# User Manual

# **Contents**

Contents	l
1. Appearance and Keypad Operations	2
2. Using Memory Card as U Disk	2
3. Wi-Fi	
4. Bluetooth	4
5. Calculator	5
6. Calendar	5
7. Camera	6
8. Clock	9
9. Contacts	9
10. FM Radio	12
11. Gmail	13
12. Messaging	14
13. Phone	16
14. Phots	17
15. Settings	19
16. Notices for the use of phone	22

# 1. Appearance and Keypad Operations

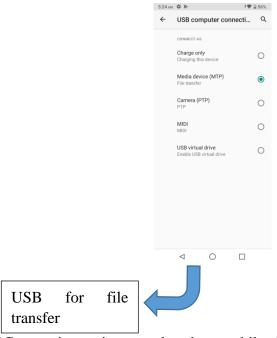
Keys	Functions
home	Short press this button to return home from any application or interface.
	Long press it to open Google search.
recent	Short press this button to open the recent items.
back Press it to return to the previous interface, or to close dialog	
	menu ,notification panel or the keypad.
	Short press this button to lock or unlock the screen.
power	Long press it to open the phone's menu, then you could choose to Power off,
	Restart, Airplane mode, Screenshot and Emergency.
up	Press it to increase the volume.
down	Press it to decrease the volume.

# 2. Using Memory Card as U Disk

If you want to send music, pictures or other files to the phone's memory card from the computer, you should set memory card as u disk first.

Set memory card as u disk

- 1) Connect the phone to the computer with USB cable. The notification icon will appear in the status box.
  - 2) Use USB mobile transmission line will connected to the computer
- 3) In the notification panel, touch USB is connected, And then touch the USB connected as a media device



Notice: On the PC operation assistant tool such as mobile phone, Must be open the USB debugging.

# 3. Wi-Fi

Wi-Fi provides as far as 300feet (100M) range of wireless network access. If you use cell phone to connect Wi-Fi, you should connect to the wireless access point or 「hot spots」.

Notices: The availability and coverage of Wi-Fi signal depend on the number, infrastructure and other objects penetrated by the signal.

Open Wi-Fi and to connect to the wireless network

- 1) Enter settings.
- 2) Select the Wi-Fi box, to open Wi-Fi. Phone will automatically scan for available wireless networks.
- 3) Touch Wi-Fi settings. Then a list of Wi-Fi network will show the founded network name and security settings. (open network or WEP, WPA/WPA2 with password). If you enable the notification in Wi-Fi settings,

The status box will show this icon ( ) when open available wireless network founded.

4) Touch one of the Wi-Fi choices to connect the network. When you choose open network, phone will connect to it automatically. If you choose WEP、WPA/WPA2 with password, you should type the password first, then touch to connect it.

Notices: when the phone is connected to the wireless network, the status box will show this Wi-Fi icon

), and the approximate signal strengthen (the number of lit bars). If touch the connected network, will display the name of Wi-Fi network, status, speed, signal, strength, security, information and IP address.

If you want to delete the wireless settings, please touch "FORGET" as in the picture below. If you want to connect to this network, you should re-enter these settings.



#### Notice:

Unless you choose to forget the network, otherwise, there is no need to re-enter the corresponding password when next time connecting to the previously encrypted wireless network. Wi-Fi will search automatically, that is, phone needn't to perform additional steps to connect Wi-Fi networks.

Connect to other Wi-Fi networks

In the interface of wireless and network, touch Wi-Fi settings. The founded Wi-Fi networks will show on the Wi-Fi network list.

Touch other Wi-Fi networks, and then you can connect to this network.

Notices: in addition, mobile phone can also surf the Internet by GPRS. Our current SIM card GPRS to open after the default boot. Users can manually choose to open data connection, when for the single card, direct drop down the status bar, touch "data connection" is open, when for the double card, location in "Settings > SIM cards > Mobile data > select SIM card", touched the drop-down "Data connection" of the status bar is open the current selected SIM card data connection, and then touch "Data connection" close this SIM card data connection.

