灰度科技
HUIDU TECHNOLOGY

PRODUCT SPECIFICATION

LCD Android Box

HD-527S-BOX

Version: V1.0

Update History

Version	Release time	Description
V1.0	Oct 8, 2024	First official release.

Contents

Chapter Ⅰ Product Description

Ⅰ. Overview

HD-527S-BOX is a smart LCD Android box, used A527 octa-core A55 chip solution, maximum frequency up to 1.8 GHz, equipped with Android 13.0 system, adopts ARM G57 MC1 GPU, with super performance, support H.265/VP9 4K@60Hz, H.264 4K@30Hz video decoding, and support 1080P 60fps H.265/H.264 video encoding.

Support infrared remote control, Wi-Fi, RJ45 and other rich interfaces, making the product more versatile and widely used in intelligent control fields such as advertising machines, interactive all-in-one machines, security, medical, transportation, finance, industrial control, etc.

Due to the characteristics of its hardware platform and Android intelligence, it can be used on the main board of the smart terminal when human-computer interaction and network device interaction are required, and it can be your best choice.

Ⅱ. Features

- High performance. The chip adopts octa-core ARM Cortex-A55 architecture with a main frequency of up to 1.8GHz. It can play high-definition video in various formats and handle complex interactive operations.
- High stability. 527S Android all-in-one box adds unique technology to ensure product stability in terms of hardware and software, and can make the final product reach 7*24 hours unattended.
- High integration. Integrates functions such as Ethernet, Wi-Fi, TF expansion card, USB port, HDMI interface output, which greatly simplifies the installation of the whole machine.
- High definition. Supports LCD display screens with HDMI interface, and supports cropping screens of various sizes and resolutions.

Chapter II Specifications

Ⅰ. Basic Parameters

1. Hardware Parameters

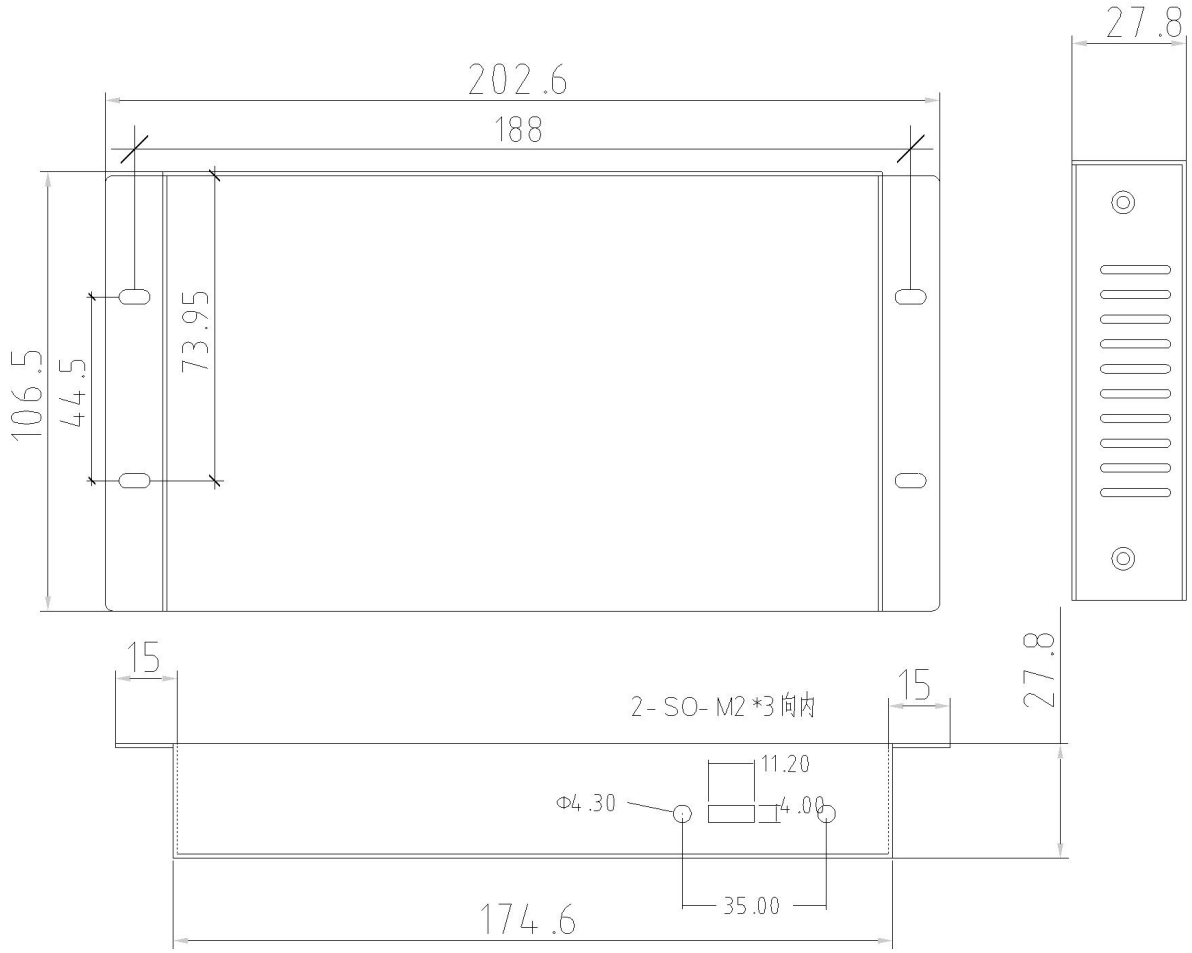
Hardware Specifications	
CPU	A527, Octa-core chip, maximum frequency is 1.8GHz
GPU	ARM G57 MC1 GPU, Support OpenGL ES 3.2/2.0/1.1, Vulkan1.1/1.2/1.3, and OpenCL2.2
RAM/ Storage	Standard 2GB+32GB
Connection	Support RJ45 100M Ethernet port and Ethernet. Support 2.4GHz + 5GHz Wi-Fi and Wi-Fi 802.11 a/b/g/n/ac/ax protocol.
Image rotation	Support 0 degree, 90 degree, 180 degree, 270 degree manual rotation
Display interface	1 * HDMI interface, support 4K output
Audio	Support standard left and right channel line output
RTC	Built-in real-time clock function
USB	1 * USB 3.0 HOST, 1 * USB 2.0 or OTG
LED	1 * power status LED (green), 1 * system LED (green, blinking by default)
Button	1 * Recovery button
Power Adapter	Input: AC100-240V.50-60Hz, output: DC12V 1.5A (Requires that the surge voltage is less than 18V and the ripple voltage is less than 100mV)
Storage Humid	10%～90％ RH
Storage Temp	-40℃~70℃
Work Temp	-20℃~70℃

