

### 1. BootROM load NTIM——GRA2.bin and miniloader.bin

BootROM code is in 0xFFE00000 to 0xFFE1EFFF, 124KB (in Gemstone2 Technical Manual, page 1677)

NTIM——GRA2.bin	0xD0F08000
miniloader.bin	0xD0F08800

BootROM transfer control to 0x0xD0F08800 (the entry of miniloader)

BootROM is running on R4

### 2. miniloader loads u-boot and threadx

u-boot	0x08000000 (128M DDR memory boundary)
threadx	0x06000000 (96M DDR memory boundary)

miniloader transfer control to 0x06000000(the entry of threadx)

miniloader is running on R4

miniloader reset AP core 0(A53), u-boot will run on AP core 0 (Other AP cores are disabled)

### 3. u-boot loads ulmage and device tree blob(dtb) from mmc partition

```
bootcmd: mmc dev 1;ext2load mmc 1:2 0x400000 /boot/ulmage;ext2load mmc 1:2 0xf00000 /boot/mv6220-toc.dtb;setenv bootargs $bootargs root=/dev/mmcblk1p2
```

uio\_pdrv\_genirq.of\_id=generic-uio rootwait;bootm 0x400000 - 0xf00000

ulimage	0x400000 (4M DDR memory boundary)
mv6220-toc.dtb	0xf00000 (15M DDR memory boundary)

4. ThreadX OS is running on R4, it owns memory region from 96M to 100M, and Linux kernel is running on AP cores (A53), it owns memory region from 0 to 96M and 100M to 1024M.