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› MekedeTech DUDUAUTO DUDU7 2K Touch Screen Car Radio Head Unit User Manual for Toyota Camry 2021-2023

MekedeTech DUDU7

MekedeTech DUDUAUTO DUDU7 2K Touch Screen Car Radio Head Unit User Manual

For Toyota Camry 2021, 2022, 2023

1. INTRODUCTION

This manual provides instructions for the installation, operation, and maintenance of the MekedeTech DUDUAUTO DUDU7 2K Touch Screen Car Radio Head Unit. This unit is designed for specific compatibility with Toyota Camry models from 2021, 2022, and 2023. It features a 12.8-inch touch screen, Android 13 operating system, 8-core UIS7870 processor, 6GB RAM, and 64GB ROM. Key functionalities include Wireless CarPlay, Android Auto, 4G LTE, Wi-Fi connectivity, and advanced audio processing.

2. PACKAGE CONTENTS

Verify that all components listed below are included in your package. If any items are missing or damaged, please contact customer support.

Package Contents



Head unit



Power Cable + Canbus Box



RCA Cable



Reversing camera



USB Plug x3



Fakra 4G Antenna



Fakra GPS Antenna



MIC

Figure 2.1: Package Contents

This image displays the complete set of items included with the DUDUAUTO DUDU7 head unit. It shows the main head unit, power and Canbus wiring, RCA cables, a reversing camera, three USB plugs, a Fakra 4G antenna, a Fakra GPS antenna, and a microphone.

- DUDUAUTO DUDU7 Head Unit
- Power Cable + Canbus Box
- RCA Cable
- Reversing Camera
- USB Plugs (x3)
- Fakra 4G Antenna
- Fakra GPS Antenna
- Microphone (MIC)

3. SETUP AND INSTALLATION

The DUDUAUTO DUDU7 head unit is designed for a plug-and-play installation in compatible Toyota Camry models (2021-2023). Professional installation is recommended to ensure proper functionality and avoid damage to your vehicle's electrical system.

