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FL ESPORTS CMK87

FL ESPORTS CMK87 75% Wireless Gaming Keyboard User Manual

Model: CMK87

Introduction

Thank you for choosing the FL ESPORTS CMK87 75% Wireless Gaming Keyboard. This mechanical keyboard features an 87-key TKL layout, designed for both Mac and Windows systems. It offers versatile connectivity options, hot-swappable switches, and customizable RGB backlighting to enhance your gaming and typing experience. This manual provides detailed instructions for setup, operation, maintenance, and troubleshooting to ensure optimal performance and longevity of your keyboard.

Image: The FL ESPORTS CMK87 75% Wireless Gaming Keyboard in green, showcasing its compact layout and RGB lighting.

What's in the Box

- FL ESPORTS CMK87 75% Wireless Gaming Keyboard
- Keycap Puller
- Battery (pre-installed)
- USB-C Cable (for wired connection and charging)

- 2.4GHz Wireless Receiver (dongle)
- User Manual (this document)

Setup Guide

1. Charging the Keyboard

Before first use, it is recommended to fully charge the keyboard. Connect the provided USB-C cable to the keyboard's USB-C port and the other end to a USB power source (e.g., computer USB port, wall adapter). The keyboard features a built-in 2000mAh battery for extended use.

Image: Illustration showing the keyboard's battery indicator at 100% and the 2000mAh battery capacity.

2. Connecting the Keyboard (Multi-Mode)

The CMK87 supports three connection modes: Bluetooth (BT5.0), 2.4GHz Wireless, and USB Wired. You can switch between these modes using the switch located on the keyboard.

Image: The keyboard connected via USB-C, with icons for Bluetooth, USB-C wired, and 2.4G wireless connectivity.

2.1. USB Wired Mode

Connect the USB-C cable from the keyboard to your computer's USB port. The keyboard will automatically be recognized and ready for use. This mode also charges the keyboard.

2.2. 2.4GHz Wireless Mode

1. Locate the 2.4GHz wireless receiver (dongle) usually found in a compartment on the keyboard or in the packaging.
2. Plug the 2.4GHz receiver into an available USB port on your computer.
3. Switch the keyboard's mode selector to the 2.4GHz position. The keyboard should connect automatically.

2.3. Bluetooth Mode (BT5.0)

1. Switch the keyboard's mode selector to the Bluetooth position.
2. On your device (PC, tablet, PS, Xbox), go to Bluetooth settings and enable Bluetooth.
3. The keyboard should appear as "CMK87" or similar in the list of available devices. Select it to pair.

4. The keyboard can store multiple Bluetooth connections. Use FN + Q/W/E to switch between paired devices.

Your browser does not support the video tag.

Video: A demonstration of switching the keyboard's connectivity mode between wired, 2.4GHz wireless, and Bluetooth, highlighting the physical switch on the keyboard.

3. System Compatibility

The CMK87 keyboard is compatible with both Mac and Windows operating systems. A switch on the bottom of the keyboard allows you to select the appropriate layout for your system, ensuring correct key functionality.

Operating Instructions

1. Hot-Swappable Switches and Keycaps

The CMK87 features a hot-swappable PCB, allowing you to easily replace 3-pin or 5-pin mechanical switches without soldering. This provides flexibility to customize your typing feel. The included keycap puller allows for easy removal and replacement of keycaps.

