13.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

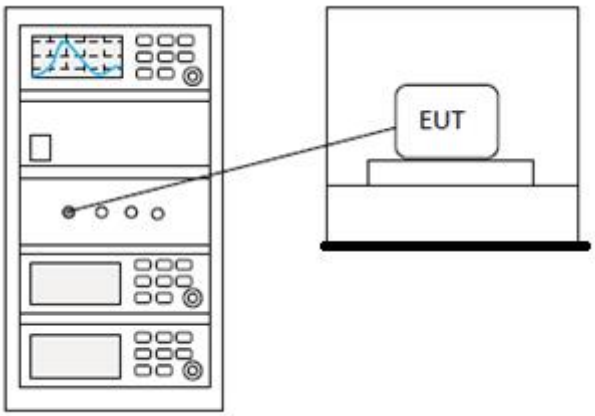
14 MAXIMUM CONDUCTED OUTPUT POWER

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II E
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Charlie
Temperature	25℃
Humidity	60%

14.1 LIMITS

Frequency band(MHz)	Limit
5150-5250	≤1W(30dBm) for master device
	≤250mW(24dBm) for client device
5250-5350	≤250mW(24dBm) for client device or 11dBm+10logB*
5470-5725	≤250mW(24dBm) for client device or 11dBm+10logB*
5725-5850	≤1W(30dBm)
Remark:	* Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

14.2 BLOCK DIAGRAM OF TEST SETUP



14.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

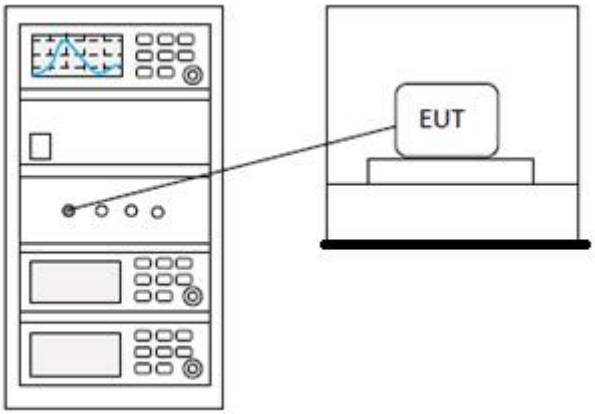
15 MINIMUM 6 DB BANDWIDTH (5.725-5.85 GHZ BAND)

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II C 2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Charlie
Temperature	25℃
Humidity	60%

15.1 LIMITS

Limit:	≥500 kHz

15.2 BLOCK DIAGRAM OF TEST SETUP



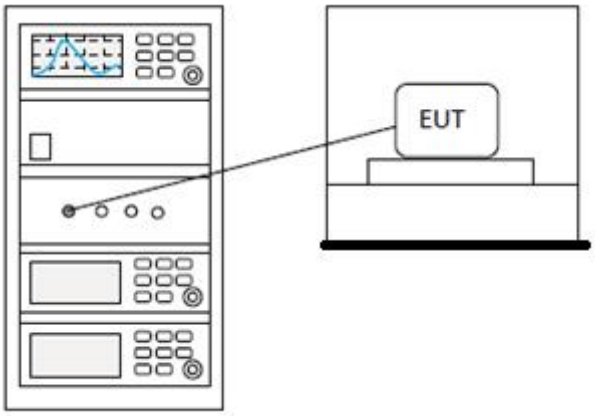
15.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

16 26DB EMISSION BANDWIDTH

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II C 1
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Charlie
Temperature	25℃
Humidity	60%

16.1 BLOCK DIAGRAM OF TEST SETUP



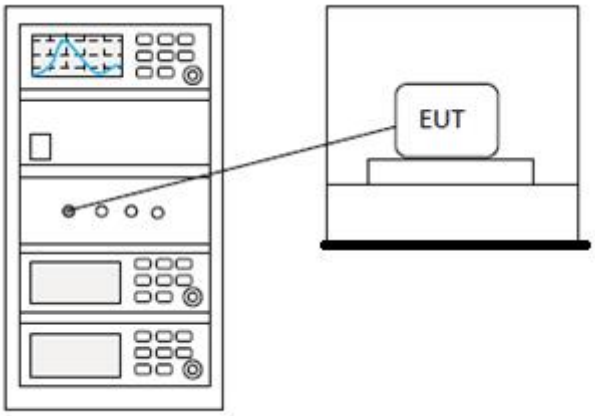
16.2 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

17 99% BANDWIDTH

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 II D
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Charlie
Temperature	25℃
Humidity	60%

17.1 BLOCK DIAGRAM OF TEST SETUP



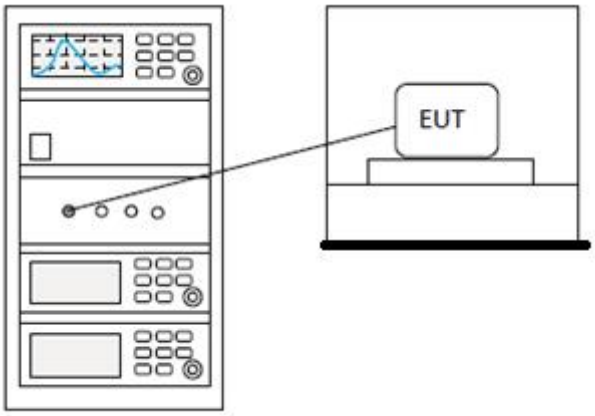
17.2 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

18 DUTY CYCLE

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 II B 1
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Charlie
Temperature	25℃
Humidity	60%

18.1 BLOCK DIAGRAM OF TEST SETUP



18.2 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

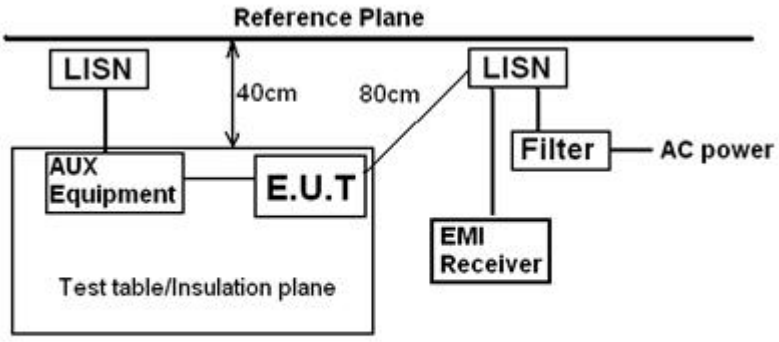
19 CONDUCTED EMISSIONS AT AC POWER LINE (150KHZ-30MHZ)

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	ANSI C63.10 (2013) Section 6.2
Test Mode (Pre-Scan)	Transmitting mode
Test Mode (Final Test)	Transmitting mode
Tester	Charlie
Temperature	25℃
Humidity	60%

19.1 LIMITS

Frequency of emission(MHz)	Conducted limit(dBμV)	
	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.		

19.2 BLOCK DIAGRAM OF TEST SETUP



Remark
E.U.T: Equipment Under Test
LISN: Line Impedence Stabilization Network
Test table height=0.8m

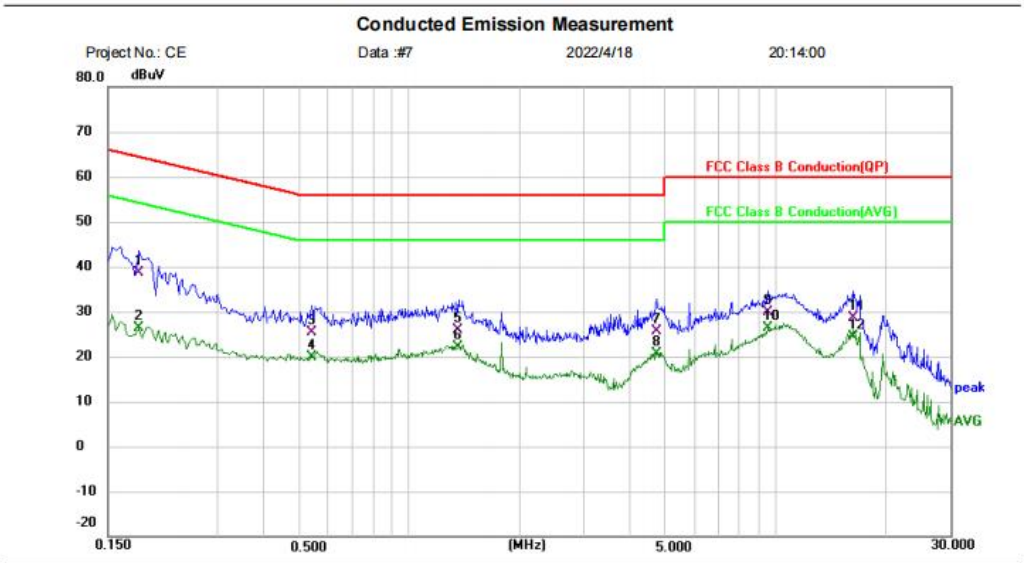
19.3 PROCEDURE

1) The mains terminal disturbance voltage test was conducted in a shielded room.
2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50H + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
5) 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 on conducted measurement.
Remark: LISN=Read Level+ Cable Loss+ LISN Factor

19.4 TEST DATA

[TestMode: Transmitting mode]; [Line: Neutral] ;[Power:AC120V/60Hz]



Site
Limit: FCC Class B Conduction(QP)
EUT: Wifi/bt Module
M/N: L27B-SR
Mode: 5.1G-TX Mode
Note:

Phase: N
Power:

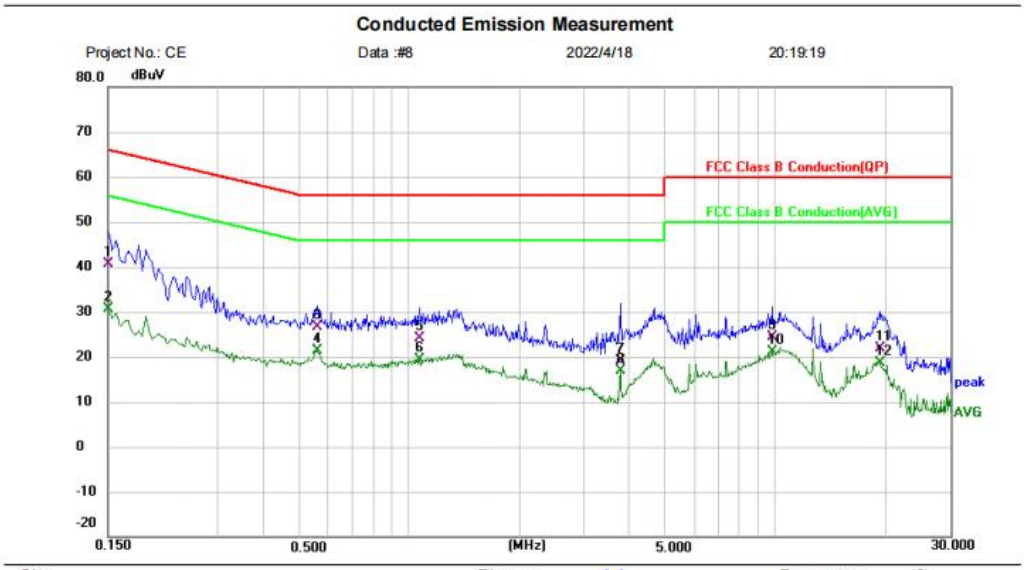
Temperature: (C)
Humidity: %RH

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1819	28.44	10.10	38.54	64.40	-25.86	QP	
2		0.1819	16.23	10.10	26.33	54.40	-28.07	AVG	
3		0.5420	15.55	9.79	25.34	56.00	-30.66	QP	
4		0.5420	10.17	9.79	19.96	46.00	-26.04	AVG	
5		1.3619	16.00	9.85	25.85	56.00	-30.15	QP	
6		1.3619	12.26	9.85	22.11	46.00	-23.89	AVG	
7		4.7260	15.80	9.94	25.74	56.00	-30.26	QP	
8		4.7260	10.68	9.94	20.62	46.00	-25.38	AVG	
9		9.5140	19.70	10.14	29.84	60.00	-30.16	QP	
10	*	9.5140	16.29	10.14	26.43	50.00	-23.57	AVG	
11		16.3260	18.44	10.31	28.75	60.00	-31.25	QP	
12		16.3260	13.96	10.31	24.27	50.00	-25.73	AVG	

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

[TestMode: Transmitting mode]; [Line: Line] ;[Power:AC120V/60Hz]



Site
Phase: L1
Temperature: (C)
Limit: FCC Class B Conduction(QP)
Power:
Humidity: %RH
EUT: Wifi/bt Module
M/N: L27B-SR
Mode: 5.1G-TX Mode
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	30.56	10.11	40.67	66.00	-25.33	QP	
2		0.1500	20.62	10.11	30.73	56.00	-25.27	AVG	
3		0.5580	16.76	9.87	26.63	56.00	-29.37	QP	
4	*	0.5580	11.58	9.87	21.45	46.00	-24.55	AVG	
5		1.0660	14.15	9.92	24.07	56.00	-31.93	QP	
6		1.0660	9.54	9.92	19.46	46.00	-26.54	AVG	
7		3.7620	9.30	9.90	19.20	56.00	-36.80	QP	
8		3.7620	6.87	9.90	16.77	46.00	-29.23	AVG	
9		9.7780	23.80	0.50	24.30	60.00	-35.70	QP	
10		9.7780	20.64	0.50	21.14	50.00	-28.86	AVG	
11		19.3220	11.48	10.42	21.90	60.00	-38.10	QP	
12		19.3220	8.09	10.42	18.51	50.00	-31.49	AVG	

