



CFR 47 FCC PART 15 SUBPART C

TEST REPORT

For

Jupiter AI Kit

MODEL NUMBER: SS23-QE-VA

REPORT NUMBER: 4791370812-RF-1

ISSUE DATE: June 9, 2026

FCC ID: 2A36J-SS23-QE-VA

Prepared for

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The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products.

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	June 9, 2026	Initial Issue	

Note:

1. This report is based on report No.: FCC022023-00372RF1 which is issued by Beijing TIRT Technology Service Co.,Ltd Shenzhen on March. 22, 2023. The module has been certified for FCC ID, the antenna type and gain changed. The RF technical construction including circuit diagram, PCB Layout, components, component layout and performance does not change. The output power is verified close to the original report, 6dB bandwidth, PSD and radiated are remeasured and reported in this report.

Summary of Test Results

Test Item	Clause	Limit/Requirement	Result
Antenna Requirement	N/A	FCC Part 15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	ANSI C63.10-2020, Clause 6.2	FCC Part 15.207	Pass (note 3)
Conducted Output Power	ANSI C63.10-2020, Clause 11.9.1.3	FCC Part 15.247 (b)(3)	Pass (note 3)
6dB Bandwidth and 99% Occupied Bandwidth	ANSI C63.10-2020, Clause 11.8.1	FCC Part 15.247 (a)(2)	Pass (note 4)
Power Spectral Density	ANSI C63.10-2020, Clause 11.10.5	FCC Part 15.247 (e)	Pass
Conducted Band edge and spurious emission	ANSI C63.10-2020, Clause 11.11	FCC Part 15.247(d)	Pass (note 3)
Radiated Band edge and Spurious Emission	ANSI C63.10-2020, Clause 11.12	FCC Part 15.247 (d) FCC Part 15.205/15.209	Pass
Duty Cycle	ANSI C63.10-2020, Clause 11.6	None; for reporting purposes only.	Pass (note 3)

Note 1: For FCC, C63.10:2020 + Cor.1:2023 is also considered for the corresponding test item which is needed.

Note:

1. This test report is only published to and used by the applicant, and it is not for evidence purpose in China
2. The measurement result for the sample received is <Pass> according to <CFR 47 FCC PART 15 SUBPART C > when <Simple Acceptance> decision rule is applied.
3. Refer to original report.
4. 6dB Bandwidth is remeasured, Result of 99% occupied bandwidth is referred to original report.

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Yi Tunnel (Beijing)Technology Co., Ltd
Address: Room1511, Block B, SOHO Shangdu North Tower, Dongdaqiao
Road 8 Chaoyang District Beijing, China

Manufacturer Information

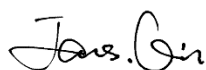
Company Name: Yi Tunnel (Beijing)Technology Co., Ltd
Address: Room1511, Block B, SOHO Shangdu North Tower, Dongdaqiao
Road 8 Chaoyang District Beijing, China

EUT Information

EUT Name: Jupiter AI Kit
Model: SS23-QE-VA
Series Model: \
Brand: \
Sample Received Date: May 15, 2025
Sample Status: Normal
Sample ID: 7809095-1
Date of Tested: May 15, 2025 to June 9, 2026

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 FCC PART 15 SUBPART C	Pass

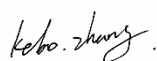
Prepared By:



James Qin

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Senior Project Engineer

Approved By:



Stephen Guo

Operations Manager

2. TEST METHODOLOGY

All tests were performed in accordance with the standard CFR 47 FCC PART 15 SUBPART C, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, KDB 662911 D01 Multiple Transmitter Output v02r01, CFR 47 FCC Part 2, ANSI C63.10-2020.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules ISED (Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046.
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Note 1:

All tests measurement facilities use to collect the measurement data are located at Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan, Guangdong, China.

Note 2:

The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3:

For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Conduction emission	3.62 dB
Radiated Emission (Included Fundamental Emission) (9 kHz ~ 30 MHz)	4.36 dB
Radiated Emission (Included Fundamental Emission) (30 MHz ~ 1 GHz)	4.47 dB
Radiated Emission (Included Fundamental Emission) (1 GHz to 26 GHz)	5.65 dB (1 GHz ~ 18 GHz)
	4.73 dB (18 GHz ~ 26 GHz)
Duty Cycle	±0.028%
DTS and 99% Occupied Bandwidth	±0.0196%
Maximum Conducted Output Power	±0.686 dB
Maximum Power Spectral Density Level	±0.743 dB
Conducted Band-edge Compliance	±1.328 dB
Conducted Unwanted Emissions In Non-restricted Frequency Bands	±0.746 dB (9 kHz ~ 1 GHz)
	±1.328dB (1 GHz ~ 26 GHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

Remark: For Radiated Emission measurements (200 MHz - 18 GHz), the EUT support table is made of Expanded Polystyrene (EPS). This material is characterized by a low dielectric constant, as recognized in CISPR 16-1-4, to minimize its influence on field strength measurements. This influence has been considered in the uncertainty budget.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name:	Jupiter AI Kit
Model:	SS23-QE-VA
Series Model:	\
Model Difference:	\

Frequency Range:	2412 MHz to 2462 MHz
Type of Modulation:	IEEE 802.11b: DSSS(CCK, DQPSK, DBPSK) IEEE 802.11g/n: OFDM(64-QAM, 16-QAM, QPSK, BPSK)
Radio Technology:	IEEE 802.11b/g/n HT20/11n HT40
Rated Input:	DC 12 V

5.2. CHANNEL LIST

Channel List For Bandwidth=20 MHz							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452	/	/

Channel List For Bandwidth=40 MHz							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	5	2432	7	2442	9	2452
4	2427	6	2437	8	2447	/	/

5.3. MAXIMUM POWER

IEEE Std. 802.11	Frequency (MHz)	Channel Number	Maximum Conducted AVG Output Power (dBm)
b	2412 ~ 2462	1-11[11]	15.25
g	2412 ~ 2462	1-11[11]	15.72
n HT20	2412 ~ 2462	1-11[11]	15.91
n HT40	2422 ~ 2452	3-9[7]	15.34

5.4. TEST CHANNEL CONFIGURATION

IEEE Std. 802.11	Test Channel Number	Frequency
b	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
g	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
n HT20	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
n HT40	CH 3(Low Channel), CH 6(MID Channel), CH 9(High Channel)	2422 MHz, 2437 MHz, 2452 MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter		
Test Software	CMD	
b	2412	19
	2437	19
	2462	19
g	2412	16
	2437	19
	2462	16
n HT20	2412	16
	2442	17
	2462	14
n HT40	2412	14
	2437	12
	2462	14

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
WiFi	2412-2462	FPC	2.67

Test Mode	Transmit and Receive Mode	Description
IEEE 802.11b	☒ 1TX, 1RX	WIFI ANT can be used as transmitting/receiving antenna.
IEEE 802.11g	☒ 1TX, 1RX	WIFI ANT can be used as transmitting/receiving antenna.
IEEE 802.11n HT20	☒ 1TX, 1RX	WIFI ANT can be used as transmitting/receiving antenna.
IEEE 802.11n HT40	☒ 1TX, 1RX	WIFI ANT can be used as transmitting/receiving antenna.

5.7. SUPPORT UNITS FOR SYSTEM TEST

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	DC power supply	SophPower	ADC50-10D	\

I/O CABLES

able No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	/	/	/	/	/

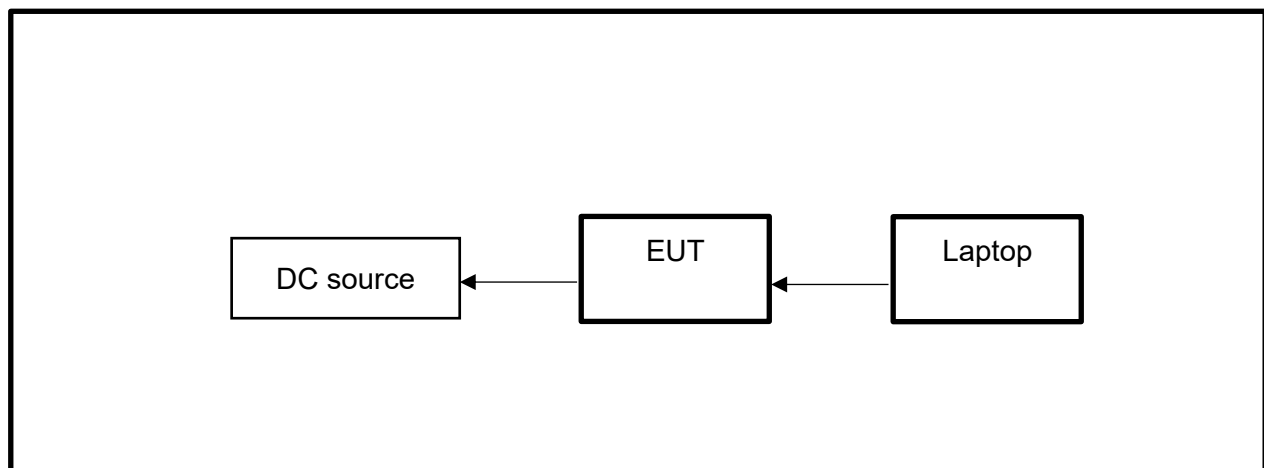
ACCESSORY

Item	Accessory	Brand Name	Model Name	Description
1	/	/	/	/

TEST SETUP

The EUT can work in an engineer mode by running with CMD command.

SETUP DIAGRAM FOR TESTS



6. MEASURING EQUIPMENT AND SOFTWARE USED

Radiated Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Sep.28, 2024	Sep.27, 2025
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	June 28, 2024	June.27 2027
Preamplifier	HP	8447D	2944A09099	Sep.28, 2024	Sep.27, 2025
EMI Measurement Receiver	R&S	ESR26	101377	Sep.28, 2024	Sep.27, 2025
Horn Antenna	TDK	HRN-0118	130939	Apr.29, 2022	Apr.28, 2025
Preamplifier	TDK	PA-02-0118	TRS-305-00067	Sep.28, 2024	Sep.27, 2025
Horn Antenna	Schwarzbeck	BBHA9170	697	Jun 30, 2024	Jun 29, 2027
Preamplifier	TDK	PA-02-2	TRS-307-00003	Sep.28, 2024	Sep.27, 2025
Preamplifier	TDK	PA-02-3	TRS-308-00002	Sep.28, 2024	Sep.27, 2025
Loop antenna	Schwarzbeck	1519B	00008	Dec.09, 2024	Dec.08, 2027
High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	Sep.28, 2024	Sep.27, 2025
Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	4	Sep.28, 2024	Sep.27, 2025
Software					
Description			Manufacturer	Name	Version
Test Software for Radiated Emissions			Farad	EZ-EMC	Ver. UL-3A1

Other Instrument					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Temperature humidity probe	OMEGA	ITHX-SD-5	18470007	Oct.8, 2024	Oct.7, 2025
Barometer	Yiyi	Baro	N/A	Oct.10, 2024	Oct.9, 2025
Attenuator	Agilent	8495B	2814a12853	Sep.28, 2024	Sep.27, 2025

7. ANTENNA PORT TEST RESULTS

7.1. 6DB BANDWIDTH AND 99% OCCUPIED BANDWIDTH

LIMITS

FCC 47 CFR Part15 (15.247) Subpart C ISED RSS-247 ISSUE 4			
Section	Test Item	Limit	Frequency Range (MHz)
FCC 47 CFR 15.247(a)(2) ISED RSS-247 6.3.1(a)	6 dB Bandwidth	≥ 500 kHz	2400-2483.5
ISED RSS-Gen Clause 6.7	99 % Occupied Bandwidth	For reporting purposes only.	2400-2483.5

TEST PROCEDURE

Refer to ANSI C63.10-2020 clause 11.8 for DTS bandwidth and clause 6.9 for Occupied Bandwidth.

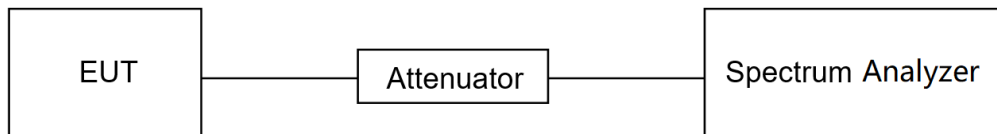
Connect the EUT to the spectrum analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Frequency Span	For 6 dB Bandwidth: Enough to capture all products of the modulation carrier emission For 99 % Occupied Bandwidth: Between 1.5 times and 5.0 times the OBW
Detector	Peak
RBW	For 6 dB Bandwidth: 1 % to 5 % of the OBW but not less than 100 kHz For 99 % Occupied Bandwidth: 1 % to 5 % of the occupied bandwidth
VBW	For 6 dB Bandwidth: $\geq 3 \times$ RBW For 99 % Occupied Bandwidth: $\geq 3 \times$ RBW
Trace	Max hold
Sweep	Auto couple

a) Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.

b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower

frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

TEST SETUP**TEST ENVIRONMENT**

Temperature	24.2°C	Relative Humidity	53.2%
Atmosphere Pressure	101kPa	Test Voltage	120 VAC, 60 HZ

TEST DATE / ENGINEER

Test Date	June 9, 2026	Test By	Bairong Liu
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TEST RESULTS

Please refer to section "Test Data"

7.2. POWER SPECTRAL DENSITY

LIMITS

FCC 47 CFR Part15 (15.247) Subpart C ISED RSS-247 ISSUE 4			
Section	Test Item	Limit	Frequency Range (MHz)
FCC 47 CFR §15.247 (e) ISED RSS-247 6.3.1 (b)	Power Spectral Density	8 dBm in any 3 kHz band	2400-2483.5

TEST PROCEDURE

Refer to ANSI C63.10-2020 clause 11.10.5.

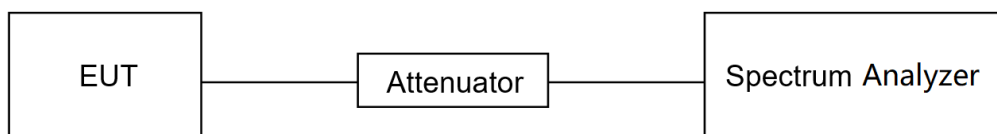
Connect the EUT to the spectrum analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	power averaging (rms)
RBW	$3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
VBW	$\geq 3 \times \text{RBW}$
Span	$> 1.5 \times \text{OBW bandwidth}$
Trace	Employ trace averaging(rms)mode over a minimum of 100 traces
Sweep time	Auto couple

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST SETUP



TEST ENVIRONMENT

Temperature	24.2°C	Relative Humidity	53.2%
Atmosphere Pressure	101kPa	Test Voltage	120 VAC, 60 HZ

TEST DATE / ENGINEER

Test Date	June 9, 2026	Test By	Bairong Liu
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TEST RESULTS

Please refer to section "Test Data"

7.3. DUTY CYCLE

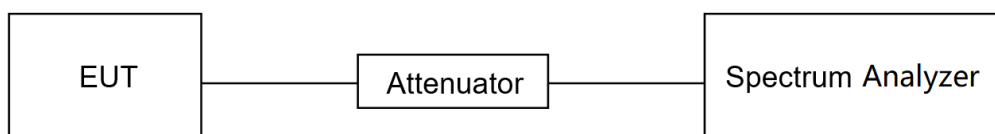
LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Refer to ANSI C63.10-2020 clause 11.6 Zero – Span Spectrum Analyzer method.

TEST SETUP



TEST ENVIRONMENT

Temperature	22.8 °C	Relative Humidity	53.2 %
Atmosphere Pressure	101kPa	Test Voltage	AC 120V/60Hz

TEST DATE / ENGINEER

Test Date	June 9, 2026	Test By	Bairong Liu
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TEST RESULTS

Please refer to section "Test Data"

8. RADIATED TEST RESULTS

LIMITS

Please refer to CFR 47 FCC §15.205 and §15.209.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz ~ 1 GHz)

Emissions radiated outside of the specified frequency bands above 30 MHz			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
		Quasi-Peak	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	
Above 1000	500	Peak	Average
		74	54

FCC Emissions radiated outside of the specified frequency bands below 30 MHz		
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

FCC Restricted bands of operation refer to FCC §15.205 (a):

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

Note: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

²Above 38.6c

TEST PROCEDURE

Below 30 MHz

The setting of the spectrum analyzer

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto

1. The testing follows the guidelines in ANSI C63.10-2020 clause 6.4.
2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.
5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.
6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the

applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.

7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.

8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω . For example, the measurement frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to $Y - 51.5 = Z$ dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

Below 1 GHz and above 30 MHz

The setting of the spectrum analyzer

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2020 clause 6.5.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

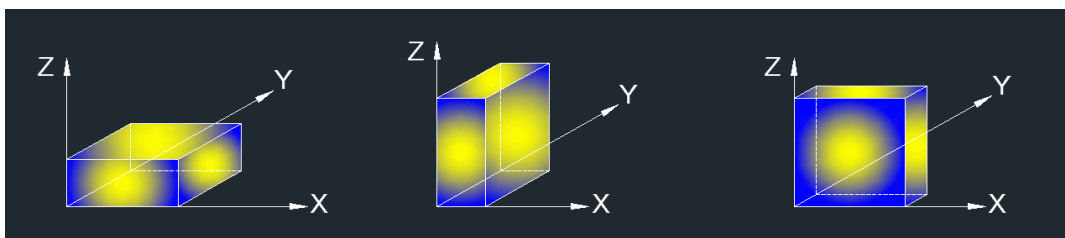
Above 1 GHz

The setting of the spectrum analyzer

RBW	1 MHz
VBW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2020 clause 6.6.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 1.5 m above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.3. ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

Note 2: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

For Restricted Bandedge:

Note:

1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. PK=Peak: Peak detector.
4. AV=Average: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.3.
6. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.
7. Both horizontal and vertical have been tested, only the worst data was recorded in the report.
8. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious emission (9 kHz ~ 30 MHz):

Note:

1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.
4. All modes have been tested, but only the worst data was recorded in the report.
5. $\text{dBuA/m} = \text{dBuV/m} - 20\log_{10}[120\pi] = \text{dBuV/m} - 51.5$

For Radiate Spurious Emission (30 MHz ~ 1 GHz):

Note:

1. Result Level = Read Level + Correct Factor.
2. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
3. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious Emission (1 GHz ~ 3 GHz):

Note:

1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.3.
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
8. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious Emission (3 GHz ~ 18 GHz):

Note:

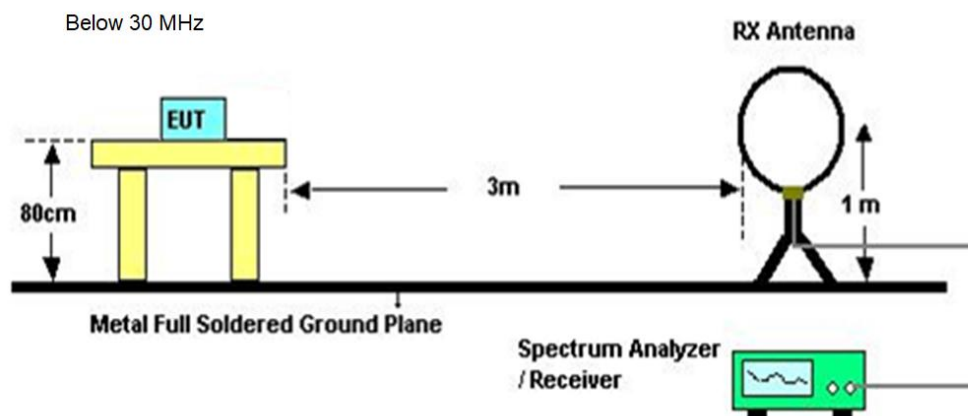
1. Peak Result = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.3.
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
8. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious emission (18 GHz ~ 26 GHz):

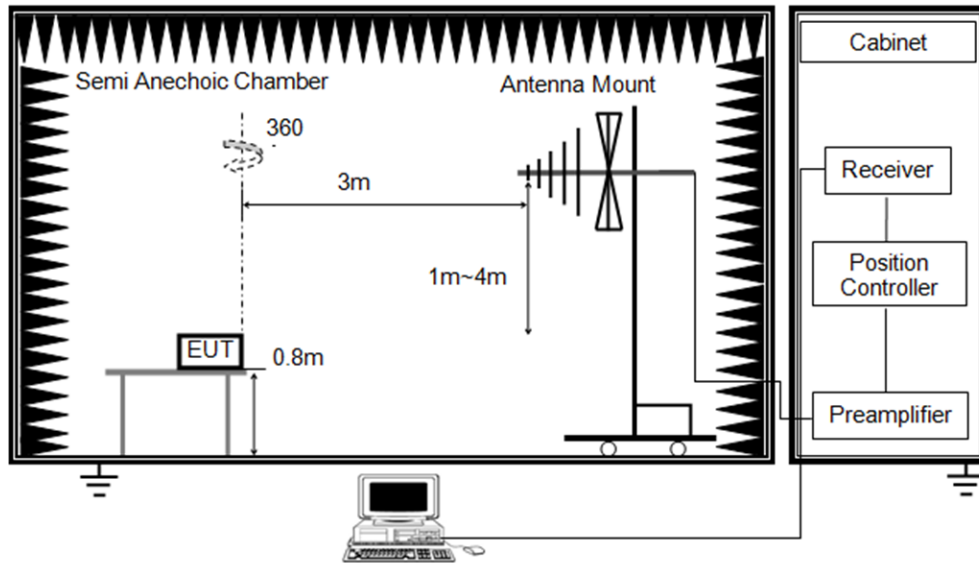
Note:

1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. All modes have been tested, but only the worst data was recorded in the report.

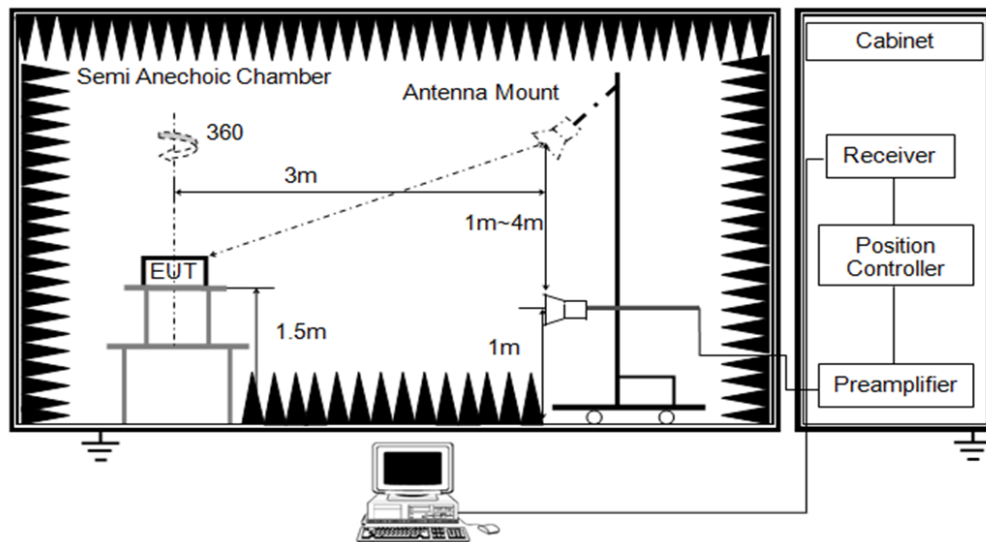
TEST SETUP



Below 1 GHz and above 30 MHz



Above 1 GHz



TEST ENVIRONMENT

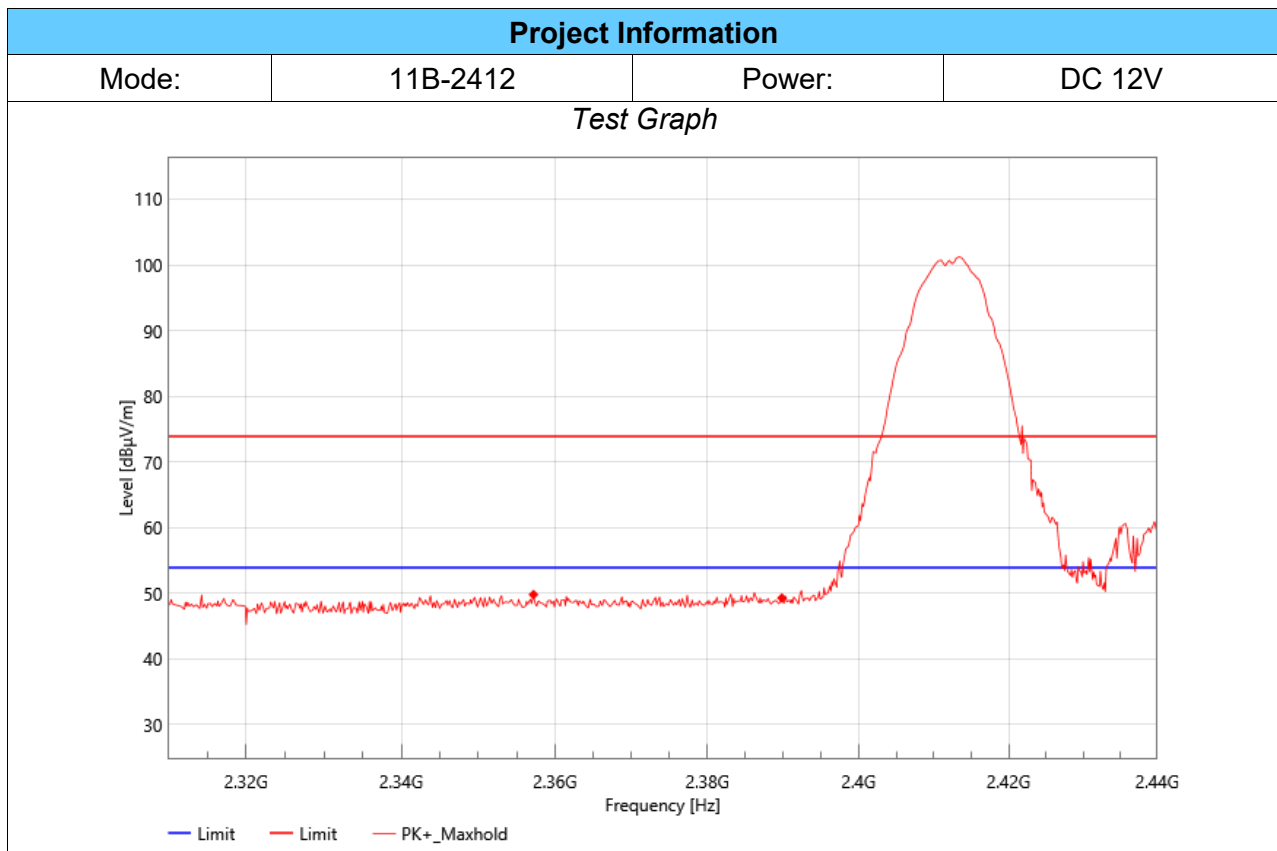
Temperature	24.9°C	Relative Humidity	60%
Atmosphere Pressure	101kPa	Test Voltage	DC 12V

