

TEST REPORT

Applicant:	Jiangmen Dascom Computer Peripherals Co., Ltd.			
Address:	No 399, Jin Xing Road, Jiang Hai District, Jiangmen City Guang Dong Province, China			
Equipment Type:	Card Printer			
Model Name:	DC-8600 (refer to section 2.3)			
Brand Name:				
FCC ID:	Z7ODC8600			
Test Standard:	47 CFR Part 15 Subpart C			
Test Standard.	ANSI C63.10-2013			
Sample Arrival Date:	Mar. 01, 2024			
Test Date:	Apr. 16, 2024 - Apr. 19, 2024			
Date of Issue:	Apr. 26, 2024			

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Liu Chenfang

Checked by: Xia Long

Approved by: Liao Jianming (Technical Director)

Liu Chenfang

Xia Long

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		Re	evision History	
V	ersion	Issue Date	Revisions	
R	<u>lev. 01</u>	<u>Apr. 26, 2024</u>	Initial Issue	_
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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.	
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road,	
	Nanshan District, Shenzhen, Guangdong Province, P. R. China	
Phone Number	+86 755 6685 0100	

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.		
	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi		
	Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China		
Location	1/F, Building B, Ganghongji High-tech Intelligent Industrial Park,		
	No. 1008, Songbai Road, Yangguang Community, Xili Sub-district,		
	Nanshan District, Shenzhen, Guangdong Province, P. R. China		
Accorditation Cartificate	The laboratory is a testing organization accredited by FCC as a		
Accreditation Certificate	accredited testing laboratory. The designation number is CN1196.		



2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Jiangmen Dascom Computer Peripherals Co., Ltd.	
Address	No 399, Jin Xing Road, Jiang Hai District, Jiangmen City Guang Dong	
	Province, China	

2.2 Manufacturer Information

Manufacturer	Jiangmen Dascom Computer Peripherals Co., Ltd.	
Address	No 399, Jin Xing Road, Jiang Hai District, Jiangmen City Guang Dong	
	Province, China	

2.3 General Description for Equipment under Test (EUT)

EUT Name	Card Printer	
Model Name Under Test	DC-8600	
Series Model Name	DC-8650, DC-8600Pro, DC-700, DC-730	
Description of Model name differentiationAll models are same with electrical parameters and internal circulationAll models are same with electrical parameters and internal circulationstructure, but only differ in model name. (this information provide the applicant)		
Hardware Version	N/A	
Software Version	N/A	
Dimensions (Approx.)	N/A	
Weight (Approx.)	N/A	

2.4 Technical Information

Network and Wireless	RFID (module 3)
connectivity	

The requirement for the following technical information of the EUT was tested in this report:

Modulation Type	ASK	
	🖾 Mobile	
Product Type	Portable	
	Fix Location	
Frequency Range	13.56 MHz	
Receiver Categorization	3	
Number of channel	1	
Tested Channel	1	
Antenna Type	Coil Antenna	



3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15, Subpart C	Miscellaneous Wireless Communications Services
2	ANSI C63.10-2013	American National Standard for Testing Unlicensed
2	ANSI C63.10-2013	Wireless Devices

3.2 Verdict

No.	Description	FCC Part No.	Verdict		
1	Antenna Requirement	15.203	Pass Note		
2	Emissions Bandwidth	15.215	Pass		
3	Field Strength of Fundamental Emissions	15.225(a)	Pass		
4	Radiated Emissions	15.225(d) / 15.209	Pass		
5	5 Frequency Stability 15.225(e) Pa		Pass		
6	6 Conducted Emission 15.207 Pass				
Note: The EUT has a permanently and irreplaceable attached antenna, which complies with the					
requirement FCC 15.203					

3.3 Test Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Conducted emissions (9 kHz-30 MHz)	3.2 dB
Radiated emissions (9 kHz-30 MHz)	4.3 dB
Radiated emissions (30 MHz-1 GHz)-10m	4.3 dB



