Quad Core Android PC

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FCC Certification Requirements

Caution: Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons.

Table of Contents

Declaration

- The user manual includes all the information of safe and correct operation instruction. To avoid accident and product damaged, please make sure go through all the content carefully before using the product.
- Please keep the product away from high temperature, humid and dusty environment.
- Do not drop or crash the product.
- Do not cut off the device when it is formatting, or upgrading, otherwise it will cause operation system error.
- Do not dismantle the device. Do not clean it by alcohol, thinner and Benzene.
- We keep the right to upgrade and modify the product.
- Disclaimer: we only take the responsibility to provide the warranty and after service. The users have to take care of their data in the device by themselves. We do not responsible for any data or related lost.
- The product is not water-proof.
- All the pictures in the instruction are just for reference.

1. Connector

1. AV output;   2. HDMI output   3. Optical output

4. RJ45 Ethernet connector   5. DC in   6. USB Host

7. USB Slave   8. Micro SD card slot

## 2. Device connection Instruction

a) Take out the device insert into your TV HDMI port through HDMI cable, make sure TV setting is HDMI input mode.(Refer to TV set user manual).

b) Charge MK902II by power adapter.

c) Mouse left button for "ok", right button for "return", rolling for page up and page down, Keep holding left button to drag icon or copy/paste file.
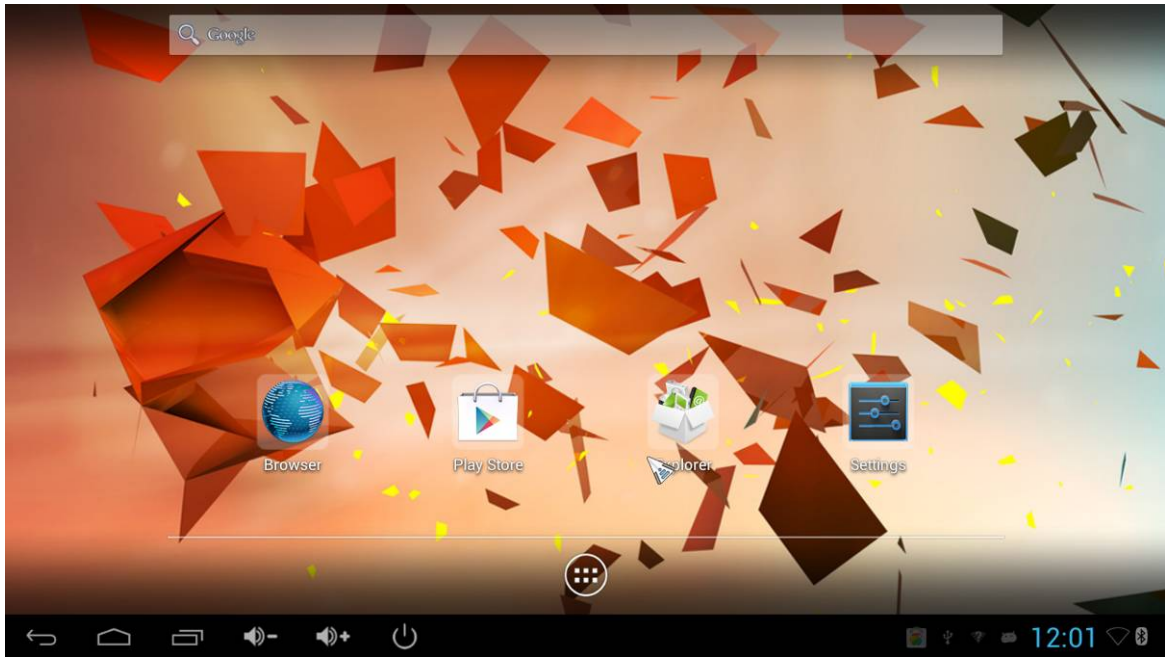
3. Boot state

After powered around 10 seconds, the boot image will appear.

Then access to boot animation;
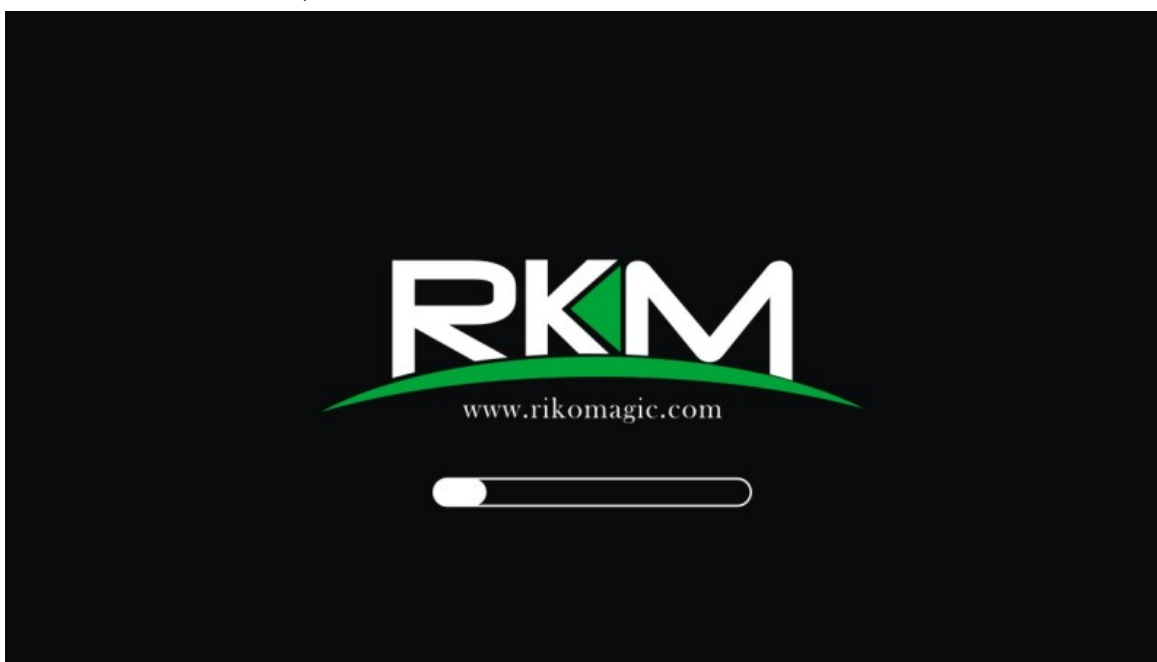
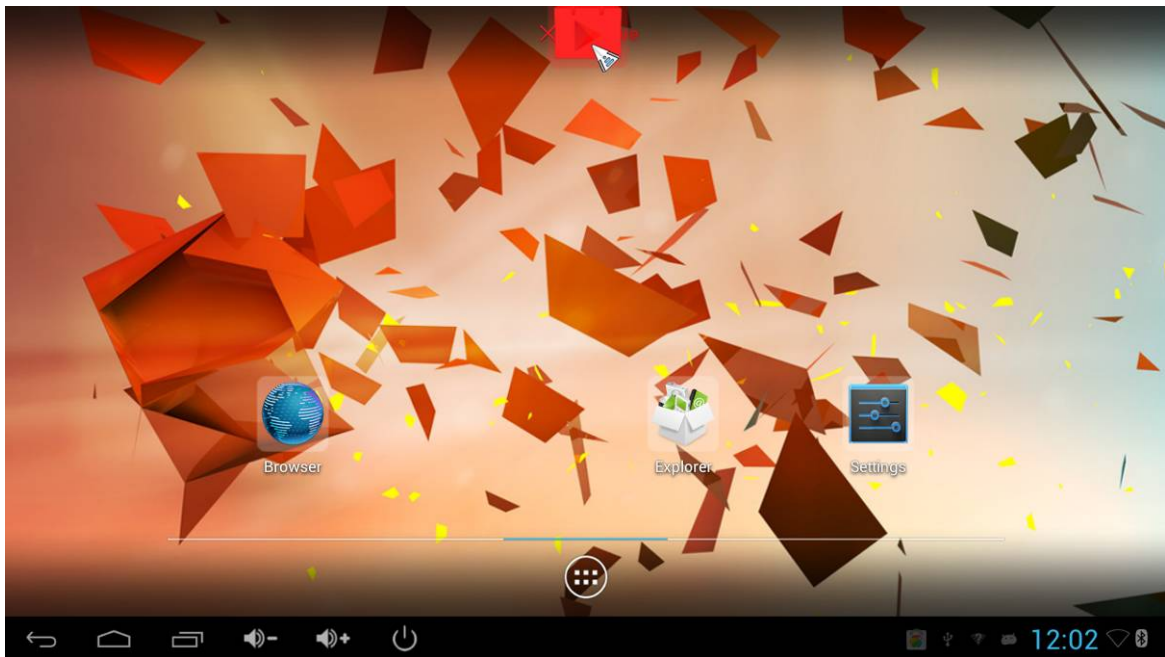After around 30 seconds, device would access to main screen;

4. Main Screen Introduction

4.1 Move/Delete desktop icon

Long-press any icon on the main menu, you could put it in any position as you like, at the same time you could put the other apps shortcut to the desktop.
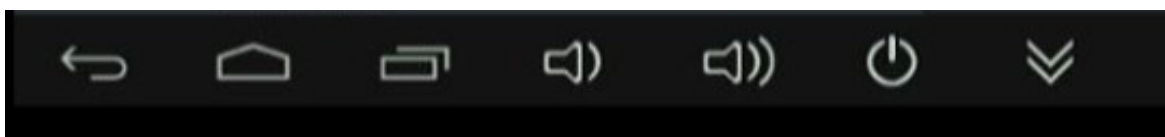

Long press the icon and move it to the right above "×" and loosen to delete.

Move the cursor to any space and drag towards left or right for page rolling. Also you can use the mouse wheel for rolling page.
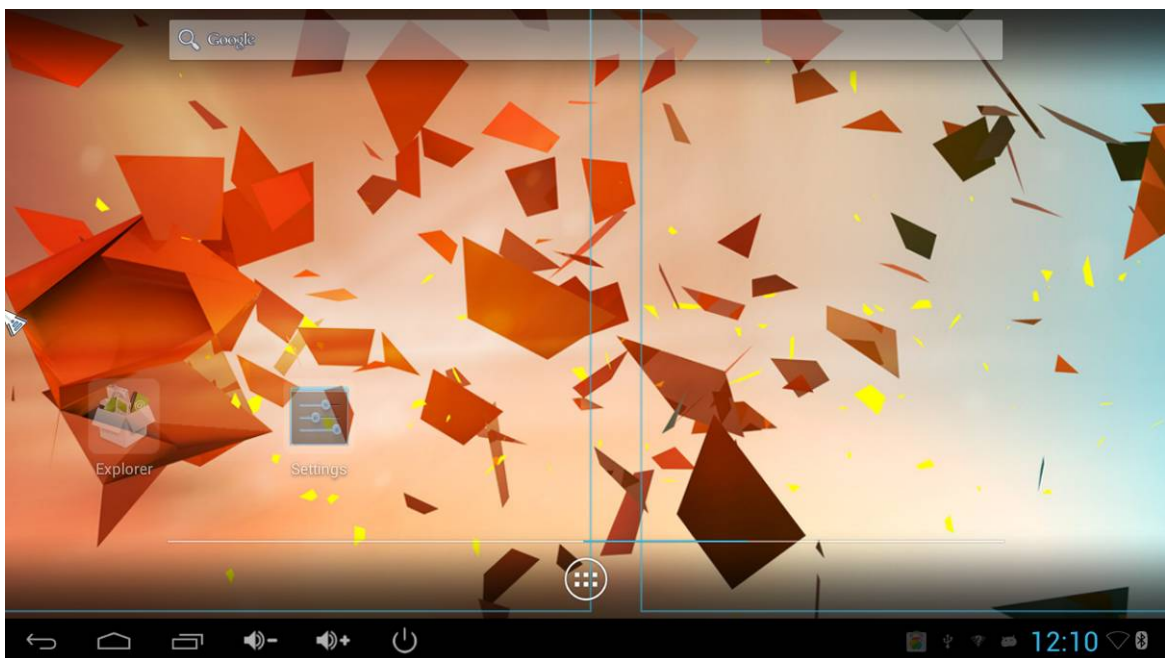
4.2 Function column

 Return button: click to return to previous directory;

Homepage button: click it anytime to return to main menu;

Program button: Click to check all the running program;

Volume decrease button: Click to decrease volume;

Volume increase button: Click to increase volume;

Properties button: in different apps, it shows different contents. It's equivalent to Windows properties button;

Soft turn off button.

