



FCCTESTREPORT

FCC ID: 2AATL-6222B-SRC

On Behalf of

FN-LINK TECHNOLOGY LIMITED

WIFI MODULE

ModelNo.:6222B-SRC

Prepared for : FN-LINK TECHNOLOGY LIMITED
Address : No.8, Litong Road, Liuyang Economic & Technical Development
Zone, Changsha, Hunan, China

Prepared By : Shenzhen Alpha Product Testing Co.,Ltd.
Address : Buildingi,No.2,LixinRoad,FuyongStreet,Bao'anDistrict,518103,
Shenzhen, Guangdong, China

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TABLE OF CONTENTS

Description	Page
1. Summary of Standards And Results	5
1.1. Description of Standards and Results	5
2. General Information	6
2.1. Description of Device (EUT)	6
2.2. Accessories of Device (EUT)	7
2.3. Tested Supporting System Details	7
2.4. Block Diagram of connection between EUT and simulators	7
2.5. Test Mode Description	8
2.6. Test Conditions	9
2.7. Test Facility	9
2.8. Measurement Uncertainty	9
2.9. Test Equipment List	10
3. Spurious Emission	11
3.1. Test Limits	11
3.2. Test Procedure	12
3.3. Test Setup	12
3.4. Test Results	13
4. Power line Conducted Emission	32
4.1. Test Limits	32
4.2. Test Procedure	32
4.3. Test Setup	32
4.4. Test Results	32
5. Conducted Maximum Output Power	35
5.1. Test limits	35
5.2. Test Procedure	35
5.3. Test Setup	35
5.4. Test Results	35
6. Peak Power Spectral Density	37
6.1. Test limits	37
6.2. Test Procedure	37
6.3. Test Setup	37
6.4. Test Results	38
7. Bandwidth	51
7.1. Test limits	51
7.2. Test Procedure	51
7.3. Test Setup	51
7.4. Test Results	51
8. Band Edge Check	65
8.1. Test limits	65
8.2. Test Procedure	65
8.3. Test Setup	65
8.4. Test Results	65
9. Antenna Requirement	70
9.1. Standard Requirement	70
9.2. Antenna Connected Construction	70
9.3. Results	70
10. Test setup photo	71
10.1. Photos of Radiated emission	71
10.2. Photos of Conducted Emission test	72

TEST REPORT DECLARATION

Applicant : FN-LINK TECHNOLOGY LIMITED
Address : No.8, Litong Road, Liuyang Economic & Technical Development Zone,
Changsha, Hunan, China
Manufacturer : FN-LINK TECHNOLOGY LIMITED
Address : No.8, Litong Road, Liuyang Economic & Technical Development Zone,
Changsha, Hunan, China
EUT Description : WIFI MODULE
(A) Model No. : 6222B-SRC
(B) Trademark :  欧智通

Measurement Standard Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247

ANSI C63.10-2013

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission level emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both conducted and radiated emissions. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After the test, our opinion is that EUT compliance with the requirement of the above standards.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature).....:

Yannis Wen
Project Engineer



Approved by (name + signature).....:

Reak Yang
Project Manager



Date of issue.....:

May 24, 2023

Revision History

Revision	Issue Date	Revisions	RevisedBy
V0	May 24, 2023	Initial released Issue	Yannis Wen

1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT has been tested according to the applicable standards as referenced below:

Test Item	Standards Paragraph	Result
Conducted Emission	FCC Part 15:15.207 ANSI C63.10	P
6 dB Bandwidth	FCC Part 15:15.247(a)(2) ANSI C63.10	P
Output Power	FCC Part 15:15.247(b)(3) ANSI C63.10	P
Radiated Spurious Emission	FCC Part 15:15.209 FCC Part 15:15.247(d) ANSI C63.10	P
Conducted Spurious & Band Edge Emission	FCC Part 15:15.247(d) ANSI C63.10	P
Power Spectral Density	FCC Part 15:15.247(e) ANSI C63.10	P
Radiated Band Edge Emission	FCC Part 15:15.247(d) ANSI C63.10	P
Antenna Requirement	FCC Part 15:15.203	P
Note: 1. P is an abbreviation for Pass. 2. F is an abbreviation for Fail. 3. N/A is an abbreviation for Not Applicable. 4. The conclusion of this test report is judged by actual test data without considering measurement uncertainty.		

2. GENERAL INFORMATION

2.1. Description of Device(EUT)

EUT Name : WIFI MODULE
Trademark : 
Model No. : 6222B-SRC
DIFF. : N/A
Power supply : DC 3.3V from USB adapter board

2.4GWIFI :
Operation frequency : 2412MHz-2462MHzforIEEE802.11b,g.n/HT20
2422MHz~2452MHzforIEEE802.11n/HT40
Channel No. : 802.11b/802.11g/802.11n(HT20:11CH
802.11(HT40:7CH
Modulation type : IEEE802.11b:DSSS(CCK,DQPSK,DBPSK)
IEEE802.11g:OFDM(64QAM,16QAM,QPSK,BPSK)
IEEE802.11n:OFDM(64QAM,16QAM,QPSK,BPSK)
Antenna Type : FPC Antenna 1, max gain 2.63dBi,
FPC Antenna 2, max gain 2.63dBi.
The antenna MIMO combining gain is 5.63dBi.
(Antenna information is provided by applicant.)
Software version : V1.0
Hardware version : V1.0
Intend use environment : Residential, commercial and light industrial environment
Note : /

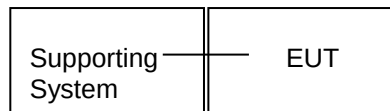
2.2. Accessories of Device(EUT)

Accessories : /
Manufacturer : /
Model : /
Ratings : /

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification or SDOC
1	Notebook PC	Lenovo	T430	/	/

2.4. Block Diagram of connection between EUT and simulators



2.5. Test Mode Description

Dutycycle:100%KeepingTX			
Mode	Data rate(Mbps)(see Note)	Channel	Frequency (MHz)
IEEE802.11b	1	Low:CH1	2412
	1	Middle:CH6	2437
	1	High:CH11	2462
IEEE802.11g	6	Low:CH1	2412
	6	Middle:CH6	2437
	6	High:CH11	2462
IEEE802.11n/HT20	6.5	Low:CH1	2412
	6.5	Middle:CH6	2437
	6.5	High:CH11	2462
IEEE 802.11 n/HT40	13.5	Low :CH3	2422
	13.5	Middle: CH6	2437
	13.5	High: CH9	2452
Note:Accordingexploratorytest,EUTwillhavemaximumoutputpowerinthosedatarate.so thosedataratewereused for alltest.			

Channel list:					
ForIEEE802.11b,g,n/HT20					
Channel	Frequency(MHz)	Channel	Frequency(MHz)	Channel	Frequency(MHz)
CH1	2412	CH5	2432	CH9	2452
CH2	2417	CH6	2437	CH10	2457
CH3	2422	CH7	2442	CH11	2462
CH4	2427	CH8	2447		
ForIEEE802.11n/HT40					
Channel	Frequency(MHz)	Channel	Frequency(MHz)	Channel	Frequency(MHz)
CH1	2422	CH5	2442		
CH2	2427	CH6	2447		
CH3	2432	CH7	2452		
CH4	2437				

2.6. Test Conditions

Items	Required	Actual
Temperature range:	15-35°C	24°C
Humidity range:	25-75%	56%
Pressure range:	86-106kPa	98kPa

2.7. Test Facility

Shenzhen Alpha Product Testing Co., Ltd

Buildingi, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103,
Shenzhen, Guangdong, China

June 21, 2018 File on Federal Communication Commission

Registration Number: 293961

Designation Number: CN1236

July 15, 2019 Certificated by IC

Registration Number: 12135A

2.8. Measurement Uncertainty

(95% confidence levels, $k=2$)

Item	Uncertainty
Uncertainty for Power point Conducted Emissions Test	2.74dB
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	2.13dB (Polarize: V)
	2.57dB (Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.77dB (Polarize: V)
	3.80dB (Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	4.13dB (Polarize: H)
	4.16dB (Polarize: V)
Uncertainty for radio frequency	5.4×10^{-8}
Uncertainty for conducted RF Power	0.37dB
Uncertainty for temperature	0.2°C
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

2.9. Test Equipment List

Equipment	Manufacture	Model No.	Firmware version	Serial No.	Last cal.	Cal Interval
9*6*6 anechoic chamber	CHENYU	9*6*6	/	N/A	2022.05.17	3Year
Spectrum analyzer	ROHDE&SCHWARZ	FSV40-N	2.3	102137	2022.08.22	1Year
Spectrum analyzer	Agilent	N9020A	A.14.16	MY499100060	2022.08.22	1Year
Receiver	ROHDE&SCHWARZ	ESR	2.28 SP1	1316.3003K03-10 2082-Wa	2022.08.22	1Year
Receiver	R&S	ESCI	4.42 SP1	101165	2022.08.22	1Year
Bilog Antenna	Schwarzbeck	VULB 9168	/	VULB 9168#627	2021.08.30	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	/	2106	2021.08.30	2Year
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	/	00059	2021.08.30	2Year
RF Cable	Resenberger	Cable 1	/	RE1	2022.08.22	1Year
RF Cable	Resenberger	Cable 2	/	RE2	2022.08.22	1Year
RF Cable	Resenberger	Cable 3	/	CE1	2022.08.22	1Year
Pre-amplifier	HP	HP8347A	/	2834A00455	2022.08.22	1Year
Pre-amplifier	Agilent	8449B	/	3008A02664	2022.08.22	1Year
L.I.S.N.#1	Schwarzbeck	NSLK8126	/	8126-466	2022.08.22	1Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	/	101043	2022.08.23	1 Year
Horn Antenna	SCHWARZBECK	BBHA9170	/	00946	2021.08.30	2 Year
Preamplifier	SKET	LNPA_1840 -50	/	SK2018101801	2022.08.22	1 Year
Power Meter	Agilent	E9300A	/	MY41496628	2022.08.22	1 Year
Power Sensor	DARE	RPR3006W	/	15100041SNO91	2022.08.22	1 Year
Temp. & Humid. Chamber	Weihuang	WHTH-1000 -40-880	/	100631	2023.04.18	1 Year
Switching Mode Power Supply	JUNKE	JK12010S	/	20140927-6	2022.08.22	1 Year
Adjustable attenuator	MWRFTest	N/A	/	N/A	N/A	N/A
10dB Attenuator	Mini-Circuits	DC-6G	/	N/A	N/A	N/A

Software Information			
Test Item	Software Name	Manufacturer	Version
RE	EZ-EMC	farad	Alpha-3A1
CE	EZ-EMC	farad	Alpha-3A1
RF-CE	MTS 8310	MWRFTest	V2.0.0.0

3. SPURIOUSEMISSION

3.1. Test Limits

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

15.209Limit

FREQUENCY MHz	DISTANCE Meters	FIELDSTRENGTHSLIMIT	
		μV/m	dB(μV)/m
0.009-0.490	300	2400/F(KHz)	/
0.490-1.705	30	24000/F(KHz)	/
1.705-30	30	30	29.5
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0dB(μV)/m(Peak) 54.0dB(μV)/m(Average)	
Note1:Thepeaklimitis20dBhigherthantheaveragelimit			
Note2:Peaklimitapplies(AVGlimit+20dB)aswellasRSS-247Section5.5			

3.2. Test Procedure

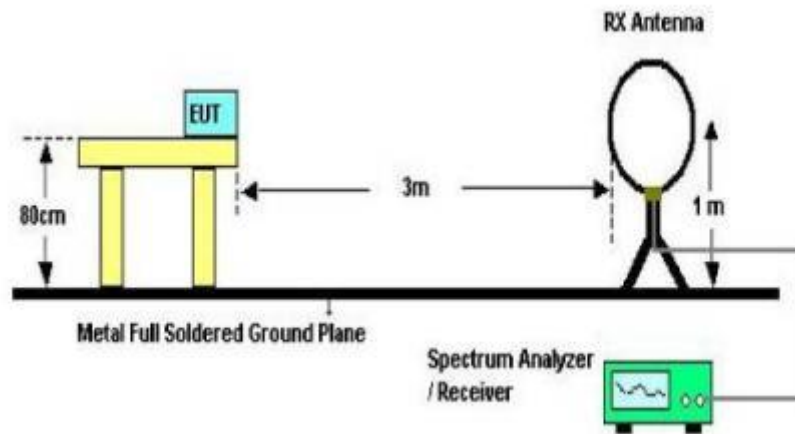
The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1GHz. The EUT was placed on a rotating 0.8 m high above ground for below 1GHz and 1.5m high for above 1GHz testing, the table was rotated 360 degrees to determine the position of the highest radiation. The Test antenna shall vary between 1m and 4m, both Horizontal and Vertical antenna are set of make measurement.

The initial step in collecting radiated emission data is a spectrum analyzer Peak detector mode pre-scanning the measurement frequency range. Significant Peaks are then marked. and then Quasi Peak Detector mode premeasured

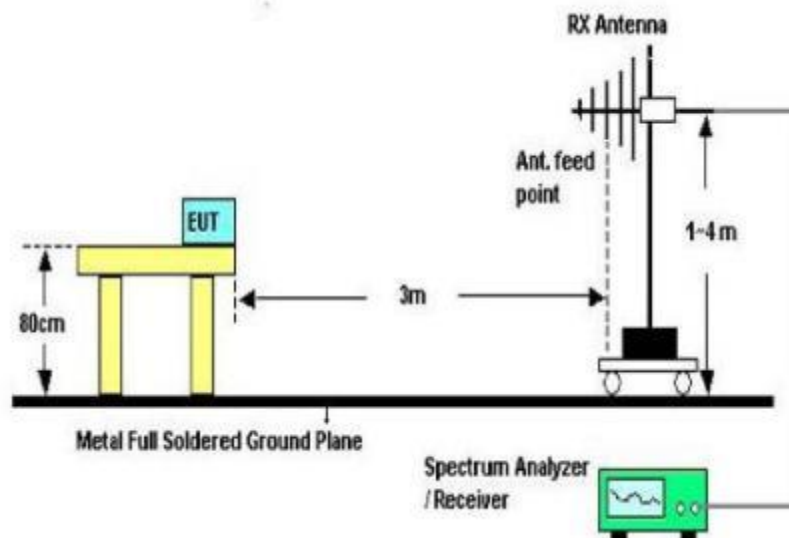
If Peak value comply with QP limit below 1GHz, the EUT deemed to comply with QP limit. But the Peak value and average value both need to comply with applicable limit above 1GHz.

