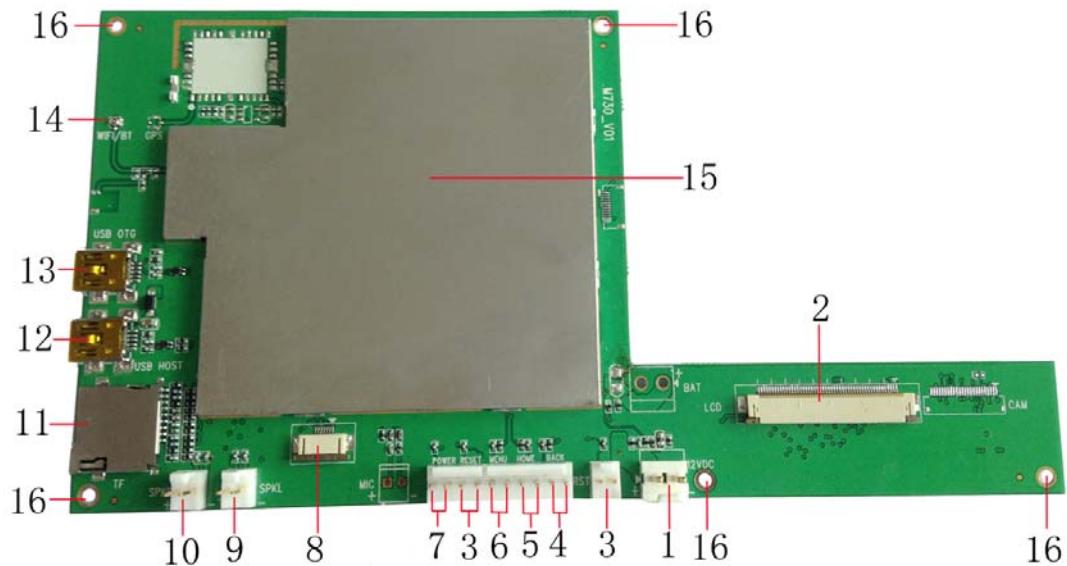


# M730 PCBA USER MANUAL

## Safety Alerts and Cautions

- ◆ Do not use the board in extreme environments, when wet, or when extremely dusty.
- ◆ Do not put it in fire or water.
- ◆ Do not damage the components when carrying or moving the board.
- ◆ Do not remove the shield cover..
- ◆ Do not try to change/modify the circuits/components.
- ◆ Use safe power supply only.

## 1. Hardware Introduction



- 1) DC-IN connector(2-pin)
- 2) LCD connector(50-pin)
- 3) Reset connector(2-pin)
- 4) ESC connector(2-pin)
- 5) HOME connector(2-pin)
- 6) MENU connector(2-pin)
- 7) Power on/off connector(2-pin)

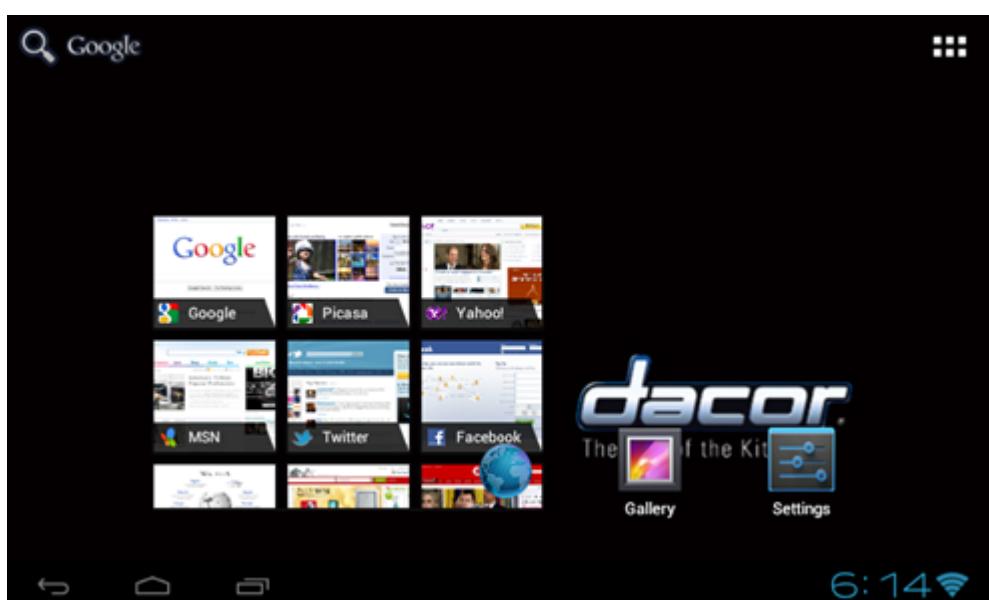
- 8) Touch Panel connector(7-pin)
- 9) Speaker connector left(2-pin)
- 10) Speaker connector right(2-pin)
- 11) microSD card slot
- 12) USB Host port(miniAB type)
- 13) USB OTG port(miniAB type)
- 14) Wifi/BT antenna connector
- 15) Shield cover
- 16) Mounting holes

