

APPENDIX 5.8G WIFI RF Test Data

Product Name: Automotive AI

Test Model: DGSD201

Environmental Conditions

Temperature:	23.8℃
Relative Humidity:	52%
ATM Pressure:	101.0 kPa
Test Engineer:	Leon Li
Supervised by:	Baret Wu



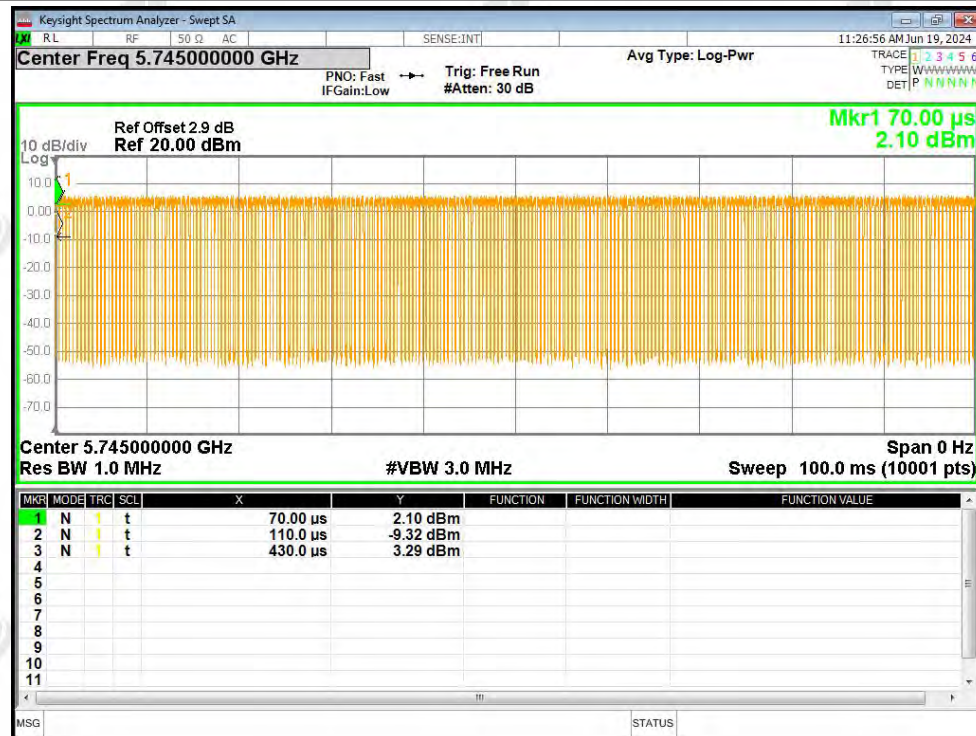
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5745	Ant1	88.89	0.51	3.13
NVNT	a	5785	Ant1	71.11	1.48	3.13
NVNT	a	5825	Ant1	41.03	3.87	3.12
NVNT	n20	5745	Ant1	90.87	0.42	0.53
NVNT	n20	5785	Ant1	97.44	0.11	0.53
NVNT	n20	5825	Ant1	90	0.46	0.53
NVNT	n40	5755	Ant1	94.9	0.23	1.08
NVNT	n40	5795	Ant1	75.61	1.21	1.08
NVNT	ac20	5745	Ant1	92.68	0.33	0.53
NVNT	ac20	5785	Ant1	97.45	0.11	0.52
NVNT	ac20	5825	Ant1	96.45	0.16	0.53
NVNT	ac40	5755	Ant1	91.26	0.4	1.06
NVNT	ac40	5795	Ant1	90.38	0.44	1.06
NVNT	ax20	5745	Ant1	91.25	0.4	0.68
NVNT	ax20	5785	Ant1	93.55	0.29	0.69
NVNT	ax20	5825	Ant1	93.55	0.29	0.69
NVNT	ax40	5755	Ant1	81.52	0.89	1.33
NVNT	ax40	5795	Ant1	79.79	0.98	1.33

