



Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: LED LAMP

Test Model: QPA19-PA-WIFILIC-TY-RGBCWKIT 9W

Environmental Conditions

Temperature:	23.8℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Joker Hu
Supervised by:	Li Huan





A.1 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.508	≥ 0.5	Pass
NVNT	b	2437	Ant1	9.608	≥ 0.5	Pass
NVNT	b	2462	Ant1	9.088	≥ 0.5	Pass
NVNT	g	2412	Ant1	16.333	≥ 0.5	Pass
NVNT	g	2437	Ant1	16.305	≥ 0.5	Pass
NVNT	g	2462	Ant1	13.427	≥ 0.5	Pass
NVNT	n20	2412	Ant1	13.455	≥ 0.5	Pass
NVNT	n20	2437	Ant1	16.919	≥ 0.5	Pass
NVNT	n20	2462	Ant1	17.526	≥ 0.5	Pass





Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



-6dB Bandwidth NVNT b 2437MHz Ant1

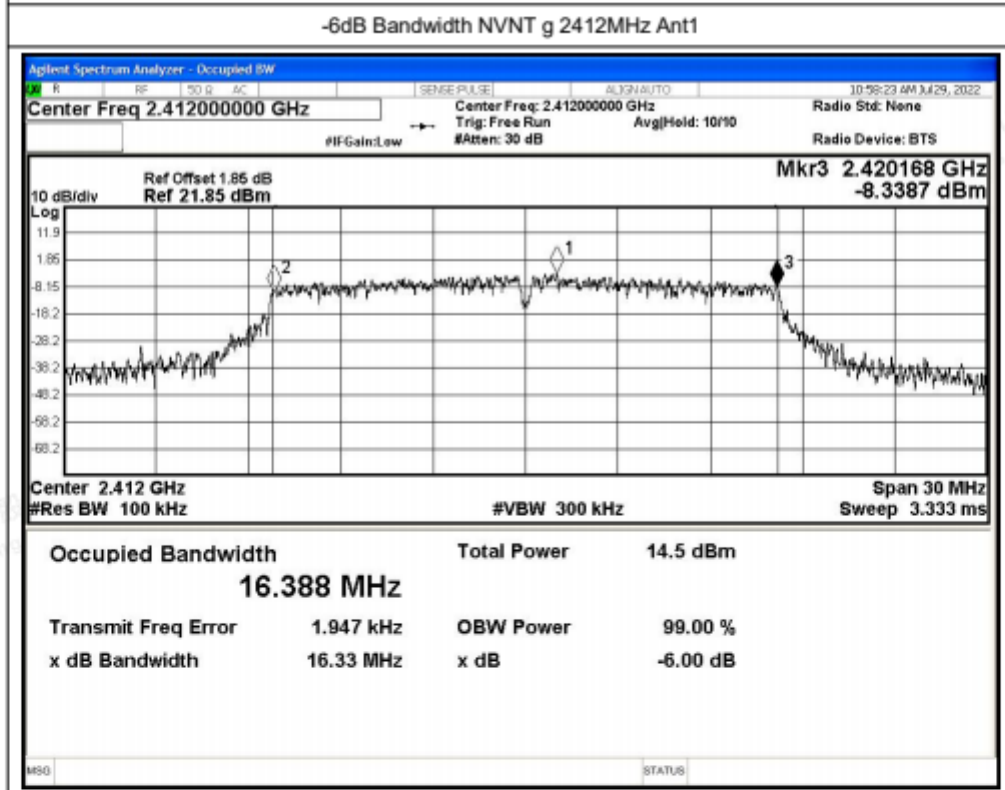
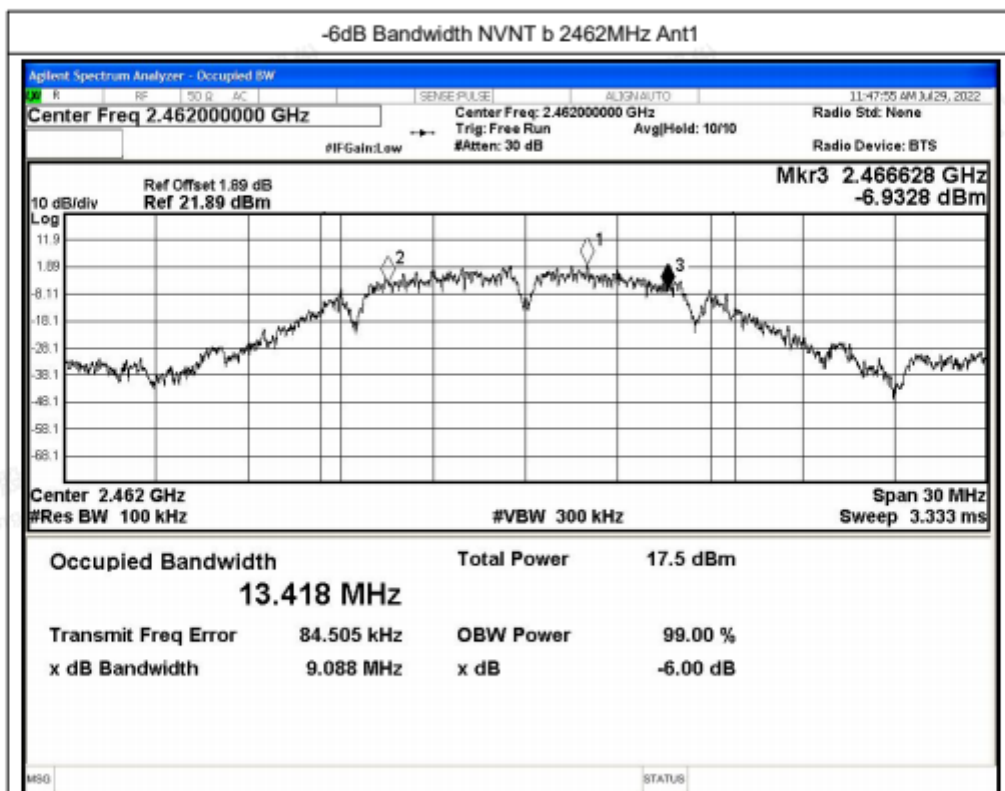


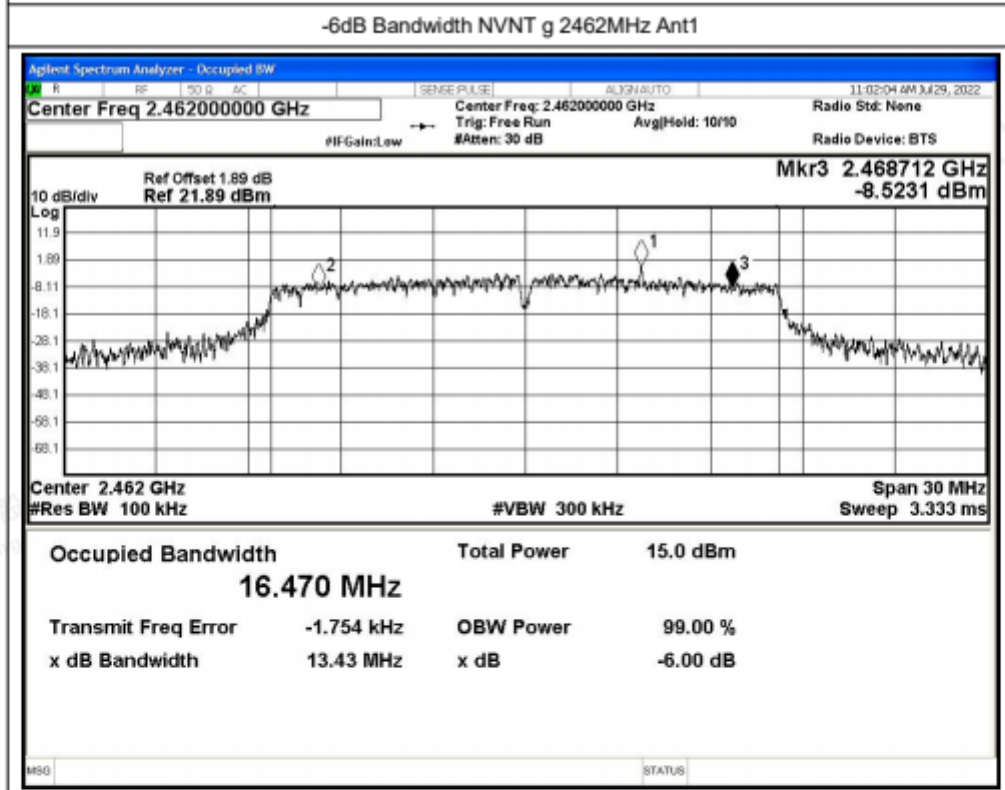
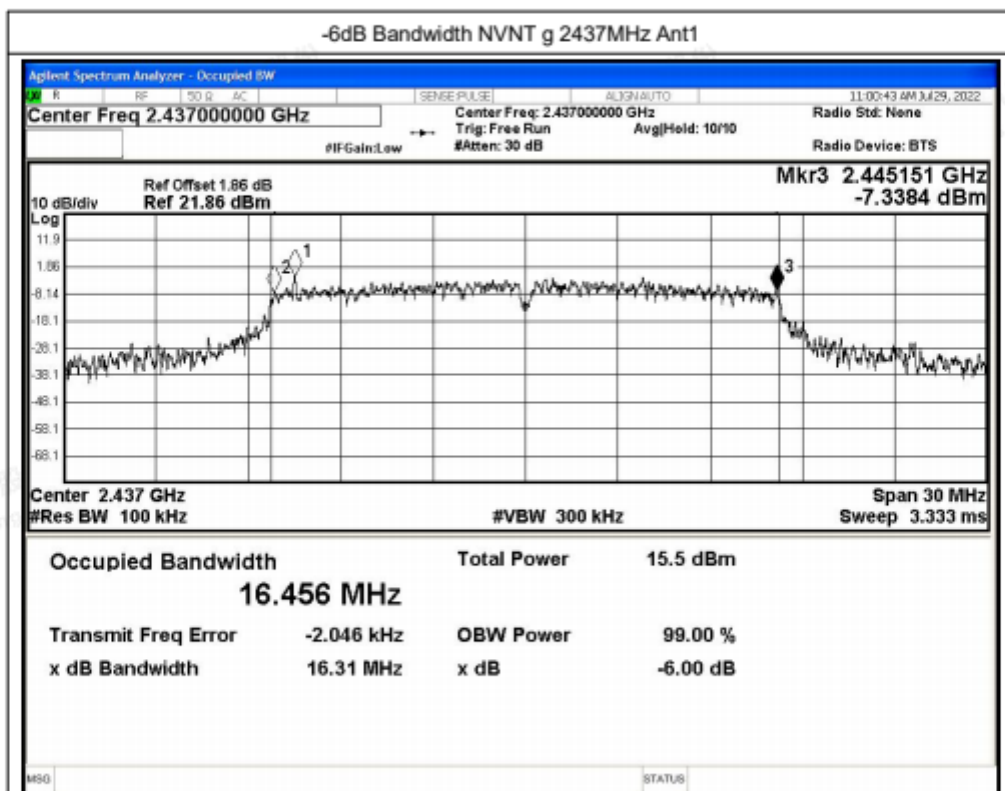
Shenzhen LCS Compliance Testing Laboratory Ltd.

