



Appendix D

RF Test Data for Z-Wave (Conducted Measurement)

Product Name: Controller 3.0

Test Model: 3.0

Environmental Conditions

Temperature:	24.9°C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Luo
Supervised by:	Paddi Chen



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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	Ant1	0.64	≥ 0.5	Pass
NVNT	Z-Wave	920	Ant1	0.64	≥ 0.5	Pass



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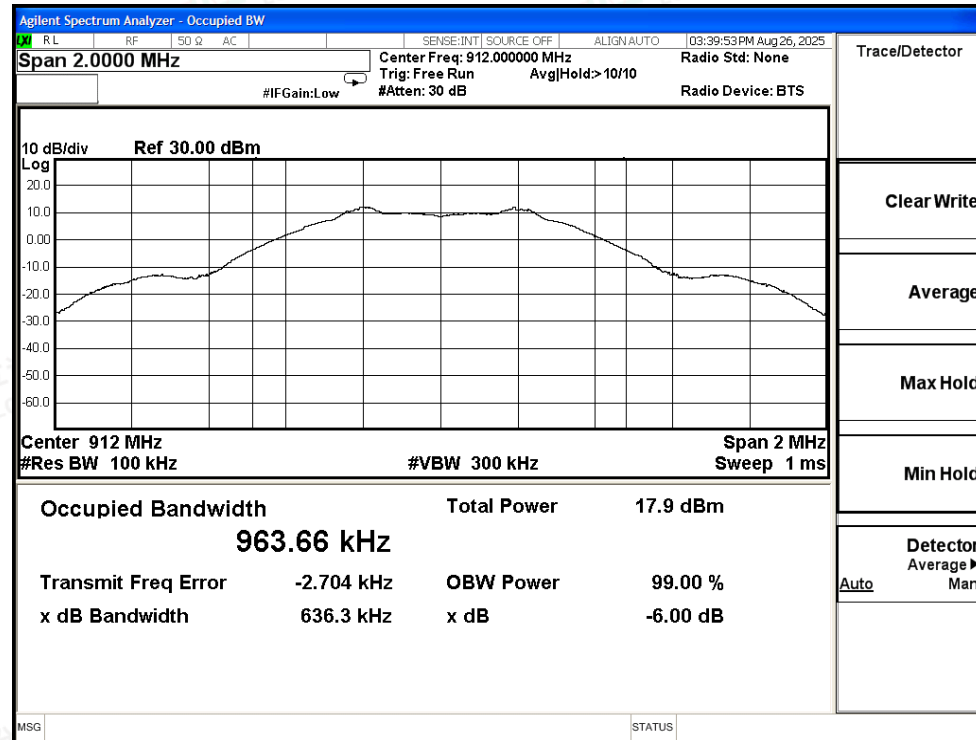
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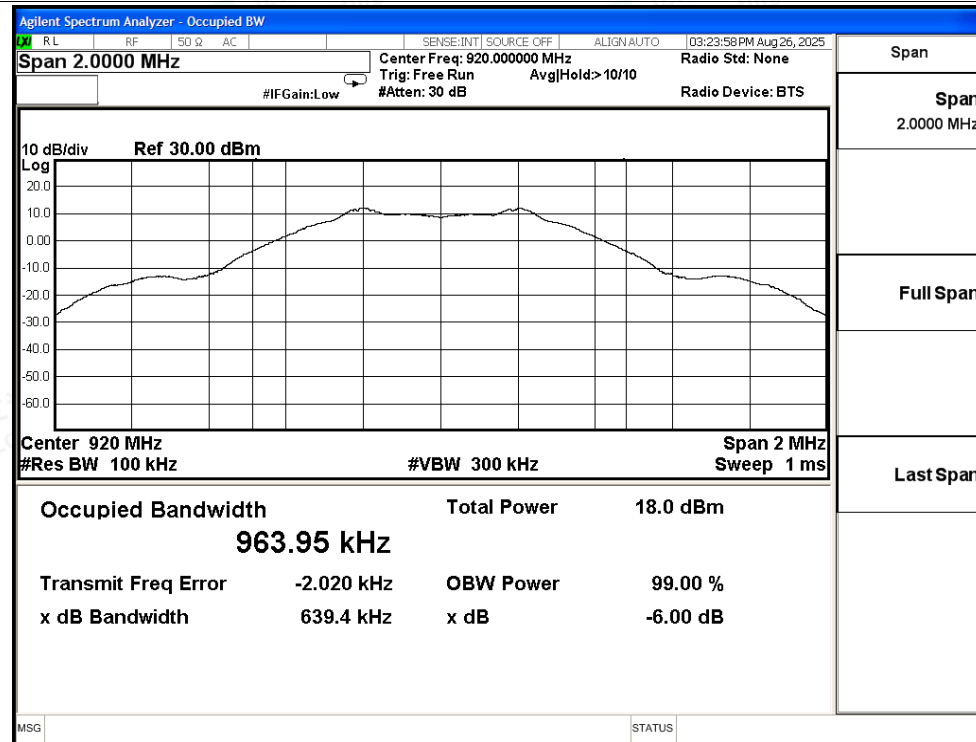


