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> TCL 65 inches QM8 QLED 4K Smart Mini LED TV with Google (65QM850G, 2023 Model) Dolby Vision, Atmos, HDR Ultra, Game Accelerator up to 240Hz, Voice Remote, Works Alexa, Streaming Television, Black

## TCL 65QM850G

# TCL 65-inch QM8 QLED 4K Smart Mini LED TV User Manual

Model: 65QM850G

Brand: TCL

## 1. INTRODUCTION

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Welcome to the user manual for your new TCL 65-inch QM8 QLED 4K Smart Mini LED TV. This guide provides essential information for setting up, operating, maintaining, and troubleshooting your television. Please read this manual thoroughly before using your TV to ensure proper and safe operation.

The TCL QM8 series combines advanced display technologies to deliver an exceptional viewing experience. Key features include 4K HDR resolution, Mini-LED backlighting with local dimming zones, QLED Quantum Dot technology for vibrant colors, and a 120Hz native panel refresh rate with Motion Rate 480 for smooth motion. It also features the AIPQ Engine Gen 3 for optimized picture quality and Game Accelerator 240 for enhanced gaming performance.

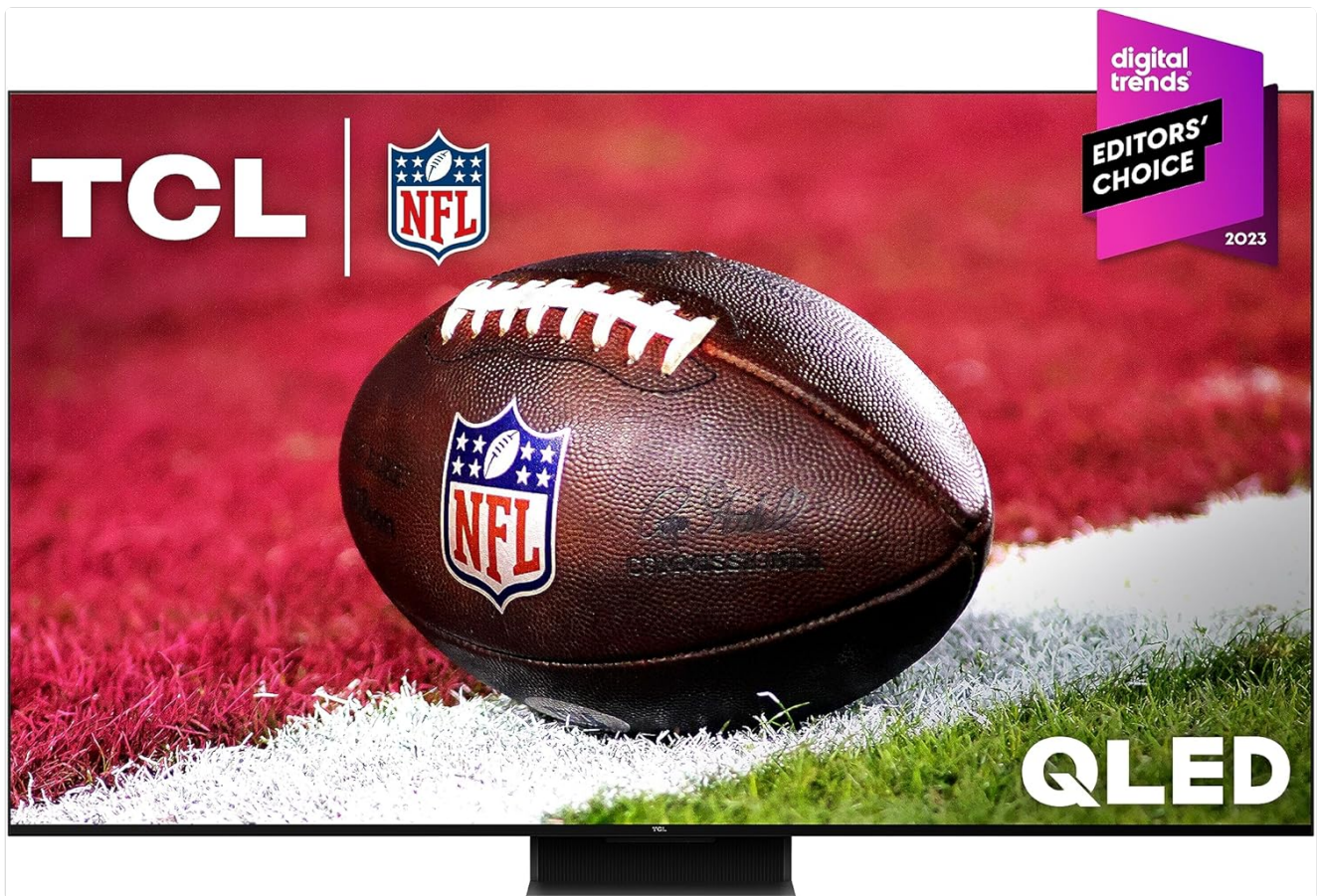


Figure 1.1: The TCL 65-inch QM8 QLED 4K Smart Mini LED TV, showcasing its sleek design and vibrant display.

## 2. WHAT'S IN THE BOX

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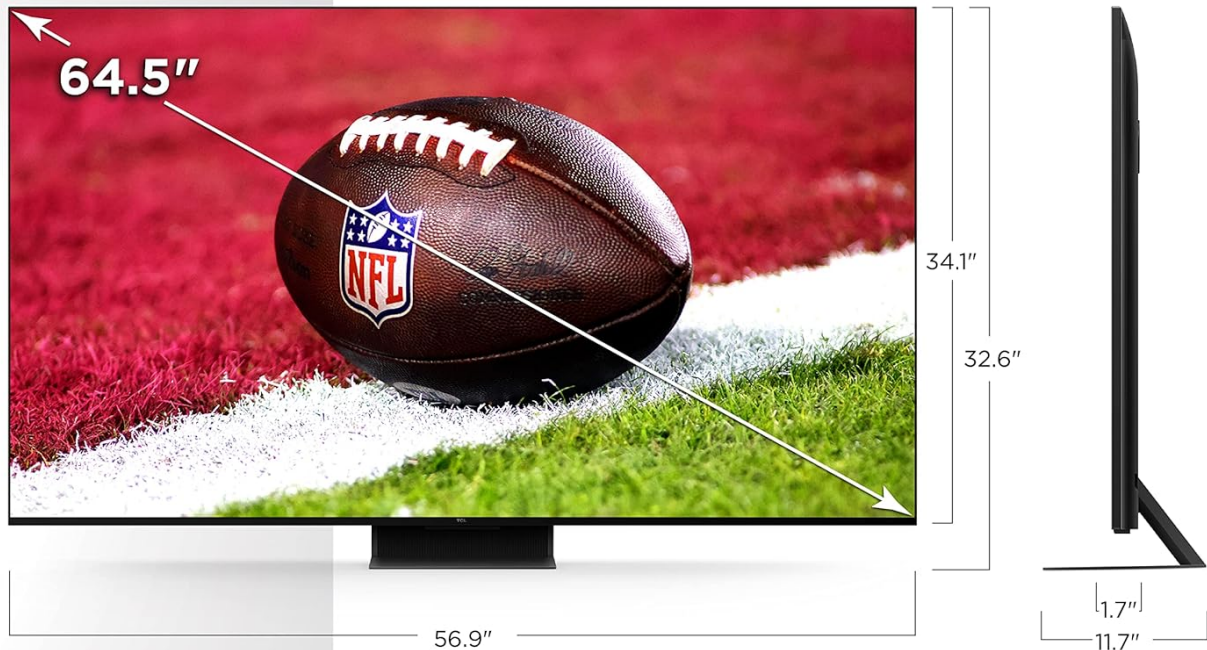
Before you begin, please verify that all components are present in the packaging:

- TCL TV with Google TV
- TV Stands (2)
- Power Cable
- TV Remote + Batteries (2x AA)
- Quick Start Guide

# TCL

## 65" Class (64.5" diag.)

65QM850G



### Dimensions:

TV with Stand:  
56.9" x 34.1" x 11.7"

TV without Stand:  
56.9" x 32.6" x 1.7"

### What's in the Box:

- TCL TV with Google TV
  - TV Stands
  - Power Cable
  - TV Remote + Batteries
  - Quick Start Guide
- \*Features and specifications subject to change.  
\*Actual remote has pre-set channel buttons.  
Channels can vary by country.