This board works with a 7inch LCD with a 50-pin connector, and a 7inch touch panel with 7-pin connector. The power supply should be 12V/2A. Please pay attention to the polarities printed on the board. You could integrate the board to your device under manufacturer's instructions.

## 2. Software operation guide

This board runs Android 4.0 operating system.

### 1) Navigation Keys



On the bottom left corner of the screen, you will find three navigation soft keys.

 **Back:** The back button brings you to the previous screen you were on. Once you have been on the home screen, the button will not take you back any further

 **Home:** Bring you back to the home screen

 **Recent apps:** Displays a list of recently used apps. To open a previous app, touch it. To remove the app from the list, swipe from left or right

After a short time without getting used, these buttons may shrink to dots or fade away, depending on the current app. To bring them back, touch their location.



At the left top of the screen, you will see an icon "Google", you can tap it for searching on Google quickly

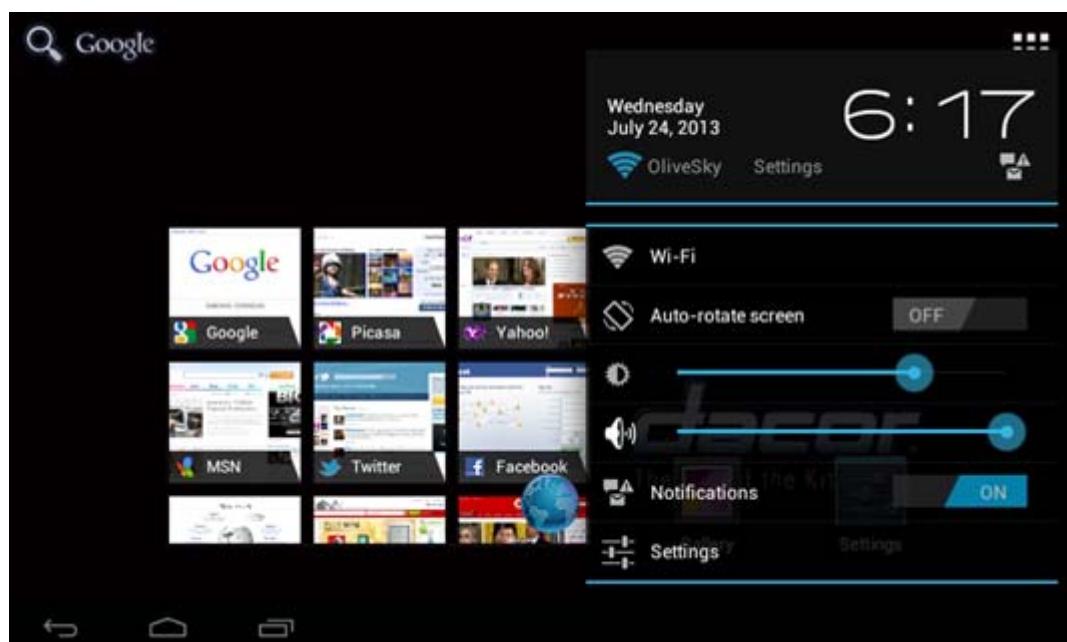


**All Apps icon:** On the right bottom of the screen, you will see Status icons, it will tell you which apps have sent you notifications; for example, that a message has arrived, or your device has connected with PC

To see your notifications, swipe your finger up from the right bottom of the screen.