2. Software Parameters

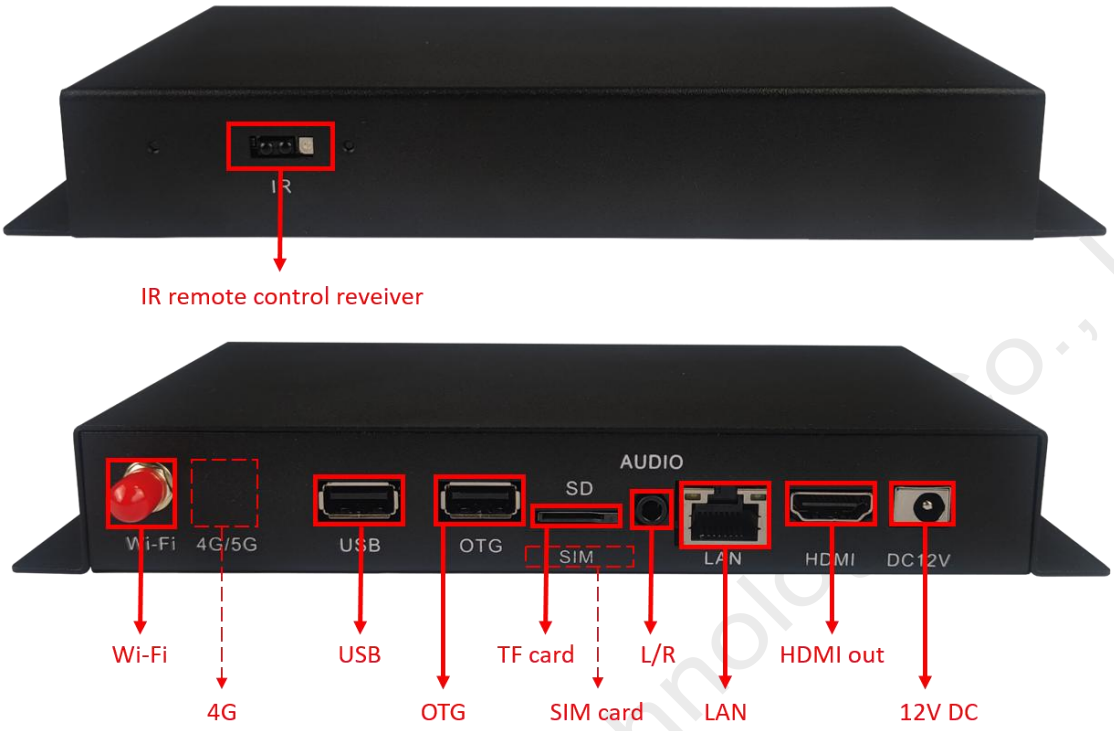
Software Specifications	
Operating system	Android 13.0
Audio	MP3, WMA, WAV, APE, FLAC, AAC, OGG,M4A,3GPP and other formats
Video	Support VP9,H.265 4K60,H.264 4K30, (AVS/AVS+,VP8,MPEG1,MPEG2,MPEG4,XVID,H263,SorensonSpark,MJPEG 1080P)
Picture	Support JPG, BMP, PNG and other image formats
Built-in APP default	APK Installer, Email, Calculator, Browser, Voice Recorder, Calendar, Settings, Clock, Video Player, Search, Contacts, Gallery, Downloads, Camera, Music, Explorer, etc.
Language	Support multi-languages
Input method	Standard Android keyboard, optional third-party input method
System Management	Original ecological Android system, open root privileges, and can carry out product customization development
	Real-time remote monitoring, system crash self-recovery, 7*24 hours unattended
	Support OTA remote upgrade; support U disk upgrade
	Support boot animation definition
	Support server/standalone mode switching
	Support Wi-Fi hotspot
System watchdog	Support software watchdog, hardware watchdog

