



TEST REPORT

Applicant: Guangzhou FriendlyElec Technology Co., Limited

Address of Applicant: Room1106, 11F, East Tower, Top Plaza, No.222, Xingmin Road, Tianhe District, Guangzhou, China

Manufacturer: Guangzhou FriendlyElec Technology Co., Limited

Address of Manufacturer: Room1106, 11F, East Tower, Top Plaza, No.222, Xingmin Road, Tianhe District, Guangzhou, China

Product Name: Single Board Computer

Model No.: NanoPi R28S

Trade Mark: N/A

FCC ID: 2BXZJ-R28S

Applicable standards: CFR Title 47 Part 15.407

Date of Test: Aug.20, 2026- Sep.22, 2026

Date of report issued: Sep.22, 2026

Remark:

The results shown in this test report refer only to the sample(s) tested , this test report cannot be reproduced, except in full without prior written permission of the company.

The report would be invalid without specific stamp of test institute and the signatures of compiler and approver

Prepared By

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1 Test Summary

Test Item	Section in CFR 47	Result	Test by
Antenna requirement	47CFR part 15.203	Pass	/
AC Power Line Conducted Emission	47CFR part 15.207	Pass	Jason Huang
Conducted Output Power	47CFR part 15.407 (a)(1)/(a)(3)	Pass	Oliver Wang
26dB Bandwidth	47CFR part 15.407 (a)(12)	Pass	Oliver Wang
6dB Bandwidth	47CFR part 15.407 (e)	Pass	Oliver Wang
Power Spectral Density	47CFR part 15.407(a)(1)/(a)(3)	Pass	Oliver Wang
Band Edge	47CFR part 15.407(b)(1)/(b)(4)	Pass	Oliver Wang
Spurious Emission	47CFR part 15.205/15.209 47CFR part 15.407(b)(1)/(b)(4)/(b)(8)	Pass	Leo Zhong

Remarks:

1. Pass: The EUT complies with the essential requirements in the standard.
2. Test according to ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
3. Note: Compliance determination rules
 - 1).The Compliance determination of test results does not take into account measurement uncertainty. Measurement results are determined based on regulatory limitations or requirements specified by the applicant/manufacture. If measurement uncertainty is taken into account, the applicant/manufacture will bear all possible risks of non-compliance.
 - 2).The measurement uncertainty please refer to each test result in the "Measurement Uncertainty"

1.1 Measurement Uncertainty

Test Item	Measurement Uncertainty	Notes
Occupied Channel Bandwidth	0.72%	(1)
RF output power, conducted	±0.67 dB	(1)
Power Spectral Density, conducted	±0.51 dB	(1)
Unwanted Emissions, conducted	±0.64 dB	(1)
AC Power Line Conducted Emission	± 3.38 dB	(1)
Radiated emissions 9K-30MHz	±4.26 dB	(1)
Radiated emissions 30M- 1GHz	±4.88 dB	(1)
Radiated emissions 1GHz-18GHz	± 4.16 dB	(1)
Radiated emissions 18GHz-40GHz	±4.14 dB	(1)
Frequency error	Uc=6X10-7	(1)
Duty Cycle	±0.03%	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

2 General Information

2.1 General Description of EUT

Product Name:	Single Board Computer
Model No.:	NanoPi R28S
Difference of model(s)	N/A
Test Model:	NanoPi R28S
Hardware Version:	N/A
Software Version:	N/A
Power supply:	DC 5V from adapter with AC 230V/50Hz
Adapter information:	N/A
Battery:	N/A
Radio Technology:	5G RLAN
Operation Frequency:	☒ 5180-5240MHz for 802.11a/n20/ac20 5190-5230MHz for 802.11n40/ac40 5210MHz for 802.11ac80 ☒ 5745-5825 MHz for 802.11a/n20/ac20; 5755-5795 MHz for 802.11n40/ac40; 5775MHz for 802.11 ac80
Channel numbers:	☒ 4 channels for 802.11a/n20/ac20 in the 5180-5240MHz band; 2 channels for 802.11 n40/ac40 in the 5190-5230MHz band ; 1 channels for 802.11 ac80 in the 5210MHz band ; ☒ 5 channels for 802.11a/n20/ac20 in the 5745-5825MHz band ; 2 channels for 802.11 n40/ac40 in the 5755-5795MHz band ; 1 channels for 802.11 ac80 in the 5775MHz band
Channel bandwidth:	802.11a/n20/ ac20 : 20MHz 802.11n40/ac40 : 40MHz 802.11ac80: 80MHz
Modulation technology:	Orthogonal Frequency Division Multiplexing (OFDM) with BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM
Antenna Type:	FPC antenna
Antenna gain:	1.13dBi
Note: 1. Other information please Reference user manual. 2. Antenna information is provided by applicant, Testing lab is not responsible for the accuracy of the information.	



Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180MHz	38	5190MHz	40	5200MHz	42	5210MHz
44	5220MHz	46	5230MHz	48	5240MHz	/	/
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745MHz	151	5755MHz	153	5765MHz	155	5775MHz
157	5785MHz	159	5795MHz	161	5805MHz	/	/
165	5825MHz	/					

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency (MHz)		
	802.11 a /n20/ac20	802.11 n40/ac40	802.11ac80
Lowest channel	5180	5190	5210
Middle channel	5200		
Highest channel	5240		

Test channel	Frequency (MHz)		
	802.11 a /n20/ac20	802.11 n40/ac40	802.11ac80
Lowest channel	5745	5755	5775
Middle channel	5785		
Highest channel	5825		

2.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode.
<i>Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.</i>	

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Pretest Mode	Description
Mode 1	802.11a / n20/ ac20 CH36/CH40/CH48 802.11a /n 20/ac 20 CH149/CH157/CH165
Mode 2	802.11n 40/ac40 CH38/CH46 802.11n 40/ac40 CH 151/CH159
Mode 3	802.11 ac80 CH 42/CH155
Mode 4	/
Mode 5	Link Mode

Conducted Emission	
Final Test Mode	Description
Mode 5	Link Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11a / n20/ ac20 CH36/CH40/CH48 802.11a /n 20/ac 20 CH149/CH157/CH165
Mode 2	802.11n 40/ac40 CH38/CH46 802.11n 40/ac40 CH 151/CH159
Mode 3	802.11 ac80 CH 42/CH155
Mode 4	/

Note:

(1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.



2.3 Description of Support Units

No.	Description	Manufacturer	Model	Serial Number
1	ADAPTER	XIAO MI	MDY-11-EM	/

2.4 Test Facility

Test laboratory:	Shenzhen ETR Standard Technology Co., Ltd.
CNAS Registration Number:	L11864
A2LA Certificate Number:	6640.01
FCC Designation Number:	CN1326
FCC Test Firm Registration:	183064
IC Company Number:	28440
IC CAB identifier:	CN0132
Laboratory location:	No.103, No.10, Phase I, Zone 3, Xinxing Industrial Park, Xinhe, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

2.5 Additional Instructions

Test Software	Manufacturer-specific serial commands
Power level setup	Default



3 Test Instruments list

Conducted Emission

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	EMI Test Receiver	Rohde&schwarz	ESCI3	102696	2026.3.05	2027.3.04
2	Artificial power network	schwarabeck	NSLK8127	8127483	2026.3.05	2027.3.04
3	Artificial power network	ETS	3186/2NM	1132	2026.3.05	2027.3.04
4	10dB attenuator	HUBER+SUHNER	10dB	/	2026.3.05	2027.3.04
5	Cable 4	HUBER SUNNER	3M	/	2026.3.05	2027.3.04
6	Absorbing Clamp	schwarabeck	MDS21	D69250	2025.3.06	2026.3.05

Radiated Emission & RF Conducted test:

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101032	2026.3.05	2027.3.04
2	Broadband antenna	schwarabeck	VULB9168	1064	2026.3.11	2028.3.10
3	Horn antenna	schwarabeck	BBHA9120D	9120D-1145	2026.3.08	2028.3.07
4	Amplifier	EMtrace	RP01A	50117	2026.3.05	2027.3.04
5	Amplifier	Space-Dtronics	EWLAN0118G-P40	19113001	2026.3.05	2027.3.04
6	Spectrum analyzer	KEYSIGHT	N9020A	MY55370280	2026.3.05	2027.3.04
7	Power detector meter	MWRFtest	MW100-PSB	MW201020JYT	2026.3.05	2027.3.04
8	Signal generator	Agilent	N5182A	MY49060455	2026.3.05	2027.3.04
9	Spectrum analyzer	Rohde&schwarz	FSV-40N	102137	2026.3.05	2027.3.04
10	Amplifier	SKET	LNPA_1840-50	SK2019040302	2026.3.05	2027.3.04
11	Horn antenna	schwarabeck	BBHA 9170	946	2026.3.08	2028.3.07
12	Loop antenna	schwarabeck	FMZB 1519 B	128	2026.3.08	2028.3.07
13	Cable 6	HUBER SUNNER	0.5M	/	2026.3.05	2027.3.04
14	Cable7	HUBER SUNNER	2.0M	/	2026.3.05	2027.3.04
15	Cable8	HUBER SUNNER	6.0M	/	2026.3.05	2027.3.04
16	Filter	Xin bo	XBLBQ-GTA29	210410-3-2	2026.3.05	2027.3.04
17	Power Sensor	Keysight	U2021XA	MY54111006	2026.3.05	2027.3.04
18	Temp. & Humidity Chamber	Jiecheng Instrument	QA-LP-80	20160705001	2026/3/06	2027/3/05

Note: the calibration interval of the above test instruments is 12 or 24 months and the calibrations are traceable to international system unit (SI).

Software Name	Manufacturer	Model	Version
RF test software	MWRFtest	MTS 8310	V2.0.0.0
Conducted test software	EZ-EMC	Farad	Ver.EMC-CON 3A1.1
Radiated test software	EZ-EMC	Farad	Ver.FA-03A2 RE

4 Test results and Measurement Data

4.1 Antenna requirement

Standard requirement:	47CFR Part 15.203
<i>15.203 requirement:</i> <i>An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.</i>	
E.U.T Antenna:	
The antenna is FPC antenna, the best case gain of the antenna is 1.13 dBi, reference to the internal photo for details.	

4.2 Conducted Emissions

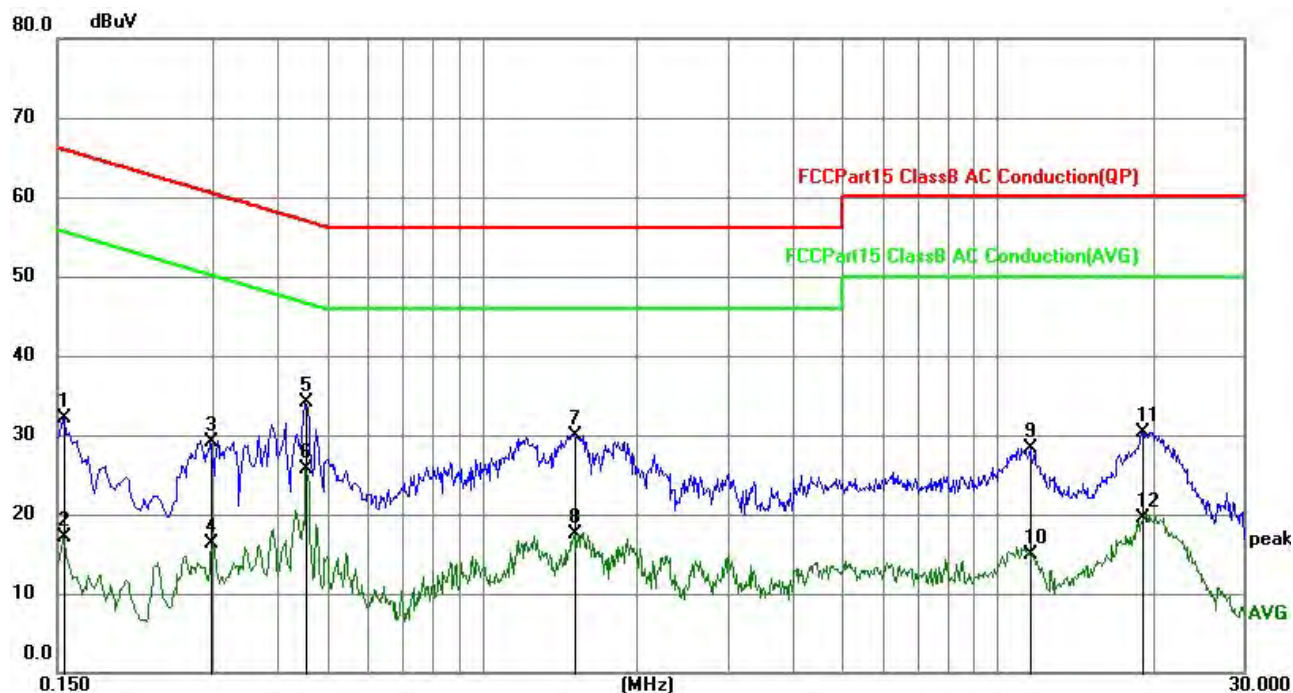
Test Requirement:	47CFR Part 15.207					
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 §6.2					
Test Frequency Range:	150KHz to 30MHz					
Class / Severity:	Class B					
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto					
Limit:	Frequency range (MHz)		Limit (dBuV)			
			Quasi-peak		Average	
	0.15-0.5		66 to 56*		56 to 46*	
	0.5-5		56		46	
	5-30		60		50	
* Decreases with the logarithm of the frequency.						
Test setup:	Reference Plane 40cm LISN AUX Equipment E.U.T LISN 80cm Filter AC power EMI Receiver Remark E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network					
Test procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 on conducted measurement.					
Test Instruments:	Refer to section 3.0 for details					
Test mode:	Refer to section 2.2 for details					
Test environment:	Temp.:	24.2°C	Humid.:	53%	Press.:	1012mbar
Test voltage:	AC 120V 60Hz					
Test results:	Pass					

Remark:

1. Both high voltage and low voltage have been tested, and the report only shows the worst case data with AC 120V/60Hz.
2. All modes have been tested, and the report only displays the worst mode n40 (5755MHz) data.

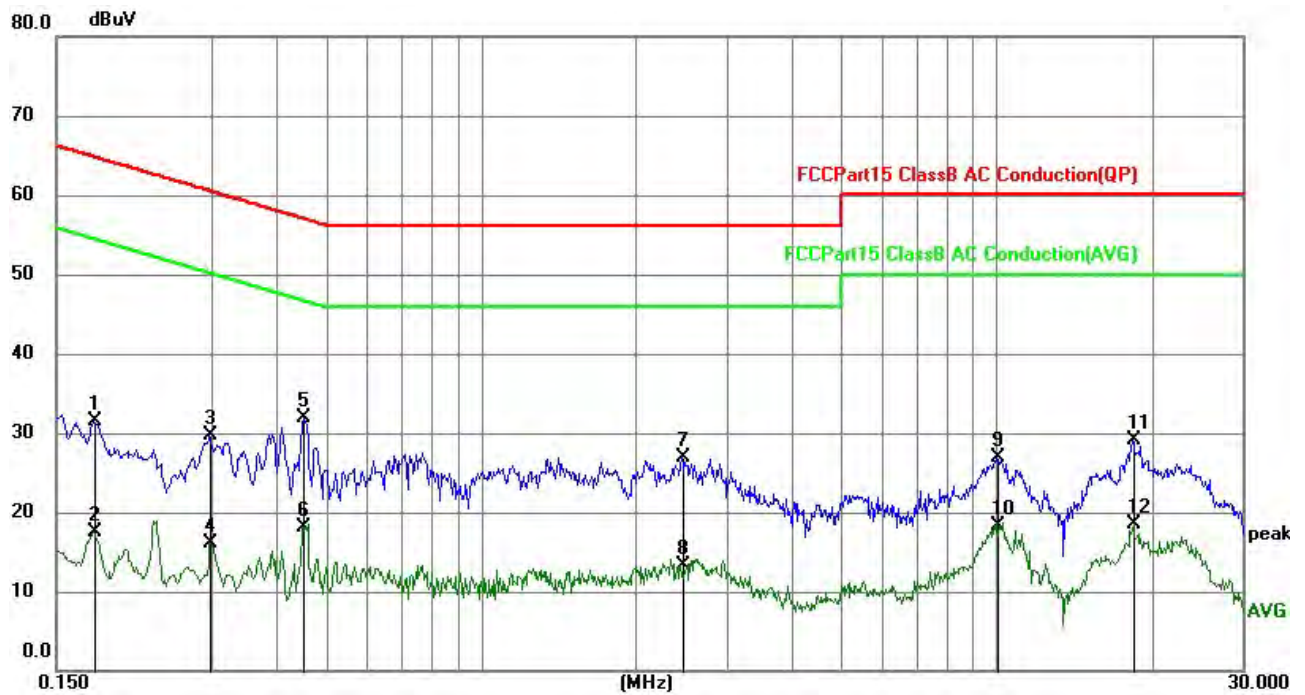
Measurement Result

Line:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1547	22.19	9.97	32.16	65.74	-33.58	QP
2	0.1547	7.12	9.97	17.09	55.74	-38.65	AVG
3	0.2983	19.08	10.00	29.08	60.29	-31.21	QP
4	0.2983	6.21	10.00	16.21	50.29	-34.08	AVG
5	0.4560	24.06	10.07	34.13	56.77	-22.64	QP
6	0.4560	15.73	10.07	25.80	46.77	-20.97	AVG
7	1.5086	19.94	10.04	29.98	56.00	-26.02	QP
8	1.5086	7.52	10.04	17.56	46.00	-28.44	AVG
9	11.6158	18.24	10.06	28.30	60.00	-31.70	QP
10	11.6158	4.89	10.06	14.95	50.00	-35.05	AVG
11	19.0590	20.45	9.94	30.39	60.00	-29.61	QP
12	19.0590	9.50	9.94	19.44	50.00	-30.56	AVG

Neutral:

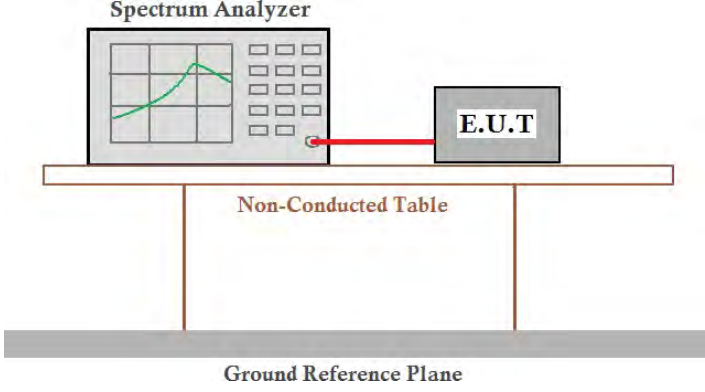


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1768	21.57	9.97	31.54	64.63	-33.09	QP
2	0.1768	7.52	9.97	17.49	54.63	-37.14	AVG
3	0.2983	19.67	10.00	29.67	60.29	-30.62	QP
4	0.2983	6.16	10.00	16.16	50.29	-34.13	AVG
5	0.4515	21.82	10.06	31.88	56.85	-24.97	QP
6	0.4515	7.99	10.06	18.05	46.85	-28.80	AVG
7	2.4584	16.87	10.00	26.87	56.00	-29.13	QP
8	2.4584	3.24	10.00	13.24	46.00	-32.76	AVG
9	10.0455	16.87	10.08	26.95	60.00	-33.05	QP
10	10.0455	8.20	10.08	18.28	50.00	-31.72	AVG
11	18.3885	19.09	9.95	29.04	60.00	-30.96	QP
12	18.3885	8.47	9.95	18.42	50.00	-31.58	AVG

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Cable Loss
4. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

4.3 Duty cycle

Test Method :	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024§ § 12.2	
Limit:	/	
Test setup:	 The diagram illustrates the test setup. A 'Spectrum Analyzer' is connected to an 'E.U.T' (Equipment Under Test) by a red cable. Both components are positioned on a 'Non-Conducted Table'. This table is supported by a 'Ground Reference Plane'.	
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.2°C	Humid.: 53%RH
Test voltage:	DC 5V from adapter	
Test results:	Pass	



Measurement Result

5180-5240MHz

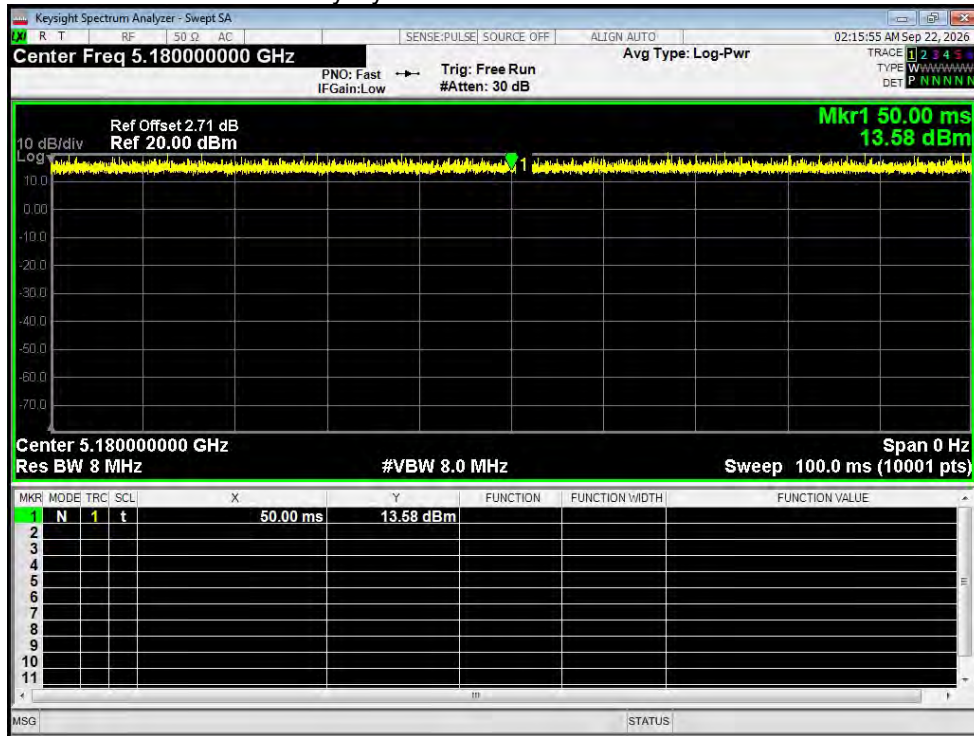
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5180	Ant1	100	0
NVNT	a	5200	Ant1	100	0
NVNT	a	5240	Ant1	100	0
NVNT	n20	5180	Ant1	100	0
NVNT	n20	5200	Ant1	100	0
NVNT	n20	5240	Ant1	100	0
NVNT	n40	5190	Ant1	100	0
NVNT	n40	5230	Ant1	100	0
NVNT	ac20	5180	Ant1	100	0
NVNT	ac20	5200	Ant1	100	0
NVNT	ac20	5240	Ant1	100	0
NVNT	ac40	5190	Ant1	100	0
NVNT	ac40	5230	Ant1	100	0
NVNT	ac80	5210	Ant1	100	0

