Appendix:2.4G WIFI

Contents

Contents..... 2
1. Duty Cycle..... 3
Test data：..... 3
Test graphs：..... 4
2. Maximum Peak Conducted Output Power..... 14
Test data：..... 14
Test graphs：..... 15
3. -6dB Bandwidth..... 25
Test data：..... 25
Test graphs：..... 26
4. Occupied Channel Bandwidth..... 36
Test data：..... 36
Test graphs：..... 37
5. Maximum Power Spectral Density Level..... 47
Test data：..... 47
Test graphs：..... 48
7. Band Edge..... 58
Test data：..... 58
Test graphs：..... 59
8. Conducted RF Spurious Emission..... 75
Test data：..... 75
Test graphs：..... 76

1.Duty Cycle

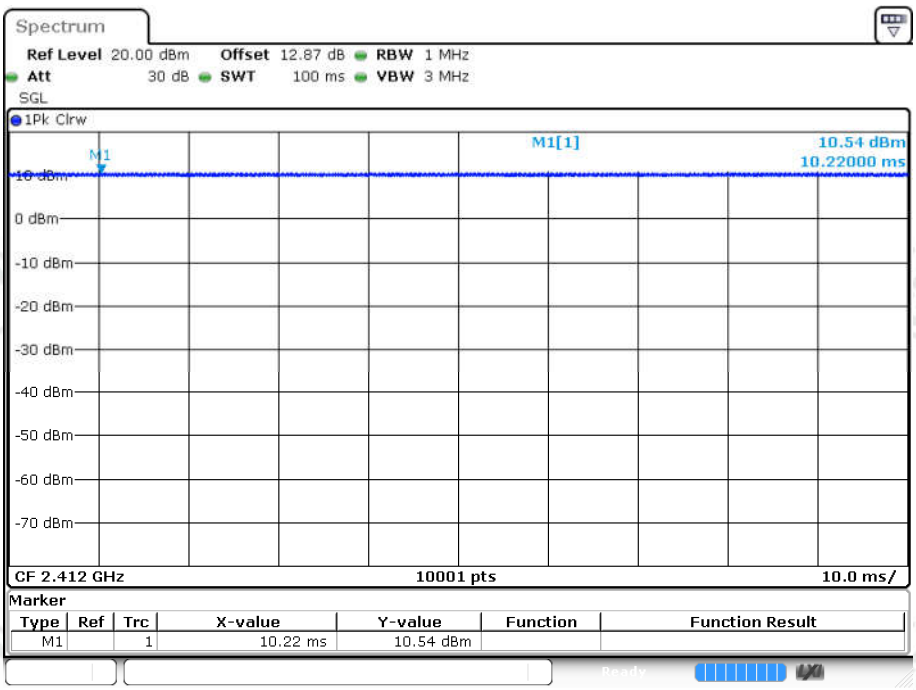
Test data：

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	100	0	0
NVNT	b	2437	Ant1	100	0	0
NVNT	b	2462	Ant1	100	0	0
NVNT	b	2467	Ant1	100	0	0
NVNT	b	2472	Ant1	100	0	0
NVNT	g	2412	Ant1	100	0	0
NVNT	g	2437	Ant1	100	0	0
NVNT	g	2462	Ant1	100	0	0
NVNT	g	2467	Ant1	100	0	0
NVNT	g	2472	Ant1	100	0	0
NVNT	n20	2412	Ant1	100	0	0
NVNT	n20	2437	Ant1	100	0	0
NVNT	n20	2462	Ant1	100	0	0
NVNT	n20	2467	Ant1	100	0	0
NVNT	n20	2472	Ant1	100	0	0
NVNT	n40	2422	Ant1	100	0	0
NVNT	n40	2437	Ant1	100	0	0
NVNT	n40	2452	Ant1	100	0	0
NVNT	n40	2457	Ant1	100	0	0
NVNT	n40	2462	Ant1	100	0	0

