

GravaStar Mercury X Pro

GravaStar Mercury X Pro Wireless Gaming Mouse User Manual

1. Introduction

This manual provides comprehensive instructions for the setup, operation, maintenance, and troubleshooting of your GravaStar Mercury X Pro Wireless Gaming Mouse. Please read this manual thoroughly to ensure optimal performance and longevity of your device.

2. Package Contents

Verify that all items listed below are present in your product packaging:

- GravaStar Mercury X Pro Wireless Gaming Mouse
- 8K Polling Rate Wireless Dongle
- USB-C Charging Cable
- Grip Tape Set
- User Manual (this document)



Image 2.1: The complete package contents, including the Mercury X Pro mouse, 8K dongle, USB-C cable, grip tape, and user manual.

3. Setup

3.1 INITIAL CHARGING

Before first use, it is recommended to fully charge the mouse. Connect the provided USB-C charging cable to the mouse and to a powered USB port on your computer or a USB wall adapter. The RGB lighting on the mouse will indicate charging status.

3.2 CONNECTIVITY OPTIONS

The GravaStar Mercury X Pro offers three connectivity modes:

1. **2.4G Wireless Mode:** For optimal gaming performance, insert the 8K polling rate wireless dongle into an available USB port on your computer. The mouse will automatically connect. This mode provides the highest polling rate (up to 8000Hz).
2. **Bluetooth Mode:** To connect via Bluetooth, switch the mode selector on the bottom of the mouse to Bluetooth. Activate Bluetooth pairing mode on your computer and select 'GravaStar Mercury X Pro' from the list of available devices.
3. **Wired Mode:** Connect the mouse directly to your computer using the USB-C charging cable. This mode also charges the mouse while in use.



Image 3.1: The GravaStar Mercury X Pro wireless gaming mouse shown alongside its 8K polling rate dongle.

