Appendix A

RF Test Data for SRD(Conducted Measurement)

Product Name: VOK-STAFF-US/CAN/AUS/NZ

Test Model: VO8438CAG

Environmental Conditions

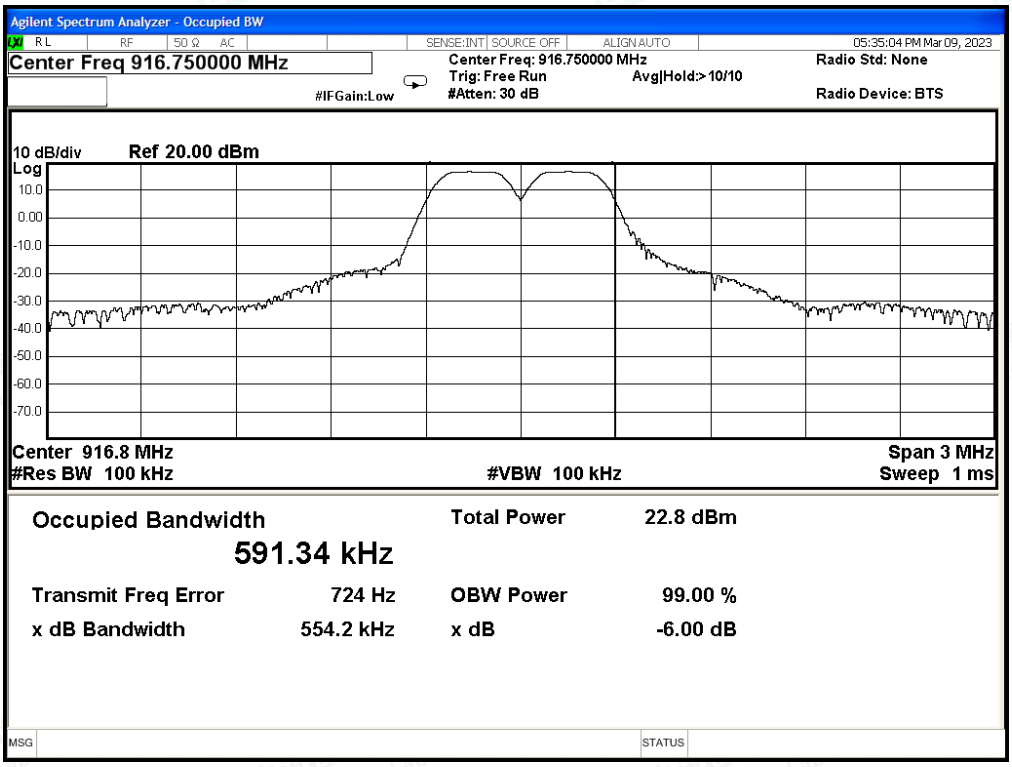
Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Taylor Hu
Supervised by:	Ling Zhu

A.1 -6dB Bandwidth

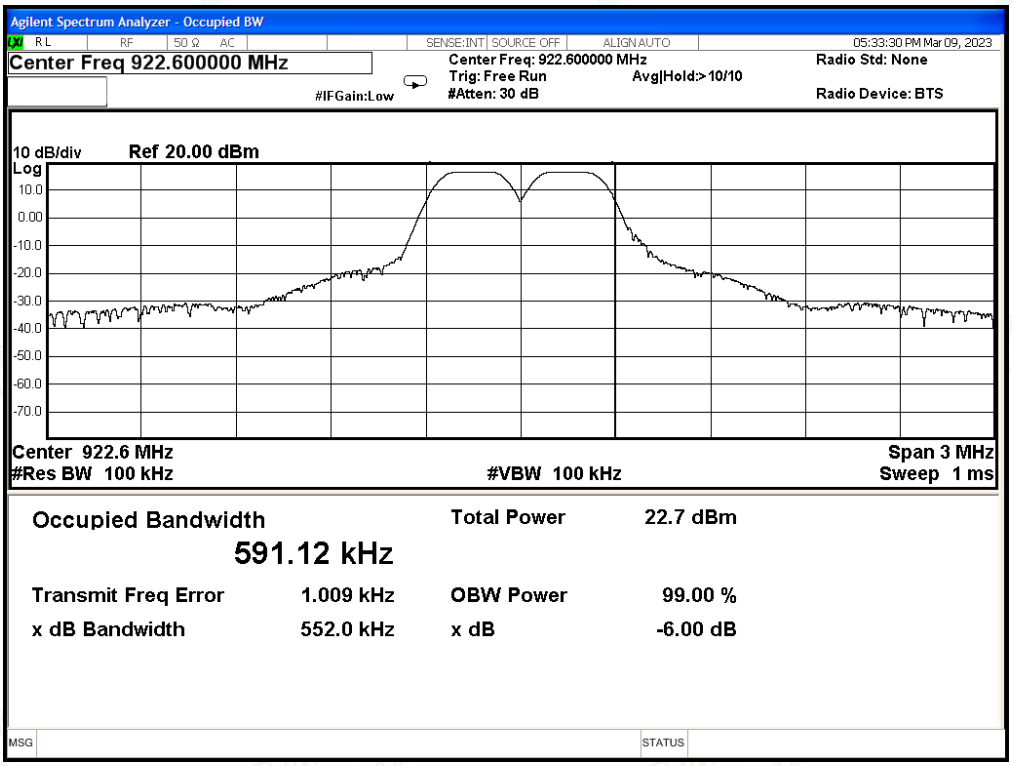
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	SRD	916.75	Ant1	0.554	>=0.5	Pass
NVNT	SRD	922.6	Ant1	0.552	>=0.5	Pass
NVNT	SRD	927.4	Ant1	0.591	>=0.5	Pass

