

**FCC TEST REPORT**  
For  
**Infocare Electronic Technology Company Limited**  
  
**Soap Dispenser**  
Model No.: IC113, IC113-IR, TPAS001

Prepared for : Infocare Electronic Technology Company Limited  
Address : No. 3-1 Bldg., No. 8 Pingxi 7 Rd., Nanping S&T Park,  
Zhuhai Guangdong, China 519060

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Report No. : ATE20200456  
Date of Test : May 9, 2020  
Date of Report : May 9, 2020

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## Test Report Declaration

Applicant : Infocare Electronic Technology Company Limited  
Manufacturer : Zhuhai Ecare Electronic Technology Company Limited  
EUT Description : Soap Dispenser  
Model No. : IC113, IC113-IR, TPAS001

Measurement Procedure Used:

### FCC Rules and Regulations Part 15 Subpart B Class B ANSI C63.4: 2014

The device described above is tested by Shenzhen Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits both radiated and conducted emissions. The measurement results are contained in this test report and Shenzhen Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Accurate Technology Co., Ltd.

Date of Test : May 9, 2020  
Date of Report: May 9, 2020

Prepared by : \_\_\_\_\_  
(Feng Yang, Engineer)

Approved & Authorized Signer : \_\_\_\_\_  
(Martin Lü, Manager)



## 1. TEST RESULTS SUMMARY

Test Items	Test Standard	Test Results
Power Line Conducted Emission	FCC Part 15 Subpart B	N/A
Radiated Emission	FCC Part 15 Subpart B	Pass

Remark: "N/A" Means not applicable

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Product	: Soap Dispenser
Model No.	: IC113, IC113-IR, TPAS001 (Note: These samples are same except their name is different. So we prepare IC113 for test only.)
Rating	: DC 6V
Trade Mark	: N/A
Remark(s)	: The EUT highest operating frequency provided by Manufacturer is less than 108MHz, the radiated emission measurement shall be made up to 1GHz.
Applicant Address	: Infocare Electronic Technology Company Limited : No. 3-1 Bldg., No. 8 Pingxi 7 Rd., Nanping S&T Park, Zhuhai Guangdong, China 519060
Manufacturer Address	: Zhuhai Ecare Electronic Technology Company Limited : No. 3-1 Bldg., No. 8 Pingxi 7 Rd., Nanping S&T Park, Zhuhai Guangdong, China 519060
Date of sample received	: Apr. 30, 2020
Date of Test	: May 9, 2020
Sample number	: 2000259

### 2.2. Accessory and Auxiliary Equipment

n.a.

## 2.3. Description of Test Facility

- EMC Lab : Recognition of accreditation by Federal Communications Commission (FCC)  
The Designation Number is CN1189  
The Registration Number is 708358
- Listed by Innovation, Science and Economic Development Canada (ISED)  
The Registration Number is 5077A-2
- Accredited by China National Accreditation Service for Conformity Assessment (CNAS)  
The Registration Number is CNAS L3193
- Accredited by American Association for Laboratory Accreditation (A2LA)  
The Certificate Number is 4297.01
- Name of Firm : Shenzhen Accurate Technology Co., Ltd.  
Site Location : 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China

## 2.4. Measurement Uncertainty

- Radiated emission expanded uncertainty (9kHz-30MHz) : U=2.66dB, k=2
- Radiated emission expanded uncertainty (30MHz-1000MHz) : U=4.28dB, k=2
- Radiated emission expanded uncertainty (1G-18GHz) : U=4.98dB, k=2
- Radiated emission expanded uncertainty (18G-26.5GHz) : U=5.06dB, k=2
- Conduction Emission Expanded Uncertainty (Mains ports, 9kHz-30MHz) : U=2.72dB, k=2
- Conduction Emission Expanded Uncertainty (Telecommunication ports, 150kHz-30MHz) : U=2.94dB, k=2