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

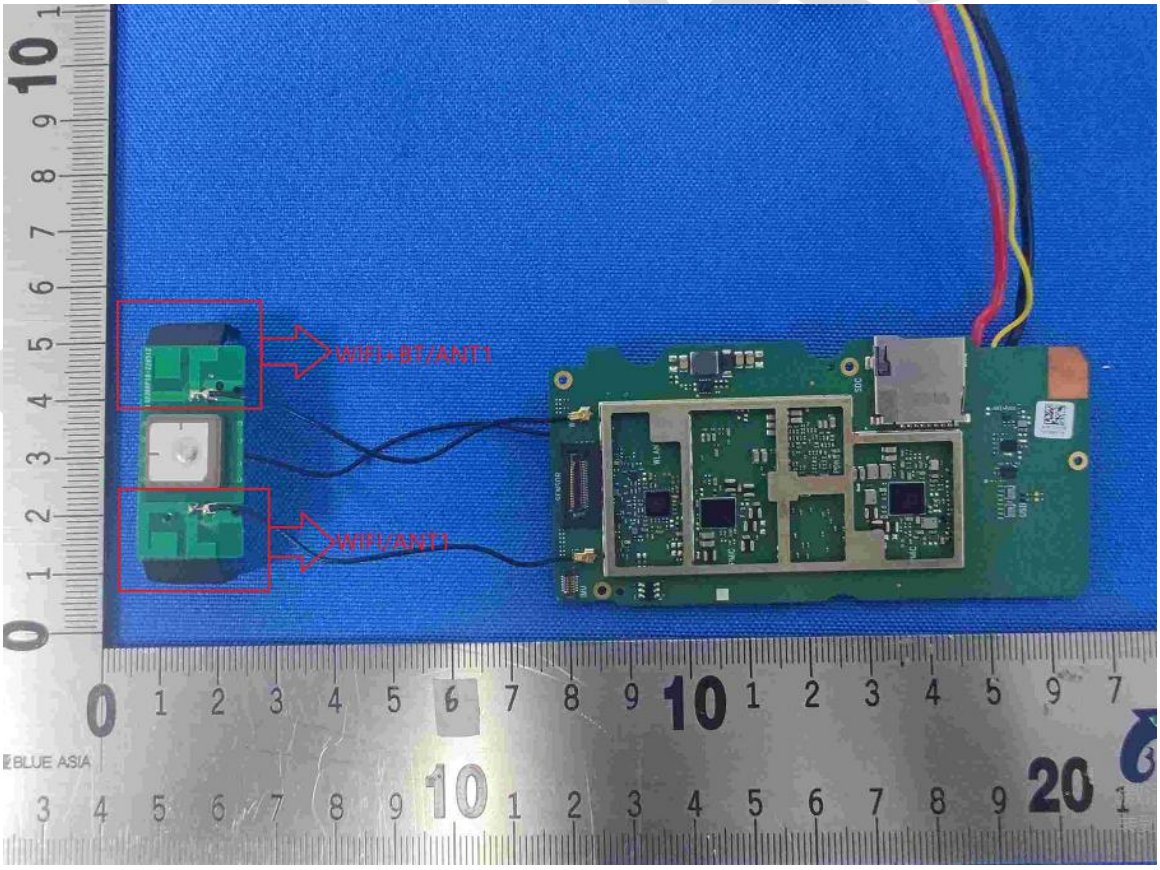
20 ANTENNA REQUIREMENT

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	N/A

20.1 CONCLUSION

Standard Requirement:
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 antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:
Use non-standard antenna, can be disassembled.The best case gain of the antenna is 2.32dBi.



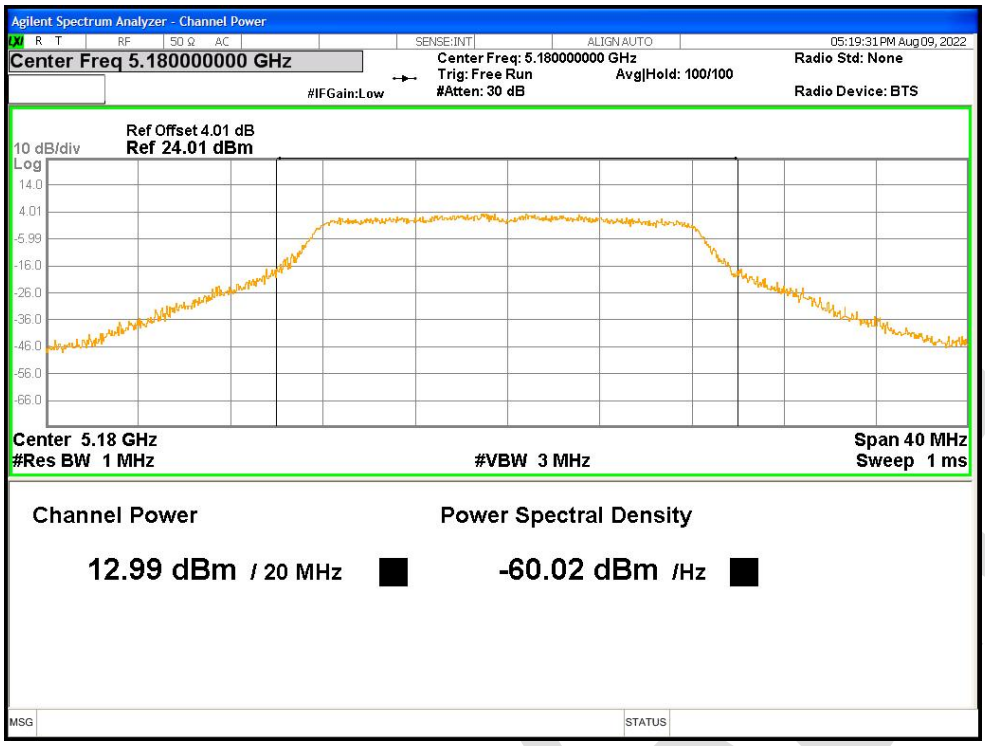
21 APPENDIX

21.1 MAXIMUM CONDUCTED OUTPUT POWER

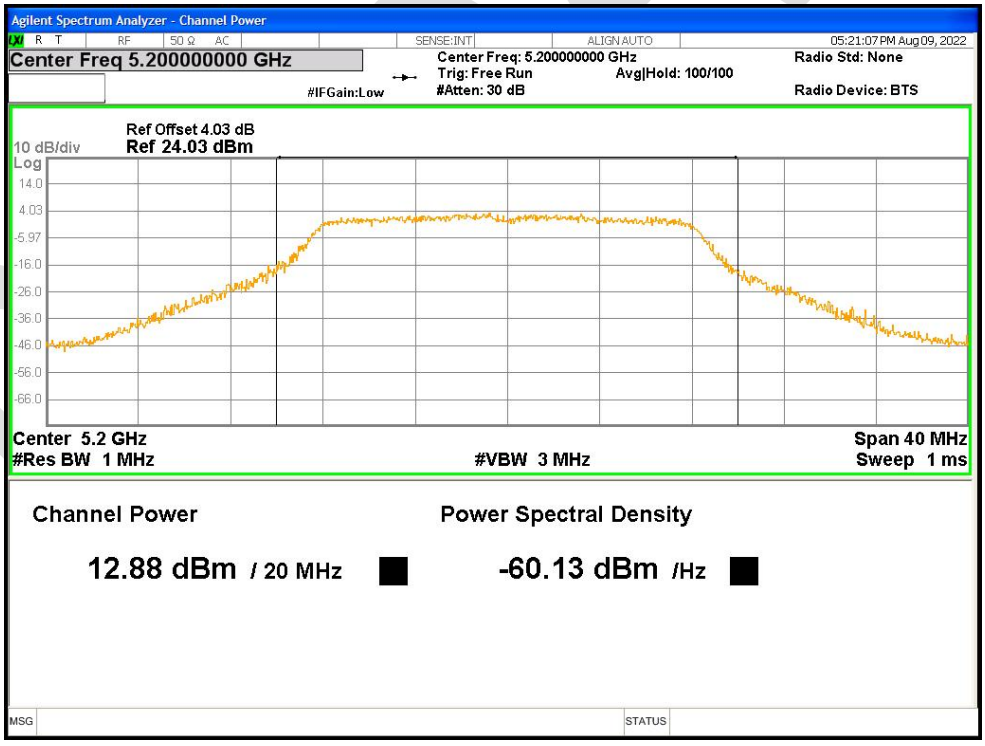
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	12.993	0	12.993	24	Pass
NVNT	a	5200	Ant1	12.878	0	12.878	24	Pass
NVNT	a	5240	Ant1	12.751	0	12.751	24	Pass
NVNT	a	5745	Ant1	13.064	0	13.064	30	Pass
NVNT	a	5785	Ant1	12.292	0	12.292	30	Pass
NVNT	a	5825	Ant1	11.253	0	11.253	30	Pass
NVNT	a	5180	Ant2	11.585	0	11.585	24	Pass
NVNT	a	5200	Ant2	11.646	0	11.646	24	Pass
NVNT	a	5240	Ant2	11.462	0	11.462	24	Pass
NVNT	a	5745	Ant2	7.113	0	7.113	30	Pass
NVNT	a	5785	Ant2	6.586	0	6.586	30	Pass
NVNT	a	5825	Ant2	5.975	0	5.975	30	Pass
NVNT	ac20	5180	Ant1	12.88	0	12.88	24	Pass
NVNT	ac20	5180	Ant2	11.338	0	11.338	24	Pass
NVNT	ac20	5180	Sum	15.187	0	15.187	24	Pass
NVNT	ac20	5200	Ant1	12.566	0	12.566	24	Pass
NVNT	ac20	5200	Ant2	11.779	0	11.779	24	Pass
NVNT	ac20	5200	Sum	15.201	0	15.201	24	Pass
NVNT	ac20	5240	Ant1	12.579	0	12.579	24	Pass
NVNT	ac20	5240	Ant2	11.414	0	11.414	24	Pass
NVNT	ac20	5240	Sum	15.046	0	15.046	24	Pass
NVNT	ac20	5745	Ant1	12.749	0	12.749	30	Pass
NVNT	ac20	5745	Ant2	10.278	0	10.278	30	Pass
NVNT	ac20	5745	Sum	14.697	0	14.697	30	Pass
NVNT	ac20	5785	Ant1	12.137	0	12.137	30	Pass
NVNT	ac20	5785	Ant2	9.894	0	9.894	30	Pass
NVNT	ac20	5785	Sum	14.169	0	14.169	30	Pass
NVNT	ac20	5825	Ant1	10.805	0	10.805	30	Pass
NVNT	ac20	5825	Ant2	9.29	0	9.29	30	Pass
NVNT	ac20	5825	Sum	13.124	0	13.124	30	Pass
NVNT	ac40	5190	Ant1	13.419	0	13.419	24	Pass
NVNT	ac40	5190	Ant2	12.194	0	12.194	24	Pass
NVNT	ac40	5190	Sum	15.86	0	15.86	24	Pass
NVNT	ac40	5230	Ant1	13.246	0	13.246	24	Pass
NVNT	ac40	5230	Ant2	11.753	0	11.753	24	Pass
NVNT	ac40	5230	Sum	15.574	0	15.574	24	Pass
NVNT	ac40	5755	Ant1	13.212	0	13.212	30	Pass
NVNT	ac40	5755	Ant2	10.527	0	10.527	30	Pass
NVNT	ac40	5755	Sum	15.084	0	15.084	30	Pass
NVNT	ac40	5795	Ant1	12.44	0	12.44	30	Pass

