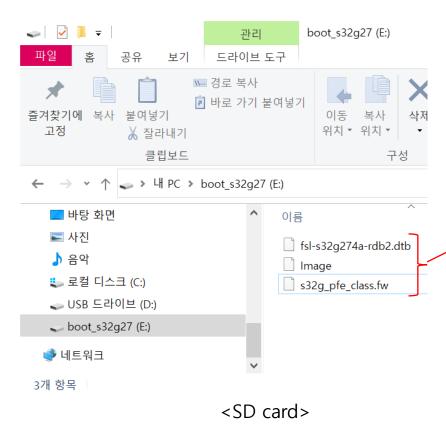
1. I can boot up using the SD card in S32G-VNP-RDB2 board.





< boot screen from SD card >

2. Create a Bin file using IPCF\_Example.
Add it to the SD card, boot it, and check the operation of the M7 core.
=> It's OK

```
s32g-vnp-rdb2 ids - IPCF Example S32G274/src/main.c - S32 Design Studio for S32 Platform
File Edit Source Refactor Navigate Search Project ConfigTools Run Window Help
□ 🥦 🎖 📅 🗖 🔒 main.c 🚨 main.c 🖾 🛍 main.c 🗀 frpe.c
                                                                                       > 🗱 Binaries
                                                                                                     IPC Shared Memory Driver sample application for S32G274a/FreeRT
    > 🔊 Includes
    → IPCF
                                                                                                    Copyright 2021 NXP
    Project Settings
    → # RTD
    board
                                                                                      ⊖/* Including necessary configuration fi __ |
                                                                                                                                                                                                                                                      관리
                                                                                                                                                                                                                                                                            boot s32a27 (E:)
    generate
                                                                                    //#include "Clock_Ip.h"
    generate/System Ip
                                                                                                                                                                                                                                            드라이브 도구
                                                                                         #include "IntCtrl Ip.h"
    generate/include
                                                                                         #include "IntCtrl Ip Cfg.h"

appropriate/src

generate/src

generate/
                                                                                                                                                                                                                                       🔋 바로 가기 붙여넣기
    🕶 🧬 src
                                                                                                                                                                                                                                                                                  이동 복사 삭제 이름
                                                                                         #include "sample.h"
                                                                                                                                                                                  즐겨찾기에 복사 붙여넣기
         > @ main.c
                                                                                                                                                                                                                                                                                 위치 * 위치 * 바꾸기
                                                                                                                                                                                                                   緣 잘라내기
        sample.c
        sample.h

→ Debug_RAM

                                                                                                                                                                                    ← → ∨ ↑ 🐷 > 내 PC > boot_s32g27 (E:)
                                                                                         volatile int exit code = 0;
        > 🗁 board
         generate
                                                                                                                                                                                    > 🔤 사진
        > 🗁 IPCF
                                                                                                                                                                                    > 🎝 음악

   int main(void)

                                                                                                                                                                                                                                                                      fsl-s32g274a-rdb2.dtb
         Project_Settings
                                                                                                                                                                                        💺 로컬 디스크 (C:)
        > 🗁 RTD
                                                                                                  /* Setup clocks - but clocks are al
                                                                                                                                                                                       🥌 USB 드라이브 (D:
         > 🗁 src
                                                                                                                                                                                                                                                                         IPCF Example S32G274.bin
                                                                                                  /* Clock_Ip_Init(NULL);*/
         > $ IPCF_Example_S32G274.elf - [arm/le
                                                                                                                                                                                                                                                                   SD card >
             ■ IPCF Example S32G274.args
             ■ IPCF Example S32G274.bin
                  IPCF_Example_S32G274.map
            Discribe from the builter in Init (&IntctrlConfig 0);
              la objects.mk
                                                                                                  prepare demo();
             la sources.mk

  ■ description.txt

                                                                                                   for (;;) {
        IPCF Example S32G274.mex
                                                                                                           if(exit_code != 0) {