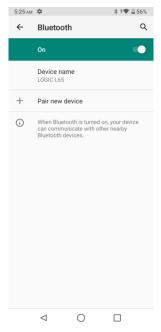
# 4. Bluetooth

Turn on Bluetooth or set the phone can be detected

- 1) Enter settings.
- 2) Select Connected devices, then open Bluetooth, the status box will show this icon ( ).
- 3) Touch "Pair new device", all the devices founded will display in the list under the icon.

(Bluetooth device is set open and visible to a nearby equipment work, other equipment as long as open the Bluetooth can search to the Bluetooth and matching, open as long as the other devices can be detected at the same time, you can search for other equipment and matching use)

# After a paired device, the system will show the paired and other equipment available



Pairing and connection of Bluetooth headset

- 1) Enter settings.
- 2) Select Connected devices, then open Bluetooth, touch "Pair new device", then your phone will scan for the Bluetooth devices within range ,and show the founded devices in the list under the icon.

Tips:

Make sure that the devices wanted are under the detected mode.

3) Touch headset in the equipment list to finish the connection.

Notices: generally Bluetooth devices need password to be paired, often use  $\lceil 0000 \rfloor$  as the default password.

4) The pairing and connecting status will show under the headset in the Bluetooth devices list. When the headset connected to your phone, the status box will show this icon ( means connected. Then you can use the headset to make or receive callings.

Cut the connection to the Bluetooth

In the list of Bluetooth equipment, touch or tap and hold the connected hand-free headset. Press and select "OK".

# 5.Calculator

### Calculator

this function can turn your phone into calculator, it can do some simple calculations.

• Touch the number keys to make it appear in the blank box.



# 6.Calendar

Calendar program, main interface

Enter the calendar program, click on the upper left area, it will display some menus: schedule, four kinds of mode, search menu, PC Sync, settings and help&feedback.

- 1) Interface display on the day and 3day of the schedule on the month use grayto highlight on the same day.
- 2) Week interface shows the schedule for this week (click date) recently about sliding according to weeks turn pages.

- 3) On the interface display and month schedule (date) recently click slide left and right can flip on a monthly basis.
- 4) Schedule interface shows the schedule for a certain time space (click can see forward initial time point, click can see back end time point).
- 5)click the search menu, enter the schedule name in the search box and you will be able to search for the set schedule.

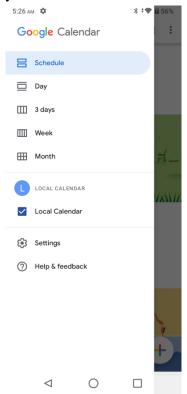
6)

- New event
- 1) Click the menu button > new event.
- 2) In the event details box, Enter the name.

Note: if special occasions, such as birthday or a whole day's activity, set the options as throughout the day. Such as activity is in a certain period of time, select the start time and end time.

- 3) Enter the activity location, note, invited people, repeat, remind of time.
- 4) Click on to complete the return to the calendar.

Note: all the title of the event is displayed in the calendar. There will be no calendar time period show.



# 7.Camera

# 11.1 Camera

Prior preparation

Install memory card before using the camera or video camera. All your photos or videos taken by the phone are stored in memory card.

Open camera

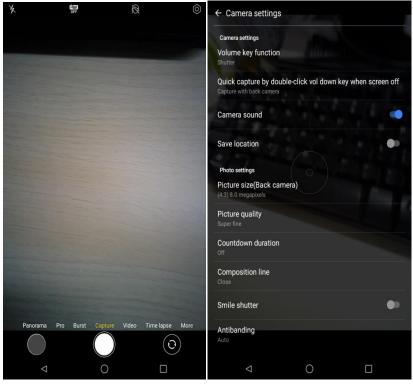
Press home, touch menu, select camera. Take pictures

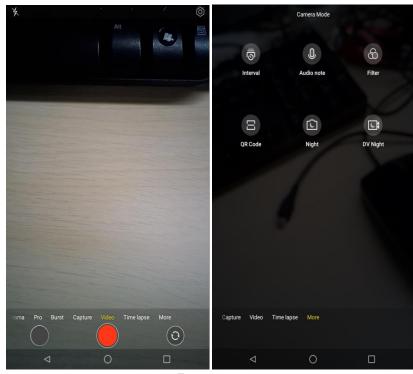
- 1) Aim your object with the screen.
- 2) Touch the "shutter" button on the screen.
- 3) After taking, photos will save to the camera's galley folder with the name of taking time.
- 4) You can view the photos by touching the preview box button.
- 5) Camera settings

You can touch the button of "setting Menu" in the interface of camera to do the settings

Under camera viewfinder mode, press Menu, you can switch to video or photos' gallery.

