

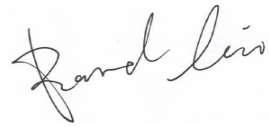
FCC PART 15.249 TEST REPORT

For

Qingdao Wintec IoT Co.,Ltd.

Room 201, Workshop 1, No. 28, xinye Road, High-tech Zone, Qingdao, Shandong 266000, China

FCC ID: 2BPP6-LS0213

Report Type: Original Report	Product Name: LANSON ESL-Electronic Shelf Label
Report Number: RSHA241022002-00A	
Report Date: 2025-07-08	
Reviewed By:	 Bard Liu
Approved By:	 Kyle Xu
Prepared By:	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

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S.Government.

TABLE OF CONTENTS

REPORT REVISION HISTORY.....	3
GENERAL INFORMATION.....	4
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
OBJECTIVE	4
TEST METHODOLOGY	4
MEASUREMENT UNCERTAINTY	5
TEST FACILITY	5
JUSTIFICATION	6
EUT EXERCISE SOFTWARE	6
SUPPORT EQUIPMENT LIST AND DETAILS	6
EXTERNAL I/O CABLE.....	6
BLOCK DIAGRAM OF TEST SETUP	7
SUMMARY OF TEST RESULTS.....	8
TEST EQUIPMENT LIST	9
FCC §15.203 - ANTENNA REQUIREMENT.....	10
APPLICABLE STANDARD	10
ANTENNA CONNECTOR CONSTRUCTION	10
FCC §1.1310 & §2.1091 –MAXIMUM PERMISSIBLE EXPOSURE (MPE)	11
APPLICABLE STANDARD	11
FCC §15.205, §15.209&§15.249- RADIATED EMISSIONS& OUT OF BAND EMISSION	12
APPLICABLE STANDARD	12
TEST SYSTEM SETUP.....	12
TEST EQUIPMENT SETUP	14
TEST PROCEDURE	14
CORRECTED AMPLITUDE & MARGIN CALCULATION	15
TEST RESULTS SUMMARY	15
TEST DATA: SEE APPENDIX	15
FCC §15.215(C) – 20 DB BANDWIDTH TESTING.....	16
APPLICABLE STANDARD	16
TEST PROCEDURE	16
TEST DATA: SEE APPENDIX	16
APPENDIX - TEST DATA.....	17
RADIATED EMISSIONS	17
20DB BANDWIDTH.....	29
EUT PHOTOGRAPHS.....	31
TEST SETUP PHOTOGRAPHS.....	32

REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RSHA241022002-00A	R1V1	2025-07-08	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Qingdao Wintec IoT Co.,Ltd.
Tested Model:	LS0213
Product Name:	LANSON ESL-Electronic Shelf Label
Power Supply:	DC 3V powered by battery
RF Function:	2.4G SRD
Operating Band/Frequency:	2402-2481 MHz
Field Strength of Fundamental	79.17 dB μ V/m@3m for peak output power
Channel Number:	80
Channel Separation:	1 MHz
Modulation Type:	FSK
Antenna Type:	PCB Antenna

All measurement and test data in this report was gathered from production sample serial number: RSHA241022002-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-10-22.)

Objective

This type approval report is prepared for *Qingdao Wintec IoT Co.,Ltd.* in accordance with Part 2-Subpart J, and Part 15-Subparts A and C of the Federal Communication Commission rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.209, 15.215 and 15.249 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020+Cor.1-2023 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
RF Output Power with Power meter		0.5dB
Radiated emission	9 kHz~150 kHz	3.8dB
	150 kHz~30 MHz	3.4dB
	30MHz~1GHz	6.11dB
	1GHz~6GHz	4.45dB
	6GHz~18GHz	5.23dB
	18GHz~40GHz	5.65dB
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**

Channel list:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2402	31	2432	72	2473
2	2403	32	2433	73	2474
3	2404	33	2434	74	2475
4	2405	34	2435	75	2476
5	2406	35	2436	76	2477
6	2407	36	2437	77	2478
7	2408	37	2438	78	2479
8	2409	38	2439	79	2480
9	2410	39	2440	80	2481
...	...	...	...	--	--

EUT was tested with Channel 1, 39 and 80.

EUT Exercise Software

Engineer Mode was used during the test.

★Power level: Default

Note: The power level was declared by the applicant.

Support Equipment List and Details

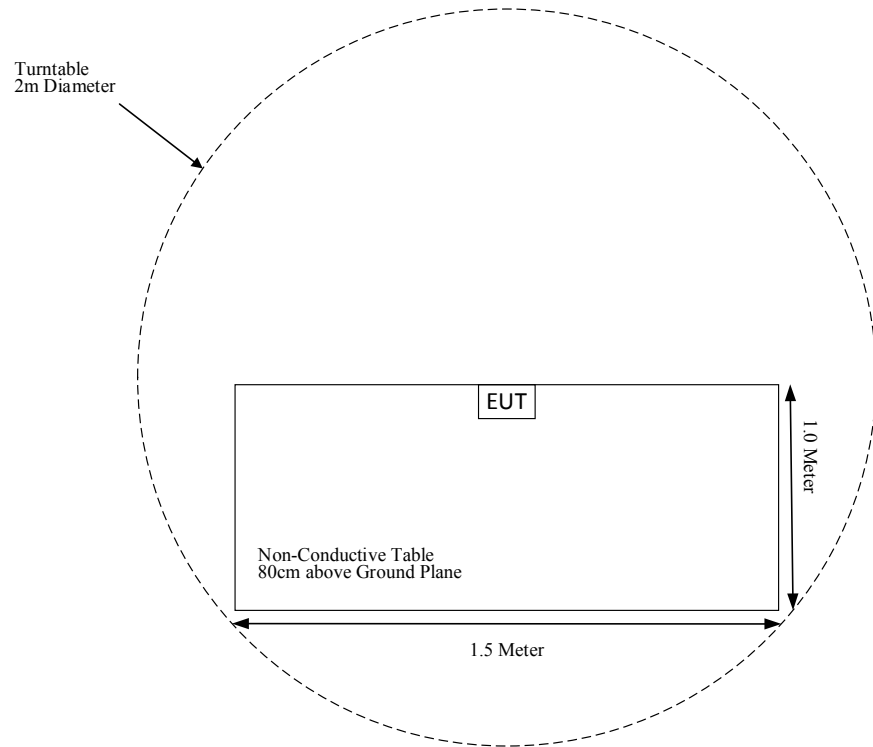
Manufacturer	Description	Model	Serial Number
/	/	/	/

