HEWLETT PACKARD

Real-Time Emulator Motorola® MC6809/6809E

MODEL 64215S
64216S

Description

Models 64215S and 64216S Emulators offer real-time, full-speed emulation of Motorola MC6809 and MC6809E microprocessors. This capability brings the power of emulation to all phases of the microprocessor-based product design, development, and maintenance. As subsystems of the HP 64000 Logic Development System, Models 64215S and 64216S emulators also provide access to the other sophisticated software and hardware development tools of the 64000 System. With the versatile 64000 System, you can speed your 6809/6809E-based systems to market.

Models 64215S and 64216S are part of an integrated set of design and development aids for 6809/6809E processor products. Compilers and assembler/linkers are available to accommodate programming at the most efficient level. Directed syntax softkeys and an easy-to-use, responsive editor streamline software development and documentation. Logic State/Software Analysis or Logic Timing/Hardware Analysis subsystems may be combined with either emulator for interactive operating modes. Emulation/analysis measurements add the flexibility needed in integrating, optimizing, and troubleshooting complex designs. Accelerate your design cycle by selecting the best 64000 system for your MC6809/6809E development needs. Convenience, ease of use, and the measurement power of the 64000 System help you produce a better 6809/6809E product in less time, to gain a competitive edge.

Emulator Features

■ Real-time execution to 2 MHz independent of emulation/target memory assignment
■ No wait states inserted by emulation memory
■ Support processor bus request/grant activities
    DMA transfers
    Multiple or slave processors
■ Fully interactive multiprocessor emulation
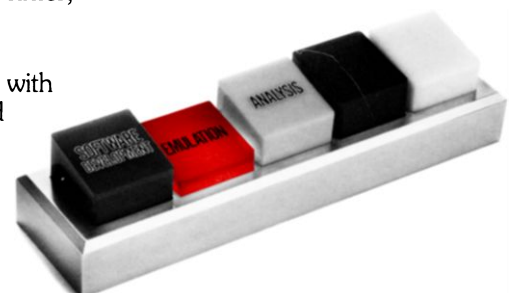
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Memory Mapping Features

■ Mapped in 1k-byte blocks over 64k-byte address space
■ Up to 64k bytes of emulation memory available
■ Designate blocks as RAM, ROM, or illegal
■ Assign blocks to host system or target system

Analysis and Debugging Features

■ Compatibility with 64600S Logic Timing/Hardware Analysis and Model 64620S Logic State/Software Analysis subsystems for interactive measurements in a single development station
■ Powerful internal logic analyzer for real-time monitoring of processor bus activity
■ Single cycling and register displays of processor's internal activity
■ Simulated I/O for emulator access to 64000 System resources: disc files, printer, and development station keyboard, display, and RS-232 port
■ Command file structure combines with emulation for automated testing and debugging
■ Full disassembly of processor instructions
■ Symbolic debugging

Characteristics

ELECTRICAL
Maximum Clock Speed: (no wait states inserted) 2 MHz.
Data Input: low power Schottky TTL loads with capacitance of approx 20 pF.
Clock Input: meets Motorola MC6809/6809E specifications plus approx 20 pF.

PHYSICAL
Cable Length: development station to emulation pod, approx 1.5 m (5 ft); emulation pod to target system, approx 305 mm (1 ft).

ENVIRONMENTAL
Temperature: operating, 0° to +40° C (+32° to +140° F); nonoperating, −40° to +75° C (−40° to +167° C); operating survival, −20° to +50° C (−4° to +122° F).
Altitude: operating, 4600 m (15 000 ft); nonoperating, 15 300 m (50 000 ft).
Relative Humidity: 5% to 80%.

Ordering Information

A complete MC6809/6809E emulator consists of Model 6421XS Emulator subsystem, and Model 64152S Emulation Memory system; Model 64300A (40-channel) or Model 64302A (48-channel) Internal Logic Analyzer is available to display activity on the emulator bus. Emulator software is available on flexible disc (64215SF) or tape cartridge (64215ST) for transfer of the emulator operating system to mass storage. Model 64844AF/AT 6809 Assembler/Linker and Model 64813AF/AT 6805/6809 Pascal Compiler are highly recommended; they are also transferred to mass storage. Only one set of software is needed for each 64000 System cluster.

Prices apply only to domestic U.S. Customers

Model 64215S 6809 Emulation Subsystem ——————————— $4100
Model 64216S 6809E Emulation Subsystem ——————————— $4100
Model 64215SF 6809/6809E Emulation Software on flexible disc ————— $100
Model 64215ST 6809/6809E Emulation Software on tape cartridge ————— $100
Model 64152S 32k Byte Emulation Memory System ——————————— $2700
    Option 011 64k Byte Emulation Memory System ———————— $800
Model 64300A 40-channel Internal Logic Analyzer ——————————— $2100
Model 64302A 48-channel Internal Logic Analyzer ——————————— $2500
Model 64844AF 6805/6809 Assembler/Linker on flexible disc ————————— $550
Model 64844AT 6805/6809 Assembler/Linker on tape cartridge ————————— $550
Model 64813AF 6809 Pascal Compiler on flexible disc ———————— $2000
Model 64813AT 6809 Pascal Compiler on tape cartridge ———————— $2000

COMPONENTS
Model 64214A 6809/6809E Emulation Control Board ——————————— $1400
Model 64215A 6809 Emulator Pod ——————————————— $2700
Model 64216A 6809E Emulator Pod ——————————————— $2700
Model 64151A Emulation Memory Control Board ——————————— $1100