On the bottom right of camera viewfinder mode, display the preview of the previous picture. Touch preview box, the photo display on full screen and you can enlarge it to view details.





Shared Settings of Camera and Video camera

Flash mode: Auto, On, off.
exposure: -3 -2 -1 0 +1 +2 +3
Anti-flicker: Auto, 50HZ, 60HZ

Camera Settings

Capture mode: Normal, Panorama mode, HDR

Storage path:phone,SD card

Volume key function: Shutter, Volume, Zoom

Quick capture by double-click vol down key when screen off:capture with back camera, capture with

front camera, off

Shutter sound: ON, Off Save location: ON, Off

Photo settings

Picture size: (back camera)(4:3)8.0megapixels, (4:3)6.0megapixels,(4:3)2.0megapixels, (16:9)6.0megapixels, (16:9)4.0megapixels; (Front camera)(4:3)5.0megapixels, (4:3)2.0megapixels, (4:3)VGAmegapixels, (16:9)4.0megapixels, (16:9)2.0megapixels, (16:9)VGAmegapixels;

Picture quality:super fine,fine,Normal

Countdown duration:off,3,10

Composition line:close, Grid, Golden section, Reticle, Box

Smile shutter: ON, Offr

Antibanding:50Hz,60Hz,Auto

Enhance lowlight photos automatically: ON, Off

Touching photograph: ON, Off

#### 11.2 Video camera

Prior preparation

Install memory card before using the camera or video camera. All your photos or videos taken by the phone are stored in memory card.

### Take video

Press the home page, touch the menu select the camera.

- 1) With the screen on your subject.
- 2) Directly on the screen touch the



- 3) After the shooting, video automatically taken as file name, save to the gallery by default camera photo folder.
- 4) On the bottom right corner photo viewing images, a video preview before display. Touch the preview box, the full screen video, touch play button can broadcast video.

You can touch the button of "set" in the interface of camera to do the settings

Under camera viewfinder mode, press Menu, you can switch to video or photos' gallery.

On the top right of camera viewfinder mode, display the preview of the previous video. Touch preview box, the video will display on full screen and you can touch the play button to view it.

Videos settings

Video size: (back camera)HD1080p,HD720p,SD480p;(front camera)HD720p,SD480p,CIF

Composition line:Close,Grid,Golden section,Reticle

White balance:auto,sunshine,cloudy,incandescent,fluorescent

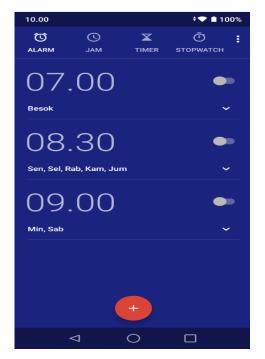
Antibanding: 50Hz,60Hz,Auto

Face detect: ON OFF

Microphone switch: ON OFF

# 8.Clock

1) Open the menu of application, click , The alarm clock Settings into the interface



#### Alarm

After functions set, phone will arrives in the setting time to alert you by ringing or vibrating to achieve it's function. Press Menu to add alarm, you can also add it from the adding interface. You could set the alarm according to your needs.

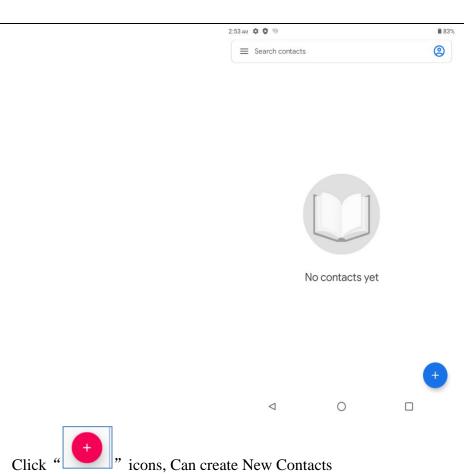
Edit

You can edit the current alarm, you could edit time, ringing tones, vibration, repeat form and tabs.

