



# RS60

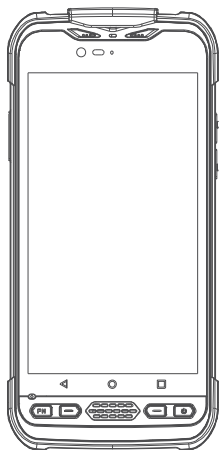
## User Guide



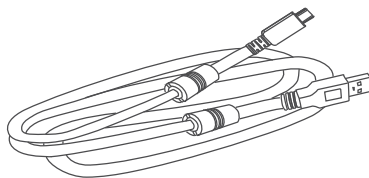
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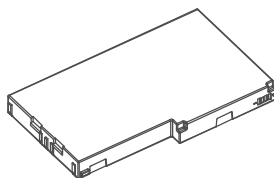
# ① What's in the Box



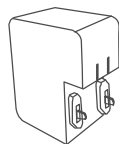
Device



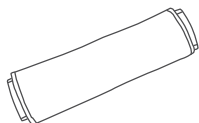
Type-C cable



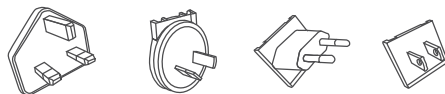
Battery



Charging adaptor

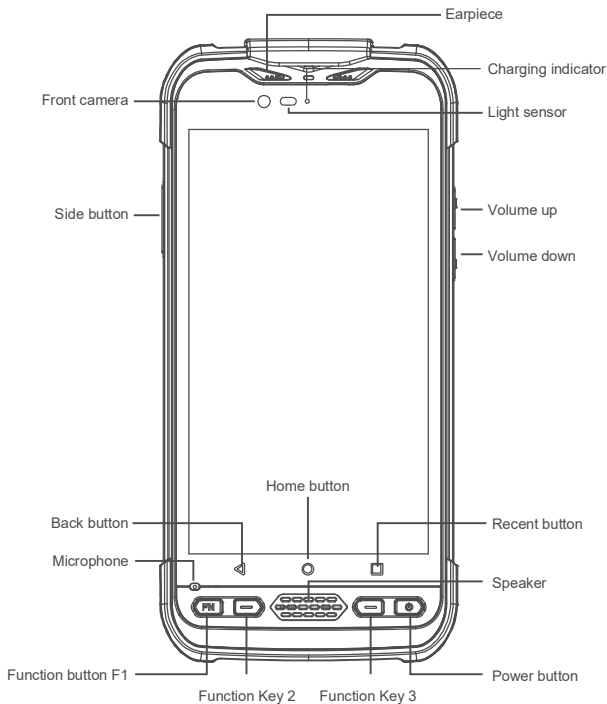


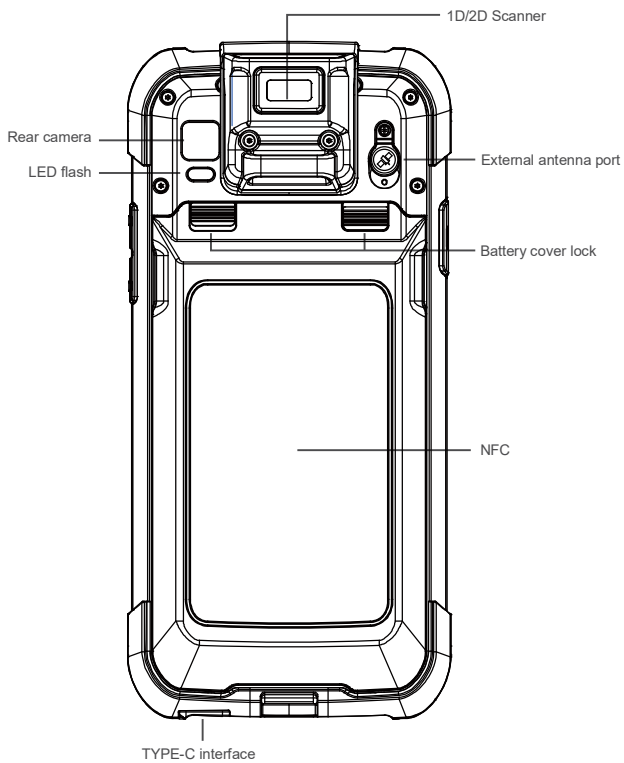
Handstrap



Converter plugs

## ② Appearance Overview





### ③ Unfasten Handstrap to Remove Battery Cover

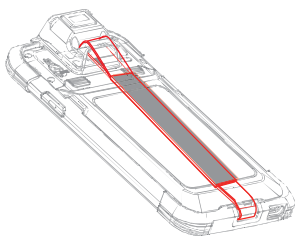


Figure 1

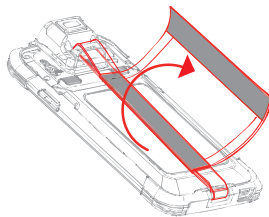


Figure 2

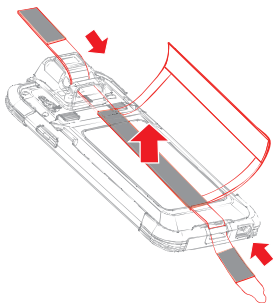


Figure 3

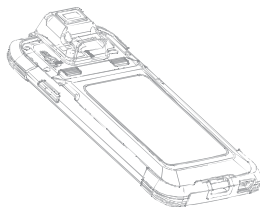
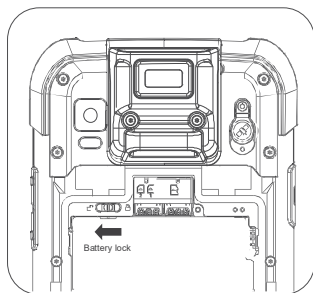
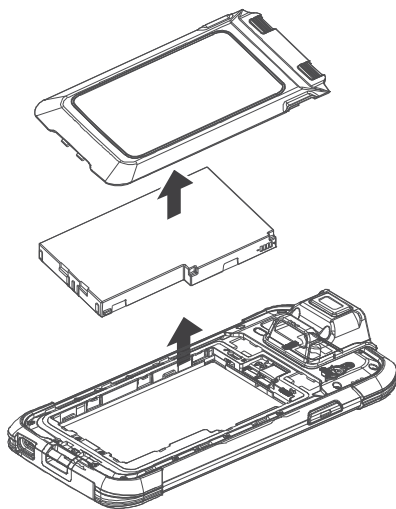


Figure 4

## ④ Remove Battery Cover

### To remove the battery cover

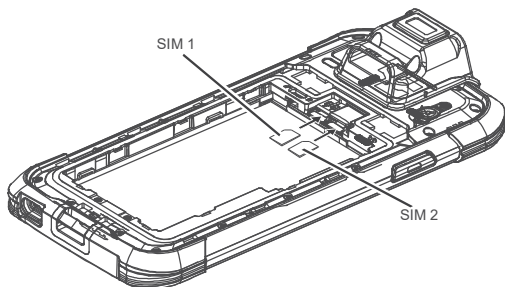
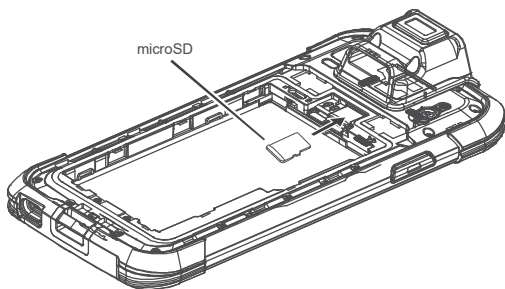
1. Power off the device before removing the battery cover
2. Push the battery cover lock to the open position
3. Detach the battery cover



