

YH630 advicePLUS for SH3 series

Specifications

Common Part	
Target Processor	SH7705/7706/7709A/7709S/7727/7729/7729R and MCM with above core
Operation Voltage	VDDQ: 3.3V ± 5% (3.145V to 3.465V)
Operating Clock	Internal: 133 to 200MHz (up to the maximum clock speed of each MPU) External: 66MHz (Maximum)
Memory Space	All memory space is released to a user's system.
Interrupts	All interrupts are released to a user's system.
Endian	Little Endian/Big Endian are supported
Target System I/F	<ul style="list-style-type: none"> • HUDI Interface (14pin, 2.54mm pitch) Socket on target: 7614-6002FL (Sumitomo 3M) • HUDI/AUD Interface (36pin) Socket on target: DX10M-36S or DX10GM-36SE (Hirose) • External Bus Trace Interface (140pin, 0.5mm pitch) Socket on target: DG01FS-140-4110 (KEL) • External Bus Emulation Interface (140pin, 0.5mm pitch) This interface is connected on the probe of the external Bus Trace
Software Break	Point break: 1024 points by replacing instructions with software break 1 point countable break by replacing instructions with software break
Hardware Break	Temporary break: 1 point Event break: 15 points (maximum, only with AUD/External Bus Trace module) Others: Forced break, Step
OCD Break	1 point (Cash/User ROM/Data Access Break)
Flash Programming	Flash memory programmable with the standard commands (block erasing/programming) of JEDEC (compliant) & INTEL (equivalent) methods is supported.

H-UDI/AUD specifications (Optional module)	
PC trace	PC branch trace for all memory areas including Cache area. 32K samples Time stamp resolution: 20ns/100ns
Event	Event point: Max. 15 points Event counter: 6 points Sequencer: 8bit Trigger condition: AND/OR conditions (Match/not match/address range/out of address range/don't care)
Hardware break	Maximum 15 points by Event trigger
Performance	Minimum 20ns Point to point performance with over-time/under-time condition

External bus trace feature (Optional module)	
Trace	Cache trace is not supported. Trace buffer: 32K samples Multi sample (filtering) trace: Time stamp resolution: 20ns/100ns
Event	Event point: Max. 15 points Event counter: 6 points Sequencer: 8bit Trigger condition: AND/OR event condition (Match/not match/address range/ out of address range/don't care) Access status: R/W/RW
Performance	Minimum 20ns Point to point performance with over-time and under-time condition
External bus clock	66MHz (Max.)
Bus cycle	Normal memory bus/SDRAM bus

External ROM Emulation (Option module)	
External ROM Emulation	Emulation size: 16MB by YH630-EM016 32MB by YH630-EM032 Access time: 25ns to 50ns Bus width: 8/16/32bit Memory type: ROM/RAM

Coverage (Option board: is embedded with External ROM Emulation module)	
Coverage	Coverage Size: 8MB by YH630-EXB/COV08 or 16MB by YH630-EXB/COV16 Block Size: 2MB by YH630-EXB/COV08 or 4MB by YH630-EXB/COV16 Measurement Method: Random sampling of execution address Access Status: R/W/RW

Profile (Option module)	
Profile	Measurement Section: 1000 sections Measurement Cycle: 10us Measurement Method: Random sampling of execution address Output: Histogram

