

# SOM-G2L-OSM yocto Developer Guide

V1.0

## REVISION HISTORY

| DATE       | REVISION<br>TYPE | REVISIO<br>N # | COMM<br>ENTS | INITIALS |
|------------|------------------|----------------|--------------|----------|
| 05/22/2024 | Major            | 1.0            |              | ZX       |
|            |                  |                |              |          |
|            |                  |                |              |          |
|            |                  |                |              |          |
|            |                  |                |              |          |
|            |                  |                |              |          |

## 1. Build Instructions

### 1.1. Building images

This section describes the instructions to build the Board Support Package.

Before starting the build, run the command below on the Linux Host PC to install packages used for building the BSP.

```
$ sudo apt-get update
$ sudo apt-get install gawk wget git-core diffstat unzip texinfo gcc-multilib \
build-essential chrpath socat cpio python python3 python3-pip python3-pexpect \
xz-utils debianutils iputils-ping libssl1.2-dev xterm p7zip-full libyaml-dev \
libssl-dev bmap-tools
```

Description:

The installation command is suitable for Ubuntu18.04.

For other versions, please adopt the corresponding installation command according to the name of the installation package. If compilation encounters an error, you can install the corresponding software package according to the error message.

## 2. SDK compilation

### 2.1. Select a configuration file

```
<SDK>$ source lunch.sh -- Select som-g2l-osm project.
```

### 2.2. U-Boot compilation

```
<SDK>/build$./build.sh -i uboot
```

### 2.3. Kernel compilation

```
<SDK>/build$./build.sh -i bootimg
```

### 2.4. Rootfs compilation

The compilation time is long.

```
<SDK>/build$./build.sh -i rootfs
```

### 2.5. Firmware path

```
<SDK>/build/tmp/deploy/images/smarc-rzg2l/
```

All necessary files listed in Table 4 will be generated by the bitbake command and will be located in the <SDK>/build/tmp/deploy/images directory.

|                  |                                                                                |
|------------------|--------------------------------------------------------------------------------|
| Linux kernel     | Image-smarc-rzg2l.bin                                                          |
| Device tree file | Image-r9a07g044l2-smarc.dtb                                                    |
| root filesystem  | core-image-weston-smarc-rzg2l.tar.bz2                                          |
| Boot loader      | • bl2_bp-smarc-rzg2l_pmic.srec<br>• fip-smarc-rzg2l_pmic.srec                  |
| Flash Writer     | Flash_Writer_SCIF_RZG2L_SMARC_PMIC_DDR4_2GB_1PCS.mot                           |
| SD image         | core-image-weston-smarc-rzg2l.wic.gz<br>core-image-weston-smarc-rzg2l.wic.bmap |

### 3. SDK development

#### 3.1. U-Boot development

##### 3.1.1. Introduction to DTS

```
<sdk>/u-boot/arch/arm/dts/
├── smarc-rzg2l.dts
│   ├── r9a07g044l.dtsi
│   └── r9a07g044l-u-boot.dtsi
```

##### 3.1.2. Introduction to CONFIGS

```
<sdk>/u-boot/configs/smarc-rzg2l_defconfig
```

#### 3.2. Kernel development

##### 3.2.1. Introduction to DTS

Linux kernel supports multi-platforms to store DTS and DTS of RK platforms in:

```
<sdk>/loong/devices/osm-rzg2l-v2/source/kernel/arch/arm64/boot/dts/renesas
├── r9a07g044l2-smarc.dts
│   ├── rz-smarc-common.dtsi
│   ├── rzg2l-smarc-som.dtsi
│   ├── rzg2l-smarc-pinfunction.dtsi
│   ├── rzg2l-smarc.dtsi
│   ├── r9a07g044l2.dtsi
│   └── r9a07g044.dtsi
```

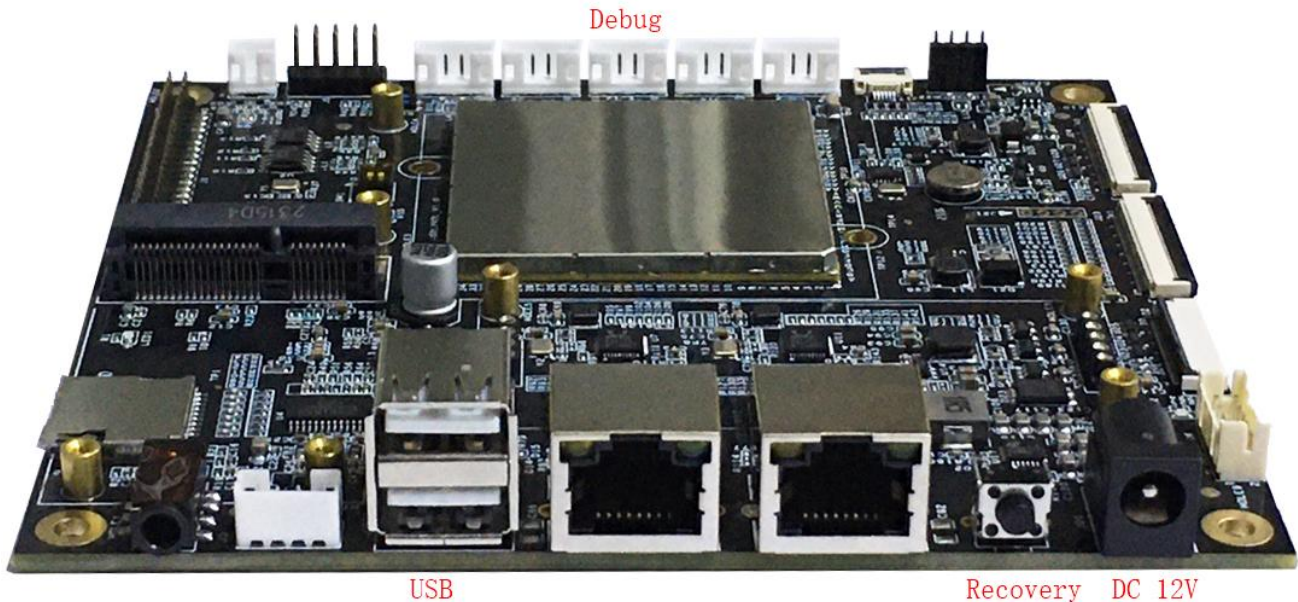
##### 3.2.2. Introduction to CONFIGS

```
<sdk>/loong/devices/osm-rzg2l-v2/source/kernel/arch/arm64/configs/defconfig
```

