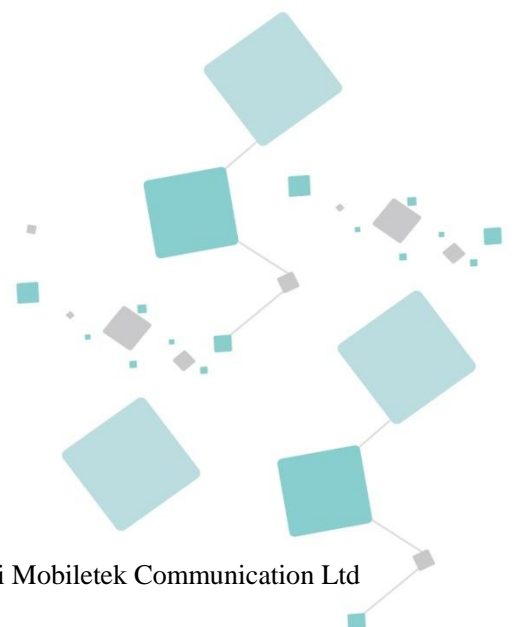


M1507_EVB User Manual

Smart Module Series

Version: V1.2

Date: 2016-10-28



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Version History

Date	Version	Modify records	Author
2016-07-08	V1.0	Initial version	Rongchun.Dong
2016-08-22	V1.1	Delete AV_IN	Rongchun.Dong
2016-10-28	V1.2	The machine pictures and instructions. Functional testing of instructions	Rongchun.Dong

CONTENT

1. Overview.....	4
2. M1507_EVB and Interface Introduction	4
3. M1507_EVB External Device and Functional Test.....	7
3.1 Power Supply	7
3.2 Power Key and Hardware Reset.....	7
3.3 UART Interface.....	8
3.4 SIM Card and TF Card	8
3.5 Audio interface.....	10
3.6 USB	11
3.7 Functional Test	11
3.7.1 Machine test	11
3.7.2 A single test	13

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1. Overview

This document defines and specifies the usage of M1507_EVB. You can know how to use M1507_EVB and tools from this document.

2. M1507_EVB and Interface Introduction

M1507_EVB is designed for the development of M1507 module to help developers to debug and test M1507 module. The following figure shows the label of the main functions of M1507_EVB. This article will describe the various parts of its functions in later chapters.



