FCC - TEST REPORT

Report Number	:	**68.950.21.0545.01**	Date of Issue:	**2021-09-08**
Model	:	**PG915420U, PG912696U, PG911040U, PG912689U, PG915697, PG918520, PG916045, PG918537, PG911040, PG918506, PG918544, PG912696, PG912689, PG915420**		
FCC ID	:	2AKMJ-PG915420		
Product Type	:	PEBBLE GEAR™ 7" KIDS TABLET		
Applicant	:	SNAKEBYTE ASIA Ltd.		
Address	:	Unit 907-908, 9th/F, Lu Plaza 2 Wing Yip Street, Kwun Tong, Hong Kong		
Manufacturer	:	SNAKEBYTE ASIA Ltd.		
Address	:	Unit 907-908, 9th/F, Lu Plaza 2 Wing Yip Street, Kwun Tong, Hong Kong		
Test Result	:	■ **Positive** ☐ **Negative**		
Total pages including Appendices	:	**60**		

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2 Details about the Test Laboratory

Details about the Test Laboratory
Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park,
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Shenzhen City, 518052,
P. R. China

FCC Designation Number: CN5009

FCC Registration No.: 514049

Telephone: 86 755 8828 6998
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Report Version:

Revision	Release Date	History/Memo.
N/A	2021-09-08	Initial Release

3 Description of the Equipment under Test

Product:	PEBBLE GEAR™ 7'' KIDS TABLET
Model no.:	PG915420U, PG912696U, PG911040U, PG912689U, PG915697, PG918520, PG916045, PG918537, PG911040, PG918506, PG918544, PG912696, PG912689, PG915420
FCC ID:	2AKMJ-PG915420
Rating:	3.7VDC, 2700mAh, (Supplied by Rechargeable Li-ion Battery) or 5VDC (Supplied by external adapter for Charging rechargeable battery)
RF Transmission Frequency:	2412MHz-2462MHz
No. of Operated Channel:	11
Modulation:	802.11b: BPSK, QPSK, CCK, 802.11g/802.11n HT20/40: BPSK, QPSK, 16-QAM, 64-QAM
Antenna Type:	Internal antenna
Antenna Gain:	3.02dBi max for 2.4GHz
Description of the EUT:	The equipment supports Bluetooth Low Energy/Bluetooth BR+EDR /WIFI functions. The TX and RX range is 2402MHz-2480MHz for Bluetooth, 2412MHz – 2462MHz for 2.4GHzWIFI, 5180MHz – 5240MHz, 5745MHz – 5825MHz for 5GHzWIFI

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4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2020 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators

All the test methods were according to KDB558074 D01 v05r02 DTS Measurement Guidance and ANSI C63.10 (2013).

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5 Summary of Test Results

Technical Requirements			
FCC Part 15 Subpart C			
Test Condition		Test Site	Test Result
§15.207	Conducted emission AC power port	--	N/A
§15.247 (b) (1)	Conducted peak output power	Site 1	PASS
§15.247(a)(1)	20dB bandwidth	---	N/A
§15.247(a)(1)	Carrier frequency separation	---	N/A
§15.247(a)(1)(iii)	Number of hopping frequencies	---	N/A
§15.247(a)(1)(iii)	Dwell Time	---	N/A
§15.247(a)(2)	6dB bandwidth and 99% Occupied Bandwidth	Site 1	PASS
§15.247(e)	Power spectral density	Site 1	PASS
§15.247(d)	Spurious RF conducted emissions	Site 1	PASS
§15.247(d)	Band edge	Site 1	PASS
§15.247(d) & §15.209 & §15.205	Spurious radiated emissions for transmitter	Site 1	PASS
§15.203	Antenna requirement	See note 2	PASS

Note 1: N/A=Not Applicable.
Note 2: The EUT uses an Internal antenna, which gain is 3.02dBi. In accordance to §15.203, it is considered sufficiently to comply with the provisions of this section.

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6 General Remarks

Remarks
This submittal(s) (test report) is intended for FCC ID: 2AKMJ-PG915420, complies with Section 15.205, 15.209, 15.247 of the FCC Part 15, Subpart C.

The Equipment Under Test (EUT) is TABLET with Bluetooth Low Energy/Bluetooth BDR+EDR/WIFI functions.
The difference among all models is only model name.
Unless otherwise specified the model PG915420 was chosen as the representative model to perform full tests, and others model was deemed to fulfil relevant RF requirements without further testing.

This report is for the WIFI 2.4GHz part.

SUMMARY:
All tests according to the regulations cited on page 5 were

■ - Performed

☐ - **Not** Performed

The Equipment under Test

■ - **Fulfills** the general approval requirements.

☐ - **Does not** fulfill the general approval requirements.

Sample Received Date: 2021-08-17

Testing Start Date: 2021-08-17

Testing End Date: 2021-09-06

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch -

Reviewed by:	Prepared by:	Tested by:
John Zhi	Joe Gu	Carry Cai
Project Manager	Project Engineer	Test Engineer

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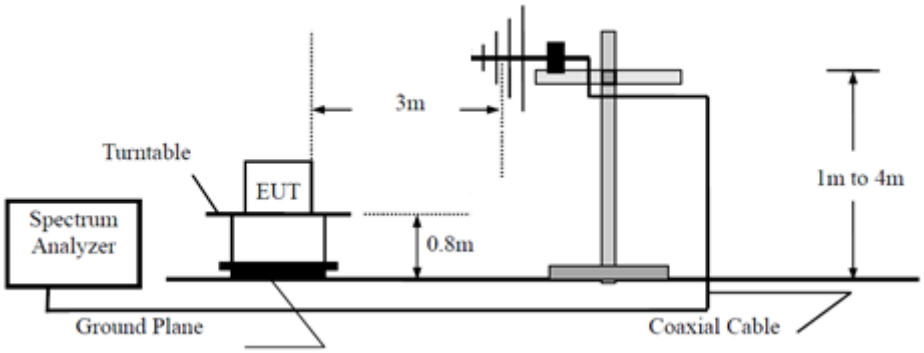
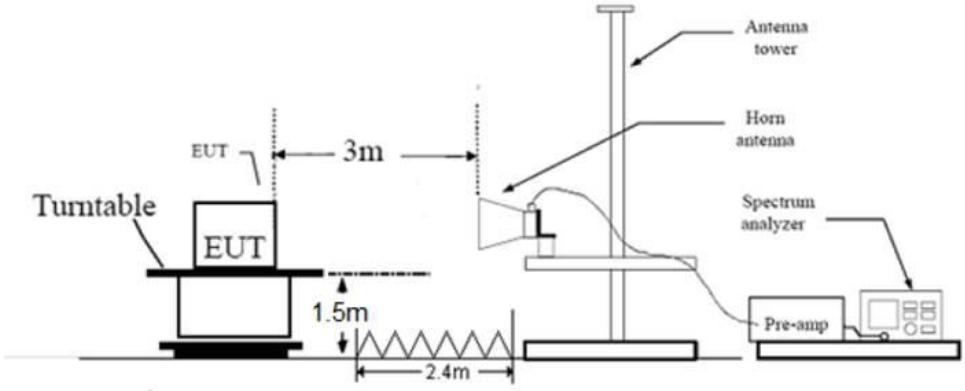
7 Test Setups

7.1 Radiated test setups

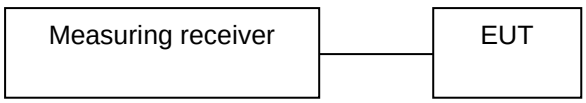
Below 1GHz



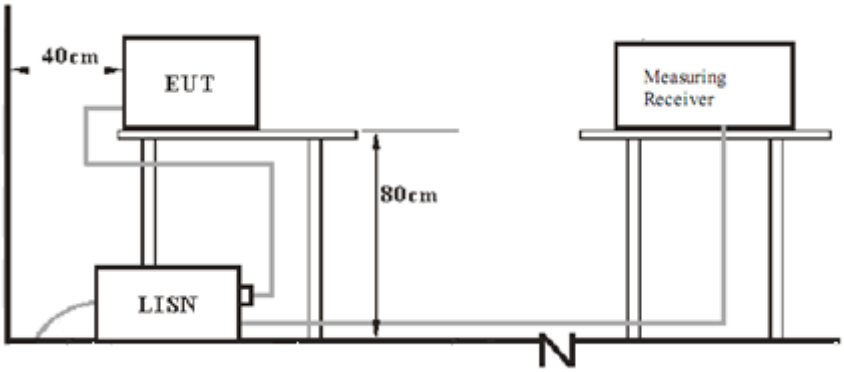
Above 1GHz



7.2 Conducted RF test setups



7.3 AC Power Line Conducted Emission test setups



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8 Systems test configuration

Auxiliary Equipment Used during Test:

Name	Model	Manufacturer	S/N	Cal Due Date
Notebook	X220	Lenovo	--	--
Adaptor	A1357	Apple	--	--

Test Channel information:

Test Mode	Channel (MHz)		
802.11b	CH 1: 2412MHz	CH 6: 2437MHz	CH 11: 2462MHz
802.11g	CH 1: 2412MHz	CH 6: 2437MHz	CH 11: 2462MHz
802.11n HT20	CH 1: 2412MHz	CH 6: 2437MHz	CH 11: 2462MHz
802.11n HT40	CH 3: 2422MHz	CH 6: 2437MHz	CH 9: 2452MHz

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9 Technical Requirement

9.1 Conducted Emission

Test Method

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. Both sides of AC line were checked for maximum conducted interference.
6. The frequency range from 150 kHz to 30 MHz was searched.
7. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively

Limit According to §15.207, conducted emissions limit as below:

Frequency MHz	QP Limit dBµV	AV Limit dBµV
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

*Decreasing linearly with logarithm of the frequency

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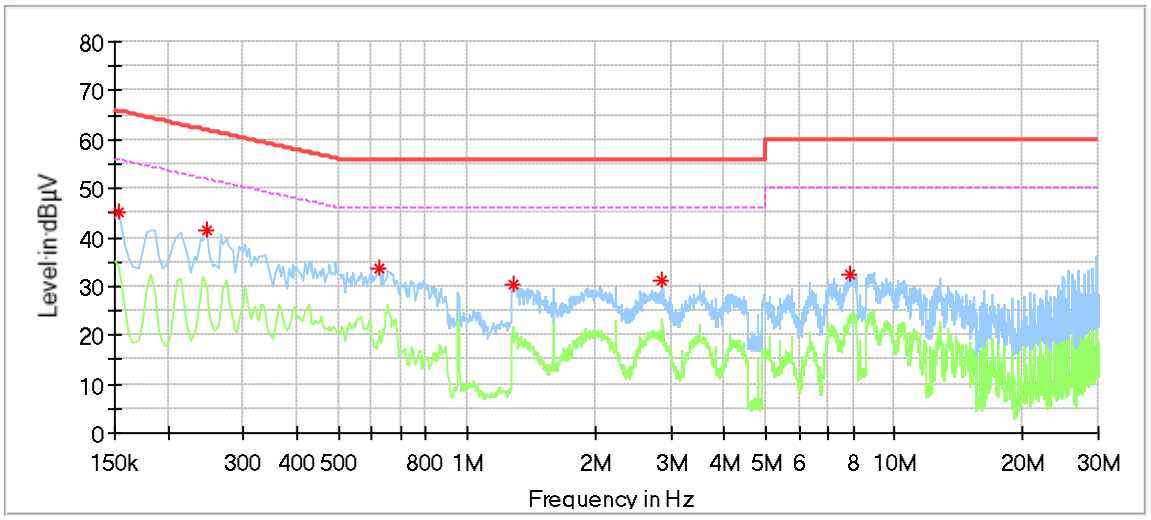
Conducted Emission

Product Type : PEBBLE GEAR™ 7" KIDS TABLET
M/N : PG915420
Operating Condition : Charging + Transmit
Test Specification : Power Line, Live
Comment : AC 120V/60Hz (External adapter)



Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.154000	45.17	---	65.78	20.61	L1	9.25
0.246000	41.45	---	61.89	20.44	L1	9.23
0.626000	33.67	---	56.00	22.33	L1	9.20
1.278000	30.52	---	56.00	25.48	L1	9.21
2.866000	31.34	---	56.00	24.66	L1	9.25
7.862000	32.29	---	60.00	27.71	L1	9.37

Remark：
Level=Reading Level + Correction Factor
Correction Factor=Cable Loss + LISN Factor
(The Reading Level is recorded by software which is not shown in the sheet)

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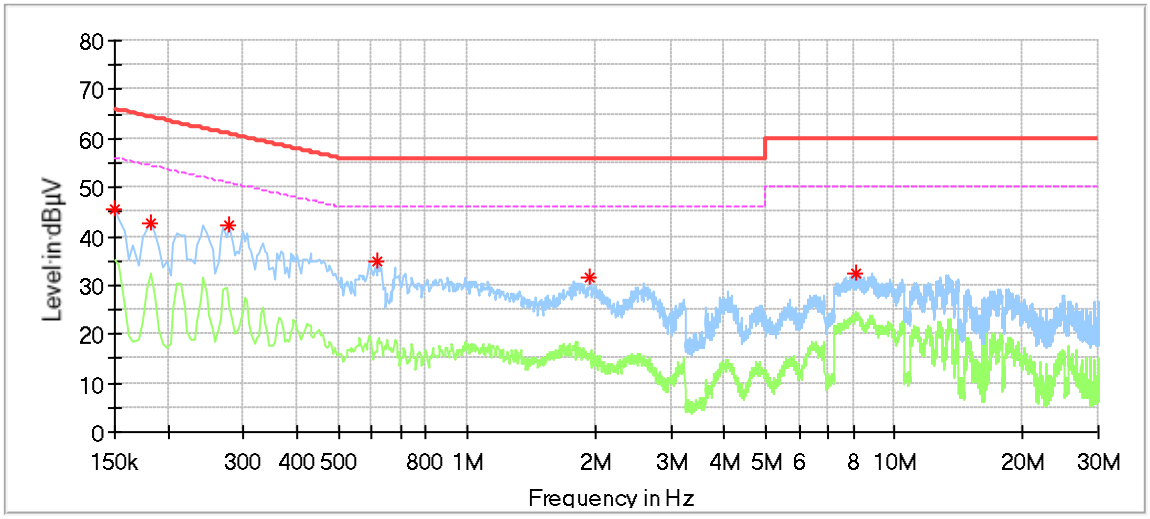
Conducted Emission

Product Type	:	PEBBLE GEAR™ 7" KIDS TABLET
M/N	:	PG915420
Operating Condition	:	Charging + Transmit
Test Specification	:	Power Line, Live
Comment	:	AC 120V/60Hz (External adapter)



Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150000	45.40	---	66.00	20.60	N	9.40
0.182000	42.60	---	64.39	21.79	N	9.40
0.278000	42.23	---	60.88	18.64	N	9.39
0.618000	34.82	---	56.00	21.18	N	9.39
1.942000	31.62	---	56.00	24.39	N	9.41
8.134000	32.50	---	60.00	27.50	N	9.58

Remark：
Level=Reading Level + Correction Factor
Correction Factor=Cable Loss + LISN Factor
(The Reading Level is recorded by software which is not shown in the sheet)

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9.2 Conducted output power

Test Method

1. The EUT was placed on 0.8m height table, the RF output of EUT was connected to the power meter by RF cable. The path loss was compensated to the results for each measurement.
2. Setting the highest output power level of the EUT
3. Record the power value.

Limits

Conducted output power limit as below:

Frequency Range MHz	Limit W	Limit dBm
2400-2483.5	≤1	≤30

Test result as below table

802.11b_SISO modulation Test Result

Frequency (MHz)	Conducted Output Power (dBm)	Result
Low channel 2412MHz	10.6	Pass
Middle channel 2437MHz	10.9	Pass
High channel 2462MHz	10.7	Pass

802.11g_SISO modulation Test Result

Frequency (MHz)	Conducted Output Power (dBm)	Result
Low channel 2412MHz	12.7	Pass
Middle channel 2437MHz	14.3	Pass
High channel 2462MHz	14.0	Pass

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802.11n20_SISO modulation Test Result

Frequency (MHz)	Conducted Output Power (dBm)	Result
Low channel 2412MHz	10.3	Pass
Middle channel 2437MHz	11.1	Pass
High channel 2462MHz	10.9	Pass

802.11n40_SISO modulation Test Result

Frequency (MHz)	Conducted Output Power (dBm)	Result
Low channel 2422MHz	10.1	Pass
Middle channel 2437MHz	10.3	Pass
High channel 2452MHz	10.3	Pass

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9.3 6dB bandwidth

Test Method

1. Connect EUT test port to spectrum analyzer.
2. Use the following spectrum analyzer settings:
   RBW=100K, VBW≥3RBW, Sweep = auto, Detector function = peak, Trace = max hold
3. Use the automatic bandwidth measurement capability of an instrument, may be employed using the X dB bandwidth mode with X set to 6 dB, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.
4. Allow the trace to stabilize, record the X dB Bandwidth value.