Hide icon: click for hide this function bar.

Search button: Located in the top left corner of the main menu, click this icon to pop up webpage screen, user can input any website here.
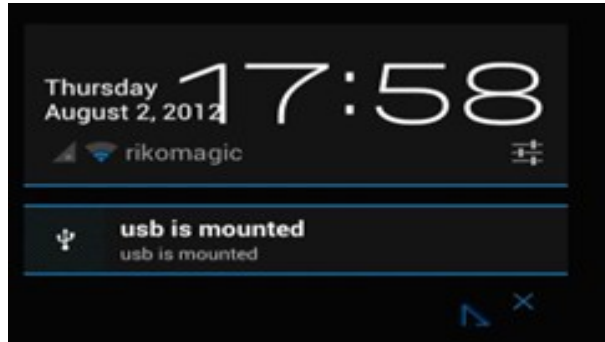
Program tools button: Located in the right top corner of the desktop, click this icon to pop up all the apps which has been installed.

4.3 Status bar

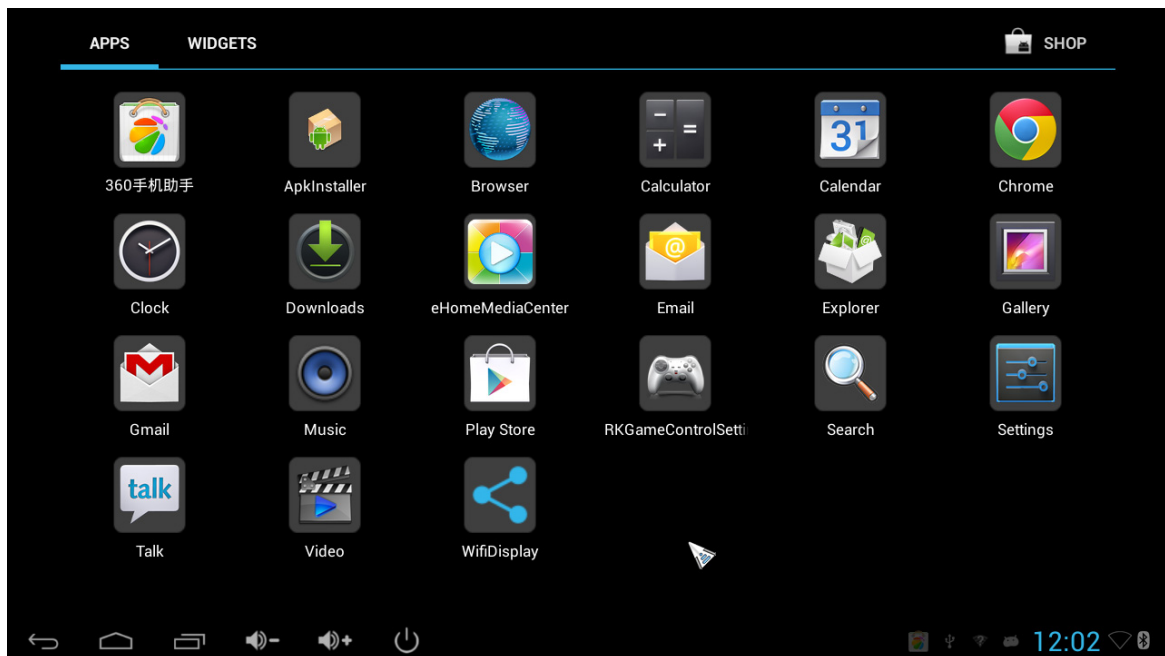Located on the right bottom, display T-Flash Card, USB connection, Time, WiFi and Download status.

Click status bar, the hide menu will pop up:

## 4.4 Application

Click to pop up all the installed APP and setup tools icon.

1. If the preloaded APP is beyond the first page, drag the page towards right or rolling the mouse roller to the second page to find other Apps;

2. If you want, you can long-press the APP and drag onto the desktop.

Click to access widgets, long press any widgets to produce corresponding shortcut on the desktop.
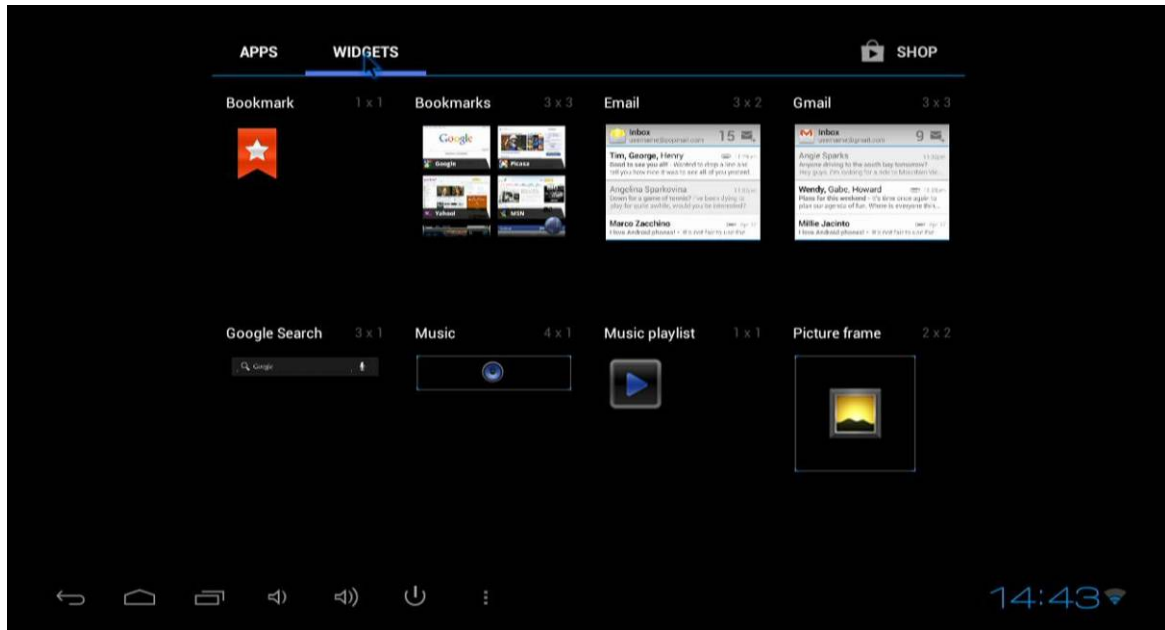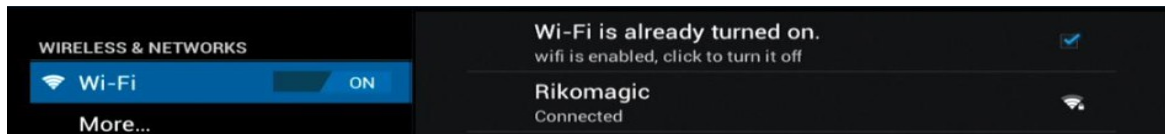
5. Settings

In the system user can setup according to their own requirements, such as network connection, language, input methods, Video output resolution, Sound output and check storage space.

Access to setting to pop up below screen.
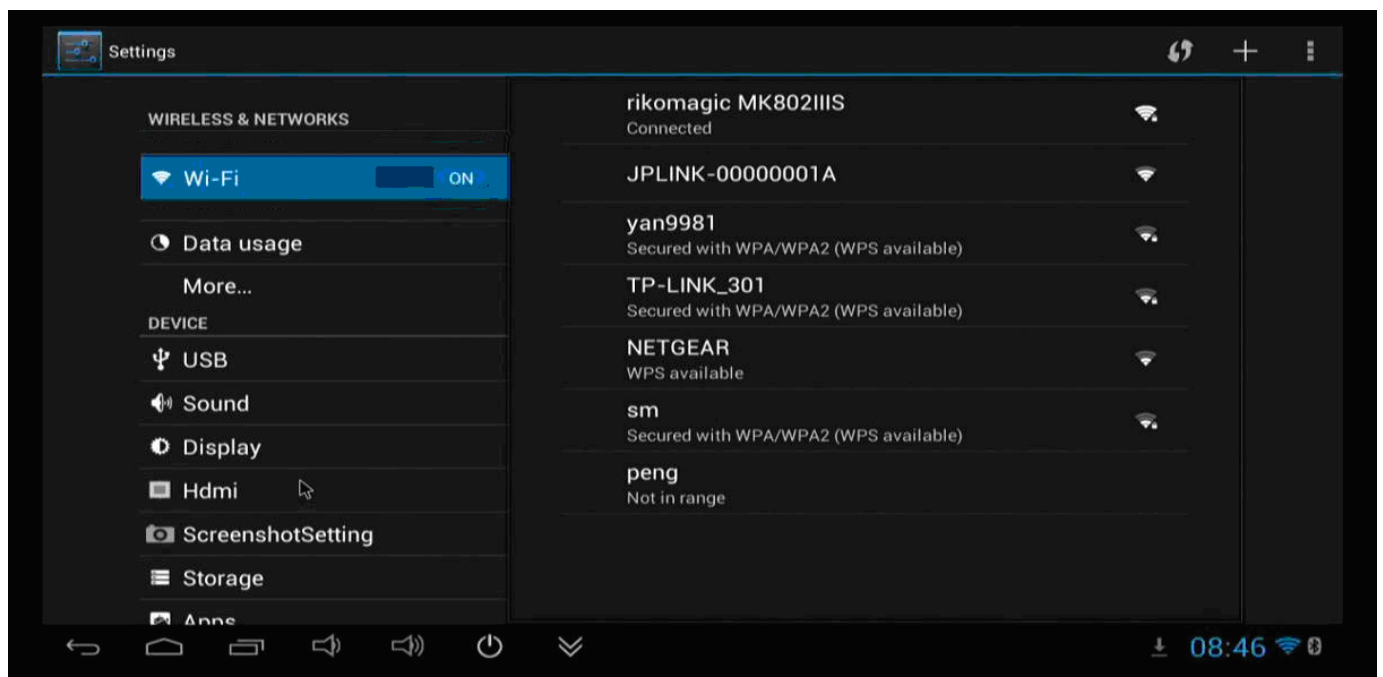
5.1 WIFI Setting

Once turn on WiFi, the MK902II will auto search available wireless router within 20 meters, user just choose a router and input correct password to connected network.

5.2 Ethernet Setting

If there is no WIFI in the house, suggest to connect a USB LAN adapter (please select right matched USB LAN adapter) to setting Ethernet.

Setting method: Click "setting" → "More" → "Ethernet" → tick "Use Ethernet", then the Ethernet setting finished.

5.3 Portable host pot

If connected the device with Ethernet (not WiFi), then open portable host pot function, you could regard MK902II as an wireless AP.

5.5 PPPOE Setting

If the network need dial-up, then click PPPOE Settings and input account and password.