### 3. MEASURING DEVICE AND TEST EQUIPMENT

#### 3.1. For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan.04, 2020	1 Year
2.	Spectrum Analyzer	Rohde&Schwarz	FSV40	101495	Jan.04, 2020	1 Year
3.	Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan.04, 2020	1 Year
4.	Test Receiver	Rohde& Schwarz	ESPI	100396/003	Jan.04, 2020	1 Year
5.	Test Receiver	Rohde& Schwarz	ESPI	101526/003	Jan.04, 2020	1 Year
6.	Test Receiver	Rohde& Schwarz	ESR	101817	Jan.04, 2020	1 Year
7.	Bilog Antenna	Schwarzbeck	VULB9163	9163-194	Jan.04, 2020	1 Year
8.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan.04, 2020	1 Year
9.	Log.-Per.Antenna	Schwarzbeck	VUSLP 9111B	9111B-074	Jan.04, 2020	1 Year
10.	Biconical Broad Band Antenna	Schwarzbeck	VHBB 9124+BBA 9106	9124-617	Jan.04, 2020	1 Year
11.	Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan.04, 2020	1 Year
12.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan.04, 2020	1 Year
13.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Jan.04, 2020	1 Year
14.	Vertical Active Monopole Antenna	Schwarzbeck	VAMP 9243	9243-370	Jan.04, 2020	1 Year
15.	Pre-Amplifier	Compliance Direction	RSU-M2	38322	Jan.04, 2020	1 Year
16.	Pre-Amplifier	Agilent	8447D	294A10619	Jan.04, 2020	1 Year
17.	Pre-Amplifier	Rohde&Schwarz	CBLU11835 40-01	3791	Jan.04, 2020	1 Year
18.	Pre-Amplifier	A.H. System	PAM-0118	135	Jan.04, 2020	1 Year
19.	50 Coaxial Switch	Anritsu Corp	MP59B	6200237248	Jan.04, 2020	1 Year
20.	50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.04, 2020	1 Year
21.	RF Coaxial Cable	Schwarzbeck	N-5m	No.1	Jan.04, 2020	1 Year
22.	RF Coaxial Cable	Schwarzbeck	N-1m	No.6	Jan.04, 2020	1 Year
23.	RF Coaxial Cable	Schwarzbeck	N-1m	No.7	Jan.04, 2020	1 Year
24.	RF Coaxial Cable	SUHNER	N-3m	No.8	Jan.04, 2020	1 Year
25.	RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	Jan.04, 2020	1 Year
26.	RF Coaxial Cable	SUHNER	N-6m	No.10	Jan.04, 2020	1 Year
27.	RF Coaxial Cable	RESENBERGER	N-12m	No.11	Jan.04, 2020	1 Year
28.	RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	Jan.04, 2020	1 Year
29.	RF Coaxial Cable	SUHNER	N-2m	No.13	Jan.04, 2020	1 Year
30.	RF Coaxial Cable	SUHNER	N-0.5m	No.15	Jan.04, 2020	1 Year
31.	RF Coaxial Cable	SUHNER	N-2m	No.16	Jan.04, 2020	1 Year
32.	RF Coaxial Cable	RESENBERGER	N-6m	No.17	Jan.04, 2020	1 Year
33.	Radiated Emission Test Software: EZ_EMV V1.1.4.2					

## 4. RADIATED EMISSION MEASUREMENT

### 4.1. Block Diagram of Test Setup

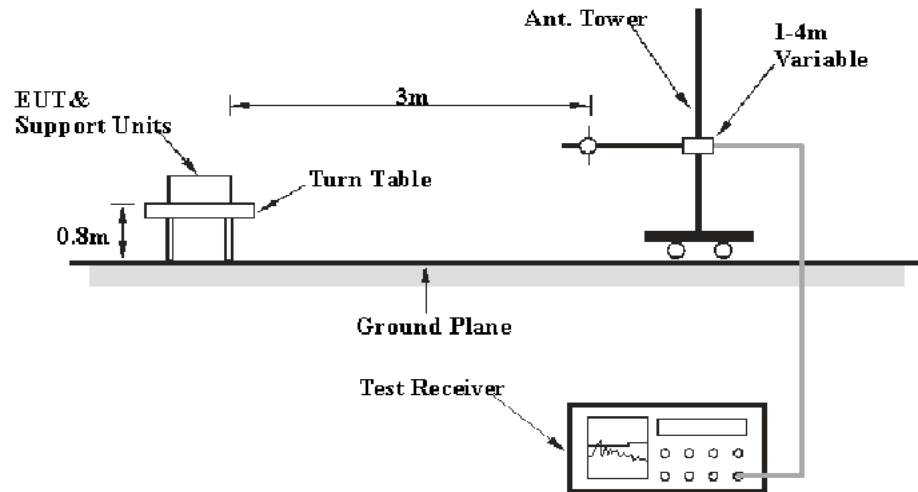
#### 4.1.1. Block diagram of connection between the EUT and simulators