TEST DATE / ENGINEER

Test Date	February 24, 2025 to April 30, 2025	Test By	Rex Huang
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TEST RESULTS

8.1. RESTRICTED BAND-EDGE

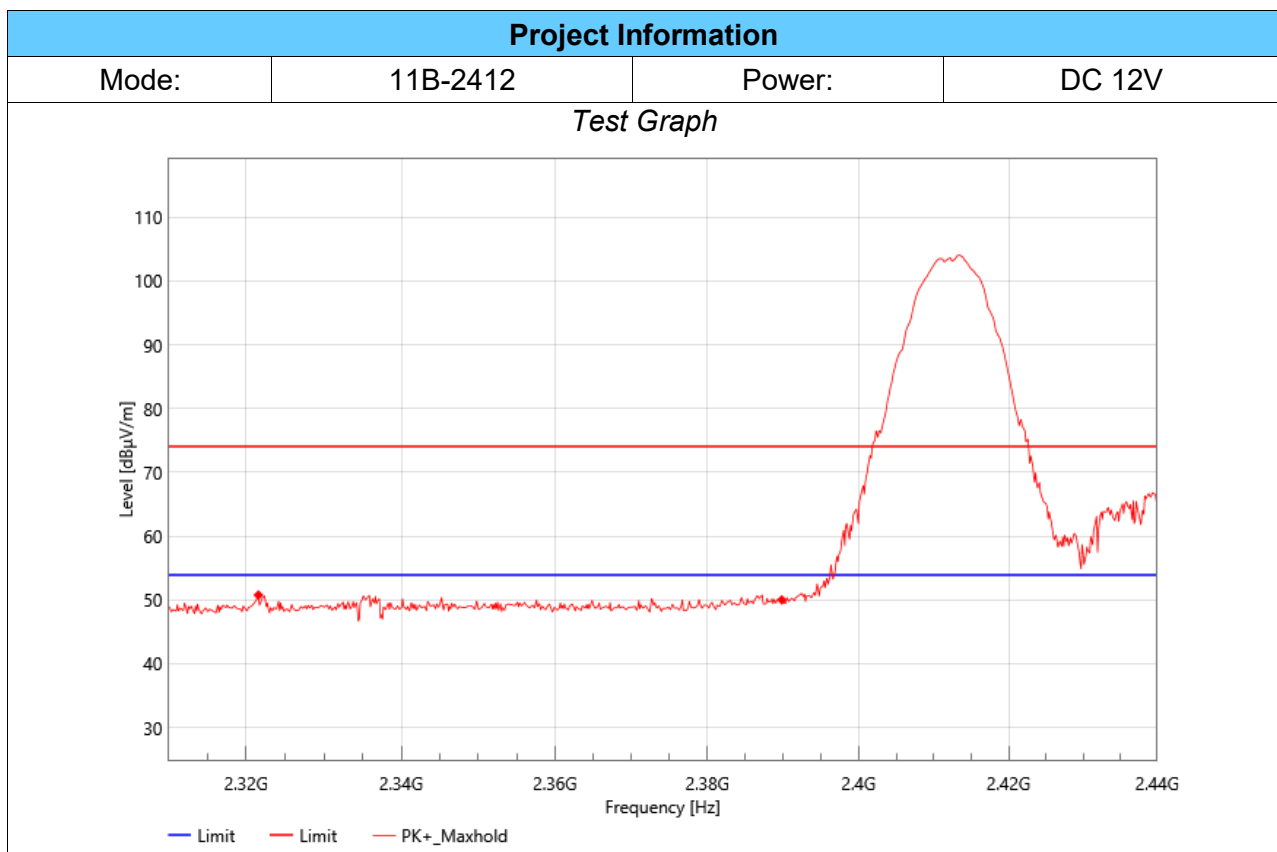


Data table

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2357.19	27.08	49.83	22.75	74.00	24.17	Horizontal	PK	PASS
2	2390.00	26.59	49.31	22.72	74.00	24.69	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

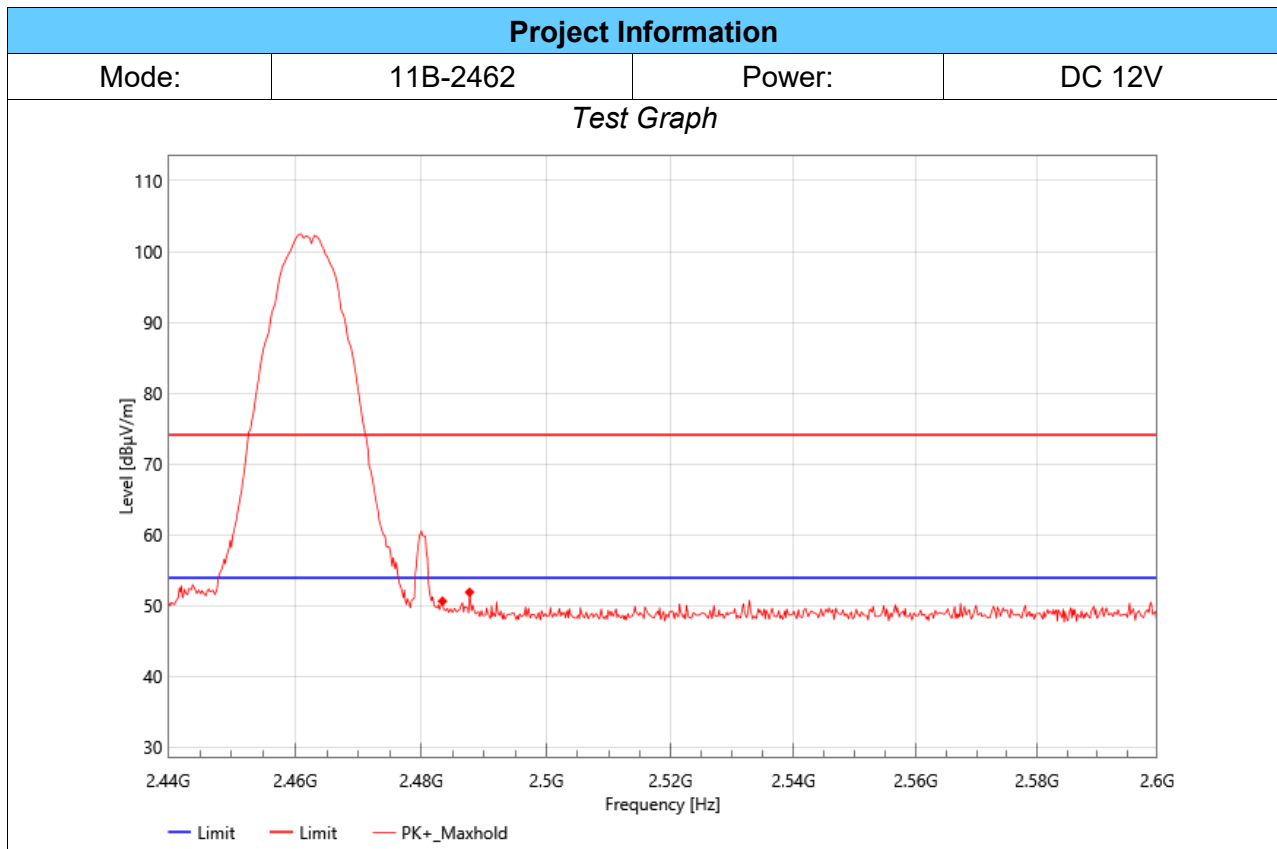
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2321.57	28.33	50.78	22.45	74.00	23.22	Vertical	PK	PASS
2	2390.00	27.30	50.02	22.72	74.00	23.98	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

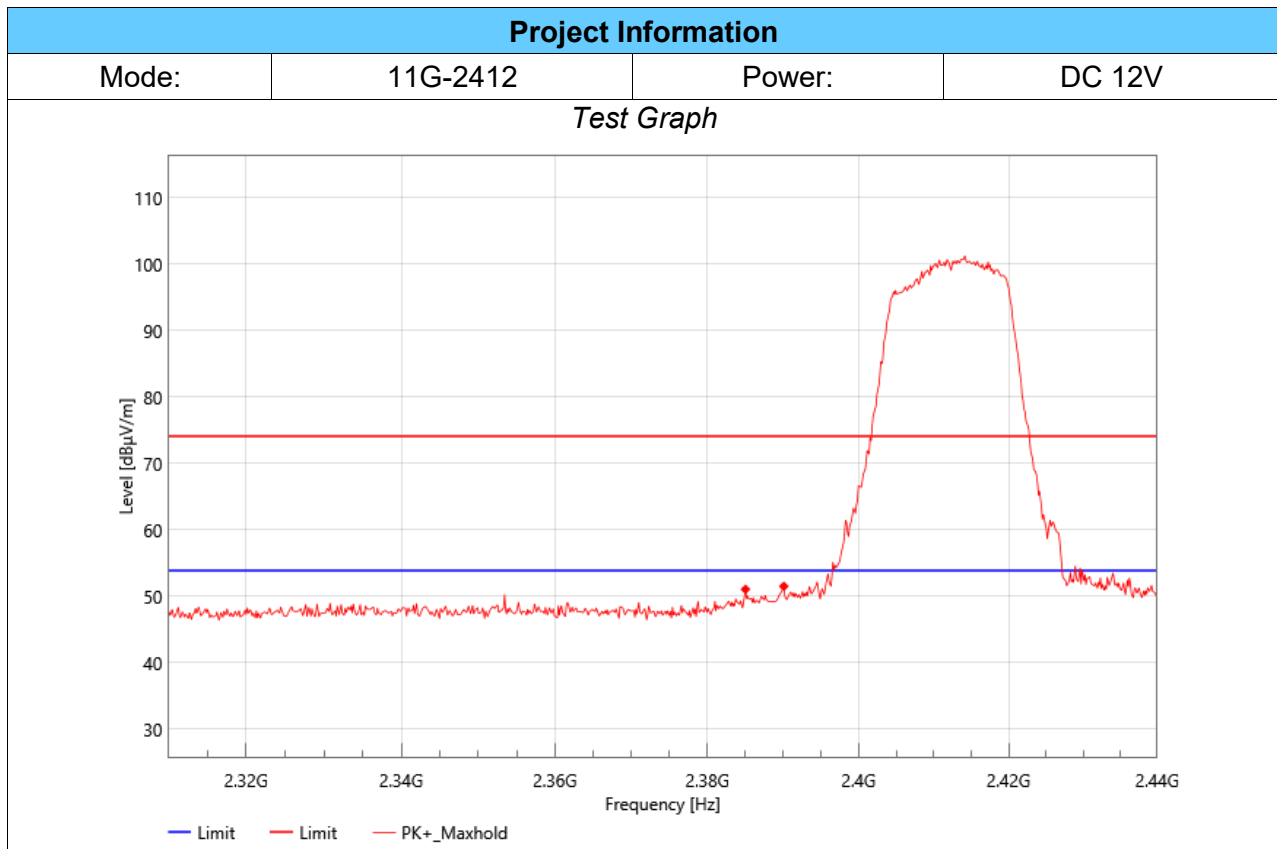
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2483.50	27.45	50.60	23.15	74.00	23.40	Vertical	PK	PASS
2	2487.68	28.73	51.87	23.14	74.00	22.13	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2385.00	28.45	51.07	22.62	74.00	22.93	Vertical	PK	PASS
2	2390.00	28.81	51.53	22.72	74.00	22.47	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]

Project Information

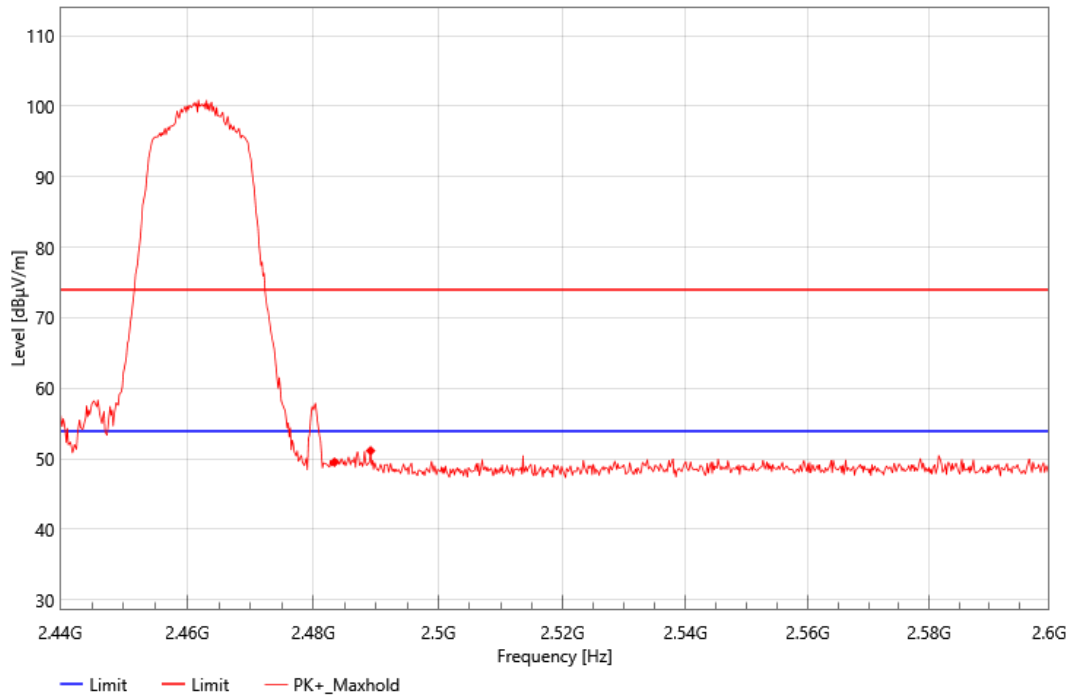
Mode:

11G-2462

Power:

DC 12V

Test Graph

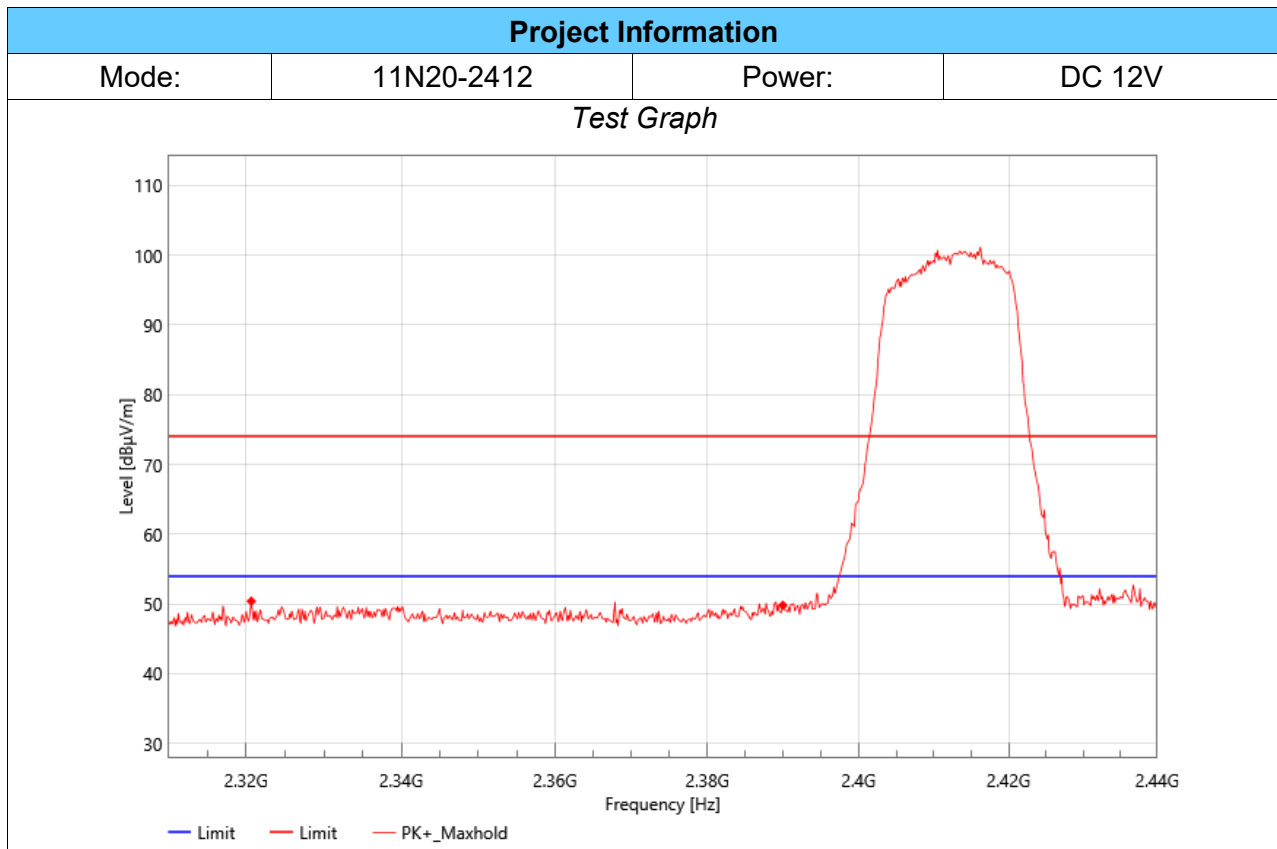


Data table

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2483.50	26.37	49.52	23.15	74.00	24.48	Vertical	PK	PASS
2	2489.12	28.01	51.15	23.14	74.00	22.85	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2320.66	27.96	50.40	22.44	74.00	23.60	Vertical	PK	PASS
2	2390.00	27.09	49.81	22.72	74.00	24.19	Vertical	PK	PASS

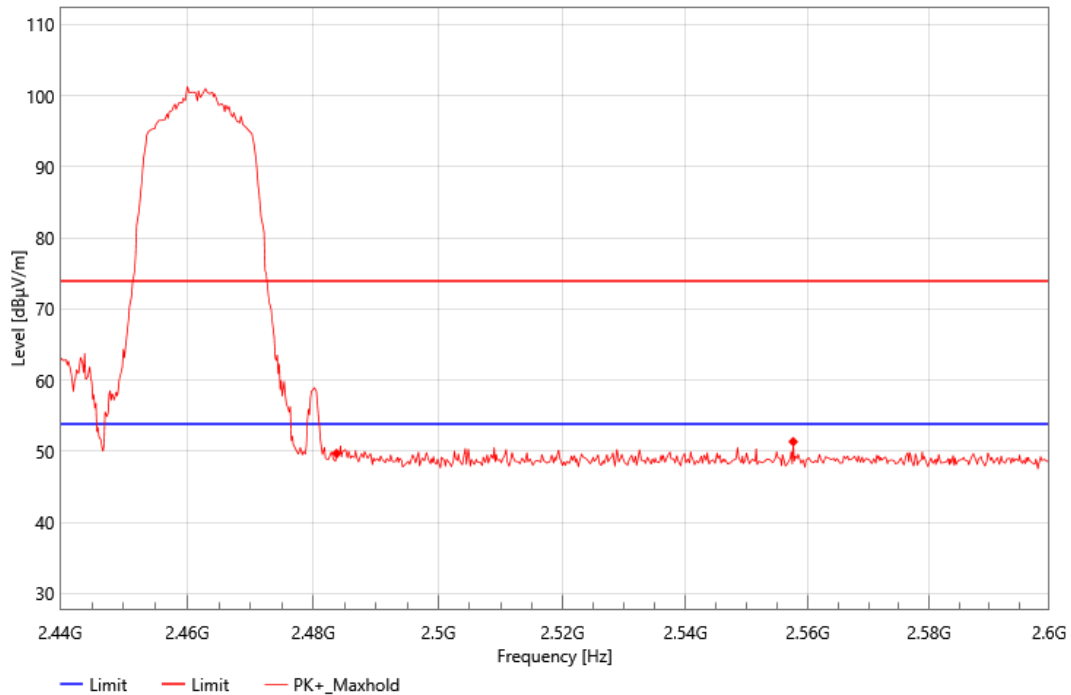
Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]

Project Information

Mode: 11N20-2462 Power: DC 12V

Test Graph

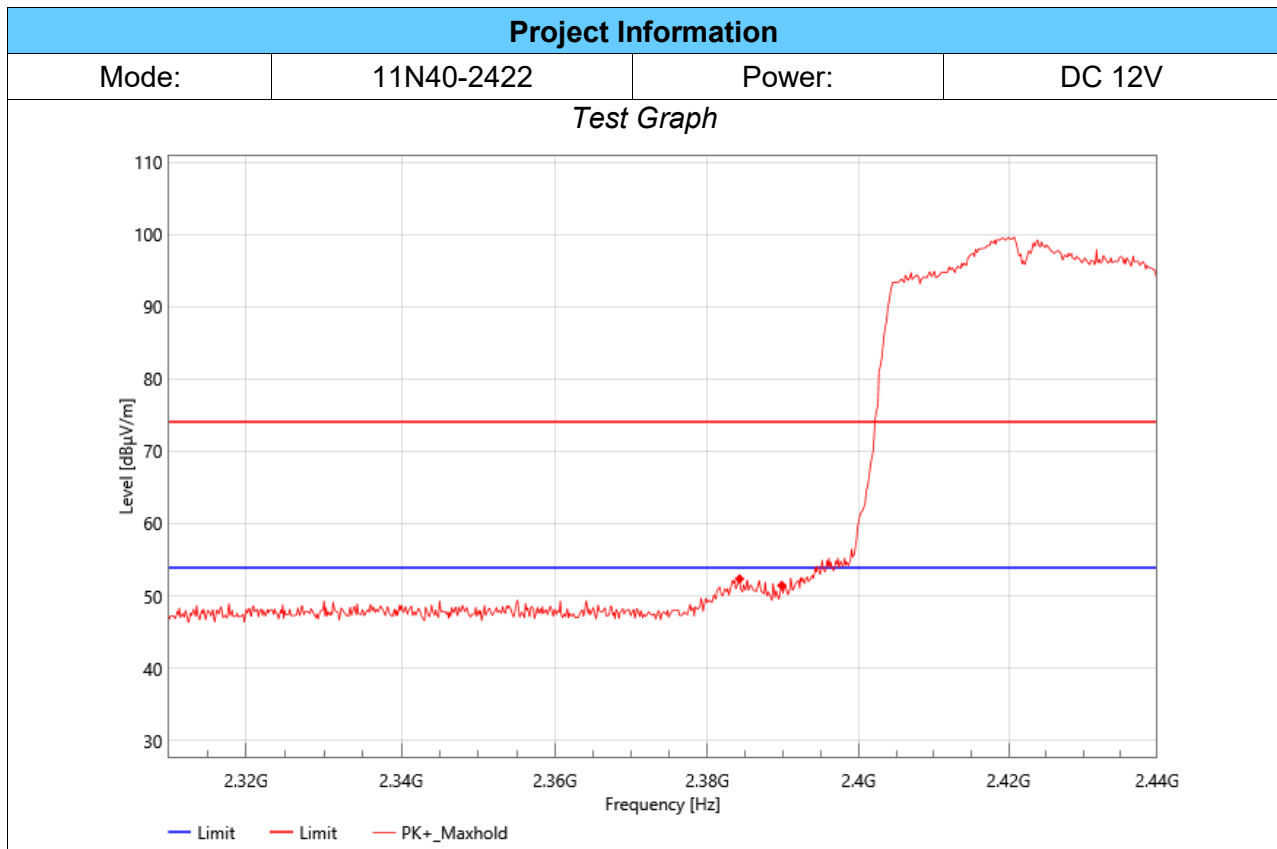


Data table

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2483.50	26.56	49.71	23.15	74.00	24.29	Vertical	PK	PASS
2	2557.60	28.10	51.37	23.27	74.00	22.63	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2384.23	29.75	52.36	22.61	74.00	21.64	Vertical	PK	PASS
2	2390.00	28.72	51.44	22.72	74.00	22.56	Vertical	PK	PASS

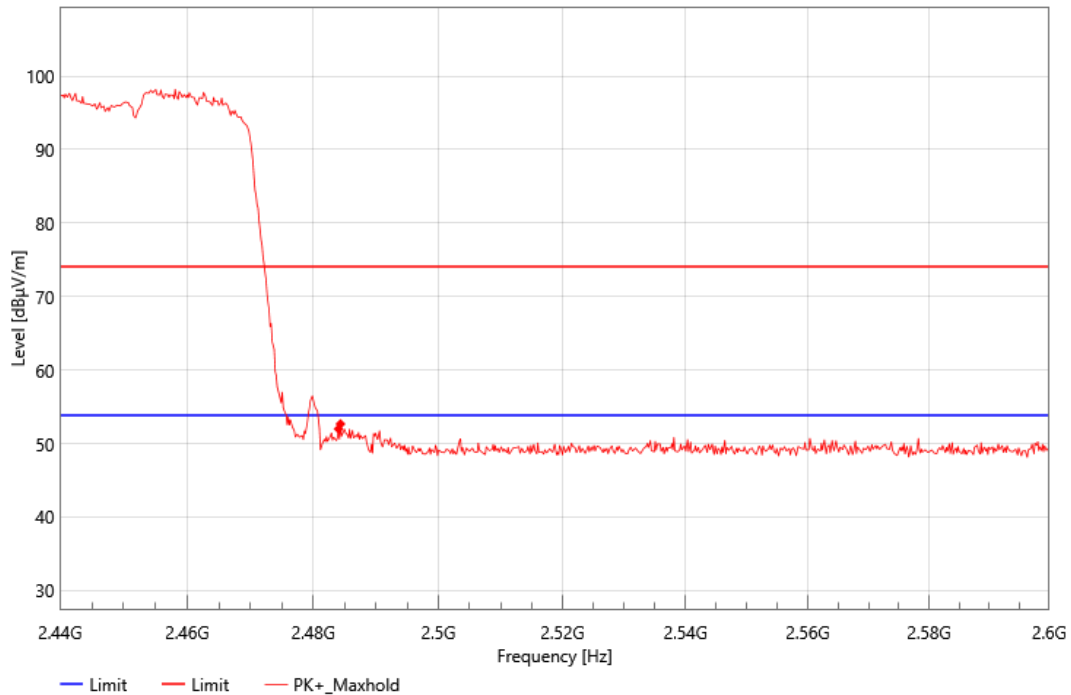
Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]

