FCC PART 15.225

TEST REPORT

For

WISEASY TECHNOLOGY PTE. LTD.

70 Anson Road, #18-02, Hub Synergy Point, Singapore 079905

FCC ID: 2BFPOP5LPINPAD

Report Type: Original Report	**Product Name:** Retail Smart PIN Pad
Report Number:	RKSA250411002-00D
Report Date:	2025-07-11
Reviewed By:	Bard Liu
Approved By:	Kyle Xu
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu Province, China Tel: +86-512-86175000 Fax: +86-512-88934268 www.baclcorp.com.cn

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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA250411002-00D	R1V1	2025-07-11	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	WISEASY TECHNOLOGY PTE. LTD.
Tested Model:	P5L-PINPad
Product Name:	Retail Smart PIN Pad
Power Supply:	DC 5V powered by adapter
RF Function:	NFC
Operating Band/Frequency:	13.56 MHz
Antenna Type:	Coil Antenna

Adapter Information:
Model: TPA-418G050200UU01
Input: 100-240V, 50/60Hz, 0.3A
Output: 5.0V, 2.0A 10.0W

Note: After testing with a representative tag and without the tags for all measurement, the with a representative tag is the worst in this report.

All measurement and test data in this report was gathered from production sample serial number: RKSA250411002-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2025-04-11.)

Objective

This Type approval report is prepared for *WISEASY TECHNOLOGY PTE. LTD.*in accordance with Part 2-Subpart J, and Part 15-Subparts A and C of the Federal Communication Commission's rules.

The objective is to determine the Compliance of the EUT with FCC rules, sec 15.203, 15.205, 15.207, 15.209, 15.215 and 15.225.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19 dB
RF conducted test with spectrum		0.9dB
Radiated emission	9kHz~30MHz	3.19dB
	30MHz~1GHz	6.11dB
Occupied Bandwidth		0.5kHz
Temperature		1.0℃
Humidity		6%

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu Province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) is accredited in accordance with ISO/IEC 17025:2017 by NVLAP (Lab code: 600338-0), and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No.: CN5055.

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

EUT Exercise Software

The EUT is tested in the engineering mode.

Equipment Modifications

No modification on the EUT.

Support Equipment List and Details

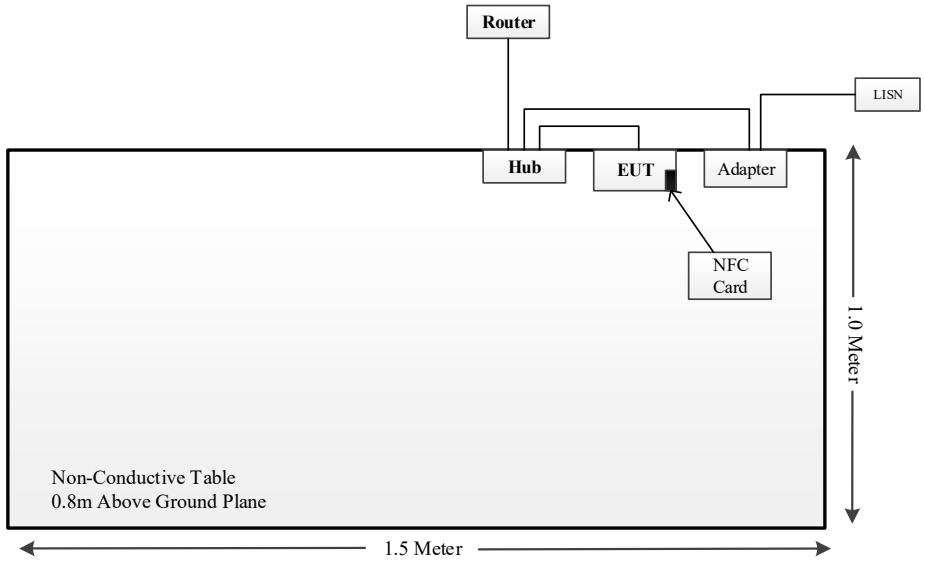
Manufacturer	Description	Model	Serial Number
/	Hub	/	/
TP-LINK	Router	TL-XDR3010	12373X0002080
/	NFC Card	/	/

External I/O Cable

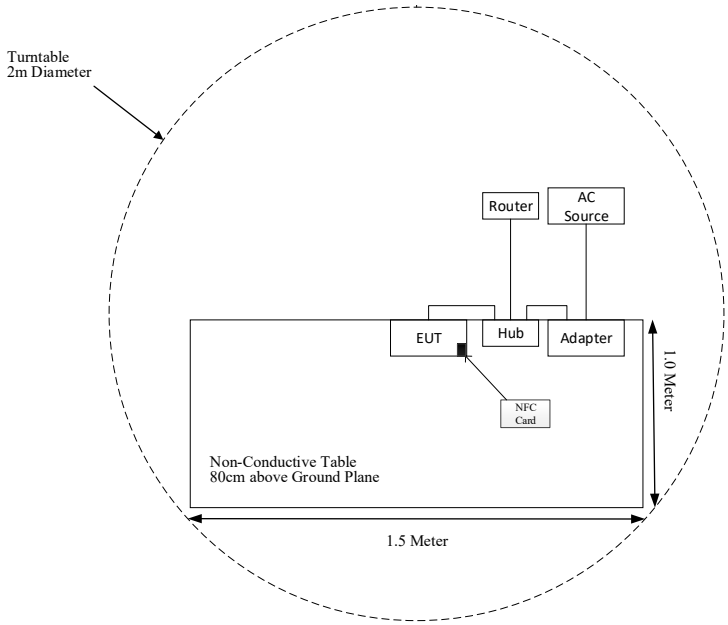
Cable Description	Length (m)	From Port	To Port
Power Cable 1	1.0	Hub	Adapter
Power Cable 2	1.0	Adapter	LISN
Data Cable	0.3	Hub	EUT
RJ45	5.0	Hub	Router

