![MICROCHIP logo]

MPLAB® Debugger Adapter Board AVR Interface Modification

Symptom: Programming and debugging of AVR microcontroller devices that use the PDI, TPI and DebugWire Interface results in a "Connection Failed" message. Assembly #12-10776-R1 (PCB marking REV 4) is mis-wired for AVR interfaces that require the use of the AUX pin.

Problem:
AVR microcontroller have fragmented programming and debugging interfaces which make use of different pins for different functionality depending on chosen interface. The pinout for RESET on the adapter when using AVR devices can vary from a true RESET, a clock source, or a bidirectional data line. The typical ICSP line NMCLR does not have bidirectional data line capability and is not applicable to serve as a multi-function signal for all these interfaces.

Solution: For AVR interfaces, the AUX line should be used rather than NMCLR for AVR RESET, DATA IO, and Clock pin functionality. This requires a cut and a jump on the J7-6 connector labeled "AVR JTAG". The jump connects J7-6 pin to J1-7.
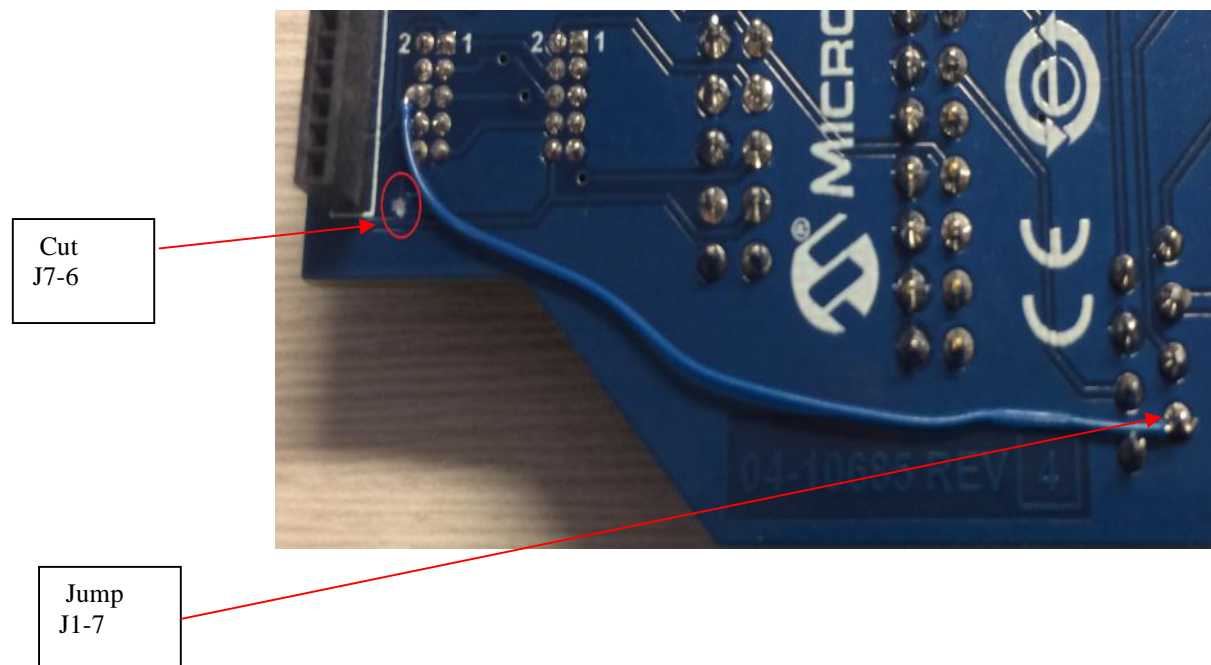

Figure 1