MPE TEST REPORT

Applicant	:	DewertOkin Technology Group Co., Ltd.
Address of Applicant	:	Room 247, Floor 6, Jiaxing Photovoltaic Science and Innovation Park, 1288 Kanghe Road Xiuzhou District, Jiaxing City, Zhejiang Province China
Product Name	:	REMOTE CONTROL
Brand Name	:	N/A
Model No.	:	RF61
Sample Acquisition Method	:	Sent by Client
Sample No.	:	E23020075-02#03
FCC ID	:	2AVJ8-RF61
ISED Number	:	25804-RF61
Standards	:	FCC Part 2.1093 RSS-102 (Issue 5, Amd.1-February 2, 2021)
Date of Receipt	:	2023-02-23
Date of Test	:	2023-02-24 ~ 2023-03-12
Date of Issue	:	2023-03-13

Remark:

This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

Prepared by: Erik. Yang (Erik Yang) Reviewed by: Jennifer zhou (Jennifer Zhou) Approved by: Guoyou chi (Authorized signatory: Guoyou Chi)

Contents

1 GENERAL INFORMATION 3

1.1 TESTING LABORATORY 3

1.2 ENVIRONMENTAL CONDITIONS 3

1.3 DETAILS OF APPLICATION 3

1.4 DETAILS OF EUT 3

2 ASSESSMENT METHODS 4

3 CONCLUSION 5

4 APPENDIXES 6

4.1 SAMPLE PHOTOGRAPH 6

1 General Information

1.1 Testing Laboratory

ISED CAB identifier #	CN0081
Company Name	ICAS Testing Technology Services (Shanghai) Co., Ltd.
Address	No.1298, Pingan Road, Minhang District, Shanghai, China
Telephone	0086 21-51682999
Fax	0086 21-54711112
Homepage	www.icasiso.com

1.2 Environmental Conditions

Temperature (°C)	18-25
Humidity (%RH)	40-65
Barometric Pressure (mbar)	960-1060
Ambient noise & Reflection（W/kg）	< 0.012

1.3 Details of Application

Applicant Company Name	DewertOkin Technology Group Co., Ltd.
Address	Room 247, Floor 6, Jiaxing Photovoltaic Science and Innovation Park, 1288 Kanghe Road Xiuzhou District,Jiaxing City, Zhejiang Province China
Contact Person	Mia Ye
Telephone	+86-573-82281072
Email	Mia.Ye@refinedchina.com
Manufacturer Company Name	DewertOkin Technology Group Co., Ltd.
Address	Room 247, Floor 6, Jiaxing Photovoltaic Science and Innovation Park, 1288 Kanghe Road Xiuzhou District,Jiaxing City, Zhejiang Province China
Factory Company Name	DewertOkin Technology Group Co., Ltd.
Address	No.1507, Taoyuan Road, Gaozhao Street, Xiuzhou District, Jiaxing City, Zhejiang Province, China.

1.4 Details of EUT

Product Name	REMOTE CONTROL
Brand Name	N/A
Test Model No.	RF61
FCC ID	2AVJ8-RF61
ISED Number	25804-RF61
Operation Frequency	2403MHz ~ 2480MHz
Modulation Type	GFSK
Antenna Type	PCB Antenna

Antenna Gain	1.225dBi
Hardware Version	R6.210.00.2422AA
Software Version	V1.0

2 Assessment methods

For FCC

According to 447498 D01 General RF Exposure Guidance v06

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Where f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

For IC

According with section 2.5.1 of RSS-102 Issue 5, SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table.

Exemption Limits (mW)					
Frequency (MHz)	At separation distance of ≤5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
≤300	71mW	101mW	132mW	162mW	193mW
450	5mW	70mW	88mW	106mW	123mW
835	17mW	30mW	42mW	55mW	67mW
1900	7mW	10mW	18mW	34mW	60mW
2450	4mW	7mW	15mW	30mW	52mW
3500	2mW	6mW	16mW	32mW	55mW
5800	1mW	6mW	15mW	27mW	41mW
Frequency (MHz)	At separation distance of 30 mm	At separation distance of 35 mm	At separation distance of 40 mm	At separation distance of 45 mm	At separation distance of ≥50 mm
≤300	223mW	254mW	284mW	315mW	345mW
450	141mW	159mW	177mW	195mW	213mW
835	80mW	92mW	105mW	117mW	130mW
1900	99mW	153mW	225mW	315mW	431mW
2450	83mW	123mW	173mW	235mW	309mW
3500	86mW	124mW	170mW	225mW	290mW
5800	56mW	71mW	85mW	97mW	106mW

Test Data

Field strength (dBuV/m)	2403MHz ~ 2480MHz
	GFSK
	81.99
Peak Power (dBm)	-13.21
Note: This report listed the worst case value, please refer to RF test Report No. SHE23020075-02AE Test Result Radiated Emission 4.1.2.	