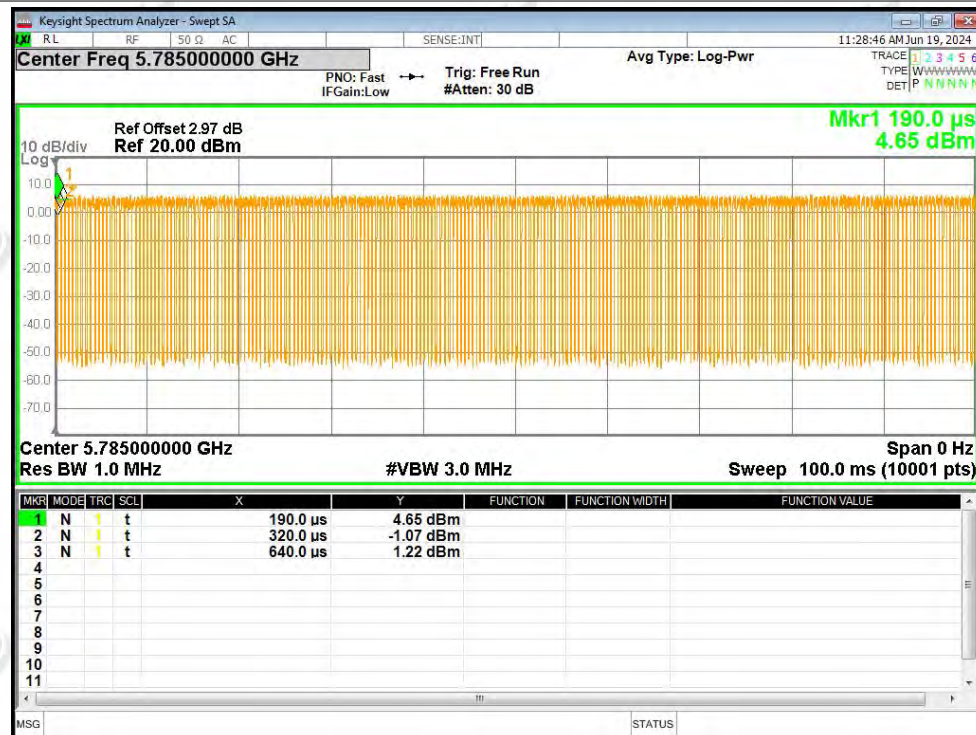


Test Graphs

Duty Cycle NVNT a 5745MHz Ant1

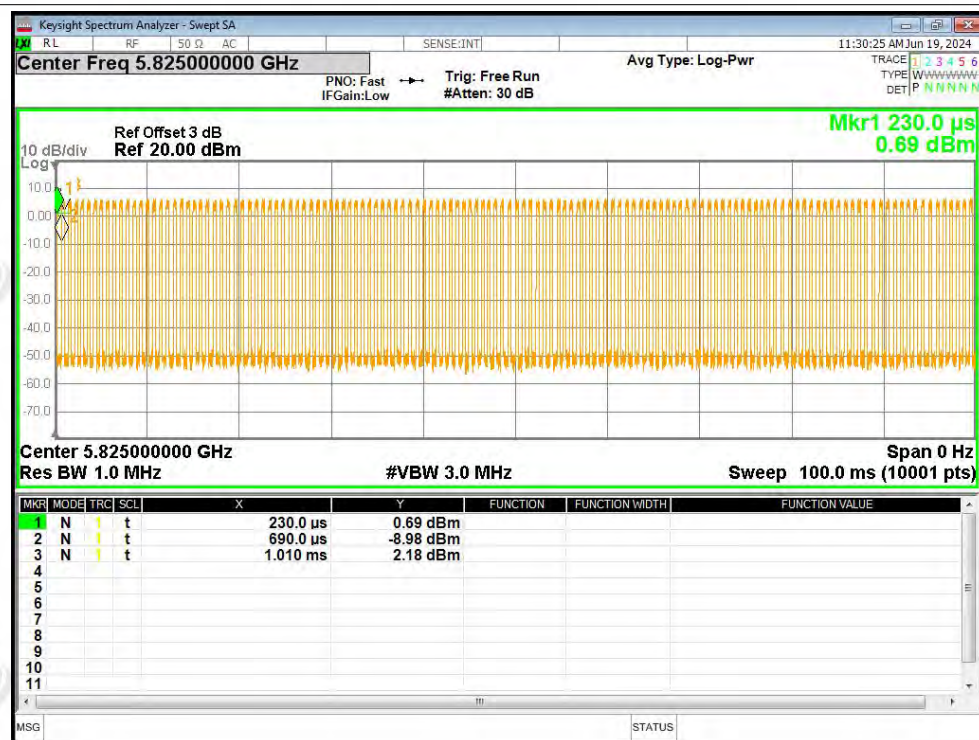


Duty Cycle NVNT a 5785MHz Ant1





Duty Cycle NVNT a 5825MHz Ant1

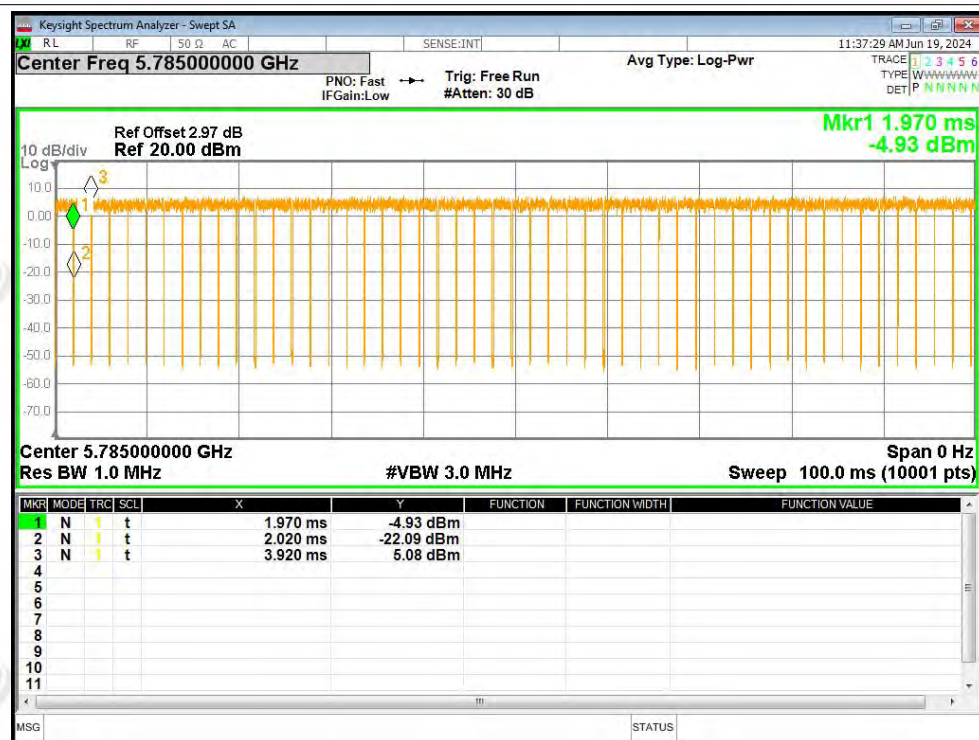


Duty Cycle NVNT n20 5745MHz Ant1

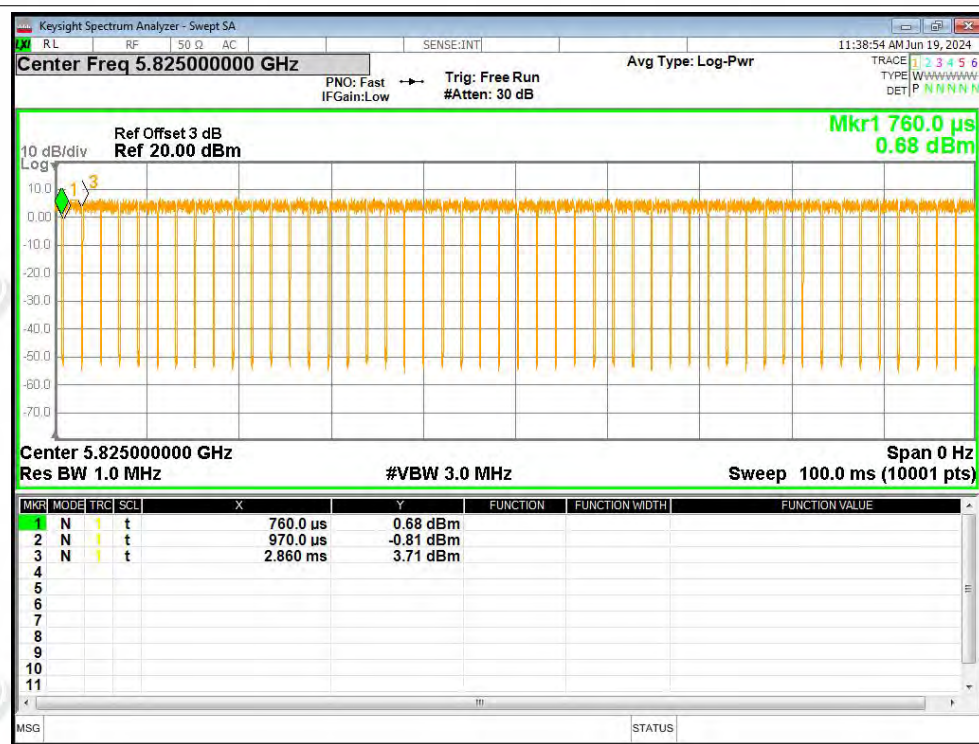




Duty Cycle NVNT n20 5785MHz Ant1

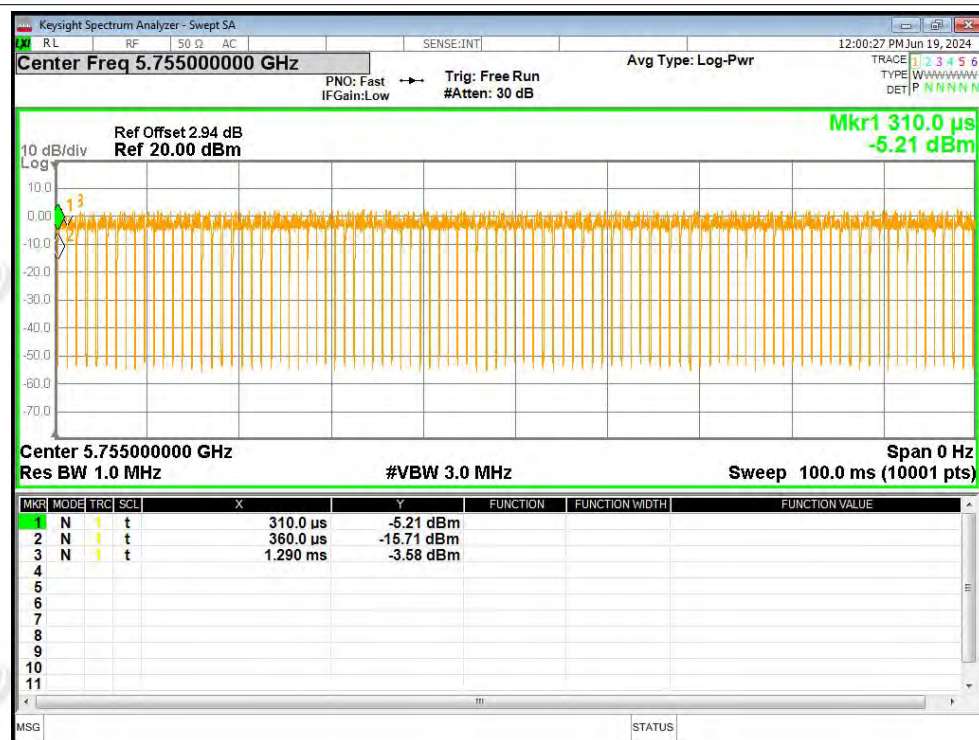


Duty Cycle NVNT n20 5825MHz Ant1

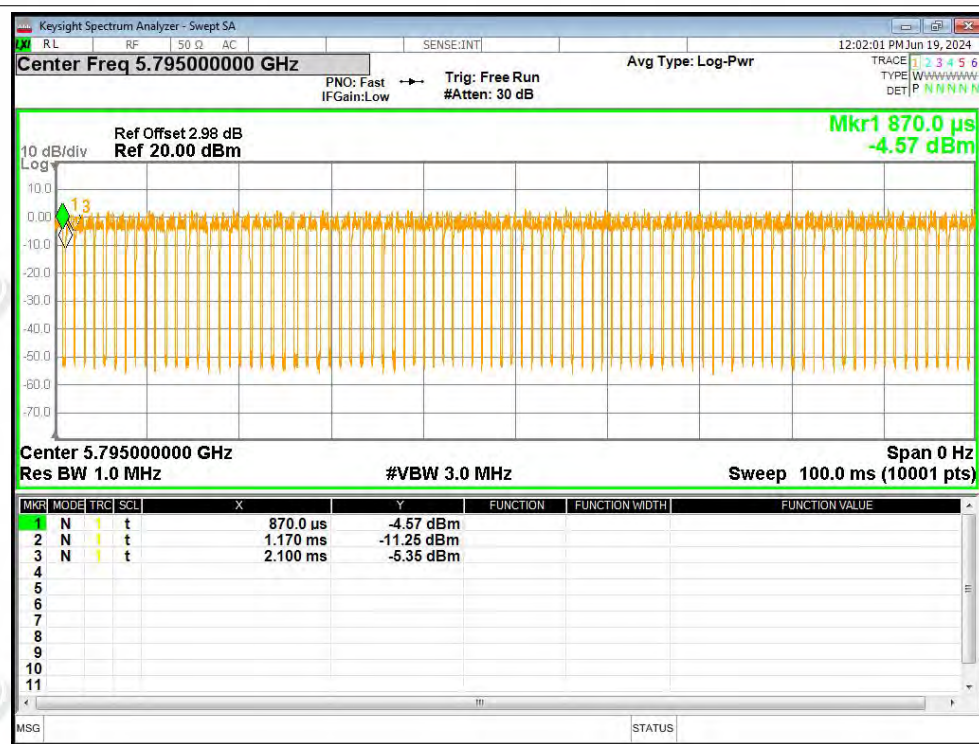




Duty Cycle NVNT n40 5755MHz Ant1

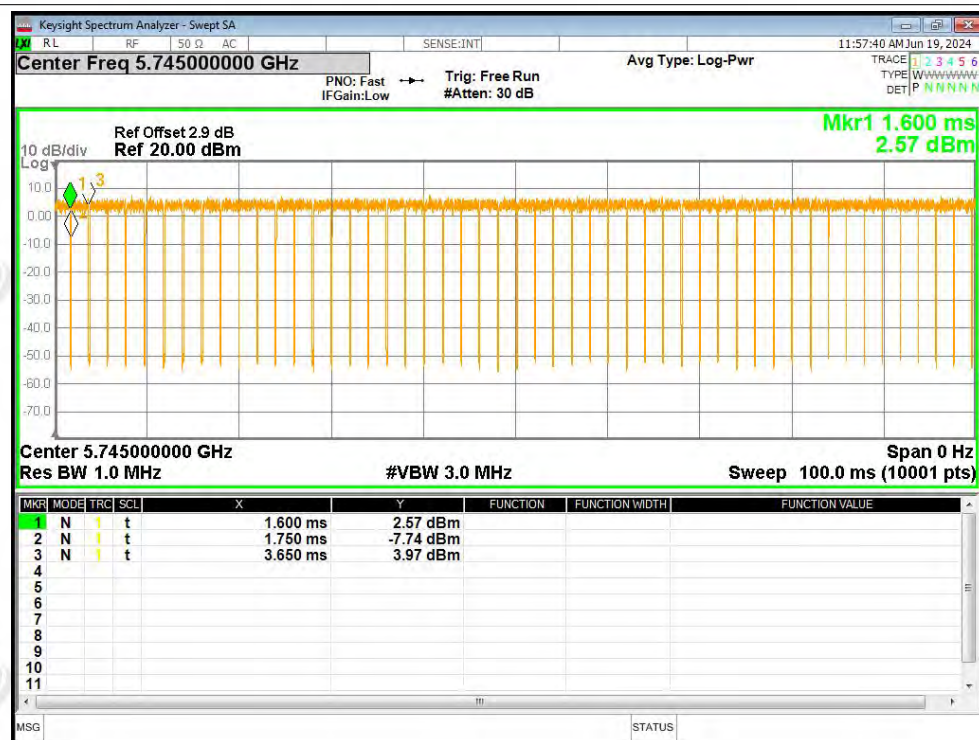


Duty Cycle NVNT n40 5795MHz Ant1

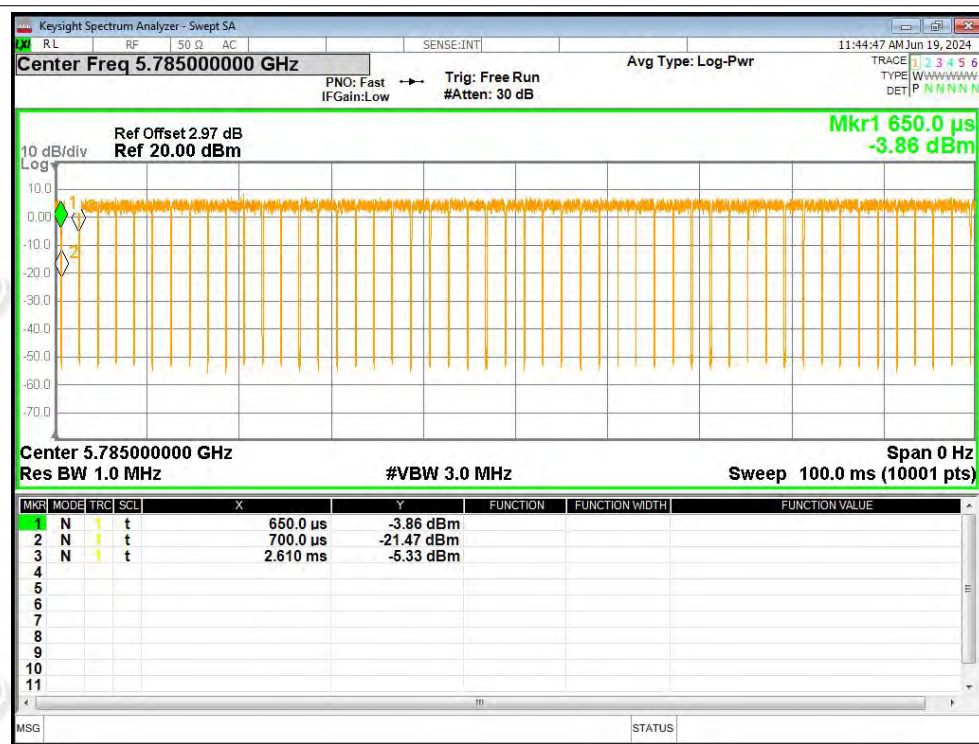




Duty Cycle NVNT ac20 5745MHz Ant1

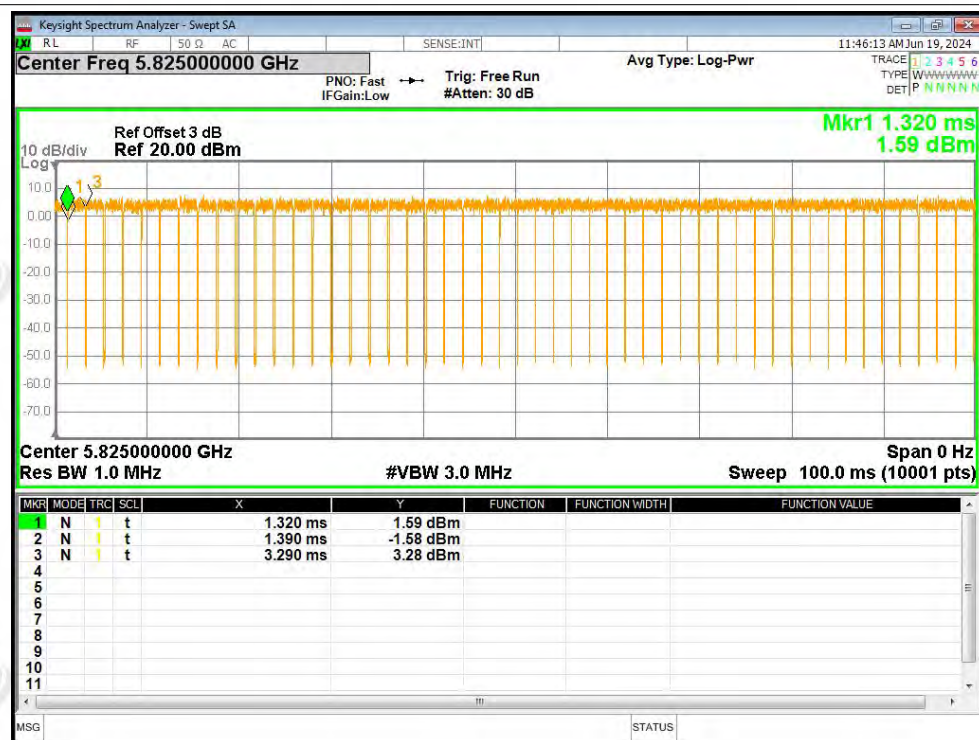


Duty Cycle NVNT ac20 5785MHz Ant1

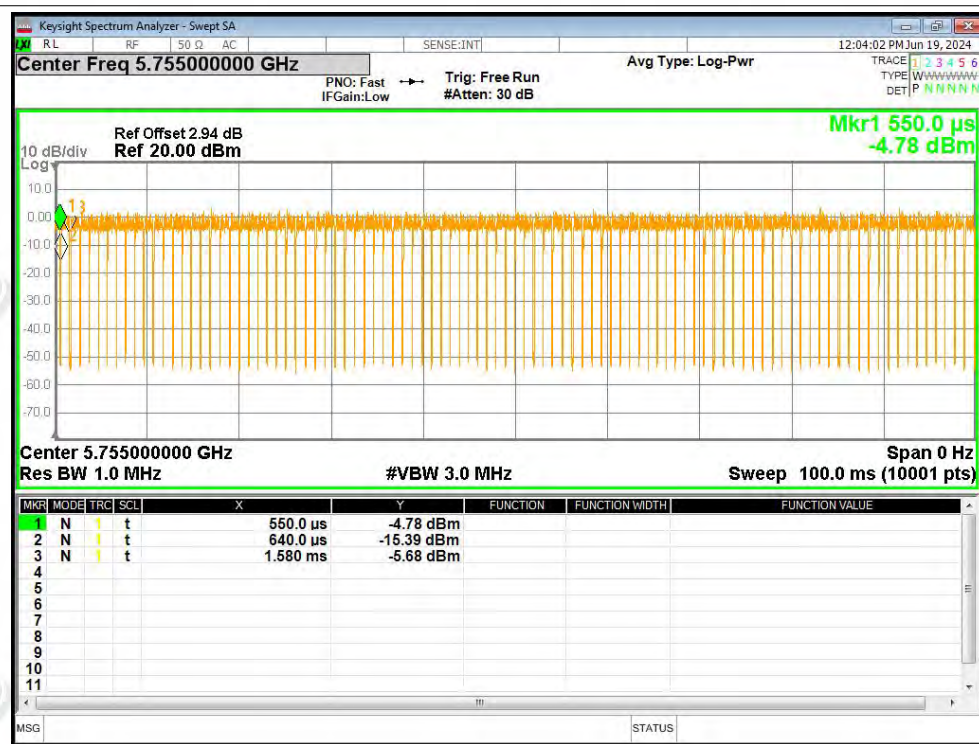




Duty Cycle NVNT ac20 5825MHz Ant1

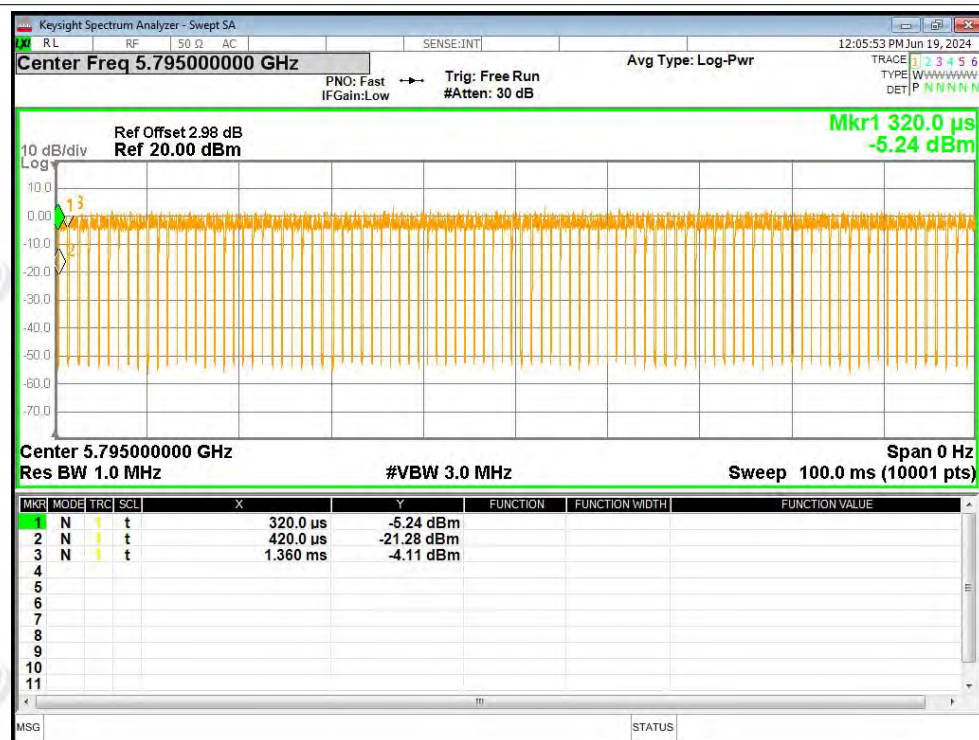


Duty Cycle NVNT ac40 5755MHz Ant1

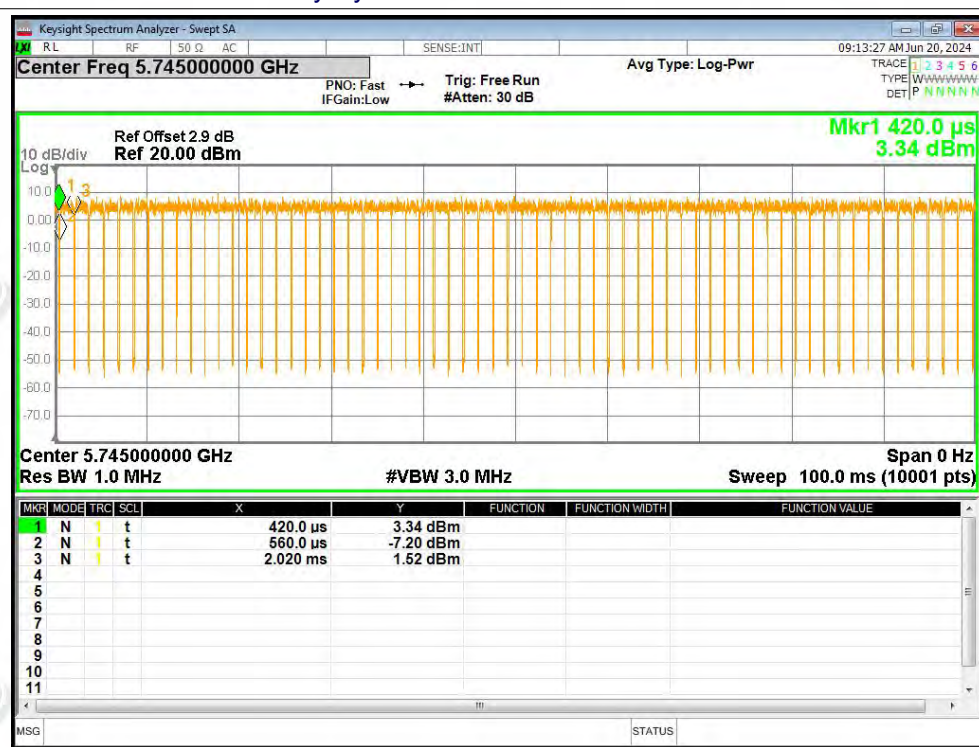




Duty Cycle NVNT ac40 5795MHz Ant1

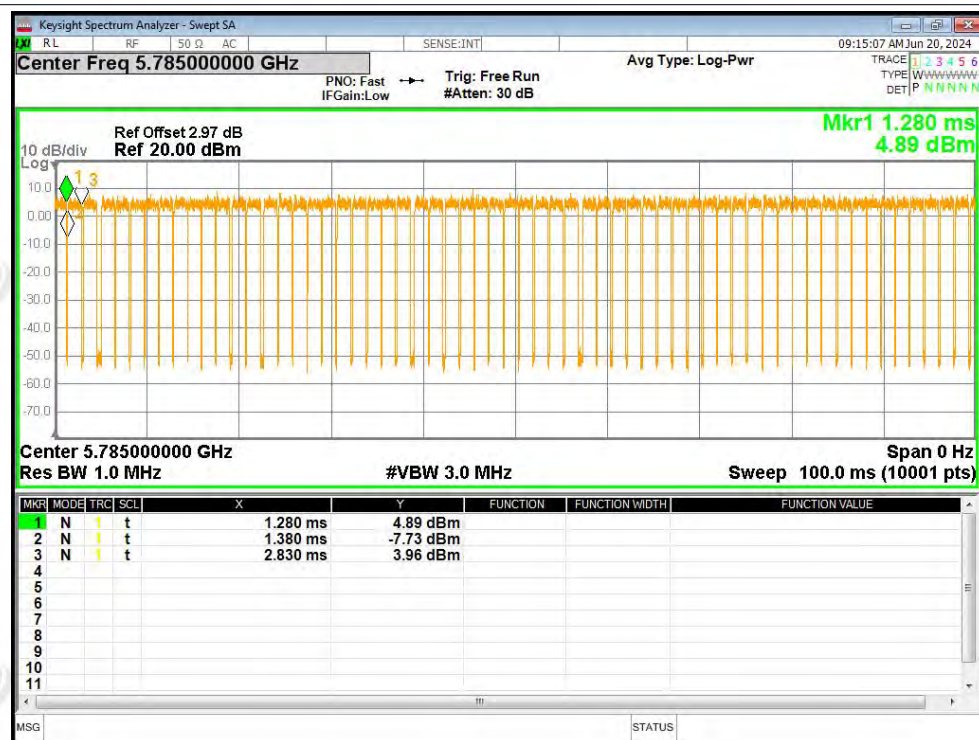


Duty Cycle NVNT ax20 5745MHz Ant1

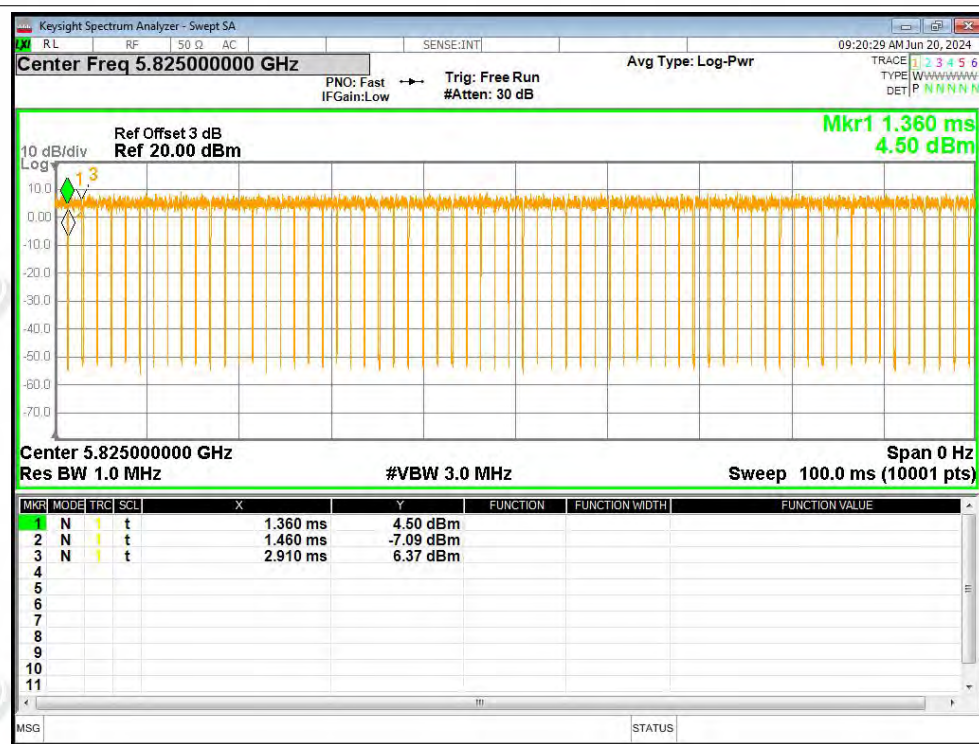




Duty Cycle NVNT ax20 5785MHz Ant1

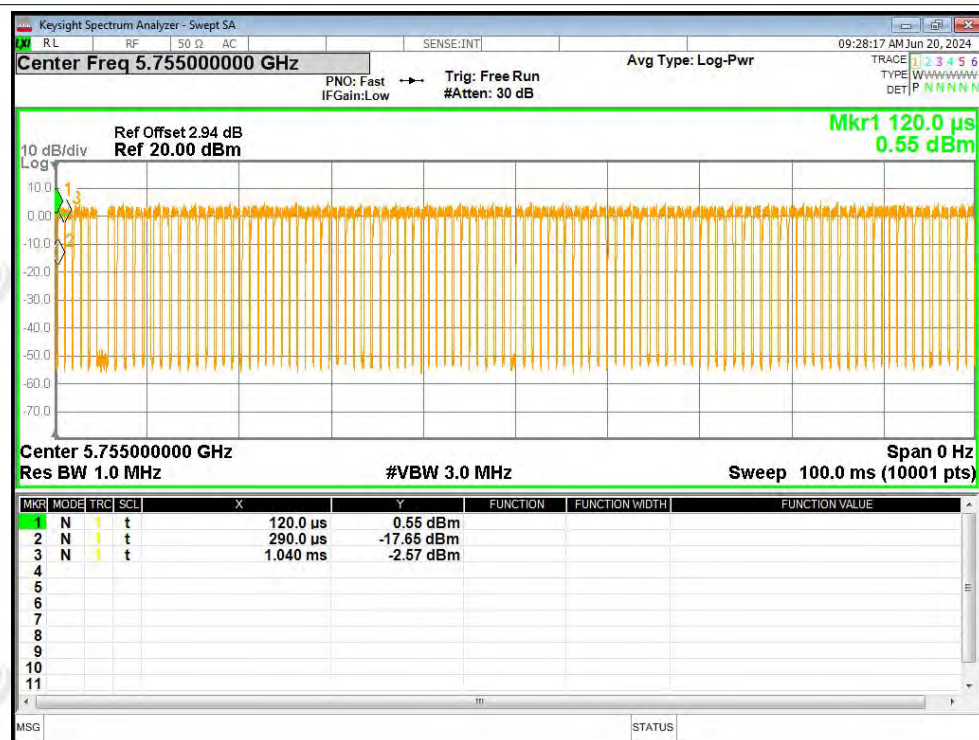


Duty Cycle NVNT ax20 5825MHz Ant1

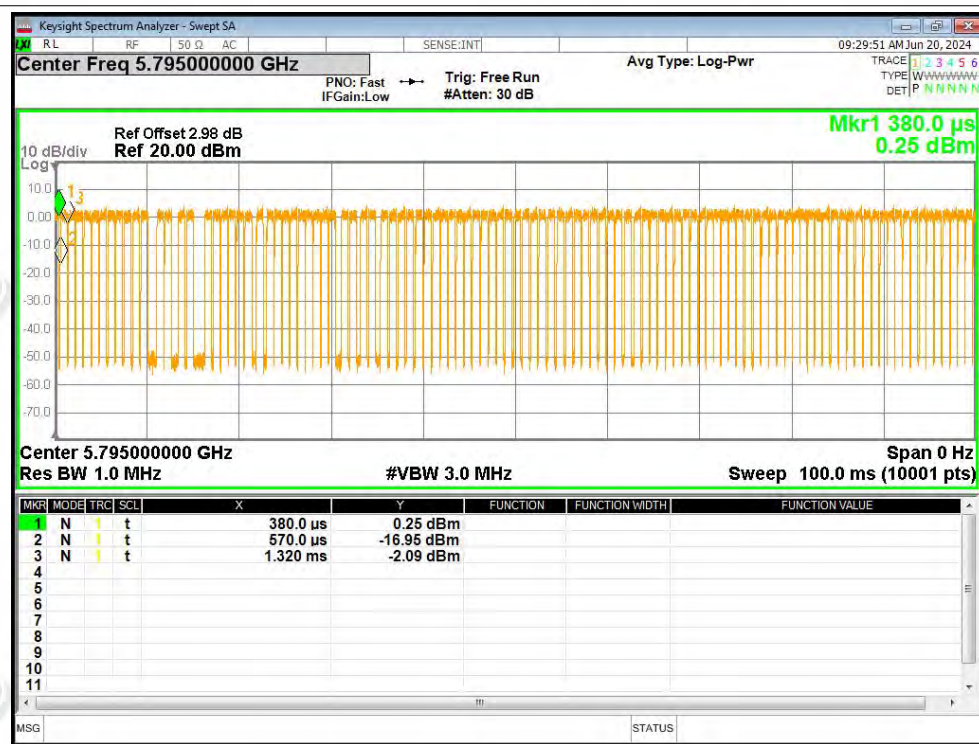




Duty Cycle NVNT ax40 5755MHz Ant1



Duty Cycle NVNT ax40 5795MHz Ant1



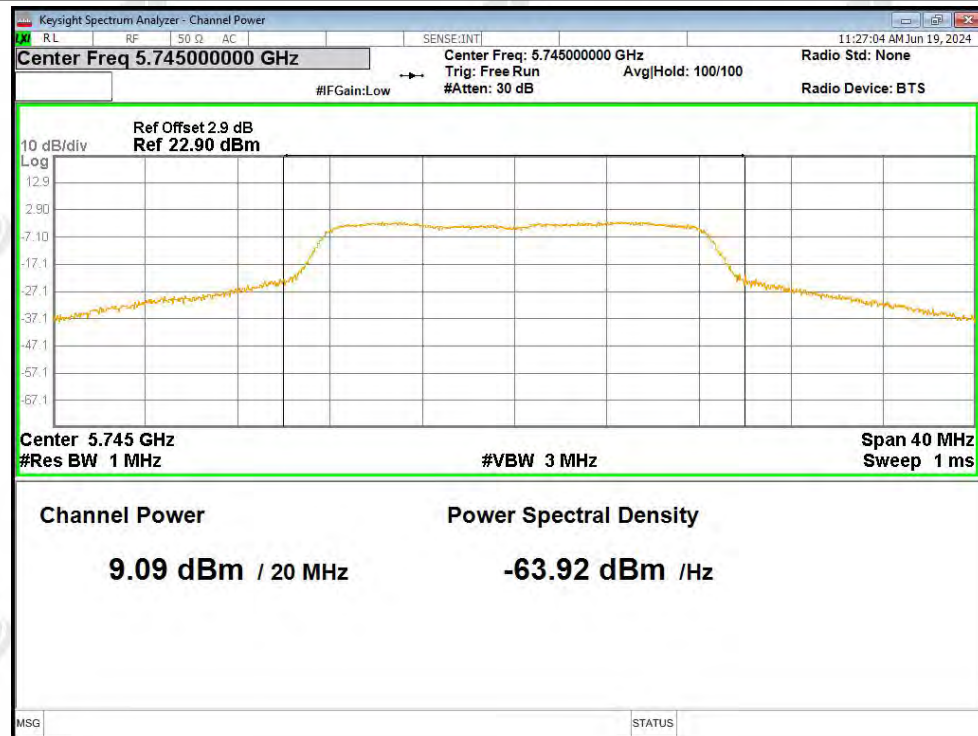
**ZHONGHAN****Maximum Conducted Output Power**

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	9.09	0.51	9.6	30	Pass
NVNT	a	5785	Ant1	9.36	1.48	10.84	30	Pass
NVNT	a	5825	Ant1	8.99	3.87	12.86	30	Pass
NVNT	n20	5745	Ant1	11.19	0.42	11.61	30	Pass
NVNT	n20	5785	Ant1	11.15	0.11	11.26	30	Pass
NVNT	n20	5825	Ant1	11.12	0.46	11.58	30	Pass
NVNT	n40	5755	Ant1	10.74	0.23	10.97	30	Pass
NVNT	n40	5795	Ant1	10.89	1.21	12.1	30	Pass
NVNT	ac20	5745	Ant1	11.01	0.37	11.38	30	Pass
NVNT	ac20	5785	Ant1	11.05	0.11	11.16	30	Pass
NVNT	ac20	5825	Ant1	10.96	0.16	11.12	30	Pass
NVNT	ac40	5755	Ant1	10.92	0.4	11.32	30	Pass
NVNT	ac40	5795	Ant1	10.89	0.44	11.33	30	Pass
NVNT	ax20	5745	Ant1	11.39	0.4	11.79	30	Pass
NVNT	ax20	5785	Ant1	10.96	0.29	11.25	30	Pass
NVNT	ax20	5825	Ant1	11.46	0.29	11.75	30	Pass
NVNT	ax40	5755	Ant1	11.59	0.89	12.48	30	Pass
NVNT	ax40	5795	Ant1	11.04	0.98	12.02	30	Pass