Project Information

Mode:	11N40-2452	Power:	DC 12V
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Test Graph



Data table

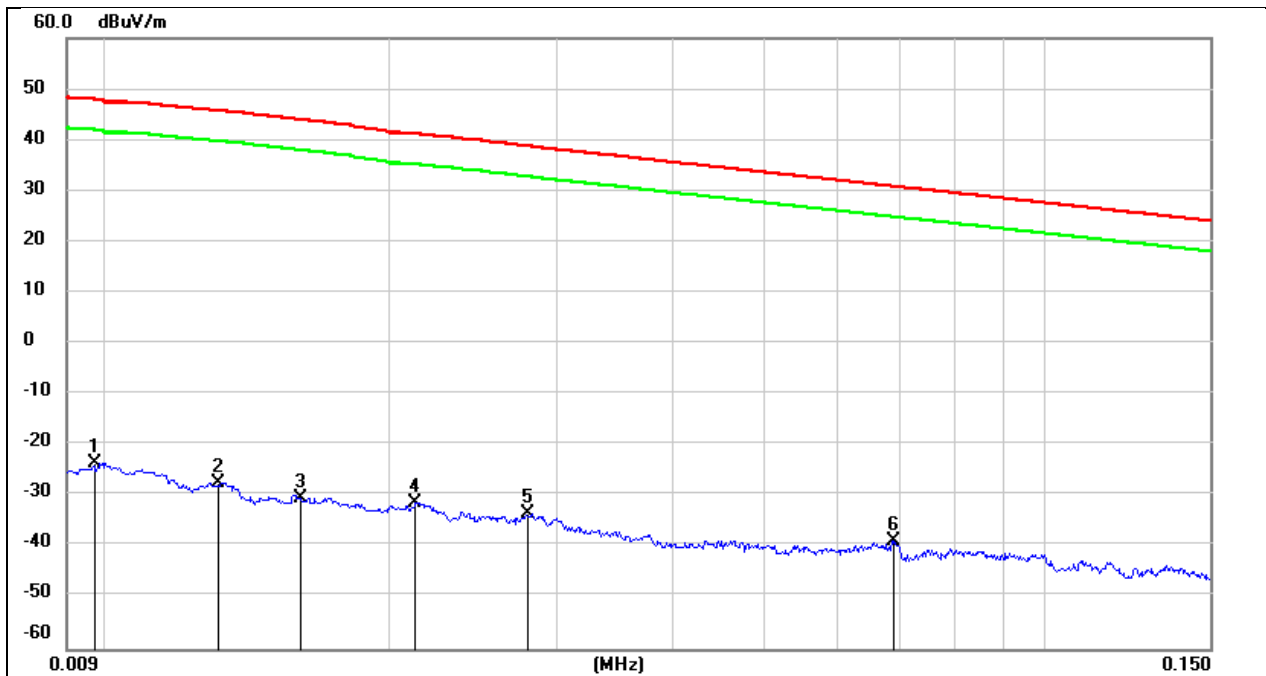
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2483.50	28.86	52.01	23.15	74.00	21.99	Vertical	PK	PASS
2	2484.32	29.54	52.69	23.15	74.00	21.31	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]

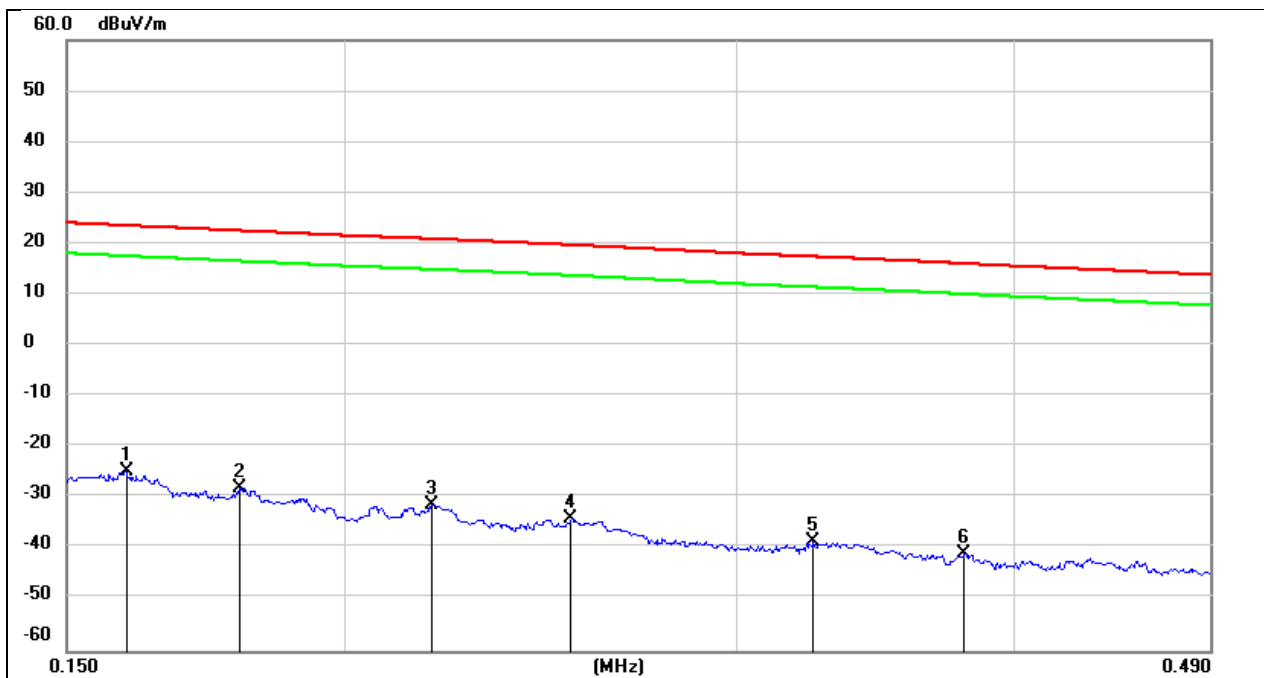
8.2. SPURIOUS EMISSIONS(9 KHZ~30 MHZ)

Test Mode:	802.11b	Frequency(MHz):	2412
Polarity:	Horizontal	Test Voltage:	DC 12V



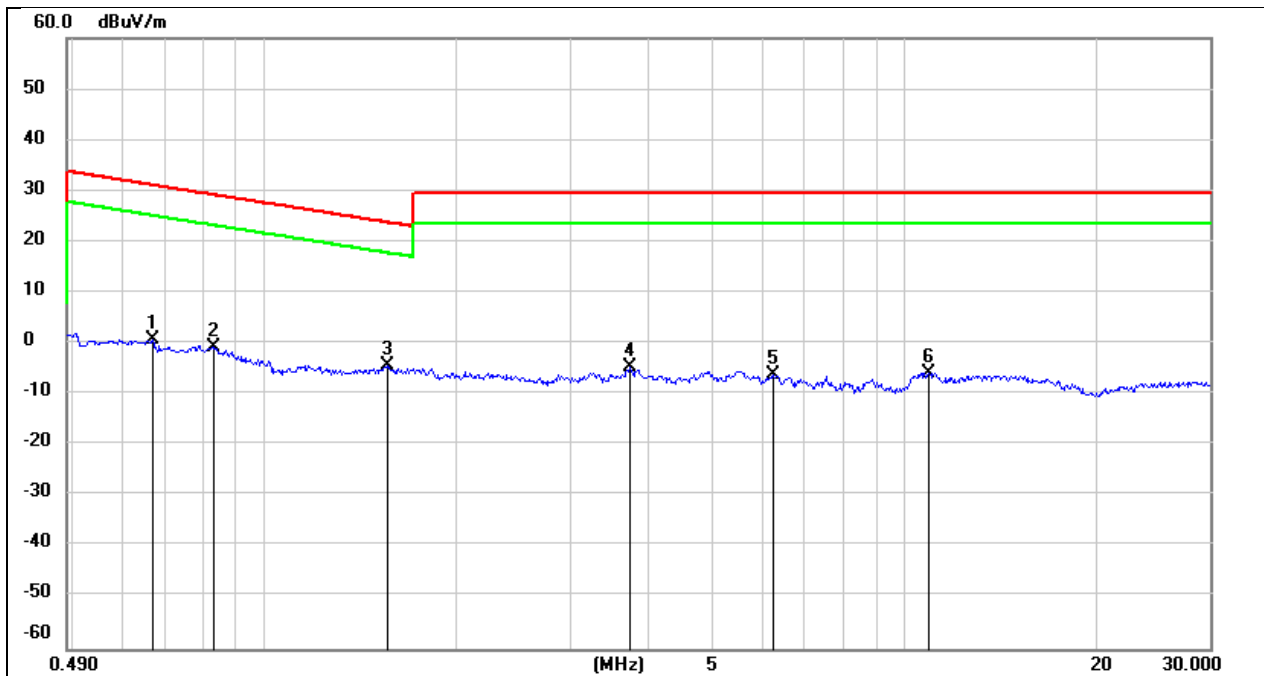
No.	Frequency (KHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0097	77.93	-101.38	-23.45	47.83	-71.28	peak
2	0.0131	73.97	-101.38	-27.41	45.73	-73.14	peak
3	0.0160	70.97	-101.37	-30.40	43.99	-74.39	peak
4	0.0212	70.04	-101.35	-31.31	41.16	-72.47	peak
5	0.0280	67.79	-101.38	-33.59	38.76	-72.35	peak
6	0.0687	62.69	-101.56	-38.87	30.87	-69.74	peak

Test Mode:	802.11b	Frequency(MHz):	2412
Polarity:	Horizontal	Test Voltage:	DC 12V



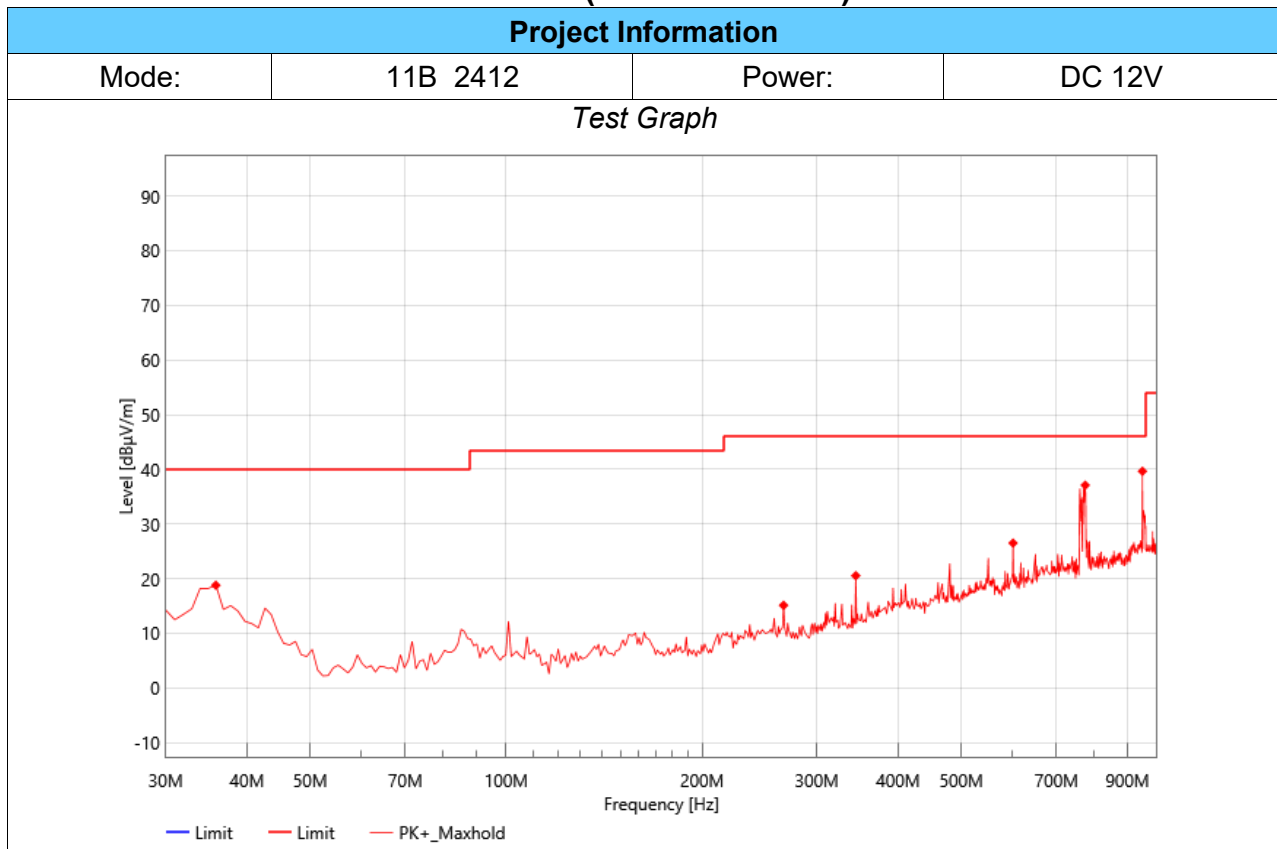
No.	Frequency (KHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1595	76.86	-101.65	-24.79	23.55	-48.34	peak
2	0.1794	73.77	-101.68	-27.91	22.53	-50.44	peak
3	0.2190	70.27	-101.75	-31.48	20.91	-52.39	peak
4	0.2530	67.64	-101.80	-34.16	19.71	-53.87	peak
5	0.3251	63.21	-101.88	-38.67	17.43	-56.10	peak
6	0.3800	61.02	-101.94	-40.92	16.06	-56.98	peak

Test Mode:	802.11b	Frequency(MHz):	2412
Polarity:	Horizontal	Test Voltage:	DC 12V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.6671	62.75	-62.10	0.65	31.14	-30.49	peak
2	0.8296	61.44	-62.17	-0.73	29.24	-29.97	peak
3	1.5564	57.68	-62.02	-4.34	23.76	-28.10	peak
4	3.7100	56.70	-61.41	-4.71	29.54	-34.25	peak
5	6.2445	55.13	-61.32	-6.19	29.54	-35.73	peak
6	10.9365	55.00	-60.84	-5.84	29.54	-35.38	peak

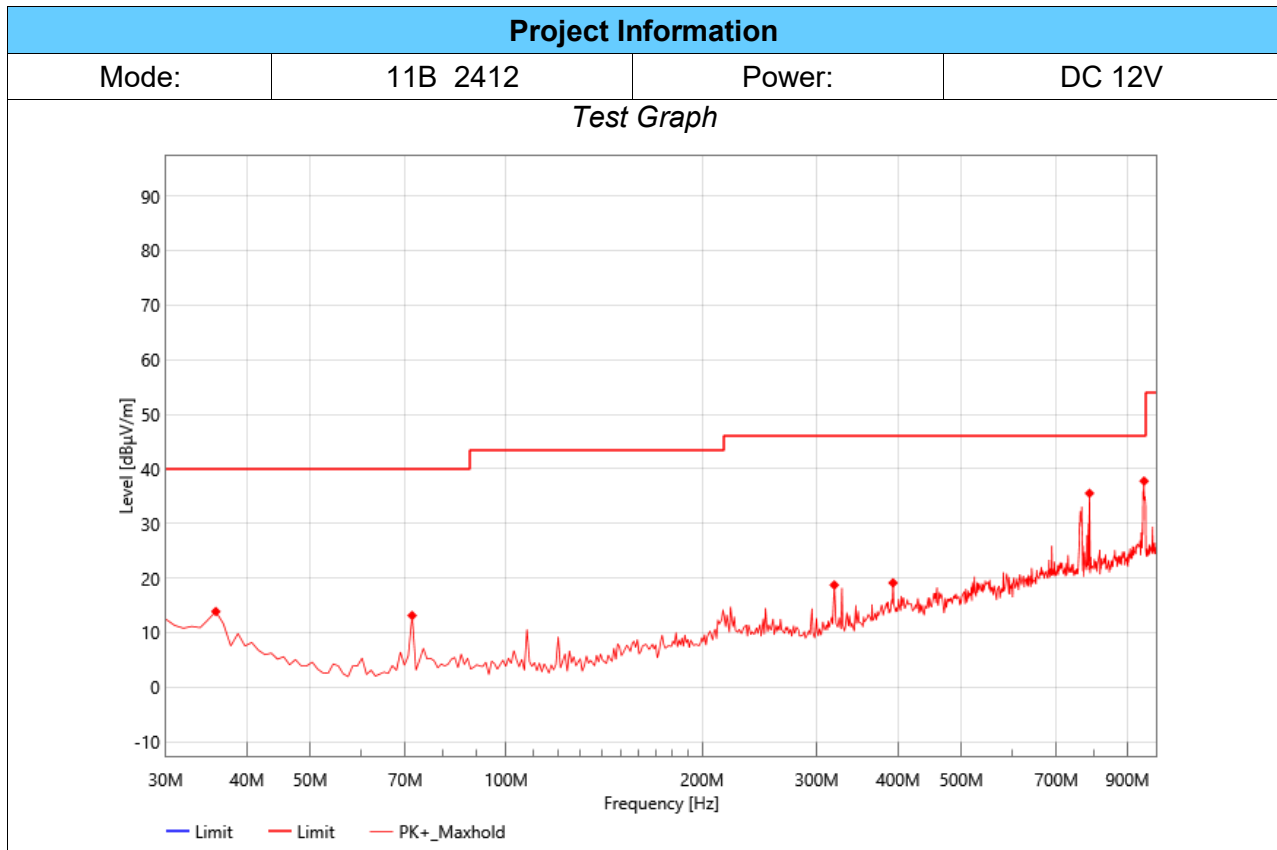
8.3. SPURIOUS EMISSIONS(30 MHZ~1 GHZ)



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	35.82	36.56	18.80	-17.76	40.00	21.20	Vertical	PK	PASS
2	266.68	33.30	15.13	-18.17	46.00	30.87	Vertical	PK	PASS
3	344.28	37.03	20.55	-16.48	46.00	25.45	Vertical	PK	PASS
4	600.36	35.94	26.51	-9.43	46.00	19.49	Vertical	PK	PASS
5	774.96	43.57	37.10	-6.47	46.00	8.90	Vertical	PK	PASS
6	948.59	41.97	39.66	-2.31	46.00	6.34	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]

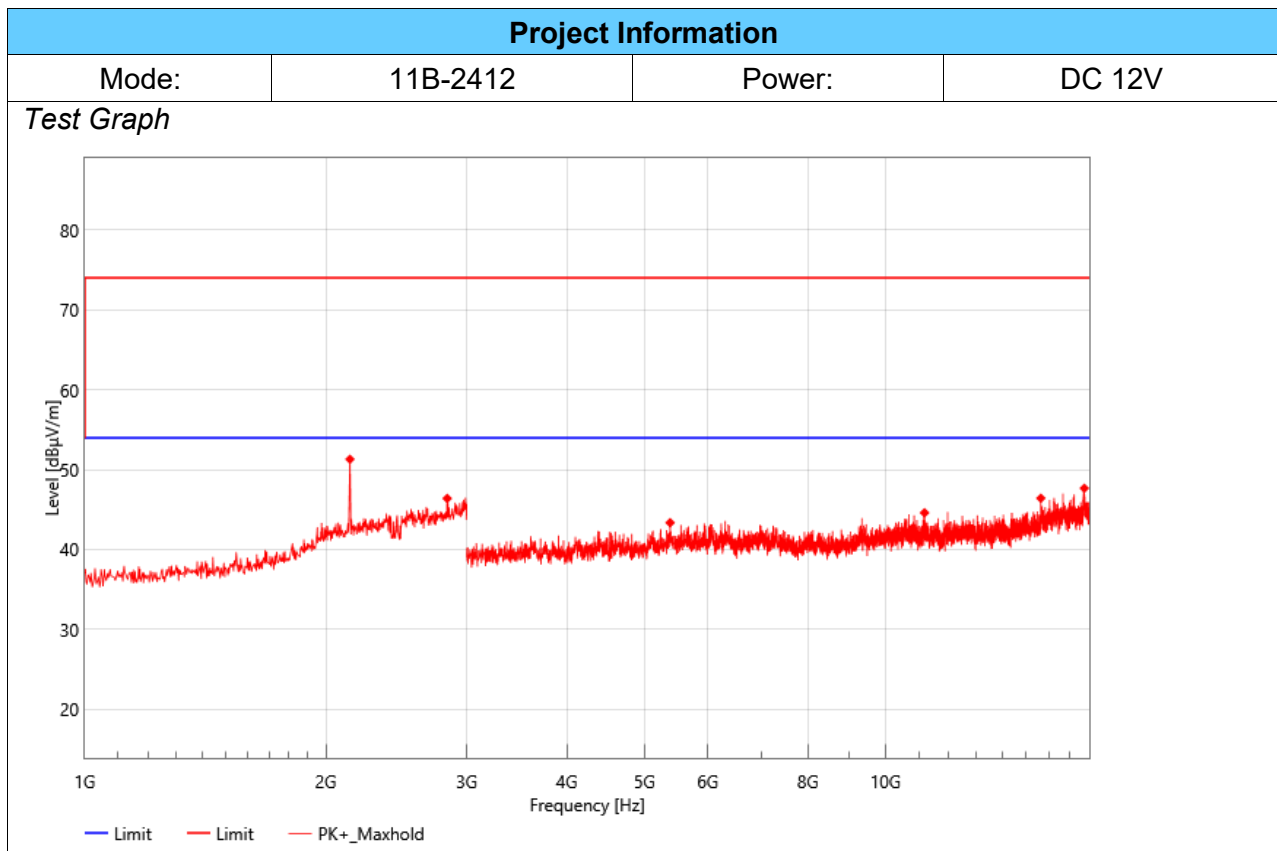


Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	35.82	31.64	13.88	-17.76	40.00	26.12	Horizontal	PK	PASS
2	71.71	37.92	13.13	-24.79	40.00	26.87	Horizontal	PK	PASS
3	319.06	36.33	18.72	-17.61	46.00	27.28	Horizontal	PK	PASS
4	392.78	33.02	19.12	-13.9	46.00	26.88	Horizontal	PK	PASS
5	786.60	41.78	35.53	-6.25	46.00	10.47	Horizontal	PK	PASS
6	954.41	40.26	37.76	-2.5	46.00	8.24	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]

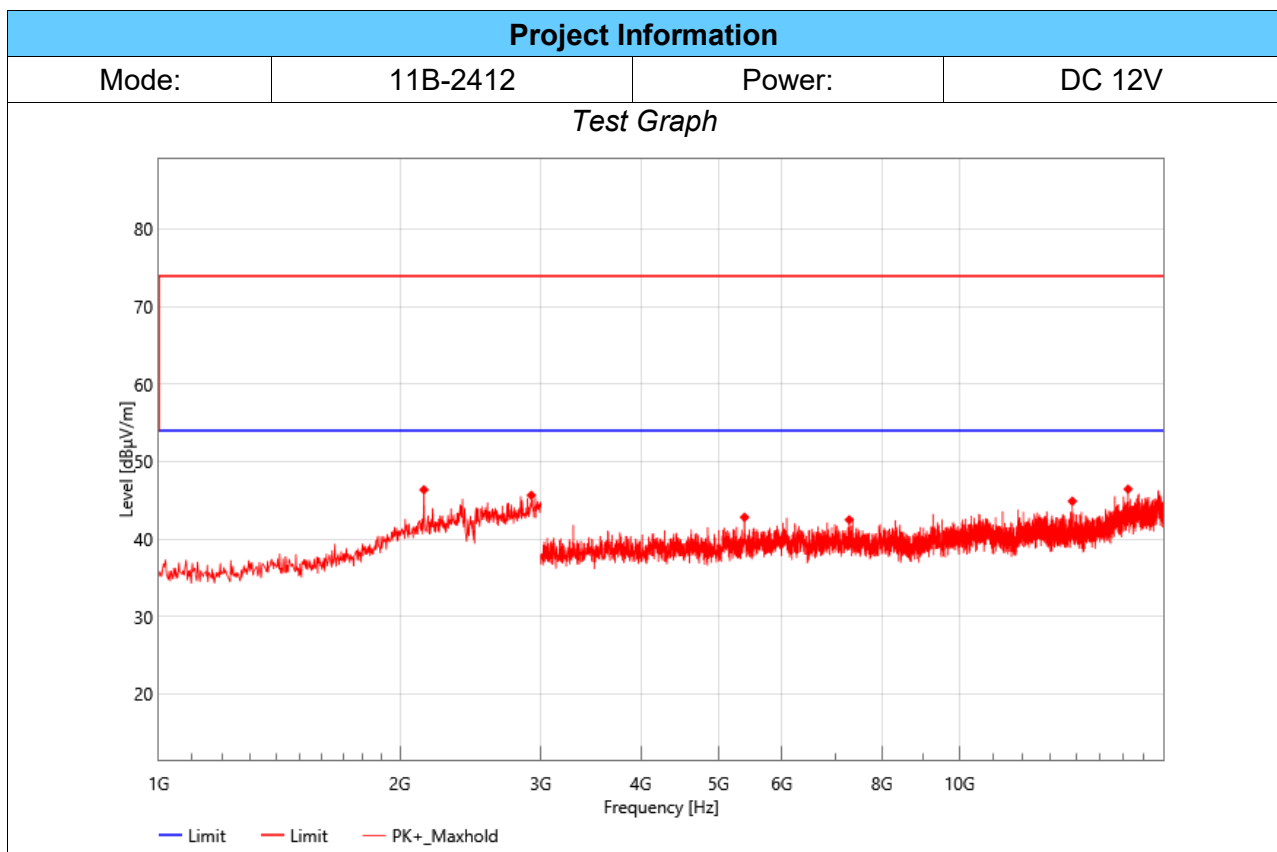
8.4. SPURIOUS EMISSIONS(1 GHZ~18 GHZ)



