



Appendix D

RF Test Data for Z-Wave(Conducted Measurement)

Product Name: Brivo Gateway

Test Model: B-Gateway V5-M2

Environmental Conditions

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



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D.1 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	Z-Wave	912	Ant2	0.613	≥ 0.5	Pass
NVNT	Z-Wave	920	Ant2	0.62	≥ 0.5	Pass

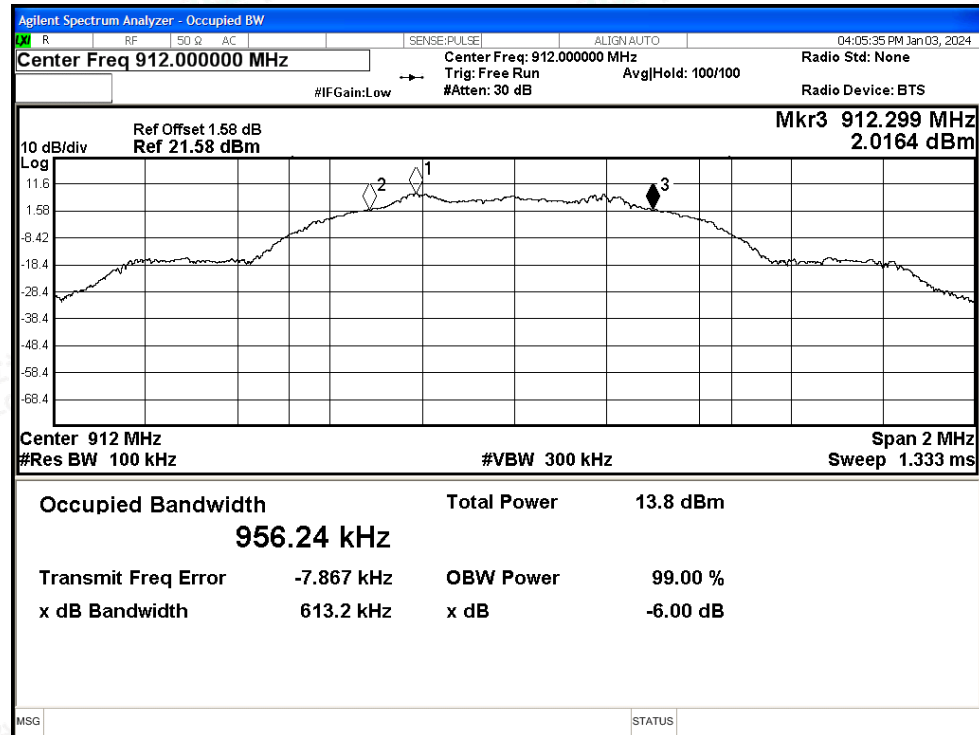


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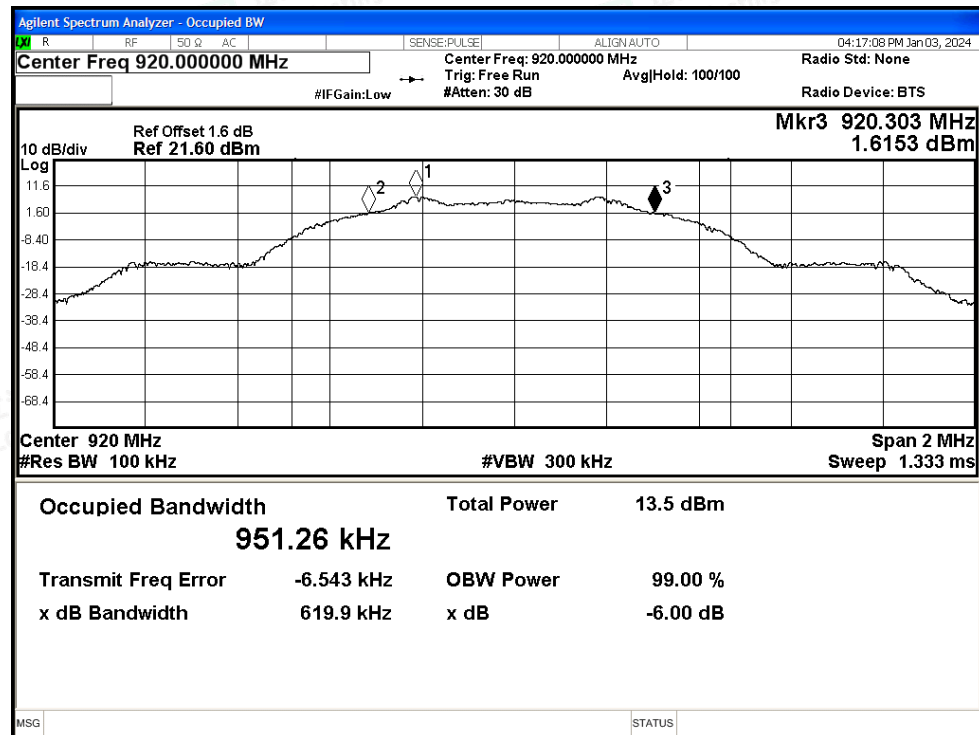


Test Graphs

-6dB Bandwidth NVNT Z-Wave 912MHz Ant2



-6dB Bandwidth NVNT Z-Wave 920MHz Ant2



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D.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	Z-Wave	912	Ant2	8.26	30	Pass
NVNT	Z-Wave	920	Ant2	7.86	30	Pass

