Appendix: 2.4G Wi-Fi

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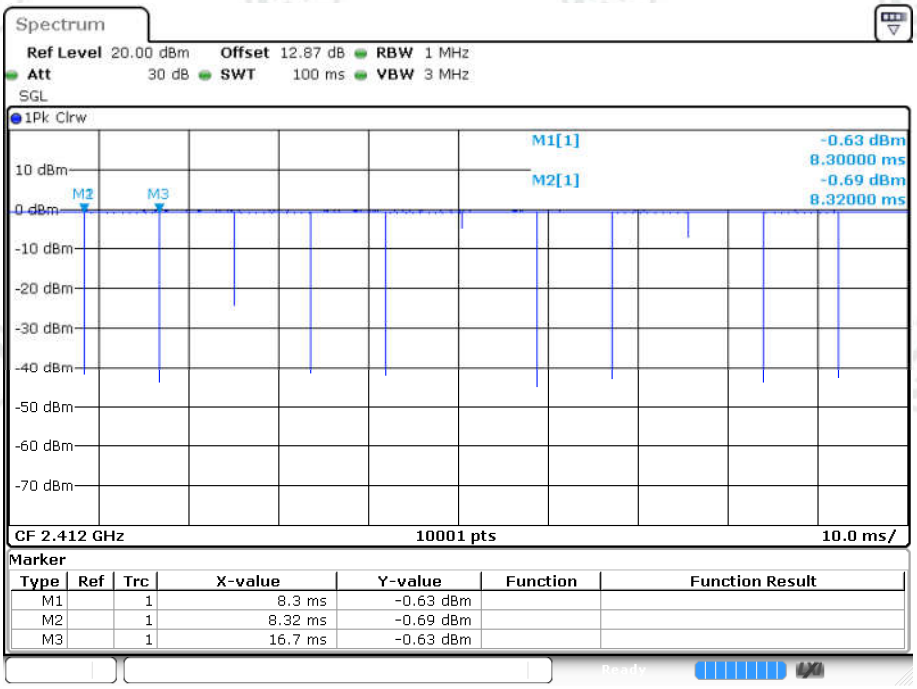
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.76	0	0.12
NVNT	b	2437	Ant1	99.76	0	0.12
NVNT	b	2462	Ant1	99.76	0	0.12
NVNT	g	2412	Ant1	98.72	0	0.72
NVNT	g	2437	Ant1	98.79	0	0.72
NVNT	g	2462	Ant1	98.79	0	0.72
NVNT	n20	2412	Ant1	99.69	0	0.2
NVNT	n20	2437	Ant1	99.65	0	0.2
NVNT	n20	2462	Ant1	99.65	0	0.2

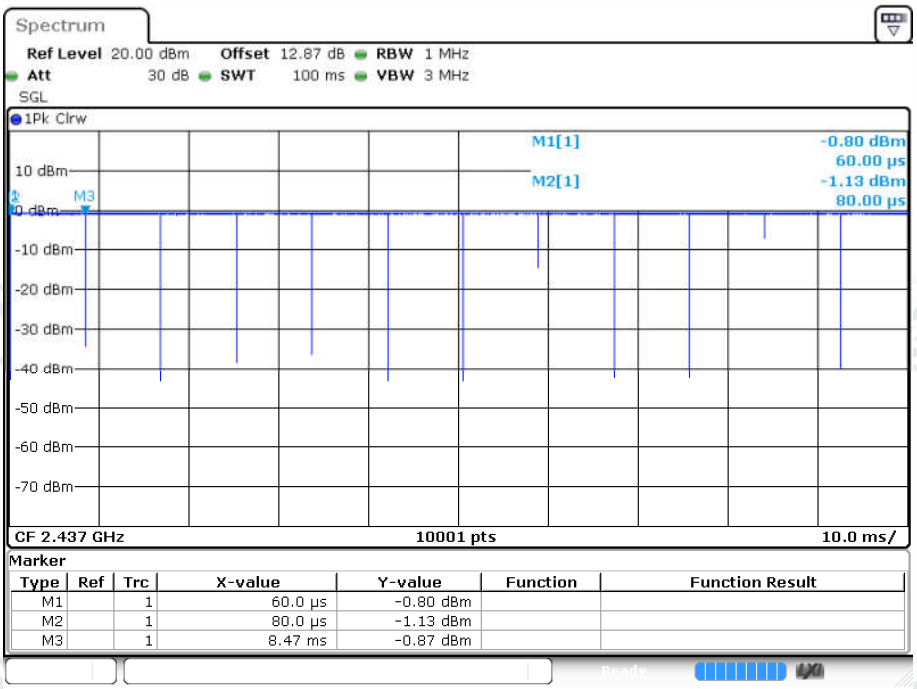
Test Graphs

Duty Cycle NVNT b 2412MHz Ant1



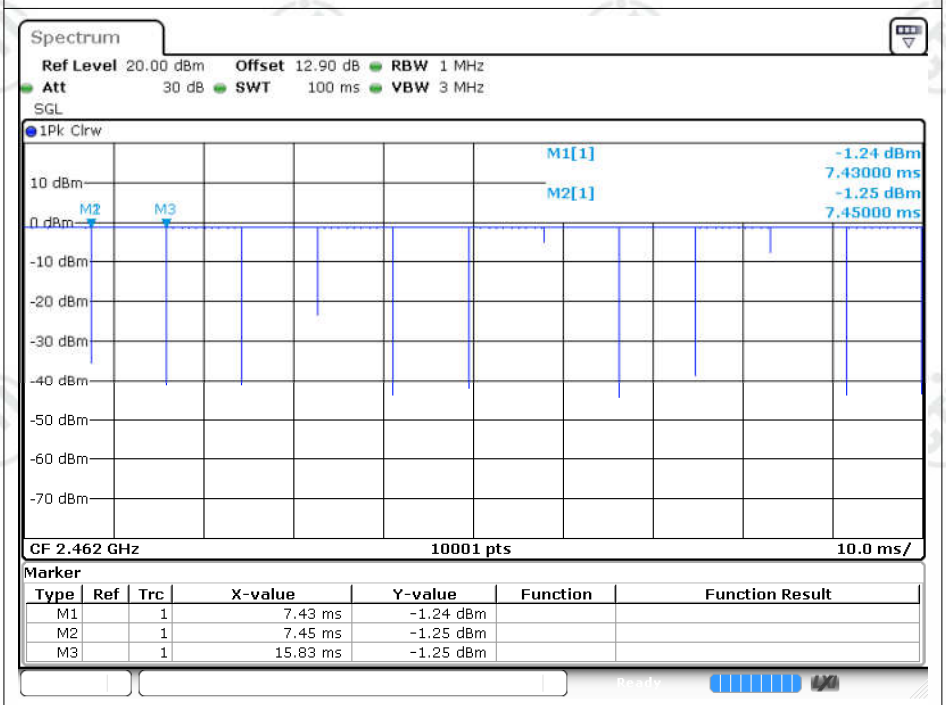
Date: 4.JAN.2024 11:33:40

Duty Cycle NVNT b 2437MHz Ant1



Date: 4.JAN.2024 11:29:56

Duty Cycle NVNT b 2462MHz Ant1

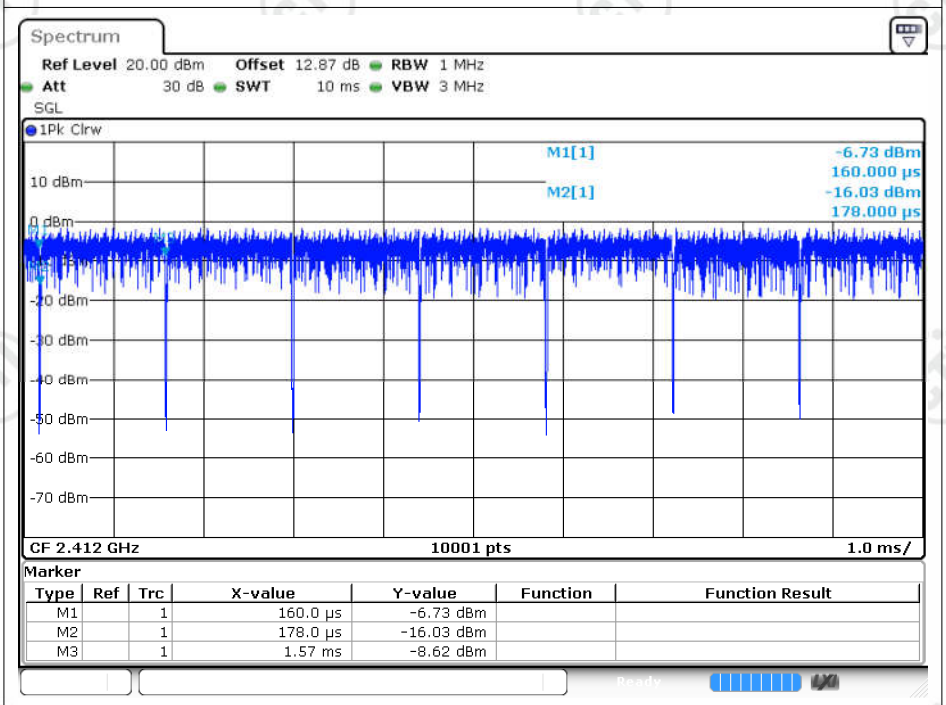


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	7.43 ms	-1.24 dBm		
M2		1	7.45 ms	-1.25 dBm		
M3		1	15.83 ms	-1.25 dBm		

Date: 4.JAN.2024 11:31:19

Duty Cycle NVNT g 2412MHz Ant1

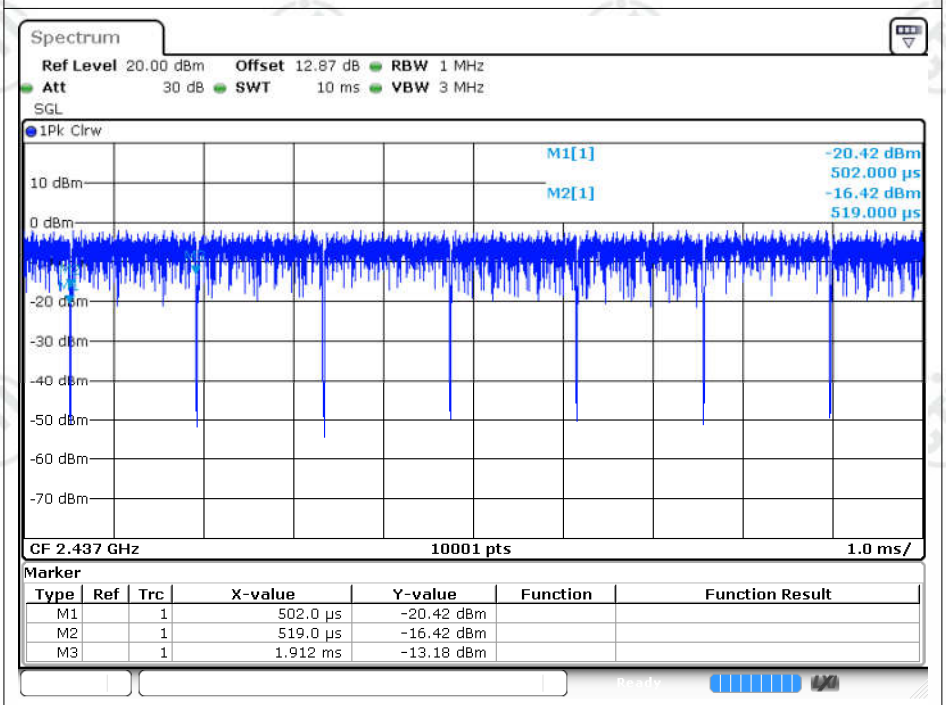


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	160.0 µs	-6.73 dBm		
M2		1	178.0 µs	-16.03 dBm		
M3		1	1.57 ms	-8.62 dBm		

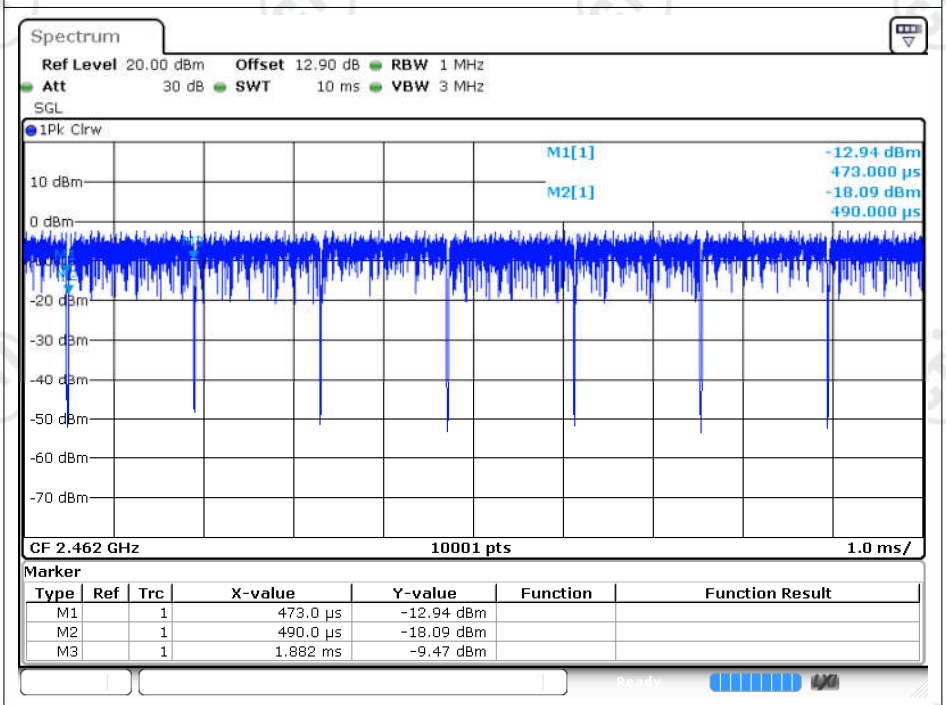
Date: 4.JAN.2024 11:34:02

Duty Cycle NVNT g 2437MHz Ant1



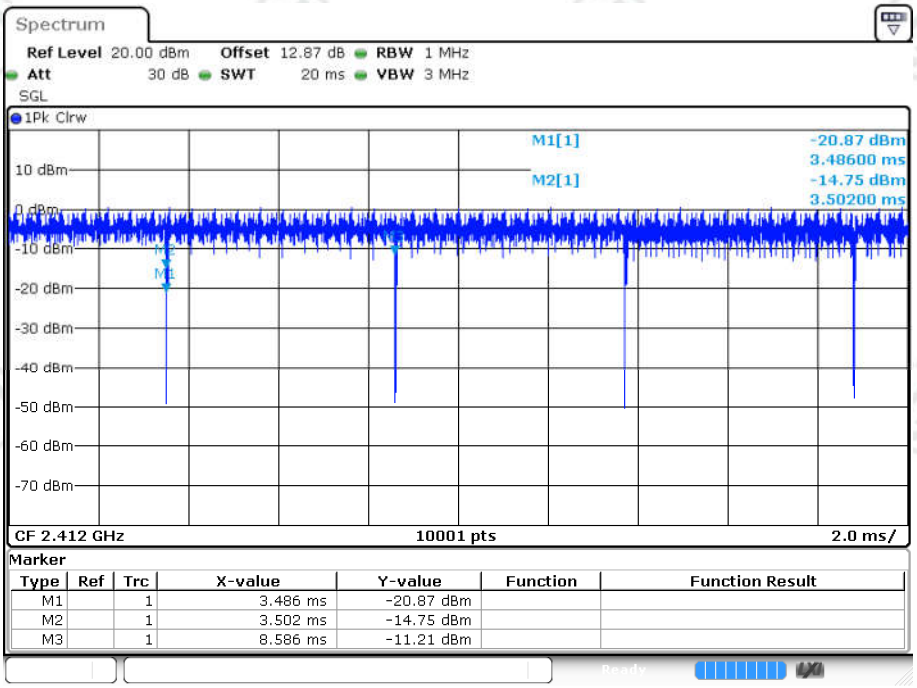
Date: 4.JAN.2024 11:36:16

Duty Cycle NVNT g 2462MHz Ant1



Date: 4.JAN.2024 11:37:55

Duty Cycle NVNT n20 2412MHz Ant1

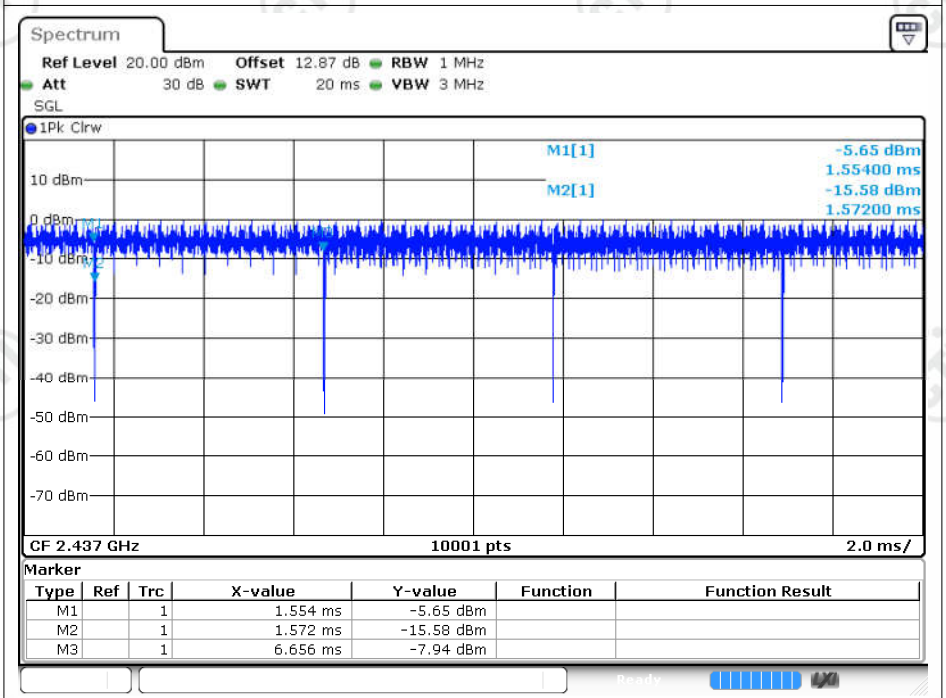


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	3.486 ms	-20.87 dBm		
M2		1	3.502 ms	-14.75 dBm		
M3		1	8.586 ms	-11.21 dBm		

