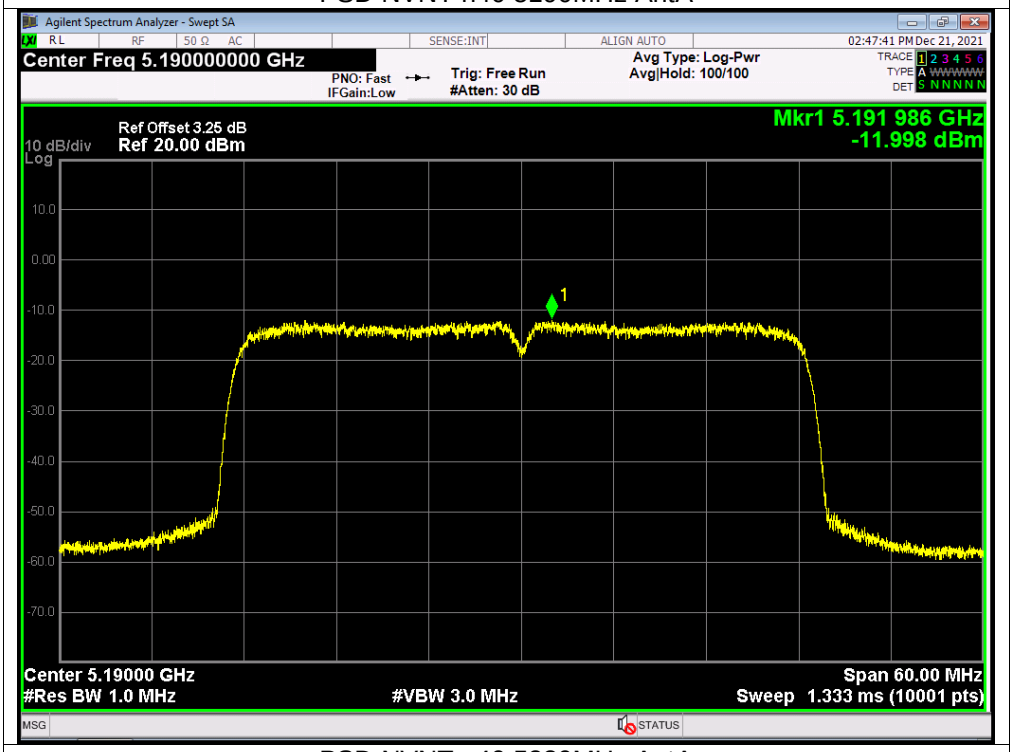
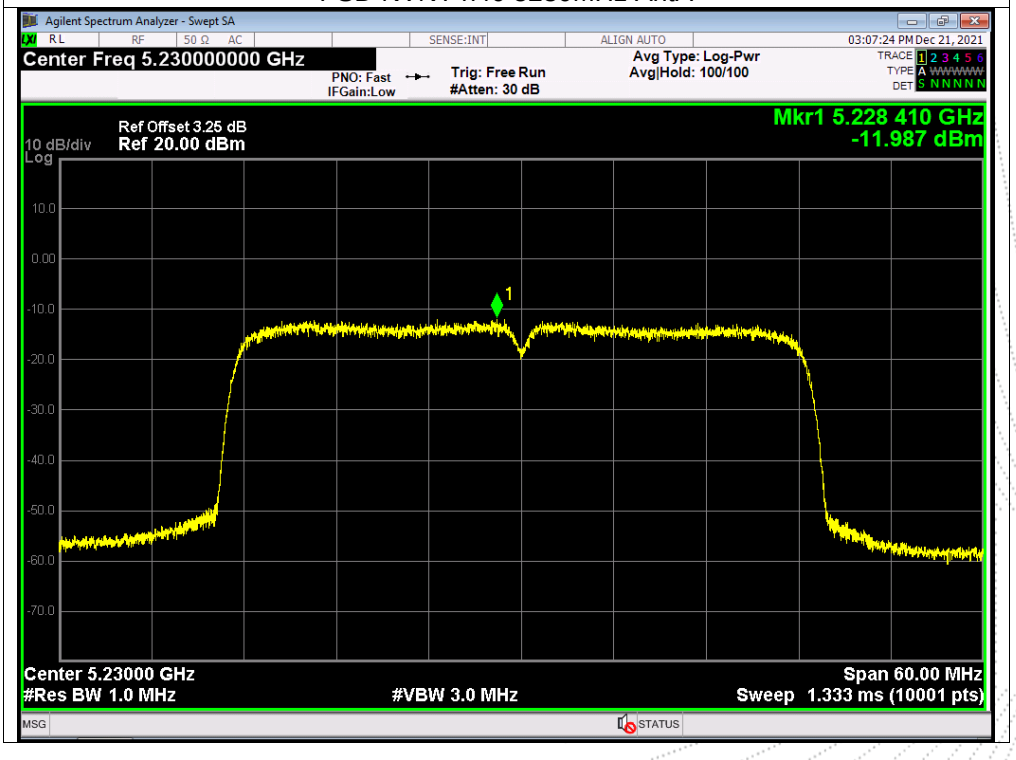
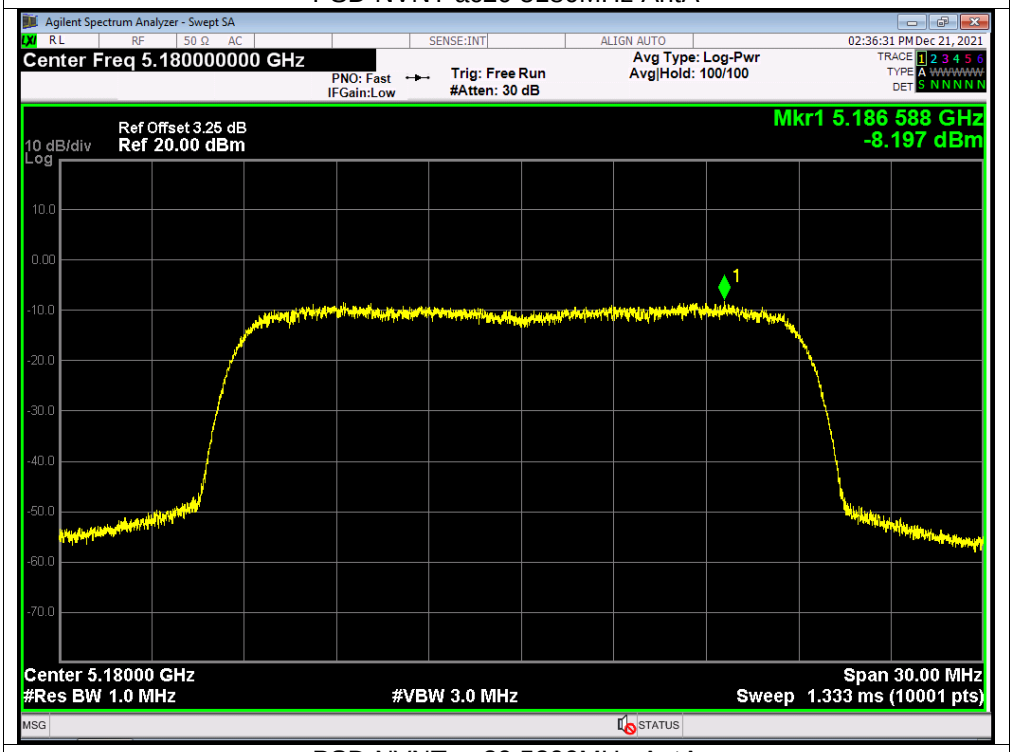
PSD NVNT n40 5190MHz AntA