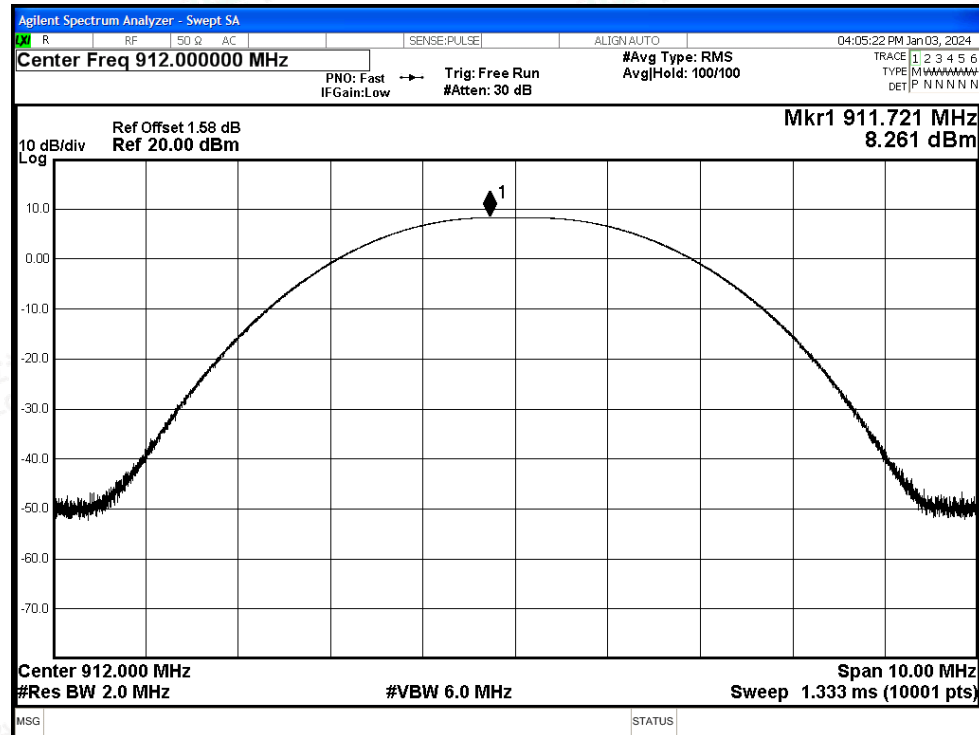


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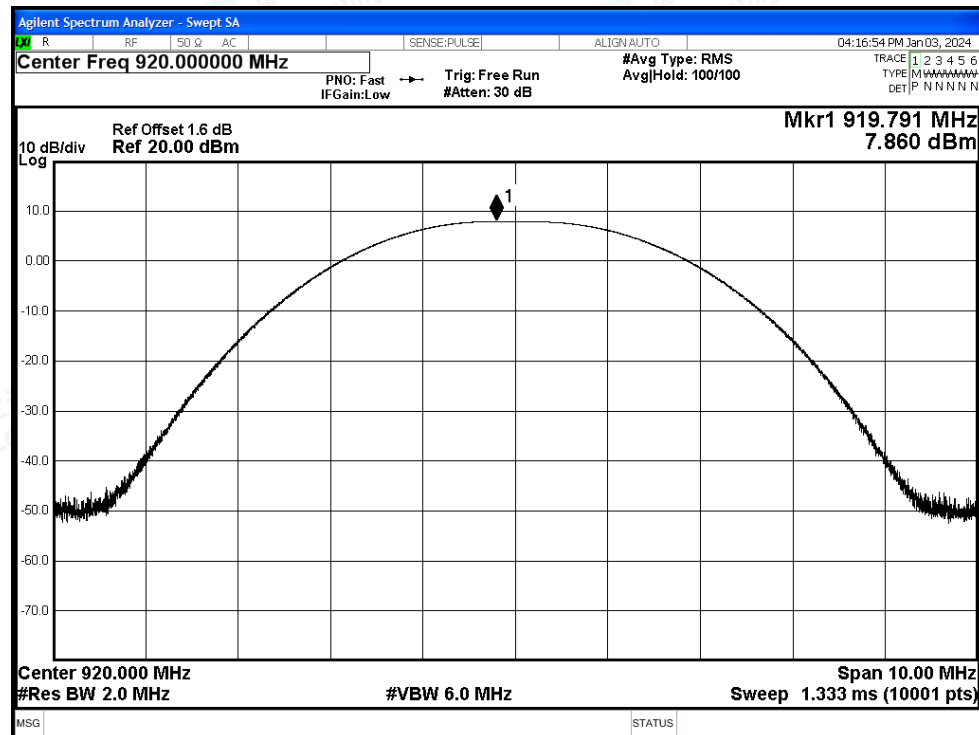


Test Graphs

Power NVNT Z-Wave 912MHz Ant2



Power NVNT Z-Wave 920MHz Ant2



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D.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	Z-Wave	912	Ant2	-4.43	8	Pass
NVNT	Z-Wave	920	Ant2	-4.38	8	Pass