For the actual test configuration, please see the test setup photo.

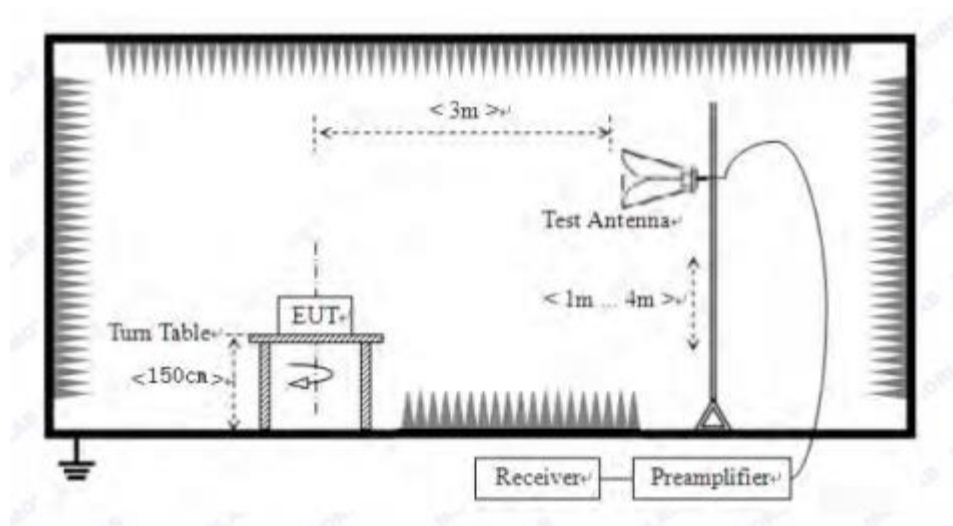
3.3. Test Setup



Below30MHzTestSetup



Above30MHzTestSetup



Above1GHzTestSetup

3.4. Test Results

Test Condition

Continual Transmitting in maximum power.

9KHz~150KHz	RBW200Hz	VBW1KHz
150KHz~30MHz	RBW9KHz	VBW30KHz
30MHz~1GHz	RBW120KHz	VBW300KHz
Above1GHz	RBW1MHz	VBW3MHz

We have scanned the EUT from 9kHz up to the 10th harmonic of the fundamental.

Detailed information please see the following page.

From 9KHz to 30MHz: Conclusion: PASS

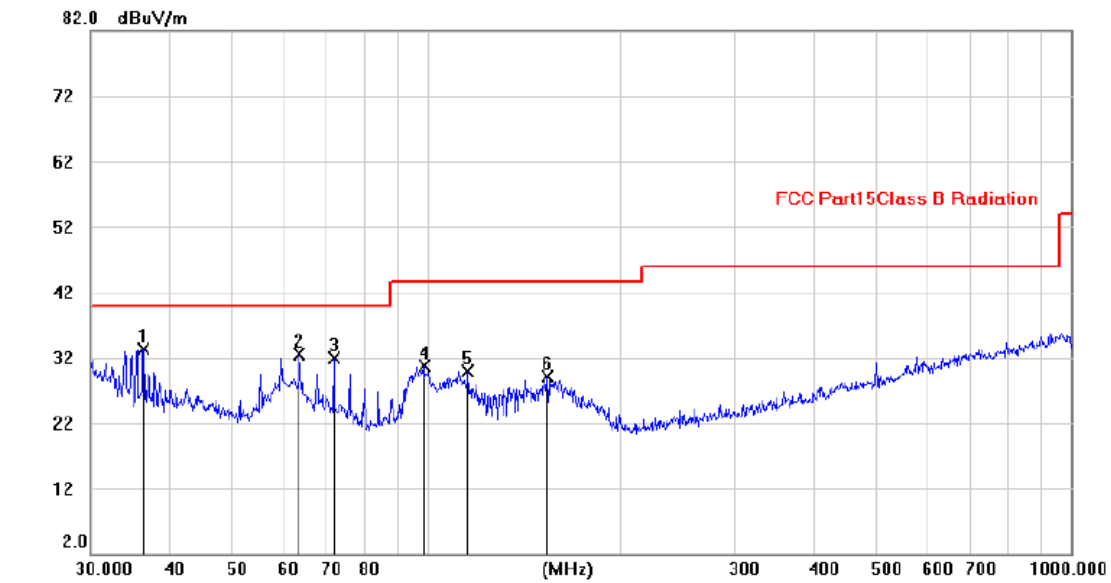
Note:1.The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

2.Only show the test data of the worst Channel in this report.

3. Except for mode b/g, other modes test the MIMO status.

From 30MHz to 1000MHz: Conclusion: PASS

Vertical:

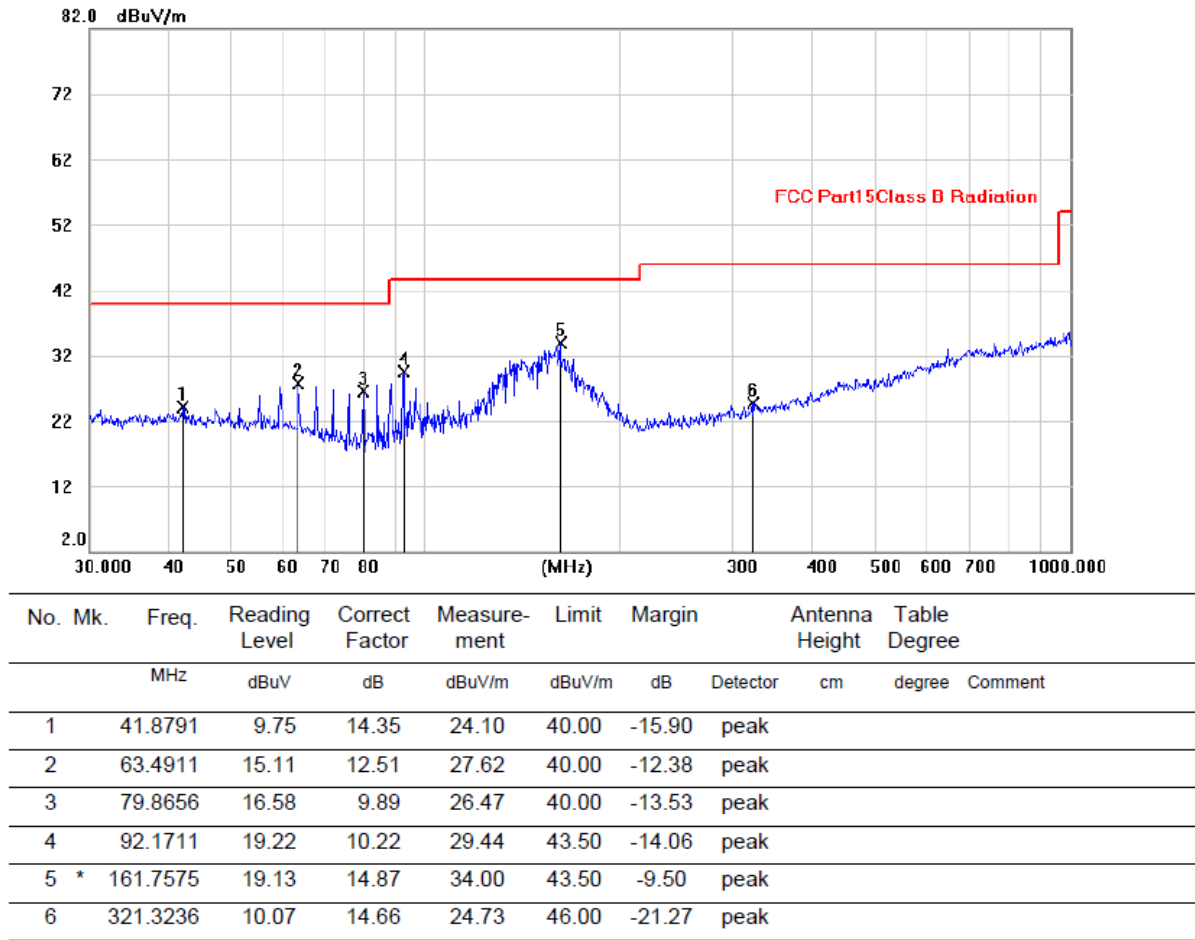


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table	
		MHz	dBuV	Factor	ment			Height	Degree	
				dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	36.2965	19.46	13.85	33.31	40.00	-6.69	peak		
2		63.4837	19.93	12.51	32.44	40.00	-7.56	peak		
3		71.6894	20.81	11.11	31.92	40.00	-8.08	peak		
4		98.9597	19.96	10.83	30.79	43.50	-12.71	peak		
5		115.9965	17.38	12.56	29.94	43.50	-13.56	peak		
6		154.1704	14.09	15.05	29.14	43.50	-14.36	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Horizontal:



Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

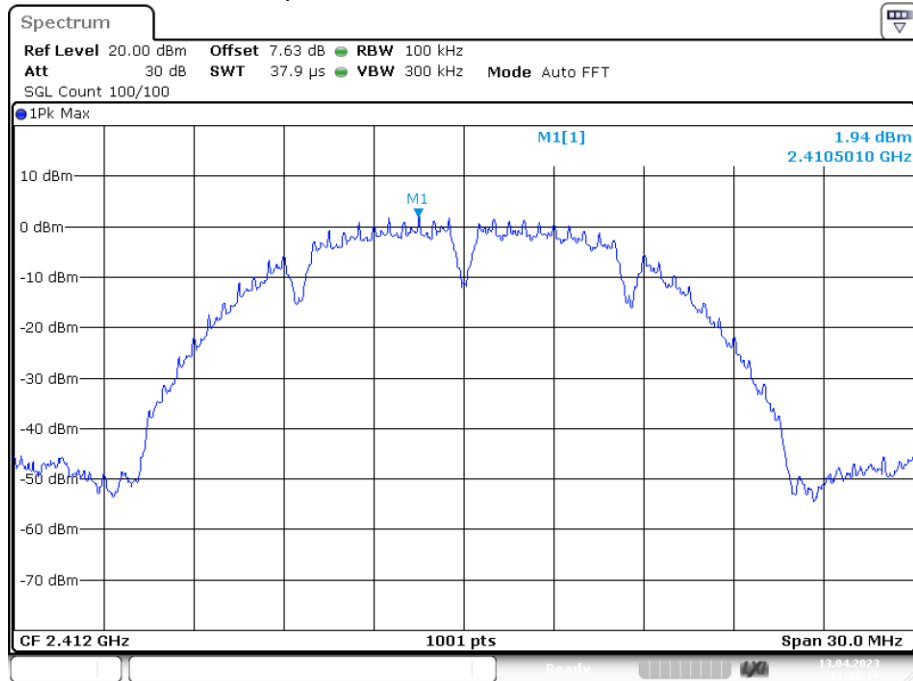
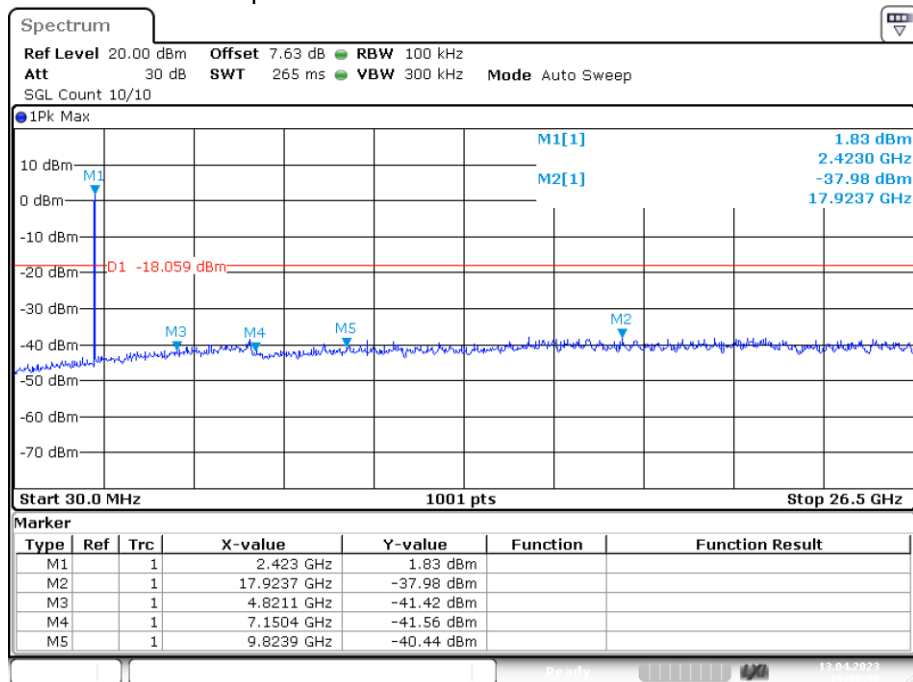
Remark: All modes have been tested, and only worst data of n20 mode, Channel 2437MHz was listed in this report.