Test graphs：

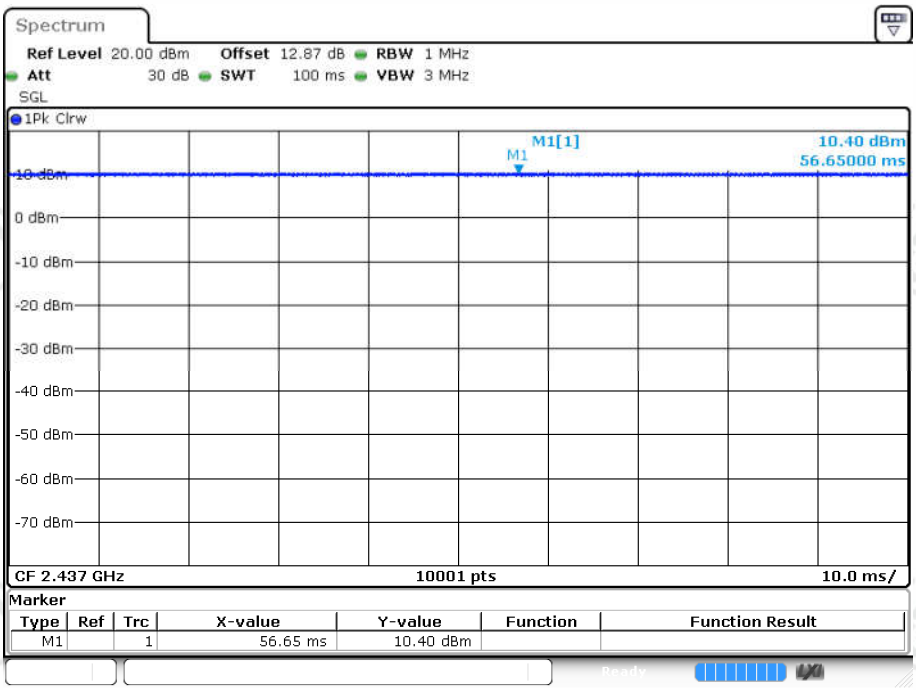
Test Graphs

Duty Cycle NVNT b 2412MHz Ant1



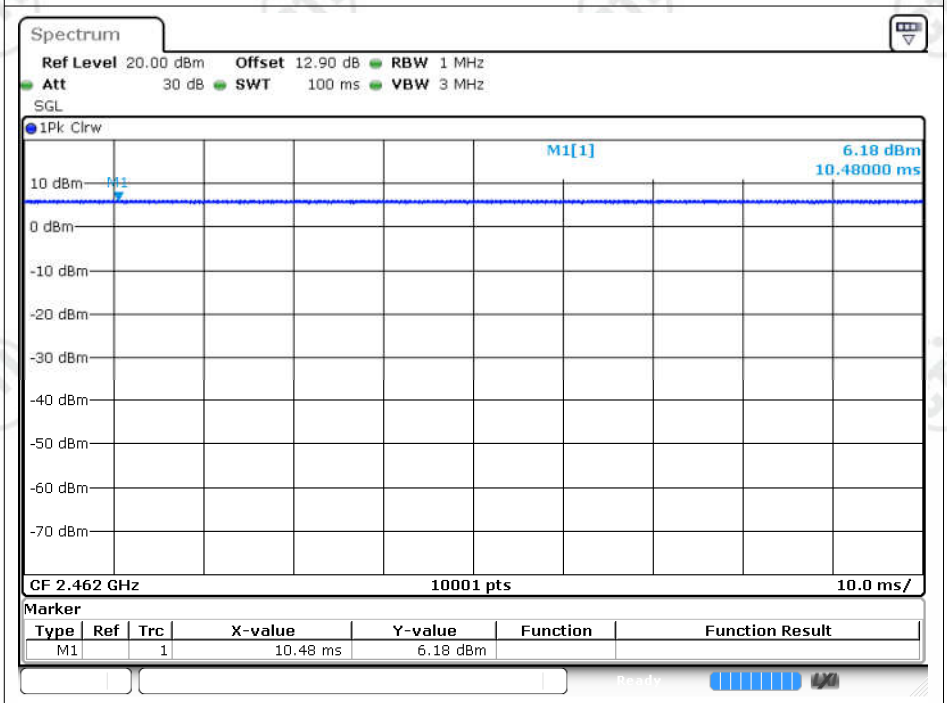
Date: 22.JUL.2022 11:29:07

Duty Cycle NVNT b 2437MHz Ant1



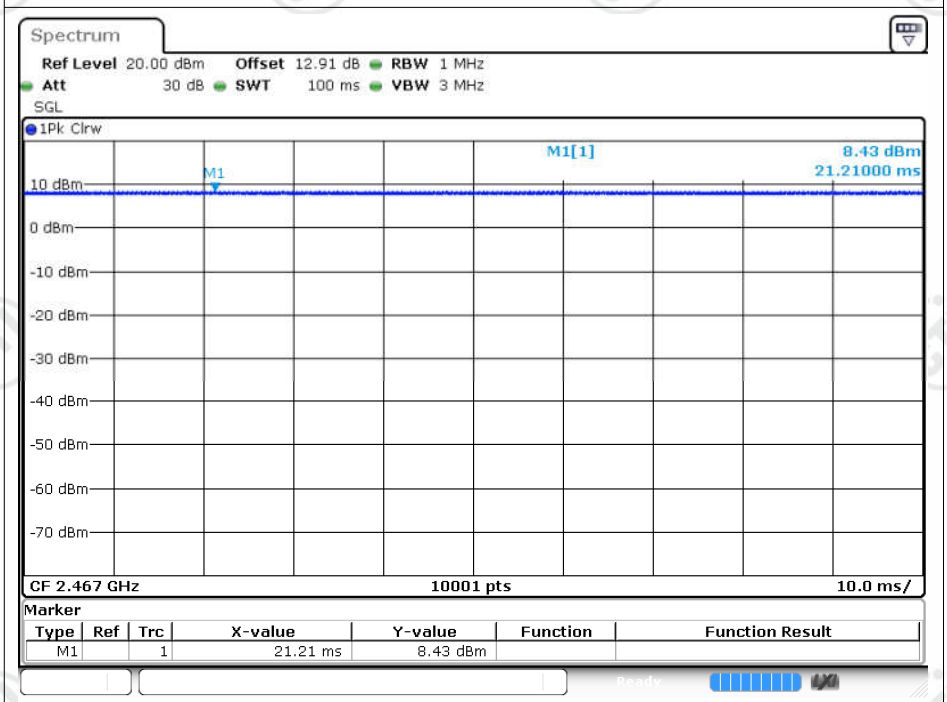
Date: 22.JUL.2022 11:30:58

Duty Cycle NVNT b 2462MHz Ant1



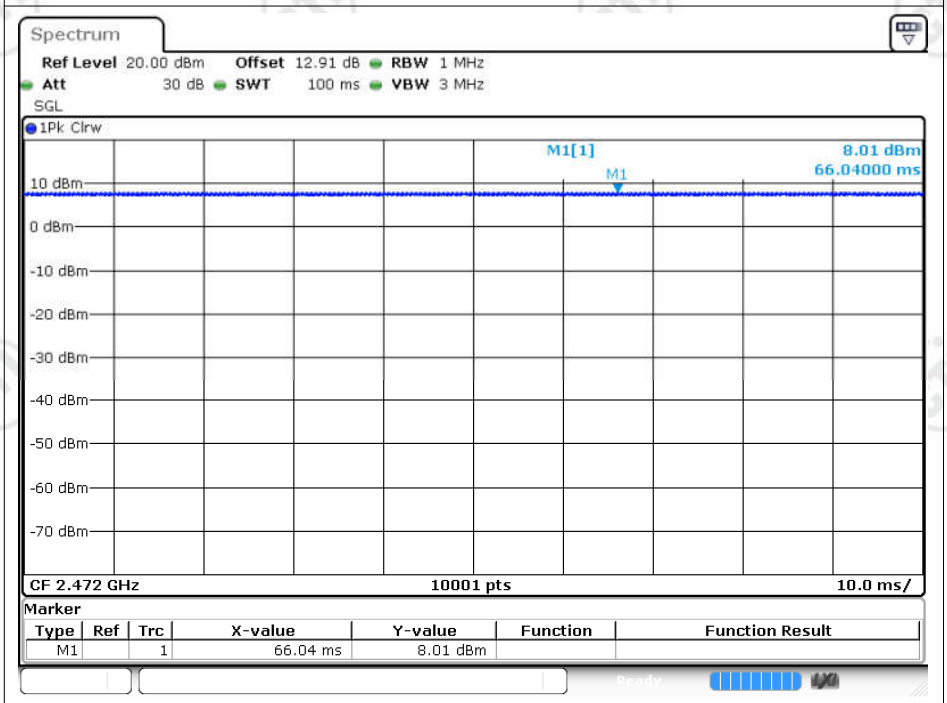
Date: 22.JUL.2022 11:32:26

Duty Cycle NVNT b 2467MHz Ant1



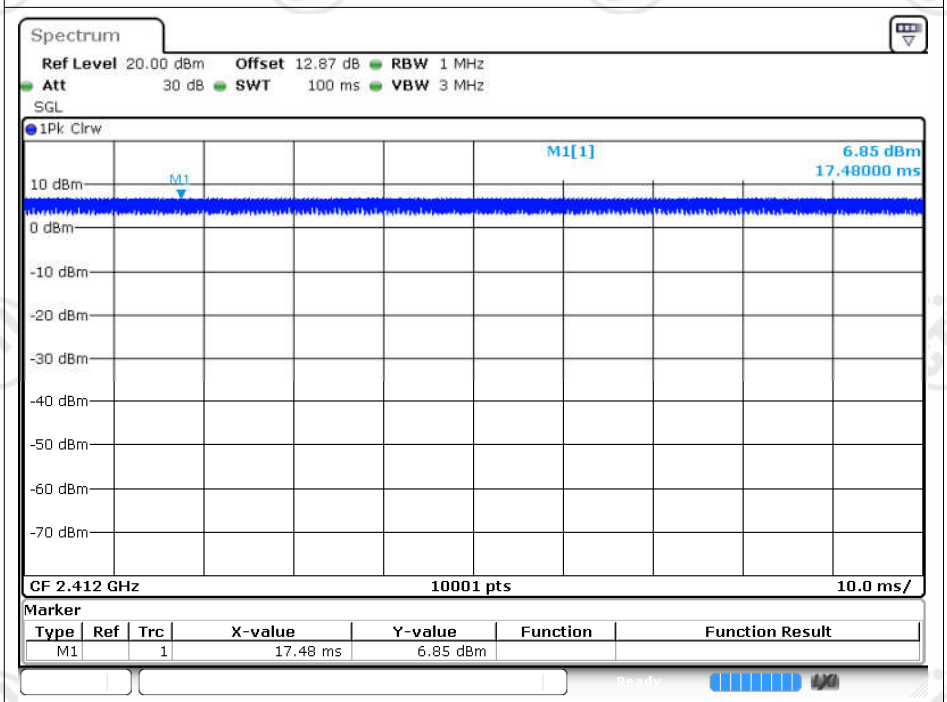
Date: 5.AUG.2022 09:55:05

Duty Cycle NVNT b 2472MHz Ant1



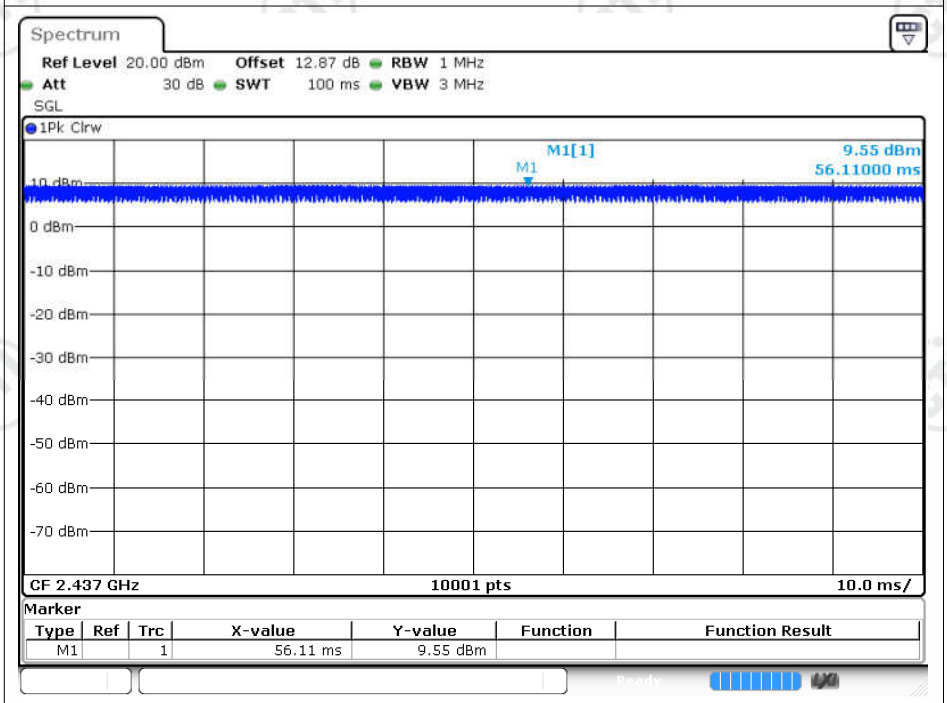
Date: 5.AUG.2022 09:53:34

Duty Cycle NVNT g 2412MHz Ant1



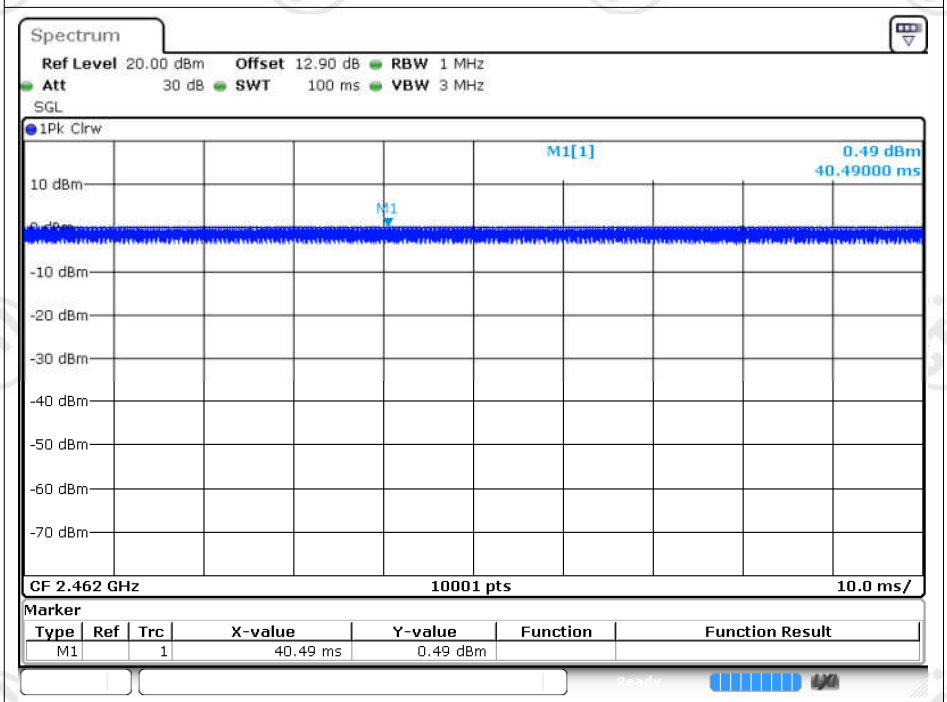
Date: 22.JUL.2022 11:45:31

Duty Cycle NVNT g 2437MHz Ant1



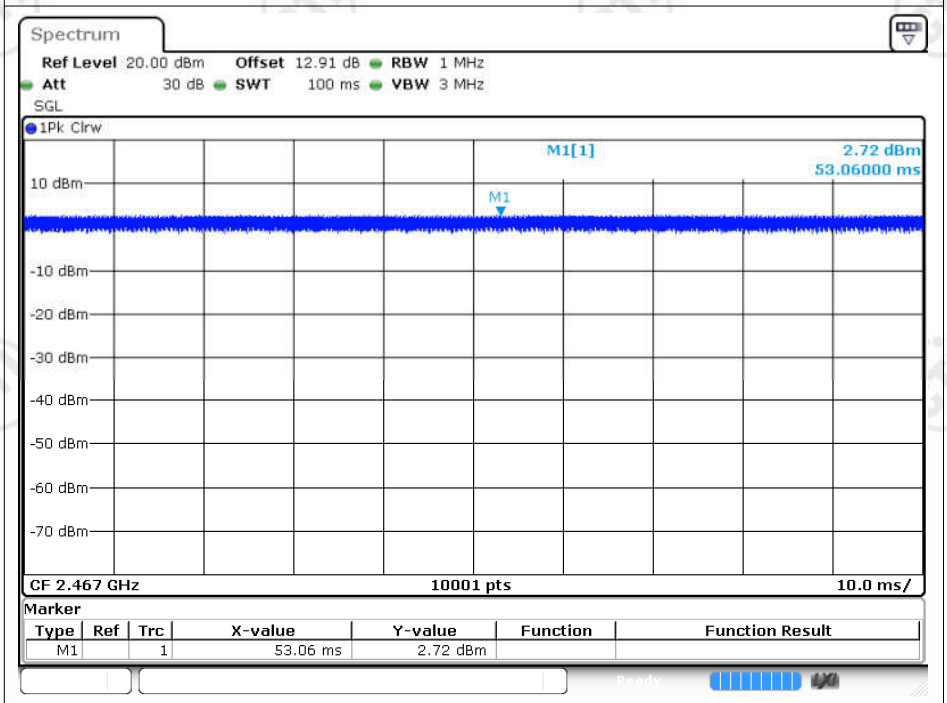
Date: 22.JUL.2022 11:47:50

Duty Cycle NVNT g 2462MHz Ant1



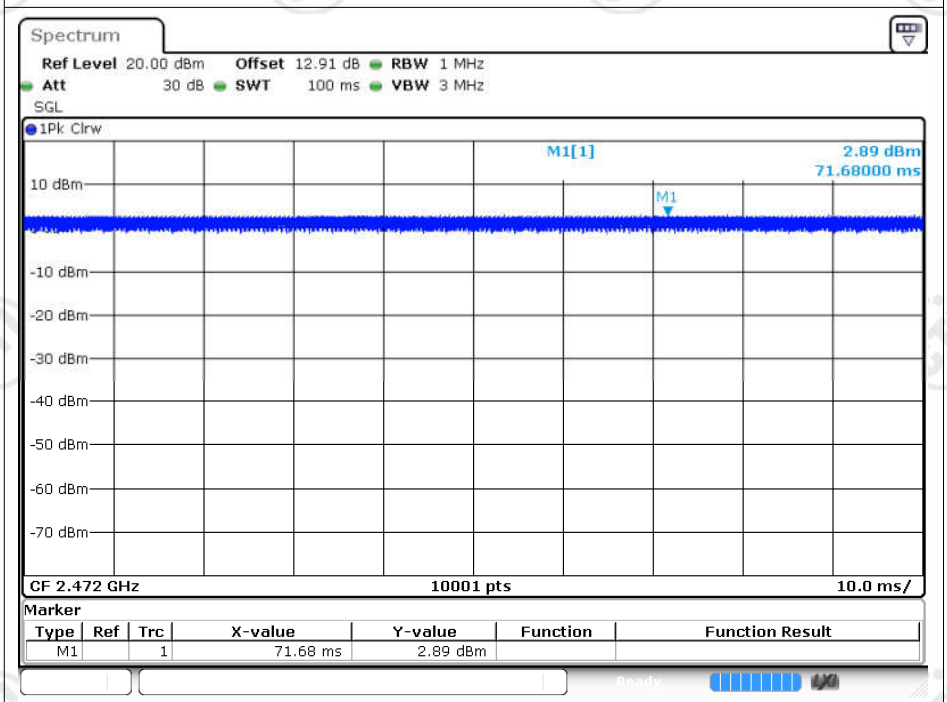
Date: 22.JUL.2022 11:49:38

Duty Cycle NVNT g 2467MHz Ant1



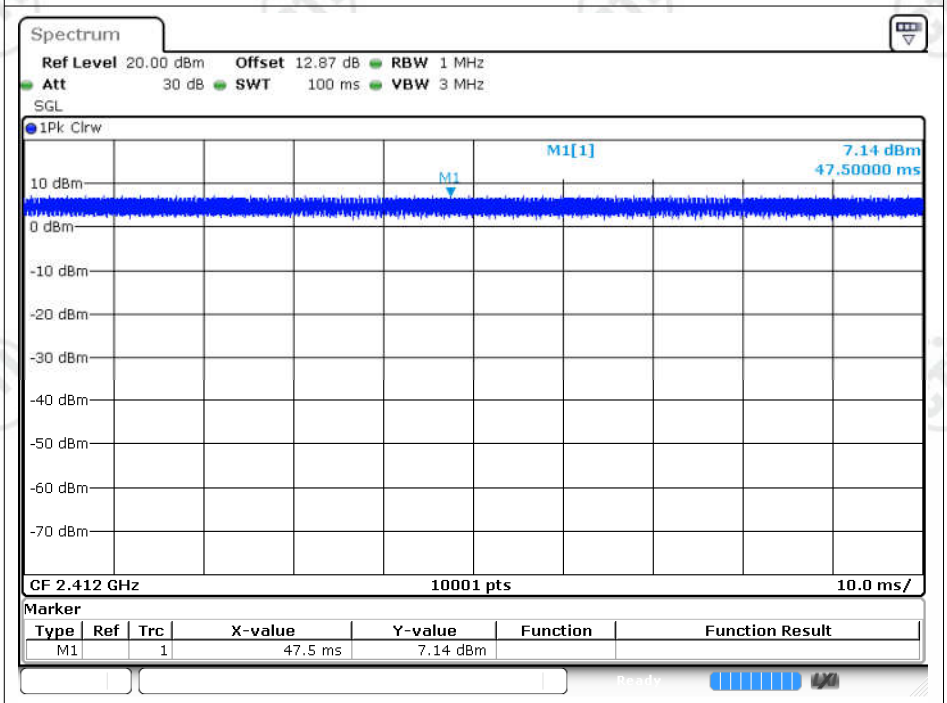
Date: 5.AUG.2022 09:59:31

Duty Cycle NVNT g 2472MHz Ant1



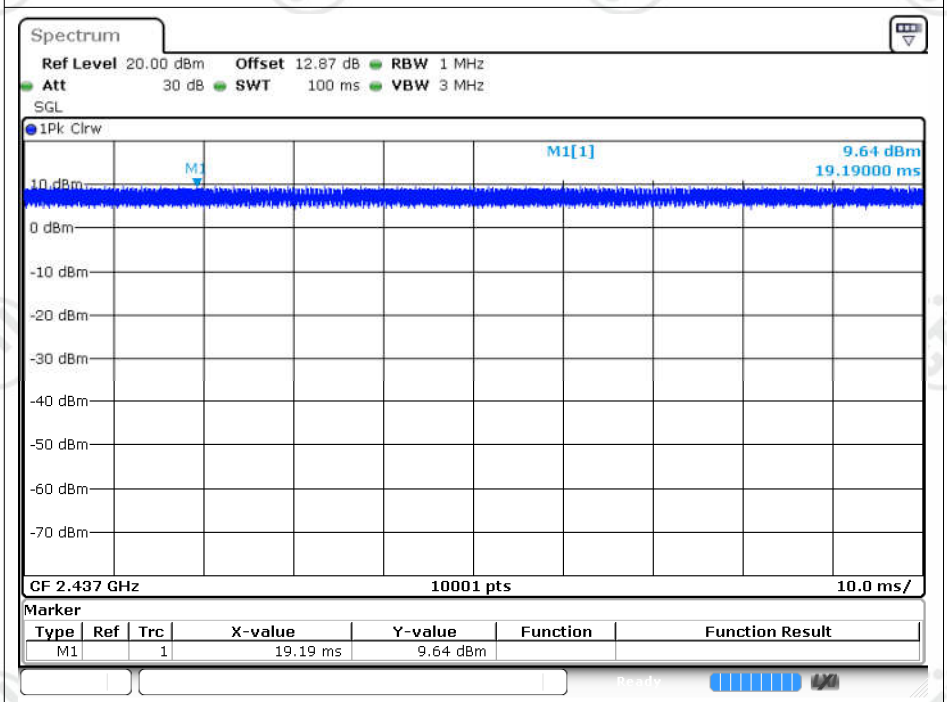
Date: 5.AUG.2022 09:57:48

Duty Cycle NVNT n20 2412MHz Ant1



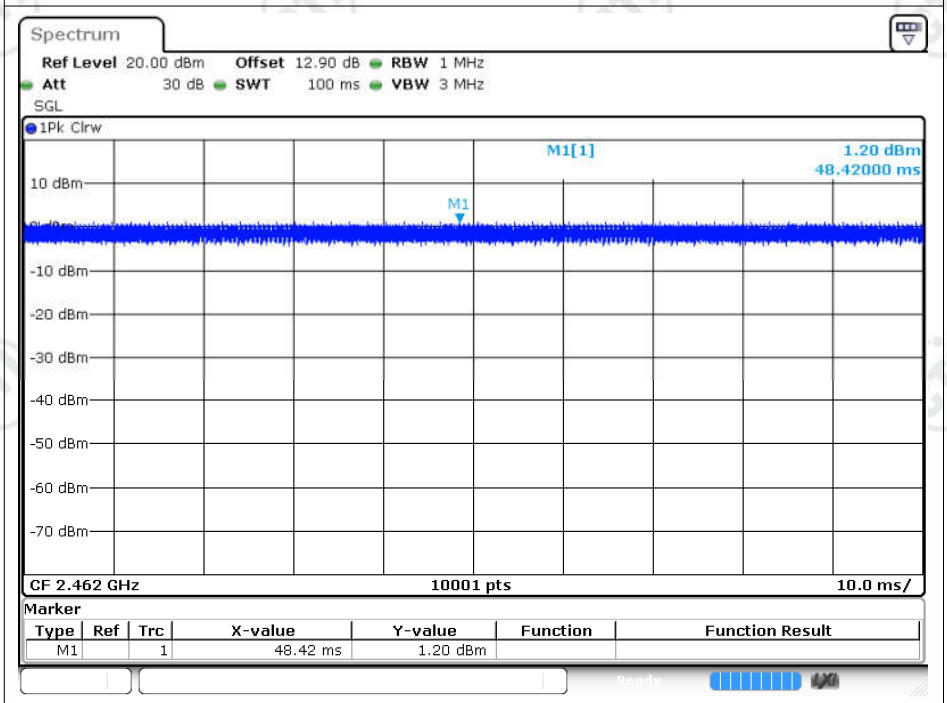
Date: 22.JUL.2022 11:52:33

Duty Cycle NVNT n20 2437MHz Ant1



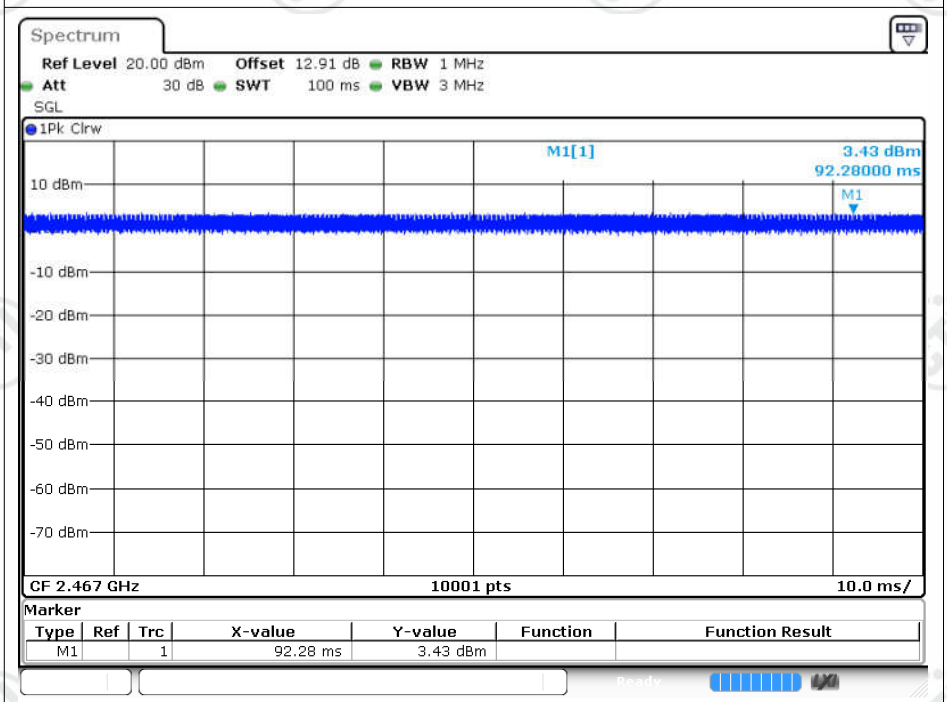
Date: 22.JUL.2022 11:54:28

Duty Cycle NVNT n20 2462MHz Ant1



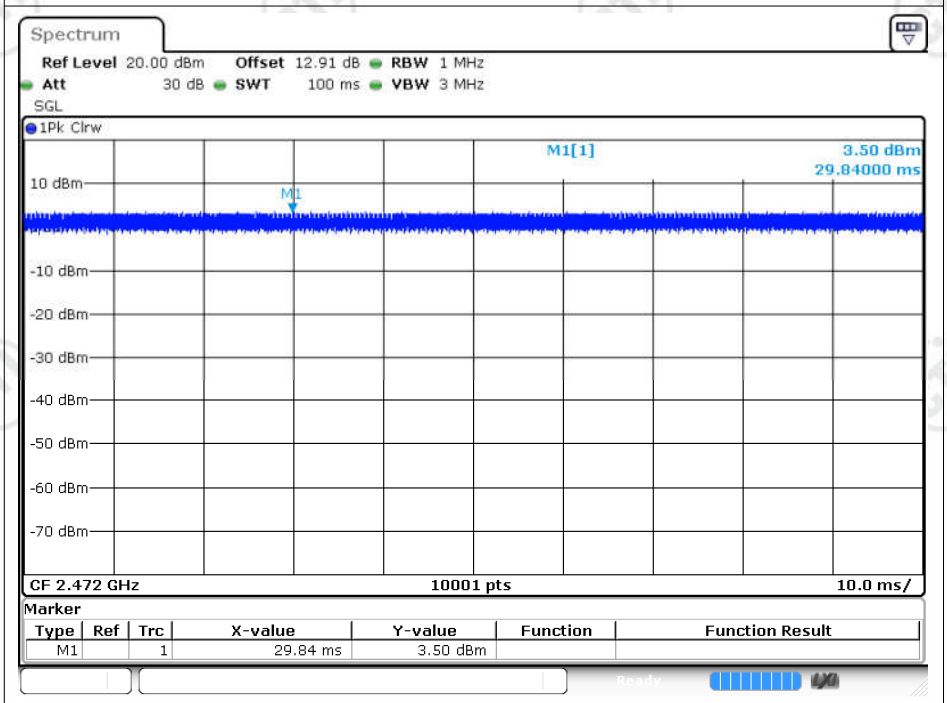
Date: 22.JUL.2022 11:56:21

Duty Cycle NVNT n20 2467MHz Ant1



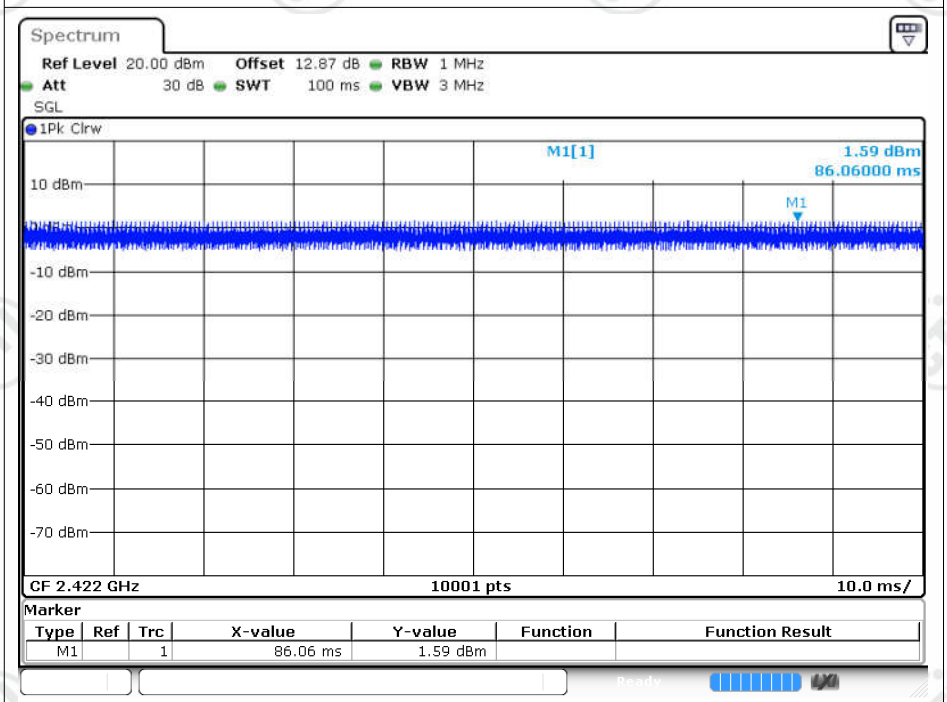
Date: 5.AUG.2022 10:07:00

Duty Cycle NVNT n20 2472MHz Ant1



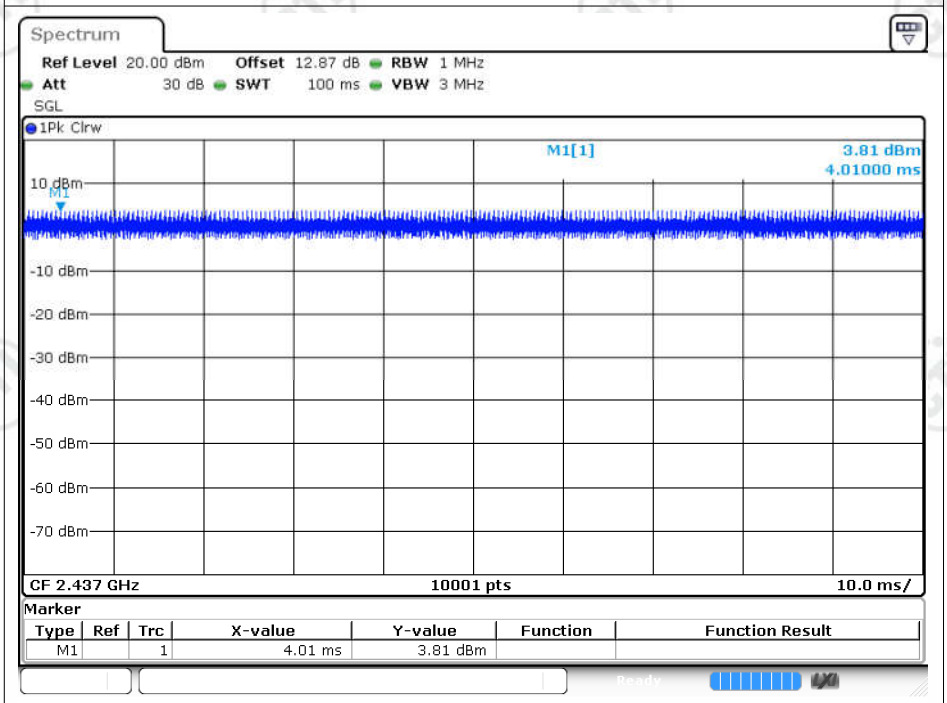
Date: 5.AUG.2022 10:04:46

Duty Cycle NVNT n40 2422MHz Ant1



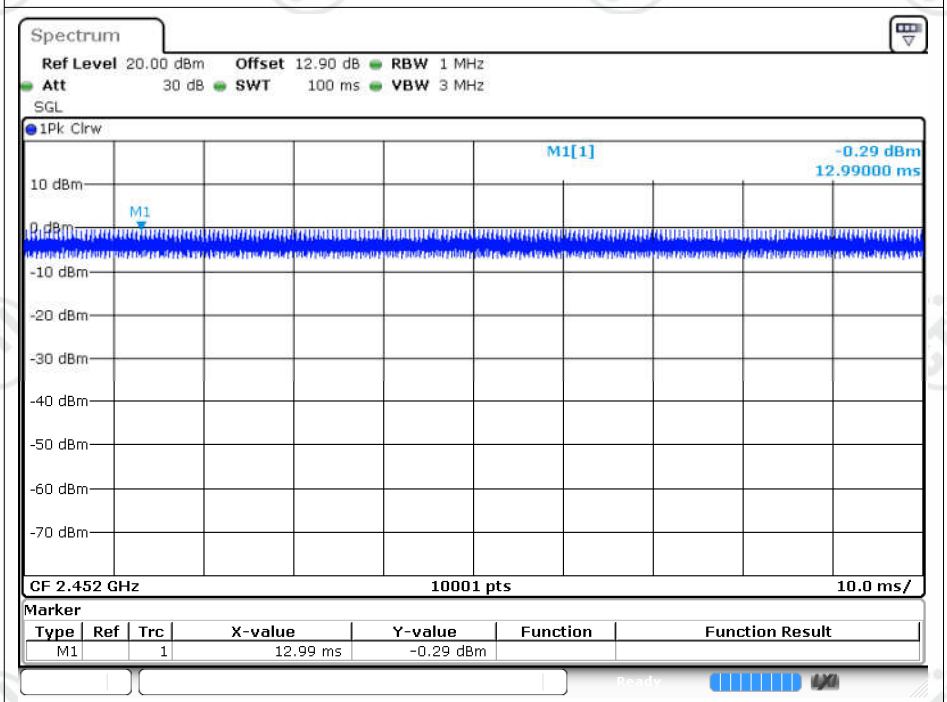
Date: 22.JUL.2022 11:59:05

Duty Cycle NVNT n40 2437MHz Ant1



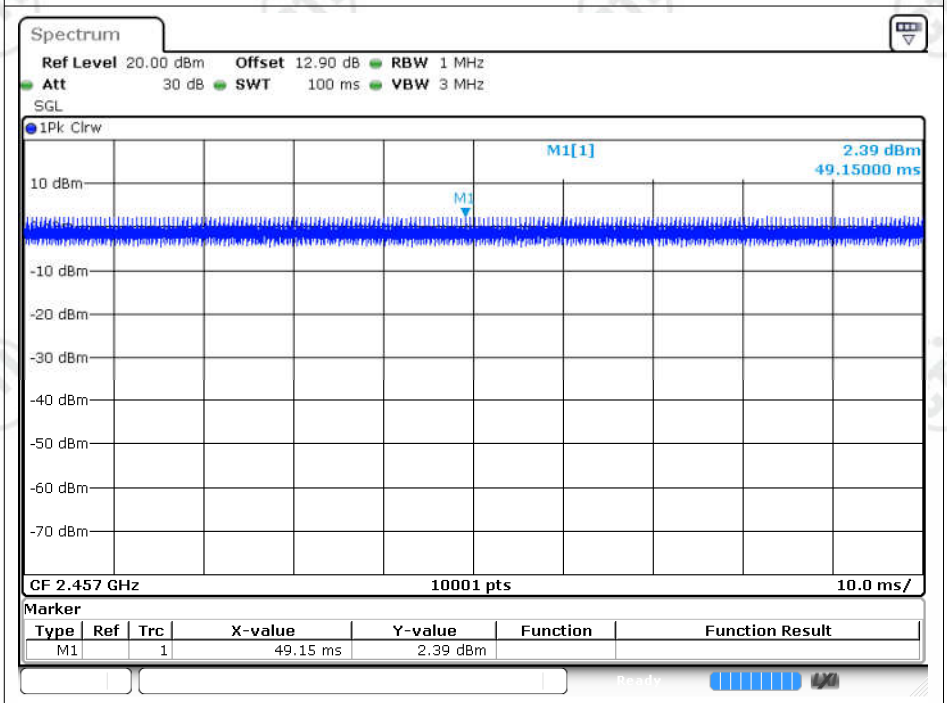
Date: 22.JUL.2022 12:01:42

Duty Cycle NVNT n40 2452MHz Ant1



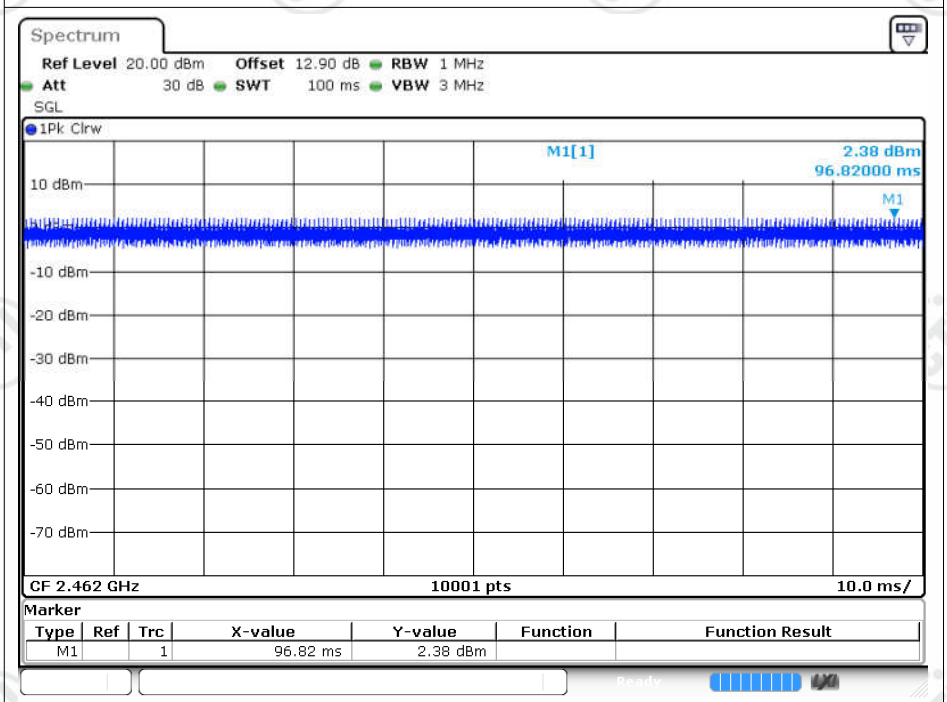