Test Graphs

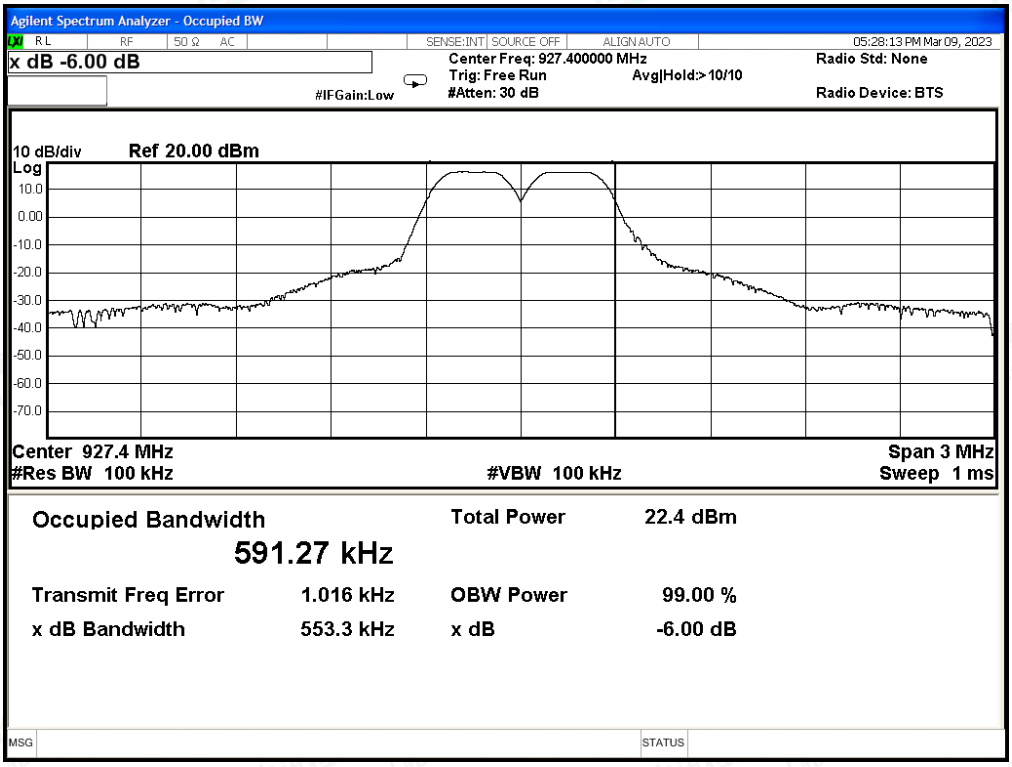
-6dB Bandwidth NVNT SRD 916.75MHz Ant1



-6dB Bandwidth NVNT SRD 922.6MHz Ant1



-6dB Bandwidth NVNT SRD 927.4MHz Ant1

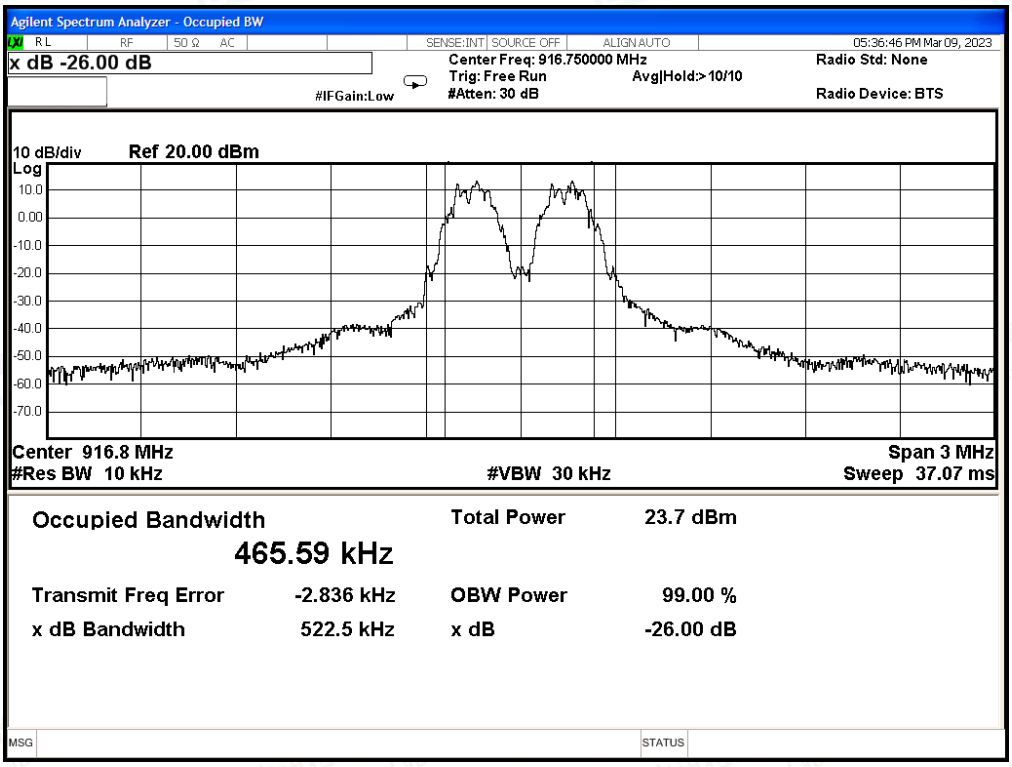


A.2 Occupied Channel Bandwidth

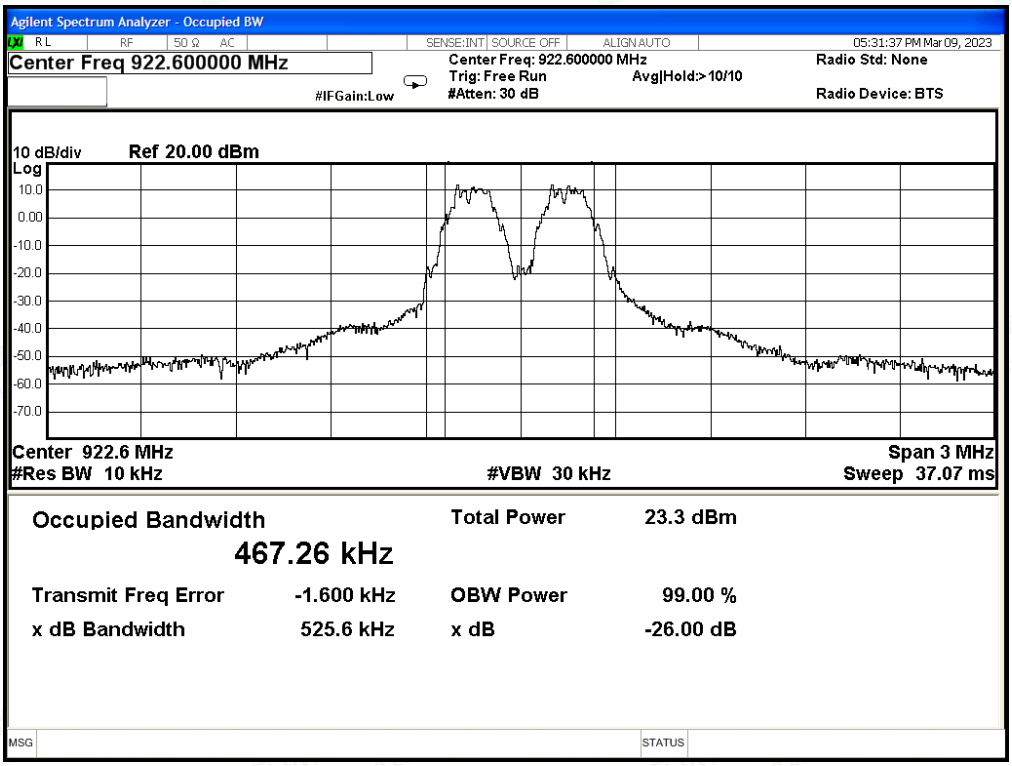
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	SRD	916.75	Ant1	0.466
NVNT	SRD	922.6	Ant1	0.467
NVNT	SRD	927.4	Ant1	0.465

Test Graphs

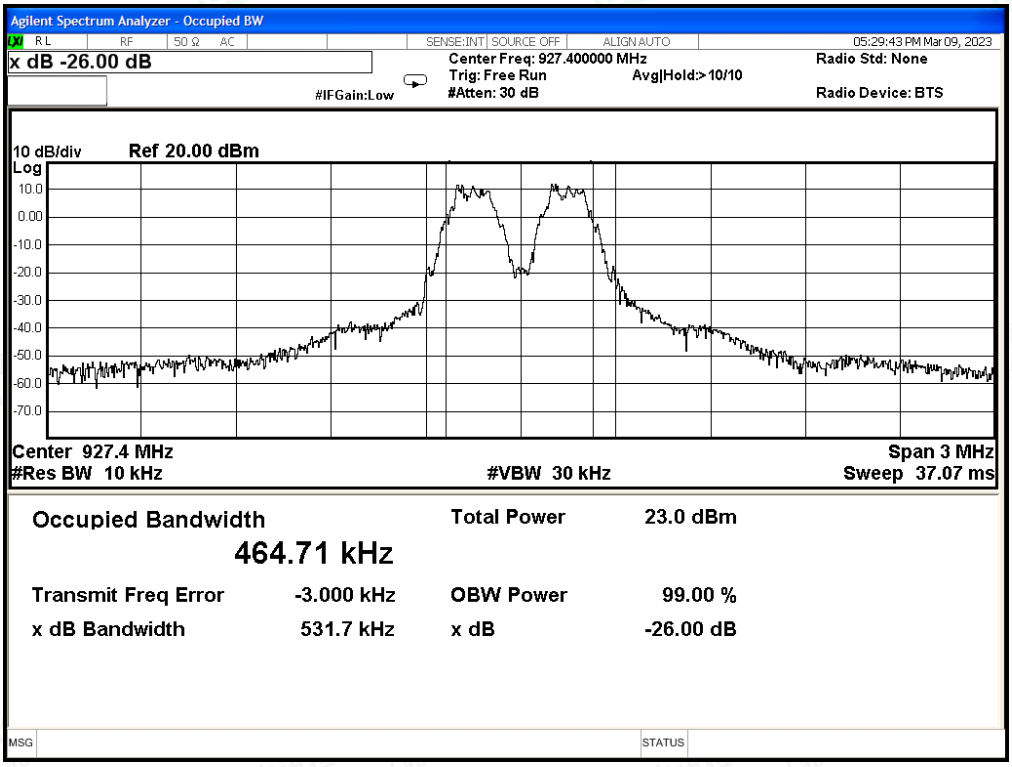
OBW NVNT SRD 916.75MHz Ant1



OBW NVNT SRD 922.6MHz Ant1



OBW NVNT SRD 927.4MHz Ant1

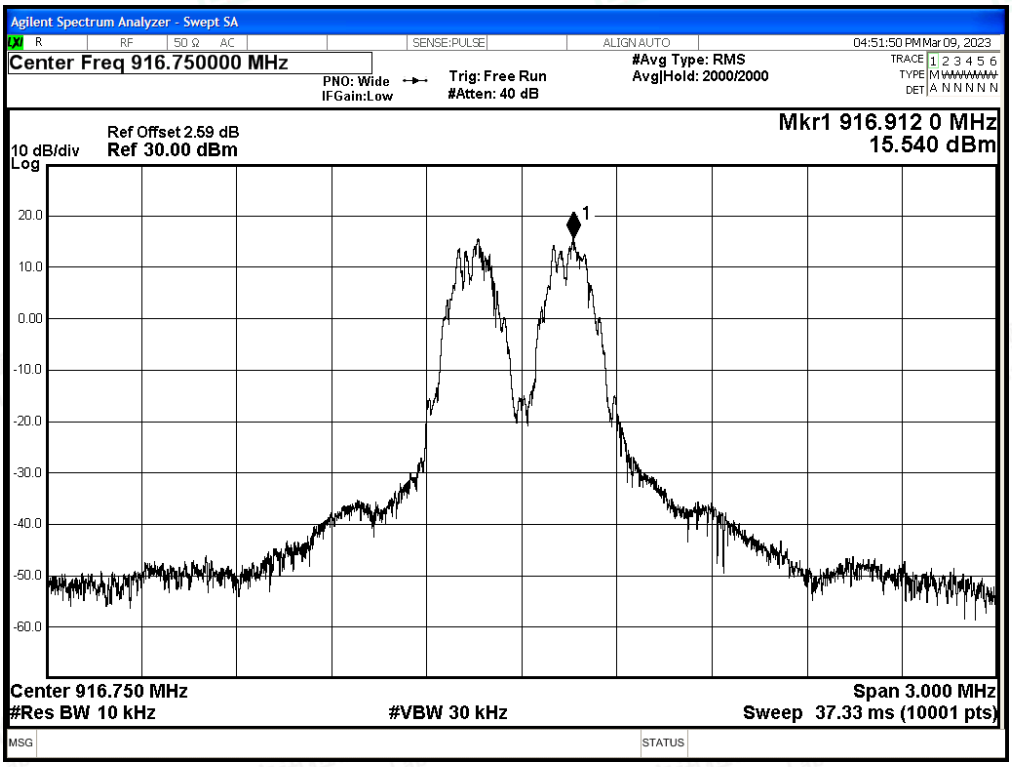


A.3 Maximum Conducted Output Power

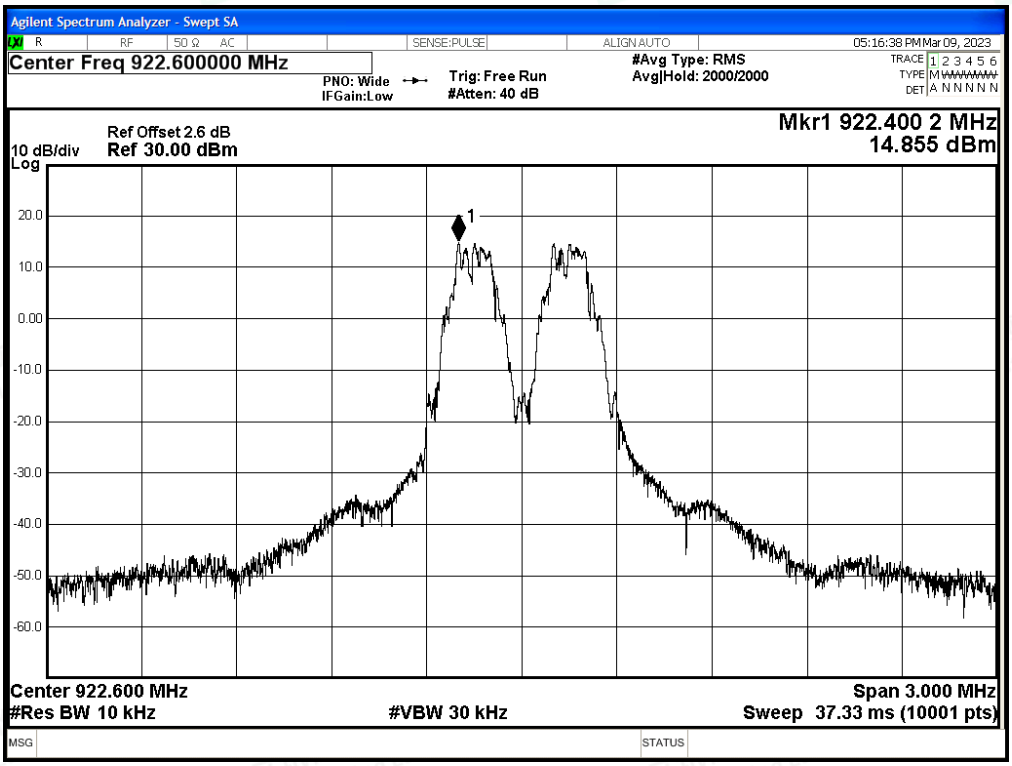
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Gain(dB)	EIRP(dBm)	Limit (dBm)	Verdict
NVNT	SRD	916.75	Ant1	15.54	0	15.54	30	Pass
NVNT	SRD	922.6	Ant1	14.86	0	14.86	30	Pass
NVNT	SRD	927.4	Ant1	14.78	0	14.78	30	Pass

