



## AUSTRALIAN TEST REPORT

For

Foshan City Shunde District Oukai Electrical Technology Co., LTD

Portable wireless photoelectric mosquito repellent system

Test Model: GDQW-Q1

Additional Models : please refer to Model list

Prepared for : Foshan City Shunde District Oukai Electrical Technology Co., LTD  
Address : No 8, Huakou Huafa Rd, Ronggui Town, Shunde District, Foshan City, Guangdong Province, China

Prepared by : Ningbo LCS Standard Technology Service Co., Ltd.  
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Date of receipt of test sample : August 27, 2025  
Number of tested samples : 1  
Serial number : Prototype  
Date of Test : August 27, 2025 - September 28, 2025  
Date of Report : September 28, 2025



**AUSTRALIAN TEST REPORT****AS/NZS CISPR 14.1:2021**

EMC - Requirements for household appliances, electric tools and similar apparatus Part 1: Emission

**Report Number..... : LCSE08185046E**

Date of Issue..... : September 28, 2025

**Testing Laboratory Name..... : Ningbo LCS Standard Technology Service Co., Ltd.**Address..... : Room 101-106/202-206, Building 037, No. 166, Jinghua Road,  
Meixu Street, Ningbo High-tech Zone, Yinzhou District, Ningbo,  
Zhejiang, ChinaTesting Procedure..... : Full application of Harmonised standards ☒  
Partial application of Harmonised standards ☐  
Other standard testing method ☐**Applicant's Name..... : Foshan City Shunde District Oukai Electrical Technology Co., LTD**Address..... : No 8, Huakou Huafa Rd, Ronggui Town, Shunde District, Foshan  
City, Guangdong Province, China**Test Specification:**

Standard..... : AS/NZS CISPR 14.1:2021

Test Report Form No..... : TRF-4-E-021 A/0

TRF Originator..... : Ningbo LCS Standard Technology Service Co., Ltd.

Master TRF..... : Dated 2019-03

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**Equipment Under Test..... : Portable wireless photoelectric mosquito repellent system**

Trademark..... : GOKDA

Test Model/Type..... : GDQW-Q1

Rating..... : Input: DC 5V, 1.5W

**Results ..... : PASS****Compiled by:**

Lorrain Li / Engineer

**Supervised by:**

Wen Li / Technique Director

**Approved by:**

Feng Liang / Manager



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## EMC - TEST REPORT

**Test Report No.....: LCSE08185046E**

<b>Applicant.....:</b>	<b>Foshan City Shunde District Oukai Electrical Technology Co., LTD</b>
<b>Address.....:</b>	No 8, Huakou Huafa Rd, Ronggui Town, Shunde District, Foshan City, Guangdong Province, China
<b>Telephone.....:</b>	/
<b>Fax.....:</b>	/
<b>Manufacturer.....:</b>	<b>Foshan City Shunde District Oukai Electrical Technology Co., LTD</b>
<b>Address.....:</b>	No 8, Huakou Huafa Rd, Ronggui Town, Shunde District, Foshan City, Guangdong Province, China
<b>Telephone.....:</b>	/
<b>Fax.....:</b>	/
<b>Factory.....:</b>	<b>Foshan City Shunde District Oukai Electrical Technology Co., LTD</b>
<b>Address.....:</b>	No 8, Huakou Huafa Rd, Ronggui Town, Shunde District, Foshan City, Guangdong Province, China
<b>Telephone.....:</b>	/
<b>Fax.....:</b>	/

The applicant and manufacturer information, product name, model, trademark and other information in this report are all provided by the applicant, and this laboratory is not responsible for verifying its authenticity.

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.



## ENVIRONMENTAL CONDITIONS

The climatic conditions during the test are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. the climatic conditions during the test were in the following Limits:

Ambient temperature	15°C - 30°C
Relative Humidity air	30% - 60%
Atmospheric pressure	86 kPa - 106 kPa

Climate values will be recorded and recorded separately if specifically required in the base standard or application product/product series standard.

## POSSIBLE TEST CASE VERDICTS

Test cases does not apply to test object	N/A
Test object does meet requirement	P(Pass) / PASS
Test object does not meet requirement	F(Fail) / FAIL
Not measured	N/M

## DEFINITION OF SYMBOLS USED IN THIS TEST REPORT

<input checked="" type="checkbox"/> Indicate that the conditions, standards or equipment listed is applicable to this report / test / EUT.
<input type="checkbox"/> Indicate that the conditions, standards or equipment listed is not applicable to this report / test / EUT.

## REVISION HISTORY

Revision	Issue Date	Revision Content	Revised by
000	September 28, 2025	Initial Issue	-

Remark:  
000) : “---”



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# 1. GENERAL INFORMATION

## 1.1. GENERAL DESCRIPTION OF THE ITEM(S)

Equipment Under Test	Portable wireless photoelectric mosquito repellent system
Test Model/Type	GDQW-Q1
Additional Models/Type	See Model list
Description of Model difference	-
Rating	Input: DC 5V, 1.5W
Highest internal frequency (Fx)	≤ 15 MHz

Model	PCB	Rating	Series
GDQW-Q1	Same PCB layout	Input: DC 5V, 1.5W	1

The applicant states:

- All models use the same circuit and PCB layout, only the appearance is different.
- This report after information review and verification, the model “GDQW-Q1” were chosen as the representative model to perform all the tests.



## 1.2. OPERATING MODE(S) USED OF TESTS

During the tests, the following operating mode(s) has(have) been used.