3.1 Pre-Installation Comparison

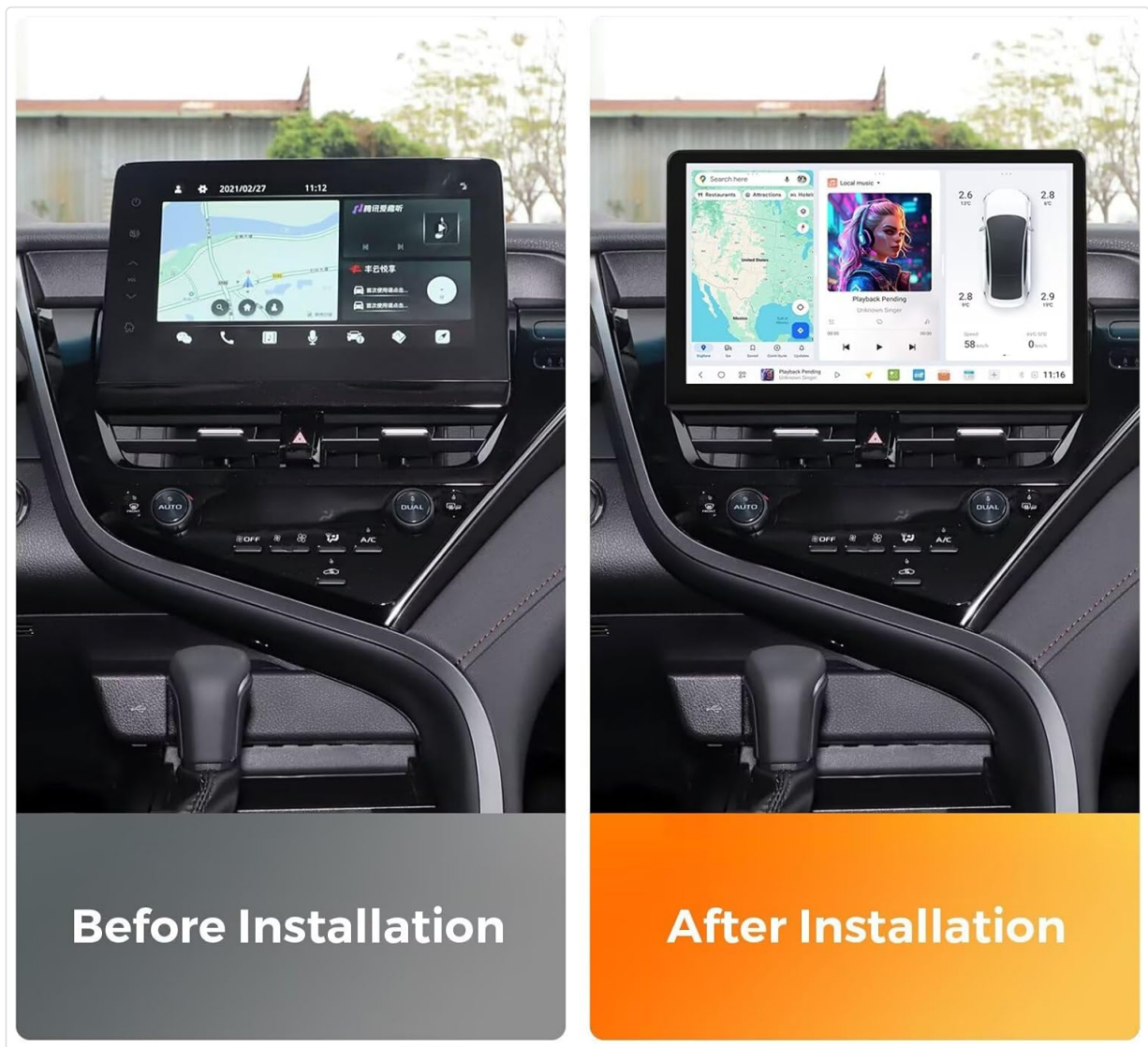


Figure 3.1: Before and After Installation

This image illustrates the visual transformation of the Toyota Camry dashboard. On the left, the original factory head unit is visible. On the right, the DUDUAUTO DUDU7 12.8-inch touch screen is seamlessly integrated, demonstrating the upgrade in display size and modern interface.

3.2 Connecting the Head Unit

Refer to the diagram below for the connection points on the rear of the DUDU7 head unit. Ensure all cables are securely connected.

DUDU7

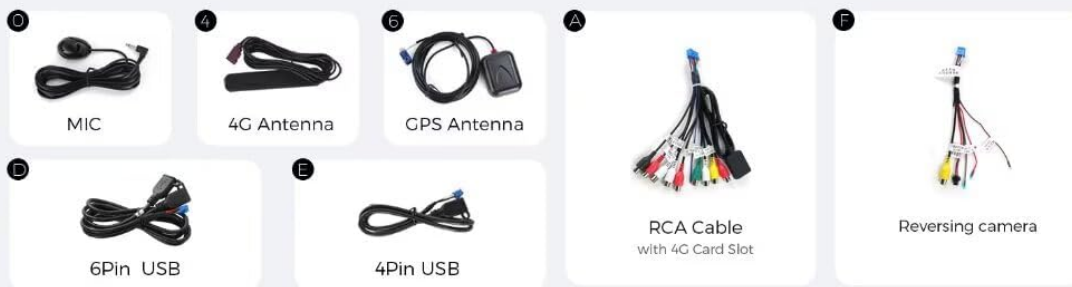
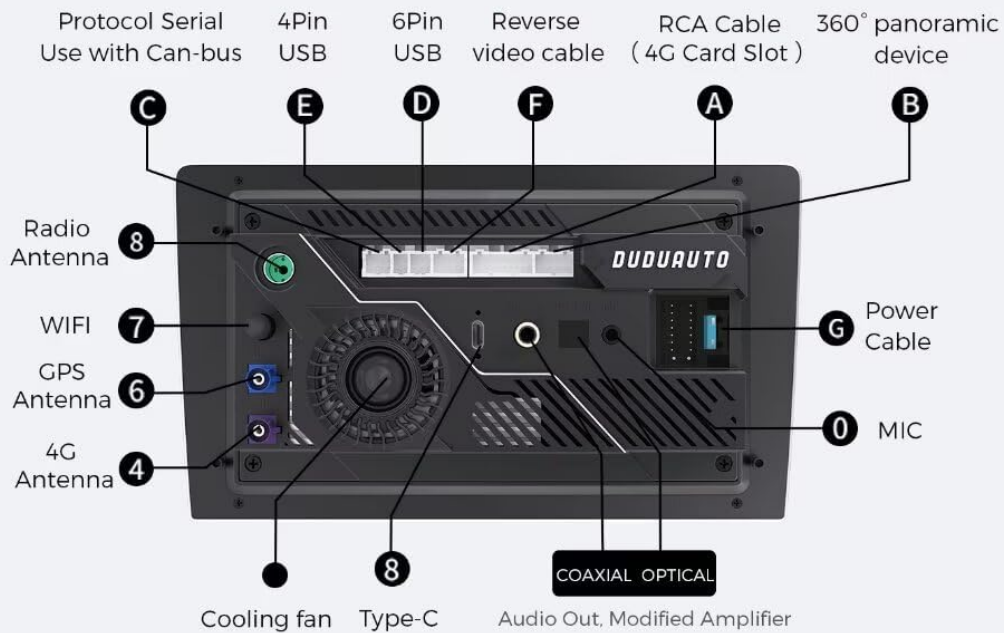