5745-5825 MHz

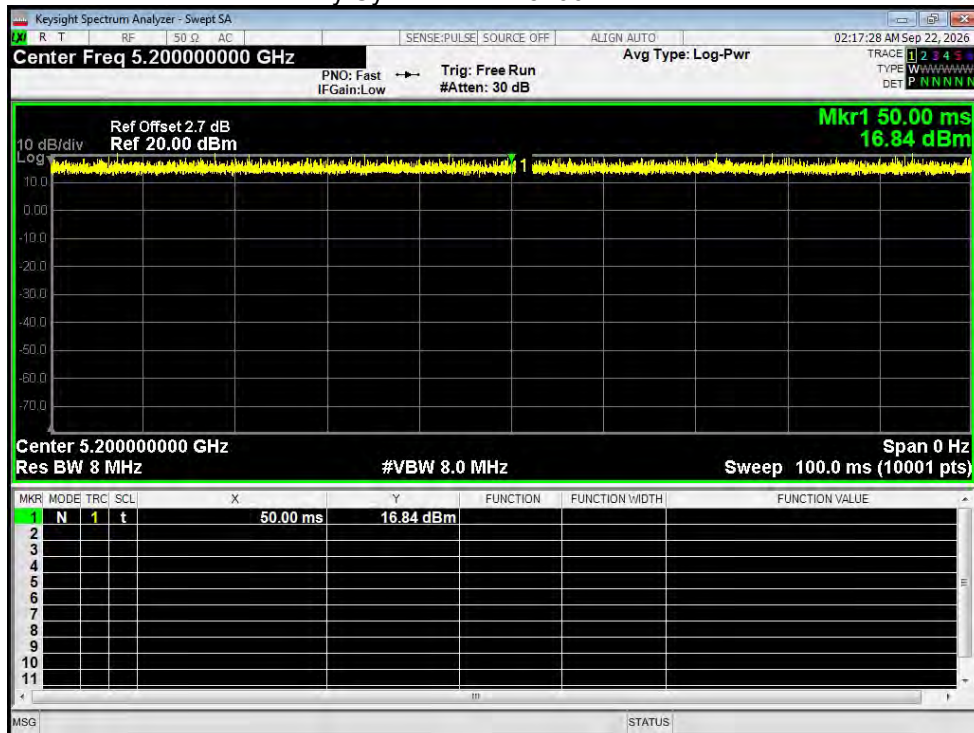
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5745	Ant1	100	0
NVNT	a	5785	Ant1	100	0
NVNT	a	5825	Ant1	100	0
NVNT	n20	5745	Ant1	100	0
NVNT	n20	5785	Ant1	100	0
NVNT	n20	5825	Ant1	100	0
NVNT	n40	5755	Ant1	100	0
NVNT	n40	5795	Ant1	100	0
NVNT	ac20	5745	Ant1	100	0
NVNT	ac20	5785	Ant1	100	0
NVNT	ac20	5825	Ant1	100	0
NVNT	ac40	5755	Ant1	100	0
NVNT	ac40	5795	Ant1	100	0
NVNT	ac80	5775	Ant1	100	0