Test Graphs

6dB Bandwidth NVNT Z-Wave 912MHz Ant1



6dB Bandwidth NVNT Z-Wave 920MHz Ant1



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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	Ant1	12.44	30	Pass
NVNT	Z-Wave	920	Ant1	12.41	30	Pass



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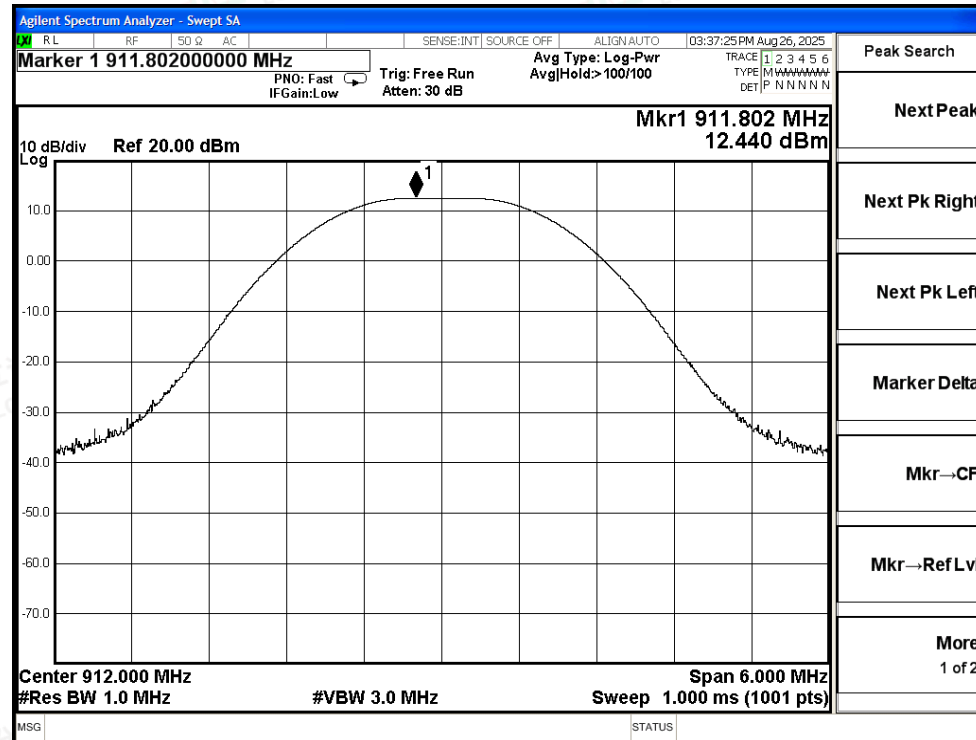
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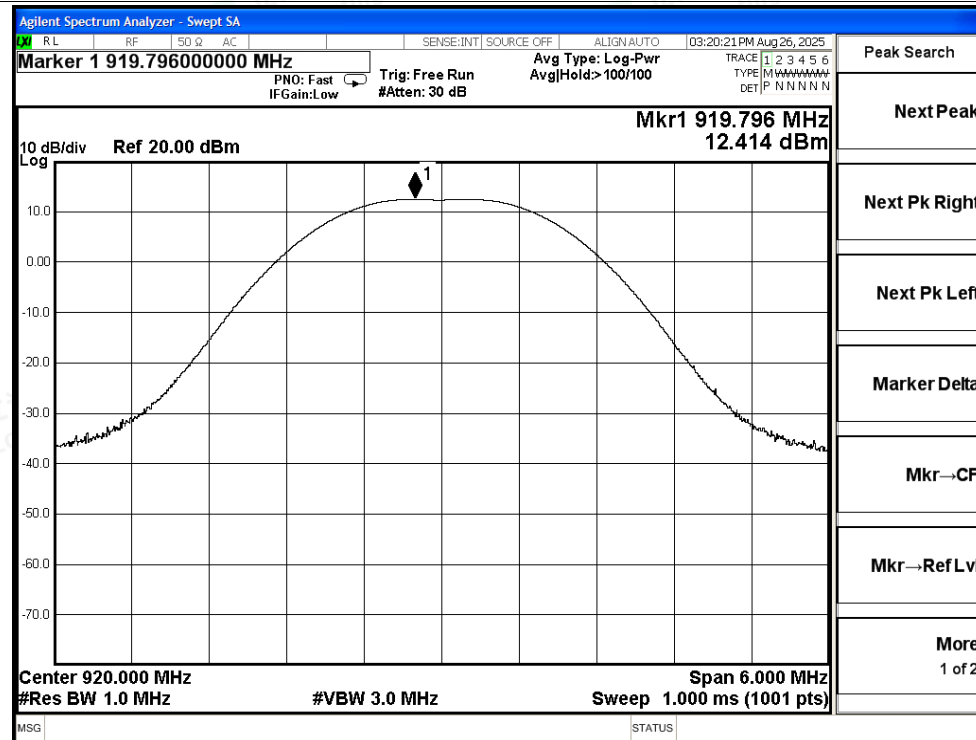


