

# AMD FTDI JTAG Programmer


With Vivado 2022.2 AMD allows customer to program FTDI with AMD License, so that the most FTDI can be used as JTAG programmer with AMD Tools (Vivado/Vitis/Petalinux).

AMD Documentation how you program FTDI:

- [https://docs.xilinx.com/r/en-US/ug908-vivado-programming-debugging/JTAG-Cables-and-Devices-Supported-by-hw\\_server](https://docs.xilinx.com/r/en-US/ug908-vivado-programming-debugging/JTAG-Cables-and-Devices-Supported-by-hw_server)

Trenz Electronic use currently Digilent License and Digilet Tool to program Trenz Boards and Programmer to get it compatible with AMD Tools.

Currently Trenz will evaluate if we offer also free available AMD Licence to our programmer in the future. This page will collect application notes and issues to get AMD FTDI License running on different Trenz Boards. So customer can use it by himself.

 As long as Trenz has not switched to AMD License, we reserve the right to give only limited support on self-modified FTDI on original Trenz Products.

AMD supports currently following FTDI (s2023-06-07):

- FT232H
- FT2232H
- FT4232H

HW connection:

- ADBUS0 TCK
- ADBUS1 TDI
- ADBUS2 TDO
- ADBUS3 TMS
- ADBUS4 VCCO\_TAG\_ON    Need to be set high, to enable JTAG
- ADBUS6 FTDI\_PROB\_B    Optional

Other FTDI Bus are default configured as UART and can be reconfigured with FTDI Tools (see Xilinx Documentation).

Trenz Products which are checked:

Series	Status	Needed Modification for AMD License	Status
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TE0790	Currently without and with Digilent License available	<p>CPLD Update is needed.</p> <ul style="list-style-type: none"> <li>Current CPLD source code and firmware update instruction: <a href="#">TE0790 CPLD Firmware</a></li> <li>Modification: ADBUS4 must be set high(CPLD Pin 5):</li> </ul> <pre> ADBUS4 : out std_logic;  ...  ADBUS4 &lt;= '1'; </pre>	