



# SIM8200-M2-Series-EVB Modify Guidelines Manual

5G Module

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## 1. Introduction

This document describes the modification method of the SIM8200 M2 series EVB. With the help of this document, customers can quickly modify the SIM8200 M2 series EVB.

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## 2. General Overview

### 2.1 EVB Overview

The EVBs need to modify are shown in the following table.

**Table 1: EVB Overview**

EVB	PN	Modification Point
8XG000-SIM8200-M2-EVB2_V1.01	S2-108RC	USB TO UART(connect test point)
8XG000-SIM8300-EVB_V1.03	S2-109WA	1.USB TO UART resistance(R508,R505) 2.TYPE-A resistance(R510,R511,R512,R513) 3. Codec capacitance(C440) 4. Ethernet port resistance(R1019) 5. Disconnect the PCIe bus stubs.

For more detail introduce of the EVBs modification method is shown in the following chapter.

### 2.2 EVB modification method

#### 2.2.1 SIM8200-M2-EVB2\_V1.01

8XG000-SIM8200-M2-EVB2\_V1.01 is not support serial communication function by default, if customers need to use this function, the modification method is shown in the follow.

The modification method of 8XG000-SIM8200-M2-EVB2\_V1.01 is shown as following figures.



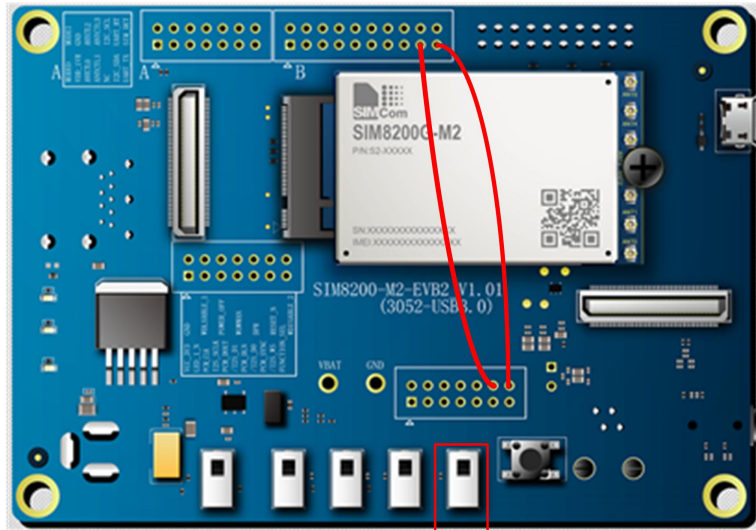


Figure 1: SIM8200-M2-EVB2\_V1.01 serial communication modification effect diagram

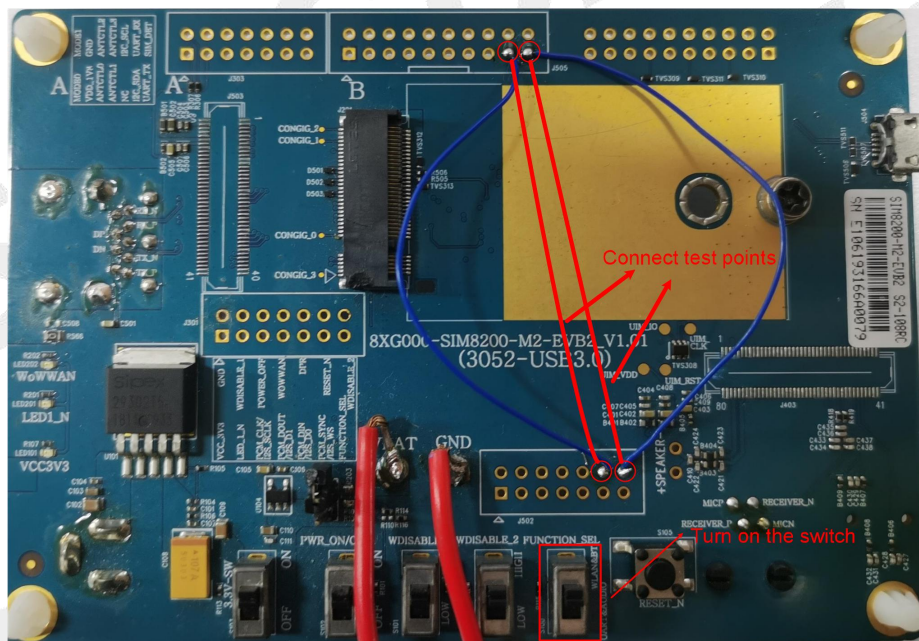
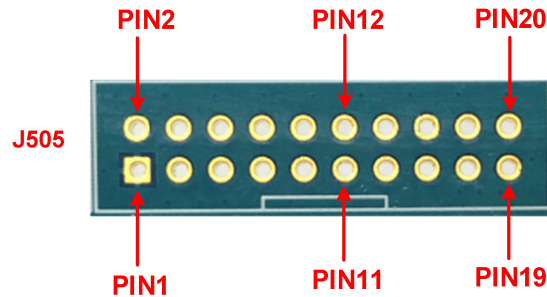


