



# **CE SAR Exemption Evaluation Report**

Project No. Equipment Brand Name	::	2501C124 Wireless Mouse RAZER,
Test Model	:	RZ01-0390
Series Model	:	RZ01-0390XXXX-XXXX (X can be 0-9 or A-Z)
Applicant	:	Razer Inc.
Address	:	9 Pasteur, Irvine, CA 92618, USA
Manufacturer	:	Razer Inc.
Address	:	9 Pasteur, Irvine, CA 92618, USA
Factory	:	RAZER TECHNOLOGY AND DEVELOPMENT (SHENZHEN) CO., LTD
Address	:	East Wing, 3rd Floor, Block 2, Phase 1 of Vision Shenzhen Business Park Keji South Road, Hi-Tech Industrial Park, Shenzhen 518057, China
Date of Receipt	:	Jan. 17, 2025
Date of Test	:	Jan. 17, 2025 ~ Feb. 07, 2025
Issued Date	:	Feb. 20, 2025
<b>Report Version</b>	:	R00
Test Sample	:	Sample No.: DG2025011749
Standard(s)	:	EN 50663:2017 EN 62479:2010

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Prepared by

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Approved by

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# **REPORT ISSUED HISTORY**

Report No.	Version	Description	Issued Date	Note
BTL-ETSP-3-2501C124	R00	Original Report	Feb. 20, 2025	Valid



# **1. GENERAL INFORMATION**

# **1.1 GENERAL DESCRIPTION OF EUT**

Equipment	Wireless Mouse	
Brand Name	RAZER,	
Test Model	RZ01-0390	
Serial Model	RZ01-0390XXXX-XXXX (X can	be 0-9 or A-Z)
Model Difference(s)	Only differ in the model name.	
Hardware Version	V10	
Software Version	V1.0	
Power Source	1# Supplied from PC USB port. 2# Supplied from battery. Model: PL803040	
Power Rating	1# 5V <b></b> 500mA 2# 3.7V 1000mAh 3.7Wh	
	Operation Frequency	2402MHz ~ 2480MHz
Product Description	Modulation Type	GFSK
LE	Bit Rate of Transmitter	1Mbps,2Mbps
	Max. e.i.r.p.	1Mbps: 9.15 dBm (8.22 mW) 2Mbps: 9.14 dBm (8.20 mW)
	Operation Frequency	2402 MHz ~ 2480 MHz
Product Description	Modulation Technology	GFSK
_2.4G SRD	Bit Rate of Transmitter	2Mbps
	Max. e.i.r.p.	9.15dBm (8.22 mW)

#### Note:

- 1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- 2. The system's model name is RZ01-0390XXXX-XXXX (X: Can be 0-9, A-Z), and the system contains a Wireless Mouse (Model name:RZ01-0390) and USB Dongle (Model name: DGRFG7).

# 3. Channel List: For LE:

**B**IL

Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	20	2442
01	2404	21	2444
02	2406	22	2446
03	2408	23	2448
04	2410	24	2450
05	2412	25	2452
06	2414	26	2454
07	2416	27	2456
08	2418	28	2458
09	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

# For 2.4G SRD:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		
26	2428	53	2455		



### 4. Table for Filed Antenna:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	RAZER	RZ01-0390	PCB	N/A	3.79

Note: The antenna gain is provided by the manufacturer.



# 2. MAXIMUM PERMISSIBLE EXPOSURE

# 2.1 APPLICABLE STANDARD

According to its specifications, the EUT must comply with the requirements of the following standards:

EN 50663 - Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz to 300 GHz)

EN 62479 - Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)

# 2.2 INTRODUCTION

This generic standard applies to low power electronic and electrical apparatus for which no dedicated product – or product family standard regarding human exposure to electromagnetic fields applies. The frequency range covered is 10 MHz to 300 GHz.

The object of this standard is to demonstrate the compliance of such apparatus with the basic restrictions on exposure of the general public to electric, magnetic and electromagnetic fields and contact current.

## 2.3 COMPLIANCE CRITERIA

All electromagnetic fields If the average power emitted by the apparatus operating in the frequency range 10 MHz to 300 GHz is less than or equal top 20 mW and the transmitting peak power is less than 20 W then the apparatus is deemed to comply with the basic restrictions without testing.

Averaging time is 6 minutes in the frequency range 10 MHz to 10 GHz. The average time is equal to 68/f1.05 minutes (where f is in GHz) in the frequency range 10 GHz to 300 GHz.

If the total supply power or the input power to the circuitry producing the greatest emissions in the device is less than or equal to 20 mW then it is assumed that the emitted power is less than 20 mW.

Pulse modulated electromagnetic fields with pulse duration less than 30 micro seconds.

For pulse of duration less than 30 microseconds at frequencies between 300 MHz and 10 GHz, there is also a basic restriction on SAR. This is 2mJ kg-1 in any 10g of tissue in the head. For most pulses, the SAR restriction will be more stringent, but for pulses with a repetition frequency of less than 100 Hz, the SAR restriction will predominate. For devices producing pulses with repetition rates below 100 Hz, the average power should be less than 20 x prf mW (prf in Hz).



# **3. TEST RESULTS**

#### For LE:

Max. e.i.r.p. (dBm)	Max. e.i.r.p. (mW)	e.i.r.p. Limit (mW)	Result
9.15	8.22	20	Pass

# For 2.4G SRD:

Max. e.i.r.p.	Max. e.i.r.p.	e.i.r.p. Limit	Result
(dBm)	(mW)	(mW)	
9.15	8.22	20	Pass

RF exposure assessment has been performed below to prove that this unit will not generate the harmful EM emission above the reference level as specified in EC Council Recommendation (1999/519/EC)

#### **End of Test Report**