Block Diagram of Test Setup

For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1310 & §2.1091	MAXIMUM PERMISSIBLE EXPOSURE (MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.225 §15.209 §15.205	Radiated Emission Test	Compliant
§15.225(e)	Frequency Stability	Compliant
§15.215(c)	20dB Emission Bandwidth Testing	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test & 20dB EMISSION BANDWIDTH					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2025-04-09	2026-04-08
Sunol Sciences	Broadband Antenna	JB3	A090314-1	2024-11-08	2027-11-07
BACL	Active Loop Antenna	1313-1A	4041511	2024-11-22	2027-11-21
Narda	6dB Attenuator	773-6	10690812-2-1	2024-10-29	2027-10-28
Sonoma Instrument	Pre-amplifier	310N	171205	2025-04-09	2026-04-08
Rohde & Schwarz	Auto Test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-9	009	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-10	010	2025-04-09	2026-04-08
Frequency Stability					
BACL	Temperature & Humidity Chamber	BTH-150	30023	2025-04-09	2026-04-08
EAST	Regulated DC Power Supply	MCH-303D-II	14070562	N/A	N/A
FLUKE	Multimeter	12E+	64150133WS	2025-04-09	2026-04-08
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2025-04-09	2026-04-08
BACL	Active Loop Antenna	1313-1A	4041511	2024-11-22	2027-11-21
MICRO-COAX	Coaxial Cable	Cable-10	010	2025-04-09	2026-04-08
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	101746	2025-04-08	2026-04-07
Rohde & Schwarz	LISN	ENV216	101115	2025-04-08	2026-04-07
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse limiter	ESH3-Z2	100552	2025-04-08	2026-04-07
MICRO-COAX	Coaxial Cable	Cable-15	015	2025-04-08	2026-04-07

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

FCC §1.1310 & §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart §2.1091 and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary

Predication of MPE limit at a given distance
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Calculated Data:

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Output Power*		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)	MPE ratio
		(dBi)	(numeric)	(dBm)	(mW)				
2.4G Wi-Fi	2412-2462	0.69	1.17	19.5	89.13	20	0.0207	1.00	0.0207
BLE	2402-2480	0.69	1.17	7.0	5.01	20	0.0012	1.00	0.0012
BT	2402-2480	0.69	1.17	10	10	20	0.0023	1.00	0.0023
5G Wi-Fi	5150-5250	0.96	1.25	17.0	50.12	20	0.0125	1.00	0.0125
	5725-5850	1.11	1.29	16.0	39.81	20	0.0102	1.00	0.0102
NFC	13.56	0	1.00	-20.5	0.0089	20	0.000002	0.98	0.000002

Note:
1. For the above tune up power were declared by the manufacturer.
2. For NFC, the power of EUT: E Field@3m is 74.35 dBuV/m = -20.85 dBm EIRP. That equal to antenna gain is 0 dBi and used the EIRP value as conducted power.
3. E[dBμV/m] = EIRP[dBm] + 95.2 for d = 3 m.
4. NFC and 2.4G Wi-Fi/5G WIFI/BT/BLE can transmit simultaneously.

$$\sum_i \frac{S_i}{S_{Limit,i}}$$

$= S_{NFC}/S_{limitNFC} + S_{2.4G\ Wi\text{-}Fi}/S_{limit2.4G\ Wi\text{-}Fi}$

$=0.000002+0.0207$

$=0.020702$

< 1.0

Result: Compliant.

FCC§15.203 - ANTENNA REQUIREMENT

Applicable Standard

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.

Antenna Connected Construction

The EUT has a Coil antenna for 13.56 MHz, the antenna was permanently attached, fulfill the requirement of this section, please refer to the EUT photos.

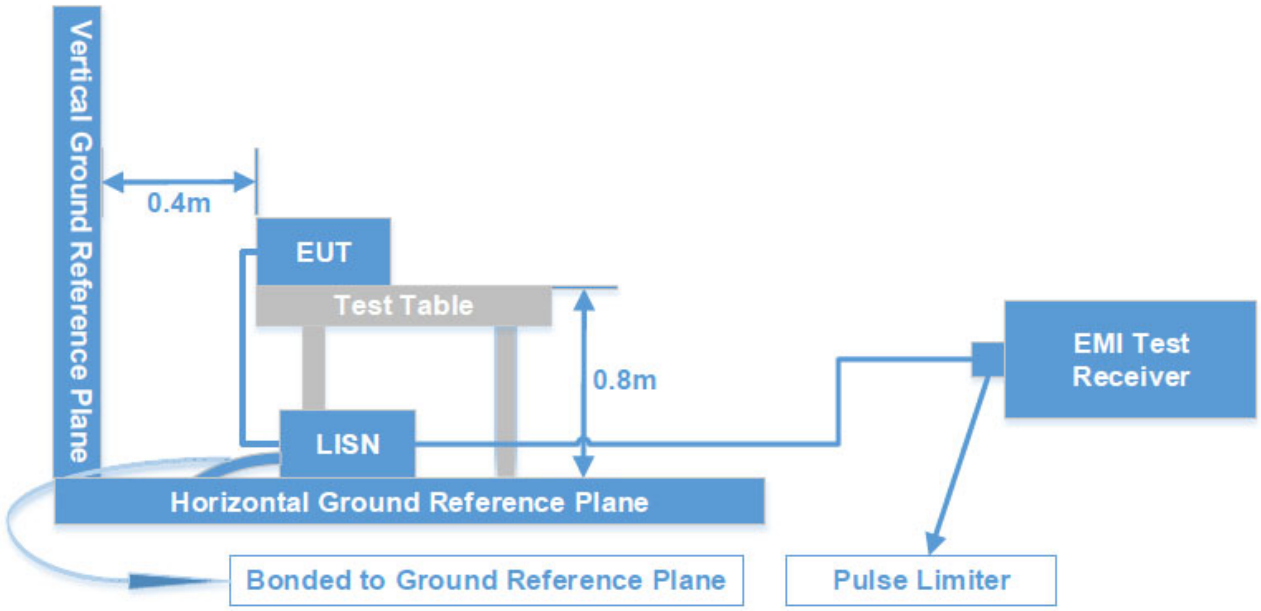
Result: Compliant.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207(a)

Test System Setup



The setup of EUT is according with per ANSI C63.10-2020 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

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

Frequency Range	RBW	VBW
150 kHz - 30 MHz	9 kHz	30 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

If the maximum peak value of the emissions is below the average limit, the QP value and average value measurement will not need to be performed and only record the maximum peak measured value to meet the requirements.