Test Graphs

Power NVNT Z-Wave 912MHz Ant1



Power NVNT Z-Wave 920MHz Ant1



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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	Ant1	0.048	8	Pass
NVNT	Z-Wave	920	Ant1	0.090	8	Pass



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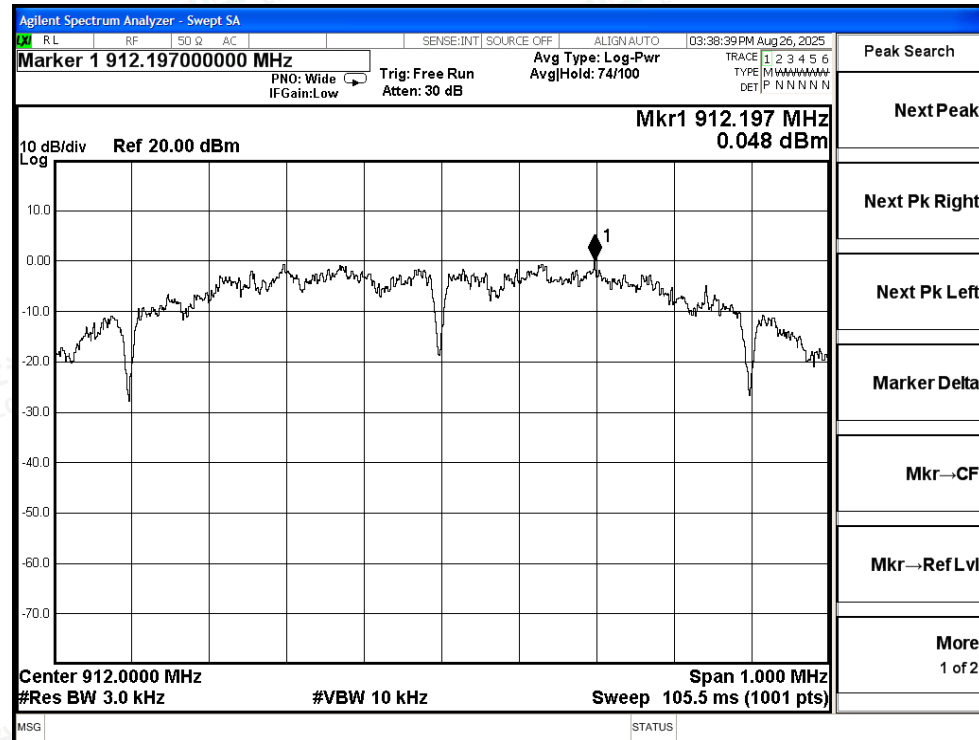
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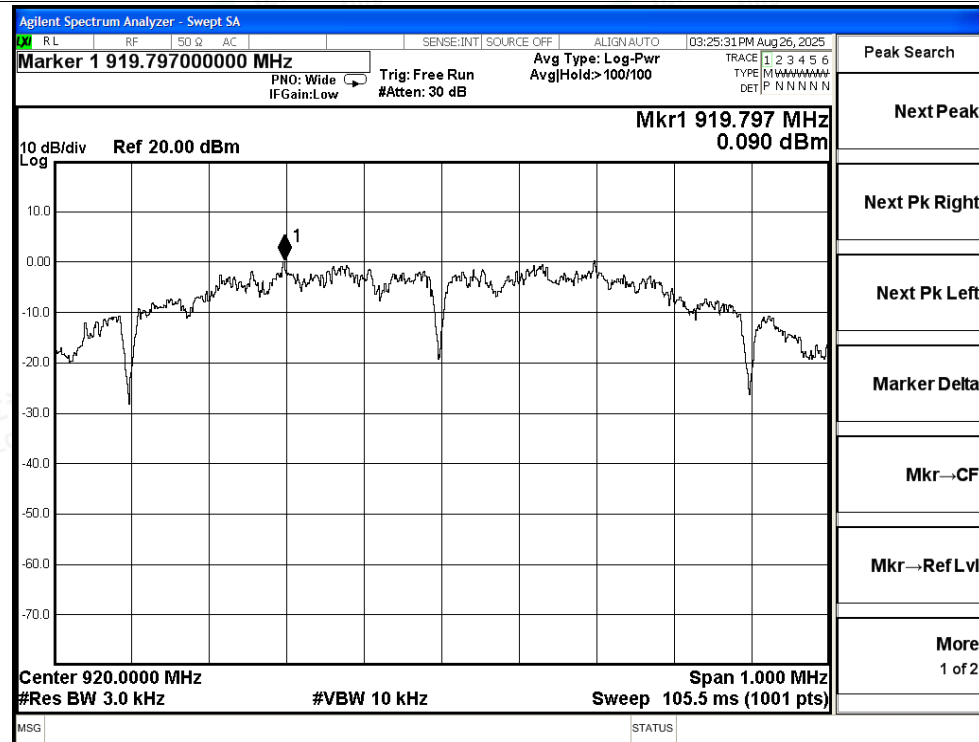