Figure 2: SIM8200-M2-EVB2\_V1.01 serial communication modification actual diagram

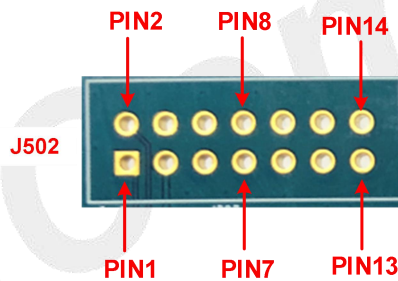
To support serial communication, 8XG000-SIM8200-M2-EVB2\_V1.01 need to connect the test point 17 of J505 to the test point 12 of J502, connect the test point 19 of J505 to the test point 14 of J502, and turn on the switch S100 to open the FUNCTION\_SEL function.

The test points of the J505 is shown as following figure.



**Figure 3: The test points of the J505**

The test points of the J502 is shown as following figure.



**Figure 4: The test points of the J502**

#### NOTE

1. Make sure the SIM8200 M2 module support serial communication function, for the details, please contact SIMCom support teams.
2. To support serial communication of 8XG000-SIM8200-M2-EVB2\_V1.01, for the details of the modification method, please contact SIMCom support teams.

### 2.2.2 SIM8300-EVB\_V1.03

The modification method of SIM8300-EVB\_V1.03 can be listed as follows.

#### 1. Modify the USB TO UART

To support the function of serial communication, 8XG000-SIM8300-EVB\_V1.03 need to remove R508 and R505, and cross connect the two resistance pads, the pad 1 connect to the pad 4, the pad 2 connect to the pad 3. The modification method of USB TO UART is shown as following figures.

