FCC RF Exposure Report

FCC ID	:	**JVPFK2-DW-D**
Equipment	:	**Mouse for e-Sports**
Model No.	:	**FK2-DW-D, FK2-DW** **(Please refer to section 1.1.1 for more details)**
Brand Name	:	**ZOWIE**
Applicant	:	**BENQ CORPORATION**
Address	:	**16 Jihu Road, Neihu, Taipei 114,Taiwan**
Standard	:	**47 CFR FCC Part 2.1093**
Received Date	:	**Mar. 26, 2024**
Tested Date	:	**Jun. 20, 2024**

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by: **Approved by:**

Along Chen / Assistant Manager **Gary Chang / Manager**

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Release Record

Report No.	Version	Description	Issued Date
FA432602	Rev. 01	Initial issue	Aug. 20, 2024

1 General Description

1.1 Information

1.1.1 Product Details

The following models are provided to this EUT.

Brand Name	Model Name	Product Name	Description
ZOWIE	FK2-DW-D	Mouse for e-Sports	Regulatory name
	FK2-DW		Marketing name

2 RF Exposure Test Exemptions

2.1 1-mW TEST EXEMPTION

Available maximum time-averaged power is no more than 1 mW.

2.2 SAR-BASED EXEMPTION

This exemption is applicable to the frequency range between 300 MHz and 6 GHz, with test separation distances between 0.5 cm and 40 cm, and for all RF sources in fixed, mobile, and portable device exposure conditions.

The maximum time-averaged power or effective radiated power (ERP), whichever is greater, ≤ Pth

Pth (mW) = $ERP_{20cm}(d/20)^x$ d≤20cm
Pth (mW) = ERP_{20cm} 20 cm < d ≤40cm

Where x = - $\log_{10}(\frac{60}{ERP_{20cm}\sqrt{f}})$

Pth (mW) = ERP_{20cm}(mW) = 2040f 0.3GHz ≤ f < 1.5 GHz
Pth (mW) = ERP_{20cm}(mW) = 3060 1.5GHz ≤ f < 6 GHz

Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

2.3 MPE-BASED EXEMPTION

For a much wider frequency range, from 300 kHz to 100 GHz, applicable for separation distances greater or equal to λ/2π, where λ is the free-space operating wavelength in meters.

Radio Source Frequency			Minimum Distance			Threshold ERP
F_L MHz		F_H MHz	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	W
0.3	-	1.34	159 m	-	35.6 m	1920 R^2
1.34	-	30	35.6 m	-	1.6 m	3450 R^2/f^2
30	-	300	1.6 m	-	159 mm	3.83 R^2
300	-	1500	159 mm	-	31.8 mm	0.0128 R^2f
1500	-	100000	31.8 mm	-	0.5 mm	19.2 R^2

Note: R is the antenna-person separation distance.

2.4 REFERENCE GUIDANCE

447498 D04 Interim General RF Exposure Guidance v01

2.5 DEVIATION FROM TEST STANDARD AND MEASUREMENT PROCEDURE

None

2.6 MEASUREMENT UNCERTAINTY

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Parameters	Uncertainty
Conducted power	±0.808 dB

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

2.7 EXEMPTION CALCULATION

Maximum Fundamental Emissions (dBuV/m)	Maximum Fundamental Emissions (EIRP, dBm)	Maximum Tune Up Limit (EIRP, dBm)	Antenna Gain (dBi)	Maximum Tune Up Limit (ERP, mW)	Conducted Power (mW)	SAR exemption Limits (mW)	Pass/ Fail
92.95	-2.28	-2	1.86	0.385	0.411	3	Pass

3 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)

Kwei Shan

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

No.2-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

Kwei Shan Site II

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666
Fax: 886-3-318-0345
Email: ICC_Service@icertifi.com.tw

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