

TEST REPORT

Applicant: PO FUNG ELECTRONIC (HK) INTERNATIONAL GROUP
COMPANY LIMITED

Address: Room 1508, 15/F, Office Tower II, Grand Plaza, 625 Nathan Road,
Kowloon, Hong Kong

Product Name: Amateur Radio

FCC ID: 2AJGM-UV25

Standard(s): FCC Part 15B
ANSI C63.4-2014

Report Number: XMTN1240103-00741E-RF-00A

Report Date: 2024/4/10

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	XMTN1240103-00741E-RF-00A	Original Report	2024/4/10

1. GENERAL INFORMATION

1.1 General Description Of Equipment Under Test

Product Name:	Amateur Radio
Test Model:	UV25M
Multiple Models:	UV25L, UV25G, UV25A, AR25M,UV25
Highest Operation Frequency:	520 MHz
Rated Input Voltage:	DC 7.4Vdc from battery or DC 5V from USB port
Serial Number:	2G6S-3(AC line conducted emissions and Radiated emission) 2G6S-1(Antenna port conducted test)
EUT Received Date:	2024/1/25
EUT Received Status:	Good
Note: the Multiple models are electrically identical with the test model. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
/	/	/	/

1.3 Equipment Modifications

No modifications are made to the EUT during all test items.

2. SUMMARY OF TEST RESULTS

Standard Clause	Description of Test	Test Result
FCC§15.107	Conducted emissions	Compliant
FCC§15.109	Radiated emissions	Compliant
FCC§15.121(b)	Scanning receivers and frequency converters used with scanning receivers	Compliant

3. DESCRIPTION OF TEST CONFIGURATION

3.1 Operation Frequency And Test Channel:

Operation Modes	Operation Frequency Range (MHz)	Test Frequency (MHz)
VHF Receiving	108-136	108.0125, 122, 135.9875
	136-174	136.0125, 155, 173.9875
	220-260	220.0125, 240, 259.9875
UHF Receiving	350-390	350.0125, 370, 389.9875
	400-520	400.0125, 460, 519.9875
Scanning	108-136	108-136
	136-174	136-174
	220-260	220-260
	350-390	350-390
	400-520	400-520

3.2 Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user). The following summary table is showing all test modes to demonstrate in compliance with the standard:

Test Items	Test Mode(s)
Radiated Spurious Emission :	Test Mode 1: Charging&Scanning
	Test Mode 2: Charging&Receiving
AC Line Conducted Emission	Test Mode 1: Charging&Scanning
	Test Mode 2: Charging&Receiving
RF Conducted:	Test Mode 1: Scanning

3.3 EUT Exercise Software

No software was used to test.

3.4 Support Equipment List and Details

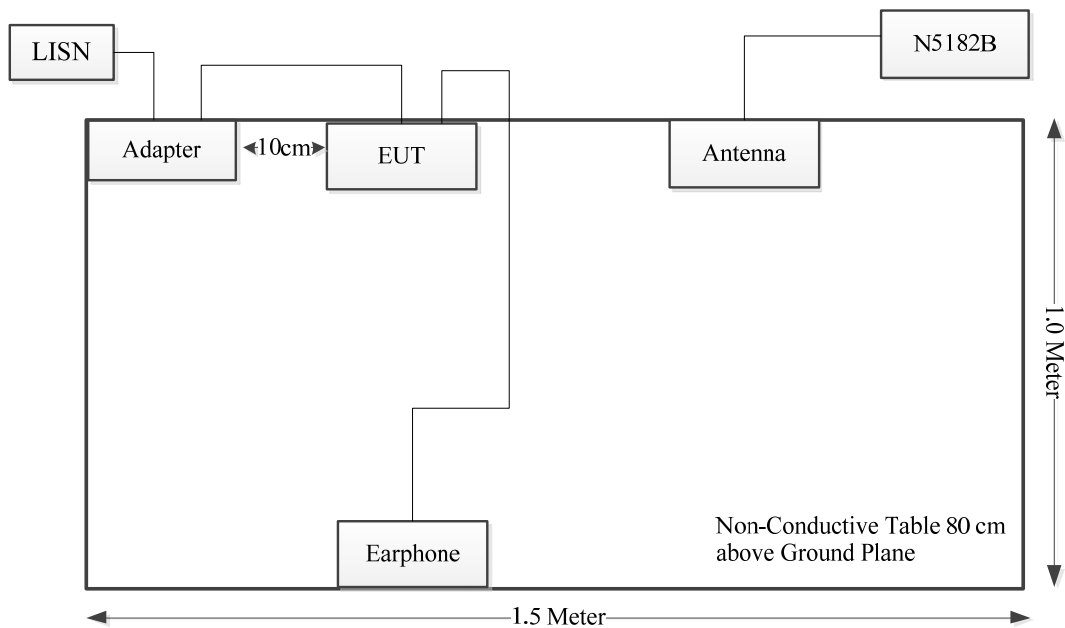
Manufacturer	Description	Model	Serial Number
TIANYIN ELECTRONICS	adapter	GO24-090200-AX	4007202-CS
PO FUNG	Earphone	Unknown	2GSG-5
Agilent	MXG Vector Signal Generator	N5182B	MY51350142

3.5 Support Cable List and Details

Cable Description	Shielding Cable	Ferrite Core	Length (m)	From Port	To
USB cable	No	No	1	Adapter	EUT
Earphone cable	No	No	1	Earphone	EUT

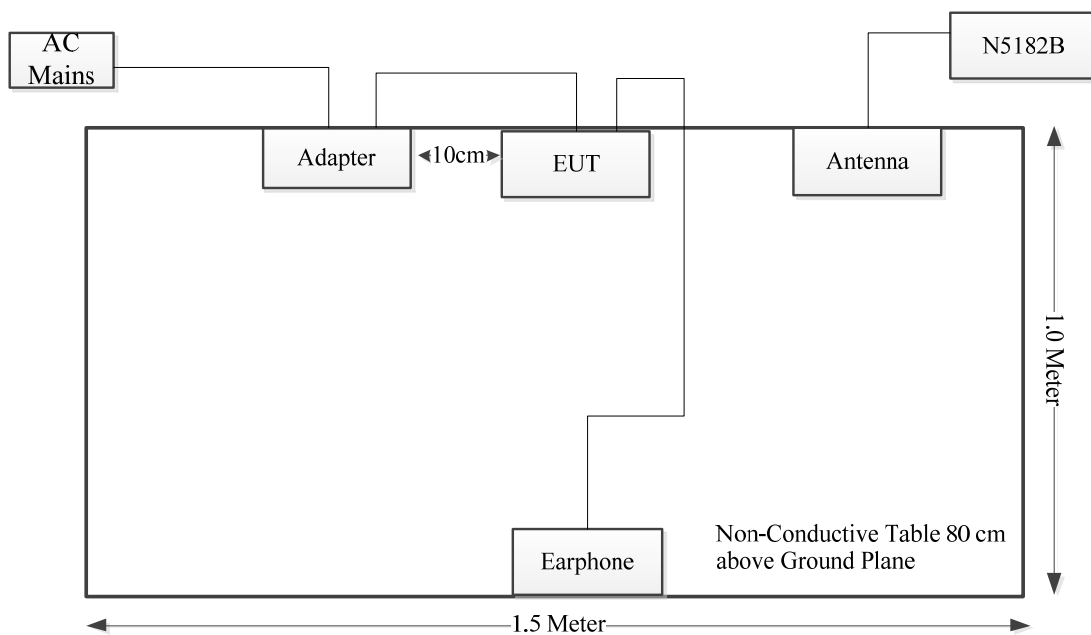
3.6 Block Diagram of Test Setup

AC Power Lines Conducted Emission:

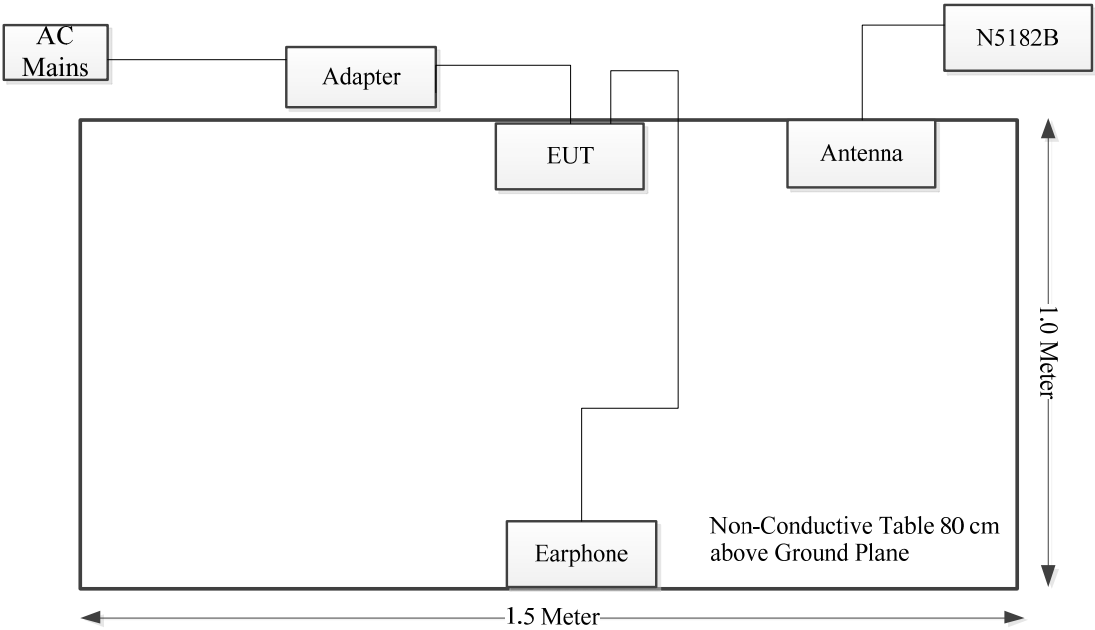


Radiated Spurious Emissions

below 1GHz



above 1GHz



3.7 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

3.8 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Unwanted Emissions, radiated	9kHz~30MHz: 3.3dB, 30MHz~200MHz: 4.55 dB, 200MHz~1GHz: 5.92 dB, 1GHz~6GHz: 4.98 dB, 6GHz~18GHz: 5.89 dB, 18GHz~26.5GHz:5.47 dB, 26.5GHz~40GHz:5.63 dB
Unwanted Emissions, conducted	±2.47 dB
Temperature	±1 °C
Humidity	±5%
AC Power Lines Conducted Emission	3.11 dB (150 kHz to 30 MHz)

4. REQUIREMENTS AND TEST RESULTS

4.1 AC Line Conducted Emissions

4.1.1 Applicable Standard

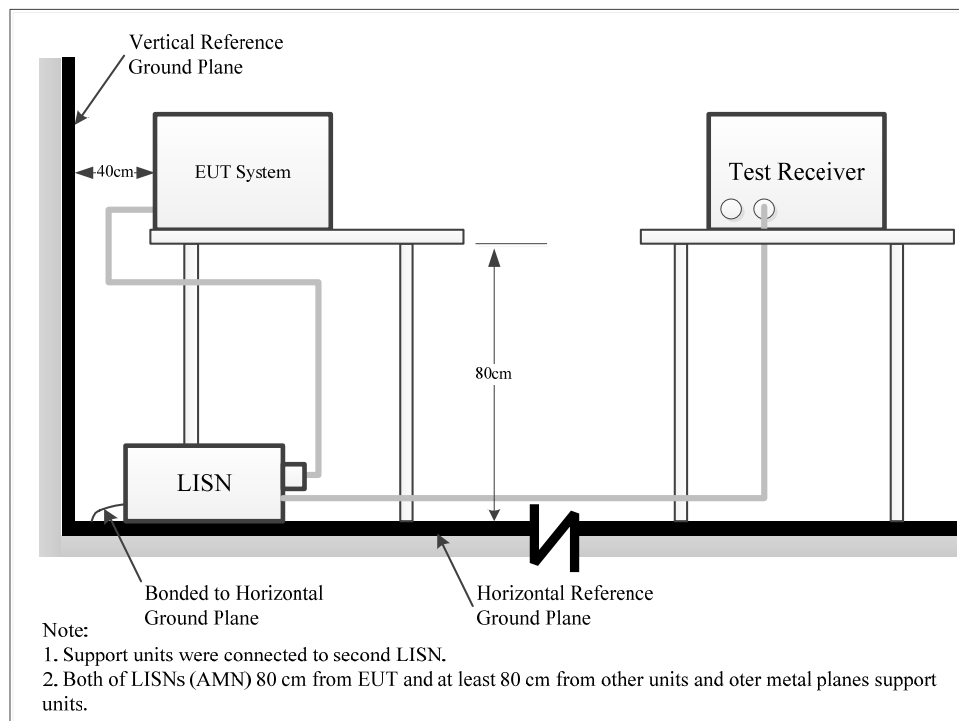
FCC§15.107

(a) Except for Class A digital devices, for equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the band edges

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency.