Figure 2.1: Illustration of the TV dimensions and the items included in the box, such as the TV, remote, stand, and power cable.

## 3. SETUP

### 3.1 Physical Installation

Due to its size and weight, it is recommended that two people handle the television during unboxing and installation. Carefully remove the TV from its packaging.

#### Attaching the TV Stand:

1. Place the TV face down on a soft, flat surface (e.g., a blanket or foam) to prevent screen damage.
2. Align the TV stands with the screw holes on the bottom of the TV.
3. Secure the stands using the provided screws. Ensure they are tightened firmly.

#### Wall Mounting (Optional):

If you plan to wall mount your TV, refer to the wall mount kit's instructions for proper installation. Ensure the wall mount is compatible with VESA standard mounting patterns for your TV model.

### 3.2 Connecting Devices

Your TCL QM8 TV offers a variety of ports for connecting external devices. Refer to the diagram below for common connection points.



Figure 3.1: Rear panel connections including HDMI, USB, Ethernet, Optical Audio Out, and Antenna/Cable input.

- **HDMI Ports:** Connect Blu-ray players, gaming consoles, soundbars, and other HDMI-enabled devices. This model supports HDMI 2.1 for advanced features like VRR and ALLM.
- **USB Ports:** For connecting USB storage devices to play media files.
- **Ethernet Port:** For a wired internet connection.
- **Optical Audio Out:** For connecting to a soundbar or audio receiver.
- **Antenna/Cable In:** For connecting an antenna or cable TV signal.

### 3.3 Initial Power On and Setup

After connecting all desired devices and the power cable, press the power button on the TV or remote control. Follow the on-screen instructions to complete the initial setup, including network connection, channel scanning, and Google TV account setup.

## 4. OPERATING YOUR TV

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## 4.1 Picture Quality Features

Your TCL QM8 TV is equipped with advanced technologies to deliver stunning visuals:

- **4K Ultra HD Resolution:** Provides four times the pixels of Full HD for incredible detail and clarity.



Figure 4.1: Visual representation of 4K Ultra HD Resolution on the TV screen.

- **QLED - Quantum Dot Technology:** Delivers over a billion colors with enhanced brightness and wider color volume.

# QLED – Quantum Dot Technology with UltraWide Color Gamut



Figure 4.2: The expanded color gamut provided by QLED Quantum Dot Technology.

- **Mini-LED ULTRA:** Features thousands of miniature LEDs for precise backlight control, enabling deeper blacks and brighter highlights.

# MINI-LED ULTRA



Figure 4.3: Exploded view illustrating the Mini-LED and QLED layers behind the TV panel.

- **HighBrightness ULTRA:** Achieves up to 2,000 nits peak brightness for dazzling specular highlights.



## HighBrightness ULTRA LED Backlight with Up to 2,000 Peak Nits

Figure 4.4: Demonstration of HighBrightness ULTRA, enhancing bright areas of the image.

- **Full Array ULTRA Local Dimming:** With over 2,300 dimming zones, the TV can precisely control brightness across the screen, resulting in incredible contrast and deep blacks.

# Full Array ULTRA

Local Dimming with Up to  
2,300+ Dimming Zones



Figure 4.5: Visualizing the effect of Full Array ULTRA Local Dimming on image contrast.

- **HDR ULTRA (Dolby Vision IQ, HDR10+, HDR10, & HLG):** Supports multiple HDR formats for enhanced contrast, brightness, and color detail.