## ⑤ SIM/microSD Card

### To insert/remove SIM/microSD card

Follow the indicated direction printed in the chamber

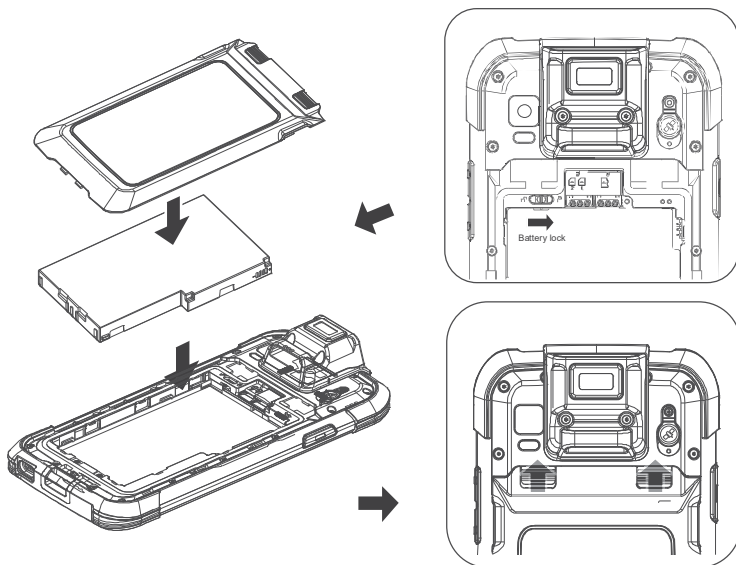




## ⑥ Insert Battery

### To insert the battery

1. Insert the battery
2. Push the battery lock to the closed position
3. Attach the battery cover
4. Push the battery cover lock to the closed position

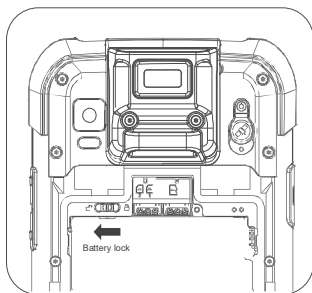
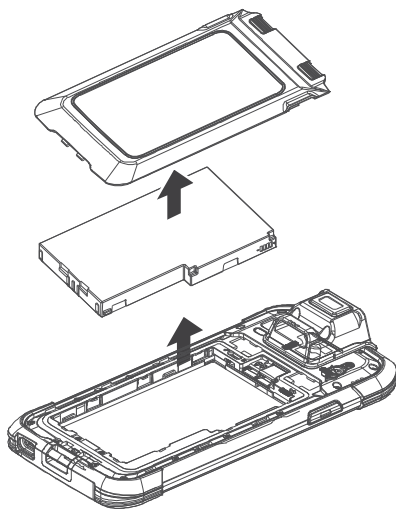


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## ⑦ Remove Battery

### To remove the battery

1. Power off the device before removing the battery
2. Push the battery cover lock to the open position
3. Detach the battery cover
4. Push the battery lock to the open position
5. Remove the battery



## ⑧ Power on for the First Time

When starting for the first time, fully charge the device.

Plug the power adapter into the device and charge the device to make sure that battery is full.



## ⑨ Power On/Power Off

### 1. Power On

Press the power button a few seconds until the device vibrates.

### 2. Enter/Exit Sleep Mode

Click the power button once, the screen enters sleep mode.

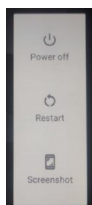
When the screen is lit up and there is no operation for one minute, the device will automatically enter the sleep mode(Standby time setting: Display > Screen timeout).

Click the power button once, the screen lights up and exits sleep mode. Swipe up on the screen to unlock.



### 3. Power Off/Restart/Screenshot

Long press the power button, a dialog box will pop up on the right side of the screen. Select the desired function to turn off the power, restart or take a screenshot.






## 10 Network & Internet


### Wi-Fi

Wi-Fi is a wireless network technology that can provide Internet access at distance up to 100 feet, depending on the Wi-Fi router and surroundings.

You can access the Internet when you connect your RS60 to a Wi-Fi network. To connect your phone to a Wi-Fi network;

1. From Notifications or App menu, tap on Settings (  ).
2. Tap on Network & Internet (  ).
3. Tap on Wi-Fi (  ).
4. Set the Wi-Fi to ON position located under Wireless & networks settings. A list of Wi-Fi access points present within your phone accessible range are displayed.
5. Select your preferred network. Enter the WEP/WPS/WPA key (if it is a secured network) and select Connect. To verify the password before connecting, enable Show password.

### Add Network

1. On Wi-Fi screen, tap on Add network (  ).
2. Enter the Network name and select the Security from the drop-down list. You can set the network password.
3. Tap on Advanced options. The settings such as Proxy and IP settings can be updated using the drop-down list.
4. Tap on Save to save the network settings.

### Connect To Network

1. Long press on connected network.
2. Tap on Connect to network.
3. Enter the network password.
4. The other network setting details such as Advanced options, Proxy, IP settings can be updated.
5. Tap on CONNECT to get connected to the network.

## Mobile Network

1. From Notifications or App menu, tap on Settings (⚙️).
2. Tap on Network & Internet (📶) > Mobile network (📶),
3. Select SIM card Slot and the following options are displayed:
  - Mobile data: Turn On to enable mobile data. Using mobile data, you can access Internet.
  - Roaming: Turn ON to enable data roaming to connect to data services while roaming.
  - Data usage: Mobile data usage for a particular time frame is displayed.
  - Network:
    - Automatically select network: Turn ON to connect to the selected network automatically.
    - Network: The network name is displayed.
    - Access Point Names: Tap on Access Point

Names (APNs) to view and edit the network access points. Tap on the ( + ) icon to add a new access point.

## Data Usage

Data usage refers to the amount of data utilized by your phone during data transfers through the Internet. The data usage charges are dependent on the wireless plan provided by your service provider.

To monitor your data usage, adjust your data usage settings.




1. From Notifications or App menu, tap on Settings (⚙️).
2. Tap on Network & Internet (📶) > Data usage
3. Under Usage, you can view the data usage for a particular time frame.
4. Turn on Data saver (🔄) to access unrestricted data.

## Hotspot & Tethering

Hotspot and Tethering provides Internet to other devices through your mobile data connection. Apps can also create a hotspot to share content with nearby devices.




## USB Tethering

Using USB tethering, you can share phone's Internet connection via USB.

1. From Notifications or App menu, tap on Settings (  ).
2. Tap on Network & Internet(  ) > Hotspot & tethering (  ).
3. Turn on USB tethering.

## Setup Mobile Hotspot




You can set up a hotspot using your mobile device.

1. From Notifications or App menu, tap on Settings (  ).
2. Tap on Network & Internet(  ) > Hotspot & tethering (  ).
3. Tap on Set up Mobile hotspot.
4. Enter the following details:
  - Hotspot name: Enter the hotspot name.
  - Security: Select the desired security from the drop-down list.
  - Hotspot Password: The password must have at least 8 characters.
5. Tap on Save to save the mobile hotspot.

## Airplane Mode

When your phone is set in airplane mode, network connectivity or mobile data connectivity is disabled. But you can access your camera, media files and other features that do not require mobile data connectivity.

To activate airplane mode;

1. From Notifications or App menu, tap on Settings (  ).
2. Tap on Network & Internet(  ) > Airplane Mode (  ).

## 11 Connected Devices

### Bluetooth Turn ON

You can share the phone's Internet connection via Bluetooth.

1. From Notifications or App menu, tap on Settings (⚙️).
2. Tap on Connected devices (📶) > Connection preferences > Bluetooth (📶)
3. Turn ON to enable Bluetooth tethering.

### Bluetooth

Bluetooth is a short-range wireless communication technology used to communicate between the devices over a distance of about 8 meters. You can perform the following tasks using Bluetooth paired devices.

- Transfer media files and contacts between connected mobile devices using Bluetooth.
- Use Bluetooth connected headphones for playing media file.

### Pairing A Bluetooth Device




To activate Bluetooth and pair your RS60 device with other

#### Bluetooth Devices:




1. From Notifications or App menu, tap on Settings (⚙️) > Connected devices (📶) > Connection preferences.
2. Tap and enable Bluetooth (📶). A list of accessible Bluetooth devices are displayed. Ensure that Bluetooth is activated on the other device as well.
3. Tap on Pair new device (📶) to pair a new device. Available devices are listed.
4. Select the desired device from the list. It starts pairing with the selected device. A confirmation message is displayed to pair the device. Select PAIR.



### Device Name




1. From Notifications or App menu, tap on Settings (  ) > Connected devices (  )> Connection preferences..
2. Tap and enable Bluetooth (  ).
3. Tap on Device name. Rename this device screen is displayed. You can change the name and tap on Rename.

### Cast






1. From Notifications or App menu, tap on Settings (  ) > Connected devices (  ) > Connection preferences.
2. Tap on Cast (  ).
3. You can cast your screen from your Android™ device. Connect your Android device to the same Wi-Fi network as your Chromecast or TV with Chromecast built-in. In the top left corner of the app's Home screen, tap on Menu Cast Screen > audio Cast Screen > audio.
4. Ensure that your Android device and Chromecast are connected to the same Wi-Fi network.