# 9.Contacts

Open the menu of applications>contacts

The default display mobile phone contact and SIM card contacts.

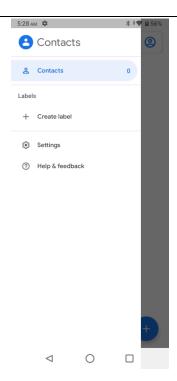


Select save contacts to phone or a SIM card, into contact editing interface.

You can edit contact head, name, telephone number, Email, save to and more, and then click "SAVE".



In contact interface, click on the Menu button



a. Click Maun>Search, You can enter the contact search interface. Enter the list of Numbers or letters and part name that will be shown in search results. If no search to match the contact interface will appear "No contacts".

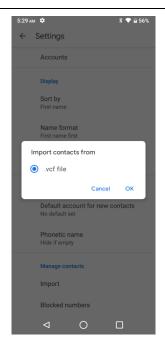
# b. Menu>Settings- Contacts to display

You can choose all contacts, Customize view of one a SIM card of contact, the mobile phone contacts Choose from the definition, but also on a SIM card and cell phone choice whether or not to show that all the lone contacts.

# c. Menu >Settings-Import/export

In the mobile phone can local, SIM card and SD card three parties achieve contact information of the copy each other.

First choose the "copy source" and then select the next step, selecting copy contact to, can complete the contact's copy.



# d. Menu > Labels

Click on the "create label" icon to the new label.

In "Label name" column input label name.

- 1) In a label, click on the Menu button, Menu functions
- 2) Menu>Rename label

You can rename label name

3). Menu >Delete label

You can delete the label.

4). Menu > Send messaging

Automatic new information, and the label added to contact the address bar recipients

5). Menu > Send Email

If contact label have the same email address, the automatic new mail, and E-mail address in the address bar add to the receiver

# 10.FM Radio

#### FM Radio

Through this program, you may listen to FM radio on the device, FM radio use the wired headset as an antenna to receive signals, before opening this program ,you can install the original equipment-headphones, when listening, you can switch it manually to speakers or the mode with wired headphones.

Open FM radio

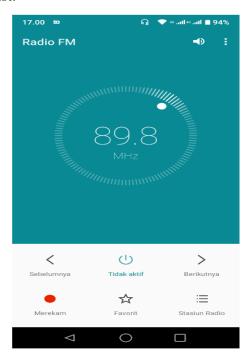
Touch this label to open the application of FM radio.

- 1)Click on the " ", automatic scanning search FM channel, and channel in list interface, list all channels
  - 2) Click "Start recording", listening to the radio to the current can be recorded. The tape recording to

default file name can be arbitrary well-preserved input filename. Save to FM recording the default file.



- 3) Click " Tidak aktif " closed FM radio, cannot listen to in the background.
- 4) Must be insert cable headphones as antenna, but click on the horn button, can put the FM radio.
- 5) Click on the frequency of the rear of the five-pointed star icon, channel was added to the collection channel list.



Listen to FM radio background

Click to return to key, the radio program moved to the background, right now you can still continue to listen to the show, and can also carry out any other program.

# 11.Gmail

Create an electronic mail account

Open the Gmail, You can activate or edit existing e-mail accounts as well as create a new e-mail account.

Select mail, Google account setting interface appears. Then touch 'next step' > create account>enter name, last name and e-mail account.

Google servers determine whether the name can be used, if so, new interface appears prompting enter password, then judge the password' security, users who doesn't meet the requirements need to re-enter the password.

Successfully register a new Gmail account, a messenger created automatically for testing.

2) Loading mail account

- a. Open Gmail skip introduction screen>loading interface appears >select load
- b. Enter name, password then load

E-mail account initialization, prompting "login successful" All Google accounts will be synchronized.

3) Creating and sending mails

When creating mails, select mail > creating mails. Enter the address(recipient), theme and contents. Press MENU you could 'append', 'Add Cc/Bcc', select send or discarded.

4) Receive mails

There is tone for new mails, Press Menu > 'refresh', refresh and update the number of the unread mails in a proper way.

