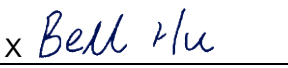


Prüfbericht-Nr.: <i>Test report no.:</i>	CN25VB84 001	Auftrags-Nr.: <i>Order no.:</i>	168546617	Seite 1 von 22 Page 1 of 22
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2025-04-03	
Auftraggeber: <i>Client:</i>	INTECHFLOOR SA Place de la Gare 10, 1003 Lausanne, Switzerland			
Prüfgegenstand: <i>Test item:</i>	Gateway			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	M2G10-US (Trademark: )			
Auftrags-Inhalt: <i>Order content:</i>	Test Report			
Prüfgrundlage: <i>Test specification:</i>	CFR47 FCC Part 15: Subpart C Section 15.247 RSS-247 Issue 4 July 2025 RSS-Gen Issue 5 February 2021			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2025-05-29	Please refer to Photo Document		
Prüfmuster-Nr.: <i>Test sample no.:</i>	A004006570-001-014			
Prüfzeitraum: <i>Testing period:</i>	2025-05-29 - 2025-06-30			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>			genehmigt von: <i>authorized by:</i>	
Datum: <i>Date:</i> 2025-09-16	Signed by: Jonathan Li		Ausstellungsdatum: <i>Issue date:</i> 2025-09-16	Signed by: Bell Hu
Stellung / Position:	Sachverständige(r)/Expert		Stellung / Position:	Sachverständige(r)/Expert
Sonstiges / <i>Other:</i>	FCC ID: 2BOXQ-M2US IC: 33874-M2US HVIN: M2G10-US Contains FCC ID: XMR2023EG912UGL, IC: 10224A-2023EG912UGL			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
* Legend:	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Prüfbericht-Nr.: CN25VB84 001
Test report no.:

Seite 2 von 22
Page 2 of 22

Anmerkungen
Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>
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3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i> <i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

Prüfbericht - Nr.: CN25VB84 001
Test Report No.:

Seite 3 von 22
Page 3 of 22

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 6dB BANDWIDTH

RESULT: Pass

5.1.5 99% BANDWIDTH

RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.8 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

Contents

1	GENERAL REMARKS	5
1.1	COMPLEMENTARY MATERIALS	5
2	TEST SITES	6
2.1	TEST FACILITIES	6
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS.....	6
2.3	TRACEABILITY	7
2.4	CALIBRATION	7
2.5	MEASUREMENT UNCERTAINTY.....	7
2.6	LOCATION OF ORIGINAL DATA.....	8
2.7	STATUS OF FACILITY USED FOR TESTING.....	8
3	GENERAL PRODUCT INFORMATION	9
3.1	PRODUCT FUNCTION AND INTENDED USE.....	9
3.2	RATINGS AND SYSTEM DETAILS	9
3.3	INDEPENDENT OPERATION MODES	10
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS.....	10
3.5	SUBMITTED DOCUMENTS.....	10
4	TEST SET-UP AND OPERATION MODES	11
4.1	PRINCIPLE OF CONFIGURATION SELECTION	11
4.2	TEST OPERATION AND TEST SOFTWARE.....	11
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	11
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE.....	11
4.5	TEST SETUP DIAGRAM	12
5	TEST RESULTS	14
5.1	TRANSMITTER REQUIREMENT & TEST SUITES	14
5.1.1	<i>Antenna Requirement</i>	<i>14</i>
5.1.2	<i>Maximum Peak Conducted Output Power</i>	<i>15</i>
5.1.3	<i>Conducted Power Spectral Density</i>	<i>16</i>
5.1.4	<i>6dB Bandwidth</i>	<i>17</i>
5.1.5	<i>99% Bandwidth</i>	<i>18</i>
5.1.6	<i>Conducted Spurious Emissions Measured in 100 kHz Bandwidth</i>	<i>19</i>
5.1.7	<i>Radiated Spurious Emission</i>	<i>20</i>
5.1.8	<i>Conducted Emission on AC Mains.....</i>	<i>21</i>
6	PHOTOGRAPHS OF THE TEST SET-UP	22
7	LIST OF TABLES.....	22

Prüfbericht - Nr.: CN25VB84 001
Test Report No.:

Seite 5 von 22
Page 5 of 22

1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of 2.4GHz Wi-Fi

Appendix B: Photographs of the Test Set-up.

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, China

FCC Accreditation Designation No.: CN1260

ISED wireless device testing laboratory: 25069

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (SRD-Tonscend)					
Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. until
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	26.09.2024	25.09.2025
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	26.09.2024	25.09.2025
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	26.09.2024	25.09.2025
DC Power Supply	Keysight	E3642A	MY61276100	26.09.2024	25.09.2025
Wireless Connectivity Tester	R&S	CMW270	102505	26.09.2024	25.09.2025
Power Control Unit	Tonscend	JS0806-4ADC	N/A	26.09.2024	25.09.2025
Automation Control Unit	Tonscend	JS0806-2	21C8060396	26.09.2024	25.09.2025
Test Software	Tonscend	JS1120-3	N/A	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	YLX23JMF	N/A	N/A
Unwanted Emission Testing (TS9975)					
Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	29.09.2024	28.09.2025
Signal Analyzer	R&S	FSV 40	101439	29.09.2024	28.09.2025
System Controller Interface	R&S	SCI-100	S10010038	N/A	N/A
Filterbank	R&S	Wlan	100759	29.09.2024	28.09.2025
OSP	R&S	OSP 120	102040	N/A	N/A
Pre-amplifier	R&S	SCU08F1	08320031	29.09.2024	28.09.2025
Amplifier	R&S	SCU-18F	180070	29.09.2024	28.09.2025
Amplifier	R&S	SCU40A	100475	29.09.2024	28.09.2025

Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	28.09.2024	27.09.2026
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	28.09.2024	27.09.2026
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	28.09.2024	27.09.2026
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	28.09.2024	27.09.2026
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	14.09.2024	13.09.2027

Conducted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESR3	102680	2025-02-22
Artificial Mains Network	R&S	ENV216	102333	2025-07-22
EMC32 test software	R&S	EMC32(Ver.10.50.00)	N/A	N/A

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Table 2: Measurement Uncertainty

Parameter	Uncertainty (k=2)
RF output power, conducted	± 0.99 dB
Occupied Channel Bandwidth	± 2.08 %
RF power density, conducted	± 0.99 dB
Unwanted Emissions, conducted	± 0.89 dB
All emissions, radiated	±4.17 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.70 dB / ± 3.30 dB

Prüfbericht - Nr.: CN25VB84 001
Test Report No.:

Seite 8 von 22
Page 8 of 22

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT (equipment under test) is a Counting Mat. It supports 2.4GHz Wi-Fi and GSM/LTE functions.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	Gateway
Type Designation:	M2G10
FCC ID:	2BOXQ-M2US
IC:	33874-M2US
PMN:	Gateway
HVIN:	M2G10-US
Operating Voltage:	AC 120V/60Hz
Operating Temperature Range:	0°C ~ +50 °C
Technical Specification of 2.4GHz Wi-Fi	
Operating Frequency:	2412 - 2462 MHz for 802.11b/g/n(HT20)
Type of Modulation:	DSSS(DBPSK/DQPSK/CCK) OFDM(BPSK/QPSK/16QAM/64QAM)
Data Rate:	1/2/5.5/11 Mbps for 802.11b 6/9/12/18/24/36/48/54 Mbps for 802.11g MCS0 ~ MCS7 for 802.11n
Channel Number:	11 channels for 802.11b/g/n(HT20)
Channel Separation:	5 MHz
Antenna Type:	Integral antenna
Antenna Gain:	-0.3dBi (Provided by the Client)

Table 4: RF Channel and Frequency of Wi-Fi 802.11 b/g/n

RF Channel	802.11 b/g/n(HT20)
	Frequency (MHz)
01	2412
02	2417
03	2422
04	2427
05	2432
06	2437
07	2442
08	2447

09	2452
10	2457
11	2462

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, 2.4GHz Wi-Fi wireless transmitting mode
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- B. On, Charging by Base with Wireless communicating
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- ID Label and Location Info
- User Manual
- Operation Description

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10-2020 for FCC and ANSI C63.10-2020+Cor.1-2023 for IC.

According to clause 3.1, all tests were performed on model M2G10 in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 5: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N
Laptop	Lenovo	T480	PF-16A6N8
Portable Laptop	Lenovo	ThinkPad T480	10Q67059

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

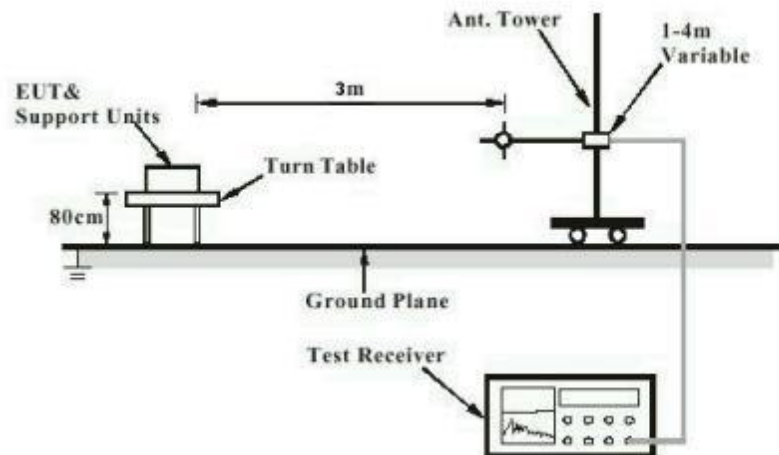


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

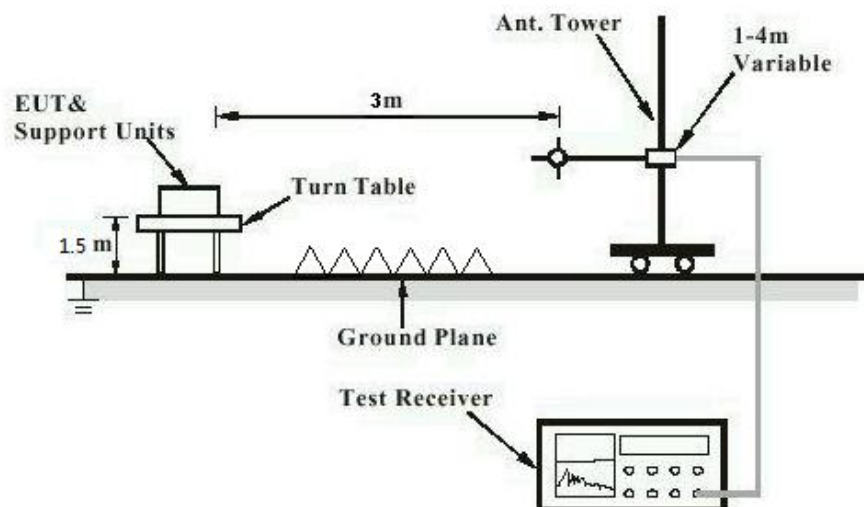


Diagram of Measurement Configuration for Mains Conduction Measurement

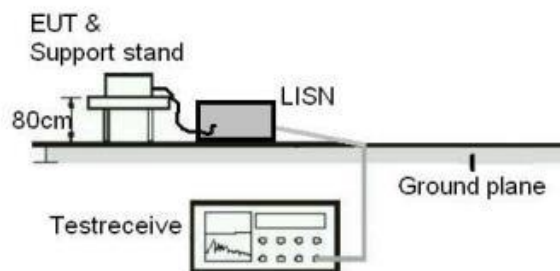
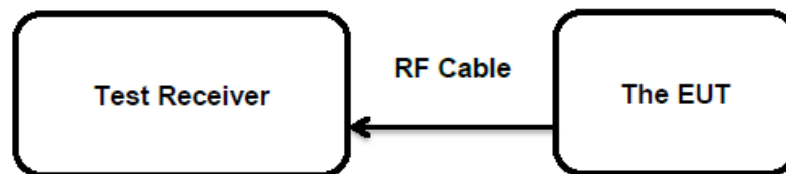


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:**Pass****Test Specification**

Test standard	:	FCC Part 15.247(b)(4) and Part 15.203 RSS-Gen Clause 6.8
Limit	:	the use of antennas with directional gains that do not exceed 6 dBi

According to the manufacturer declared, the EUT has an Integral Antenna, the directional gain of antenna is -0.3dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Peak Conducted Output Power

RESULT:
Pass
Test Specification

Test standard	:	FCC Part 15.247(b)(3) RSS-247 Clause 5.4(d)
Basic standard	:	ANSI C63.10-2020 for FCC and ANSI C63.10-2020+Cor.1-2023 for IC
Limits	:	< 1 W (Maximum Conducted Peak Power) e.i.r.p. <4W
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2025-05-29 - 2025-06-30
Input voltage	:	AC 120V, 60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	22.4 °C
Relative humidity	:	38 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 6: Test Result of Maximum Conducted Output Power

Test Mode	Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)	
			(dBm)	(W)		
802.11b	1 Mbps	2412	17.6	0.058	< 1.0	
		2437	17.0	0.050		
		2462	17.3	0.054		
802.11g	6 Mbps	2412	19.7	0.093		
		2437	19.5	0.089		
		2462	19.6	0.091		
802.11n (HT20)	MCS0	2412	19.3	0.085		
		2437	19.6	0.091		
		2462	19.0	0.079		
Maximum Measured Value			19.7	0.093		
Max. e.i.r.p.=19.70dBm-0.3dBi=19.40dBm, which is less than 36dBm=4W.						

Note:

- 1) The cable loss is taken into account in results, $e.i.r.p. = P_{(Peak\ power)} + G$
- 2) Antenna gain(G): -0.3dBi

Prüfbericht - Nr.: CN25VB84 001
Test Report No.:Seite 16 von 22
Page 16 of 22

5.1.3 Conducted Power Spectral Density

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(e) RSS-247 Clause 5.2(b)
Basic standard	: ANSI C63.10-2020 for FCC and ANSI C63.10-2020+Cor.1-2023 for IC
Limits	: 8 dBm / 3kHz
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-05-29 - 2025-06-30
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 22.4 °C
Relative humidity	: 38 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN25VB84 001
Test Report No.:Seite 17 von 22
Page 17 of 22

5.1.4 6dB Bandwidth

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(a)(2) RSS-247 Clause 5.2(a)
Basic standard	: ANSI C63.10-2020 for FCC and ANSI C63.10-2020+Cor.1-2023 for IC
Limits	: > 500 KHz
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-05-29 - 2025-06-30
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 22.4 °C
Relative humidity	: 38 %
Atmospheric pressure	: 101 kPa

DTS bandwidth setup:

RBW=In the range of 1%~5% of the OBW but not less than 100KHz.

VBW=3RBW

Detector=Peak

Trace mode=Max-hold

Sweep= No faster than coupled(auto)time

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN25VB84 001
Test Report No.:Seite 18 von 22
Page 18 of 22

5.1.5 99% Bandwidth

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.247(a)
RSS-Gen clause 6.7

Basic standard : ANSI C63.10-2020 for FCC and ANSI C63.10-2020+Cor.1-2023 for IC

Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-05-29 - 2025-06-30

Input voltage : AC 120V, 60Hz

Operation mode : A

Test channel : Low / Middle / High

Ambient temperature : 22.4 °C

Relative humidity : 38 %

Atmospheric pressure : 101 kPa

DTS bandwidth setup:
RBW=In the range of 1%~5% of the OBW but not less than 100KHz.
VBW=3RBW
Detector=Peak
Trace mode=Max-hold
Sweep= No faster than coupled(auto)time
For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN25VB84 001
Test Report No.:Seite 19 von 22
Page 19 of 22**5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth****RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.247(d) RSS-247 Clause 5.5
Basic standard	: ANSI C63.10-2020 for FCC and ANSI C63.10-2020+Cor.1-2023 for IC
Limits	: 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-05-29 - 2025-06-30
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 22.4 °C
Relative humidity	: 38 %
Atmospheric pressure	: 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN25VB84 001
Test Report No.:Seite 20 von 22
Page 20 of 22

5.1.7 Radiated Spurious Emission

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3 & 5.5
Basic standard	: ANSI C63.10-2020 for FCC and ANSI C63.10-2020+Cor.1-2023 for IC
Limits	: Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Table 5
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 2025-05-29 - 2025-06-30
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: 101 kPa

Remark:

Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN25VB84 001
Test Report No.:Seite 21 von 22
Page 21 of 22

5.1.8 Conducted Emission on AC Mains

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.207(a) RSS-Gen Section 8.8
Basic standard	: ANSI C63.10-2020 for FCC and ANSI C63.10-2020+Cor.1-2023 for IC
Frequency range	: 0.15 – 30MHz
Classification	: Class B
Limits	: FCC Part 15.207(a) RSS-Gen Table 4
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-05-29 - 2025-06-30
Input voltage	: AC 120V, 60Hz
Operation mode	: B
Earthing	: Not connected
Ambient temperature	: 25.0 °C
Relative humidity	: 51.2 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix B.