Date: 22.JUL.2022 12:04:06

Duty Cycle NVNT n40 2457MHz Ant1



Date: 5.AUG.2022 10:14:35

Duty Cycle NVNT n40 2462MHz Ant1



Date: 5.AUG.2022 10:10:20

2.Maximum Peak Conducted Output Power

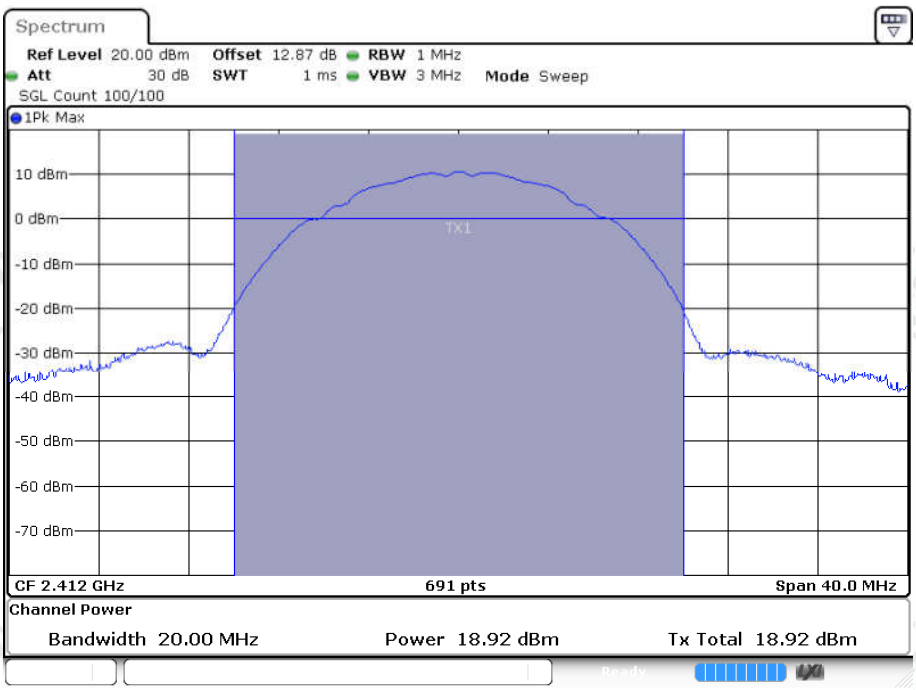
Test data：

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	18.92	0	18.92	30	Pass
NVNT	b	2437	Ant1	18.6	0	18.60	30	Pass
NVNT	b	2462	Ant1	14.41	0	14.41	30	Pass
NVNT	b	2467	Ant1	16.66	0	16.66	30	Pass
NVNT	b	2472	Ant1	16.23	0	16.23	30	Pass
NVNT	g	2412	Ant1	20.09	0	20.09	30	Pass
NVNT	g	**2437**	Ant1	22.7	0	**22.70**	30	Pass
NVNT	g	2462	Ant1	13.27	0	13.27	30	Pass
NVNT	g	2467	Ant1	15.78	0	15.78	30	Pass
NVNT	g	2472	Ant1	16.01	0	16.01	30	Pass
NVNT	n20	2412	Ant1	19.75	0	19.75	30	Pass
NVNT	n20	2437	Ant1	22.27	0	22.27	30	Pass
NVNT	n20	2462	Ant1	13.62	0	13.62	30	Pass
NVNT	n20	2467	Ant1	16.23	0	16.23	30	Pass
NVNT	n20	2472	Ant1	16.27	0	16.27	30	Pass
NVNT	n40	2422	Ant1	19.6	0	19.60	30	Pass
NVNT	n40	2437	Ant1	21.93	0	21.93	30	Pass
NVNT	n40	2452	Ant1	17.77	0	17.77	30	Pass
NVNT	n40	2457	Ant1	20.38	0	20.38	30	Pass
NVNT	n40	2462	Ant1	20.32	0	20.32	30	Pass

Test graphs：

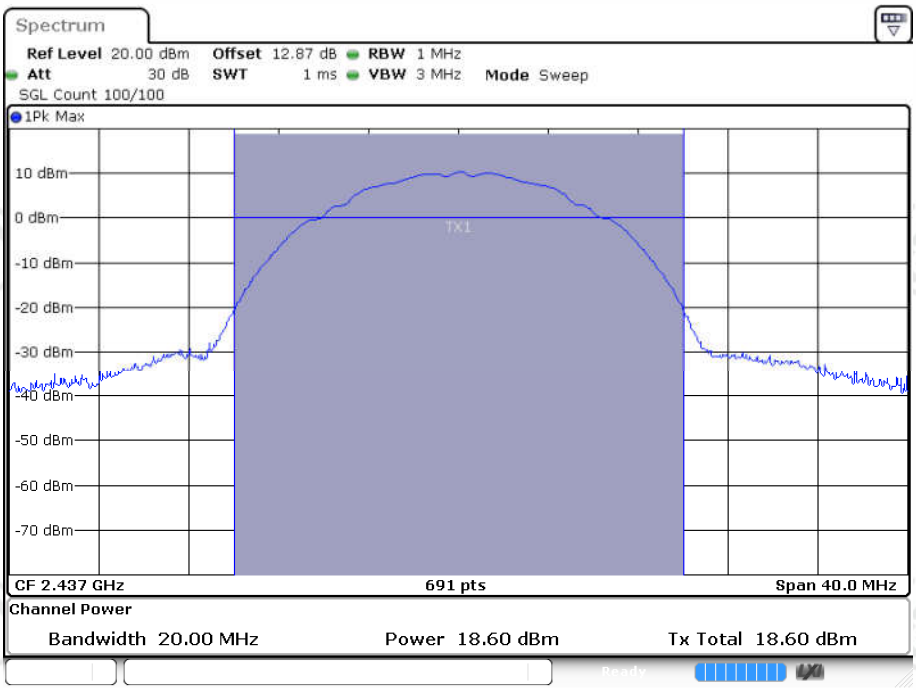
Test Graphs

Peak Power NVNT b 2412MHz Ant1



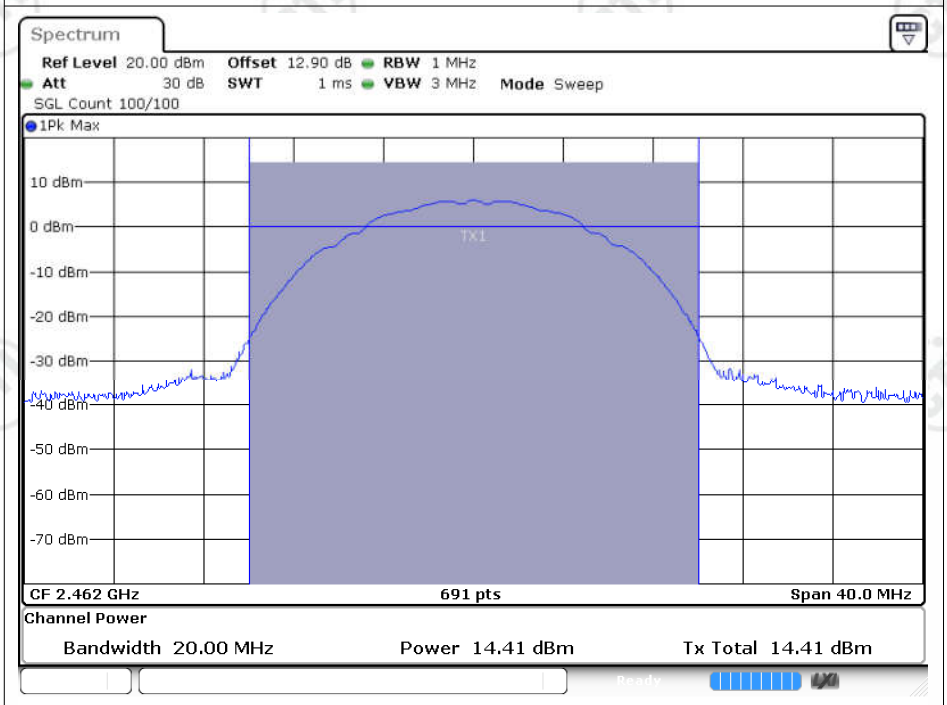
Date: 22.JUL.2022 11:29:14

Peak Power NVNT b 2437MHz Ant1



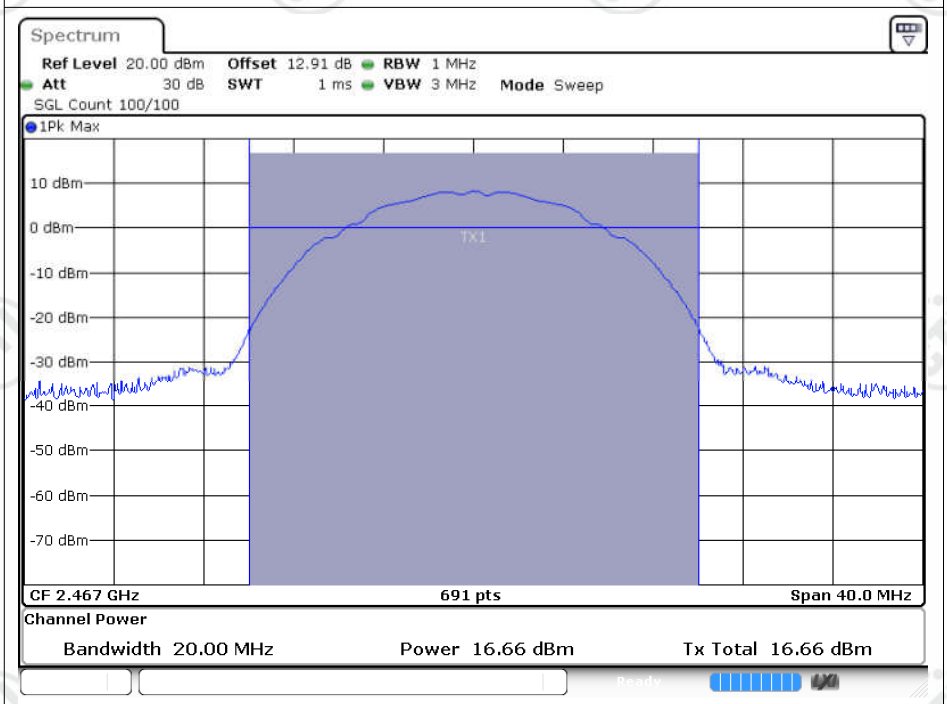
Date: 22.JUL.2022 11:31:06

Peak Power NVNT b 2462MHz Ant1



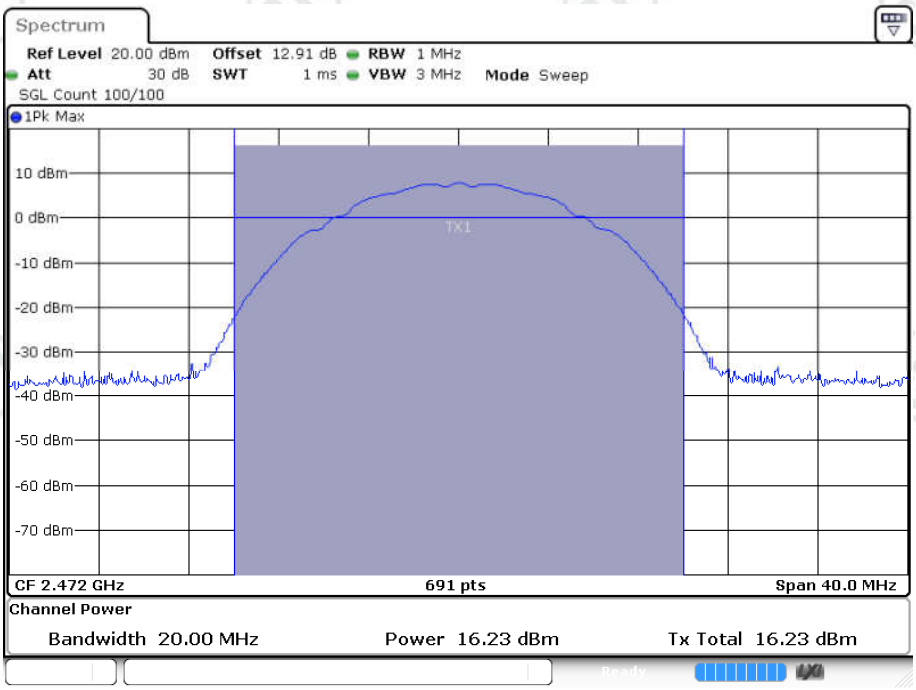
Date: 22.JUL.2022 11:32:33

Peak Power NVNT b 2467MHz Ant1



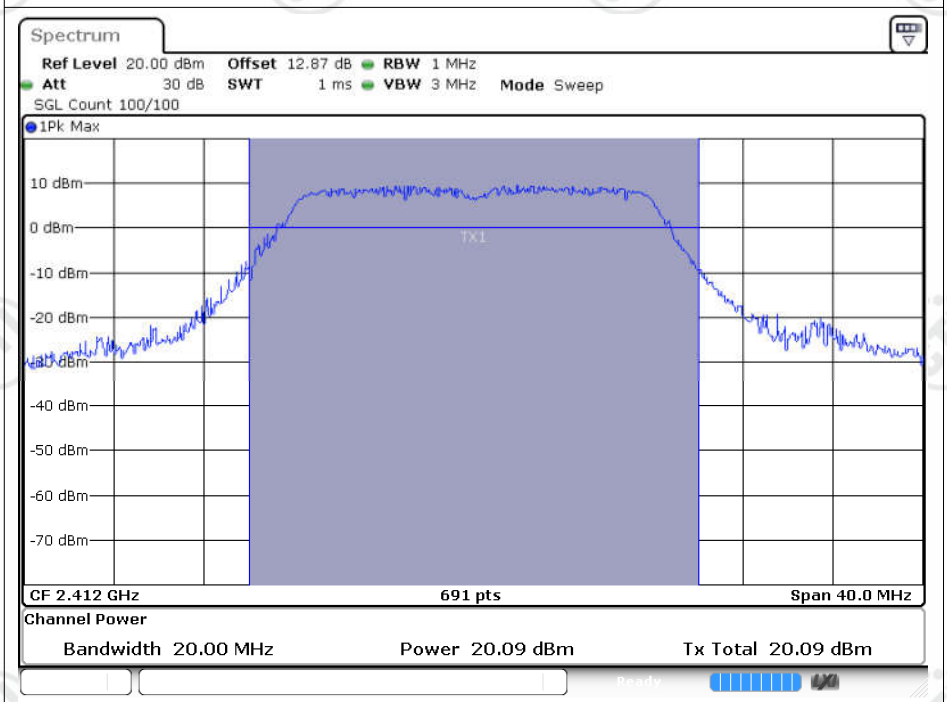
Date: 5.AUG.2022 09:55:13

Peak Power NVNT b 2472MHz Ant1



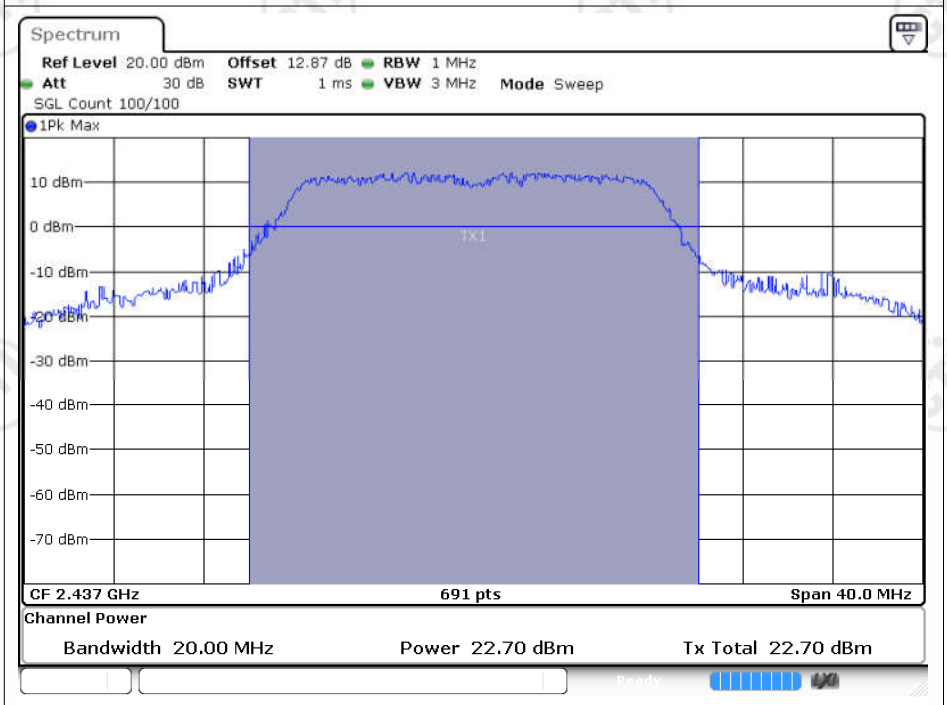
Date: 5.AUG.2022 09:53:41

Peak Power NVNT g 2412MHz Ant1



Date: 22.JUL.2022 11:45:38

Peak Power NVNT g 2437MHz Ant1



Date: 22.JUL.2022 11:47:57

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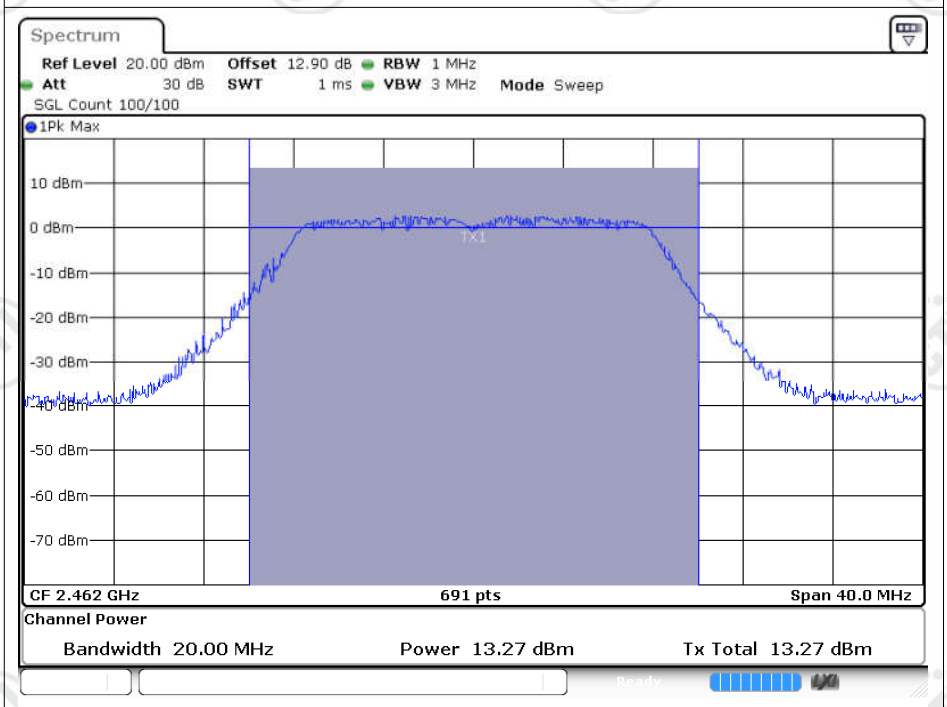
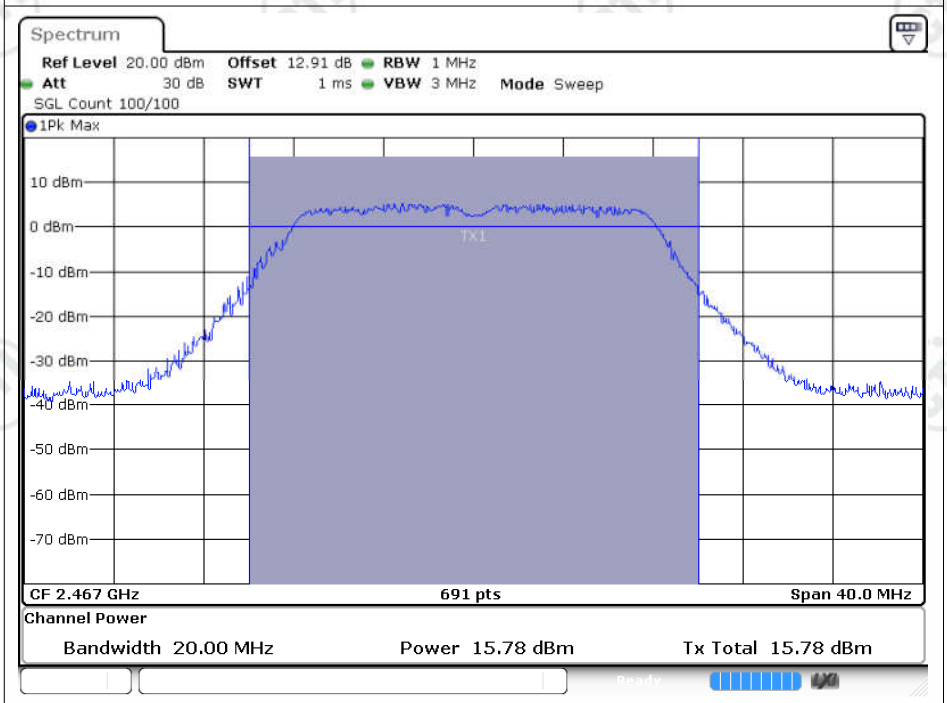


