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Report Template Version: V05
Report Template Revision Date: 2021-11-03

RF Exposure Evaluation Report

Report No.:	CQASZ20230200223E-02
Applicant:	Shenzhen Baseus Technology Co., Ltd.
Address of Applicant:	2nd Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen.

Equipment Under Test (EUT):

Product:	Power Bank
Model No.:	PPCXM10
Test Model No.:	PPCXM10
Brand Name:	Baseus
FCC ID:	2A482-PPCXM10
Standards:	47 CFR Part 1.1307
	47 CFR Part 1.1310
	KDB 680106 D01 RF Exposure Wireless Charging Base App v03r01
Date of Receipt:	2023-2-28
Date of Test:	2023-2-28 to 2023-3-6
Date of Issue:	2023-4-6
Test Result :	**PASS***

***In the configuration tested, the EUT complied with the standards specified above**

Tested By: _____
(Joe Wang)

Reviewed By: _____
(Timo Lei)

Approved By: _____
(Jack Ai)

SHENZHEN HUAXIA TESTING TECHNOLOGY CO., LTD. 华夏准测 APPROVED

1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20230200223E-02	Rev.01	Initial report	2023-4-6

Note:

The report conducts data reference BCTC2205634857-1E, stray was retested.

2 Contents

3 General Information

3.1 Client Information

Applicant:	Shenzhen Baseus Technology Co., Ltd.
Address of Applicant:	2nd Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen.
Manufacturer:	Shenzhen Baseus Technology Co., Ltd.
Address of Manufacturer:	2nd Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen.
Factory:	DONGGUAN JINCHENG CHUANGXIN TECHNOLOGY CO., LTD
Address of Factory:	F7, Building 4, Dongwu Science Garden, Qinghe Road, Huangjiang Town, Dongguan City, GD, PRC

3.2 General Description of EUT

Product Name:	Power Bank
Model No.:	PPCXM10
Test Model No.:	PPCXM10
Brand Name:	Baseus
Software Version:	V2.0
Hardware Version:	V1.1
EUT Power Supply:	DC 5V3A, 9V2A

3.3 Product Specification subjective to this standard

Equipment Category:	Non-ISM frequency
Operation Frequency range:	110kHz~205kHz
Modulation Type:	Induction
Antenna Type:	Induction coil
Antenna Gain:	0dBi

Note:

1. In section 15.31(m), regards to the operating frequency range less 1 MHz.

3.4 Test Environment

Operating Environment:	
Temperature:	25.5 °C
Humidity:	53 % RH
Atmospheric Pressure:	1009 mbar
Test Mode:	
Mode a:	Keep the EUT Wireless Out Put 5W
Mode b:	Keep the EUT Wireless Out Put 7.5W
Mode c:	Keep the EUT Wireless Out Put 10W
Mode d:	Keep the EUT Wireless Out Put 15W (Max)

3.5 Description of Support Units

The EUT has been tested with associated equipment below.

1）Support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
Wireless charge load	/	/	/	CQA

2) Cable

Cable No.	Description	Manufacturer	Cable Type/Length	Supplied by
/	/	/	/	/

3.6 Test Location

Shenzhen Huaxia Testing Technology Co., Ltd.

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District, Shenzhen, China

3.7 Test Facility

- **A2LA (Certificate No. 4742.01)**

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4742.01.

- **FCC Registration No.: 522263**

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.:522263

3.8 Equipment List

Test Equipment	Manufacturer	Model No.	Instrument No.	Calibration Date	Calibration Due Date
Broadband Field Meter	Narda Safety Test Solutions GmbH	NBM-520	SB9873	2022/9/9	2023/9/8
Magnetic field probe	HIOKI	3470	SB9058/04	2022/9/9	2023/9/8
E-field probe	Narda	EF0391	SB9059	2022/9/9	2023/9/8

4 RF Exposure Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Limits

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

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 Exposures				
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
(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
300–1500	.....	.....	f/1500	30
1500–100,000	.....	.....	1.0	30

Note 1: f = frequency in MHz ; *Plane-wave equivalent power density

Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v03

Note 3: 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. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