7 List of Tables

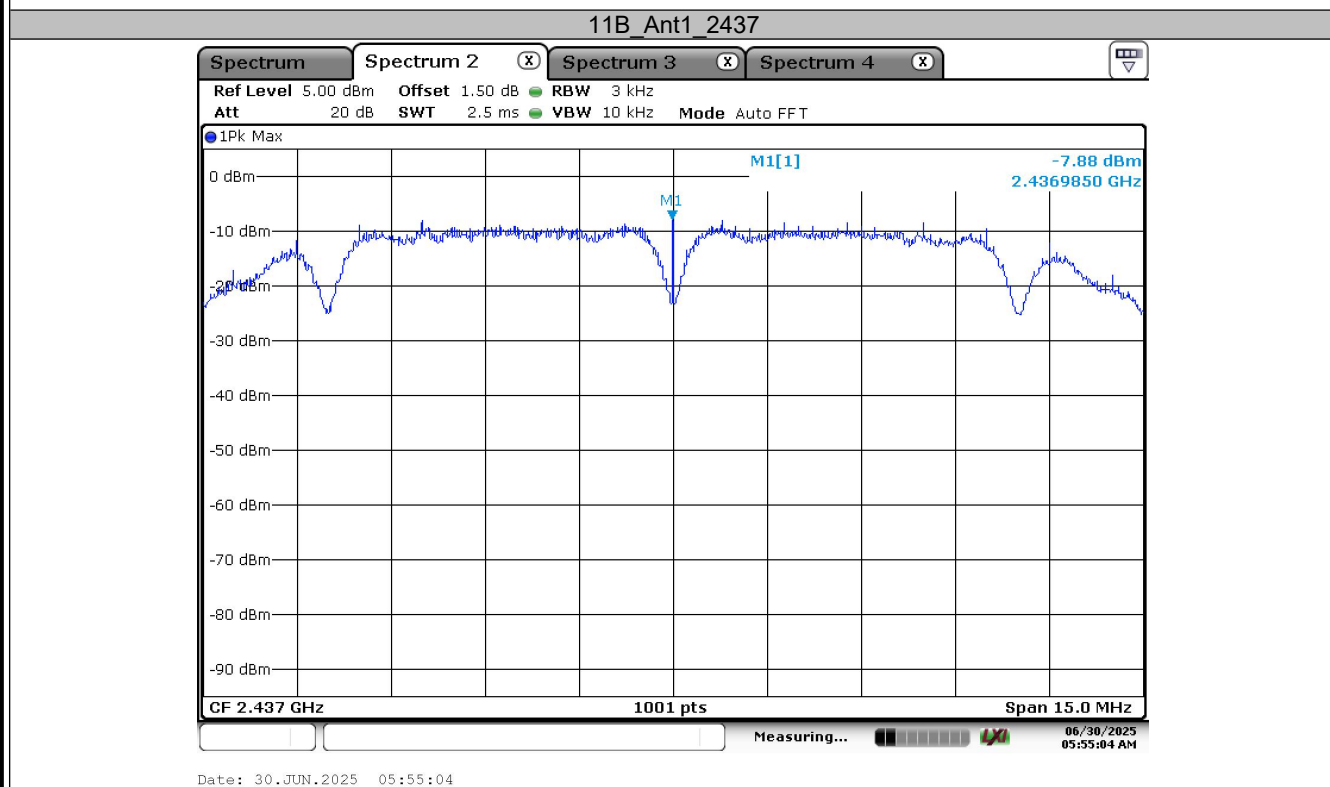
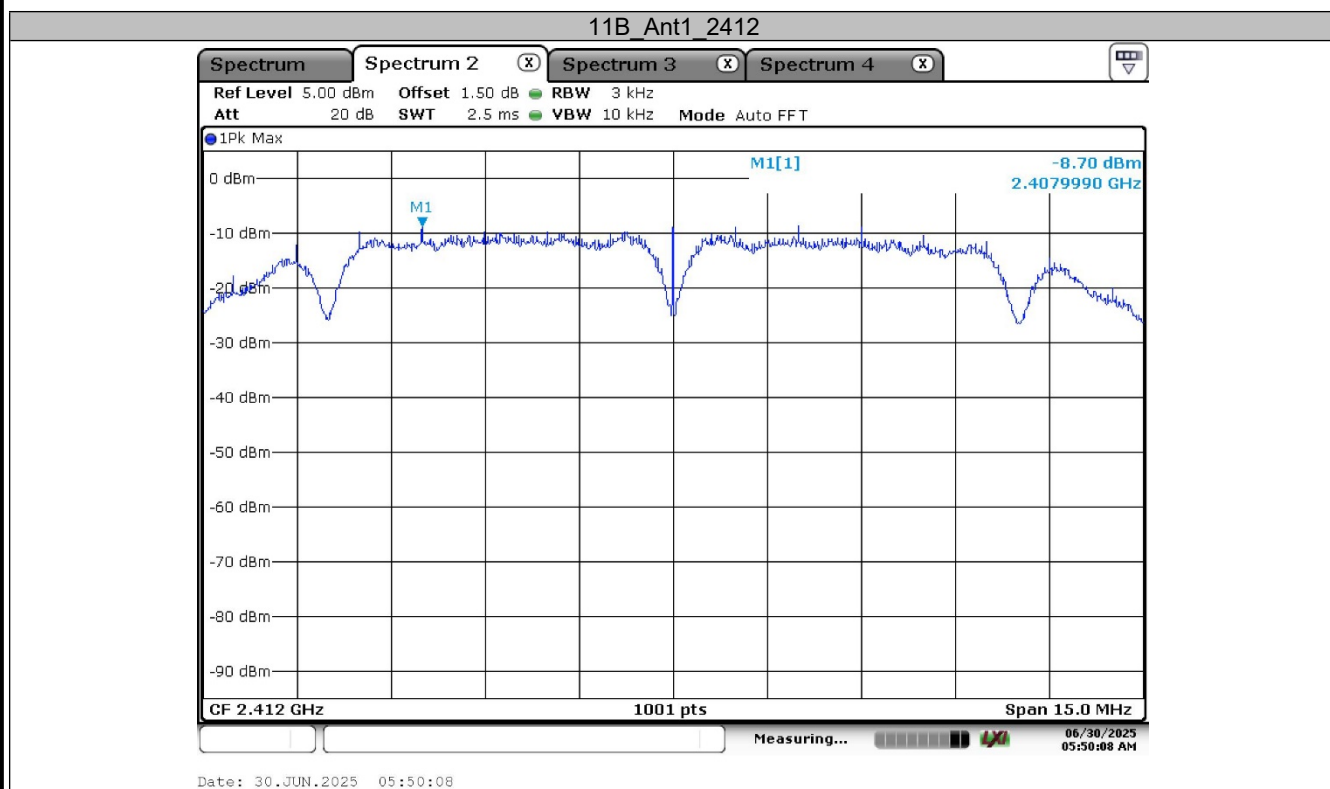
Table 1: List of Test and Measurement Equipment.....	6
Table 2: Measurement Uncertainty.....	7
Table 3: Technical Specification of EUT	9
Table 4: RF Channel and Frequency of Wi-Fi 802.11 b/g/n	9
Table 5: List of Accessories and Auxiliary Equipment.....	11
Table 6: Test Result of Maximum Conducted Output Power.....	15

Appendix A: Test Results of 2.4GHz Wi-Fi

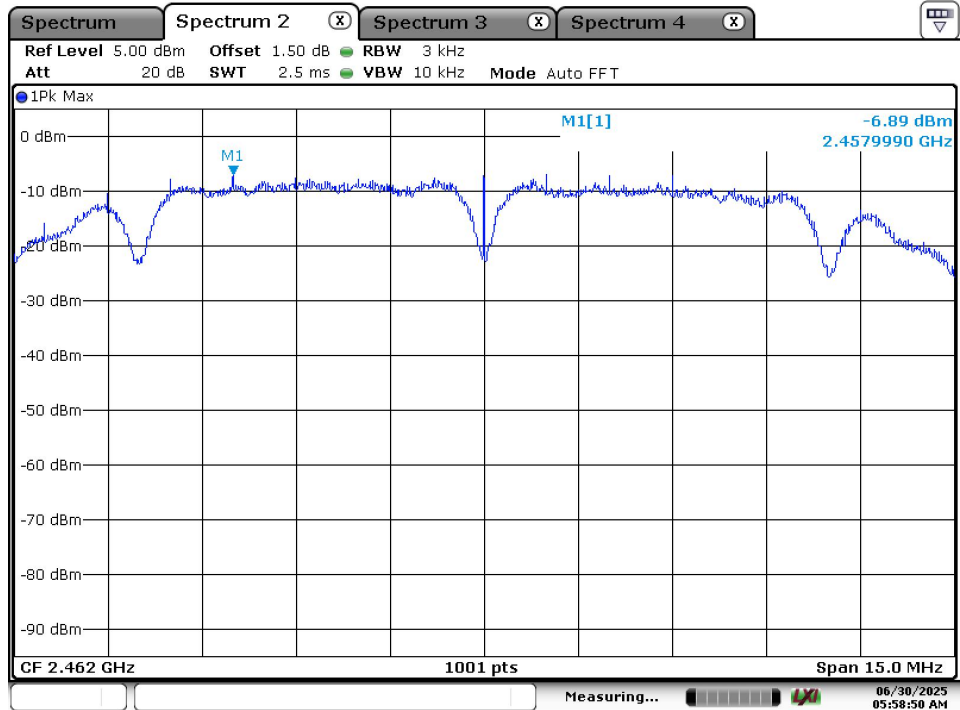
APPENDIX A: TEST RESULTS OF 2.4GHZ WI-FI	1
APPENDIX A.1: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	2
APPENDIX A.2: TEST RESULTS OF 6dB BANDWIDTH	8
APPENDIX A.3: TEST RESULTS OF 99% BANDWIDTH	14
APPENDIX A.4: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH	20
APPENDIX A.5: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	32
APPENDIX A.6: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS	38
APPENDIX A.7: TEST RESULTS OF CONDUCTED EMISSION ON AC MAINS	50

Appendix A.1: Test Results of Conducted Power Spectral Density

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-8.70	≤8.00	PASS
		2437	-7.88	≤8.00	PASS
		2462	-6.89	≤8.00	PASS
11G	Ant1	2412	-8.96	≤8.00	PASS
		2437	-6.74	≤8.00	PASS
		2462	-7.60	≤8.00	PASS
11N20SISO	Ant1	2412	-9.11	≤8.00	PASS
		2437	-7.63	≤8.00	PASS
		2462	-7.14	≤8.00	PASS