External I/O Cable

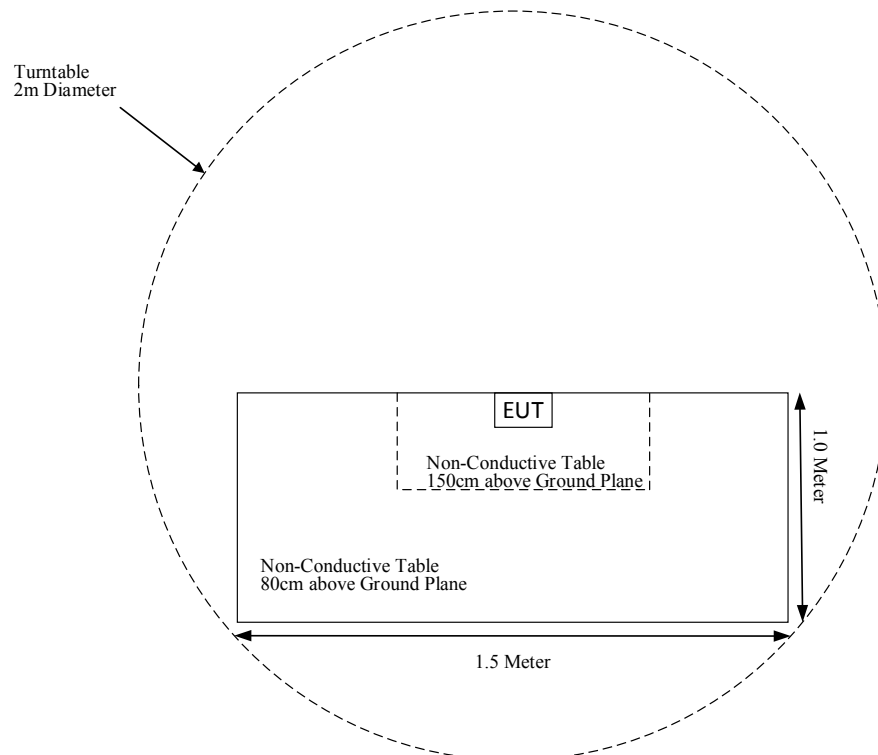
Cable Description	Length (m)	From Port	To Port
/	/	/	/

Block Diagram of Test Setup

For Radiated Emissions(Below 1GHz):



For Radiated Emissions(Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliant
§1.1310 & §2.1091	MAXIMUM PERMISSIBLE EXPOSURE (MPE)	Compliant
§15.207 (a)	AC Line Conducted Emissions	Not Applicable (See Note)
15.205, §15.209, §15.249	Radiated Emissions& Out of Band Emission	Compliant
§15.215 (c)	20 dB Bandwidth	Compliant

Note: The EUT is powered by battery.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test (Chamber #1)					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2024-04-23	2025-04-22
Sunol Sciences	Hybrid Antenna	JB3	A090314-1	2024-11-08	2027-11-07
Sonoma Instrument	Pre-amplifier	310N	171205	2024-04-23	2025-04-22
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-9	009	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2024-04-23	2025-04-22
ETS-LINDGREN	Loop Antenna	6512	108100	2024-11-03	2027-11-02
Narda	6 dB Attenuator	771-6	10690812-2-1	2024-11-08	2027-11-07
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2024-04-25	2025-04-24
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2023-12-02	2024-12-01
ETS-LINDGREN	Horn Antenna	3116	2516	2023-12-08	2024-12-07
MICRO-TRONICS	Notch Filter	BRM50702	G024	2024-08-05	2025-08-04
A.H.Systems, inc	Amplifier	PAM-0118P	512	2024-04-25	2025-04-24
SELECTOR	Amplifier	EM18G40G	060726	2024-04-25	2025-04-24
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-11	011	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-12	012	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-13	013	2024-04-25	2025-04-24
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSU26	200103	2024-04-24	2025-04-23
Narda	Attenuator	10dB	N/A	2024-04-23	2025-04-22
XHFDZ	RG178 Coaxial Cable	SMA-178	XHF-1102	Each Time	N/A

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 §15.203 - ANTENNA REQUIREMENT

Applicable Standard

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used.

Antenna Connector Construction

The EUT has a PCB Antenna for SRD, which was permanently attached to the EUT, fulfill the requirement of this section, please refer to the EUT photos.

Result: Compliant.

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/cm²);

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)	Tune-up EIRP ★		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBm)	(mW)			
SRD	2402-2481	-16	0.025	20	0.000005	1.0

1. The maximum Tune-up EIRP is provided by the manufacturer.

2. This device maximum E-Field level is 79.17dBuV/m at 3m, so the EIRP power is -16.03 dBm.

3. EIRP (dBm)=Field Strength of Fundamental(dBuV/m)-95.2, for d=3m.

Result: The device meet FCC MPE at 20 cm distance.