Date: 4.JAN.2024 12:56:25

Duty Cycle NVNT n20 2437MHz Ant1

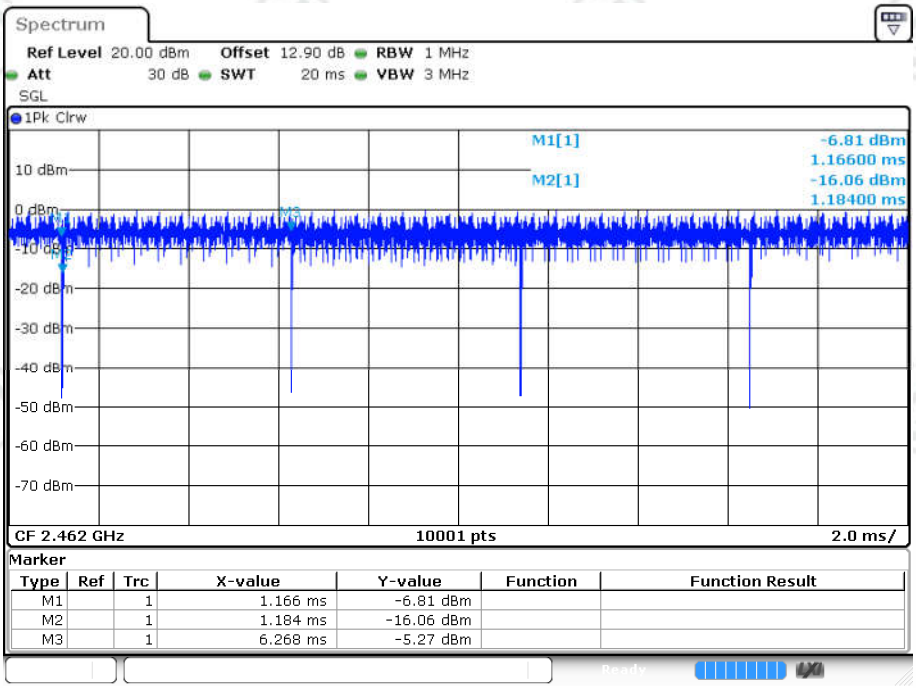


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.554 ms	-5.65 dBm		
M2		1	1.572 ms	-15.58 dBm		
M3		1	6.656 ms	-7.94 dBm		

Date: 4.JAN.2024 12:56:35

Duty Cycle NVNT n20 2462MHz Ant1



Maximum Peak Conducted Output Power

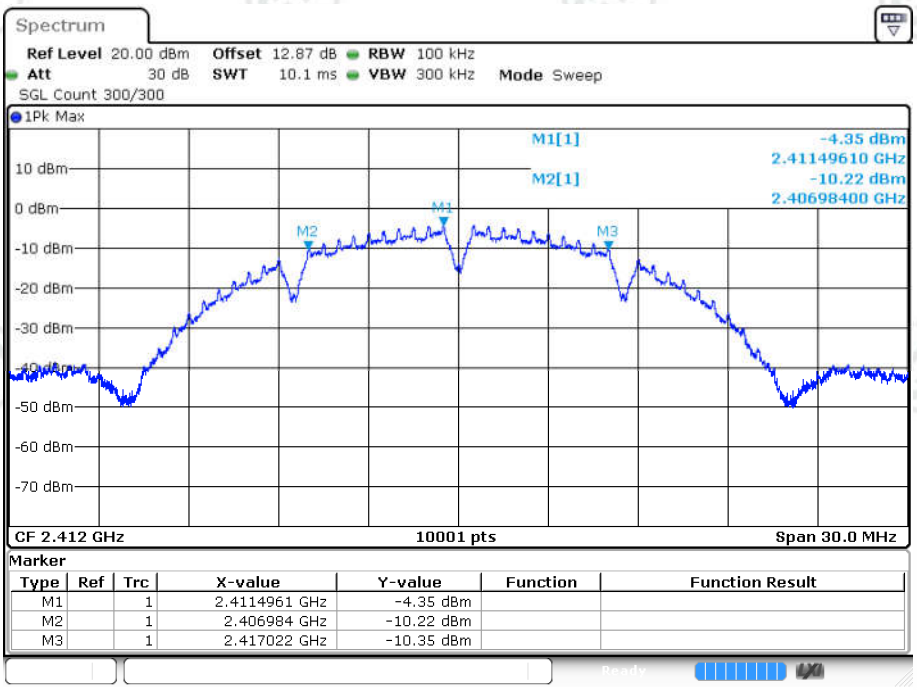
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	7.79	30	Pass
NVNT	b	2437	Ant1	6.85	30	Pass
NVNT	b	2462	Ant1	6.18	30	Pass
NVNT	g	2412	Ant1	5.66	30	Pass
NVNT	g	2437	Ant1	5.37	30	Pass
NVNT	g	2462	Ant1	5.02	30	Pass
NVNT	n20	2412	Ant1	5.73	30	Pass
NVNT	n20	2437	Ant1	5.43	30	Pass
NVNT	n20	2462	Ant1	5.01	30	Pass

-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	10.038	0.5	Pass
NVNT	b	2437	Ant1	10.035	0.5	Pass
NVNT	b	2462	Ant1	10.038	0.5	Pass
NVNT	g	2412	Ant1	16.344	0.5	Pass
NVNT	g	2437	Ant1	16.338	0.5	Pass
NVNT	g	2462	Ant1	16.341	0.5	Pass
NVNT	n20	2412	Ant1	17.583	0.5	Pass
NVNT	n20	2437	Ant1	17.58	0.5	Pass
NVNT	n20	2462	Ant1	17.586	0.5	Pass

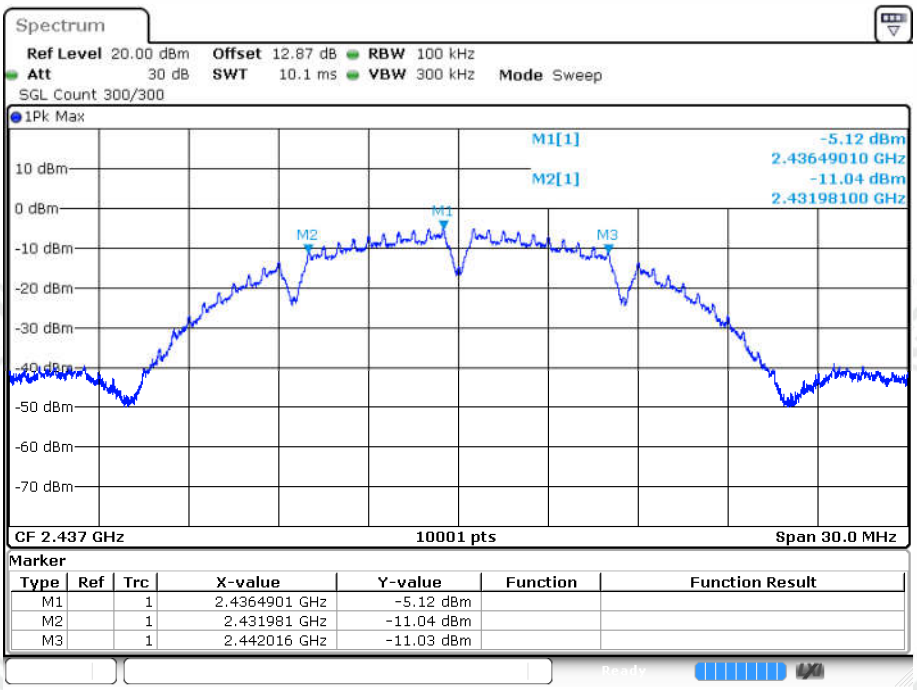
Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