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2144.00	60.35	51.30	-9.05	74.00	22.70	Vertical	PK	PASS
2	2836.00	54.21	46.39	-7.82	74.00	27.61	Vertical	PK	PASS
3	5383.50	52.44	43.36	-9.08	74.00	30.64	Vertical	PK	PASS
4	11188.50	49.23	44.60	-4.63	74.00	29.40	Vertical	PK	PASS
5	15631.50	48.55	46.42	-2.13	74.00	27.58	Vertical	PK	PASS
6	17710.50	47.72	47.67	-0.05	74.00	26.33	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

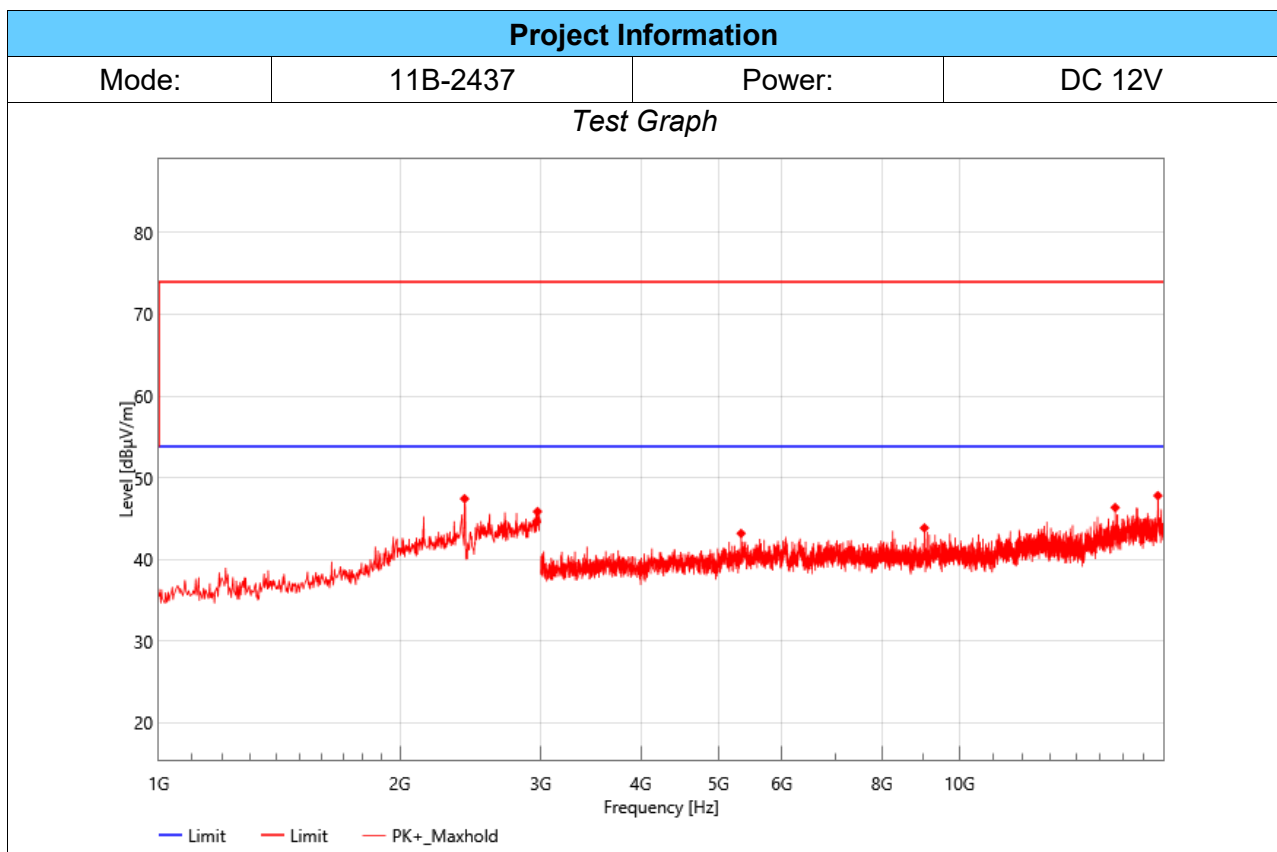
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2144.00	55.41	46.36	-9.05	74.00	27.64	Horizontal	PK	PASS
2	2920.00	53.26	45.65	-7.61	74.00	28.35	Horizontal	PK	PASS
3	5391.00	52.05	42.82	-9.23	74.00	31.18	Horizontal	PK	PASS
4	7284.00	50.33	42.49	-7.84	74.00	31.51	Horizontal	PK	PASS
5	13834.50	48.60	44.89	-3.71	74.00	29.11	Horizontal	PK	PASS
6	16239.00	47.19	46.45	-0.74	74.00	27.55	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

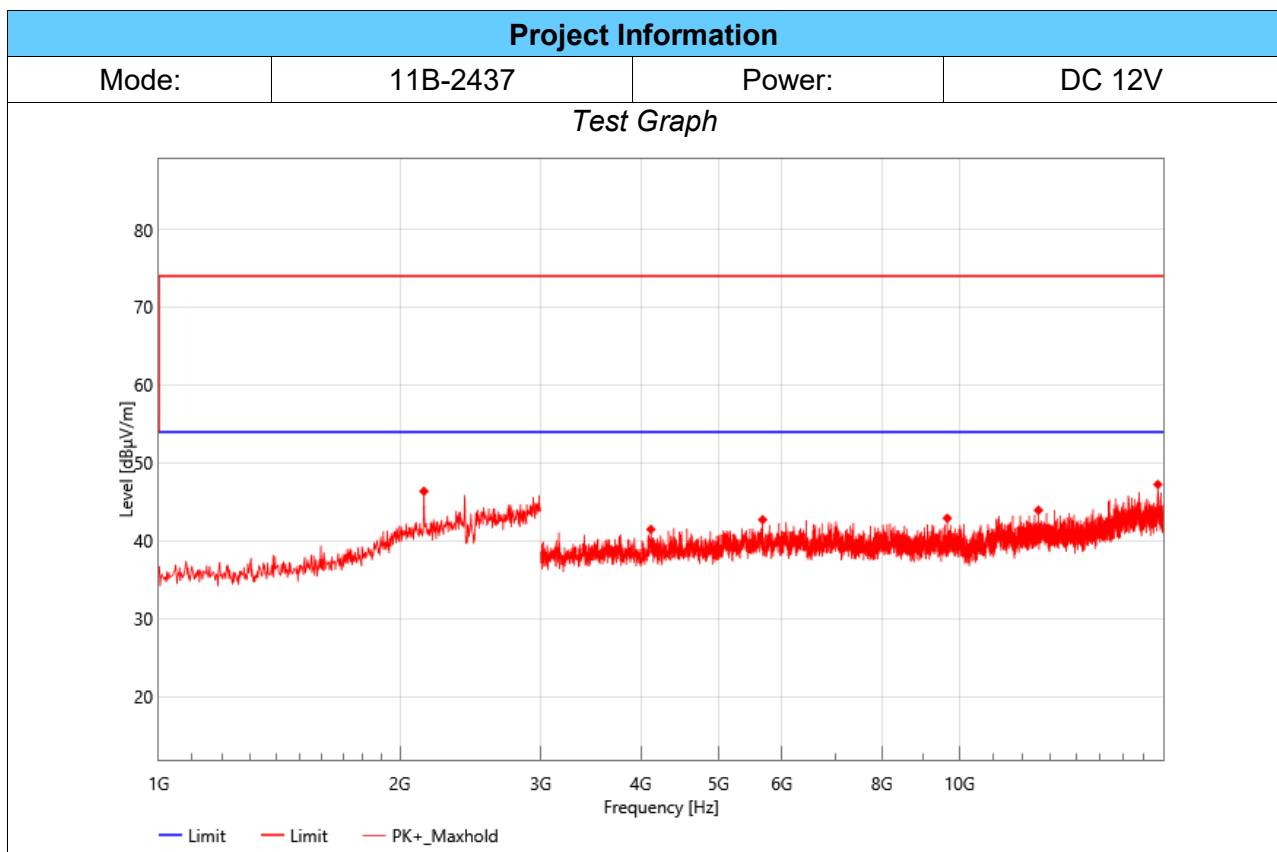
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2410.00	55.97	47.45	-8.52	74.00	26.55	Vertical	PK	PASS
2	2972.00	53.01	45.88	-7.13	74.00	28.12	Vertical	PK	PASS
3	5337.00	53.16	43.20	-9.96	74.00	30.80	Vertical	PK	PASS
4	9040.50	51.26	43.87	-7.39	74.00	30.13	Vertical	PK	PASS
5	15648.00	48.37	46.36	-2.01	74.00	27.64	Vertical	PK	PASS
6	17691.00	47.59	47.82	0.23	74.00	26.18	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

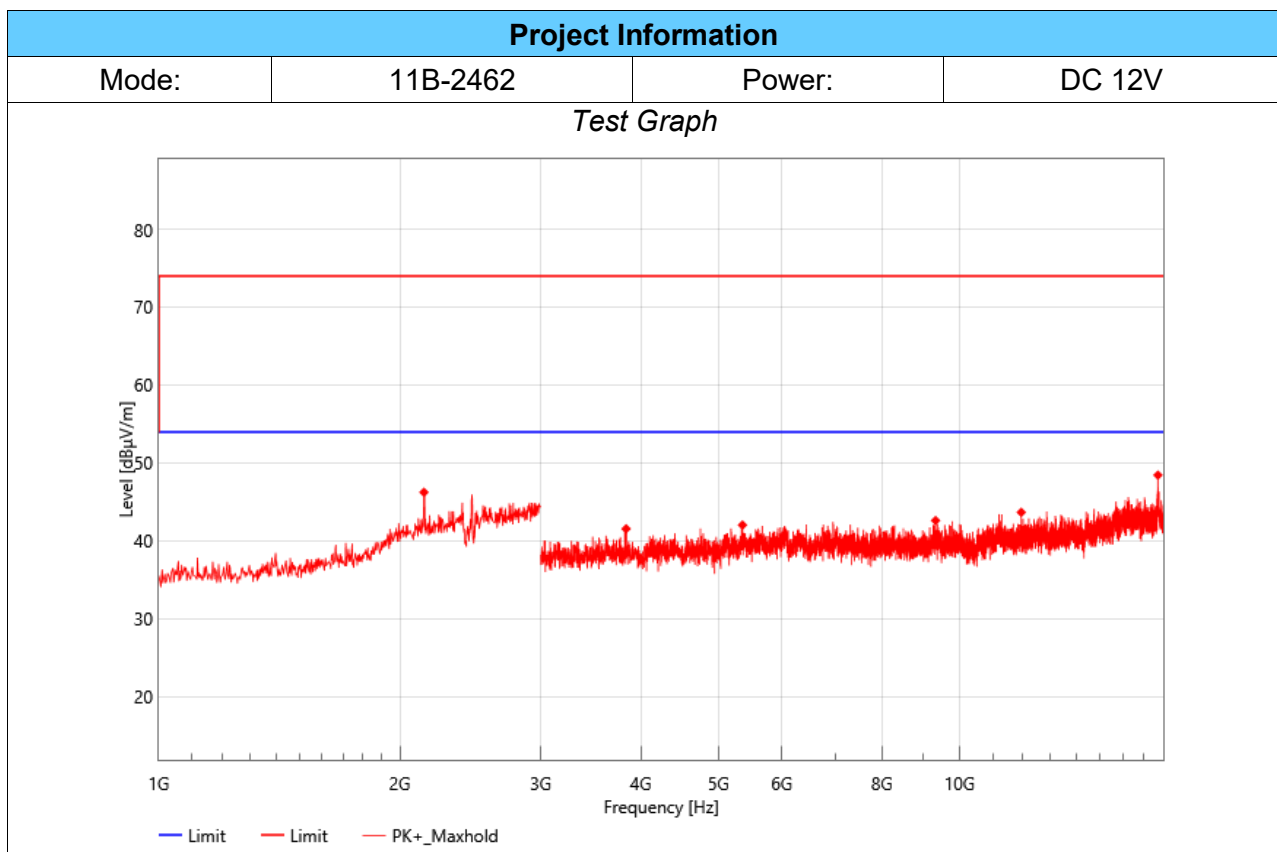
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2144.00	55.43	46.38	-9.05	74.00	27.62	Horizontal	PK	PASS
2	4117.50	54.05	41.49	-12.56	74.00	32.51	Horizontal	PK	PASS
3	5677.50	51.93	42.73	-9.2	74.00	31.27	Horizontal	PK	PASS
4	9655.50	49.61	42.92	-6.69	74.00	31.08	Horizontal	PK	PASS
5	12547.50	48.11	43.94	-4.17	74.00	30.06	Horizontal	PK	PASS
6	17688.00	47.01	47.26	0.25	74.00	26.74	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

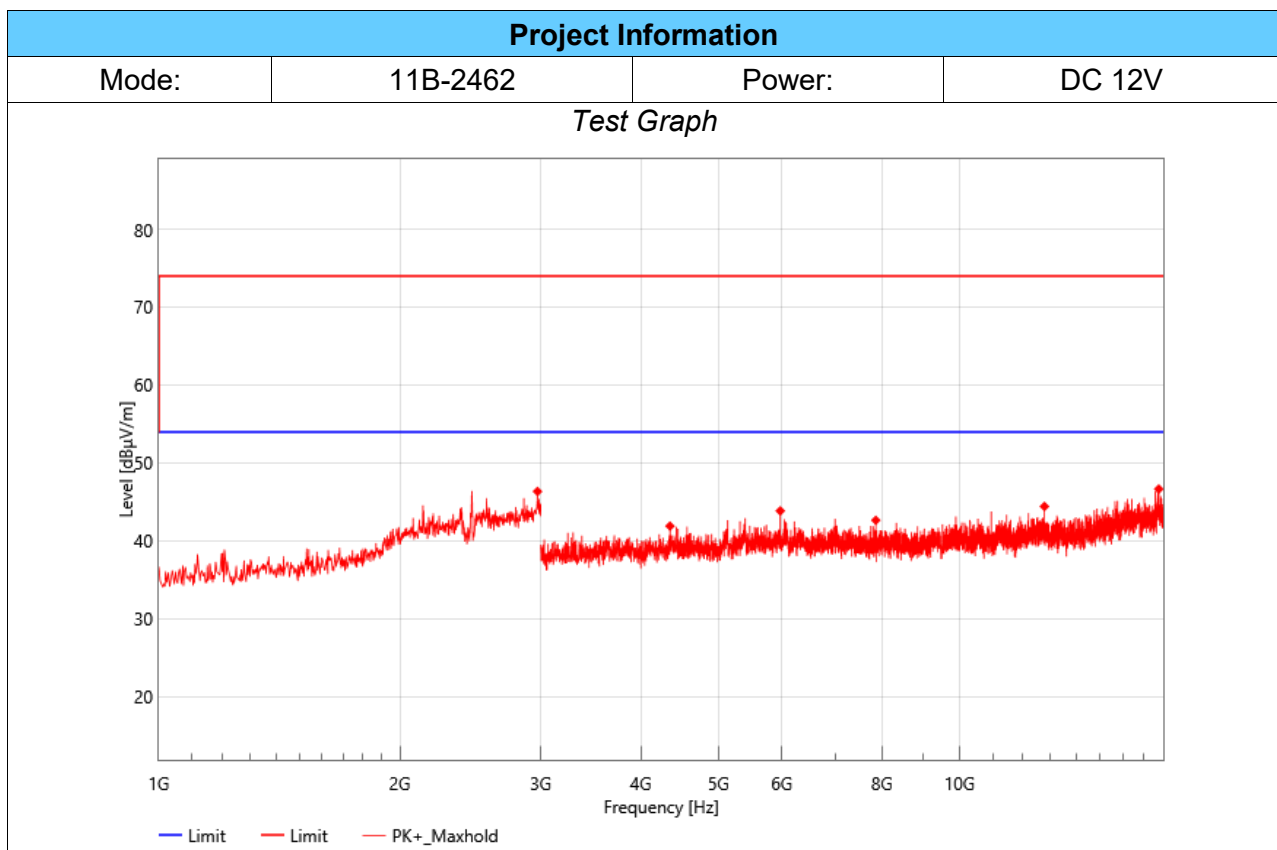
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2144.00	55.30	46.25	-9.05	74.00	27.75	Horizontal	PK	PASS
2	3834.00	55.03	41.57	-13.46	74.00	32.43	Horizontal	PK	PASS
3	5358.00	51.61	42.05	-9.56	74.00	31.95	Horizontal	PK	PASS
4	9336.00	49.72	42.62	-7.1	74.00	31.38	Horizontal	PK	PASS
5	11944.50	48.20	43.68	-4.52	74.00	30.32	Horizontal	PK	PASS
6	17691.00	48.22	48.45	0.23	74.00	25.55	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

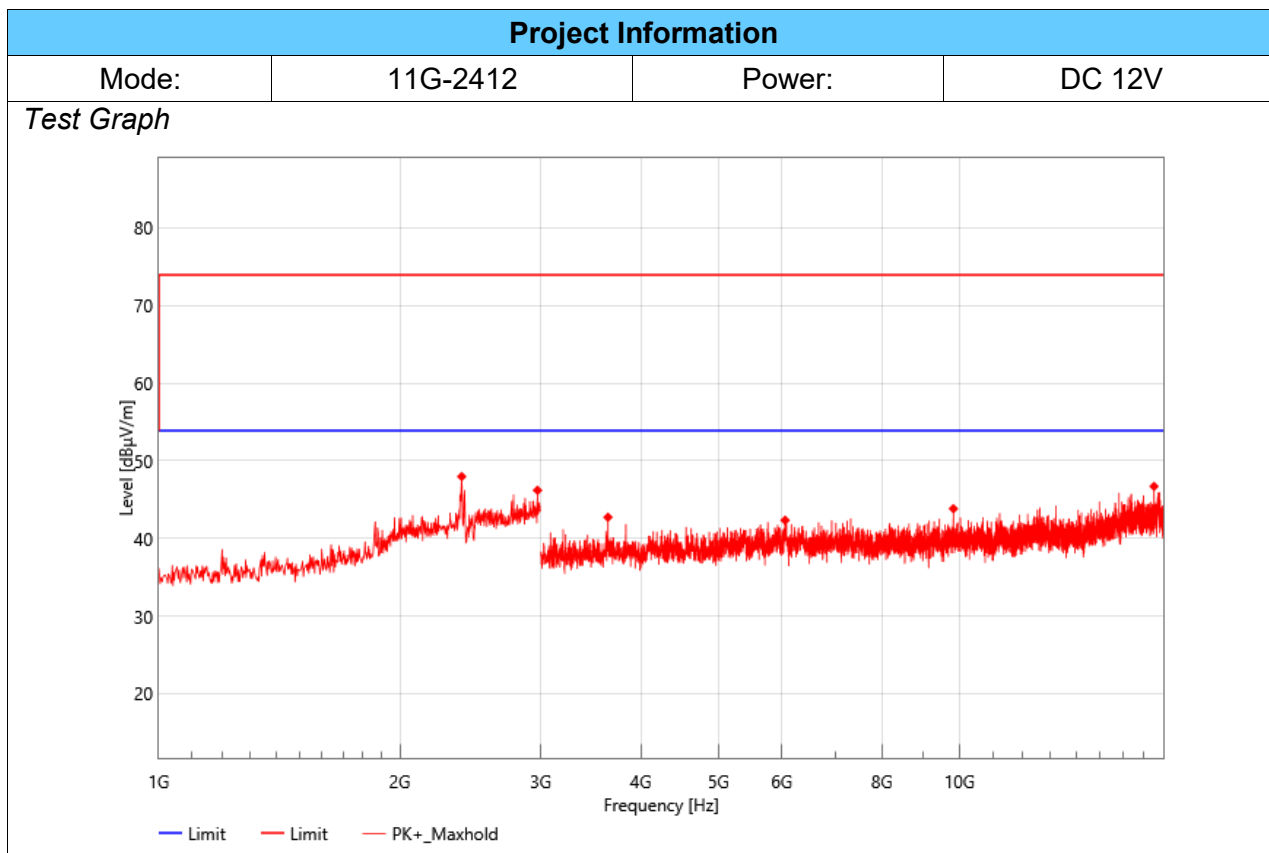
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2972.00	53.49	46.36	-7.13	74.00	27.64	Vertical	PK	PASS
2	4350.00	54.12	41.91	-12.21	74.00	32.09	Vertical	PK	PASS
3	5973.00	52.73	43.86	-8.87	74.00	30.14	Vertical	PK	PASS
4	7861.50	50.86	42.66	-8.2	74.00	31.34	Vertical	PK	PASS
5	12766.50	48.82	44.43	-4.39	74.00	29.57	Vertical	PK	PASS
6	17736.00	47.08	46.67	-0.41	74.00	27.33	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

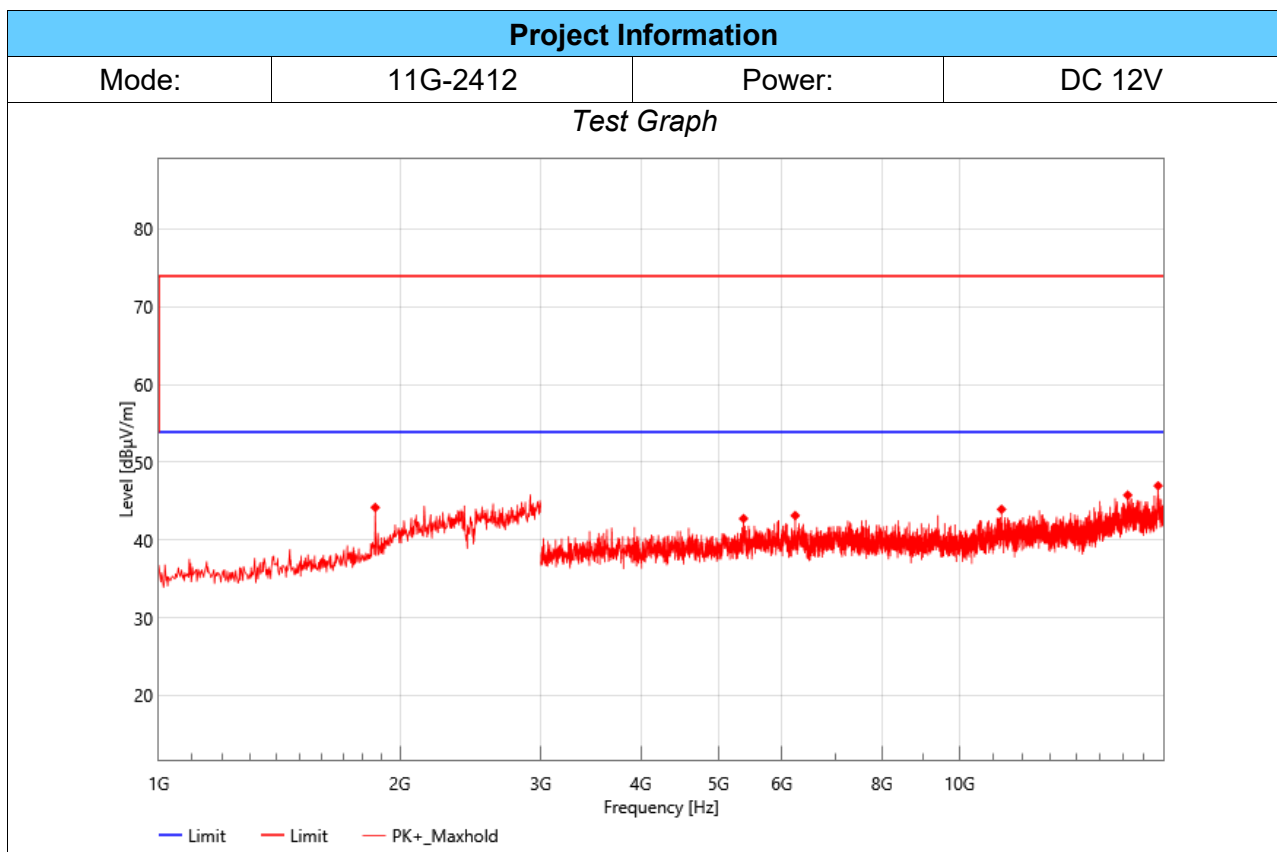
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2390.00	56.52	47.99	-8.53	74.00	26.01	Vertical	PK	PASS
2	2972.00	53.34	46.21	-7.13	74.00	27.79	Vertical	PK	PASS
3	3639.00	56.09	42.74	-13.35	74.00	31.26	Vertical	PK	PASS
4	6057.00	50.29	42.35	-7.94	74.00	31.65	Vertical	PK	PASS
5	9826.50	50.86	43.85	-7.01	74.00	30.15	Vertical	PK	PASS
6	17497.50	47.33	46.72	-0.61	74.00	27.28	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

