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	:	CONTROL BOX
Brand Name	:	N/A
Model No.	:	CB4620
Sample Acquisition Method	:	Sent by Client
Sample No.	:	E23020075-01#03
FCC ID	:	2AVJ8-CB4620
Standard	:	FCC Part 2.1091
Date of Receipt	:	2023-02-23
Date of Test	:	2023-02-24 ~ 2023-03-14
Date of Issue	:	2023-03-15

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

MPE TEST REPORT

1 General Information

1.1 Testing Laboratory

Company Name	ICAS Testing Technology Service (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	CONTROL BOX
Brand Name	N/A
Test Model No.	CB4620
FCC ID	2AVJ8-CB4620
Frequency Range	2403MHz ~ 2480MHz
Modulation Type	GFSK
Antenna Type	PCB Antenna
Antenna Gain	1.225dBi
Hardware Version	R6.210.00.2423AA

Software Version	V1.0

2 Maximum Permissible Exposure (MPE)

2.1 Limits

According to FCC Part 1.1307, systems operating under the provisions of this section shall be operated in a manner the ensures that the public is not exposed to radio frequency energy level in excess of the commission's guidelines.

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

2.2 Assessment methods

Calculation Formula from FCC OET 65:

$$S = \frac{\mathrm{P} * \mathrm{G}}{4 * \pi * R^2}$$

Where:

S = Power Density (mW/cm2)

P = Input Power of the Antenna (mW)

G = Antenna Gain Relative to an Isotropic Antenna

R = Distance from the Antenna to the Point of Investigation (cm)

2.3 Test Result

Operation Mode	Frequency Range (MHz)	Antenna Gain	Max EIRP (mW)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
GFSK	2403~ 2480	1.225dBi	0.03	0.0000060	1.0

Note(s):

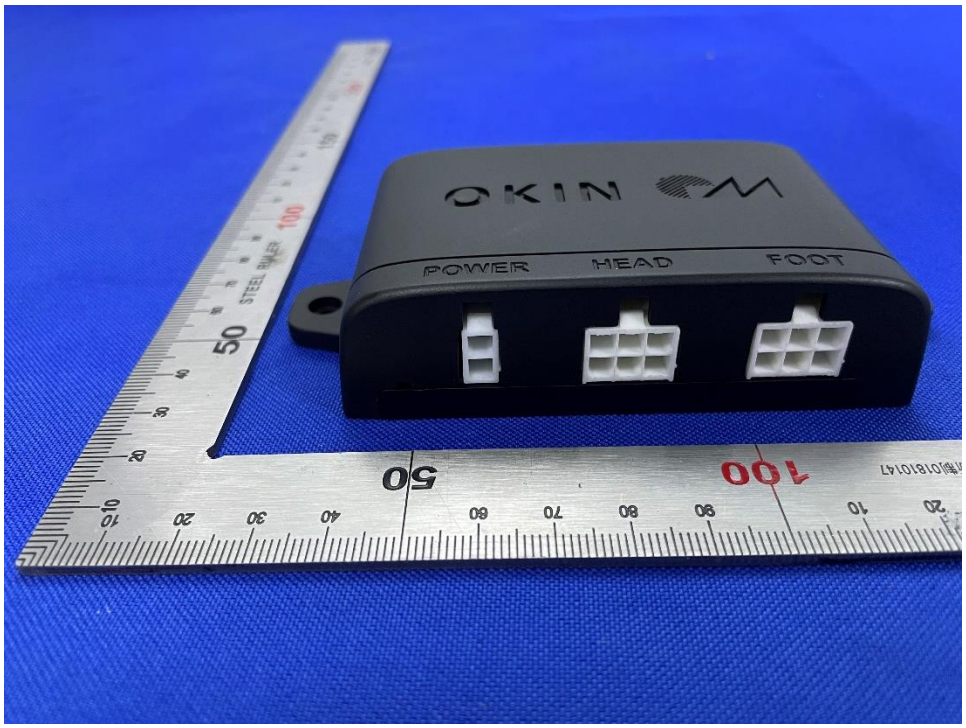
1. For 1,500 – 100,000MHz: Power Density limit is 1.0 mW/cm^2
2. EIRP, please refer to RF test Report No. SHE23020075-02DE