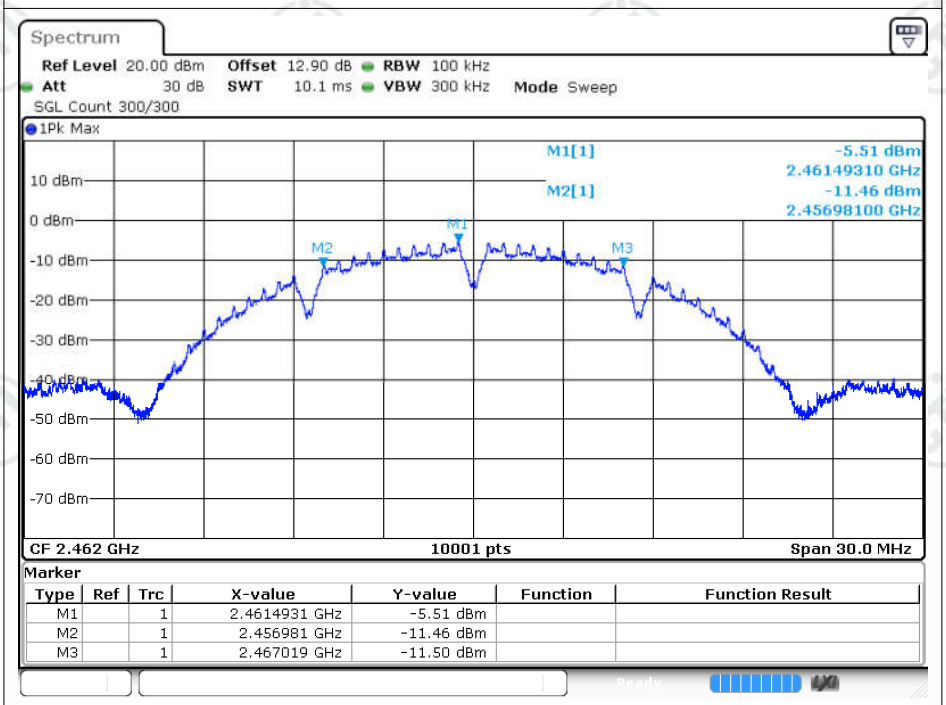
Date: 4.JAN.2024 11:28:43

-6dB Bandwidth NVNT b 2437MHz Ant1



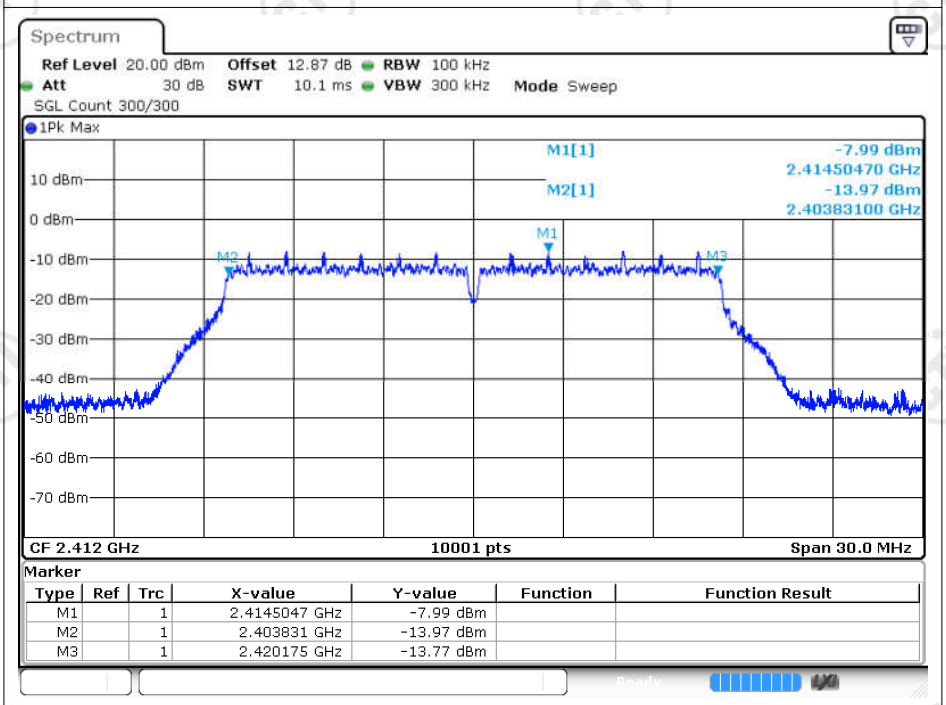
Date: 4.JAN.2024 11:30:22

-6dB Bandwidth NVNT b 2462MHz Ant1



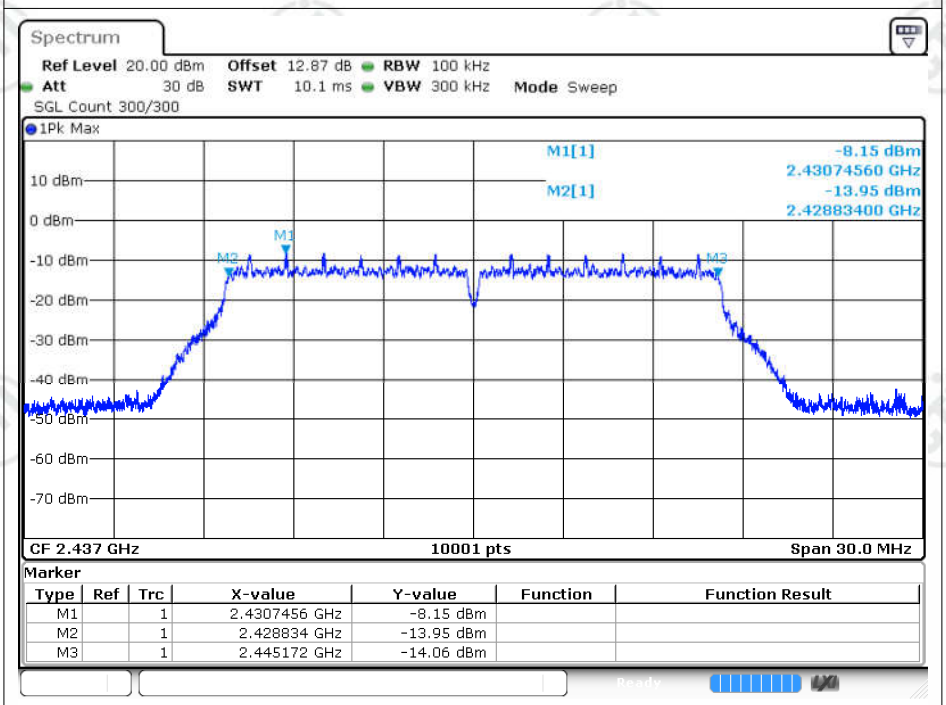
Date: 4.JAN.2024 11:31:46

-6dB Bandwidth NVNT g 2412MHz Ant1



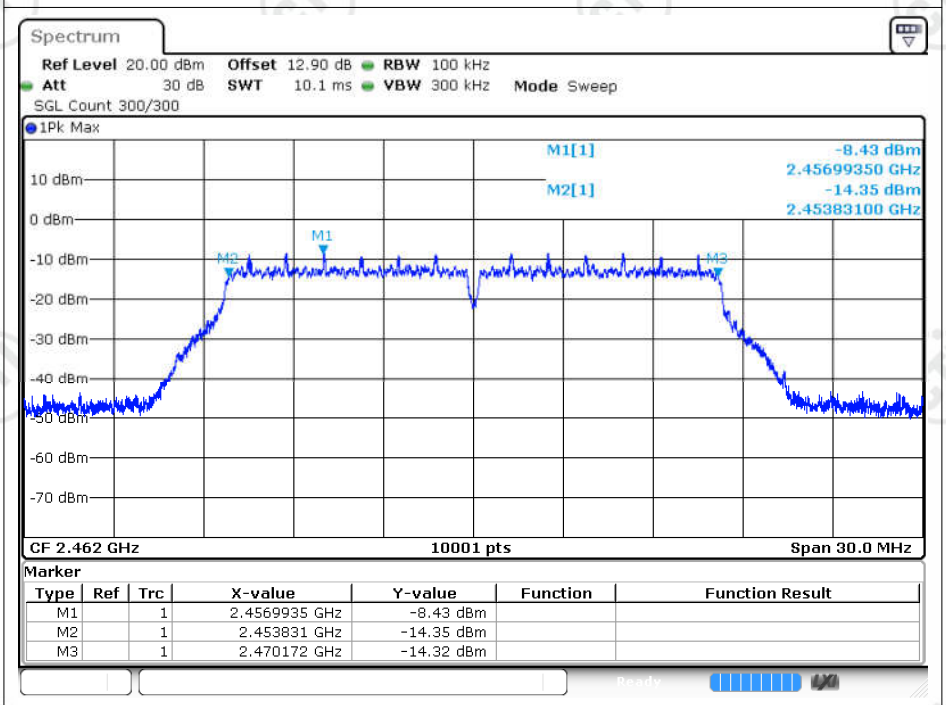
Date: 4.JAN.2024 11:34:41

-6dB Bandwidth NVNT g 2437MHz Ant1



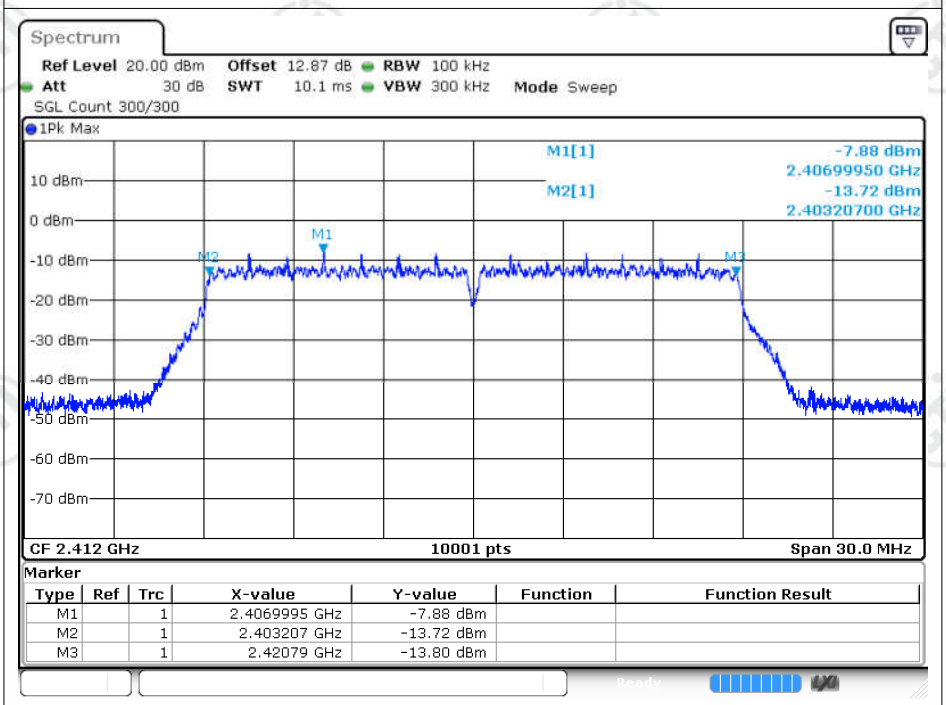
Date: 4.JAN.2024 11:36:42

-6dB Bandwidth NVNT g 2462MHz Ant1



Date: 4.JAN.2024 11:38:22

-6dB Bandwidth NVNT n20 2412MHz Ant1



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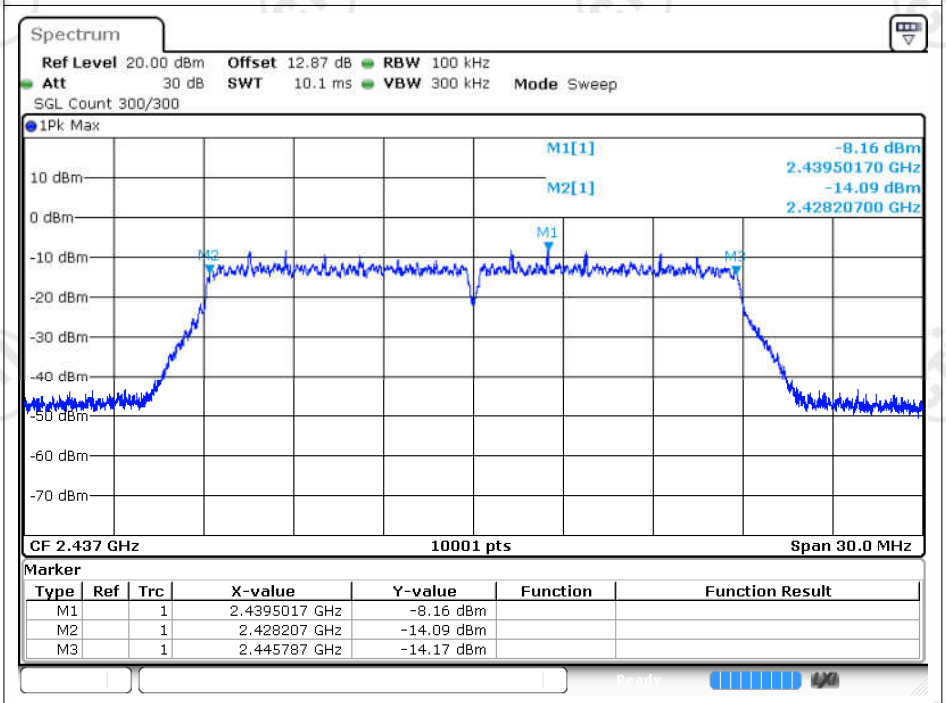
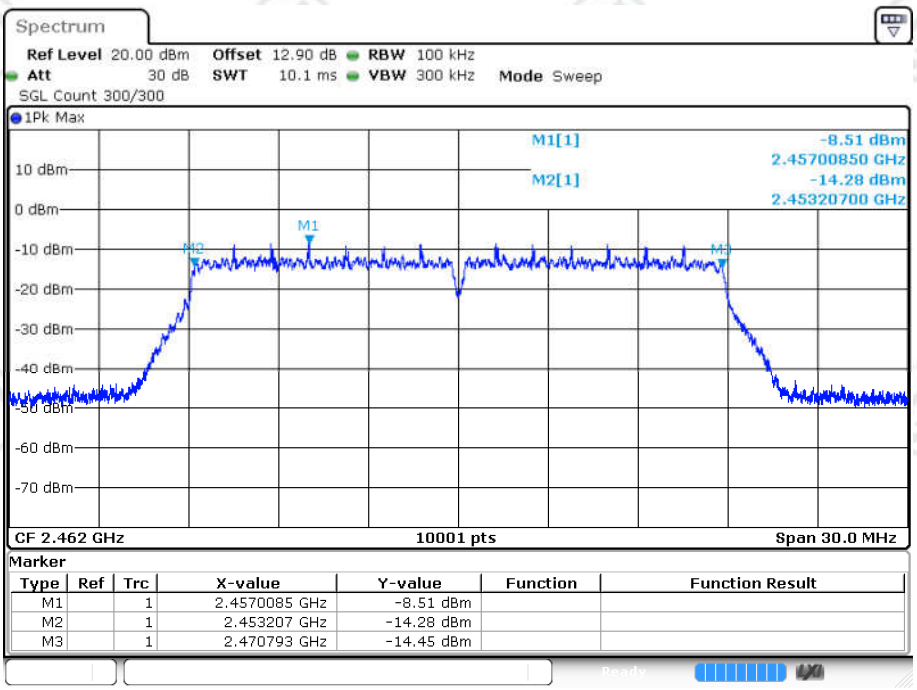
-6dB Bandwidth NVNT n20 2437MHz Ant1



Date: 4.JAN.2024 11:41:42

-6dB Bandwidth NVNT n20 2462MHz Ant1



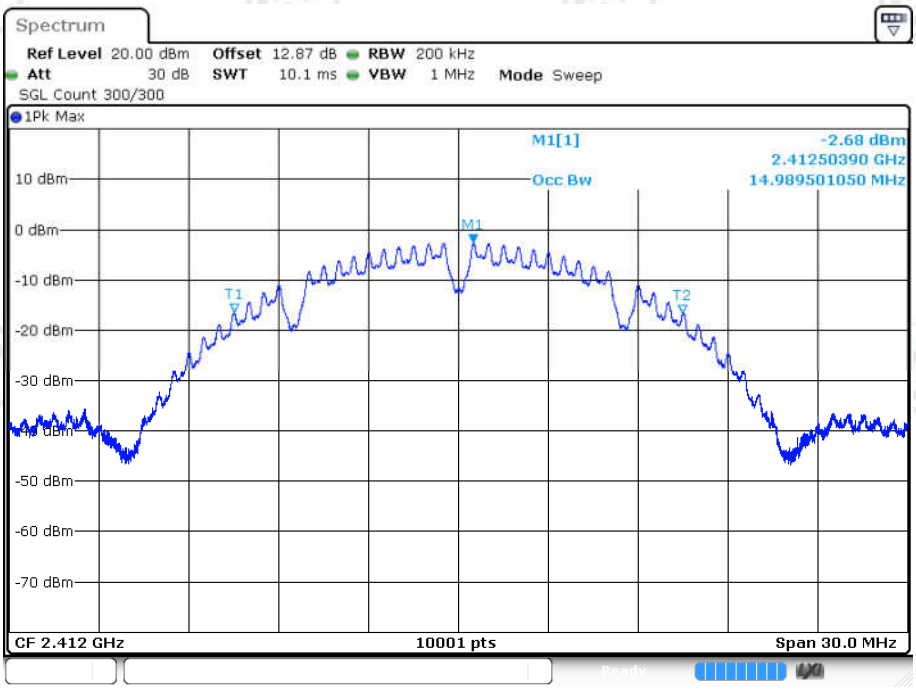
Date: 4.JAN.2024 11:43:22

Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	14.99
NVNT	b	2437	Ant1	14.999
NVNT	b	2462	Ant1	14.996
NVNT	g	2412	Ant1	16.768
NVNT	g	2437	Ant1	16.771
NVNT	g	2462	Ant1	16.768
NVNT	n20	2412	Ant1	17.83
NVNT	n20	2437	Ant1	17.827
NVNT	n20	2462	Ant1	17.824

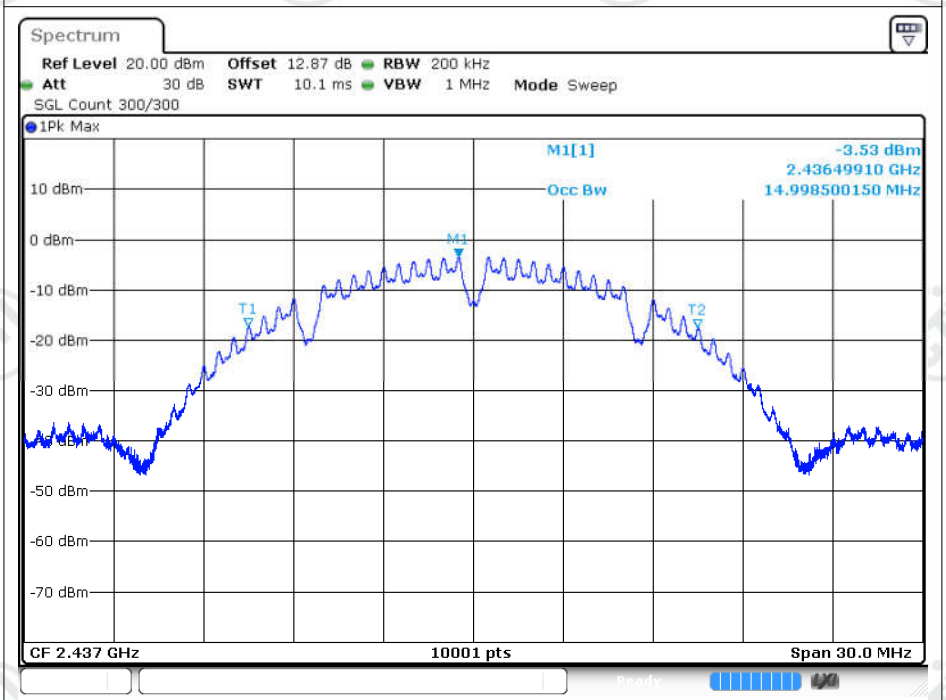
Test Graphs

OBW NVNT b 2412MHz Ant1



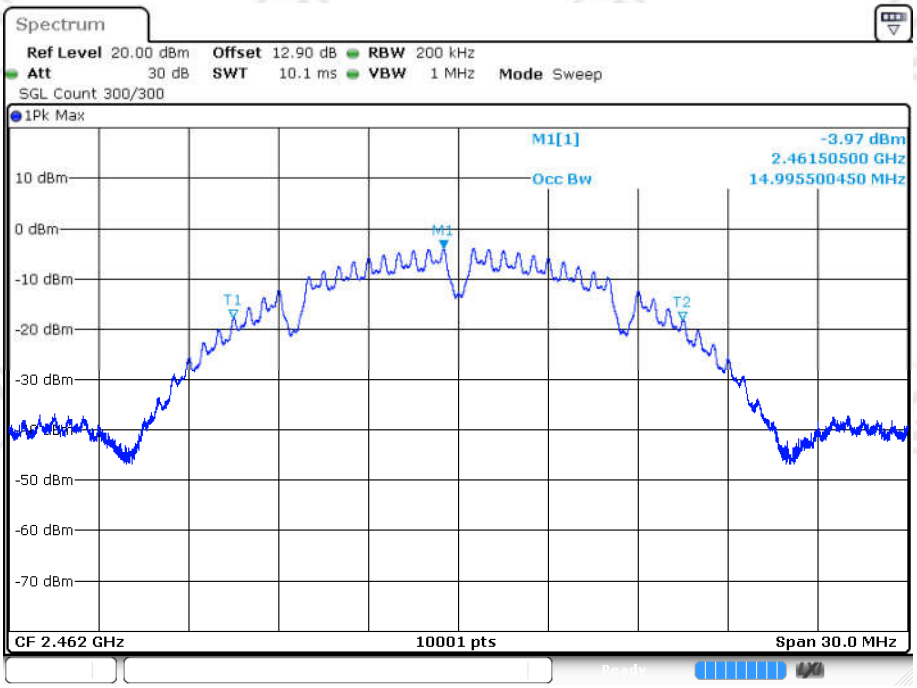
Date: 4.JAN.2024 11:28:32

OBW NVNT b 2437MHz Ant1



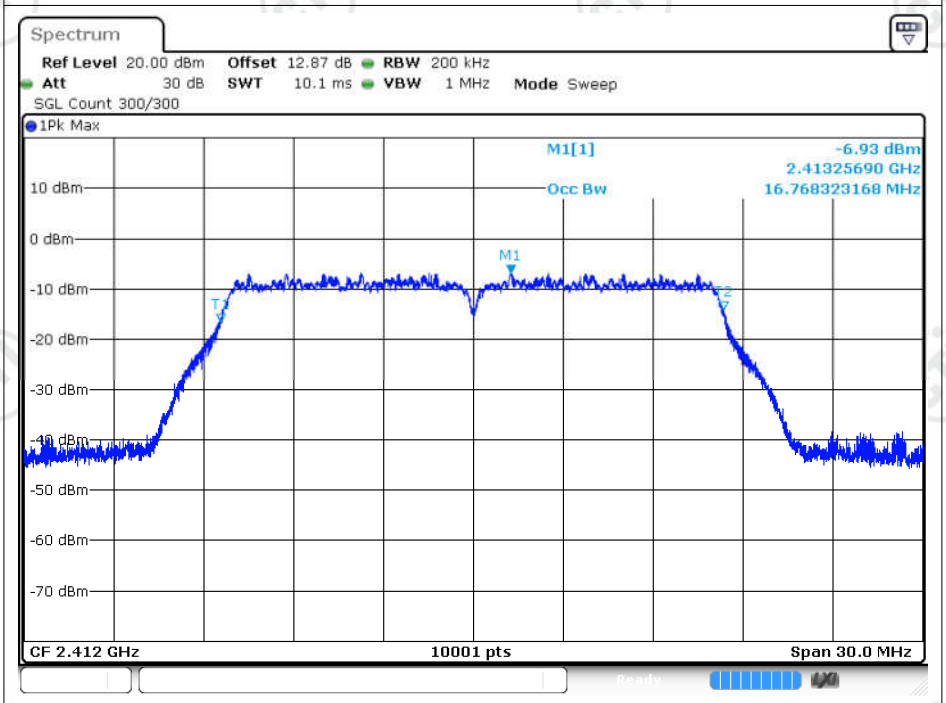
Date: 4.JAN.2024 11:30:10

OBW NVNT b 2462MHz Ant1



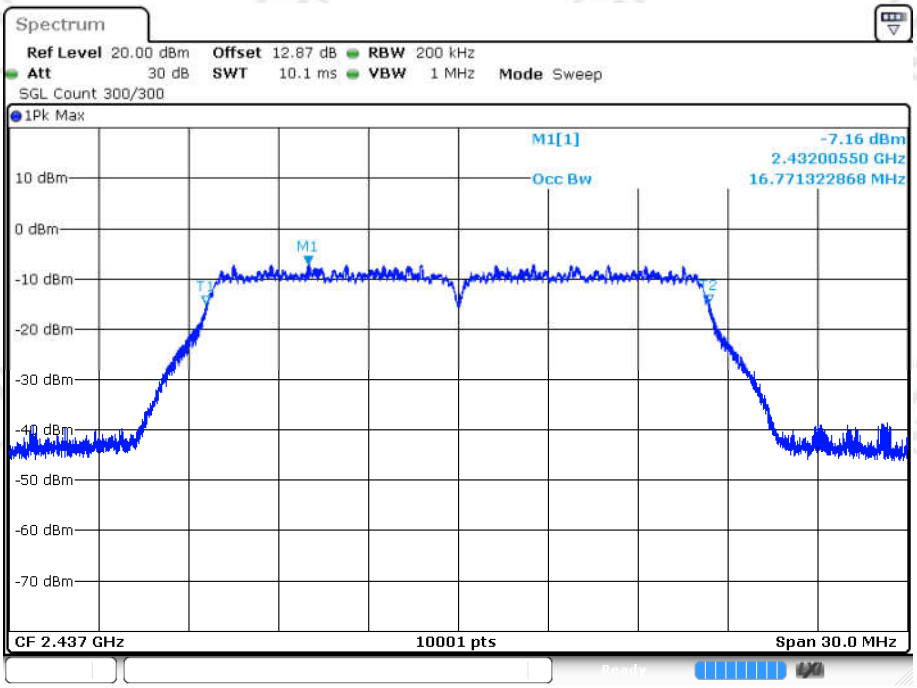
Date: 4.JAN.2024 11:31:33

OBW NVNT g 2412MHz Ant1



Date: 4.JAN.2024 11:34:30

OBW NVNT g 2437MHz Ant1



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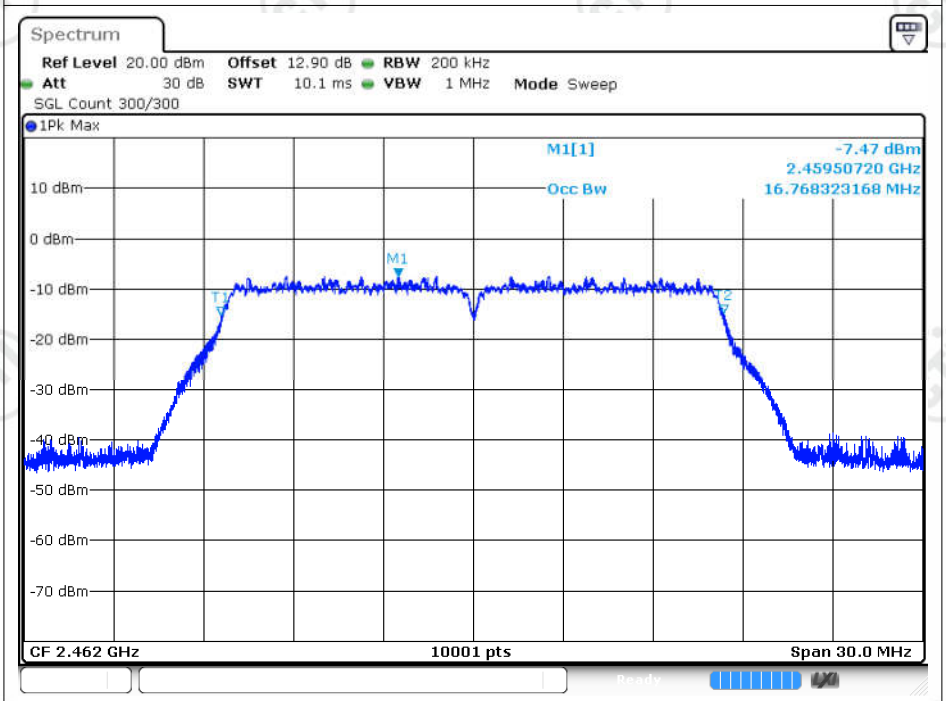
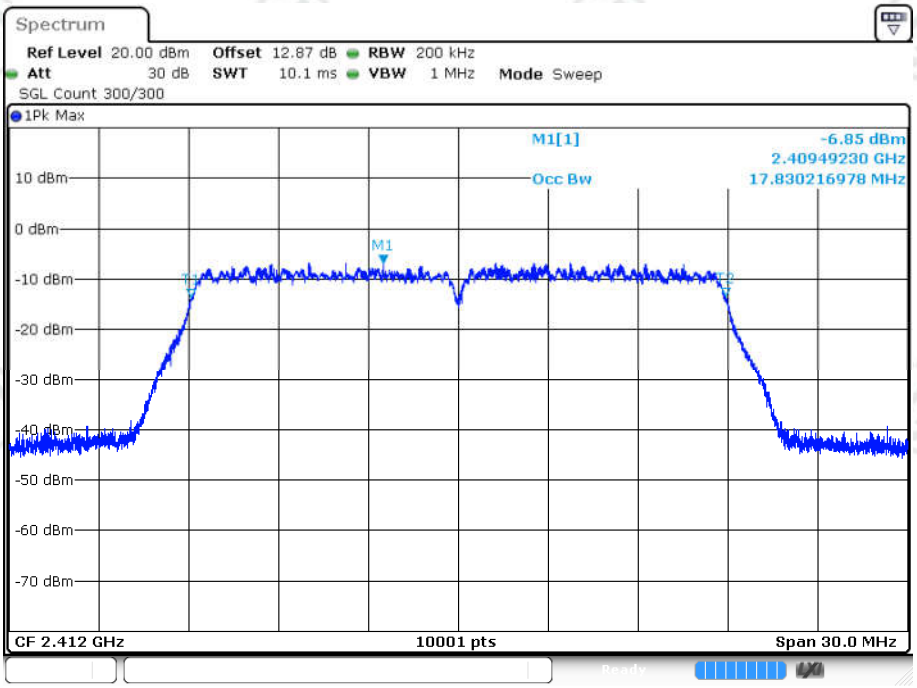
OBW NVNT g 2462MHz Ant1



