MINIX U8K-ULTRA

MINIX U8K-Ultra 8K UHD Android TV Box User Manual

Model: U8K-ULTRA

1. INTRODUCTION

The MINIX U8K-Ultra is an advanced 8K UHD AI Media Hub powered by Android. It is designed to provide a high-performance streaming and media playback experience with support for the latest video codecs and display technologies.

Figure 1: MINIX U8K-Ultra TV Box and MINIX A3 Pro remote control.

This image displays the MINIX U8K-Ultra TV Box, a compact black square device, alongside its accompanying MINIX A3 Pro remote control. The remote features a full QWERTY keyboard on one side and standard media playback and navigation buttons on the other.

Figure 2: Visual overview of MINIX U8K-Ultra key features.

This image highlights the key features of the U8K-Ultra, including 8K UHD AI Media Hub capabilities, Dolby Vision, HDR10+, Wi-Fi 6, 8GB LPDDR4X RAM, 128GB eMMC storage, AI Picture Quality Enhancer, and Gigabit Ethernet connectivity.

2. PACKAGE CONTENTS

Ensure all items listed below are present in your MINIX U8K-Ultra package:

- 1 x MINIX U8K-ULTRA Device
- 1 x BLE AIR MOUSE (MINIX A3 PRO)
- 1 x PD30W Power Adapter
- 1 x 8K HD Cable (USB-A to USB-A)
- 1 x OTG Cable
- 1 x User Manual

Figure 3: Retail packaging of the MINIX U8K-Ultra.

This image shows the black retail box of the MINIX U8K-Ultra, featuring the product name, brand logo, and key specifications like 8K UHD and HDR support.

3. PRODUCT FEATURES & PORTS

Familiarize yourself with the physical features and connectivity options of your MINIX U8K-Ultra device:

- **IR Receiver:** Compatible with A3 PRO remote and Logitech Harmony.
- **Power LED:** Glows BLUE when U8K-ULTRA is turned on, RED when suspended.
- **Power Button:** Used to power on/off the device.
- **USB 3.0 / OTG Port:** For connecting external high-speed USB devices like flash drives and SSDs. Can also function as an OTG port (enable in settings).
- **USB 2.0 Port:** For connecting other USB peripherals such as cameras, wireless keyboards, and mouse sets.
- **Micro-SD Card Reader:** Expand storage capacity or read files directly from a micro-SD card (supports up to 1TB).
- **3.5mm Audio Jack:** Connect external audio output devices like speakers or earphones.
- **USB-C Power-in Jack:** Connect to the included USB-C PD power adapter.
- **HD Port (HDMI 2.1):** Connect the U8K-ULTRA to a TV or monitor using the included HD cable. Supports

8K 60Hz and 4K 120Hz.

- **Gigabit Ethernet Port (RJ-45):** Connect an Ethernet cable for wired Internet access up to 1000Mbps.
- **S/PDIF Out Port:** Connect to an external sound processing unit, such as a sound bar or amplifier.

Figure 4: Detailed diagram of MINIX U8K-Ultra ports and dimensions.

This diagram provides a comprehensive view of all ports on the MINIX U8K-Ultra, including the USB-C Power-in Jack, HD Port, Gigabit Ethernet Port, S/PDIF Out Port, 3.5mm Audio Jack, Micro-SD Card Reader, USB 2.0 Port, USB 3.0/OTG Port, Power Button, IR Receiver, and Power LED. It also shows the device dimensions: Length: 135.6mm, Width: 135.6mm, Thickness: 34.9mm.

4. SETUP GUIDE

1. **Connect to Display:** Use the included HDMI cable to connect the U8K-ULTRA's HD Port to an HDMI input on your TV or monitor.

2. **Connect Power:** Plug the USB-C PD power adapter into the USB-C Power-in Jack on the device, then plug the adapter into a wall outlet.

3. **Connect to Internet (Optional):** For wired internet, connect an Ethernet cable from your router to the Gigabit Ethernet Port. For Wi-Fi, you will configure this during the initial setup or in system settings.

4. **Power On:** Press the Power Button on the device or the remote control. The Power LED will change from RED to BLUE.

5. **Initial Setup:** Follow the on-screen instructions to complete the initial setup, including language selection, network connection, and Google account sign-in.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

- **To Power On:** Press the power button once. The power LED will switch from red to blue.
- **To Power Off:** Press and hold the power button until the display shows the power menu options. Select 'OK' to confirm your choice. The device can also be turned off using the bundled remote controller.