2.4 Conclusion

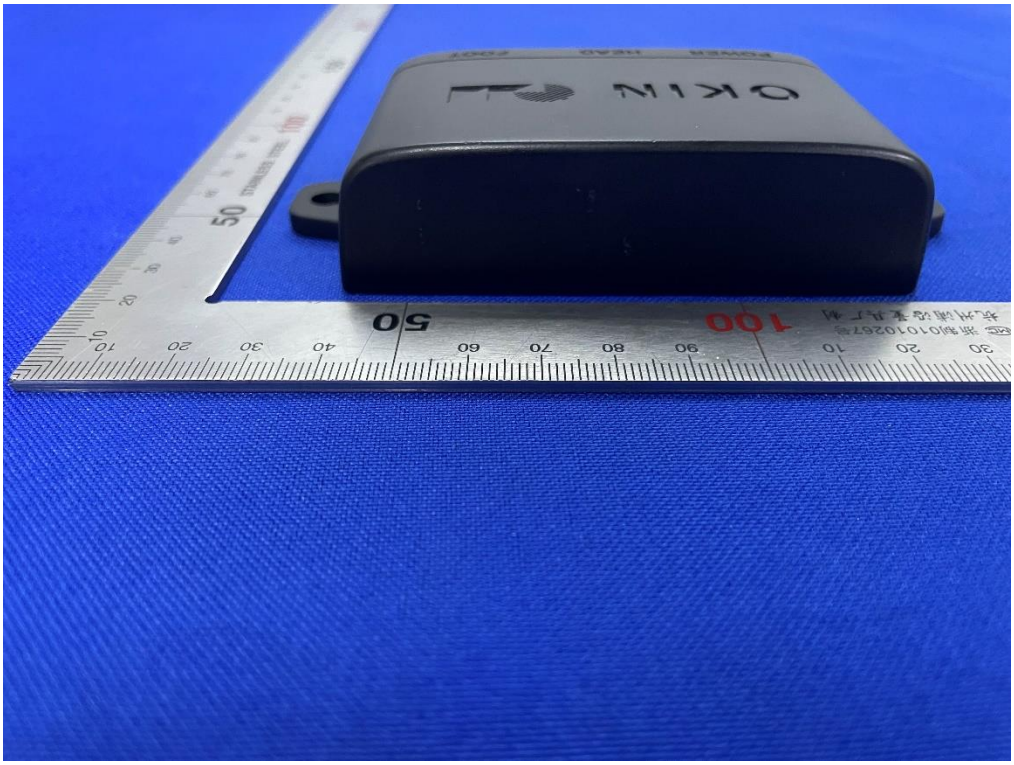
The Power Density at the position which is 20 cm far from the EUT is smaller than the General Population/Uncontrolled Exposure limit.