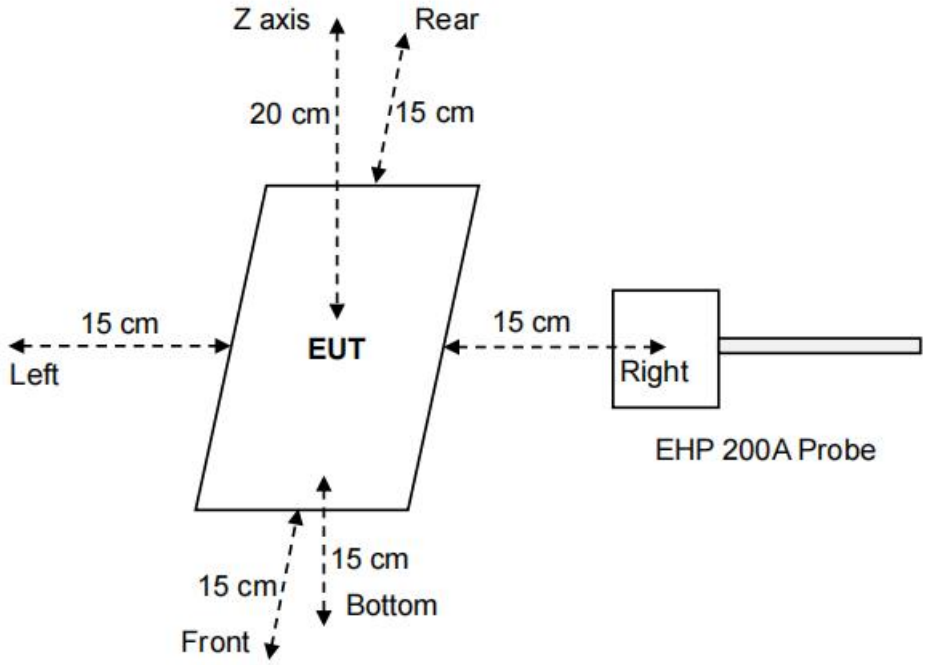
Note 4: The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit .

4.1.2 Test Procedure

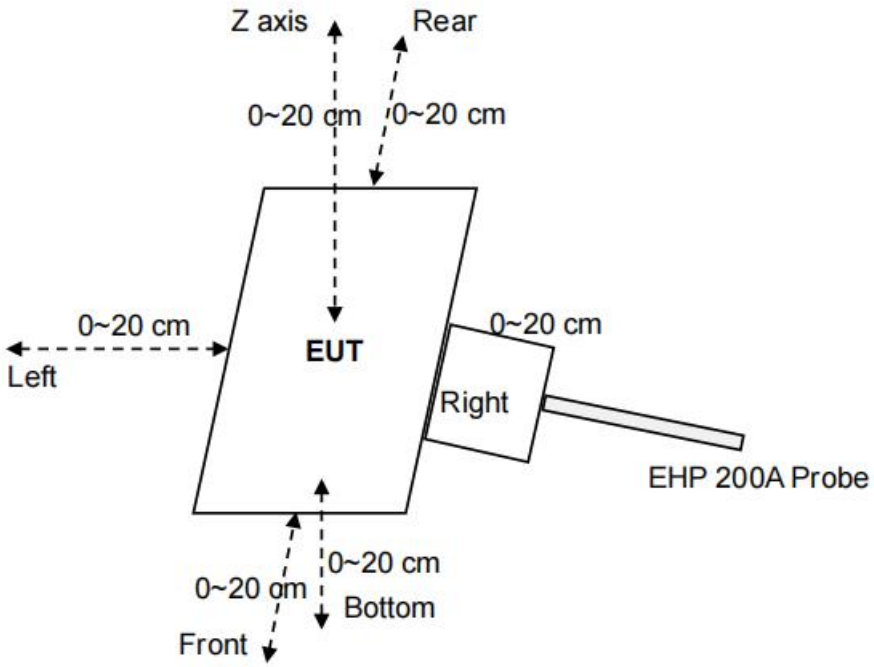
For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 20 cm(Top) and 15cm(Edge). E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 20 cm(Top) and 15cm(Edge) measured from the center of the probe(s) to the edge of the device.

4.1.3 Test Setup

For mobile exposure conditions:



For portable exposure conditions:



Note: Perform H-field measurements for each edge/top surface of the host/client pair at every 2 cm, starting

from as close as possible out to 20 cm

4.1.4 Test Results

The EUT does comply with item 5 KDB680106 D01 v03r01.

