



TEST REPORT

Applicant: Quanzhou Leixen Electronics Co., Ltd

Address: No.48, Jinqiao Road, Changtai Street Quanzhou City China

Product Name: Two Way Radio

FCC ID: 2AC2Z-VV-106

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

Report Number: XMDN240327-16017E-RF-00A

Report Date: 2025/6/24

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

Pedro Yun

Reviewed By: Pedro Yun Approved By: Gavin Xu

Gowh Xn

Title: Project Engineer Title: RF Supervisor

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Bay Area Compliance Laboratories Corp. (Dongguan)

Report No.: XMDN240327-16017E-RF-00A

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	XMDN240327-16017E-RF-00A	Original Report	2025/6/24

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1. GENERAL INFORMATION

1.1 General Description Of Equipment under Test

EUT Name:	Two Way Radio	
EUT Model:	VV-106	
Highest Operation Frequency▲:	467.7125 MHz	
Rated Input Voltage:	DC 3.7V from battery or DC 5V from USB port	
Serial Number:	2JES-3	
EUT Received Date:	2024/4/3	
EUT Received Status:	Good	

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
Earphone	Quanzhou Leixen Electronics Co., Ltd	Unknown	Unknown

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

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3. DESCRIPTION OF TEST CONFIGURATION

3.1 Operation Frequency And Test Channel:

Operation Modes	Operation Frequency Range (MHz)	Test Frequency (MHz)
Dagaiying	462.5500-462.7250	462.6375
Receiving	467.5625-467.7125	467.6375

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 & Receiving	
AC Line Conducted Emission:	Test Mode 1: Charging & Receiving	

3.3 EUT Exercise Software

No software was used to test.

3.4 Support Equipment List and Details

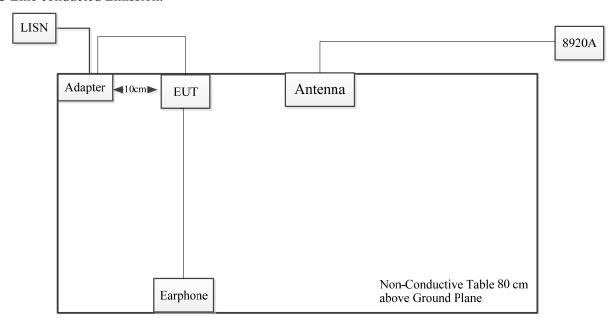
Manufacturer	Description	Model	Serial Number
intertek	Adapter	GO24-090200-AX	4007202-CS
Unknown	Antenna	Unknown	Unknown
НР	RF Communications Test Set	8920A	3438A05201

3.5 Support Cable List and Details

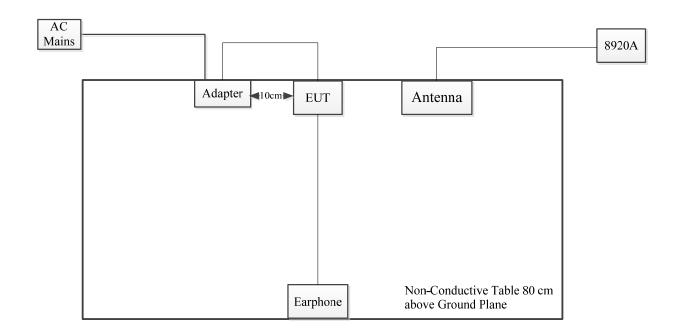
Cable Description	Shielding Cable	Ferrite Core	Length (m)	From Port	То
Earphone cable	No	No	0.8	Earphone	EUT
USB cable	No	No	0.4	Adapter	EUT
Signal cable	No	No	2.0	8920A	Antenna

3.6 Block Diagram of Test Setup

AC Line conducted Emission:



Radiated Emission:



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
AC Power Lines Conducted Emission	3.11 dB (150 kHz to 30 MHz)
Temperature	±1℃
Humidity	±5%

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4. REQUIREMENTS AND TEST PROCEDURES

