

EMF TEST REPORT

Test Report No. : OT-24O-RWD-030

Reception No. : 2409003267

Applicant : gninth Co. Ltd.

Address : 2120, 122, Jomaru-ro 385beon-gil, Wonmi-gu, Bucheon-si, Gyeonggi-do, South Korea

Manufacturer : gninth Co. Ltd.

Address : 2120, 122, Jomaru-ro 385beon-gil, Wonmi-gu, Bucheon-si, Gyeonggi-do, South Korea

Type of Equipment : SMART DOORLOCK REMOCON

FCC ID : 2BLBY-DELEY-R

Model No. : DELEY-R

Multiple Model Name : N/A

Serial number : N/A

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

Date of Incoming : October 14, 2024

Date of issuing : October 18, 2024

SUMMARY

The equipment complies with the regulation; **FCC CFR 47 PART 2.1093**

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.

한동연



Tested by
Dong-Yeon, Han / Prj. Engineer
ONETECH Corp.

Reviewed by
Tae-Ho, Kim / Chief Engineer
ONETECH Corp.

Approved by
Jae-Ho, Lee / Chief Engineer
ONETECH Corp.

CONTENTS**PAGE**

1. VERIFICATION OF COMPLIANCE	4
2. GENERAL INFORMATION	5
2.1 PRODUCT DESCRIPTION.....	5
2.2 ALTERNATIVE TYPE(S)/MODEL(S); ALSO COVERED BY THIS TEST REPORT.....	5
3. EUT MODIFICATIONS.....	5
4. MAXIMUM PERMISSIBLE EXPOSURE	6
4.1 RF EXPOSURE CALCULATION	6
4.2 EUT DESCRIPTION.....	6
4.3 CALCULATED MPE SAFE DISTANCE.....	6

Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-24O-RWD-030	October 18, 2024	Initial Release	All

1. VERIFICATION OF COMPLIANCE

Applicant : gninth Co. Ltd.

Address : 2120, 122, Jomaru-ro 385beon-gil, Wonmi-gu, Bucheon-si, Gyeonggi-do, South Korea

Contact Person : Lee Ho Sub / Manager

Telephone No. : +82-10-2325-9990

FCC ID : 2BLBY-DELEY-R

Model Name : DELEY-R

Brand Name : -

Serial Number : N/A

Date : October 18, 2024

EQUIPMENT CLASS	DSC - Part 15, Security/Remote Control Transmitter
E.U.T. DESCRIPTION	SMART DOORLOCK REMOCON
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.

2. GENERAL INFORMATION

2.1 Product Description

The gninth Co. Ltd., Model DELEY-R (referred to as the EUT in this report) is a SMART DOORLOCK REMOCON. The product specification described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	SMART DOORLOCK REMOCON
TX FREQUENCY	447.275 MHz
RX FREQUENCY	-
MODULATION	FSK
LIST OF EACH OSC. OR CRY. FREQ.(FREQ.>= 1 MHz)	26 MHz
DUTY CYCLE FACTOR	7.68 dB (Duty Cycle: 41.32 %)
ANTENNA TYPE	Helical Antenna
ANTEENA GAIN	1.30 dBi
RATED SUPPLY VOLTAGE	DC 3.0 V

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

-. None

3. EUT MODIFICATIONS

-. None

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	SMART DOORLOCK REMOCON
MAX. RF OUTPUT POWER	82.14 dB μ V/m
Device Category	<input type="checkbox"/> Portable (< 20 cm separation) <input type="checkbox"/> Mobile (> 20 cm separation) <input checked="" type="checkbox"/> Others
Exposure Evaluation Applied	<input type="checkbox"/> MPE <input checked="" type="checkbox"/> SAR Exclusion <input type="checkbox"/> N/A

4.3 Calculated MPE Safe Distance

According to above equation, the following result was obtained.

Frequency (MHz)	Peak Level (dB μ V/m)	Target Power W/tolerance (dBm)	Max tune up power (dBm)	Max tune up power (mW)	Separation distance (mm)	RF exposure
447.275	82.14	-13.06 \pm 0.5	-12.56	0.06	5	0.008 025

Remark: dB μ V/m to dBm,

$$\text{dBm} = 82.14 \text{ dB}\mu\text{V/m} - 95.2 = -13.06 \text{ dBm}$$

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

$$[(\text{Max. Power of channel, including tune-up tolerance, mW})/(\text{Min. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}] < 3.0 = [(0.06/5)] \times \sqrt{0.447275} = 0.008 025$$