(1) Power transfer frequency is less than 1 MHz.
(Conform)

(2) Output power from each primary coil is less than or equal to 15 watts.
(Conform)

(3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.
(Conform)

(4) Client device is placed directly in contact with the transmitter.
(Conform)

(5) . Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

(6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.
(Conform)

(7) the H-field measurements for each edge/top surface of the host/client pair at every 2 cm, starting from as close as possible out to 20 cm were also evaluated for portable use condition.

Test condition: Mode d

H-field strength test result:

test distance: 0cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.7852	1.63	74.5%
	Left	0.84585		
	Right	0.75413		
	Front	0.48535		
	Rear	1.2139		
	Bottom	0.8972		

test distance: 2cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.5851	1.63	67.6%
	Left	0.7410		
	Right	0.5485		
	Front	0.3123		
	Rear	1.1018		
	Bottom	0.6582		

test distance: 4cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.1250	1.63	60.4%
	Left	0.2155		
	Right	0.1554		
	Front	0.093		
	Rear	0.9851		
	Bottom	0.4125		

test distance: 6cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.1013	1.63	51.8%
	Left	0.1869		
	Right	0.1238		
	Front	0.072		
	Rear	0.8450		
	Bottom	0.2539		

test distance: 8cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0872	1.63	27.8%
	Left	0.0981		
	Right	0.0850		
	Front	0.0449		
	Rear	0.4538		
	Bottom	0.0895		

test distance: 10cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0739	1.63	25.4%
	Left	0.0838		
	Right	0.0410		
	Front	0.0408		
	Rear	0.4143		
	Bottom	0.0739		

test distance: 12cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0410	1.63	5.23%
	Left	0.0485		
	Right	0.0448		
	Front	0.0409		
	Rear	0.0853		
	Bottom	0.0413		

test distance: 14cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0396	1.63	2.72%
	Left	0.0410		
	Right	0.0450		
	Front	0.0382		
	Rear	0.0444		
	Bottom	0.0433		

test distance: 16cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0419	1.63	2.71%
	Left	0.0409		
	Right	0.0407		
	Front	0.0342		
	Rear	0.0441		
	Bottom	0.0416		