NVNT	ac40	5795	Ant2	10.259	0	10.259	30	Pass
NVNT	ac40	5795	Sum	14.495	0	14.495	30	Pass
NVNT	ac80	5210	Ant1	12.005	0	12.005	24	Pass
NVNT	ac80	5210	Ant2	12.703	0	12.703	24	Pass
NVNT	ac80	5210	Sum	15.378	0	15.378	24	Pass
NVNT	ac80	5775	Ant1	12.087	0	12.087	30	Pass
NVNT	ac80	5775	Ant2	10.99	0	10.99	30	Pass
NVNT	ac80	5775	Sum	14.583	0	14.583	30	Pass
NVNT	n20	5180	Ant1	12.718	0	12.718	24	Pass
NVNT	n20	5180	Ant2	11.099	0	11.099	24	Pass
NVNT	n20	5180	Sum	14.994	0	14.994	24	Pass
NVNT	n20	5200	Ant1	12.493	0	12.493	24	Pass
NVNT	n20	5200	Ant2	11.44	0	11.44	24	Pass
NVNT	n20	5200	Sum	15.009	0	15.009	24	Pass
NVNT	n20	5240	Ant1	12.518	0	12.518	24	Pass
NVNT	n20	5240	Ant2	11.189	0	11.189	24	Pass
NVNT	n20	5240	Sum	14.914	0	14.914	24	Pass
NVNT	n20	5745	Ant1	12.782	0	12.782	30	Pass
NVNT	n20	5745	Ant2	9.189	0	9.189	30	Pass
NVNT	n20	5745	Sum	14.357	0	14.357	30	Pass
NVNT	n20	5785	Ant1	12.018	0	12.018	30	Pass
NVNT	n20	5785	Ant2	8.999	0	8.999	30	Pass
NVNT	n20	5785	Sum	13.776	0	13.776	30	Pass
NVNT	n20	5825	Ant1	10.83	0	10.83	30	Pass
NVNT	n20	5825	Ant2	8.501	0	8.501	30	Pass
NVNT	n20	5825	Sum	12.83	0	12.83	30	Pass
NVNT	n40	5190	Ant1	13.431	0	13.431	24	Pass
NVNT	n40	5190	Ant2	11.945	0	11.945	24	Pass
NVNT	n40	5190	Sum	15.762	0	15.762	24	Pass
NVNT	n40	5230	Ant1	13.162	0	13.162	24	Pass
NVNT	n40	5230	Ant2	12.02	0	12.02	24	Pass
NVNT	n40	5230	Sum	15.639	0	15.639	24	Pass
NVNT	n40	5755	Ant1	13.314	0	13.314	30	Pass
NVNT	n40	5755	Ant2	10.778	0	10.778	30	Pass
NVNT	n40	5755	Sum	15.239	0	15.239	30	Pass
NVNT	n40	5795	Ant1	12.554	0	12.554	30	Pass
NVNT	n40	5795	Ant2	10.33	0	10.33	30	Pass
NVNT	n40	5795	Sum	14.593	0	14.593	30	Pass