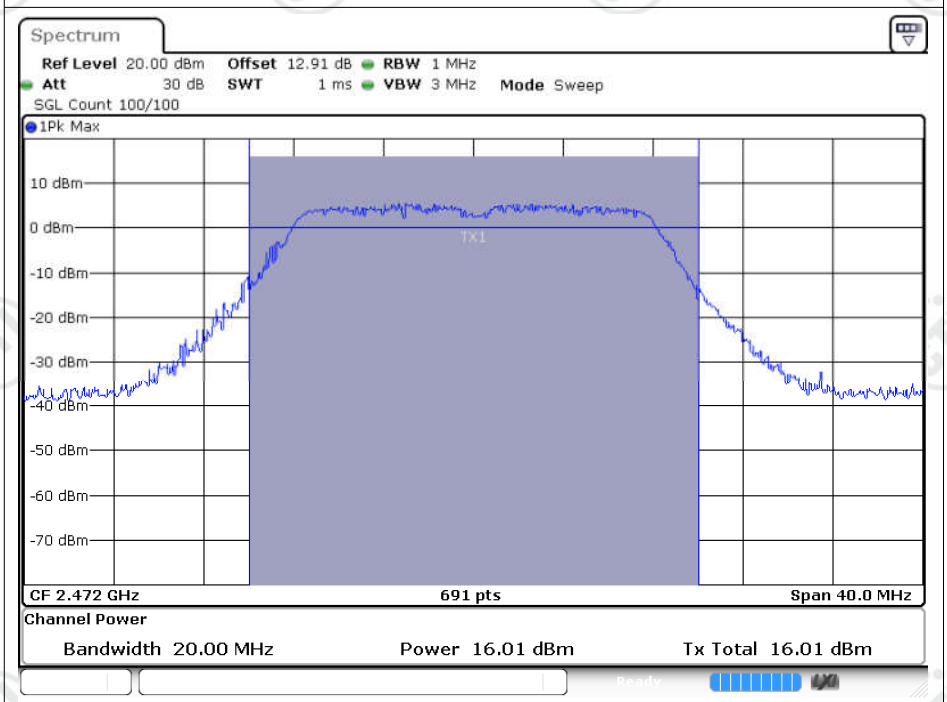
Date: 22.JUL.2022 11:49:45

Peak Power NVNT g 2467MHz Ant1



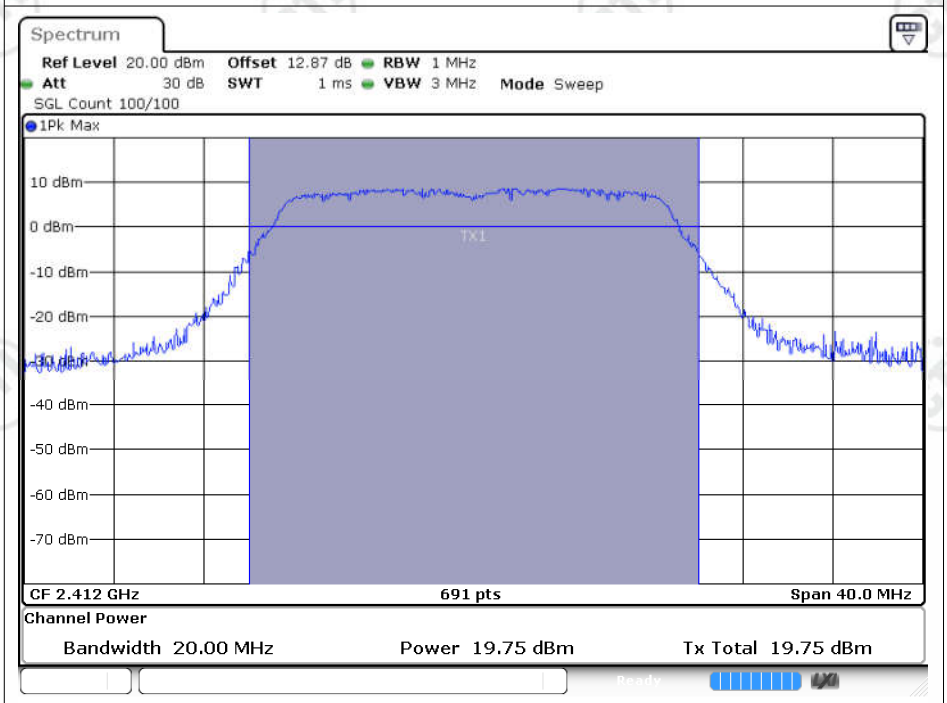
Date: 5.AUG.2022 09:59:38

Peak Power NVNT g 2472MHz Ant1



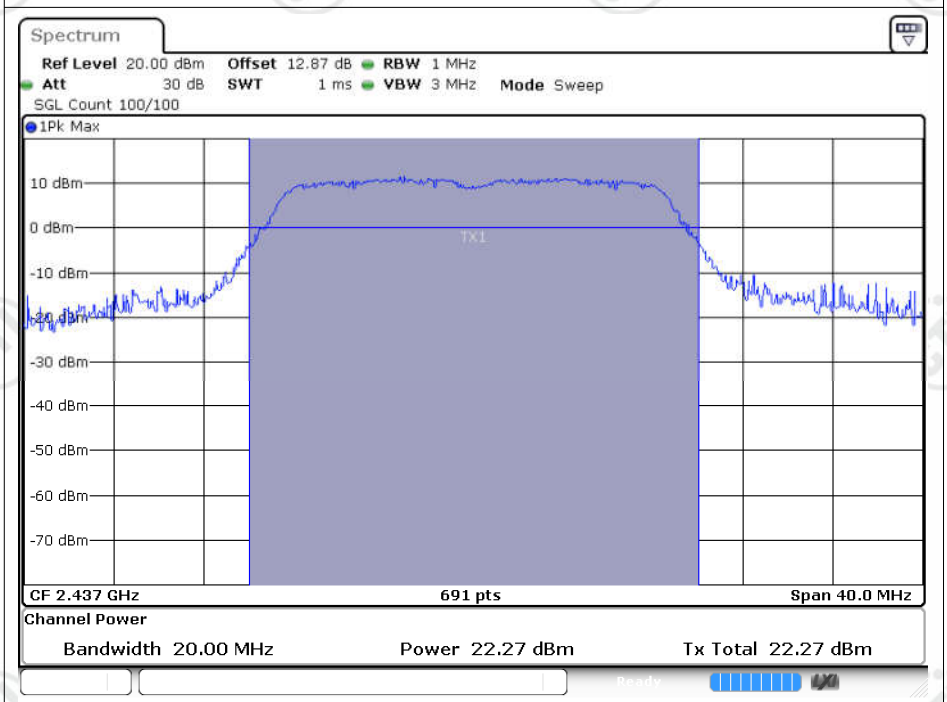
Date: 5.AUG.2022 09:57:56

Peak Power NVNT n20 2412MHz Ant1



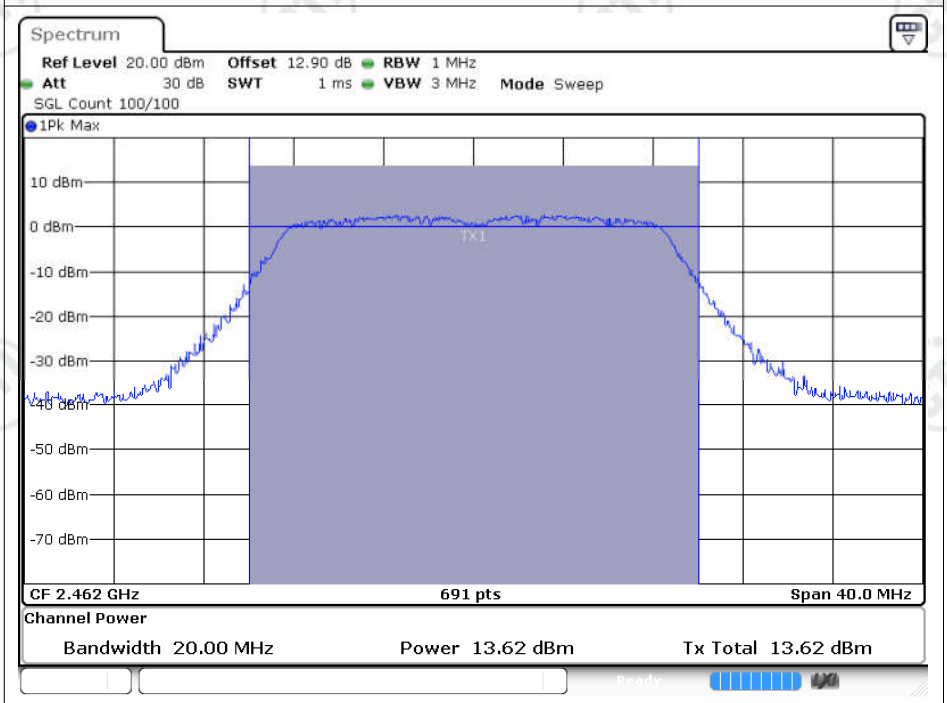
Date: 22.JUL.2022 11:52:40

Peak Power NVNT n20 2437MHz Ant1



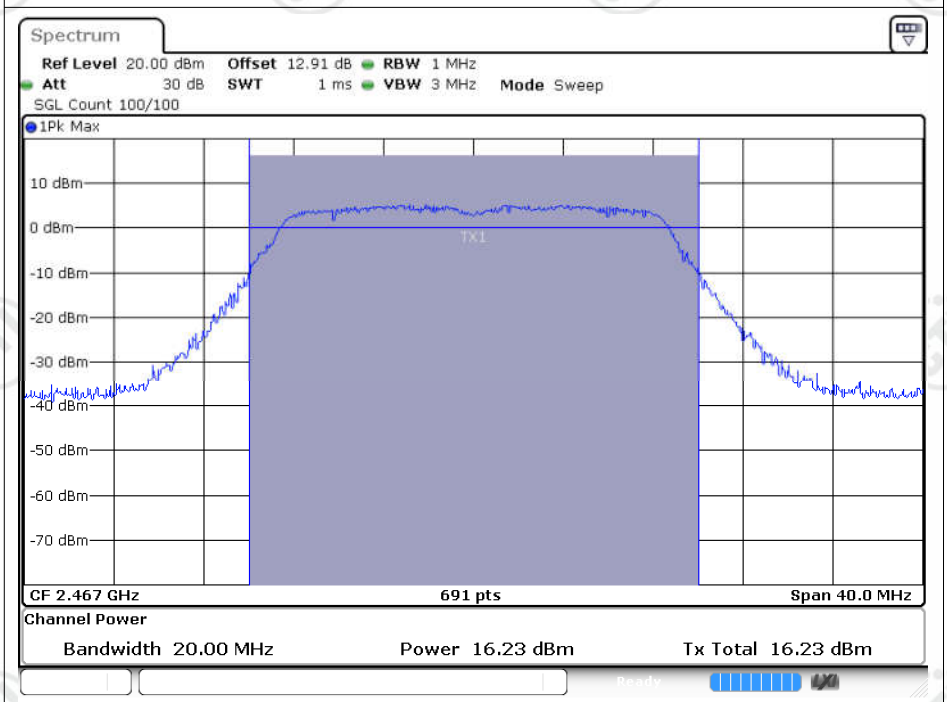
Date: 22.JUL.2022 11:54:35

Peak Power NVNT n20 2462MHz Ant1



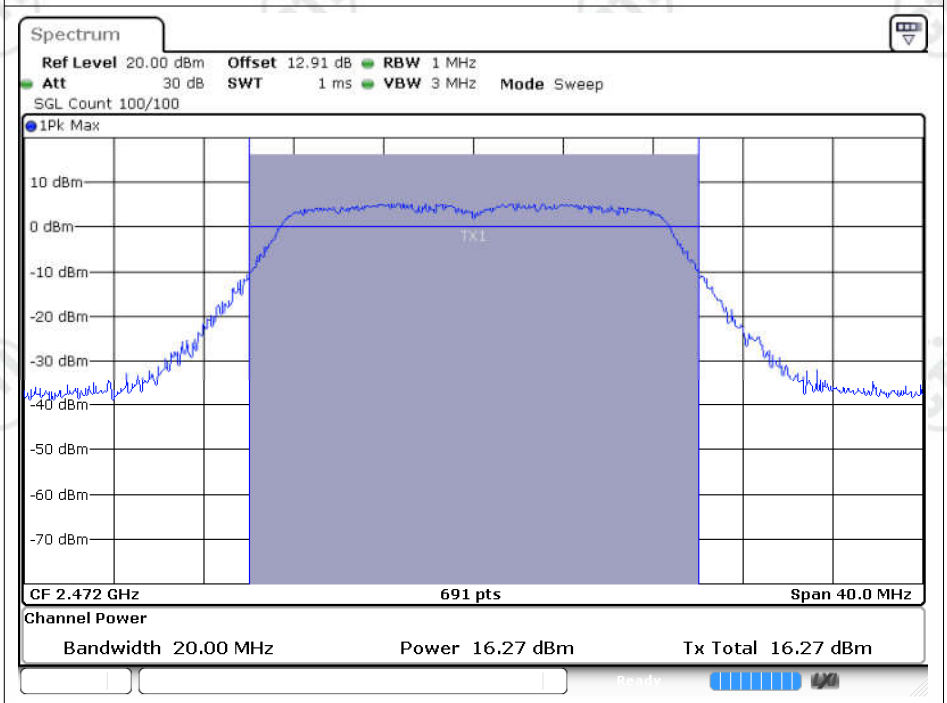
Date: 22.JUL.2022 11:56:28

Peak Power NVNT n20 2467MHz Ant1



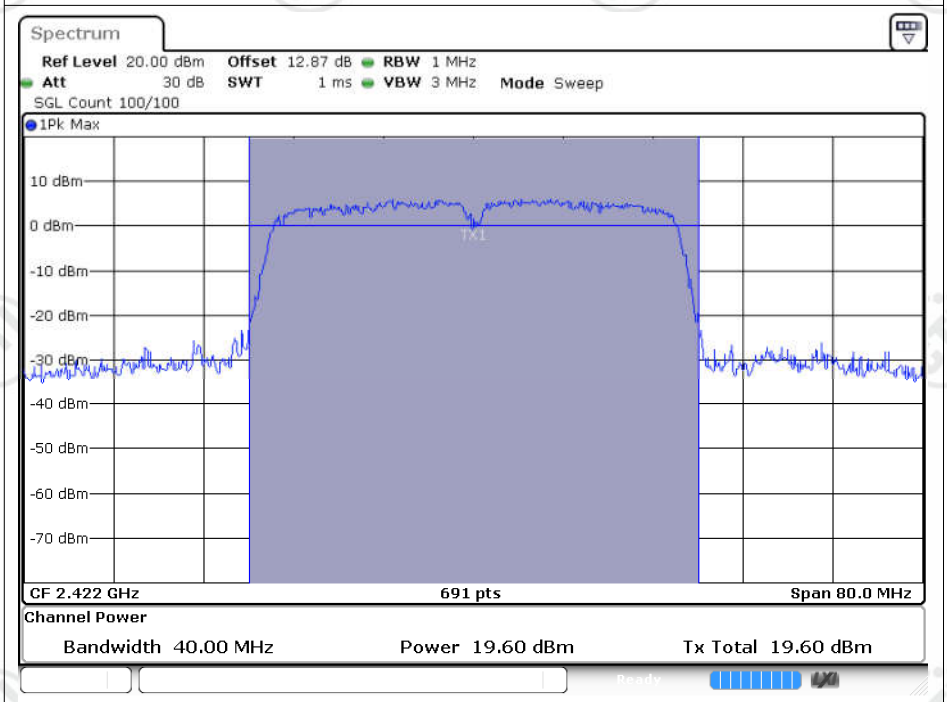
Date: 5.AUG.2022 10:07:07

Peak Power NVNT n20 2472MHz Ant1



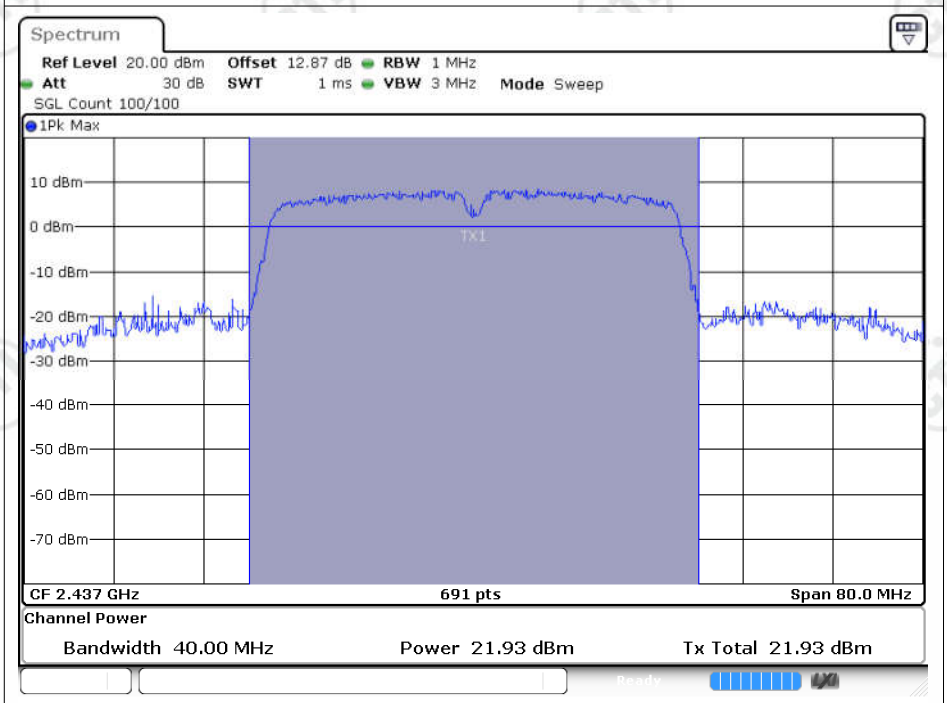
Date: 5.AUG.2022 10:04:52

Peak Power NVNT n40 2422MHz Ant1



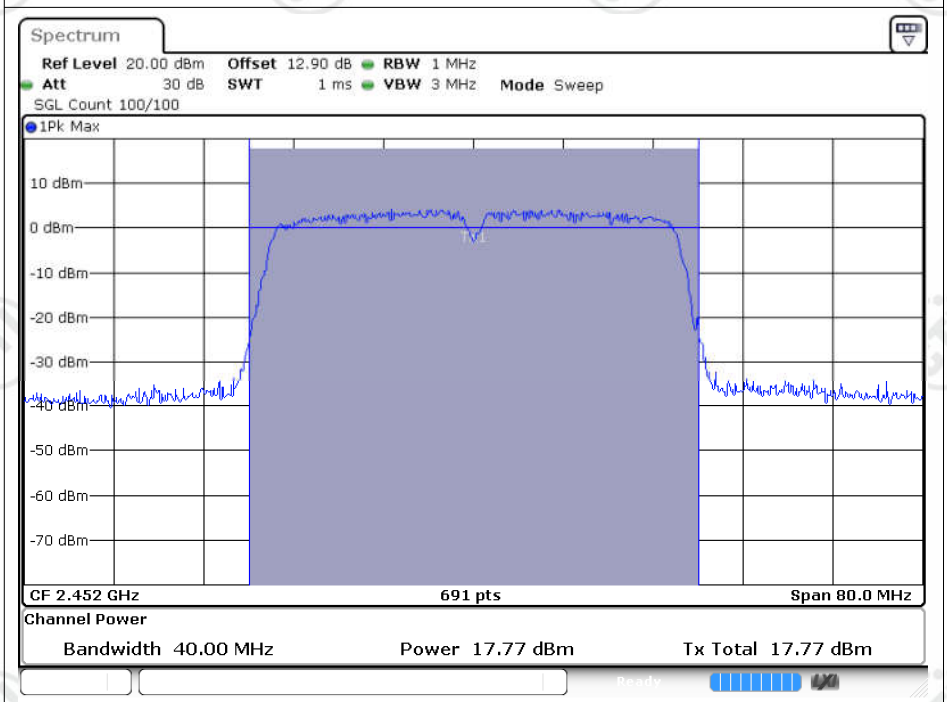
Date: 22.JUL.2022 11:59:12

Peak Power NVNT n40 2437MHz Ant1



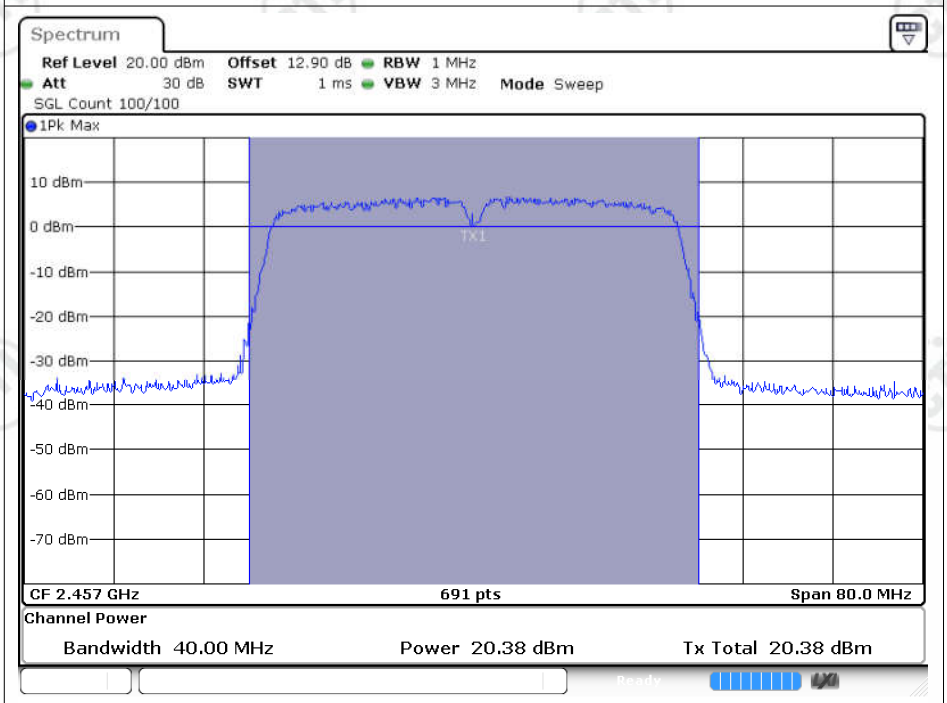
Date: 22.JUL.2022 12:01:49

Peak Power NVNT n40 2452MHz Ant1



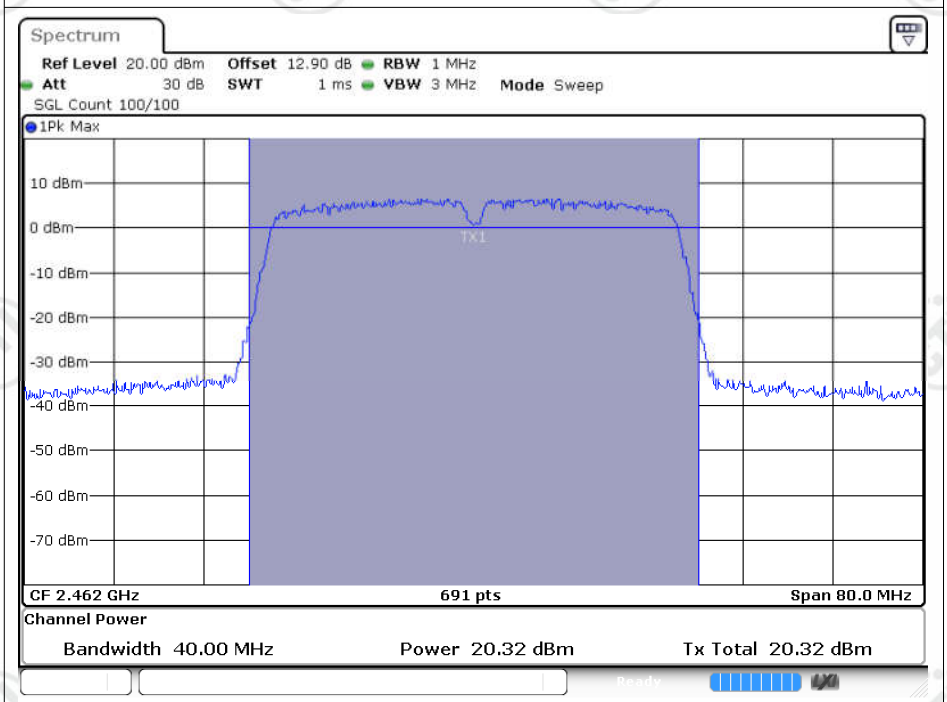
Date: 22.JUL.2022 12:04:13

Peak Power NVNT n40 2457MHz Ant1



Date: 5.AUG.2022 10:14:42

Peak Power NVNT n40 2462MHz Ant1



Date: 5.AUG.2022 10:10:28

3.-6dB Bandwidth

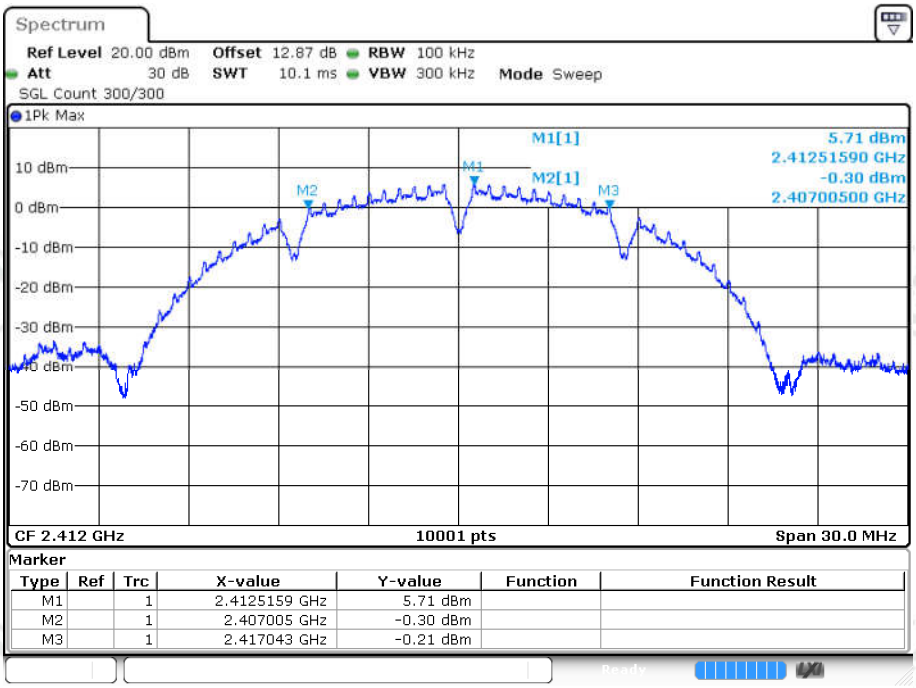
Test data：

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	10.041	0.5	Pass
NVNT	b	2462	Ant1	10.035	0.5	Pass
NVNT	b	2467	Ant1	10.017	0.5	Pass
NVNT	b	2472	Ant1	10.029	0.5	Pass
NVNT	g	2412	Ant1	16.413	0.5	Pass
NVNT	g	2437	Ant1	16.434	0.5	Pass
NVNT	g	2462	Ant1	16.401	0.5	Pass
NVNT	g	2467	Ant1	16.401	0.5	Pass
NVNT	g	2472	Ant1	16.413	0.5	Pass
NVNT	n20	2412	Ant1	17.604	0.5	Pass
NVNT	n20	2437	Ant1	17.604	0.5	Pass
NVNT	n20	2462	Ant1	17.595	0.5	Pass
NVNT	n20	2467	Ant1	17.595	0.5	Pass
NVNT	n20	2472	Ant1	17.589	0.5	Pass
NVNT	n40	2422	Ant1	36.318	0.5	Pass
NVNT	n40	2437	Ant1	36.318	0.5	Pass
NVNT	n40	2452	Ant1	36.318	0.5	Pass
NVNT	n40	2457	Ant1	36.324	0.5	Pass
NVNT	n40	2462	Ant1	36.324	0.5	Pass