Operating Mode	Operating Mode description	Used for testing
1	Working&Charging	<input checked="" type="checkbox"/>
2	High	<input type="checkbox"/>
3	Low	<input type="checkbox"/>
4	Full load	<input type="checkbox"/>

## 1.3. SUPPORT / AUXILIARY EQUIPMENT FOR THE EUT

EUT has been tested using the following auxiliary equipment :

Auxeq	Model/Type	Manufacturer	Supplied by
Adapter	MDY-08-EH	Nanjing Cool electronic Technology Co., LTD	-

## 1.4. DESCRIPTION OF TEST FACILITY

Test Location 1	Ningbo LCS Standard Technology Service Co., Ltd. Room 101-106/202-206, Building 037, No. 166, Jinghua Road, Meixu Street, Ningbo High-tech Zone, Yinzhou District, Ningbo, Zhejiang, China CNAS Registration Number is L13445.
Date of receipt of test item	August 27, 2025
Date(s) of performance of test	August 27, 2025 - September 28, 2025



## 2. 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 CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods - Part 4: Uncertainty in EMC Measurements" and is documented in the LCS 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.

Measurement	Uncertainty ( $U_{lab}$ )	Uncertainty ( $U_{cisp}$ )
Conducted Disturbance (9kHz - 150kHz)	$\pm 2.63$ dB	$\pm 3.8$ dB
Conducted Disturbance (150kHz - 30MHz)	$\pm 2.35$ dB	$\pm 3.4$ dB
Radiated disturbance (30MHz - 200MHz)	$\pm 3.48$ dB	$\pm 5.3$ dB
Radiated disturbance (200MHz - 1GHz)	$\pm 3.48$ dB	$\pm 5.3$ dB

### Supplementary information:

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.





### 3. MEASURING DEVICES AND TEST EQUIPMENT

CONDUCTED DISTURBANCE						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	AUDIX	E3	N/A	/	/
2	EMI Test Receiver	R&S	ESR 3	102519	2025-05-09	2026-05-08
3	Artificial Mains	R&S	ENV216	102318	2025-05-09	2026-05-08
4	shielded room	MAORUI	843	160218835	2024-04-11	2027-04-10

RADIATED DISTURBANCE (30MHz - 1GHz)						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	AUDIX	E3	N/A	/	/
2	3m Semi Anechoic Chamber	MAORUI	9m*6m*6	160218849	2024-04-11	2027-04-10
3	By-log Antenna	SCHWARZBECK	VULB9168	9168-988	2025-04-13	2026-04-12
4	Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-2049	2025-05-17	2026-05-16
5	EMI Test Receiver	R&S	ESRP	101372	2025-05-09	2026-05-08
6	AMPLIFIER	SCHWARZBECK	BBV9745	136	2025-05-09	2026-05-08
7	RF Cable	Hubber Suhner	CBL-RE	/	/	/
8	AMPLIFIER	SCHWARZBECK	BBV9718C	21	2025-05-09	2026-05-08



## 4. VERDICT SUMMARY SECTION

This chapter present an overview of the standards and results. Refer the next chapter for details of measured test results and applied test levels.

### 4.1. STANDARD(S)

AS/NZS CISPR 14.1:2021 - Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus Part 1: Emission.

### 4.2. OVERVIEW OF RESULTS

EMISSION TESTS - AS/NZS CISPR 14.1		
Requirement - Test case	Limit	Verdict
Conducted Disturbance - Mains ports	Table 5, Table 6	PASS
Conducted Disturbance - Auxiliary ports	Table 5	N/A
Disturbance power in the frequency range 30 MHz to 300MHz <sup>1</sup>	Table 7	N/A
Radiated Disturbance in the frequency range 30 MHz to 1 GHz <sup>1</sup>	Table 9	PASS
Discontinuous Disturbances - Click	Clause 4.2.2	N/A

#### Supplementary information :

The EUT shall be assessed for emissions in the frequency range from 30 MHz to 1 000 MHz by testing in accordance with either method 1) or 2).

- 1) The limits for radiated disturbances in Table 9 for the selected test method shall be met.
- 2) The EUT shall be met disturbance power limits, But the EUT shall be also deemed to comply with the requirement of this document in the frequency range from 300 MHz to 1 000 MHz without further testing if both conditions below are fulfilled:
  - the disturbance power emission from the EUT is lower than the limits of Table 7 reduced by the values of Table 8;
  - the maximum clock frequency is less than 30 MHz.



## 5. EMISSION TESTS

### 5.1. CONDUCTED DISTURBANCE

Standard	AS/NZS CISPR 14.1:2021
Basic Standard(s)	CISPR 16-2-1

#### General limits

Frequency range [MHz]	Mains ports		Auxiliary ports				IF BW
	Quasi-peak [dB(μV)]	Average [dB(μV)]	Quasi-peak [dB(μV)]	Average [dB(μV)]	Quasi-peak [dB(μA)]	Average [dB(μA)]	
0,15 - 0,5	66 -56	59 - 46	80	70	40 - 30	30 - 20	9 kHz
0,5 - 5,0	56	46	74	64	30	20	
5,0 - 30	60	50	74	64			
1) At the transition frequency, the lower limit applies.							