Test Graphs

PSD NVNT Z-Wave 912MHz Ant1



PSD NVNT Z-Wave 920MHz Ant1



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D.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	Z-Wave	912	Ant1	-70.41	-20	Pass
NVNT	Z-Wave	927.4	Ant1	-71.51	-20	Pass

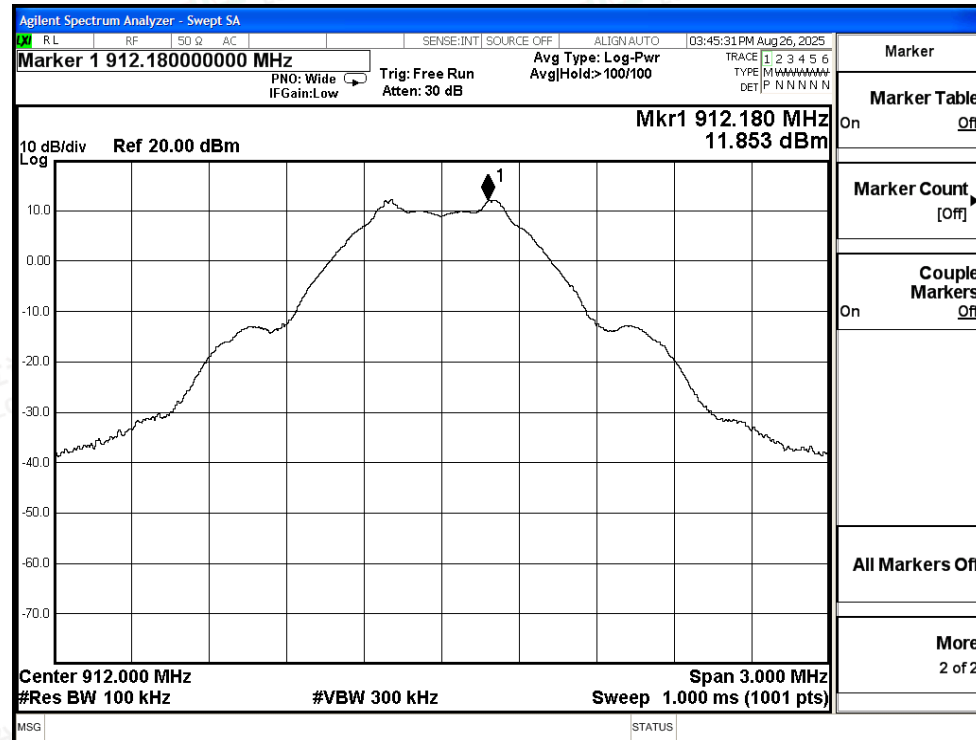


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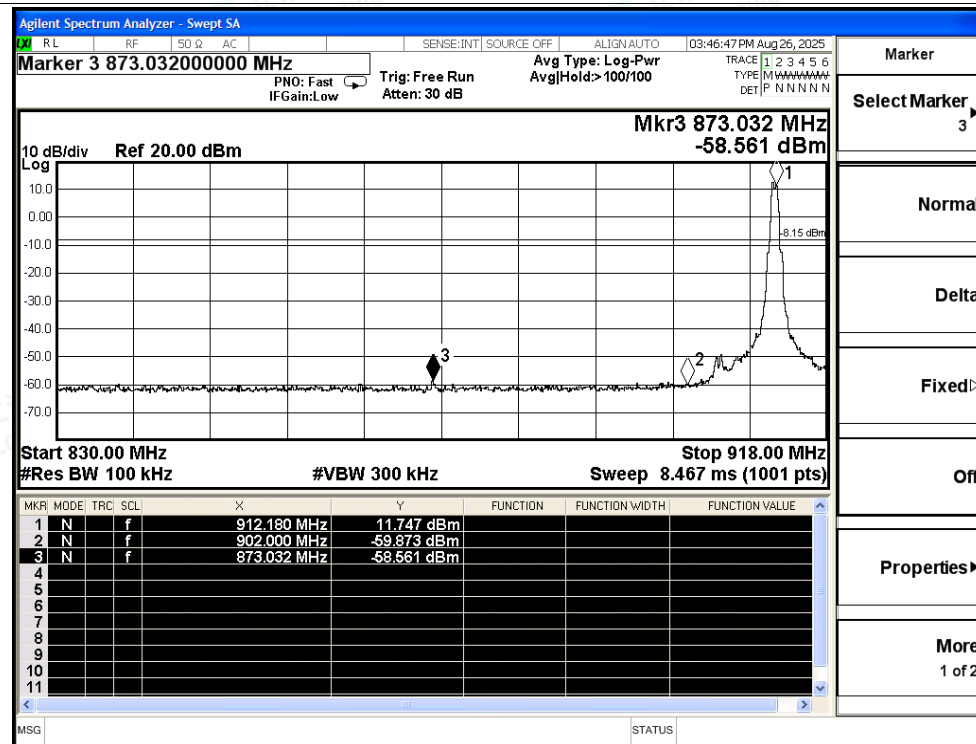


