FCC TEST REPORT

For

GOLDSHELL PTE. LTD.

GS WATCH

Test Model: V1

Prepared for	:	GOLDSHELL PTE. LTD.
Address	:	1 Jalan Kilang Timor, #06-01 Pacific Tech Center, Singapore 159303
Prepared by	:	Shenzhen LCS Compliance Testing Laboratory Ltd.
Address	:	Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
Tel	:	+(86) 0755-82591330
Fax	:	+(86) 0755-82591332
Web	:	www.lcs-cert.com
Mail	:	webmaster@lcs-cert.com
Date of receipt of test sample	:	September 6, 2023
Number of tested samples	:	1
Serial number	:	Prototype
Date of Test	:	September 6, 2023 to September 11, 2023
Date of Report	:	September 11, 2023

TEST REPORT

Report No.	:	**LCSA09063025E**
Date of Issue	:	September 11, 2023
Testing Laboratory Name	:	**Shenzhen LCS Compliance Testing Laboratory Ltd.**
Address	:	Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
Testing Location/ Procedure	:	Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □
Applicant's Name	:	**GOLDSHELL PTE. LTD.**
Address	:	1 Jalan Kilang Timor, #06-01 Pacific Tech Center, Singapore 159303
Test Specification		
Standard	:	FCC 47 CFR Part 18 FCC/OST MP-5
Test Report Form No.	:	LCSEMC-1.0
TRF Originator	:	Shenzhen LCS Compliance Testing Laboratory Ltd.
Master TRF	:	Dated 2011-03

Test Item Description.	:	**GS WATCH**
Trade Mark	:	N/A
Test Model	:	V1
Result	:	**Positive**

Compiled by:	**Supervised by:**	**Approved by:**
Jelly Li	Baron Wen	
Jelly Li / File Administrator	Baron Wen / Technique principal	Gavin Liang / Manager

TEST REPORT

Test Report No.: LCSA09063025E	September 11, 2023 Date of issue

Test Model	:	**V1**
EUT	:	GS WATCH
Applicant	:	**GOLDSHELL PTE. LTD.**
Address	:	1 Jalan Kilang Timor, #06-01 Pacific Tech Center, Singapore 159303
Telephone	:	/
Fax	:	/
Manufacturer	:	**Shenzhen Zhenglink Microelectronics Co.,LTD.**
Address	:	Room 508, Huiyi Building, No. 9 Zhongxin Road, Taoyuan Community, Dalang Street, Longhua District, Shenzhen
Telephone	:	/
Fax	:	/
Factory	:	**Shenzhen Yihu Technology Co，Ltd**
Address	:	Building 401, No. 4, Alianhaoshida, 5022 Wuhe Avenue, Gangtou community, Bantian Street, Longgang District, Shenzhen
Telephone	:	/
Fax	:	/

Test Result	**Positive**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Revision History

Report Version	Issue Date	Revision Content	Revised By
000	September 11, 2023	Initial Issue	/

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Test Report Description Page

1. SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

Description of Test Item	Standard	Limits	Result
Conducted Emissions on AC Power Line	FCC 47 CFR Part 18 FCC/OST MP-5	18.307	Pass
Radiated Emissions (9kHz-30MHz)	FCC 47 CFR Part 18 FCC/OST MP-5	18.305	Pass

1.2 Description of Test Modes

No	Title	Description
TM1	Working(DC 5V From USB Host Unit)	Record

2. GENERAL INFORMATION

2.1 Description of Device (EUT)

EUT : GS WATCH
Test Model : V1
Power Supply : Input DC 5V
Highest Internal Frequency : <1.705MHz

2.2 Support equipment List

Manufacturer	Description	Model	Serial Number	Certificate
OPPO	Adapter	OP52KAUH		/

2.3 Description of Test Facility

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

NVLAP Accreditation Code is 600167-0.
FCC Designation Number is CN5024.
CAB identifier is CN0071.
CNAS Registration Number is L4595.