Tune-up power

Operation Frequency	Power Range (dBm)
2403MHz ~ 2480MHz	(-14.00) – (-13.00)

FCC

Operation Frequency (MHz)	Tune-up Power (dBm)	Tune-up Power (mW)	Separation Distance (mm)	RF exposure evaluation SAR	Exclusion Thresholds
2403-2480	-13.00	0.050119	5	0.015785	3.0

For IC: RSS-102 section 2.5.1 Exemption Limits for Routine Evaluation, Table 1 shows the SAR evaluation for a device with a separation distance of 5 mm at 2450 MHz is 4mW, which is 6.02dBm >-13.21dBm, so SAR testing is not required for IC.

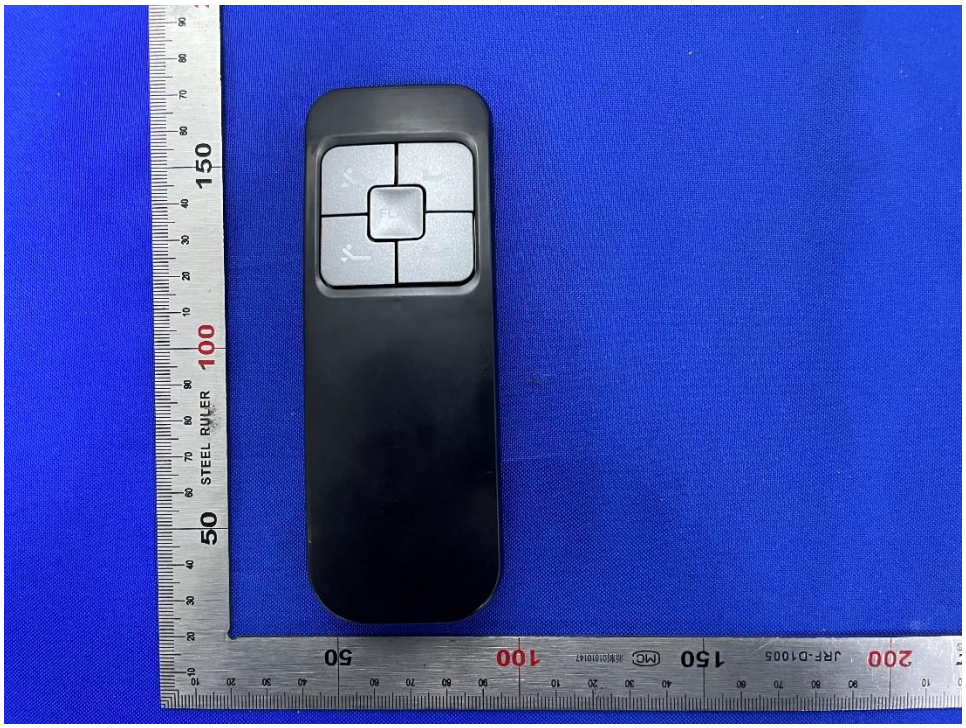
3 Conclusion

For FCC, Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is <3.0, SAR testing is not required. RF exposure Evaluation Results: Compliance

For IC: RSS-102 section 2.5.1 Exemption Limits for Routine Evaluation, Table 1 shows the SAR evaluation for a device with a separation distance of 5 mm at 2450 MHz is 4mW, which is 6.02dBm >-13.21dBm, so SAR testing is not required.

