

RF EXPOSURE REPORT



Applicant: Darfon Electronics Czech s.r.o.
Turanka 1315/112, 627 00 Brno, Czech Republic.

Manufacturer: Darfon Electronics Czech s.r.o.
Turanka 1315/112, 627 00 Brno, Czech Republic.

Product Name: Mouse

Brand Name: QPAD

Model No.: DX-900

Model Difference: N/A

Report Number: E2/2021/30052

FCC ID 2AZDI-DX-900

IC: 27074-DX900

FCC Rule Part Part 2.1093

ISED Rule: RSS-102 issue 5 Mar. 19, 2015

Issue Date: May 19, 2021

We hereby certify that:

The data evaluation in this report is in compliance with FCC Rules Part 2 & RSS-102.
The results of this report relate only to the sample identified in this report.

Approved By: _____

John Yeh / Asst. Manager

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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Revision History

Report Number	Revision	Description	Issue Date	Revised By
E2/2021/30052	Rev.00	Original.	May 19, 2021	Ariel Chang

Note:

- 1、Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

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Table of Contents

1	DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)	4
2	FCC Standard applicable	5

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

1.1 General Information

Product Name	Mouse Mouse
Brand Name	QPAD
Model No.	DX-900
Model Difference	N/A
Hardware Version	02
Firmware Version	0202
Power Supply	1. EUT from host system. (DC 3.7V) 2. EUT from Lithium Battery. Rating: DC 3.7V, 690mAh, 2.553Wh

1.2 Antenna Information:

1.2.1 WLAN 2.4GHz

Antenna Type	Supplier	Antenna Part No.	Freq. (MHz)	Peak Antenna Gain (dBi)	Worst Antenna Gain
Internal Antenna	N/A	N/A	2400-2500	-2.07	-

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2 FCC STANDARD APPLICABLE

2.1 FCC Standard Applicable:

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

As per KDB 447498 D01 4.3.1,

Step a: For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot$

$[\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g Head & Body SAR and ≤ 7.5 for 10-g extremity Hand 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
- The values 3.0 and 7.5 are referred to as numeric thresholds in **step b)** below

Step b: For 100 MHz to 6 GHz and test separation distances > 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following (also illustrated in Appendix B):

1) $\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150)]\}$ mW, for 100 MHz to 1500 MHz

2) $\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot 10]\}$ mW, for > 1500 MHz and ≤ 6 GHz

2.2 Measurement Result:

Step a:				
This is a portable device and the max. output power including tune-up tolerance is 0.596 (mW), lower than the threshold given and derived as formula given above, where				
$= 0.596(\text{mW})/5(\text{mm}) \cdot \sqrt{2.402(\text{GHz})} = 0.2 < 3.0$				
Frequency (MHz)	Max. output power including tune-up tolerance(dBm)	Max. output power including tune-up tolerance(mW)	Distance (mm)	Result
2402	-2.25	0.596	5	0.2

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2.3 ISED Standard Applicable

As per RSS-102 Issue 5 March 19, 2015, any transmitter shall be compliant with applicable RF exposure prior to being market. In §2.5.1, SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table 1.

Output power level shall be the higher of the maximum conducted or equivalent isotropically radiated power (e.i.r.p.) source-based, time-averaged output power.

For limb-worn devices where the 10 gram value applies, the exemption limits for routine evaluation in Table 1 are multiplied by a factor of 2.5.

2.4 Measurement Result:

Freq. (MHz)	Max. output power including tune-up tolerance(dBm)	Peak Gain (dBi)	Max Conducted Output Power (mW)	e.i.r.p (mW)	Exemption Limit (mW)
2480	-2.25	-2.07	0.596	0.370	4

Measurement Result

The Max. Conducted Output Power is 0.596mW when the device operates at the separation distance below or equals to 5mm. It is below the SAR exemption limit 4mW.

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