Reset and power on sequence

Device tree

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| O | GPIO1-17 | CRDRSTn | SW Card reset. Act. Low | SD1\_DATA1 |
| O | GPIO3-31 | RGMII\_RSTn | Reset GBE Switch. Act. Low | EIM\_DATA31 |
| I/O | GPIO6-16 | USB\_RSTn |  | NAND\_CS3\_B |
| O | GPIO1-15 | FPRSTn | Front Panel Reset output, Act. Low | SD2\_DATA0 |
| O | GPIO1-16 | BPRSTn | Back Panel Reset output, Act. Low | SD1\_DATA0 |

This reset is initialized in the Ethernet section of the DTS

pinctrl\_enet: enetgrp {

fsl,pins = <

|  |  |
| --- | --- |
| GPIO3-31 | RGMII\_RSTn Reset GBE Switch. Act. Low |

Device tree GPIO Hog configurations:

MX6QDL\_PAD\_SD1\_DAT1\_\_GPIO1\_IO17 8 // SW Card reset. Act. Low output

//MX6QDL\_PAD\_NANDF\_CS3\_\_GPIO6\_IO16 8

MX6QDL\_PAD\_SD2\_DAT0\_\_GPIO1\_IO15 8 // Front Panel Reset output, Act. Low output

MX6QDL\_PAD\_SD1\_DAT0\_\_GPIO1\_IO16 8 // Back Panel Reset output, Act. Low output

Open issues: what is that pin?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| D16 | I/O | GPIO6-16 | USB\_RSTn |  | NAND\_CS3\_B |

SW set CPU\_RSTn (GPIO1-19) to “1” in order to prevent accidentally CPU reset. This pin can used for HW reset the CPU in case momentary power outage.

There is not GPIO1-19 in the list of pin at the end!!

**Software, initialization and API**

### Power ON sequence

SW set CRDRSTn (GPIO1-17) to “0” hold system in reset state

Created function:

void HwApi\_ResetHoldSystemInResetState()

{

GPIO\_Write(SWCardReset , 0);

}

The SW command the PMIC to generate 1.2v and 2.5v for the CPLD. The ramp time should be 7-8msec.

PMIC is still not define!!!

SW command the AUX DC/DC to generate non-critical card 3.3v (V3p3B) and the GBE Switch 2.5v, 1.5v and 1.1V by setting AUX\_ON (GPIO5-22)

void hwApi\_ResetAUXGenerateVolate(uint8\_t enable)

{

GPIO\_Write(GPIO\_AUX\_ON , enable);

}

SW verify all voltages are stable by examine PMIC generation voltage via PMIC I2C #1 link and AUX DC/DC Power Good (AUX\_PWR\_GD, GPIO5-14) is going high

PMIC is still not define!!!

The reset module will initiate the power on sequence ramp up according to the document.

void HwApi\_ResetPowerOnSequence()