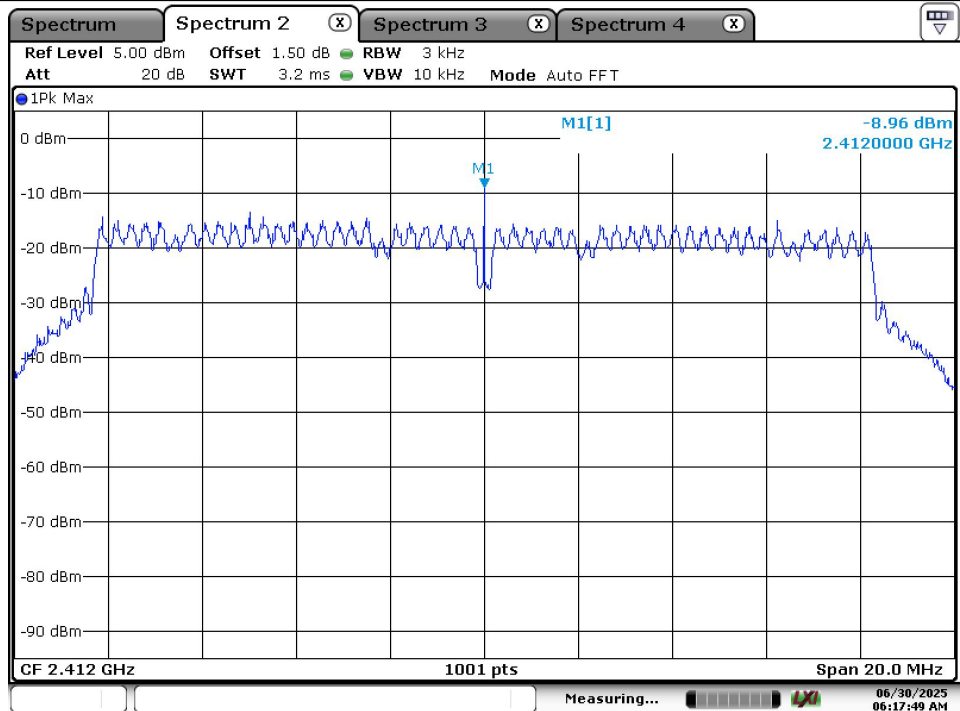


11B_Ant1_2462



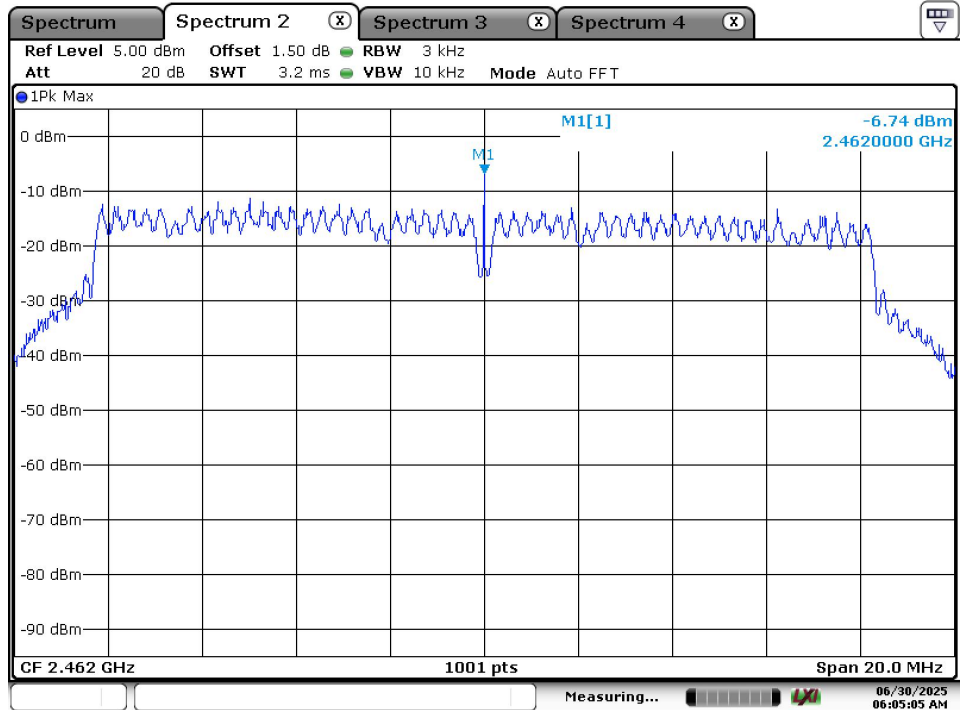
Date: 30.JUN.2025 05:58:50

11G_Ant1_2412



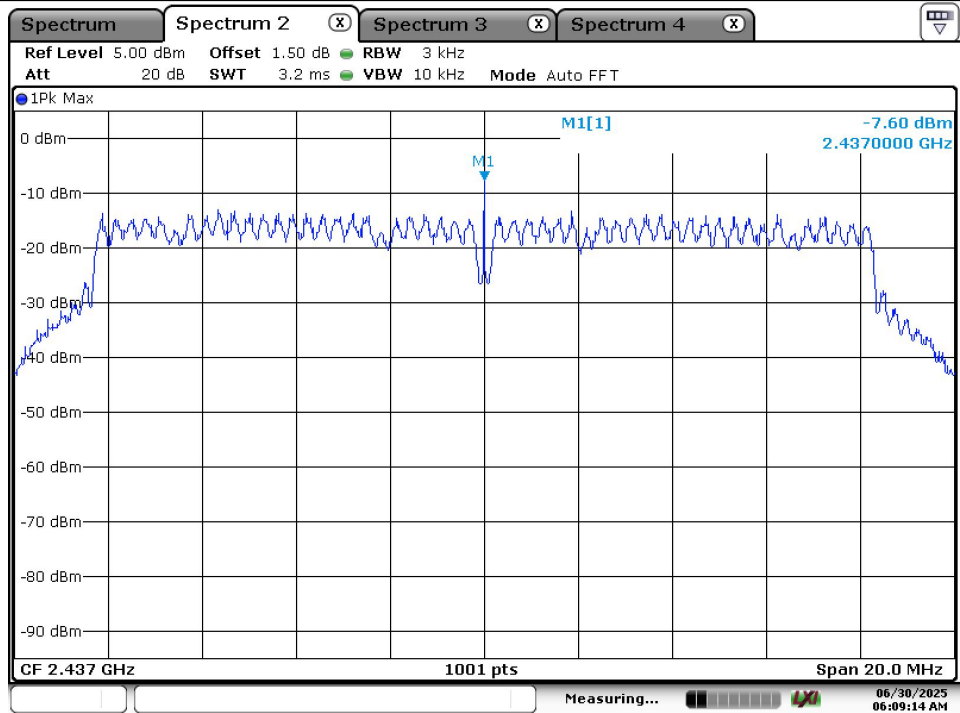
Date: 30.JUN.2025 06:17:49

11G_Ant1_2437



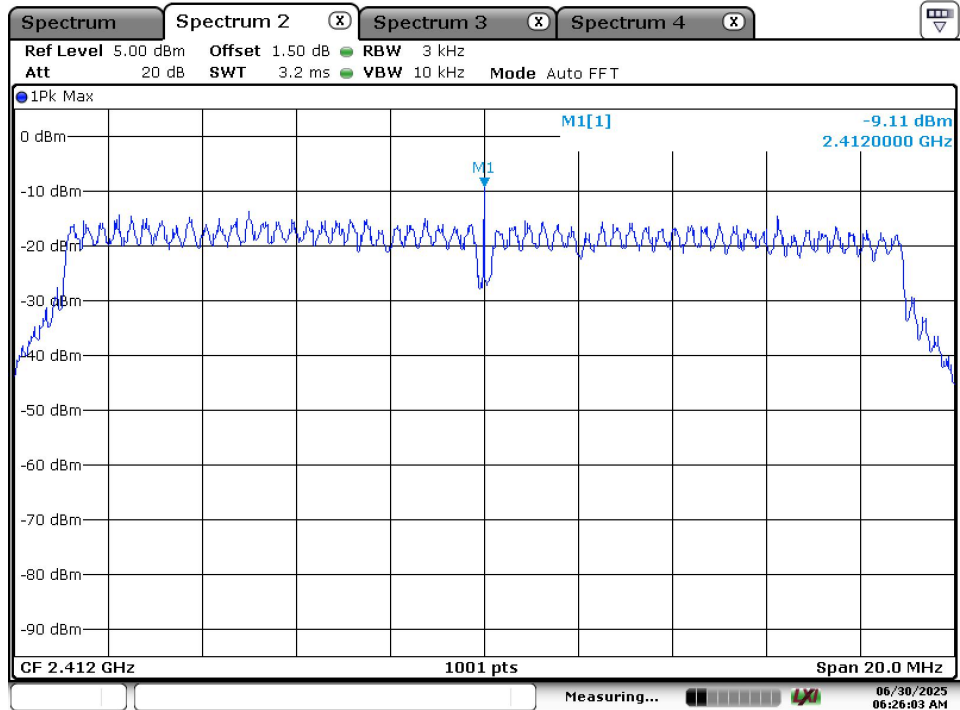
Date: 30.JUN.2025 06:05:05

11G_Ant1_2462



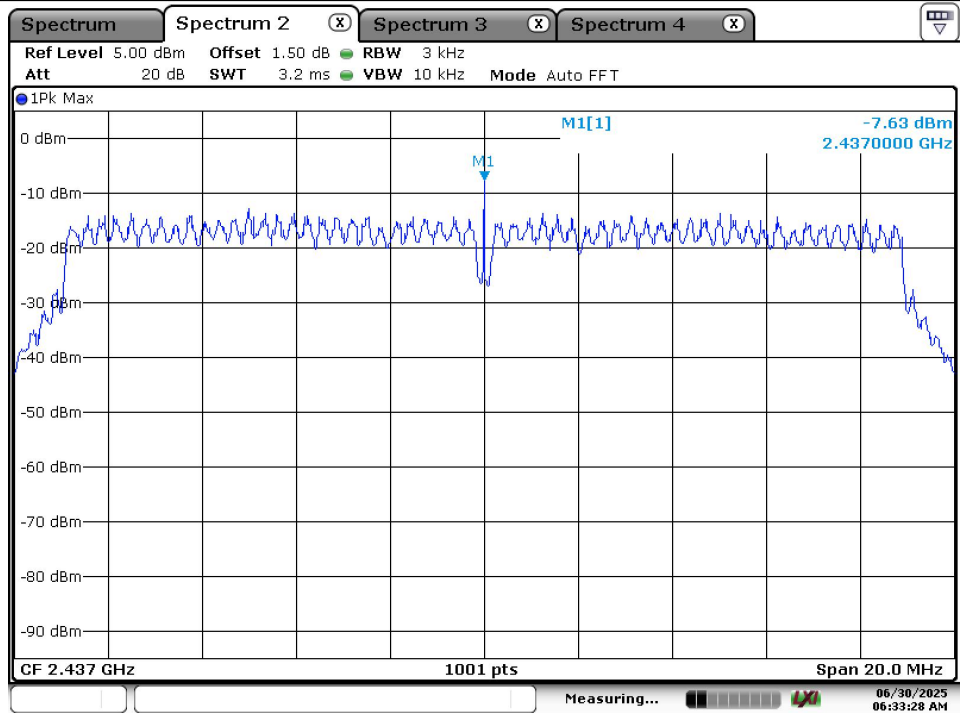
Date: 30.JUN.2025 06:09:14

11N20SISO_Ant1_2412



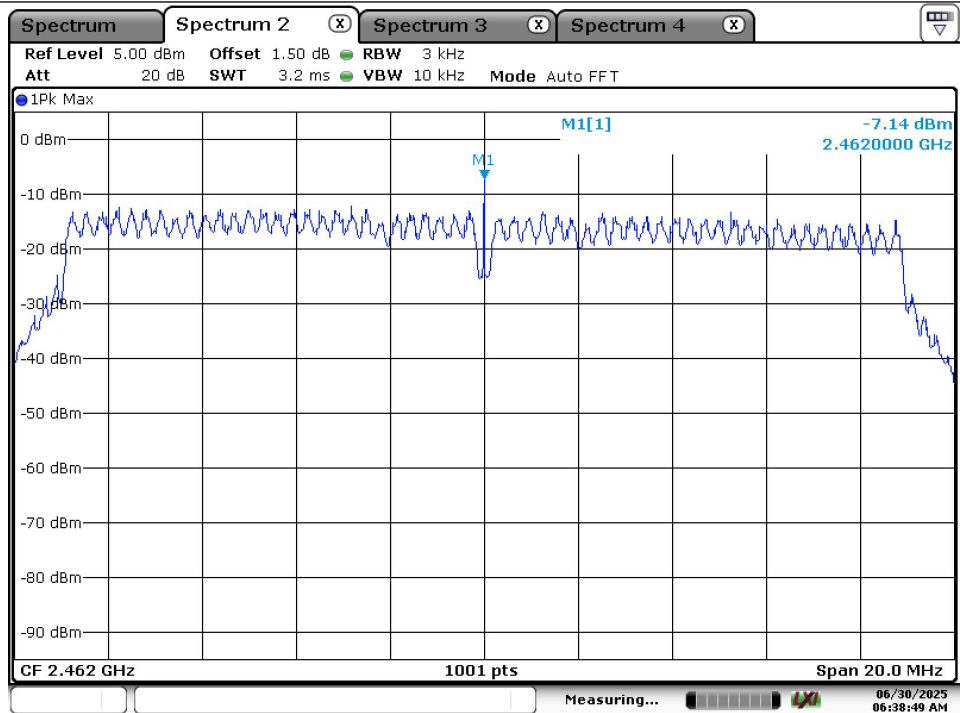
Date: 30.JUN.2025 06:26:03

11N20SISO Ant1 2437



Date: 30.JUN.2025 06:33:28

11N20SISO Ant1 2462



Date: 30.JUN.2025 06:38:49

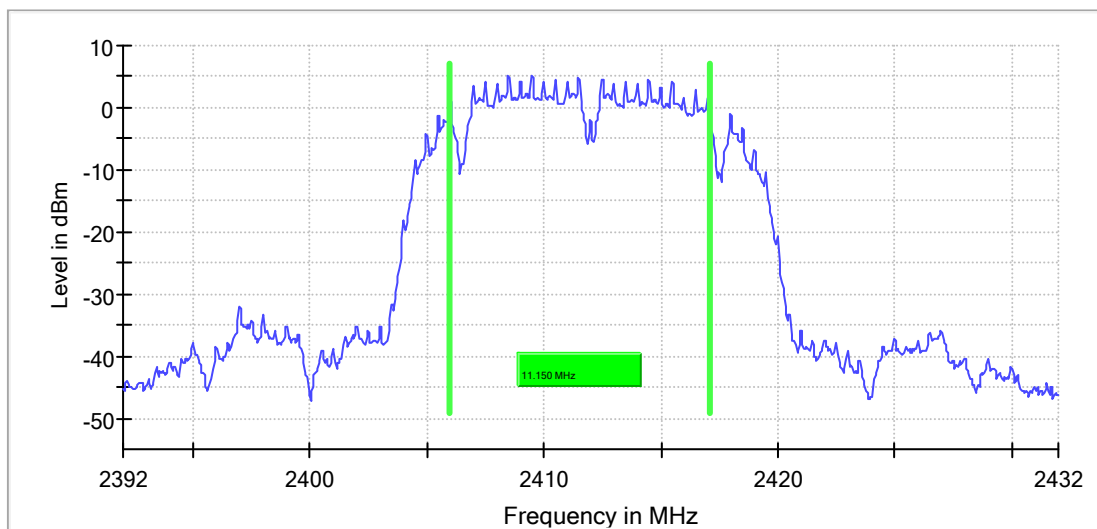
Appendix A.2: Test Results of 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.150000	2405.925000	2417.075000	0.5	PASS
		2437	12.100000	2430.925000	2443.025000	0.5	PASS
		2462	12.150000	2455.925000	2468.075000	0.5	PASS
11G	Ant1	2412	15.800000	2403.775000	2419.575000	0.5	PASS
		2437	15.800000	2428.775000	2444.575000	0.5	PASS
		2462	16.400000	2453.775000	2470.175000	0.5	PASS
11N20SISO	Ant1	2412	16.400000	2403.175000	2419.575000	0.5	PASS
		2437	16.750000	2428.175000	2444.925000	0.5	PASS
		2462	17.000000	2453.175000	2470.175000	0.5	PASS

Note: RBW=300KHz, VBW=1000KHz.

