

Development System Memory Map

linux_cpu memory map

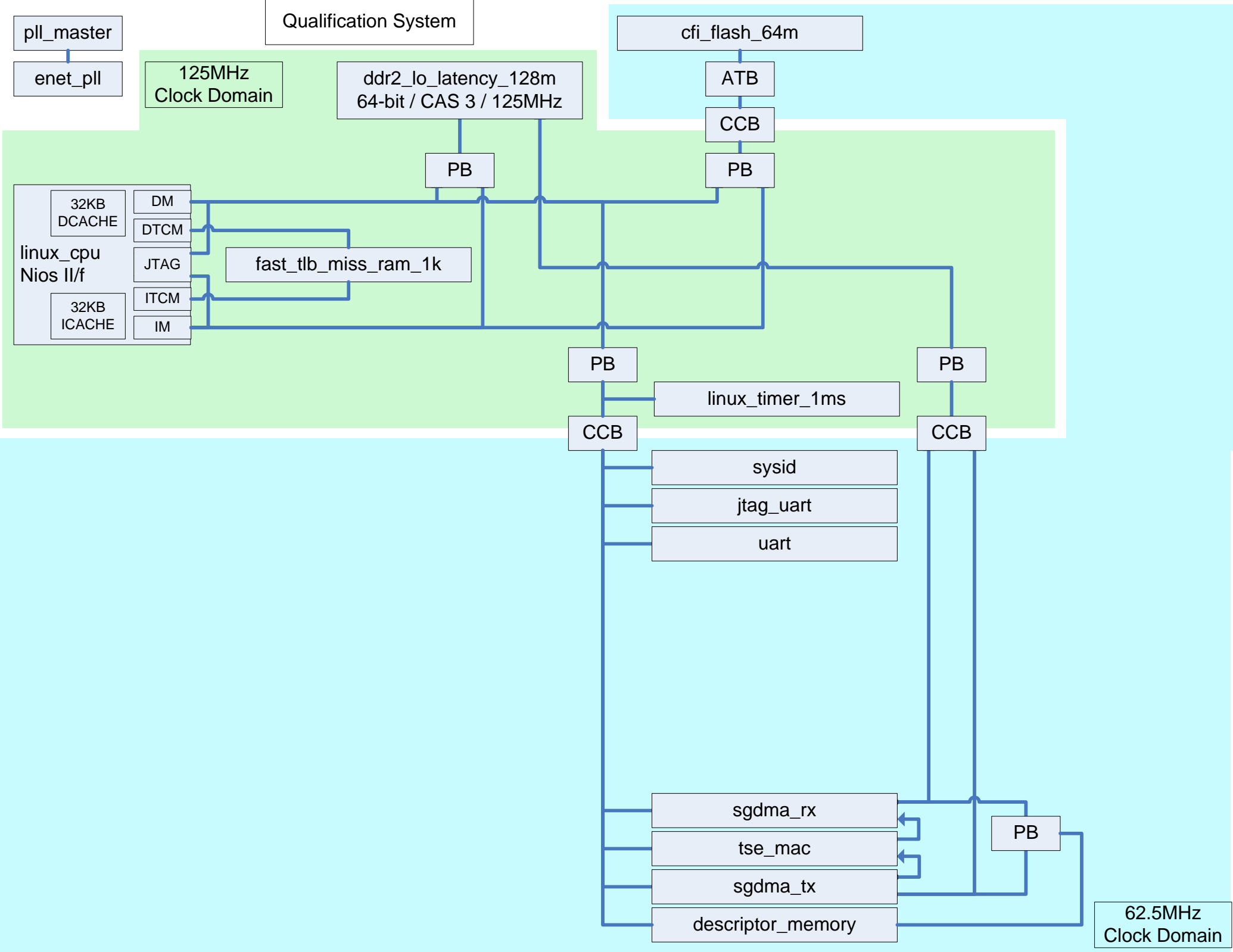
| Device | Address Range | Size (bytes) | Attributes |
|----------------------|--------------------------|--------------|-----------------------------|
| xtra_timer_3 | 0x40000440 - 0x4000045F | 32 | timer |
| xtra_timer_2 | 0x40000400 - 0x4000041F | 32 | timer |
| xtra_hi_mem_ram_lk | 0x40000000 - 0x400003FF | 1024 | memory |
| ddr2_hi_latency_128m | 0x18000000 - 0x1FFFFFFF | 134217728 | memory |
| ddr2_lo_latency_128m | 0x10000000 - 0x17FFFFFFF | 134217728 | memory |
| linux_timer_lms | 0x08400000 - 0x0840001F | 32 | timer |
| display_fifo_in | 0x08004D60 - 0x08004D63 | 4 | |
| jtag_uart | 0x08004D50 - 0x08004D57 | 8 | printable |
| sysid | 0x08004D40 - 0x08004D47 | 8 | |
| display_fifo_in_csr | 0x08004D20 - 0x08004D3F | 32 | |
| user_pb_pio_4in | 0x08004D00 - 0x08004D0F | 16 | |
| user_dipsw_pio_8in | 0x08004CE0 - 0x08004CEF | 16 | |
| user_led_pio_8out | 0x08004CC0 - 0x08004CCF | 16 | |
| uart | 0x08004C80 - 0x08004C9F | 32 | printable |
| xtra_timer_1 | 0x08004C40 - 0x08004C5F | 32 | timer |
| xtra_timer_0 | 0x08004C00 - 0x08004C1F | 32 | timer |
| sgdma_tx | 0x08004800 - 0x08004BFF | 1024 | |
| sgdma_rx | 0x08004400 - 0x080047FF | 1024 | |
| tse_mac | 0x08004000 - 0x080043FF | 1024 | |
| descriptor_memory | 0x08002000 - 0x08003FFF | 8192 | memory |
| cpu_config_rom_8k | 0x08000000 - 0x08001FFF | 8192 | memory, non-volatile |
| fast_tlb_miss_ram_lk | 0x07FFF400 - 0x07FFF7FF | 1024 | memory |
| cfi_flash_64m | 0x00000000 - 0x03FFFFFF | 67108864 | flash, memory, non-volatile |

