

RF Exposure Evaluation Report

Report Reference No...... : **MTEB23090248-H**

FCC ID..... : **2BCZF-BDPF03GGGW**

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Date of issue..... : **Sep.25,2023**

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..... : **Minrek Hongkong Limited**

Address..... : FLAT/RM 1405A 14/F, THE BELGIAN BANK BUILDING NOS.721-
725 NATHAN ROAD MONGKOK KL

Test specification/ Standard..... : **47 CFR Part 1.1307;47 CFR Part 1.1310**
KDB447498D01 General RF Exposure Guidance v06

TRF Originator..... : Shenzhen Most Technology Service Co., Ltd.

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Test item description..... : WIFI Digital Photo Frame

Trade Mark..... : bemi

Model/Type reference..... : BDPF03GGGW

Listed Models : BDPF01BRBSB, BDPF02WHBW, BDPF04SBSW, BDPF05KPP,
BDPF06KNN, BDPF07KWH

Modulation Type..... : b: DSSS ,CCK
g/n: BPSK,QPSK,QAM

Operation Frequency..... : From 2412MHz~2462MHz

Hardware Version..... : R106-MB-V1.3-20200826

Software Version..... : V1.15.2(32720)

Rating..... : DC 5V(by Adapter)

Result..... : **PASS**

TEST REPORT

Equipment under Test : WIFI Digital Photo Frame

Model /Type : BDPF03GGGW

Listed Models : BDPF01BRSB, BDPF02WHBW, BDPF04SBSW, BDPF05KPP,
BDPF06KNN, BDPF07KWH

Remark : Difference in model names

Applicant : **Minrek Hongkong Limited**

Address : FLAT/RM 1405A 14/F, THE BELGIAN BANK BUILDING
NOS.721-725 NATHAN ROAD MONGKOK KL

Manufacturer : **Shenzhen Minrek Electronic Ltd**

Address : 6th Floor, Building C, Hangcheng Road, Huafeng International Robot
Industrial Zone, Xixiang, Bao'an, Shenzhen

Test Result:	PASS
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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	2023-09-25	Initial Issue	Alisa Luo

2. SAR Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.1.2 Limits

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: $P_d = (P_{out} * G) / (4 * \pi * R^2)$ Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is 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

Antenna Gain: 1.73dBi

WIFI 2.4G

802.11b			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2412MHz)	10.88	10.88 ± 1	11.88
Middle(2437MHz)	11.05	11.05 ± 1	12.05
Highest(2462MHz)	12.70	12.70 ± 1	13.7

802.11g			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2412MHz)	12.89	12.89 ± 1	13.89
Middle(2437MHz)	12.88	12.88 ± 1	13.88
Highest(2462MHz)	11.49	11.49 ± 1	12.49

802.11n(H20)			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2412MHz)	11.38	11.38 ± 1	12.38
Middle(2437MHz)	11.40	11.40 ± 1	12.4
Highest(2462MHz)	11.48	11.48 ± 1	12.48

WIFI 2.4G

Worst case: 802.11g						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm ²)	Limit	Result
Middle(2412MHz)	13.89	24.49	1.73	0.0073	1.0	Pass

Note: 1) Refer to report MTEB23090248 -R for EUT test Max Conducted average Output Power value.

Note: 2) $P_d = (P_{out} * G) / (4 * \pi * R^2) = (24.49 * 1.49) / (4 * 3.1416 * 20^2) = 0.0073$ **.....THE END OF REPORT.....**