Figure 3.2: DUDU7 Rear Panel Connections

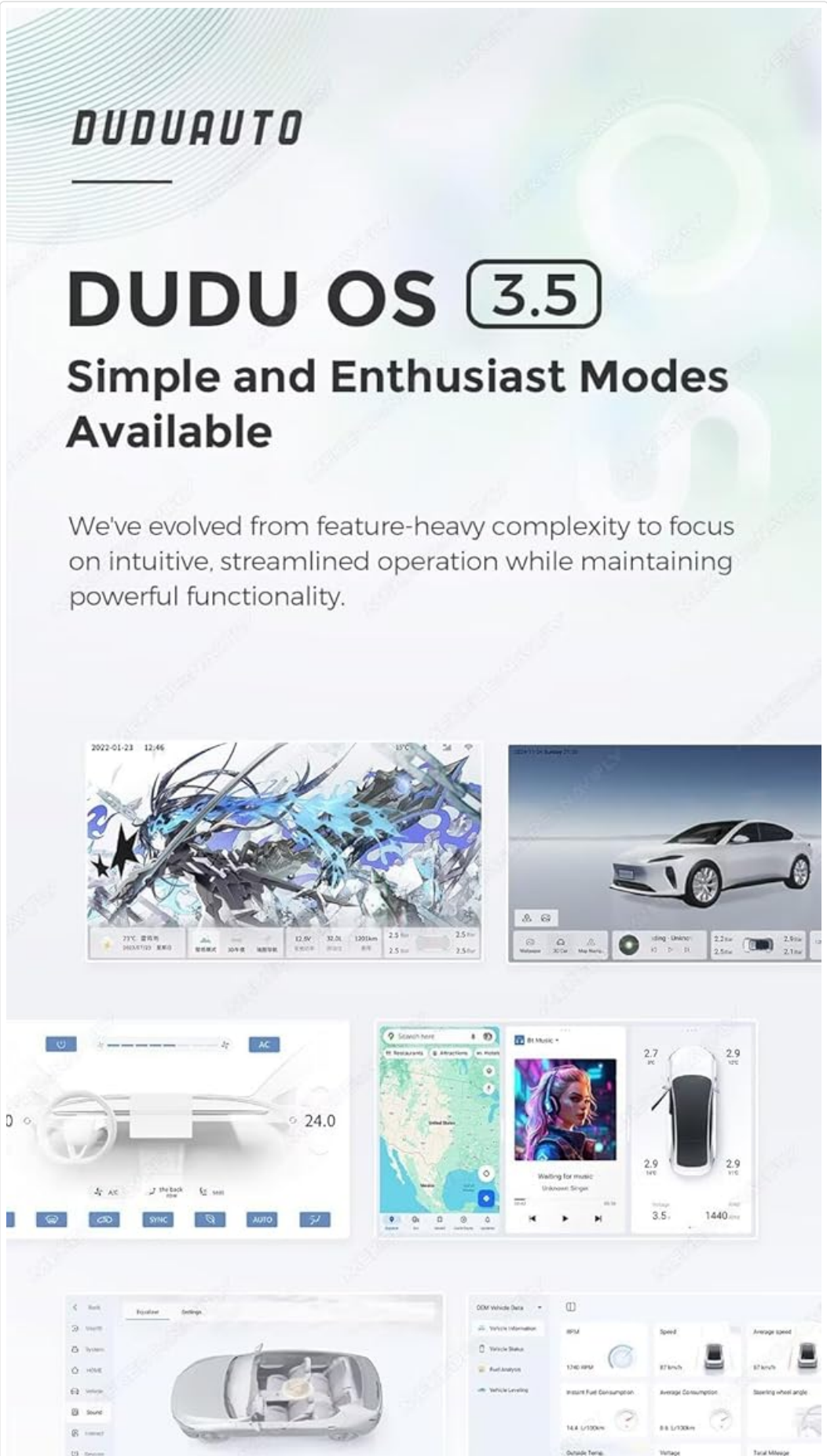
This diagram details the various input and output ports on the back of the DUDU7 head unit. Key connections include ports for the Can-bus, multiple USB inputs (4-pin, 6-pin, Type-C), reverse video, RCA cables (with 4G card slot), 360 panoramic device, radio, Wi-Fi, GPS, and 4G antennas, microphone, coaxial/optical audio out, modified amplifier, and the main power cable.