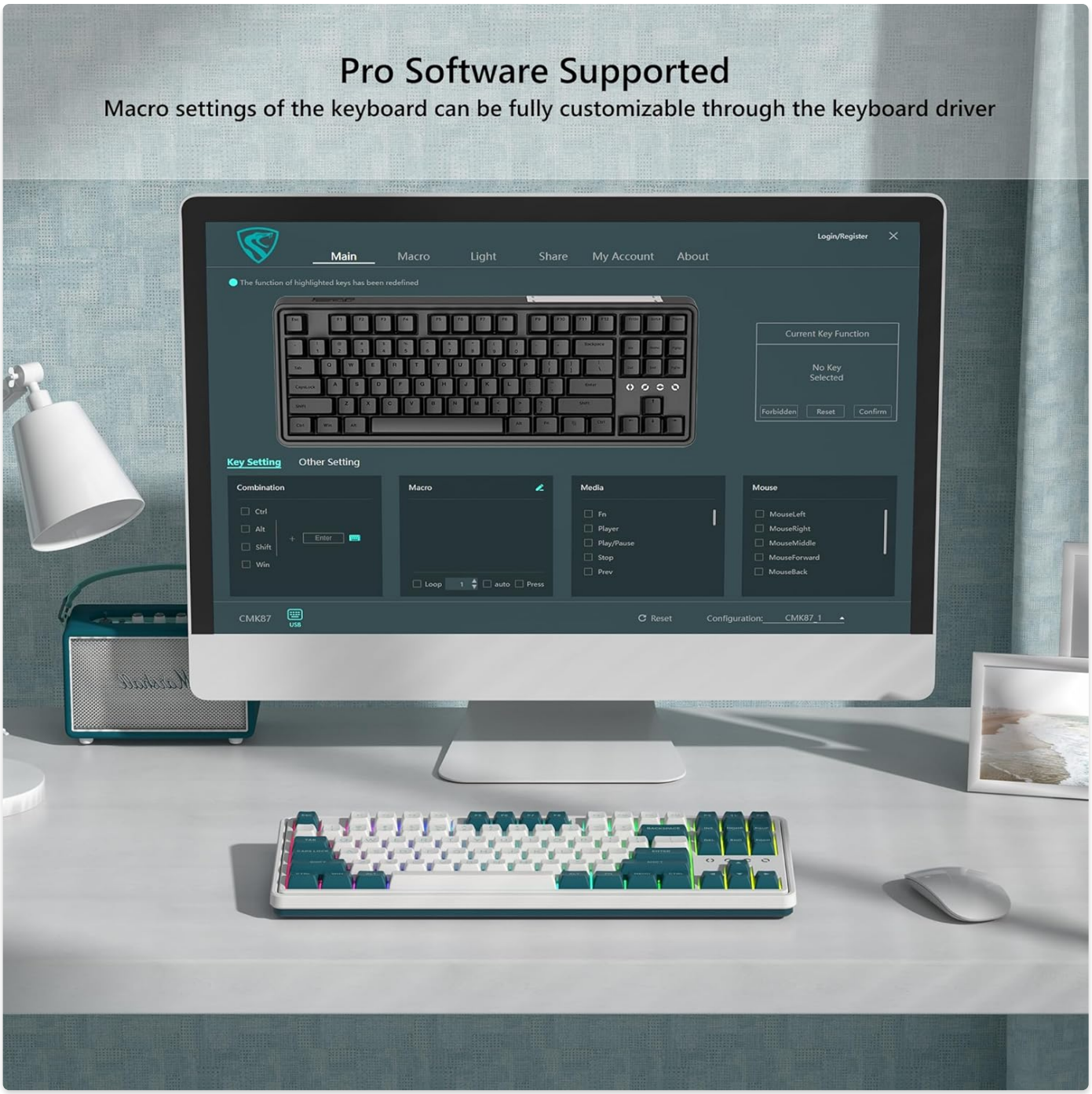

Image: A detailed view of the keyboard's hot-swappable switch sockets, with a keycap puller and individual switches shown nearby.

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Video: A demonstration of the keyboard's typing sound and RGB lighting effects, showcasing the responsiveness of the pre-lubed linear switches.

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Video: Another demonstration of the keyboard's typing sound and RGB lighting, emphasizing the creamy feel of the mechanical switches.

2. RGB Backlighting

The CMK87 features 1.68 million RGB backlit keys with various lighting effects. You can cycle through preset effects using FN key combinations (refer to the quick guide or software for specific commands). The lighting adds a dynamic atmosphere to your setup.

3. Macro Programming and Customization

All keys on the CMK87 support macro customization. You can record and edit macros, customize key functions, and

synchronize cool music rhythm lighting effects using the dedicated keyboard driver software. This software allows for advanced personalization of your keyboard.

Image: A screenshot of the keyboard's software interface, showing options for macro settings, lighting customization, and key function remapping.