## 4. Burn firmware

### 4.1. Preparation of burning tool:

12V Power supply\*1、U disk\*1、Serial port line\*1、Serial port debugging software ttermpro

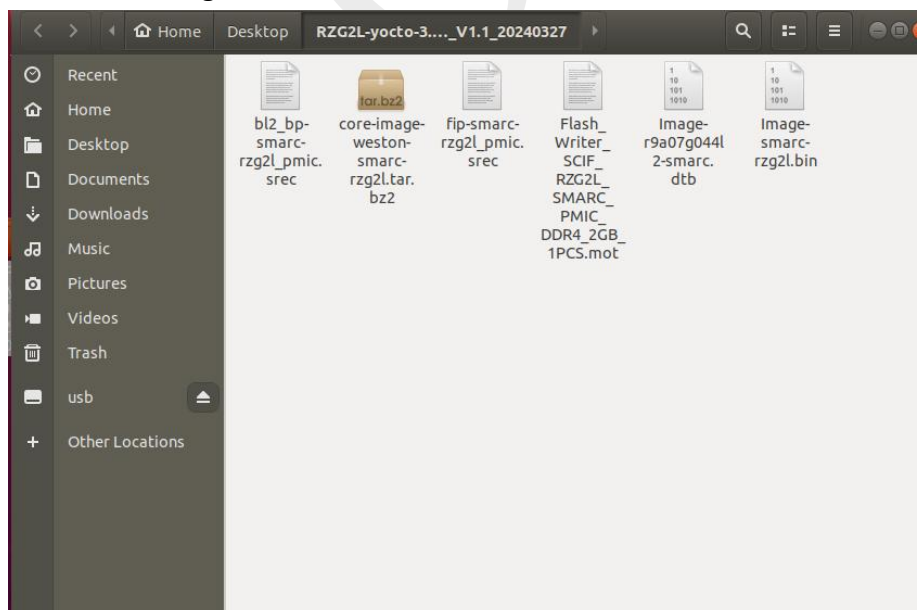


### 4.2. Burn step (usb start)

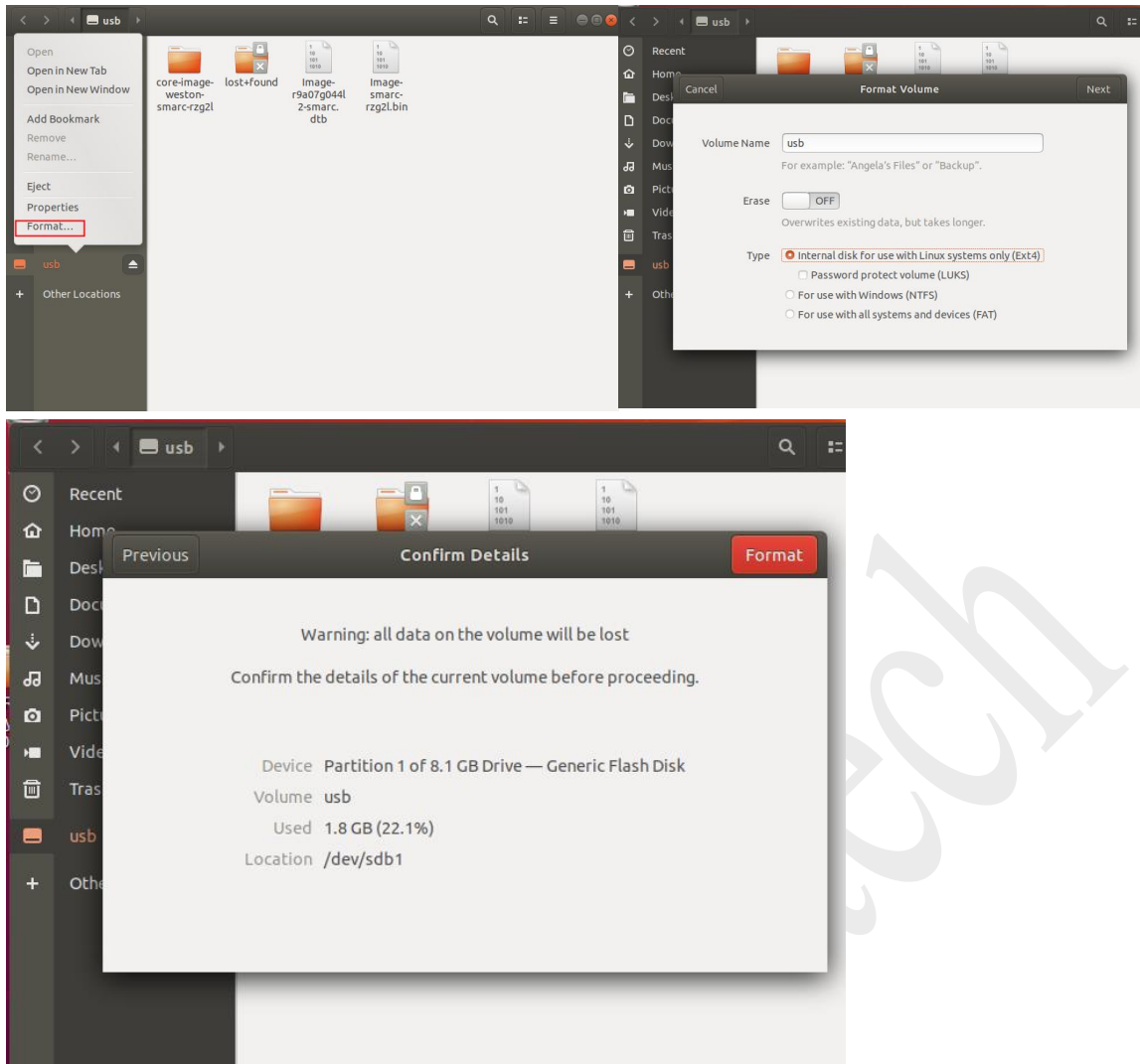
#### 4.2.1. Make u-disk start

**Environment:** the U disk capacity should be above 8GB, Linux system, the example is in ubuntu18.04 system

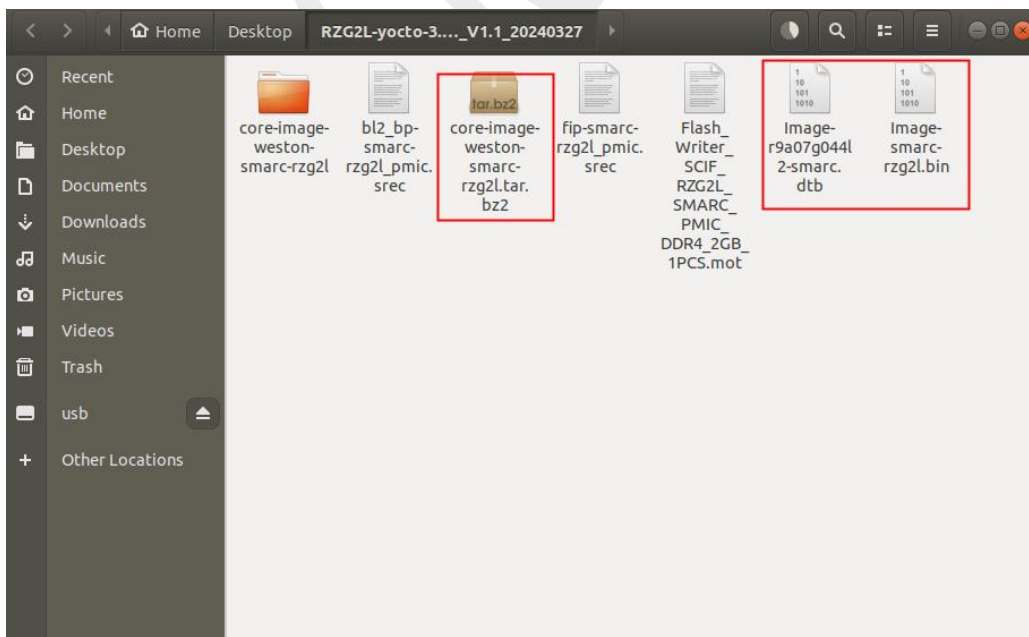
4.2.1.1 Prepare the firmware to be burned, download the system package and then decompression as shown in the figure below



## 4.2.1.2 Insert the U disk and format the u disk in EXT 4 format:



## 4.2.1.3 After the formatting is complete, copy the [core-image-weston-smarc-rzg2l.tar.bz2](#), [Image-r9a07g044l2-smarc.dtb](#), [Image-smarc-rzg2l.bin](#) three files to the U disk.