Limit

Limit [kHz]
≥500

Test result

TestMode	Channel[MHz]	DTS BW [MHz]	Limit [MHz]	Verdict
11B	2412	10.160	0.5	PASS
	2437	10.160	0.5	PASS
	2462	10.160	0.5	PASS
11G	2412	16.160	0.5	PASS
	2437	15.200	0.5	PASS
	2462	15.520	0.5	PASS
11N20SISO	2412	17.680	0.5	PASS
	2437	17.680	0.5	PASS
	2462	17.680	0.5	PASS
11N40SISO	2422	35.280	0.5	PASS
	2437	35.360	0.5	PASS
	2452	35.280	0.5	PASS

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Test Graphs

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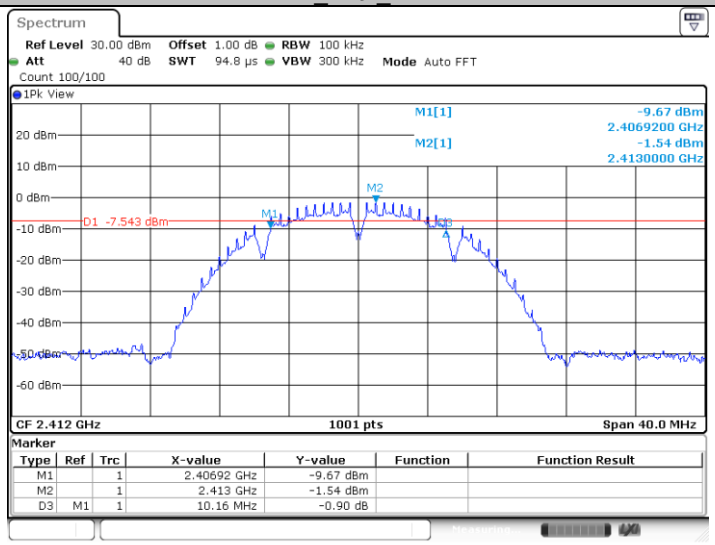 Date: 18.AUG.2021 21:55:42
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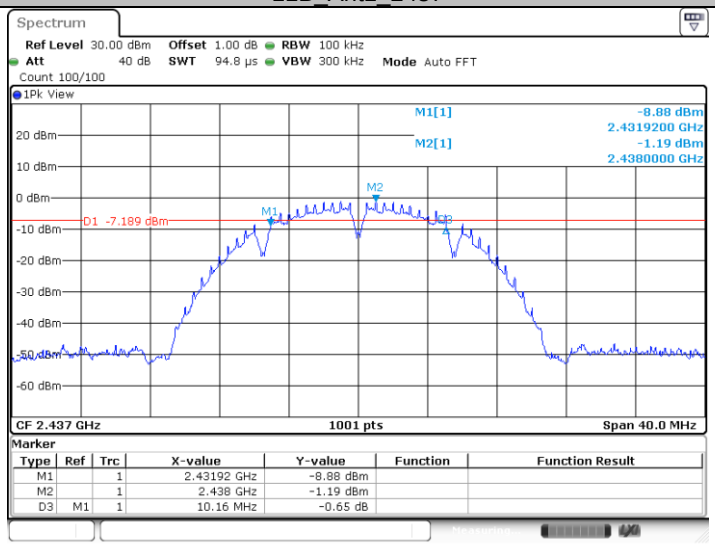 Date: 18.AUG.2021 21:57:38

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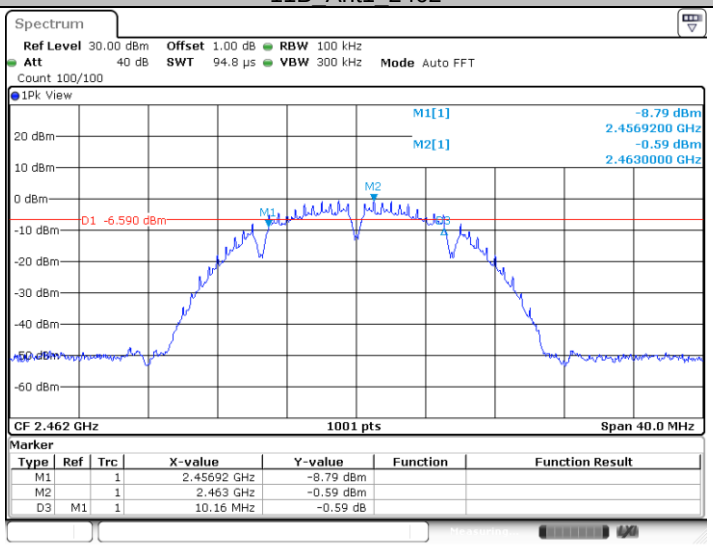
11B_Ant1_2462



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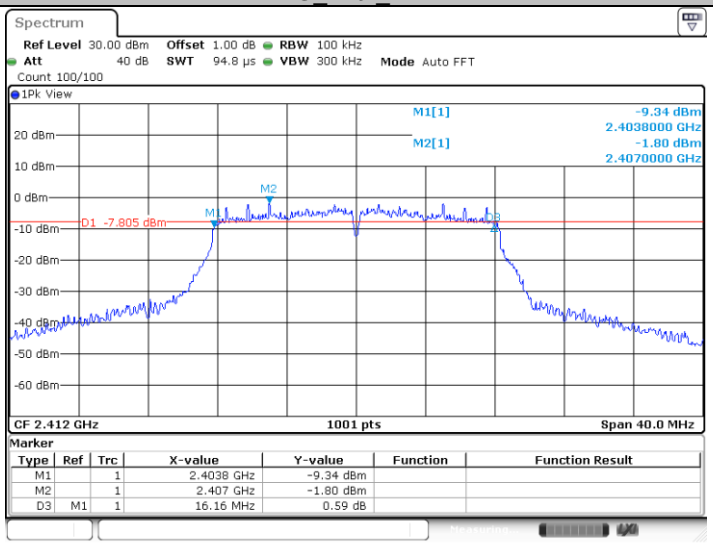
11G_Ant1_2412



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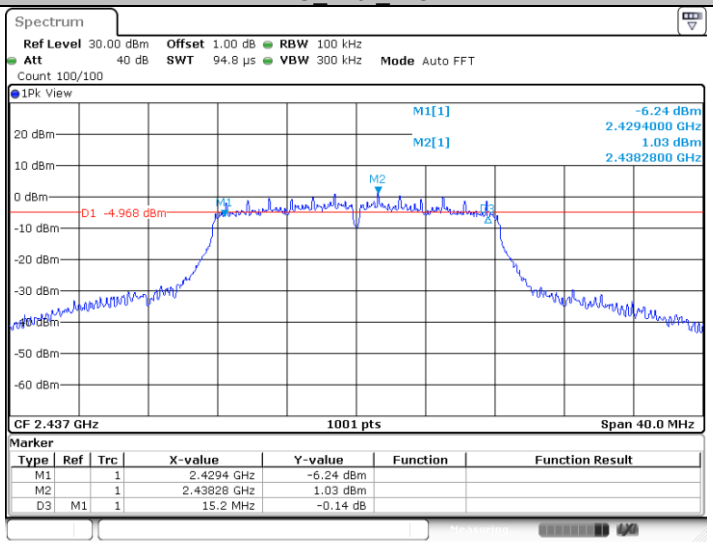
11G_Ant1_2437



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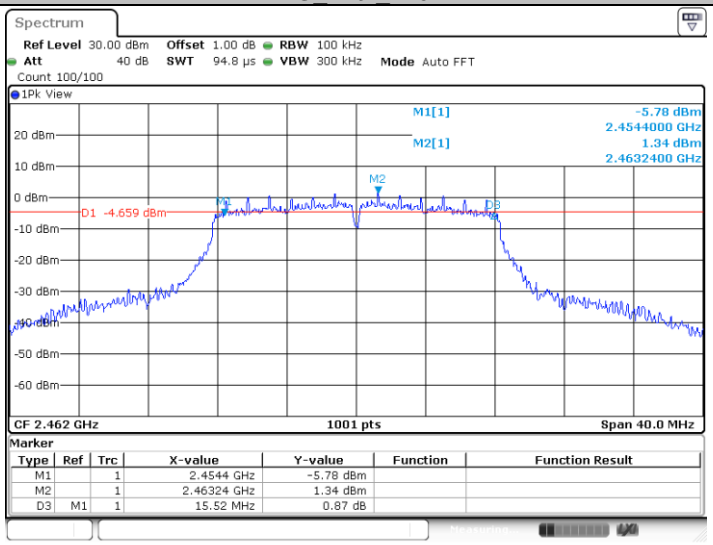
11G_Ant1_2462



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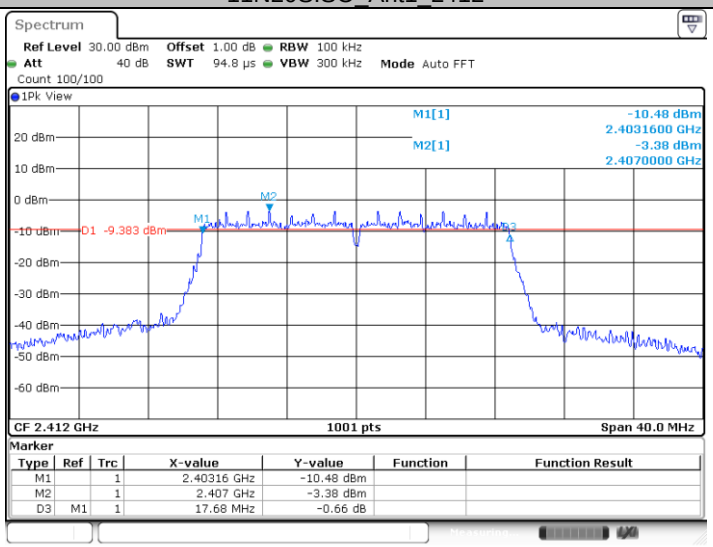

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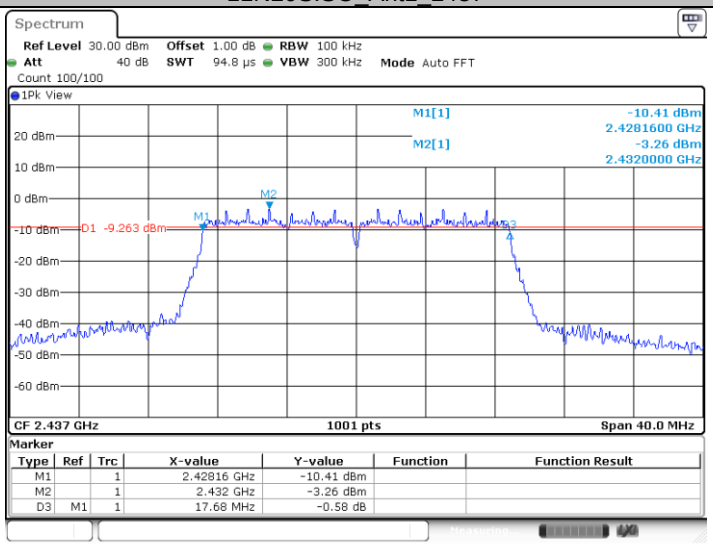

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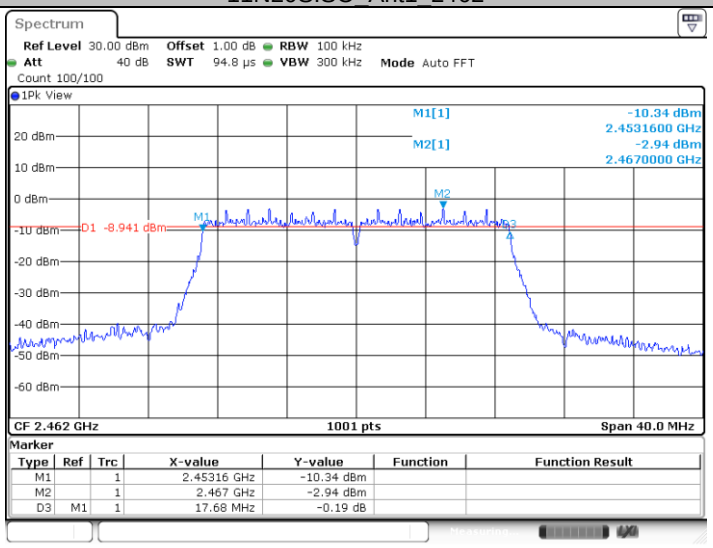
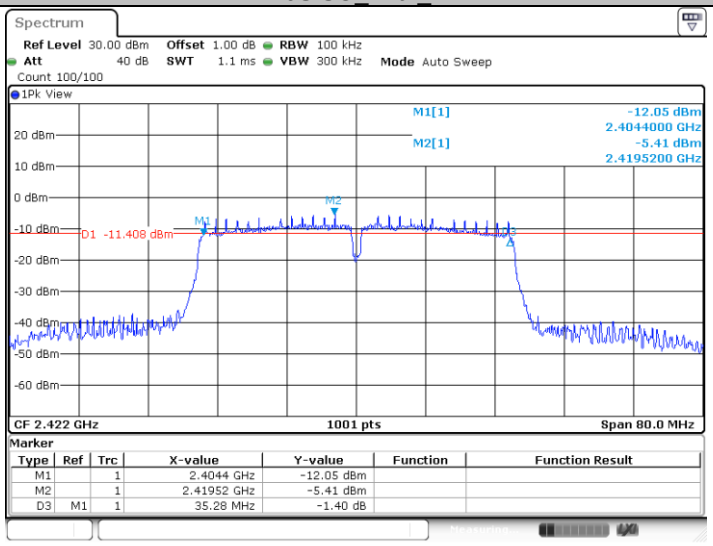


Date: 18.AUG.2021 22:19:19

11N40SISO_Ant1_2422



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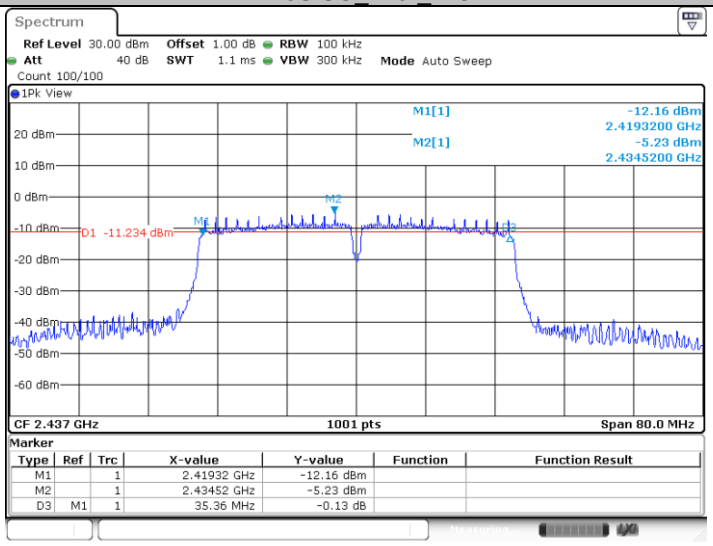
11N40SISO_Ant1_2437



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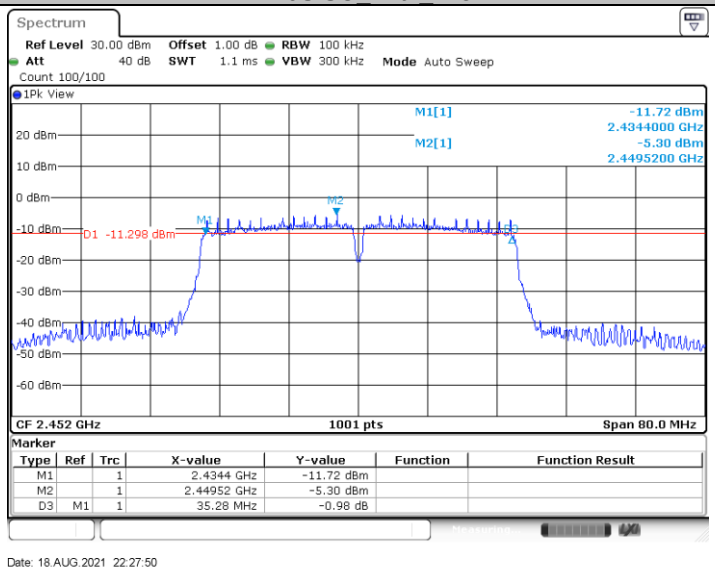
11N40SISO_Ant1_2452



9.4 99% bandwidth

Test Method

1. Connect EUT test port to spectrum analyzer.
2. Use the following spectrum analyzer settings:
RBW=1% to 5% of the actual occupied, VBW≥3RBW, Sweep = auto,
Detector function = peak, Trace = max hold
3. Use the automatic bandwidth measurement capability of an instrument, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.
4. Allow the trace to stabilize, record the X dB Bandwidth value.

Limit

Limit [kHz]
--

Test Result

TestMode	Channel[MHz]	OCB [MHz]	Limit[MHz]	Verdict
11B	2412	14.426	---	PASS
	2437	14.346	---	PASS
	2462	14.386	---	PASS
11G	2412	17.303	---	PASS
	2437	17.423	---	PASS
	2462	17.423	---	PASS
11N20SISO	2412	18.222	---	PASS
	2437	18.262	---	PASS
	2462	18.262	---	PASS
11N40SISO	2422	36.444	---	PASS
	2437	36.444	---	PASS
	2452	36.444	---	PASS

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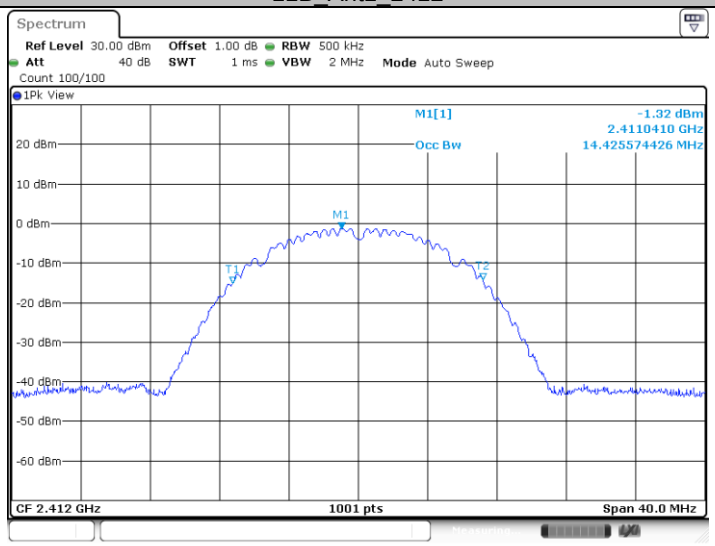
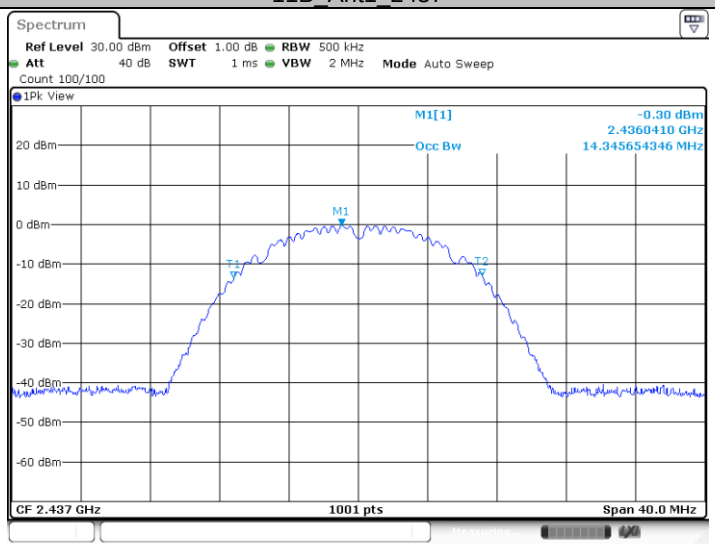
Test Graphs

