REPORT No.: SZ25100001S03

TEST REPORT

APPLICANT	:	Grace Digital Inc.
PRODUCT NAME	:	DEFENDER TITAN
MODEL NAME	:	GDI-EXDFNRXL01
BRAND NAME	:	ECOXGEAR
FCC ID	:	2AAUI-GDIEXDFNRXL
STANDARD(S)	:	FCC 47 CFR Part 2(2.1091)
RECEIPT DATE	:	2026-04-29
TEST DATE	:	2026-05-26
ISSUE DATE	:	2026-05-28

Edited by: Pang Siyu

Pang Siyu (Rapporteur)

Approved by: Shen Junsheng

Shen Junsheng (Supervisor)

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MORLAB

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DIRECTORY

1. Statement of Compliance 3
2. Technical Information 4
2.1. Applicant and ManufacturerInformation 4
2.2. Equipment under Test (EUT) Description 4
2.3. Photographs of the EUT 5
2.4. Applied Reference Documents 5
3. RF Exposure Requirement 6
3.1. General Information 6
3.2. RF Exposure Limit 6
3.3. Test Information 6
3.4. Measurement Uncertainty (95% confidence levels, k=2) 7
3.5. Test Setup 7
4. Test Equipment List 8
5. RF Exposure Assessment 8
Annex A General Information 10
Annex B Test Setup Photos 11
Notes 12

Change History		
Version	Date	Reason for change
1.0	2026-05-28	First edition

1. Statement of Compliance

Operation Frequency	Highest EMF Summary	
	E-field (V/m)	H-field (A/m)
110 kHz ~ 205 kHz	14.14	0.0984
360 kHz	10.71	0.1846

Note: The declarations of EUT presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information.

2. Technical Information

Note: Provide by applicant.

2.1. Applicant and ManufacturerInformation

Applicant:	Grace Digital Inc.
Applicant Address:	10531 4S Commons Drive#166 Suite#430，San Diego，CA 92127，USA
Manufacturer:	Xingtel Xiamen Group Co., Ltd.
Manufacturer Address:	Xingtel Building,Chuangxin Road, Torch Hi-Tech Industrial

2.2. Equipment under Test (EUT) Description

ProductName:	DEFENDER TITAN
EUT No.:	9#
Hardware Version:	BT387-M-V2.5，BT387-KEY-V2.0，BT387-AUX_OUT-V1.2，BT387-TYPEC-V1.4
Software Version:	BT387_M031SD2AE_FCF8
Frequency Bands:	Wireless charging 1:110 ~ 205 kHz Wireless charging 2: 360 kHz
Modulation Mode:	FSK
Antenna Type:	Coil Antenna

2.3. Photographs of the EUT

Please refer to the External Photos for the Photos of the EUT

2.4. Applied Reference Documents

Leading reference documents for testing:

Identity	Document Title	Remark
FCC 47 CFR Part 2(2.1091)	Radio Frequency Radiation Exposure Evaluation: mobile devices	/
KDB 680106 D01v04	Equipment Authorization of Wireless Power Transfer Devices	/
Note: Any additions, deviation, or exclusions from the method shall be noted in the “Remark”.		

3. RF Exposure Requirement

3.1. General Information

For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 20 cm. E-field and H-field strength measurements or numerical modeling may be used to demonstrate compliance.Measurements should be made from all sides and the top of the primary/client pair, with the 0 cm and 2 cm measured from the center of the probe(s) to the edge of the device. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m.

3.2. RF Exposure Limit

➢ **Basic Restrictions Reference levels**

Basic Restriction for electric, magnetic and electromagnetic fields (0Hz to 300GHz)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) 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
(B) 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