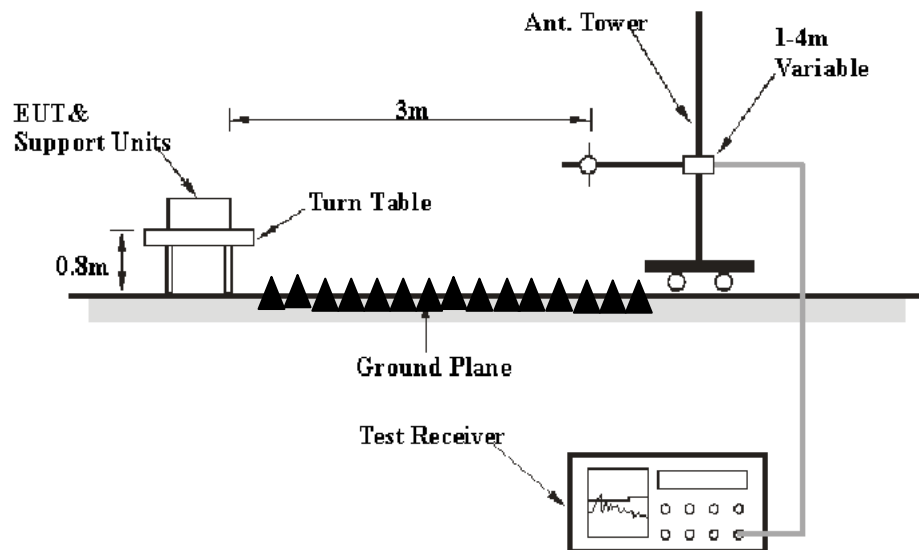
(EUT: Soap Dispenser)

#### 4.1.2. Semi-Anechoic Chamber Test Setup Diagram

(A) Radiated Emission Test Set-Up, Frequency 30MHz- 1GHz



(B) Radiated Emission Test Set-Up, Frequency above 1GHz





## 4.2. Radiated Emission Limit (Class B)

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

Frequency MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V/m})$
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0

Remark:

- (1) Emission level  $\text{dB}(\mu\text{V}) = 20 \log$  Emission level  $\mu\text{V/m}$ .
- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument antenna and the closest point of any part of the device or system.

## 4.3. Manufacturer

Test equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

### 4.3.1. Soap Dispenser (EUT)

Model No.: IC113

Manufacturer: Zhuhai Ecare Electronic Technology Company Limited

## 4.4. Operating Condition of EUT

4.4.1. Setup the EUT and simulator as shown as Section 4.1.

4.4.2. Turn on the power of all equipment.

4.4.3. Let the EUT work in test mode measure it.

#### 4.5. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2014 on radiated emission measurement.

The bandwidth of the Receiver (ESR) is set at 9kHz in 9kHz-30MHz, 120 kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The frequency range from 30MHz to 1GHz is checked.

Note: The EUT highest operating frequency provided by Manufacturer is less than 108MHz, the radiated emission measurement shall be made up to 1GHz.

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705 .....	30.
1.705–108 .....	1000.
108–500 .....	2000.
500–1000 .....	5000.
Above 1000 .....	5th harmonic of the highest frequency or 40 GHz, whichever is lower.

#### 4.6.Data Sample

Frequency (MHz)	Reading (dB $\mu$ v)	Factor (dB/m)	Result (dB $\mu$ v/m)	Limit (dB $\mu$ v/m)	Margin (dB)	Remark
X.XX	57.85	-22.38	35.47	43.50	-8.03	QP

Frequency(MHz) = Emission frequency in MHz

Reading(dB $\mu$ v) = Uncorrected Analyzer/Receiver reading

Factor (dB/m) = Antenna factor + Cable Loss – Amplifier gain

Result(dB $\mu$ v/m) = Reading(dB $\mu$ v) + Factor(dB/m)

Limit (dB $\mu$ v/m) = Limit stated in standard

Margin (dB) = Result(dB $\mu$ v/m) - Limit (dB $\mu$ v/m)

QP = Quasi-peak Reading

Calculation Formula:

Margin(dB) = Result (dB $\mu$ V/m)–Limit(dB $\mu$ V/m)

Result(dB $\mu$ V/m)= Reading(dB $\mu$ V)+ Factor(dB/m)

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.