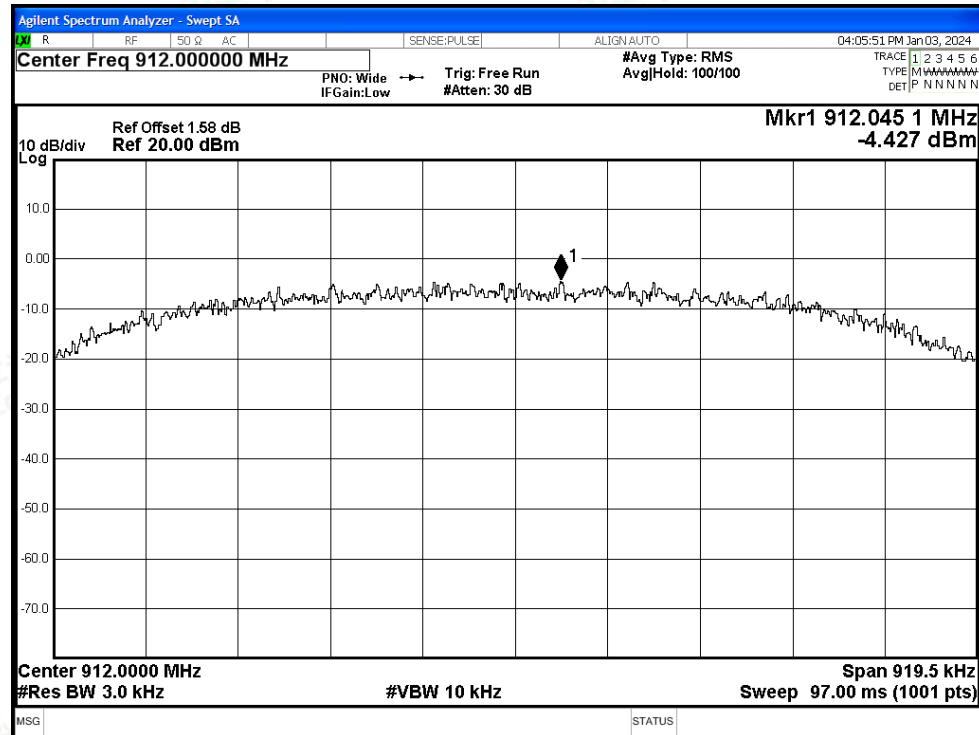


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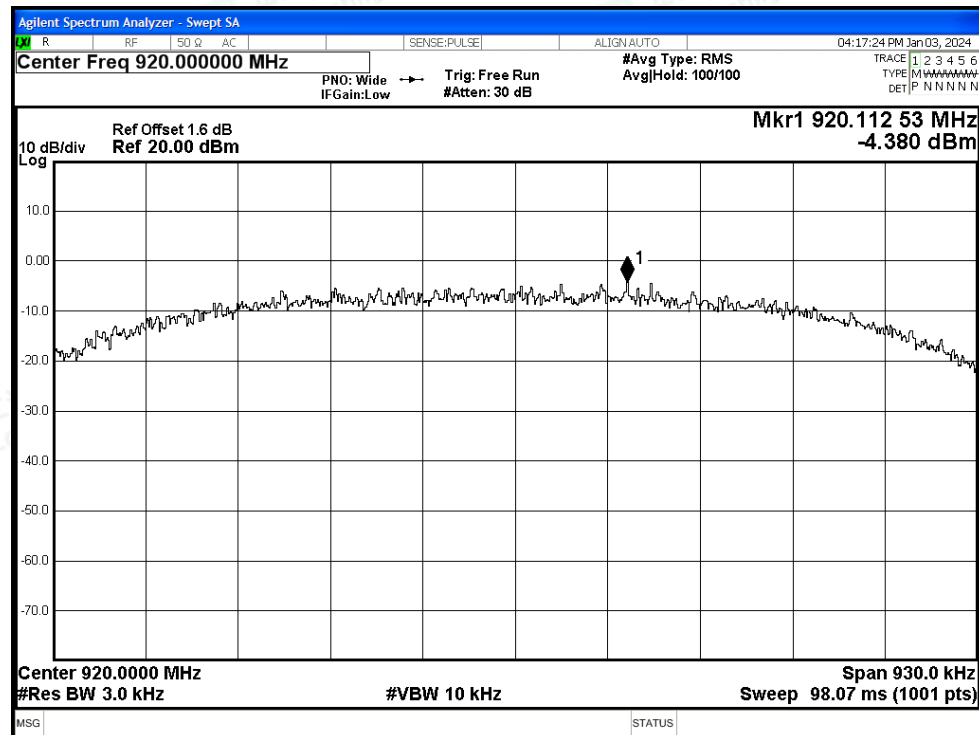


Test Graphs

PSD NVNT Z-Wave 912MHz Ant2



PSD NVNT Z-Wave 920MHz Ant2



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D.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	Z-Wave	912	Ant2	-68.95	-20	Pass
NVNT	Z-Wave	927.4	Ant2	-68.17	-20	Pass

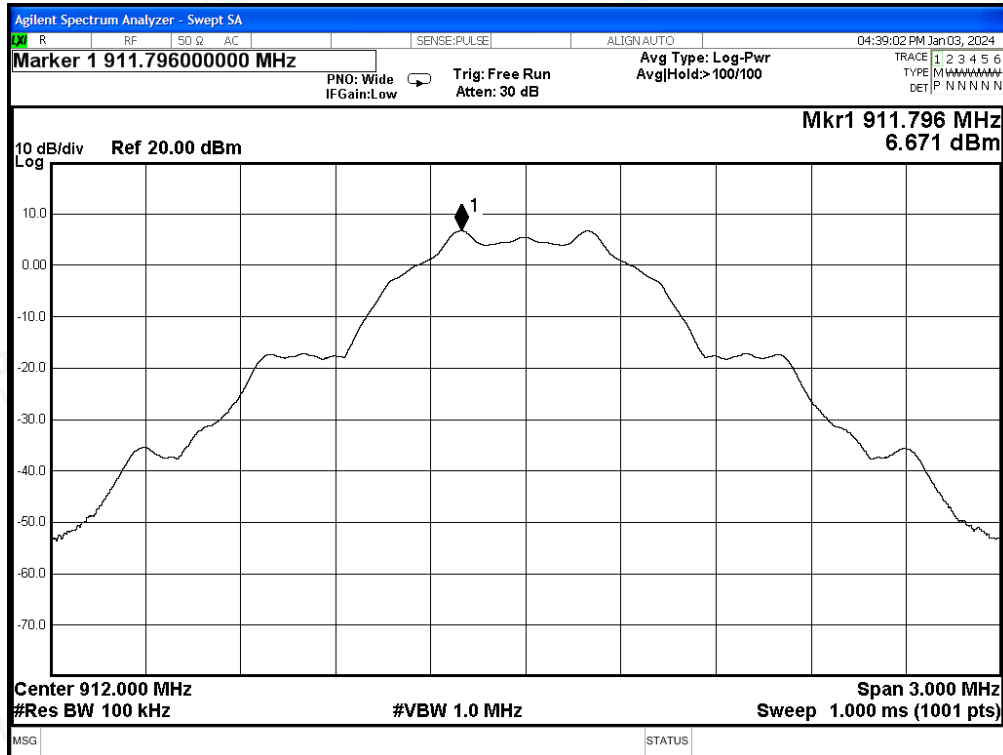


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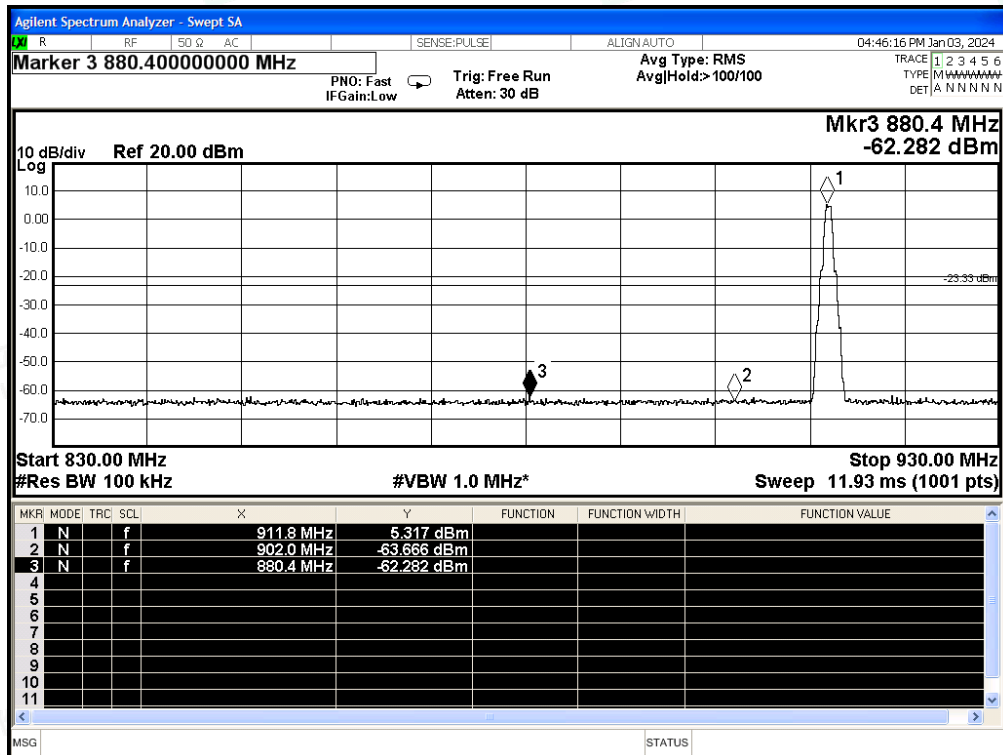


