



WATCHPOINT Debugger for EJ-SCT SH JTAG

EJ-Writer is the first ROM writer that has the ability to write directly into Flash ROM while already installed on the User's board via the JTAG port. Its small size (Width 86mm X 101mm, Height 23mm) and versatility make it a perfect solution for use in the field or on the manufacturing line.



- Supports Renesas Technology SH2/3/4 and SH-Mobile series
- Supports H-UDI interface
- Special writer for Flash memory
- Useful for field maintenance such as upgrading target firmware.
 - Powered by USB bus (No AC adapter required)
 - Small size(86mm X 101mm X 23mm)
- Automatic script execution via the WRITE button
 - Useful for automatic writing / upgrading in mass production
- WATCHPOINT Flash Writer software is included
- USB interface for high-speed communication with host computer
 - * Please confirm your desired CPU type with Sophia Systems.

Specifications

CPU Support 	SH2 / SH2-DSP series SH7615, SH7616, SH7618, SH7619, SH7622, SH7047, SH7124, SH7125, SH7144, SH7146, SH7147, SH7149, SH7083, SH7084, SH7085, SH7086, SH2A series SH7201 ^{*2} , SH7203, SH7206, SH7211 ^{*2} , SH7261 ^{*1} SH3-DSP series SH7729, SH7729R, SH7709A, SH7709S, SH7706, SH7727, SH7705, SH7710, SH7720 SH4 series SH7750, SH7750S, SH7750R, SH7751, SH7751R SH4 A series ^{*2} SH7763, SH7770, SH7780, SH77730 SH-Mobile series SH-Mobile 1(SH7290), SH-Mobile 3, SH-Mobile J(SH7294), SH-Mobile J3, SH-Mobile V (SH7300), SH-Mobile V2 SH7310 * Please contact Sophia Systems regarding the availability of any other CPU types.										
Power Supply	Vcc 3.3V or 5v I/O ^{*3}										
Flash Memory Write Capability	Memory read "DUMP" capability and FLASH programming Over 180 Flash memory types are supported and regular FLASH software updates are available. FLASH parts not included in the support list may be added by setting the write program instructions. Macro batch files are easily recorded for stand alone FLASH programming, simply pressing the PLAY button on the SH JTAG. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Emulator Function</td> <td style="width: 50%;">Memory Functions</td> </tr> <tr> <td>Program execution</td> <td>Download data from memory</td> </tr> <tr> <td>Forced break</td> <td>Upload data to memory</td> </tr> <tr> <td>Reset</td> <td>Fill up/check/copy memory</td> </tr> <tr> <td>Macro batch program execution</td> <td>Clear, fill, upload & download to FLASH memory</td> </tr> </table>	Emulator Function	Memory Functions	Program execution	Download data from memory	Forced break	Upload data to memory	Reset	Fill up/check/copy memory	Macro batch program execution	Clear, fill, upload & download to FLASH memory
Emulator Function	Memory Functions										
Program execution	Download data from memory										
Forced break	Upload data to memory										
Reset	Fill up/check/copy memory										
Macro batch program execution	Clear, fill, upload & download to FLASH memory										
Supported FLASH manufacturers	Renesas Technology, Intel, MACRONICS, Sharp, Toshiba, NEC, Sanyo, ATMEL, SST, ST, OKI, SPANSION, Fujitsu, AMD, EON *More than 180 Flash memories and memories not included in the list are supported by setting the write program instructions. * Please contact Sophia Systems regarding FLASH types that are not listed in the above.										

*1 Windows XP Professional x64 Edition(64bit version) and Windows *Vista(32bit version) are supported. Contact Sophia Systems if you have additional Windows OS support questions.

*2 Planned support with updates.

*3 5v I/O is able to support SH7047, SH7080 series using optional cable.

