



Appendix A

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: 10x optical camera

Test Model: DC152

Environmental Conditions

Temperature:	24.6°C
Relative Humidity:	52.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Luo
Supervised by:	Nick Peng



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A.1 -6dB Bandwidth

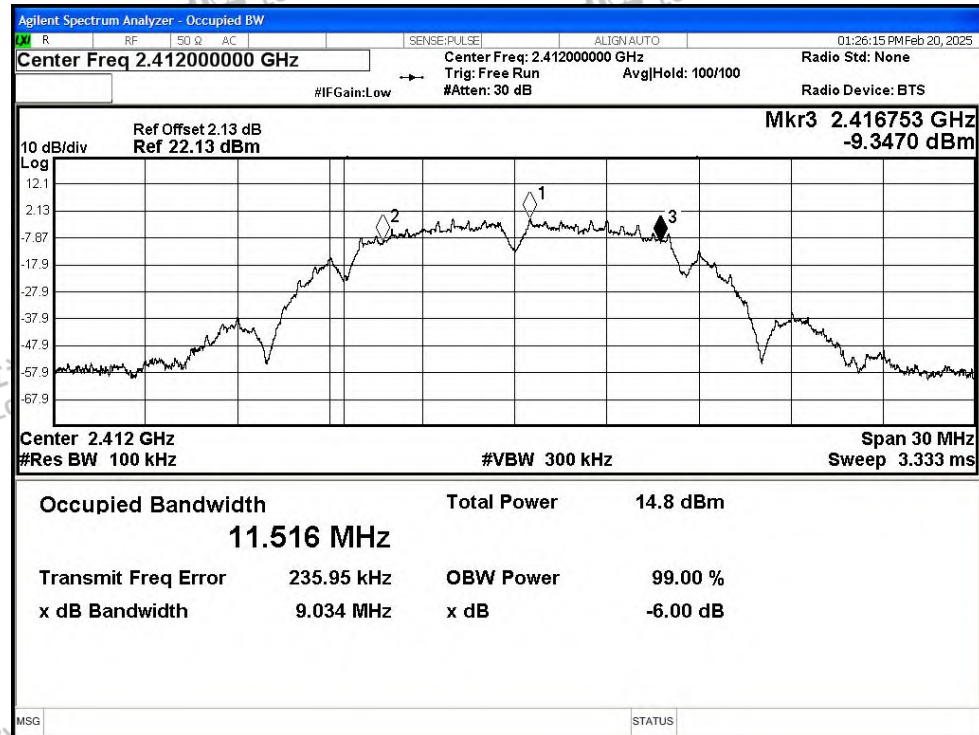
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.034	≥ 0.5	Pass
NVNT	b	2437	Ant1	7.568	≥ 0.5	Pass
NVNT	b	2462	Ant1	9.035	≥ 0.5	Pass
NVNT	g	2412	Ant1	16.296	≥ 0.5	Pass
NVNT	g	2437	Ant1	16.327	≥ 0.5	Pass
NVNT	g	2462	Ant1	16.293	≥ 0.5	Pass
NVNT	n20	2412	Ant1	17.283	≥ 0.5	Pass
NVNT	n20	2437	Ant1	16.861	≥ 0.5	Pass
NVNT	n20	2462	Ant1	16.962	≥ 0.5	Pass
NVNT	n40	2422	Ant1	35.764	≥ 0.5	Pass
NVNT	n40	2437	Ant1	35.221	≥ 0.5	Pass
NVNT	n40	2452	Ant1	35.456	≥ 0.5	Pass



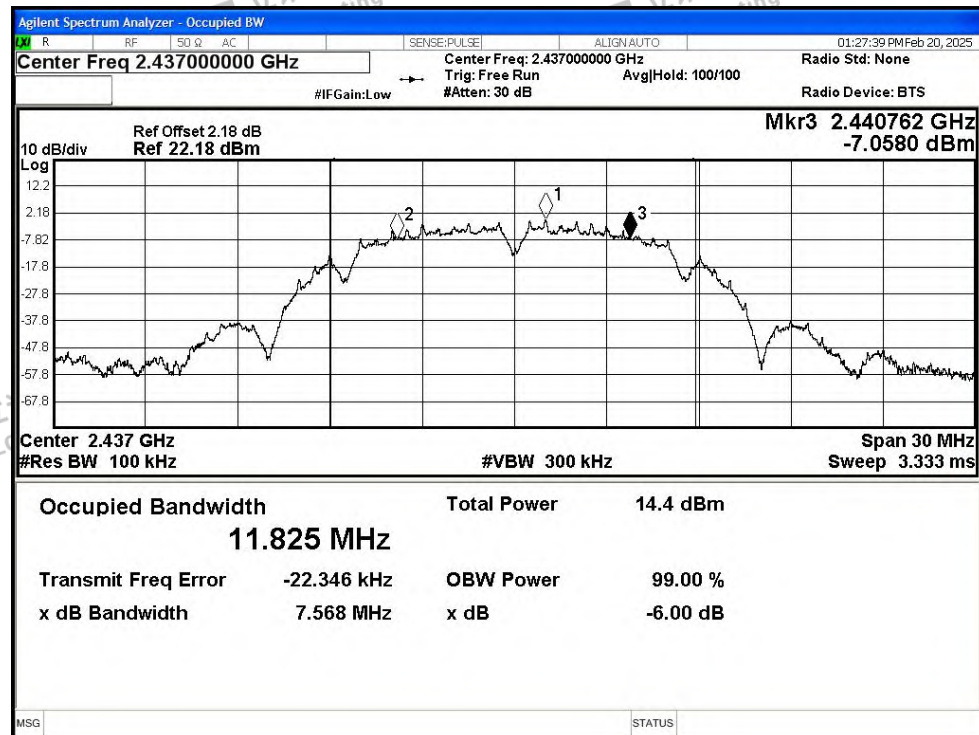


Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



-6dB Bandwidth NVNT b 2437MHz Ant1



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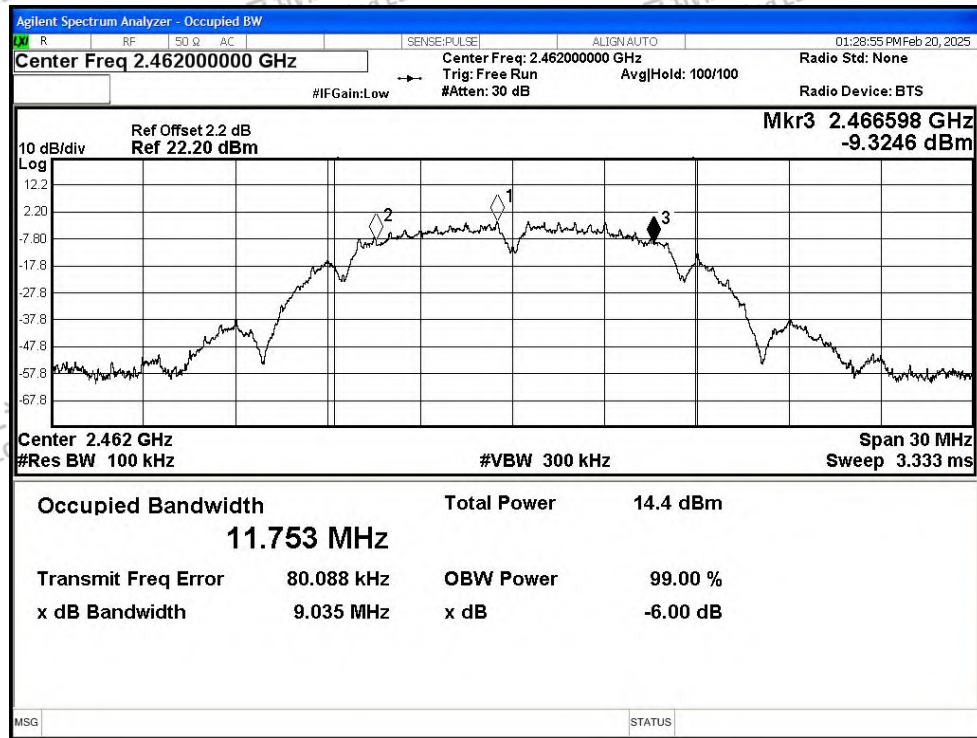
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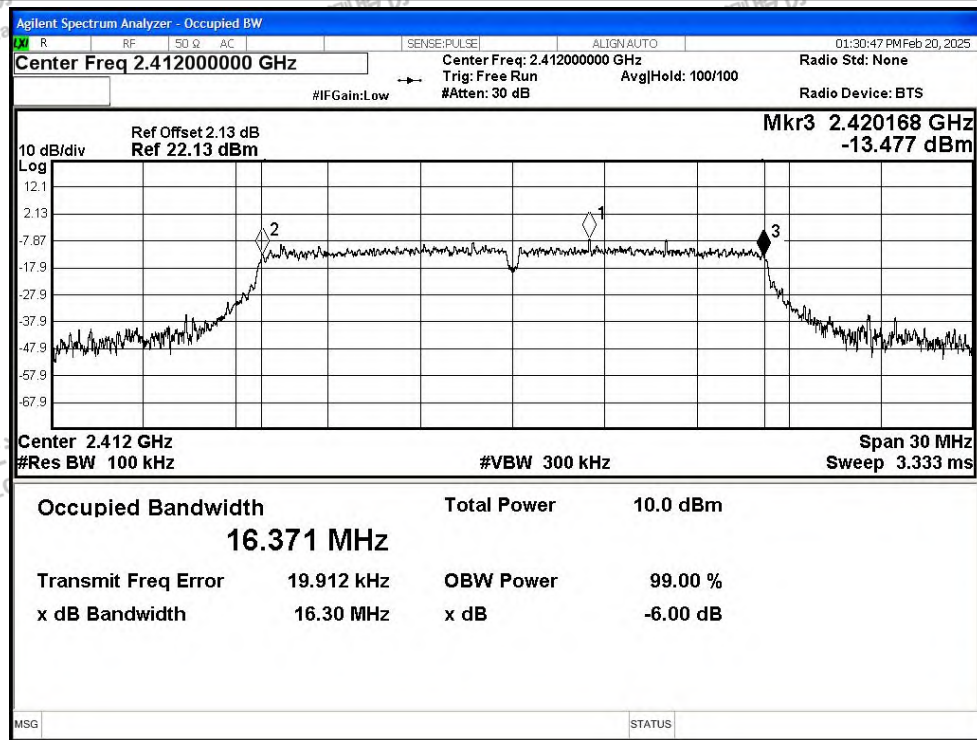
Scan code to check authenticity



-6dB Bandwidth NVNT b 2462MHz Ant1



-6dB Bandwidth NVNT g 2412MHz Ant1



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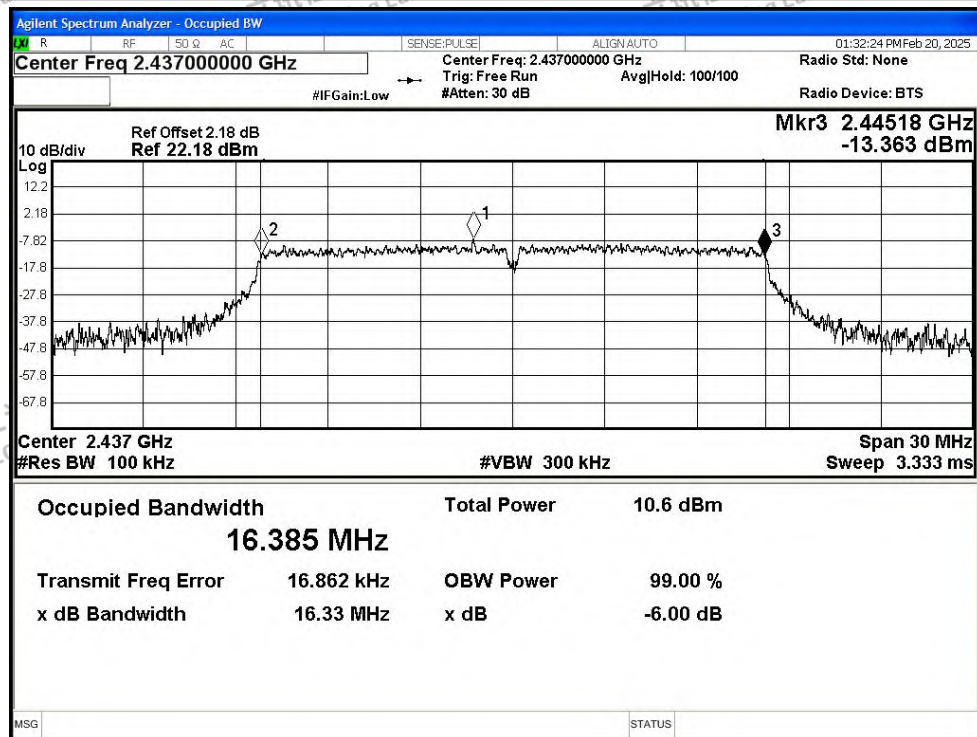
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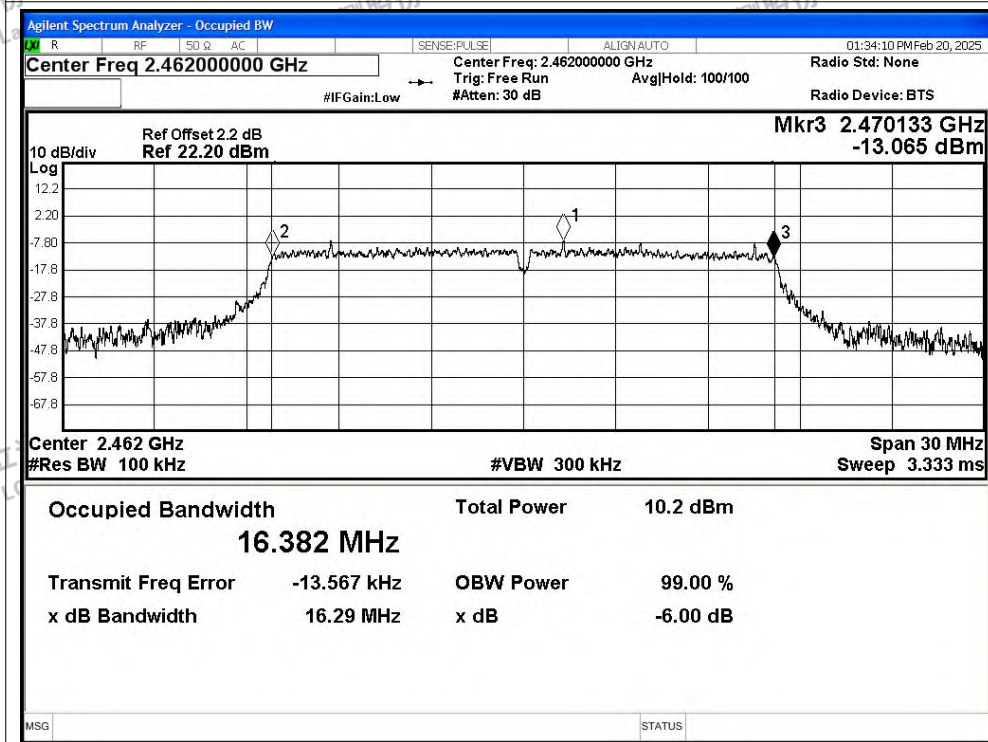
Scan code to check authenticity



-6dB Bandwidth NVNT g 2437MHz Ant1



-6dB Bandwidth NVNT g 2462MHz Ant1



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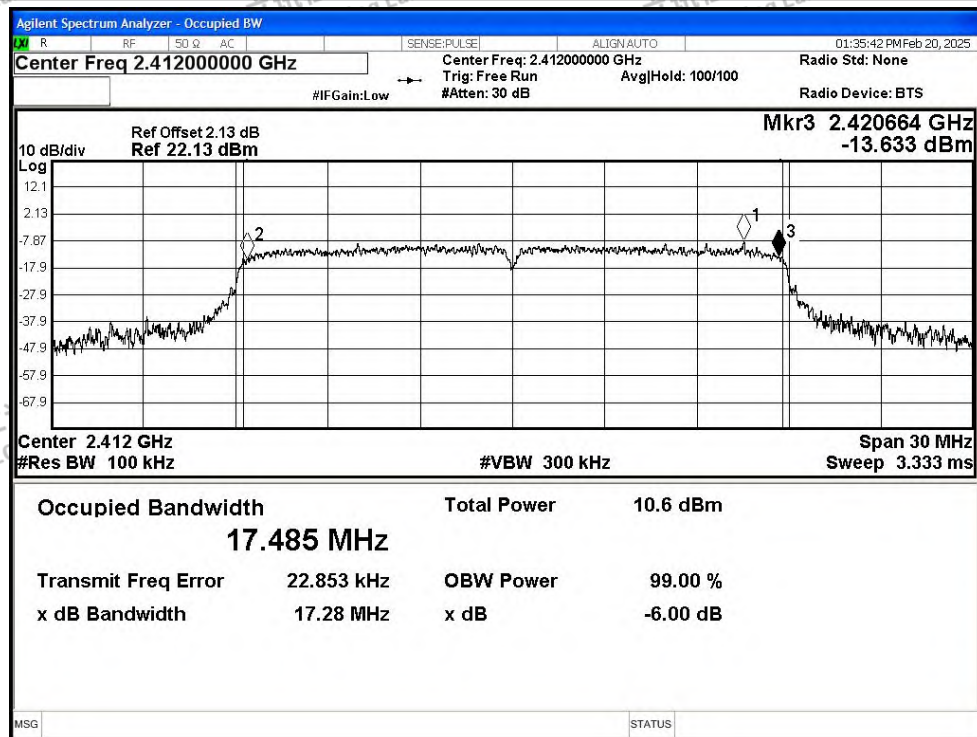
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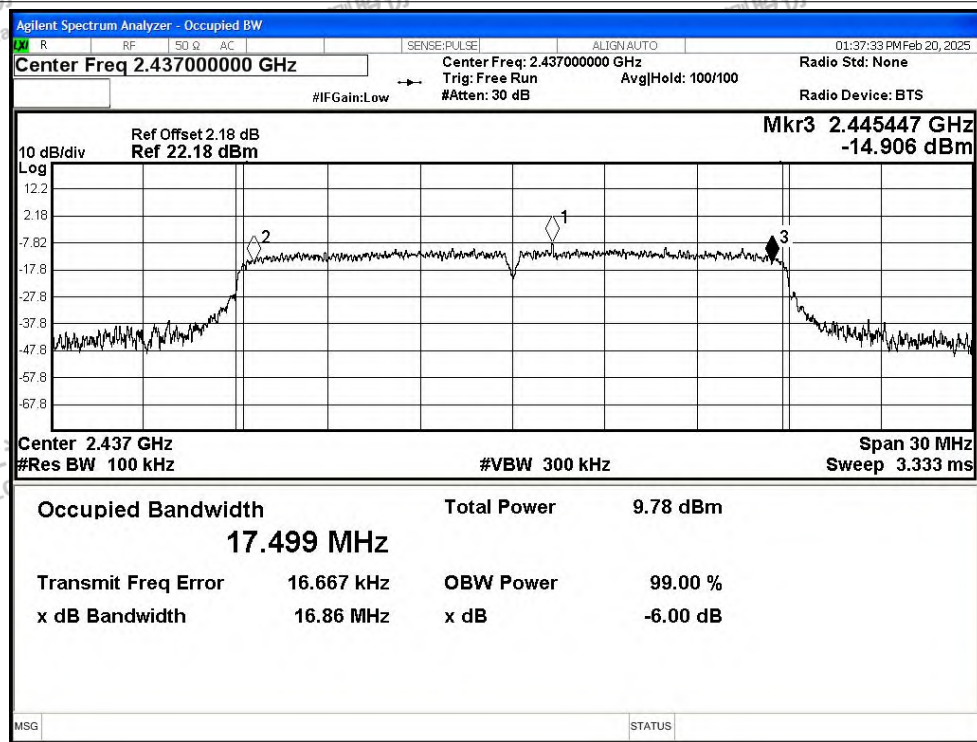
Scan code to check authenticity



