

# DN76 User Manual



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## Safety Notice

- Read the user manual carefully before setting up the Giada product.
- Disconnect the power cord before installing the internal components.
- Most electronic components are sensitive to static electrical charge, please wear a wrist-grounding strap when installing the internal components.
- Don't disconnect the power cord when the system is running to avoid damage to the sensitive components by instantaneous surge voltage.

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## 1. Product Introduction

Giada DN76 is powered by RK3568 quad-core Cortex-A55 processor. With Mali-G52 GPU, DN76 can support a 4K video and a 1080P video playback simultaneously. DN76 can support up to two screen output, with an HDMI2.0 and an HDMI1.4 display ports, and it also supports both landscape & portrait display mode. It also features Android 11 operation system. The player is suitable to be applied in high-end Android digital signage.

## 2. Interface Description and Hardware Specifications

### 2.1 Interface Description

#### Front I/O Port



#### Rear I/O Port



## 2.2 Hardware Specifications

DN76		Giada DN76-3568R41E4G-GIA
Processor	CPU	Rockchip RK3568, 4 Cores Cortex-A55
	Frequency	2.00 GHz
	Chipset	SOC
Memory	Type	DDR4
	Socket	Onboard
	Capacity	2GB (Optional: 4G)
Graphics	GPU	ARM Mali-G52
	Graphic Engine	OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1
	HDMI	1 x HDMI (Max. 4096 x 2160 @60 Hz) (CEC) 1 x HDMI (Max. 2560 x 1440 @30 Hz)
	Multi-Media	4K 60fps H.265/H.264/VP9 decoders, 1080P 60fps H.265/H.264 encoders
Network	Controller	1 x Realtek RTL 8211E Gigabit Ethernet
	Interface	1 x RJ45
I/O Interface	USB	1 x USB3.2 Gen1 (OTG), 1 x USB3.2 Gen1, 2 x USB2.0
	Serial Port	1 x RS232
	Audio	1 x 2-IN-1 headset (MIC-IN & AUDIO-OUT)
	Mini-PCle	1 x Full-size Mini-PCle for 3G/4G
	WiFi+BT Module	WiFi+BT Module Onboard (2.4GHz/5GHz)
	SIM Slot	1 x SIM Slot
Storage	eMMC	Onboard eMMC 32GB
JAHC	JAHC	Auto power on / RTC
Operation System	OS	Android 11
Power	Power Type	DC-IN
	Input Voltage	12V/2.08A
Mechanical	Construction	Metal
	Fanless	Yes
	Mounting	Desk/VESA Mounting (JC502)
	Dimension (W x D x H)	116.6mm x 107.4mm x 30mm
	Color	Black
Environment	Operating Temperature	0-40℃ at 0.7m/s Air Flow
	Relative Humidity	95%@45℃ (non-condensing)
Certification		CE/FCC Class B

### 3. Accessories Installation Steps

▲ For safety reasons, please ensure that the power cord is disconnected before opening the case.

#### How to open bottom cover

Unscrew the four screws and remove the bottom cover. (mini PCIE slot for 3G/4G and SIM card slot are on this side)



#### 3.1 3G/4G Installation

▲ Default SMA connector and cable is for WIFI. Please change to 3G/4G SMA connector and cable.

1. Plug the 3G/4G module into the mini PCIE slot.
2. Secure the module to the carrier by tightening up the screw.
3. Connect the cable to **Main** and install the antenna.





### 3.2 SIM Card Installation

▲ This product supports standard SIM card with the size of 25mm × 15mm.

1. [Open] the SIM card holder and pull it up.
2. Insert the SIM card.
3. [Lock] the card holder.







## 4. How to play different videos on two screens

The two HDMI ports on DN76 support clone mode, but you can play different videos on two screens by following setup:

- Install two different video player apps which support 4K decoding in DN76.
- Connect DN76 with two HDMI screens, you can see they are clone mode.
- Play one video with one of the video player app and press 'Alt+D' to enter into presentation display mode, then the video will show on the second screen.
- Back to android home, then play another video by the other video player app. You will see the two screens show different videos.

