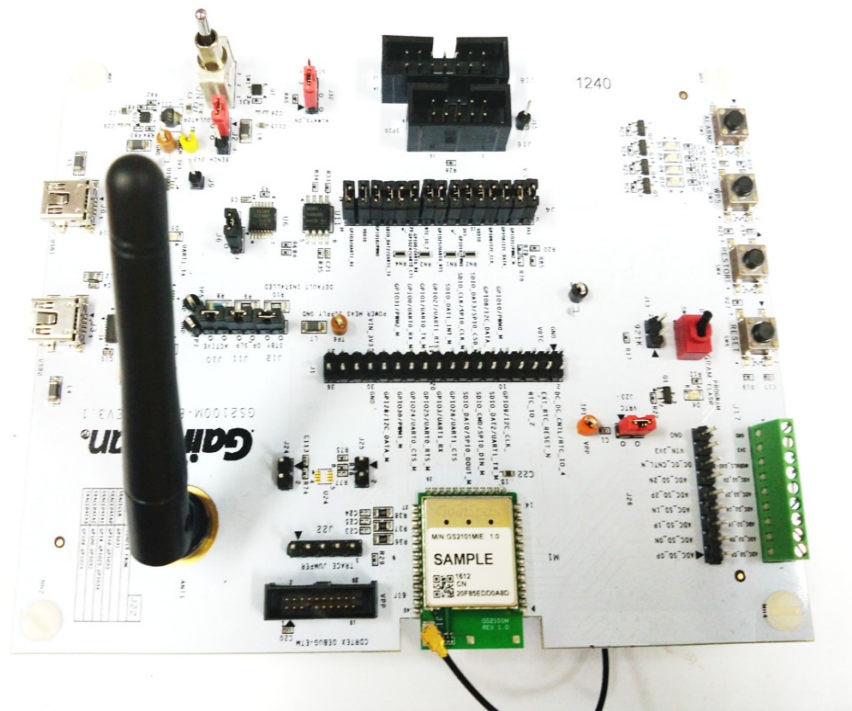# GS2101M Evaluation Board Quick Start Guide

Supports GS2101M Module

This Quick Start Guide will walk you through the easy steps to setup and run the GS2101M EVB Board for Serial to WiFi and/or IP to WiFi APP.

You will need the following items:

- Quick Start Guide (this document)
- GS2100M Evaluation Board
- Serial Cable (USB to Mini-USB)

1 Build the Package

Step 1 Login at *https://wifi.telit.com/secure/login.*

If you do not have a login, sign up and register for a Portal account at:

https://wifi.telit.com/secure/register

Step 2 Under **SDK Builder** tab, select **Build Type, Module, Firmware Version, Build Output and Application to build as shown in the below snapshot.** Click the **Build** button to generate the binaries.

The build configuration will be submitted and a confirmation email will be sent notifying that the package is complete and ready to download the zip file containing the firmware and binaries used to program the board.

