MC-EX-GSMLTE Expansion Module

GSM/LTE

Startup Guide

Startup Guide

Content

Startup Guide

Introduction

SensOper MC-EX-GSMLTE expansion module is an cellular communication module can be use with CPU module.

This cellular communication module was powered by SIMCom SIM7500E LTE modem.

So, This module support on FDD-LTE bands and 900/1800 MHz GSM, GPRS, EDGE bands.

Module data transmission supports on LTE CAT1, GPRS & EDGE classes.

This module internal operation power is 24V DC / 30mA.

The 40 pin board to board connectors were included for make connection between CPU module or other expansion modules.

Startup Guide

1. Connecting with Power

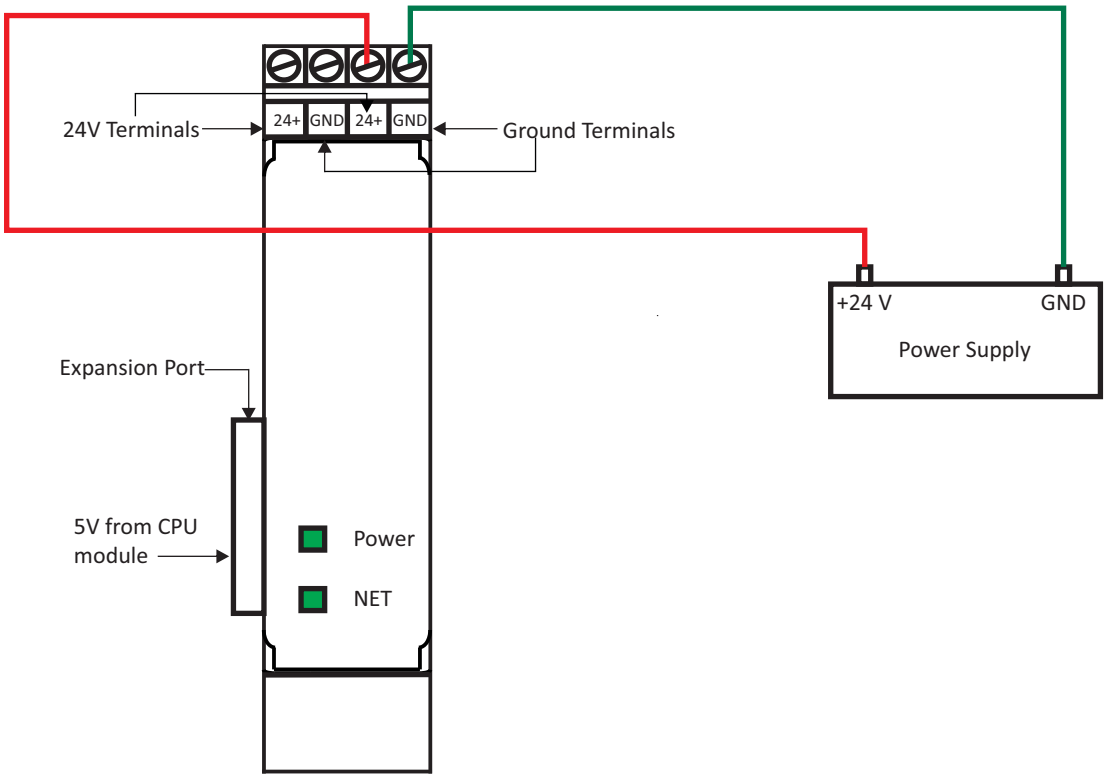

Figure 1(a): GSMLTE Expansion module power up wiring.

