

**Article 2 Paragraph 1, item 8
Appendix No.42 paragraph 1 Item 3 Notification No.88 of MIC, 2004**

TEST REPORT

For

Wireless doorbell module

MODEL NUMBER: LS-3203

REPORT NUMBER: E04A25041264J00101

ISSUE DATE: July 25, 2025

Prepared for

DONGGUANJUYANG ELECTRONICCO., LTD

**ROOM 101, BUILDING 2, NO.46, XINSIHUANGTANG ROAD, HENGLI TOWN,
DONGGUAN, GUANGDONG, P.R.CHINA**

Prepared by

Guangdong Global Testing Technology Co., Ltd.

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Dongguan city, Guangdong, People's Republic of China, 523808**

This report is based on a single evaluation of the submitted sample(s) of the above mentioned Product, it does not imply an assessment of the production of the products.

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Guangdong Global Testing Technology Co., Ltd.**

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	July 25, 2025	Initial Issue	

Summary of Test Results

Test Item	Section in MIC Notice No.88 Appendix No.42 paragraph 1 Item 3	Result
Frequency Deviation	Section 2	Pass
Occupied frequency bandwidth	Section 3	Pass
Unwanted Emission Strength for Transfer part	Section 4	Pass
Antenna power and deviation	Section 5	Pass
Adjacent channel leakage power	Section 6	Pass
Secondary Radiated Emission Strength	Section 7	Pass
Transmission time restriction	Section 8	Pass
Carrier sense function	Section 9	Pass
Interference suppression function	/	N/A

*N/A: In this whole report not applicable.

*This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

*The measurement result for the sample received is <Pass> according to < Article 2 Paragraph 1, item 8, Appendix No.42 paragraph 1 Item 3 Notification No.88 of MIC, 2004> when <Accuracy Method> decision rule is applied.

CONTENTS

1. ATTESTATION OF TEST RESULTS.....	5
2. TEST METHODOLOGY.....	6
3. FACILITIES AND ACCREDITATION.....	6
4. CALIBRATION AND UNCERTAINTY	7
4.1. <i>MEASURING INSTRUMENT CALIBRATION</i>	<i>7</i>
4.2. <i>MEASUREMENT UNCERTAINTY.....</i>	<i>7</i>
5. EQUIPMENT UNDER TEST	8
5.1. <i>DESCRIPTION OF EUT</i>	<i>8</i>
5.2. <i>CHANNEL LIST</i>	<i>8</i>
5.3. <i>TEST POWER SUPPLY</i>	<i>8</i>
5.4. <i>TEST CHANNEL CONFIGURATION.....</i>	<i>8</i>
5.5. <i>THE WORSE CASE POWER SETTING PARAMETER.....</i>	<i>8</i>
5.6. <i>DESCRIPTION OF AVAILABLE ANTENNAS</i>	<i>9</i>
5.7. <i>SETUP DIAGRAM</i>	<i>9</i>
6. MEASURING EQUIPMENT AND SOFTWARE USED.....	10
7. TEST RESULTS	11
7.1. <i>FREQUENCY DEVIATION</i>	<i>11</i>
7.2. <i>OCCUPIED BANDWIDTH</i>	<i>12</i>
7.3. <i>SECONDARY RADIATED EMISSION STRENGTH.....</i>	<i>13</i>
7.4. <i>ANTENNA POWER AND DEVIATION.....</i>	<i>14</i>
7.5. <i>TOLERANCE OF ADJACENT CHANNEL LEAKAGE POWER.....</i>	<i>15</i>
7.6. <i>UNWANTED EMISSION STRENGTH FOR TRANSFER PART.....</i>	<i>16</i>
7.7. <i>TRANSMISSION TIME RESTRICTION</i>	<i>17</i>
7.8. <i>CARRIER SENSING FUNCTION.....</i>	<i>18</i>
7.9. <i>CARRIER SENSING FUNCTION.....</i>	<i>19</i>
APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION	20
APPENDIX: PHOTOGRAPHS OF THE EUT	21

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: DONGGUANJUYANG ELECTRONICCO., LTD
Address: ROOM 101, BUILDING 2, NO.46, XINSIHUANGTANG ROAD,
HENGLI TOWN, DONGGUAN, GUANGDONG, P.R.CHINA

Manufacturer Information

Company Name: DONGGUANJUYANG ELECTRONICCO., LTD
Address: ROOM 101, BUILDING 2, NO.46, XINSIHUANGTANG ROAD,
HENGLI TOWN, DONGGUAN, GUANGDONG, P.R.CHINA

EUT Information

Product Description: Wireless doorbell module
Model: LS-3203
Series Model: N/A
Brand: /
Sample Received Date: July 11, 2025
Sample Status: Normal
Sample ID: A25041264 001
Date of Tested: July 11, 2025 to July 24, 2025

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
Article 2 Paragraph 1, item 8 Appendix No.42 paragraph 1 Item 3 Notification No.88 of MIC, 2004	Pass

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2. TEST METHODOLOGY

All tests were performed in accordance with the standard Article 2 Paragraph 1, item 8, Appendix No.42 paragraph 1 Item 3 Notification No.88 of MIC, 2004