3 Appendixes

3.1 Sample Photograph



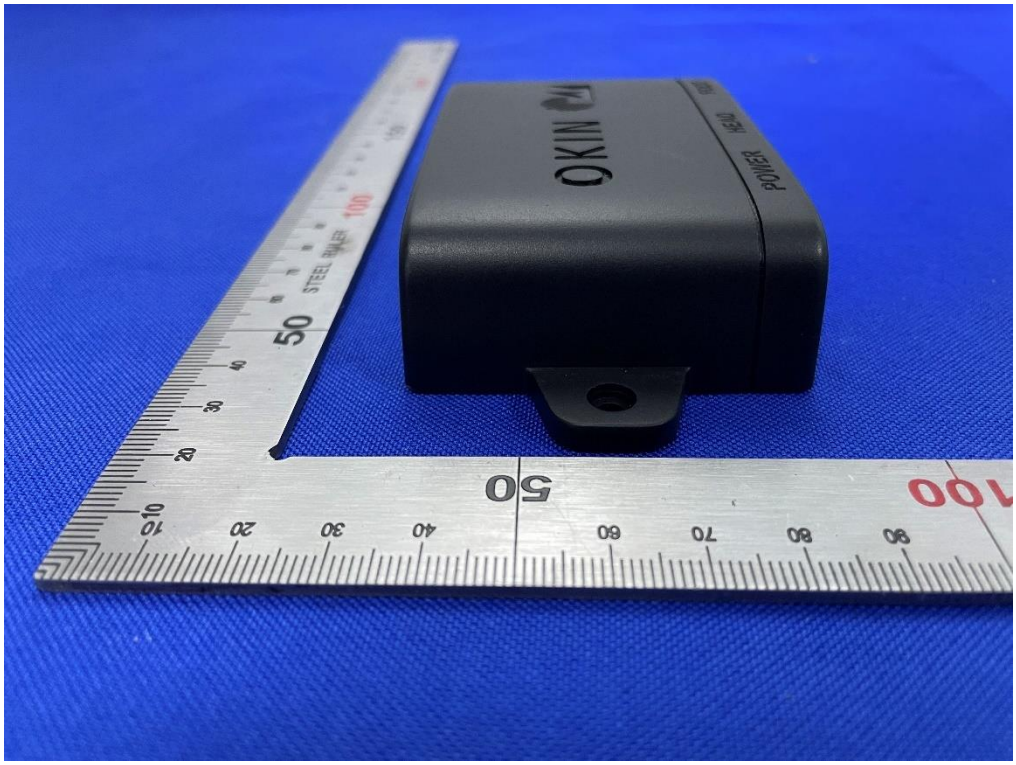
Front of the sample



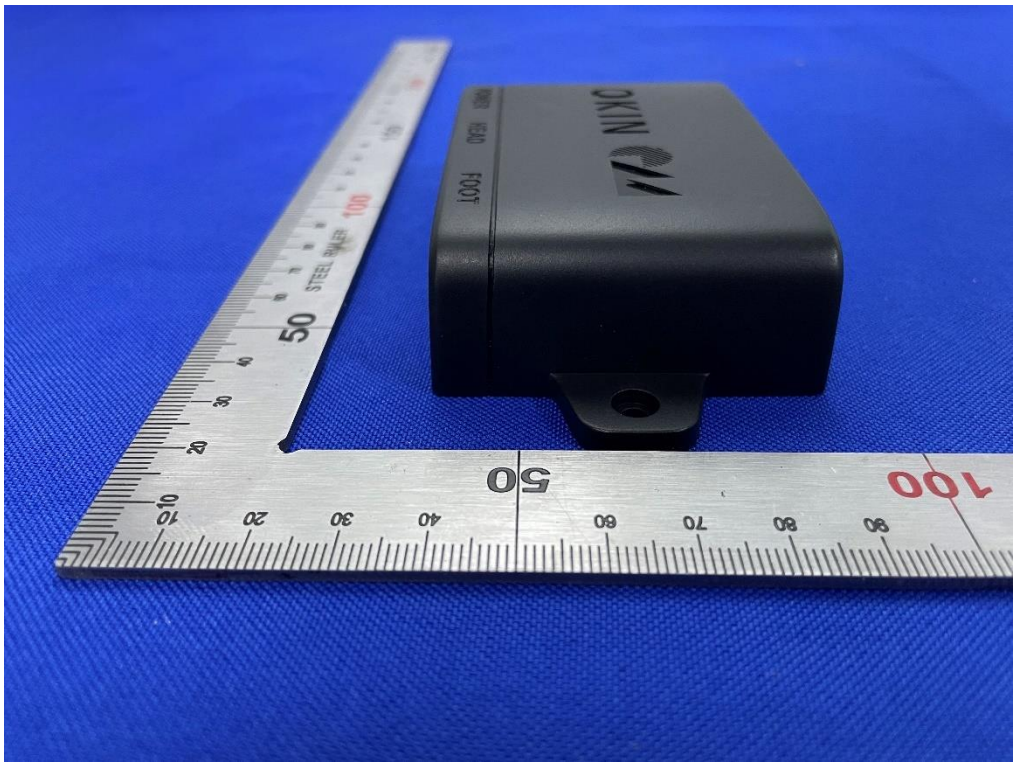
Back of the sample