#### Limits for the mains port of motor operated tools

Frequency range [MHz]	P ≤ 700W		700W < P ≤ 1000W		P > 1000W		IF BW
	Quasi-peak [dB(μV)]	Average [dB(μV)]	Quasi-peak [dB(μV)]	Average [dB(μV)]	Quasi-peak [dB(μA)]	Average [dB(μA)]	
0,15 - 0,35	66 -59	59 - 49	70 - 63	63 - 53	76 - 69	69 - 59	9 kHz
0,35 - 5,0	59	49	63	53	69	59	
5,0 - 30	64	54	68	58	74	64	
1) At the transition frequency, the lower limit applies.							
2) P = rated power of the motor only.							



**Test Setup for table-top**

Diagram illustrating the test setup for table-top configuration. The setup includes EUT/AE, PSU, AMN, and AAN components. Dimensions are specified: 0.8 m, 0.1 m, 0.4 m, 0.8 m, and 0.8 m. The setup is positioned on a vertical reference ground plane. AMNs and AANs are bonded to a reference ground plane.

**Test Setup for floor standing**

Diagram illustrating the test setup for floor standing configuration. The setup includes EUT/AE and EUT/AF components. Dimensions are specified: 0.2 m, 0.8 m, and 0.8 m. The setup is positioned on a non-conductive support. AMNs and AANs are bonded to horizontal RGP.

**Test Setup Schematic**

Diagram illustrating the test setup schematic. The setup includes EUT, AAN, AMN, NCL, MS, MT, LT, CP, L, VP, and inline devices. Cable lengths are specified: 20 ± 5, 10 ± 5, 80 ± 5, and 30 ± 5. The setup is connected to M, NCL, MS, MT, LT, CP, L, VP, and inline devices.

For Table-top, EUT shall be placed at  $(0,8 \pm 0,05)$  m above the reference plane of the test site selected for measurement. for Floor standing, EUT shall be placed at  $(0,12 \pm 0,04)$  m above the reference plane of the test site selected for measurement.

and connected to the AC mains through artificial mains network (LISN). EUT is powered by V-type artificial power network, and the distance from LISN or ANN is 0,8m. the part of the EUT power cord exceeding 0,8m folds in parallel to form a 0,3-0,4 m eights harness.


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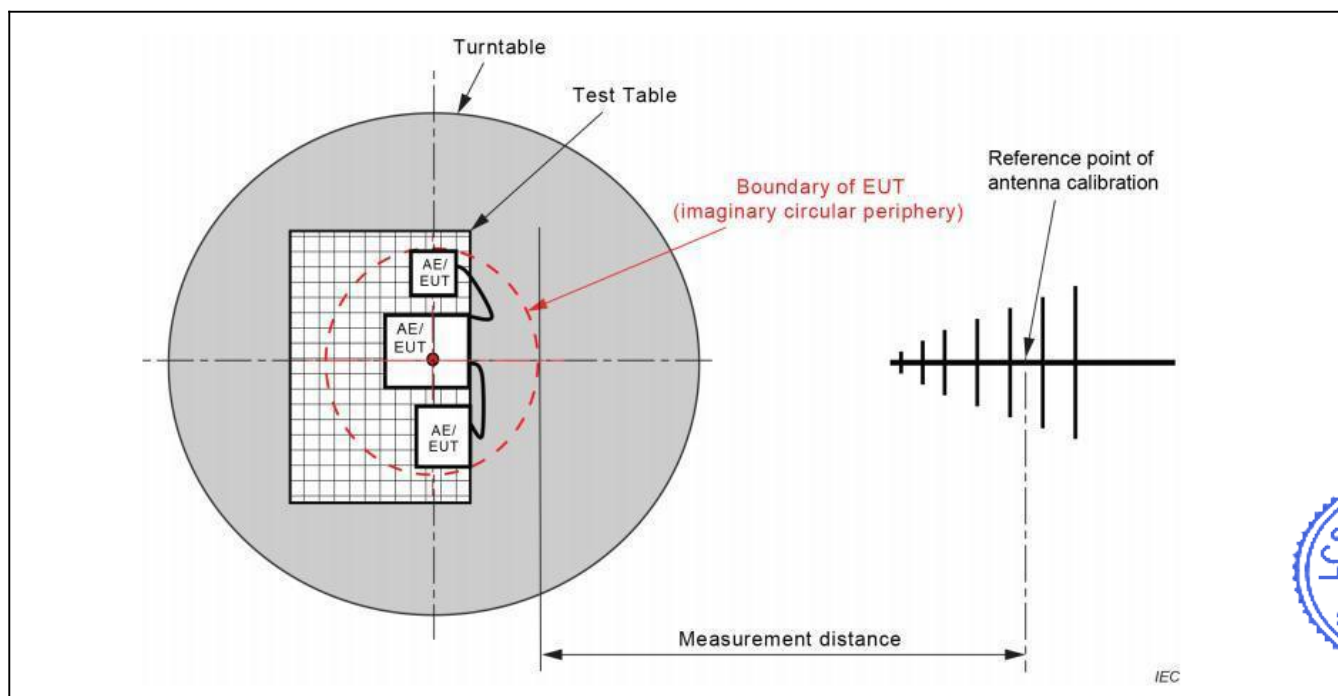
## 5.2. RADIATED DISTURBANCE

Standard	AS/NZS CISPR 14.1:2021
Basic Standard(s)	CISPR 16-2-3
Test method	Semi Anechoic Chamber (SAC)

### SAC Radiated disturbance limit in the frequency range 30 MHz - 1000 MHz

Frequency range [MHz]	Limit: Quasi-peak [dB(μV/m)]		IF BW
	3 m distance	10 m distance	
30 - 230	40	30	120 KHz
230 - 1000	47	37	
1) At the transition frequency, the lower limit applies.			

