

Article 2 Paragraph 1, item 19-3

TEST REPORT

For

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MODEL NUMBER: CSB-M01

REPORT NUMBER: E04A25110099J00101

ISSUE DATE: January 29, 2026

Prepared for

CARROT SYSTEMS Inc.

S-Plaza Building 1F 4-7-10 Sagamihara, Chuo-ku, Sagamihara-shi, Kanagawa, 252-0231

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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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	January 29, 2026	Initial Issue	

Summary of Test Results

Test Item	Clause	Result
Frequency Error	Article 2 Paragraph 1, item 19-3	Pass
Occupied Bandwidth	Article 2 Paragraph 1, item 19-3	Pass
Unwanted Emissions Intensity	Article 2 Paragraph 1, item 19-3	Pass
Antenna Power	Article 2 Paragraph 1, item 19-3	Pass
Limitation of Collateral Emission of Receiver	Article 2 Paragraph 1, item 19-3	Pass
Transmission Burst Length	Article 2 Paragraph 1, item 19-3	Pass
Adjacent Channel Leakage Power	Article 2 Paragraph 1, item 19-3	Pass
Radio Interference prevention function	Article 2 Paragraph 1, item 19-3	Pass
Carrier sense capability	Article 2 Paragraph 1, item 19-3	Pass

*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 19-3> when <Accuracy Method> decision rule is applied.

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: CARROT SYSTEMS Inc.
Address: S-Plaza Building 1F 4-7-10 Sagamihara, Chuo-ku, Sagamihara-shi, Kanagawa, 252-0231

Manufacturer Information

Company Name: CARROT SYSTEMS Inc.
Address: S-Plaza Building 1F 4-7-10 Sagamihara, Chuo-ku, Sagamihara-shi, Kanagawa, 252-0231

EUT Information

Product Description: ゐるポン
Model: CSB-M01
Brand: MIRU-PON
Sample Received Date: November 11, 2025
Sample Status: Normal
Sample ID: A25110099 001
Date of Tested: November 11, 2025 to January 29, 2026

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
Article 2 Paragraph 1, item 19-3	Pass

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2. TEST METHODOLOGY

All tests were performed in accordance with the standard Article 2 Paragraph 1, item 19-3

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 6947.01) Guangdong Global Testing Technology Co., Ltd. has been assessed and proved to be in compliance with A2LA. 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 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.
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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	±9.0 PPM
Frequency Error	1.96	±9.0 PPM
Transmission Burst Length	1.96	±0.57%
Adjacent Channel Leakage Power	1.96	±1.12 dB
Antenna power	1.96	±1.12 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		みるポン
Model		CSB-M01
Ratings		Input: 5V = 2A
Power Supply	DC	5V

Frequency Band:	W52: 5150 MHz to 5250 MHz W53: 5250 MHz to 5350 MHz W56: 5470 MHz to 5725 MHz
Frequency Range:	W52: 5180 MHz to 5240 MHz W53: 5260 MHz to 5320 MHz W56: 5500 MHz to 5700 MHz
Type of Modulation:	802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) 802.11n HT20: OFDM (64QAM, 16QAM, QPSK, BPSK)
Rated Antenna Power	W52 4 mW/MHz for 802.11a 2 mW/MHz for 802.11n HT20 W53 2 mW/MHz for 802.11a 2 mW/MHz for 802.11n HT20 W56 4 mW/MHz for 802.11a 4 mW/MHz for 802.11n HT20
Antenna Type:	PIFA Antenna
Antenna Gain:	W52: 3.8 dBi W53: 3.9 dBi W56: 3.7 dBi
EUT Test software:	SecureCRT
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

W52 (For Bandwidth = 20 MHz)	
Channel	Frequency (MHz)
36	5180
40	5200
44	5220
48	5240

W53 (For Bandwidth = 20 MHz)	
Channel	Frequency (MHz)
52	5260
56	5280

60	5300
64	5320

W56 (For Bandwidth = 20 MHz)	
Channel	Frequency (MHz)
100	5500
104	5520
108	5540
112	5560
116	5580
120	5600
124	5620
128	5640
132	5660
136	5680
140	5700

5.3. TEST ENVIRONMENT

Test Voltage: 5V DC

The EUT is supplied with 5V DC. The fluctuation of input voltage to the circuit of RF unit of test equipment is under $\pm 1\%$, when input voltage from 5V DC to the test equipment is fluctuated by $\pm 10\%$. So all measurement was conducted on the rated voltage (5V DC).

5.4. TEST CHANNEL CONFIGURATION

W52 Test Channel Configuration		
Test Mode	Test Channel Number	Frequency
801.11a	CH 36(Low Channel), CH 40(MID Channel), CH 48(High Channel)	5180 MHz, 5200 MHz, 5240 MHz
802.11n HT20	CH 36(Low Channel), CH 40(MID Channel), CH 48(High Channel)	5180 MHz, 5200 MHz, 5240 MHz

W53 Test Channel Configuration		
Test Mode	Test Channel Number	Frequency
801.11a	CH 52(Low Channel), CH 60(MID Channel), CH 64(High Channel)	5260 MHz, 5300 MHz, 5320 MHz
802.11n HT20	CH 52(Low Channel), CH 60(MID Channel), CH 64(High Channel)	5260 MHz, 5300 MHz, 5320 MHz

W56 Test Channel Configuration		
Test Mode	Test Channel Number	Frequency
801.11a	CH 100(Low Channel), CH 120(MID Channel), CH 140(High Channel)	5500 MHz, 5600 MHz, 5700 MHz
802.11n HT20	CH 100(Low Channel), CH 120(MID Channel), CH 140(High Channel)	5500 MHz, 5600 MHz, 5700 MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

WORST-CASE CONFIGURATIONS

Test Mode	Modulation Type	Data Rate
801.11a	OFDM	6 Mbps
802.11n HT20	OFDM	MCS0

Note: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates.

The Worst Case Power Setting Parameter	
Test Software	SecureCRT

W52			
Test Mode	Rate	Channel	Test Software Setting Value
			ANT 1
802.11a	6M	36	15
		40	15
		48	13
802.11n HT20	MCS0	36	15
		40	15
		48	13

W53			
IEEE Std. 802.11	Rate	Channel	Test Software Setting Value
			ANT 1
802.11a	6M	52	13
		60	13
		64	13
802.11n HT20	MCS0	52	13
		60	13
		64	13

W56			
IEEE Std. 802.11	Rate	Channel	Test Software Setting Value
			ANT 1
802.11a	6M	100	15.5
		120	15.5
		140	15.5
802.11n HT20	MCS0	100	15.5
		120	15.5
		140	15.5

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	5180-5700	PIFA Antenna	W52: 3.8 dBi W53: 3.9 dBi W56: 3.7 dBi

Test Mode	Transmit and Receive Mode	Description
802.11a	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
802.11n HT20	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.

5.7. EUT ACCESSORY

Adapter	
Model No.:	KA12C-0502000JP
Input:	100-240V~ 50/60Hz 0.35A Max
Output:	5V = 2000mA
AC Cable:	/
DC Cable:	/

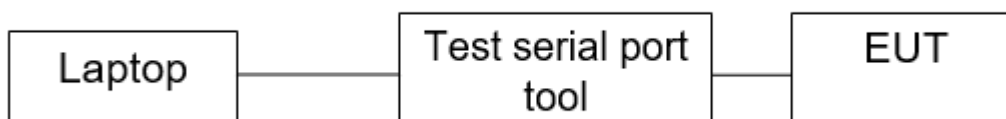
Cable	
Accessory:	USB cable
Model No.:	/
Description:	USB Type-C Plug Cable
Cable Type:	Shielded without ferrite
Length:	1.52 Meter

5.8. SUPPORT UNITS FOR SYSTEM TEST

The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	Laptop	Lenovo	Thinkpad T14	PF-3EAKYR	GTG Support
E-2	Serial Port Tool	N/A	N/A	N/A	GTG Support

5.9. 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	2025/08/25	2026/08/24
Spectrum Analyzer	KEYSIGHT	N9020A	MY51285127	2025/08/25	2026/08/24
EXG Analog Signal Generator	KEYSIGHT	N5173B	MY61253075	2025/08/25	2026/08/24
Vector Signal Generator	Rohde & Schwarz	SMM100A	101899	2025/08/25	2026/08/24
RF Control box	MWRF-test	MW100-RFCB	MW220926GTG	2025/08/25	2026/08/24
Wideband Radio Communication Tester	Rohde & Schwarz	CMW270	102792	2025/08/25	2026/08/24
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	103235	2025/08/25	2026/08/24
temperature humidity chamber	Espec	SH-241	SH-241-2014	2025/08/25	2026/08/24
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 CCIC, and the calibration method is referred to item ii c) of Article 24-2 paragraph 4.

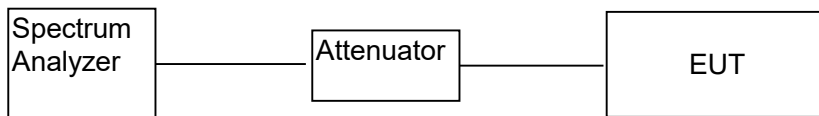
7. TEST RESULTS

7.1. FREQUENCY ERROR

LIMIT

According to Item 19-3 of Article 2 Paragraph 1, the maximum permit tolerance of frequency is 20ppm.

TEST CONFIGURATION



TEST PROCEDURE

1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set center frequency of spectrum analyzer = operating frequency.
3. Set the spectrum analyzer as RBW, VBW=10KHz, Span = 1MHz.
4. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided emission is repetitive in nature.
5. Repeat above procedures until all frequency measured was complete.