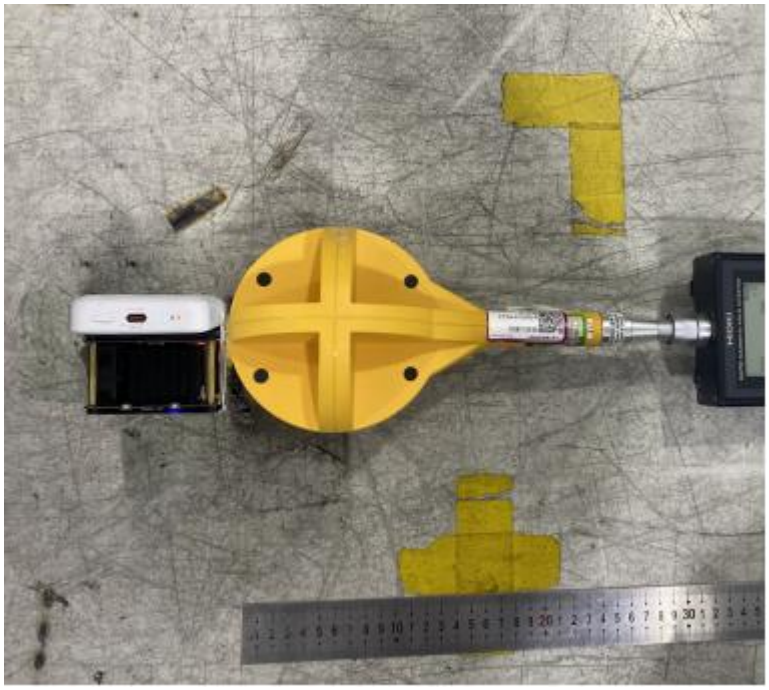
test distance: 18cm

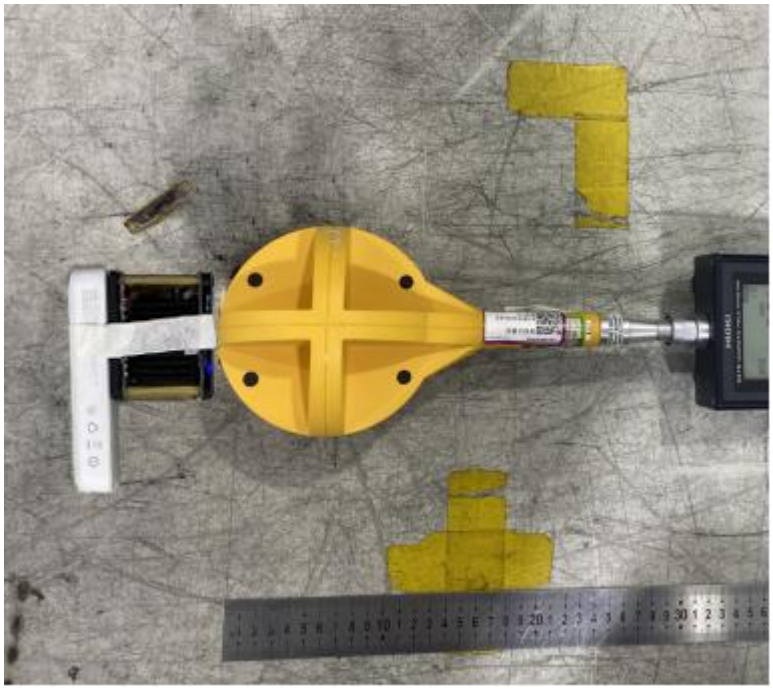
Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0413	1.63	2.56%
	Left	0.0399		
	Right	0.0410		
	Front	0.0405		
	Rear	0.0417		
	Bottom	0.0399		

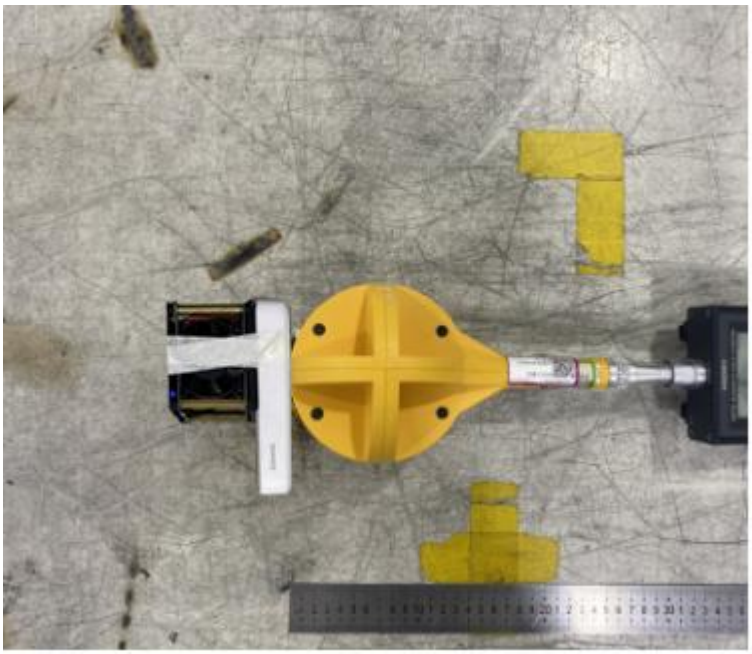
test distance: 20cm

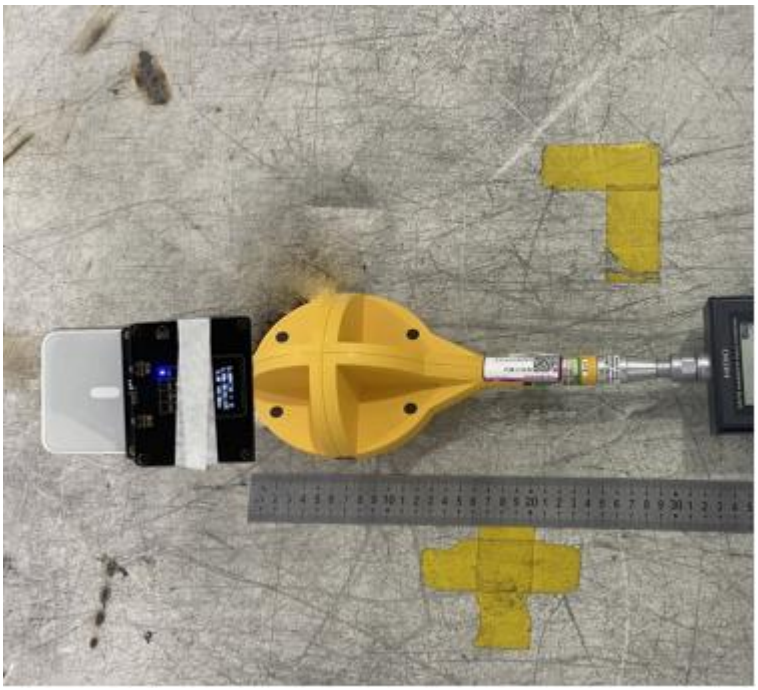
Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0419	1.63	1.93%
	Left	0.0382		
	Right	0.0372		
	Front	0.0387		
	Rear	0.0314		
	Bottom	0.0315		

