



EJ-Debug ETM for ARM11



- ❑ Supports ARM licensed ARM11
- ❑ ARM®/Thumb® state debugging supported
- ❑ Hardware breakpoints can be set for address and status conditions
- ❑ Unlimited software breakpoints (can be set for RAM and Flash ROM)
- ❑ Supports the semi-hosting capability
- ❑ Download to Flash Memory capability
- ❑ ETM trace capability (512K STEP) is supported
- ❑ ETM trace up to 200MHz clock is available
- ❑ Low voltage from 1.8V up to 3.6V
- ❑ Useful for field debugging or maintenance
 - Powered by USB bus (No AC adapter required)
 - Small size(86mm X 101mm X 23mm)
- ❑ Auto-script execution by BATCH button on the hardware unit
 - perfect use in auto-verification of the target on mass production or for updating new versions
- ❑ USB host interfaces for high-speed communication with host computer
- ❑ Sophia's high-level language debugger, Watchpoint®, is included with all Sophia Systems emulators (Windows®2000/XP platforms)

Specifications

| | |
|--------------------------------------|---|
| Target CPU | ARM11 core series (ARM11XX) |
| Clock | Supports the CPU's maximum clock speed |
| Target Vcc | Vcc= +1.8 V to 3.6 V |
| Memory and I/O | Entire space is available to user |
| Interrupts | Both internal and external interrupts are available to user |
| Breakpoints and Break Options | <ul style="list-style-type: none"> • Hardware breakpoints <ul style="list-style-type: none"> - ARM11: Max 7 hardware breakpoints Instruction execution address(3 points), memory access(2 points), others(2 points) • Unlimited software breakpoints Other break options: <ul style="list-style-type: none"> ▪ Forced break from Debug Monitor |
| ETM Trace | Supported clock: 200Mhz Trace memory capacity: 512K STEP The following conditions can be specified: <ul style="list-style-type: none"> - The instruction trace area(2 points) can be specified. (The start/end address can be specified) Time stamp capability ETB capability supported by the optional Watchpoint software |
| Flash Memory | Download the program from the debugger directly to the target external Flash memory |

Configuration

Hardware

A EJ-Debug ETM for ARM11 system consists of the ARM11 Probe Set with USB host interface.
(EJ-Debug ETM for ARM11 can not be used for other CPUs)

Software

Watchpoint®, a high-level language debugger is included with the EJ-Debug ETM for ARM11.

Media:

CD-ROM

Supported Tool Chains:

Watchpoint supports the following compilers and supported OS:

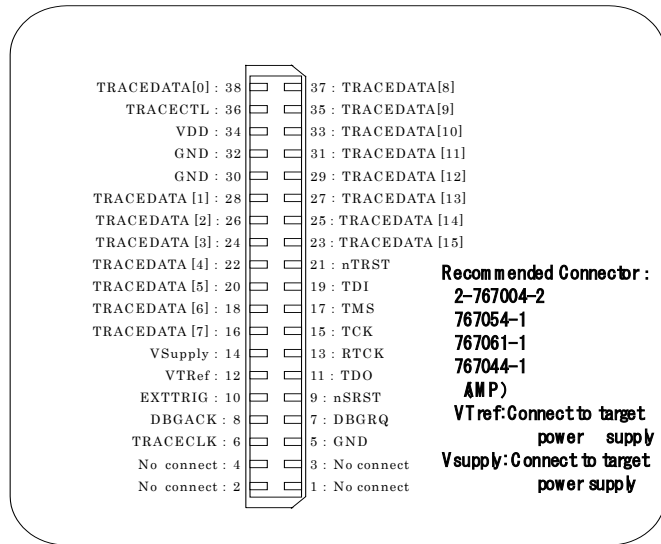
Compiler:

ARM: ADS, SDT, RVCT
 Metaware: High C/C++/EC++ for ARM
 Green Hills: GHS
 GAIO: XCC-V
 GNU:
 IAR: EWARM

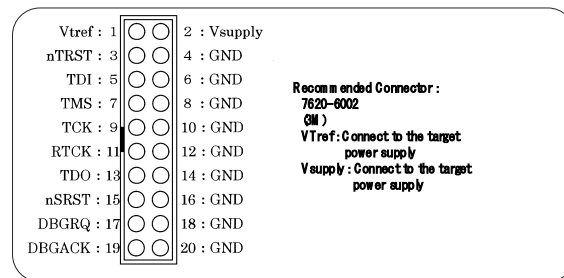
Supported OS:

NORTI G-OS PrKERNEL
 VxWorks Linux Other ITRON
 Symbian OS Windows CE L4µ - kernel

Target ICE Connections



Single ETM Target connector pin assignment (Top View)
(ARM11)



Multi ICE JTAG Header Connector
Pin Assignment (Top View)

Ordering Information

| Part No. | Description |
|----------|--|
| EJD7001E | Probe Set, EJ-Debug ETM for ARM11 with USB host interface and Watchpoint® debugger for Windows®2000/XP |
| U4A401E | The optional Watchpoint software to support the ETB capability |

System requirements for Watchpoint® Debugger:

OS: Windows2000/XP **Memory:** 64 Mbytes+ recommended **Hard Disk:** 25 Mbytes for installation

Watchpoint is a registered trademark of Sophia Systems Co., Ltd. ARM, Thumb, Multi-ICE, Embedded ICE, and ARM7/9TDMI are registered trademarks of ARM Limited. Windows is a registered trademark of Microsoft Corporation.

All other brands and product names are trademarks or registered trademarks of their respective companies. All configurations are subject to change without notice.



Sophia Systems Co., Ltd.
 URL: <http://www.sophia-systems.com>