#### 4.7.Radiated Emission Measurement Result

**PASS.**

The frequency range from 9kHz to 1GHz is investigated.

The radiated emissions from 9kHz-30MHz is not reported, because the test values lower than the limits of 20dB.

The spectral diagrams are attached as below.



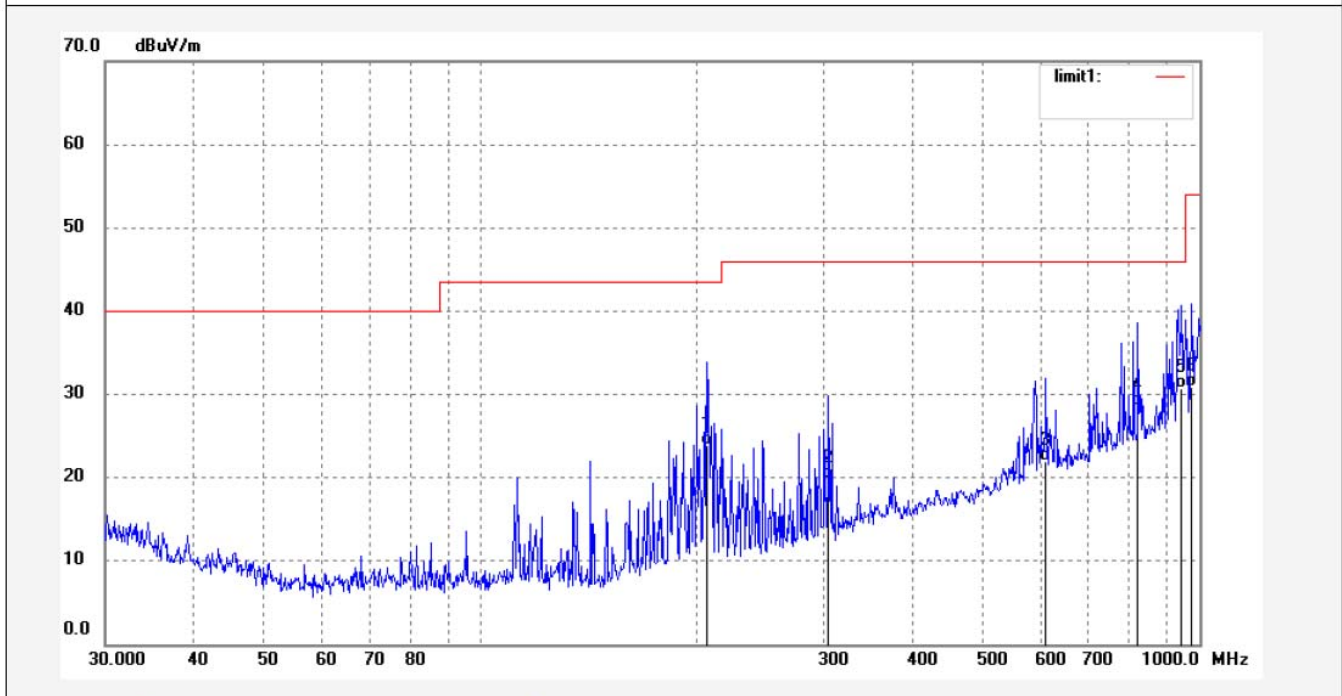
**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber  
Tel:+86-0755-26503290  
Fax:+86-0755-26503396

Job No.: LGW2020 #64	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 6V
Test item: Radiation Test	Date: 20/05/09/
Temp.( C)/Hum.(%) 25 C / 55 %	Time: 9/37/00
EUT: Soap Dispenser	Engineer Signature: WADE
Mode: ON	Distance: 3m
Model: IC113	
Manufacturer: Ecare	