Figure 1 M1507_EVB FRONT

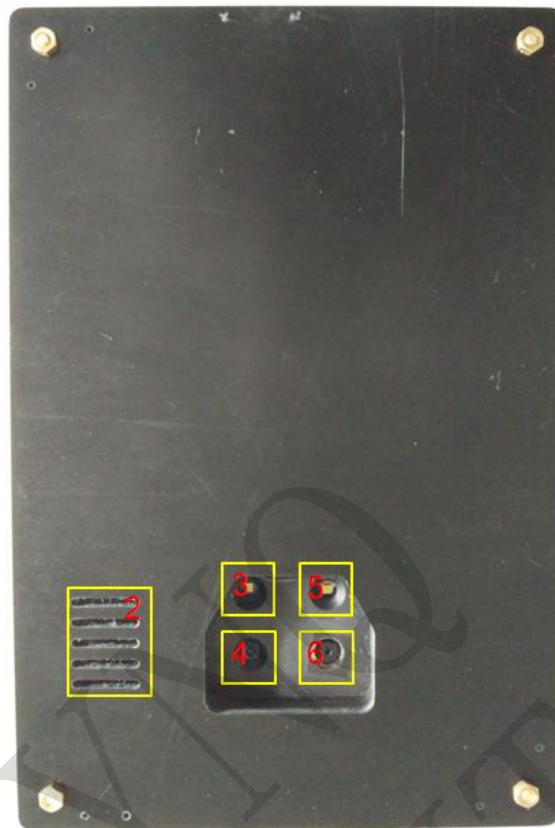


Figure 2 M1507_EVB REAR

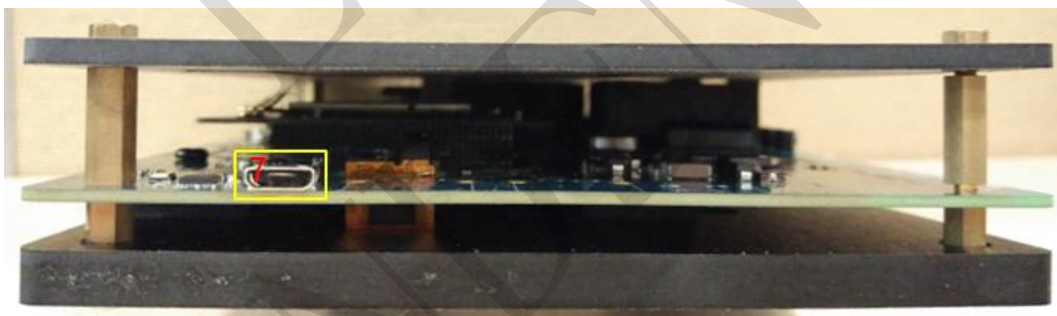


Figure 3 M1507_EVB PLANFORM



Figure 4 M1507_EVB REAR UPWARD

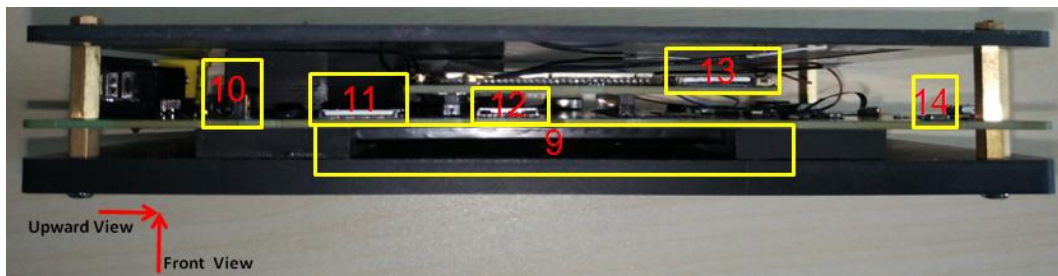


Figure 5 M1507_EVB LEFT VIEW

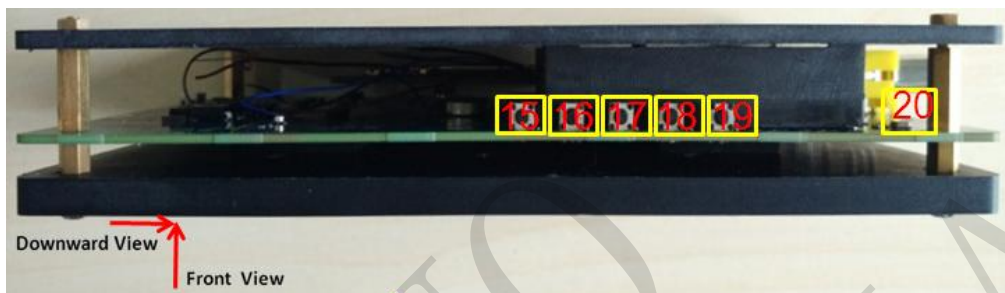


Figure 6 M1507_EVB PLATFORM RIGHT VIEW

Table 1 Label Illustrate

1.LCD(HD1280*720)	2.Speaker	3. Flashlight
4.Sub Camera(2MP)	5.Flashlight	6.Main Camera (5MP)
7.USB Interface	8.UART Interface	9.Battery
10. Headset Interface	11.SIM1	12.TF Card
13.SIM2	14. Main MIC	15.POWKEY
16.SYSRSTB	17.Volume+	18. Volume+
19. Volume-	20. Sub MIC	

3. M1507_EVB External Device and Functional Test

3.1 Power Supply

Such as figure 7, “9, Battery”, 3.50-4.35V battery power supply.



Figure 7 M1507_EVB Battery

3.2 Power Key and Hardware Reset

Such as figure 8, Pressing the “15, POWKEY” key of the SOM with 3 to 5 seconds, it can open the SOM(System on Module). In the boot state, pressing "15, POWKEY" can enter standby mode. In the boot state, pressing "15, POWKEY" 2 to 3 seconds can choose to Shutdown/Restart SOM. If you press the “16, SYSRSTB” key, you can make the SOM power off.

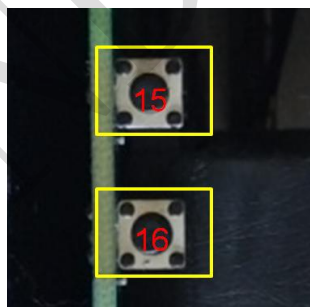


Figure 8 POWKEY And SYSRSTB

Note: In the boot state, press the SYSRSTB is power off, not restart;
Long press POWKEY for about 12 seconds to shutdown and restart the SOM.