2.4 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emission (150kHz to 30MHz)	± 2.35 dB
Radiated Emission (9kHz to 30MHz)	± 3.68 dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. MEASURING DEVICES AND TEST EQUIPMENT

Conducted Emissions on AC Power Line					
Equipment	**Manufacturer**	**Model No**	**Serial No.**	**Cal Date**	**Due Date**
EMI Test Software	Farad	EZ	/	/	/
Artificial Mains	R&S	ENV216	101288	2023-06-09	2024-06-08
Pulse Limiter	R&S	ESH3-Z2	102750-NB	2023-08-15	2024-08-14
EMI Test Receiver	R&S	ESR3	102312	2023-02-25	2024-02-24

Radiated Emissions (9kHz-30MHz)					
Equipment	**Manufacturer**	**Model No**	**Serial No.**	**Cal Date**	**Due Date**
EMI Test Software	AUDIX	E3	/	/	/
By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2021-09-12	2024-09-11
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2021-09-05	2024-09-04
EMI Test Receiver	R&S	ESR3	102311	2023-08-15	2024-08-14
Broadband Preamplifier	/	BP-01M18G	P190501	2023-06-09	2024-06-08
EMI Test Software	Farad	EZ	/	/	/
Loop antenna	SchwarzZBECK	FMZB 1519B	5	2021-08-29	2024-08-28

4. EMISSION TEST RESULTS (EMI)

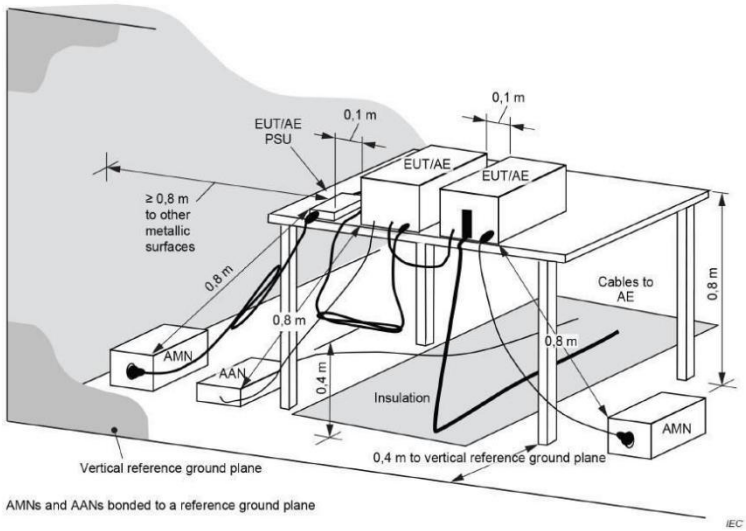
4.1 Conducted Emissions on AC Power Line

Test Requirement:	18.307
Test Limit:	Frequency of emission (MHz) / Conducted limit (dBμV): 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.
Test Method:	MP-5 Clause 7
Procedure:	An initial pre-scan was performed with peak detector.Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected. Remark: Level= Read Level+ Cable Loss+ LISN Factor

4.1.1 E.U.T. Operation:

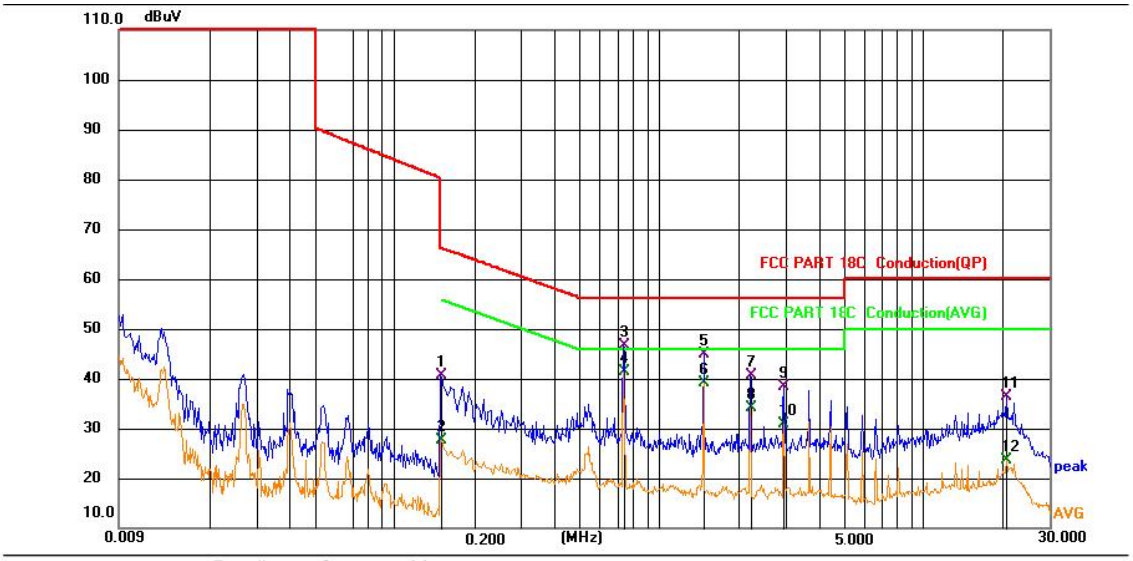
Operating Environment:			
Temperature:	23.7 °C	Humidity:	52.9 %
Pre test mode:	TM1		
Final test mode:	TM1		

