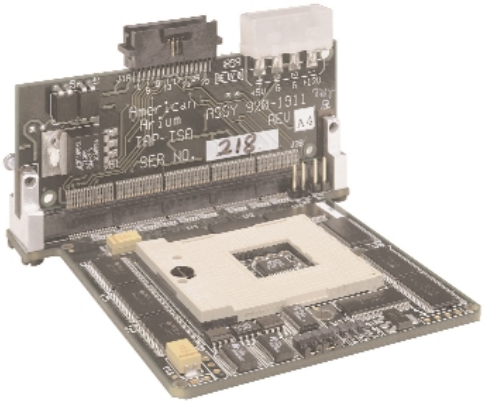
TAP-MT

Getting Started Guide



Overview

The TAP-MT is the target interface for use with the Intel® Pentium® III processor target systems using the mPGA479 (uFCPGA) package. It provides debug access to target systems that have been designed or built without a debug/ITP port, or for systems where the debug/ITP port is not operating correctly..

The base unit ships with an STK-480, the stack-up assembly for the uFCPGA socket with fully populated 480 contacts. These pins are direct pass-through, with no dedicated pins. Keying pins may need to be removed when installation orientation is chosen.

Unpacking the Equipment

Carefully remove the equipment from the box and refer to the enclosed packing list to ensure that you received all items.

Caution: The pins on the TAP-MT and STK-480 are long and fragile. Be careful during installation. Use the black conductive foam and rubber band which were shipped with the products to protect their pins when not in use.

TAP-MT Installation

1. Ensure that power to the base unit, host system, and target system is turned off. Remove the processor from the target system, if installed.

   Note:The target must have an mPGA479 socket at the processor location. Processor and heatsink assembly must be removed.

2. Make sure the jumper settings on your TAP-MT are set as follows:

   ECM: Must be installed; allows emulator to control processor through the TAP-MT.

   AS/BS: AS position (default) delivers the emulator's TCK from the TAP-MT-to-base unit cable to the processor without modification.

   Note: BS position not active at this time.

   1.4/1.2:
   - Not installed (default) delivers 1.5 V
   - 1.4 position delivers 1.4 V signals to the processor debug port during communication sent through the TAP-MT
   - 1.2 position delivers 1.2 V

3. Install the processor into the TAP-MT, observing pin 1 orientation. Make sure the locking screw is fully activated.

   Caution: Do NOT insert anything yet.

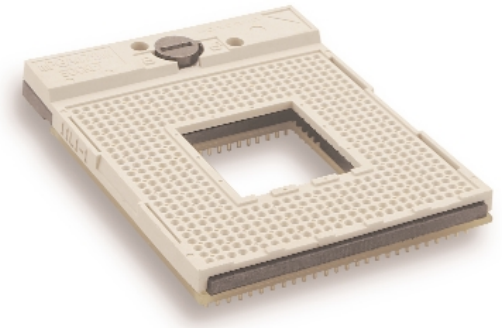
   Note: The TAP-MT cannot be installed into the target mPGA479 socket directly. One or more STK-480 stack-up assemblies, one of which is included with the TAP-MT, must be used in order to close the latch on the target socket. With the TAP-MT processor socket oriented so the pin A1 corner is the same direction as the target processor pin A1 corner, observe that two holes in the TGI provide access to the STK-480 actuator. Position the STK-480 in either of those two orientations.

4. Remove one or more of the stacker's corner pins, as necessary.

   Note: The STK-480 will need one or more of its corner pins removed since the uFCPGA socket on the target will have pin A1 plugged. Remove necessary pins with wire cutters as required. Removal of pins in the other corners is of no consequence since those pins carry VCCT or GND, and are redundant. Install the STK-480 into the target board socket, observing pin orientation. Make sure the locking screw is fully actuated.

5. Insert the TAP-MT into the topmost STK-480. No pins need be cut on the TAP-MT since the STK-480 has a fully populated array (no keying).

Caution: Because of this lack of keying, it is extremely important to verify that the orientation of the plugged pin on the TAP-MT socket matches the normal pin A1 position on the target. Otherwise, processor and motherboard damage may occur. As the STK-480(s) and the TAP-MT are stacked, be sure to close the actuator on each lower socket as the next item is installed.



6. Connect a power cable from the target power supply that is normally used for powering a disk drive to J3 on the TAP-MT. This is required so that the TAP-MT can derive the VTT supply voltage required for operation.

7. Follow the instructions provided with your American Arium in-target probe to connect it to the debug/ITP connector (J1) on the TAP-MT.

   Note: Use the yellow and black twisted reset cable to deliver DBRESET# from either of two pairs of posts on the TAP-MT or the TARGET RESET connector on the ITP. Note tha tthe reset posts on the TAP-MT are labeled R and G, for RESET and GND. The cable must be oriented to connect the G pin to GND on the target and the R pin to a point in the target circuit that will cause a target reset. Typically, this cable connects to posts on the target intended for the push-button-reset.

If you have any problems or questions, contact American Arium Technical Support at 877-508-3970 toll free or 714-731-1661 outside the US or support@arium.com for assistance.