



# RF Exposure Report

For

**Applicant Name:** Shenzhen Semetor Electronics Co., LTD  
Address: B3, 3th floor, guanglong building, No.162, pingxin north road, hehua community, pinghu street, longgang district, shenzhen city, guangdong  
**EUT Name:** MUTI-FUNCTION WIRELESS CHARGER  
**Brand Name:**  COLSUR®  
**Model Number:** S05

## Issued By

**Company Name:** BTF Testing Lab (Shenzhen) Co., Ltd.  
Address: F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China  
**Report Number:** BTF240313R00305  
**Test Standards:** 47 CFR Part 1 Subpart I Section 1.1310  
**FCC ID:** 2AYRH-S05  
**Test Conclusion:** Pass  
**Test Date:** 2024-03-15 to 2024-04-25  
**Date of Issue:** 2024-04-25

Prepared By:

Ace Xie

Date:

Ace Xie / Project Engineer  
2024-04-25

Approved By:


Date:

Ryan.CJ / EMC Manager  
2024-04-25

*Note: All the test results in this report only related to the testing samples. Which can be duplicated completely for the legal use with approval of applicant; it shall not be reproduced except in full without the written approval of BTF Testing Lab (Shenzhen) Co., Ltd., All the objections should be raised within thirty days from the date of issue. To validate the report, you can contact us.*

Revision History		
Version	Issue Date	Revisions Content
R_V0	2024-04-25	Original
<i>Note:</i>	<i>Once the revision has been made, then previous versions reports are invalid.</i>	

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## 1. Introduction

### 1.1 Identification of Testing Laboratory

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China
Phone Number:	+86-0755-23146130
Fax Number:	+86-0755-23146130

### 1.2 Identification of the Responsible Testing Location

Test Location:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China
Description:	All measurement facilities used to collect the measurement data are located at F101,201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China
FCC Registration Number:	518915
Designation Number:	CN1330

### 1.3 Laboratory Condition

Ambient Temperature:	20°C to 25°C
Ambient Relative Humidity:	45% to 55%
Ambient Pressure:	100 kPa to 102 kPa

### 1.4 Announcement

- (1) The test report reference to the report template version v0.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

## 2. Product Information

### 2.1 Application Information

Company Name:	Shenzhen Semetor Electronics Co., LTD
Address:	B3, 3th floor, guanglong building, No.162, pingxin north road, hehua community, pinghu street, longgang district, shenzhen city, guangdong

### 2.2 Manufacturer Information

Company Name:	Shenzhen Semetor Electronics Co., LTD
Address:	B3, 3th floor, guanglong building, No.162, pingxin north road, hehua community, pinghu street, longgang district, shenzhen city, guangdong

### 2.3 Factory Information

Company Name:	Shenzhen Semetor Electronics Co., LTD
Address:	B3, 3th floor, guanglong building, No.162, pingxin north road, hehua community, pinghu street, longgang district, shenzhen city, guangdong

### 2.4 General Description of Equipment under Test (EUT)

EUT Name:	MUTI-FUNCTION WIRELESS CHARGER
Under Test Model Name	S05

## 3. Test Requirement

KDB 680106 D01 RF Exposure Wireless Charging App v03

Human exposure to RF Low frequency emissions from portable devices (47 CFR § 2.1093) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density.

According to the item 5.2 of KDB 680106 D01v03:

TCB Workshop and combine the actual situation of the EUT, For the portable wireless charger, RF exposure evaluation should be made from all sides(six sides) of EUT, with the 0cm to 20cm measured from the center of the probe to the edge of the EUT, in 2cm minimum increment.

E and H field strength measurements or numerical modelling may be used to demonstrate compliance.