Note: Duty cycle factor (dB) = $10 * \log (1 / \text{Duty cycle})$

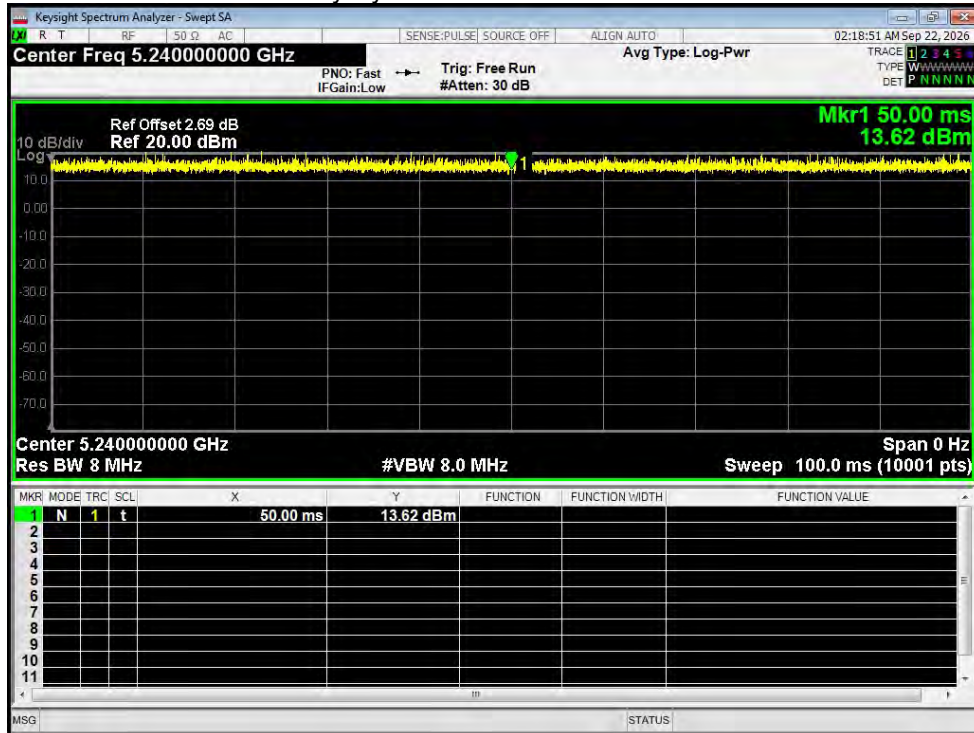
Duty Cycle NVNT a 5180MHz Ant1



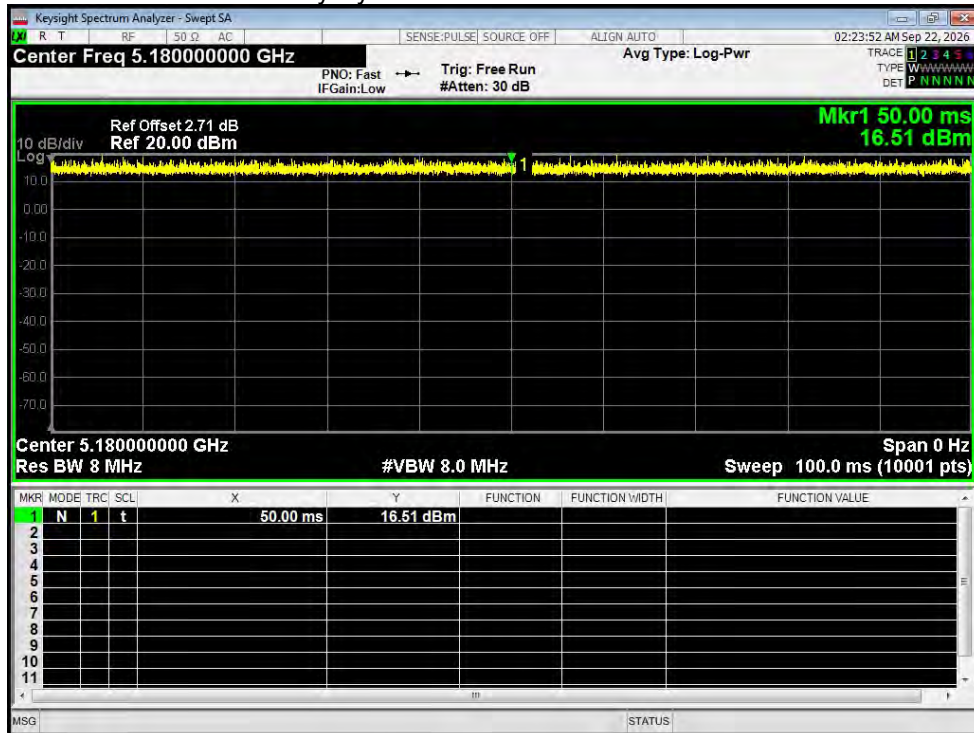
Duty Cycle NVNT a 5200MHz Ant1



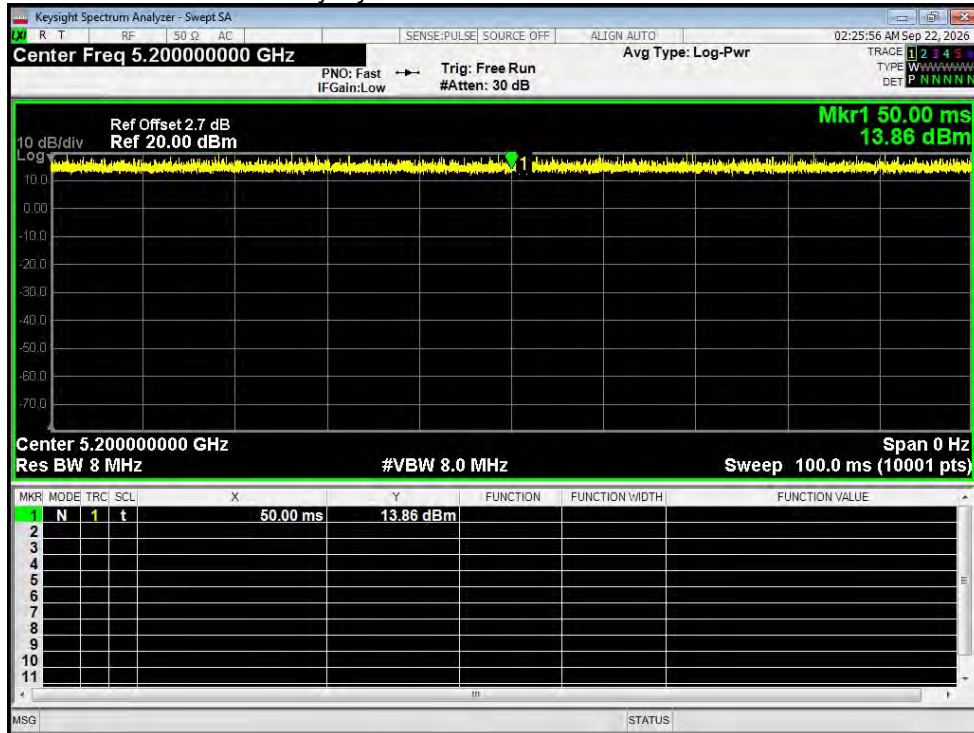
Duty Cycle NVNT a 5240MHz Ant1



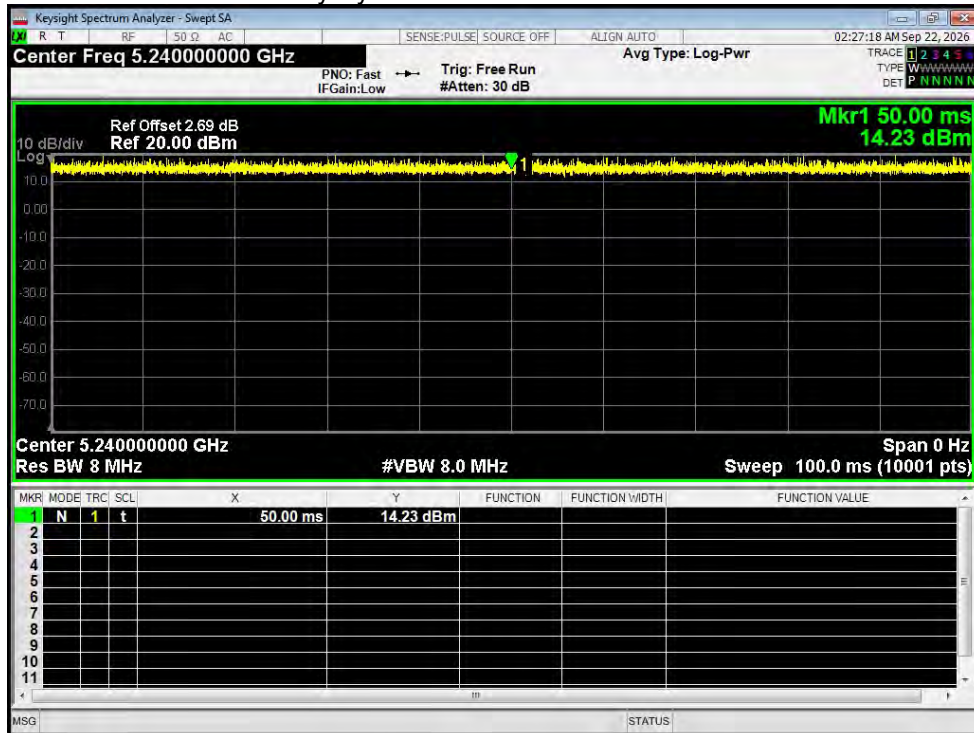
Duty Cycle NVNT n20 5180MHz Ant1



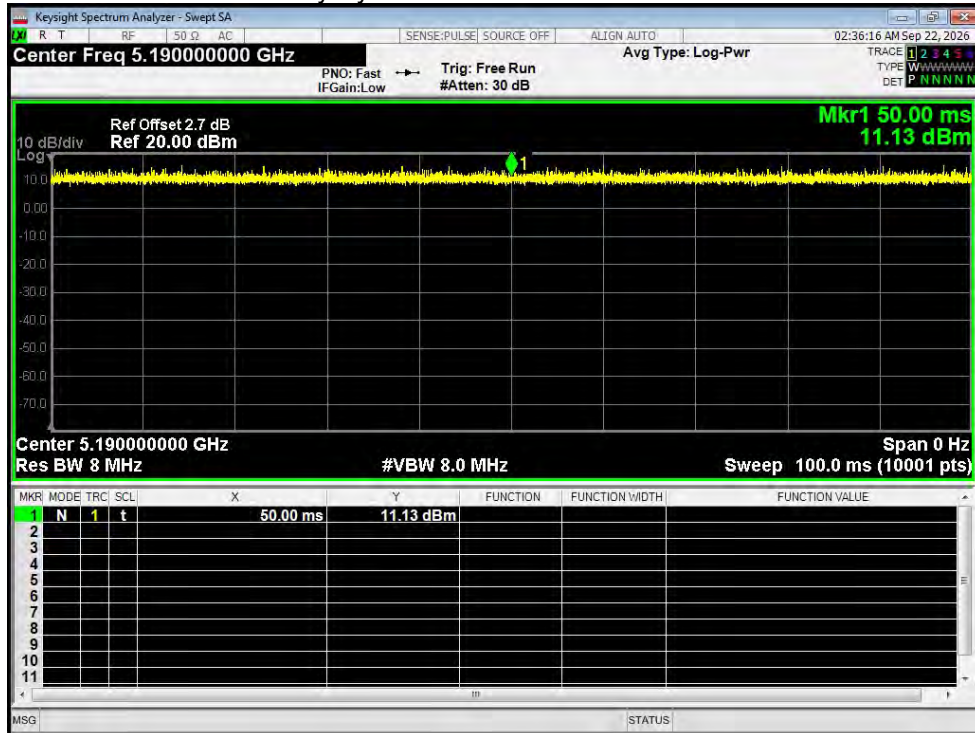
Duty Cycle NVNT n20 5200MHz Ant1



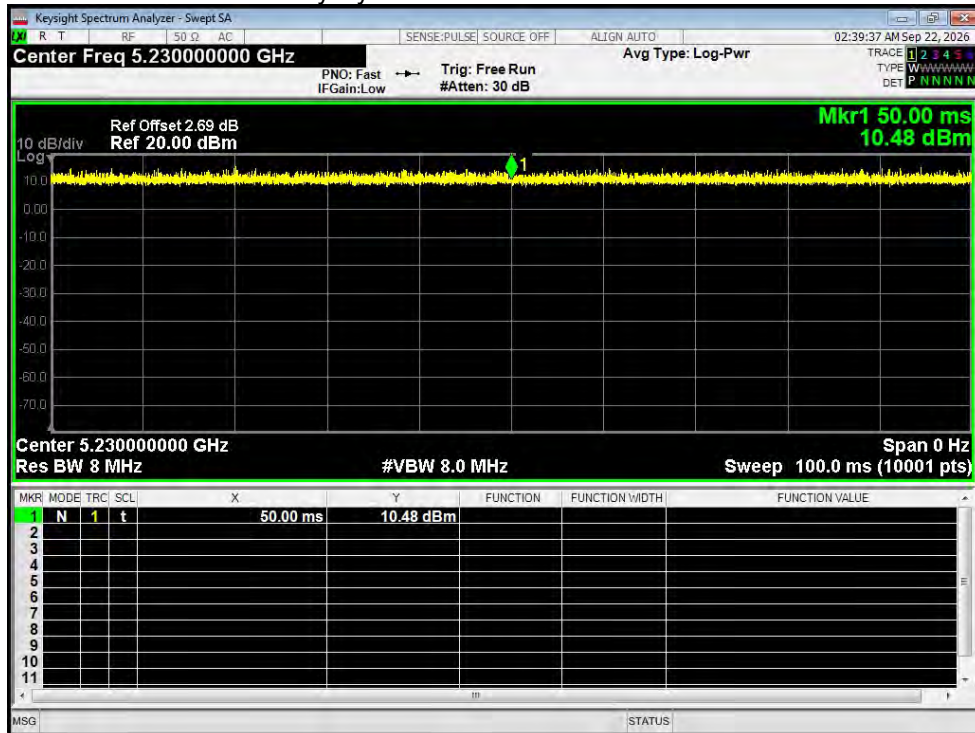
Duty Cycle NVNT n20 5240MHz Ant1



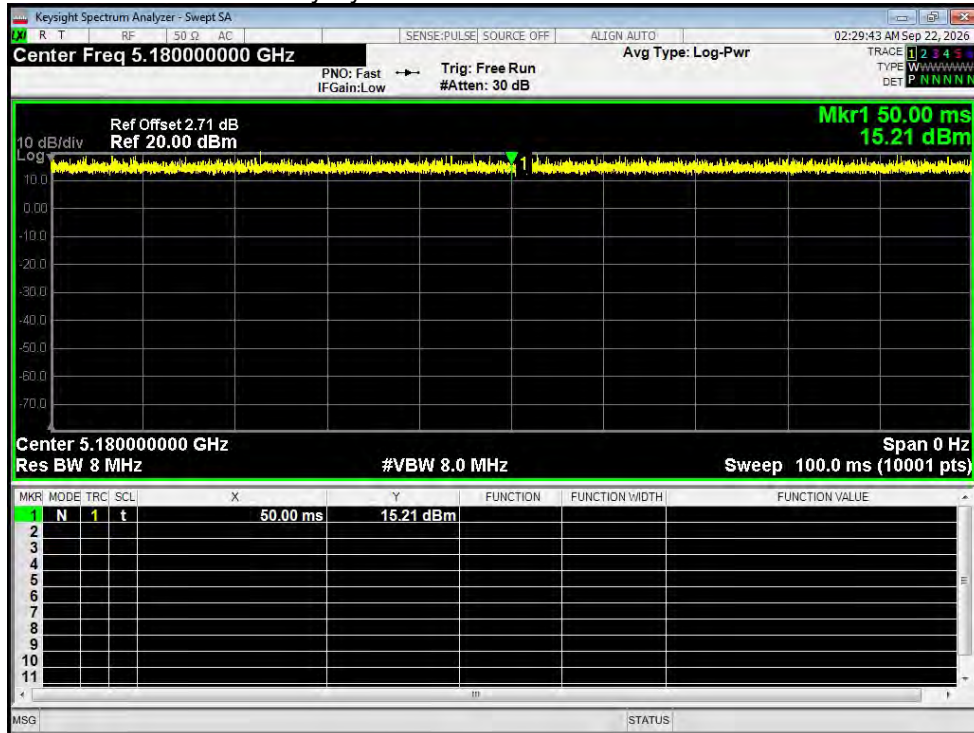
Duty Cycle NVNT n40 5190MHz Ant1



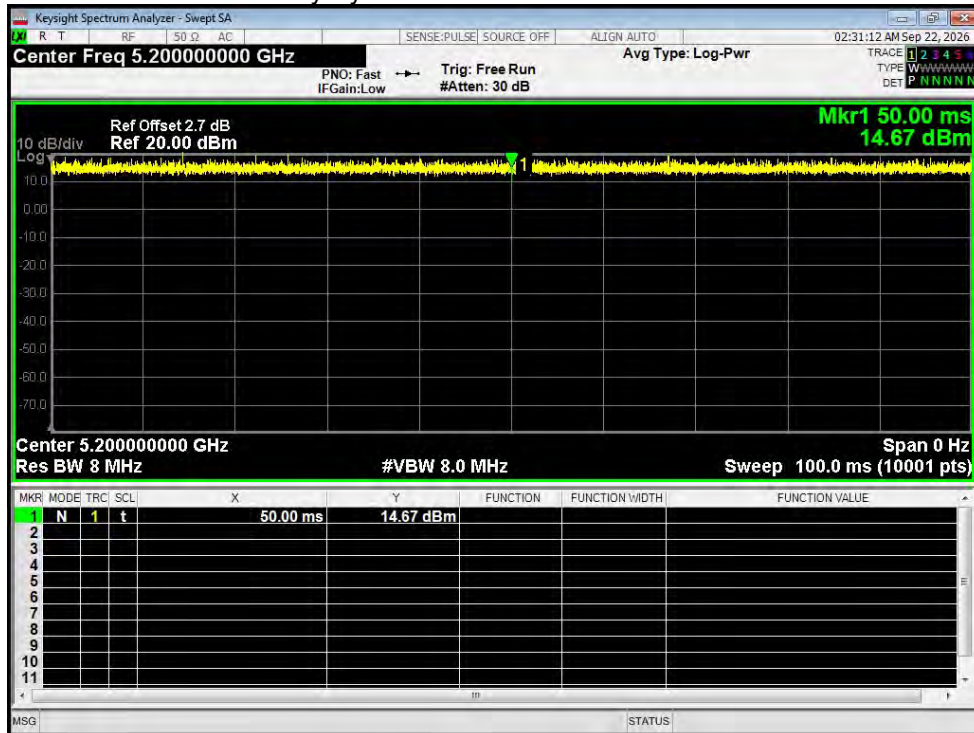
Duty Cycle NVNT n40 5230MHz Ant1



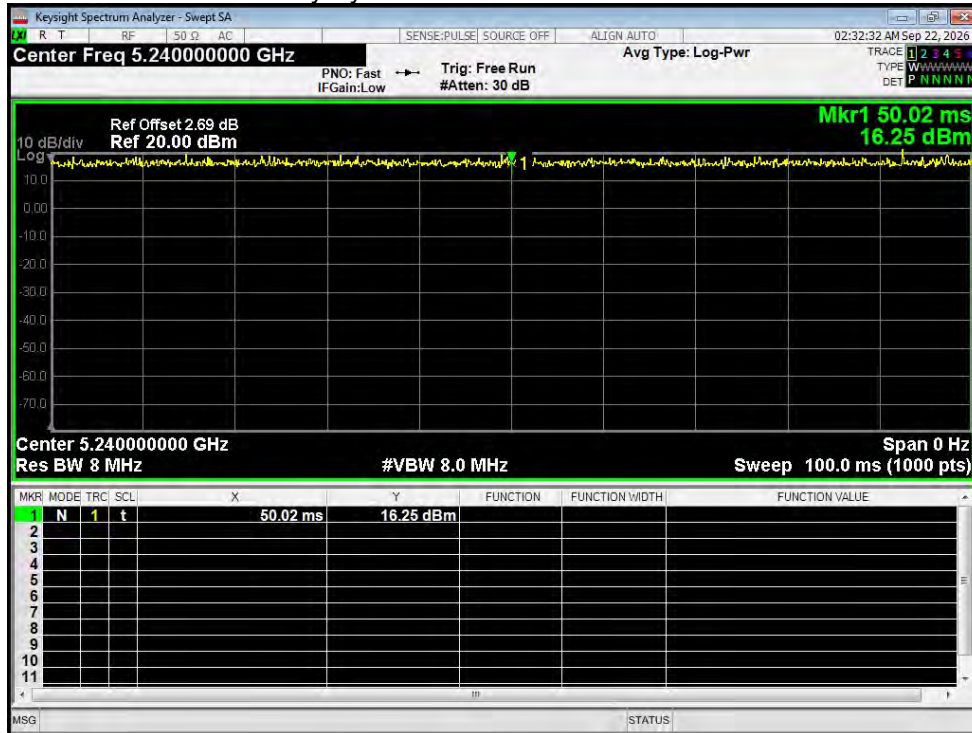
Duty Cycle NVNT ac20 5180MHz Ant1



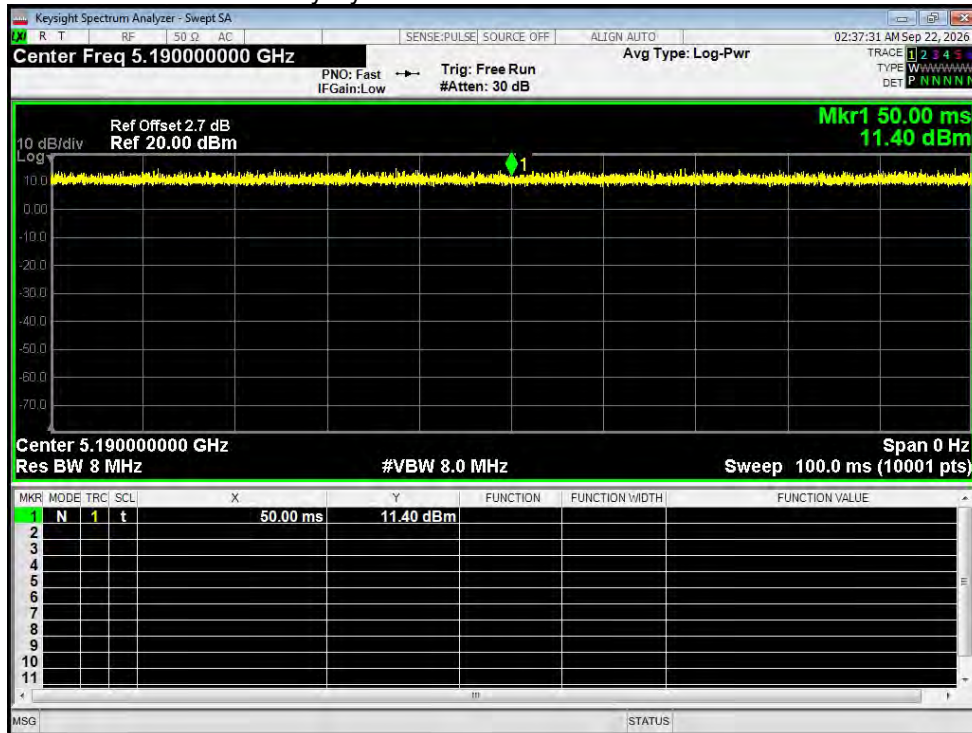
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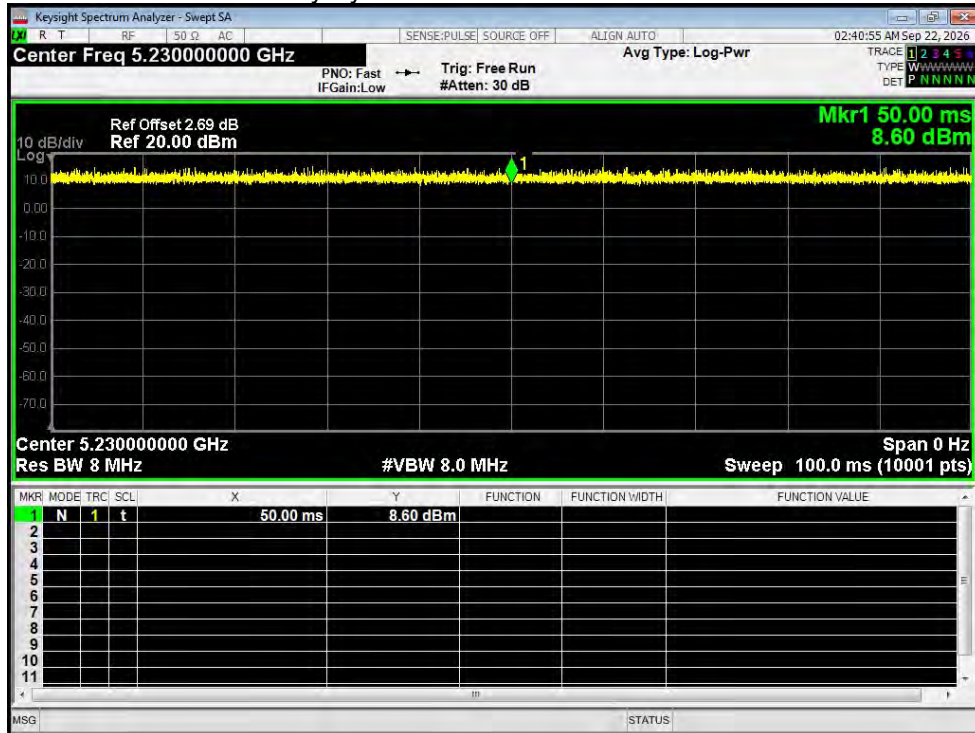
Duty Cycle NVNT ac20 5240MHz Ant1