**System icon:** on the right corner of the screen display the current wifi network, Connection strength, time, brightness, volume and more



## 2) Touch & Type

Use your fingers to manipulate icons, buttons, menus, the onscreen keyboard, and other items on the touch screen. You can also change the screen's orientation.

To select or activate something, touch it.

To type something, such as a name, password, or search terms, just touch where you want to type. A keyboard pops up that lets you type into the field. Other common gestures include:

**Touch & hold:** Touch &hold an item on the screen by touching it and not lifting your finger until

an action occurs

**Drag:** Touch &hold an item for a moment and then, without lifting your finger, move your finger on the screen until you reach the target position. For example, you can drag to reposition shortcuts on the Home screen

**Swipe or slide:** Quickly move your finger across the surface of the screen, without pausing when you first touch (so you don't drag something instead). For example, you can slide a Home screen left or right to view the other Home screens.

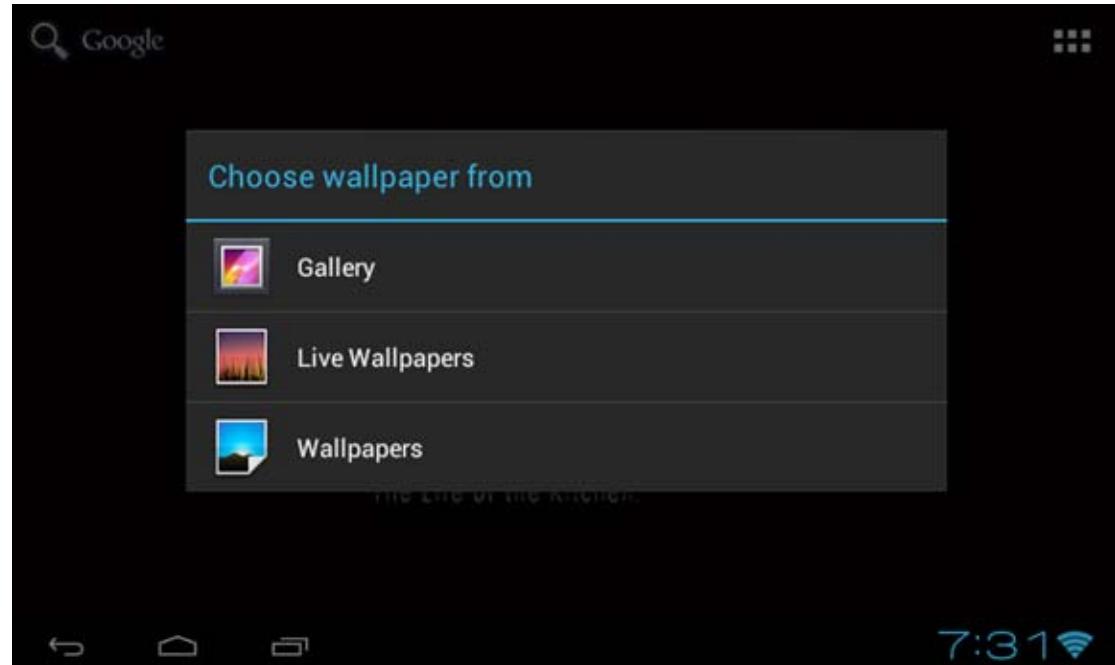
**Double-tap:** Tap quickly twice on a webpage, map, or other screen to zoom. For example, double tap a webpage in Browser to zoom in, and double-tap again to zoom out.

**Pinch:** In some apps (such as Maps, Browser, and Gallery), you can zoom in and out by placing two fingers on the screen at once and pinching them together (to zoom out) or spreading them apart (to zoom in).

### 3) Change default wallpaper

Wallpapers are images from Gallery (pictures synced from Picasa, and so on), still images included with the system, and live images (such as an animation or a map that centers on your location). They take the place of the default background for your Home screens.