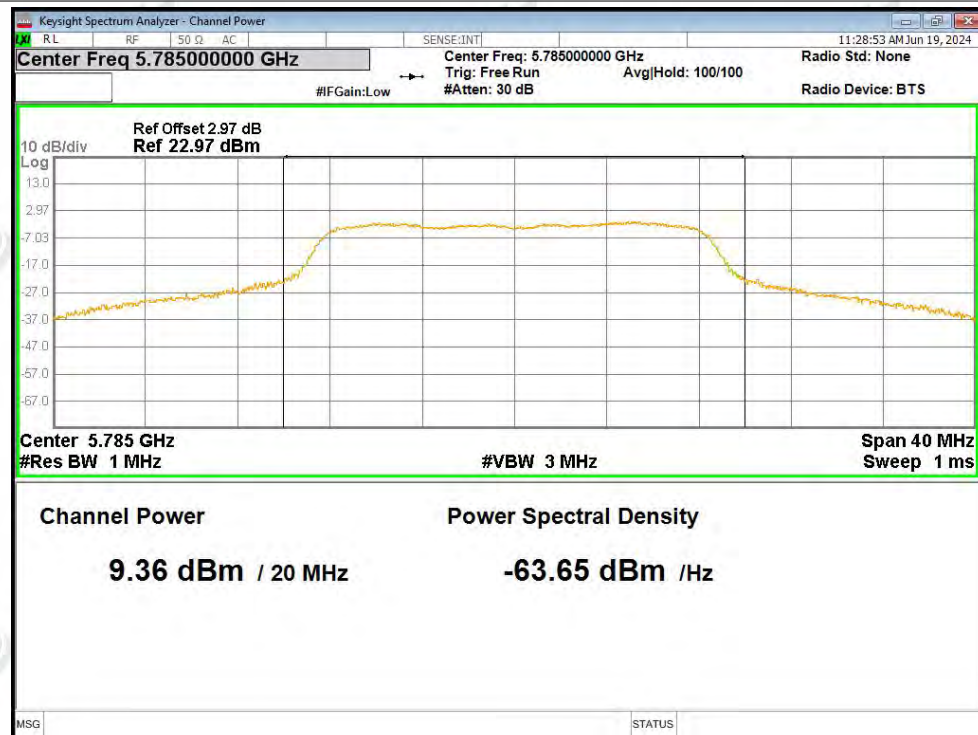


Test Graphs

Power NVNT a 5745MHz Ant1

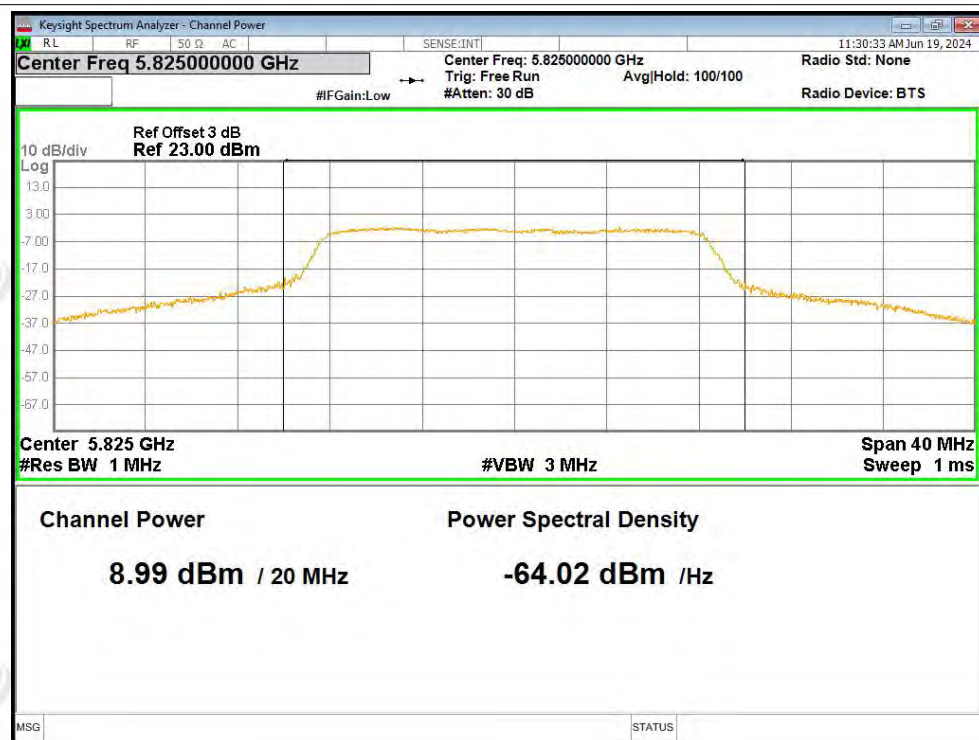


Power NVNT a 5785MHz Ant1

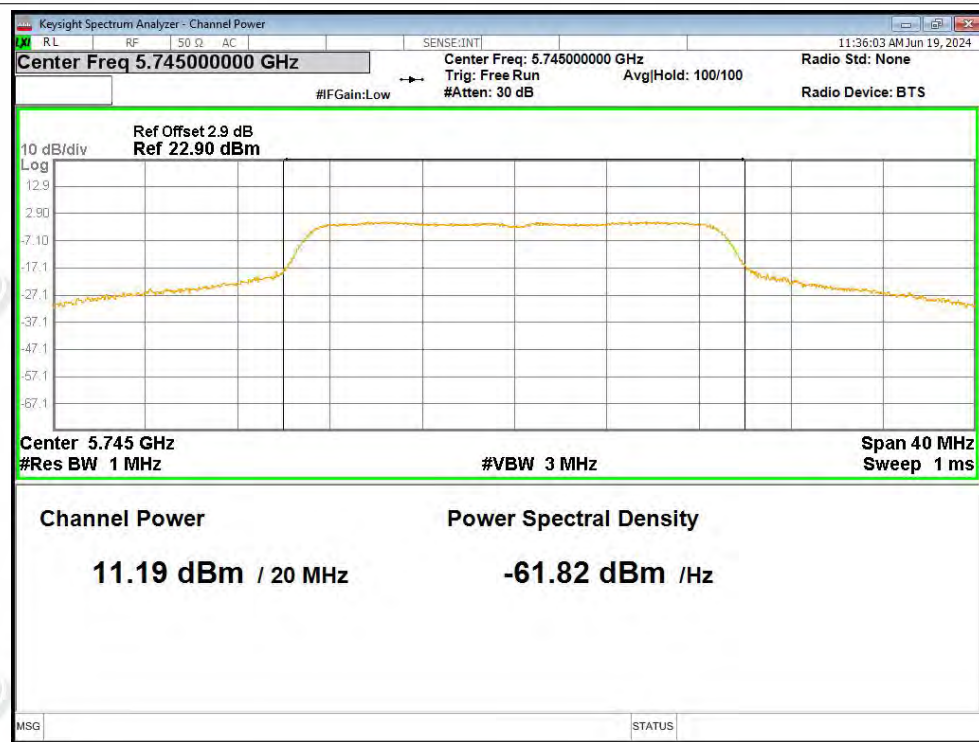




Power NVNT a 5825MHz Ant1

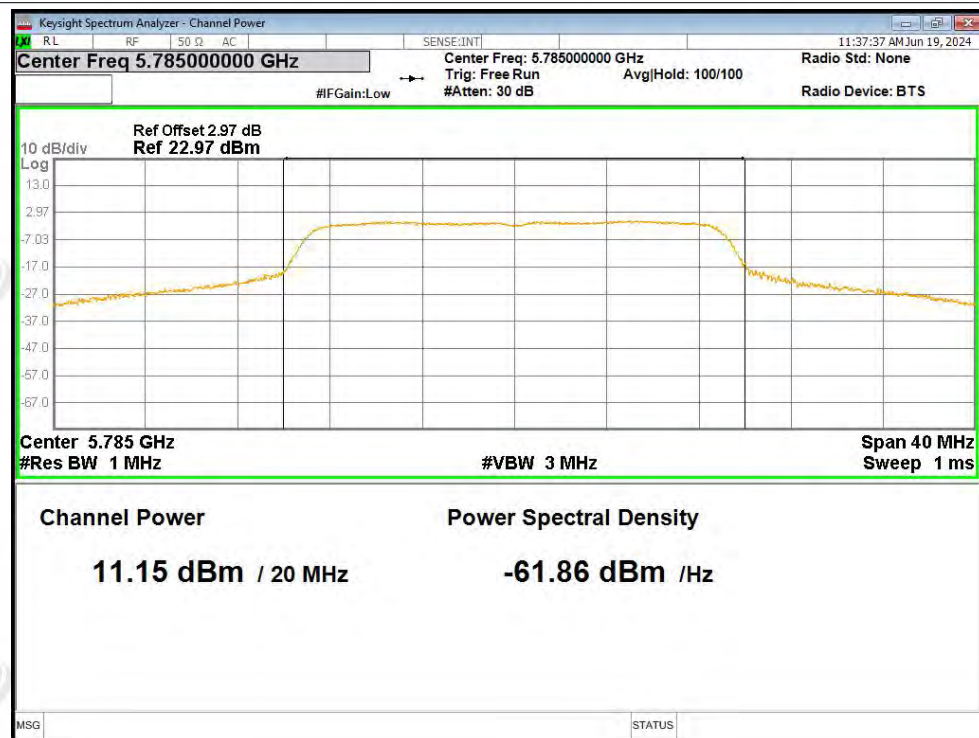


Power NVNT n20 5745MHz Ant1

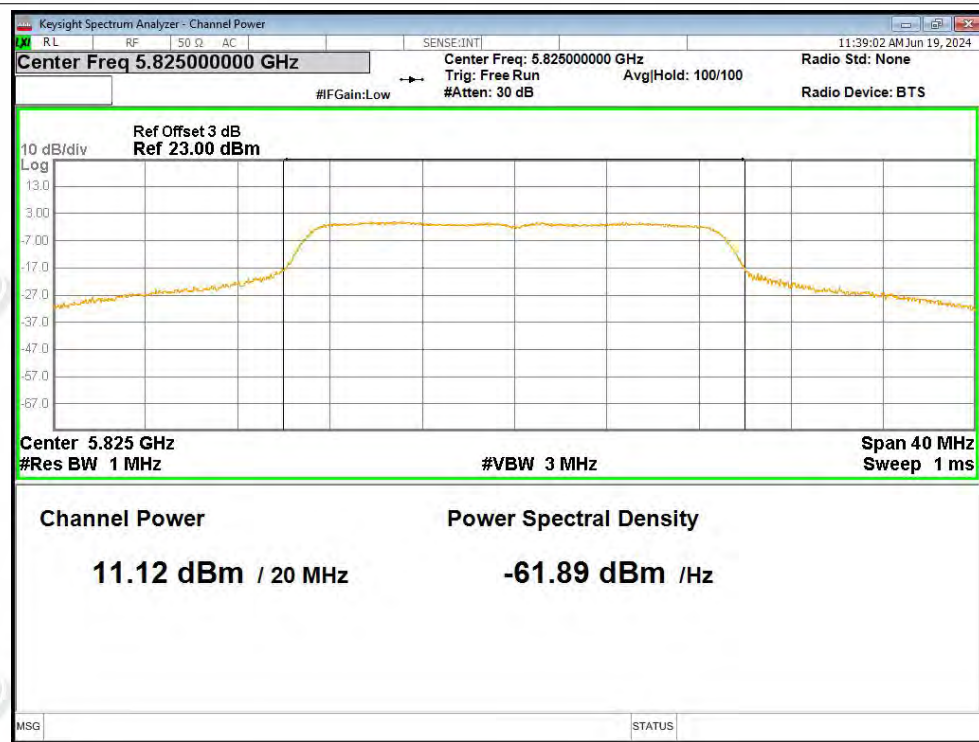




Power NVNT n20 5785MHz Ant1

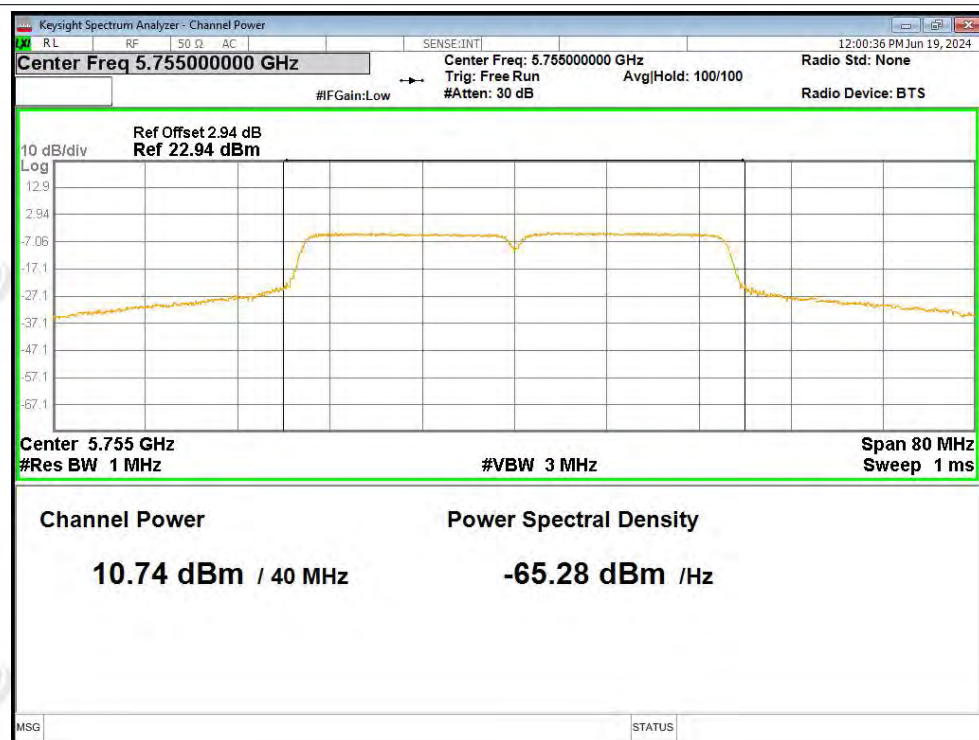


Power NVNT n20 5825MHz Ant1

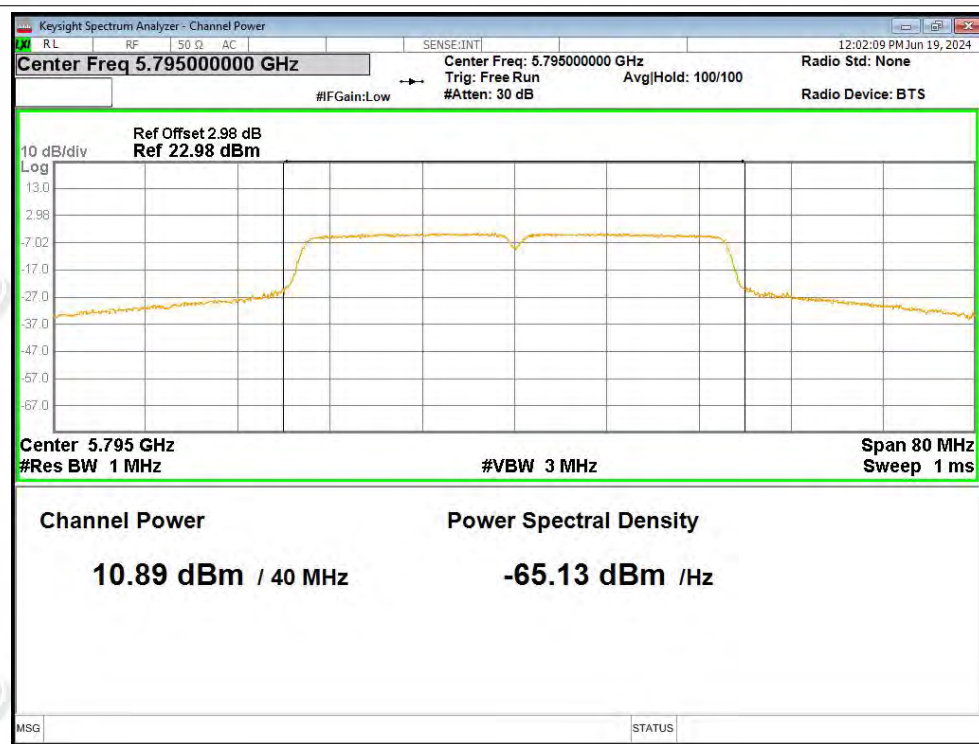




Power NVNT n40 5755MHz Ant1

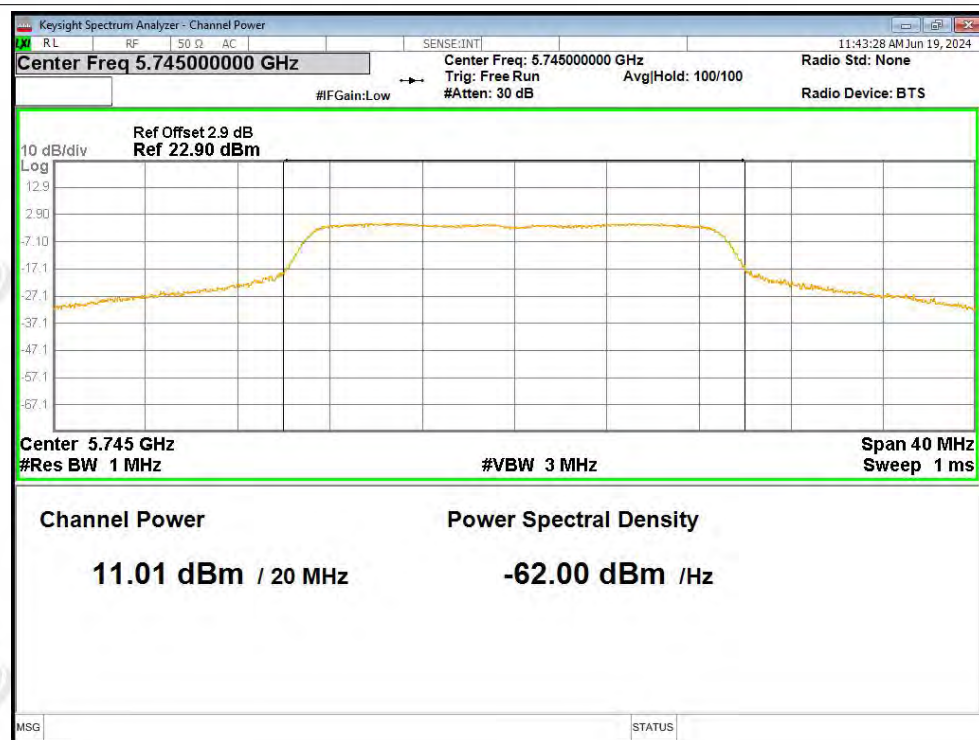


Power NVNT n40 5795MHz Ant1

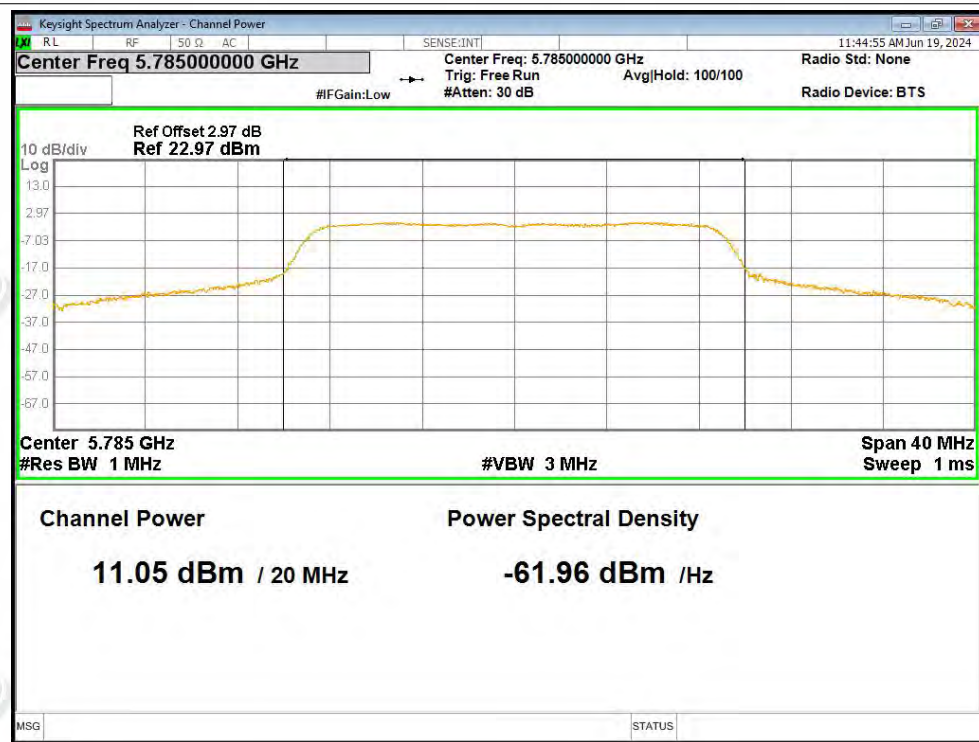




Power NVNT ac20 5745MHz Ant1

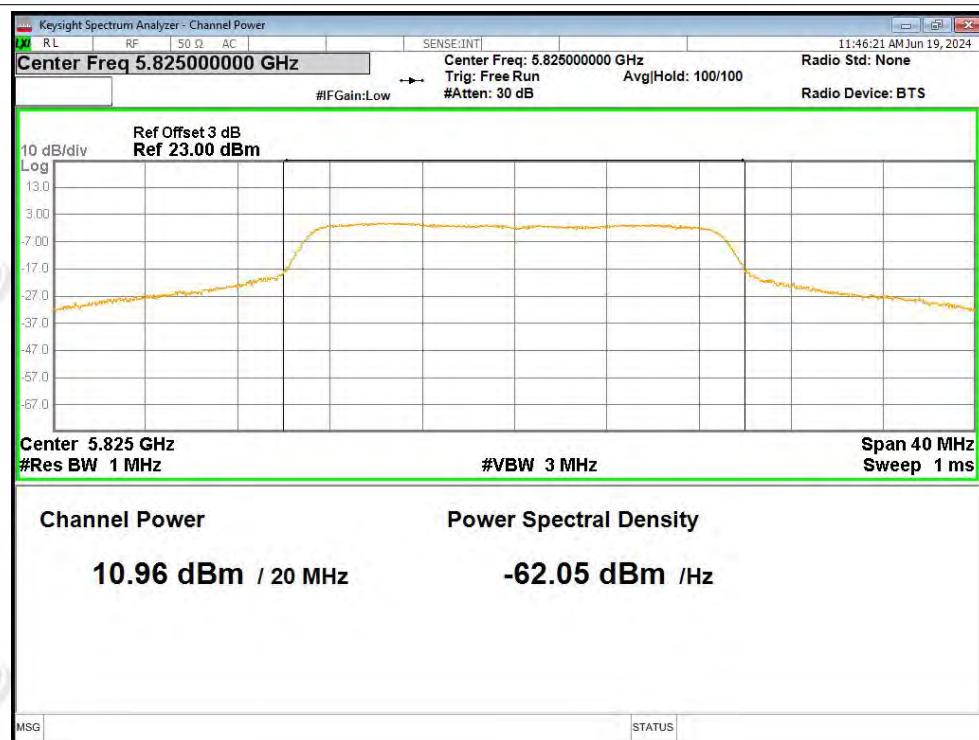


Power NVNT ac20 5785MHz Ant1

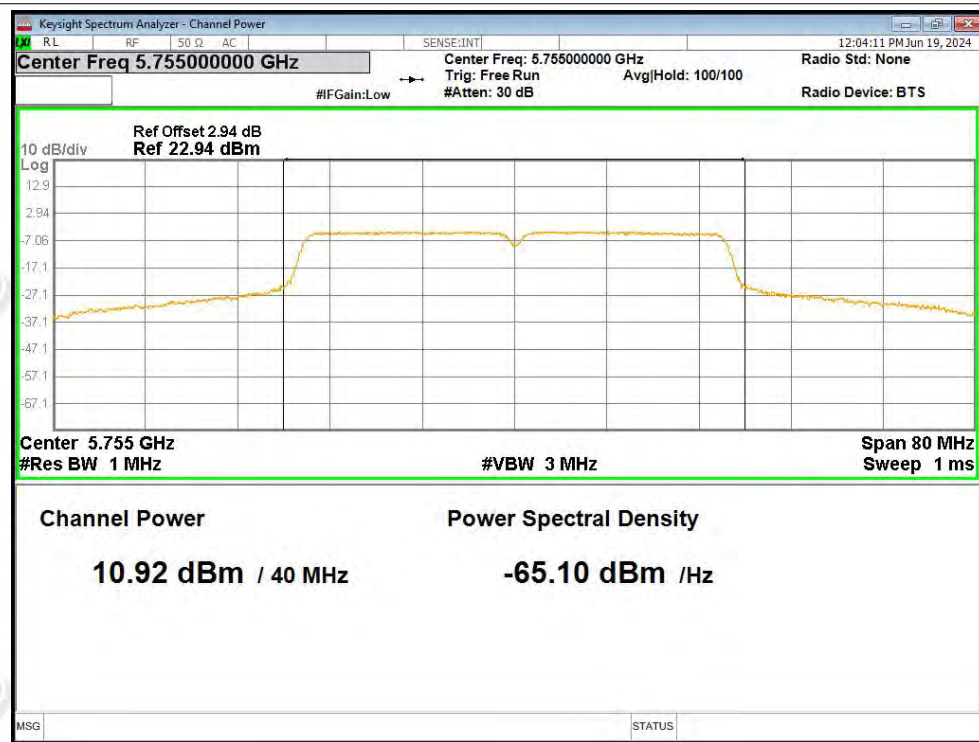




Power NVNT ac20 5825MHz Ant1

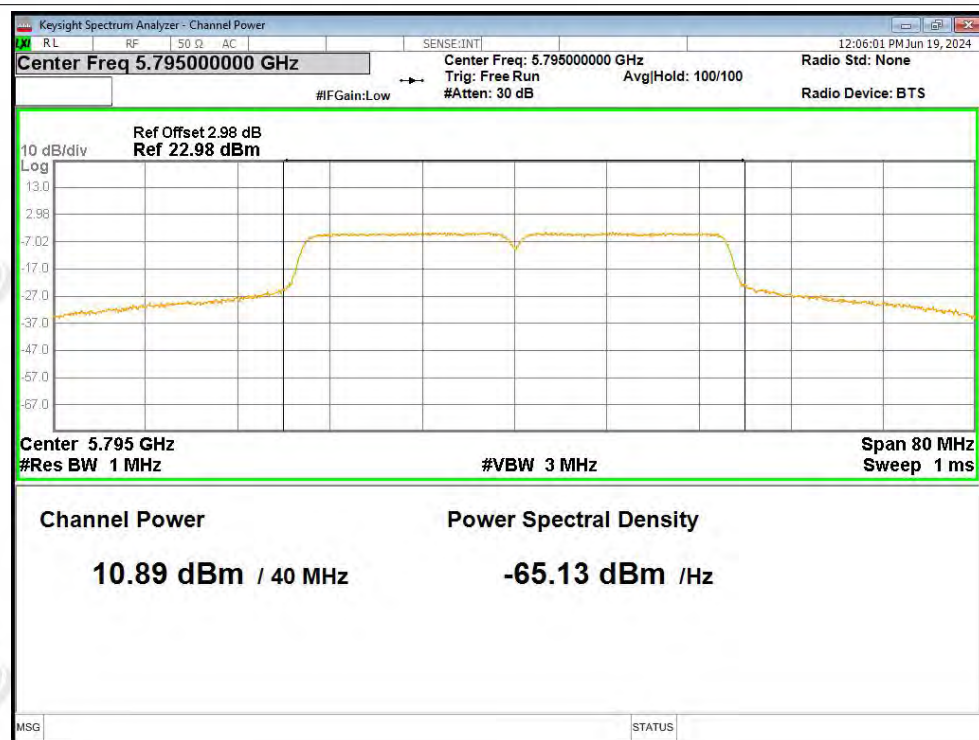


Power NVNT ac40 5755MHz Ant1

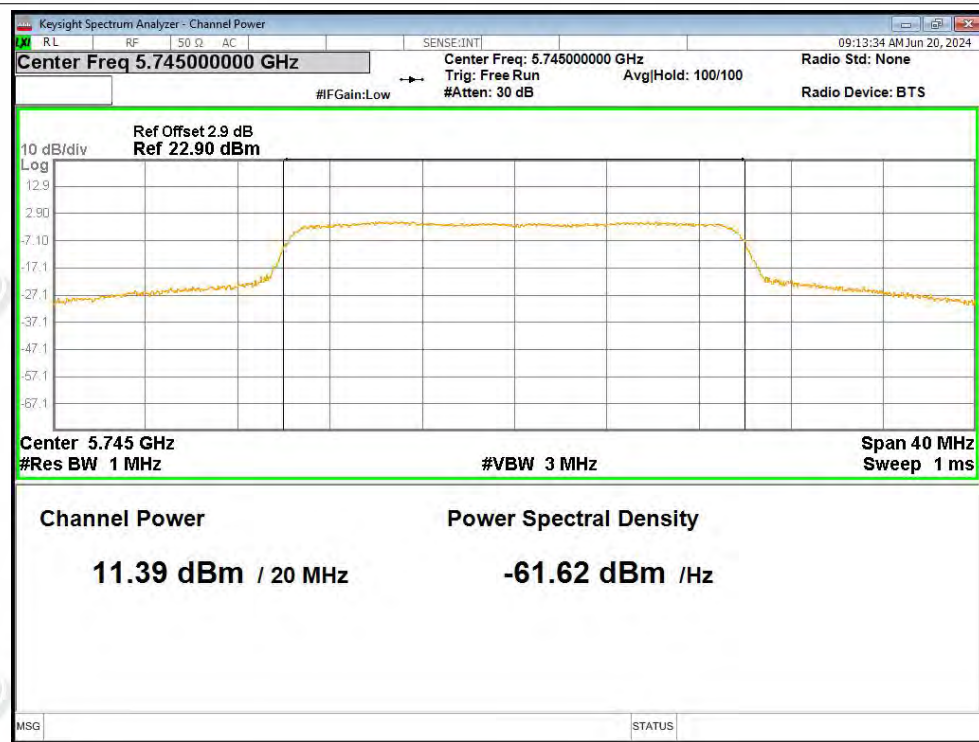




Power NVNT ac40 5795MHz Ant1

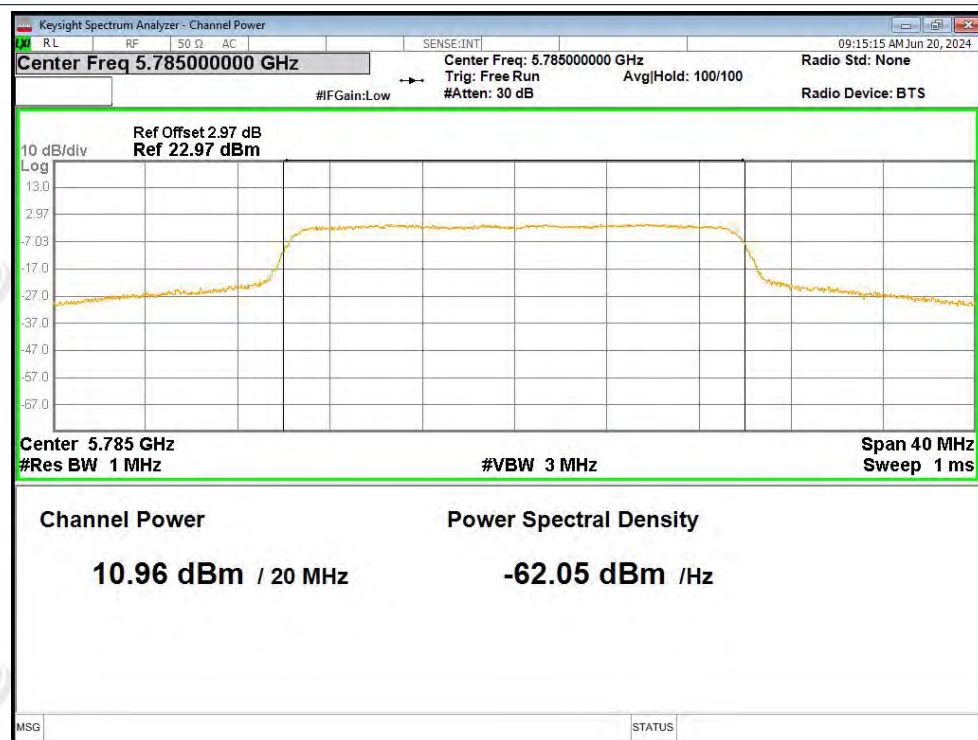