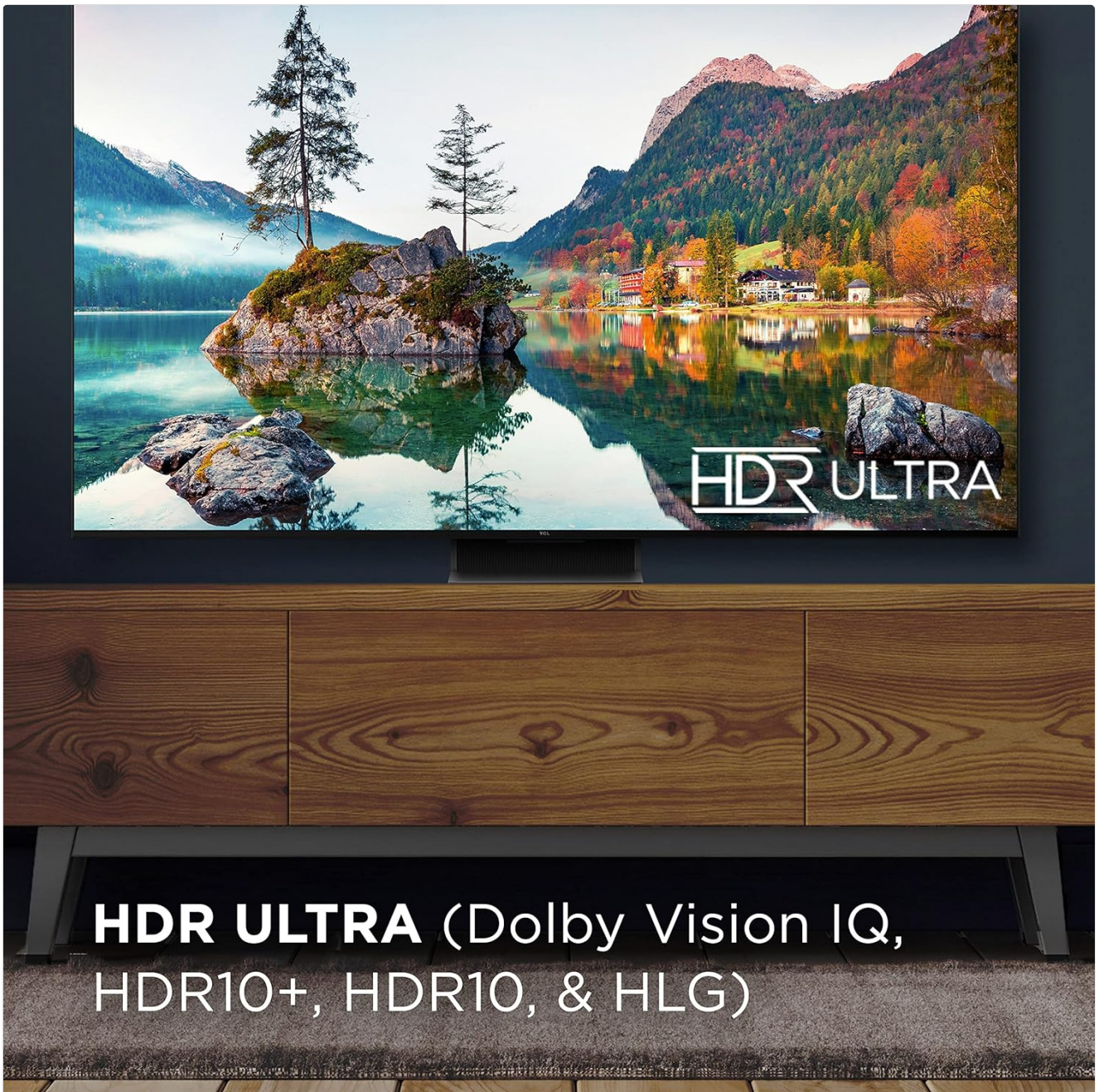


Figure 4.6: HDR ULTRA provides a wider range of colors and contrast for a more lifelike picture.

## 4.2 Motion and Gaming Performance

Experience smooth action and responsive gaming:

- **120Hz Native Panel Refresh Rate:** Ensures smooth display of fast-moving content.

# 120Hz Panel Refresh Rate



Figure 4.7: Comparison illustrating the improved smoothness of 120Hz refresh rate over 60Hz.

- **Motion Rate 480 with MEMC Frame Insertion:** Combines multiple motion enhancement technologies for best-in-class motion clarity.



## Motion Rate 480 with MEMC Frame Insertion

Figure 4.8: Motion Rate 480 ensures clear and fluid motion, ideal for sports and action scenes.