From 1G to 18GHz Conclusion: PASS
From 1G-25GHz

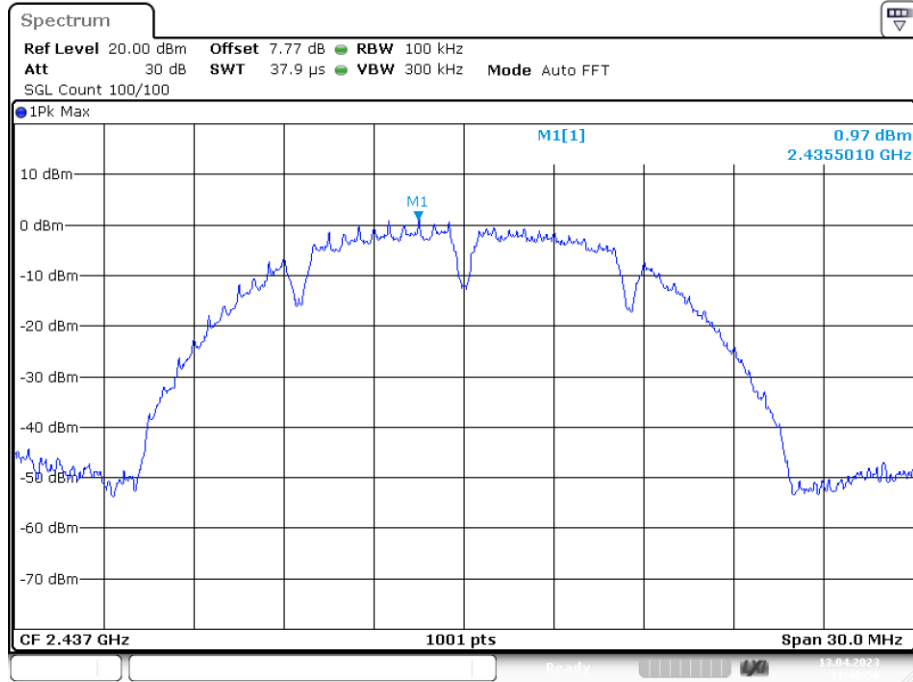
Test Mode: IEEE 802.11b TX Low									
Freq (MHz)	Read Level (dBuV/m)	Polar (H/V)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4824	44.83	V	33.95	10.18	34.26	54.70	74	-19.30	PK
4824	37.41	V	33.95	10.18	34.26	47.28	54	-6.72	AV
7236	/	/	/	/	/	/	/	/	/
9648	/	/	/	/	/	/	/	/	/
4824	46.18	H	33.95	10.18	34.26	56.05	74	-17.95	PK
4824	34.84	H	33.95	10.18	34.26	44.71	54	-9.29	AV
7236	/	/	/	/	/	/	/	/	/
9648	/	/	/	/	/	/	/	/	/
Test Mode: IEEE 802.11b TX Mid									
4874	44.11	V	33.93	10.2	34.29	53.95	74	-20.05	PK
4874	31.59	V	33.93	10.2	34.29	41.43	54	-12.57	AV
7311	/	/	/	/	/	/	/	/	/
9748	/	/	/	/	/	/	/	/	/
4874	46.97	H	33.93	10.2	34.29	56.81	74	-17.19	PK
4874	35.43	H	33.93	10.2	34.29	45.27	54	-8.73	AV
7311	/	/	/	/	/	/	/	/	/
9748	/	/	/	/	/	/	/	/	/
Test Mode: IEEE 802.11b TX High									
4924	47.41	V	33.98	10.22	34.25	57.36	74	-16.64	PK
4924	37.38	V	33.98	10.22	34.25	47.33	54	-6.67	AV
7386	/	/	/	/	/	/	/	/	/
9848	/	/	/	/	/	/	/	/	/
4924	48.05	H	33.98	10.22	34.25	58.00	74	-16.00	PK
4924	34.03	H	33.98	10.22	34.25	43.98	54	-10.02	AV
7386	/	/	/	/	/	/	/	/	/
9848	/	/	/	/	/	/	/	/	/
Note:									
1, Result = Read level + Antenna factor + cable loss-Amp factor									
2, All the other emissions not reported were too low to read and deemed to comply with FCC limit.									

Conducted RF Spurious Emission

Note: All antennas have been tested, and only the data of the worst antenna is shown.

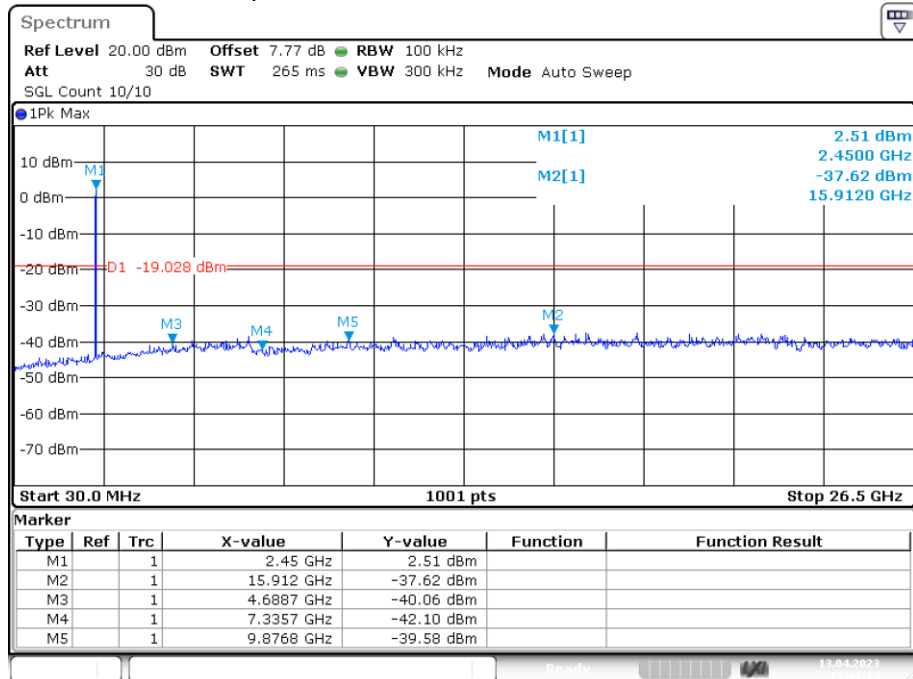
Tx. Spurious NVNT b 2412MHz Ant1 Ref**Tx. Spurious NVNT b 2412MHz Ant1 Emission**