4.1 AC Line Conducted Emissions

4.1.1 Applicable Standard

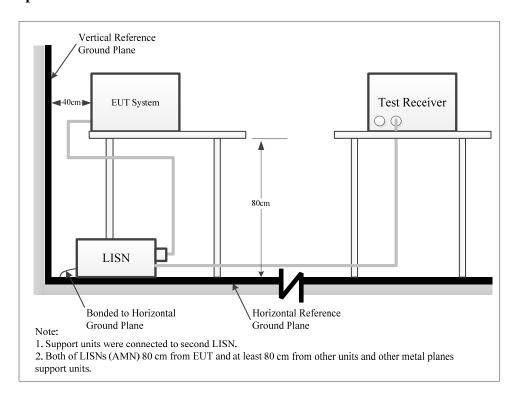
FCC§15.107

(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

Fraguency of emission (MUT)	Conducted limit (dBµV)	
Frequency of emission (MHz)	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 EUT 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

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4.1.6 Test Result and Data

Serial Number:	2JES-3	Test Date:	2025/06/09
Test Site:	CE	Test Mode:	Mode 1
Tester:	Yukin Qiu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C) 27.1	Relative Humidity: 60 (%)	ATM Pressure: (kPa)	100
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101614	2024/9/5	2025/9/4
Unknown	Coaxial Cable	RG 142	C-0200-05	2025/5/6	2026/5/5
R&S	EMI Test Receiver	ESCI	101121	2024/9/5	2025/9/4
Audix	Test Software	E3	191218 V9	N/A	N/A

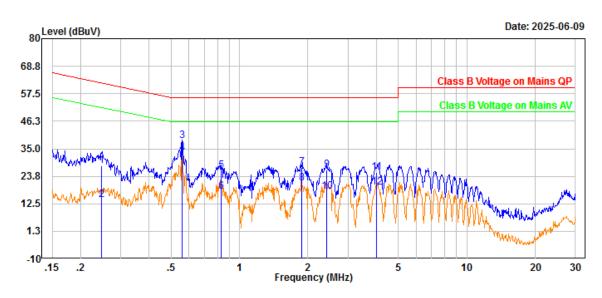
^{*} Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

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462.6375MHz

Project No.: XMDN240327-16017E-RF Port: Line Test Mode: M1 IF B/W 9kHz PK/AV

Serial No.: 2JES-3 Tester: Yukin Qiu Note: 462.6375



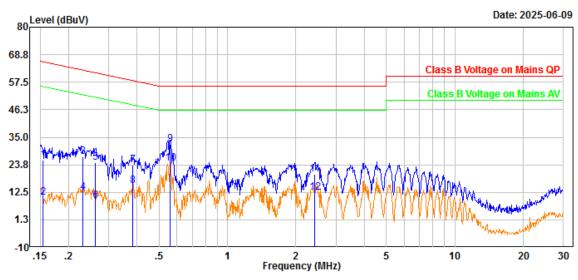
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Measurement
1	0.248	17.30	10.80	28.10	61.84	33.74	QP
2	0.248	3.30	10.80	14.10	51.84	37.74	Average
3	0.559	27.28	10.81	38.09	56.00	17.91	QP
4	0.559	22.29	10.81	33.10	46.00	12.90	Average
5	0.831	15.29	10.81	26.10	56.00	29.90	QP
6	0.831	6.73	10.81	17.54	46.00	28.46	Average
7	1.872	16.58	10.81	27.39	56.00	28.61	QP
8	1.872	10.19	10.81	21.00	46.00	25.00	Average
9	2.418	15.53	10.79	26.32	56.00	29.68	QP
10	2.418	6.57	10.79	17.36	46.00	28.64	Average
11	3.991	14.69	10.70	25.39	56.00	30.61	QP
12	3.991	8.36	10.70	19.06	46.00	26.94	Average

Project No.: XMDN240327-16017E-RF

Port: neutral Test Mode: M1

IF B/W 9kHz PK/AV

Serial No.: 2JES-3 Tester: Yukin Qiu Note: 462.6375



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBµV)	Margin (dB)	Measurement
1	0.154	14.94	10.80	25.74	65.79	40.05	QP
2	0.154	-0.45	10.80	10.35	55.79	45.44	Average
3	0.232	16.11	10.79	26.90	62.39	35.49	QP
4	0.232	1.51	10.79	12.30	52.39	40.09	Average
5	0.262	14.02	10.78	24.80	61.36	36.56	QP
6	0.262	-1.93	10.78	8.85	51.36	42.51	Average
7	0.384	12.89	10.75	23.64	58.18	34.54	QP
8	0.384	4.33	10.75	15.08	48.18	33.10	Average
9	0.561	21.34	10.71	32.05	56.00	23.95	QP
10	0.561	13.46	10.71	24.17	46.00	21.83	Average
11	2.412	8.95	10.89	19.84	56.00	36.16	QP
12	2.412	1.65	10.89	12.54	46.00	33.46	Average