MPE TEST REPORT

Back of the sample



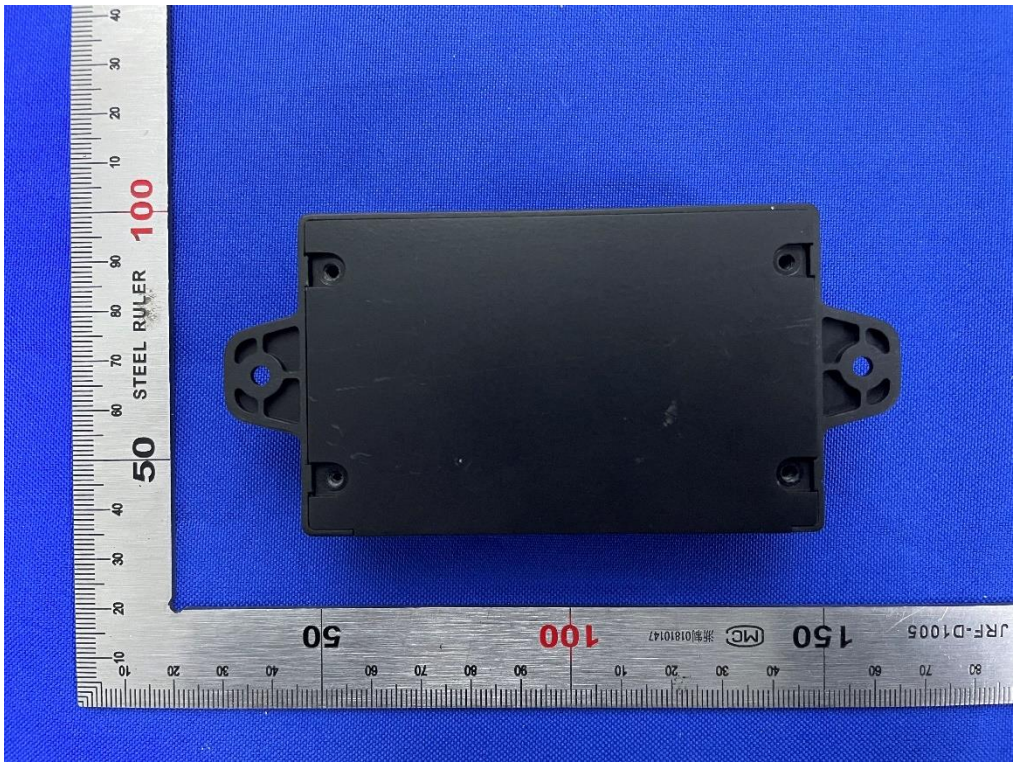
Left of the sample



Right of the sample

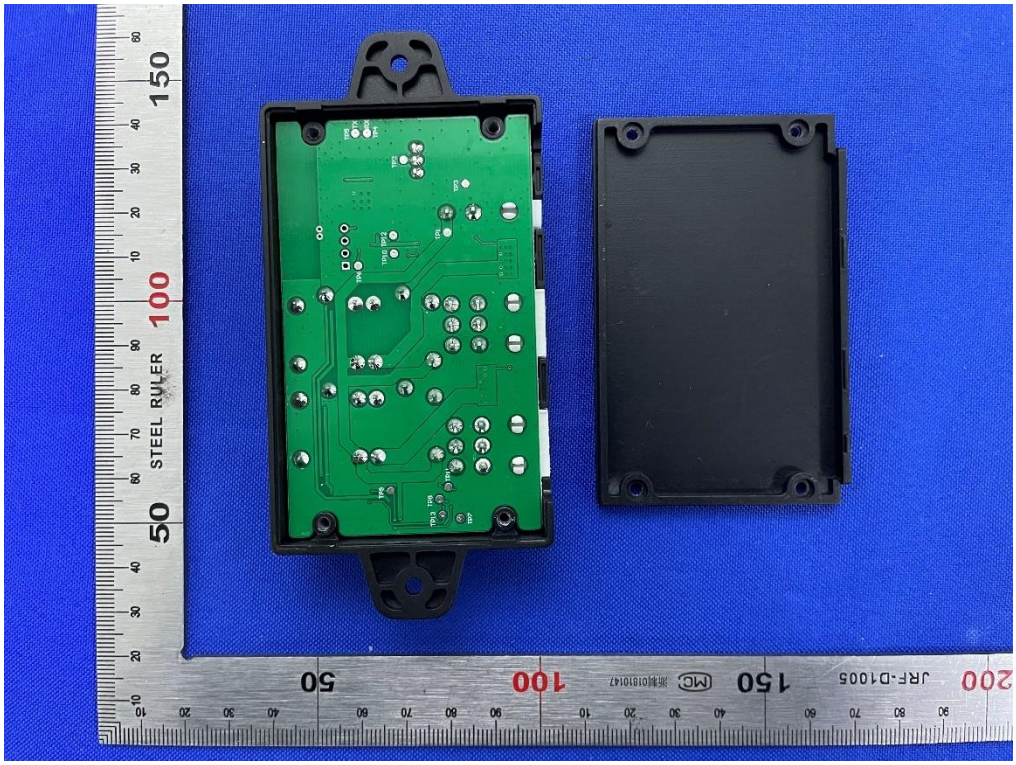