Configuration



CD-ROM

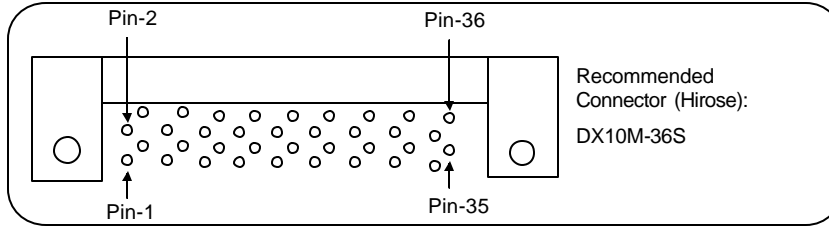


JTAG CABLE types:
SCP4xxx

The following compilers are supported for the objects to write into Flash memory.

- Renesas SHC
- GreenHills GreenHills
- Gaio Technology XCC-V
- IAR EW/S SH
- GNU

Target Connection



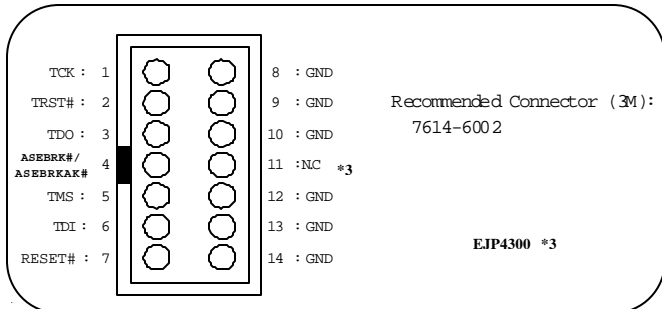
CS2802 Advanced User Debug connector pin assignment CS2803, CS2808

Pin No.	Signal	I/O	Pin No.	Signal	I/O
1	N.C.		19	TMS	Input
2	GND		20	GND	
3	N.C.		21	TRST.	Input
4	GND		22	GND	
5	N.C.		23	TDI	Input
6	GND		24	GND	
7	N.C.		25	TDO	Input
8	GND		26	GND	
9	N.C.		27	ASEBRK#	Input
10	GND		28	GND	
11	N.C.		29	N.C.	*3
12	GND		30	GND	
13	N.C.		31	RESET#	Output
14	GND		32	GND	
15	N.C.		33	GND	
16	GND		34	GND	
17	TCK	Input	35	N.C.	
18	GND		36	GND	

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1	N.C.		19	TMS	Input
2	GND		20	GND	
3	N.C.		21	TRST.	Input
4	GND		22	GND	
5	N.C.		23	TDI	Input
6	GND		24	GND	
7	N.C.		25	TDO	Output
8	GND		26	GND	
9	N.C.		27	N.C.	
10	GND		28	GND	
11	N.C.		29	N.C.	*3
12	GND		30	GND	
13	N.C.		31	RESET#	Output
14	GND		32	GND	
15	N.C.		33	GND	
16	GND		34	GND	
17	TCK	Output	35	N.C.	
18	GND		36	GND	

The direction to Input/output the signal is based on the target system.

14-pin H-UDI connector pin assignment:



*3 Connect 5V of the target when you use 5V in the user power supply to SH7047/SH708x. Adjust 29 pins to 5V when target sides are 36 H-UDI connector pins.

Ordering Information

Required PC Configuration		EJ-SCT Components and Software			Options
HOST PC	USB PC Connection	JTAG EMULATOR Hardware	WATCHPOINT Debug Software	SUPPORT SERVICE Optional Software updates	Optional cable
PC/AT & COMPATIBLE	USB2.0/1.1	SCD001 EJ-SCT	SCM9400E WP DBG for EJS SH	SSS001 Optional Support Service	H-UD136 pin (for AUD)



System Requirements

OS: Windows XP/2000, and Vista* ; Memory: Minimum 64+ Mbytes RAM and 20 Mbytes drive space for installation. Configurations is subject to change without notice.

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