4.1.2 Test System Setup



The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15 B Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

4.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

4.1.4 Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

4.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = attenuation caused by cable loss + voltage division factor of AMN

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

4.1.6 Test Data and Result

Serial Number:	2G6S-3	Test Date:	2024/3/10
Test Site:	CE	Test Mode:	Mode 1, Mode 2
Tester:	Lane Sun	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	22.6	Relative Humidity: (%)	55	ATM Pressure: (kPa)	101.1
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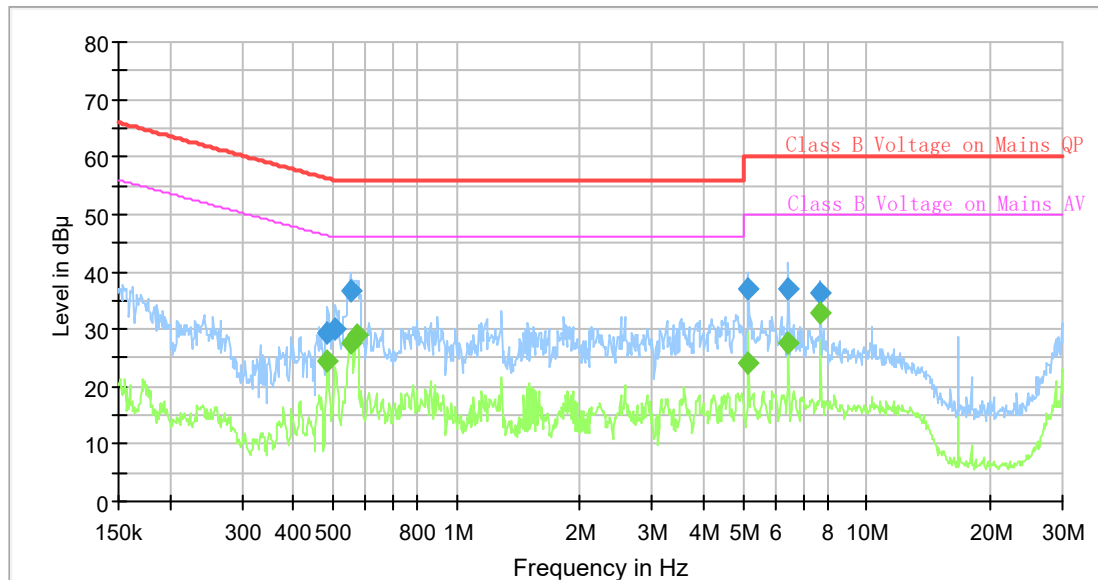
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101614	2023/10/18	2024/10/17
MICRO-COAX	Coaxial Cable	C-NJNJ-50	C-0200-01	2023/9/5	2024/9/4
R&S	EMI Test Receiver	ESCI	100035	2023/8/18	2024/8/17
R&S	Test Software	EMC32	V9.10.00	N/A	N/A

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

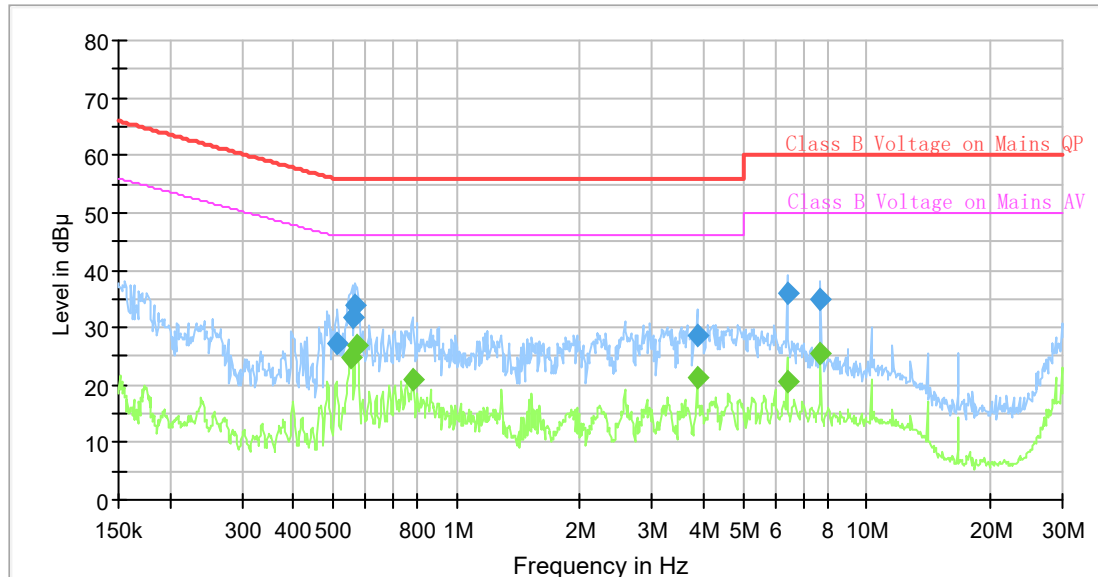
Test Mode 1:

Project No: XMTN1240103-00741E-RF
Port: L
Test Engineer: Lane Sun
Test Date: 2024-3-10
Test Mode: Charging & Scanning
Power Source: AC 120V/60Hz
Note: 350-390MHz was tested

**Final Result**

Frequency (MHz)	QuasiPeak (dB μV)	Average (dB μV)	Limit (dB μV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.484301	---	24.58	46.26	21.68	9.000	L1	10.8
0.484301	29.42	---	56.26	26.84	9.000	L1	10.8
0.506536	30.20	---	56.00	25.80	9.000	L1	10.8
0.551358	---	27.72	46.00	18.28	9.000	L1	10.8
0.551358	36.73	---	56.00	19.27	9.000	L1	10.8
0.570947	---	29.11	46.00	16.89	9.000	L1	10.8
5.150259	37.08	---	60.00	22.92	9.000	L1	10.8
5.150259	---	24.24	50.00	25.76	9.000	L1	10.8
6.446171	36.95	---	60.00	23.05	9.000	L1	10.9
6.446171	---	27.59	50.00	22.41	9.000	L1	10.9
7.714007	---	32.99	50.00	17.01	9.000	L1	10.9
7.714007	36.16	---	60.00	23.84	9.000	L1	10.9

Project No: XMTN1240103-00741E-RF
Port: N
Test Engineer: Lane Sun
Test Date: 2024-3-10
Test Mode: Charging & Scanning
Power Source: AC 120V/60Hz
Note: 350-390MHz was tested

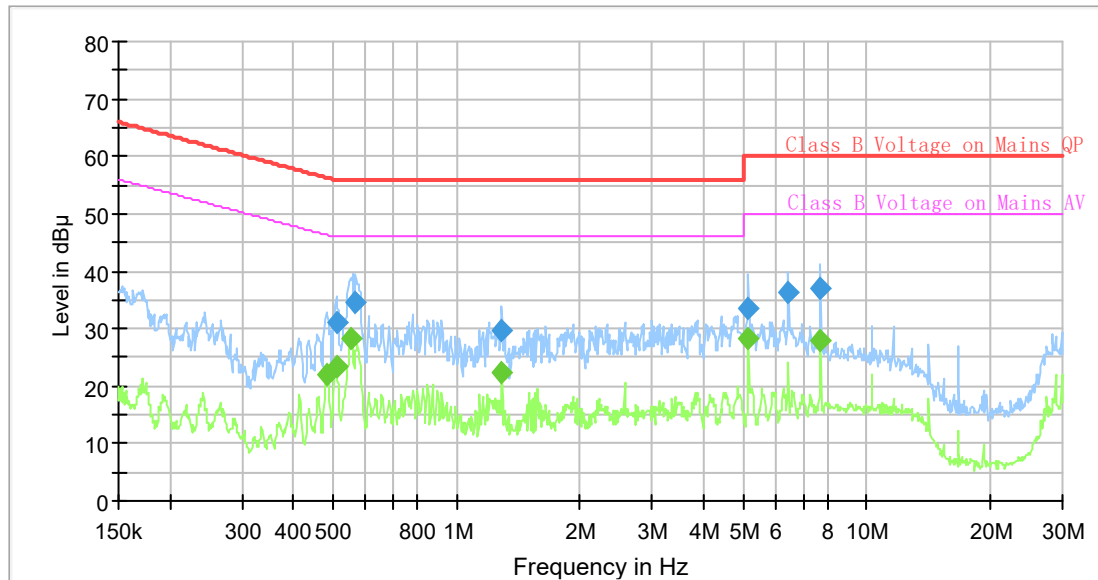


Final Result

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.511614	27.33	---	56.00	28.67	9.000	N	10.7
0.551358	---	24.63	46.00	21.37	9.000	N	10.7
0.556885	31.64	---	56.00	24.36	9.000	N	10.7
0.568106	34.00	---	56.00	22.00	9.000	N	10.7
0.573802	---	27.01	46.00	18.99	9.000	N	10.7
0.781732	---	21.06	46.00	24.94	9.000	N	10.8
3.856537	28.52	---	56.00	27.48	9.000	N	10.9
3.856537	---	21.23	46.00	24.77	9.000	N	10.9
6.414101	35.85	---	60.00	24.15	9.000	N	10.9
6.414101	---	20.60	50.00	29.40	9.000	N	10.9
7.714007	---	25.52	50.00	24.48	9.000	N	10.8
7.714007	34.94	---	60.00	25.06	9.000	N	10.8

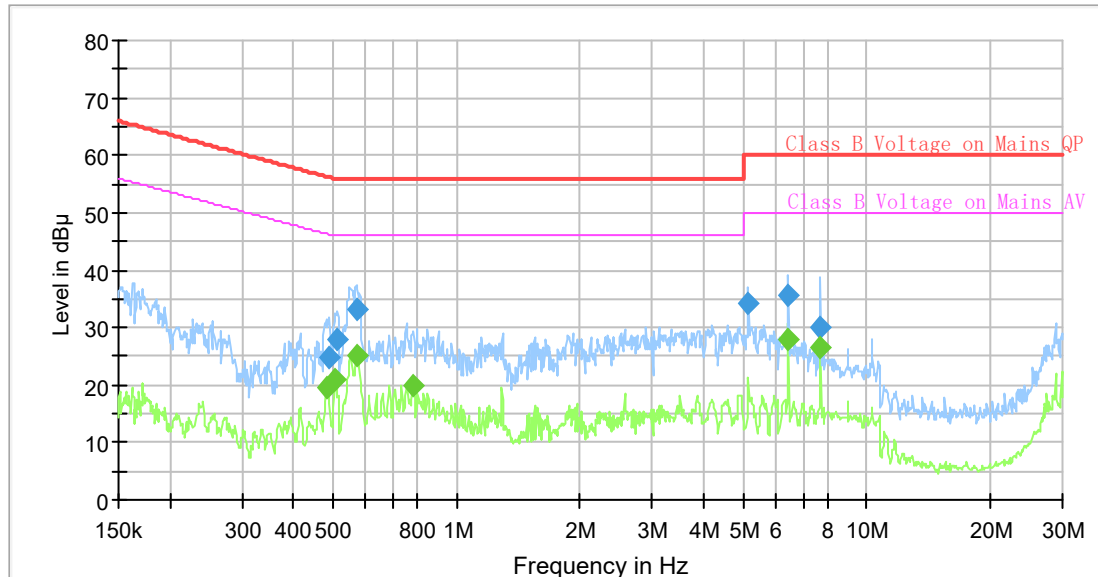
Test Mode 2:

Project No: XMTN1240103-00741E-RF
Line: L
Test Engineer: Lane Sun
Test Date: 2024-3-10
Test Mode: Charging &Receiving
Power Source: AC 120V/60Hz
Note: 389.9875MHz was tested

**Final Result**

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.481892	---	22.15	46.31	24.16	9.000	L1	10.8
0.509069	---	23.38	46.00	22.62	9.000	L1	10.8
0.509069	31.08	---	56.00	24.92	9.000	L1	10.8
0.554114	---	28.15	46.00	17.85	9.000	L1	10.8
0.568106	34.62	---	56.00	21.38	9.000	L1	10.8
1.287253	29.84	---	56.00	26.16	9.000	L1	10.8
1.287253	---	22.24	46.00	23.76	9.000	L1	10.8
5.150259	---	28.28	50.00	21.72	9.000	L1	10.8
5.150259	33.42	---	60.00	26.58	9.000	L1	10.8
6.446171	36.35	---	60.00	23.65	9.000	L1	10.9
7.714007	---	27.86	50.00	22.14	9.000	L1	10.9
7.714007	37.06	---	60.00	22.94	9.000	L1	10.9

Project No: XMTN1240103-00741E-RF
Line: N
Test Engineer: Lane Sun
Test Date: 2024-3-10
Test Mode: Charging &Receiving
Power Source: AC 120V/60Hz
Note: 389.9875MHz was tested



Final Result

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.481892	---	19.59	46.31	26.72	9.000	N	10.7
0.489157	24.72	---	56.18	31.46	9.000	N	10.7
0.506536	---	20.89	46.00	25.11	9.000	N	10.7
0.511614	27.84	---	56.00	28.16	9.000	N	10.7
0.570947	33.12	---	56.00	22.88	9.000	N	10.7
0.573802	---	25.11	46.00	20.89	9.000	N	10.7
0.781732	---	20.01	46.00	25.99	9.000	N	10.8
5.150259	34.19	---	60.00	25.81	9.000	N	10.8
6.446171	35.46	---	60.00	24.54	9.000	N	10.9
6.446171	---	27.91	50.00	22.09	9.000	N	10.9
7.714007	---	26.69	50.00	23.31	9.000	N	10.8
7.714007	30.09	---	60.00	29.91	9.000	N	10.8

4.2 Radiation Spurious Emissions

4.2.1 Applicable Standard

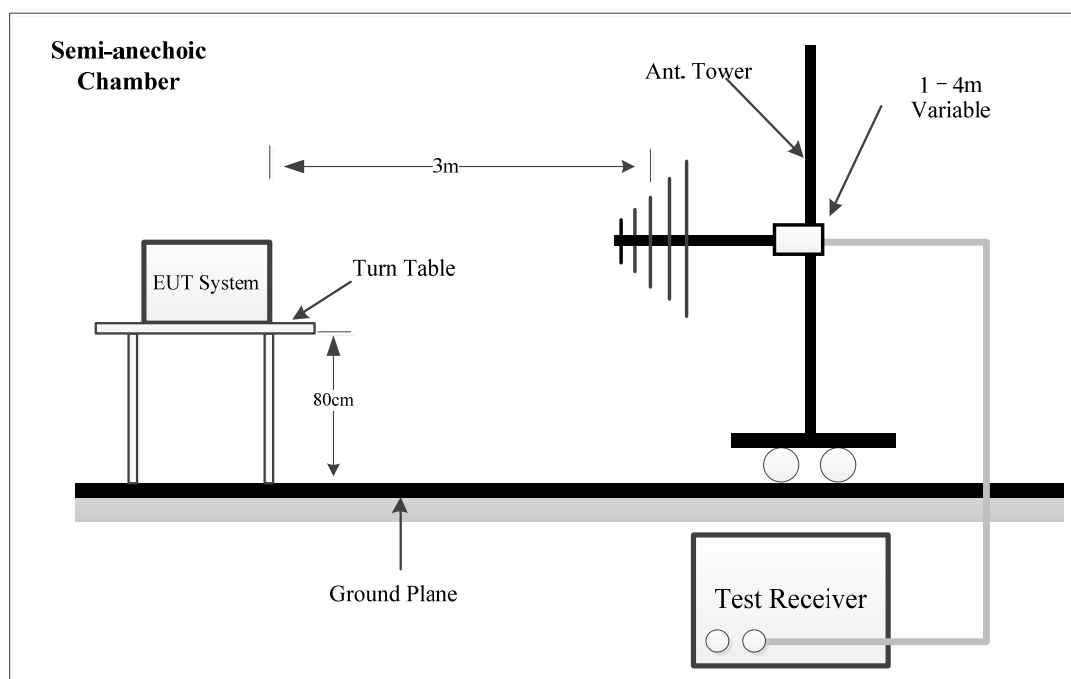
FCC§15.109

(a) Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

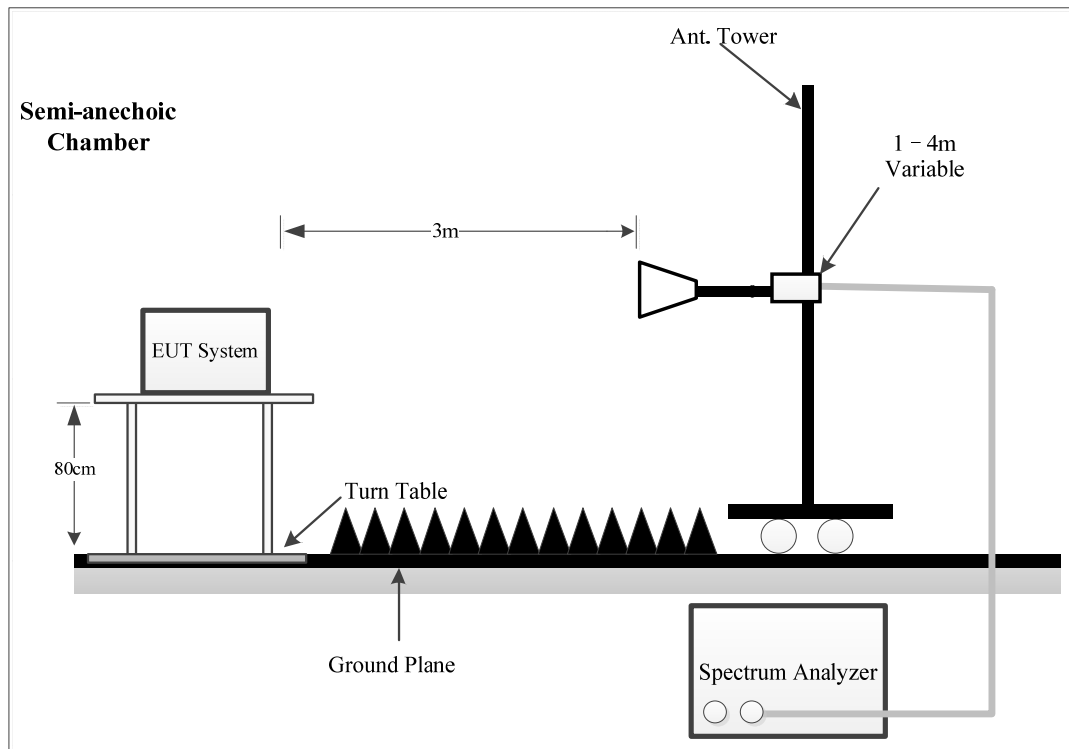
Frequency of emission (MHz)	Field strength (microvolts/meter)
30–88	100
88–216	150
216–960	200
Above 960	500

4.2.2 Test System Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed at the 3 meters distance, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15B Class B limits.

4.2.3 EMI Test Receiver Setup

The system was investigated from 30 MHz to 5 GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30MHz – 1000 MHz	100 kHz	300 kHz	/	Peak
	/	/	120kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	Reduced video bandwidth	/	AVG

4.2.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The data was recorded in the Quasi-peak detection mode for below 1 GHz, peak and average detection mode above 1 GHz.

If the maximized peak measured value complies with under the QP limit more than 6dB, then it is unnecessary to perform an QP measurement.

4.2.5 Corrected Result & Margin Calculation

The basic equation is as follows:

$$\text{Result} = \text{Reading} + \text{Factor}$$

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Result}$$

4.2.6 Test Data and Result

Serial Number:	2G6S-3	Test Date:	2024/1/29~2024/3/29
Test Site:	Chamber A, Chamber B	Test Mode:	Mode 1, Mode 2
Tester:	Leesin Xiang, Leo Xiao	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	17.1~24.8	Relative Humidity: (%)	38~50	ATM Pressure: (kPa)	100.9~101.9

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
30MHz-1GHz					
Sunol Sciences	Hybrid Antenna	JB3	A060611-3	2024/1/12	2027/1/11
Wilson	Coaxial Attenuator	859936	F-08-EM014	2024/1/12	2027/1/11
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2023/7/1	2024/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2023/7/1	2024/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-1400-01	2023/7/1	2024/6/30
Sonoma	Amplifier	310N	372193	2023/7/1	2024/6/30
R&S	EMI Test Receiver	ESR3	102453	2023/8/18	2024/8/17
Audix	Test Software	E3	191218 (V9)	N/A	N/A
Above 1GHz					
AH	Horn Antenna	SAS-571	1394	2023/2/22	2024/2/22
HUBER+SUHNER	Coaxial Cable	SUCOFLEX 126EA	MY369/26/26EA	2023/9/6	2024/9/5
AH	Preamplifier	PAM-0118P	530	2023/9/1	2024/8/31
Agilent	Spectrum Analyzer	E4440A	SG43360054	2023/11/22	2024/11/21
Audix	Test Software	E3	191218 (V9)	N/A	N/A

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Please refer to the below table and plots.
After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

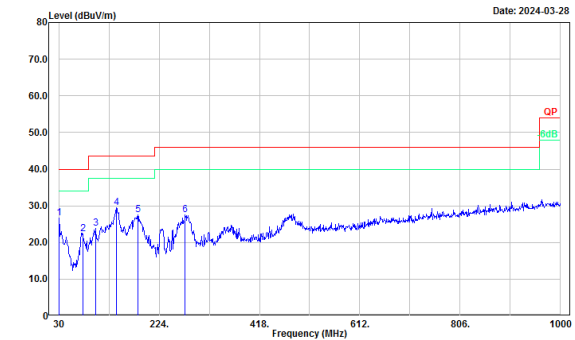
1) 30MHz-1GHz:

Charging&Scanning: 108-136 MHz

Horizontal

Project No.: XMTN1240103-00741E-RF
Polarization: Horizontal
Test Mode: Charging & Scanning(108-136MHz)
Note: Part 15B

Serial No.: 266S-3
Tester: Leesin Xiang

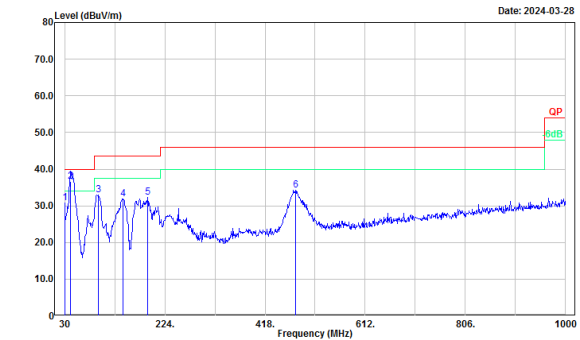


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.97	30.25	-3.57	26.68	40.00	13.32	Peak
2	76.56	38.31	-16.00	22.31	40.00	17.69	Peak
3	100.81	36.88	-13.13	23.75	43.50	19.75	Peak
4	141.55	39.79	-10.31	29.48	43.50	14.02	Peak
5	183.26	39.47	-12.02	27.45	43.50	16.05	Peak
6	274.44	37.34	-9.88	27.46	46.00	18.54	Peak

Vertical

Project No.: XMTN1240103-00741E-RF
Polarization: Vertical
Test Mode: Charging & Scanning(108-136MHz)
Note: Part 15B