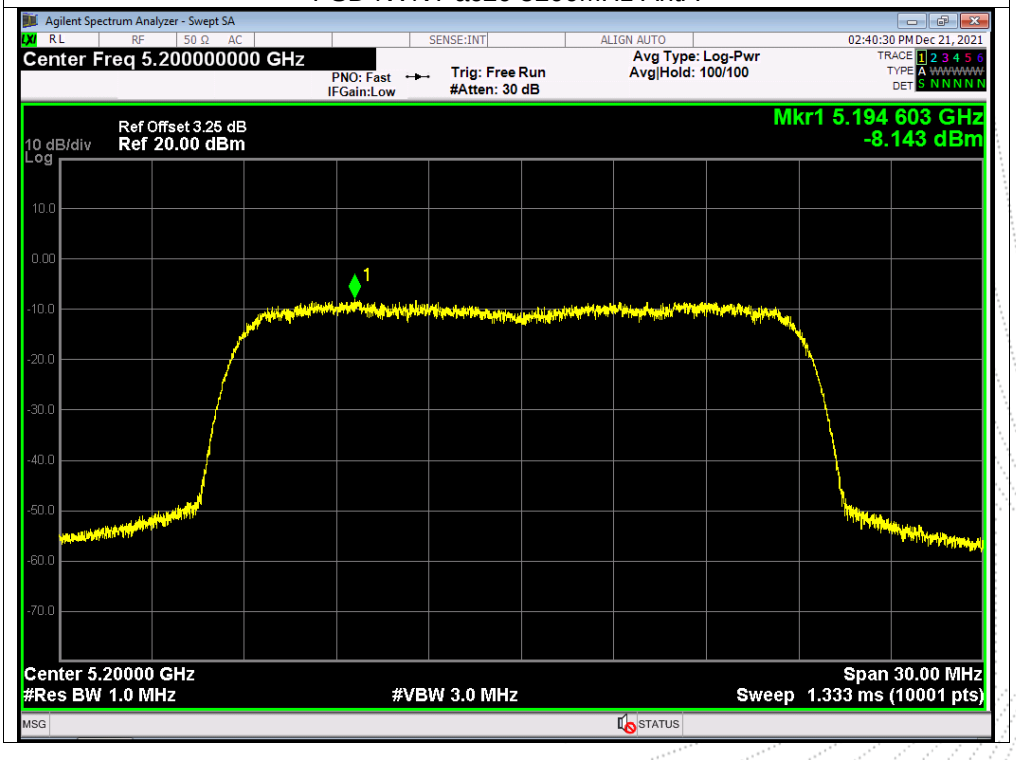
PSD NVNT n40 5230MHz AntA



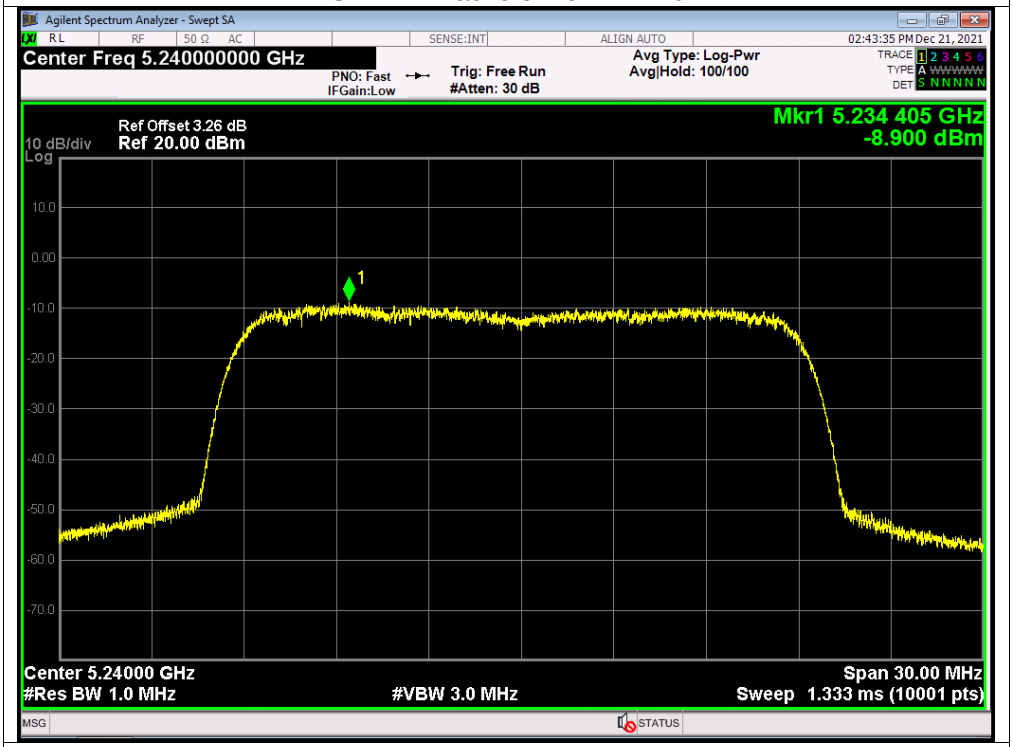
PSD NVNT ac20 5180MHz AntA



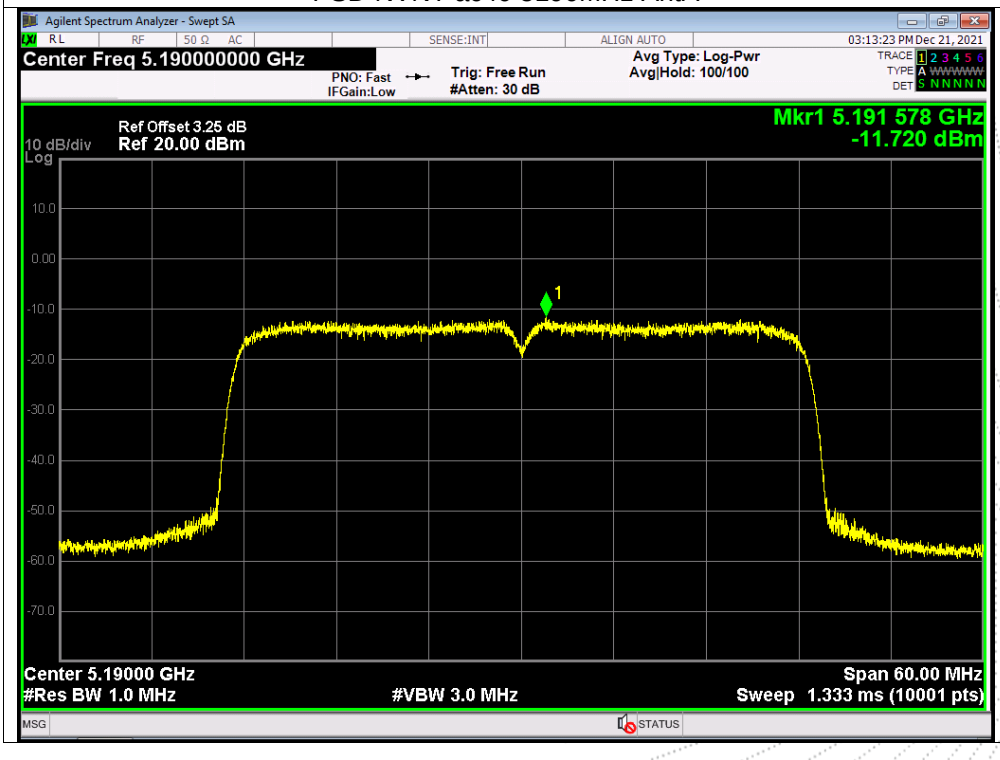
PSD NVNT ac20 5200MHz AntA



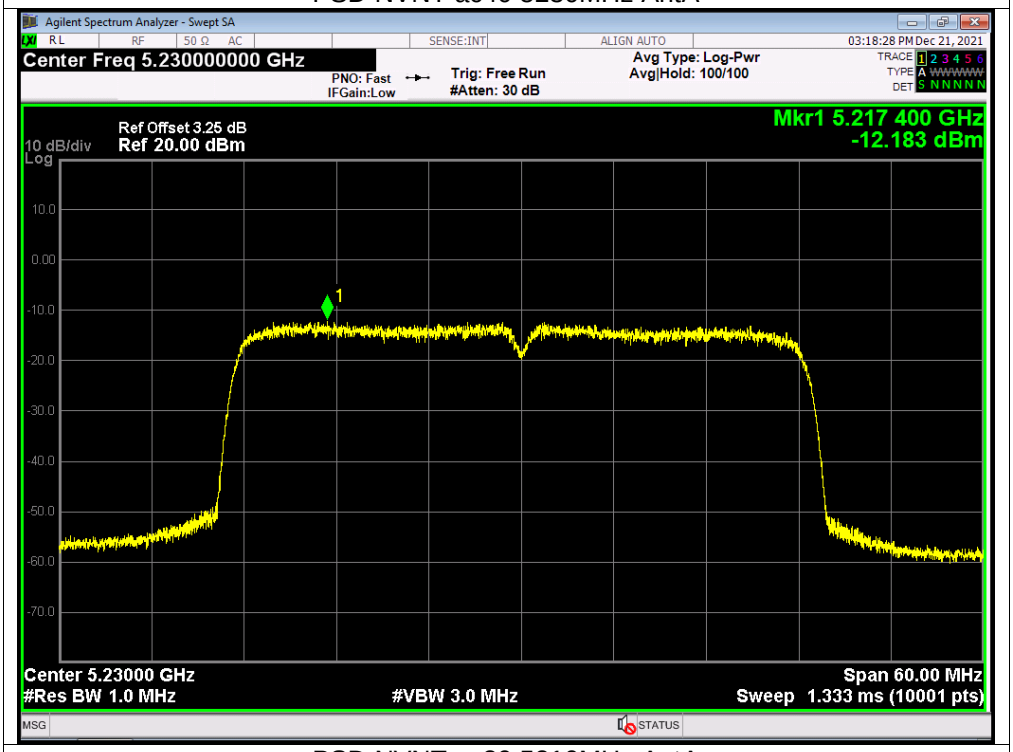
PSD NVNT ac20 5240MHz AntA



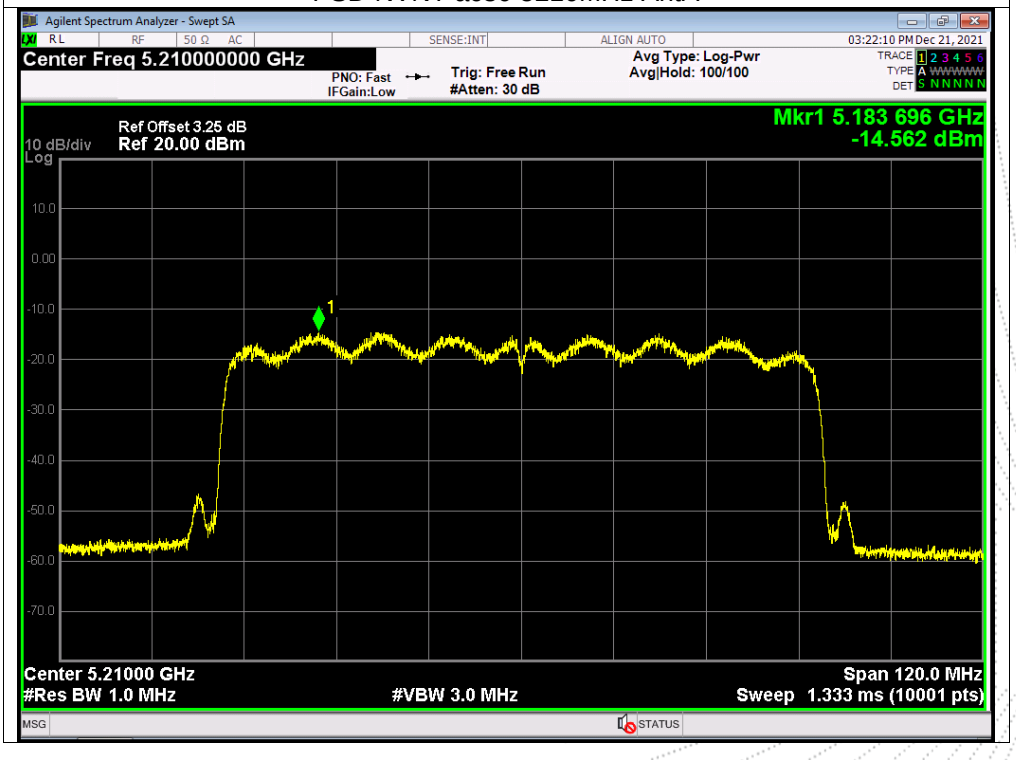
PSD NVNT ac40 5190MHz AntA



PSD NVNT ac40 5230MHz AntA



PSD NVNT ac80 5210MHz AntA



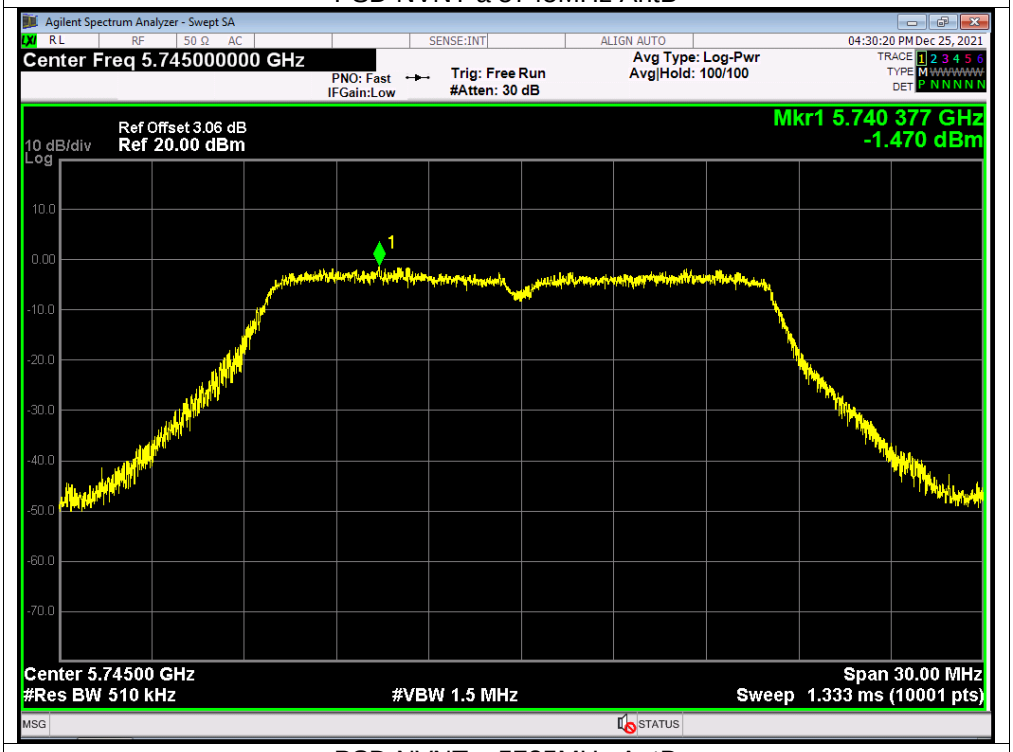
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	DC 7.6V
Test Mode ：	TX Frequency U-NII-3 (5745-5825MHz)		

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

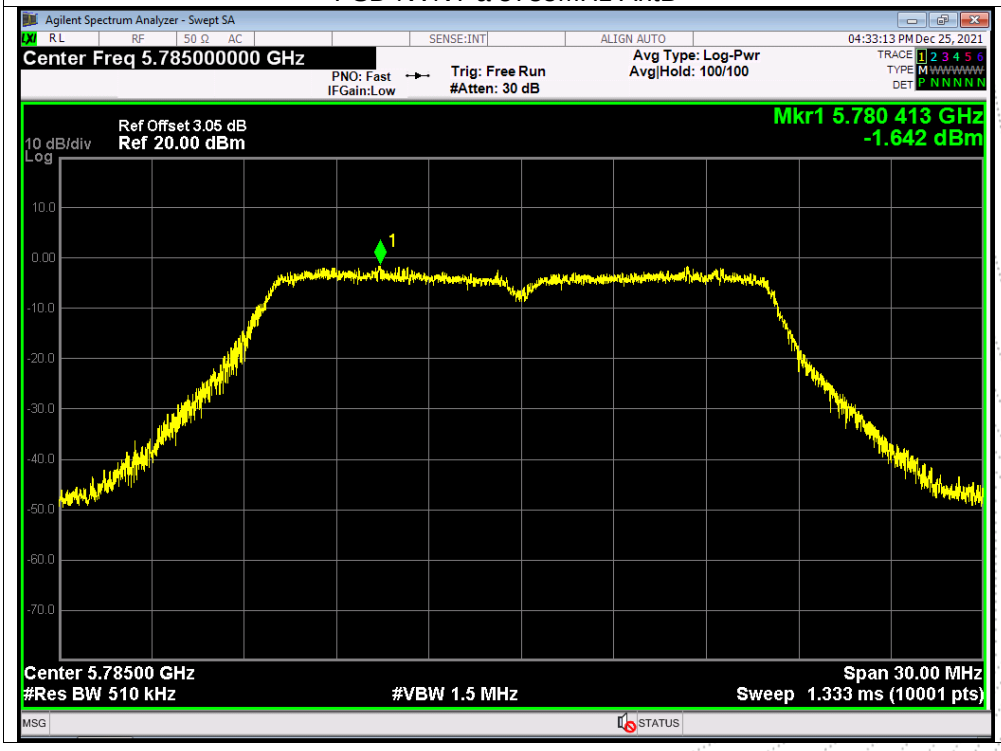
Note: Antenna A gain: 4.65Bi, Antenna B gain: 4.65Bi, Directional gain=[10log(GA+ G B)] dbi=7.66 dBi limit=30-(7.66-6)=28.34

Mode	Frequency	Measured Power Density (dBm/500KHz)			Limit (dBm/500kHz)	Result
		ANT A	ANT B	Total		
802.11 a	5745 MHz	-1.48	-1.47	/	30	PASS
	5785 MHz	-1.77	-1.64	/	30	PASS
	5825 MHz	-1.72	-2.06	/	30	PASS
802.11 n20	5745 MHz	-3.54	-3.13	-0.32	28.34	PASS
	5785 MHz	-3.26	-3.3	-0.27	28.34	PASS
	5825 MHz	-3.98	-3.27	-0.60	28.34	PASS
802.11 n40	5755 MHz	-8.34	-8.26	-5.29	28.34	PASS
	5795 MHz	-8.8	-8.67	-5.72	28.34	PASS
802.11 ac20	5745 MHz	-3.64	-3.92	-0.77	28.34	PASS
	5785 MHz	-3.49	-3.47	-0.47	28.34	PASS
	5825 MHz	-4.07	-4.25	-1.15	28.34	PASS
802.11 ac40	5755 MHz	-8.43	-8.6	-5.50	28.34	PASS
	5795 MHz	-8.74	-8.99	-5.85	28.34	PASS
802.11 AC80	5775 MHz	-10.8	-11.64	-8.19	28.34	PASS