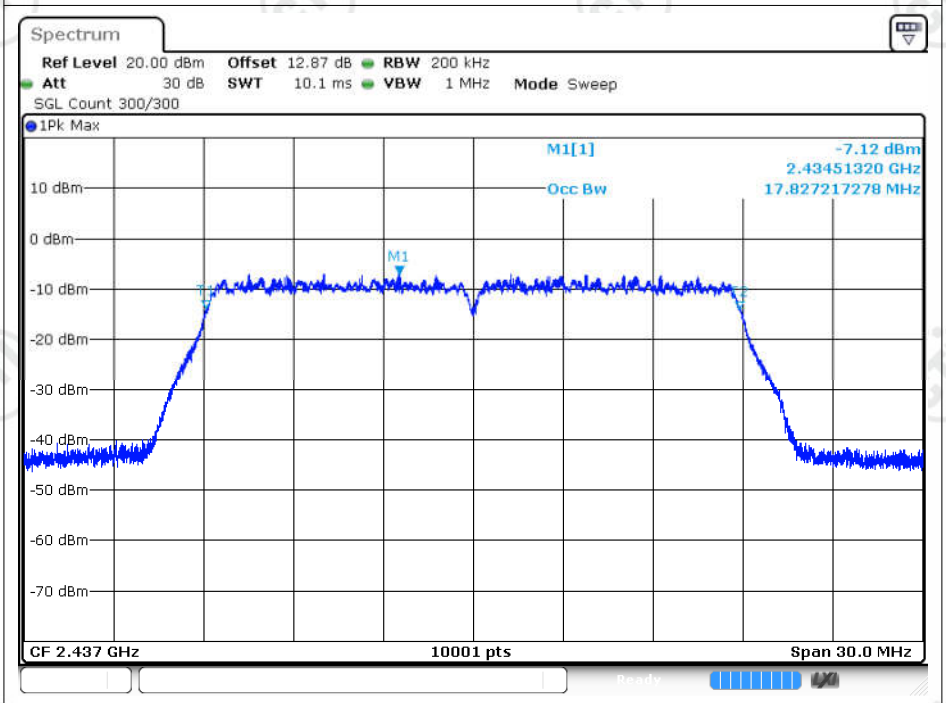
Date: 4.JAN.2024 11:38:09

OBW NVNT n20 2412MHz Ant1



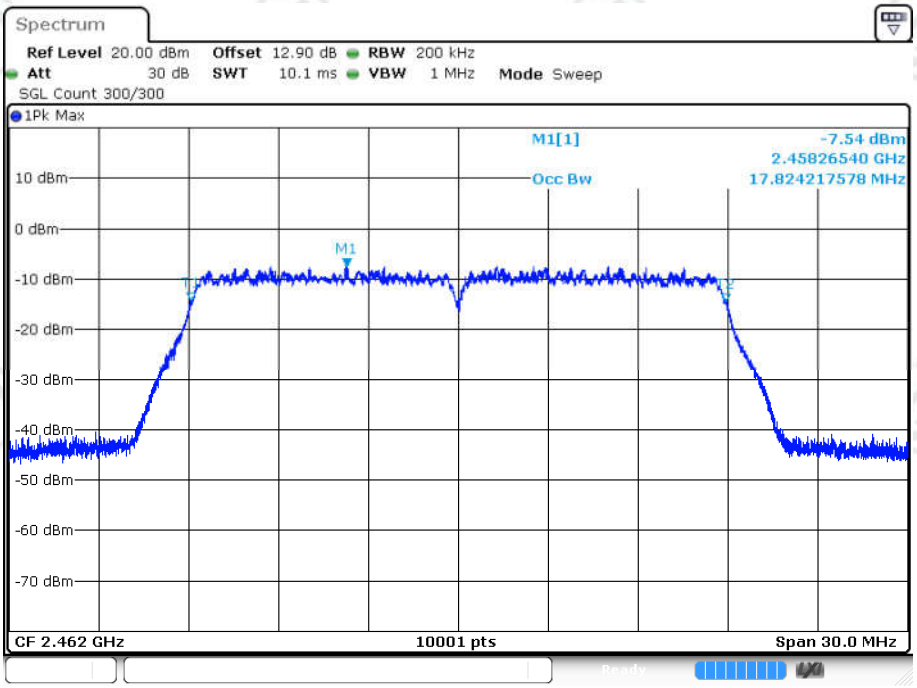
Date: 4.JAN.2024 11:39:47

OBW NVNT n20 2437MHz Ant1



Date: 4.JAN.2024 11:41:31

OBW NVNT n20 2462MHz Ant1

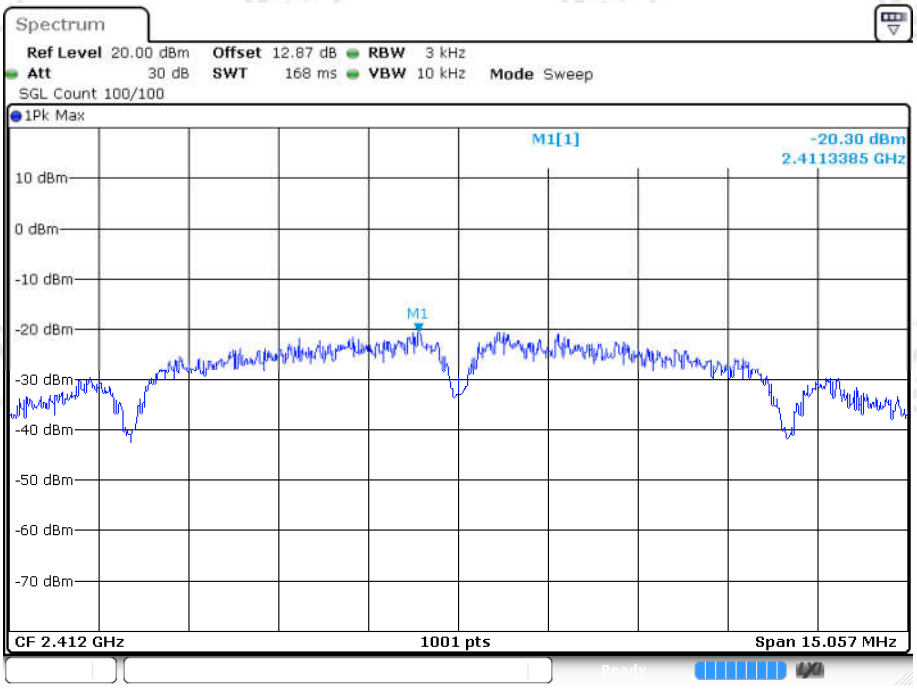


Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-20.3	8	Pass
NVNT	b	2437	Ant1	-22.36	8	Pass
NVNT	b	2462	Ant1	-21.3	8	Pass
NVNT	g	2412	Ant1	-22.93	8	Pass
NVNT	g	2437	Ant1	-23.28	8	Pass
NVNT	g	2462	Ant1	-23.23	8	Pass
NVNT	n20	2412	Ant1	-22.84	8	Pass
NVNT	n20	2437	Ant1	-22.62	8	Pass
NVNT	n20	2462	Ant1	-23.53	8	Pass