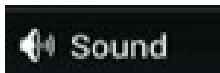Click "Setting → "More" → "PPPOE Settings" → input account and password.

5.6 USB

  For exchange data between the MK902II and PC.

Specific operation steps:

Equipment connection: Connect with computer through USB cable, please note you MUST plug into USB Slave port of the MK902II, which is for computer connecting.

5.7 Sound

◀)) **Sound**   This is for Sound settings;
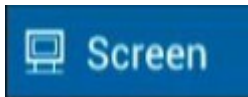
Volume: Control volume level;

Operate prompt tone: Setting prompt tone during operating;

Screen saver sound: Setting screen saver sound.

5.8 Display

Font size: Setting font size according to your favorate.

5.9 Screen

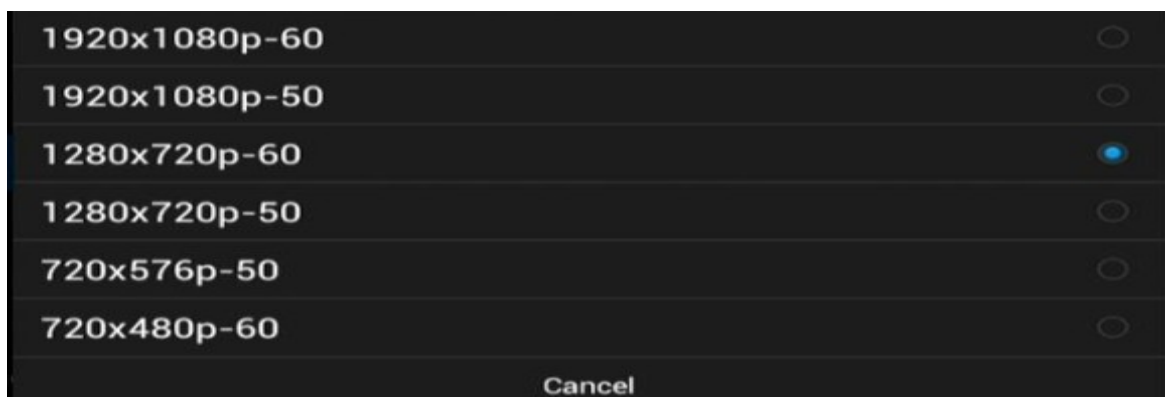**🖵** **Screen**   This is for Screen settings:

1.   Screen ratio: Used for adjusting screen ratio.
2.   Output Interface: Default HDMI
3.   HDMI mode: User can setting corresponding output resolution according to the TV.

Normally system will auto detective.

1920x1080p-60	○
1920x1080p-50	○
1280x720p-60	●
1280x720p-50	○
720x576p-50	○
720x480p-60	○
Cancel	

5.10 Storage

In this option, user could view local storage space and external storage space, besides, user even can uninstall or format storage equipment.

Notice: System divided the whole storage into seven partitions, only two partitions visible, the other five partition has been occupied by Android system.

The balance space is equal to the sum of two partitions.

5.11 Apps

In this option, user could view installed and running apps, at same time could check DDR parameters.

5.12 Security

User can set password according to their request.

5.13 Language & input

1. Setting menu language here, there are more than 60 languages build in already.
2. Setting IME(Input Method Editor),There are only Chinese and English IME build in, if need other language IME, pls search corresponding IME from APP store and install by yourself.
3. Setting keyboard, mouse cursor speed & simulated mouse step length here.

5.14 Backup & reset

Backup: Avoid lost some important APPs during reset or update/recovery system, t's better chose this function for backup.

Reset: Reset to factory settings.(Pls backup data first before reset)

5.15 Date & time

Since there is no battery inside, date and time set by manual can't be saved, Suggest setting to network synchronization time, as long as the network connected, the date and time will be with the network synchronization.
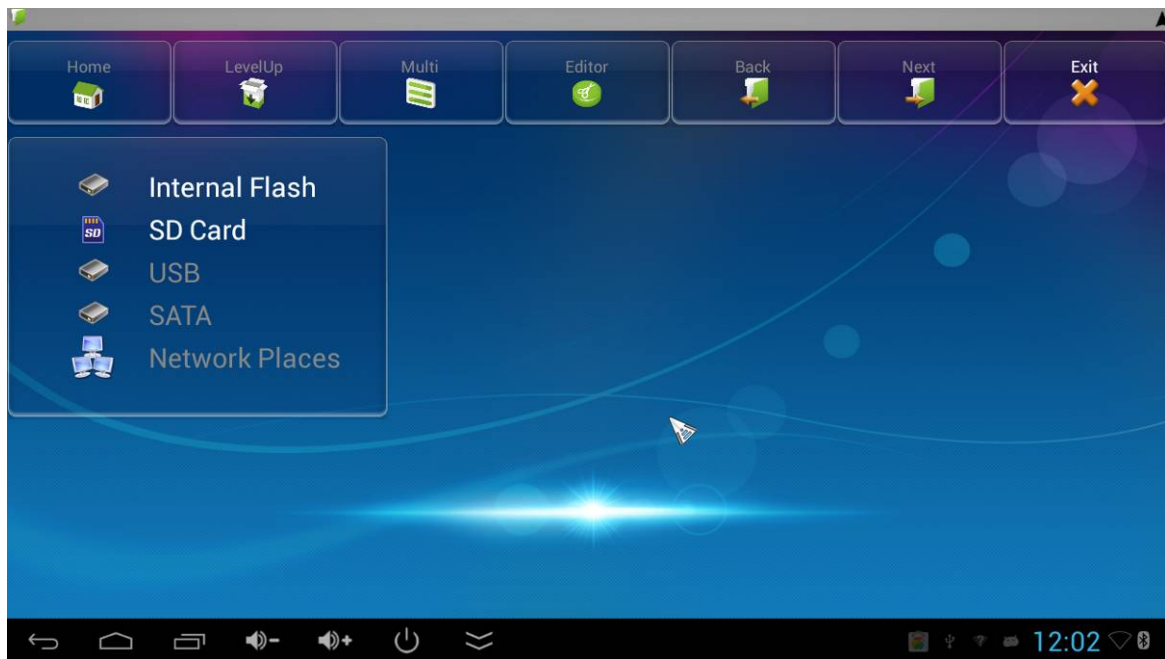
5.16 Developer options

USB debugging: During connecting with PC to exchange data, please open this option;

5.17 About device

User can check system info here.

6. Browse /Copy Files

1. Open file management on the desktop.

Internal Flash: Check internal storage space

SD Card: If TF card inside, icon will be highlight

USB: If USB device (HDD, U-disk) connected, the icon will be highlight.

Network Places: Through this option, user can access to other PC to find files and playback.

2. File Copy

Long-press a file or folder to pop-up a menu, including: Copy, Delete, Move, Paste, Rename options, if no need execute operation, just click "cancel".

7. Install/Uninstall Apps

MK902II supports many commonly used third-party apps. You can install or uninstall apps freely, there are two methods available for installing Apps.

7.1 Online installation

Please login Google Play store or other Android marketing to download Apps (User should have Gmail account if download from Google play store); after download system will remind you to install the Apps, just click install according to the system prompt.

7.2 Local installation

User also can copy app from computer to USB Flash or TF card, insert the USB Flash or TF card to your device, just click the APK icon to install according to the system prompt.

7.3 Uninstall Apps

Click Settings→Apps, click an Apps you want to uninstall, the uninstall window will pop up click uninstall to uninstall. If you don't want to uninstall just exit.
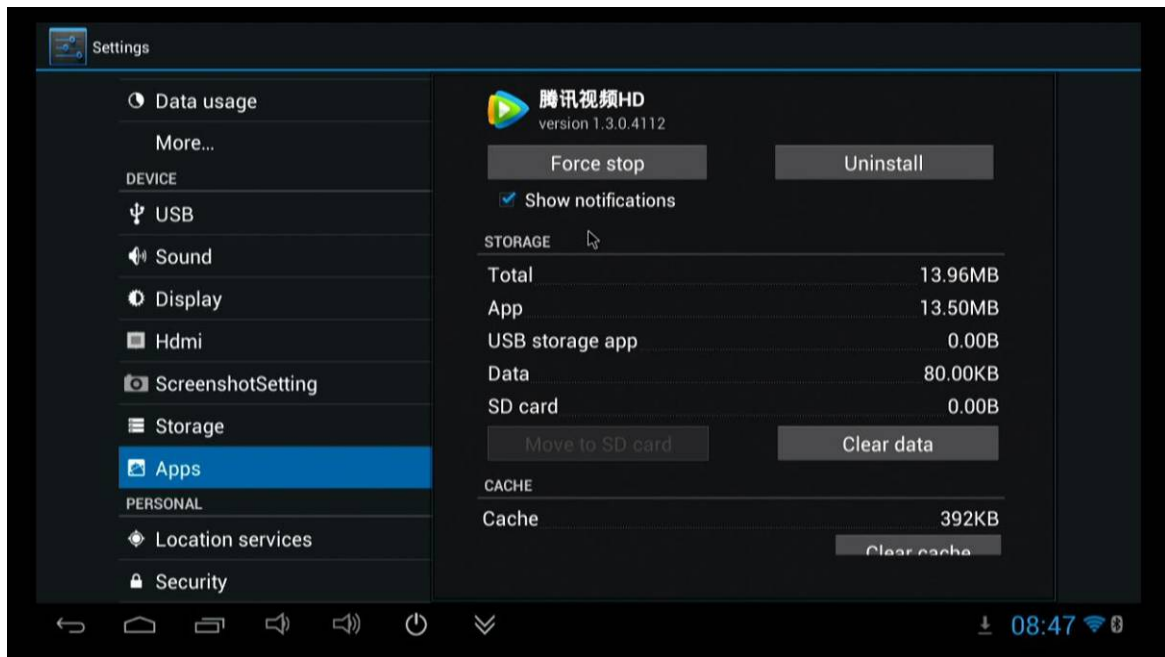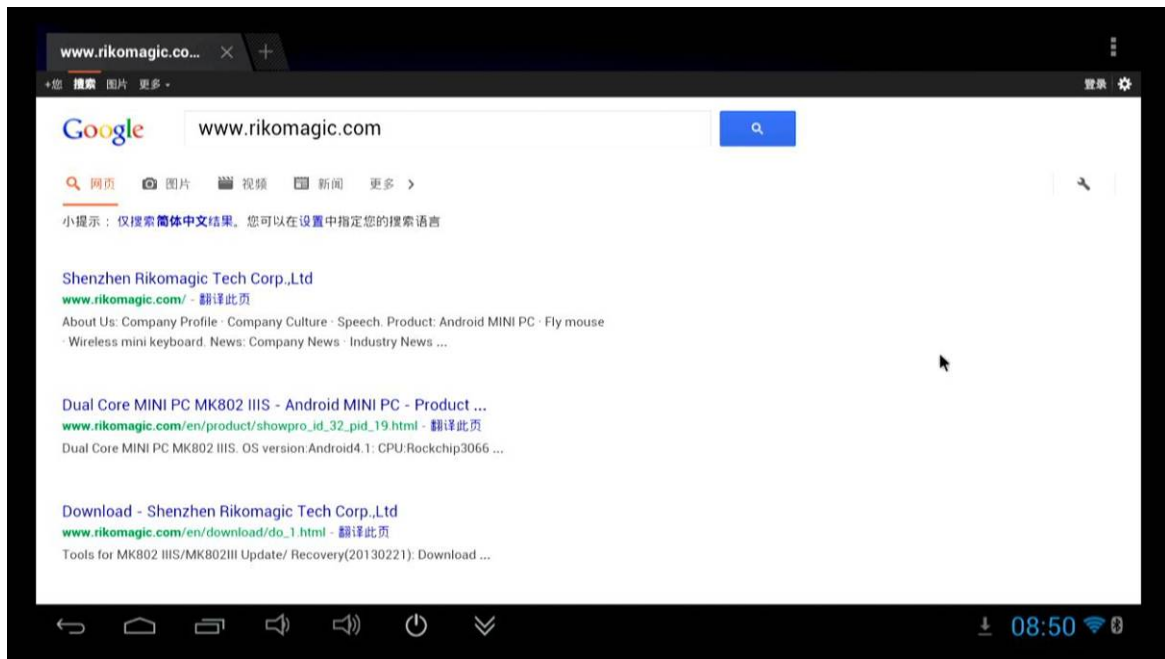

8. DLNA

DLNA : Through some special APP(such as iMediaShare Lite.), all the multimedia files can be pushed from smart phone or Android tablet PC to big screen, user can share those pictures/music/videos with family or friends freely.