11B_Ant1_2412



Date: 18.AUG.2021 21:55:53

11B_Ant1_2437



Date: 18.AUG.2021 21:57:49

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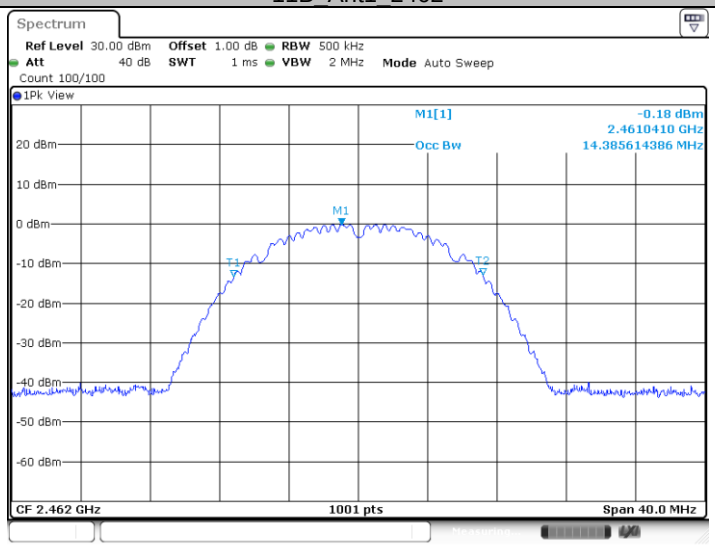
11B_Ant1_2462



Date: 18.AUG.2021 22:02:11

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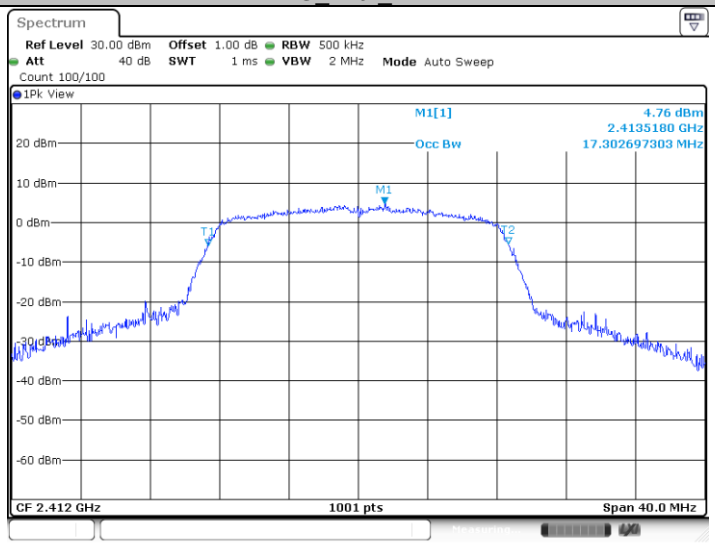

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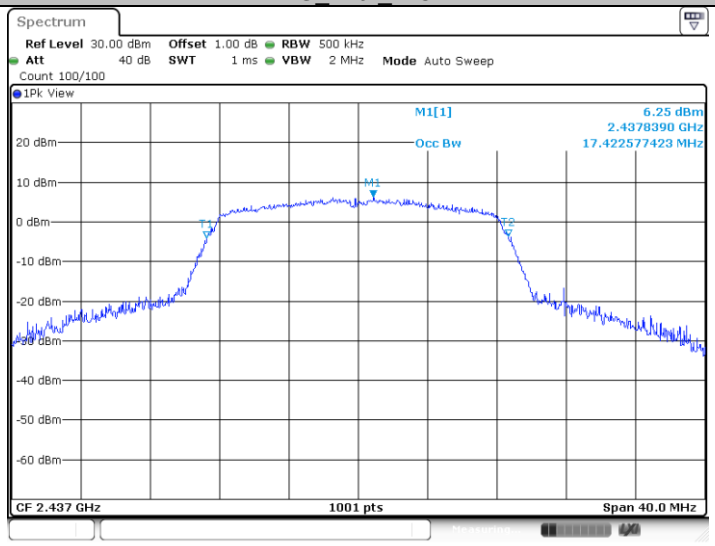

Date: 18.AUG.2021 22:09:26

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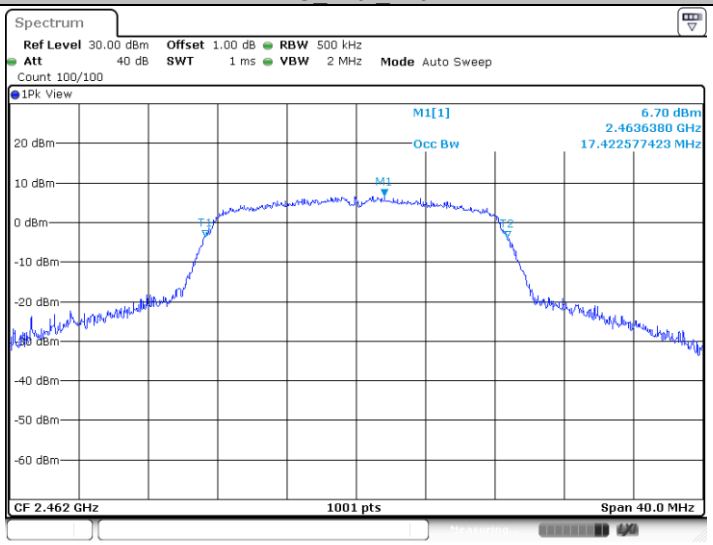
11G_Ant1_2462



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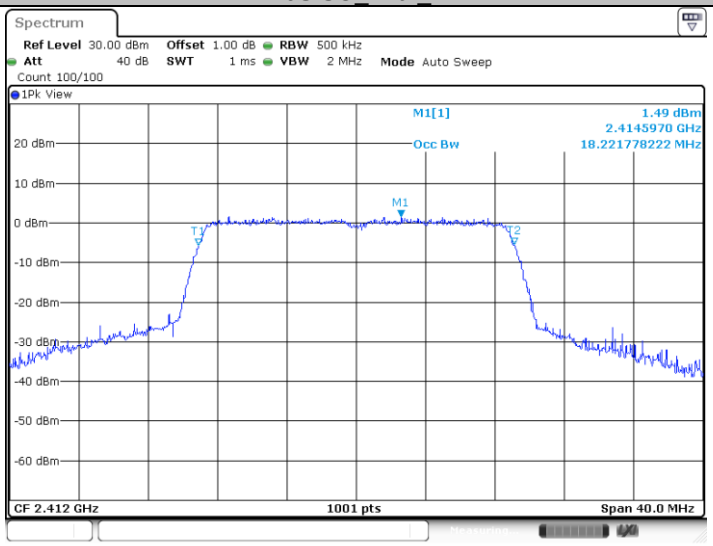

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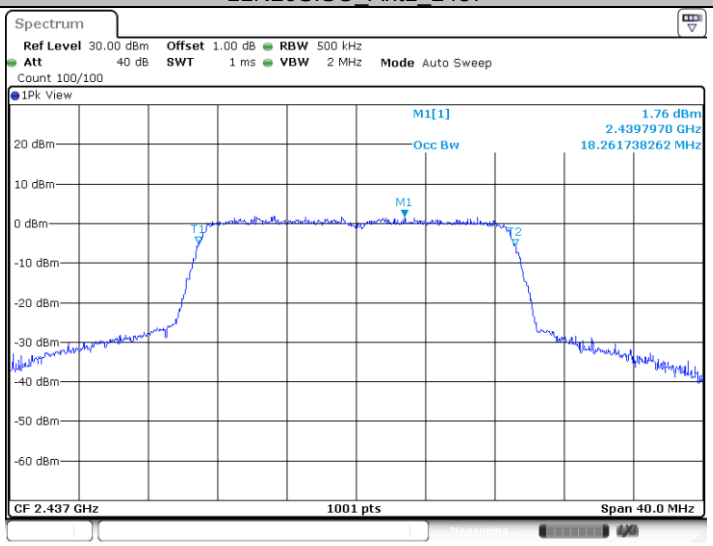

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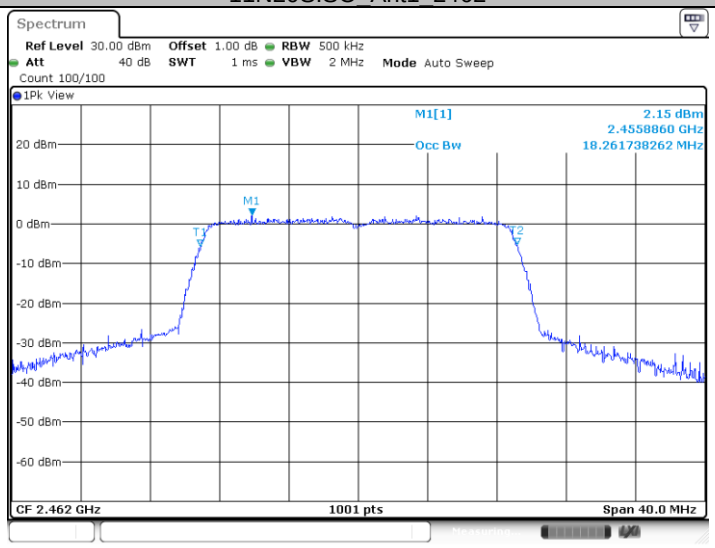

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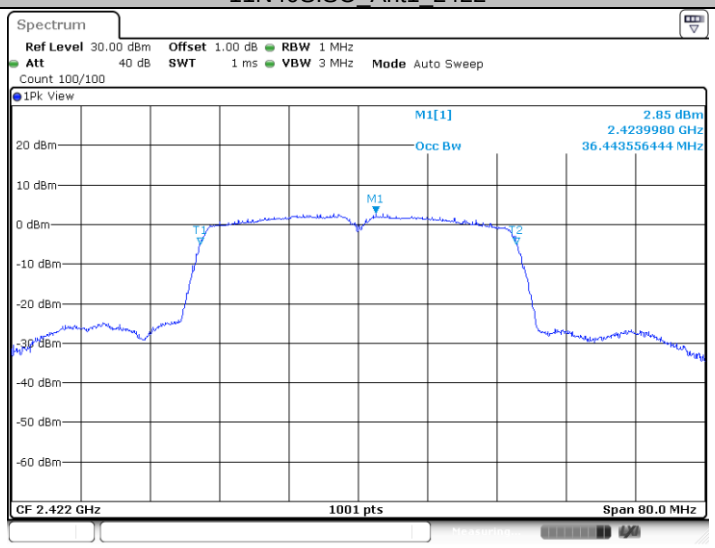

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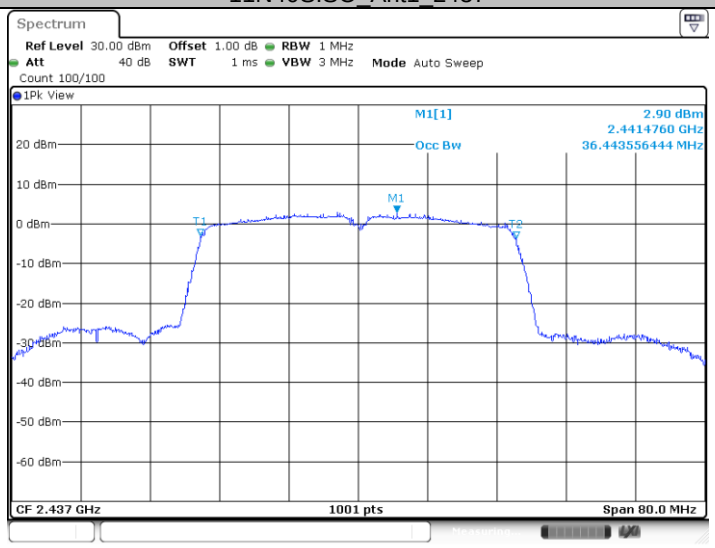

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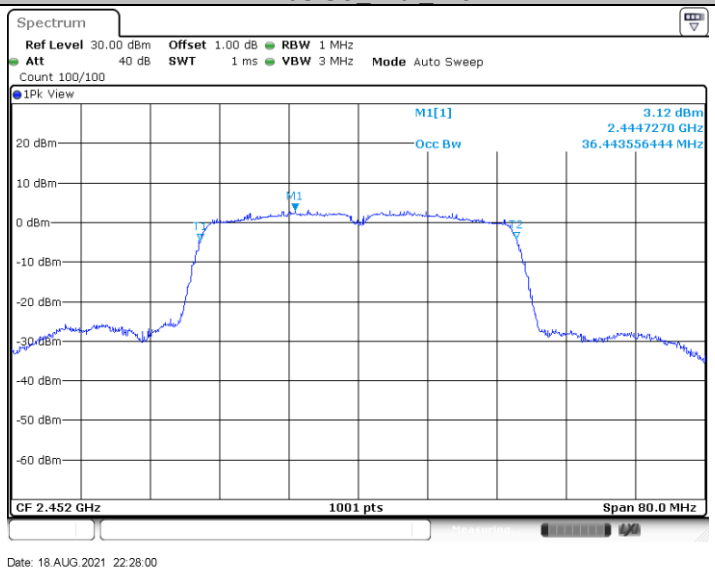
11N40SISO_Ant1_2452



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9.5 Power spectral density

Test Method

This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance:

1. The RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.
2. Set analyzer center frequency to DTS channel center frequency. RBW=3kHz, VBW≥3RBW, Span=1.5 times DTS bandwidth, Detector=Peak, Sweep=auto, Trace= max hold.
3. Allow trace to fully stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.
4. Repeat above procedures until other frequencies measured were completed.

Limit

Limit [dBm/3KHz]
≤8

Test result

TestMode	Channel[MHz]	Result(dBm/3KHz)	Limit(dBm/3KHz)	Verdict
11B	2412	-16.45	<=8	PASS
	2437	-17.02	<=8	PASS
	2462	-16.54	<=8	PASS
11G	2412	-15.79	<=8	PASS
	2437	-13.71	<=8	PASS
	2462	-13.60	<=8	PASS
11N20SISO	2412	-16.34	<=8	PASS
	2437	-17.15	<=8	PASS
	2462	-17.19	<=8	PASS
11N40SISO	2422	-19.61	<=8	PASS
	2437	-19.70	<=8	PASS
	2452	-19.51	<=8	PASS

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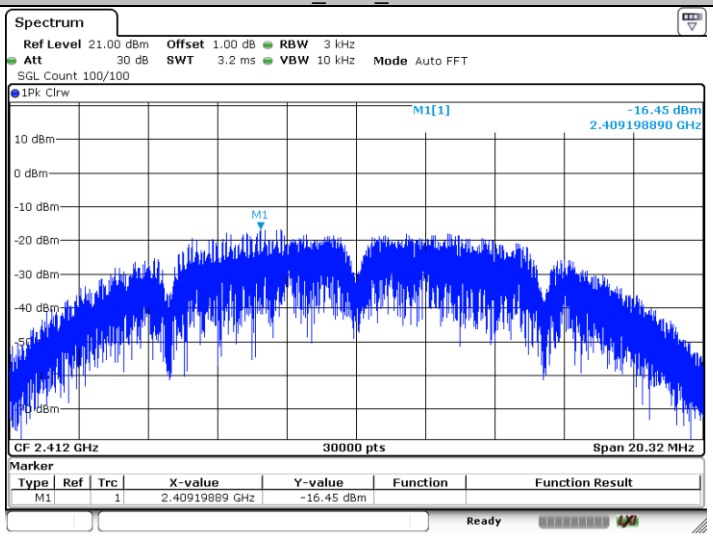
Test Graphs

11B_Ant1_2412



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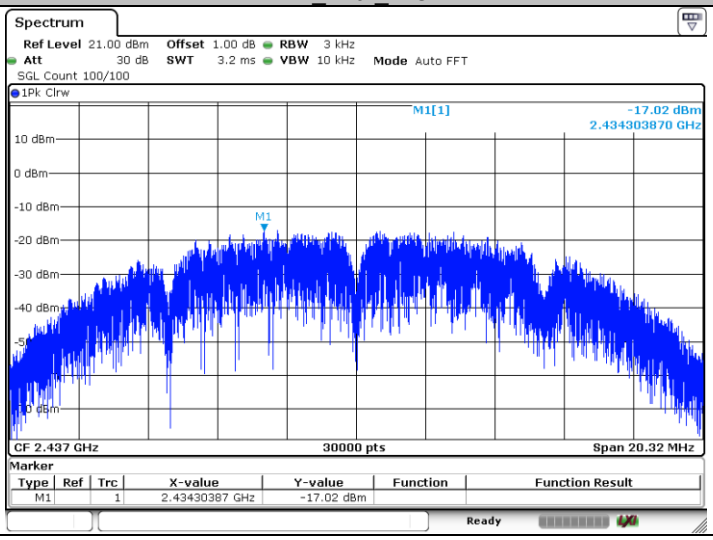

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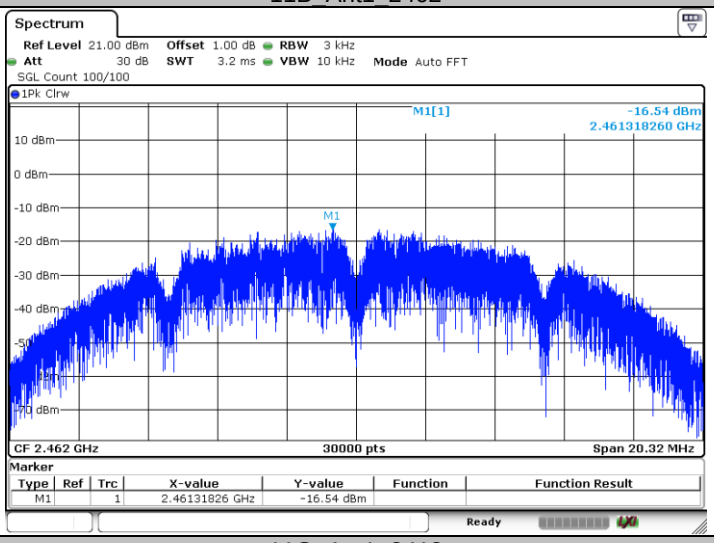
11B_Ant1_2462