4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

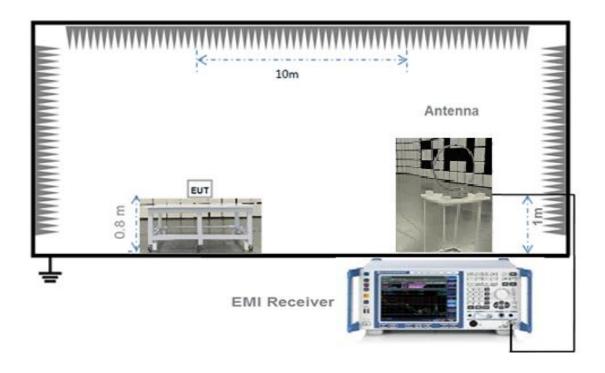
During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	30% to 60%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+22°C to +25°C
Working Voltage of the EUT	NV (Normal Voltage)	230 V

4.2 Test Setups

Test Setup 1 Rediated Test (Relew 20

Radiated Test (Below 30 MHz)

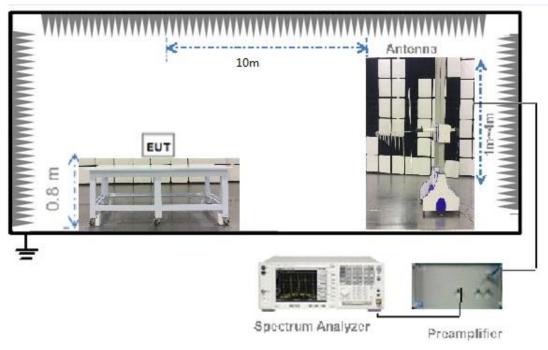


(Diagram 1)

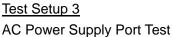


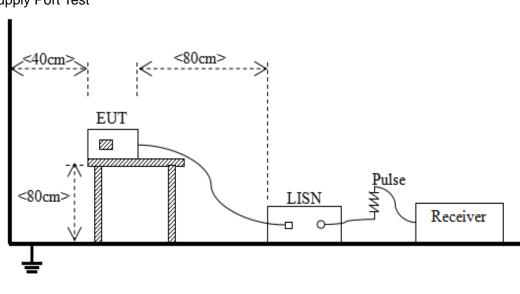
Test Setup 2

Radiated Test (30 MHz-1 GHz)



(Diagram 2)





(Diagram 3)



5 TEST ITEMS

5.1 Antenna Requirements

5.1.1 Relevant Standards

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

5.1.2 Antenna Anti-Replacement Construction

The Antenna Anti-Replacement as following method:

Protected Method	Description
The antenna is embedded in the	An embedded-in antenna design is used.
product.	

Reference Documents	Item
Photo	Please refer EUT internal photos.



5.2 Emission Bandwidth

5.2.1 Definition

15.215(c);

Intentional radiators operating under the alternative provisions to the general emission limits 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 following conditions shall be observed for measuring the occupied bandwidth and x dB bandwidth:

• The transmitter shall be operated at its maximum carrier power measured under normal test conditions.

• The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.

• The detector of the spectrum analyzer shall be set to "Sample". However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or "Max Hold") may be necessary to determine the occupied / x dB bandwidth if the device is not transmitting continuously.

• The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

Note: It may be necessary to repeat the measurement a few times until the RBW and VBW are in compliance with the above requirement.

For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).

5.2.2 Test Setup

See section 4.2(Diagram 1) for test setup for the antenna port. The photo of test setup please refer to ANNEX B.

5.2.3 Test Procedure

The 20dB bandwidth is measured with a spectrum analyzer connected via a receiver antenna placed near the EUT while the EUT is operating in transmission mode.

Use the following spectrum analyzer settings:

Span = between 2 to 5 times the OBW

RBW = 1% to 5% the OBW



VBW ≥ 3RBW

Sweep = auto

Detector function = peak

Trace = max hold

The 99% emission bandwidth is measured with a spectrum analyzer connected via a receiver antenna placed near the EUT while the EUT is operating in transmission mode.

Use the following spectrum analyzer settings:

Span = between 1.5 to 5 times the OBW

RBW = 1% to 5% OBW

VBW ≥ 3RBW

Sweep = auto

Detector function = peak

Trace = max hold

5.2.4 Test Result and Test Equipment List

Please refer to ANNEX A.1



5.3 Field Strength of Fundamental Emissions and Radiated Emissions

5.3.1 Limit

FCC §15.225(a), (b), (c)

According to FCC section 15.225, for <30 MHz, Radiated emissions were measured according to ANSI C63.4. The EUT was set to transmit at the highest output power. The EUT was set 10 meter away from the measuring antenna. The loop antenna was positioned 1 meter above the ground from the center of the loop. The measuring bandwidth was set to 10 kHz. (Note: During testing the receive antenna was rotated about its axis to maximize the emission from the EUT)