4. N-Key Rollover (NKRO)

The keyboard supports N-key rollover, meaning it can register multiple key presses simultaneously. This feature is crucial for fast-paced gaming, ensuring every command is accurately registered without ghosting.

Maintenance

- **Cleaning:** Regularly clean the keyboard with a soft, dry cloth. For deeper cleaning, remove keycaps using the provided keycap puller and use compressed air to clear debris from between the switches.
- **Spills:** In case of liquid spills, immediately disconnect the keyboard from power. Invert the keyboard to drain liquid and allow it to dry completely for at least 24-48 hours before reconnecting.
- **Storage:** Store the keyboard in a cool, dry place away from direct sunlight and extreme temperatures.

- **Switch/Keycap Replacement:** When replacing switches or keycaps, ensure proper alignment to avoid damaging the pins or switch sockets.

Troubleshooting

Keyboard Not Responding

- Ensure the keyboard is charged.
- Check the connection mode switch (USB, 2.4G, Bluetooth) and ensure it matches your intended connection.
- For wired mode, try a different USB port or cable.
- For 2.4GHz wireless, ensure the receiver is securely plugged in and try a different USB port.
- For Bluetooth, ensure Bluetooth is enabled on your device and the keyboard is paired. Try re-pairing if issues persist.

Bluetooth Disconnection Issues

- Ensure the keyboard is fully charged. Low battery can affect wireless stability.
- Move the keyboard closer to your device to reduce interference.
- Remove and re-pair the keyboard in your device's Bluetooth settings.
- Ensure no other strong wireless signals are interfering (e.g., Wi-Fi routers, other Bluetooth devices).
- Update your device's Bluetooth drivers.

RGB Lighting Not Working/Customizing

- Ensure the keyboard is powered on.
- Check if the lighting is turned off via FN key combinations.
- Install or update the keyboard's driver software to access full customization options.

Keys Not Registering or Double-Typing

- Remove the keycap and switch for the affected key. Inspect for any debris or damage.
- Try re-seating the switch firmly into the hot-swap socket.
- If possible, test with a different switch to determine if the issue is with the switch or the PCB.

Specifications

Feature	Detail
Model	CMK87
Layout	75% (87 Keys TKL)
Connectivity	Bluetooth 5.0, 2.4GHz Wireless, USB-C Wired
Switches	Pre-lubed Linear Switches (Hot-Swappable 3-pin/5-pin)
Keycaps	Double Shot PBT Keycaps
Backlighting	1.68 Million RGB
Battery Capacity	2000mAh Lithium Polymer

Compatibility	PC (Windows), Mac, Tablet, PS, Xbox
Special Features	Gasket Structure, PCB Single Key Slotting, Macro Customization, N-Key Rollover
Dimensions	17.32 x 9.45 x 2.64 inches
Item Weight	4.02 pounds
Manufacturer	FL ESPORTS
Country of Origin	China

Warranty and Support

For warranty information, technical support, or service inquiries, please contact FL ESPORTS directly through their official website or the retailer from whom you purchased the product. Keep your proof of purchase for any warranty claims. Additional protection plans may be available for purchase from your retailer to extend coverage beyond the standard manufacturer's warranty.

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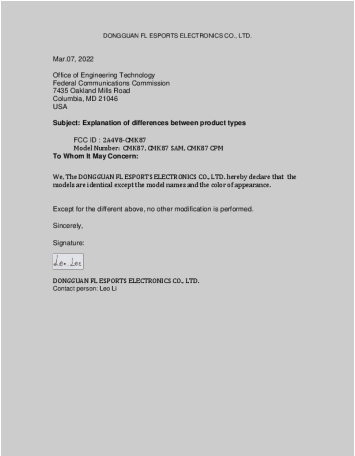
Documents - FL ESPORTS – CMK87



DONGGUAN FL ESPORTS ELECTRONICS CO., LTD.

Mar.07, 2022

Office of Engineering Technology
Federal Communications Commission
7435 Oakland Mills Road
Columbia, MD 21046
USA

Subject: Explanation of differences between product types

FCC ID : 2A4V8-CMK87
Model Number: CMK87, CMK87 SAM, CMK87 CPM

To Whom It May Concern:

We, The DONGGUAN FL ESPORTS ELECTRONICS CO., LTD. hereby declare that the models are identical except the model names and the color of appearance.

