

## **RZ-G2L-OSM**

## Yocto system Burn-in User's Manual



#### **REVISION HISTORY**

Date	Version number	Reason for change	Modifiers	Remarks
2022-11-03	1.0	Create Document	wj	



### 1.Preparation of burn-in tools:

- 12V power supply \*1
- TF card \*1,
- serial cable \*1
- serial debugging software ttermpro

Download link address:

https://mega.nz/file/Vb1k0TTC#GkETBOAaJvSqWZfNDeeHpTdhLC-JZ1Zz39sCNzQ6sZY



Room 02-04, 10/F, Block A, Building 8, Shenzhen International Innovation Valley, Dashi Road, Nanshan District, Shenzhen, Guangdong, China Emai: <u>support@geniatech.com</u> Tel: (+ 86) 755 86028588 1

## 2. System burn-in

2.1 Download and unzip the burn firmware: **GSR-RZG2L-OSM-cbd\_osm\_v1.0\_SW\_V1.0** Download link address:

https://mega.nz/file/5PFTGITb#Y5rONOIoLObeG03KZ8ksuW8M4mYp2V8k3eYdcHQKuZ4

2.2 Connect the serial cable to the board as shown above, the other end of the USB port to connect to the PC, after connecting into the device manager - The port (COM and LPT) has the following port is successfully connected



2.3 Click Setup->Serial Port in the upper left corner



2.4 Drop down the Port and select the serial port recognized in the device manager (as shown above, mine is COM6), Room 02-04, 10/F, Block A, Building 8, Shenzhen International Innovation Valley, Dashi Road, Nanshan District, Shenzhen, Guangdong, China Emai: support@geniatech.com 12: (+ 86) 755 86028588 2 Geniatech

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then drop down and select Baud rate (baud rate) of 115200. click OK when finished.

Edit Setup Control Window Help Tera Term: Serial port setup × Port: 1 COM6 V OK 3 Baud rate: 2 115200 Cancel Parity: none V Stop: 1 bit V Help Flow control: none V Transmit delay 0 msec/char 0 msec/line	COM6:115200baud - Tera Term VT			<i>9</i> 🗆	×
Tera Term: Serial port setup ×   Port: 1 COM6 ~   Baud rate: 2 115200 ~   Data: 8 bit ~   Parity: none ~   Parity: none ~   Stop: 1 bit ~   Help   Flow control: none ~   Transmit delay   0 msec/char   0 msec/line	Edit Setup Control Window	Help			
Tera Term: Serial port setup ×   Port: 1 COM6    Baud rate: 2 115200    Data: 8 bit    Cancel   Parity: none    Stop: 1 bit    Help   Flow control: none    Transmit delay   0 msec/char   0 msec/line					
Tera Term: Serial port setup       ×         Port:       1 COM6       OK       3         Baud rate:       2 115200       Cancel       3         Data:       8 bit       Cancel       4         Parity:       none       Help       4         Flow control:       none       0       msec/line					
Port: 1 COM6 OK 3 Baud rate: 2 115200 Cancel Parity: none Cancel Parity: none Help Flow control: none Cancel Transmit delay 0 msec/char 0 msec/line	Tara Taray Savid and	t ootoo	×		
Baud rate: 2 115200 Cancel Parity: none Help Flow control: none Transmit delay 0 msec/char 0 msec/line	Port:	1 сом6 ~			
Data: 8 bit   Parity: none   Stop: 1 bit   Flow control: none   Transmit delay   0 msec/char   0 msec/line	Baud rate:	2 115200 ~			
Parity: none Help Stop: 1 bit Help Flow control: none Flow control: none msec/line	Data:	8 bit 🗸 🗸 🗸	Cancel		
Stop: 1 bit - Help Flow control: none - Transmit delay 0 msec/char 0 msec/line	Parity:	none ~			
Flow control: none Transmit delay          0       msec/char       0       msec/line	Stop:	1 bit 🗸 🗸	Help		
Transmit delay 0 msec/char 0 msec/line	Flow control:	none ~			
0 msec/char 0 msec/line	- Transmit del	ay			
	0 ms	ec/char 0 m	sec/line		

2.5Press and hold the Recovery key and power up into burn-in mode, the serial software will print the following

COM6:115200baud - Tera Term VT	<u>@</u>	×
File Edit Setup Control Window Help		
SCIF Download mode (C) Renesas Electronics Corp.		^
please send !		

2.6 Click on File->Send File in the top left corner

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M	COM6:115200baud - Te	ra Term V	-	<u>@</u>	×
File	Elit Setup Control	Window	Help		
	New connection	Alt+N			~
	Duplicate session	Alt+D			
	Cygwin connection	Alt+G			
	Log				
	Comment to Log				
	View Log				
	Show Log dialog				
	Send file 2				
	Transfer	>			
1	SSH SCP				
1	Change directory				
1	Replay Log				
	LogMeTT				
	Print	Alt+P			
	Disconnect	Alt+I			
	Exit	Alt+Q			

2.7 Open it and go to the firmware storage location, double click into the firmware folder and select Flash\_Writer\_SCIF\_RZG2L\_SMARC\_PMIC\_DDR4\_2GB\_1PCS.mot file upload.

