



HyperSTAC™ H8/300H Series In-Circuit Emulator



- ❑ Supports Renesas Technology H8/300H Series
- ❑ Supports MCU clock speed from 2 ~ 25 MHz
- ❑ Optional probe end adapters are available to support different MCU packages
- ❑ Unlimited software breakpoints
- ❑ 4 Mbytes emulation memory available
- ❑ Internal access trace capability
- ❑ View/modify internal peripheral
- ❑ USB and LAN host interfaces supported for high-speed communication with host computer
- ❑ Watchpoint®, a powerful high-level language debugger for Windows®, provides common user interface for all Sophia Systems emulators
(USB: Window98/Me/2000/XP)
(TCP/IP: Windows98/Me/NT/2000/XP)

Specifications

Target CPU	H8/3002/4/5/6/7/8, H8/3020/1/2/2F/4F/6F/8F/9, H8/3030/1/2/3/4/5/6/7/8/9/9F, H8/3040/1/2/4/5/7/8/8B/8F/8F-ONE, H8/3052/2F, 3078, H8/3060/1/2/2AF/2F/4F/5/6/7/7F/8F/9F
Emulation CPU	H8/3052EVA PGA401 pin
Package	FP-80A (0.65mm), TFP-80C (0.5mm), FP/TFP-100B (0.5mm), FP-100A (0.65mm) as an option
CPU Clock	25 MHz clock
Target Vcc	+3 VDC ~ +5 VDC
Memory and I/O	Entire space is available to user
Interrupts	Both internal and external interrupts are available for real-time CPU execution
Breakpoints and Break options	<p>Execution address break options</p> <ul style="list-style-type: none"> • 6 hardware breakpoints (4 execution breakpoints, 2 after execution breakpoints) • Unlimited software breakpoints <p>Other break options</p> <ul style="list-style-type: none"> • Forced break from Debug Monitor • Write-protect error • Access-Protect error • Trace End (Data, bus status, etc)
ICE Environment Settings	<p>Enable/disable bus cycle time-out</p> <p>Enable/disable target control signals: RESET, NMI, STBY, BREQ</p>
Reset	Reset the MCU during program execution
Real-time RAM Monitor	Monitor a specific block of memory data bus in real-time

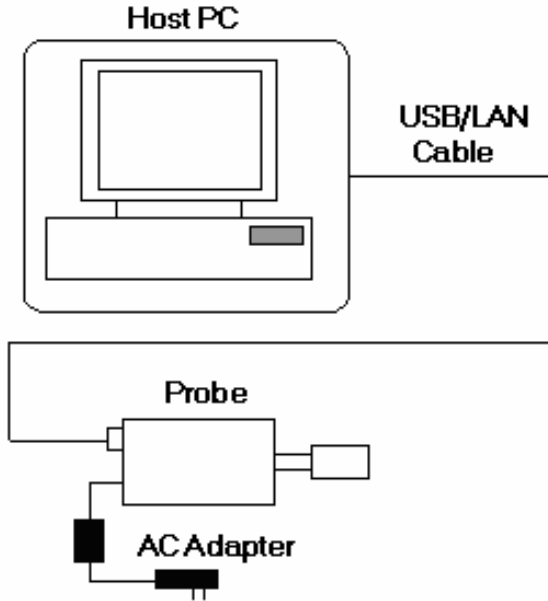
Coverage Performance Analyzer	<p>The following measurements can be performed</p> <p>Profile: Counts the frequency of code execution in specified memory areas at sampling intervals</p> <p>Coverage: Records the executed instruction addresses or data access addresses within specified memory ranges</p> <p>Performance: Measures the execution time between two points of the program; shows actual, minimum, maximum, and average values</p>
Emulation Memory	1 Mbytes internal ROM and 4MBytes emulation memory as standard, map-able to SYSTEM/USER. Write-protect, Access-protect attributes can be specified.
Real-time Trace	<p>-64K bus cycles storage capacity.</p> <p>-Delay counter continues to store cycles after trigger conditions are met (max. 65536 cycles).</p> <p><u>Real-time Trace Modes:</u></p> <p>Free run- Continuously records Trace data</p> <p>Points/Areas- Max. 5 points</p> <p>Or- Triggers when one of the points is satisfied</p> <p>And- Triggers when all of the points are satisfied (any sequence)</p> <p>Sequential- Triggers on sequential levels</p> <p>Sampling- Records specific trigger cycles</p> <p><u>Trigger Point / Area conditions:</u></p> <p>Set trigger point conditions by specifying CPU Bus Status, Address, and Data Value:</p> <p>Address: Specifies a trigger address (MASKable)</p> <p>Data: Specifies a trigger data value (MASKable)</p> <p>Data Size: Specifies data access size</p> <p>Status: CPU status (Read, Write, Memory Access, Interrupt Acknowledge)</p> <p><u>Other Trigger Conditions:</u></p> <p>-Trigger on Write-protect or Access-protect error</p> <p>-Trigger on Bus cycle READY time-out.</p> <p>-Time stamp capability.</p>

Configuration

The HyperSTAC is the latest state of the art emulator, which connects directly to your PC/AT or notebook computer and provides a high level of software debugging for embedded system development.

Hardware

The HyperSTAC H8/300H Emulation System consists of the HyperSTAC H8/300H Probe Set with USB host interface or LAN interface as an option.



HyperSTAC H8/300H ICE System

Software

Watchpoint®, a high-level language debugger for Windows®, is included with the H8/300H Probe Set.

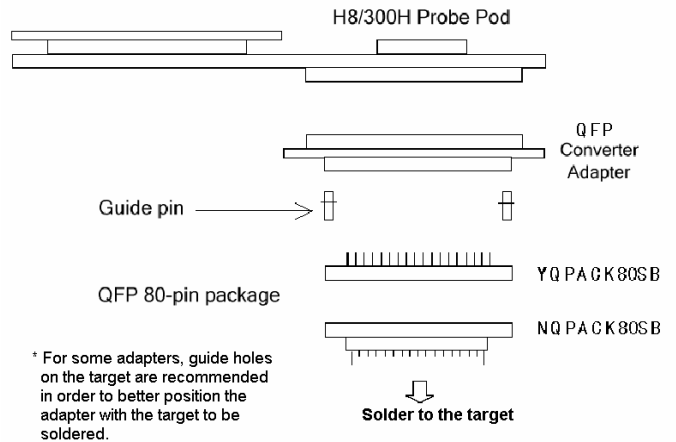
Media:
CD-ROM

Supported Tool Chains:

Watchpoint supports the following compilers and real-time operating systems:

- Compiler
 - o Renesas (Formerly Hitachi) H8S, H8/300 series C/C++ Compiler
 - o IAR ICC H8/300
- RTOS
 - o NORTi3, 4
 - o Hi8-3H

Target Connections



Ordering Information

Part No.	Description
HY43000E	Probe Set, HyperSTAC H8/300H with USB interface, and Watchpoint® H8/300H debugger
HY43001E	Probe Set, HyperSTAC H8/300H with USB & LAN interface, and Watchpoint® H8/300H debugger

Probe End Adapters

Support Package
FP-80A (0.65mm)
FP/TFP-100B (0.5mm)
TFP-80C (0.5mm)
FP-100A (0.65mm)

Note: These adapters require YQPACK, NQPACK for a complete connection

Minimum Host System requirements for MultiSTAC with Watchpoint Debugger:

OS: <USB>Windows98/Me/2000/XP
<TCP/IP>Windows98/Me/NT/2000/XP
Memory: 32 MB (64 MB recommended)
Hard Disk: 20MB

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