Tx. Spurious NVNT b 2437MHz Ant1 Ref



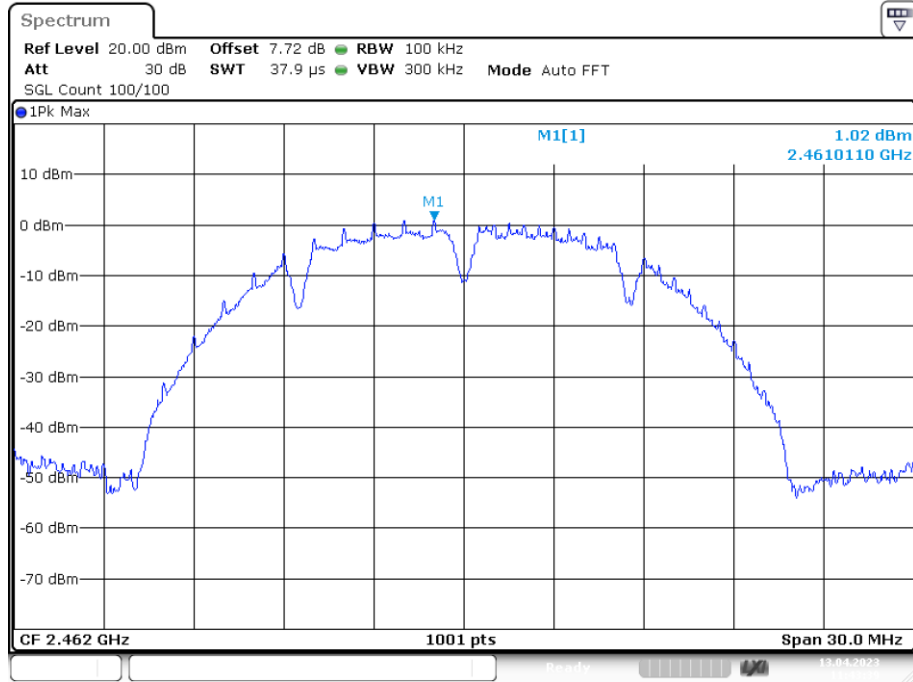
Date: 13.APR.2023 11:40:55

Tx. Spurious NVNT b 2437MHz Ant1 Emission



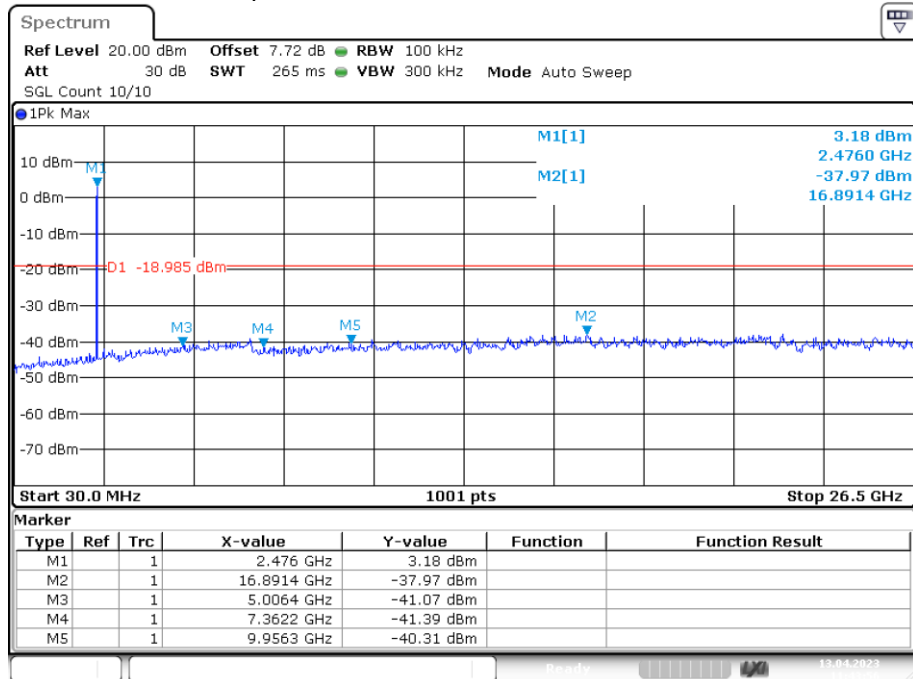
Date: 13.APR.2023 11:41:13

Tx. Spurious NVNT b 2462MHz Ant1 Ref



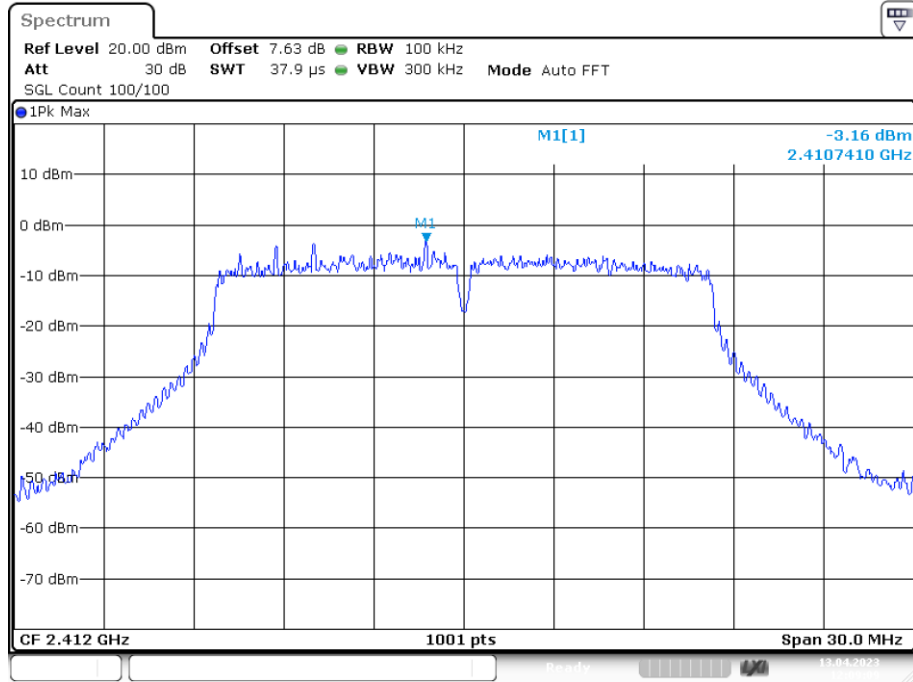
Date: 13.APR.2023 11:43:39

Tx. Spurious NVNT b 2462MHz Ant1 Emission



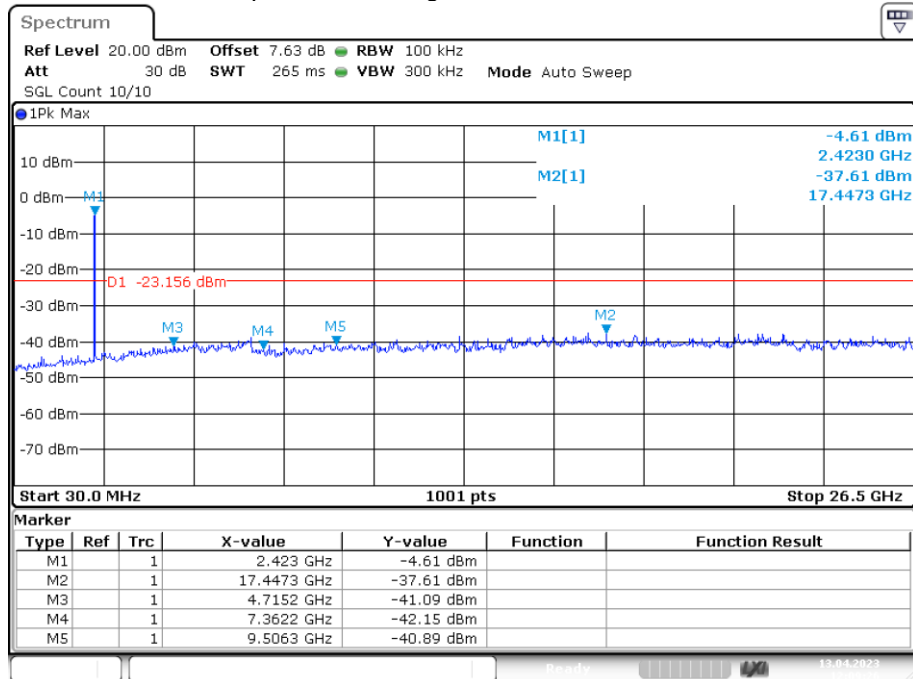
Date: 13.APR.2023 11:43:56

Tx. Spurious NVNT g 2412MHz Ant1 Ref



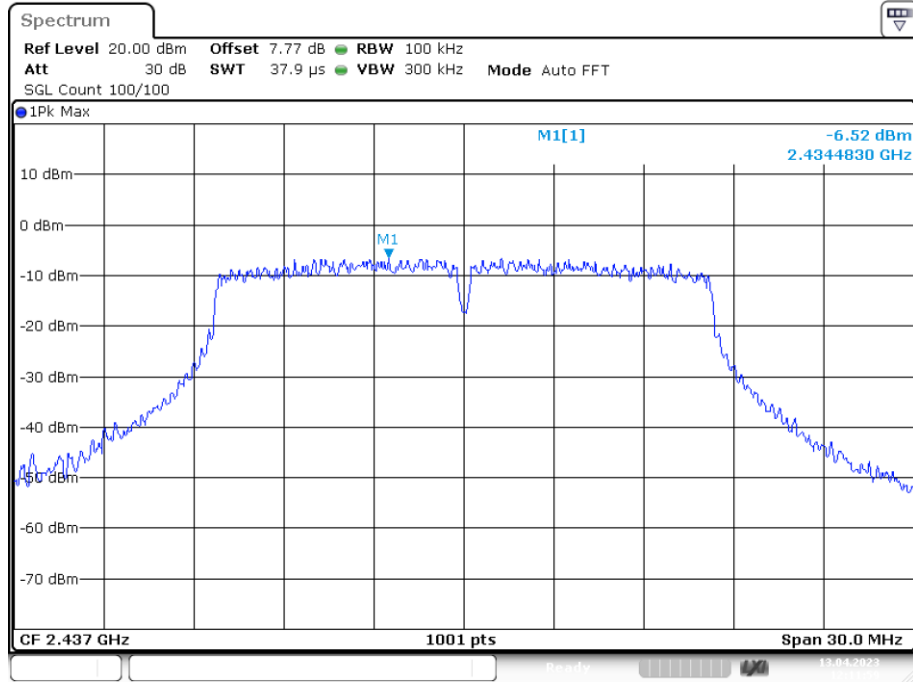
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Tx. Spurious NVNT g 2412MHz Ant1 Emission



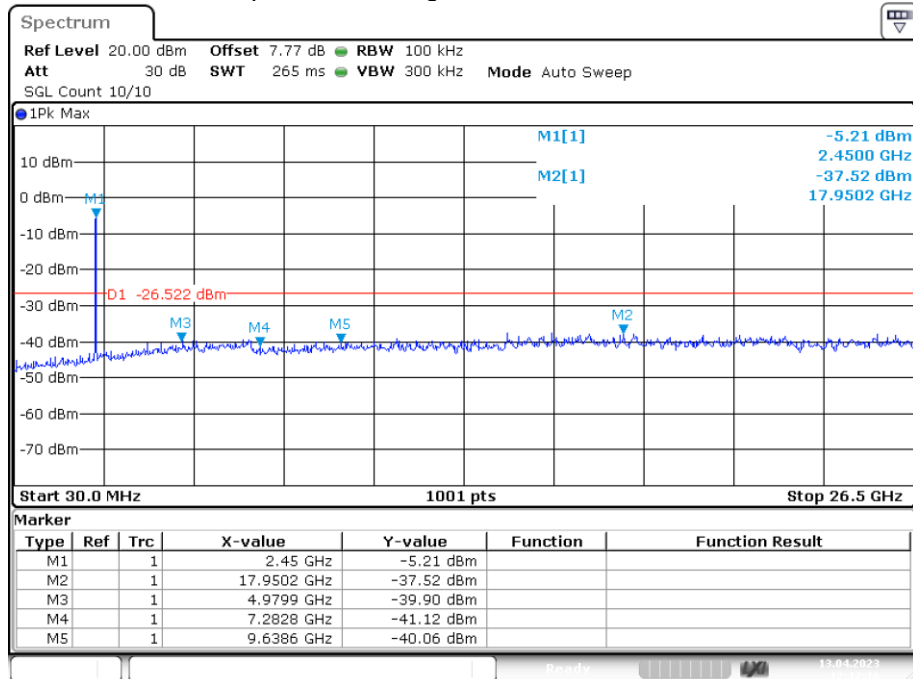
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Tx. Spurious NVNT g 2437MHz Ant1 Ref



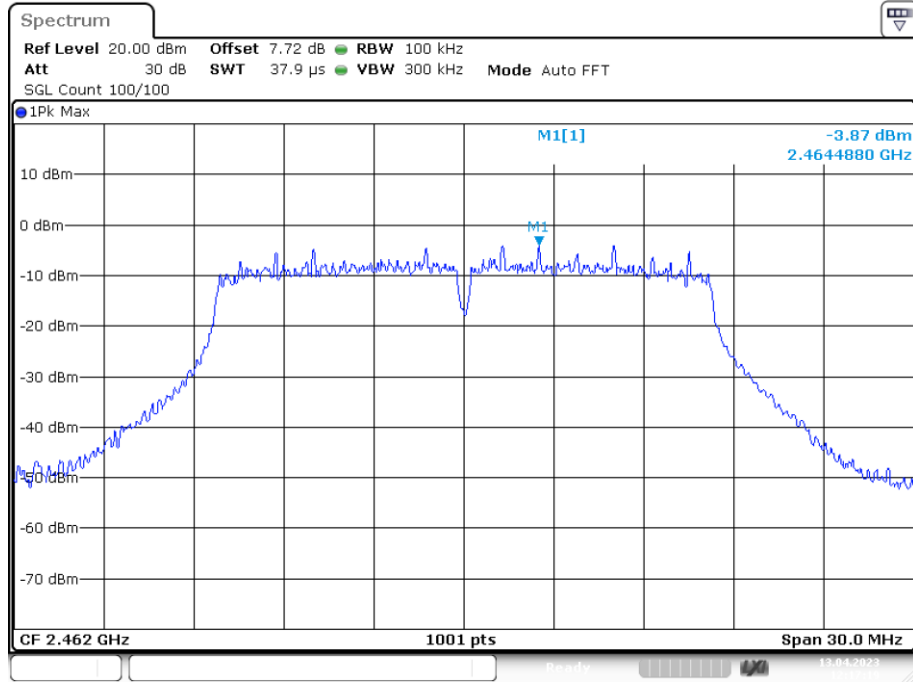
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Tx. Spurious NVNT g 2437MHz Ant1 Emission