### Test configuration



### Test Procedure Description

The radiated disturbance test was conducted in a 3m Semi Anechoic Chamber and conforming to CISPR 16-2-3. the EUT is placed on a turntable, which is 0.8 meter high above the ground. the turntable can rotate 360 degrees to determine the position of the maximum emission level. the EUT is set 3 meters away from the receiving antenna, which is mounted on an antenna tower. the antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Log-periodic antenna or horn antenna is used as a receiving antenna. both horizontal and vertical polarization of the antenna is set on test.

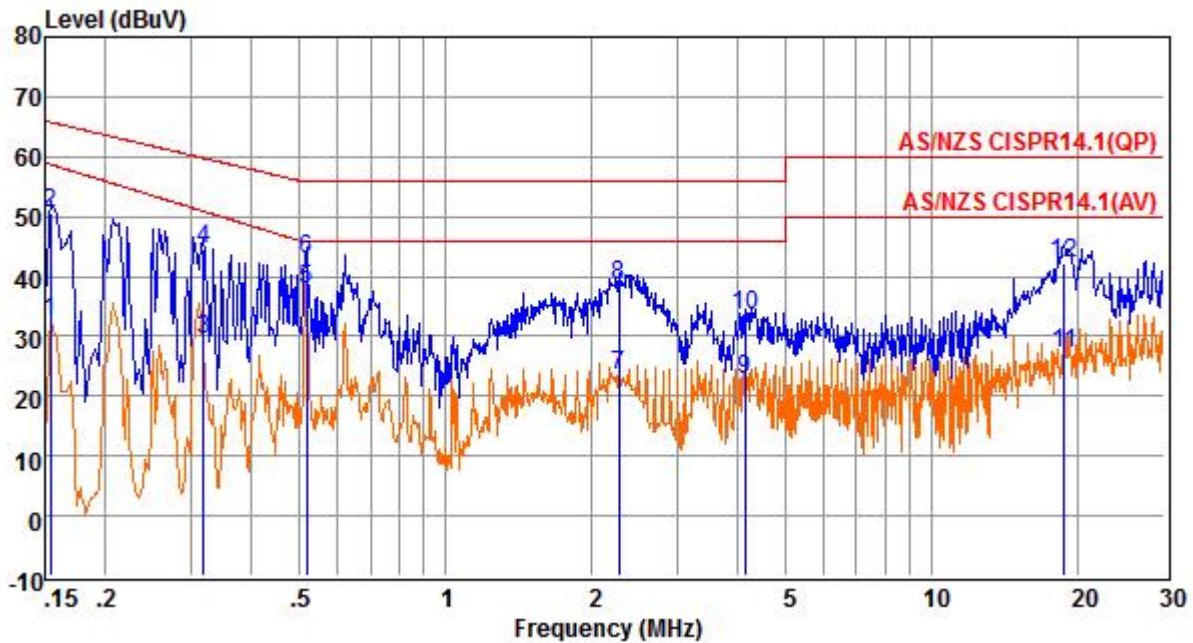
**Test Results** refer to Annex A.2



## ANNEX A - TEST RESULTS

### A.1. CONDUCTED DISTURBANCE TEST RESULTS

Environmental Conditions	24.9°C, 54% RH
Model	GDQW-Q1
Operating mode	Mode 1 (worst case)
Test voltage	DC 5V
Test engineer	Xi Ouyang
Pol	Line



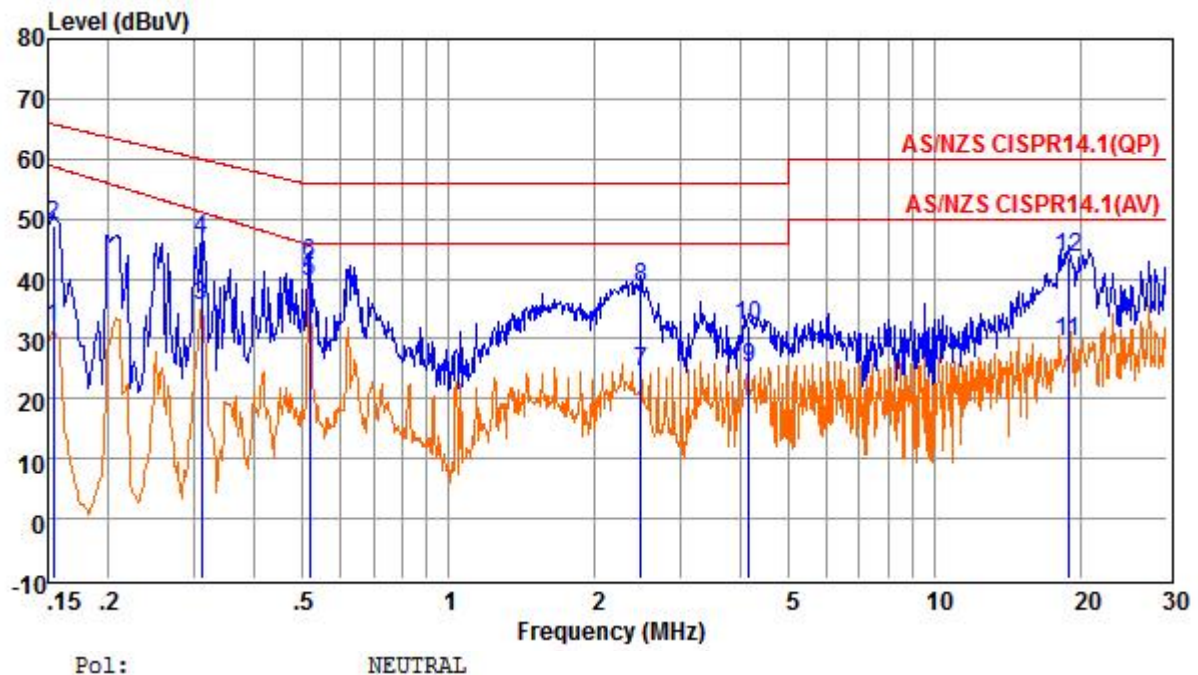
	Freq	Reading	LISNFac	CabLos	Aux2Fac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	0.15	22.79	9.62	0.02	0.00	32.43	58.71	-26.28	Average
2	0.15	40.79	9.62	0.02	0.00	50.43	65.78	-15.35	QP
3	0.32	19.69	9.78	0.03	0.00	29.50	50.88	-21.38	Average
4	0.32	34.69	9.78	0.03	0.00	44.50	59.75	-15.25	QP
5	0.52	28.07	9.81	0.04	0.00	37.92	46.00	-8.08	Average
6	0.52	33.07	9.81	0.04	0.00	42.92	56.00	-13.08	QP
7	2.27	13.60	9.82	0.05	0.00	23.47	46.00	-22.53	Average
8	2.27	28.60	9.82	0.05	0.00	38.47	56.00	-17.53	QP
9	4.14	12.85	9.74	0.06	0.00	22.65	46.00	-23.35	Average
10	4.14	23.85	9.74	0.06	0.00	33.65	56.00	-22.35	QP
11	18.72	17.31	9.62	0.11	0.00	27.04	50.00	-22.96	Average
12	18.72	32.31	9.62	0.11	0.00	42.04	60.00	-17.96	QP