TEST ENVIRONMENT

Temperature	23.5°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to "Test Data"-Appendix A

7.2. ANTENNA POWER

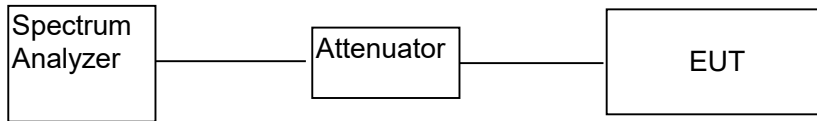
LIMIT

Antenna Power	EIRP
W52	
DSSS ≤ 10 mW/MHz, Other ≤ 10 mW	DSSS,etc ≤ 10 mW/MHz
OFDM a. OBW ≤ 20 MHz: for ≤ 10 mW/MHz b. 20MHz<OBW ≤ 40 MHz: for ≤ 5 mW/MHz c. 40MHz<OBW ≤ 80 MHz: for ≤ 2.5 mW/MHz d. 80MHz<OBW ≤ 160 MHz:for<OBW ≤ 1.25 mW/MHz	OFDM a. OBW ≤ 20 MHz: for ≤ 10 mW/MHz b. 20MHz<OBW ≤ 40 MHz: for ≤ 5 mW/MHz c. 40MHz<OBW ≤ 80 MHz: for ≤ 2.5 mW/MHz d. 80MHz<OBW ≤ 160 MHz:for<OBW ≤ 1.25 mW/MHz
W53	
DSSS ≤ 10 mW/MHz, Other ≤ 10 mW	DSSS,etc 10 mW/MHz:with TPC;5 mW/MHz:without TPC
OFDM a. OBW ≤ 20 MHz: for ≤ 10 mW/MHz b. 20MHz<OBW ≤ 40 MHz: for ≤ 5 mW/MHz c. 40MHz<OBW ≤ 80 MHz: for ≤ 2.5 mW/MHz d. 80MHz<OBW ≤ 160 MHz:for<OBW ≤ 1.25 mW/MHz	OFDM a. 10 mW/MHz:with TPC;5 mW/MHz:without TPC b. 5 mW/MHz:with TPC;2.5 mW/MHz:without TPC c. 2.5 mW/MHz:with TPC;1.25 mW/MHz:without TPC d. 1.25mW/MHz:with TPC;0.625mW/MHz:without TPC
W56	
DSSS ≤ 10 mW/MHz, Other ≤ 10 mW	DSSS,etc 50 mW/MHz:with TPC;25 mW/MHz:without TPC
OFDM a. OBW ≤ 20 MHz: for ≤ 10 mW/MHz b. 20MHz<OBW ≤ 40 MHz: for ≤ 5 mW/MHz c. 40MHz<OBW ≤ 80 MHz: for ≤ 2.5 mW/MHz d. 80MHz<OBW ≤ 160 MHz:for<OBW ≤ 1.25 mW/MHz	OFDM a. 50 mW/MHz:with TPC;25 mW/MHz:without TPC b. 25 mW/MHz:with TPC;1.25 mW/MHz:without TPC c. 12.5 mW/MHz:with TPC;6.25 mW/MHz:without TPC d. 6.25 mW/MHz:with TPC;3.125 mW/MHz:without TPC

The Output Power Tolerance must be within:

a. W52/W53: -80% ~ +20%.

b. W56: -50% ~ +50%.

TEST CONFIGURATION**TEST PROCEDURE**

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

- (a) A sample detector function must be used.
- (b) A measurement instrument with an integrated 1MHz power bandwidth function may be used to automate the test process.
- (c) Connect the EUT to the RF input of the spectrum analyzer via a 50ohm attenuator.
- (d) Set the RBW = 1MHz, VBW = 1MHz, center of frequency = operating frequency, Sweep = Auto.
- (e) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided emission is repetitive in nature.
- (f) Repeat above procedures until all frequency measured was complete.

TEST ENVIRONMENT

Temperature	23.5°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to "Test Data"-Appendix A

7.3. OCCUPIED BANDWIDTH

LIMIT

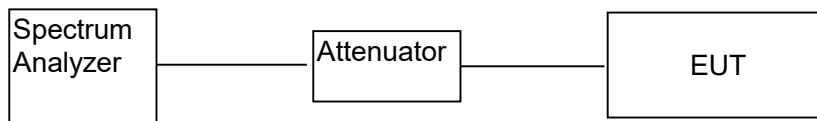
W52/W53:

- a. $OBW \leq 18\text{MHz}$ (20MHz System, Dsss, etc)
- b. $OBW \leq 20\text{MHz}$ (20MHz System, OFDM)
- c. $20\text{MHz} < OBW \leq 40\text{MHz}$ (40MHz System, OFDM)
- d. $40\text{MHz} < OBW \leq 80\text{MHz}$ (80MHz System, OFDM)
- e. $80\text{MHz} < OBW \leq 160\text{MHz}$ (160MHz System, OFDM)

W56:

- a. $OBW \leq 18\text{MHz}$ (20MHz System, Dsss, etc)
- b. $OBW \leq 20\text{MHz}$ (20MHz System, OFDM)
- c. $20\text{MHz} < OBW \leq 40\text{MHz}$ (40MHz System, OFDM)
- d. $40\text{MHz} < OBW \leq 80\text{MHz}$ (80MHz System, OFDM)
- e. $80\text{MHz} < OBW \leq 160\text{MHz}$ (160MHz System, OFDM)

TEST CONFIGURATION



TEST PROCEDURE

(1) Set up the spectrum analyzer as the follows:

Center frequency: Test frequency

Sweep bandwidth: 2 to 3.5 times of allowance

Resoluble bandwidth: less than 3% of allowance

Video bandwidth: Equivalent to resolvable bandwidth

Sweep time: Minimum time by which measuring accuracy is assured (In case of burst wave, 1 burst shall be contained per 1 sample)

Sampling points: More than 400 points

Sweep mode: Continuous sweeping

Detection mode: Positive peak

Display mode: Maximum holding

(2) Repeat the sweeping till no change was observed on the display and enter all values of data point to the computer as array variable.

(3) About all data, convert dB value to antilogarithm of electric power dimension.

(4) Add up the electric power of all data and record it as "Sum total of electric power".

(5) Adding up data in order from the lowest frequency to upper frequencies, look for a limit point where the value reaches to 0.5% (5% in case of diffusion bandwidth) of "Sum total of electric power". Convert the limit point to frequency and record as "Lowest limit frequency".

(6) Adding up data in order from the highest frequency to lower frequencies, look for a limit point where the value reaches to 0.5% (5% in case of diffusion bandwidth) of “Sum total of electric power”. Convert the limit point to frequency and record as “Highest limit frequency”.

(7) Repeat above procedures until all frequency measured was complete.

TEST ENVIRONMENT

Temperature	23.5°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to “Test Data”-Appendix A

7.4. UNWANTED EMISSIONS INTENSITY

LIMIT

W52:

Bandwidth	Frequency	Limit
OBW ≤20MHz	30MHz~5142MHz	≤ -26dBm
	5266.7MHz~26000MHz	≤ -26dBm
20MHz <OBW≤ 40MHz	30MHz~5141.6MHz	≤ -26dBm
	5278.4MHz~26000MHz	≤ -26dBm
40MHz <OBW≤ 80MHz	30MHz~5123.2MHz	≤ -26dBm
	5296.7MHz~26000MHz	≤ -26dBm

W53:

Bandwidth	Frequency	Limit
OBW ≤20MHz	30MHz~5233.3MHz	≤ -26dBm
	5350MHz~26000MHz	≤ -26dBm
20MHz <OBW≤ 40MHz	30MHz~5221.6MHz	≤ -26dBm
	5358.4MHz~26000MHz	≤ -26dBm
40MHz <OBW≤ 80MHz	30MHz~5203.3MHz	≤ -26dBm
	5376.8MHz~26000MHz	≤ -26dBm

W52&W53

Bandwidth	Frequency	Limit
80MHz <OBW≤160MHz	30MHz~5099.6MHz	≤ -26dBm
	5400.4MHz~26000MHz	≤ -26dBm

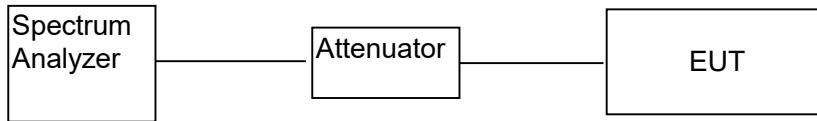
W56:

Bandwidth	Frequency	Limit
OBW ≤20MHz (NO OFDM)	30MHz~5470MHz	≤ -26dBm
	5730MHz~26000MHz	≤ -26dBm
OBW≤ 20MHz (OFDM)	30MHz~5460MHz	≤ -26dBm
	5765MHz~26000MHz	≤ -26dBm
20MHz <OBW≤ 40MHz	30MHz~5460MHz	≤ -19dBm
	5770MHz~26000MHz	≤ -19dBm
40MHz <OBW≤ 80MHz	30MHz~5460MHz	≤ -19dBm
	5770MHz~26000MHz	≤ -19dBm
80MHz <OBW≤ 160MHz	30MHz~5419.6MHz	≤ -19dBm
	5725MHz~26000MHz	≤ -19dBm

W52	
Bandwidth	Limit (e.i.r.p)
OBW ≤ 18MHz	5142~5150MHz: 15μW/MHz or less 5250~5251MHz: $10^{1-(f-9)}$ mW/MHz or less (f: 10-11MHz) 5251~5260MHz: $10^{-1-(8/90)(f-11)}$ mW/MHz or less (f: 11-20MHz) 5260~5266.7MHz: $10^{-1.8-(6/50)(f-20)}$ mW/MHz or less (f: 20-26.7MHz)
18MHz <OBW ≤ 20MHz	5142~5150MHz: 15μW/MHz or less 5250~5250.2MHz: $10^{1-(8/3)(f-9.75)}$ μW/MHz or less (f: 10-10.2MHz) 5250.2~5251MHz: $10^{1-(f-9)}$ mW/MHz or less (f: 10-11MHz) 5251~5260MHz: $10^{-1-(8/90)(f-11)}$ mW/MHz or less (f: 11-20MHz) 5260~5266.7MHz: $10^{-1.8-(6/50)(f-20)}$ mW/MHz or less (f: 20-26.7MHz)
20MHz <OBW ≤ 40MHz	5141.6~5150MHz: 15μW/MHz or less 5250~5251MHz: $10^{-(f-20)+\log(1/2)}$ mW/MHz or less (f: 20-21MHz) 5251~5270MHz: $10^{-(8/190)(f-21)-1+\log(1/2)}$ mW/MHz or less (f: 21-40MHz) 5270~5278.4MHz: $10^{-(3/50)(f-40)-1.8+\log(1/2)}$ mW/MHz or less (f: 40-48.4MHz)
40MHz <OBW ≤ 80MHz	5123.2~5150MHz: 15μW/MHz or less 5250~5251MHz: $10^{-(f-40)+\log(1/4)}$ mW/MHz (f: 40-41MHz) 5251~5290MHz: $10^{-(8/390)(f-41)-1+\log(1/4)}$ mW/MHz (f: 41-80MHz) 5290~5296.7MHz: $10^{-(3/100)(f-80)-1.8+\log(1/4)}$ mW/MHz (f: 80-86.7MHz)
W53	
Bandwidth	Limit(e.i.r.p)
OBW ≤ 18MHz	5233.3~5240MHz: $10^{-1.8-(6/50)(f-20)}$ mW/MHz or less (f: 26.7-20MHz) 5240~5249MHz: $10^{-1-(8/90)(f-11)}$ mW/MHz or less (f: 20-11MHz) 5249~5250MHz: $10^{1-(f-9)}$ mW/MHz or less (f: 11-10MHz)
18MHz <OBW ≤ 20MHz	5233.3~5240MHz: $10^{-1.8-(6/50)(f-20)}$ mW/MHz or less (f: 26.7-20MHz) 5240~5249MHz: $10^{-1-(8/90)(f-11)}$ mW/MHz or less (f: 20-11MHz) 5249~5249.8MHz: $10^{1-(f-9)}$ mW/MHz or less (f: 11-10.2MHz) 5249.8~5250MHz: $10^{1-(8/3)(f-9.75)}$ mW/MHz or less (f: 10.2-10MHz)
20MHz <OBW ≤ 40MHz	5221.6~5230MHz: $10^{-(3/50)(f-40)-1.8+\log(1/2)}$ mW/MHz or less (f: 48.4-40MHz) 5230~5249MHz: $10^{-(8/190)(f-21)-1+\log(1/2)}$ mW/MHz or less (f: 40-21MHz) 5249~5250MHz: $10^{-(f-20)+\log(1/2)}$ mW/MHz or less (f: 21-20MHz) 5350~5358.4MHz: 15μW/MHz or less
40MHz <OBW ≤ 80MHz	5203.3~5210MHz: $10^{-(3/100)(f-80)-1.8+\log(1/4)}$ mW/MHz (f: 86.7-80MHz) 5210~5249MHz: $10^{-(8/390)(f-41)-1+\log(1/4)}$ mW/MHz (f: 80-41MHz) 5249~5250MHz: $10^{-(f-40)+\log(1/4)}$ mW/MHz (f: 41-40MHz) 5350~5376.8MHz: 15μW/MHz or less

