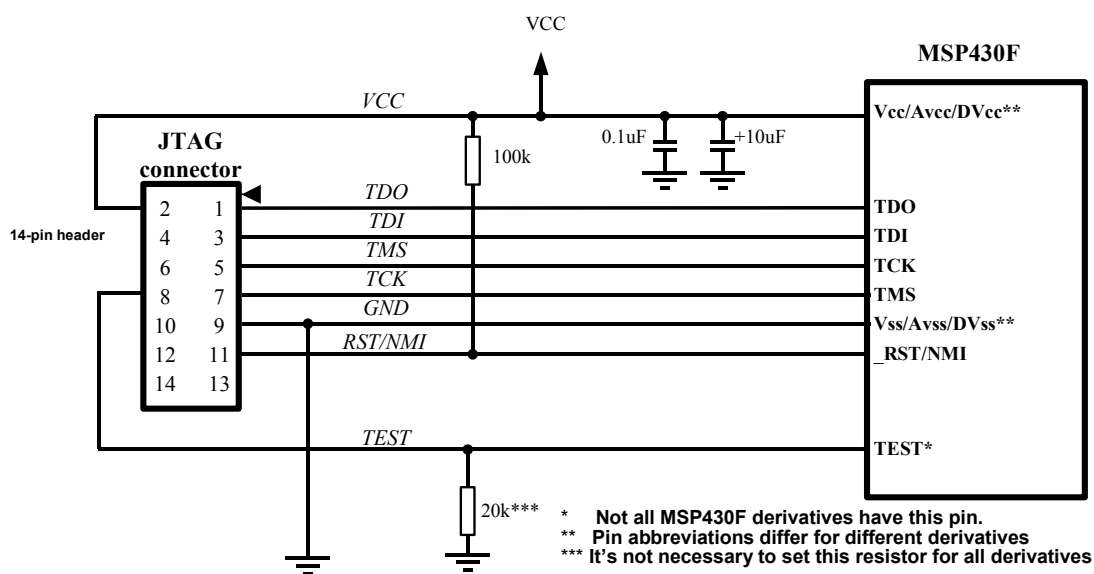


Appendix B

Connecting Targets To The PICD-430 Unit

To make the PICD-430 debugger workable with the target, the following circuits should be properly connected to the output 14-pin JTAG connector on the debugger unit's front panel: RST/NMI, TMS, TCK, TDI, TDO, GND, VCC, and TEST (if it exists). See the diagram below:



Many standard evaluation boards (header boards, etc.) can be used as target boards to support the PICD-430 debugger and to match its requirements. Target boards from Texas Instruments that are part of the very popular MSP430 FET toolsets can be used with no changes with PICD-430. All these boards have 14-pin sockets that fit the PICD-430 ribbon cables with 14-pin plugs.

When working on MSP430 applications, keep in mind that in some MSP430 devices the pins TMS, TDI, TDO, TCK have dual functions and can be used either as the debug JTAG port or as general-purpose ports. Such chips have a special TEST pin for switching between functions - logical '1' on the TEST pin switches the MSP430 device into the debug mode (JTAG is active).

If in the PICD-430 *Hardware Configuration* dialog you have enabled *Hardware Reset* (box is checked), then the debugger will use the "RST/NMI" for the target MCU reset. The "RST/NMI" pin should be connected to the Vcc line via a 100 KOhm pull-up resistor. You can continue using this pin for purposes other than for the MCU reset, but you should drive this pin only by an FET with an open stock.

You can leave the "RST/NMI" pin unconnected to the PICD-430 but, in case you plan using it as the NMI input, you should uncheck (disable) the ***Enable Hardware Reset*** box in the ***Hardware Configuration*** dialog.