9. Web Browsing

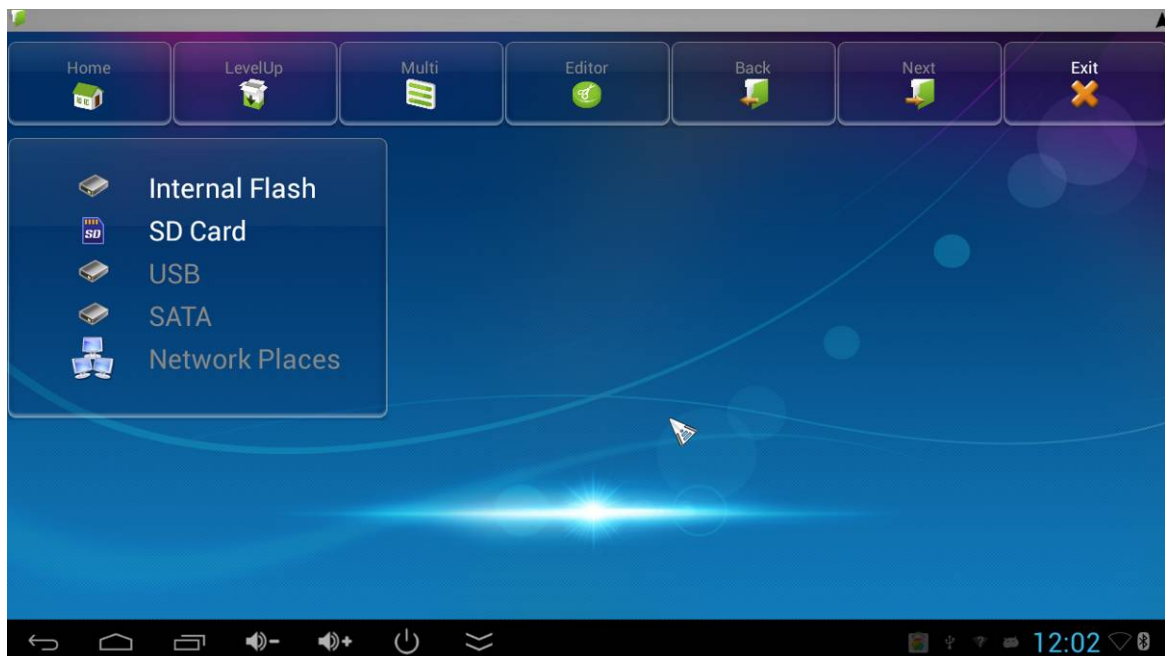After connected network, user can access the webpage screen through the system browser.

New opened webpage will be shown on the screen as tag, click "+" to add new webpage, click "x" to close the webpage.
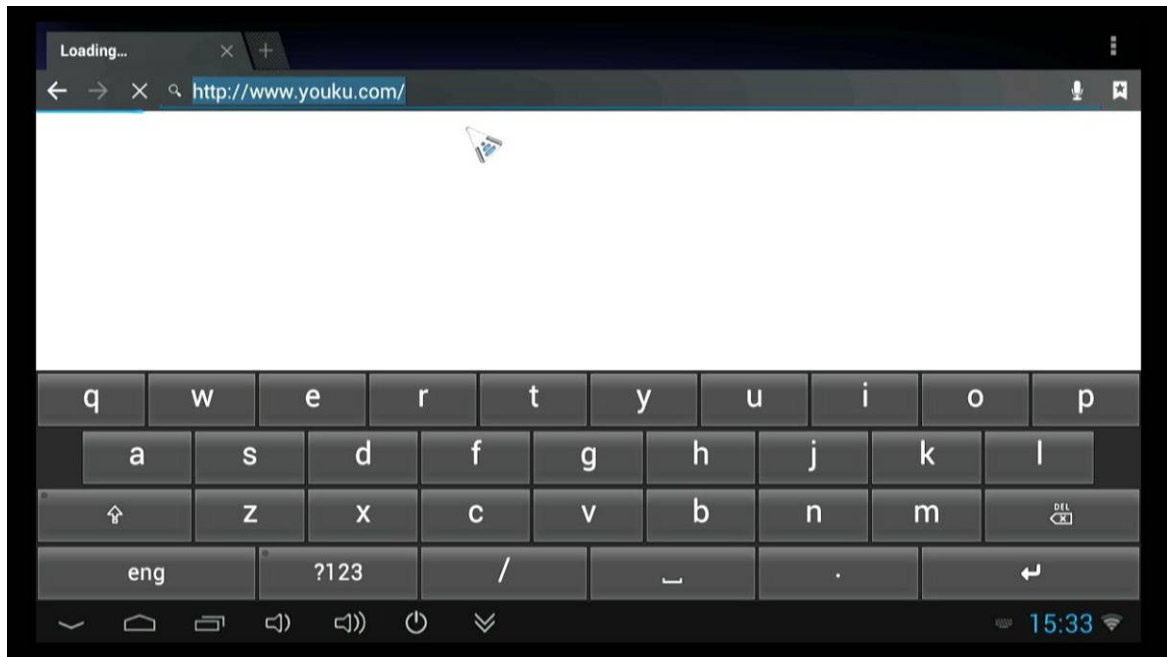
10. Local audio & video playback

Through the file manager, user can browse & playback those contents of TF card, USB flash or USB HDD.

11. Use virtual keyboard

If just connect USB mouse only, then below virtual keyboard will pop up;

If connect with physical keyboard, system will hidden the virtual keyboard.
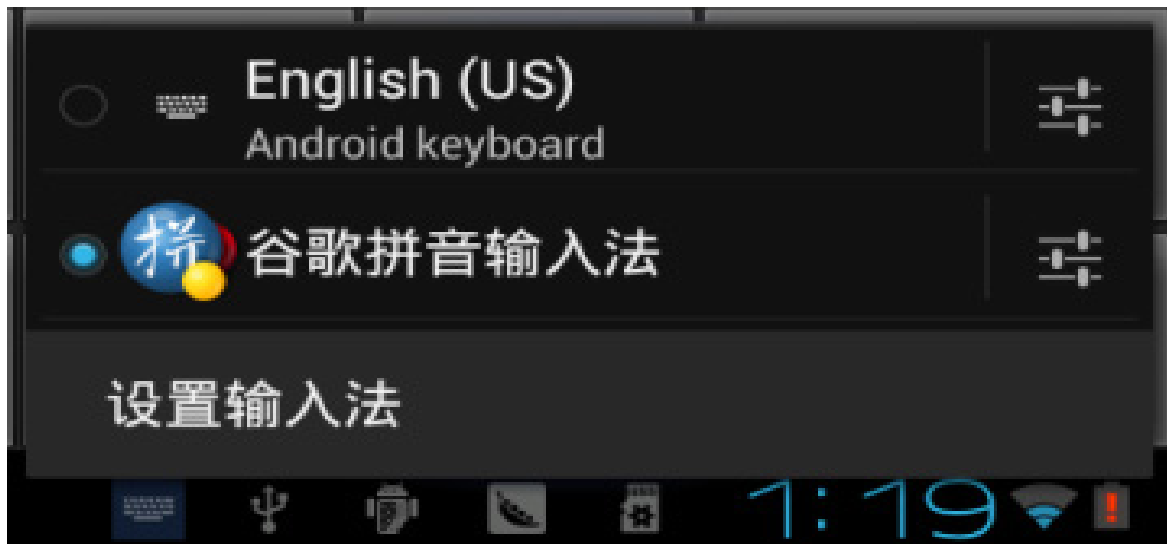
12. Switch input methods

Click the keyboard icon at the right-bottom status bar from desktop;

Check below screen, select corresponding favorite IME(Input method editor)

13. System recovery/update

If your MK902II has following issues, please solve these issues by recovery/update methods.