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 <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposure</b>				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f <sup>2</sup>	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	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

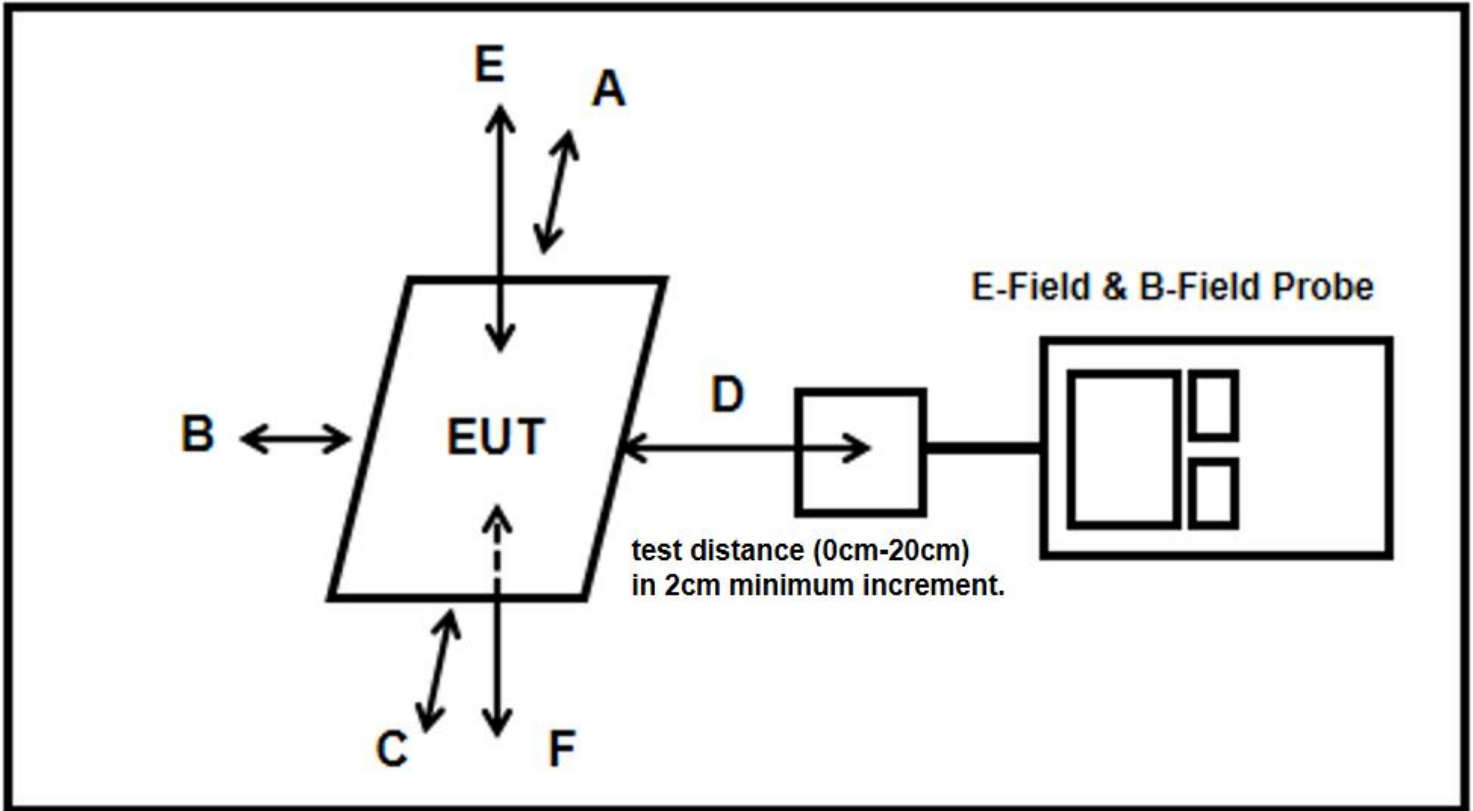
**Test Equipment List**

Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. (mm-dd-yy)	Next Cal. (mm-dd-yy)
Electric and Magnetic Field Analyzer	Narda	EHP-200A	180ZX11001	2024.3.29	2025.3.28