- **Game Accelerator 240:** Provides up to 240Hz Variable Refresh Rate (VRR) for ultra-smooth, tear-free gaming.



Figure 4.9: Game Accelerator 240 delivers a highly responsive gaming experience.

- **Auto Game Mode (ALLM) with AMD FreeSync Premium Pro:**Automatically optimizes settings for gaming and reduces input lag.



Figure 4.10: Auto Game Mode ensures optimal settings for a competitive gaming edge.

### 4.3 Smart Features and Control

Your TV is powered by Google TV for a seamless smart experience:

- **Google TV Smart OS:** Access a vast library of streaming apps, movies, and shows.
- **Hands-Free Voice Control:** Use voice commands directly to the TV without the remote.
- **Backlit Voice Remote:** Navigate and control your TV with ease, even in low light.

# Google TV Smart OS with Hands-Free Voice Control and Backlit Voice Remote



Figure 4.11: The Google TV interface and the included backlit voice remote for easy navigation.

- **TCL AIPQ Engine with Deep Learning AI:** Optimizes picture and sound settings in real-time for an enhanced viewing experience.

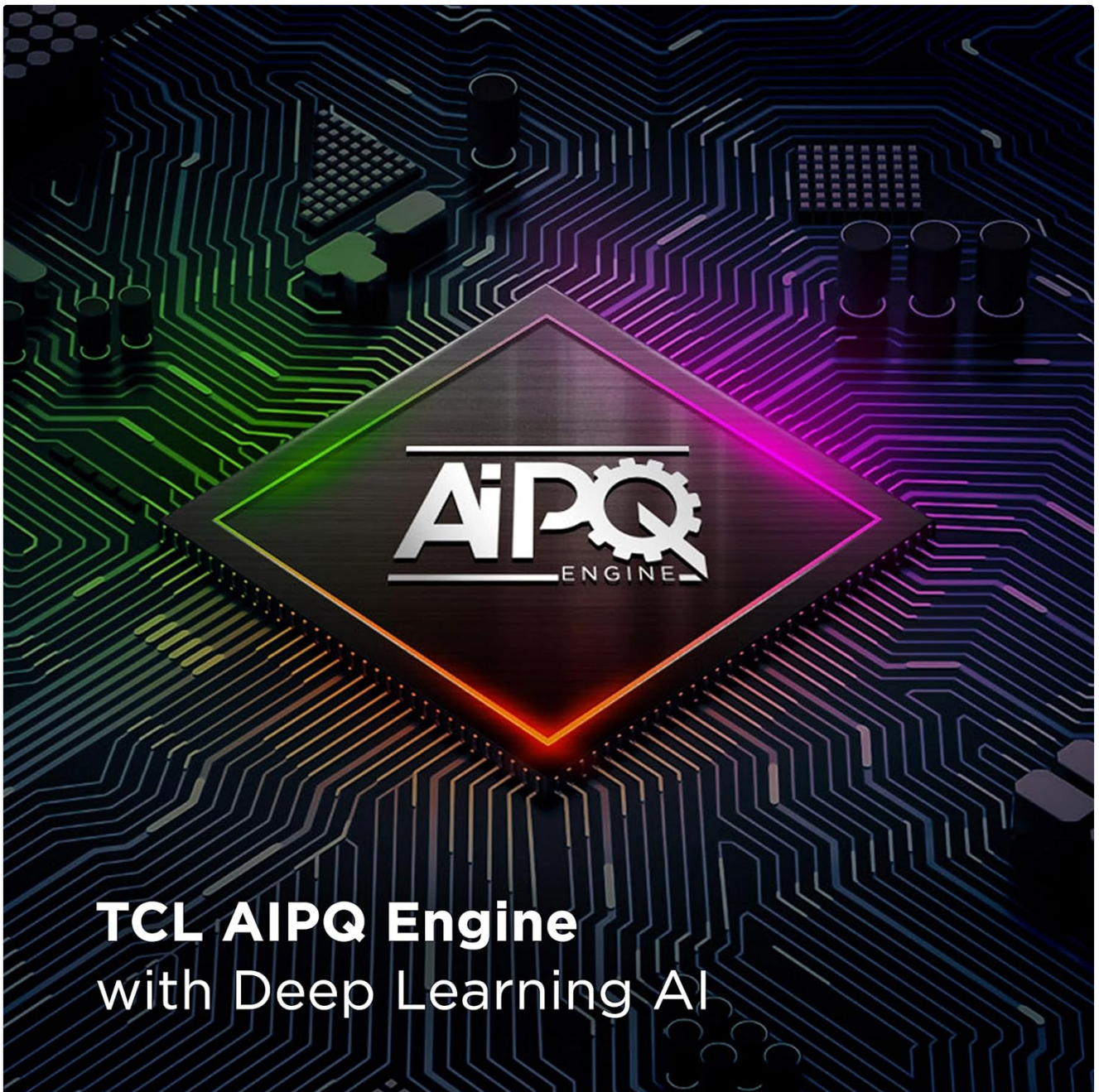


Figure 4.12: The AIPQ Engine, the intelligent processor that enhances picture and sound.

- **IMAX Enhanced Certification:** Delivers a premium cinematic experience with optimized picture and sound for IMAX Enhanced content.



Figure 4.13: The IMAX Enhanced certification ensures a high-quality cinematic experience. No official product videos from the seller are available for embedding in this manual.

## 5. MAINTENANCE

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### 5.1 Cleaning Your TV

- Always unplug the TV before cleaning.
- Use a soft, lint-free cloth to gently wipe the screen and cabinet.
- For stubborn marks, lightly dampen the cloth with water or a mild, non-abrasive screen cleaner. Never spray liquid directly onto the TV.
- Avoid using abrasive cleaners, waxes, or solvents as they can damage the finish.

### 5.2 General Care

- Do not block ventilation openings on the TV.
- Keep the TV away from direct sunlight, heat sources, and excessive dust.
- Protect the power cord from being walked on or pinched.

## 6. TROUBLESHOOTING

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If you encounter issues with your TV, try the following common solutions:

Problem	Possible Solution