FCC §15.205, §15.209&§15.249- RADIATED EMISSIONS& OUT OF BAND EMISSION

Applicable Standard

As per FCC§15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

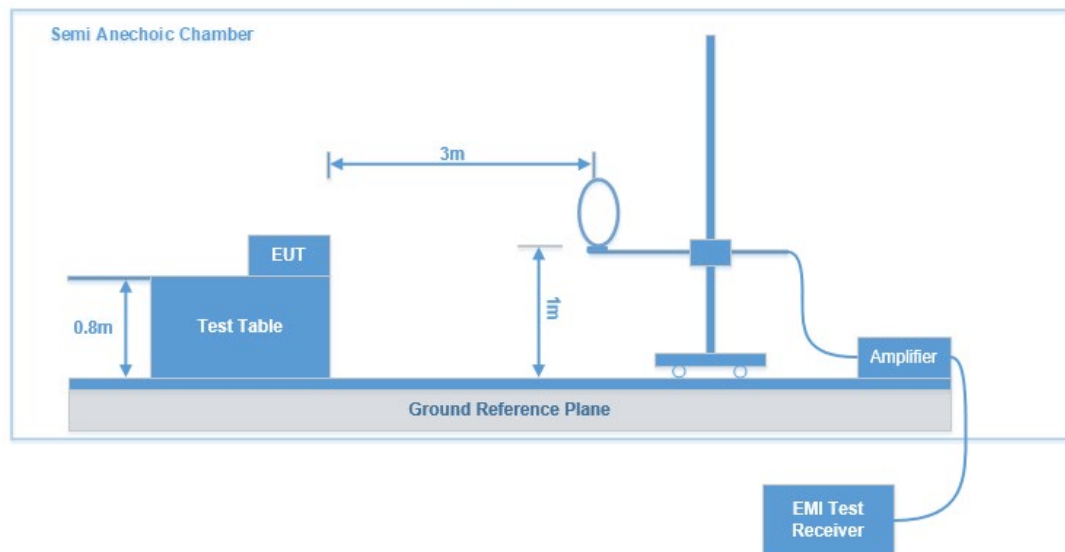
Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24GHz-24.25GHz	250	2500

As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

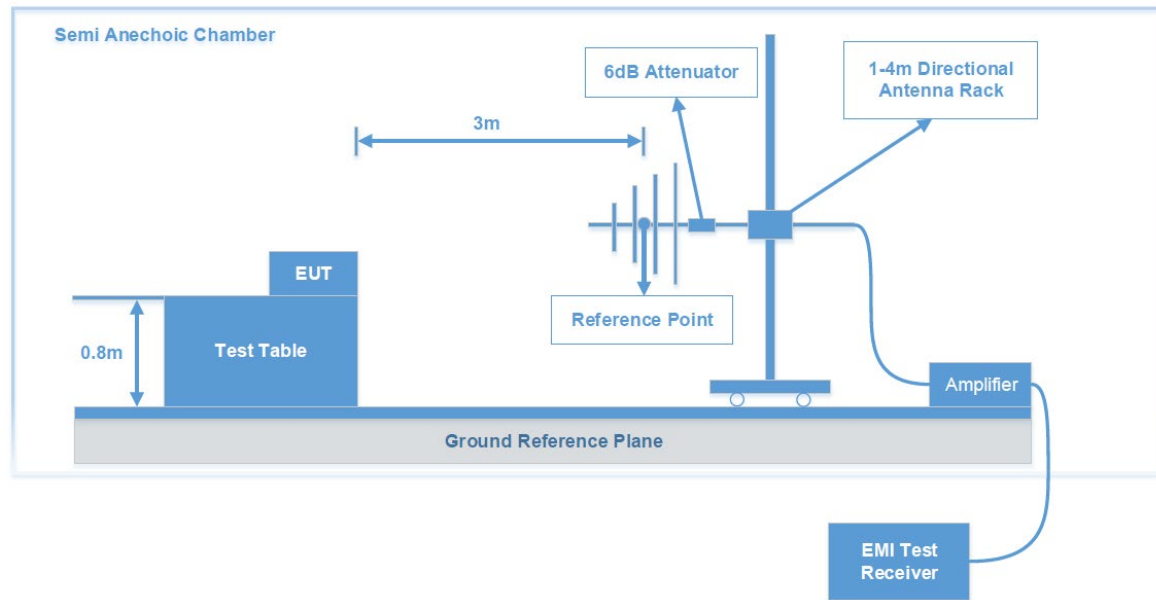
(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

Test System Setup

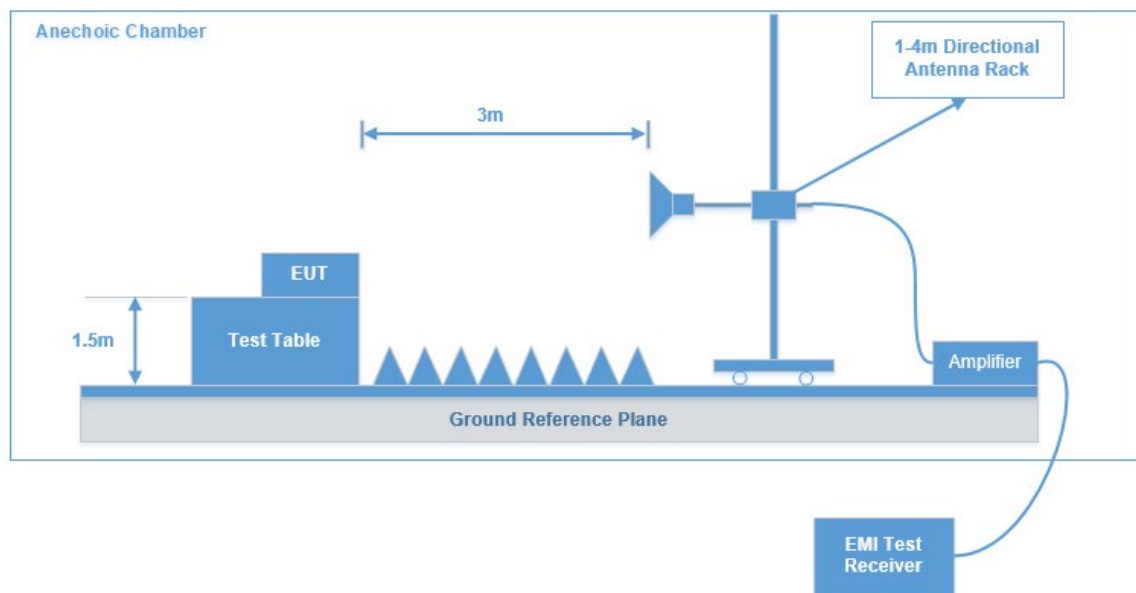
9 kHz-30 MHz:



30 MHz~1 GHz:



Above 1 GHz:



The radiated emission and out of band emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2020+Cor.1-2023. The specification used was the FCC 15.209/15.205 and FCC 15.249 limits.