MPE TEST REPORT

Top of the sample

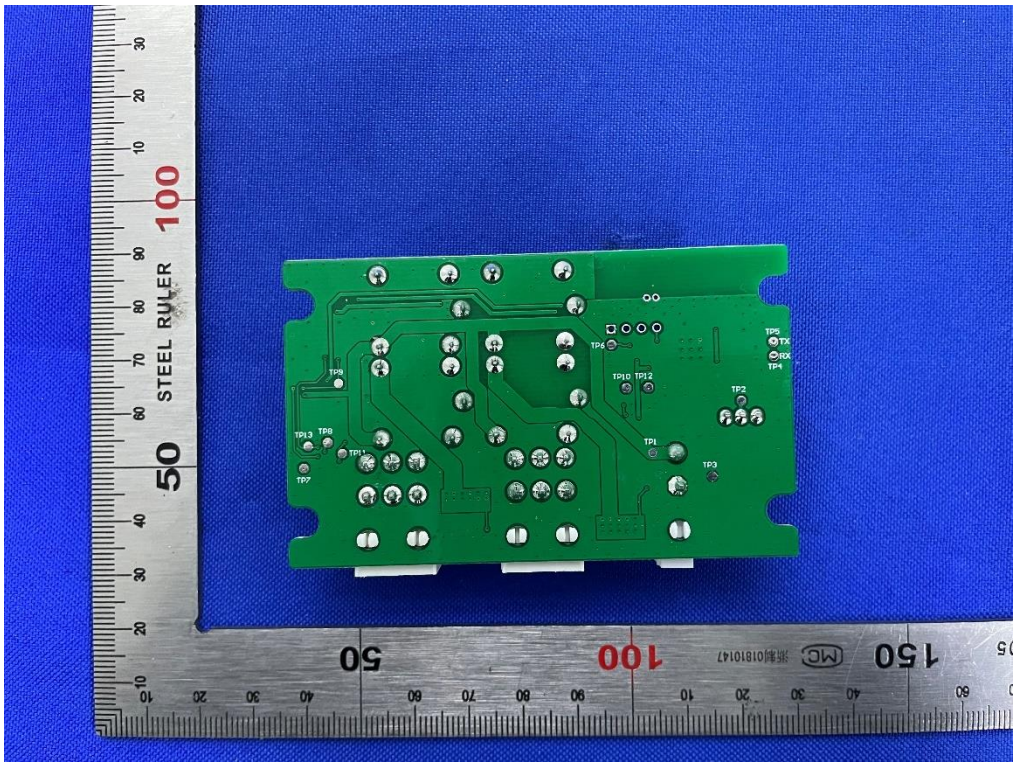


Bottom of the sample

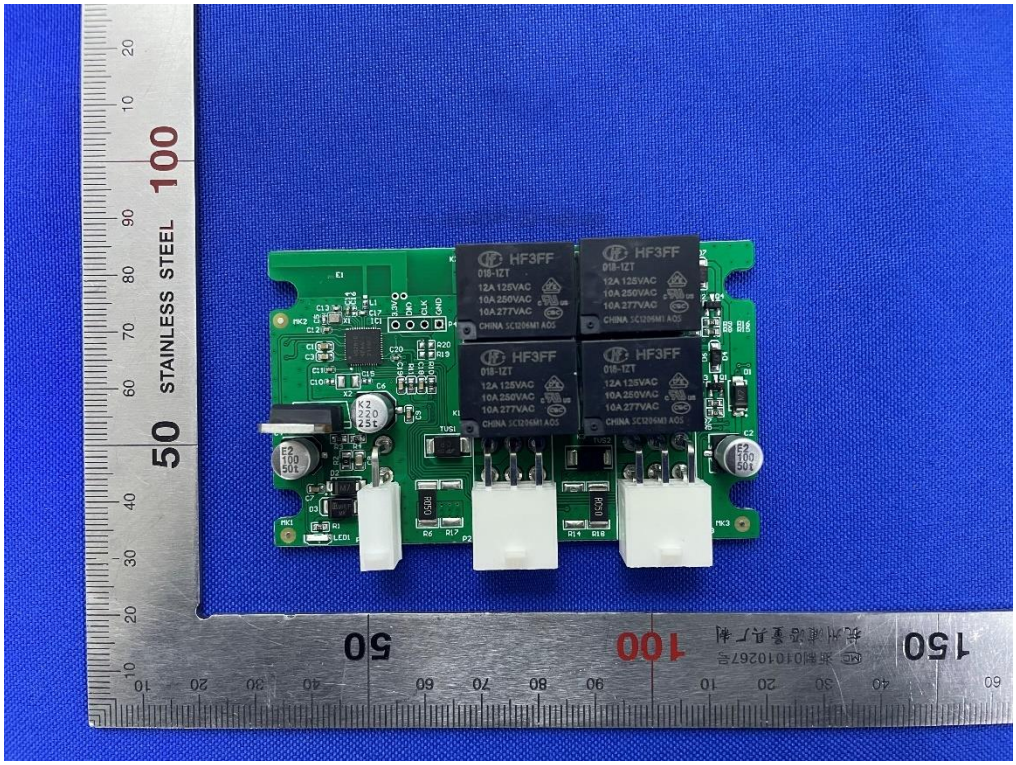
MPE TEST REPORT