Test Graphs

Band Edge NVNT Z-Wave 912MHz Ant2 Ref



Band Edge NVNT Z-Wave 912MHz Ant2 Emission



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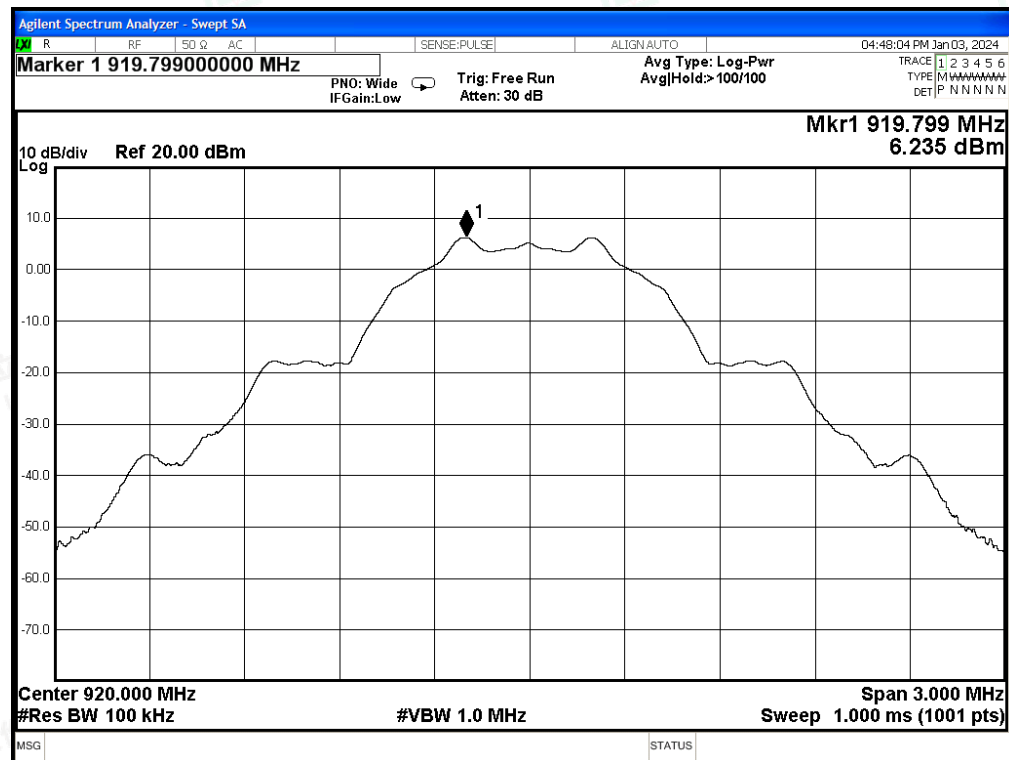
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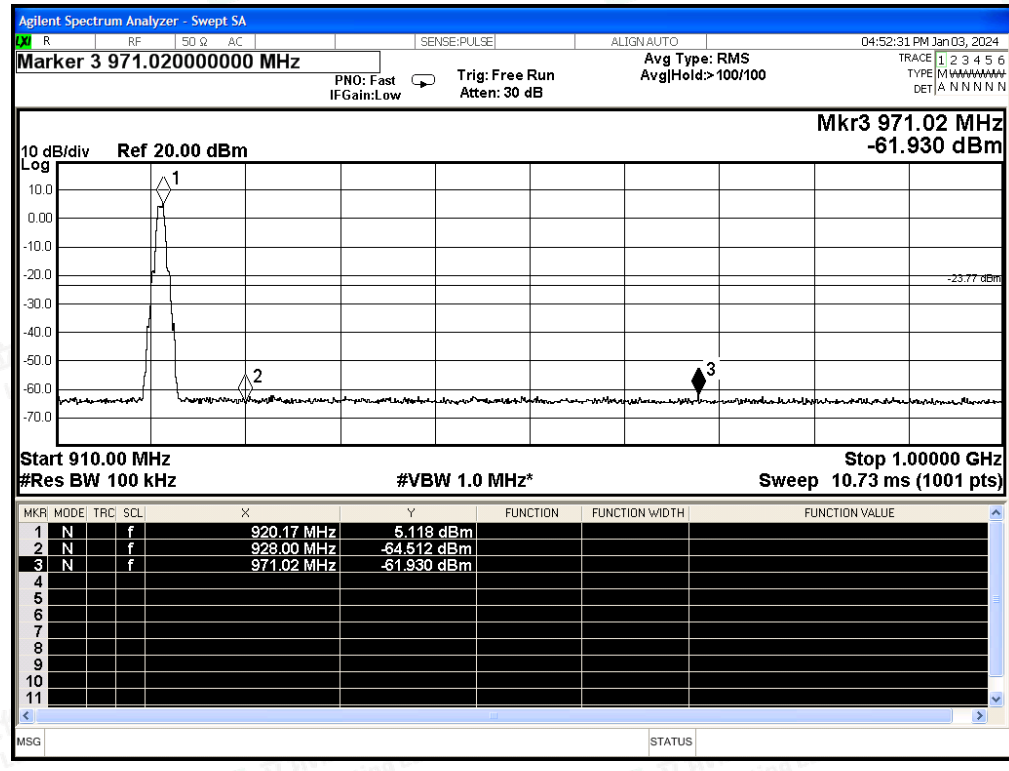
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Band Edge NVNT Z-Wave 920MHz Ant2 Ref



Band Edge NVNT Z-Wave 920MHz Ant2 Emission



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D.5 Conducted RF Spurious Emission

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
Z-Wave	Ant2	912	Reference	7.985	7.985	---	PASS
			30~26500	7.985	-32.275	≤-12.02	PASS
		920	Reference	7.655	7.655	---	PASS
			30~26500	7.655	-29.534	≤-12.35	PASS