1. **Power Cable + Canbus Box:** Connect the main power harness and Canbus box to the vehicle's wiring. This manages communication between the head unit and the car's systems.
2. **RCA Cable:** Connect for audio/video input/output, including the 4G card slot if applicable.
3. **USB Plugs:** Connect the provided USB cables to the designated USB ports (4-pin, 6-pin, Type-C) for external devices or data transfer.
4. **Antennas:** Connect the Fakra 4G Antenna, Fakra GPS Antenna, and Radio Antenna to their respective ports for optimal signal reception.
5. **Microphone:** Plug in the external microphone for improved call clarity and voice commands.
6. **Reversing Camera:** Connect the reversing camera cable to the designated input for automatic display when reversing.
7. **Optional Connections:** Connect the 360 panoramic device, coaxial/optical audio out, or modified amplifier as needed for your specific setup.

4. OPERATING INSTRUCTIONS

The DUDUAUTO DUDU7 operates on Android 13 with the DUDU OS 3.5 interface, offering both simple and enthusiast modes for user customization.

4.1 User Interface Overview



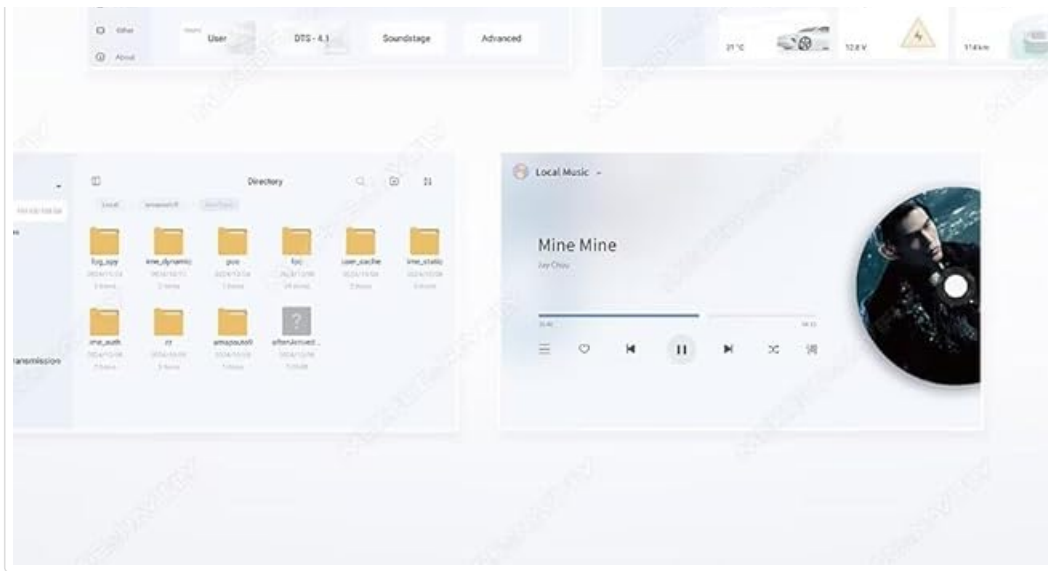


Figure 4.1: DUDU OS 3.5 Interface

This image provides a visual overview of the DUDU OS 3.5 interface, showcasing its intuitive design and various functionalities such as navigation, multimedia playback, and vehicle data display.

