

Modifying the Atmel EVK1101 board for use as an SPI slave

Tennessee Carmel-Veilleux

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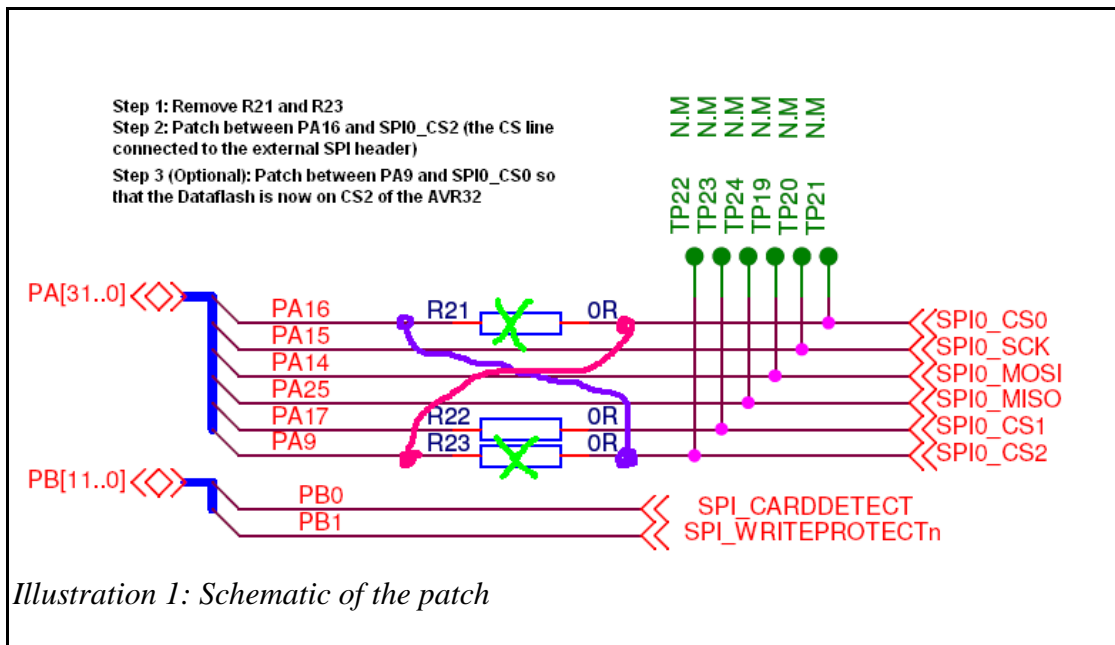
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Problem

The EVK1101 board comes by default with a 100mil spacing header that allows developers to tap onto the SPI bus. The CS line of this header is connected to SPI0_CS2 on the AVR32, which cannot be used as the SPI slave mode chip select line (“NSS”). The SPI0_CS0/NSS line is connected to an AT45DB642D dataflash chip instead.

Solution

In order to use the EVK board as an SPI slave, one must connect the SPI0_CS2 line of the system to PA16 (chip connection for SPI0_CS0/NSS). Steps to achieve this are shown below. They basically involve the removal of the two jumpers R21 and R23, followed by a crossing of paths to exchange CS0 and CS2 from the chip to the devices. Only the patch from PA16 to SPI0_CS2 is shown on the pictures below. Both steps are to be done on the bottom side of the board.