467.6375MHz

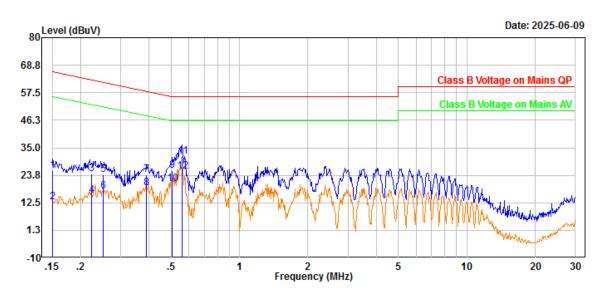
Project No.: XMDN240327-16017E-RF

Port: Line

Test Mode: M1

IF B/W 9kHz PK/AV

Serial No.: 2JES-3 Tester: Yukin Qiu Note: 467.6375



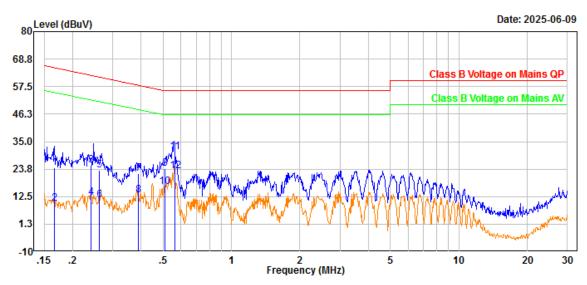
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Measurement
1	0.151	14.86	10.70	25.56	65.96	40.40	QP
2	0.151	2.19	10.70	12.89	55.96	43.07	Average
3	0.224	13.34	10.80	24.14	62.67	38.53	QP
4	0.224	4.81	10.80	15.61	52.67	37.06	Average
5	0.252	13.19	10.80	23.99	61.70	37.71	QP
6	0.252	6.31	10.80	17.11	51.70	34.59	Average
7	0.389	13.08	10.81	23.89	58.08	34.19	QP
8	0.389	7.83	10.81	18.64	48.08	29.44	Average
9	0.504	14.68	10.81	25.49	56.00	30.51	QP
10	0.504	9.54	10.81	20.35	46.00	25.65	Average
11	0.561	20.52	10.81	31.33	56.00	24.67	QP
12	0.561	14.44	10.81	25.25	46.00	20.75	Average

Project No.: XMDN240327-16017E-RF

Port: neutral Test Mode: M1

IF B/W 9kHz PK/AV

Serial No.: 2JES-3 Tester: Yukin Qiu Note: 467.6375



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Measurement
1	0.166	13.57	10.80	24.37	65.15	40.78	QP
2	0.166	-1.03	10.80	9.77	55.15	45.38	Average
3	0.242	14.70	10.79	25.49	62.04	36.55	QP
4	0.242	1.42	10.79	12.21	52.04	39.83	Average
5	0.263	12.65	10.78	23.43	61.34	37.91	QP
6	0.263	0.18	10.78	10.96	51.34	40.38	Average
7	0.390	11.34	10.75	22.09	58.06	35.97	QP
8	0.390	2.51	10.75	13.26	48.06	34.80	Average
9	0.508	13.30	10.71	24.01	56.00	31.99	QP
10	0.508	5.81	10.71	16.52	46.00	29.48	Average
11	0.563	19.93	10.71	30.64	56.00	25.36	QP
12	0.563	12.10	10.71	22.81	46.00	23.19	Average