Test Graphs

Band Edge NVNT Z-Wave 912MHz Ant1 Ref



Band Edge NVNT Z-Wave 912MHz Ant1 Emission

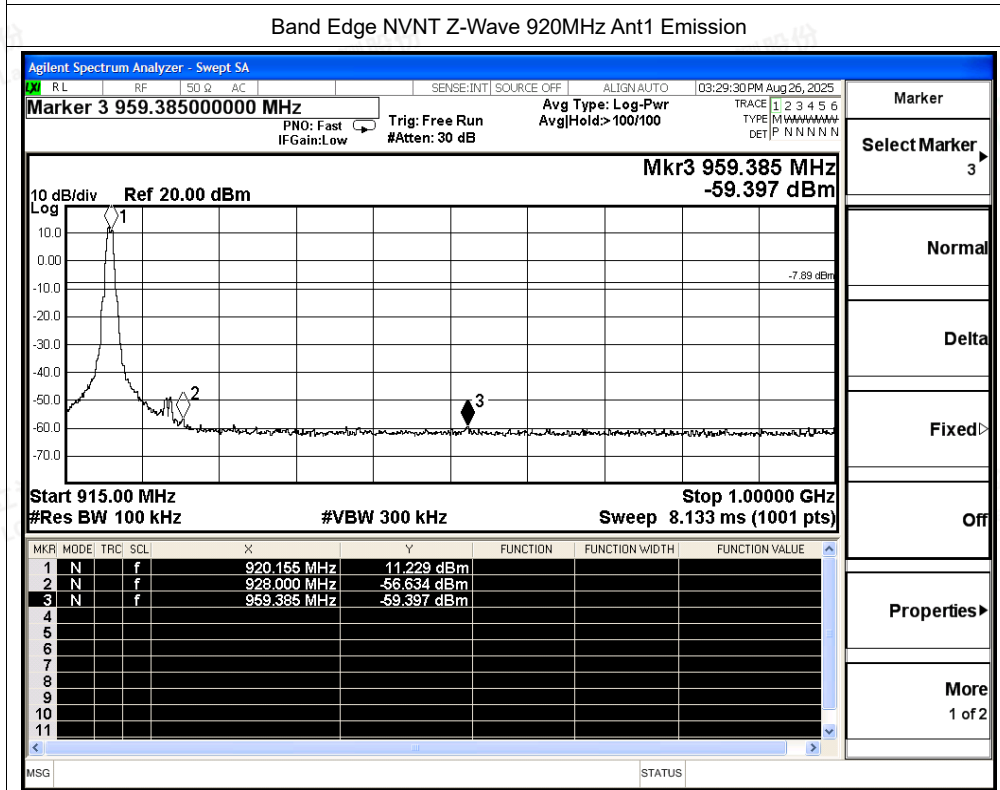
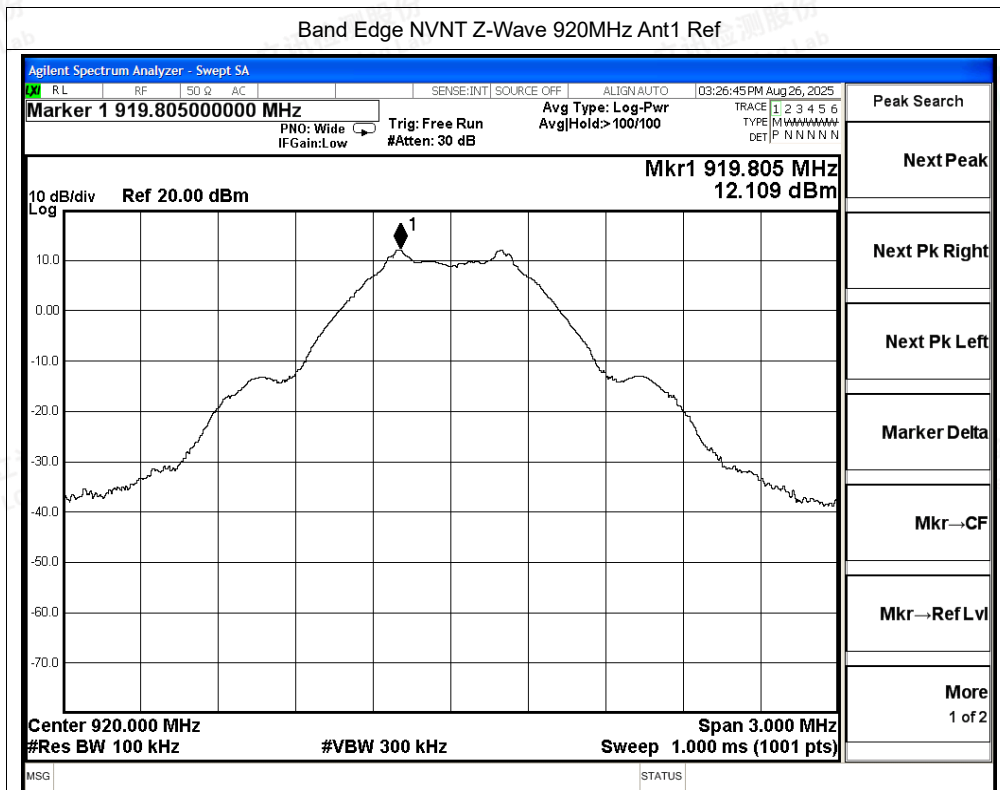


