HUAWEI ME909 Series LTE LGA Module

Development Kit Guide

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Huawei Technologies Co., Ltd.

Huawei Industrial Base, Bantian, Longgang, Shenzhen 518129, People's Republic of China
Tel: +86-755-28780808 Global Hotline: +86-755-28560808 Website: www.huawei.com
E-mail: mobile@huawei.com

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About This Document

Revision History

Document Version	Date	Chapter	Description
01	2013-02-08		Creation

Scope

ME909u-521

Contents

1 Overview

1.1 About This Chapter

This chapter provides a brief description of the ME909 series LTE LGA module development kit (DVK), including:

- Introduction to the DVK

1.2 Introduction to the DVK

The DVK provides a complete solution based on the data functions of the ME909 series LTE LGA module.

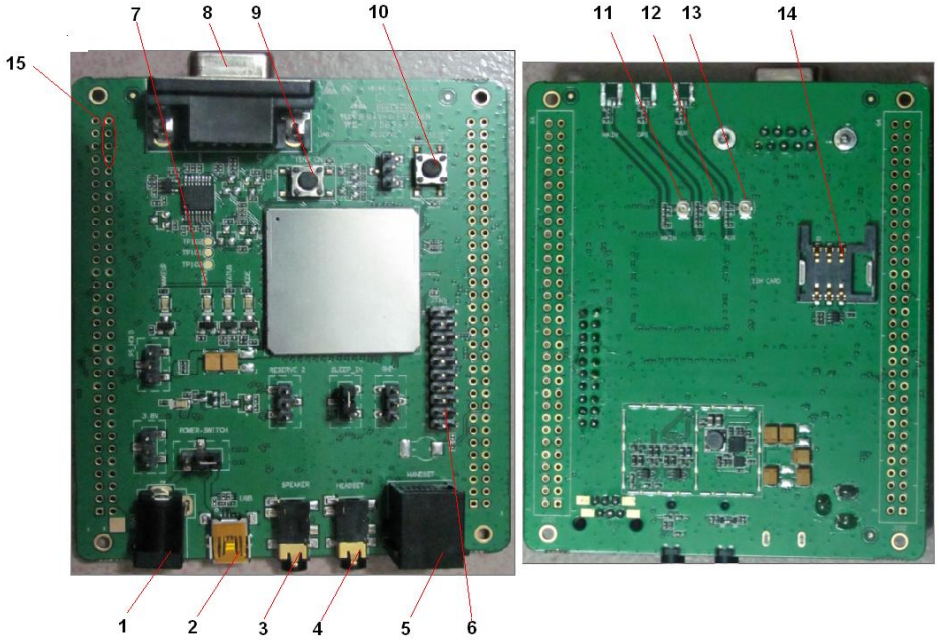
For designers who adopt the module in their design, the DVK facilitates their module-based programming and troubleshooting at the project development stage.

The DVK provides the following interfaces:

1. 5 V power supply input interface
2. Mini USB port
3. Speaker interface(Not supported)
4. Headset interface(Not supported)
5. Handset interface(Not supported)
6. JTAG interface
7. LED indicators
8. UART serial port (2 wires) (Not supported)
9. Power button
10. Reset button
11. Main antenna connector
12. GPS antenna connector
13. Diversity antenna connector
14. USIM/UIM card slot
15. PCM audio interface(Not supported)

Figure 1-1 Figure 1-1 shows the placement of the DVK.

Figure 1-1 Placement of the DVK



Top view Bottom view

The ME909 series LTE LGA module is welded onto the interface board in a manner that is similar to the surface mounting of chips. The signals output from the module are transferred to the development board for secondary development.

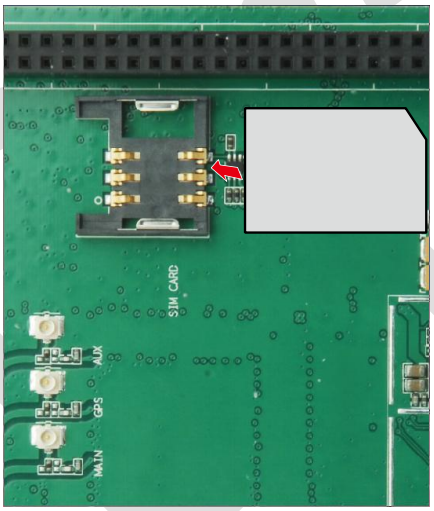
2 Installation and Use Guide

2.1 About This Chapter

This chapter describes how to install and use the ME909 LTE LGA module's development kit (DVK).