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p>A2LA (Certificate No.: 6947.01) Guangdong Global Testing Technology Co., Ltd. has been assessed and proved to be in compliance with A2LA.</p> <p>FCC (FCC Designation No.: CN1343) Guangdong Global Testing Technology Co., Ltd. has been recognized to perform compliance testing on equipment subject to Supplier's Declaration of Conformity (SDoC) and Certification rules</p> <p>ISED (Company No.: 30714) Guangdong Global Testing Technology Co., Ltd. has been registered and fully described in a report filed with ISED. The Company Number is 30714 and the test lab Conformity Assessment Body Identifier (CABID) is CN0148.</p>
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Note: All tests measurement facilities use to collect the measurement data are located at Room 101-105, 203-210, Building 1, No.2, Keji 8 Road, Songshan Lake Park, Dongguan city, Guangdong, People's Republic of China, 523808

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Items	k	Uncertainty
Occupied bandwidth	1.96	±9.2 PPM
Frequency tolerance	1.96	±9.0 PPM
Antenna power	1.96	±1.5 dB
Conducted Spurious Emission	1.96	9 kHz-30 MHz: ± 0.95 dB 30 MHz-1 GHz: ± 1.5 dB 1GHz-12.75GHz: ± 1.8 dB 12.75 GHz-26.5 GHz: ± 2.1dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.		

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name		Wireless doorbell module
Model		LS-3203
Series Model		N/A
Hardware Version		V1.0
Software Version		V1.0
Ratings		Battery 3V
Power Supply	DC	3V

Frequency Band:	920.6 MHz
Frequency Range:	920.6 MHz
Type of Modulation:	GFSK
Antenna Type:	Spring antenna
Rated Antenna Power	0.3mW
Antenna Gain:	-3.51dBi
EUT Test software:	/
Note:	The Antenna Gain was provided by customer, and this information may affect the validity of the results, customer should be responsible for this.

5.2. CHANNEL LIST

Test Mode	Test Channel	Frequency
GFSK	1	920.6 MHz

5.3. TEST POWER SUPPLY

Test Voltage: 3V DC
The EUT is supplied with 3V DC The fluctuation of input voltage to the circuit of RF unit of test equipment is more than $\pm 1\%$, when input voltage from 3V DC to the test equipment is fluctuated by $\pm 10\%$, So all measurement was conducted on the rated voltage (3V DC).

5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency
GFSK	CH 1	920.6 MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 920.6MHz Band		
Test Software Version		/
Modulation Type	Transmit Antenna Number	Test Software setting value
		CH 1

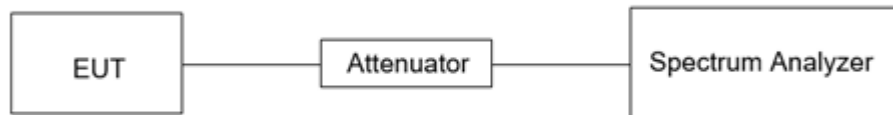
GFSK	1	Default
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5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	920.6	Spring antenna	-3.51

Test Mode	Transmit and Receive Mode	Description
GFSK	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.

5.7. SETUP DIAGRAM



6. MEASURING EQUIPMENT AND SOFTWARE USED

Test Equipment of Conducted RF					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40	102257	2024/09/14	2025/09/13
Spectrum Analyzer	KEYSIGHT	N9020A	MY51285127	2024/09/14	2025/09/13
EXG Analog Signal Generator	KEYSIGHT	N5173B	MY61253075	2024/09/14	2025/09/13
Vector Signal Generator	Rohde & Schwarz	SMM100A	101899	2024/09/14	2025/09/13
RF Control box	MWRF-test	MW100-RFCB	MW220926GTG	2024/09/14	2025/09/13
Wideband Radio Communication Tester	Rohde & Schwarz	CMW270	102792	2024/09/14	2025/09/13
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	103235	2024/09/14	2025/09/13
temperature humidity chamber	Espec	SH-241	SH-241-2014	2024/09/14	2025/09/13
RF Test Software	MWRF-test	MTS8310E (Ver. V2/0)	N/A	N/A	N/A

Note: The instruments and equipment listed in the table are calibrated by Lisai, and the calibration method is referred to item ii c) of Article 24-2 paragraph 4.

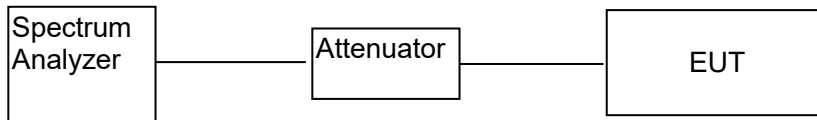
7. TEST RESULTS

7.1. FREQUENCY DEVIATION

LIMIT

± 20 ppm.

TEST CONFIGURATION



TEST PROCEDURE

1. Frequency accuracy of SA shall be less than 10% of limits tolerance (5ppm).
2. Setting of SA is following as: RBW:3 kHz / VBW:3 kHz.
3. Center Frequency: The center frequency of testing for EUT.
4. Sweep time: Auto.
5. Sweep mode: Continuous sweep.
6. Detect mode: Positive peak.
7. EUT have transmitted absence of modulation signal and fixed channelize. f is using the mark cursor to mark the peak frequency value, f_c is declaring of channel frequency. Then the frequency error formula is $(f-f_c)/f_c \times 10^6$ ppm and the limit is less than ± 20 ppm.