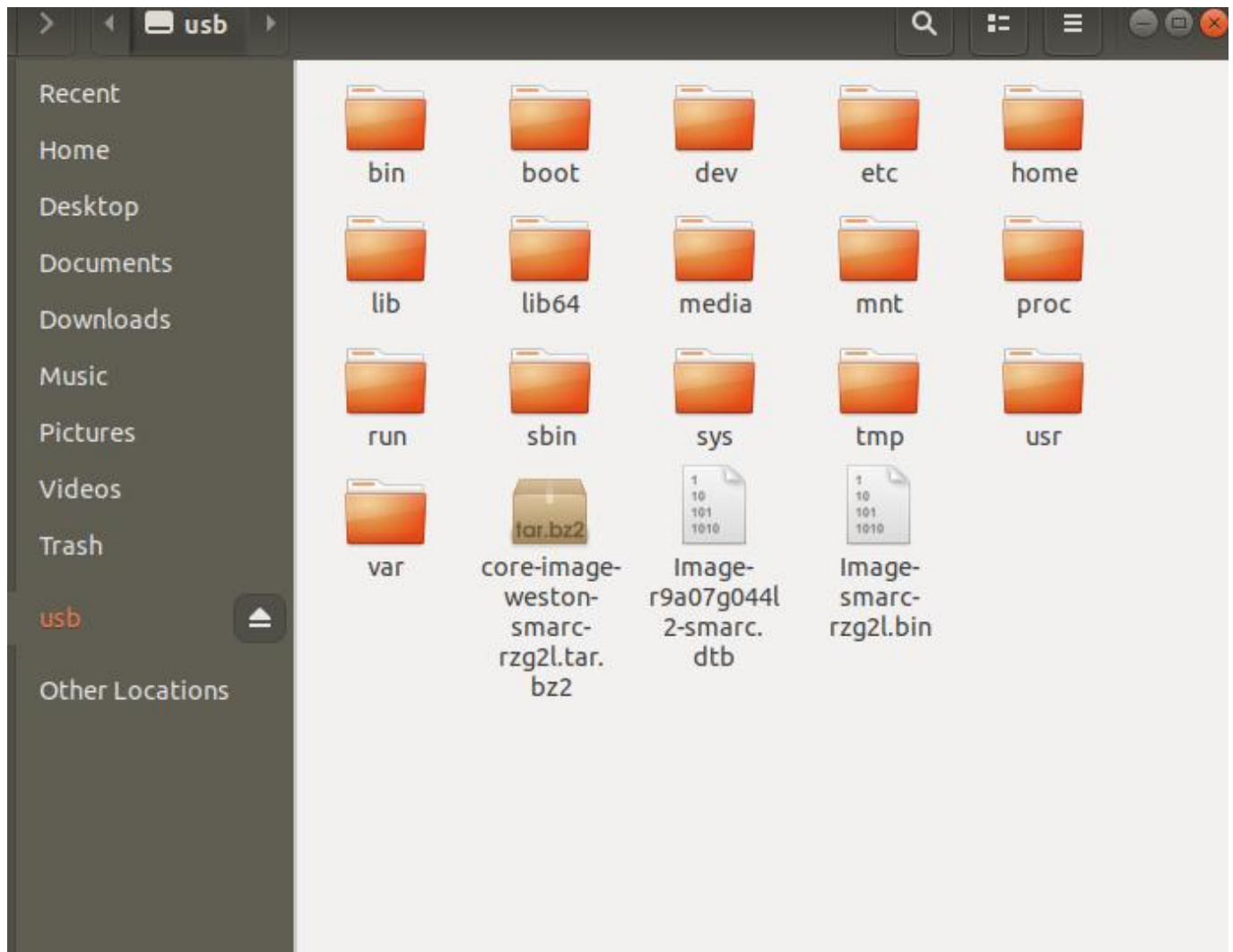


4.2.1.4 Unpress the [core-image-weston-smarc-rzg2l.tar.bz2](#) file to the U root.

```
root@admin:/media/admin1/usb# ls
core-image-weston-smarc-rzg2l.tar.bz2  Image-smarc-rzg2l.bin
Image-r9a07g044l2-smarc.dtb           lost+found
```

```
root@admin:/media/admin1/usb# tar -xf core-image-weston-smarc-rzg2l.tar.bz2 -C
/media/admin1/usb/
```

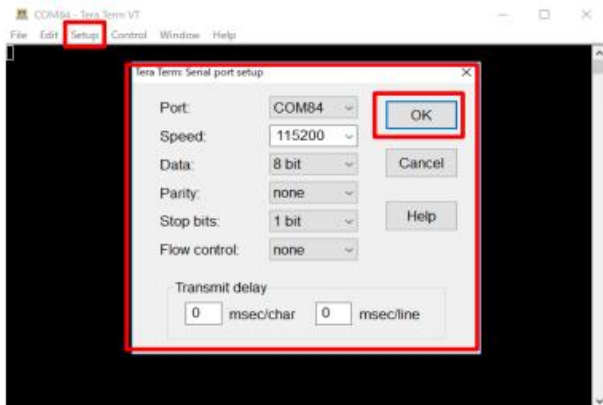
4.2.1.5 You can open the U disk to view the current file, and start the U disk production is completed.



## 4.2.2. Programme Uboot

Connect the serial port line to the board, connect the other USB, the port to the PC, and enter the device manager Ports (COM and LPT) are successfully connected.

4.2.2.1 Click on Setup-> Serial Port in the upper left corner, Pull-down Port selects the serial port identified in the device manager (as shown above, COM6), then pull-down select Baud rate (port rate) is 115200. Click OK after setting up

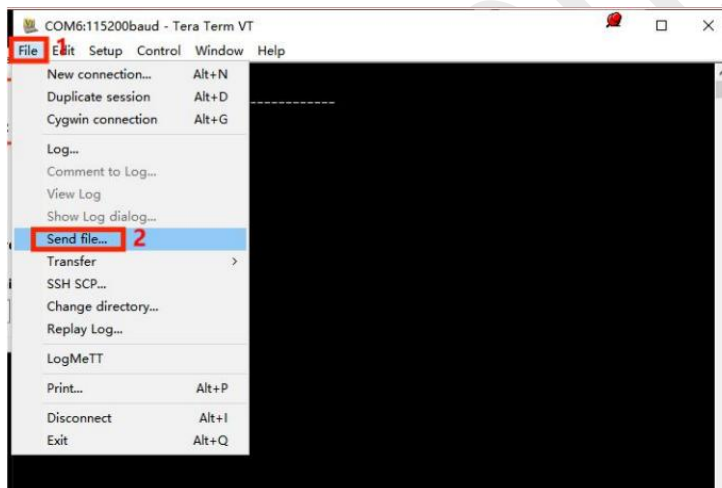


4.2.2.2 Press the recovery key and power into the burning mode, the serial port software will print as follows SCIF Download mode

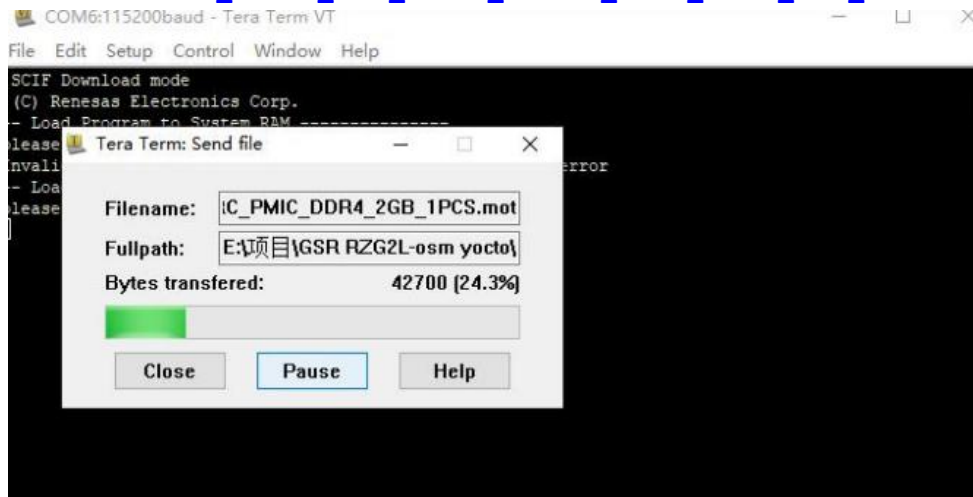
(C) Renesas Electronics Corp.

-- Load Program to System RAM -----  
please send !