4.1.2 Test Setup Diagram:



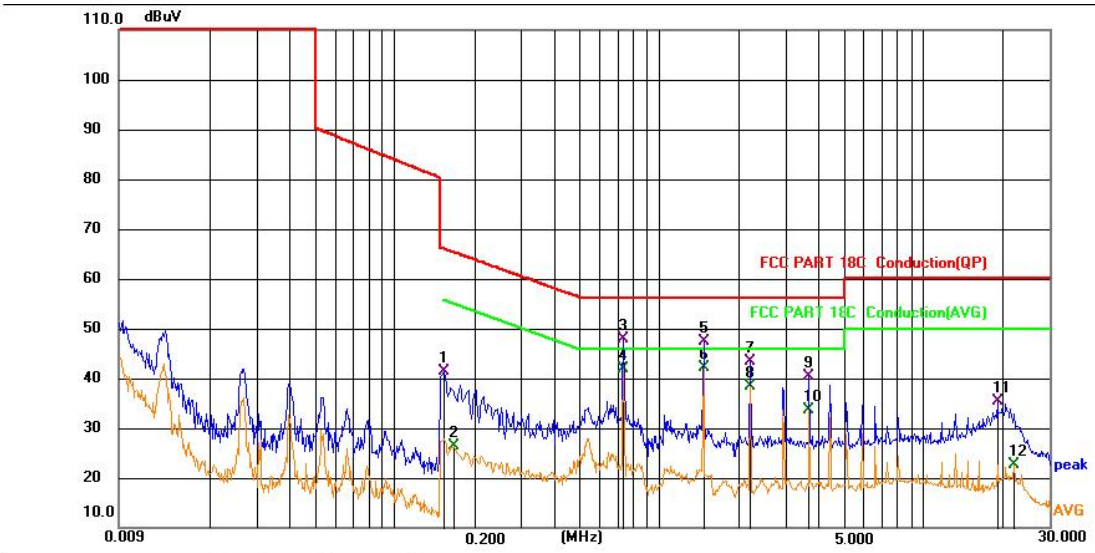
4.1.3 Test Data:

TM1 / Line: Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1501	21.02	19.63	40.65	65.99	-25.34	QP	
2		0.1501	7.99	19.63	27.62	55.99	-28.37	AVG	
3		0.7351	26.86	19.65	46.51	56.00	-9.49	QP	
4	*	0.7351	21.62	19.65	41.27	46.00	-4.73	AVG	
5		1.4731	25.19	19.66	44.85	56.00	-11.15	QP	
6		1.4731	19.36	19.66	39.02	46.00	-6.98	AVG	
7		2.2111	20.94	19.68	40.62	56.00	-15.38	QP	
8		2.2111	14.44	19.68	34.12	46.00	-11.88	AVG	
9		2.9491	18.58	19.68	38.26	56.00	-17.74	QP	
10		2.9491	11.14	19.68	30.82	46.00	-15.18	AVG	
11		20.6656	16.28	20.17	36.45	60.00	-23.55	QP	
12		20.6656	3.48	20.17	23.65	50.00	-26.35	AVG	