Test Graphs

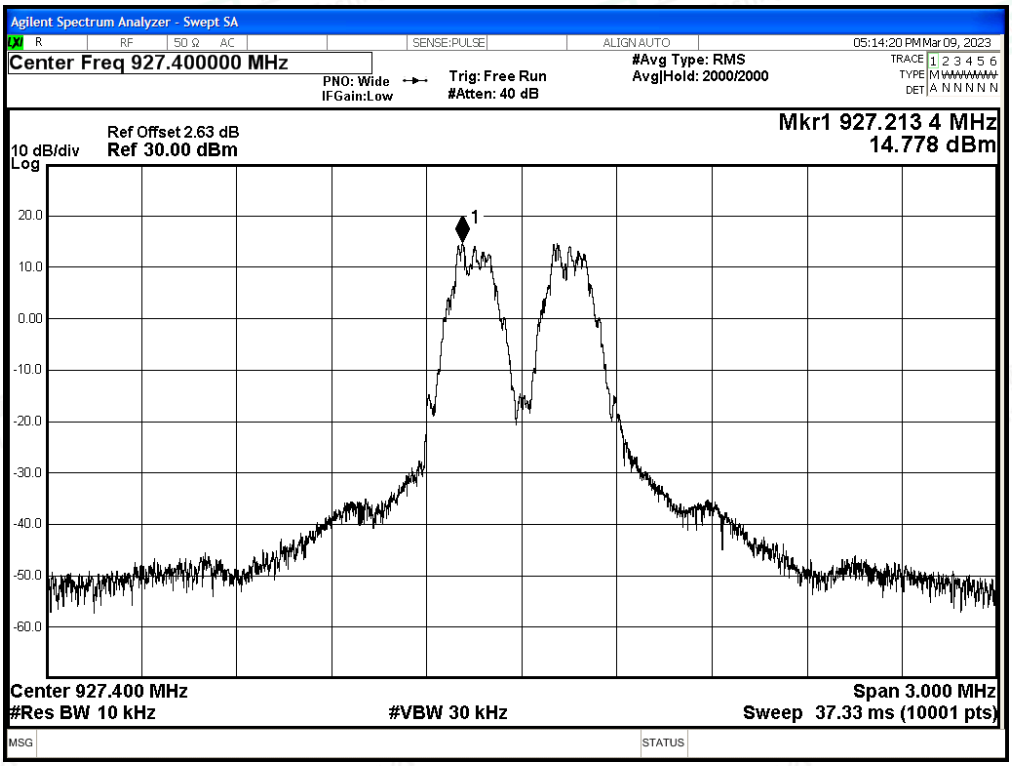
Power NVNT SRD 916.75MHz Ant1



Power NVNT SRD 922.6MHz Ant1



Power NVNT SRD 927.4MHz Ant1

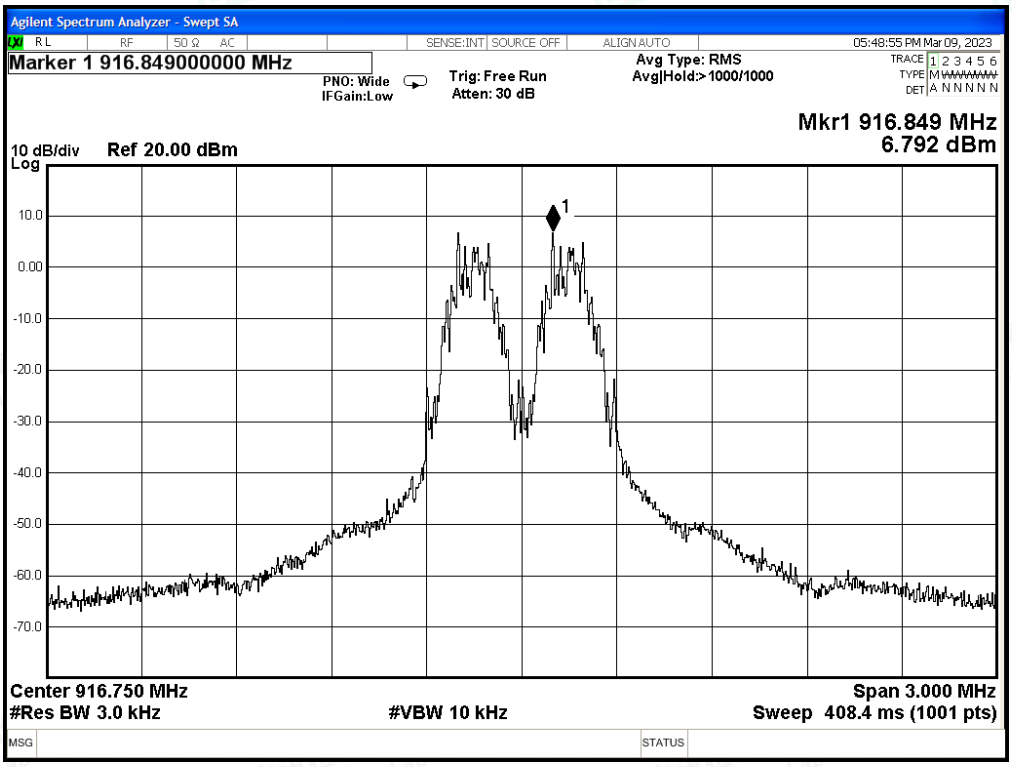


A.4 Maximum Power Spectral Density Level

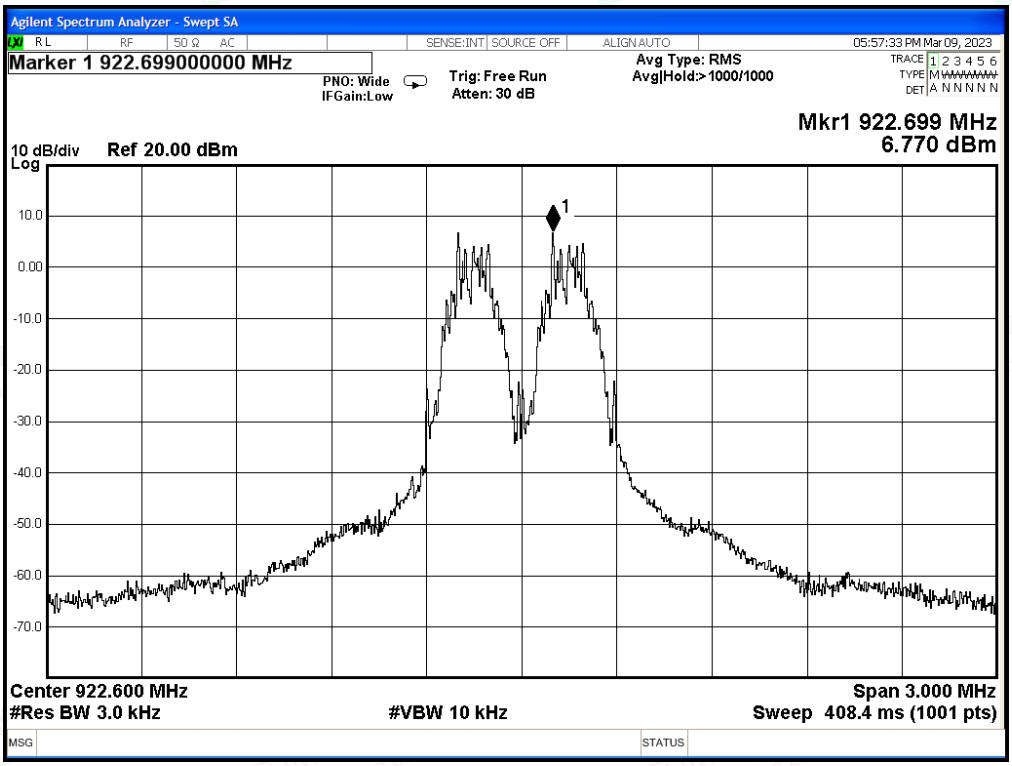
Condition	Mode	Frequency (MHz)	Antenna	PSD (dBm/3kHz)	Gain(dB)	EIRP PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	SRD	916.75	Ant1	6.79	0	6.79	8	Pass
NVNT	SRD	922.6	Ant1	6.77	0	6.77	8	Pass
NVNT	SRD	927.4	Ant1	6.61	0	6.61	8	Pass