Ⅱ. Product Size Specifications

Side interface size (boxed)



Ⅲ. Schematic Diagram of Product Interface



Ⅳ. Interface Parameter Description

1. PWR / DC (power input) Interface

12V DC power supply is used to supply power to the board subsystem only from the DC socket and power Socket.

2. HDMI Output

Connect to the LCD screen for program display

3. LAN Port

Connect to the Internet/LAN to realize Internet remote cluster management and LAN cluster management.

4. Audio Interface

1. Standard 3.5mm dual-channel audio interface, which can be directly connected to low-power speakers or amplifiers.
2. The reset hole is hidden in the audio port. Long press with a long reset needle to restore the factory settings.

5. TF Card Slot

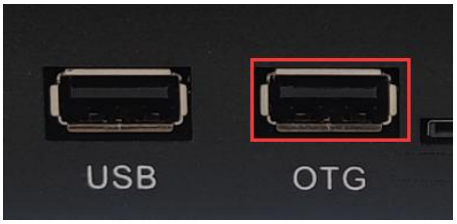
Insert the TF card to update the program content.

6. SIM Card Slot (Optional)

Install the 4G mobile phone card interface, and realize remote cluster management after connecting to the Internet (4G module needs to be installed, 4G module is not standard configuration, according to user needs to install before leaving the factory).

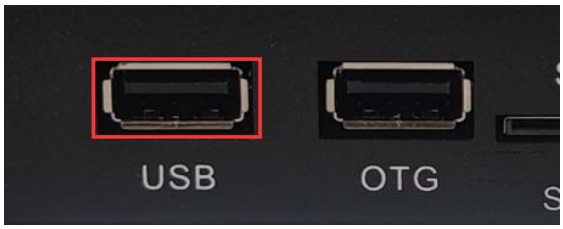
7. OTG Port

Upgrade firmware and other functions, in the system use the toolbox can be changed OTG/USB mode.



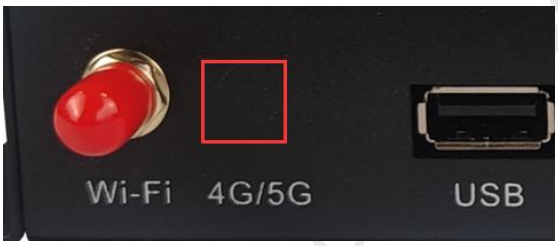
8. USB Port

Insert the U disk to update the program of the display screen. One of the USB interfaces can be switched to OTG or USB interface through jumpers (OTG and USB need to be set before the factory).



9. 4G Antenna Port（Optional）

Connect 4G antenna to enhance 4G signal.（Non-standard interface, closed by default）



10. Wi-Fi Antenna Port

Connect Wi-Fi antenna to enhance Wi-Fi signal.