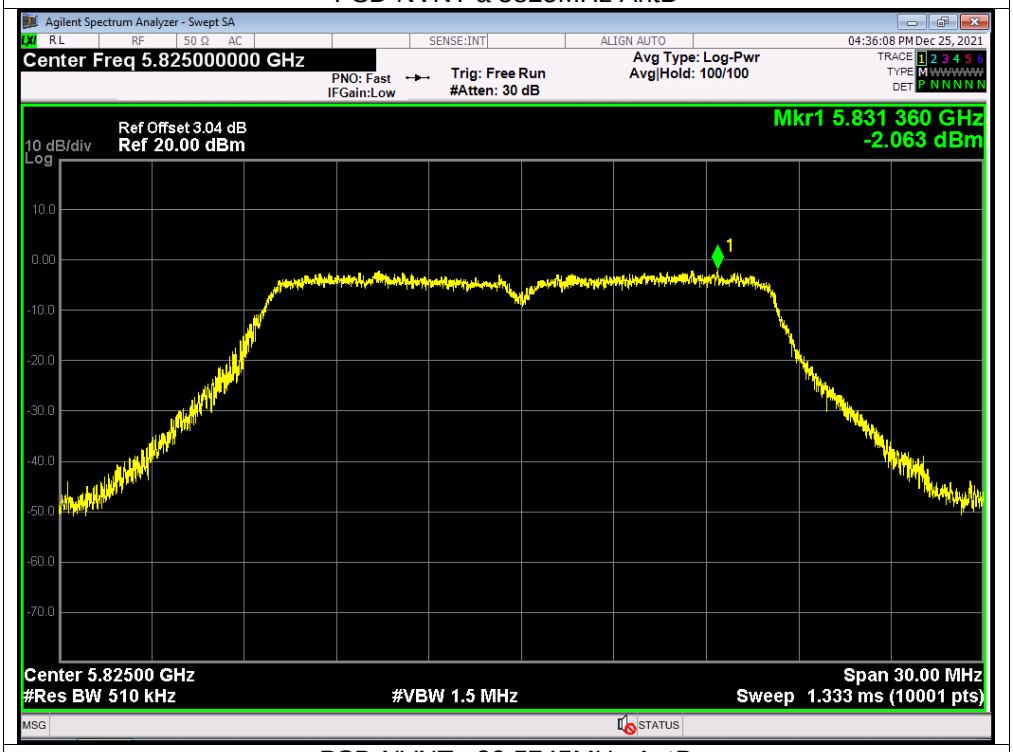
Test Graphs
PSD NVNT a 5745MHz AntB



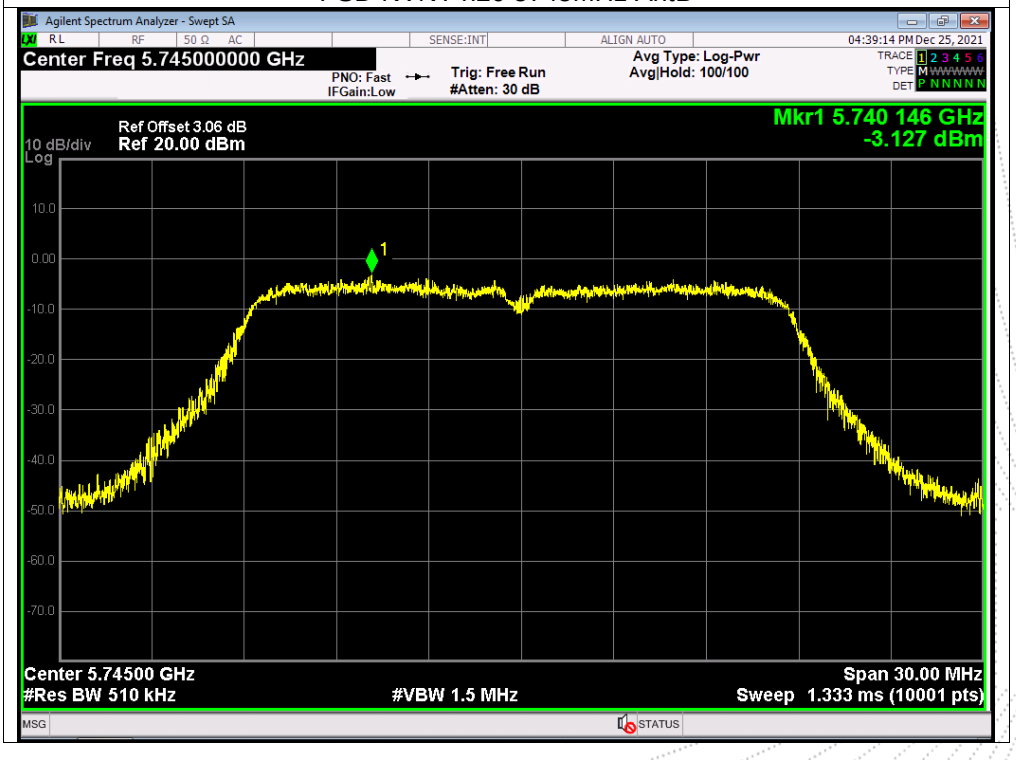
PSD NVNT a 5785MHz AntB



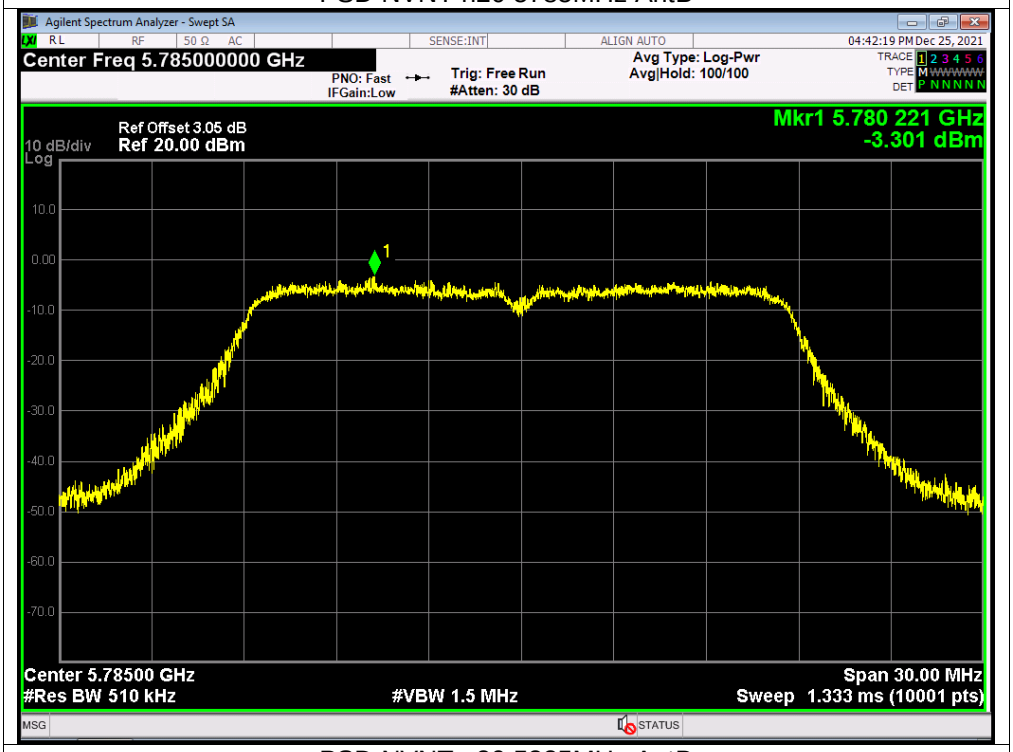
PSD NVNT a 5825MHz AntB



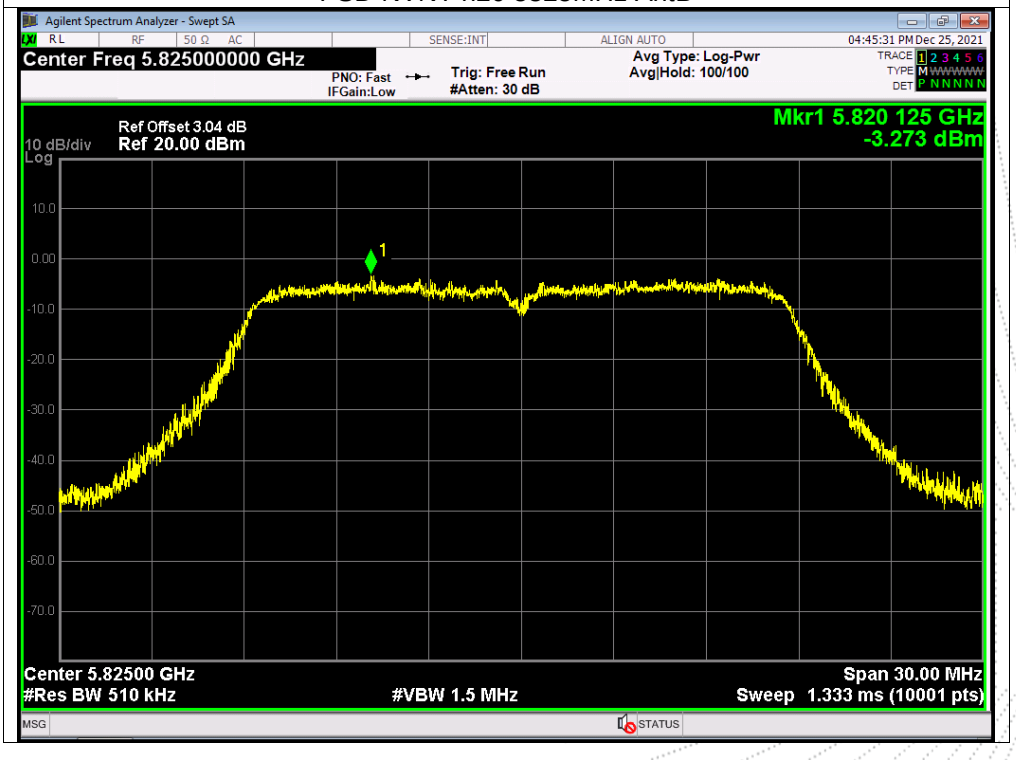
PSD NVNT n20 5745MHz AntB



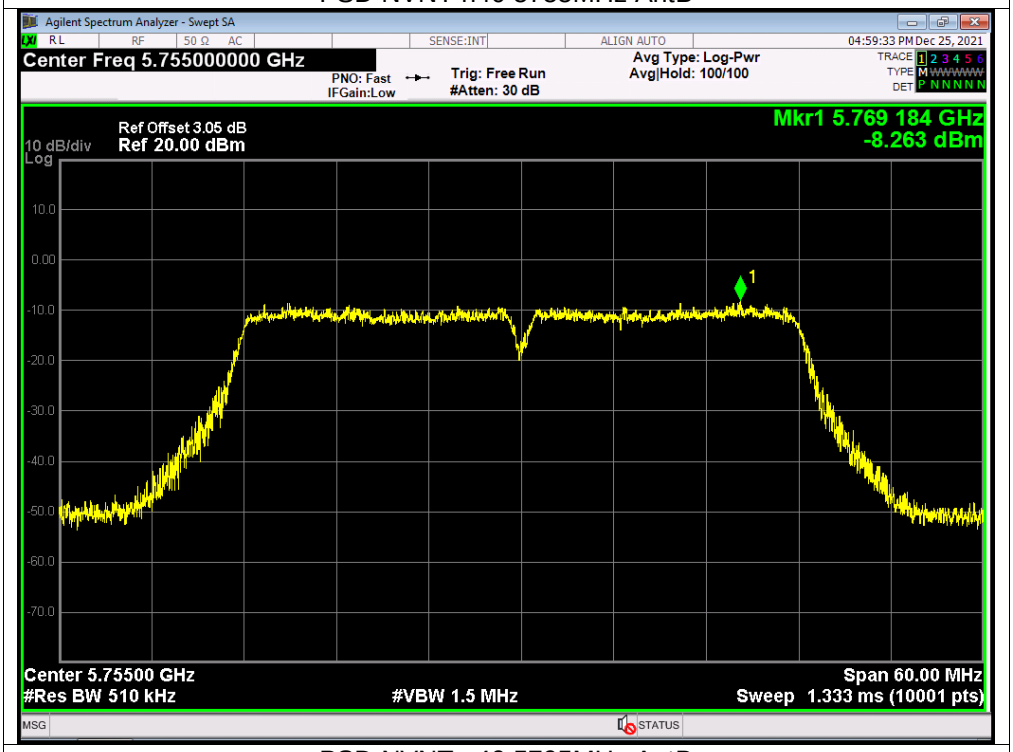
PSD NVNT n20 5785MHz AntB



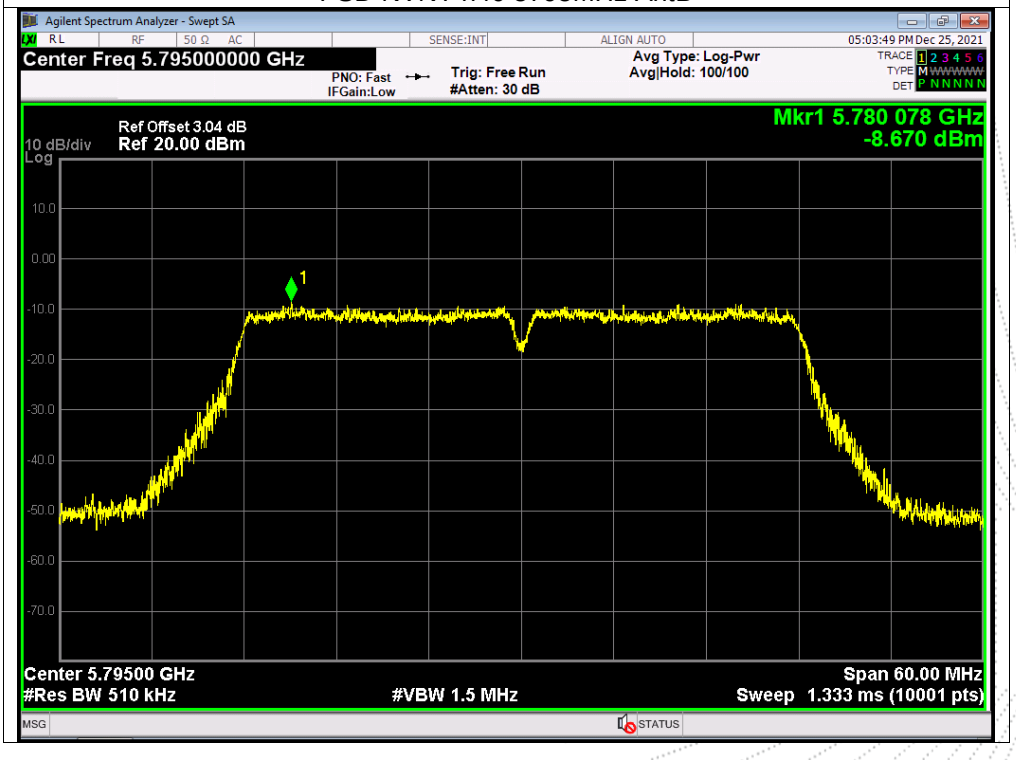
PSD NVNT n20 5825MHz AntB



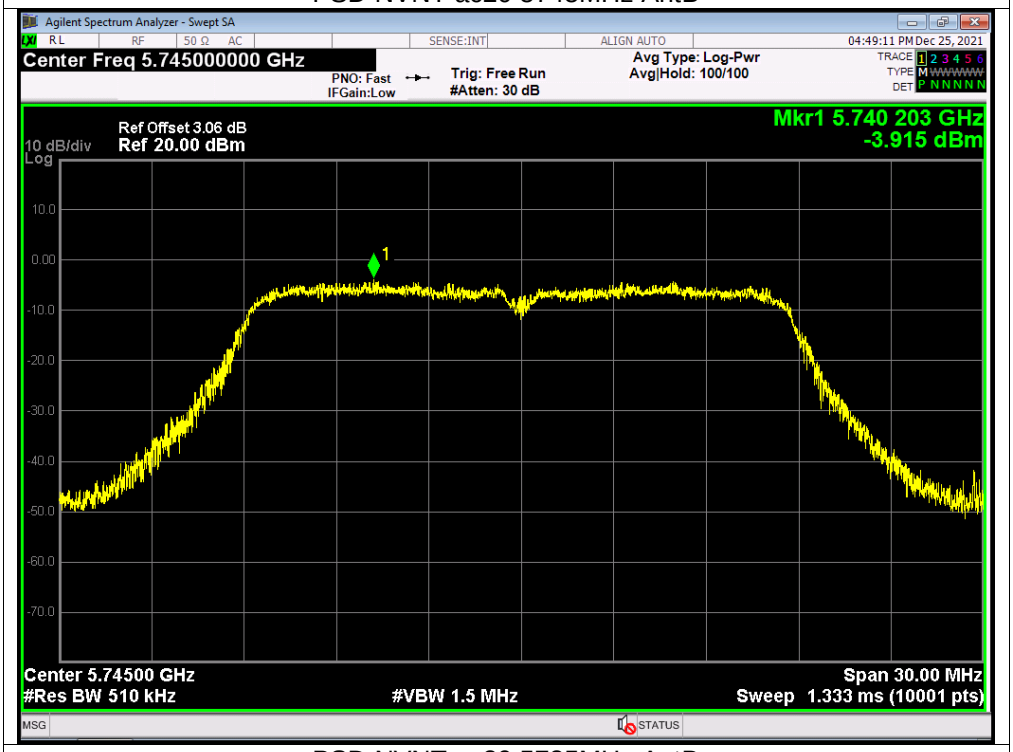
PSD NVNT n40 5755MHz AntB



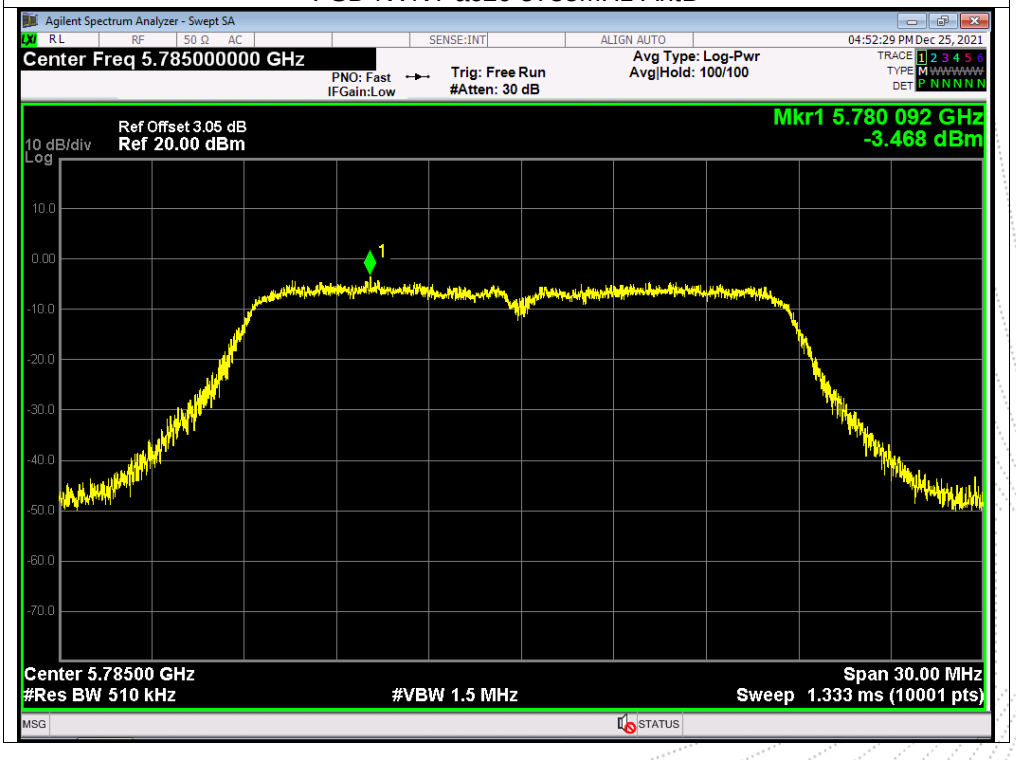
PSD NVNT n40 5795MHz AntB



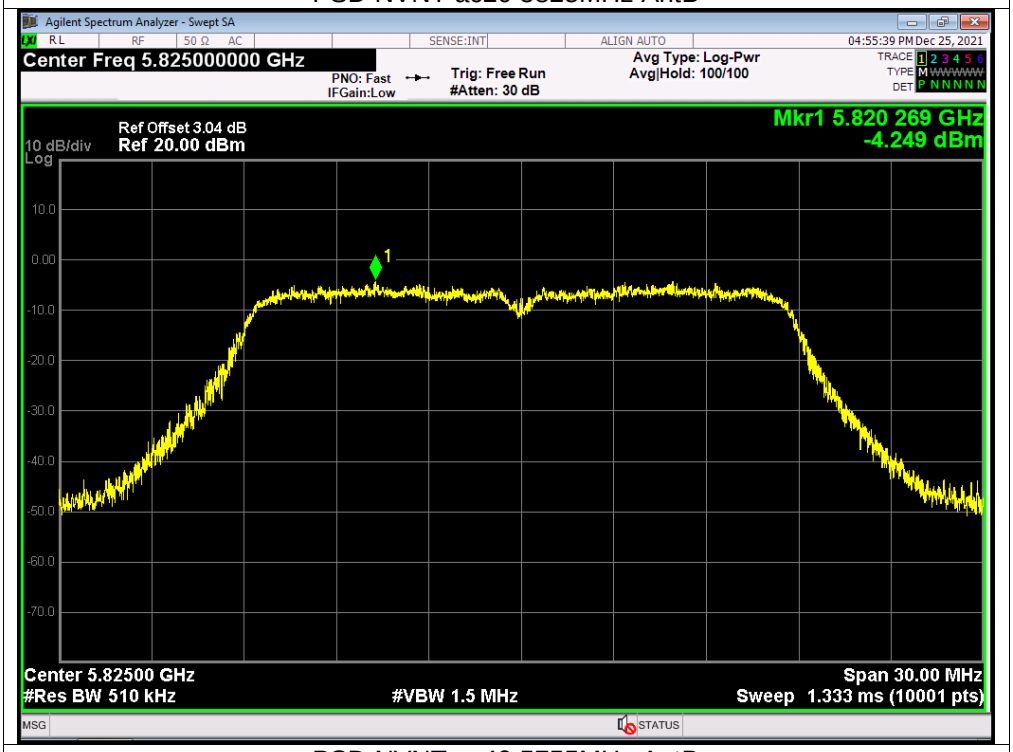
PSD NVNT ac20 5745MHz AntB



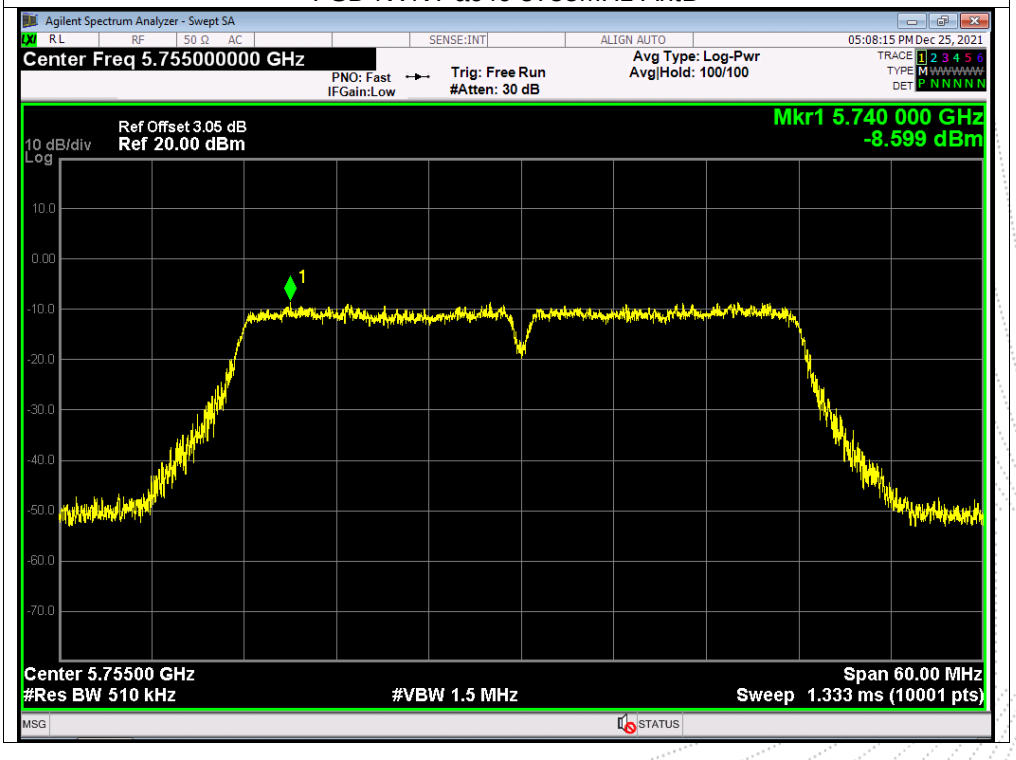
PSD NVNT ac20 5785MHz AntB



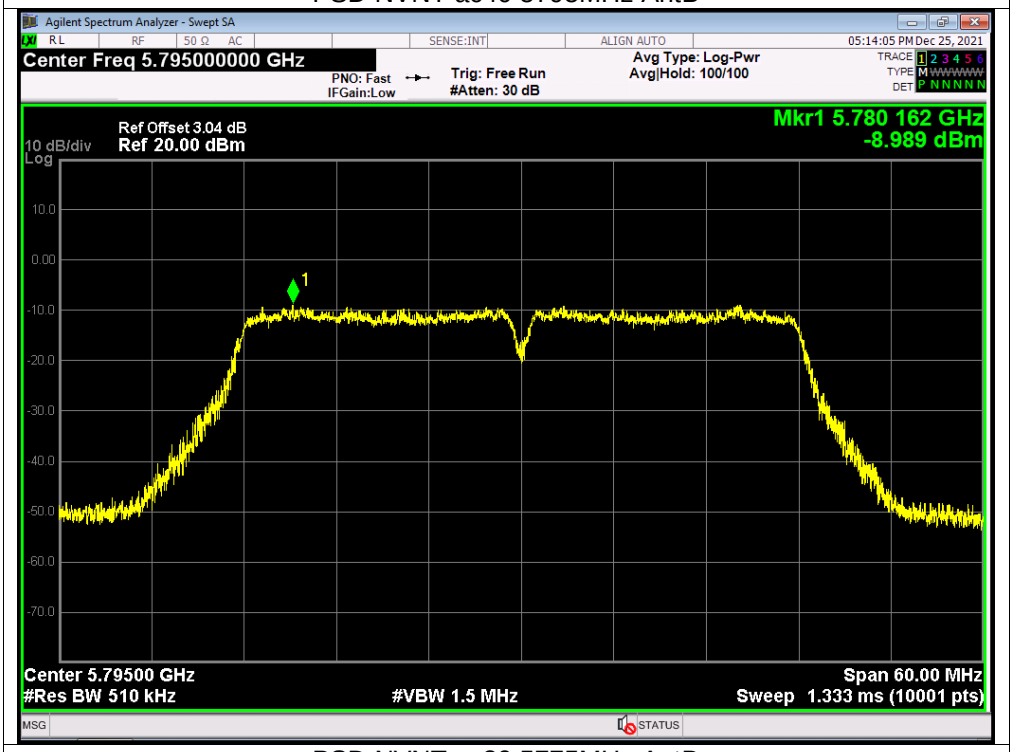
PSD NVNT ac20 5825MHz AntB



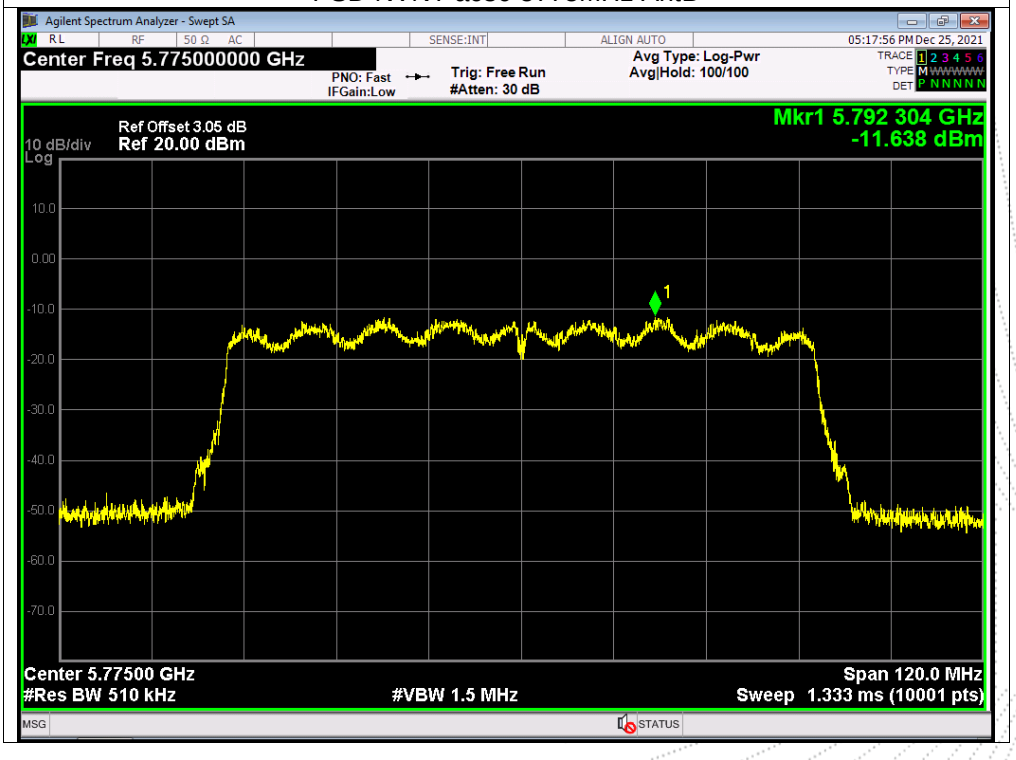
PSD NVNT ac40 5755MHz AntB



PSD NVNT ac40 5795MHz AntB

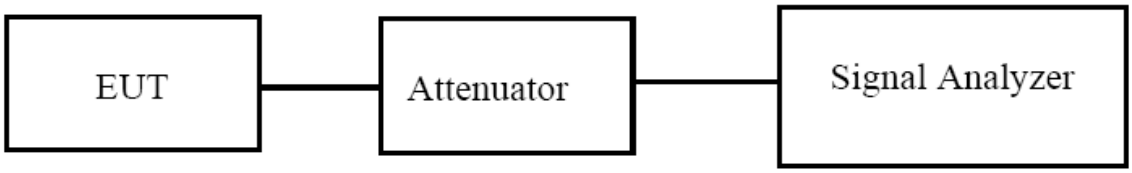


PSD NVNT ac80 5775MHz AntB



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

a) Set RBW = approximately 1% of the emission bandwidth.

b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) 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:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · 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.

6DB

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. 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 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	DC 7.6V
