HMI Unleashes 68020 Emulation Power...

with the HMI-200-68020! Combined with SourceGate II, HMI's acclaimed source-level debugger, the HMI-200-68020 provides the industry's most powerful debugging tool for the 68020. Of course, you would expect nothing less from the company that provides the best development tools in the industry. That company is HMI!



The HMI-200-68020 emulator is a high performance development system which combines the control of an in-circuit emulator with the power of a logic analyzer to provide a complete debugging environment for hardware and software.

- Real-time emulation up to 33MHz
- 256K of emulation overlay memory std. (1 or 2MB optional).
- Single-step, 4 hardware, and 4 address breakpoints
- Four Events consisting of bit patterns or address ranges, data values, status bits, external trace leads, and pass counters
- Hardware breakpoints or trace trigger points based upon sequences of defined events; e.g. A THEN B THEN C THEN D
- Two 16K x 104 bit trace buffers

- Trace qualification to allow selective tracing. Freeze trace allows viewing of trace buffers and changing of events during emulation
- High-speed host communications via 115.2KB RS-232 serial port. Parallel port for faster code downloads.

PERFORMANCE ANALYSIS CARD:

- Real-time hardware implementation
- Analysis of up to 8 test modules
- Minimum, maximum, and average execution time displays
- Histograms and code coverage displays
- Trace data time stamping

Ei	le <u>E</u> dit <u>S</u> etup <u>D</u>		race Inactive] SourceG cce <u>C</u> onfig <u>P</u> AC <u>W</u> indo Profile Graph	
_			Recording	
	Profile Module Percent Time in Module			Run Status: RUNNING
	Test1	8.187 %		Status: [Emulator Running] Trace: [Trigger Trace Inactive]
	Test2	4.993 %		Pass Count A: D0D0 B: 9545 C: C609 D: 253B Timer: 0 µsec
٩			Coverage Graph	
			User Abort	Go Stop Reset Frecze Resume
ſ	Coverage Module	Percent Co	de Covered In The Module	
	Test1	89.01 %		
Test2 44.04 % Coverage				Extended Coverage
Test3 35.48 % Address Covera			Address Coverage Data	
	TestA	0% Rar	Covered Not Cov	
	TestB	0% Rar	000004D8H	First Address Covered : 400H
	TestC	0% Rar	000004DAH 000004DCH	First Address Not Covered : 4C8H
	TestBoth	89.01 %	000004DEH 000004E0H	Total addresses Covered : 324
	Undefined Module	0% Rar	00000	
		0% Rar		04E4H O Beginning © First Covered 04E6H O End O Next Covered

PRODUCT INFORMATION

HMI-200 Series in-circuit emulators represent the best in emulation technology and provide the most accurate and complete microprocessor development systems available.

Primary communication with the host computer is provided using a high speed serial port or an optional Ethernet port. A parallel port is provided for high speed code downloads.

The overlay RAM provided with each emulator may be mapped in small 8KB blocks throughout the memory address space of the target system.

Breakpoint, trigger point, and interval timing functions are activated by referencing a set of user defined events (A, B, C, and D). Each event can be based upon address ranges, data patterns, control signals (BERR', R/W', etc.) or the status of external trace bit lines. These events may then be logically combined (e.g. "IF A OR B THEN C") to initiate emulator actions.

Trace buffers capture bus activity parameters including addresses, data, control signals, and external trace bits. A Freeze Trace command may be issued to capture a snap shot of a trace buffer which can then be viewed without stopping processor execution.

A real-time hardware implemented Performance Analysis system is offered for all HMI-200 Series emulators. This premium system graphically displays accurate execution timing data for detailed analysis of system performance. Trace time stamping and code coverage profiling are also provided.

Source-Level Debugger Support

SourceGate II, HMI's acclaimed source-level debugger software, is supplied with all HMI-200 Series emulators and provides full native GUI environment support for Windows 3.1/NT/95, SUN/SPARC, and HP platforms.

Processor Support

The HMI-200-68020 provides support for the 68020 and 68EC020.



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