Serial No.: 266S-3
Tester: Leesin Xiang



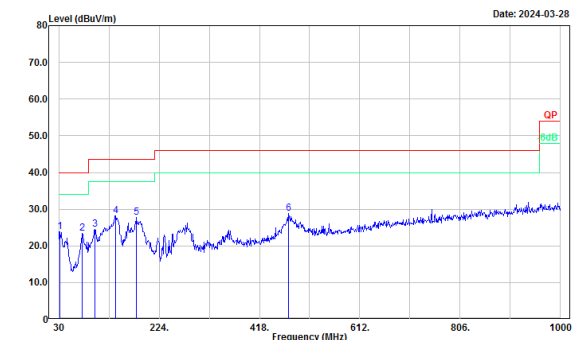
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.00	33.76	-2.99	30.77	40.00	9.23	Peak
2	41.64	47.41	-10.87	36.54	40.00	3.46	QP
3	95.96	47.32	-14.30	33.02	43.50	10.48	Peak
4	142.52	42.29	-10.35	31.94	43.50	11.56	Peak
5	191.02	43.87	-11.67	32.20	43.50	11.30	Peak
6	477.17	38.54	-4.19	34.35	46.00	11.65	Peak

Charging&Scanning: 136-174 MHz

Horizontal

Project No.: XMTN1240103-00741E-RF
Polarization: Horizontal
Test Mode: Charging & Scanning(136-174MHz)
Note: Part 15B

Serial No.: 266S-3
Tester: Leesin Xiang

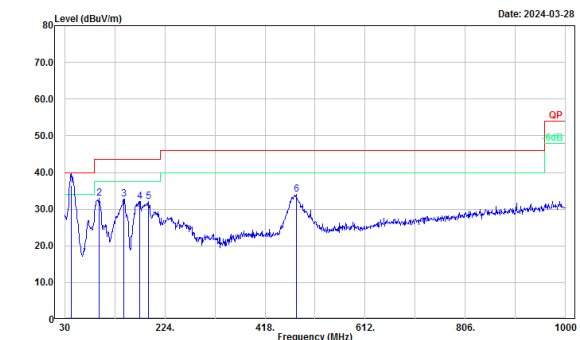


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	31.94	28.13	-4.31	23.82	40.00	16.18	Peak
2	75.59	39.48	-16.01	23.47	40.00	16.53	Peak
3	99.84	37.89	-13.36	24.53	43.50	18.97	Peak
4	140.58	38.46	-10.24	28.22	43.50	15.28	Peak
5	180.35	39.70	-12.02	27.68	43.50	15.82	Peak
6	474.26	33.21	-4.30	28.91	46.00	17.09	Peak

Vertical

Project No.: XMTN1240103-00741E-RF
Polarization: Vertical
Test Mode: Charging & Scanning(136-174MHz)
Note: Part 15B

Serial No.: 266S-3
Tester: Leesin Xiang

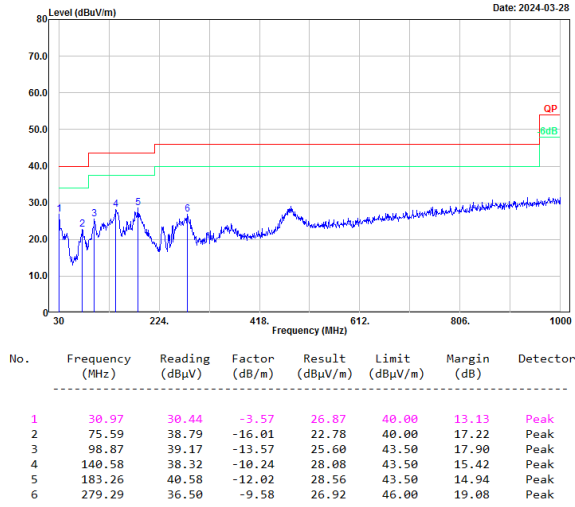


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.61	47.89	-11.50	36.39	40.00	3.61	QP
2	96.93	47.18	-14.13	33.05	43.50	10.45	Peak
3	144.46	43.18	-10.40	32.78	43.50	10.72	Peak
4	175.50	43.92	-11.83	32.09	43.50	11.41	Peak
5	192.96	43.53	-11.49	32.04	43.50	11.46	Peak
6	478.14	38.15	-4.14	34.01	46.00	11.99	Peak

Charging&Scanning: 220-260 MHz

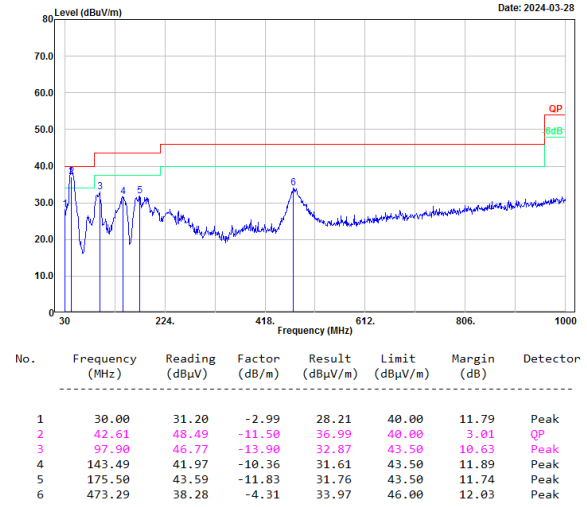
Horizontal

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging & Scanning(220-260MHz)
Note: Part 15B



Vertical

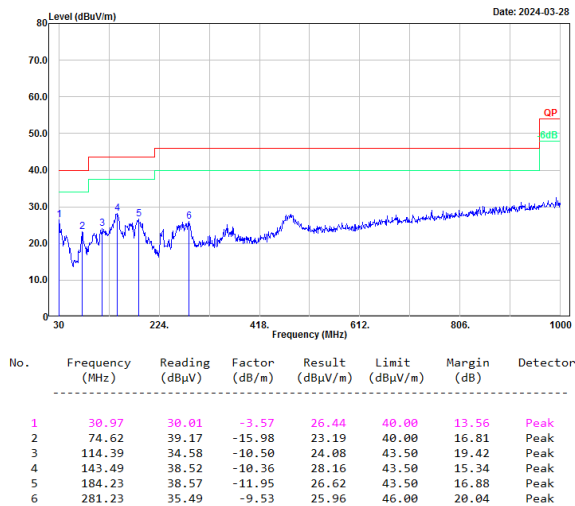
Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging & Scanning(220-260MHz)
Note: Part 15B



Charging&Scanning:350-390 MHz

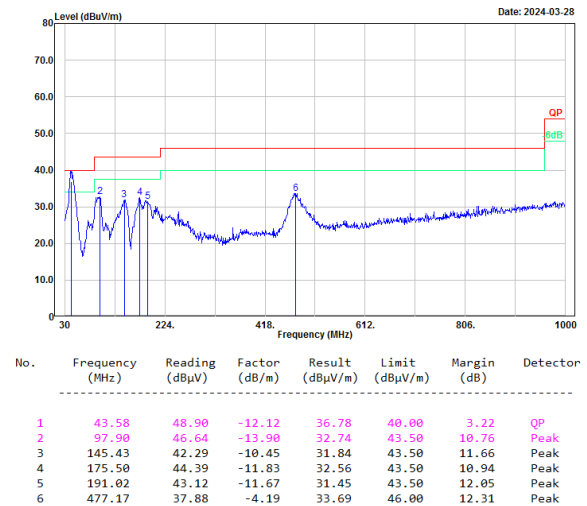
Horizontal

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging & Scanning(350-390MHz)
Note: Part 15B

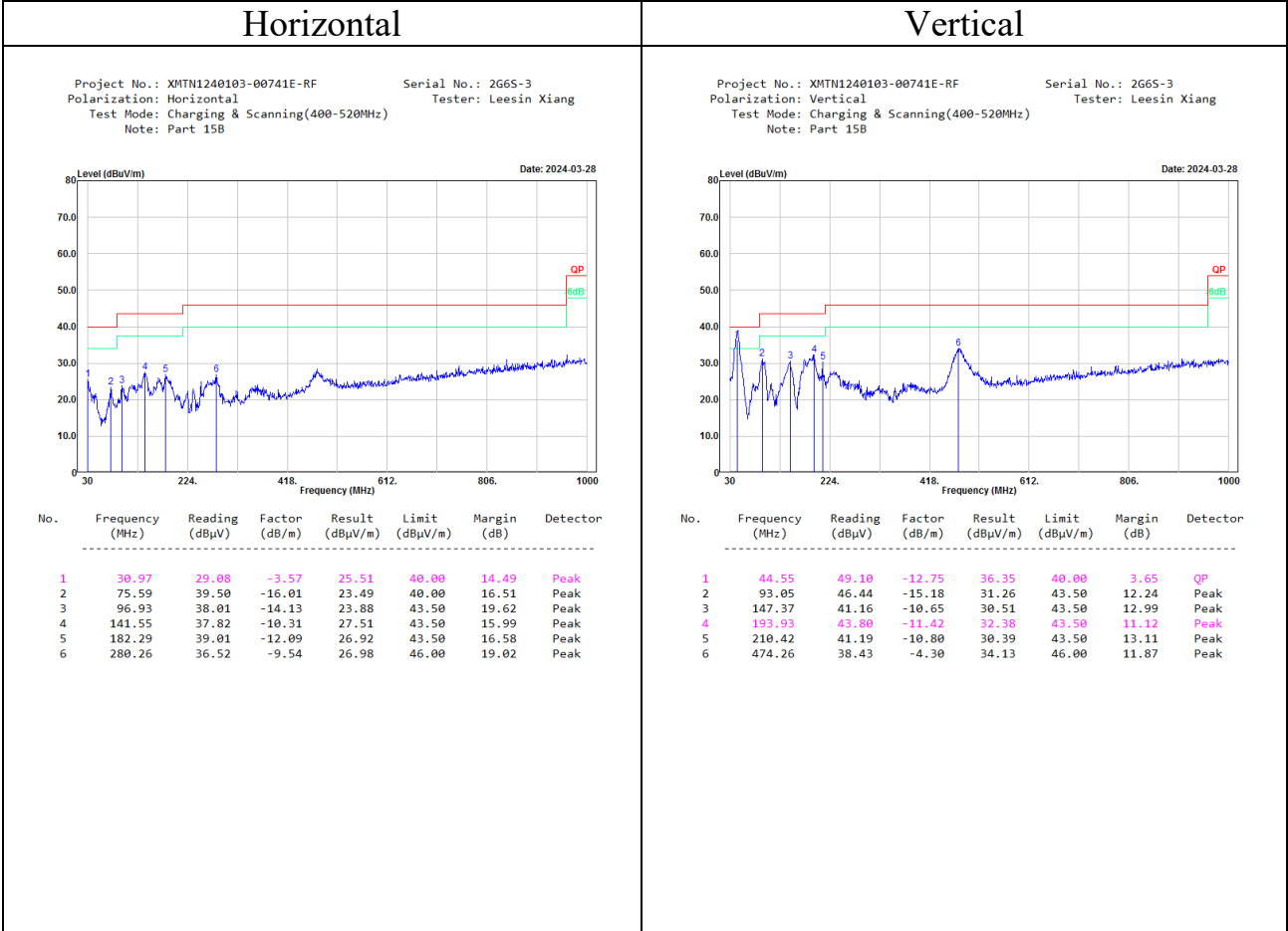


Vertical

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging & Scanning(350-390MHz)
Note: Part 15B



Charging&Scanning:400-520 MHz

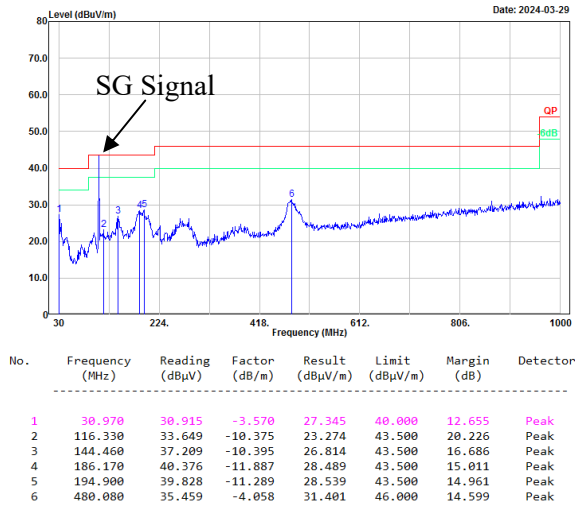


Charging&Receiving:108.0125MHz

Horizontal

Project No.: XMTN1240103-00741E-RF
Polarization: Horizontal
Test Mode: Charging&Receiving(108.0125MHz)
Note: Part 15B