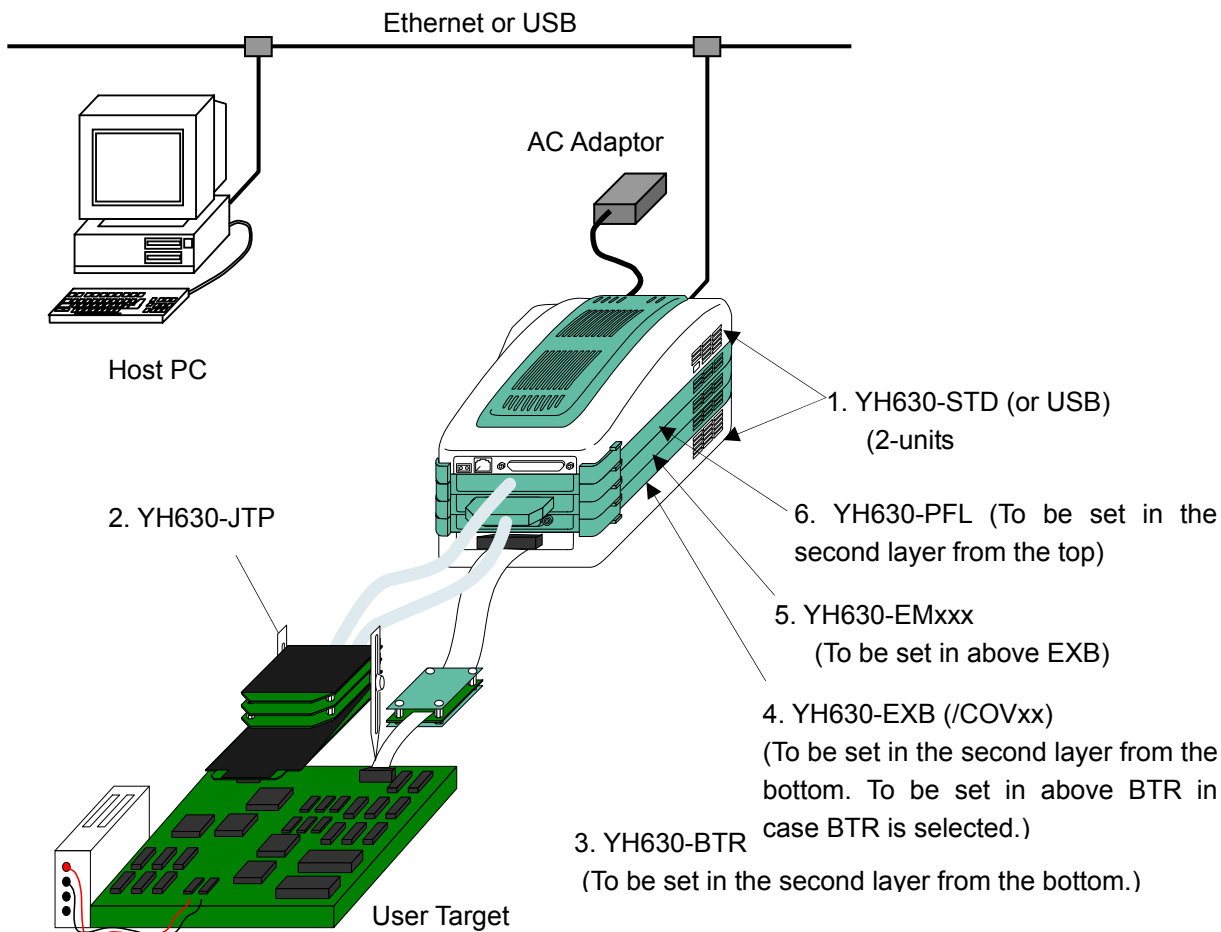
Other Specifications	
Host PC	PC/AT Compatible, Microsoft Windows 98SE, Me, XP, NT4.0, 2000 10BASE-T/100BASE-TX, USB1.1
Debugger	microVIEW-PLUS (DH630)
Compiler	Hitachi C/C++ compiler Green Hills C/C++ compiler