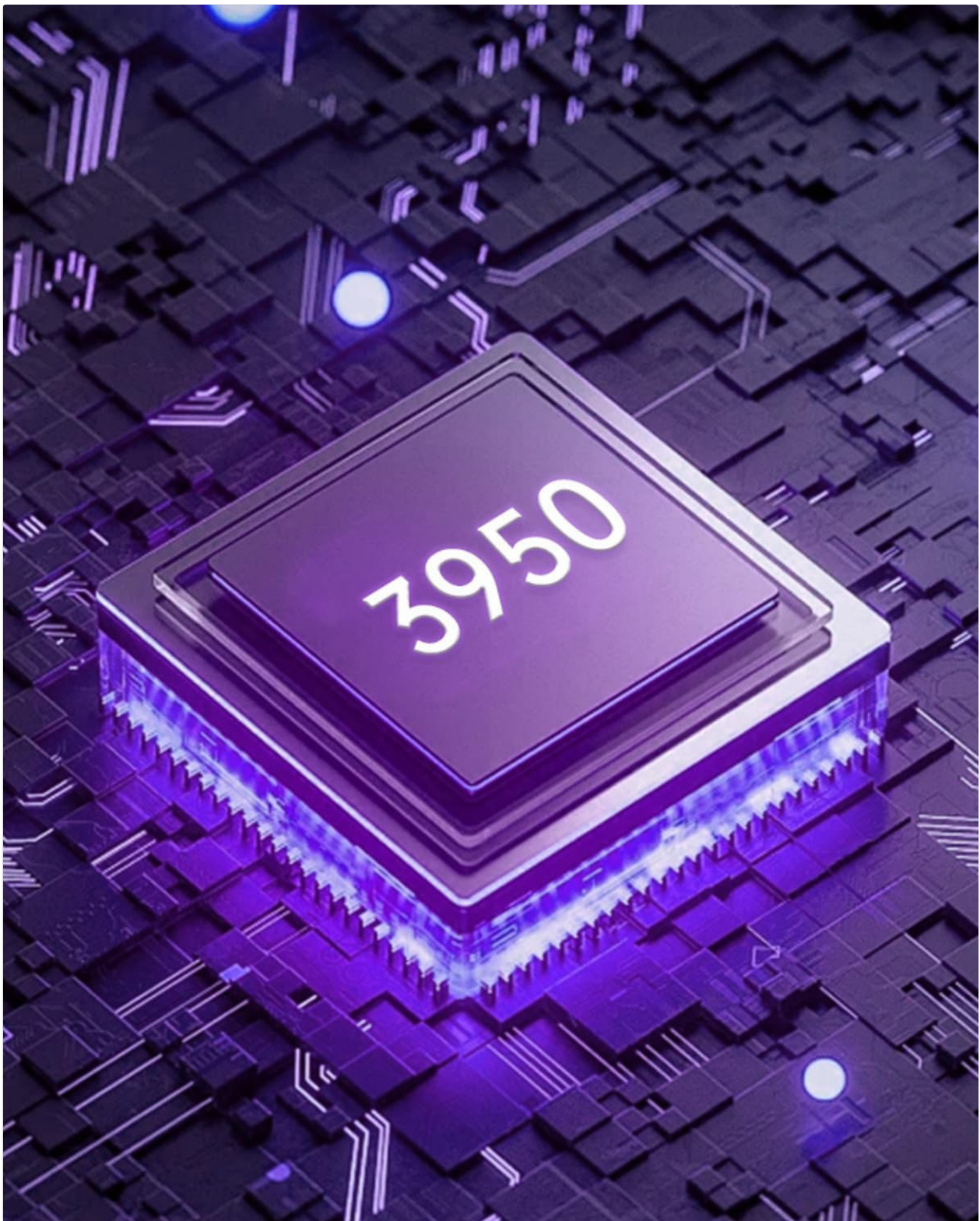


Image 3.2: The Mercury X Pro mouse connected via its USB-C charging cable, with the 8K wireless dongle visible.

3.3 SOFTWARE CONFIGURATION

For advanced customization, including button remapping, DPI settings, polling rate adjustment, and RGB lighting effects, download the official GravaStar software from the manufacturer's website or use the web-based configuration interface. This software allows you to tailor the mouse to your specific preferences and gaming style.

4. Operating Instructions

4.1 BASIC FUNCTIONS

The Mercury X Pro mouse features standard left and right-click buttons, a scroll wheel with click function, and additional programmable buttons for enhanced control.

4.2 PROGRAMMABLE BUTTONS

The mouse is equipped with 5 programmable buttons. These can be customized using the GravaStar software to perform various functions, macros, or shortcuts, optimizing your workflow and gaming experience.

4.3 DPI AND POLLING RATE ADJUSTMENT

The Mercury X Pro features a PAW 3950 sensor capable of up to 32,000 DPI and an 8,000Hz polling rate (in 2.4G wireless mode with the 8K dongle). DPI settings can be adjusted on-the-fly via dedicated buttons (if configured) or through the software. The polling rate can also be configured via the software to match your system and preference.



Image 4.1: A close-up image of the PAW 3950 sensor, which provides high-precision tracking for the mouse.

4.4 RGB LIGHTING

The integrated RGB lighting can be customized through the GravaStar software. Choose from various effects, colors, and brightness levels to personalize your mouse's appearance.

4.5 ERGONOMICS AND GRIP STYLES

The mouse features an ultra-lightweight (49g) magnesium alloy hollow frame designed for comfort during extended use. It supports various grip styles including finger, claw, and palm grip.



Image 4.2: An image emphasizing the ultra-lightweight design of the Mercury X Pro mouse, weighing only 49 grams.



Image 4.3: A side profile of the Mercury X Pro mouse, showcasing its lightweight magnesium alloy frame and ergonomic contours.

5. Maintenance

5.1 CLEANING

To maintain optimal performance and appearance, regularly clean your mouse. Use a soft, dry cloth to wipe down the exterior. For the hollow frame design, a can of compressed air can help remove dust and debris from internal components. Avoid using harsh chemicals or abrasive materials.

5.2 BATTERY MANAGEMENT

The Mercury X Pro mouse is equipped with a rechargeable internal battery. To prolong battery life, avoid fully discharging the mouse frequently. Charge the mouse when the battery level is low. While the battery life is generally good, some users have reported connection drops around 20% battery level; it is advisable to recharge before reaching this point.

