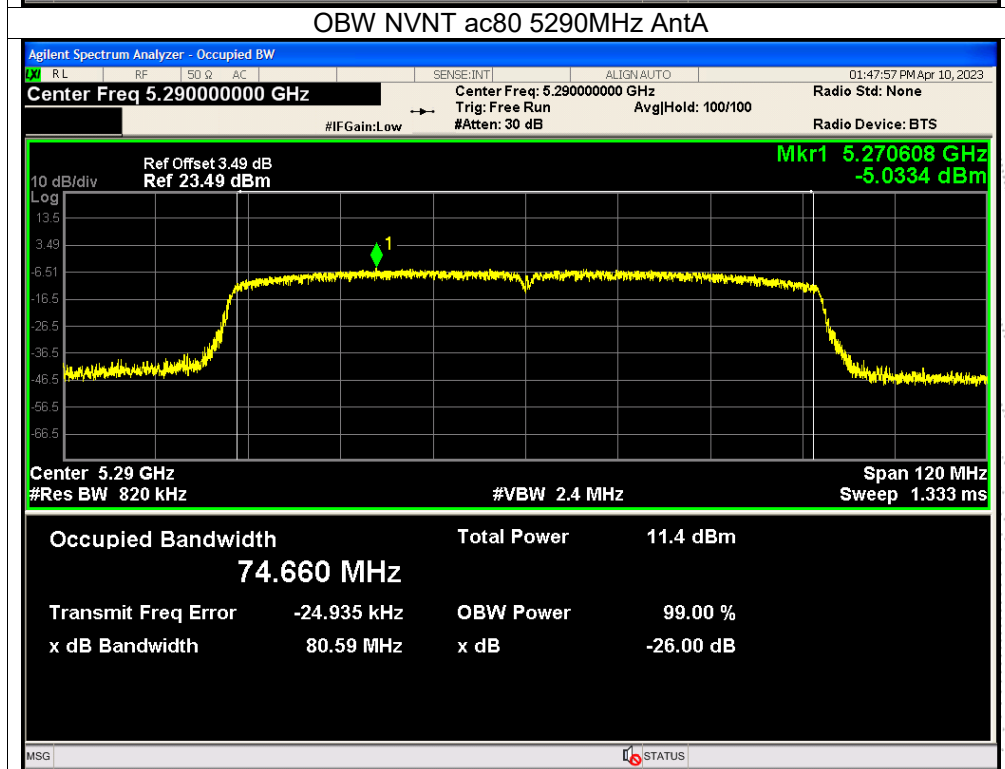
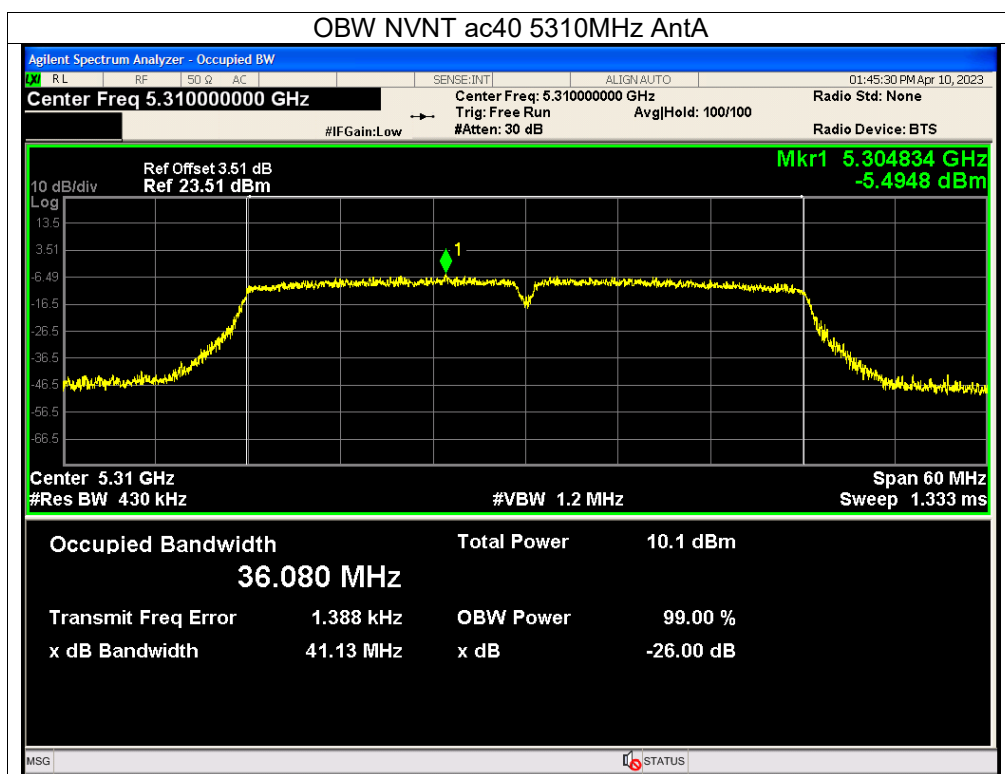












Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	(5500-5700MHz)		

Condition	Mode	Frequency (MHz)	-26 dB Bandwidth (MHz)		Verdict
			Ant A	Ant B	
NVNT	a	5500	18.696	18.687	Pass
NVNT	a	5580	18.677	18.583	Pass
NVNT	a	5700	18.751	18.817	Pass
NVNT	n20	5500	19.521	19.484	Pass
NVNT	n20	5580	19.431	19.611	Pass
NVNT	n20	5700	19.686	19.518	Pass
NVNT	n40	5510	41.332	42.228	Pass
NVNT	n40	5590	42.202	42.012	Pass
NVNT	n40	5670	42.35	42.521	Pass
NVNT	ac20	5500	19.515	19.634	Pass
NVNT	ac20	5580	19.524	19.525	Pass
NVNT	ac20	5700	19.611	19.606	Pass
NVNT	ac40	5510	42.038	42.725	Pass
NVNT	ac40	5590	42.151	41.882	Pass
NVNT	ac40	5670	42.266	41.876	Pass
NVNT	ac80	5530	81.181	80.468	Pass

Condition	Mode	Frequency (MHz)	99% OBW (MHz)	
			Ant A	Ant B
NVNT	a	5500	16.352	16.344
NVNT	a	5580	16.336	16.339
NVNT	a	5700	16.355	16.337
NVNT	n20	5500	17.532	17.533
NVNT	n20	5580	17.529	17.529
NVNT	n20	5700	17.531	17.522
NVNT	n40	5510	36.025	36.092
NVNT	n40	5590	36.02	36.048
NVNT	n40	5670	36.061	36.089
NVNT	ac20	5500	17.548	17.532
NVNT	ac20	5580	17.536	17.532
NVNT	ac20	5700	17.547	17.528
NVNT	ac40	5510	36.043	36.102
NVNT	ac40	5590	36.035	36.042
NVNT	ac40	5670	36.053	36.028
NVNT	ac80	5530	74.568	74.453

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