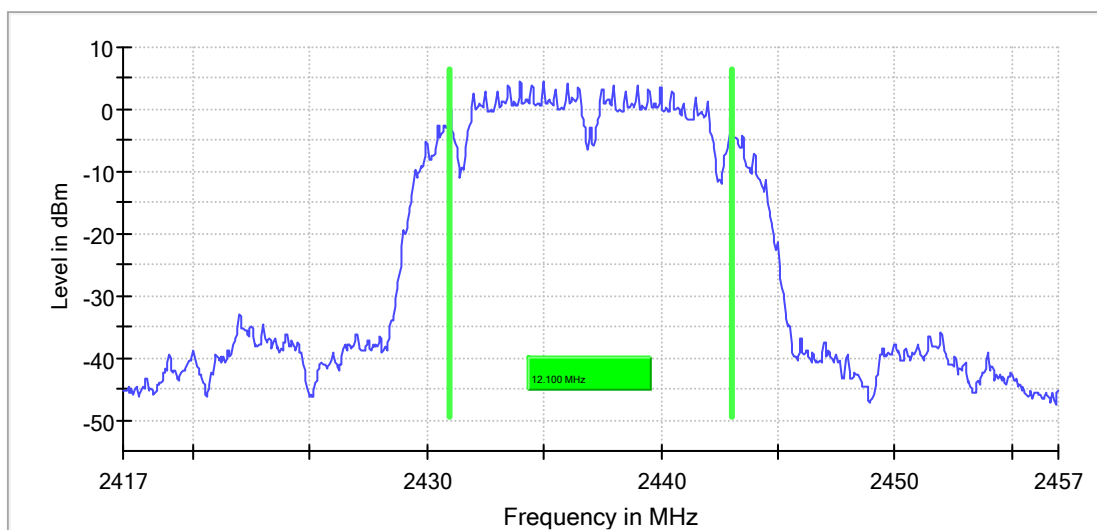
11B_Ant1_2412

6 dB Bandwidth



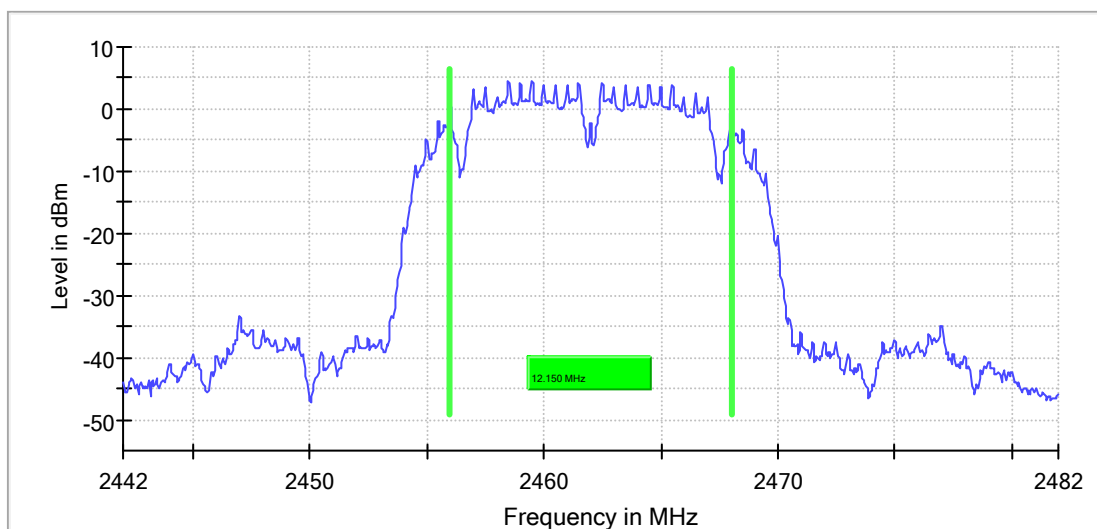
11B_Ant1_2437

6 dB Bandwidth



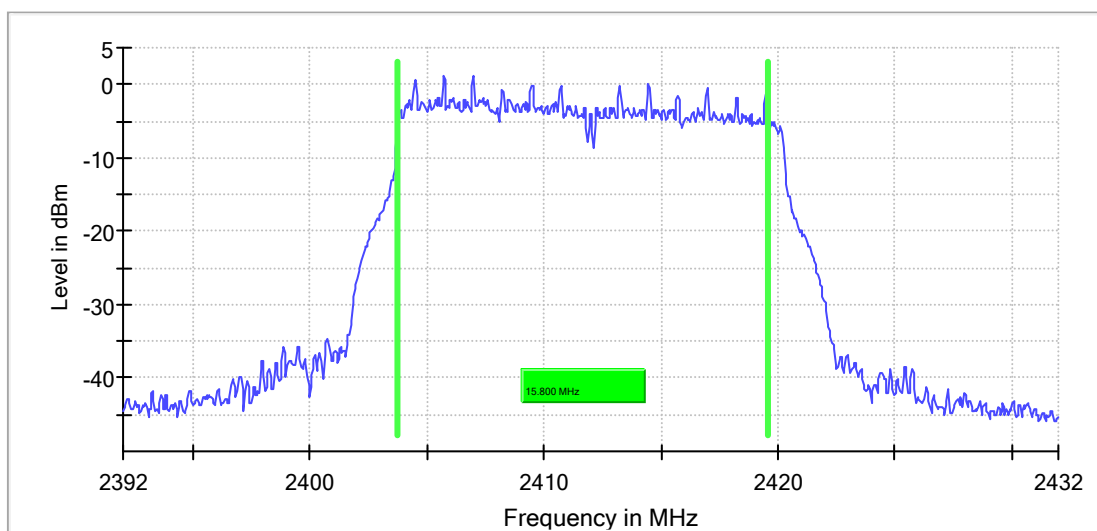
11B_Ant1_2462

6 dB Bandwidth



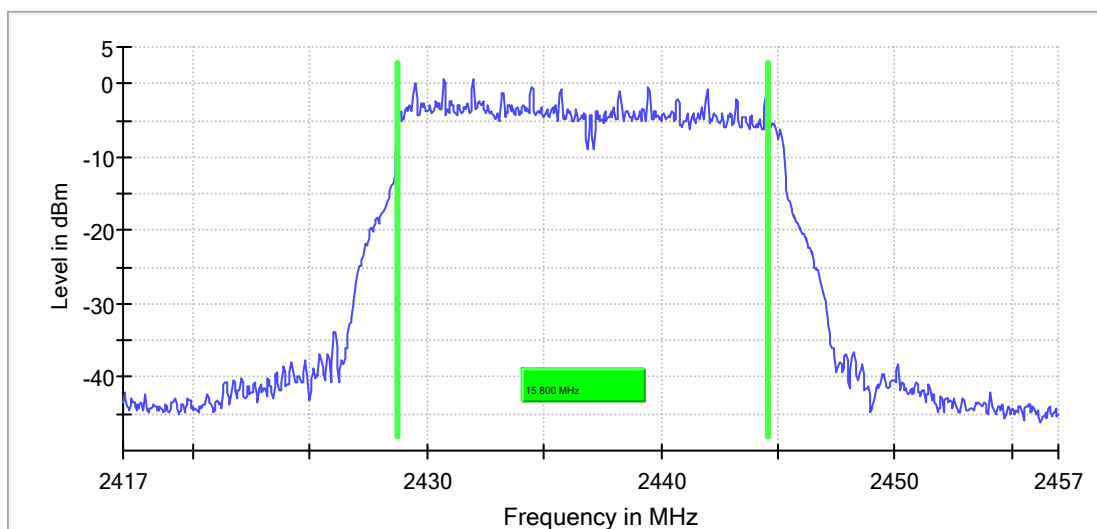
11G_Ant1_2412

6 dB Bandwidth



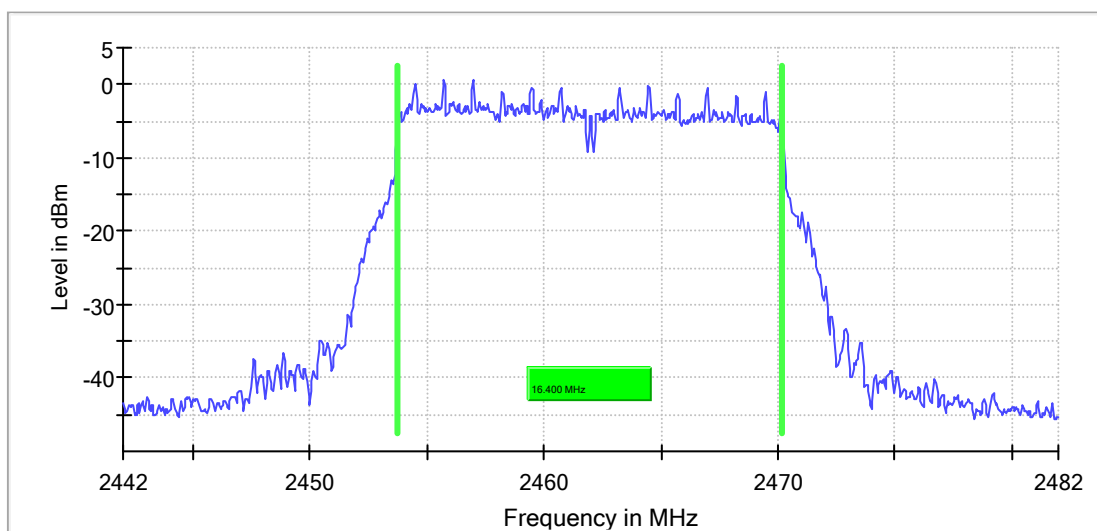
11G_Ant1_2437

6 dB Bandwidth



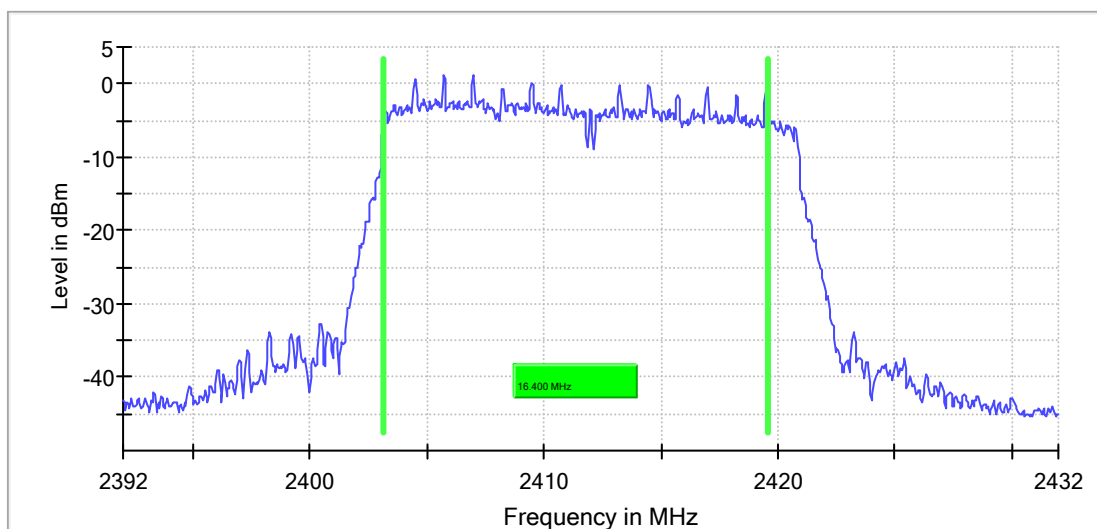
11G Ant1_2462

6 dB Bandwidth



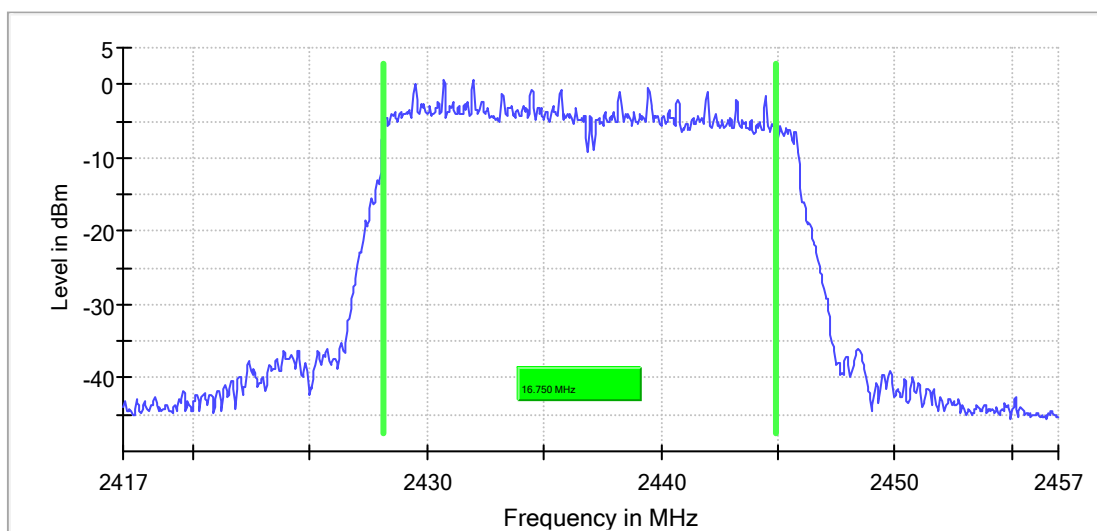
11N20SISO Ant1_2412

6 dB Bandwidth



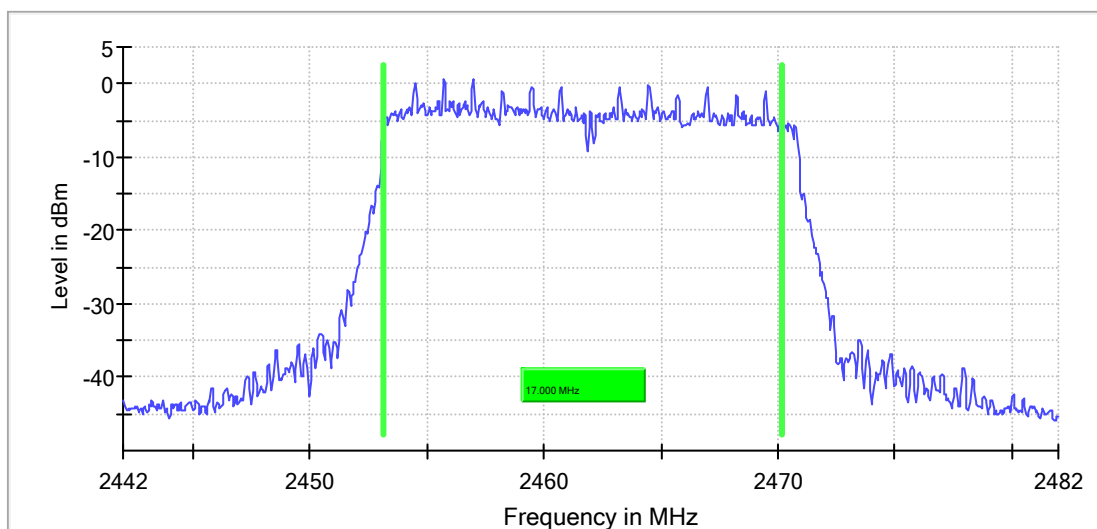
11N20SISO_Ant1_2437

6 dB Bandwidth



11N20SISO_Ant1_2462

6 dB Bandwidth



Appendix A.3: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.900000	2404.950000	2418.850000	---	PASS
		2437	13.900000	2429.950000	2443.850000	---	PASS
		2462	14.000000	2454.950000	2468.950000	---	PASS
11G	Ant1	2412	16.700000	2403.550000	2420.250000	---	PASS
		2437	16.700000	2428.550000	2445.250000	---	PASS
		2462	16.700000	2453.550000	2470.250000	---	PASS
11N20SISO	Ant1	2412	17.700000	2403.050000	2420.750000	---	PASS
		2437	17.800000	2428.050000	2445.850000	---	PASS
		2462	17.800000	2453.050000	2470.850000	---	PASS

Note: RBW=300KHz, VBW=1000KHz.