W52 & W53	
Bandwidth	Limit(e.i.r.p)
80MHz <OBW ≤ 160MHz	5099.6~5150MHz: 15μW/MHz or less 5350~5400.4MHz: 15μW/MHz or less

W56	
Bandwidth	Limit(e.i.r.p)
OBW ≤ 20MHz	5460~5470MHz: 12.5μW/MHz or less 5745~5765MHz: 12.5μW/MHz or less
20MHz <OBW ≤ 40MHz	5460~5470MHz: 15μW/MHz or less
40MHz <OBW ≤ 80MHz	5460~5469.5MHz: 15μW/MHz or less 5469.5~5470MHz: 15μW/MHz or less
80MHz <OBW ≤ 160MHz	5419.6~5470MHz: 50μW/MHz or less

TEST CONFIGURATION**TEST PROCEDURE**

- (1) A spectrum In case of conducted measurements, the radio device shall be connected to the measuring equipment via a suitable attenuator.
- (2) The measurement equipment shall be set for peak hold mode of operation.
- (3) the transmitter shall be operated at the highest output power, or, in the case of equipment able to operate at more than one power level, at the lowest and highest output powers;
- (4) The resolution bandwidth shall be set to 100kHz from 10MHz to 1GHz, the resolution bandwidth shall be set to 1MHz above 1GHz , and the sweep time shall be set to auto mode, to ensure all major modulation products are captured.
- (5) When the searched result is less than the specified limit, the maximum one shall be recorded, when the result is more than the specified limit, all measured values shall be recorded.
- (5) This measurement shall be repeated with the transmitter in standby mode where applicable.
- (6) Repeat above procedures until all frequency measured was complete.

TEST ENVIRONMENT

Temperature	23.5°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to "Test Data"-Appendix A

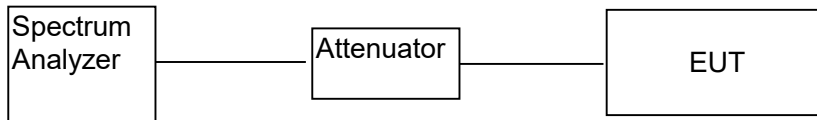
7.5. LIMITATION OF COLLATERAL EMISSION OF RECEIVER

LIMIT

According to Item 19-3 of Article 2 Paragraph 1. The receiver spurious emissions shall not exceed the following limit:

- (1) Below 1GHz: 4nW/100kHz
- (2) 1GHz or higher: 20nW/MHz

TEST CONFIGURATION



TEST PROCEDURE

- (1) A spectrum In case of conducted measurements, the radio device shall be connected to the measuring equipment via a suitable attenuator.
- (2) The measurement equipment shall be set for peak hold mode of operation.
- (3) the transmitter shall be operated at the receiving mode.
- (4) The resolution bandwidth shall be set to 100kHz from 10MHz to 1GHz, the resolution bandwidth shall be set to 1MHz above 1GHz , and the sweep time shall be set to auto mode, to ensure all major modulation products are captured.
- (5) When the searched result is less than the specified limit, the maximum one shall be recorded, when the result is more than the specified limit, all measured values shall be recorded.
- (5) This measurement shall be repeated with the transmitter in standby mode where applicable.
- (6) Repeat above procedures until all frequency measured was complete.

TEST ENVIRONMENT

Temperature	23.5°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

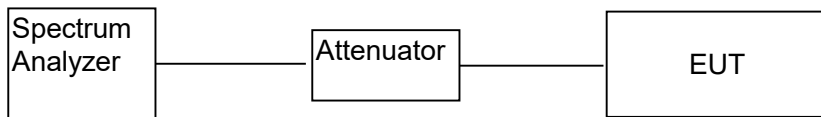
Please refer to “Test Data”-Appendix A

7.6. TRANSMISSION BURST LENGTH

LIMIT

8ms or less

TEST CONFIGURATION



TEST PROCEDURE

Enable EUT under transmission mode and connected it to the spectrum analyzer through antenna output port as the block diagram show in TEST CONFIGURATION

Use Spectrum's ACP measurement function and set spectrum analyzer as fellow:

Spectrum Condition:

- (1) Frequency: test frequency
- (2) Span: 0Hz, RBW: 1MHz, VBW: 3MHz, Sweep time: Auto, Sweep mode: single
- (3) Detector mode: Peak, Indication mode: Max hold

TEST ENVIRONMENT

Temperature	23.5°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to "Test Data"-Appendix A

7.7. ADJACENT CHANNEL LEAKAGE POWER

LIMIT

W52/W53/W56

For system $OBW \leq 18\text{MHz}$

- 20MHz detuning: -25dBc/18MHz
- 40MHz detuning: -40dBc/18MHz

For system $18\text{MHz} < OBW \leq 20\text{MHz}$

- 20MHz detuning: -25dBc/20MHz
- 40MHz detuning: -40dBc/20MHz

For system $20\text{MHz} < OBW \leq 40\text{MHz}$

- 40MHz detuning: -25dBc/40MHz
- 80MHz detuning: -40dBc/40MHz

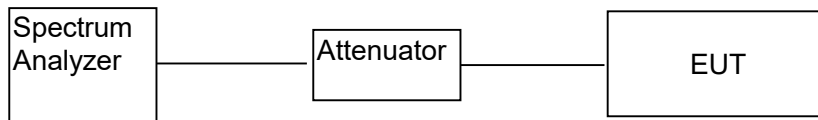
For system $40\text{MHz} < OBW \leq 80\text{MHz}$

- 80MHz detuning: -25dBc/80MHz

For system $80\text{MHz} < OBW \leq 160\text{MHz}$

- N/A

TEST CONFIGURATION



TEST PROCEDURE

(1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The center frequency of the channel under test.

Resolution BW: 300kHz.

Video BW: 300kHz.

Span $\geq 90\text{MHz}$,

Detector: Peak.

Trace Mode: Max Hold.

TEST ENVIRONMENT

Temperature	23.5°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

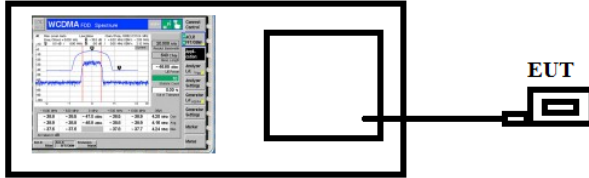
TEST RESULTS

Please refer to "Test Data"-Appendix A

7.8. RADIO INTERFERENCE PREVENTION FUNCTION

According to Item 19-3 of Article 2 Paragraph 1. The device shall have the function of automatic transmission or reception of identification code.

Universal Radio Communication Tester



1. Set the EUT in the usual operation condition
2. 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.
3. 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.
4. The identification function shall be recorded with "Good" or "No".

TEST ENVIRONMENT

Temperature	23.5°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

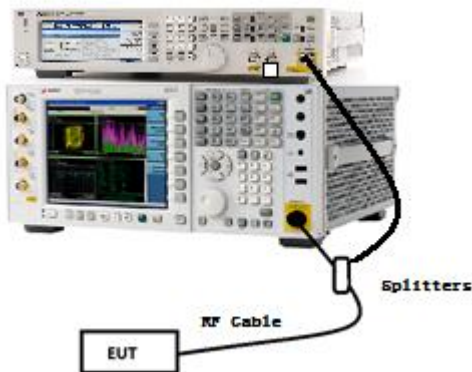
Test Power	Normal Voltage
Test Mode	Signaling Mode
Test Result	Good, MAC Address:(2C:C3:E6:69:BD:D0)

7.9. CARRIER SENSE CAPABILITY

LIMIT

According to ORRE, art 49.20. The device shall have the carrier sensing function.

TEST CONFIGURATION



TEST PROCEDURE

1. SG adjust the frequency as same as the EUT transmitted signal, unmodulation, power level 0dBm, Then turn off the RF signal
2. EUT have transmitted the maximum modulation signal and fixed channel
3. Setting of the SA following as RBW/VBW: 1/3MHz SPAN: 50MHz Sweep time: Auto continue PK
4. SG Signal on EUT shall be stop the transmitted, Then turn off the SG, The EUT shall be continuous transmitted signal.