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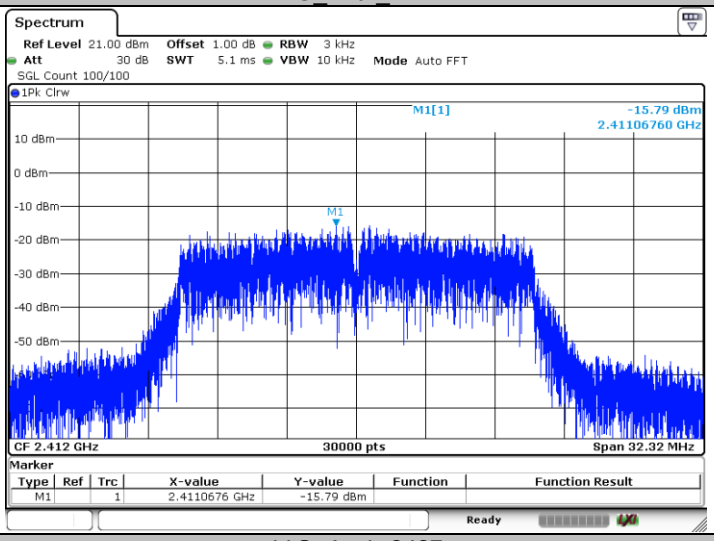

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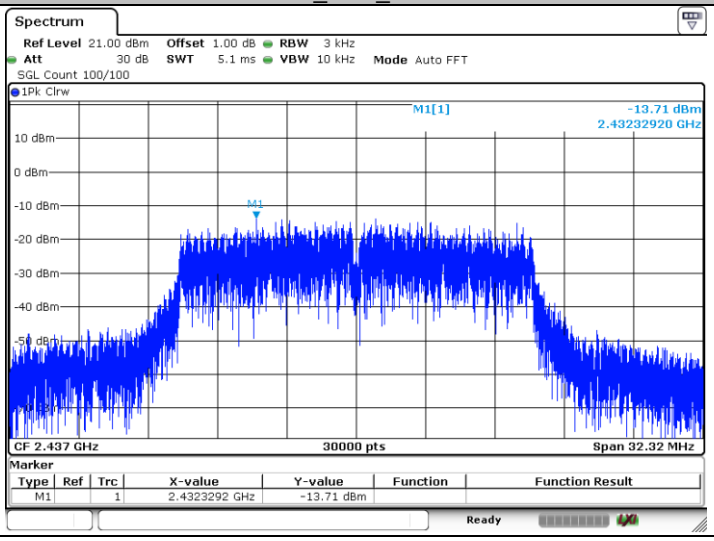

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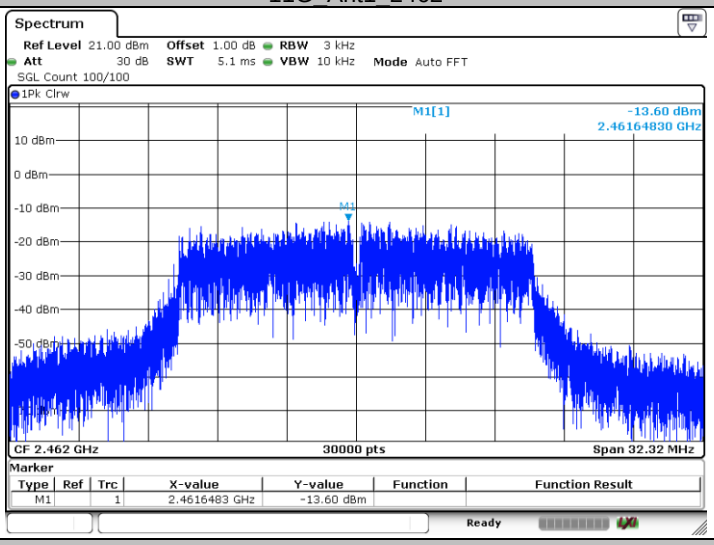
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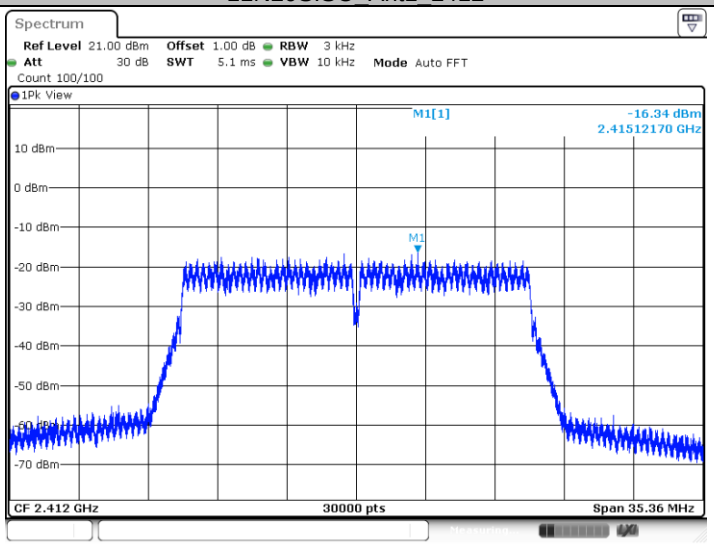
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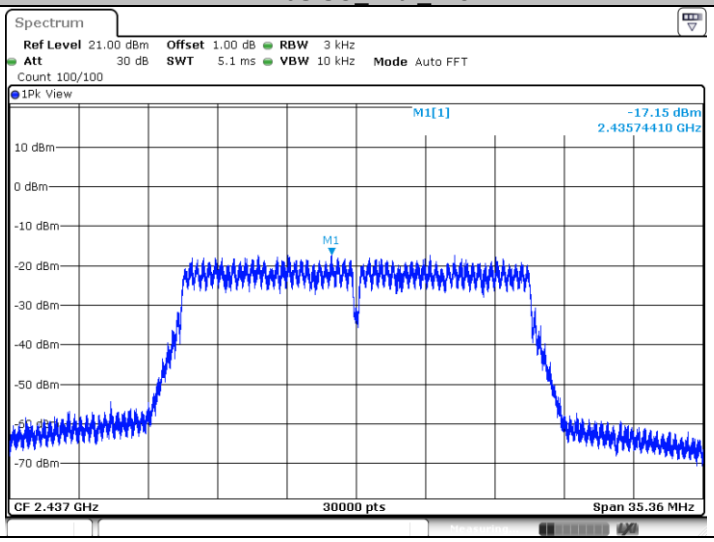

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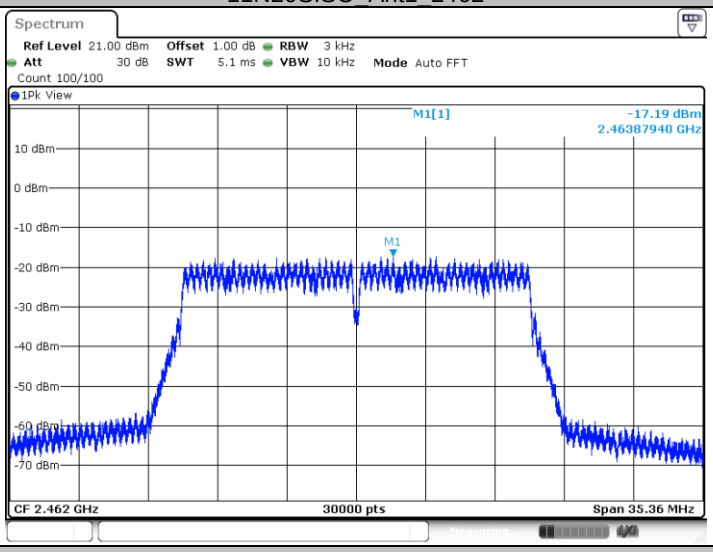
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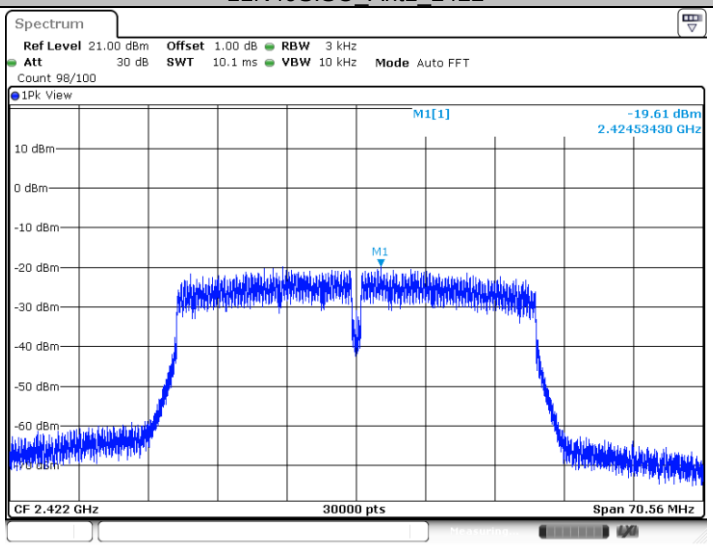
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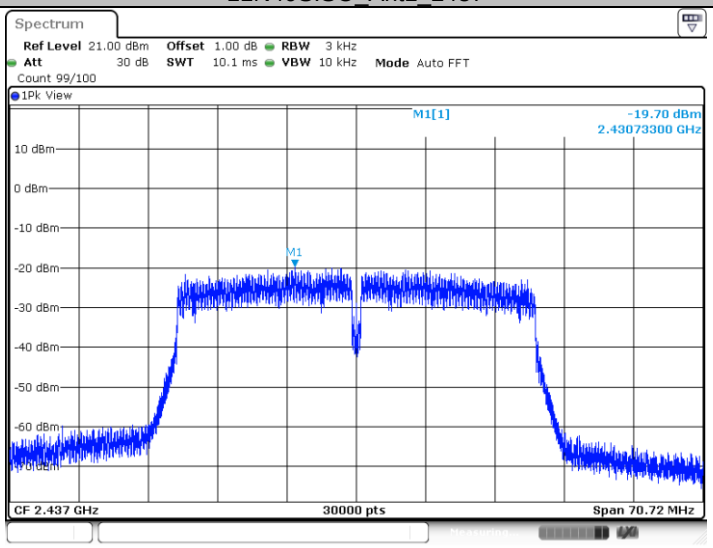

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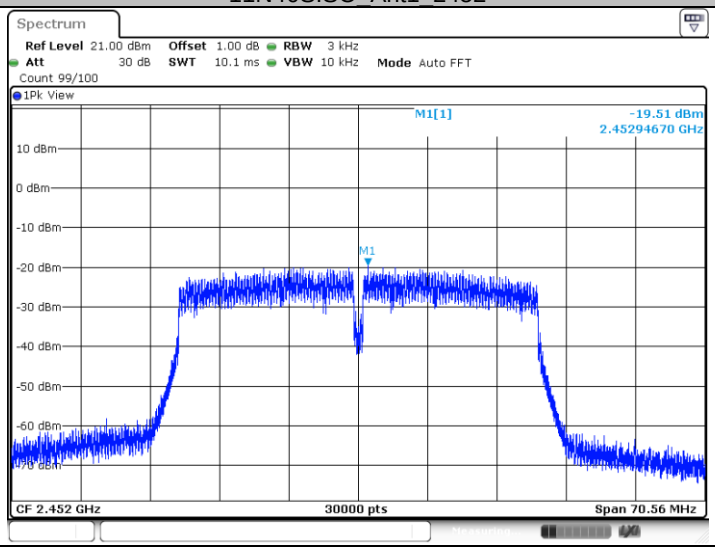
11N40SISO_Ant1_2452


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9.6 Spurious RF conducted emissions

Test Method

1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
2. Use the following spectrum analyzer settings:
   Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.
   RBW = 100 kHz, VBW≥RBW, Sweep = auto, Detector function = peak, Trace = max hold
3. Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded.
4. The level displayed must comply with the limit specified in this Section. Submit these plots.
5. Repeat above procedures until all frequencies measured were complete.

Limit

Frequency Range MHz	Limit (dBc)
30-25000	-20

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Test Result

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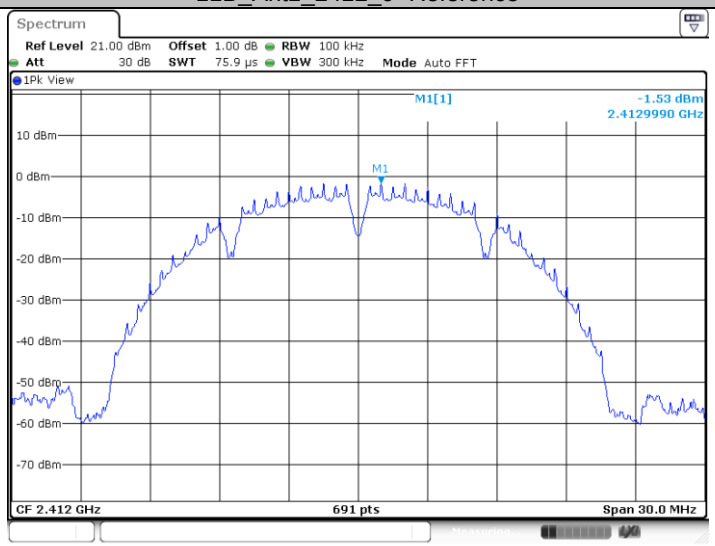
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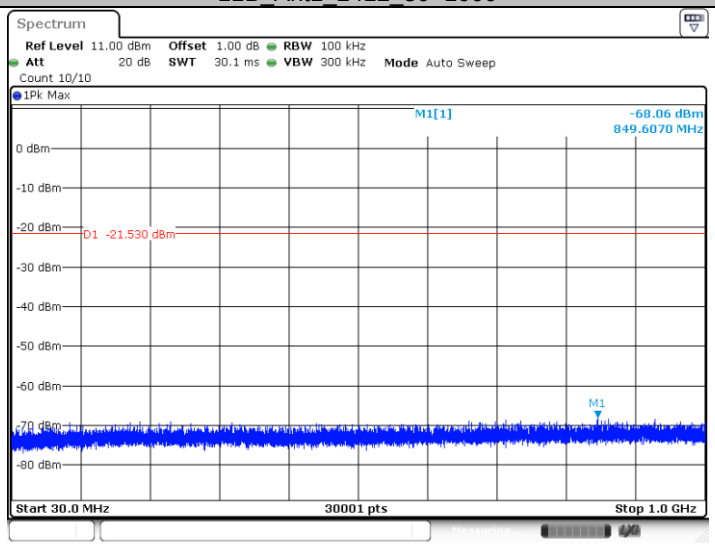

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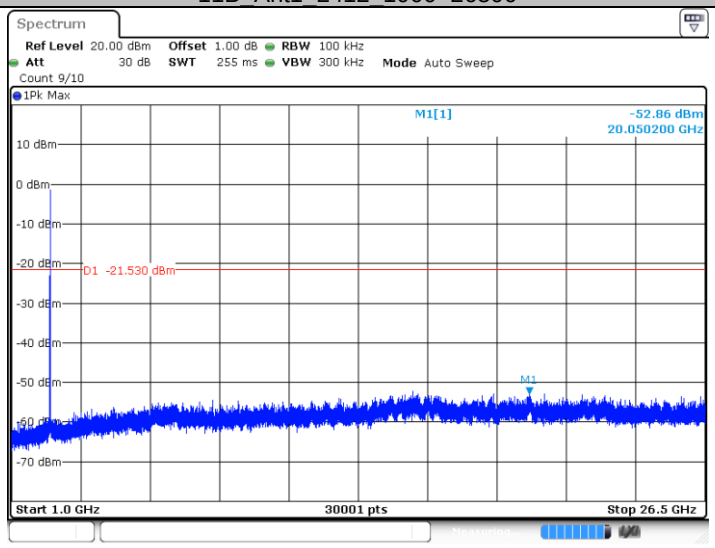
11B_Ant1_2412_1000~26500



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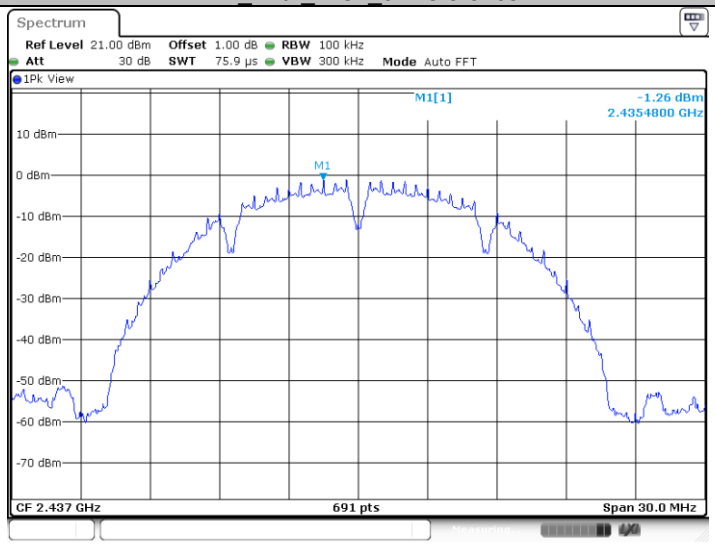

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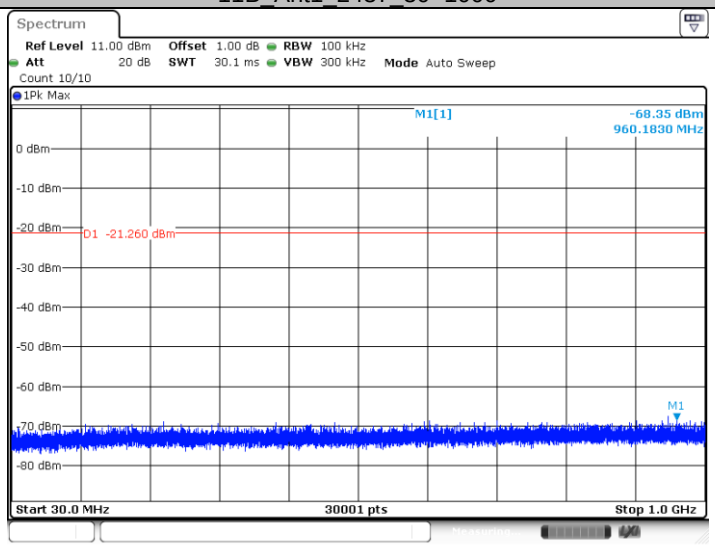

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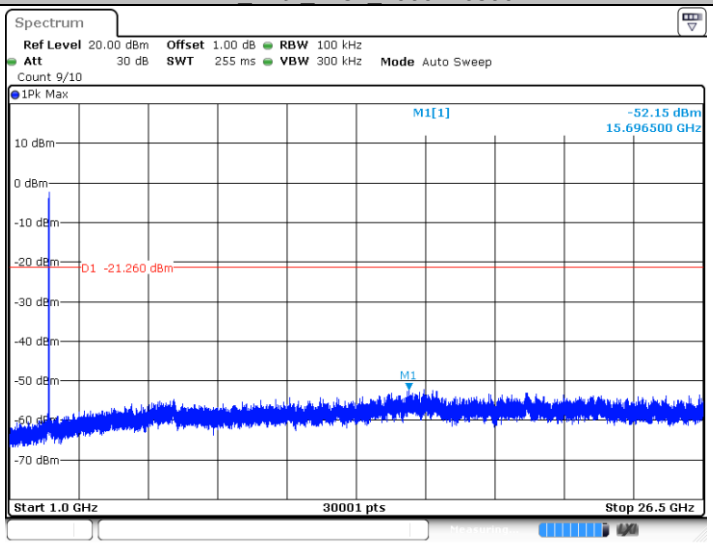

