TEST REPORT

Report No.		ICRT-TR-E232969-0A
Client	Name	DREXIA Tomasz Wojtasik
	Address	ul. Regatowa 19a, 93-482 Łódź
Product name		RFID Reader 13.56MHz
Model name		1W-H0-06 BZ M12 MS
Voltages		DC 12 V / 24 V
Place of test		■ Inside test ☐ Field test Address: 112, 113 Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea
Date of test		18. Sep. 2023 ~ 25. Oct. 2023
Test Method/Item		FCC rule part 1.1307
Test Results		Refer to 4. RF Exposure
Affirmation	Tested by Si-Yeon, Hwang (Signature)	Technical Manager Tae-Yang, Yoon (Signature)

☐ **The above test report is certified that the above mentioned products have been tested for the sample.**

☐ **The above test report is not related to accreditation by KS Q ISO/IEC 17025 and Korea Laboratory Accreditation scheme.**

☐ **The test report is prohibited for some reproduction without the approval of the ICR.**

2023. 11. 21

INTERNATIONAL CERTIFICATION REGISTRAR

The authenticity of the test report can be checked on the G4B or ICR website.

112, Hwanggeum3-ro 7beon-gil, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea / Tel: 02-6351-9001 ~ 6

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Revision History

Issued Report No.	Issued Date	Revisions	Effect Section
ICRT-TR-E232969-0A	2023. 11. 21	Initial Issue	All

1. Applicant & Manufacturer & Test Laboratory Information

1.1 Applicant information

Applicant	DREXIA Tomasz Wojtasik
Address	ul. Regatowa 19a, 93-482 Łódź
Contact Person	Piotr Opara
Telephone No.	48422072668
Fax No.	-
E-mail	t.wojtasik@drexia.pl

1.2 Manufacturer Information

Applicant	DREXIA Tomasz Wojtasik
Address	Ekonomiczna 30 93-426 Łódź Poland

1.3 Test Laboratory Information

Laboratory	ICR Co., Ltd.
Address	112, Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea
Telephone No.	+82-2-6351-9002
Fax No.	+82-2-6351-9007
KOLAS No.	KT652
KC & FCC	KR0165

1.4 Measurement Uncertainty

Parameter	Uncertainty for ICR	Limit
Occupied Channel Bandwidth	0.19%	±5 %
RF output power, conducted	0.90 dB	±1.5 dB
Power Spectral Density, conducted	1.51 dB	±3 dB
Unwanted Emissions, conducted	1.36 dB	±3 dB
Supply voltages	0.02%	±3 %
Time	0.58%	±5 %
All emissions, radiated (Under the 1 GHz)	3.22 dB	±6 dB
All emissions, radiated (Above the 1 GHz)	3.67 dB	±6 dB

2. Equipment under Test(EUT) Information

2.1 General Information

Product Name	RFID Reader 13.56MHz
Brand Name	-
Model Name	1W-H0-06 BZ M12 MS
Additional Model Name	-
FCC ID	2BEXQ1WH006BZM12MS1
Power Supply	DC 12 V / 24 V

2.2 Additional Information

Equipment Class	DXX-Low Power communications Device Transmitter	
Operating Frequency	13.56 MHz	
Channel Number	1	
Modulation Type	ASK	
Maximum output power	DC 12 V	75.42 dB㎶/m
	DC 24 V	75.35 dB㎶/m

2.3 Modifications of EUT

- None

2.4 Reason of Additional Model Name

- None

3. Test Summary

3.1 Test standards and results

FCC rule part 1.1307			
Clause	Test items	Applied	Results
FCC rule part 1.1307	Radiofrequency radiation exposure.	■	PASS

4. Result

4.1 RF Exposure

4.1.1 Regulation

FCC rule part 1.1307(b)
KDB 447498 D04 Interim General RF Exposure Guidance v01

Part 1.1307(b)(3) - Determination of exemption.

(i) For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

KDB 447498 D04 2.1.2 - 1-mW Test Exemption

Per § 1.1307(b)(3)(i)(A), a single RF source is exempt RF device (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.

4.1.2 Evaluation Method

OET Bulletin 65 Section 3: Methods of Predicting Human Exposure

* Equation 1

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. mW/cm2)
P = power input to the antenna (in appropriate units, e.g., mW)
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

$$S = \frac{EIRP}{4\pi R^2}$$

EIRP = equivalent (or effective) isotropically radiated power

OET Bulletin 65 Section 2: FCC Exposure Guidelines and Their Application

* Equation 2

$$S = E \times H = \frac{E^2}{10Z_0}$$

S = power density (in appropriate units, e.g. mW/cm2)

E = electric field strength (V/m)

H = magnetic field strength (A/m)

Z_0 = Impedance of free space (Ω)

* Equation 3, By equations 1 and 2

$$EIRP(dBm) = E(dB\mu\text{V/m}) - 104.77 + 20\text{Log}[\text{R(m)}]$$

EIRP at distance R = 3 m

$$EIRP(dBm) = E(dB\mu\text{V/m}) - 95.23$$

4.1.3 Limit

FCC rule part 1.1307(b)(3)
For determination of exemption. available maximum time-averaged power is no more than ***1 mW***, regardless of separation distance

4.1.4 Result

Mode	Frequency [MHz]	Maximum field strength @3m (dBμV/m)	Calculated E.I.R.P. (dBm)	Maximum Output power (mW)	Limit (mW)	Result
DC 12 V	13.560	75.42	-19.81	0.0104	1	PASS
DC 24 V	13.560	75.35	-19.88	0.0103	1	PASS

END OF REPORT.