TEST ENVIRONMENT

Temperature	23.5°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

W52

Condition	Test Mode	Frequency (MHz)	Carrier Sense (100mV/m)	Limit
NVNT	802.11ac VHT20	5180	OK	Pin = 22.79+Gr-20*log(freq_MHz) [dBm]
		5200	OK	
		5240	OK	

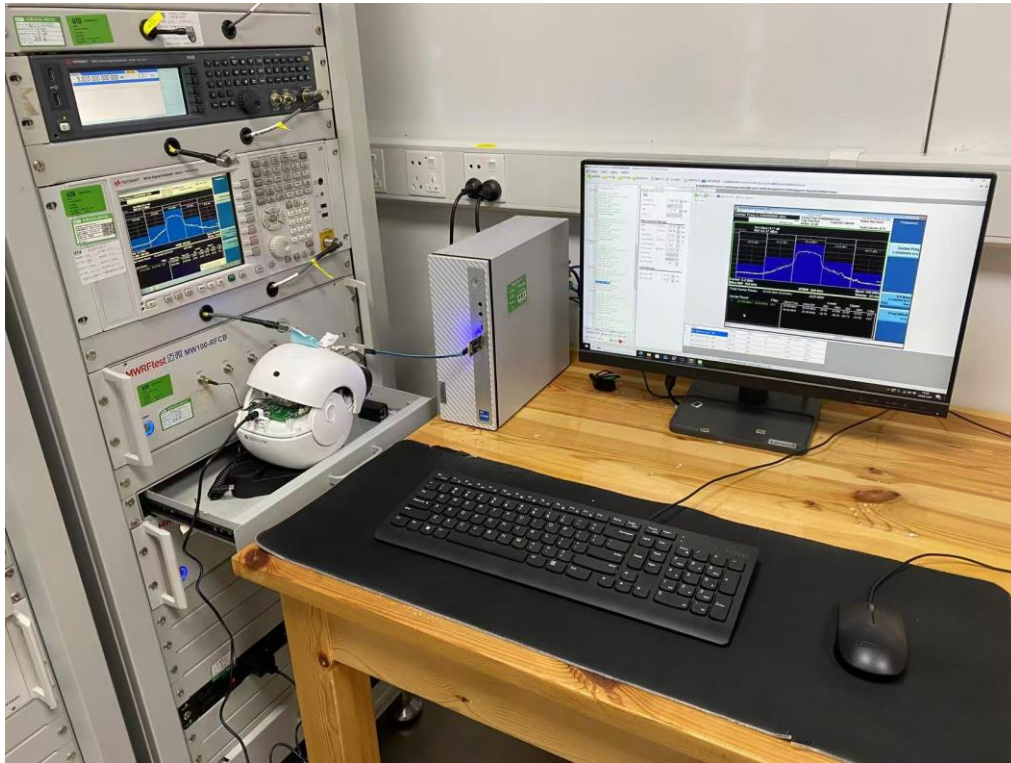
W53

Condition	Test Mode	Frequency (MHz)	Carrier Sense (100mV/m)	Limit
NVNT	802.11ac VHT20	5260	OK	Pin = 22.79+Gr-20*log(freq_MHz) [dBm]
		5300	OK	
		5320	OK	

W56

Condition	Test Mode	Frequency (MHz)	Carrier Sense (100mV/m)	Limit
NVNT	802.11ac VHT20	5500	OK	Pin = 22.79+Gr-20*log(freq_MHz) [dBm]
		5600	OK	
		5700	OK	

APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION



APPENDIX: PHOTOGRAPHS OF EUT

External Photographs

View of EUT-1



View of EUT-2



View of EUT-3



View of EUT-4



View of EUT-5



View of EUT-6



View of EUT-7



View of EUT-8



View of EUT-9



View of EUT-10



Internal Photographs

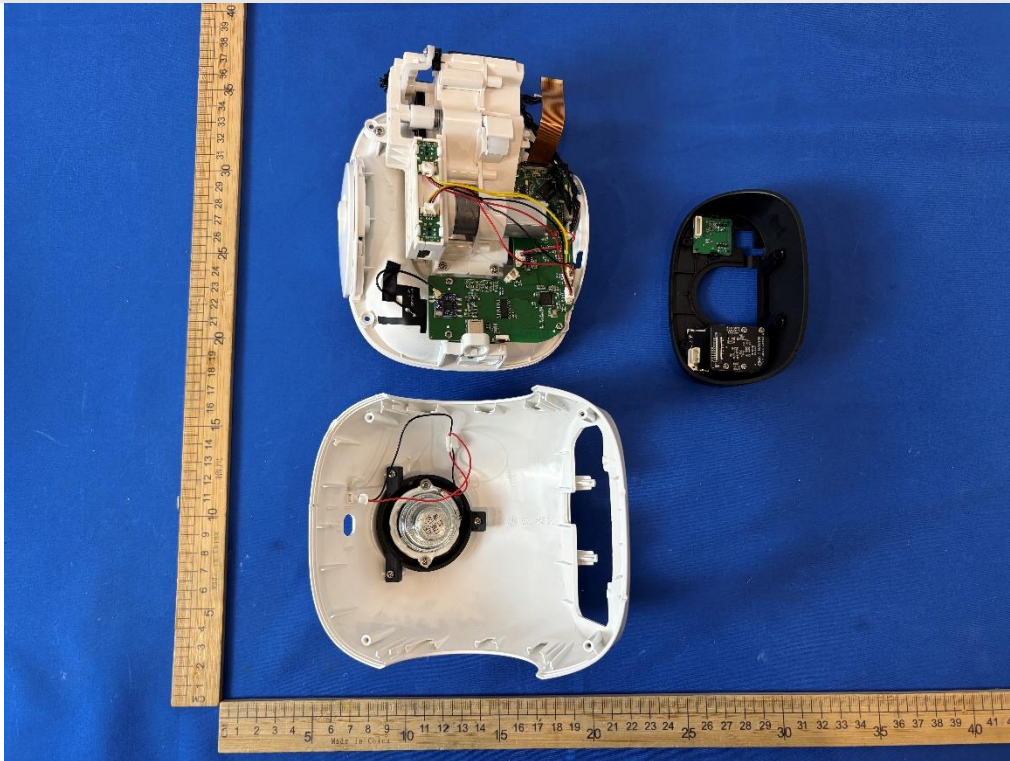
Internal View of EUT-1



Internal View of EUT-2



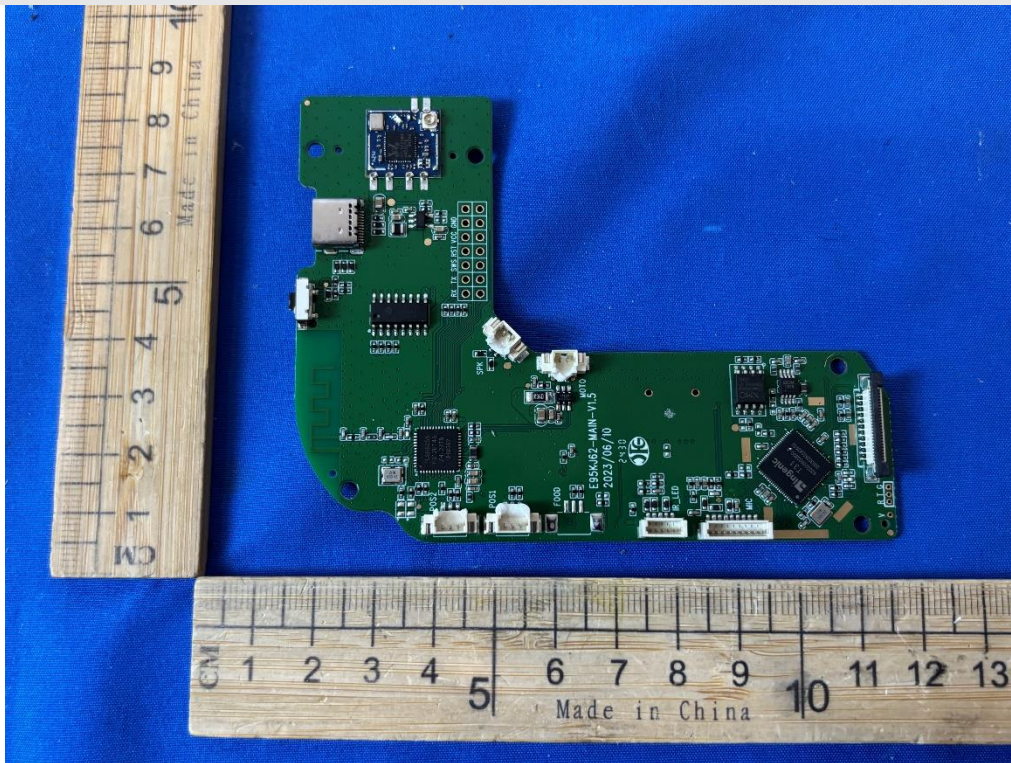