3.3 UART Interface

Such as figure 9, The M1507_EVB has a set of "8, UART Interface ". M1507_EVB can be connected via a serial port line with PC or other devices for a serial port communication. The default support Demo board 115200 baud rate.



Figure 9 M1507 UART Interface

3.4 SIM Card and TF Card

The M1507_EVB to provide two SIM interfaces and a TF interfaces, such as figure 10:

The "11, SIM1 ", support 4G FDD-LTE,TDD-LTE,CDMA/EVDO network,3G WCDMA, TD-SCDMA network and GSM 2G network.

The "13, SIM2" , support 4G FDD-LTE,TDD-LTE network,3G WCDMA, TD-SCDMA network and GSM 2G network.

The "12, TF Card" can support up to 128GB.

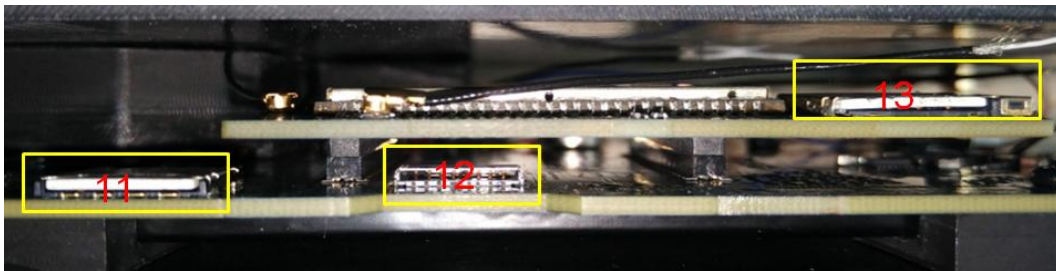


Figure 10 SIM Card And TF Card

Note: SIM1 and SIM2 does not support hot plug SIM card;

SIM1 and SIM2 can't support using 3G network at the same time. When the SIM1 uses 3G network, SIM2 can automatically switch to 2G network. When set the SIM 2 to use 3G network, SIM 1 switch to 2G network; SIM1 and SIM2 can support both 2G network.

SIM1 and SIM2 can't support using 4G network at the same time. When the SIM1 uses 4G network, SIM2 can automatically switch to 2G network. When set the SIM2 to use 4G network, SIM1 switch to 2G network; SIM1 and SIM2 can support both 2G network.

Note: When use less than 32 GB TF card, there is no compatibility problems. If TF cards more than 32GB have been formatted by Windows system, they should be formatted again by Android system before used. Under the Android system format of TF card, have no this problem.

3.5 Audio interface

The audio interfaces include one headset interface and one SPK interface, two MIC interfaces:

Such as figure 11“10, Headset Interface”, can support the 3.5 mm earphone interface.

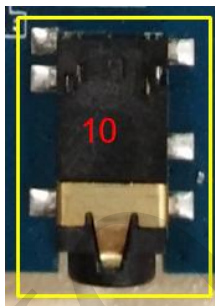


Figure 11 3.5mm Headset Interface

When pull out headphones, the M1507_EVB default use figure 12 "2, speaker".



Figure 12 Speaker

The M1507_EVB supports two MIC. There is noise reduction in handset mode, not in hands-free mode. It is only stereo recording in recording mode.

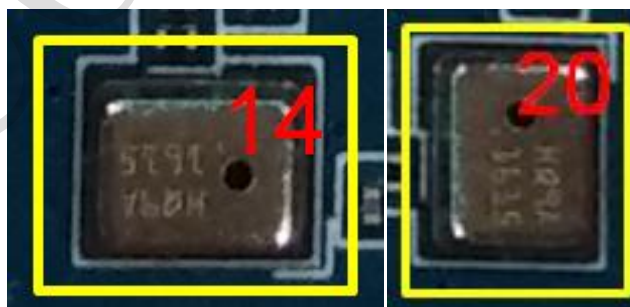


Figure 13 MIC Interface

3.6 USB

Such as figure 14, the 1507_EVB has a "7, micro USB interface" for USB download, Log capture, OTG function and charge the battery.

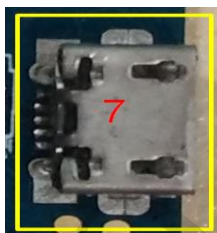


Figure 14 USB Interface

3.7 Functional Test

In dial-up, input "*" *#*# 88 #* # *" and enter the test mode.