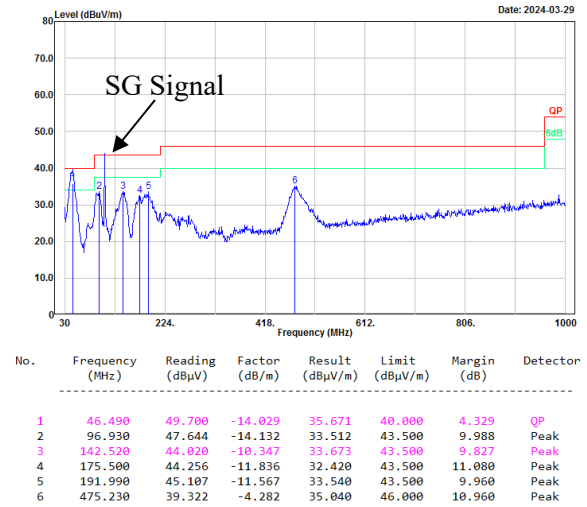
Serial No.: 2G6S-3
Tester: Leesin Xiang



Vertical

Project No.: XMTN1240103-00741E-RF
Polarization: Vertical
Test Mode: Charging&Receiving(108.0125MHz)
Note: Part 15B

Serial No.: 2G6S-3
Tester: Leesin Xiang

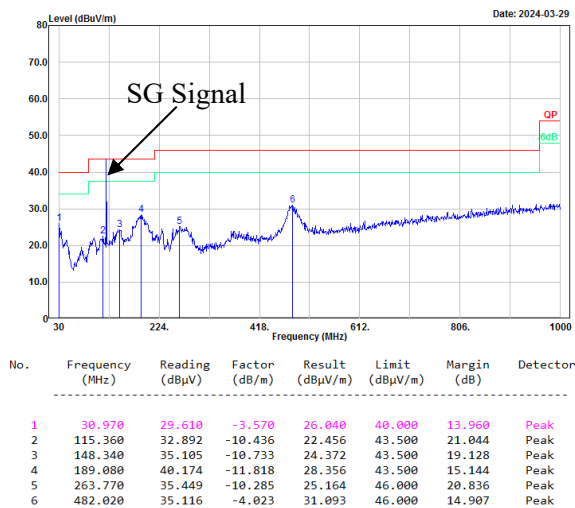


Charging&Receiving:122 MHz

Horizontal

Project No.: XMTN1240103-00741E-RF
Polarization: Horizontal
Test Mode: Charging&Receiving(122MHz)
Note: Part 15B

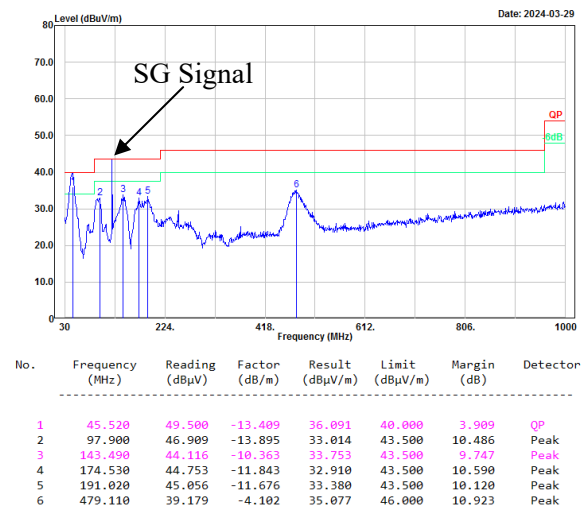
Serial No.: 2G6S-3
Tester: Leesin Xiang



Vertical

Project No.: XMTN1240103-00741E-RF
Polarization: Vertical
Test Mode: Charging&Receiving(122MHz)
Note: Part 15B

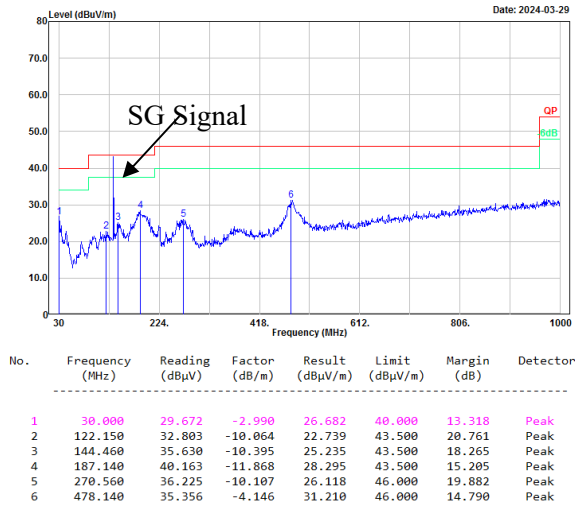
Serial No.: 2G6S-3
Tester: Leesin Xiang



Charging&Receiving:135.9875 MHz

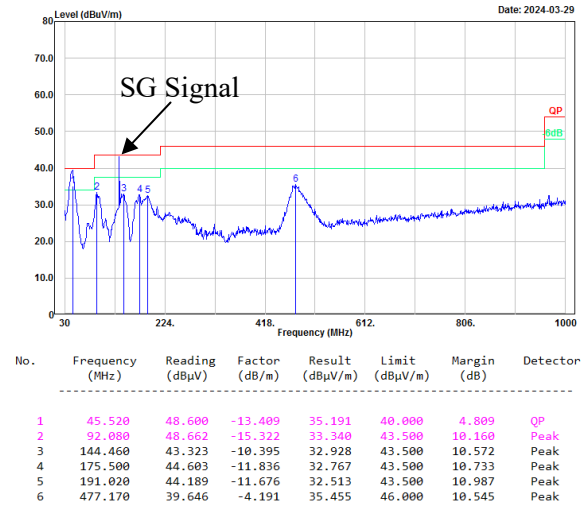
Horizontal

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging&Receiving(135.9875MHz)
Note: Part 15B



Vertical

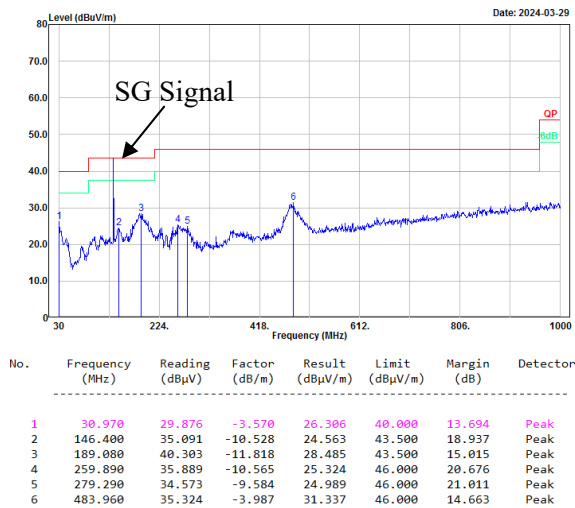
Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging&Receiving(135.9875MHz)
Note: Part 15B



Charging&Receiving:136.0125 MHz

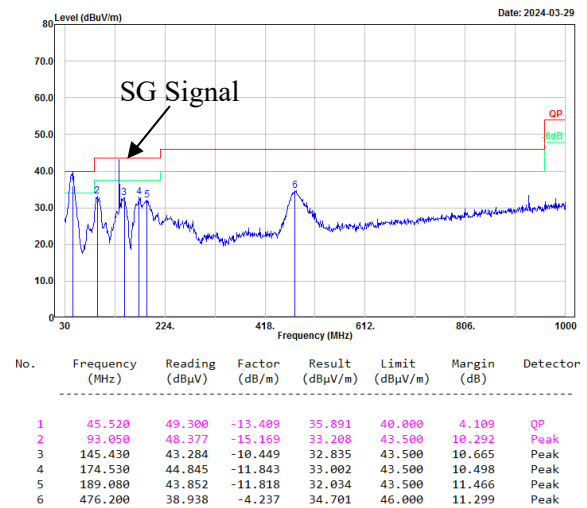
Horizontal

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging&Receiving(136.0125MHz)
Note: Part 15B



Vertical

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging&Receiving(136.0125MHz)
Note: Part 15B



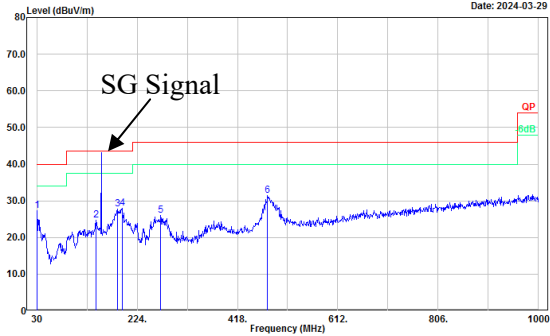
Charging&Receiving:155 MHz

Horizontal

Project No.: XMTN1240103-00741E-RF
Polarization: Horizontal
Test Mode: Charging&Receiving(155MHz)
Note: Part 15B

Serial No.: 2G6S-3
Tester: Leesin Xiang

Date: 2024-03-29



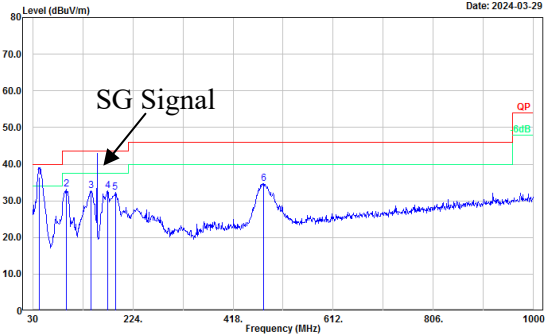
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.000	30.381	-2.990	27.391	40.000	12.609	Peak
2	144.460	35.153	-10.395	24.758	43.500	18.742	Peak
3	186.170	39.599	-11.887	27.712	43.500	15.788	Peak
4	194.900	39.195	-11.289	27.906	43.500	15.594	Peak
5	269.590	36.147	-10.145	26.002	46.000	19.998	Peak
6	476.200	35.657	-4.237	31.420	46.000	14.580	Peak

Vertical

Project No.: XMTN1240103-00741E-RF
Polarization: Vertical
Test Mode: Charging&Receiving(155MHz)
Note: Part 15B

Serial No.: 2G6S-3
Tester: Leesin Xiang

Date: 2024-03-29



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.610	48.001	-11.506	36.495	40.000	3.505	QP
2	95.960	47.503	-14.303	33.200	43.500	10.300	Peak
3	143.490	43.103	-10.363	32.740	43.500	10.760	Peak
4	175.500	44.536	-11.836	32.700	43.500	10.800	Peak
5	190.050	44.074	-11.784	32.290	43.500	11.210	Peak
6	477.170	38.831	-4.191	34.640	46.000	11.360	Peak

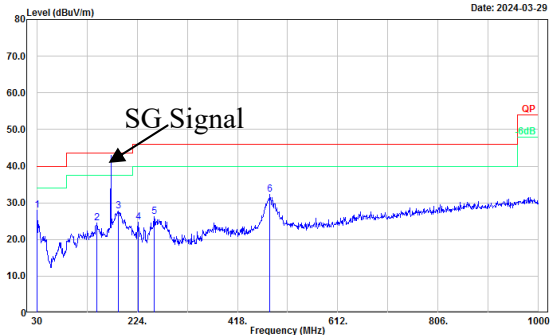
Charging&Receiving:173.9875MHz

Horizontal

Project No.: XMTN1240103-00741E-RF
Polarization: Horizontal
Test Mode: Charging&Receiving(173.9875MHz)
Note: Part 15B