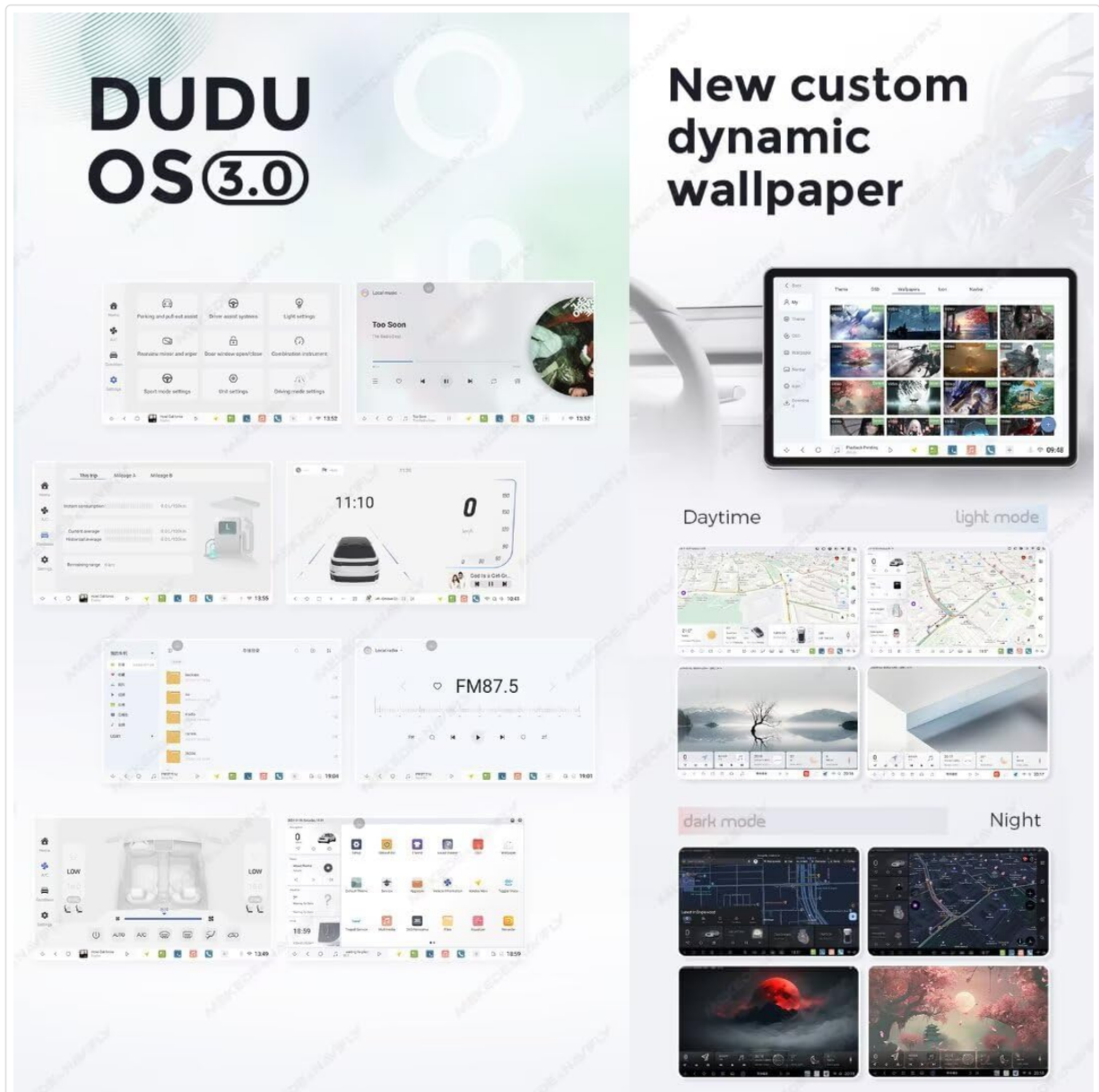


Figure 4.2: DUDU OS 3.0 Interface and Dynamic Wallpapers

This image demonstrates the DUDU OS 3.0 interface, featuring customizable dynamic wallpapers and various display modes (daytime, light, dark, night) for enhanced visual comfort and personalization, particularly for navigation.