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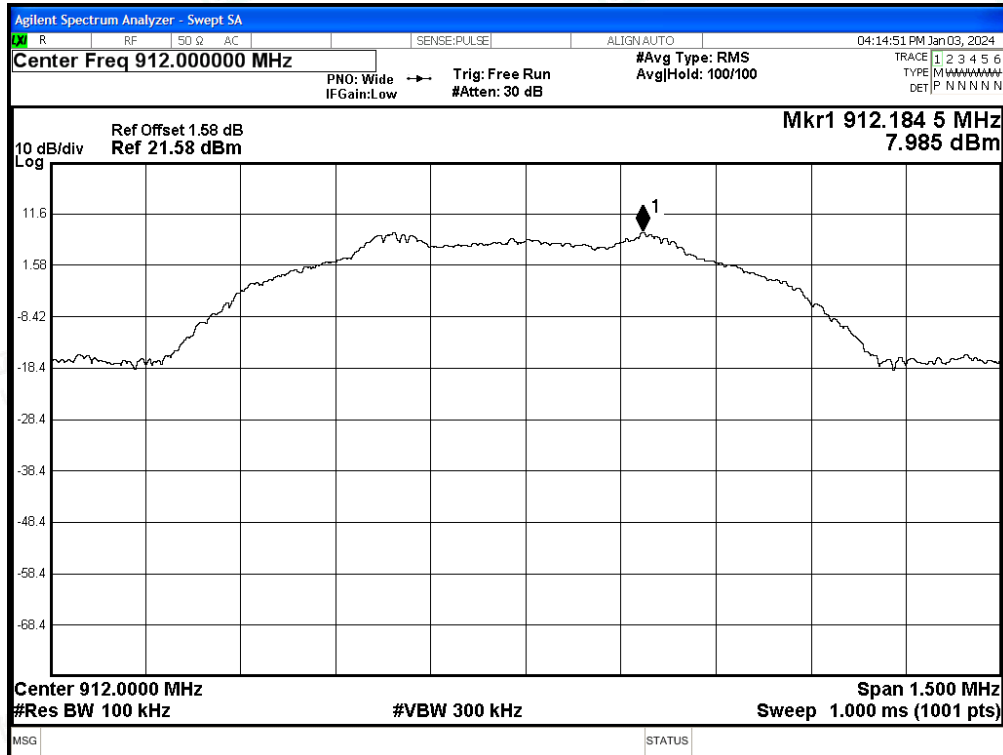
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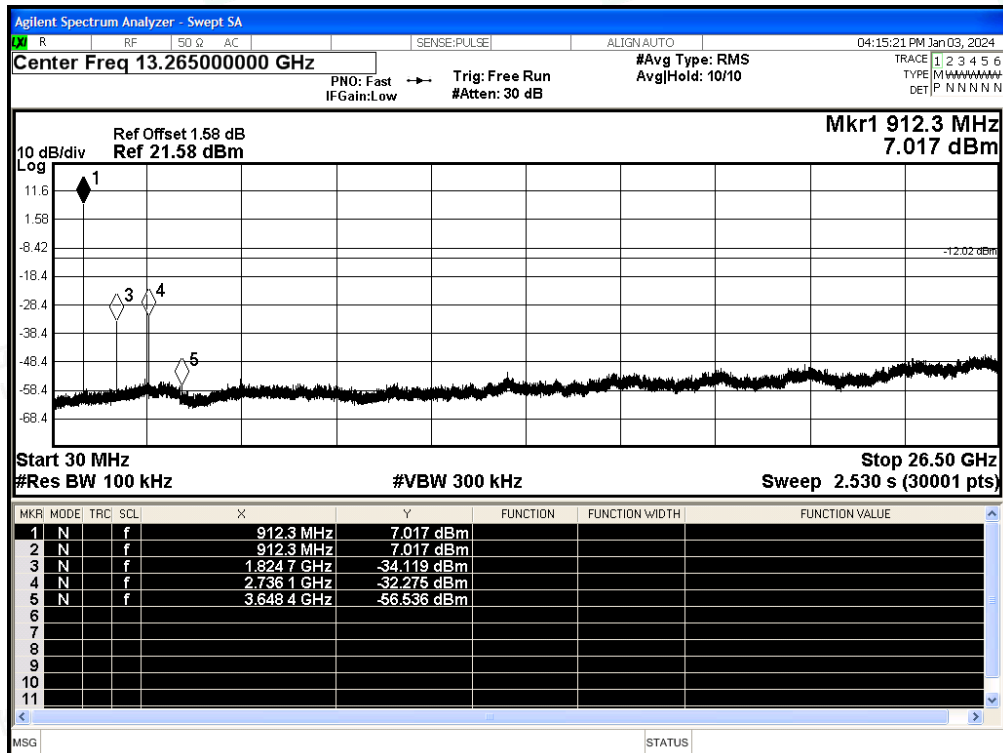