Power NVNT ax20 5745MHz Ant1

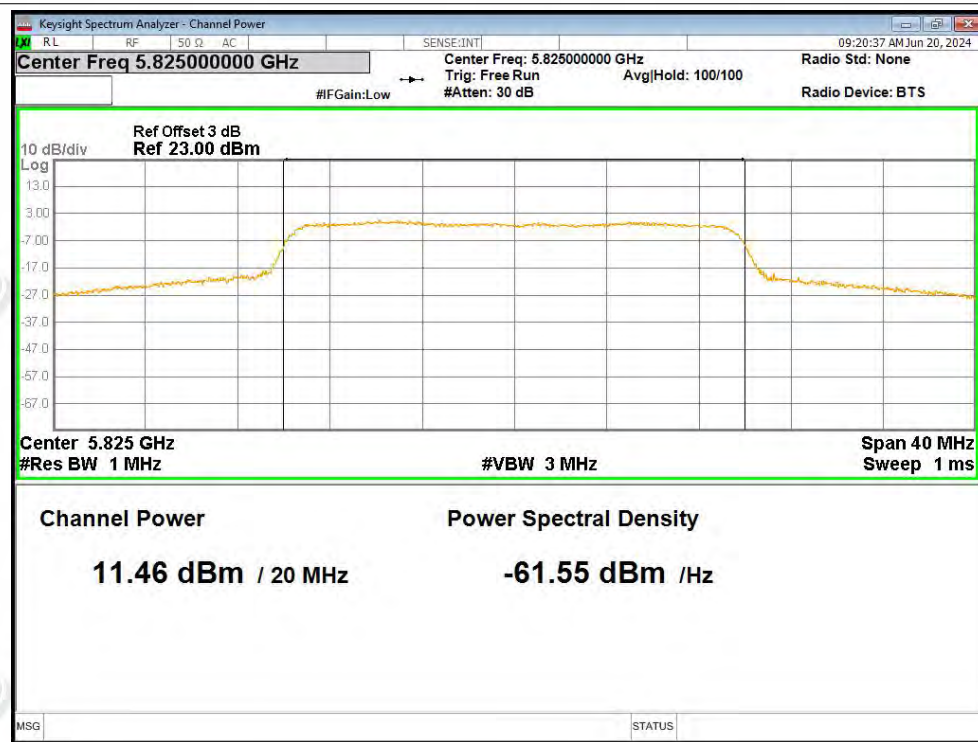




Power NVNT ax20 5785MHz Ant1

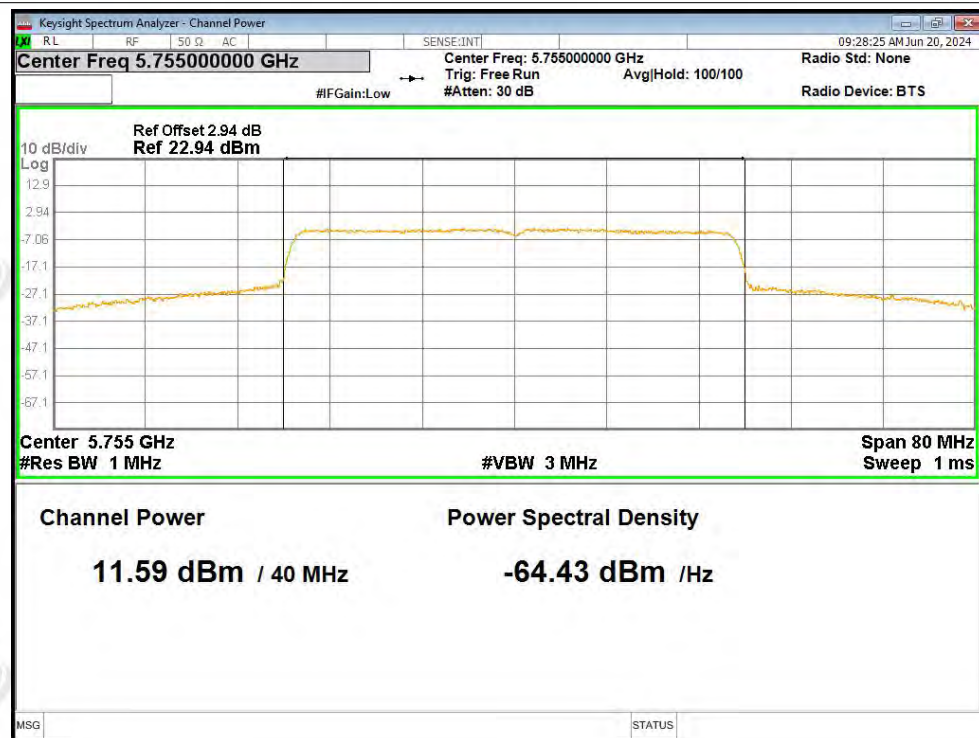


Power NVNT ax20 5825MHz Ant1

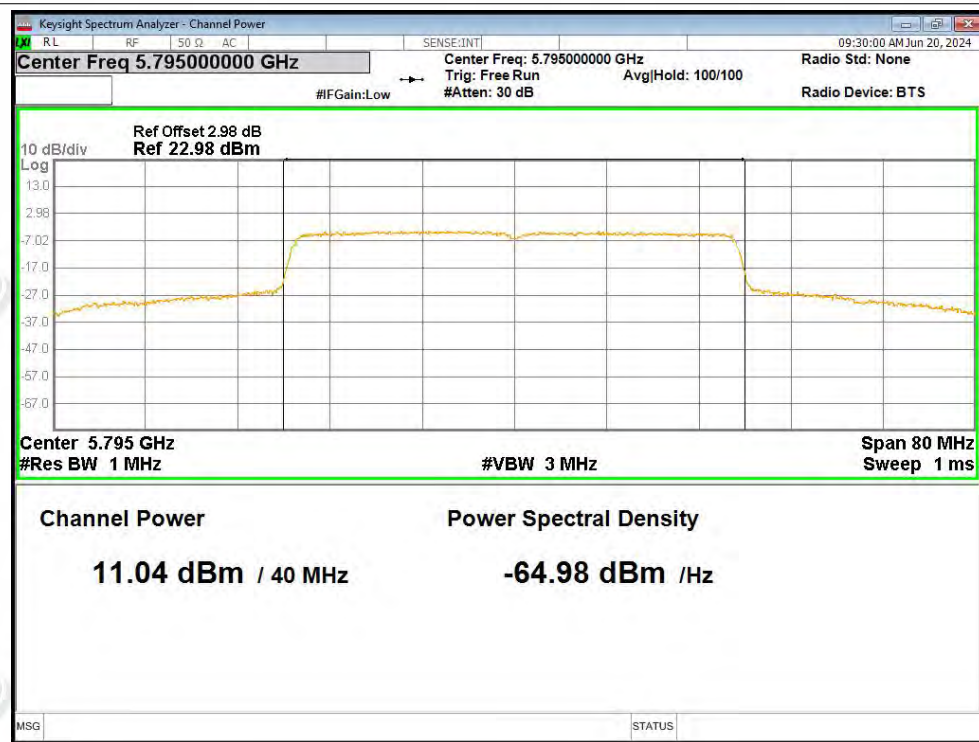




Power NVNT ax40 5755MHz Ant1



Power NVNT ax40 5795MHz Ant1



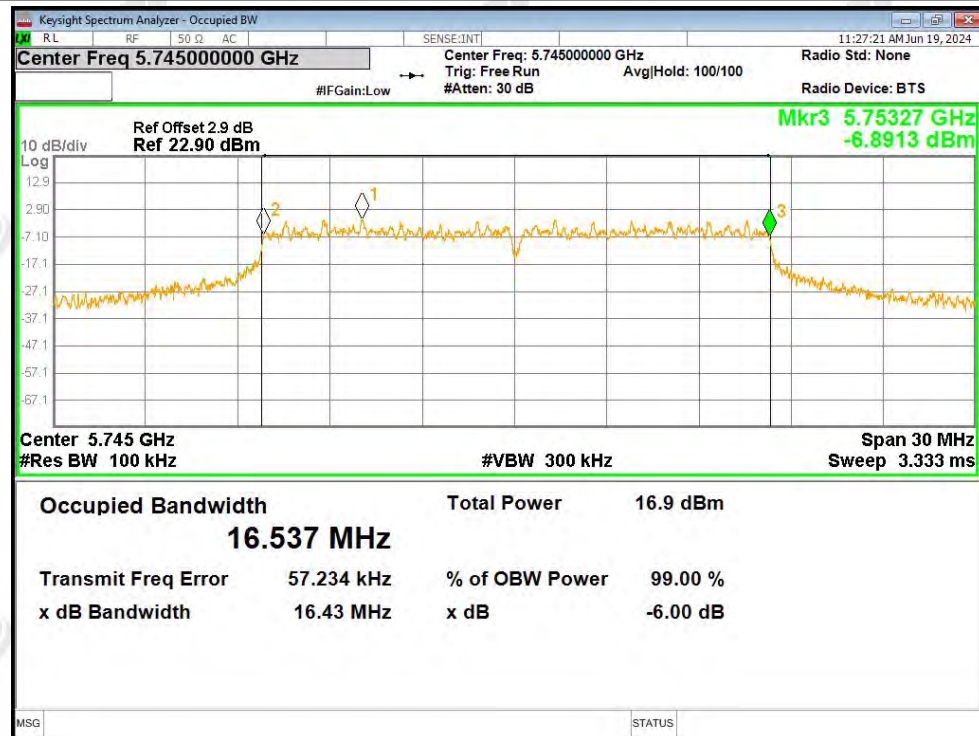
**ZHONGHAN**
-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	16.426	0.5	Pass
NVNT	a	5785	Ant1	16.428	0.5	Pass
NVNT	a	5825	Ant1	16.412	0.5	Pass
NVNT	n20	5745	Ant1	17.56	0.5	Pass
NVNT	n20	5785	Ant1	17.246	0.5	Pass
NVNT	n20	5825	Ant1	17.556	0.5	Pass
NVNT	n40	5755	Ant1	36.288	0.5	Pass
NVNT	n40	5795	Ant1	36.319	0.5	Pass
NVNT	ac20	5745	Ant1	17.578	0.5	Pass
NVNT	ac20	5785	Ant1	17.571	0.5	Pass
NVNT	ac20	5825	Ant1	17.593	0.5	Pass
NVNT	ac40	5755	Ant1	36.303	0.5	Pass
NVNT	ac40	5795	Ant1	36.332	0.5	Pass
NVNT	ax20	5745	Ant1	18.96	0.5	Pass
NVNT	ax20	5785	Ant1	18.925	0.5	Pass
NVNT	ax20	5825	Ant1	18.828	0.5	Pass
NVNT	ax40	5755	Ant1	37.816	0.5	Pass
NVNT	ax40	5795	Ant1	37.763	0.5	Pass

