FCC 47 CFR PART 15 SUBPART B TEST REPORT

Test Report No.	**: OT-251-RED-113**
Reception No.	**: 2411003894**
Applicant	**: innertron**
Address	**: 301, Harmony-ro, Yeonsu-gu, Incheon City 22014 Korea**
Manufacturer	**: innertron**
Address	**: 301, Harmony-ro, Yeonsu-gu, Incheon City 22014 Korea**
Use of Report	**: FCC Supplier's Declaration of Conformity**
Type of Equipment	**: Portable Spy-Camera Searcher**
Model Name	**: ISD-M22**
Multiple Model Name	**: N/A**
FCC ID	**: 2BCYP-IT1801004**
Serial number	**: N/A**
Total page of Report	**: 49 pages (including this page)**
Date of Incoming	**: December 6, 2024**
Test Period	**: December 30, 2024 ~ January 6, 2025**
Date of Issuing	**: January 21, 2025**

SUMMARY

The equipment complies with the requirement of
ANSI C63.4a: 2017 / FCC Part 15 Subpart B (CLASS A Digital devices & peripherals)
This test report contains only the results of a single test of the sample supplied for the examination.
It is not a general valid assessment of the features of the respective products of the mass-production.
This report is not correlated with the "KS Q ISO/IEC 17025 and KOLAS accreditation" of Korean Laboratory Accreditation Scheme.

Reviewed by: 오선택

Sun-Teak, Oh / Senior Project Engineer
ONETECH Corp.

Approved by: 박승현

Seung-Hyun, Park / Deputy Chief engineer
ONETECH Corp.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

Revision History

Rev. No.	Issued Report No.	Issued Date	Revisions	Section Effected
0	OT-251-RED-113	January 21, 2025	Initial Release	All

* Please contact us (e-mail: info@onetech.co.kr) for verification of this test report.

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1. APPLICANT AND MANUFACTURER INFORMATION

-. Applicant innertron

-. Address 301, Harmony-ro, Yeonsu-gu, Incheon City 22014 Korea

-. Manufacturer innertron

-. Address 301, Harmony-ro, Yeonsu-gu, Incheon City 22014 Korea

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

EQUIPMENT CLASS	CLASS A Digital devices & peripherals
E.U.T. DESCRIPTION	Portable Spy-Camera Searcher
MEASUREMENT PROCEDURES	ANSI C63.4a: 2017
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
STANDARDS	FCC Part 15, Section 15.101 (Class A)
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	None
FINAL TEST WAS CONDUCTED ON	10 m Semi anechoic chamber

ONETECH Corp. tested the above equipment in accordance with the requirements set forth in the above standard. The test results show that equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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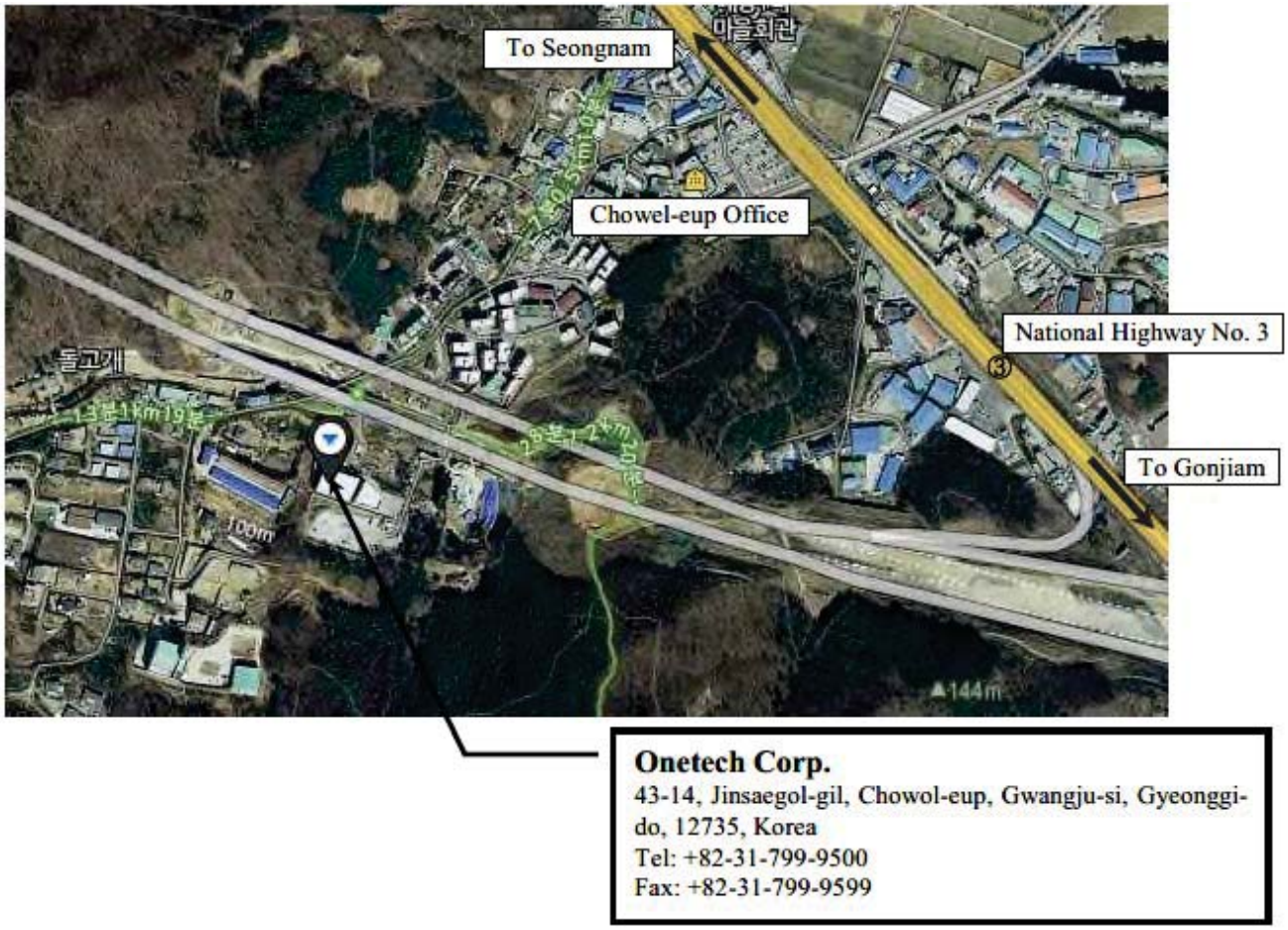
2 Test Facility

The Onetech Corp. has been designated to perform equipment testing in compliance with ISO/IEC 17025 by Radio Research Agency as accreditation body. The Onetech Corp. is accredited for measuring devices subject to Declaration of Conformity (DOC) under Parts 15 &18 as a Conformity Assessment Body (CAB) with designation number KR0013.

These measurement tests were conducted at Onetech Corp.
The 10 m semi anechoic chamber and conducted measurement facilities are located at
1) 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea
2) 12-5, Jinsaegol-gil 75 beon-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea



3. PRODUCT INFORMATION

3.1 Description of EUT

The innertron, Model ISD-M22 (referred to as the EUT in this report) is a Portable Spy-Camera Searcher.
Product specification described herein was obtained from product data sheet or user's manual.

CHASSIS TYPE	Plastic
LIST OF EACH OSC. or CRY. FREQ. (FREQ. >= 1 MHz)	80 MHz
NUMBER OF PCB LAYERS	2 Layers
P. C. Board name	ISD-M22
ELECTRICAL RATING	DC 5 V, 1.8 A (Battery: DC 3.7 V, 260 mAh, 962 Wh)
EXTERNAL CONNECTOR	Charging Port (USB Type C)
RF Frequency	Wi-Fi: 2 412 MHz ~ 2 462 MHz Bluetooth: 2 402 MHz ~ 2 480 MHz (RF module Model: ESP32-WROOM-32E) (FCC ID: 2AC7Z-ESP32WROOM32E)

3.2 Model Differences

-. None

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3.3 Support Equipment

The model numbers for all the equipments that were used in the tested system is:

Description	Model	Manufacturer	Connected to
Portable Spy-Camera Searcher (EUT)	ISD-M22	innertron	Adapter
Smart Phone	SM-F707N	SAMSUNG	-
Wireless Camera	N/A	N/A	-
Adapter	ADS-5MA-06 05005GPK	Shenzhen Honor Electronic Co.,Ltd.	EUT

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3.4 System Configuration

DEVICE TYPE	MODEL/PART NUMBER	MANUFACTURER
Portable Spy-Camera Searcher	ISD-M22	innertron
RF Module *)	ESP32-WROOM-32E	ESPRESSIF SYSTEMS (SHANGHAI) CO., LTD.

*) Installed inside of Portable Spy-Camera Searcher.

3.5 Cable Description for the EUT

Cable	Shielded	Ferrite Bead	Metal Shell	Length (m)	Connected to
Charging Port (USB Type C)	Y	N	N	1.0	Adapter

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3.6 Equipment Modifications

-. None

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4. TEST SUMMARY

4.1 Test standards and results

Test Items	Applied Standards	Results
Conducted Disturbance	ANSI C63.4a: 2017	C
Radiated Disturbance	ANSI C63.4a: 2017	C
C=Comply N/C=Not Comply N/T=Not Tested N/A=Not Applicable		

4.2 Test Condition

The test conditions of the noted test mode(s) in this test report are;
-. Operating Mode: Bluetooth+Wi-Fi 2.4 GHz+Charge
a) The EUT was connected the adapter and checked the charging status through the LED.
b) After pairing the smartphone with Bluetooth, it was confirmed through the application that the camera was detected using Wi-Fi signals.
c) Input power condition during the measurements was AC 120 V~, 60 Hz.

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5. FINAL RESULT OF MEASUREMENT

Exploratory measurement was done in normal operation mode. And the final measurement was selected for the maximized emission level.