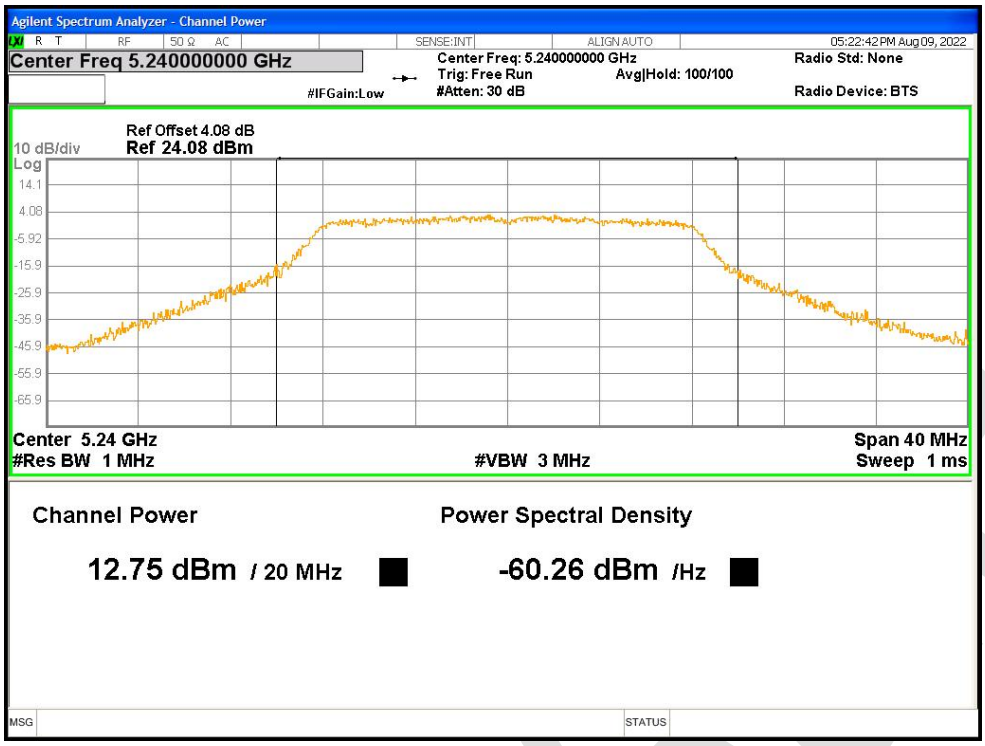
Power NVNT a 5180MHz Ant1



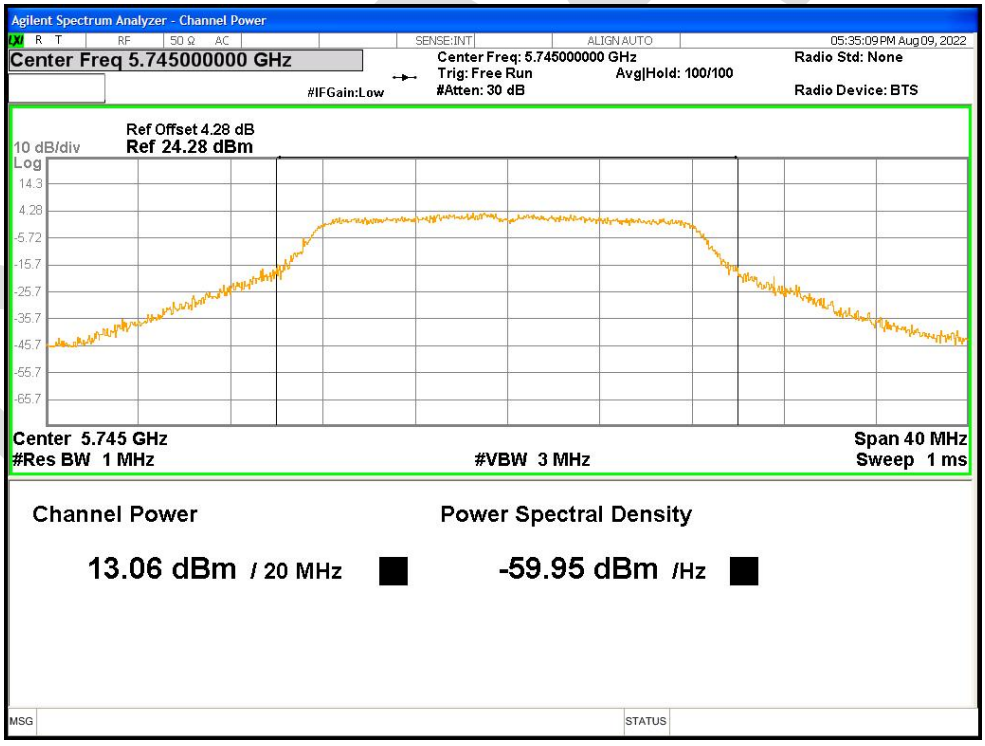
Power NVNT a 5200MHz Ant1



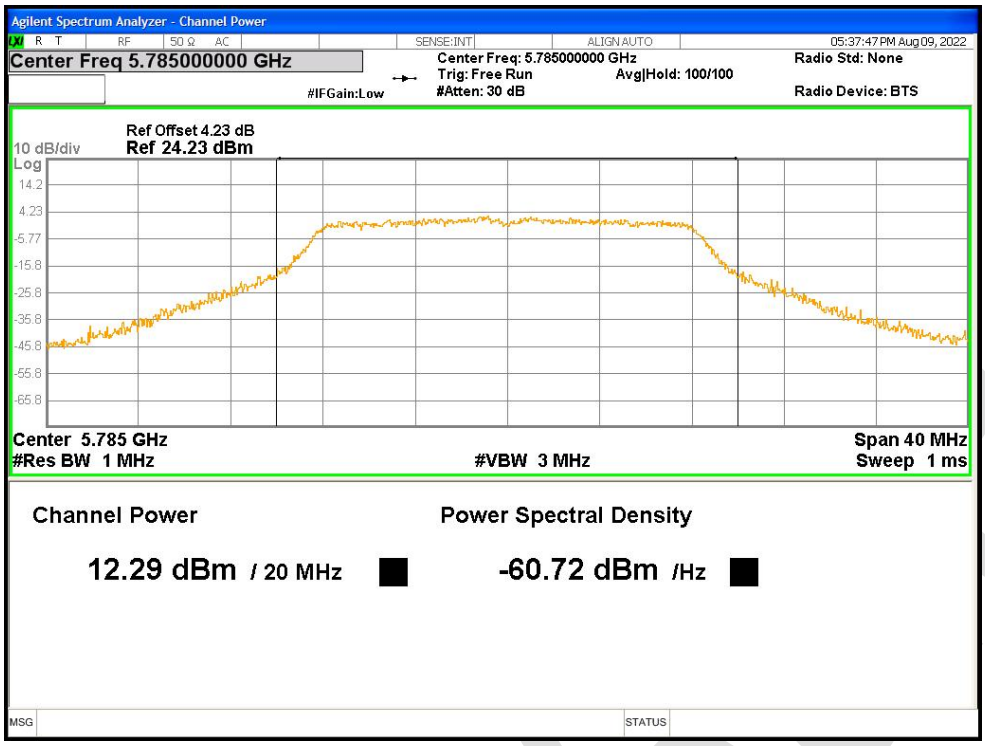
Power NVNT a 5240MHz Ant1



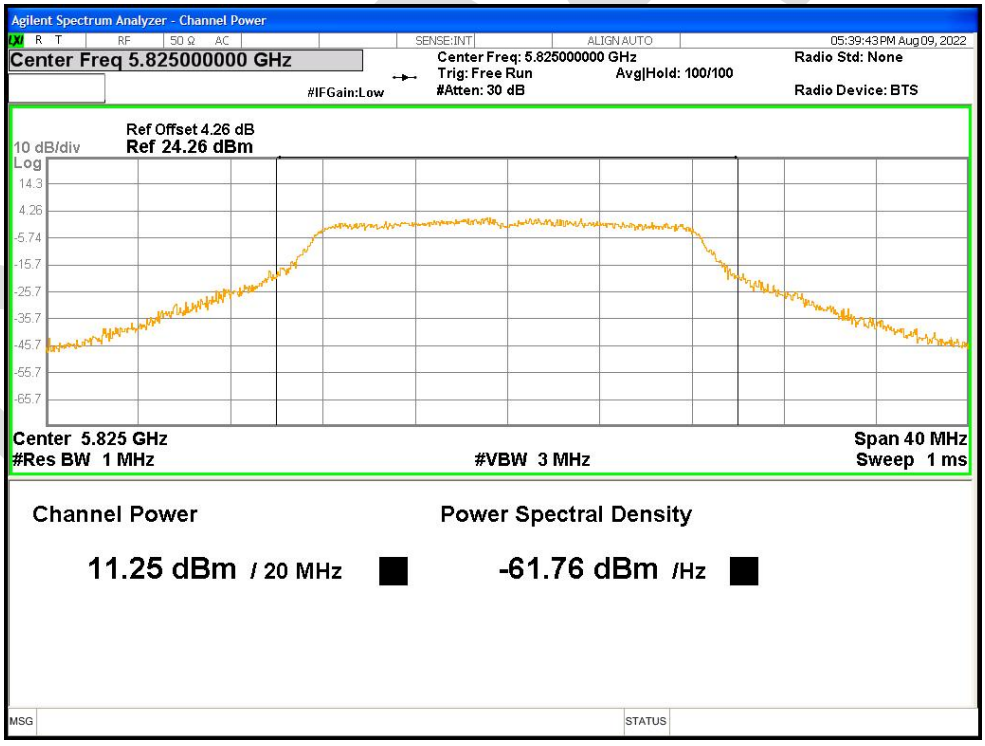
Power NVNT a 5745MHz Ant1



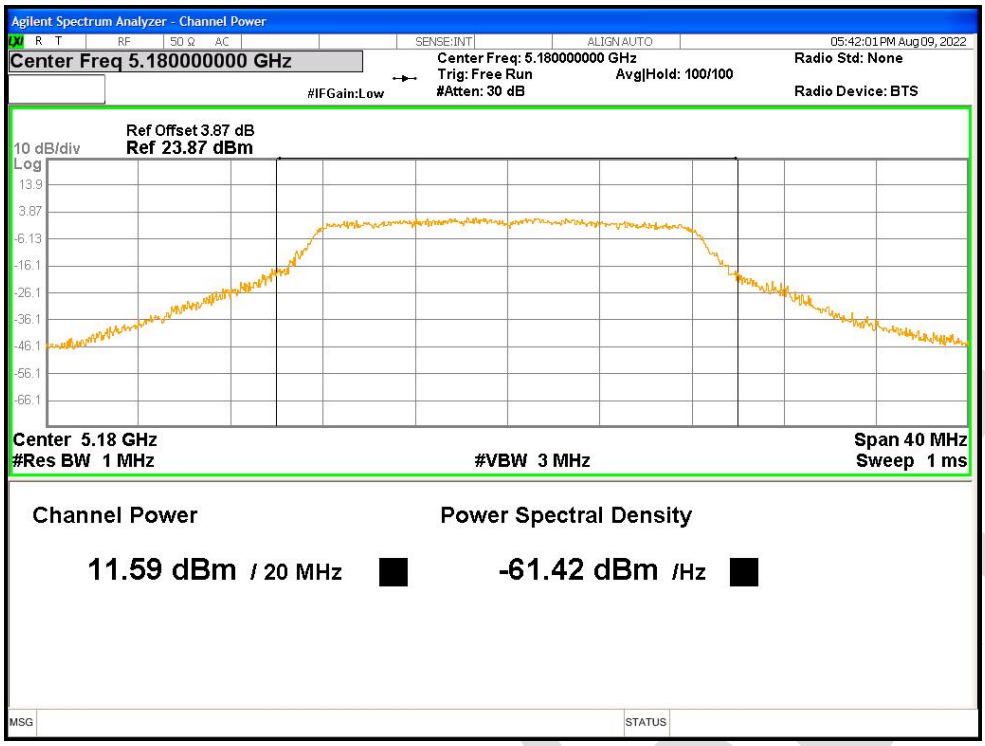
Power NVNT a 5785MHz Ant1



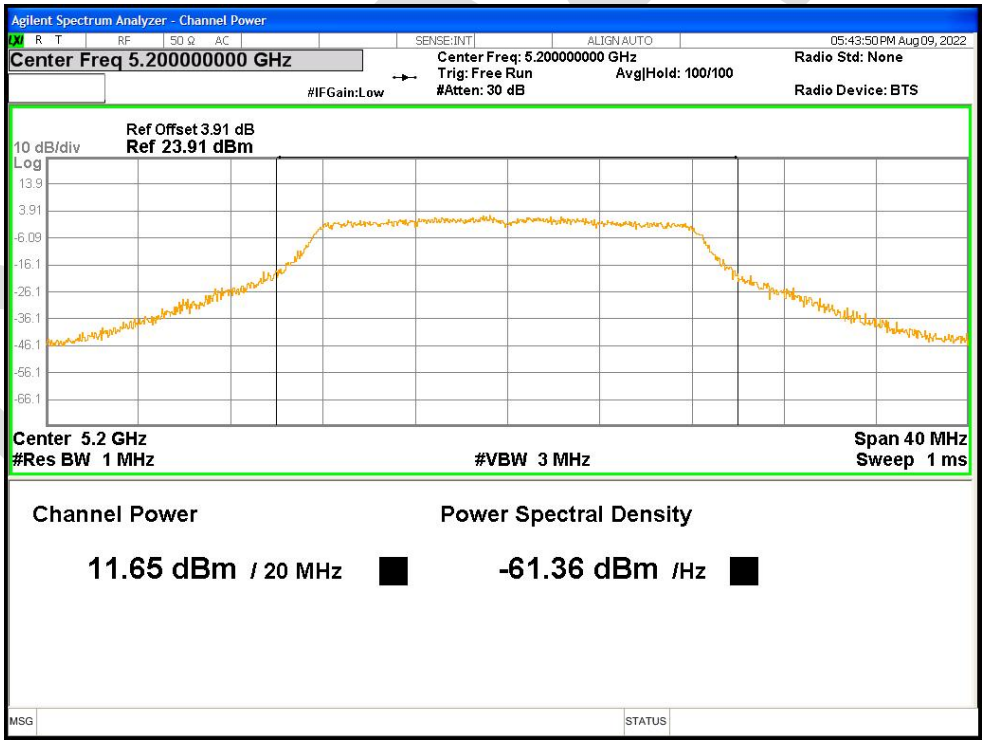
Power NVNT a 5825MHz Ant1



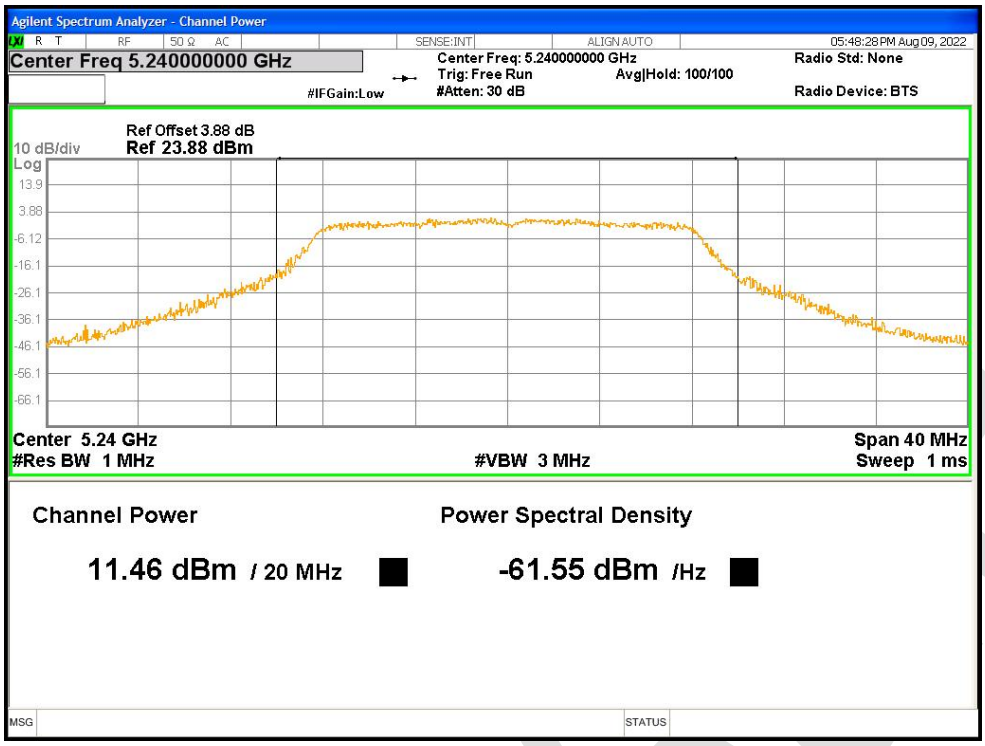
Power NVNT a 5180MHz Ant2