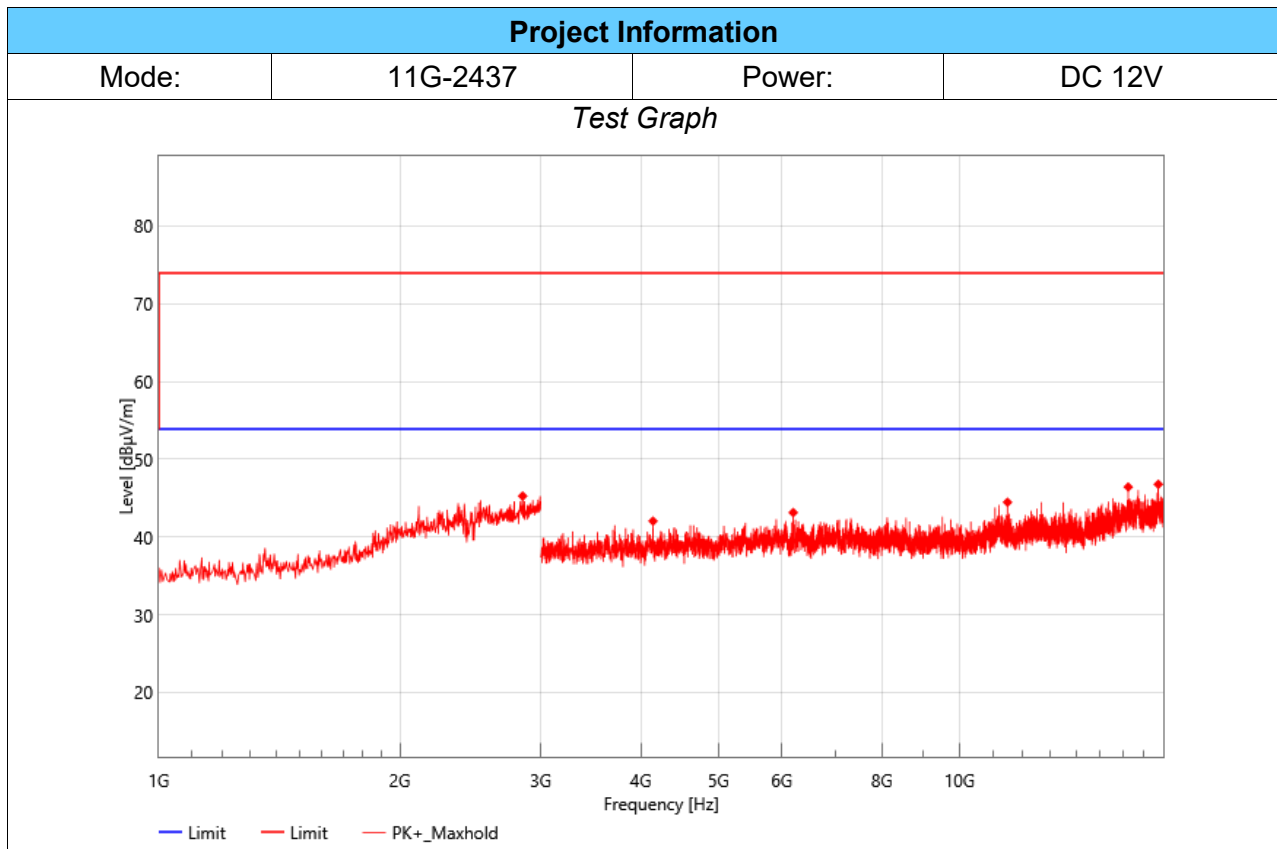
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	1864.00	54.59	44.19	-10.4	74.00	29.81	Horizontal	PK	PASS
2	5374.50	51.96	42.77	-9.19	74.00	31.23	Horizontal	PK	PASS
3	6235.50	51.46	43.16	-8.3	74.00	30.84	Horizontal	PK	PASS
4	11286.00	48.16	43.96	-4.2	74.00	30.04	Horizontal	PK	PASS
5	16222.50	46.99	45.78	-1.21	74.00	28.22	Horizontal	PK	PASS
6	17703.00	46.88	46.99	0.11	74.00	27.01	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

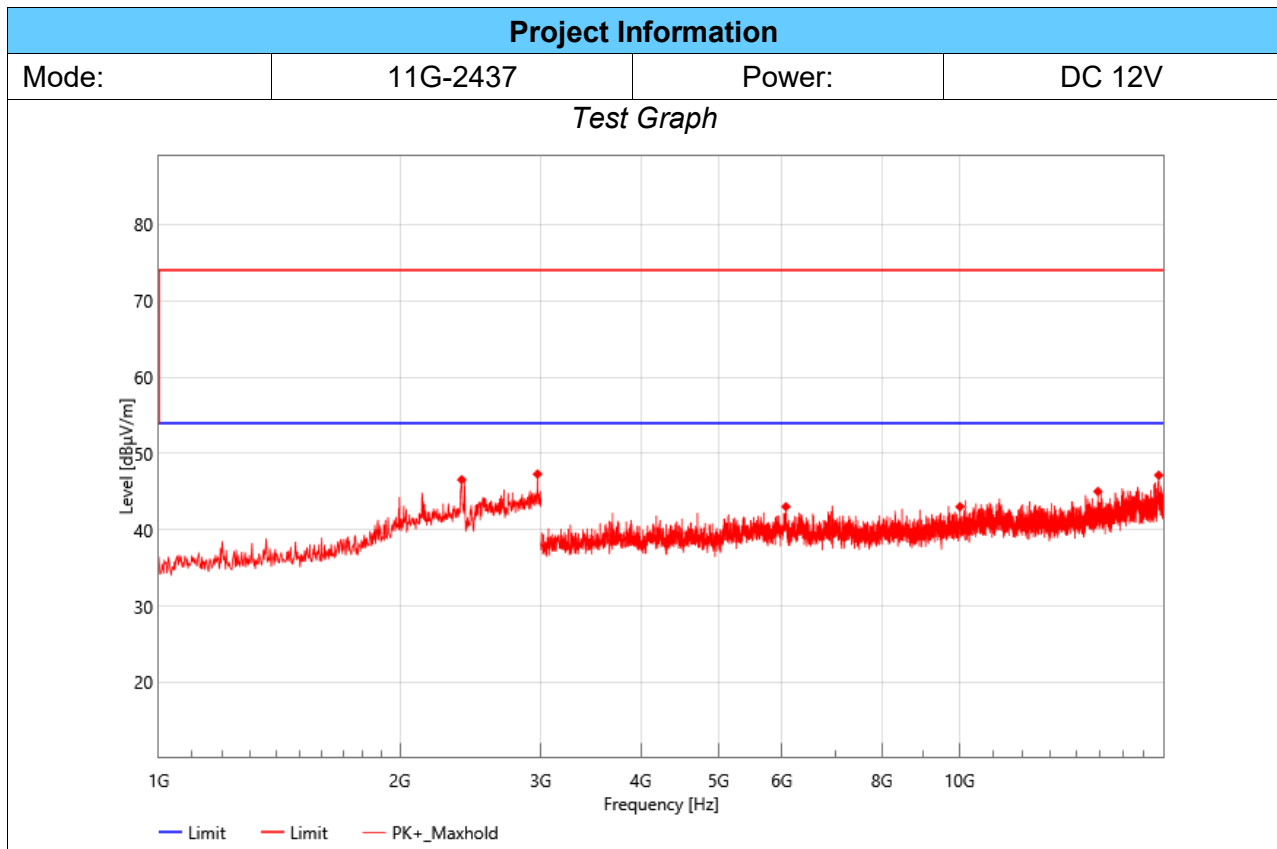
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2848.00	53.34	45.28	-8.06	74.00	28.72	Horizontal	PK	PASS
2	4143.00	54.78	42.06	-12.72	74.00	31.94	Horizontal	PK	PASS
3	6199.50	51.60	43.15	-8.45	74.00	30.85	Horizontal	PK	PASS
4	11481.00	49.00	44.48	-4.52	74.00	29.52	Horizontal	PK	PASS
5	16245.00	47.02	46.45	-0.57	74.00	27.55	Horizontal	PK	PASS
6	17713.50	46.90	46.79	-0.11	74.00	27.21	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

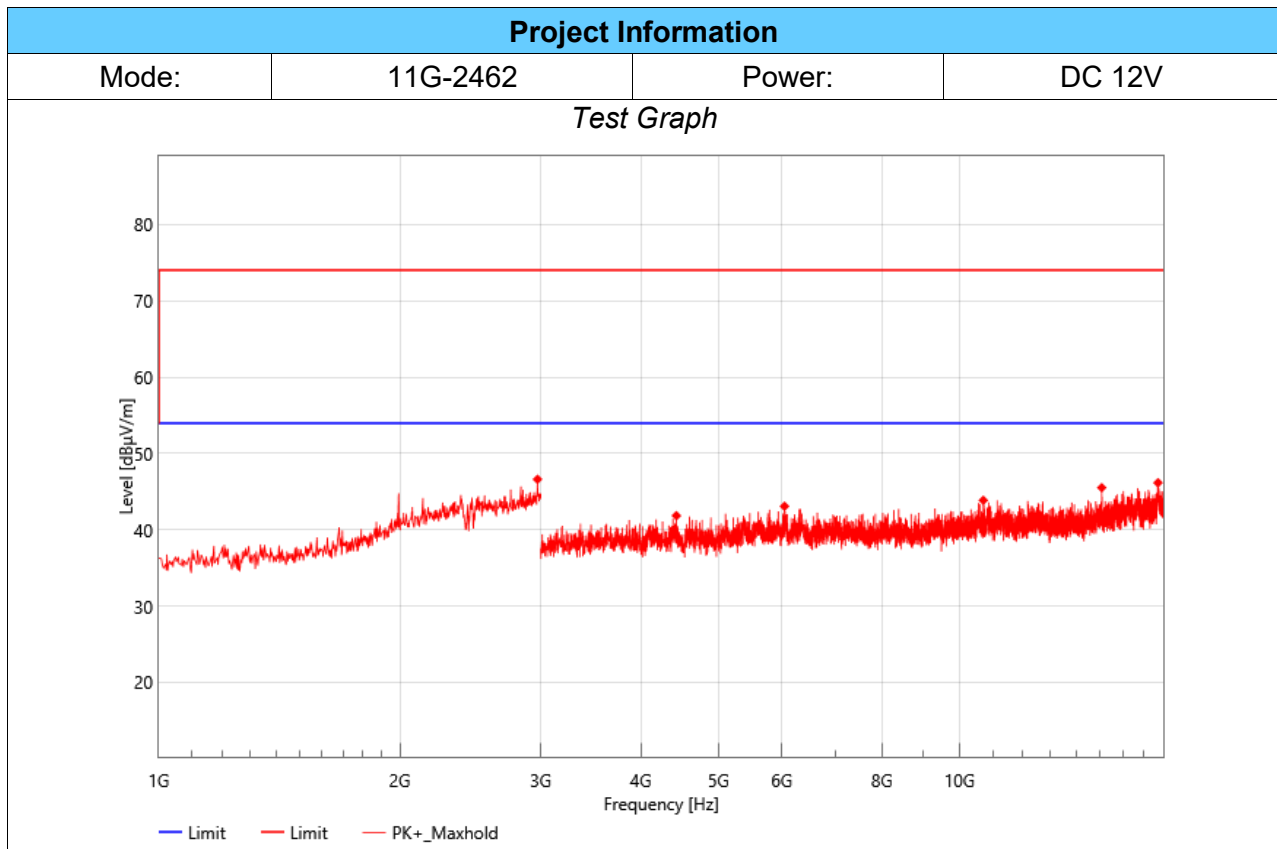
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2390.00	55.10	46.57	-8.53	74.00	27.43	Vertical	PK	PASS
2	2972.00	54.44	47.31	-7.13	74.00	26.69	Vertical	PK	PASS
3	6070.50	51.08	43.03	-8.05	74.00	30.97	Vertical	PK	PASS
4	10014.00	49.28	43.03	-6.25	74.00	30.97	Vertical	PK	PASS
5	14887.50	47.73	45.03	-2.7	74.00	28.97	Vertical	PK	PASS
6	17734.50	47.56	47.16	-0.4	74.00	26.84	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

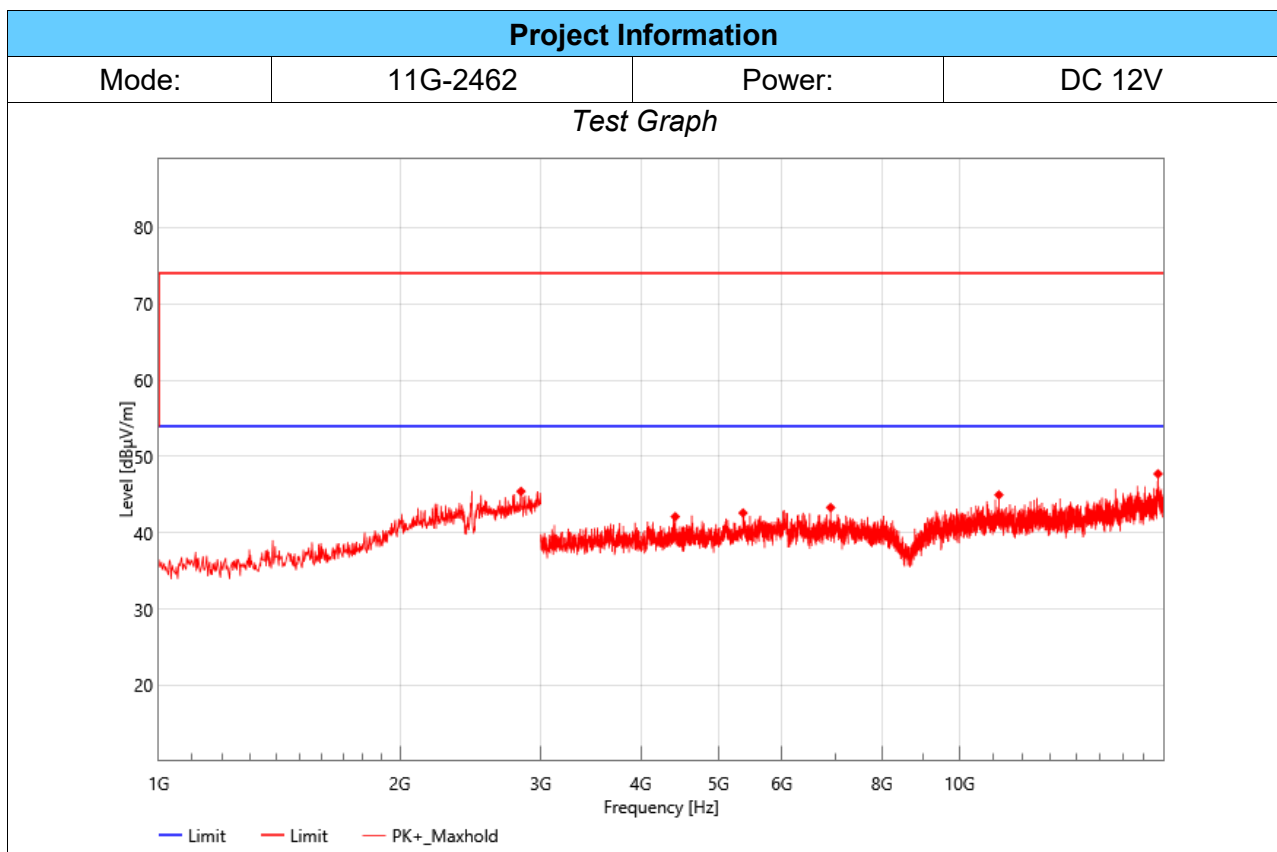
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2972.00	53.76	46.63	-7.13	74.00	27.37	Vertical	PK	PASS
2	4431.00	53.95	41.86	-12.09	74.00	32.14	Vertical	PK	PASS
3	6046.50	51.25	43.09	-8.16	74.00	30.91	Vertical	PK	PASS
4	10708.50	48.77	43.88	-4.89	74.00	30.12	Vertical	PK	PASS
5	15052.50	48.34	45.53	-2.81	74.00	28.47	Vertical	PK	PASS
6	17695.50	45.97	46.18	0.21	74.00	27.82	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

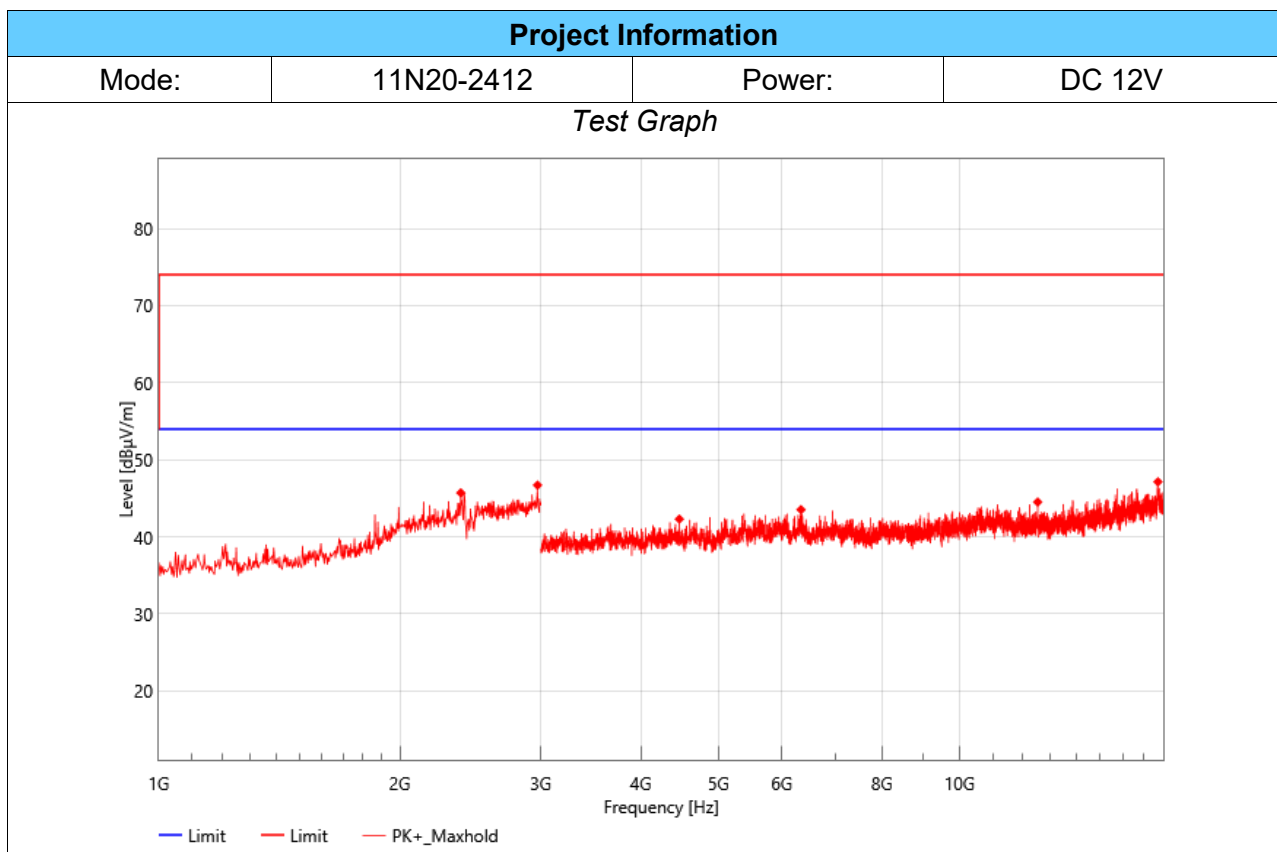
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2834.00	53.20	45.43	-7.77	74.00	28.57	Horizontal	PK	PASS
2	4416.00	54.08	42.12	-11.96	74.00	31.88	Horizontal	PK	PASS
3	5367.00	51.97	42.61	-9.36	74.00	31.39	Horizontal	PK	PASS
4	6904.50	51.32	43.31	-8.01	74.00	30.69	Horizontal	PK	PASS
5	11200.50	49.40	44.97	-4.43	74.00	29.03	Horizontal	PK	PASS
6	17698.50	47.54	47.73	0.19	74.00	26.27	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

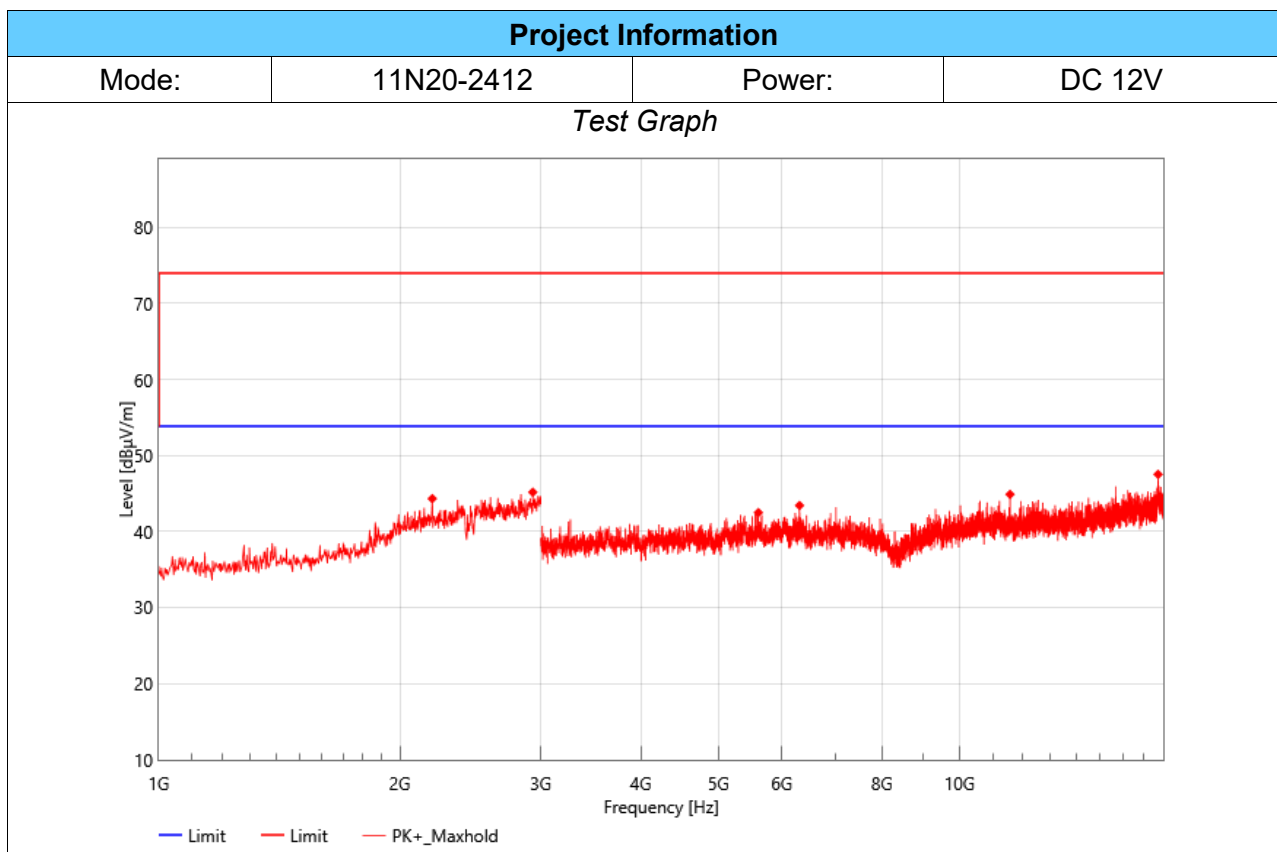
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2384.00	54.24	45.71	-8.53	74.00	28.29	Vertical	PK	PASS
2	2972.00	53.84	46.71	-7.13	74.00	27.29	Vertical	PK	PASS
3	4468.50	54.38	42.31	-12.07	74.00	31.69	Vertical	PK	PASS
4	6340.50	51.53	43.53	-8	74.00	30.47	Vertical	PK	PASS
5	12522.00	48.86	44.52	-4.34	74.00	29.48	Vertical	PK	PASS
6	17694.00	46.93	47.14	0.21	74.00	26.86	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

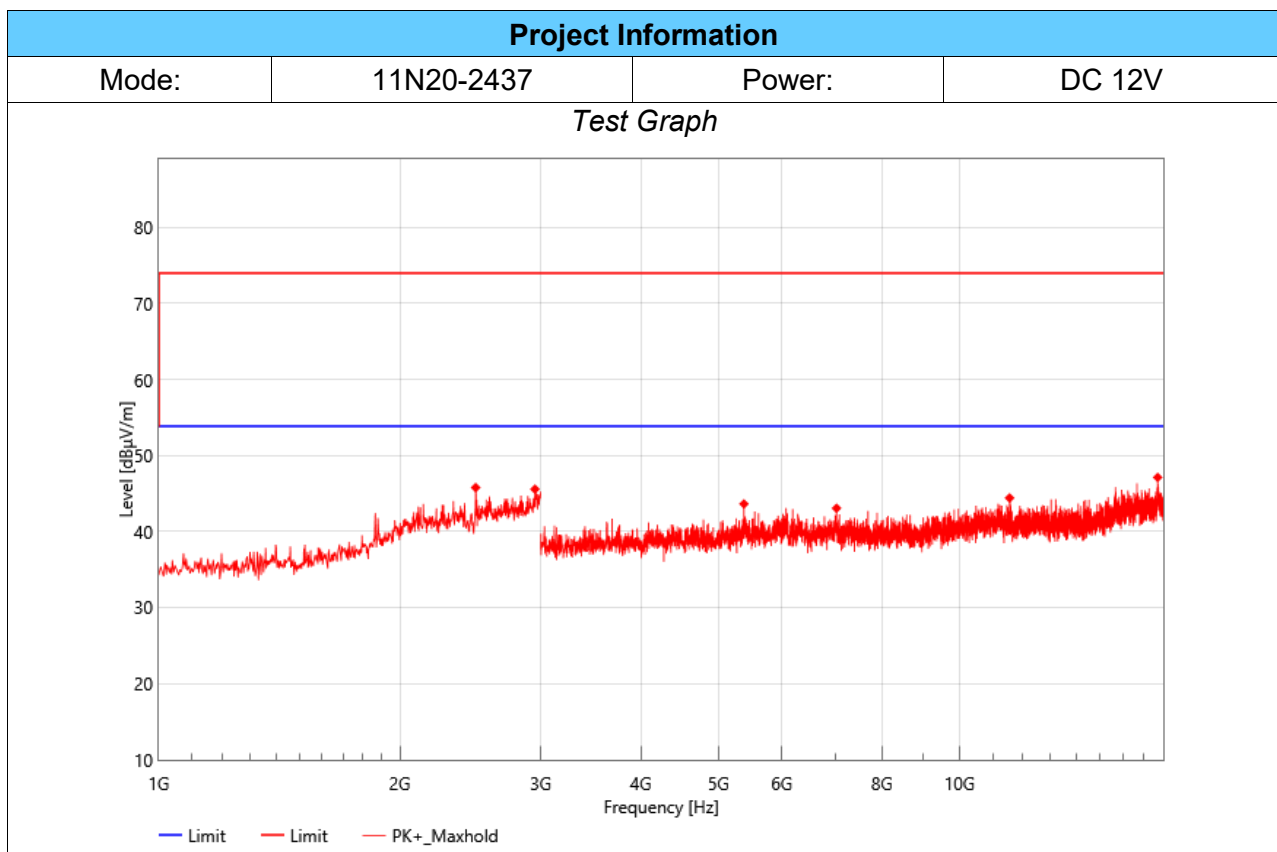
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2196.00	53.55	44.33	-9.22	74.00	29.67	Horizontal	PK	PASS
2	2932.00	52.69	45.17	-7.52	74.00	28.83	Horizontal	PK	PASS
3	5608.50	51.76	42.49	-9.27	74.00	31.51	Horizontal	PK	PASS
4	6312.00	51.02	43.43	-7.59	74.00	30.57	Horizontal	PK	PASS
5	11563.50	49.19	44.89	-4.3	74.00	29.11	Horizontal	PK	PASS
6	17700.00	47.34	47.52	0.18	74.00	26.48	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