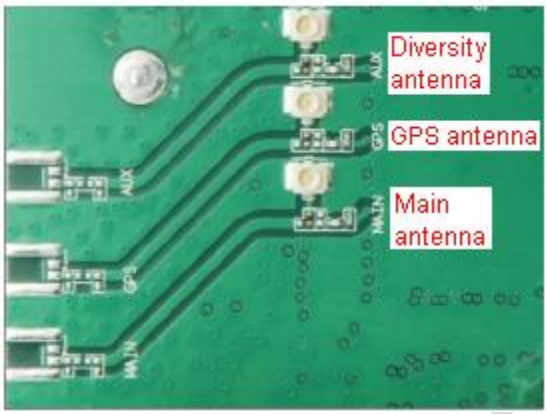
2.2 Installation and Power-On Procedure

Step 1 Install the SIM card.



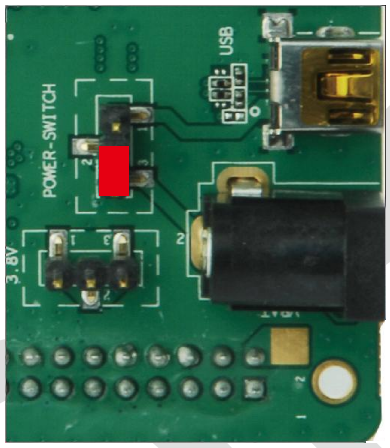
Step 2 Connect the antennas.

The DVK provides three antenna ports to connect to RF cables or antennas.

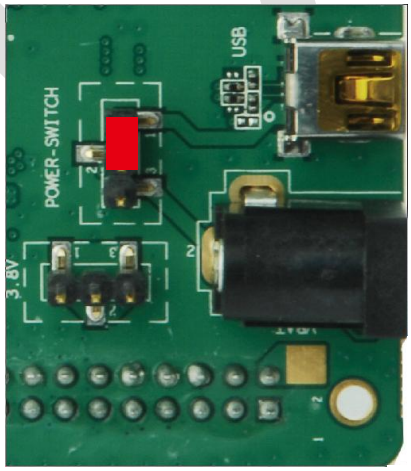


Step 3 Select power supply method

When you use the 5V power adapter, connect the pins 2 and 3 of the 3-pin connector(marked as ‘POWER-SWITCH’) using a jumper cap, as shown in the following figure.

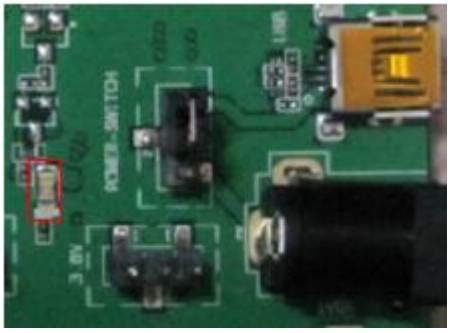


When you use the USB 5V power supply, connect the pins 1 and 2 of the 3-pin connector(marked as ‘POWER-SWITCH’) using a jumper cap, as shown in the following figure.



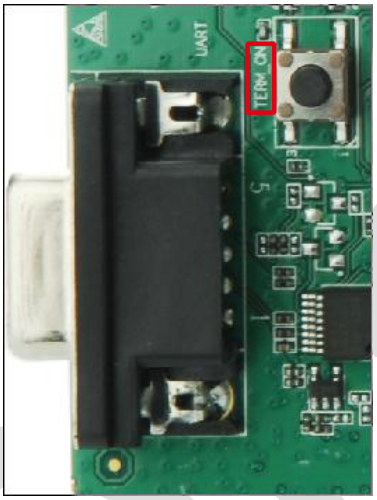
Step 4 Connect the USB cable with the host.

If you select using USB 5V power supply on Step 3, the LED indicator of power as shown in the following figure lights up.



Step 5 If you select using the 5V power adapter on Step 3, please connect it. Then, the LED lights up.

Step 6 To power on, press and hold the TERM_ON button for at least 1 second, as shown in the following figure.



3 Interface Functions of the DVK

3.1 About This Chapter

This chapter describes interface functions, and interface usage of the DVK.

- Interface Functions

3.2 Interface Functions

3.2.1 Power Switch and Power Supply Mode

Power can be supplied to the DVK in two modes: by a 5V AC-DC power adapter or the USB 5V power supply.

The jumper wire POWER-SWITCH is used to select a power supply mode. When pin1 and pin2 are connected, the USB 5V power supply is used; when pin2 and pin3 are connected, the 5V AC-DC power adapter is used. Only one mode can be selected at a same time. Once the development kit is powered on, the power indicator lights up.