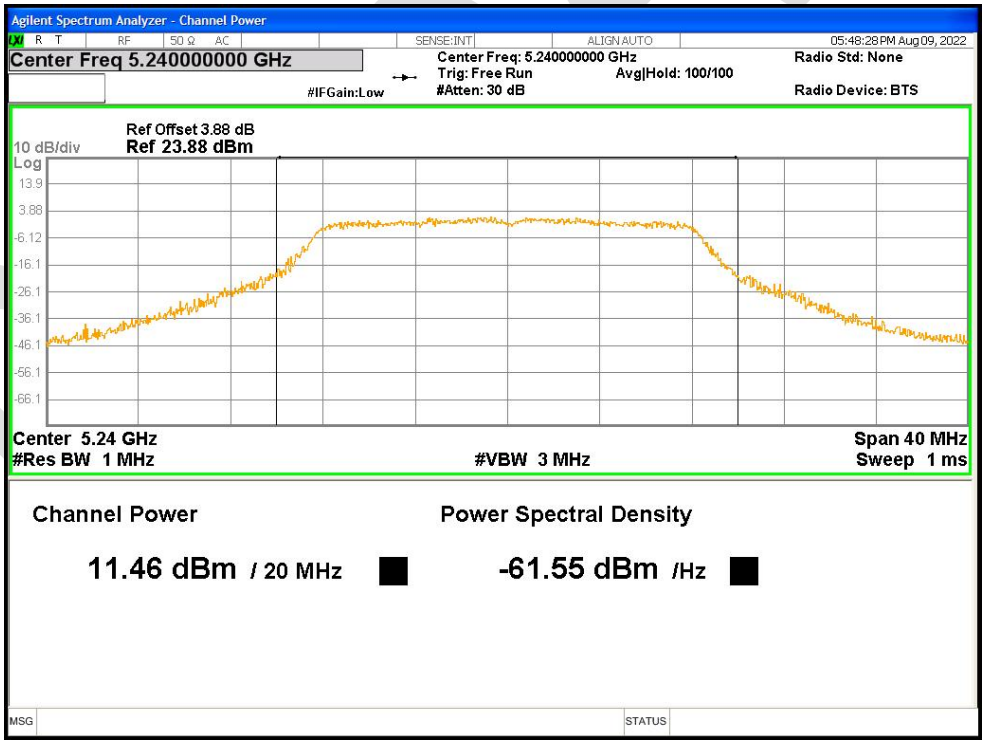
Power NVNT a 5200MHz Ant2



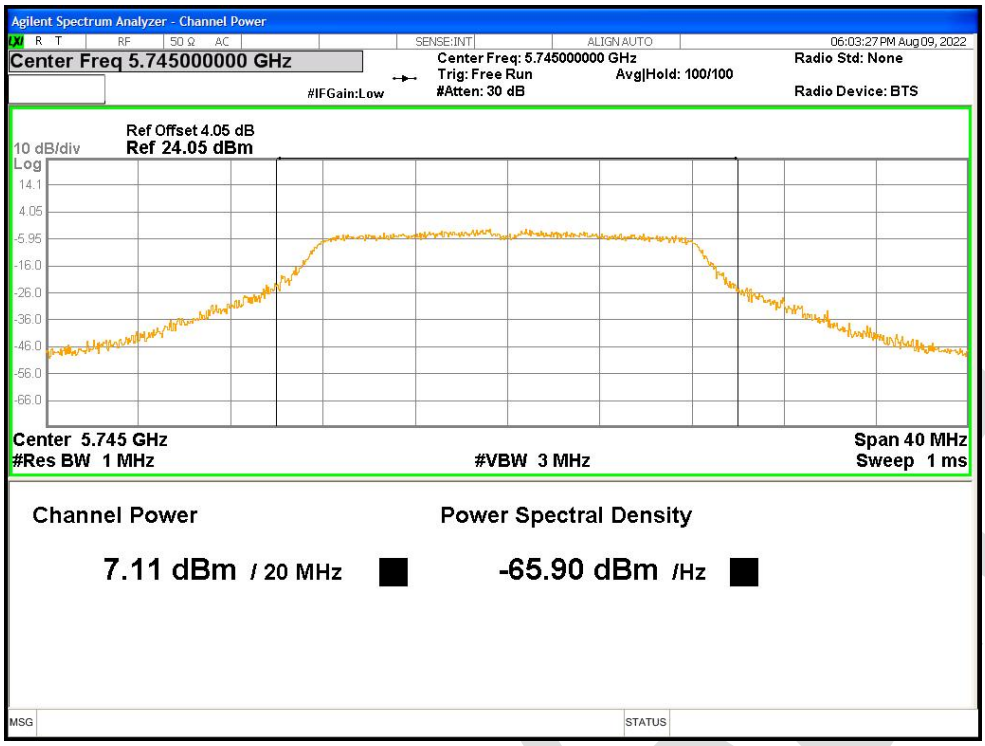
Power NVNT a 5240MHz Ant2



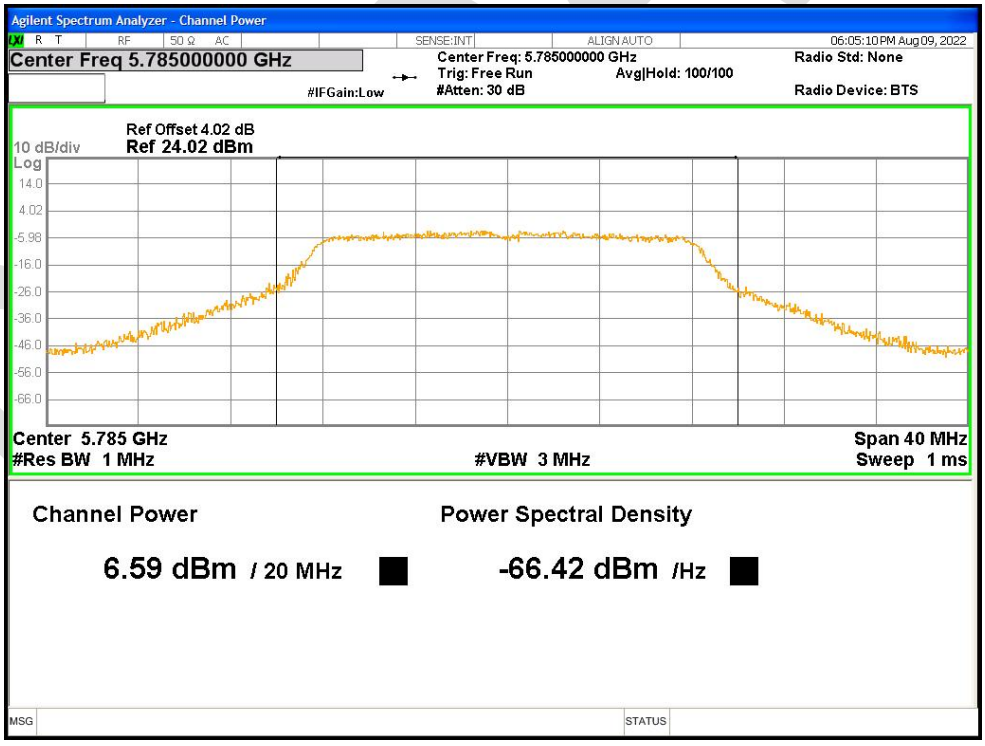
Power NVNT a 5240MHz Ant2



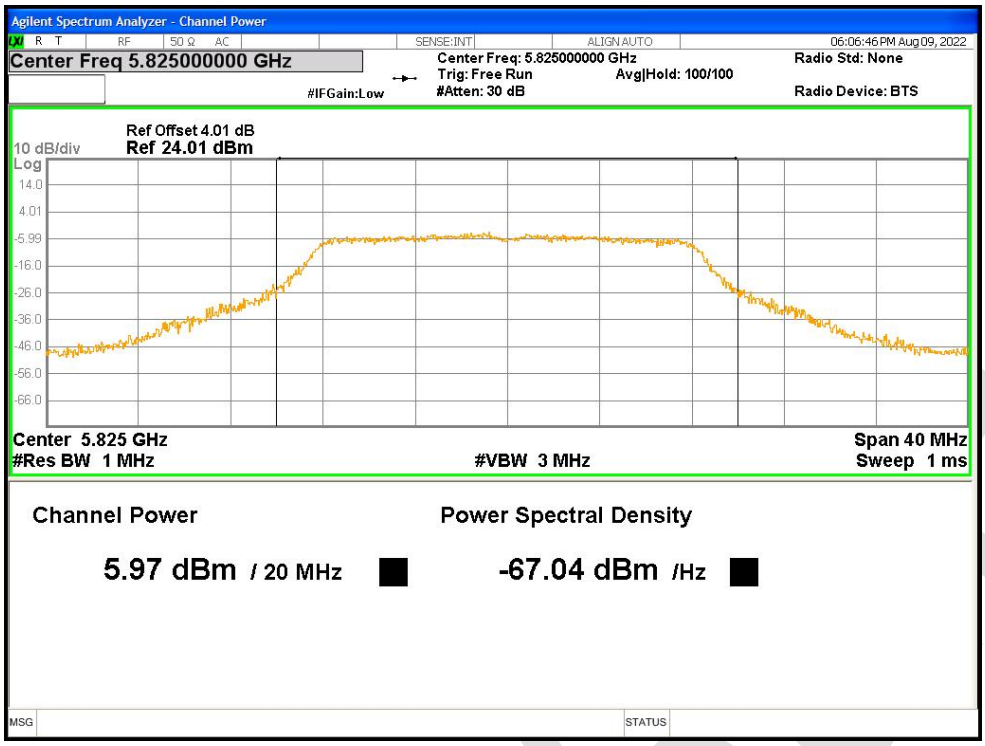
Power NVNT a 5745MHz Ant2



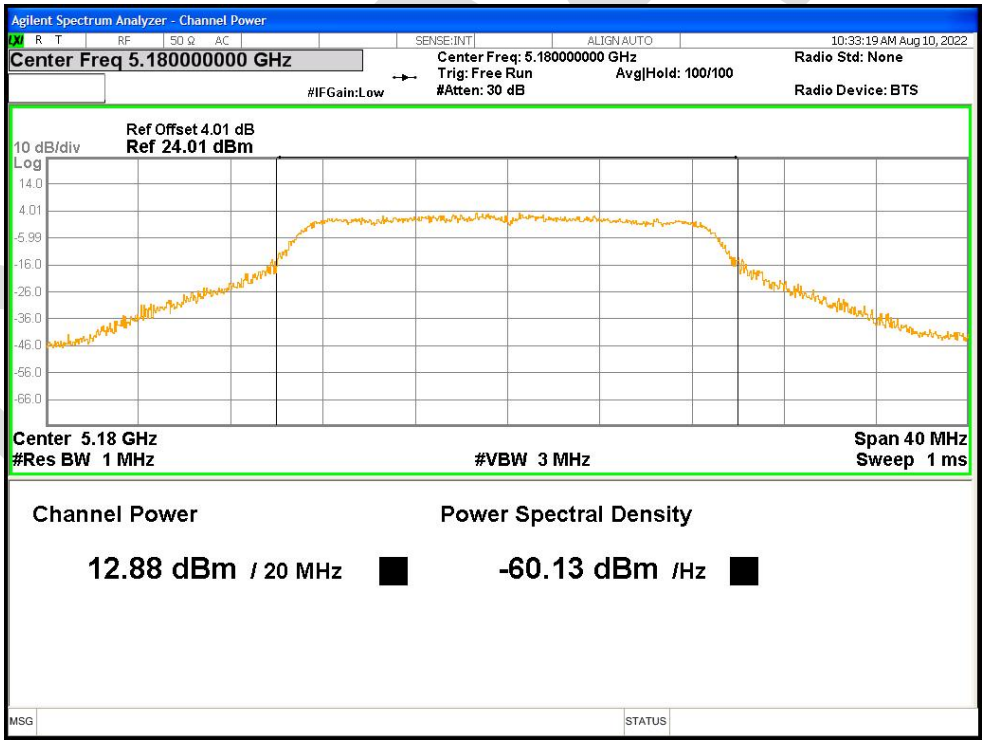
Power NVNT a 5785MHz Ant2



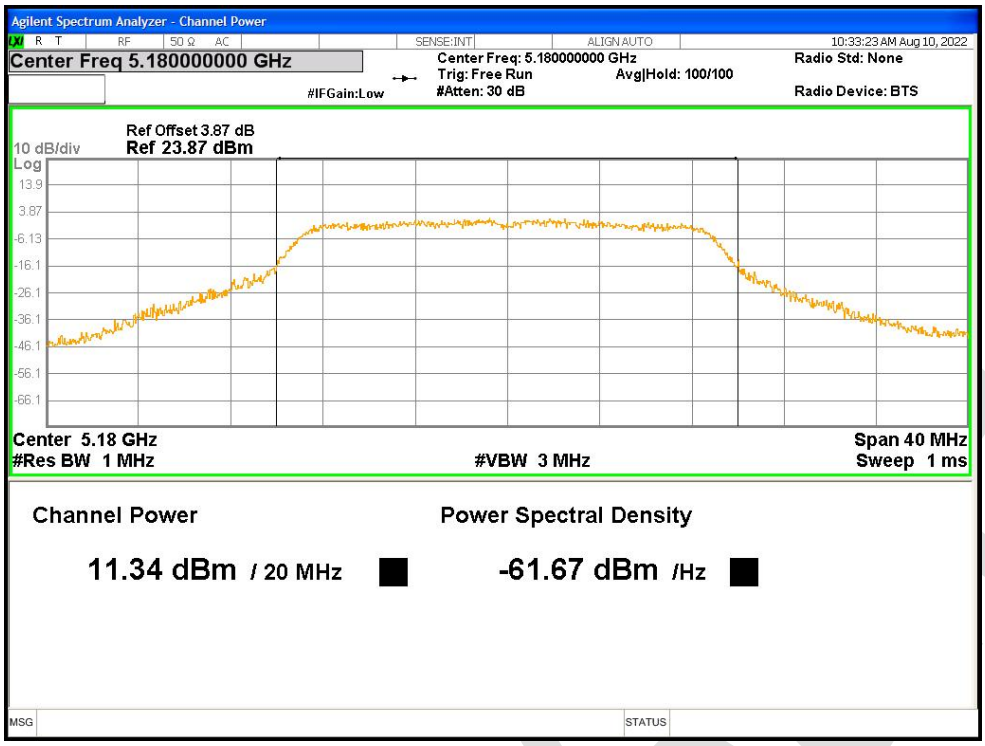
Power NVNT a 5825MHz Ant2



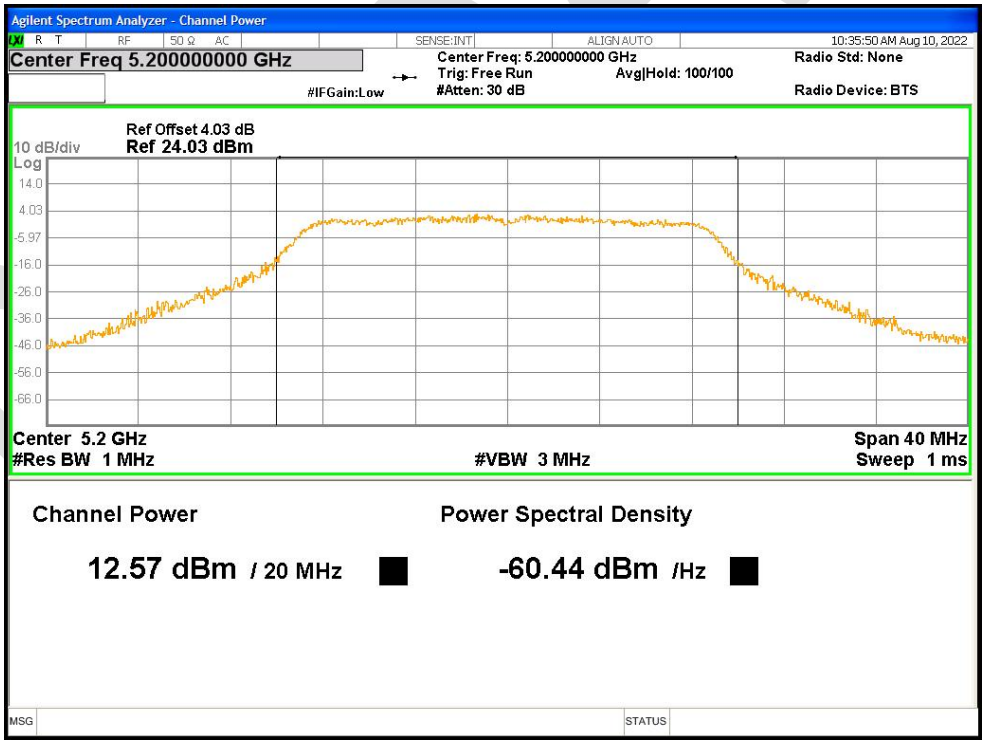
