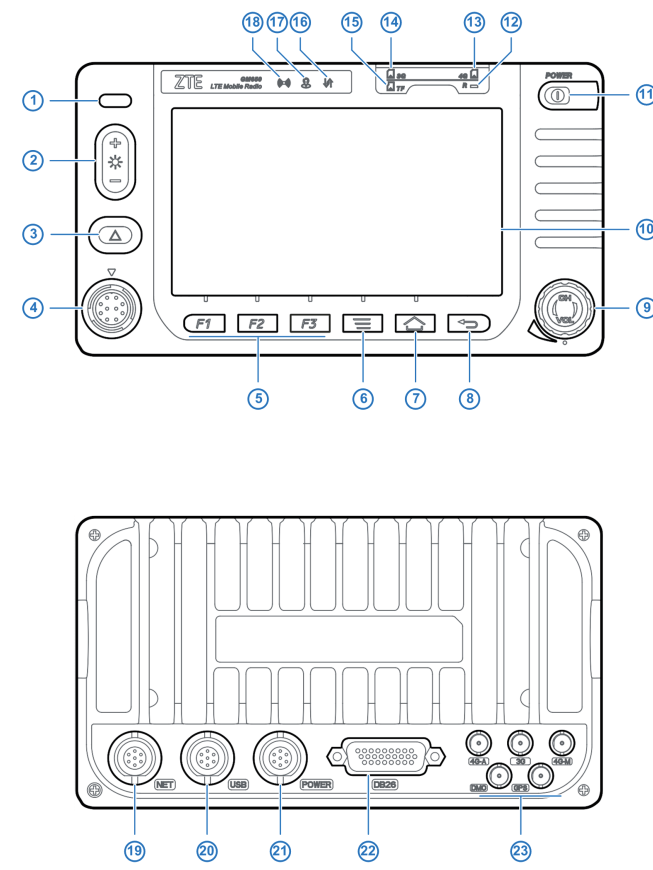## Legal Information

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ZTE
GM65X

Quick Start Guide

Digital Vehicle-mounted Radio

Get to Know Your Radio

Device Overview

Keys, ports, and Indicators

No.	Name	Description
1	Power indicator	Lit after your GM65X is started.
2	Screen brightness key	Increases and decreases the screen brightness.
3	Emergency call key	Press this key to dial a preset emergency number.
4	Mobile transceiver port	Connects to a mobile transceiver. A PTT voice or video call can be initiated or answered after a mobile transceiver is connected.
5	F1~F3 keys	Opens a preset function screen directly.
6	Menu key	Shows the menu of the displayed screen.
7	Home key	Switches back to the home screen.
8	Back key	Returns to the previous screen.
9	Volume/Channel selection knob	• Turns up or down the volume: After a call is connected, rotate this knob to adjust the call volume. On a screen, rotate this knob to adjust the tone volume. When a video or audio file is being played, rotate this knob to adjust the media volume. • Press this knob on the home screen to switch to the channel selection function, and rotate this knob to select a speed-dial group.
10	Touchscreen	Supports operations triggered by touch gestures.
11	Power key	• Press and hold this key to power on your GM65X. • Press and hold this key to show the power-off options. • Press this key to switch your GM65X to sleep mode. • Press this key to wake up your GM65X.
12	Power down key	Press this key to directly power down your GM65X. Usually used when the device has lost response and cannot be normally powered off. To power on your GM65X again, press and hold the Power key.

No.	Name	Description
13	4G SIM card slot	Used for installing a 4G SIM card.
14	3G SIM card slot	Used for installing a 3G SIM card.
15	microSD card slot	Used for installing an external microSD card.
16	Data service indicator	Lit or flashes when your GM65X is sending or receiving data.
17	GPS indicator	Lit when the GPS function is activated.
18	Wi-Fi indicator	Lit when the Wi-Fi function is enabled.
19	Ethernet ports	Connects to a wired network.
20	USB Ports	Connects to a device with a USB port, for example, a camera.
21	Power Ports	Connects to a power cable.
22	DB26 accessory ports	Connects to accessories.
23	Antenna ports	Connects to RF antennas.