Test Mode ：	TX Frequency U-NII-1 (5180-5240MHz)		

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

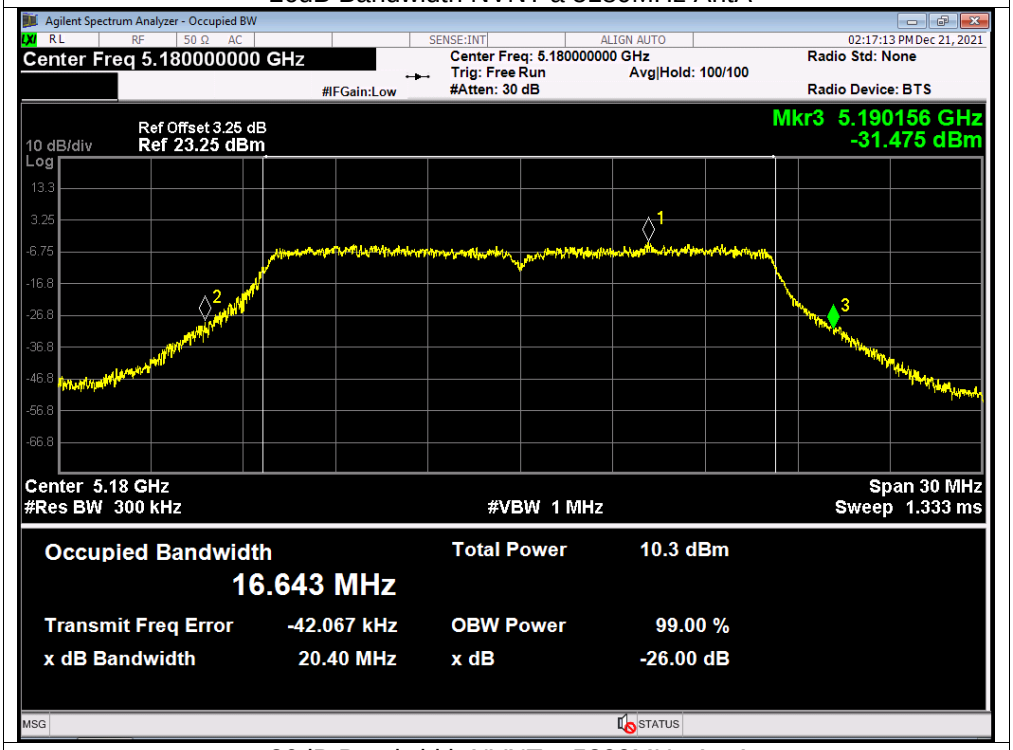
Mode	Channel	Frequency (MHz)	99% bandwidth(MHz)	26dB bandwidth (MHz)	Limit MHz	Result
			ANT A	ANT A		
802.11a	CH36	5180	16.499	20.396	N/A	Pass
	CH40	5200	16.484	20.265	N/A	Pass
	CH48	5240	16.47	20.625	N/A	Pass
802.11 n20	CH36	5180	17.605	21.226	N/A	Pass
	CH40	5200	17.623	21.1	N/A	Pass
	CH48	5240	17.613	21.098	N/A	Pass
802.11 n40	CH 38	5190	36.013	40.774	N/A	Pass
	CH 46	5230	36.026	40.356	N/A	Pass
802.11 ac20	CH36	5180	17.617	21.034	N/A	Pass
	CH40	5200	17.603	21.164	N/A	Pass
	CH48	5240	17.61	20.934	N/A	Pass
802.11 ac40	CH 38	5190	35.988	40.625	N/A	Pass
	CH 46	5230	35.979	40.633	N/A	Pass
802.11 AC80	CH 42	5210	74.726	78.713	N/A	Pass

Mode	Channel	Frequency (MHz)	99% bandwidth(MHz)	26dB bandwidth (MHz)	Limit MHz	Result
			ANT B	ANT B		
802.11a	CH36	5180	16.499	20.54	N/A	Pass
	CH40	5200	16.507	20.38	N/A	Pass
	CH48	5240	16.477	20.586	N/A	Pass
802.11 n20	CH36	5180	17.611	20.935	N/A	Pass
	CH40	5200	17.605	21.08	N/A	Pass
	CH48	5240	17.604	20.98	N/A	Pass
802.11 n40	CH 38	5190	36.045	40.994	N/A	Pass
	CH 46	5230	35.996	40.514	N/A	Pass
802.11 ac20	CH36	5180	17.631	21.318	N/A	Pass
	CH40	5200	17.599	20.949	N/A	Pass
	CH48	5240	17.632	20.801	N/A	Pass
802.11 ac40	CH 38	5190	36.008	41.109	N/A	Pass
	CH 46	5230	36.032	40.618	N/A	Pass
802.11 AC80	CH 42	5210	74.752	78.63	N/A	Pass