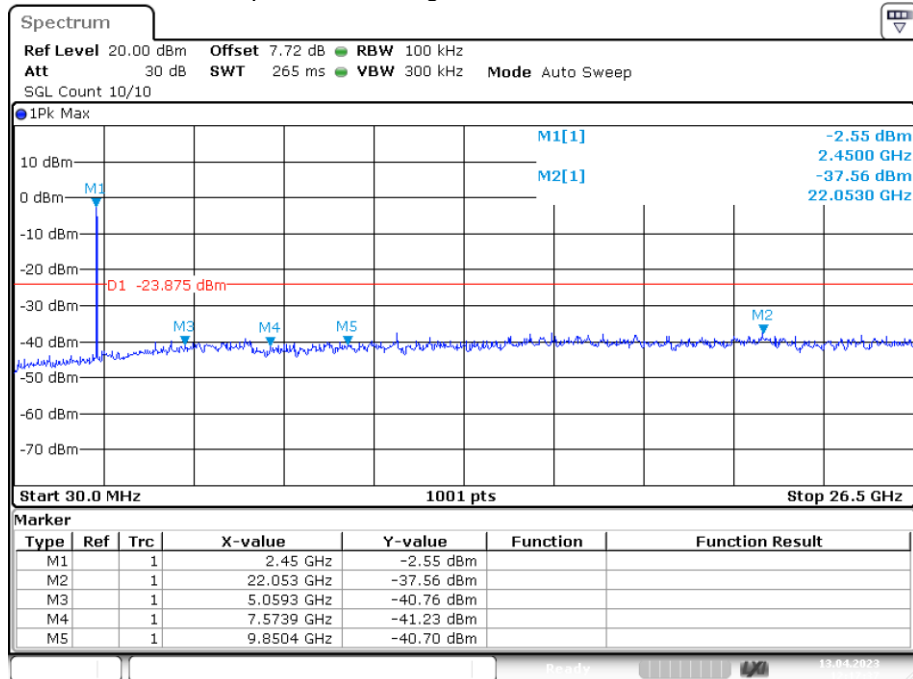
Date: 13.APR.2023 12:12:16

Tx. Spurious NVNT g 2462MHz Ant1 Ref



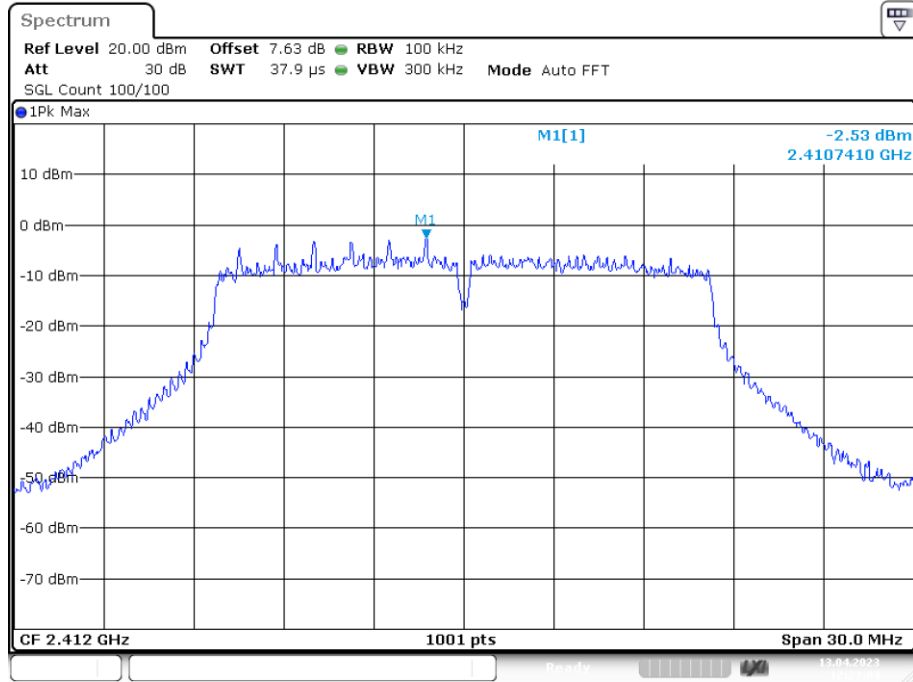
Date: 13.APR.2023 12:17:19

Tx. Spurious NVNT g 2462MHz Ant1 Emission



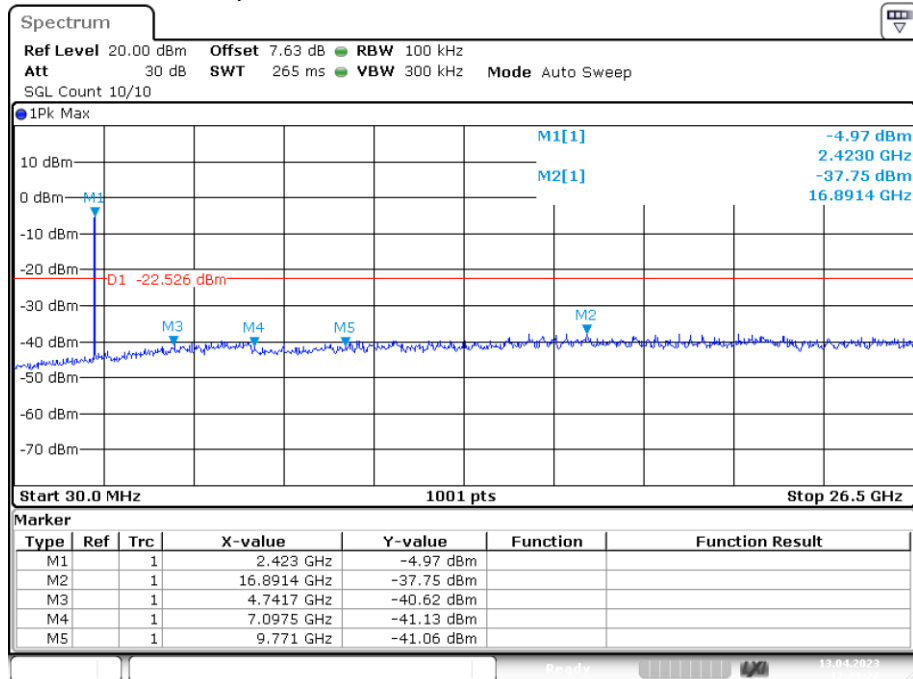
Date: 13.APR.2023 12:17:37

Tx. Spurious NVNT n20 2412MHz Ant1 Ref



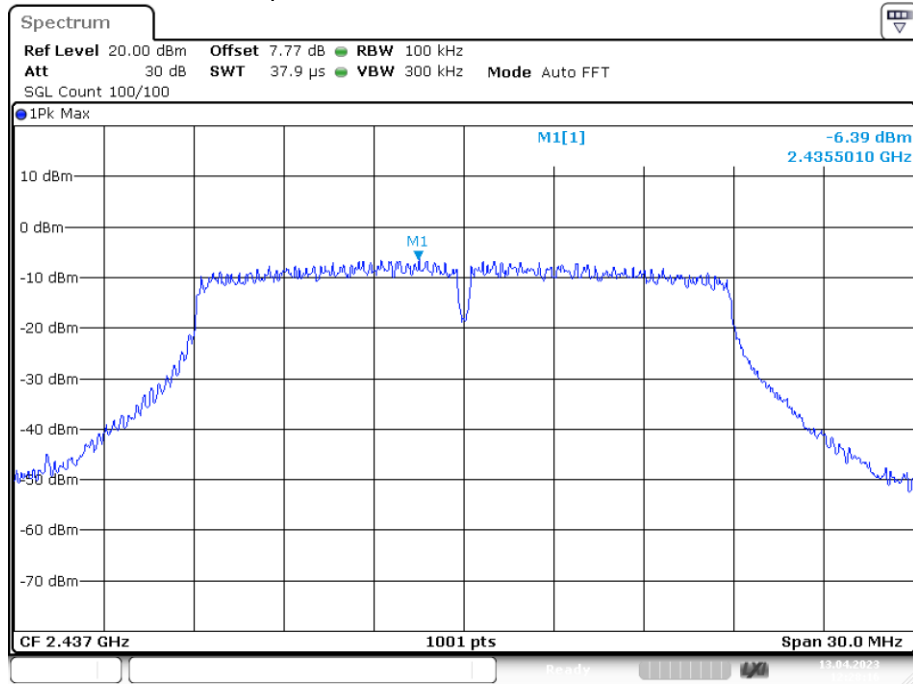
Date: 13.APR.2023 12:23:04

Tx. Spurious NVNT n20 2412MHz Ant1 Emission



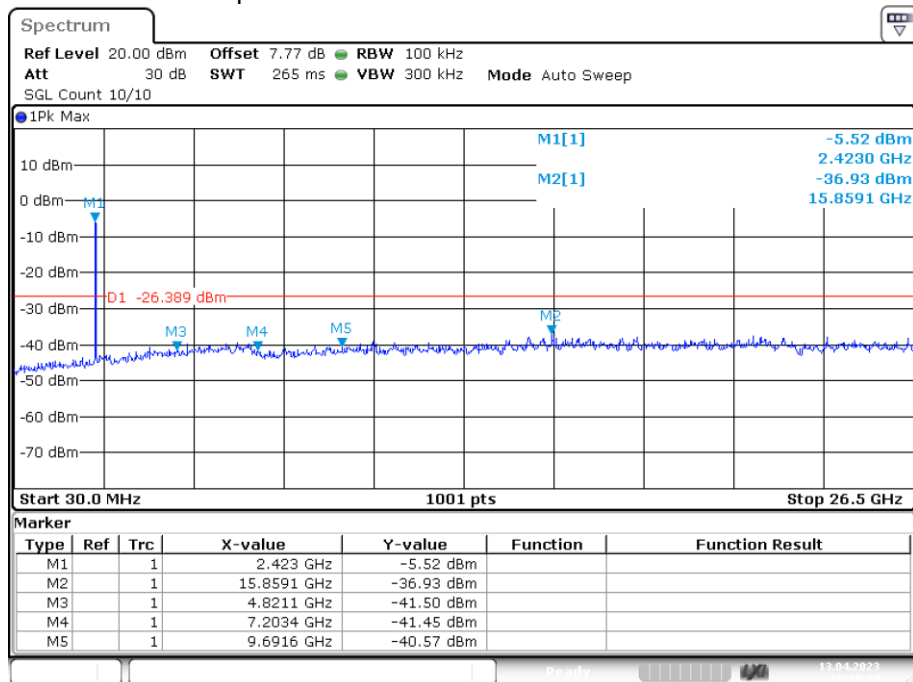
Date: 13.APR.2023 12:23:22

Tx. Spurious NVNT n20 2437MHz Ant1 Ref



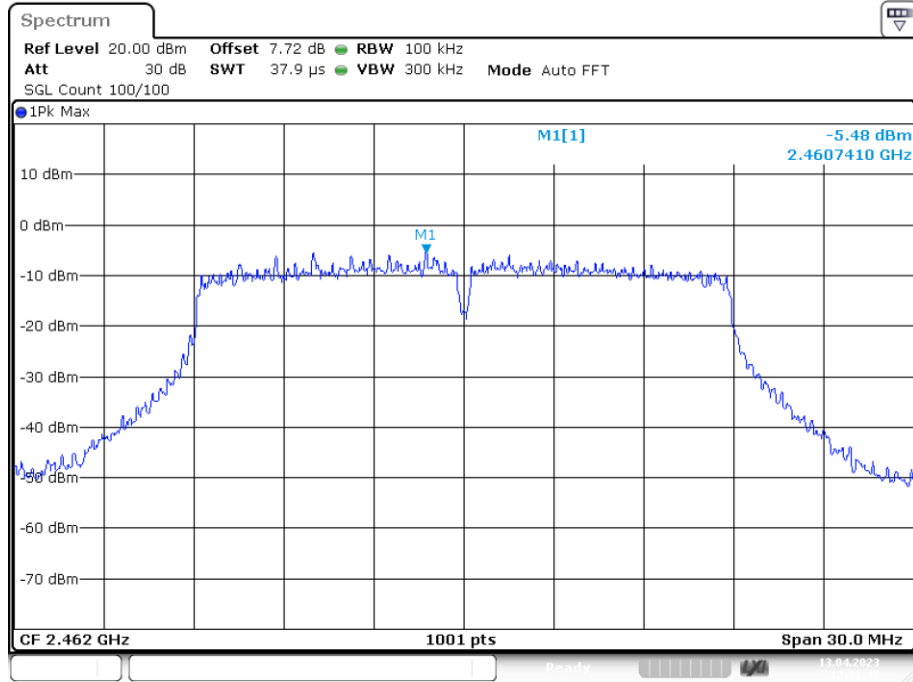
Date: 13.APR.2023 12:28:16

Tx. Spurious NVNT n20 2437MHz Ant1 Emission



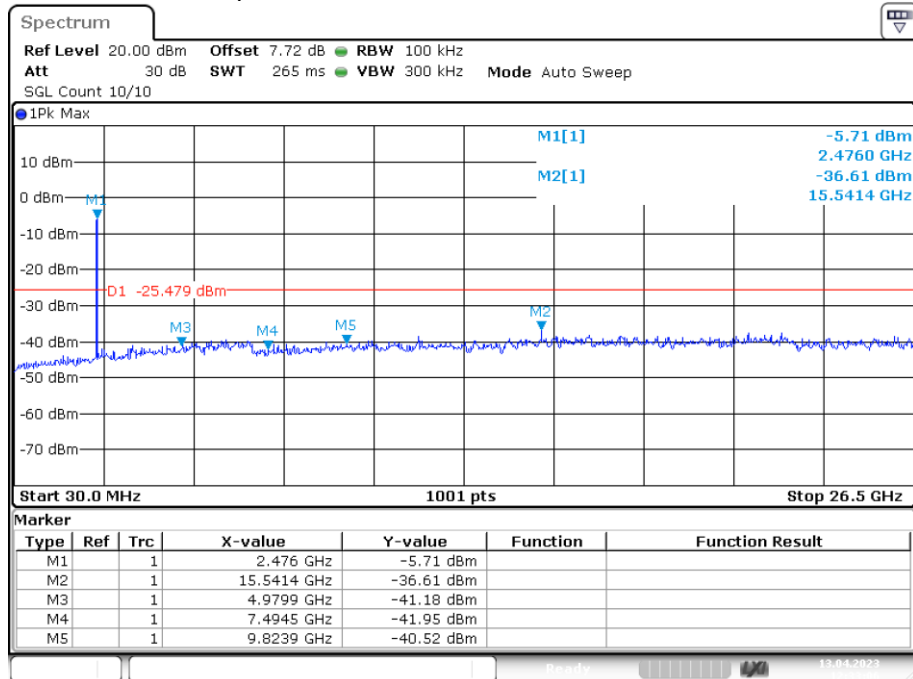
Date: 13.APR.2023 12:28:34

Tx. Spurious NVNT n20 2462MHz Ant1 Ref



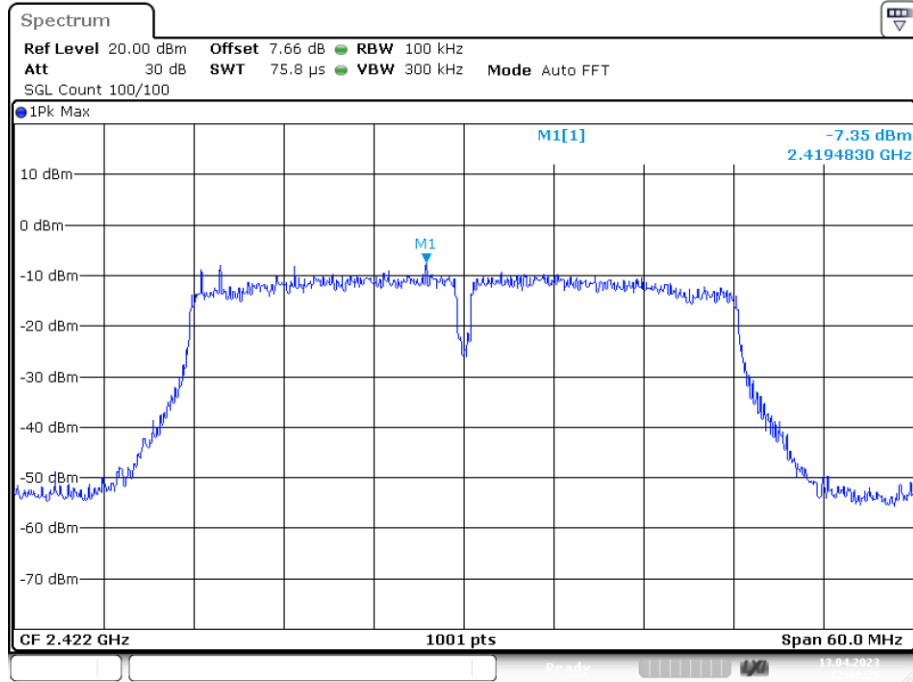
Date: 13.APR.2023 12:32:48

Tx. Spurious NVNT n20 2462MHz Ant1 Emission



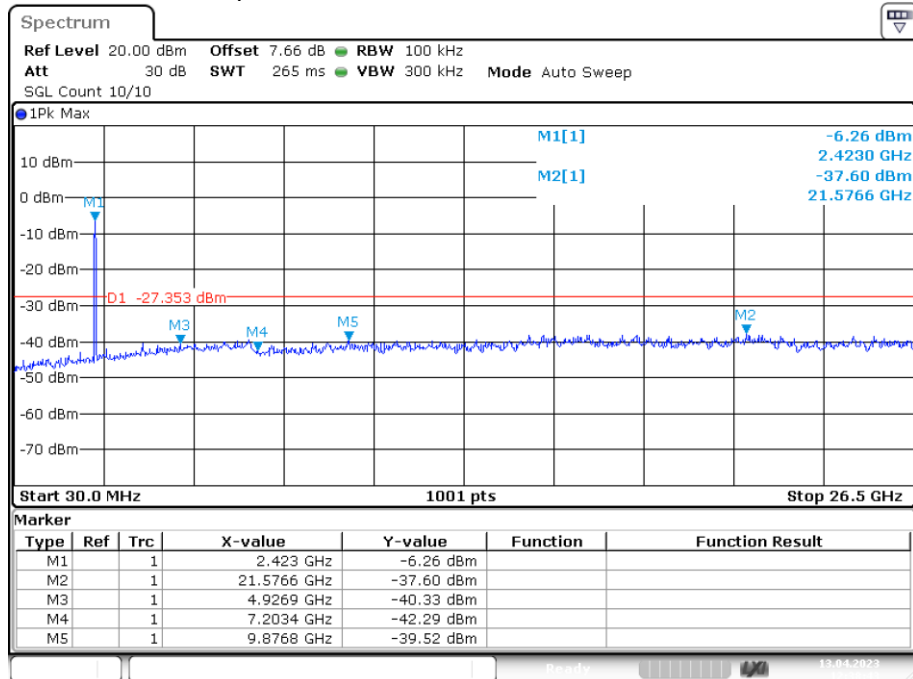
Date: 13.APR.2023 12:33:06

Tx. Spurious NVNT n40 2422MHz Ant1 Ref



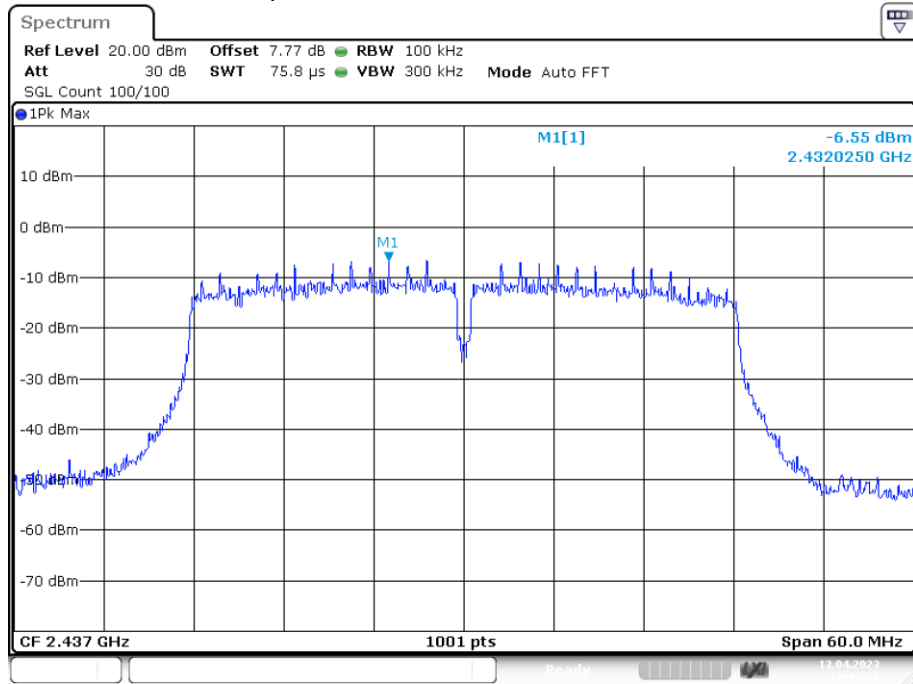
Date: 13.APR.2023 12:38:25

Tx. Spurious NVNT n40 2422MHz Ant1 Emission



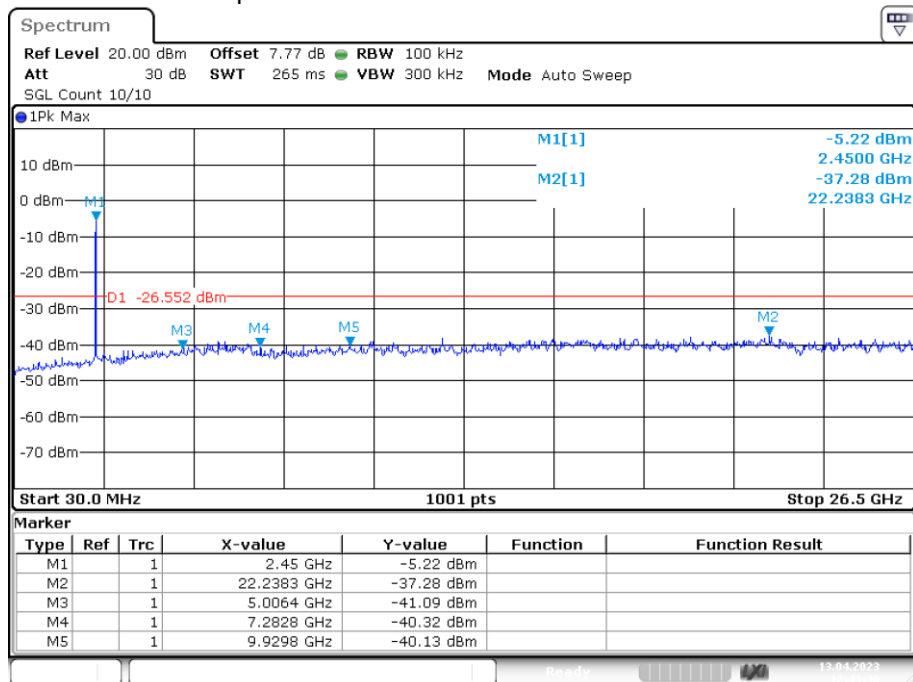
Date: 13.APR.2023 12:38:43

Tx. Spurious NVNT n40 2437MHz Ant1 Ref



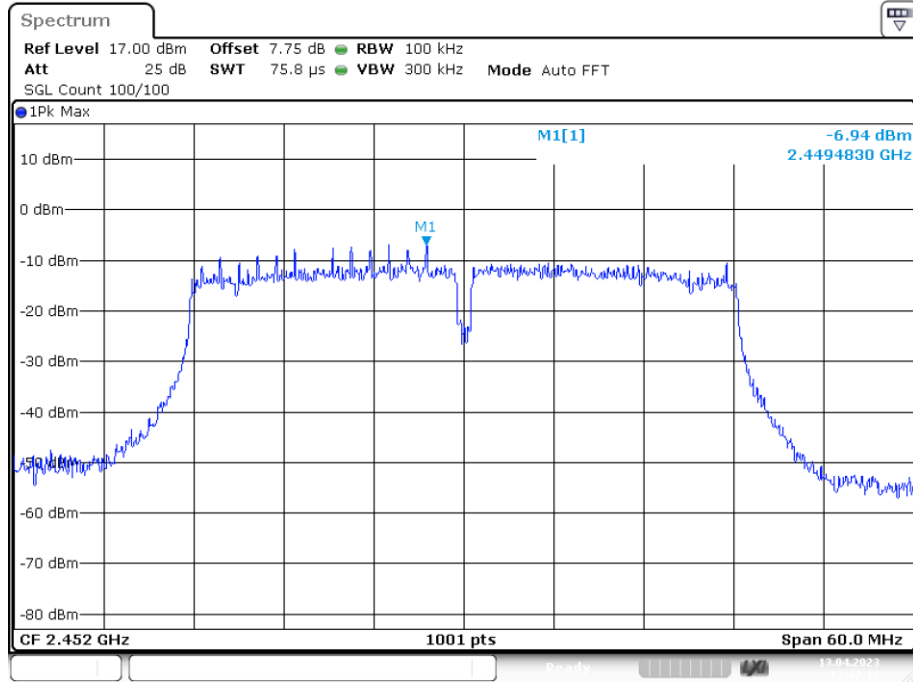
Date: 13.APR.2023 12:43:22

Tx. Spurious NVNT n40 2437MHz Ant1 Emission



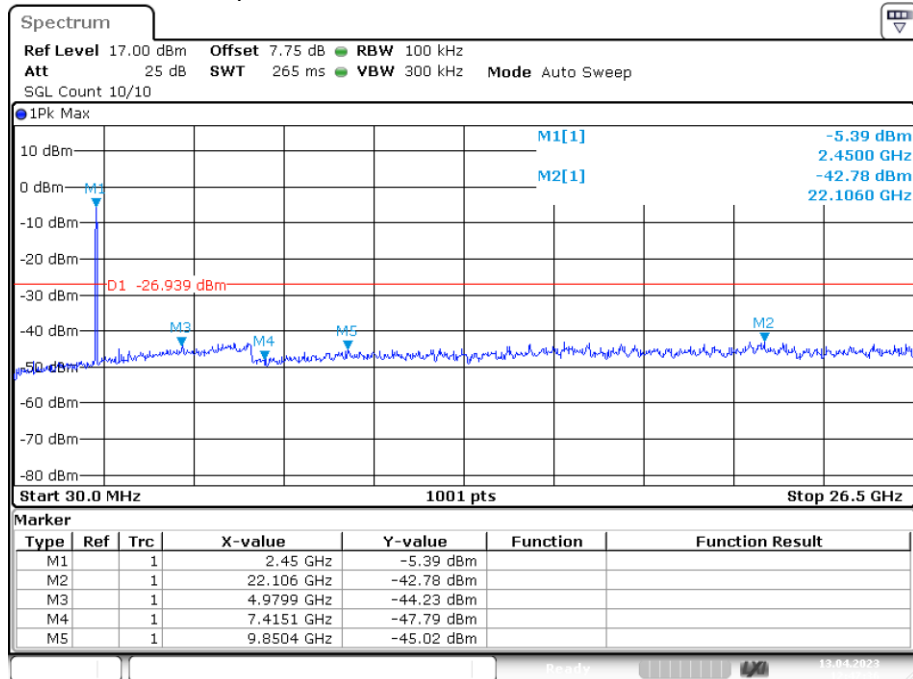
Date: 13.APR.2023 12:43:40

Tx. Spurious NVNT n40 2452MHz Ant1 Ref



Date: 13.APR.2023 12:47:18

Tx. Spurious NVNT n40 2452MHz Ant1 Emission



Date: 13.APR.2023 12:47:36

4. POWERLINECONDUCTEDEMISSION

4.1. Test Limits

Frequency MHz	LimitsdB(μ V)	
	Quasi-peakLevel	AverageLevel