Internal View of EUT-3



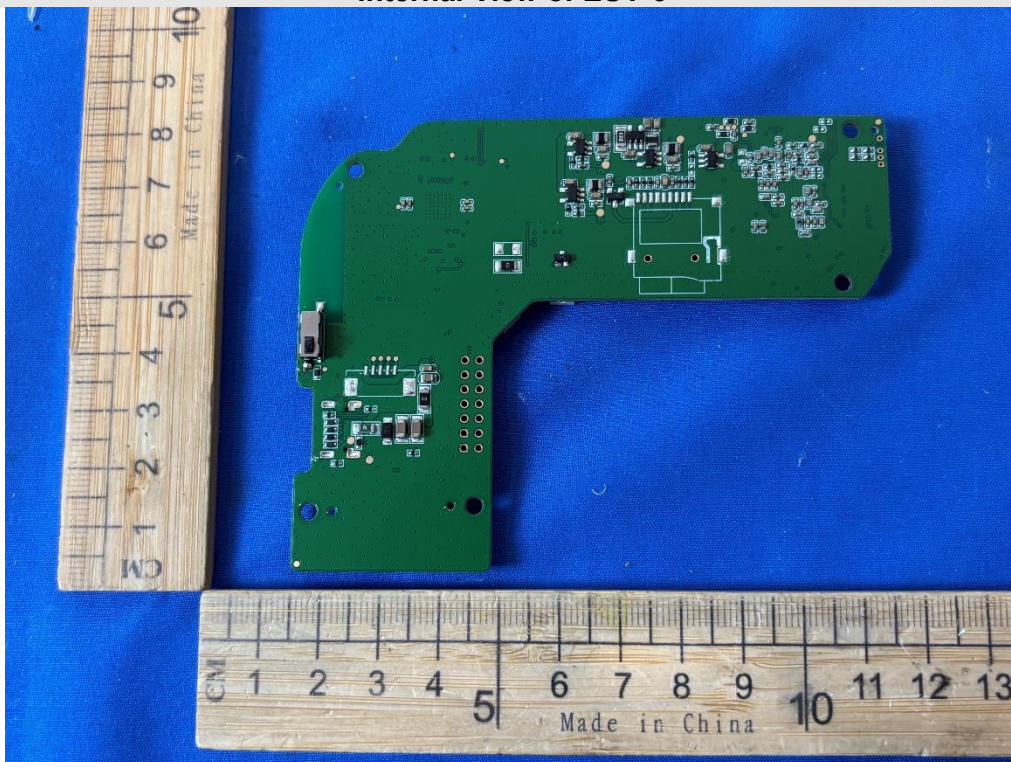
Internal View of EUT-4



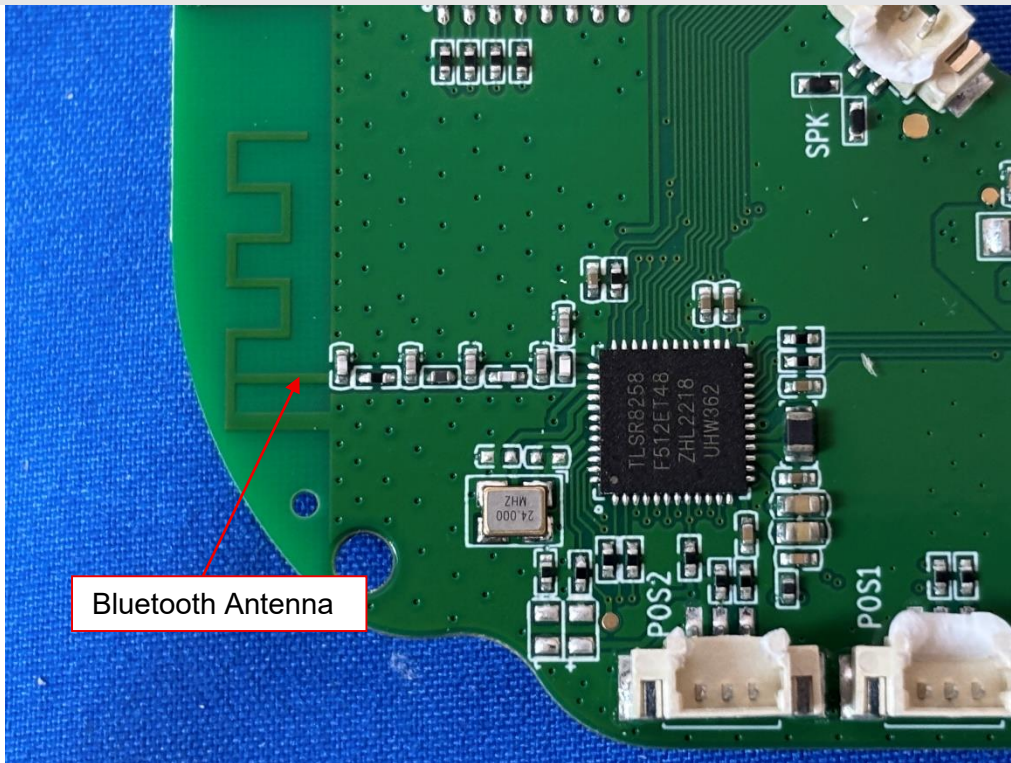
Internal View of EUT-5



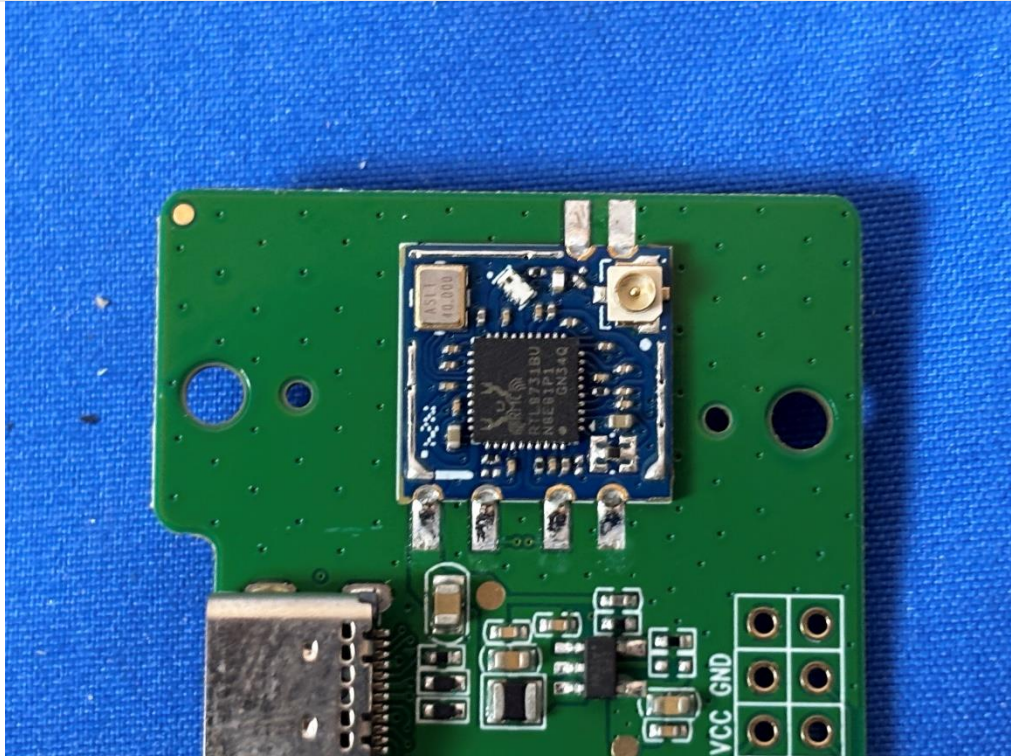
Internal View of EUT-6



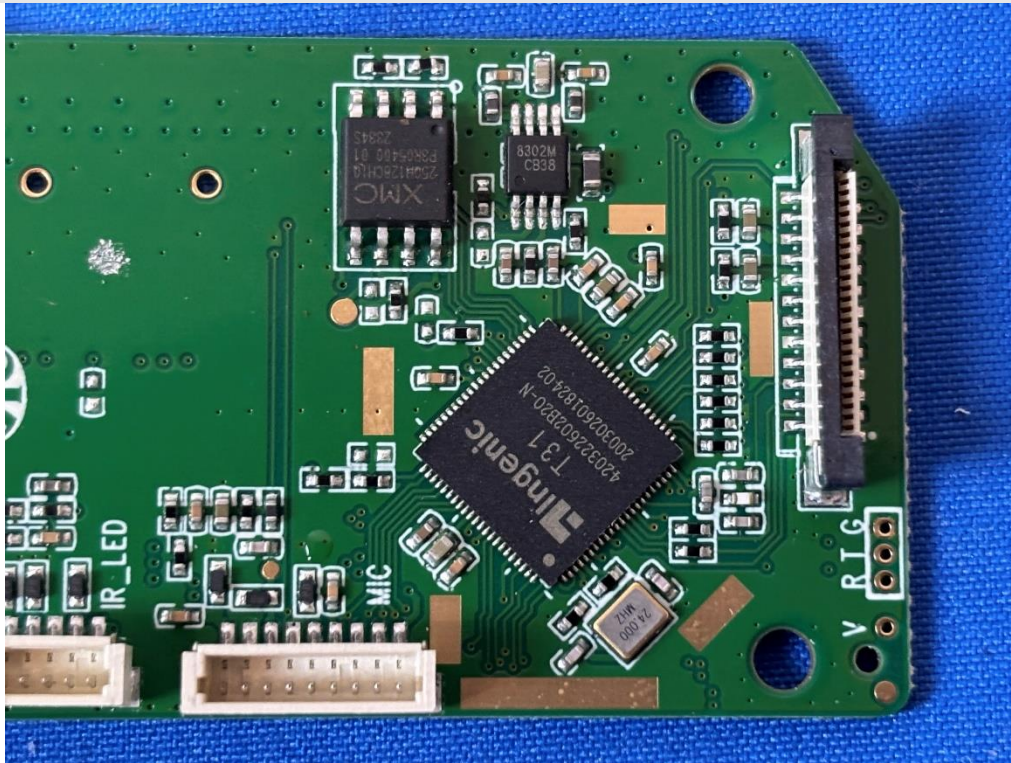
Internal View of EUT-7



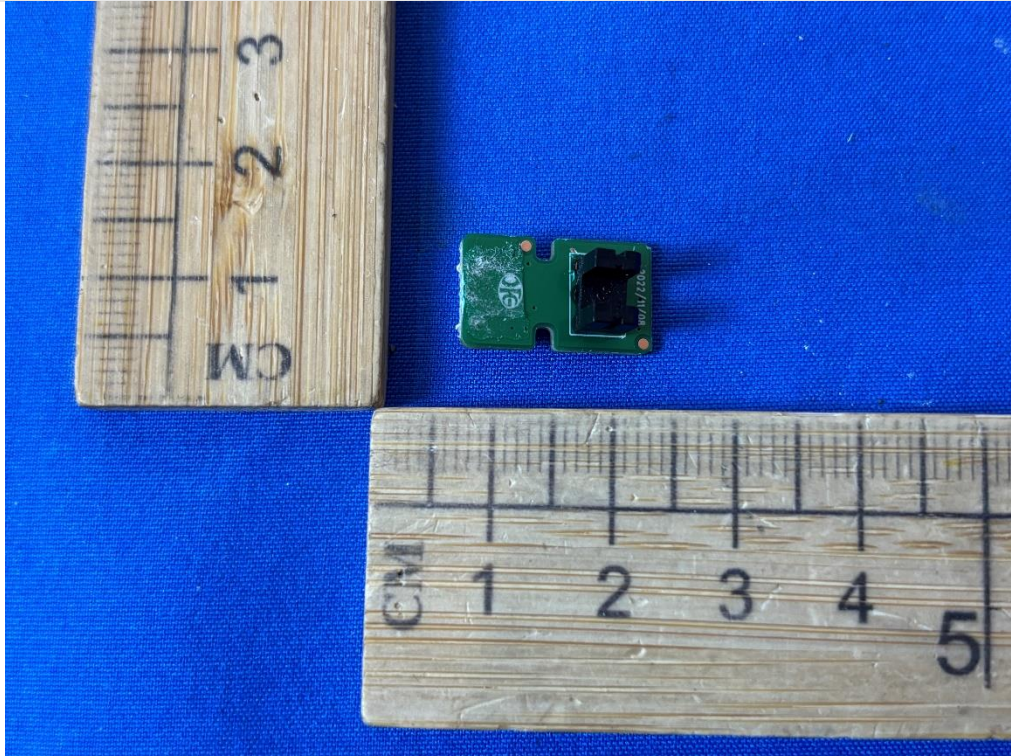
Internal View of EUT-8



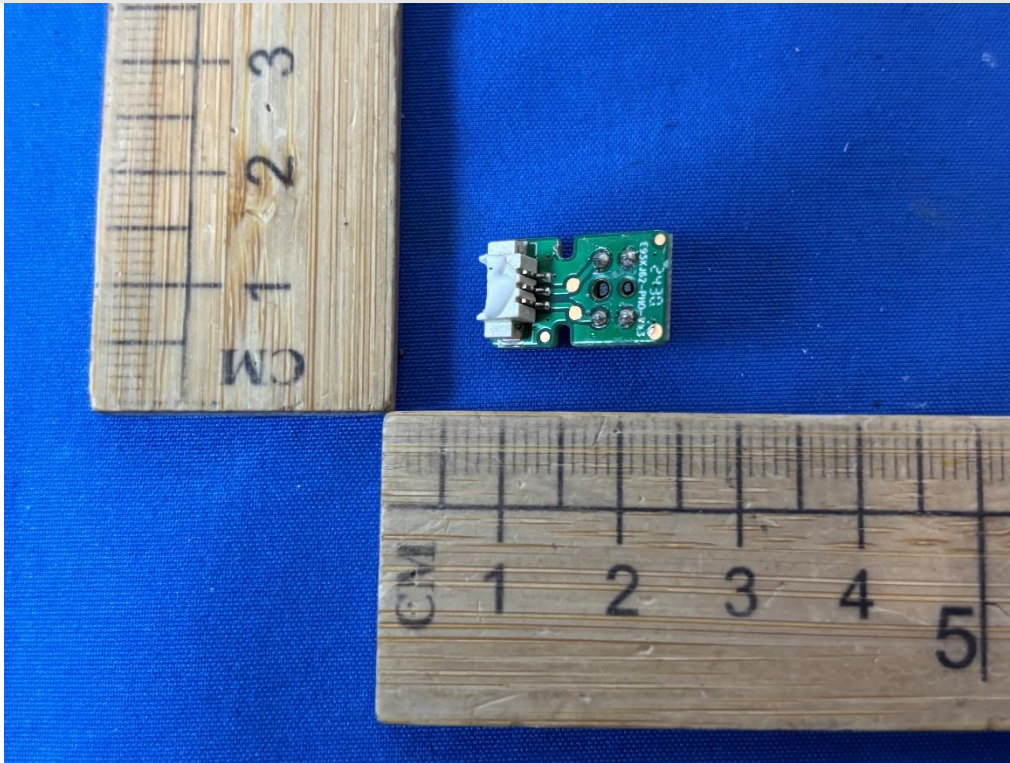
Internal View of EUT-9