Level & Over Limit Calculation

The Level is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation from the Meter Reading. The basic equation is as follows:

Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)
Level (dBμV) = Read level (dBμV) + Factor (dB)

The "**Over Limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of 7 dB means the emission is 7 dB above the limit. The equation for Over Limit calculation is as follows:

Over Limit (dB) = Level (dBμV) - Limit (dBμV)

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Test Data: See Appendix

FCC§15.225, §15.205 & §15.209 - RADIATED EMISSIONS TEST

Applicable Standard

As per FCC Part 15.225

(a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.

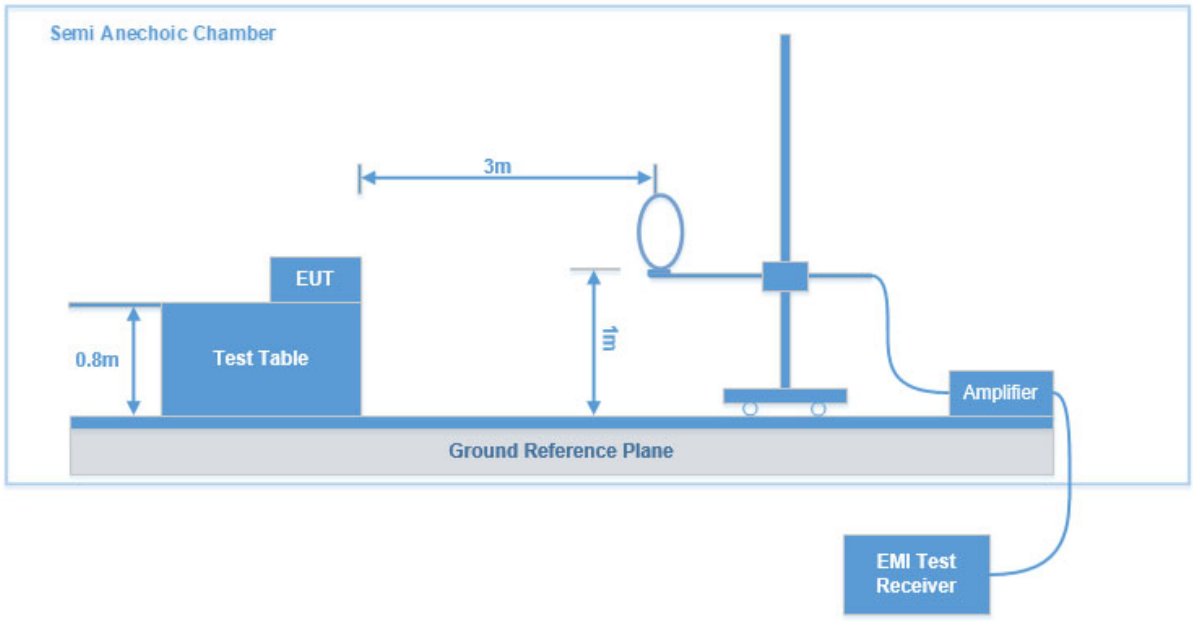
(b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.

(c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

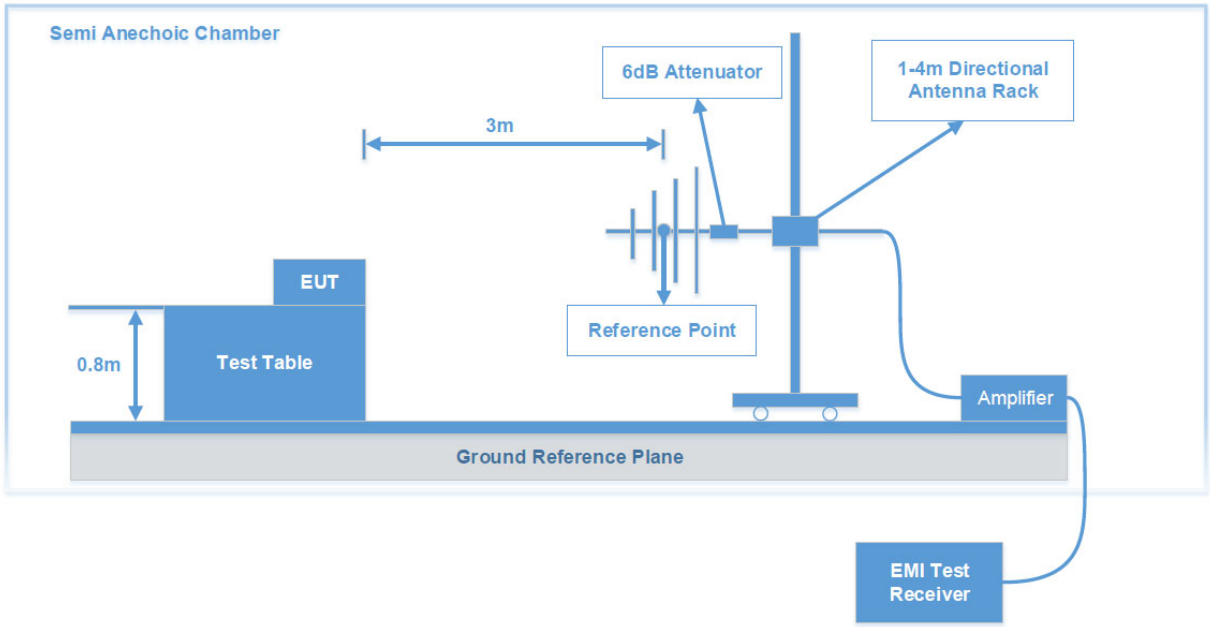
(d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

Test System Setup

9k - 30MHz:



30 MHz - 1 GHz:



The radiated emission tests were performed in the 3-meter chamber a test site, using the setup accordance with the ANSI C63.10. The specification used was the FCC Part Subpart C limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

According to FCC Rules, 47 CFR 15.33, the EUT emissions were investigated up to 1000 MHz.

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

Frequency Range	RBW	VBW	IF B/W	Measurement
9 kHz – 150 kHz	200 Hz	1 kHz	200 Hz	QP/Average
150 kHz – 30 MHz	9 kHz	30 kHz	9 kHz	QP/ Average
30 MHz – 1000 MHz	100 kHz	300 kHz	/	Peak
	/	/	120 kHz	QP

For 9 kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude (dBμV/m) = Meter Reading (dBμV) + Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB)

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin (dB) = Limit (dBμV/m) – Corrected Amplitude (dBμV/m)

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.209, 15.205, 15.225.

