

RZ-G2L-OSM

Yocto system Burn-in User's Manual

REVISION HISTORY

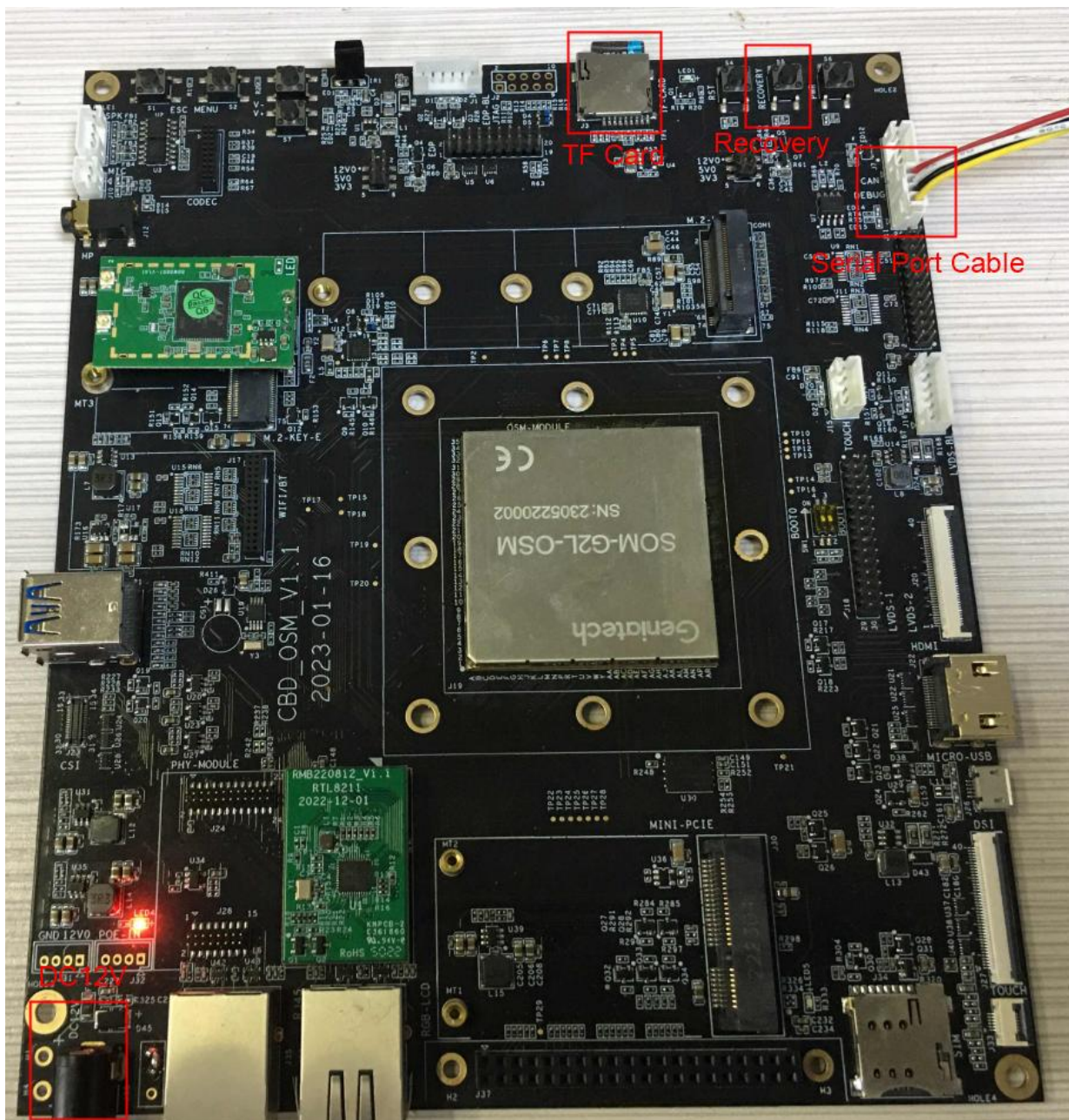
Date	Version number	Reason for change	Modifiers	Remarks
2022-11-03	1.0	Create Document	wj	