5.1 Conducted Disturbance

5.1.1 Operating environment

Ambient temperature	: 22.3 ℃
Relative humidity	: 46.4 %

5.1.2 Test set-up

The EUT and other support equipment were placed on a non-conductive table, 0.8 m height above the reference ground plane. The power of EUT was fed through a 50 Ω/ 50 μH + 5 Ω LISN. The ground plane was electrically bonded to the reference ground system and all power lines were filtered from ambient.

5.1.3 Measurement uncertainty

Conducted emission, quasi-peak detection	: 1.8 dB
Conducted emission, CISPR-average detection	: 1.8 dB

Measurement uncertainty is calculated in accordance with CISPR 16-4-2. The measurement uncertainty is given with a confidence of 95 % with the coverage factor, $k = 2$.

5.1.4 Limit

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	CISPR Average
0.15 ~ 0.5	79	66
0.5 ~ 30	73	60

5.1.5 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal.	Interval
■	ESCI	Rohde & Schwarz	Test Receiver	101012	September 26, 2024	1Y
■	NSLK8128	Schwarzbeck	V-LISN	8128-216	March 12, 2024	1Y
□	NSLK8126	Schwarzbeck	LISN	8126404	March 12, 2024	1Y
■	ESH3-Z2	Rohde & Schwarz	Pulse Limiter	100655	March 12, 2024	1Y
■	SH-9500M	EZ DIGITAL	DIGITAL CLAMP METER	A863019	March 11, 2024	1Y

* S/W used in the test : Noise Terminal Voltage Measurement software / Version 2.00.0180
All test equipment used is calibrated on a regular basis.

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5.1.6 Test data

-. Test Date	: January 6, 2025
-. Resolution bandwidth	: 9 kHz
-. Frequency range	: 0.15 MHz ~ 30 MHz
-. Test Result	: PASS
-. Remarks	: Margin (dB) = Limit – Level (Result) The Result level in below table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

장지환

Tested by : jihwan.jang / Senior Project Engineer

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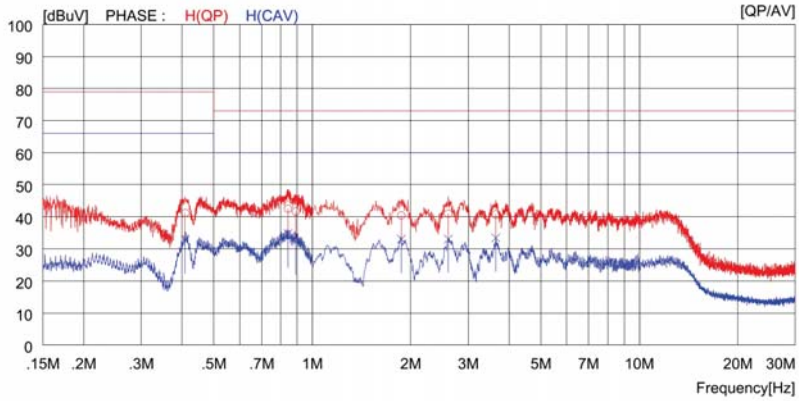
[Test Line: HOT]

Conducted Emission

2025. 01. 06

Applicant	:	innertron	AGR No.	:	2411003894
Model No.	:	ISD-M22	Power Supply	:	AC 120 V~, 60 Hz
	:		Temp/Humi	:	22.3 'C, 46.4 %R.H.
Test Condition	:	HOT LINE	Operator	:	JANG JI HWAN
Memo	:	BT+Wi-Fi 2.4GHz+Charge			

LIMIT : EN.KN.FCC.VCCI_CISPR Pub.32 Class A, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.32 Class A, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.40900	31.1	----	10.1	41.2	----	79.0	----	37.8	----	H(QP)
2	0.84300	32.4	----	10.1	42.5	----	73.0	----	30.5	----	H(QP)
3	0.89200	31.5	----	10.1	41.6	----	73.0	----	31.4	----	H(QP)
4	1.87200	30.2	----	10.2	40.4	----	73.0	----	32.6	----	H(QP)
5	2.60400	30.8	----	10.2	41.0	----	73.0	----	32.0	----	H(QP)
6	3.64400	30.5	----	10.2	40.7	----	73.0	----	32.3	----	H(QP)
7	0.40900	----	22.7	10.1	----	32.8	----	66.0	----	33.2	H(CAV)
8	0.84300	----	24.6	10.1	----	34.7	----	60.0	----	25.3	H(CAV)
9	0.89200	----	22.3	10.1	----	32.4	----	60.0	----	27.6	H(CAV)
10	1.87200	----	22.8	10.2	----	33.0	----	60.0	----	27.0	H(CAV)
11	2.60400	----	22.9	10.2	----	33.1	----	60.0	----	26.9	H(CAV)
12	3.64400	----	23.2	10.2	----	33.4	----	60.0	----	26.6	H(CAV)

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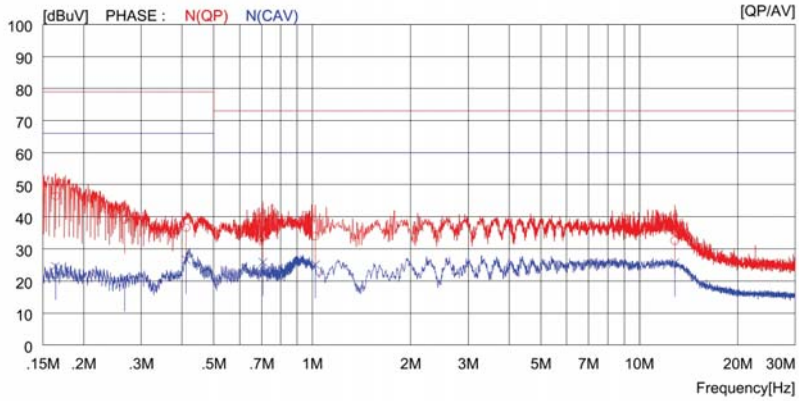
[Test Line: NEUTRAL]

Conducted Emission

2025. 01. 06

Applicant	:	innertron	AGR No.	:	2411003894
Model No.	:	ISD-M22	Power Supply	:	AC 120 V~, 60 Hz
	:		Temp/Humi	:	22.3 'C, 46.4 %R.H.
Test Condition	:	NEUTRAL LINE	Operator	:	JANG JI HWAN
Memo	:	BT+Wi-Fi 2.4GHz+Charge			

LIMIT : EN.KN.FCC.VCCI_CISPR Pub.32 Class A, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.32 Class A, Average Limits (Mains Ports)



NO	FREQ	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
	[MHz]										
1	0.16400	36.4	----	10.1	46.5	----	79.0	----	32.5	----	N(QP)
2	0.26700	29.1	----	10.0	39.1	----	79.0	----	39.9	----	N(QP)
3	0.41200	26.6	----	10.1	36.7	----	79.0	----	42.3	----	N(QP)
4	0.70700	23.5	----	10.1	33.6	----	73.0	----	39.4	----	N(QP)
5	1.02400	23.8	----	10.1	33.9	----	73.0	----	39.1	----	N(QP)
6	12.85000	22.2	----	10.4	32.6	----	73.0	----	40.4	----	N(QP)
7	0.16400	----	14.5	10.1	----	24.6	----	66.0	----	41.4	NCAV)
8	0.26700	----	11.0	10.0	----	21.0	----	66.0	----	45.0	NCAV)
9	0.41200	----	16.5	10.1	----	26.6	----	66.0	----	39.4	NCAV)
10	0.70700	----	15.8	10.1	----	25.9	----	60.0	----	34.1	NCAV)
11	1.02400	----	15.0	10.1	----	25.1	----	60.0	----	34.9	NCAV)
12	12.85000	----	15.2	10.4	----	25.6	----	60.0	----	34.4	NCAV)

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5.2 Radiated Disturbance

5.2.1 Operating environment

Ambient temperature : 23.5 ℃
Relative humidity : 52.0 %

5.2.2 Test set-up

The radiated emissions measurements were on the 10 m semi anechoic chamber. The EUT and other support equipment were placed on a non-conductive table, 0.8 m height above the reference ground plane.

The frequency spectrum from 30 MHz ~ 25 000 MHz was scanned and emission levels maximized at each frequency recorded. The system was rotated 360°, and the antenna was varied in height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for both horizontal and vertical polarization of the receiving antenna.

5.2.3 Measurement uncertainty

Radiated emission electric field intensity, 30 MHz ~ 1 000 MHz : 4.7 dB
Radiated emission electric field intensity, 1 000 MHz ~ 25 000 MHz : 6.1 dB

Measurement uncertainty is calculated in accordance with CISPR 16-4-2. The measurement uncertainty is given with a confidence of 95 % with the coverage factor, $k = 2$.

5.2.4 Limit

-. FCC Part 15 Subpart B

Frequency of Emission (MHz)	Resolution bandwidth	Field strength @ 10 m (dBμV/m)	Field strength @ 3 m (dBμV/m)	
		Quasi-peak	Quasi-peak	
30 ~ 88	120 kHz	39.0	49.0	
88 ~ 216		43.5	53.5	
216 ~ 960		46.0	56.0	
960 ~ 1 000		49.5	59.5	
			Peak	CISPR Average
>1 000	1 MHz	-	80.0	60.0

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5.2.5 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal.	Interval
■	ESW	Rohde & Schwarz	EMI Test Receiver	101851	March 6, 2024	1Y
■	8447D	Hewlett Packard	Amplifier	2944A07777	March 6, 2024	1Y
■	PAM-118A	Com-Power	Preamplifier	18040081	October 16, 2024	1Y
■	VULB9163	Schwarzbeck	Trilog Broadband Antenna	9163-225	August 19, 2024	2Y
■	HF-907	Rohde & Schwarz	Double-Ridged Horn Antenna	100318	October 28, 2024	1Y
■	SAS-574	A.H. System	Horn Antenna	676	October 22, 2024	1Y
■	PAM-840A	Com-Power	Preamplifier	461339	October 22, 2024	1Y
■	CO3000	Innco Systems GmbH	Controller	CO3000/1015	N/A	N/A
■	DT5000	Innco Systems GmbH	Turn Table	930611	N/A	N/A
■	MA4000-EP	Innco Systems GmbH	Antenna Master	MA4000/508	N/A	N/A
■	MA-4640-XPET	Innco Systems GmbH	Antenna Master	MA4640/592/40700517	N/A	N/A
■	WT-A3882-R10	Microwave	Cavity Band Rejection Filter	WT22040502-1	January 16, 2024	1Y
■	SH-9500M	EZ DIGITAL	DIGITAL CLAMP METER	A863019	March 11, 2024	1Y

* S/W used in the test : Radiated Emission Measurement software / Version 2.00.0202
All test equipment used is calibrated on a regular basis.