1. If you need update to the latest firmware,

2. After boot, there is no signal;

3. There is only boot screen;

4. System running very slow, crashing;

5. Can't find the wireless network equipment, or can't connect wireless;

6. When installation apps, player loss power unexpected and cant boot up.

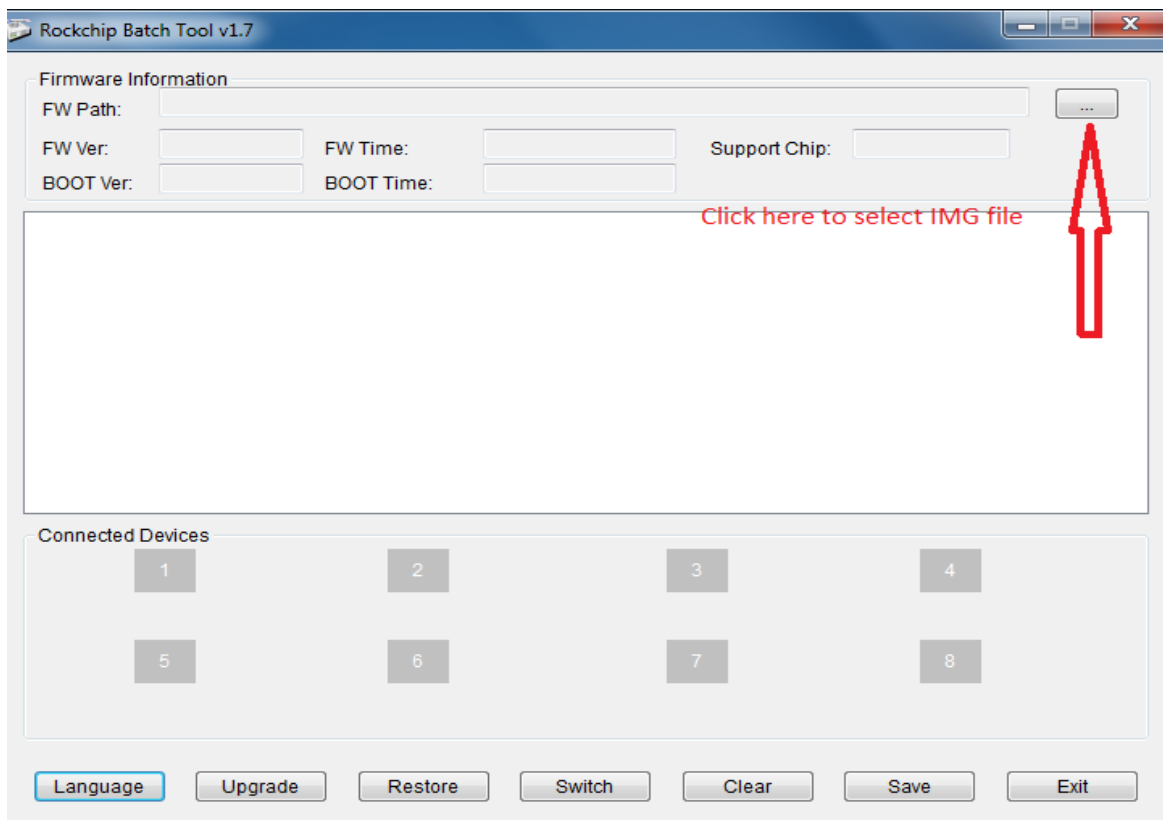7. TF card update failed and can't boot again etc.
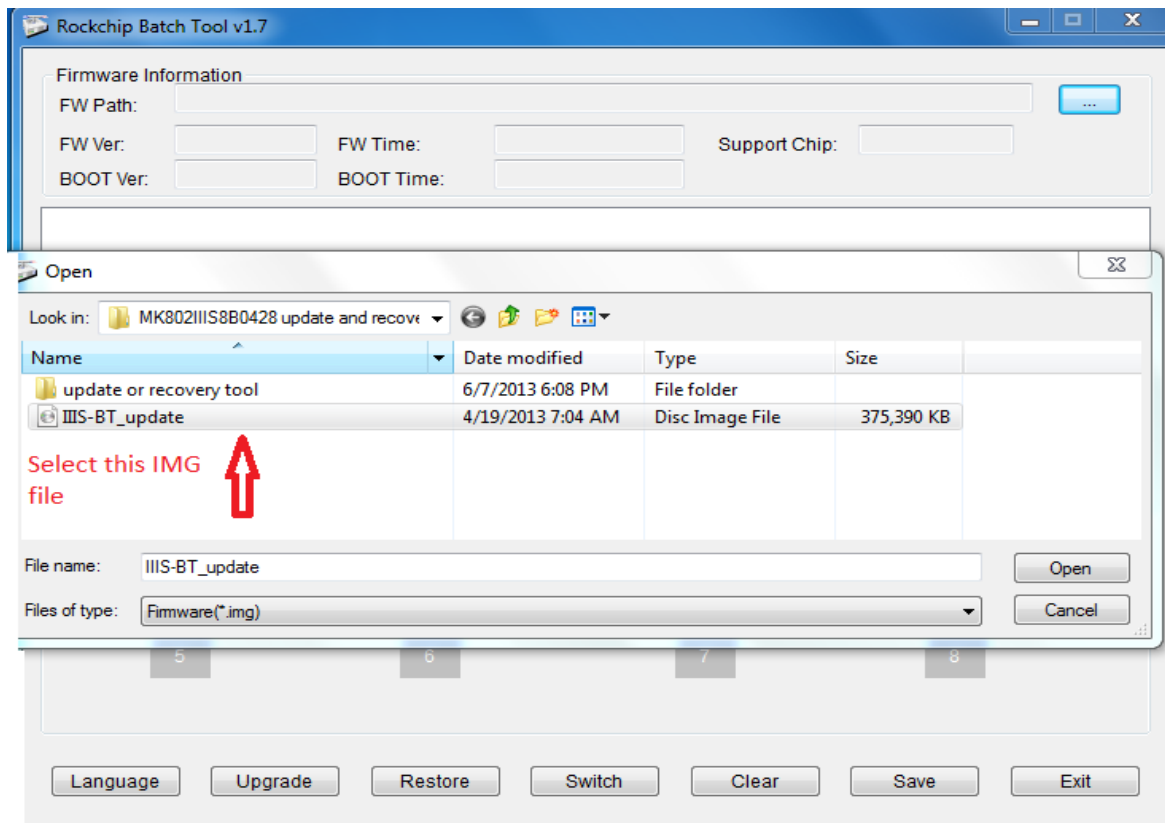
13.1 Recovery/update on Windows XP system

First, download recovery tool Batch Tool, driver and recovery firmware,(img file) from official website.

Download, decompression the folder and find   to double click, below screen will pop out, then add img file.

Second, connect MK902II with computer.

1. Prepare USB cable and plug into PC USB port first(don't connect with USB slave now)

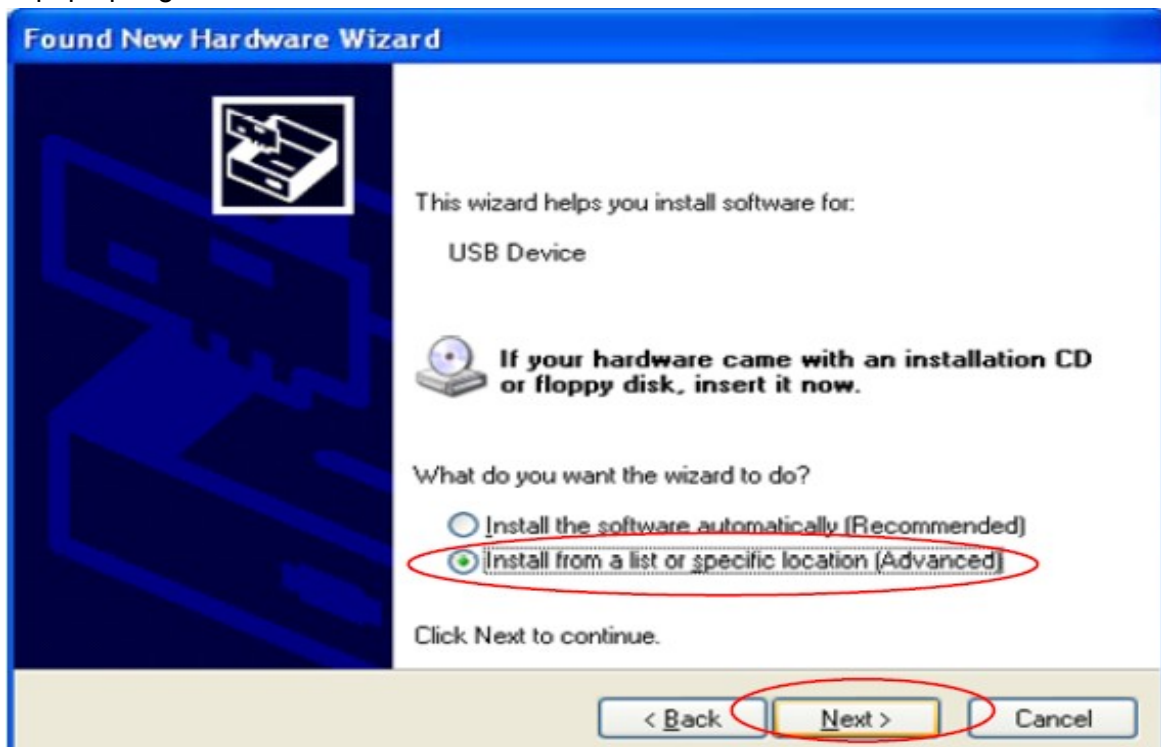2. Prepare a thin metal stick, press the recover button by the stick according below method.
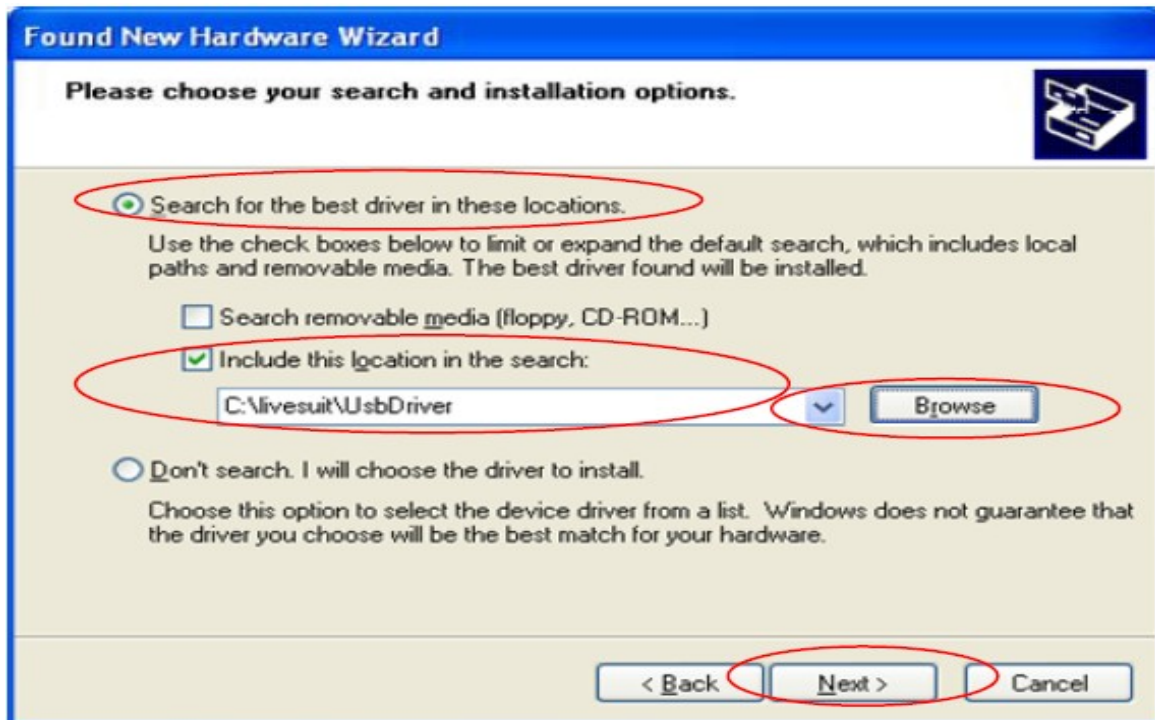
USB Slave is here

3. Don't loose the stick, at same time, plug the USB cable to USB slave port of the MK902II, after 3-5s,loose the stick.
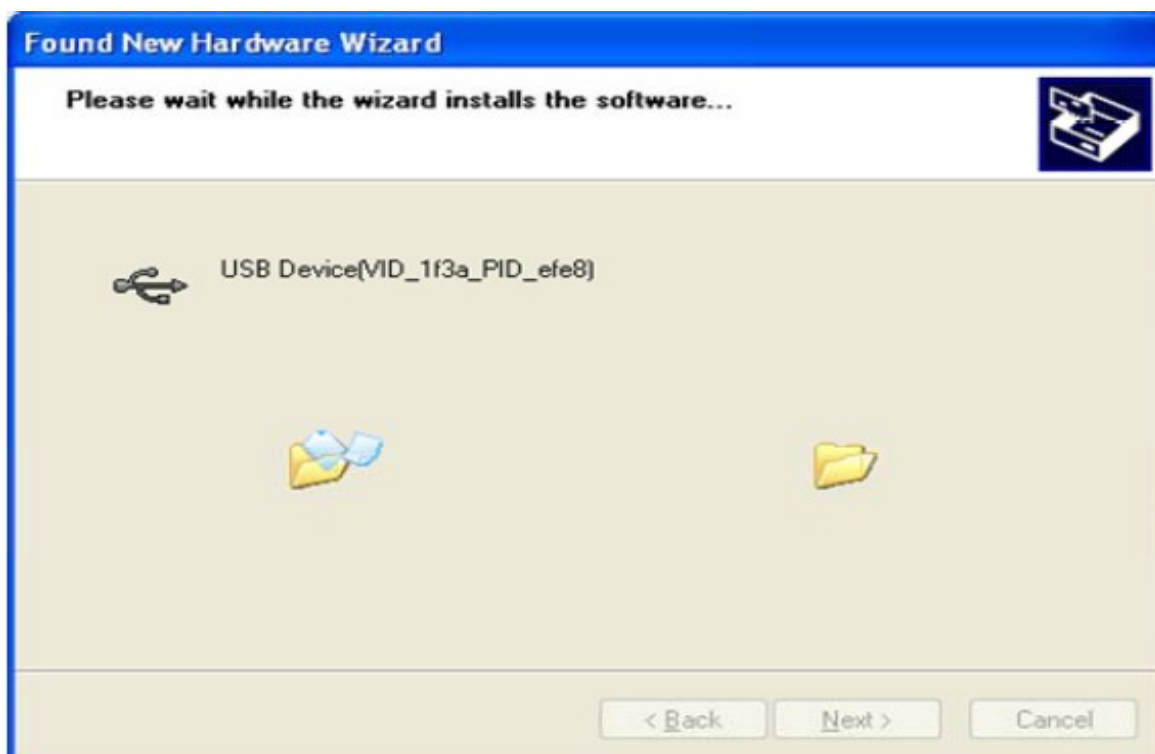
Third, USB driver installation