5) Delete mails

When loading a mail account, if you want to delete it, you need to restore factory settings. When loading a second one, you could press the menu button to delete it.

Notices: many functions depend on Gmail Account, for example: Electronic Market, Google Talk, Sync Contact and Calendar.

# 12.Messaging

Important: the message title of this phone is the phone number, will be reserved in s similar for of dialog, instead of the usual folder structure. Messages with white background are those received, and messages with blue background are those sent.

Send SMS to certain phone number

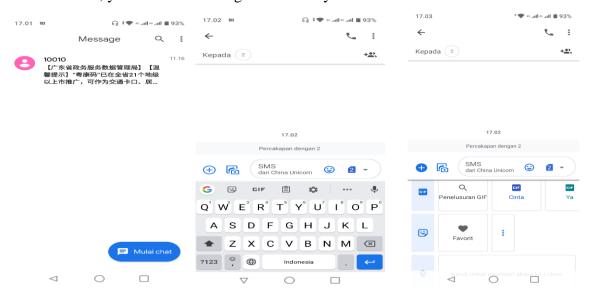
- 1) Press home>messaging, touch " Start chat
- 2) Enter the editing information interface
- a. Click "type a name, phone number, or email" box to start input method, in that way you can enter characters.
  - b. Click "type an SMS message", input information what you need.
  - c. click SMS button, you can send message successfully.

Send MMS to certain phone number

When creating message, it was defaulted as SMS, it will be turned to MMS when following operations were done.

- 1) You can send MMS via touch " Start chat,
- 2) Enter the editing information interface.
- a. Click "type a name, phone number, or email" box to start input method, in that way you can enter characters.
- b. Click "type an SMS message", click the Lower left corner ,you can add some default picture, photos, video, recording and location.

c. click MMS button, you can send message successfully.



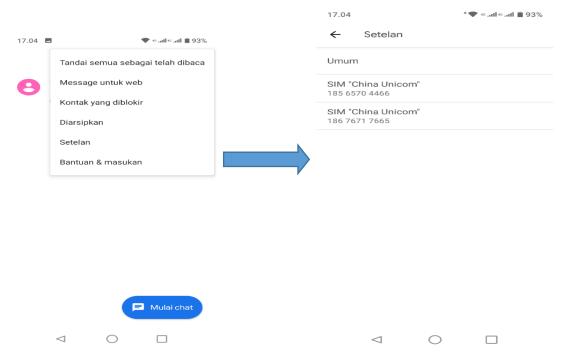
Send messages to group conversation

Enter group numbers in the box of entering or choose by contacts, each number is divided by the comma in English.

Notices: At present the orbit can only support up to 200 recipients.

While the number of contacts added more than 200, will be prompted to "recipient" too much, after add contacts without success. You must manually add again.

• Information edit menu with menu functions



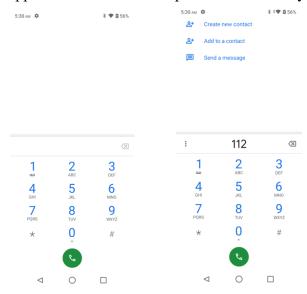
- 1) When the message is sent after the success, according to SIM card sends a message of time, there will be a checkmark beside the little symbol.
- 2) When message sending failed, a red triangle with exclamation will appear. When editing information other functions of Menu button.
  - 3) Hold the certain information, can carry out selective operation.

# 13.Phone

When the icon of network server appears in the screen, you could dial or receive callings. The signal bar on the top right corner show the strength of network signal (When the signal with the strongest signal).

# Start dialing

Open application's main menu>phone >Dial the keyboard. You could choose SIM to do the dialing.



# Dialing

At the dialing Keyboard , enter the phone number, and then click the dialing key , after that, you should choose one SIM card.

# Telephone calls in the call log

Every telephone number called and received in "SIM card" will reserved in phone's menu of call log. Each call to record recently will show "SIM card", All numbers in the call log can be dialed by clicking the button "dial" on the right side of the screen.

When number list appearing, click it to catch details; press it for long you could dial via "SIM card", meanwhile you can edit, delete, save the number or do other operations.

# Receive callings

When calling comes, swipe up to answer.

# Refuse to answer the phone,

Have a telephone call in, swipe down to reject.