linux_cpu HAL linker regions

| Linker Region Name | Address Range | Memory Device Name | Size (bytes) | Offset (bytes) |
|---------------------------------------|--------------------------|----------------------|--------------|----------------|
| xtra_hi_mem_ram_lk | 0x40000000 - 0x400003FF | xtra hi mem ram lk | 1024 | 0 |
| ddr2_hi_latency_128m | 0x18000000 - 0x1FFFFFFF | ddr2 hi latency 128m | 134217728 | 0 |
| ddr2_lo_latency_128m | 0x10000020 - 0x17FFFFFFF | ddr2 lo latency 128m | 134217696 | 32 |
| ddr2_lo_latency_128m_BEFORE_EXCEPTION | 0x10000000 - 0x1000001F | ddr2 lo latency 128m | 32 | 0 |
| descriptor_memory | 0x08002000 - 0x08003FFF | descriptor memory | 8192 | 0 |
| cpu_config_rom_8k | 0x08000000 - 0x08001FFF | cpu config rom 8k | 8192 | 0 |
| fast_tlb_miss_ram_lk | 0x07FFF400 - 0x07FFF7FF | fast tlb miss ram lk | 1024 | 0 |
| cfi_flash_64m | 0x02800020 - 0x03FFFFFF | cfi flash 64m | 25165792 | 41943072 |
| reset | 0x02800000 - 0x0280001F | cfi flash 64m | 32 | 41943040 |
| cfi_flash_64m_BEFORE_RESET | 0x00000000 - 0x027FFFFF | cfi flash 64m | 41943040 | 0 |

linux_cpu HAL linker sections

| Linker Section Name | Linker Region Name | Memory Device Name |
|---------------------|----------------------|----------------------|
| .bss | ddr2 lo latency 128m | ddr2_lo_latency_128m |
| .entry | reset | cfi_flash_64m |
| .exceptions | ddr2_lo_latency_128m | ddr2_lo_latency_128m |
| .heap | ddr2 lo latency 128m | ddr2_lo_latency_128m |
| .rodata | ddr2 lo latency 128m | ddr2_lo_latency_128m |
| .rwdata | ddr2 lo latency 128m | ddr2_lo_latency_128m |
| .stack | ddr2 lo latency 128m | ddr2_lo_latency_128m |
| .text | ddr2 lo latency 128m | ddr2 lo latency 128m |



