# mDAB Firmware Properties

CPLD: XC2C128-7VQ100

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| **Revision** | **Name** | **Short Description** |
| 1 | mDAB\_ctrl\_1.jed | Implemented the discrete logic, shown in the DEggMBRev4.1- schematic,  Added / differences:   * FLASH2\_POWER\_ENA = Q2 of the Power Enable Shift Register * FLASH1..2 brightness control by quad channel 14bit DAC AD5644, used channels: A=FLASH1, B=FLASH2, C=ILUM, DAC= 3fffh -> FLASHx\_CHARGE\_BIAS = 12.5V, ILUM\_CTRL=2.5V * FLASHx\_CHARGE\_BIAS read back, using ADC ADS8330 @ MCU\_CAL\_A3..0=8h, with ADC\_CONVSTn @ MCU\_CAL\_A3..0=7h, |
| 2 | mDAB\_ctrl\_2.jed | Like Rev.1, but all inputs changed from keeper to pullup + schmitt-trigger |
| 5 | mDAB\_ctrl\_5.jed | All signals are synchronized to the MCU system clock (20MHz) |
| 6 | mDAB\_ctrl\_6.jed | Debugging version, like 2, but camera ports 1-3 swapped |
| 7 | mDAB\_ctrl\_7.jed | Like 5, but can deal with shorter MCU\_CAL\_SS strobes, down to 25ns |
| 8 | mDAB\_ctrl\_8.jed | Like 7, + firmware revision read back, 16bit @ MCU\_CAL\_A3..0=Ah, SPI mode 1 (CPOL=0, CPHA=1) |