### NFC

NFC (Near-Field Communication) is a set of communication protocols that enable two electronic devices one of which is usually a portable device such as a smart phone, to establish communication by bringing them within 4 cm of each other.

1. From Notifications or App menu, tap on Settings (  ) > Connected devices (  ) > Connection preferences> NFC (  ).
2. Turn ON NFC to allows your device to scan various cards.

### Printing

1. From Notifications or App menu, tap on Settings (  ) > Connected devices (  )> Connection preferences > Printing (  ) .
2. Tap on Print > Default Print Service (  ). Turn On the Default Print Service.
3. Tap on Add services (  ). Google Play screen is displayed. You can sign in with your Google credentials and add any desired service.

## 12 Display Settings

### Display

1. From Notifications or App menu, tap on Settings (⚙️) > Display (📺).
2. Set the following options to configure your phone's display:
  - Brightness level: Set the brightness of the phone display.
  - Night Light :
    - Schedule: You can schedule the night light on your device: None, Turns on at custom time and Turns on from sunset to sunrise
      - Start time: Sunrise time
      - End time: The sunset time
      - Intensity: You can increase/decrease the light intensity as per your requirement.
    - Adaptive Brightness: This optimizes the brightness level for available light.
  - Wallpapers: Includes images that are pre-loaded with the phone.
  - Dark theme : Turn On to display the black theme.
  - Screen timeout: Set the sleep time so that the screen brightness is turned down after specified time of phone inactivity. This setting also optimizes the battery power. The options are: Never, 15 seconds, 30 seconds, 1 minute, 2 minutes, 5 minutes, 10 minutes and 30 minutes.
  - Auto-rotate screen: Turn on to set auto-rotate screen ON.
  - Font size: Set the font size of the text to be displayed on the screen.
  - Display size: You can make the items on your screen smaller or larger. Some apps on your screen might change position.
  - Screen saver: You can set any of the applications as a screen saver.
  - Lock screen display: Tap on lock screen display and turn On When to show > New notification. The device screen is awake when you receive notifications.

## 13 Battery Settings

### Battery

1. From Home screen or App menu, tap on Settings (⚙️) > Battery (🔋).
- The graphic image of battery charging level is displayed.
- Last Full charge displays the time when the battery is fully charged.
- Screen usage since full charge displays the time duration the screen is used since the battery the fully charged.
2. Under Power management the following options are displayed:
  - Batter saver: Set the Battery saver to On by selecting the option given for Turn On.

## 14 Sound Settings

### Sound

1. From Notifications or App menu, tap on Settings (⚙️) > Sound (🔊).

Set the following options to set the Sound settings in your device:

2. Media volume (🔊) : Adjust the volume as per your requirement.

3. Alarm volume (🔊) : Adjust the alarm volume as per your requirement.

4. Notification volume (🔊) : Adjust the volume for notification as per your requirement.

• Default Notification sound: Select the required Notification sound from the list and tap on OK to set as the ringtone. You can also add a new ringtone using Add ringtone (+) option.

• Default alarm sound: Select the required alarm sound from the list and tap on OK to set as the ringtone. You can also add a new ringtone using Add ringtone (+) option.



5. Other sounds and vibrations

Turn ON the following options to access the sound:

- Screen locking sounds
- Charging sounds and vibration
- Scanning sounds
- Touch sounds
- Touch vibration



## 15 Storage Settings

### Storage

1. From Notifications or App menu, tap on Settings (  ) > Storage (  ).
2. On Internal shared storage, the following options are displayed with memory used for each app:
  - Photos and videos
  - Music & audio
  - Games
  - Movie & TV apps
  - Other apps
  - Other
  - System

## 16 Privacy Settings



### Privacy

1. From Notifications or App menu, tap on Settings (  ) > Privacy (  ).
- Permission manager
  - Show passwords
  - Lock screen
  - Autofill service from Google
  - Advanced
  - Google location history
  - Activity controls
  - Ads

## 17 Accessibility Settings

### Accessibility

You can make websites and applications more accessible to people with disabilities when they are using mobile phones and other devices.

From Notifications or App menu, tap on Settings (  ) > Accessibility (  ).

### Volume Key Shortcut

1. Tap on Volume key shortcut. Turn On to enable Shortcut service. You can select any of the listed service to set a shortcut.

2. Enable Allow from lock screen to perform this functionality.

## 18 Google Settings

### Google

1. From Notifications screen or App screen, tap on Settings (  ) > Google (  ).




2. The following services are displayed under Services:

- Account services
- Ads
- Autofill
- Backup
- Data & messaging
- Device connections
- On-device sharing
- App preview messages
- Parental controls
- Security
- Set up & restore

## 19 System Settings

### Language & Input

You can set the phone's language to any of the languages displayed in the language list. All the menu items and user feedback messages will be displayed in the set language.

1. From Notifications screen or App screen, tap on Settings (  ) > System (  ) > Languages & input (  ).

2. Tap on Languages and select any desired language from the list as your preferred language.

- Default language: English is set as the default language. This can be changed by you if you prefer to have a different default language.

- Add a language: you can select any languages from Suggested languages list or All languages list.

- Search: Tap on Search icon (  ) to search a language.

3. The following options are displayed under KEYBOARD:

- Virtual keyboard:

- Gboard: You can use Google keyboard which is multilingual typing keyboard.

- Google voice typing: You can use Google voice typing for entering the text instead of using the keyboard.



- Manage keyboards: From this menu, you are able to enable and manage different keyboards available to you.

- Physical keyboard:


- Show virtual keyboard: Enable this option to keep it on screen while physical keyboard is active.

- Keyboard shortcuts helper: Displays available shortcuts.

## System Updates

1. From Notifications or App screen, tap on Settings (  ) > System Updates (  ).
2. Tap on Check for update to check if your device requires any new system updates. If there is an update, the system will update your device. If your device is up to date, it will show Your system is up to date.

## 20 Sonim Scan

1. Barcode scanner feature is integrated in your device. It is an enterprise class scan engine capable of fast and reliable scanning that can also read tags with ease and perform in low-light conditions.
2. Sonim Scan app works with your device to allow you to set settings and adjust configurations for barcode scanning. In conjunction with the barcode scanner module, Sonim Scan will capture barcode data and then interpret that data and transmit that information in one of two ways, either directly into a text field (Data insertion) or as a Broadcast to a third-party app that would need to be listening for that Broadcast.
3. From Home screen or App menu, tap on Sonim Scan () , you will see the Sonim Scan main menu.
  - Turn Off Power allow you turn OFF or turn ON Scanner module power. Scanner power is ON by default.
  - You can tap on Scan Now to start scanning when Scanner power is ON.
  - Tap on Settings, you can set and adjust configurations for barcode scanning.
  - FAQ lists many questions and answers that may help you understand more about Sonim Scan.



## 21 Managing Contacts

You can use the phonebook to maintain phone numbers of your contacts. This feature enables you to add, dial phone numbers and send SMS and MMS messages. To access the contacts, from Home screen, select Contacts (👤). The contacts saved in the phonebook are displayed.

### ADDING A CONTACT

After inserting the SIM, when you switch ON the device for the first time and there are no contacts added in the device or SIM.

#### CREATING A NEW CONTACT

1. From App menu, tap on Contacts (👤).
2. To add a new contact, tap on Phone (☎) on the home screen, tap on Dial pad (📞) and dial the required number.
3. Tap on Create new contact (+👤). Enter all the details and tap on Save. The contact is added to the phonebook.

#### VIEWING CONTACT DETAILS






1. From Home screen or App screen, tap on Contacts (👤).
2. Tap on the required contact to view the contact details.

#### EDITING THE CONTACT DETAILS


1. From Home screen or App screen, tap on Contacts (👤).
2. Scroll to the required contact and tap on the contact to view details.
3. Tap on the Edit (✎) which is present on top right corner
4. Edit the required details. Tap on Save to save the details.

## SENDING A MESSAGE FROM CONTACTS

You can send SMS and MMS messages to the contacts.

1. From Home screen or App menu, tap on Contacts (  ).
2. Scroll to the required contact and tap and open it.
3. Tap on Messages (  ).
4. The Messages screen is displayed. Enter the message and tap on Add contact (  ). Tap on the required contact.
5. Tap on Attach (  ) to attach any of the following:
  - Subject
  - Pictures
  - Capture picture
  - Videos
  - Capture video
  - Audio
  - Record audio
  - Slideshow
  - Import Template
6. Tap on SMS (  ) to send the message.