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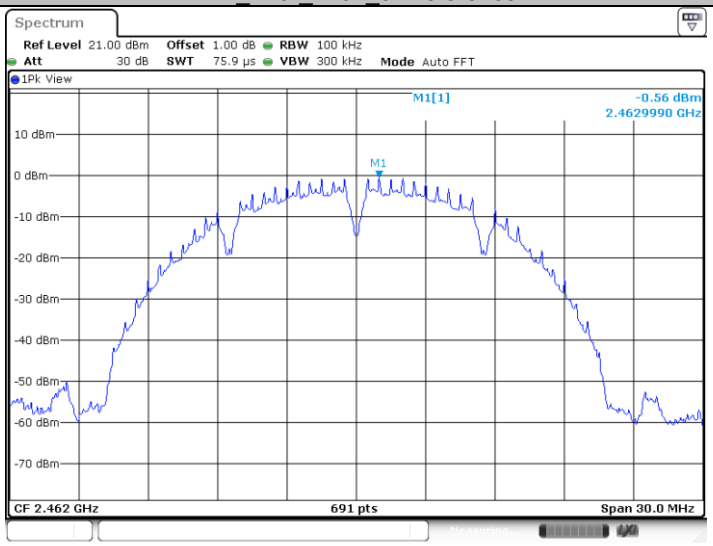

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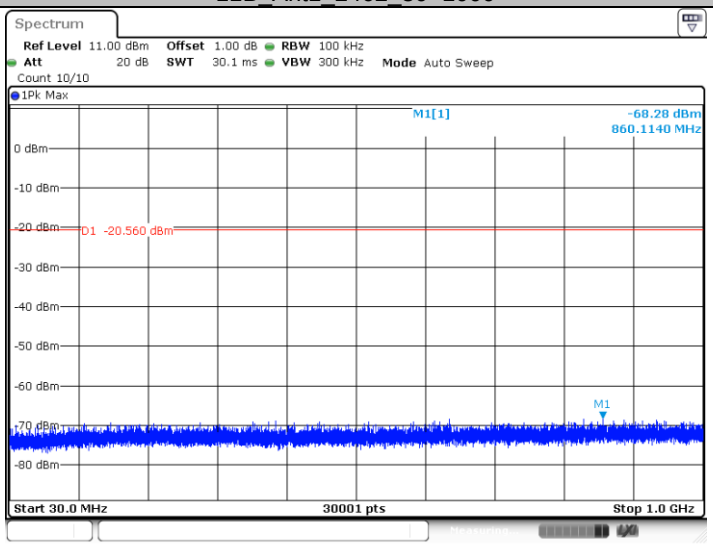

Date: 18.AUG.2021 22:02:44

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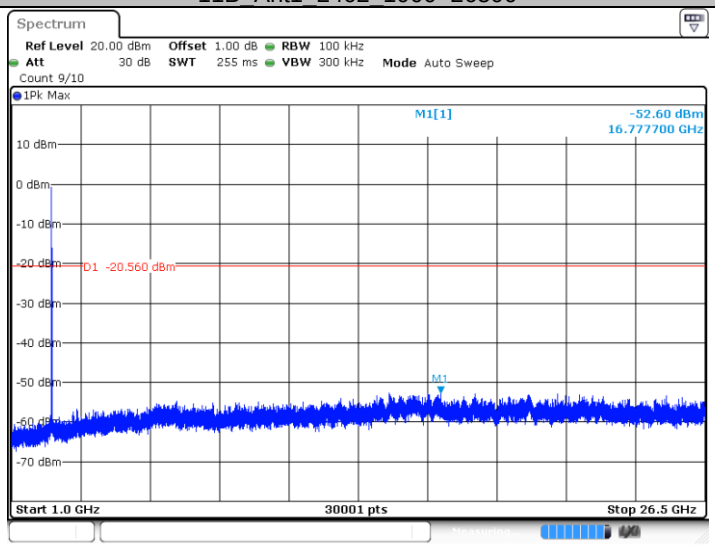
11B_Ant1_2462_1000~26500



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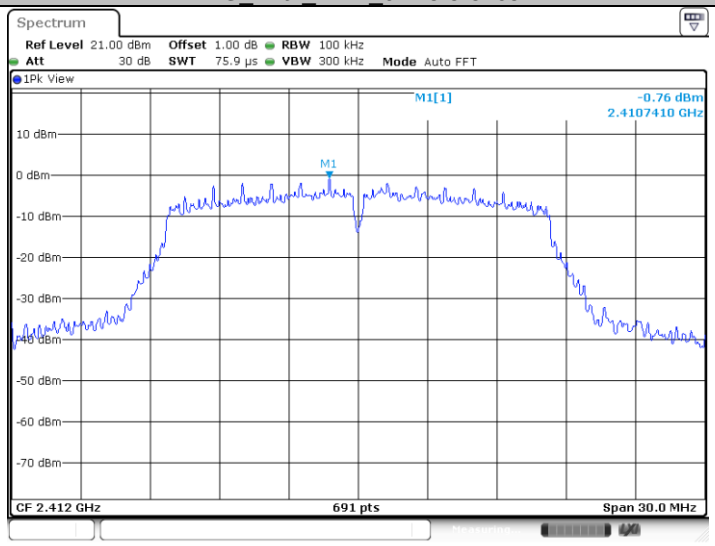

Date: 18.AUG.2021 22:06:05

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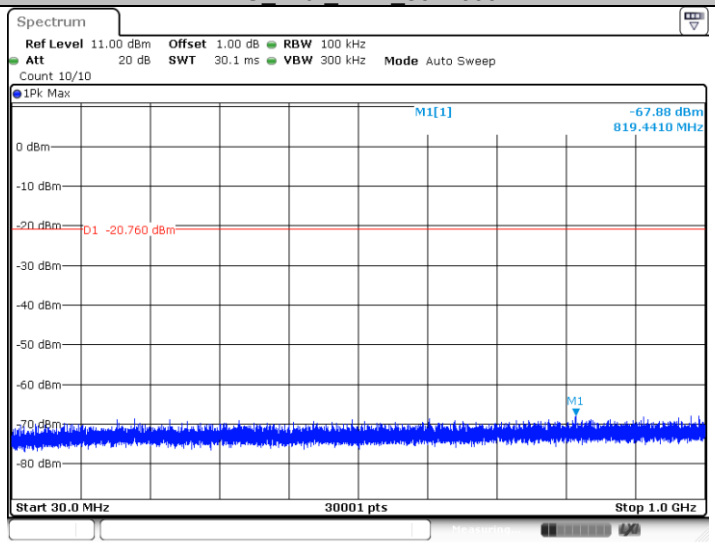

Date: 18.AUG.2021 22:06:11

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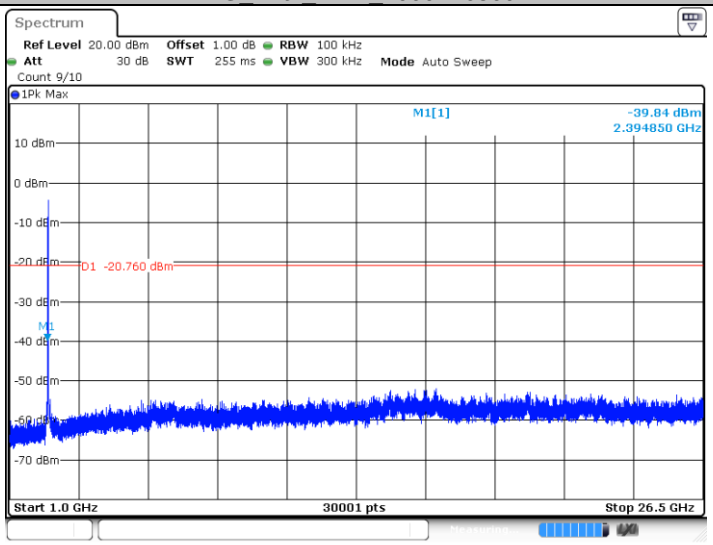
11G_Ant1_2412_1000~26500



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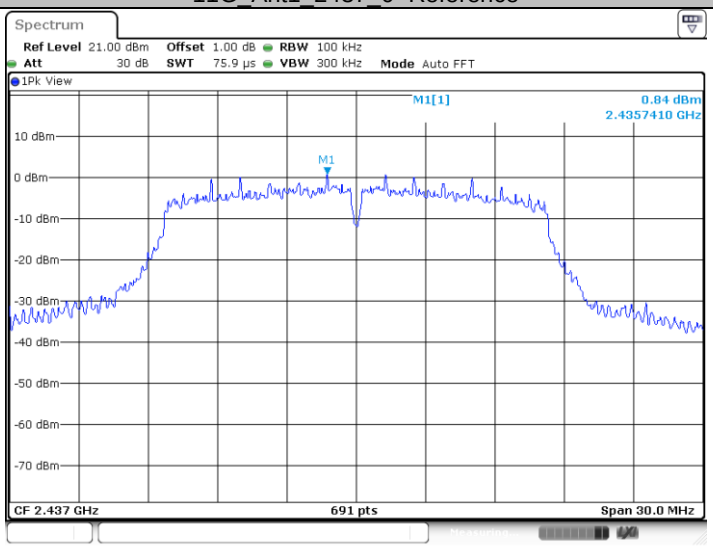

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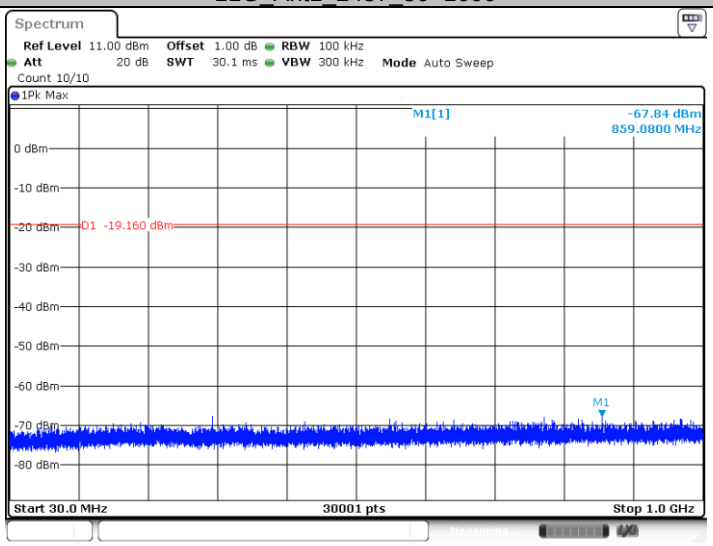

Date: 18.AUG.2021 22:09:49

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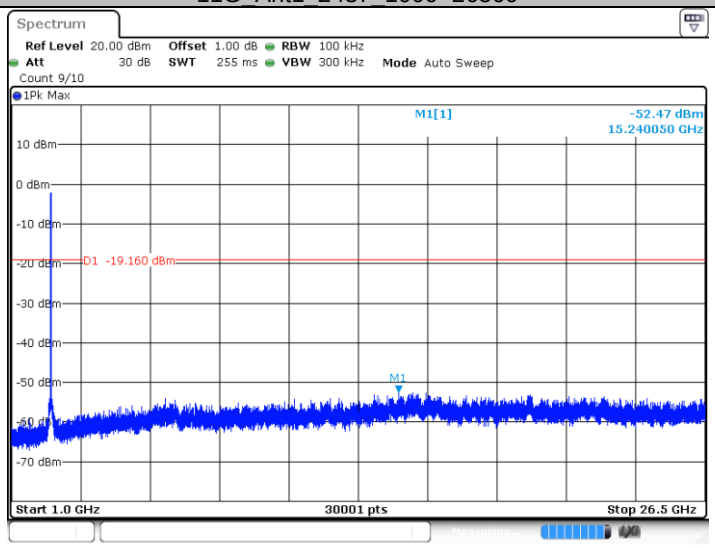
11G_Ant1_2437_1000~26500



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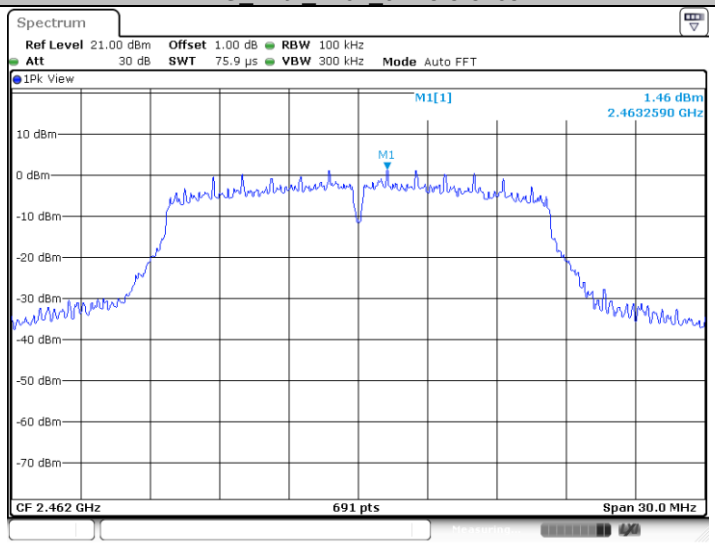
11G_Ant1_2462_0~Reference



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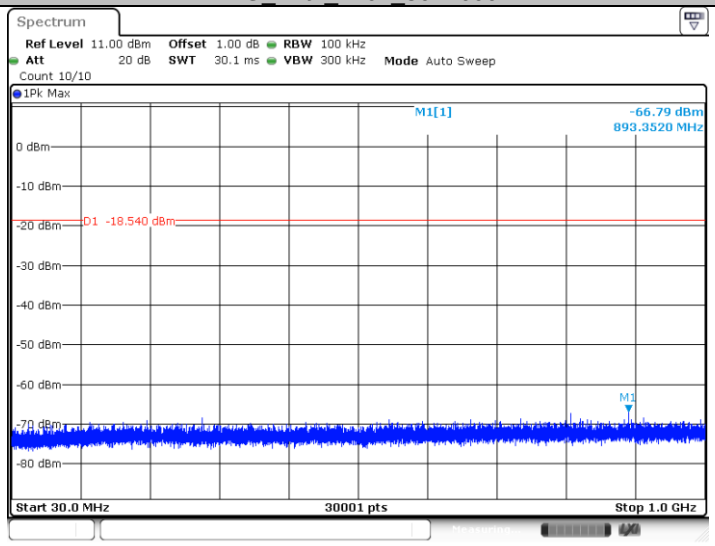
11G_Ant1_2462_30~1000



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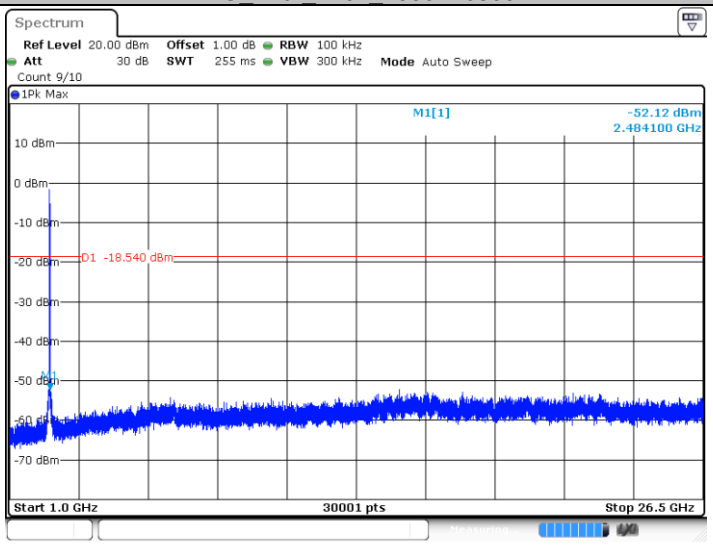

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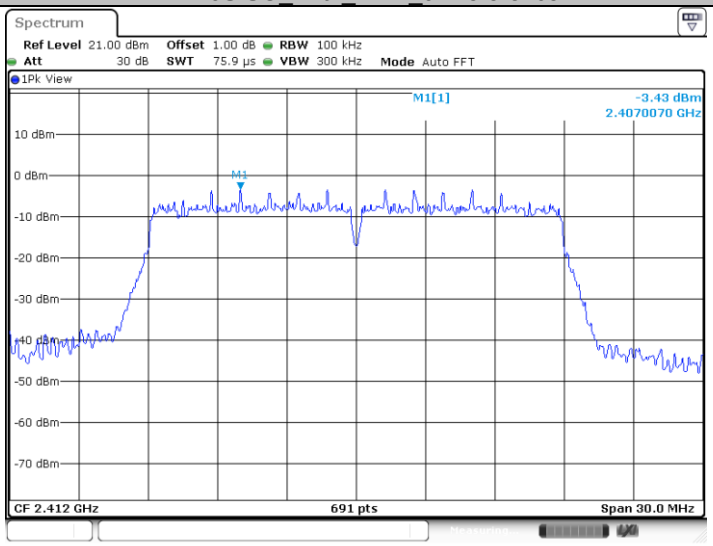

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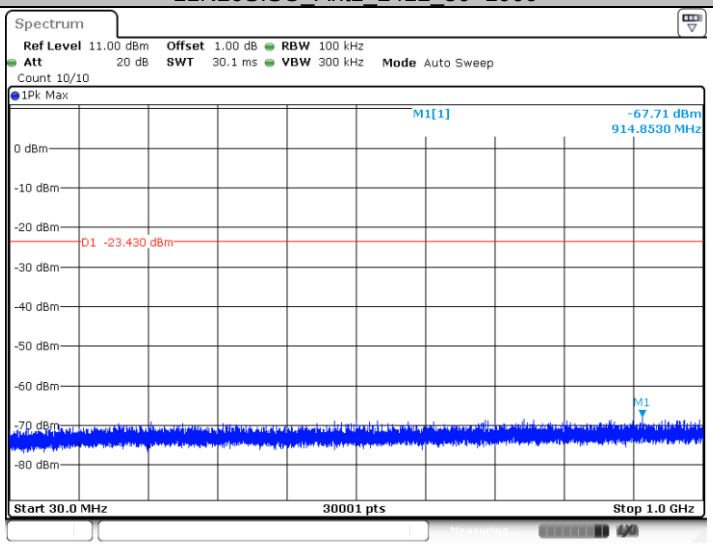