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

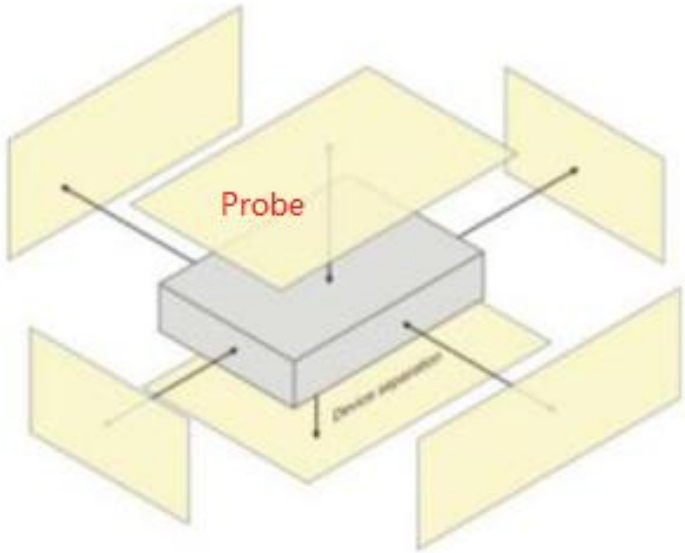
3.3. Test Information

The EUT working at normal charging mode, use the E-Probe measure the H-field Strength, E-field Strength separately.

3.4. Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty
Uncertainty for Radiated Frequency	$7*10^{8}$
Uncertainty for test site temperature and humidity	0.6 ℃
	3%

3.5. Test Setup



4. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
STT	Broadband Field meter	SEM-600	D-1044	2024.11.07	2027.11.06
STT	Probe	LF-04	I-1044	2024.11.07	2027.11.06
STT	Probe holder	TR-01	N/A	N/A	N/A
STT	Optical fiber line	L=5M	N/A	N/A	N/A

5. RF Exposure Assessment

➢ **Environment of Test Condition**

Test Date: 2026.05.26
Temperature: 18-25 ℃ Humidity: 30-75%

➢ **E-Field Strength Result**

E-field strength result (Test frequency range from 110 kHz ~ 205 kHz & 360 kHz)						
Test Loading	Exposure Position	Distance (cm)	E-field Strength (Max. V/m)		Limit 50%(V/m)	Verdict
			Value	30% Dvi.		
110 kHz	Front Side	0	12.61	29.183	307	PASS
		2	8.93			PASS
205 kHz	Front Side	0	14.14	28.571	307	PASS
		2	10.1			PASS
360 kHz	Front Side	0	10.71	28.011	307	PASS
		2	7.71			PASS

➢ **H-Field Strength Result**

H-field strength result (Test frequency range from 110 kHz ~ 205 kHz & 360 kHz)						
Test Loading	**Exposure Position**	**Distance (cm)**	**H-field Strength (Max. A/m)**		**Limit 50%(A/m)**	**Verdict**
			Value	**30% Dvi.**		
110 kHz	Front Side	0	0.0608	11.513	0.815	PASS
		2	0.0538			PASS
205 kHz	Front Side	0	0.0984	27.337	0.815	PASS
		2	0.0715			PASS
360 kHz	Front Side	0	0.1846	28.007	0.815	PASS
		2	0.1329			PASS

Note：

1. Valid test values only exist on the front side of this product; therefore, the report documents results only for that side.
2. According to the user manual, output power from each primary coil is less than or equal to 15 watts.
3. According to KDB 680106 D01V04 section 5.2), the E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit.
4. This device designed for typical desktop applications, therefore mobile exposure conditions are applied and client device is placed directly in contact with the transmitter.
5. The difference between distance 0cm and 2cm tests(E- and/or H-field) is not more than 30%.
6. The EUT test photos, please see the annex B.

➢ **Simultaneous Transmission Consideration**

There is only one transmitter in this device, therefore simultaneous transmission evaluation is not required.

➢ **Conclusion:**

According to FCC 47 CFR Part 2(2.1091), this device complieswith human exposure basic restrictions.

Annex A General Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
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2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

The FCC designation number is CN1192, the test firm registration number is 226174.

Annex B Test Setup Photos

Front Side (Test distance: 0cm)

Front Side (Test distance: 2cm)

Notes

1. The report shall have report stamp or our company stamp.
2. The report shall be invalid without all the signatures of the editor and approver.
3. The report shall not be changed.
4. Any objections must be raised to Morlab within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.
5. Conformity declaration:
   ☑ Morlab issues a statement of conformity based on the corresponding standards（default）
   ☐ Morlab issues a statement of conformity based on the applicant requirement
6. Use of uncertainty of measurement for decisions on conformity (decision rule):
   No decision rule is specified by the testing standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty (“simple acceptance” decision rule).

****** END OF REPORT ******