There was no detected Restricted bands and Radiated spurious emission below 30MHz. The 30m limit was converted to 3m Limit using square factor(x) as it was found by measurements as follows; 3 m Limit($dB\mu V/m$) = 20log(X)+40log(30/3)= 20log(15848)+40log(30/3) = 124dB μV

Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency range	Field Stre	ngth@30m	Field Strength@10m	Field Strength@3m
(MHz)	μV/m	dBµV/m	dBµV/m	dBµV/m
Below 13.110	30	29.5	48.58	69.5
13.110 ~ 13.410	106	40.5	59.58	80.5
13.410 ~ 13.553	334	50.5	69.58	90.5
13.553 ~13.567	15848	84	103.08	124
13.567 ~ 13.710	334	50.5	69.58	90.5
13.710 ~14.010	106	40.5	59.58	80.5
Above 14.010	30	29.5	48.58	69.5

NOTE:

- 1. Field Strength (dB μ V/m) = 20*log[Field Strength (μ V/m)].
- 2. In the emission tables above, the tighter limit applies at the band edges.

FCC §15.225(d)

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (µV/m)	Measurement distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3



Note:

- 1. For Above 1000 MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.
- For above 1000 MHz, limit field strength of harmonics: 54dBµV/m@3m (AV) and 74dBµV/m@3m (PK).

5.3.2 Test Setup

See section 4.2(Diagram 1 and Diagram 2) for test setup for the antenna port. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

The measurement frequency range is from 9 kHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented. The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured RBW = 1 MHz for $f \ge 1$ GHz, 100 kHz for 30 MHz < f < 1 GHz, 10 kHz for 150 kHz < f < 30 MHz, 300 Hz for f < 150 kHz VBW \ge RBW Sweep = auto Detector function = peak Trace = max hold

5.3.4 Test Result and Test Equipment List

Please refer to ANNEX A.2 and A.3

NOTE:

1. Results $(dB\mu V/m) = Reading (dB\mu V) + Factor (dB/m)$

The reading level is calculated by software which is not shown in the sheet

2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain (dB)

3. Margin = Limit – Results



5.4 Frequency Tolerance

5.4.1 Limit

FCC §15.225(e)

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ 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.

5.4.2 Test Setup

See section 4.2(Diagram 1) for test setup for the antenna port. The photo of test setup please refer to ANNEX B.

5.4.3 Test Procedure

- 1. The test is performed in a Temperature Chamber.
- 2. The EUT is configured as MS + DC Power Supply.
- 5.4.4 Test Result and Test Equipment List

Please refer to ANNEX A.4.



5.5 Conducted Emission

5.5.1 Limit

FCC §15.207

For an intentional radiator 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 within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50μ H/50 Ω line impedance stabilization network (LISN).

Eroquonov rongo (MHz)	Conducted Limit (dBµV)					
Frequency range (MHz)	Quai-peak	Average				
0.15 - 0.50	66 to 56	56 to 46				
0.50 - 5	56	46				
0.50 - 30	60	50				

5.5.2 Test Setup

See section 4.2(Diagram 3) for test setup for the antenna port. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

5.5.4 Test Result and Test Equipment List

Please refer to ANNEX A.5.

NOTE:

1. Results $(dB\mu V)$ = Reading $(dB\mu V)$ + Factor (dB)

The reading level is calculated by software which is not shown in the sheet

2. Factor = Insertion loss + Cable loss

3. Margin = Limit – Results



ANNEX A TEST RESULT

A.1 Emission Bandwidth

Note: Because the measured signal is CW adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

Sample No.	S01	Temperature	23.9℃
Humidity	54%RH	Pressure	101kPa
Test Engineer	Xi Zifeng	Test Date	2024.04.18

Test Data

Frequency	Emission Bandwidth (20dB down)	Occupied Bandwidth (99%)		
(MHz)	(kHz)	(kHz)		
13.56	0.77231	0.66058		

