

## ***EJ-Debug for SH-Mobile***



- ❑ Supports Renesas SH-Mobile series
- ❑ Supports H-UDI interface
- ❑ View and modify the internal peripheral registers
- ❑ Hardware breakpoints can be set for address and status conditions
- ❑ Unlimited software breakpoints
- ❑ Download to Flash Memory capability
- ❑ 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®98/Me/2000/XP platforms)

### **Specifications**

<b>Target CPU</b>	SH-Mobile 1(SH7290), SH-Mobile3, SH-Mobile J(SH7294), SH-Mobile J3, SH-Mobile L SH-Mobile V2(SH7310), SH-Mobile V(SH7300), SH7705, SH7710, SH7712, SH7720
<b>Target Vcc</b>	Vcc= 3.3V
<b>Memory and I/O</b>	Entire space is available to user
<b>Interrupts</b>	Both internal and external interrupts are available to user
<b>Breakpoints and Break Options</b>	Execution address break options: <ul style="list-style-type: none"> <li>• Max 2 hardware breakpoints*</li> <li>• Unlimited software breakpoints</li> </ul> Execution instruction address, memory access, data break can be specified. Other break options: <ul style="list-style-type: none"> <li>▪ Forced break from Debug Monitor</li> </ul> <i>Note 1: When the Software Breakpoint, Step Over, Step Out, Come to function is in use, release 1 hardware breakpoint.</i>
<b>Flash Memory</b>	Download to target external Flash memory

Note2: View of the internal I/O register is not supported for SH-Mobile due to NDA.

## Configuration

The EJ-Debug for SH-Mobile provides a high level of software debugging from your PC/AT or notebook computer.

### Hardware

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

### Software

Watchpoint®, a high-level language debugger for Windows®98/Me/2000/XP, is included with the EJ-Debug for SH-Mobile.

### Media:

CD-ROM

### Supported Tool Chains:

Watchpoint supports the following compilers and supported OS:

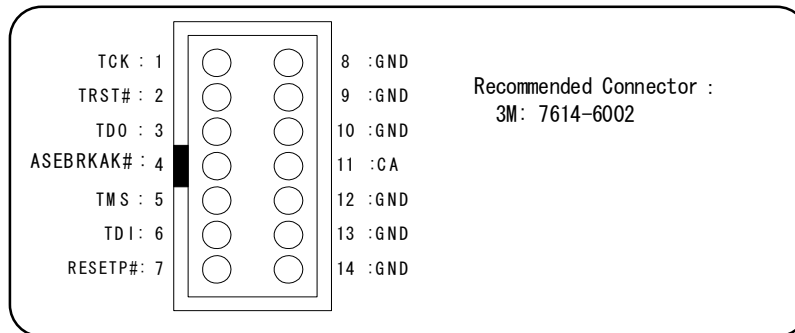
#### Compiler:

Renesas	SHC
Green Hills	GHS
GAIO	XCC-V
IAR	EW/S SH
GNU	

#### Supported OS:

HISH77	HI7700	G-OS
NORTi3	NORTi4	PrKERNEL

## Target ICE Connections



14-pin H-UDI connector pin assignment (Top View)

## Ordering Information

Part No.	Description
EJD4000E	Probe Set, EJ-Debug for SH-Mobile with USB host interface and Watchpoint® SH-Mobile debugger for Windows®98/Me/2000/XP

### System requirements for Watchpoint® Debugger:

**OS:** Windows98/Me/2000/XP **Memory:** 32 Mbyte (64 Mbyte recommended)  
**Hard Disk:** 20 Mbyte for installation

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