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5.2.6 Test data

-. Test Date	: December 30, 2024
-. Resolution bandwidth	: 120 kHz (30 MHz - 1 000 MHz), 1 MHz (1 GHz ~ 25 GHz)
-. Frequency range	: 30 MHz ~ 1 000 MHz, 1 GHz ~ 25 GHz
-. Measurement distance	: 10 m (30 MHz - 1 000 MHz), 3 m (1 GHz - 25 GHz)
-. Test Result	: PASS
-. Remarks	: Margin (dB) = Limit – Result Result = Reading value + Antenna Factor + Loss – Gain Loss and Gain in below table means Cable Loss and Pre-amplifier gain.

* Radiated emissions (Tx/Rx frequencies) from the transceiver shall be ignored.
Wi-Fi: 2 412 MHz ~ 2 462 MHz, Bluetooth: 2 402 MHz ~ 2 480 MHz

* ◆ - Exclusion band Carrier Frequency, ◆ - Exclusion band Harmonic Frequency

장지환

Tested by : jihwan.jang / Senior Project Engineer

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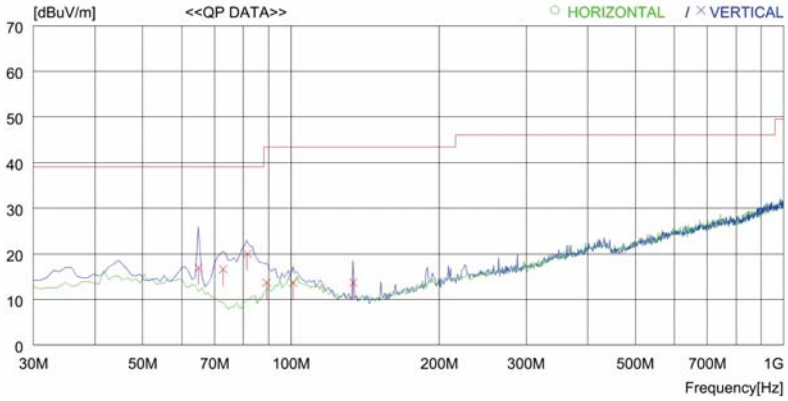
30 MHz ~ 1 000 MHz [Detector: Quasi-Peak]

RADIATED EMISSION

2024. 12. 30

Trade Name	:	innertron	AGR No.	:	2411003894
Model Name	:	ISD-M22	Power Supply	:	120 V~, 60 Hz
	:		Temp / Humi	:	23.5 ˚C, 52.0 %R.H.
Mode	:	BT+WiFi 2.4 GHz+Charge	Operator	:	JANG JI HWAN
	:				

LIMIT : FCC Part15 Subpart.B Class A (10m)



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Vertical ------										
1	64.920	30.5	11.4	3.2	28.2	16.9	39.0	22.1	100	8
2	72.680	33.0	8.4	3.3	28.1	16.6	39.0	22.4	300	144
3	81.410	37.1	7.6	3.4	28.1	20.0	39.0	19.0	300	111
4	89.170	27.9	10.0	3.9	28.1	13.7	43.5	29.8	300	297
5	100.810	25.3	12.2	4.2	28.0	13.7	43.5	29.8	100	0
6	133.790	28.8	8.2	4.6	27.9	13.7	43.5	29.8	300	50

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1 GHz ~ 18 GHz [Detector: Peak]

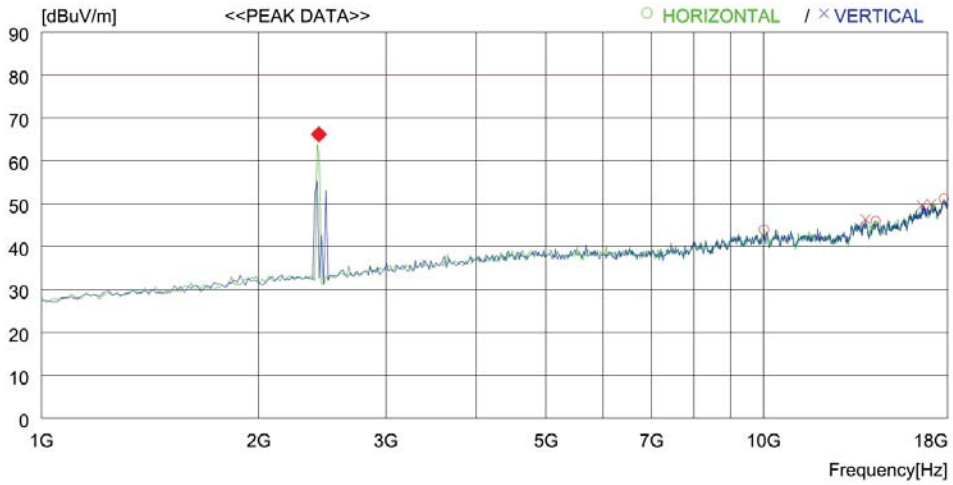
RADIATED EMISSION

2024. 12. 30

Trade Name	:	innertron	AGR No.	:	2411003894
Model Name	:	ISD-M22	Power Supply	:	AC 120 V, 60 Hz
Serial No.	:		Temp/Humi	:	23.5 `C, 52.0 %R.H.
Mode	:	BT+WiFi 2.4 GHz+Charge	Operator	:	JANG JI HWAN

:

LIMIT : FCC CLASS A 1GHz ~ 40 GHz_PEAK



No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA TABLE [cm]	[DEG]
----- Horizontal ------										
1	10010.000	44.4	37.4	4.7	42.6	43.9	80.0	36.1	200	359
2	14294.000	41.2	40.3	6.1	41.5	46.1	80.0	33.9	300	359
3	17762.000	39.9	43.9	7.9	40.5	51.2	80.0	28.8	300	359
----- Vertical ------										
4	13835.000	42.3	39.6	6.0	41.6	46.3	80.0	33.7	100	258
5	16572.000	42.0	42.4	6.4	41.2	49.6	80.0	30.4	200	0
6	17065.000	41.5	43.0	6.6	41.1	50.0	80.0	30	100	191

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1 GHz ~ 18 GHz [Detector: Cispr-Average]

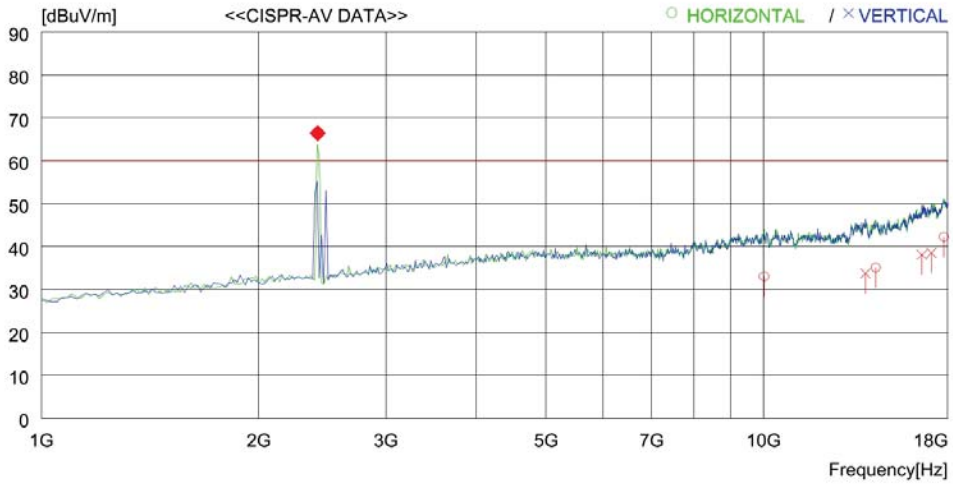
RADIATED EMISSION

2024. 12. 30

Trade Name	:	innertron	AGR No.	:	2411003894
Model Name	:	ISD-M22	Power Supply	:	AC 120 V, 60 Hz
Serial No.	:		Temp/Humi	:	23.5 `C, 52.0 %R.H.
Mode	:	BT+WiFi 2.4 GHz+Charge	Operator	:	JANG JI HWAN

:

LIMIT : FCC CLASS A 1GHz ~ 40 GHz_AV



No.	FREQ [MHz]	READING CAV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	10012.050	33.5	37.4	4.7	42.6	33.0	60.0	27.0	200	359
2	14294.090	30.2	40.3	6.1	41.5	35.1	60.0	24.9	300	359
3	17762.410	30.9	43.9	7.9	40.5	42.2	60.0	17.8	300	359
----- Vertical ------										
4	13834.760	29.8	39.6	6.0	41.6	33.8	60.0	26.2	100	258
5	16572.860	30.5	42.4	6.4	41.2	38.1	60.0	21.9	200	0
6	17066.180	30.1	43.0	6.6	41.1	38.6	60.0	21.4	100	191