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

Test Equipment Setup

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

Frequency Range	RBW	VBW	IF B/W	Measurement	Detector
9 kHz - 150 kHz	200 Hz	1 kHz	200 Hz	Peak/QP/Average	Peak/QP/Average
150 kHz - 30 MHz	9 kHz	30 kHz	9 kHz	Peak/QP/Average	Peak/QP/Average
30 MHz - 1000 MHz	100 kHz	300 kHz	/	Peak	Peak
	/	/	120 kHz	QP	QP
Above 1GHz	1MHz	3 MHz	/	Peak	Peak
	1MHz	3 MHz	/	Average	Average

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

Test Procedure

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

If the measured peak level of the emissions that the measuring receiver reading level plus corrected factor is at least 10 dB below the QP emission limit, there's no need to record the measured QP level of the emissions in the report.

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)

Note: The QuasiPeak (dBμV/m), MaxPeak (dBμV/m), Average (dBμV/m) which shown in the data table are all Corrected Amplitude.

The “**Margin/ Over Limit**” 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)
Over Limit (dB) = Level (dBμV/m) - Limit (dBμV/m)

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.209 &15.205 & 15.249.

Test Data: See Appendix

FCC §15.215(c) – 20 dB BANDWIDTH TESTING

Applicable Standard

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.

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.
2. Repeat above procedures until all frequencies measured were complete.



Test Data: See Appendix

Appendix - TEST DATA

RADIATED EMISSIONS

Environmental Conditions & Test Information

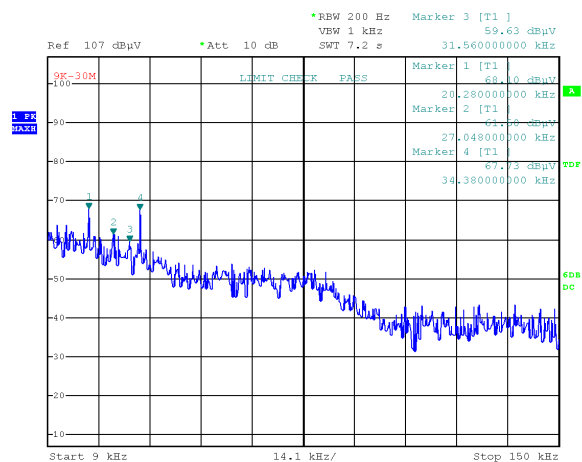
Test Item:	RADIATED EMISSIONS			
	9 kHz -150 kHz	9kHz - 1GHz	1 GHz – 18 GHz	18 GHz – 25 GHz
Test Date:	2024-11-11	2024-11-11	2024-11-11	2024-11-23
Temperature:	20.5 °C	20.5 °C	21.1 °C	21.7 °C
Relative Humidity:	63 %	63 %	59%	52%
ATM Pressure:	102.0 kPa	102.0 kPa	102.1kPa	102.6 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Jerry Yan	Jerry Yan	Destine Hu	Hugh Wu

Test Result: Compliant

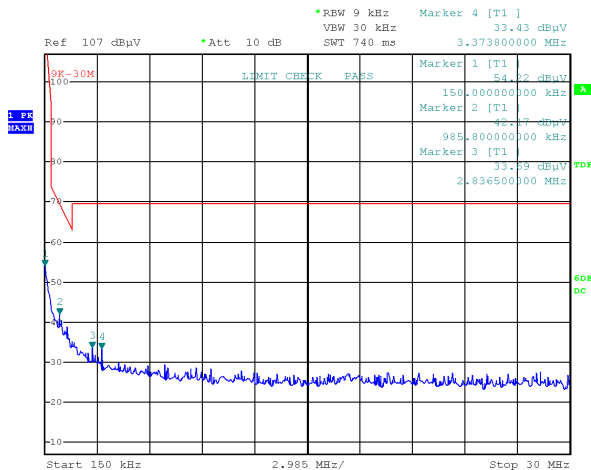
EUT operation mode: Transmitting

9 kHz-30 MHz: Transmitting in maximum output power channel (high channel)
Parallel(worst case)

9kHz-150kHz



150kHz-30MHz



Project No.RSHA241022002
 Date: 11.NOV.2024 22:23:20

Tester:Jerry Yan

Project No.RSHA241022002
 Date: 11.NOV.2024 22:27:42

Tester:Jerry Yan

9kHz-150kHz

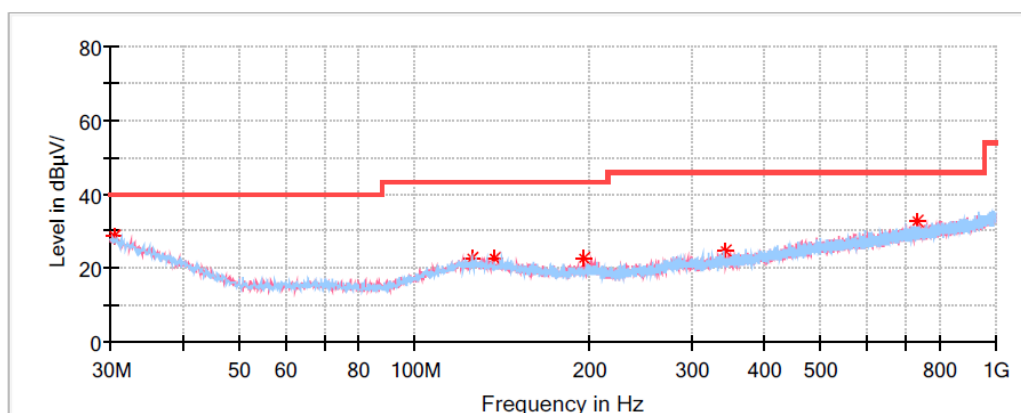
Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.02028	68.1	PK	49.92	121.46	53.36
0.027048	61.5	PK	48.03	118.96	57.46
0.03156	59.63	PK	46.79	117.62	57.99
0.03438	67.73	PK	46.06	116.88	49.15

150kHz-30MHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.15000	54.22	PK	50.90	104.08	49.86
0.98580	42.17	PK	17.65	67.73	25.56
2.83650	33.69	PK	10.89	69.54	35.85
3.37380	33.43	PK	13.49	69.54	36.11