-6dB Bandwidth NVNT n20 2412MHz Ant1



-6dB Bandwidth NVNT n20 2437MHz Ant1



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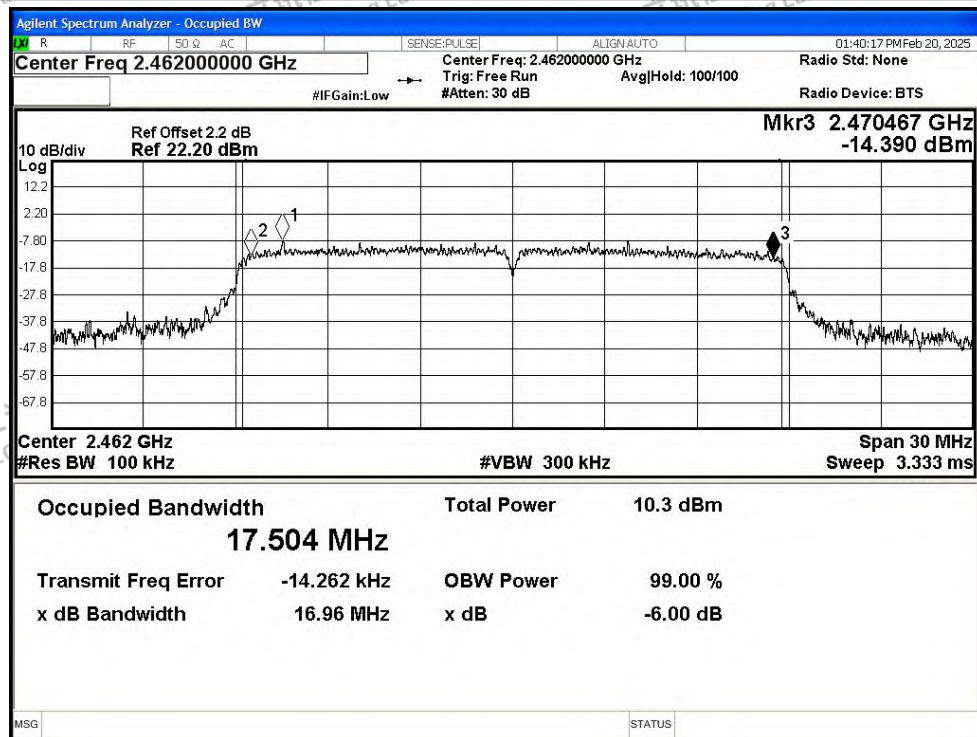
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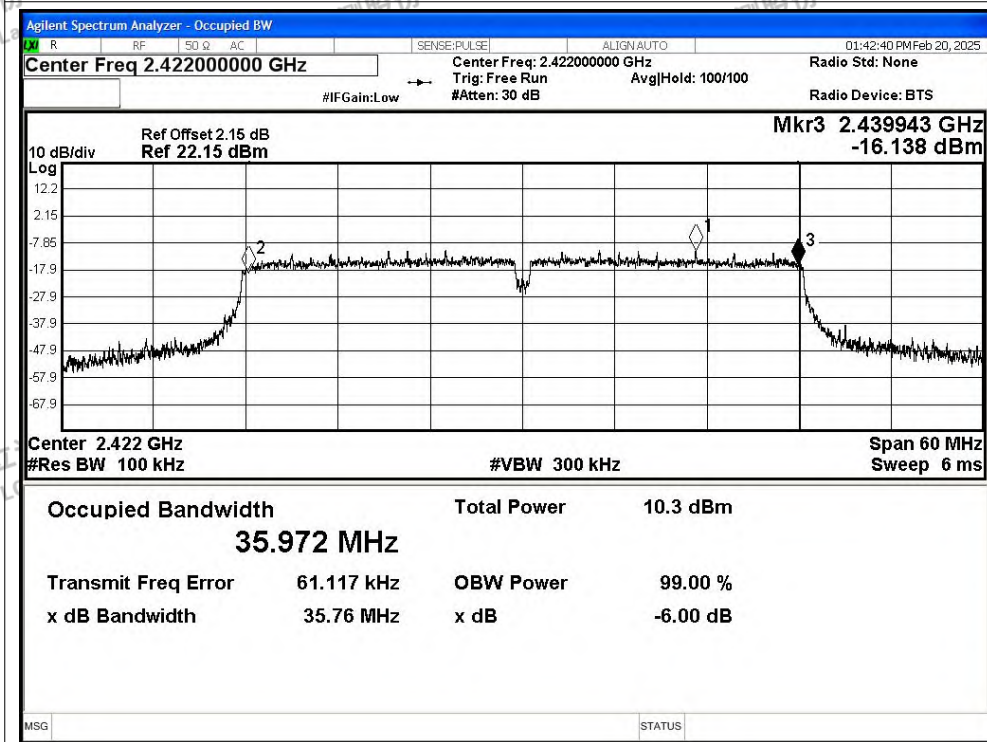
Scan code to check authenticity



-6dB Bandwidth NVNT n20 2462MHz Ant1



-6dB Bandwidth NVNT n40 2422MHz Ant1



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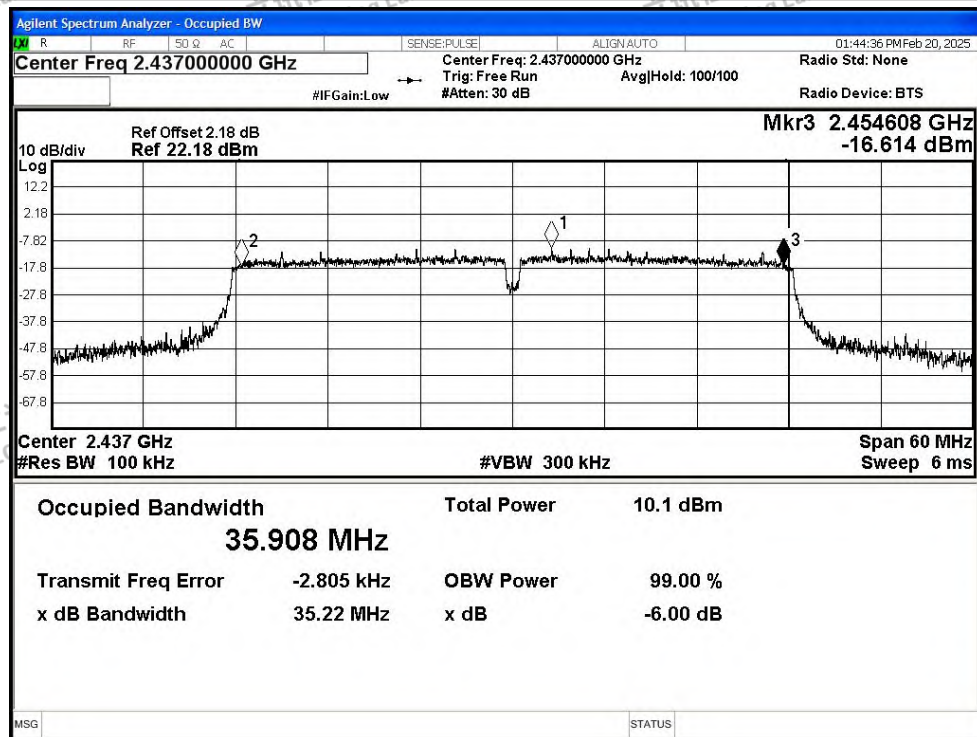
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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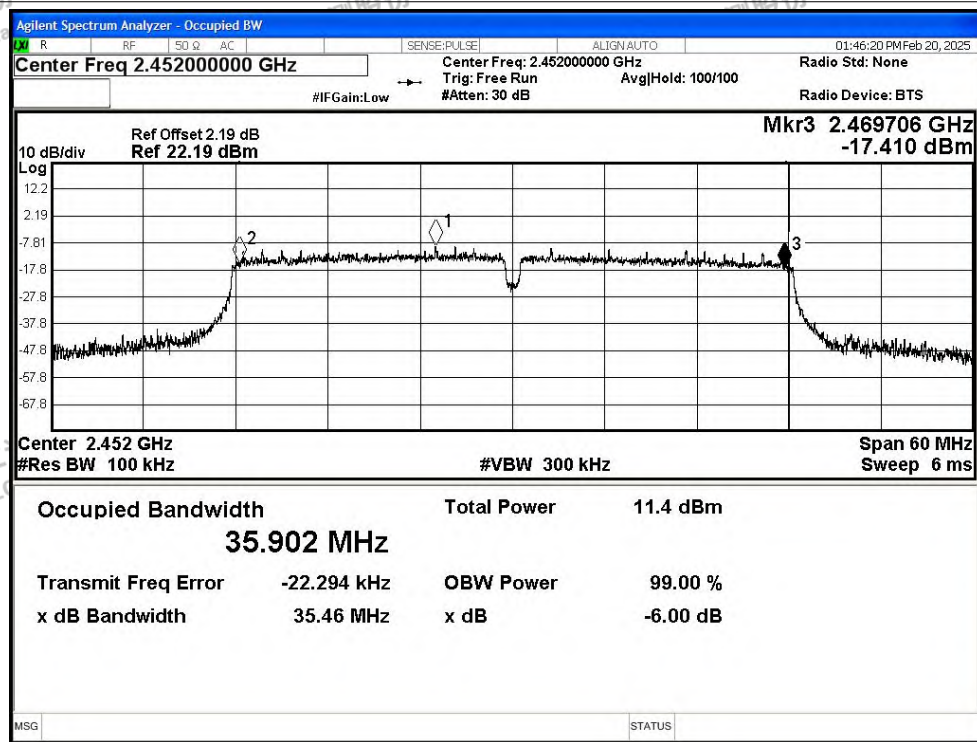
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-6dB Bandwidth NVNT n40 2437MHz Ant1



-6dB Bandwidth NVNT n40 2452MHz Ant1



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A.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	8.85	30	Pass
NVNT	b	2437	Ant1	8.43	30	Pass
NVNT	b	2462	Ant1	8.46	30	Pass
NVNT	g	2412	Ant1	8.79	30	Pass
NVNT	g	2437	Ant1	8.43	30	Pass
NVNT	g	2462	Ant1	8.80	30	Pass
NVNT	n20	2412	Ant1	8.67	30	Pass
NVNT	n20	2437	Ant1	8.43	30	Pass
NVNT	n20	2462	Ant1	8.97	30	Pass
NVNT	n40	2422	Ant1	8.72	30	Pass
NVNT	n40	2437	Ant1	8.59	30	Pass
NVNT	n40	2452	Ant1	8.75	30	Pass





A.3 Maximum Power Spectral Density Level

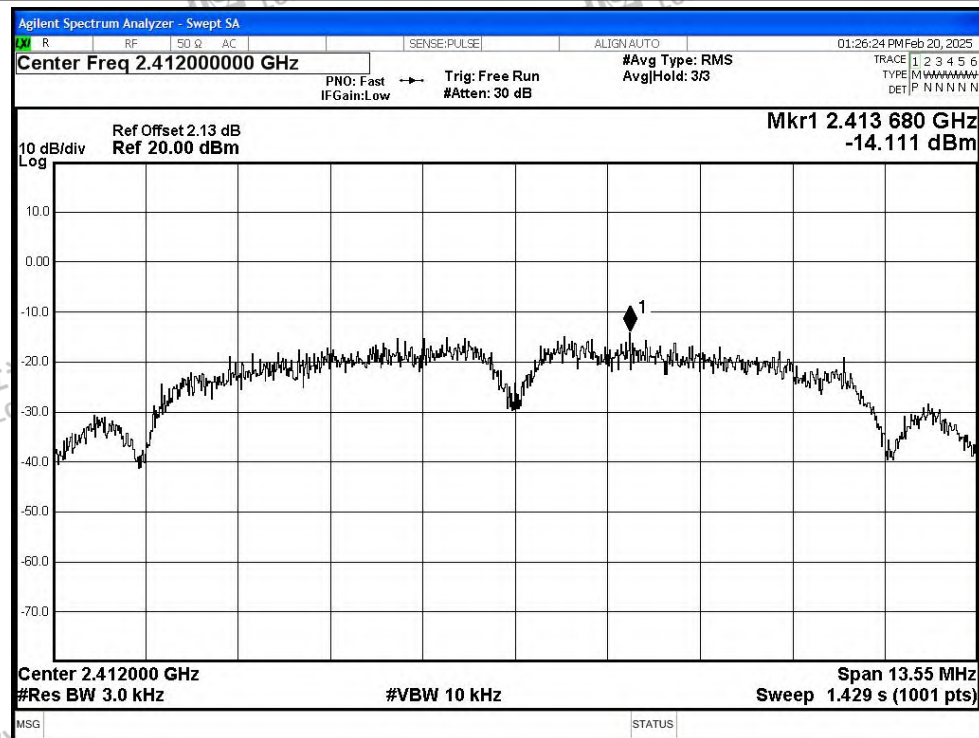
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-14.11	8	Pass
NVNT	b	2437	Ant1	-15.02	8	Pass
NVNT	b	2462	Ant1	-14.62	8	Pass
NVNT	g	2412	Ant1	-21.66	8	Pass
NVNT	g	2437	Ant1	-20.79	8	Pass
NVNT	g	2462	Ant1	-21.07	8	Pass
NVNT	n20	2412	Ant1	-20.47	8	Pass
NVNT	n20	2437	Ant1	-22.95	8	Pass
NVNT	n20	2462	Ant1	-20.72	8	Pass
NVNT	n40	2422	Ant1	-24.91	8	Pass
NVNT	n40	2437	Ant1	-24.65	8	Pass
NVNT	n40	2452	Ant1	-23.91	8	Pass