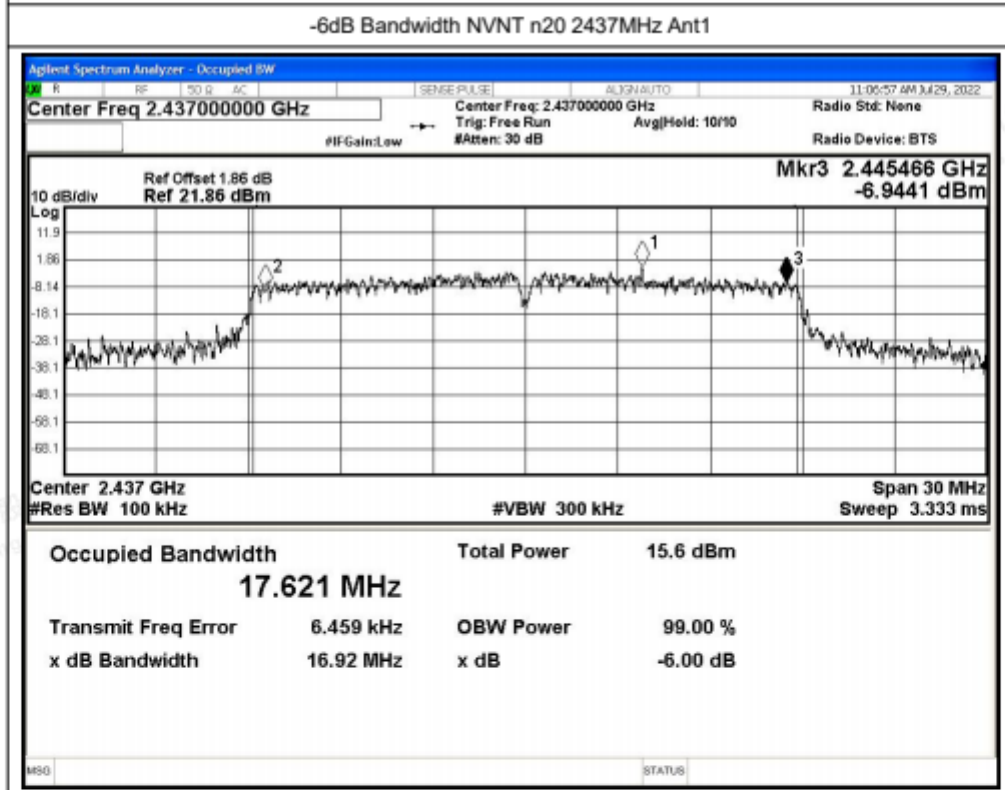
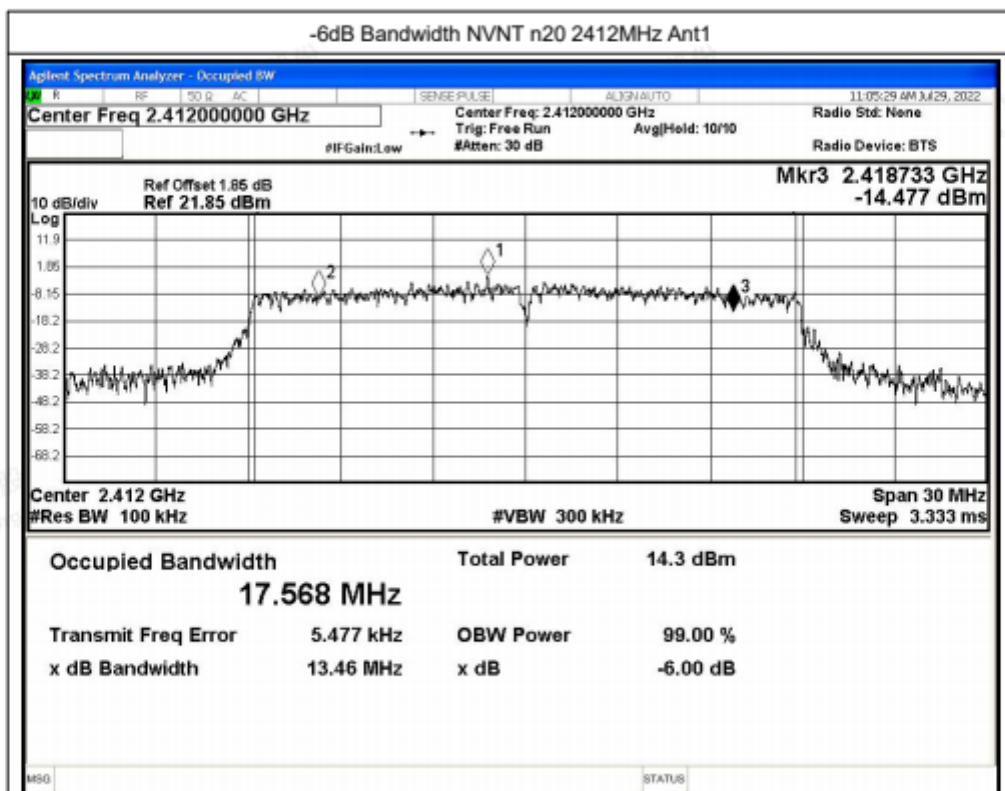
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

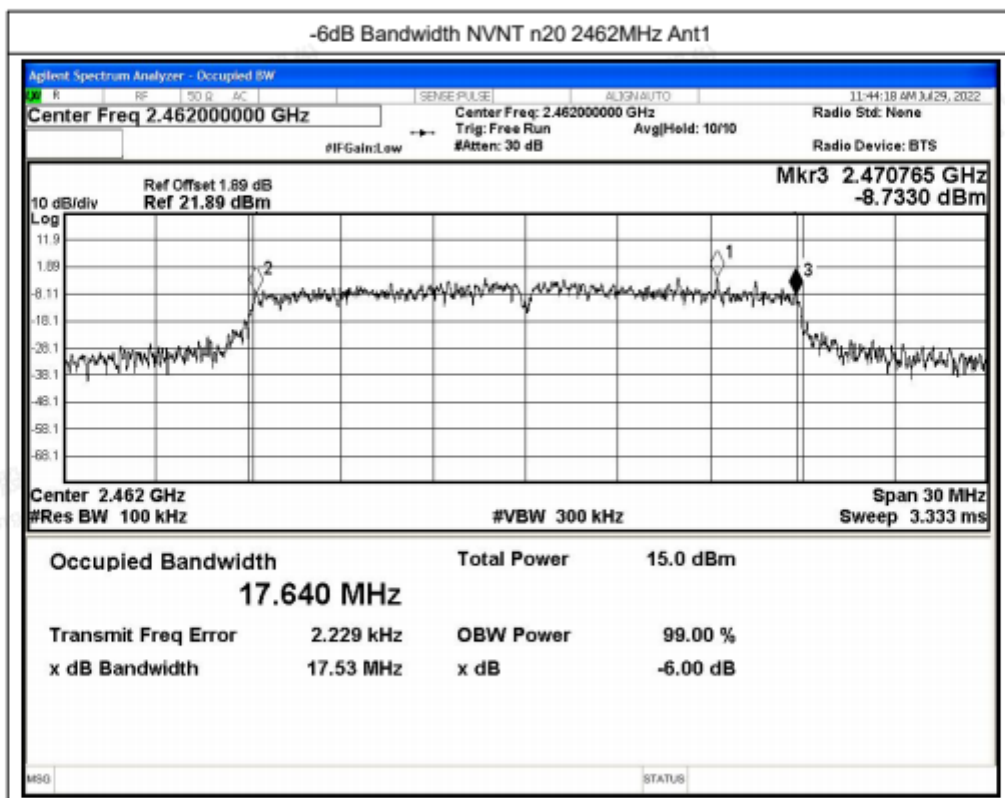
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A.2 Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	12.631
NVNT	b	2437	Ant1	12.965
NVNT	b	2462	Ant1	13.333
NVNT	g	2412	Ant1	16.474
NVNT	g	2437	Ant1	16.491
NVNT	g	2462	Ant1	16.592
NVNT	n20	2412	Ant1	17.575
NVNT	n20	2437	Ant1	17.687
NVNT	n20	2462	Ant1	17.726