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>



2. System burn-in

2.1 Download and unzip the burn firmware: **GSR-RZG2L-OSM-cbd_osm_v1.0_SW_V1.0**

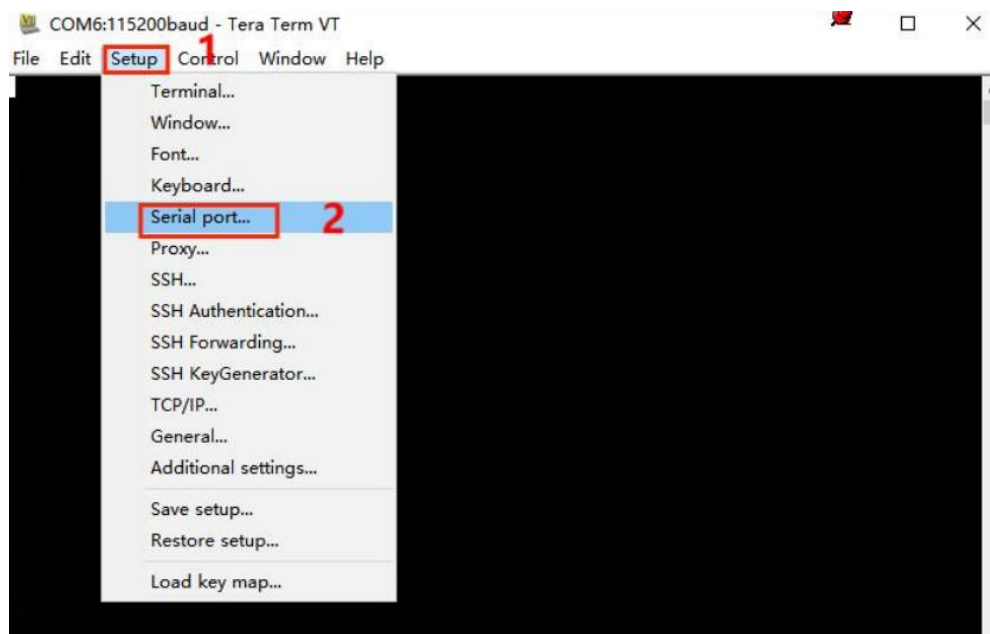
Download link address:

