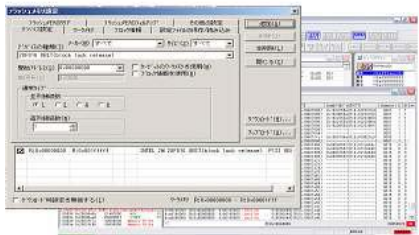


WATCHPOINT Debugger for EJ-SCT SH JTAG



- Supports Renesas Technology SH2/3/4 and SH-Mobile series
- Hardware breakpoints can be set for address and status conditions
- Unlimited software breakpoints
- Supports C/C++
- Download capability to flash memory
- Writes to on-board and CPU internal flash memory
- Supports over 300 types of flash memory devices
- Useable as a stand-alone writer. (operate by AC adaptor)
- One-touch automatic script execution via the PLAY button on the unit
- Possible to write to not-supported flash memory when users make a custom program
- One common hardware unit supports other CPU series by purchasing software license additionally

* Please confirm your desired CPU type with Sohwa & Sophia Technologies.

Specifications

Supported CPU	SH2/ SH2-DSPseries (SH7615, SH7616, SH7618, SH7619, SH7622) SH-2A series (SH7203, SH7206, SH7214, SH7216, SH7261, SH7264, SH7268, SH7269, SH7285, SH7286) SH3-DSPseries (SH7706, SH7709A, SH7709S, SH7727, SH7729, SH7729R, SH7705, SH7710, SH7712, SH7713, SH7720) SH-4 series (SH7750, SH7750S, SH7750R, SH7751, SH7751R) SH-4 A series (SH7730, SH7763, SH7764, SH7770, SH7780) SH-Mobile series (SH-Mobile 1(SH7290),SH-Mobile 3, SH-Mobile J(SH7294), SH-Mobile V(SH7300), SH-Mobile V2(SH7310)) * Please contact Sohwa & Sophia Technologies regarding the availability of any other CPU types.				
Power Supply	Vcc 3.3V ; optionally 5v I/O				
Memory and I/O	Entire space is available to user				
Interrupts	Both internal and external interrupts are available to user				
Functions	Execution:		Memory:		
	<ul style="list-style-type: none">- Program execution- Reset- Step(Step Over, Step Out, Come)- Batch program execution		<ul style="list-style-type: none">- Memory DUMP capability- Download- Upload- Fill up/check/copy of memory- Clear/fill up/download of Flash memory		
	<ul style="list-style-type: none">- Hardware Breakpoints				
	SH-2 : SH7615/16 MAX 4 points SH7622/19/18 MAX 2 points	SH-2A: MAX 10 points	SH-3, SH-Mobile: MAX 2 Points	SH-4: MAX 4 Points	SH-4A: MAX 3 points
	<ul style="list-style-type: none">- Software Breakpoints (Unlimited software breakpoints can be set for RAM)- Forced break from Debugger- Others				
Supported Flash Manufacturers	Renesas Technology, Intel, MACRONICS, Sharp, Toshiba, NEC, Sanyo, ATMEL, SST, ST, OKI, SPANSION(Fujitsu, AMD), EON * Please refer to our website for more details.				

Configuration



CD-ROM



JTAG CABLE types:
SCP4xxx

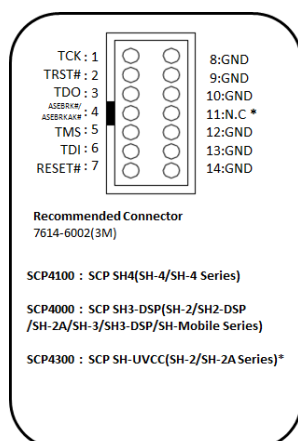
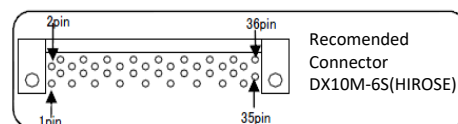
The following compilers are supported for the objects to write into Flash memory.

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

Target Connection

14-pin H-UDI connector pin assignment

36-pin H-UDI(AUD) connector pin assignment



CS2802

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

CS2803, CS2808

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

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

* Connect 5V of the target when you use 5V in the user power supply to SH-2 Series. Adjust 29 pins to 5V when target sides are 36 H-UDI connector pins.

Ordering Information

CUSTOMER should PERPARE		Necessary items for Debugger System			Options
HOST PC	CONNECT WITH PC	JTAG EMULATOR (Hardware)	WATCHPOINT Debugger(software)	SUPPORT SERVICE (Software updates)	Optional cable(Must select at least 1 cable)
Windows PC	USB2.0/1.1 CONNECTION	SCD001 : EJS-SCT	SCM9400E : WP DBG for EJS SH E	SSS010 : Sophia Support Service	H-UDI 14 pin SCP4100 : SCP SH4 (SH-4/SH-4A Series) SCP4000 : SCP SH3-DSP (SH-2/SH-2A/SH-3 /SH3-DSP/SH-Mobile Series) SCP4300 : SCP SH-UVCC (SH-2/SH-2A Series: for 5V U-VCC) H-UDI 36 pin(for AUD) CS2802 : SH-4/SH-4A Series CS2803 : SH-2/SH-2A/SH-3/SH-Mobile CS2808 : SH-2/SH-2A Series (for 5V U-VCC)

System Requirements

Host OS : Windows 7/Vista, and XP(32 bit or 64bit)

Memory : Minimum memory requirements are amount of memory recommended for each operating system by the operating systems vendor.

Hard Disk : 100MB for installation

* All configurations are subject to change without notice.

* All other brands and product names are trademarks or registered trademarks of their respective companies.

Sohwa & Sophia Technologies Inc.

(Ver.140210a)

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