TM1 / Line: Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1544	21.80	19.63	41.43	65.76	-24.33	QP	
2		0.1680	6.66	19.63	26.29	55.06	-28.77	AVG	
3		0.7347	28.14	19.65	47.79	56.00	-8.21	QP	
4		0.7347	22.26	19.65	41.91	46.00	-4.09	AVG	
5		1.4683	27.76	19.66	47.42	56.00	-8.58	QP	
6	*	1.4683	22.39	19.66	42.05	46.00	-3.95	AVG	
7		2.2065	23.67	19.69	43.36	56.00	-12.64	QP	
8		2.2065	18.76	19.69	38.45	46.00	-7.55	AVG	
9		3.6825	20.56	19.78	40.34	56.00	-15.66	QP	
10		3.6825	13.77	19.78	33.55	46.00	-12.45	AVG	
11		19.1716	15.14	20.19	35.33	60.00	-24.67	QP	
12		22.1189	2.62	20.09	22.71	50.00	-27.29	AVG	

4.2 Radiated Emissions (9kHz-30MHz)

Test Requirement:	18.305
Test Limit:	

Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Any ISM frequency	Below 500	25	300
	500 or more	25 × SQRT(power/500)	300 (1)
Any non-ISM frequency	Below 500	15	300
	500 or more	15 × SQRT(power/500)	300 (1)
On or below 5,725 MHz	Any	10	1,600
Above 5,725 MHz	Any	(2)	(2)
Any ISM frequency	Any	25	300
Any non-ISM frequency	Any	15	300
Below 490 kHz	Below 500	2,400/F(kHz)	300
	500 or more	2,400/F(kHz) × SQRT(power/500)	300 (3)
490 to 1,600 kHz	Any	24,000/F(kHz)	30
Above 1,600 kHz	Any	15	30
Below 90 kHz	Any	1,500	30 (4)
On or above 90 kHz	Any	300	30 (4)

(1) Field strength may not exceed 10 μV/m at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.
(2) Reduced to the greatest extent possible.
(3) Field strength may not exceed 10 μV/m at 1600 meters. Consumer equipment is not permitted the increase in field strength otherwise permitted here for over 500 watts.
(4) Induction cooking ranges manufactured prior to February 1, 1980, shall be subject to the field strength limits for miscellaneous ISM equipment.

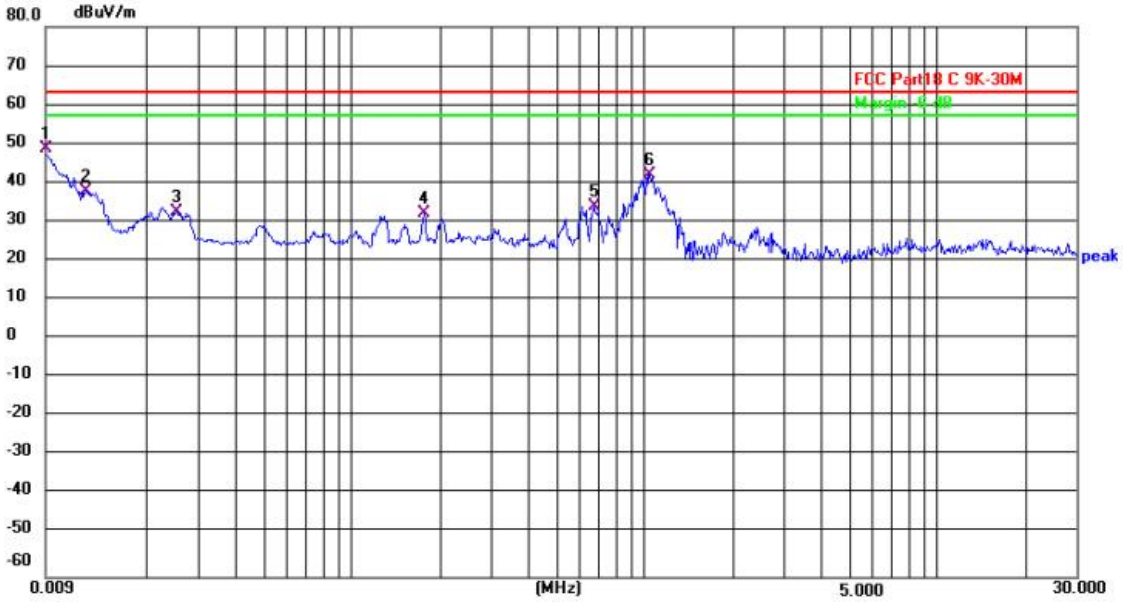
Test Method:	MP-5 Clause 5/6
Procedure:	Frequency range: 9KHz-30MHz An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by loop antenna with 2 orthogonal polarities. The red line show in graphic is the limit in standard used in this section. Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