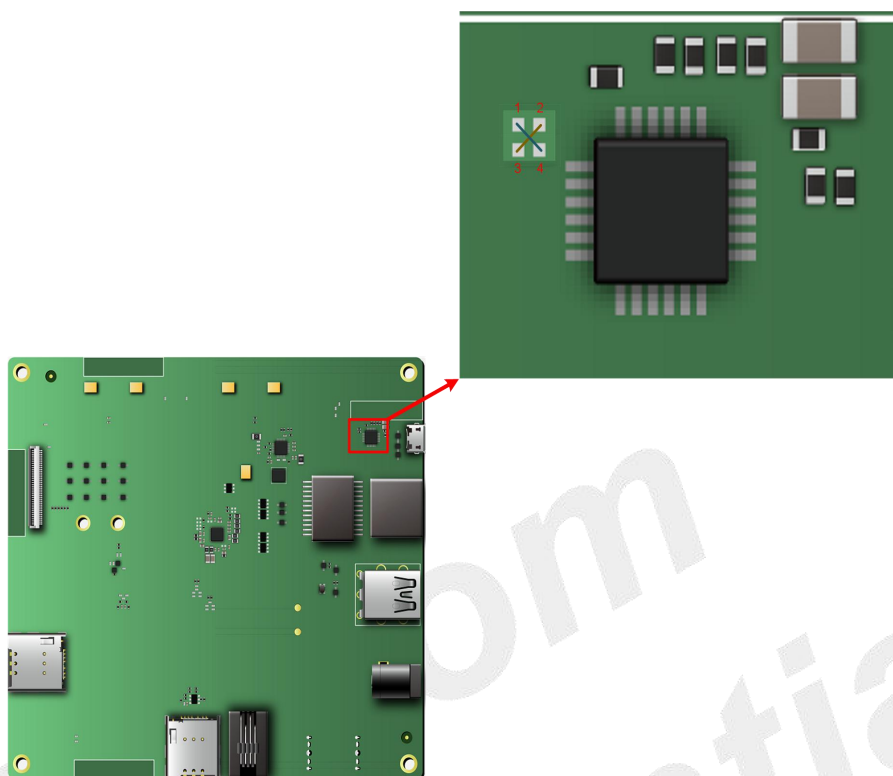


Figure 5: SIM8300-EVB\_V1.03 serial communication modification effect diagram

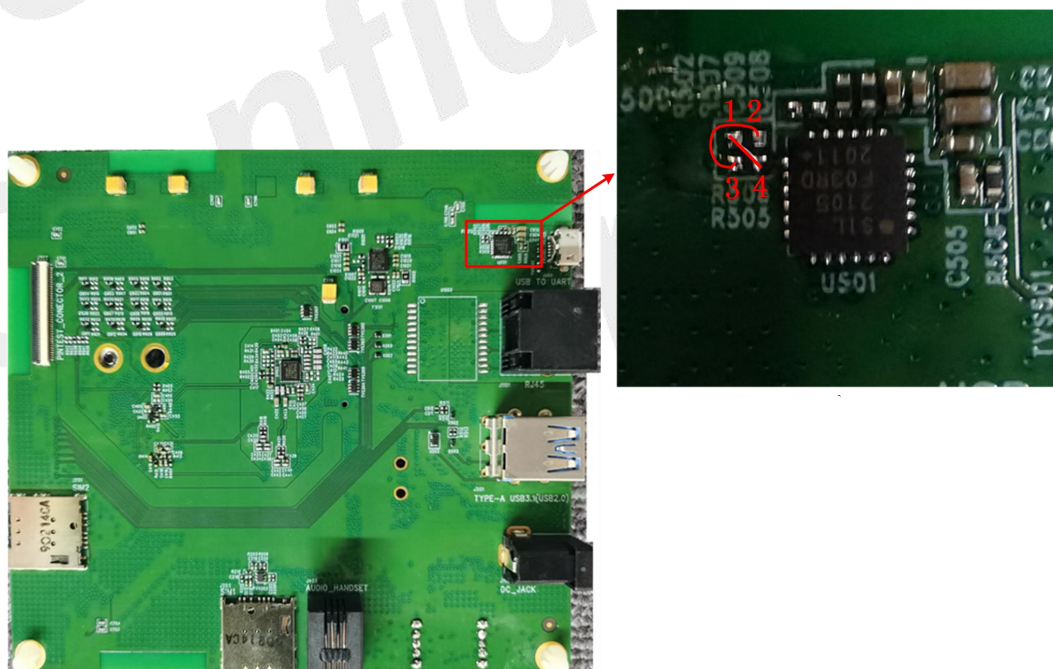


Figure 6: SIM8300-EVB\_V1.03 serial communication modification actual diagram



## 2. Modify the Type-A USB

To support the function of Type-A USB 3.1, 8XG000-SIM8300-EVB\_V1.03 need to remove R510, R511, R512 and R513. The modification method of Type-A USB is shown as following figures.