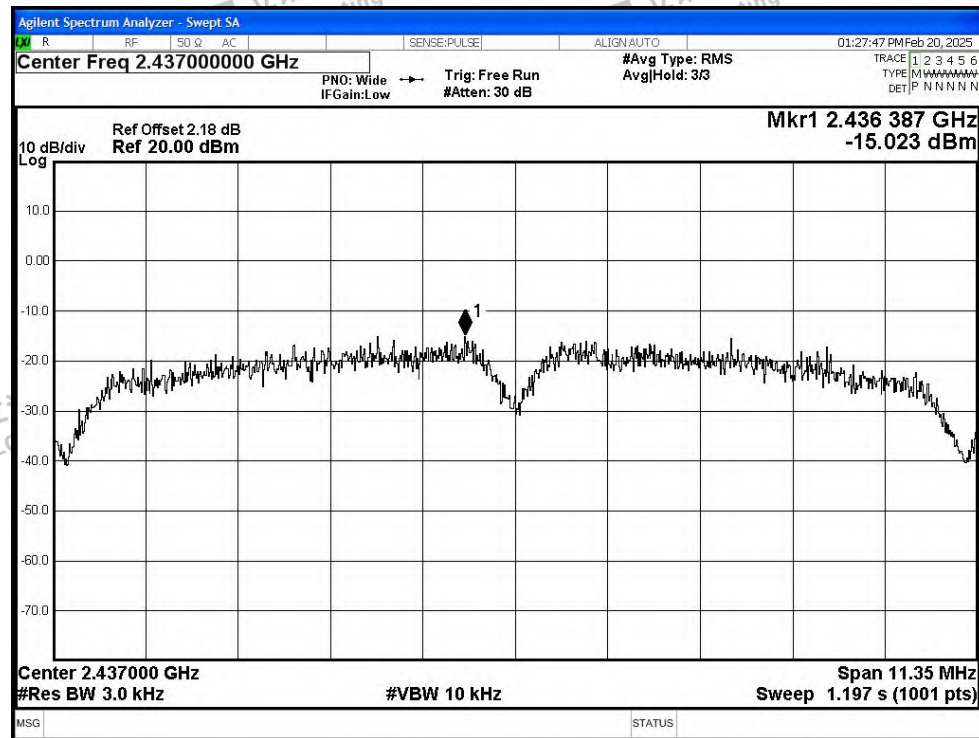


Test Graphs

PSD NVNT b 2412MHz Ant1

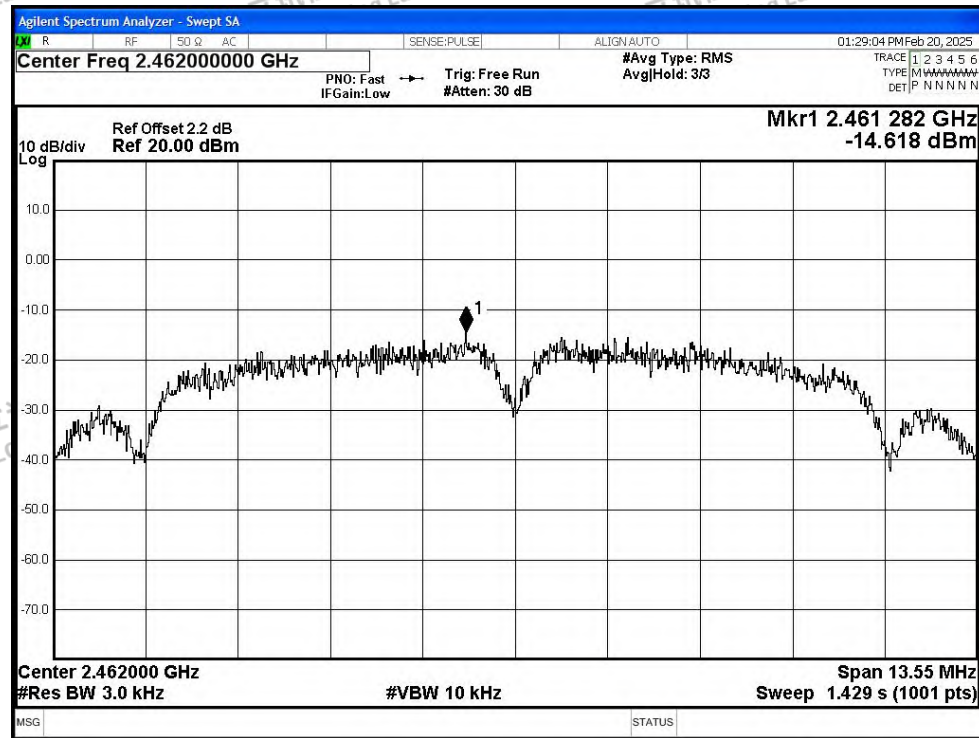


PSD NVNT b 2437MHz Ant1

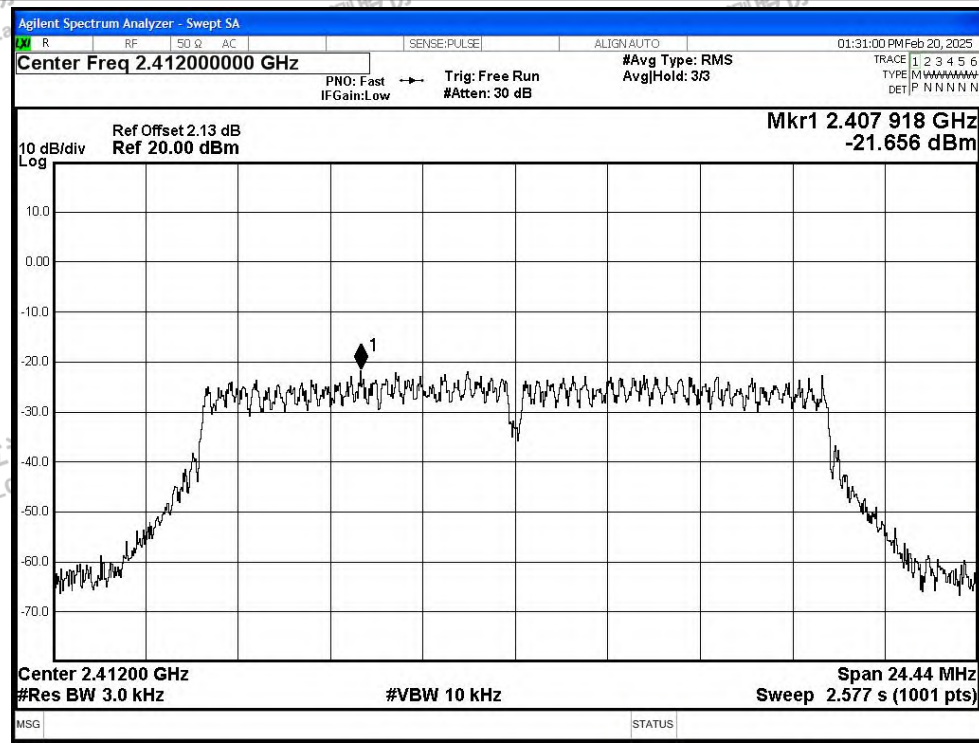




PSD NVNT b 2462MHz Ant1

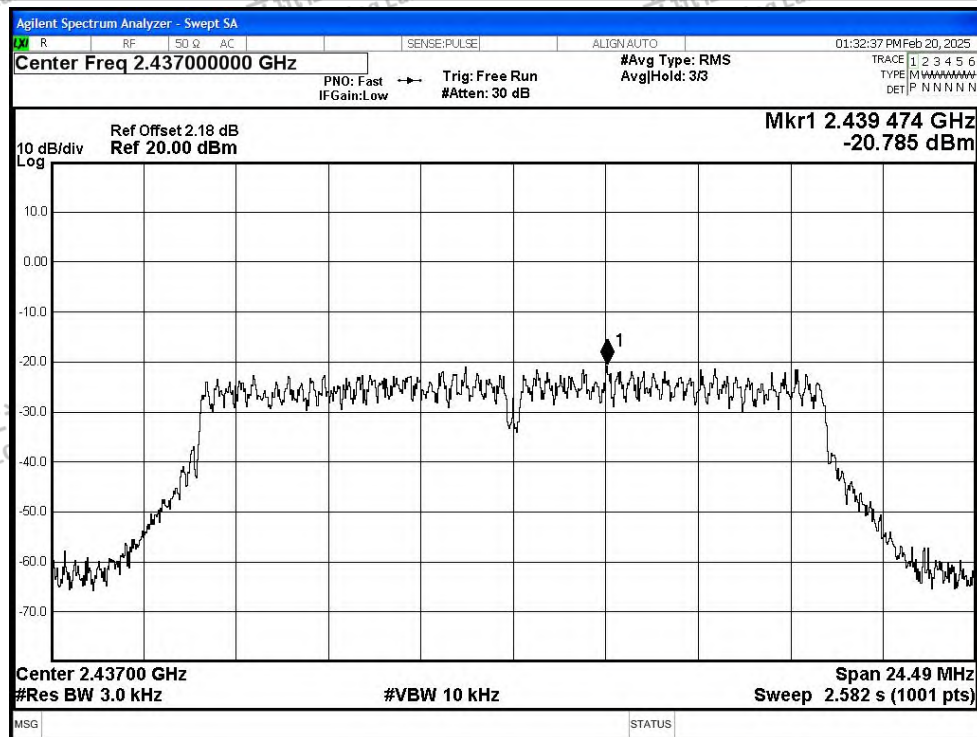


PSD NVNT g 2412MHz Ant1

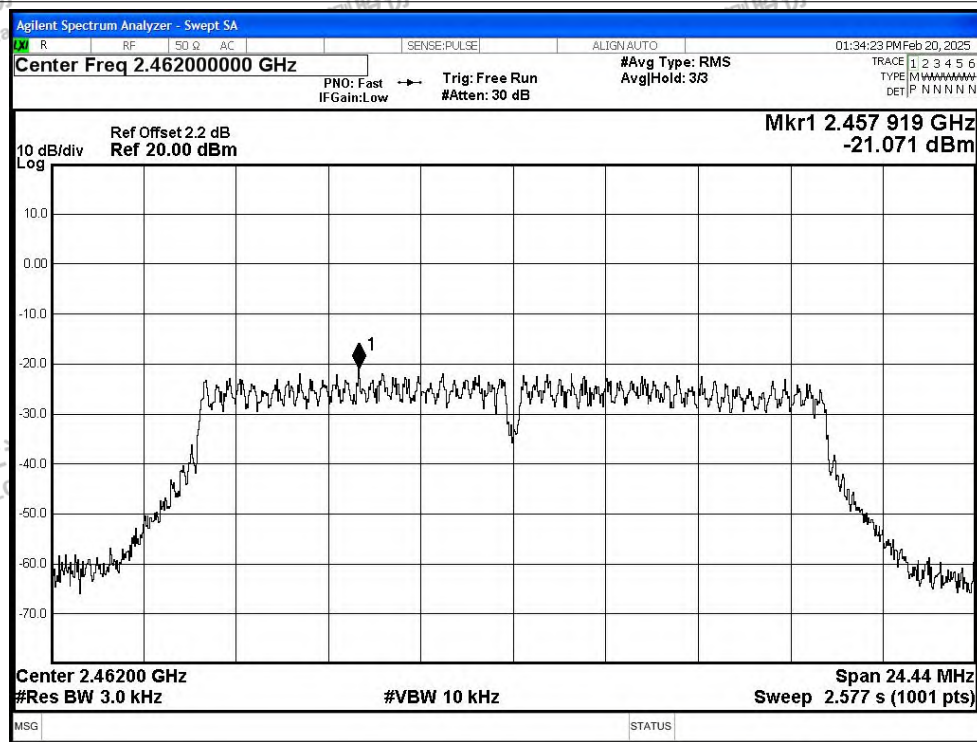




PSD NVNT g 2437MHz Ant1



PSD NVNT g 2462MHz Ant1



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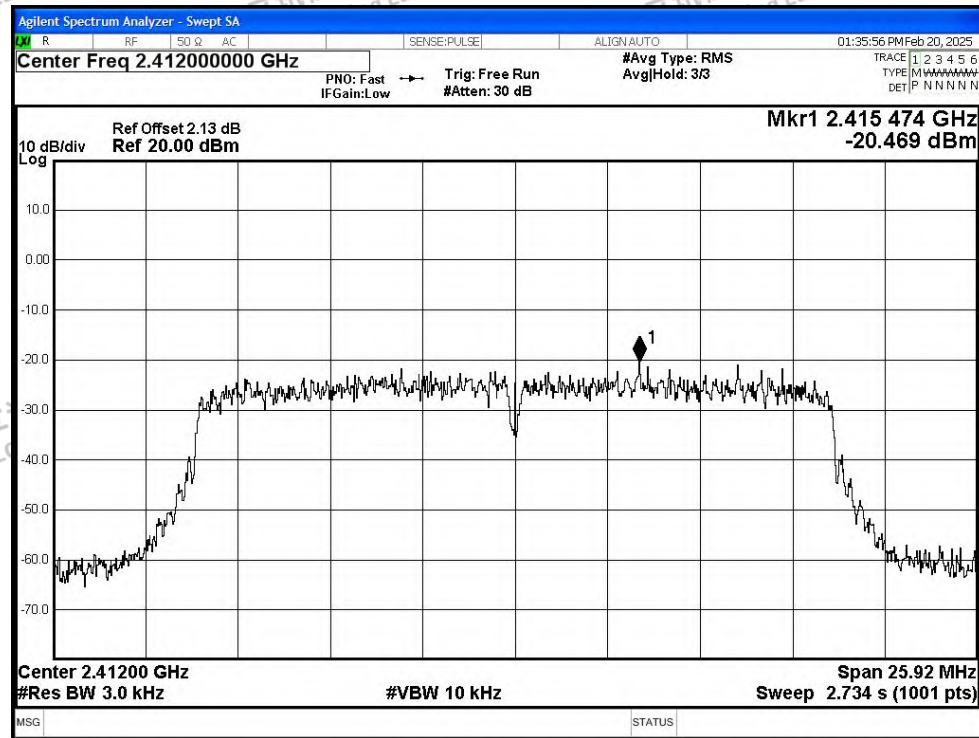
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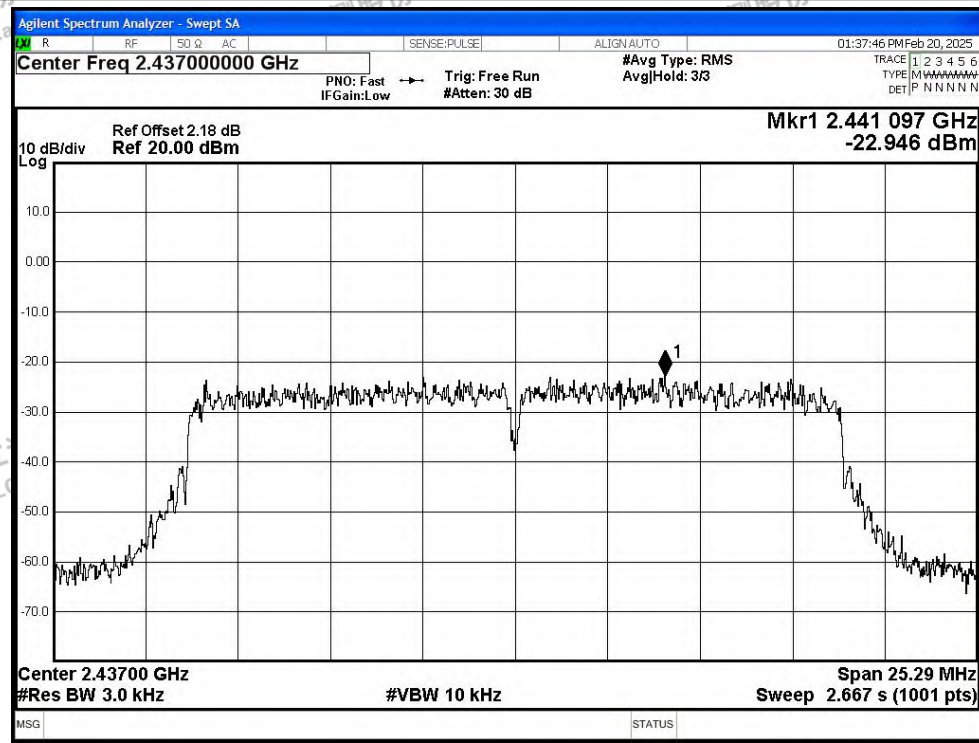
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PSD NVNT n20 2412MHz Ant1

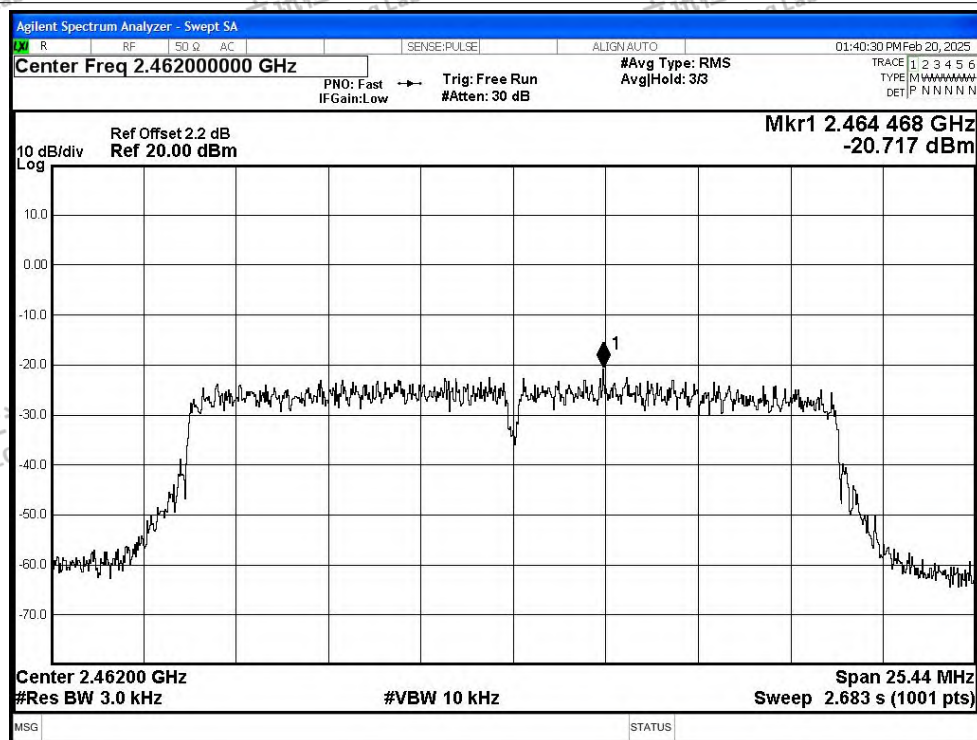


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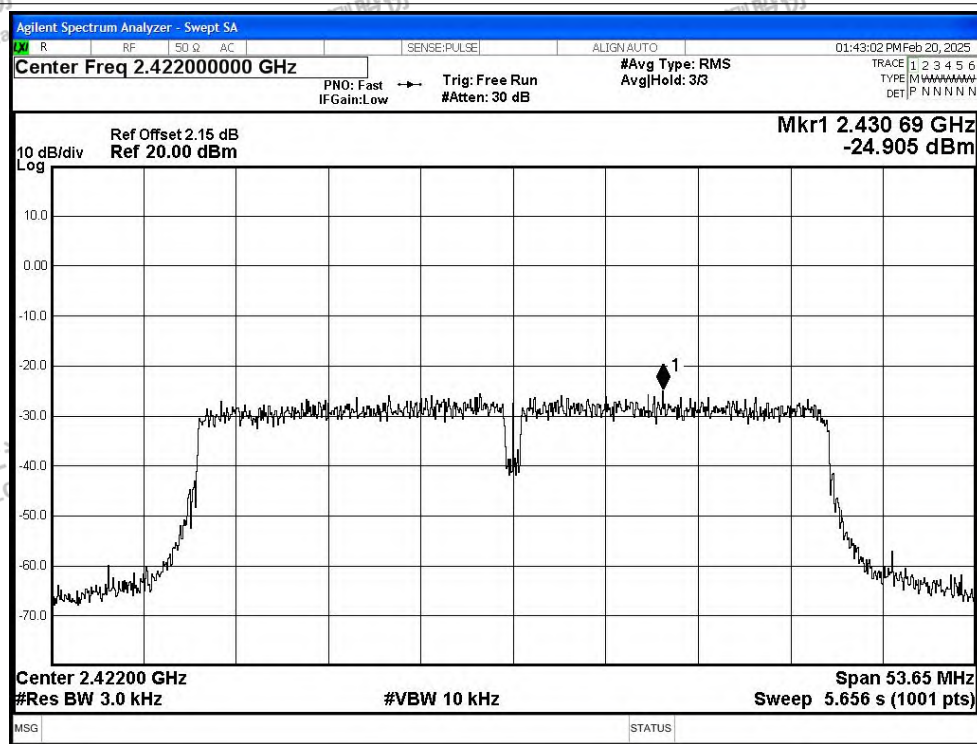




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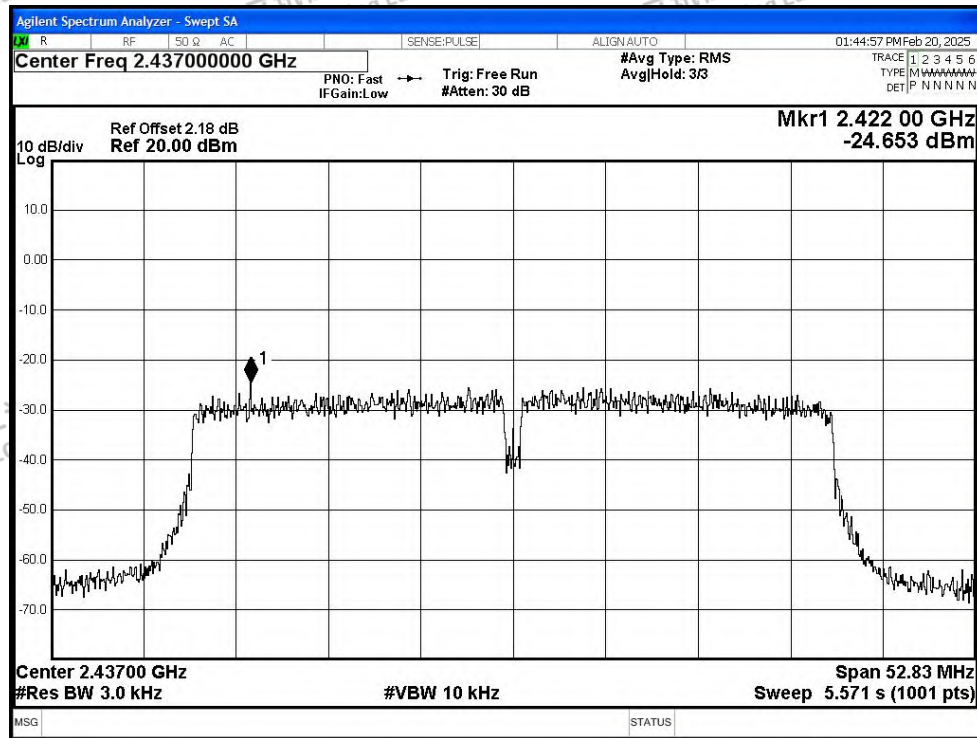