3.7.1 Machine test

Such as figure 15, clickable item at the top of the engine test, began to test.



Figure 15 Test mode interface

Such as figure 16, if the factory of the test item is success, the test items displayed as blue. If the function of the test item is failed, the test items shown in red.

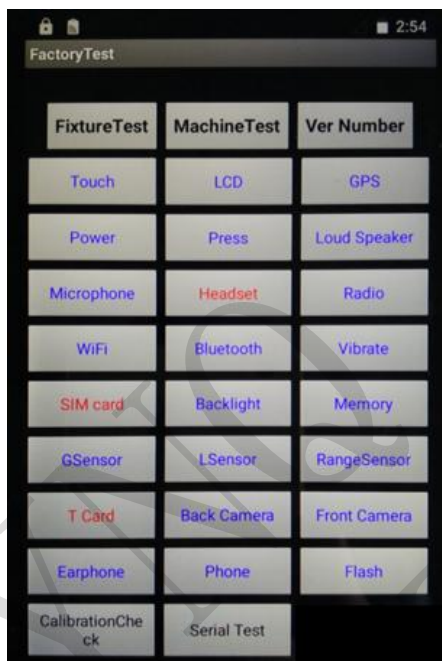


Figure 16

Such as figure 17, in the process of test, touch the prompt dialog box to choose "success" or "failed", and then enter the next test.

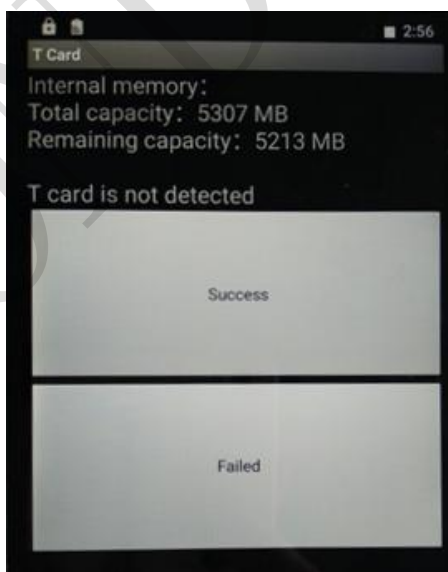


Figure 17

3.7.2 A single test

Choose one option in individual test. Such as figure 18, click the Success interface if TF card is normal.

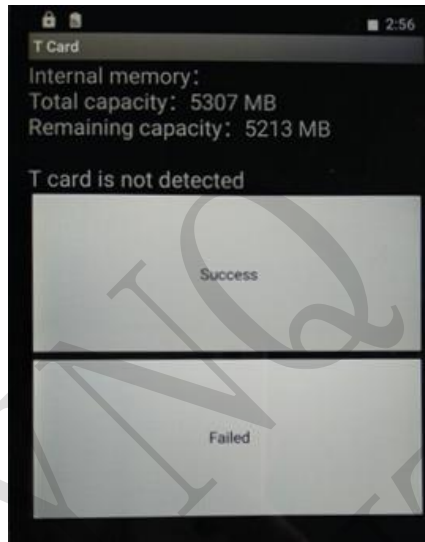


Figure 18

Such as figure 19, if the test passes, the test items according to blue. If the test is failed, the test items shown in red.

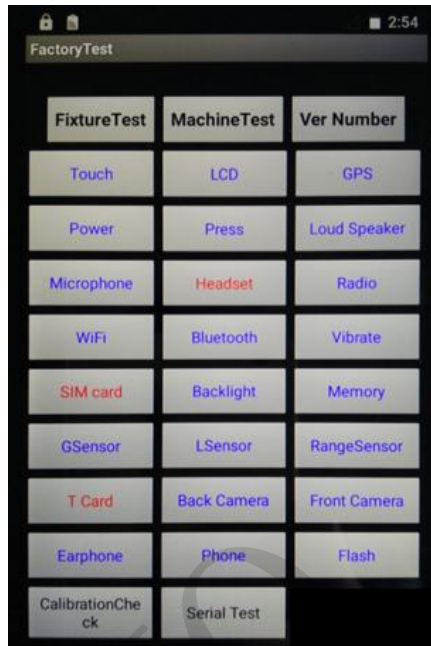


Figure 19