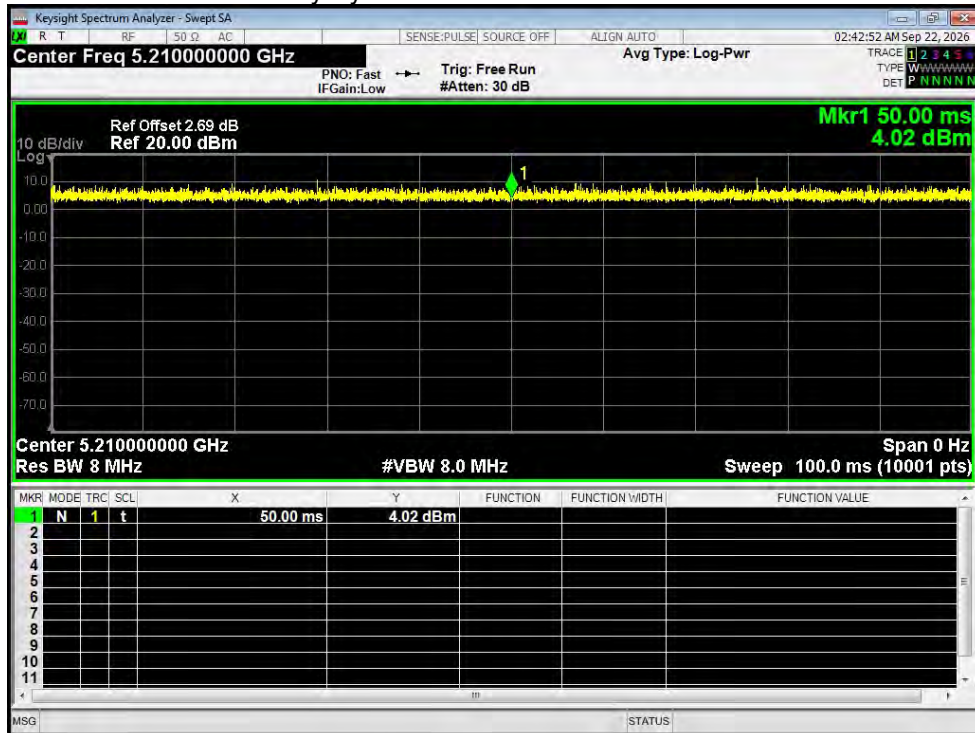
Duty Cycle NVNT ac40 5190MHz Ant1



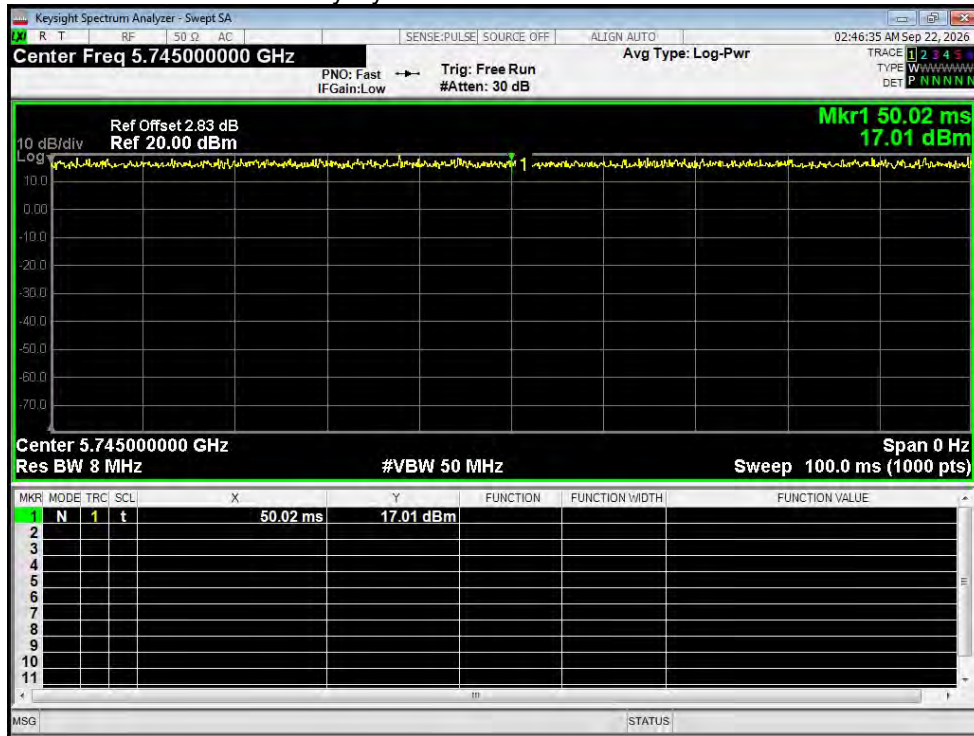
Duty Cycle NVNT ac40 5230MHz Ant1



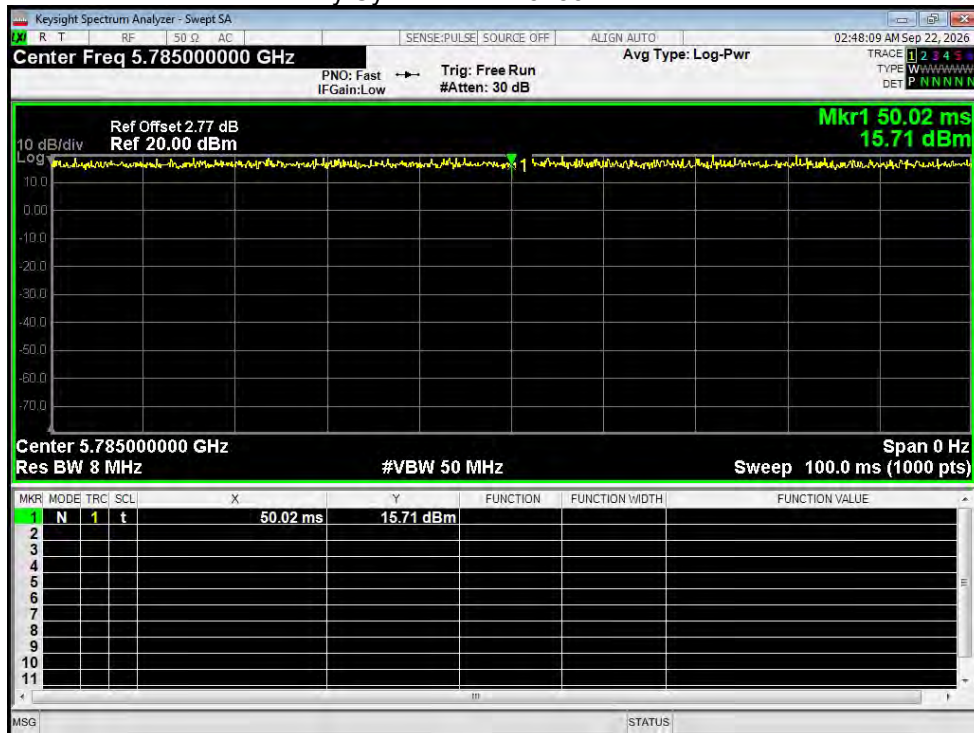
Duty Cycle NVNT ac80 5210MHz Ant1



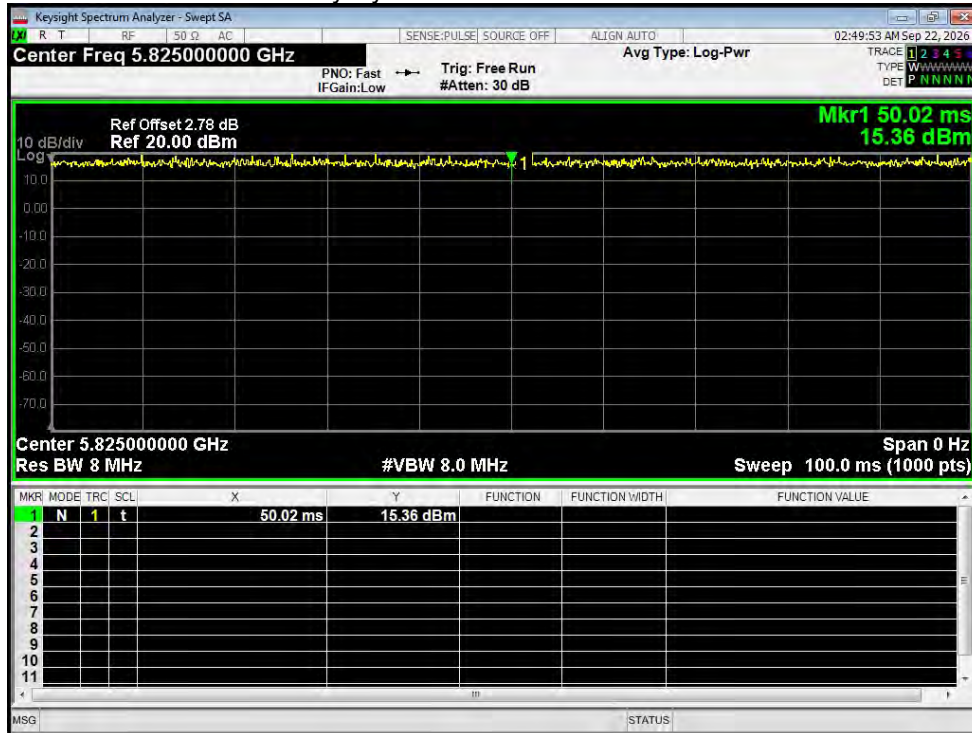
Duty Cycle NVNT a 5745MHz Ant1



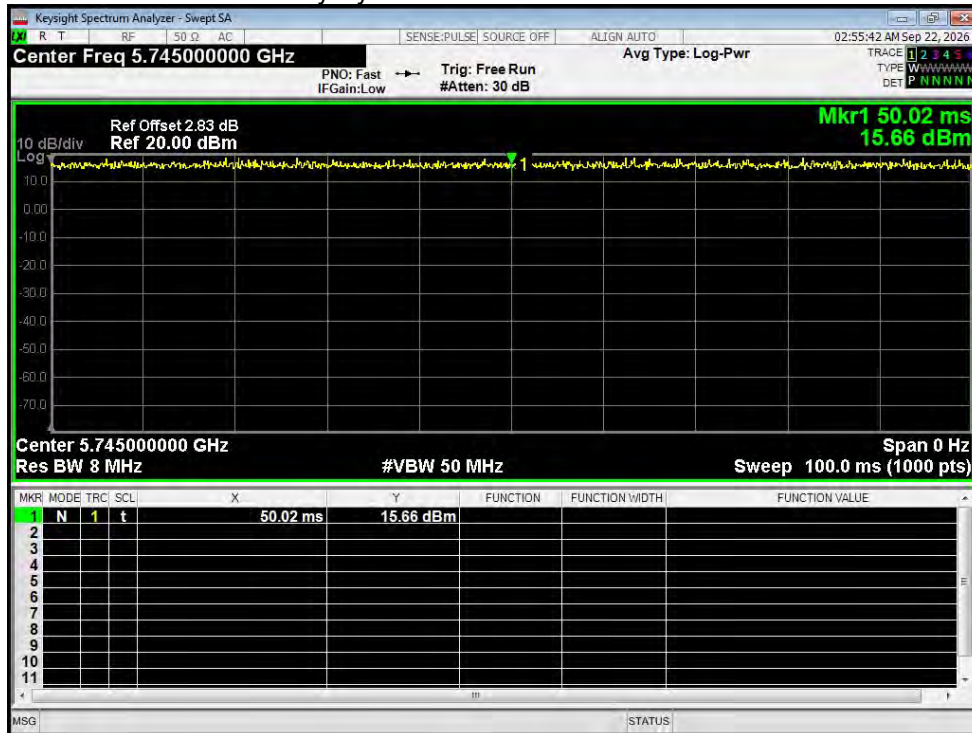
Duty Cycle NVNT a 5785MHz Ant1



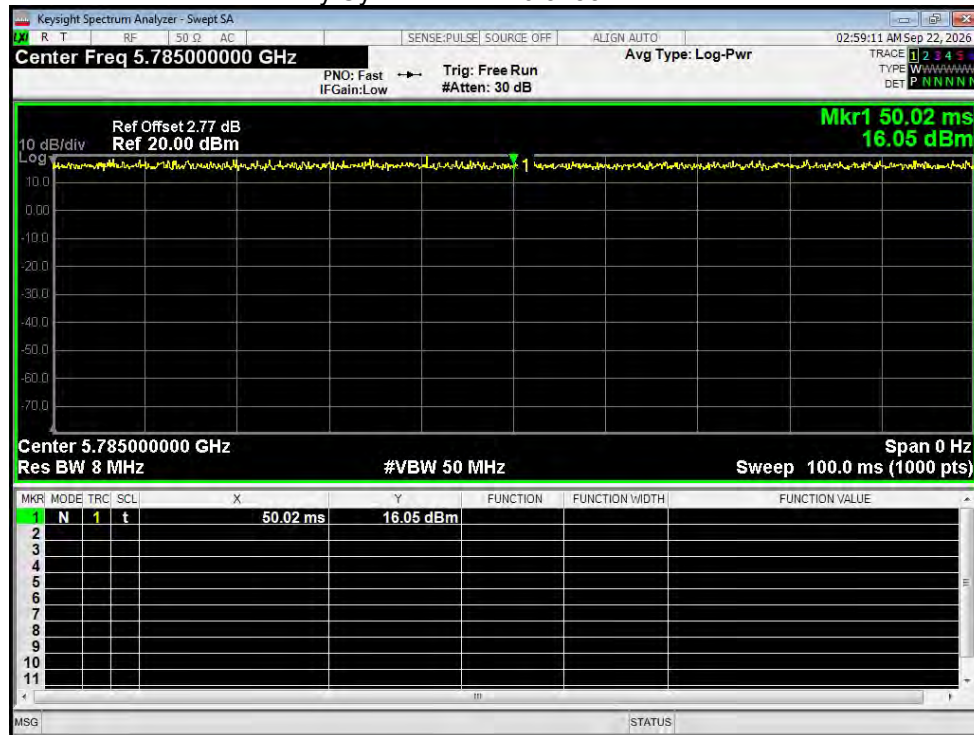
Duty Cycle NVNT a 5825MHz Ant1



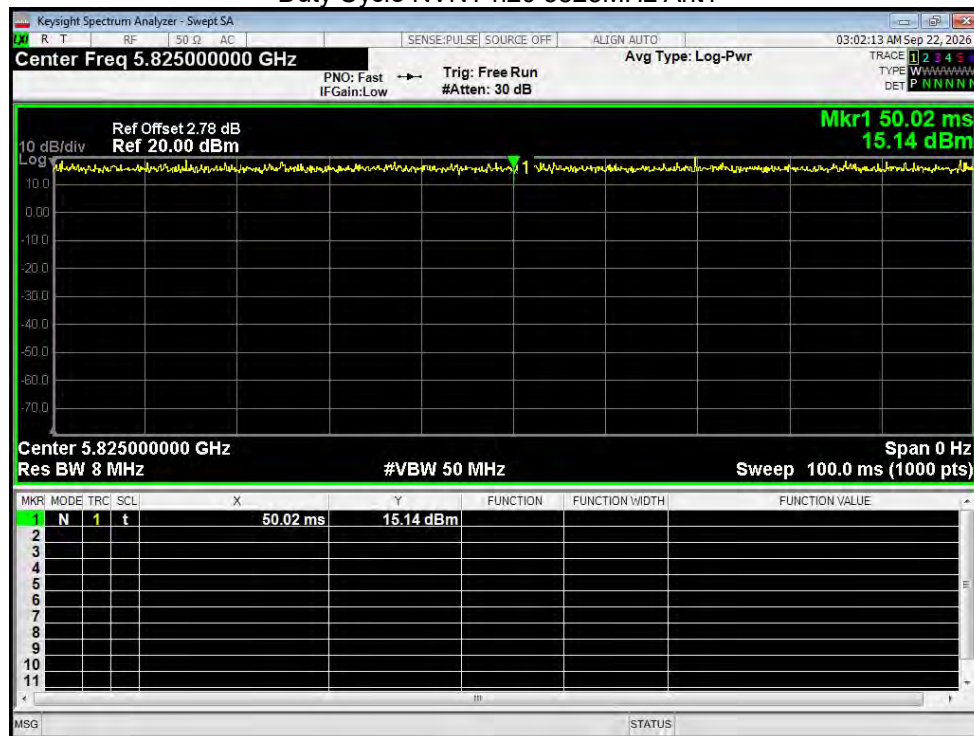
Duty Cycle NVNT n20 5745MHz Ant1



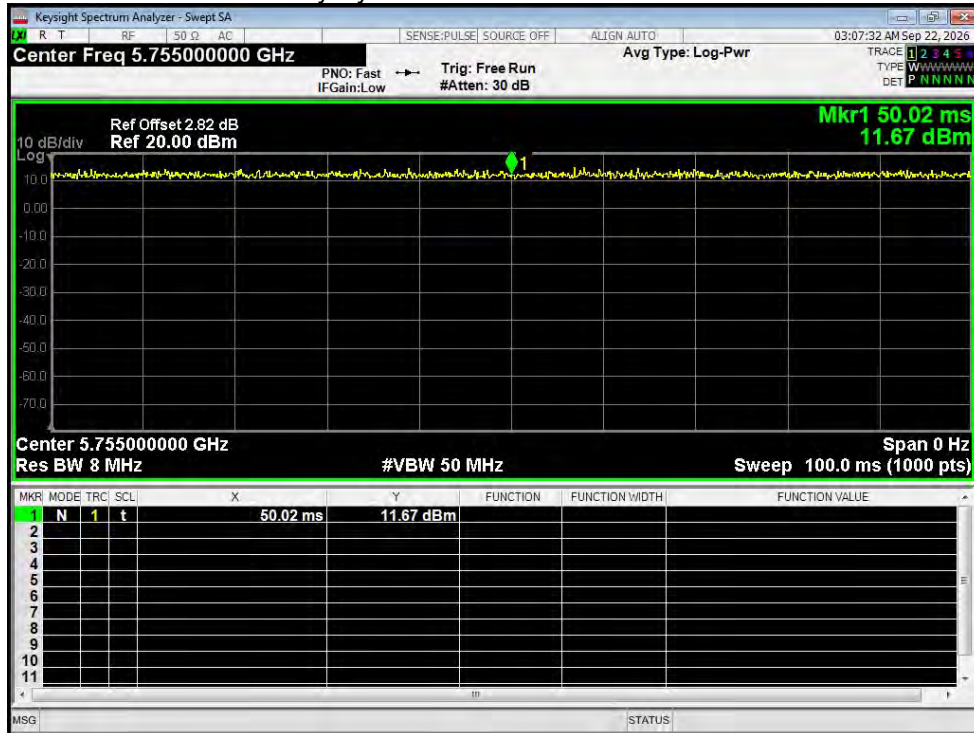
Duty Cycle NVNT n20 5785MHz Ant1



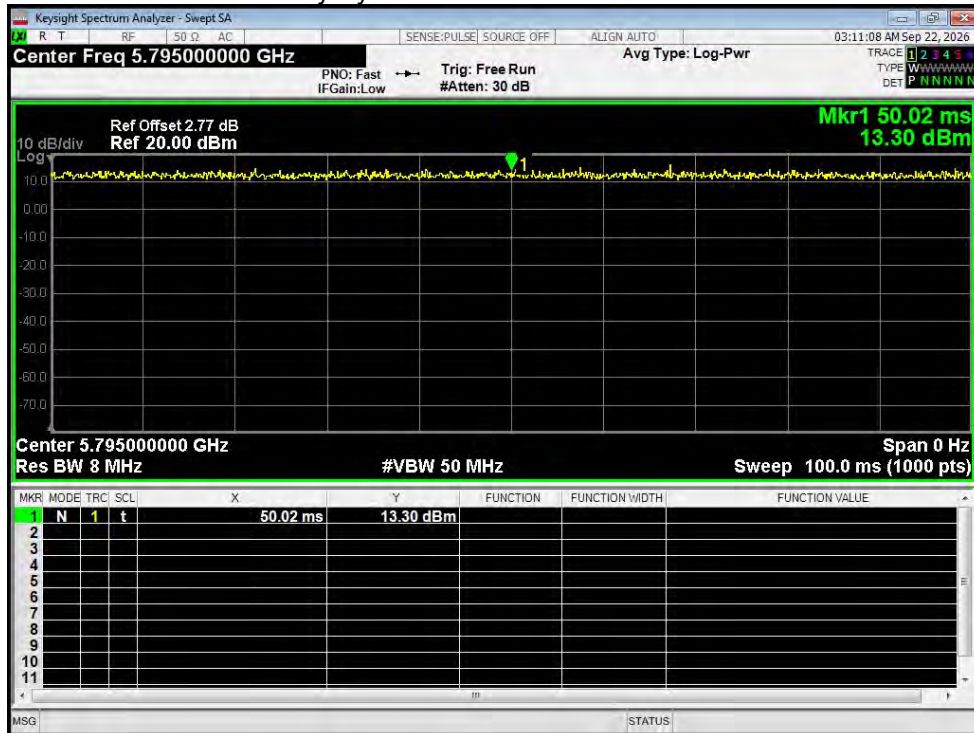
Duty Cycle NVNT n20 5825MHz Ant1



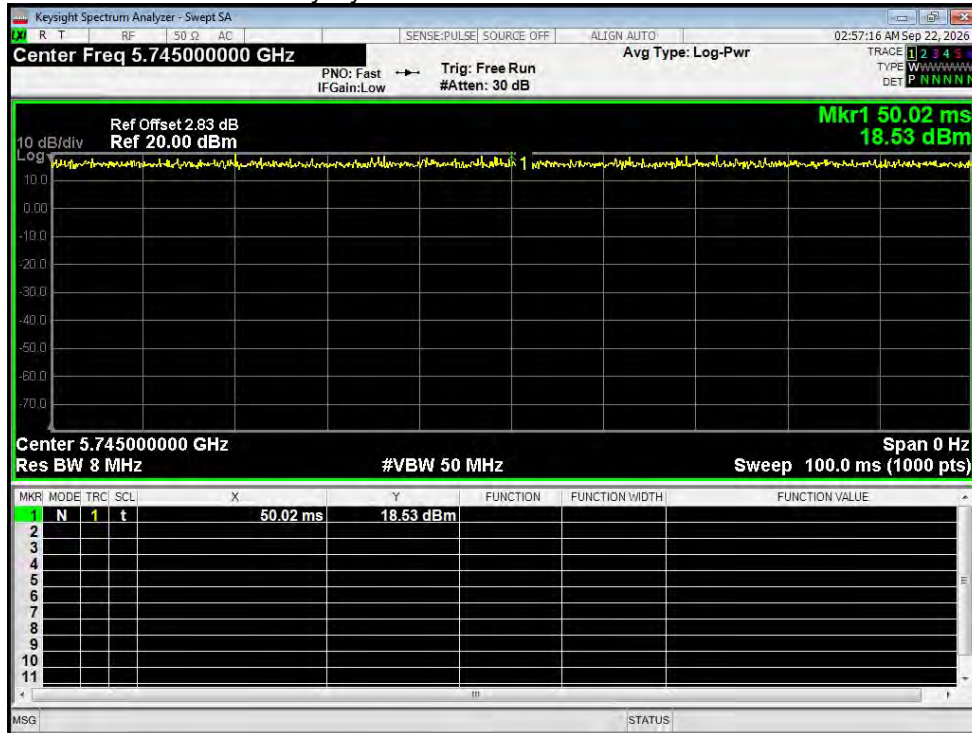
Duty Cycle NVNT n40 5755MHz Ant1



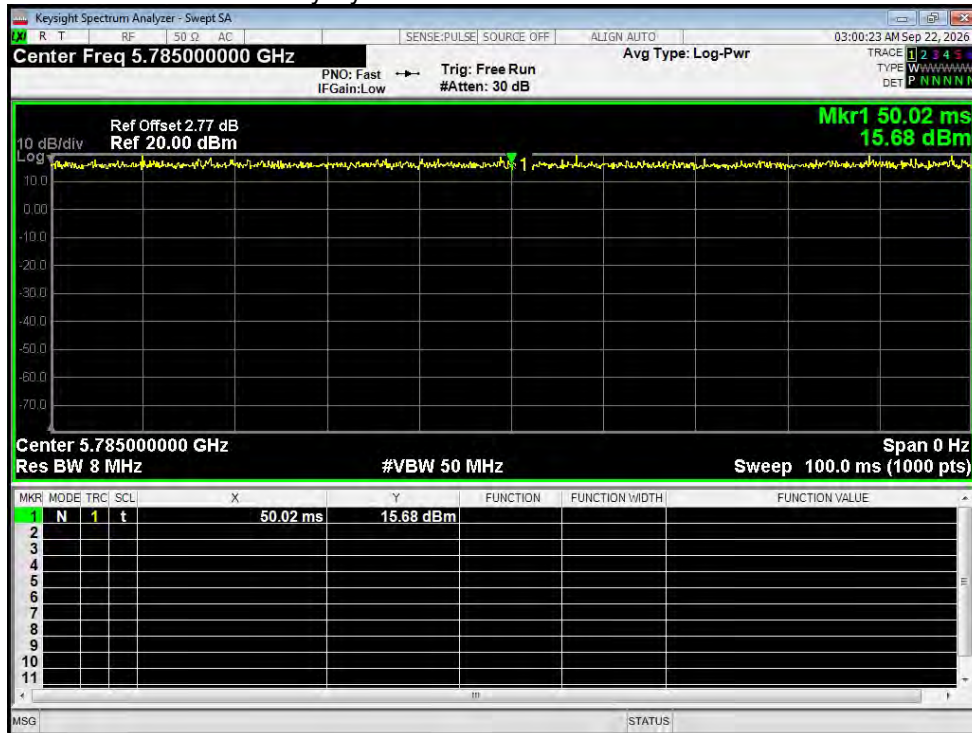
Duty Cycle NVNT n40 5795MHz Ant1



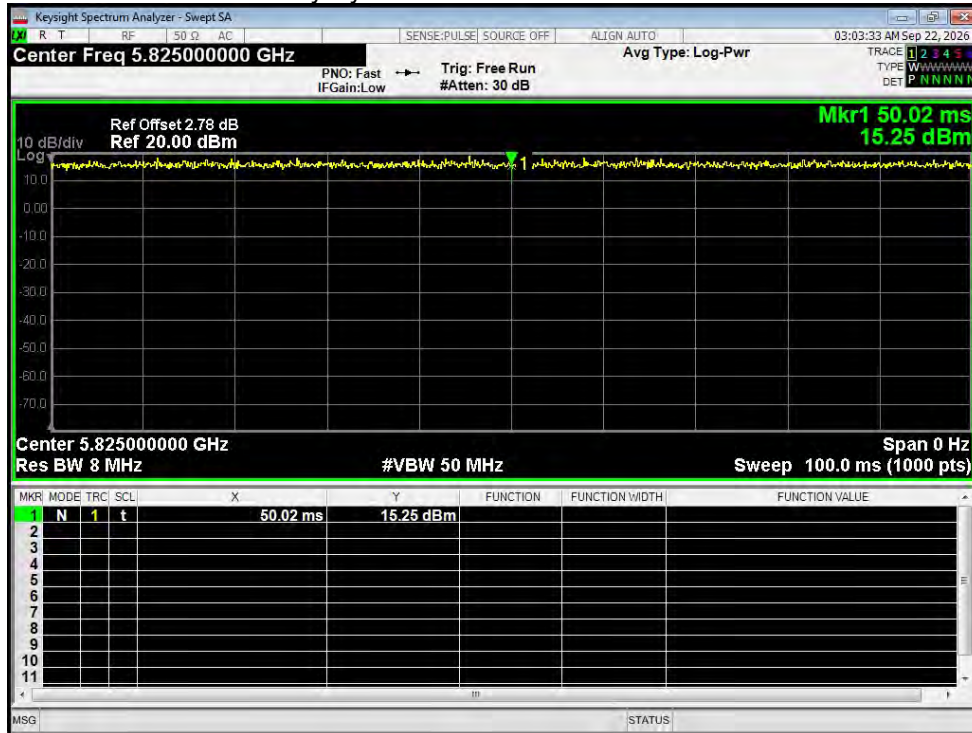
Duty Cycle NVNT ac20 5745MHz Ant1



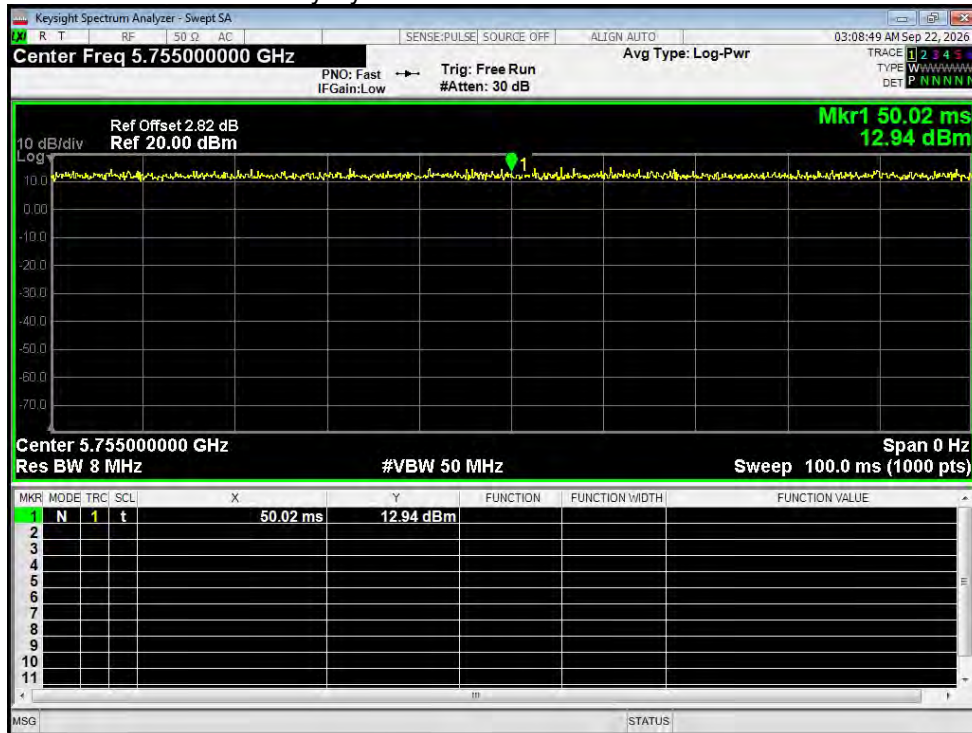
Duty Cycle NVNT ac20 5785MHz Ant1



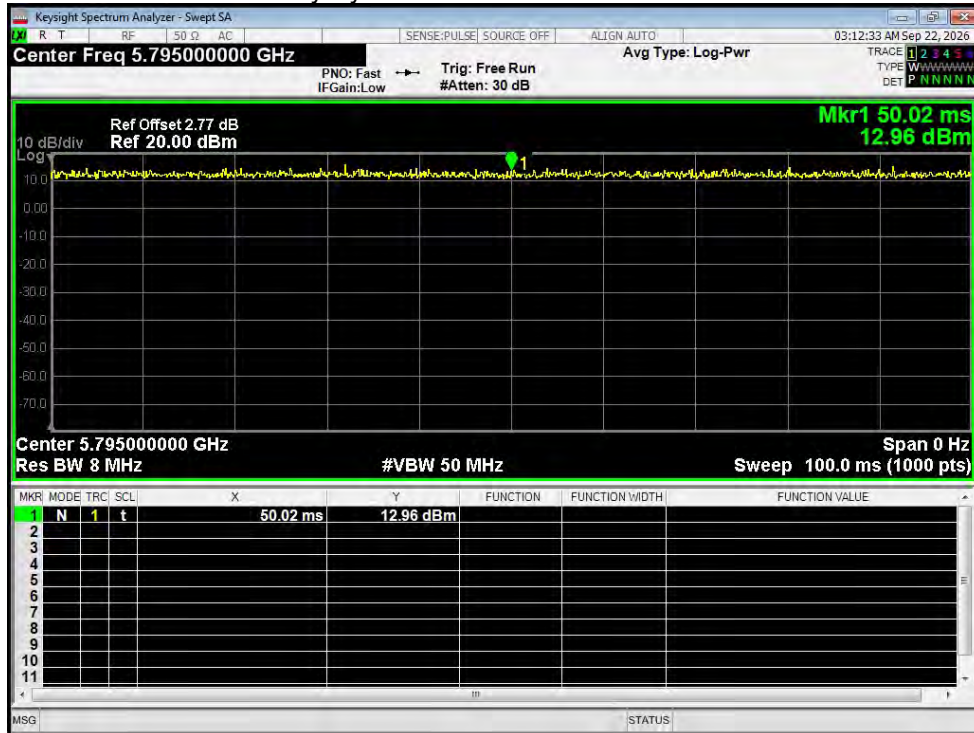
Duty Cycle NVNT ac20 5825MHz Ant1



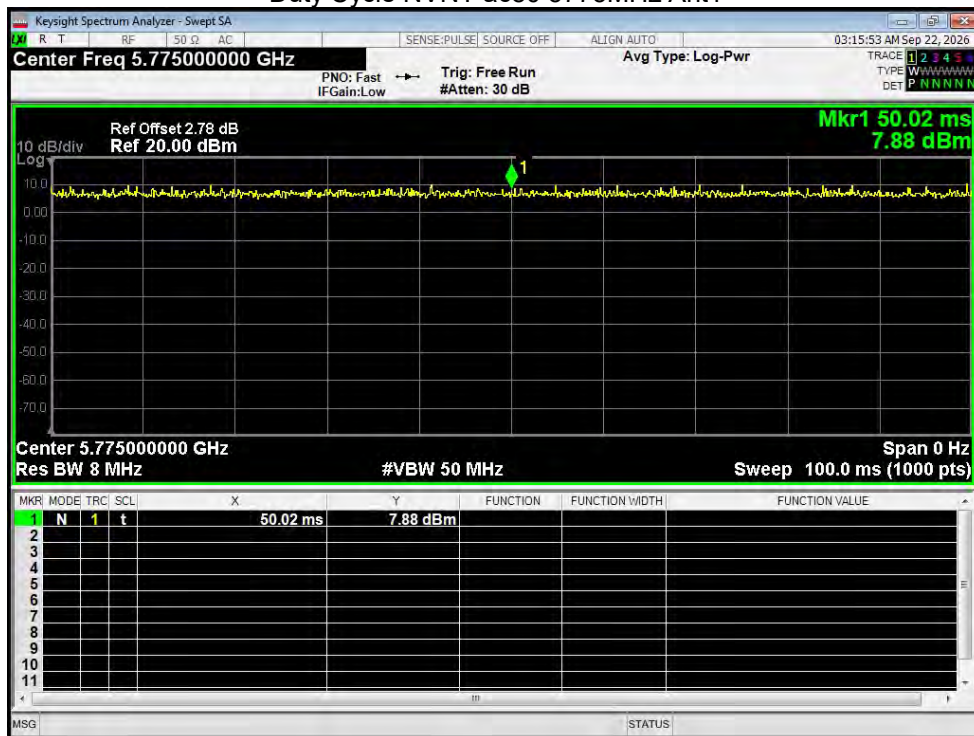
Duty Cycle NVNT ac40 5755MHz Ant1



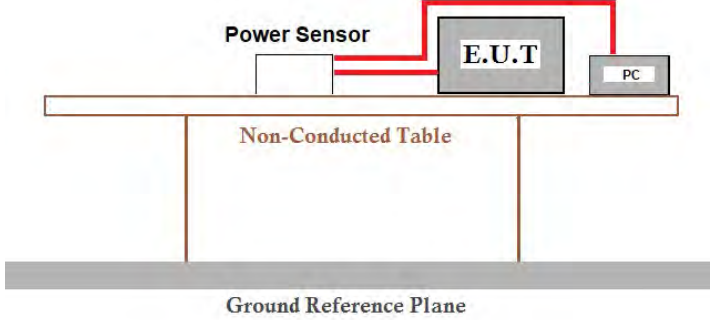
Duty Cycle NVNT ac40 5795MHz Ant1



Duty Cycle NVNT ac80 5775MHz Ant1



4.4 Conducted Output Power

Test Requirement:	47CFR Part 15.407 (a)(1)/(a)(3)	
Test Method:	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 § 12.4.3.1	
Limit:	5150-5250MHz : 250mW 5725~5850MHz : 1W	
Test setup:		
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.2°C	Humid.: 53%RH
Test voltage:	DC 5V from adapter	
Test results:	Pass	