5.3 GRIP TAPE APPLICATION

The included grip tape can be applied to specific areas of the mouse to enhance grip and comfort. Ensure the mouse surface is clean and dry before applying the tape for best adhesion.

6. Troubleshooting

If you encounter issues with your GravaStar Mercury X Pro mouse, refer to the following common solutions:

- **Mouse not responding:**
 - Ensure the mouse is charged.
 - Check the connectivity mode switch (2.4G, Bluetooth, Wired) on the bottom of the mouse.
 - For 2.4G wireless, ensure the dongle is securely plugged into a working USB port. Try a different USB port.
 - For Bluetooth, ensure Bluetooth is enabled on your computer and the mouse is paired correctly.
 - Try connecting the mouse in wired mode to rule out wireless interference or battery issues.
- **Inconsistent tracking or cursor lag:**
 - Clean the mouse sensor with a soft, dry cloth or compressed air.
 - Ensure you are using a suitable mouse pad or surface.
 - Check for wireless interference from other devices (e.g., Wi-Fi routers, other wireless peripherals).
 - Update mouse firmware and software to the latest version.
 - Adjust DPI settings in the software.
- **Buttons not working or unresponsive:**
 - Check button assignments in the GravaStar software.
 - Ensure the mouse firmware is up to date.
- **RGB lighting not functioning:**
 - Verify RGB settings in the GravaStar software.
 - Ensure the mouse has sufficient battery charge.
- **Software not detecting mouse:**
 - Ensure the mouse is connected to the computer (preferably wired or 2.4G wireless).
 - Restart your computer and the software.
 - Reinstall the GravaStar software.

7. Specifications

Feature	Specification
---------	---------------

Feature	Specification
Model	Mercury X Pro
Sensor	PAW 3950 Optical Sensor
DPI Range	Up to 32,000 DPI
Polling Rate	Up to 8,000Hz (2.4G Wireless)
Weight	Approximately 49g
Material	Magnesium Alloy Hollow Frame
Buttons	5 Programmable Buttons
Connectivity	Bluetooth, 2.4G Wireless, Wired (USB-C)
Lighting	Customizable RGB
Dimensions (L x W x H)	124.6mm x 63.5mm x 40.5mm
Manufacturer	ZhuoYe ChuangYi Co., Ltd.



Image 7.1: A technical diagram detailing the length, width, and height measurements of the Mercury X Pro mouse.

8. Warranty and Support

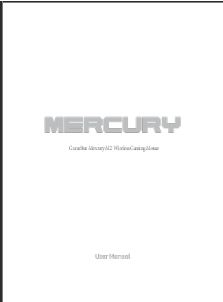
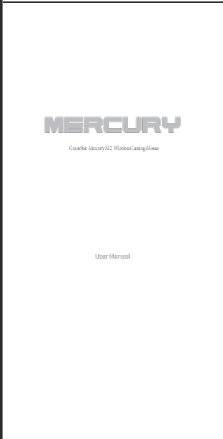

8.1 PRODUCT WARRANTY

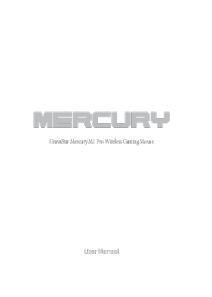

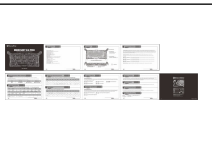
The GravaStar Mercury X Pro Wireless Gaming Mouse is covered by a manufacturer's warranty. Please refer to the warranty card included in your package or visit the official GravaStar website for detailed warranty terms and conditions.

8.2 CUSTOMER SUPPORT

For technical assistance, product inquiries, or warranty claims, please contact GravaStar customer support through their official website. You can typically find contact information, FAQs, and support resources on the 'Support' or 'Contact Us' section of the GravaStar website.