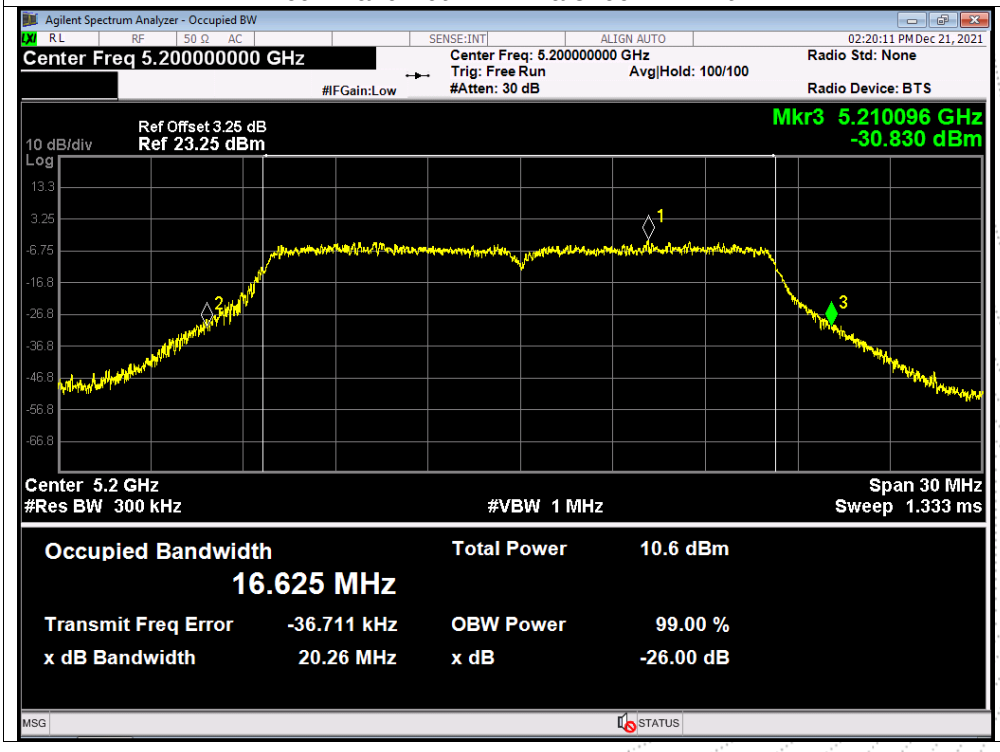
-26dB Bandwidth

Test Graphs

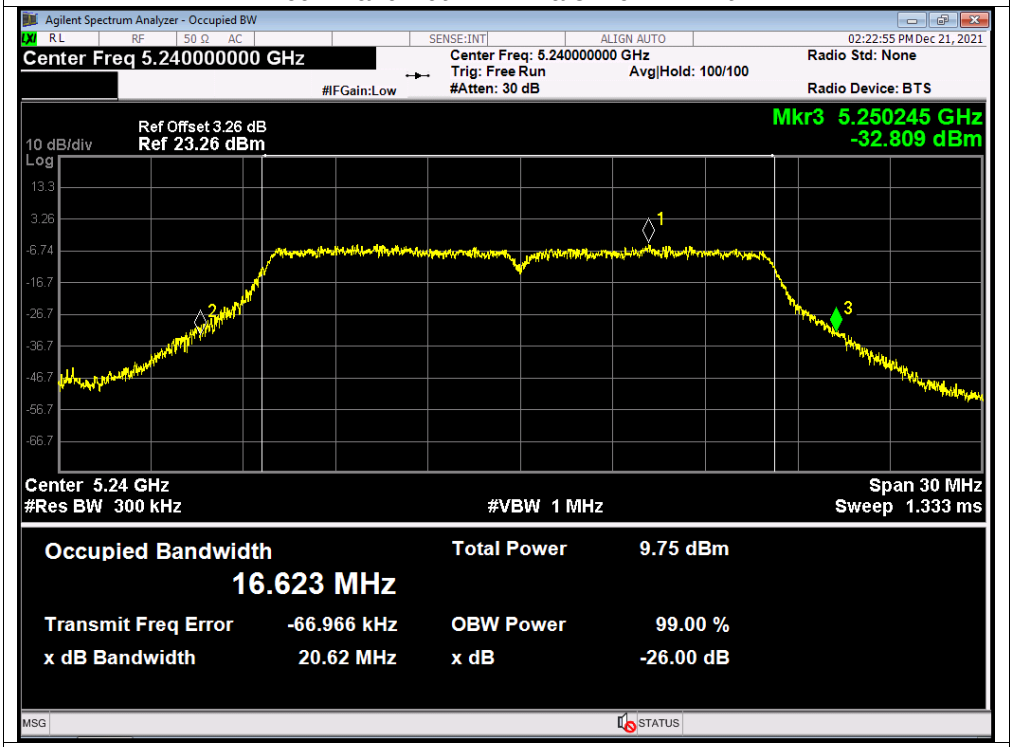
-26dB Bandwidth NVNT a 5180MHz AntA



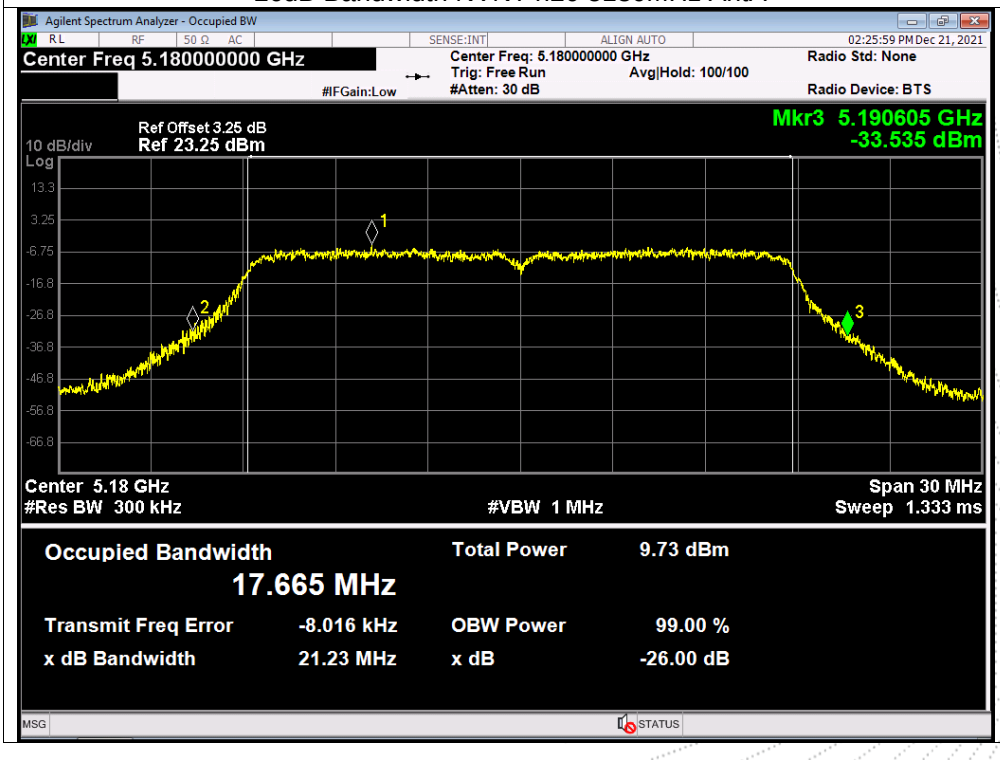
-26dB Bandwidth NVNT a 5200MHz AntA



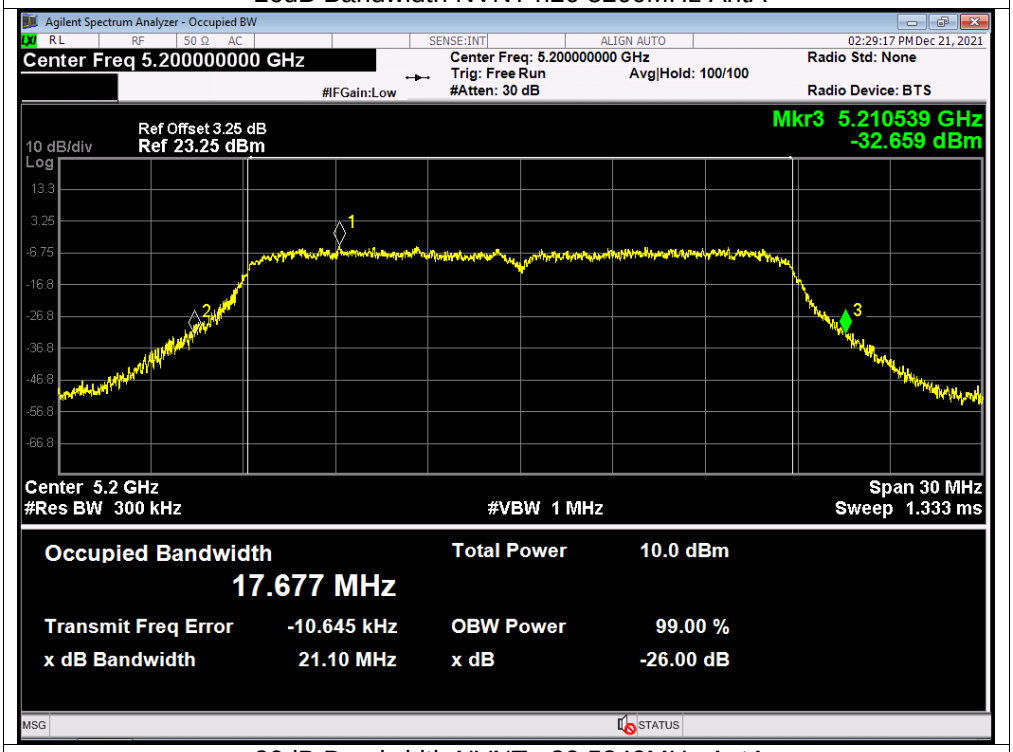
-26dB Bandwidth NVNT a 5240MHz AntA



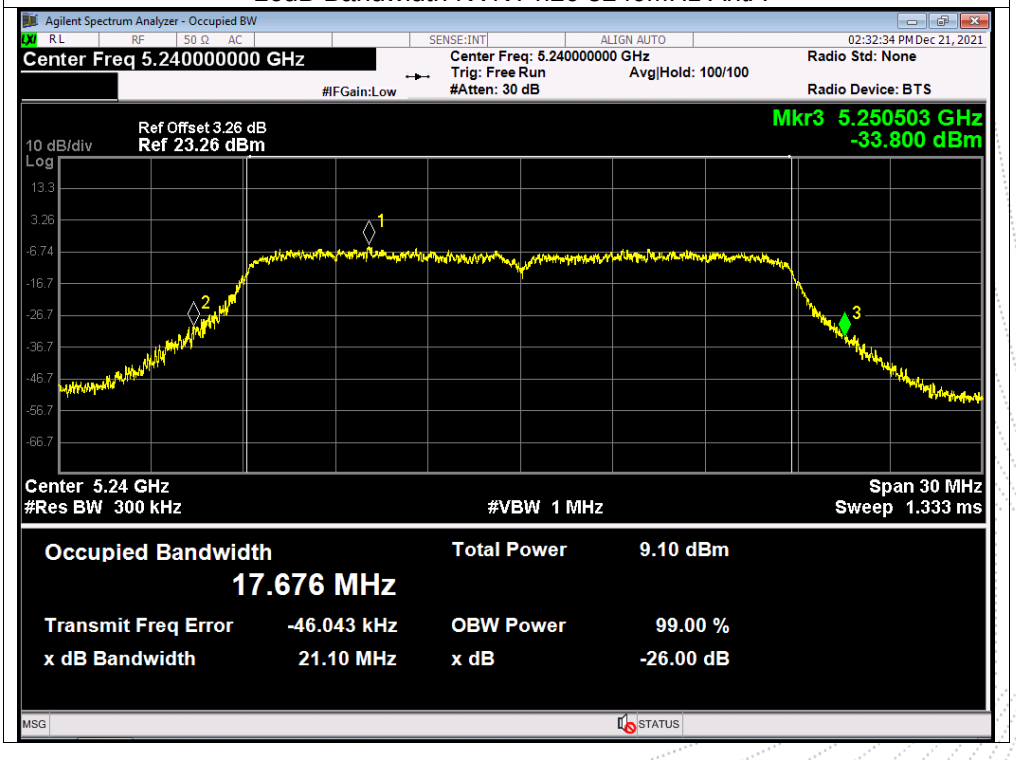
-26dB Bandwidth NVNT n20 5180MHz AntA



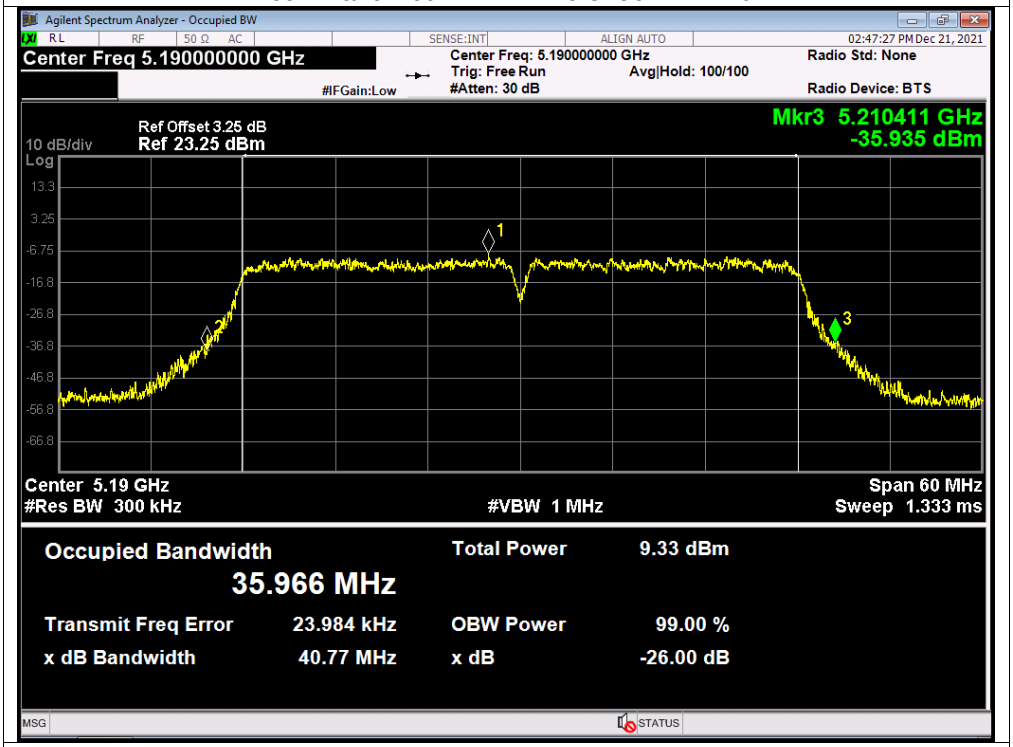
-26dB Bandwidth NVNT n20 5200MHz AntA



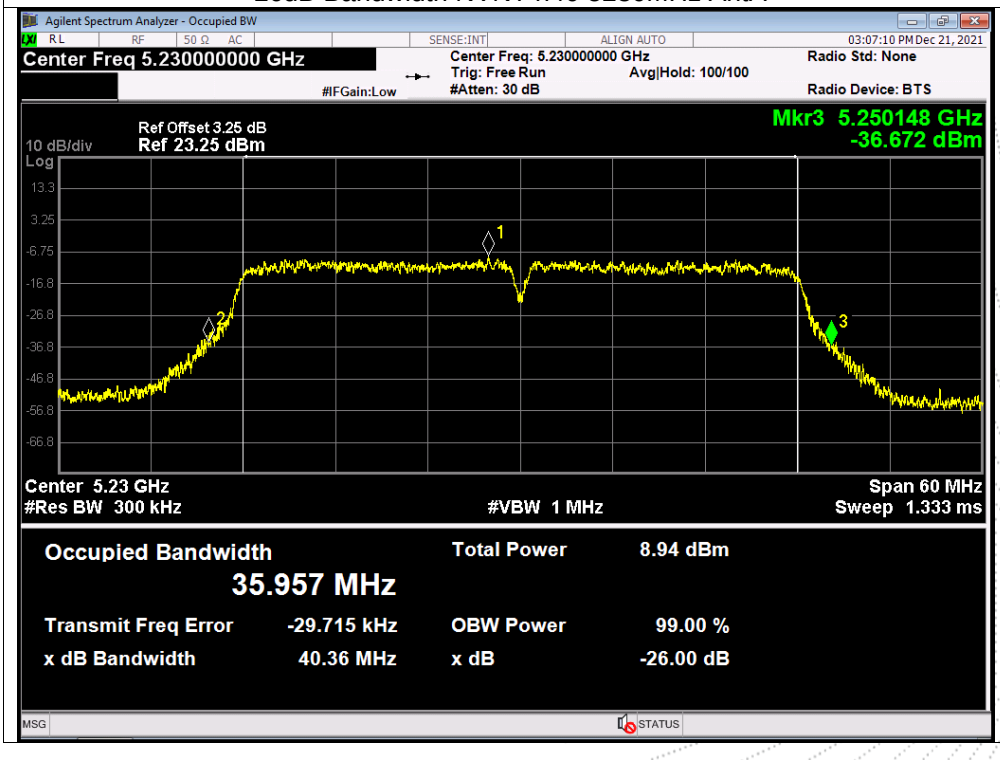
-26dB Bandwidth NVNT n20 5240MHz AntA



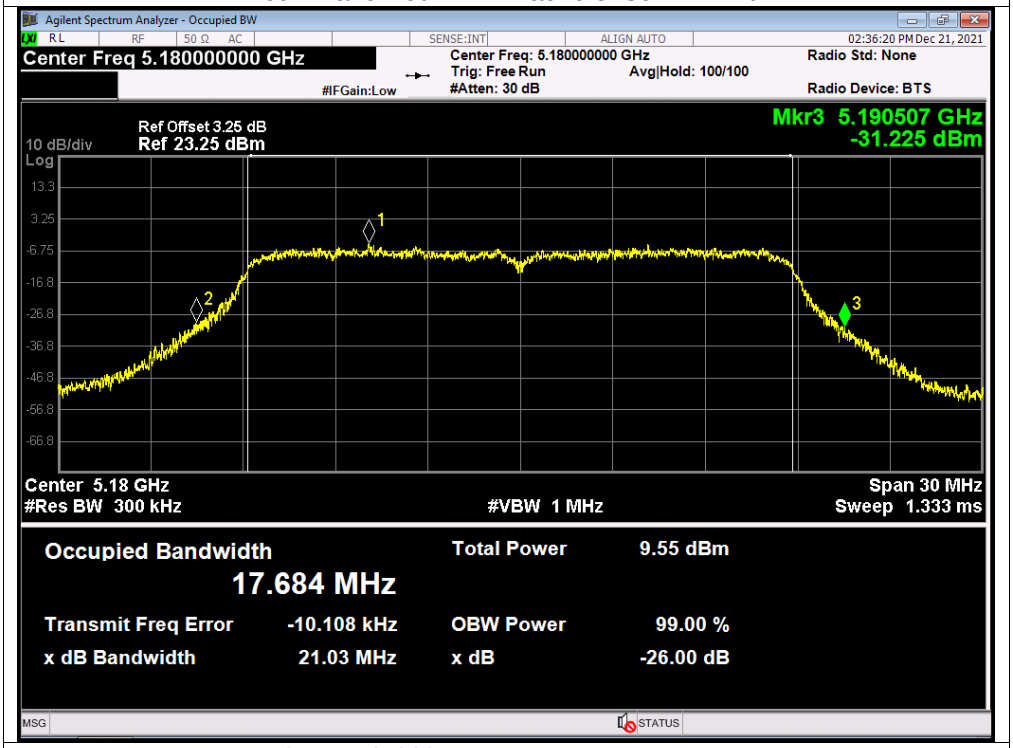
-26dB Bandwidth NVNT n40 5190MHz AntA



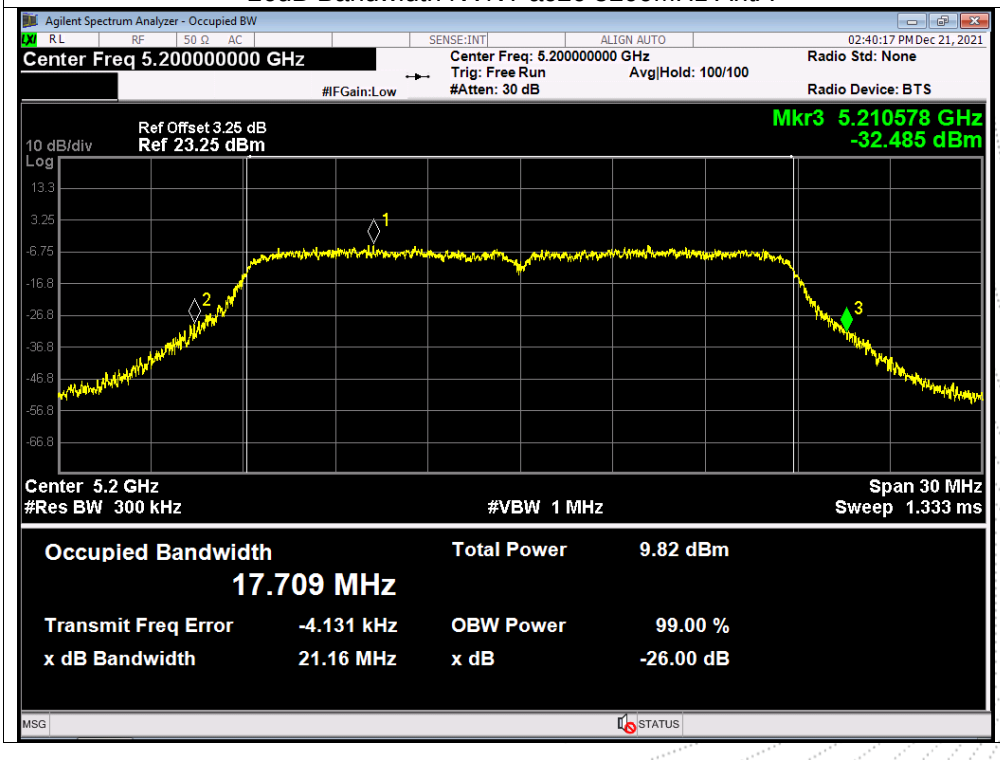
-26dB Bandwidth NVNT n40 5230MHz AntA



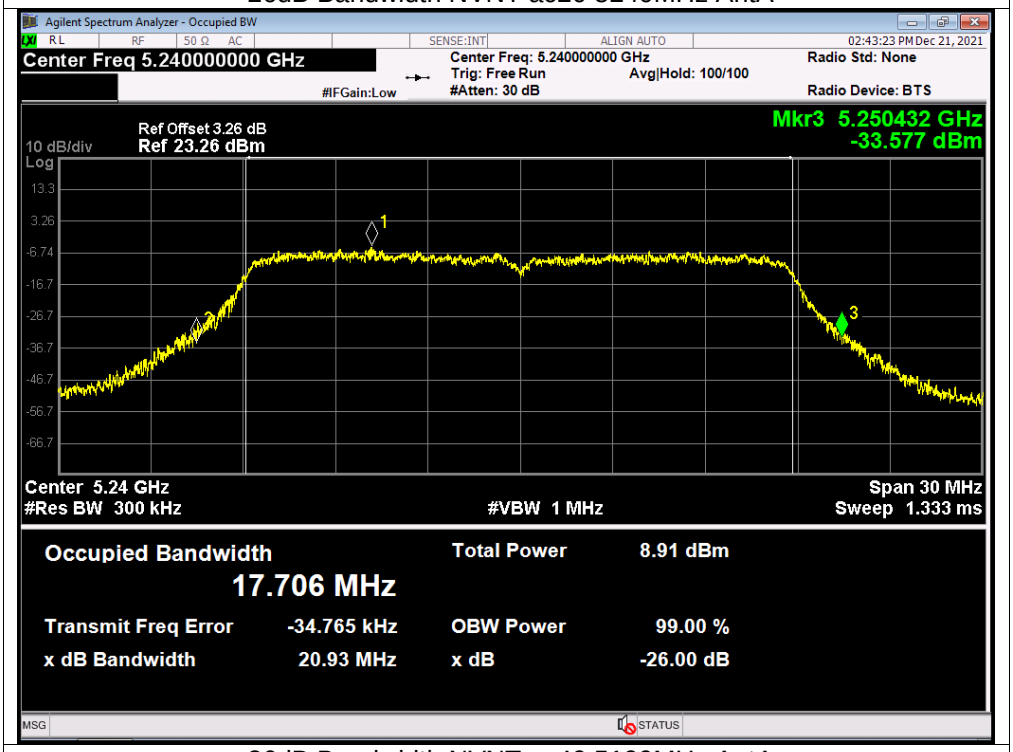
-26dB Bandwidth NVNT ac20 5180MHz AntA



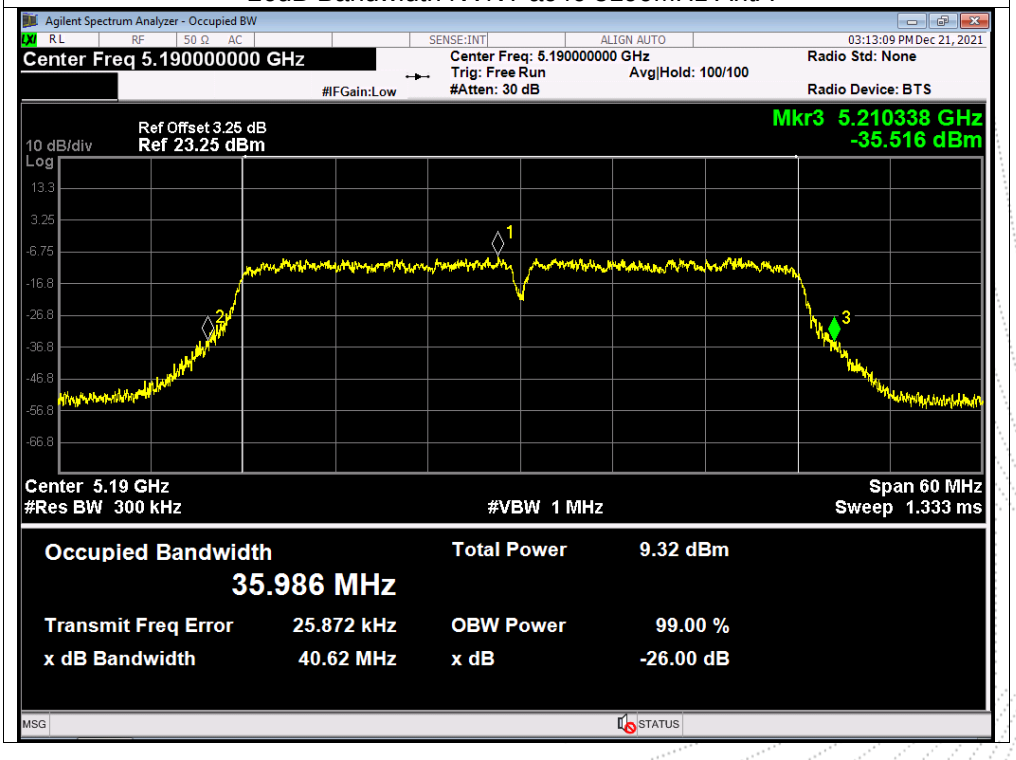
-26dB Bandwidth NVNT ac20 5200MHz AntA



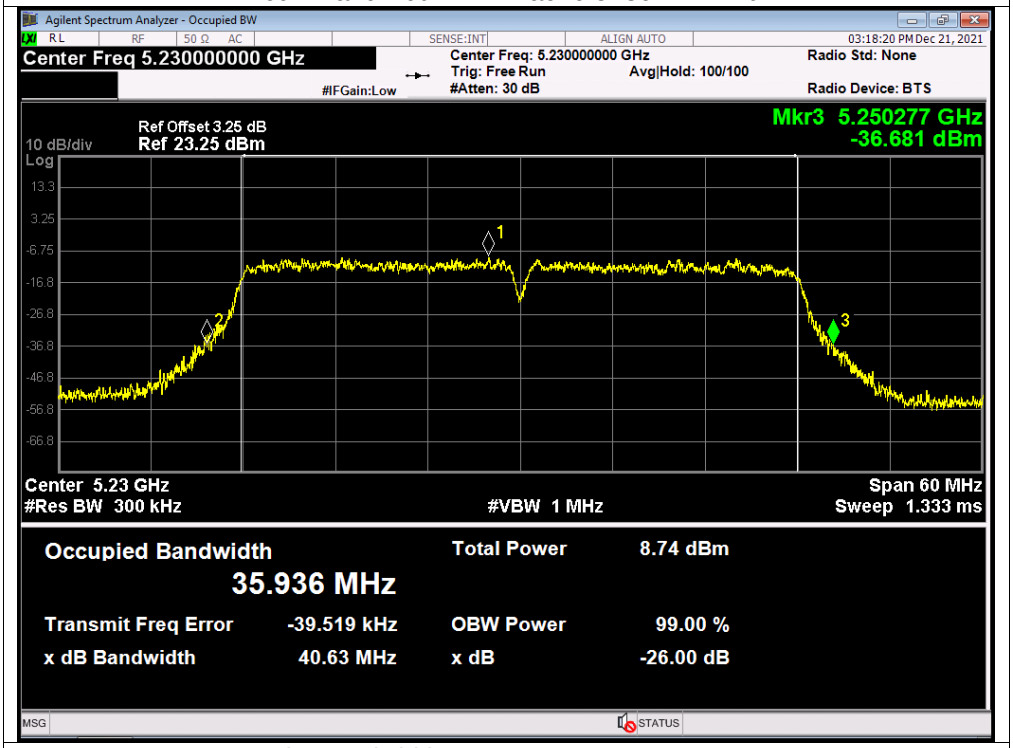