4.2 Radiation Spurious Emissions

4.2.1 Applicable Standard

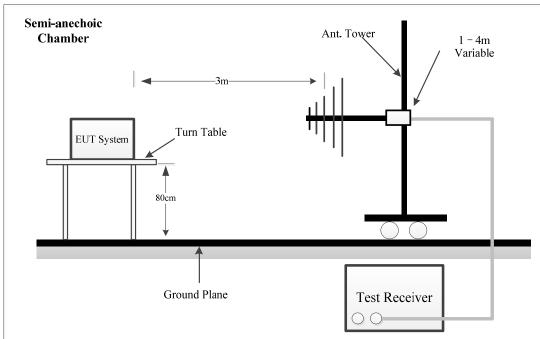
FCC§15.109

(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:

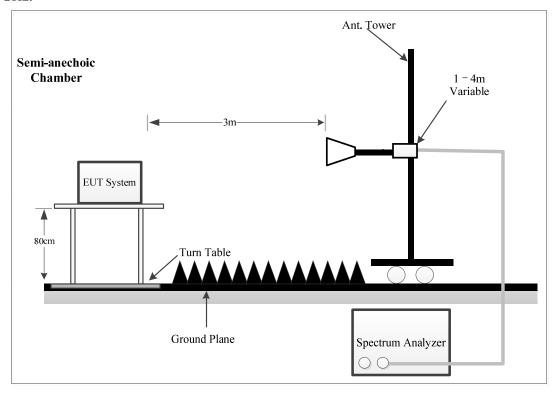
Frequency of emission (MHz)	Field strength (microvolts/meter)
30-88	100
88-216	150
216-960	200
Above 960	500

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	10Hz	/	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:

Result = Reading + Factor

Factor = Antenna Factor + Cable Loss- 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:

Margin = Limit - Result

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4.2.6 Test Result and Data

Serial Number:	2JES-3	Test Date:	2025/6/12~2025/6/14
Test Site:	Chamber 10m, Chamber A	Test Mode:	Mode 1
Tester:	Leesin Xiang, Lancer Zhang	Test Result:	Pass

Environmental Conditions:						
Temperature: (°C)	24.1~24.2	Relative Humidity: (%)	46~48	ATM Pressure: (kPa)	100.6~100.7	

Test Equipment List and Details:

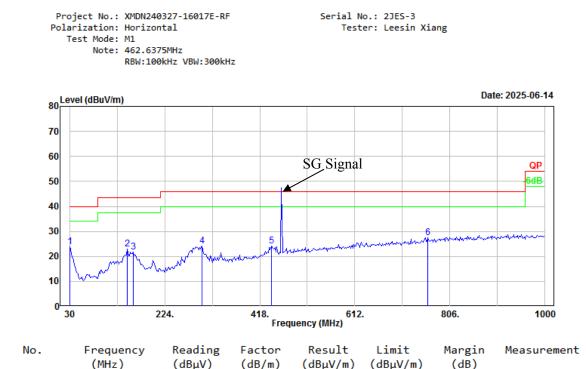
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Hybrid Antenna	ЈВ3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	185914	2024/8/26	2025/8/25
R&S	EMI Test Receiver	ESCI	100224	2024/8/26	2025/8/25
Audix	Test Software	E3	191218 V9	N/A	N/A
AH	Horn Antenna	SAS-571	1177	2023/2/22	2026/2/21
HUBER+SUHNER	Coaxial Cable	SUCOFLEX 126EA	MY369/26/26EA	2024/7/1	2025/6/30
AH	Preamplifier	PAM-0118P	530	2025/6/3	2026/6/2
R&S	Spectrum Analyzer	FSV40	101947	2024/9/5	2025/9/4
Audix	Test Software	E3	191218 V9	N/A	N/A