4.2 Wireless CarPlay & Android Auto

The head unit supports both Wireless CarPlay for iPhones and Android Auto for Android devices, allowing seamless integration of your smartphone's features.

- **Connecting:** Ensure your phone's Bluetooth and Wi-Fi are enabled. On the head unit, navigate to the CarPlay or Android Auto application and follow the on-screen prompts to pair your device.
- **Functionality:** Access navigation, music, calls, and messages directly from the head unit's screen.

4.3 4G LTE & Wi-Fi Connectivity

- **4G LTE:** Insert a compatible SIM card into the designated slot (often integrated with the RCA cable harness) to enable 4G internet access.
- **Wi-Fi:** Connect to available Wi-Fi networks (e.g., mobile hotspot, home Wi-Fi) via the settings menu for internet access. The unit supports 802.11 a/b/g/n/ac and 5G Wi-Fi.

4.4 Audio Features

The DUDU7 incorporates advanced audio technologies for a superior listening experience.

Choosing reputation audio chip in an industry-wide

AKM7739 DSP Velvet Audio Technology

Support "VELVET SOUND" +DTS5.1 panoramic sound+ sound correction system, reproduces a natural, comfortable, sense of presence acoustic experience.

VELVET SOUND

VELVET SOUND ©

VELVET SOUND - AKM advanced audio processing technology, based on the original sound reproduction product concept, explores the limits of audio technology, and presents all sound details without reservation, creating a "like, immersive" sound world.

Figure 4.3: AKM7739 DSP Velvet Audio Technology

This image highlights the advanced audio components within the DUDU7, specifically the AKM7739 DSP (Digital Signal

Processor) with Velvet Audio Technology and the TDA7808 digital amplifier. These components work together to provide a natural, comfortable, and immersive acoustic experience with enhanced sound quality.

- **DSP:** Features AKM7739 Velvet Audio Technology for enhanced sound processing and a 5.1 panoramic sound experience.
- **Power Amplifier:** Utilizes TDA7808 Digital AB type amplifier for clear and powerful audio output.
- **Bluetooth 5.0:** Equipped with a Qualcomm 3031 chip, supporting aptX HD protocol for high-quality wireless audio streaming with low power consumption and stable signal.
- **Digital Noise Cancelling Mic:** The built-in microphone features digital noise cancellation to ensure clear voice transmission during calls, even in noisy environments.
- **Audio Output:** Supports Optical + Coaxial and RCA 5.1 Channel Outputs for flexible audio system integration.

5. SPECIFICATIONS

The following table details the technical specifications of the MekedeTech DUDUAUTO DUDU7 head unit.

	DUDU4	DUDU5	DUDU6	DUDU7
RAM/ROM	4+32GB	4+64GB	6+64GB 8+128GB 8+256GB	6+64GB 12+256GB 8+128GB 12+512GB
CPU	8-Core UIS8581A	8-Core UIS7862	8-Core UIS7862S Customized verison A55 2.0Ghz 12nm process	8-Core UIS7870 Customized verison A76 2.7Ghz 6nm process
Memory type	emmc 5.1			UFS 3.1 Read data 1700M+
GPS	3 mode L1 B1 E1			Dual Band 6 mode L1 L5 B1 B2a E1 E5a
MIC	Condenser MIC			Digital noise cancelling MIC
USB interface	USB 2.0*3			Type-C USB 3.2 Gen1*1 USB 2.0*3
Power amplifier	TDA7838	TDA7851	TDA7850	TDA7808 Digital enhanced Class AB power amplifier
DSP	AK7604	AK7604	AKM7738	AKM7739 Velvet audio technology
Amp	/	/	2582*3	5532*3 Enhanced audio signal
Android version	Android 10 API=29			Android 13 API=33
car machine system	DUDU OS			
Audio output	RCA2.1 channel output	Fiber + coaxial RCA2.1 channel output	Fiber + coaxial RCA5.1 channel output	
			BT5.0 Qualcomm 3031	

BT chip	BT5.0	BT5.0 Qualcomm 3031 supports the aptx HD protocol
Filter capacitance	6800μF	10000μF
Screen	In-cell Screen	9.5" / 10.36" / 11.5" : 2K 2000*1200 13" : 1920*1200
CP/AA	Support wired + wireless Car-play / Android AUTO	
Network	4G Lte external card slot + WIFI	
Radio	TDA4755	TDA7708
Voice Control	DUDU4 / 5 requires the purchase of voice control software to be supported.	Support voice control function
Supporting accessories (optional)	DVR, front + rear view camera, TPMS, BT SWC, etc. Note: Accessories are not included and are purchased separately. For more customization needs, please contact mekede&navify.	