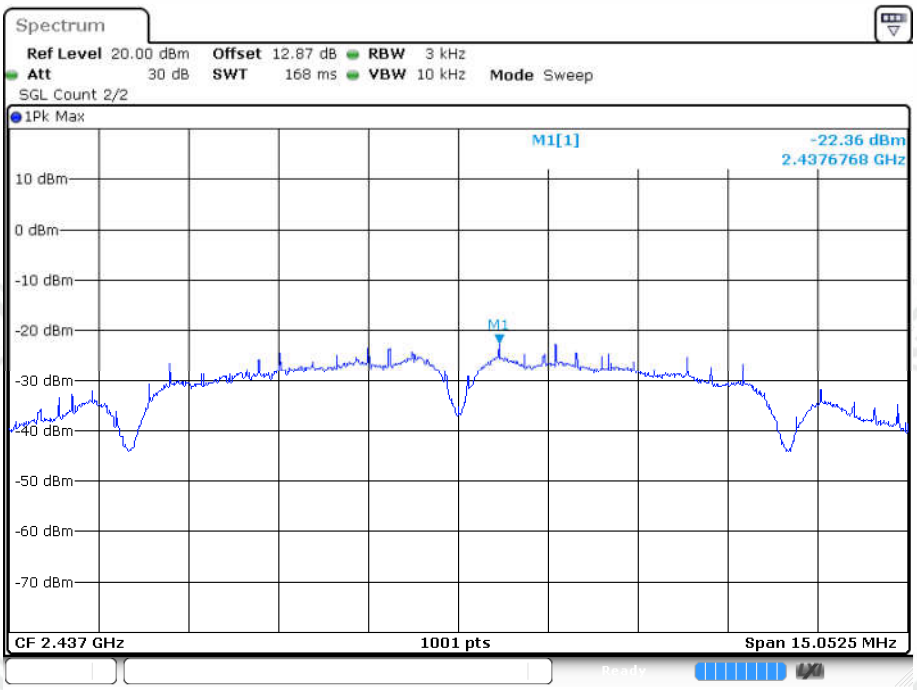
Test Graphs

PSD NVNT b 2412MHz Ant1



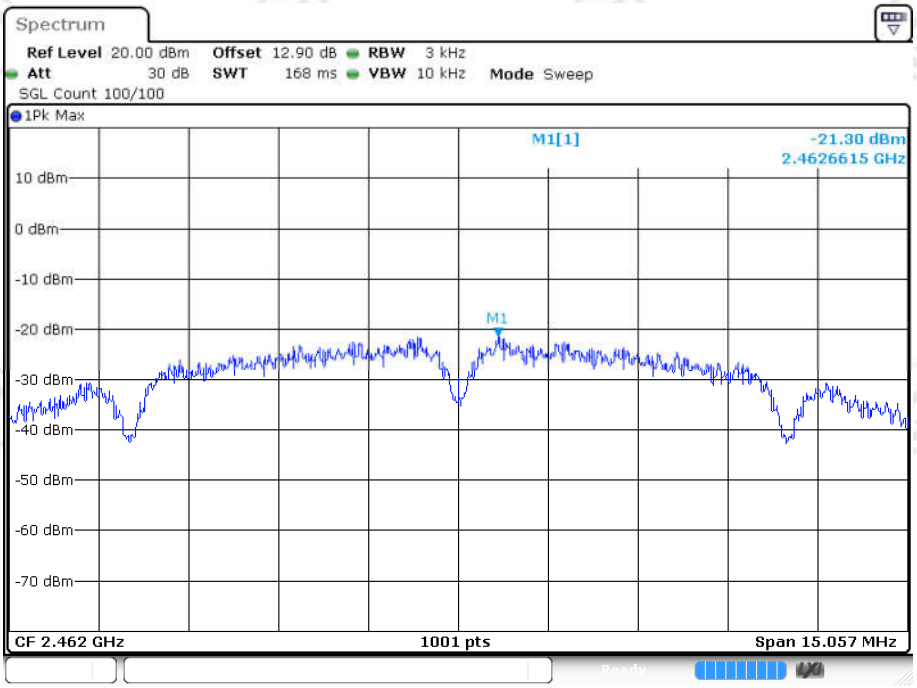
Date: 4.JAN.2024 11:29:07

PSD NVNT b 2437MHz Ant1



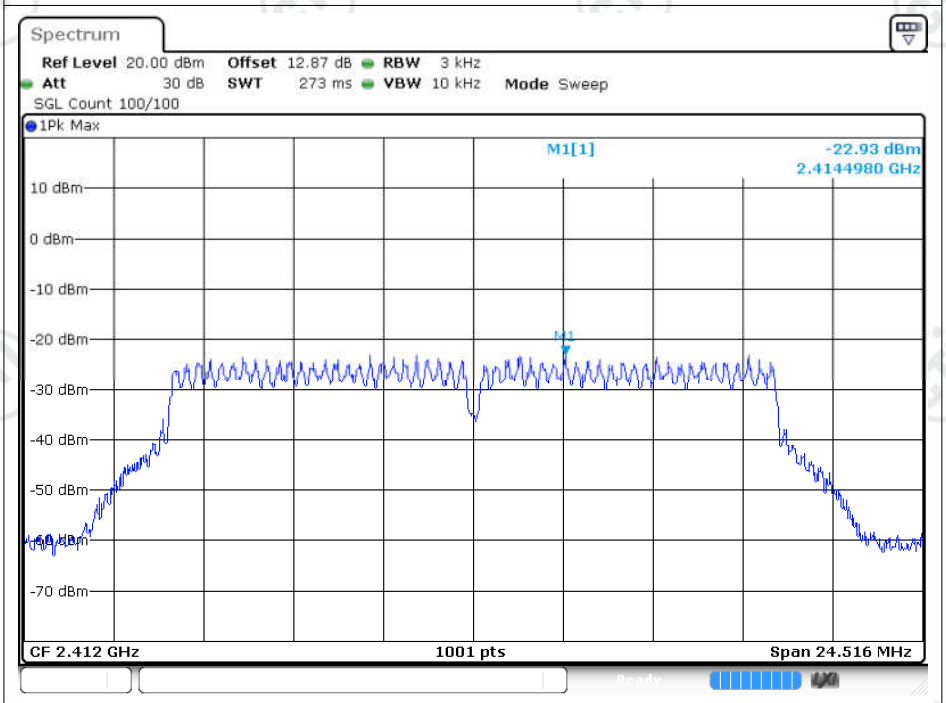
Date: 4.JAN.2024 11:30:46

PSD NVNT b 2462MHz Ant1



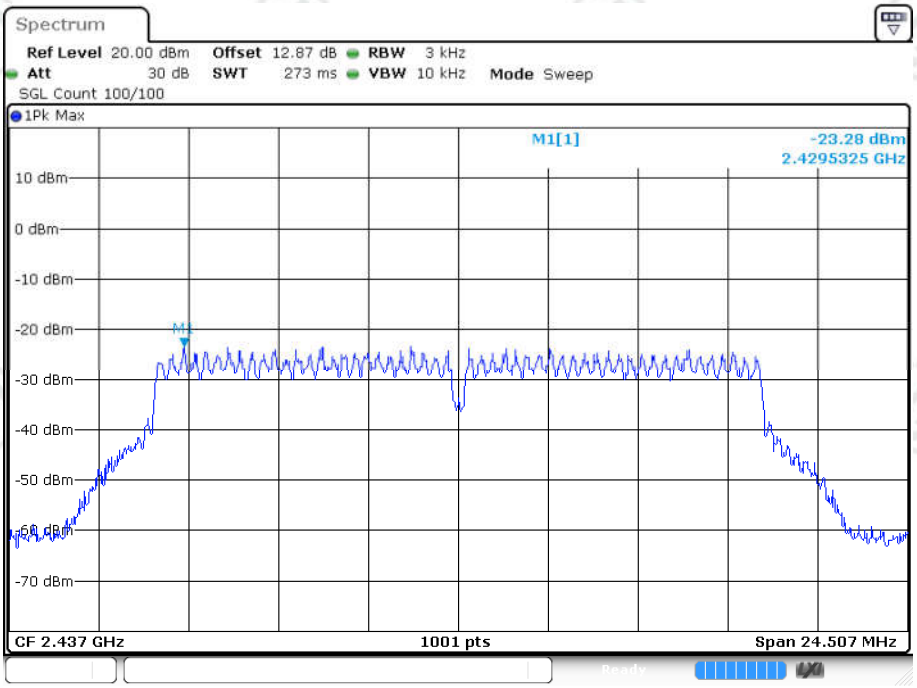
Date: 4.JAN.2024 11:32:10

PSD NVNT g 2412MHz Ant1



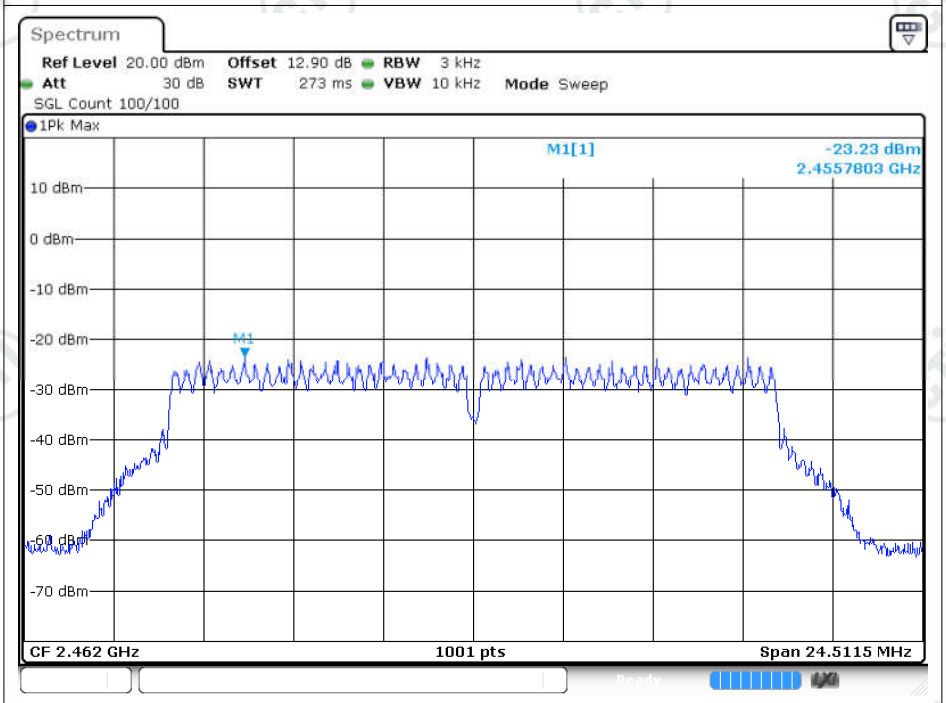
Date: 4.JAN.2024 11:35:17

PSD NVNT g 2437MHz Ant1



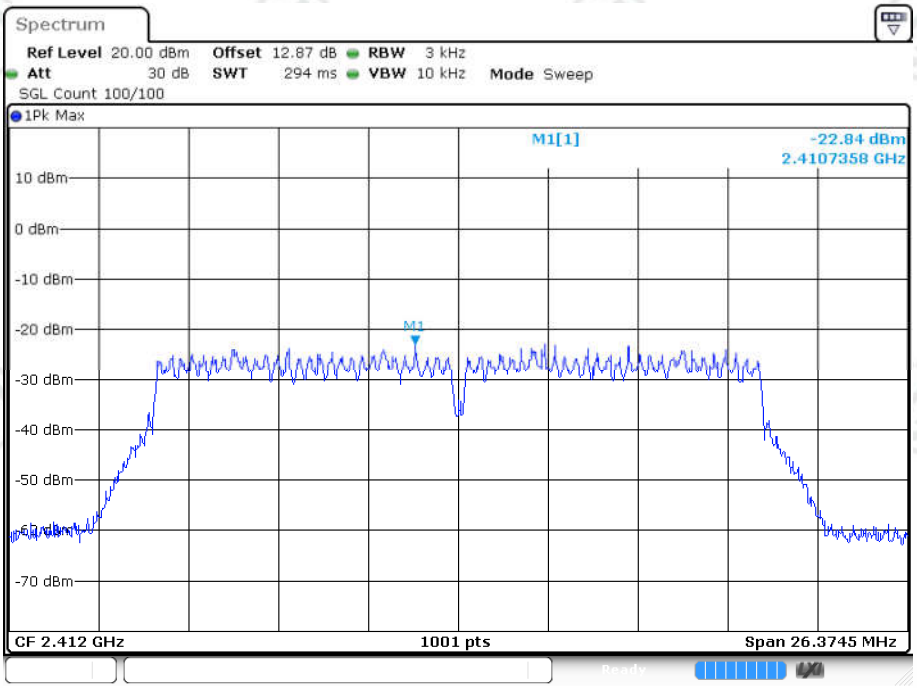
Date: 4.JAN.2024 11:37:38

PSD NVNT g 2462MHz Ant1



Date: 4.JAN.2024 11:38:58

PSD NVNT n20 2412MHz Ant1



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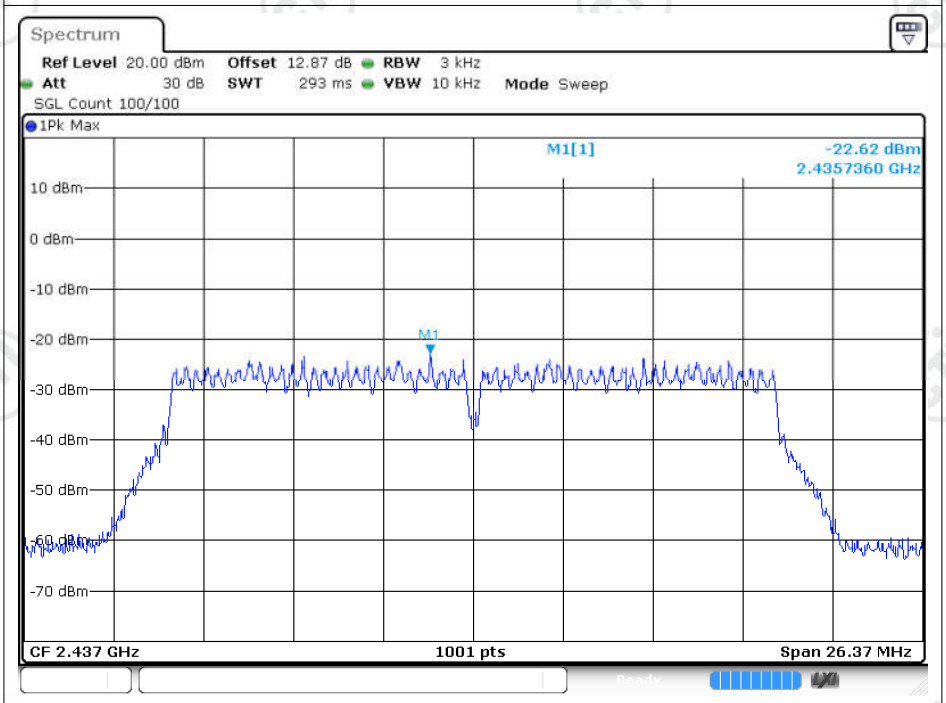
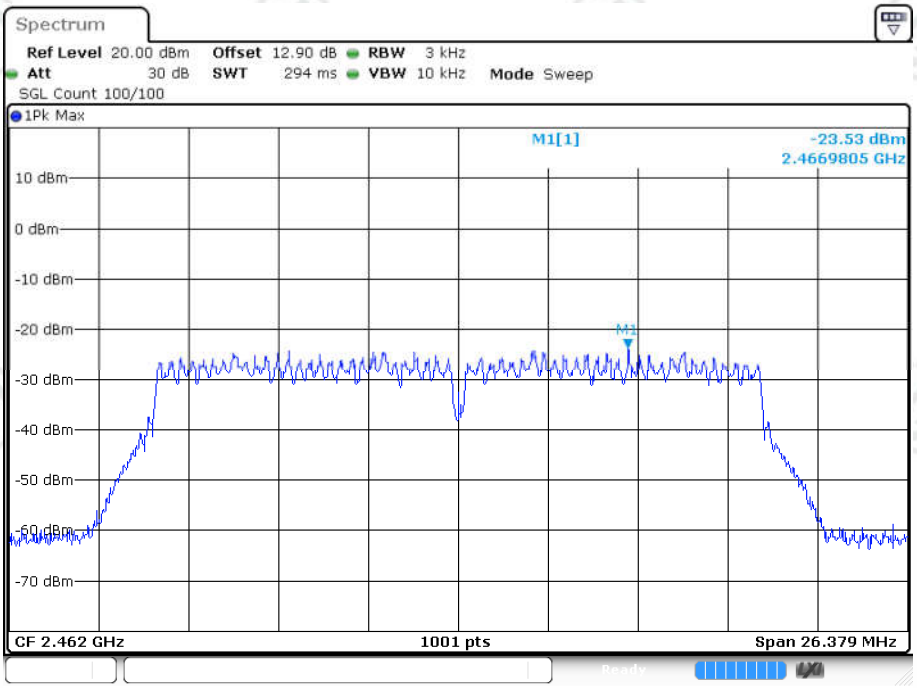
PSD NVNT n20 2437MHz Ant1



Date: 4.JAN.2024 11:42:41

PSD NVNT n20 2462MHz Ant1



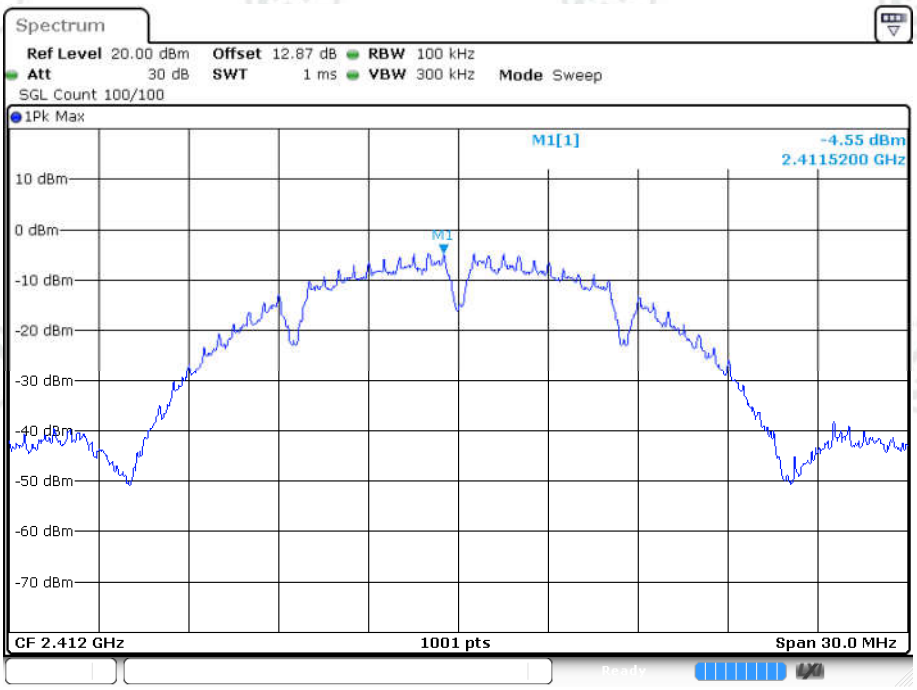
Date: 4.JAN.2024 11:44:01

Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-33.42	-20	Pass
NVNT	b	2462	Ant1	-41.51	-20	Pass
NVNT	g	2412	Ant1	-35.97	-20	Pass
NVNT	g	2462	Ant1	-38.69	-20	Pass
NVNT	n20	2412	Ant1	-36.79	-20	Pass
NVNT	n20	2462	Ant1	-36.14	-20	Pass

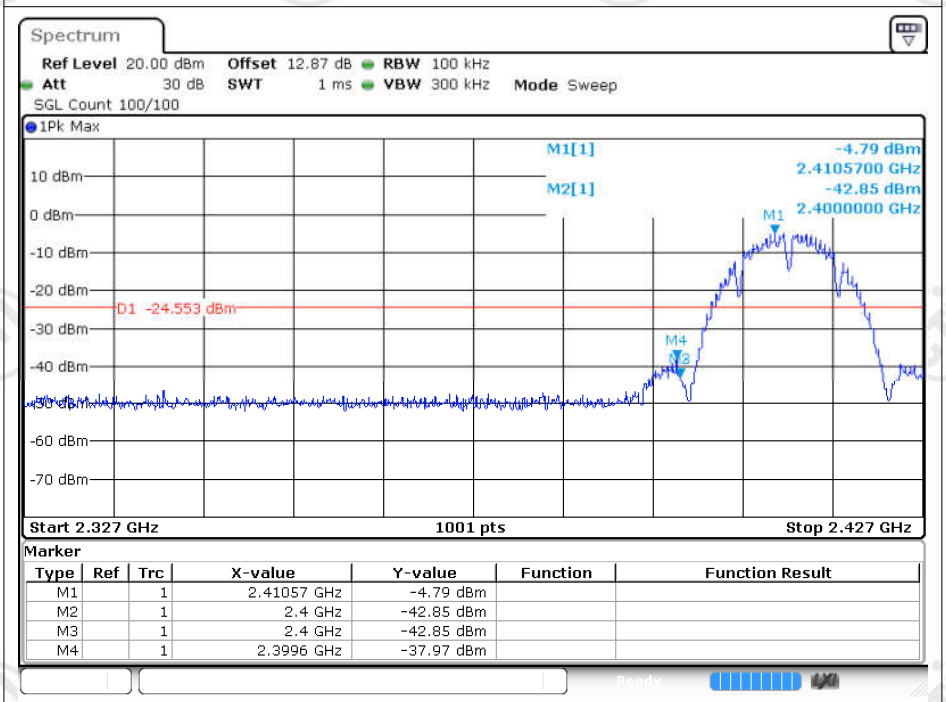
Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



Date: 4.JAN.2024 11:29:10

Band Edge NVNT b 2412MHz Ant1 Emission

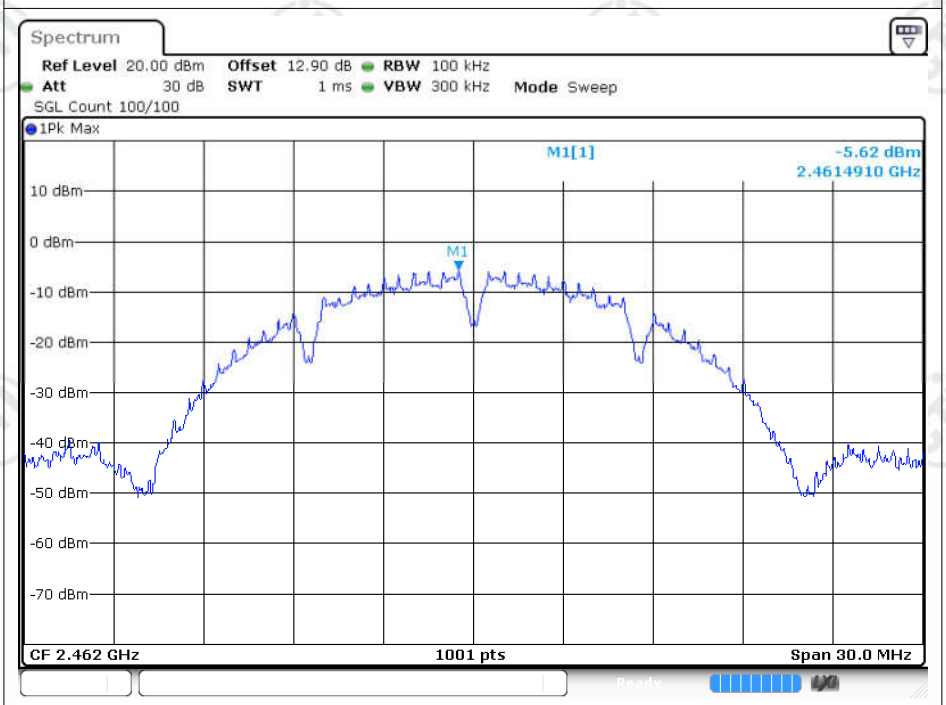


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41057 GHz	-4.79 dBm		
M2		1	2.4 GHz	-42.85 dBm		
M3		1	2.4 GHz	-42.85 dBm		
M4		1	2.3996 GHz	-37.97 dBm		

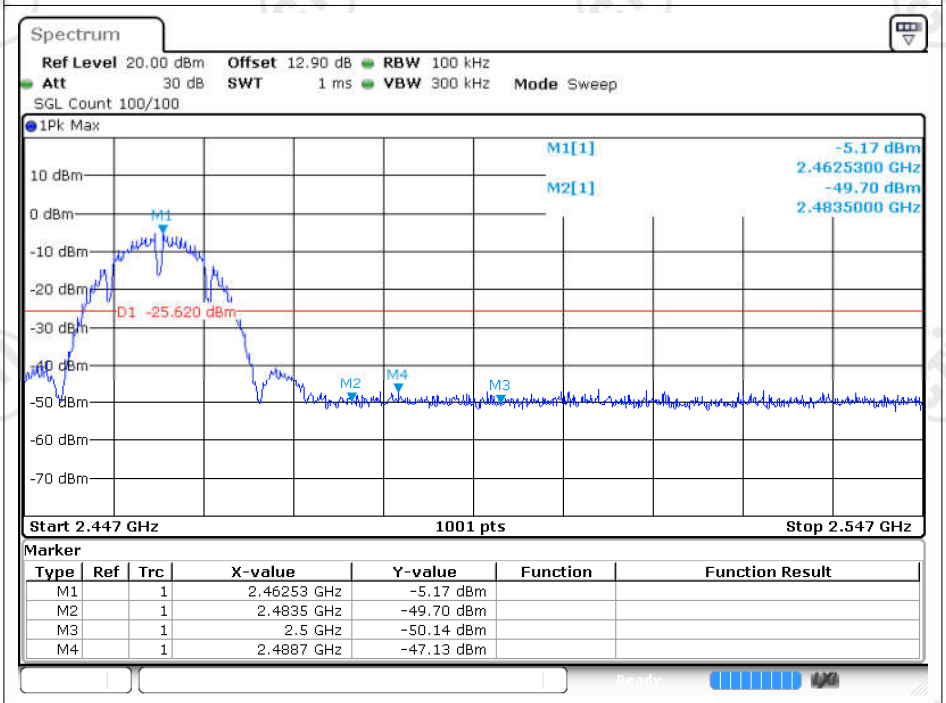
Date: 4.JAN.2024 11:29:12

Band Edge NVNT b 2462MHz Ant1 Ref



Date: 4.JAN.2024 11:32:14

Band Edge NVNT b 2462MHz Ant1 Emission

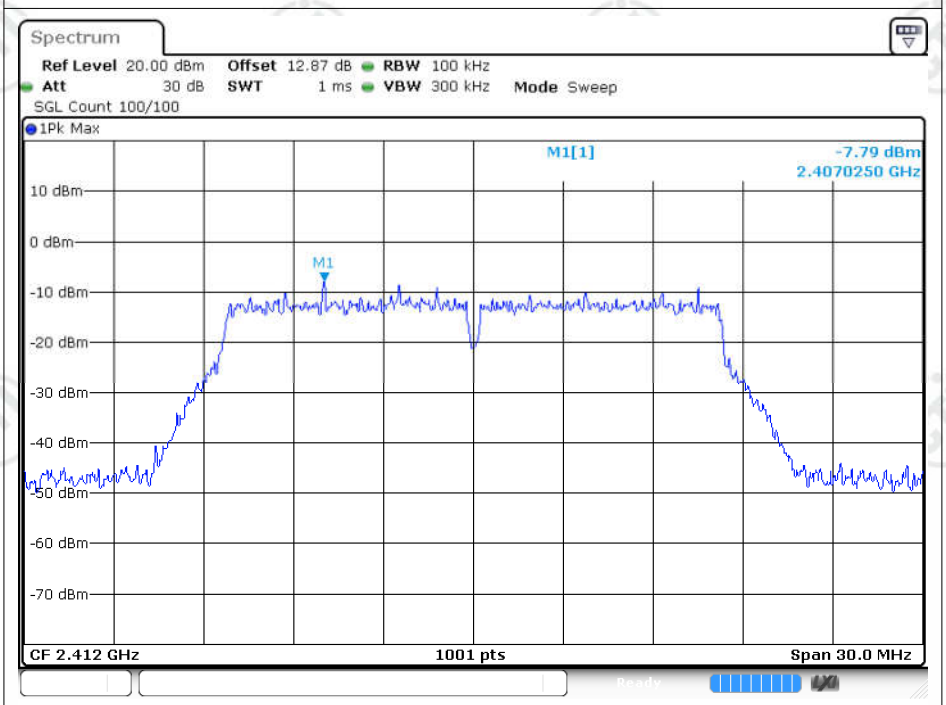


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46253 GHz	-5.17 dBm		
M2		1	2.4835 GHz	-49.70 dBm		
M3		1	2.5 GHz	-50.14 dBm		
M4		1	2.4887 GHz	-47.13 dBm		

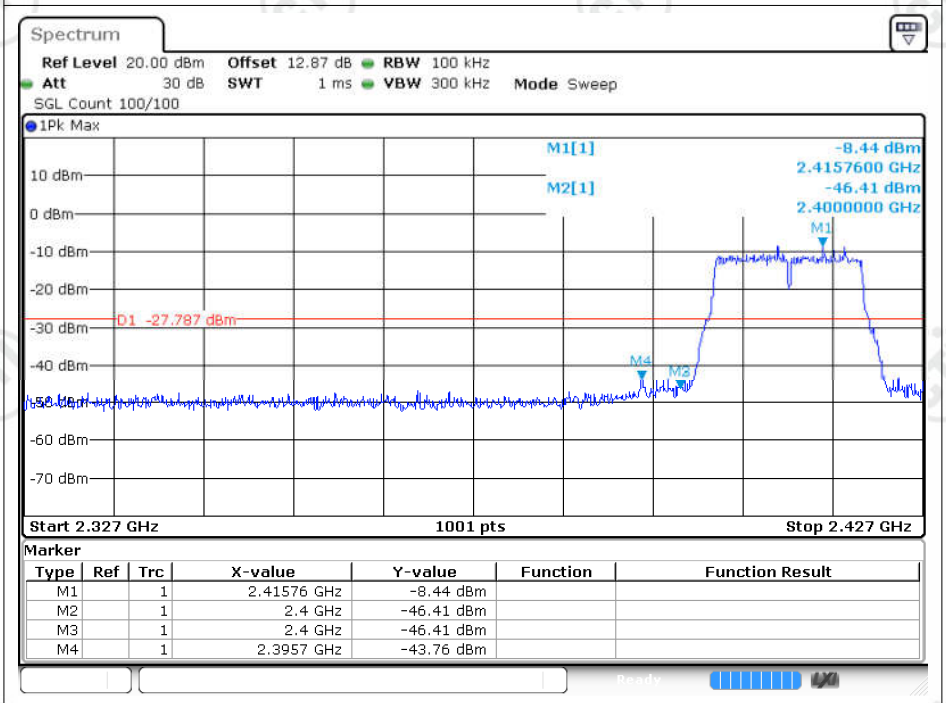
Date: 4.JAN.2024 11:32:15

Band Edge NVNT g 2412MHz Ant1 Ref



Date: 4.JAN.2024 11:35:21

Band Edge NVNT g 2412MHz Ant1 Emission

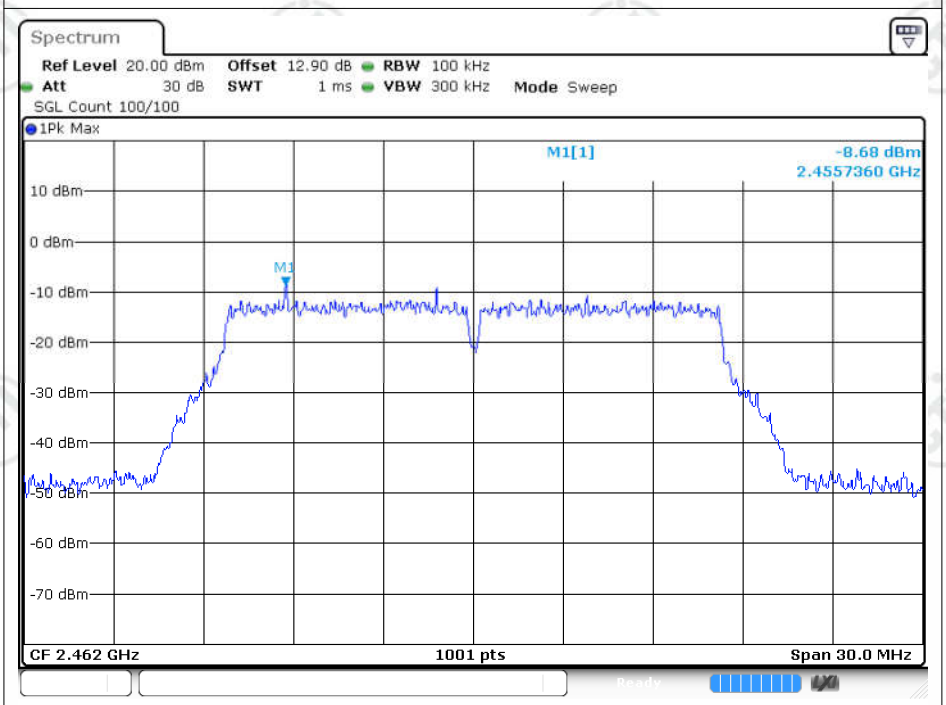


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41576 GHz	-8.44 dBm		
M2		1	2.4 GHz	-46.41 dBm		
M3		1	2.4 GHz	-46.41 dBm		
M4		1	2.3957 GHz	-43.76 dBm		