Have a telephone call in, hold the icon in the lower left corner and swipe from the icon to decline with message, the call will be suspended and the caller will receive the corresponding text messages.

### Proximity sensor

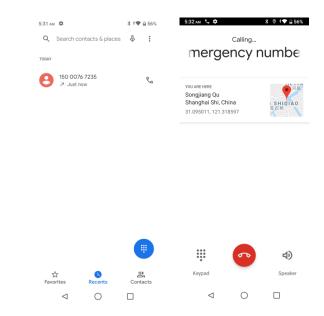
According to the distance between phone and human body, it will adjust automatically the switch of the backlight.

During the call, close the phone to the ear, the backlight will turn off automatically, which could save batteries and prevent inadvertently touching.

Two-way call/multiparty call (conference call)

Notices: This function needs that SIM card open multiparty call features.

Click" dial another call (or receive another call, phone default open "call waiting", after both connected, could view the status of calling.



Telephone recording

During the call, Click " you could record the dialog of the call.

# Call settings

- 1) Display options: Can set contact sort and name format
- 2) Sounds and vibration: Can set phone ringtone and vibration
- 3) Quick responses: Can edit the text messages rejected by the information when content
- 4) Calling accounts: Can set FDN ,Call forwarding, Call barring and Additional Settings
- 5) Call blocking: Can add the number of contacts you don't want to receive by phone or text message
- 6) Voicemail: Can set voicemail number and voicemail notifications
- 7) Accessibility: Can set TTY mode
- 8) About: Can view build version and others.

# 14.Phots

Open phots,

You need to enter the camera to take a picture or video first, or you can choose to log in to your Google account



# Gallery interface

A. In the main interface of the gallery, in the upper right corner of button, you can quickly log in to your Google account

B. folder tile in the gallery main interface, folder thumbnail displayed on the folder name file.

#### Files Interface

In the library the interface, click on the images, enter the picture to see interface. Choose a long press image files, pop-up corresponding operation.

# Share photos

In long according to the selected folder or photos in picture viewer interface, choose to share. Methods include Bluetooth, mail, and information sharing.

A. Use the Bluetooth to send images: under the list of Bluetooth, choose paired Bluetooth devices, pictures to be transmitted via Bluetooth.

B. use email to send pictures: choose Gmail or E-mail, pictures will be automatically attached to the email. Write your information, and click send.

C.using information sending pictures: select information, images will be automatically attached to the MMS. Write your information, and click send.

See photo

In photos look at interface, sliding around on the screen, can be forward or backward view the photos Edit pictures

A. color effects: Original, auto, west, palma, metro, eiffel, blush, modena, reel, vogue, ollie, bazaar, alpaca and vista.

B. editor brightness: adjust light, color and pop.

C. clip: straight, pruning, rotate, mirror

# D. Clip pictures

- a. If you want to adjust the size of the clip, please hold the edge of the cutting tools. The arrow appears clip, from the trim your fingers inside or outside the center to drag, can adjust its size.
- b. If you want to adjust the big hours in the clip that keep proportion, please hold down any of the four corners of the one.

If you move to the clip of the picture area of the other, please hold cutting is internal, then move to drag the fingers to the position.

- Play video
- 1) in a picture of a photo gallery, touch video album, and then choose the video you want to watch, you can start playing video.
  - 2.) the touch screen will display playback controls.
  - A. schedule control: dragging the control bar can be moved to any play point.
- B. suspended or continue to play: play when click pause video, pause when click continue to play the video.

# 15.Settings

Your service provider may default some device settings, so you may not be able to change these settings.

Wireless & internet



Wi-Fi and Wi-Fi settings Touch Wi-Fi to open . Open Wi-Fi ,it can search for available networks automatically, networks without password can be used directly, others need to enter the password first.

Notice: Open Wi-Fi then the flight mode, Wi-Fi will close automatically; Open flight mode then connect Wi-Fi, it can be used normally.



Bluetooth switch and setting up the touch Bluetooth to open, will automatically search nearby Bluetooth open the equipment.