Basic Operations

Power-On/Power-Off/Sleep

• Press and hold the **Power** key to power on your GM65X.
• Press and hold the **Power** key to show the power-off menu, and select **Power off** to turn off your GM65X.
• Press the **Power** key to switch your GM65X to sleep mode or wake it up from sleep mode.

Home Screen

Your GM65X shows the home screen (see the following figure) after being started and scans for the network automatically (if a valid SIM card is installed).

After accessing the network, your GM65X enters the standby status and is ready to use.

Press the **Home** key on any screen to return to the home screen.

Perform one of the following operations on the home screen as needed:

• Tap the current speed-dial group to open the speed-dial group list, and then select a group as needed.
• Tap the **<** or **>** icon to switch to another speed-dial group.
• Press the **Volume/Channel selection** knob, and rotate the knob to switch to another speed-dial group.
• Drag the **Status bar** to the right to show notifications.
• Tap the **Contacts**, **PTT**, or **Message** icon open the corresponding function screen.

Status Icons

Icon	Description	Icon	Description
	Bluetooth device connected		No SIM card installed
	Bluetooth device disconnected		Mute
	Ethernet network connected		Scanning
	PTT registration failed		Speaking
	Cellular mobile network signal strength		USB connected
	Direct Mode Operation		Wi-Fi network signal strength
	GPS positioning		Prompt/alarm

Connect a Mobile Transceiver

Note:

You can initiate or answer a voice or video PTT call only after a mobile transceiver is connected to your GM65X.

You can use the mobile transceiver to perform the following operations.

• Browse the function screens on your GM65X and access a function as needed.
• Dial a number or enter characters.
• Initiate, answer, or end a common voice call.
• Initiate a voice or video PTT call.

To provide the above functions, the mobile transceiver has the following keys:

• **Android function keys**
  Menu, **Home**, and **Back** keys that function the same as the corresponding keys on your GM65X.
• **Navigation keys and OK key**
  Up, **Down**, **Left**, and **Right** navigation keys and the **OK** key.
• **Voice call function keys**
  Call/Answer and **Hook** keys.

• **Delete key**
  Use this key to delete input characters.
• **Digit/letter keys, *, key, and # key**
  Use these keys to dial a number or enter characters.
• **Side key**
  Use this key to switch a call from voice mode to video mode.
• **PTT key**
  Use this key to initiate a PTT call.
• **Microphones**
  One front microphone and one rear microphone.

Initiate a Full Duplex Voice/Video Call

1. Press the **Home** key to switch back to the home screen.
2. Perform one of the following steps to select a contact or dial a number:
   • Tap **Contacts > Contact**, and select a contact.
   • Tap **Contacts > Call History**, and select a contact or phone number.
   • Tap **Contacts > Dial-pad**, and enter a phone number.
   • Use the digit keypad on the mobile transceiver to dial a phone number.
3. Tap on your GM65X or press the **Call** key on the mobile transceiver to initiate a voice call. To initiate a video call, press the **Side** key on the mobile transceiver, and then tap on your GM65X or press the **Call** key on the mobile transceiver.
4. Tap on your GM65X or press the **Hook** key on the mobile transceiver to end a call or stop dialing a number.

Answer a Full Duplex Voice/Video Call

1. When your GM65X receives a call, tap on your GM65X or press the **Answer** key on your mobile transceiver to answer the call.
2. Tap on your GM65X or press the **Hook** key on the mobile transceiver to end or reject a call.

Basic PTT Operations

Initiate a Half Duplex PTT Call

You can initiate a half duplex PTT call in one of the following ways:

Keypad on the Mobile Transceiver

Note:
To initiate a private PTT call, enter the number directly.
To initiate a group PTT call, press the **#** key, and then enter the group number.
Before initiating a video PTT call, verify that your GM65X is connected to a camera.