## MENU OPTIONS

On the Contacts screen, tap on Menu (  ) to view the menu options. Following are the menu options:

### Settings

Tap on settings (  ) to settings any of the following:

1. My info  
Tap on My info to set up your profile. Enter the details and tap on Save.
2. Accounts .  
Tap on Users & accounts. For more information, refer to "Users and accounts" on page 30.
3. Default account for new contacts  
Tap on Default account for new contacts. Phone will be the default account.
4. Contacts to display  
Tap on Contacts to display. You can display the contacts in one of the following ways:
  - All contacts: When this option is selected, all the contacts are displayed.
  - Customize: You can customize the contacts to be displayed.
5. Sort by  
Tap on Sort by. You can sort the contacts by their First name or Last name.

## 6. Name format

Tap on Name format. You can select any one of the following options to display contact name:

- First name first
- Last name first.

## 7. Phonetic name

Tap on Phonetic name. You have following options:

- Always show
- Hide if empty

## 8. Import

Tap on Import. You have following two options:

- .vcf file: Tap on .vcf file to save imported contact to phone or another SIM.

## 9. Export

Tap in Export. The following options are displayed:

- Export to .vcf file: The contacts are saved as contacts.vcf. Tap on Save and a toast message is displayed; Contacts will be exported shortly.
- Share all contacts: Tap on the option and a toast message is displayed; Finished exporting contacts, click the notification to share contacts. The contacts will be exported shortly.

## 10. Blockednumbers

Tap on Blocked numbers. You will not receive any calls or text messages from the blocked numbers.

## 11. About Contacts

Tap on About Contacts. The following options are displayed:

- Build version
- Open source licenses
- Privacy policy
- Terms of service



## ACCOUNTS

You have two options under Accounts.



1. Phone: The contacts saved in the phone are displayed.
2. SIM: The contacts saved in the SIM are displayed.

- Tap on Add a Number. Enter the number to be blocked and tap on Block. The number is blocked and you do not receive any call or message from that number.
- 11. Tap on About Contacts. The following options are displayed:
  - Build version
  - Open source licenses
  - Privacy policy
  - Terms of service




### **SEARCHING A CONTACT**

1. From Home screen or App screen, tap on Contacts (  ).
2. Tap Search (  ) and enter the first few letters/numbers of the contact name/phone number to be searched. All the contacts containing the searched text are displayed.

### **SHARING A CONTACT**

1. From Home screen or App screen, tap on Contacts (  ).
2. Long tap on the desired contact to select it.
3. Tap on Share (  ) and you can use any of the following modes to share the contact:
  - Bluetooth



### **DELETING A CONTACT**

1. From Home screen or App screen, tap on Contacts (  ).
2. Tap on Delete (  ). All the contacts are displayed.
3. Check the box next to the contact to be deleted.
4. Select Options (  ) > Delete.
5. Tap on OK. A confirmation message is displayed; These contacts will be deleted. Tap on OK. The contact is deleted.



## 22 Managing Call Settings

### MAKING A CALL

From Home screen or Apps Menu, tap on the Phone (  )

The Phone screen with Call history, Dial pad (  ), and Call Options (  ) are displayed.

To dial a number use one of the following options:


- Call history: Tap on the call History icon (  ). Tap on the Phone icon (  ) beside the contact or tap on the contact and tap on the number.

- Dial pad: Tap on the dial pad. The numeric touch keypad is displayed. Enter the phone number and tap the phone icon to make a call.

To dial an international number, prefix the phone number with the respective country code.

- Frequently called contacts/numbers: Tap the specific contact/number from the frequently called/Received/Missed numbers list to make a call.


### DIALING A NUMBER VIA CONTACT


1. From Home screen or App screen, tap on Contacts (  ).

2. Scroll to the contact and tap on the contact. The contact details are displayed.

3. Tap on the phone icon (  ) and a call is initiated.

### ADDING CONTACT FROM HOME SCREEN

1. From Home screen or App screen, tap on the Phone (  ). Enter the required number to be dialed.

2. Select Add to contact (  )

3. Select Create new contact (  ).


4. In the Add new contact screen, add the name and other details for the contact.

5. Tap on Tick mark (  ) to save the contact details.

### VIEWING CALL HISTORY

1. From Home screen or Apps menu, select Phone (  ).





2. Tap on Call History.

3. Tap on Option (  ) > Call History.




4. Tap on All to view all the incoming, outgoing, and missed calls.

5. Tap on Missed to view only the missed calls.

## CALL HISTORY SCREEN

1. From Home screen or App screen, tap on Phone (  ).
2. Tap on Options (  ) > Call History .
3. The following options are displayed:
  - ALL tab: The call log for today, yesterday and older period of time are displayed. The call log includes missed calls, received calls, and dialed calls.
  - MISSED tab: The missed call log for today, Yesterday, and older period of time are displayed.
  - Tap on Options (  ).The following options are displayed:
  - Search call log. You can search for the required call log from the Search tab.
  - Clear call history: Tap on Clear call history and select the required call log from the list. Selected call logs are marked with tick mark (  ). Tap on CLEAR. A confirmation message is displayed. Tap on OK to clear the call log.

## DELETING CALL HISTORY

1. From Home screen or App screen, tap on Phone(  ).
2. Tap on Call History.
3. Tap on Options (  ) > Call History > again tap on Options (  ) > Clear call history to delete the call history.
4. Tap and select the call log to be deleted and tap on CLEAR.
5. A confirmation message is displayed to delete the selected call log. Tap on OK to delete the call log. The selected call log is deleted.



## MANAGING CALL SETTINGS

You can change the incoming call ring tone, set phone to vibrate while ringing and also activate voicemail, and other settings in Call settings screen.



Your phone uses sounds and vibrations to communicate with you, including ringtones, notifications, alarms, and navigation feedback. You can customize any of these sounds, as well as controlling their volume and the volume for music, videos, games, and other media.

The following settings are displayed:



## DISPLAY OPTIONS

1. From Home screen or App screen, tap on Phone (  ).
  2. Tap on Options (  ) > Settings > Display options.
- Sort by: You can sort the contacts by First name or Last name.
  - Name format: You have two options to display the contact name:
    - First name first
    - Last name first

## SOUNDS AND VIBRATION



- Phone Ringtone: To change the phone ringtone,
1. From the Home screen Apps Menu, tap on Settings (  ).
  2. Tap on Device settings > Sound (  ) > Phone ringtone.
  3. Select the required ringtone from the list and tap on OK.
- The ringtone is changed.

## OR


1. From Home screen or Apps menu, select Phone (  ).
  2. Tap on Options (  ) > Settings > Sounds and vibration.
  3. Tap on Phone ringtone.
  4. Select the required ringtone from the list and tap on OK.
- The ringtone is changed.
- Also vibrate for calls: If this option is checked, device is set to vibrate mode when a call is received.
  - Dialpad tones: Check this option to set the tone for the dialpad when numbers are dialed.
  - Dialpad tone length: You can set the dialpad tone length to Normal or Long.
  - Call end tone: Check this option to set a tone for call ending.

## QUICK RESPONSES

The quick responses are the messages that can be used to reject the call with a message.



1. From Home screen or Apps menu, select Phone (  ).
2. Tap on Options (  ) > Settings > Quick responses.

The list of quick responses are displayed.

3. Tap on the required quick responses from the list to edit that particular message and tap on OK to save the message to the list.
4. While an incoming call arrives, touch the message icon to open a list of quick responses or the option to write your own message. Touch one of the messages to send it to the caller immediately and the call gets disconnected.
5. Tap on Options (  ) > Restore defaults.

## CALLS


Calling accounts

1. From Home screen or Apps menu, select Phone (  ).
2. From Call History screen, tap on Options (  ) > Settings > Calling accounts.

### SIP settings

SIP accounts:

To add a SIP account and configure your incoming and outgoing preferences:

1. Tap on Calling accounts > SIP settings > SIP accounts.
2. On SIP accounts screen, tap on Add SIP account (  ) to configure a new SIP account.
3. Enter the following details and tap on Save to save the account:
  - Username: Username to login to SIP account.
  - Password: Password to login to SIP account.
  - Server: SIP server details.
  - Optional Settings: Select to view/modify or hide optional details such as Authentication username, Display name, Outbound proxy address, Port number, Transport type and Send keep-alive options.

Use SIP Calling:

A dialog is open with the following options:

- For all calls: If this option is selected and when the phone is connected to Wi-Fi network or mobile Internet, each dialed call becomes an Internet call.
- Only for SIP calls: If this option is selected, only SIP call can be dialed

Receiving Incoming Calls

Enable Receive incoming calls to answer incoming Internet calls.