Figure 3-1 Power is supplied by the 5V AC-DC power adapter

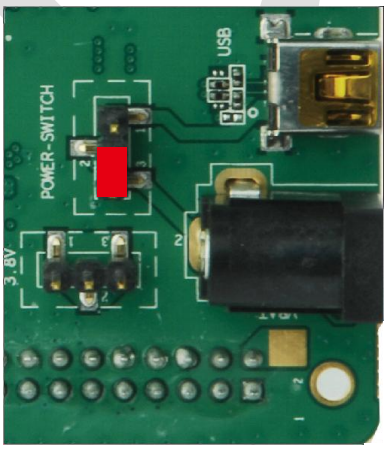
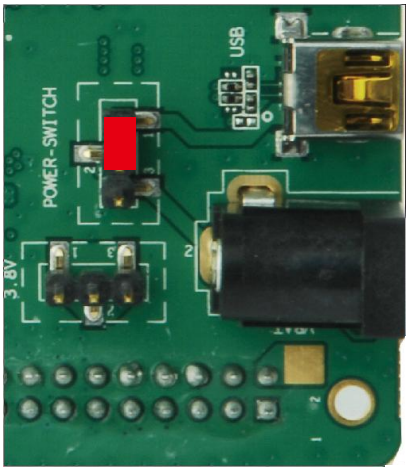


Figure 3-2 Power is supplied by the USB 5V power supply



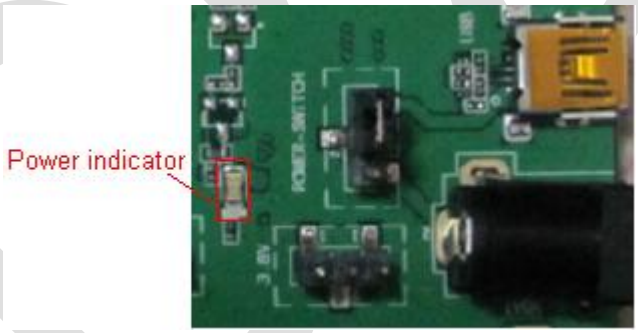
3.2.2 USB Communication Interface

The DVK provides a mini USB B-type connector. The connector implements communications between the module and a personal computer (PC) or other data terminal equipment (DTE) and supports USB analyzers.

3.2.3 LED Indicators

The DVK has five LED indicators: one power indicator and four signal indicators.

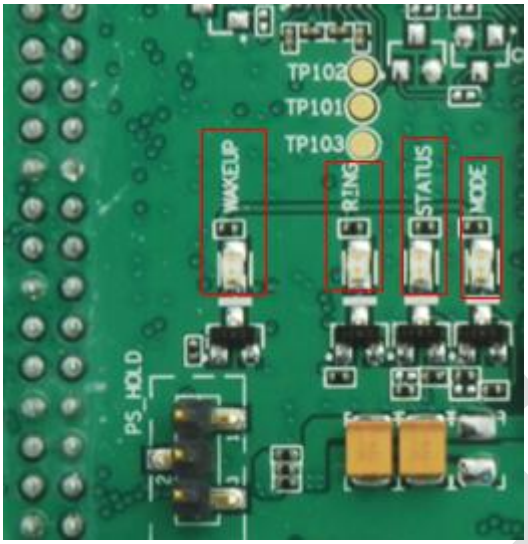
Figure 3-3 Power indicator



The descriptions of all four signal indicators are marked on the development kit.

Notes: The function of signal indicators of ME909 module is under development.

Figure 3-4 Signal indicators



3.2.4 Buttons

The DVK has two buttons: the power button and the reset button, please refer to the Figure 1-1 .

The power button(marked as "TERM_ON") powers on or off the module. The power-on/power-off signal of the module is at low level when the button is pressed.

The reset button(marked as "RESET") resets the module. The reset signal of the module is at low level when the button is pressed.

Notes: The function of power-off and reset of ME909 module is under development.

3.2.5 USIM Card Interface

The DVK provides a standard USIM card slot (marked as "SIM CARD").

3.2.6 Antenna Connector

The DVK provides three antenna connectors for connecting the MAIN, AUX and GPS antenna of the module.

The antenna connector can be connected to an RF tester (CMU200 or Agilent 8960), or directly connected to an external antenna for testing the services of the existing network.

4 Acronyms and Abbreviations

Acronym or Abbreviation	Expansion
LGA	Land Grid Array
DVK	Development Kit
USB	Universal Serial Bus
USIM	Universal Subscriber Identity Module
UIM	User Identity Module
DC	Direct Current
RF	Radio Frequency
LED	Light-emitting Diode
UART	Universal Asynchronous Receiver/Transmitter
GPS	Global Position System
PCM	Pulse-code Modulation
JTAG	Joint Test Action Group