1. Press the **Home** key to switch back to the home screen.
2. Use the keypad on the mobile transceiver to enter a private number or group number.
3. Press the **Side** key on the mobile transceiver to switch the call from voice mode to video mode. If there is no calling operation within 5 seconds, the call will be switched back to voice mode.
4. Press and hold the **PTT** key on the mobile transceiver, and speak after hearing a beep.
5. Release the **PTT** key on the mobile transceiver to release the floor to listen to the other party or become idle.

Keypad on Your GM65X

1. Press the **Home** key to switch back to the home screen.
2. Tap **Contacts > Dial-pad**, and enter a private number or group number.
3. Press the **Side** key on the mobile transceiver to switch the call from voice mode to video mode. If there is no calling operation within 5 seconds, the call will be switched back to voice mode.
4. Press and hold the **PTT** key on the mobile transceiver, and speak after hearing a beep.
5. Release the **PTT** key on the mobile transceiver to release the floor to listen to the other party or become idle.

Address Book

1. Press the **Home** key to switch back to the home screen.
2. Tap **Contacts > Contact**, and select a contact.
3. Press the **Side** key on the mobile transceiver to switch the call from voice mode to video mode. If there is no calling operation within 5 seconds, the call will be switched back to voice mode.
4. Press and hold the **PTT** key on the mobile transceiver, and speak after hearing a beep.
5. Release the **PTT** key on the mobile transceiver to release the floor to listen to the other party or become idle.

Call Log

1. Press the **Home** key to switch back to the home screen.
2. Tap **Contacts > Call History**, and select a contact or number.
3. Press the **Side** key on the mobile transceiver to switch the call from voice mode to video mode. If there is no calling operation within 5 seconds, the call will be switched back to voice mode.
4. Press and hold the **PTT** key on the mobile transceiver, and speak after hearing a beep.
5. Release the **PTT** key on the mobile transceiver to release the floor to listen to the other party or become idle.

PTT Speed-Dial Group

1. Press the **Home** key to switch back to the home screen.
2. Perform one of the following operations to select a speed-dial group:
   f Tap the current speed-dial group to open the speed-dial group list, and then select a group as needed.
   f Tap the **<** or **>** icon to switch to another speed-dial group.
   f Press the **Volume/Channel selection** knob, and rotate the knob to switch to another speed-dial group.
3. Press the **Side** key on the mobile transceiver to switch the call from voice mode to video mode. If there is no calling operation within 5 seconds, the call will be switched back to voice mode.
4. Press and hold the **PTT** key on the mobile transceiver, and speak after hearing a beep.
5. Release the **PTT** key on the mobile transceiver to release the floor to listen to the other party or become idle.

Answer a Half Duplex PTT Call

Your GM65X emits a short beep when it receives a PTT call. You can hear the other party without any operation. After the other party releases the floor, you can press and hold the **PTT** key on the mobile transceiver and speak after hearing a beep. After releasing the **PTT** key on the mobile transceiver to release the floor, you can continue to hear the other party or become idle.

End a Half Duplex PTT Call

• During a private call, tap the icon.
• During a group call, the calling party can tap the icon to end the group call.

Note:
For the permissions of ending a PTT call, contact your network operator.

Options in a PTT Call

Record Sound

During a voice or video PTT call, tap the icon to record the call.

Take a Snapshot

During a video PTT call, tap the icon to take a snapshot of the screen.

Initiate a PTT Emergency Call

Note:
The PTT emergency calls have the highest priority. Before initiating an emergency call, you need to be authorized with the emergency call permission and input an emergency call number in the PTT settings.

Perform the following operations to initiate an emergency call:

1. On the home screen, tap **PTT > PTT Setup > Emergency call**, set the **Call types** and **Emergency number**. The **Call types** can be set to **Group voice call**, **Duplex voice call**, or **Duplex video call**. The **Emergency number** can be set only after the call type is selected.
2. Press the **Emergency call** key to call the preset emergency number.