-26dB Bandwidth NVNT ac20 5240MHz AntA



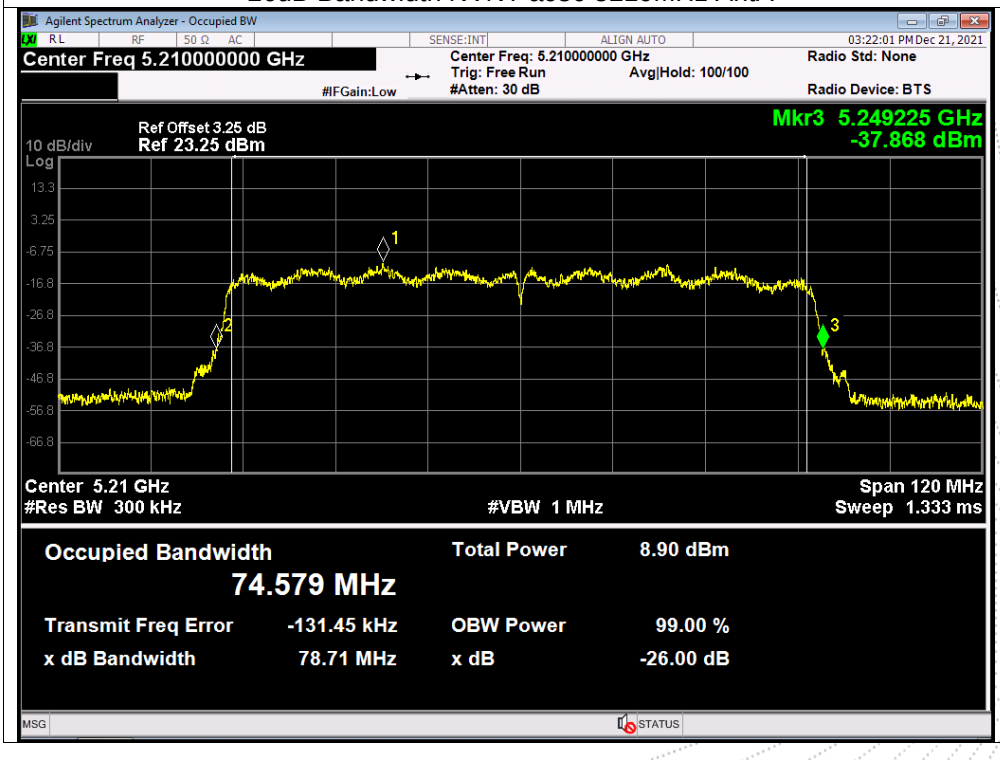
-26dB Bandwidth NVNT ac40 5190MHz AntA



-26dB Bandwidth NVNT ac40 5230MHz AntA



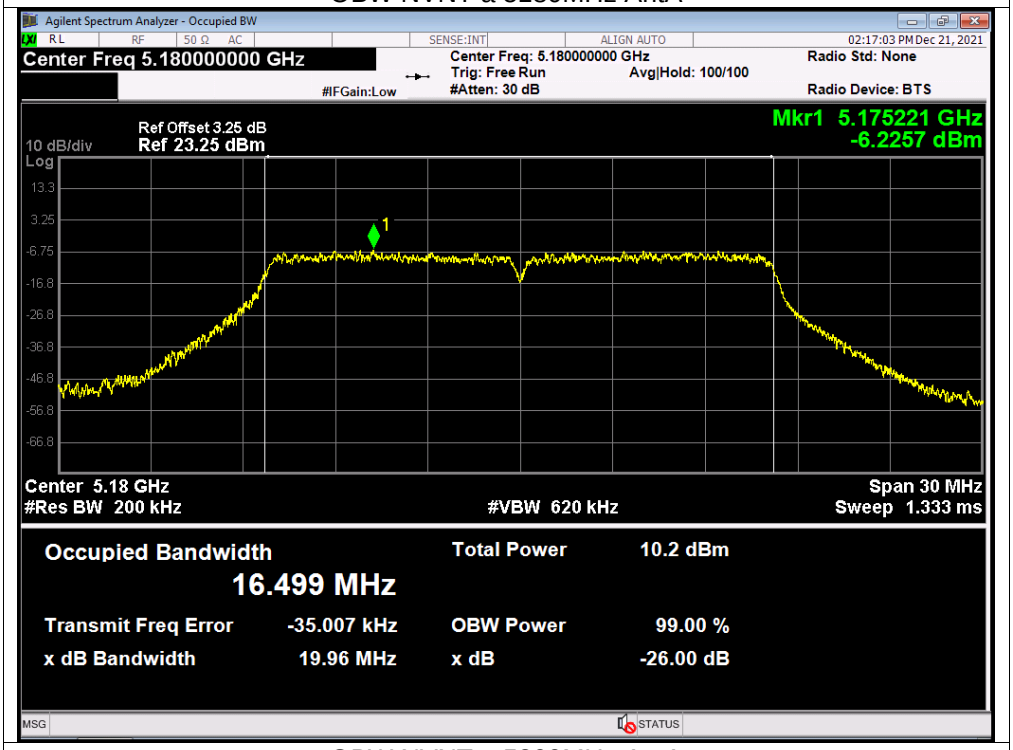
-26dB Bandwidth NVNT ac80 5210MHz AntA



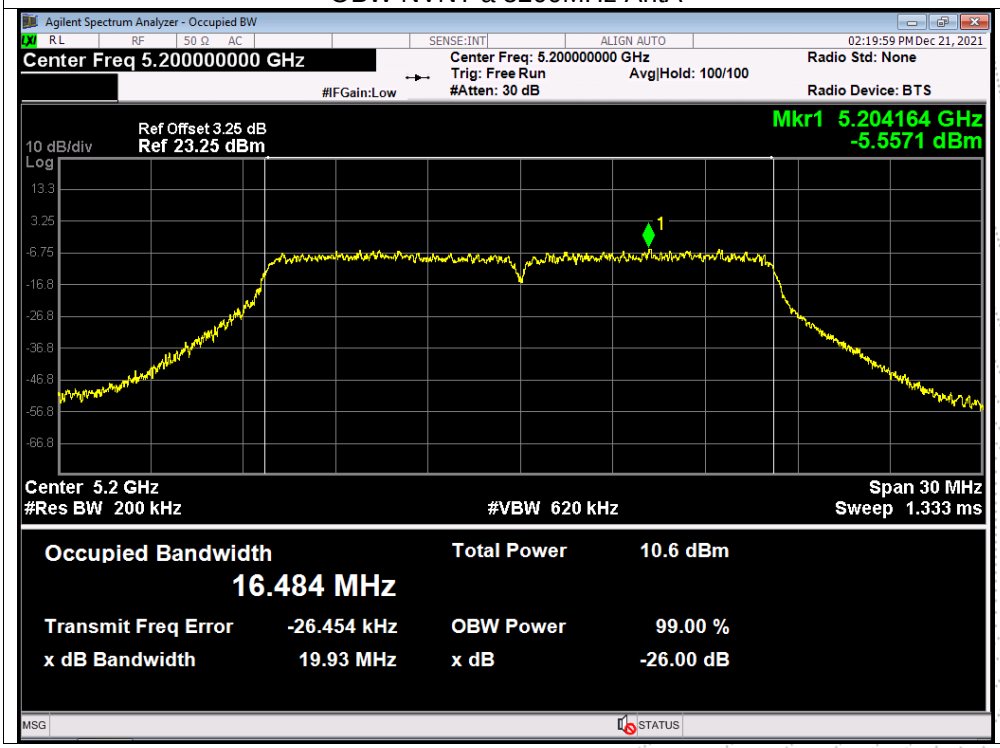
99% OBW

Test Graphs

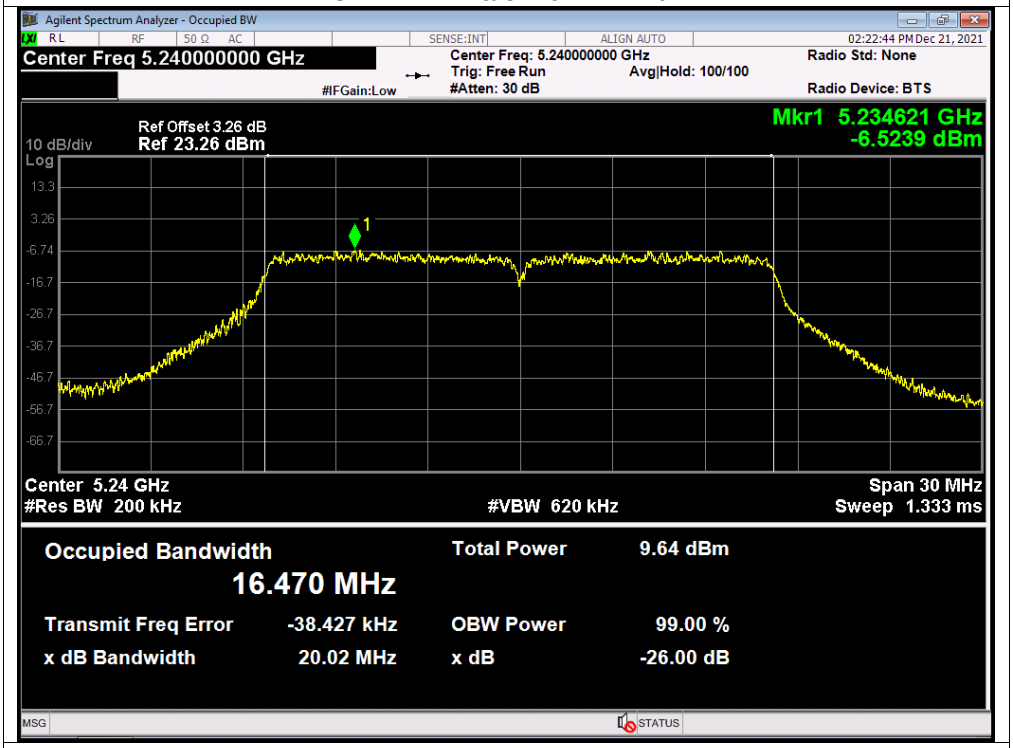
OBW NVNT a 5180MHz AntA



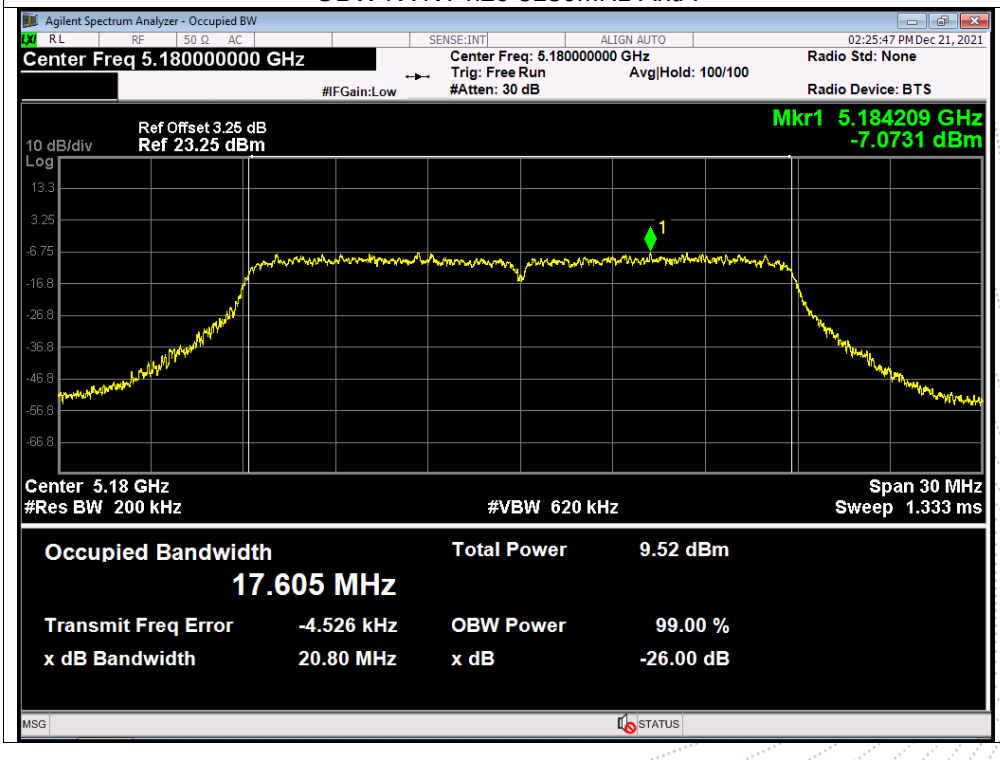
OBW NVNT a 5200MHz AntA



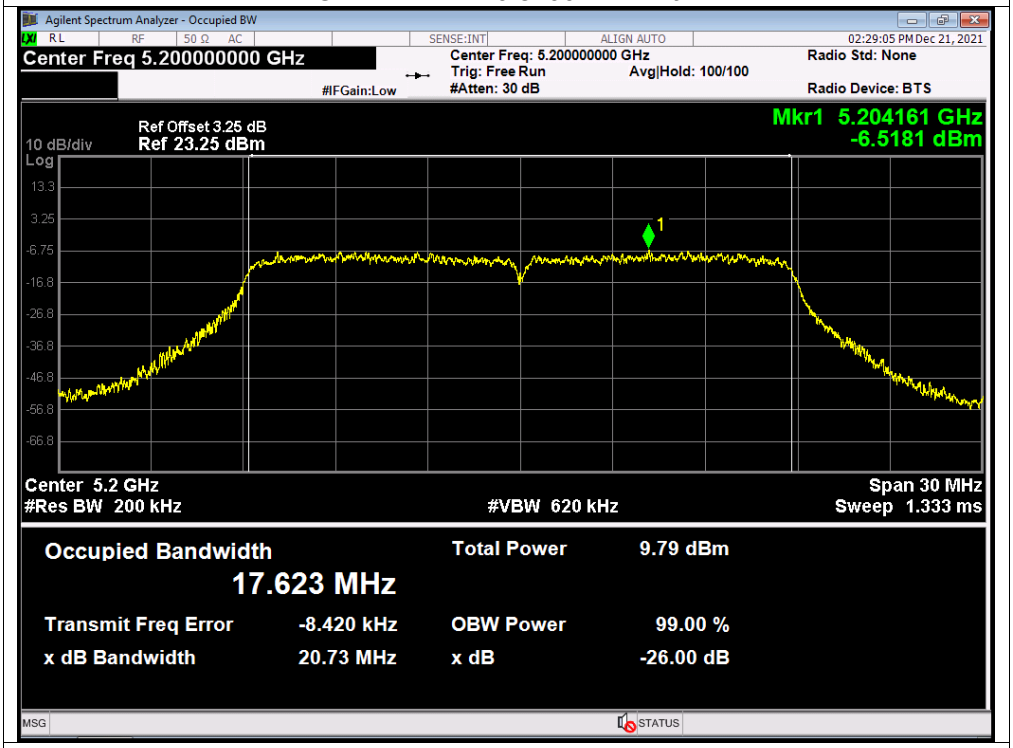
OBW NVNT a 5240MHz AntA



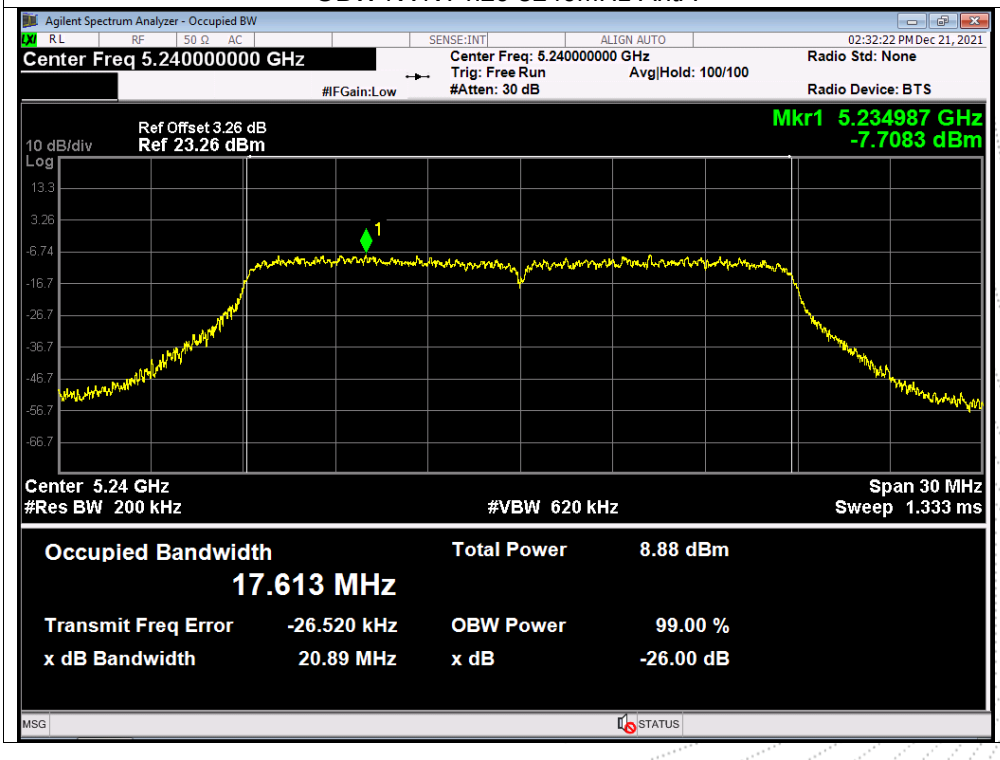
OBW NVNT n20 5180MHz AntA



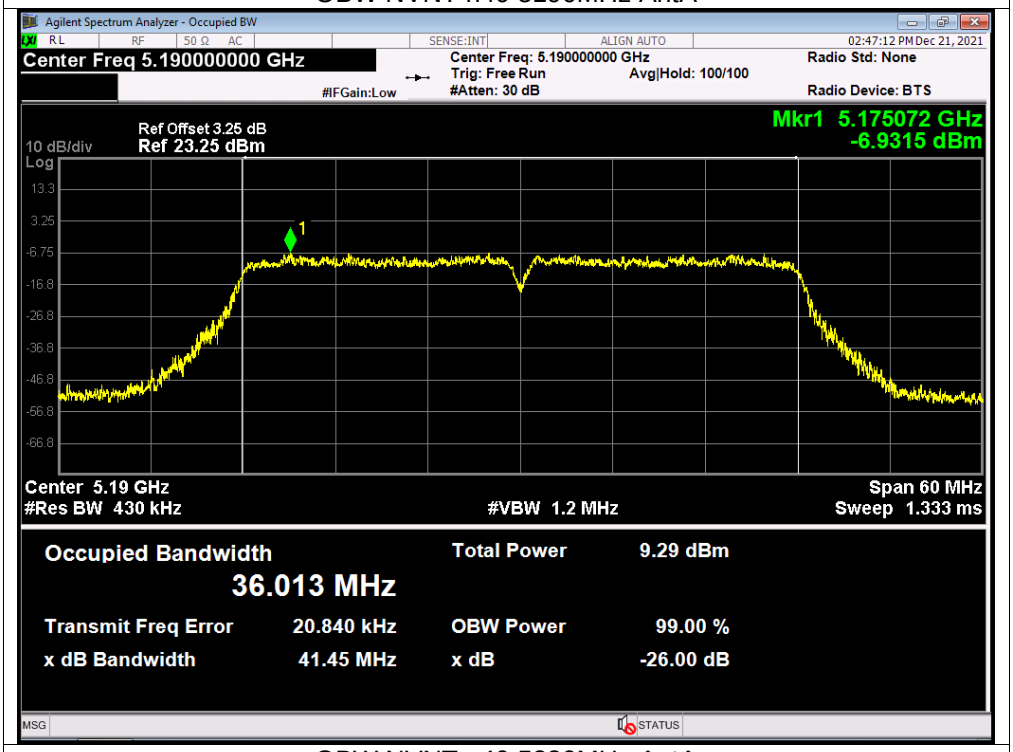
OBW NVNT n20 5200MHz AntA



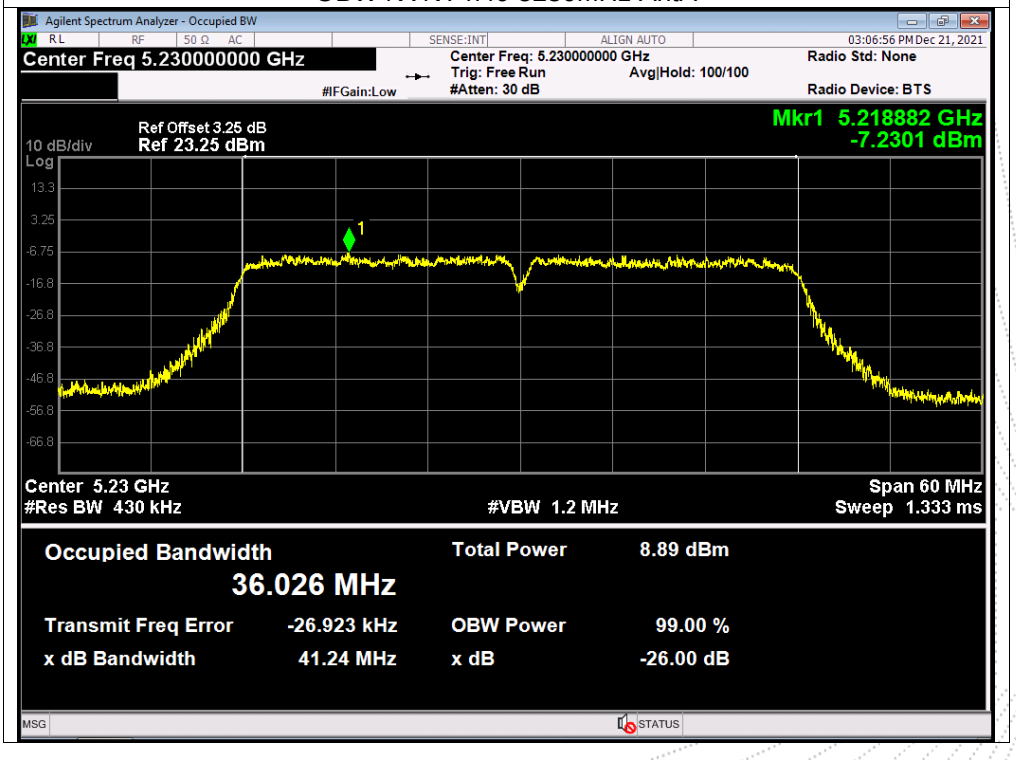
OBW NVNT n20 5240MHz AntA



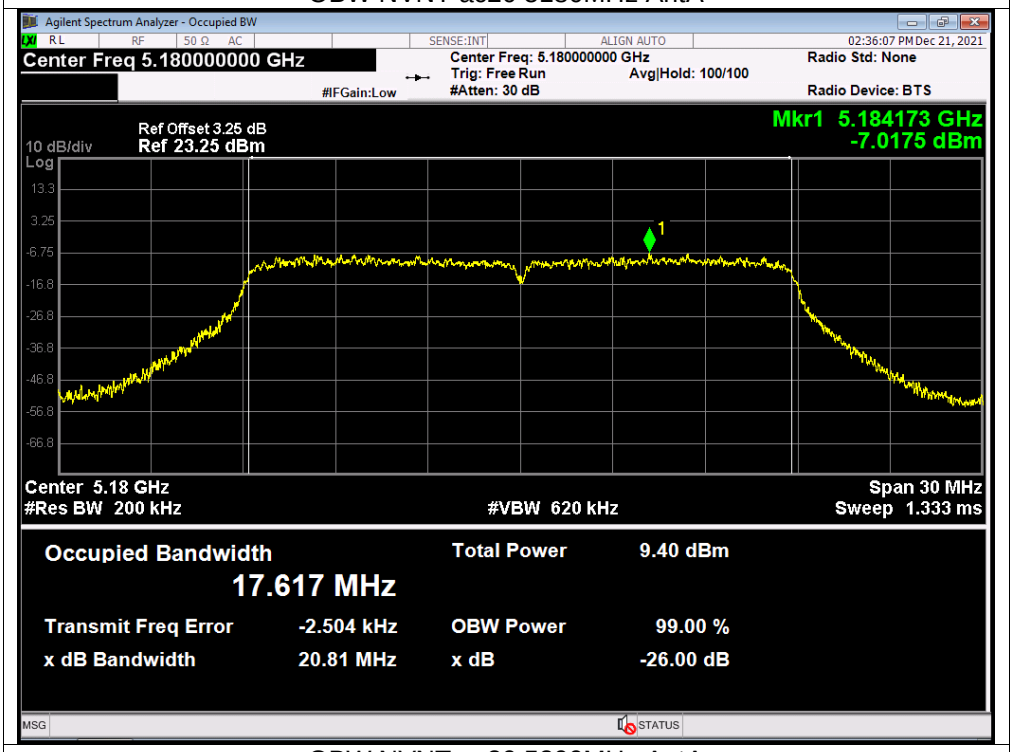
OBW NVNT n40 5190MHz AntA



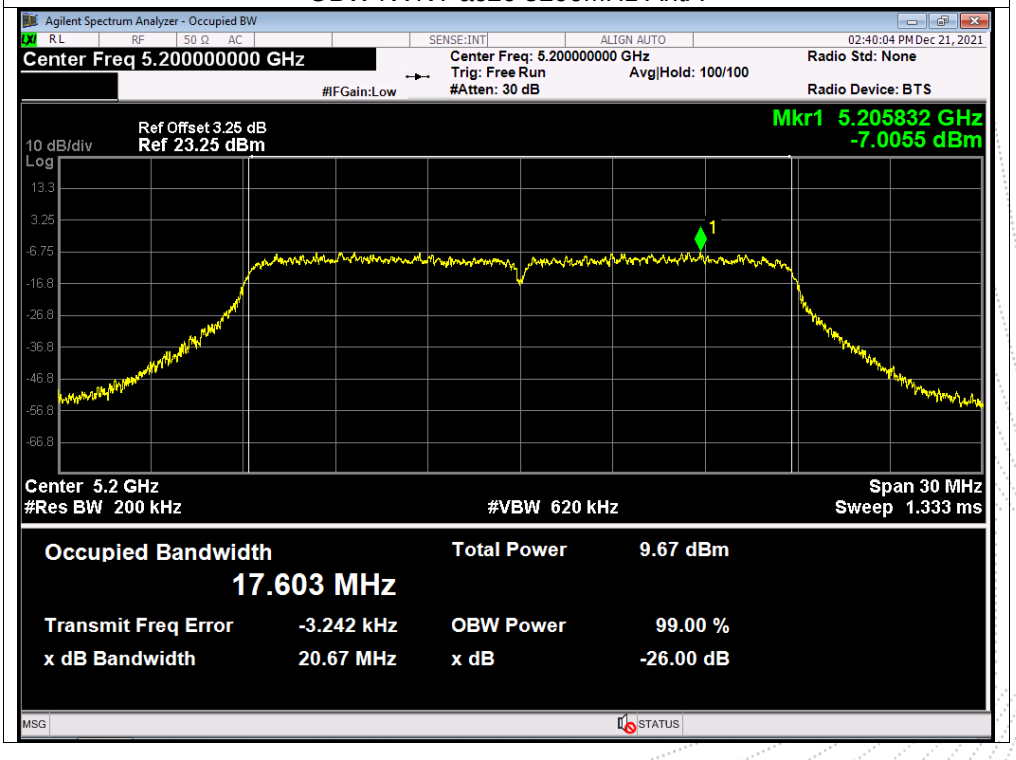
OBW NVNT n40 5230MHz AntA



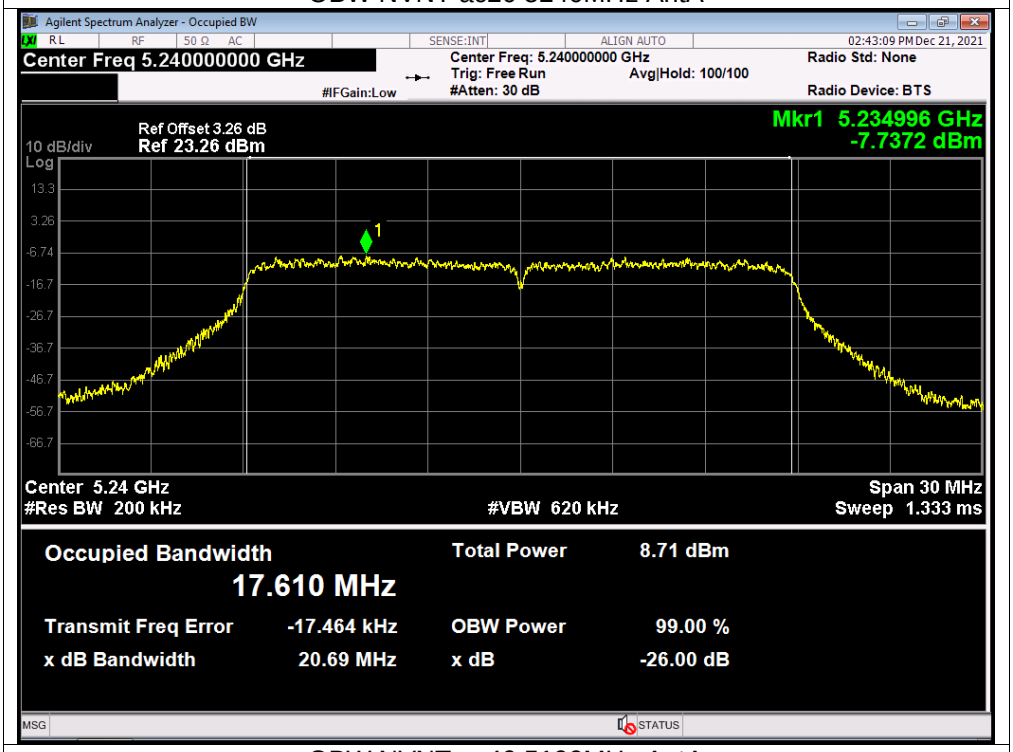