Remarks: 1. Measured = Reading + LISNFac + Cable Loss + Aux2 Fac.  
 2. The emission levels that are 20dB below the official limit are not reported.





Environmental Conditions	24.9°C, 54% RH
Model	GDQW-Q1
Operating mode	Mode 1 (worst case)
Test voltage	DC 5V
Test engineer	Xi Ouyang
Pol	Neutral



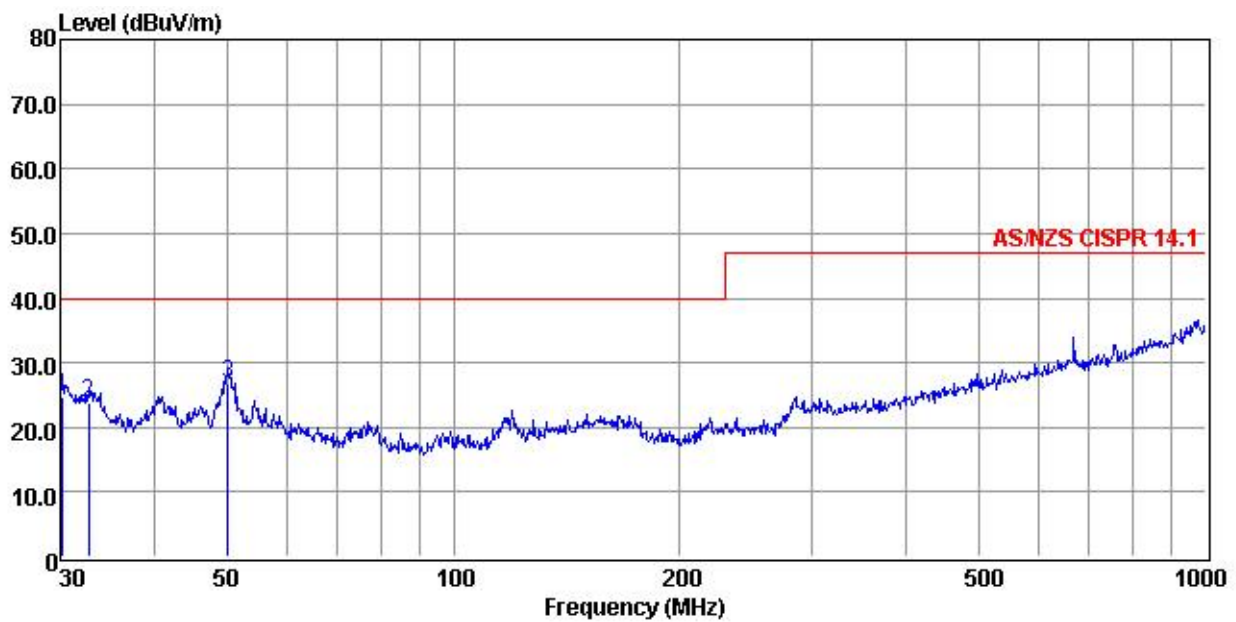
	Freq	Reading	LISNFac	CabLos	Aux2Fac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	0.15	22.08	9.68	0.02	0.00	31.78	58.71	-26.93	Average
2	0.15	39.08	9.68	0.02	0.00	48.78	65.78	-17.00	QP
3	0.31	25.71	9.71	0.03	0.00	35.45	51.16	-15.71	Average
4	0.31	36.71	9.71	0.03	0.00	46.45	59.97	-13.52	QP
5	0.52	29.54	9.87	0.04	0.00	39.45	46.00	-6.55	Average
6	0.52	32.54	9.87	0.04	0.00	42.45	56.00	-13.55	QP
7	2.49	14.63	9.77	0.05	0.00	24.45	46.00	-21.55	Average
8	2.49	28.63	9.77	0.05	0.00	38.45	56.00	-17.55	QP
9	4.16	15.19	9.76	0.06	0.00	25.01	46.00	-20.99	Average
10	4.16	22.19	9.76	0.06	0.00	32.01	56.00	-23.99	QP
11	18.82	19.78	9.58	0.11	0.00	29.47	50.00	-20.53	Average
12	18.82	33.78	9.58	0.11	0.00	43.47	60.00	-16.53	QP

Remarks: 1. Measured = Reading + LISNFac + Cable Loss + Aux2 Fac.  
 2. The emission levels that are 20dB below the official limit are not reported.