PSD NVNT n40 2422MHz Ant1

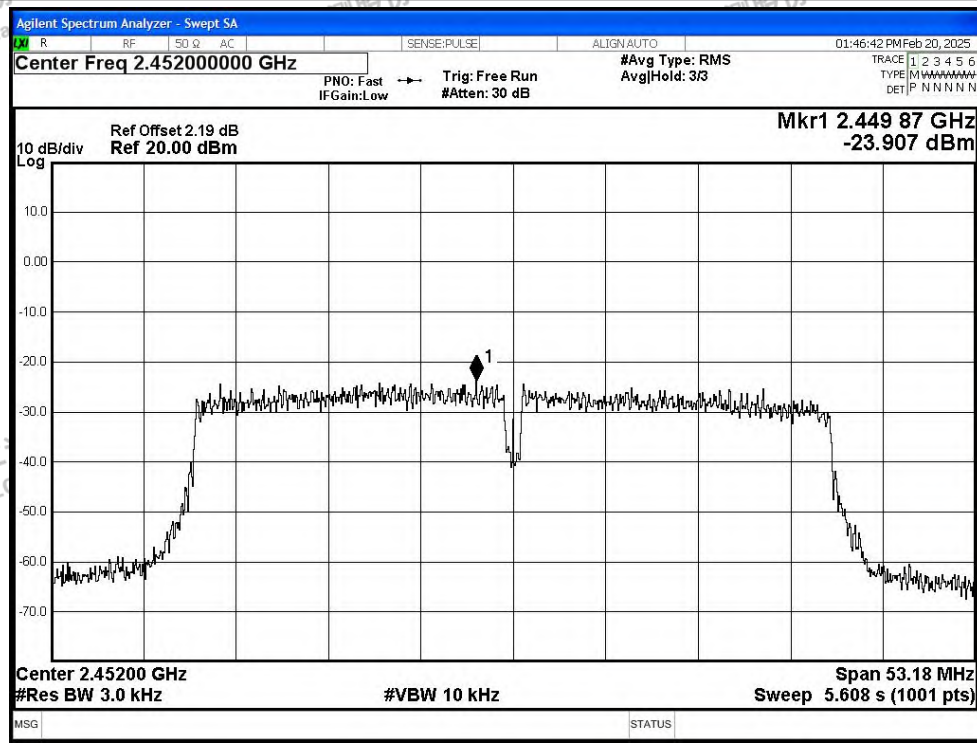




PSD NVNT n40 2437MHz Ant1



PSD NVNT n40 2452MHz Ant1





A.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-53.17	-20	Pass
NVNT	b	2462	Ant1	-55.66	-20	Pass
NVNT	g	2412	Ant1	-32.38	-20	Pass
NVNT	g	2462	Ant1	-44.22	-20	Pass
NVNT	n20	2412	Ant1	-31.54	-20	Pass
NVNT	n20	2462	Ant1	-43.24	-20	Pass
NVNT	n40	2422	Ant1	-33.46	-20	Pass
NVNT	n40	2452	Ant1	-38.94	-20	Pass



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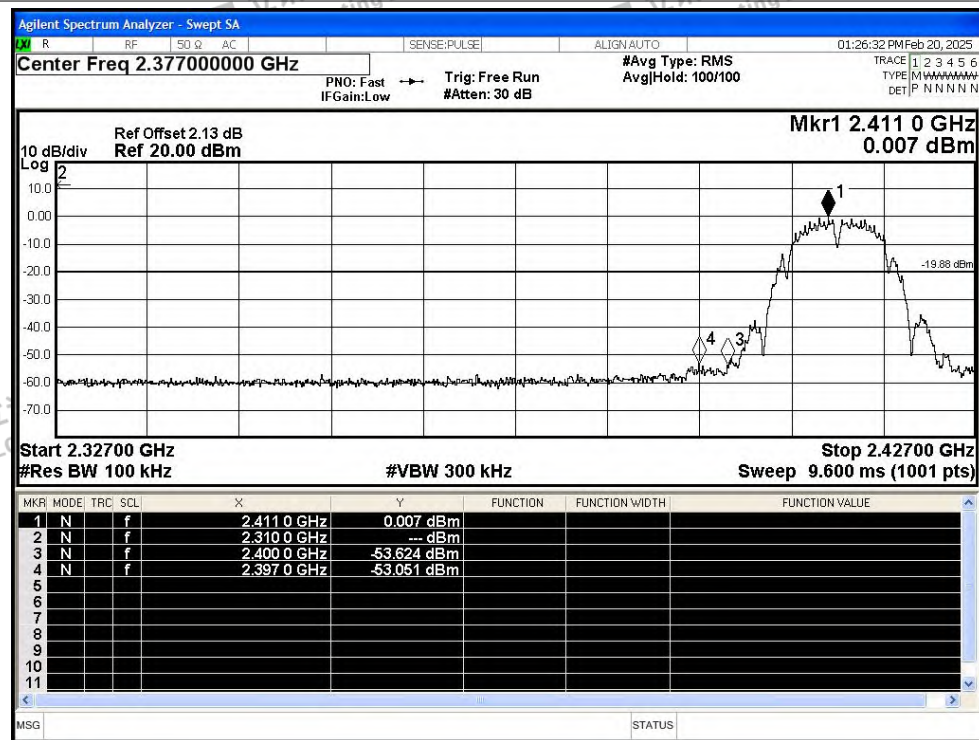


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



Band Edge NVNT b 2412MHz Ant1 Emission



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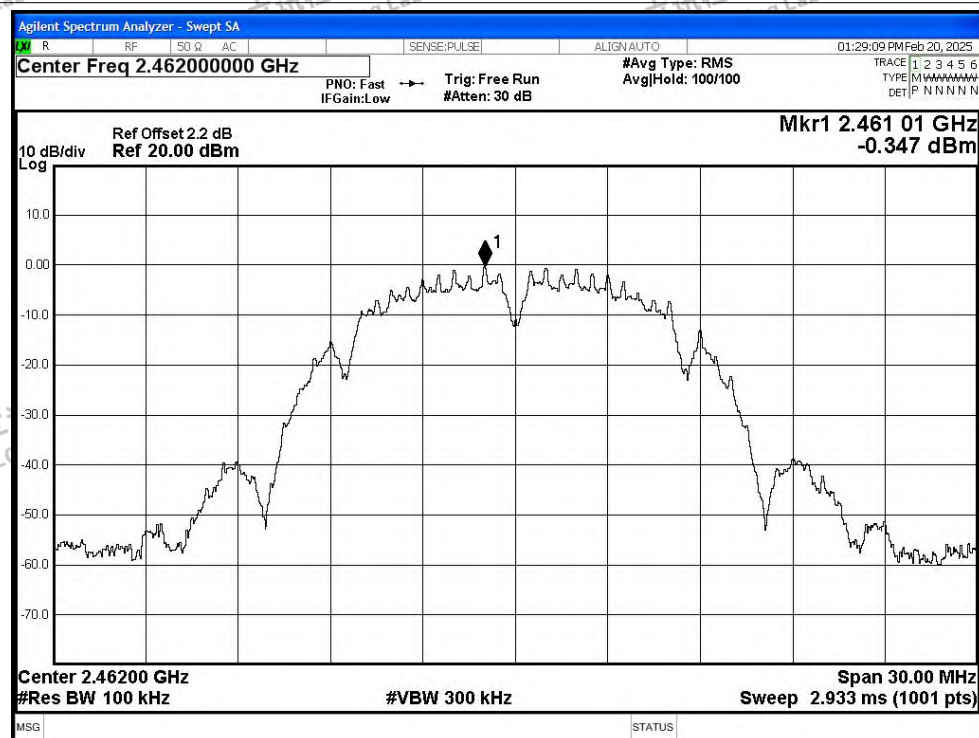
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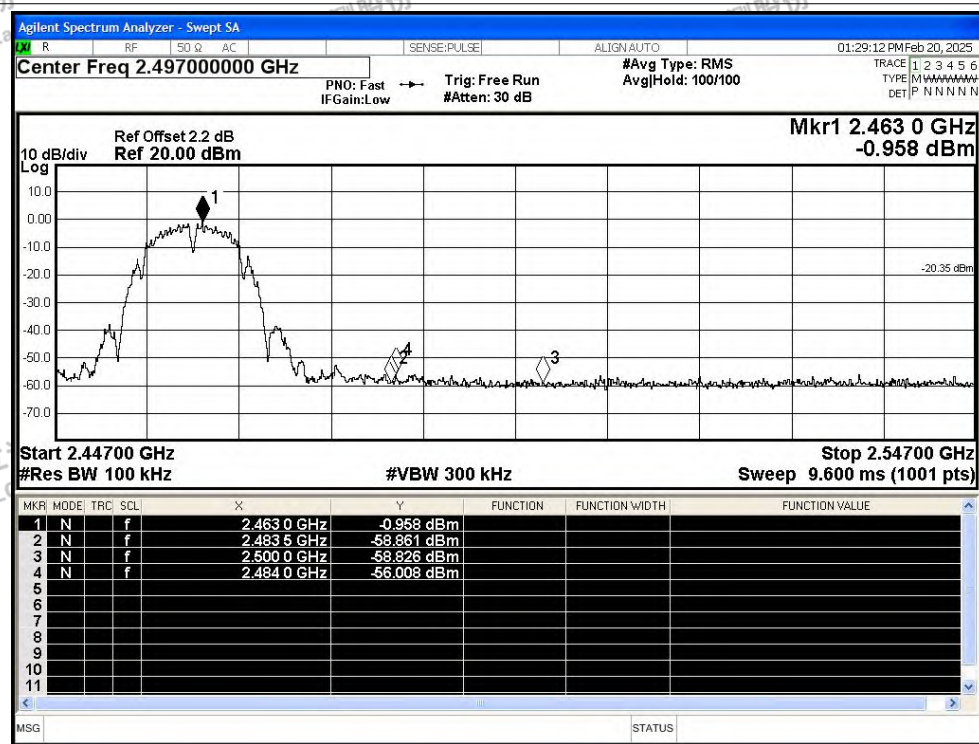
Scan code to check authenticity