CPU Module and Expansion Module GPIO Connection Diagram

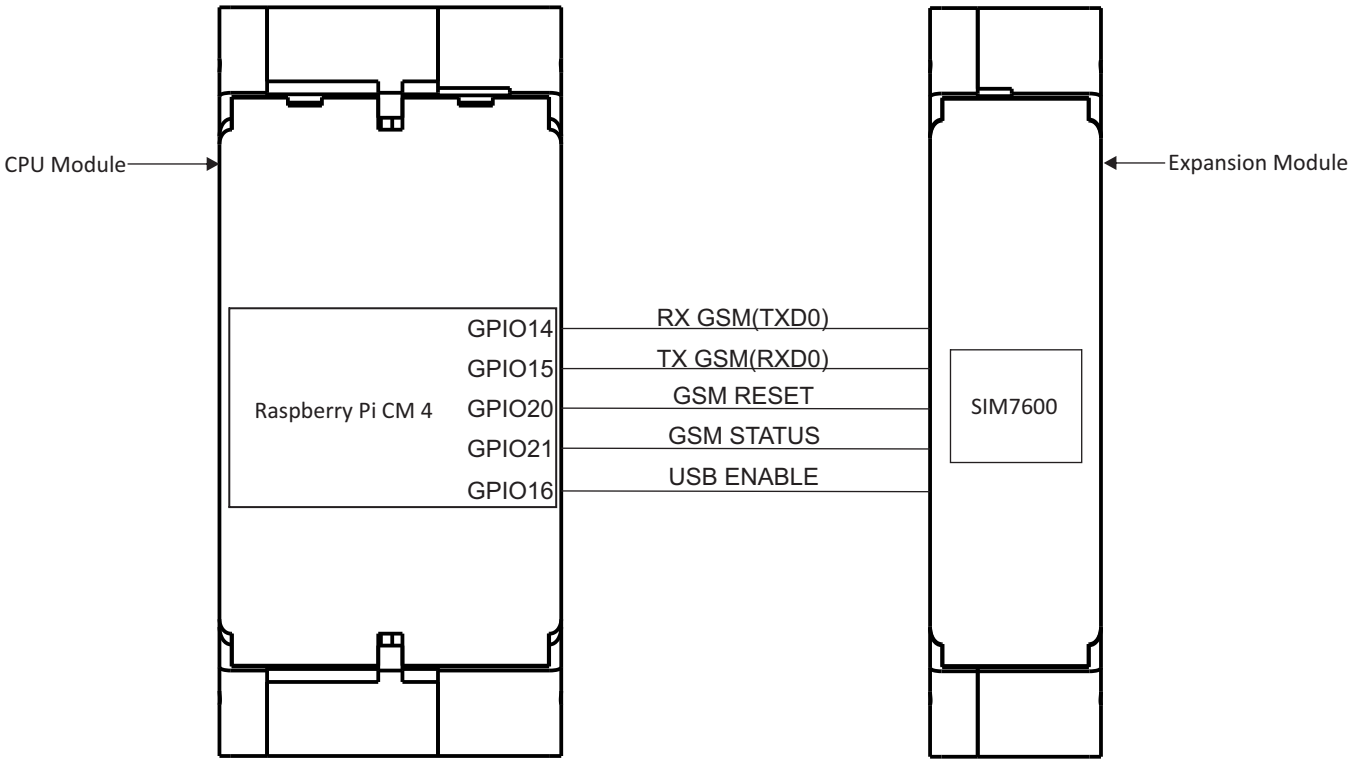

Figure 1(b): The GPIO connection with CPU module and Expansion Module.

Startup Guide

2. Run Example Program

1. After following Figure 1(a),(b) diagram instructions in previous sections 1, Connect a GSMLTE Expansion module into the 40 pin board to board connector on CPU Module (Explained in MC-CPU-CM4-Gx datasheet).
2. Follow **File Manager > Pi > Rpi_Moduler_test** path select **'MC-EX-GSMLTE.py'** file shown in Figure 2.

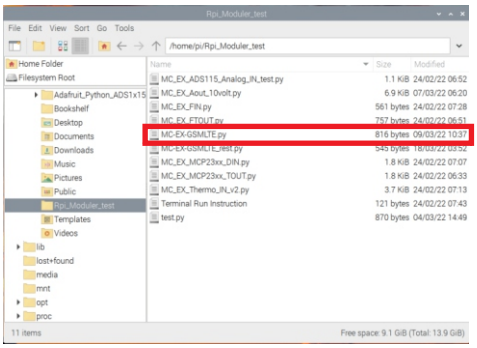

Figure 2: The Example program for UP the USB on GSMLTE Module.