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D.5 Conducted RF Spurious Emission

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
Z-Wave	Ant1	912	Reference	11.85	11.85	---	PASS
			30~26500	11.85	-46.961	≤-8.15	PASS
		920	Reference	12.11	12.11	---	PASS
			30~26500	12.11	-46.271	≤-7.89	PASS

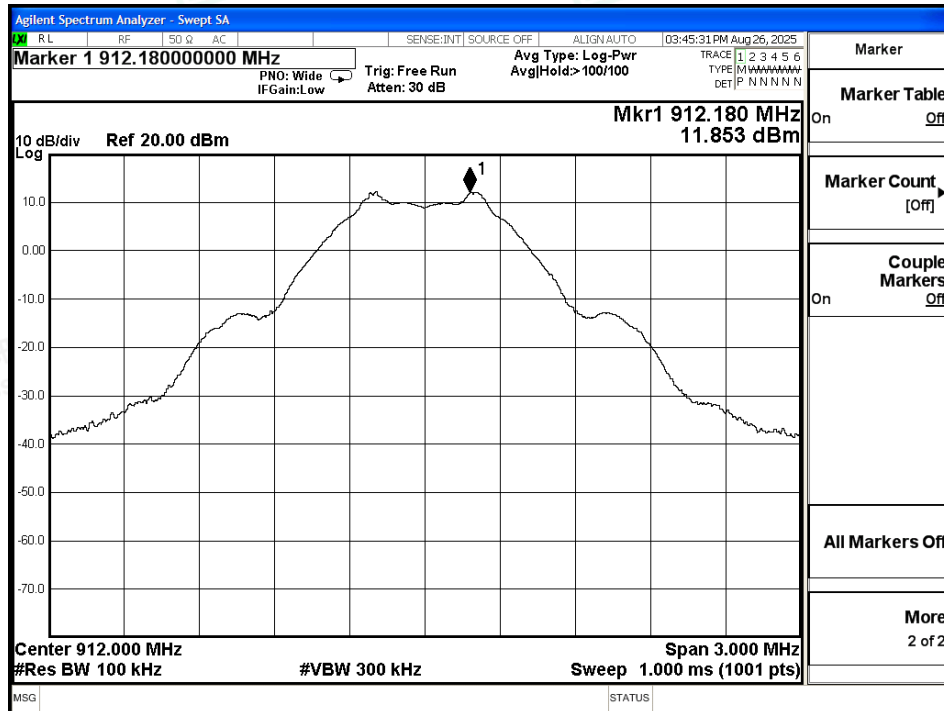


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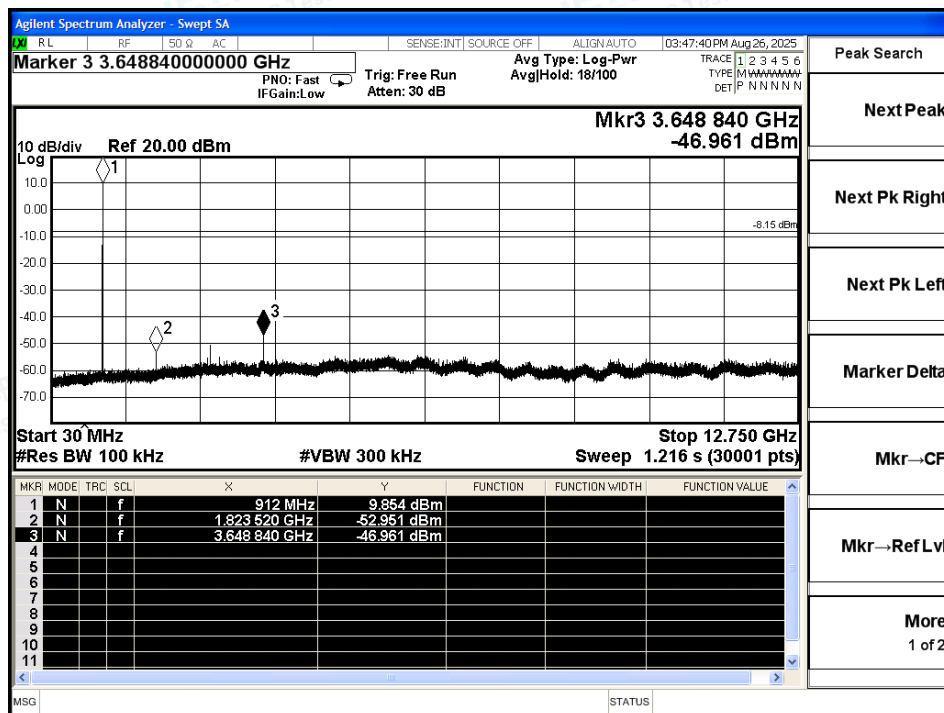