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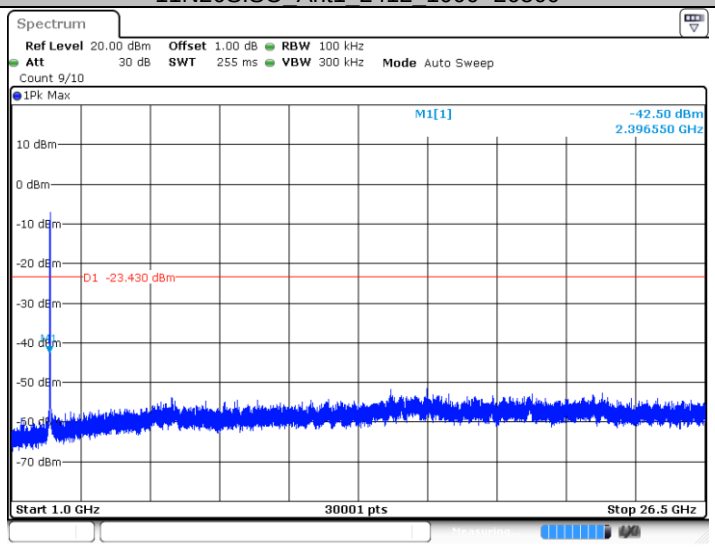
11N20SISO_Ant1_2412_1000~26500



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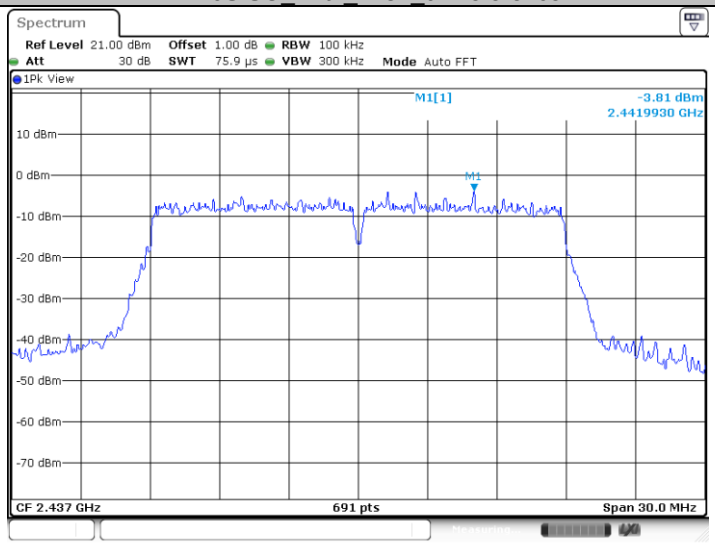

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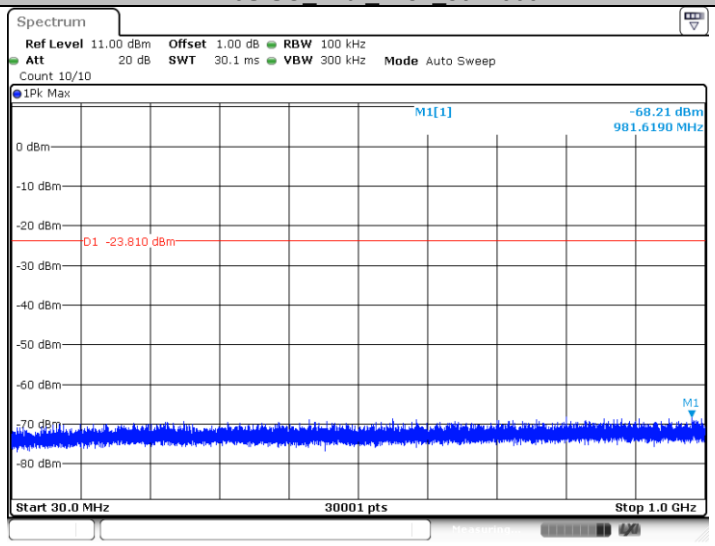

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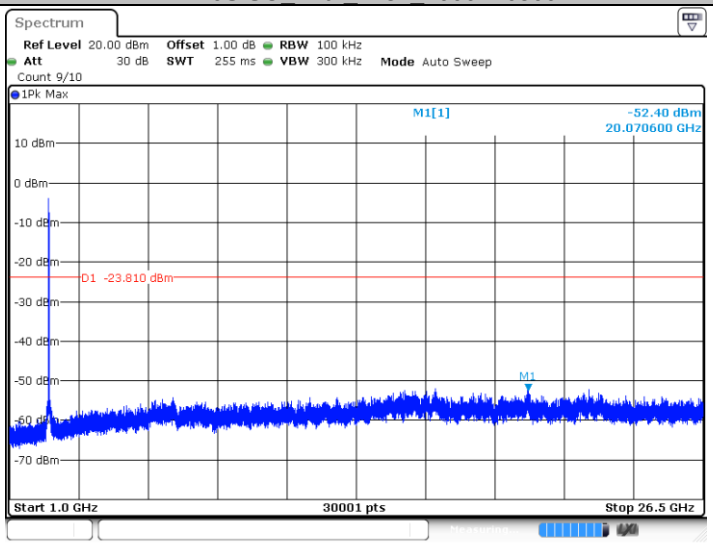
11N20SISO_Ant1_2437_1000~26500



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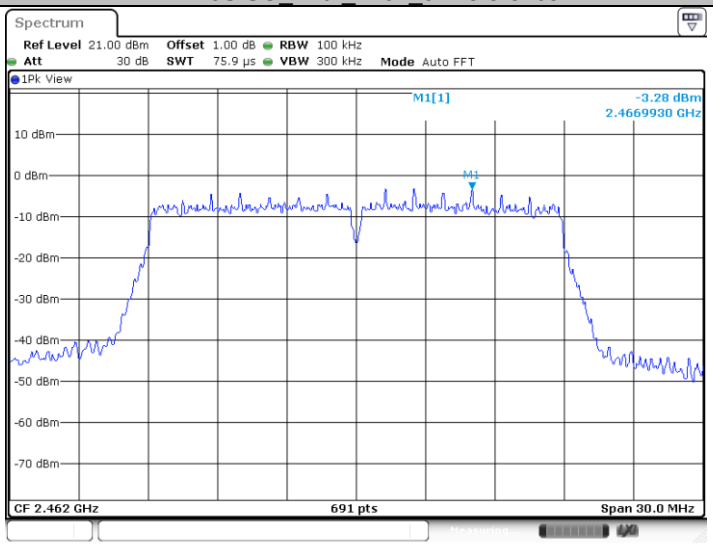

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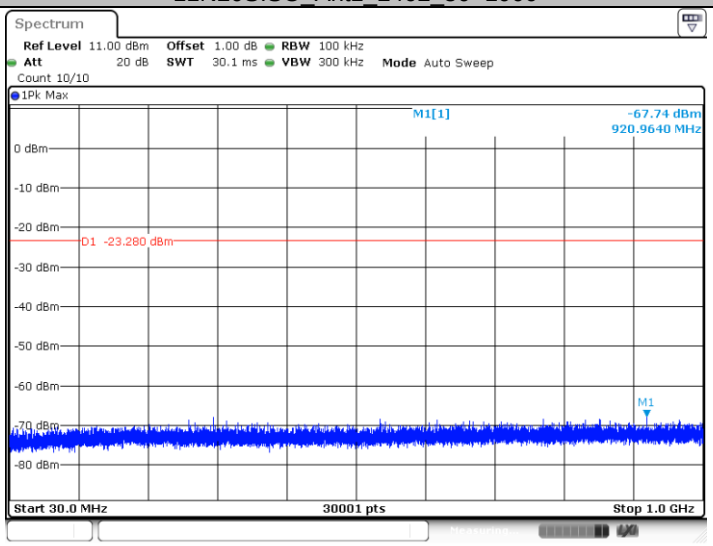

Date: 18.AUG.2021 22:20:03

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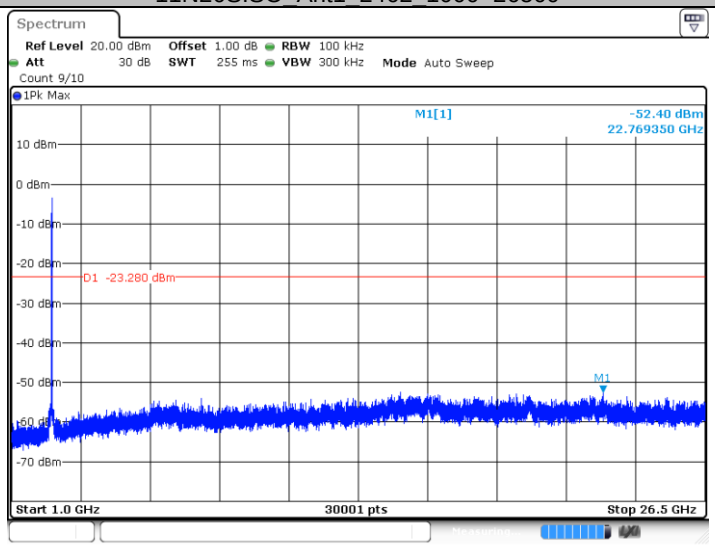
11N20SISO_Ant1_2462_1000~26500



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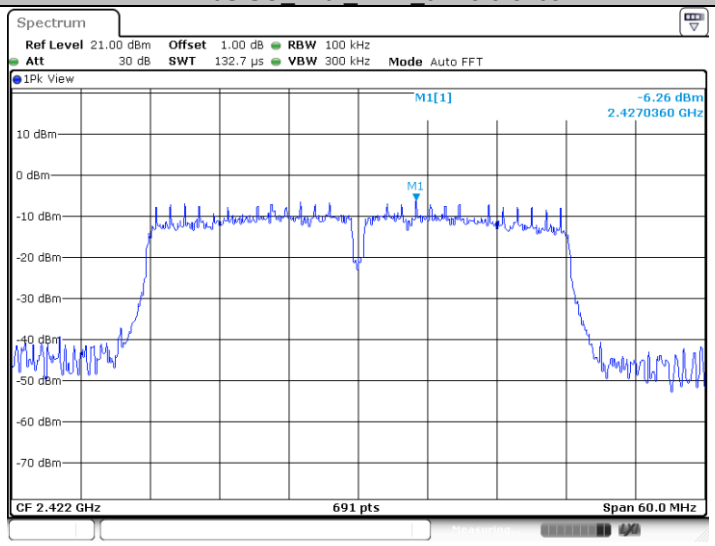

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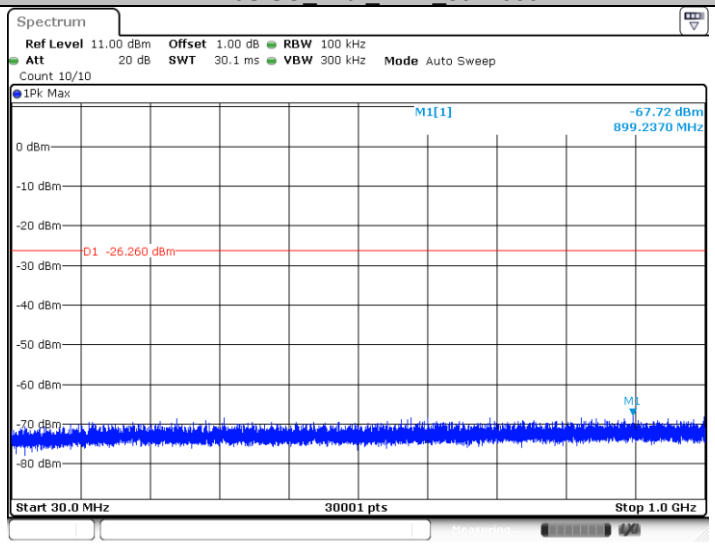

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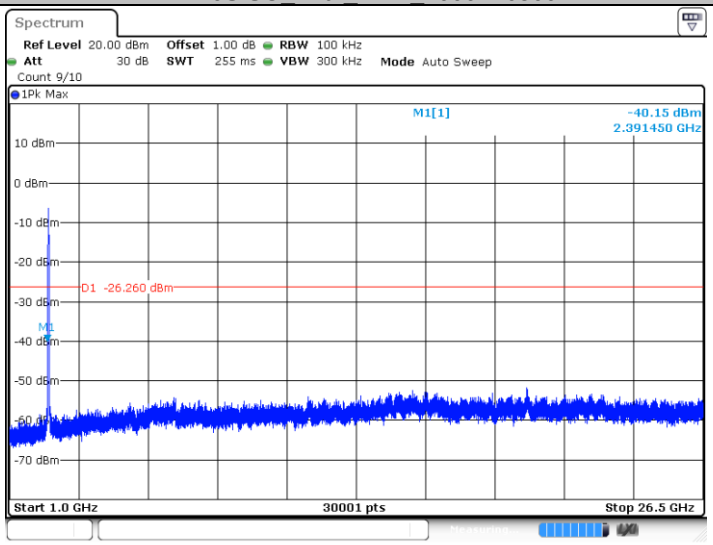

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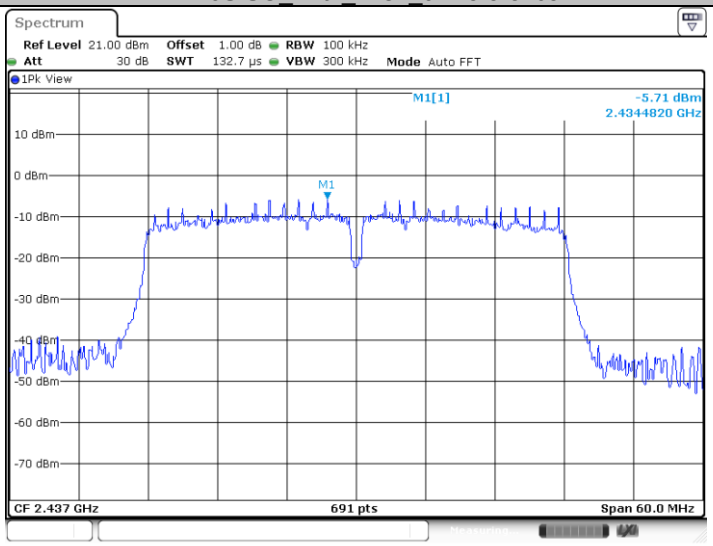

Date: 18.AUG.2021 22:24:49

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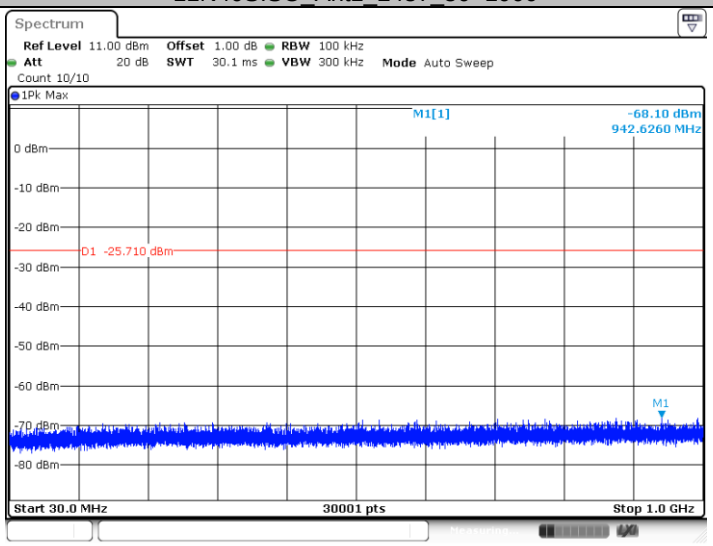

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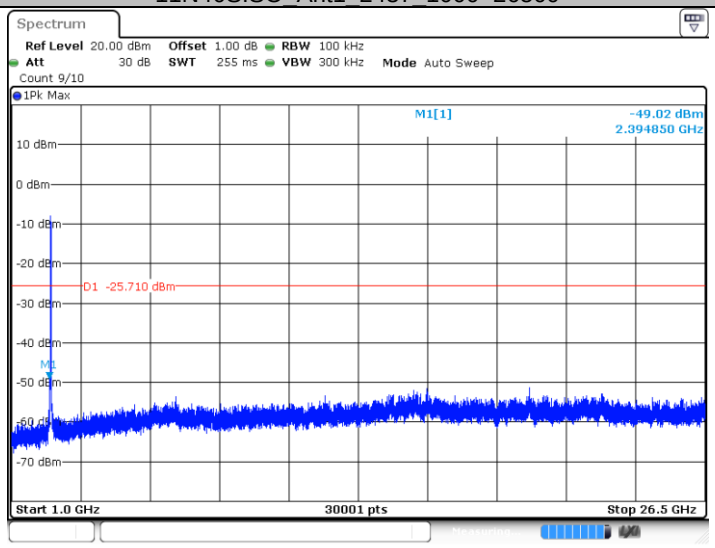

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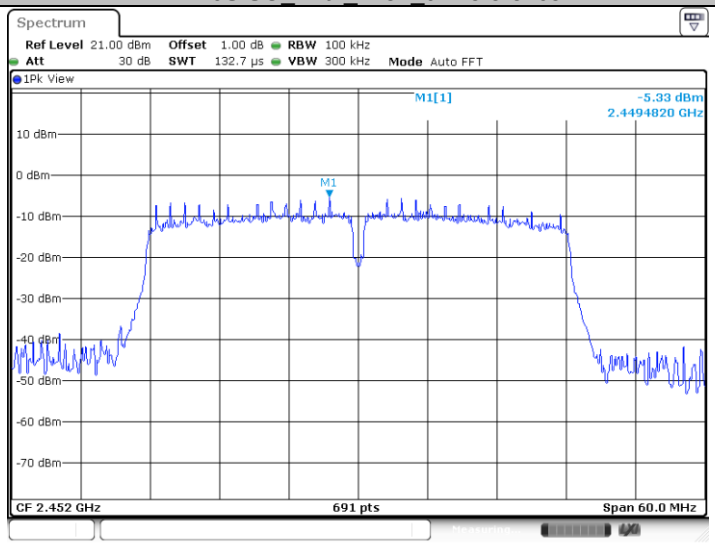

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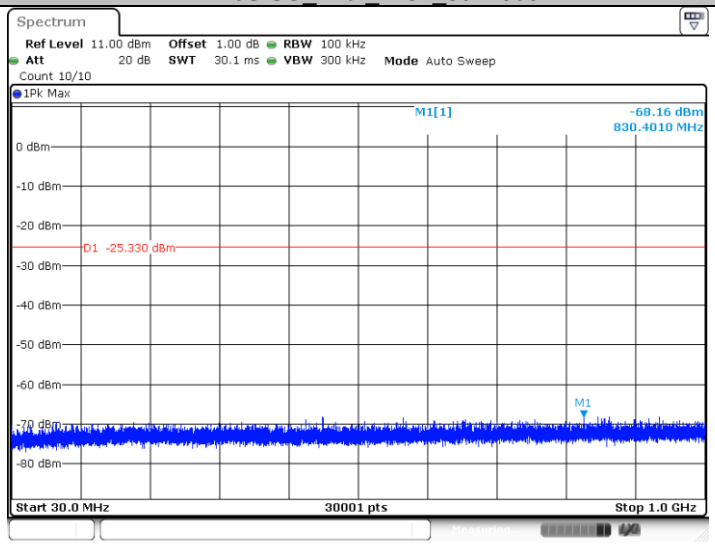

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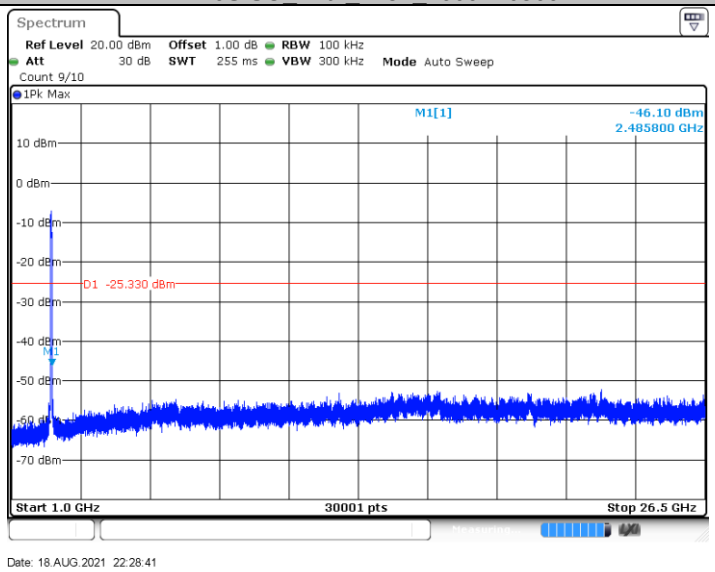

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9.7 Band edge

Test Method

1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
2. Use the following spectrum analyzer settings:
   Span = wide enough to capture the peak level of the in-band emission and all spurious
   RBW = 100 kHz, VBW≥RBW, Sweep = auto, Detector function = peak, Trace = max hold
3. Allow the trace to stabilize, use the peak and delta measurement to record the result.