Measurement Result

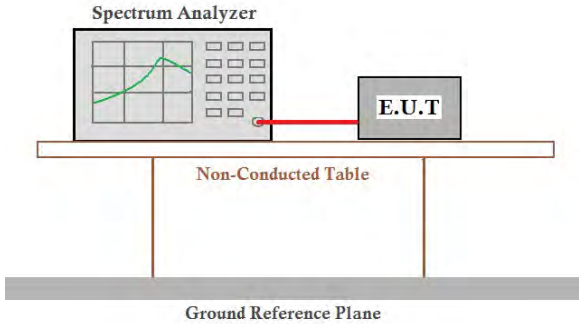
5180-5240MHz

Test Mode	Frequency	Correction Factor	Output power	Total Power	Result
	(MHz)	(dB)	(dBm)	(dBm)	
802.11a	5180	0	14.31	14.31	Pass
	5200	0	14.35	14.35	Pass
	5240	0	14.34	14.34	Pass
802.11n20	5180	0	13.96	13.96	Pass
	5200	0	14.03	14.03	Pass
	5240	0	14.27	14.27	Pass
802.11n40	5190	0	13.07	13.07	Pass
	5230	0	13.29	13.29	Pass
802.11ac20	5180	0	13.77	13.77	Pass
	5200	0	13.67	13.67	Pass
	5240	0	14.30	14.30	Pass
802.11ac40	5190	0	12.99	12.99	Pass
	5230	0	13.23	13.23	Pass
802.11ac80	5210	0	12.15	12.15	Pass

5745-5825 MHz

Test Mode	Frequency	Correction Factor	Output power	Total Power	Result
	(MHz)	(dB)	(dBm)	(dBm)	
802.11a	5745	0	13.68	13.68	Pass
	5785	0	14.14	14.14	Pass
	5825	0	12.83	12.83	Pass
802.11n20	5745	0	13.98	13.98	Pass
	5785	0	13.06	13.06	Pass
	5825	0	12.84	12.84	Pass
802.11n40	5755	0	15.17	15.17	Pass
	5795	0	13.52	13.52	Pass
802.11ac20	5745	0	13.36	13.36	Pass
	5785	0	13.52	13.52	Pass
	5825	0	12.97	12.97	Pass
802.11ac40	5755	0	12.81	12.81	Pass
	5795	0	12.46	12.46	Pass
802.11ac80	5210	0	11.52	11.52	Pass

4.5 Occupy Bandwidth

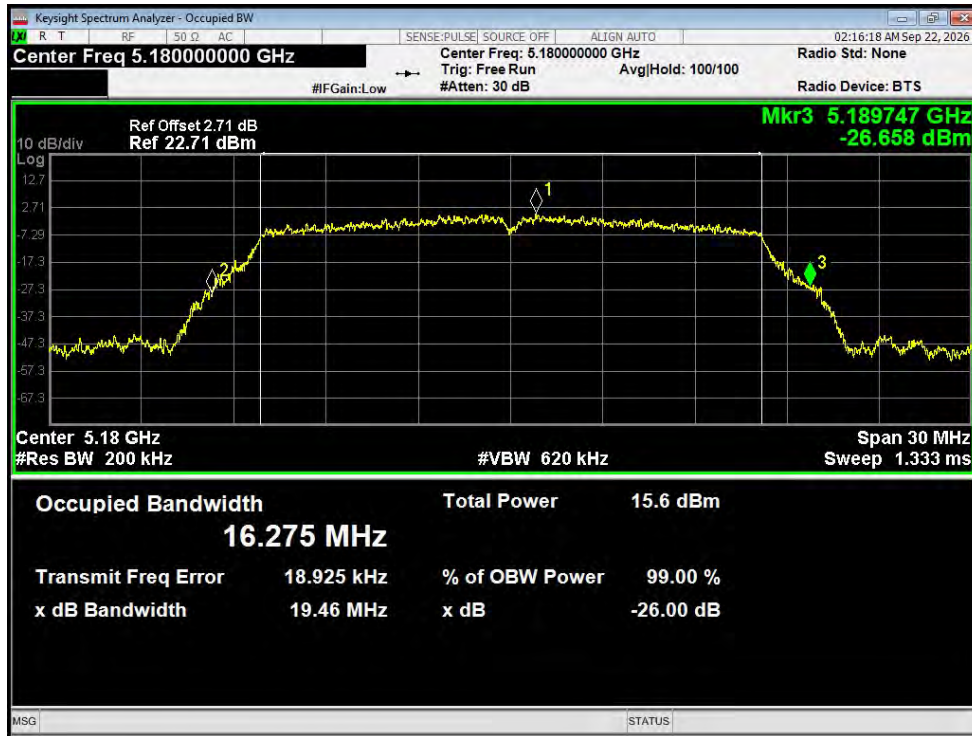
Test Requirement:	47CFR Part 15.407(a)(12)&15.407(e),	
Test Method:	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01, ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024§12.5	
Limit:	Measurements in the 5.725-5.85 GHz band, the minimum bandwidth 6 dB bandwidth of U-NII devices shall be at least 500KHz. 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.	
Test setup:		
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.2°C	Humid.: 53%RH
Test voltage:	DC 5V from adapter	
Test results:	Pass	

Measurement Result

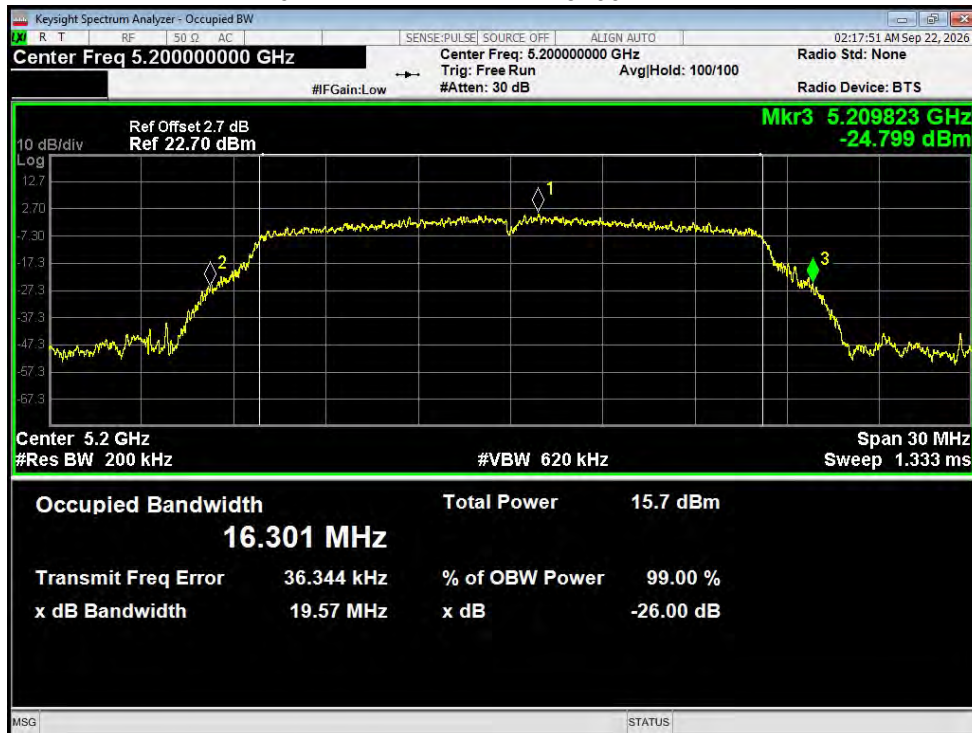
5180-5240MHz

Condition	Mode	Frequency (MHz)	-26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	19.46	Pass
NVNT	a	5200	19.57	Pass
NVNT	a	5240	19.53	Pass
NVNT	n20	5180	20.05	Pass
NVNT	n20	5200	19.88	Pass
NVNT	n20	5240	20.07	Pass
NVNT	n40	5190	39.86	Pass
NVNT	n40	5230	39.84	Pass
NVNT	ac20	5180	20.04	Pass
NVNT	ac20	5200	20.04	Pass
NVNT	ac20	5240	19.78	Pass
NVNT	ac40	5190	39.84	Pass
NVNT	ac40	5230	40.14	Pass
NVNT	ac80	5210	80.03	Pass