Test graphs：

Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1

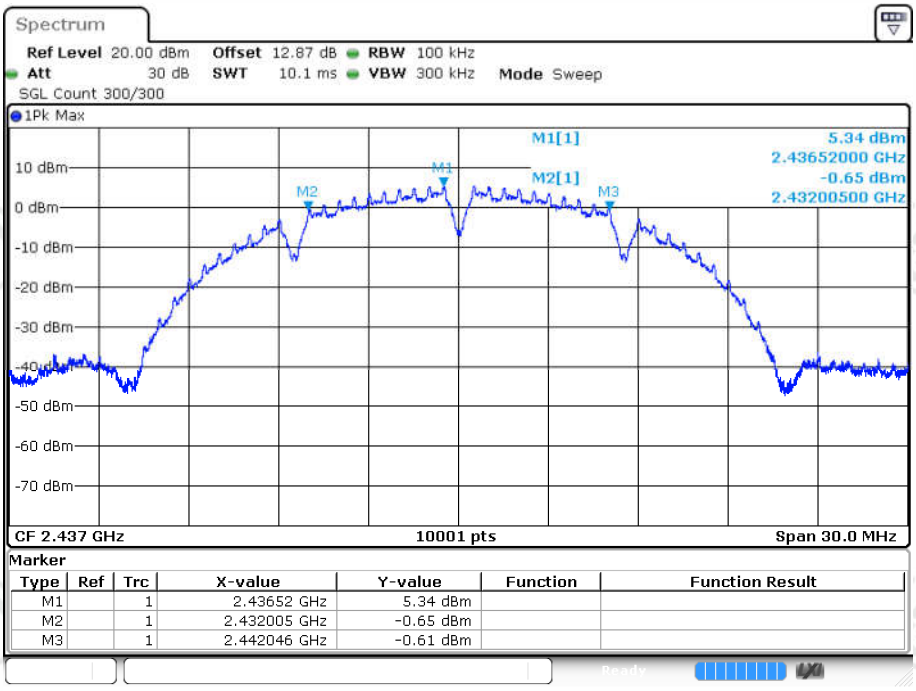


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4125159 GHz	5.71 dBm		
M2		1	2.407005 GHz	-0.30 dBm		
M3		1	2.417043 GHz	-0.21 dBm		

Date: 22.JUL.2022 11:29:36

-6dB Bandwidth NVNT b 2437MHz Ant1

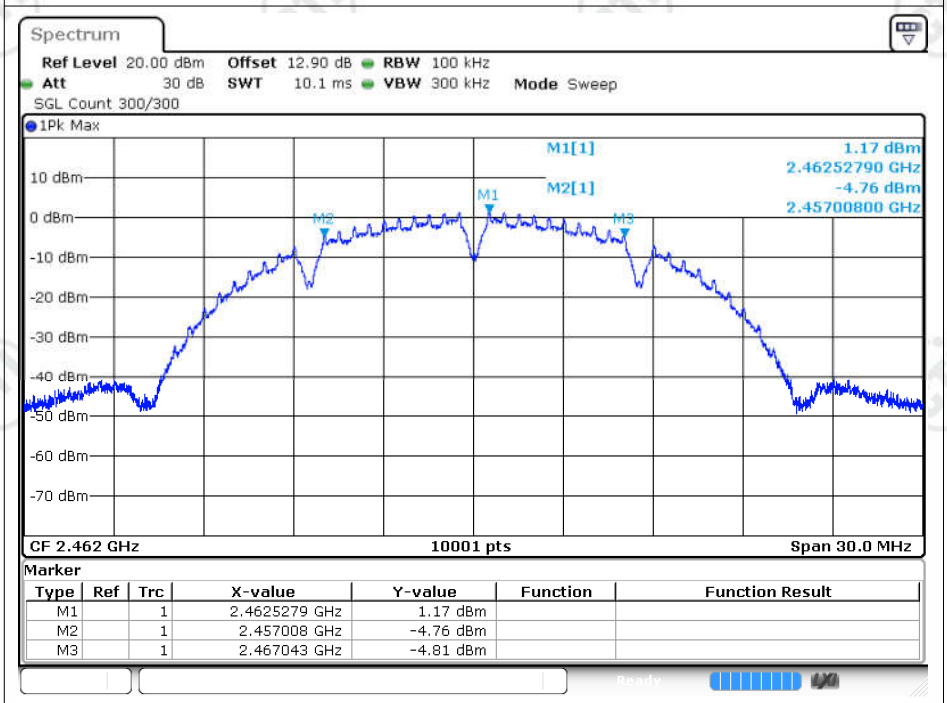


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.43652 GHz	5.34 dBm		
M2		1	2.432005 GHz	-0.65 dBm		
M3		1	2.442046 GHz	-0.61 dBm		

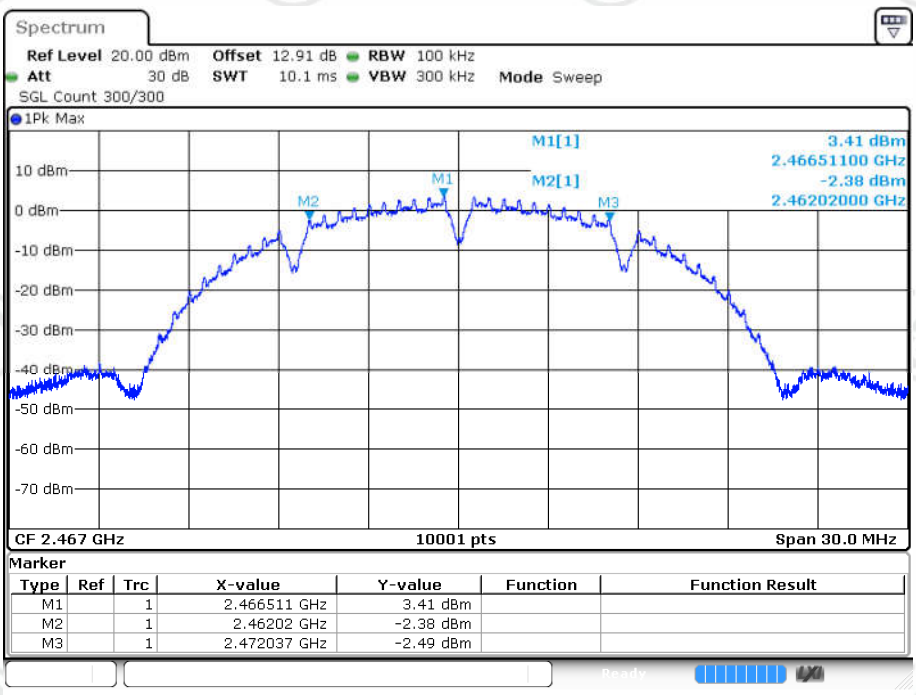
Date: 22.JUL.2022 11:31:27

-6dB Bandwidth NVNT b 2462MHz Ant1



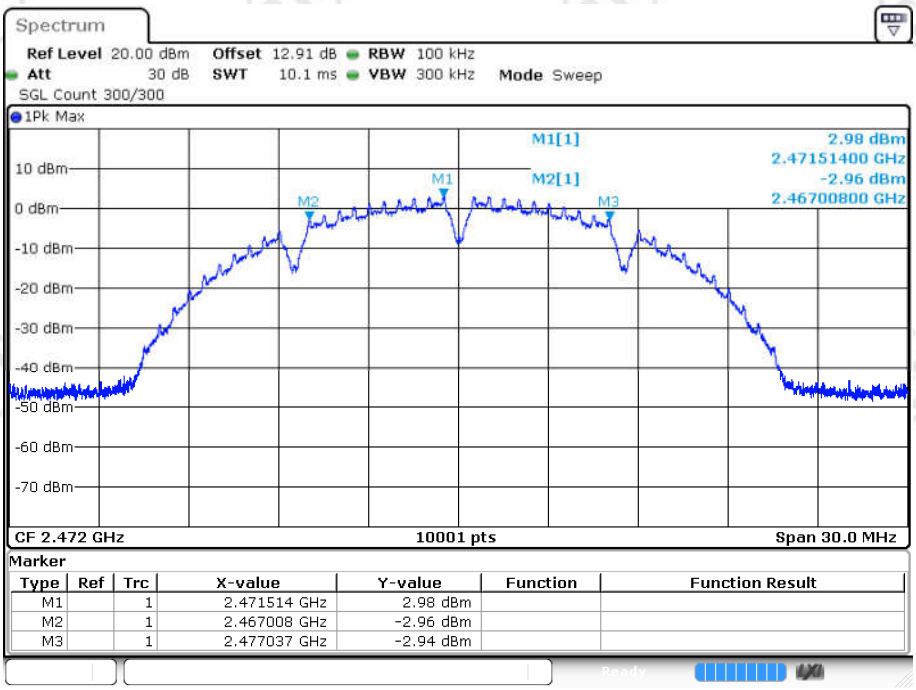
Date: 22.JUL.2022 11:32:57

-6dB Bandwidth NVNT b 2467MHz Ant1



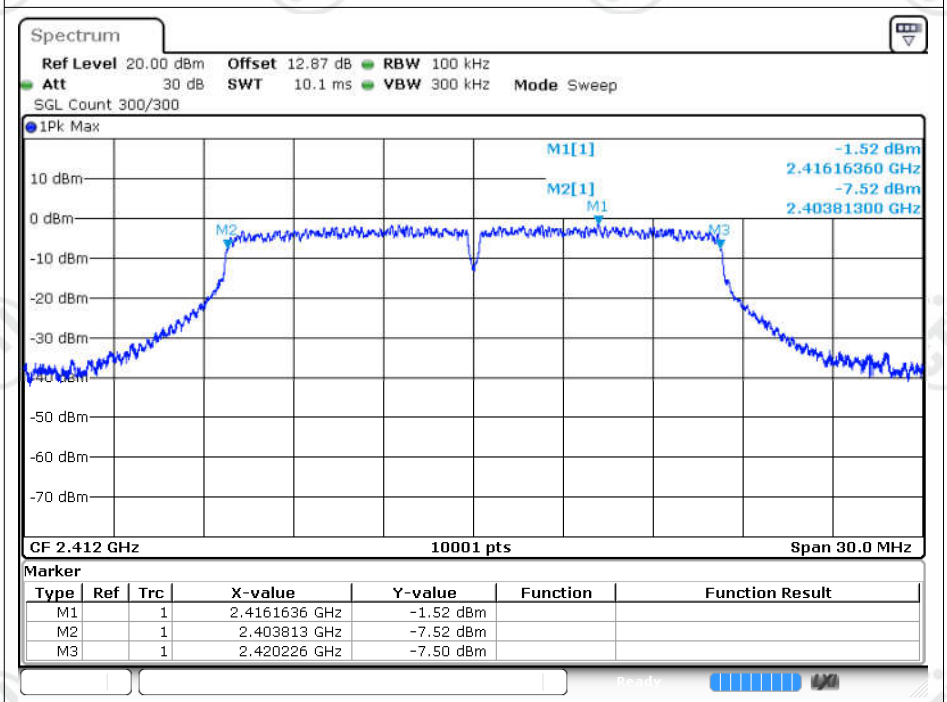
Date: 5.AUG.2022 09:55:36

-6dB Bandwidth NVNT b 2472MHz Ant1



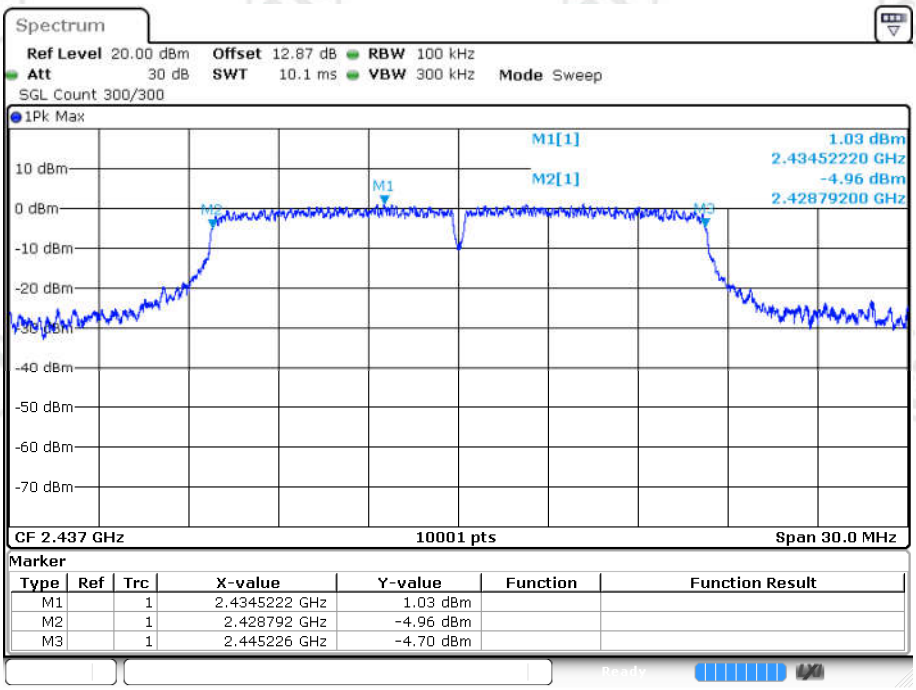
Date: 5.AUG.2022 09:54:04

-6dB Bandwidth NVNT g 2412MHz Ant1



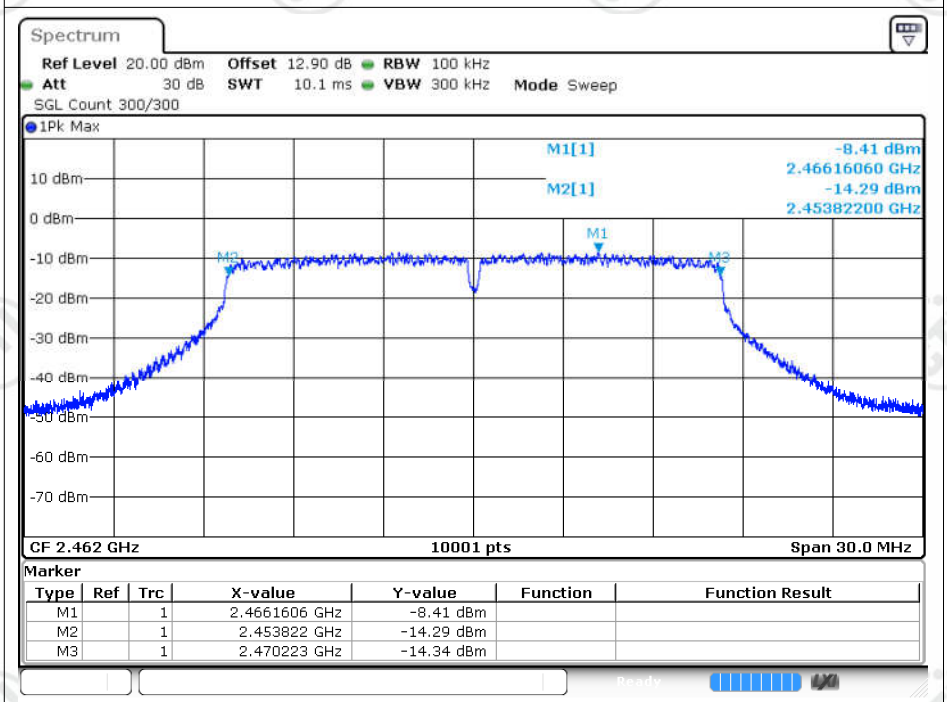
Date: 22.JUL.2022 11:45:59

-6dB Bandwidth NVNT g 2437MHz Ant1



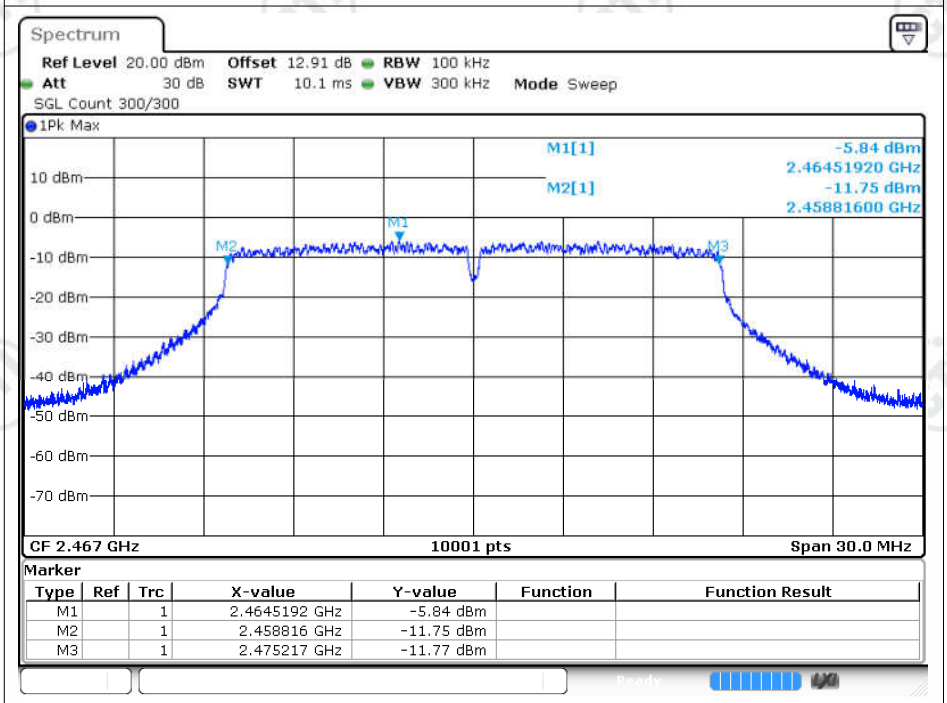
Date: 22.JUL.2022 11:48:19

-6dB Bandwidth NVNT g 2462MHz Ant1



Date: 22.JUL.2022 11:50:09

-6dB Bandwidth NVNT g 2467MHz Ant1

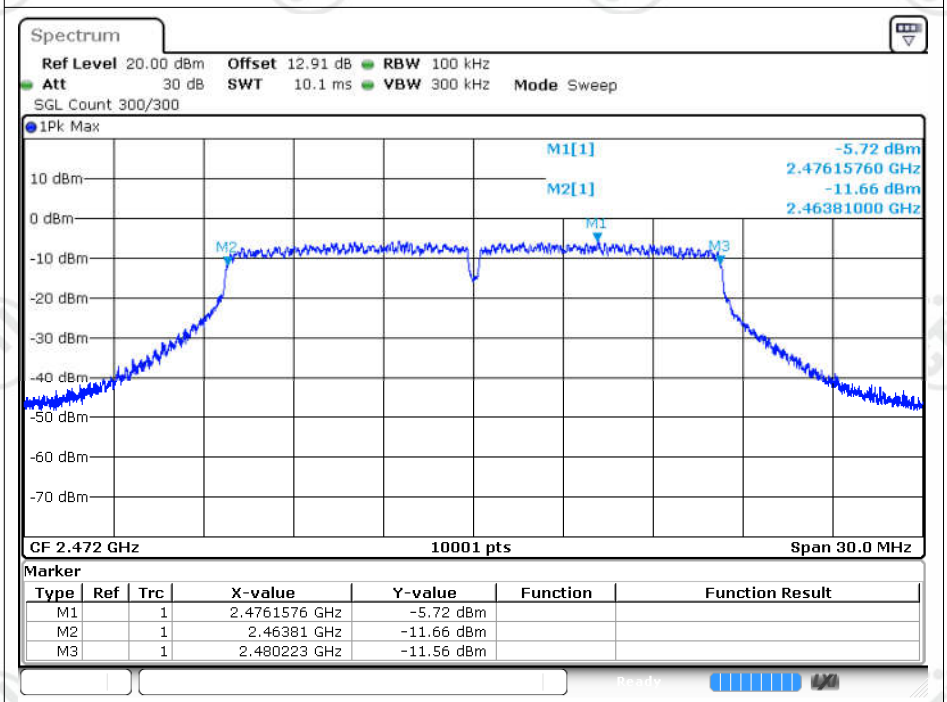


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4645192 GHz	-5.84 dBm		
M2		1	2.458816 GHz	-11.75 dBm		
M3		1	2.475217 GHz	-11.77 dBm		