TEST ENVIRONMENT

Temperature	23.3°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

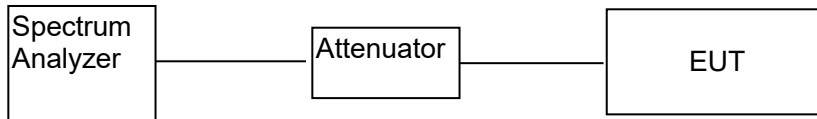
Please refer to “Test Data”-Appendix A

7.2. OCCUPIED BANDWIDTH

LIMIT

200KHz for Occupied frequency bandwidth.

TEST CONFIGURATION



TEST PROCEDURE

1. Setting of SA is following as: RBW:<3%_{OBW} / VBW: =VBW / Span:=2_{OBW} ~ 3.5_{OBW} / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold.
2. EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 99% of occupied bandwidth to measure occupied bandwidth.
3. When the trace was stable, captures the plots and saved. Compare with the limits above.
4. Repeat above steps for all bandwidths.

TEST ENVIRONMENT

Temperature	23.3°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

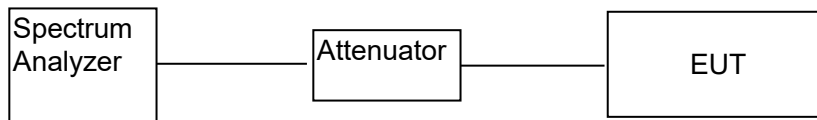
Please refer to "Test Data"-Appendix A

7.3. SECONDARY RADIATED EMISSION STRENGTH

LIMIT

Frequency (MHz)	Limit (dBm)
$F \leq 710 \text{ MHz}$	-54 dBm/100 kHz
$710 \text{ MHz} < f \leq 900 \text{ MHz}$	-55 dBm/1 MHz
$900 \text{ MHz} < f \leq 915 \text{ MHz}$	-55 dBm/100 kHz
$915 \text{ MHz} < f \leq 930 \text{ MHz}$	-54 dBm/100 kHz
$930 \text{ MHz} < f \leq 1000 \text{ MHz}$	-55 dBm/100 kHz
$1000 \text{ MHz} < f$	-47 dBm/1 MHz

TEST CONFIGURATION



TEST PROCEDURE

1. EUT have the continuous reception mode and fixed only one channelize.
2. Setting of SA is following as RB / VB: 100 kHz (below 1GHz emissions) / 1 MHz (above 1GHz emissions) / AT: 10dB / Ref: 0dBm / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold.
3. Using the Spurious Emissions function of SA, setting the limit line and frequency as the limit table.
4. When the trace completed, compared with limit, and saved the plots.
5. Repeat above steps for applicable test frequencies, channel bandwidths.

TEST ENVIRONMENT

Temperature	23.3°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

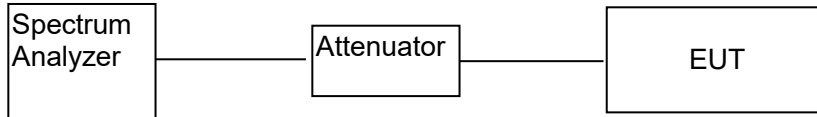
Please refer to "Test Data"-Appendix A

7.4. ANTENNA POWER AND DEVIATION

LIMIT

Antenna Power: 20 mW, Deviation: + 20%≥ and ≥ -80%.

TEST CONFIGURATION



TEST PROCEDURE

1. Connect the UUT to the spectrum analyzer and use the following settings: Centre Frequency: The centre frequency of the channel under test. RBW: 1MHz/VBW: 1MHz/ Span: Wide enough to cover the complete power envelope of the signal of the EUT. / Detector: Peak. / Trace Mode: Max Hold.
2. When the trace is complete, find the peak value of the power envelope and record the frequency.
3. Calculated the Maximum deviation and recorded the results.
$$\text{Deviation} = (\text{Antenna Power} - \text{Rated Output Power}) / \text{Rated Output Power} * 100\%$$

TEST ENVIRONMENT

Temperature	23.3°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

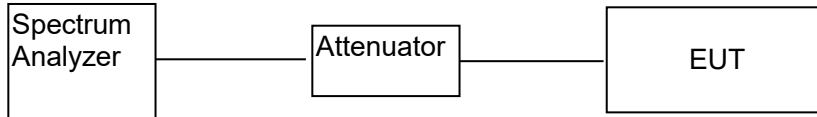
Please refer to “Test Data”-Appendix A

7.5. TOLERANCE OF ADJACENT CHANNEL LEAKAGE POWER

LIMIT

$\leq -15\text{dBm}$.

TEST CONFIGURATION



TEST PROCEDURE

1. EUT have transmitted the maximum modulation signal and fixed channelize.
2. Setting of SA is following as: RBW:1kHz / VBW:3kHz/ Sweep time: Auto / Sweep Mode: Continuous //Detect mode: RMS / Trace mode: Max.
3. Using the channel power function of SA, setting the Tx channel bandwidth, Adjacent channel bandwidth and Alternate channel bandwidth as limit table.
4. Setting the limit line as the limit table, and turn on the limit function.
5. When the trace completed, compared with limits, and saved the plot.
6. Repeat above steps for applicable test frequencies, channel bandwidths.