Test Data: See Appendix

FCC§15.225(e) - FREQUENCY STABILITY

Applicable Standard

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of −20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

Test Procedure

a) Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT. If possible, a dummy load shall be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustable-length antenna, then the EUT shall be placed in the center of the chamber with the antenna adjusted to the shortest length possible. Turn ON the EUT and tune it to one of the number of frequencies shown in 5.6.

b) Couple the unlicensed wireless device output to the measuring instrument by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away), or by connecting a dummy load to the measuring instrument, through an attenuator if necessary.
NOTE—An instrument that has an adequate level of accuracy as specified by the procuring or regulatory agency is the recommended measuring instrument.

c) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).

d) Turn the EUT OFF and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.

e) Set the temperature control on the chamber to the highest specified in the regulatory requirements for the type of device and allow the oscillator heater and the chamber temperature to stabilize.

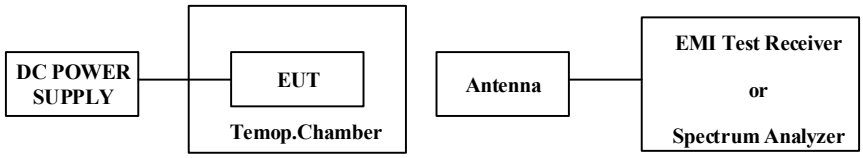
f) While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

g) Measure the frequency at each of frequencies specified in 5.6.

h) Switch OFF the EUT but do not switch OFF the oscillator heater.

i) Lower the chamber temperature by not more that 10 °C, and allow the temperature inside the chamber to stabilize.

j) Repeat step f) through step i) down to the lowest specified temperature.



Test Data: See Appendix

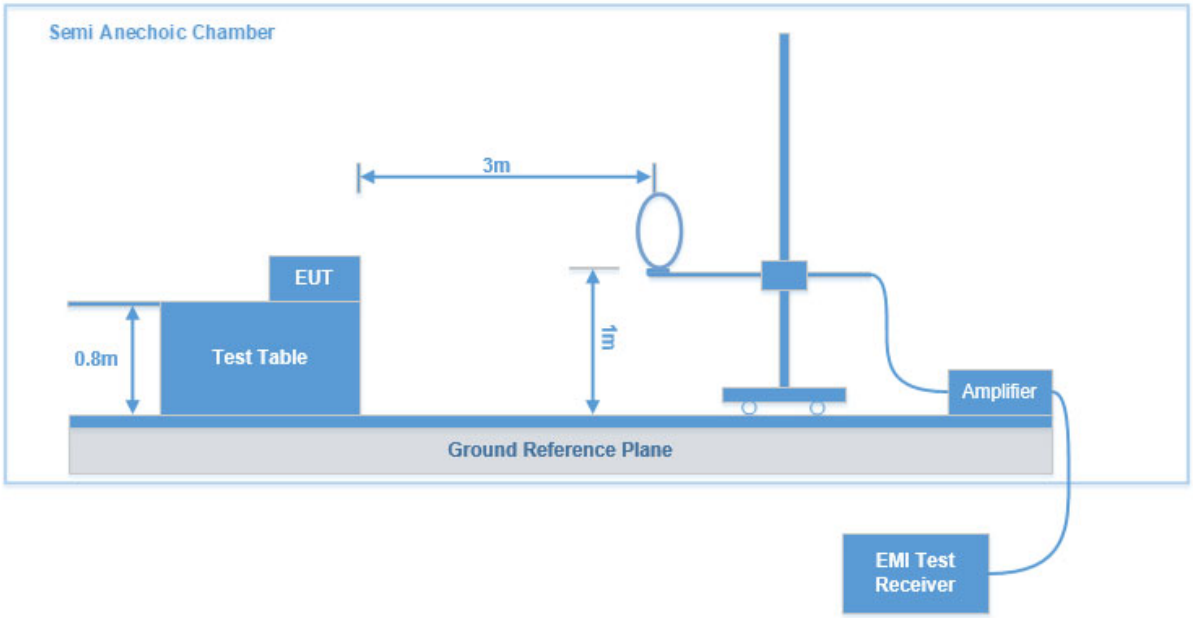
§15.215(c) - 20dB EMISSION BANDWIDTH TESTING

Requirement

Per 15.215 (c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Test Procedure

1. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.



Test Data: See Appendix

EUT PHOTOGRAPHS

Please refer to the attachment EXHIBIT A - EUT EXTERNAL PHOTOGRAPHS and EXHIBIT B - EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment EXHIBIT E - TEST SETUP PHOTOGRAPHS.

APPENDIX D - TEST DATA

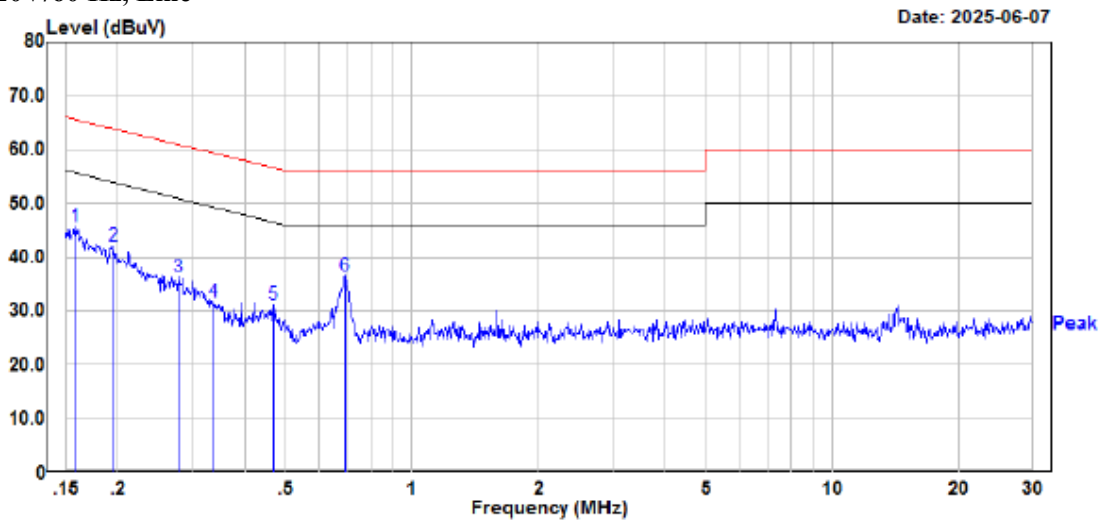
AC LINE CONDUCTED EMISSIONS

Environmental Conditions & Test Information

Test Date:	2025-06-07
Temperature:	25.1 ℃
Relative Humidity:	45 %
ATM Pressure:	100.7 kPa
Test Engineer:	Myles Miao