4.2.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23.6 °C	Humidity:	52.2 %
Pre test mode:	TM1		
Final test mode:	TM1		

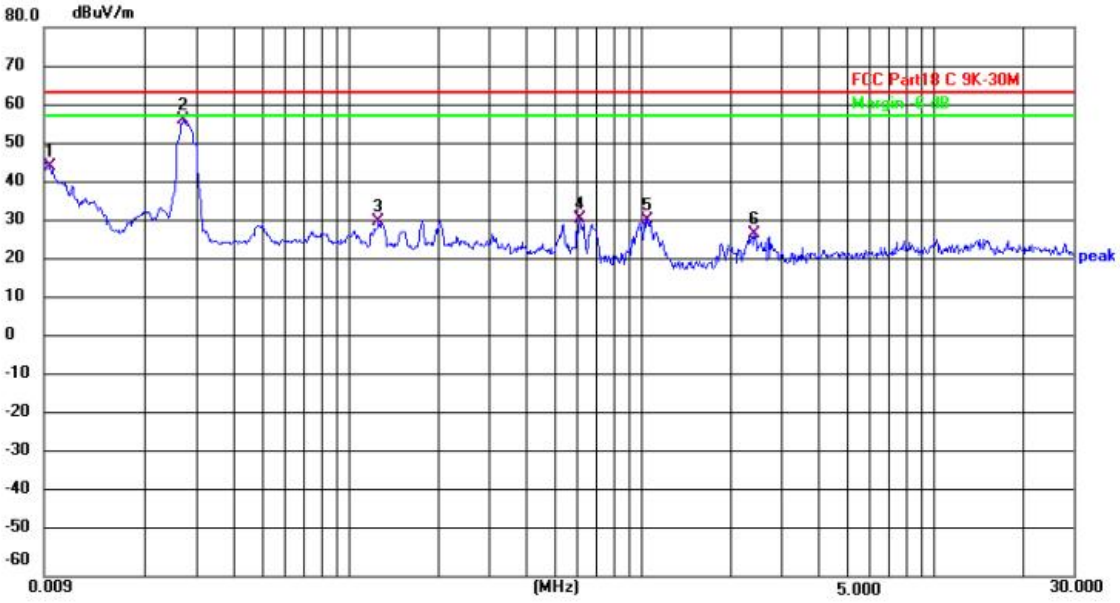
4.2.2 Test Data:

TM1 / Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	0.0090	57.94	-9.02	48.92	63.52	-14.60	QP	P	
2	0.0123	47.20	-9.19	38.01	63.52	-25.51	QP	P	
3	0.0252	42.22	-9.31	32.91	63.52	-30.61	QP	P	
4	0.1766	42.21	-9.77	32.44	63.52	-31.08	QP	P	
5	0.6733	43.97	-9.55	34.42	63.52	-29.10	QP	P	
6	1.0438	51.54	-9.25	42.29	63.52	-21.23	QP	P	

