

Report No.: DDT-R22051118-2E06

■ Issued Date: Aug. 12, 2022

# RF EXPOSURE REPORT

#### **FOR**

Applicant	:	Rockford Corporation		
Address	• •	600 South Rockford Drive Tempe Arizona United States		
Equipment under Test	st : DIGITAL MEDIA RECEIVER			
Model No.	••	PMX-P2		
Trade Mark : ROCKFORD		ROCKFORD		
FCC ID	•	2AA7S-PMXP2		
Manufacturer		Soundmax Electronics Limited		
Address	••	17/F., Eu Yan Sang Tower, 11-15 Chatham Road South, Tsim Sha Tsui, KowLoon., HongKong		

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

**Tel.:** +86-0769-38826678, **E-mail:** ddt@dgddt.com, http://www.dgddt.com



## **Table of Contents**

	Test report declares		3
1.	General Information		
1.1.	Description of equipment	8 8	
1.2.	Assess laboratory		
2.	RF Exposure Evaluation		6
2.1.	Requirement		6
2.2.	Calculation method		6
2.3.	Estimation result		-

## **Test Report Declare**

Applicant	:	Rockford Corporation			
Address	:	00 South Rockford Drive Tempe Arizona United States			
Equipment under Test	:	DIGITAL MEDIA RECEIVER			
Model No.	:	PMX-P2			
Trade mark	:	ROCKFORD			
Manufacturer		Soundmax Electronics Limited			
Address		17/F., Eu Yan Sang Tower, 11-15 Chatham Road South, Tsim Sha Tsui, KowLoon., HongKong			

Standard Used: KDB447498 D01 General RF Exposure Guidance v06

#### We Declare:

The equipment described above is assessed by Dongguan Dongdian Testing Service Co., Ltd. and in the configuration assessed the equipment complied with the standards specified above. The assessed results are contained in this report and Dongguan Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these assess.

After evaluation, our opinion is that the equipment In Accordance with above standard.

Report No:	DDT-R22051118-2E06		
Date of Receipt:	May 19, 2022	Date of Test:	May 19, 2022 ~ Jul. 27, 2022

Prepared By:

Bobo Chen/Engineer

Approved By:

Damon Hu/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

# **Revision History**

Rev.	Revisions	Issue Date	Revised By
	Initial issue	Mug. 12, 2022	(8)
	201 201		7

#### 1. General Information

#### 1.1. Description of equipment

EUT* Name	:	DIGITAL MEDIA RECEIVER
Model Number	:	PMX-P2
EUT function description	:	Please reference user manual of this device
Power Supply	:	DC 12V
Radio Specification	:	Bluetooth V4.2
Operation Frequency	:	2402MHz-2480MHz
Modulation	:	GFSK, π/4-DQPSK, 8DPSK
Data Rate	:	1Mbps, 2Mbps, 3Mbps
Antenna Gain	P	Maximum PK gain: -4.47 dBi
Sample Type	:	Series production
Sample Number	:	S22051118-03 for conductive S22051118-04 for radiation

#### 1.2. Assess laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808.

Tel.: +86-0769-38826678, http://www.dgddt.com, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20155, G-20118

### 2. RF Exposure Evaluation

#### 2.1. Requirement

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

(B) Limits for General Population / Uncontrolled Exposure								
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm <sup>2</sup> )	Averaging Time $ E ^2$ , $ H ^2$ or S (minutes)				
0.3-1.34	614	1.63	(100)*	30				
1.34-30	824/f	2.19/f	(180/f)*	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; \*Plane-wave equivalent power density

#### 2.2. Calculation method

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d}$$
 Power Density:  $S(mW/cm^2) = \frac{E^2}{377}$ 

**E** = Electric field (V/m)

P = Peak RF output power (mW)

G = EUT Antenna numeric gain (numeric)=

d = Separation distance between radiator and human body (m)

The formula can be changed to

We can change the formula to:

$$S = \frac{30 \times P \times G}{377 \times d^2} \text{ or, } d = \sqrt{\frac{30 \times P \times G}{377 \times S}}$$

From the peak EUT RF output power, the minimum mobile separation distance, d= 0.2 m, as well as the gain of the used antenna, the RF power density can be obtained.

#### 2.3. Estimation result

Mode	PK Output power (dBm)	Output power (mW)	tune up power (dBm)	Antenna Gain (dBi)	Antenna Gain (linear)	MPE Values (mW/cm²)	MPE Limit (mW/cm²)
BT	5.58	3.61	6	-4.47	0.36	0.00029	1

Note: The estimation distance is 20 cm

Conclusion: The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

**END OF REPORT**