Serial No.: 2G6S-3
Tester: Leesin Xiang

Date: 2024-03-29



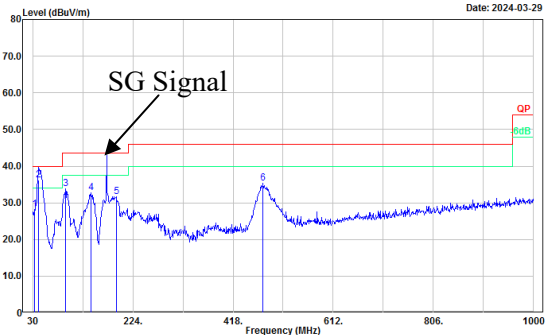
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.000	30.900	-2.990	27.910	40.000	12.090	Peak
2	146.400	34.928	-10.528	24.400	43.500	19.100	Peak
3	188.110	39.637	-11.847	27.790	43.500	15.710	Peak
4	225.940	35.561	-10.841	24.720	46.000	21.280	Peak
5	256.980	36.828	-10.698	26.130	46.000	19.870	Peak
6	481.050	36.300	-4.040	32.260	46.000	13.740	Peak

Vertical

Project No.: XMTN1240103-00741E-RF
Polarization: Vertical
Test Mode: Charging&Receiving(173.9875MHz)
Note: Part 15B

Serial No.: 2G6S-3
Tester: Leesin Xiang

Date: 2024-03-29

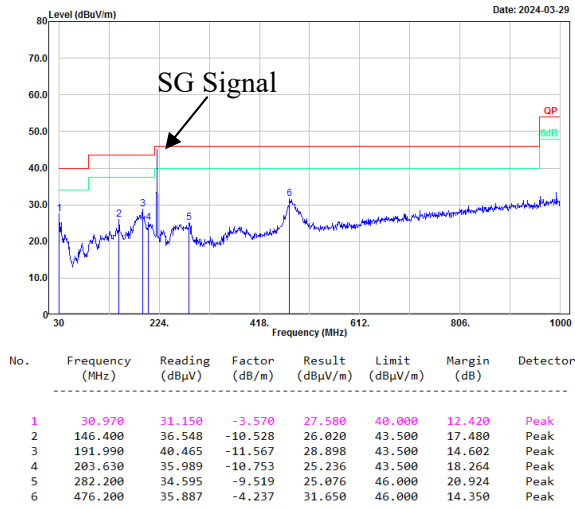


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	33.880	33.819	-5.601	28.218	40.000	11.782	Peak
2	41.640	47.005	-10.865	36.140	40.000	3.860	QP
3	94.020	48.624	-14.854	33.770	43.500	9.730	Peak
4	142.520	43.167	-10.347	32.820	43.500	10.680	Peak
5	191.990	43.297	-11.567	31.730	43.500	11.770	Peak
6	476.200	39.507	-4.237	35.270	46.000	10.730	Peak

Charging&Receiving:220.0125 MHz

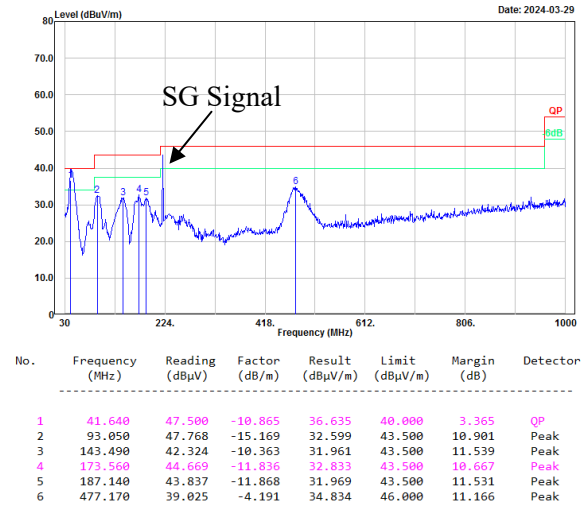
Horizontal

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging&Receiving(220.0125MHz)
Note: Part 15B



Vertical

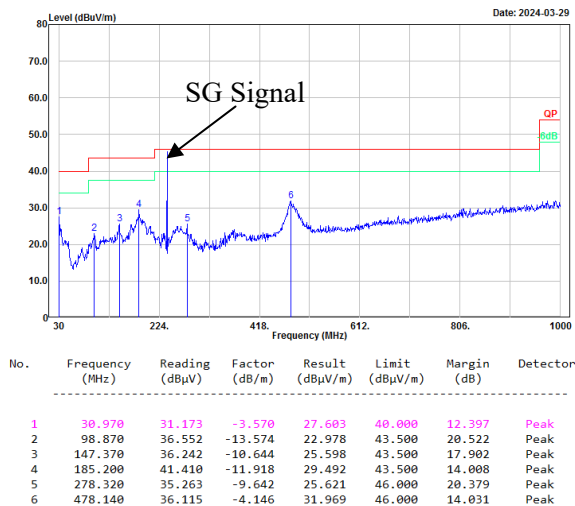
Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging&Receiving(220.0125MHz)
Note: Part 15B



Charging&Receiving:240 MHz

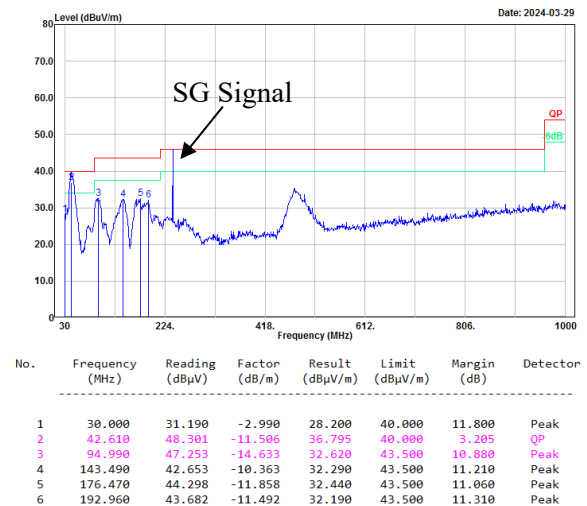
Horizontal

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging&Receiving(240MHz)
Note: Part 15B



Vertical

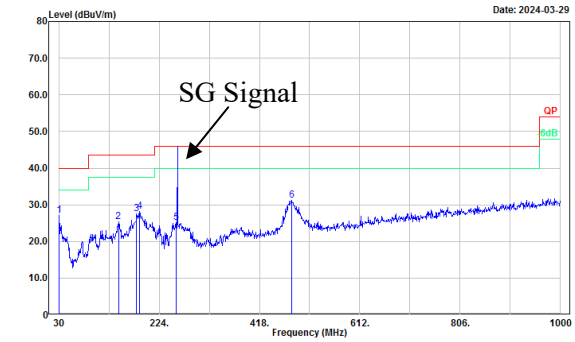
Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging&Receiving(240MHz)
Note: Part 15B



Charging&Receiving: 259.9875MHz

Horizontal

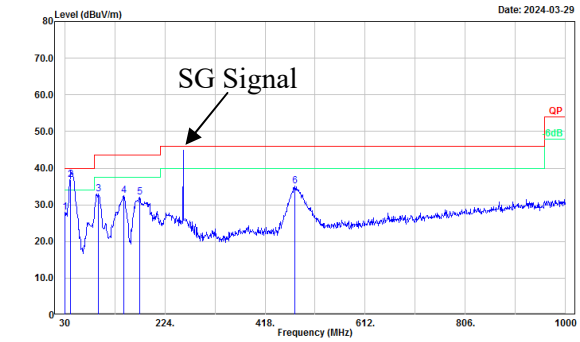
Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging&Receiving(259.9875MHz)
Note: Part 15B



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.000	30.099	-2.990	27.109	40.000	12.891	Peak
2	145.430	35.761	-10.449	25.312	43.500	18.188	Peak
3	180.350	39.453	-12.019	27.434	43.500	16.066	Peak
4	186.170	40.114	-11.887	28.227	43.500	15.273	Peak
5	256.980	35.928	-10.698	25.230	46.000	20.770	Peak
6	480.000	35.349	-4.058	31.291	46.000	14.709	Peak

Vertical

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging&Receiving(259.9875MHz)
Note: Part 15B

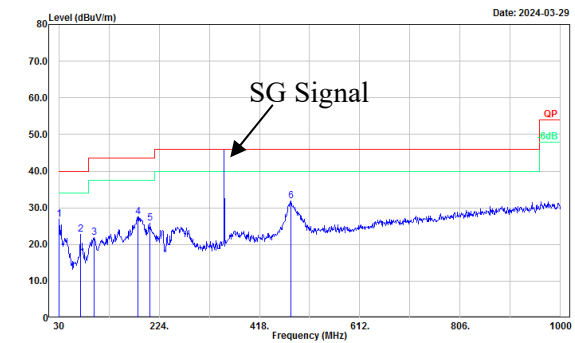


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.000	30.968	-2.990	27.978	40.000	12.022	Peak
2	41.640	47.700	-10.865	36.835	40.000	3.165	QP
3	95.960	47.234	-14.303	32.931	43.500	10.569	Peak
4	144.460	42.914	-10.395	32.519	43.500	10.981	Peak
5	175.500	43.901	-11.836	32.065	43.500	11.435	Peak
6	475.230	39.363	-4.282	35.081	46.000	10.919	Peak

Charging&Receiving:350.0125 MHz

Horizontal

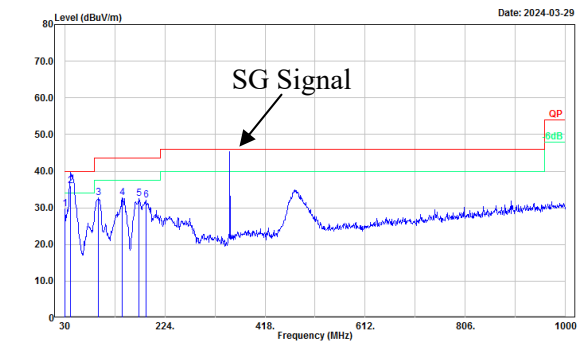
Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging&Receiving(350.0125MHz)
Note: Part 15B



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.970	30.526	-3.570	26.956	40.000	13.044	Peak
2	71.710	38.497	-15.808	22.689	40.000	17.311	Peak
3	97.900	35.817	-13.895	21.922	43.500	21.578	Peak
4	183.260	39.543	-12.015	27.528	43.500	15.972	Peak
5	206.540	36.492	-10.764	25.728	43.500	17.772	Peak
6	478.140	35.987	-4.146	31.841	46.000	14.159	Peak

Vertical

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging&Receiving(350.0125MHz)
Note: Part 15B

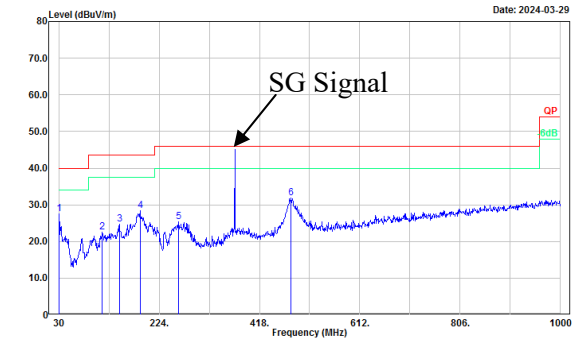


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.970	33.170	-3.570	29.600	40.000	10.400	Peak
2	41.640	46.905	-10.865	36.040	40.000	3.960	QP
3	95.960	47.023	-14.303	32.720	43.500	10.780	Peak
4	141.550	43.049	-10.309	32.740	43.500	10.760	Peak
5	174.530	44.413	-11.843	32.570	43.500	10.930	Peak
6	187.140	43.958	-11.868	32.090	43.500	11.410	Peak

Charging&Receiving:370 MHz

Horizontal

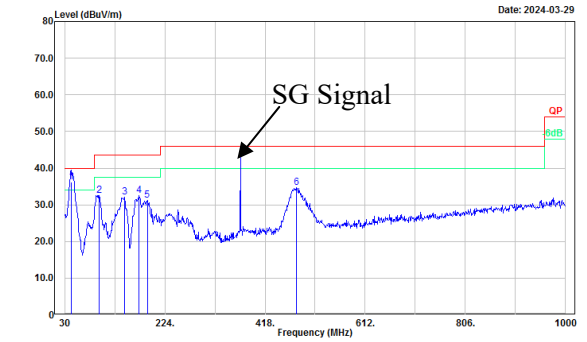
Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging&Receiving(370MHz)
Note: Part 15B



