Shenzhen Most Technology Service Co., Ltd.
No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.

RF Exposure Evaluation Report

Report Reference No......:	**MTWG22020111-H**
FCC ID..... **:**	**2AWDBHWS388WRF**
Compiled by (position+printed name+signature)..:	File administrators Alisa Luo
Supervised by (position+printed name+signature)..:	Test Engineer Sunny Deng
Approved by (position+printed name+signature)..:	Manager Yvette Zhou
Date of issue.....:	March.04,2021
Representative Laboratory Name .:	**Shenzhen Most Technology Service Co., Ltd.**
Address .....:	No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.
Applicant's name.....:	**Fujian Baldr Technology Co., Ltd**
Address .....:	2F Jin Shan Ya Yuan, No. 36 Jin Rong North Road Fuzhou, China
Test specification/ Standard .....**:**	**47 CFR Part 1.1307** **47 CFR Part 2.1093**
TRF Originator.....:	Shenzhen Most Technology Service Co., Ltd.

Test item description .....:	WIFI WEATHER STATION GATEWAY
Trade Mark .....:	RainPoint
Model/Type reference.....:	HWS388WRF
Listed Models .....:	HWS019FRF
Modulation Type.....:	CCK/DSSS/ OFDM
Operation Frequency.....:	From 2412 - 2462MHz
Rating .....:	DC4.5V(by Batteries) DC 5V (by Adapter)
Hardware version .....:	HWS388WRF-V7 20211215
Software version .....:	V1.1
Result.....:	**PASS**
Test item description .....:	WIFI WEATHER STATION GATEWAY

T E S T R E P O R T

Equipment under Test	:	WIFI WEATHER STATION GATEWAY
Model /Type	:	HWS388WRF
Listed Models	:	HWS019FRF
Remark	:	Only the model name is different.
Applicant	:	**Fujian Baldr Technology Co., Ltd**
Address	:	2F Jin Shan Ya Yuan, No. 36 Jin Rong North Road Fuzhou, China
Manufacturer	:	**Fujian Baldr Technology Co., Ltd**
Address	:	2F Jin Shan Ya Yuan, No. 36 Jin Rong North Road Fuzhou, China

Test Result:	**PASS**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2022.03.04	Initial Issue	Alisa Luo

2. SAR Evaluation

2.1 RF Exposure Compliance Requirement

According to FCC Part1.1310: 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 part1.1307(b)

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^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*($900/f^2$)	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	*($180/f^2$)	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
Friis Formula
Friis transmission formula: Pd = (Pout*G)/(4* Pi * R 2) Where
Pd = power density in mW/cm2
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
Pd id the limit of MPE, 1 mW/cm2 . If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.1.3 EUT RF Exposure

Measurement Data

Wifi 2.4G

802.11b			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	13.254	13.254±1	14.254
Middle(2437MHz)	13.541	13.541±1	14.541
Highest(2462MHz)	13.652	13.652±1	14.652

802.11g			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	8.954	8.954±1	9.954
Middle(2437MHz)	10.021	10.021±1	11.021
Highest(2462MHz)	9.654	9.654±1	10.654

802.11n(HT20)			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	8.954	8.954±1	9.954
Middle(2437MHz)	9.854	9.854±1	10.854
Highest(2462MHz)	8.954	8.954±1	9.954

802.11n(HT40)			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2422MHz)	5.946	5.946±1	6.946
Middle(2437MHz)	6.654	6.654±1	7.654
Highest(2452MHz)	4.325	4.325±1	5.325

Worst case: 802.11b						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum Peak Conducted Output Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
Highest(2462 MHz)	14.652	29.19	0	0.006	1.0	Pass

Note: 1) Refer to report **MTWG22010046-R2** for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R2)=(29.19*1)/(4*3.1416*20^2)=0.006
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

.....THE END OF REPORT.....