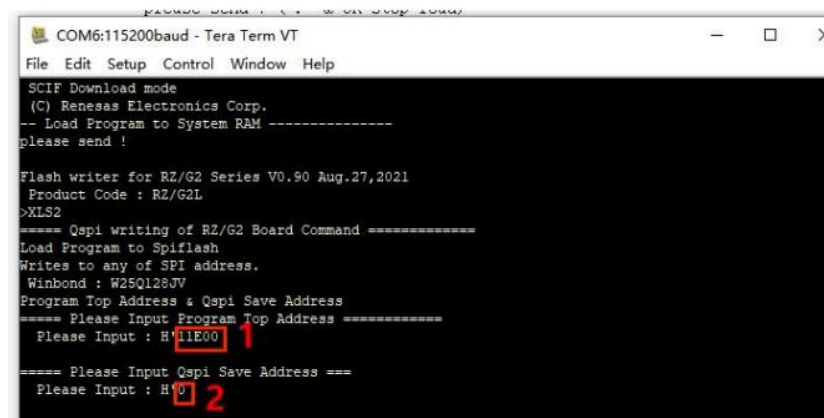
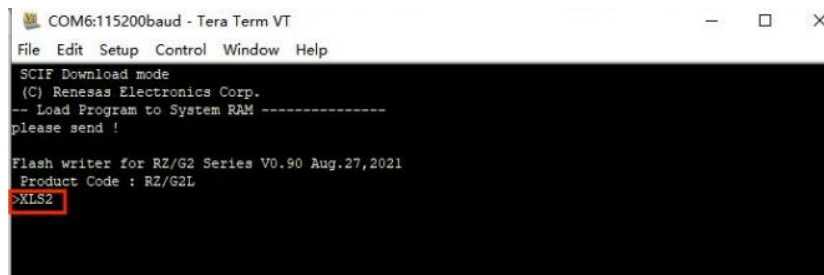
4.2.2.3 Click on the top left corner File->Send File



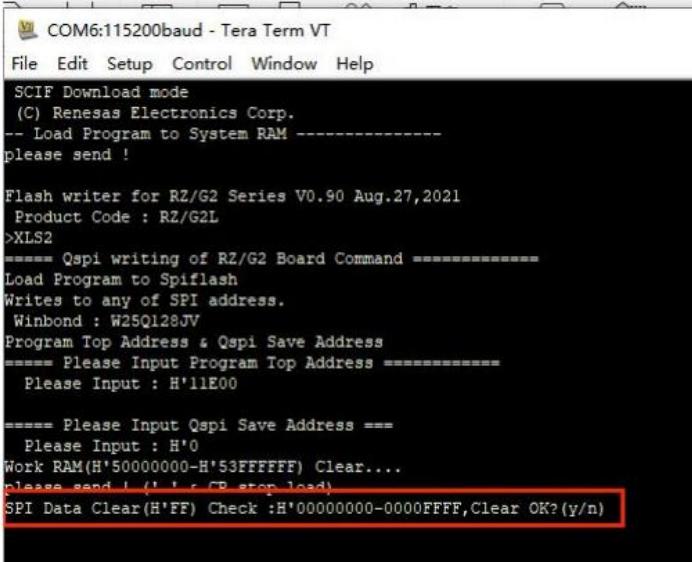
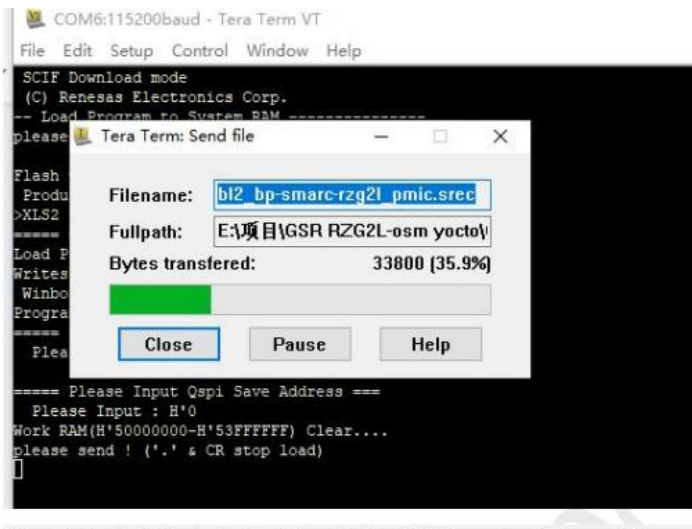
4.2.2.4 After opening, enter to the firmware storage position, double-click to enter the firmware folder, and select **Flash\_Writer\_SCIF\_RZG2L\_SMARC\_PMIC\_DDR4\_2GB\_1PCS.mot** File upload.



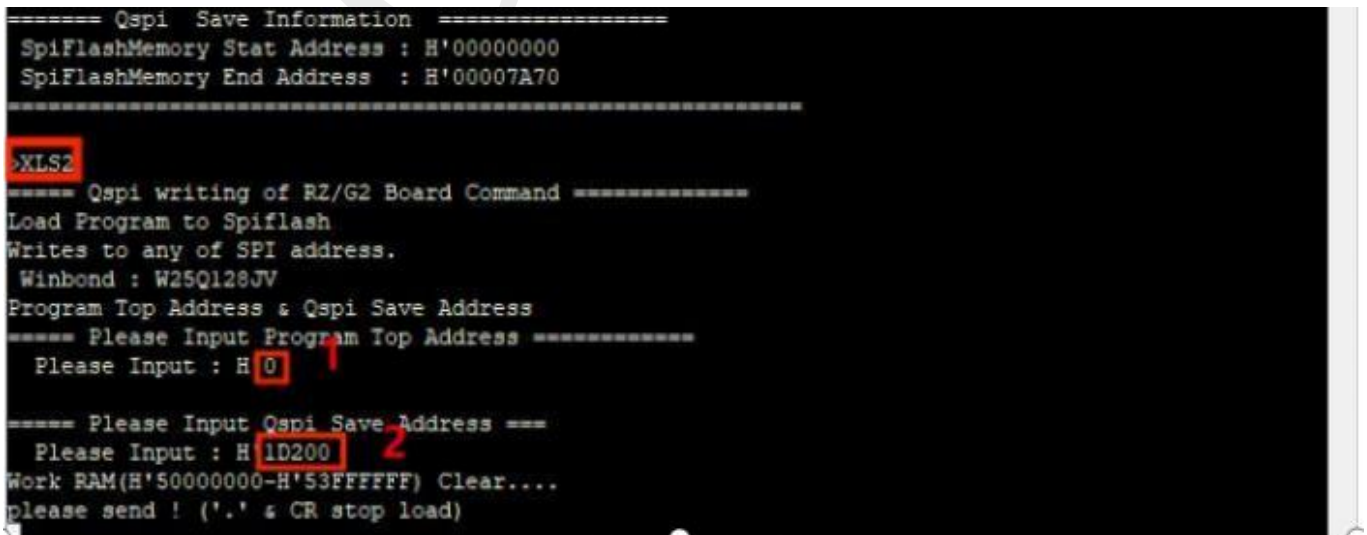
4.2.2.5 After successful uploading, print the following input **XLS2** and return, first enter **11E00**, enter, then enter **0**, return