Except for the different above, no other modification is performed.

Sincerely,

Signature:

DONGGUAN FL ESPORTS ELECTRONICS CO., LTD.
Contact person: Leo Li

[pdf]

Date gretchen Difference Description DONGGUAN FL ESPORTS ELECTRONICS CO LTD CMK87 Three Mode wireless Mechanical Keyboard 2A4V8 2A4V8CMK87 cmk87

DONGGUAN FL ESPORTS ELECTRONICS CO., LTD. Mar.07, 2022 Office of Engineering Technology Federal Communications Commission 7435 Oakland Mills Road Columbia, MD 21046 USA Subject: Explanation of differences between product types FCC ID : 2A4V8-**CMK87** Model Number: **CMK87**, **CMK87** SAM, **CMK87** CPM To Whom It...

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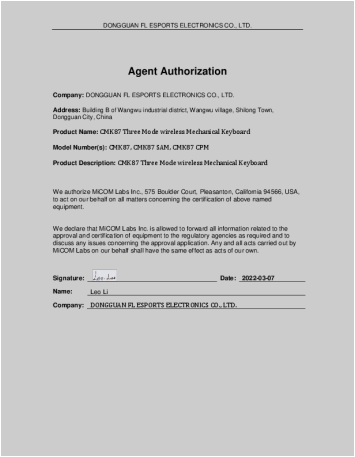


DONGGUAN FL ESPORTS ELECTRONICS CO., LTD.

Agent Authorization

Company: DONGGUAN FL ESPORTS ELECTRONICS CO., LTD.

Address: Building B of Wangwu industrial district, Wangwu village, Shilong Town, Dongguan City, China

Product Name: CMK87 Three Mode wireless Mechanical Keyboard

Model Number(s): CMK87, CMK87 SAM, CMK87 CPM

Product Description: CMK87 Three Mode wireless Mechanical Keyboard

We authorize MICOM Labs Inc., 575 Boulder Court, Pleasanton, California 94566, USA, to act on our behalf on all matters concerning the certification of above named equipment.

We declare that MICOM Labs Inc. is allowed to forward all information related to the approval and certification of equipment to the regulatory agencies as required and to discuss any issues concerning the approval application. Any and all acts carried out by MICOM Labs on our behalf shall have the same effect as acts of our own.

Signature: Leo Lee **Date:** 2022-03-07

Name: Leo Li

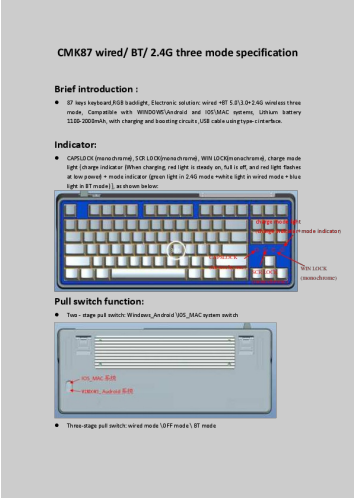
Company: DONGGUAN FL ESPORTS ELECTRONICS CO., LTD.

[pdf] Agent Authorization

PLEASE PRINT ON COMPANY LETTERHEAD MiCOM Labs Inc QMS Agent Authorization Rev 1 0 DONGGUAN FL ESPORTS ELECTRONICS CO LTD CMK87 Three Mode wireless Mechanical Keyboard 2A4V8 2A4V8CMK87 cmk87

DONGGUAN FL ESPORTS ELECTRONICS CO., LTD. Agent Authorization Company: DONGGUAN FL ESPORTS ELECTRONICS CO., LTD. Address: Building B of Wangwu industrial district, Wangwu village, Shilong Town, Dongguan City, China Product Name: **CMK87** Three Mode wireless Mechanical Keyboard Model Number s : **CMK87**, ...

lang:en score:40 filesize: 120.85 K page_count: 1 document date: 2022-03-07



CMK87 wired/ BT/ 2.4G three mode specification

Brief introduction :

- 87 keys keyboard,RGB backlight, Electronic solution: wired +BT 5.0/5.3+2.4G wireless three mode, Compatible with WINDOWS\Android and IOS\MAC systems, Lithium battery 1100-2000mAh, with charging and boosting circuits, USB cable using type-c interface.