Date: 5.AUG.2022 10:00:01

-6dB Bandwidth NVNT g 2472MHz Ant1

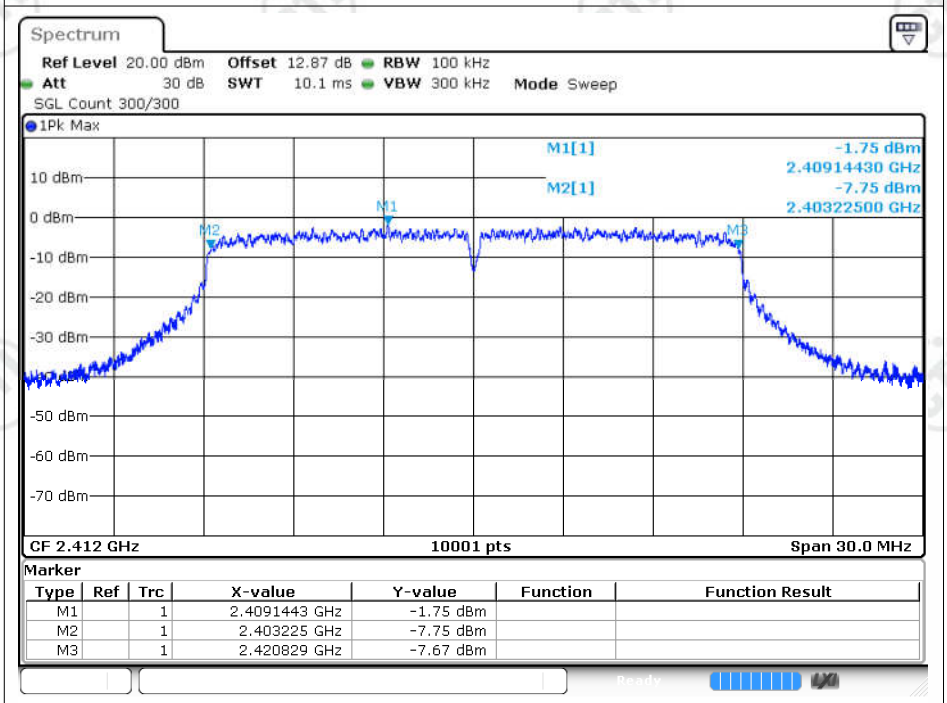


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4761576 GHz	-5.72 dBm		
M2		1	2.46381 GHz	-11.66 dBm		
M3		1	2.480223 GHz	-11.56 dBm		

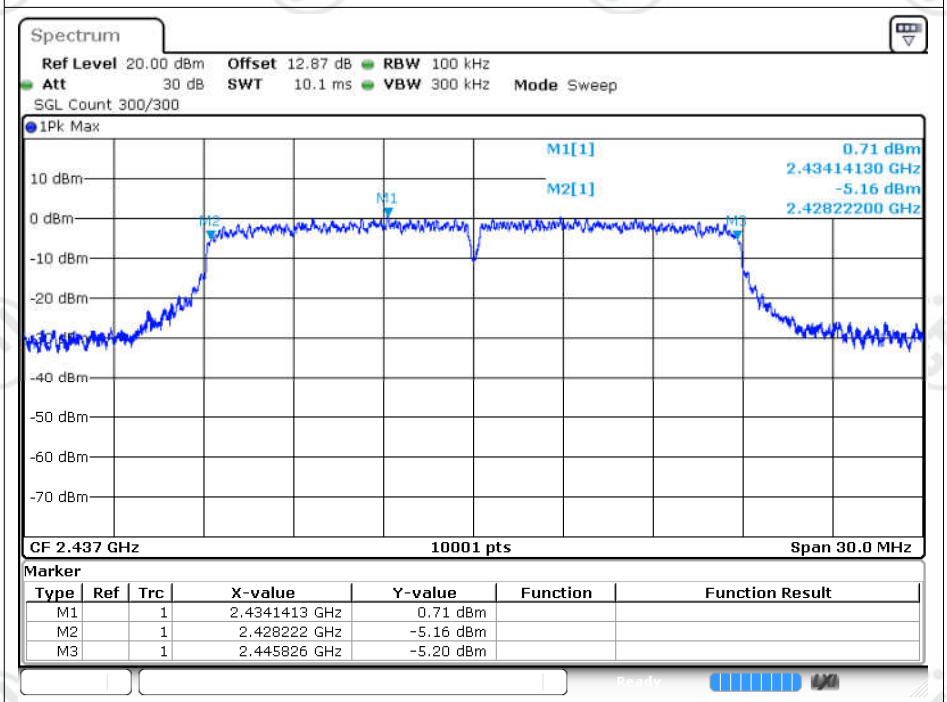
Date: 5.AUG.2022 09:58:18

-6dB Bandwidth NVNT n20 2412MHz Ant1



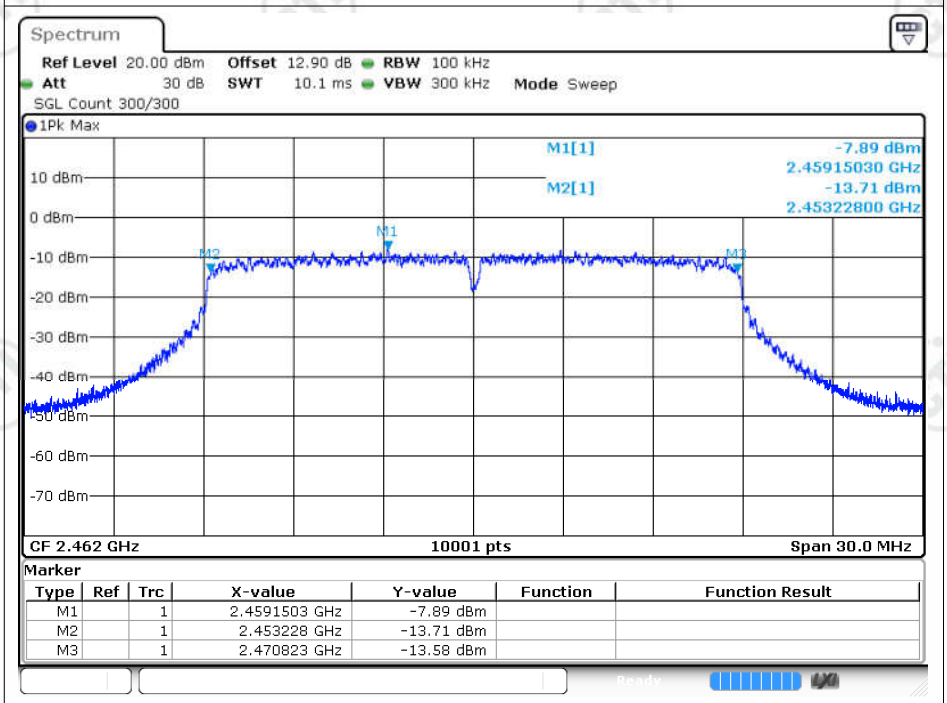
Date: 22.JUL.2022 11:53:01

-6dB Bandwidth NVNT n20 2437MHz Ant1



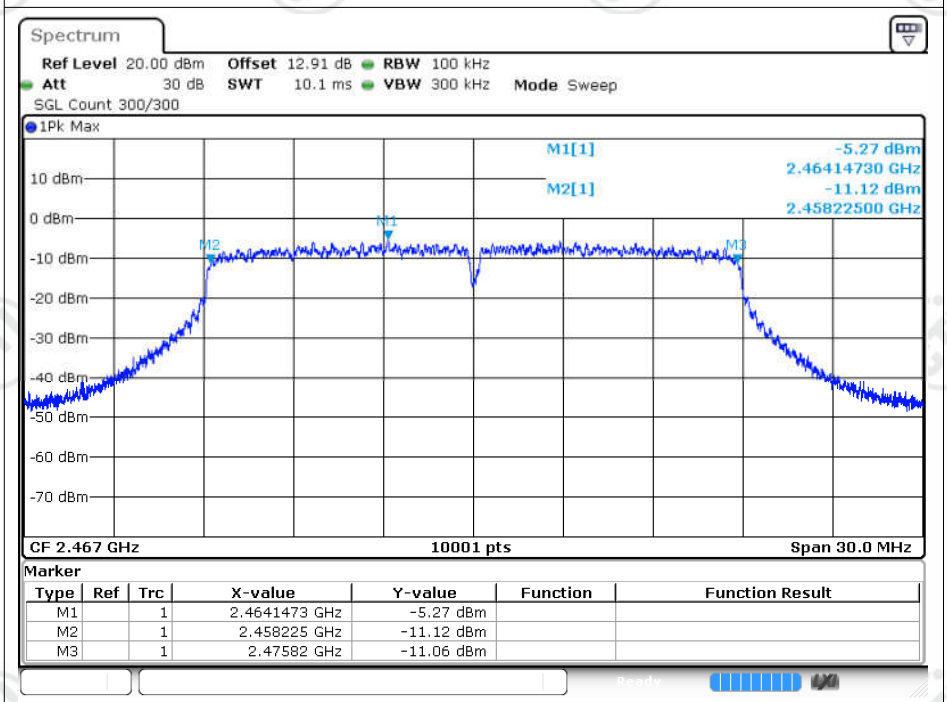
Date: 22.JUL.2022 11:54:57

-6dB Bandwidth NVNT n20 2462MHz Ant1



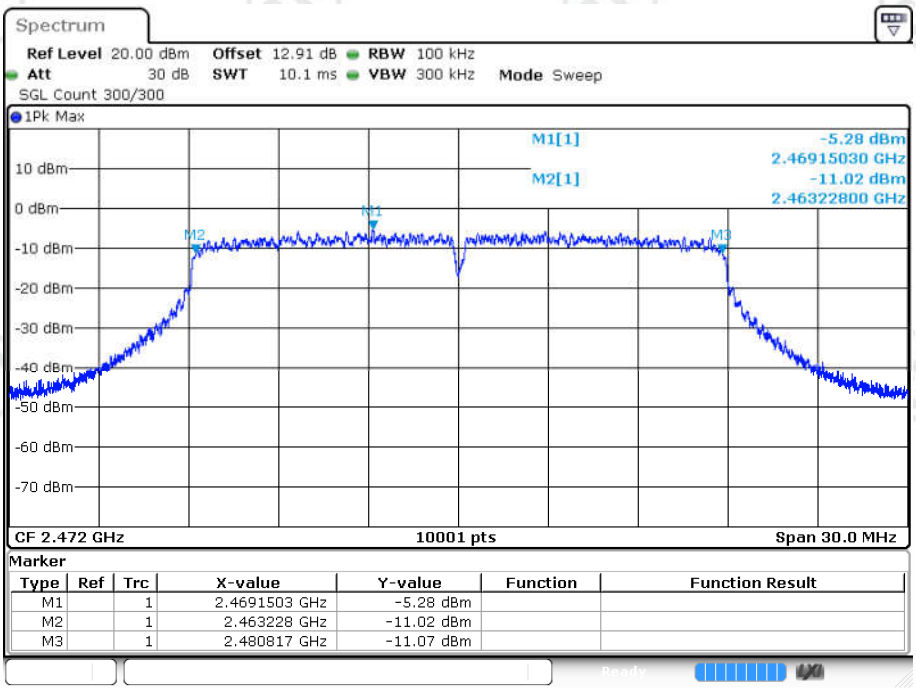
Date: 22.JUL.2022 11:56:52

-6dB Bandwidth NVNT n20 2467MHz Ant1



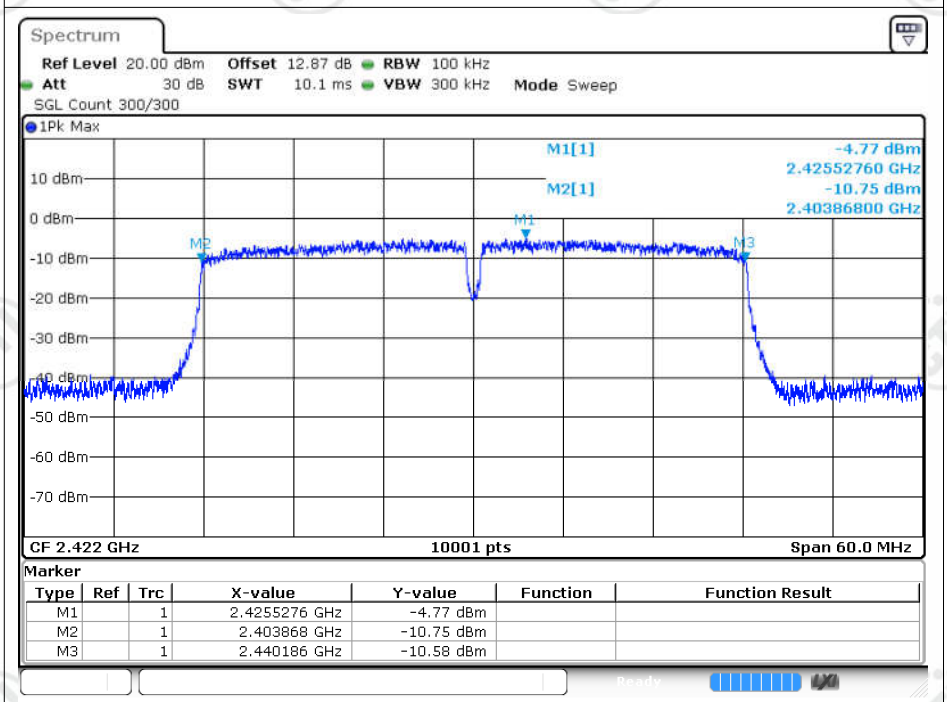
Date: 5.AUG.2022 10:07:31

-6dB Bandwidth NVNT n20 2472MHz Ant1



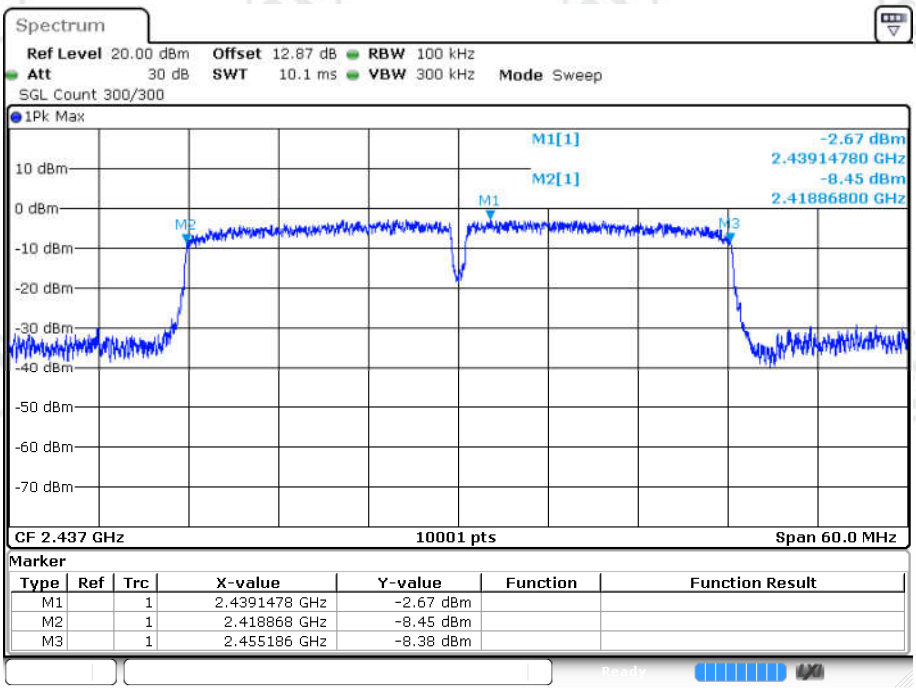
Date: 5.AUG.2022 10:05:14

-6dB Bandwidth NVNT n40 2422MHz Ant1



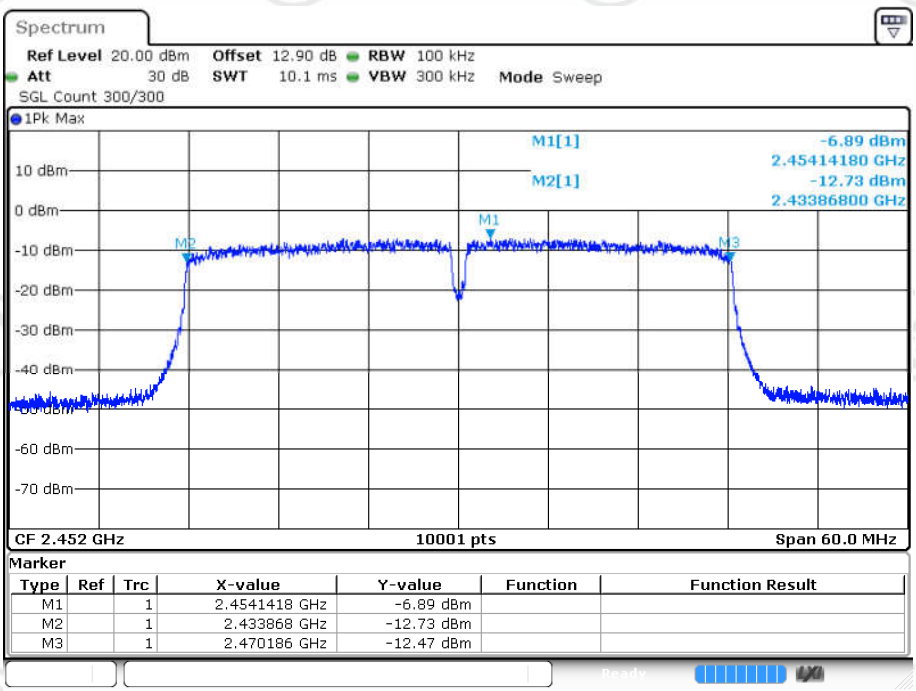
Date: 22.JUL.2022 11:59:28

-6dB Bandwidth NVNT n40 2437MHz Ant1



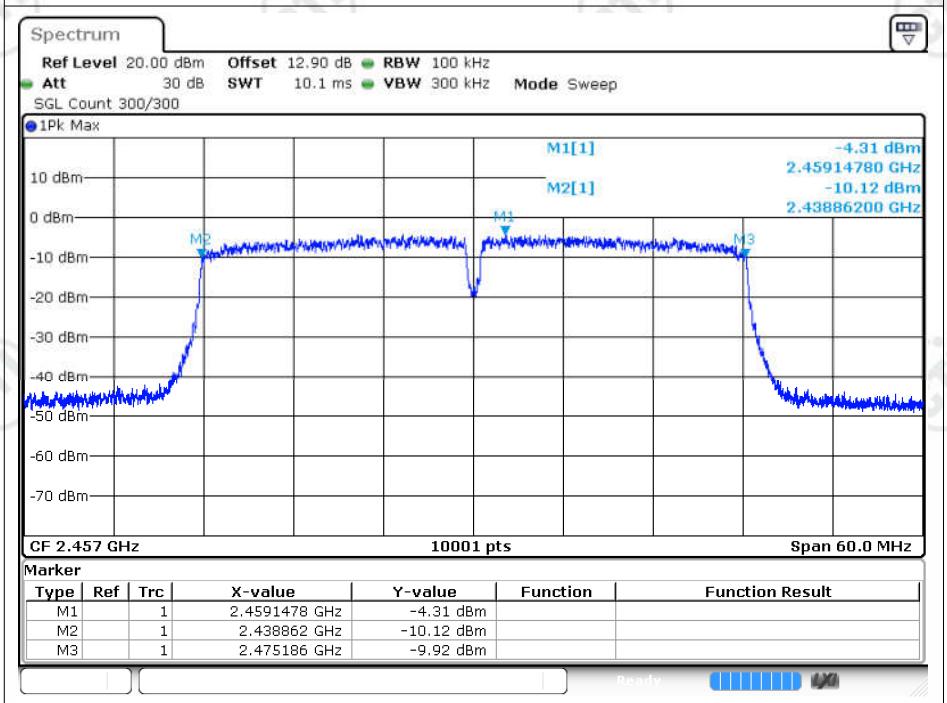
Date: 22.JUL.2022 12:02:05

-6dB Bandwidth NVNT n40 2452MHz Ant1



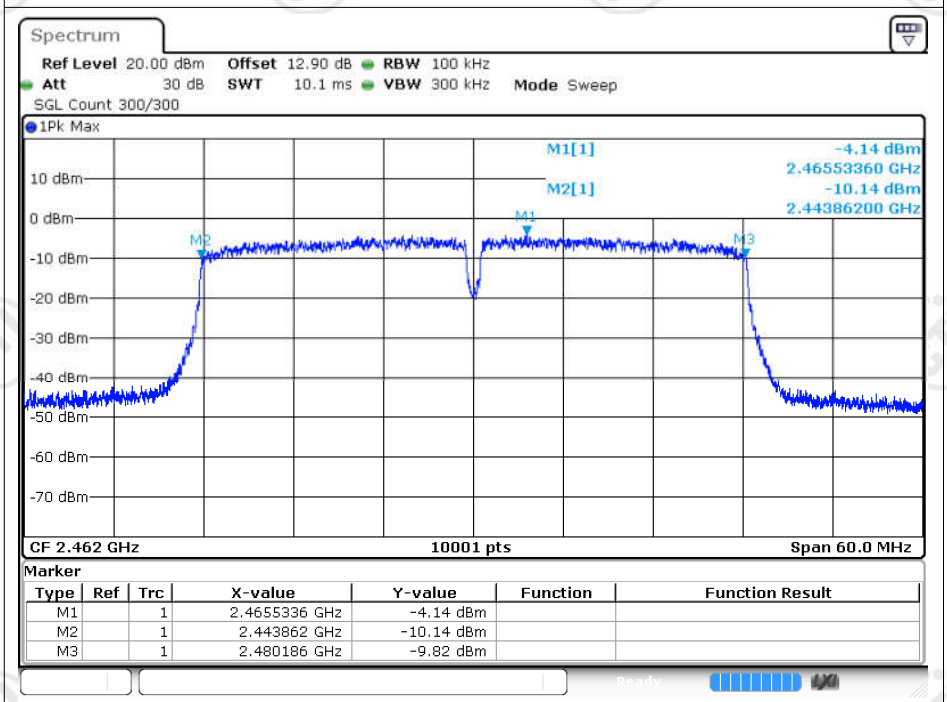
Date: 22.JUL.2022 12:04:29

-6dB Bandwidth NVNT n40 2457MHz Ant1



Date: 5.AUG.2022 10:14:58

-6dB Bandwidth NVNT n40 2462MHz Ant1



Date: 5.AUG.2022 10:10:44

4.Occupied Channel Bandwidth

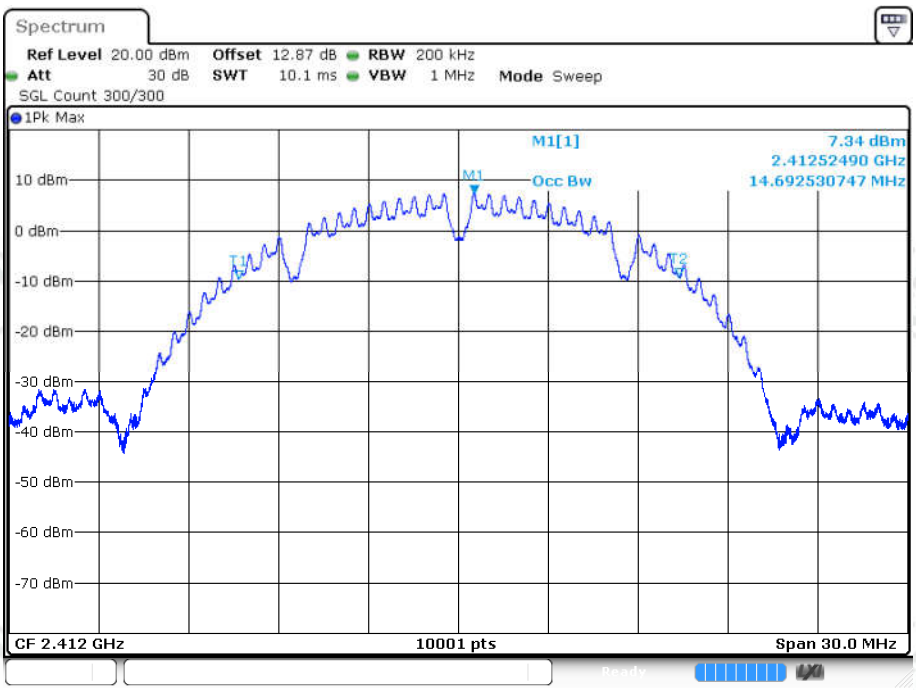
Test data：

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	14.693
NVNT	b	2437	Ant1	14.657
NVNT	b	2462	Ant1	14.594
NVNT	b	2467	Ant1	14.585
NVNT	b	2472	Ant1	14.636
NVNT	g	2412	Ant1	16.507
NVNT	g	2437	Ant1	16.594
NVNT	g	2462	Ant1	16.504
NVNT	g	2467	Ant1	16.498
NVNT	g	2472	Ant1	16.498
NVNT	n20	2412	Ant1	17.644
NVNT	n20	2437	Ant1	17.71
NVNT	n20	2462	Ant1	17.626
NVNT	n20	2467	Ant1	17.623
NVNT	n20	2472	Ant1	17.623
NVNT	n40	2422	Ant1	35.72
NVNT	n40	2437	Ant1	35.81
NVNT	n40	2452	Ant1	35.72
NVNT	n40	2457	Ant1	35.708
NVNT	n40	2462	Ant1	35.708