EUT operation mode: Transmitting

AC 120V/60 Hz, Line




```
Site                : CE
Condition           : limit\FCC PART 15.207
                    : DET:Peak
Project No.         : RKSA250411002
Model               : P5L-PINPad
Phase               : L
Voltage             : 120V/60Hz
Mode                : NFC
Test Equipment      : ENV216,ESR3
Receiver Setting    : RBW: 9 kHz,Sweep Time: Auto
Temperature         : 25.1℃
Humidity            : 45%
Atmospheric pressure: 100.7KPa
Test Engineer       : Myles Miao
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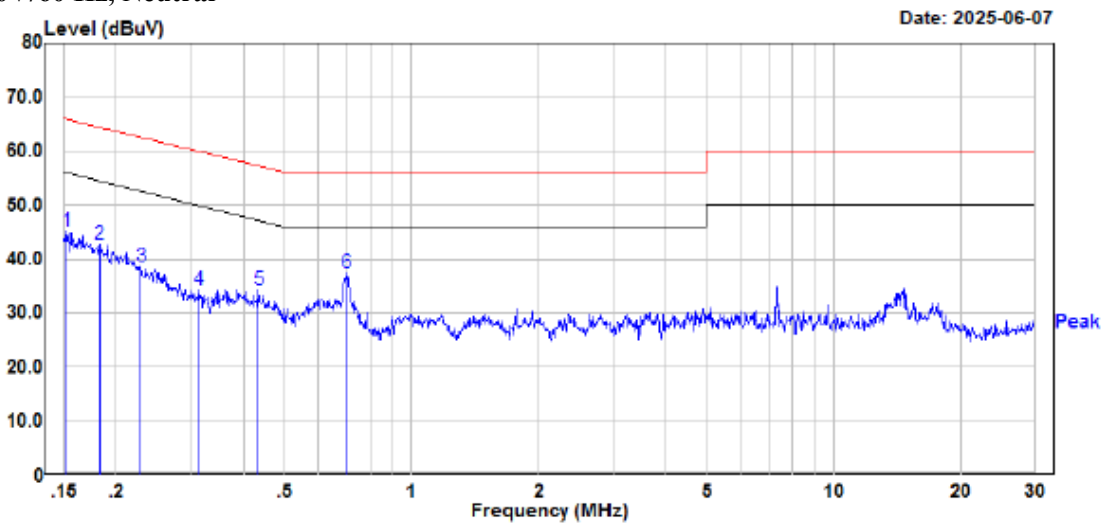
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.158	25.50	20.22	45.72	65.54	-19.82	Peak
2	0.194	21.77	20.21	41.98	63.85	-21.87	Peak
3	0.278	15.95	20.22	36.17	60.87	-24.70	Peak
4	0.336	11.42	20.23	31.65	59.29	-27.64	Peak
5	0.467	11.00	20.23	31.23	56.56	-25.33	Peak
6	0.693	16.10	20.30	36.40	56.00	-19.60	Peak

AC 120V/60 Hz, Neutral



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250411002
Model : P5L-PINPad
Phase : N
Voltage : 120V/60Hz
Mode : NFC
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1℃
Humidity : 45%
Atmospheric pressure: 100.7KPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.152	24.92	20.23	45.15	65.88	-20.73	Peak
2	0.183	22.62	20.21	42.83	64.34	-21.51	Peak
3	0.229	18.44	20.21	38.65	62.48	-23.83	Peak
4	0.314	14.14	20.23	34.37	59.87	-25.50	Peak
5	0.434	14.09	20.25	34.34	57.18	-22.84	Peak
6	0.700	17.20	20.30	37.50	56.00	-18.50	Peak

RADIATED EMISSIONS TEST

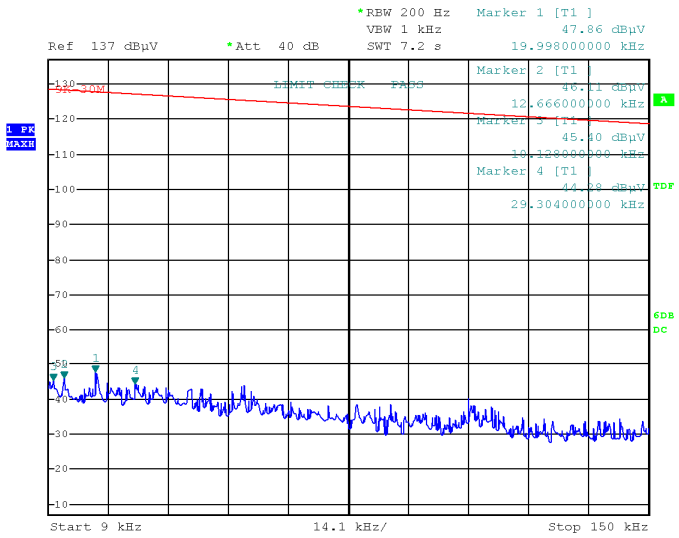
Environmental Conditions & Test Information

Test Date:	2025-05-28 ~ 2025-06-29
Temperature:	21.5 ℃ ~ 22.5 ℃
Relative Humidity:	47 % ~ 51 %
ATM Pressure:	100.5 kPa ~ 100.8 kPa
Test Engineer:	Jonathan/Link xia