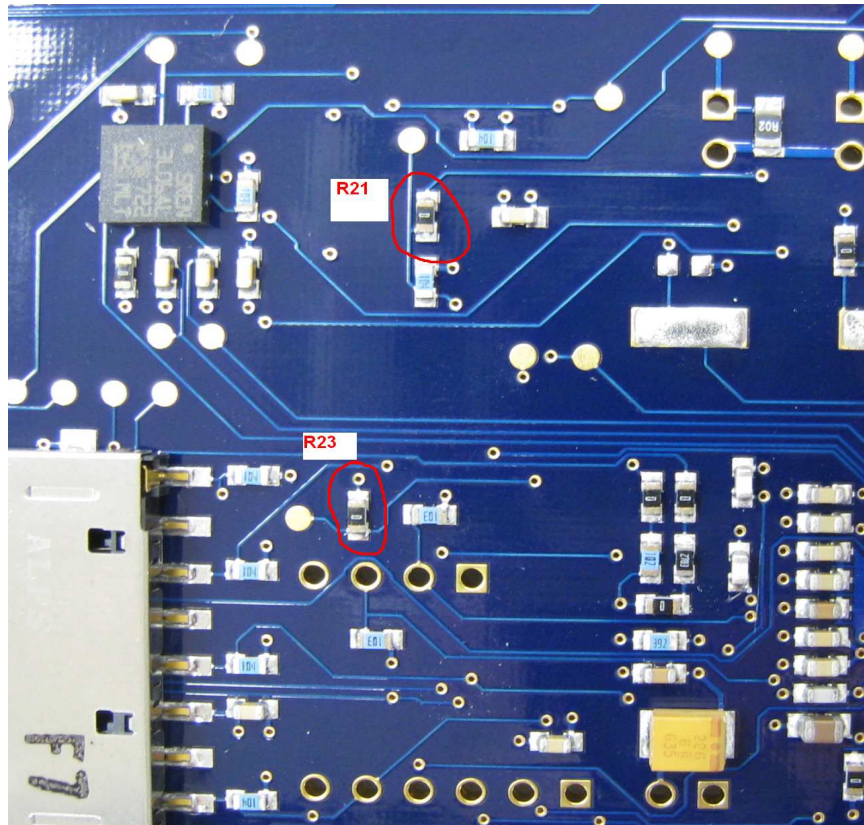


Illustration 2: Resistors to remove (Step 1)

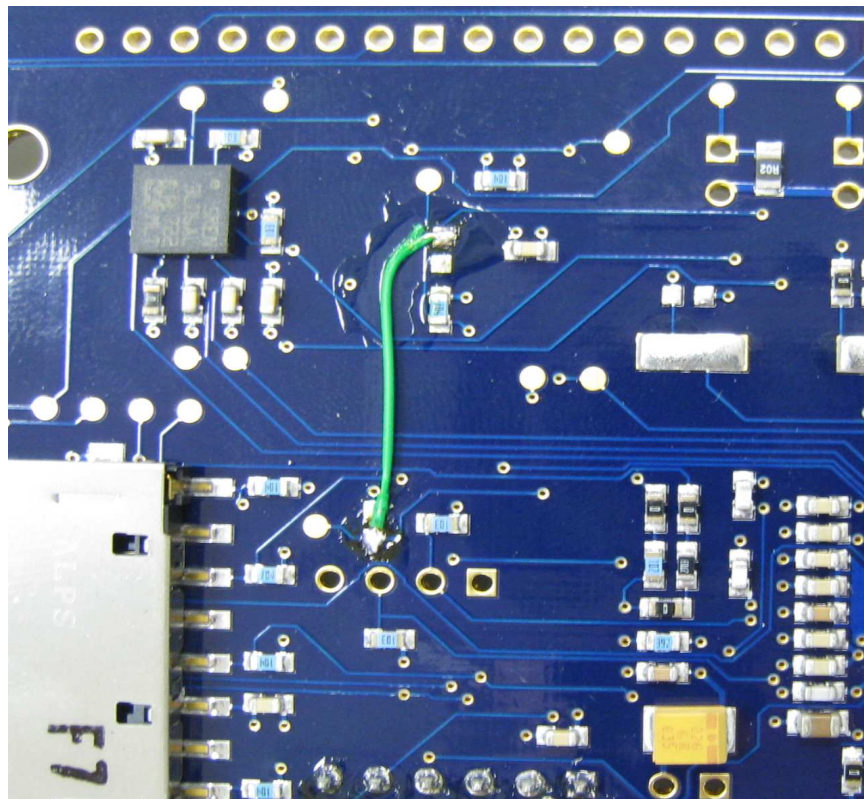


Illustration 3: Patch after completion (step 2)