0.15-0.50	66-56*	56-46*
0.50-5.00	56	46
5.00-30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

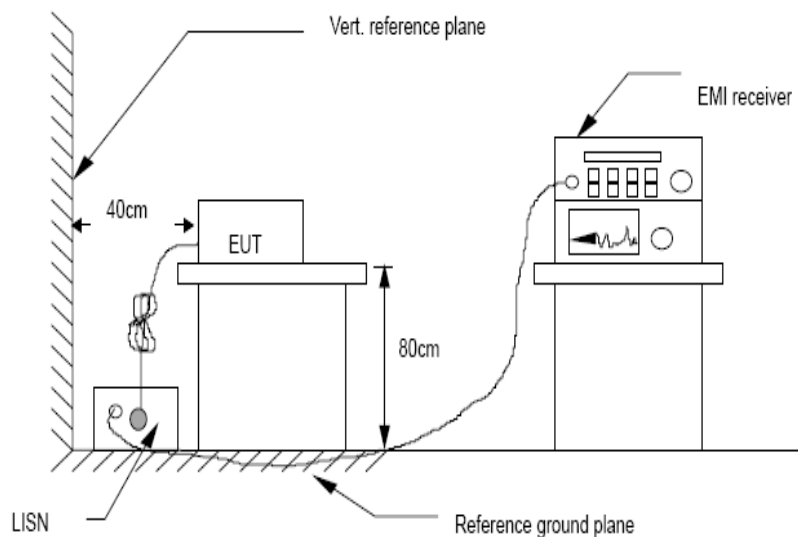
3. The limit decreases in line with the logarithm of the frequency in the rang of 0.15 to 0.50 MHz..

4.2. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10:2013 on Conducted Emission Measurement.

The bandwidth of test receiver is set at 9 kHz.

4.3. Test Setup

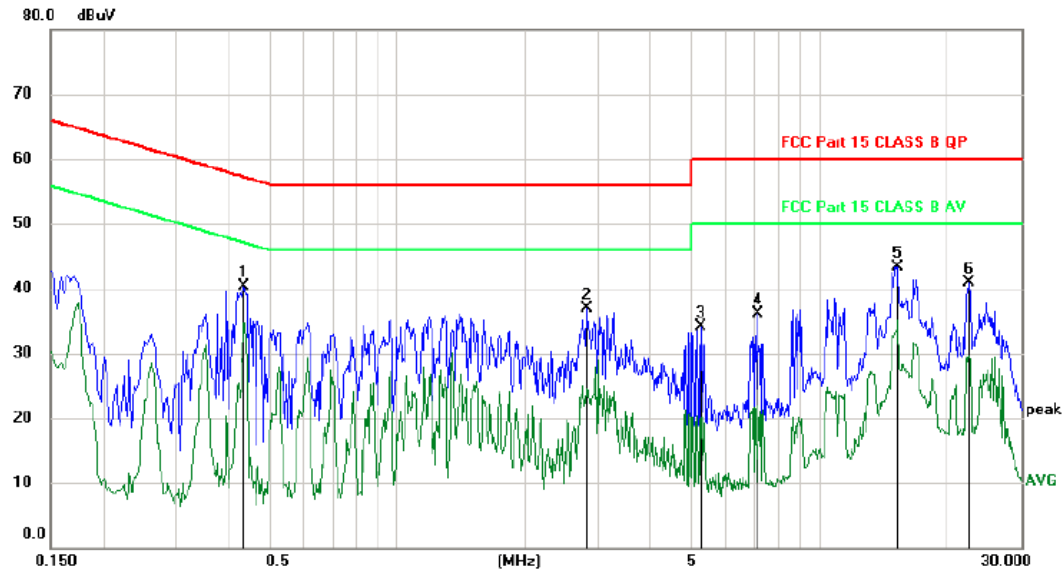


4.4. Test Results

PASS. (See below detailed test data)

Note: If peak Result comply with AV limit, QP and AV Result is deemed to comply with AV limit

Line:

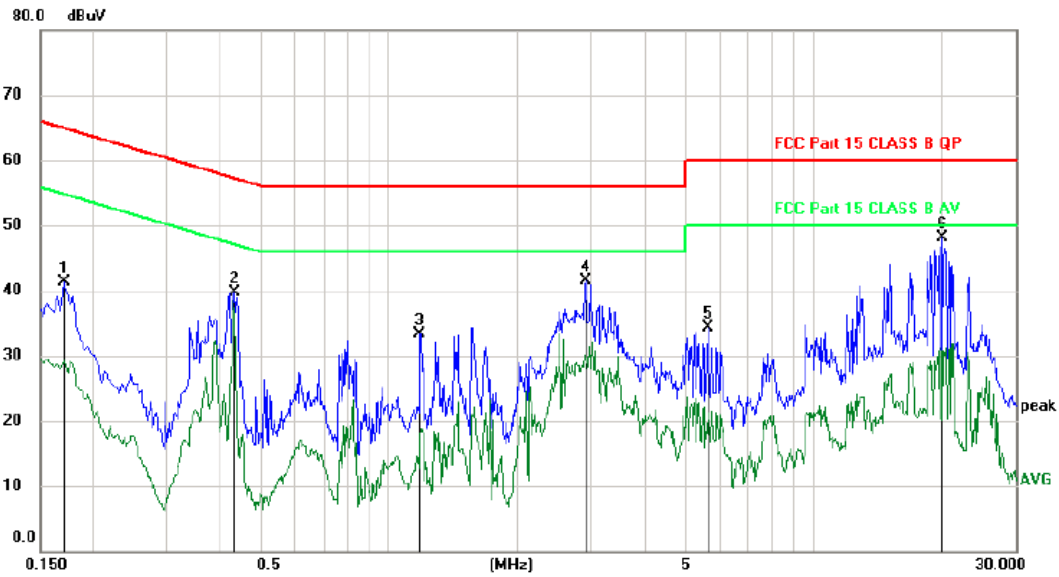


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.4320	30.34	9.95	40.29	57.21	-16.92	peak	
2		2.8079	27.00	9.94	36.94	56.00	-19.06	peak	
3		5.2230	24.01	10.05	34.06	60.00	-25.94	peak	
4		7.1070	25.91	10.12	36.03	60.00	-23.97	peak	
5	*	15.3240	32.96	10.34	43.30	60.00	-16.70	peak	
6		22.6020	30.41	10.46	40.87	60.00	-19.13	peak	

*:Maximum data x:Over limit !:over margin

(Reference Only)

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Neutral:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1710	31.30	9.93	41.23	64.91	-23.68	peak	
2		0.4320	29.78	9.95	39.73	57.21	-17.48	peak	
3		1.1818	23.46	9.89	33.35	56.00	-22.65	peak	
4		2.9038	31.51	9.94	41.45	56.00	-14.55	peak	
5		5.6340	24.19	10.07	34.26	60.00	-25.74	peak	
6	*	20.1000	37.63	10.47	48.10	60.00	-11.90	peak	

*:Maximum data x:Over limit !:over margin

(Reference Only)

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Note: All modes and channels have been tested and only the B mode 2412MHz mode with the worst data is listed.