Power NVNT ac20 5180MHz Ant1



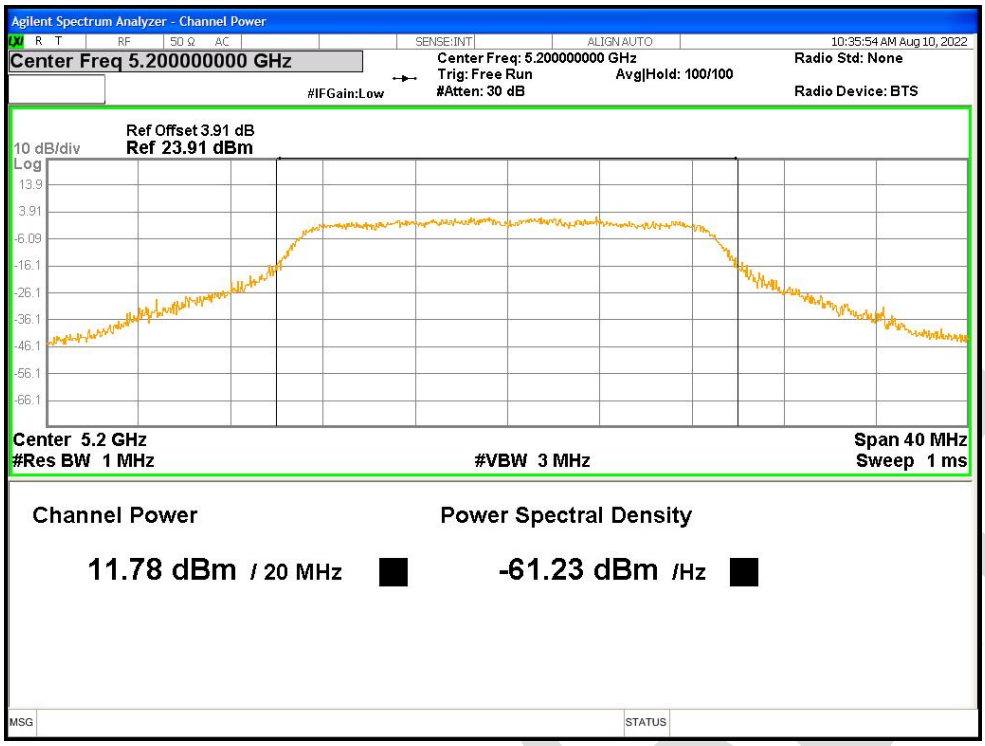
Power NVNT ac20 5180MHz Ant2



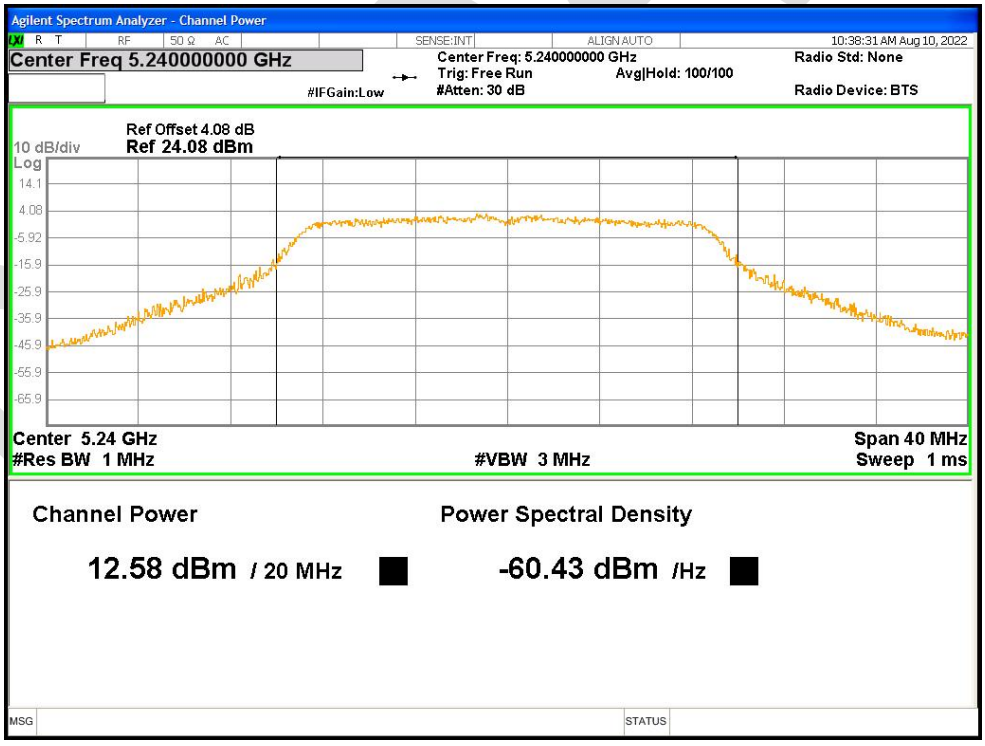
Power NVNT ac20 5200MHz Ant1



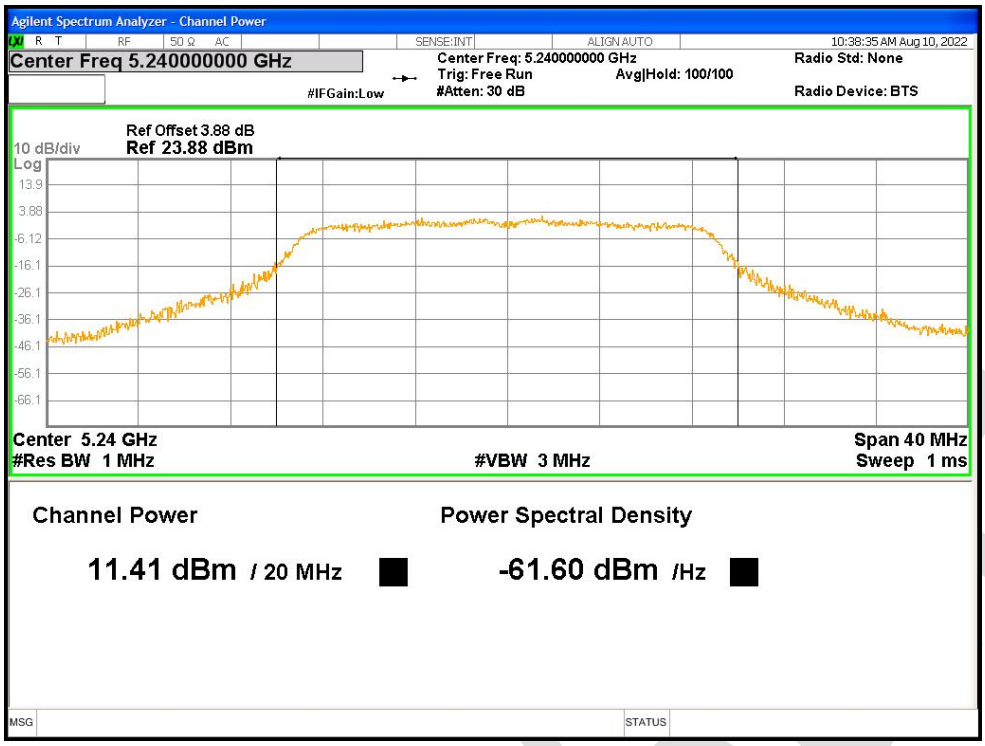
Power NVNT ac20 5200MHz Ant2



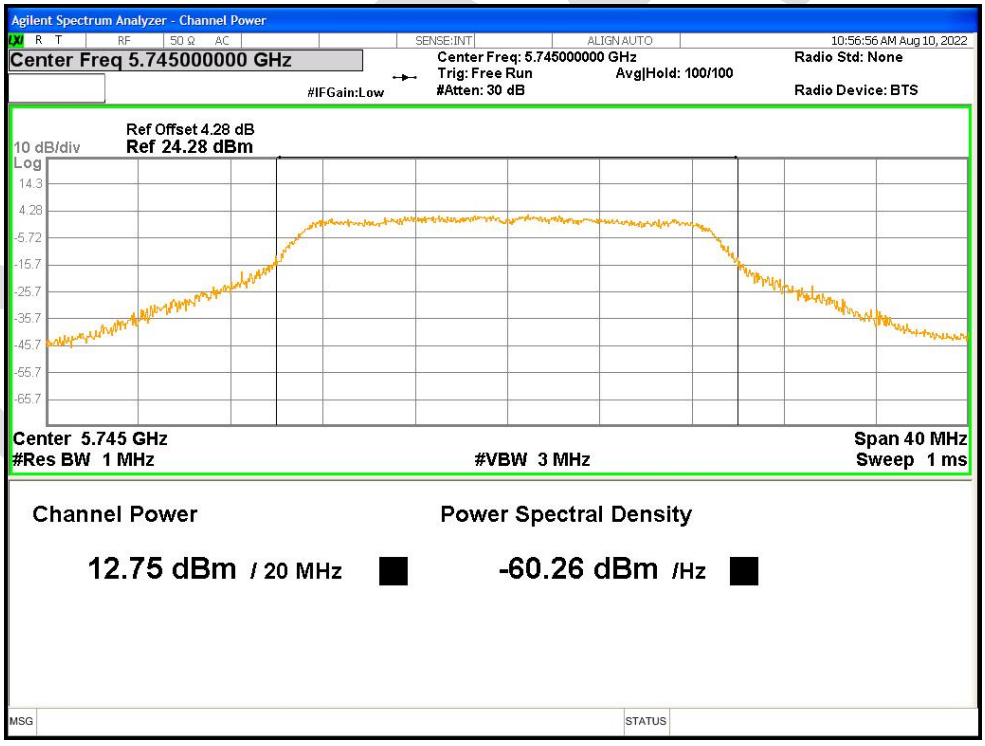
Power NVNT ac20 5240MHz Ant1



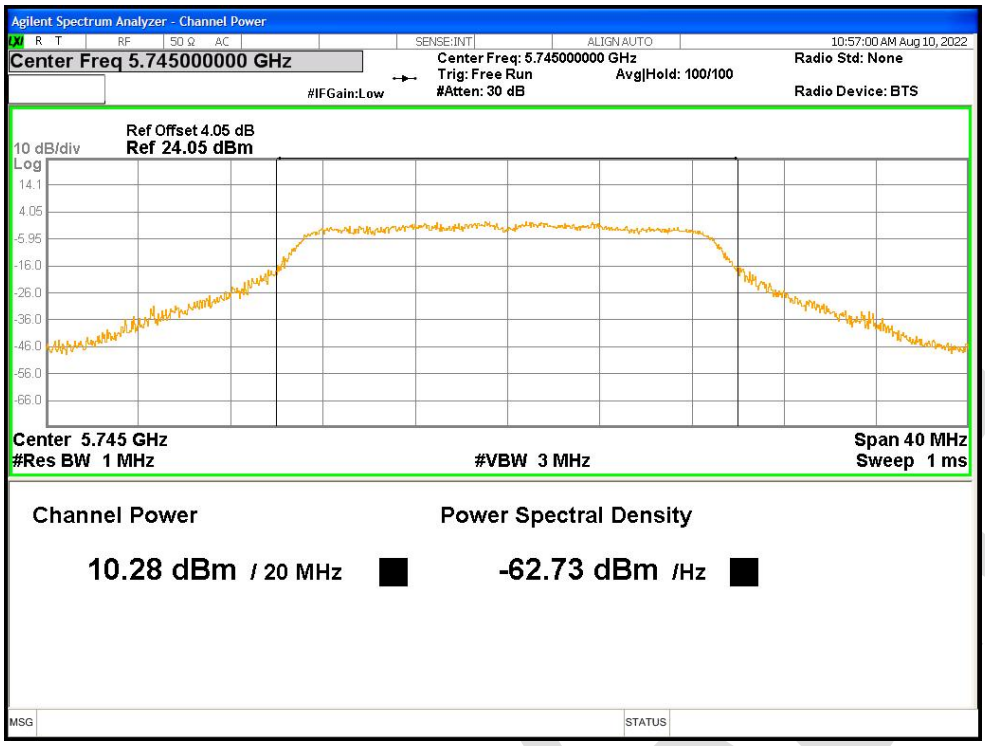
Power NVNT ac20 5240MHz Ant2



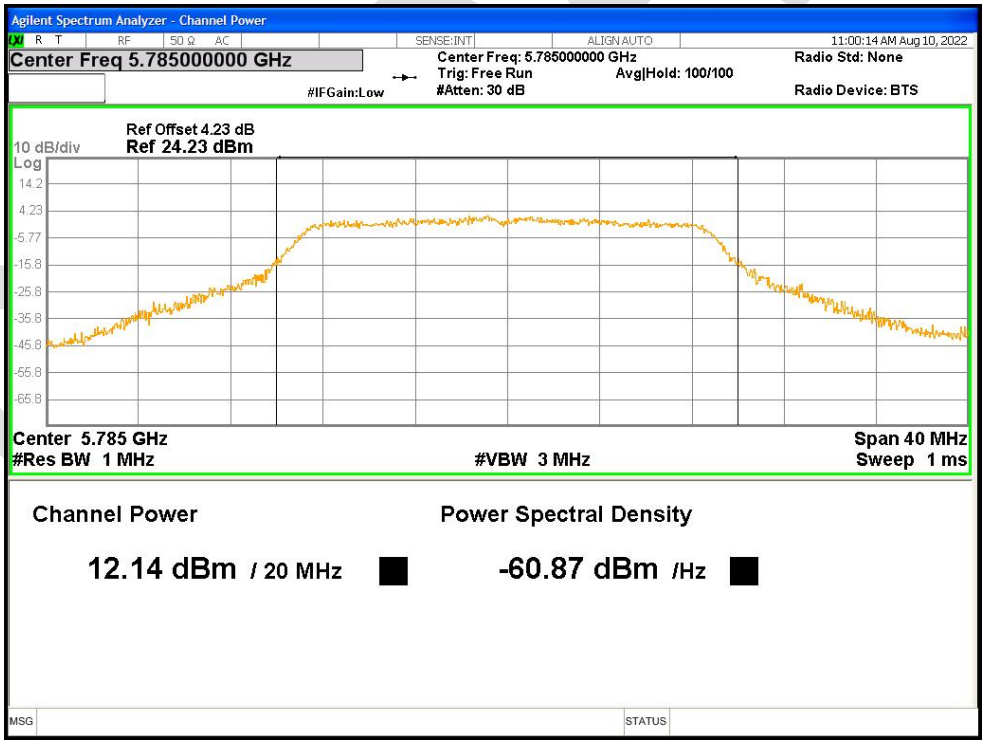
Power NVNT ac20 5745MHz Ant1



