

RF EXPOSURE REPORT

FOR

Applicant	:	Pioneer Corporation
Address	:	28-8, Honkomagome 2-chome, Bunkyo-ku, Tokyo 113-0021, Japan
Equipment under Test	:	RDS AV RECEIVER
Model No.	:	DMH-340EX, DMH-341EX, DMH-130BT, DMH-342EX, AVH-240EX, AVH-241EX, DMH-240EX, DMH-241EX
Trade Mark	:	Pioneer
FCC ID	:	AJDK117
Manufacturer	:	Pioneer Corporation
Address	:	28-8, Honkomagome 2-chome, Bunkyo-ku, Tokyo 113-0021, Japan

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

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan
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REPORT

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Test Report Declare

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Trade Mark	:	Pioneer
Manufacturer	:	Pioneer Corporation
Address	:	28-8, Honkomagome 2-chome, Bunkyo-ku, Tokyo 113-0021, Japan
Factory	:	Huizhou Foryou General Electronics Co., Ltd.
Address	:	North Shangxia Road, Dongjiang Hi-tech Industry Park, Huizhou, Guangdong Province, 516005, P R China

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-R20112027-1E9		
Date of Receipt:	Jan. 08, 2021	Date of Test:	Jan. 08, 2021~ Mar. 05, 2021

Prepared By:

Talent Zhang

Talent Zhang/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	Mar. 05, 2021	

1. General information

1.1. Description of Equipment

EUT* Name	: RDS AV RECEIVER
Model Number	: DMH-340EX, DMH-341EX, DMH-130BT, DMH-342EX, AVH-240EX, AVH-241EX, DMH-240EX, DMH-241EX
Model difference	: DMH-340EX with other models only screen size, PCB layout have difference and AVH-241EX, AVH-240EX have DVD function, other models don't have DVD function, there is no difference in RF module, so only test the Model Number DMH-340EX
EUT Function Description	: Please reference user manual of this device
Power Supply	: Range of operation voltage: 10.8V~ 16V, Max operation current: 10A
Radio Specification	: Bluetooth V4.2
Operation Frequency	: 2402 MHz - 2480 MHz
Modulation	: GFSK, $\pi/4$ -DQPSK, 8DPSK
Data Rate	: 1 Mbps, 2 Mbps, 3 Mbps
Antenna Type	: Integral PCB antenna, maximum PK gain: 0 dBi
Serial Number	: N/A

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 Registration No. CNAS L6451; A2LA Certificate Number: 3870.01;

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

Industry Canada Site Registration Number: 10288A-1

2. RF Exposure evaluation

2.1. Requirement

According to 447498 D01 General RF Exposure Guidance v06

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where:

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

2.2. Estimation Result

Manufacturing Tolerance

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	1	1	1
Tolerance \pm (dB)	1.5	1.5	1.5
$\pi/4$ DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	2	2	2
Tolerance \pm (dB)	1.5	1.5	1.5
8DPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	2	2	2
Tolerance \pm (dB)	1.5	1.5	1.5

Worse case is as below: [2402MHz, 3.5 dBm, 2.24 mW] output power]

$(2.24/5) \cdot [\sqrt{2.402(\text{GHz})}] = 0.694 < 3.0$ for 1-g SAR

Then SAR evaluation is not required

END OF REPORT