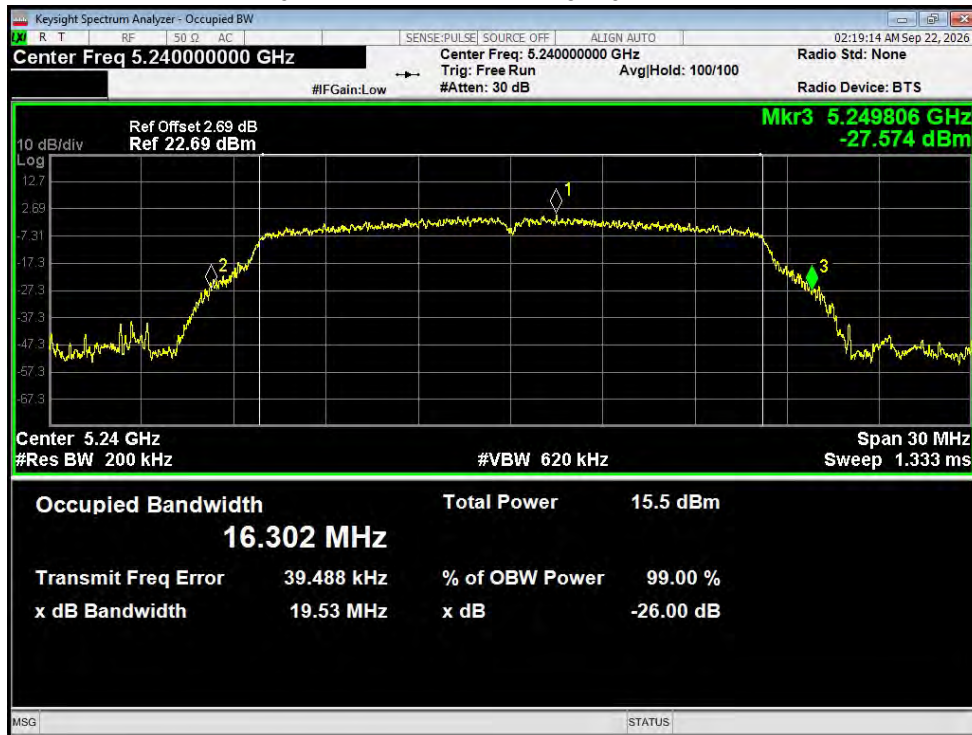
-26dB Bandwidth NVNT a 5180MHz Ant1



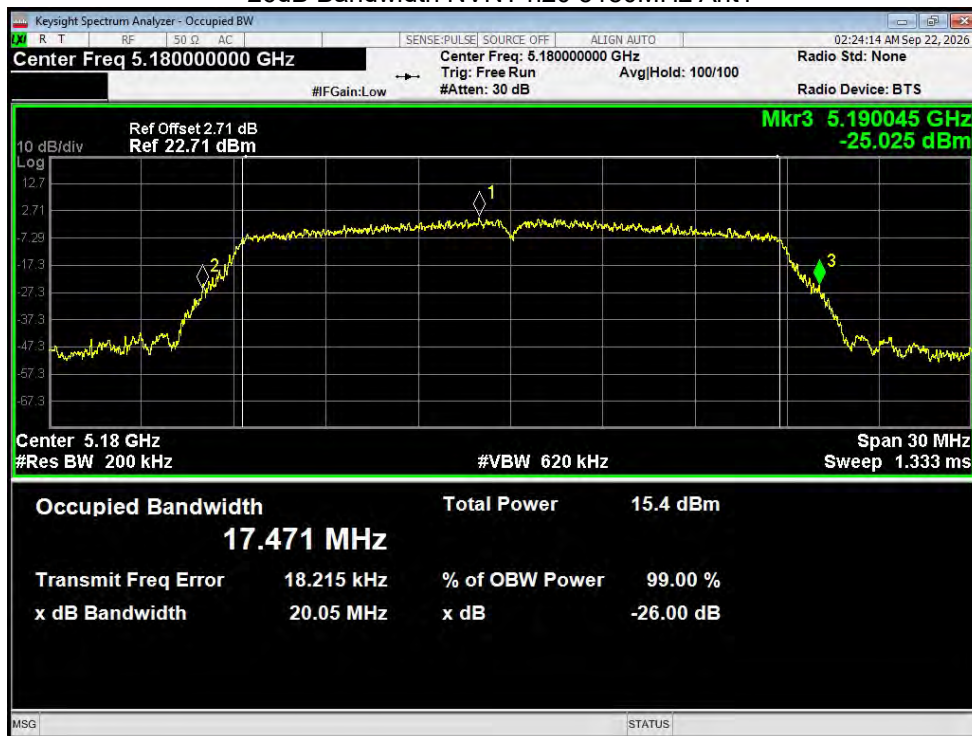
-26dB Bandwidth NVNT a 5200MHz Ant1



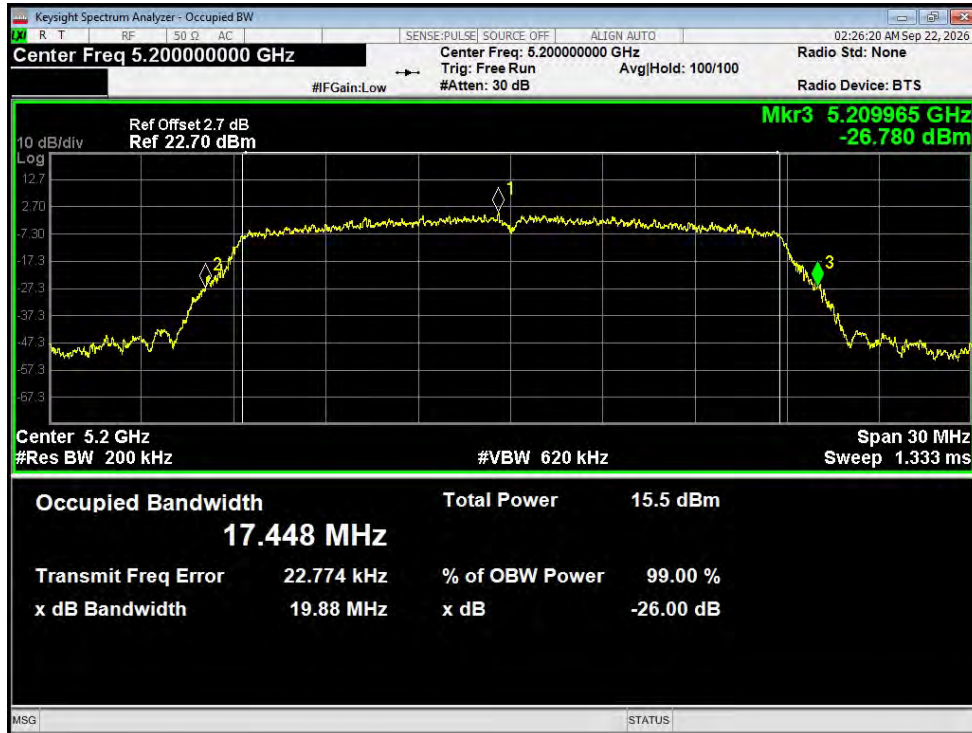
-26dB Bandwidth NVNT a 5240MHz Ant1



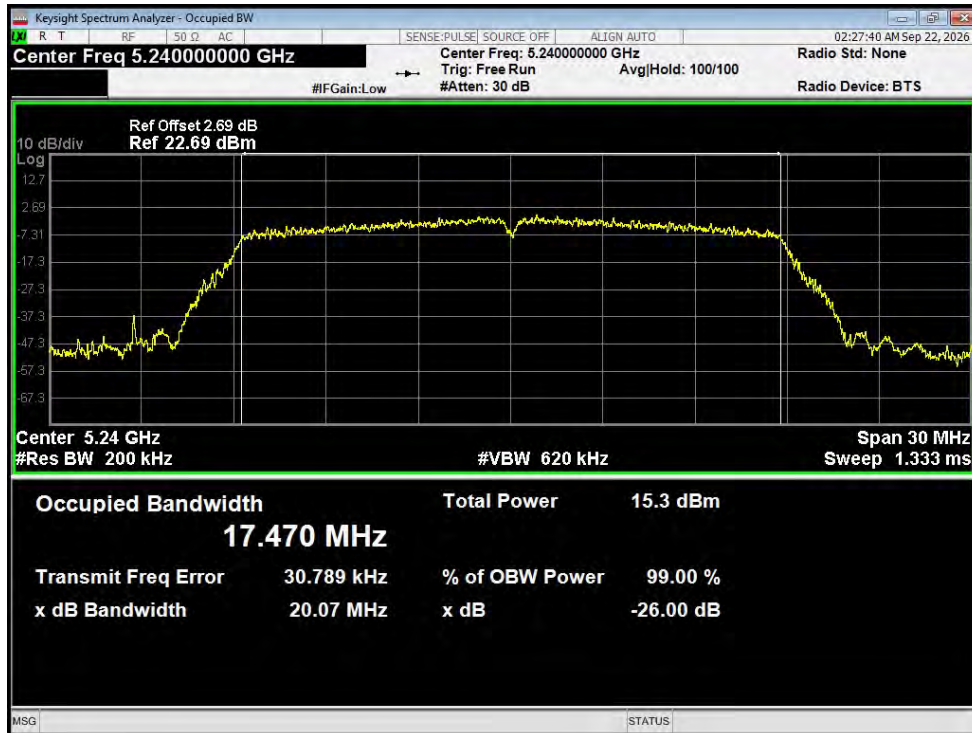
-26dB Bandwidth NVNT n20 5180MHz Ant1



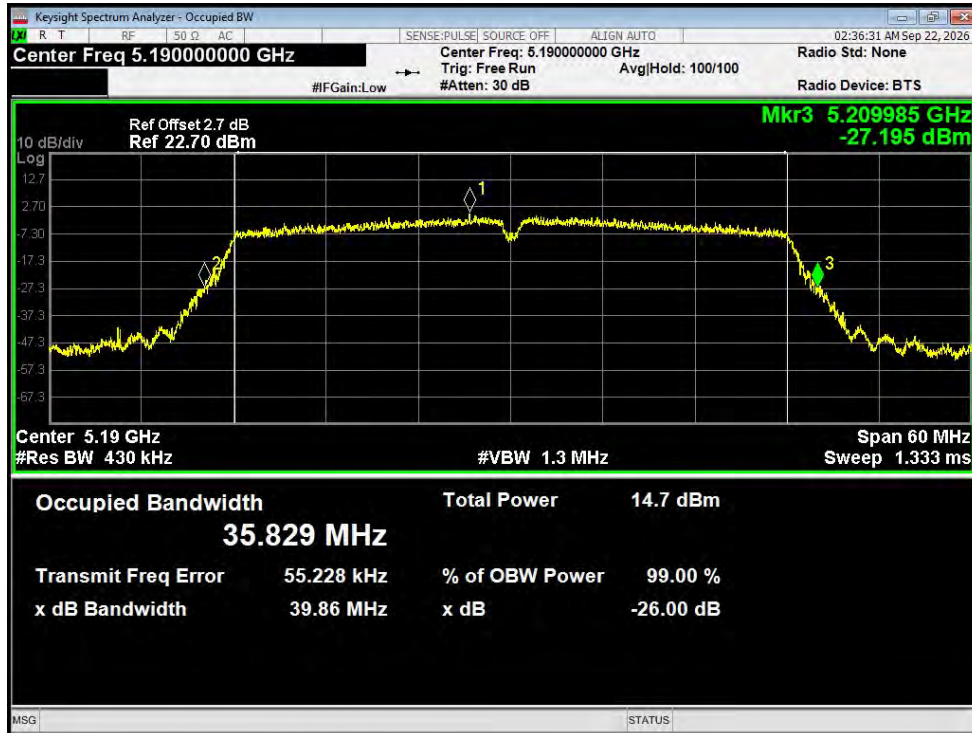
-26dB Bandwidth NVNT n20 5200MHz Ant1



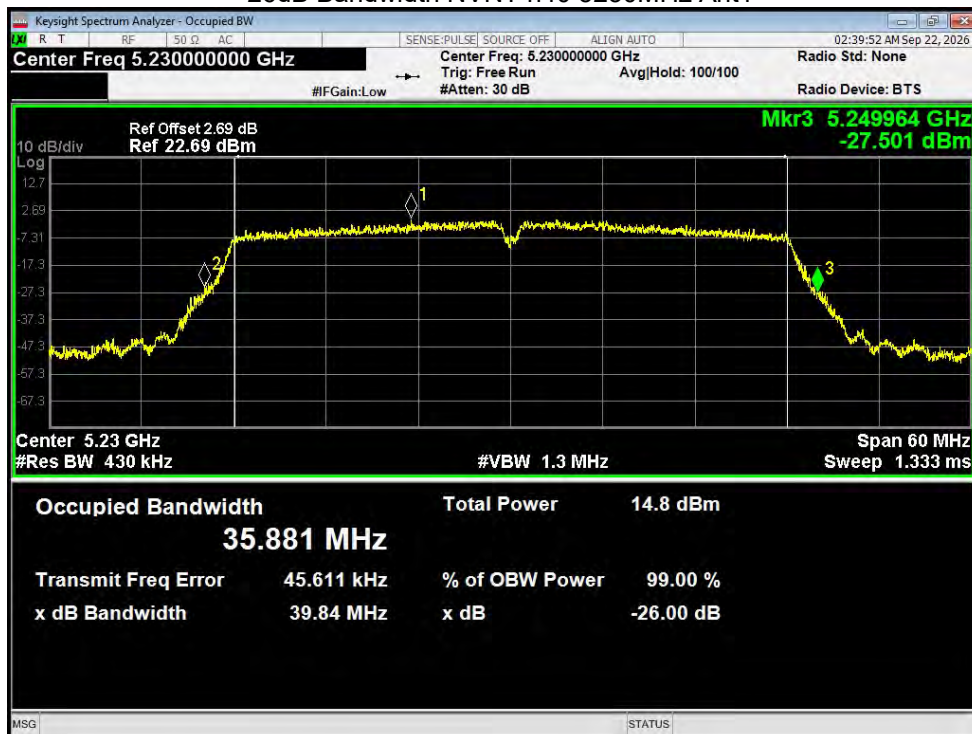
-26dB Bandwidth NVNT n20 5240MHz Ant1



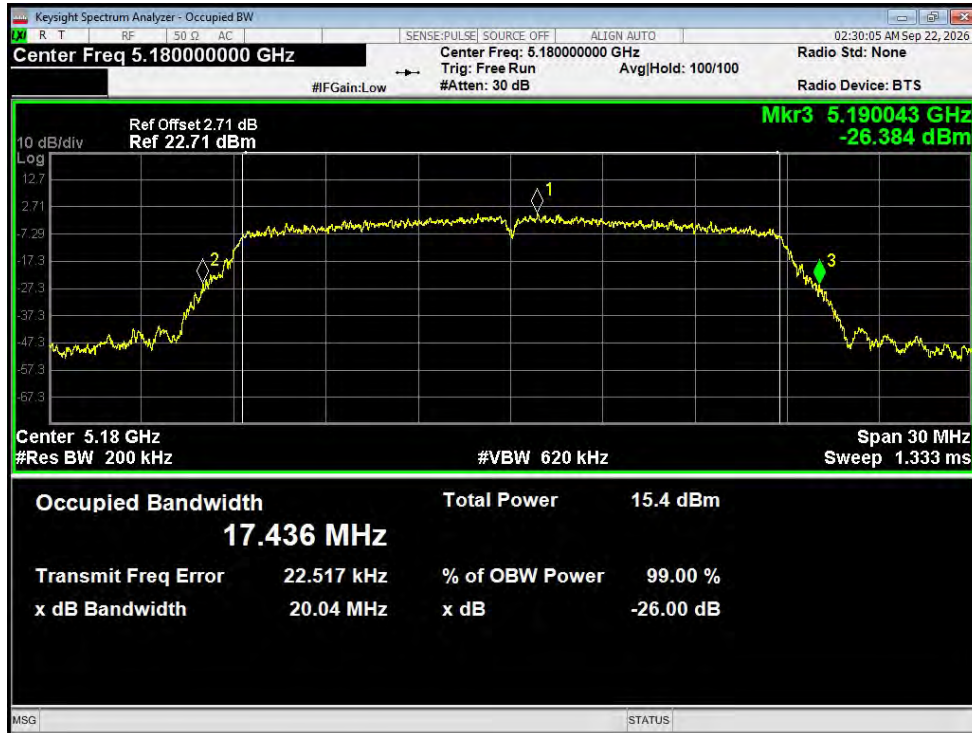
-26dB Bandwidth NVNT n40 5190MHz Ant1



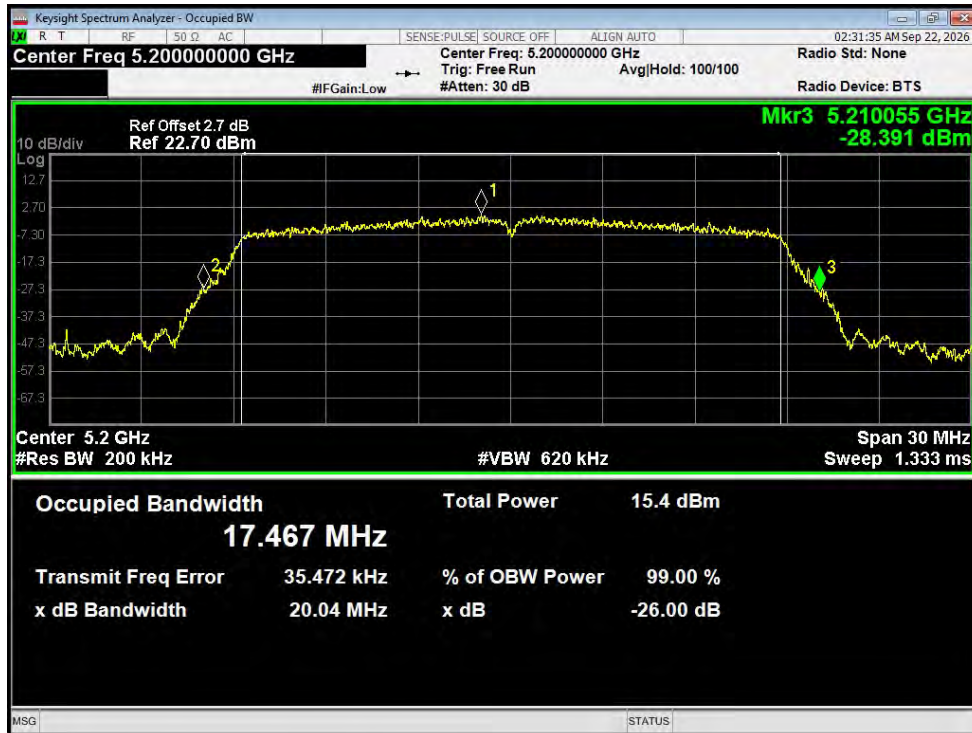
-26dB Bandwidth NVNT n40 5230MHz Ant1



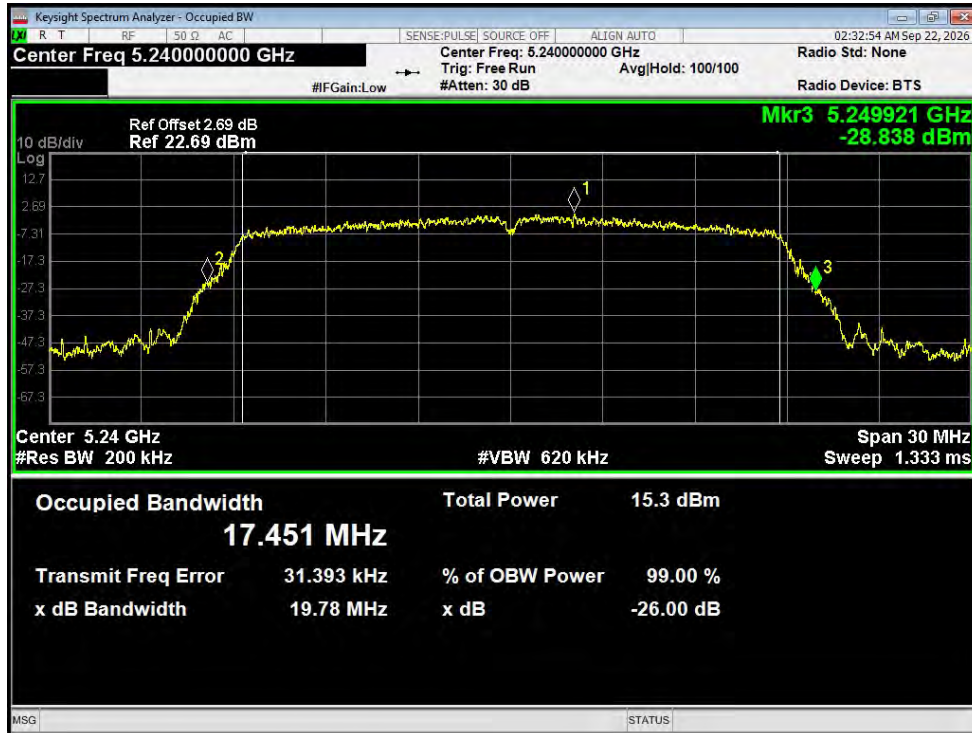
-26dB Bandwidth NVNT ac20 5180MHz Ant1



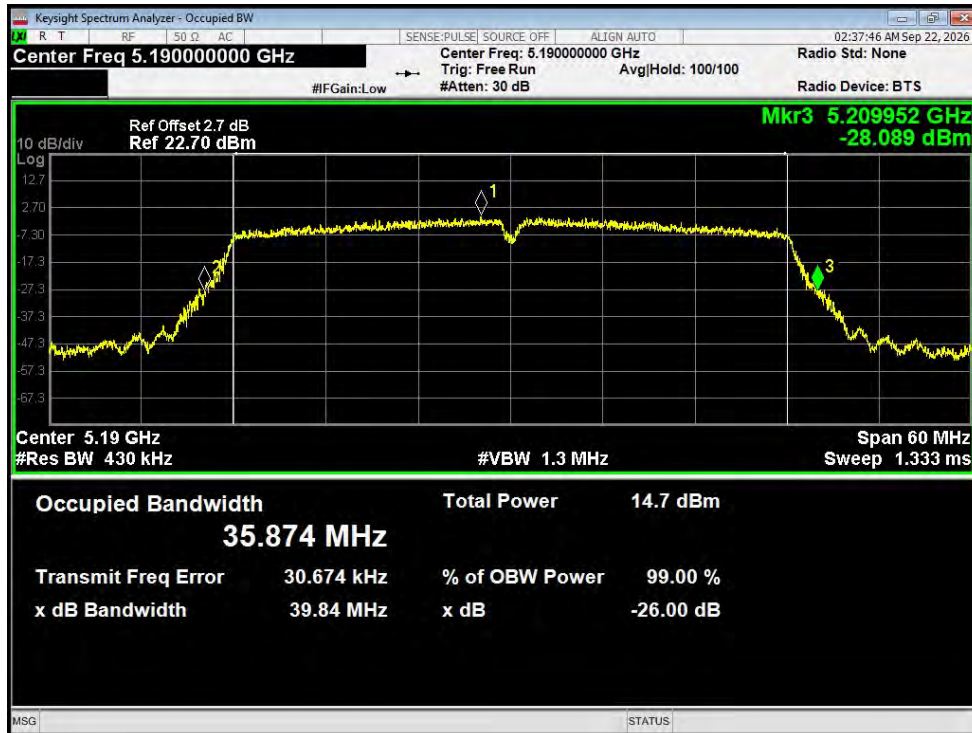
-26dB Bandwidth NVNT ac20 5200MHz Ant1



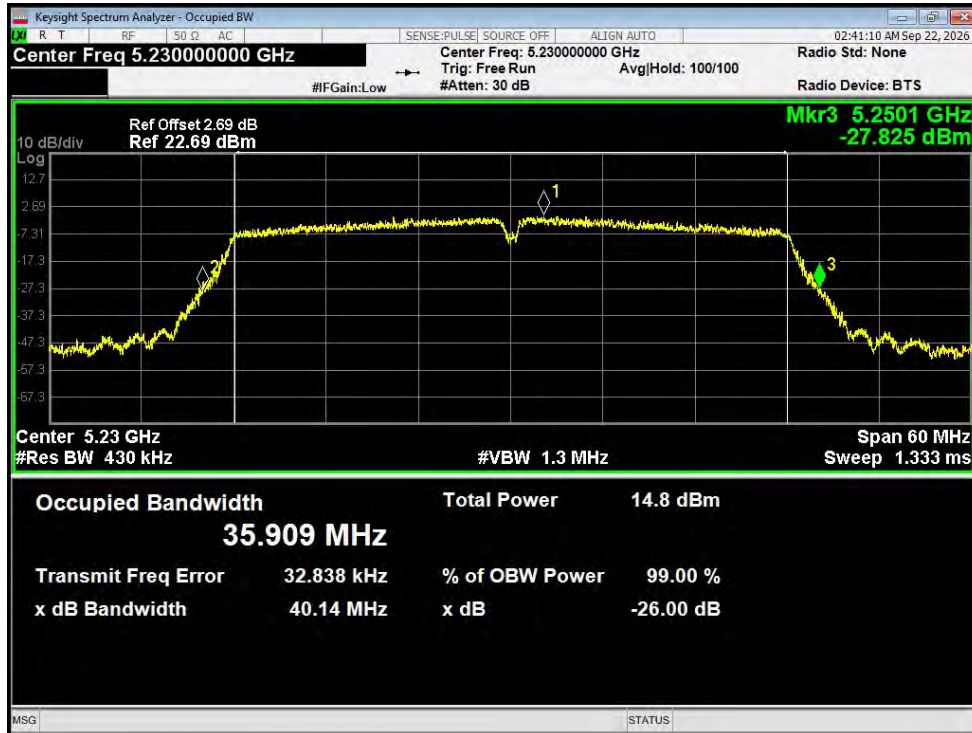
-26dB Bandwidth NVNT ac20 5240MHz Ant1



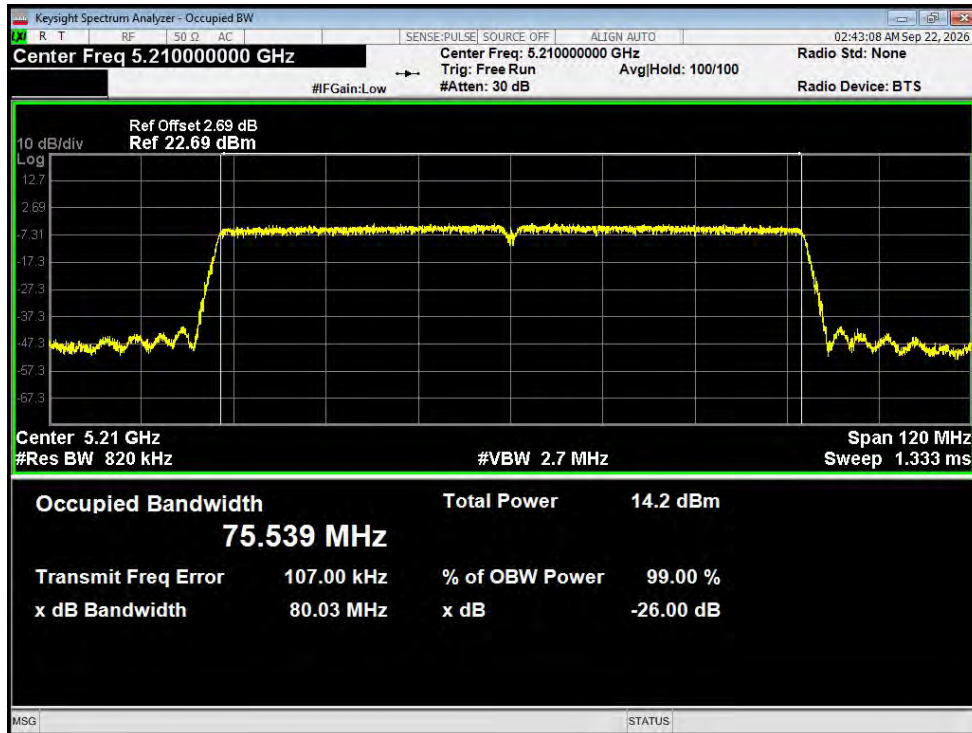
-26dB Bandwidth NVNT ac40 5190MHz Ant1



-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1

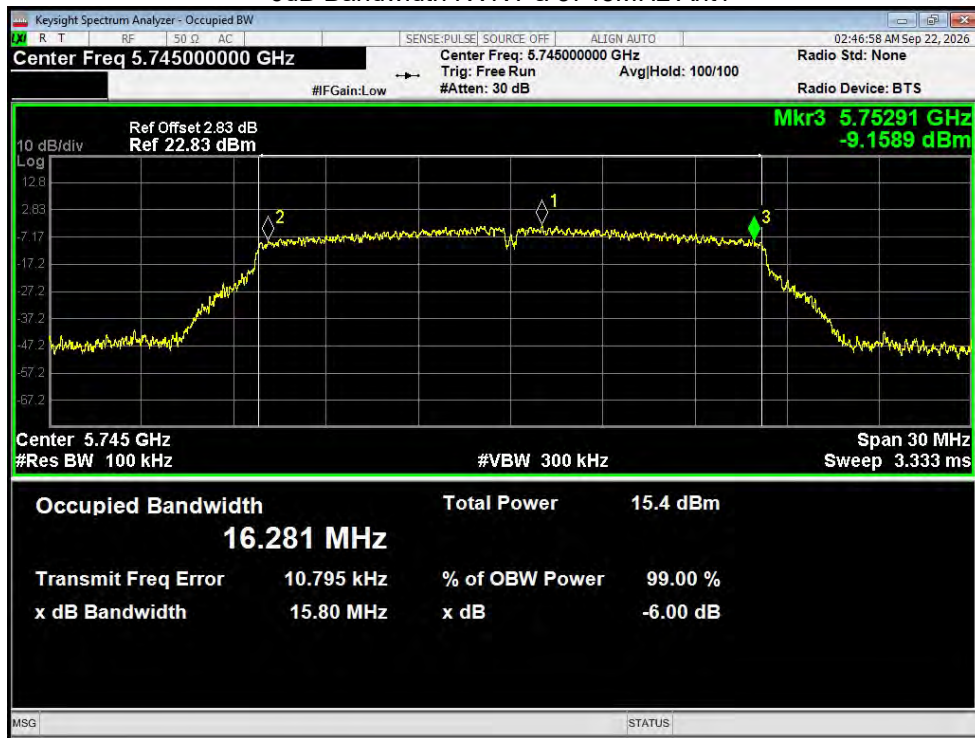




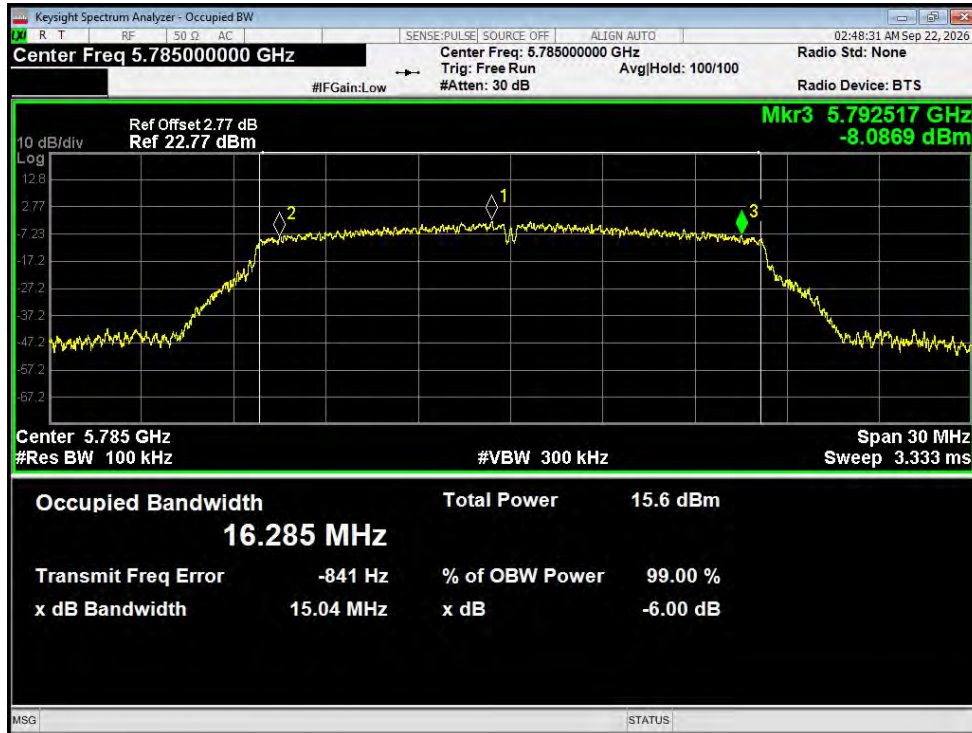
5745-5825MHz

Condition	Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	15.80	0.5	Pass
NVNT	a	5785	15.04	0.5	Pass
NVNT	a	5825	15.80	0.5	Pass
NVNT	n20	5745	16.91	0.5	Pass
NVNT	n20	5785	16.86	0.5	Pass
NVNT	n20	5825	16.53	0.5	Pass
NVNT	n40	5755	36.13	0.5	Pass
NVNT	n40	5795	35.76	0.5	Pass
NVNT	ac20	5745	17.05	0.5	Pass
NVNT	ac20	5785	17.28	0.5	Pass
NVNT	ac20	5825	16.32	0.5	Pass
NVNT	ac40	5755	35.78	0.5	Pass
NVNT	ac40	5795	35.28	0.5	Pass
NVNT	ac80	5775	76.42	0.5	Pass