4.2.2.6 Select File-> Send File in the top left corner again, select the **bl2\_bp-smarc-rzg2l\_pmic.srec** file to upload, and select **y** after uploading



4.2.2.7 Enter **XLS2** again and enter, as shown in the figure below, enter **0** enter first, then enter **1D200** enter



4.2.2.8 Select the file-> Send File in the upper left corner again, select the [fip-smarc-rzg2l\\_pmic.srec](#) file to upload, and then enter [y](#). Printing the following screen represents successful burning

```
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
=====
>
```

4.2.2.9 Power up again, print to the following position and 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
```

4.2.2.10 Enter uboot, set the start from the U disk, and execute the following command:

=> [setenv bootargs 'root=/dev/sda1 rootwait'](#)

=> [usb start](#)

=> [ext4load usb 0 0x48080000 Image-smarc-rzg2l.bin; ext4load usb 0 0x48000000](#)  
[Image-r9a07g044l2-smarc.dtb](#)

=> [booti 0x48080000 - 0x48000000](#)

```

NOTICE: BL2: v2.9(release):c314a39-dirty
NOTICE: BL2: Built : 14:49:18, Sep 19 2023
NOTICE: BL2: Booting BL31
NOTICE: BL31: v2.9(release):c314a39-dirty
NOTICE: BL31: Built : 14:49:18, Sep 19 2023

U-Boot 2021.10 (Sep 20 2023 - 02:21:30 +0000)

CPU:   Renesas Electronics CPU rev 1.0
Model: smarc-rzg2l
DRAM:  1.9 GiB
WDT:    watchdog@00000000012800800
WDT:    Started with servicing (60s timeout)
MMC:    sd@11c00000: 0, sd@11c10000: 1
Loading Environment from MMC... OK
In:      serial@1004b800
Out:     serial@1004b800
Err:     serial@1004b800
U-boot WDT started!
Net:
Error: ethernet@11c20000 address not set.
No ethernet found.

Hit any key to stop autoboot:  0
## Resetting to default environment
Card did not respond to voltage select! : -110
Failed to load 'boot/Image'
29994 bytes read in 5 ms (5.7 MiB/s)
Error: Bad gzipped data
Bad Linux ARM64 Image magic!
=> setenv bootargs root=/dev/sdal rootwait 1
=> usb start 2
starting USB...
Bus usb@11c50100: USB EHCI 1.10
Bus usb@11c70100: USB EHCI 1.10
scanning bus usb@11c50100 for devices... 1 USB Device(s) found
scanning bus usb@11c70100 for devices... 3 USB Device(s) found
    scanning usb for storage devices... 1 Storage Device(s) found
=> ext4load usb 0 0x48080000 Image-smarc-rzg2l.bin; ext4load usb 0 0x48000000 Image-r9a07g04412-sm
arc.dtb 3
21740032 bytes read in 956 ms (21.7 MiB/s)
39047 bytes read in 10 ms (3.7 MiB/s)
=> booti 0x48080000 - 0x48000000 4
Moving Image from 0x48080000 to 0x48200000, end=49730000
## Flattened Device Tree blob at 48000000
   Booting using the fdt blob at 0x48000000
   Loading Device Tree to 0000000057ff3000, end 0000000057fff886 ... OK

Starting kernel ...

```

#### 4.2.2.11 Start from the U disk and enter the system.

```

[ OK ] Reached target Login Prompts.
        Starting Hostname Service...
        Starting WPA supplicant...
[ OK ] Listening on Load/Save RF ... itch Status /dev/rfkill Watch.
[ OK ] Started Target Communication Framework agent.
[ OK ] Started Hostname Service.
[ OK ] Started Save/Restore Sound Card State.
[ OK ] Reached target Sound Card.
[ OK ] Started WPA supplicant.

Poky (Yocto Project Reference Distro) 3.1.26 smarc-rzg2l ttySC0

BSP: RZG2L/RZG2L-SMARC-EVK/3.0.5
LSI: RZG2L
Version: 3.0.5
smarc-rzg2l login: root

```

## 4.3 Import firmware into emmc

### 4.3.1 EMMC needs to be divided and formatted before the system is burned into EMMC.