Band Edge NVNT b 2462MHz Ant1 Ref

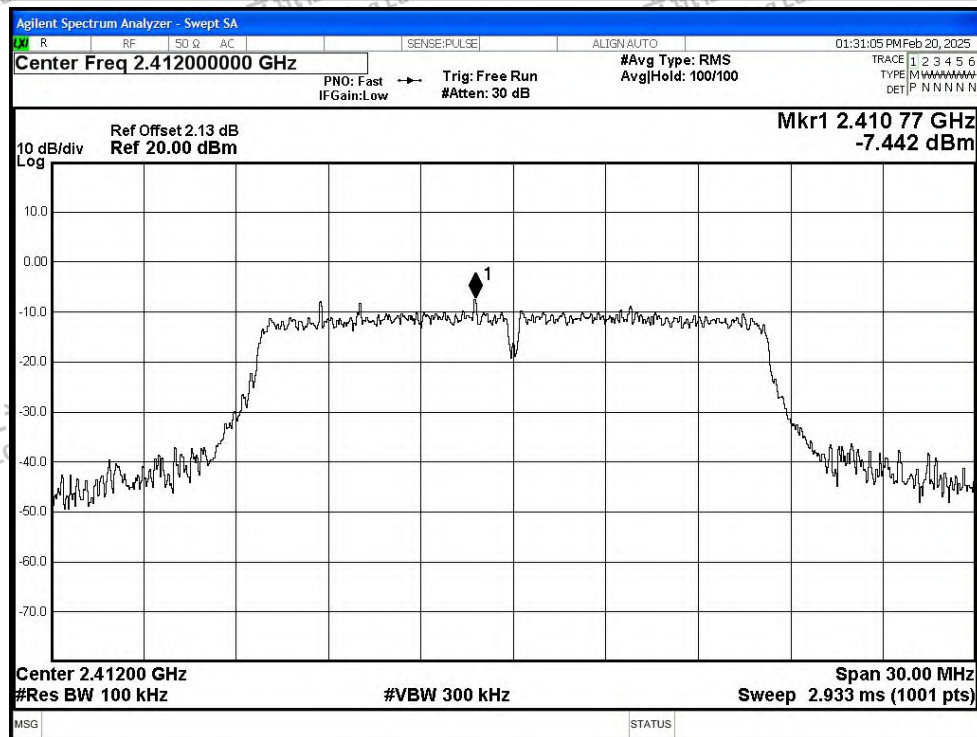


Band Edge NVNT b 2462MHz Ant1 Emission

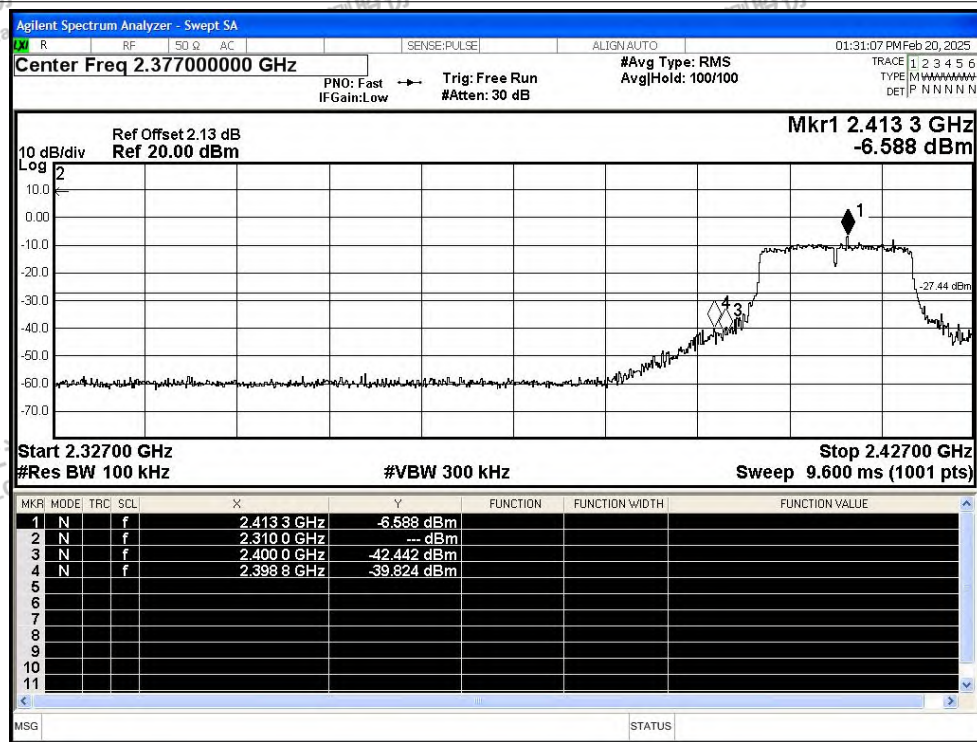




Band Edge NVNT g 2412MHz Ant1 Ref

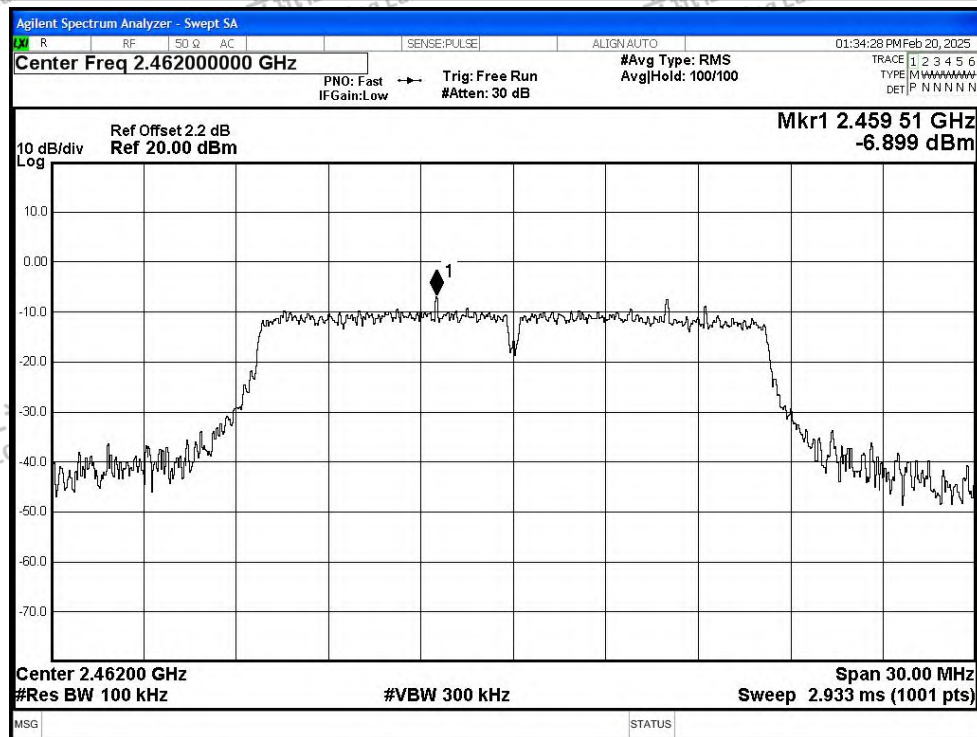


Band Edge NVNT g 2412MHz Ant1 Emission

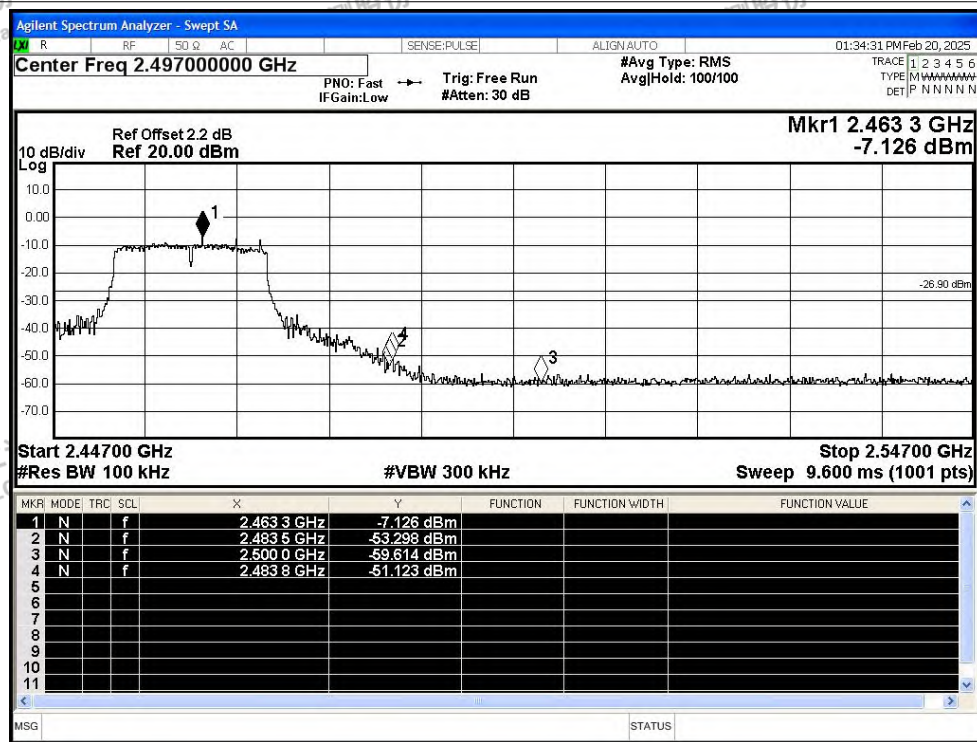




Band Edge NVNT g 2462MHz Ant1 Ref

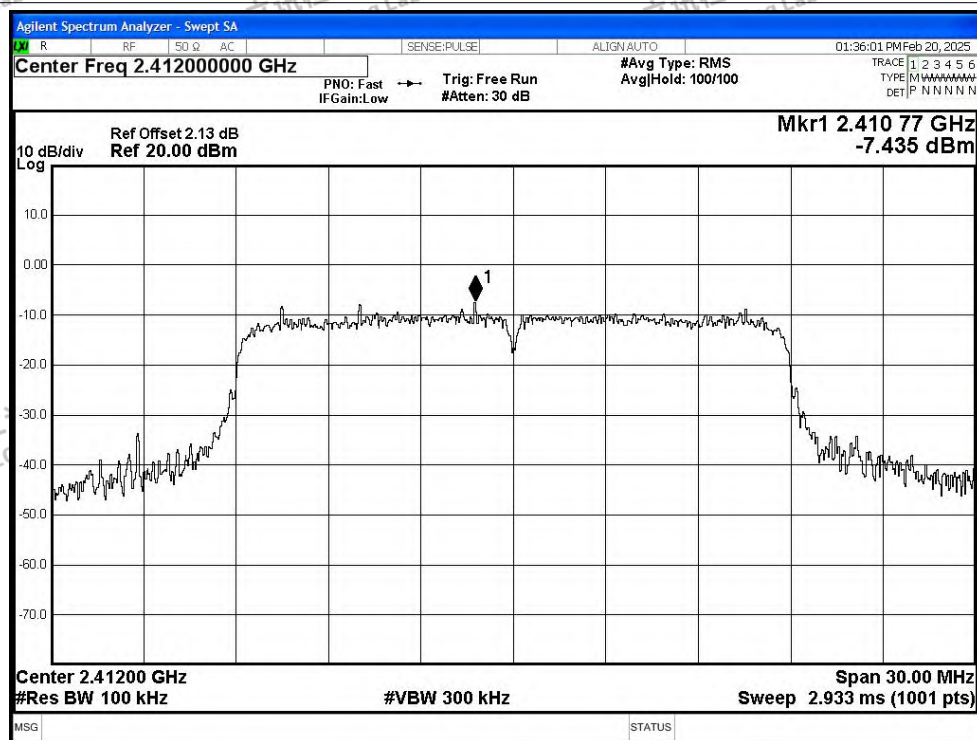


Band Edge NVNT g 2462MHz Ant1 Emission





Band Edge NVNT n20 2412MHz Ant1 Ref

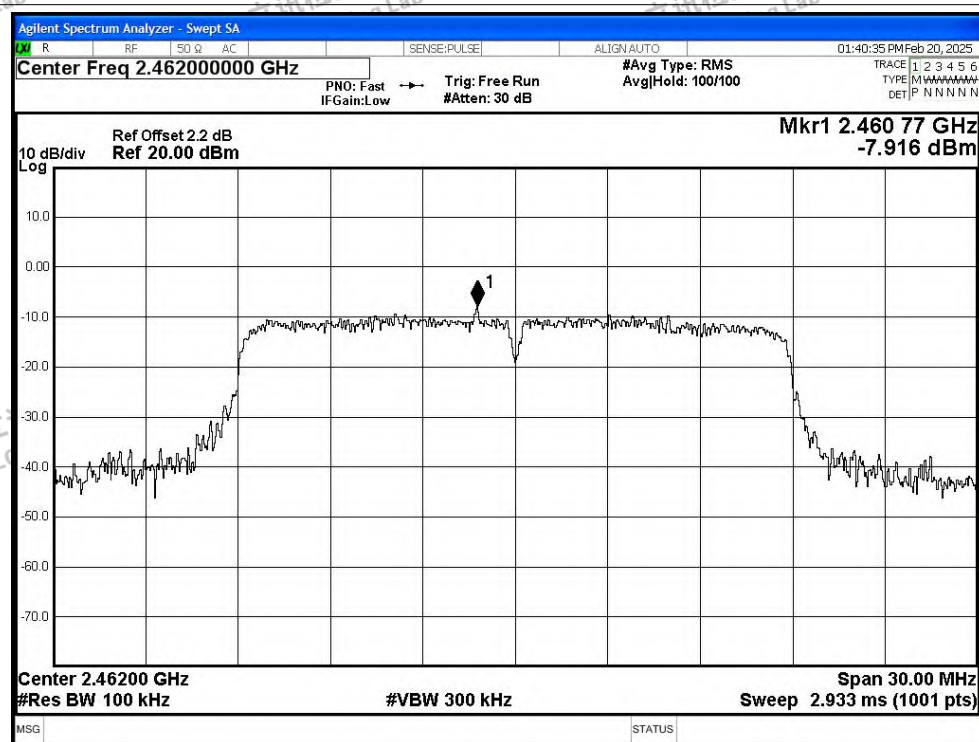


Band Edge NVNT n20 2412MHz Ant1 Emission

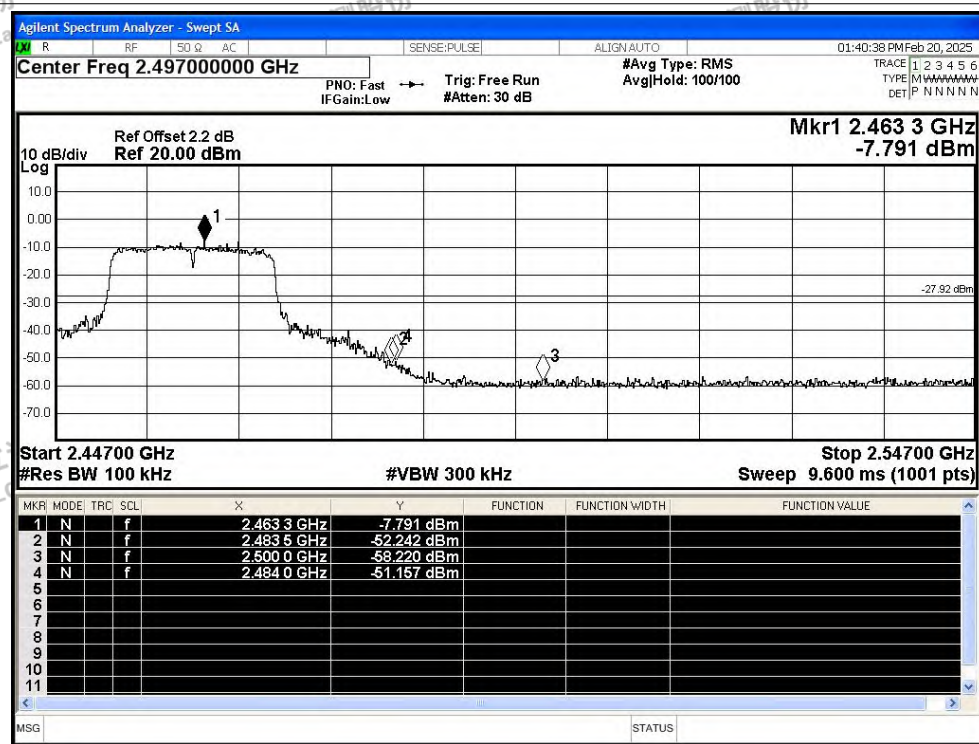




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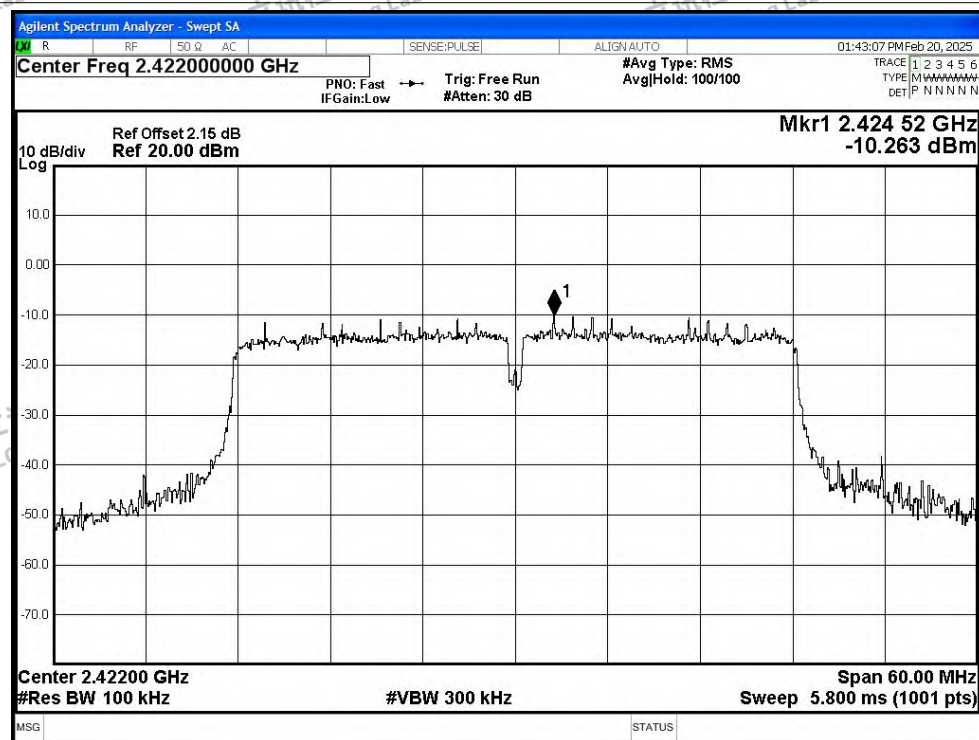


Band Edge NVNT n20 2462MHz Ant1 Emission

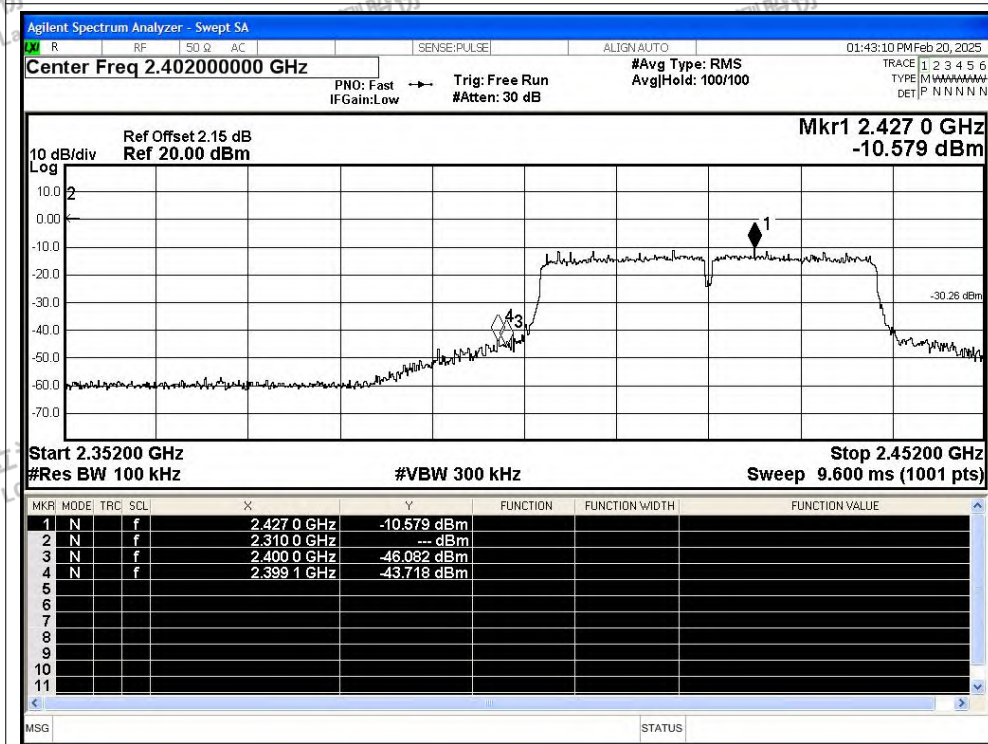




Band Edge NVNT n40 2422MHz Ant1 Ref

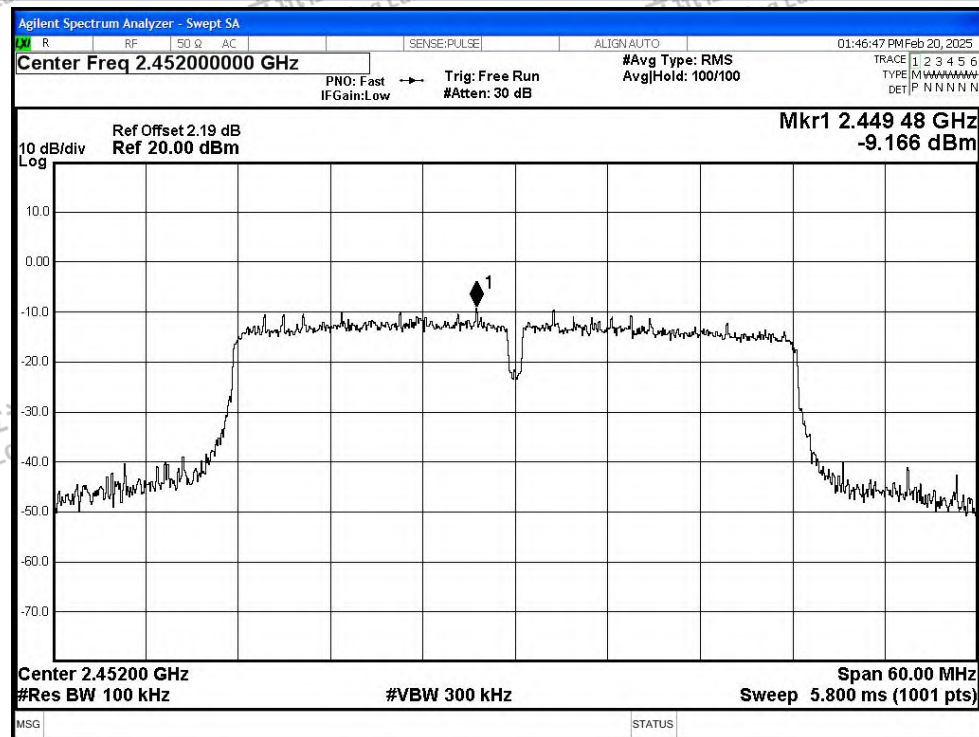


Band Edge NVNT n40 2422MHz Ant1 Emission

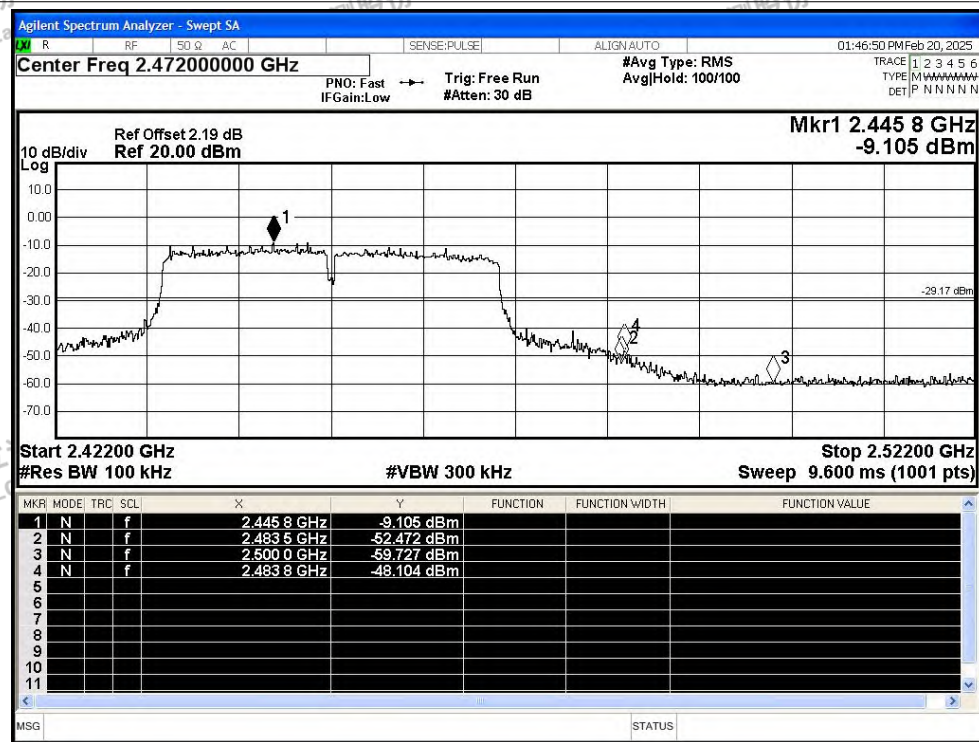




Band Edge NVNT n40 2452MHz Ant1 Ref



Band Edge NVNT n40 2452MHz Ant1 Emission





A.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-46.44	-20	Pass
NVNT	b	2437	Ant1	-44.76	-20	Pass
NVNT	b	2462	Ant1	-45.27	-20	Pass
NVNT	g	2412	Ant1	-38.14	-20	Pass
NVNT	g	2437	Ant1	-39.85	-20	Pass
NVNT	g	2462	Ant1	-35.83	-20	Pass
NVNT	n20	2412	Ant1	-39.48	-20	Pass
NVNT	n20	2437	Ant1	-38.85	-20	Pass
NVNT	n20	2462	Ant1	-37.47	-20	Pass
NVNT	n40	2422	Ant1	-35.18	-20	Pass
NVNT	n40	2437	Ant1	-35.57	-20	Pass
NVNT	n40	2452	Ant1	-36.95	-20	Pass

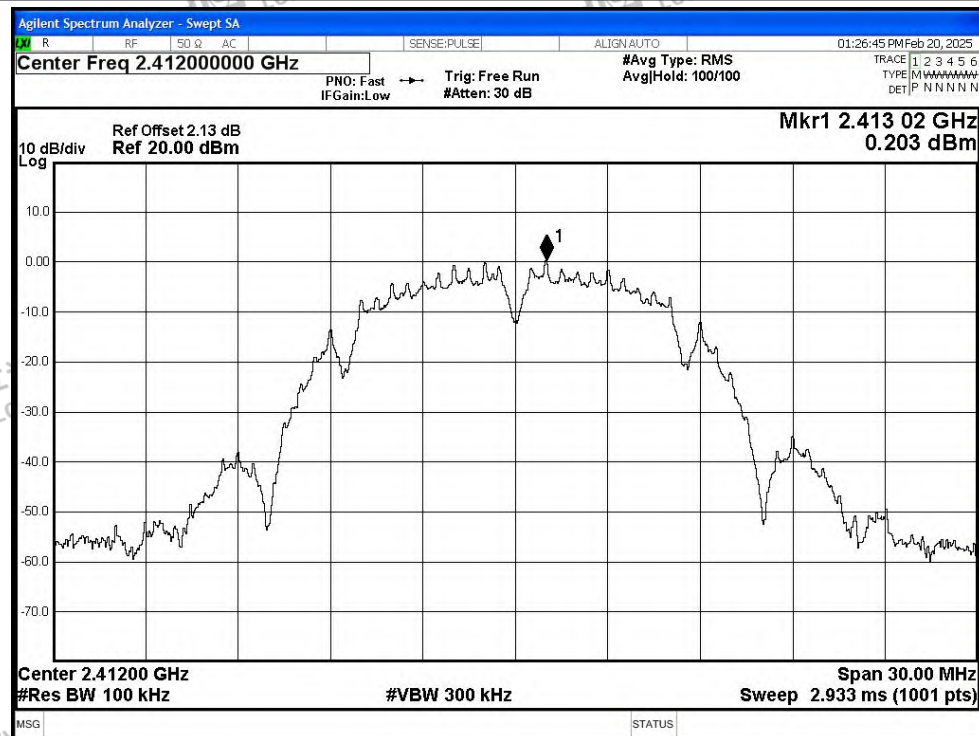


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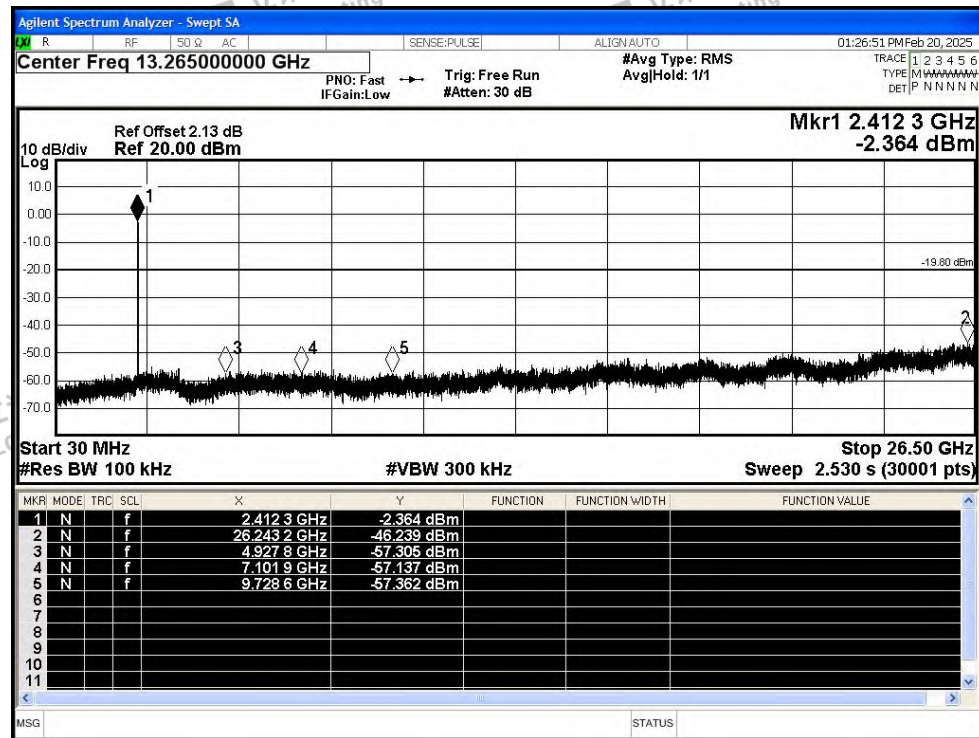