Test Graphs

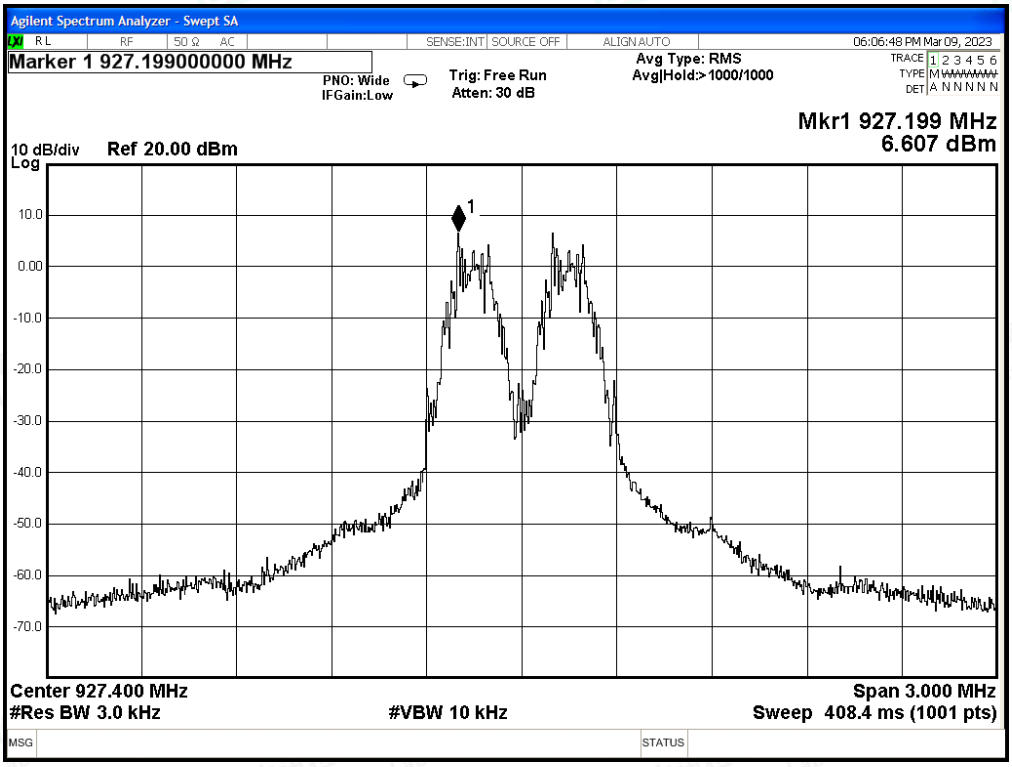
PSD NVNT SRD 916.75MHz Ant1



PSD NVNT SRD 922.6MHz Ant1



PSD NVNT SRD 927.4MHz Ant1

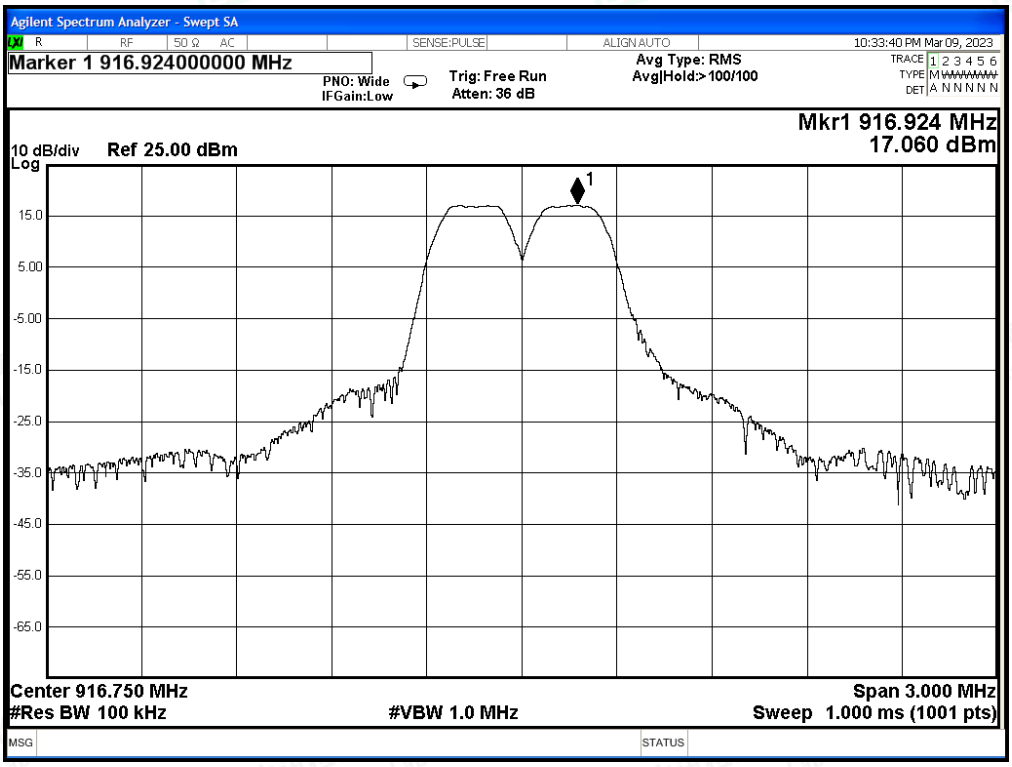


A.5 Band Edge

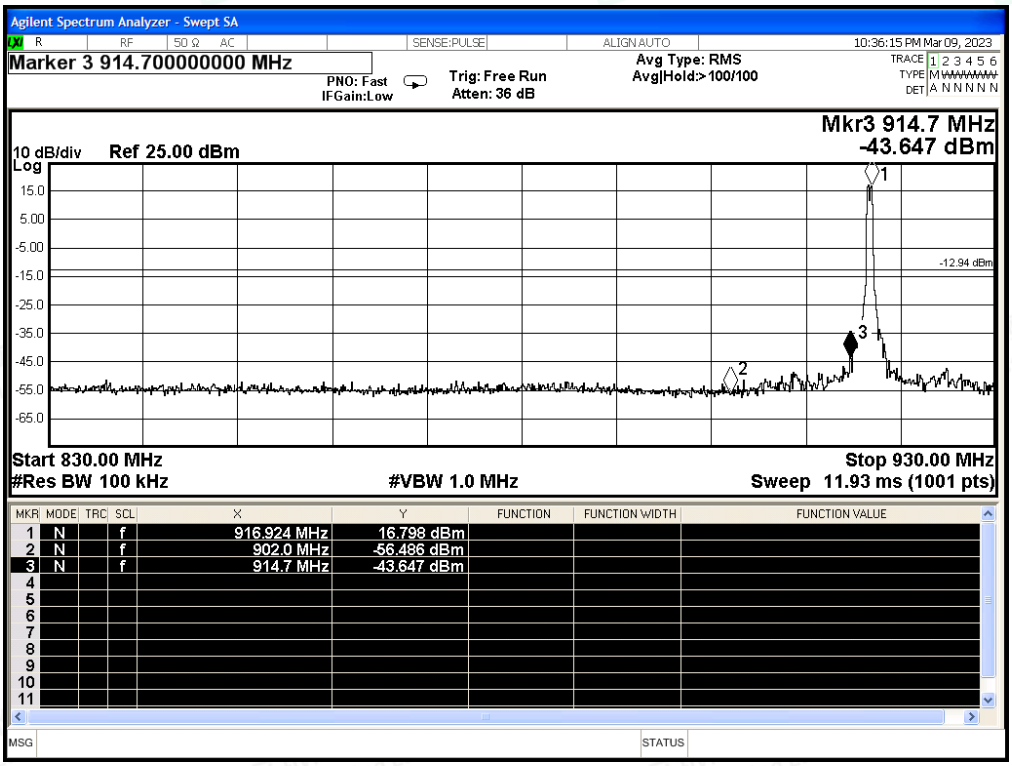
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	SRD	916.75	Ant1	-72.55	-20	Pass
NVNT	SRD	927.4	Ant1	-40.16	-20	Pass

Test Graphs

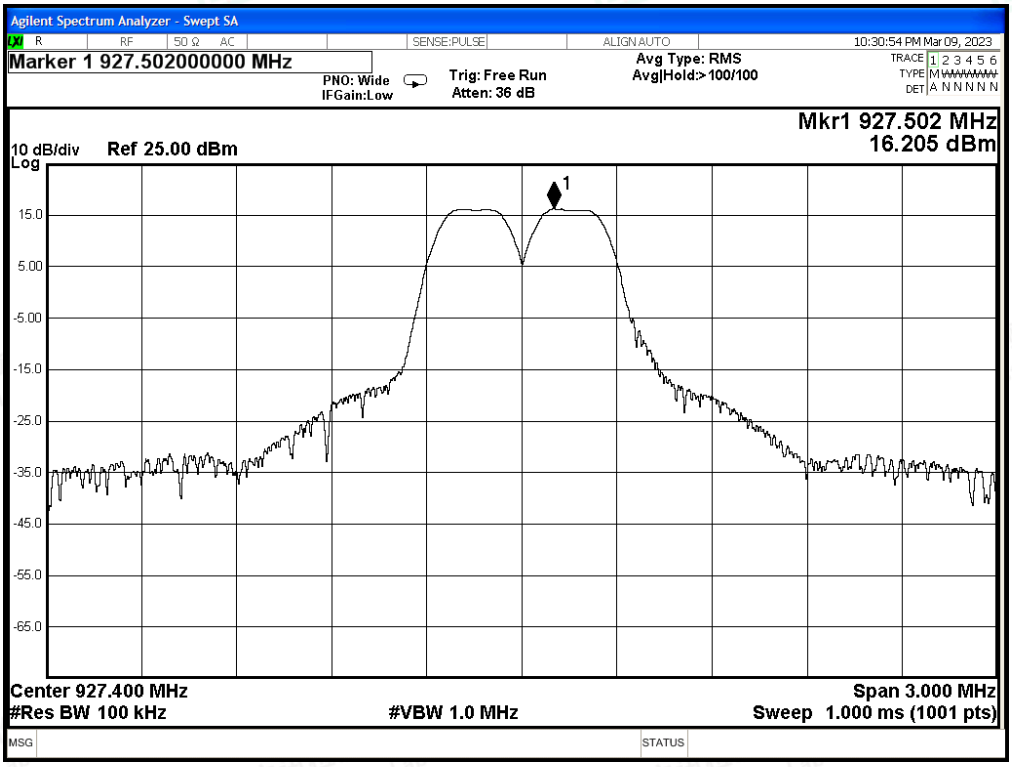
Band Edge NVNT SRD 916.75MHz Ant1 Ref



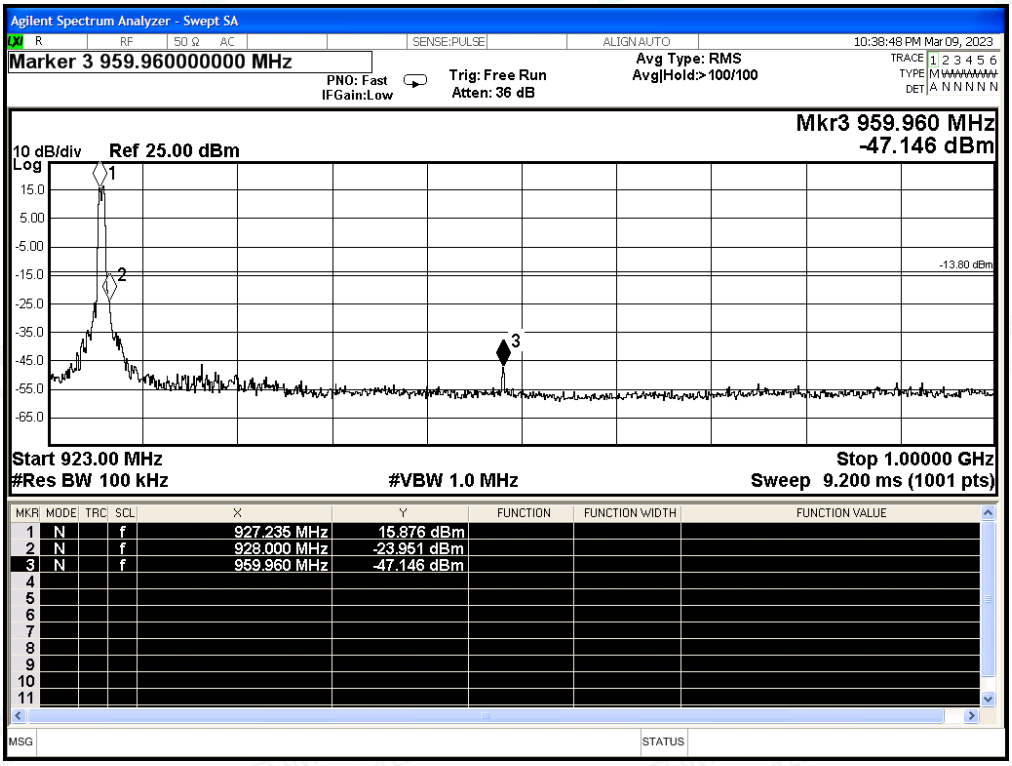
Band Edge NVNT SRD 916.75MHz Ant1 Emission