TEST ENVIRONMENT

Temperature	23.3°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

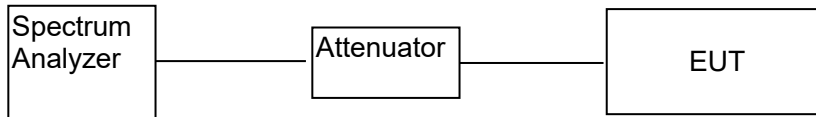
Please refer to "Test Data"-Appendix A

7.6. UNWANTED EMISSION STRENGTH FOR TRANSFER PART

LIMIT

Frequency (MHz)	Limit (dBm)
$F \leq 710 \text{ MHz}$	-36 dBm/100 kHz
$710 \text{ MHz} < f \leq 900 \text{ MHz}$	-55 dBm/1 MHz
$900 \text{ MHz} < f \leq 915 \text{ MHz}$	-55 dBm/100 kHz
$915 \text{ MHz} < f \leq 930^* \text{ MHz}$	-36 dBm/100 kHz
$930 \text{ MHz} < f \leq 1000 \text{ MHz}$	-55 dBm/100 kHz
$1000 \text{ MHz} < f \leq 1215 \text{ MHz}$	-45 dBm/1 MHz
$1215 \text{ MHz} < f$	-30 dBm/1 MHz
*Unt channel 200kHz BW: except "200 + 100 × n kHz" from Cf	
*Unt channel 100kHz BW: except "100 + 50 × n kHz" from Cf	

TEST CONFIGURATION



TEST PROCEDURE

1. EUT have the continuous reception mode and fixed only one channelize.
2. Setting of SA is following as RB / VB: 100 kHz (below 1GHz emissions) / 1 MHz (above 1GHz emissions) / AT: 10dB / Ref: 0dBm / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold.
3. Using the Spurious Emissions function of SA, setting the limit line and frequency as the limit table.
4. When the trace completed, compared with limit, and saved the plots.
5. Repeat above steps for applicable test frequencies, channel bandwidths.

TEST ENVIRONMENT

Temperature	23.3°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

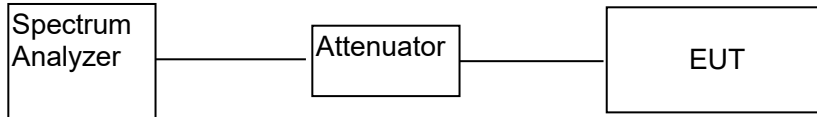
Please refer to "Test Data"-Appendix A

7.7. TRANSMISSION TIME RESTRICTION

LIMIT

Transmission ON: within 0.4 sec Transmission OFF: over 0.002 sec.

TEST CONFIGURATION



TEST PROCEDURE

1. Connect EUT antenna terminal to the spectrum analyzer with a low loss cable.
Equipment mode: spectrum analyzer, detector function: Peak RBW=1MHz, VBW=1MHz, Span=zero.
2. Adjust the center frequency of spectrum analyzer on any frequency be measured.
3. Press the Sweep Button, and captured at least on burst by SA.
4. Use the delta function to marker the burst length.
5. When the trace completed, saved the plots.
6. Repeat above steps for applicable test frequencies and channel bandwidths.

TEST ENVIRONMENT

Temperature	23.3°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to "Test Data"-Appendix A

7.8. CARRIER SENSING FUNCTION

LIMIT

(1) Interference Signal $\geq -80\text{dBm}$

When antenna power $\leq 20\text{mW}$, signal level $\geq -74\text{dBm}$

Stop Transmitting Radio

(2) Detection Bandwidth

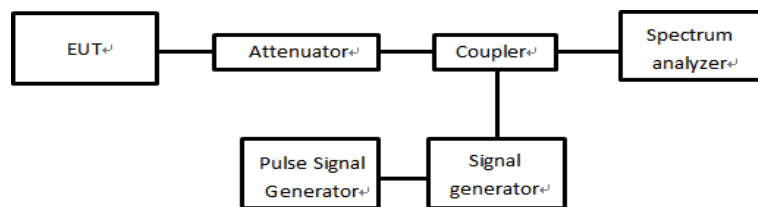
$\geq$ Channel Bandwidth

(3) $920.5 \sim 928.1\text{MHz}$

When total transmitting time $\leq 360\text{s}$ in 1 hour, Time of Clear Channel Assessment check

$\geq 128\mu\text{s}$

TEST CONFIGURATION



TEST PROCEDURE

1. Set the output level of the standard signal generator to the level of the technical standard at the antenna connection terminal of the test equipment.
2. With the output of the standard signal generator turned off, turn on the test equipment for transmission operation, and confirm that the spectrum analyzer emits radio waves.
3. Put the test equipment into the receiving state.
4. With the output of the standard signal generator turned on, turn on the test equipment for transmission operation and confirm that the spectrum analyzer does not emit radio waves.

TEST ENVIRONMENT

Temperature	23.3°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

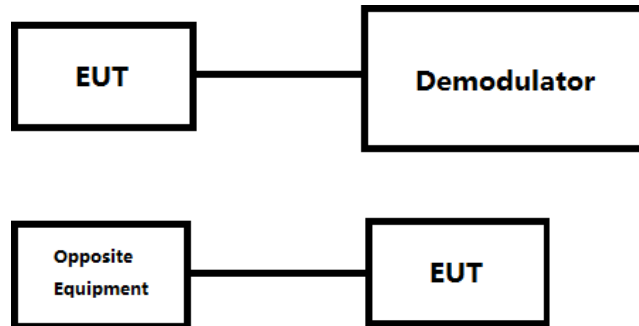
Please refer to "Test Data"-Appendix A

7.9. CARRIER SENSING FUNCTION

LIMIT

1. The demodulator shall be able to demodulate the transmitting signal from the radio equipment and to display contents of the identification code.
2. The opposite equipment shall be able to transmit the identification code as same as the transmitting signal from the radio equipment.