<https://mega.nz/file/5PFTGtB#Y5rONOlOLobEG03KZ8ksuW8M4mYp2V8k3eYdcHQKuZ4>

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

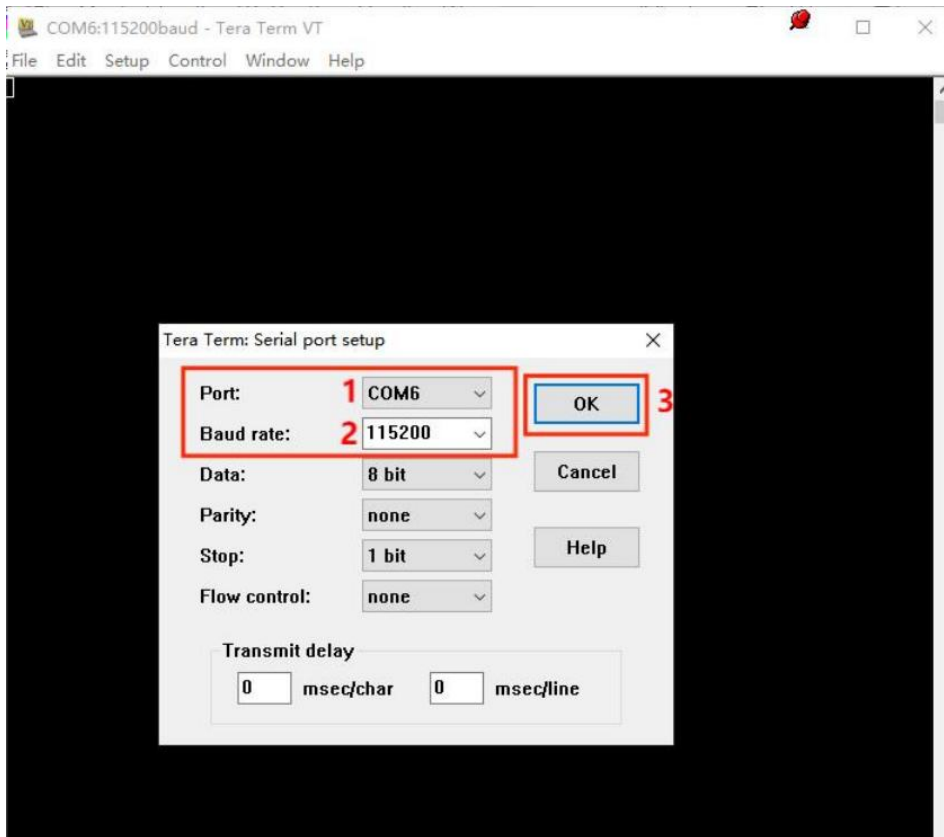


2.3 Click Setup->Serial Port in the upper left corner

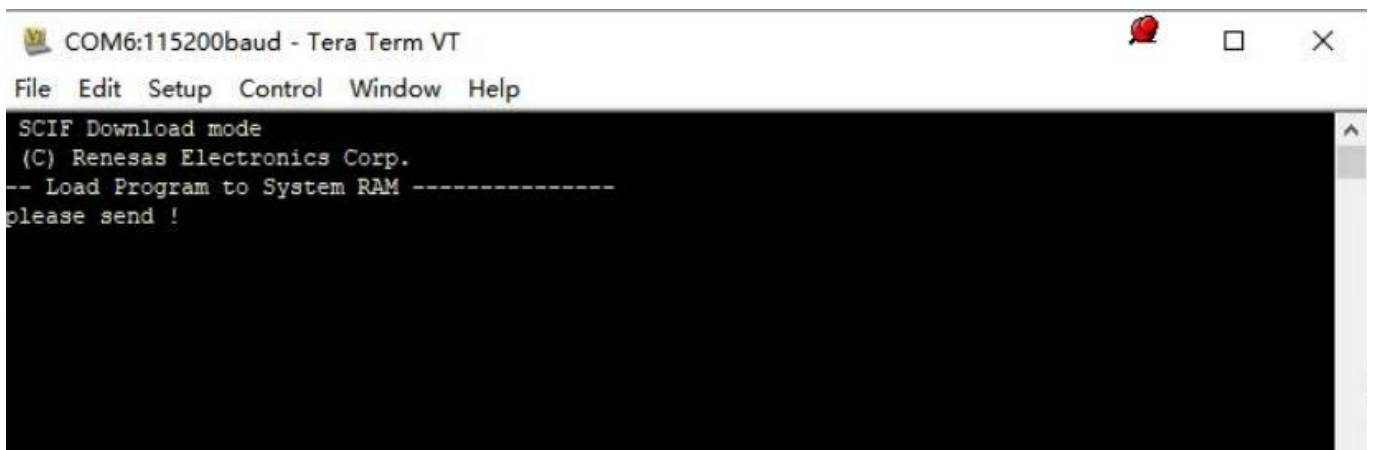


2.4 Drop down the Port and select the serial port recognized in