**Note: According to DN76's decoding capabilities, one output can be up to 4K@60FPS and the other one will be 1080P@60HZ at the same time.**

## 5. Firmware Upgrade Guide

### 5.1 Preparation:

- DN76 player
- Archive of DN76 firmware provided by Giada technical support
- Host PC with screen and installed Windows operation system.
- USB OTG Cable (RP-SMA Male↔RP-SMA Male)





After you get the Archive from Giada technical support, copy the Archive to your host PC, you will find below files inside:

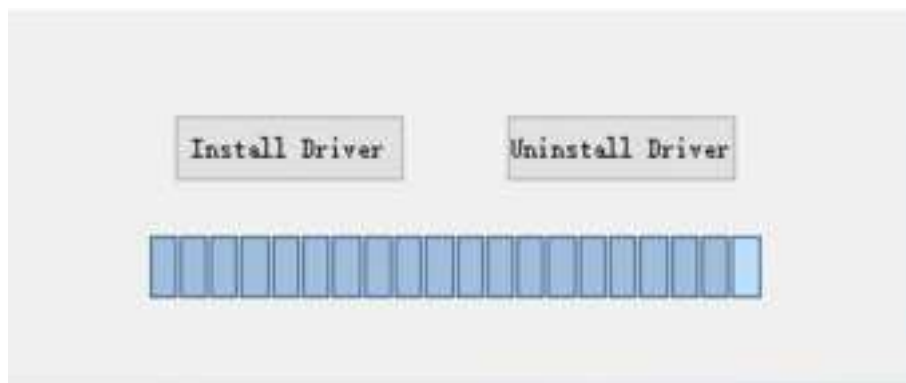
- Android Tool - tool for updating
- DN76 Firmware image.
- DriverAssitant - tool to install drivers and firmware image file

DN76-JHS562-R-GIADALOGO-20220...	2022/5/27 14:03	光盘映像文件	1,840,085...
DriverAssitant_v5.1.1.zip	2022/1/11 14:17	WinRAR ZIP 压缩...	9,584 KB
RKDevTool_v2.93.rar	2022/8/19 16:35	WinRAR 压缩文件	1,979 KB

## 5.2 Upgrade the firmware

### 5.2.1. Install the driver in your host PC by following steps:

a. Click the DriverAssitant file. Launch RK DriverAssitant and press “Install Driver”.



Apply all changes and warnings during the installation.



b. Click “ok” after the installation is finished.



### 5.2.2. Connect the DN76 with host PC

In order to connect the DN76 with Host PC and run bootloader mode, you should perform following steps:



- Please ensure that the power of the DN76 player is disconnected.
  - Run RKAndroid tool V2.93 under the windows of the host PC.
  - Connect the DN76 player to the host PC via usb OTG port (please refer to Fig 1 for location of the OTG port).
  - Firstly, hold the DN76 player recovery button (please refer to Fig1 for the location of the button), then connect the power adaptor to the player, you will see “Found a MSC Device” or “Found One Loader Device”. (Please refer to Fig2)
- ▲ Please don't loosen the button and don't press twice until you see the 'Found a MSC Device' or 'Found One loader device'.



( Fig1)



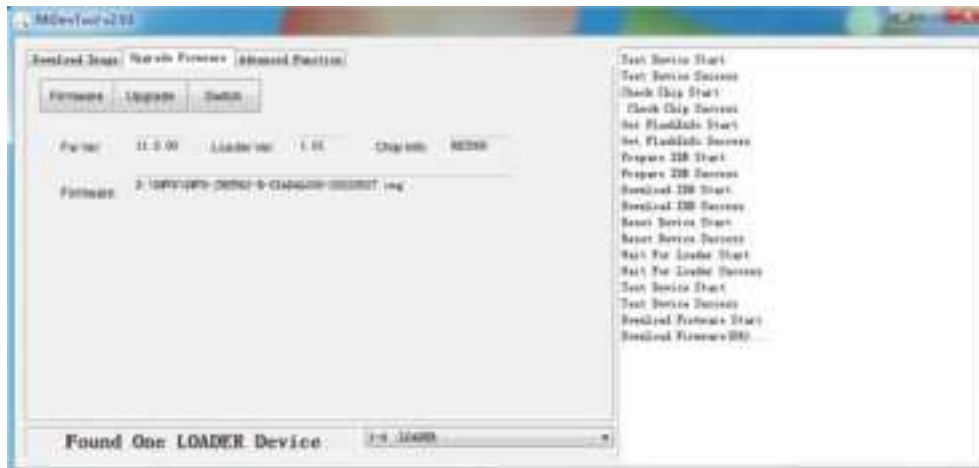
(Fig2)

### 5.2.3. Start the firmware updating.

- a. Click “Firmware” button and specify the path to the firmware file which is stored in the host PC (Please refer to Fig2).
- b. Wait around 5 seconds to upload the program, FW information will display on the screen. After the “Upgrade” button turns to black, you can click “Upgrade” to update the firmware (please refer to Fig3 and Fig4).



(Fig3)



(Fig4)

c. In the end, you will see a report indicating a successful operation.



## 6. JAHG APP

### 6.1 JAHG APP functions

The user can set up automatic startup and shutdown, one week as a circle.