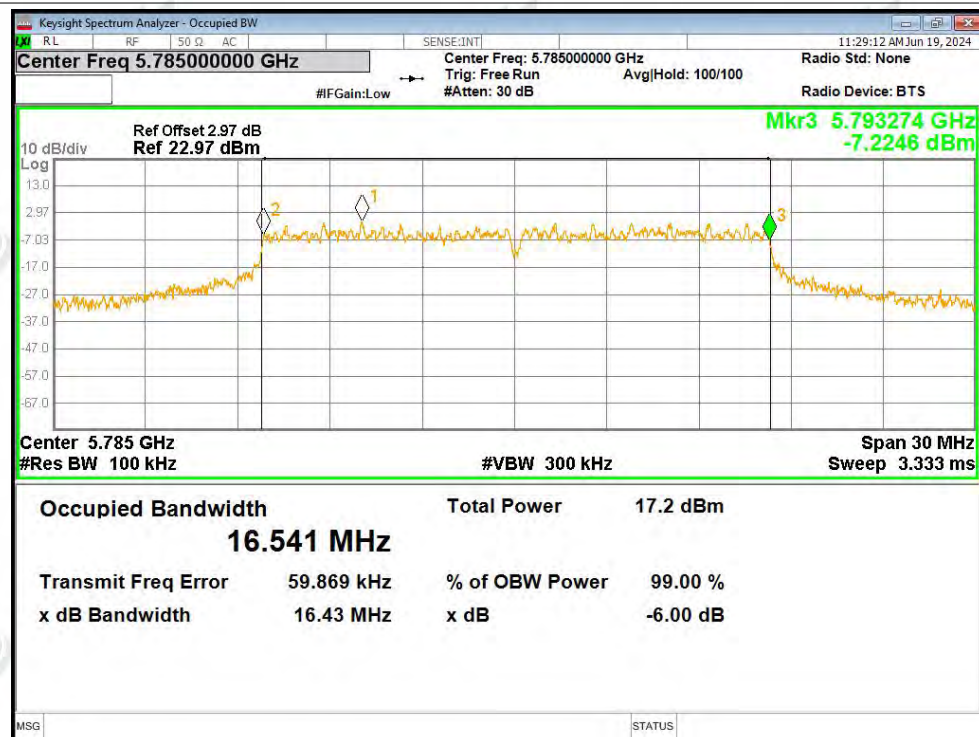


Test Graphs

-6dB Bandwidth NVNT a 5745MHz Ant1

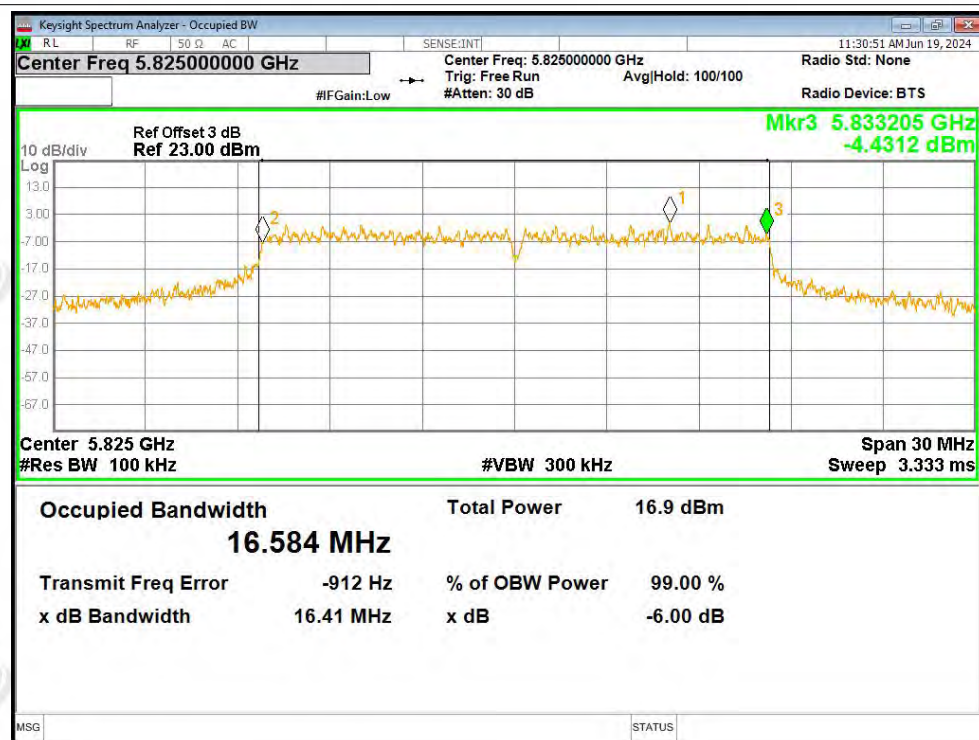


-6dB Bandwidth NVNT a 5785MHz Ant1

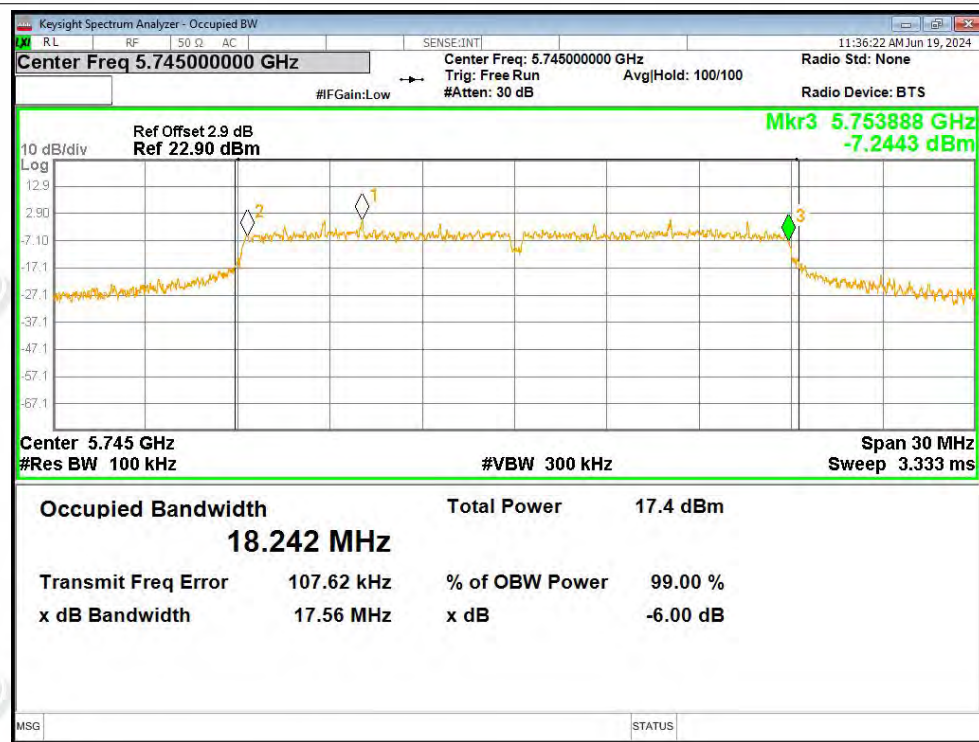




-6dB Bandwidth NVNT a 5825MHz Ant1

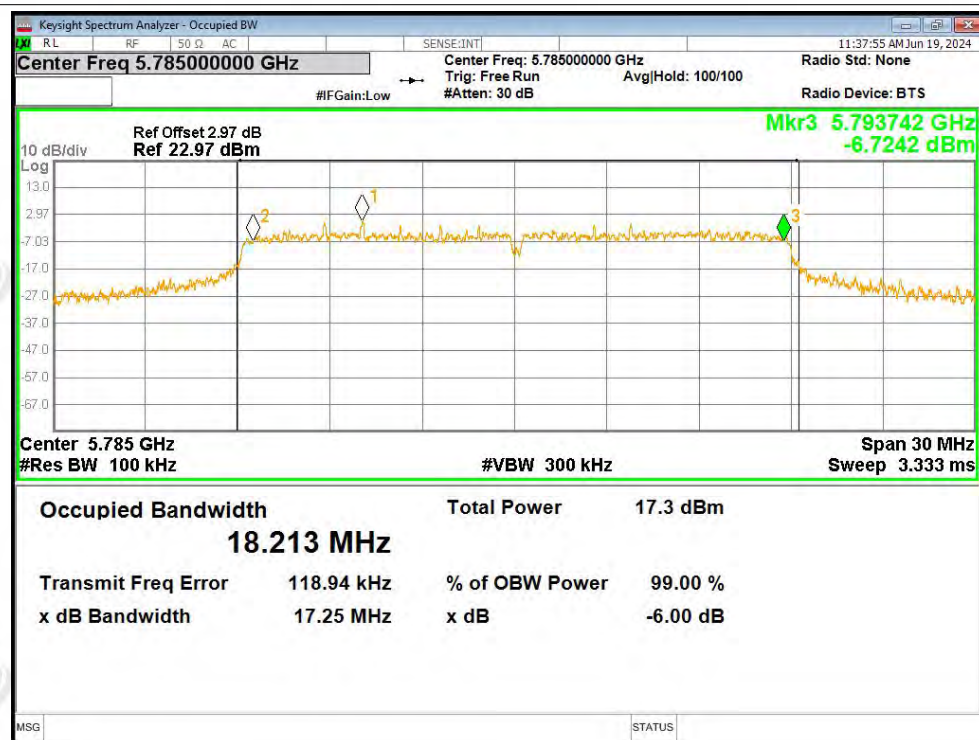


-6dB Bandwidth NVNT n20 5745MHz Ant1

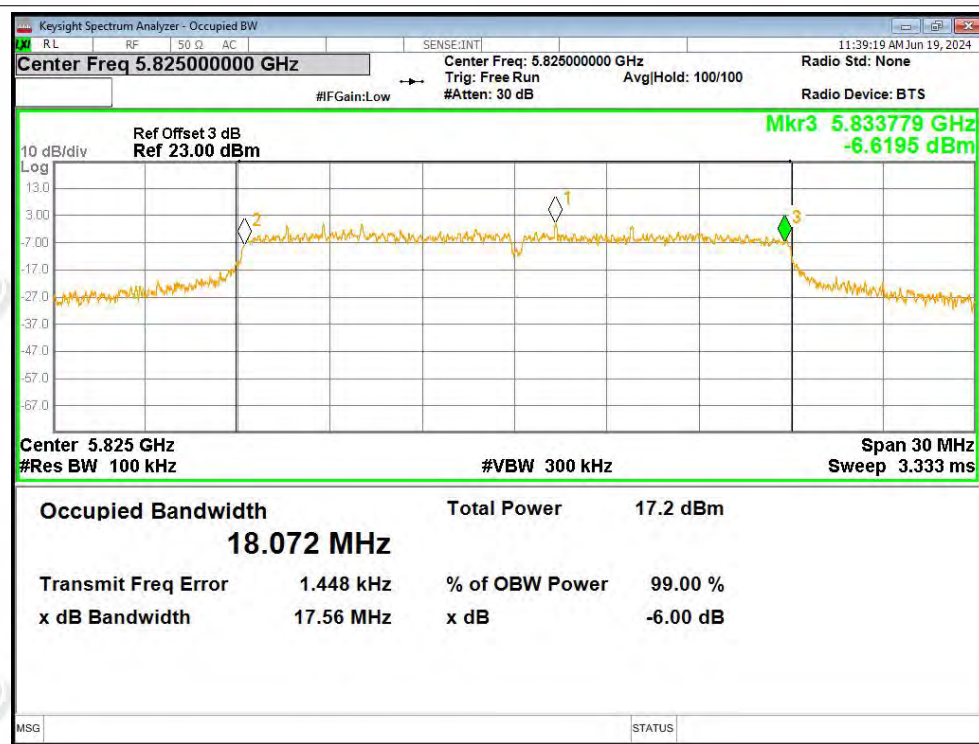




-6dB Bandwidth NVNT n20 5785MHz Ant1

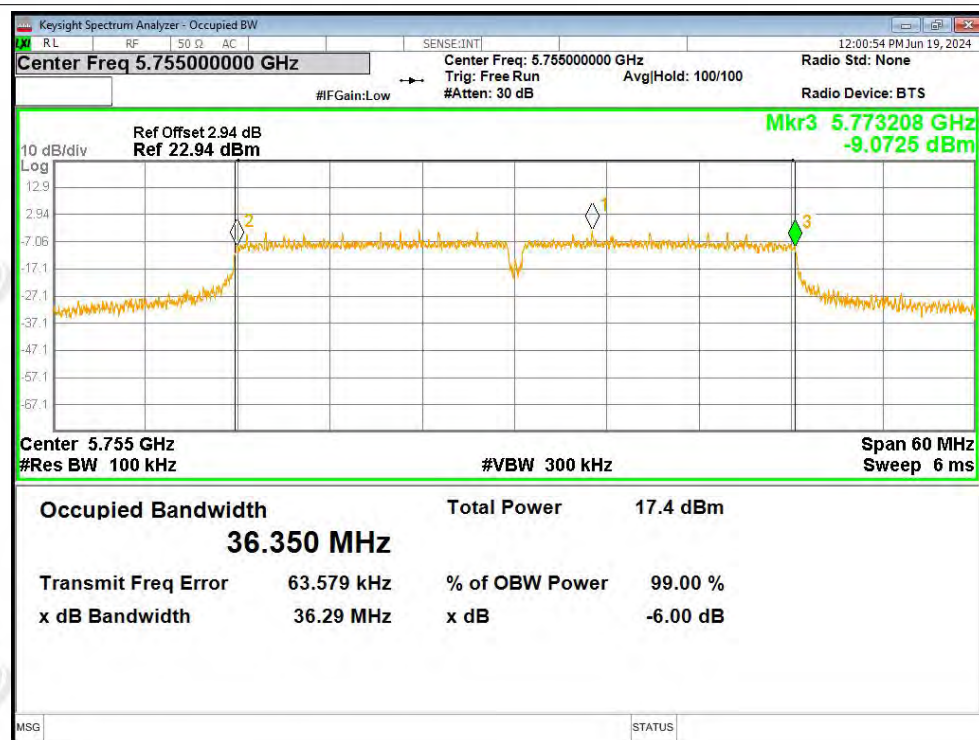


-6dB Bandwidth NVNT n20 5825MHz Ant1

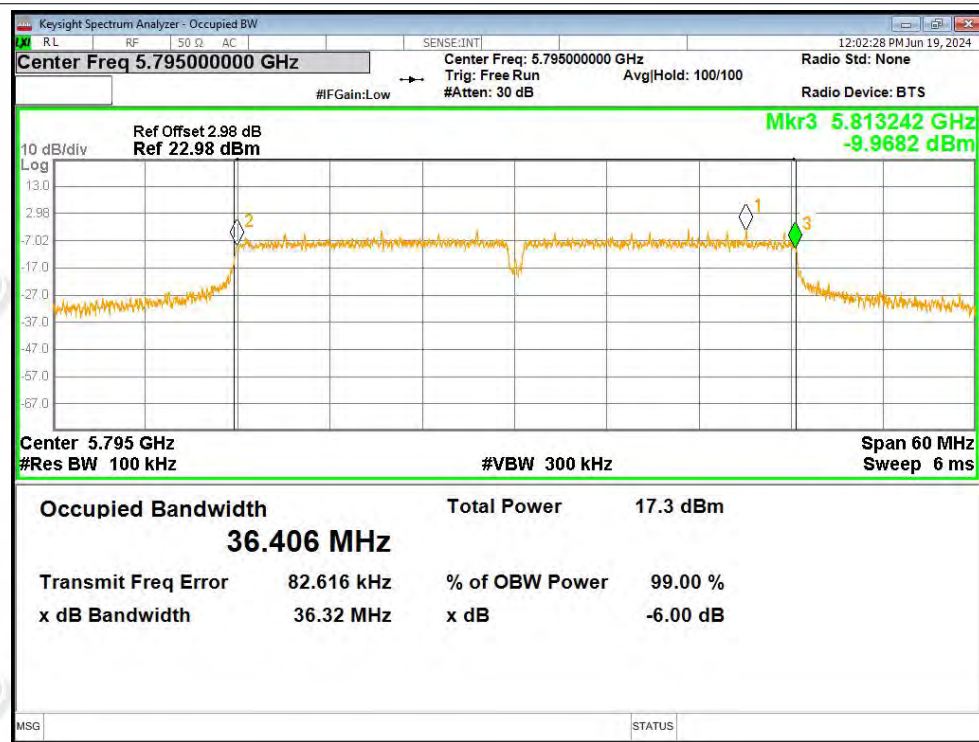




-6dB Bandwidth NVNT n40 5755MHz Ant1

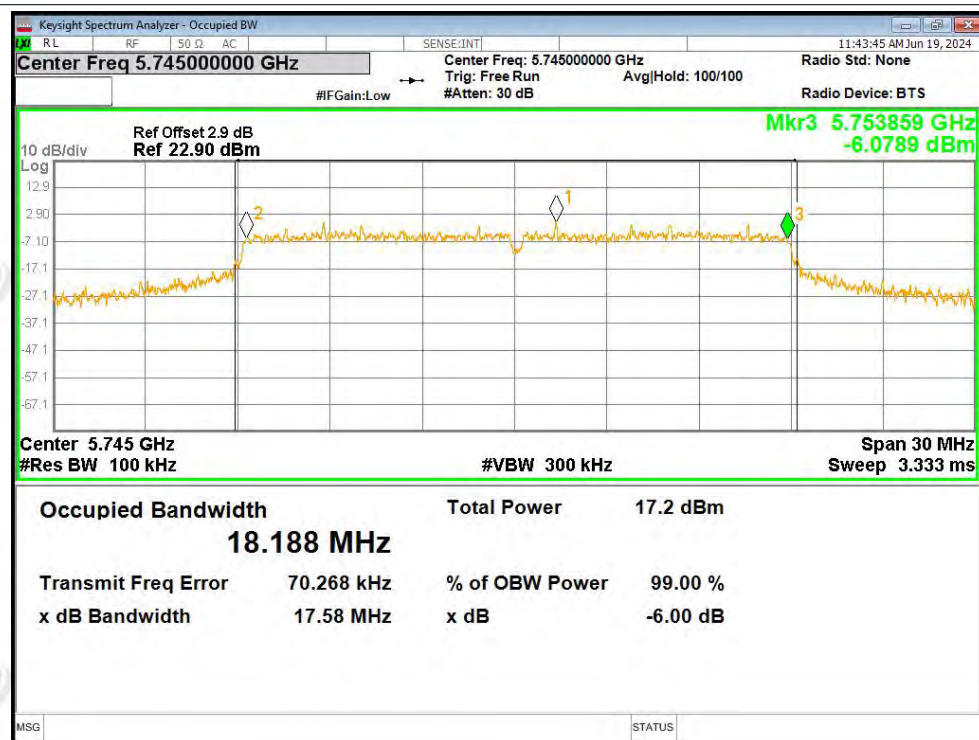


-6dB Bandwidth NVNT n40 5795MHz Ant1

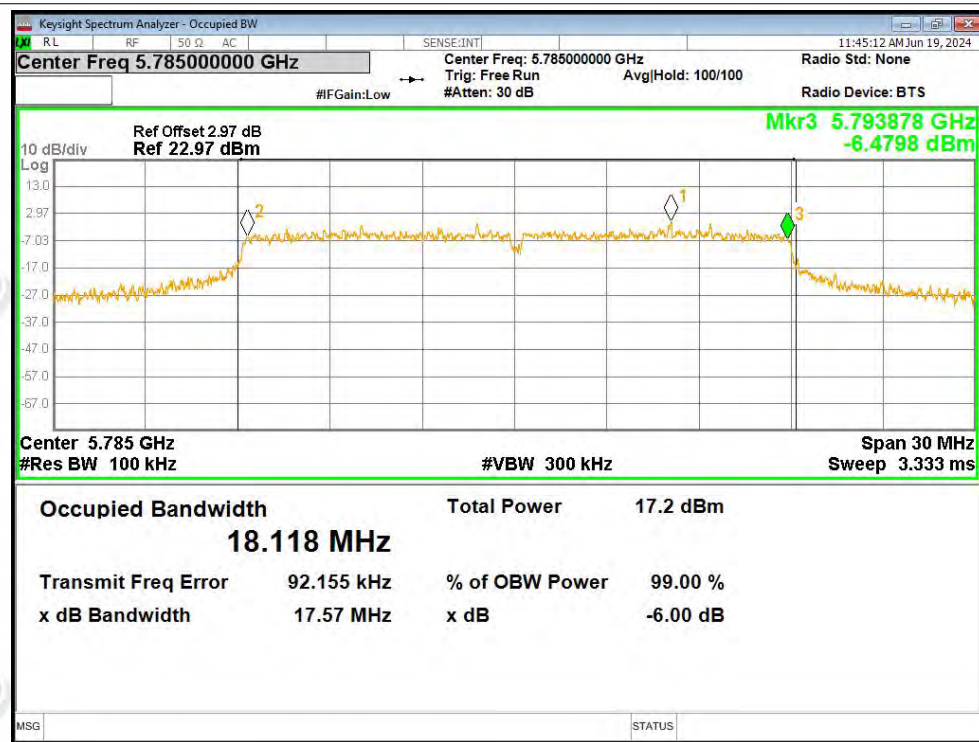




-6dB Bandwidth NVNT ac20 5745MHz Ant1

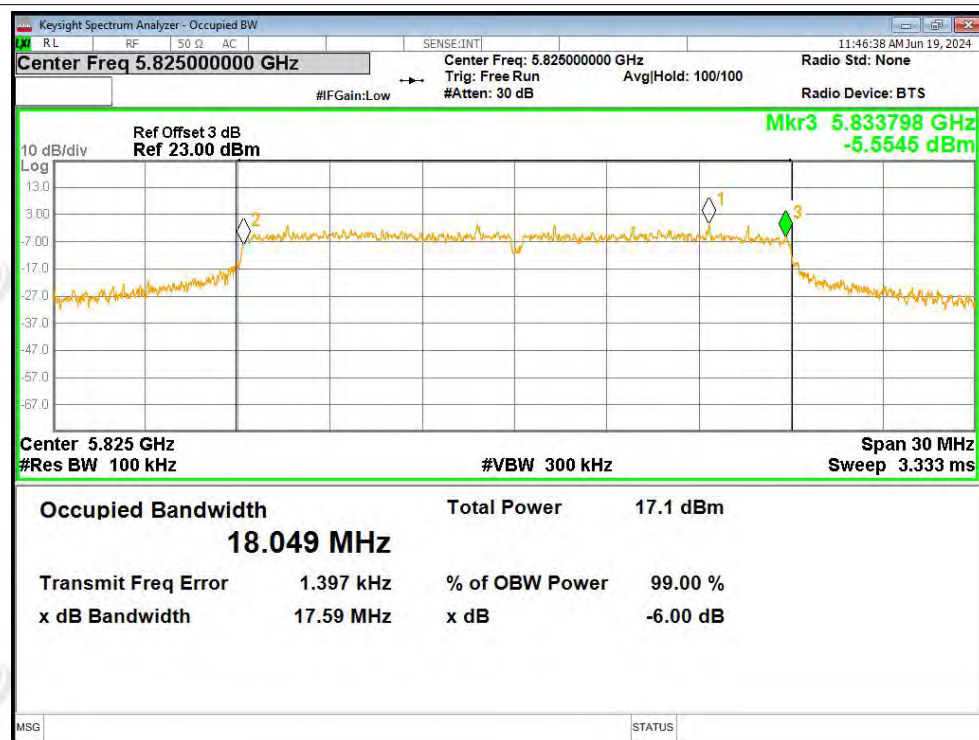


-6dB Bandwidth NVNT ac20 5785MHz Ant1

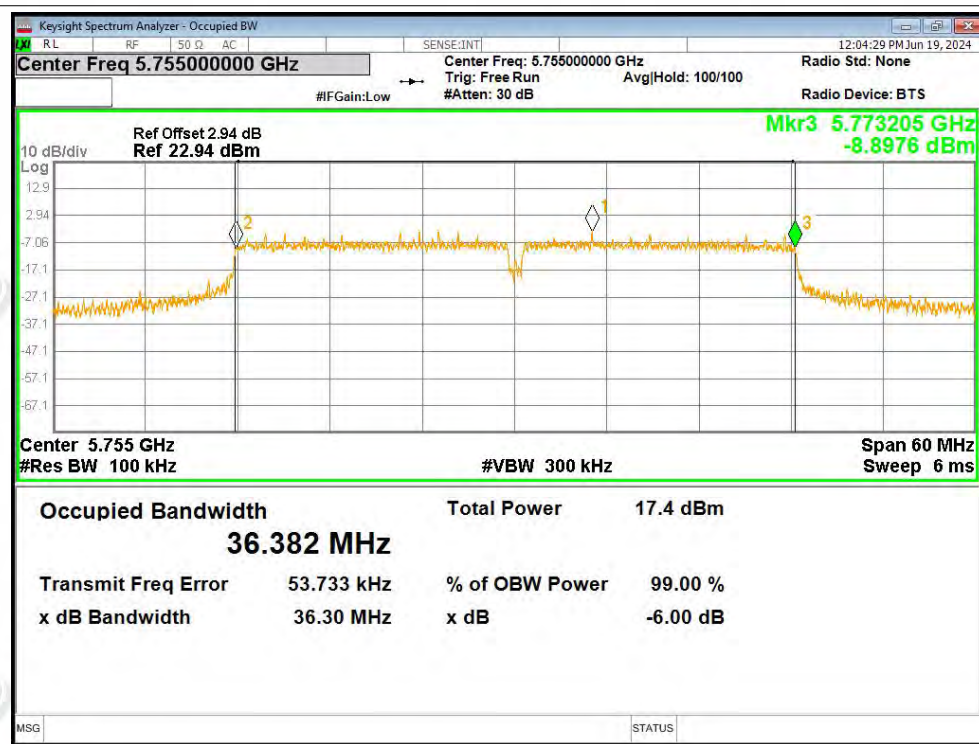




-6dB Bandwidth NVNT ac20 5825MHz Ant1

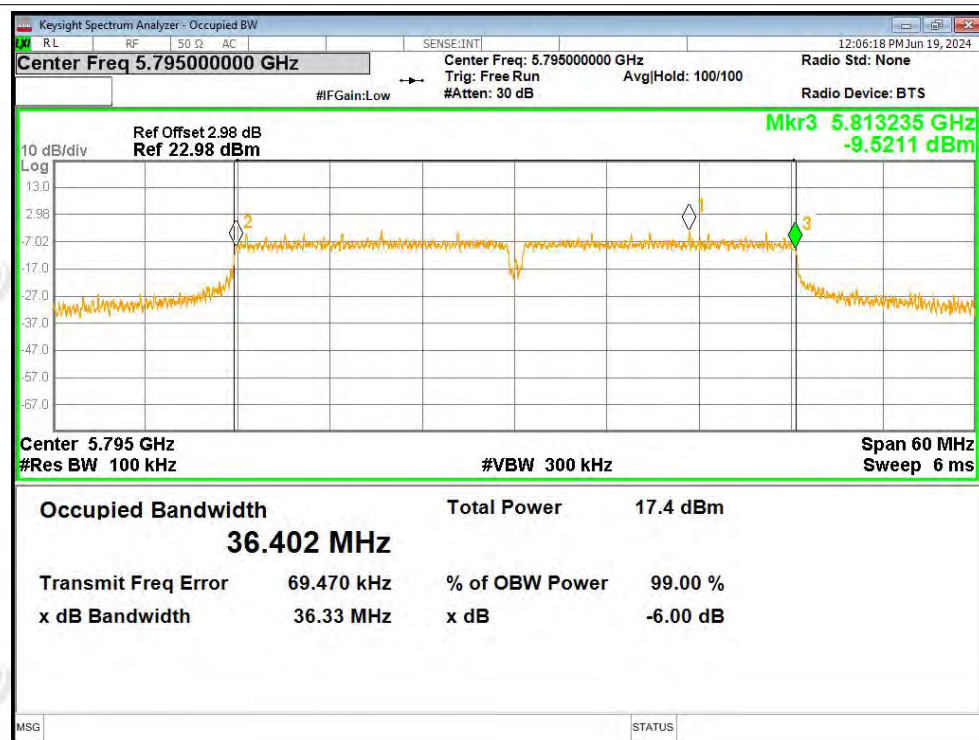


-6dB Bandwidth NVNT ac40 5755MHz Ant1

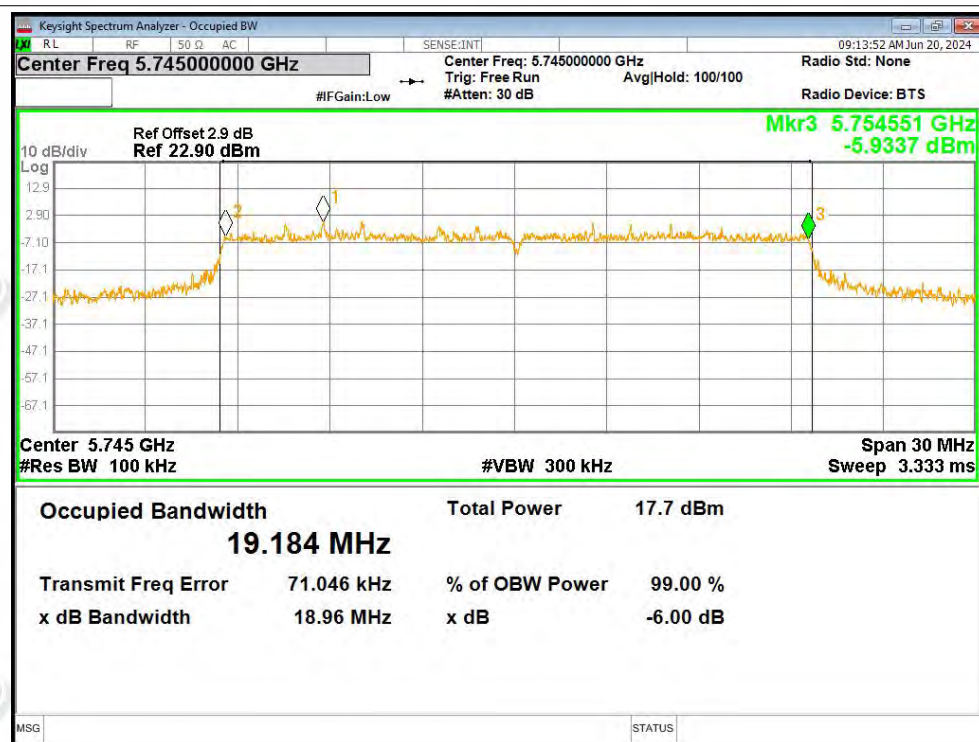