TEST CONFIGURATION



TEST PROCEDURE

1. The radio equipment with automatic transmitting function of identification code
 - A. Transmit the assigned identification code from the radio equipment.
 - B. Confirm the identification code received by the demodulator.
2. The radio equipment with automatic receiving function of identification code
 - A. Transmit the assigned identification code from the opposite equipment.
 - B. Confirm that the usual communication is available.
 - C. Transmit the identification code distinct from the assigned one from the opposite equipment.
 - D. Confirm that the radio equipment is stopped or an indication is displayed as the identification code is different.

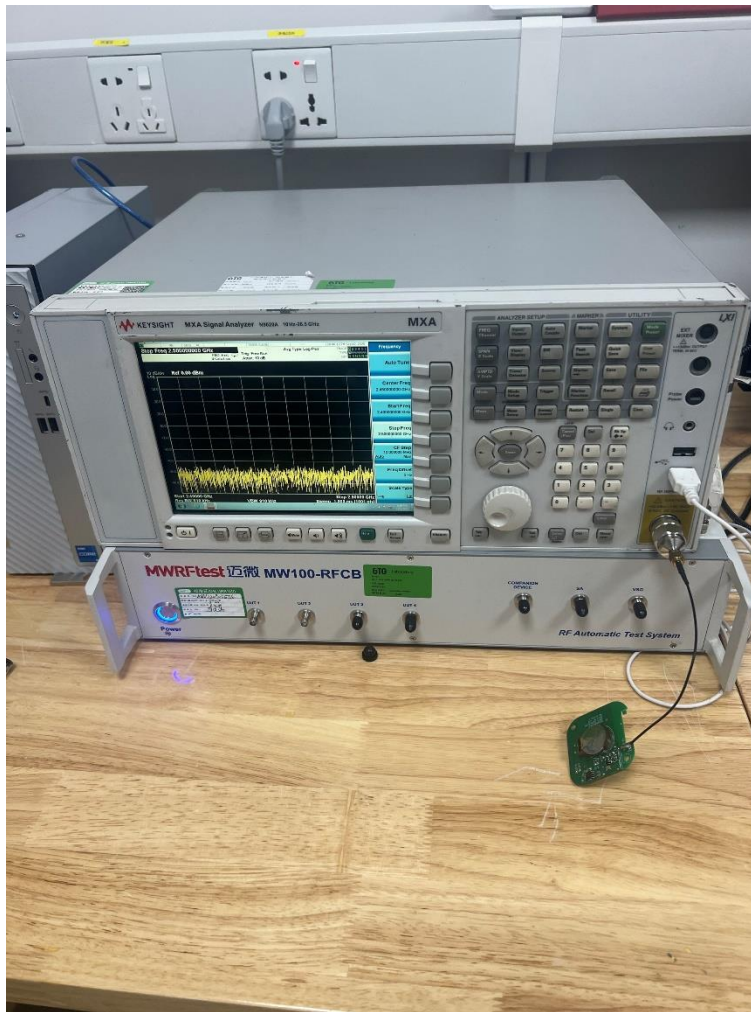
TEST ENVIRONMENT

Temperature	°C	Relative Humidity	%
Atmosphere Pressure	kPa		

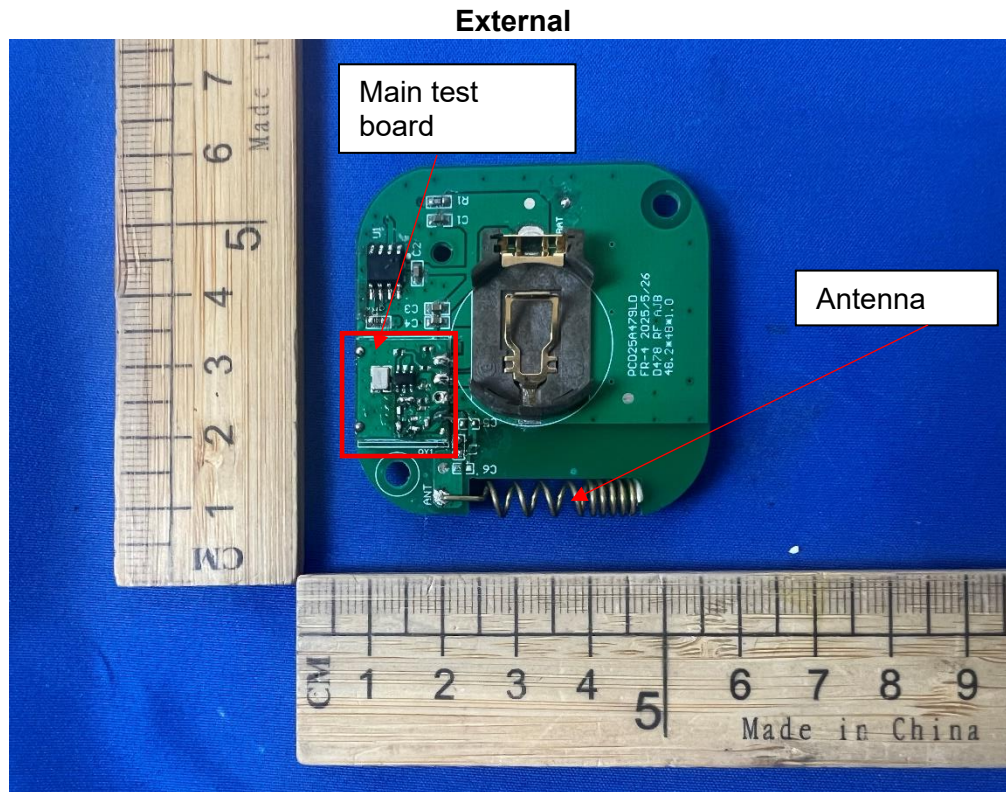
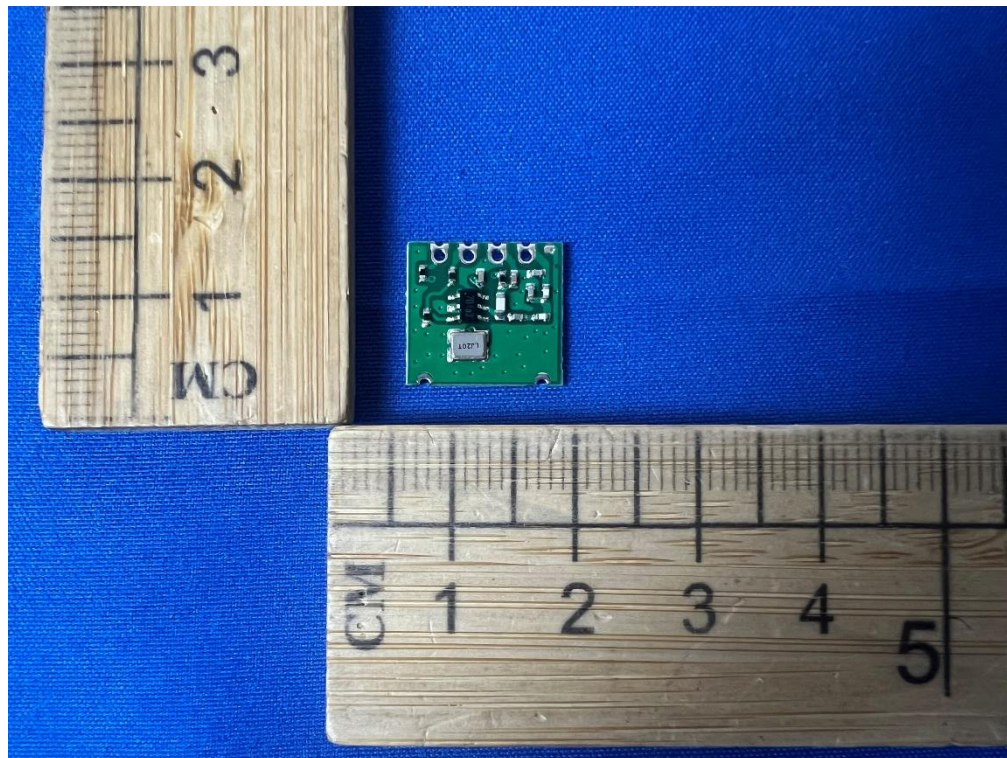
TEST RESULTS