#### 6.2 Startup(open) & shutdown(close) time setup

##### System Requirements:

- Giada player with JAHG APP function.
- Android OS includes JAHG APP (please refer to Fig1) .



Fig1

- a. After enter the android desktop, click the JAHC APP icon and the JAHC interface will pop up (please refer to Fig2)



Fig2

- b. Click 'New' button to set open time (Fig3) and then click Close time button to set close time. One week as a circle, maximum 3 schedules per day. Select each schedule to set up the Open time and Close time.
- c. After finishing the setup, click circles to launch the schedule.
- User can click delete to remove the schedule.



Fig3



Fig4

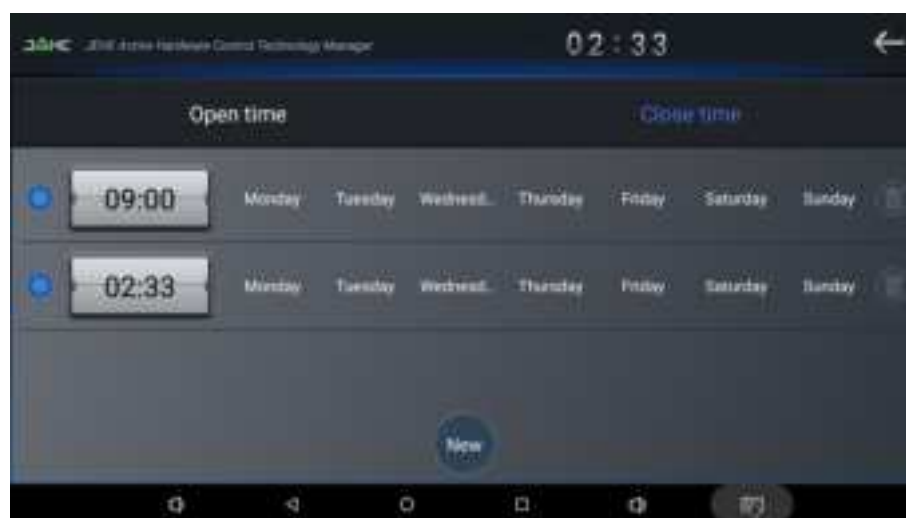


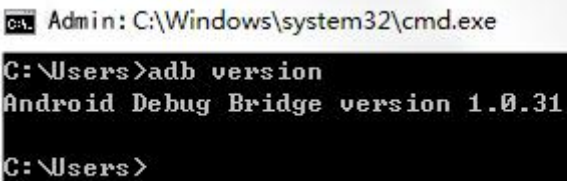
Fig5

▲ Caution: If the interval from shutdown time to next resume time is less than 3 minutes, the system will not shut down.

## 7. ADB SOP.

The user can debug APP with ADB driver by below steps:

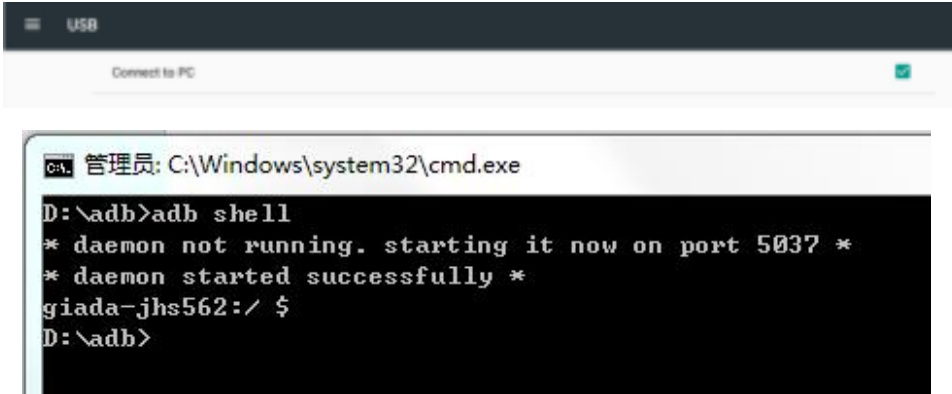
### 7.1 Use command ADB version to check if Windows ADB tool is installed.



```
CA\ Admin: C:\Windows\system32\cmd.exe  
C:\Users>adb version  
Android Debug Bridge version 1.0.31  
C:\Users>
```

### 7.2 Install Rock chip driver.

- Connect DN76 with OTG cable to windows PC host.
- Select 'Connect to PC' under android OS->Settings->USB->connect to PC.
- Then you can use ADB shell command to enter ADB.



```
USB  
Connect to PC  
D:\adb>adb shell  
* daemon not running. starting it now on port 5037 *  
* daemon started successfully *  
giada-jhs562:/ $  
D:\adb>
```





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