This might reduce your phone's battery life.



## Fixed dialing numbers

1. From Home screen or Apps menu, select Phone (  ).
2. From Call History screen, tap on Options (  ) > Settings > Calls > Fixed Dialing Numbers.

The following options are displayed:

- Enable FDN: Fixed dialing numbers are enabled.
- Change PIN2: Change PIN for FDN access.
- FDN list: You can manage phone number list.

## Call forwarding

You can forward your incoming calls to a number in the contacts or a new number, provided your network operator supports this service.

- Always forward: Forward all incoming calls to a pre-designated number.
- When busy: Forward calls when your phone is busy.
- When unanswered: Forward calls when you do not answer incoming calls.
- When unreachable: Forward calls when your phone is switched off or is out of coverage area.

## Additional settings

- Caller ID: When SIM card is inserted, this option is enabled. This feature is used to display caller details (MSISDN or contact name) to the user. If there is no network connection, the number is displayed a private number.
- Call waiting: When call waiting is enabled and the phone is in conversation, the incoming number is displayed when you receive a call. To activate call waiting in the Call settings screen, enable Call waiting.

## Call barring

- Outgoing call barring: The following outgoing calls are barred:
  - Outgoing call,
  - International call
  - International roaming call
- Incoming call barring: The following incoming calls are barred:
  - All
  - Roaming
- Cancel all call barring: Input the password to cancel the call barring.
- Change password: Change the password.

## **BLOCKED NUMBERS**

You will not receive calls or messages from blocked numbers. Tap on Add a Number to block calls and text from that particular number. Enter a number and tap on Block.

## **VOICEMAIL**

Notifications: Turn On Voicemails.

1.Pop on screen

When device is unlocked,show notifications as a banner across the top of the screen

2.Advanced

- Sound: Default notification sound is selected. You can select any other sound from the list.
- Vibrate: Turn On to get the vibration when a voicemail is received.
- Show notification dot: Turn On the toggle button to show a notification dot when a voicemail is received.
- Override Do Not Disturb: Turn On this option when notifications continue to interrupt when Do Not Disturb is set to Priority only.

## **ASSISTED DIALING**

- Assisted dialing: Turn On to predict and add a country code when you call while traveling abroad.
- Home country:
- Default home country: By default, Automatically detected options is selected.

## **CALLER ID & SPAM**

- Caller ID &spam: Turn On this option to enable Filter spam calls option.
- Filter spam calls: Turn On this option to prevent suspected spam calls from disturbing you.

## **NEARBY PLACES**

- Nearby places: Turn On this option to enable Personalized search results.
- Personalized search results: Enable this option to improve your search results by including items from your search history.
- Google Account: You can sign in with your Google account.

## 23 Product Safety Warnings

Use responsibly. Read all instructions and safety information before use to avoid injury. The maximum operating ambient temperature of the equipment is 55°C.

### 1. Battery Safety

Battery works at ambient temperatures ranging from -20°C to 55°C.

CAUTION: Risk of explosion if battery is replaced incorrectly. Replace with the same or equivalent type of battery as recommended by the manufacturer. Dispose used batteries according to battery manufacturer's instructions.

Note: Charging temperature specifications is from 0°C to 45°C.

### 2. Charger Safety

Please place the device in an environment that has a normal room temperature with good ventilation when charging. It is recommended to charge the device in an environment with an ambient temperature that ranges from 5°C~40°C

### 3. Wi-Fi Safety

Turn Wi-Fi off in areas where Wi-Fi use is prohibited or when it may cause interference or danger, such as in airplanes while flying.

### 4. Avoid Damage To Your Hearing

Exposure to loud volumes from earphones and headphones over prolonged periods can cause hearing loss.

This device is restricted to indoor use where operated in the European Community using frequency in 5150MHz ~ 5350MHz to reduce the potential for interference. Restriction in BE, BG, CZ, DK, DE, EE, IE, EL, ES, FR, HR, IT, CY, LV, LT, LU, HU, MT, NL, AT, PL, PT, RO, SI, SK, FI, SE, UK.

Band 5150-5350MHz is restricted to indoor use. (European/Canada/Japan)

Water & Dust proof: IP67

## NOTICE

1. Some special places, such as airports, hospitals, gas stations and other places, do not allow the use of electronic equipment. Please comply with the rules and do not use this product in these places.
2. For your safety and the safety of others, please do not use this product while driving a vehicle.
3. In order to avoid potential safety problems, do not put this product near the vehicle's airbag.
4. For your safety, please do not use this product during thunderstorms.
5. Although this product is waterproof, do not leave this product for long periods of time in areas with water or moisture.
6. This product has an operating temperature range of  $-20^{\circ}\text{C}\sim+55^{\circ}\text{C}$  and a storage temperature range of  $-40^{\circ}\text{C}\sim+70^{\circ}\text{C}$ . Extreme temperatures can affect the device's performance and service life.
7. Please use an original rechargeable lithium battery. Low-quality batteries will affect the performance and service life of the device, and may even have the danger of explosion.
8. Although the product has been tested to withstand harsh operating environments, do not use the product in an improper manner.
9. Please do not disassemble this product. In case of failure, please send to our authorized service centres to proceed with repairs.
10. After the device has reached the end of its service life, please discard in a proper way to avoid environmental pollution.
11. When replacing the battery or during the use of an external power supply, shut down the device completely before removing the battery or disconnecting the external power supply to prevent damage.
12. This product is a Class B product, which may cause radio interference. The user may be required to take necessary preventive measures.

**NOTICE:**

The SAR limit of Europe is 4.0 W/kg. Device types RS60 has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for use on the body is 3.358W/kg This device was tested for typical body - worn operations with the back of the handset kept 0 cm from the body. To maintain compliance with RF exposure requirements, use accessories that maintain a 0 cm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with RF exposure requirements, and should be avoided.

After the laboratory measurements the Max. SAR values for this device is:

Limb: 3.358 W/kg, when the device used at 0cm form your body. The SAR limit of France is 4.0 W/kg.

Limb: 1.476 W/kg, when the device used at 5cm form your body. The SAR limit of Europe is 2.0 W/kg.

Caution Risk Of Explosion If Battery Is Replaced By An Incorrect Type. Dispose Of Used Batteries According To The Instructions.

Hereby, [Sonim Technologies Inc.] declares that the radio equipment type [RS60] is in compliance with Directive 2014 / 53 /EU.

The full text of the EU declaration of conformity is available at the following internet address:  
[www.sonimtech.com](http://www.sonimtech.com)

This device complies with Part 22 & 24 and Part 27 of the FCC Rules.

### SAR information

The SAR limit of FCC and ISED is 1.6 W/kg averaged over one gram of tissue. Device types RS60 ( FCC ID:WYPRS60 and IC: 8090A-RS60 ) has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for use on the body is 1.504 W/kg. This device was tested for typical body -worn operations with the back of the handset kept 0 cm from the body. To maintain compliance with FCC and ISED RF exposure requirements, use accessories that maintain a 0 cm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC and ISED RF exposure requirements, and should be avoided.

## Battery Instructions

1. This product uses a rechargeable lithium battery as a power source. When the power is low, please charge the battery. To maintain battery life, it is recommended to deplete the battery's power before charging.
2. When the battery charger is not in use, please remove it from the power supply. Do not connect the charger to the battery for more than one week. Excessive charging will shorten the battery life.
3. Temperature affects the battery charging limit. Therefore, the battery may need to be cooled or warmed up before charging.
4. Please use the battery for its original intended purpose to prevent short-circuiting the battery. A short circuit will occur when a conductive material connects the battery's positive and negative terminals.
5. Do not use a battery that is damaged.
6. Placing the battery in extremely cold or hot places will lead to shortened battery life. Exposing the battery to extreme temperatures may cause the phone to malfunction, even if the battery is fully charged.
7. Do not put the battery in a fire. Please discard the battery in a proper manner or take the battery to a battery recycling station. Please dispose waste batteries in accordance with local laws and regulations.

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Manufacturer: Sonim Technologies, Corporate Headquarters  
6836 Bee Cave Road, Building 1, Suite 279, Austin, TX 78746

**NOTICE:**

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.

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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**NOTICE:**

Changes or modifications made to this equipment not expressly approved by Sonim Technologies, Corporate Headquarters may void the FCC authorization to operate this 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.

**NOTICE:**

This Class [B] digital apparatus complies with Canadian ICES -003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB - 003 du Canada.