COM	6:115200baud	- Tera Term	VI			_	П.	×
File Edit	Setup Con	trol Windo	w Help					
SCIF Dow (C) Rene	nload mode sas Electror Program to Si	nics Corp.						^
)lease 😃 Invali	Tera Term: Se	end file			×			
lease	Filename:	C_PMIC_	DDR4_2GE	3_1PCS.mo	t			
1	Fullpath:	E:1项目10	SSR RZG2L	-osm yocto	k i i i i i i i i i i i i i i i i i i i			
	Bytes trans	sfered:	42	2700 (24.3%	9			
	Close	Pa	use	Help				

2.8 After successful upload, print the following, type XLS2 and enter, first type 11E00, enter, then type 0, enter



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COM6:115200baud - Tera Term VT	1778	×
File Edit Setup Control Window Help		
SCIF Download mode (C) Renesas Electronics Corp. Load Program to System RAMplease send !		^
Flash writer for RZ/G2 Series V0.90 Aug.27,2021 Product Code : RZ/G2L		
COM6:115200baud - Tera Term VT	-	×
File Edit Setup Control Window Help		
<pre>(C) Renesas Electronics Corp.  Load Program to System RAM please send ! Flash writer for RZ/G2 Series V0.90 Aug.27,2021 Product Code : RZ/G2L &gt;XLS2 ===== Qspi writing of RZ/G2 Board Command ======== Load Program to Spiflash Writes to any of SPI address. Winbond : W25Q128JV Program Top Address &amp; Qspi Save Address ===== Please Input Program Top Address ================= Please Input : H'11E00 1 ===== Please Input Qspi Save Address ==== Please Input : H'01 2</pre>		

2.9 Select File->Send File in the upper left corner again, select bl2\_bp-smarc rzg2l\_pmic.rec file to upload.

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🚨 COM6:115200baud - Tera Term VT  $\times$ File Edit Setup Control Window Help SCIF Download mode (C) Renesas Electronics Corp. Load Program to System RAM please 🌉 Tera Term: Send file X Flash Filename: bl2\_bp-smarc-rzg2l\_pmic.srec Produ XLS2 E:\项目\GSR RZG2L-osm yocto\ Fullpath: ----Load F Bytes transfered: 33800 (35.9%) Writes Winbo Progra Close Pause Help Plea ==== Please Input Qspi Save Address === Please Input : H'0 Work RAM(H'50000000-H'53FFFFFF) Clear.... please send ! ('.' & CR stop load)

2.10 If there is a system rewrite, it will pop up whether to clear the data or not, after selecting Y, the original data will be cleared first before writing.





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2.11 Type XLS2 again and enter, as shown below, first type 0 and then 1D200 and enter

COM6:115200baud - Tera Term VT	-	×
File Edit Setup Control Window Help		
SCIF Download mode		/
(C) Renesas Electronics Corp.		
Load Program to System RAM		
please send !		
Flash writer for RZ/G2 Series V0.90 Aug.27,2021 Product Code : RZ/G2L		
>XSL2		
command not found		
===== Ospi writing of R2/G2 Board Command ===============		
Load Program to Spiflash		
Writes to any of SPI address		
Winbond : W250128JV		
Program Top Address & Ospi Save Address		
===== Please Input Program Top Address =================		
Please Input : H'11E00		
===== Please Input Qspi Save Address ===		
Please Input : H'0		
Work RAM(H'50000000-H'53FFFFFF) Clear		
please send ! ('.' & CR stop load)		
SPI Data Clear(H'FF) Check :H'00000000-0000FFFF ErasingErase Completed SAVE SPI-FLASH		
====== Qspi Save Information ====================================		
SpiFlashMemory Stat Address : H'00000000		
SpiFlashMemory End Address : H'00007A70		
XLS2		
===== Qsp1 writing of R2/G2 Board Command ====================================		
Load Program to Spiilash		
writes to any of SPI address.		
Windona : W25Q128JV		
Program lop Address & Qspi Save Address		
Please Input Program lop Address ===========		
Flease input : h 0		
===== Please Input Ospi Save Address ===		
Please Input : H 1D200		
Work RAM(H'50000000-H'53FFFFFF) Clear		
please send ! ('.' & CR stop load)		

2.12 Select file->Send File in the upper left corner again, select fip-smarc rzg2l\_pmic.srec file to upload, and then enter y. The following printout means the burn was successful



Room 02-04, 10/F, Block A, Building 8, Shenzhen International Innovation Valley, Dashi Road, Nanshan District, Shenzhen, Guangdong, China Emai: <a href="mailto:support@geniatech.com">support@geniatech.com</a> Tel: (+ 86) 755 86028588 7 2.13 Copy the **core-image-weston-smarc-rzg2l.ext4** file to the TF card, insert the TF card into the slot, reboot, print to the following position and press Enter to enter Uboot.

```
COM6:115200baud - Tera Term VT
File Edit Setup Control Window Help
NOTICE: BL2: v2.5(release):v2.5/rzg21-1.00-dirty
NOTICE: BL2: Built : 08:15:19, Sep 12 2021
NOTICE: BL2: Booting BL31
NOTICE: BL31: v2.5(release):v2.5/rzg21-1.00-dirty
NOTICE: BL31: Built : 08:15:19, Sep 12 2021
J-Boot 2020.10 (Sep 16 2021 - 07:58:18 +0000)
CPU: Renesas Electronics E rev 16.15
Model: smarc-rzg21
DRAM: 1.9 GiB
MMC:
      sh-sdhi: 0, sh-sdhi: 1
Loading Environment from MMC... OK
      serial@1004b800
In:
      serial@1004b800
Dut:
Err:
      seria1@1004b800
invalid eeprom data
Net:
Error: ethernet@11c20000 address not set.
No ethernet found.
Hit any key to stop autoboot:
                              2
```

2.14 Execute the following commands in sequence

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fatls mmc 1

fatload mmc 1 0x58000000 core-image-weston-smarc-rzg2l.ext4 mmc write 0x58000000 0 0x2B3B68

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2.15 After burning, pull out the TF card and reboot it.