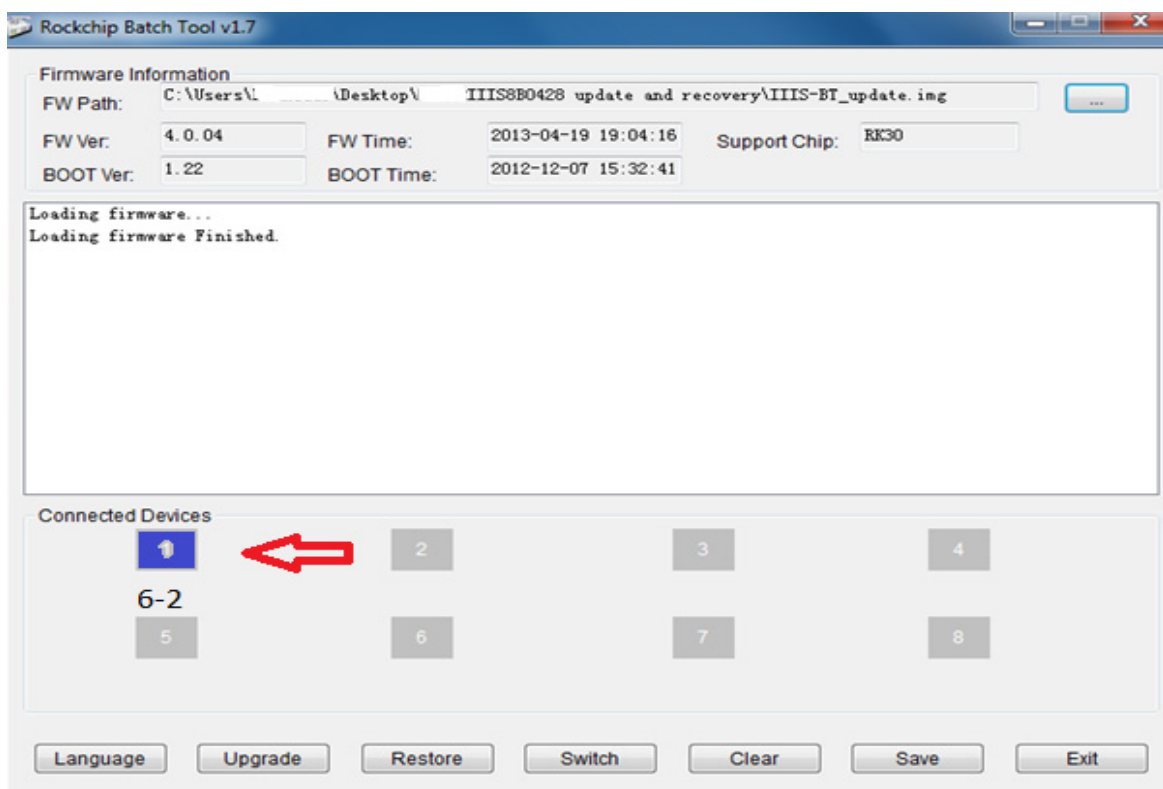There will pop up a guide window to install new driver.

Select "next"

Choose the options as picture display, then click browse, find out , then click "next" to install.

When finished installation, the computer will pop up below window, then click"finish"
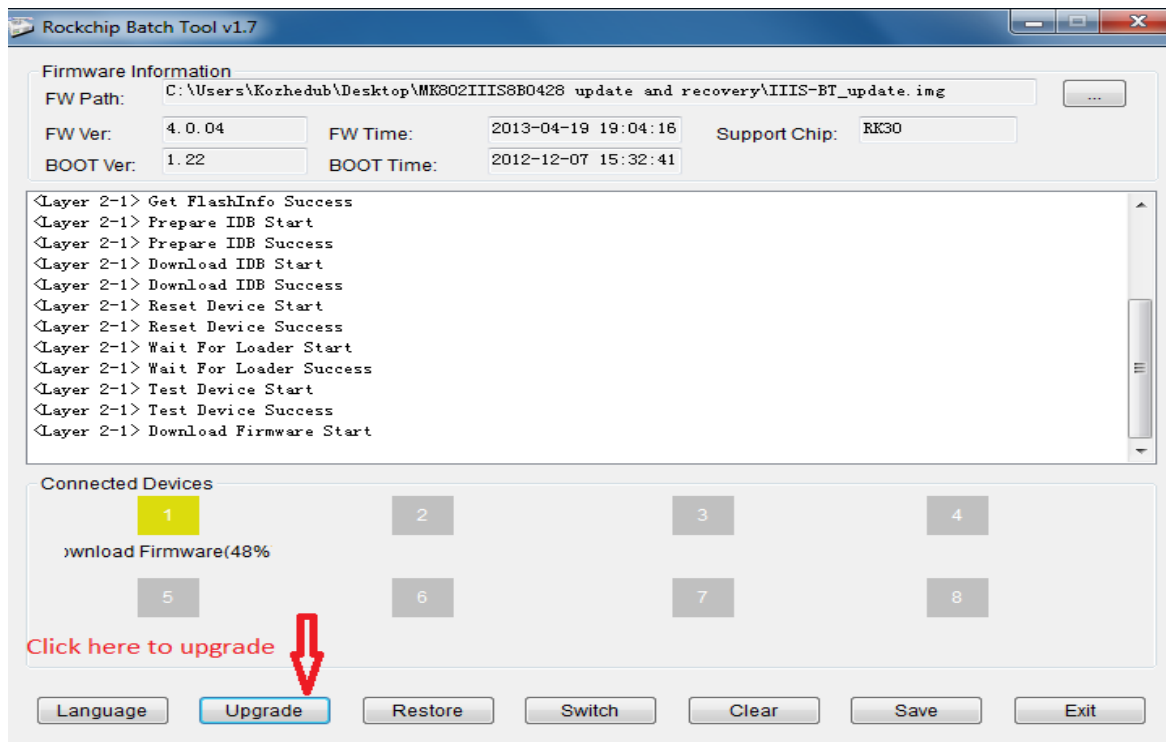
After installation, the "connect device" icon on the "batch tool" will changed to blue, as below:
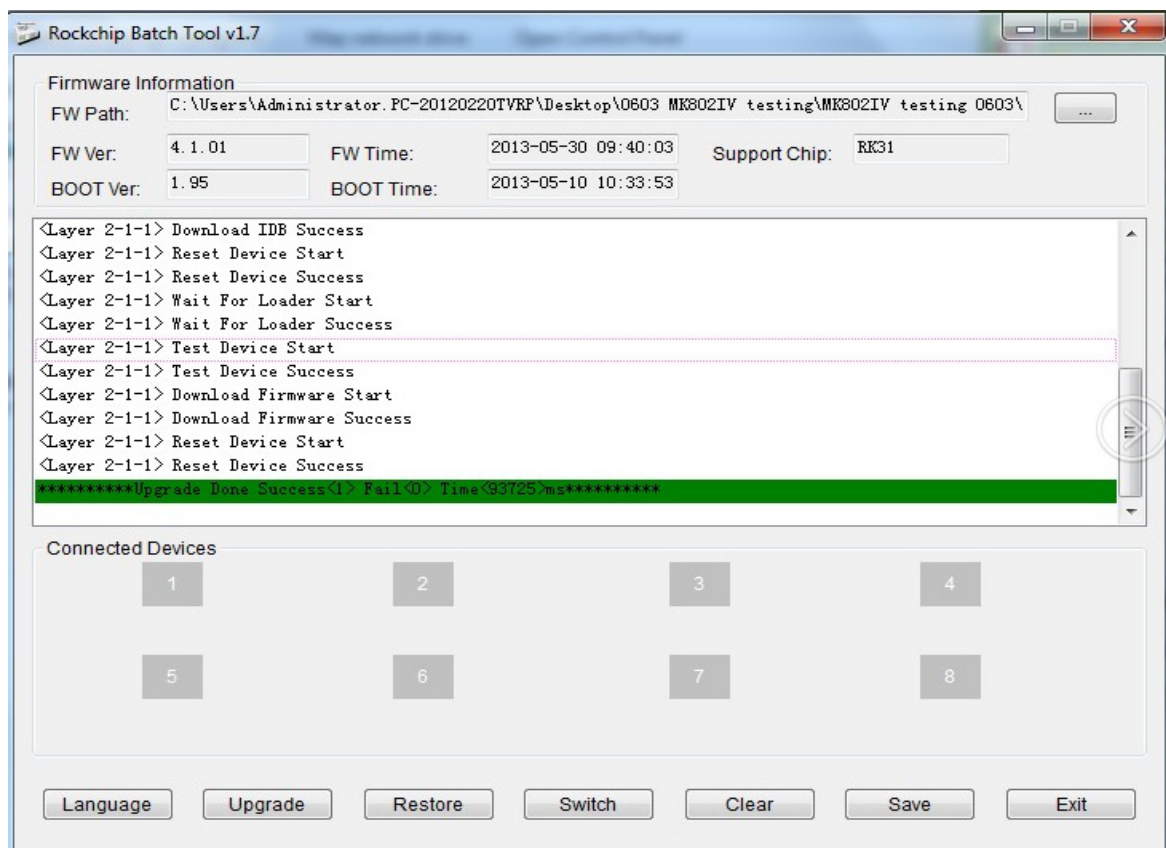

Then Click "upgrade" (the second button of below picture) for recovery, as below.

This procedure will take 3 minutes also, please wait patiently, during recovery/upgrade, don't remove the

USB cable.

When this above prompt window appears, then means recovery is successful, pull out USB cable, then
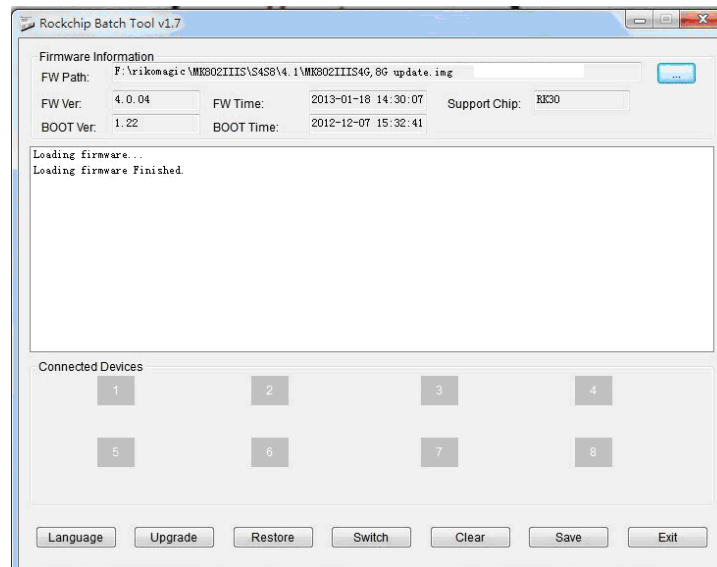
total process is finished.

13.2 Recovery/update on Windows WIN7 system

First, download recovery tool, driver and recovery firmware(img file) from official website.