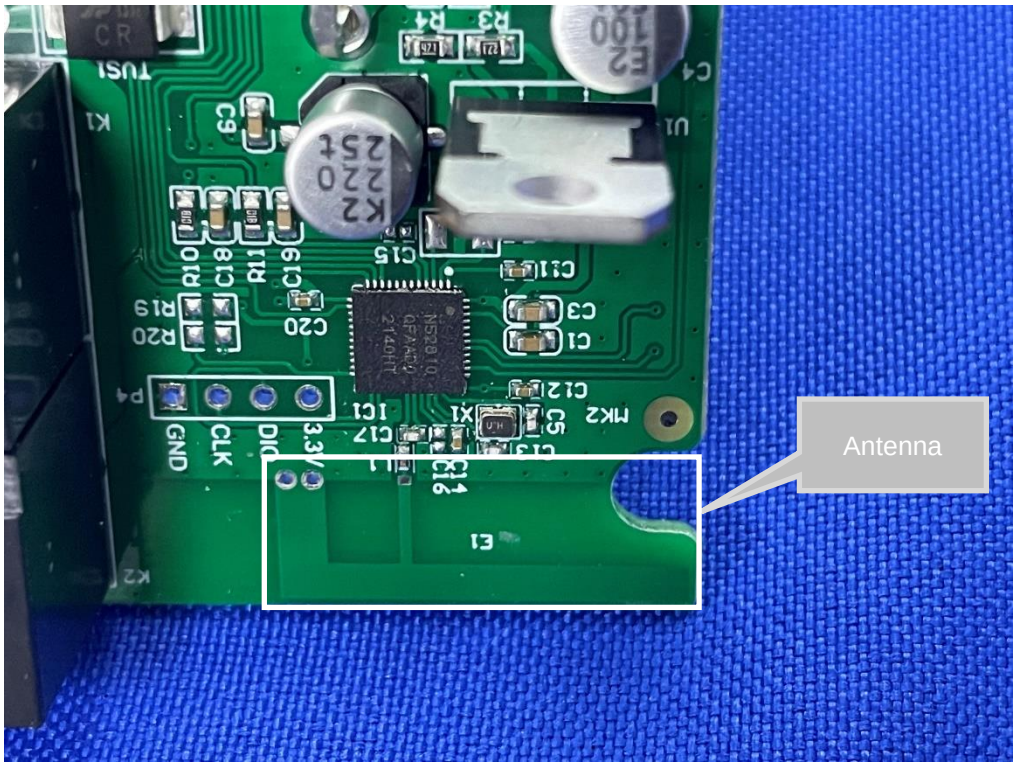
Open of the sample



Internal-1 of the sample



Internal-2 of the sample



Antenna position of the sample

End of the report