30MHz-1GHz:**Low channel: 2402 MHz****Common Information**

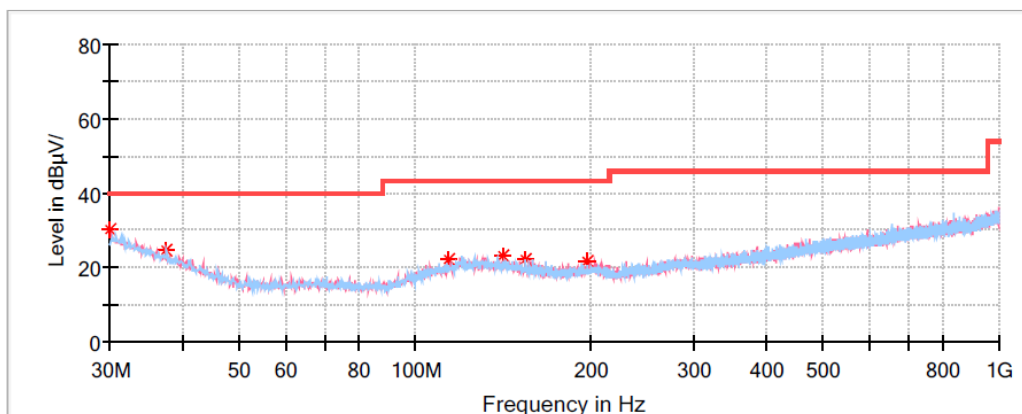
Project No: RSHA241022002
EUT Model: LS0213
Test Mode: Transmitting in SRD mode Low channel
Standard: FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.249
Test Equipment: ESCI, JB3, 310N
Temperature: 20.5°C
Humidity: 63%
Barometric Pressure: 102.0kPa
Test Engineer: Jerry Yan
Test Date: 2024/11/11

**Critical_Freqs**

Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.485000	28.47	40.00	11.53	V	-5.1
125.423750	22.81	43.50	20.69	V	-11.0
136.942500	22.78	43.50	20.72	V	-11.2
195.506250	22.61	43.50	20.89	V	-12.2
343.188750	24.82	46.00	21.18	V	-9.3
734.098750	32.80	46.00	13.20	V	-1.7

Middle channel: 2440 MHz**Common Information**

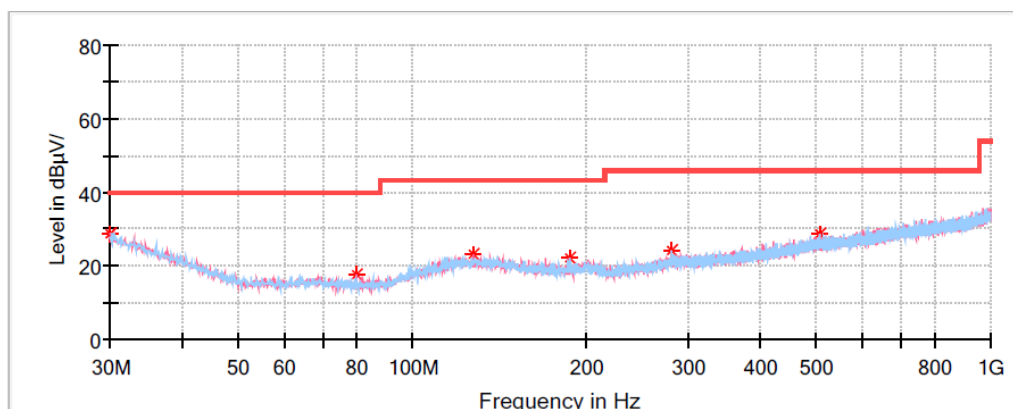
Project No:	RSHA241022002
EUT Model:	LS0213
Test Mode:	Transmitting in SRD mode middle channel
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.249
Test Equipment:	ESCI, JB3, 310N
Temperature:	20.5°C
Humidity:	63%
Barometric Pressure:	102.0kPa
Test Engineer:	Jerry Yan
Test Date:	2024/11/11

**Critical_Freqs**

Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.000000	30.17	40.00	9.83	V	-4.8
37.517500	24.58	40.00	15.42	H	-9.7
114.268750	22.12	43.50	21.38	V	-11.9
141.792500	23.03	43.50	20.47	V	-11.3
154.160000	22.37	43.50	21.13	H	-11.8
197.810000	21.83	43.50	21.67	V	-12.1

High channel: 2481 MHz**Common Information**

Project No: RSHA241022002
EUT Model: LS0213
Test Mode: Transmitting in SRD mode High channel
Standard: FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.249
Test Equipment: ESCI, JB3, 310N
Temperature: 20.5°C
Humidity: 63%
Barometric Pressure: 102.0kPa
Test Engineer: Jerry Yan
Test Date: 2024/11/11

**Critical_Freqs**

Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.000000	28.67	40.00	11.33	V	-4.8
79.833750	17.47	40.00	22.53	V	-17.1
127.485000	23.01	43.50	20.49	V	-11.0
187.382500	22.01	43.50	21.49	H	-12.6
280.138750	24.34	46.00	21.66	H	-10.4
506.997500	28.44	46.00	17.56	H	-5.2

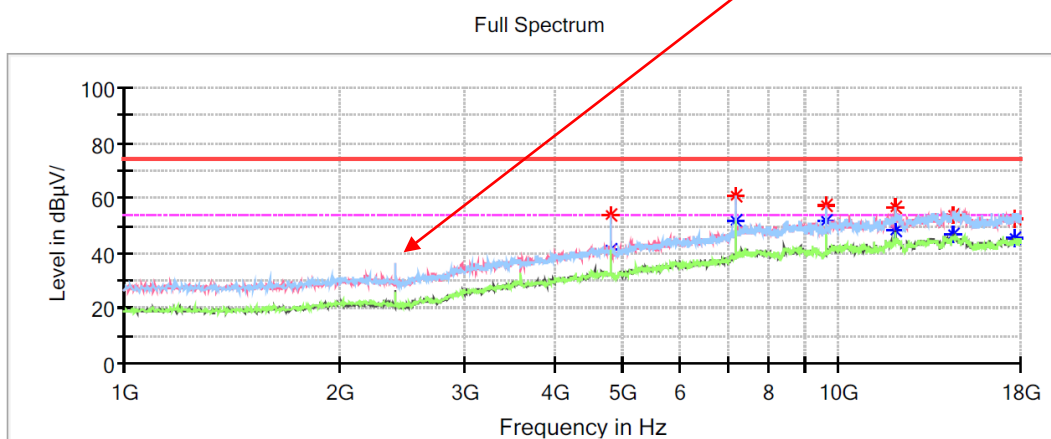
1GHz-18 GHz:

Low channel: 2402 MHz

Common Information

Project No.: RSHA241022002
EUT Model: LS0213
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.249
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 21.1°C
Humidity: 59%
Atmospheric Pressure: 102.1kPa
Test Engineer: Destine Hu
Test Date: 2024/11/11

Fundamental Test with
Band Reject Filter

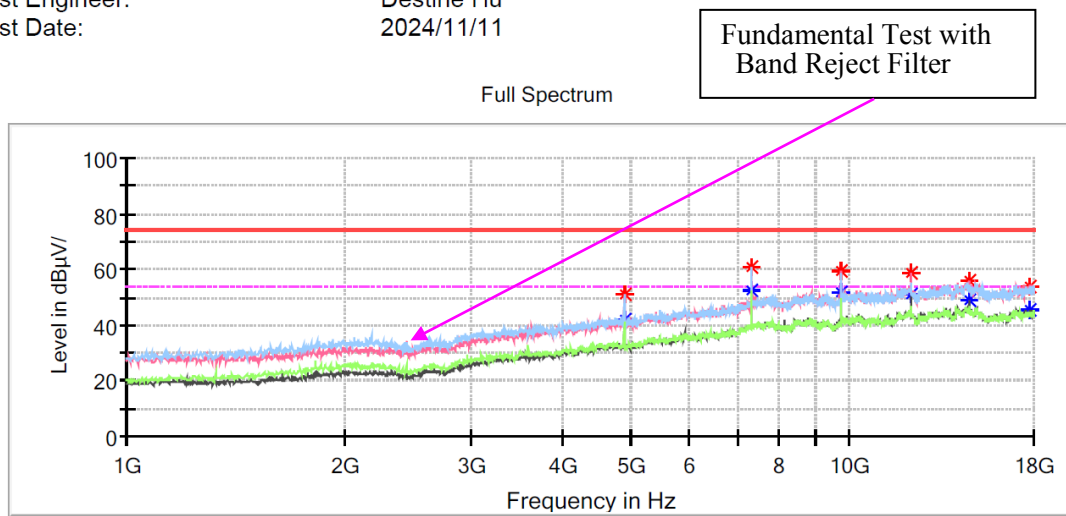


Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4804.600000	---	41.55	54.00	12.45	V	-3.4
4804.600000	53.88	---	74.00	20.12	V	-3.4
7205.000000	---	51.72	54.00	2.28	H	2.1
7205.000000	60.54	---	74.00	13.46	H	2.1
9608.800000	---	51.58	54.00	2.42	V	5.1
9608.800000	57.23	---	74.00	16.77	V	5.1
12009.200000	---	48.12	54.00	5.88	V	9.1
12009.200000	56.51	---	74.00	17.49	V	9.1
14450.400000	53.82	---	74.00	20.18	V	11.9
14450.400000	---	46.70	54.00	7.30	V	11.9
17656.600000	52.63	---	74.00	21.37	V	10.8
17656.600000	---	45.75	54.00	8.25	V	10.8

Middle channel: 2440 MHz**Common Information**

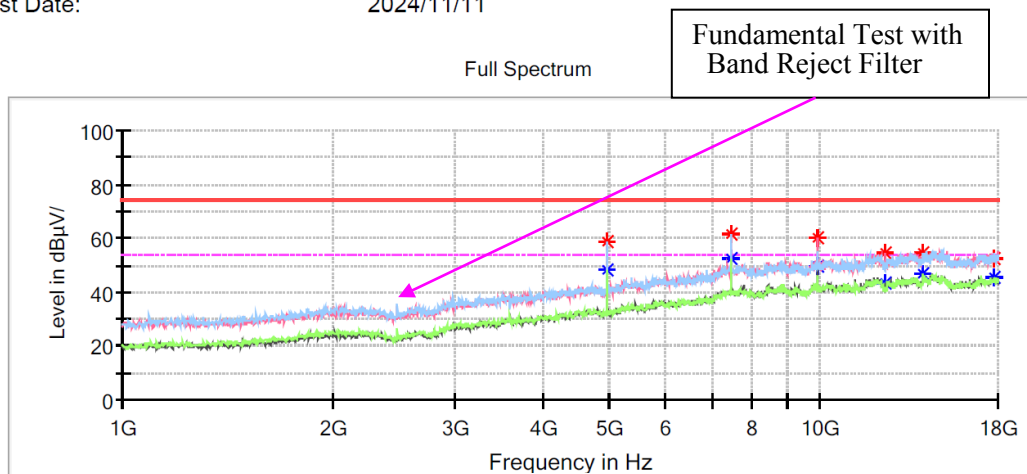
Project No.: RSHA241022002
EUT Model: LS0213
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.249
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 21.1°C
Humidity: 59%
Atmospheric Pressure: 102.1kPa
Test Engineer: Destine Hu
Test Date: 2024/11/11