Band Edge NVNT SRD 927.4MHz Ant1 Ref



Band Edge NVNT SRD 927.4MHz Ant1 Emission

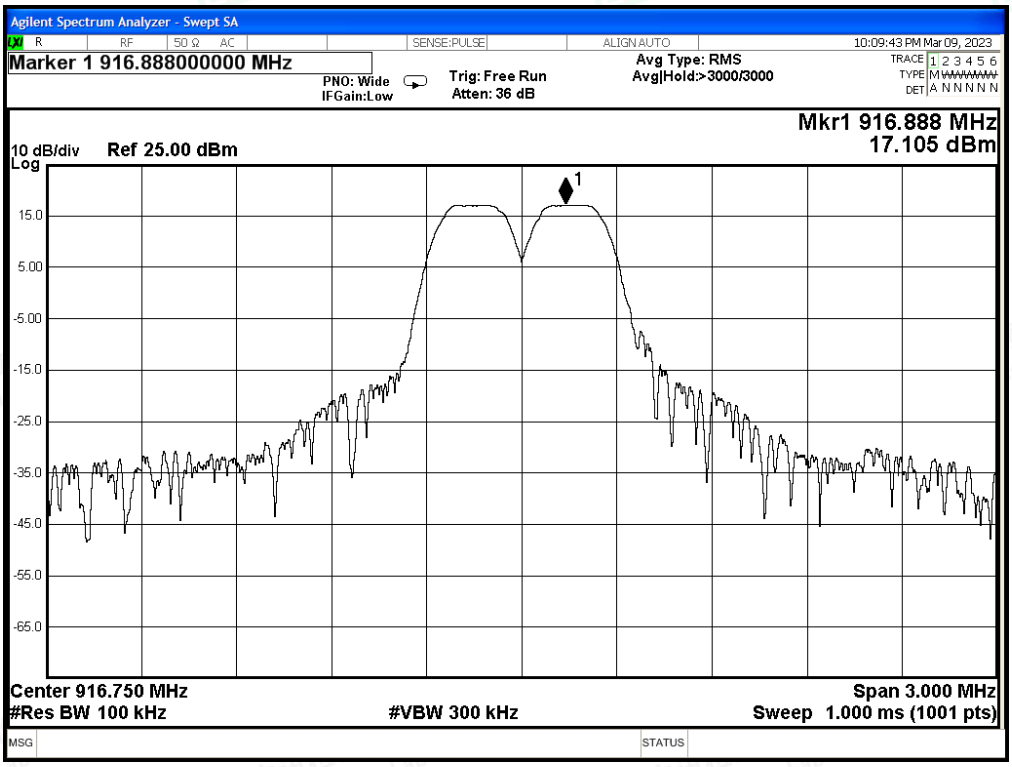


A.6 Conducted RF Spurious Emission

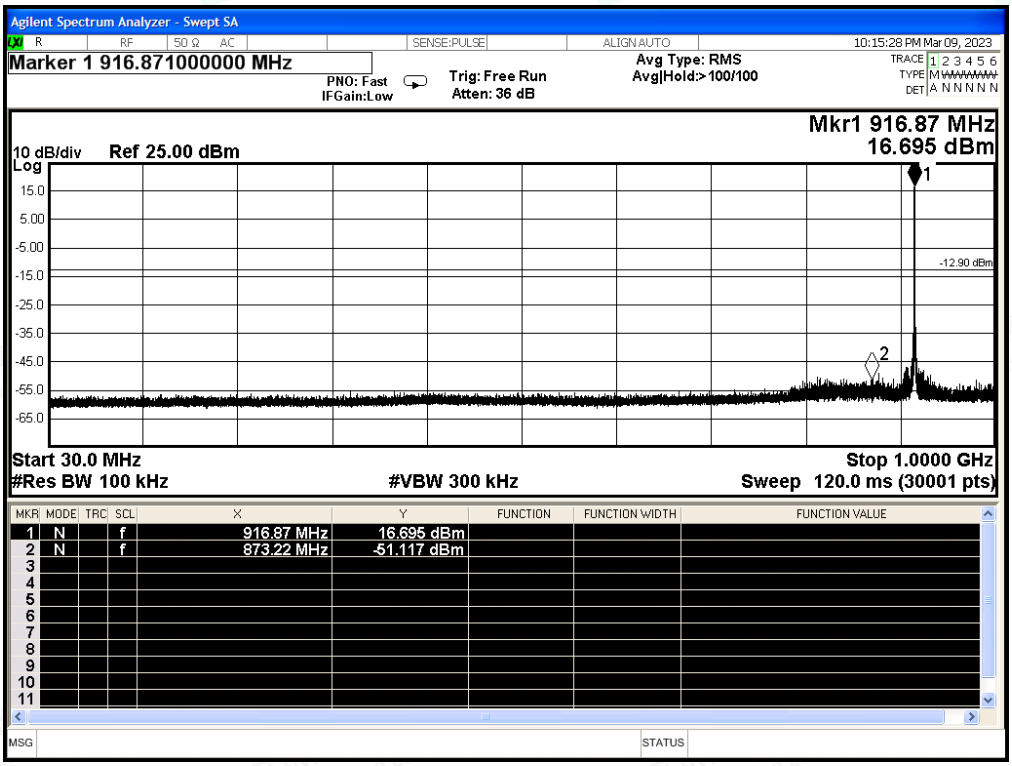
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
SRD	Ant1	916.75	Reference	17.10	17.11	---	PASS
			30~1000	17.10	-51.12	≤-12.90	PASS
			1000~26500	17.10	-50.33	≤-12.90	PASS
		922.6	Reference	16.86	16.86	---	PASS
			30~1000	16.86	-46.54	≤13.14	PASS
			1000~26500	16.86	-49.35	≤13.14	PASS
		927.4	Reference	16.59	16.59	---	PASS
			30~1000	16.59	-46.66	≤-13.41	PASS
			1000~26500	16.59	-49.35	≤-13.41	PASS