RF mode and power tune-up refer to appendix A



## Normal Mode RF Power Range (GSM)

Mode	Range(dBm)
GSM900	33.00-34.00
GPRS900(1 Slot)	29.50-30.50
GPRS900(2 Slots)	29.50-30.50
GPRS900(3 Slots)	29.50-30.50
GPRS900(4 Slots)	29.50-30.50
EGPRS (8PSK, 1-Slot)	22.50-23.50
EGPRS (8PSK, 2-Slots)	22.50-23.50
EGPRS (8PSK, 3-Slots)	22.50-23.50
EGPRS (8PSK, 4-Slots)	22.50-23.50
GSM1800	29.50-31.00
GPRS1800(1 Slot)	27.00-28.50
GPRS1800(2 Slots)	27.00-28.50
GPRS1800(3 Slots)	27.00-28.50
GPRS1800(4 Slots)	27.00-28.50
EGPRS (8PSK, 1-Slot)	21.50-23.00
EGPRS (8PSK, 2-Slots)	21.50-23.00
EGPRS (8PSK, 3-Slots)	21.50-23.00
EGPRS (8PSK, 4-Slots)	21.50-23.00

## Normal Mode RF Power Range ( WCDMA)

Mode	Range(dBm)
WCDMA Band 1 RMC	23.00-24.50
WCDMA Band 1 HSDPA	22.00-23.50
WCDMA Band 1 HSUPA	20.50-23.50
WCDMA Band 8 RMC	23.80-24.50
WCDMA Band 8 HSDPA	22.00-24.50
WCDMA Band 8 HSUPA	20.50-23.50

## Normal Mode RF Power Range (LTE)

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 1	20 MHz	1	QPSK	23.00-24.50
		50		22.00-23.50

Appendix A for EU

		100		22.00-23.50
		1	16QAM	22.50-24.00
		50		21.00-22.50
		100		21.00-22.50
	15 MHz	1	QPSK	23.00-24.50
		36		22.00-23.50
		75		22.00-23.50
		1	16QAM	22.00-24.00
		36		21.50-22.50
		75		21.00-22.50
	10 MHz	1	QPSK	23.00-24.50
		25		22.00-23.50
		50		22.00-23.50
		1	16QAM	22.00-24.00
		25		21.00-22.50
		50		21.00-22.50
	5 MHz	1	QPSK	23.00-24.50
		12		22.00-23.50
		25		22.00-23.50
		1	16QAM	22.50-23.50
		12		21.50-22.50
25		21.50-22.50		

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 3	20 MHz	1	QPSK	22.50-23.80
		50		21.50-22.50
		100		21.50-22.50
		1	16QAM	22.00-23.50
		50		20.50-21.50
		100		20.50-21.50
	15 MHz	1	QPSK	22.50-23.80
		36		21.50-22.80
		75		21.50-22.50
		1	16QAM	21.80-23.00

Appendix A for EU

		36		20.50-21.50
		75		20.50-21.50
	10 MHz	QPSK	1	22.30-23.50
			25	21.50-22.50
			50	21.50-22.50
		16QAM	1	21.50-23.00
			25	20.50-21.50
			50	20.50-21.50
			5 MHz	QPSK
	12	21.50-22.50		
	25	21.50-22.50		
	16QAM	1		21.50-23.00
		12		20.50-21.50
		25		20.50-21.50
	3 MHz	QPSK	1	22.50-23.50
			8	21.50-22.50
			15	22.50-23.50
		16QAM	1	21.50-23.00
			8	20.50-21.80
			15	20.50-21.50
	1.4 MHz	QPSK	1	22.50-23.50
			3	22.50-23.50
			6	21.50-22.50
		16QAM	1	21.50-23.00
3			21.50-22.80	
6			20.50-21.50	

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 7	20 MHz	1	QPSK	22.00-23.50
		50		21.50-22.50
		100		21.50-22.50
		1	16QAM	21.50-22.80
		50		20.50-21.50
		100		20.50-21.50

Appendix A for EU

	15 MHz	1	QPSK	22.00-23.50
		36		21.50-22.50
		75		21.50-22.50
		1	16QAM	21.00-22.50
		36		20.50-21.50
		75		20.50-21.50
	10 MHz	1	QPSK	22.00-23.50
		25		21.50-22.50
		50		21.50-22.50
		1	16QAM	21.00-23.00
		25		20.50-21.50
		50		20.50-21.50
	5 MHz	1	QPSK	22.50-23.50
		12		21.50-22.50
		25		21.50-22.50
		1	16QAM	21.50-22.50
		12		20.50-21.50
		25		20.50-21.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 8	10 MHz	1	QPSK	23.00-24.50
		25		22.50-23.50
		50		22.50-23.50
		1	16QAM	22.00-24.00
		25		21.50-22.50
		50		21.50-22.50
	5 MHz	1	QPSK	23.00-24.50
		12		22.50-23.50
		25		22.50-23.50
		1	16QAM	22.50-23.50
		12		21.50-22.50
		25		21.50-22.50
	3 MHz	1	QPSK	23.00-24.50
		8		22.50-23.50

Appendix A for EU

		15		22.50-23.50
		1	16QAM	22.50-23.80
		8		21.50-22.80
		15		21.50-22.50
	1.4 MHz	1	QPSK	23.00-24.50
		3		23.00-24.50
		6		22.30-23.50
		1	16QAM	22.00-23.50
		3		22.00-23.50
		6		21.50-22.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 20	20 MHz	1	QPSK	23.50-24.80
		50		22.50-23.80
		100		22.50-23.80
		1	16QAM	22.60-24.00
		50		21.50-23.00
		100		21.50-23.00
	15 MHz	1	QPSK	23.00-24.80
		36		22.50-24.00
		75		22.50-24.00
		1	16QAM	22.30-24.00
		36		21.50-23.00
		75		21.50-23.00
	10 MHz	1	QPSK	23.00-24.80
		25		22.30-23.80
		50		22.30-23.50
		1	16QAM	22.00-24.00
		25		21.50-23.00
		50		21.50-22.50
	5 MHz	1	QPSK	23.30-24.50
		12		22.50-24.00
		25		22.50-24.00
		1	16QAM	22.50-24.00

Appendix A for EU

		12		21.50-23.00
		25		21.50-23.00

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 28A	20 MHz	1	QPSK	23.00-24.50
		50		22.00-23.50
		100		22.00-23.50
		1	16QAM	22.50-24.00
		50		21.50-22.50
		100		21.50-22.50
	15 MHz	1	QPSK	23.00-24.50
		36		22.50-23.50
		75		22.50-23.50
		1	16QAM	22.00-24.00
		36		21.50-22.50
		75		21.50-22.50
	10 MHz	1	QPSK	22.80-24.20
		25		22.50-23.50
		50		22.50-23.50
		1	16QAM	22.00-23.50
		25		21.50-22.50
		50		21.00-22.00
	5 MHz	1	QPSK	23.00-24.50
		12		22.50-23.50
		25		22.50-23.50
		1	16QAM	22.30-23.80
		12		21.50-22.50
		25		21.50-22.50
	3 MHz	1	QPSK	23.00-24.50
		8		22.50-23.50
		15		22.50-23.50
		1	16QAM	22.00-23.50
		8		21.50-22.50
		15		21.50-22.50

Appendix A for EU

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 38	20 MHz	1	QPSK	22.50-23.80
		50		21.50-23.00
		100		21.50-23.00
		1	16QAM	22.00-23.50
		50		20.50-22.00
		100		20.50-22.00
	15 MHz	1	QPSK	22.50-24.00
		36		21.50-23.00
		75		21.50-23.00
		1	16QAM	22.00-23.50
		36		20.50-22.00
		75		20.50-22.00
	10 MHz	1	QPSK	22.80-24.00
		25		21.50-23.00
		50		21.50-23.00
		1	16QAM	22.00-24.00
		25		20.50-22.00
		50		20.50-22.00
	5 MHz	1	QPSK	23.00-24.00
		12		21.80-23.00
		25		21.50-23.00
1		16QAM	22.00-23.50	
12			20.80-22.00	
25			20.80-22.00	

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 40	20 MHz	1	QPSK	22.00-23.80
		50		21.50-22.50
		100		21.50-22.50
		1	16QAM	21.80-23.50
		50		20.50-21.50
		100		20.50-21.50