## A.2. RADIATED DISTURBANCE TEST RESULTS

Environmental Conditions	23.3°C, 56% RH
Model	GDQW-Q1
Operating mode	Mode 1 (worst case)
Test voltage	DC 5V
Test engineer	Xi Ouyang
Pol	Vertical



Site : 3m chamber

Condition : AS/NZS CISPR 14.1 3m VULB9168 NB 4 VERTICAL

		Read	Cable	Antenna	Preamp		Limit	Over	
	Freq	Level	Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	30.21	39.97	2.07	12.90	30.19	24.75	40.00	-15.25	QP
2	32.75	38.77	2.13	12.98	30.19	23.69	40.00	-16.31	QP
3	50.06	41.10	2.41	13.39	30.20	26.70	40.00	-13.30	QP

Note: 1. All Levels are Quasi-peak values.

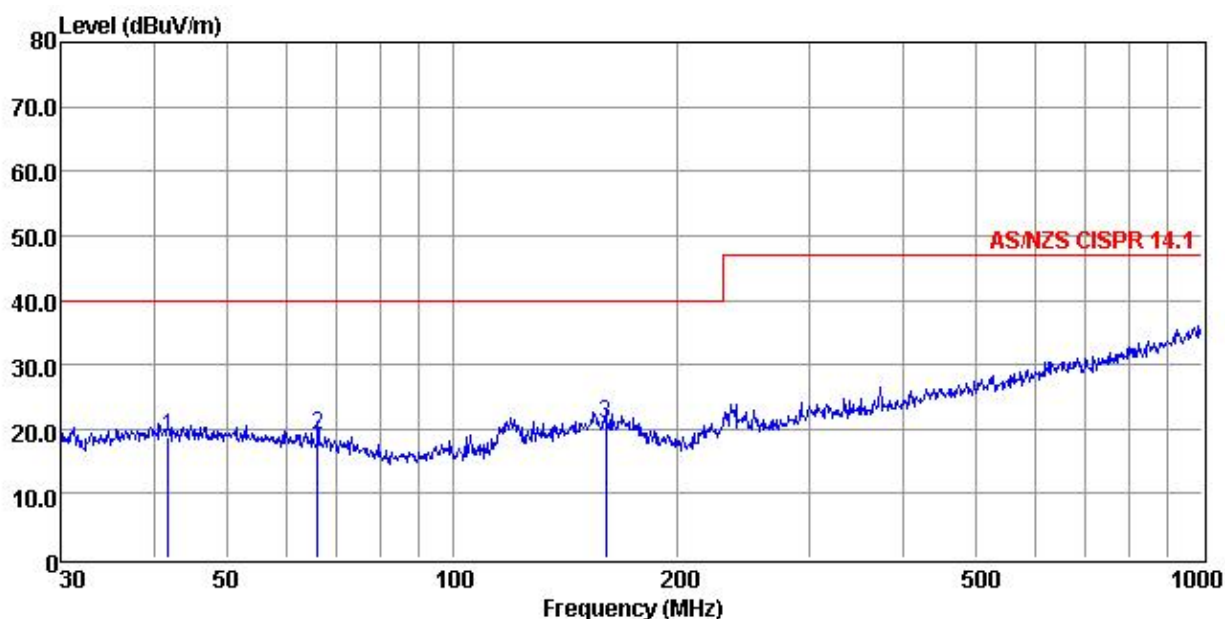
2. Level= Read Level + Antenna Factor + Cable Loss - Preamp Factor

3. The emission that are 20dB below the official limit are not reported





Environmental Conditions	23.3°C, 56% RH
Model	GDQW-Q1
Operating mode	Mode 1 (worst case)
Test voltage	DC 5V
Test engineer	Xi Ouyang
Pol	Horizontal



Site : 3m chamber

Condition : AS/NZS CISPR 14.1 3m VULB9168 NB 4 HORIZONTAL

		Read	Cable	Antenna	Preamp		Limit	Over	
	Freq	Level	Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	41.71	32.76	2.29	13.93	30.20	18.78	40.00	-21.22	QP
2	66.03	34.89	2.66	11.79	30.23	19.11	40.00	-20.89	QP
3	160.35	33.67	3.65	13.90	30.37	20.85	40.00	-19.15	QP

Note: 1. All Levels are Quasi-peak values.

2. Level= Read Level + Antenna Factor + Cable Loss - Preamp Factor

3. The emission that are 20db below the official limit are not reported



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## ANNEX B - TEST PHOTOS

### B.1. Conducted Disturbance at Mains Port



### B.2. Radiated Disturbance





## ANNEX C - EXTERNAL AND INTERNAL PHOTOS OF THE EUT

The photographs show the equipment under test.