11. IR Receiver Port

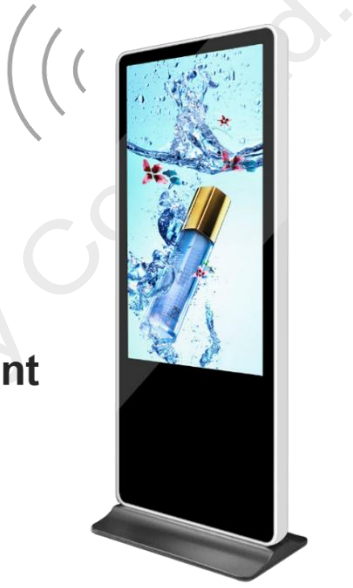
Receiving remote control signal, setting and programs switching.

Chapter III Communication Methods

I. Update Programs by Wi-Fi

No Server required

Mobile APP management



II. Update Program with U-disk

U-disk update programs

Support Interstitial & memory expansion

III. Update Program by TF Card

TF card update programs

Support Interstitial & memory expansion

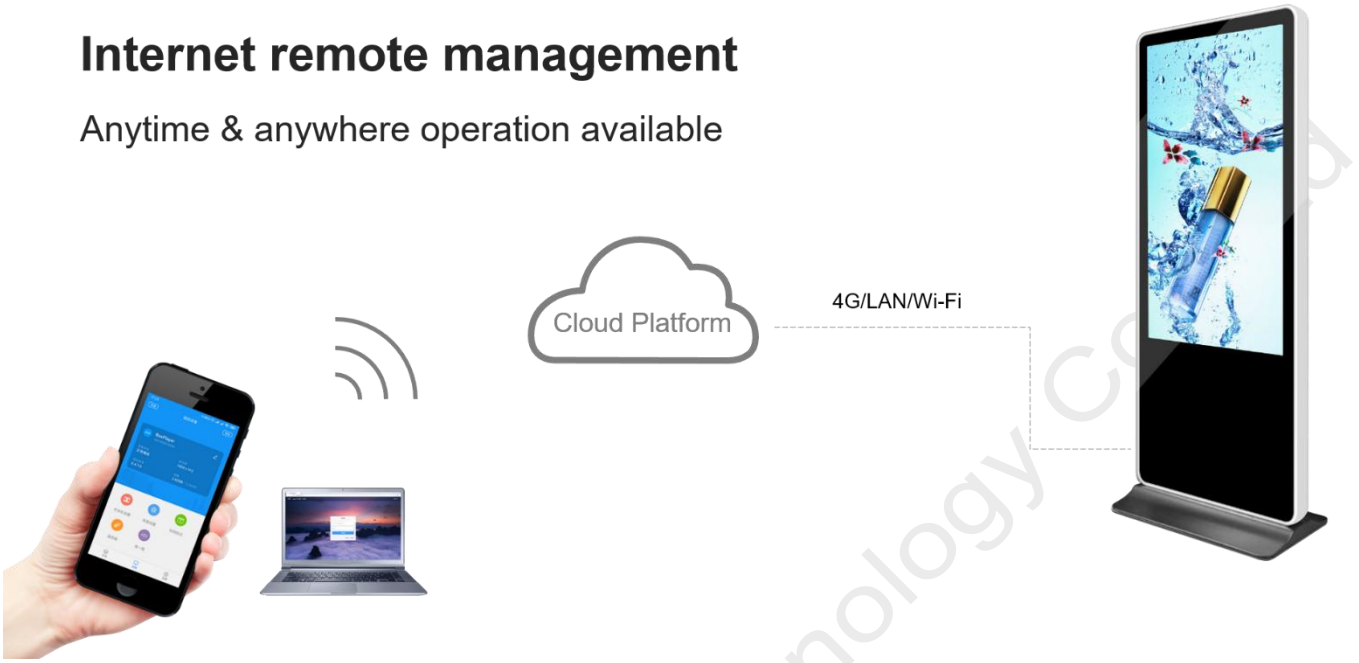
IV. Update Programs with LAN

LAN or Internet

Network cable connection

LAN & Internet integrated management

V. Update Programs by the Internet



Chapter IV Appendix: Product Appearance

Note:

1. The 4G module is an optional accessory, installed in the playback box before leaving the factory;

2. Non-standard features, the picture of the specification may be slightly different from the actual product, if you have any questions, please contact Huidu Technology for confirmation.