Related Documents - Mercury X Pro

 <p>The image shows the cover of the GravaStar Mercury M2 Wireless Gaming Mouse User Manual. It features the Mercury logo at the top, followed by the text 'GravaStar Mercury M2 Wireless Gaming Mouse' and 'User Manual' at the bottom.</p>	<p>GravaStar Mercury M2 Wireless Gaming Mouse User Manual</p> <p>Comprehensive user manual for the GravaStar Mercury M2 Wireless Gaming Mouse, detailing setup, button functions, technical specifications, warranty, and compliance information.</p>
 <p>The image shows the cover of the GravaStar Mercury M2 Wireless Gaming Mouse User Manual Features, Specs, Setup. It features the Mercury logo at the top, followed by the text 'GravaStar Mercury M2 Wireless Gaming Mouse' and 'User Manual' at the bottom.</p>	<p>GravaStar Mercury M2 Wireless Gaming Mouse User Manual Features, Specs, Setup</p> <p>Comprehensive user manual for the GravaStar Mercury M2 Wireless Gaming Mouse. Learn about its features, specifications, setup, buttons, and warranty information.</p>
 <p>The image shows the cover of the GravaStar Mercury M1 Pro Wireless Gaming Mouse User Manual. It features the Mercury logo at the top, followed by the text 'GravaStar Mercury M1 Pro Wireless Gaming Mouse' and 'User Manual' at the bottom.</p>	<p>GravaStar Mercury M1 Pro Wireless Gaming Mouse User Manual</p> <p>User manual for the GravaStar Mercury M1 Pro Wireless Gaming Mouse, detailing its features, setup, button functions, specifications, and warranty.</p>

	<p>GravaStar Mercury M1 Pro Wireless Gaming Mouse User Manual</p> <p>Comprehensive user manual for the GravaStar Mercury M1 Pro Wireless Gaming Mouse, detailing features, setup, specifications, and warranty information. Learn how to connect, customize, and maintain your gaming mouse.</p>
	<p>GravaStar Mercury X Pro Wireless Gaming Mouse User Manual</p> <p>User manual for the GravaStar Mercury X Pro Wireless Gaming Mouse, including setup, features, and specifications.</p>
	<p>Gravastar Mercury K1 Pro 75% Wireless Mechanical Gaming Keyboard User Manual</p> <p>User manual for the Gravastar Mercury K1 Pro, a 75% wireless mechanical gaming keyboard. Includes specifications, connection methods, lighting effects, and system compatibility.</p>

Documents - GravaStar – Mercury X Pro

Shenzhen Tongzhou Testing Co., Ltd. FCC ID: 2ASXF-GSX-PRO Report No.: TZ0032240807FRF02

Appendix Test Data for BLE (Conducted Measurement)

Product Name: GravaStar Mercury X Pro Wireless Gaming Mouse
Trade Mark: GravaStar
Test Model: GS X PRO
FCC ID: 2ASXF-GSX-PRO

Environmental Conditions

Temperature:	23±1
Relative Humidity:	55%
ATM Pressure:	101.3 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE:	N/A

Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	F/L [MHz]	F/H [MHz]	Low [MHz]	Verdict
DSP	Ant1	2400	0.80	2402.70	2402.30	0.5 PASS
DSP	Ant1	2400	0.80	2403.70	2403.31	0.5 PASS
DSP	Ant1	2400	0.80	2404.70	2404.31	0.5 PASS

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[GravaStar Mercury X Pro Wireless Gaming Mouse - FCC Test Data and Specifications](#)

This document contains comprehensive FCC test data for the GravaStar Mercury X Pro Wireless Gaming Mouse (FCC ID: 2ASXF-GSX-PRO), including conducted measurements for DTS Bandwidth, Occupied Channel Bandwidth, Peak Output Power, Power Spectral Density, Band Edge Emissions, Spurious Emissions, and Duty Cycle.

lang:en score:27 filesize: 1.5 M page_count: 22 document date: 2024-09-26

Shenzhen Tongzhou Testing Co., Ltd. FCC ID: 2ASXF-GSX-PRO Report No.: TZ0032240807FRF02

Appendix Test Data for BLE (Conducted Measurement)

Product Name: GravaStar Mercury X Pro Wireless Gaming Mouse
Trade Mark: GravaStar
Test Model: GS X PRO
FCC ID: 2ASXF-GSX-PRO