	15 MHz	1	QPSK	22.50-23.80
		36		21.50-22.80
		75		21.50-22.80
		1	16QAM	21.50-23.00
		36		20.50-21.80
		75		20.50-21.80
	10 MHz	1	QPSK	22.50-23.80
		25		21.50-22.80
		50		21.50-22.80
		1	16QAM	21.50-23.00
		25		20.50-21.80
		50		20.50-21.80
	5 MHz	1	QPSK	22.50-23.80
		12		21.50-22.80
		25		21.50-22.80
		1	16QAM	21.50-23.00
		12		20.50-21.80
		25		20.50-21.80

Normal Mode RF Power Range (WLAN/Bluetooth)

Band (GHz)	Mode	Range(dBm)
WIFI 2.4G (2.4~2.4835)	802.11b	12.00-14.50
	802.11g	11.50-13.50
	802.11n(HT20)	10.30-12.50
	802.11n(HT40)	9.00-11.00

Band (GHz)	Mode	Range(dBm)
WIFI 5.2 G (5.15~5.25)	802.11a	12.00-13.00
	802.11n(HT20)	10.50-12.00
	802.11ac(VHT20)	13.00-14.50
	802.11n(HT40)	9.50-11.00
	802.11ac(VHT40)	9.50-11.00
	802.11ac(VHT80)	7.50-8.50
WIFI 5.8G (5.725~5.850)	802.11a	9.00-10.50
	802.11n(HT20)	8.50-9.50
	802.11ac(VHT20)	9.50-10.50
	802.11n(HT40)	8.50-9.50



Appendix A for EU

	802.11ac(VHT40)	9.50-10.50
	802.11ac(VHT80)	8.50-9.50

Band (GHz)	Mode	Range(dBm)
Bluetooth (2.4~2.4835)	GFSK	2.00-3.50
	$\pi/4$ -DQPSK	0.00-2.00
	8-DPSK	0.00-2.00
	BLE	(-2.00) - (-0.50)

## Normal Mode RF Power Range (GSM, WCDMA)

Mode	Range(dBm)
GSM850	33.00-34.20
GPRS850(1 Slot)	30.00-31.00
GPRS850(2 Slots)	30.00-31.00
GPRS850(3 Slots)	30.00-30.80
GPRS850(4 Slots)	30.00-30.80
EGPRS (8PSK, 1-Slot)	23.00-24.00
EGPRS (8PSK, 2-Slots)	23.00-24.00
EGPRS (8PSK, 3-Slots)	23.00-24.00
EGPRS (8PSK, 4-Slots)	23.00-24.00
GSM1900	29.50-30.50
GPRS1900(1 Slot)	26.00-27.00
GPRS1900(2 Slots)	26.00-27.00
GPRS1900(3 Slots)	26.00-27.00
GPRS1900(4 Slots)	26.00-27.00
EGPRS (8PSK, 1-Slot)	20.50-21.50
EGPRS (8PSK, 2-Slots)	20.50-22.00
EGPRS (8PSK, 3-Slots)	20.50-22.00
EGPRS (8PSK, 4-Slots)	20.50-22.00
WCDMA Band 2 RMC	22.50-23.60
WCDMA Band 2 HSDPA	21.00-22.80
WCDMA Band 2 HSUPA	19.00-22.50
WCDMA Band 4 RMC	22.50-23.50
WCDMA Band 4 HSDPA	21.00-22.50
WCDMA Band 4 HSUPA	19.50-22.50
WCDMA Band 5 RMC	23.50-24.50
WCDMA Band 5 HSDPA	22.00-23.50
WCDMA Band 5 HSUPA	20.50-23.50

## Normal Mode RF Power Range (LTE)

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 2	20 MHz	1	QPSK	22.50-23.80
		50		22.00-23.00
		100		22.00-23.00
		1	16QAM	22.00-23.00
		50		21.00-22.00
		100		21.00-22.00
	15 MHz	1	QPSK	22.50-23.80
		36		21.50-23.80
		75		21.50-23.00
		1	16QAM	21.50-23.30
		36		20.50-21.80
		75		20.50-21.50
	10 MHz	1	QPSK	22.50-23.80
		25		21.50-23.00
		50		21.50-23.00
		1	16QAM	21.50-23.50
		25		20.50-22.00
		50		20.50-22.00
	5 MHz	1	QPSK	22.50-23.80
		12		21.50-23.00
		25		21.50-23.00
		1	16QAM	21.50-23.50
		12		20.50-22.00
		25		20.50-22.00
3 MHz	1	QPSK	22.50-23.70	
	8		21.50-23.00	
	15		21.50-23.00	
	1	16QAM	21.50-23.50	
	8		20.80-22.00	
	15		20.80-22.00	
	1.4 MHz	1	QPSK	22.50-23.50

Appendix A for US

		3		22.50-23.50
		6		21.50-22.50
		1	16QAM	21.50-23.00
		3		21.50-23.00
		6		21.00-22.00

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 4	20 MHz	1	QPSK	22.00-23.50
		50		21.00-22.00
		100		21.00-22.00
		1	16QAM	21.50-22.50
		50		20.00-21.00
		100		20.00-21.00
	15 MHz	1	QPSK	22.00-23.50
		36		21.00-22.00
		75		21.00-22.00
		1	16QAM	21.00-22.80
		36		20.00-21.00
		75		20.00-21.00
	10 MHz	1	QPSK	22.00-23.50
		25		21.00-22.50
		50		21.00-22.50
		1	16QAM	21.00-22.80
		25		20.00-21.30
		50		20.30-21.30
	5 MHz	1	QPSK	22.00-23.50
		12		21.00-22.30
		25		21.00-22.30
		1	16QAM	21.00-22.50
		12		20.50-21.50
		25		20.50-21.50
	3 MHz	1	QPSK	22.00-23.50
		8		21.00-22.30

Appendix A for US

		15		21.00-22.30
		1	16QAM	21.00-22.50
		8		20.50-21.50
		15		20.50-21.30
	1.4 MHz	1	QPSK	22.00-23.30
		3		22.00-23.30
		6		21.50-22.50
		1	16QAM	21.50-22.50
		3		21.50-22.50
		6		20.30-22.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 5	10 MHz	1	QPSK	23.50-24.50
		25		22.50-23.50
		50		22.50-23.50
		1	16QAM	22.50-24.00
		25		21.50-22.50
		50		21.50-22.50
	5 MHz	1	QPSK	23.50-24.50
		12		22.50-23.50
		25		22.50-23.50
		1	16QAM	22.50-24.00
		12		21.50-22.50
		25		21.50-22.50
	3 MHz	1	QPSK	23.50-24.50
		8		22.50-23.50
		15		22.50-23.50
		1	16QAM	22.50-23.50
		8		21.50-22.50
		15		21.50-22.50
	1.4 MHz	1	QPSK	23.50-24.50
		3		23.30-24.50
		6		22.00-23.50
		1	16QAM	22.50-24.00

Appendix A for US

		3		22.50-23.50
		6		21.50-22.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 7	20 MHz	1	QPSK	21.00-23.00
		50		21.00-22.50
		100		21.00-22.50
		1	16QAM	21.00-23.00
		50		20.00-21.50
		100		20.00-21.50
	15 MHz	1	QPSK	21.50-23.00
		36		21.00-22.50
		75		21.00-22.50
		1	16QAM	20.00-22.50
		36		20.00-21.50
		75		20.00-21.50
	10 MHz	1	QPSK	21.00-23.50
		25		21.00-22.50
		50		21.00-22.50
		1	16QAM	20.00-22.50
		25		20.00-21.50
		50		20.00-21.50
	5 MHz	1	QPSK	21.00-23.00
		12		21.00-22.50
		25		21.00-22.50
		1	16QAM	20.00-22.50
		12		20.00-21.50
		25		20.00-21.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 12	10 MHz	1	QPSK	23.50-25.00
		25		22.50-23.50
		50		22.50-23.50

Appendix A for US

		1	16QAM	23.00-24.00	
		25		21.50-22.50	
		50		21.50-22.50	
	5 MHz	1	1	QPSK	23.00-24.50
			12		22.30-23.50
			25		22.50-23.50
		16QAM	1	22.50-24.00	
			12	21.50-22.50	
			25	21.50-22.50	
	3 MHz	QPSK	1	23.30-24.30	
			8	22.50-23.50	
			15	22.00-23.50	
		16QAM	1	22.50-23.50	
			8	21.50-22.50	
			15	21.50-22.50	
	1.4 MHz	QPSK	1	23.50-24.50	
			3	23.50-24.00	
			6	22.50-23.50	
		16QAM	1	22.00-23.50	
			3	22.50-23.50	
			6	21.50-22.50	