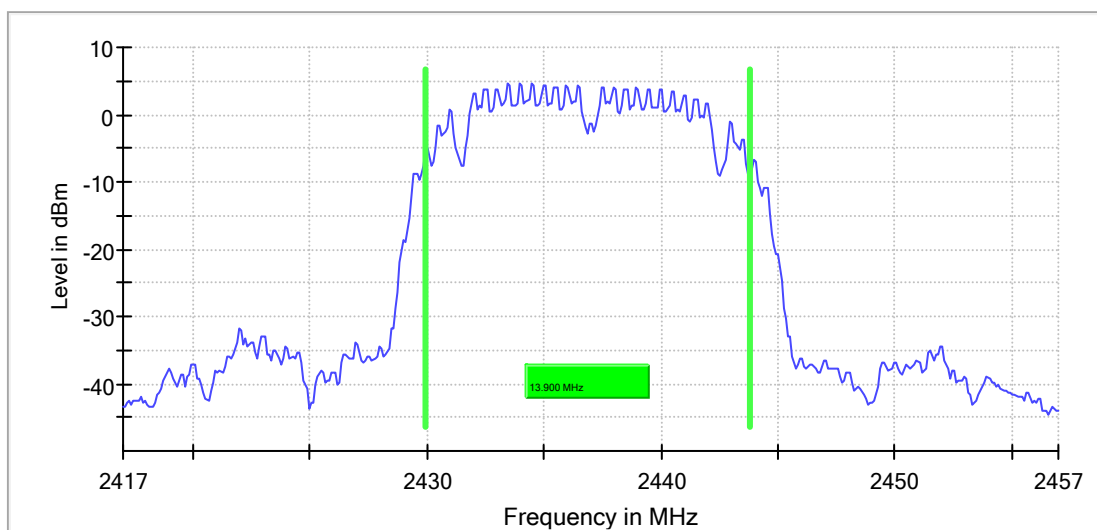
11B_Ant1_2412

99 % Bandwidth



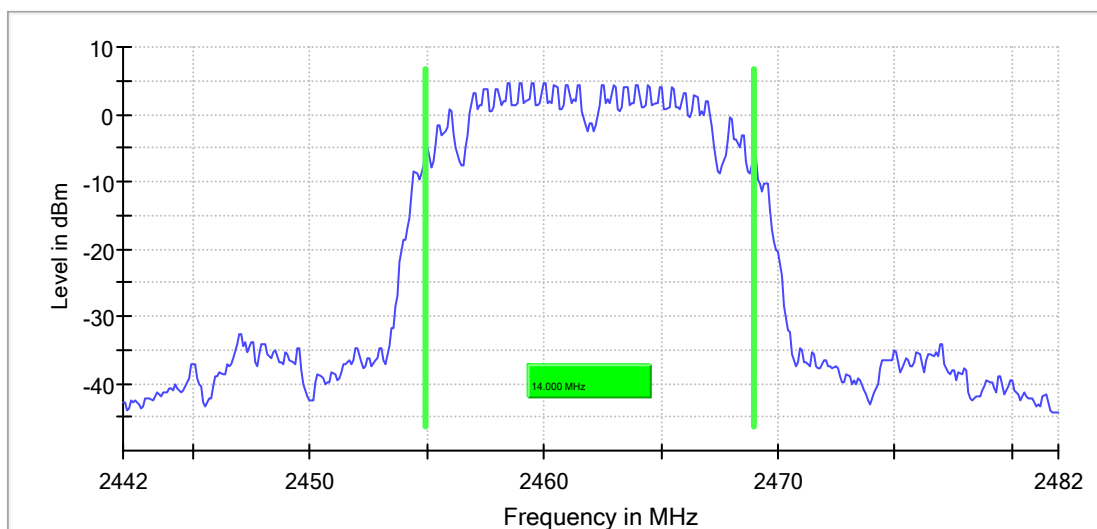
11B_Ant1_2437

99 % Bandwidth



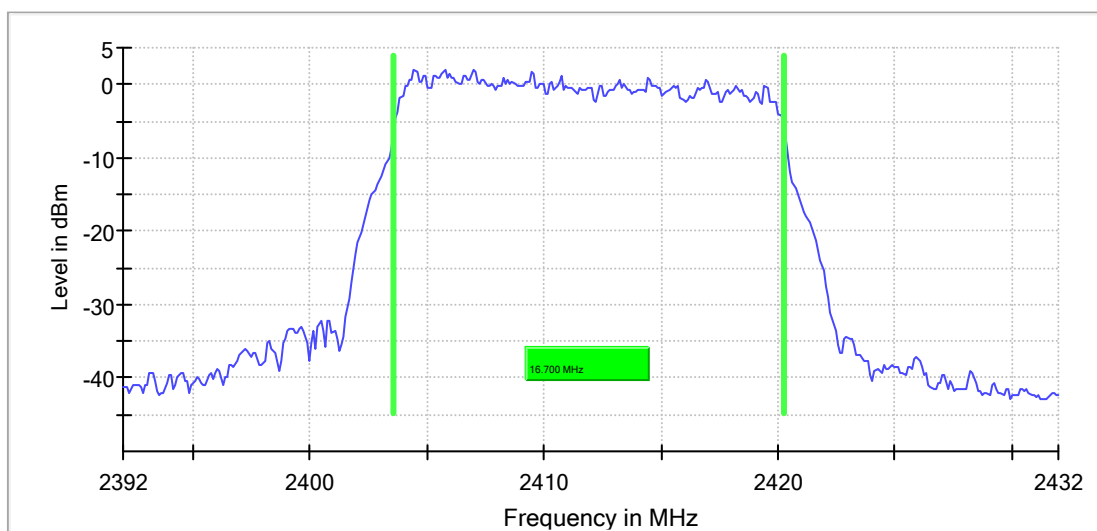
11B_Ant1_2462

99 % Bandwidth



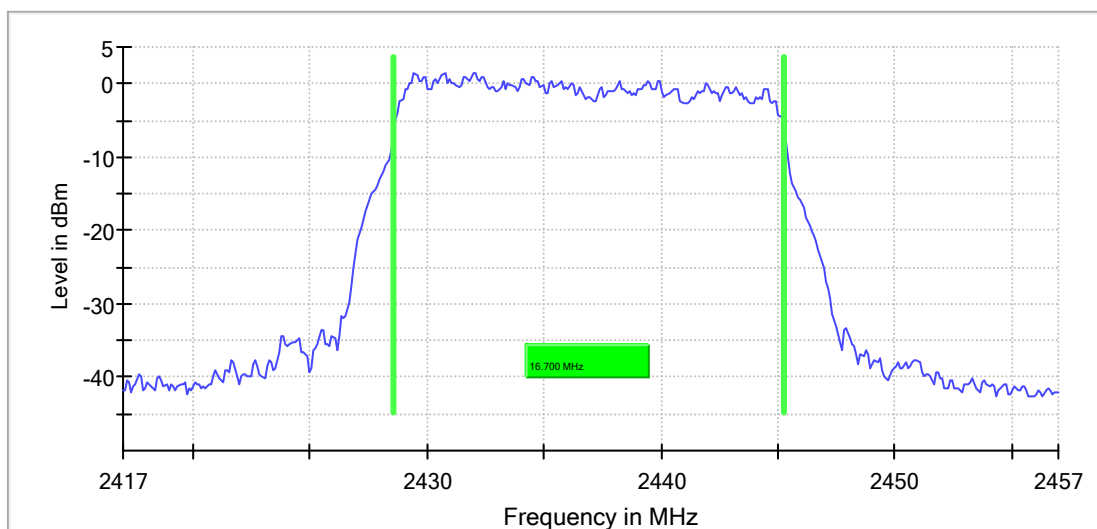
11G_Ant1_2412

99 % Bandwidth



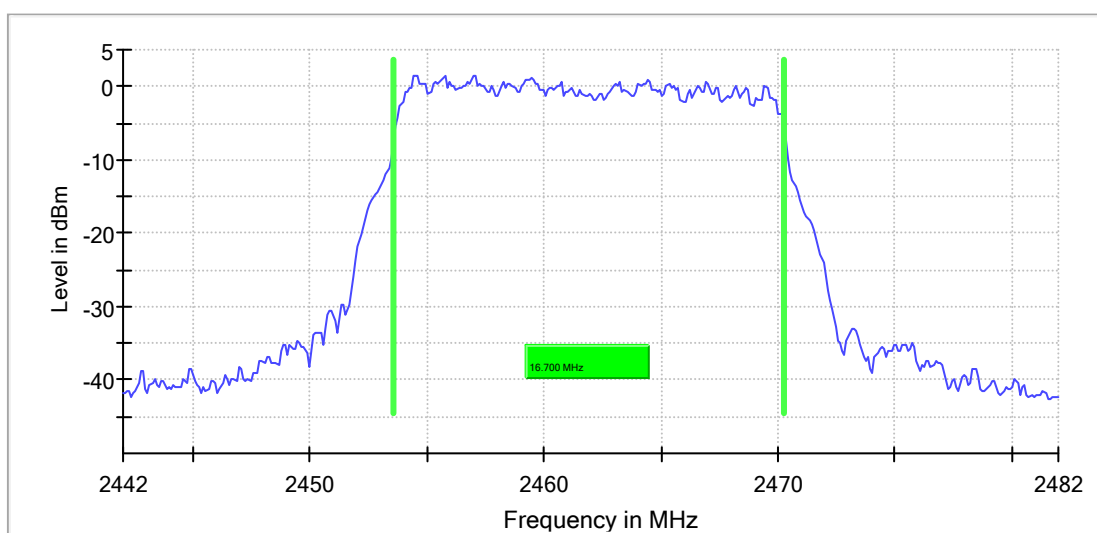
11G_Ant1_2437

99 % Bandwidth



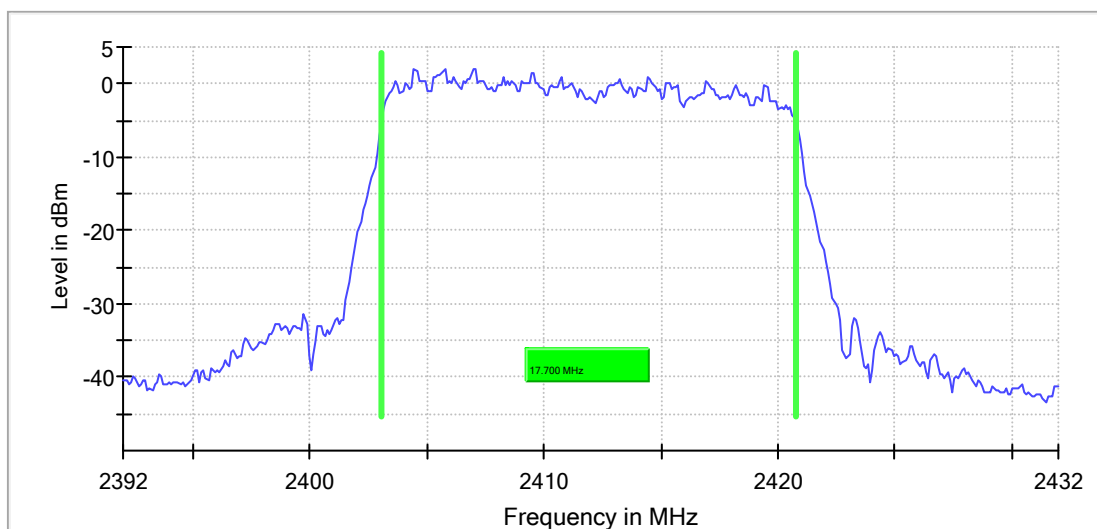
11G Ant1_2462

99 % Bandwidth



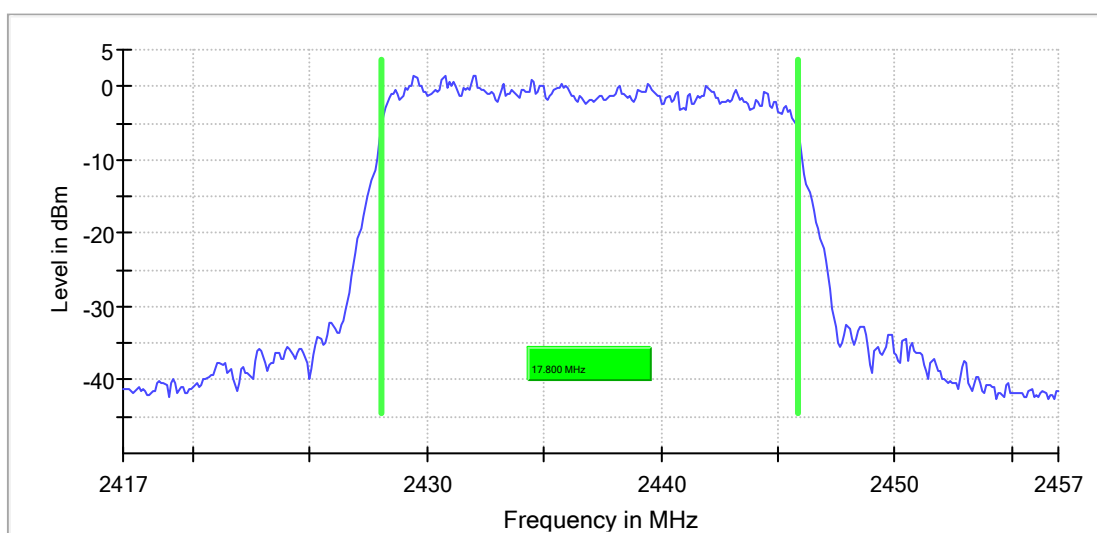
11N20SISO Ant1_2412

99 % Bandwidth



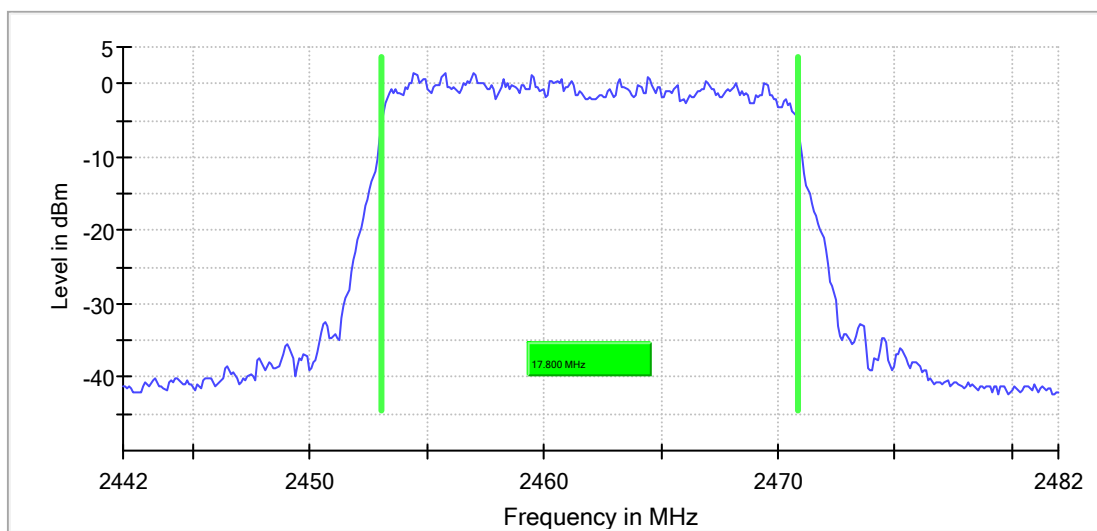
11N20SISO Ant1_2437

99 % Bandwidth



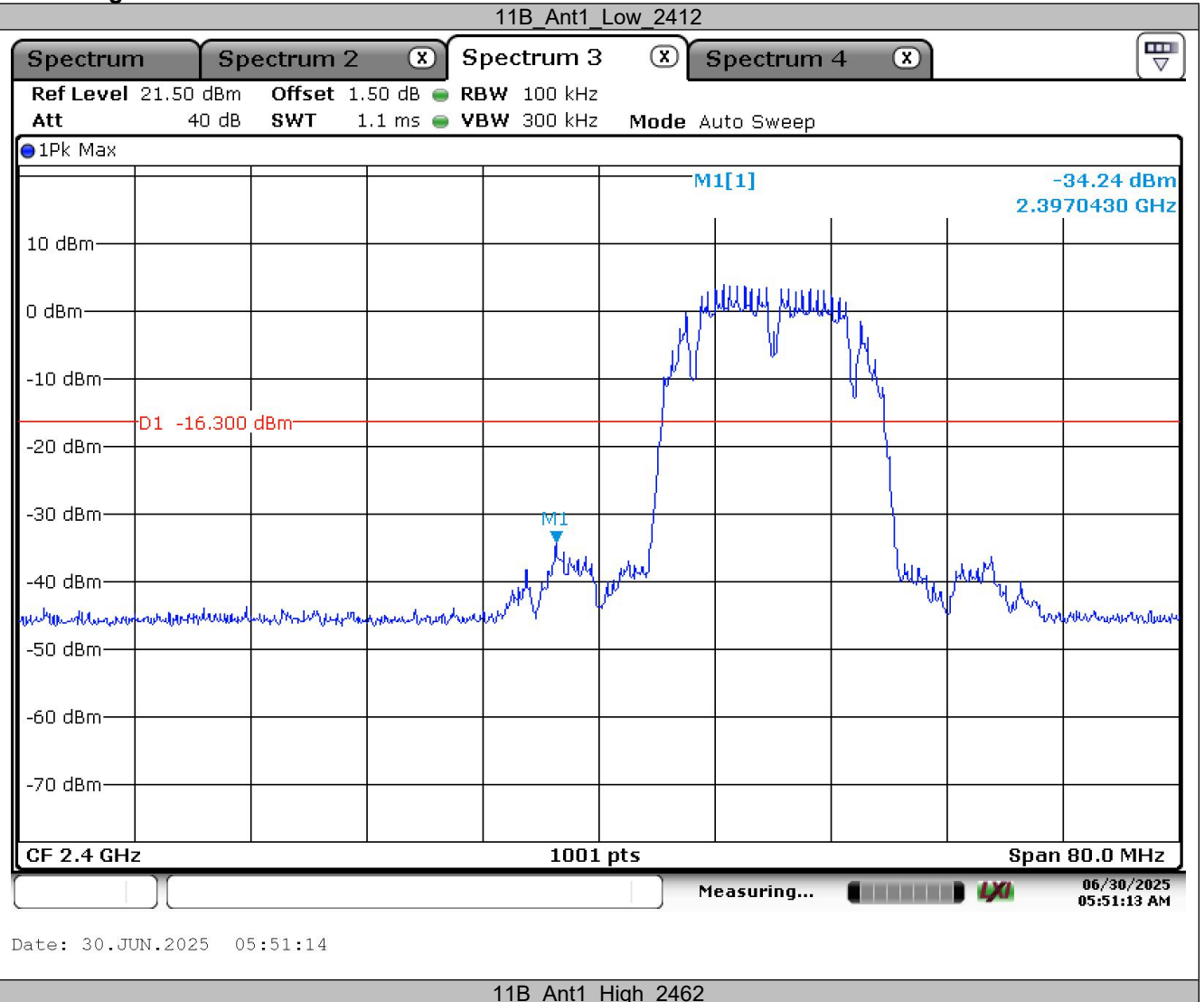
11N20SISO Ant1_2462

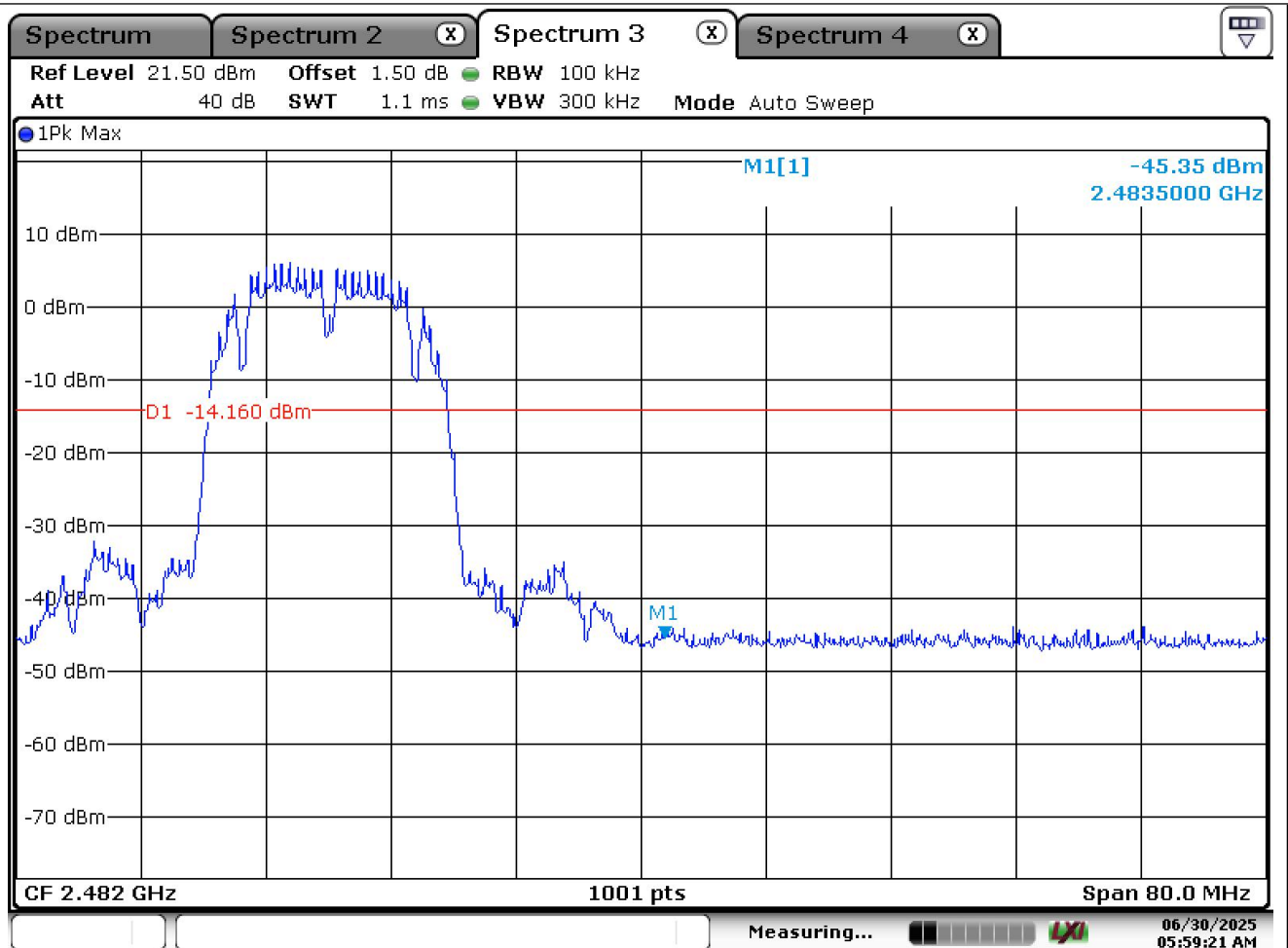
99 % Bandwidth



Appendix A.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

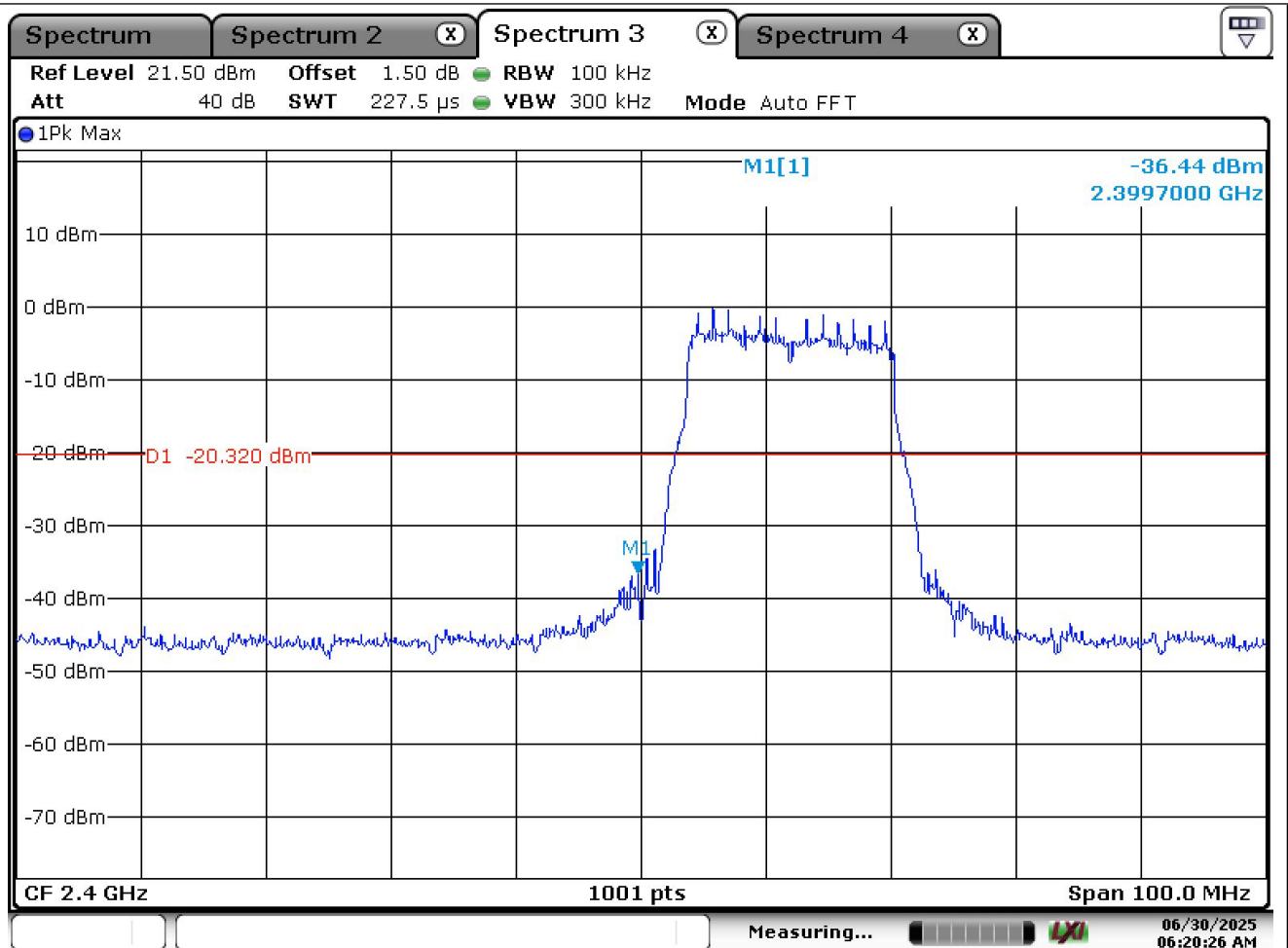
Band Edge





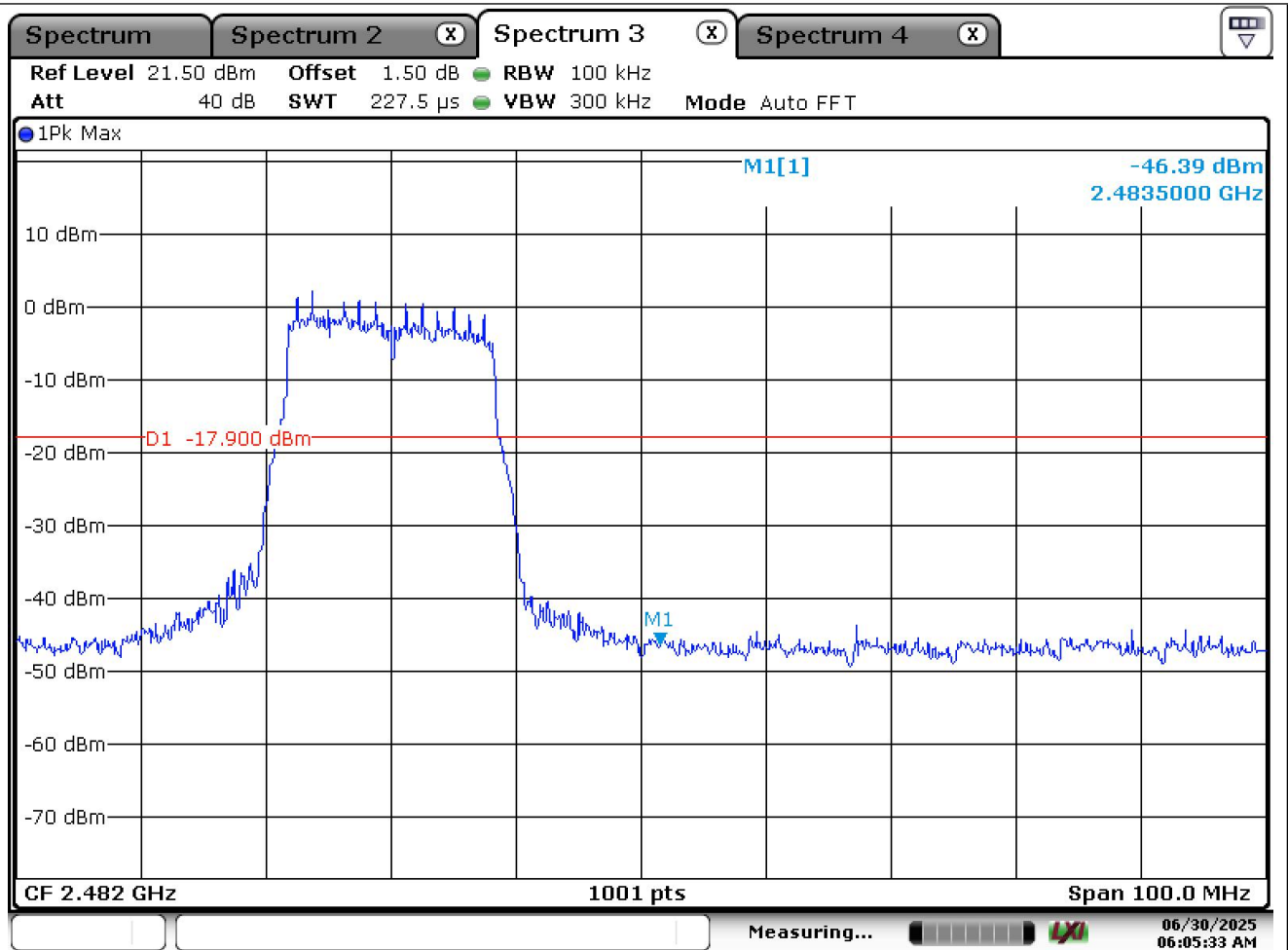
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11G_Ant1_Low_2412