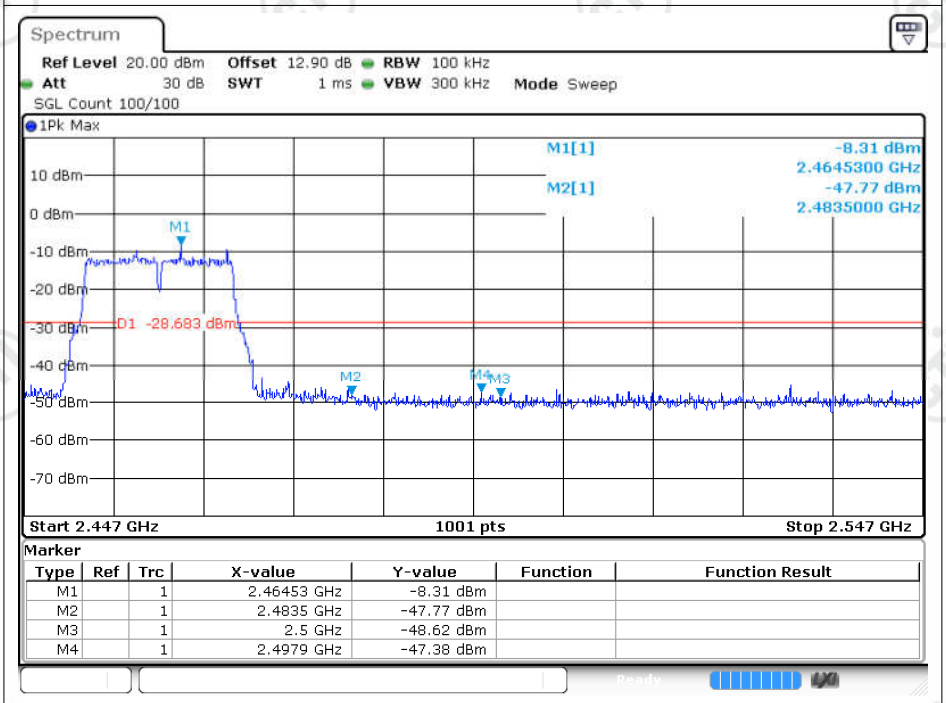
Date: 4.JAN.2024 11:35:23

Band Edge NVNT g 2462MHz Ant1 Ref



Date: 4.JAN.2024 11:39:02

Band Edge NVNT g 2462MHz Ant1 Emission

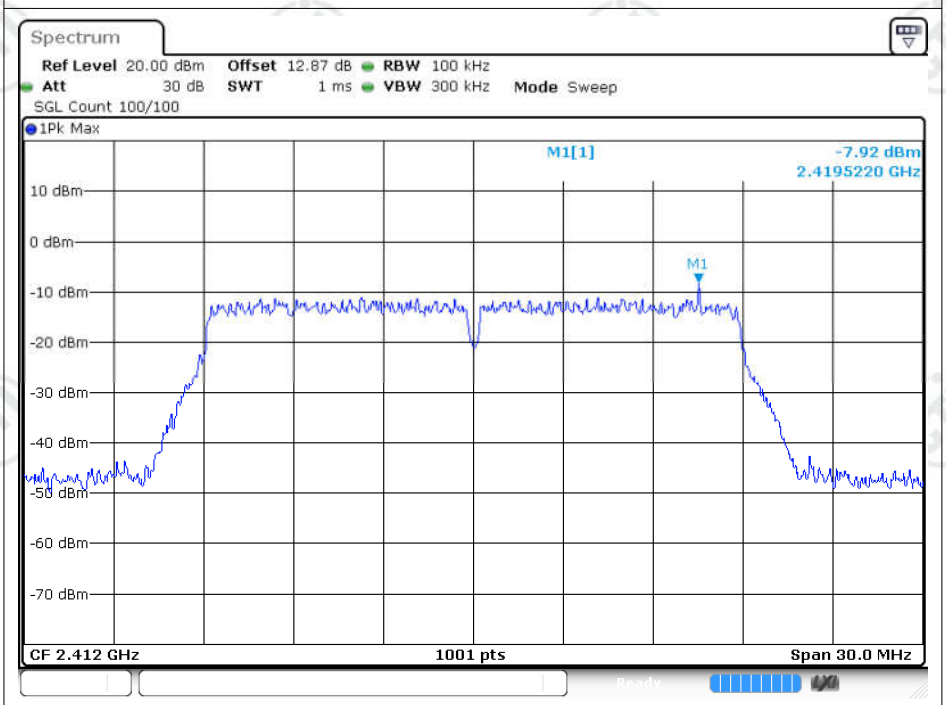


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46453 GHz	-8.31 dBm		
M2		1	2.4835 GHz	-47.77 dBm		
M3		1	2.5 GHz	-48.62 dBm		
M4		1	2.4979 GHz	-47.38 dBm		

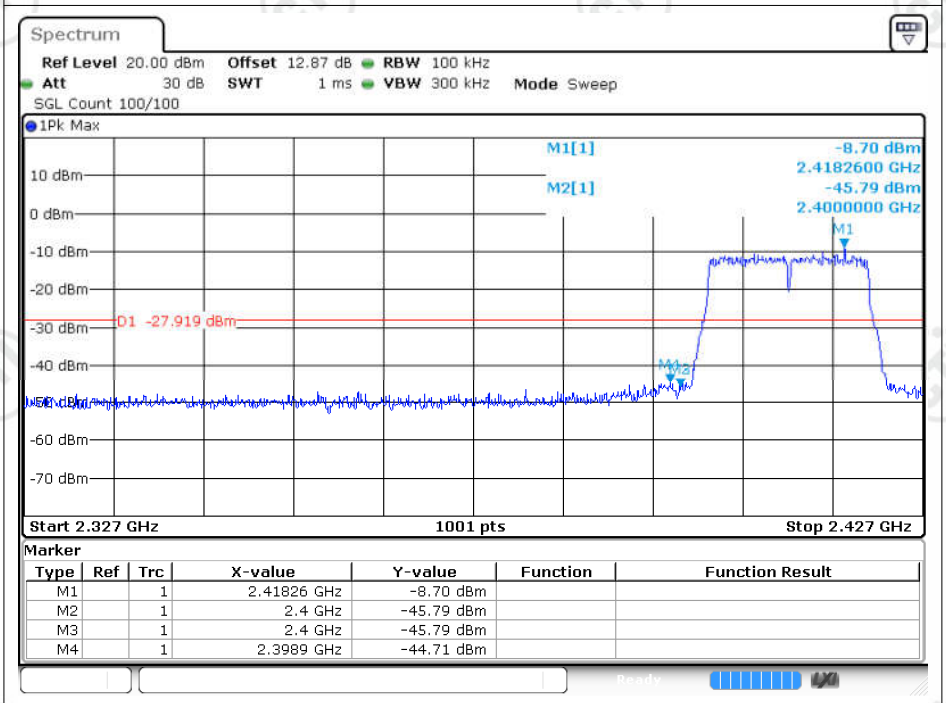
Date: 4.JAN.2024 11:39:04

Band Edge NVNT n20 2412MHz Ant1 Ref



Date: 4.JAN.2024 11:40:40

Band Edge NVNT n20 2412MHz Ant1 Emission

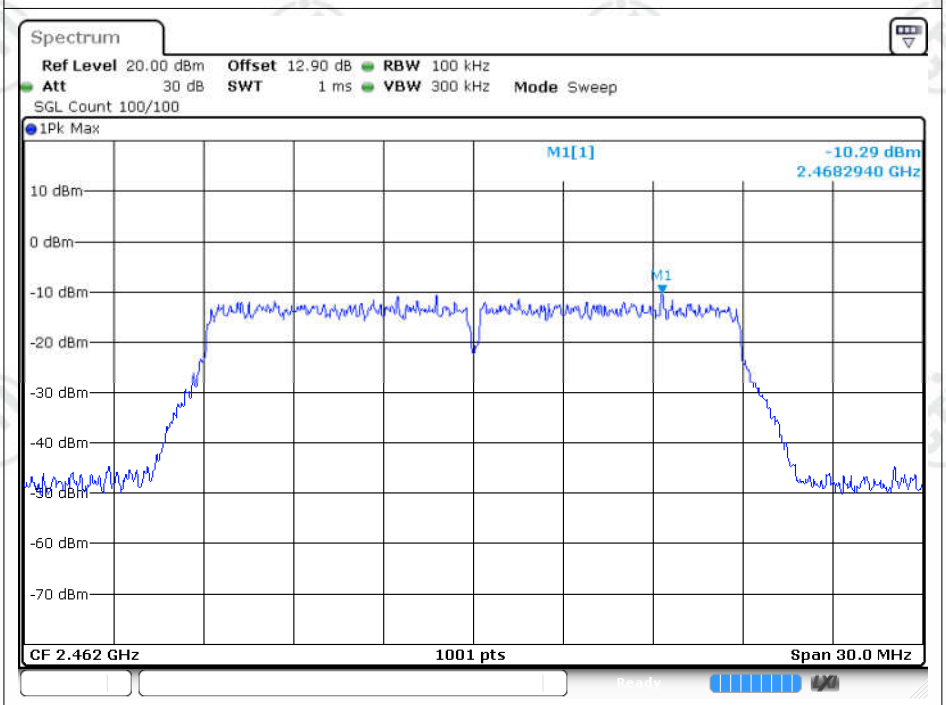


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41826 GHz	-8.70 dBm		
M2		1	2.4 GHz	-45.79 dBm		
M3		1	2.4 GHz	-45.79 dBm		
M4		1	2.3989 GHz	-44.71 dBm		

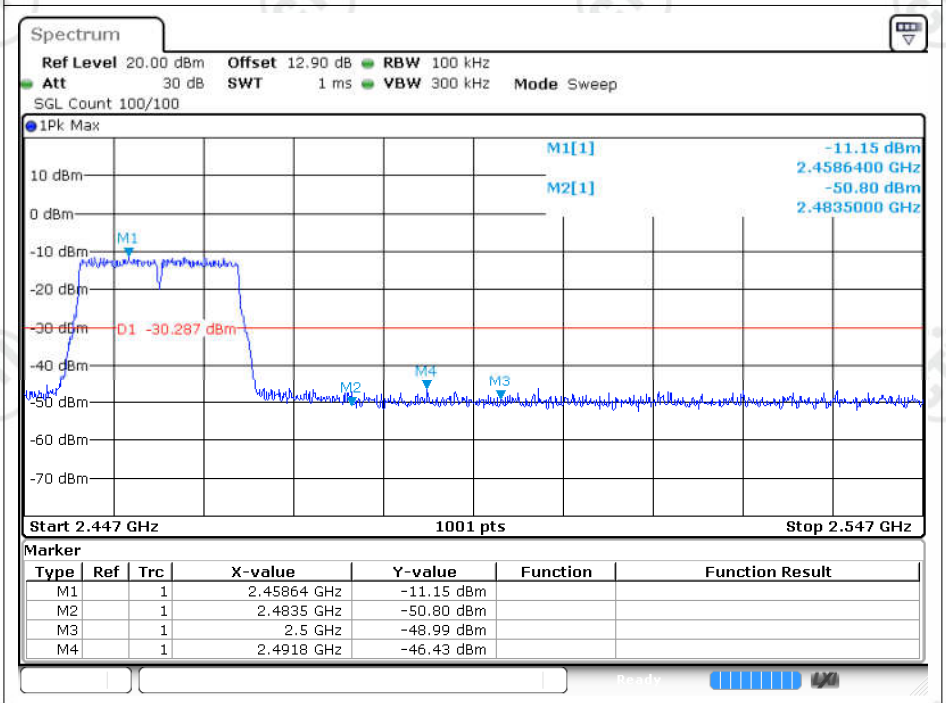
Date: 4.JAN.2024 11:40:42

Band Edge NVNT n20 2462MHz Ant1 Ref



Date: 4.JAN.2024 11:44:05

Band Edge NVNT n20 2462MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45864 GHz	-11.15 dBm		
M2		1	2.4835 GHz	-50.80 dBm		
M3		1	2.5 GHz	-48.99 dBm		
M4		1	2.4918 GHz	-46.43 dBm		

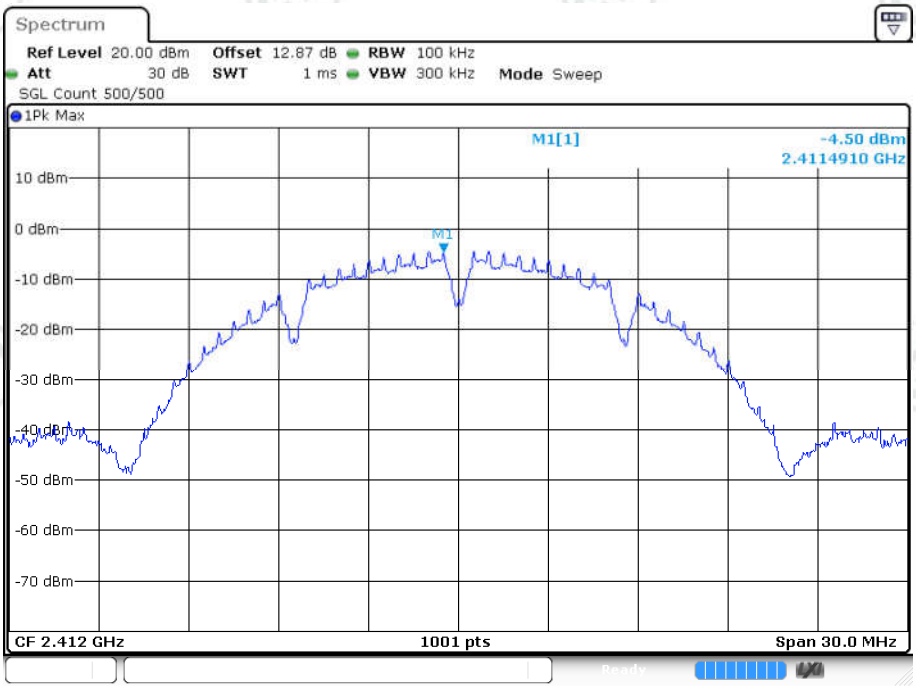
Date: 4.JAN.2024 11:44:06

Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-36.01	-20	Pass
NVNT	b	2437	Ant1	-35.34	-20	Pass
NVNT	b	2462	Ant1	-35.03	-20	Pass
NVNT	g	2412	Ant1	-32.45	-20	Pass
NVNT	g	2437	Ant1	-32.34	-20	Pass
NVNT	g	2462	Ant1	-31.96	-20	Pass
NVNT	n20	2412	Ant1	-32.84	-20	Pass
NVNT	n20	2437	Ant1	-31.7	-20	Pass
NVNT	n20	2462	Ant1	-31.36	-20	Pass

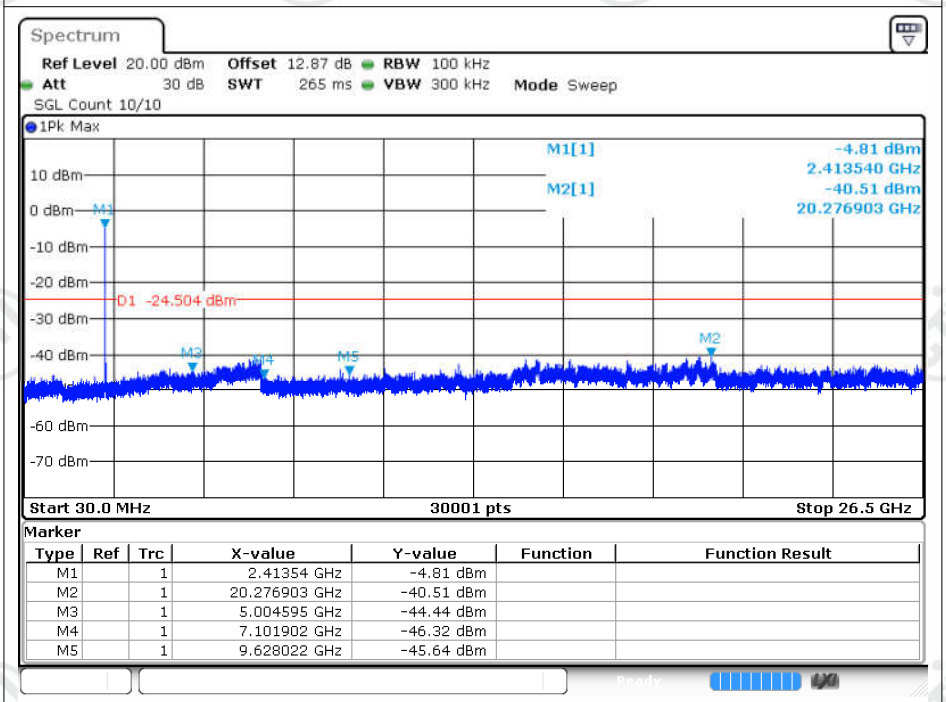
Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