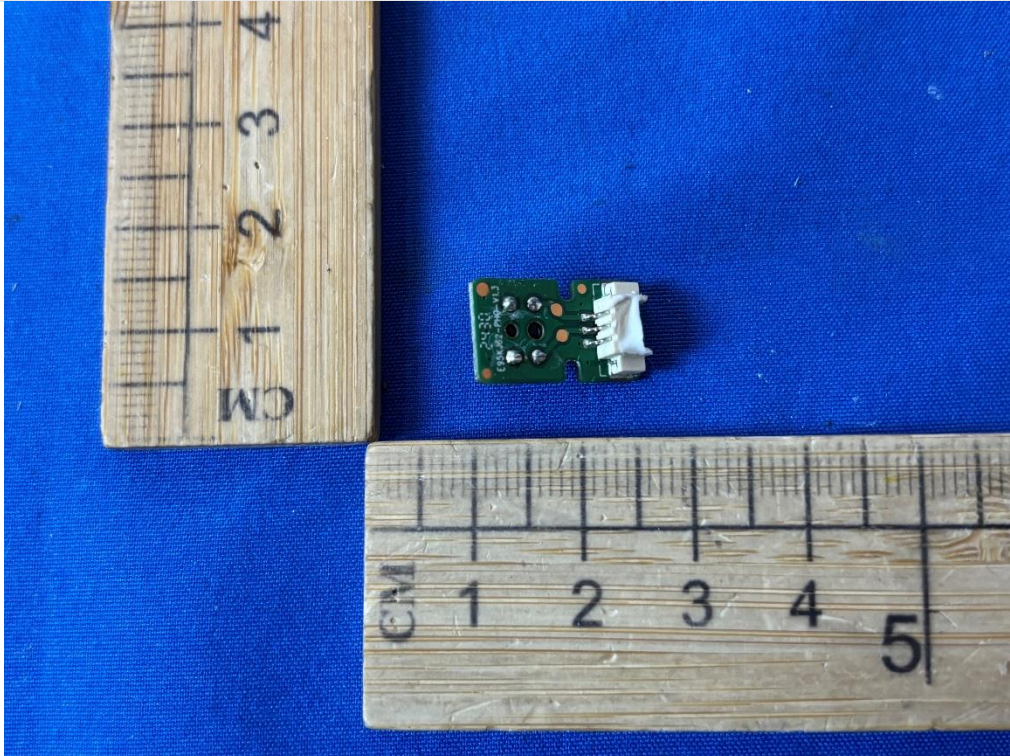
Internal View of EUT-10



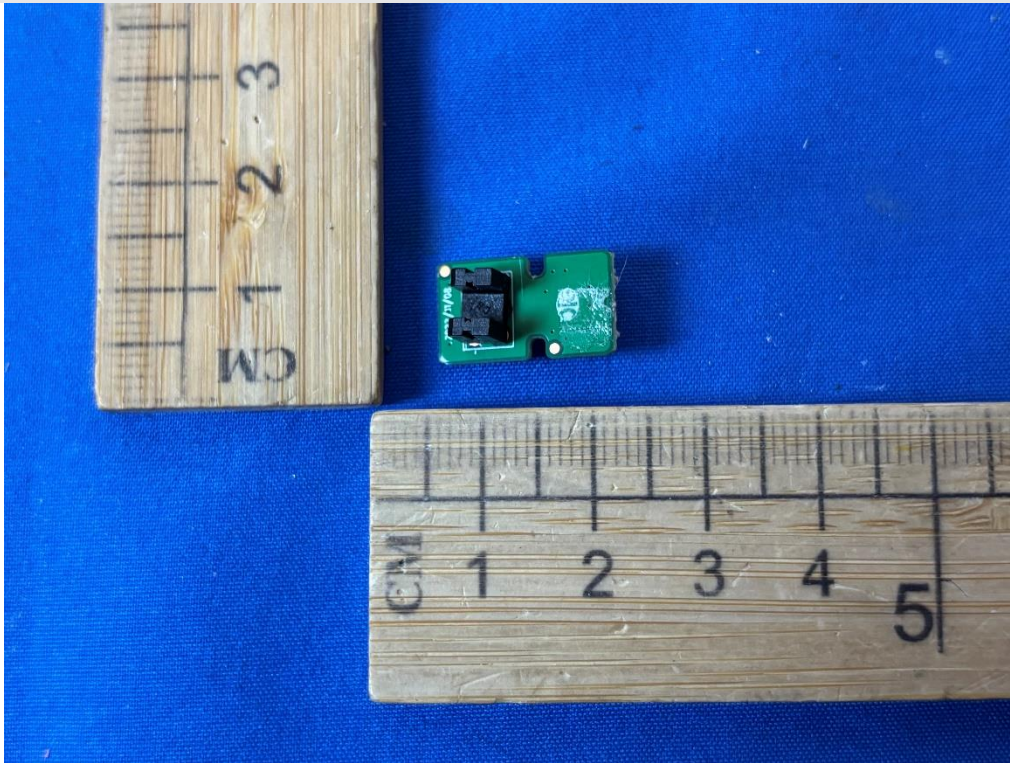
Internal View of EUT-11



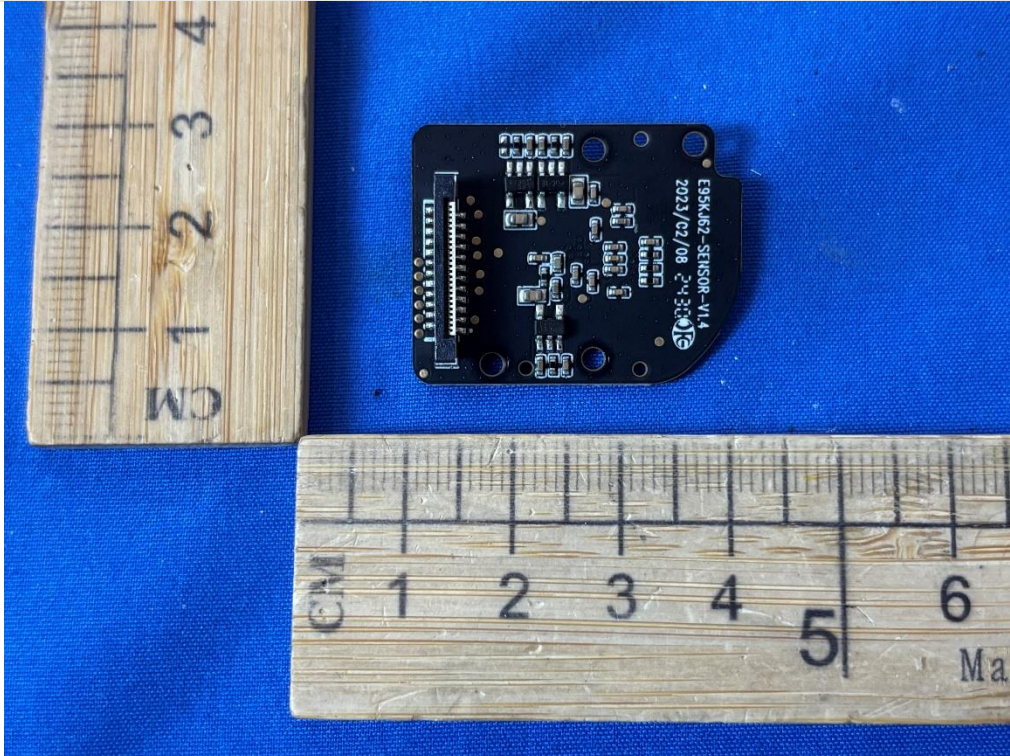
Internal View of EUT-12



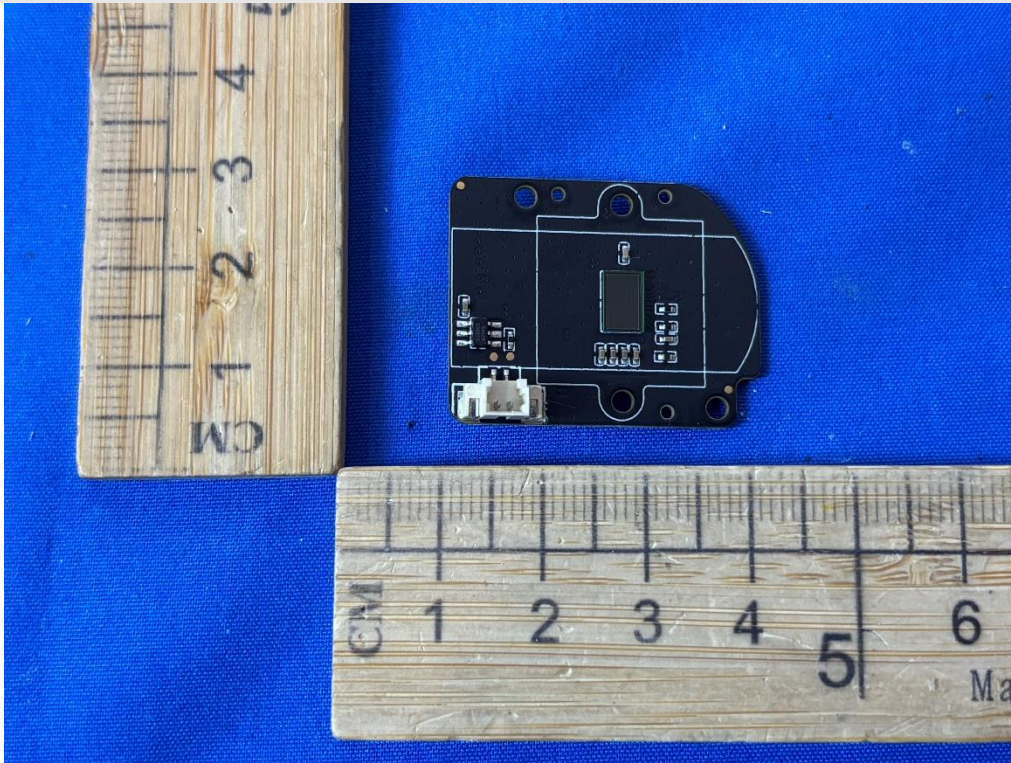
Internal View of EUT-13



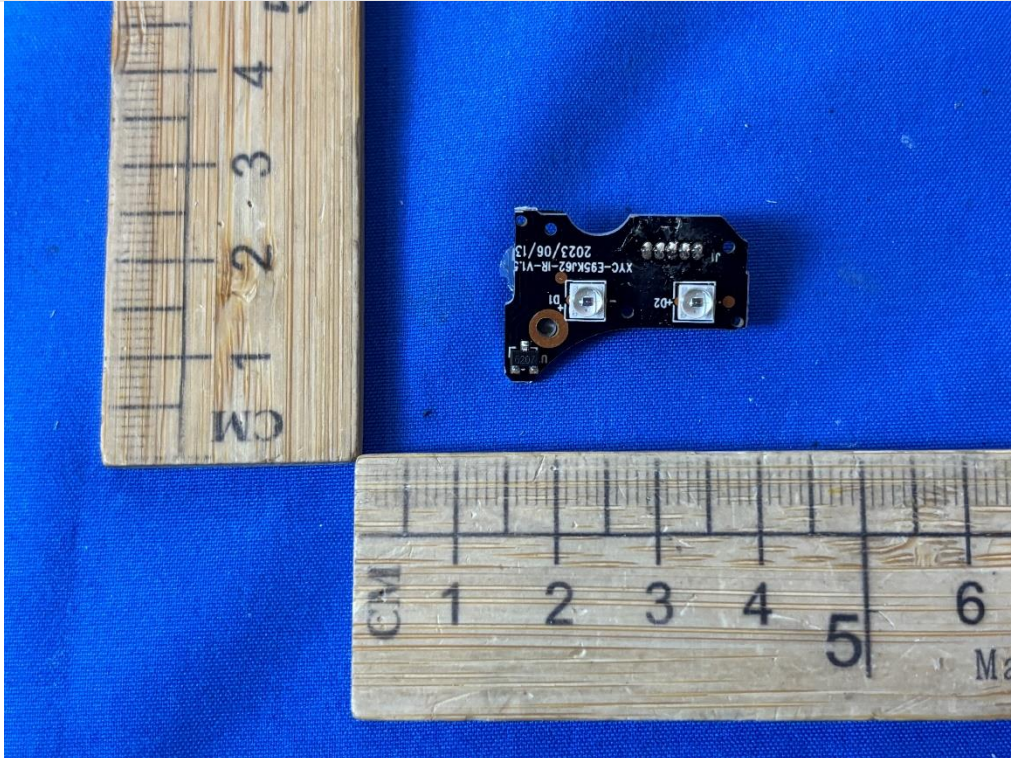
Internal View of EUT-14



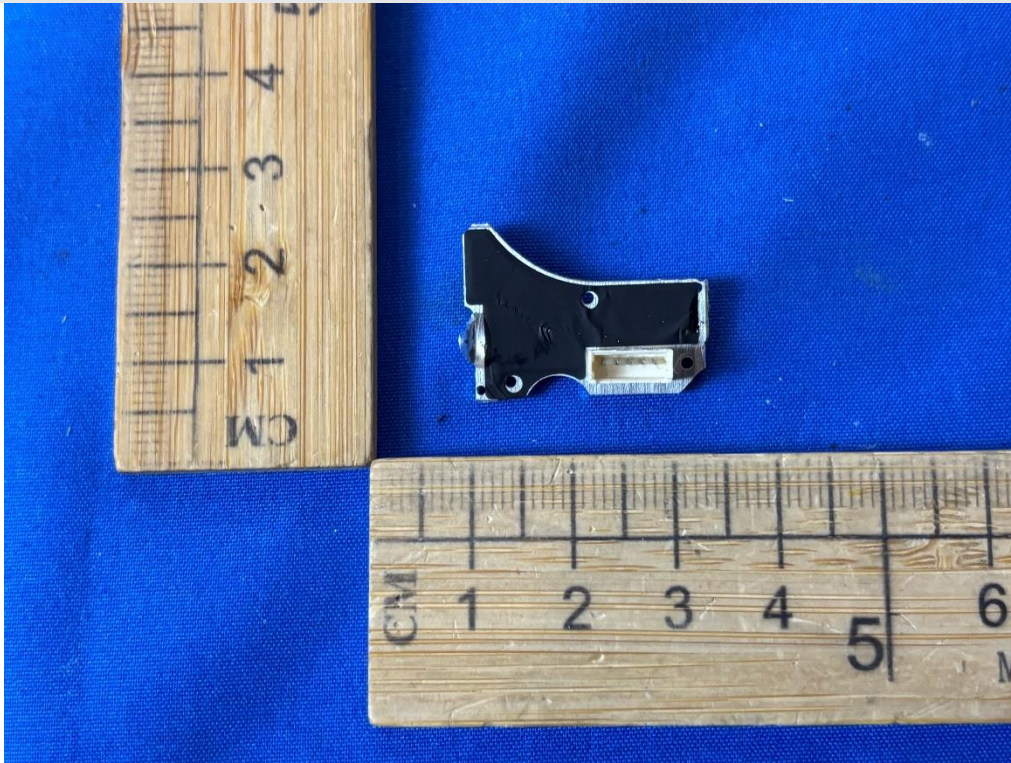
Internal View of EUT-15



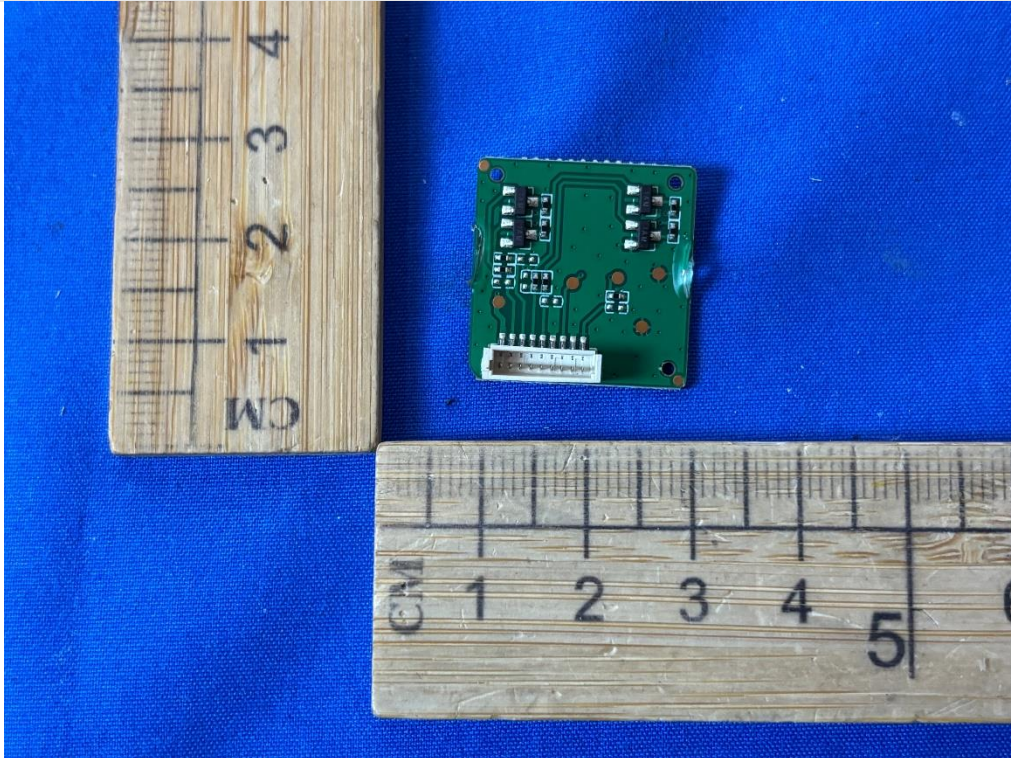
Internal View of EUT-16



