RF EXPOSURE Test Report

Product: Flexbox 5

Trade Mark: FLEXBOX

Model Number: FO.FB.5

FCC ID: 2BMHV-FB5

Prepared for

Flexoptix GmbH

Muehltalstr. 153, 64297 Darmstadt, Germany

Prepared by

Shenzhen HongBiao Certification& Testing Co., Ltd
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TEST RESULT CERTIFICATION

Applicant's Name..... : Flexoptix GmbH

Address ..... : Muehltalstr. 153, 64297 Darmstadt, Germany

Manufacturer's Name ..... : Flexoptix GmbH

Address ..... : Muehltalstr. 153, 64297 Darmstadt, Germany

Product description

Product name ..... : Flexbox 5

Model Number ..... : FO.FB.5

Standards ..... : FCC CFR 47 PART 1 , 1.1310

Test procedure..... : KDB 680106 D01 Wireless Power Transfer v04

This device described above has been tested by Shenzhen HongBiao Certification& Testing Co., Ltd and the test results show that the equipment under test (EUT) is in compliance with the EMC requirements. And it is applicable only to the tested sample identified in the report.

Date of Test ..... :

Date (s) of performance of tests..... : Dec. 10, 2024~ Dec. 13, 2024

Test Result..... : **Pass**

Testing Engineer : Zoe Su

(Zoe Su)

Technical Manager : Ming Liu

(Ming Liu)

Authorized Signatory : Leo S

(Leo S

SHENZHEN HONGBIAO CERTIFICATION&TESTING CO., LTD HONG BIAO 弘 标 认 证 APPROVAL

Revision History

Revised No.	Date of Issue	Description
01	Dec. 13, 2024	Original

1 General Description

1.1 Description of EUT

Product name:	Flexbox 5
Model name:	FO.FB.5
Series Model:	N/A
Different of series model:	N/A
Operation frequency:	128-130kHz
Operational mode:	Wireless charging
Modulation type:	ASK
Antenna type:	Coil Antenna
Input:	DC 5V/9V/12V/15V, Max. 3A
Battery:	Capacity: 2000mAh Rated Voltage: 3.7V
Power supply:	Input: DC 5V/9V/12V/15V, Max. 3A Inductive Charging: Max.15W
Adapter information:	N/A

1.2 Test Mode

Pretest Test Mode	Description of Mode
1	Wireless Output: 5W
2	Wireless Output: 7.5W
3	Wireless Output: 10W
4	Wireless Output: 15W

1.3 Test Setup

See photographs of the test setup in the report for the actual setup and connections between EUT and support equipment.

1.4 Ancillary Equipment

Equipment	Model	S/N	Manufacturer
Adapter	EQ-24BCN	/	Huizhou Dongyang Yienbi Electronics Co., Ltd.
Phone	LE2120	8602840564 41073	Shenzhen Oneplus Technology Co., Ltd

2 Test Facilities and Accreditations

2.1 Test Laboratory

Test Site	Shenzhen HongBiao Certification& Testing Co., Ltd
Test Site Location	Room 102, 201, Building 2, Yuanwanggu RFID Industrial Park, Tongguan Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen, China
Telephone:	(86-755) 2998 9321
Fax:	(86-755) 2998 5110
FCC Registration No.:	CN1341
A2LA Certificate No.:	6765.01

2.2 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15ºC~35ºC
Relative Humidity:	20%~75%
Air Pressure:	98kPa~101kPa

2.3 Measurement Uncertainty

The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.
The data and results quoted in this document are true and accurate values, and uncertainties are not involved in the calculations.
In addition, components and mass production processes that are similar to testing equipment may introduce additional deviations, and the manufacturer is solely responsible for the continued compliance of the equipment.

Measurement Frequency Range	U, (dB)	Note
RF frequency	$2x\ 10^{-5}$	
E-field	± 1.06 dB	
H-field	± 0.7 dB	
Temperature	±1 degree	
Humidity	± 5 %	

2.4 Test Software

Software name	Manufacturer	Model	Version
EHP200-TS	Narda	EHP-200A	Rel 1.95

3 List of Test Equipment

Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	HB-E073	Electric and Magnetic Field Analyzer	Narda	EHP-200A	180ZX11013	2024-05-21	2025-05-20