3. Double click on the **'MC-EX-GSMLTE.py'** file.
4. **'MC-EX-GSMLTE.py'** file will open on Thonny Python IDE default as shown in Figure 3.

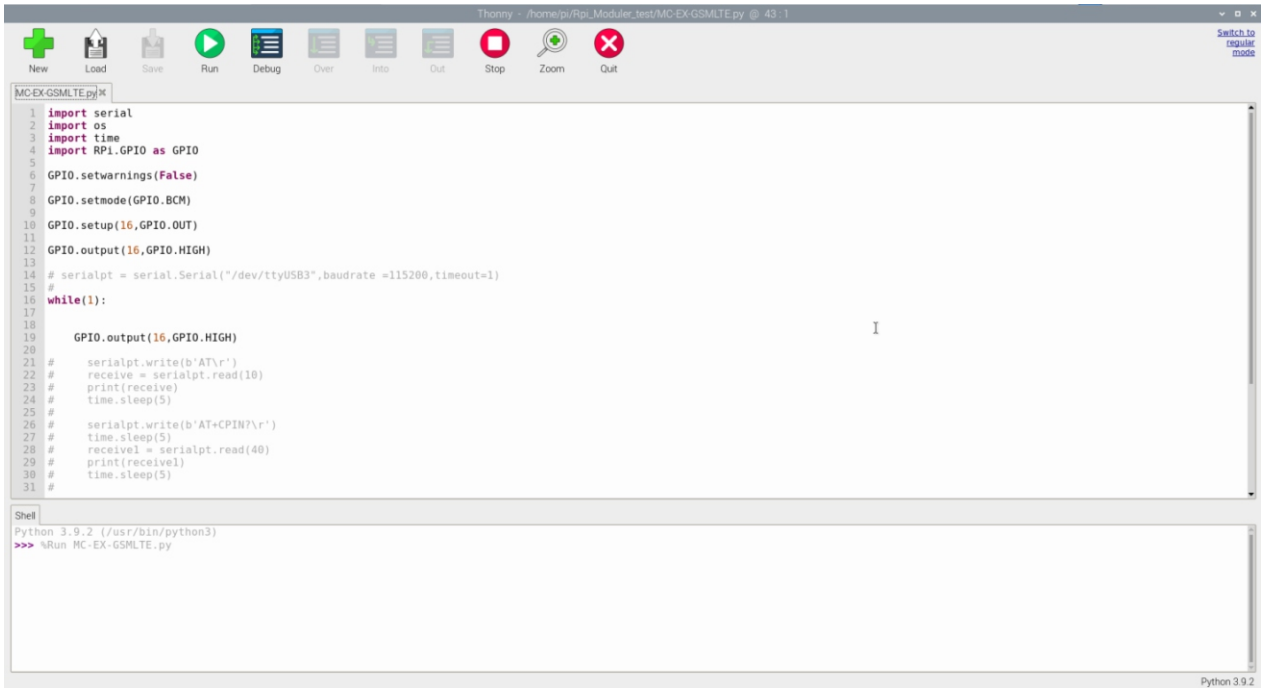

Figure 3: The USB UP programs for expansion module.

5. Click Run.
6. Now open Terminal Window, then type **'lsusb**' command and run the command as in Figure 4.

Figure 4: Check the USB name of GSMLTE expansion module on Terminal window.

7. Then terminal window will show GSMLTE expansion module as USB device.
8. Copy the USB name of the GSMLTE expansion module.

Startup Guide

8. Follow path **Application Menu> Internet> Putty SSH Client** , open putty SSH program.
9. Past the USB name on Serial line and Speed as 9600 as shown in Figure 5.