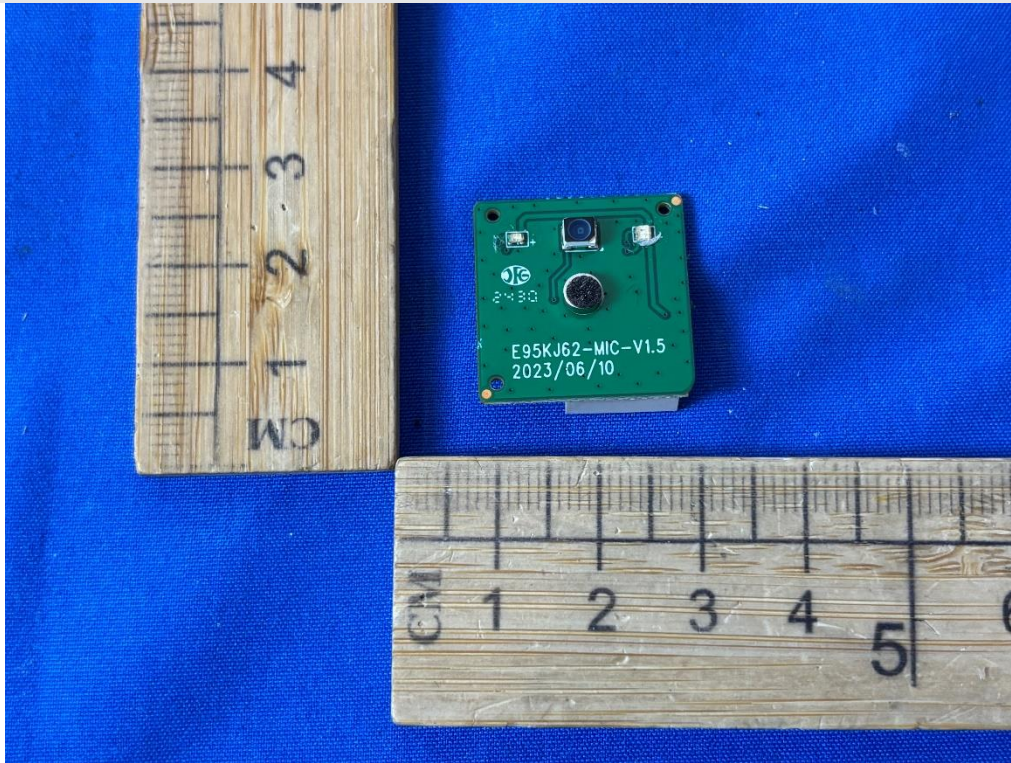
Internal View of EUT-17



Internal View of EUT-18



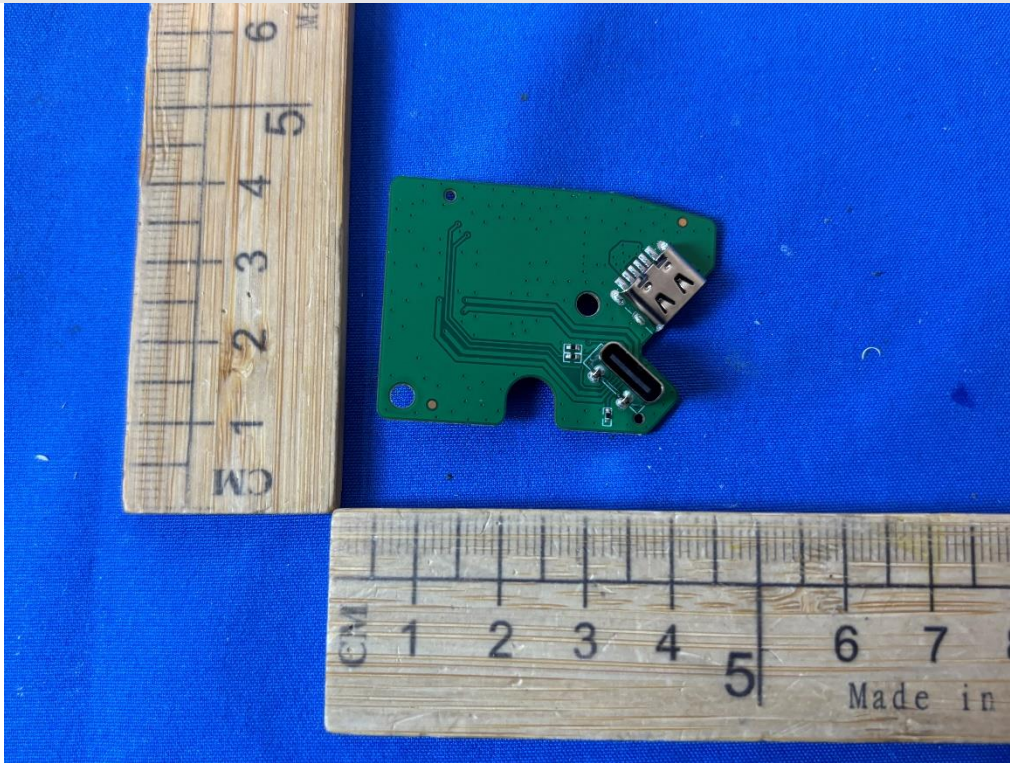
Internal View of EUT-19



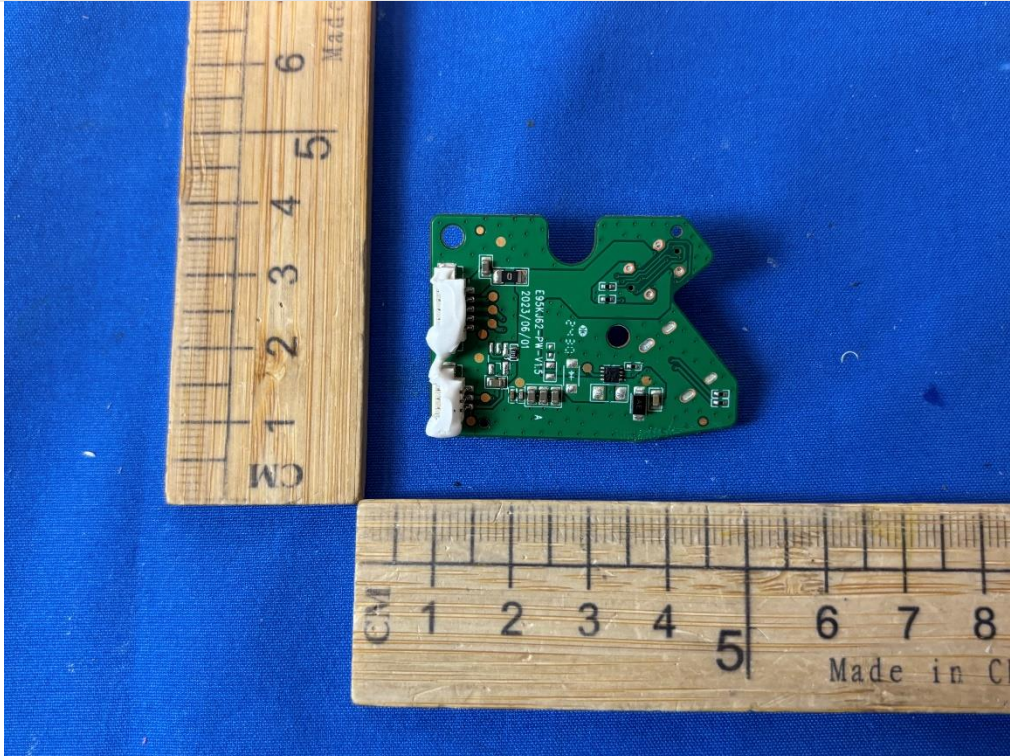
Internal View of EUT-20



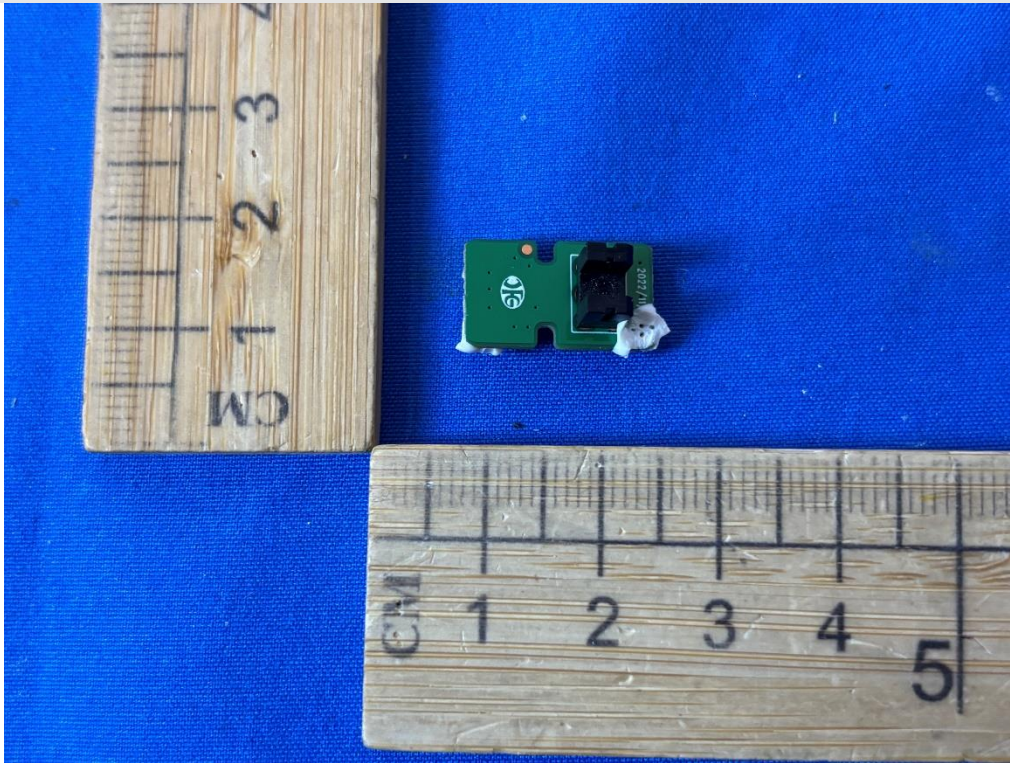
Internal View of EUT-21



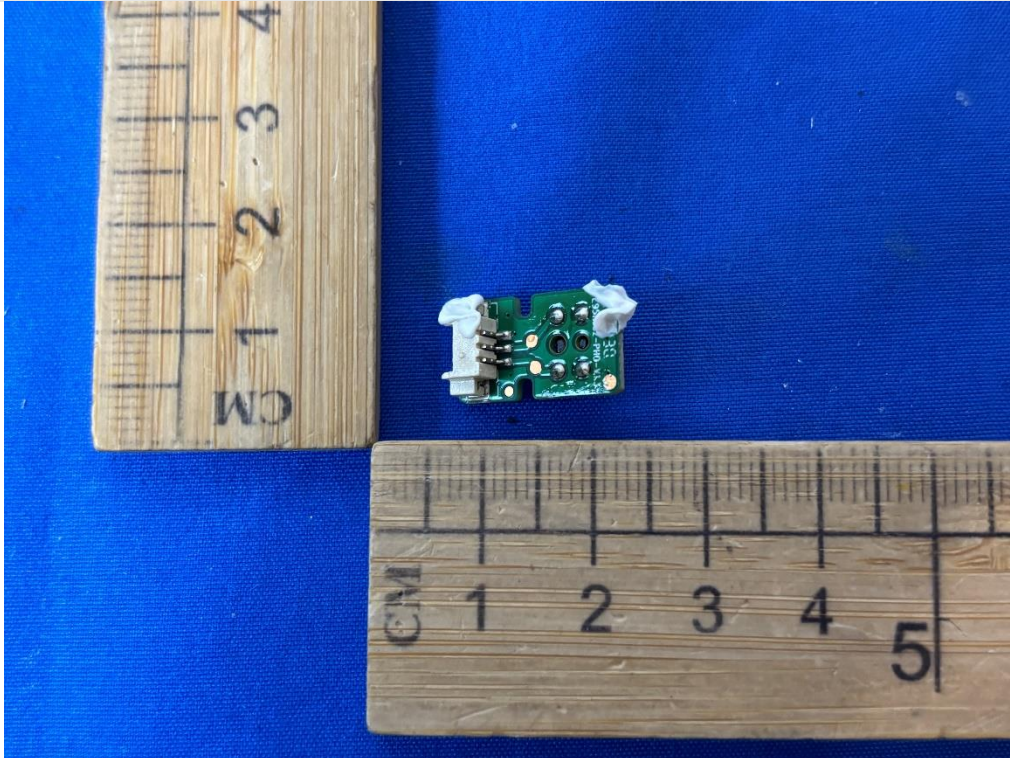
Internal View of EUT-22



Internal View of EUT-23



Internal View of EUT-24



END OF REPORT