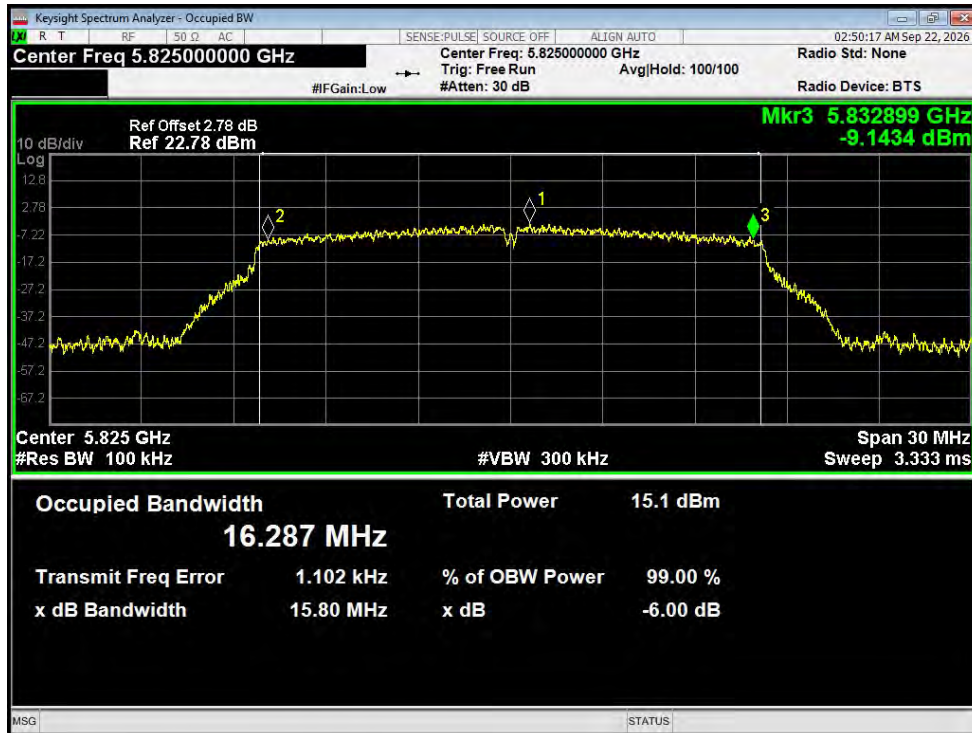
-6dB Bandwidth NVNT a 5745MHz Ant1



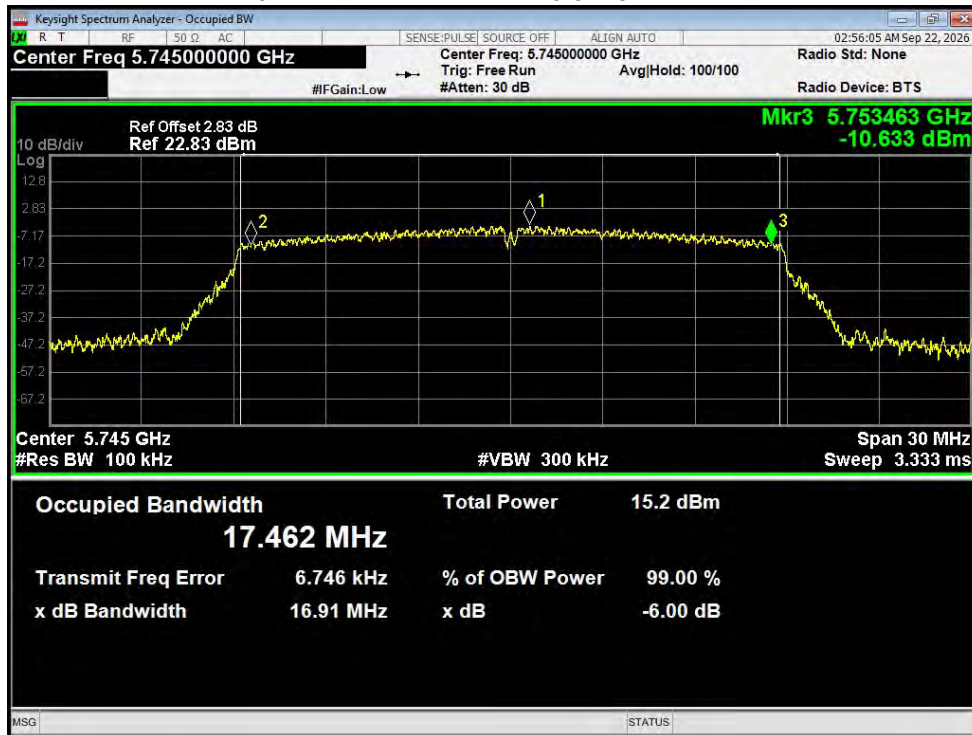
-6dB Bandwidth NVNT a 5785MHz Ant1



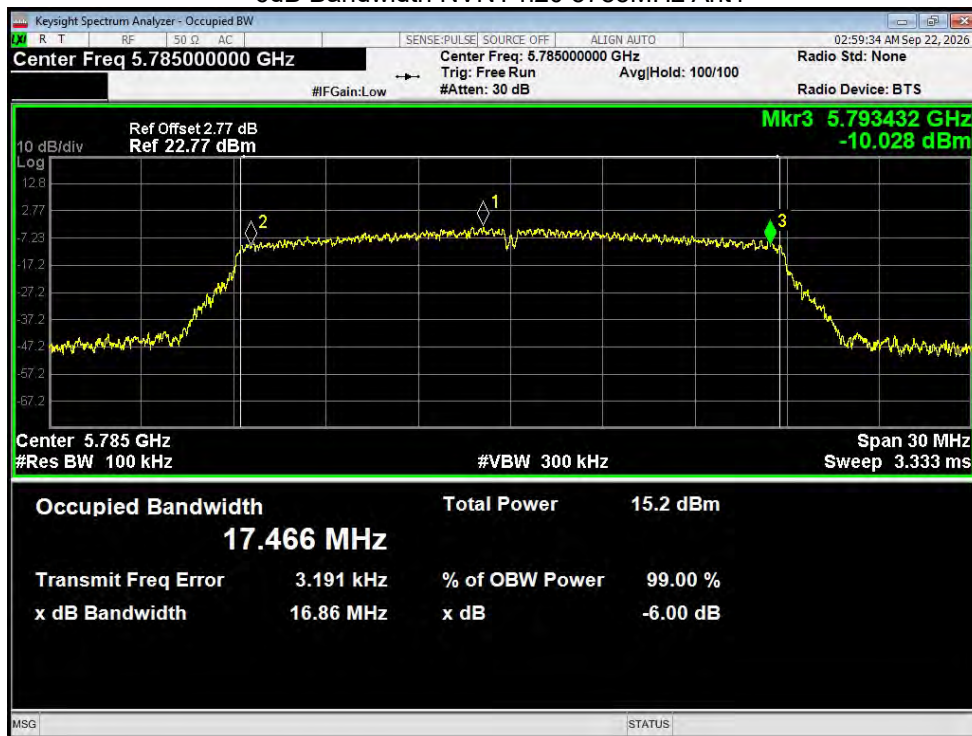
-6dB Bandwidth NVNT a 5825MHz Ant1



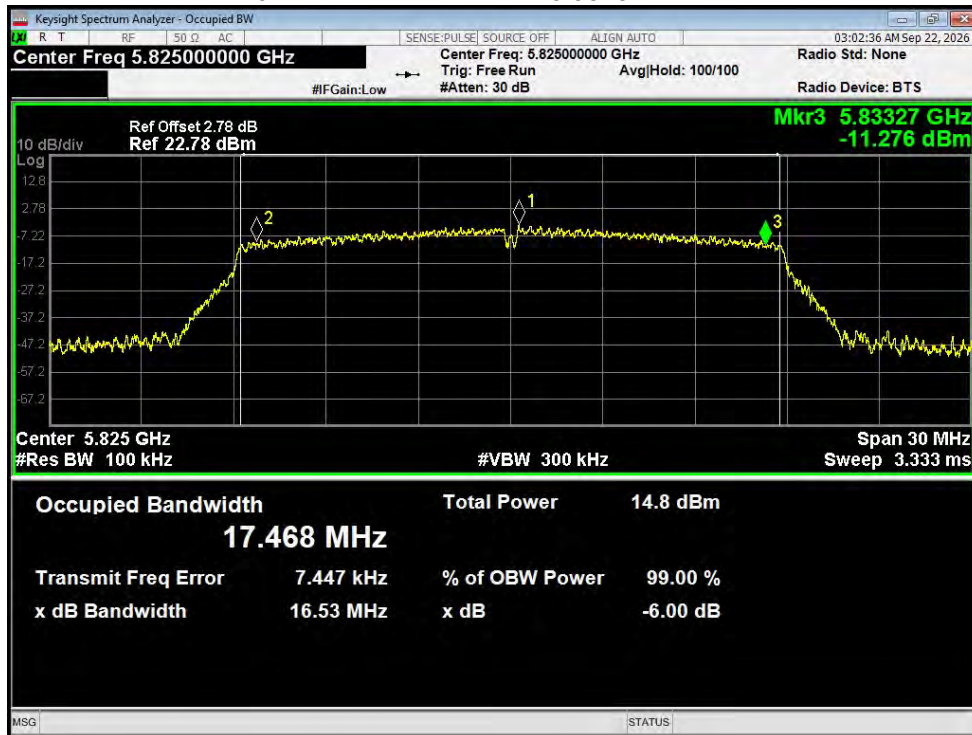
-6dB Bandwidth NVNT n20 5745MHz Ant1



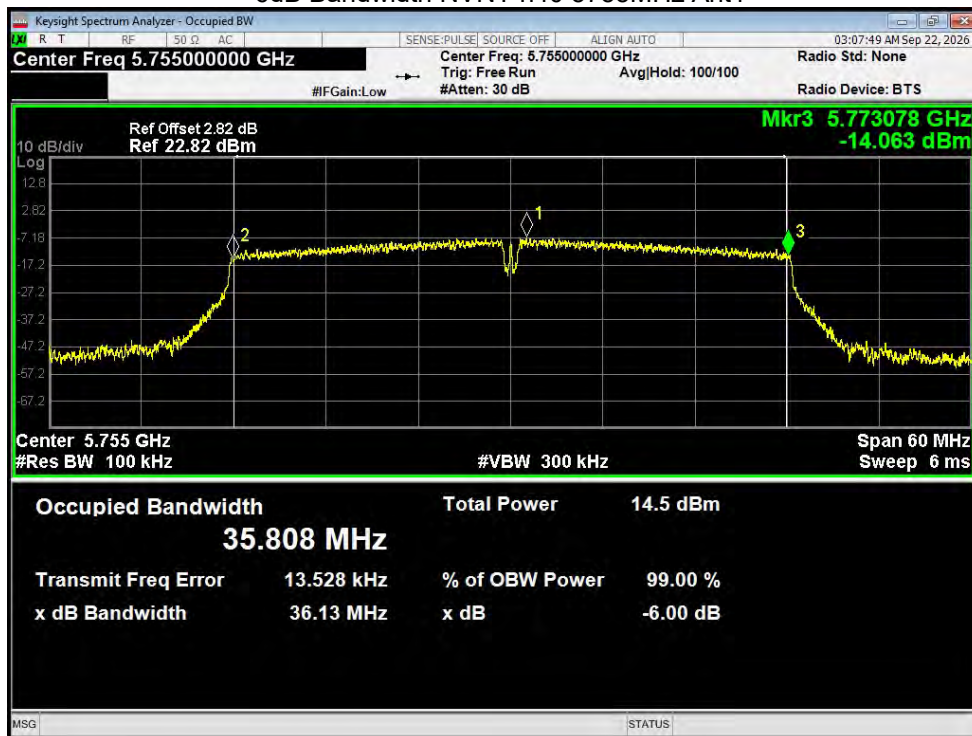
-6dB Bandwidth NVNT n20 5785MHz Ant1



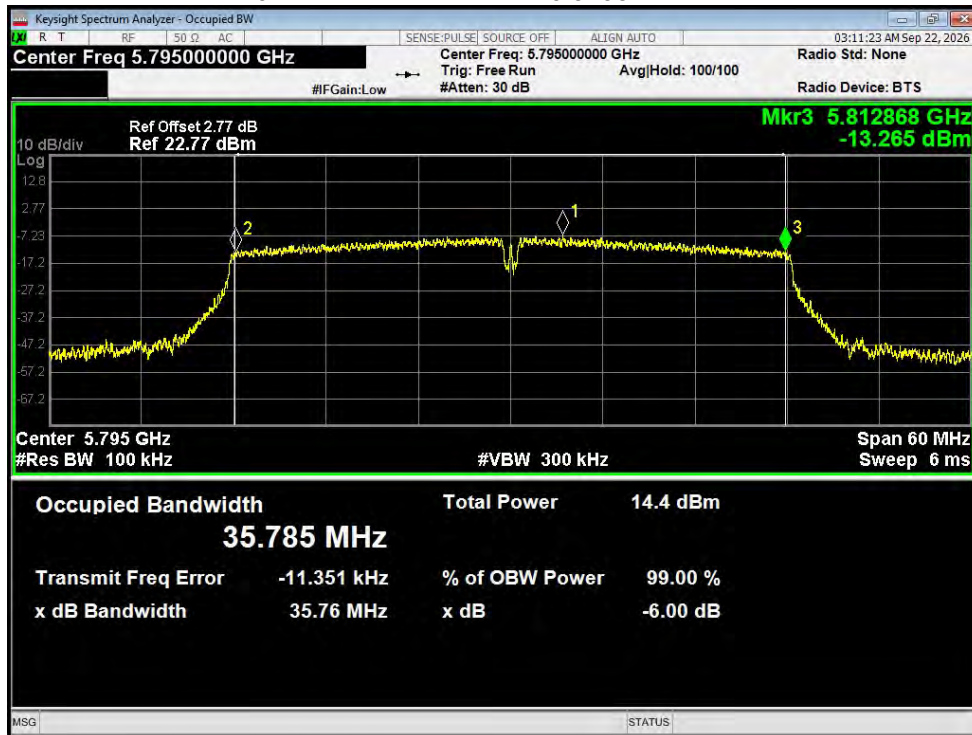
-6dB Bandwidth NVNT n20 5825MHz Ant1



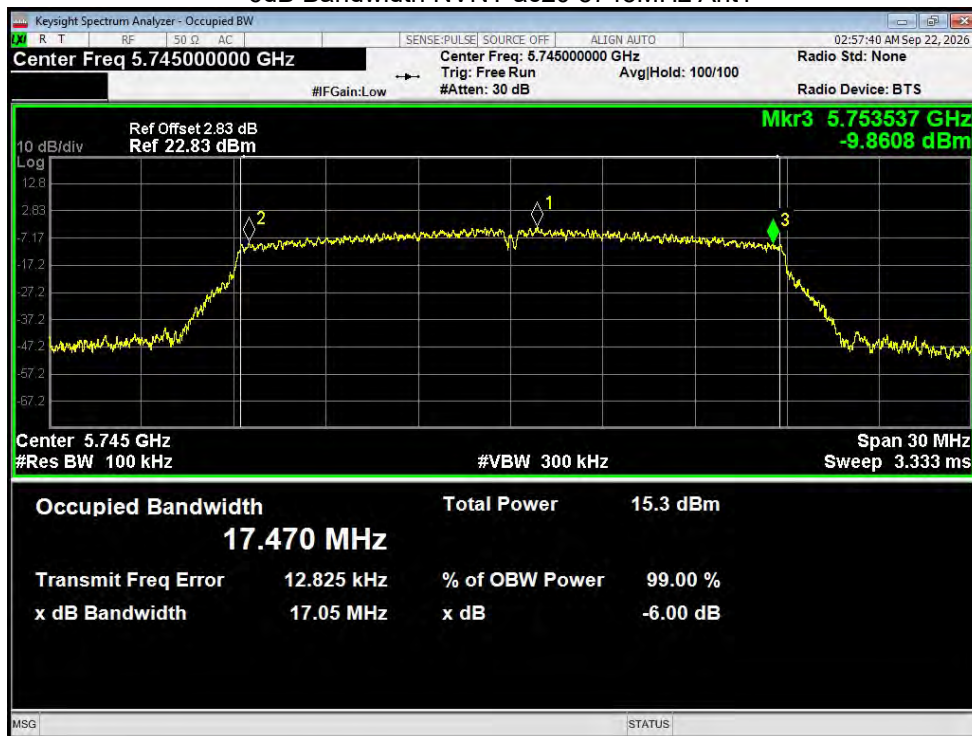
-6dB Bandwidth NVNT n40 5755MHz Ant1



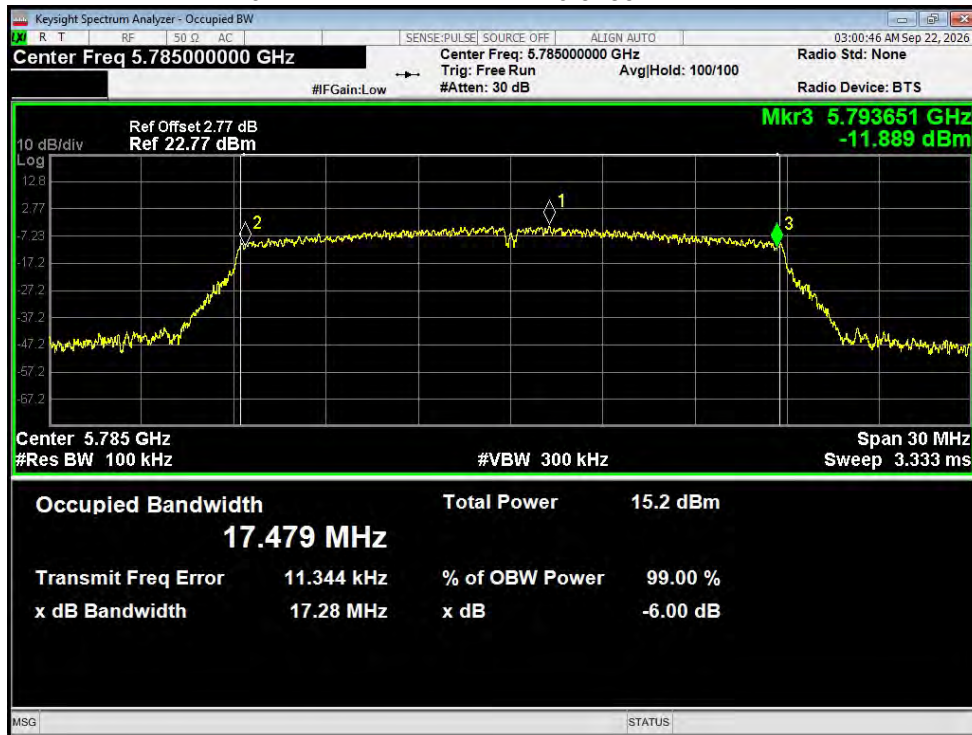
-6dB Bandwidth NVNT n40 5795MHz Ant1



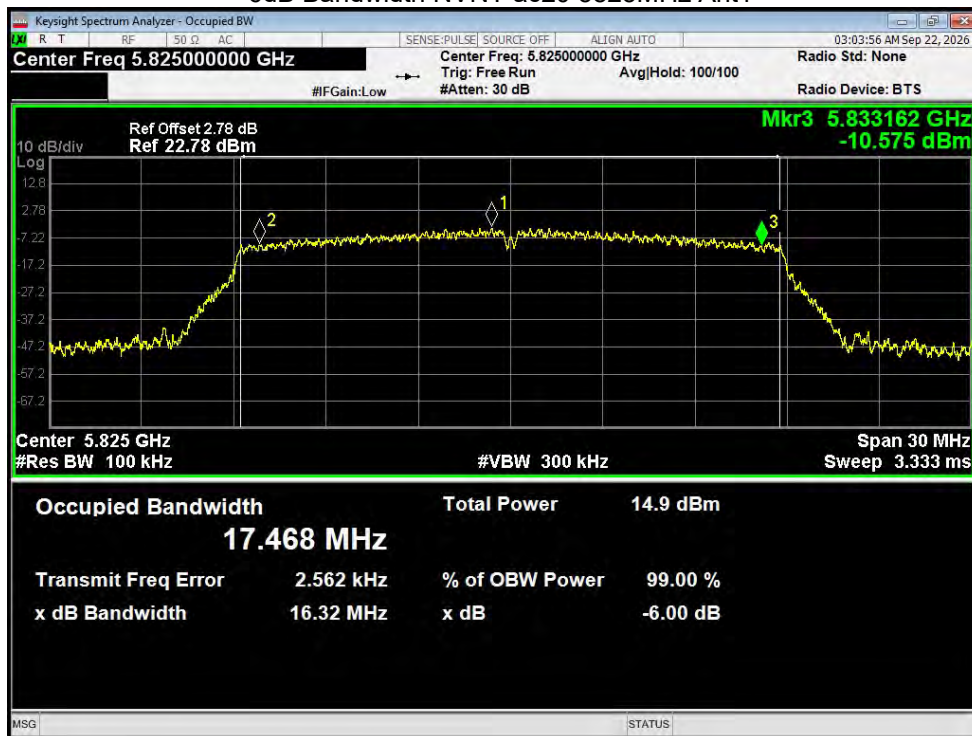
-6dB Bandwidth NVNT ac20 5745MHz Ant1



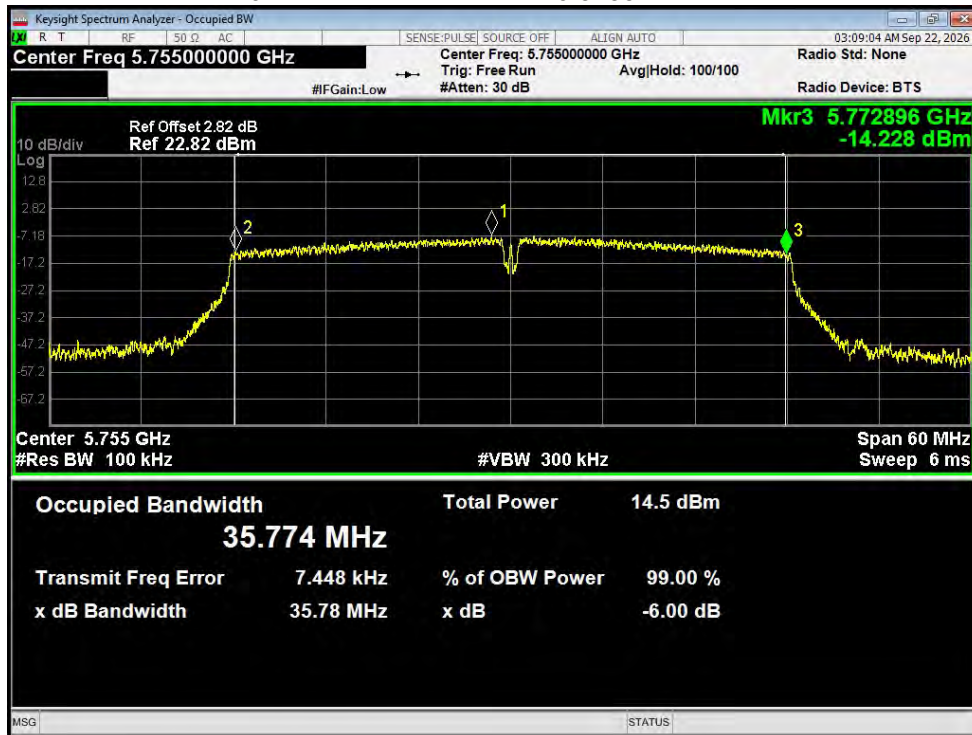
-6dB Bandwidth NVNT ac20 5785MHz Ant1



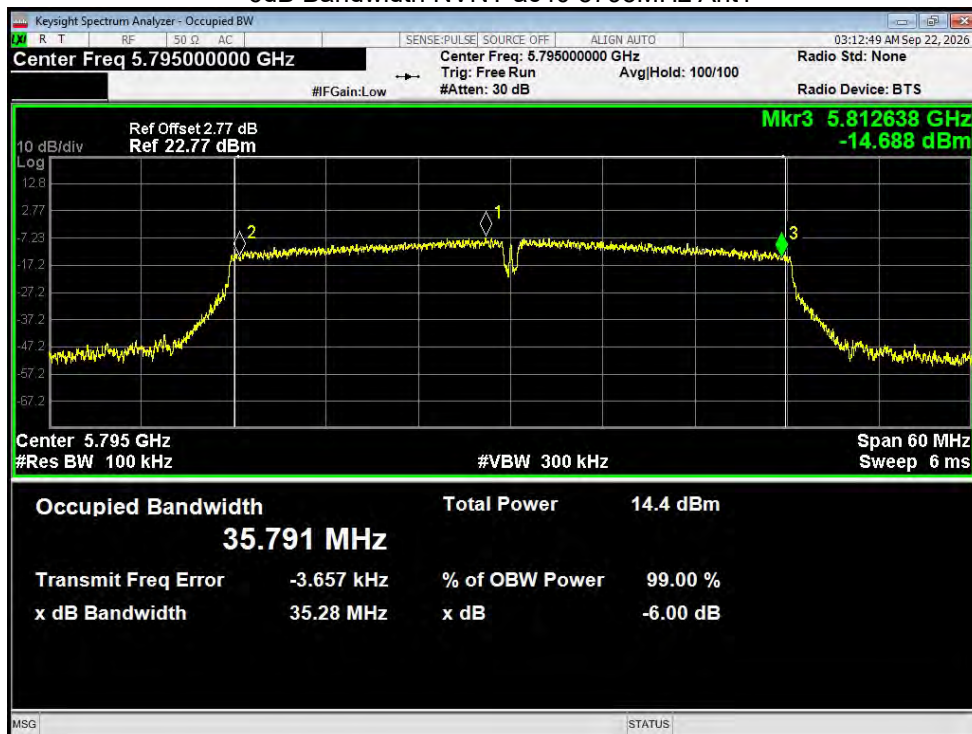
-6dB Bandwidth NVNT ac20 5825MHz Ant1



-6dB Bandwidth NVNT ac40 5755MHz Ant1

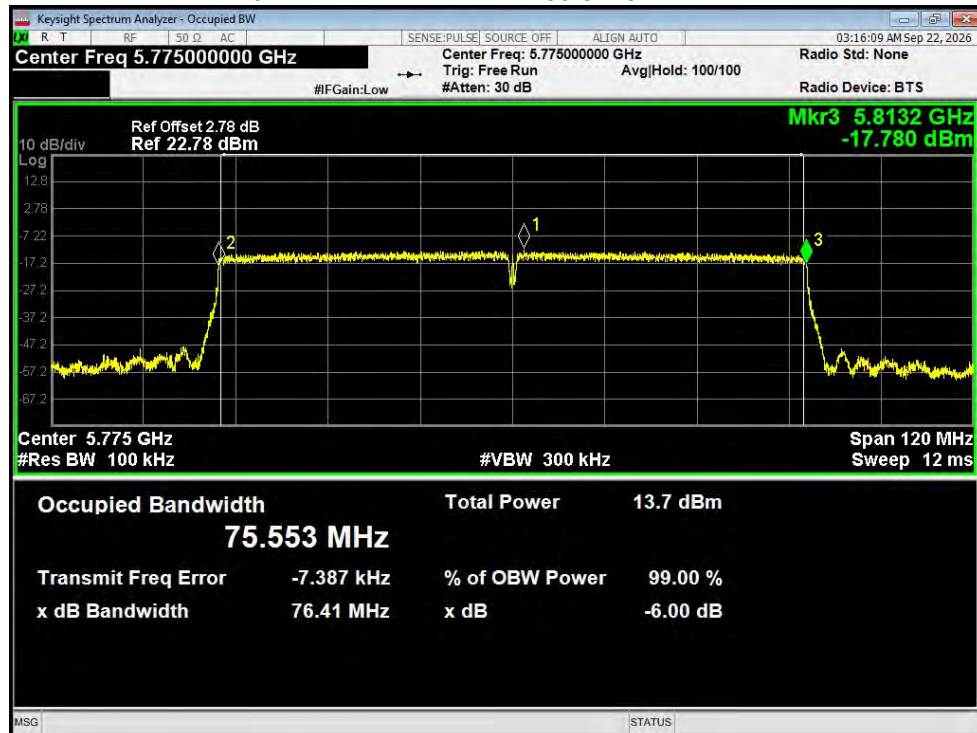


-6dB Bandwidth NVNT ac40 5795MHz Ant1

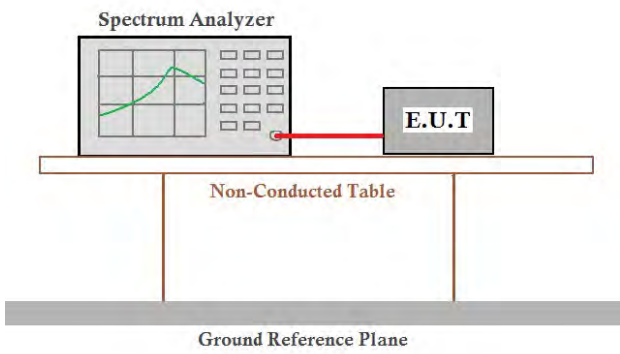




-6dB Bandwidth NVNT ac80 5775MHz Ant1



4.6 Power Spectral Density

Test Requirement:	47CFR Part 15.407(a)(1)/ (a)(3)	
Test Method:	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01, ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024§12.6	
Limit:	Frequency band (MHz)	Limit