1. Touch &hold anywhere on a Home screen that's not occupied. A list of options appears.



2. Touch a wallpaper source:

**Gallery:** Choose from pictures that you've taken with Camera or downloaded to your device.

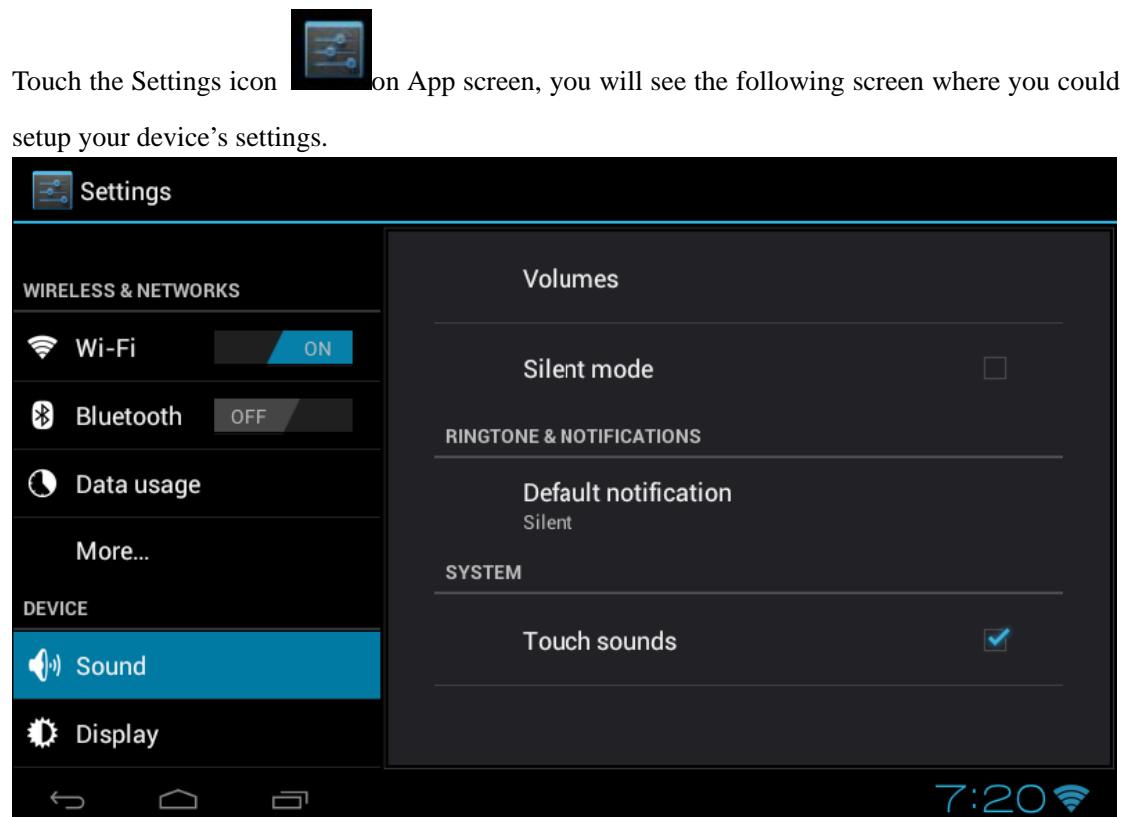
**Live Wallpapers:** Choose from a scrolling list of animated wallpapers.

**Wallpapers:** Choose from thumbnails of default images, or touch a thumbnail for a larger version

You can download additional wallpapers from Android Market.

3. To set a wallpaper, touch Set wallpaper at the top of the screen (for Gallery images).

## 4) Settings



In the Settings screen here are many options you can setup, for example turn on/off Wi-Fi network, adjust the sound of the device and manage the apps in your device.

1. Wi-Fi: you will see the visible networks on the right window, you can touch it and enter the correct password to access the Internet.
2. Sound: in this function, you can adjust the volume for your device.
3. Display: after you touch the "Display", then you can adjust the brightness on the right window and also you can change wall paper, and so on.
4. Storage: touch it to check the information of the storage.
5. Apps: touch it you will see all the installed apps shows on the right window, and you can tap anyone of them to uninstall it or clean data for that app.
6. Language &input: touch it you can change your device's language and input method.
7. Backup &reset: this can help you recover all the data in your device
8. Date &time: you can setup your device's time information here.