Download, decompression the folder and find to double click, below screen will pop out, then add img file.

Second, connect the mini pc with computer.

4. Prepare USB cable and plug into PC USB port first(don't connect with USB slave now)

5. Prepare a thin metal stick, press the recover button by the stick according below method.
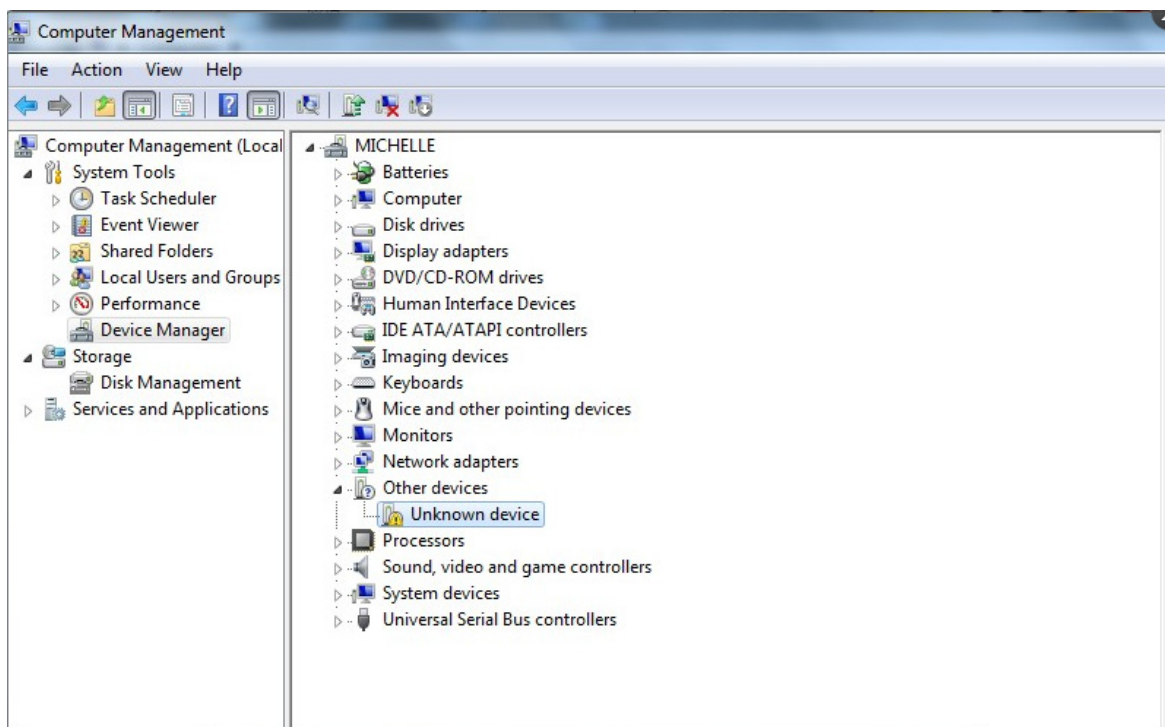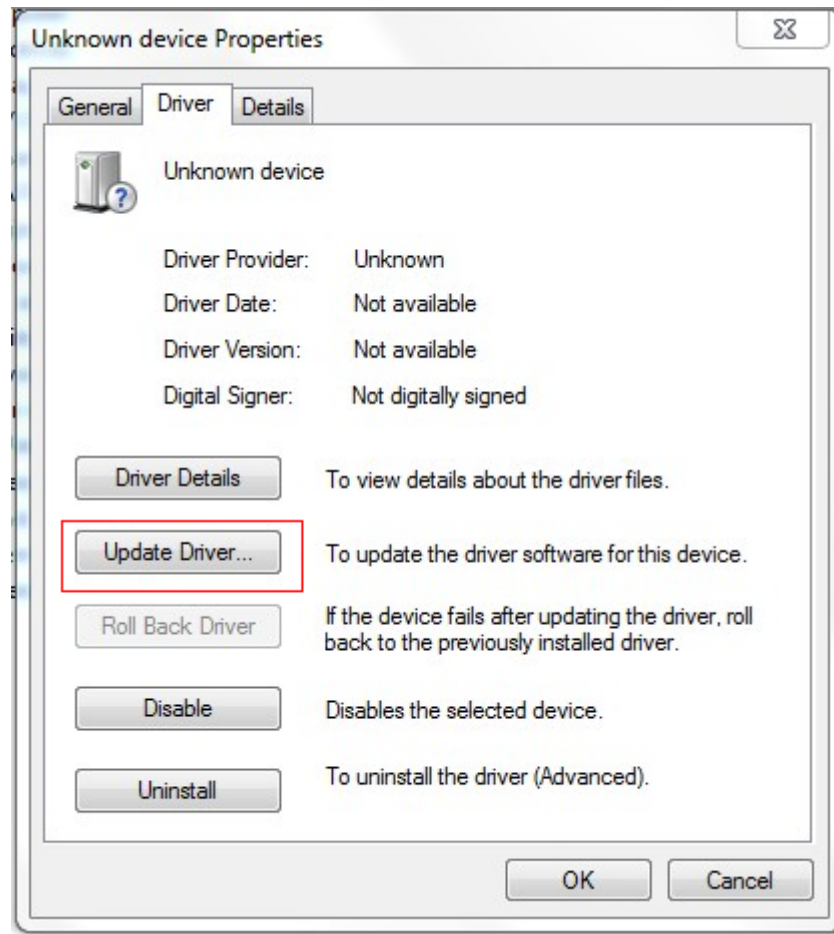
USB Slave is here

6. Don't loose the stick, at same time, plug the USB cable to USB slave port of the MK902II, after 3-5s,loose the stick.

Third, install the USB driver.

Press "computer" with right key, computer---management--device management--other device, pls check
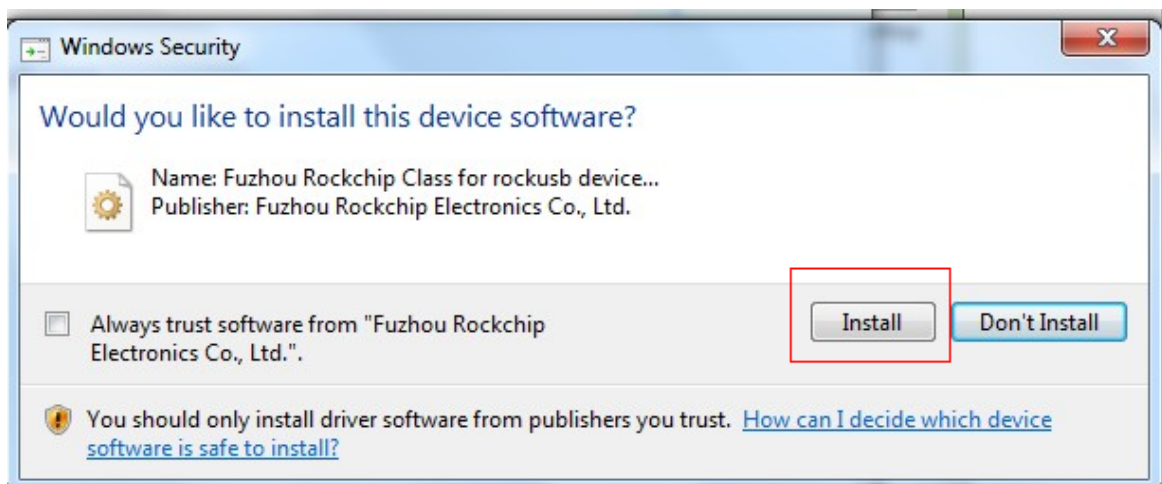
below picture.

Double click unknown device.

Press update driver,Click browse for driver software on your computer. And choose the correct driver.
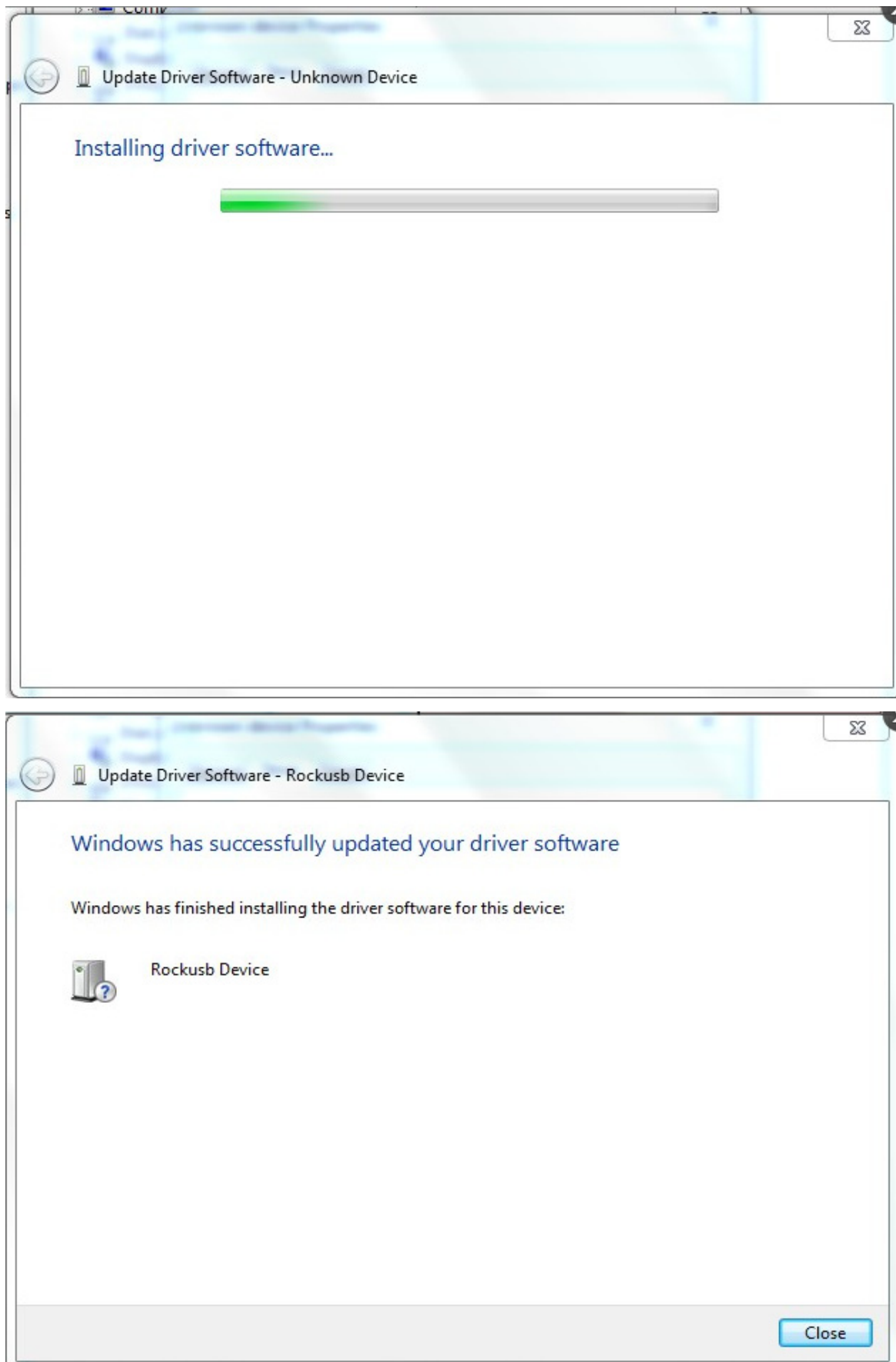
If your computer is WIN7 32bit, choose x86--win7; if it is WIN7 64bit, choose x64--win7.