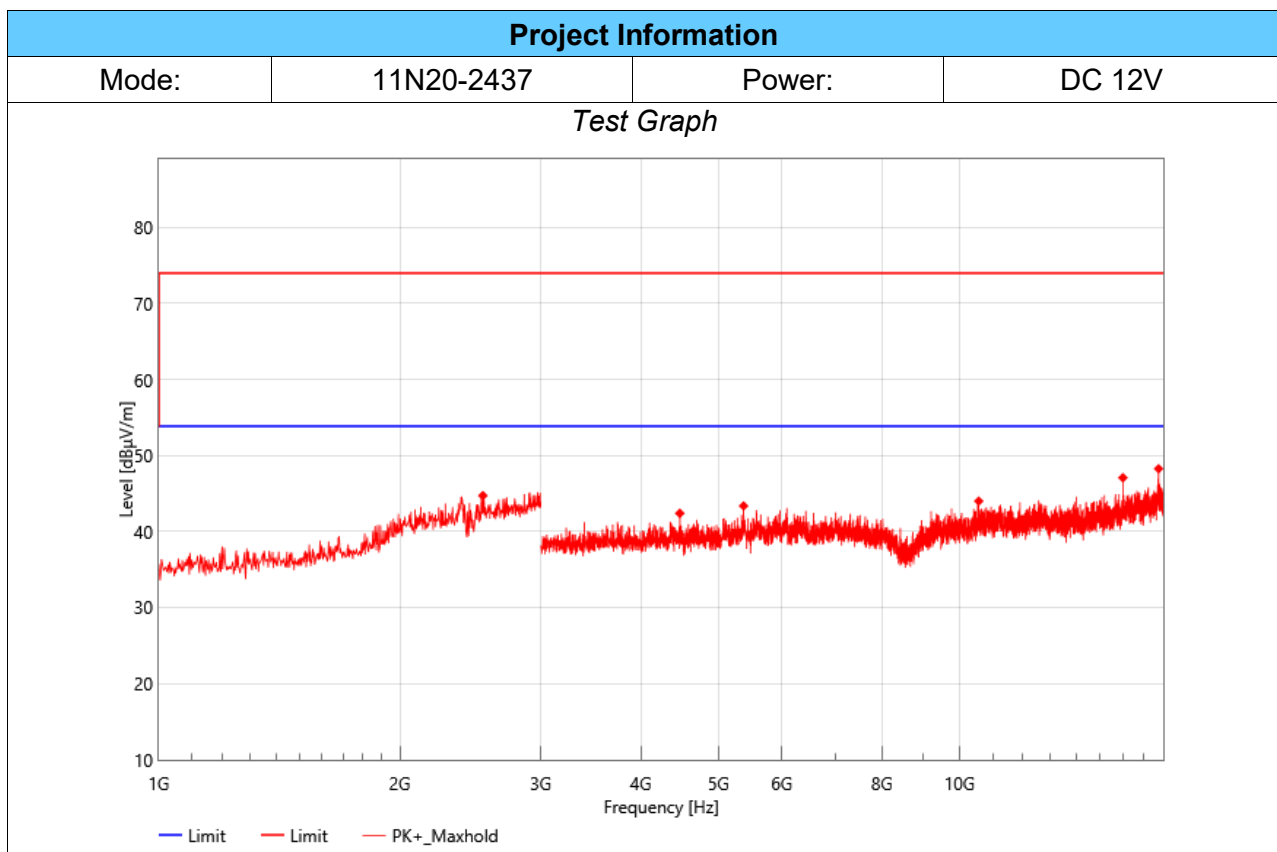
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2488.00	54.20	45.78	-8.42	74.00	28.22	Horizontal	PK	PASS
2	2950.00	53.00	45.57	-7.43	74.00	28.43	Horizontal	PK	PASS
3	5380.50	52.69	43.63	-9.06	74.00	30.37	Horizontal	PK	PASS
4	7021.50	50.88	43.07	-7.81	74.00	30.93	Horizontal	PK	PASS
5	11548.50	48.52	44.41	-4.11	74.00	29.59	Horizontal	PK	PASS
6	17679.00	46.83	47.12	0.29	74.00	26.88	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

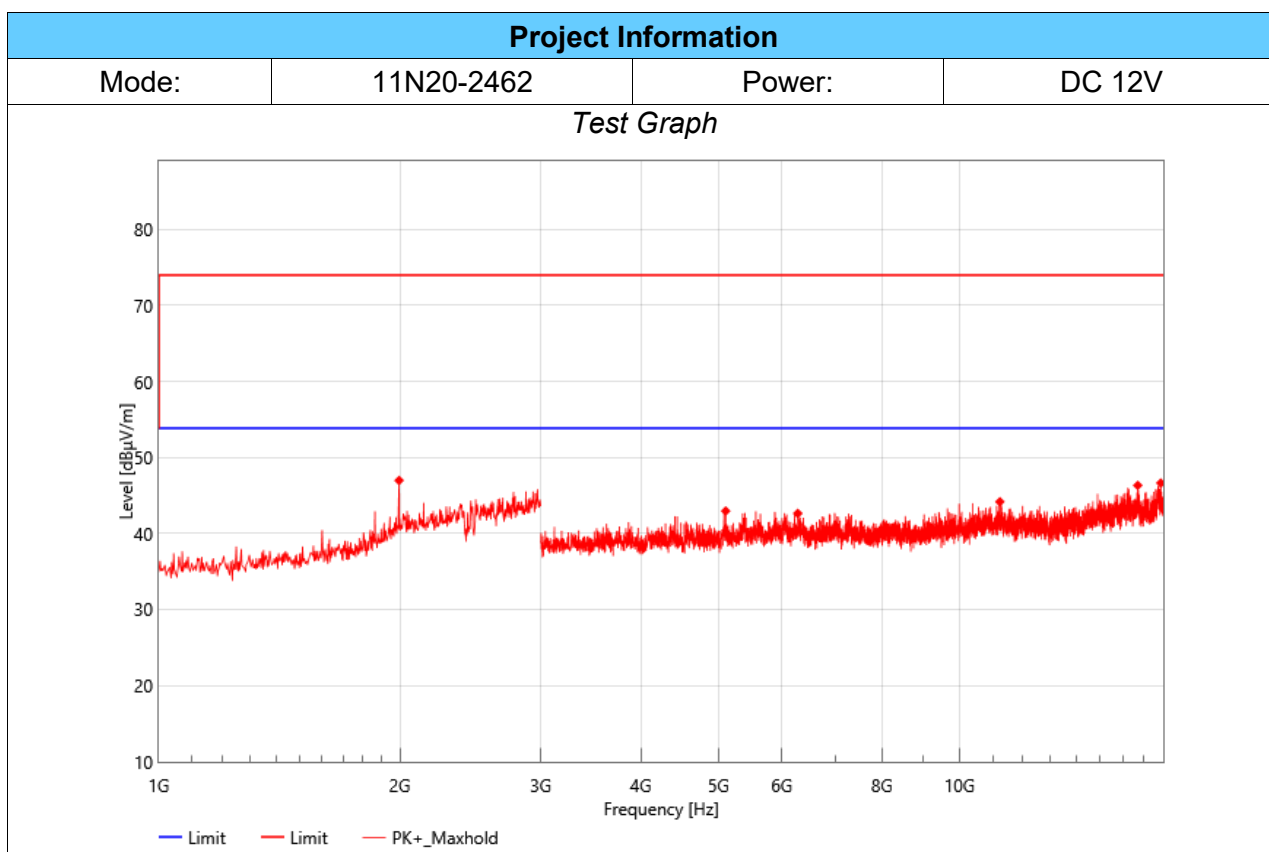
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2540.00	53.15	44.73	-8.42	74.00	29.27	Vertical	PK	PASS
2	4474.50	54.42	42.40	-12.02	74.00	31.60	Vertical	PK	PASS
3	5376.00	52.53	43.37	-9.16	74.00	30.63	Vertical	PK	PASS
4	10569.00	49.11	44.00	-5.11	74.00	30.00	Vertical	PK	PASS
5	15999.00	49.16	47.08	-2.08	74.00	26.92	Vertical	PK	PASS
6	17725.50	48.61	48.26	-0.35	74.00	25.74	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

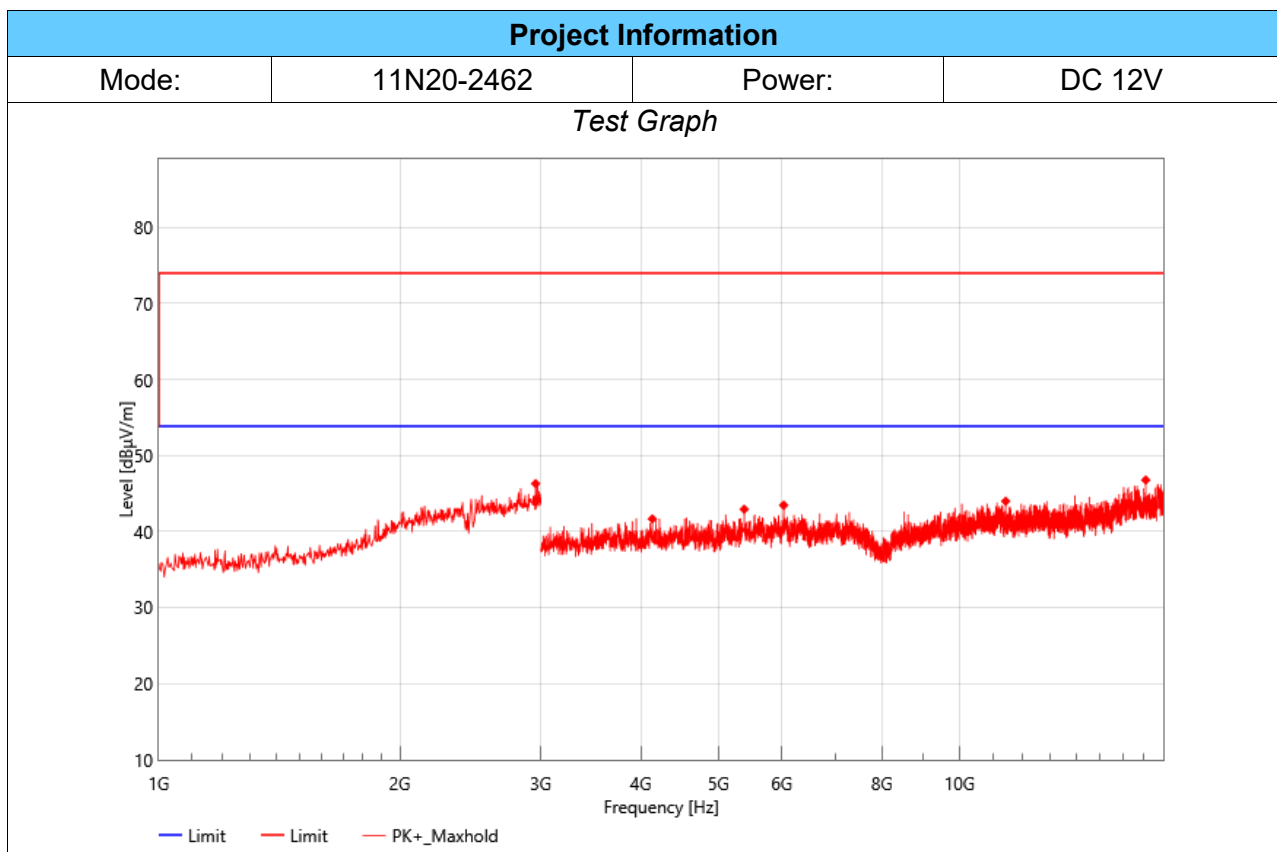
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Detector	Verdict
1	1996.00	56.10	46.99	-9.11	74.00	27.01	Vertical	PK	PASS
2	5106.00	53.39	42.97	-10.42	74.00	31.03	Vertical	PK	PASS
3	6282.00	50.88	42.65	-8.23	74.00	31.35	Vertical	PK	PASS
4	11230.50	48.62	44.18	-4.44	74.00	29.82	Vertical	PK	PASS
5	16695.00	46.81	46.33	-0.48	74.00	27.67	Vertical	PK	PASS
6	17841.00	46.92	46.64	-0.28	74.00	27.36	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2956.00	53.69	46.30	-7.39	74.00	27.70	Horizontal	PK	PASS
2	4134.00	54.31	41.66	-12.65	74.00	32.34	Horizontal	PK	PASS
3	5385.00	52.04	42.93	-9.11	74.00	31.07	Horizontal	PK	PASS
4	6031.50	51.92	43.46	-8.46	74.00	30.54	Horizontal	PK	PASS
5	11419.50	48.50	43.99	-4.51	74.00	30.01	Horizontal	PK	PASS
6	17082.00	47.55	46.78	-0.77	74.00	27.22	Horizontal	PK	PASS

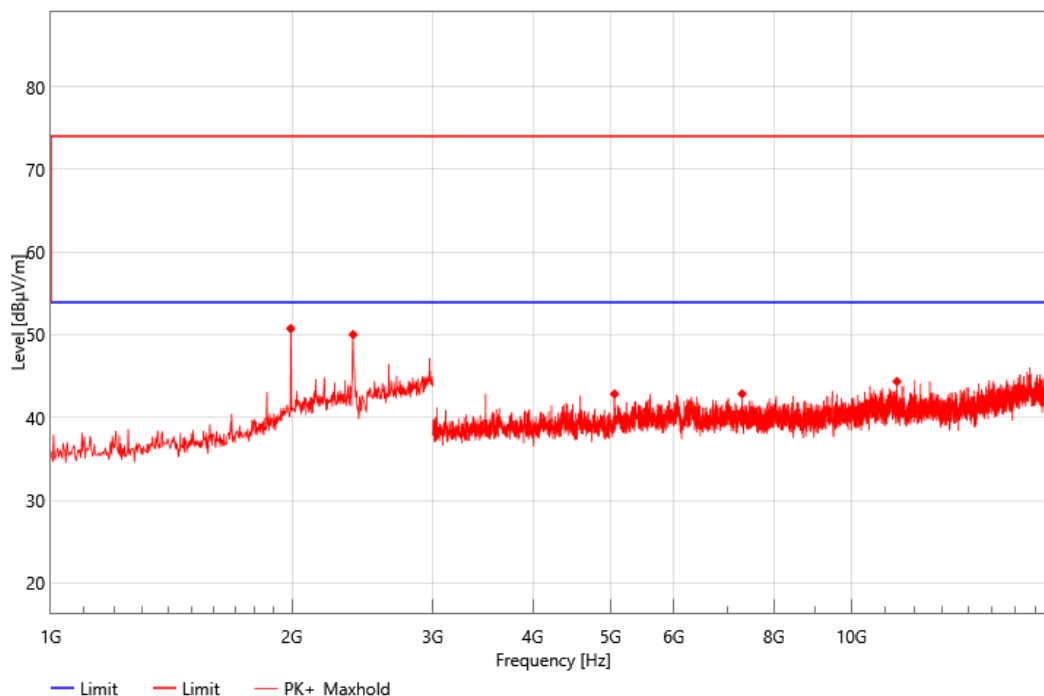
Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]

Project Information

Mode: 11N40-2422 Power: DC 12V

Test Graph

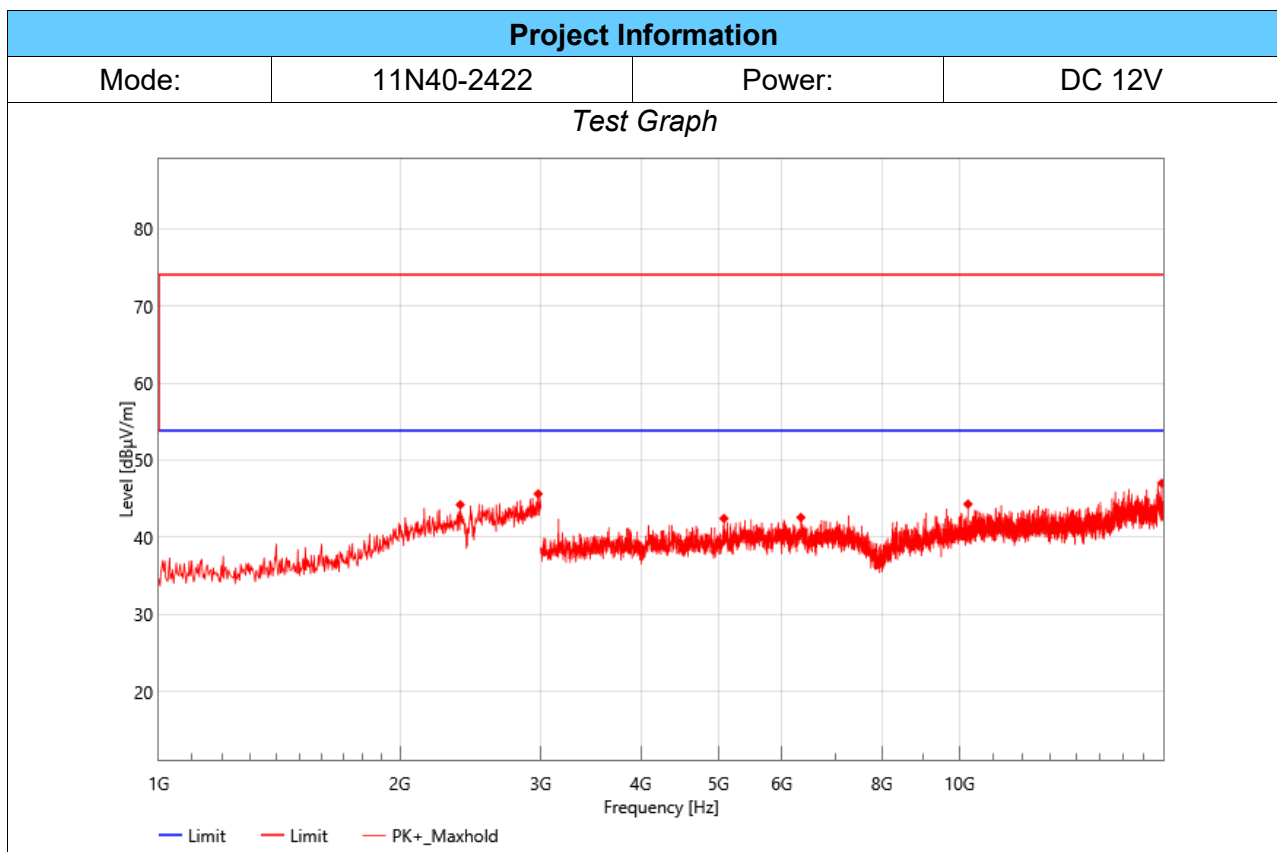


Data table

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	1994.00	59.86	50.75	-9.11	74.00	23.25	Vertical	PK	PASS
2	2386.00	58.56	50.03	-8.53	74.00	23.97	Vertical	PK	PASS
3	5059.50	53.38	42.85	-10.53	74.00	31.15	Vertical	PK	PASS
4	7300.50	50.51	42.86	-7.65	74.00	31.14	Vertical	PK	PASS
5	11397.00	48.64	44.35	-4.29	74.00	29.65	Vertical	PK	PASS
6	17856.00	46.35	46.39	0.04	74.00	27.61	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

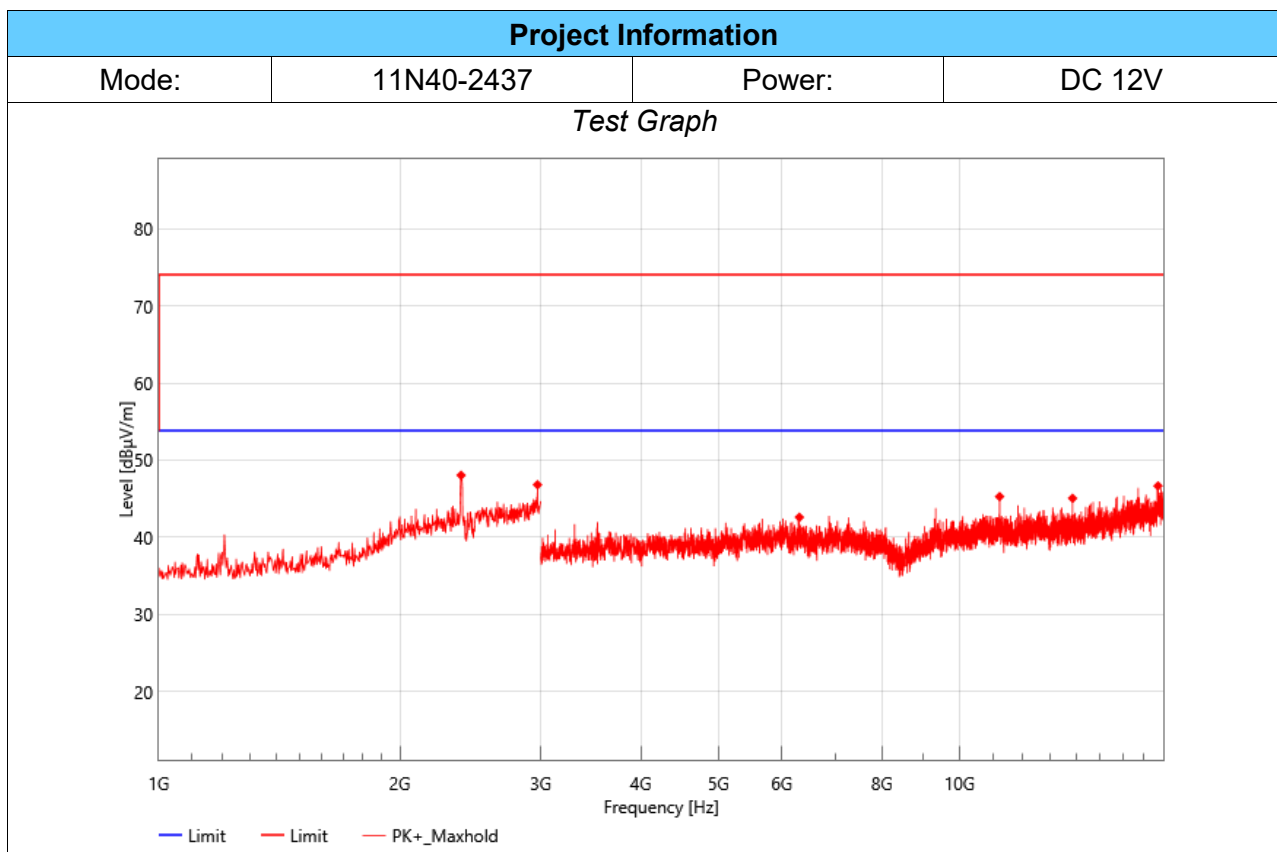
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2380.00	52.77	44.24	-8.53	74.00	29.76	Horizontal	PK	PASS
2	2978.00	52.66	45.64	-7.02	74.00	28.36	Horizontal	PK	PASS
3	5080.50	52.85	42.46	-10.39	74.00	31.54	Horizontal	PK	PASS
4	6339.00	50.60	42.59	-8.01	74.00	31.41	Horizontal	PK	PASS
5	10246.50	50.08	44.32	-5.76	74.00	29.68	Horizontal	PK	PASS
6	17893.50	46.88	47.02	0.14	74.00	26.98	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

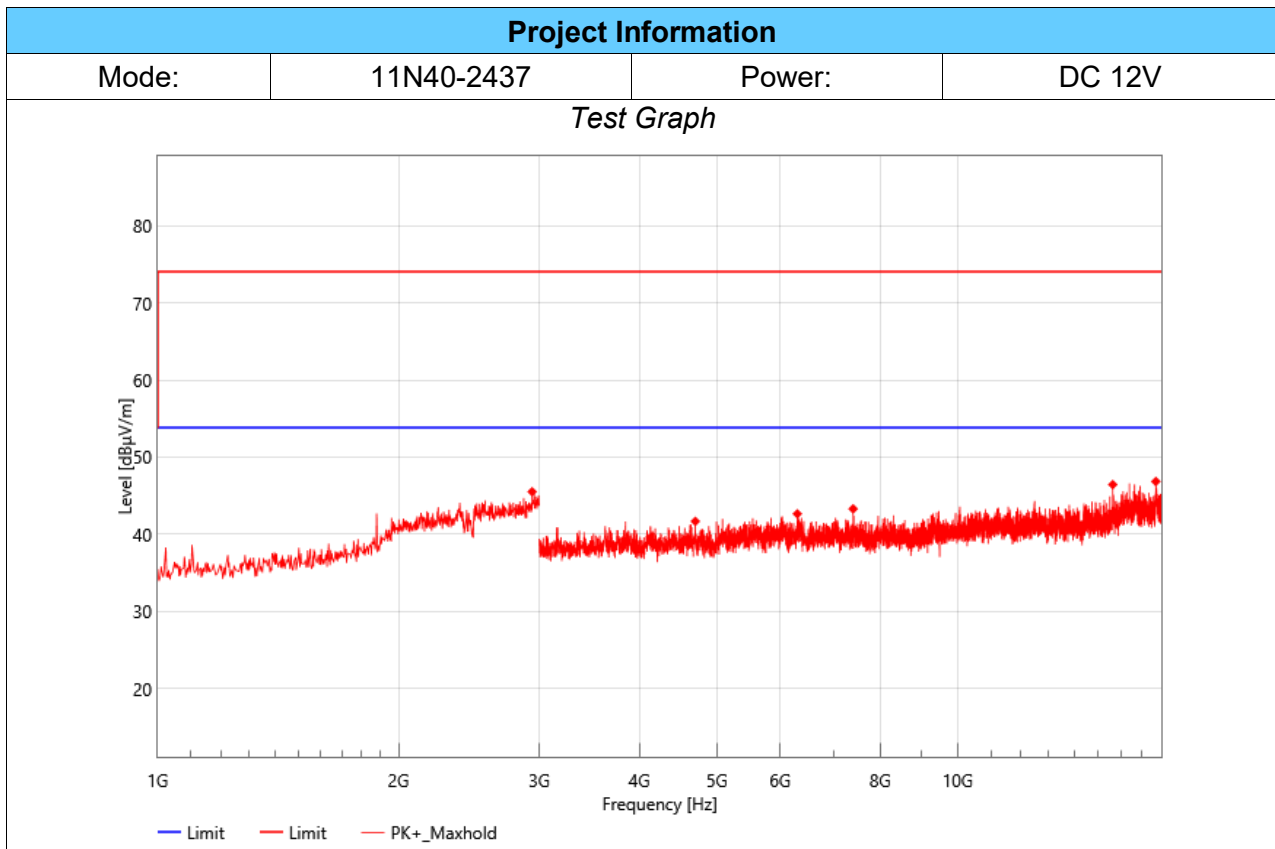
(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2386.00	56.58	48.05	-8.53	74.00	25.95	Vertical	PK	PASS
2	2972.00	53.96	46.83	-7.13	74.00	27.17	Vertical	PK	PASS
3	6310.50	50.18	42.62	-7.56	74.00	31.38	Vertical	PK	PASS
4	11221.50	49.56	45.30	-4.26	74.00	28.70	Vertical	PK	PASS
5	13842.00	48.77	45.07	-3.7	74.00	28.93	Vertical	PK	PASS
6	17695.50	46.47	46.68	0.21	74.00	27.32	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]



Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2938.00	53.03	45.54	-7.49	74.00	28.46	Horizontal	PK	PASS
2	4699.50	53.22	41.70	-11.52	74.00	32.30	Horizontal	PK	PASS
3	6303.00	50.31	42.67	-7.64	74.00	31.33	Horizontal	PK	PASS
4	7401.00	51.48	43.32	-8.16	74.00	30.68	Horizontal	PK	PASS
5	15625.50	48.64	46.46	-2.18	74.00	27.54	Horizontal	PK	PASS
6	17686.50	46.61	46.86	0.25	74.00	27.14	Horizontal	PK	PASS

Note: (1) Level = Reading + Factor
 (2) Margin = Limit - Level]

Project Information

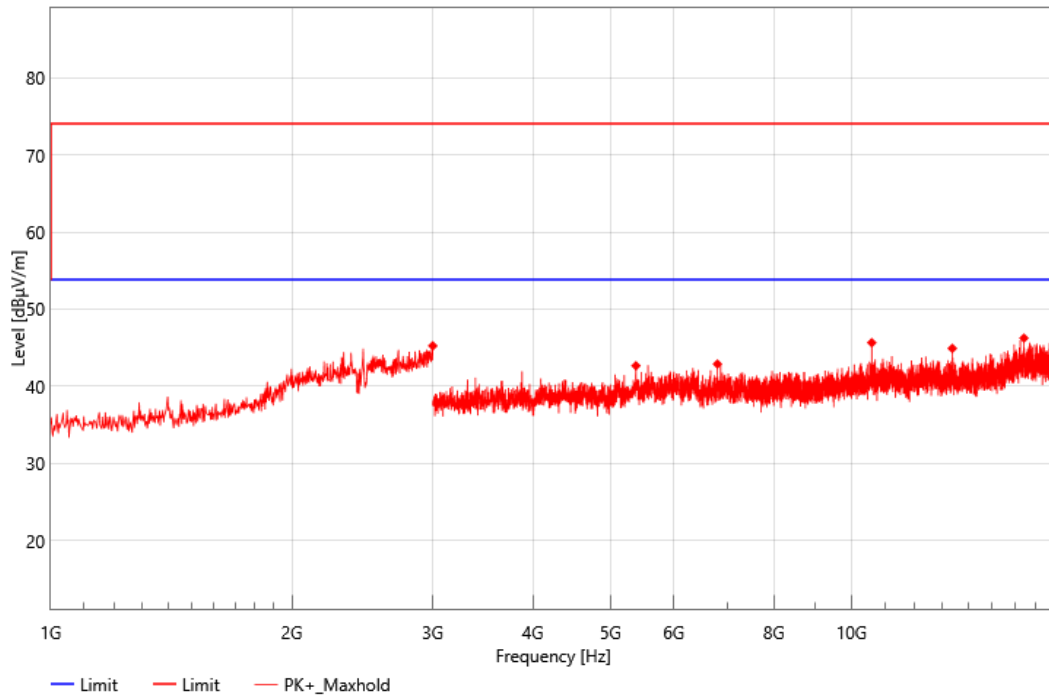
Mode:

11N40-2452

Power:

DC 12V

Test Graph

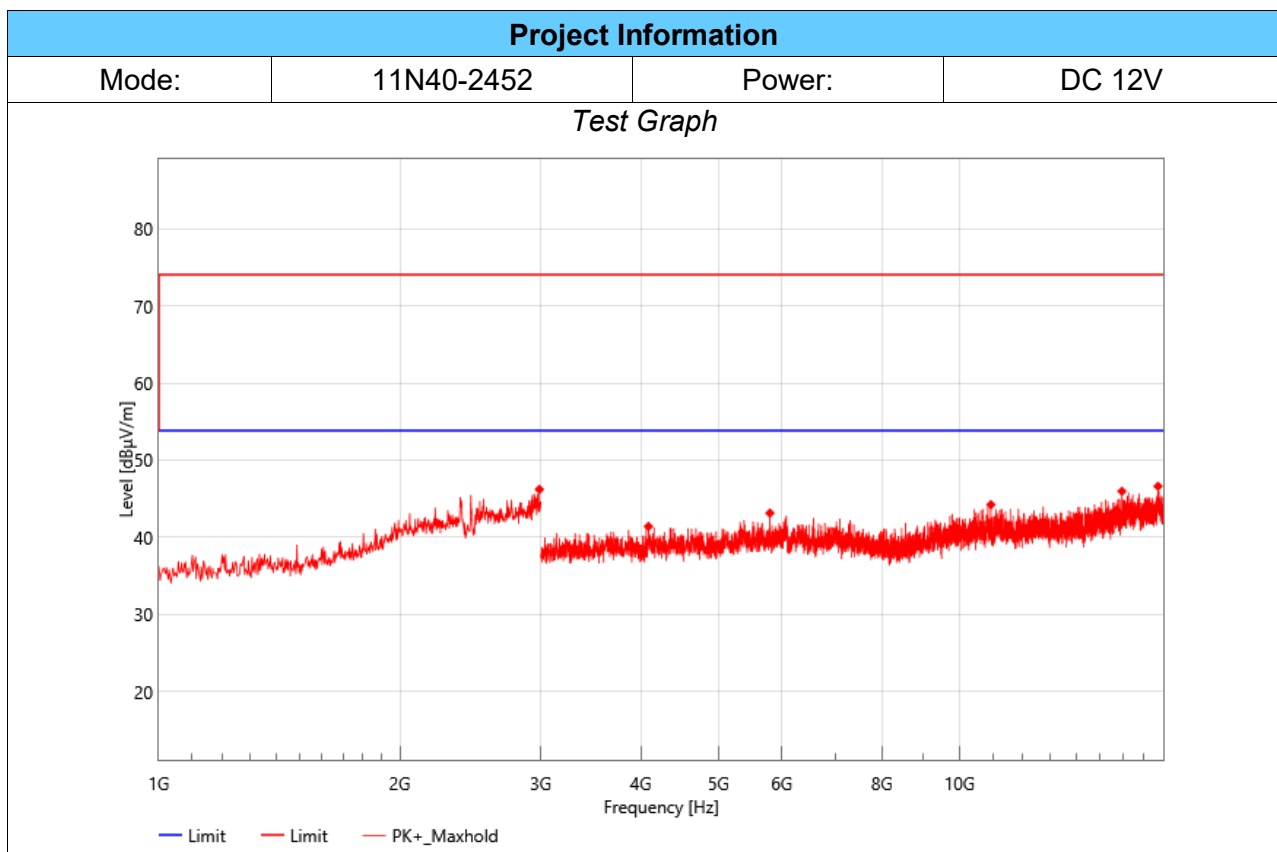


Data table

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	3000.00	52.27	45.26	-7.01	74.00	28.74	Horizontal	PK	PASS
2	5380.50	51.74	42.68	-9.06	74.00	31.32	Horizontal	PK	PASS
3	6801.00	51.14	42.90	-8.24	74.00	31.10	Horizontal	PK	PASS
4	10600.50	50.92	45.67	-5.25	74.00	28.33	Horizontal	PK	PASS
5	13363.50	49.02	44.93	-4.09	74.00	29.07	Horizontal	PK	PASS
6	16416.00	47.55	46.26	-1.29	74.00	27.74	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]



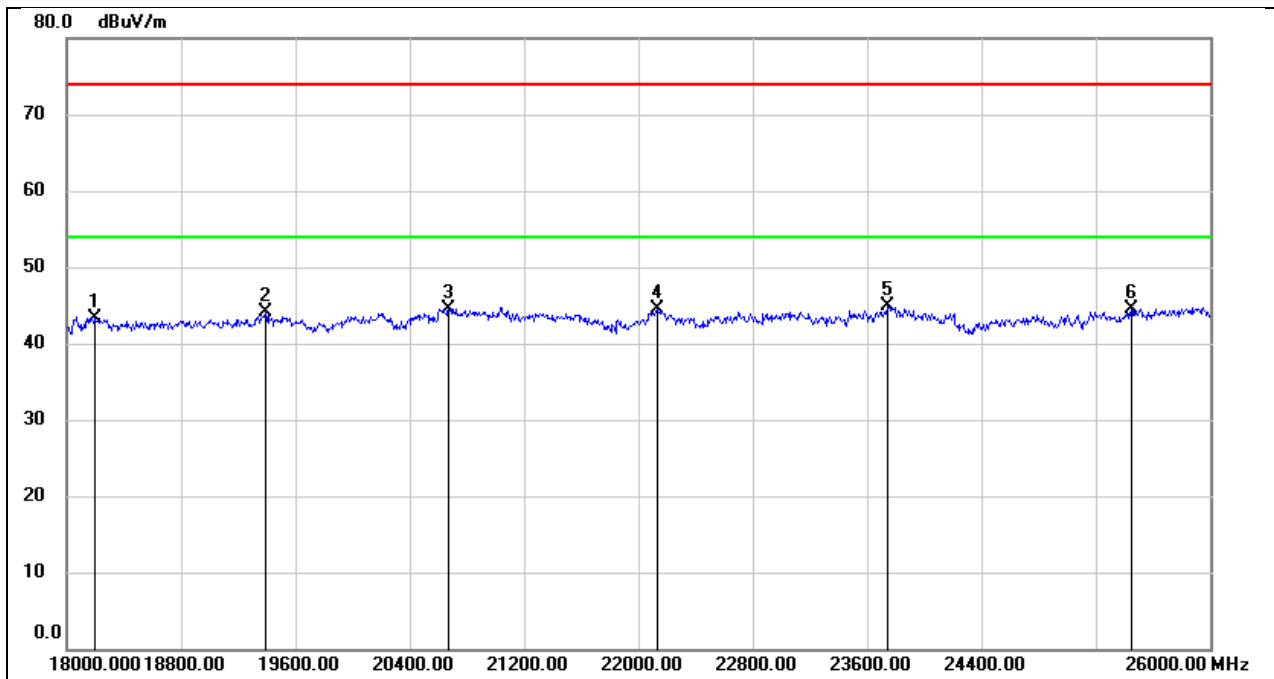
Data table									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	2988.00	53.19	46.22	-6.97	74.00	27.78	Vertical	PK	PASS
2	4089.00	54.09	41.43	-12.66	74.00	32.57	Vertical	PK	PASS
3	5797.50	52.32	43.16	-9.16	74.00	30.84	Vertical	PK	PASS
4	10945.50	49.07	44.25	-4.82	74.00	29.75	Vertical	PK	PASS
5	15954.00	48.17	45.98	-2.19	74.00	28.02	Vertical	PK	PASS
6	17697.00	46.43	46.63	0.2	74.00	27.37	Vertical	PK	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level]

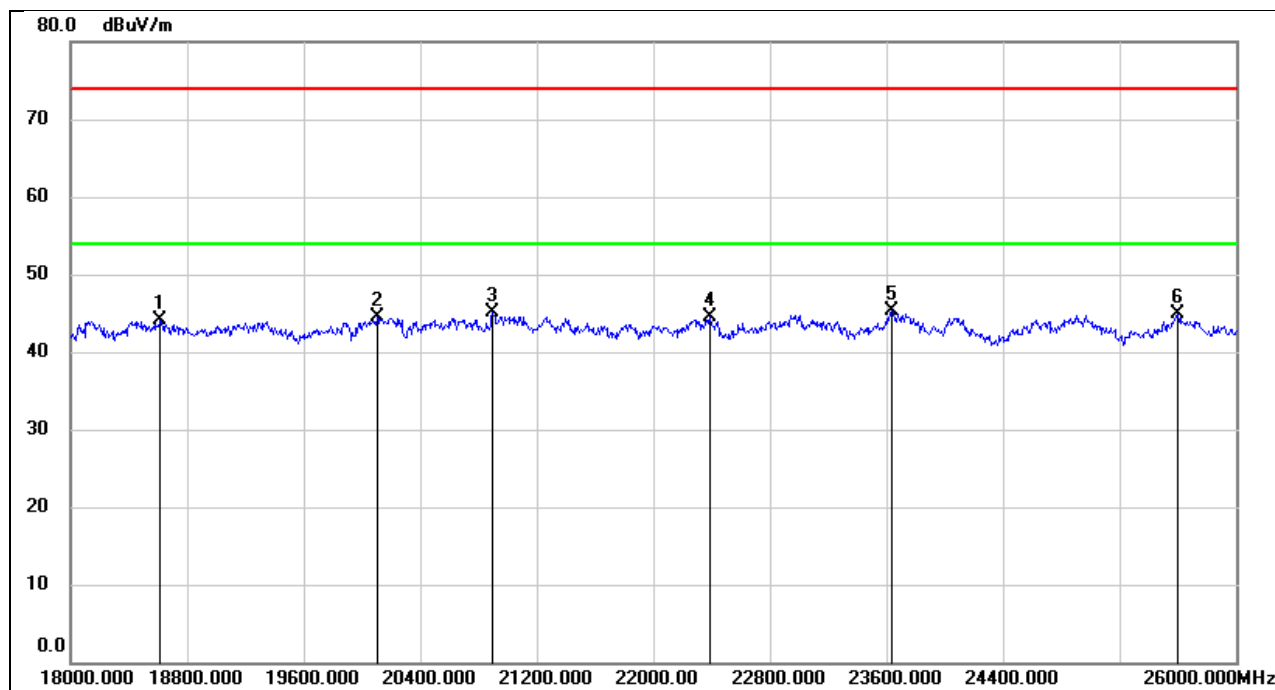
8.5. SPURIOUS EMISSIONS(18 GHZ~26 GHZ)

Test Mode:	802.11b	Frequency(MHz):	2412
Polarity:	Horizontal	Test Voltage:	DC 12V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18200.000	48.79	-5.52	43.27	74.00	-30.73	peak
2	19392.000	49.62	-5.57	44.05	74.00	-29.95	peak
3	20672.000	49.77	-5.19	44.58	74.00	-29.42	peak
4	22136.000	48.91	-4.34	44.57	74.00	-29.43	peak
5	23744.000	48.15	-3.20	44.95	74.00	-29.05	peak
6	25448.000	46.33	-1.76	44.57	74.00	-29.43	peak

Test Mode:	802.11b	Frequency(MHz):	2412
Polarity:	Vertical	Test Voltage:	DC 12V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18616.000	49.39	-5.34	44.05	74.00	-29.95	peak
2	20104.000	49.94	-5.52	44.42	74.00	-29.58	peak
3	20896.000	50.02	-4.98	45.04	74.00	-28.96	peak
4	22392.000	48.61	-4.02	44.59	74.00	-29.41	peak
5	23640.000	48.47	-3.17	45.30	74.00	-28.70	peak
6	25600.000	46.17	-1.31	44.86	74.00	-29.14	peak

9. ANTENNA REQUIREMENT

REQUIREMENT

Please refer to FCC part 15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC part 15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DESCRIPTION

Pass

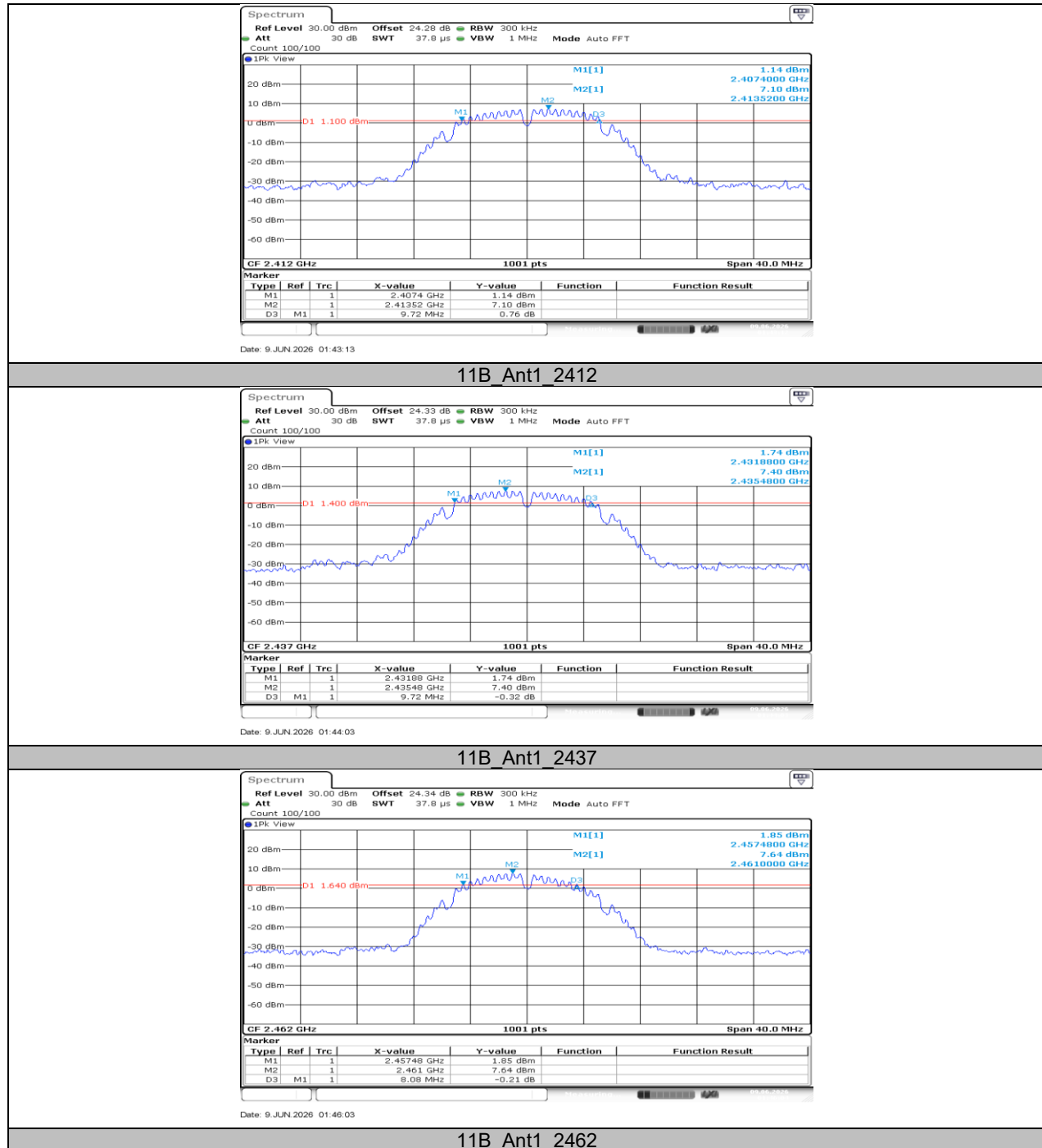
10. TEST DATA

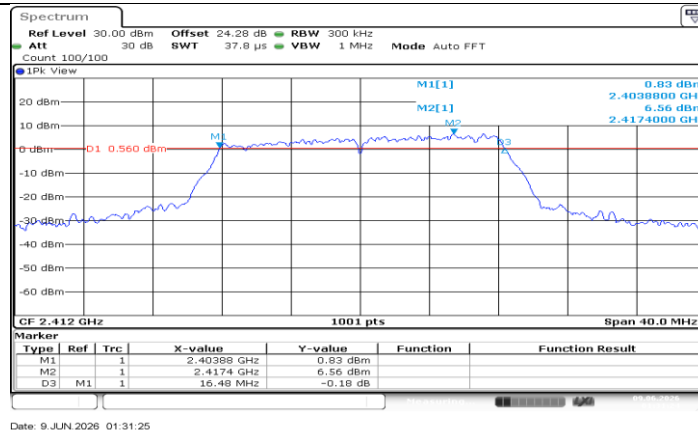
10.1. APPENDIX A: DTS BANDWIDTH

10.1.1. Test Result

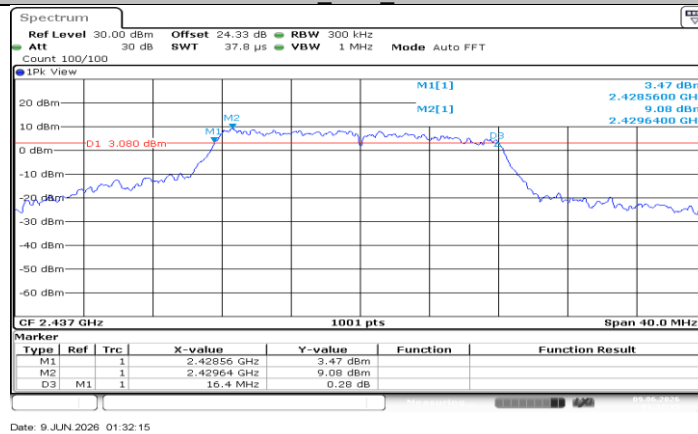
Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.72	2407.40	2417.12	0.5	PASS
		2437	9.72	2431.88	2441.60	0.5	PASS
		2462	8.08	2457.48	2465.56	0.5	PASS
11G	Ant1	2412	16.48	2403.88	2420.36	0.5	PASS
		2437	16.40	2428.56	2444.96	0.5	PASS
		2462	10.56	2455.68	2466.24	0.5	PASS
11N20SISO	Ant1	2412	17.60	2403.28	2420.88	0.5	PASS
		2437	17.60	2428.04	2445.64	0.5	PASS
		2462	10.28	2456.44	2466.72	0.5	PASS
11N40SISO	Ant1	2422	20.16	2413.12	2433.28	0.5	PASS
		2437	35.68	2419.16	2454.84	0.5	PASS
		2452	16.48	2449.92	2466.40	0.5	PASS