## 5) Connect to networks & devices

### Connect to wifi networks

To use Wi-Fi, you connect to a wireless access point, or "hotspot." Some hotspots are open and you can simply connect to them. Others implement security features that require other steps to set

up, such as digital certificates or other ways to ensure that only authorized users can connect. To extend the life of your battery between charges, turn off Wi-Fi when you're not using it. You can also set your device to disconnect automatically from Wi-Fi networks when it's sleeping.

Turn Wi-Fi on and connect to a Wi-Fi network

If you're adding a Wi-Fi network when first setting up your device, Wi-Fi is turned on automatically.

1 Touch the Settings icon on a Home or All Apps screen.

2 Touch Wireless & networks /Wi-Fi.

3 Slide the Wi-Fi switch to the On position.

The device scans for available Wi-Fi networks and displays the names of those it finds. Secured networks are indicated with a Lock icon. If the device finds a network that you connected to previously, it connects to it.

4 Touch a network name to see more details or connect to it.

If the network is secured, you're prompted to enter a password or other credentials. (Ask your network administrator for details.)

## Connect to Bluetooth devices

Bluetooth is a short-range wireless communications technology used to communicate between devices over a distance of about 8 meters. The most common Bluetooth devices are headsets for making calls or listening to music, hands-free kits for cars, and other portable devices, including laptops.

To connect to a Bluetooth device, you must turn on your device's Bluetooth radio. The first time you use a new Bluetooth device, you must "pair" it with, so that both devices know how to connect securely to each other. After that, they connect automatically.

To extend the life of your battery between charges, turn off Bluetooth when you're not using it. You may also be required to turn Bluetooth off in some locations. Bluetooth is turned off when you switch to Airplane mode.

System bar icons indicate Bluetooth status.

Turn Bluetooth on or off

1 Touch the Settings icon on a Home or All Apps screen.

2 Touch Wireless & networks.

3 Slide the Bluetooth switch on or off.

## Change your device's Bluetooth name

Your device has a generic Bluetooth name by default, which is visible to other Bluetooth devices when you connect them. You can change the name so that it is more recognizable.

1 Under Settings > Wireless & networks, make sure Bluetooth is turned on.

2 Touch Bluetooth.

3 In the Bluetooth screen, touch the Menu icon and choose Rename.

4 Type a new name and touch Rename.

## Pair your device with a Bluetooth device

You must pair your device with a device before you can connect to it. Once you pair your device

with a device, they stay paired unless you unpair them.

- 1 Under Settings > Wireless & networks, make sure Bluetooth is turned on.
- 2 Touch Bluetooth. Your device scans for and displays the IDs of all available Bluetooth devices in range.

If the device you want to pair with isn't in the list, ensure that it's turned on and set to be discoverable.

See the documentation that came with your device to learn how to make it discoverable.

- 3 If your device stops scanning before your Bluetooth device is ready, touch Search for devices.
- 4 Touch the ID of the Bluetooth device in the list to pair with it.

Follow the instructions to complete the pairing. If you're prompted to enter a password, try entering 0000 or 1234 (the most common passwords), or consult the documentation that came with the device. If the pairing is successful, your device connects to the device.

## 6) Manage Apps

To see all your apps, touch the All Apps icon  on any Home screen

The main All Apps screen opens. This is where you can see all your apps, including those downloaded from Android Market. You can move app icons to any of your Home screens.