The level displayed must comply with the limit specified in this Section.

4. The level displayed must comply with the limit specified in this Section.
5. Repeat the test at the hopping off and hopping on mode, submit all the plots.

Limit:

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c))

Frequency Range MHz	Limit (dBc)
30-25000	-20

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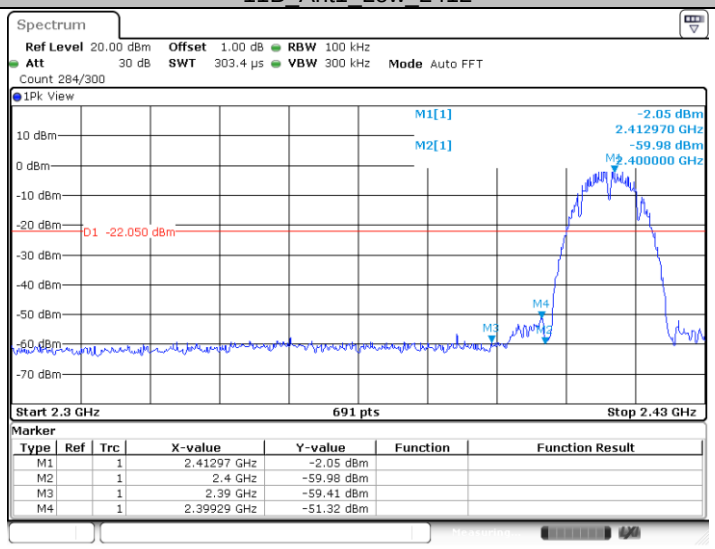
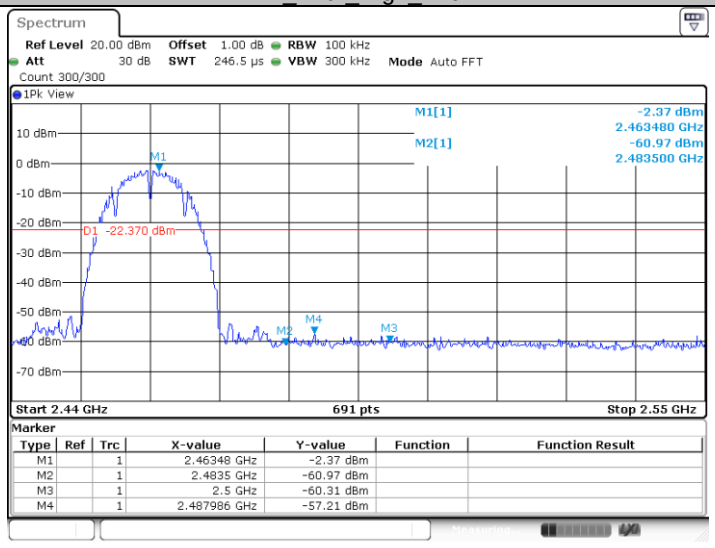
Test result

11B_Ant1_Low_2412



Date: 18.AUG.2021 21:56:14

11B_Ant1_High_2462



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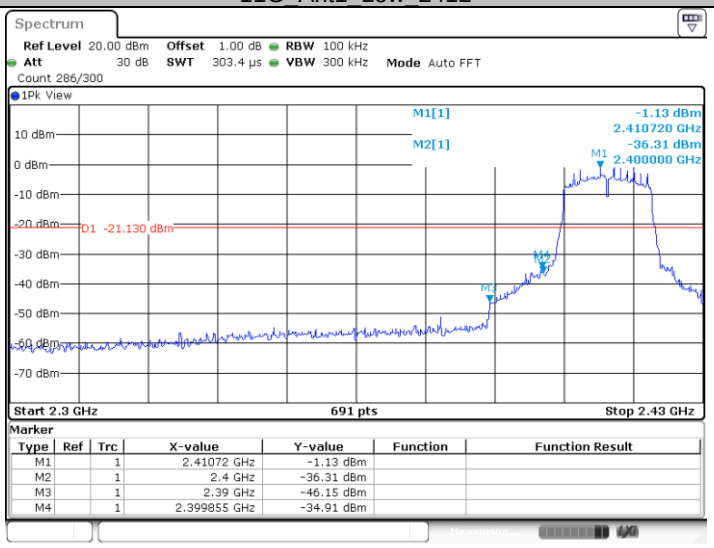
11G_Ant1_Low_2412



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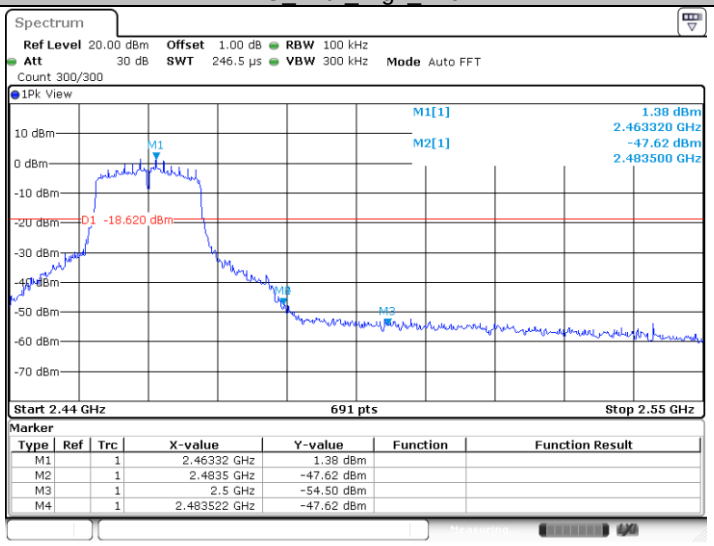

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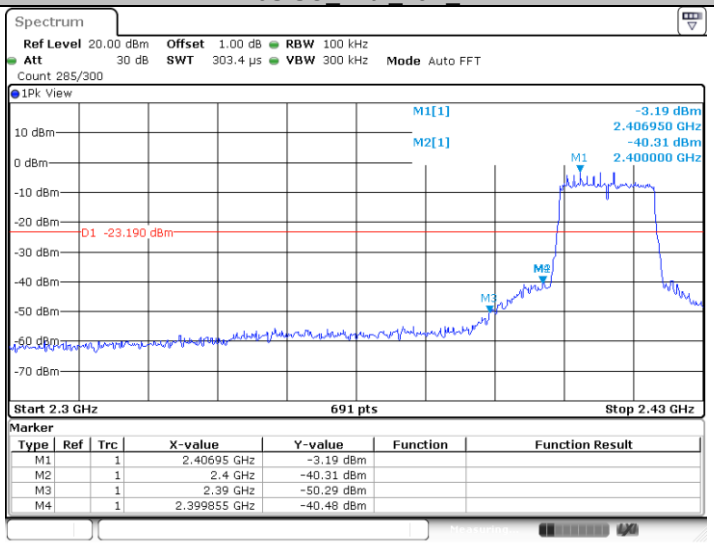

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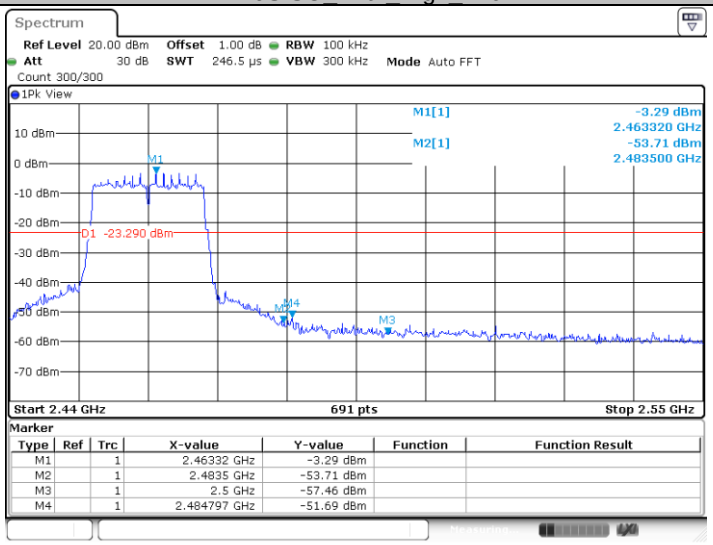
11N20SISO_Ant1_High_2462



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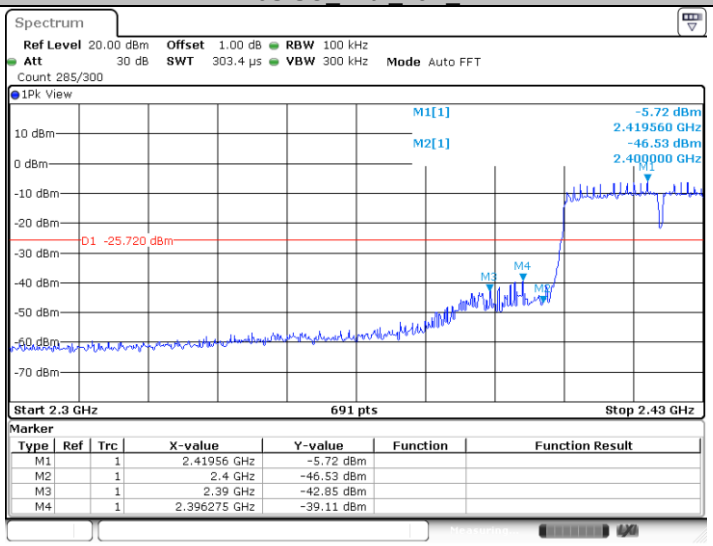

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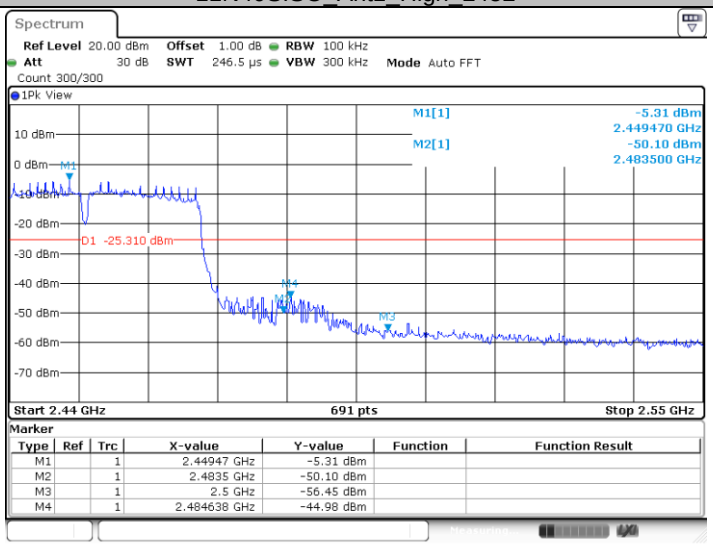

Date: 18.AUG.2021 22:28:21

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9.8 Spurious radiated emissions for transmitter

Test Method

1: The EUT was place on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2: The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
3: The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4: For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5: Use the following spectrum analyzer settings According to C63.10:
For Below 1GHz
Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious RBW = 100 KHz to 120KHz, VBW≥RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

For Peak unwanted emissions Above 1GHz:

Span = wide enough to capture the peak level of the in-band emission and all spurious RBW = 1MHz, VBW≥RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.
Procedures for average unwanted emissions measurements above 1000 MHz
a) RBW = 1MHz.
b) VBW \ [3 × RBW].
c) Detector = RMS (power averaging), if [span / (# of points in sweep)] \ RBW / 2. Satisfying this condition can require increasing the number of points in the sweep or reducing the span. If the condition is not satisfied, then the detector mode shall be set to peak.
d) Averaging type = power (i.e., rms) (As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.)
e) Sweep time = auto.
f) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, then the number of traces shall be increased by a factor of 1 / D, where D is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the transmit cycle, at least 100 traces shall be averaged.)
g) If tests are performed with the EUT transmitting at a duty cycle less than 98%, then a correction factor shall be added to the measurement results prior to comparing with the emission limit, to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:
1) If power averaging (rms) mode was used in the preceding step e), then the correction

factor is [10 log (1 / D)], where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB shall be added to the measured emission levels.
2) If linear voltage averaging mode was used in the preceding step e), then the correction factor is [20 log (1 / D)], where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB shall be added to the measured emission levels.
3) If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that emission.

Limit

The radio emission outside the operating frequency band shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Radiated emissions which fall in the restricted bands, as defined in section15.205, must comply with the radiated emission limits specified in section 15.209.

Frequency MHz	Field Strength uV/m	Field Strength dBµV/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

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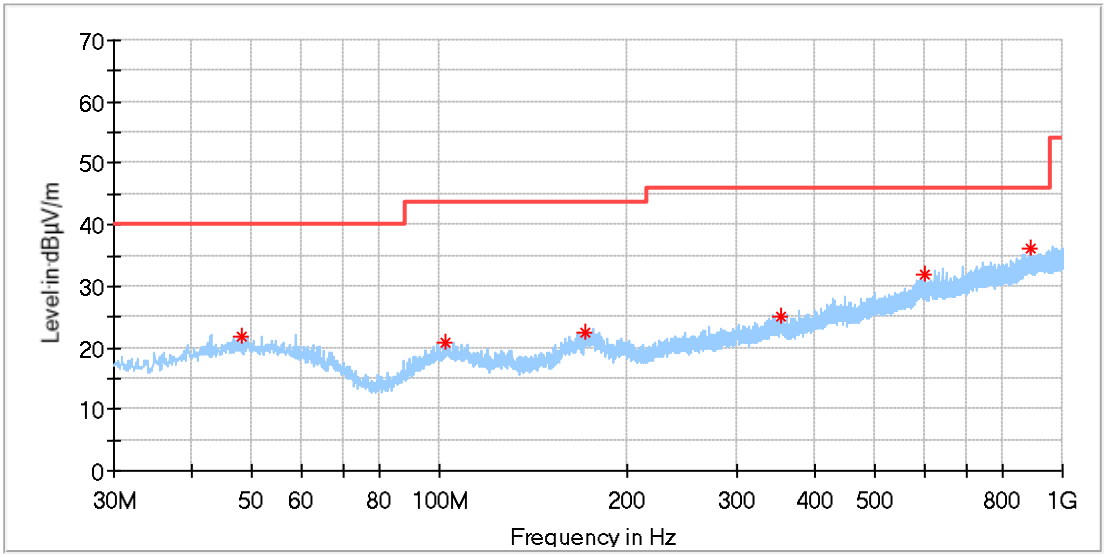
Spurious radiated emissions for transmitter

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

The only worse case (802.11g) test result is listed in the report.