**Critical_Freqs**

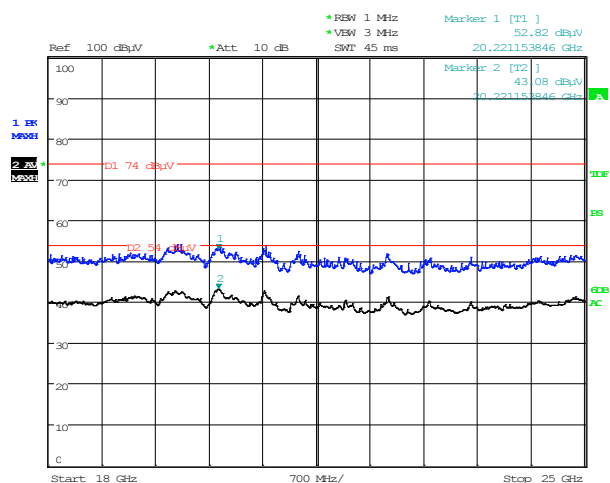
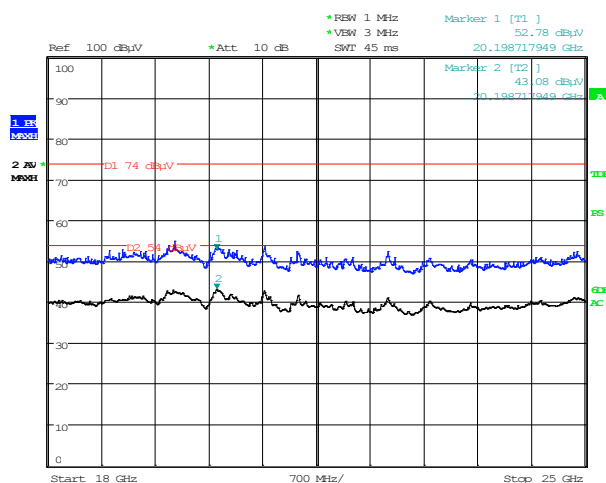
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4879.400000	50.87	---	74.00	23.13	V	-3.2
4879.400000	---	41.70	54.00	12.30	V	-3.2
7320.600000	61.15	---	74.00	12.85	H	2.4
7320.600000	---	52.45	54.00	1.55	H	2.4
9758.400000	59.23	---	74.00	14.77	V	5.6
9758.400000	---	52.05	54.00	1.95	V	5.6
12199.600000	58.79	---	74.00	15.21	V	8.9
12199.600000	---	51.08	54.00	2.92	V	8.9
14640.800000	56.17	---	74.00	17.83	V	11.5
14640.800000	---	48.65	54.00	5.35	V	11.5
17768.800000	53.62	---	74.00	20.38	V	11.1
17768.800000	---	45.31	54.00	8.69	V	11.1

High channel: 2481 MHz**Common Information**

Project No.: RSHA241022002
EUT Model: LS0213
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.249
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 21.1℃
Humidity: 59%
Atmospheric Pressure: 102.1kPa
Test Engineer: Destine Hu
Test Date: 2024/11/11

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4961.000000	---	48.48	54.00	5.52	V	-3.0
4961.000000	58.47	---	74.00	15.53	V	-3.0
7443.000000	---	52.29	54.00	1.71	H	2.8
7443.000000	61.43	---	74.00	12.57	H	2.8
9925.000000	---	49.95	54.00	4.05	V	6.1
9925.000000	59.93	---	74.00	14.07	V	6.1
12403.600000	---	43.53	54.00	10.47	V	8.8
12403.600000	54.68	---	74.00	19.32	V	8.8
14056.000000	54.24	---	74.00	19.76	V	11.2
14056.000000	---	46.98	54.00	7.02	V	11.2
17802.800000	---	45.38	54.00	8.62	H	11.2
17802.800000	52.17	---	74.00	21.83	H	11.2

18GHz-25GHz: Transmitting in maximum output power channel (high channel)**Horizontal****Vertical**

Project No :RSHA241022002
Date: 23.NOV.2024 16:41:15

Tester :Hugh Wu

Project No :RSHA241022002
Date: 23.NOV.2024 17:07:32

Tester :Hugh Wu

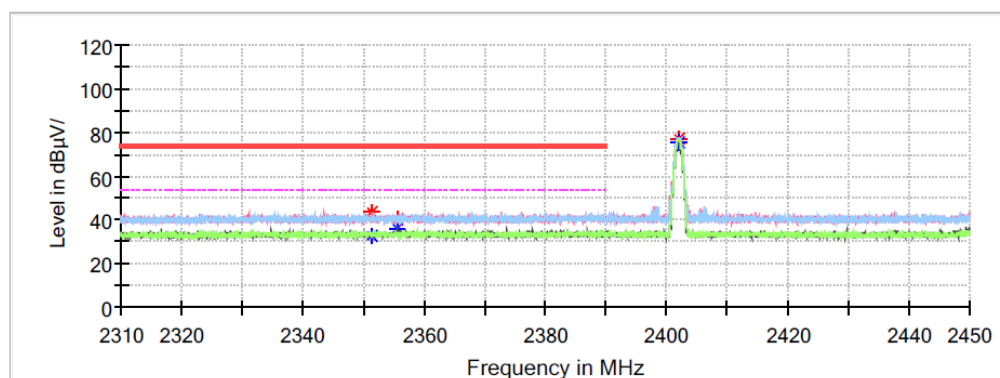
Note: The test distance is 3m. The limit is 74dBμV/m(Peak) and 54dBμV/m(Average).

Frequency (GHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
20.22	---	43.08	54	10.92	V	12.48
20.22	52.82	---	74	21.18	V	12.48
20.20	---	43.08	54	10.92	H	12.46
20.20	52.78	---	74	21.22	H	12.46

Fundamental and Band edge:**Left Side****Common Information**

Project No.: RSHA241022002
EUT Model: LS0213
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.249
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 21.1°C
Humidity: 59%
Atmospheric Pressure: 102.1kPa
Test Engineer: Destine Hu
Test Date: 2024/11/11

Full Spectrum

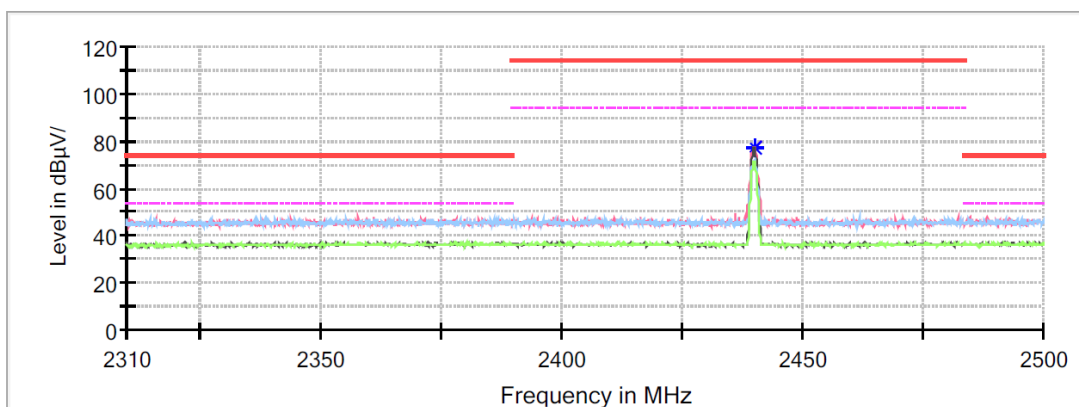
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2351.356000	43.43	---	74.00	30.57	V	-4.7
2351.356000	---	32.76	54.00	21.24	V	-4.7
2355.710000	---	35.98	54.00	18.02	V	-4.7
2355.710000	40.49	---	74.00	33.51	V	-4.7
2402.008000	---	75.39	94.00	18.61	H	-4.5
2402.008000	77.26	---	114.00	36.74	H	-4.5