Test Graphs

Tx: Spurious NVNT b 2412MHz Ant1 Ref



Tx: Spurious NVNT b 2412MHz Ant1 Emission



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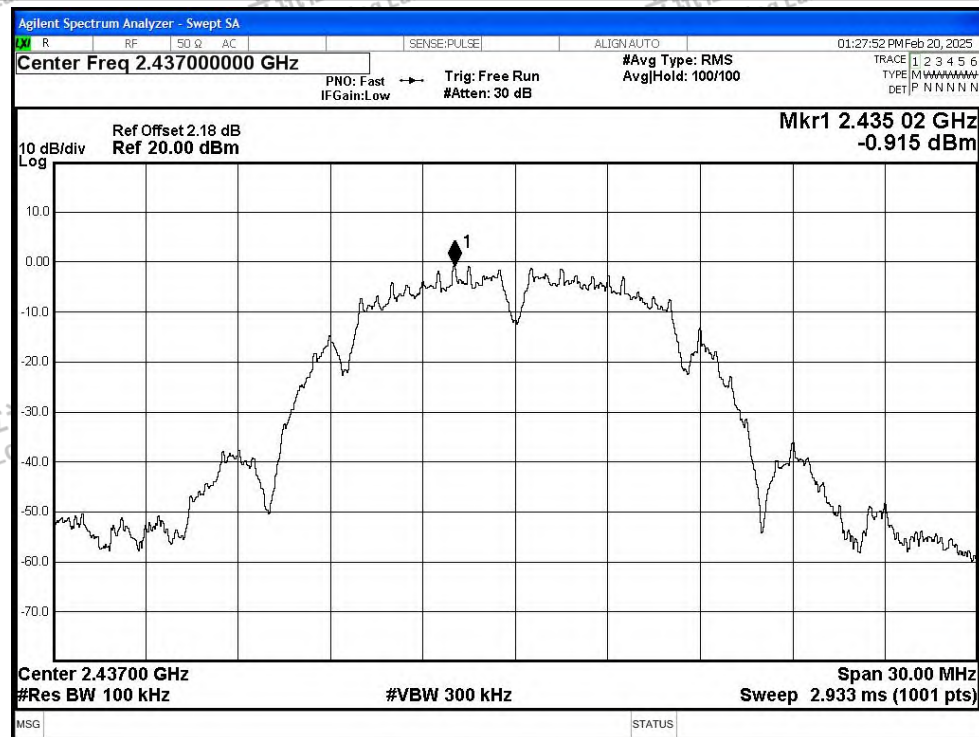
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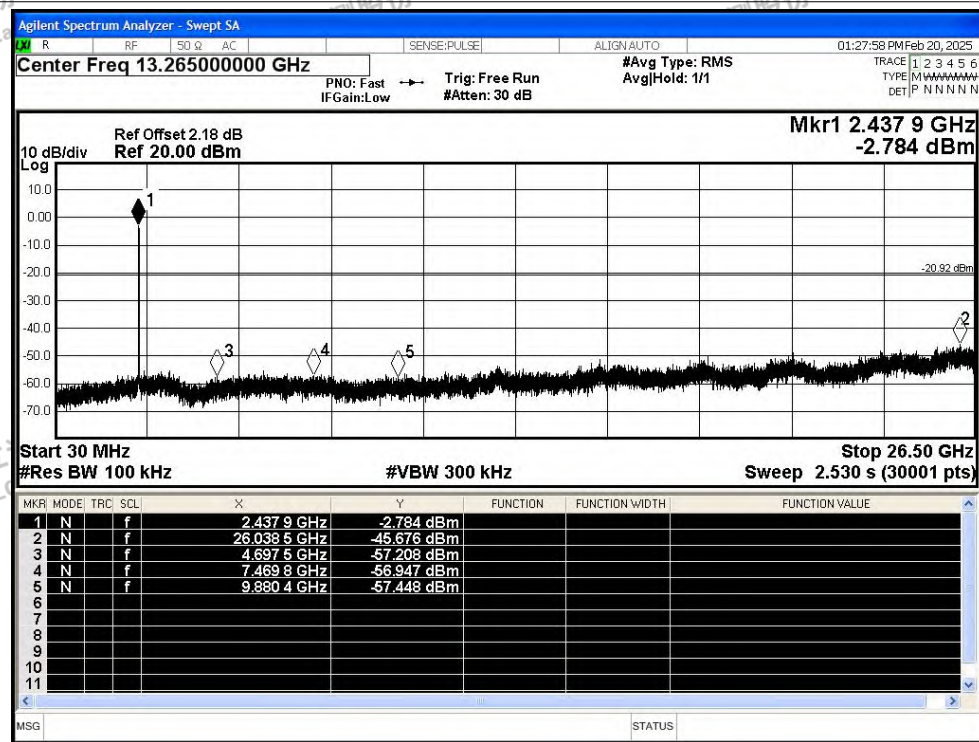
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Tx: Spurious NVNT b 2437MHz Ant1 Ref



Tx: Spurious NVNT b 2437MHz Ant1 Emission



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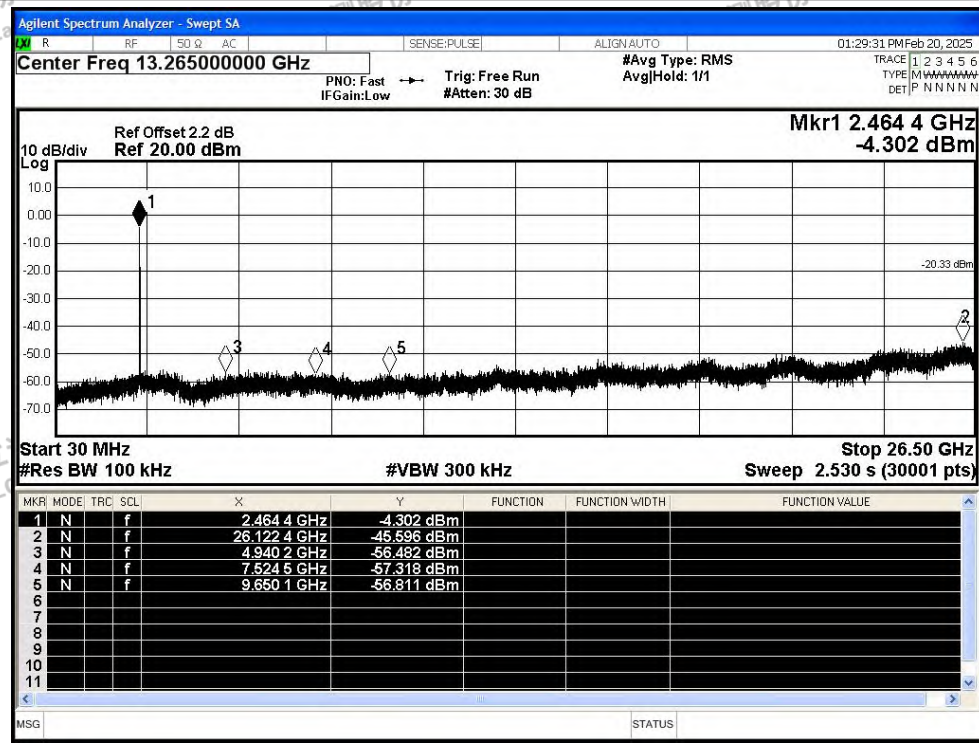
Scan code to check authenticity



Tx: Spurious NVNT b 2462MHz Ant1 Ref



Tx: Spurious NVNT b 2462MHz Ant1 Emission



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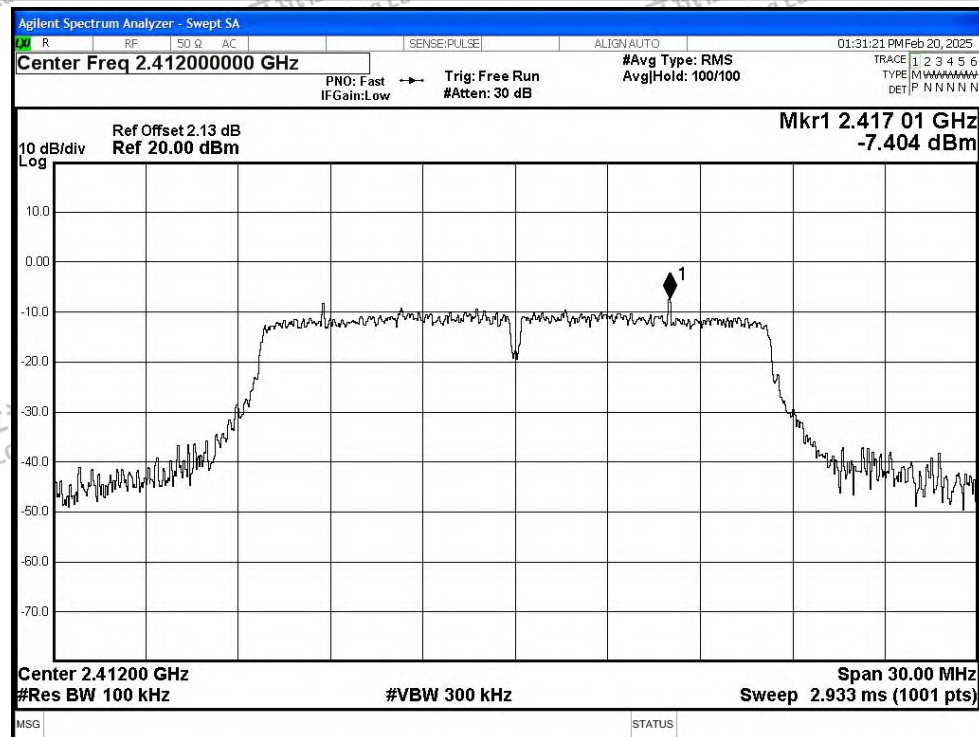
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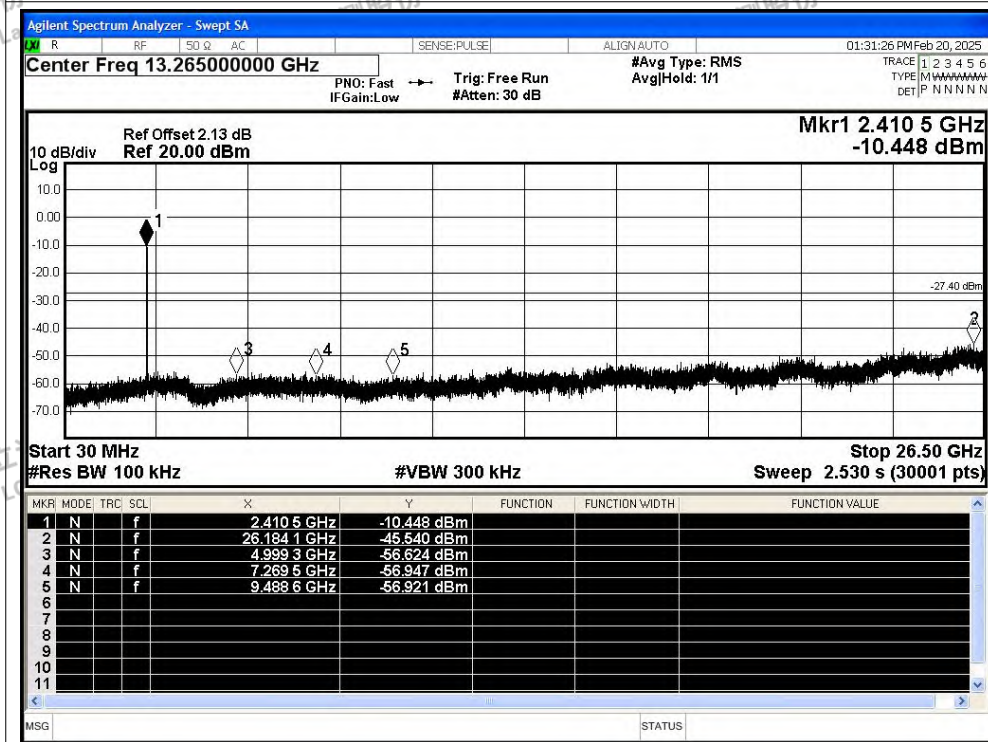
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Tx: Spurious NVNT g 2412MHz Ant1 Ref



Tx: Spurious NVNT g 2412MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

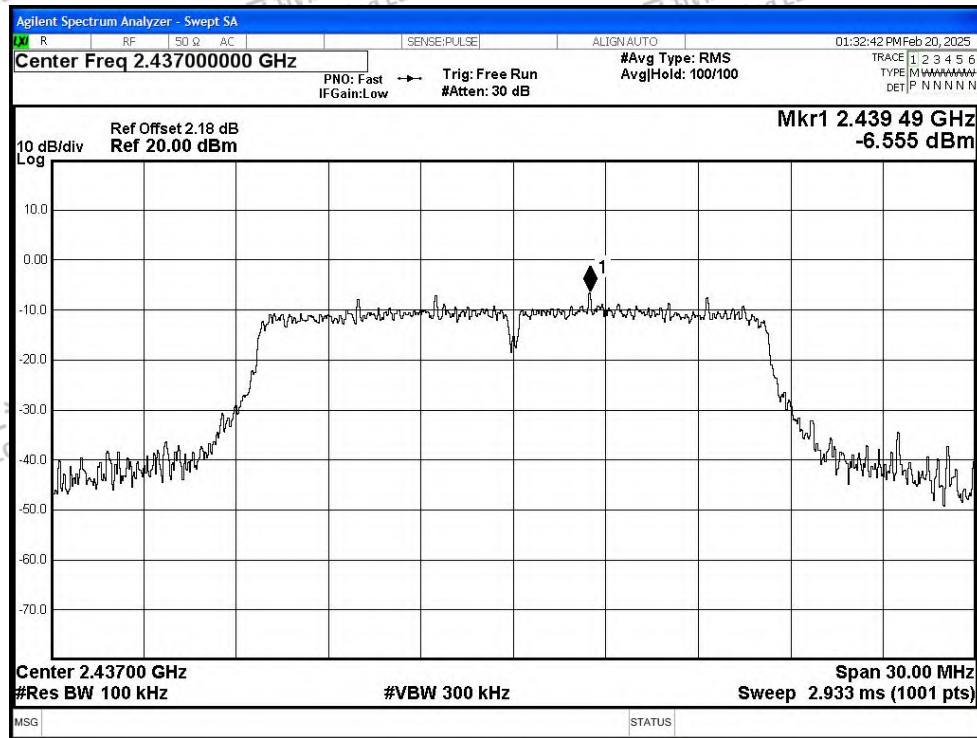
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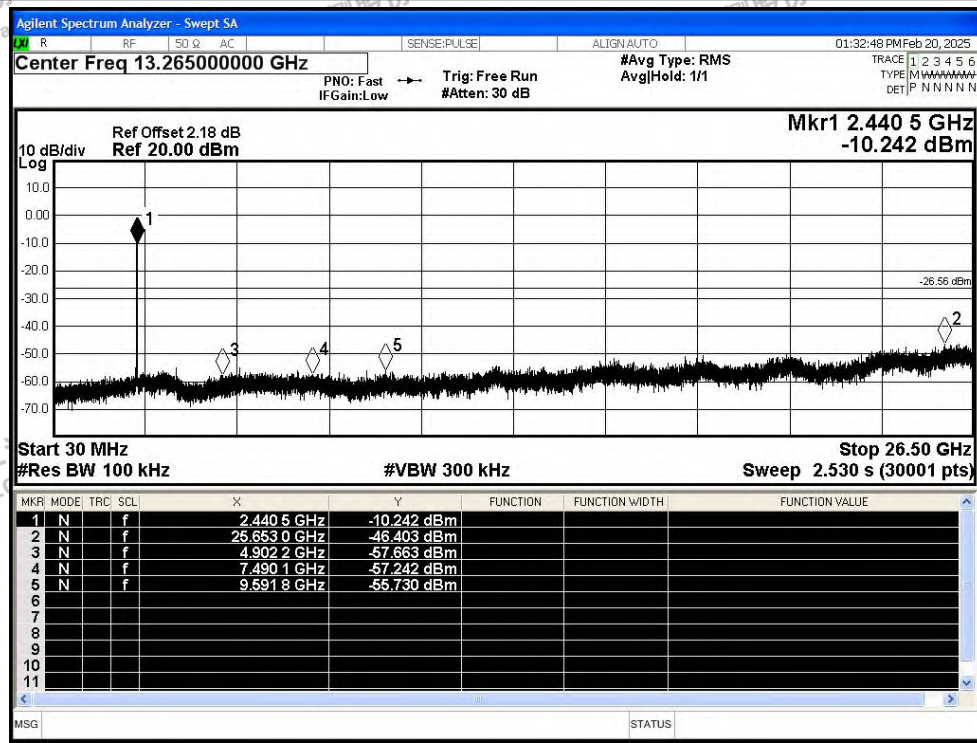
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Tx: Spurious NVNT g 2437MHz Ant1 Ref