-6dB Bandwidth NVNT ac40 5795MHz Ant1

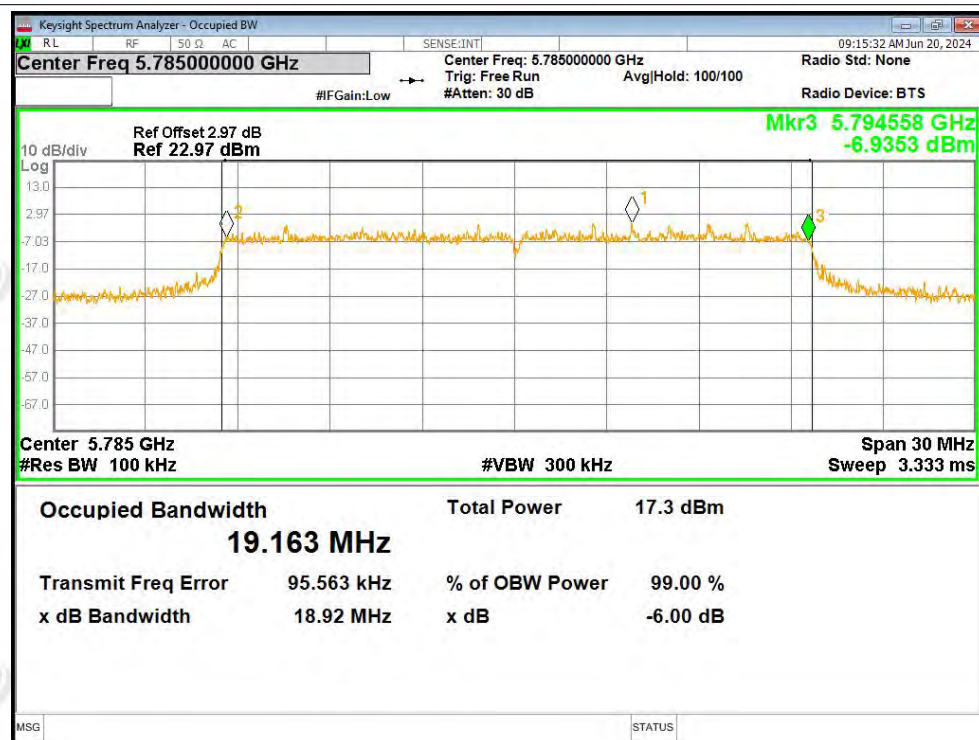


-6dB Bandwidth NVNT ax20 5745MHz Ant1

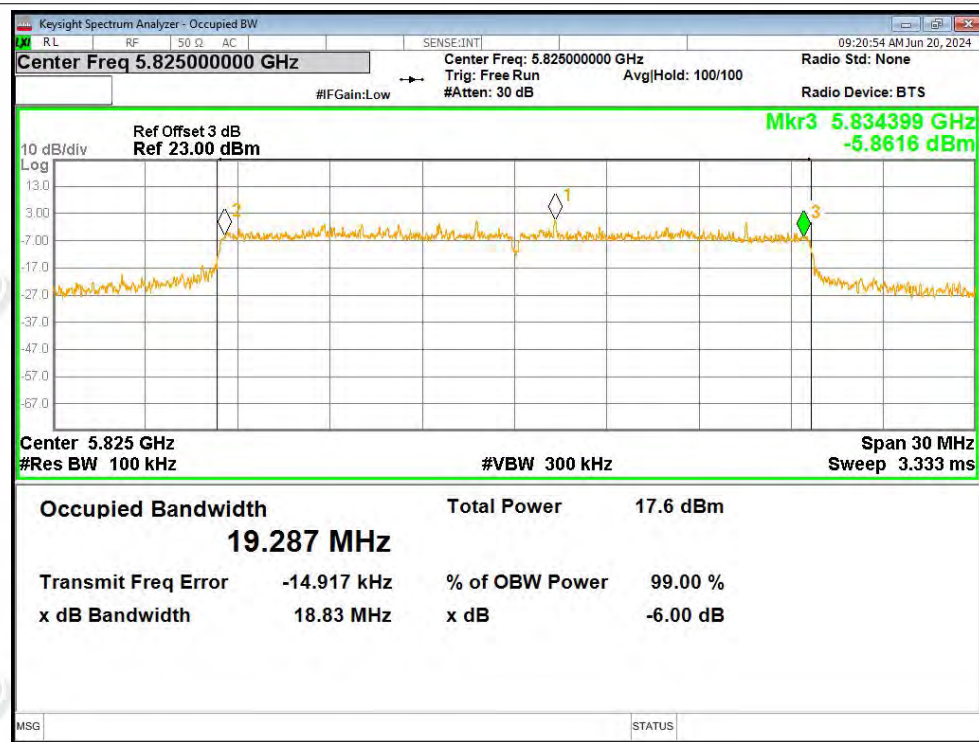




-6dB Bandwidth NVNT ax20 5785MHz Ant1

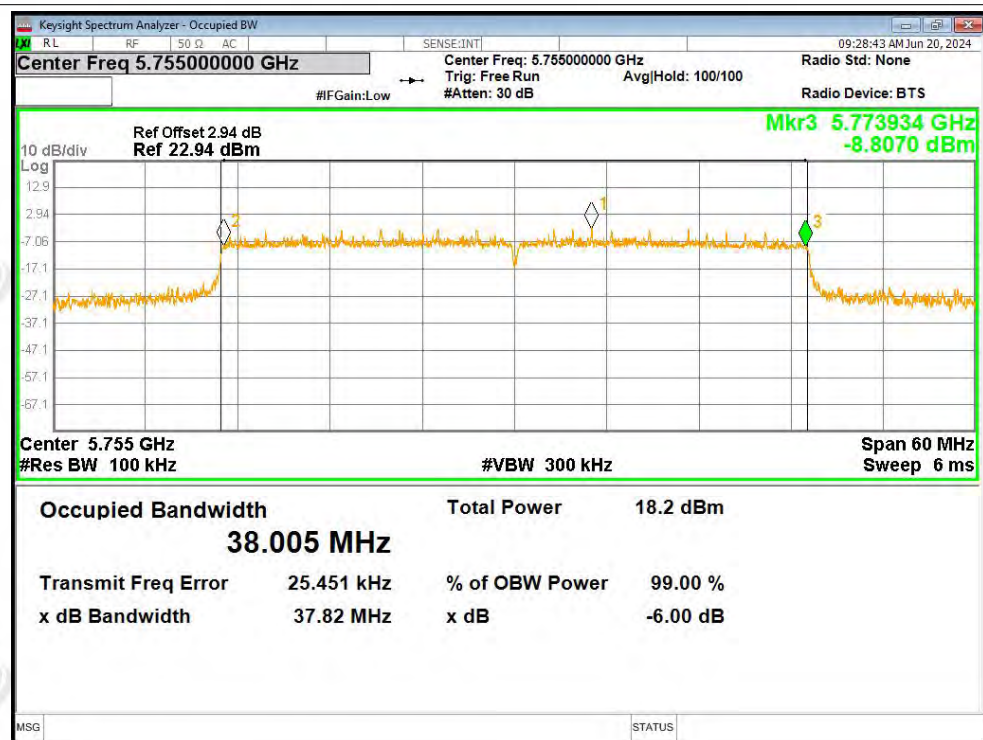


-6dB Bandwidth NVNT ax20 5825MHz Ant1

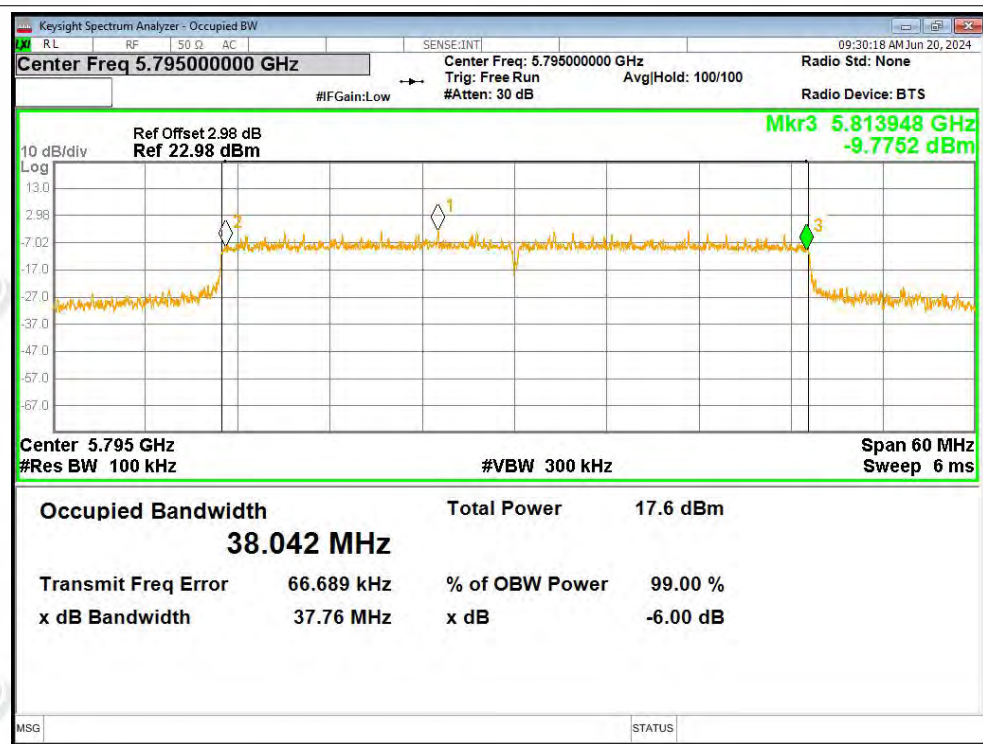




-6dB Bandwidth NVNT ax40 5755MHz Ant1



-6dB Bandwidth NVNT ax40 5795MHz Ant1



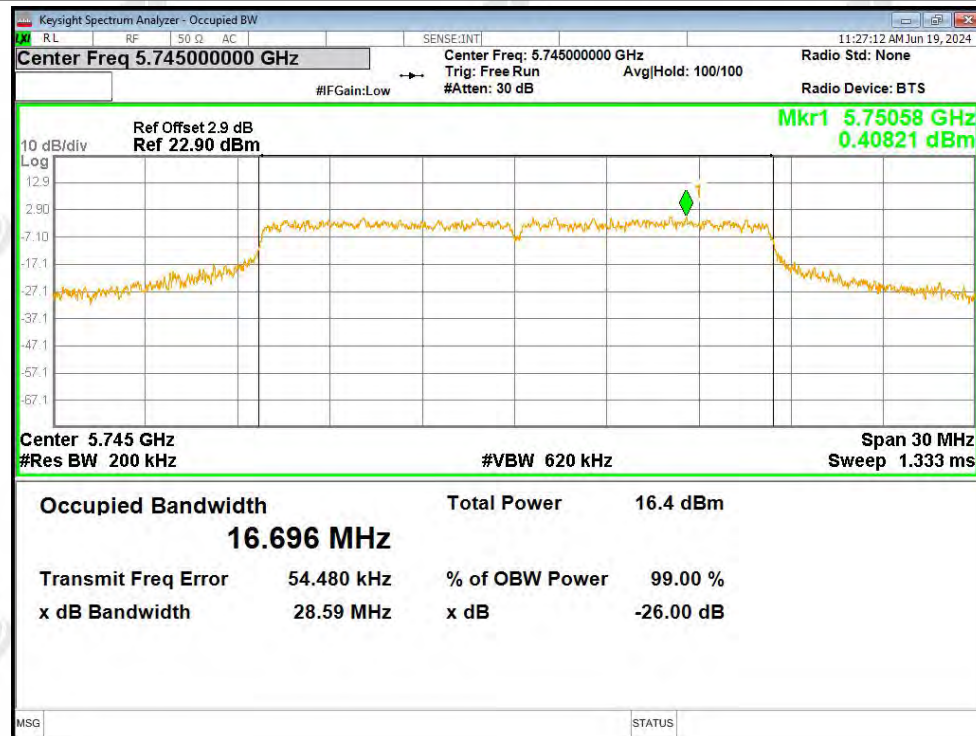
**ZHONGHAN****Occupied Channel Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5745	Ant1	16.696
NVNT	a	5785	Ant1	16.714
NVNT	a	5825	Ant1	16.733
NVNT	n20	5745	Ant1	18.61
NVNT	n20	5785	Ant1	18.568
NVNT	n20	5825	Ant1	18.365
NVNT	n40	5755	Ant1	36.903
NVNT	n40	5795	Ant1	36.867
NVNT	ac20	5745	Ant1	18.511
NVNT	ac20	5785	Ant1	18.429
NVNT	ac20	5825	Ant1	18.406
NVNT	ac40	5755	Ant1	36.898
NVNT	ac40	5795	Ant1	36.95
NVNT	ax20	5745	Ant1	19.223
NVNT	ax20	5785	Ant1	19.339
NVNT	ax20	5825	Ant1	19.51
NVNT	ax40	5755	Ant1	38.169
NVNT	ax40	5795	Ant1	38.153