Note: Report NO.:ATE20200456



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	206.4701	48.01	-24.14	23.87	43.50	-19.63	QP			
2	304.9547	40.87	-21.07	19.80	46.00	-26.20	QP			
3	611.4623	35.46	-13.45	22.01	46.00	-23.99	QP			
4	821.3871	37.12	-8.58	28.54	46.00	-17.46	QP			
5	945.3336	37.17	-6.41	30.76	46.00	-15.24	QP			
6	975.7048	36.56	-5.64	30.92	54.00	-23.08	QP			



**ACCURATE TECHNOLOGY CO., LTD.**

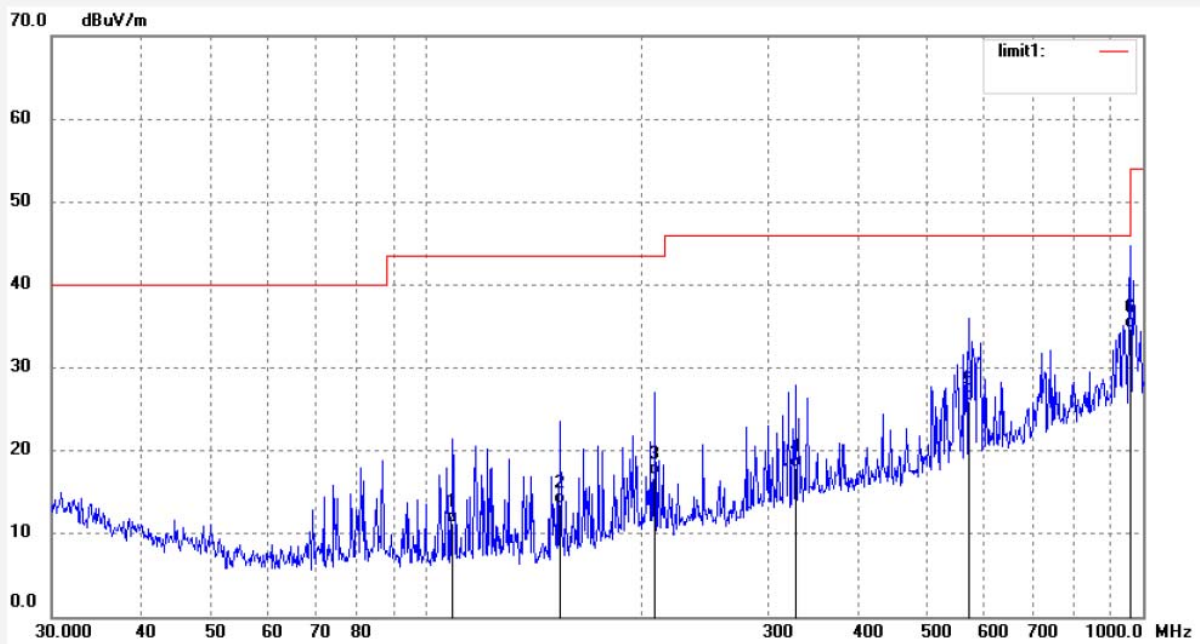
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber  
Tel:+86-0755-26503290  
Fax:+86-0755-26503396

Job No.: LGW2020 #65  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Soap Dispenser  
Mode: ON  
Model: IC113  
Manufacturer: Ecare

Polarization: Vertical  
Power Source: DC 6V  
Date: 20/05/09/  
Time: 9/37/45  
Engineer Signature: WADE  
Distance: 3m