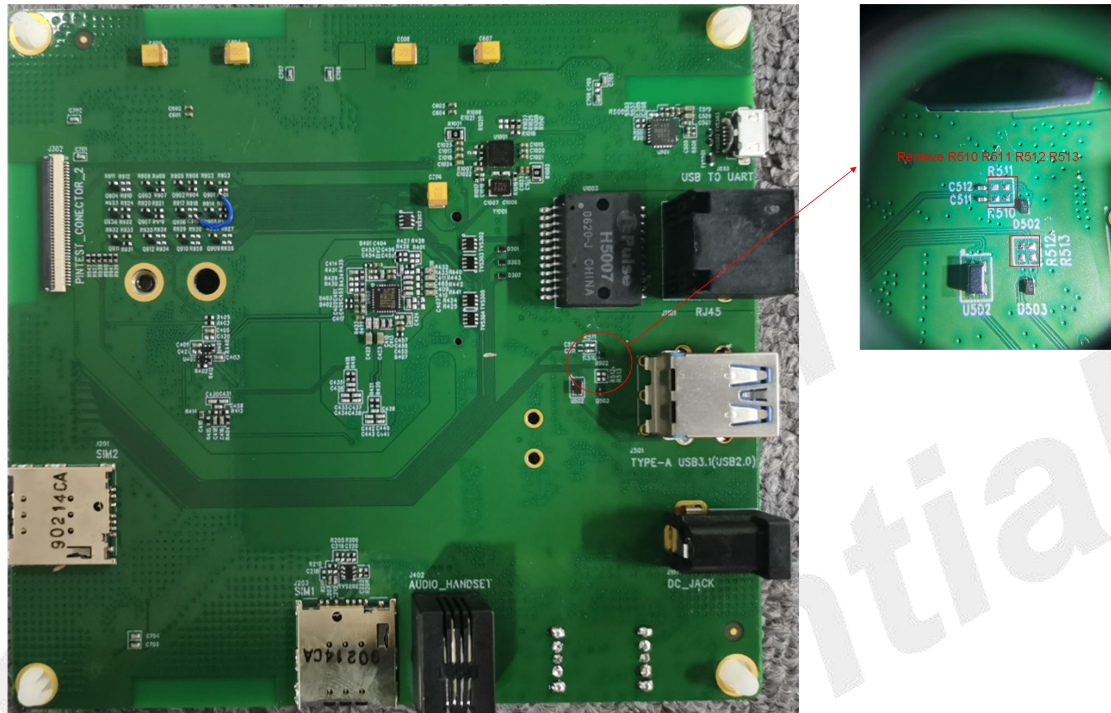


Figure 7: SIM8300-EVB\_V1.03 Type-A USB modification actual diagram

## 3. Modify the Ethernet port

To support the function of Ethernet port, 8XG000-SIM8300-EVB\_V1.03 need to disconnect the PCIe bus stubs and R1019 paste the resistor of accuracy is 1% and resistance is 2.49KR. The modification method of the Ethernet port is shown as following figure.

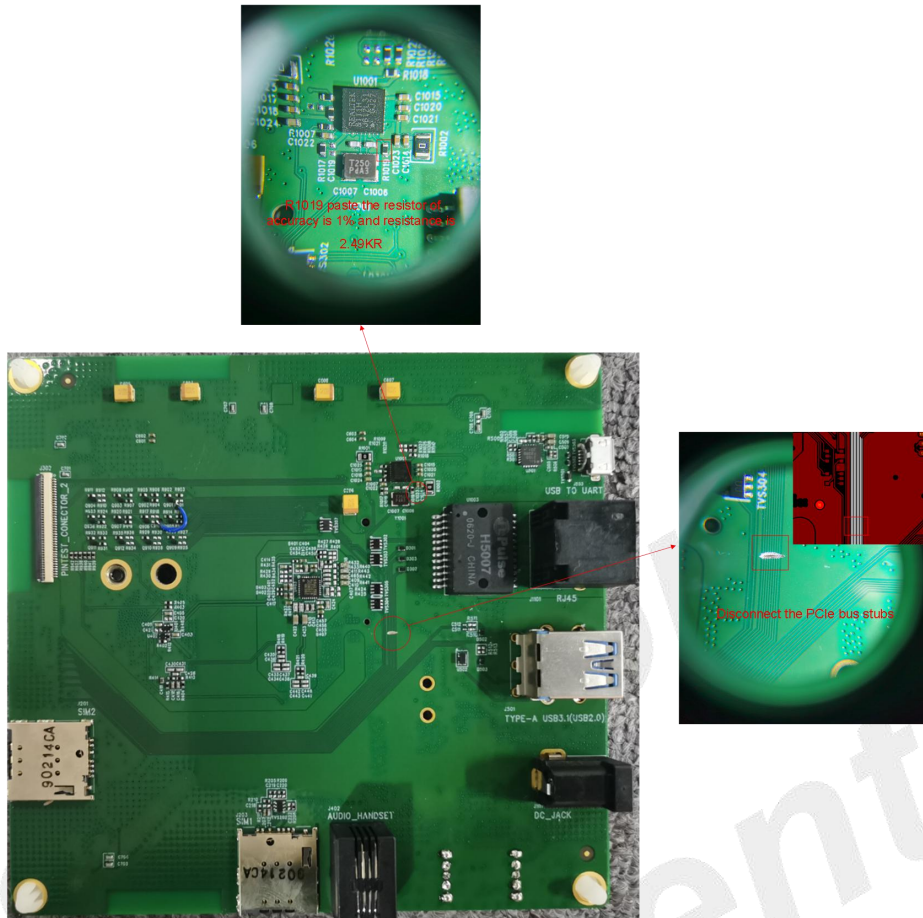


Figure 8: SIM8300-EVB\_V1.03 Ethernet port modification actual diagram

#### 4. Modify the Codec

To support the function of codec, C440 need to replace capacitor with value of 4.7uF. The modification method of the codec is shown as following figure.

