EMF TEST REPORT

Test Report No. : **OT-253-RWD-030**

Reception No. : **2502000409**

Applicant : **ROBOTIS**

Address : **37, Magokjungang 5-ro 1-gil, Gangseo-gu, Seoul, Korea**

Manufacturer : **ROBOTIS**

Address : **37, Magokjungang 5-ro 1-gil, Gangseo-gu, Seoul, Korea**

Type of Equipment : **BT-430 DONGLE**

FCC ID. : **SOD-BT-430DONGLE**

Model Name : **BT-430 DONGLE**

Multiple Model Name : **N/A**

Serial number : **N/A**

Total page of Report : **6 pages (including this page)**

Date of Incoming : **February 10, 2025**

Date of issue : **March 20, 2025**

SUMMARY

The equipment complies with the regulation; ***FCC CFR 47 PART 1.1310***

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally 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.

Tested by	Reviewed by	Approved by
Si-eon Lee / Senior Project Engineer	Tae-Ho, Kim / Chief Engineer	Jae-Ho, Lee / Director
ONETECH Corp.	ONETECH Corp.	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)

CONTENTS

PAGE

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Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-253-RWD-030	March 20, 2025	Initial Release	All

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1. VERIFICATION OF COMPLIANCE

Applicant : ROBOTIS

Address : 37, Magokjungang 5-ro 1-gil, Gangseo-gu, Seoul, Korea

Contact Person : Mr. Eunsung Lee / Research Engineer

Telephone No. : +82-70-8671-2613

FCC ID : SOD-BT-430DONGLE

Model Name : BT-430 DONGLE

Brand Name : -

Serial Number : N/A

EQUIPMENT CLASS	DTS – DIGITAL TRNSMISSION SYSTEM
E.U.T. DESCRIPTION	BT-430 DONGLE
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	KDB 447498 D01 General RF Exposure Guidance v06
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
Modifications on the Equipment to Achieve Compliance	None

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

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2. GENERAL INFORMATION

2.1 Product Description

The ROBOTIS, Model BT-430 DONGLE (referred to as the EUT in this report) is a BT-430 DONGLE. The product specification described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	BT-430 DONGLE
OPERATING FREQUENCY	2 402 MHz ~ 2 480 MHz
MODULATION TYPE	GFSK
RF OUTPUT POWER	4.39 dBm
ANTENNA TYPE	PCB Antenna
ANTENNA GAIN	-2.23 dBi
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	32 MHz
RATED SUPPLY VOLTAGE	DC 5.00 V

2.2 Alternative type(s)/model(s); also covered by this test report.

-. None

3. EUT MODIFICATIONS

-. None

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4. MAXIMUM PERMISSIBLE EXPOSURE

4.1 RF Exposure Calculation

According to the FCC rule §4.3. General SAR test exclusion guidance, the limit for 1-g and 10-g SAR test exclusion thresholds are ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR by the device operating 100 MHz to 6 GHz and test separation distances ≤ 50 mm

4.2 EUT Description

Kind of EUT	BT-430 DONGLE
Device Category	■ Portable (< 20 cm separation) ☐ Mobile (> 20 cm separation) ☐ Others
Exposure Evaluation Applied	☐ MPE ☐ SAR ■ N/A

4.3 Test Result

According to the procedure, KDB 447498 D01, the standalone SAR test exclusion threshold is

[(Max. Power of channel, including tune-up tolerance, mW)/(Min. test separation distance, mm)] X [√ f(GHz)] < 3.0

= [(2.07/5)] X √ 2.480 = 0.65

4.3.1 Test Data

Frequency (MHz)	Target Power W/tolerance (dBm)	Max tune up power (dBm)	Antenna Gain (dBm)	Max EIRP power (dBm)	Max EIRP power (mW)	Separation distance (mm)	RF exposure
2 480	4.39 ± 1.0	5.39	-2.23	3.16	2.07	5	0.65

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