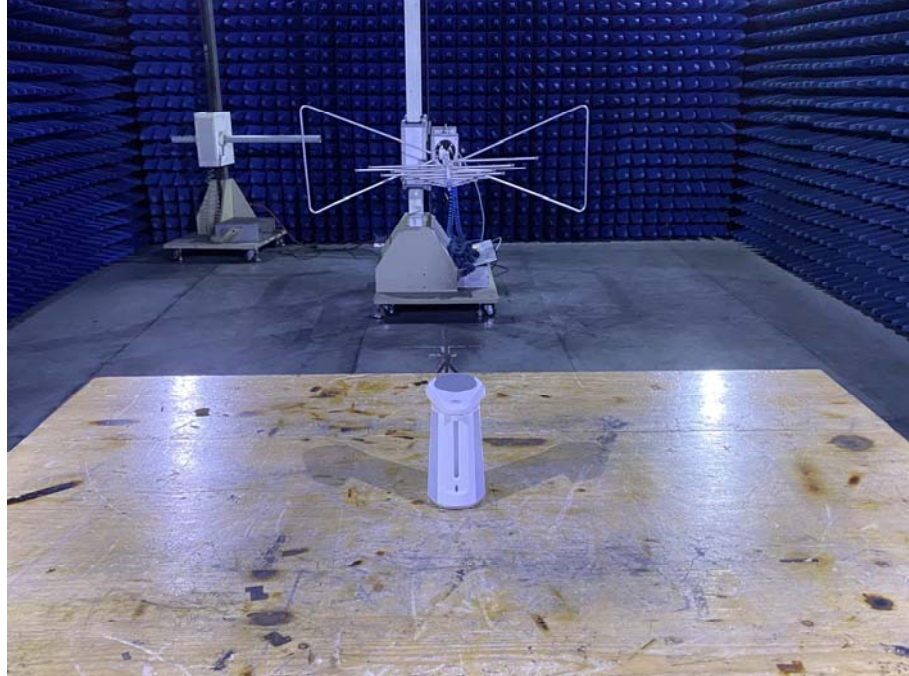
Note: Report NO.:ATE20200456



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	108.9275	38.82	-27.46	11.36	43.50	-32.14	QP			
2	153.7017	41.26	-27.72	13.54	43.50	-29.96	QP			
3	208.6579	41.20	-24.14	17.06	43.50	-26.44	QP			
4	327.1553	38.23	-20.31	17.92	46.00	-28.08	QP			
5	571.9750	40.36	-14.31	26.05	46.00	-19.95	QP			
6	962.0878	40.80	-6.01	34.79	54.00	-19.21	QP			

## 5. PHOTOGRAPHS

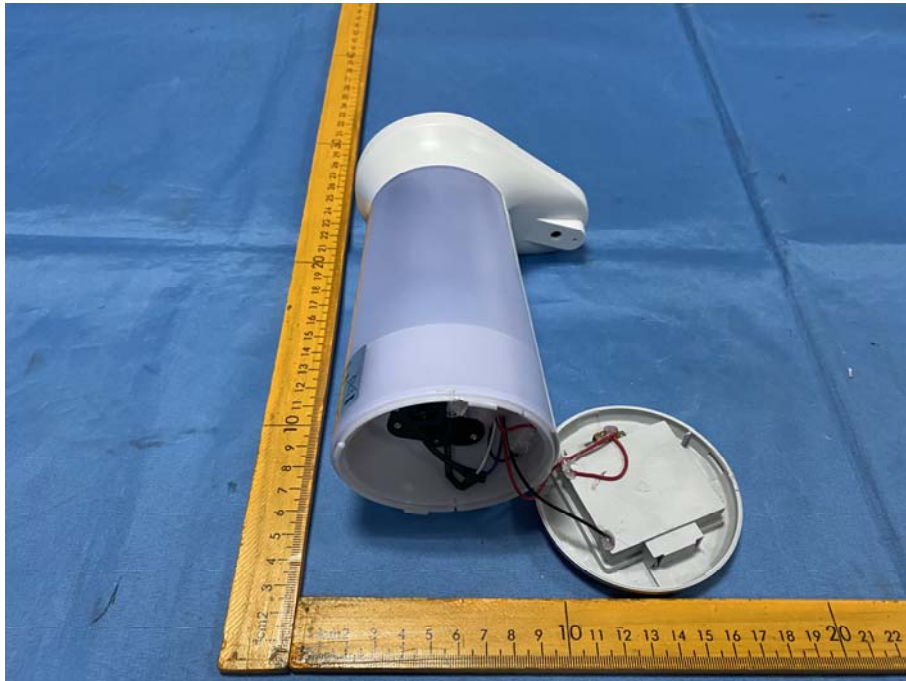
### 5.1. Photo of Radiated Emission Measurement