Test Graphs

Ant1_912_0~Reference



Ant1_912_30~26500

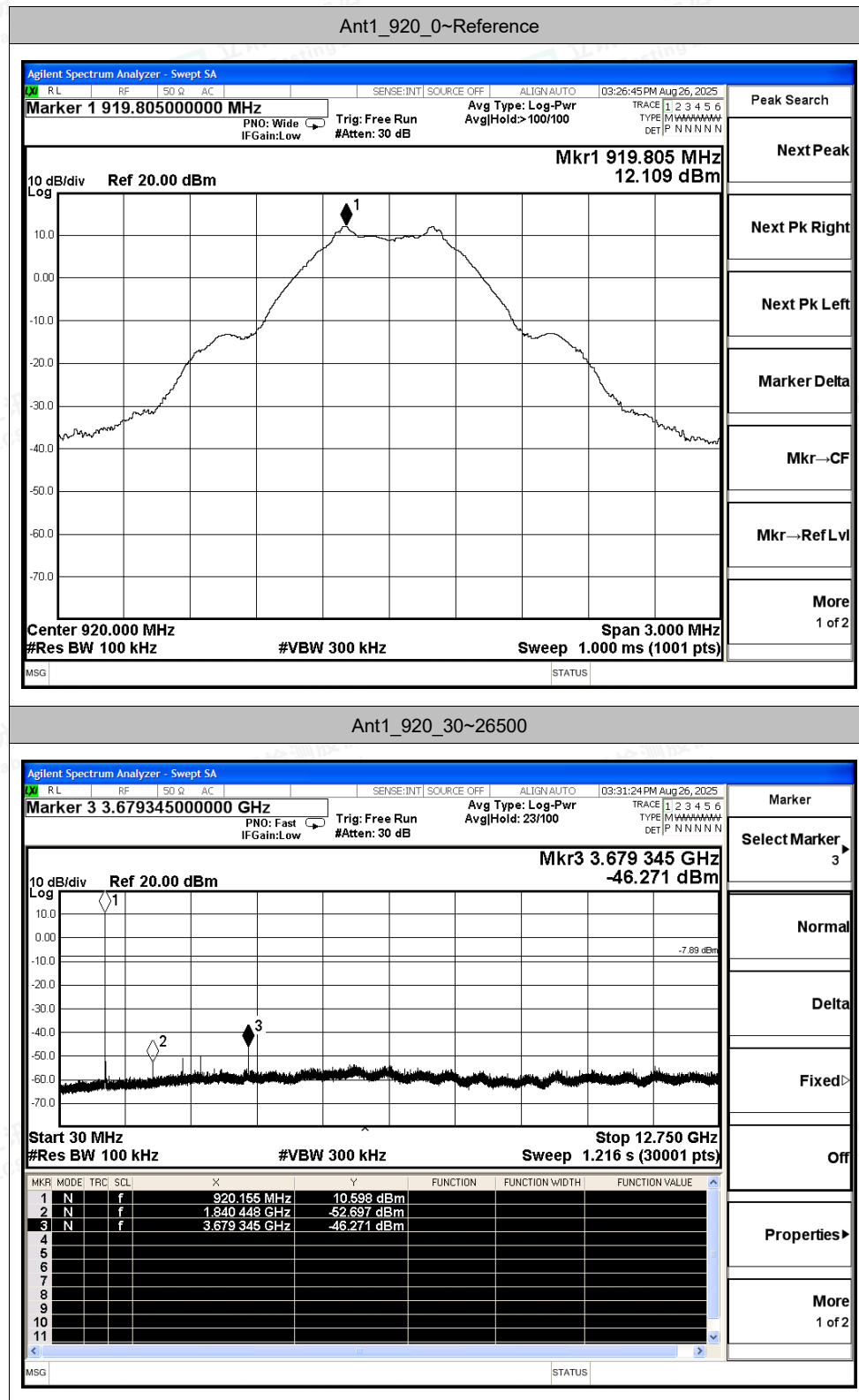


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D.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	Z-Wave	912	Ant1	100	0	0.01
NVNT	Z-Wave	920	Ant1	100	0	0.01