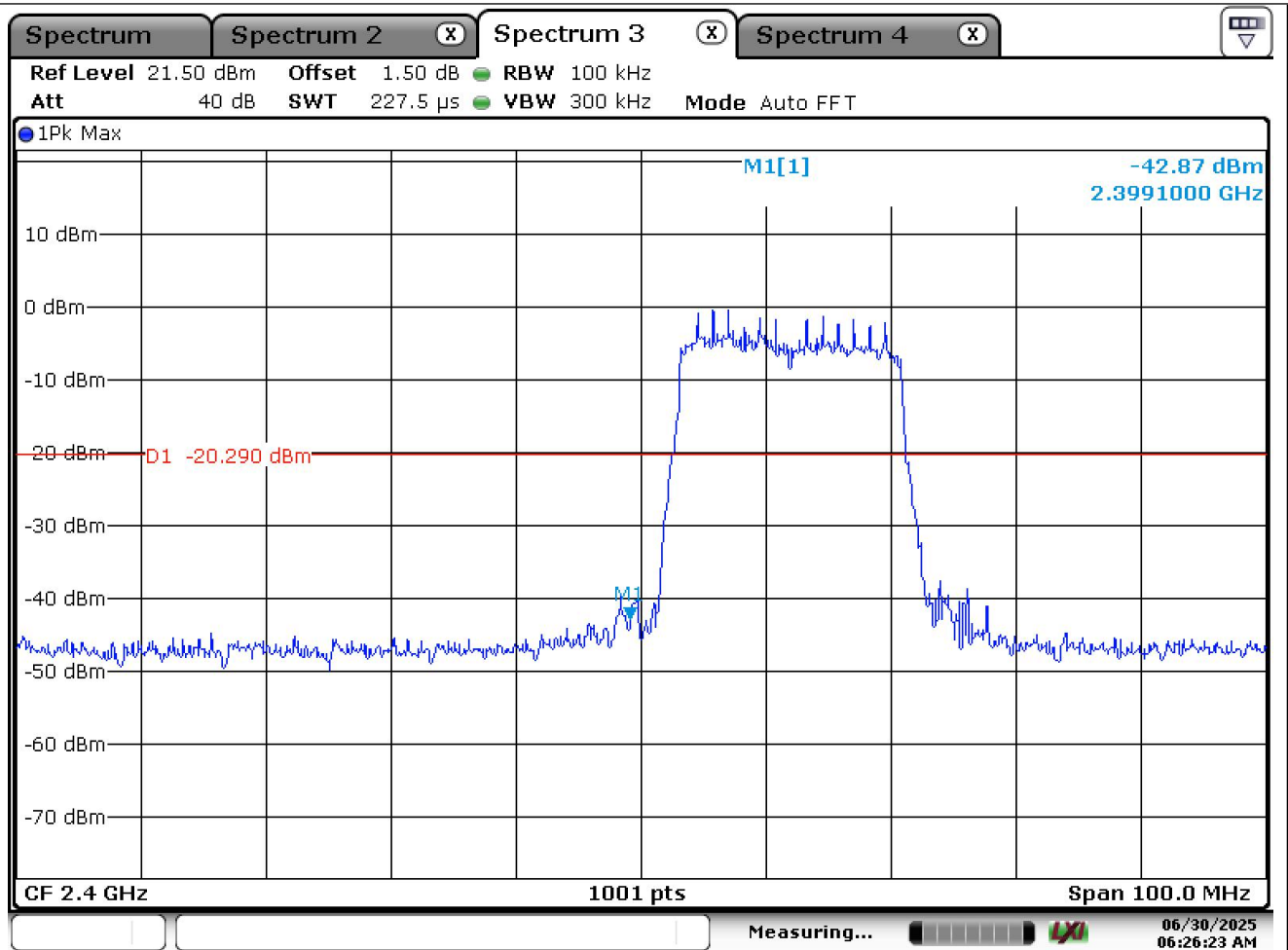
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11G_Ant1_High_2462



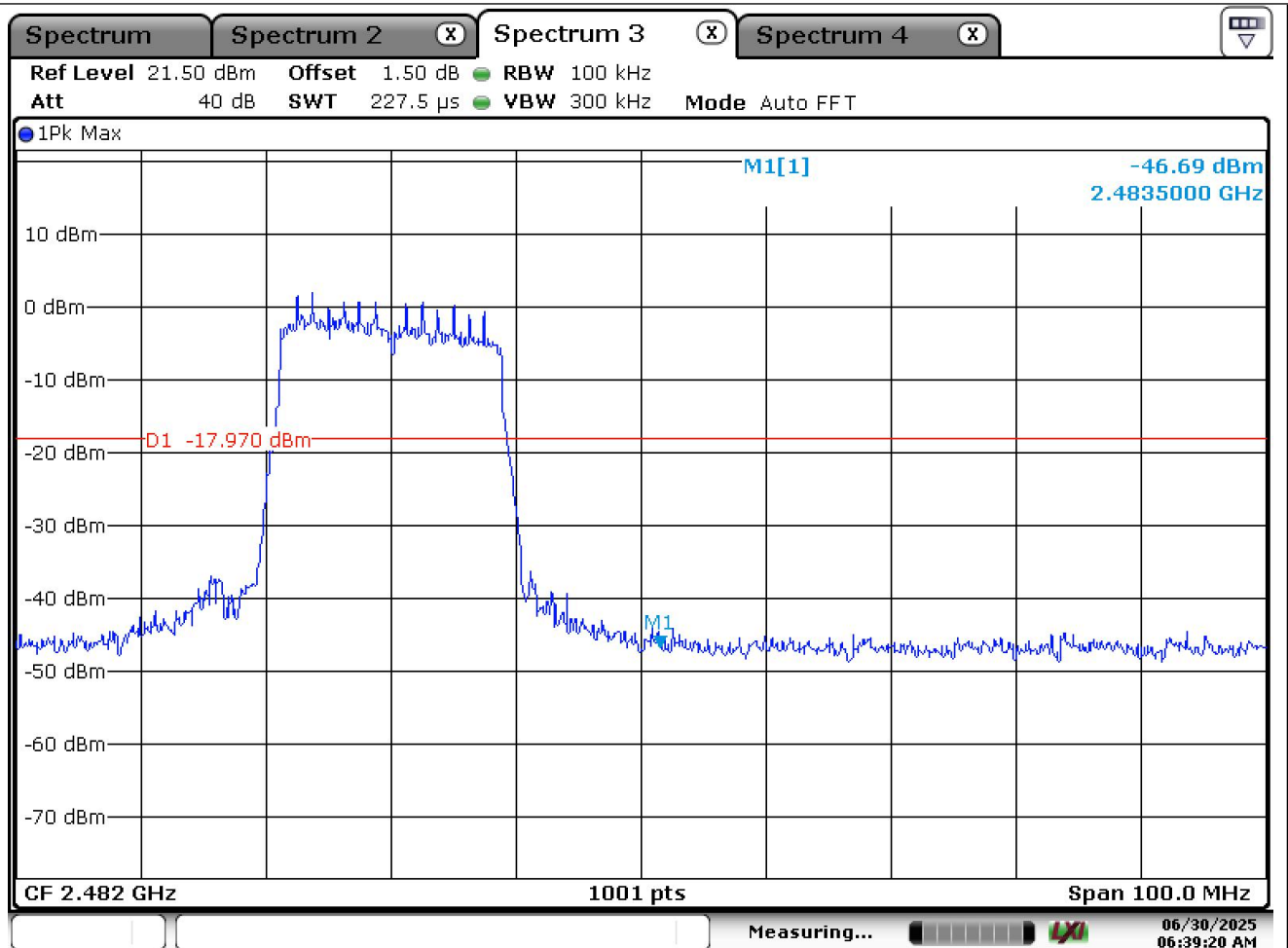
Date: 30.JUN.2025 06:05:33

11N20SISO_Ant1_Low_2412



Date: 30.JUN.2025 06:26:23

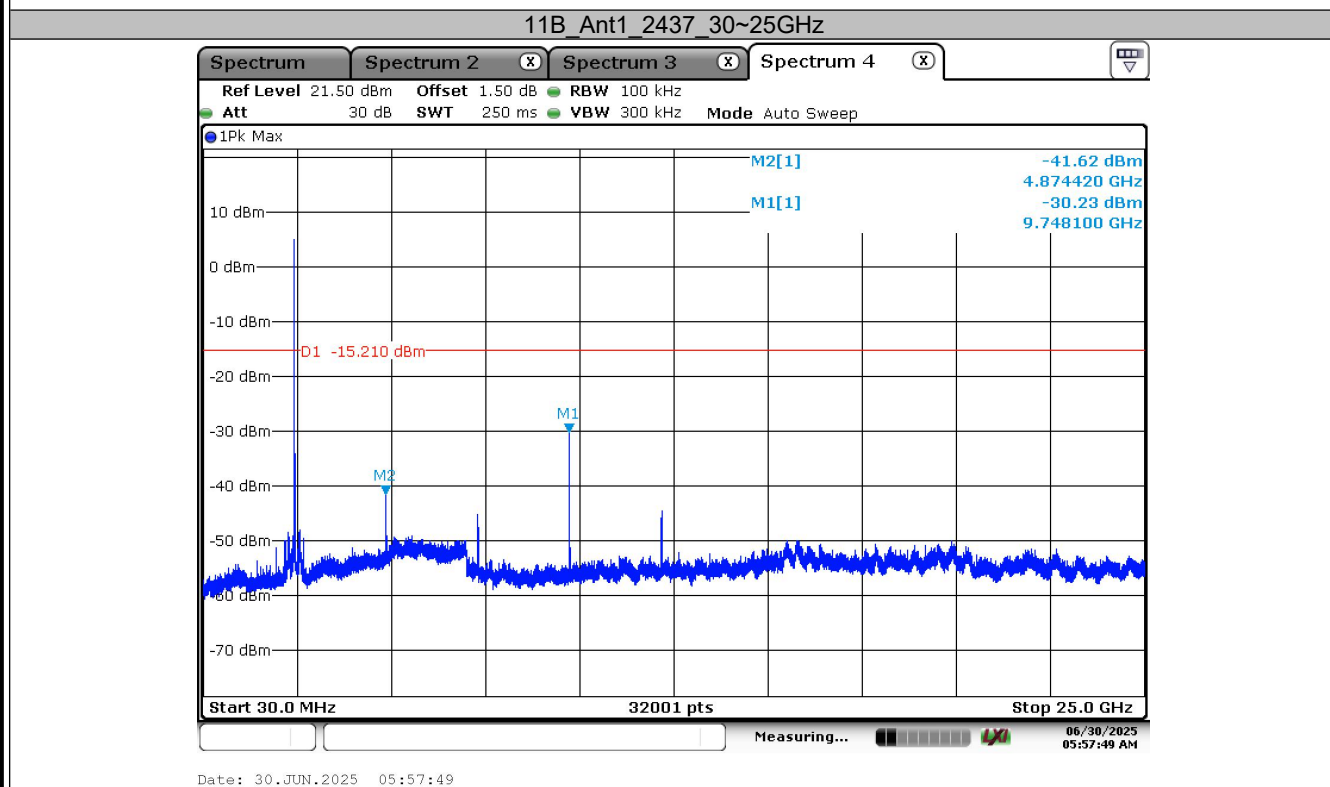
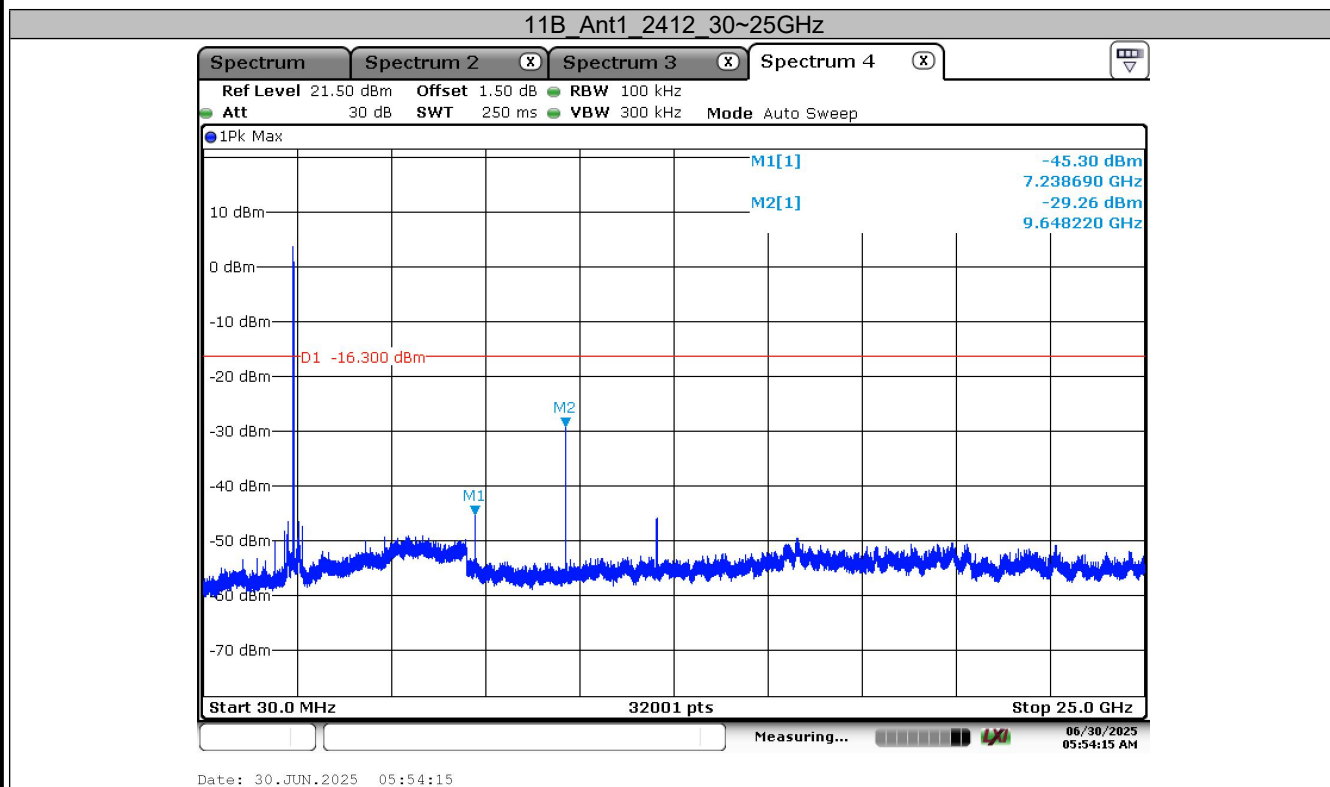
11N20SISO_Ant1_High_2462

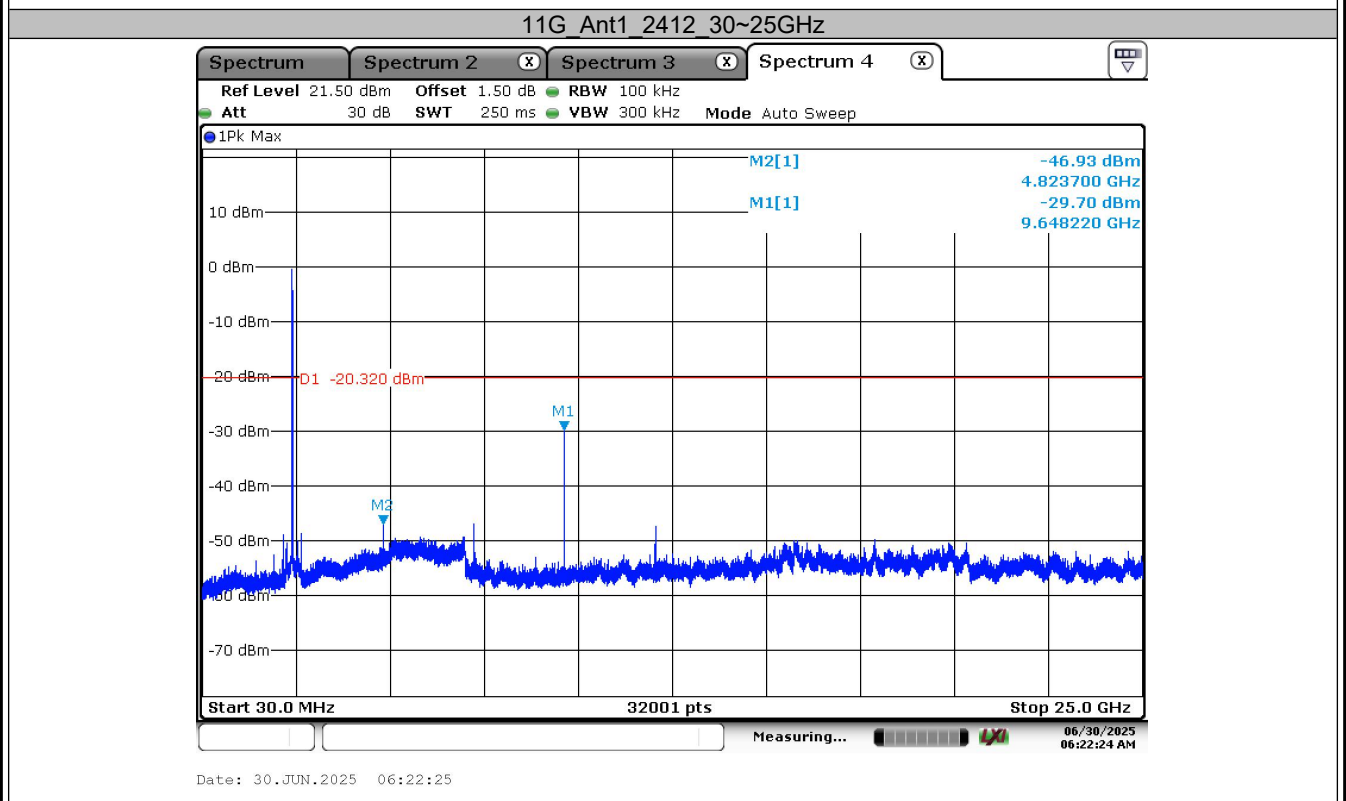
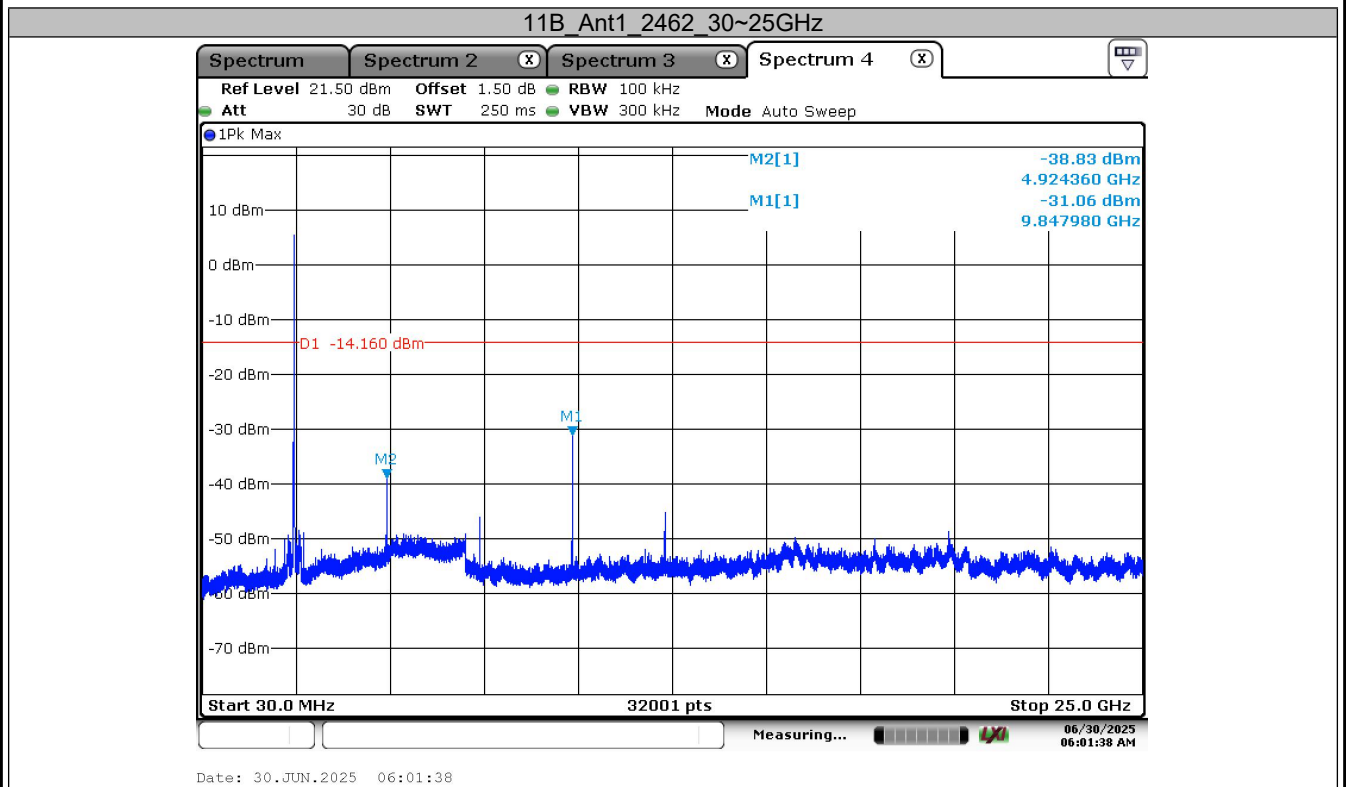