Indicator:

- CAPS LOCK (monochrome), SCR LOCK(monochrome), WIN LOCK(monochrome), charge mode light (charge indicator (When charging, red light is steady on, full is off, and red light flashes at low power) + mode indicator (green light in 2.4G mode +white light in wired mode + blue light in BT mode)), as shown below:

Pull switch function:

- Two - stage pull switch: Windows_Android \IOS_MAC system switch

- Three-stage pull switch: wired mode \OFF mode \ BT mode

[CMK87 Wired/BT/2.4G Three Mode Keyboard Specification and User Guide]

Detailed specifications, features, and operating instructions for the CMK87 three-mode mechanical keyboard, covering wired, Bluetooth, and 2.4G wireless connectivity, RGB backlighting, and key combination functions.

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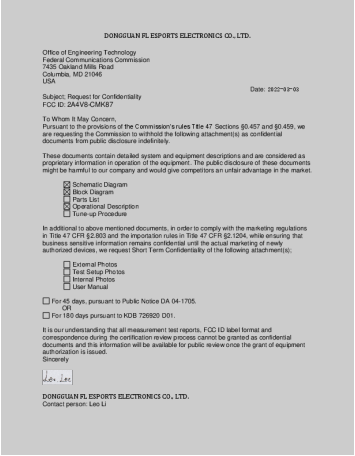

DONGGUAN FL ESPORTS ELECTRONICS CO., LTD.

Office of Engineering Technology
Federal Communications Commission
7435 Oakland Mills Road
Columbia, MD 21046
USA

Date: 2022-03-03

Subject: Request for Confidentiality
FCC ID: 2A4V8-CMK87

To Whom It May Concern,
Pursuant to the provisions of the Commission's rules Title 47 Sections §0.457 and §0.459, we are requesting the Commission to withhold the following attachment(s) as confidential documents from public disclosure indefinitely.

These documents contain detailed system and equipment descriptions and are considered as proprietary information in operation of the equipment. The public disclosure of these documents might be harmful to our company and would give competitors an unfair advantage in the market.

- [x] Schematic Diagram
- [x] Block Diagram
- [ ] Parts List
- [x] Operational Description
- [ ] Tune-up Procedure

In additional to above mentioned documents, in order to comply with the marketing regulations in Title 47 CFR §2.803 and the importation rules in Title 47 CFR §2.1204, while ensuring that business sensitive information remains confidential until the actual marketing of newly authorized devices, we request Short Term Confidentiality of the following attachment(s):

- [ ] External Photos
- [ ] Test Setup Photos
- [ ] Internal Photos
- [ ] User Manual

☐ For 45 days, pursuant to Public Notice DA 04-1705.
OR
☐ For 180 days pursuant to KDB 726920 D01.

It is our understanding that all measurement test reports, FCC ID label format and correspondence during the certification review process cannot be granted as confidential documents and this information will be available for public review once the grant of equipment authorization is issued.
Sincerely

Leo Lee

DONGGUAN FL ESPORTS ELECTRONICS CO., LTD.
Contact person: Leo Li

[pdf] Confidentiality Request Letter

Fiona Ffuellenbach FCC Short Long Term Confidentiality Request Rev4 1 DONGGUAN FL ESPORTS ELECTRONICS CO LTD CMK87 Three Mode wireless Mechanical Keyboard 2A4V8 2A4V8CMK87 cmk87

DONGGUAN FL ESPORTS ELECTRONICS CO., LTD. Office of Engineering Technology Federal Communications Commission 7435 Oakland Mills Road Columbia, MD 21046 USA Subject; Request for Confidentiality FCC ID: 2A4V8-**CMK87** Date: 2022-03-03 To Whom It May Concern, Pursuant to the provisions of the Commissio...