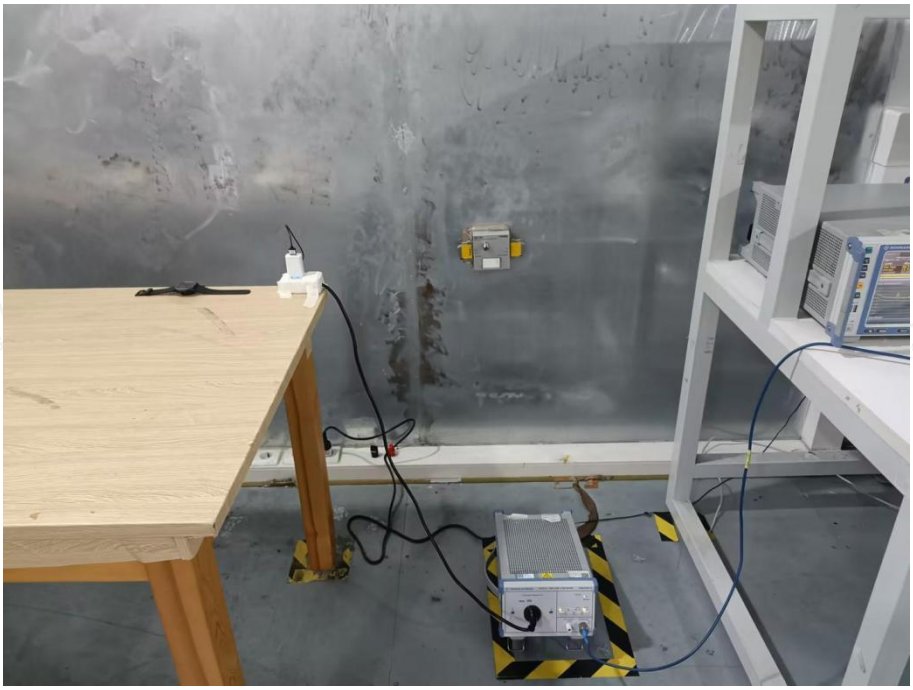
TM1 / Polarization: Vertical



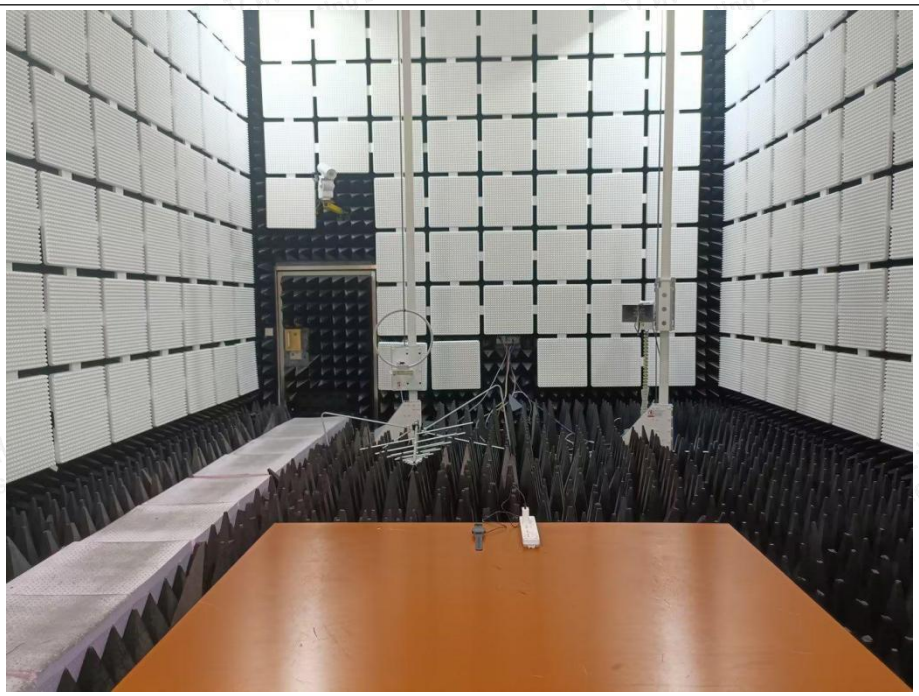
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	0.0094	53.46	-9.08	44.38	63.52	-19.14	QP	P	
2	0.0269	65.85	-9.32	56.53	63.52	-6.99	QP	P	
3	0.1255	40.31	-9.77	30.54	63.52	-32.98	QP	P	
4	0.6108	40.87	-9.60	31.27	63.52	-32.25	QP	P	
5	1.0438	40.04	-9.25	30.79	63.52	-32.73	QP	P	
6	2.4266	36.90	-9.41	27.49	63.52	-36.03	QP	P	