**Test Mode**

Test mode	Description
ANT1	Mode 1: AC/DC Adapter + EUT + Wireless load (Full Load)
	Mode 2: AC/DC Adapter + EUT + Wireless load (Half Load)
	Mode 3: AC/DC Adapter + EUT + Wireless load (Null Load)
No Loads	Mode 4: EUT + Wireless load (Full Load)
	Mode 5: EUT + Wireless load (Half Load)
	Mode 6: EUT + Wireless load (Null Load)
No Loads	AC/DC Adapter + EUT(Null Load)

## Test Setup



Note: Measurements should be made from all sides and the top of the primary/client pair, the test distance of A, B, C, D, E, F side is 0cm to 20cm.

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E, F) were completed.
- 3) The EUT was measured according to the dictates of KDB 680106 D01 v03.

### 3.1 Assessment Result

Note: All the mode have been tested, and only the worst case of mode are in the report.

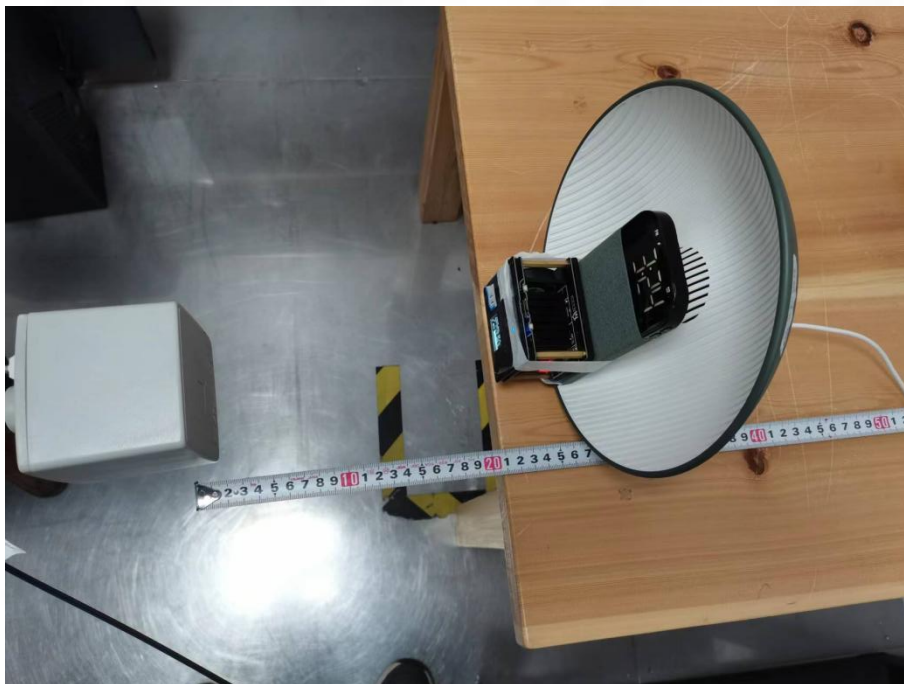
#### Magnetic Field Strength Measurement

Test Position	Distance (cm)	Measured Value(A/m)	Limit(A/m)
Top	20	0.1507	1.63
Bottom	20	0.1032	1.63
Front	20	0.3219	1.63
Rear	20	0.9615	1.63
Left	20	0.9741	1.63
Right	20	1.1023	1.63

Test Position	Distance (cm)	Measured Value(V/m)	Limit(V/m)
Top	20	1.6846	614
Bottom	20	0.2598	614
Front	20	0.0785	614
Rear	20	0.0539	614
Left	20	0.0541	614
Right	20	0.1241	614



### 3.2 Test Set-up Photo









Test Report Number: BTF240313R00305



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[www.btf-lab.com](http://www.btf-lab.com)

**--END OF REPORT--**