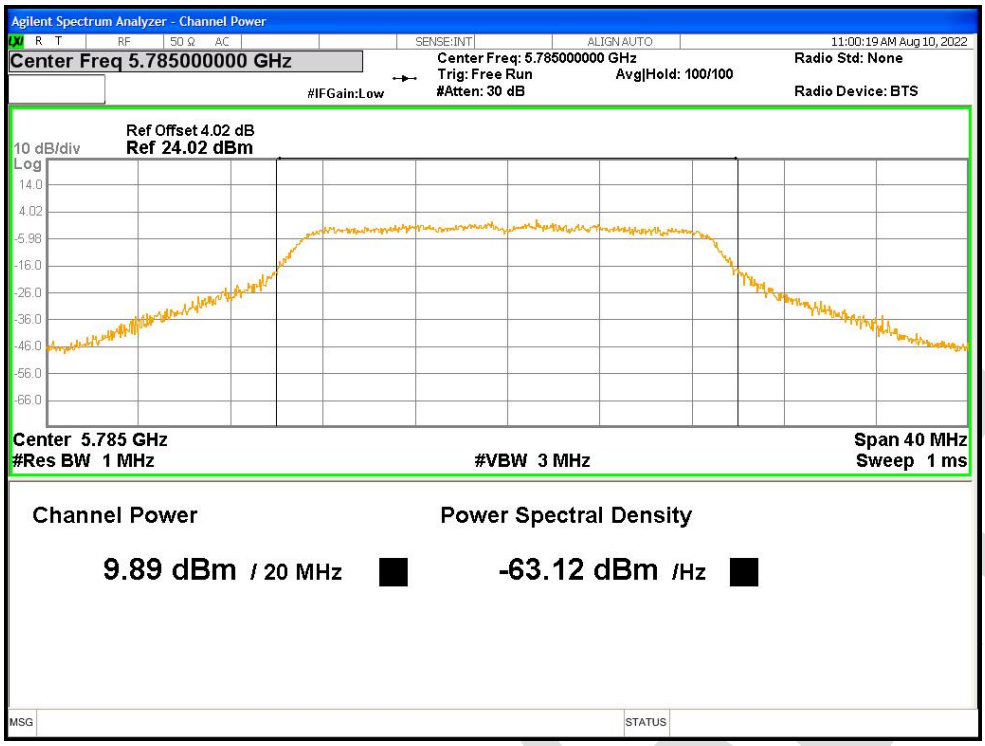
Power NVNT ac20 5745MHz Ant2



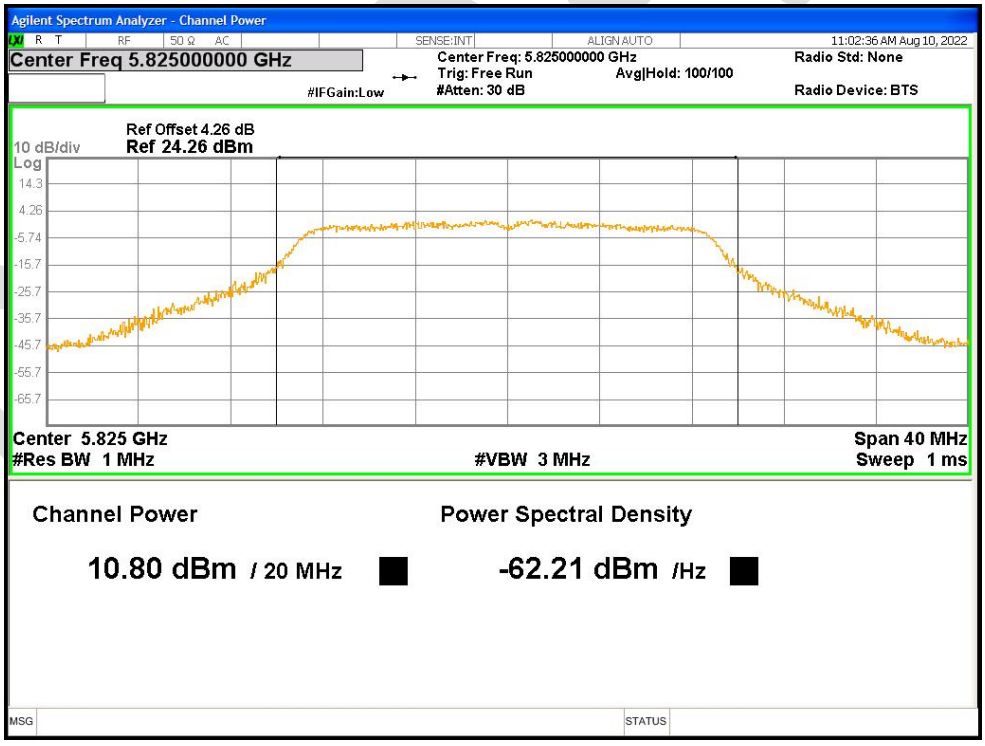
Power NVNT ac20 5785MHz Ant1



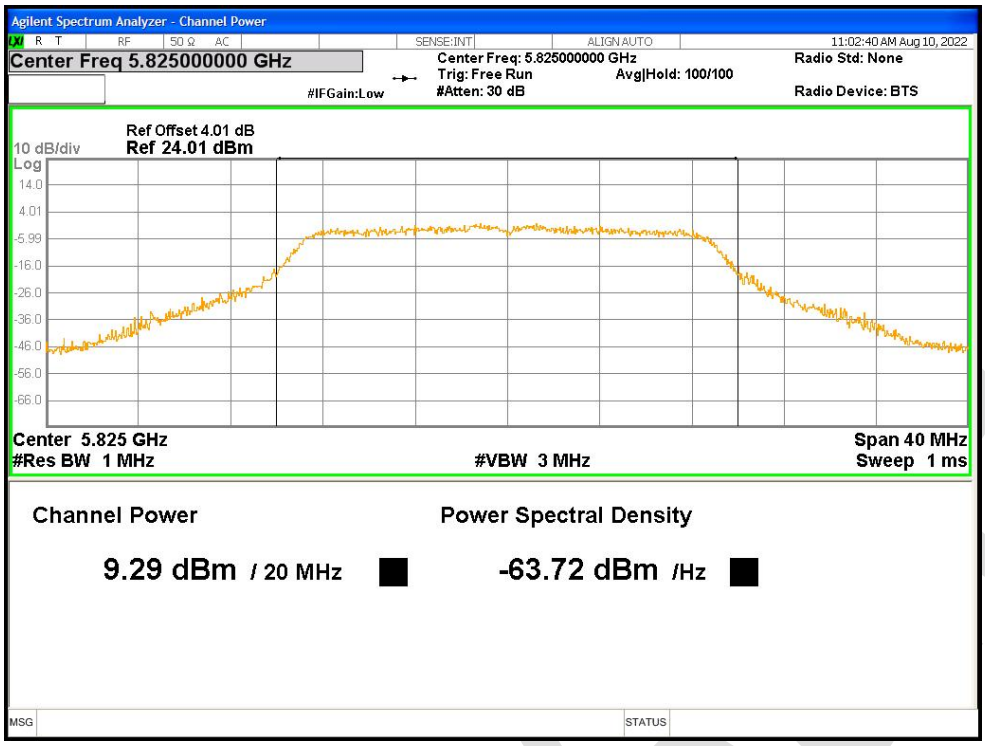
Power NVNT ac20 5785MHz Ant2



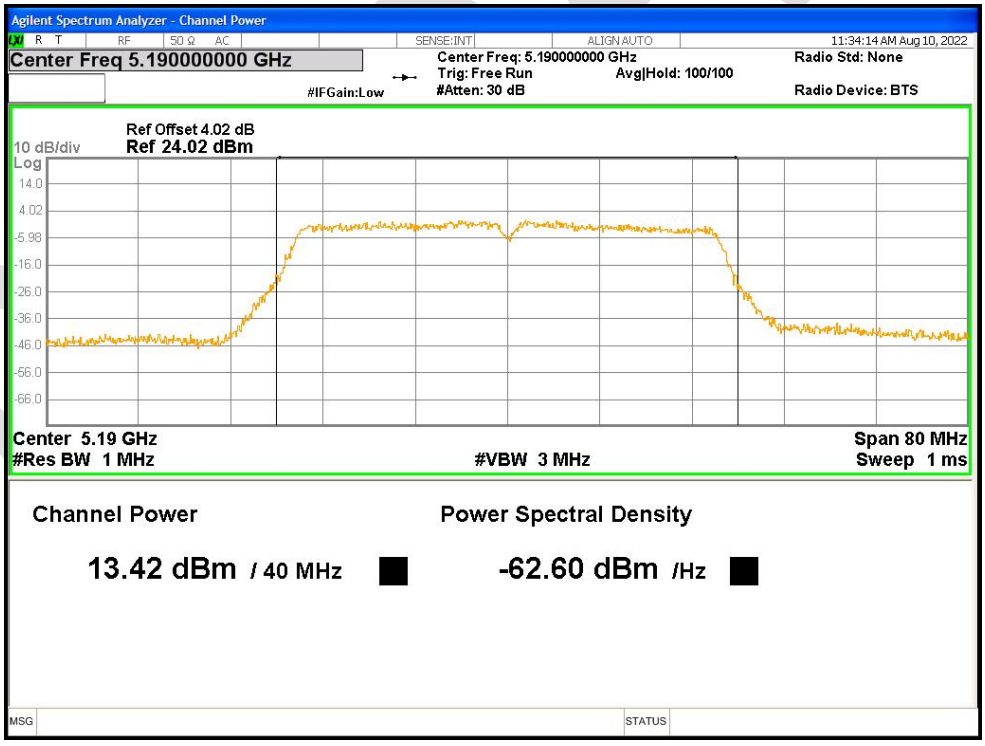
Power NVNT ac20 5825MHz Ant1



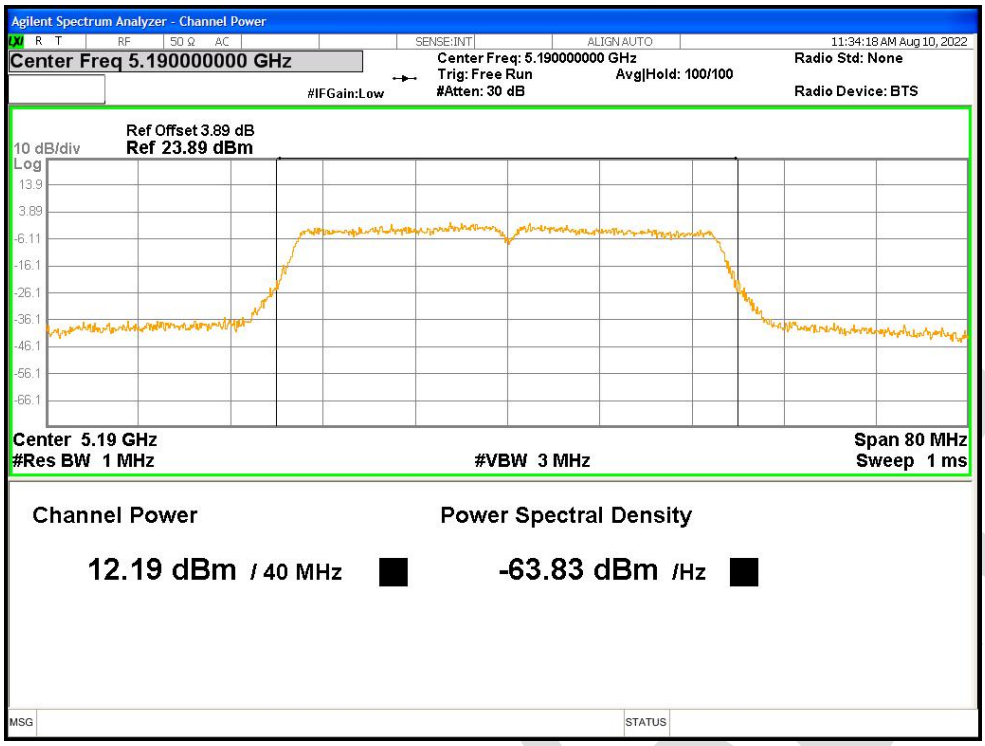
Power NVNT ac20 5825MHz Ant2



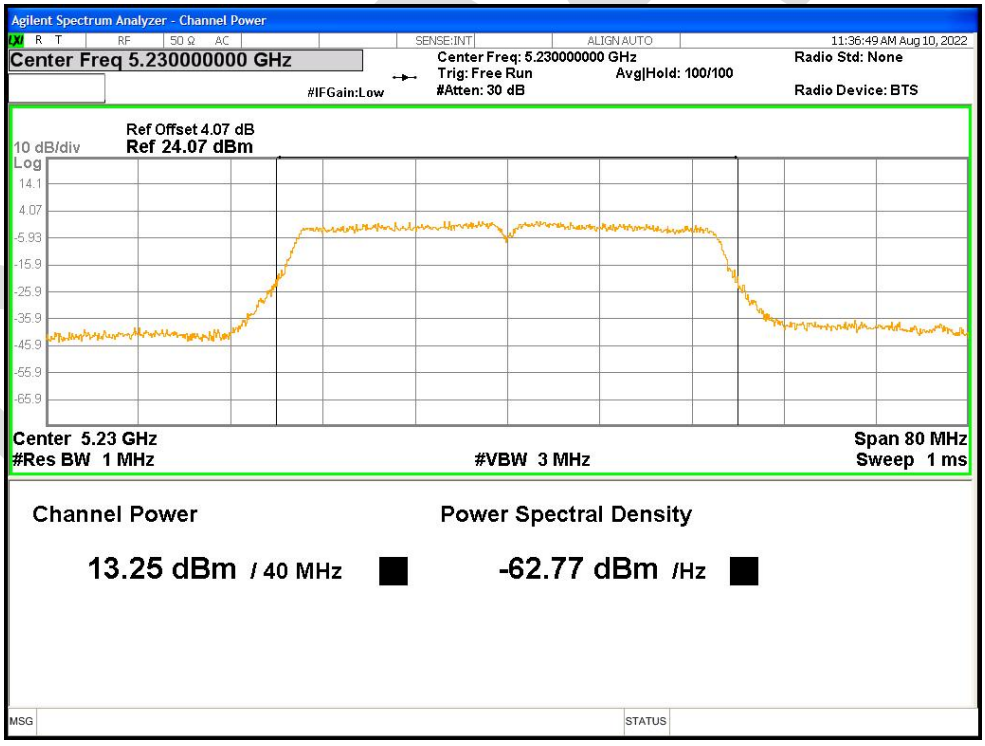
Power NVNT ac40 5190MHz Ant1



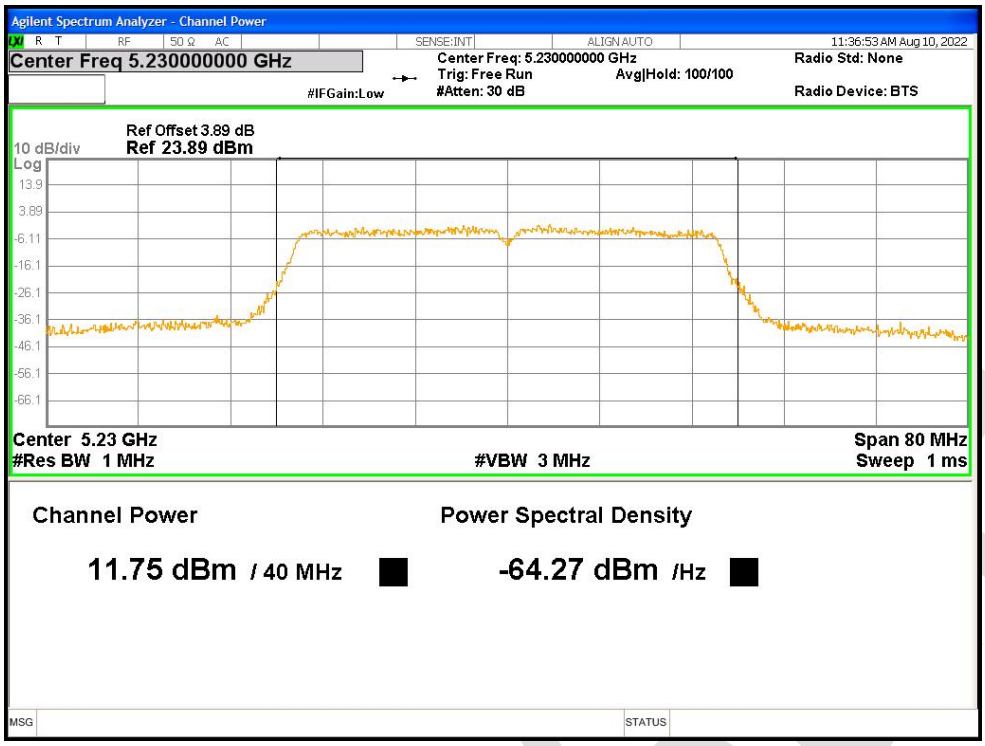