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 13	10 MHz	1	QPSK	23.50-24.50
		25		22.50-23.50
		50		22.50-23.50
		16QAM	1	23.00-24.50
			25	21.50-22.50
			50	21.50-22.50
	5 MHz	QPSK	1	23.50-24.50
			12	22.50-23.50
			25	22.50-23.50
		16QAM	1	22.50-23.50
12	21.50-22.50			

Appendix A for US

		25		21.50-22.50
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Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 14	10 MHz	1	QPSK	23.00-24.00
		25		21.50-22.50
		50		21.50-22.50
		1	16QAM	22.00-23.00
		25		20.50-21.50
		50		20.50-21.50
	5 MHz	1	QPSK	22.50-23.50
		12		21.50-22.50
		25		21.50-22.50
		1	16QAM	22.00-23.00
		12		20.50-21.50
		25		20.50-21.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 25	20 MHz	1	QPSK	22.50-23.50
		50		21.00-22.50
		100		21.00-22.50
		1	16QAM	21.80-23.00
		50		20.50-21.50
		100		20.50-21.50
	15 MHz	1	QPSK	22.50-23.50
		36		21.50-22.50
		75		21.50-22.50
		1	16QAM	21.50-23.00
		36		20.50-21.50
		75		20.50-21.50
	10 MHz	1	QPSK	22.50-23.80
		25		22.00-23.00
		50		22.00-23.00
		1	16QAM	21.50-23.00
		25		20.50-22.00



Appendix A for US

	5 MHz	50		20.50-22.00	
		1	QPSK	22.50-23.80	
		12		21.50-23.00	
		25		21.50-22.80	
		1	16QAM	21.50-23.00	
		12		20.50-22.00	
		25		20.50-22.00	
		3 MHz	1	QPSK	22.50-23.50
			8		21.50-23.00
	15		21.50-23.00		
	1		16QAM	21.30-23.00	
	8			20.50-22.00	
	15			20.50-22.00	
	1.4 MHz	1	QPSK	22.50-23.50	
		3		22.50-23.50	
		6		21.50-23.00	
		1	16QAM	21.50-23.00	
		3		21.50-23.00	
		6		20.50-22.00	

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 26 Part22	15 MHz	1	QPSK	23.00-24.00
		36		22.00-23.00
		75		22.00-23.00
		1	16QAM	22.00-24.00
		36		21.00-23.00
		75		21.00-22.50
	10 MHz	1	QPSK	22.50-24.00
		25		22.00-23.00
		50		22.00-23.00
		1	16QAM	22.00-23.50
		25		21.00-22.00
		50		21.00-22.00
	5 MHz	1	QPSK	22.50-24.00

Appendix A for US

		12	16QAM	22.00-23.00
		25		22.00-23.00
		1		22.00-23.50
		12		21.00-22.00
		25		21.00-22.00
	3 MHz	1	QPSK	22.50-23.50
		8		22.00-23.00
		15		22.00-23.00
		1	16QAM	22.00-23.00
		8		21.00-22.00
		15		21.00-22.00
	1.4 MHz	1	QPSK	22.50-23.50
		3		22.00-23.00
		6		22.00-23.00
		1	16QAM	22.00-23.00
		3		21.50-22.50
		6		20.50-21.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 26 Part90	10 MHz	1	QPSK	22.50-23.60
		25		21.50-22.50
		50		21.50-22.50
		1	16QAM	22.50-23.60
		25		20.50-21.50
		50		20.50-21.50
	5 MHz	1	QPSK	22.50-23.50
		12		21.50-22.50
		25		21.50-22.50
		1	16QAM	22.50-23.00
		12		20.50-21.50
		25		20.50-21.50
	3 MHz	1	QPSK	22.50-23.50
		8		21.50-22.50
		15		21.50-22.50

Appendix A for US

		1	16QAM	21.50-22.50	
		8		20.50-21.50	
		15		20.50-21.50	
	1.4 MHz		1	QPSK	22.50-23.50
			3		22.00-23.30
			6		22.00-23.30
			16QAM	1	21.50-22.50
				3	21.50-22.50
				6	20.50-21.50

Mode	Bandwidth	RB	Modulation	Range(dBm)		
LTE Band 38	20 MHz	1	QPSK	23.00-24.00		
		50		21.80-22.50		
		100		21.80-22.50		
		15 MHz	1	16QAM	22.00-23.00	
					50	20.50-21.50
					100	20.50-21.50
	10 MHz		1	QPSK	23.00-24.00	
					36	21.80-22.50
					75	21.80-22.50
		5 MHz	1	16QAM	22.00-23.00	
					36	20.50-21.50
					75	20.50-21.50
	5 MHz		1	QPSK	23.00-24.00	
					25	21.80-22.50
					50	21.80-22.50
		5 MHz	1	16QAM	22.00-23.20	
					25	20.50-21.50
					50	20.50-21.50
	5 MHz		1	QPSK	23.00-24.00	
					12	21.80-22.50
					25	21.80-22.50
		1	16QAM	22.00-23.00		
				12	20.50-21.60	

Appendix A for US

		25		20.50-21.60
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Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 41	20 MHz	1	QPSK	23.20-25.00
		50		23.50-25.00
		100		23.50-25.00
		1	16QAM	23.20-25.00
		50		23.50-25.00
		100		23.50-25.00
	15 MHz	1	QPSK	23.00-24.80
		36		23.50-24.80
		75		23.50-24.80
		1	16QAM	23.50-24.80
		36		23.50-24.80
		75		23.50-24.80
	10 MHz	1	QPSK	23.00-24.50
		25		23.00-24.50
		50		23.00-24.50
		1	16QAM	23.50-24.60
		25		23.00-24.60
		50		23.00-24.60
	5 MHz	1	QPSK	21.00-24.50
		12		23.00-24.50
		25		23.00-24.50
		1	16QAM	23.50-24.50
		12		23.00-24.50
		25		23.00-24.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 66	20 MHz	1	QPSK	21.00-23.50
		50		20.00-21.50
		100		20.00-21.50
		1	16QAM	20.00-23.00
		50		19.00-20.50

Appendix A for US

	15 MHz	100		19.00-20.50
		1	QPSK	20.80-23.00
		36		20.00-21.50
		75		20.00-21.00
		1	16QAM	20.00-22.00
		36		19.00-20.50
		75		19.00-20.50
	10 MHz	1	QPSK	22.00-23.50
		25		21.00-22.50
		50		21.00-22.50
		1	16QAM	21.00-23.00
		25		20.00-21.50
		50		20.00-21.50
	5 MHz	1	QPSK	22.00-23.00
		12		21.00-22.50
		25		21.00-22.50
		1	16QAM	21.00-22.50
		12		20.00-21.50
		25		20.00-21.00
	3 MHz	1	QPSK	22.00-23.30
		8		21.00-22.00
15		21.00-22.00		
1		16QAM	21.00-22.50	
8			20.00-21.50	
15			20.00-21.50	
1.4 MHz		1	QPSK	22.00-23.00
		3		22.00-23.30
		6		21.00-22.00
		1	16QAM	21.00-22.50
		3		21.00-22.50
		6		20.00-21.50

Normal Mode RF Power Range (WLAN/Bluetooth)

Band (GHz)	Mode	Range(dBm)
WIFI 2.4G	802.11b	11.00-12.80

Appendix A for US

(2.4~2.4835)	802.11g	10.50-12.50
	802.11n(HT20)	9.00-12.00
	802.11n(HT40)	9.50-12.20

Band (GHz)	Mode	Range(dBm)
WIFI 5.2 G (5.15~5.25)	802.11a	10.50-11.30
	802.11n(HT20)	9.50-10.50
	802.11ac(VHT20)	11.00-12.00
	802.11n(HT40)	9.00-10.00
	802.11ac(VHT40)	10.00-11.50
	802.11ac(VHT80)	9.50-10.30
WIFI 5.8G (5.725~5.850)	802.11a	10.00-11.00
	802.11n(HT20)	10.00-10.50
	802.11ac(VHT20)	11.00-12.00
	802.11n(HT40)	9.00-10.00
	802.11ac(VHT40)	10.50-11.50
	802.11ac(VHT80)	9.50-10.50

Band (GHz)	Mode	Range(dBm)
Bluetooth (2.4~2.4835)	GFSK	9.00-10.50
	$\pi/4$ -DQPSK	9.00-10.00
	8-DPSK	9.00-10.50
	BLE	(-0.50)-1.00

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