Test Plots

Emission Bandwidth

Spectru	m	Rece	eiver	X											
Ref Lev	el 80.00) dB⊔V			RBW	300 Hz									
Att		0 dB	SWT	6.3 ms 🔵			Mod	e Aut	0 FFT	Inn	ut DC				
0 1Pk Max															
								м	1[1]				13.55	35.2 99980	5 dBµ' 20 MH
70 dBµV—								n							0.00 d
60 dBµV—								B	n factor				772.:	309999 1	999 H 7557.
50 dBµV—															
40 dBµV—		_				M	1								
30 dBµV—								~							
20 dBµV—									72	_					
10 dBµV—					×										
0 dBµV															
-10 dBµV-															
CF 13.55	999802	MHz				4001	lpts							Span 3	.0 kHz
Marker														•	
	ef Trc	1	X-val	ue		r-value	1	Func	tion		F	unct	tion Res	ult	
M1				802 MHz		35.25 dBj	JV		down		-			3099999	999 Hz
Τ1		1 1	3.55960	812 MHz		15.24 dB	٧L		ndB					20	.00 dB
T2		1 1	3.56038	8042 MHz		15.24 dBj	JV .	Q	factor					1	17558
								-	-	-	-	-	-	-	-



99% Occupied Bandwidth

Ref Level		Receiver 🛛	RBW 300 H	z				[₩
Att	0	dB SWT 6.3 ms 🖷	• VBW 1 kH	iz Mode A	uto FFT 1	input DC		
)1Pk Max								
					M1[1]		35.35	
70 dBuV							13.560008520	
					Occ Bw		660.5848537	87 H
60 dBuV								
50 dBµV								
50 app v								
40 dBuV								
30 dBuV								
			TI		12			
20 dBµV			V		V.			
10 dBuV								
0 dBµV								
-10 dBuV					_			
CF 13.5600	0852 M	HZ	41	001 pts			Span 3.0	KHZ
larker	1 Tun 1	¥	1			F	tion Result	
Type Ref M1	Trc 1	X-value 13.56000852 MHz	Y-value 35.35		nction	Func	alon Result	
T1	1	13.559680102 MHz	20.67		Occ Bw		660.58485378	7 Hz
T2	1	13.560340687 MHz	20.87		000 000		000.00400070	1 112

	Equipment Information										
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use					
EMI Receiver	ROHDE&SCH WARZ	ESRP	101036	2023.09.05	2024.09.04	\boxtimes					
Test Antenna- Loop	SCHWARZBE CK	FMZB 1519	1519-037	2024.01.23	2027.01.22	\boxtimes					
Anechoic Chamber (10M)	EMC TECHNOLOGY LTD	20.1m*11.6 m*7.35m	130	2021.08.15	2024.08.14	\boxtimes					



A.2 Field Strength of Fundamental Emissions

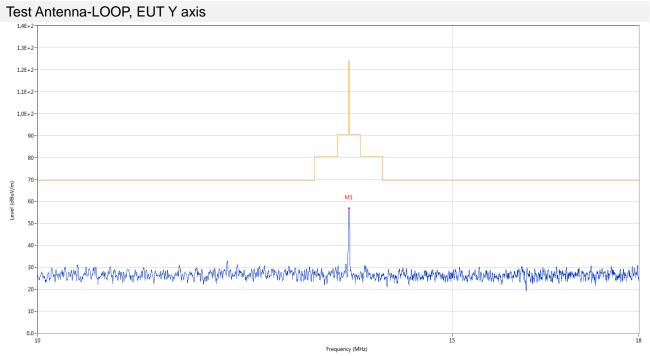
Note: Field Strength of Fundamental Emissions tests were performed in X, Y, Z axis direction of EUT. And only the worst axis test condition was recorded in this test report.

Sample No.	S01	Temperature	22.6°C
Humidity	46%RH	Pressure	101kPa
Test Engineer	Zhou Haonan	Test Date	2024.04.19

Test Data

Field Strength of Fundamental Emissions Value						
Frequency	Detector	Field Strength	Limit @10m	EUT	Margin	
(MHz)	Delector	(dBµV/m)	(dBµV/m)	EUT	(dB)	
13.560	PEAK	56.88	103.08	Y axis	46.20	

Test Plot



	Equipment Information									
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use				
EMI Receiver	ROHDE&SCH WARZ	ESRP	101036	2023.09.05	2024.09.04	\boxtimes				
Test Antenna- Loop	SCHWARZBE CK	FMZB 1519	1519-037	2024.01.23	2027.01.22	\boxtimes				
Anechoic Chamber(10M)	EMC TECHNOLOGY LTD	20.1m*11.6 m*7.35m	130	2021.08.15	2024.08.14	\boxtimes				