Test Graphs

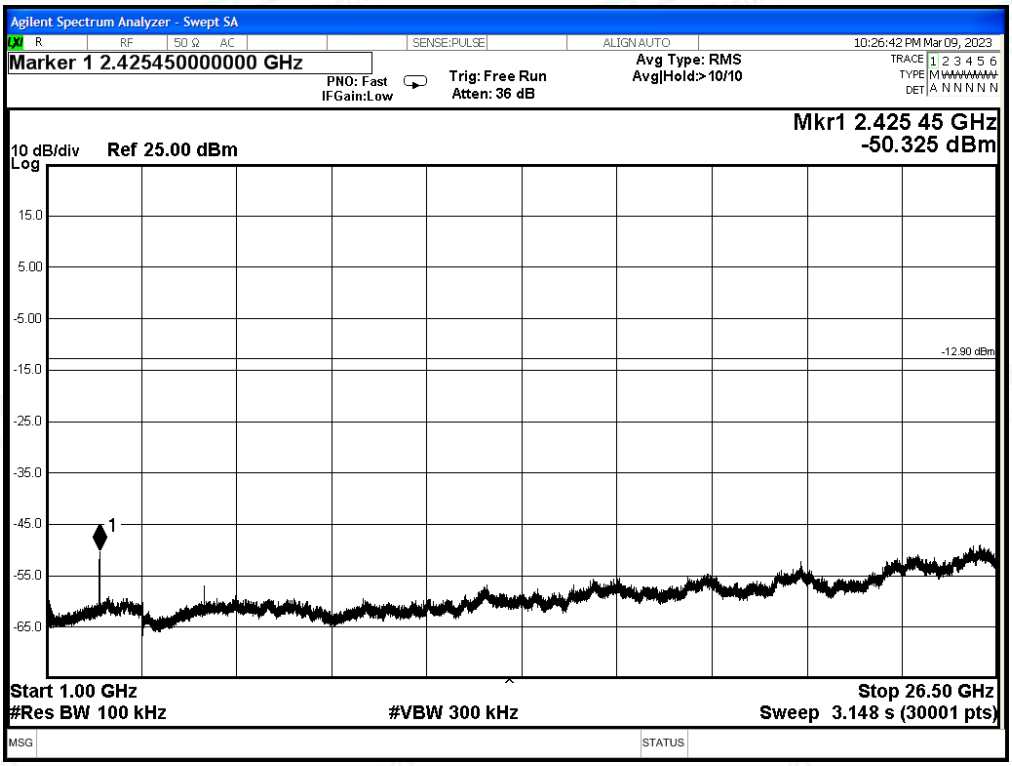
Ant1_916.75_0~Reference



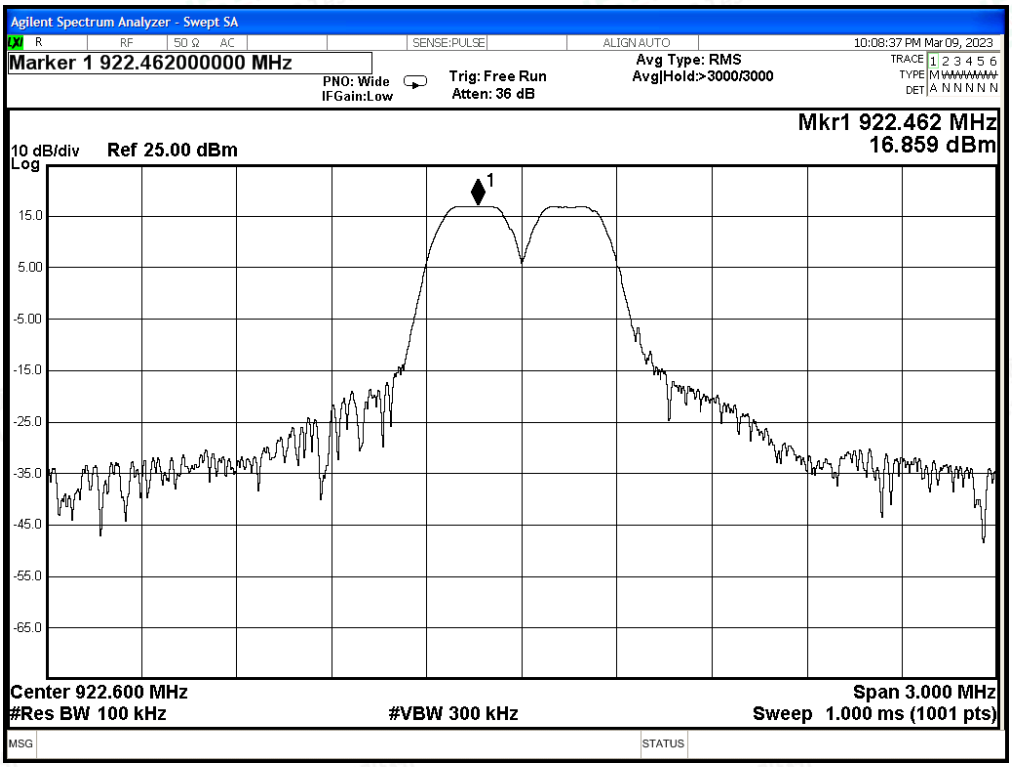
Ant1_916.75_30~1000



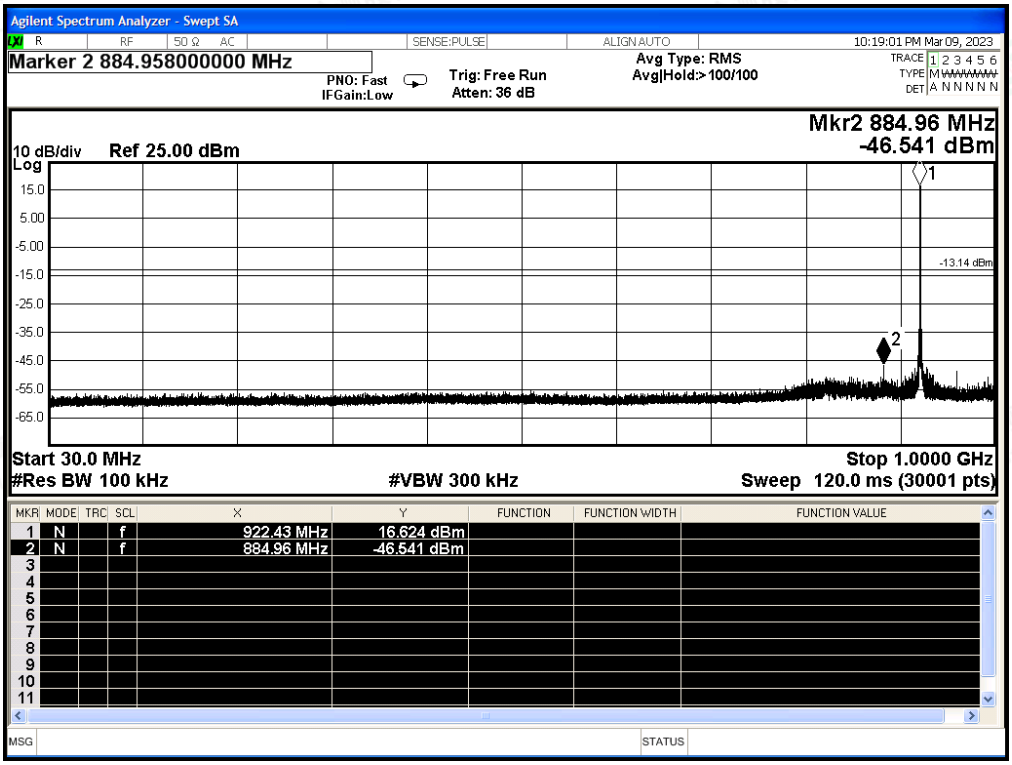
Ant1_916.75_1000~26500



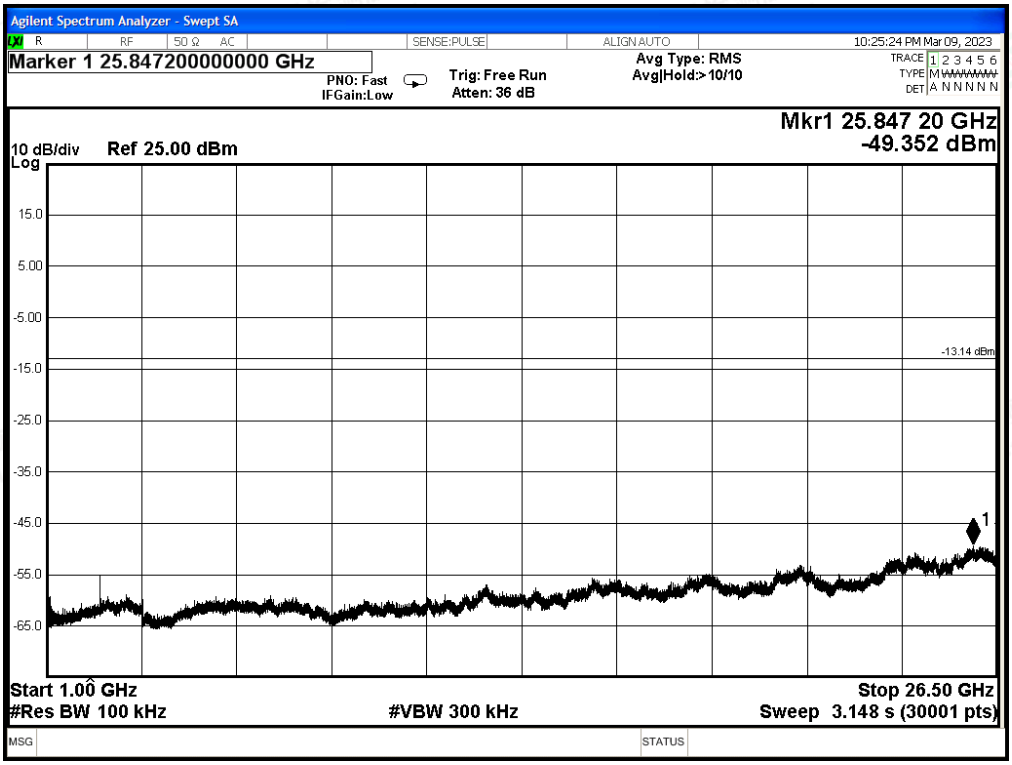
Ant1_922.6_0~Reference



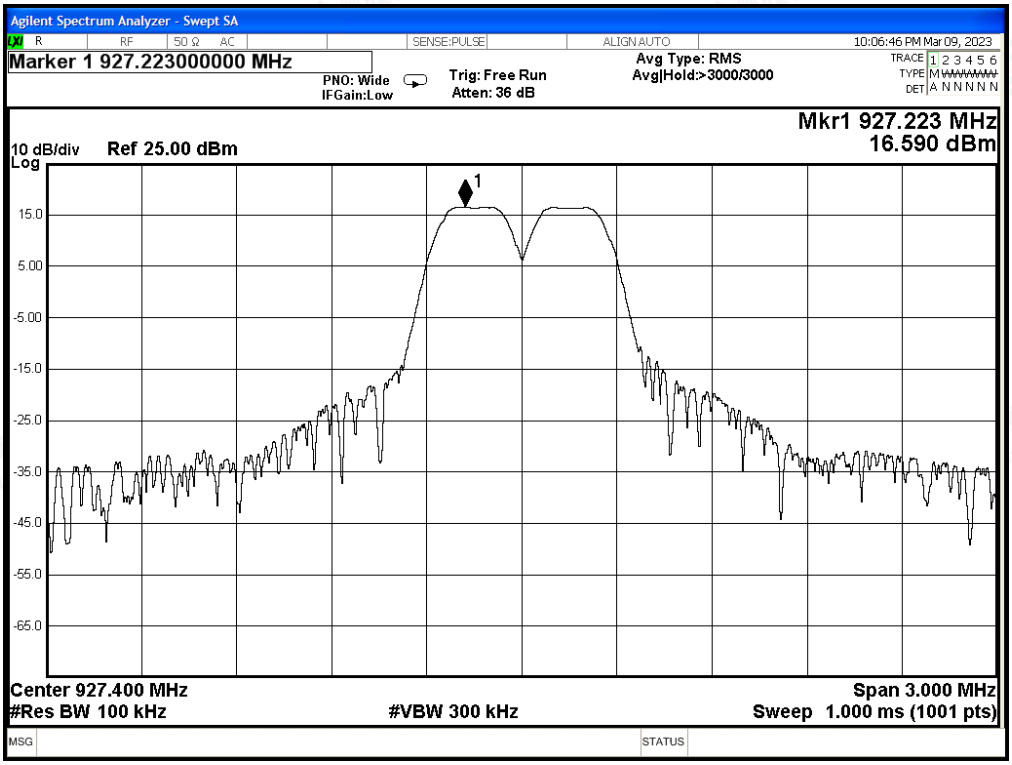
Ant1_922.6_30~1000



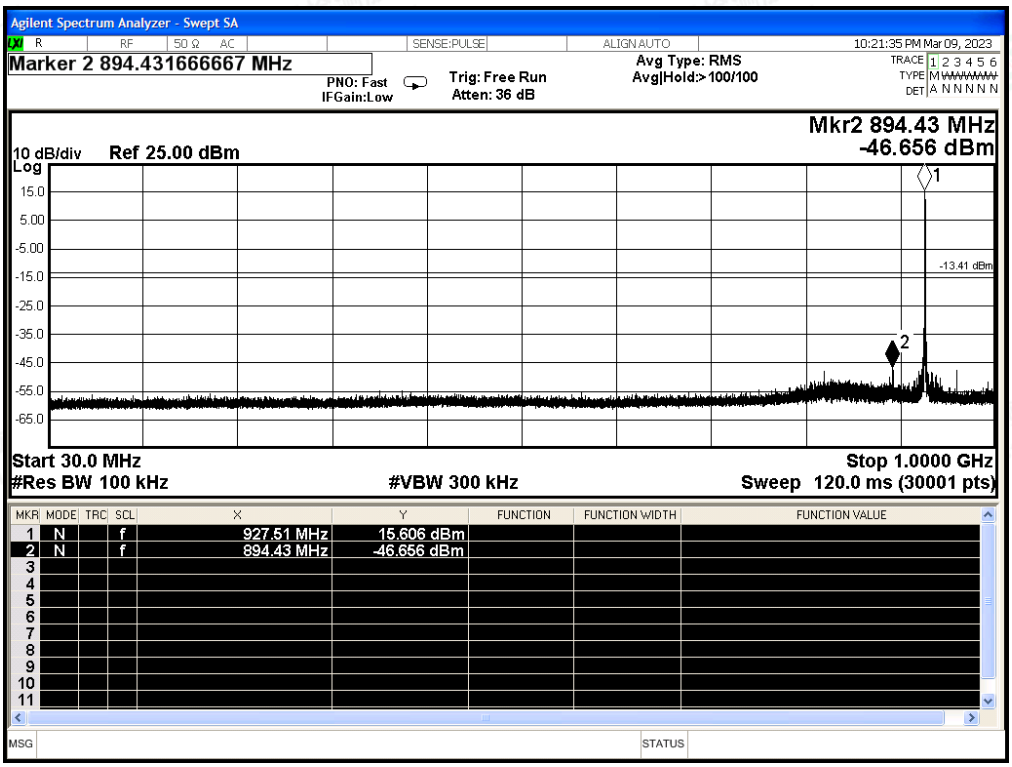
Ant1_922.6_1000~26500



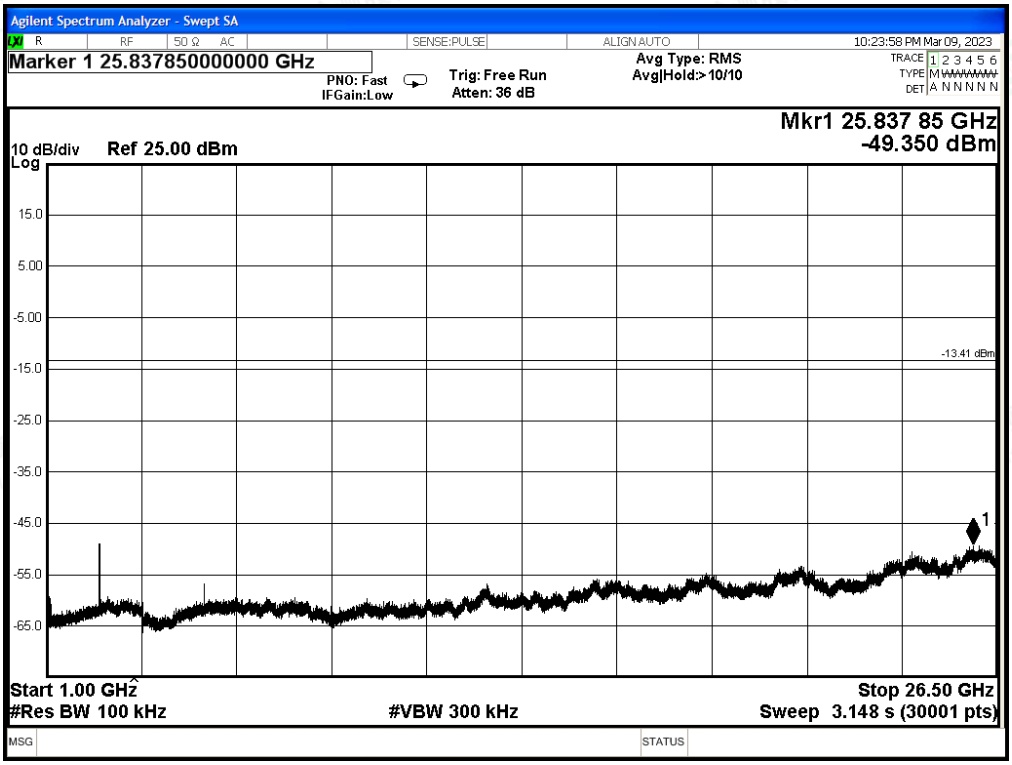
Ant1_927.4_0~Reference



Ant1_927.4_30~1000



Ant1_927.4_1000~26500

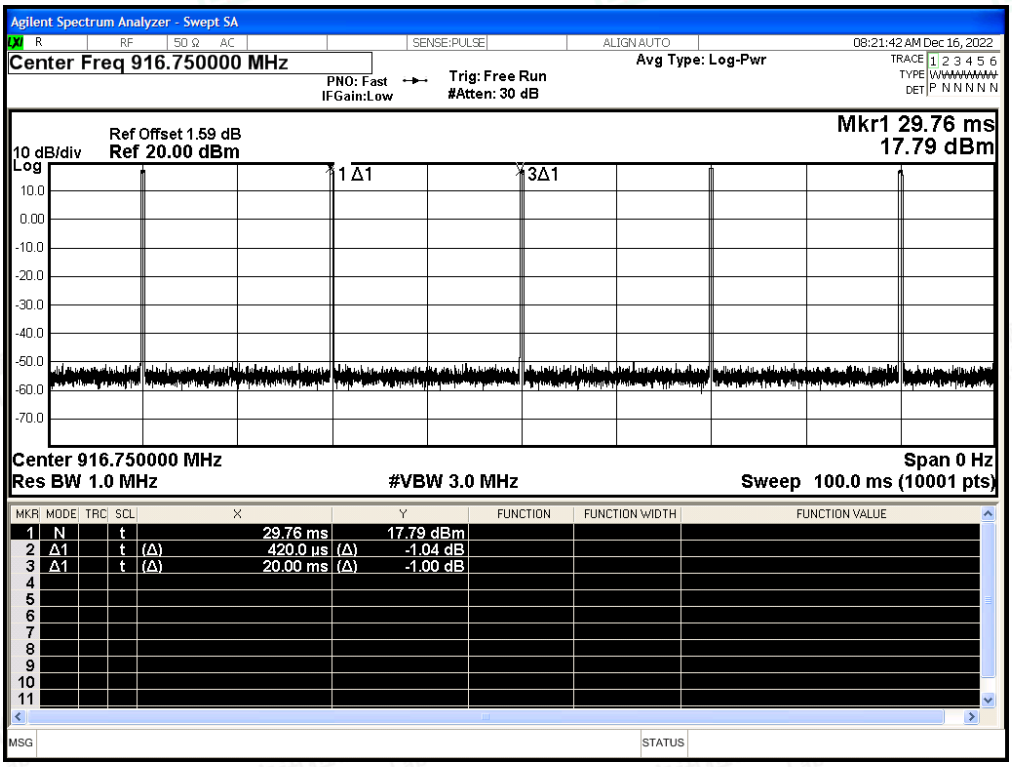