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

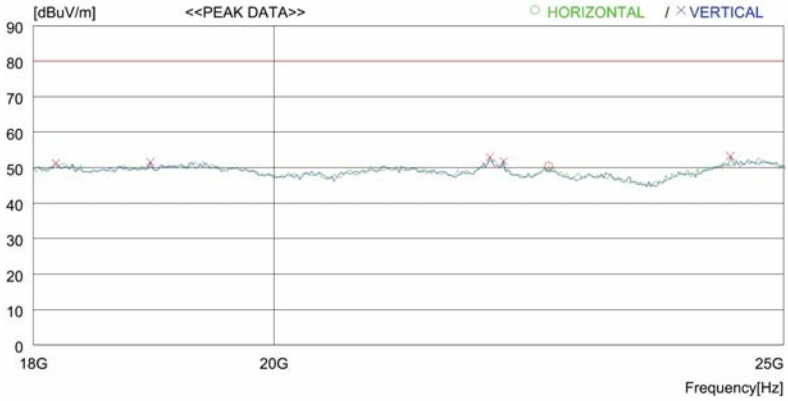
18 GHz ~ 25 GHz [Detector: Peak]

RADIATED EMISSION

2024. 12. 30

Trade Name	:	innertron	AGR No.	:	2411003894
Model Name	:	ISD-M22	Power Supply	:	AC 120 V, 60 Hz
Serial No.	:		Temp/Humi	:	23.5 °C, 52.0 %R.H.
Mode	:	BT+WiFi 2.4 GHz+Charge	Operator	:	JANG JI HWAN
	:				

LIMIT : FCC CLASS A 1GHz ~ 40 GHz_PEAK



No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	22554.000	41.2	40.1	11.2	42.1	50.4	80.0	29.6	400	0
----- Vertical ------										
2	18176.000	40.2	40.3	10.3	39.5	51.3	80.0	28.7	200	236
3	18946.000	41.6	40.3	10.3	40.6	51.6	80.0	28.4	100	285
4	21982.000	43.1	40.3	11.6	42.1	52.9	80.0	27.1	200	344
5	22114.000	42.1	40.3	11.5	42.1	51.8	80.0	28.2	300	151
6	24424.000	43.3	40.2	11.9	42.2	53.2	80.0	26.8	100	318

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

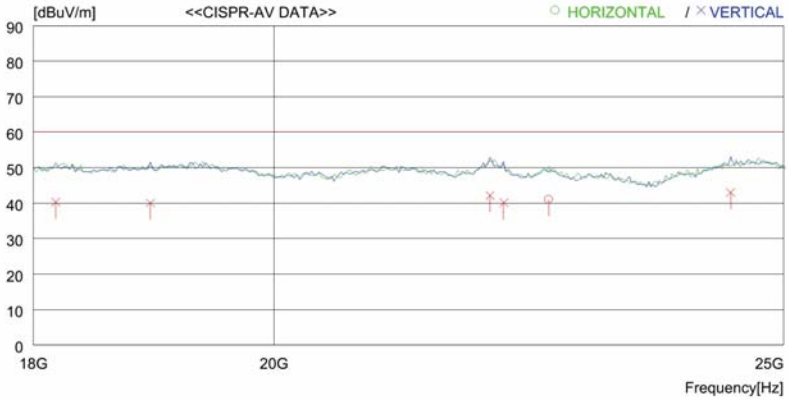
18 GHz ~ 25 GHz [Detector: Cispr-Average]

RADIATED EMISSION

2024. 12. 30

Trade Name	:	innertron	AGR No.	:	2411003894
Model Name	:	ISD-M22	Power Supply	:	AC 120 V, 60 Hz
Serial No.	:		Temp/Humi	:	23.5 °C, 52.0 %R.H.
Mode	:	BT+WiFi 2.4 GHz+Charge	Operator	:	JANG JI HWAN
	:				

LIMIT : FCC CLASS A 1GHz ~ 40 GHz_AV



No.	FREQ [MHz]	READING CAV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	22554.060	31.9	40.1	11.2	42.1	41.1	60.0	18.9	400	0
----- Vertical ------										
2	18176.810	29.2	40.3	10.3	39.5	40.3	60.0	19.7	200	236
3	18946.200	30.1	40.3	10.3	40.6	40.1	60.0	19.9	100	285
4	21982.330	32.4	40.3	11.6	42.1	42.2	60.0	17.8	200	344
5	22114.720	30.5	40.3	11.5	42.1	40.2	60.0	19.8	300	151
6	24424.940	33.2	40.2	11.9	42.2	43.1	60.0	16.9	100	318

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

6. SAMPLE CALCULATIONS

dBμV = 20 Log10 (μV)

Margin = Limit - Result

- Example 1: 0.84300 MHz

Class A Limit	= 60.0 dBμV (CISPR-Average)
Reading	= 24.6 dBμV
Correction Factor	= Cable Loss + Pulse Limiter
	= 10.1 dB
Total	= 34.7 dBμV
Margin	= 60.0 dBμV – 34.7 dBμV
	= 25.3 dB

- Example 2: 24424.940 MHz

Class A Limit	= 60.0 dBμV/m (CISPR-Average)
Reading	= 33.2 dBμV
Correction Factor	= Antenna Factor (40.2 dB/m) + Cable Loss (11.9 dB) – Amp. Gain (42.2 dB)
	= 9.9 dB
Total	= 43.1 dBμV/m
Margin	= 60.0 dBμV/m – 43.1 dBμV/m
	= 16.9 dB

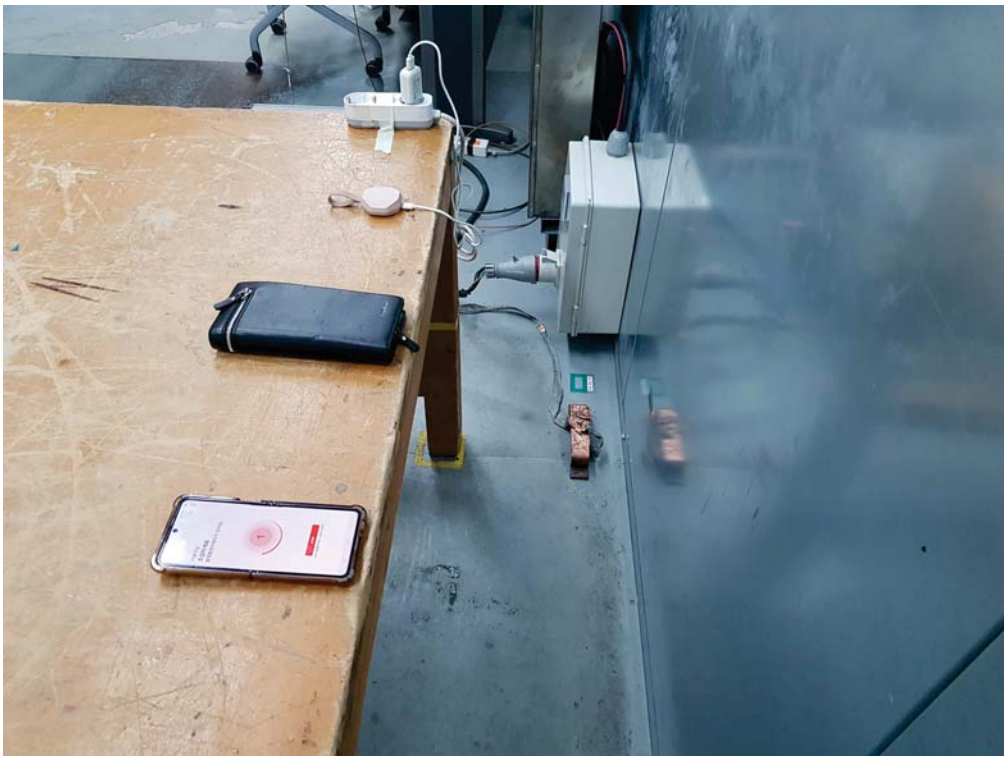
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

APPENDIX A

[TEST SET UP PHOTOGRAPHS]

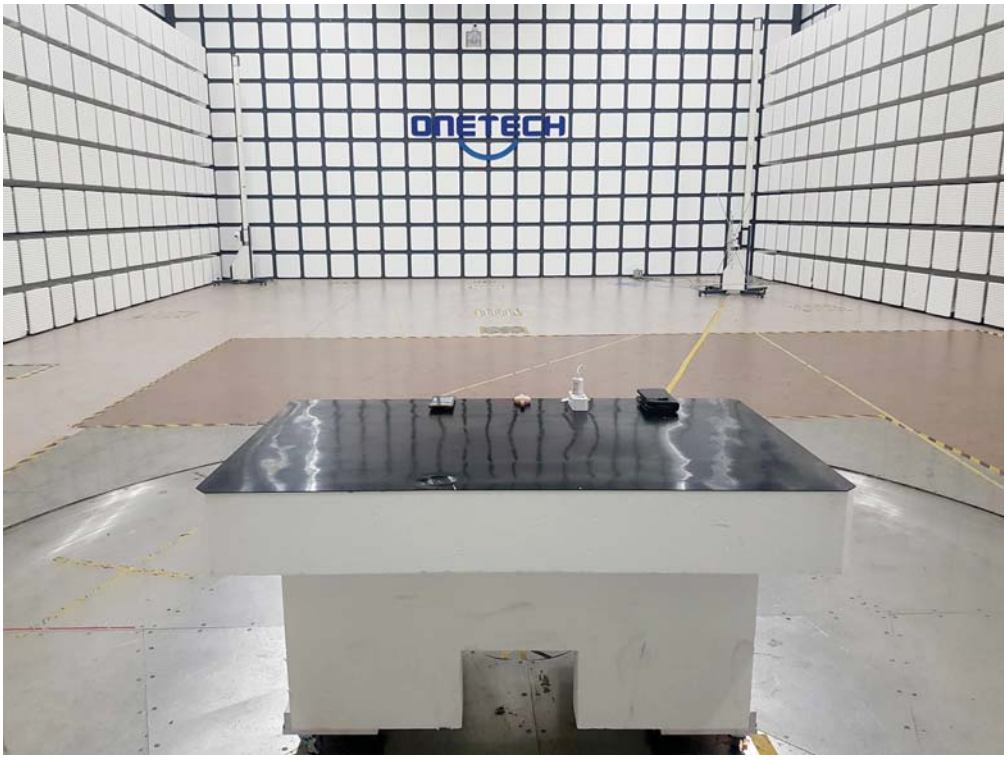
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