Qualification System Memory Map

linux_cpu memory map

| Device | Address Range | Size (bytes) | Attributes |
|----------------------|-------------------------|--------------|-----------------------------|
| ddr2_lo_latency_128m | 0x10000000 - 0x17FFFFFF | 134217728 | memory |
| linux_timer_lms | 0x08400000 - 0x0840001F | 32 | timer |
| jtag_uart | 0x08004D50 - 0x08004D57 | 8 | printable |
| sysid | 0x08004D40 - 0x08004D47 | 8 | |
| uart | 0x08004C80 - 0x08004C9F | 32 | printable |
| sgdma_tx | 0x08004800 - 0x08004BFF | 1024 | |
| sgdma_rx | 0x08004400 - 0x080047FF | 1024 | |
| tse_mac | 0x08004000 - 0x080043FF | 1024 | |
| descriptor_memory | 0x08002000 - 0x08003FFF | 8192 | memory |
| fast_tlb_miss_ram_lk | 0x07FFF400 - 0x07FFF7FF | 1024 | memory |
| cfi_flash_64m | 0x00000000 - 0x03FFFFFF | 67108864 | flash, memory, non-volatile |

linux_cpu HAL linker regions

| Linker Region Name | Address Range | Memory Device Name | Size (bytes) | Offset (bytes) |
|---------------------------------------|-------------------------|----------------------|--------------|----------------|
| ddr2_lo_latency_128m | 0x10000020 - 0x17FFFFFF | ddr2 lo latency 128m | 134217696 | 32 |
| ddr2_lo_latency_128m BEFORE EXCEPTION | 0x10000000 - 0x1000001F | ddr2 lo latency 128m | 32 | 0 |
| descriptor_memory | 0x08002000 - 0x08003FFF | descriptor memory | 8192 | 0 |
| fast_tlb_miss_ram_lk | 0x07FFF400 - 0x07FFF7FF | fast tlb miss ram lk | 1024 | 0 |
| cfi_flash_64m | 0x02800020 - 0x03FFFFFF | cfi flash 64m | 25165792 | 41943072 |
| reset | 0x02800000 - 0x0280001F | cfi flash 64m | 32 | 41943040 |
| cfi flash 64m BEFORE RESET | 0x00000000 - 0x027FFFFF | cfi flash 64m | 41943040 | 0 |

linux_cpu HAL linker sections

| Linker Section Name | Linker Region Name | Memory Device Name |
|---------------------|----------------------|----------------------|
| .bss | ddr2 lo latency 128m | ddr2_lo_latency_128m |
| .entry | reset | cfi_flash_64m |
| .exceptions | ddr2_lo_latency_128m | ddr2_lo_latency_128m |
| .heap | ddr2 lo latency 128m | ddr2_lo_latency_128m |
| .rodata | ddr2 lo latency 128m | ddr2_lo_latency_128m |
| .rwdata | ddr2 lo latency 128m | ddr2_lo_latency_128m |
| .stack | ddr2 lo latency 128m | ddr2_lo_latency_128m |
| .text | ddr2 lo latency 128m | ddr2_lo_latency_128m |

FLASH LAYOUT

ADDRESS SPAN

REGION

BASE ADDRESS

PFL OPTION BITS

0.5MB

Option Bits

0x03F8.0000

0x03FE.0000

3.5MB

HW Config Page_2

0x03C0.0000

3.5MB

HW Config Page_1

0x0388.0000

3.5MB

HW Config Page_0

0x0350.0000

13MB

Software
Application
Space

0x0280.0000

RESET VECTOR

0x0280.0000

40MB

User
Data
Space

0x0000.0000