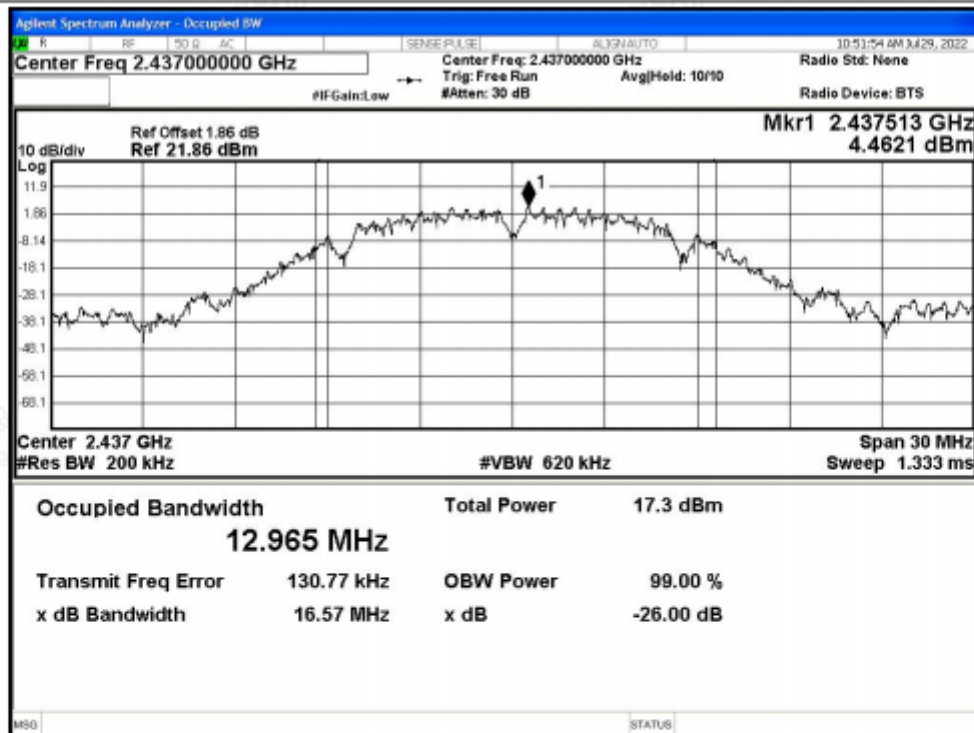


Test Graphs

OBW NVNT b 2412MHz Ant1



OBW NVNT b 2437MHz Ant1



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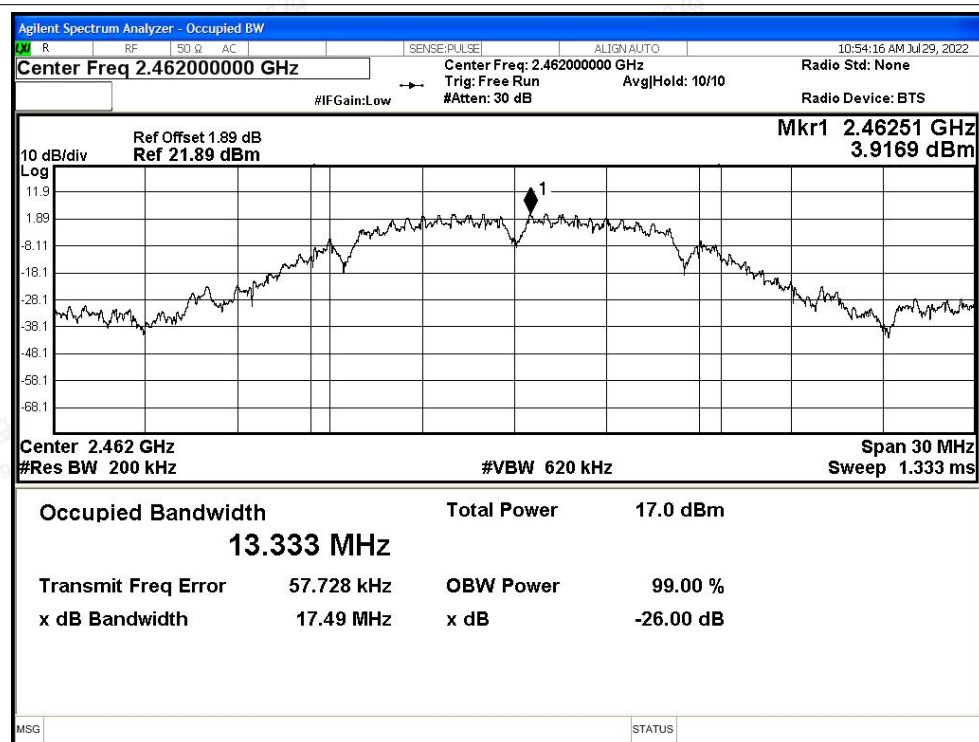
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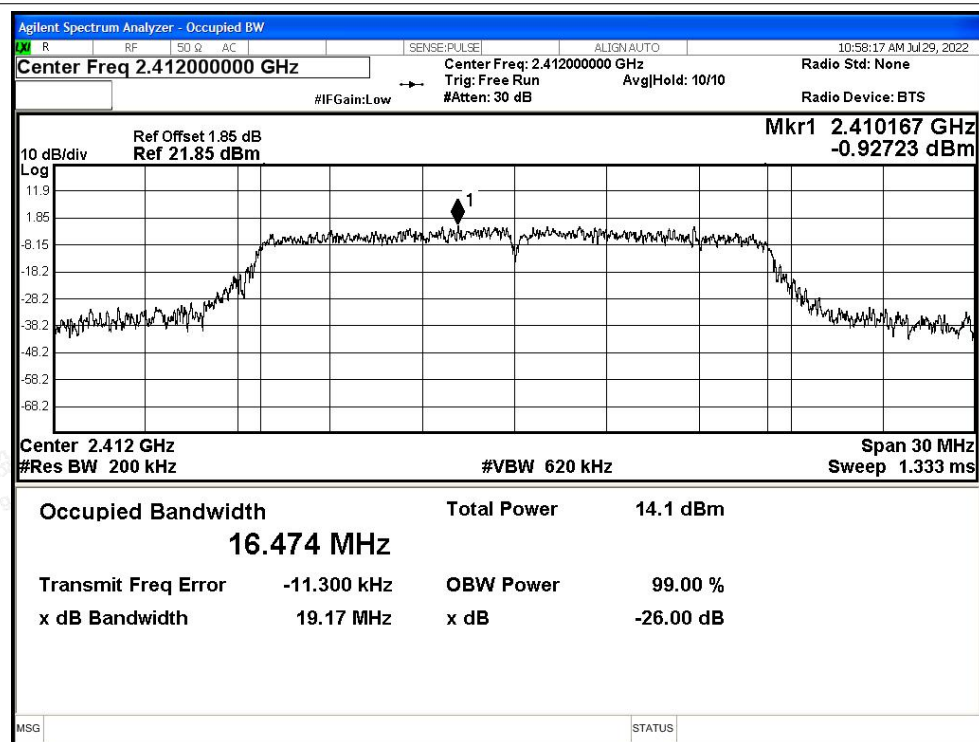
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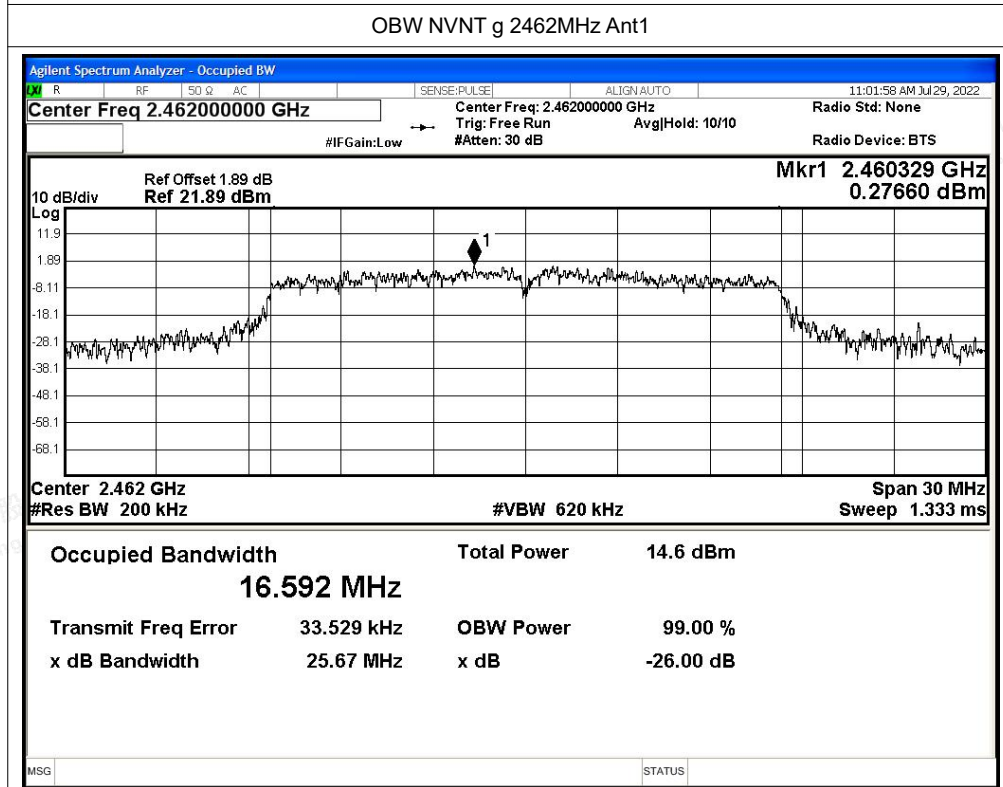
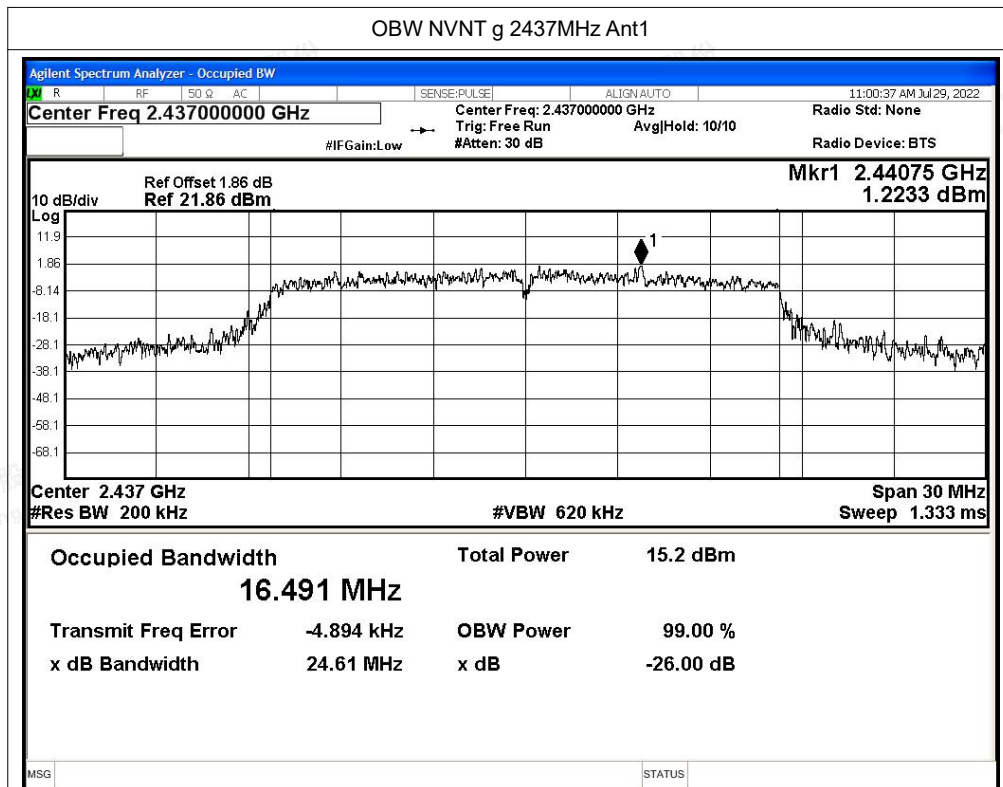


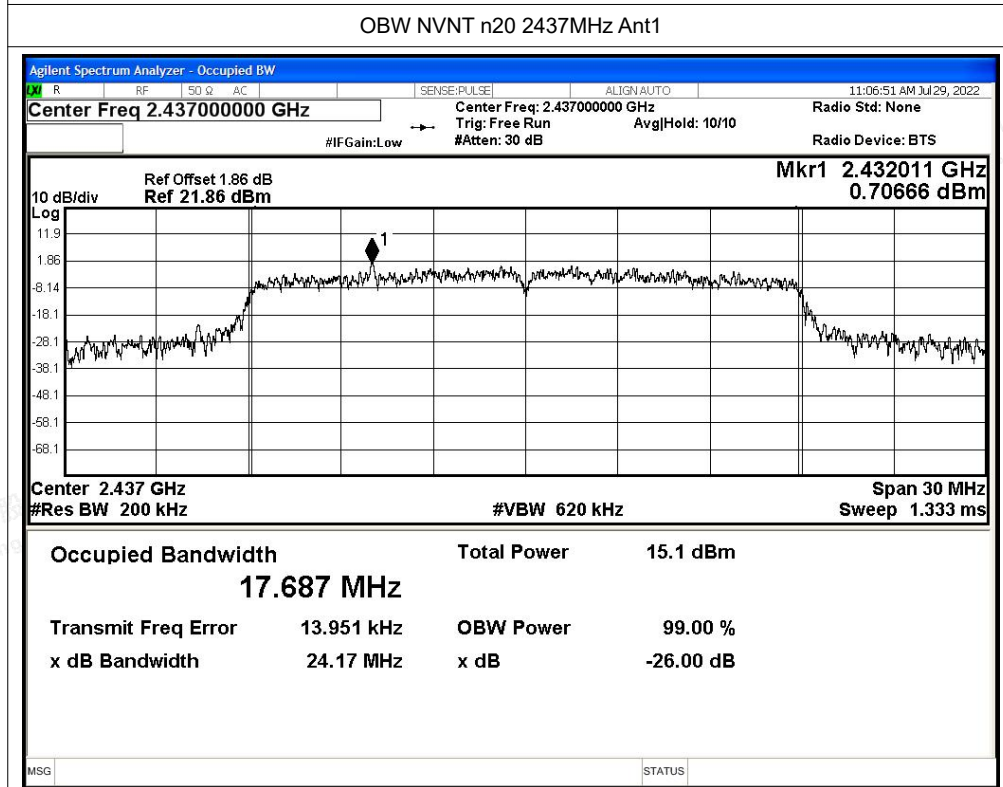
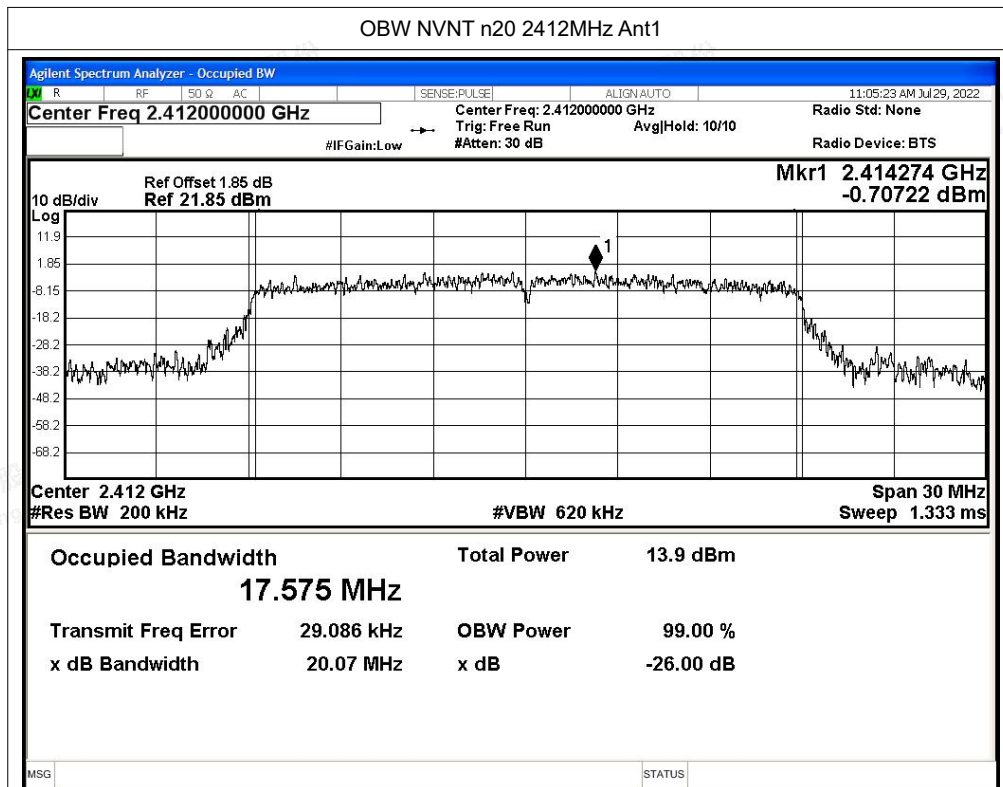
OBW NVNT b 2462MHz Ant1