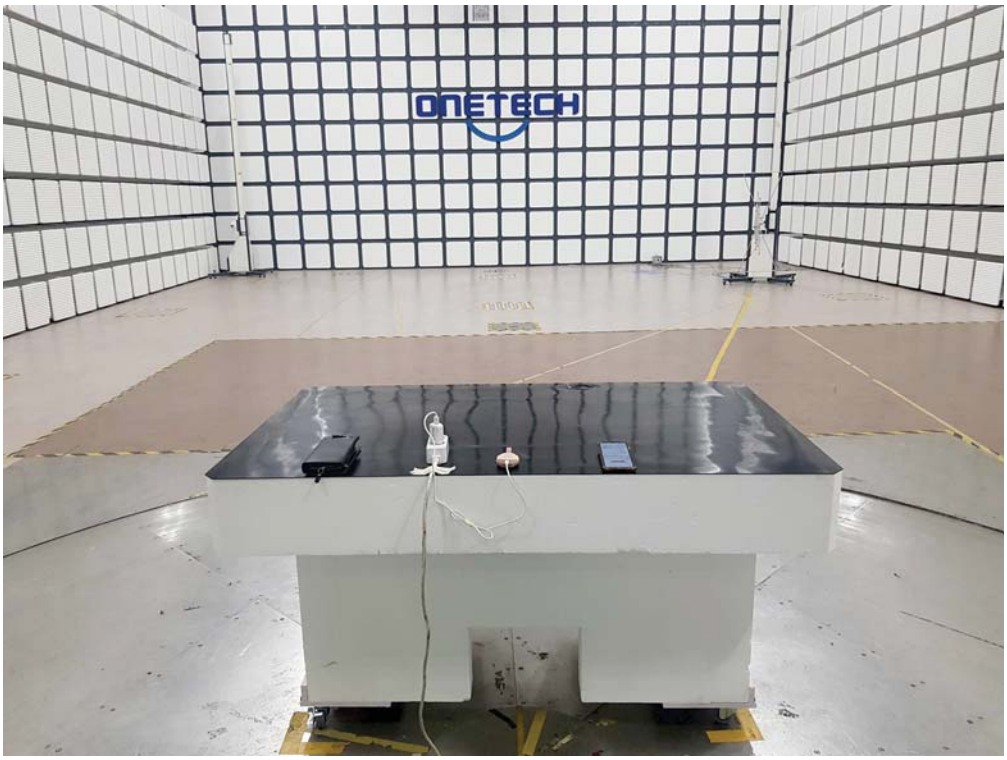
Conducted Disturbance



ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

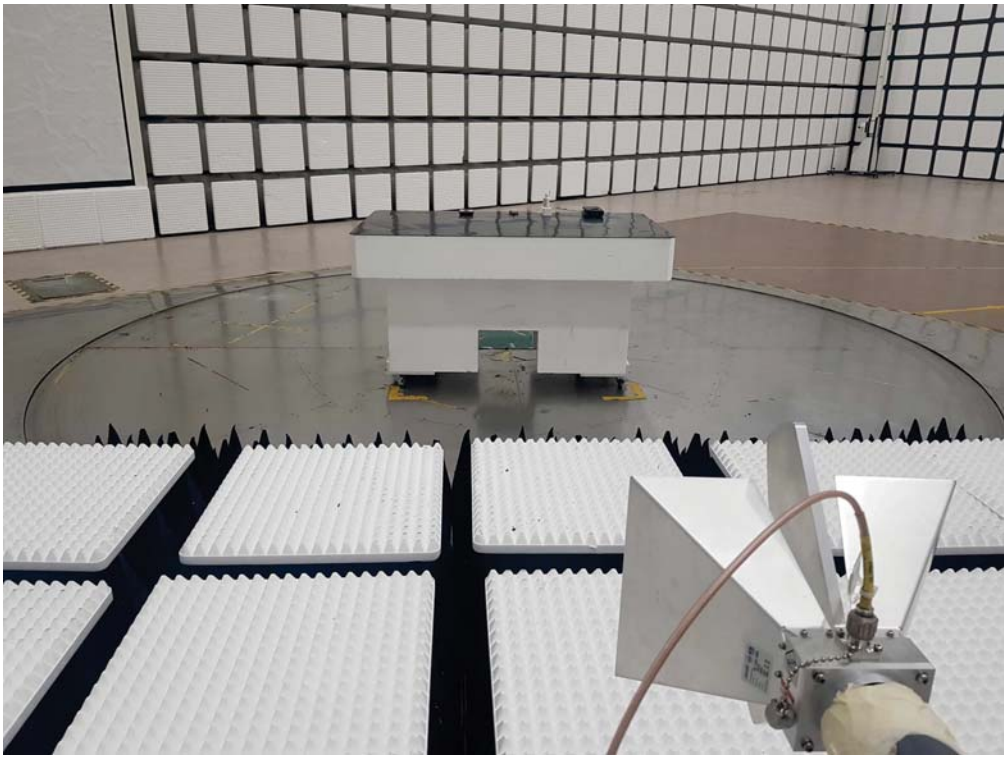
Radiated Disturbance (Below 1 GHz)

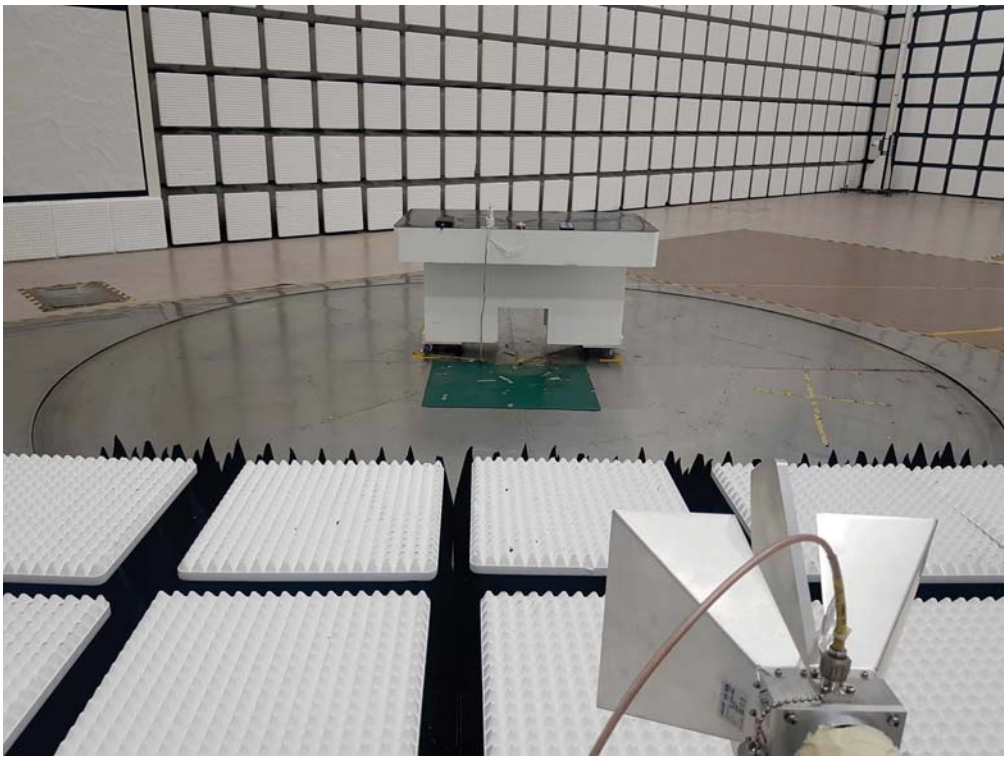




ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

Radiated Disturbance (Above 1 GHz)