A.3 Radiated Emissions

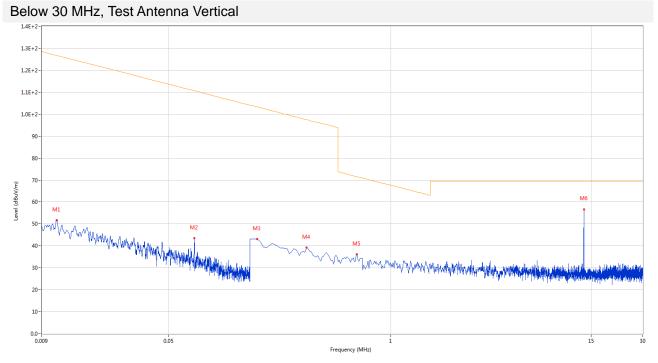
Note 1: This frequency which near 13.560 MHz with circle should be ignored because they are RFID carrier frequency.

Note 2: All Radiated Emissions tests were performed in X, Y, Z axis direction of EUT. And only the worst axis test condition was recorded in this test report.

(9 kHz ~ 30 MHz)(at 10m chamber)

Sample No.	S01	Temperature	22.6 ℃
Humidity	46%RH	Pressure	101kPa
Test Engineer	Zhou Haonan	Test Date	2024.04.19

The Data and Plots



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	0.011	51.71	20.02	126.7	74.99	Peak	220.00	100	Horizontal	Pass
2	0.071	43.49	20.17	110.6	67.11	Peak	166.00	100	Horizontal	Pass
3	0.165	43.10	20.10	103.3	60.20	Peak	270.00	100	Horizontal	Pass
4	0.322	39.16	20.15	97.5	58.34	Peak	180.00	100	Horizontal	Pass
5	0.635	36.13	20.35	71.5	35.37	Peak	360.00	100	Horizontal	Pass
6	13.560	56.63	20.86	69.5	12.87	Peak	4.00	100	Horizontal	N/A



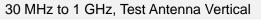
	Equipment Information									
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use				
EMI Receiver	ROHDE&SCH WARZ	ESRP	101036	2023.09.05	2024.09.04	\boxtimes				
Test Antenna- Loop	SCHWARZBE CK	FMZB 1519	1519-037	2024.01.23	2027.01.22	\boxtimes				
Anechoic Chamber(10M)	EMC TECHNOLOGY LTD	20.1m*11.6 m*7.35m	130	2021.08.15	2024.08.14	\boxtimes				

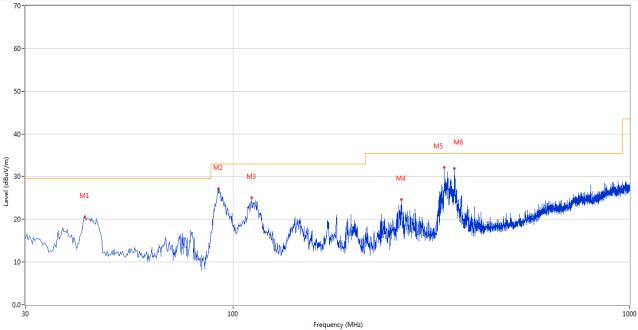


(30 MHz ~ 10th Harmonic)

Sample No.	S01	Temperature	22.2 ℃
Humidity	47%RH	Pressure	101kPa
Test Engineer	Xi Zifeng	Test Date	2024.04.16

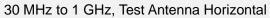
The Data and Plots

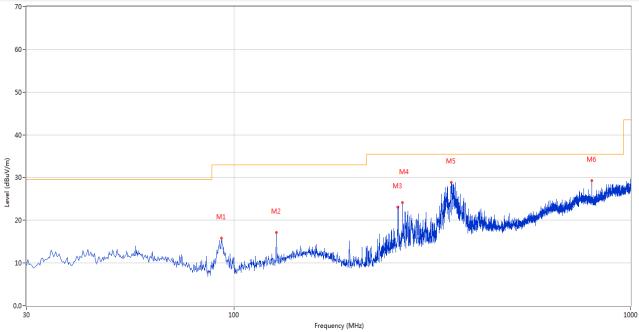




No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	42.364	20.53	-26.13	29.5	8.97	Peak	109.00	200	Vertical	Pass
2	91.822	27.19	-31.52	33.0	5.81	Peak	112.00	100	Vertical	Pass
3	111.460	25.10	-29.11	33.0	7.90	Peak	217.00	100	Vertical	Pass
4	266.136	24.69	-26.16	35.5	10.81	Peak	232.00	100	Vertical	Pass
5	341.050	32.22	-23.82	35.5	3.28	Peak	360.00	100	Vertical	Pass
6	361.657	31.91	-23.39	35.5	3.59	Peak	9.00	100	Vertical	Pass