Figure 5.1: DUDU Series Specification Comparison

This table provides a detailed comparison of specifications across the DUDU series, including DUDU4, DUDU5, DUDU6, and DUDU7. It highlights differences in RAM/ROM, CPU, memory type, GPS, microphone, USB interface, power amplifier, DSP, Android version, audio output, Bluetooth chip, screen size/resolution, CarPlay/Android Auto support, network capabilities, radio, voice control, and optional accessories. The DUDU7 model is specifically detailed with its advanced features.

Feature	Specification
Model Number	DUDU7
Operation System	Android 13
CPU	8 Core UIS7870 Customized version A76 2.7Ghz 6nm processor
Memory (RAM/ROM)	6GB RAM / 64GB ROM (UFS 3.1)
Display	12.8 inch 2K Touch Screen (1920x1200)
GPS	Dual Band 6 mode L1 L5 B1 B2a E1 E5a
Microphone	Digital Noise Cancellation Microphone
USB Interface	USB 3.2 GEN1*1 (TYPE-C), USB 2.0*3
Power Amplifier	TDA7808 Digital AB type
DSP	AKM7739 Velvet Audio Technology
Bluetooth Chip	Qualcomm 3031 (Supports aptX HD protocol, BT5.0)
Audio Output	Optical + Coaxial, RCA 5.1 Channel Outputs

Feature	Specification
WiFi Type	802.11a/b/g/n/ac (Support 5G WIFI)
Radio IC	TDA7708
Work Voltage	9V~16V
CarPlay & Android Auto	Wired and Wireless Support
360 Panorama	Includes 360 panoramic chip (default)
Output Wattage	50 Watts
Control Method	Touch
Video Encoding	H.264, H.265/HEVC