the device manager (as shown above, mine is COM6),

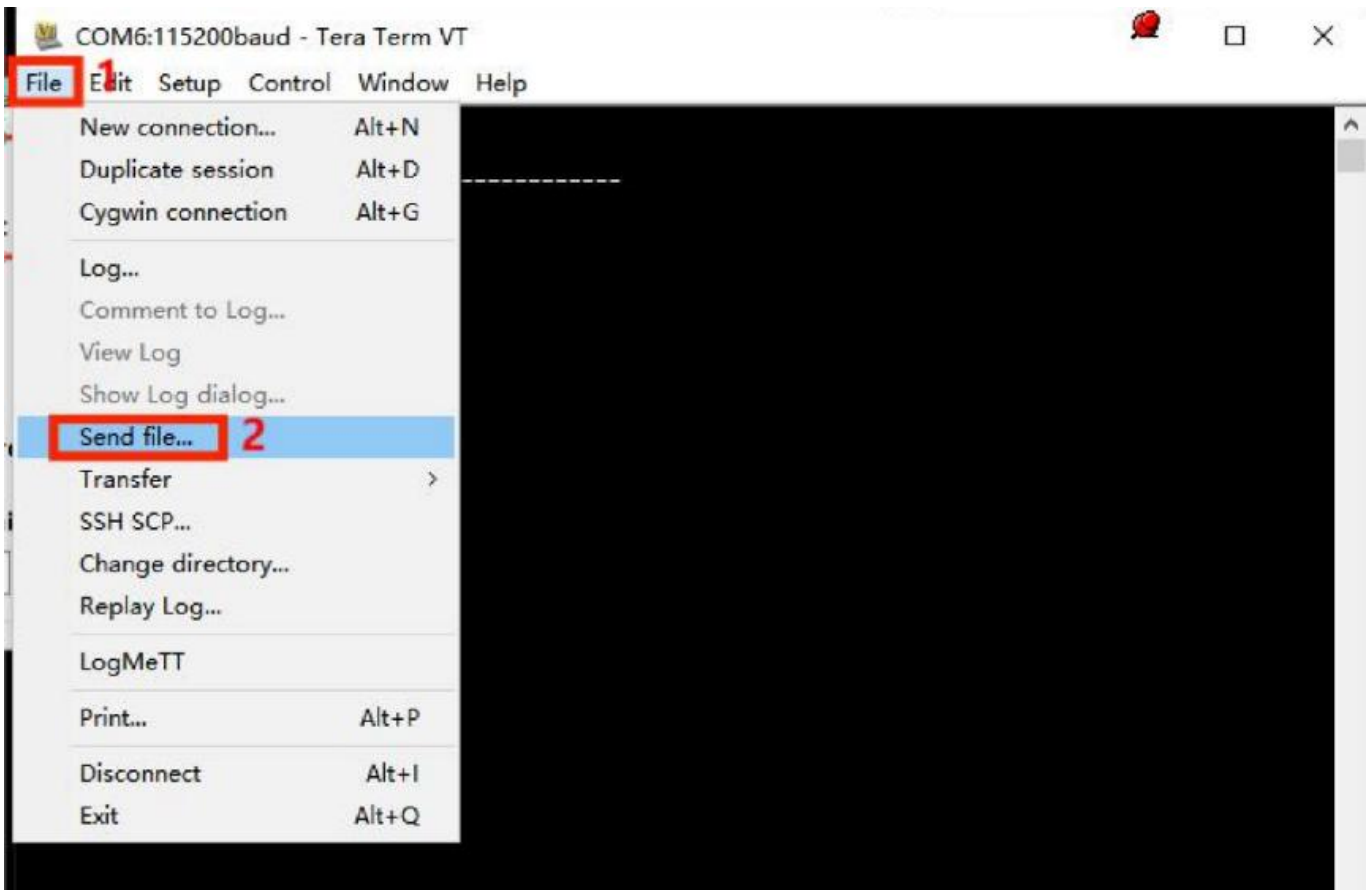
then drop down and select Baud rate (baud rate) of 115200. click OK when finished.



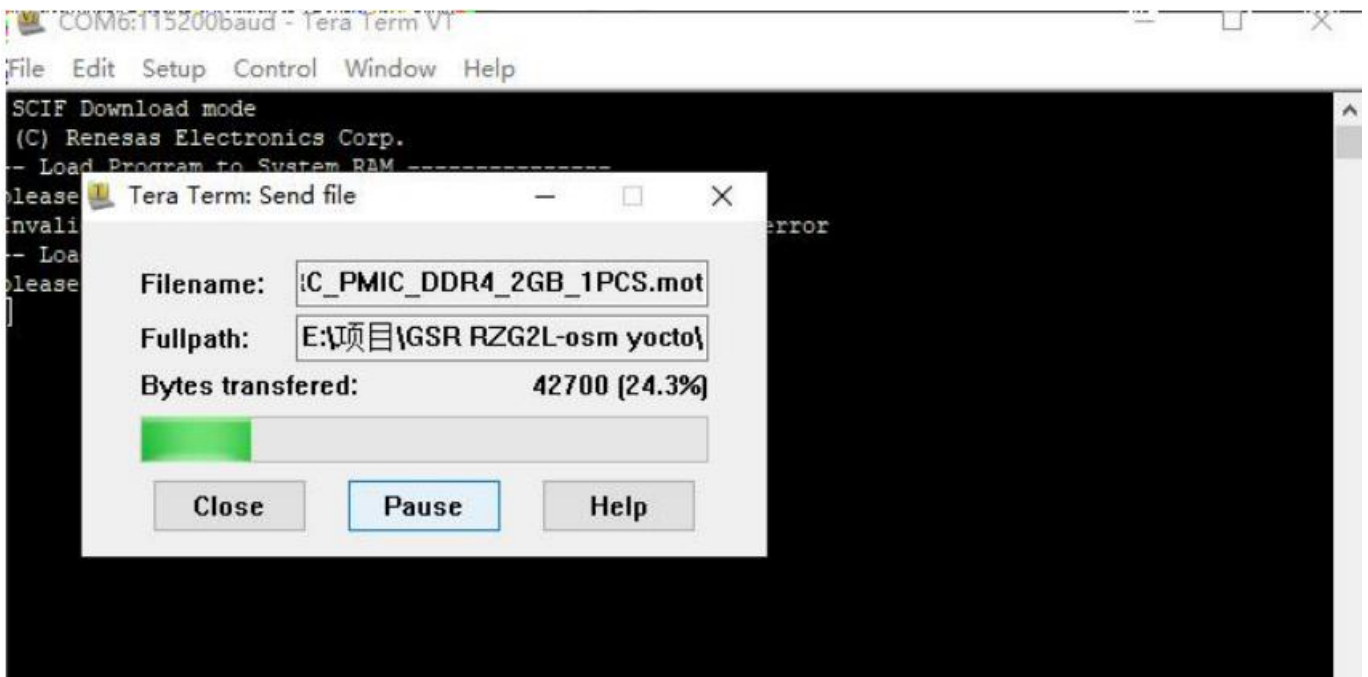
2.5 Press and hold the Recovery key and power up into burn-in mode, the serial software will print the following