         break:
```

```
₹ COM7 - PuTTY
                                                                                       oot 2020.04+geef88755a7 (Mar 03 2021 - 07:18:34 +0000)
   NXP S32G274A rev. 2.1.0
   t cause: Power-On Reset
                                                                        8.271355] 003: [/usr/src/debuq/pfe/0.9.3-r0/qit/sw/pfe platform/src/pfe phy
                                                                     instance ID 0 were flushed from emac0
                                                                          8.271395] 003: [/usr/src/debug/pfe/0.9.3-r0/git/sw/pfe platform/src/pfe phy 8.271412] 003: [/usr/src/debug/pfe/0.9.3-r0/git/sw/pfe_platform/src/pfe_phy
                                                                          8.271429] 003: [/usr/src/debug/pfe/0.9.3-r0/git/sw/pfe_platform/src/pfe_phy
                                                                          8.592518] 001: random: crng init done
                                                                       generating ssh ECDSA host key...
     ncy 125Mhz configured for PCIe1
                                                                       generating ssh ED25519 host key...
     uring PCIel as SGMII(x2) [XPCS0 2.5G, XPCS1 OFF]
   e0: LINK_DBG 1: 0x00000000, LINK_DBG 2: 0x00000800 (expected 0x000000d1)
    Failed autoconfig bar 20
   Failed autoconfig bar 24
                                                                       oot@s32q274ardb2:~# insmod /lib/modules/`uname -r`/extra/ipc-shm-sample.ko
                                                                      oot@s32g274ardb2:~# echo 10 > /sys/kernel/ipc-shm-sample/ping
                                                                       ot@s32g274ardb2:~# [ 39.014482] 003: ipc-shm-sample: starting demo...
   d revision: RDB2/GLDBOX Revision C
                                                                        39.014499] 003: ipc-shm-sample: ch 0 >> 20 bytes: SENDING MESSAGES: 10
     EQOS phy: rgmii @ 1
                                                                         39.014512] 003: ipc-shm-sample: ch 1 >> 16 bytes: #1 Hello world!
  rning: eth egos (eth0) using random MAC address - de:ac:2e:9c:e3:e2
                                                                         39.014556] 000: ipc-shm-sample: ch 1 << 16 bytes: #1 Hello world!
   ): eth egos PFE: emac0: sqmii emac1: none emac2: rqmii
                                                                                      003: ipc-shm-sample: ch 2 >> 16 bytes: #2 Hello world!
                                                                                      000: ipc-shm-sample: ch 2 << 16 bytes: #2 Hello world!
  ning: eth_pfeng using MAC address from ROM
                                                                         39.014640] 003: ipc-shm-sample: ch 1 >> 16 bytes: #3 Hello world!
  thl: eth pfena
                                                                          39.0146701
                                                                                         0: ipc-shm-sample: ch 1 << 16 bytes: #3 Hello world!
                                                                                       003: ipc-shm-sample: ch 2 >> 16 bytes: #4 Hello world!
                                                                                            ipc-shm-sample: ch 2 << 16 bytes: #4 Hello world
                                                                                         3: ipc-shm-sample: ch 1 >> 16 bytes: #5 Hello world!
                                                                                            ipc-shm-sample: ch 1 << 16 bytes: #5 Hello world
                                                                                            ipc-shm-sample: ch 2 >> 16 bytes: #6 Hello world
                                                                          39.014824]
                                                                                          : ipc-shm-sample: ch 2 << 16 bytes: #6 Hello world!
                                                                                            ipc-shm-sample: ch 1 >> 16 bytes: #7 Hello world
                                                                          39.0148751
                                                                                         0: ipc-shm-sample: ch 1 << 16 bytes: #7 Hello world!
  rting CM7 0 core at SRAM address 0x34501000 ... done.
                                                                                       003: ipc-shm-sample: ch 2 >> 16 bytes: #8 Hello world!
                                                                          39.014895]
                                                                                         0: ipc-shm-sample: ch 2 << 16 bytes: #8 Hello world
                                                                         39.014946] 003: ipc-shm-sample: ch 1 >> 16 bytes: #9 Hello world!
  E: emac0: sgmii emac1: none emac2: rgmii
                                                                         39.014976] 000: ipc-shm-sample: ch 1 << 16 bytes: #9 Hello world!
                                                                          39.014997] 003: ipc-shm-sample: ch 2 >> 16 bytes: #10 Hello world
                                                                         39.015043] 000: ipc-shm-sample: ch 0 << 20 bytes: REPLIED MESSAGES: 10
                                                                         39.015044] 003: ipc-shm-sample: exit demo
   Booting using the fdt blob at 0x83e00000
  pfe2 set to 00:01:be:be:ef:33
Enabling GMAC
    0.000000] 000: printk: bootconsole [linflex0] enabled
            000: cma: Reserved 256 MiB at 0x00000000b0000000
                 DMA32 zone: 0 pages reserved
DMA32 zone: 388096 pages, LIFO batch:63
Normal zone: 5376 pages used for memmap
                percpu: Embedded 17 pages/cpu s29272 r8192 d32168 u69632
pcpu-alloc: s29272 r8192 d32168 u69632 alloc=17*4096
```

< Check the operation of IPCF Example by booting from SD card and entering according to the manual. >

- 3. In the same way, create a Bin file using Gpt\_Example, add it to the SD card, boot it, and check the operation of the M7 core.
- Match the .ld file with IPCF\_Example's .ld file.
- I checked the init vector address in the .map file.
- It was confirmed that it works by uploading the elf file to the Ram using the Trace32 debugger without booting to the SD card in advance.
- Add bin file to SD card and boot.
- Enter Startm7 0x34501000.
- I See that "Starting CM7\_0 core at SRAM address 0x34501000 ... done ." and then I have to input "boot".