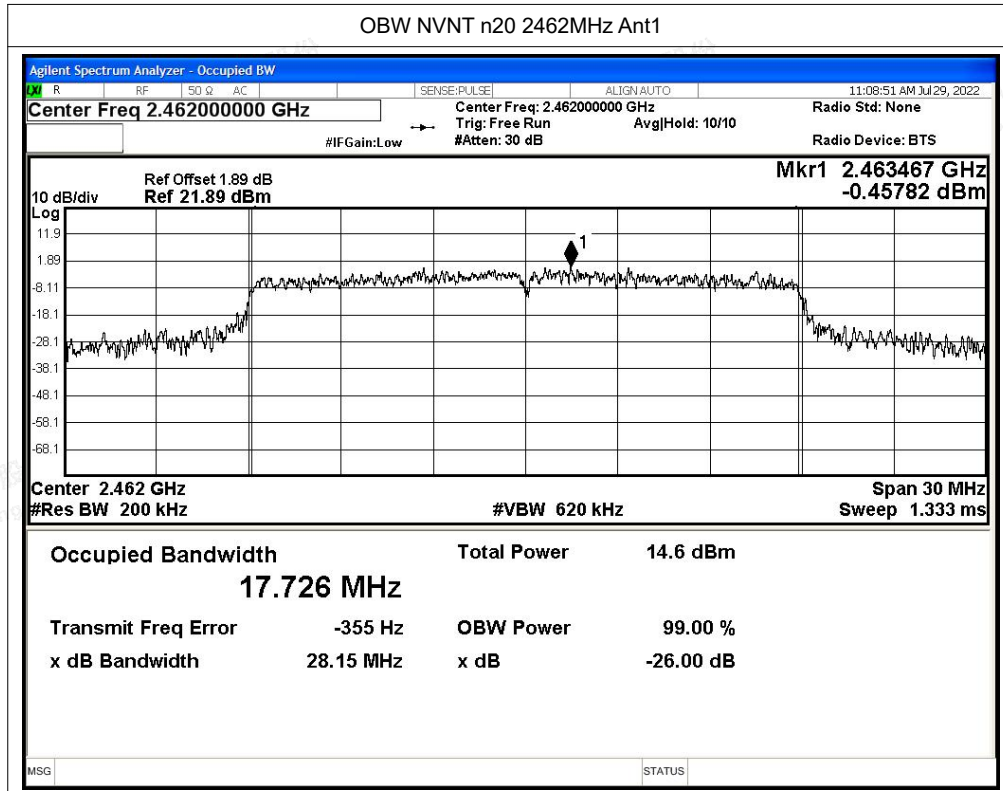


OBW NVNT g 2412MHz Ant1











A.3 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	15.67	0	15.67	30	Pass
NVNT	b	2437	Ant1	15.25	0	15.25	30	Pass
NVNT	b	2462	Ant1	14.76	0	14.76	30	Pass
NVNT	g	2412	Ant1	15.33	0	15.33	30	Pass
NVNT	g	2437	Ant1	14.98	0	14.98	30	Pass
NVNT	g	2462	Ant1	14.39	0	14.39	30	Pass
NVNT	n20	2412	Ant1	14.24	0	14.24	30	Pass
NVNT	n20	2437	Ant1	14.24	0	14.24	30	Pass
NVNT	n20	2462	Ant1	13.63	0	13.63	30	Pass





A.4 Maximum Power Spectral Density Level

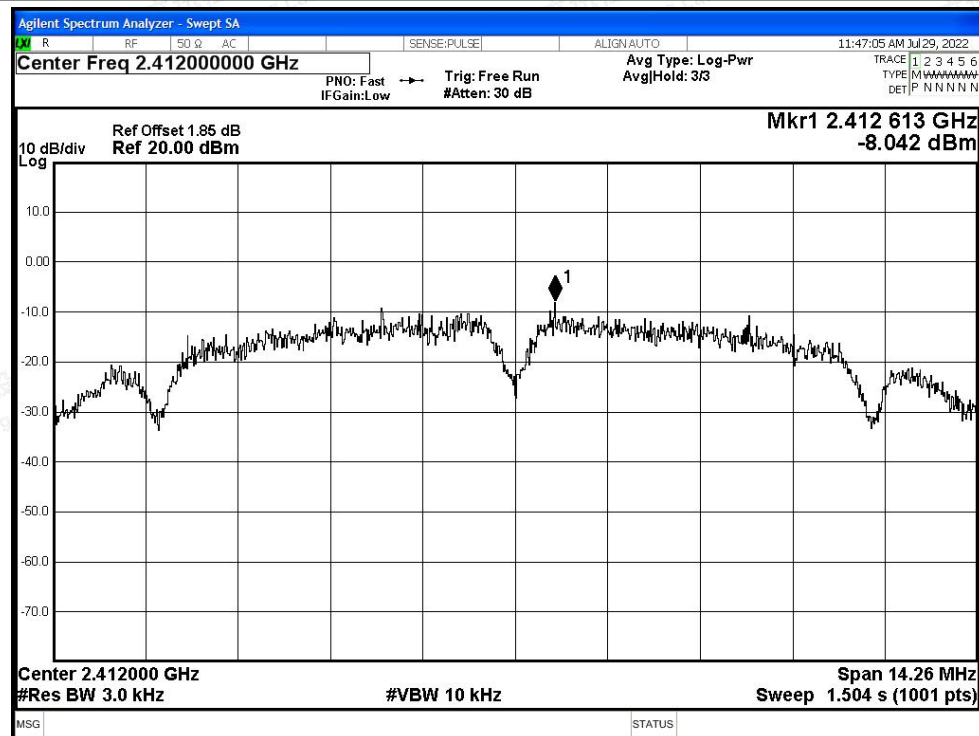
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-8.04	0	-8.04	8	Pass
NVNT	b	2437	Ant1	-10.09	0	-10.09	8	Pass
NVNT	b	2462	Ant1	-10.3	0	-10.3	8	Pass
NVNT	g	2412	Ant1	-12.75	0	-12.75	8	Pass
NVNT	g	2437	Ant1	-13.84	0	-13.84	8	Pass
NVNT	g	2462	Ant1	-13.3	0	-13.3	8	Pass
NVNT	n20	2412	Ant1	-14.04	0	-14.04	8	Pass
NVNT	n20	2437	Ant1	-12.96	0	-12.96	8	Pass
NVNT	n20	2462	Ant1	-14.61	0	-14.61	8	Pass



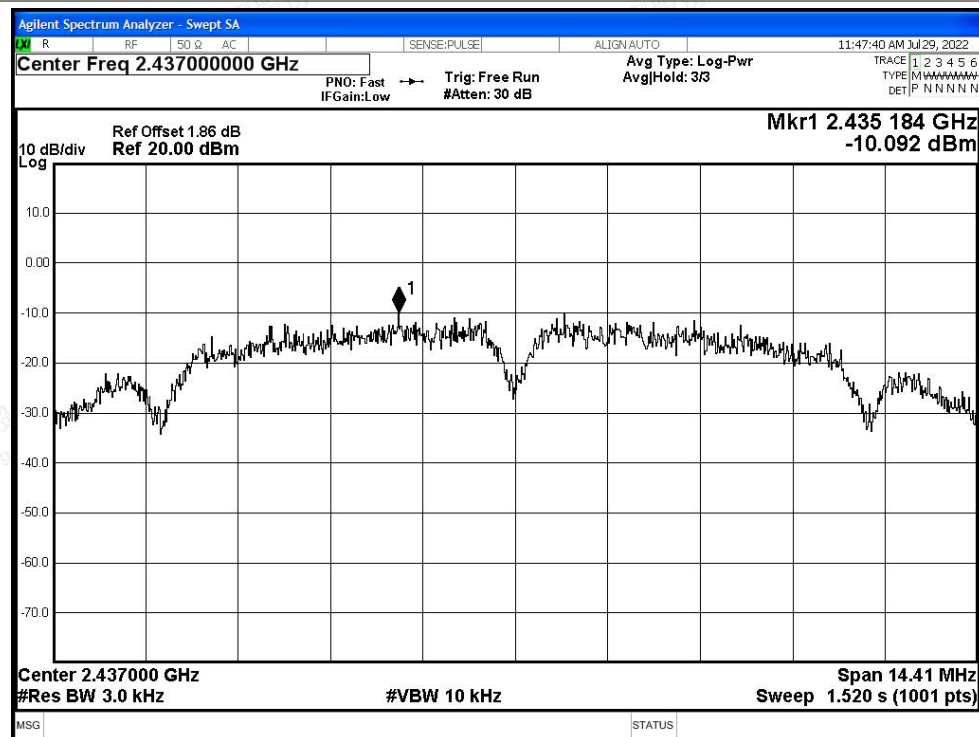


Test Graphs

PSD NVNT b 2412MHz Ant1



PSD NVNT b 2437MHz Ant1



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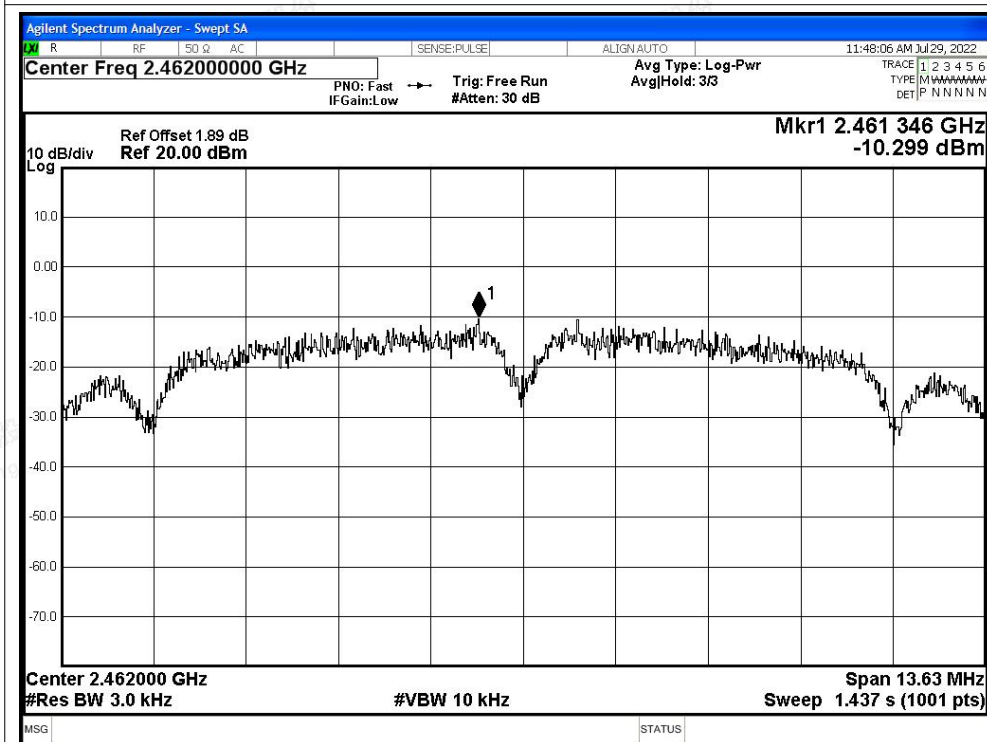
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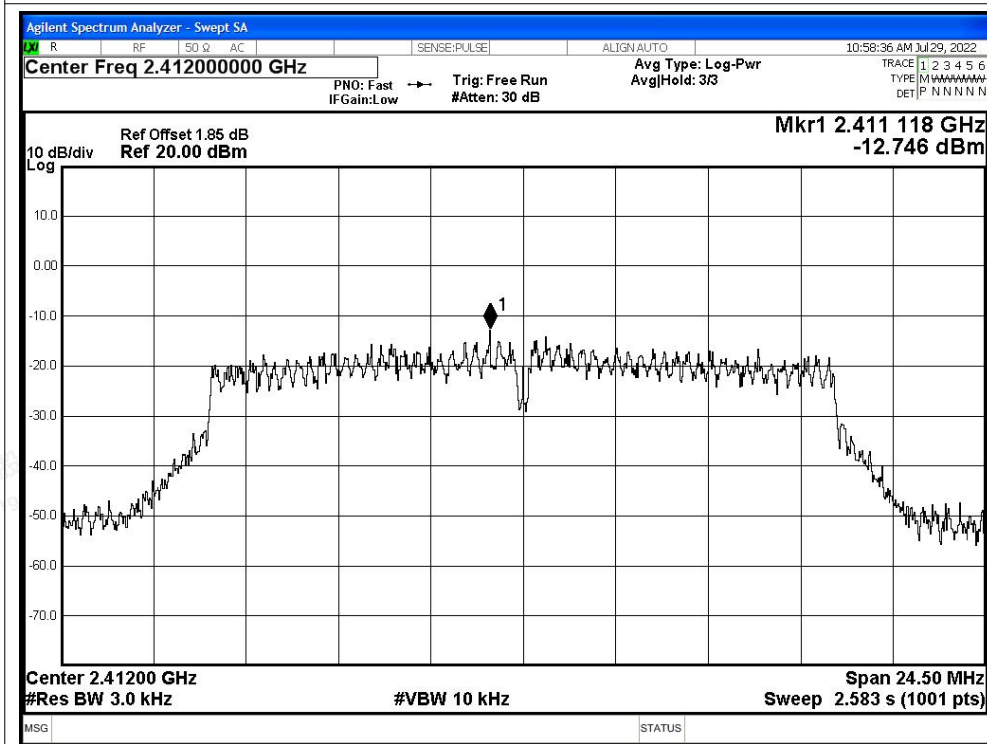
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PSD NVNT b 2462MHz Ant1



