

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)

Build the Package

Step 1 Open the SDK Builder www.gainspan.com/ secure/login

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

https://www.gainspan.com/secure/register

Step 2 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.

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Support Portal	PROFILE RESOURCES SDK BUILDER Q&A SIGN OUT
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SDK Builder Build History About Tool Release Not	18
Selec	t your SDK-Builder Configuration
Bull	Type: New Build ?
Gain Span M	odule: GS2101 MIP/MIE v1.0 or later +
Firmware V	arsion: GEPS v5.3.0 Beta •
Interna	Flash: 4MB (Internal to Module)
Tis AN Tis Externa	Flash: None * (External to Module)
Build	utput: Custom Package • ?
Appl	cation: Serial to Wi-Fi (Hosted) • ?
Include Documents & U	tilities: 🗹 ?
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Note: 1. Use GS flash programming tool and Super Block provided w	th the paokage from the builder.



GS2101M_QSG_EVB_001267, Version1.1

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Istory About Tool Release Notes					
Build Type:	New Build · ?				
Gain Span Module:	GS2101 MIP/MIE v1.0 or later				
Firmware Version:	GEPS v5.3.0 Beta				
Internal Flash:	4MB (Internal to Module)				
External Flash:	None * (External to Module)				
Build Output:	Custom Package				
Application:	IP to Wi-Fi (Hosted)				
include Documente a Otilities.	æ r				
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programming tool and Super Block provided with the package from the builder.					

Clock/Power Settings	Memory Settings		Miscellaneous	Summary		
Provisioning						
	١	Wireless Provisioning				
	(GainSpan Web pages Professional(AP and Client)				
Firmware Update						
	(OTAFU Push Method				
	E	Backup Copy (3 versions)				
	1	No Signing				
	(GainSpan Web pages				
<u>Miscellaneous</u>						
	2	2101_5_3_0_BETA_STA_LAP_HTTPS				
	1	New Method				
GS1011	E	Enable				
	E	Enable				
	OK	(

Important: Newer version of the firmware maybe available on the GainSpan Portal. Login to the GainSpan Portal (www.gainspan.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.

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.

🦇 Serial Rosh Progr	Tammer for 652000 ver. 12.7						
Program GS200	00 Device Program Node						
Check Connectio	on Program Board						
1. Select Interfa	ce UART - Super Block D:\2101\Embedded\superblock_4						
2. Select UART P	Part COM31 Current FW Version D1/2101/Embedded/ga2101_s2w						
3. Select Baud R	tate 🖉 115200 🗇 921600 🛞 Single Image 🔘 Multiple Images						
4. Check Connec	ction Check Connection Previous FW Version						
Nodule Specifica	ationa Factory PW Version						
Module Type:	GS2101MIP 1.0						
Mac Address:	20F85EDD07EA Erase Only Erase and Program						
Timestamp St	tatus						
13:02:33	emproprieta atta Medula						
13:02:33 C	L3:02:33 Connection OK!						
13:02:42 A	13:02:42 A Valid Three-Copy SuperBlock File was Selected!!						
13:02:46 A Valid Current Version Firmware Image was Selected!							
4	•						
Help Clear Status Copy Status Close							
UART	COM31 GS2101MIP 20F8SEDD07EA ver. 1.0						

Step 4 Put the PROGRAM/RUN switch to RUN mode and perform a power cycle.

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/

💄 Tera Term	- [diso	connected] VT					
File Edit S	etup	Control	Window	Help				
]								
		Tera Te	rm: New co	nnection			2	3
		© Te	CP/IP	Host:	myhost.exar	nple.com	*	
				Constant	History	TCP port	#: 22	
				Service:	leinet			
					SSH	SSH version:	SSH2 -	
					Other	Protocol:	UNSPEC -	
	(• S	erial	Port:	COM5: USB	Serial Port (CO№	(5) 🔹	
				ОК	Cancel	Help		

Setup the Serial port:

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

٠

Flow Control: none



Tera Term VT window.



/ Help	
Tera Term: Serial port setup	* •
Port: Baud rate: Data: Parity: Stop: Flow control: Transmit delay 0 msec/char 0	OK Cancel Help msec/line
	-

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

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Step 2Enter 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:

🔍 COM8 - Tera Term ¥T



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.

Information

For general questions, visit: http://www.gainspan.com/contactform

For sales, visit: http://www.gainspan.com/contact/sales_distributors

For technical and product support, visit: *https://www.gainspan.com/secure/question*

For additional information, refer to the following documents for:

- Configuring and generating custom firmware binary images:
 GS2K SDK Builder User Guide
- Programming module: - GS2K Module Programming User Guide
- Serial-to-WiFi AT command description:
 - S2W Adapter Command Reference Guide
- IP-to-WiFi AT command description:
 - IP2WiFi Adapter Command Reference Guide
- AT command examples for setting UDP/TCP client/server configurations HTTP/HTTPS, and EAP secure connection:
 - GS2K S2W Use Case Reference Guide
- For evaluation board description and hardware setup, jumper settings, component description, board specifications, and pin outs:
 - GS2K Module Evaluation Board Hardware User Guide
- If SDK is purchased: Setting up, compiling, and debugging firmware using IAR IDE:
 - GS2K SDK Application Programming Guide

Congratulations!

You have successfully setup your GS2101M Evaluation Board.



3590 N. First Street, Suite 300 San Jose, CA 95134 Tel +1 (408) 627-6500 www.gainspan.com