From All Apps, you can

**Move between screens:** Swipe left or right.

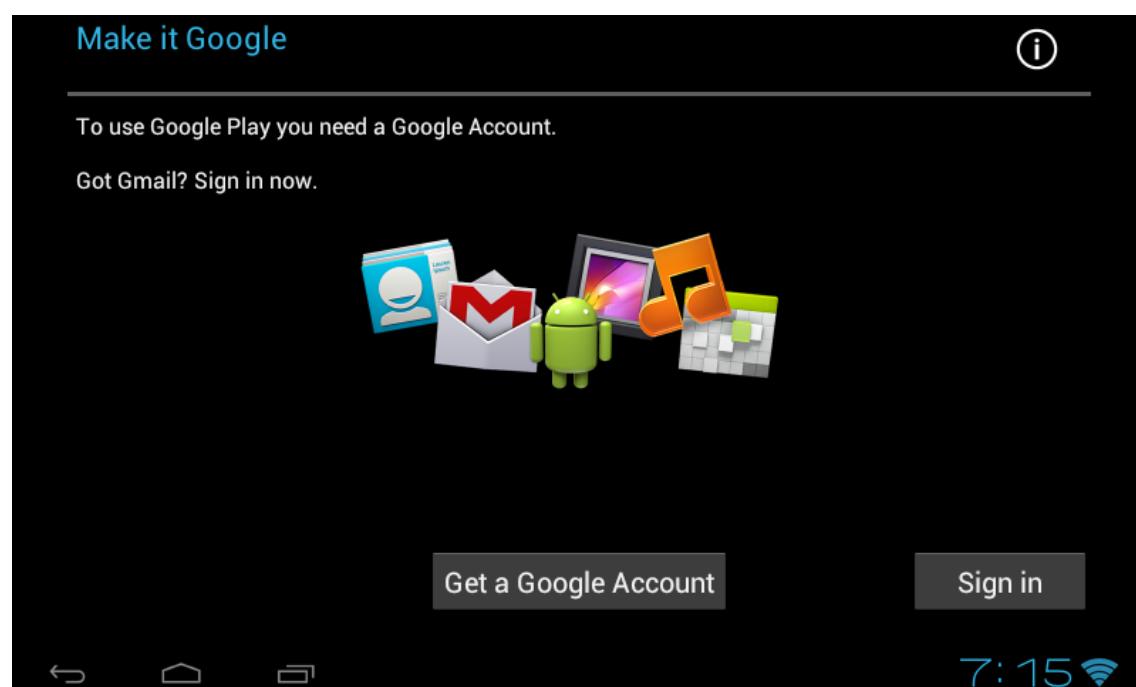
**Launch an app:** Touch its icon.

**Place an app icon on a Home screen:** Touch &hold the app icon, slide your finger, and lift your finger to drop the icon in place.

**Place an app icon in the Favorites tray:** Touch, hold &slide to move one of the Favorites icons out of the tray. Then use the same technique to move another one into the same position.

**Explore your widgets:** Touch the Widgets tab at the top of any All Apps screen.

**Get more apps:** Touch the Market icon.



To remove an app icon from the Home screen, touch and hold it, slide your finger toward the top of the screen, and drop the app over the Remove icon.

## 7) Add widgets

Widgets are like windows into your apps. They're available from an All Apps tab for you to move onto your Home screens.

To see your widgets:

1. Touch the All Apps icon  on your Home screen.

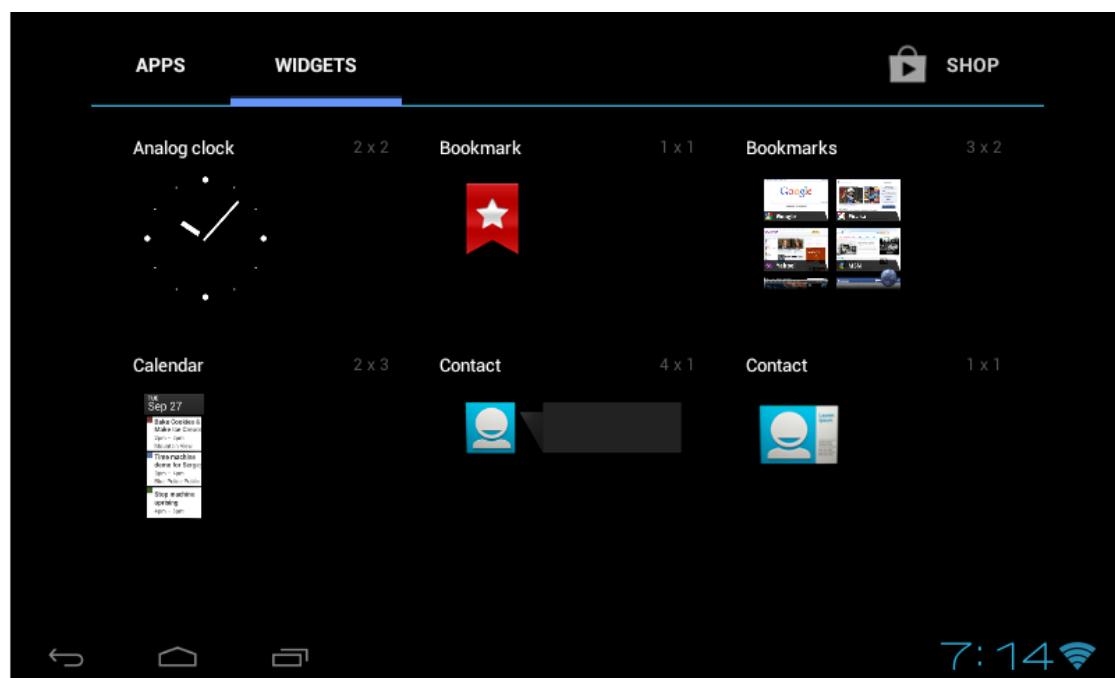
2. Touch Widgets at the top of the screen.