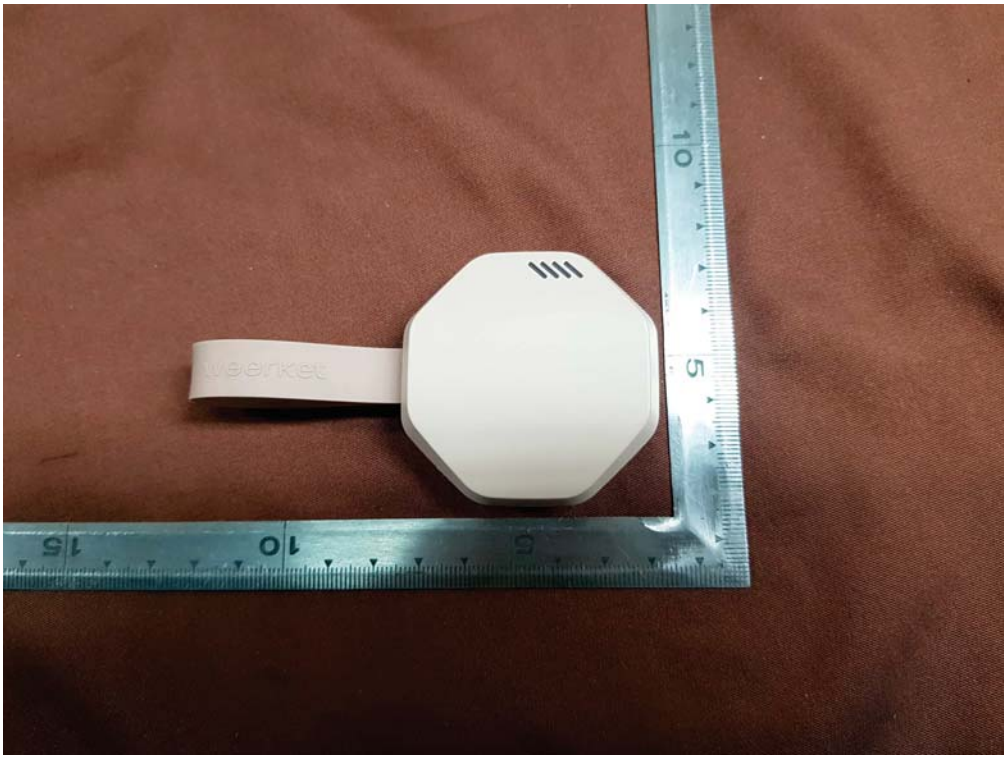


ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

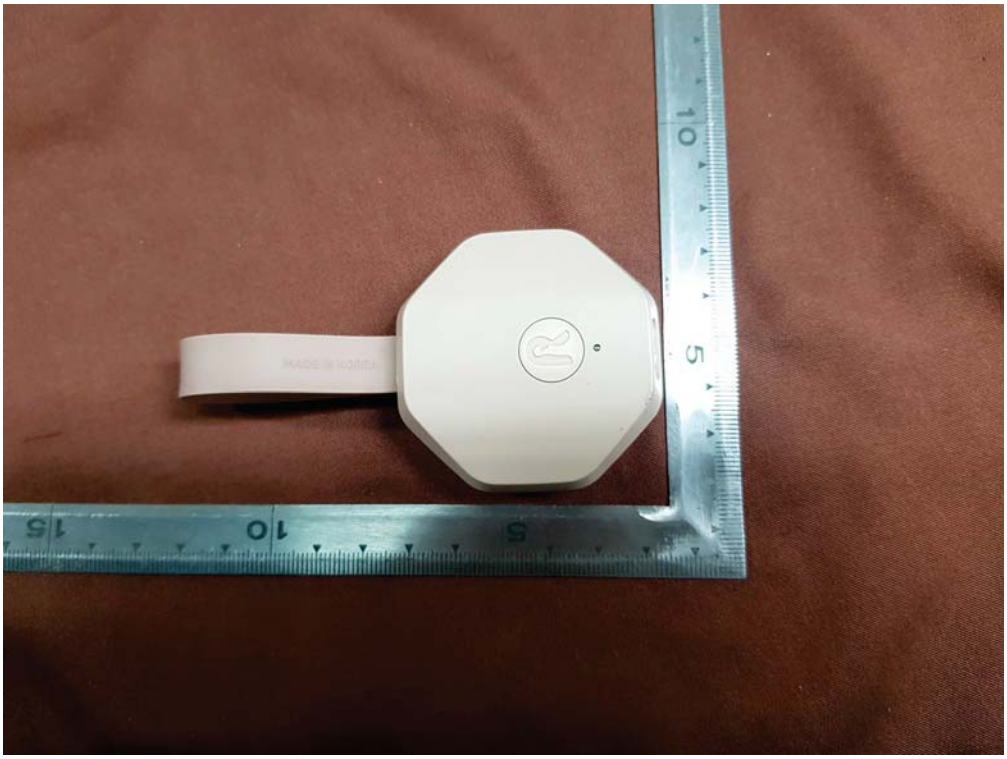
APPENDIX B

[PHOTOGRAPHS OF EUT]

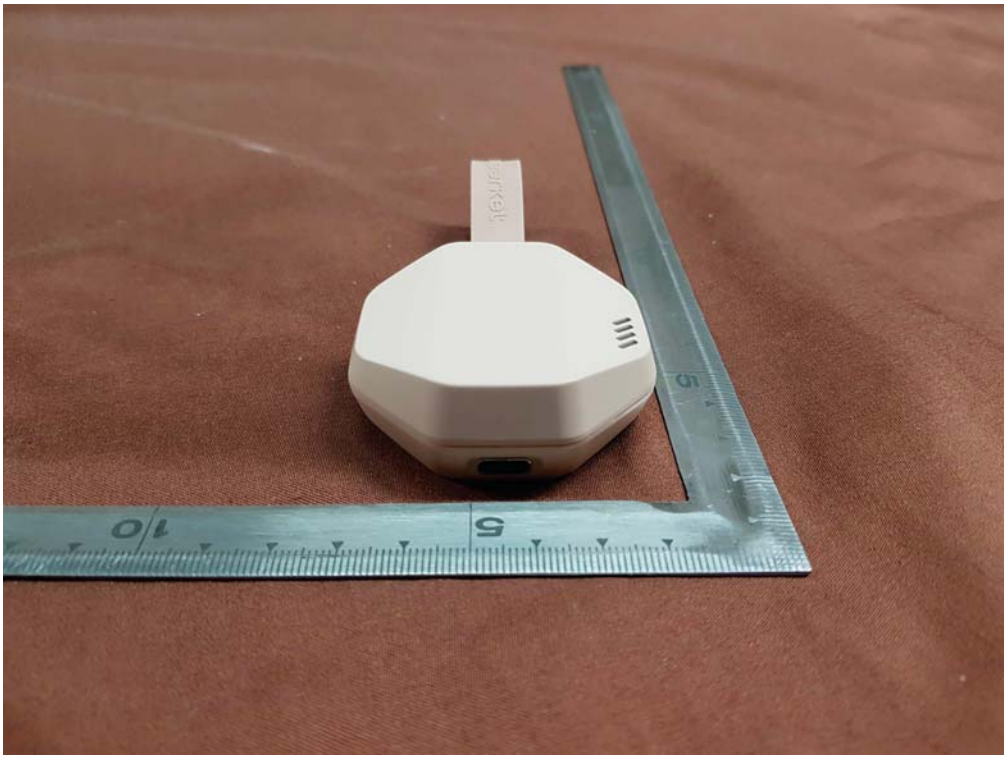
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



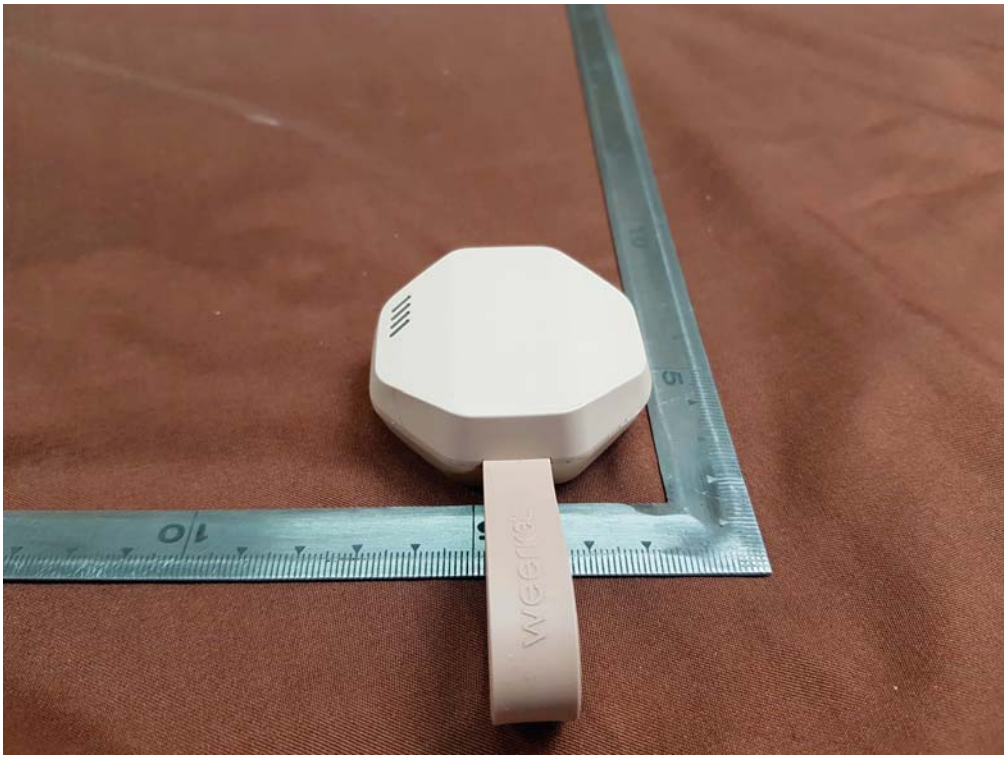
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



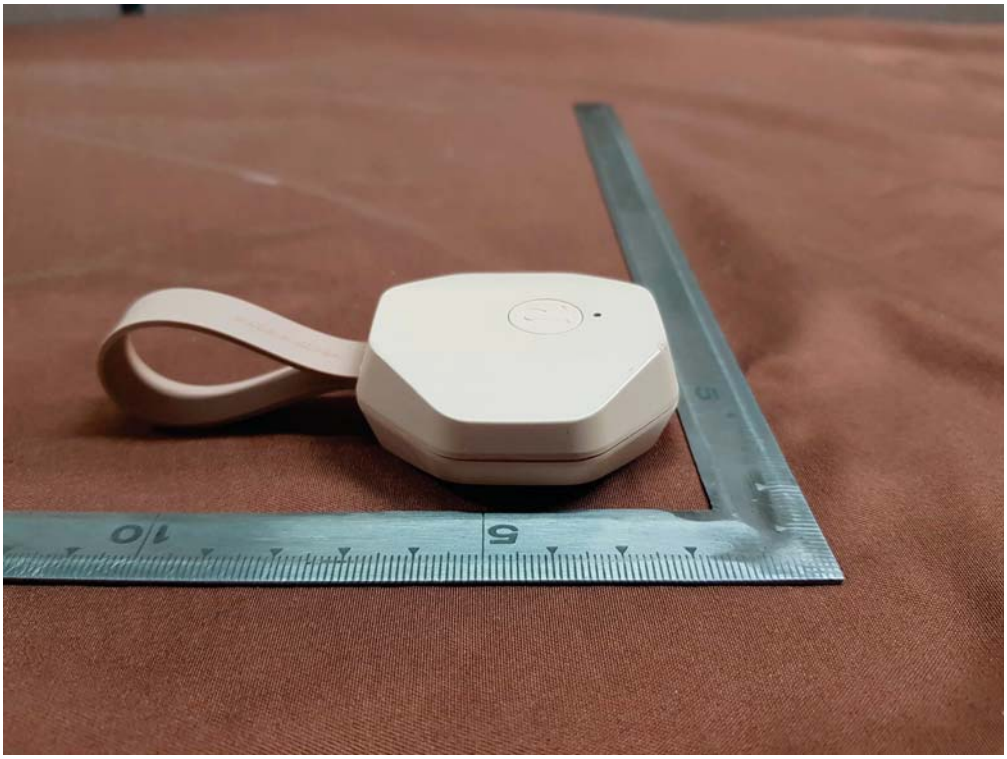
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