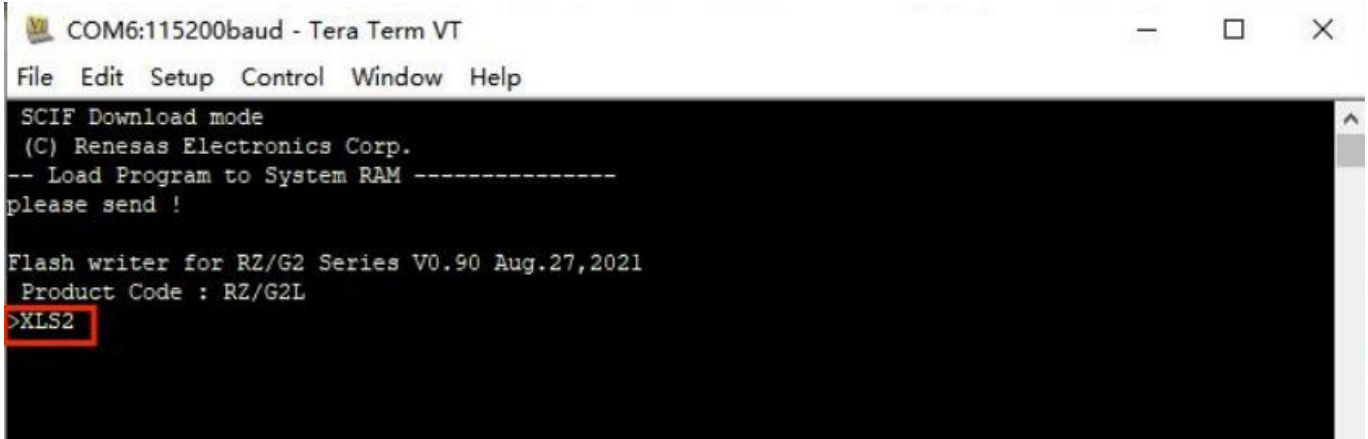
2.6 Click on File->Send File in the top left corner



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.