Middle**Common Information**

Project No.: RSHA241022002
EUT Model: LS0213
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.249
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 21.1℃
Humidity: 59%
Atmospheric Pressure: 102.1kPa
Test Engineer: Destine Hu
Test Date: 2024/11/11

Full Spectrum

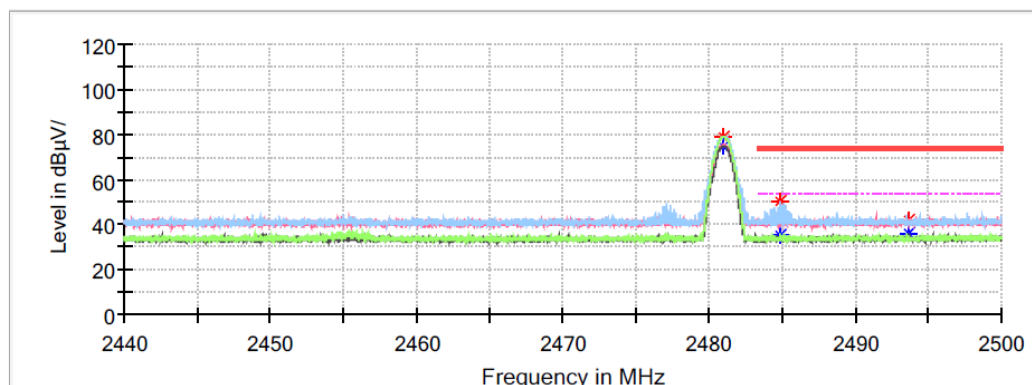
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2440.100000	---	75.94	94.00	17.06	V	0.3
2440.100000	77.30	---	114.00	36.70	V	0.3

Right Side**Common Information**

Project No.: RSHA241022002
EUT Model: LS0213
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.249
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 21.1℃
Humidity: 59%
Atmospheric Pressure: 102.1kPa
Test Engineer: Destine Hu
Test Date: 2024/11/11

Full Spectrum

**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2480.980000	---	74.97	94.00	19.03	V	-4.3
2480.980000	79.17	---	114.00	34.83	V	-4.3
2484.844000	---	34.87	54.00	19.13	H	-4.3
2484.844000	50.07	---	74.00	23.93	H	-4.3
2493.712000	---	36.35	54.00	17.65	V	-4.2
2493.712000	41.62	---	74.00	32.38	V	-4.2

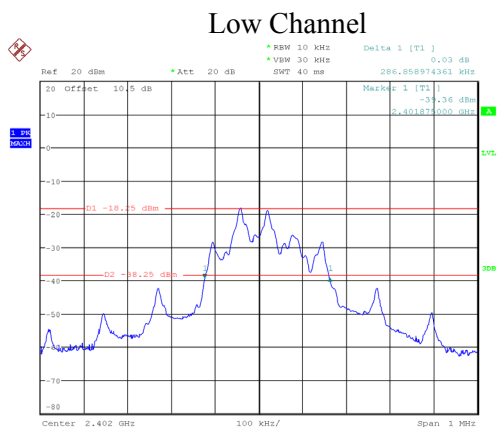
20DB BANDWIDTH**Environmental Conditions & Test Information**

Test Date:	2024-11-11
Temperature:	20.5 °C
Relative Humidity:	63 %
ATM Pressure:	102.0 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

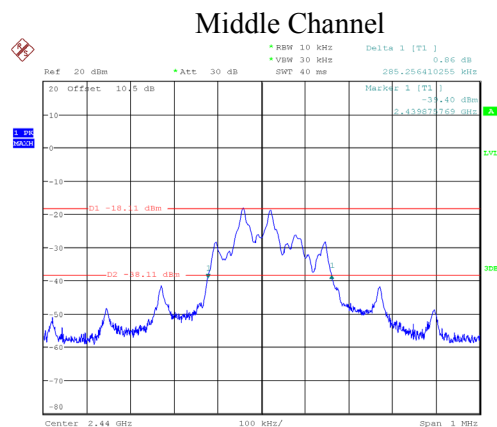
Test Result: Compliant.

Test Mode: Transmitting

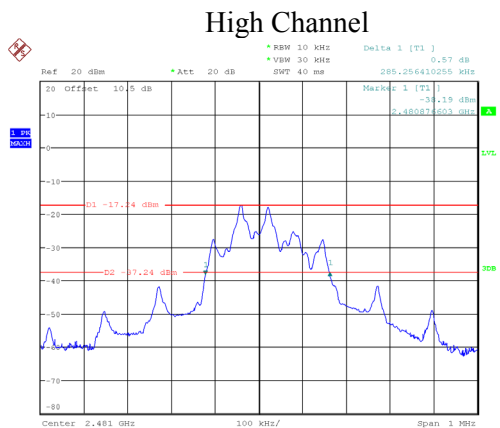
Channel	Frequency (MHz)	20 dB BANDWIDTH (MHz)
Low	2402	0.287
Middle	2440	0.285
High	2481	0.285



ProjectNo.:RSHA241022002 Tester:Neil Zhou
 Date: 11.NOV.2024 17:48:42



ProjectNo.:RSHA241022002 Tester:Neil Zhou
 Date: 11.NOV.2024 18:02:46



ProjectNo.:RSHA241022002 Tester:Neil Zhou
 Date: 11.NOV.2024 17:39:07

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 C - TEST SETUP PHOTOGRAPHS.

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*******