The following figures shows the SDK Builder screen for building Serial to WiFi or IP to WiFi custom binaries.
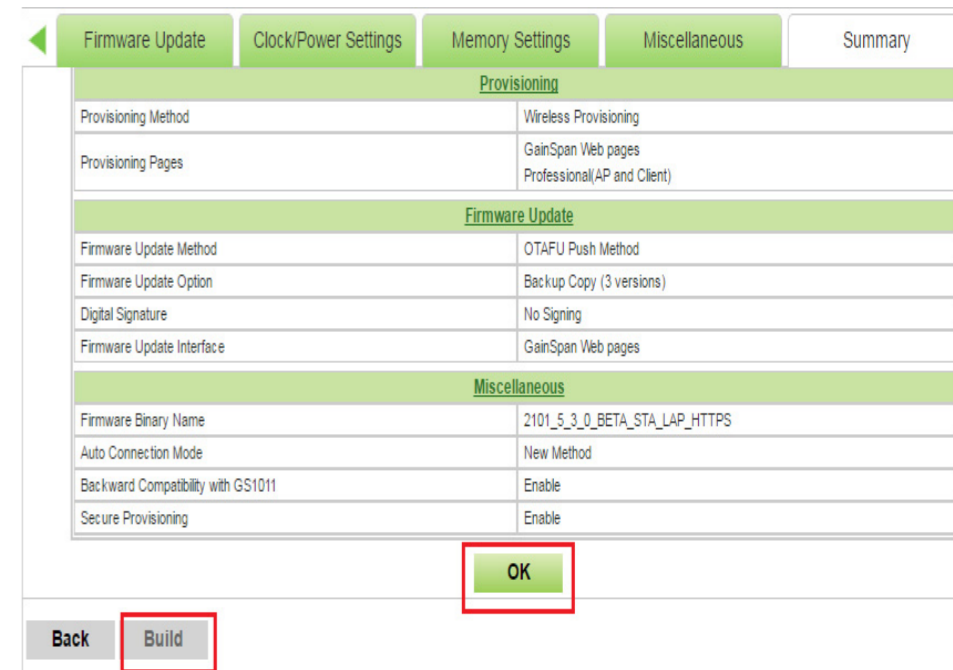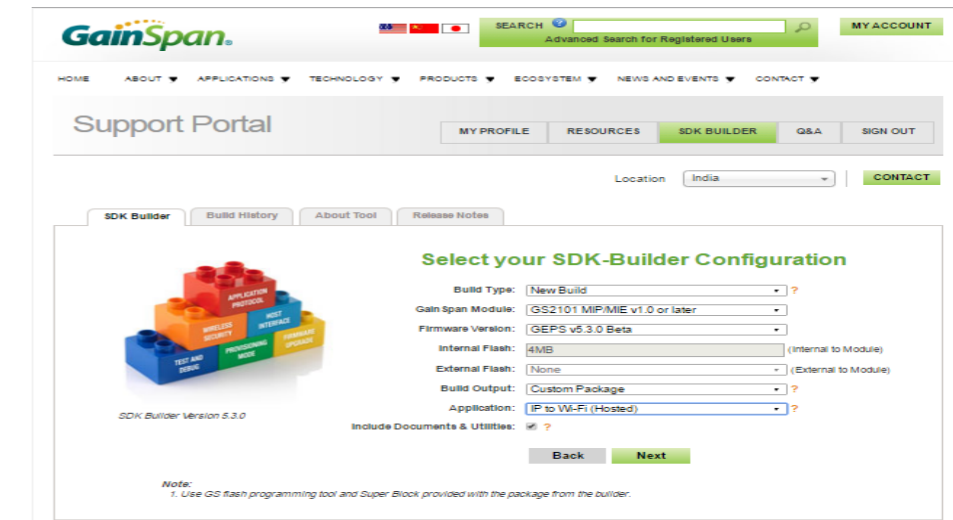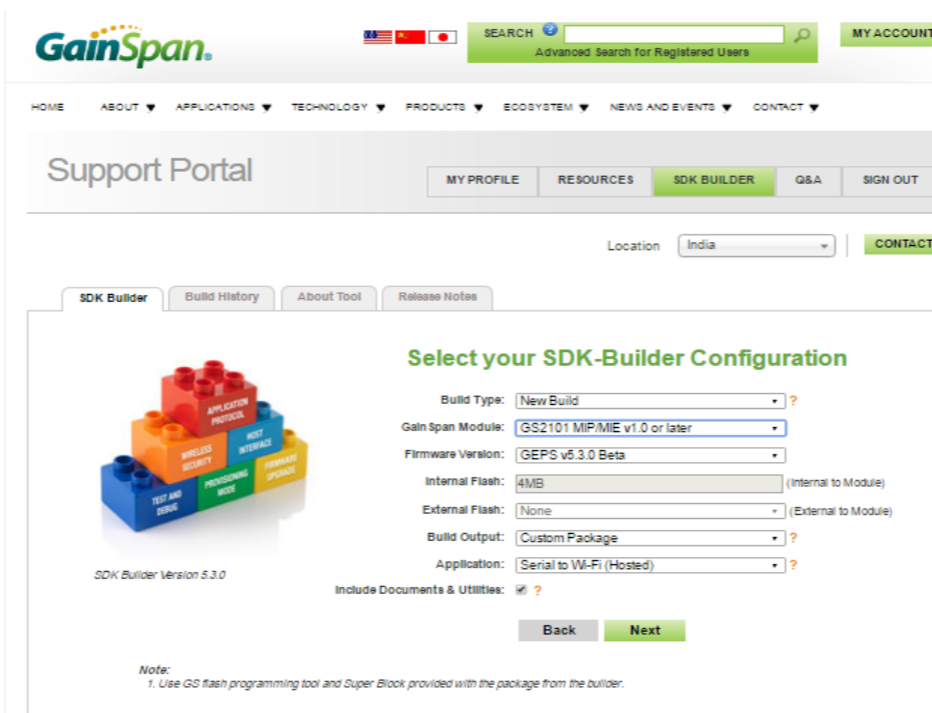