Date: 4.JAN.2024 11:29:20

Tx. Spurious NVNT b 2412MHz Ant1 Emission

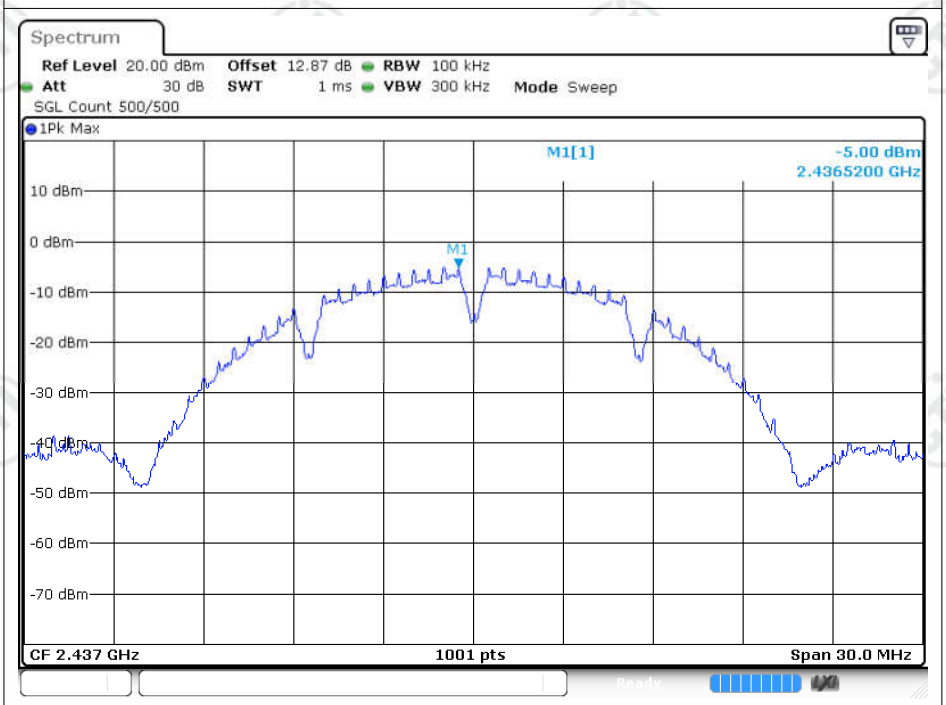


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41354 GHz	-4.81 dBm		
M2		1	20.276903 GHz	-40.51 dBm		
M3		1	5.004595 GHz	-44.44 dBm		
M4		1	7.101902 GHz	-46.32 dBm		
M5		1	9.628022 GHz	-45.64 dBm		

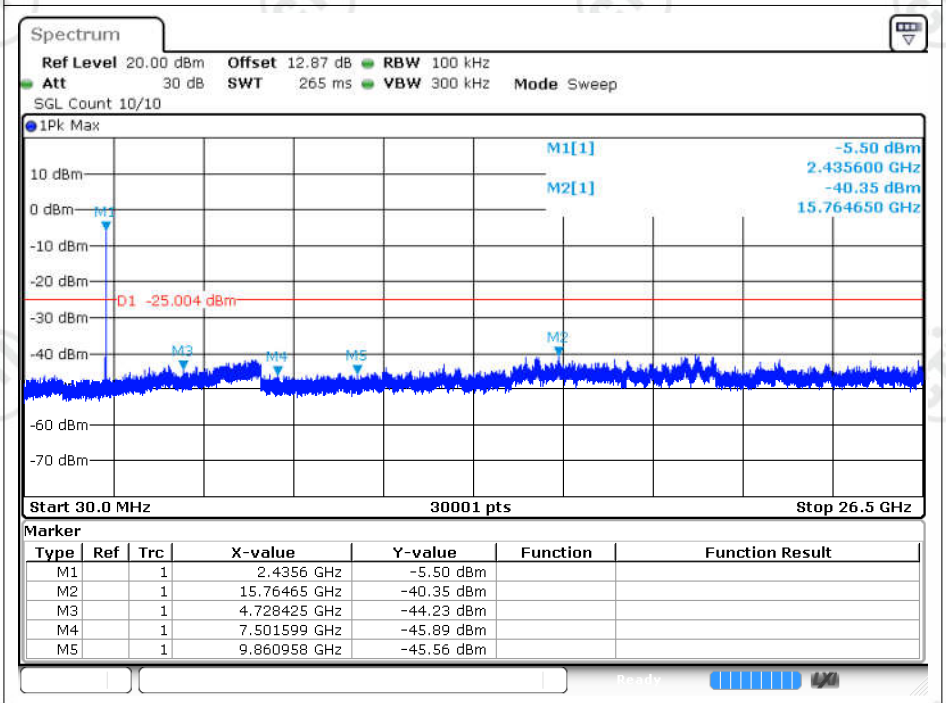
Date: 4.JAN.2024 11:29:31

Tx. Spurious NVNT b 2437MHz Ant1 Ref



Date: 4.JAN.2024 11:30:30

Tx. Spurious NVNT b 2437MHz Ant1 Emission

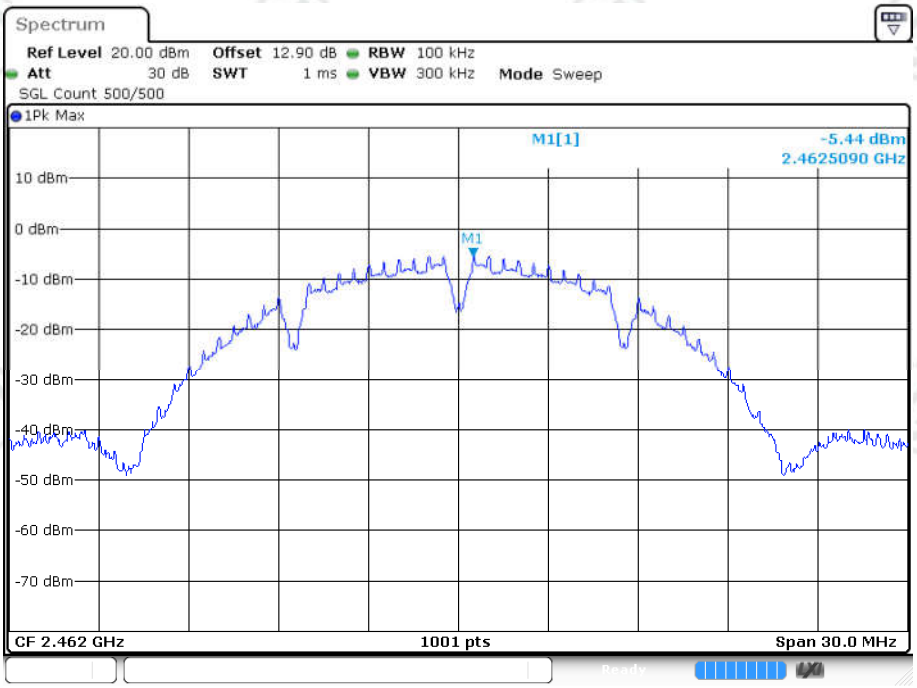


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4356 GHz	-5.50 dBm		
M2		1	15.76465 GHz	-40.35 dBm		
M3		1	4.728425 GHz	-44.23 dBm		
M4		1	7.501599 GHz	-45.89 dBm		
M5		1	9.860958 GHz	-45.56 dBm		

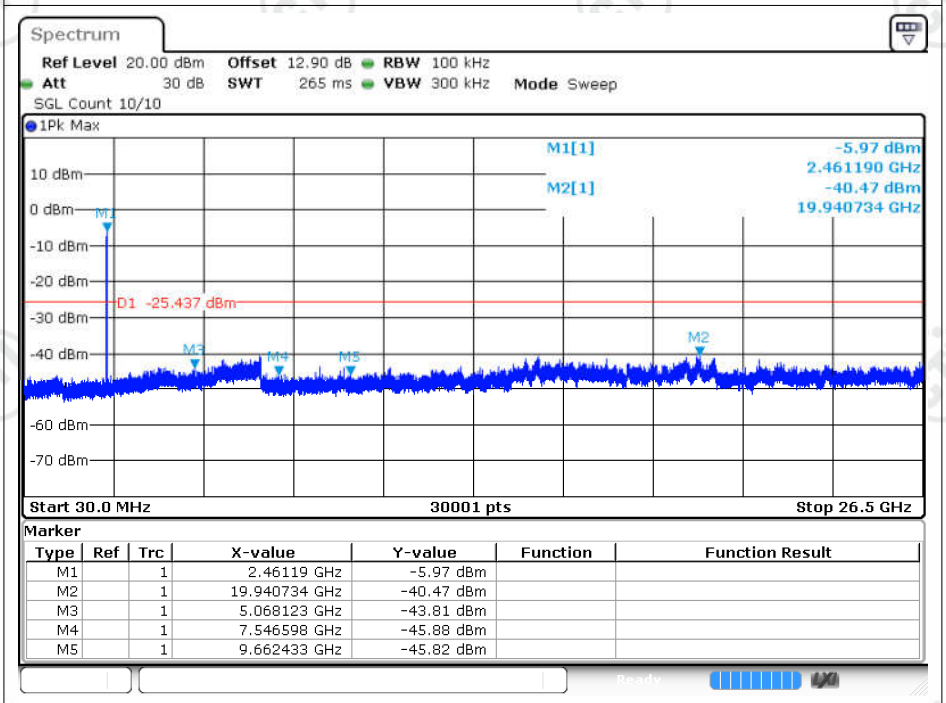
Date: 4.JAN.2024 11:30:41

Tx. Spurious NVNT b 2462MHz Ant1 Ref



Date: 4.JAN.2024 11:32:25

Tx. Spurious NVNT b 2462MHz Ant1 Emission

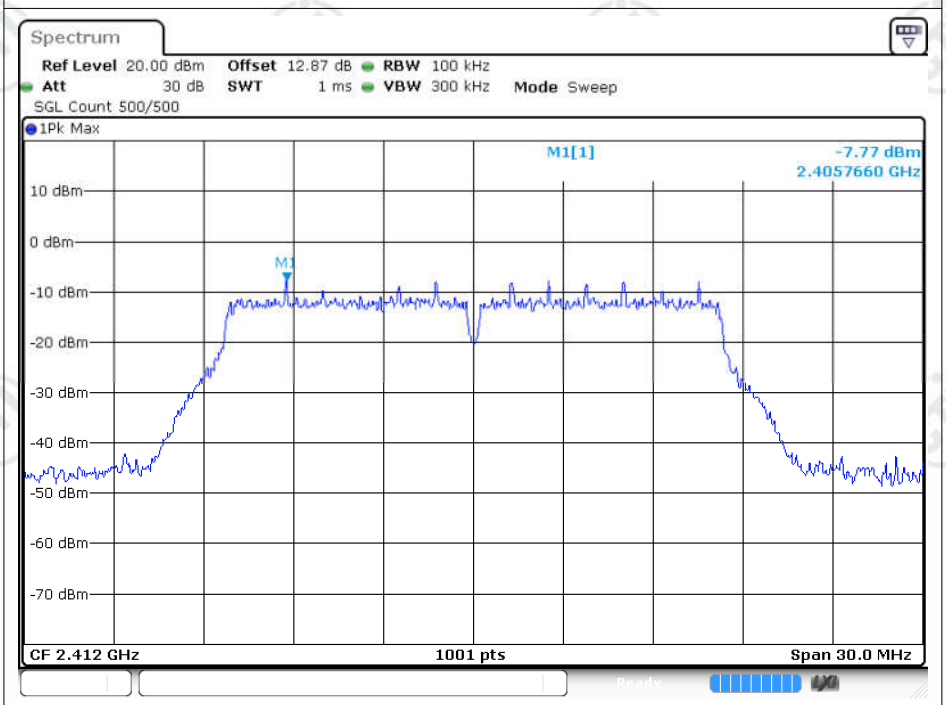


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46119 GHz	-5.97 dBm		
M2		1	19.940734 GHz	-40.47 dBm		
M3		1	5.068123 GHz	-43.81 dBm		
M4		1	7.546598 GHz	-45.88 dBm		
M5		1	9.662433 GHz	-45.82 dBm		

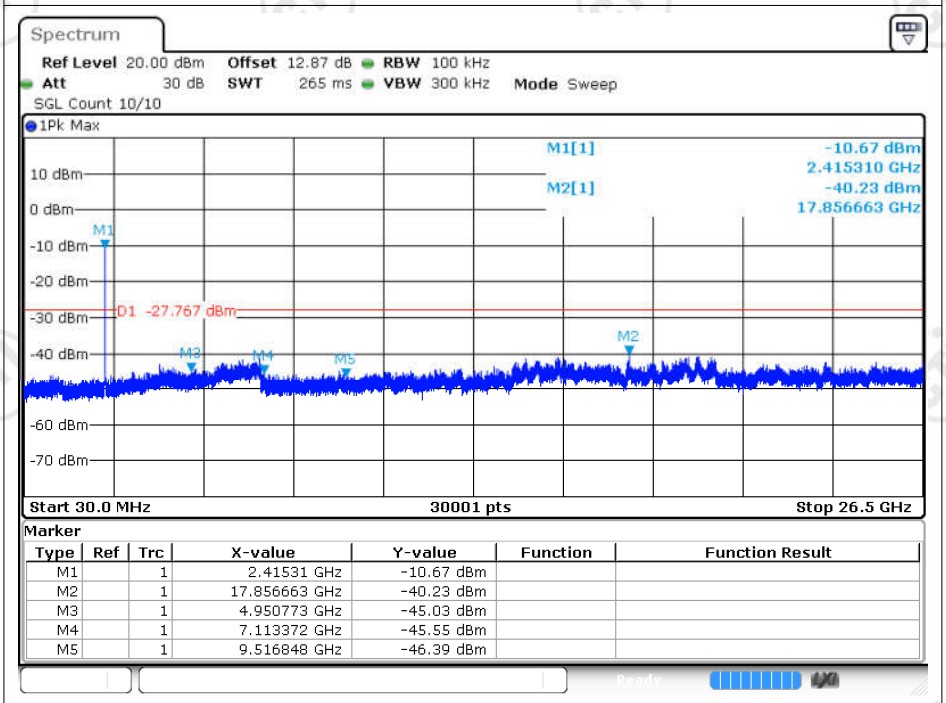
Date: 4.JAN.2024 11:32:37

Tx. Spurious NVNT g 2412MHz Ant1 Ref



Date: 4.JAN.2024 11:35:31

Tx. Spurious NVNT g 2412MHz Ant1 Emission

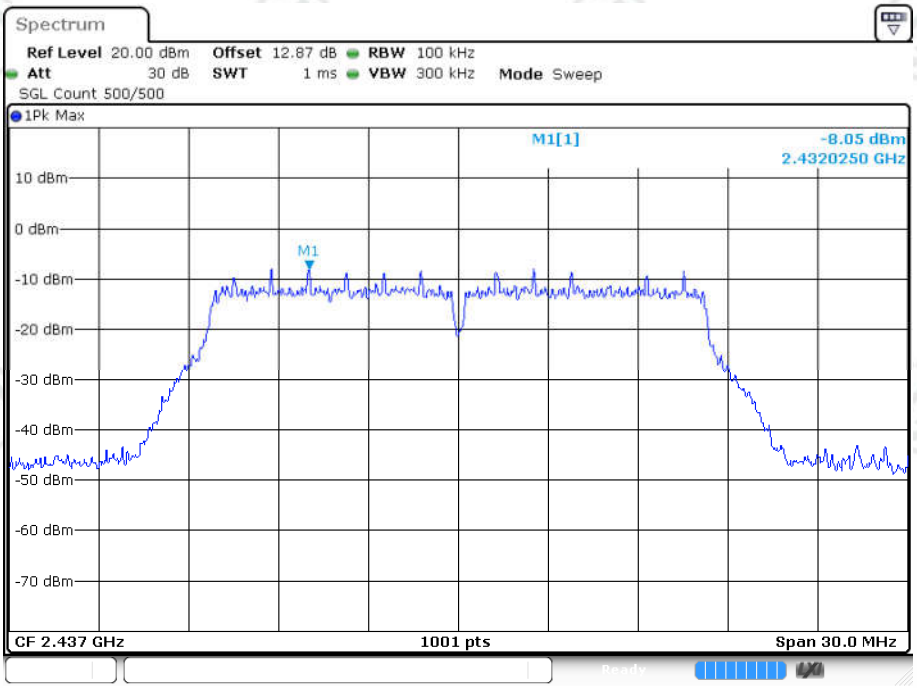


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41531 GHz	-10.67 dBm		
M2		1	17.856663 GHz	-40.23 dBm		
M3		1	4.950773 GHz	-45.03 dBm		
M4		1	7.113372 GHz	-45.55 dBm		
M5		1	9.516848 GHz	-46.39 dBm		

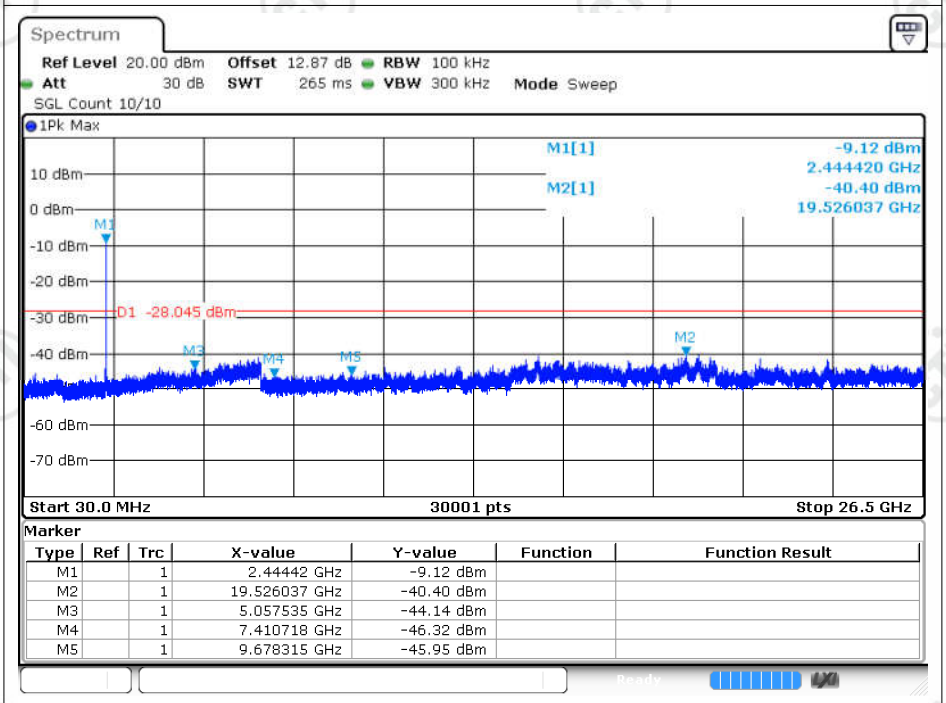
Date: 4.JAN.2024 11:35:42

Tx. Spurious NVNT g 2437MHz Ant1 Ref



Date: 4.JAN.2024 11:36:50

Tx. Spurious NVNT g 2437MHz Ant1 Emission

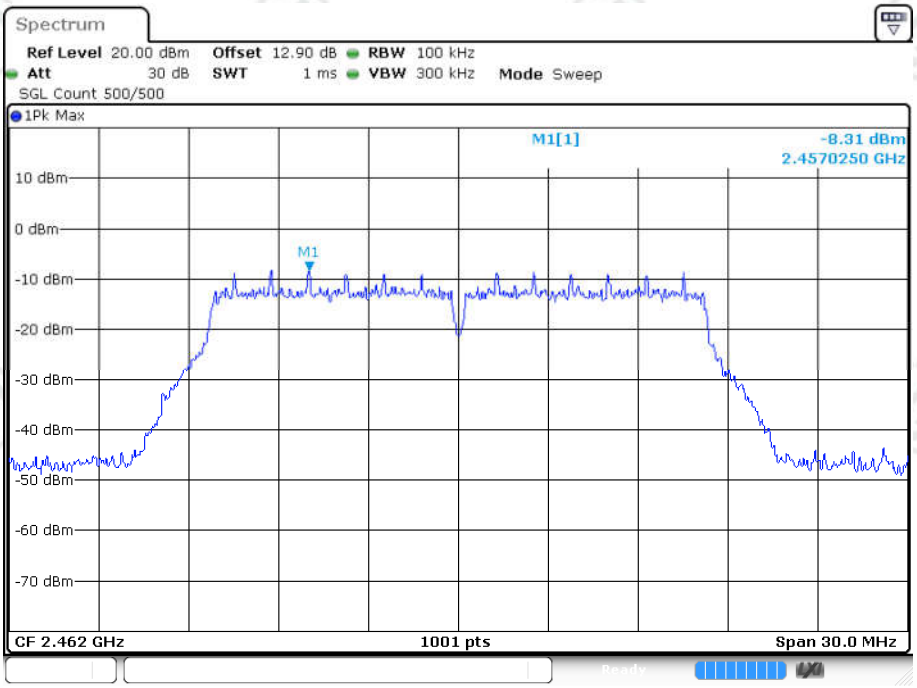


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.44442 GHz	-9.12 dBm		
M2		1	19.526037 GHz	-40.40 dBm		
M3		1	5.057535 GHz	-44.14 dBm		
M4		1	7.410718 GHz	-46.32 dBm		
M5		1	9.678315 GHz	-45.95 dBm		