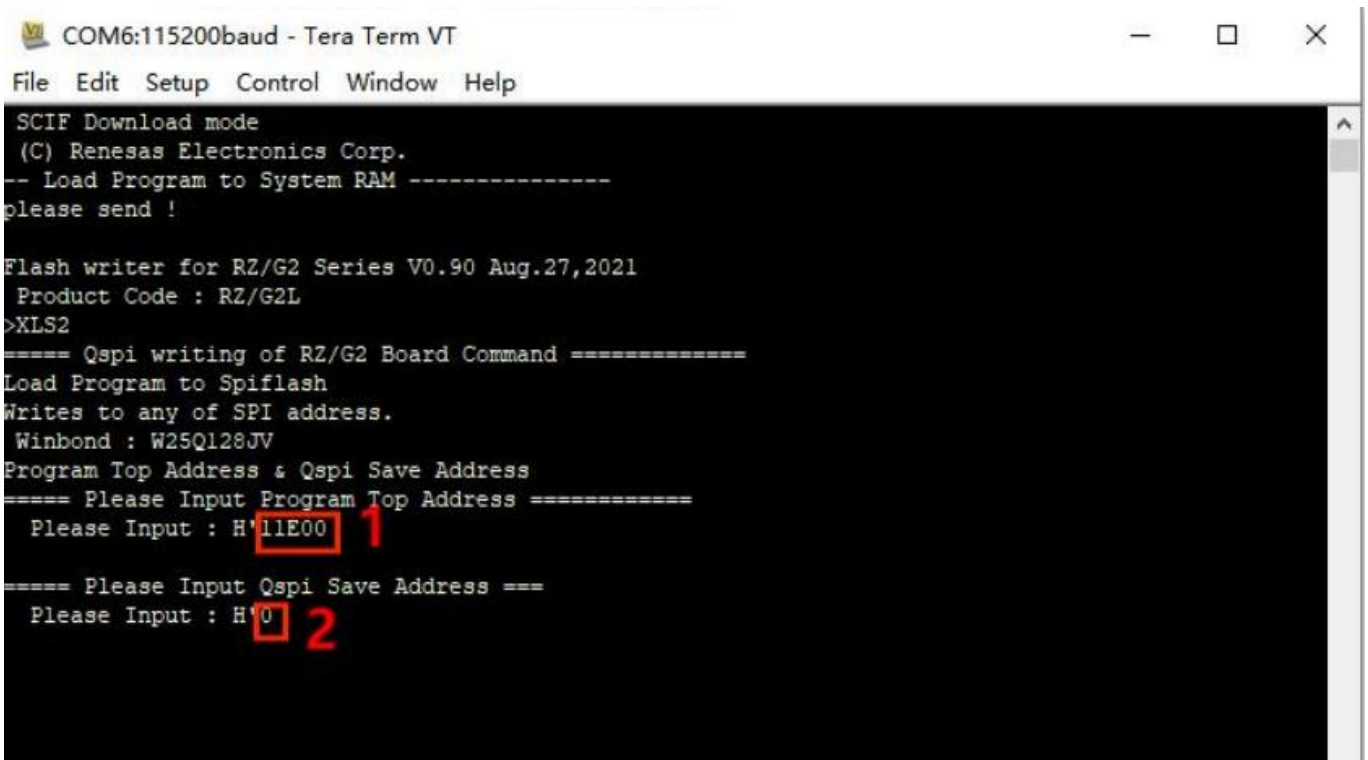


2.8 After successful upload, print the following, type [XLS2](#) and enter, first type [11E00](#), enter, then type [0](#), enter



```
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 !

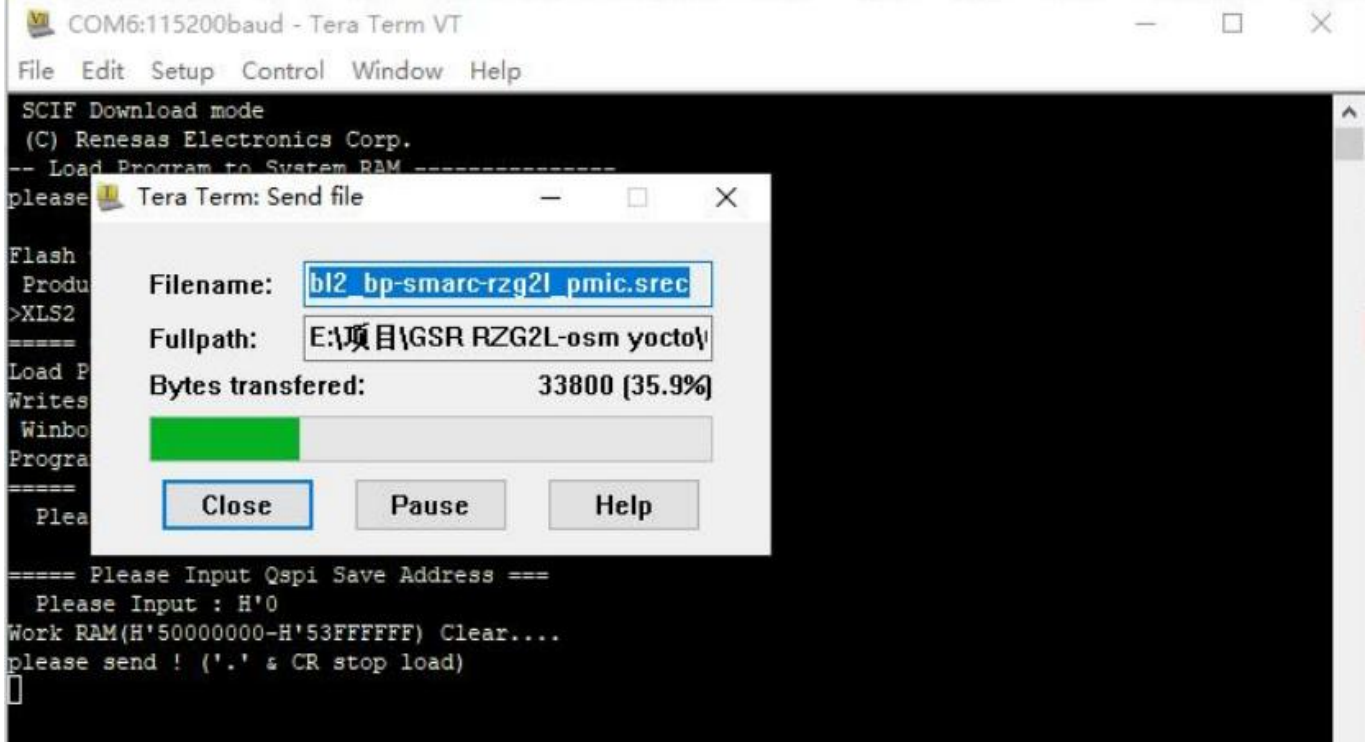
Flash writer for RZ/G2 Series V0.90 Aug.27,2021
Product Code : RZ/G2L
>XLS2
```