5. CONDUCTED MAXIMUM OUTPUT POWER

5.1. Test limits

Please refer RSS-247 & FCC PART 15: 15.247.

Regulation 15.247(b) The limit of Maximum Peak Output Power Measurement is 1 W(30dBm)

5.2. Test Procedure

Details see the KDB558074 D01 Meas Guidance v05r02

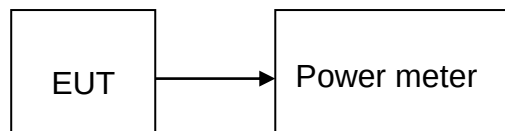
5.2.1 Place the EUT on the table and set it in transmitting mode.

5.2.2 Connected the EUT's antenna port to peak power meter by 20dB attenuator.

5.2.3 Measure out each mode and each bands AVG output power of EUT.

Note: The cable loss and attenuator loss were offset into measure device as amplitude offset.

5.3. Test Setup



5.4. Test Results

PASS

Detailed information please see the following page.

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	16.299	30	Pass
NVNT	b	2437	Ant1	15.417	30	Pass
NVNT	b	2462	Ant1	15.844	30	Pass
NVNT	b	2412	Ant2	15.771	30	Pass
NVNT	b	2437	Ant2	14.859	30	Pass
NVNT	b	2462	Ant2	15.341	30	Pass
NVNT	g	2412	Ant1	17.165	30	Pass
NVNT	g	2437	Ant1	16.402	30	Pass
NVNT	g	2462	Ant1	16.251	30	Pass
NVNT	g	2412	Ant2	16.550	30	Pass
NVNT	g	2437	Ant2	16.023	30	Pass
NVNT	g	2462	Ant2	15.620	30	Pass
NVNT	n20	2412	Ant1	14.243	30	Pass
NVNT	n20	2437	Ant1	13.408	30	Pass
NVNT	n20	2462	Ant1	13.213	30	Pass
NVNT	n20	2412	Ant2	14.499	30	Pass
NVNT	n20	2437	Ant2	13.250	30	Pass
NVNT	n20	2462	Ant2	12.547	30	Pass
NVNT	n20	2412	Ant1+2	17.38	30	Pass
NVNT	n20	2437	Ant1+2	16.34	30	Pass
NVNT	n20	2462	Ant1+2	15.90	30	Pass
NVNT	n20	2412	Ant1	14.155	30	Pass
NVNT	n20	2437	Ant1	13.483	30	Pass
NVNT	n20	2462	Ant1	13.352	30	Pass
NVNT	n20	2412	Ant2	14.140	30	Pass
NVNT	n20	2437	Ant2	13.322	30	Pass
NVNT	n20	2462	Ant2	13.446	30	Pass
NVNT	n40	2422	Ant1+2	17.16	30	Pass
NVNT	n40	2437	Ant1+2	16.41	30	Pass
NVNT	n40	2452	Ant1+2	16.41	30	Pass

6. PEAKPOWERSPECTRALDENSITY

6.1. Test limits

6.1.1 Please refer RSS-247 & FCC PART 15: 15.247.

6.1.2 For direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

6.1.3 The direct sequence operating of the hybrid system, with the frequency hopping operation turned off, shall comply with the power density requirements of paragraph (d) of this section.

6.2. Test Procedure

Details see the KDB558074 D01 Meas Guidance v05r02

6.2.1 Place the EUT on the table and set it in transmitting mode.

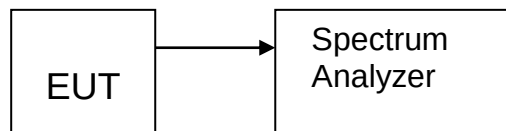
6.2.2 Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

6.2.3 Set the spectrum analyzer as $RBW = 100\text{kHz}$ (Set the RBW to: $3\text{ kHz} \leq RBW \leq 100\text{ kHz}$), $VBW = 300\text{kHz}$ (Set the $VBW \geq 3 \times RBW$), $\text{span} \geq 1.5 \times \text{DTS bandwidth}$., detail see the test plot.

6.2.4 Record the max reading.

6.2.5 Repeat the above procedure until the measurements for all frequencies are completed.

6.3. Test Setup



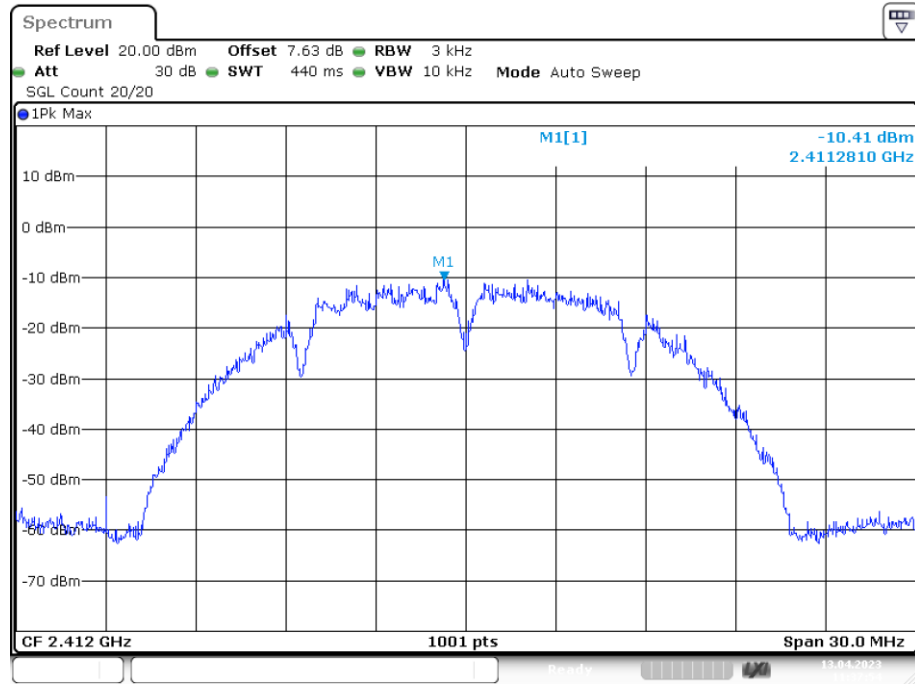
6.4. Test Results

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	-10.406	8	Pass
NVNT	b	2437	Ant1	-10.541	8	Pass
NVNT	b	2462	Ant1	-11.541	8	Pass
NVNT	g	2412	Ant1	-14.83	8	Pass
NVNT	g	2437	Ant1	-16.098	8	Pass
NVNT	g	2462	Ant1	-14.316	8	Pass
NVNT	n20	2412	Ant1	-13.311	8	Pass
NVNT	n20	2437	Ant1	-16.462	8	Pass
NVNT	n20	2462	Ant1	-15.576	8	Pass
NVNT	n40	2422	Ant1	-19.653	8	Pass
NVNT	n40	2437	Ant1	-17.81	8	Pass
NVNT	n40	2452	Ant1	-20.154	8	Pass

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant2	-8.722	8	Pass
NVNT	b	2437	Ant2	-9.064	8	Pass
NVNT	b	2462	Ant2	-9.179	8	Pass
NVNT	g	2412	Ant2	-12.397	8	Pass
NVNT	g	2437	Ant2	-13.041	8	Pass
NVNT	g	2462	Ant2	-12.438	8	Pass
NVNT	n20	2412	Ant2	-13.658	8	Pass
NVNT	n20	2437	Ant2	-14.234	8	Pass
NVNT	n20	2462	Ant2	-14.656	8	Pass
NVNT	n40	2422	Ant2	-16.532	8	Pass
NVNT	n40	2437	Ant2	-16.336	8	Pass
NVNT	n40	2452	Ant2	-17.664	8	Pass

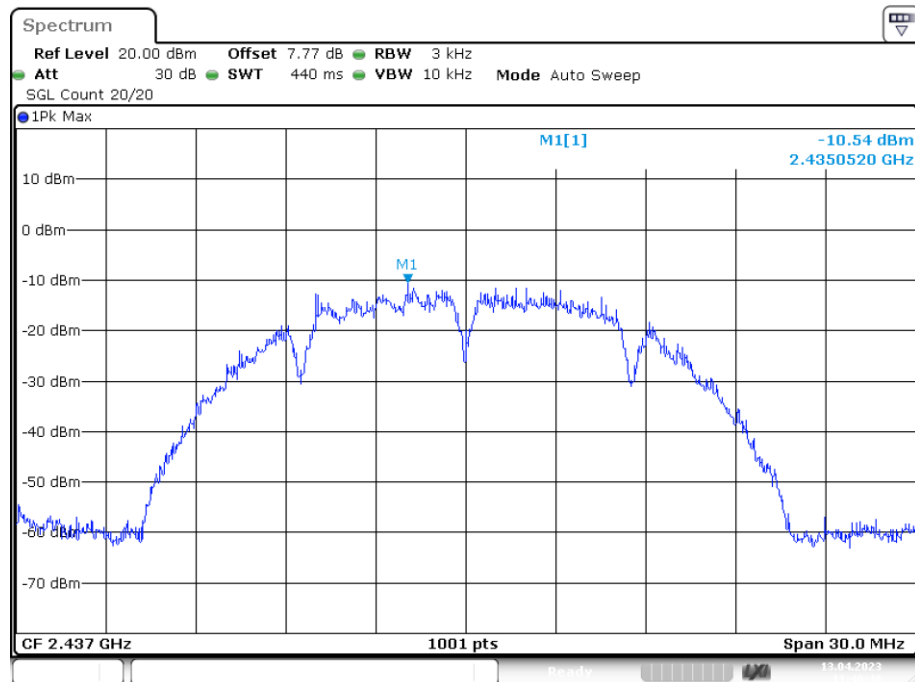
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	n20	2412	Ant1+2	-10.47	8	Pass
NVNT	n20	2437	Ant1+2	-12.20	8	Pass
NVNT	n20	2462	Ant1+2	-12.08	8	Pass
NVNT	n40	2422	Ant1+2	-14.81	8	Pass
NVNT	n40	2437	Ant1+2	-14.00	8	Pass
NVNT	n40	2452	Ant1+2	-15.72	8	Pass