From the main Widgets screen, you can

**Move between screens:** Swipe left or right.

**Drag a widget to a Home screen:** Touch and hold the widget's icon, slide your finger where you want to place it, and lift your finger.

You may be asked to make further choices before the widget activates. If there isn't room where you dropped it, the widget won't get added to the Home screen.



## 8) Manage notifications

Notifications report the arrival of new messages, calendar events, and alarms, as well as ongoing events. When you receive a notification, its icon appears in the top left corner of the screen. Depending on your Sound settings, you may also hear a sound.

See your notifications: Swipe your finger down from the top of the screen.

Respond to a notification: Touch it.

Dismiss a notification: Swipe it sideways.

Dismiss all notifications: Touch the X in the top right corner.

## 9) Try some apps

### Start Email

You can use the Email app to read and write emails from your device. All your emails are always up to date and available no matter where you connect from.



**To launch Email:** Touch the Email icon  on the home screen in your app drawer. The first time you launch the app you will be prompted to sign in to your email account. Once setup you can:

**Read email:** Touch a message to read it. Unread messages are bold. While you're reading a message:

Touch the icons and menu along the bottom of the screen to archive, throw away, label, or perform other actions on that message.

Swipe left or right to read the previous or next conversation.

**Organize email:** Check the box beside a message to select it. Then use the icons and menu along the bottom of the screen to manage the selected messages.



**Change your settings:** Touch the Menu icon  to change your preferences, add an account or get Help.



No matter where you are within Email, you can always get back to the Inbox by touching  in the top left corner of the screen.

### Manage your Calendar

The Calendar app lets you view and edit your schedule.

When you first set up your device, you configured it to use an existing Google Account (such as Gmail), or you created a new one. The first time you open the Calendar application on your device, it displays any existing calendar events from that Google Account on the web. As you edit events from any mobile device or web browser, they are synced automatically across all the places you need them.



To view your Calendar, touch  on a Home or App screen.

To change the Calendar view, touch the date at the top and choose Day, Week, Month, or Agenda. Swipe to scroll vertically or horizontally. In the Day or Week views, spread your fingers apart or pinch them together to zoom in or out.

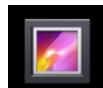
From any of these views, you can

**Read or edit event details:** Touch an event to view its details.

**Manage events and calendars:** Touch icons across the top or Menu to search or create events, return to today, or adjust settings.

## Gallery

The Gallery app is a window that you can view your photos and videos here.



Touch the Gallery icon  on App screen, then you will see a picture wall shows on your screen, you can tap the picture or video to view it.

## Manage files on your device

The File Manager app manages all the files in your device and Micro SD card



Touch this icon you will see all the files in your Micro SD card.



Touch this icon you will see all the files in you device.



Touch this icon you can change the style of the icons on the File Manager's window



Touch the search icon will help you get the file that you want very quickly.