PSD NVNT g 2412MHz Ant1

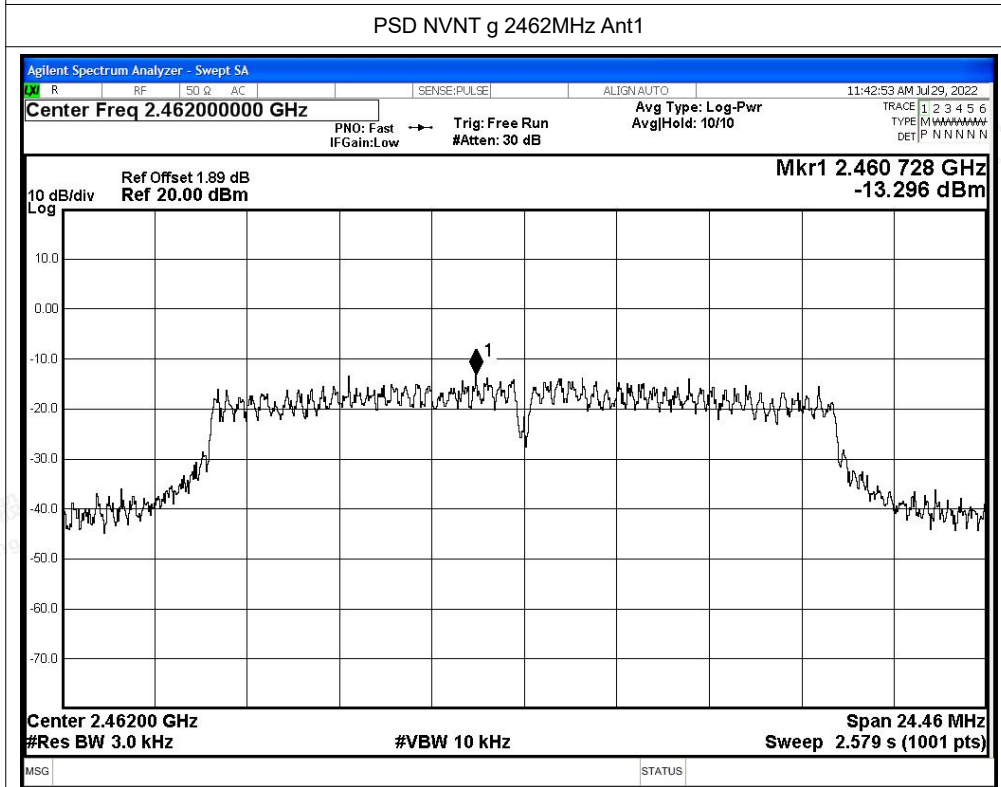
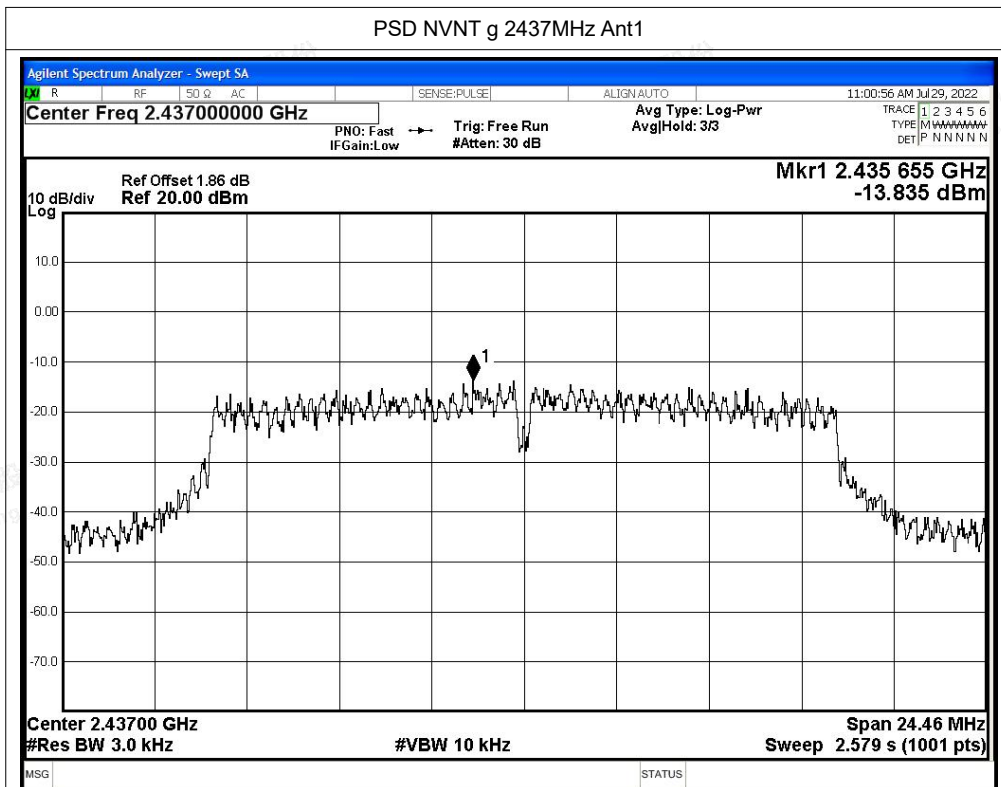


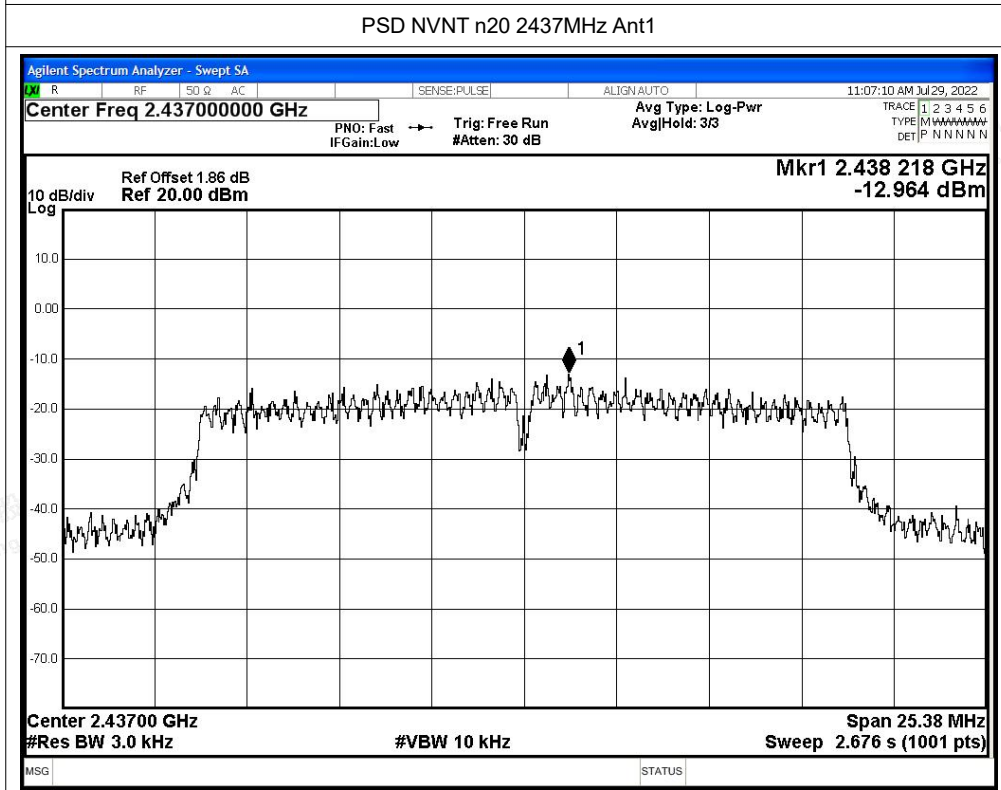
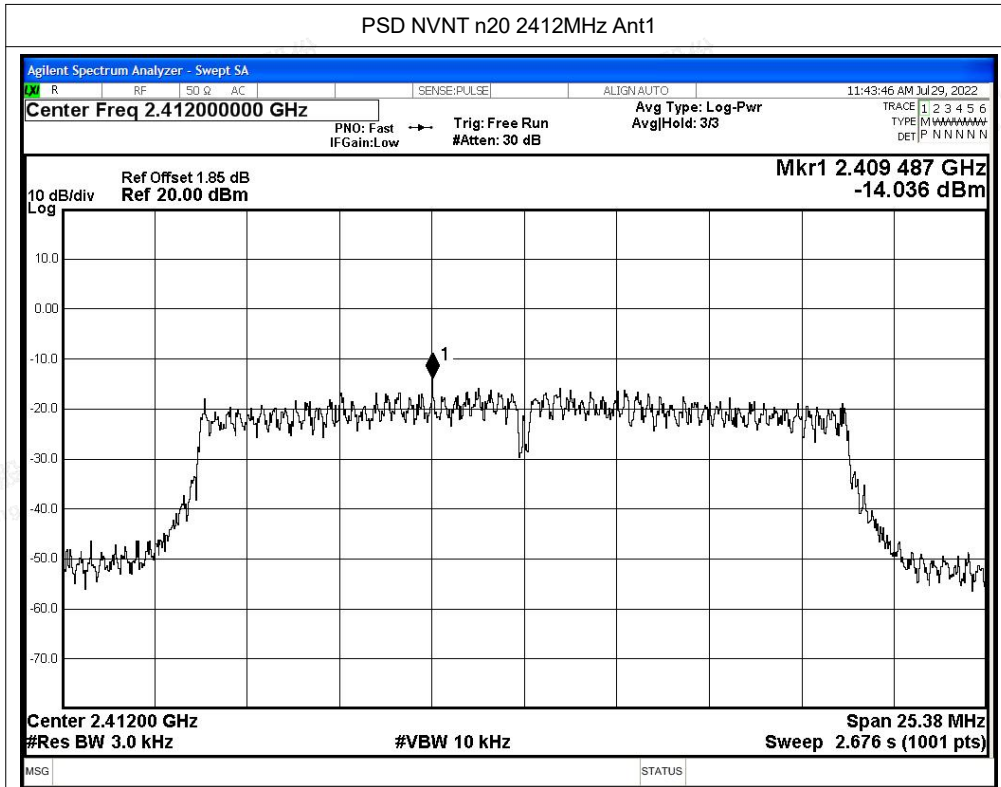
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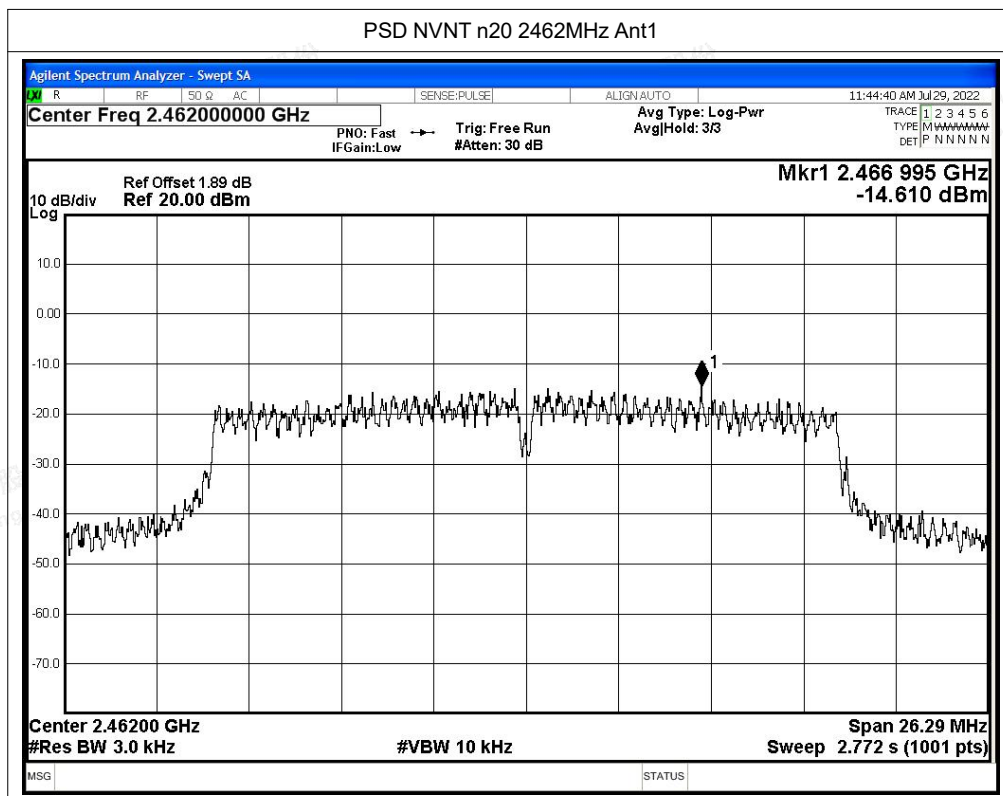
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A.5 Band Edge