Power NVNT ac40 5190MHz Ant2



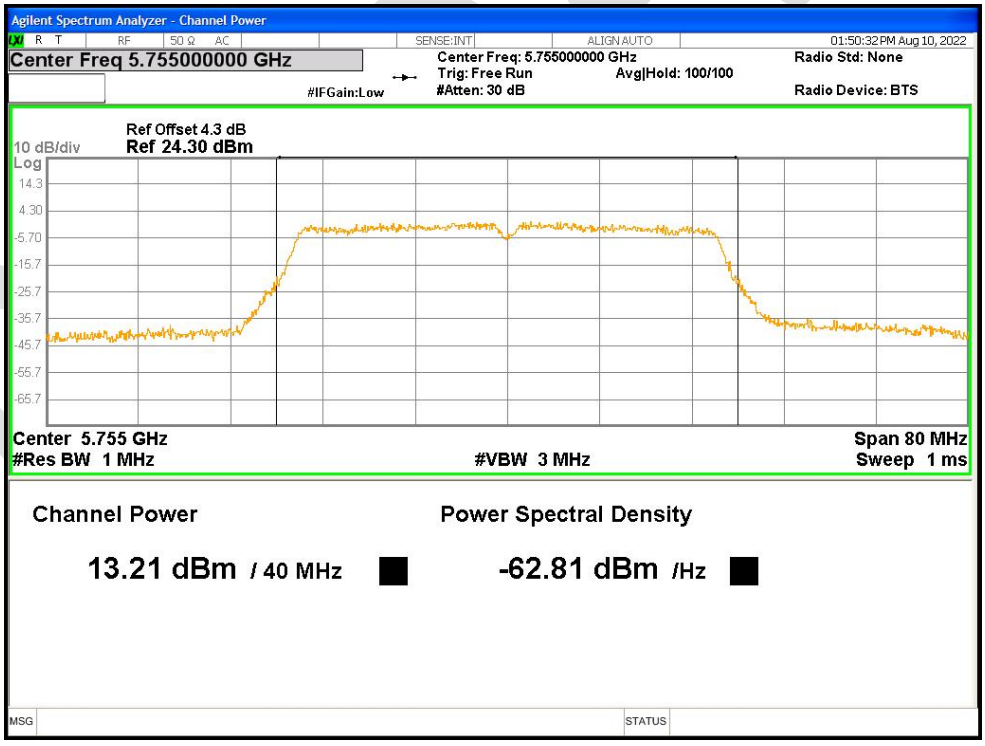
Power NVNT ac40 5230MHz Ant1



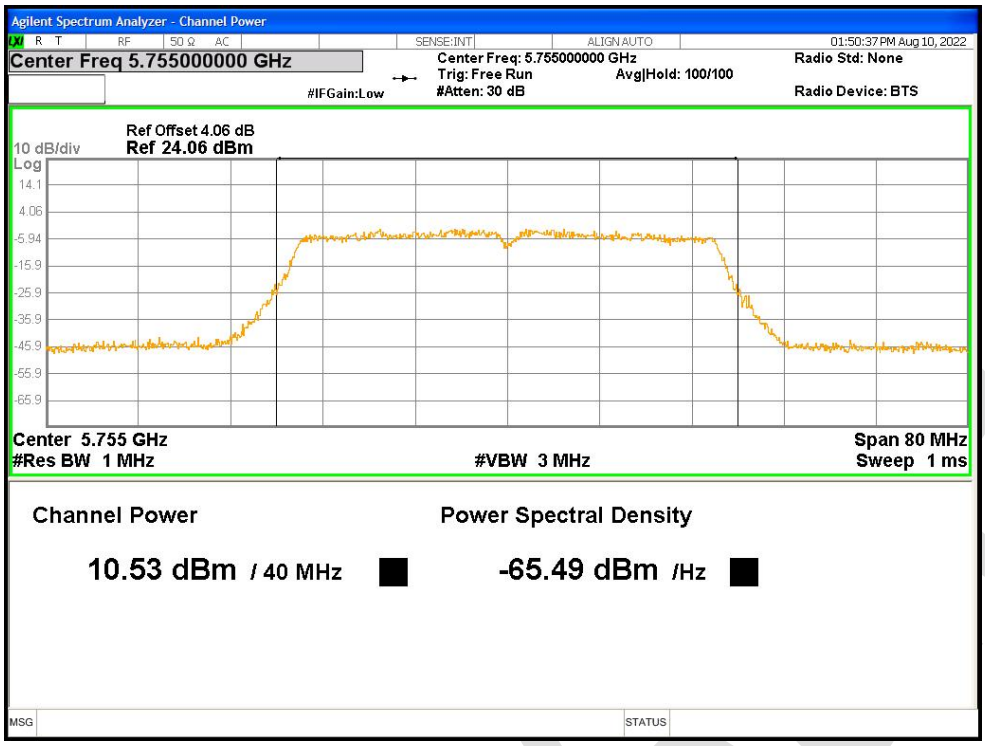
Power NVNT ac40 5230MHz Ant2



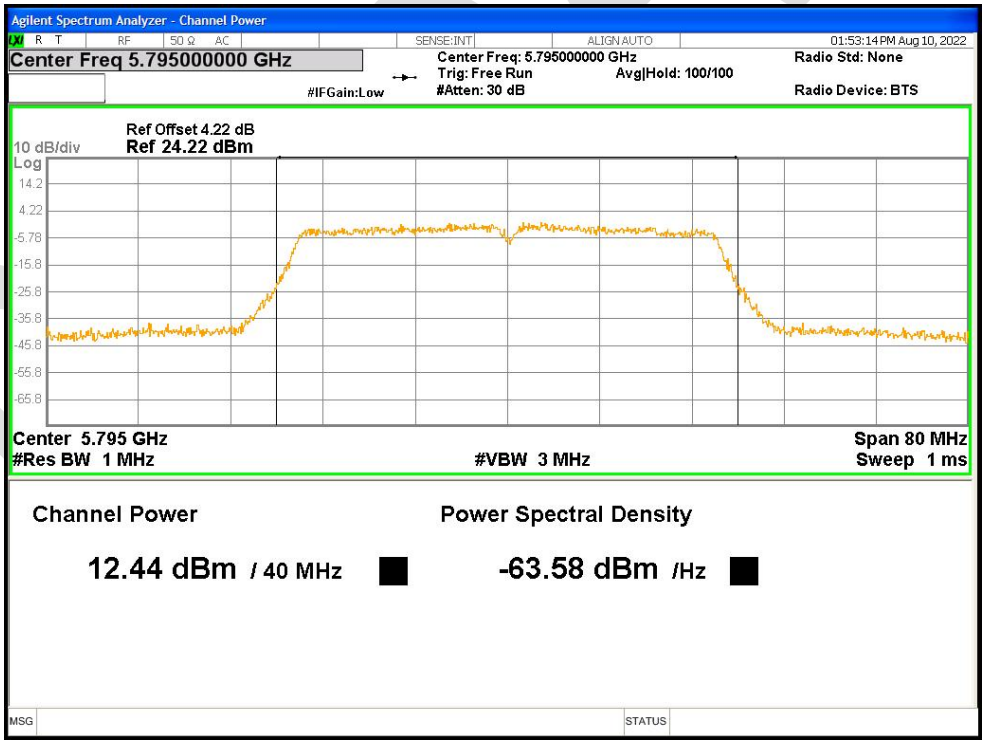
Power NVNT ac40 5755MHz Ant1



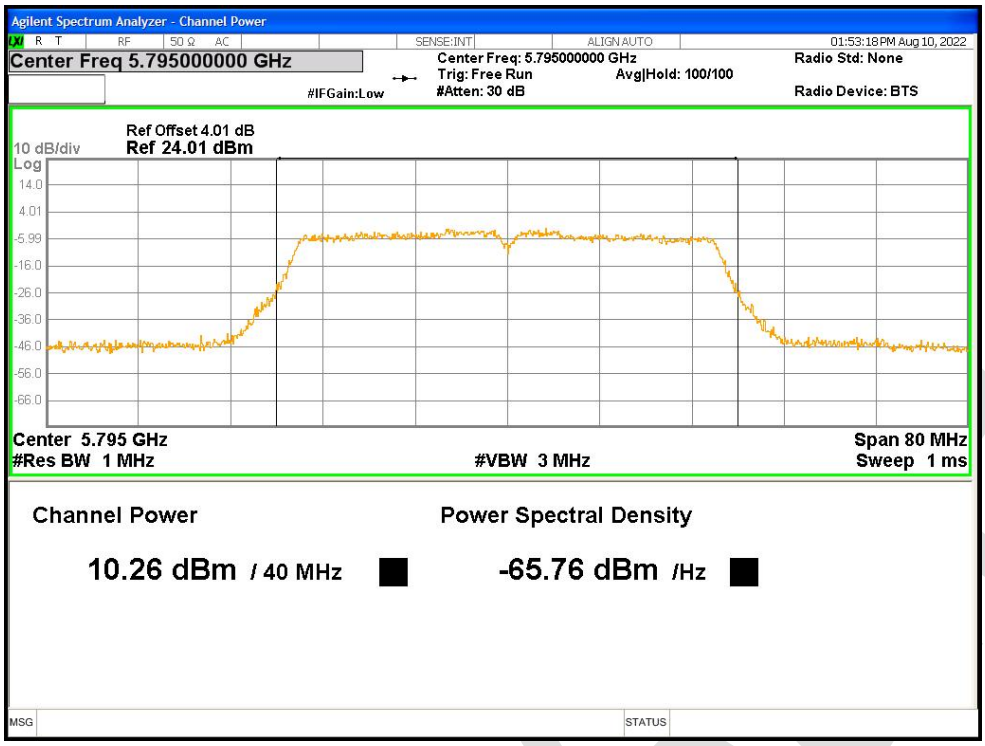
Power NVNT ac40 5755MHz Ant2



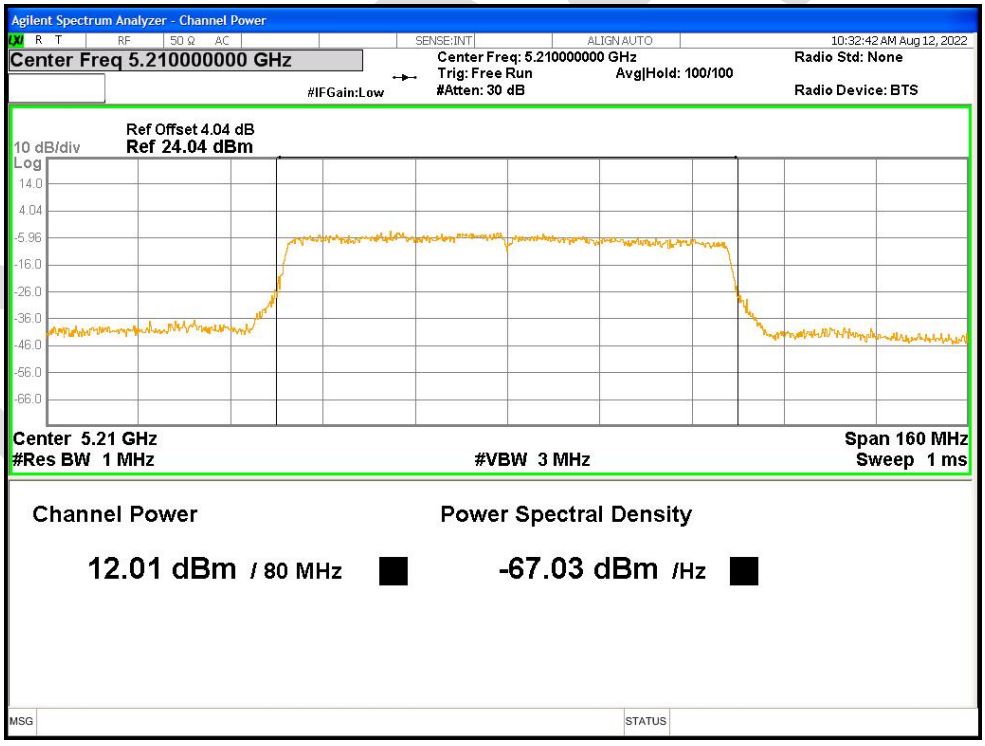
Power NVNT ac40 5795MHz Ant1



Power NVNT ac40 5795MHz Ant2



Power NVNT ac80 5210MHz Ant1



Power NVNT ac80 5210MHz Ant2