5.2 Remote Control (MINIX A3 Pro)

The MINIX A3 Pro remote offers versatile control:

- **Standard Navigation:** Use the directional pad for menu navigation.
- **Air Mouse:** Activate the air mouse function to control an on-screen cursor by moving the remote.
- **QWERTY Keyboard:** The reverse side of the remote features a full QWERTY keyboard for easy text input.
- **Microphone:** Utilize the built-in microphone for voice commands (if supported by applications).

5.3 System Settings

Access the 'Settings' icon from the home screen to configure various device options:

- **MINIX Settings:** Contains specific MINIX features such as USB OTG switch, MINIX LED Backlight (can be enabled/disabled), Processor Mode (Energy Efficient or Max Performance), and Refresh Rate Switching.
- **Display & Sound:** Adjust screen resolution (up to 8K 60Hz, 4K 120Hz), screen position, HDMI CEC settings, and audio output.
- **Storage:** View internal storage usage (128GB eMMC 5.1, with approximately 113GB usable).
- **AI Picture Processing:** Enable AI Picture Quality Enhancer (AI-PQ) and AI Resolution Upscaler (AI-SR) functions for enhanced visual experience.
- **About:** View device name (U8K-ULTRA), Android TV OS Version (11), Kernel Version, and other system information.

5.4 App Management & Media Playback

The device comes with pre-installed applications and access to the Google Play Store for additional downloads. It supports various video formats including AV1, VP9, H.265-10, AVS3, and AVS2. High bitrate 4K content from USB storage plays smoothly. YouTube supports 4K 60fps with HDR.

5.5 Screen Mirroring

The MINIX U8K-Ultra supports iOS screen mirroring via the pre-installed AirScreen application. This allows you to cast content from your Apple devices to your TV.

6. SPECIFICATIONS

Feature	Specification
Processor	Amlogic S928X-K (big.LITTLE ARM Cortex A76 + Quad-Core Cortex A55 Processor, 64-bit)
GPU	ARM G57 MC2
NPU	Support INT8 Inference for Deep Learning
Memory	8GB LPDDR4X
Internal Storage	128GB eMMC 5.1
Wireless Connectivity	802.11ax 2x2 MIMO Dual-Band Wi-Fi 6 (2.4GHz/5GHz), BT 5.2
Operating System	Android AOSP 11 (upgradeable via OTA)
Video Output	HD 2.1 (8K 60Hz, 4K 120Hz), support HDCEC/DV/HDR10+/HDR10/HLG

Audio Output	HD 2.1, Optical S/PDIF, 3.5mm audio jack
AI Picture Processing	AI Picture Quality Enhancer (AI-PQ), AI Resolution Upscaler (AI-SR)
Peripheral Interface	RJ-45 Gigabit Ethernet, Micro SD card reader, USB 3.0 port, USB 2.0 port, 3.5mm audio jack, IR receiver
Power Input	DC12V/2.5A (30W USB-C PD adapter included)
Dimensions	135.6mm (L) x 135.6mm (W) x 34.9mm (T)
Weight	253g

Figure 5: Close-up of the Amlogic S928X-K processor.

This image provides a detailed view of the Amlogic S928X-K chip, highlighting its role in supporting various video codecs such as AV1, VP9, AVS3, H.265-10, and AVS2 for 8K playback.

Figure 6: Visual representation of Dual-Band Wi-Fi 6.

This image emphasizes the device's Dual-Band Wi-Fi 6 (802.11ax 2x2 MIMO) capability, ensuring fast and stable wireless connectivity.

7. TROUBLESHOOTING

- **No Power:** Ensure the USB-C PD power adapter is securely connected to both the device and a working power outlet. Check if the Power LED is illuminated.

- **No Display:** Verify that the HDMI cable is correctly connected to both the U8K-ULTRA and your TV/monitor. Ensure your TV is set to the correct HDMI input source. Try a different HDMI port or cable.

- **No Internet Connection:** For wired connection, check the Ethernet cable and router status. For Wi-Fi, ensure the correct network is selected and the password is entered accurately in the settings.