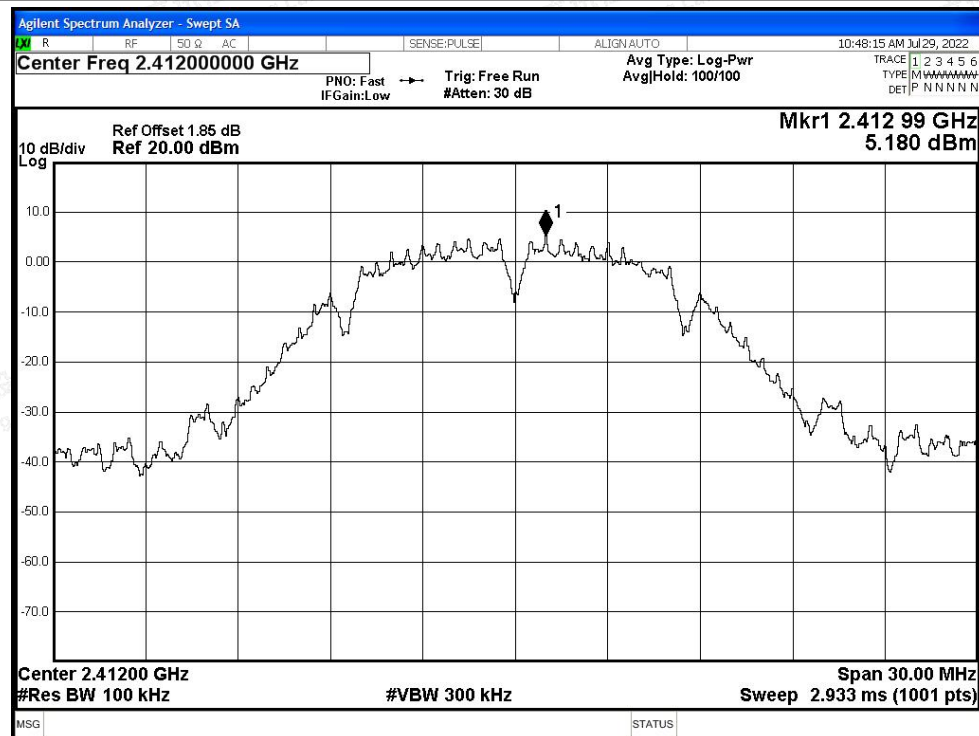
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-41.33	-20	Pass
NVNT	b	2462	Ant1	-52.83	-20	Pass
NVNT	g	2412	Ant1	-34.05	-20	Pass
NVNT	g	2462	Ant1	-41.2	-20	Pass
NVNT	n20	2412	Ant1	-31.65	-20	Pass
NVNT	n20	2462	Ant1	-37.87	-20	Pass



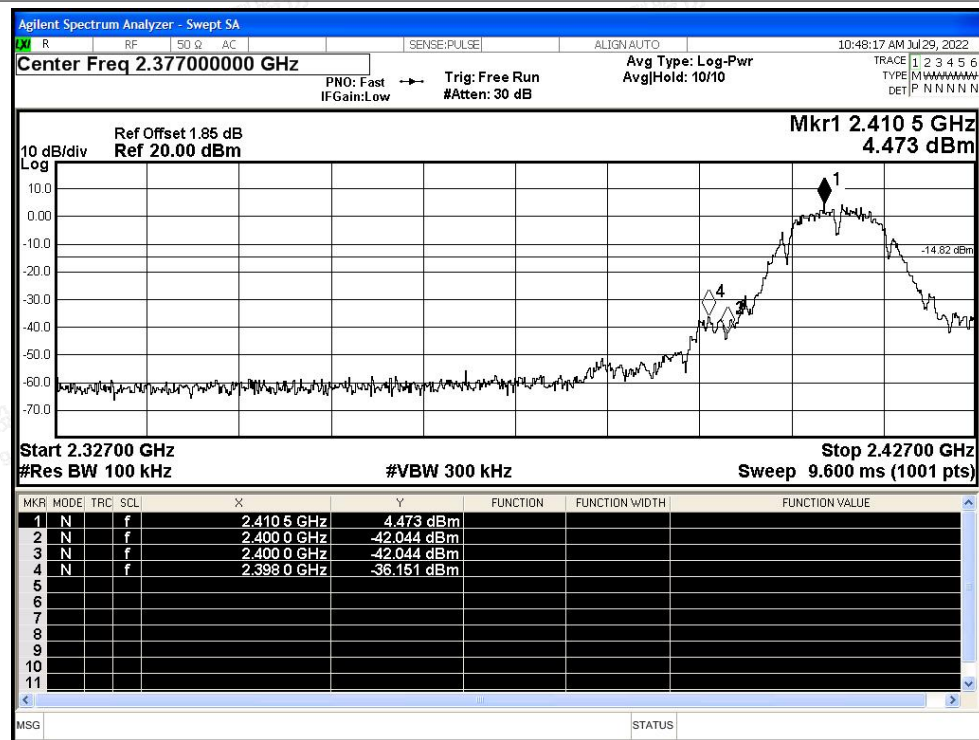


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



Band Edge NVNT b 2412MHz Ant1 Emission

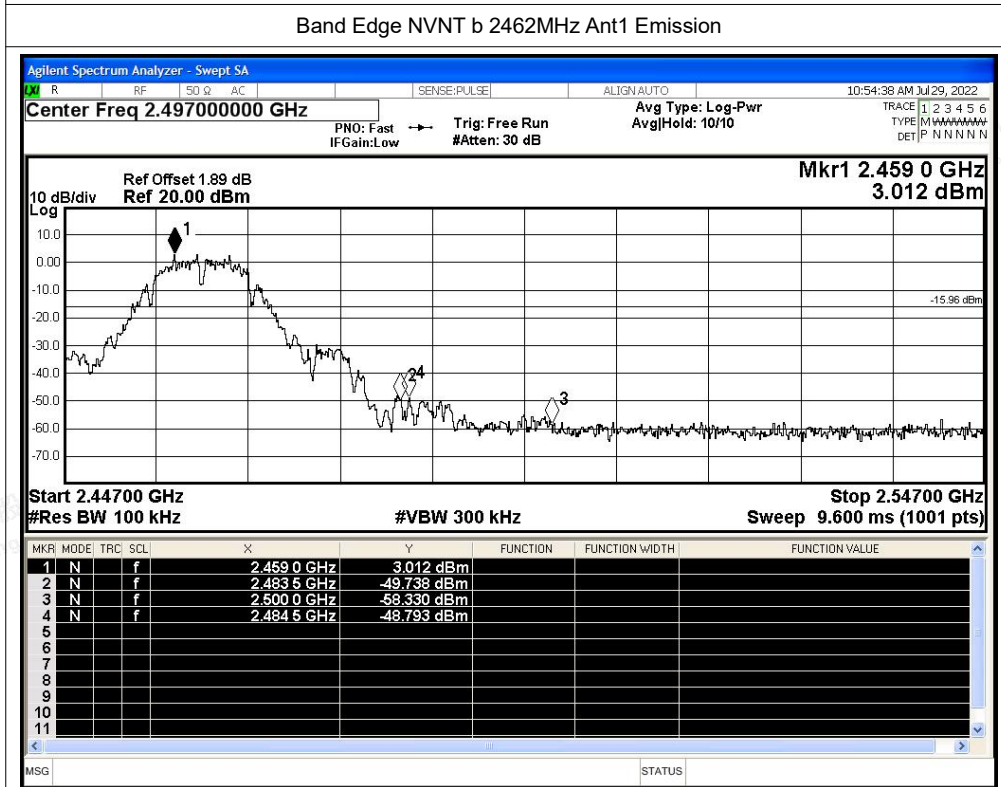
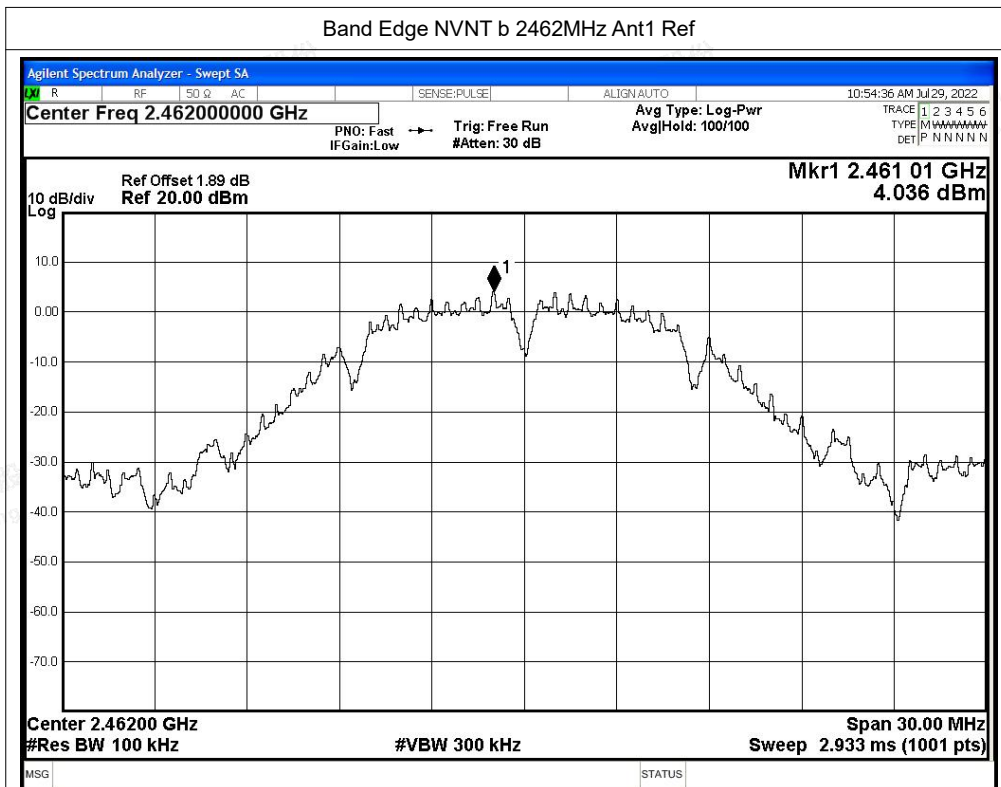


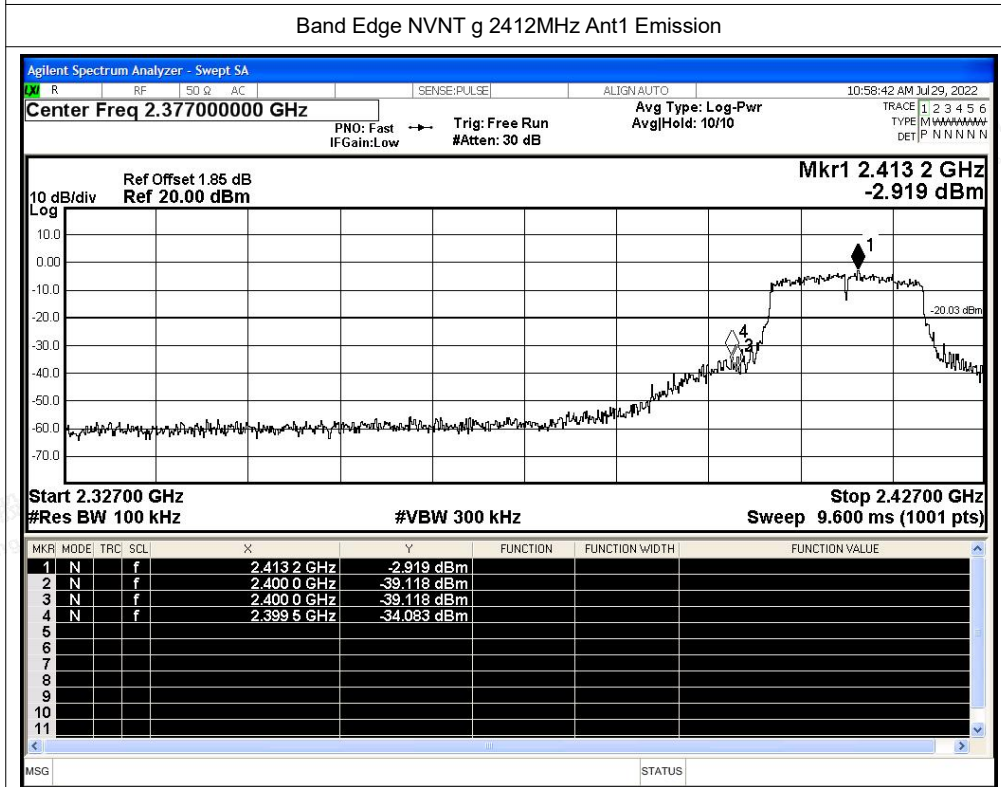
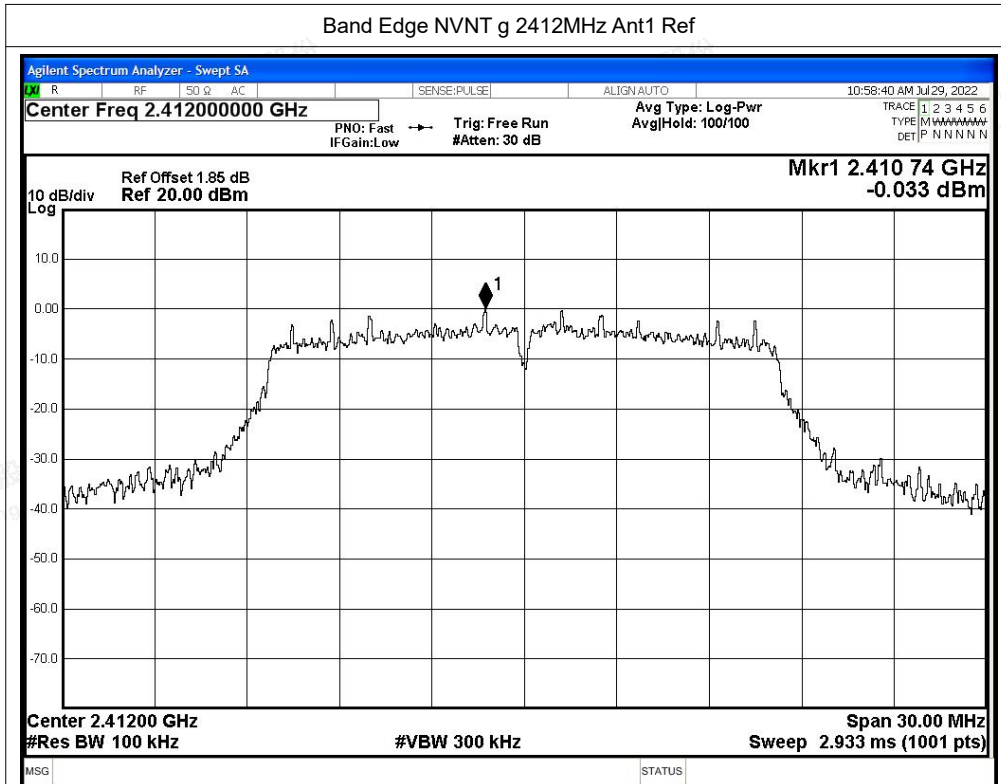
Shenzhen LCS Compliance Testing Laboratory Ltd.