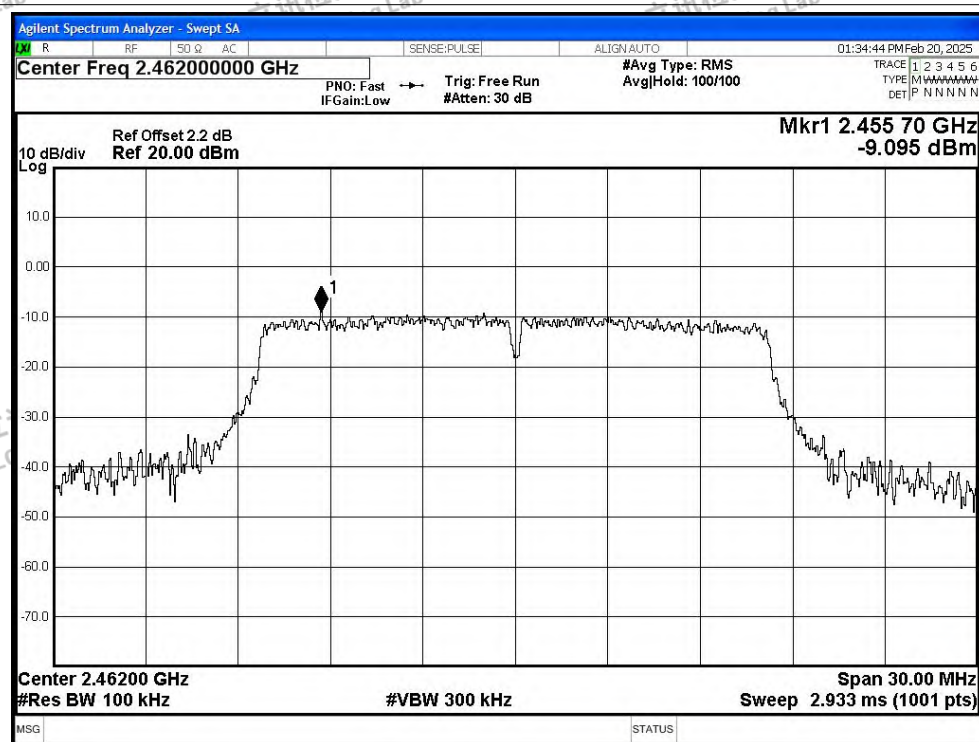


Tx: Spurious NVNT g 2437MHz Ant1 Emission

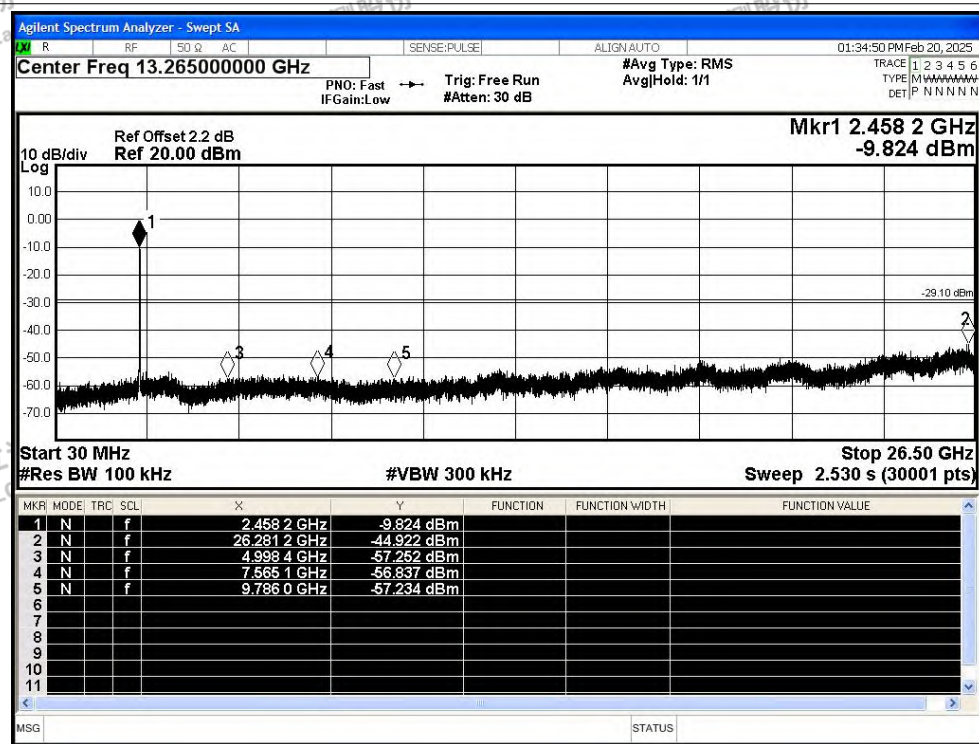




Tx: Spurious NVNT g 2462MHz Ant1 Ref

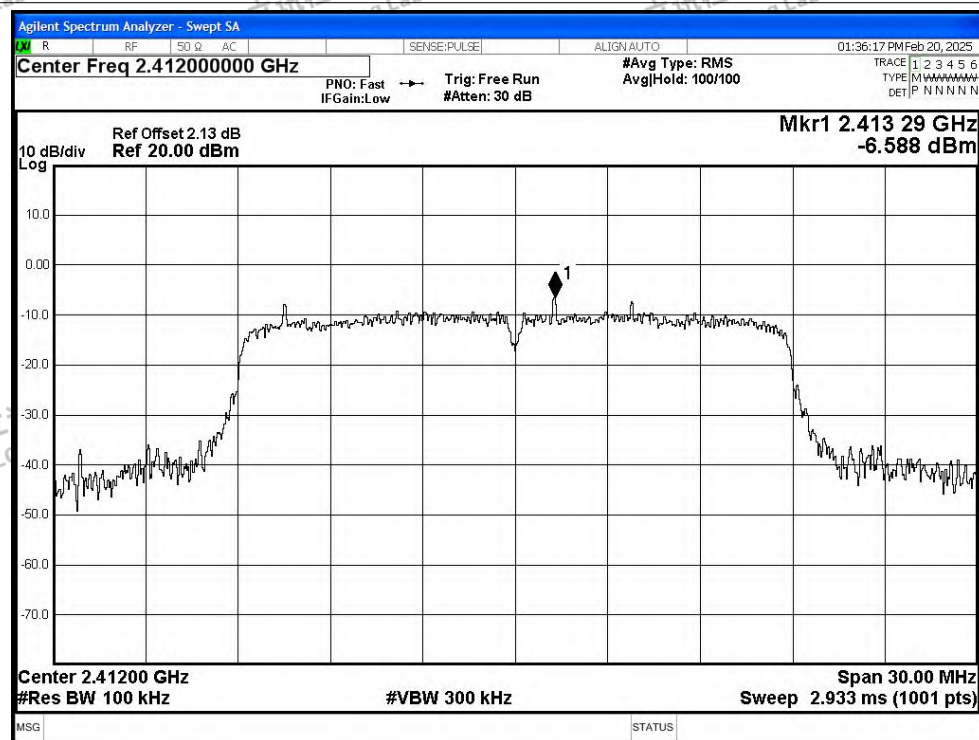


Tx: Spurious NVNT g 2462MHz Ant1 Emission

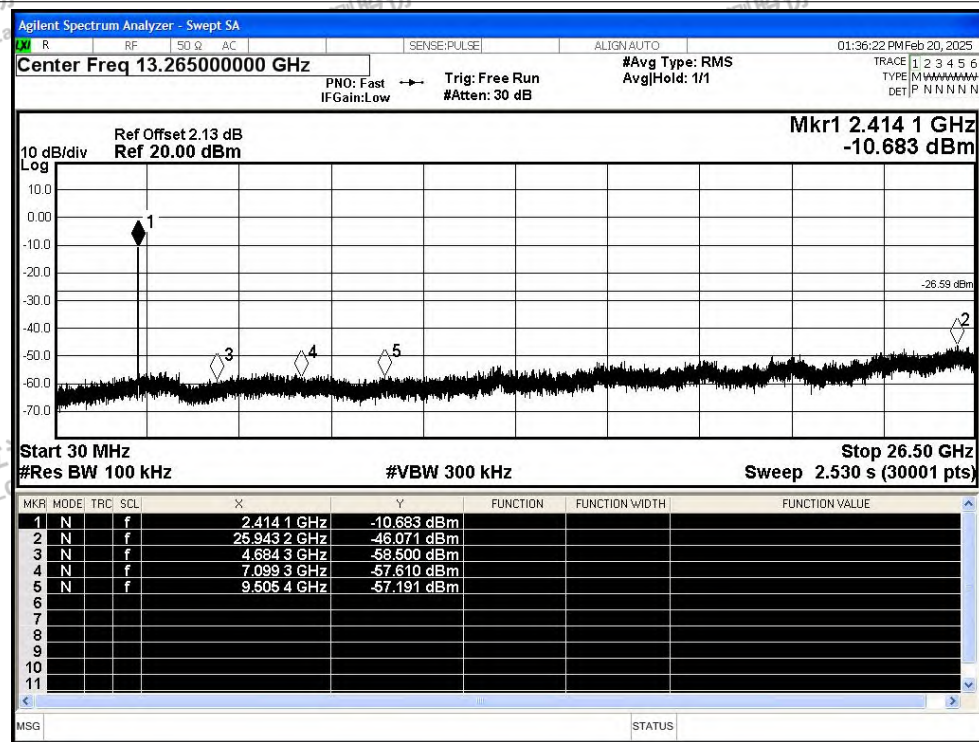




Tx. Spurious NVNT n20 2412MHz Ant1 Ref

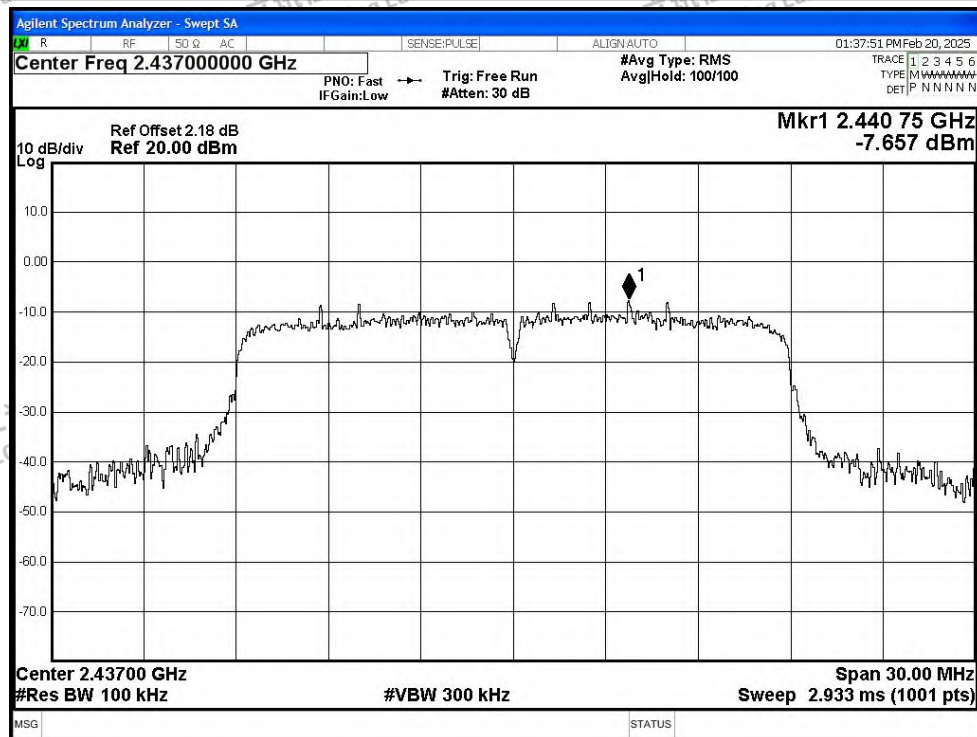


Tx. Spurious NVNT n20 2412MHz Ant1 Emission

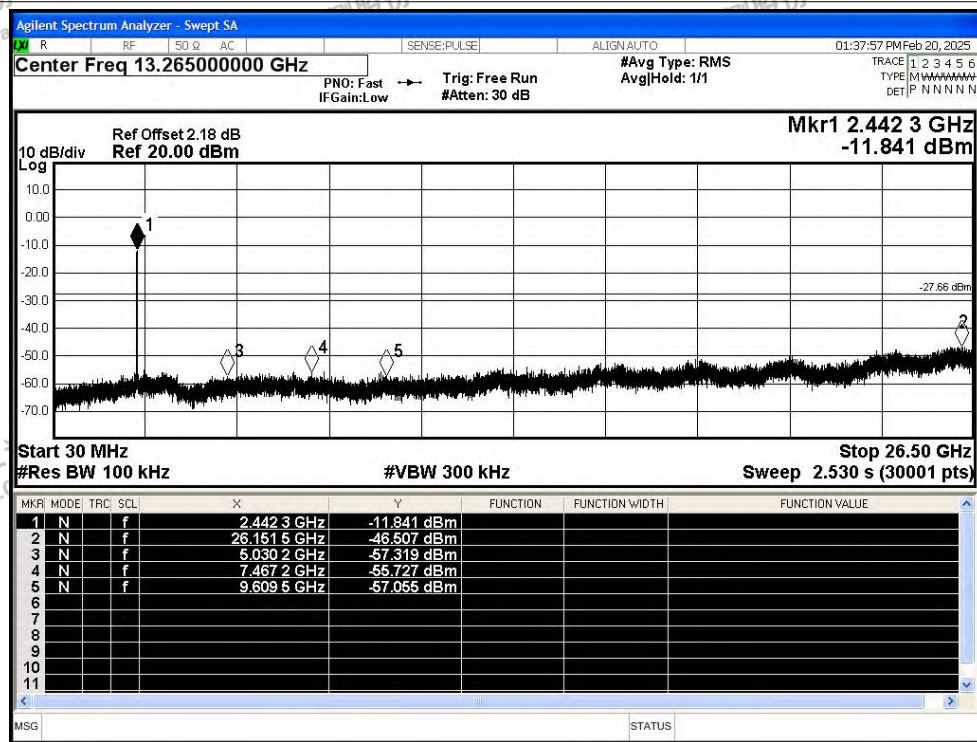




Tx. Spurious NVNT n20 2437MHz Ant1 Ref

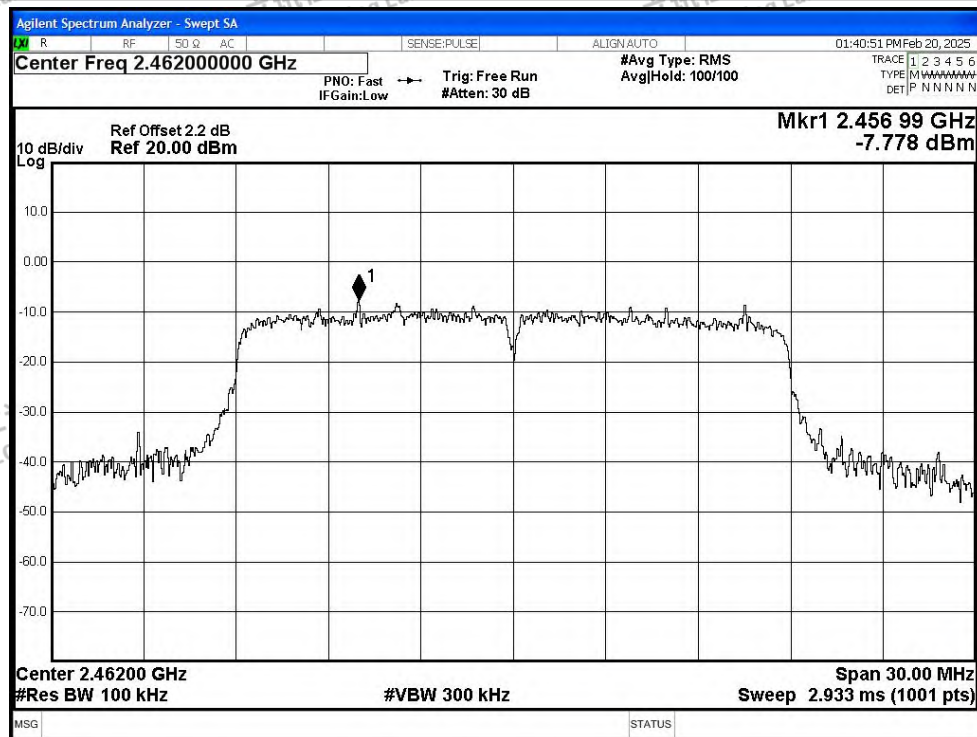


Tx. Spurious NVNT n20 2437MHz Ant1 Emission

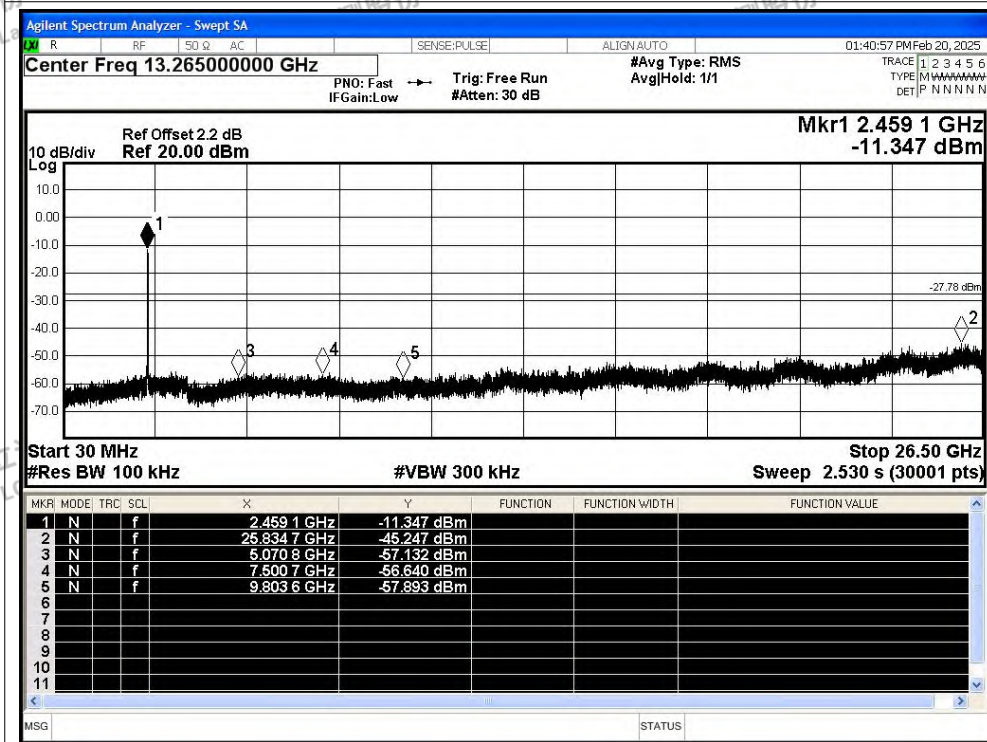




Tx. Spurious NVNT n20 2462MHz Ant1 Ref

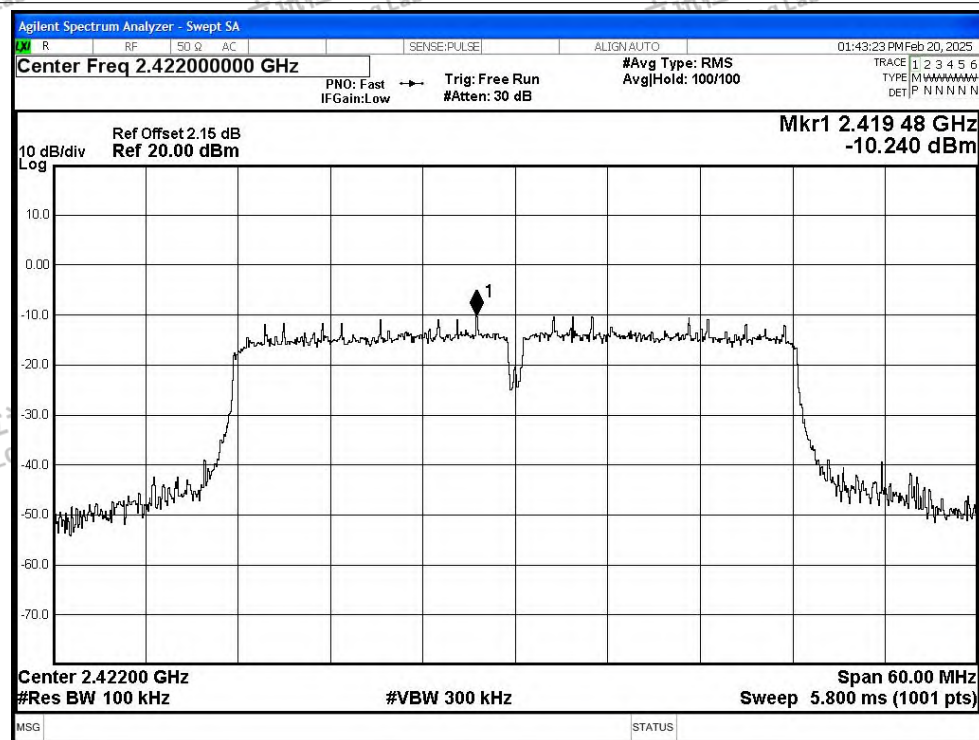


Tx. Spurious NVNT n20 2462MHz Ant1 Emission

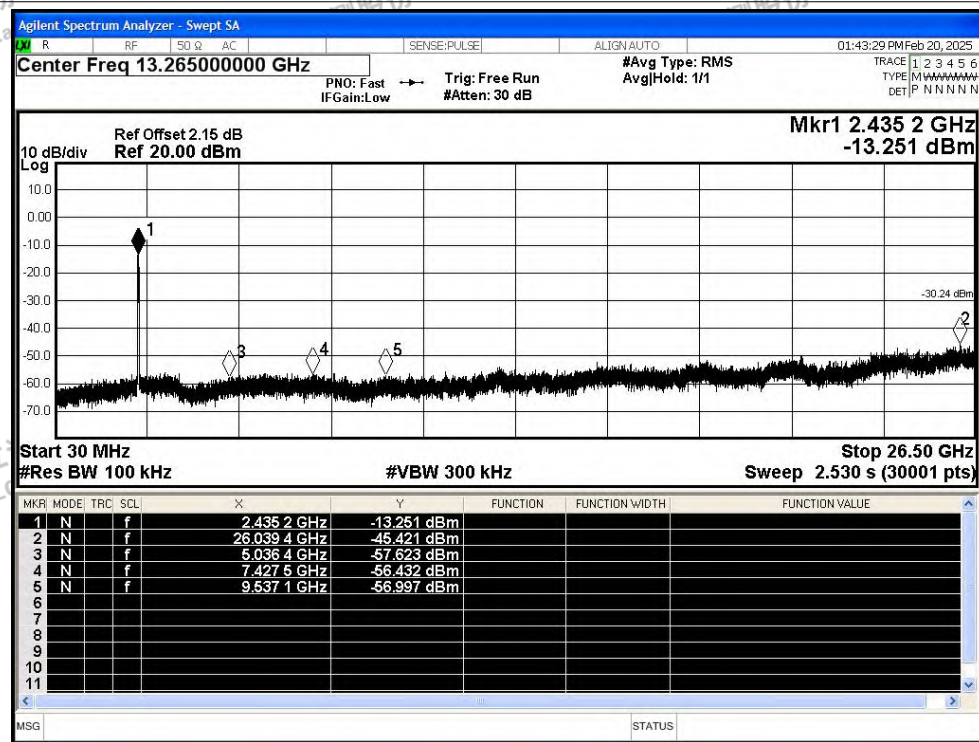




Tx. Spurious NVNT n40 2422MHz Ant1 Ref

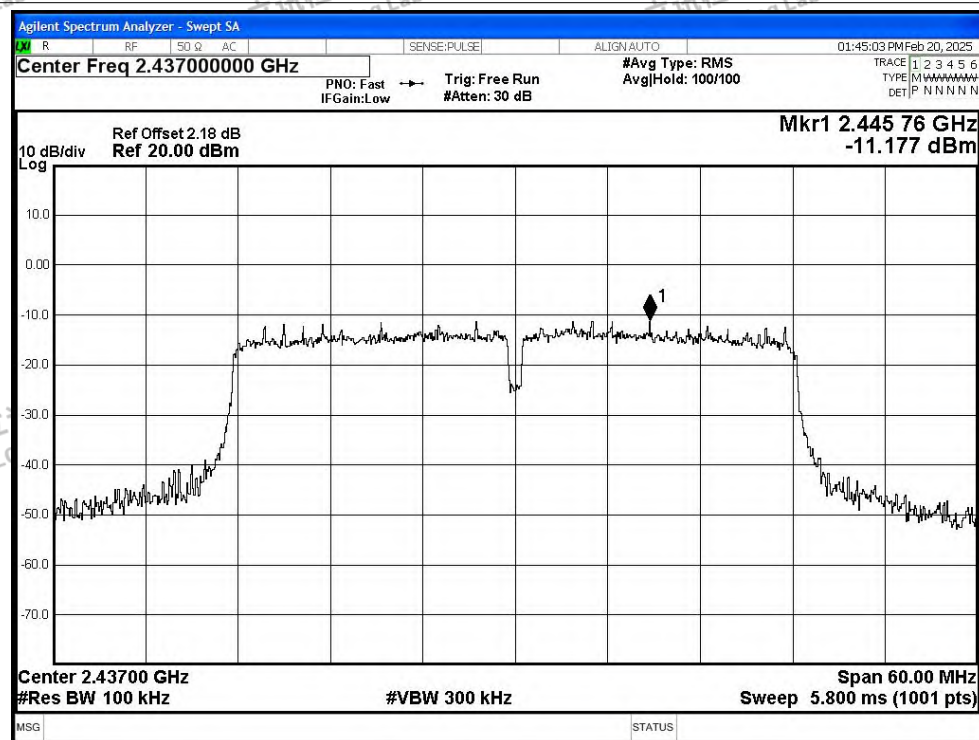


Tx. Spurious NVNT n40 2422MHz Ant1 Emission

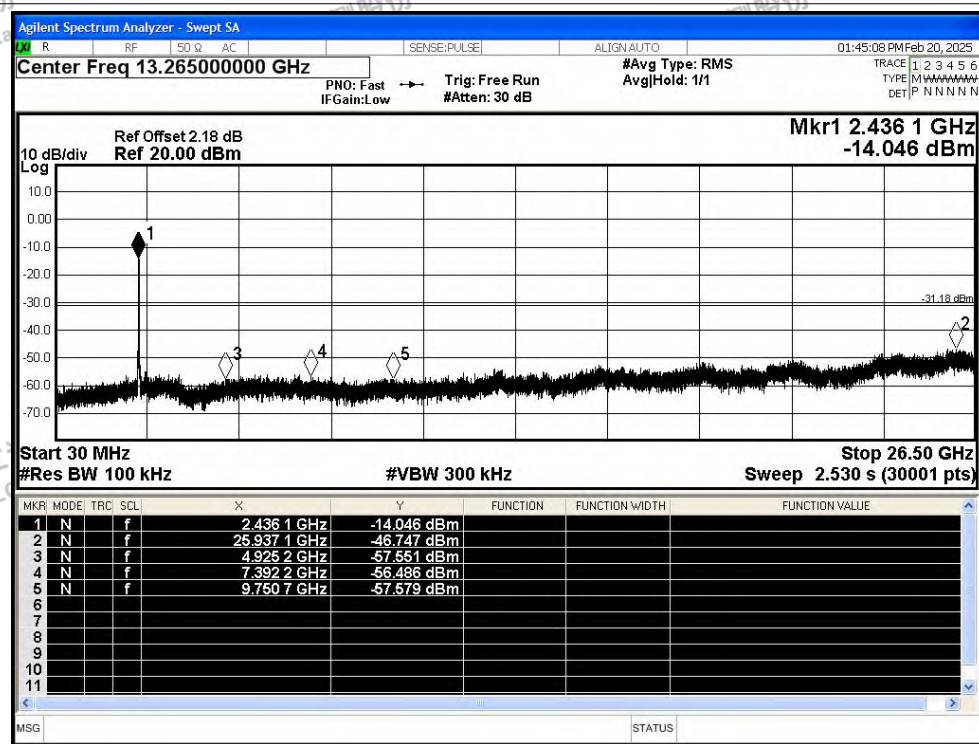