5.1 Performance Overview

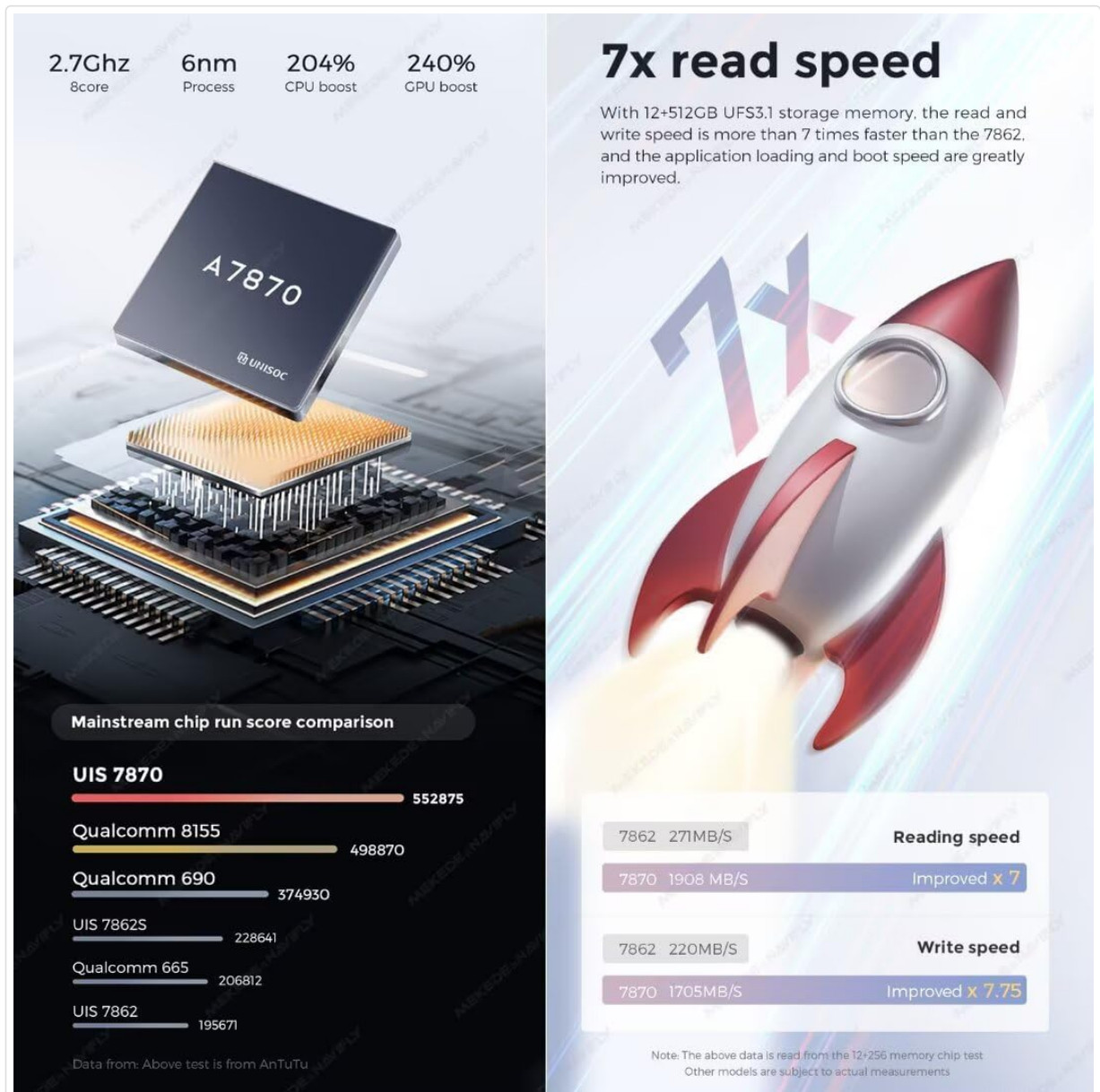


Figure 5.2: Performance and Read Speed

This image highlights the performance capabilities of the A7870 chip used in the DUDU7, comparing its CPU and GPU boost percentages. It also illustrates a significant improvement in read and write speeds (up to 7 times faster) compared to

previous generations, attributed to the UFS 3.1 storage, resulting in faster application loading and boot times.

6. TROUBLESHOOTING

This section provides general guidance for common issues. For more complex problems, please refer to the support section.

- **No Power:** Check all power connections, including the main power harness and fuse. Ensure the vehicle's ignition is on.
- **No Sound:** Verify speaker connections. Check audio settings on the head unit, including volume levels and output selections. Ensure external amplifiers are powered on if used.
- **Bluetooth/Wi-Fi Connectivity Issues:** Ensure Bluetooth and Wi-Fi are enabled on both the head unit and your device. Try restarting both devices. Check for interference from other electronic devices.
- **CarPlay/Android Auto Not Connecting:** Ensure your phone is compatible and the app is updated. Try reconnecting via Bluetooth first, then follow the on-screen prompts.
- **GPS Signal Loss:** Ensure the GPS antenna is properly installed and has a clear view of the sky. Check antenna cable connections.
- **Touch Screen Unresponsive:** Try restarting the head unit. If the issue persists, a factory reset might be necessary (note: this will erase all user data).

7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your DUDUAUTO DUDU7 head unit.

- **Screen Cleaning:** Use a soft, lint-free cloth specifically designed for electronics screens. Dampen the cloth slightly with water or a screen-safe cleaner. Avoid harsh chemicals or abrasive materials.
- **Software Updates:** Periodically check for software updates through the head unit's settings menu or the manufacturer's website. Updates can improve performance, add features, and fix bugs.
- **Environmental Conditions:** Avoid exposing the head unit to extreme temperatures, direct sunlight for prolonged periods, or excessive moisture.
- **Cable Connections:** Periodically check that all cables connected to the rear of the unit are secure and free from damage.

8. WARRANTY AND SUPPORT

8.1 Warranty Information

The MekedeTech DUDUAUTO DUDU7 head unit comes with a **1-Year Warranty** from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use. It does not cover damage caused by improper installation, misuse, accidents, or unauthorized modifications. Please retain your proof of purchase for warranty claims.

8.2 Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact MekedeTech customer support. Support is available via:

- **WhatsApp:** Refer to the official MekedeTech website or product packaging for the contact number.
- **Online Forum:** Visit the MekedeTech official forum for community support, FAQs, and additional

resources.

- **Manufacturer Website:** [Visit the MekedeTech Store on Amazon](#) for product information and potential support links.