Test graphs：

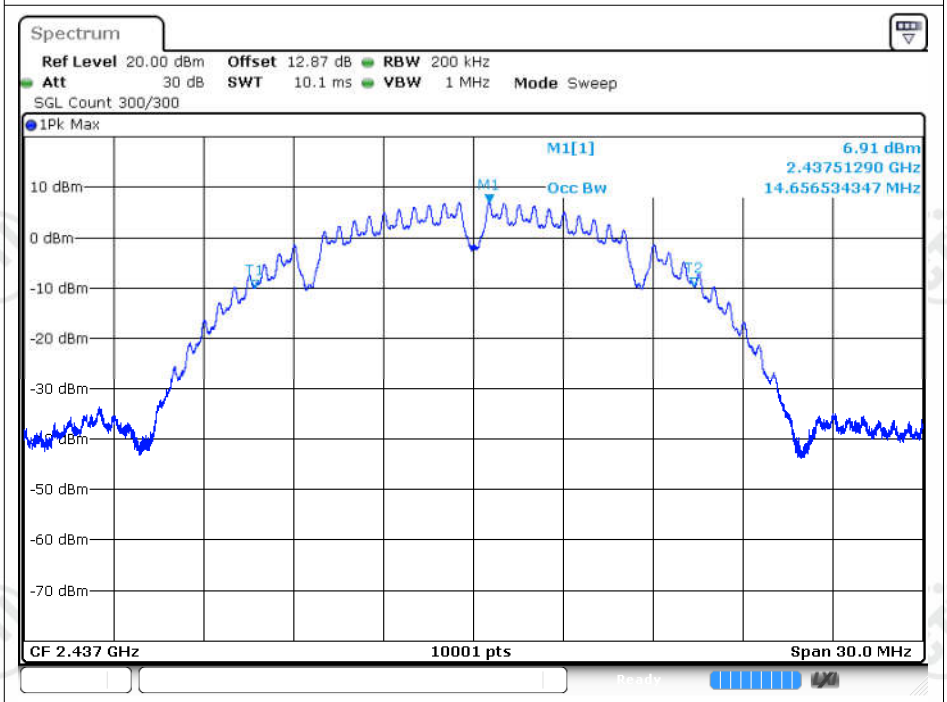
Test Graphs

OBW NVNT b 2412MHz Ant1



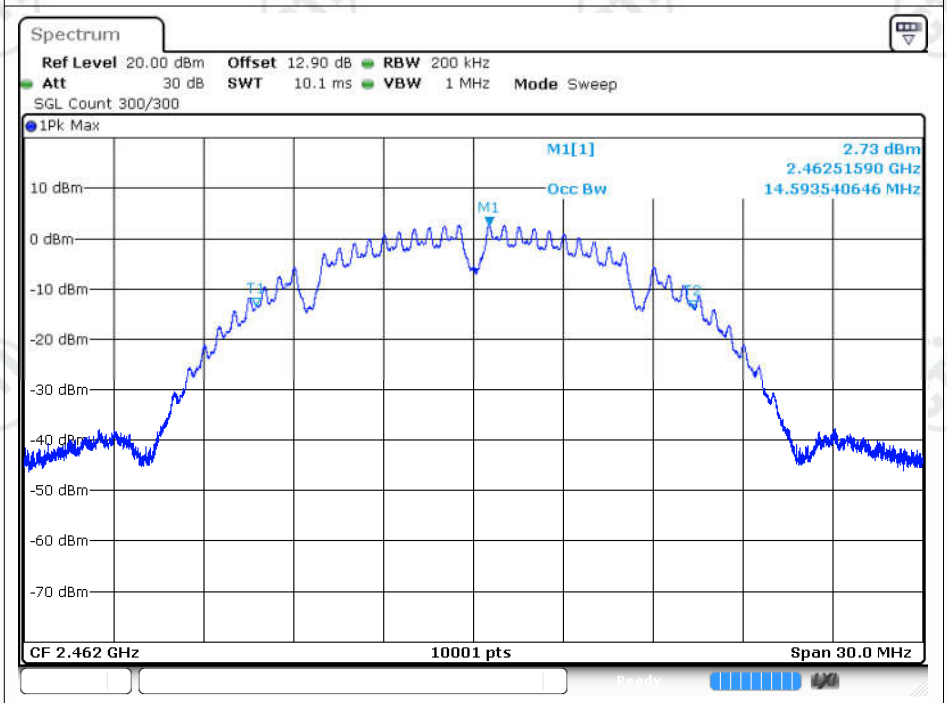
Date: 22.JUL.2022 11:29:24

OBW NVNT b 2437MHz Ant1



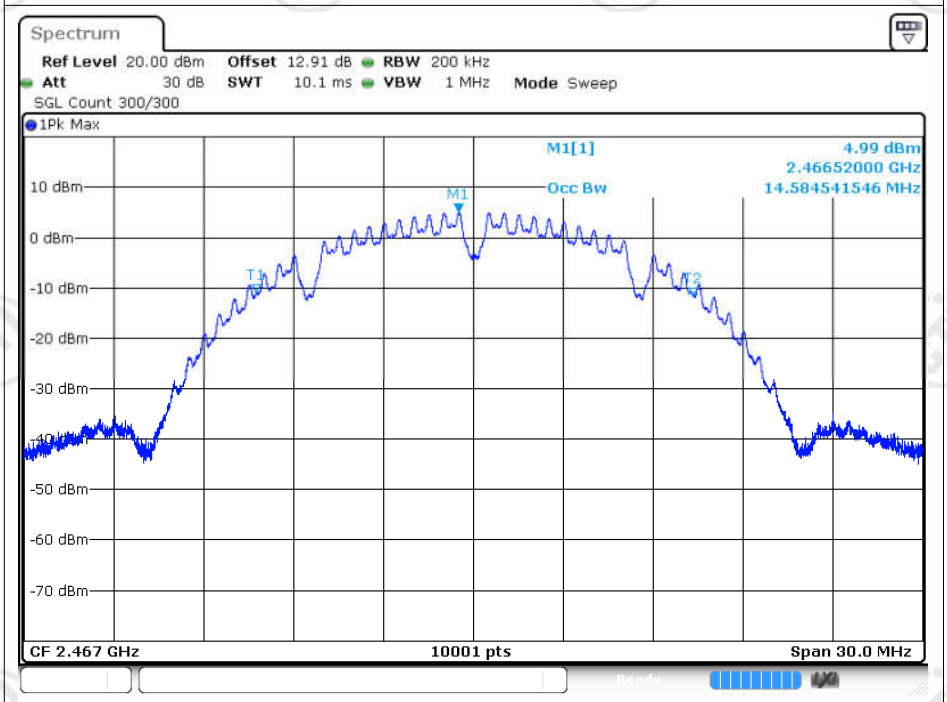
Date: 22.JUL.2022 11:31:16

OBW NVNT b 2462MHz Ant1



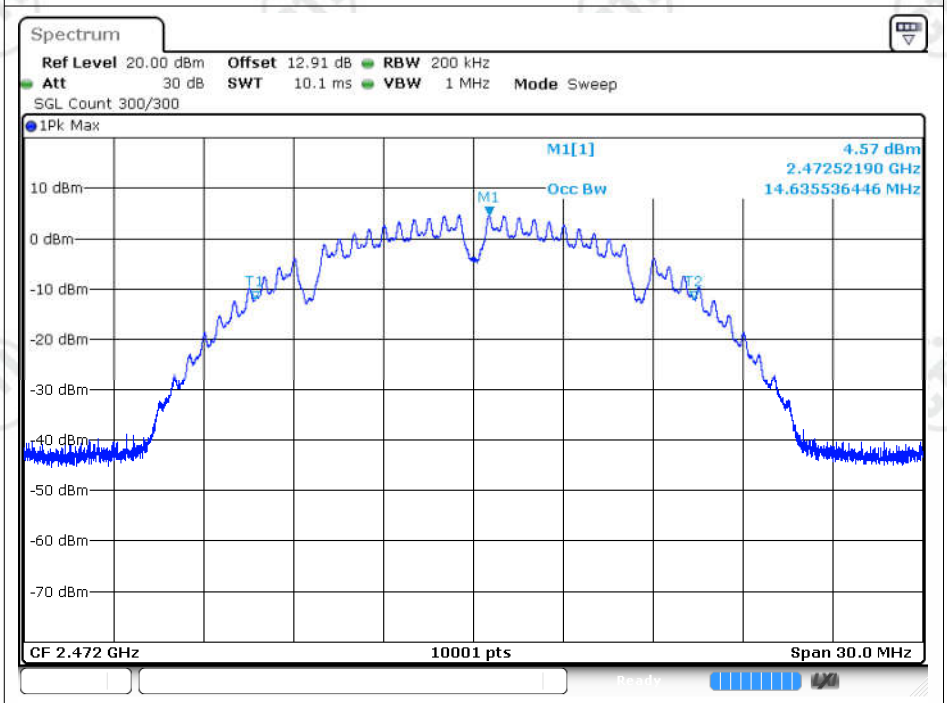
Date: 22.JUL.2022 11:32:45

OBW NVNT b 2467MHz Ant1



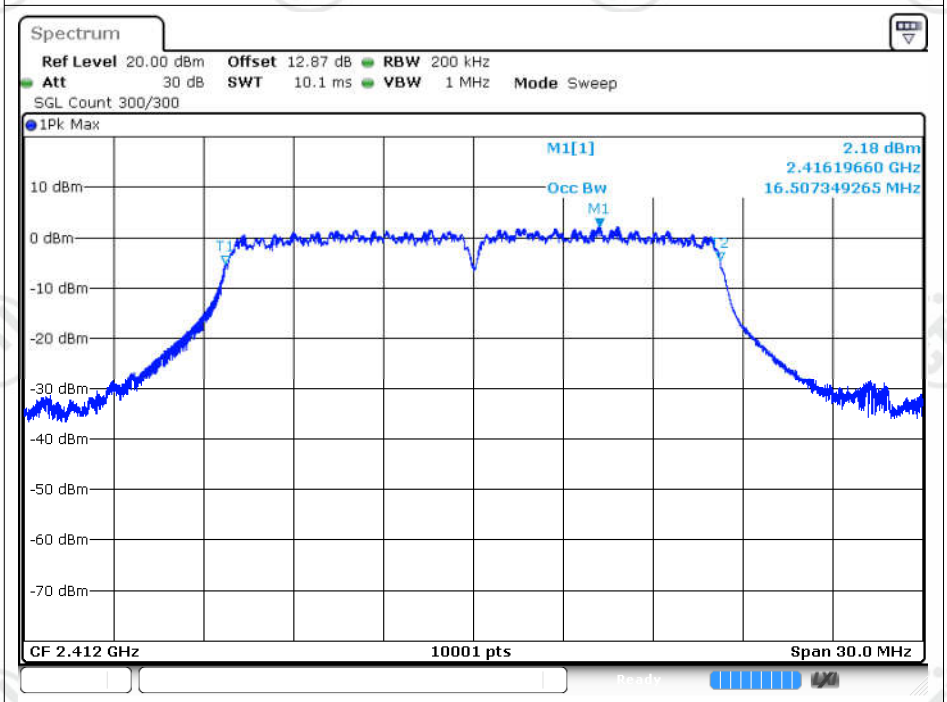
Date: 5.AUG.2022 09:55:24

OBW NVNT b 2472MHz Ant1



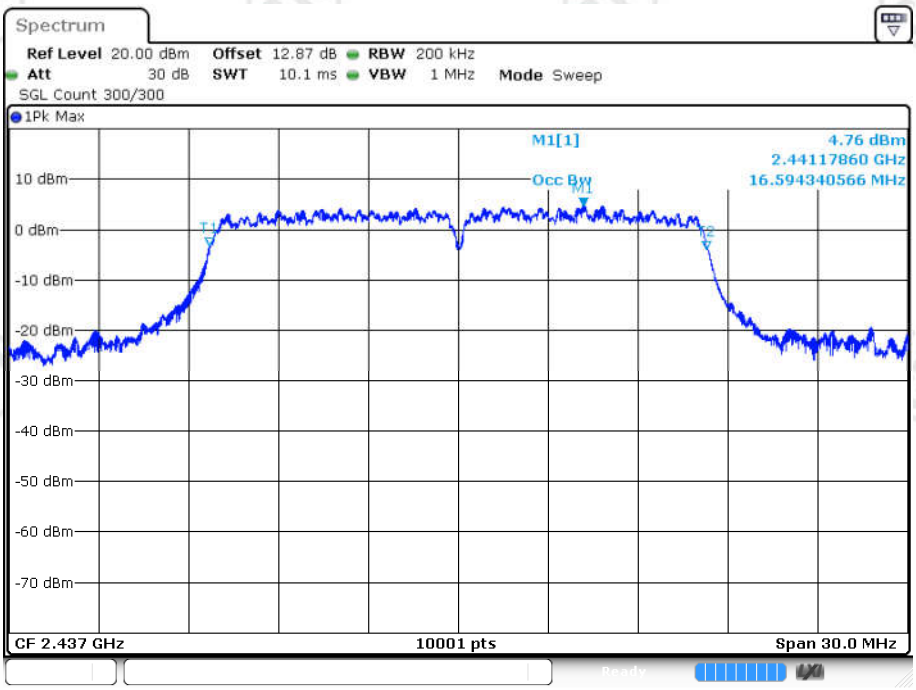
Date: 5.AUG.2022 09:53:52

OBW NVNT g 2412MHz Ant1



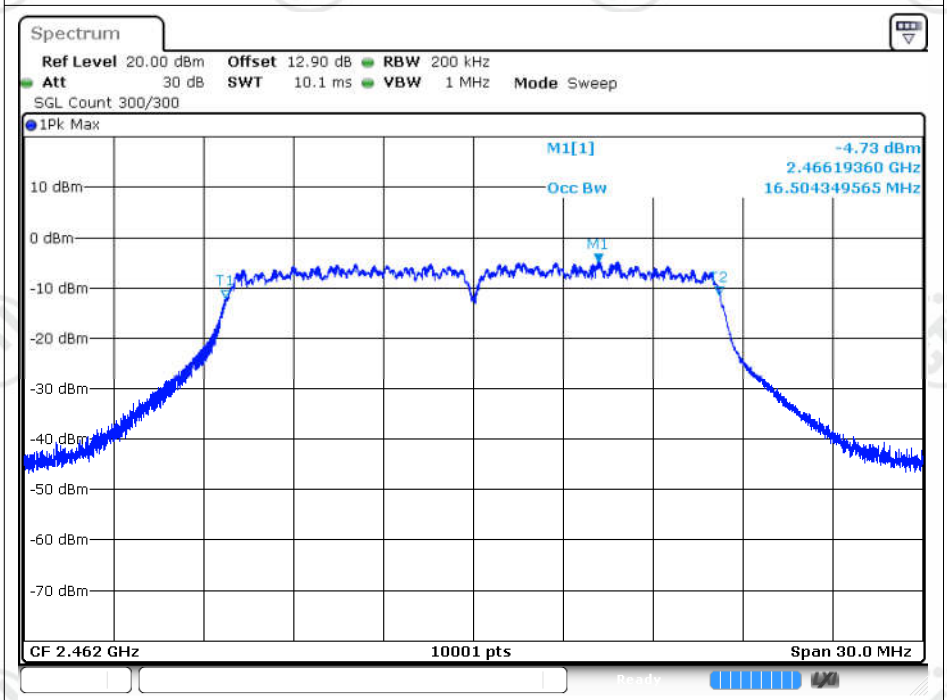
Date: 22.JUL.2022 11:45:48

OBW NVNT g 2437MHz Ant1



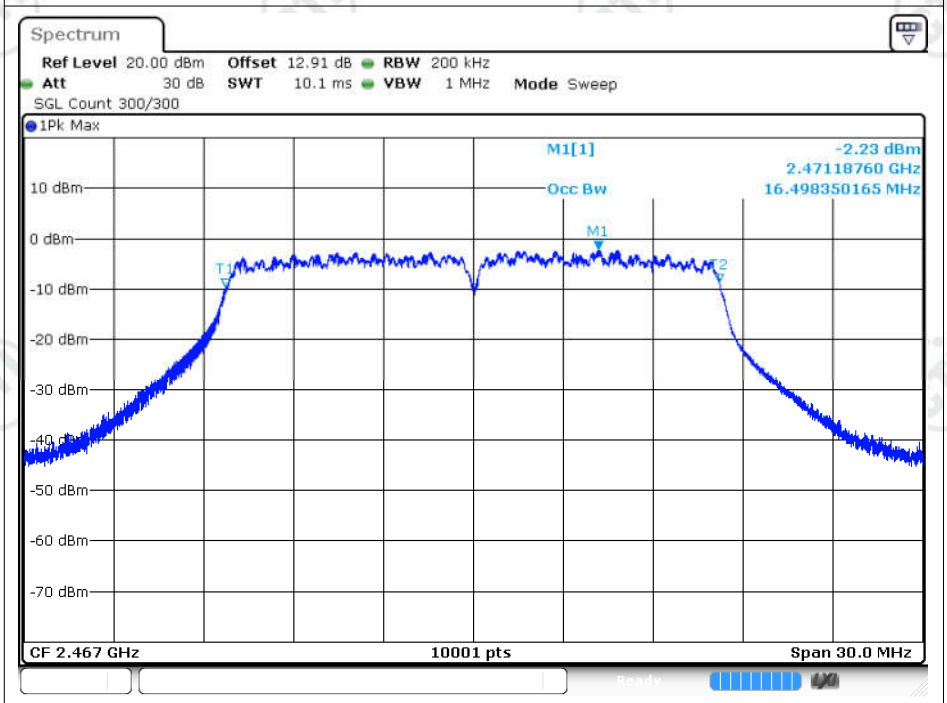
Date: 22.JUL.2022 11:48:08

OBW NVNT g 2462MHz Ant1



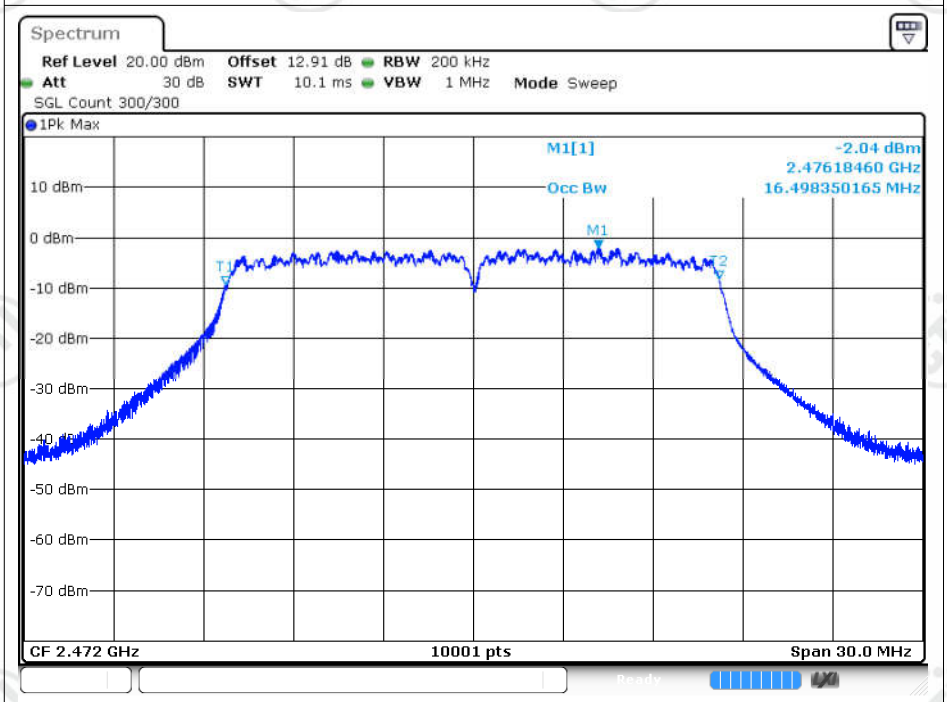
Date: 22.JUL.2022 11:49:57

OBW NVNT g 2467MHz Ant1



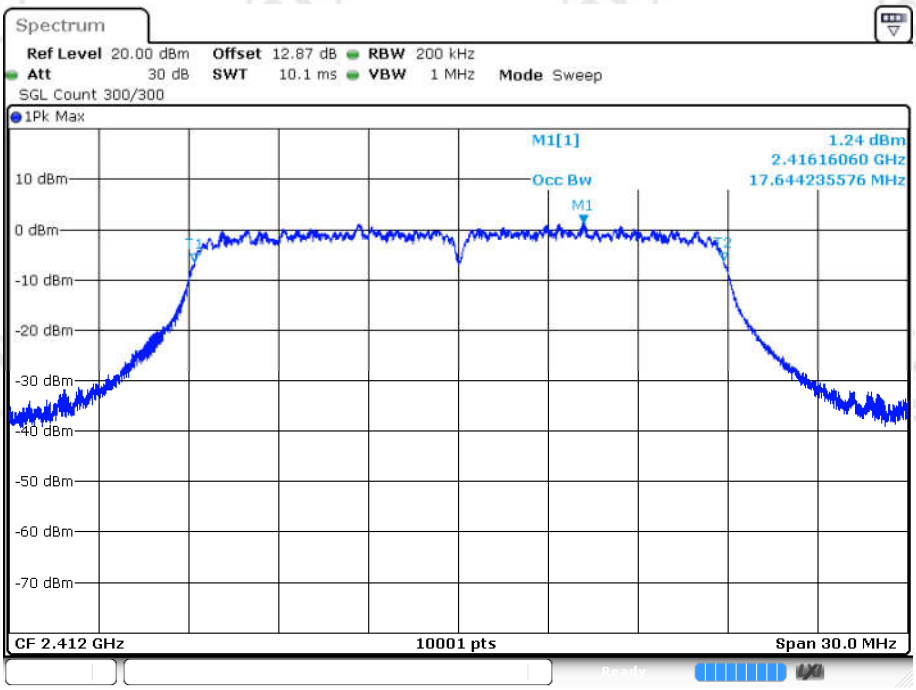
Date: 5.AUG.2022 09:59:49

OBW NVNT g 2472MHz Ant1



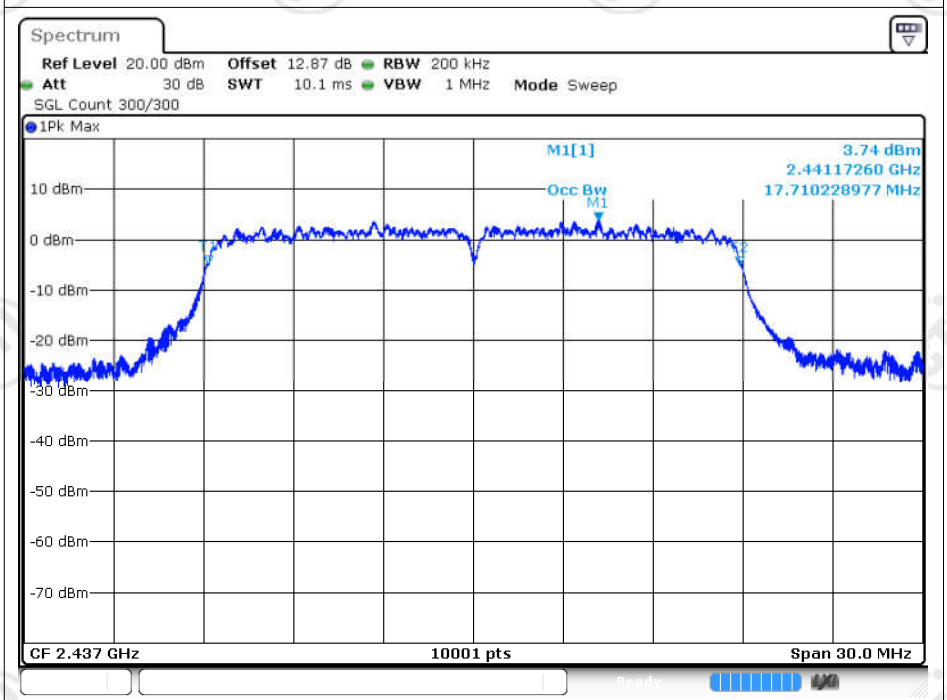
Date: 5.AUG.2022 09:58:07

OBW NVNT n20 2412MHz Ant1



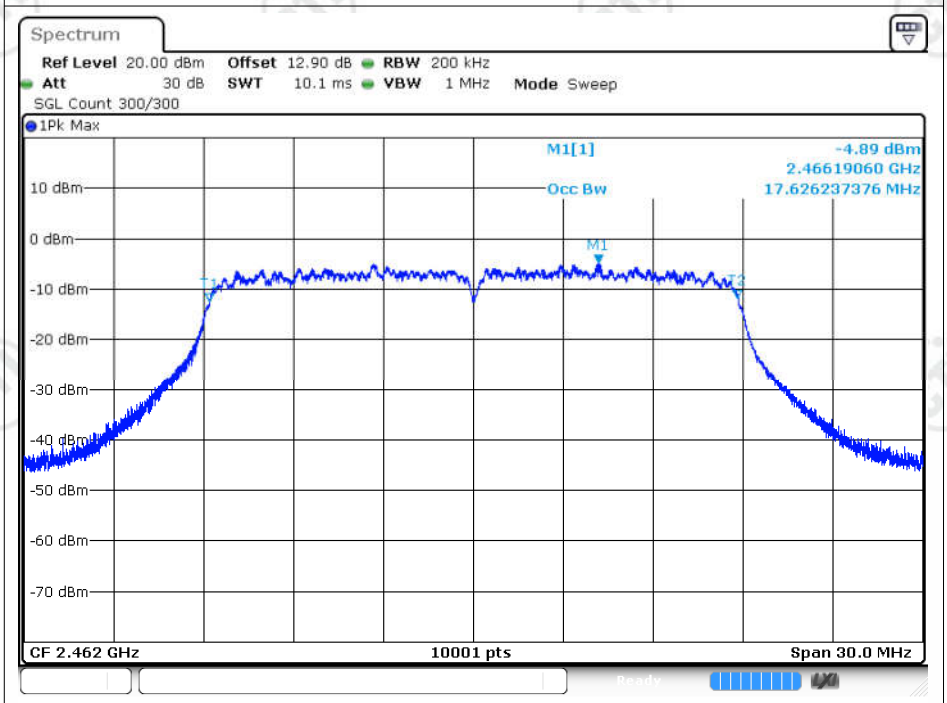
Date: 22.JUL.2022 11:52:51

OBW NVNT n20 2437MHz Ant1



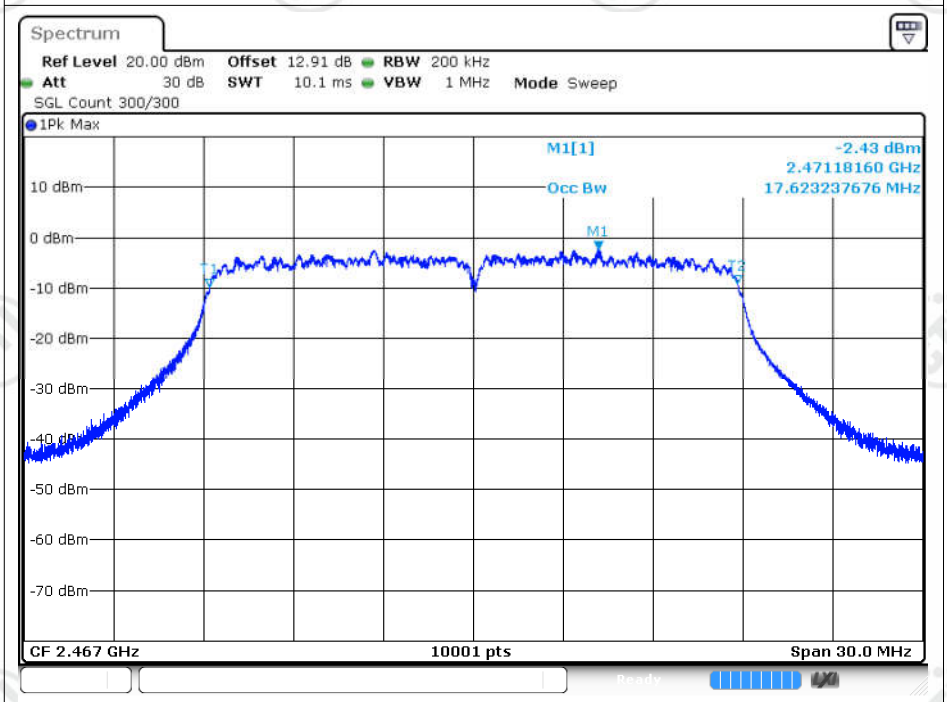
Date: 22.JUL.2022 11:54:46

OBW NVNT n20 2462MHz Ant1



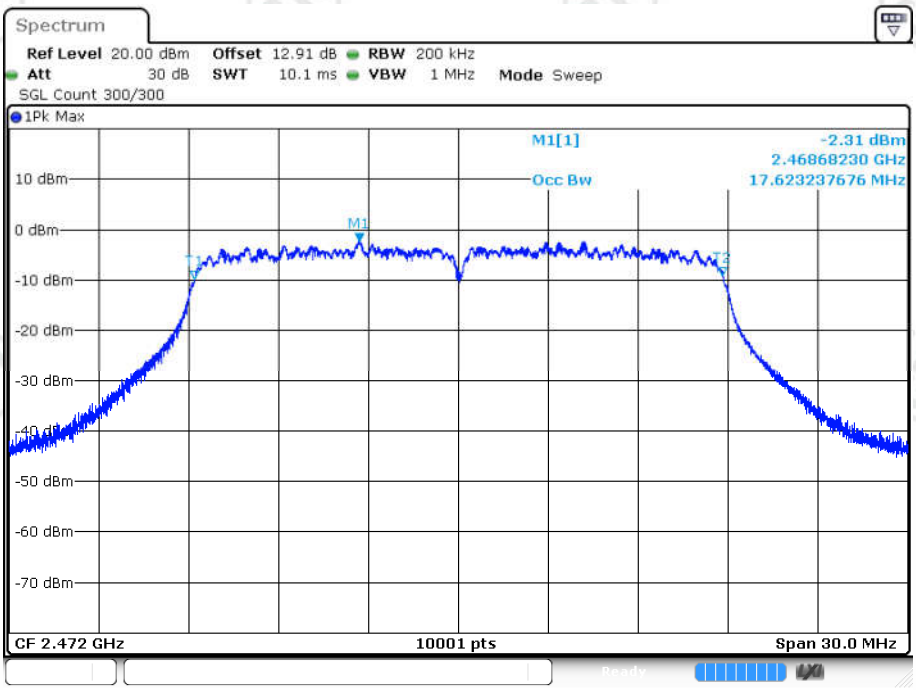
Date: 22.JUL.2022 11:56:40

OBW NVNT n20 2467MHz Ant1



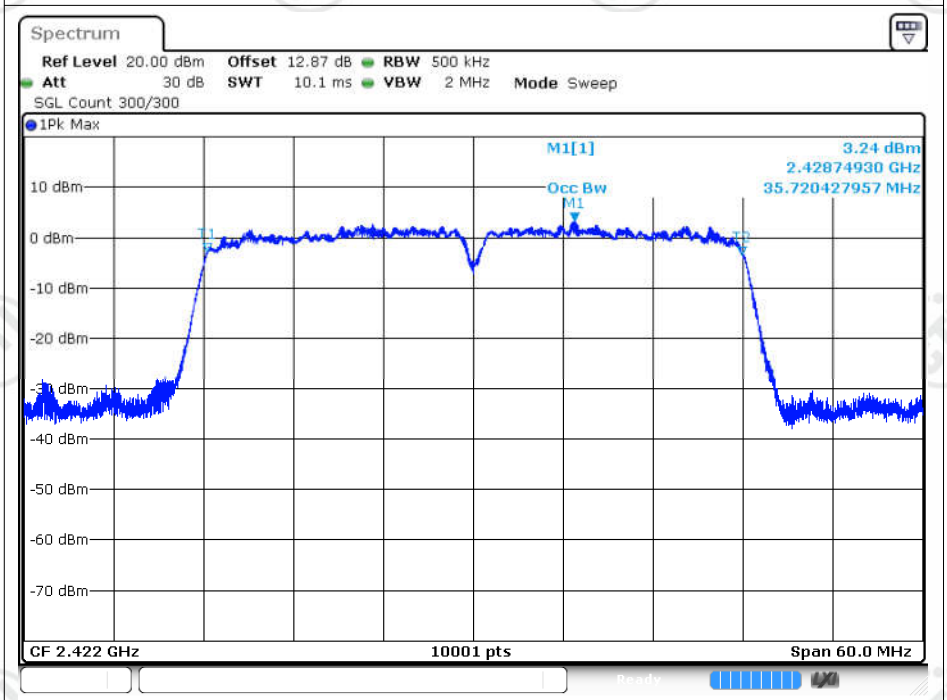
Date: 5.AUG.2022 10:07:19