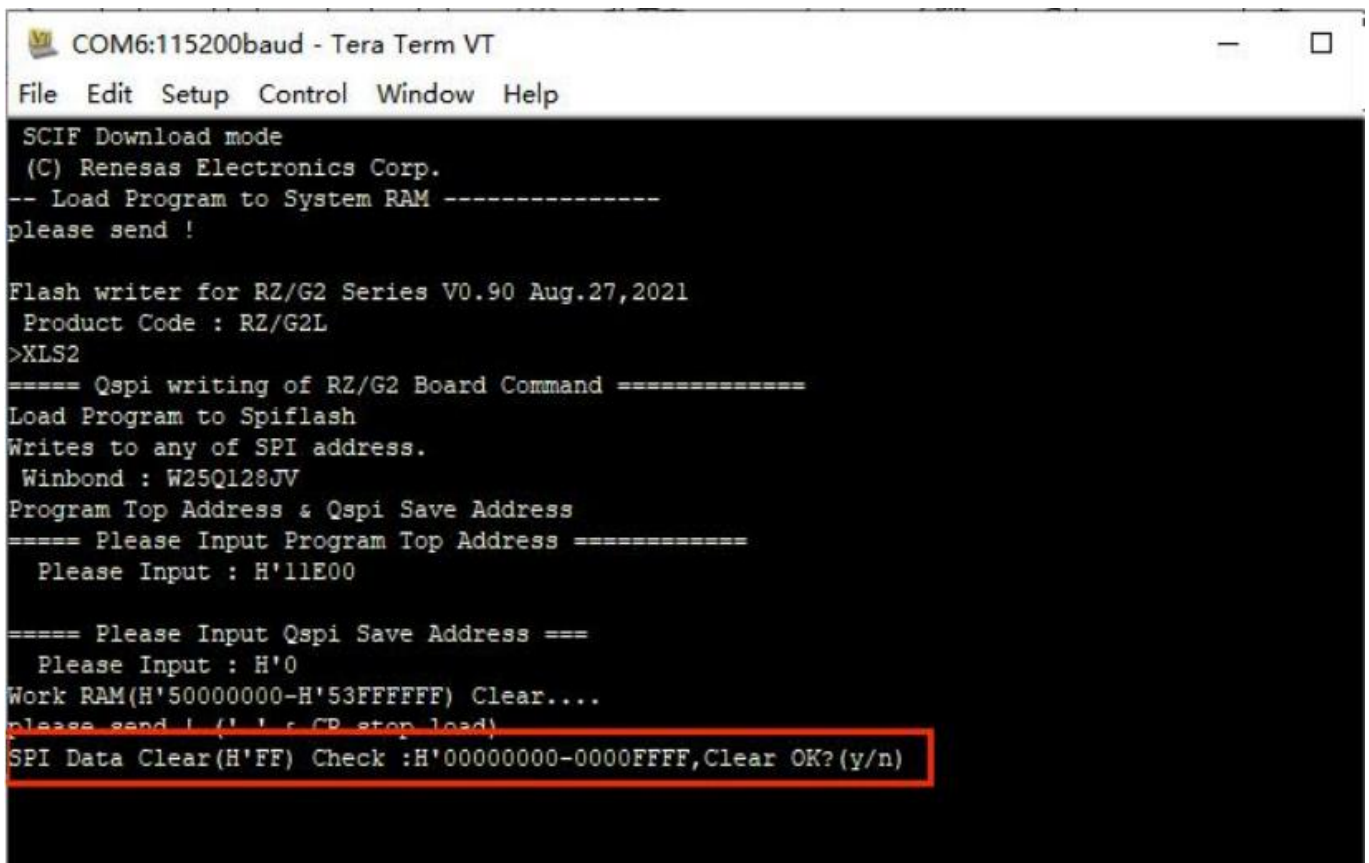
```
COM6:115200baud - Tera Term VT
File Edit Setup Control Window Help
SCIF Download mode
(C) Renesas Electronics Corp.
-- Load Program to System RAM -----
please send !

Flash writer for RZ/G2 Series V0.90 Aug.27,2021
Product Code : RZ/G2L
>XLS2
===== Qspi writing of RZ/G2 Board Command =====
Load Program to Spiflash
Writes to any of SPI address.
Winbond : W25Q128JV
Program Top Address & Qspi Save Address
===== Please Input Program Top Address =====
Please Input : H'11E00 1
===== Please Input Qspi Save Address ===
Please Input : H'0 2
```