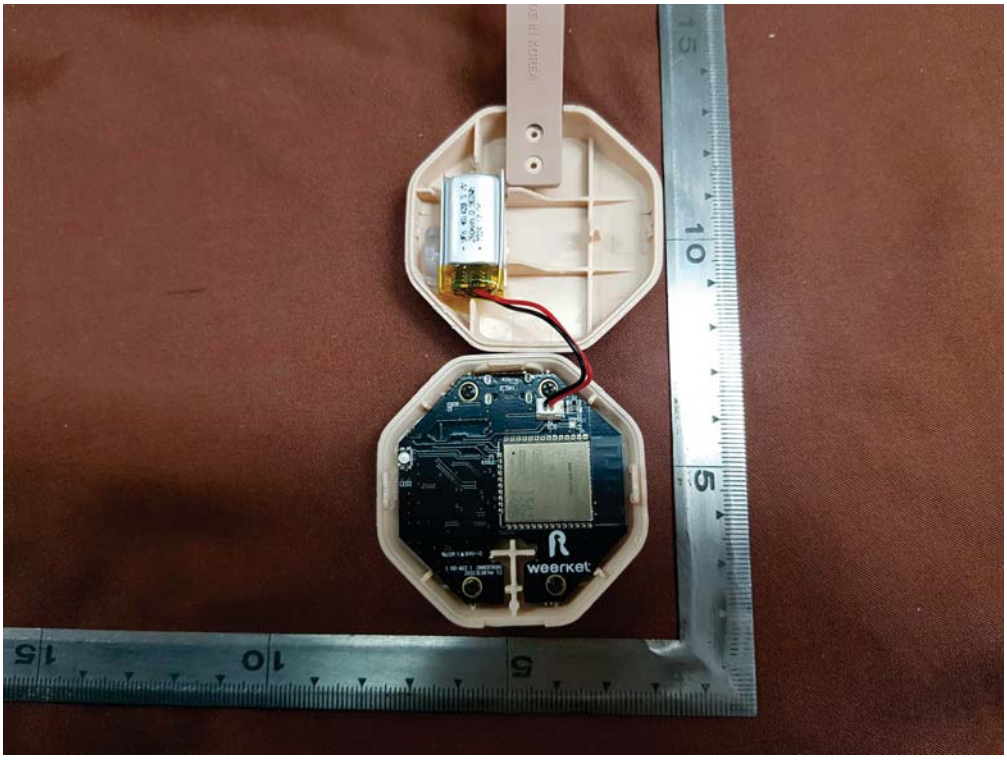
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

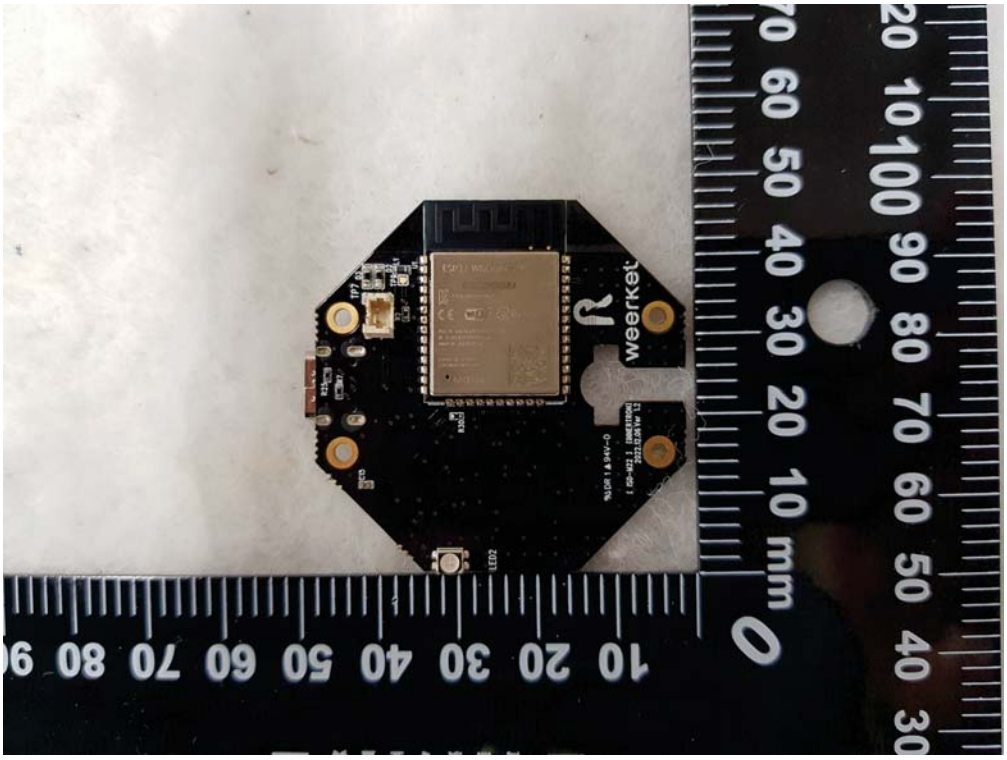
APPENDIX C

[INTERNAL PHOTOGRAPHS]

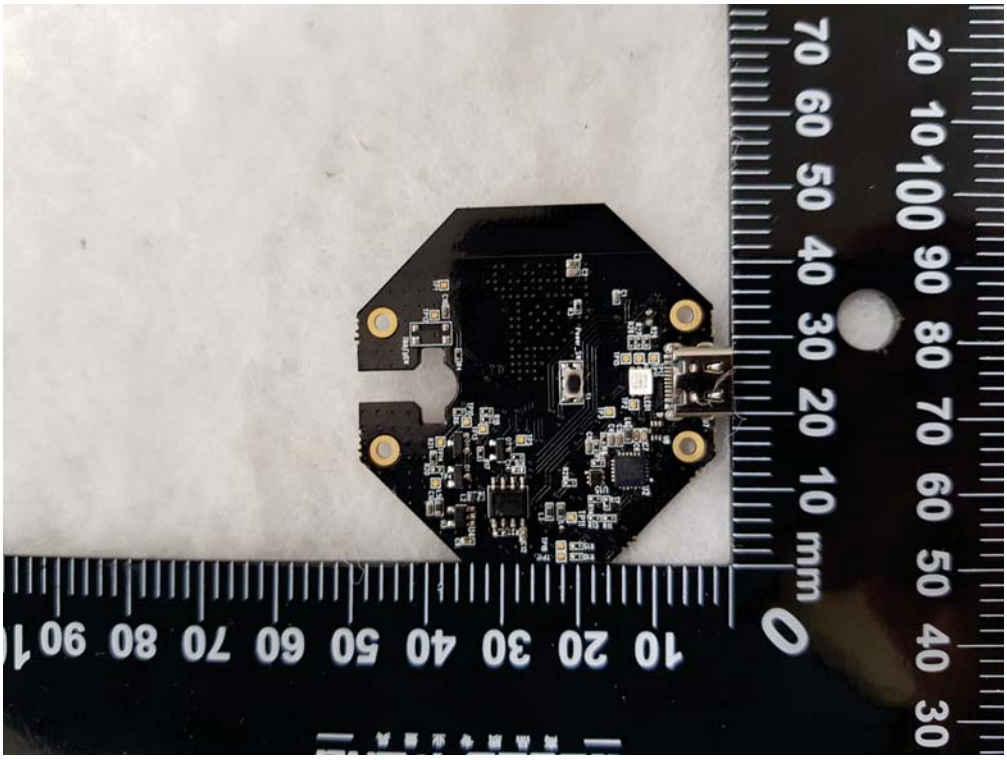
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



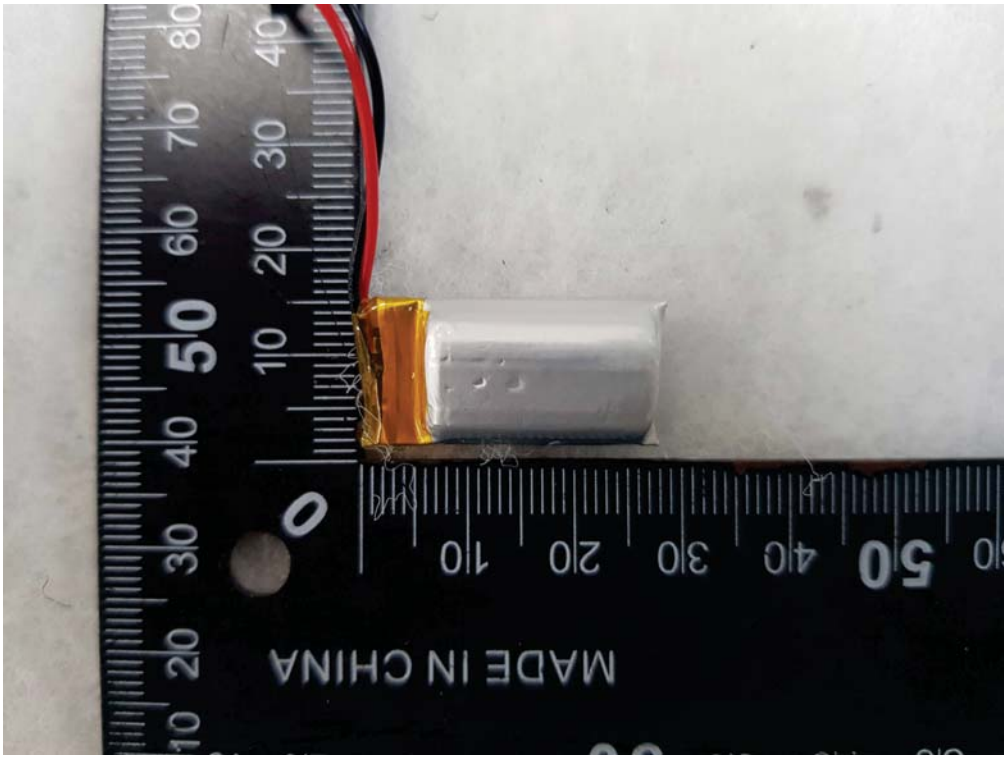
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