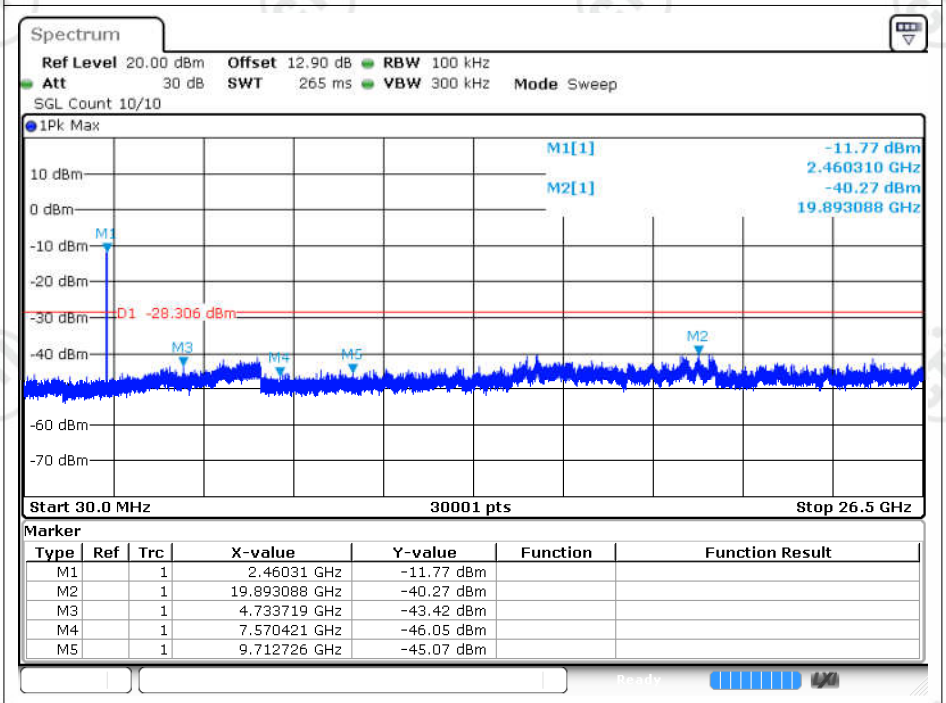
Date: 4.JAN.2024 11:37:01

Tx. Spurious NVNT g 2462MHz Ant1 Ref



Date: 4.JAN.2024 11:39:14

Tx. Spurious NVNT g 2462MHz Ant1 Emission

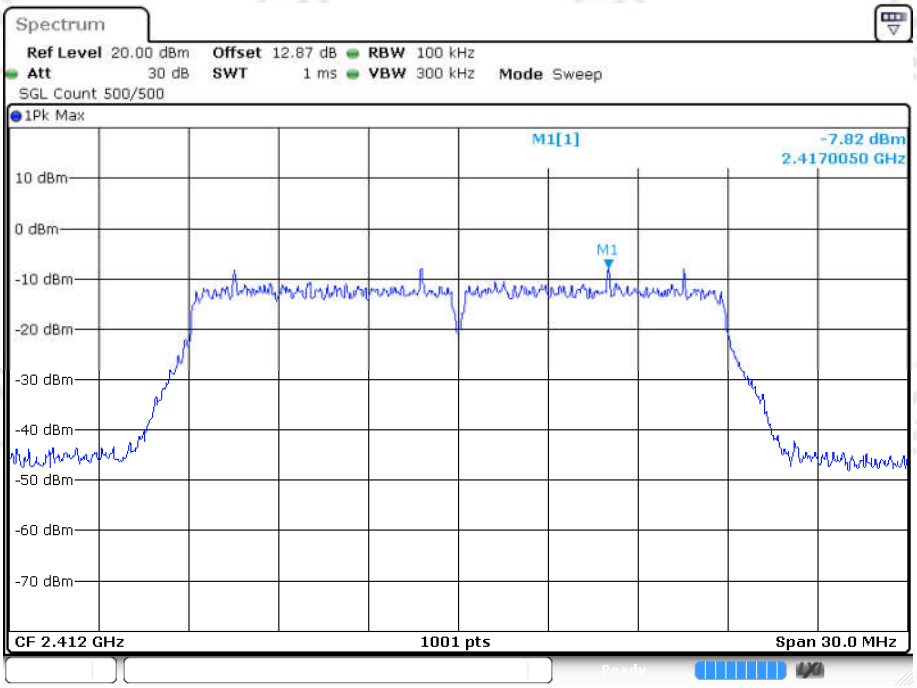


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46031 GHz	-11.77 dBm		
M2		1	19.893088 GHz	-40.27 dBm		
M3		1	4.733719 GHz	-43.42 dBm		
M4		1	7.570421 GHz	-46.05 dBm		
M5		1	9.712726 GHz	-45.07 dBm		

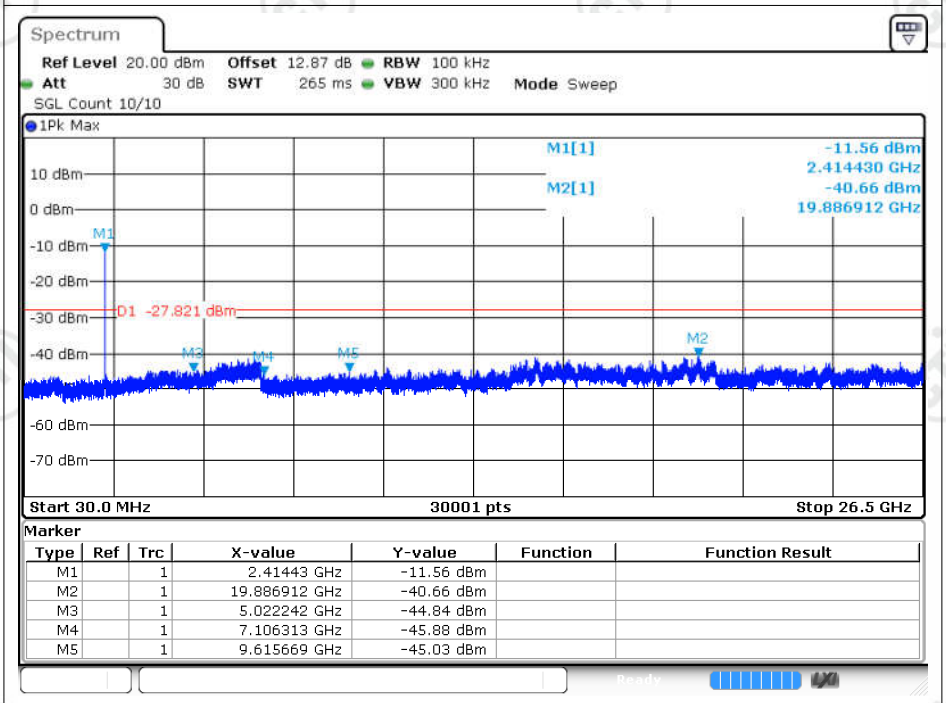
Date: 4.JAN.2024 11:39:25

Tx. Spurious NVNT n20 2412MHz Ant1 Ref



Date: 4.JAN.2024 11:40:50

Tx. Spurious NVNT n20 2412MHz Ant1 Emission

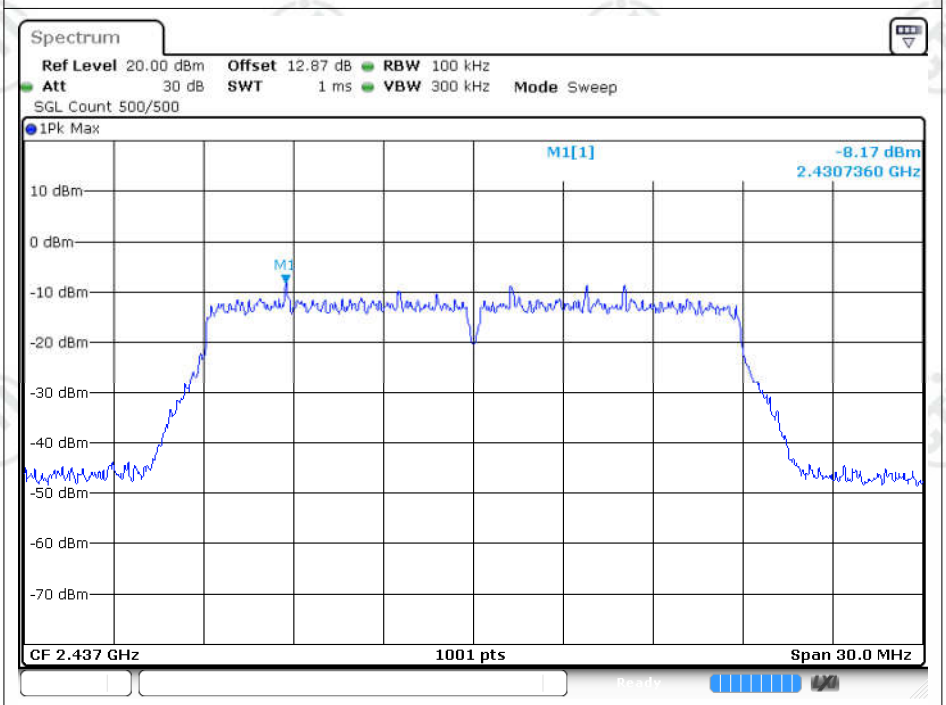


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41443 GHz	-11.56 dBm		
M2		1	19.886912 GHz	-40.66 dBm		
M3		1	5.022242 GHz	-44.84 dBm		
M4		1	7.106313 GHz	-45.88 dBm		
M5		1	9.615669 GHz	-45.03 dBm		

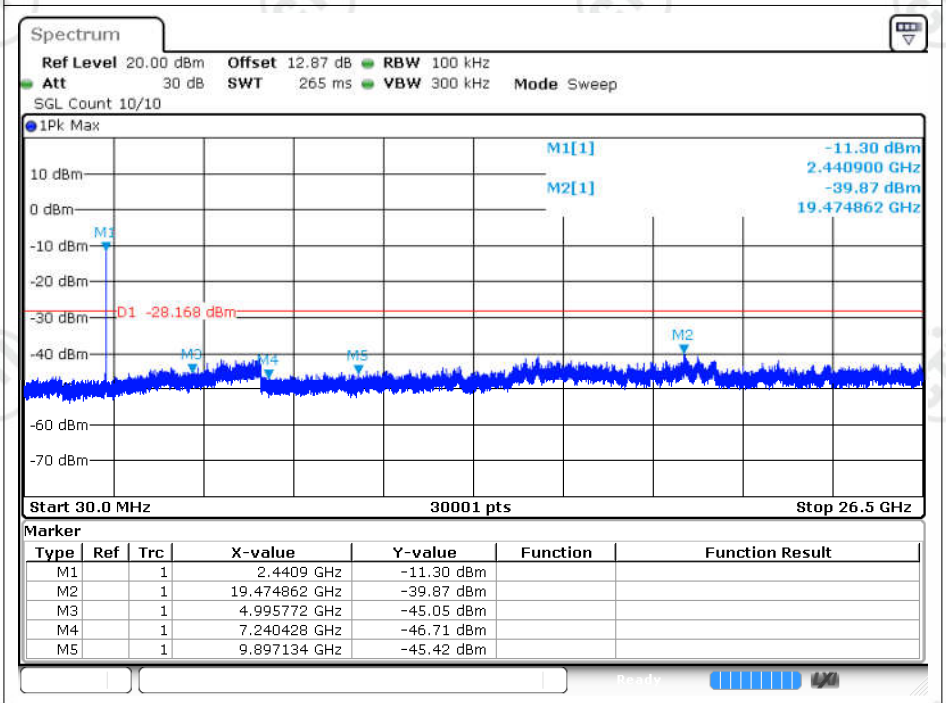
Date: 4.JAN.2024 11:41:01

Tx. Spurious NVNT n20 2437MHz Ant1 Ref



Date: 4.JAN.2024 11:41:50

Tx. Spurious NVNT n20 2437MHz Ant1 Emission

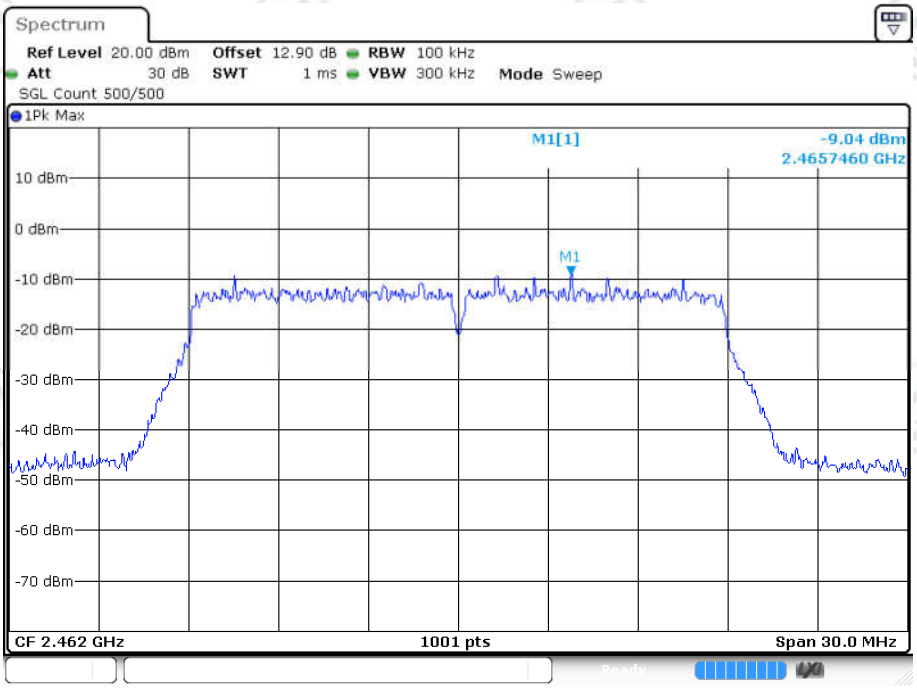


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4409 GHz	-11.30 dBm		
M2		1	19.474862 GHz	-39.87 dBm		
M3		1	4.995772 GHz	-45.05 dBm		
M4		1	7.240428 GHz	-46.71 dBm		
M5		1	9.897134 GHz	-45.42 dBm		

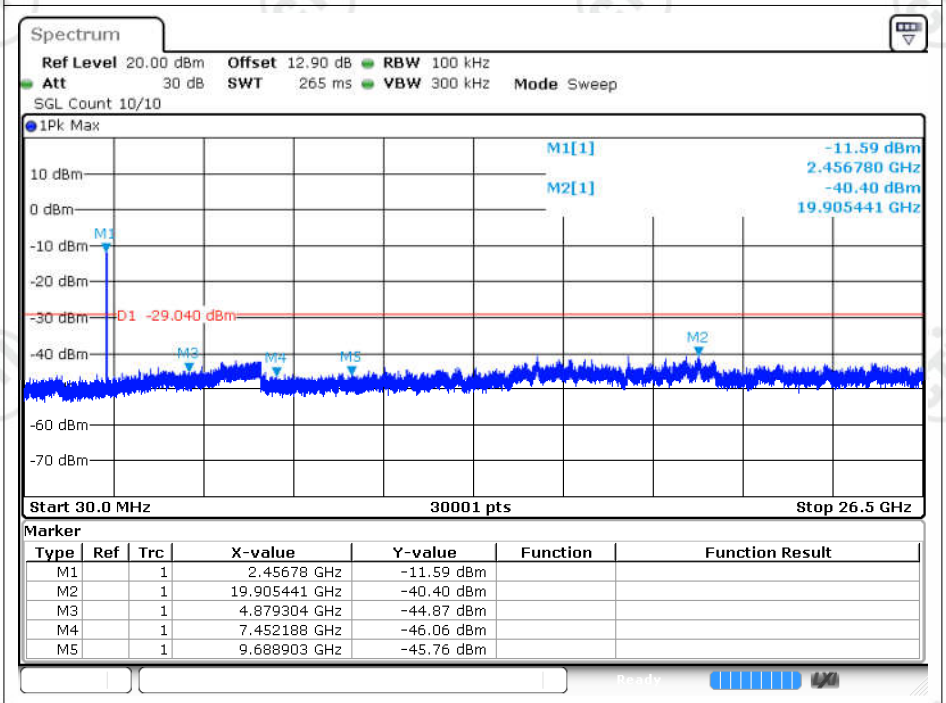
Date: 4.JAN.2024 11:42:02

Tx. Spurious NVNT n20 2462MHz Ant1 Ref



Date: 4.JAN.2024 11:44:17

Tx. Spurious NVNT n20 2462MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45678 GHz	-11.59 dBm		
M2		1	19.905441 GHz	-40.40 dBm		
M3		1	4.879304 GHz	-44.87 dBm		
M4		1	7.452188 GHz	-46.06 dBm		
M5		1	9.688903 GHz	-45.76 dBm		

Date: 4.JAN.2024 11:44:28

*** End of Report ***