Transmitting spurious emission test result as below:

Below 1G:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
48.066250	21.93	40.00	18.07	100.0	H	355.0	18.03
102.083125	20.76	43.50	22.74	200.0	H	0.0	16.62
170.831875	22.49	43.50	21.01	200.0	H	38.0	13.77
352.403750	25.17	46.00	20.83	100.0	H	0.0	20.83
601.026875	31.88	46.00	14.12	100.0	H	163.0	25.83
887.722500	36.06	46.00	9.94	100.0	H	139.0	29.47

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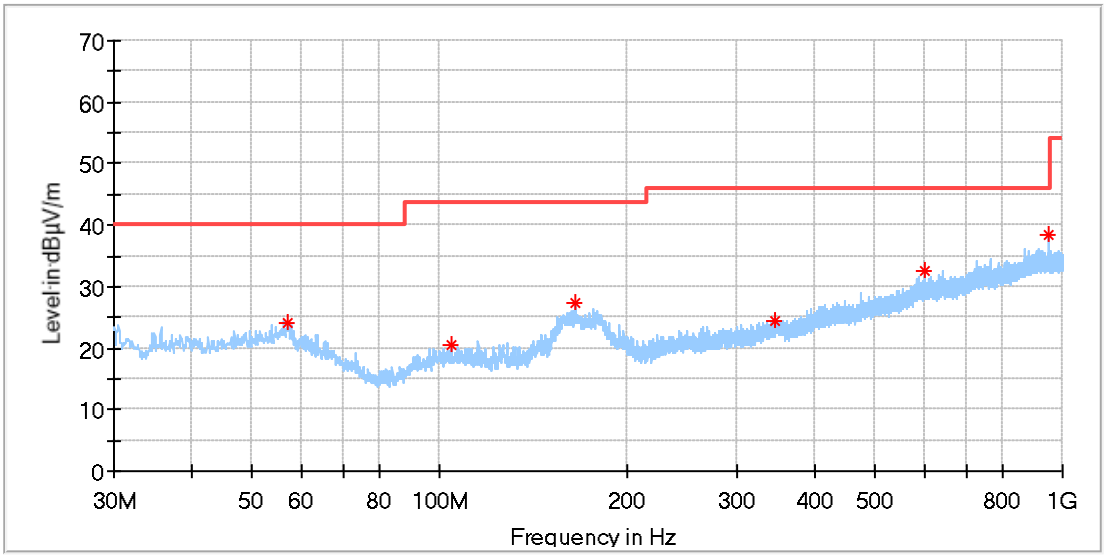

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
56.917500	24.15	40.00	15.85	100.0	V	0.0	17.69
104.326250	20.35	43.50	23.15	200.0	V	0.0	16.60
164.708750	27.29	43.50	16.21	100.0	V	134.0	13.61
345.310625	24.57	46.00	21.43	200.0	V	0.0	20.58
602.845625	32.45	46.00	13.55	100.0	V	209.0	25.85
948.590000	38.46	46.00	7.54	100.0	V	5.0	29.94

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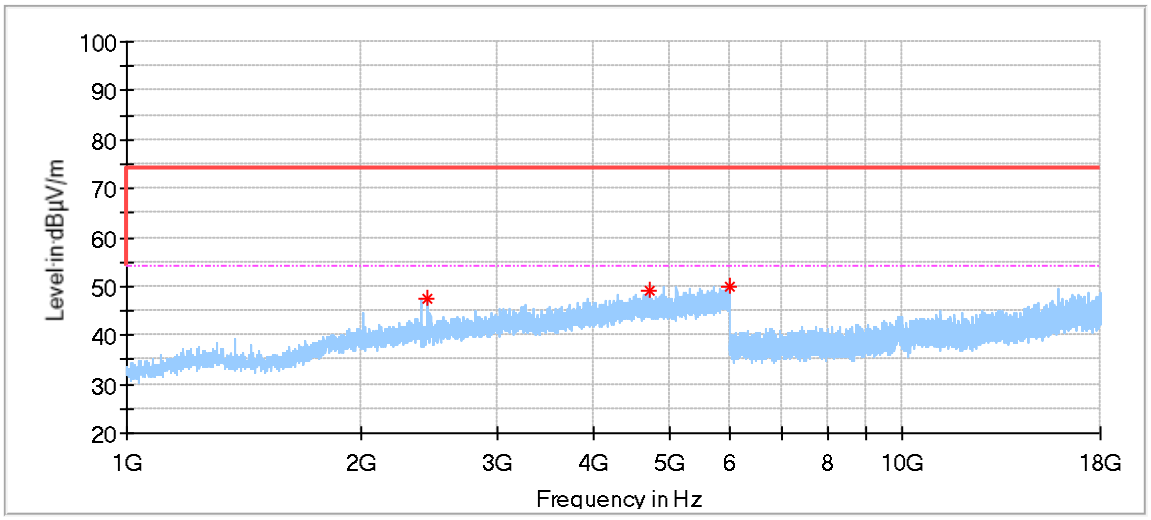
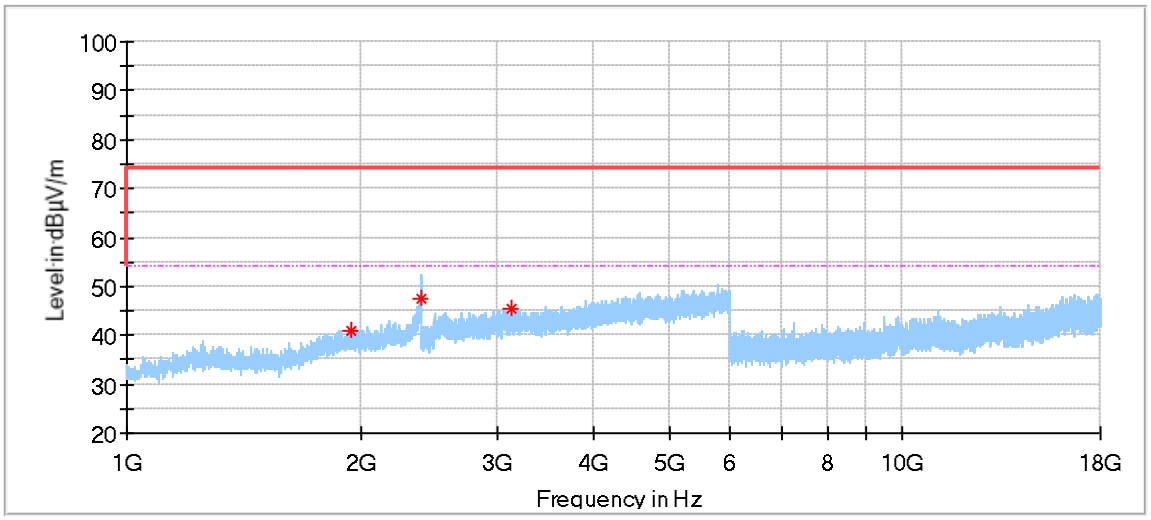
802.11g Modulation
Low channel 2412MHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2442.500000	47.48	74.00	26.52	150.0	H	193.0	-1.95
4735.000000	49.18	74.00	24.82	150.0	H	37.0	4.42
5982.000000	50.14	74.00	23.86	150.0	H	284.0	6.67



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1944.500000	40.96	74.00	33.04	150.0	V	82.0	-3.93
2390.000000	47.40	74.00	26.60	150.0	V	129.0	-2.17
3126.500000	45.28	74.00	28.72	150.0	V	108.0	0.23

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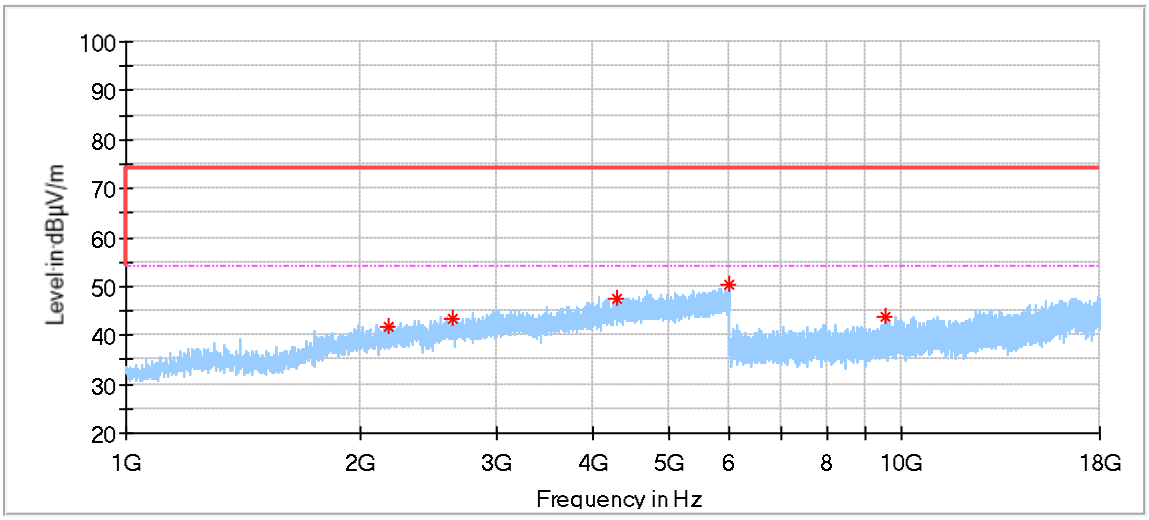
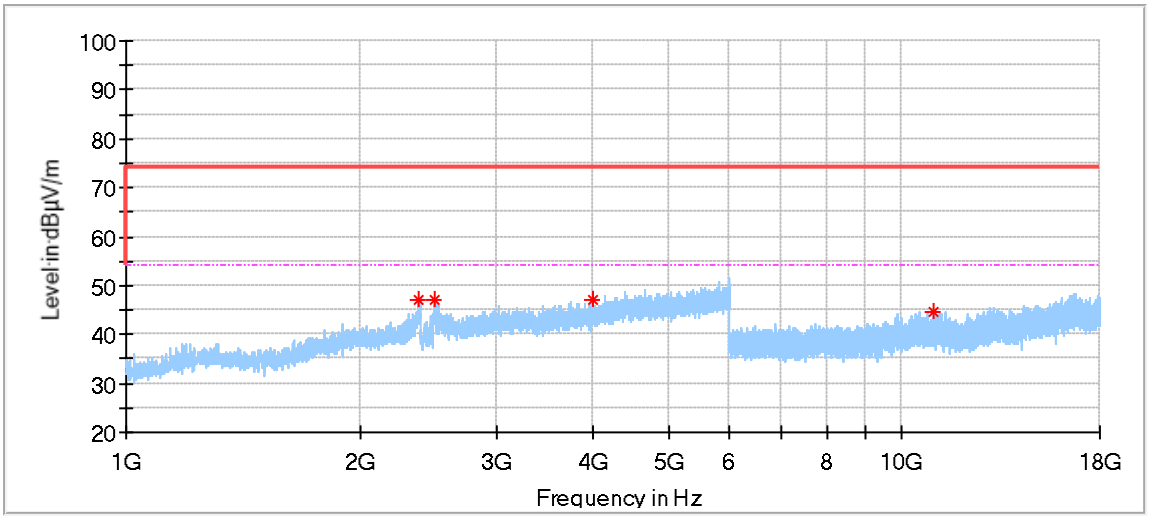
802.11b Modulation
Middle channel 2437MHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2185.500000	41.63	74.00	32.37	150.0	H	50.0	-3.03
2630.000000	43.29	74.00	30.71	150.0	H	50.0	-1.37
4298.000000	47.64	74.00	26.36	150.0	H	0.0	3.20
5981.000000	50.19	74.00	23.81	150.0	H	335.0	6.67
9523.000000	43.83	74.00	30.17	150.0	H	50.0	9.54



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2387.000000	46.87	74.00	27.13	150.0	V	95.0	-2.18
2494.000000	47.24	74.00	26.76	150.0	V	68.0	-1.77
3999.500000	46.91	74.00	27.09	150.0	V	285.0	2.19
10969.500000	44.57	74.00	29.43	150.0	V	6.0	10.44

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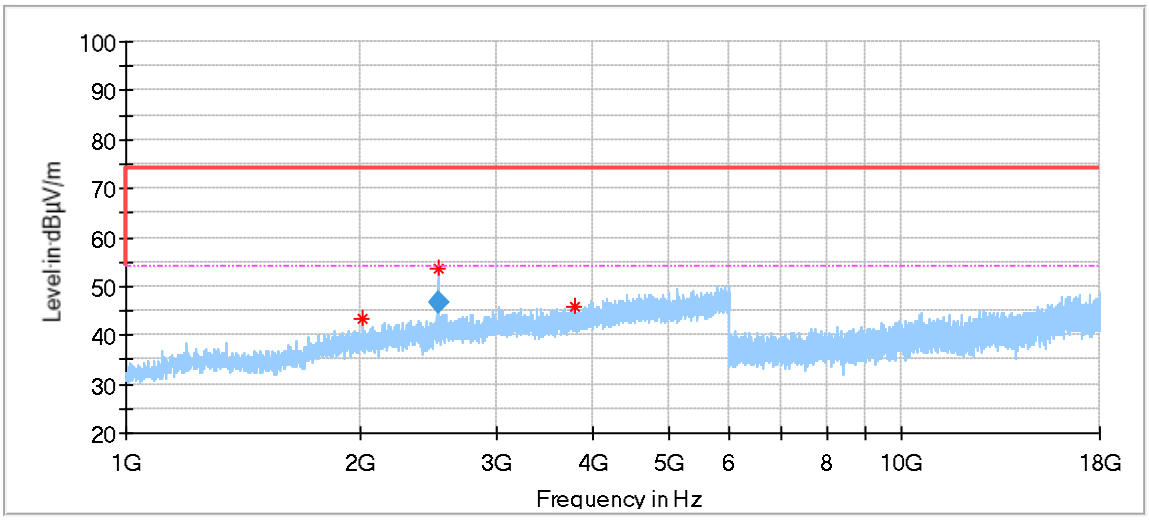
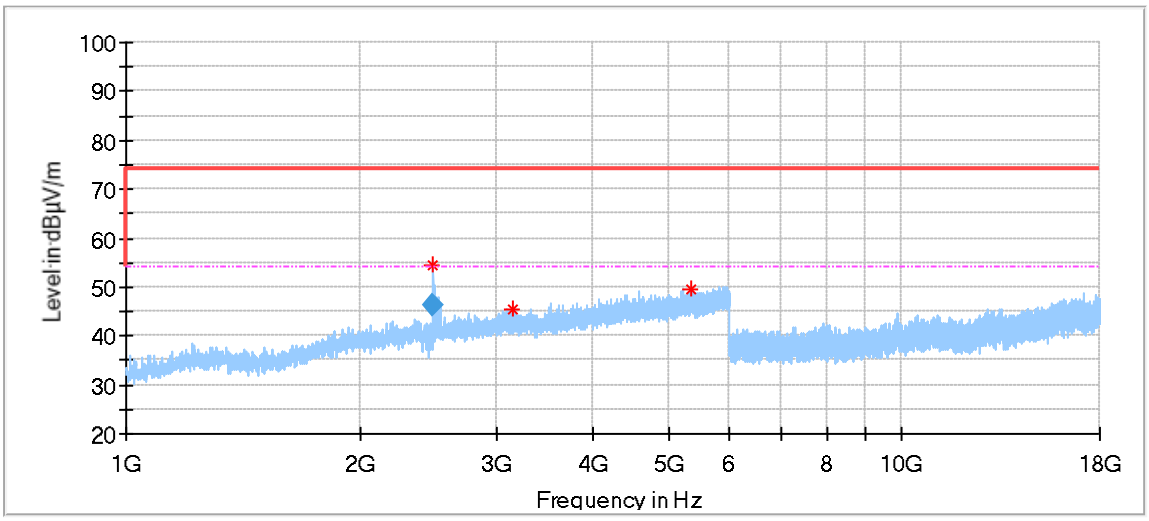
802.11g Modulation
High channel 2462MHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2014.000000	43.38	74.00	30.62	150.0	H	40.0	-3.77
2522.000000	53.79	74.00	20.21	150.0	H	316.0	-1.69
3793.000000	45.67	74.00	28.33	150.0	H	138.0	1.56

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2522.000000	46.64	54.00	7.36	150.0	H	316.0	-1.69



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2491.000000	54.34	74.00	19.66	150.0	V	316.0	-1.77
3148.000000	45.48	74.00	28.52	150.0	V	277.0	0.30
5364.000000	49.62	74.00	24.38	150.0	V	199.0	5.68

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2491.000000	46.31	54.00	7.69	150.0	V	316.0	-1.77

Remark:

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(1) Data of measurement within frequency range18-26GHz are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured, so test data does not present in this report,
(2) Data of measurement within this frequency range shown “--” in the table above means the reading of emissions are the noise floor or attenuated more than 10dB below the permissible limits or the field strength is too small to be measured.
(3) Level= Reading Level + Correction Factor
(4) Above 1GHz: Corrector factor = Antenna Factor + Cable Loss- Amplifier Gain
Below 1GHz: Corrector factor = Antenna Factor + Cable Loss
(The Reading Level is recorded by software which is not shown in the sheet)

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10 Test Equipment List

Conducted Emission Test

Description	Manufacturer	Model no.	Equipment ID	Serial no.	cal interval (year)	cal. due date
EMI Test Receiver	Rohde & Schwarz	ESR 3	68-4-74-19-002	102590	1	2022-6-4
LISN	Rohde & Schwarz	ENV216	68-4-87-19-001	102472	1	2022-6-5
Attenuator	Shanghai Huaxiang	TS2-26-3	68-4-81-16-003	080928189	1	2022-6-3
Test software	Rohde & Schwarz	EMC32	68-4-90-19-005-A01	Version10.35.02	N/A	N/A
Shielding Room	TDK	CSR #2	68-4-90-19-005	----	1	2022-11-07

Radiated Emission Test

Description	Manufacturer	Model no.	Equipment ID	Serial no.	cal interval (year)	cal. due date
EMI Test Receiver	Rohde & Schwarz	ESR 26	68-4-74-14-002	101269	1	2022-6-4
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9162	68-4-80-19-003	284	1	2022-2-2
Wave Guide Antenna	ETS	3117	68-4-80-19-001	00218954	1	2022-5-24
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-001	100745	1	2021-10-25
Pre-amplifier	Rohde & Schwarz	SCU 08F2	68-4-29-19-004	08400018	1	2021-10-25
Sideband Horn Antenna	Q-PAR	QWH-SL-18-40-K-SG	68-4-80-14-008	12827	1	2022-7-21
Pre-amplifier	Rohde & Schwarz	SCU 40A	68-4-29-14-002	100432	1	2022-7-27
3m Semi-anechoic chamber	TDK	SAC-3 #2	68-4-90-19-006	----	3	2022-12-29
Test software	Rohde & Schwarz	EMC32	68-4-90-19-006-A01	Version10.35.02	N/A	N/A

RF Conducted Test

Description	Manufacturer	Model no.	Equipment ID	Serial no.	cal interval (year)	cal. due date
Signal Analyzer	Rohde & Schwarz	FSV40	68-4-74-14-004	101030	1	2022-6-3

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11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty for Conducted Emission 150kHz-30MHz (for test using AMN ENV432 or ENV4200)	3.62dB
Uncertainty for Radiated Spurious Emission 25MHz-3000MHz	Horizontal: 4.81dB; Vertical: 4.89dB;
Uncertainty for Radiated Spurious Emission 3000MHz-18000MHz	Horizontal: 4.69dB; Vertical: 4.68dB;
Uncertainty for Radiated Spurious Emission 18000MHz-40000MHz	Horizontal: 4.89dB; Vertical: 4.87dB;
Uncertainty for Conducted RF test with TS 8997	RF Power Conducted: 1.16dB Frequency test involved: 0.6×10^{-7} or 1%

---THE END OF REPORT---

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