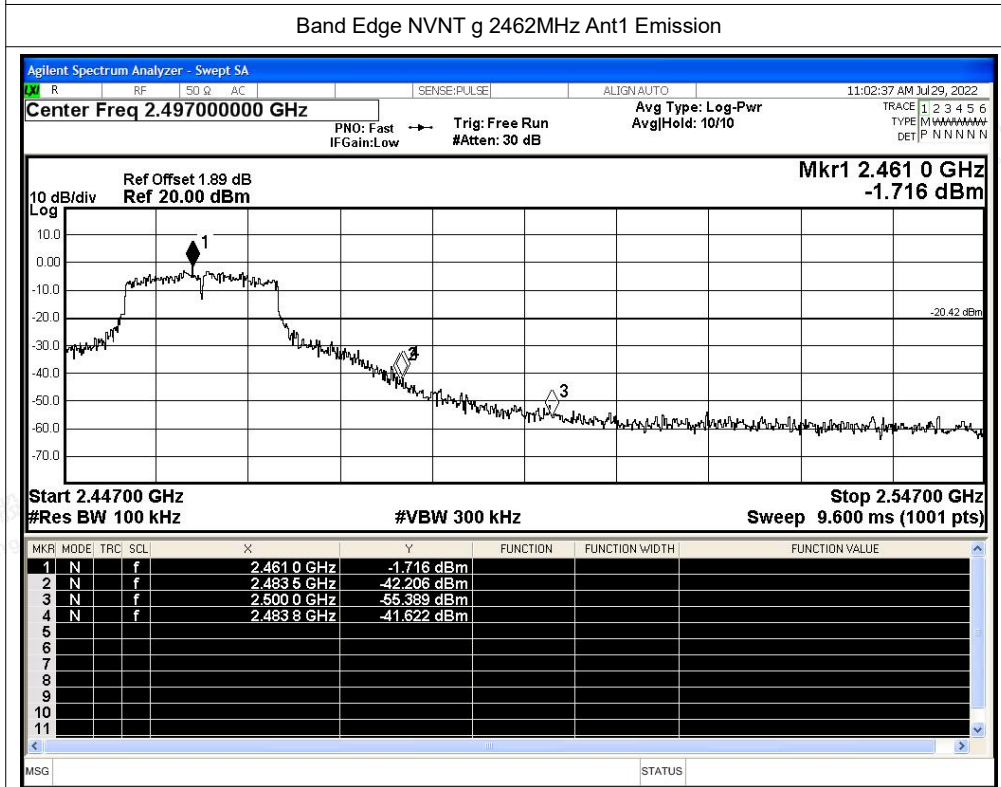
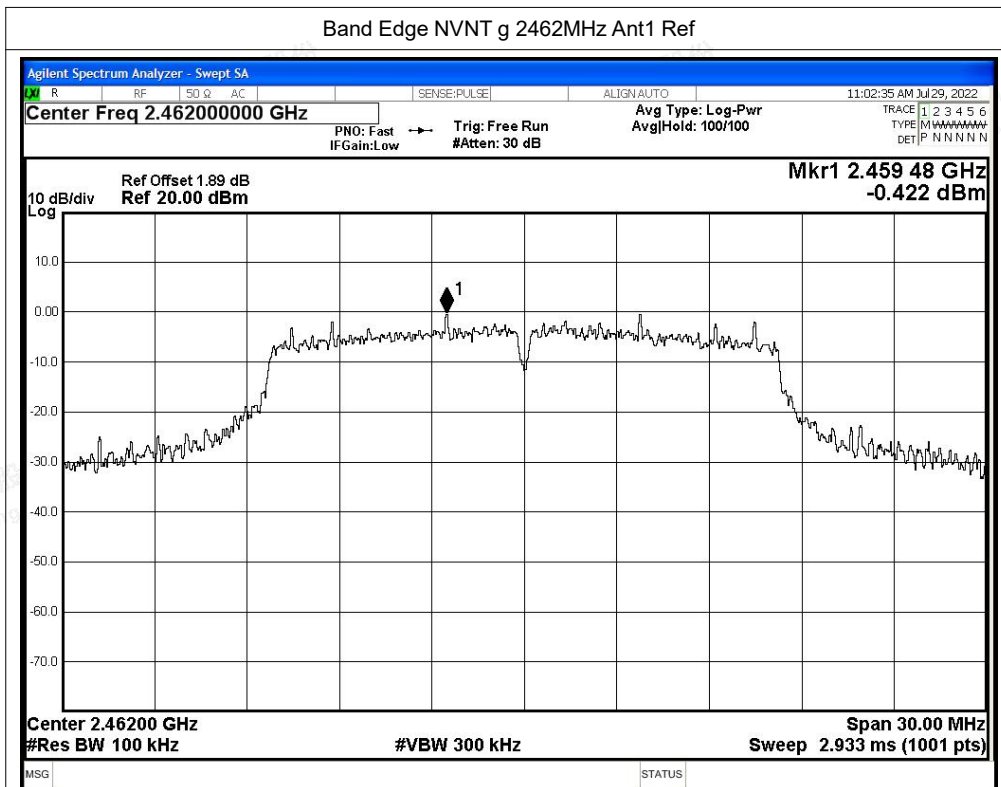
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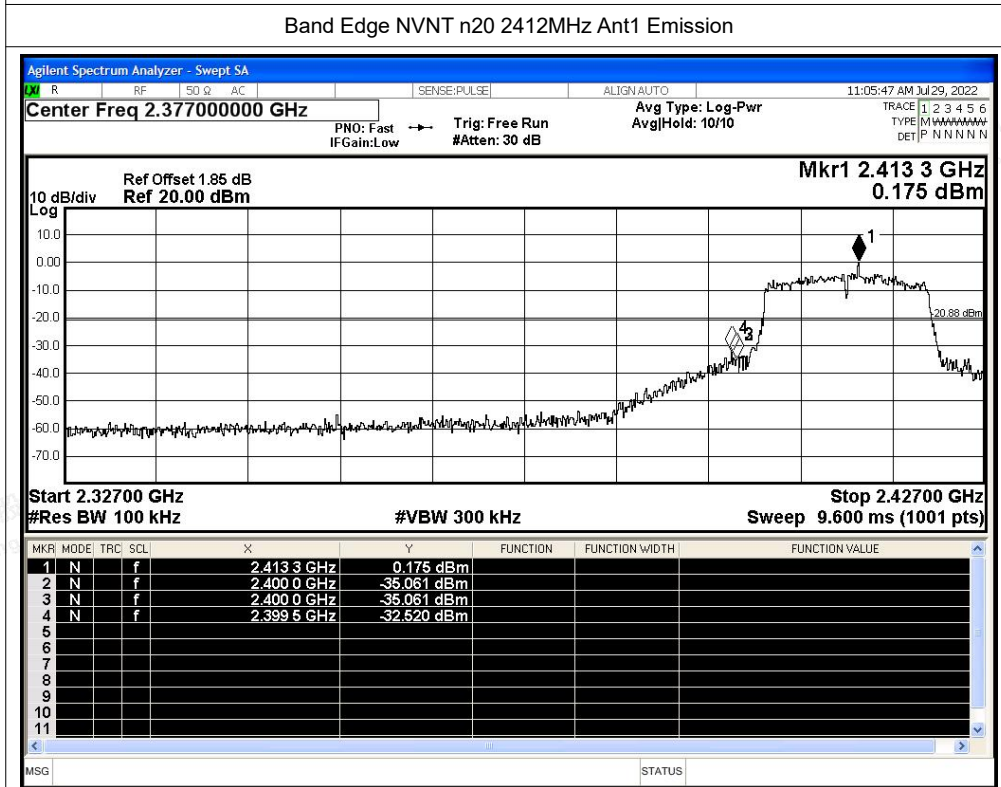
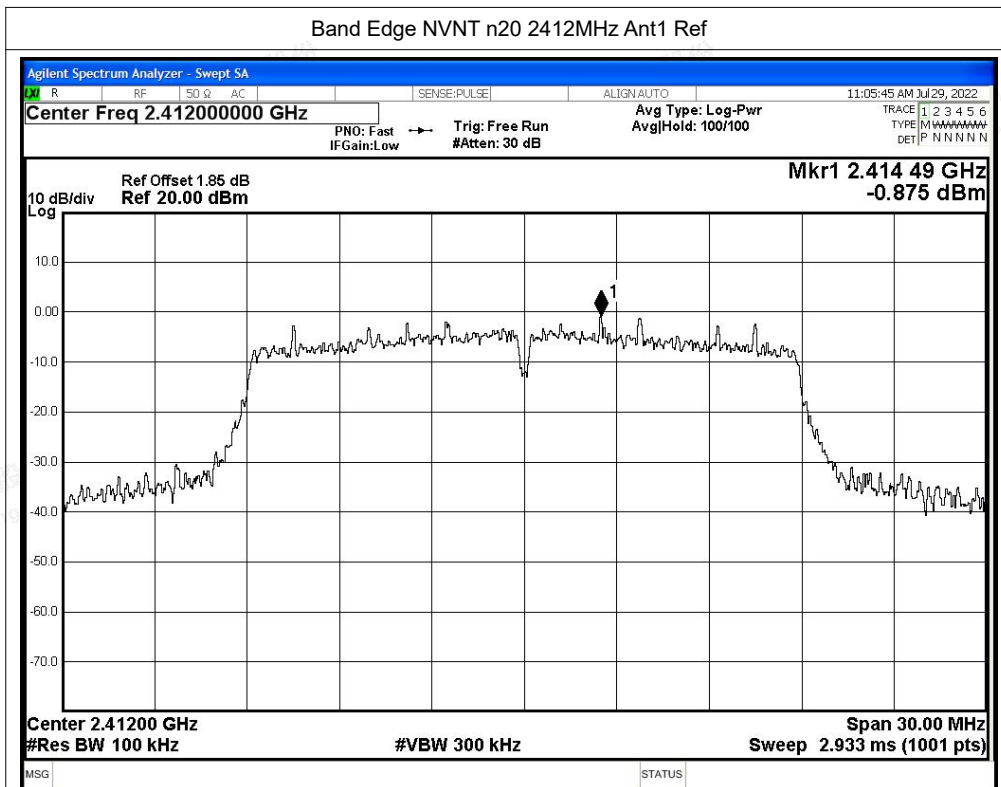
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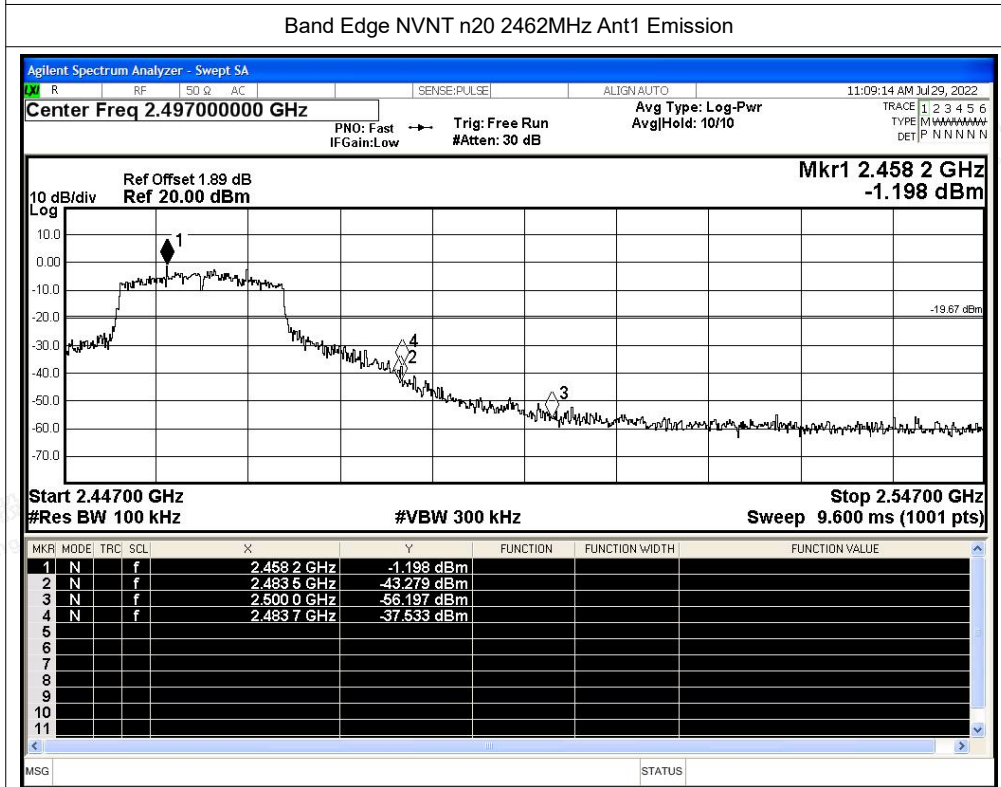
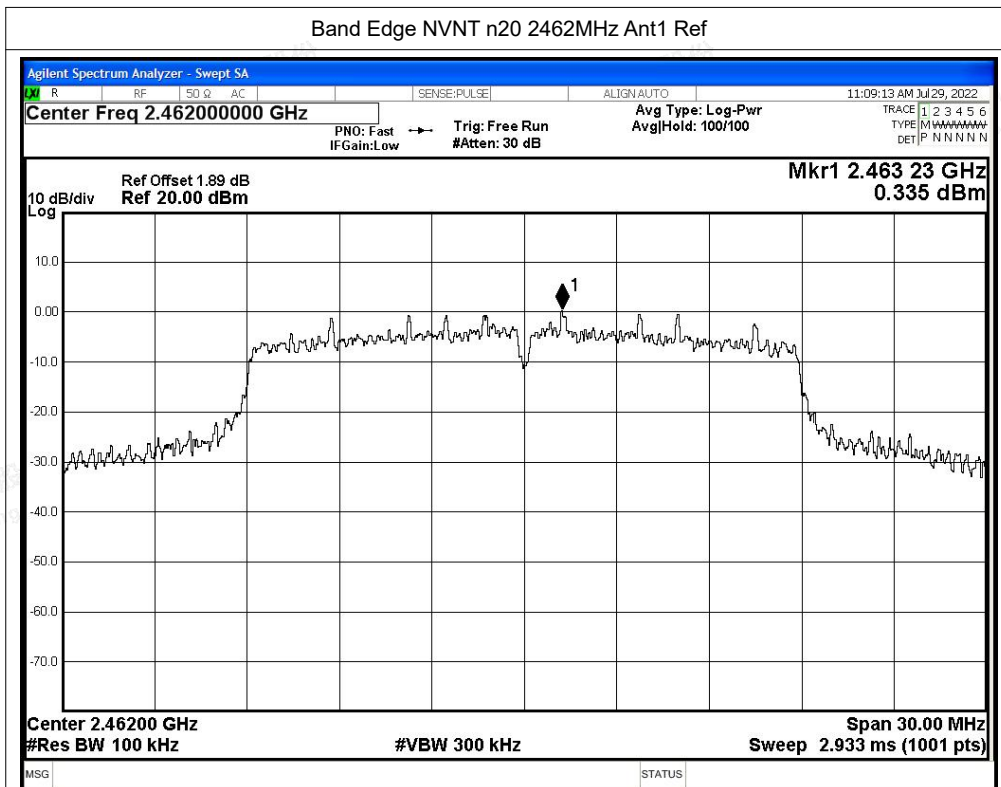
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A.6 Conducted RF Spurious Emission