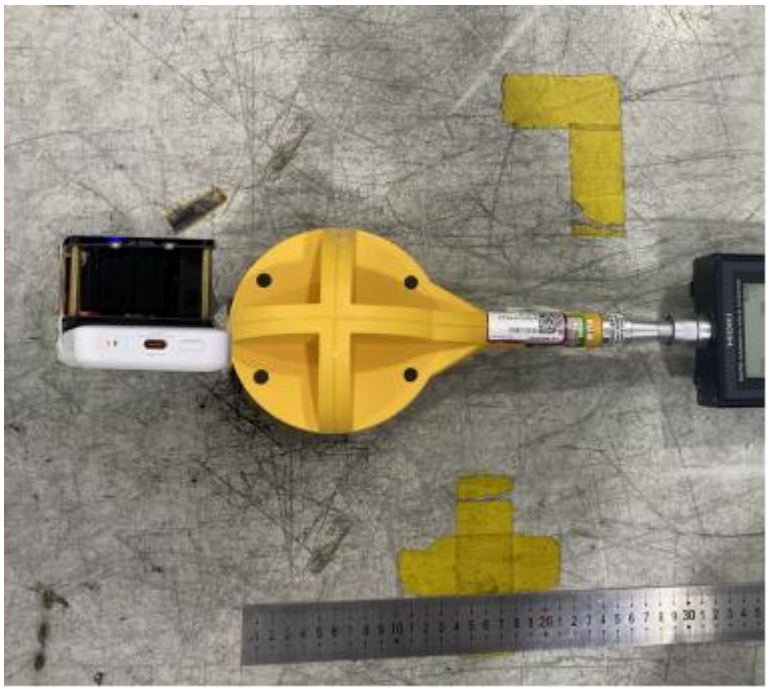
APPENDIX A: PHOTOGRAPHS OF TEST SETUP

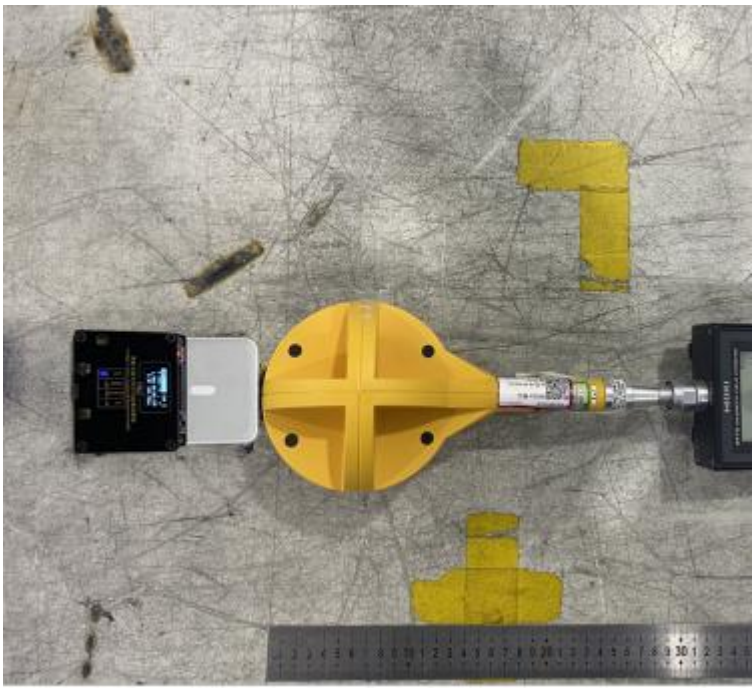












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