And also here are some icons can help you to copy, past or create a folder which you want to

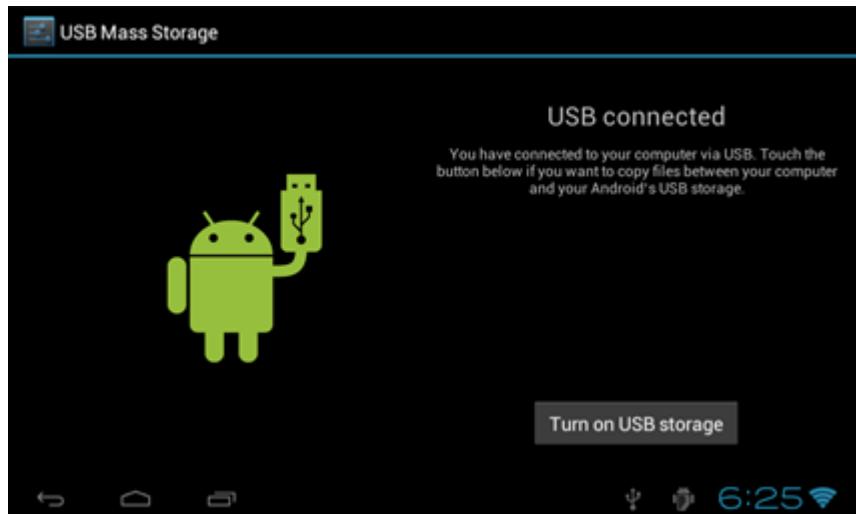


touch the icons

## 10) USB Connection

Transfer files between your device and pc

1. Connect your device and PC via USB cable
2. Click USB icon  in the right bottom of your device
3. Click “USB Connected”
4. Click “Turn on USB storage” and now your device has been connected to your pc successfully.



### 3. Specification

Hardware				
<b>CPU</b>		Samsung S5PV210 1GHz		
<b>Memory</b>	<b>Storage</b>	16GB iNand		
	<b>RAM</b>	512MB DDR2		
<b>Wifi</b>		802.11 b/g/n		
<b>Bluetooth</b>		Built-in		
<b>Audio Decode</b>		MP3, AAC, WMA, AMR-nb/wb		
<b>Video Decode</b>		MPEG4 H264, H263		
<b>Photo</b>		JPG, PNG		
<b>Buttons</b>		Support external buttons(ESC, HOME, MENU, SPEAKER, etc)		
<b>Power</b>		12V/2A		
<b>Environment Conditions</b>	<b>Temperature</b>	Operation	-20~+80°C	
		Storage	-20~+60°C	
	<b>Humidity</b>	Operation	4%~90%RH	
		Storage	40%RH	
<b>Physical</b>		Dimension: 175*93*15mm		
		Weight: 80g		

## **Information to Users**

According to the FCC Part 15.19, 15.21, 15.109 and 15.212 rules, for this EUT, the instructions or operation manual furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

This device complies with the following radio frequency and safety standards.

### **Important to OEM Manufacturer:**

**This following FCC Warning must be included in the HOST User Manual.**

### **FCC Warning**

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.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

**Note 1:** This module certified that complies with RF exposure requirement under fixed condition, this module is to be installed only in fixed applications.

A fixed device is defined as a device is physically secured at one location and is not able to be easily moved to another location.

**Note 2:** Any modifications made to the module will void the Grant of Certification, this module is limited to OEM installation only and must not be sold to end-users, end-user has no manual instructions to remove or install the device, only software or operating procedure shall be placed in the end-user operating manual of final products.

**Note 3:** The device must not transmit simultaneously with any other antenna or transmitter.

**Note 4:** To ensure compliance with all non-transmitter functions the host manufacturer is responsible for ensuring compliance with the module(s) installed and fully operational. For example, if a host was previously authorized as an unintentional radiator under the Declaration of Conformity procedure without a transmitter certified module and a module is added, the host manufacturer is responsible for ensuring that the after the module is installed and operational the host continues to be compliant with the Part 15B unintentional radiator requirements. Since this may depend on the details of how the module is integrated with the host, LM Technologies Ltd shall provide guidance to the host manufacturer for compliance with the Part 15B requirements.

**Note 5:** FCC ID label on the final system must be labeled with “Contains FCC ID: 2AAL9M730DIQO” or “Contains transmitter module FCC ID: 2AAL9M730DIQO”.

The transmitter module must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the host product. OLIVESKY INTERNATIONAL ELECTRONIC CO., LTD is responsible for the compliance of the module in all final hosts.