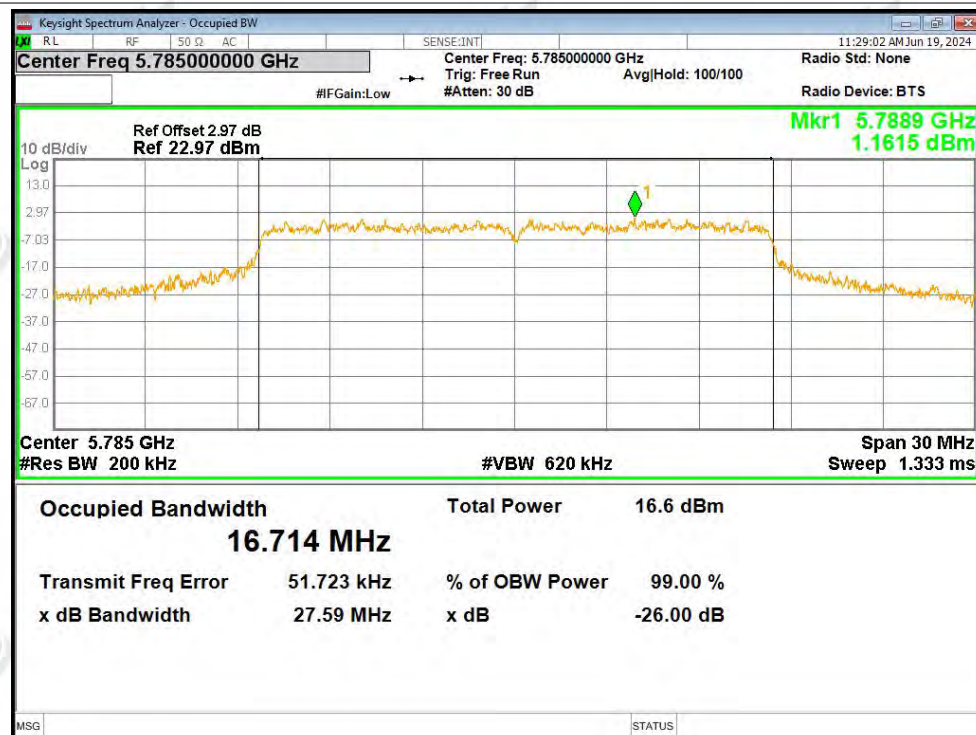


Test Graphs

OBW NVNT a 5745MHz Ant1

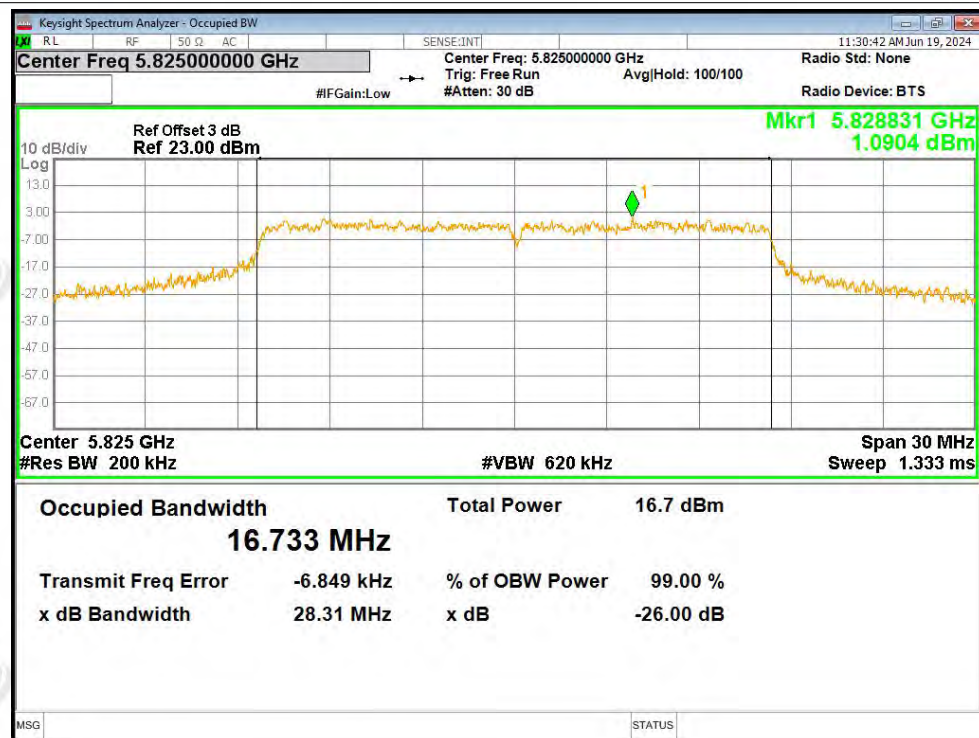


OBW NVNT a 5785MHz Ant1

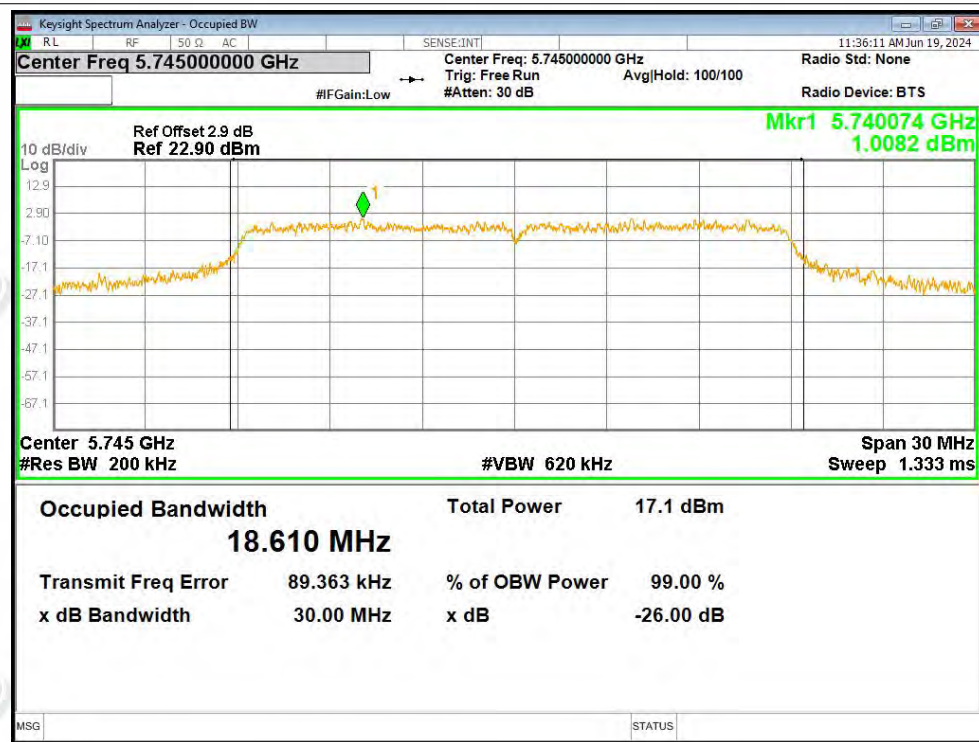




OBW NVNT a 5825MHz Ant1

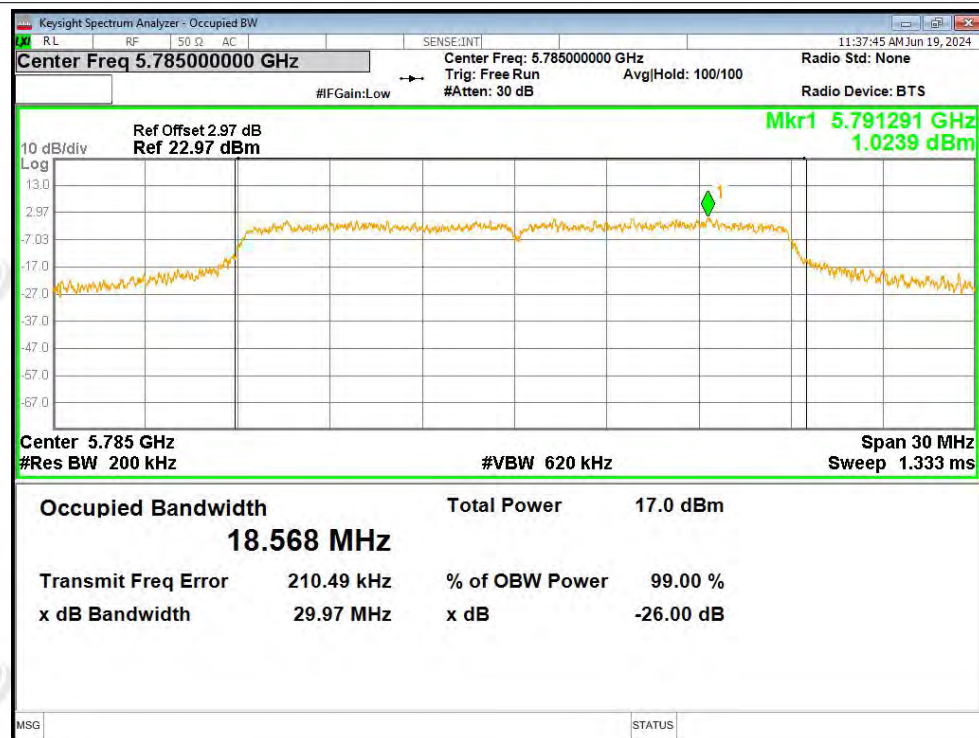


OBW NVNT n20 5745MHz Ant1

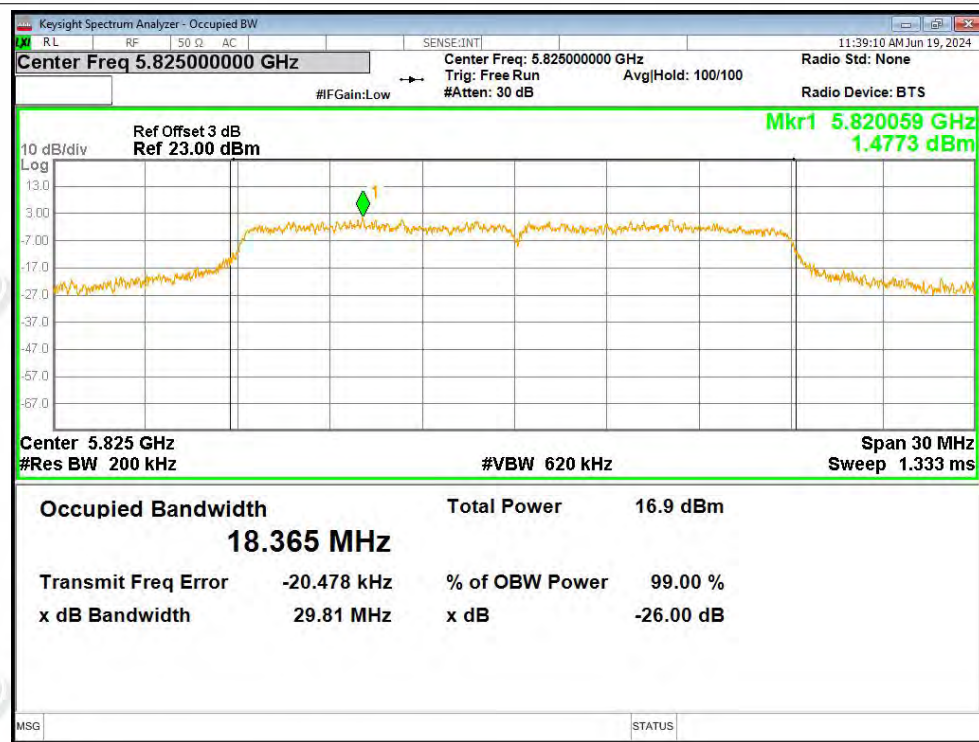




OBW NVNT n20 5785MHz Ant1

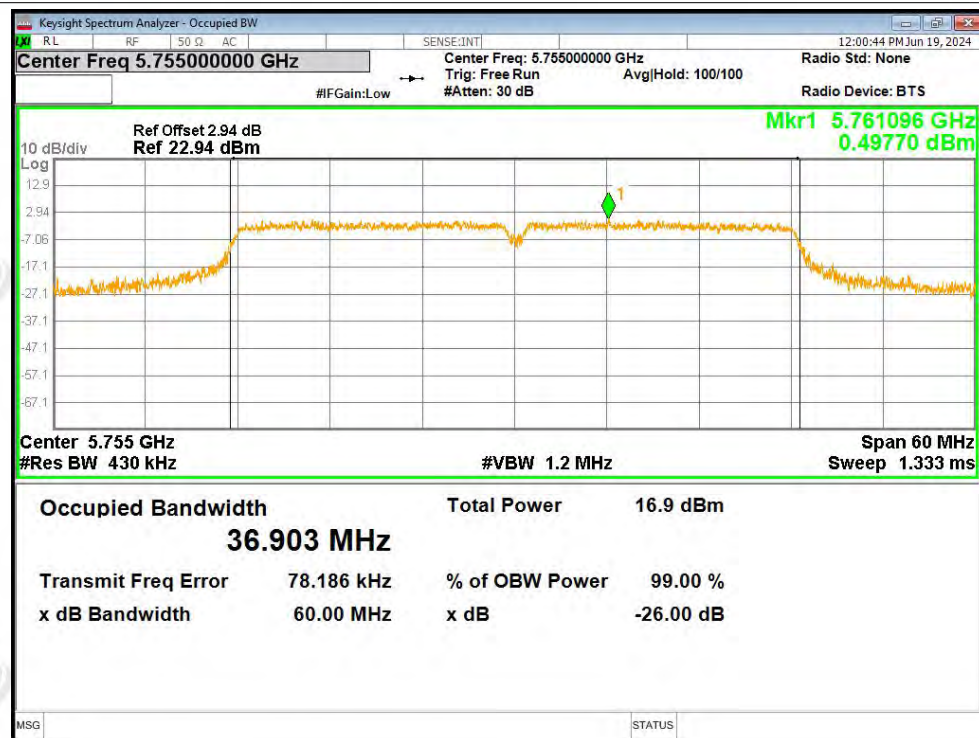


OBW NVNT n20 5825MHz Ant1

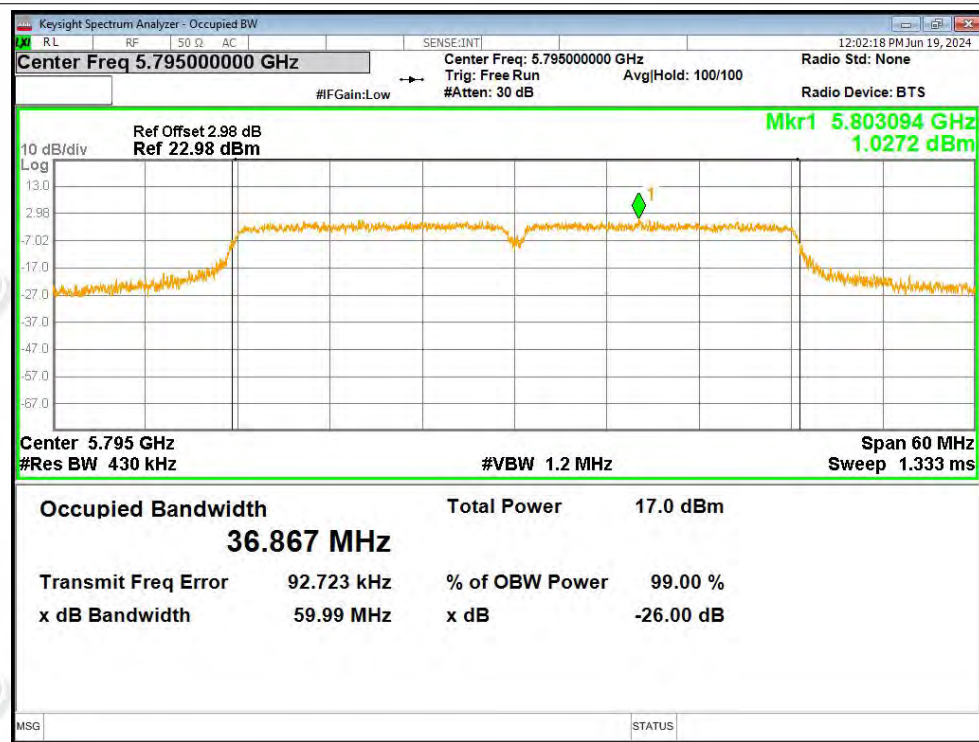




OBW NVNT n40 5755MHz Ant1

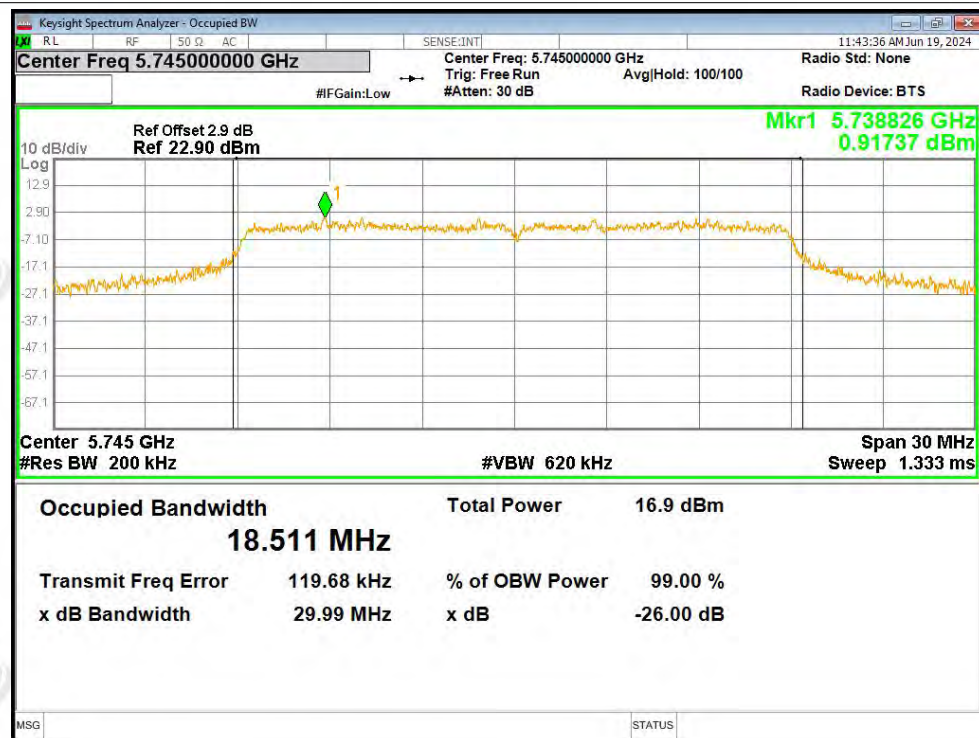


OBW NVNT n40 5795MHz Ant1

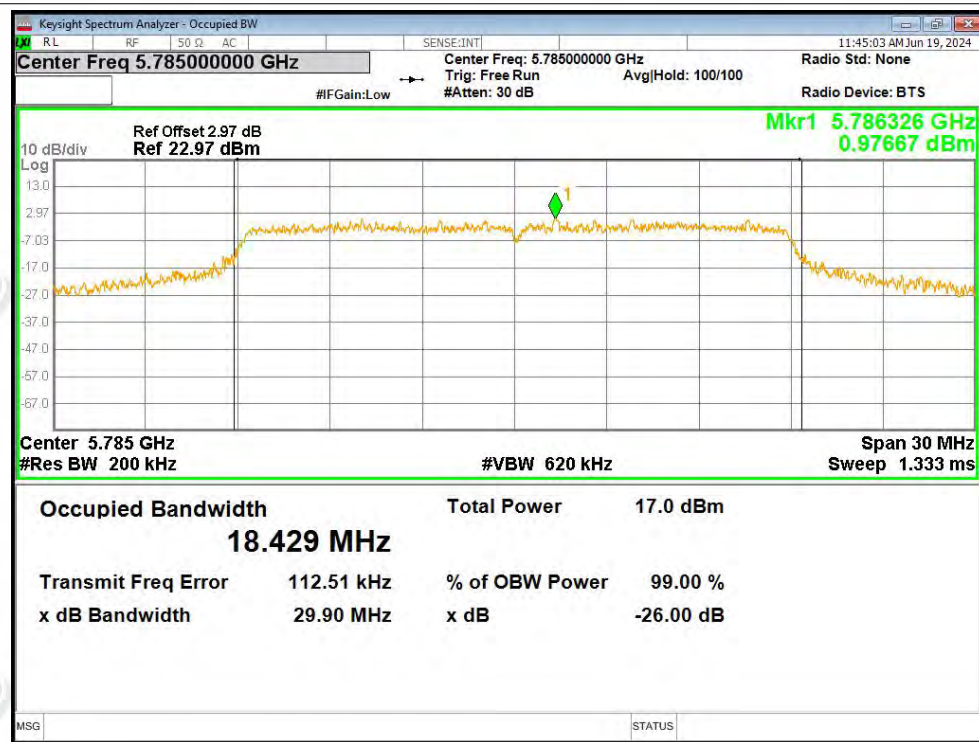




OBW NVNT ac20 5745MHz Ant1

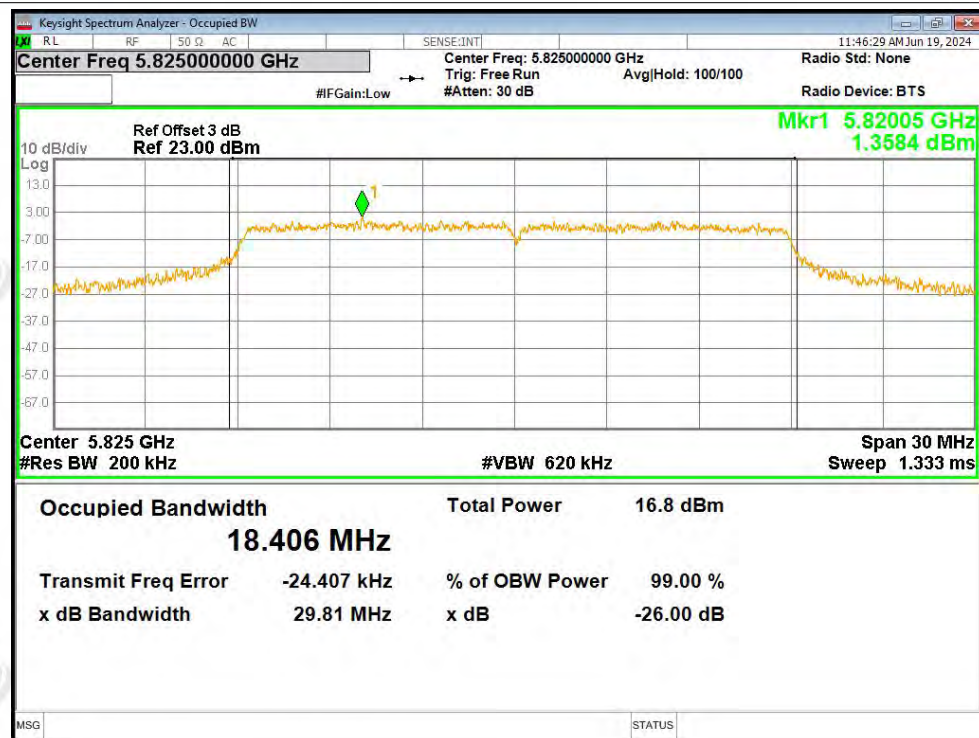


OBW NVNT ac20 5785MHz Ant1

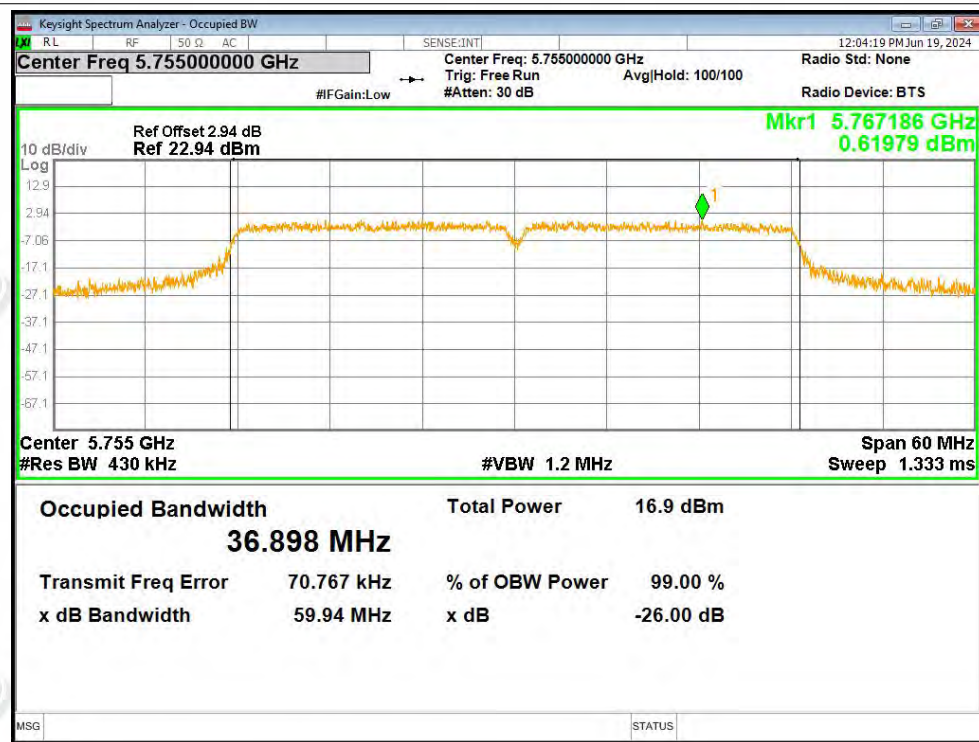




OBW NVNT ac20 5825MHz Ant1

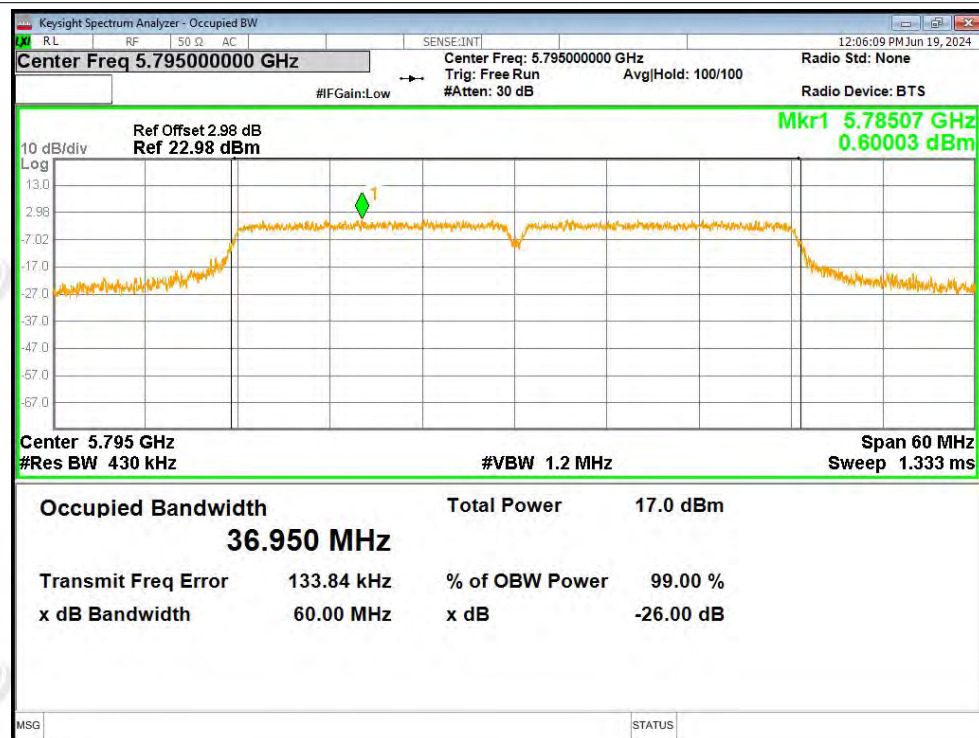


OBW NVNT ac40 5755MHz Ant1

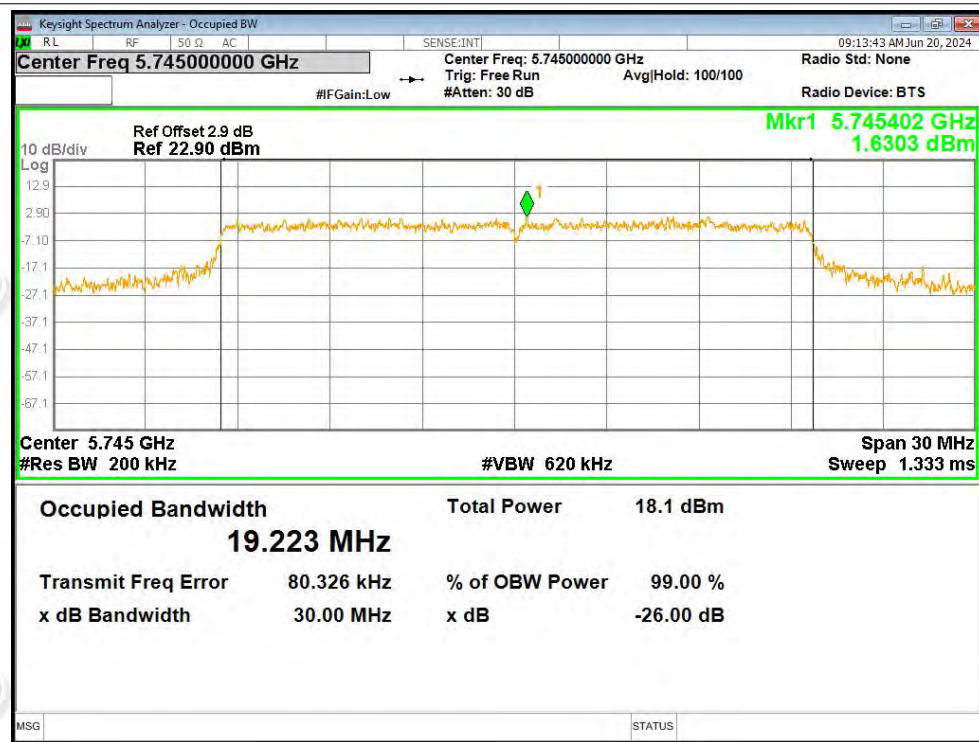




OBW NVNT ac40 5795MHz Ant1

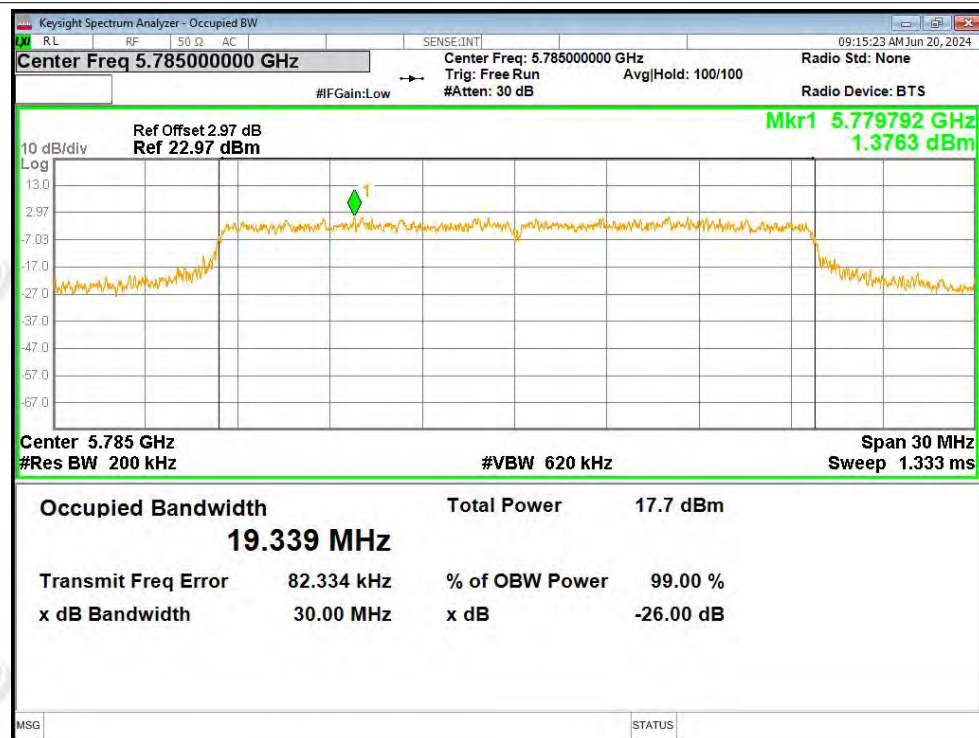


OBW NVNT ax20 5745MHz Ant1

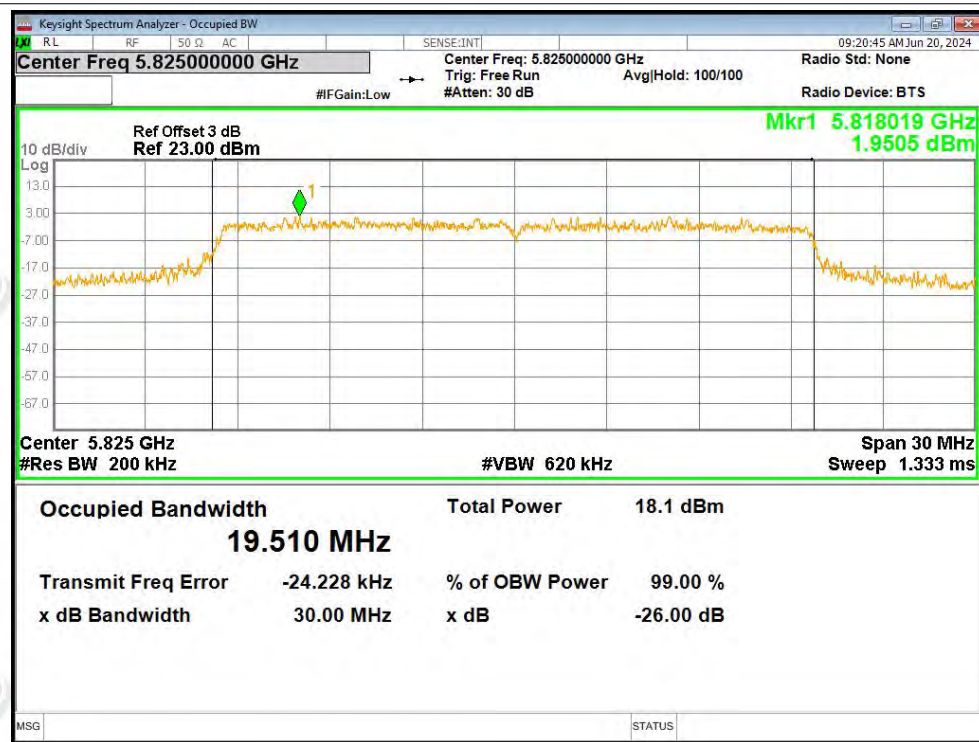




OBW NVNT ax20 5785MHz Ant1

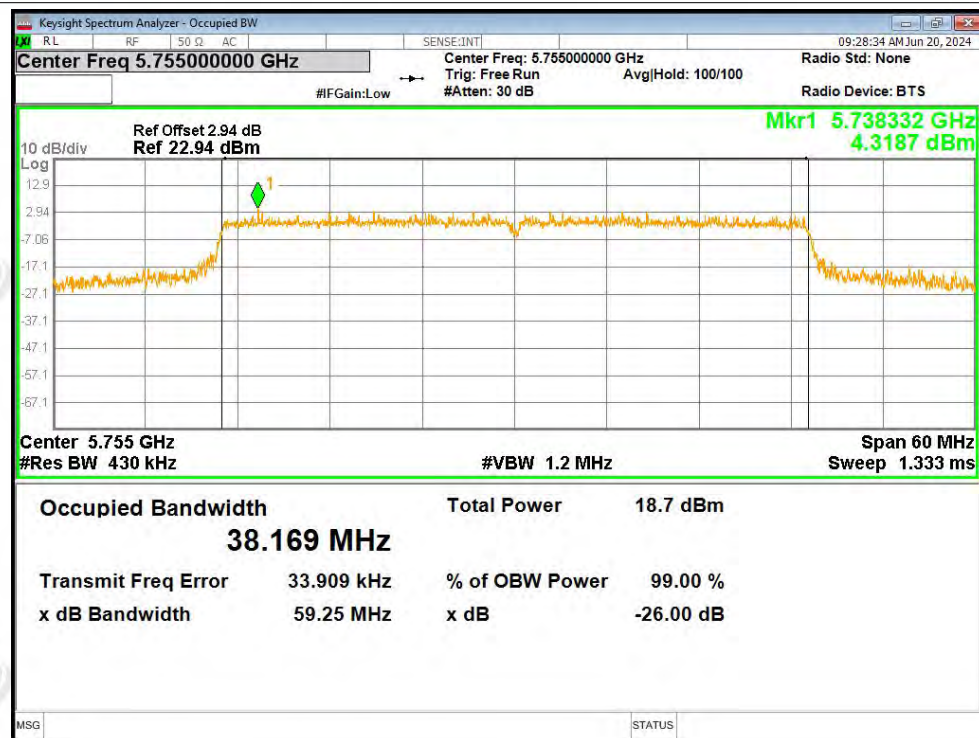


OBW NVNT ax20 5825MHz Ant1

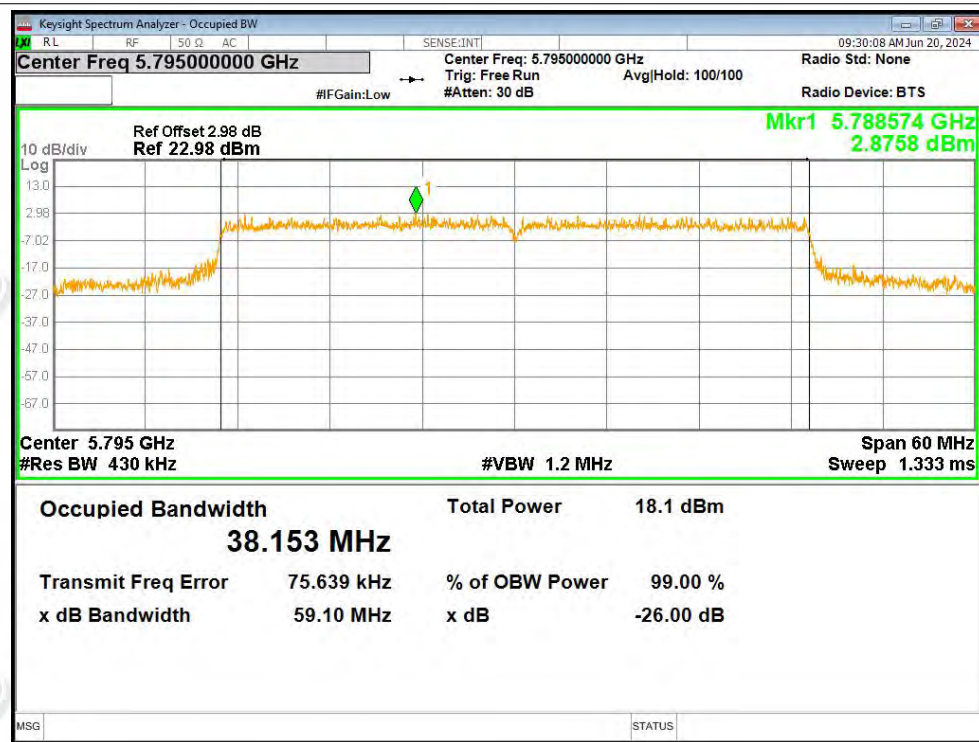




OBW NVNT ax40 5755MHz Ant1



OBW NVNT ax40 5795MHz Ant1



**ZHONGHAN****Maximum Power Spectral Density Level**

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	-17.19	0.51	-16.68	30	Pass
NVNT	a	5785	Ant1	-16.92	1.48	-15.44	30	Pass
NVNT	a	5825	Ant1	-14.98	3.87	-11.11	30	Pass
NVNT	n20	5745	Ant1	-6.74	0.42	-6.32	30	Pass
NVNT	n20	5785	Ant1	-5.71	0.11	-5.6	30	Pass
NVNT	n20	5825	Ant1	-6.65	0.46	-6.19	30	Pass
NVNT	n40	5755	Ant1	-12.46	0.23	-12.23	30	Pass
NVNT	n40	5795	Ant1	-12.33	1.21	-11.12	30	Pass