Important: Newer version of the firmware maybe available on the Telit Wi-Fi Portal. Login to the Telit Wi-Fi Portal (*https://wifi.telit.com/secure/login*) and check the latest version available for your board on the SDK Builder. If the SDK Builder has a newer version, follow the steps in the *SDK Builder User Guide* to build the latest binary and update your evaluation board using the *gs2k_module_programming* utility.

2 Program the GS Module

Step 1 Plug the mini-USB cable, one end of the **USB** port to GS2101M board USB0 and the other end of the USB port to the computer or laptop.

Step 2 Turn the PROGRAM/RUN switch to **PROGRAM** mode on the EVB and perform a power cycle.
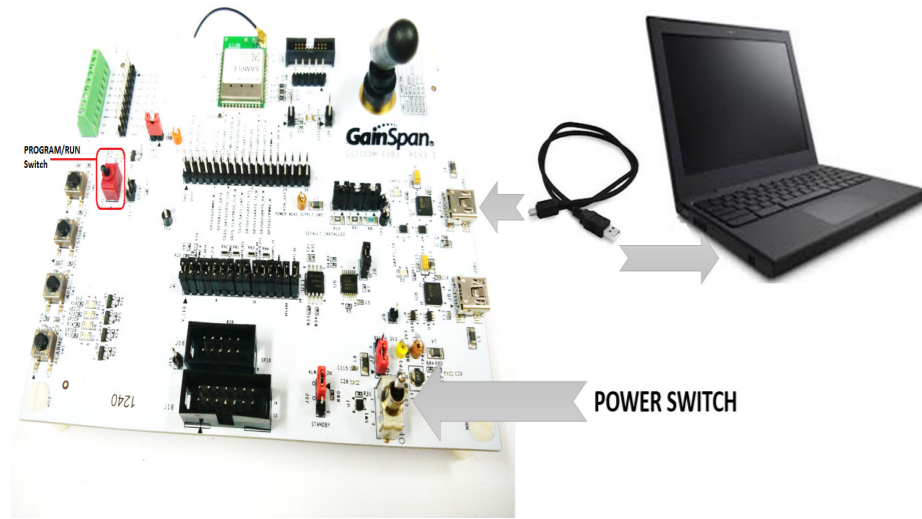
Step 3 Open the GainSpan Serial Flash Programmer GUI application and select