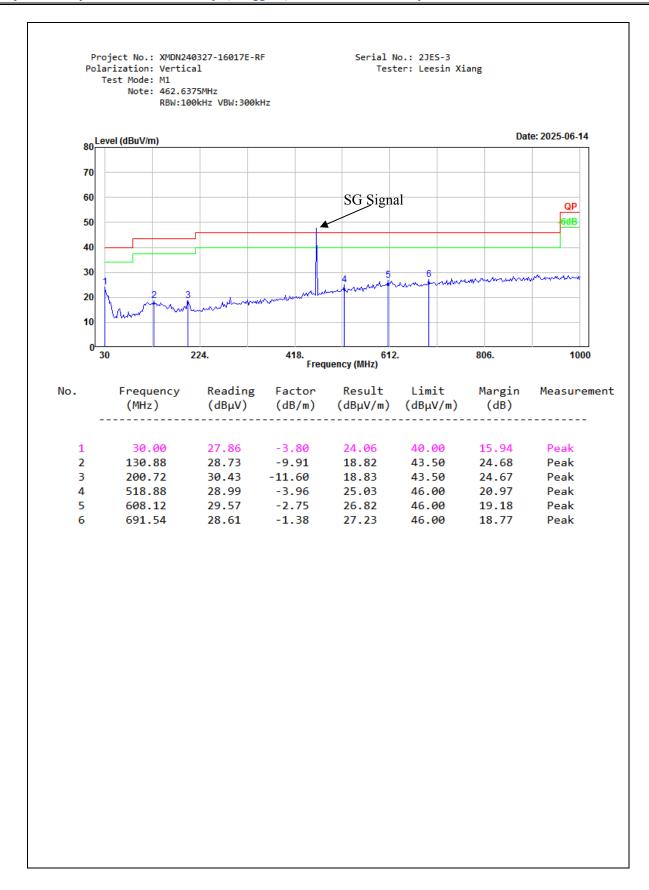
^{*} Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

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1) 30MHz-1GHz:

462.6375MHz



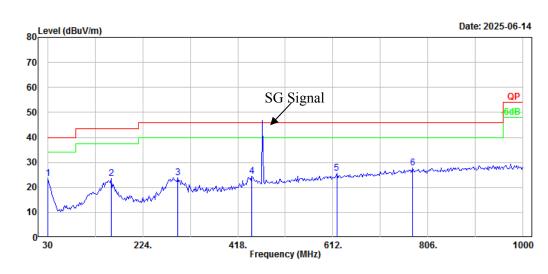


467.6375MHz

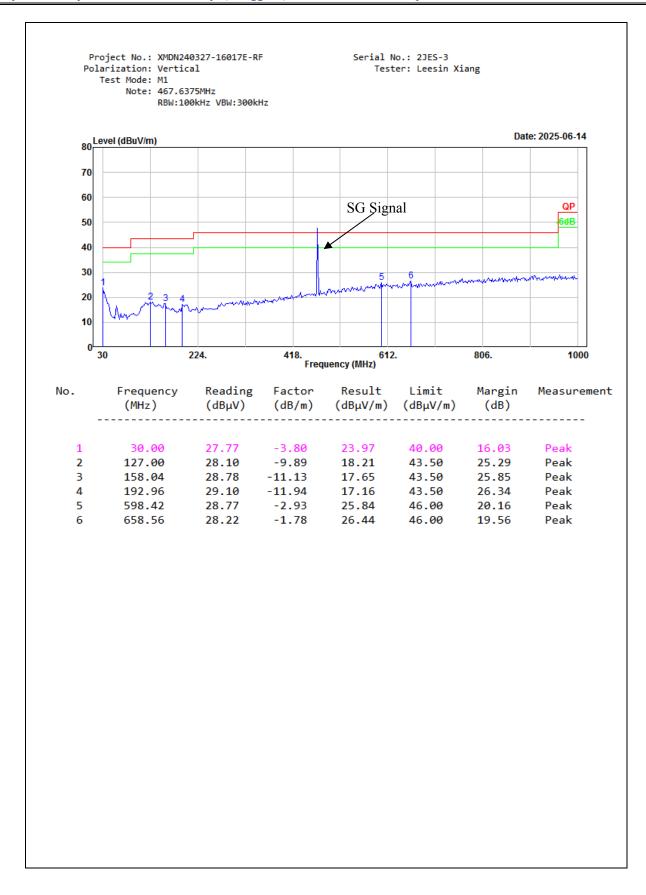
Project No.: XMDN240327-16017E-RF Serial No.: 2JES-3
Polarization: Horizontal Tester: Leesin Xiang