NVNT	ac20	5745	Ant1	-4.92	0.37	-4.55	30	Pass
NVNT	ac20	5785	Ant1	-5.65	0.11	-5.54	30	Pass
NVNT	ac20	5825	Ant1	-5.87	0.16	-5.71	30	Pass
NVNT	ac40	5755	Ant1	-11.86	0.4	-11.46	30	Pass
NVNT	ac40	5795	Ant1	-11.56	0.44	-11.12	30	Pass
NVNT	ax20	5745	Ant1	-5.68	0.4	-5.28	30	Pass
NVNT	ax20	5785	Ant1	-7.68	0.29	-7.39	30	Pass
NVNT	ax20	5825	Ant1	-6.12	0.29	-5.83	30	Pass
NVNT	ax40	5755	Ant1	-11.77	0.89	-10.88	30	Pass
NVNT	ax40	5795	Ant1	-13.27	0.98	-12.29	30	Pass



Test Graphs

PSD NVNT a 5745MHz Ant1



PSD NVNT a 5785MHz Ant1

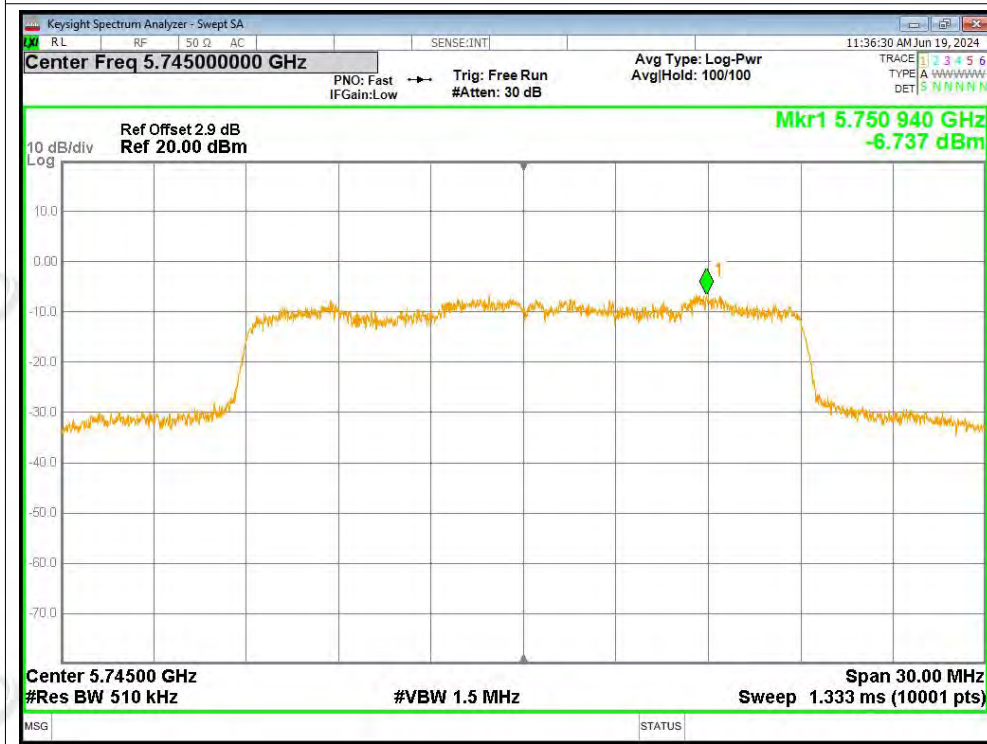




PSD NVNT a 5825MHz Ant1



PSD NVNT n20 5745MHz Ant1

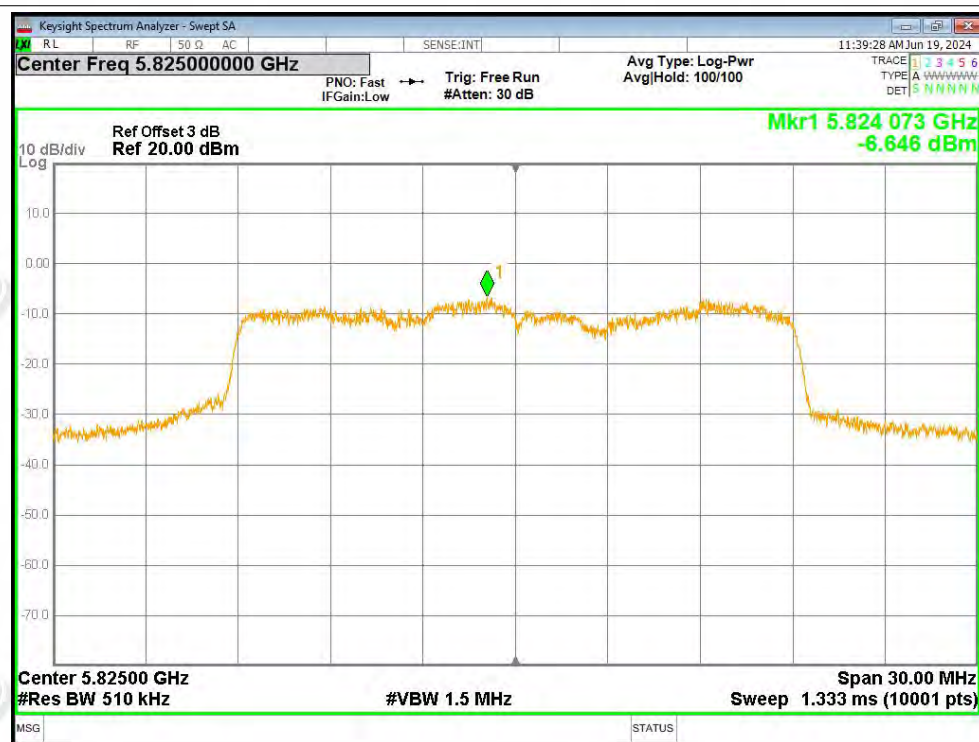




PSD NVNT n20 5785MHz Ant1



PSD NVNT n20 5825MHz Ant1

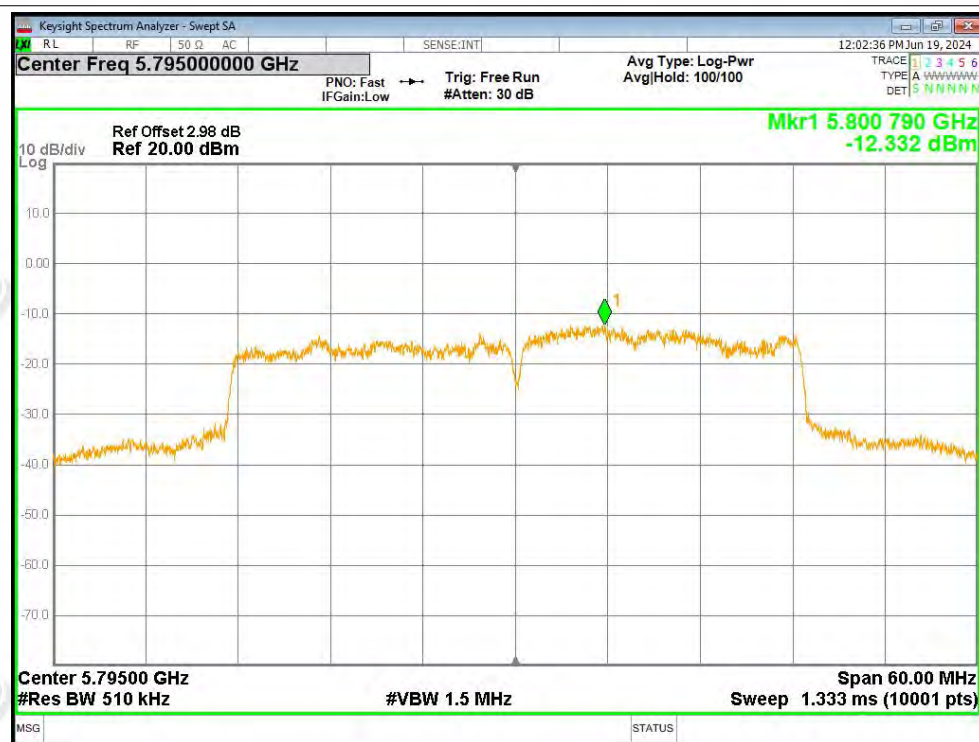




PSD NVNT n40 5755MHz Ant1



PSD NVNT n40 5795MHz Ant1





PSD NVNT ac20 5745MHz Ant1



PSD NVNT ac20 5785MHz Ant1





PSD NVNT ac20 5825MHz Ant1



PSD NVNT ac40 5755MHz Ant1





PSD NVNT ac40 5795MHz Ant1

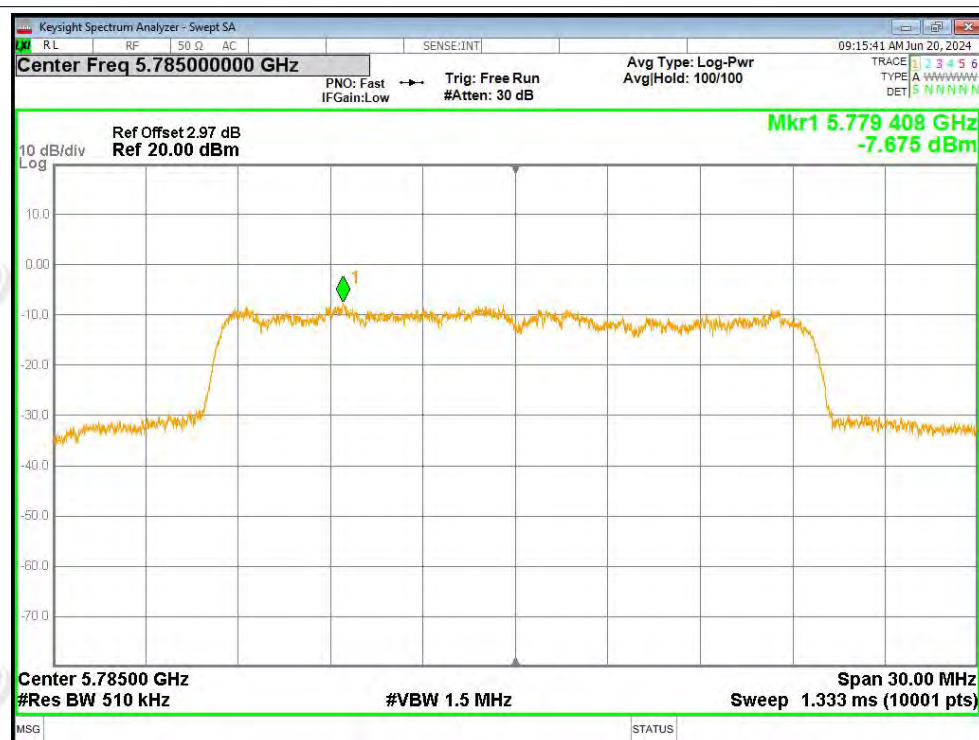


PSD NVNT ax20 5745MHz Ant1





PSD NVNT ax20 5785MHz Ant1



PSD NVNT ax20 5825MHz Ant1





PSD NVNT ax40 5755MHz Ant1



PSD NVNT ax40 5795MHz Ant1



**ZHONGHAN**
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm)	Verdict
NVNT	a	5745	Ant1	-22.25	Pass
NVNT	a	5825	Ant1	-33.25	Pass
NVNT	n20	5745	Ant1	-16.27	Pass
NVNT	n20	5825	Ant1	-27.27	Pass
NVNT	n40	5755	Ant1	-17.33	Pass
NVNT	n40	5795	Ant1	-35.97	Pass
NVNT	ac20	5745	Ant1	-17.55	Pass
NVNT	ac20	5825	Ant1	-29.39	Pass
NVNT	ac40	5755	Ant1	-15.85	Pass
NVNT	ac40	5795	Ant1	-34.81	Pass
NVNT	ax20	5745	Ant1	-15.59	Pass
NVNT	ax20	5825	Ant1	-22.15	Pass
NVNT	ax40	5755	Ant1	-16.11	Pass
NVNT	ax40	5795	Ant1	-34.58	Pass