Serial-to-WiFi firmware using the UART interface from location <EVK PACKAGE>\Tools\GS_programming_tool\gs2k_flashprogram.exe
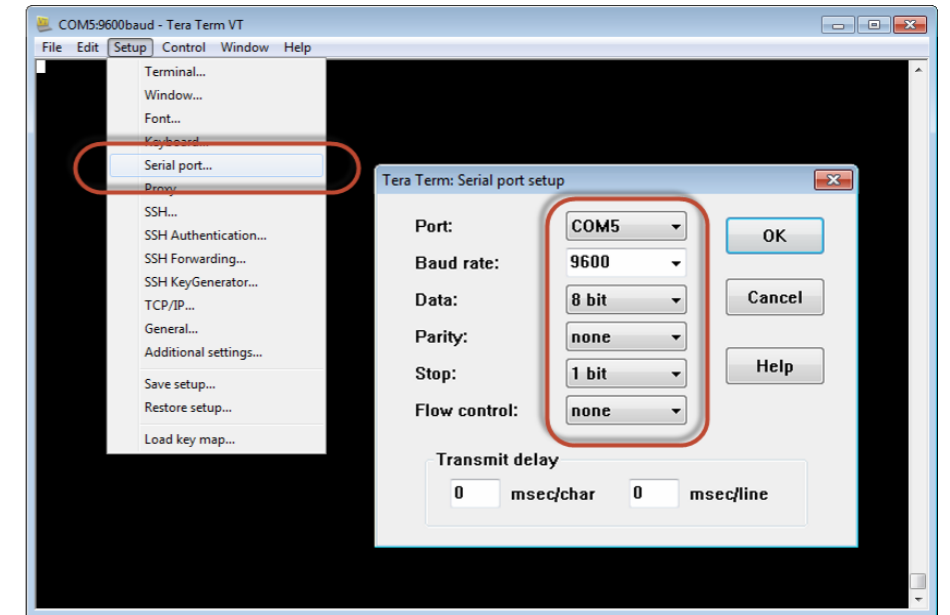Program the EVB.
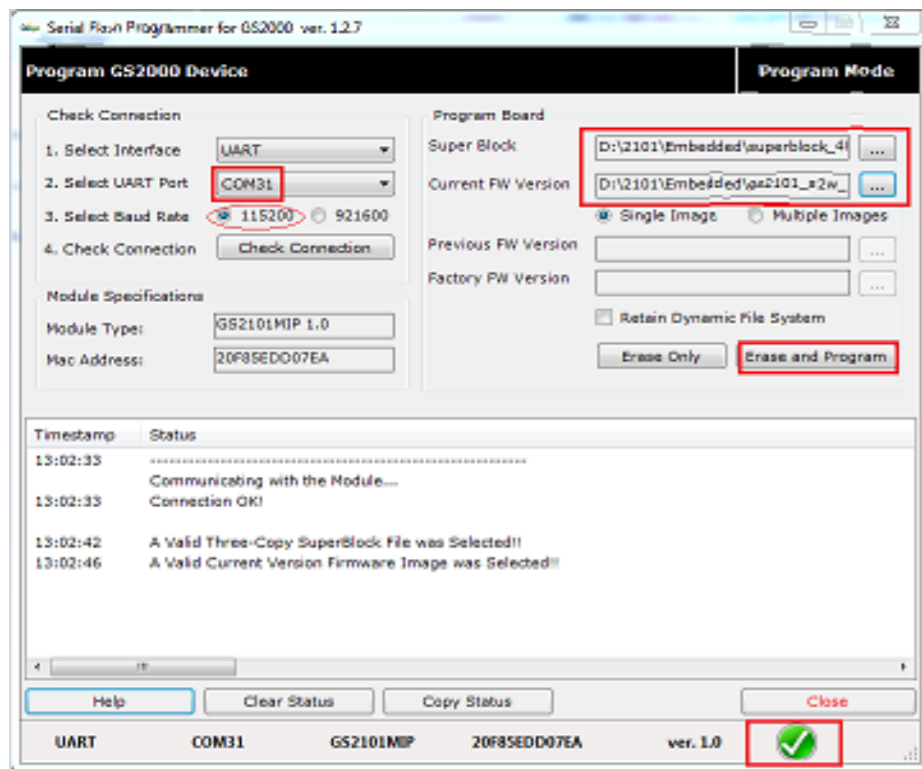
Step 4 Put the PROGRAM/RUN switch to **RUN** mode and perform a power cycle.
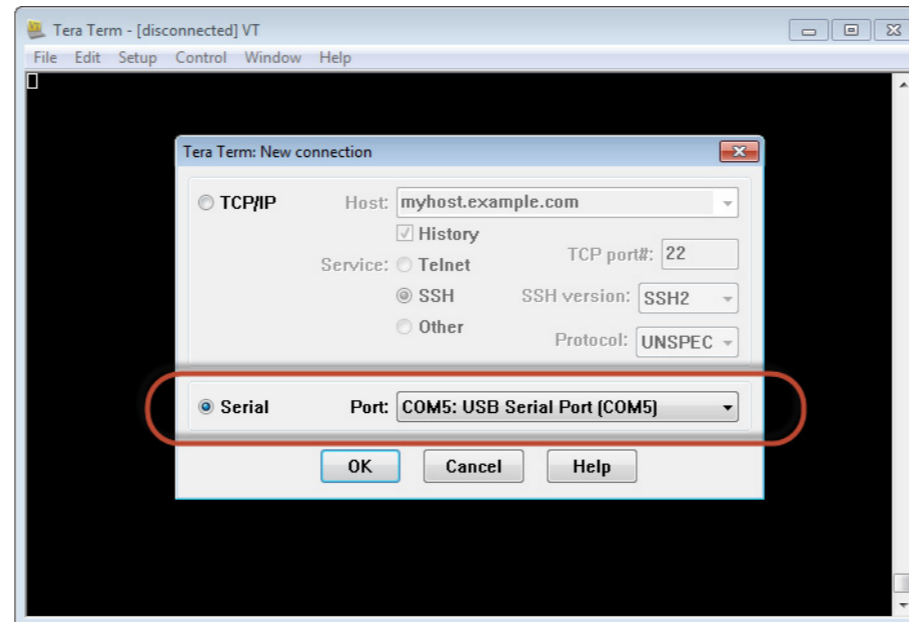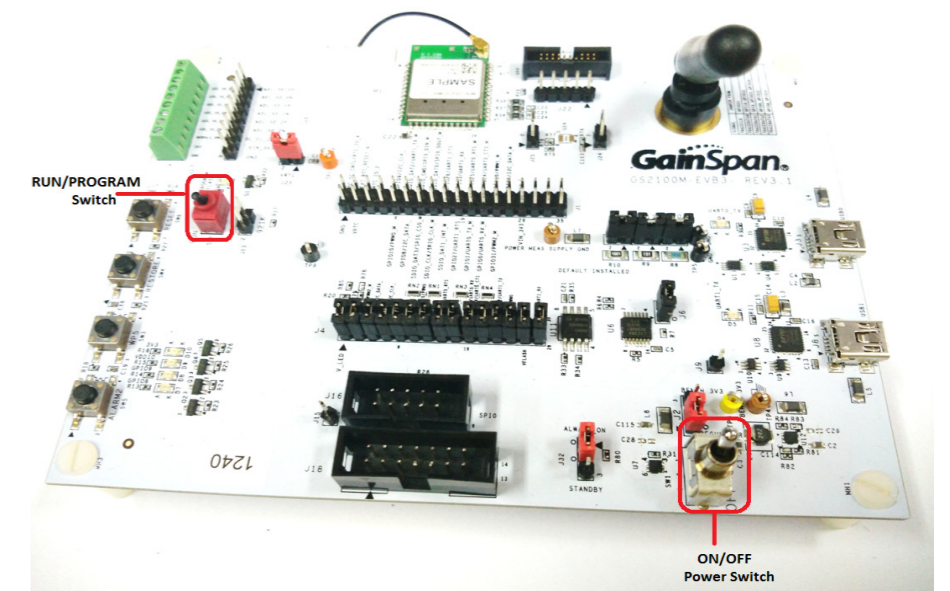
4 Configure the Serial Port