No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	93.034	15.78	-31.58	33.0	17.22	Peak	183.00	200	Horizontal	Pass
2	127.946	17.16	-27.49	33.0	15.84	Peak	264.00	100	Horizontal	Pass
3	259.105	23.05	-26.58	35.5	12.45	Peak	248.00	200	Horizontal	Pass
4	265.894	24.11	-26.16	35.5	11.39	Peak	65.00	200	Horizontal	Pass
5	353.414	28.88	-23.80	35.5	6.62	Peak	254.00	200	Horizontal	Pass
6	797.806	29.24	-12.90	35.5	6.26	Peak	220.00	100	Horizontal	Pass

		Equipment I	nformation					
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use		
Frequency Below 1 GHz								
EMI Receiver	ROHDE&SC HWARZ	ESRP	101036	2023.09.05	2024.09.04			
Amplifier (30MHz-1GHz)	COM-MV	ZT30-1000M	B2018054558	2023.12.05	2024.12.04	\boxtimes		
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9168	9168-01162	2023.08.04	2024.08.03	\boxtimes		
Anechoic Chamber (10m)	EMC Electronic Co., Ltd	20.10*11.60*7 .35m	130	2021.08.15	2024.08.14			
Description	Supplier	Name	Version		/	Use		
Test Software	BALUN	BL410-E	V22.930		/	\square		



A.4 Frequency Stability

NI (T I ()			4
Note: The operating	temperature range c	of the EUT is	-10°C to 35°C.

Sample No.	S01	Temperature	23.9 ℃
Humidity	54%RH	Pressure	101kPa
Test Engineer	Xi Zifeng	Test Date	2024.04.18

OPERATING FREQUENCY:	13560000 Hz
REFERENCE VOLTAGE:	120 V
DEVIATION LIMIT:	±0.01%

Test Data

	Test Co	nditions	Fraguanay			
VOLTAGE (%)	Power (VAC)	Temperature (°C)	Frequency (Hz)	Deviation (%)	Verdict	
100		-30	13559998	-0.000015	Pass	
100		-20	13559998	-0.000015	Pass	
100		-10	13559923	-0.000568	Pass	
100		0	13559923	-0.000568	Pass	
100	120	+10	13559923	-0.000568	Pass	
100		+20	13559923	-0.000568	Pass	
100		+25	13559923	-0.000568	Pass	
100		+30	13559848	-0.001121	Pass	
100		+40	13559848	-0.001121	Pass	
100		+50	13560023	0.000170	Pass	
85	102	+20	13560023	0.000170	Pass	
115	138	+20	13560023	0.000170	Pass	

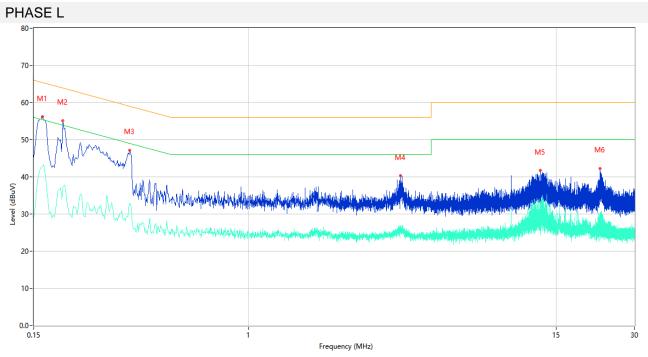
Equipment Information								
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use		
EMI Receiver	ROHDE&SC HWARZ	ESRP	101036	2023.09.05	2024.09.04			
Test Antenna- Loop	SCHWARZB ECK	FMZB 1519	1519-037	2024.01.23	2027.01.22			
Temperature Chamber	ANGELANT ONI	NTH64-40A	1310	2023.12.05	2024.12.05	\boxtimes		
Anechoic Chamber (10M)	EMC TECHNOLO GY LTD	20.1m*11.6m* 7.35m	130	2021.08.15	2024.08.14			
Description	Supplier	Name	Version	/		Use		
Test Software	/	/	/	/ /		\square		