System Configuration

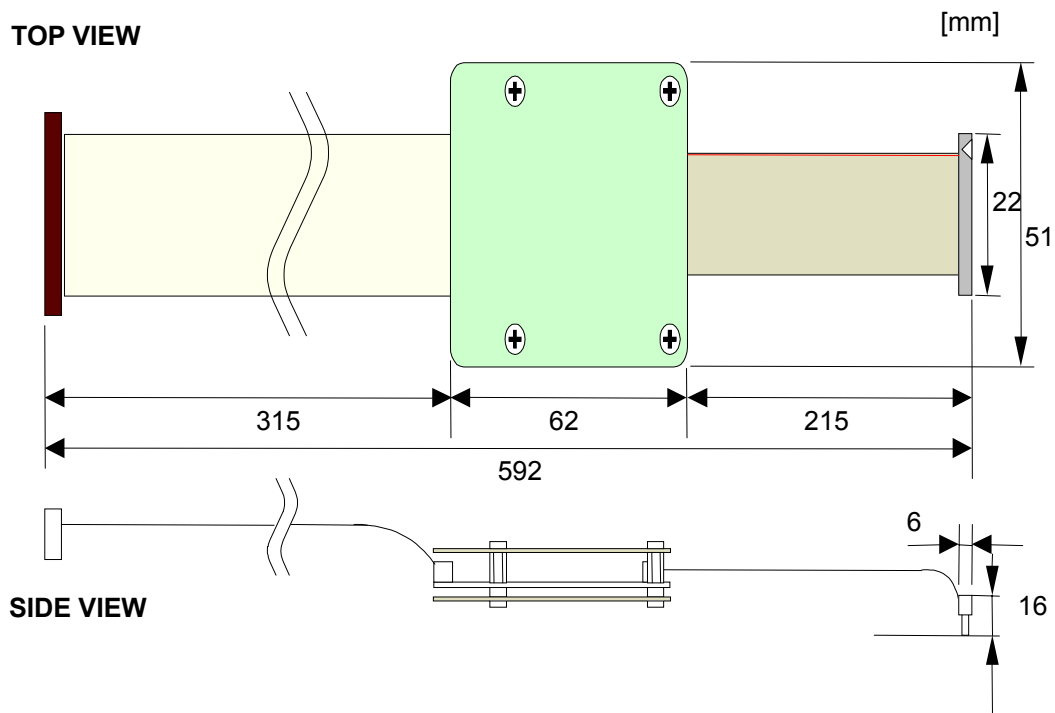
Model		HUDI	HUDI+AUD	HUDI+AUD + External Bus	HUDI+AUD + External Bus Emulation	Full ICE	Description
1	YH630-STD	A	A	A	A	A	Main Module for SH3 series, Ethernet I/F, AC adaptor
	YH630-USB						Main Module for SH3 series, USB I/F and cable, AC adaptor
2	YH630-JTP	A	—	—	—	—	HUDI-Probe (14-pin Interface)
3	YH630-BTR	—	A	A	A	A	AUD Trace Module, HUDI/AUD Probe (36-pin Interface)
4	YH630-EXB	—	—	A	A	A	External Bus Trace Module, External Bus Capture Cable (3.3V)
	YH630-EXB/COV08						External Bus Trace Module, Capture Cable (3.3V), 8MB Coverage
	YH630-EMB/COV016						External Bus Trace Module, Capture Cable (3.3V), 16MB Coverage
5	YH630-EM004	—	—	B	A	B	External Bus Emulation Module for SH3 series (4MB)
	YH630-EM008						External Bus Emulation Module for SH3 series (8MB)
	YH630-EM016						External Bus Emulation Module for SH3 series (16MB)
	YH630-EM032						External Bus Emulation Module for SH3 series (32MB)
6	YH630-PFL	—	—	B	B	B	Profile Module
7	YH630-FIA01	—	—	—	—	A	Full ICE Probe for SH7729R/7709S, HUDI-Probe (14-pin Interface) Probe head adaptor (YQPACK208SD)
	YH630-FIA02						Full ICE Probe for SH7705, HUDI-Probe (14-pin Interface) Probe head adaptor (YQPACK208SD)
8	DH630	A	A	A	A	A	microVIEW-PLUS for SH3 series

A: Essentially required, B: Options to be selected as required

System Connection Example



Probe



H-UDI Pin Assignment

Pin No.	Signal Name	Pin No.	Signal Name
1	TCK	8	GND
2	/TRST	9	GND
3	TDO	10	GND
4	/ASEBRKAK	11	CA
5	TMS	12	GND
6	TDI	13	GND
7	/RESET	14	GND

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