OBW NVNT n20 2472MHz Ant1



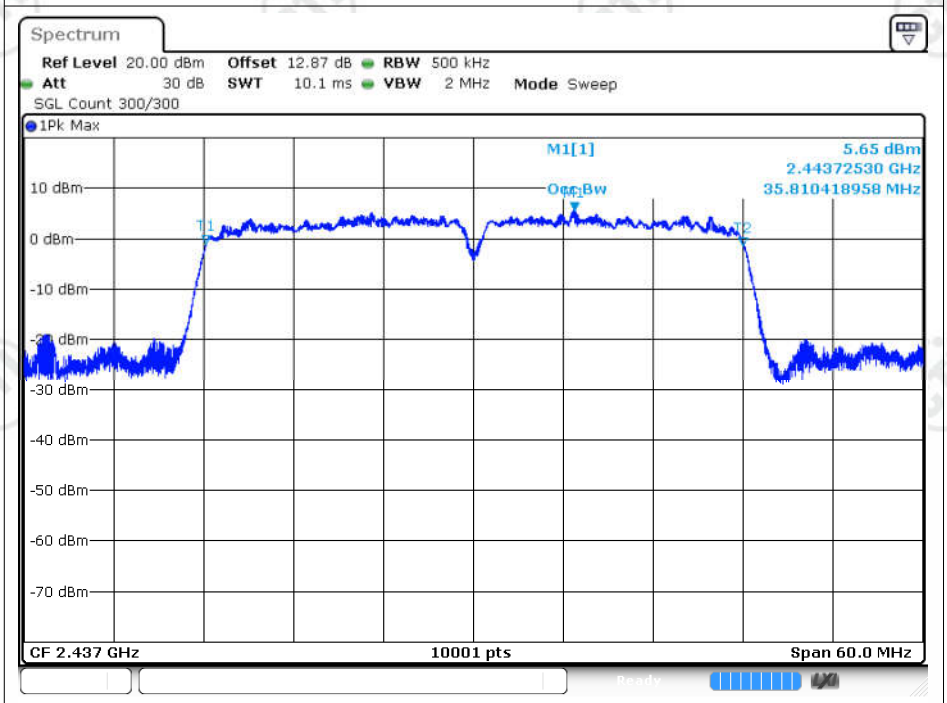
Date: 5.AUG.2022 10:05:03

OBW NVNT n40 2422MHz Ant1



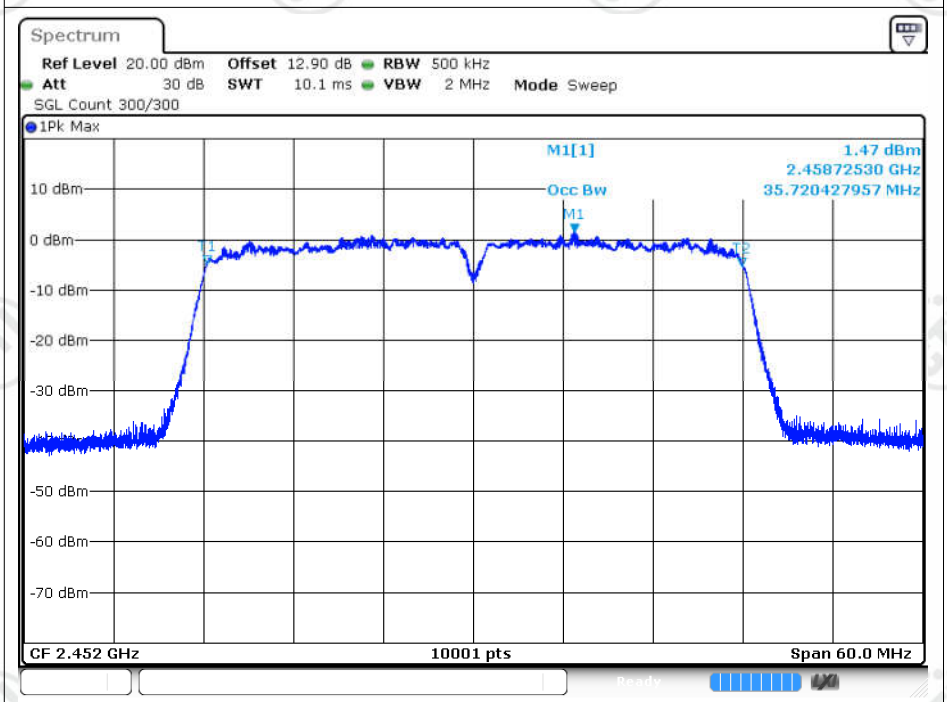
Date: 22.JUL.2022 11:59:20

OBW NVNT n40 2437MHz Ant1



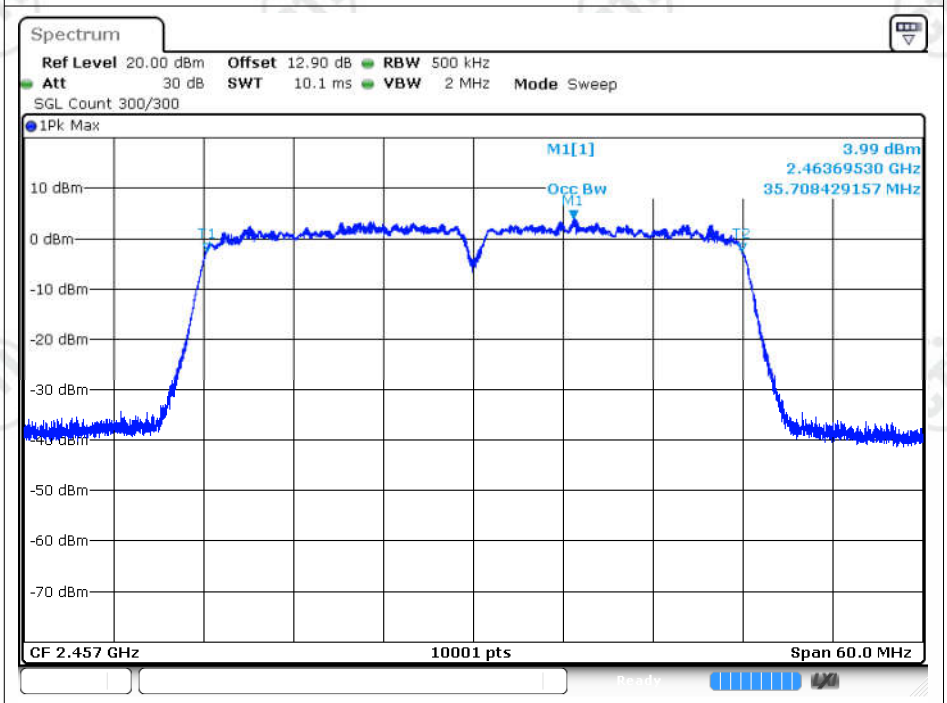
Date: 22.JUL.2022 12:01:57

OBW NVNT n40 2452MHz Ant1



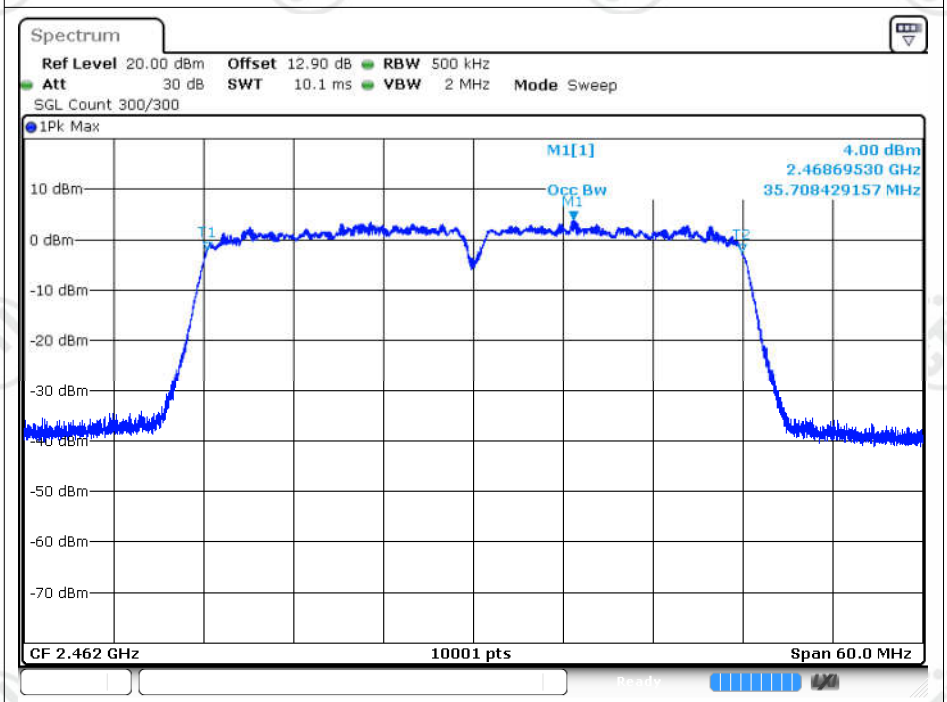
Date: 22.JUL.2022 12:04:21

OBW NVNT n40 2457MHz Ant1



Date: 5.AUG.2022 10:14:50

OBW NVNT n40 2462MHz Ant1



Date: 5.AUG.2022 10:10:35

5.Maximum Power Spectral Density Level

Test data：

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-14.4	0	-14.4	8	Pass
NVNT	b	2437	Ant1	-14.78	0	-14.78	8	Pass
NVNT	b	2462	Ant1	-18.93	0	-18.93	8	Pass
NVNT	b	2467	Ant1	-16.67	0	-16.67	8	Pass
NVNT	b	2472	Ant1	-17.11	0	-17.11	8	Pass
NVNT	g	2412	Ant1	-15.9	0	-15.9	8	Pass
NVNT	g	2437	Ant1	-13.28	0	-13.28	8	Pass
NVNT	g	2462	Ant1	-22.74	0	-22.74	8	Pass
NVNT	g	2467	Ant1	-20.19	0	-20.19	8	Pass
NVNT	g	2472	Ant1	-20.04	0	-20.04	8	Pass
NVNT	n20	2412	Ant1	-15.89	0	-15.89	8	Pass
NVNT	n20	2437	Ant1	-13.44	0	-13.44	8	Pass
NVNT	n20	2462	Ant1	-22.45	0	-22.45	8	Pass
NVNT	n20	2467	Ant1	-19.5	0	-19.5	8	Pass
NVNT	n20	2472	Ant1	-19.44	0	-19.44	8	Pass
NVNT	n40	2422	Ant1	-15.93	0	-15.93	8	Pass
NVNT	n40	2437	Ant1	-13.53	0	-13.53	8	Pass
NVNT	n40	2452	Ant1	-17.79	0	-17.79	8	Pass
NVNT	n40	2457	Ant1	-15.31	0	-15.31	8	Pass
NVNT	n40	2462	Ant1	-15.36	0	-15.36	8	Pass