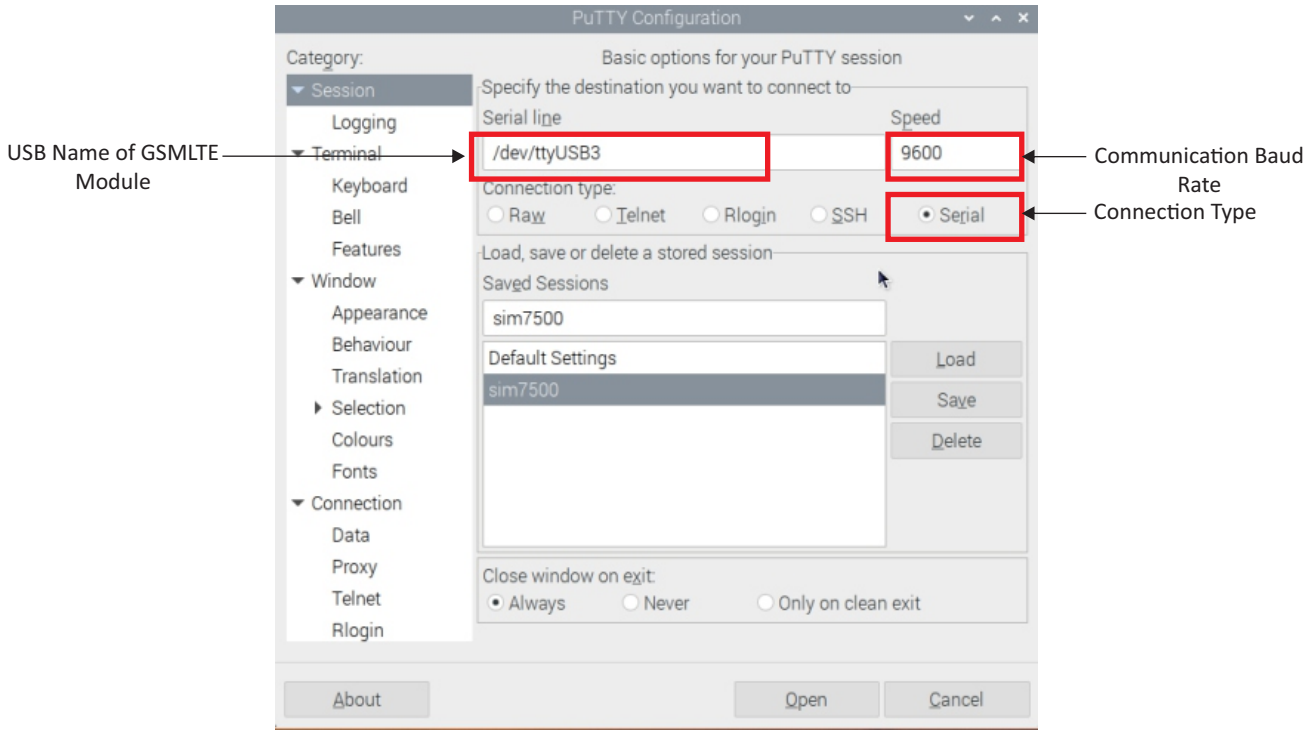

Figure 5: Putty Configuration for serial communication .

10. Click '**Open**' , then type AT commands on SSH termianl for program the GSMLTE expansion module.

Table 1: Cellular communication bands supported by expansion module .

SIM7500x Compatible Bands	GSM	900/ 1800 MHz
	WCDMA	B1/ B2/ B5/ B8
	LTE-FDD	B1/ B2/ B3/ B4/ B5/ B7/ B8/ B12/ B13/ B18/ B19/ B26/ B28
SIM7600x Compatible Bands	GSM	850/ 900/ 1800/ 1900MHz
	WCDMA	B1/ B2/ B5/ B8
	LTE-FDD	B1/ B2/ B3/ B4/ B5/ B7/ B8/ B12/ B20/ B66
	LTE-TDD	B38/ B40/ B41

Startup Guide

3. Revision History .

The table shown below include the revision history of this document.

Revision Number	Date	Substantial Changes
0	18/3/2022	First Edition of Startup guide
1	-	-

Technical Support
https://sensoper.com/support/

Order Online
https://sensoper.com/

Sales Inquiries
https://sensoper.com/contact-us/