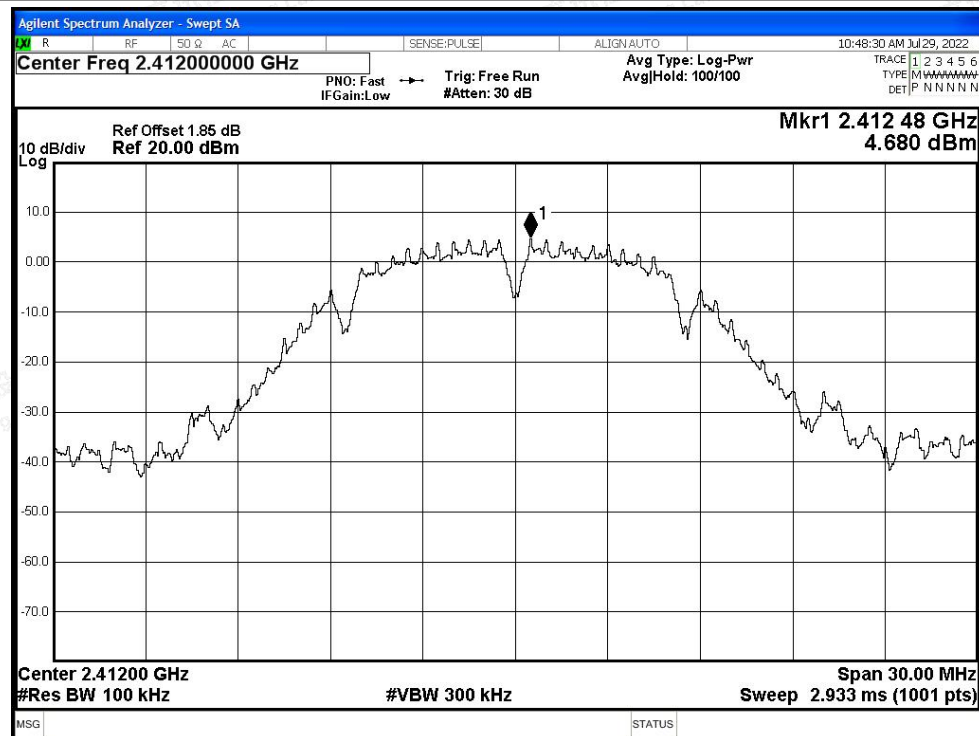
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-49.71	-20	Pass
NVNT	b	2437	Ant1	-49.91	-20	Pass
NVNT	b	2462	Ant1	-50.06	-20	Pass
NVNT	g	2412	Ant1	-45.93	-20	Pass
NVNT	g	2437	Ant1	-47.28	-20	Pass
NVNT	g	2462	Ant1	-46.35	-20	Pass
NVNT	n20	2412	Ant1	-46.69	-20	Pass
NVNT	n20	2437	Ant1	-47.38	-20	Pass
NVNT	n20	2462	Ant1	-46.42	-20	Pass



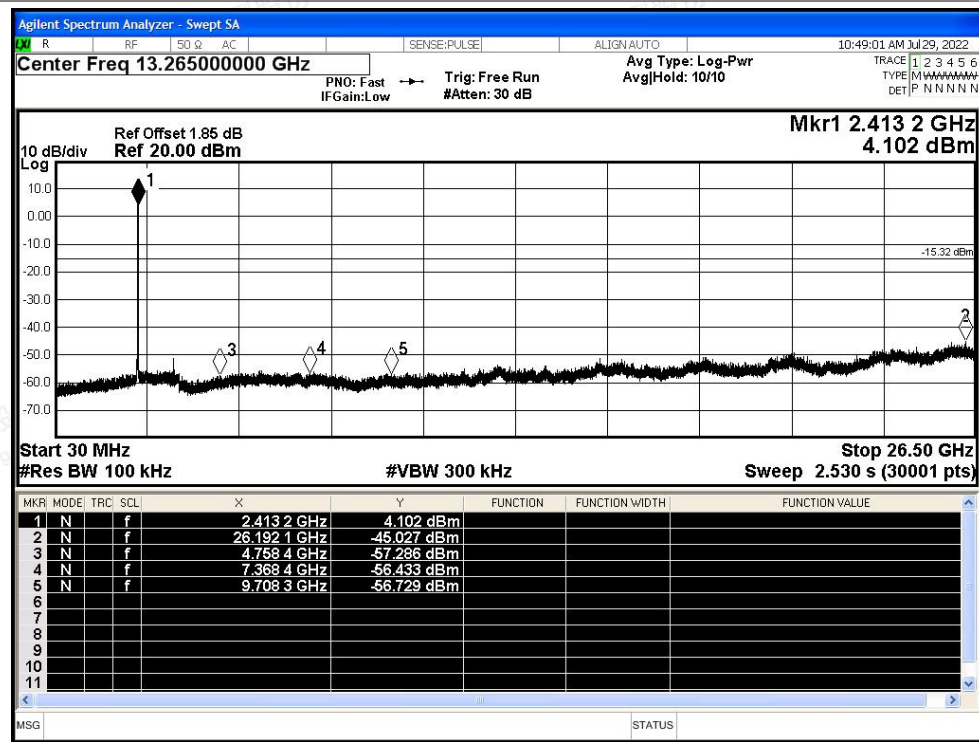


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref

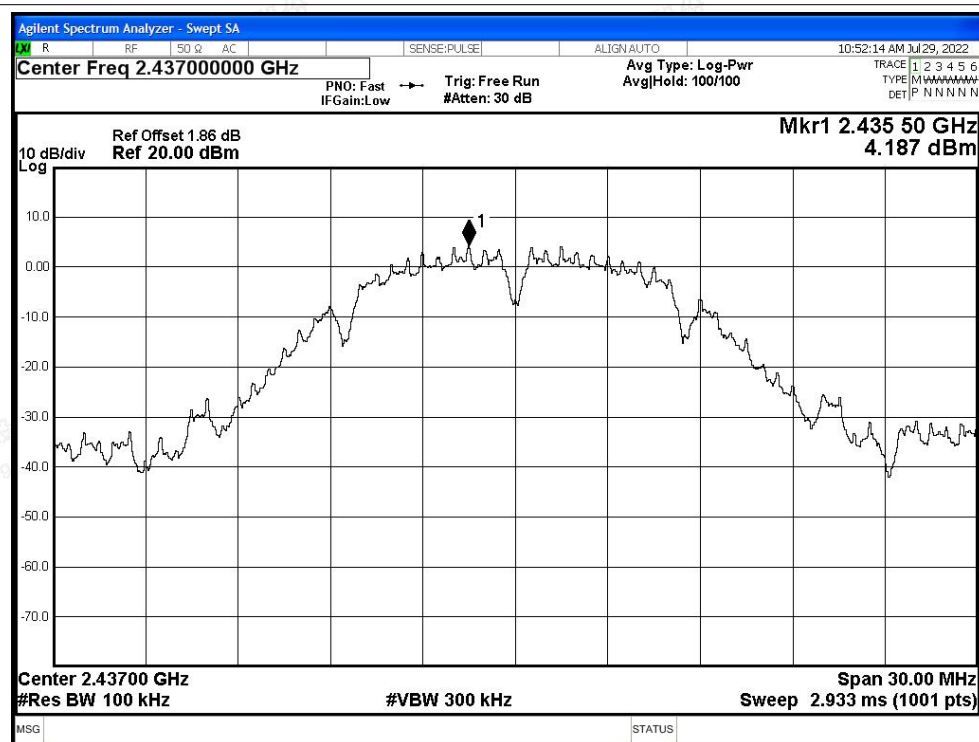


Tx. Spurious NVNT b 2412MHz Ant1 Emission





Tx. Spurious NVNT b 2437MHz Ant1 Ref



Tx. Spurious NVNT b 2437MHz Ant1 Emission