5. TEST SETUP PHOTOS

Conducted Emissions on AC Power Line

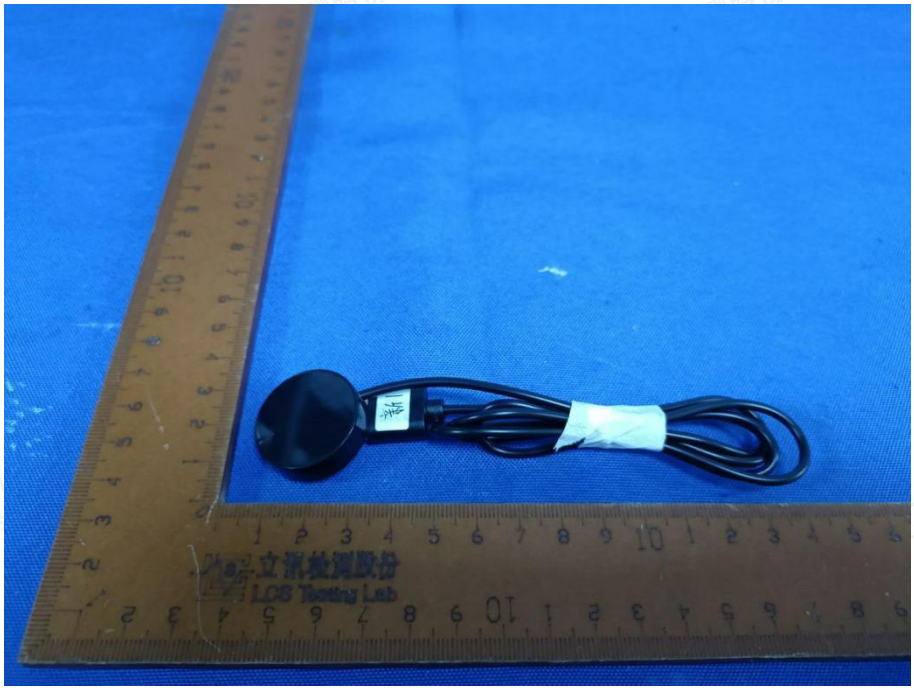


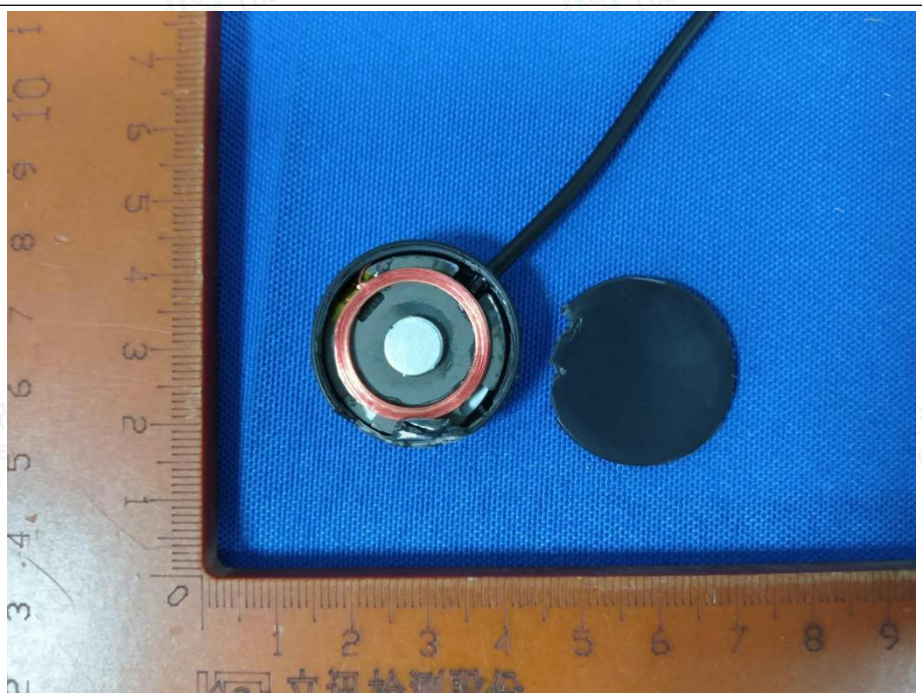
Radiated Emissions (9kHz-30MHz)