Press next, will pop up below window, Click on the image below red circle option.Click install.

Then pls wait for installation. See below picture.

Now the driver was installed successfully. Press close. After successful installation, the batch tool will

connect the MK902II automatically. If it can't connect automatically, pls reconnect the MK902II to the

computer by USB cable again.
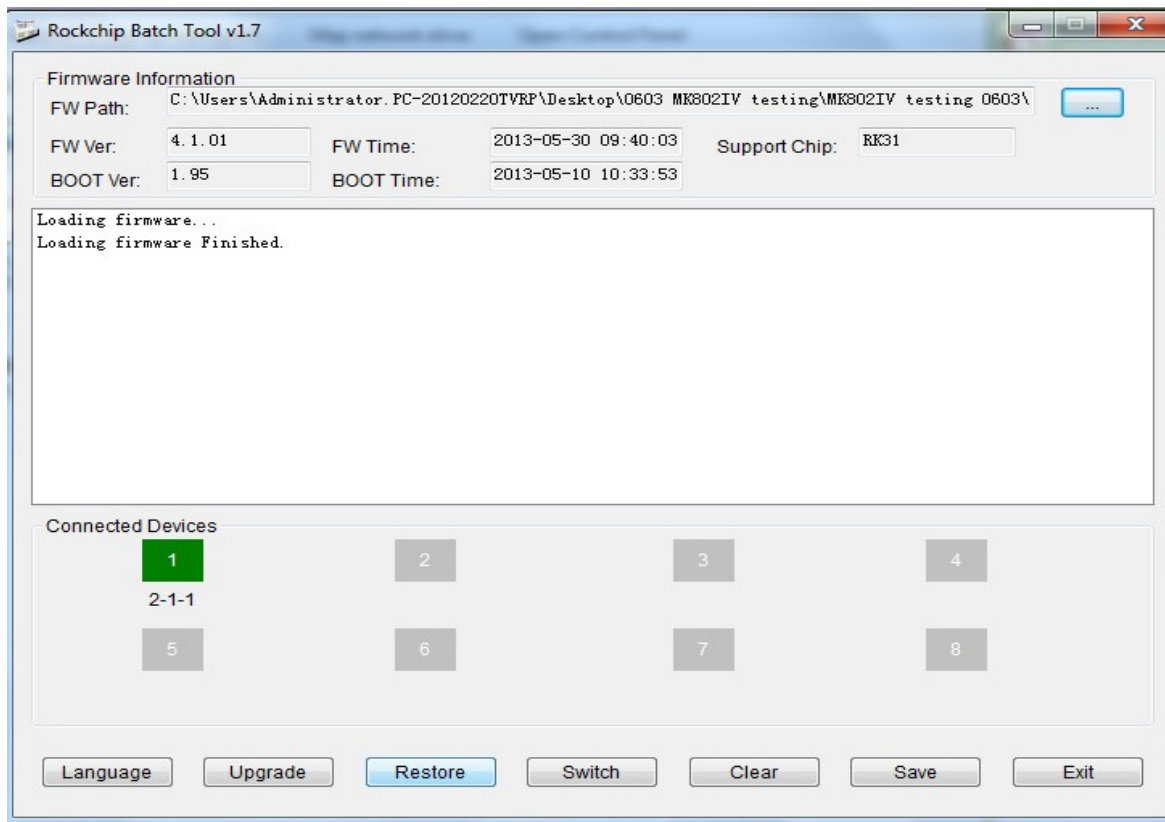
Then Click "upgrade" for recovery, as below.
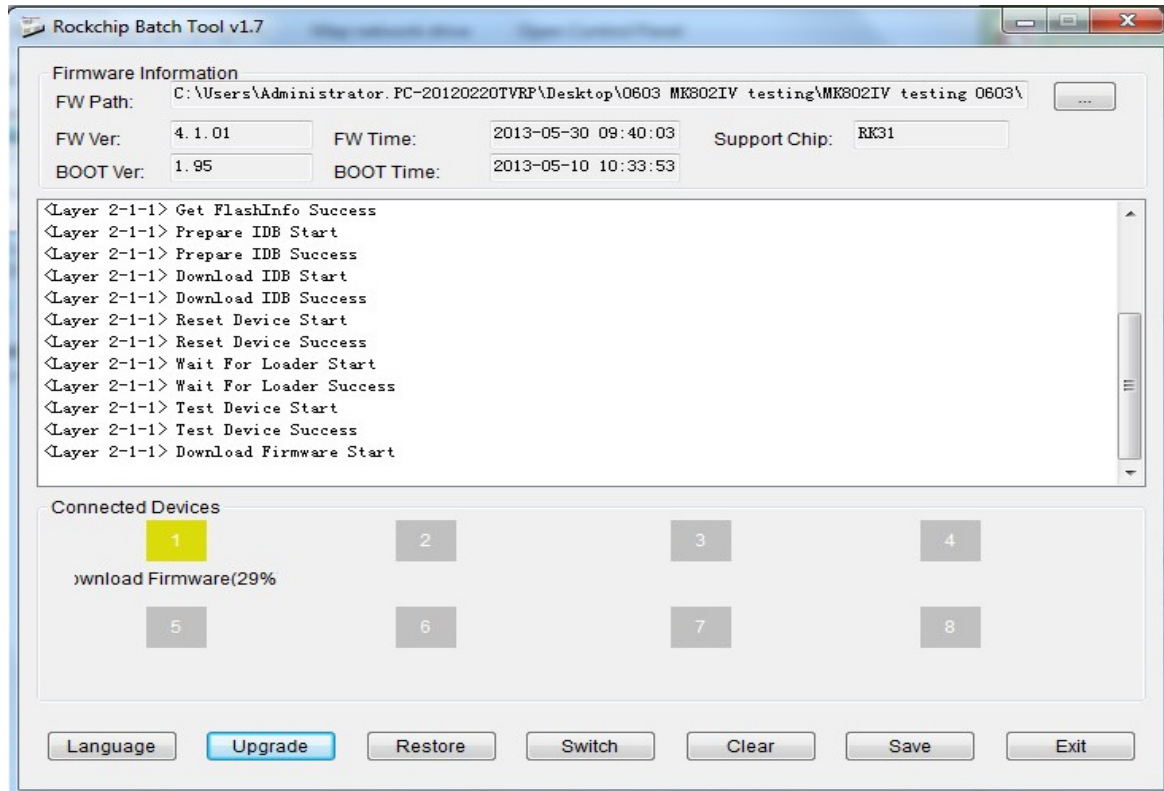
This procedure will cost 3minutes also, pls wait patiently, during recovery/upgrade, don't remove the USB cable.

When this prompt window appears, then means recovery is successful, pull out USB cable, then total process is finished.

Notice:

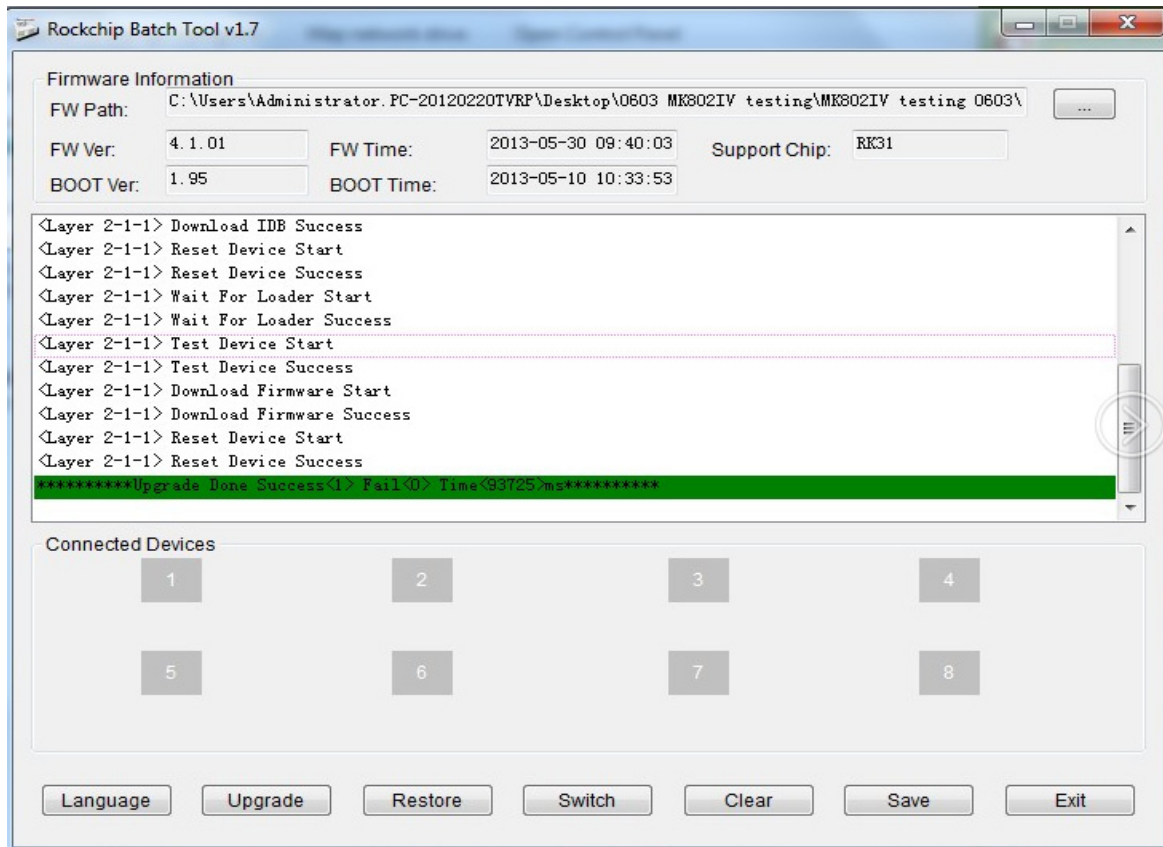1.Don't power off during updating or recovering.

2.Same computer just need install driver for one time.

3.First turn on the unit after recovery/update will cost more long time, and even occur some lag issue, it's normal since internal apk file need be decompressed and occupy RAM, after 5 minutes, then system running well. So don't worry about that.

Question & Answer

● Screen flicker or unstable working: please check if the HDMI cable has been connected tightly.
● Cannot start device: please download FW file from Rikomagic official website: www.rikomagic.com to refresh the device FW. Make sure all the important data has been backup before process it. If the issue still cannot be solved, please contact the distributor which you bought from.
● Cannot find file in SD card or open drive: Please check all the connection of the device. And make sure you have tick of SD and USB Host in "Setting"
● USB port can't work: There is a USB slave port which is connecting with PC for recovery or update only, can't be used as a USB host.

Specifications

Model#	MK902II
CPU	Rockchip 3288 Quad core, 28nm
OS	Android4.2
RAM	2G DDR3
Memory	8GB
Expand Micro SD	T-Flash(Maximum support 32GB)
Browser	Browse webpage
Video Format	WMV/ASF/MP4/3GP/3G2M4V/AVI/MJPEG/RV10/DivX/VC-1/MPEG-2/MPEG-4/H.263/H.264/1280*720P HD 30 fps, 1080P/720*480 D1 30fps
Audio Format	MP3/WMA/APE/FLAC/AAC/OGG/AC3/WAV
Music	Can be connected to the Internet, listen to music online
Picture format	Max.8000x8000 JPEG BMP GIF PNG
WiFi	802.11 b/g/n
Flash	Supports flash 11.1
Ports	HDM,AV,RJ45, Optical ,USB HOST x 3, USB Slave x 1, Micro SD card slot
Accessory	HDMI cable, AV cable, Power adapter, User Manual