No Power	Check if the power cable is securely plugged into the TV and the wall outlet. Try a different outlet.
No Picture, But Sound	Ensure the correct input source is selected. Check cable connections to external devices.
No Sound, But Picture	Check volume levels and mute settings. Verify audio cable connections. If using external audio, ensure it's powered on.
Remote Control Not Working	Replace the batteries. Ensure there are no obstructions between the remote and the TV.
Network Connection Issues	Restart your router/modem. Check Wi-Fi password. Try a wired Ethernet connection if possible.
Picture Quality Issues (e.g., blurry, distorted)	Check the resolution of the input source. Adjust picture settings (brightness, contrast, sharpness). Perform a factory reset if necessary.

If the problem persists after trying these steps, please contact TCL customer support.

## 7. SPECIFICATIONS

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Feature	Detail
Brand Name	TCL
Item Weight	77.8 pounds
Product Dimensions (D x W x H)	1.73 x 56.93 x 32.56 inches
Item Model Number	65QM850G
Batteries	2 AA batteries required (included)
Color Name	Black
Special Features	Flat
Standing Screen Display Size	65 Inches
Aspect Ratio	16:9
Display Technology	QLED
Resolution	4K
Refresh Rate	120Hz (Native), up to 240Hz VRR
Included Components	Remote Control, 2x Remote Control Batteries, Stand, Power Cable, Quick Start Guide

Feature	Detail
Connectivity Technology	Wireless

## 8. WARRANTY AND SUPPORT

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### 8.1 Warranty Information

Your TCL 65QM850G TV comes with a limited manufacturer's warranty. Please refer to the warranty card included in your product packaging for specific terms, conditions, and duration of coverage. Keep your purchase receipt as proof of purchase for warranty claims.

### 8.2 Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty service, please contact TCL Customer Support. You can typically find contact information (phone number, website, email) in your Quick Start Guide or on the official TCL website.

When contacting support, please have your TV's model number (65QM850G) and serial number ready. The serial number is usually located on a sticker on the back of the TV.

For additional resources, visit the official TCL Store: [TCL Store on Amazon](#)