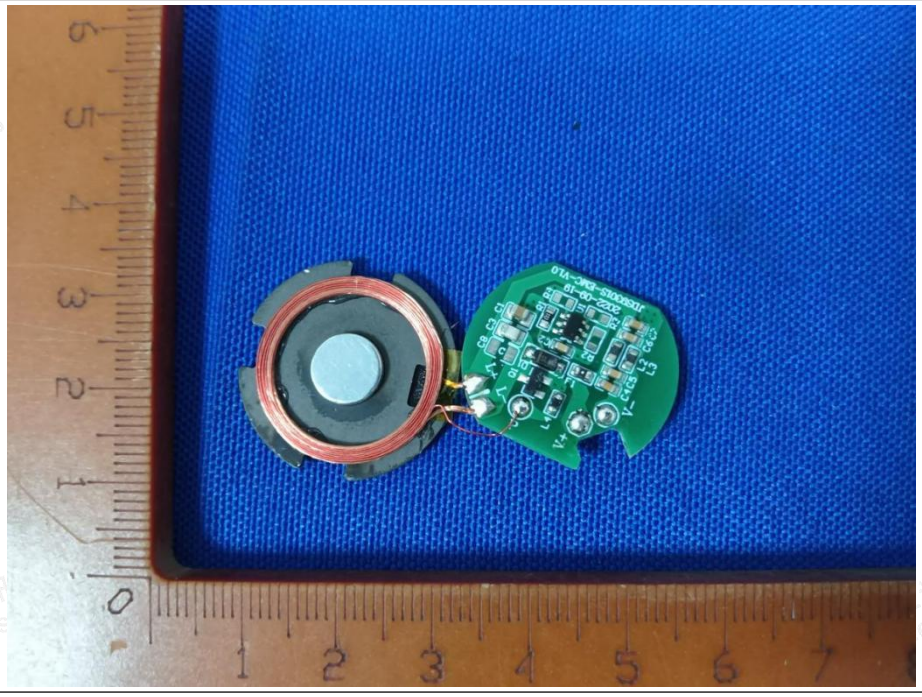


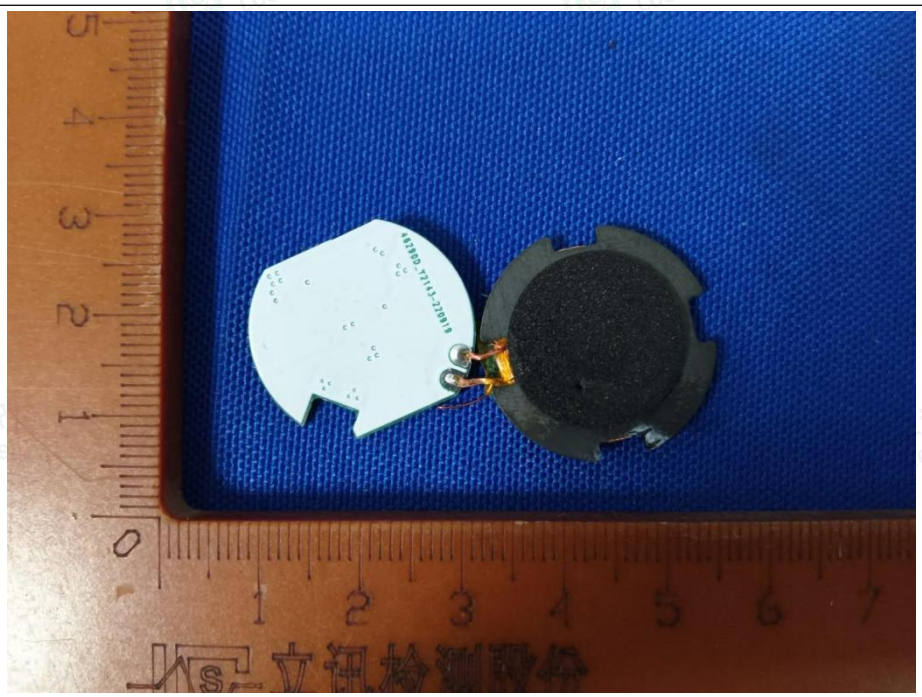
6. EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS)

External









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