FCC RF EXPOSURE REPORT

Applicant	:	Prowise B.V.
Address	:	Luchthavenweg 1b, 6021 PX Budel, The Netherlands
Equipment	:	PROWISE TOUCHSCREEN TEN G3
Model No.	:	PW.1.17086.0003, PW.1.17086.****（*=0-9）
Trade Name	:	Prowise
FCC ID.	:	2AGUS-11708603

I HEREBY CERTIFY THAT:

The sample was received on Nov. 29, 2023 and the testing was completed on Dec. 26, 2023 at Cerpass Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of Cerpass Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Leevin Li

Leevin Li / Supervisor

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History of this test report

Version No.	Report No	Date	Description
Rev.01	DEFJ2311153	Dec. 29, 2023	Initial Issue

1. Test Configuration of Equipment under Test

1.1 Feature of Equipment

Equipment	PROWISE TOUCHSCREEN TEN G3
Model Name	PW.1.17086.0003, PW.1.17086.****（*=0-9）
Model Discrepancy	All models are identical except for model designation and appearance color. Model PW.1.17086.0003 is the representative for final test.
Frequency Range	13.56MHz
Modulation Type	ASK
Antenna Type	Loop Antenna
EUT Power Rating:	Input:100-240VAC, 50/60Hz, 8A

Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

1.2 General Information of Test

Test Site	**Cerpass Technology Corporation(Cerpass Laboratory)** Address: Room 102, No. 5, Xing'an Road, Chang'an Town, Dongguan City, Guangdong Province Tel: +86-769-8547-1212 Fax: +86-769-8547-1912
FCC Designation No.:	CN1288
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 40,000MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.

2. Radio Frequency Exposure

2.1 Reference

According to §1.1307(b), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.
According to §1.1310 and §2.1091 RF exposure is calculated.

2.2 RF Exposure Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3–3.0	614	1.63	*(100)	≤6
3.0–30	1842/f	4.89/f	*($900/f^2$)	<6
30–300	61.4	0.163	1.0	<6
300–1,500	-	-	f/300	<6
1,500–100,000	-	-	5	<6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	<30
1.34–30	824/f	2.19/f	*($180/f^2$)	<30
30–300	27.5	0.073	0.2	<30
300–1,500	-	-	f/1500	<30
1,500–100,000	-	-	1.0	<30

Note:
f = frequency in MHz.
* = Plane-wave equivalent power density.

2.3 MPE Calculation Method

Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{3770}$

Where *E = Field strength in Volts / meter*
P = Power in Watts
G = Numeric antenna gain
d = Distance in meters
S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770 d^2}$$

Changing to units of mW and cm, using:

P (mW) = P (W) / 1000 and
d (cm) = d(m) /100

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ ***Equation 1***

From the EUT RF output power, the minimum mobile separation distance, d-0.2m, as well as the gain of the used antenna, the RF power density can be obtained.

2.4 RF Exposure Evaluation Results

WLAN

Operation Mode	Frequency band (MHz)	Max. AveragePower (mW)	Antenna Gain (dBi)	Distance (cm)	Power density (mW/cm2)	Limit (mW/cm2)
WLAN NII-3	5745-5825	348	8.01	20	0.43783	1

NFC

Operation Mode	Frequency (MHz)	Fundamental Emission (dBuV/m)	Fundamental Emission (V/m)	Limit (V/m)
NFC	13.56	64.15	0.00161	60.77

Maximum Permissible Exposure (Co-location)

Operation Mode	Frequency (MHz)	Maximum Ratio
NFC	13.56	0.00003
WLAN	5745-5825	0.43783
Co-location Total		0.43786
Maximum Permissible Exposure Limit		1

Conclusion

For the max result: 0.43786 ⩽ 1.0 for Max Power Density, compliance RF exposure.

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