**MCHOSE Ace 68 Turbo Keyboard English Specification & User Guide**

## 1. Product Overview

The **MCHOSE Ace 68 Turbo** is a high-end 65% Hall Effect magnetic switch gaming keyboard, powered by MCHOSE's self-developed **TianWen Solution** (dual-core MCU, 512MHz total frequency). It features a full aluminum chassis, ultra-low latency performance, and customizable rapid trigger (RT) functionality, designed for competitive gaming and professional use.

## 2. Core Technical Specifications

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| Item | Details |
| --- | --- |
| **Layout** | 65% ANSI (68 keys) |
| **Chip & Sensor** | Dual-core MCU (TianWen Solution), new-generation Hall Effect sensor (0.001mm precision) |
| **Polling Rate** | Up to 16,000Hz (world’ s first 16K polling keyboard) |
| **Scan Rate** | 256,000Hz |
| **Latency** | 0.06ms |

| Item | Details |
| --- | --- |
| **RT Adjustment Range** | 0.001mm – 3.4mm |
| **Actuation Range** | 0.1mm – 3.4mm |
| **Switch Type** | Mount Tai GT Hall Effect magnetic switch (hot-swappable) |
| **Keycaps** | Cherry profile, PC frosted translucent material |
| **Chassis** | Full CNC aluminum alloy (electrophoresis / powder-coated finish) |
| **Dimensions** | 324mm × 119mm × 38mm |
| **Weight** | 1361g ±2g |
| **Connectivity** | Wired USB Type-C (detachable 16K high-speed cable) |
| **Lighting** | 16.8 million RGB colors, rhythm lightbar, 12+ lighting effects |
| **Supported Systems** | Windows, macOS, Linux |
| **Driver** | MCHOSE HUB (web-based / client |

| Item | Details |
| --- | --- |
| | version) |

## 3. Key Features

### 3.1 TianWen Solution

**Dual-core 512MHz MCU**: Delivers stable high-frequency computing, ensuring no lag during parameter switching or high-speed input.

**New-generation Hall Effect sensor**: Provides ultra-precise key actuation detection, with 0.001mm adjustment accuracy for RT.

### 3.2 Rapid Trigger (RT) System

- **3 profile switching**: Physical RT button allows one-click switching between 3 saved RT parameter sets (e.g., FPS gaming, MOBA, typing).
- **RT Smart control**: Customize actuation points for individual keys to optimize in-game performance (e.g., 0.1mm trigger for fast shooting).
- **Adaptive dynamic calibration 2.0**: Automatically adjusts key response based on ambient temperature and usage conditions to maintain consistent feel.

### 3.3 Hardware & Ergonomics

- **Full aluminum chassis**: CNC-machined for rigidity and premium texture, reducing vibration and enhancing typing stability.
- **Multi-layer sound-damping structure**: Aluminum positioning plate + sandwich foam + fiber switch pad + PET sound-damping pad + bottom foam, delivering a muted, mechanical-like typing sound.
- **Volume wheel**: Tactile scroll for volume adjustment; press to mute instantly.
- **Left-side Type-C port**: Optimized for right-hand mouse users, avoiding cable interference.

**3.4 Software & Customization**

- **Web-based driver**: No local installation required; access via https://www.mchose.store/pages/firmware-2 to remap keys, adjust RT parameters, and customize RGB lighting.
- **Macro & key remapping**: Support for complex macro commands and multi-layer key functions (e.g., tap for number, hold for F-key).
- **SOCD & DKS optimization**: Configure SOCD (simultaneous opposite key conflict resolution) and

DKS (dynamic keystroke speed) for competitive gaming scenarios.

**4. Package Contents**

- 1 × MCHOSE Ace 68 Turbo Hall Effect keyboard
- 1 × USB Type-C 16K high-speed cable
- 1 × Key & switch puller
- 2 × Spare magnetic switches
- 1 × User manual & function card
- 1 × Dust cover

**5. Quick Start Guide**

1. Connect the keyboard to your device via the included Type-C cable.
2. (Optional) Visit the MCHOSE HUB web driver to customize RT settings, lighting, and key functions.
3. Use the **Fn** key to access secondary functions (e.g., media control, lighting adjustment, system switching).
4. Press the physical **RT button** to switch between your 3 saved performance profiles.