

Test Report

Report No. : MTi250610009-0609E2

Date of Issue : 2025-08-22

Applicant : CIO co., Ltd.

Product : SMARTCOBY SLIM II Wireless2.0 8K

Model(s) : CIO-MB20W1C-8K-S2W15

FCC ID : 2B04X-MB08K-01

Shenzhen Microtest Co., Ltd.

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Test Result Certification		
Applicant	CIO co., ltd.	
Applicant Address	4F Moriguchi CID building 2-5-18 Hommachi, Moriguchi-shi, Osaka-fu, 570-0028, Japan	
Manufacturer	CIO co., ltd.	
Manufacturer Address	4F Moriguchi CID building 2-5-18 Hommachi, Moriguchi-shi, Osaka-fu, 570-0028, Japan	
Factory	GD Fab-chain Service Co., Ltd.	
Factory Address	1F, 3-7F, Building 3, No. 31, Huifeng West 2nd Road, Zhongkai High-Tech Zone, Huizhou City, Guangdong, China	
Product description		
Product name	SMARTCOBY SLIM II Wireless2.0 8K	
Trademark	CIO	
Model name	CIO-MB20W1C-8K-S2W15	
Series Model(s)	N/A	
Standards	FCC CFR 47 PART 1, § 1.1310 FCC CFR 47 PART 2.1093	
Test method	KDB 680106 D01 Wireless Power Transfer v04	
Testing Information		
Date of test	2025-08-12 to 2025-08-15	
Test Result	Pass	
Prepared by:	Letter Lan	<i>Letter. Lan.</i>
Reviewed by:	David Lee	<i>David. Lee</i>
Approved by:	Lewis Lian	<i>Lewis Lian</i>

1 General Description

1.1 Description of the EUT

Product name:	SMARTCOBY SLIM II Wireless2.0 8K
Model name:	CIO-MB20W1C-8K-S2W15
Series Model(s):	N/A
Model difference:	N/A
Electrical rating:	Rated Capacity: 7.52VDC 4000mAh USB-C Input: 5V=3A/9V=2.22A/12V=1.67A USB-C Output: 5V=3A/9V=2.22A/12V=1.67A PPS 5~11V=2A(22W Max) Wireless Output: 15W Max
Accessories:	Cable: Type-C to Type-C Cable 0.55m
Hardware version:	REV1.0
Software version:	0xD985
Test sample(s) number:	MTi250610009-06-R001
RF specification	
Operating frequency range:	127.7kHz (5W, 7.5W) 360kHz(15W)
Modulation type:	ASK
Antenna(s) type:	Coil

1.2 Description of test modes

All the test modes were carried out with the EUT in normal operation, the final test mode of the EUT was the worst test mode for emission test, which was shown in this report and defined as:

No.	Emission test modes
Mode1	Wireless Output(5W)
Mode2	Charging+Wireless Output(5W)
Mode3	Wireless Output(7.5W)
Mode4	Charging+Wireless Output(7.5W)
Mode5	Wireless Output(15W)
Mode6	Stand by

1.3 Description of support units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Support equipment list			
Description	Model	Serial No.	Manufacturer
Mobile Phone	iPhone 16 Pro Max	/	Apple
Mobile Phone	iPhone 11	/	Apple
Support cable list			
Description	Length (m)	From	To
/	/	/	/

2 Measurement uncertainty

Parameter	Expanded Uncertainty
Magnetic field measurements(3kHz~10MHz)	$\pm 14.8\%$
Electric field measurements(3kHz~10MHz)	$\pm 17.5\%$

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

3 Test facilities and accreditations

3.1 Test laboratory

Test laboratory:	Shenzhen Microtest Co., Ltd.
Test site location:	101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573

4 List of test equipment

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
MTI-E143	Near-field Electric and Magnetic Field Sensor System	SPEAG	MAGPy-8H3 D+ED3	3101	2024/3/12	2027/3/11

No.	Equipment	Manufacturer	Model	Software version:	Cal. date	Cal. Due
MTI-E016S	MPE test software	SPEAG	MAGPY 2.6	2.6	/	/

5 Test result

5.1.1 Requirement

§1.1310: 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 §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of FCC part 2.1093 of this chapter.

Table 1 to §1.1310(e)(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)
(i) 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
1500-100000			5	<6
(ii) 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
1500-100000			1.0	<30