Test Graphs

Ant2_912_0~Reference



Ant2_912_30~26500

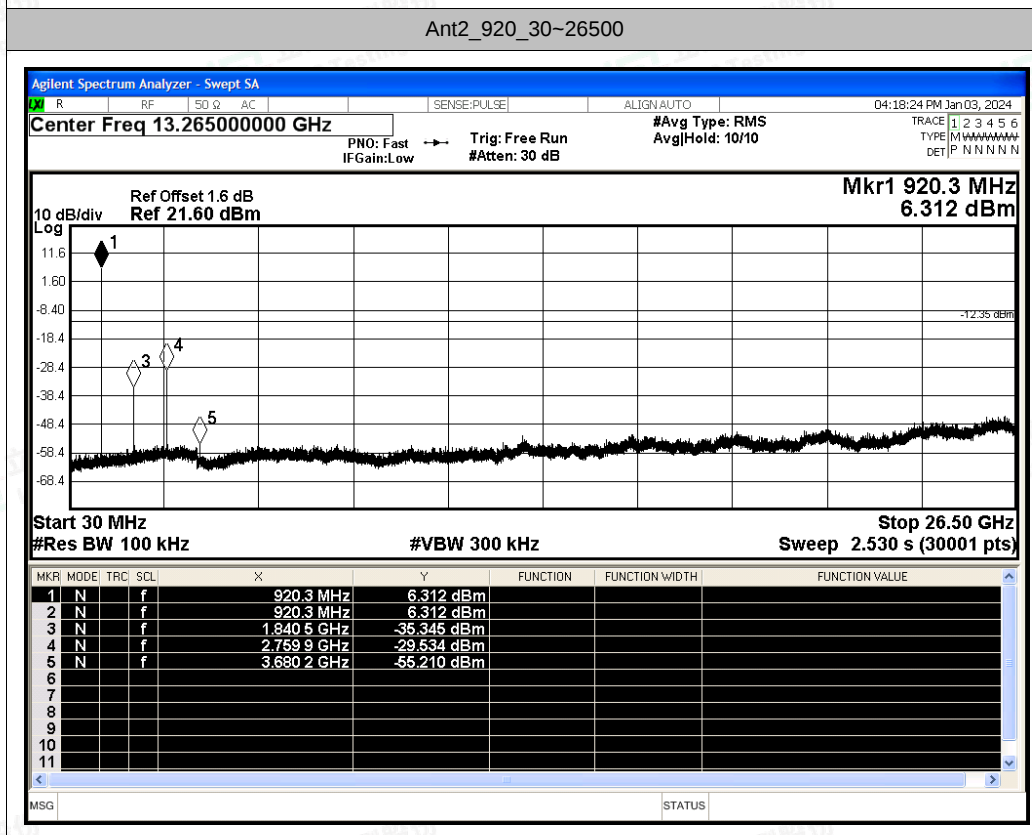
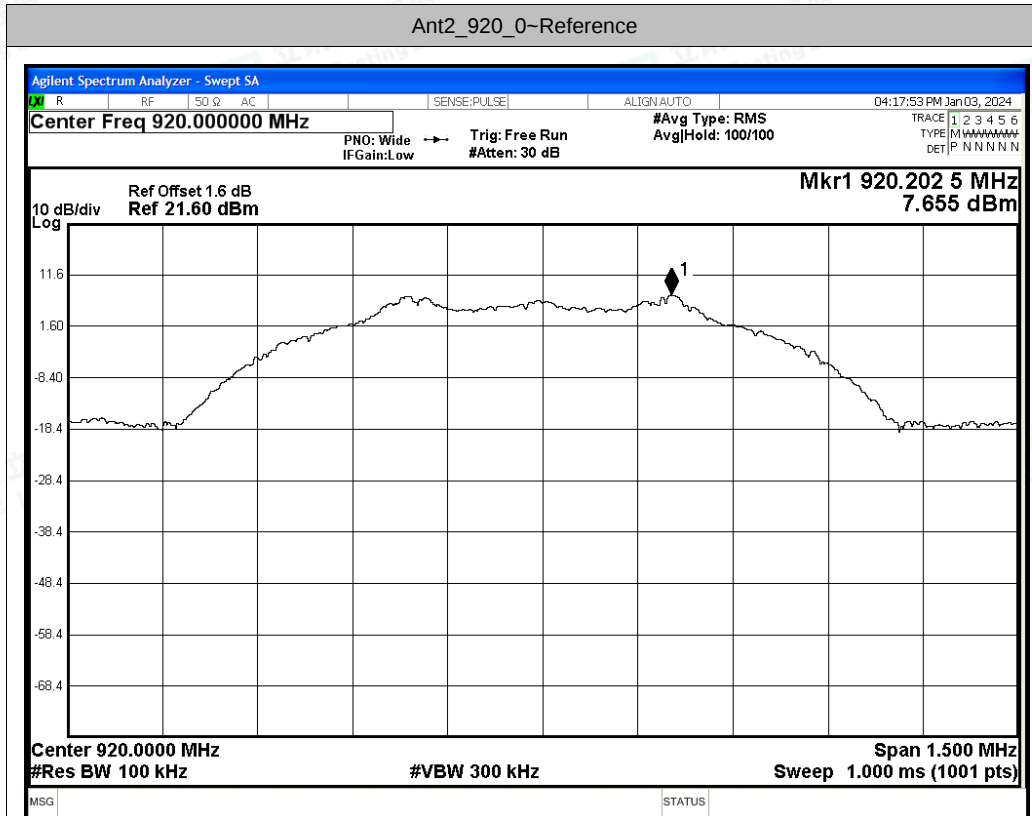


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D.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	Z-Wave	912	Ant2	100	0	0.01
NVNT	Z-Wave	920	Ant2	100	0	0.01