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.000	30.482	-2.990	27.492	40.000	12.508	Peak
2	114.390	33.015	-10.502	22.513	43.500	20.987	Peak
3	147.370	35.365	-10.644	24.721	43.500	18.779	Peak
4	187.140	40.283	-11.868	28.415	43.500	15.085	Peak
5	261.830	35.774	-10.426	25.348	46.000	20.652	Peak
6	479.110	35.912	-4.102	31.810	46.000	14.190	Peak

Vertical

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging&Receiving(370MHz)
Note: Part 15B

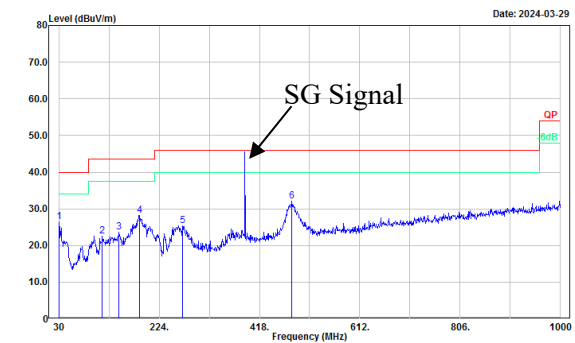


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.610	47.801	-11.506	36.295	40.000	3.705	QP
2	96.930	46.687	-14.132	32.555	43.500	10.945	Peak
3	146.400	42.582	-10.528	32.054	43.500	11.446	Peak
4	174.530	44.387	-11.843	32.544	43.500	10.956	Peak
5	190.050	43.075	-11.784	31.291	43.500	12.209	Peak
6	479.110	38.862	-4.102	34.760	46.000	11.240	Peak

Charging&Receiving:389.9875 MHz

Horizontal

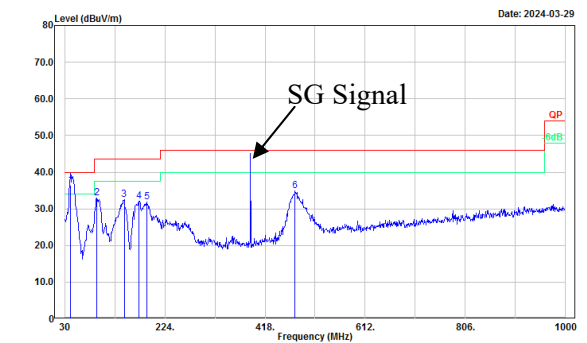
Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging&Receiving(389.9875MHz)
Note: Part 15B



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.970	29.955	-3.570	26.385	40.000	13.615	Peak
2	114.390	33.059	-10.502	22.557	43.500	20.943	Peak
3	146.400	34.138	-10.528	23.610	43.500	19.890	Peak
4	186.170	40.097	-11.887	28.210	43.500	15.290	Peak
5	269.590	35.556	-10.145	25.411	46.000	20.589	Peak
6	481.050	36.101	-4.040	32.061	46.000	13.939	Peak

Vertical

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging&Receiving(389.9875MHz)
Note: Part 15B

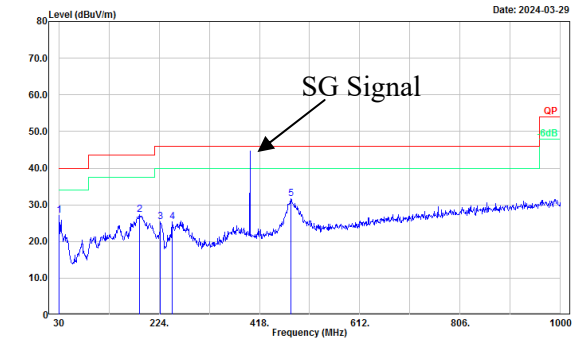


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	41.640	47.200	-10.865	36.335	40.000	3.665	QP
2	92.080	48.207	-15.322	32.885	43.500	10.615	Peak
3	145.430	42.910	-10.449	32.461	43.500	11.039	Peak
4	174.530	43.978	-11.843	32.135	43.500	11.365	Peak
5	189.080	43.615	-11.818	31.797	43.500	11.703	Peak
6	476.200	39.079	-4.237	34.842	46.000	11.158	Peak

Charging&Receiving:400.0125MHz

Horizontal

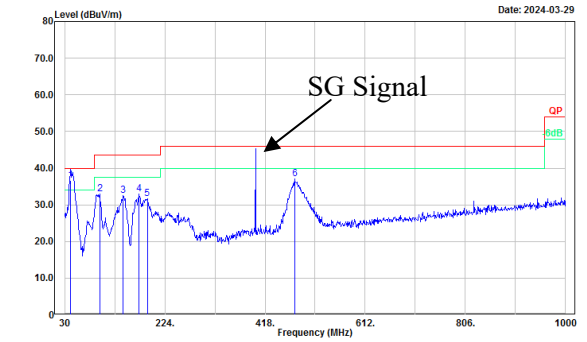
Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging&Receiving(400.0125MHz)
Note: Part 15B



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.970	30.610	-3.570	27.040	40.000	12.960	Peak
2	186.170	39.282	-11.887	27.395	43.500	16.105	Peak
3	226.910	36.263	-10.848	25.415	46.000	20.585	Peak
4	249.220	36.430	-10.968	25.462	46.000	20.538	Peak
5	478.140	35.718	-4.146	31.572	46.000	14.428	Peak

Vertical

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging&Receiving(400.0125MHz)
Note: Part 15B

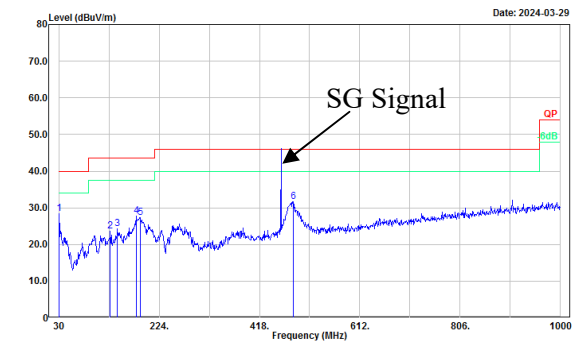


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	41.640	47.600	-10.865	36.735	40.000	3.265	QP
2	97.900	46.856	-13.895	32.961	43.500	10.539	Peak
3	143.490	42.789	-10.363	32.426	43.500	11.074	Peak
4	174.530	44.754	-11.843	32.911	43.500	10.589	Peak
5	190.050	43.389	-11.784	31.605	43.500	11.895	Peak
6	475.230	41.382	-4.282	37.100	46.000	8.900	Peak

Charging&Receiving:460 MHz

Horizontal

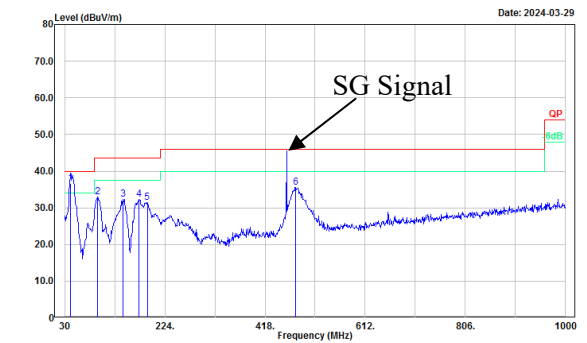
Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Charging&Receiving(460MHz)
Note: Part 15B



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.000	31.285	-2.990	28.295	40.000	11.705	Peak
2	129.910	33.348	-9.749	23.599	43.500	19.901	Peak
3	143.490	34.701	-10.363	24.338	43.500	19.162	Peak
4	179.380	39.728	-11.983	27.745	43.500	15.755	Peak
5	187.140	39.260	-11.868	27.392	43.500	16.108	Peak
6	483.960	35.567	-3.987	31.580	46.000	14.420	Peak

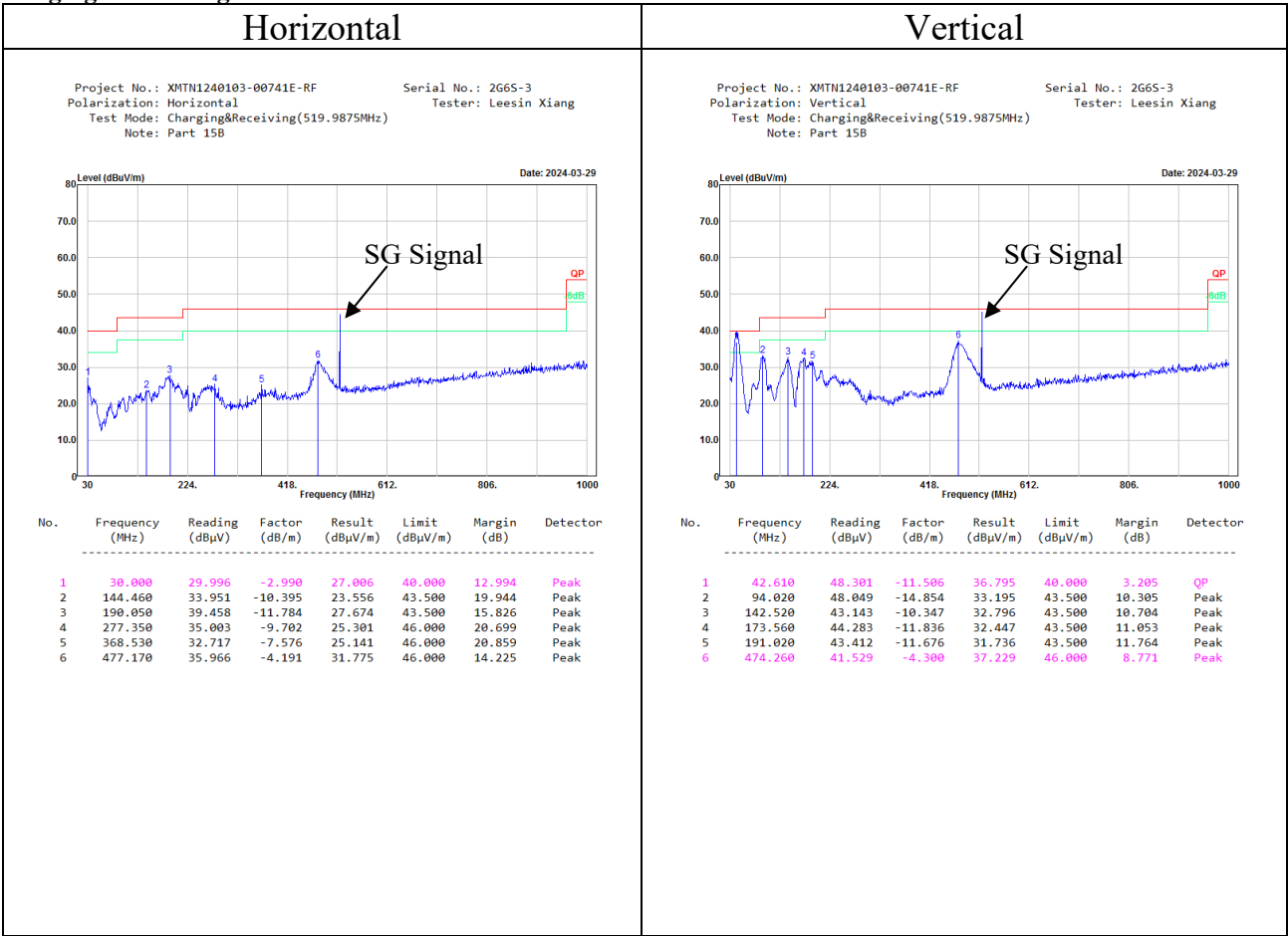
Vertical

Project No.: XMTN1240103-00741E-RF Serial No.: 2G6S-3
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Charging&Receiving(460MHz)
Note: Part 15B