2.9 Select File->Send File in the upper left corner again, select [bl2_bp-smarc_rzg2l_pmic.rec](#) file to upload.



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.



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
>XLS2
command not found
>XLS2
===== Qspi writing of RZ/G2 Board Command =====
Load Program to Spiflash
Writes to any of SPI address.
Winbond : W25Q128JV
Program Top Address & Qspi 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 Erasing..Erase Completed
SAVE SPI-FLASH.....
===== Qspi Save Information =====
SpiFlashMemory Stat Address : H'00000000
SpiFlashMemory End Address : H'00007A70
=====

>XLS2
===== Qspi writing of RZ/G2 Board Command =====
Load Program to Spiflash
Writes to any of SPI address.
Winbond : W25Q128JV
Program Top Address & Qspi Save Address
===== Please Input Program Top Address =====
Please Input : H'0
===== Please Input Qspi 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

```
SPI Data Clear(H'FF) Check :H'00010000-000CFFFF Erasing.....Erase Completed
SAVE SPI-FLASH.....
===== Qspi Save Information =====
SpiFlashMemory Stat Address : H'0001D200
SpiFlashMemory End Address : H'000C645F
=====

>
```

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/rzg2l-1.00-dirty
NOTICE: BL2: Built : 08:15:19, Sep 12 2021
NOTICE: BL2: Booting BL31
NOTICE: BL31: v2.5(release):v2.5/rzg2l-1.00-dirty
NOTICE: BL31: Built : 08:15:19, Sep 12 2021

U-Boot 2020.10 (Sep 16 2021 - 07:58:18 +0000)

CPU: Renesas Electronics E rev 16.15
Model: smarc-rzg2l
DRAM: 1.9 GiB
MMC: sh-sdhi: 0, sh-sdhi: 1
Loading Environment from MMC... OK
In: serial@1004b800
Out: serial@1004b800
Err: serial@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

[fatls mmc 1](#)

[fatload mmc 1 0x58000000 core-image-weston-smarc-rzg2l.ext4](#)

[mmc write 0x58000000 0 0x2B3B68](#)

```
=> fatls mmc 1
      System Volume Information/
1450627072  core-image-weston-smarc-rzg21.ext4

1 file(s), 1 dir(s)

=> fatload mmc 1 0x58000000 core-image-weston-smarc-rzg21.ext4
1450627072 bytes read in 92449 ms (15 MiB/s)
=> mmc write 0x58000000 0 0x2B3B68

MMC write: dev # 1, block # 0, count 2833256 ... 2833256 blocks written: OK
```

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