A.5 Conducted Emissions

Note: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

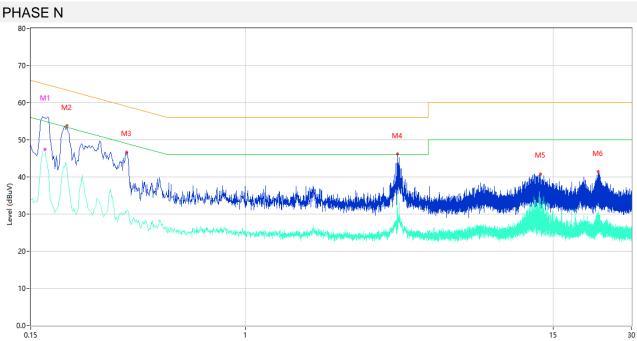
Sample No.	S01	Temperature	24.0 ℃
Humidity	54%RH	Pressure	101kPa
Test Engineer	Yang Yang	Test Date	2024.04.16

Test Data and Plots



No.	Frequency	Results	Factor	Limit	Margin	Detector	Line	Verdict
	(MHz)	(dBuV)	(dB)	(dBuV)	(dB)			
1	0.162	56.13	9.78	65.36	9.23	Peak	L	Pass
1**	0.162	42.89	9.78	55.36	12.47	AV	L	Pass
2	0.194	55.15	9.77	63.86	8.71	Peak	L	Pass
2**	0.194	37.06	9.77	53.86	16.80	AV	L	Pass
3	0.350	47.22	10.76	58.96	11.74	Peak	L	Pass
3**	0.350	32.73	10.76	48.96	16.23	AV	L	Pass
4	3.814	40.28	10.32	56.00	15.72	Peak	L	Pass
4**	3.814	27.01	10.32	46.00	18.99	AV	L	Pass
5	13.070	41.67	10.43	60.00	18.33	Peak	L	Pass
5**	13.070	32.94	10.43	50.00	17.06	AV	L	Pass
6	22.148	42.29	10.79	60.00	17.71	Peak	L	Pass
6**	22.148	30.09	10.79	50.00	19.91	AV	L	Pass

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Frequency (MHz)

No.	Frequency	Results	Factor	Limit	Margin	Detector	Line	Verdict
	(MHz)	(dBuV)	(dB)	(dBuV)	(dB)			
1	0.170	55.90	9.78	64.96	9.06	Peak	Ν	Pass
1**	0.170	47.45	9.78	54.96	7.51	AV	Ν	Pass
2	0.206	53.81	9.77	63.37	9.56	Peak	Ν	Pass
2**	0.206	42.68	9.77	53.37	10.69	AV	Ν	Pass
3	0.350	46.60	10.76	58.96	12.36	Peak	Ν	Pass
3**	0.350	30.93	10.76	48.96	18.03	AV	Ν	Pass
4	3.806	46.15	10.33	56.00	9.85	Peak	Ν	Pass
4**	3.806	34.72	10.33	46.00	11.28	AV	Ν	Pass
5	13.418	40.86	10.40	60.00	19.14	Peak	Ν	Pass
5**	13.418	31.72	10.40	50.00	18.28	AV	Ν	Pass
6	22.354	41.41	11.07	60.00	18.59	Peak	N	Pass
6**	22.354	30.33	11.07	50.00	19.67	AV	N	Pass

Equipment Information									
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use			
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2023.09.05	2024.09.04	\boxtimes			
LISN	SCHWARZB ECK	NSLK 8127	8127-687	2023.05.16	2024.05.15	\boxtimes			
Shielded Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2. 8m	112	2022.02.19	2025.02.18	\boxtimes			
Description	Supplier	Name	Version	/		Use			
Test Software	BALUN	BL410-E	V22.930	/		\boxtimes			

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ANNEX B TEST SETUP PHOTOS

Please refer the document "BL-SZ2430137-AE-4.PDF".

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document "BL-SZ2430137-AW.PDF".

ANNEX D EUT INTERNAL PHOTOS

Please refer the document "BL-SZ2430137-AI.PDF".



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