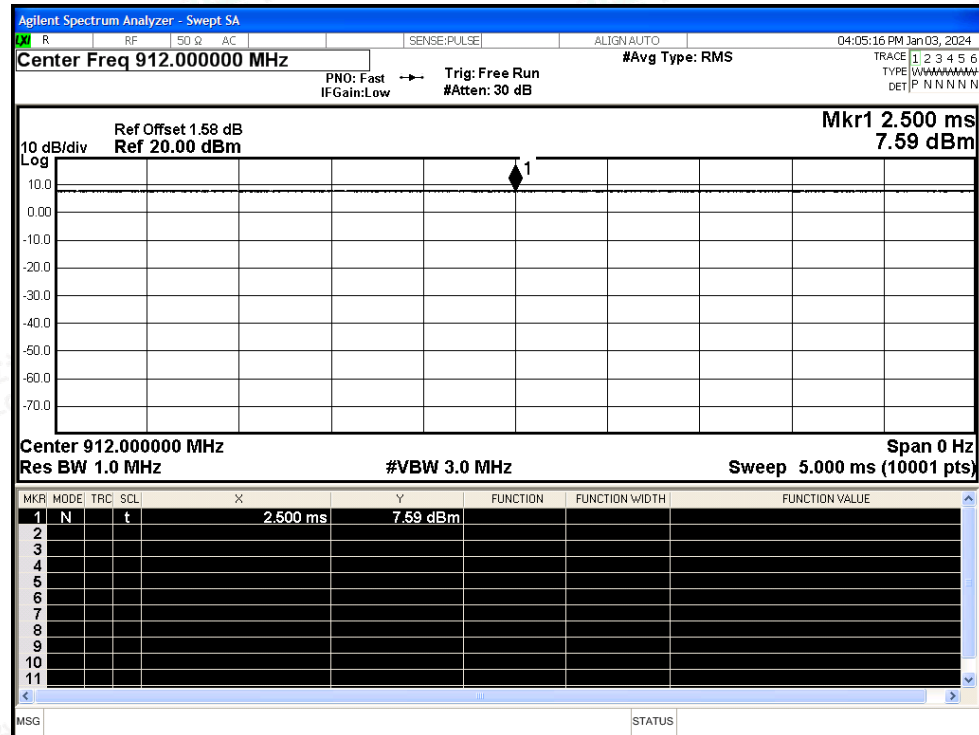


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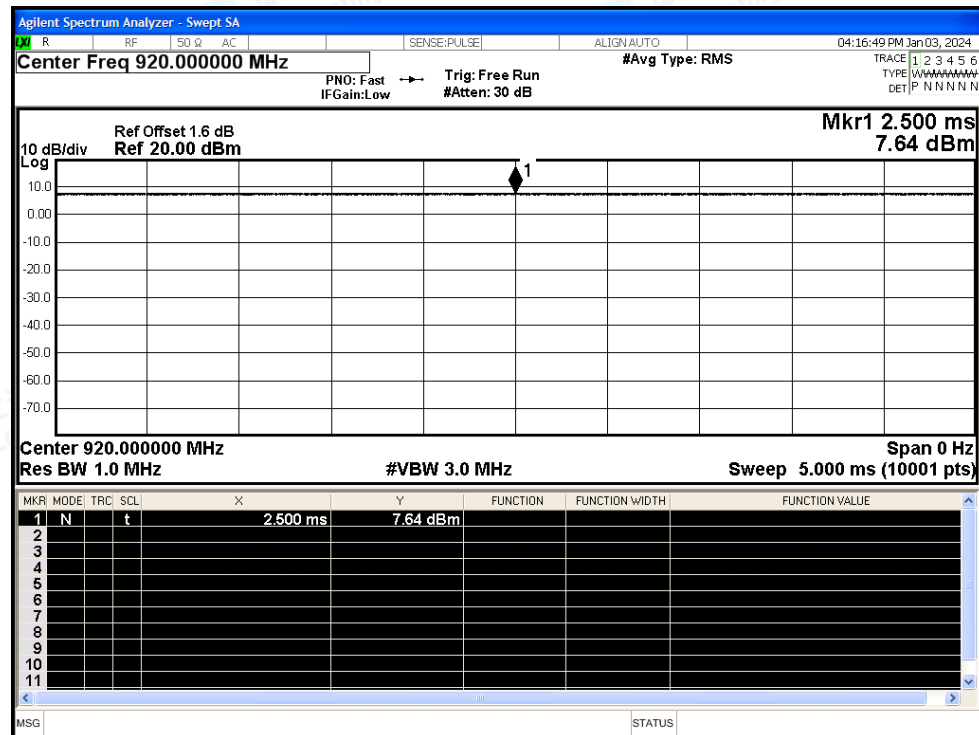


Test Graphs

Duty Cycle NVNT Z-Wave 912MHz Ant2



Duty Cycle NVNT Z-Wave 920MHz Ant2



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D.7 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	Z-Wave	912	Ant2	608	-51.54	2	45.69	Peak	74	Pass
NVNT	Z-Wave	912	Ant2	608	-54.87	2	42.36	Average	54	Pass
NVNT	Z-Wave	912	Ant2	814.88	-49.57	2	47.66	Peak	74	Pass
NVNT	Z-Wave	912	Ant2	836.98	-51.64	2	45.59	Average	54	Pass
NVNT	Z-Wave	912	Ant2	614	-51.85	2	45.38	Peak	74	Pass
NVNT	Z-Wave	912	Ant2	614	-55.03	2	42.20	Average	54	Pass
NVNT	Z-Wave	920	Ant2	960.0	-51.57	2	45.66	Peak	74	Pass
NVNT	Z-Wave	920	Ant2	960.0	-54.12	2	43.11	Average	54	Pass
NVNT	Z-Wave	920	Ant2	1056.8	-50.17	2	47.06	Peak	74	Pass
NVNT	Z-Wave	920	Ant2	1115.6	-52.58	2	44.65	Average	54	Pass
NVNT	Z-Wave	920	Ant2	1240.0	-50.27	2	46.96	Peak	74	Pass
NVNT	Z-Wave	920	Ant2	1240.0	-53.63	2	43.60	Average	54	Pass



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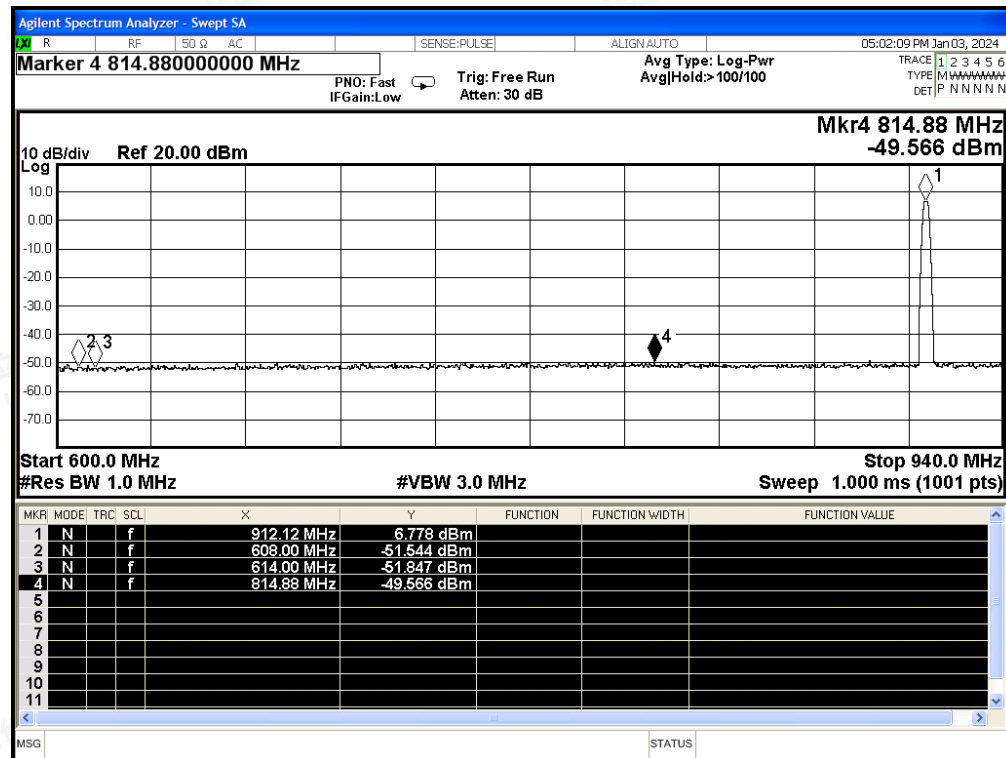
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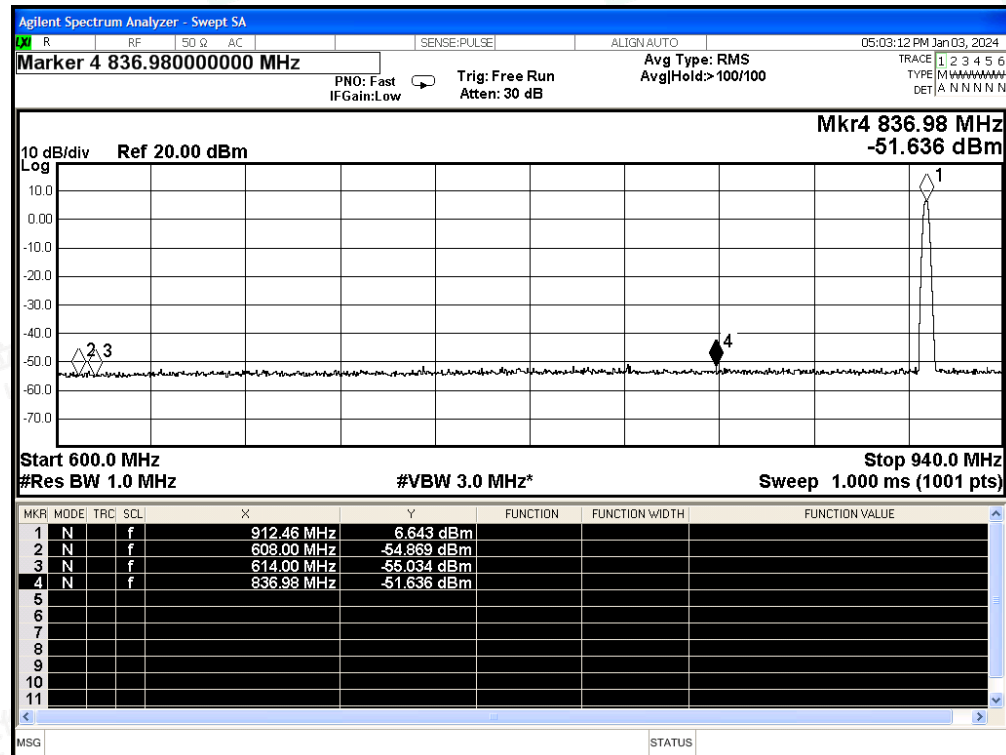