```
root@smarc-rzv2l:~# fdisk /dev/mmcbk0
```

Welcome to fdisk (util-linux 2.35.1).

Changes will remain in memory only, until you decide to write them.

Be careful before using the write command.

Command (m for help): **o**

Created a new DOS disklabel with disk identifier 0xce914196.

Command (m for help): **n**

Partition type

**p** primary (0 primary, 0 extended, 4 free)

**E** extended (container for logical partitions)

Select (default p): **(Push the enter key)**

Partition number (1-4, default 1): **(Push the enter key)**

First sector (2048-30777343, default 2048): **(Push the enter key)**

Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-30777343, default 30777343): **+500M**

Created a new partition 1 of type 'Linux' and of size 500 MiB.

Command (m for help): **n**

Partition type

**p** primary (1 primary, 0 extended, 3 free)

**e** extended (container for logical partitions)

Select (default p): **(Push the enter key)**

Using default response p.

Partition number (2-4, default 2): **(Push the enter key)**

First sector (1026048-30777343, default 1026048): **(Push the enter key)**

Last sector, +/-sectors or +/-size{K,M,G,T,P} (1026048-30777343, default 30777343): **(Push the enter key)**

Created a new partition 2 of type 'Linux' and of size 14.2 GiB.

Command (m for help): **p**

Disk /dev/mmcbk0: 14.69 GiB, 15758000128 bytes, 30777344 sectors

Units: sectors of 1 \* 512 = 512 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disklabel type: dos

Disk identifier: 0xf3d53104

| Device        | Boot | Start   | End      | Sectors  | Size  | Id | Type  |
|---------------|------|---------|----------|----------|-------|----|-------|
| /dev/mmcbk0p1 |      | 2048    | 1026047  | 1024000  | 500M  | 83 | Linux |
| /dev/mmcbk0p2 |      | 1026048 | 30777343 | 29751296 | 14.2G | 83 | Linux |

Command (m for help): **w**

The partition table has been altered.

Calling ioctl() to re-read partition table.

Syncing disks.

```
root@smarc-rzv2l:~# fdisk -l
```

```

Disklabel type: dos
Disk identifier: 0xffffffff

Device      Boot      Start      End      Sectors  Size Id Type
/dev/mtdblock0p1      4294967295 8589934589 4294967295 2T ff BBT
/dev/mtdblock0p2      4294967295 8589934589 4294967295 2T ff BBT
/dev/mtdblock0p3      4294967295 8589934589 4294967295 2T ff BBT
/dev/mtdblock0p4      4294967295 8589934589 4294967295 2T ff BBT

Disk /dev/mtdblock1: 256 KiB, 262144 bytes, 512 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/mtdblock2: 256 KiB, 262144 bytes, 512 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/mtdblock3: 8 MiB, 8388608 bytes, 16384 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/mmcblk0: 14.69 GiB, 15758600128 bytes, 30777344 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x365637f4

Device      Boot      Start      End      Sectors  Size Id Type
/dev/mmcblk0p1      2048 1026047 1024000 500M 83 Linux
/dev/mmcblk0p2      1026048 30777343 29751296 14.2G 83 Linux

Disk /dev/sda: 7.51 GiB, 8053863680 bytes, 15728640 sectors
Disk model: Flash Disk
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x0796cb67

Device      Boot Start      End      Sectors  Size Id Type
/dev/sdal *    2048 15728639 15726592 7.5G 83 Linux
root@smarc-rzg21:~#

```

### 4.3.2 Format eMMC and write the kernel, the device tree, and the rootfs.

```
root@smarc-rzv2l:~# mkfs.ext4 /dev/mmcblk0p1
```

```
root@smarc-rzg2l:~# mkfs.ext4 /dev/mmcblk0p1
mke2fs 1.45.7 (28-Jan-2021)
Discarding device blocks: done
Creating filesystem with 512000 1k blocks and 128016 inodes
Filesystem UUID: 514bd936-bdf5-4907-a6ab-0d3cfc299547
Superblock backups stored on blocks:
    8193, 24577, 40961, 57345, 73729, 204801, 221185, 401409

Allocating group tables: done
Writing inode tables: done
Creating journal (8192 blocks): done
Writing superblocks and filesystem accounting information: done

root@smarc-rzg2l:~#
```

```
root@smarc-rzv2l:~# mkfs.ext4 /dev/mmcblk0p2
```

```
root@smarc-rzg2l:~# mkfs.ext4 /dev/mmcblk0p2
mke2fs 1.45.7 (28-Jan-2021)
Discarding device blocks: done
Creating filesystem with 3718912 4k blocks and 930240 inodes
Filesystem UUID: 81cd5ded-d3d1-4d88-b03a-7c4a0bd78a46
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

root@smarc-rzg2l:~#
```

```
root@smarc-rzv2l:~# mount /dev/mmcblk0p1 /mnt/
```

```
root@smarc-rzg2l:~# mount /dev/mmcblk0p1 /mnt/
[ 453.014156] EXT4-fs (mmcblk0p1): mounted filesystem with ordered data mode. Opts: (null)
[ 453.022390] ext4 filesystem being mounted at /mnt supports timestamps until 2038 (0x7fffffff)
root@smarc-rzg2l:~#
```

```
root@smarc-rzv2l:~# cd /
```

```
root@smarc-rzv2l:~# ls
```

```
root@smarc-rzg2l:~# cd /
root@smarc-rzg2l:~# ls
Image-r9a07g04412-smarc.dtb  core-image-weston-smarc-rzg2l.tar.bz2  lib        mnt    sbin  var
Image-smarc-rzg2l.bin        dev                                       lib64      opt    sys
bin                          etc                                       lost+found proc   tmp
boot                        home                                      media      run    usr
root@smarc-rzg2l:~#
```

```
root@smarc-rzv2l:~# cp Image-smarc-rzg2l.bin /mnt/
```

```
root@smarc-rzv2l:~# cp Image-r9a07g04412-smarc.dtb /mnt/
```

```
root@smarc-rzv2l:~# umount /dev/mmcblk0p1
```

```
root@smarc-rzv2l:~# mount /dev/mmcblk0p2 /mnt/
```

```
root@smarc-rzv2l:~# tar xf core-image-weston-smarc-rzg2l.tar.bz2 -C /mnt/
```

**Note:** Unpressing this file needs to wait a time to complete.