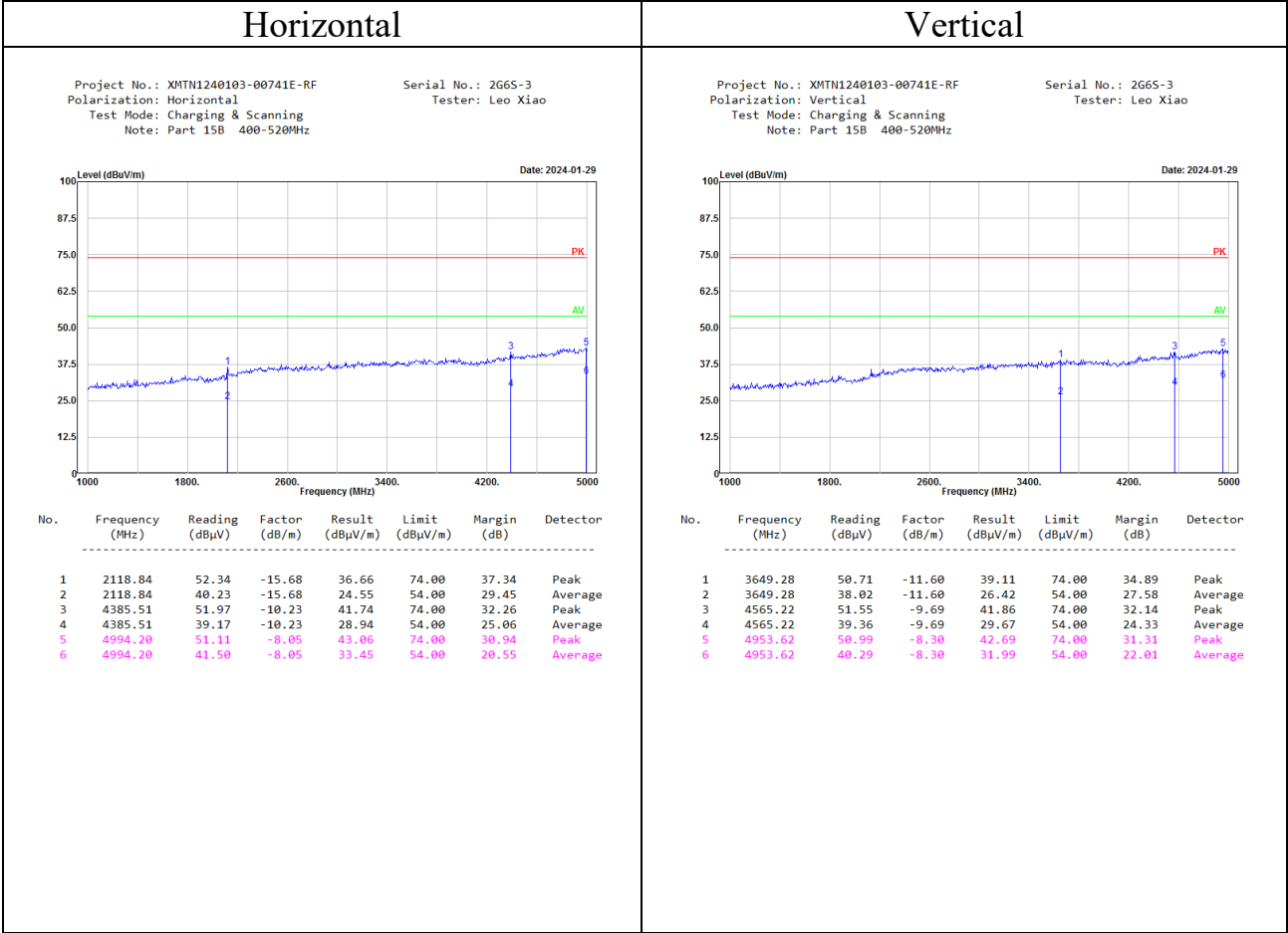
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	41.640	47.400	-10.865	36.535	40.000	3.465	QP
2	94.020	47.821	-14.854	32.967	43.500	10.533	Peak
3	142.520	42.712	-10.347	32.365	43.500	11.135	Peak
4	173.560	44.172	-11.836	32.336	43.500	11.164	Peak
5	190.050	43.296	-11.784	31.512	43.500	11.988	Peak
6	477.170	39.767	-4.191	35.576	46.000	10.424	Peak

Charging&Receiving:519.9875 MHz

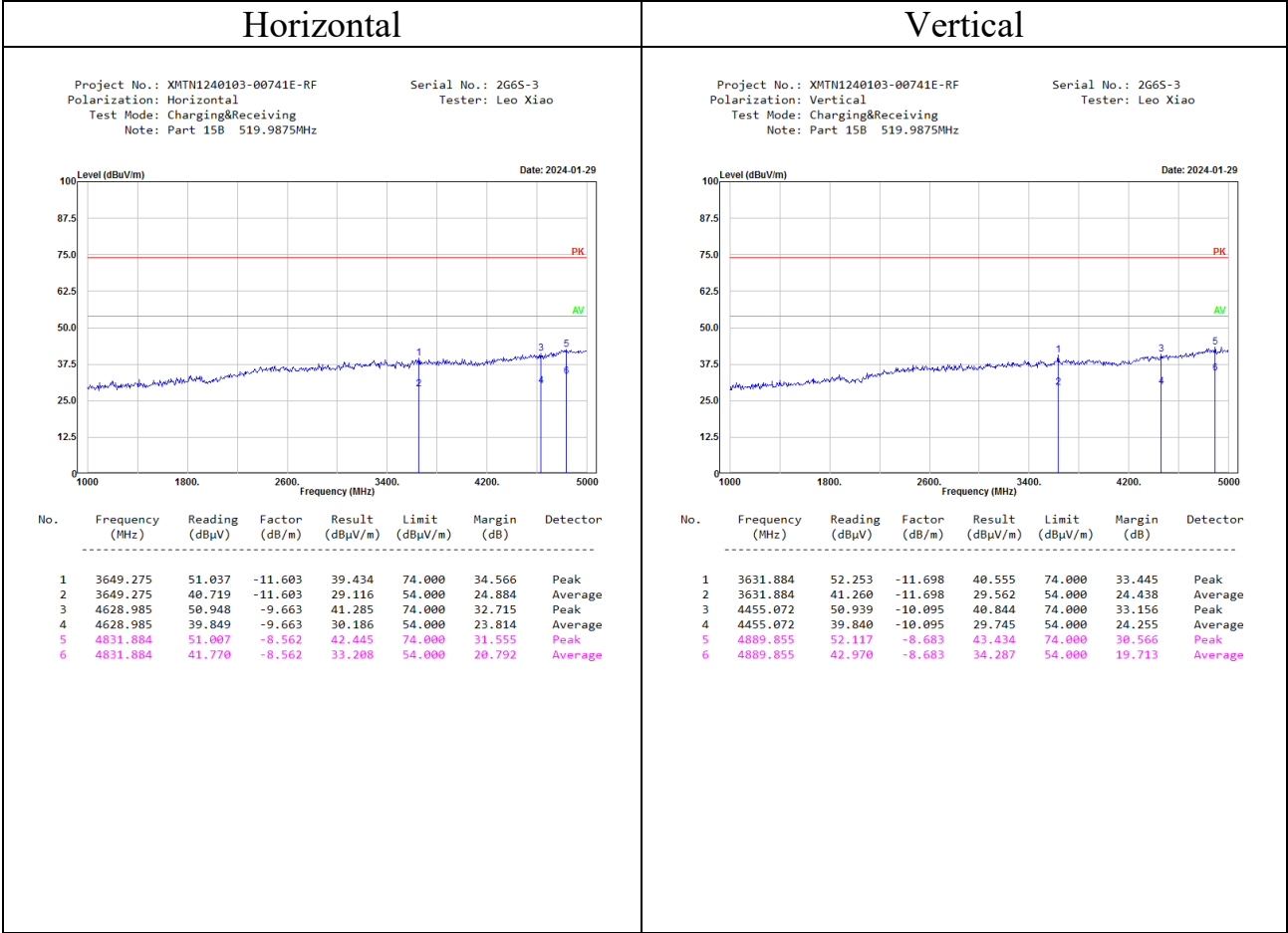


2) 1GHz-5GHz:

Charging&Scanning mode(400-520 MHz was the worst):



Charging&Receiving mode(519.9875 MHz was the worst):



4.3 Scanning Receivers and Frequency Converters Used with Scanning Receivers

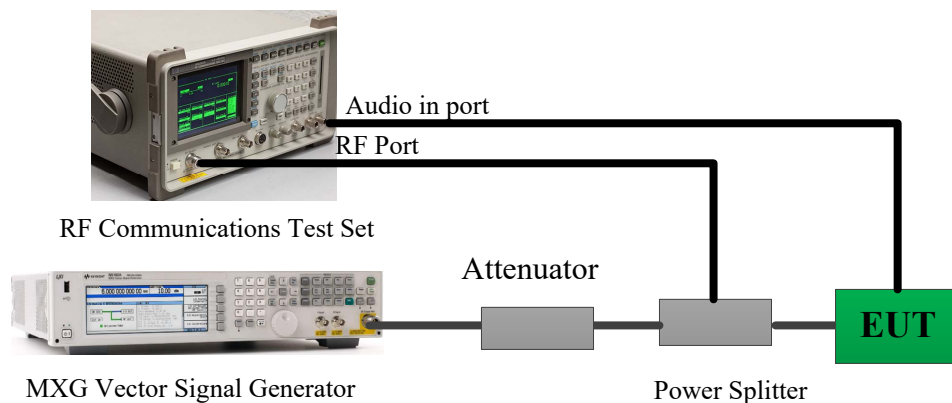
4.3.1 Applicable Standard

FCC §15.121(b).

(b) Except as provided in paragraph (c) of this section, scanning receivers shall reject any signals from the Cellular Radiotelephone Service frequency bands that are 38 dB or lower based upon a 12 dB SINAD measurement, which is considered the threshold where a signal can be clearly discerned from any interference that may be present.

4.3.2 Test Procedure

1. Connected the EUT as the below block diagram;



2. Apply a signal to the EUT antenna port at lowest, middle, highest channel frequencies of the operating band;
3. Adjust the audio output level of the EUT to its rated value with the distortion less than 10%;
4. Adjust the 8920 output power to produce 12 dB SINAD without the audio output power dropping by more than 3 dB; These output level of the 8920 at each channel frequency is the sensitivity of the EUT;
5. Select the lowest or worst case sensitivity level for all of the bands as the reference sensitivity;
6. Adjust the Signal Generator output to a level of +60 dB above the reference sensitivity obtained in step 5 and its frequency to the frequency point in the Cellular Band;
7. Set the EUT squelch to threshold, the signal required to open the squelch must be lower than the reference sensitivity level;
8. Set the EUT in a scanning mode and allow it to scan through its complete receiving range;
9. If the EUT un-squelched or stopped on any frequency, receiving at this frequency, then adjust the signal generator output level until 12 dB SINAD is produced, this level is the spurious value and the difference between the reference sensitivity and the spurious value is the rejection ratio and must be at least 38 dB;
10. Repeat above procedure at the frequencies 824, 836, 849 MHz for the mobile band, and 869, 881.5 and 894 MHz for the Cellular Base Band.

4.3.3 Test Data and Result

Serial Number:	2G6S-1	Test Date:	2024/1/26
Test Site:	RF	Test Mode:	Scanning
Tester:	Stu Song	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	19	Relative Humidity: (%)	30	ATM Pressure: (kPa)	102.2

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41010012	2023/9/1	2024/8/31
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41010013	2023/9/1	2024/8/31
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41005011	2023/9/1	2024/8/31
HP	RF Communications Test Set	8920A	3438A05201	2023/10/18	2024/10/17
Agilent	MXG Vector Signal Generator	N5182B	MY51350142	2023/9/1	2024/8/31
Weinschel	Coaxial Power Splitters & Combiner	1515	SERNORH458	2023/9/1	2024/8/31

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Scanning Frequency Range (MHz)	Test Frequency (MHz)	Measurement Result (dB)	Limit (dB)
108-136	824, 836, 849, 869,881.5, 894	45	>38
136-174	824, 836, 849, 869,881.5, 894	45	>38
220-260	824, 836, 849, 869,881.5, 894	45	>38
350-390	824, 836, 849, 869,881.5, 894	45	>38
400-520	824, 836, 849, 869,881.5, 894	45	>38

APPENDIX A - EUT PHOTOGRAPHS

Please refer to the attachment XMTN1240103-00741E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and XMTN1240103-00741E-RF-INP EUT INTERNAL PHOTOGRAPHS

APPENDIX B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment XMTN1240103-00741E-RF-00A-TSP TEST SETUP PHOTOGRAPHS.

******* END OF REPORT *******