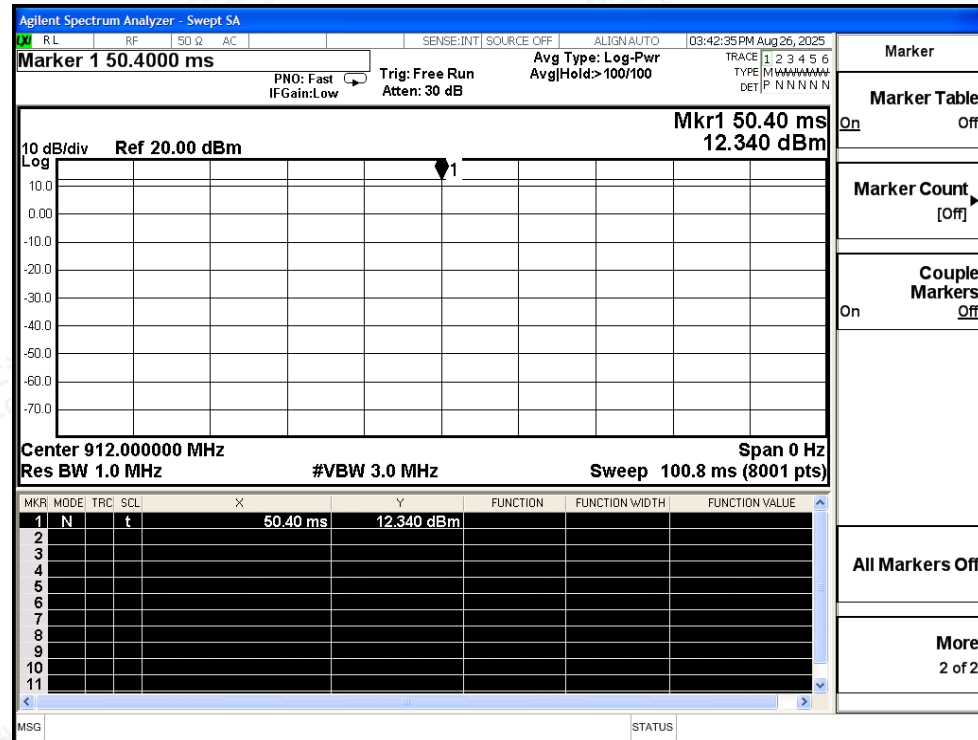


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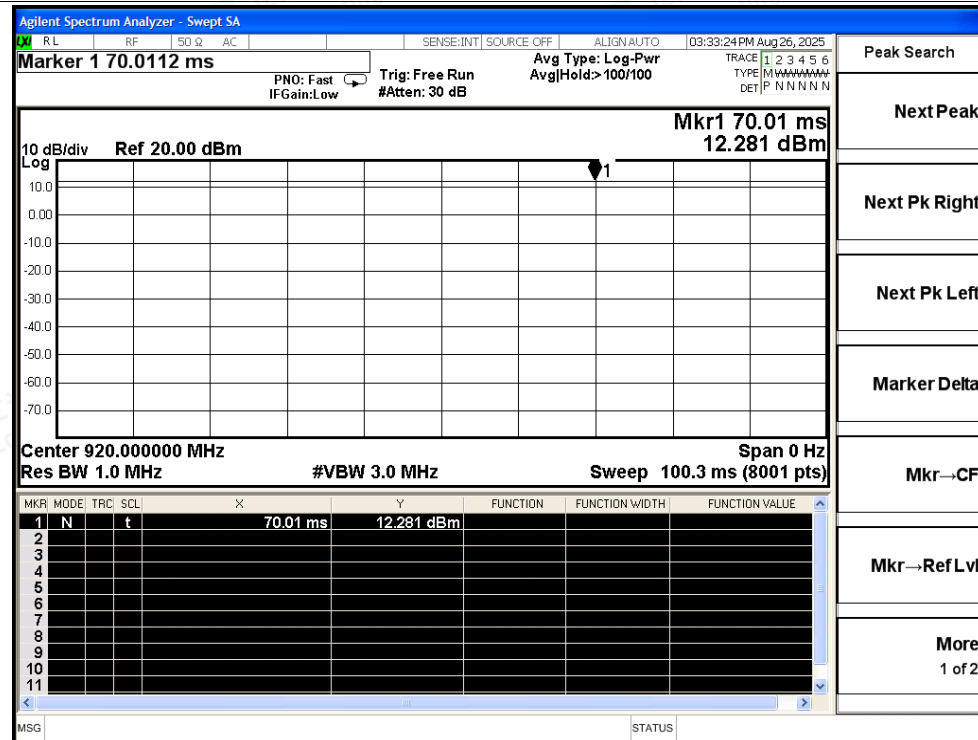


Test Graphs

Duty Cycle NVNT Z-Wave 912MHz Ant1



Duty Cycle NVNT Z-Wave 920MHz Ant1



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