Test Mode: M1 Note: 467.6375MHz

RBW:100kHz VBW:300kHz

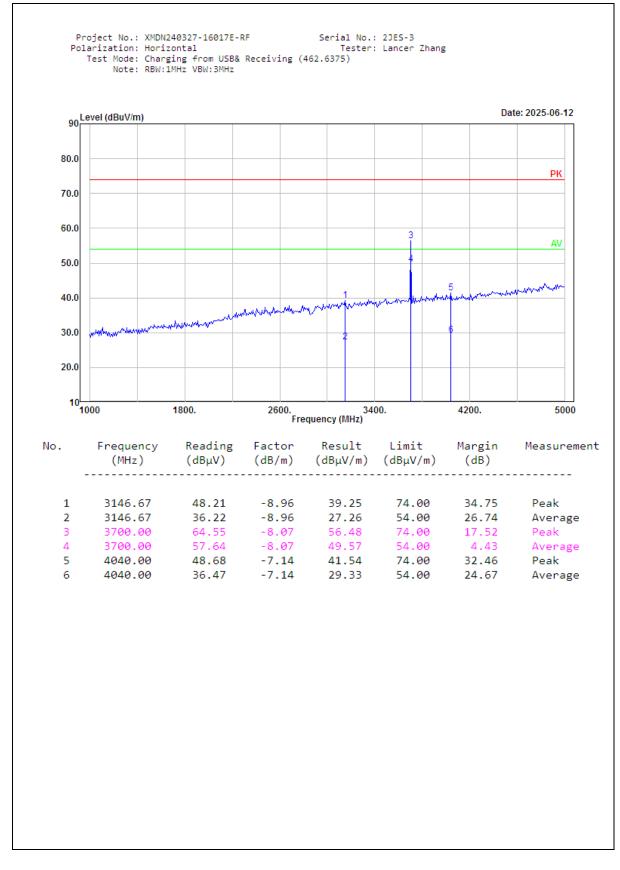


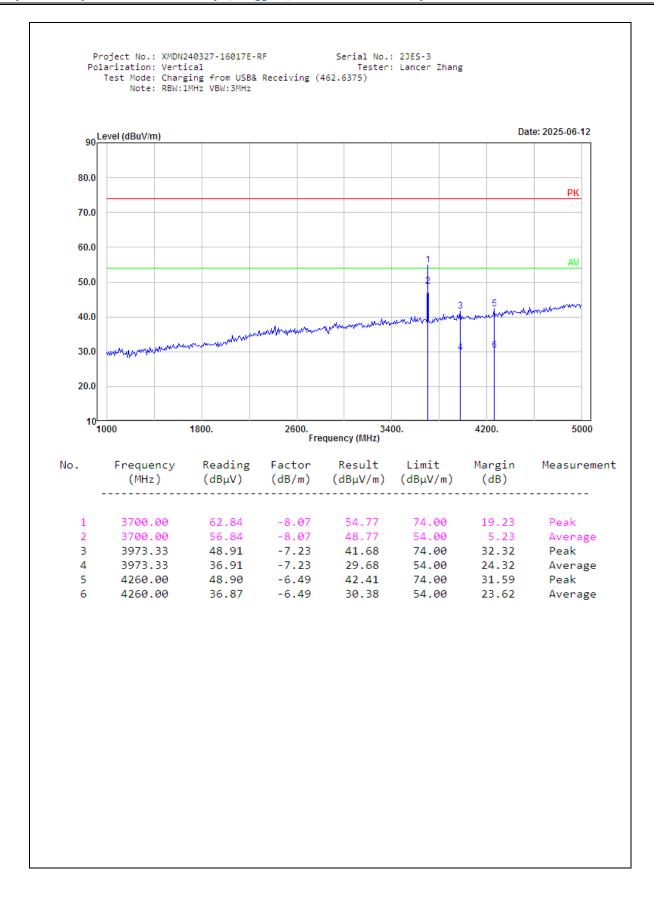
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Measurement
1	30.00	27.42	-3.80	23.62	40.00	16.38	Peak
2	159.98	34.75	-11.15	23.60	43.50	19.90	Peak
3	295.78	33.49	-9.55	23.94	46.00	22.06	Peak
4	447.10	30.06	-5.57	24.49	46.00	21.51	Peak
5	619.76	28.04	-2.51	25.53	46.00	20.47	Peak
6	774.96	27.66	0.07	27.73	46.00	18.27	Peak



2) 1GHz-5GHz:

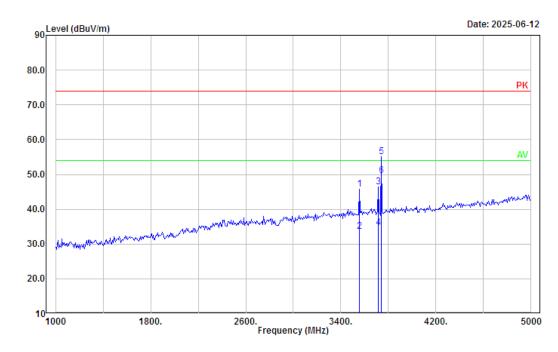
462.6375MHz



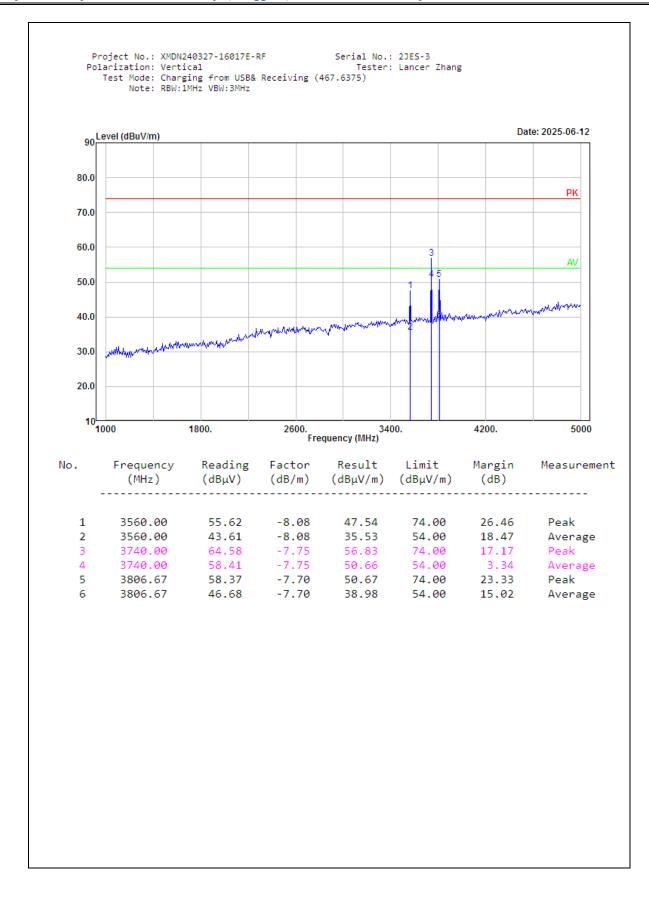


467.6375MHz

Project No.: XMDN240327-16017E-RF Serial No.: 2JES-3 Polarization: Horizontal Tes Test Mode: Charging from USB& Receiving (467.6375) Note: RBW:1MHz VBW:3MHz Tester: Lancer Zhang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBμV/m)	Margin (dB)	Measurement
1	3553.33	53.85	-8.07	45.78	74.00	28.22	Peak
2	3553.33	41.66	-8.07	33.59	54.00	20.41	Average
3	3713.33	54.46	-7.96	46.50	74.00	27.50	Peak
4	3713.33	42.68	-7.96	34.72	54.00	19.28	Average
5	3740.00	62.78	-7.75	55.03	74.00	18.97	Peak
6	3740.00	57.48	-7.75	49.73	54.00	4.27	Average



Bay Area Compliance Laboratories Corp. (Dongguan)	Report No.: XMDN240327-16017E-RF-00A
EXHIBIT A - EUT PHOTOGRAPHS	
Please refer to the attachment XMDN240327-16017E-RF-E	EXP EUT EXTERNAL PHOTOGRAPHS and
XMDN240327-16017E-RF-INP EUT INTERNAL PHOTO	GRAPHS
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ay Area Compliance Laboratories Corp. (Dongguan) EXHIBIT B - TEST SETUP PHOTOGRAP	Report No.: XMDN240327-16017E-RF-00A PHS
lease refer to the attachment XMDN240327-16017E-RF-0	00A-TSP TEST SETUP PHOTOGRAPHS.
**** END OF RE	PORT ****
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