Note: To verify you have the correct Serial COM port, open the Windows Control Panel and select Device Manager.

Open a Serial Terminal Emulation Software of your choice. Select the serial COM port associated with the board. In this example we are using Tera Term VT. You can download a copy of Tera Term VT at: *http://ttssh2.sourceforge.jp/*

Setup the Serial port:

- Port: **COMx** (*x* is the number of the COM port)
- Baud Rate: **9600**
- Data: **8 bit**
- Parity: **none**
- Stop: **1 bit**
- Flow Control: **none**

5 Run the GS Module

Step 1 Ensure that the RUN/PROGRAM switch is in RUN mode. Turn the ON/OFF switch to the ON position. The Serial to WiFi or IP to WiFi APP will display in the Tera Term VT window.

Step 2 Enter AT comand, *at+ver=??,* to verify that the board is communicating and the firmware version on the board is displayed.

The Tera Term VT logs of the command for Serial to WiFi and IP to WiFi is as shown below:

```
COM18 - Tera Term VT
File  Edit  Setup  Control  Window  Help

Serial2WiFi APP
at+ver=??
S2W APP VERSION=5.3.0
S2W GEPS VERSION=5.3.0
S2W WLAN VERSION=5.3.0
S2W BIN TYPE=GS2K_BUILDER_9243
S2W RELEASE TYPE=BETA
BUILD TIME=00:00:04
BUILD DATE=Jun 17 2016
WLAN EXT VERSION=35
S2W APP EXT VERSION=18
WLAN FEAT BMAP=0000000000000207
GEPS EXT VERSION=17
FLASH ID=0x000020c2:MICRONIX-4MB
OK
```

```
COM8 - Tera Term VT
File  Edit  Setup  Control  Window  Help

Ip2WiFi APP

at+ver=??
IP2WIFI APP VERSION=5.3.0
IP2WIFI GEPS VERSION=5.3.0
IP2WIFI WLAN VERSION=5.3.0
IP2WIFI BIN TYPE=GS2K_BUILDER_9231
IP2WIFI RELEASE TYPE=BETA
BUILD TIME=08:04:57
BUILD DATE=Jun 16 2016
WLAN EXT VERSION=35
IP2WIFI APP EXT VERSION=18
WLAN FEAT BMAP=0000000000000207
GEPS EXT VERSION=17
FLASH ID=0x000020c2:MICRONIX-4MB
OK
```

Note: The Evaluation Package includes documentation, EVB schematics, EVB firmware, software utilities such as Tera Term, and gs2k_flashprogram utility. Use the gs2k_flashprogram utility provided with the EVB package to re-flash the EVB if needed.

Technical and Product Support

For any clarification, technical and product support, please email to Telit Technical Support at:
TS-SRD@telit.com

We recommend adding "*Wi-fi*" in subject of the email. For example, the subject of email can be "Wi-Fi: Association failing", "Wi-Fi: SPI Driver Issue".
Also, in description of your email, please provide details about the issue, product, module and use case including software firmware version, module version and type, application being used, customizations done to application, use case and issue frequency and ability to recreate it.

Information

For information, please refer to the following documents:

* *GS2K SDK Builder User Guide*
  - Configuring and generating custom S2W firmware binary images from web portal based on features required

* *GS2K Module Programming User Guide*
  - How to Program the module

* *GS2K SDK Application Programming Guide*
  - If SDK is purchased, for setting up, compiling, and debugging firmware using IAR IDE. This also has reference codes for various use cases, debugging mechanisms, detailed description of various modules and features and much more

* *GS2K S2W Use Case Reference Guide*
  - For sequence of AT commands to be used for any particular use case

* *GS2K Module Evaluation Board Hardware User Guide*
  - For evaluation board description and hardware setup, jumper settings, component description, board specifications, and pin outs

* *IP2WiFi Adapter Command Reference Guide*
  - For IP-to-WiFi AT command description

* *S2W Adapter Command Reference Guide*
  - For detailed description of every AT command

* *GS2K Live Calibration Application Note*
  - For calibrating the module for optimum reception, which needs to be done once in the lifetime of the product unless the flash is erased completely for some reason

* *GS2K Memory Map and File System Application Note*
  - Provides the memory architecture of the Wi-Fi modules and provide details about types of memory, location, and content of various items in these memory locations

For further information, please visit the website link:
https://www.telit.com/products/wifi-and-bluetooth/#wifi