Agilent Spectrum Analyzer - Swept SA
Marker 1 25.837850000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 36 dB
Avg Type: RMS
Avg|Hold:>10/10
10:23:58 PM Mar 09, 2023
Mkr1 25.837 85 GHz
-49.350 dBm
10 dB/div
Log
Ref 25.00 dBm
-13.41 dBm
Start 1.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.50 GHz
Sweep 3.148 s (30001 pts)

A.7 Duty Cycle

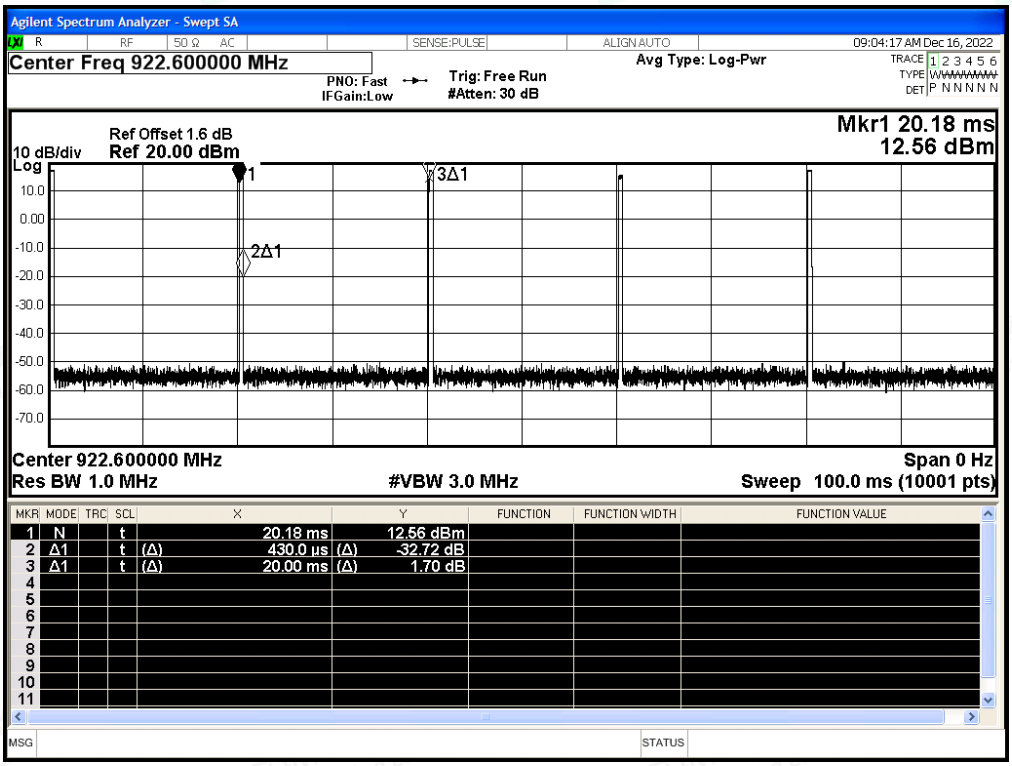
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	SRD	916.75	Ant1	2.1	16.78	2.38
NVNT	SRD	922.6	Ant1	2.15	16.68	2.33
NVNT	SRD	927.4	Ant1	2.15	16.68	2.33