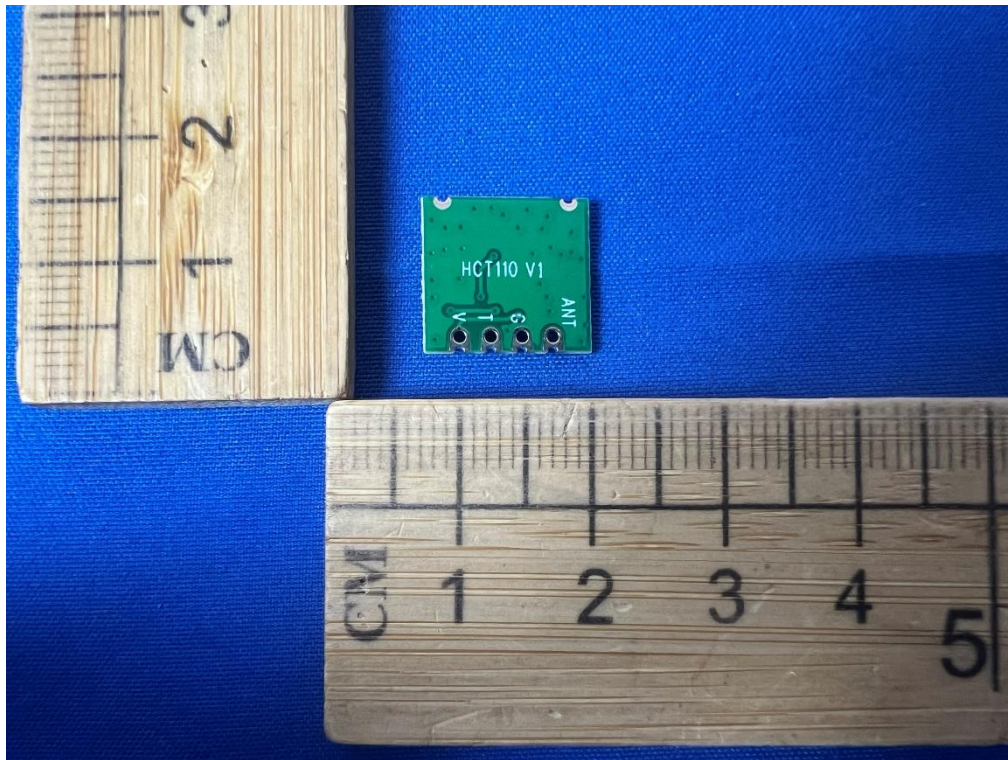
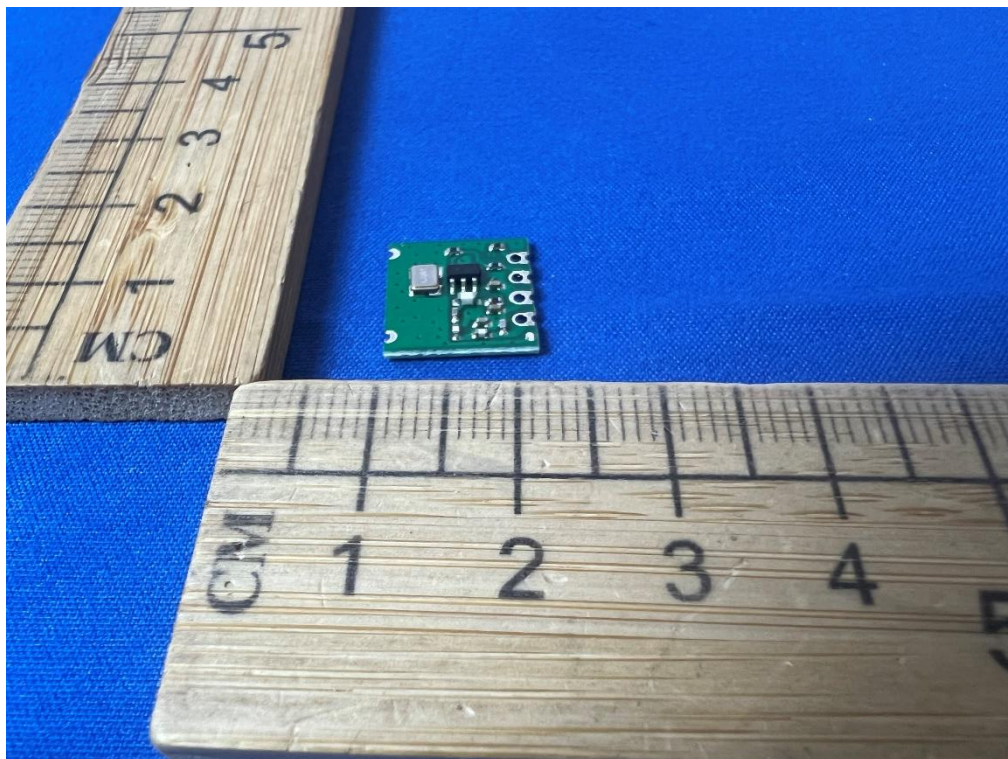
N/A.