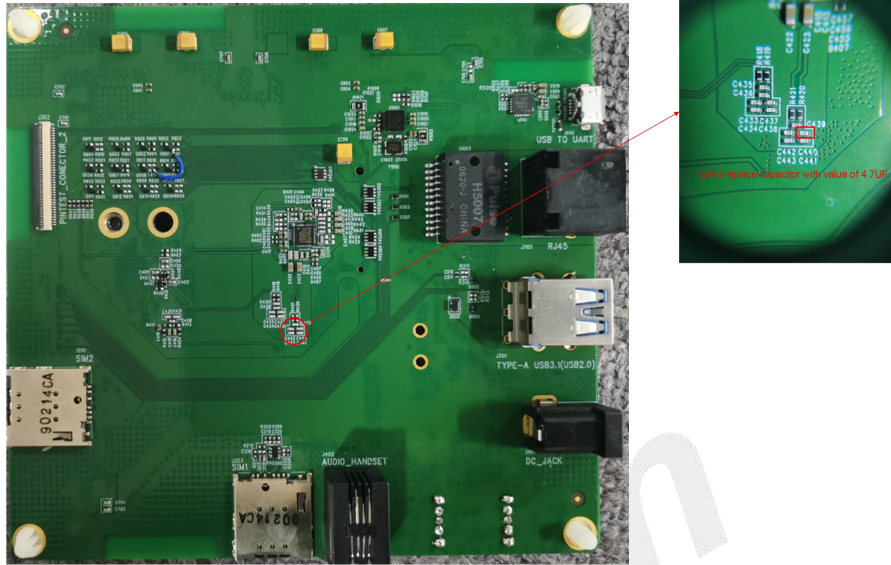


Figure 9: SIM8300-EVB\_V1.03 codec modification actual diagram

**NOTE**

For the details of the SIM8300-EVB\_V1.03 modification, please contact SIMCom support teams.

## 3. Safety Caution







### 3.1 Related Documents

Table 2: Related documents

No.	Title	Description
[1]	SIM8300G-M2-EVB_User_Guidelines_Manual	SIM8300G-M2-EVB User Guidelines' Manual
[2]	SIM8200-M2_EVB2_User_Guidelines_Manual	SIM8200-M2_EVB2 User Guidelines' Manual

## 3.2 Safety Caution

**Table 3: Safety Caution**

Marks	Requirements
	When in a hospital or other health care facility, observe the restrictions about the use of mobiles. Switch the cellular terminal or mobile off, medical equipment may be sensitive and not operate normally due to RF energy interference.
	Switch off the cellular terminal or mobile before boarding an aircraft. Make sure it is switched off. The operation of wireless appliances in an aircraft is forbidden to prevent interference with communication systems. Forgetting to think much of these instructions may impact the flight safety, or offend local legal action, or both.
	Do not operate the cellular terminal or mobile in the presence of flammable gases or fumes. Switch off the cellular terminal when you are near petrol stations, fuel depots, chemical plants or where blasting operations are in progress. Operation of any electrical equipment in potentially explosive atmospheres can constitute a safety hazard.
	Your cellular terminal or mobile receives and transmits radio frequency energy while switched on. RF interference can occur if it is used close to TV sets, radios, computers or other electric equipment.
	Road safety comes first! Do not use a hand-held cellular terminal or mobile when driving a vehicle, unless it is securely mounted in a holder for hands free operation. Before making a call with a hand-held terminal or mobile, park the vehicle.
	<p>GSM cellular terminals or mobiles operate over radio frequency signals and cellular networks and cannot be guaranteed to connect in all conditions, especially with a mobile fee or an invalid SIM card. While you are in this condition and need emergent help, please remember to use emergency calls. In order to make or receive calls, the cellular terminal or mobile must be switched on and in a service area with adequate cellular signal strength.</p> <p>Some networks do not allow for emergency call if certain network services or phone features are in use (e.g. lock functions, fixed dialing etc.). You may have to deactivate those features before you can make an emergency call.</p> <p>Also, some networks require that a valid SIM card be properly inserted in the cellular terminal or mobile.</p>