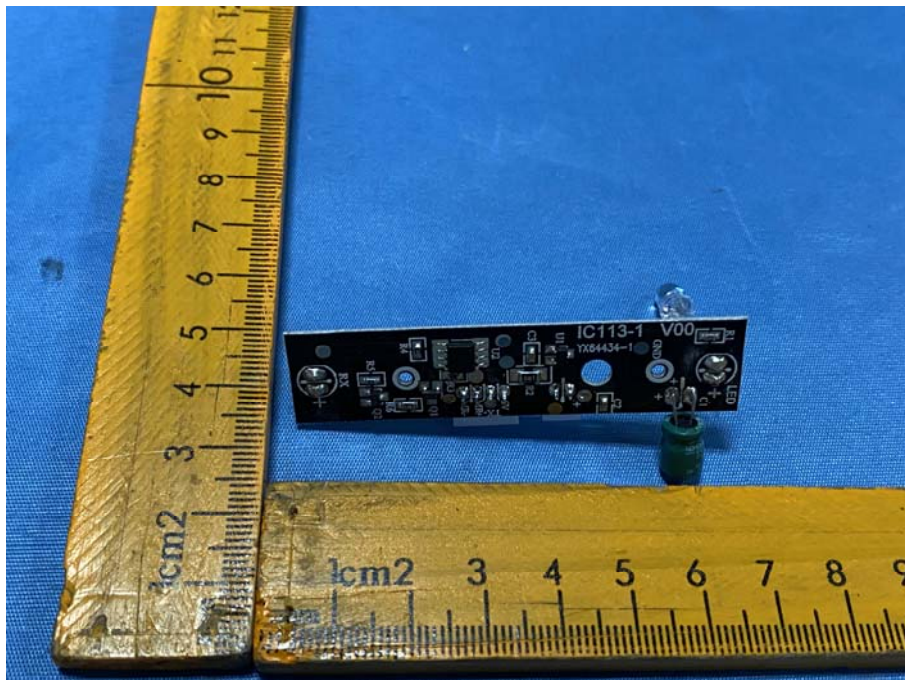
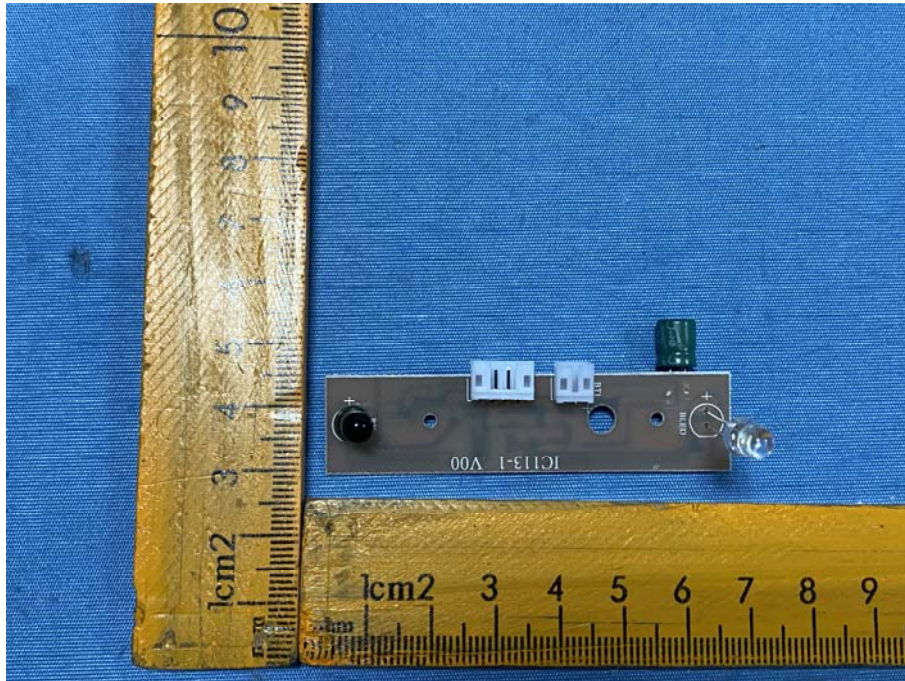
### 5.2. Photo of EUT











\*\*\*\* End of Test Report \*\*\*\*