```
root@smarc-rzv2l:~# umount /dev/mmcblk0p2
```

```
root@smarc-rzg2l:~# mount /dev/mmcblk0p2 /mnt/
[ 811.556080] EXT4-fs (mmcblk0p2): mounted filesystem with ordered data mode. Opts: (null)
root@smarc-rzg2l:~# tar xf core-image-weston-smarc-rzg2l.tar.bz2 -C /mnt/
root@smarc-rzg2l:~# umount /dev/mmcblk0p2
root@smarc-rzg2l:~#
```

#### 4.3.3 After the system file is copied, restart into the uboot and restore the default uboot settings first

```
=> env default -a
```

```
=> saveenv
```

```
U-Boot 2021.10 (Sep 20 2023 - 02:21:30 +0000)

CPU:   Renesas Electronics CPU rev 1.0
Model: smarc-rzg2l
DRAM:  1.9 GiB
WDT:    watchdog@00000000:12800800
WDT:    Started with servicing (60s timeout)
MMC:    sd@11c00000: 0, sd@11c10000: 1
Loading Environment from MMC... OK
In:      serial@1004b800
Out:     serial@1004b800
Err:     serial@1004b800
U-boot WDT started!
Net:
Error: ethernet@11c20000 address not set.
No ethernet found.

Hit any key to stop autoboot:  0
## Resetting to default environment
Card did not respond to voltage select! : -110
Can't set block device
Can't set block device
Error: Bad gzipped data
Bad Linux ARM64 Image magic!
=> env default -a
## Resetting to default environment
=> saveenv
Saving Environment to MMC... Writing to MMC(0)... OK
=>
```

#### 4.3.4 Then set the start from the EMMC.

```
=> setenv bootargs 'root=/dev/mmcblk0p2 rootwait'
```

```
=> setenv bootcmd 'mmc dev 1; ext4load mmc 0:1 0x48080000 Image-smarc-rzg2l.bin; ext4load mmc 0:1 0x48000000 Image-r9a07g044l2-smarc.dtb; booti 0x48080000 - 0x48000000'
```

```
=> saveenv
```

```
U-Boot 2021.10 (Sep 20 2023 - 02:21:30 +0000)

CPU:   Renesas Electronics CPU rev 1.0
Model: smarc-rzg2l
DRAM:  1.9 GiB
WDT:    watchdog@00000000012800800
WDT:    Started with servicing (60s timeout)
MMC:    sd@11c00000: 0, sd@11c10000: 1
Loading Environment from MMC... OK
In:      serial@1004b800
Out:     serial@1004b800
Err:     serial@1004b800
U-boot WDT started!
Net:
Error: ethernet@11c20000 address not set.
No ethernet found.

Hit any key to stop autoboot:  0
## Resetting to default environment
Card did not respond to voltage select! : -110
Can't set block device
Can't set block device
Error: Bad gzipped data
Bad Linux ARM64 Image magic!
=> env default -a
## Resetting to default environment
=> saveenv
Saving Environment to MMC... Writing to MMC(0)... OK
=> setenv bootargs 'root=/dev/mmcblk0p2 rootwait'
=> setenv bootcmd 'mmc dev 1; ext4load mmc 0:1 0x48080000 Image-smarc-rzg2l.bin; ext4load mmc 0:1
0x48000000 Image-r9a07g04412-smarc.dtb; booti 0x48080000 - 0x48000000'
=> saveenv
Saving Environment to MMC... Writing to MMC(0)... OK
=> □
```

#### 4.3.5 Remove the U disk, restart and enter the system from the EMMC.

```
[ OK ] Started Getty on tty1.
[ OK ] Started Serial Getty on ttySC0.
[ OK ] Reached target Login Prompts.
[ OK ] Started LSB: start and stop docker.
[ OK ] Started Target Communication Framework agent.
Starting WPA supplicant...
Starting Hostname Service...
[ 9.312513] RTL8211F Gigabit Ethernet llc20000.ethernet-ffffffff:01: attached PHY driver [RTL8211F Gigabit Ethernet] (mii_bus:phy_addr=llc20000.ethernet-ffffffff:01, irq=182)
[ OK ] Started WPA supplicant.
[ OK ] Reached target Hardware Activated USB gadget.
[ 9.461767] RTL8211F Gigabit Ethernet llc30000.ethernet-ffffffff:01: attached PHY driver [RTL8211F Gigabit Ethernet] (mii_bus:phy_addr=llc30000.ethernet-ffffffff:01, irq=183)
Starting Save/Restore Sound Card State...
[ OK ] Started Save/Restore Sound Card State.
[ OK ] Reached target Sound Card.
[ OK ] Started Hostname Service.
[ OK ] Listening on Load/Save RF - itch Status /dev/rfkill Watch.
[ 11.863334] audit: type=1325 audit(1600598645.500:4): table=nat family=2 entries=5 op=xt_replace pid=347 comm="iptables"
[ 11.895540] audit: type=1325 audit(1600598645.532:5): table=filter family=2 entries=4 op=xt_replace pid=349 comm="iptables"
[ 11.939077] audit: type=1325 audit(1600598645.576:6): table=filter family=2 entries=6 op=xt_replace pid=351 comm="iptables"
[ 11.971229] audit: type=1325 audit(1600598645.608:7): table=filter family=2 entries=8 op=xt_replace pid=353 comm="iptables"
[ 12.000902] audit: type=1325 audit(1600598645.640:8): table=filter family=2 entries=10 op=xt_replace pid=355 comm="iptables"
[ 12.058066] audit: type=1325 audit(1600598645.696:9): table=filter family=2 entries=11 op=xt_replace pid=357 comm="iptables"
[ 12.078982] audit: type=1325 audit(1600598645.716:10): table=filter family=2 entries=12 op=xt_replace pid=358 comm="iptables"
[ 12.184368] audit: type=1325 audit(1600598645.824:11): table=filter family=2 entries=12 op=xt_replace pid=360 comm="iptables"
[ 13.113743] process 'docker/tmp/qemu-check058217880/check' started with executable stack
[ OK ] Started Docker Application Container Engine.

Poky (Yocto Project Reference Distro) 3.1.26 smarc-rzg2l ttySC0

BSP: RZG2L/RZG2L-SMARC-EVK/3.0.5
LSI: RZG2L
Version: 3.0.5
smarc-rzg2l login: 
```