- **Remote Control Not Responding:** Ensure the AAA batteries in the MINIX A3 Pro remote are correctly inserted and have sufficient charge. If using the air mouse, ensure it is enabled.

- **Netflix Playback Quality:** Please note that Netflix playback on this device is limited to SD (Standard Definition) quality due to DRM limitations. HD or 4K playback is not supported for Netflix.

8. WARRANTY & SUPPORT

The MINIX U8K-Ultra comes with a standard manufacturer's warranty. For specific warranty terms, technical support, or service inquiries, please refer to the official MINIX website or contact their customer support directly. Keep your proof of purchase for warranty claims.

[MINIX U8K-ULTRA 8K UHD AI Media Hub User Guide](#)
Comprehensive user guide for the MINIX U8K-ULTRA, an 8K UHD AI Media Hub powered by Android. Learn about specifications, setup, and controls.
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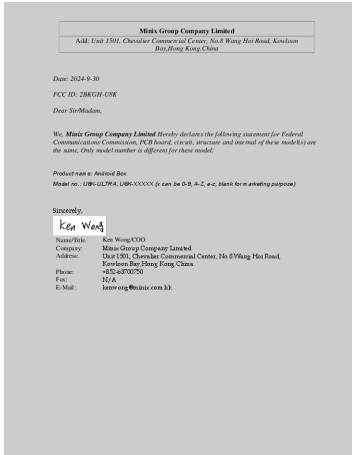

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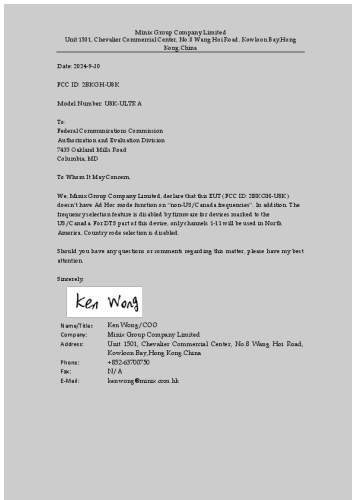
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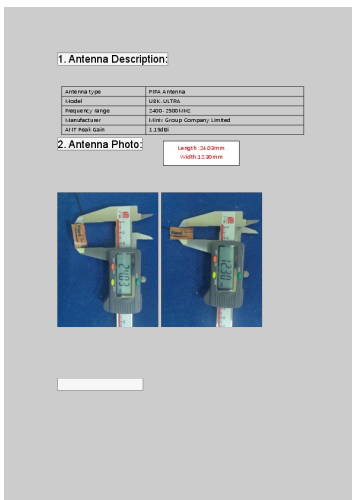
[pdf] Specifications
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[pdf] Specifications

Antenna specification WIFI 2 Minix Group Company Limited U8K Android Box 2BKGH 2BKGHU8K u8k
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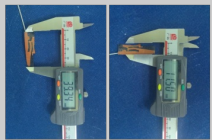lang:nl score:24 filesize: 1.01 M page_count: 5 document date: 2024-09-30

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Antenna specification WIFI 1 Minix Group Company Limited U8K Android Box 2BKGH 2BKGHU8K u8k
1. Antenna Description: Antenna type Model Frequency range Manufacturer ANT Peak Gain PIFA Antenna **U8K-ULTRA** 2400-2500MHz, 5180-5240MHz, 5745-5825MHz Minix Group Company Limited 2400-2500MHz: 1.01 dBi 5180-5240MHz: 1.27 dBi 5745-5825MHz: 1.20 dBi 2. Antenna Photo: Length :39.34mm Width:11.50mm ...
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[pdf] Confidentiality Request Letter