Environmental Conditions

Temperature:	23±1
Relative Humidity:	55%
atm Pressure:	101.3 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE:	N/A

Appendix A: DTS Bandwidth

Test Result

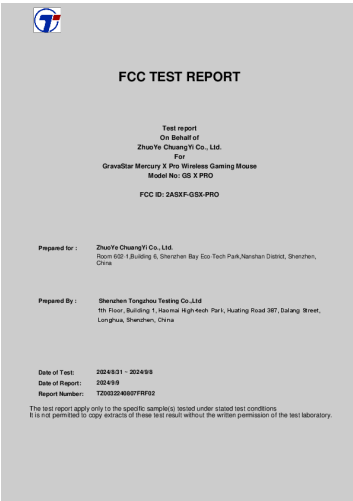
Test Mode	Antenna	Frequency [MHz]	F/L [MHz]	F/H [MHz]	Low [MHz]	Verdict
BLE_1M	Ant1	2400	0.70	2402.00	2402.30	0.5 PASS
BLE_1M	Ant1	2400	0.70	2403.00	2403.28	0.5 PASS
BLE_1M	Ant1	2400	0.70	2404.00	2404.28	0.5 PASS

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EMC Appendix Test Data for BLE ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro
Shenzhen Tongzhou Testing Co.,Ltd FCC ID: 2ASXF-GSX-PRO Report No.: TZ0032240807FRF02 Appendix Test Data for BLE Conducted Measurement Product Name: GravaStar **Mercury X Pro** Wireless Gaming Mouse Trade Mark: GravaStar Test Model: GS X PRO FCC ID: 2ASXF-GSX-PRO Environmental Conditions Tempera...

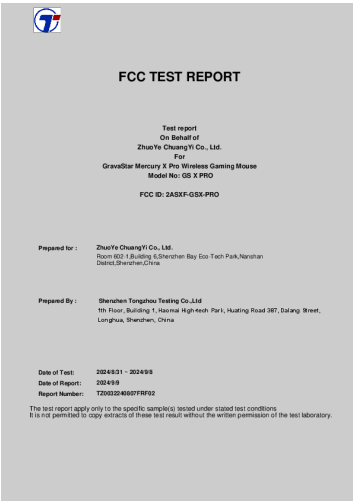
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[\[pdf\]](#) Test Report

EMC BLE Test Report ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro

FCC TEST REPORT Test report On Behalf of ZhuoYe ChuangYi Co., Ltd. For GravaStar **Mercury X Pro** Wireless Gaming Mouse Model No: GS X PRO FCC ID: 2ASXF-GSX-PRO Prepared for : ZhuoYe ChuangYi Co., Ltd. Room 602-1,Building 6, Shenzhen Bay Eco-Tech Park,Nanshan District, Shenzhen, China Prepared By : ...
lang:en score:26 filesize: 1.06 M page_count: 34 document date: 2024-09-26



[\[pdf\]](#) Test Report

EMC SRD Test Report ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro

FCC TEST REPORT Test report On Behalf of ZhuoYe ChuangYi Co., Ltd. For GravaStar **Mercury X Pro** Wireless Gaming Mouse Model No: GS X PRO FCC ID: 2ASXF-GSX-PRO Prepared for : ZhuoYe ChuangYi Co., Ltd. Room 602-1,Building 6,Shenzhen Bay Eco-Tech Park,Nanshan District,Shenzhen,China Prepared By : Sh...

lang:en score:26 filesize: 1.07 M page_count: 34 document date: 2024-09-26



[GravaStar Mercury X Pro Wireless Gaming Mouse User Manual](#)

User manual for the GravaStar Mercury X Pro Wireless Gaming Mouse, including setup, features, and specifications.

lang:en score:21 filesize: 1.63 M page_count: 1 document date: 2024-09-29



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US Agent ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro

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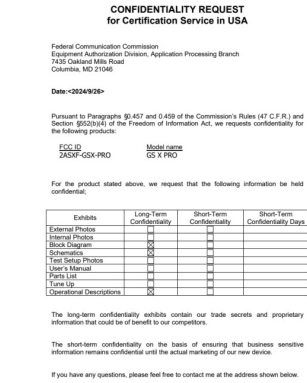