Tx. Spurious NVNT n40 2437MHz Ant1 Ref

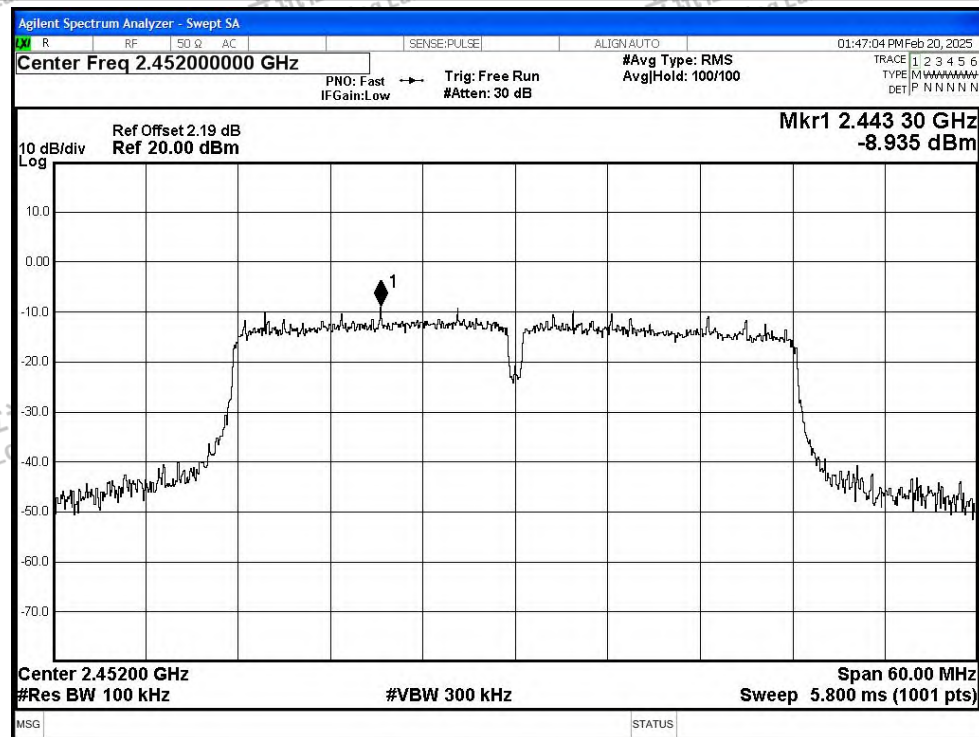


Tx. Spurious NVNT n40 2437MHz Ant1 Emission

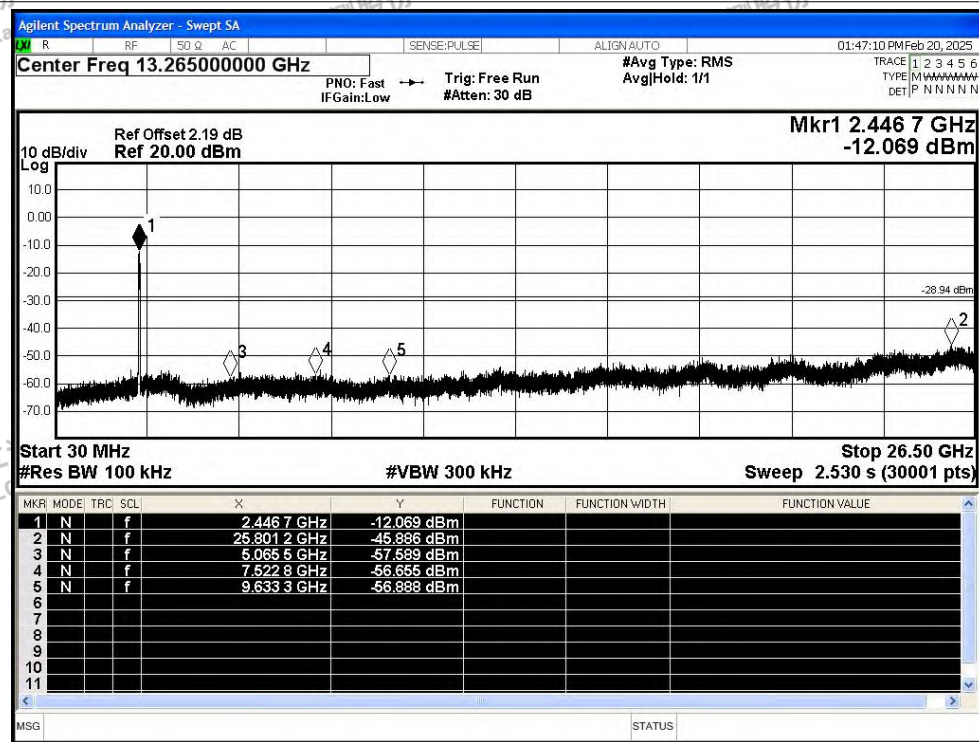




Tx. Spurious NVNT n40 2452MHz Ant1 Ref



Tx. Spurious NVNT n40 2452MHz Ant1 Emission





A.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.13	0	0.15
NVNT	b	2437	Ant1	99.16	0	0.15
NVNT	b	2462	Ant1	99.13	0	0.15
NVNT	g	2412	Ant1	97.68	0.1	0.37
NVNT	g	2437	Ant1	97.75	0.1	0.37
NVNT	g	2462	Ant1	97.75	0.1	0.37
NVNT	n20	2412	Ant1	97.25	0.12	0.44
NVNT	n20	2437	Ant1	97.25	0.12	0.44
NVNT	n20	2462	Ant1	97.33	0.12	0.44
NVNT	n40	2422	Ant1	94.71	0.24	0.9
NVNT	n40	2437	Ant1	94.7	0.24	0.9
NVNT	n40	2452	Ant1	94.7	0.24	0.9

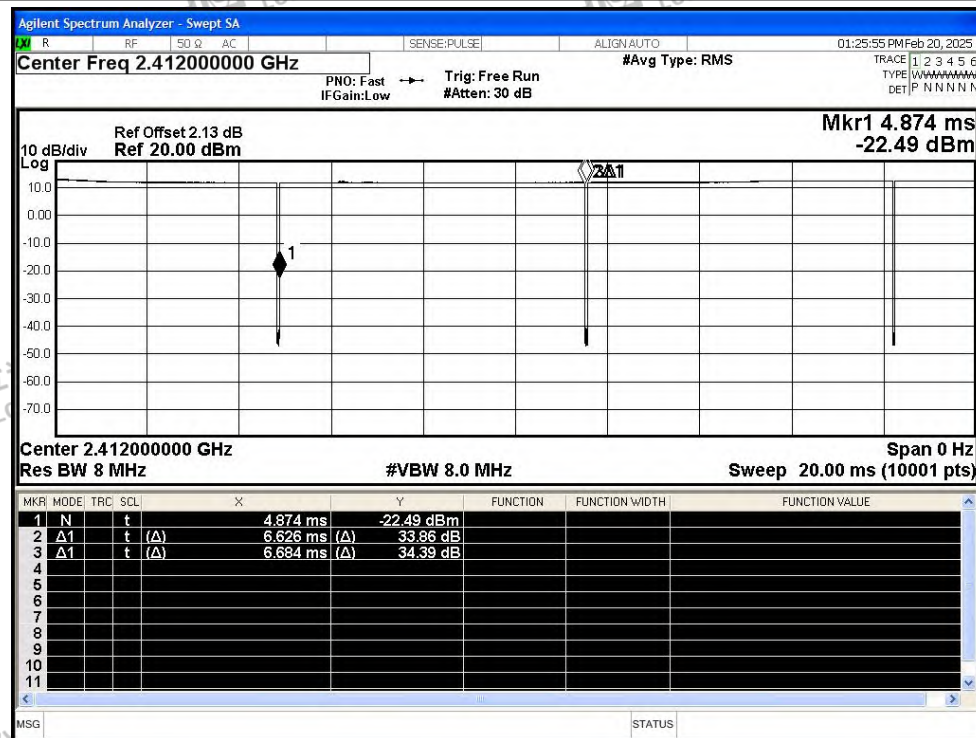


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Scan code to check authenticity

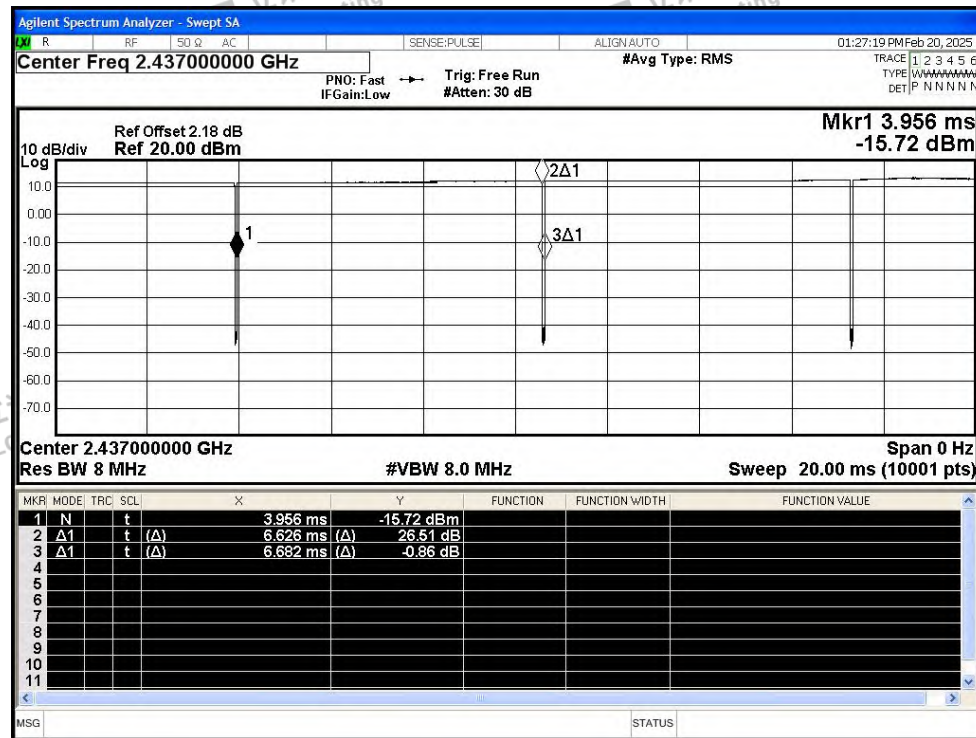


Test Graphs

Duty Cycle NVNT b 2412MHz Ant1



Duty Cycle NVNT b 2437MHz Ant1



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