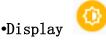
Touch can choose the SIM card or stop using a SIM card

The default SIM card, can choose a voice call, information, and choose which SIM CARDS to use data connection



1. Data usage set up mobile data traffic limit, flow more than limit will be close mobile data services.

# Device



- a. Brightness level: Adjust the screen brightness
- b. Wallpaper: The gallery and built-in wallpaper can be set as standby and lock screen wallpaper.
- c. Sleep: Adjust the delay before the screen automatically lock.
- d. Auto-rotate screen: On, Off.
- e. Font size: Set the font size of the system
- f. Display size: Set the display size of the screen.

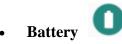


This option gives the phone tones' settings under the status of receiving calls or notification. Including: Vibration, volume, ring tones, ring tones notification and feedback (Dial pad tones, Screen locking sounds, Charging sounds, Touch sounds, Vibrate on tap) to adapt every environment.

- 1) Volume: Including the media volume, alarm volume, ring volume settings, you can manually slide to select.
- 2) Phone ringtone: voice phone ring
- 3) Notice: default notification sound
- 4) Sound enhancement: in view of the headphones sound, trumpet volume booster

# Storage

- a. Can view the SD card and cell phone memory usage.
- b. Can unmount SD card or erase SD card.
- c. Can choose the default memory.



Boot time that use and each module to use power in general



management application and delete installed applications.

### Personal



- 1) Google Play Protect: Off/Tap to turn on protection.
- 2) Find My Device: Find My Device help YOU locate this device remotely. It also helps you keep your DATE safe, if the device is lost.
- 3) Security update: Display security update.
- 4) Screen lock: Choose screen lock
- 5) Lock Screen preferences: Show all notification content or don't show notifications at all.
- 6) Smart Lock: To use, first set a screen lock.
- 7) Location: Use wireless to find locations in the application (Google map).
- 8) Show passwords: Display characters briefly as you type.
- 9) Device admin apps
- 10) SIM card lock: you can set SIM card PIN or change SIM card PIN.
- 11) Encryption & credentials

# • Languages & input

- 1) You can set up all the language supported by the phone.
- 2) Keyboard Settings: You can set virtual keyboard and physical keboard.

# Backup & reset



1) Backup Application data, WLAN password and other settings to Google's servers.

# **System**



# • Date and Time

- 1) Automation: Use date and time provided by Network.
- 2) Setting Date: Set the current date.
- 3) Selecting Time Zone: Select Time Zone according to where you are.
- 4) Setting Time: Set the current time.
- 5) Use 24 Hour Time Format: ON/OFF



# • About phone

You can check the information of software updates, status, legal information model CPU GPU, RAM, internal memory, android version, android security patch lever, baseband version, kernel version, software version, custom build version.

# 16. Notices for the use of phone

Your phone is a product of superior design and craftsmanship and should be treated with care. The following suggestions can help you comply with the terms of repair kits, to extend the life of mobile phone.

- 1) Place the mobile phone and their parts and components out of reach of small children.
- 2) Keep the phone dry, rain, humidity and all types of liquids which contain minerals will corrode electronic circuits.
- 3) Don't touch the phone with wet hands when charging, it will cause electric shock or damage the phone.
- 4) Avoid place the device in high temperature environment. Temperatures will shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- 5) Avoid place the device in too low temperature environment. When the temperature rises, the phone will produce water vapor that may damage electronic circuit.
  - 6) Avoid place the phone in dusty, dirty places, otherwise parts may be damaged.
  - 7) To avoid the phone in a lit cigarette, near open flame or any heat source.
  - 8) Do not open the device, non-professional approach will do damage to the phone.
- 9) Do not throw it from height, knock or shake the phone, rough handling can damage internal circuit boards.
- 10) Do not paint the phone, because the paint will block headphones, microphones or other removable parts, and lead it not work.
- 11) Use clean, soft, dry cloth to clean the camera, light sensor lenses. Prohibit the use of harmful chemicals and cleaning agents, cleaning fluids to clean the phone
- 12) If mobile phone, battery, charger, or mobile phone accessories are defective, send to the nearest qualified service center for inspection.
  - 13) If necessary, Service Centre staff will assist you and will arrange for phone repairs.

#### **FCC Statement**

- 1. 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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.
- 2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### NOTE:

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.