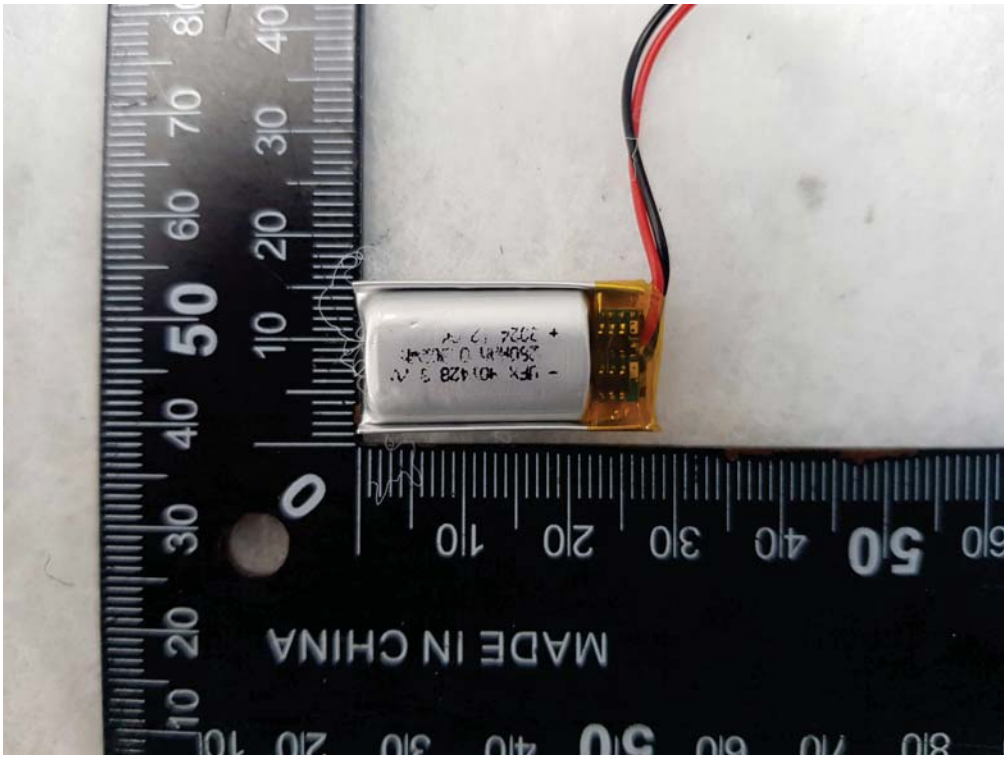
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



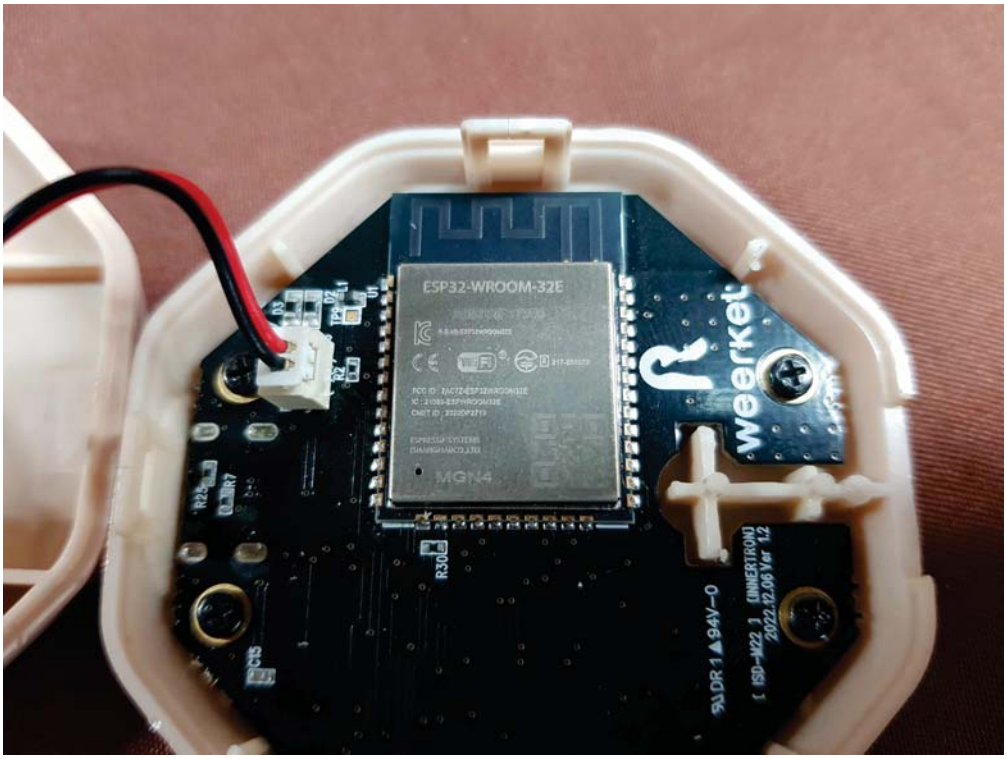
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

APPENDIX D

[DECLARATION OF CONFORMITY]

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

SUPPLIER's DECLARATION OF CONFORMITY

Per FCC §2.1077 Compliance information.

Trade Name: innertron

Model Number: ISD-M22

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful Interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party: innertron

Address: 301, Harmony-ro, Yeonsu-gu, Incheon city 22014 Korea

E-mail: twjung@innertron.com

We hereby declare that the equipment bearing the trade and model number specified above was tested conforming to the applicable FCC rules under the most accurate measurement standards possible, and that the necessary steps have been taken and are in force to assure that production units equipment will continue to comply with the Commission's requirements.

innertron

Signature

January 21, 2025

Date

APPENDIX E

[LABELLING REQUIREMENTS]

[INFORMATION TO THE USER IN USER'S MANUAL]

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

LABELLING REQUIREMENTS

FCC Part 15 SUBPART B § 15.19 Labeling requirements

(a) In addition to the requirements in part 2 of this chapter, a device subject to certification, or Supplier's Declaration of Conformity shall be labeled as follows:

(1) Receivers associated with the operation of a licensed radio service, e.g., FM broadcast under part 73 of this chapter, land mobile operation under part 90 of this chapter, etc., shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

(2) A stand-alone cable input selector switch, shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules for use with cable television service.

(3) All other devices shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(4) Where a device is constructed in two or more sections connected by wires and marketed together, the statement specified under paragraph (a) of this section is required to be affixed only to the main control unit.

(5) When the device is so small or for such use that it is impracticable to label it with the statement specified under paragraph (a) of this section in a font that is four-point or larger, and the device does not have a display that can show electronic labeling, then the information required by this paragraph shall be placed in the user manual and must also either be placed on the device packaging or on a removable label attached to the device.

For FCC Certification

If the device is subject to Certification: (1) Section 2.925 contains information on identification of the equipment; (2) include a label bearing an FCC Identifier (FCC ID) (Section 2.926) and (3) include the appropriate compliance statement in Section 15.19(a). If the labelling area is considered too small and therefore it is impractical (smaller than the palm of the hand) to display the compliance statement, then the statement may be placed in the user manual or product packaging. However, the device must still be labelled with the FCC ID. If the device is unquestionably too small for the FCC ID to be readable (smaller than 4-6 points), the FCC ID may be placed in the user manual. However, it must be determined that the device itself is too small – the label area allocated to the FCC ID may not be reduced because of over crowded identification of other product and regulatory information. Justification for placing the FCC ID in the manual must be submitted with the initial application for certification for review and approval.

For FCC Supplier's Declaration of Conformity (SDOC)

(a) If a product must be tested and authorized under Supplier's Declaration of Conformity, a compliance information statement shall be supplied with the product at the time of marketing or importation, containing the following information:

(1) Identification of the product, e.g., name and model number;

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

(2) A compliance statement as applicable, e.g., for devices subject to part 15 of this chapter as specified in §15.19(a)(3) of this chapter, that the product complies with the rules; and

(3) The identification, by name, address and telephone number or Internet contact information, of the responsible party, as defined in §2.909. The responsible party for Supplier's Declaration of Conformity must be located within the United States.

(b) If a product is assembled from modular components (e.g., enclosures, power supplies and CPU boards) that, by themselves, are authorized under a Supplier's Declaration of Conformity and/or a grant of certification, and the assembled product is also subject to authorization under Supplier's Declaration of Conformity but, in accordance with the applicable regulations, does not require additional testing, the product shall be supplied, at the time of marketing or importation, with a compliance information statement containing the following information:

(1) Identification of the assembled product, e.g., name and model number.

(2) Identification of the modular components used in the assembly. A modular component authorized under Supplier's Declaration of Conformity shall be identified as specified in paragraph (a)(1) of this section. A modular component authorized under a grant of certification shall be identified by name and model number (if applicable) along with the FCC Identifier number.

(3) A statement that the product complies with part 15 of this chapter.

(4) The identification, by name, address and telephone number or Internet contact information, of the responsible party who assembled the product from modular components, as defined in §2.909. The responsible party for Supplier's Declaration of Conformity must be located within the United States.

(5) Copies of the compliance information statements for each modular component used in the system that is authorized under Supplier's Declaration of Conformity.

(c) The compliance information statement shall be included in the user's manual or as a separate sheet. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form. The information may be provided electronically as permitted in §2.935.

PROPOSED LABEL

The label included following statement will be attached on product or the compliance statement can be observed in a prominent location in the instruction manual.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

INFORMATION TO THE USER IN USER'S MANUAL

For FCC: The instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

For a **Class A** digital device or peripheral

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

For a **Class B** digital device or peripheral

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one more of the following measures:

-. Reorient or relocate the receiving antenna.

-. Increase the separation between the equipment and receiver.

-. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-. Consult the dealer or an experienced radio/TV technician for help.

WARNING

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.