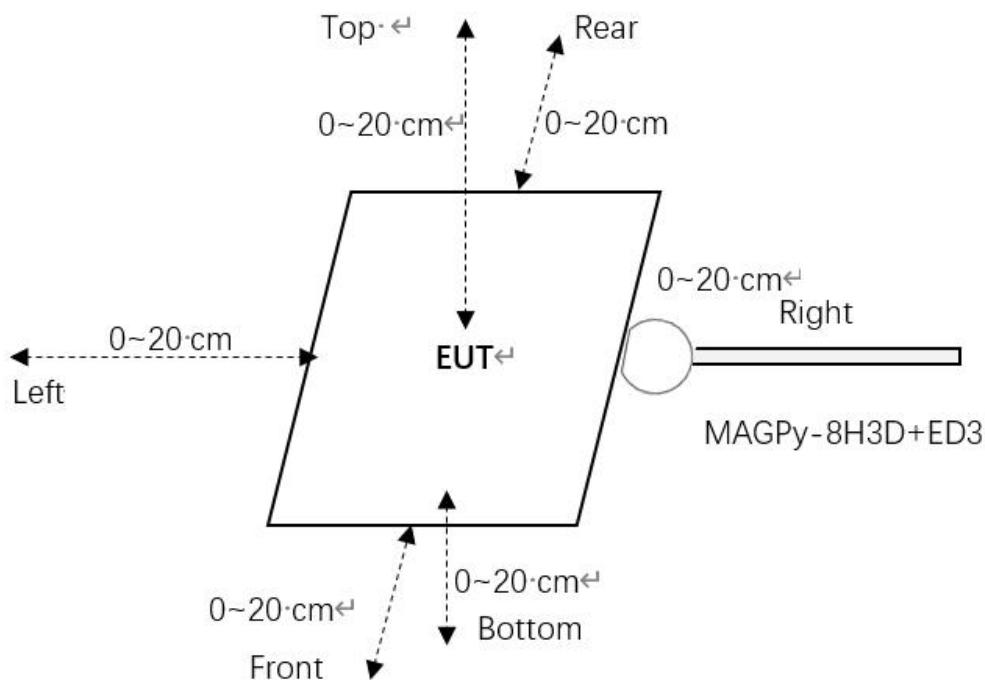
f = frequency in MHz

* = Plane-wave equivalent power density

Note 1: Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

Note 2: General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

5.2 Test setup



Note: tips mode of the test probe is used for 0cm measurement.

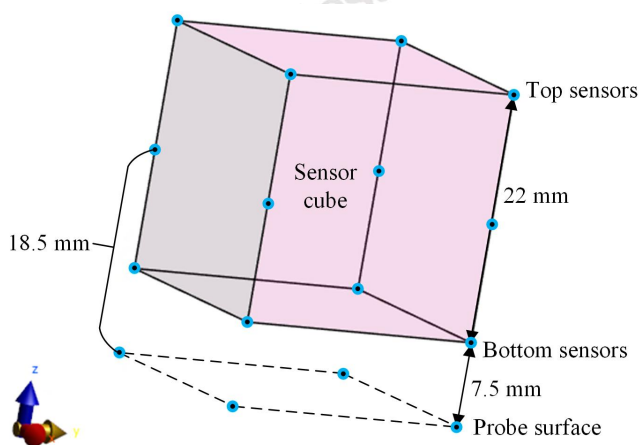
5.3 Test Procedures

a. H-field measurements should be taken 0 cm ~ 20 cm with 2 cm increments from the center of the probe.

The center of the probe to the tip surface of the probe is 18.5 mm, so the directly testing can be performed at the probe center from 2 cm to 20 cm.

To measure the 0 cm H-field, the probe tip mode is used. The total H-field at the tip-surface $H_{tip-surface}$ can be extrapolated using the total H-field measured at the top and bottom sensors, H_{top} and H_{bottom} , as well as the normalized H-field gradient G_n . The field extrapolation formula is a polynomial function of G_n ($\Delta d = 18.5$ mm)

$$H_{tip-surface} = \frac{H_{bottom} + H_{top}}{2} \sum_{i=0}^7 c_i (G_n \Delta d)^i$$



5.4 Information of test equipment

Test equipment: MAGPy-8H3D+ED3	
Diameter	60mm
8 isotropic H-field sensors	Concentric loops of 1cm ² arranged at the corner of a cube of 22mm side length
1 isotropic E-field sensor	Orthogonal dipole/monopole (arm length: 50mm)
Measurement center	18.5mm from the probe tip
Dimensions	110*635*35mm (MAGPy-8H3D+E3D V2 & MAGPy-DAS V2)
	
Test probe, without the casing	

Item	Specification
Test frequency range:	3kHz ~ 10MHz
Probe sensitivity	E-field: 0.08-2000 V/m H-field: 0.1-3200 A/m
Probe level response	E-field: ±1dB H-field: ±1dB
linearity error	E-field: ±0.3dB H-field: ±0.3dB
Isotropy	E-field: ±0.8dB H-field: ±0.6dB

5.5 Test results

All client power has been assessed (1%,50%, 99%), and the 1% battery status of client device was the worst.

