

# **RF Exposure Report**

#### For

#### **Applicant Name:**

#### Midmark RTLS Solutions, Inc.

Address:

EUT Name: Brand Name: Model Number: Series Model Number: 600 E FRONT ST STE 106 TRAVERSE CITY MI 49686, United States BLE Dual band plug-in sensor Midmark **VER5810** N/A

## **Issued By**

#### **Company Name:**

Address:

BTF Testing Lab (Shenzhen) Co., Ltd. F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China

Report Number: **Test Standards:** FCC ID: **Test Conclusion:** Test Date: Date of Issue:

BTF240426R00405 47 CFR Part 2 Subpart J Section 2.1091 OGUVER5810 Pass 2024-04-27 to 2024-05-22 2024-06-17

Prepared By:

Date:

Approved By:

Date:

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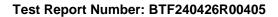
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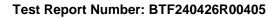
Revision History						
Version Issue Date Revisions Content						
R_V0	2024-06-17	Original				
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Note:	Once the revision has	Once the revision has been made, then previous versions reports are invalid.				





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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 Community, Songgang Street, Bao'an District, Shenzhen, Chir	
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:	<b>20</b> ℃ to <b>25</b> ℃
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:	Midmark RTLS Solutions, Inc			
Address:	600 E FRONT ST STE 106 TRAVERSE CITY MI 49686, United States			

### 2.2 Manufacturer Information

Company Name:	Midmark RTLS Solutions, Inc
Address:	600 E FRONT ST STE 106 TRAVERSE CITY MI 49686, United States

#### 2.3 Factory Information

Company Name:	Moko technology Ltd
Address:	Factory 201, 107 Pinshun Rd Guixiang community, Guanlan Street, Longhua, Shenzhen, China 518110

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

EUT Name	BLE Dual band plug-in sensor
Under Test Model Name	VER5810
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software and Firmware Version	N/A



# 3. Test Requirement

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), Limits for Maximum Permissible Exposure (MPE),

Frequency range	Electric field	Magnetic field strength	Power density	Averaging time				
(MHz)	strength(V/m)	(A/m)	(mW/cm <sup>2</sup> )	(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 <sup>2</sup> )	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 <sup>2</sup> )	30				
30–300 27.5		0.073	0.2	30				
300-1500	-	-	f/1500	30				
1500-100,000	-	-	1.0	30				

Note: f = frequency in MHz

#### **EVALUATION METHOD**

Transmission formula: **Pd = (Pout\*G)/(4\*pi\*r<sup>2</sup>)** 

Where

Pd = power density in mW/cm<sup>2</sup>, Pout = output power to antenna in mW, G = gain of antenna in linear scale; Pi = 3.1416, R = distance between observation point and center of the radiator in cm

#### 3.1 Assessment Result

⊠ Passed

Not Applicable

Frequency (MHz)	Туре	Conducted Power (dBm)	Maximum Tune- up (dBm)	G (dB)	R (cm)	Power Density (mW/cm2)	Limit (mW/cm2)	Result
2480	BLE	3.97	4.00	0.19	20	0.0005	1.0000	Pass
2412	2.4GWIFI	15.68	16.00	-2.48	20	0.0045	1.0000	Pass
5200	5GWIFI	10.49	11.00	-3.79	20	0.0010	1.0000	Pass

Note: The exposure evaluation safety distance is 20cm.



Test Report Number: BTF240426R00405



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