But the screen freezes, so input of "boot" is not possible.

```
🔀 s32g-vnp-rdb2 ids - Gpt_example_S32G274A_M7/src/main.c - S32 Design Studio for S32 Platform
File Edit Source Refactor Navigate Search Project ConfigTools Run Window Help
                                🖻 main.c 🖾 🚨 main.c 😼 main.c 🚨 frpe.c
🖍 👺 Gpt_example_S32G274A_M7: Debug_RAI 🔨
                                     * @brief
                                                    Main function of the example
                                                    Initializez the used drivers and uses the Gpt
                                     * @details
 Binaries
                                                    and Dio drivers to toggle a LED periodically
 Includes
 Project_Settings
                                     int main(void)
 A RTD
 Board
                                         /* Initialize the Mcu driver */
 generate
                                         Mcu_Init(NULL_PTR);
 > @ generate/System lp
                                         /* Initialize the clock tree and apply PLL as system clock */
 generate/include
                                         //Mcu InitClock(McuClockSettin-Careira Chic
                                         while ( MCU_PLL_LOCKED != Mcu_ _ | | |
 aenerate/src
                                                                                                                boot s32q27 (E:)
  Y # src
                                             /* Busy wait until the Sy
                                                                                                   드라이브 도구
    main.c

→ Debug_RAM

                                                                                                ₩ 경로 복사
                                         //Mcu DistributePllClock();
   board
                                                                                                ₹ 바로 가기 붙여넣기
   generate
                                          /* Apply a mode configuration
   Project_Settings
                                         Mcu_SetMode(McuModeSettingConf
   RTD
                                                                                        클립보드
                                                                                                                             구성
   Src > Frc
                                         /* Initialize Platform driver
                                         Platform Init(NULL PTR);

    * Gpt_example_S32G274A_M7.elf - [a*

                                                                          Gpt_example_S32G274A_M7.args
                                         /* Install PIT ISR and STM IST
     Gpt example S32G274A M7.bin
                                         Platform InstallIrgHandler(PIT
                                                                         ■ 사진
                                         Platform_InstallIrqHandler(STM
                                                                       > ♪ 음악
                                                                                                             fsl-s32g274a-rdb2.dtb
                                         /* Initialize the Gpt driver
     objects.mk
                                                                           』로컬 디스크 (C:)
                                         Gpt_Init(NULL_PTR);
                                                                                                             Image
     la sources.mk
  > 📂 include
                                                                         ■ USB 드라이브 (
                                                                                                              s32g_pfe_class.fw
                                         /* Enable the Gpt notification

    ■ description.txt

                                         Gpt_EnableNotification(GptConf
                                                                         boot s32a27 (E:)
                                                                                                               Gpt_example_S32G274A_M7.bin
                                         Gpt EnableNotification(GptConf
   Gpt example DS.mex
   < Copy to SD card >
                                         /* Stant the Got times with a period equal with 1 second*/
```

```
COM7 - PuTTY
 -Boot 2020.04+geef88755a7 (Mar 03 2021 - 07:18:34 +0000)
 PU: NXP S32G274A rev. 2.1.0
 eset cause: Power-On Reset
 odel: NXP S32G2XX
 oard: NXP S32G274A-RDB
 RAM: 3.5 GiB
 A53 core 1 running.
 A53 core 2 running.
 ll (4) cores are up.
 pading Environment from MMC... OK
 sing external clock for PCIe0
 onfiguring PCIeO as RootComplex(x2)
 sing external clock for PCIel
 requency 125Mhz configured for PCIel
 onfiguring PCIel as SGMII(x2) [XPCS0 2.5G, XPCS1 OFF]
 CIeO: Failed to get link up
 cie0: LINK DBG 1: 0x000000000, LINK DBG 2: 0x00000800 (expected 0x000000d1)
 EBUG RO: 0x00b47200, DEBUG R1: 0x08200000
 CI: Failed autoconfig bar 20
 CI: Failed autoconfig bar 24
 CIel: Not configuring PCIe, PHY not configured
      serial
 oard revision: RDB2/GLDBOX Revision C
      EQOS phy: rgmii @ 1
Warning: eth eqos (eth0) using random MAC address - 92:33:ba:1c:3f:45
 th0: eth eqos PFE: emac0: sqmii emac1: none emac2: rqmii
Warning: eth pfeng using MAC address from ROM
 ethl: eth pfeng
 it any key to stop autoboot: 0
  initsram 0x34100000 0x700000
nit SRAM region at address 0x34100000, size 0x700000 bytes ...
 > fatload mmc 0:1 0x34300000 /Gpt example S32G274A M7.bin
 359296 bytes read in 124 ms (18.1 MiB/s)
 > startm7 0x34501000
 tarting CM7 0 core at SRAM address 0x34501000 ... done.
```