Note: the calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

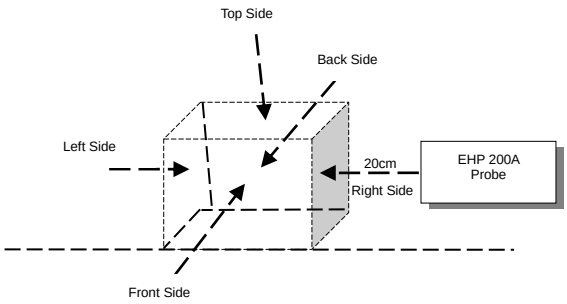
4 RF Exposure

4.1 Maximum Permissible Exposure

4.1.1. Limit

Frequency range(MHz)	Electric field strength(V/m)	Magnetic field strength(A/m)	Power density(mW/cm2)	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	6
300-1500			f/300	6
1500-100000			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
1500-100000			1	30
f = frequency in MHz * = Plane-wave equivalent power density				

4.1.2. Test Setup



4.1.3. Test Result

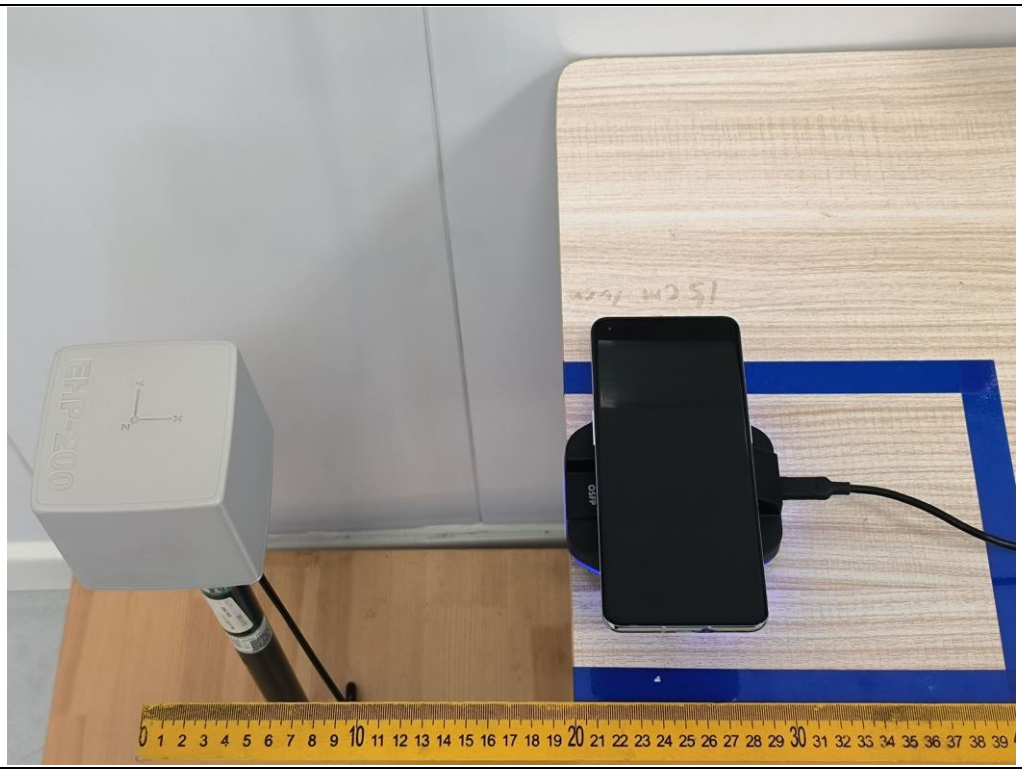
Test condition: Mode 4 operating mode with client device (1 %, 50%, 99% battery status of client device)

Maximum permissible Exposure				
Battery levels	Test sides	Test distance(cm)	E –field(V/m)	H–field(A/m)
<1%	Top	20	2.2726	0.0577
<1%	Left	20	1.9202	0.0454
<1%	Right	20	1.9361	0.0470
<1%	Front	20	1.1943	0.0435
<1%	Back	20	0.7993	0.0454
Limit			614	1.63
Margin Limit (%)			0.37%	3.54%

Maximum permissible Exposure				
Battery levels	Test sides	Test distance(cm)	E –field(V/m)	H–field(A/m)
<50%	Top	20	2.2716	0.0554
<50%	Left	20	1.9189	0.0437
<50%	Right	20	1.9354	0.0469
<50%	Front	20	1.1936	0.0425
<50%	Back	20	0.7963	0.0409
Limit			614	1.63
Margin Limit (%)			0.37%	3.40%

Maximum permissible Exposure				
Battery levels	Test sides	Test distance(cm)	E –field(V/m)	H–field(A/m)
<99%	Top	20	2.2708	0.0542
<99%	Left	20	1.9176	0.0427
<99%	Right	20	1.9338	0.0462
<99%	Front	20	1.1929	0.0421
<99%	Back	20	0.7945	0.0403
Limit			614	1.63
Margin Limit (%)			0.37%	3.33%

5 Photographs of the Test Setup

MPE


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