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FCC POA ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro

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[pdf] Confidentiality Request Letter

FCC Confidentiality request letter ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro

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Shenzhen Tongzhou Testing Co.,Ltd	FCC ID: 2ASXF-GSX-PRO
RADIO FREQUENCY EXPOSURE	
Limit	
According to section B.4 of 447498 D04 Interim General RF Exposure Guidance v01	
SAR based thresholds are derived based on frequency, power, and separation distance of the RF source. The formula defines the threshold in general for either available maximum time averaged power or maximum time averaged ERP, whichever is greater.	
If the ERP of a device is not easily determined, such as for a portable device with a small form factor, the applicant may use the available maximum time averaged power exclusively if the device antenna or radiating structure does not exceed an electrical length of 1/4.	
As for devices with antennas of length greater than 1/4 where the gain is not well defined, but always less than that of a half-wave dipole (length AC), the available maximum time averaged power generated by the device may be used in place of the maximum time averaged ERP, where that value is not known.	
The separation distance is the smallest distance from any part of the antenna or radiating structure for all persons, during operation at the applicable ERP. In the case of mobile or portable devices, the separation distance is from the outer housing of the device where it is closest to the antenna.	
The SAR based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single lined, mobile, and portable RF sources with available maximum time averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).	
This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula (B.2).	
$P_{th} \text{ (mW)} = \begin{cases} \frac{(ERP_{max}(d/20 \text{ cm}))^2}{(ERP_{max})_{cm}} & d \leq 20 \text{ cm} \\ ERP_{max} & 20 \text{ cm} < d \leq 90 \text{ cm} \end{cases} \quad (B.2)$	
Where	
$x = -10 \log_{10} \left(\frac{40}{ERP_{max}(cm)} \right)$	
and f is GHz, d is the separation distance (cm), and ERP _{max} is per Formula (B.1).	
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[pdf] SAR Rating

EMC RF Exposure ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro

Shenzhen Tongzhou Testing Co.,Ltd FCC ID: 2ASXF-GSX-PRO RADIO FREQUENCY EXPOSURE Limit According to section B.4 of 447498 D04 Interim General RF Exposure Guidance v01 SAR-based thresholds are derived based on frequency, power, and separation distance of the RF source. The formula defines the thres...

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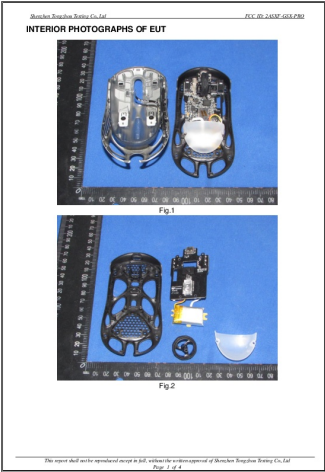
Shenzhen Tongzhou Testing Co.,Ltd	FCC ID: 2ASXF-GSX-PRO
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Fig 1	
	
Fig 2	
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Page 1 of 4	

[pdf] Product Photos

EMC External Photos ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro

Shenzhen Tongzhou Testing Co.,Ltd EXTERIOR PHOTOGRAPHS OF EUT FCC ID: 2ASXF-GSX-PRO Fig.1 Fig.2 This report shall not be reproduced except in full, without the written approval of Shenzhen Tongzhou Testing Co.,Ltd Page 1 of 3 Shenzhen Tongzhou Testing Co.,Ltd FCC ID: 2ASXF-GSX-PRO Fig.3 Fig.4...