Test mode: Transmitting

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

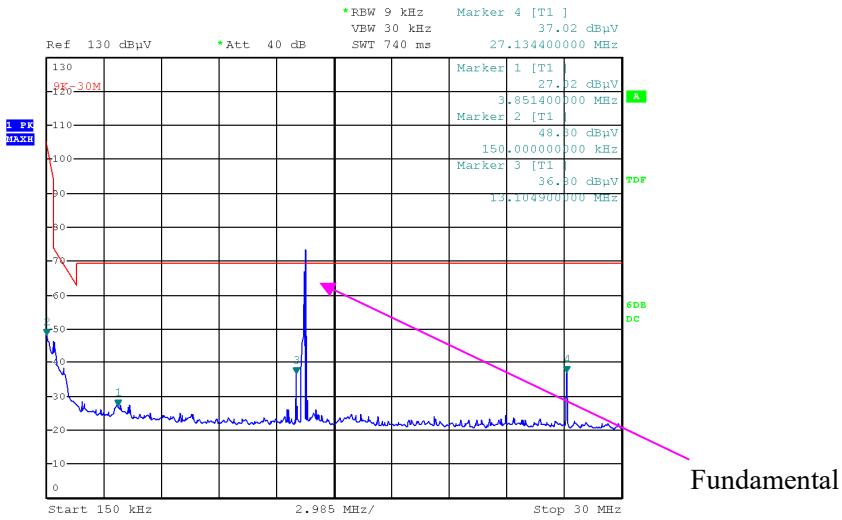
For Ground-parallel
1) 9 kHz~150 kHz:



Project No.RKSA250411002 Tester:Jonathan
Date: 28.MAY.2025 18:07:08

Frequency (kHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
10.13	45.40	PK	-0.51	127.49	82.09
12.67	46.11	PK	-0.52	125.55	79.44
20.00	47.86	PK	-0.56	121.58	73.72
29.30	44.28	PK	-0.61	118.27	73.99

2) 150 kHz~30 MHz:

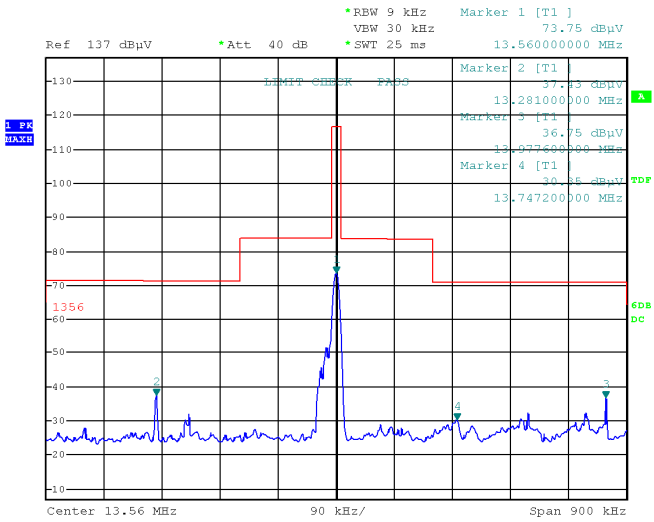


Project No.RKSA250411002 Tester:Link xia

Date: 29.JUN.2025 17:20:30

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.150	48.30	PK	-11.34	104.08	55.78
3.851	27.02	PK	-31.84	69.54	42.52
13.105	36.80	PK	-33.07	69.54	32.74
27.134	37.02	PK	-33.58	69.54	32.52

3) 13.11 MHz~14.01 MHz:

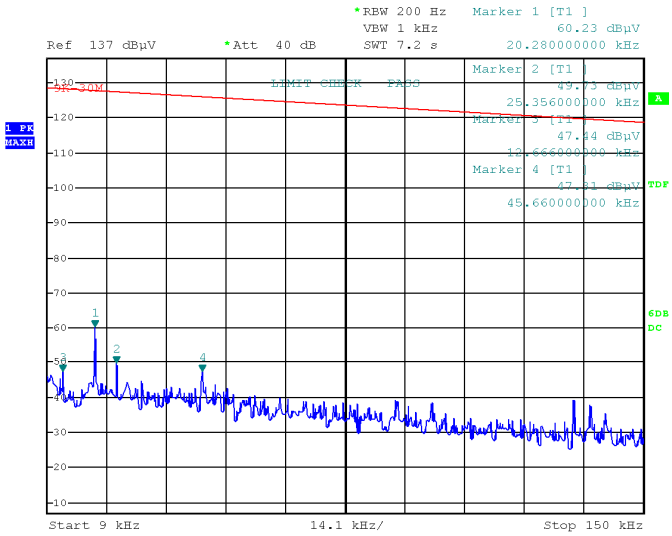


Project No.RKSA250411002 Tester:Jonathan

Date: 3.JUN.2025 21:43:47

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
13.2810	37.43	PK	-1.6	80.51	43.08
13.5600	73.75	PK	-1.6	124	50.25
13.7472	30.35	PK	-1.6	80.51	50.16
13.9776	36.75	PK	-1.6	80.51	43.76

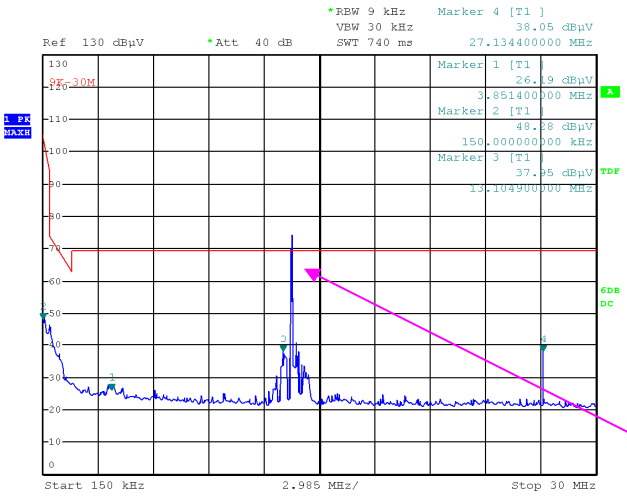
For Parallel
1) 9 kHz~150 kHz:



Project No.RKSA250411002 Tester:Jonathan
Date: 28.MAY.2025 17:31:57

Frequency (kHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
12.67	47.44	PK	-0.52	125.55	78.11
20.28	60.23	PK	-0.56	121.46	61.23
25.36	49.73	PK	-0.59	119.52	69.79
45.66	47.31	PK	-3.12	114.41	67.10

2) 150 kHz~30 MHz:

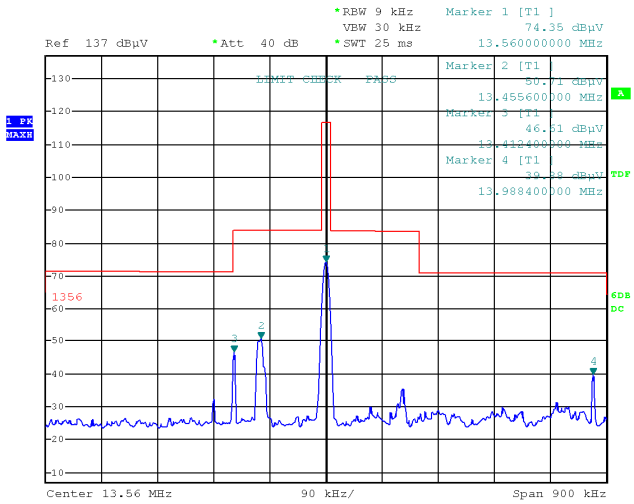


Project No.RKSA250411002 Tester:Link xia

Date: 29.JUN.2025 17:28:03

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.150	48.28	PK	-11.34	104.08	55.80
3.851	26.19	PK	-31.84	69.54	43.35
13.105	37.95	PK	-33.07	69.54	31.59
27.134	38.05	PK	-33.58	69.54	31.49