PTT Scanning

If the PTT scanning function is enabled, your GM65X can receive calls from the scanned groups only.

Set the PTT Scanning Function

1. Press the **Home** key to switch back to the home screen.
2. Tap **PTT > PTT Setup > Scan function**.
3. Select **Disable scan**, **Scan all**, or **Scan partly**. If **Scan all** is selected, you can receive calls from all groups.

Update PTT Groups

1. Press the **Home** key to switch back to the home screen.
2. Tap **PTT > Group**.
3. Pull down and then release the list.

PTT Settings

1. Press the **Home** key to switch back to the home screen.
2. Tap **PTT > PTT Setup**.

You can make the following PTT settings.

Cluster

Activate or deactivate the PTT function.
A PTT call can be connected only after the PTT function is activated.

Scan function

Set the scanning function to **Disable scan**, **Scan all**, or **Scan partly**.
If **Scan all** is selected, you can receive calls from all groups.

Emergency call

Set the **Call types** and **Emergency number**.
Call types: set the emergency call to **Group voice call**, **Duplex voice call**, or **Duplex video call**.
Emergency number: can be set only after the call type is selected.

Video Quality

Set the video quality to **Smooth**, **Normal** or **High**.

Switch to DMO

The GM65Xs in DMO mode can be connected directly without accessing eNodeBs.

More settings

Set the **Group name**.

Version Info

Check the software version of your GM65X.

SAR

The maximum SAR of your GM65X is 0.174 W/Kg, complying with the GB21288-2007 standard，EN 50385.

Learn More

To learn about more information about your GM65X, visit the website http://www.caltta.com.cn.

RF Specifications

Item		Specification
System		FDD-LTE, WCDMA/GSM (data only), and DMO
Frequency	GM651	FDD 450M A(452.5~457.5MHz) FDD 450M C(450~455.7MHz)
	GM652	TDD 1.9G(1880~1920MHz) TDD 2.3G(2300~2400MHz) TDD 2.6G(2496~2690MHz) TDD 1.8G(1785~1805MHz) TDD 1.4G(1447~1467MHz)
	GM653	FDD 700M(B13/B14/B28) (777~787MHz/746~757MHz) (788~798MHz/758~768MHz) (703~748MHz/758~803MHz) FDD 800M (B5) (824~849MHz/ 869~894MHz)
	GM654	TDD 340M (336~346MHz)（optional) TDD 450M (380~450MHz)
	GM655	TDD 1.4G(1447~1467MHz) TDD 1.8G(1785~1805MHz)
	GM656	TDD 600M (566~626MHz;606~678MHz)
	DMO	400-470MHz
Maximum Tx power		LTE: 23 ± z dBm, optional (33dBm) WCDMA: 23 dBm GSM : 850MHz,900MHz,1800MHz,1900MHz DMO: 30 dBm

Auxiliary Equipments

Name	Manufacturer	Model No.
DMO Antenna	Percsson Communication Equipment Co., Ltd	CS-400/470-5F3-LE
WCDMA/LTE Antenna	Percsson Communication Equipment Co., Ltd	CS-G1/G2/C12-5F3-LE
GNSS Antenna	Percsson Communication Equipment Co., Ltd	CS-G5/C26/C27-5GP
Hand Microphone	SHENZHEN VOXTECH CO., LTD	AA400
Power Cable	UNITED WESTWIN ELECTRONIC CO., LTD	16AWG3C

Frequency Ranges

The authorized to set up the permitted frequency ranges for marketing in the specific EU country:

Country	Frequency Range (MHz)	Max. transmit power (W)
Germany(DE)	406.1-430, 440-470	2
France (FR)	406.1-430, 444.5-447, 451.5-460, 461.5-470	2
United Kingdom (UK)	410-430, 440-470	2
Italy(IT)	440-443, 445-470	2
Greece(EL)	406.1-430, 440-470	2
Spain(ES)	406.1-430, 440-470	2
Ireland (IE)	410-430, 440-455, 456-459, 460-470	2
Belgium(BE)	406.1-430, 440-470	2
Croatia (HR)	406.1-430, 440-470	2
Cyprus (CY)	406.1-430, 440-470	2
Portugal (PT)	440-470	2
Malta(MT)	406.1-430, 440-470	2
Luxembourg (LU)	410-430, 440-470	2
Bulgaria(BG)	410-430, 440-470	2
Latvia (LV)	406.1-430, 440-450, 456-470	2
Slovenia(SI)	406.1-430, 440-470	2
Czech Republic (CZ)	448-451.3, 457.38-461.3, 467.38-470	2
Denmark(DK)	406.1-430, 450-470	2
Estonia(EE)	406.1-410, 412.5-420, 422.5-430, 440-442.5, 443-450, 446-446.2, 450-453, 457.575-463, 467.575-470	2

Country	Frequency Range (MHz)	Max. transmit power (W)
Lithuania(LT)	406.1-410, 413-418.6, 423-428.6, 440-450, 450-452.9875, 458.1125-462.9875, 467.4875-467.5875	2
Hungary(HU)	417-420, 442-445, 456-460, 461.3-470	2
Netherlands(NL)	410-430, 440-470	2
Austria(AT)	444.9-444.900001, 450-456, 457.33-457.330001, 457.45-458.3, 460-470	2
Poland(PL)	448-449.5, 457-460, 467-470	2
Romania (RO)	408-410.8, 415-420.8, 425-429.8, 440-450.55, 457.5-458.2, 460-460.55, 467.5-458.2	2
Slovakia(SK)	441.025-451.31, 455.73-461.31, 465.73-470	2
Finland(FI)	407.525-408.55, 410.0125-410.8875, 417.525-417.9, 419.15-419.525, 419.55625-419.71875, 420.0125-420.8875, 426.35-427.5, 427.525-427.9, 429.15-429.525, 429.55625-429.71875, 440.0125-440.5875, 440.60625-440.89375, 442.775-443, 443.025-444, 444.025-444.525, 444.55-444.975, 445-446, 447.00625-447.29375, 447.3625-447.70625, 449.025-449.525, 449.55-449.975, 450.325-452.475, 452.525-452.975, 453.0125-453.6625, 469.725-469.975	2
Sweden(SE)	406.1-430, 442-444, 444.5875-452.5, 457.5-462.5, 467.5-470	2

Cautions

• The product shall only be connected to a USB port of version USB2.0.
• The device operating temperature range is -30℃ ~+60℃ .
• The device complies with RF specifications when the device is used at 40mm from your body.

Declaration of Conformity

Hereby, ZTE CORPORATION declares that this GM65X product is in compliance with essential requirements and other relevant provisions of Directive 2014/53/EU.This product is allowed to be used in all EU member states.

Toxic or Hazardous Substances or Elements

Parts	Toxic or Hazardous Substances or Elements					
	Pb	Hg	Cd	Cr(VI)	PBB	PBDE
LCD	o	o	o	o	o	o
Mainboard	o	o	o	o	o	o
Shell	o	o	o	o	o	o
Accessories	o	o	o	o	o	o

○ : Indicates that the toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.

× : Indicates that the toxic or hazardous substance contained in at least one of the homogeneous materials for this part is above the limit requirement in SJ/T11363-2006.

Notes:
• Information about the substances contained in the product manufactured by ZTE CORPORATION should be continuously updated with the technology development.
• × marked on this product indicates that there are currently no alternative technologies or components. The product manufactured by ZTE CORPORATION is in compliance with the "Administration on the Control of Pollution Caused by Electronic Information Products" published by People's Republic of China.
• ZTE CORPORATION reserves the final rights of explanation of the parts included in this table.

The symbol on the right side shows the Environment Friendly Use Period (EFUP) of this product. Some replaceable parts may have a different EFUP label attached to it, such as the battery unit. This EFUP is valid only under the operating conditions listed in the operation manual of the product.

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