



Shenzhen GUOREN Certification Technology Service Co., Ltd.

101#, Building K & Building T, The Second Industrial Zone, Jiazitang Community,
Fenghuang Street, Guangming District, Shenzhen, China

RF Exposure evaluation

Report Reference No.....: GRCTR251104047-02

FCC ID.....: 2AQQS-T1880

Compiled by

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Date of issue.....: Dec. 26, 2025

Testing Laboratory Name.....: Shenzhen GUOREN Certification Technology Service Co., Ltd.

Address.....: 101#, Building K & Building T, The Second Industrial Zone,
Jiazitang Community, Fenghuang Street, Guangming District,
Shenzhen, China

Applicant's name.....: Shenzhen Todakj Co., Ltd.

Address.....: 2nd Floor, Xinshidai Stationery Factory Building, Tiegang
Community Xixiang Subdistrict, Bao'an District, Shenzhen,
Guangdong Province, China

Test specification.....:

Standard.....: 47CFR §2.1091
KDB447498 D01 v06

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Test item description.....: Wireless Intercom Doorbell

Trade Mark.....: /

Manufacturer.....: Shenzhen Todakj Co., Ltd.

Model/Type reference.....: T1880

Listed Models: DB016, T016

Hardware Version: V1.0

Software Version.....: V1.0

Frequency.....: FRS: 462.5875MHz~462.7125MHz
FRS: 462.5500MHz~462.7250MHz
FRS: 467.5625MHz~467.7125MHz

Ratings.....: DC 3.7V from battery

Result.....: PASS

TEST REPORT

Equipment under Test : Wireless Intercom Doorbell

Model /Type : T1880

Listed Models : DB016,T016

Applicant : **Shenzhen Todakj Co., Ltd.**

Address : 2nd Floor, Xinshidai Stationery Factory Building,Tiegang Community Xixiang Subdistrict,Bao'an District, Shenzhen, Guangdong Province,China

Manufacturer : **Shenzhen Todakj Co., Ltd.**

Address : 2nd Floor, Xinshidai Stationery Factory Building,Tiegang Community Xixiang Subdistrict,Bao'an District, Shenzhen, Guangdong Province,China

Test Result:	PASS
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The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. SUMMARY

1.1. General Remarks

Date of receipt of test sample	:	Nov. 17, 2025
Testing commenced on	:	Nov. 17, 2025
Testing concluded on	:	Dec. 26, 2025

1.2. Product Description

Product Name:	Wireless Intercom Doorbell
Model/Type reference:	T1880
Listed Models:	DB016,T016(The products are identical in interior structure, electrical circuits and components, just model names and color are different.)
Power supply:	DC 3.70V from battery
Testing sample ID:	GRCTR251104047-1# (Engineer sample), GRCTR251104047-2# (Normal sample)
Frequency Range:	FRS: 462.5875MHz~462.7125MHz FRS: 462.5500MHz~462.7250MHz FRS: 467.5625MHz~467.7125MHz
Modulation Type:	FM
Channel Separation:	12.5KHz
Antenna Type:	Spring antenna
Antenna Gain:	2.0dBi
Remark:*When the information provided by the customer was used to calculate test results, if the information provided by the customer is not accurate, shenzhen GUOREN Certification Technology Service Co., Ltd. does not assume any responsibility. The product has two kinds of silk screen printing. One is used for outdoor, and the other is used for indoor.	

1.3. Equipment Under Test

Power supply system utilised

Power supply voltage	:	☐ 230V / 50 Hz	☐ 120V / 60Hz
		☐ 12 V DC	☐ 24 V DC
		☒ Other (specified in blank below)	

DC 3.7V from battery

1.4. Short description of the Equipment under Test (EUT)

This is a Wireless Intercom Doorbell.

For more details, refer to the user's manual of the EUT.

1.5. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer

○ - supplied by the lab

☐ /	M/N: /
	Manufacturer: /

1.6. Modifications

No modifications were implemented to meet testing criteria.

2. TEST ENVIRONMENT

2.1. Address of the test laboratory

Shenzhen GUOREN Certification Technology Service Co., Ltd.

101#, Building K & Building T, The Second Industrial Zone, Jiazitang Community, Fenghuang Street, Guangming District, Shenzhen, China

2.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 920798 Designation Number: CN1304

Shenzhen GUOREN Certification Technology Service Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6202.01

Shenzhen GUOREN Certification Technology Service Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

ISED#: 27264 CAB identifier: CN0115

Shenzhen GUOREN Certification Technology Service Co., Ltd. has been listed by Innovation, Science and Economic Development Canada to perform electromagnetic emission measurement.

CNAS-Lab Code: L15631

Shenzhen GUOREN Certification Technology Service Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories for the Competence of Testing and Calibration Laboratories.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

2.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

2.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen GUOREN Certification Technology Service Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen GUOREN Certification Technology Service Co., Ltd.:

Test Items	Measurement Uncertainty	Notes
Max output power	0.54 dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

3. Method of measurement

3.1. Applicable Standard

According to §1.1307(b)(1), 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.

KDB447498 D01 v06: RF EXPOSURE PROCEDURES AND EQUIPMENT AUTHORIZATION
POLICIES FOR MOBILE AND PORTABLE DEVICES

3.2. 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 (minute)
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 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 30	824/f	2.19/f	(180/f ²)*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	/	/	f/1500	30
1500 – 100,000	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density

3.3. MPE Calculation Method

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

Where: S=power density

P=power input to antenna

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

3.4. Antenna Information

EUT can only use antennas certificated as follows provided by manufacturer;

Antenna No.	Model No. of antenna:	Type of antenna:	Gain of the antenna (Max.)	Frequency range:
12.5KHz	/	Spring ANT	2.0 dBi for 462.5750MHz - 467.7125MHz	

3.5. Manufacturing Tolerance

Modulation Type	Channel Separation (kHz)	Frequency (MHz)	ERP Power (dBm)	Antenna Gain (dBi)	Conducted Output Power (dBm)	Tune-up (dBm)
Analog/FM	12.5KHz	462.6375	17.12	2.0	15.12	15.0 ± 1
		467.6375	17.45	2.0	15.45	15.0 ± 1
		462.5750	17.33	2.0	15.33	15.0 ± 1

4. Evaluation Result

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r=20\text{cm}$, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
Analog/FM	16.0	39.8107	2.0	1.5849	0.0126	0.3084

Remark:

1. Output power (Peak) including turn-up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer.

5. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

.....End of Report.....