Test Graphs

Restrict Band NVNT Z-Wave 912MHz Ant2 Peak



Restrict Band NVNT Z-Wave 912MHz Ant2 Average



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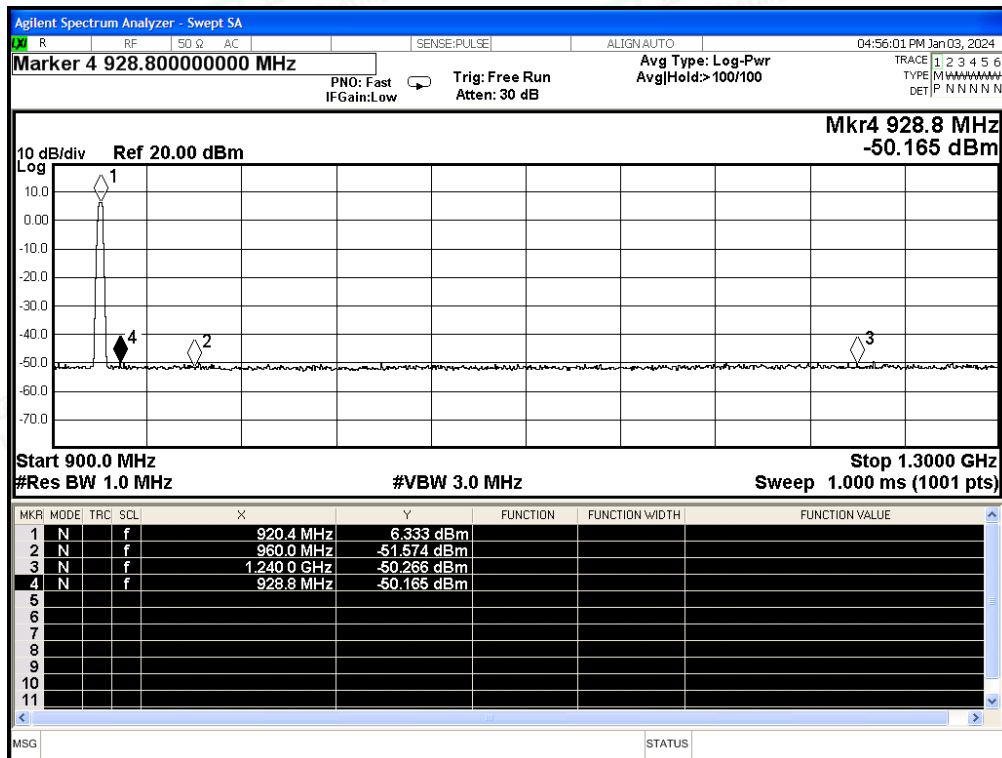
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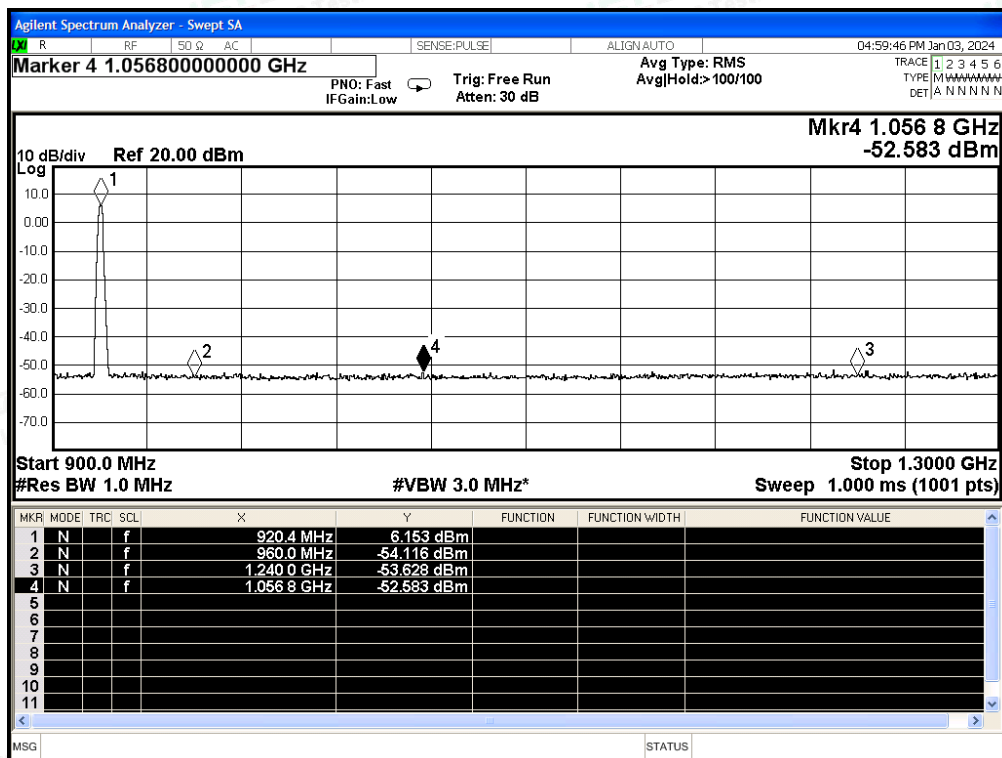
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Restrict Band NVNT Z-Wave 927.4MHz Ant2 Peak



Restrict Band NVNT Z-Wave 927.4MHz Ant2 Average



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