3) 13.11 MHz~14.01 MHz:

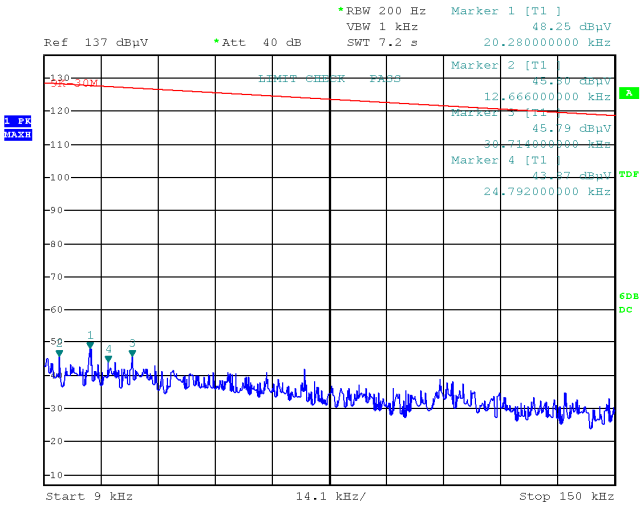


Project No.RKSA250411002 Tester:Jonathan

Date: 3.JUN.2025 21:40:23

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
13.4124	46.61	PK	-1.6	90.47	43.86
13.4456	50.71	PK	-1.6	90.47	39.76
13.5600	74.35	PK	-1.6	124.00	49.65
13.9884	39.88	PK	-1.6	80.51	40.63

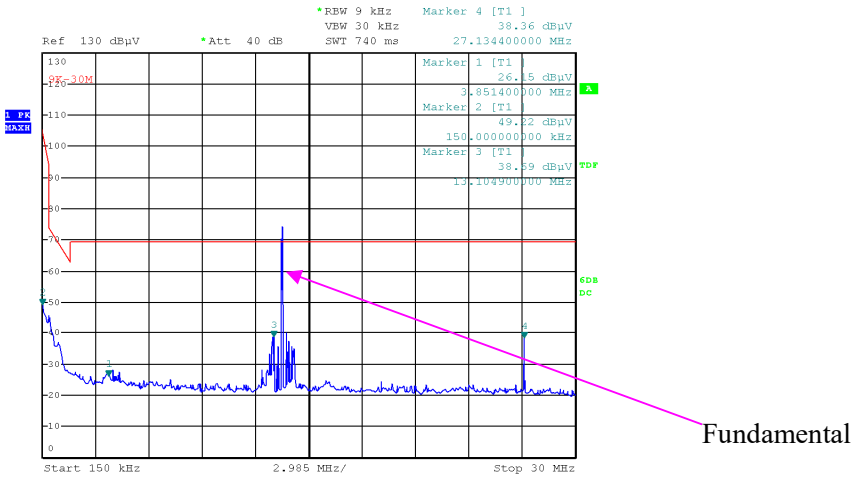
For Perpendicular
1) 9 kHz~150 kHz:



Project No.RKSA250411002 Tester:Jonathan
Date: 28.MAY.2025 18:00:00

Frequency (kHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
12.67	45.80	PK	-0.52	125.55	79.75
20.28	48.25	PK	-0.56	121.46	73.21
24.79	43.87	PK	-0.58	119.72	75.85
30.71	45.79	PK	-0.72	117.86	72.07

2) 150 kHz~30 MHz:

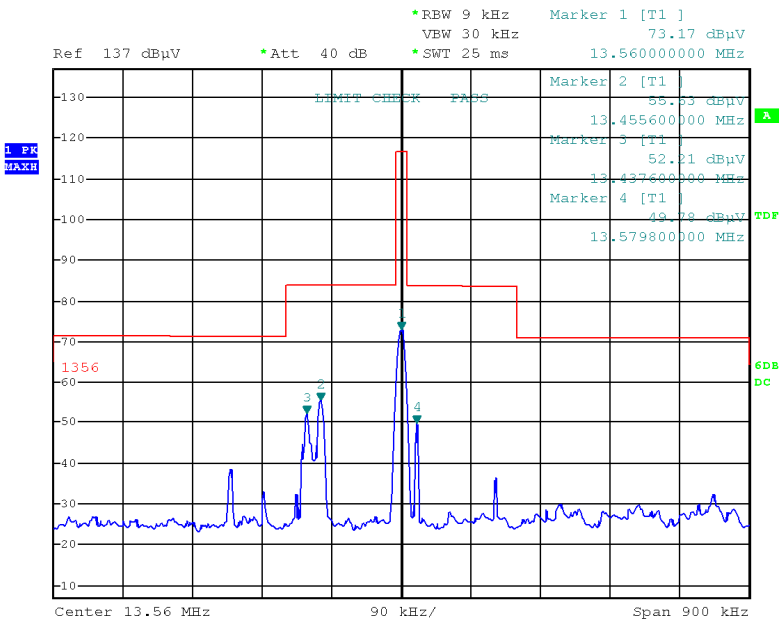


Project No.RKSA250411002 Tester:Link xia

Date: 29.JUN.2025 17:31:34

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.150	49.22	PK	-11.34	104.08	54.86
3.851	26.15	PK	-31.84	69.54	43.39
13.105	38.69	PK	-33.07	69.54	30.85
27.134	38.36	PK	-33.58	69.54	31.18

3) 13.11 MHz~14.01 MHz:



Project No.RKSA250411002 Tester:Jonathan

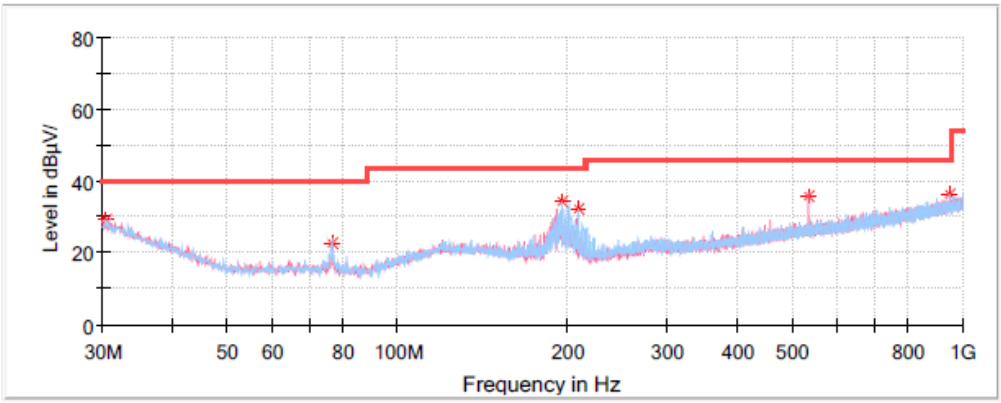
Date: 3.JUN.2025 21:51:30

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
13.4376	52.21	PK	-1.6	90.47	38.26
13.4556	55.63	PK	-1.6	90.47	34.84
13.5600	73.17	PK	-1.6	124.00	50.83
13.5798	49.78	PK	-1.6	90.47	40.69

30 MHz - 1 GHz:

Common Information

Project No:	RKSA250411002
EUT Model:	P5L-PINPad
Test Mode:	NFC
Standard:	FCC Part 15.205 &FCC Part 15.209&FCC Part 15.225
Test Equipment:	ESCI, JB3, 310N
Receiver Setting:	RBW:100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature:	22.5℃
Humidity:	51%
Barometric Pressure:	100.8kPa
Test Engineer:	Jonathan
Test Date:	2025/6/3



Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.363750	29.10	40.00	10.90	H	-5.0
76.438750	22.74	40.00	17.26	H	-16.9
196.233750	34.22	43.50	9.28	H	-12.3
208.965000	32.38	43.50	11.12	H	-12.7
533.308750	35.74	46.00	10.26	V	-4.9
948.468750	36.33	46.00	9.67	H	1.8

FREQUENCY STABILITY

Environmental Conditions & Test Information

Test Date:	2025-05-28
Temperature:	21.5 ℃
Relative Humidity:	47 %
ATM Pressure:	100.5 kPa
Test Engineer:	Jonathan

Test Mode: Transmitting.

Test Result: Compliant

F_0=13.56MHz				
Power Supply(V_{DC})	**Temperature (°C)**	**Measured Frequency (MHz)**	**Frequency Error (%)**	**Part 15.225 Limit**
5.0	-20	13.559806	-0.00143	±0.01%
	-10	13.559811	-0.00139	±0.01%
	0	13.559813	-0.00138	±0.01%
	+10	13.559772	-0.00168	±0.01%
	+20	13.559830	-0.00125	±0.01%
	+30	13.559812	-0.00139	±0.01%
	+40	13.559816	-0.00136	±0.01%
	+50	13.559809	-0.00141	±0.01%
4.5	+20	13.559812	-0.00139	±0.01%
5.5	+20	13.559817	-0.00135	±0.01%

20dB EMISSION BANDWIDTH TESTING

Environmental Conditions & Test Information

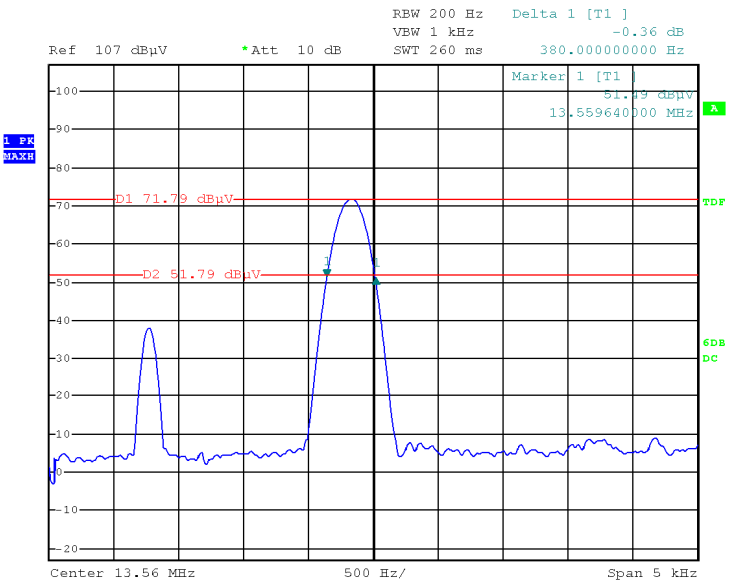
Test Date:	2025-06-03
Temperature:	22.5 ℃
Relative Humidity:	51 %
ATM Pressure:	100.8 kPa
Test Engineer:	Jonathan

Test Mode: Transmitting

Test Result: Compliant

Frequency (MHz)	20 dB Bandwidth (kHz)
13.56	0.38

20 dB Emission Bandwidth-13.56MHz



Project No.RKSA250411002 Tester:Jonathan

Date: 3.JUN.2025 12:08:20

Declarations

1. The laboratory is not responsible for the authenticity of any information provided by the applicant. Information from the applicant that may affect test results is marked with "★".

2. The test data was only valid for the test sample(s).

3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor k=2 with the 95.45% confidence interval.

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