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[pdf] Product Photos Teardown

EMC Internal Photos ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro

Shenzhen Tongzhou Testing Co.,Ltd INTERIOR PHOTOGRAPHS OF EUT FCC ID: 2ASXF-GSX-PRO Fig.1 Fig.2 This report shall not be reproduced except in full, without the written approval of Shenzhen Tongzhou Testing Co.,Ltd Page 1 of 4 Shenzhen Tongzhou Testing Co.,Ltd FCC ID: 2ASXF-GSX-PRO Fig.3 Fig.4... lang:en score:12 filesize: 991.6 K page_count: 4 document date: 2024-09-26

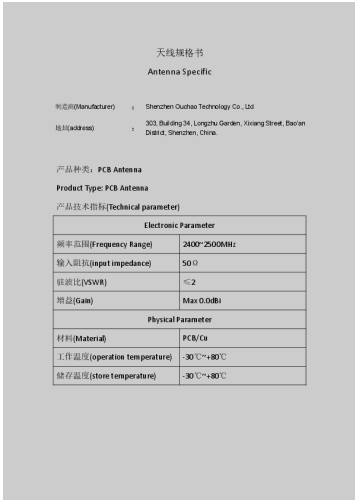


[pdf] Label

EMC Label Location ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro

Label Location FCC ID: 2ASXF-GSX-PRO ...

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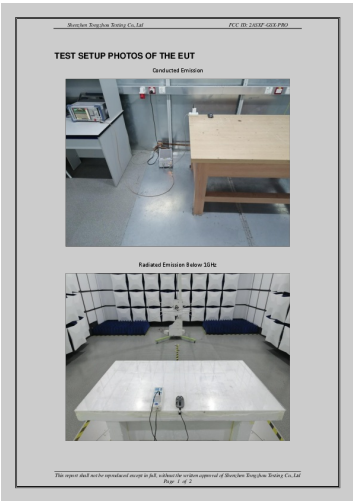


[pdf] Specifications

EMC Antenna specification ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro

Antenna Specific Manufacturer address Shenzhen Ouchao Technology Co., Ltd 303, Building 34, Longzhu Garden, Xixiang Street, Bao'an District, Shenzhen, China. PCB Antenna Product Type: PCB Antenna Technical parameter Electronic Parameter Frequency Range 2400-2500MHz input impedan...

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[pdf] Product Photos

EMC Test Setup Photos ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro
Shenzhen Tongzhou Testing Co.,Ltd FCC ID: 2ASXF-GSX-PRO TEST SETUP PHOTOS OF THE EUT Conducted Emission Radiated Emission Below 1GHz This report shall not be reproduced except in full, without the written approval of Shenzhen Tongzhou Testing Co.,Ltd Page 1 of 2 Shenzhen Tongzhou Testing Co.,L...
lang:i-klngon score:12 filesize: 342.01 K page_count: 2 document date: 2024-09-26

ZhuoYe ChuangYi Co., Ltd.
Room 602-1, Building 6, Shenzhen Bay Eco-Tech Park, Nanhai District, Shenzhen, China

Federal Communications Commission
Authorization and Evaluation Division
Equipment Authorization Branch
7430 Oakland Mills Road
Columbia, MD 21046

2024/9/26

To whom it may concern:


We, **ZhuoYe ChuangYi Co., Ltd.**, hereby certify that the equipment for which authorization is sought (FCC ID: 2ASXF-GSX-PRO) is not "covered" equipment prohibited from receiving an equipment authorization pursuant to § 2.903 of the FCC rules.

We also certify that, as of the date of the filing of the application, we are not identified on the Covered List (<https://www.fcc.gov/equipmentauthorizations>) as an entity producing "covered" equipment.

By signing this form, we confirm the above and that we are aware of the application requirements listed under § 2.903(b) and (d)(2) and (d).

The information provided in this letter is based on the referenced rule parts of Title 47 of the CFR as well as KDB 866488 D01.

Sincerely,



Signature
Huang yong
NA
ZhuoYe ChuangYi Co., Ltd.

47-1 (Form 1) (Cover Sheet) 10/1/2016 (Rev. 10/1/2016)

[pdf]

Covered Equipment Attestation 2 911 d 5 i and ii ZhuoYe ChuangYi Co Ltd GSX PRO GravaStar Mercury X Pro Wireless Gaming Mouse 2ASXF 2ASXFGSXPRO gsx pro
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lang:i-klngon score:12 filesize: 88.79 K page_count: 1 document date: 2024-09-29