FCC Confidentiality request letter Minix Group Company Limited U8K Android Box 2BKGH 2BKGHU8K u8k
CONFIDENTIALITY REQUEST for Certification Service in USA Federal Communication Commission Equipment ... ormation Act, we requests confidentiality for the following products: FCC ID 2BKGH-U8K Model name **U8K-ULTRA** For the product stated above, we request that the following information be held confident...
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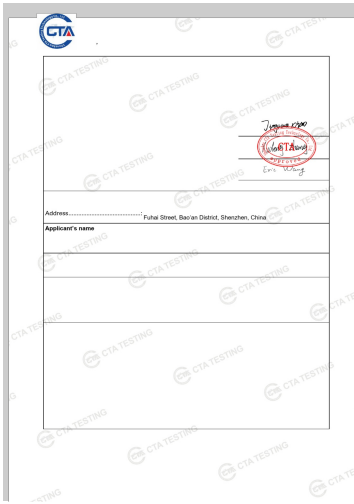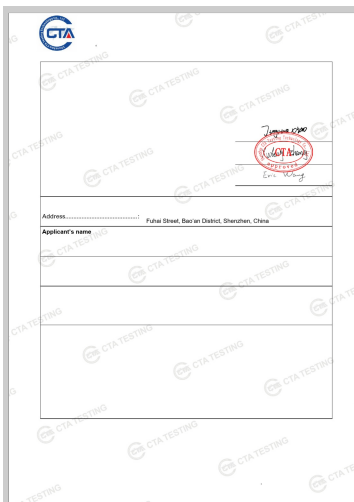
[pdf] Specifications Test Report

Test Report BLE Minix Group Company Limited U8K Android Box 2BKGH 2BKGHU8K u8k
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Industrial Park, Qiaotou Co ... .: Minix Group Company Limited
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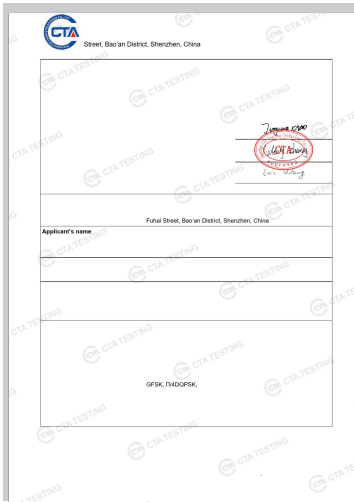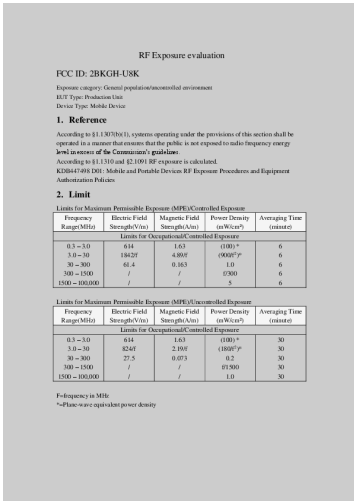

[pdf] Specifications Test Report

Test Report BT Minix Group Company Limited U8K 2BKGH 2BKGHU8K u8k
Shenzhen CTA Testing Technology Co., Ltd. Room 106, Building 1, Yibaolai
Industrial Park, Qiaotou Co ... . : Minix Group Company Limited
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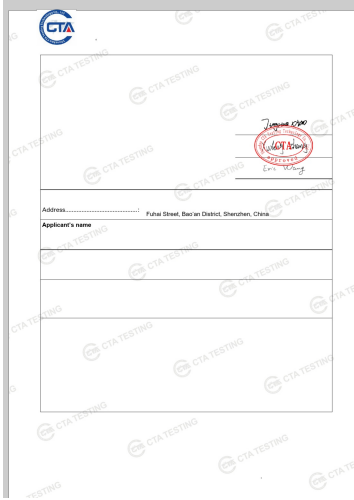lang:en score:19 filesize: 2.68 M page_count: 45 document date: 2024-09-30

[pdf] Specifications Test Report

Test Report 2 4G WIFI Part 1 Minix Group Company Limited U8K Android Box 2BKGH 2BKGHU8K u8k
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Industrial Park, Qiaotou Co ... . : Minix Group Company Limited
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[pdf] SAR Rating

FCC RF Exposure MPE Minix Group Company Limited U8K Android Box 2BKGH 2BKGHU8K u8k RF Exposure evaluation FCC ID: 2BKGH-U8K Exposure category: General population/uncontrolled enviro ... an isotropic radiator R=distance to the center of radiation of the antenna 4. Antenna Information **U8K-ULTRA** can only use antennas certificated as follows provided by manufacturer; Antenna No. Mode...

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[pdf] Specifications Test Report

Test Report 5GWIFI Minix Group Company Limited U8K Android Box 2BKGH 2BKGHU8K u8k Shenzhen CTA Testing Technology Co., Ltd. Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Co ... . : Minix Group Company Limited Model/Type reference .... : **U8K-ULTRA** Listed Models .... : U8K-XXXXX x can be 0-9, A-Z, a-z, blan...

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