4 Appendixes

4.1 Sample Photograph

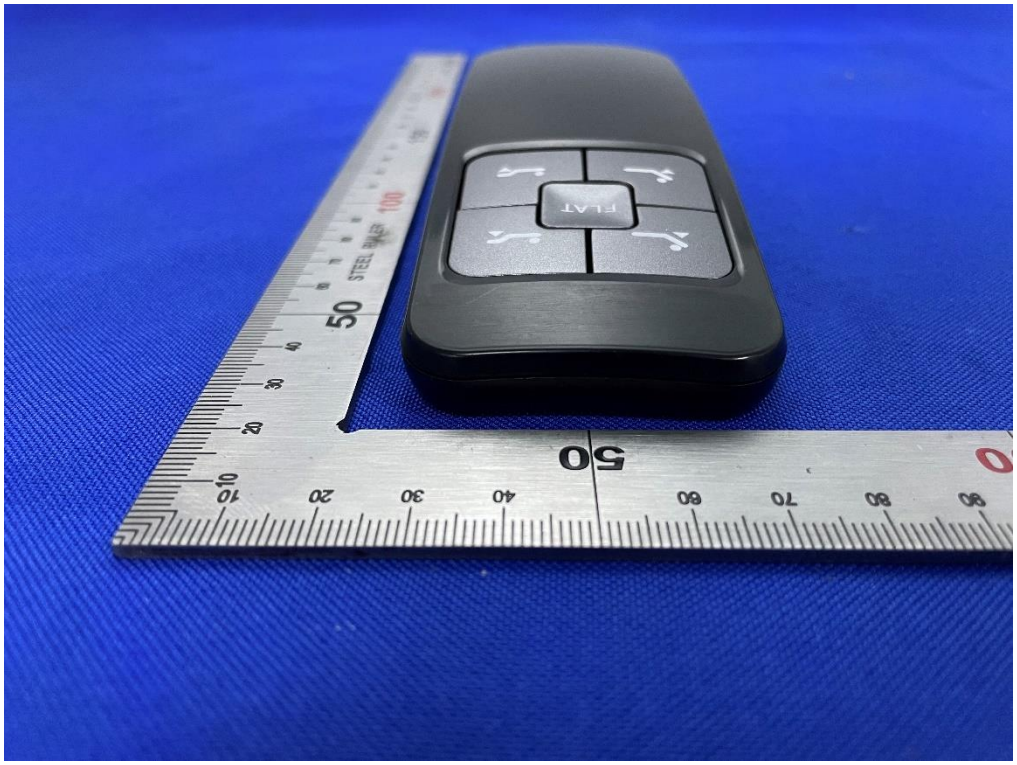


Front of the sample

Back of the sample

Left of the sample

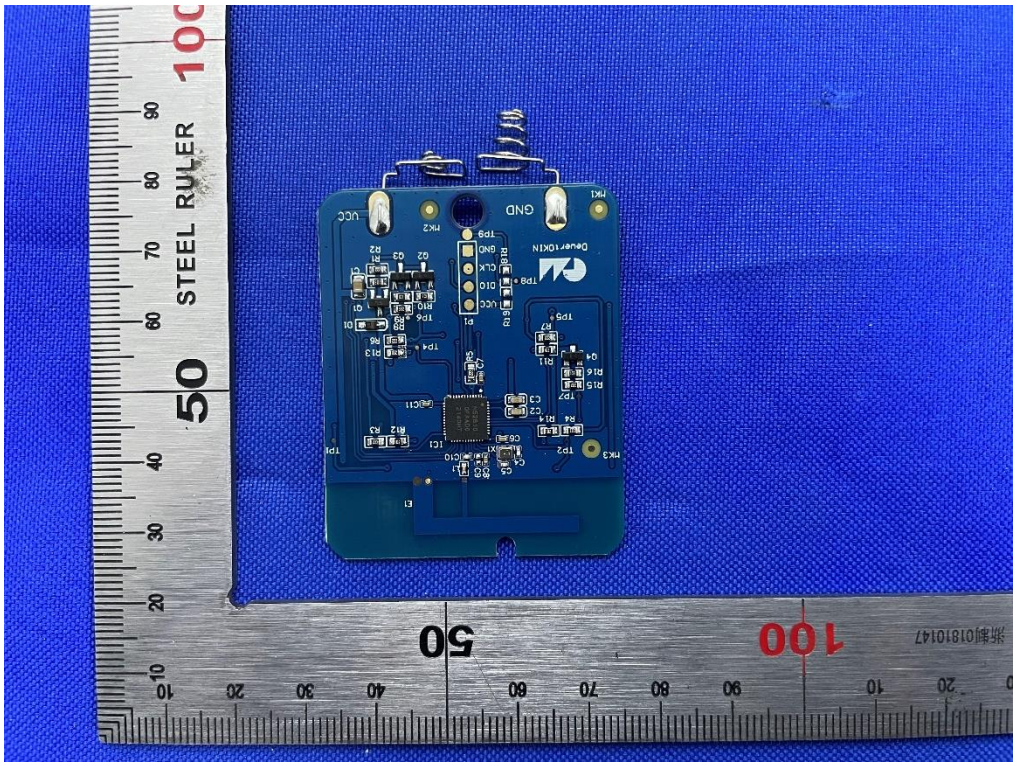
Right of the sample



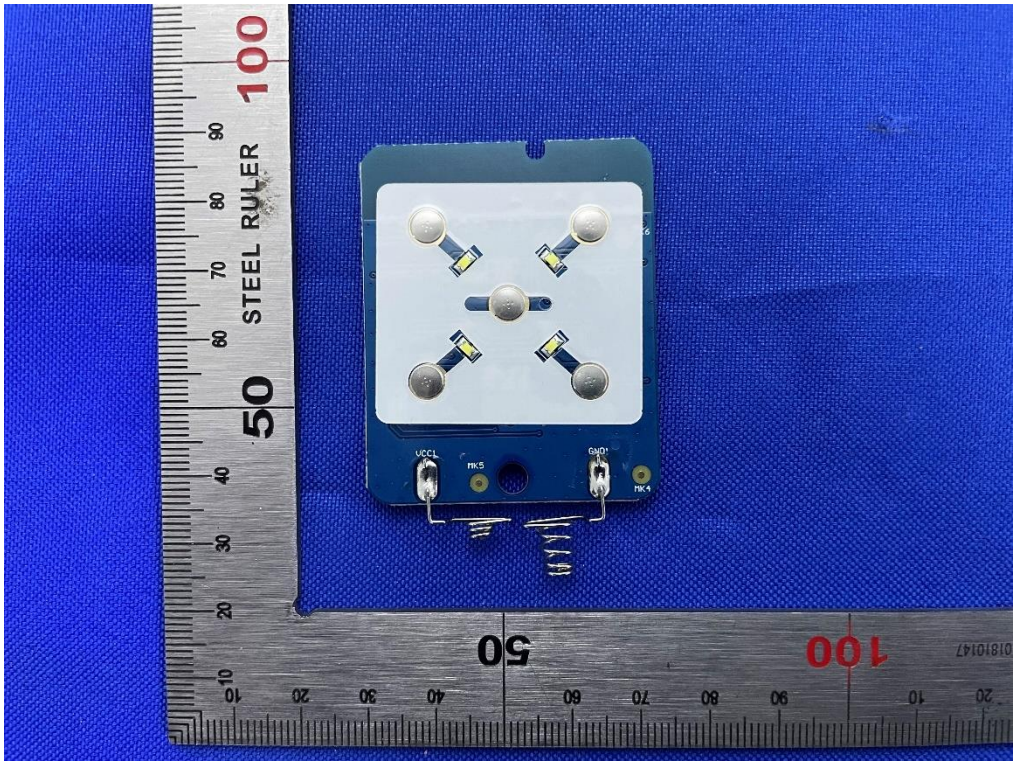