10.1.2. Test Graphs

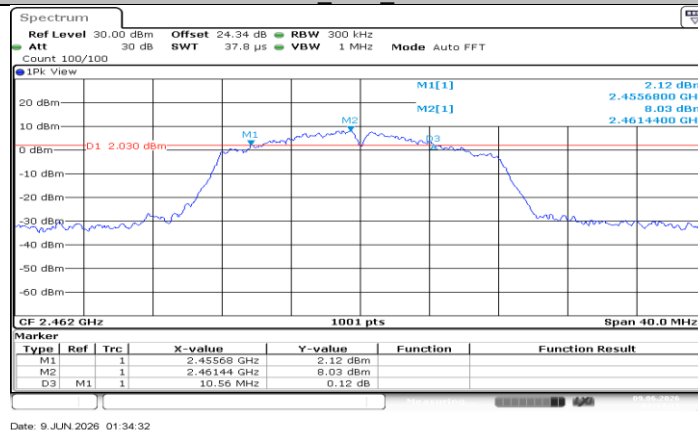




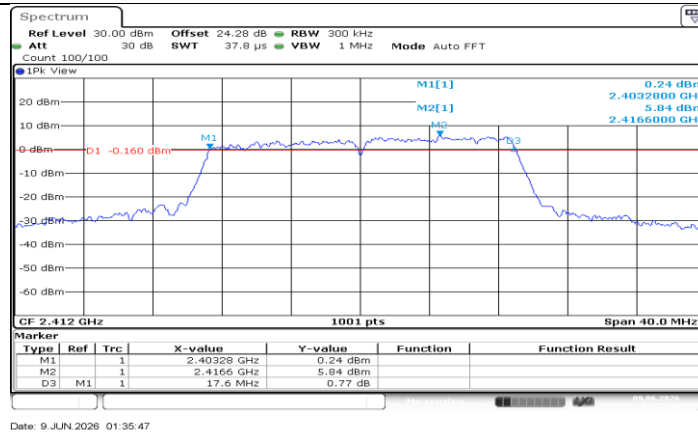
11G Ant1 2412



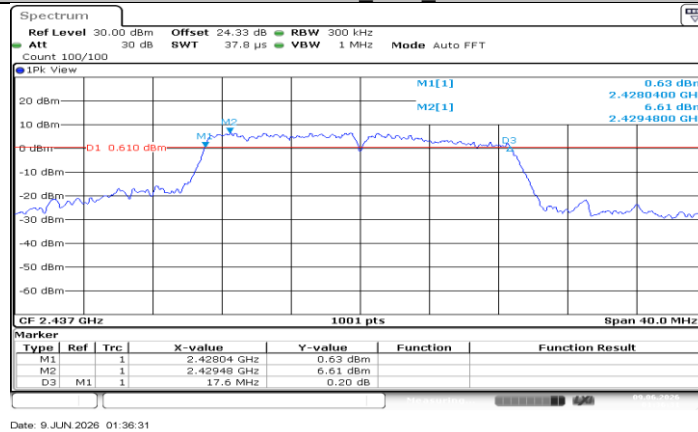
11G Ant1 2437



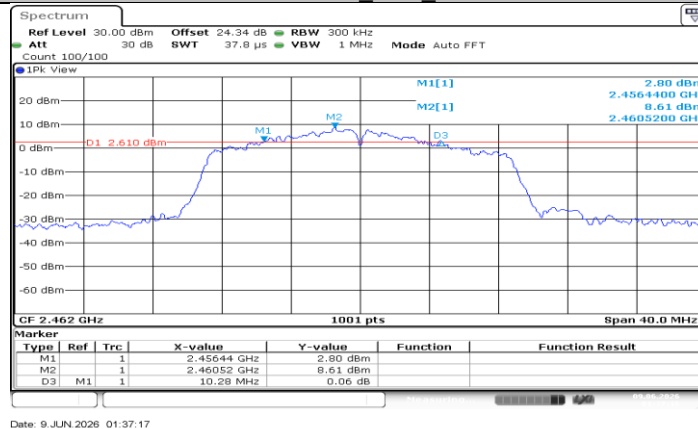
11G Ant1 2462



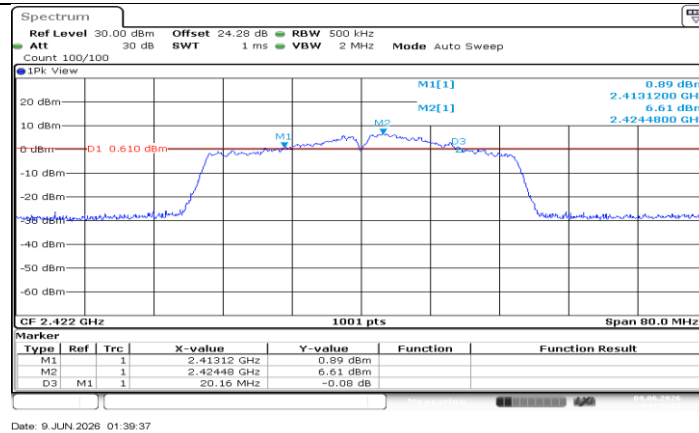
11N20SISO_Ant1_2412



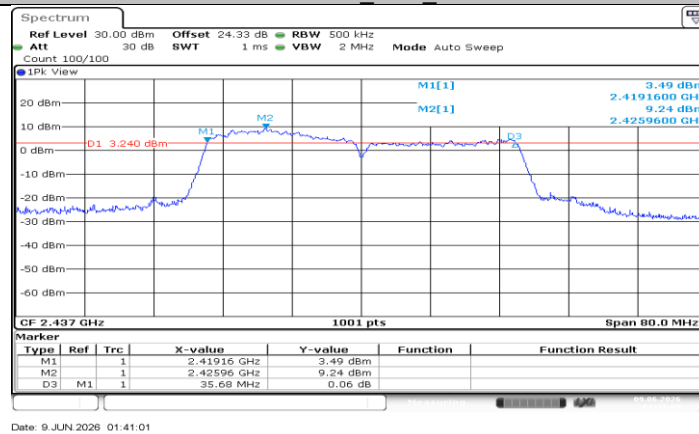
11N20SISO_Ant1_2437



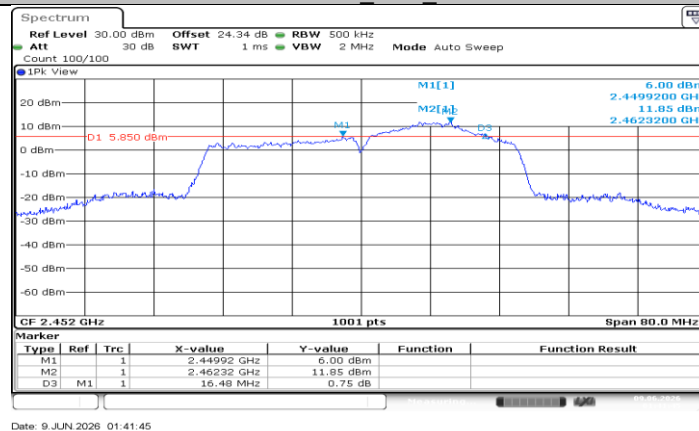
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



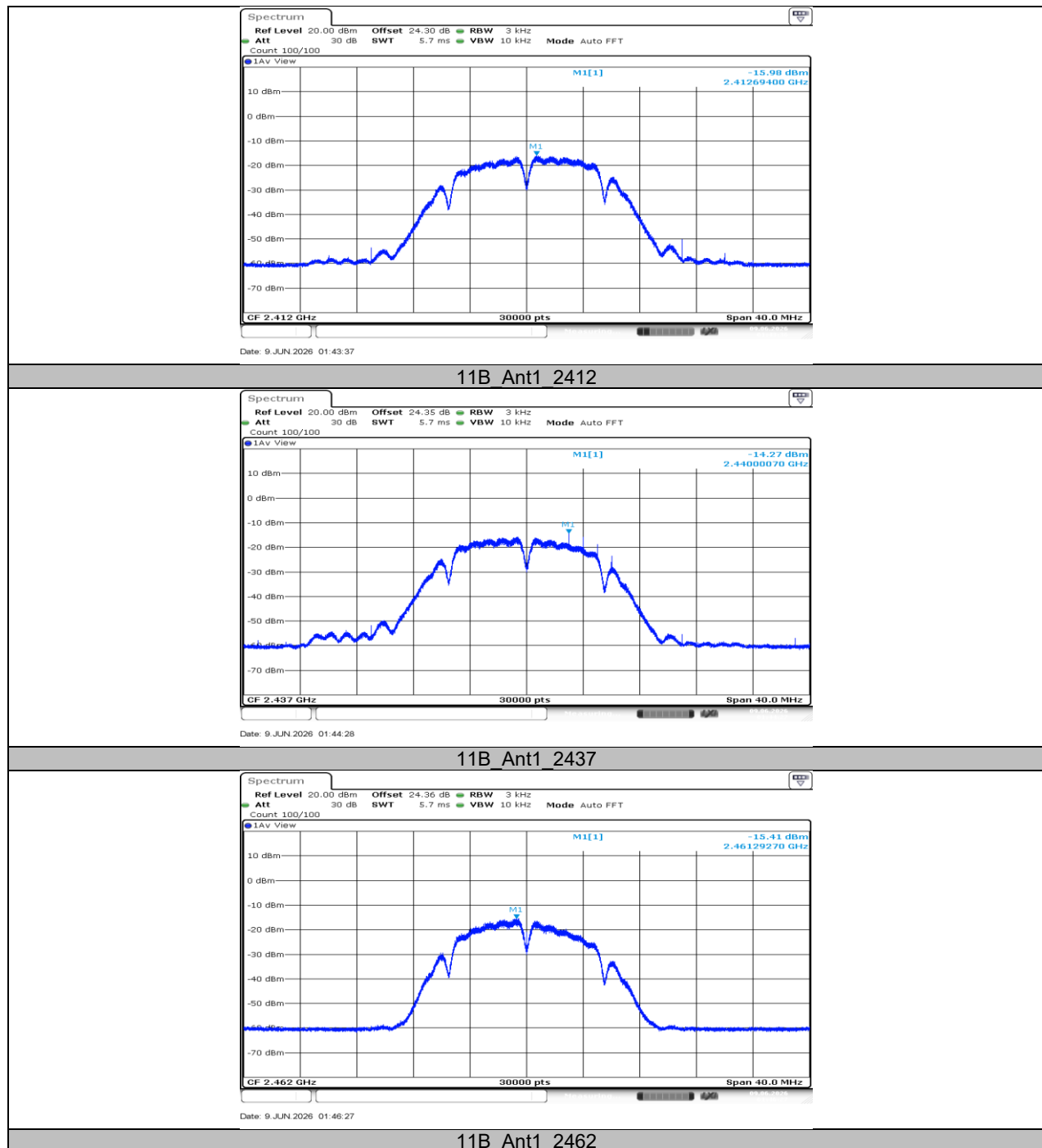
11N40SISO_Ant1_2452

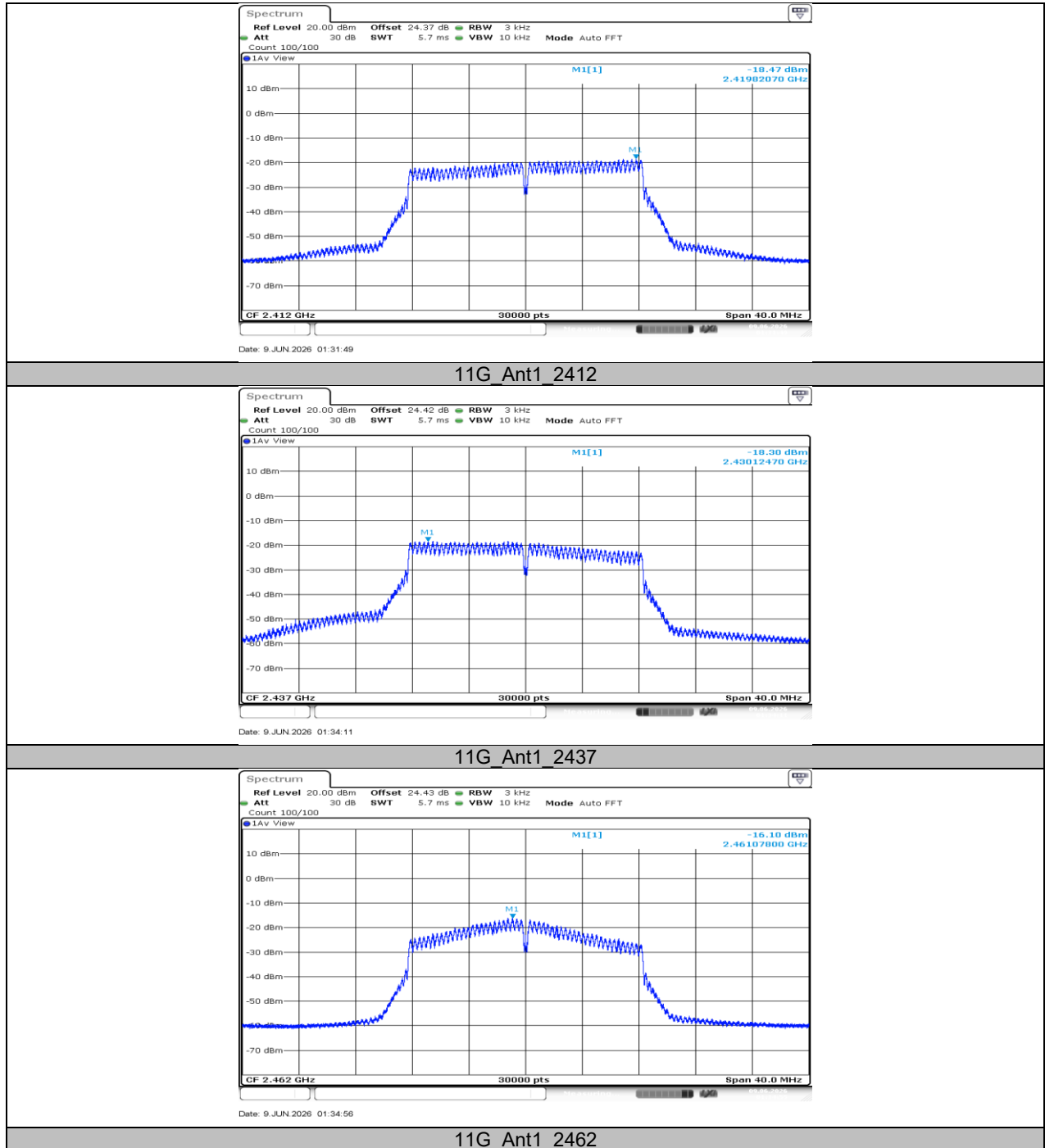
10.2. APPENDIX B: MAXIMUM POWER SPECTRAL DENSITY**10.2.1. Test Result**

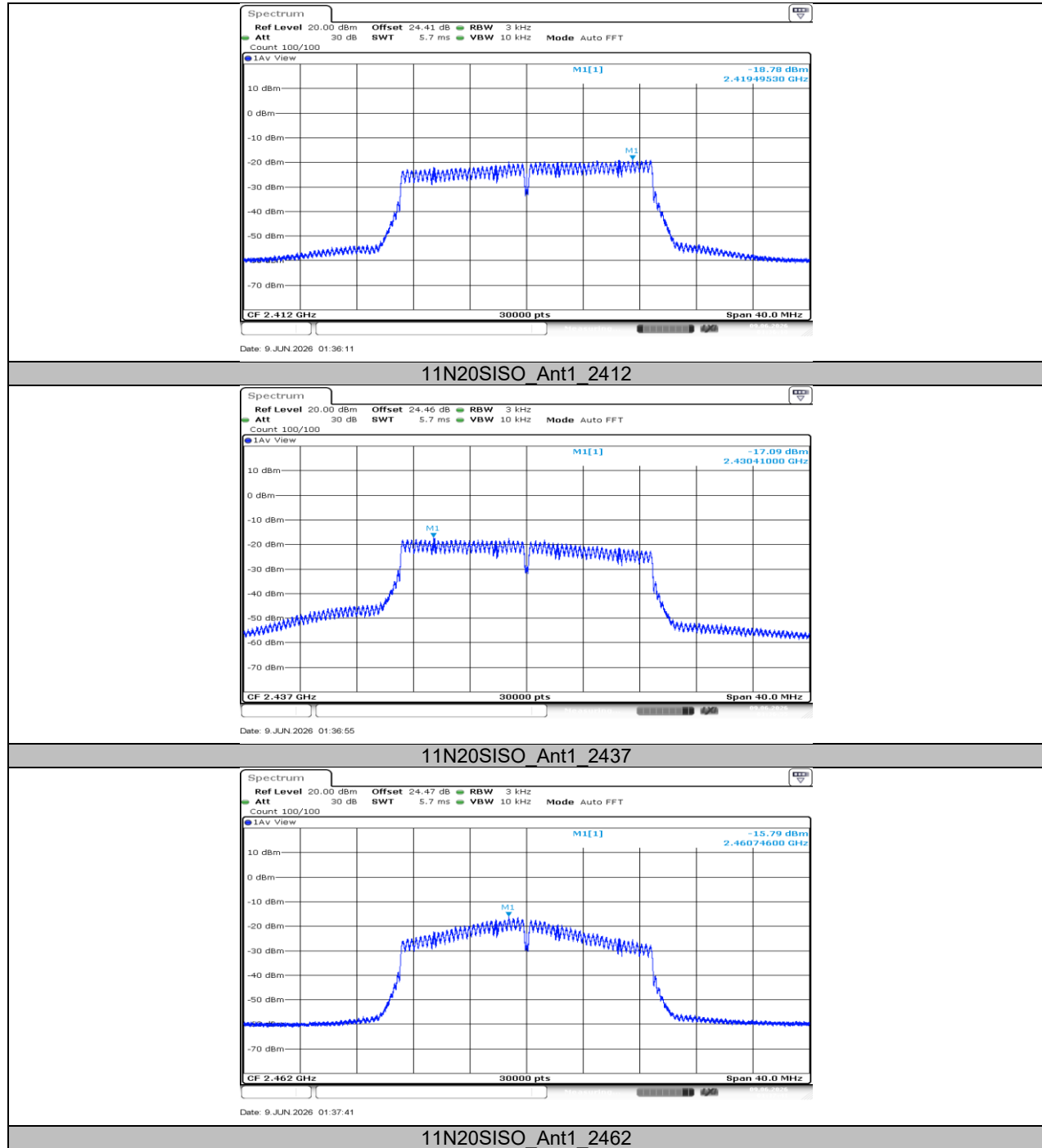
Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-15.98	≤8.00	PASS
		2437	-14.27	≤8.00	PASS
		2462	-15.41	≤8.00	PASS
11G	Ant1	2412	-18.47	≤8.00	PASS
		2437	-18.30	≤8.00	PASS
		2462	-16.10	≤8.00	PASS
11N20SISO	Ant1	2412	-18.78	≤8.00	PASS
		2437	-17.09	≤8.00	PASS
		2462	-15.79	≤8.00	PASS
11N40SISO	Ant1	2422	-16.60	≤8.00	PASS
		2437	-16.47	≤8.00	PASS
		2452	-13.45	≤8.00	PASS

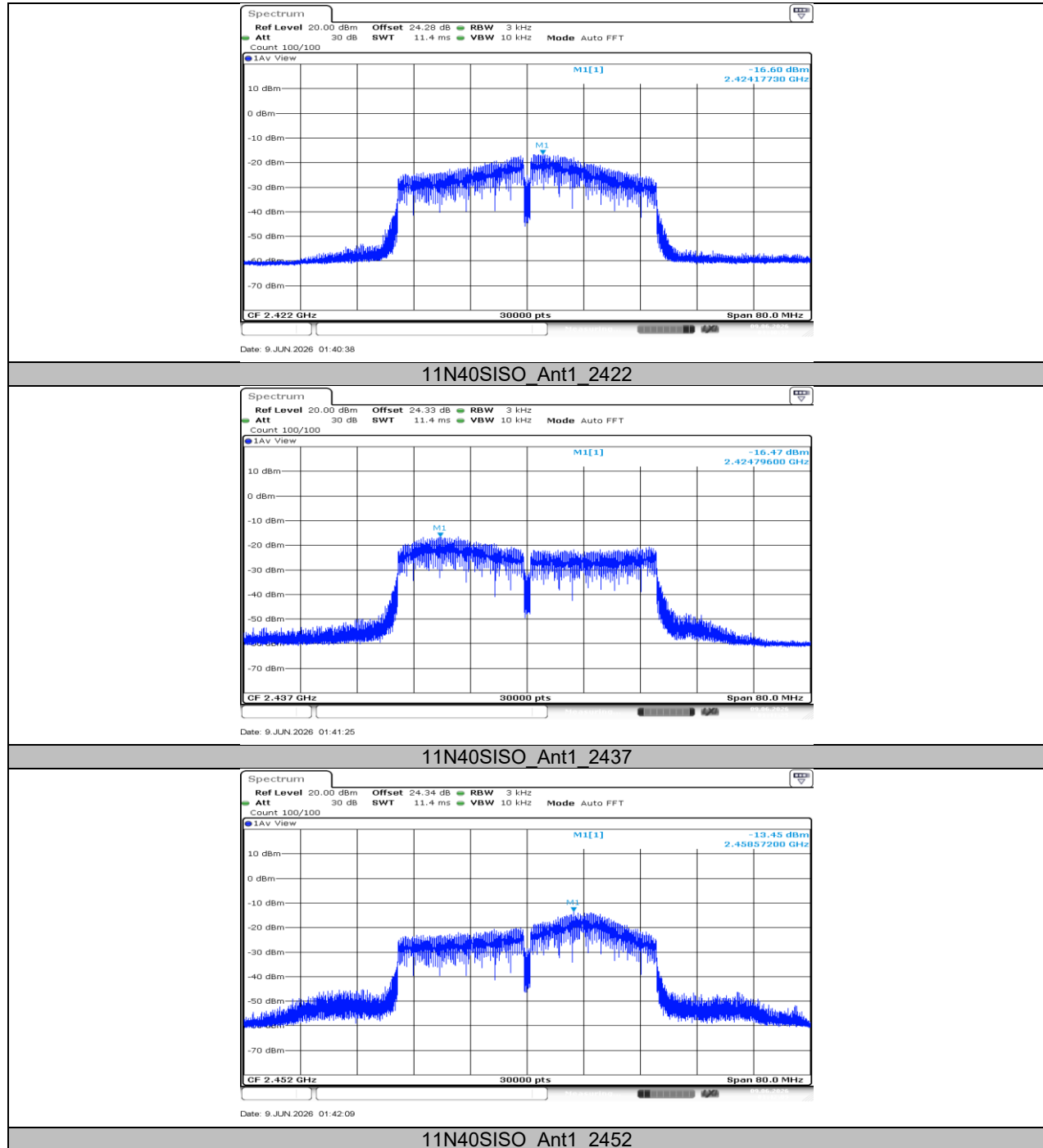
Note: 1. The Duty Cycle Factor (refer to section 7.5) had already compensated to the test data.

10.2.2. Test Graphs









10.3. APPENDIX C: DUTY CYCLE**10.3.1. Test Result**

Test Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
b	8.37	8.4	0.9964	99.64	0.00	0.12	0.5
g	1.39	1.42	0.9789	97.89	0.09	0.72	1
n20	1.28	1.32	0.9697	96.97	0.13	0.78	1
n40	100	100	100	100	0.00	0.01	0.01

Note:

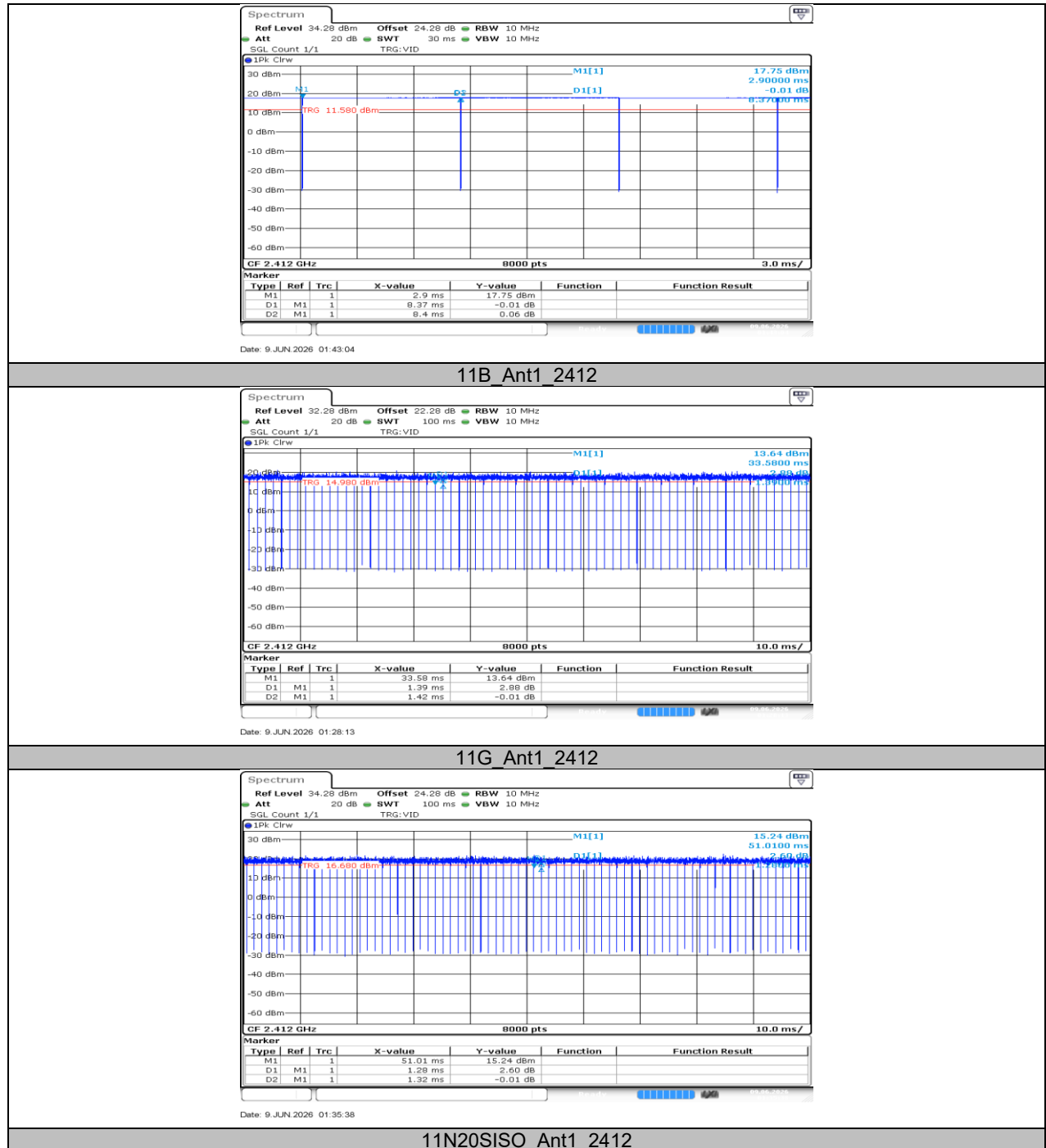
Duty Cycle Correction Factor=10log (1/x).

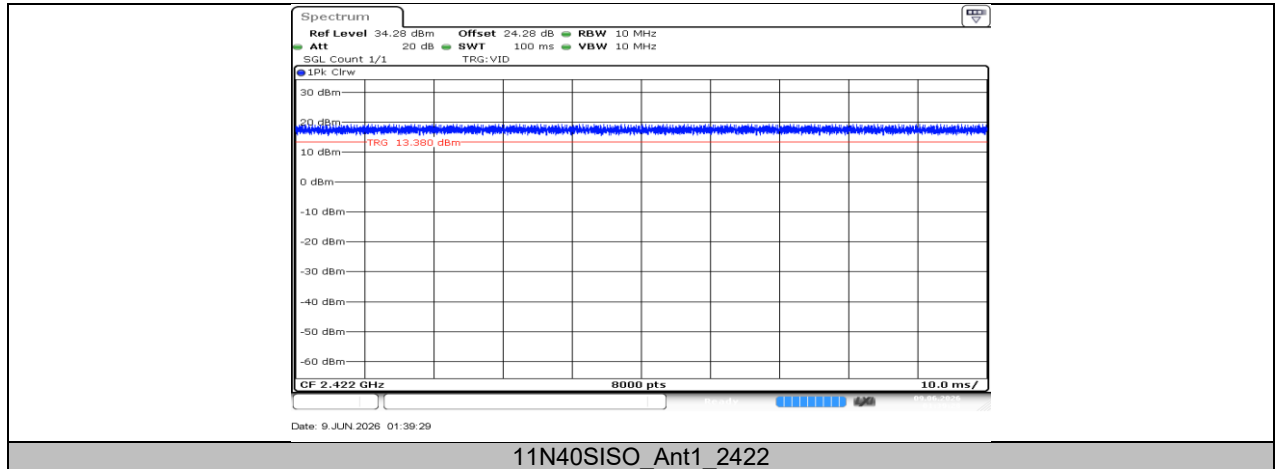
Where: x is Duty Cycle (Linear)

Where: T is On Time

If that calculated VBW is not available on the analyzer then the next higher value should be used.

10.3.2. Test Graphs





END OF REPORT