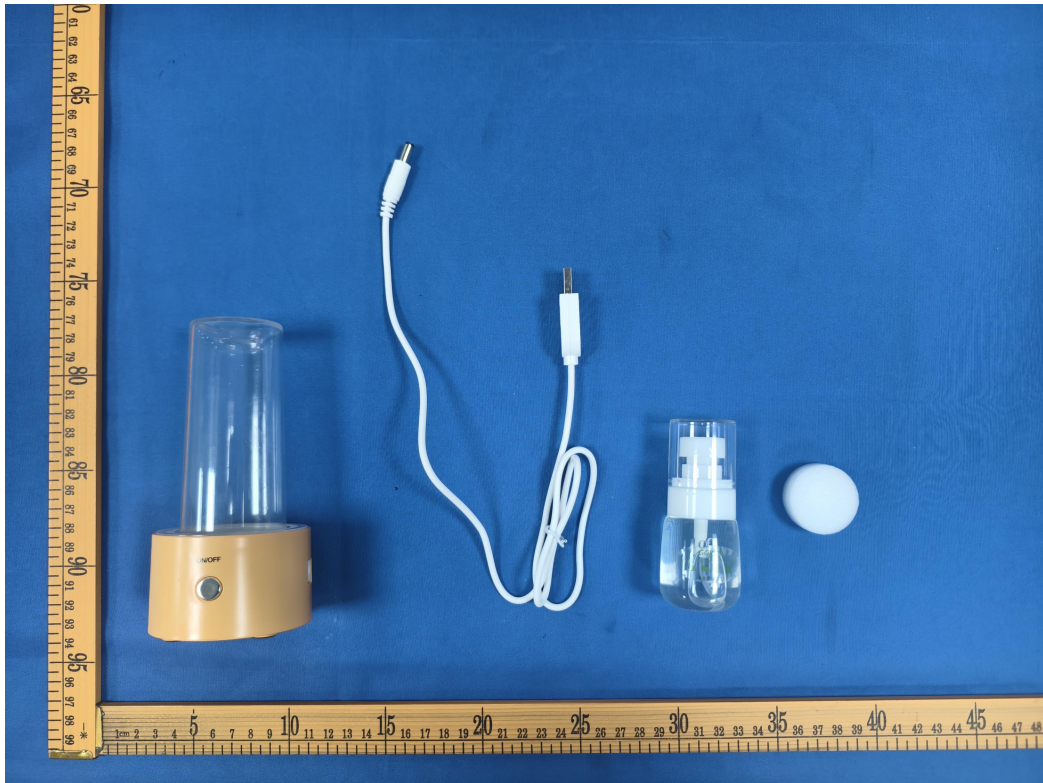


Figure. 1 (GDQW-Q1)



Figure. 2 (GDQW-Q1)







Figure. 3 (GDQW-Q1)

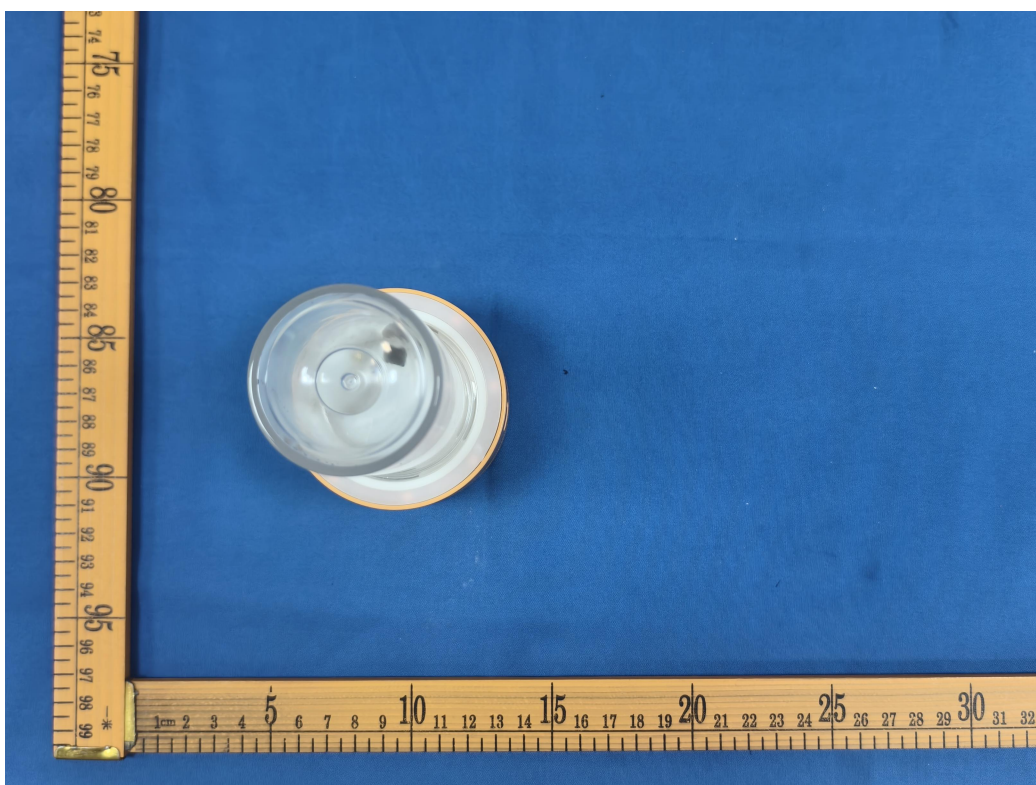


Figure. 4 (GDQW-Q1)





