RF Exposure Report

Report No.:	SABEAD-WTW-P21030489 R2
FCC ID:	2AWAYSFCS1
Test Model:	SFCS1
Received Date:	Mar. 13, 2021
Date of Evaluation:	May 11, 2021
Issued Date:	Sep. 22, 2021
Applicant:	BioFire Diagnostics, LLC
Address:	515 Colorow Drive, Salt Lake City, UT 84108, USA
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN
FCC Registration / Designation Number:	788550 / TW0003

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
SABEAD-WTW-P21030489	Original Release	May 13, 2021
SABEAD-WTW-P21030489 R1	Updated product, brand, model and applicant.	Aug. 24, 2021
SABEAD-WTW-P21030489 R2	Added antenna information.	Sep. 22, 2021

1 Certificate of Conformity

Product:	BioFire SpotFire
Brand:	bioMérieux
Test Model:	SFCS1
Sample Status:	Engineering Sample
Applicant:	BioFire Diagnostics, LLC
Date of Evaluation:	May 11, 2021
Standards:	FCC Part 2 (Section 2.1091)
References Test Guidance :	KDB 447498 D01 General RF Exposure Guidance v06

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Gina Liu , **Date:** Sep. 22, 2021

Gina Liu / Specialist

Approved by : , **Date:** Sep. 22, 2021

Dylan Chiou / Senior Project Engineer

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (minutes)
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

f = Frequency in MHz ; *Plane-wave equivalent power density

2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

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

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Calculation Result of Maximum Conducted Power

Band	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WLAN	2412-2462	23.29	6.75	20	0.201	1.00
	5180-5240	23.18	6.71	20	0.194	1.00
	5260-5320	23.14	6.71	20	0.192	1.00
	5500-5700	23.17	6.71	20	0.194	1.00
	5745-5825	23.20	6.71	20	0.195	1.00

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The following antennas were provided to the EUT.

No.	Antenna Type	Manufacturer	MPN	Connector	Gain (dBi)	
					2.4-2.5GHz	5.150-5.850GHz
1	Dipole	BJTEK NAVIGATION,INC.	BJHOT160000043B00B-B	RP-SMA(M)	2.5	3.0
2	Dipole	Joinsoon Electronics Manufacturing CO., LTD. (JEM)	1510-0237-0041	RSMA	3.74	3.70

* The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible

* 2.4GHz: Directional gain = 3.74dBi + 10log(2) = 6.75dBi

* 5.0GHz: Directional gain = 3.70dBi + 10log(2) = 6.71dBi

3. The WLAN 2.4G and WLAN 5G cannot transmit simultaneously.

--- END ---