PSD NVNT b 2412MHz Ant1



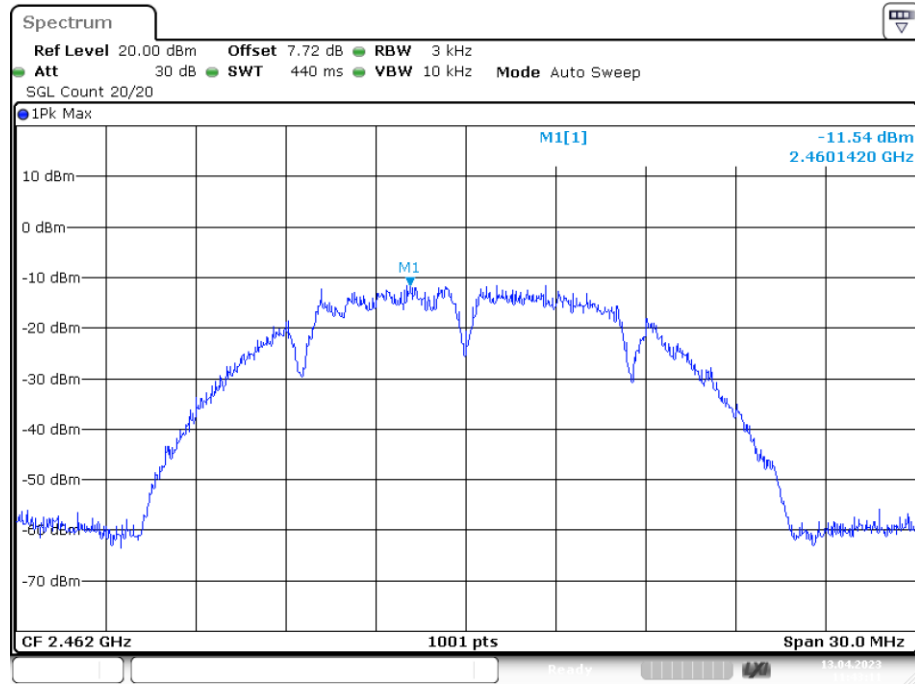
Date: 13.APR.2023 11:37:54

PSD NVNT b 2437MHz Ant1



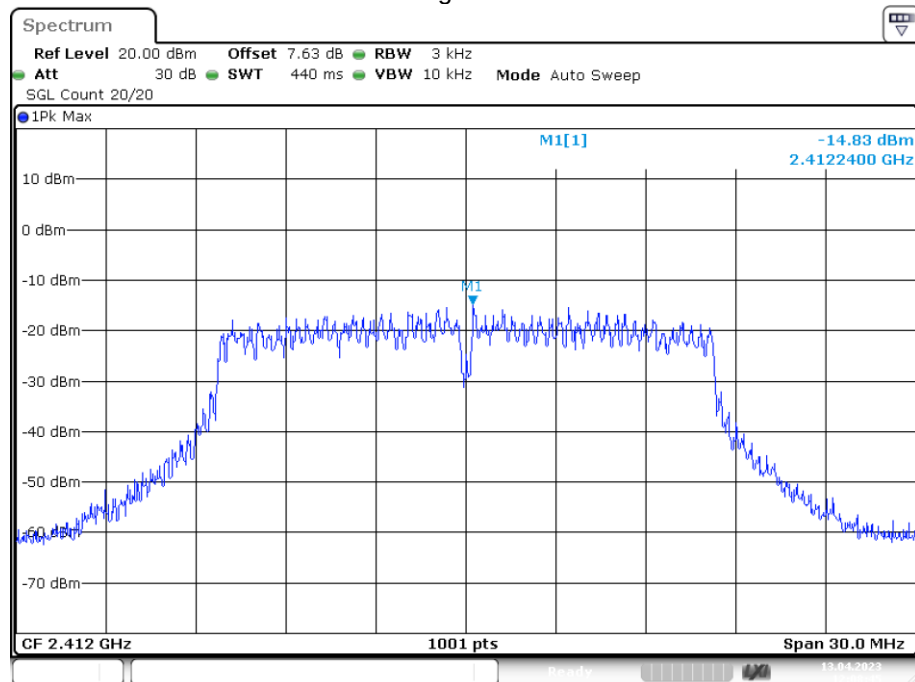
Date: 13.APR.2023 11:40:48

PSD NVNT b 2462MHz Ant1



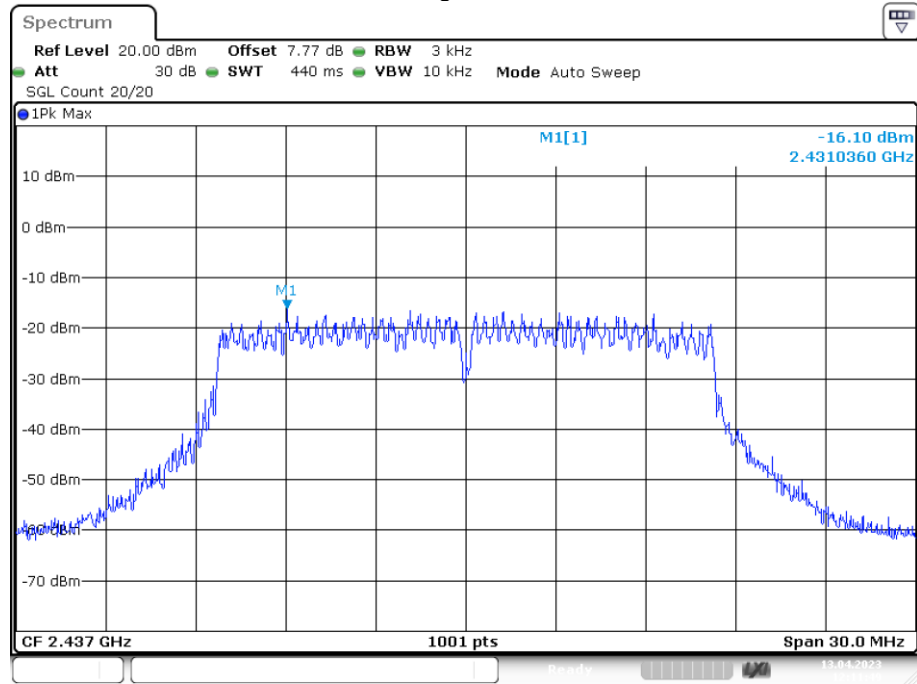
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PSD NVNT g 2412MHz Ant1



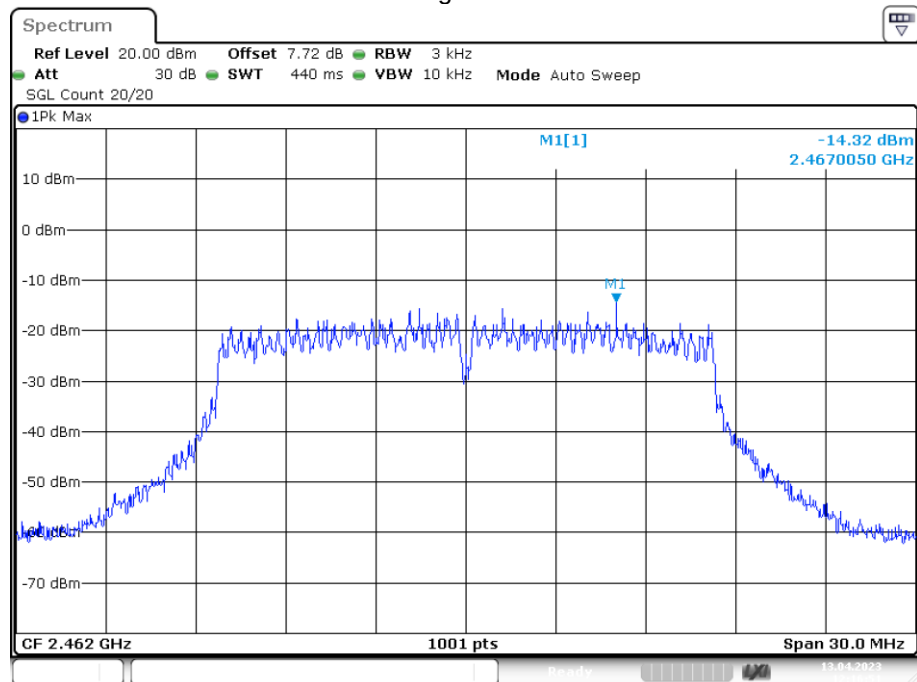
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PSD NVNT g 2437MHz Ant1



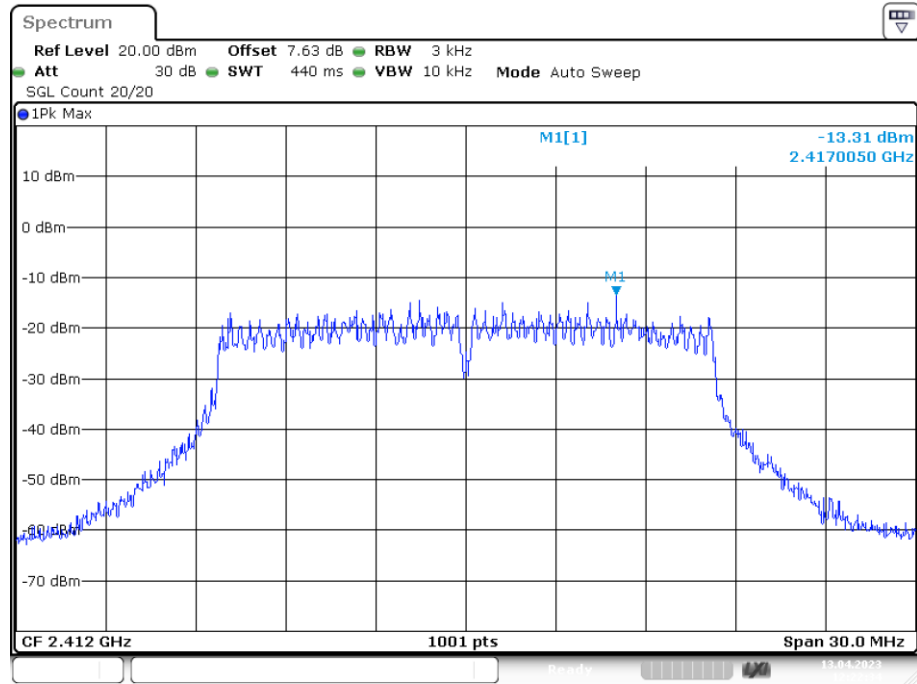
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PSD NVNT g 2462MHz Ant1



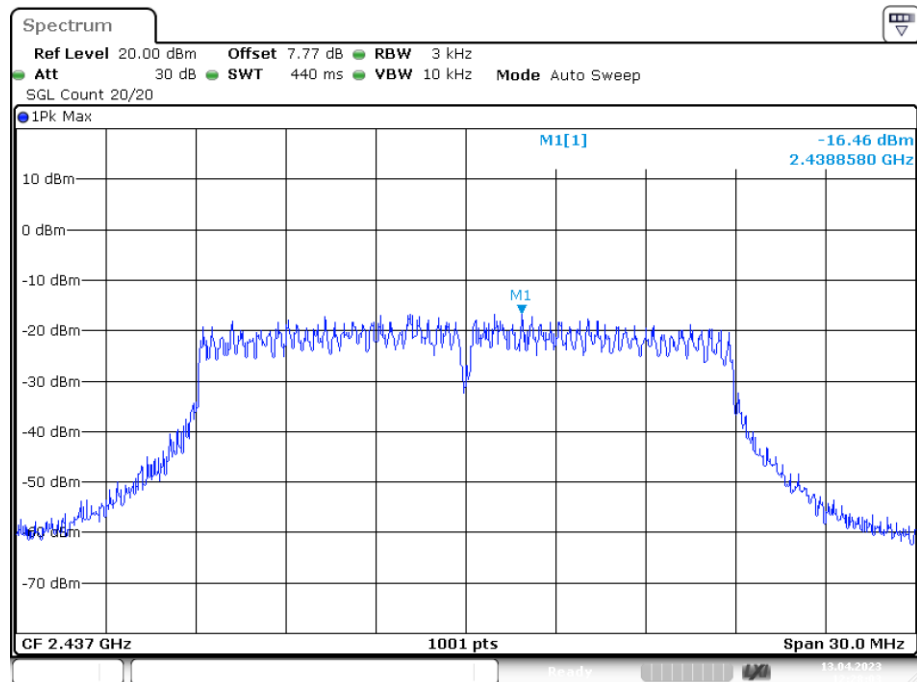
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PSD NVNT n20 2412MHz Ant1



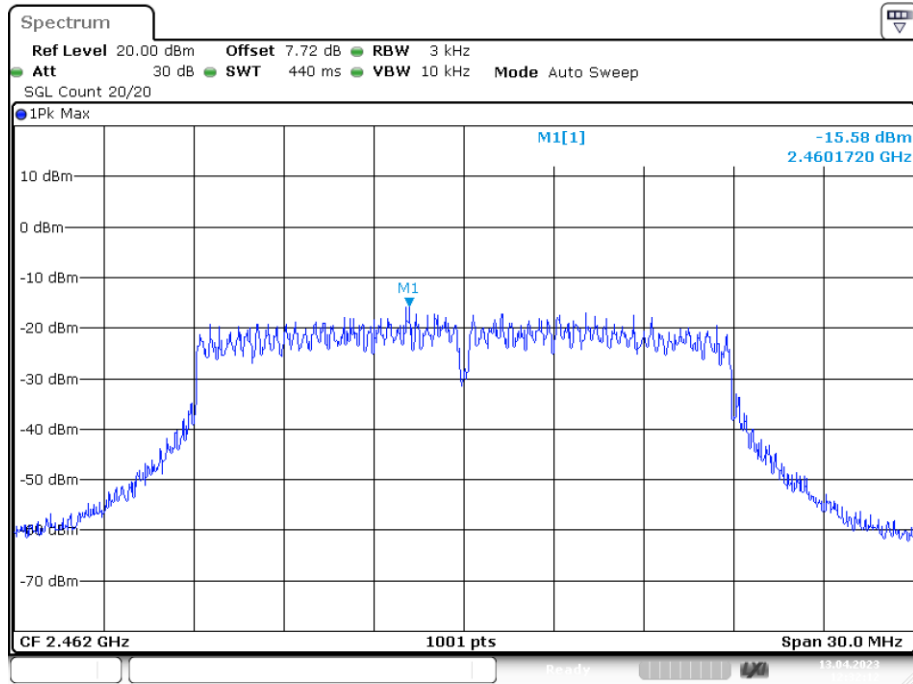
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PSD NVNT n20 2437MHz Ant1



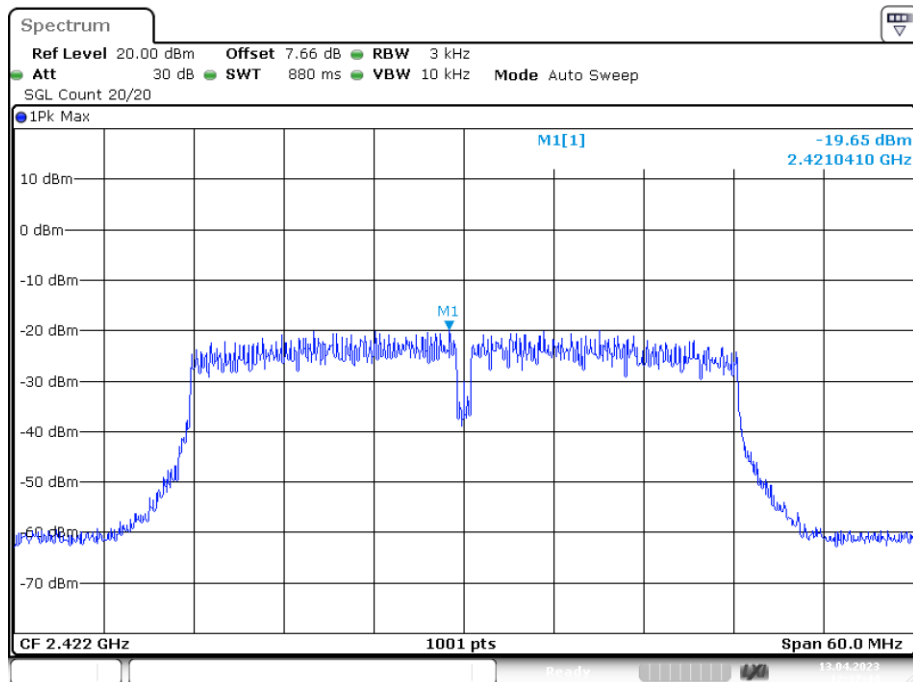
Date: 13.APR.2023 12:28:03

PSD NVNT n20 2462MHz Ant1



Date: 13.APR.2023 12:32:12

PSD NVNT n40 2422MHz Ant1



Date: 13.APR.2023 12:37:44