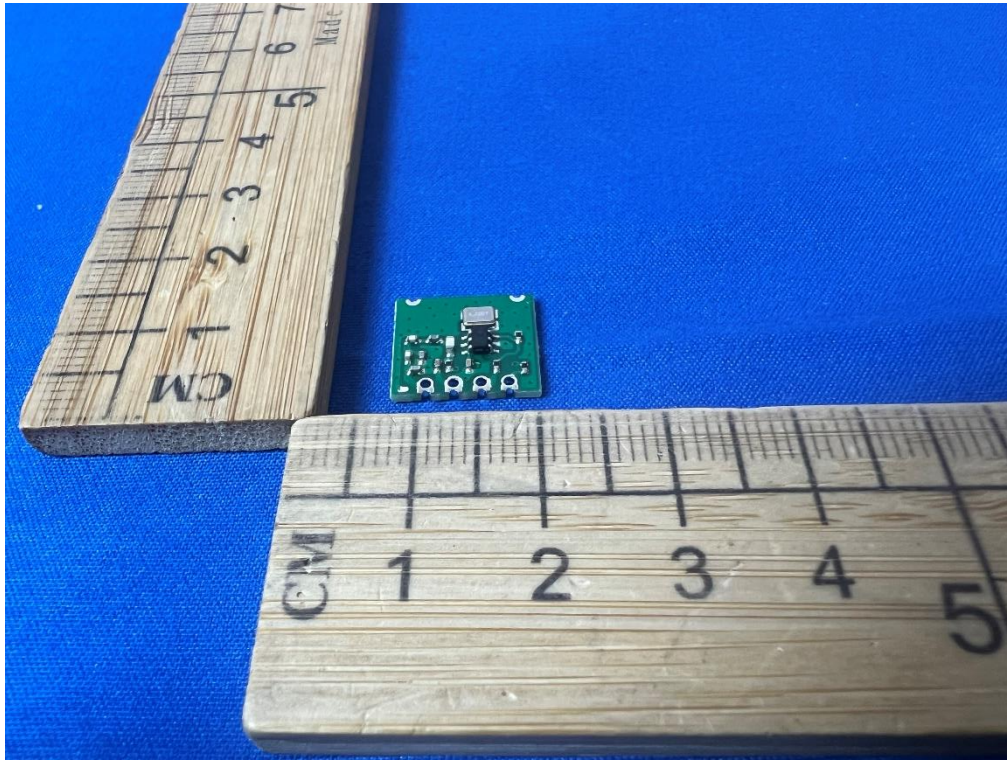
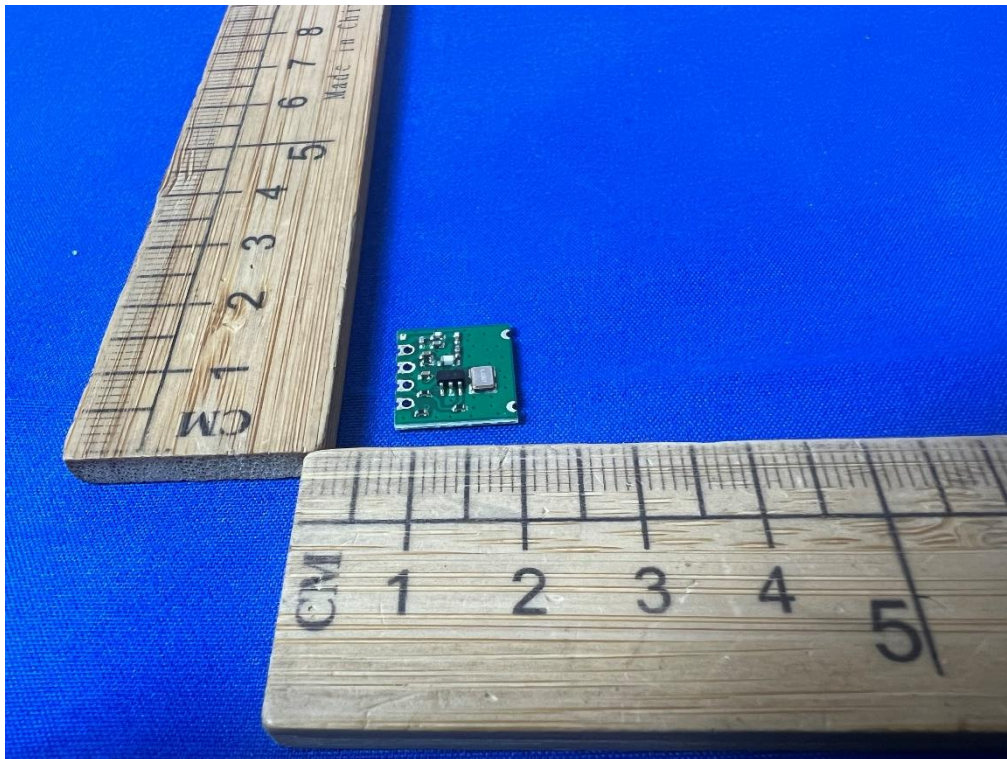
APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION

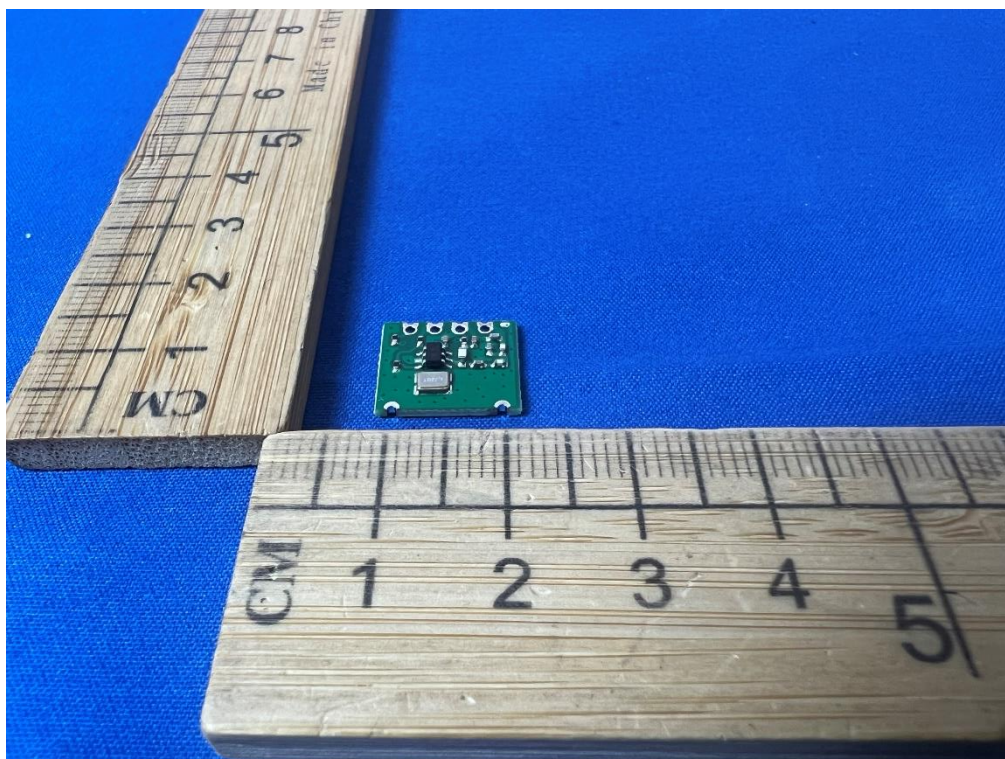


APPENDIX: PHOTOGRAPHS OF THE EUT









END OF REPORT