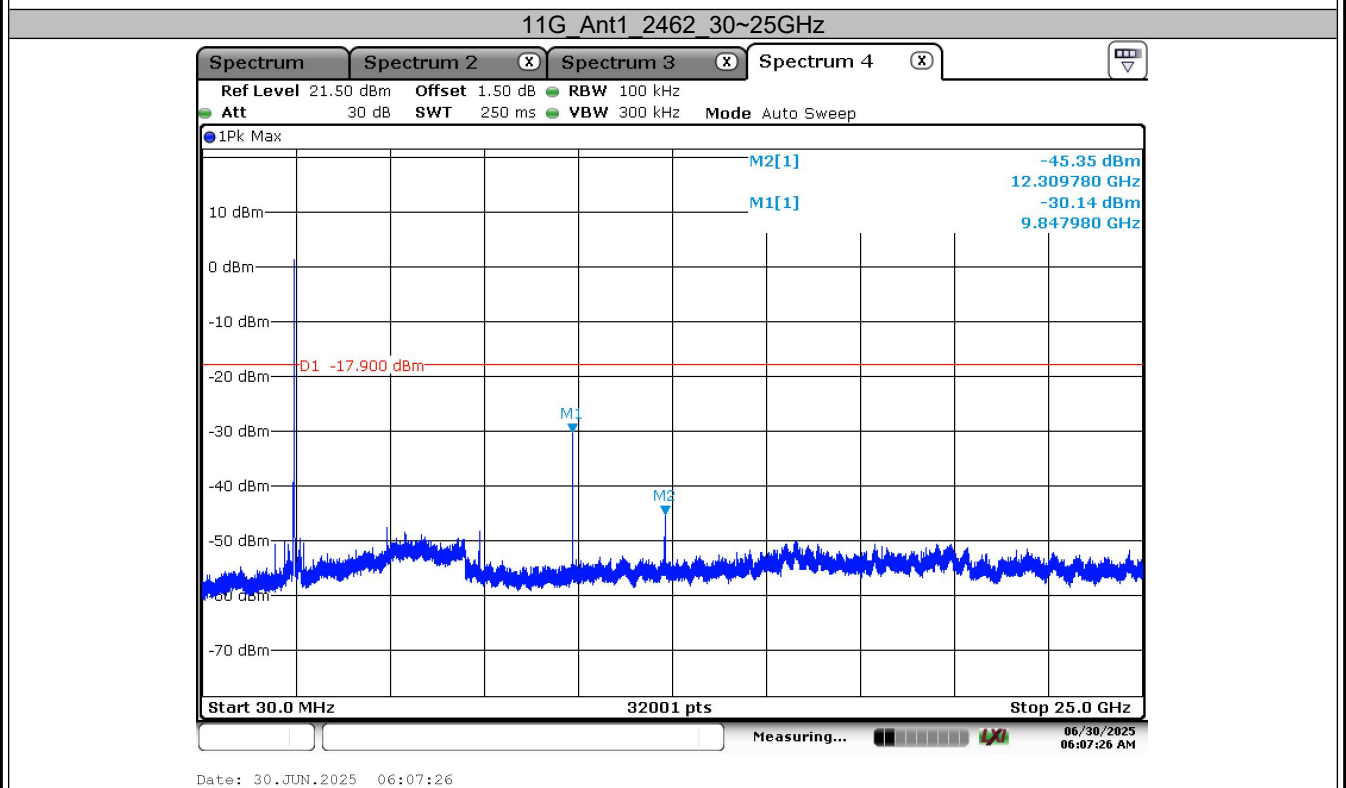
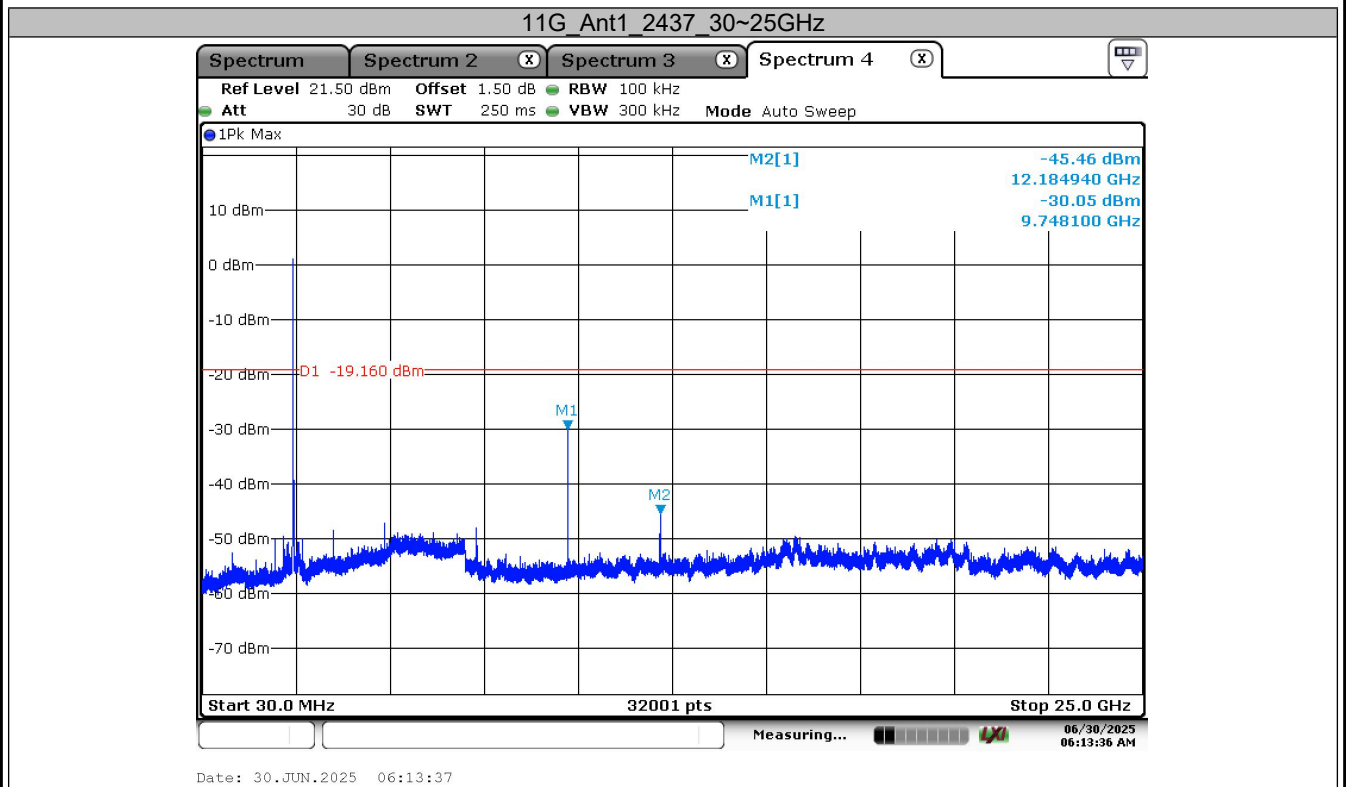
Date: 30.JUN.2025 06:39:20

Conducted Spurious Emission

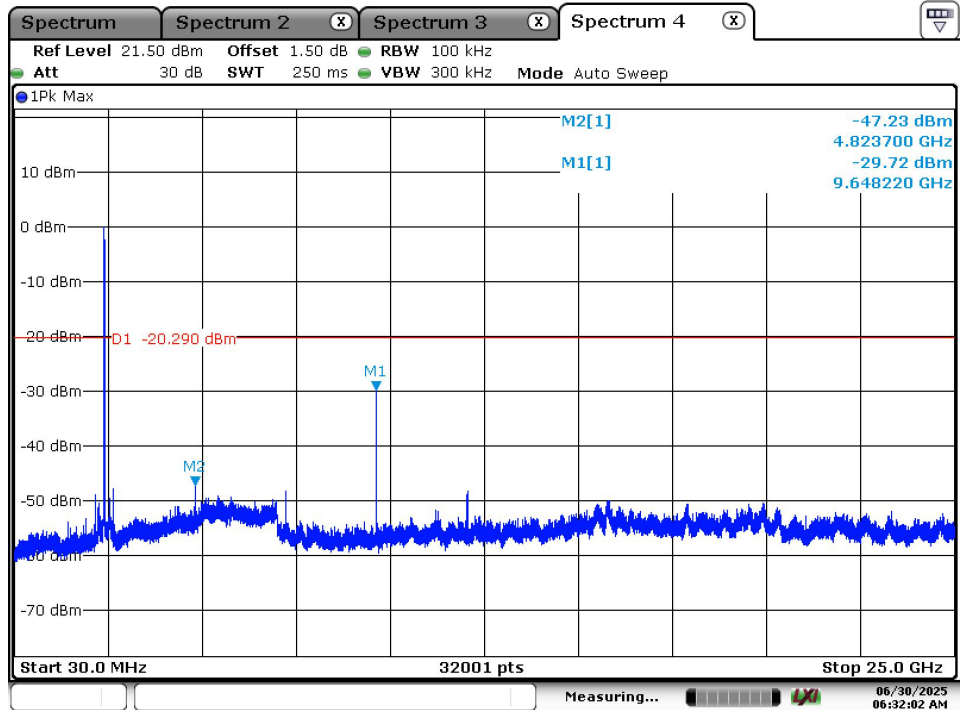
TestMode	Antenna	Channel	FreqRange [Mhz]	Verdict	
11B	Ant1	2412	Reference	PASS	Refer to below photo
			30~1000	PASS	Refer to below photo
			1000~26500	PASS	Refer to below photo
		2437	Reference	PASS	Refer to below photo
			30~1000	PASS	Refer to below photo
			1000~26500	PASS	Refer to below photo
		2462	Reference	PASS	Refer to below photo
			30~1000	PASS	Refer to below photo
			1000~26500	PASS	Refer to below photo
11G	Ant1	2412	Reference	PASS	Refer to below photo
			30~1000	PASS	Refer to below photo
			1000~26500	PASS	Refer to below photo
		2437	Reference	PASS	Refer to below photo
			30~1000	PASS	Refer to below photo
			1000~26500	PASS	Refer to below photo
		2462	Reference	PASS	Refer to below photo
			30~1000	PASS	Refer to below photo
			1000~26500	PASS	Refer to below photo
11N20SISO	Ant1	2412	Reference	PASS	Refer to below photo
			30~1000	PASS	Refer to below photo
			1000~26500	PASS	Refer to below photo
		2437	Reference	PASS	Refer to below photo
			30~1000	PASS	Refer to below photo
			1000~26500	PASS	Refer to below photo
		2462	Reference	PASS	Refer to below photo
			30~1000	PASS	Refer to below photo
			1000~26500	PASS	Refer to below photo





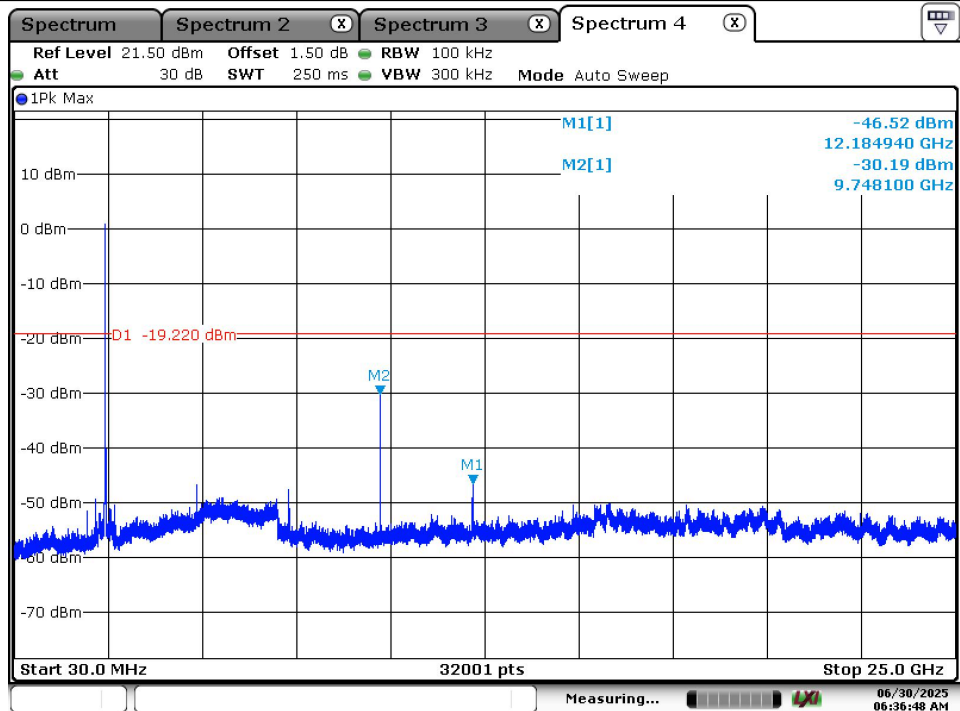


11N20SISO_Ant1_2412_30~25GHz

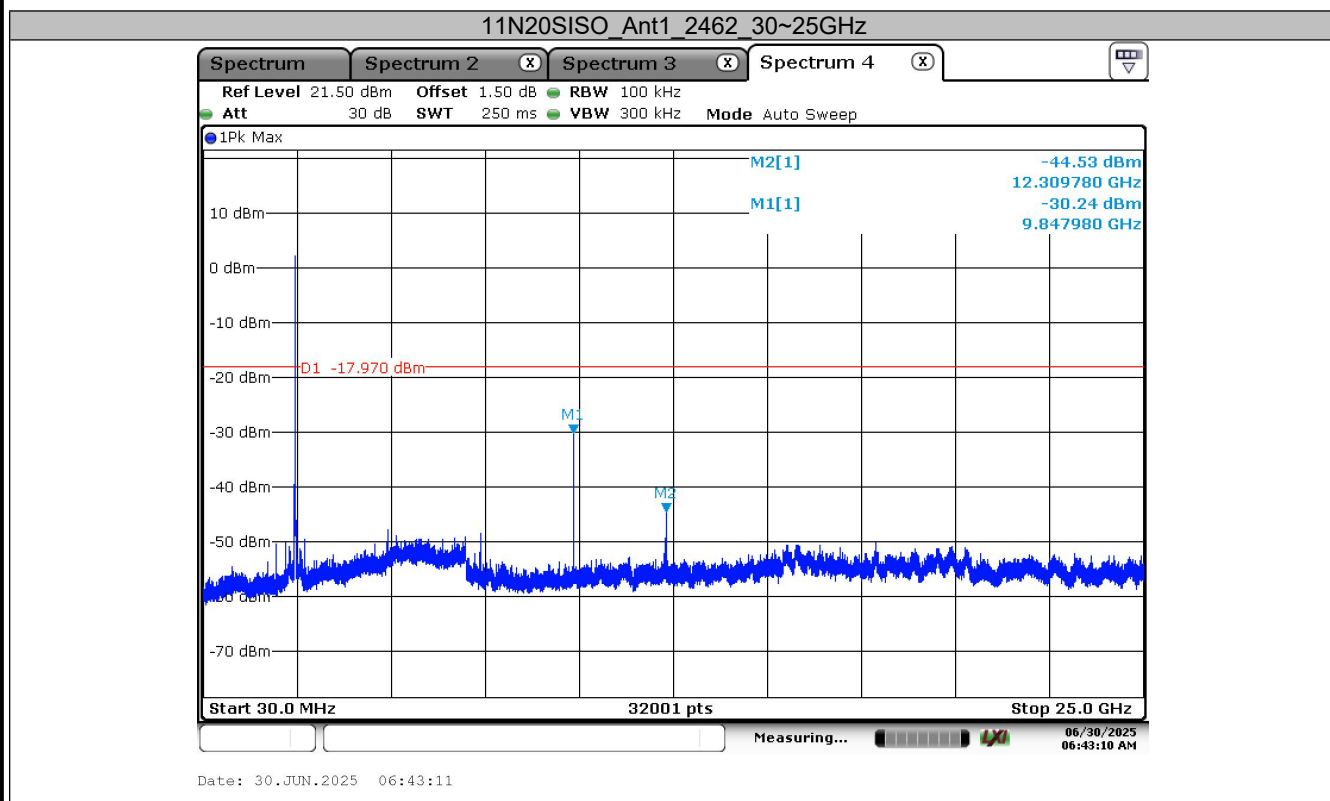


Date: 30.JUN.2025 06:32:02

11N20SISO Ant1 2437 30~25GHz



Date: 30.JUN.2025 06:36:48



Appendix A.5: Test Results of Radiated Spurious Emissions

Note:

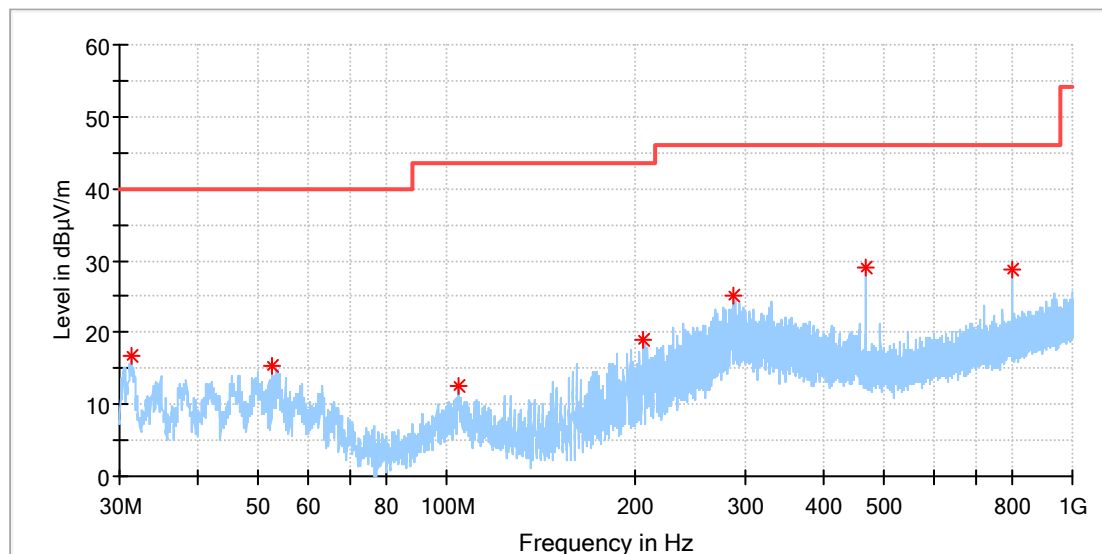
- 1) This testing was carried out on 802.11b/g/n20, Low/middle/high channels, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and above 18GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30MHz - 1GHz (Worst case)

Test Report

EUT Information

EUT Name:	Gateway
Model:	M2G10
Test Mode:	WIFI 2.4G_11G_Ch6
Order No/Sample No:	168546617/A004006570-002
Test Voltage::	120V/60Hz
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.380385	16.88	40.00	23.12	100.0	H	94.0	-22.8
52.571154	15.35	40.00	24.65	100.0	H	352.0	-18.5
104.578077	12.51	43.50	30.99	100.0	H	4.0	-18.9
205.831154	19.05	43.50	24.45	100.0	H	119.0	-19.0
287.758846	25.01	46.00	20.99	100.0	H	270.0	-16.6
467.992308	29.10	46.00	16.90	100.0	H	40.0	-12.4
800.030769	28.76	46.00	17.24	100.0	H	119.0	-6.2

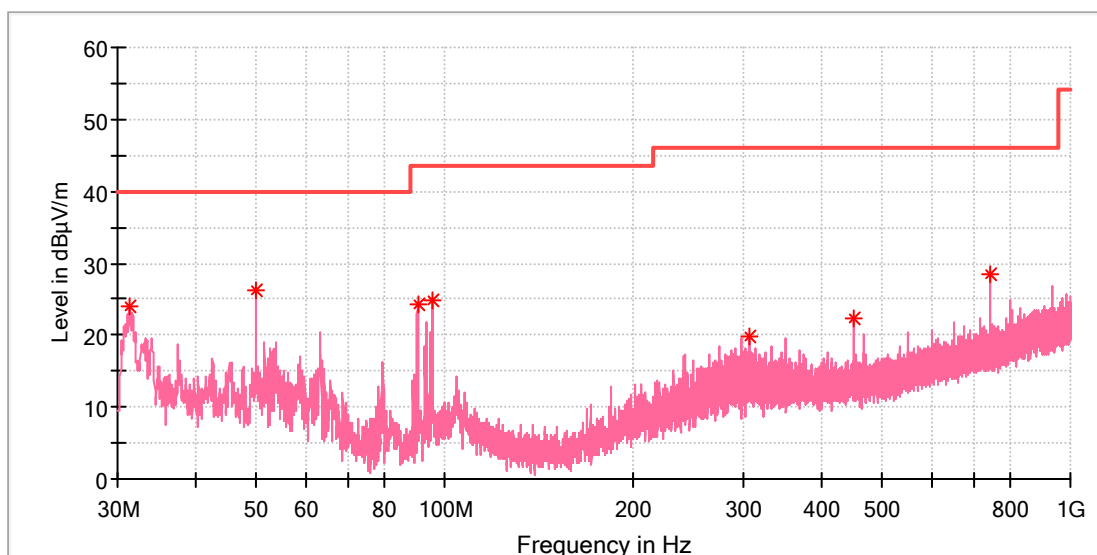
Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Gateway
Model:	M2G10
Test Mode:	WIFI 2.4G_11g_Ch6
Order No/Sample No:	168546617/A004006570-002
Test Voltage::	120V/60Hz
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.380385	24.00	40.00	16.00	100.0	V	0.0	-22.8
49.996923	26.13	40.00	13.87	100.0	V	151.0	-18.4
90.513077	24.20	43.50	19.30	100.0	V	324.0	-21.0
95.586923	24.78	43.50	18.72	100.0	V	308.0	-19.8
306.450000	19.92	46.00	26.08	100.0	V	151.0	-16.1
450.010000	22.46	46.00	23.54	100.0	V	151.0	-12.8
742.502308	28.45	46.00	17.55	100.0	V	240.0	-7.2

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Name:	Gateway
Model:	M2G10
Test Mode:	WIFI 2.4G_11g_Ch6
Order No/Sample No:	168546617/A004006570-002
Test Voltage::	120V/60Hz
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

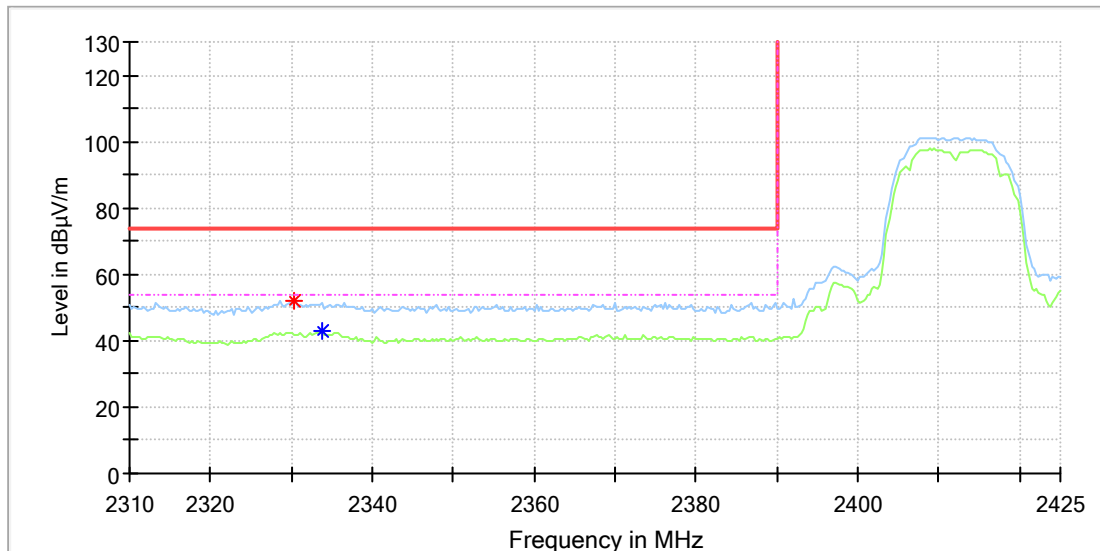
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Appendix A.6: Test Results of Radiated Emissions in Restricted Bands

Test Report

EUT Information

EUT Name:	Gateway
Model:	M2G10
Test Mode:	WIFI 2.4G_11b_Ch1
Order No/Sample No:	168546617/A004006570-002
Test Voltage::	120V/60Hz
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2330.294118	52.15	---	74.00	21.85	150.0	H	0.0	8.3
2333.823529	---	42.72	54.00	11.28	150.0	H	345.0	8.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

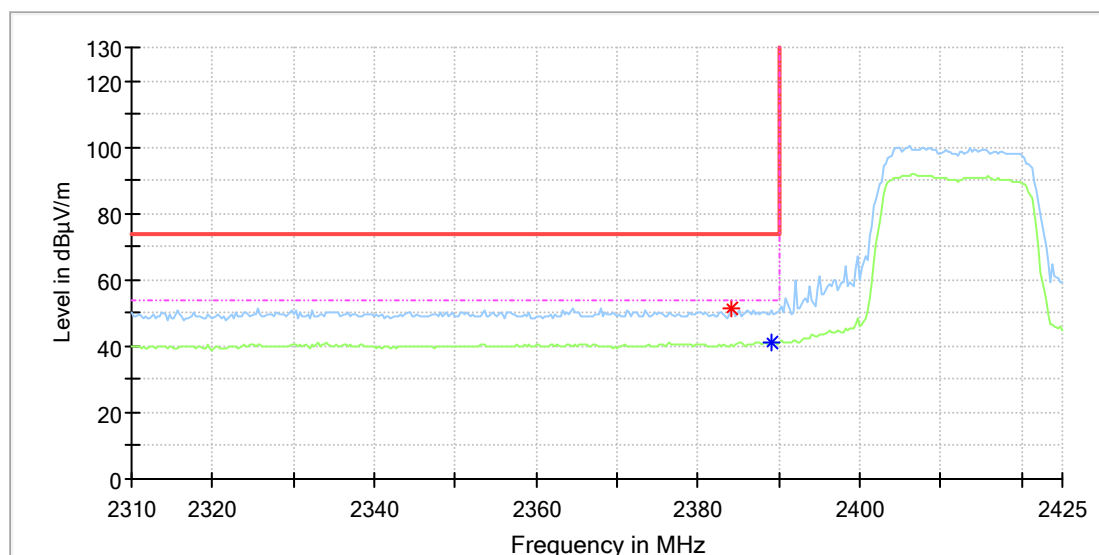
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Gateway
Model:	M2G10
Test Mode:	WIFI 2.4G_11n20_Ch1
Order No/Sample No:	168546617/A004006570-002
Test Voltage::	120V/60Hz
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2384.117647	51.36	---	74.00	22.64	150.0	H	3.0	8.5
2389.117647	---	41.06	54.00	12.94	150.0	H	339.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

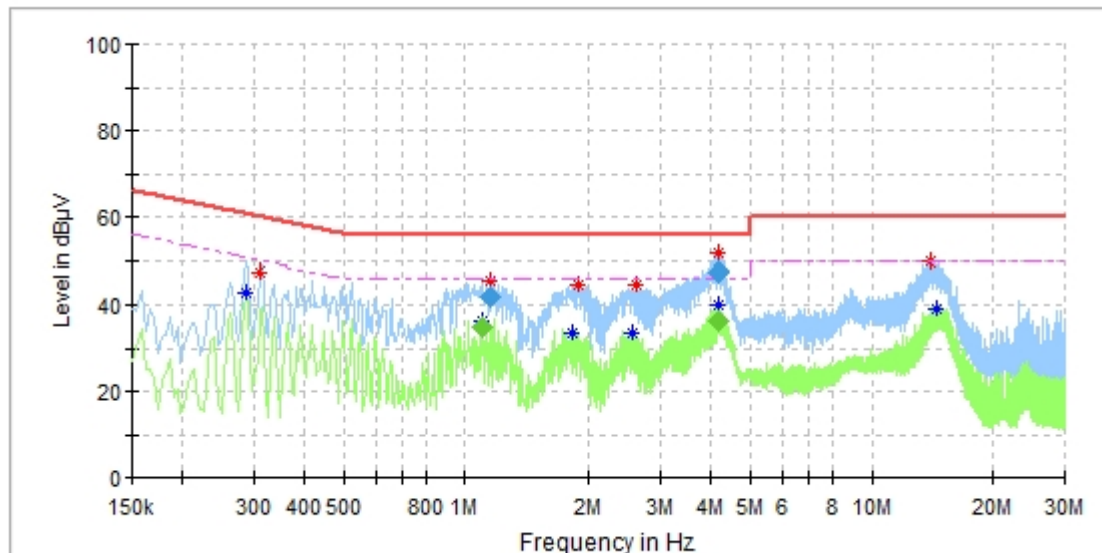
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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Appendix A.7: Test Results of Conducted Emission on AC Mains

Test Report

EUT Information

EUT Name:	Gateway
Order Number:	168546617 20
Model:	M2G10
Test Mode:	Runing+2.4G wifi
Test Voltage:	AC 120V/60Hz
Test Standard:	FCC Part 15C
Test By./Review By:	Dawn Shen/Murphy Chen
Tem./Hum./Pressure:	24.9°C/50.4%/101kPa
Remark:	SR 3



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.286000	---	42.74	50.64	7.90	L1	9.8
0.310000	47.33	---	59.97	12.64	L1	9.8
1.097500	---	36.44	46.00	9.56	L1	10.0
1.153500	45.69	---	56.00	10.31	L1	10.0
1.810000	---	33.31	46.00	12.69	L1	10.0
1.874000	44.87	---	56.00	11.13	L1	10.0
2.562000	---	33.70	46.00	12.30	L1	10.1
2.614000	44.67	---	56.00	11.33	L1	10.1
4.161500	---	40.08	46.00	5.92	L1	10.1
4.173500	51.57	---	56.00	4.43	L1	10.1
13.966000	49.92	---	60.00	10.08	L1	10.2
14.538000	---	39.16	50.00	10.84	L1	10.2

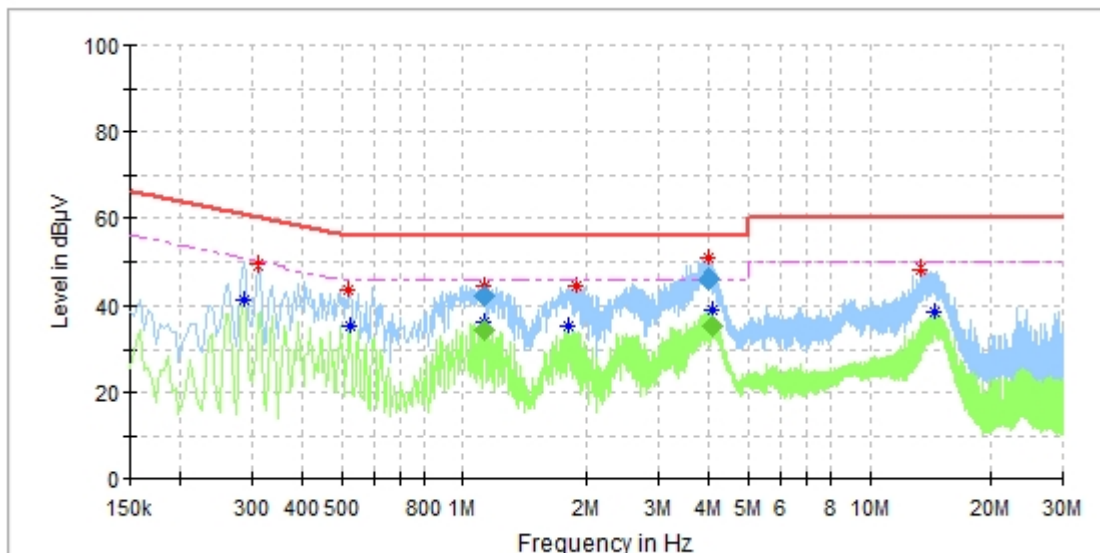
Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
1.097500	---	34.91	46.00	11.09	1000.0	9.000	L1	10.0
1.153500	41.64	---	56.00	14.36	1000.0	9.000	L1	10.0
4.161500	---	36.47	46.00	9.53	1000.0	9.000	L1	10.1
4.173500	47.39	---	56.00	8.61	1000.0	9.000	L1	10.1

Test Report

EUT Information

EUT Name:	Gateway
Order Number:	168546617 20
Model:	M2G10
Test Mode:	Runing+2.4G wifi
Test Voltage:	AC 120V/60Hz
Test Standard:	FCC Part 15C
Test By:/Review By:	Dawn Shen/Murphy Chen
Tem./Hum./Pressure:	24.9°C/50.4%/101kPa
Remark:	SR 3



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.286000	---	41.56	50.64	9.08	N	9.7
0.310000	49.42	---	59.97	10.55	N	9.7
0.522000	43.74	---	56.00	12.26	N	9.7
0.526000	---	35.40	46.00	10.60	N	9.7
1.121500	---	36.48	46.00	9.52	N	9.8
1.121500	44.48	---	56.00	11.52	N	9.8
1.798000	---	35.35	46.00	10.65	N	9.8
1.882000	44.59	---	56.00	11.41	N	9.8
3.977500	50.52	---	56.00	5.48	N	9.8
4.061500	---	39.11	46.00	6.89	N	9.8
13.422000	48.36	---	60.00	11.64	N	9.9
14.398000	---	38.62	50.00	11.38	N	9.9

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
1.121500	---	34.34	46.00	11.66	1000.0	9.000	N	9.8
1.121500	42.26	---	56.00	13.74	1000.0	9.000	N	9.8
3.977500	46.22	---	56.00	9.78	1000.0	9.000	N	9.8
4.061500	---	35.48	46.00	10.52	1000.0	9.000	N	9.8