UAD JTAG Protector 2

ESD Protection for Universal Access Device

Electrostatic Discharge (ESD) can damage a sensitive electronic component ! Under several conditions static electricity and ground potential differences between the Access Device and the user's target hardware can build up high voltages - over 10000 Volts (10 kV) in some cases. The electrostatic discharge of this build-up voltage results in fast high current waveforms and fast magnetic (H-field) or electro-static (E-field) disturbances.

Static Electricity Precautions

The discharge into the electronic components and circuitry can damage or destroy hardware components, resulting in failures and reduced reliability. Because the direct 3.3/5 Volts-TTL compatibility of the **JTAG** port, this port is endangered especially, the maximum voltage on these pins may not exceeded **5.5 Volts**. To protect your hardware against damage from static electricity and ground potential discharge, you should follow some basic precautions:

1. Before you change any cable connections from the Access Device, please remove the power from the Access Device and your target system.

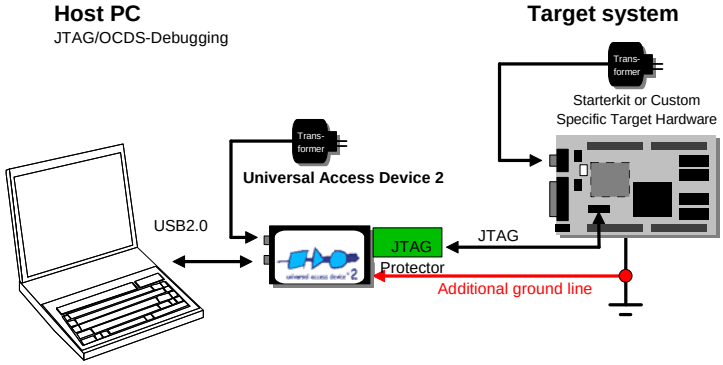
2. Please ensure that the static electricity and ground potentials between the Access Device and the target hardware are balanced. If there is a danger of high potential differences, you must connect the Access Device and the target hardware to the same ground domain. All Universal Access Devices are equipped with a ground socket beside the connector 'JTAG Target'. Please use this ground socket for discharging the static electricity and balancing ground potentials between the Universal Access Device and the target hardware **BEFORE** you connect the target hardware.

3. In hard process environments it is strongly recommended to use the **UAD-JTAG Protector 2** described below.

UAD-JTAG Protector 2

The UAD-JTAG Protector 2 is an add-on hardware for Universal Access Device and for Universal Access Device 2. It is optimized for the communication between the Universal Debug Engine on the host PC and target microcontroller system equipped with JTAG interface. It is recommended for the protection of JTAG interfaces from the danger of over-voltage and ESD in hard production environments.

- Complete JTAG interface (deliverable for all C166, XC166, XC2000, XE166, TriCore, PowerPC, ARM7, ARM9, ARM11)
- Protection from the danger of Overvoltage and ESD in hard production environments
- Extends the flat ribbon cable delivered with the UAD2 Supports JTAG communication frequencies to the target up to 10 MHz



Technical details

- Enhanced ESD Protection 15kV per signal
- Series resistor per signal: 58 Ohms
- Capacity per signal: max 55pF
- Resettable over-current protection 10A (max 0.2s time to trip)
- Power dissipation from target voltage: 10mW (V_{IO} = 3,3 Volts)

Just contact us if you have any questions about your C16x/ST10/TriCore application development tools:

pls Programmierbare
Logik & Systeme GmbH
Lautech Technologiepark
D – 02991 Lauta, Germany

Phone: + 49 35722 384 – 0
Fax: + 49 35722 384 – 69

www.pls-mc.com
info@pls-mc.com

pls Development Tools
1250 Oakmead Parkway, Suite#210
Sunnyvale CA, 94085
USA

+1 408 451 – 8408
+1 408 501 – 8808
Toll Free: +1 877 77DEBUG

Your local partner:

pls Development Tools