### **SAR Information Statement**

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. \* Tests for SAR are conducted with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this model phone when tested for use at the ear is 0.321W/Kg and when worn on the body, as described in this user guide, is 0.351W/Kg/Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements). The maximum scaled SAR in hotspot mode is 0.351W/Kg. While there may be differences between the SAR levels of various p

found on the Cellular Telecommunications Industry Asso-ciation (CTIA) web-site at http://www.wow-com.com. \* In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a sub-stantial margin of safety to give additional protection for the public and to account for any variations in

measurements.

# **Body-worn Operation**

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance

of 10mm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters,

and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

# GSM:

Operation Frequency range:	GSM	M 850: 824.20MHz-848.80MHz
	PCS	1900: 1850.20MHz-1909.80MHz
Modulation type:	2G	☑Voice(GMSK) ☑GPRS(GMSK) ☑EGPRS(GMSK, 8PSK)
Antenna type:	Internal Antenna	
Antenna gain:	GSM	1.85 dBi(declare by Applicant)
	PCS	1.05 dBi(declare by Applicant)

## WCDMA:

Operation Frequency range:	WCDMA Band V: 826.4MHz-846.6MHz	
	WCDMA Band II: 1852.4 MHz-1907.6 MHz	
Modulation type:	3G ⊠RMC(QPSK) ⊠HSUPA(QPSK) ⊠HSDPA(QPSK,16QAM)	
Antenna type:	Internal Antenna	
Antenna gain:	WCDMA Band V: 1.85dBi(declare by Applicant)	
	WCDMA Band II: 1.05 dBi(declare by Applicant)	

# LTE:

Operation Frequency range:	LTE Band 2:	TX: 18	50MHz-1910MHz	RX	: 1930MHz-1990MHz
	LTE Band 4:	TX: 17	10MHz-1755MHz	RX	(: 2110MHz-2155MHz
	LTE Band 5:	TX: 82	4MHz-849MHz	RX	(: 869MHz-894MHz
	LTE Band 12:	TX: 69	9MHz-716MHz	RX	(: 729MHz-746MHz
	LTE Band 17:	TX: 70	4MHz-716MHz	RX	(: 734MHz-746MHz
	LTE Band 66:	TX: 17	10MHz-1780MHz	RX	(: 2110MHz-2200MHz
Modulation type:	⊠QPSK		⊠16QAM		⊠64QAM
Antenna type:	Internal Antenn	а			
Antenna gain:	LTE Band 2:	1.05 dl	Bi(declare by Applica	ant)	
	LTE Band 4:	0.13 dl	Bi(declare by Applica	ant)	
	LTE Band 5:	1.85 dl	Bi(declare by Applica	ant)	

LTE Band 12:	0.23 dBi(declare by Applicant)
LTE Band 17:	0.25 dBi(declare by Applicant)
LTE Band 66:	0.18 dBi(declare by Applicant)

# BT:

Operation Frequency:	2402MHz~2480MHz
Transfer rate:	1/2/3 Mbits/s
Number of channel:	79
Modulation type:	GFSK, π/4-DQPSK, 8DPSK
Modulation technology:	FHSS
Antenna Type:	Internal Antenna
Antenna gain:	-0.68dBi

# BLE:

Operation Frequency:	2402-2480 MHz
Channel numbers:	40
Channel separation:	2 MHz
Modulation technology:	GFSK
Data speed :	1Mbps
Antenna Type:	Internal Antenna
Antenna gain:	-0.68 dBi

# 2.4G WiFi:

Operation Frequency:	2412MHz~2462MHz: 802.11b/802.11g/802.11n(HT20)
Channel numbers:	11: 802.11b/802.11g/802.11(HT20)
Channel separation:	5MHz
Modulation technology:	Direct Sequence Spread Spectrum (DSSS)
(IEEE 802.11b)	
Modulation technology:	Orthogonal Frequency Division Multiplexing(OFDM)
(IEEE 802.11g/802.11n)	
Data speed (IEEE 802.11b):	1Mbps, 2Mbps, 5.5Mbps, 11Mbps
Data speed (IEEE 802.11g):	6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps
Data speed (IEEE 802.11n):	Up to 72.2Mbps
Antenna Type:	Internal Antenna
Antenna gain:	-0.68dBi