Test Graphs

Duty Cycle NVNT SRD 916.75MHz Ant1



Duty Cycle NVNT SRD 922.6MHz Ant1



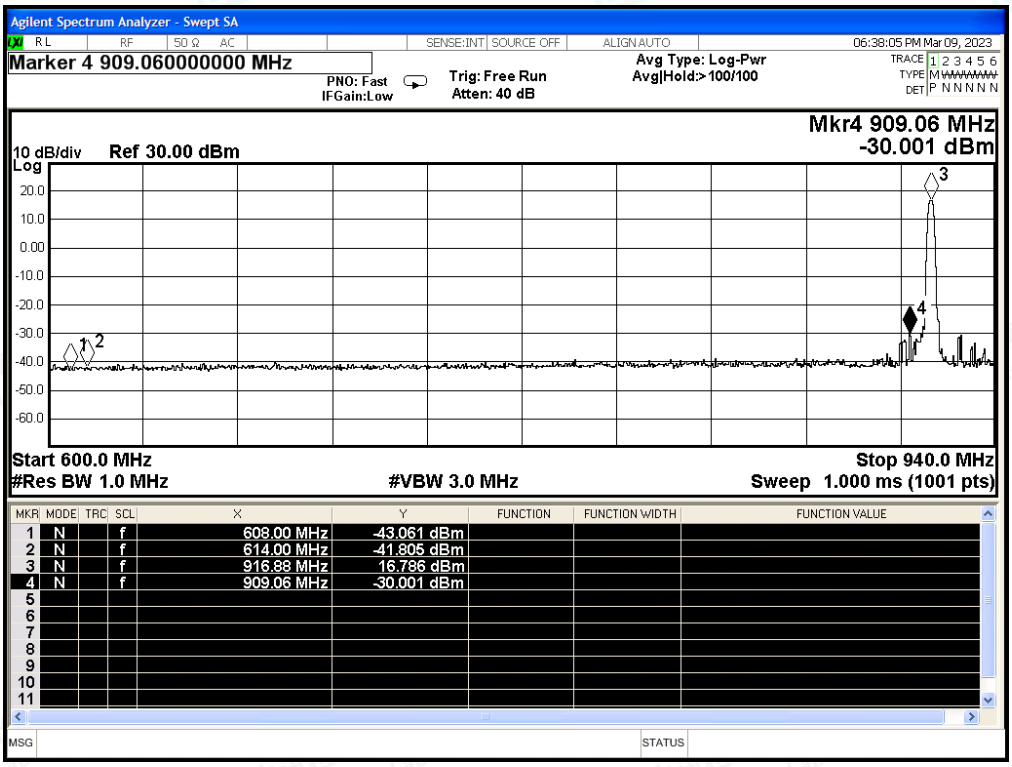
Duty Cycle NVNT SRD 927.4MHz Ant1

A.8 Restrict Band

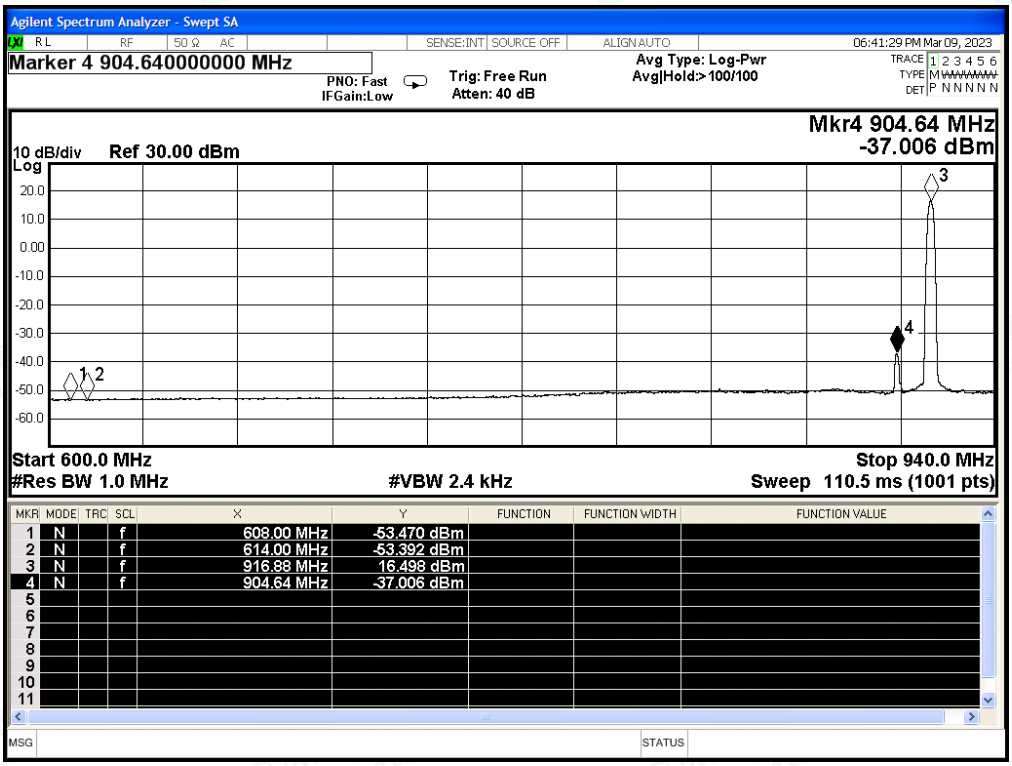
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	SRD	916.75	Ant1	608	-42.26	2	54.97	Peak	74	Pass
NVNT	SRD	916.75	Ant1	608	-54.19	2	43.04	Average	54	Pass
NVNT	SRD	916.75	Ant1	907.02	-31.98	2	65.25	Peak	74	Pass
NVNT	SRD	916.75	Ant1	904.30	-44.29	2	52.94	Average	54	Pass
NVNT	SRD	916.75	Ant1	614	-42.74	2	54.49	Peak	74	Pass
NVNT	SRD	916.75	Ant1	614	-54.27	2	42.96	Average	54	Pass
NVNT	SRD	927.4	Ant1	960.0	-69.39	2	27.84	Peak	74	Pass
NVNT	SRD	927.4	Ant1	960.0	-78.81	2	18.42	Average	54	Pass
NVNT	SRD	927.4	Ant1	935.2	-61.73	2	35.50	Peak	74	Pass
NVNT	SRD	927.4	Ant1	1115.6	-80.524	2	16.70	Average	54	Pass
NVNT	SRD	927.4	Ant1	1240.0	-71.10	2	26.13	Peak	74	Pass
NVNT	SRD	927.4	Ant1	1240.0	-83.15	2	14.08	Average	54	Pass

Test Graphs

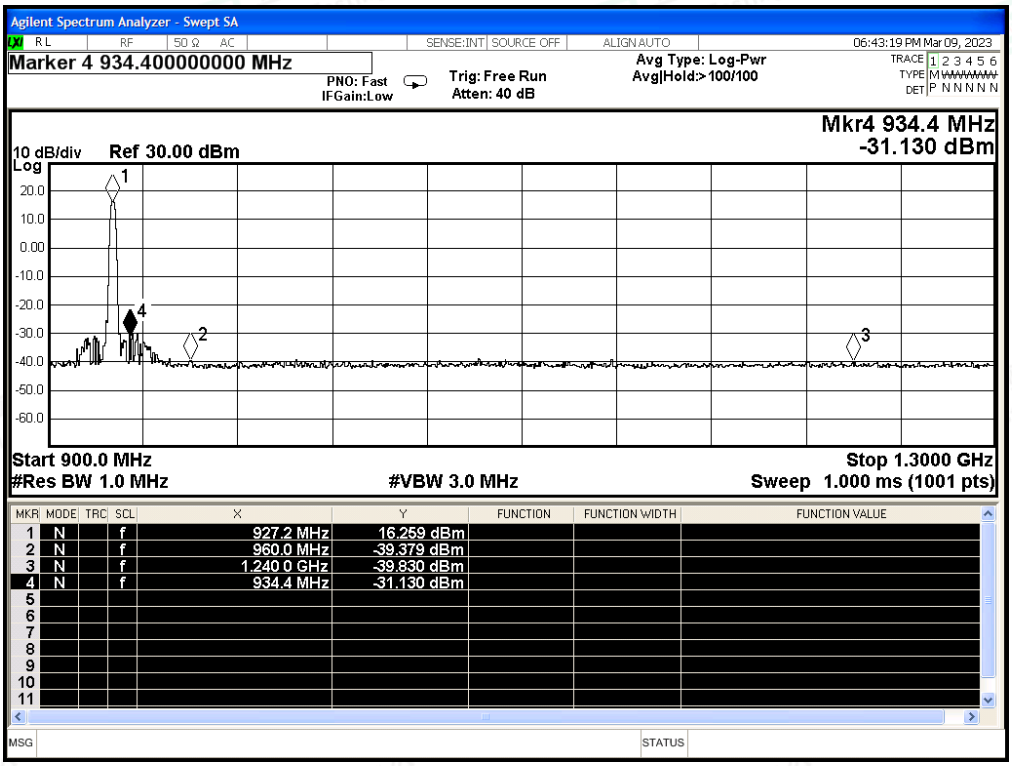
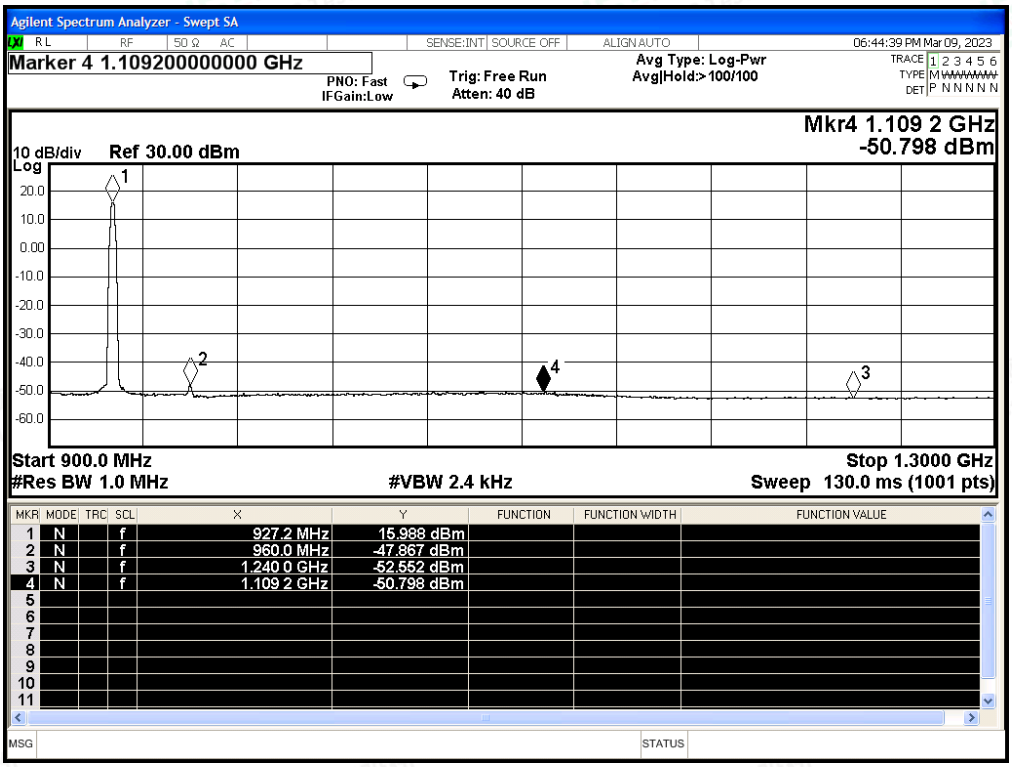
Restrict Band NVNT SRD 916.75MHz Ant1 Peak



Restrict Band NVNT SRD 916.75MHz Ant1 Average



Restrict Band NVNT SRD 927.4MHz Ant1 Peak



Restrict Band NVNT SRD 927.4MHz Ant1 Average