Test condition 1: Mode 3 operating mode with client device (1 % battery status of client device)

-estimated value: 0cm

Estimated value for H-Filed Strength at 0 cm from the edges surrounding the EUT (A/m)

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.210	1.63	97.55%
Bottom	0.093		
Left	1.499		
Right	1.442		
Front	1.590		
Rear	0.621		

Test condition 2: Mode 3 operating mode with client device (1 % battery status of client device)

- Test distance: 2cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.198	1.63	95.4%
Bottom	0.092		
Left	1.491		
Right	1.437		
Front	1.555		
Rear	0.618		

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Test condition 2: Mode 3 operating mode with client device (1 % battery status of client device)

- Test distance: 4cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.139	1.63	66.75%
Bottom	0.064		
Left	1.044		
Right	1.006		
Front	1.089		
Rear	0.433		

Test condition 2: Mode 3 operating mode with client device (1 % battery status of client device)

- Test distance: 6cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.103	1.63	47.80%
Bottom	0.045		
Left	0.734		
Right	0.707		
Front	0.779		
Rear	0.304		

Test condition 2: Mode 3 operating mode with client device (1 % battery status of client device)

- Test distance: 8cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.072	1.63	33.45%
Bottom	0.032		
Left	0.514		
Right	0.495		
Front	0.545		
Rear	0.213		

Test condition 2: Mode 3 operating mode with client device (1 % battery status of client device)

- Test distance: 10cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.050	1.63	23.40%
Bottom	0.022		
Left	0.360		
Right	0.347		
Front	0.382		
Rear	0.149		

Test condition 2: Mode 3 operating mode with client device (1 % battery status of client device)

- Test distance: 12cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.035	1.63	16.40%
Bottom	0.015		
Left	0.252		
Right	0.243		
Front	0.267		
Rear	0.104		

Test condition 2: Mode 3 operating mode with client device (1 % battery status of client device)

- Test distance: 14cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.025	1.63	11.47%
Bottom	0.011		
Left	0.176		
Right	0.170		
Front	0.187		
Rear	0.073		

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Test condition 2: Mode 3 operating mode with client device (1 % battery status of client device)

- Test distance: 16cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.018	1.63	8.03%
Bottom	0.008		
Left	0.123		
Right	0.119		
Front	0.131		
Rear	0.051		

Test condition 2: Mode 3 operating mode with client device (1 % battery status of client device)

- Test distance: 18cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.013	1.63	5.63%
Bottom	0.006		
Left	0.086		
Right	0.083		
Front	0.092		
Rear	0.036		

Test condition 2: Mode 3 operating mode with client device (1 % battery status of client device)

- Test distance: 20cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.009	1.63	3.95%
Bottom	0.004		
Left	0.060		
Right	0.058		
Front	0.064		
Rear	0.025		

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Test condition 1: Mode 5 operating mode with client device (1 % battery status of client device)**-estimated value: 0cm****Estimated value for H-Filed Strength at 0 cm from the edges surrounding the EUT (A/m)**

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	1.38	1.63	96.93%
Bottom	1.2		
Left	1.44		
Right	1.35		
Front	1.58		
Rear	1.43		

Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device)**- Test distance: 2cm**

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.966	1.63	67.85%
Bottom	0.840		
Left	1.008		
Right	0.945		
Front	1.106		
Rear	1.001		

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Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device)

- Test distance: 4cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.676	1.63	47.50%
Bottom	0.588		
Left	0.706		
Right	0.662		
Front	0.774		
Rear	0.701		

Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device)

- Test distance: 6cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.473	1.63	33.24%
Bottom	0.412		
Left	0.494		
Right	0.463		
Front	0.542		
Rear	0.491		

Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device)

- Test distance: 8cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.331	1.63	23.28%
Bottom	0.288		
Left	0.346		
Right	0.324		
Front	0.379		
Rear	0.344		

Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device)

- Test distance: 10cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.232	1.63	16.28%
Bottom	0.202		
Left	0.242		
Right	0.227		
Front	0.265		
Rear	0.241		

Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device)

- Test distance: 12cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.162	1.63	11.38%
Bottom	0.141		
Left	0.169		
Right	0.159		
Front	0.186		
Rear	0.169		

Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device)

- Test distance: 14cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.113	1.63	7.99%
Bottom	0.099		
Left	0.118		
Right	0.111		
Front	0.130		
Rear	0.118		

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Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device)

- Test distance: 16cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.079	1.63	5.58%
Bottom	0.069		
Left	0.083		
Right	0.078		
Front	0.091		
Rear	0.083		

Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device)

- Test distance: 18cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.055	1.63	3.91%
Bottom	0.048		
Left	0.058		
Right	0.055		
Front	0.064		
Rear	0.058		

Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device)

- Test distance: 20cm

Probe Position	H-field (A/m)		
	Measurement	Limit	Percentage (%)
Z axis	0.039	1.63	2.75%
Bottom	0.034		
Left	0.041		
Right	0.039		
Front	0.045		
Rear	0.041		

Photographs of the Test Setup

See the Appendix - Test Setup Photos.

Photographs of the EUT

See the Appendix - EUT Photos.

Statement

1. This report is invalid without the seal and signature of the laboratory.
2. The test results of this report are only responsible for the samples submitted. Client shall be responsible for representativeness of the sample and authenticity of the material.
3. The report shall not be partially reproduced without the written consent of the Laboratory.
4. This report is invalid if transferred, altered or tampered with in any form without authorization.
5. The observations or tests with special mark fall outside the scope of accreditation, and are only used for purpose of commission, research, training, internal quality control etc.
6. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

***** END OF REPORT *****