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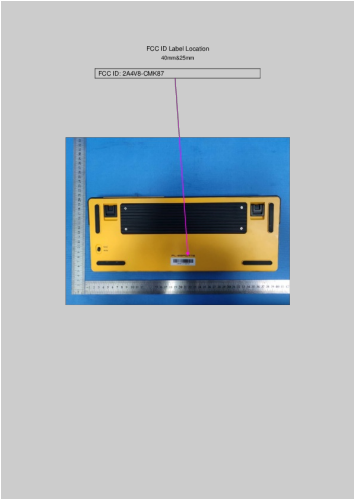

[pdf] Label

USER Label and Location DONGGUAN FL ESPORTS ELECTRONICS CO LTD CMK87 Three Mode wireless Mechanical Keyboard 2A4V8 2A4V8CMK87 cmk87

FCC ID Label Location 40mm 25mm FCC ID: 2A4V8**CMK87** ...

lang:en score:29 filesize: 192.24 K page_count: 1 document date: 2022-03-07

[pdf] Test Report

Test Report DONGGUAN FL ESPORTS ELECTRONICS CO LTD CMK87 Three Mode wireless Mechanical Keyboard 2A4V8 2A4V8CMK87 cmk87

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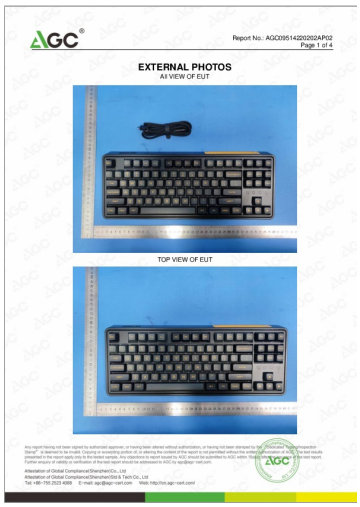

[pdf] Product Photos

Administrator External Photos DONGGUAN FL ESPORTS ELECTRONICS CO LTD CMK87 Three Mode wireless Mechanical Keyboard 2A4V8 2A4V8CMK87 cmk87

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Administrator Internal Photos DONGGUAN FL ESPORTS ELECTRONICS CO LTD CMK87 Three Mode wireless Mechanical Keyboard 2A4V8 2A4V8CMK87 cmk87

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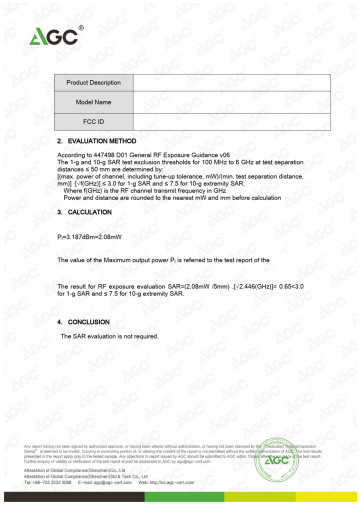

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USER RF Exposure DONGGUAN FL ESPORTS ELECTRONICS CO LTD CMK87 Three Mode wireless Mechanical Keyboard 2A4V8 2A4V8CMK87 cmk87

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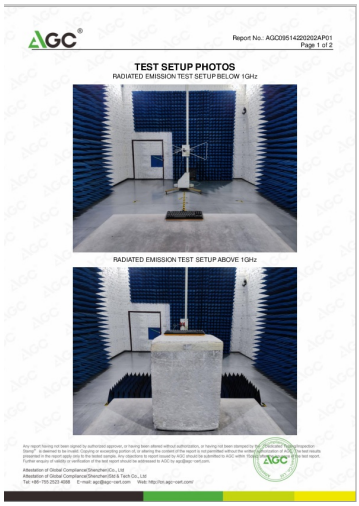

[pdf] Product Photos

Administrator Test Setup Photos DONGGUAN FL ESPORTS ELECTRONICS CO LTD CMK87 Three Mode wireless Mechanical Keyboard 2A4V8 2A4V8CMK87 cmk87

Report No.: AGC09514220202AP01 Page 1 of 2 TEST SETUP PHOTOS RADIATED EMISSION TEST SETUP BELOW 1GHz RADIATED EMISSION TEST SETUP ABOVE 1GHz Report No.: AGC09514220202AP01 Page 2 of 2 AC POWER LINE CONDUCTED TEST SETUP RF CONDUCTED TEST SETUP **********End of Report**...

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