OBW NVNT ac20 5180MHz AntA



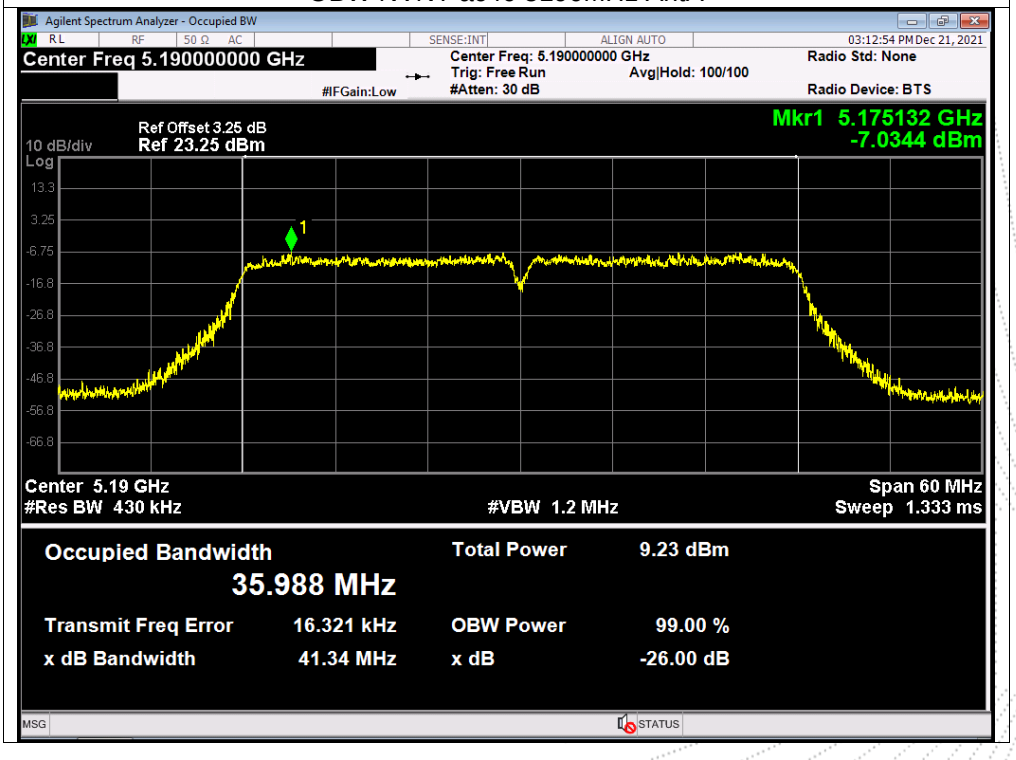
OBW NVNT ac20 5200MHz AntA



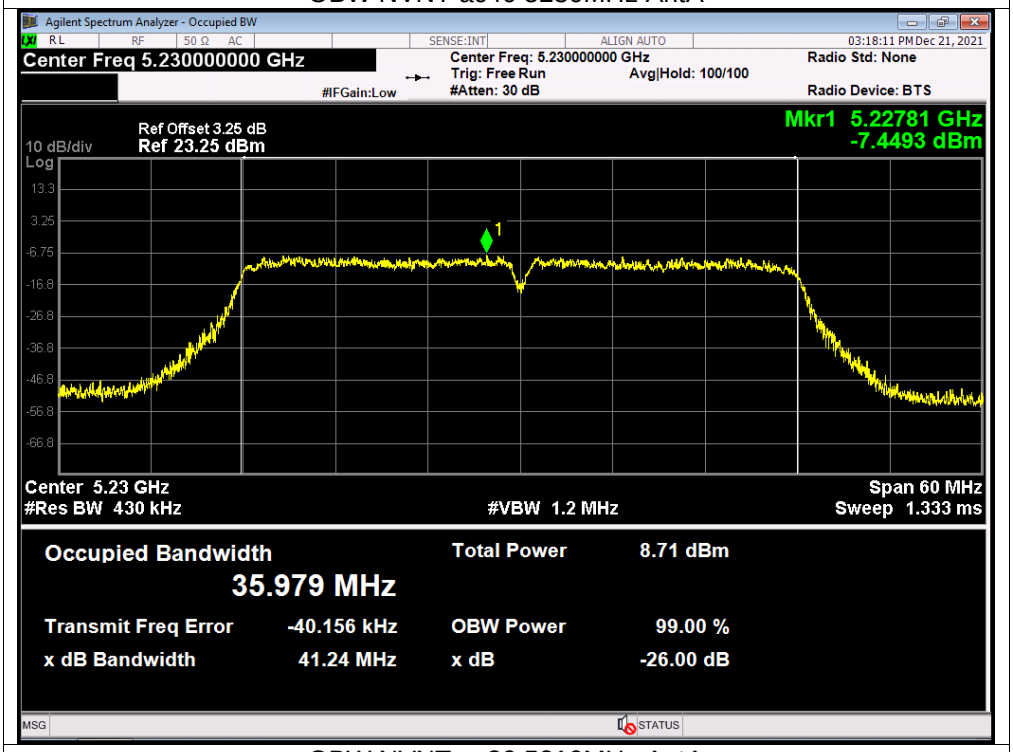
OBW NVNT ac20 5240MHz AntA



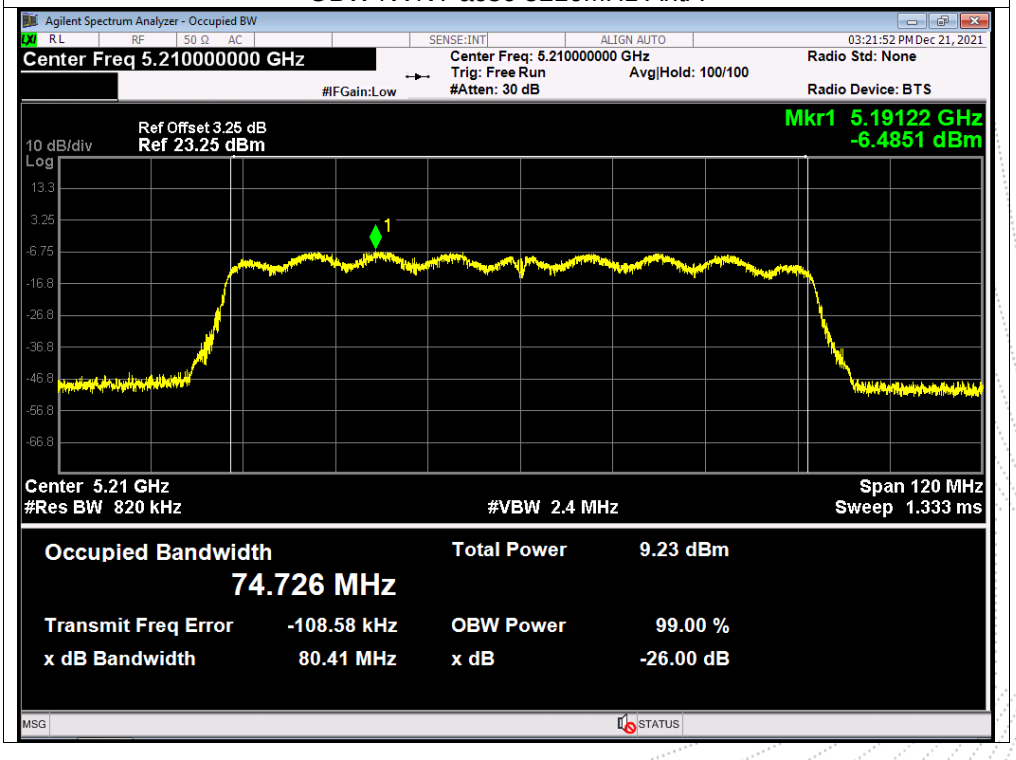
OBW NVNT ac40 5190MHz AntA



OBW NVNT ac40 5230MHz AntA



OBW NVNT ac80 5210MHz AntA



Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	DC 7.6V
Test Mode ：	TX Frequency U-NII-3(5745-5825MHz)		

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

Mode	Channel	Frequency (MHz)	99% bandwidth(MHz)	6dB bandwidth (MHz)	Limit MHz	Result
			ANT A	ANT A		
802.11a	CH149	5745	16.462	16.476	≥500	Pass
	CH157	5785	16.47	16.478	≥500	Pass
	CH165	5825	16.467	16.493	≥500	Pass
802.11 n20	CH149	5745	17.559	17.631	≥500	Pass
	CH157	5785	17.569	17.615	≥500	Pass
	CH165	5825	17.568	17.611	≥500	Pass
802.11 n40	CH151	5755	36.305	36.428	≥500	Pass
	CH159	5795	36.242	36.477	≥500	Pass