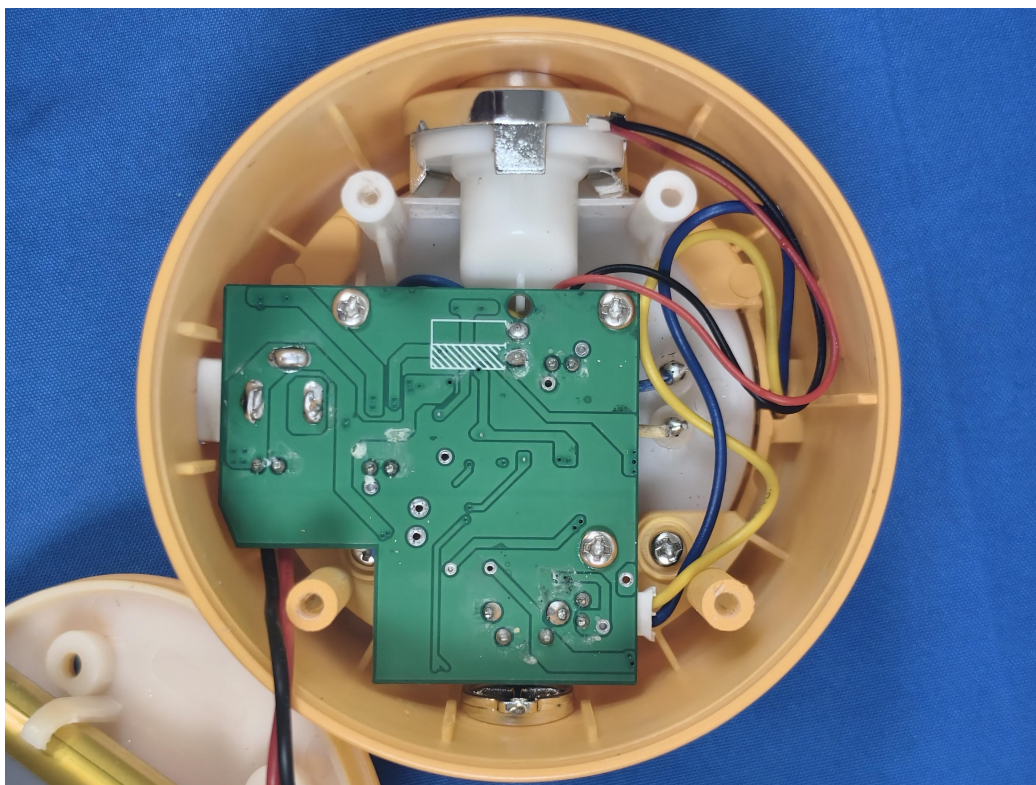


Figure. 5 (GDQW-Q1)

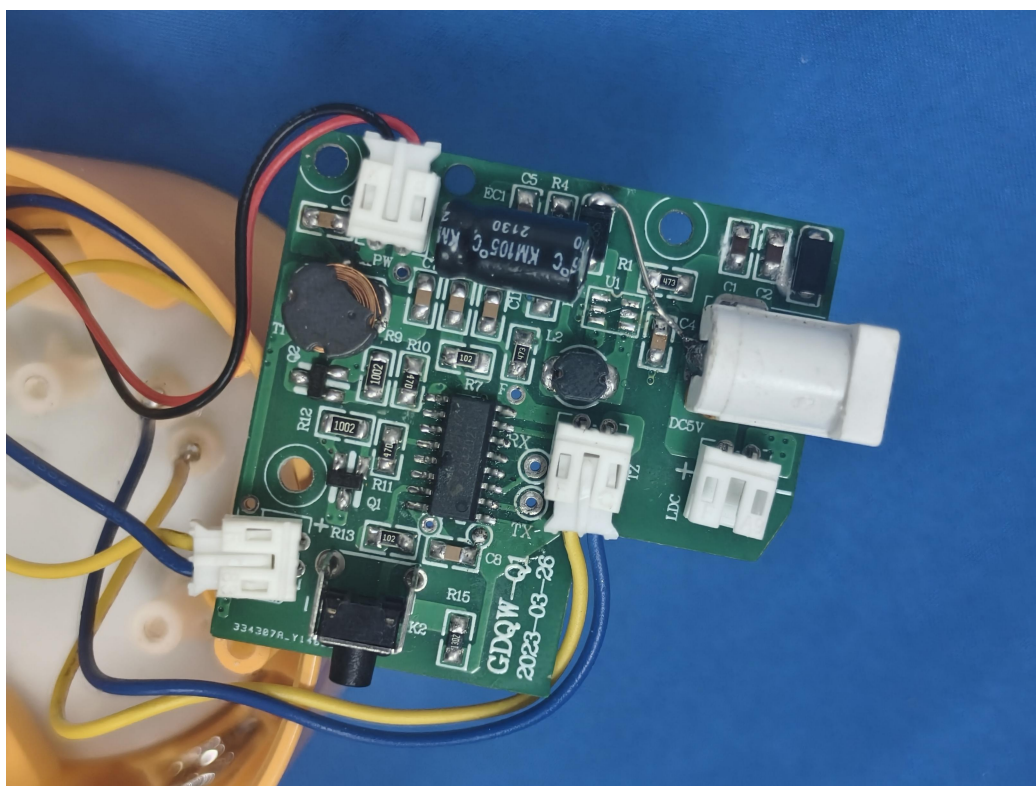


Figure. 6 (GDQW-Q1)

----- END -----