	5150-5250	≤17dBm/1MHz for master device
		≤11dBm/1MHz for client device
	5250-5350	≤11dBm/1MHz for client device
	5470-5725	≤11dBm/1MHz for client device
	5725-5850	≤30dBm/500kHz
Test setup:		
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.2°C	Humid.: 53%RH
Test voltage:	DC 5V from adapter	
Test results:	Pass	

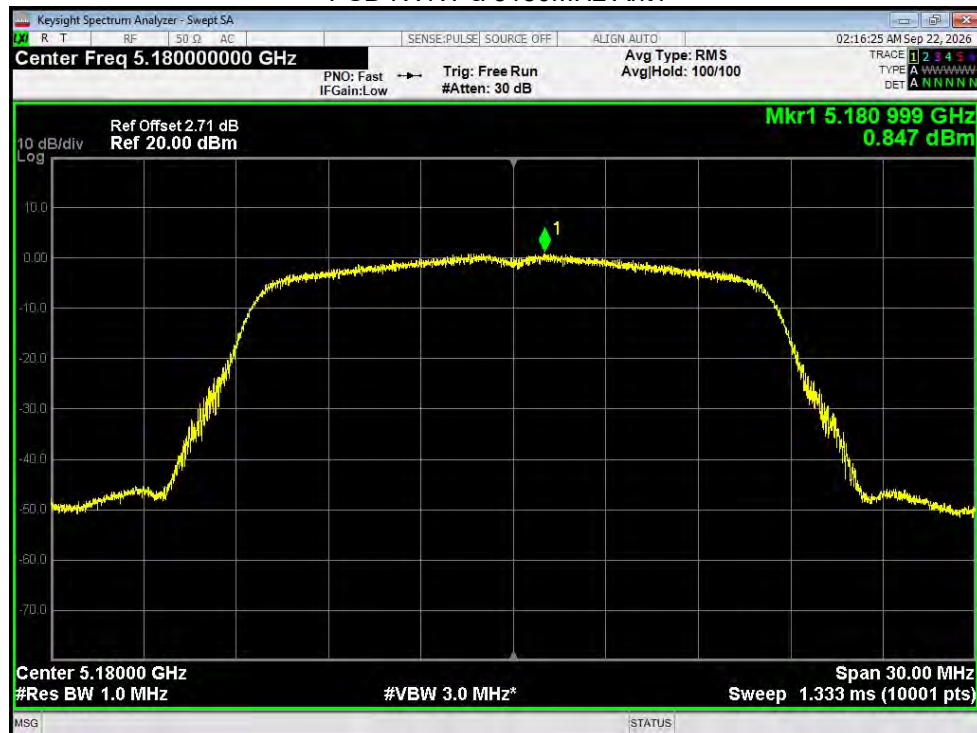


Measurement Result

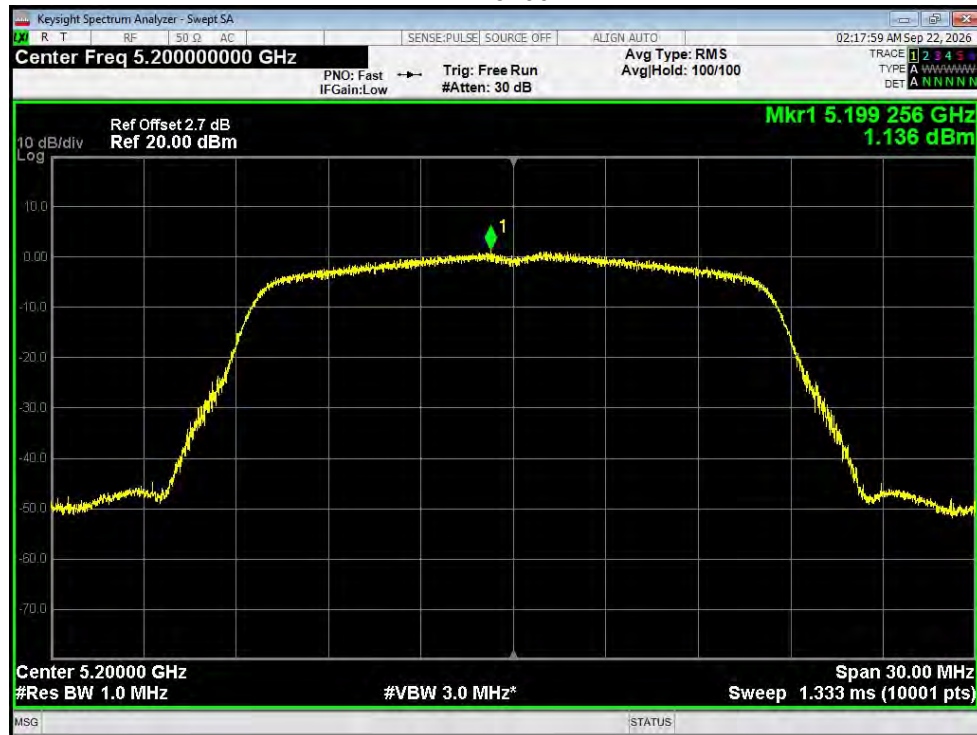
5180-5240MHz

Mode	Frequency	Measured Power Density (dBm/MHz)	Correction Factor (dB)	Total Measured Power Density (dBm/MHz)	Limit (dBm/MHz)
802.11 a	5180 MHz	0.847	0	0.847	11
	5200 MHz	1.136	0	1.136	11
	5240 MHz	0.967	0	0.967	11
802.11 n20	5180 MHz	0.482	0	0.482	11
	5200 MHz	0.601	0	0.601	11
	5240 MHz	0.721	0	0.721	11
802.11 n40	5190 MHz	-3.429	0	-3.429	11
	5230 MHz	-3.225	0	-3.225	11
802.11 ac20	5180 MHz	0.573	0	0.573	11
	5200 MHz	0.816	0	0.816	11
	5240 MHz	0.641	0	0.641	11
802.11 ac40	5190 MHz	-3.312	0	-3.312	11
	5230 MHz	-3.150	0	-3.150	11
802.11 ac80	5210 MHz	-9.102	0	-9.102	11

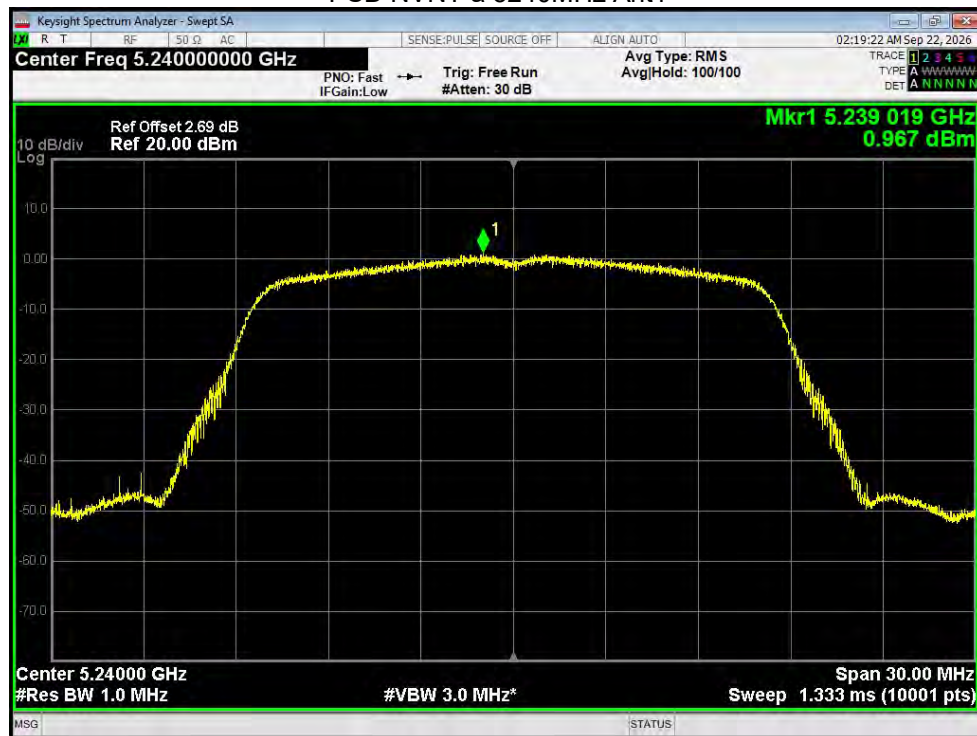
PSD NVNT a 5180MHz Ant1



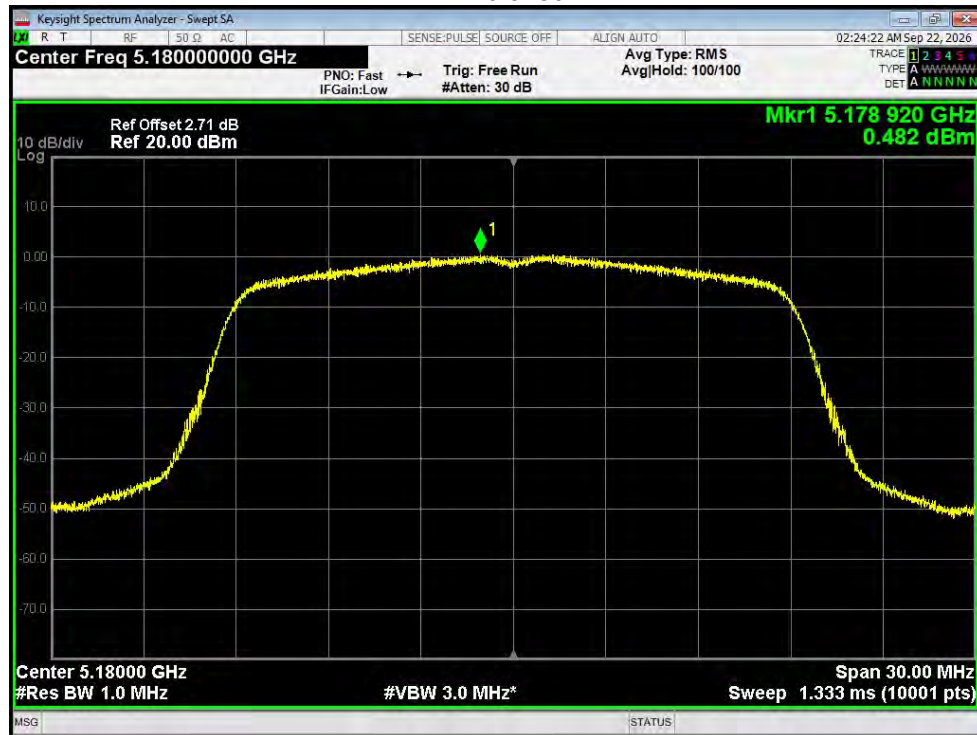
PSD NVNT a 5200MHz Ant1



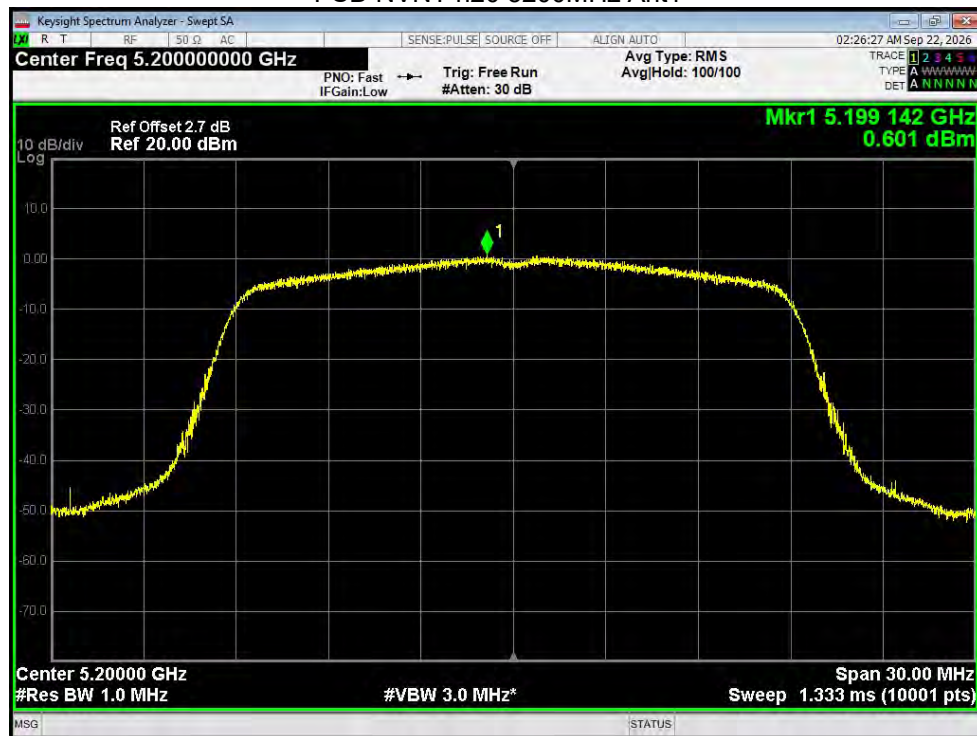
PSD NVNT a 5240MHz Ant1



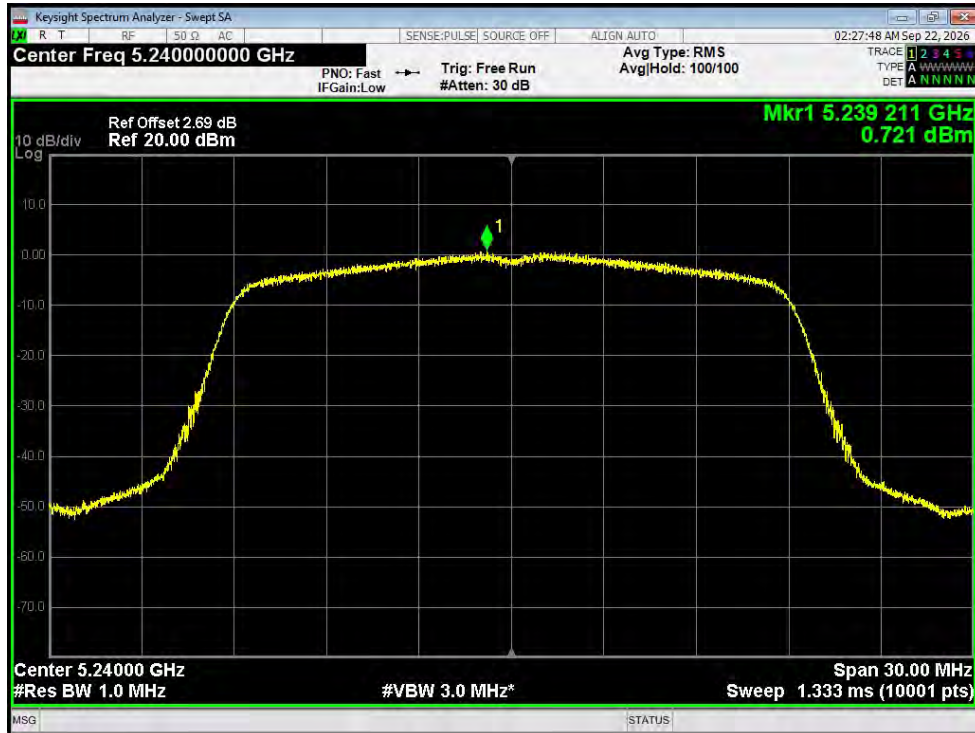
PSD NVNT n20 5180MHz Ant1



PSD NVNT n20 5200MHz Ant1



PSD NVNT n20 5240MHz Ant1



PSD NVNT n40 5190MHz Ant1