802.11 ac20	CH149	5745	17.571	17.6	≥500	Pass
	CH157	5785	17.582	17.594	≥500	Pass
	CH165	5825	17.57	17.623	≥500	Pass
802.11 ac40	CH151	5755	36.276	36.444	≥500	Pass
	CH159	5795	36.223	36.431	≥500	Pass
802.11 AC80	CH155	5775	75.311	76.002	≥500	Pass

Mode	Channel	Frequency (MHz)	99% bandwidth(MHz)	6dB bandwidth (MHz)	Limit MHz	Result
			ANT B	ANT B		
802.11a	CH149	5745	16.453	16.488	≥500	Pass
	CH157	5785	16.462	16.441	≥500	Pass
	CH165	5825	16.463	16.504	≥500	Pass
802.11 n20	CH149	5745	17.563	17.593	≥500	Pass
	CH157	5785	17.584	17.594	≥500	Pass
	CH165	5825	17.558	17.608	≥500	Pass
802.11 n40	CH151	5755	36.269	36.435	≥500	Pass
	CH159	5795	36.25	36.441	≥500	Pass
802.11 ac20	CH149	5745	17.574	17.598	≥500	Pass
	CH157	5785	17.605	17.586	≥500	Pass
	CH165	5825	17.57	17.644	≥500	Pass
802.11 ac40	CH151	5755	36.246	36.451	≥500	Pass
	CH159	5795	36.248	36.496	≥500	Pass
802.11 AC80	CH155	5775	75.256	76.035	≥500	Pass