Top of the sample

Bottom of the sample

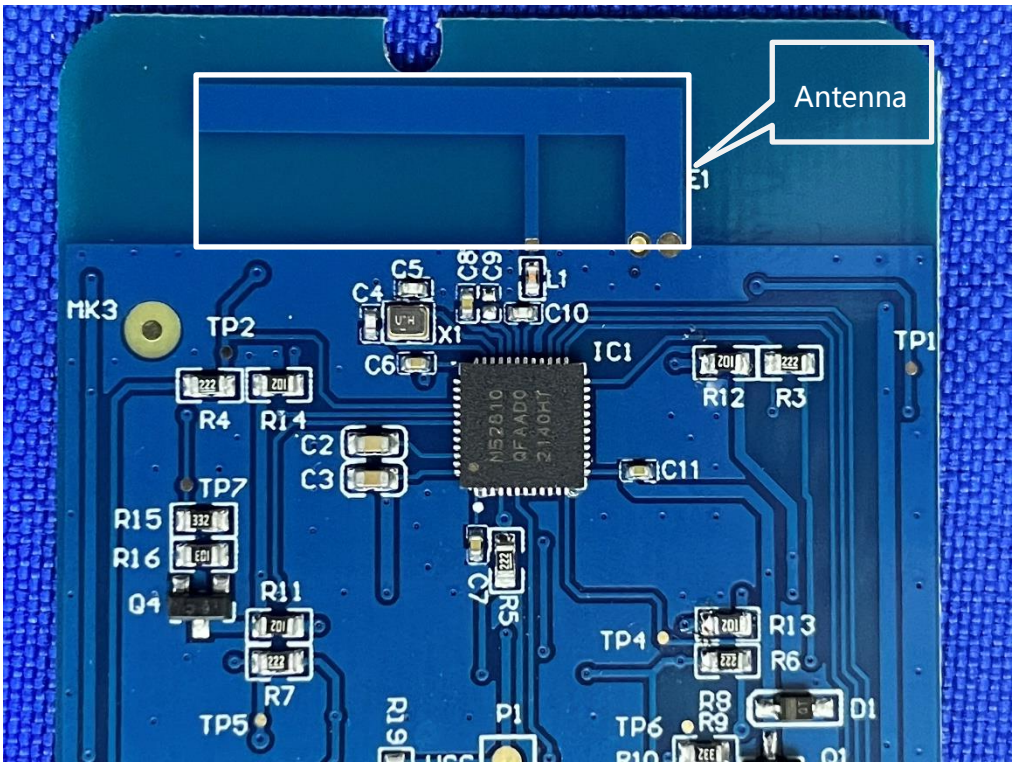
Open of the sample



Internal-1 of the sample



Internal-2 of the sample



Antenna position of the sample

End of the report