



**HEWLETT  
PACKARD**

# Real-Time Emulator NSC800®

**MODEL 64292S**

TECHNICAL DATA 1 AUG 83

## **Description**

Model 64292S Emulator offers real-time emulation of National Semiconductor NSC800 microprocessor. This capability brings the power of emulation to all phases of microprocessor-based product design, development, and maintenance. As a subsystem of the HP 64000 Logic Development System, Model 64292S emulator also provides access to the other sophisticated software and hardware development tools of the 64000 System. With the versatile 64000 System, you can speed your NSC800-based system to market.

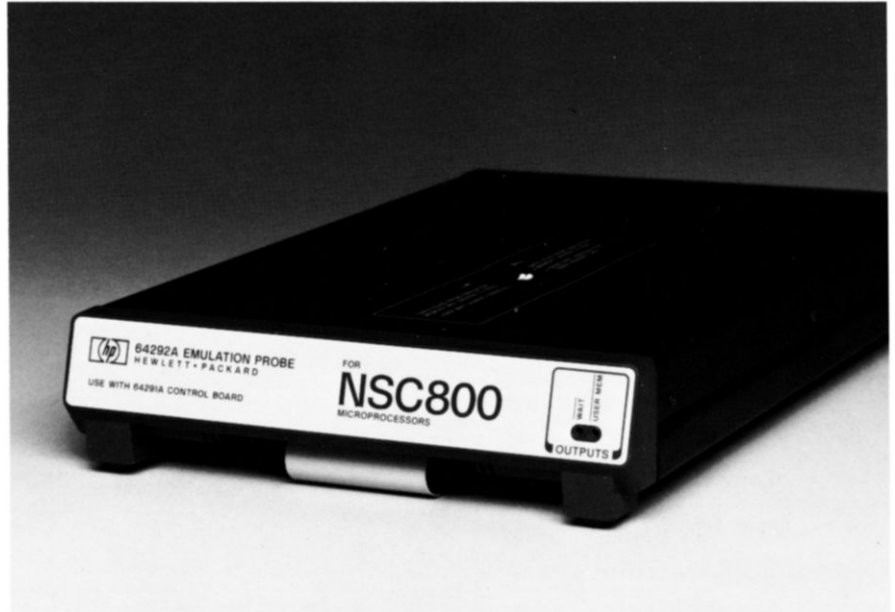
Model 64292S is part of an integrated set of design and development aids for NSC800 processor products. Compilers and assembler/linkers are available to accommodate programming at the most efficient level. Directed syntax softkeys and an easy-to-use, responsive editor streamline software development and documentation. Accelerate your design cycle by selecting the best 64000 system for your NSC800 development needs. Convenience, ease of use, and the measurement power of the 64000 System help you produce a better NSC800 product in less time, to gain a competitive edge.

## **Emulator Features**

- Real-time execution to 4 MHz independent of emulation/target memory assignment
- No wait states inserted by emulation memory
- An emulation mode that is fully transparent to target system (i.e., processor interrupt and other resources are not disturbed)

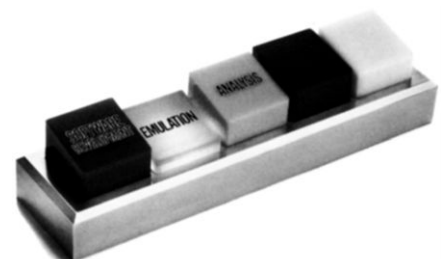
## **Memory Mapping Features**

- Mapped in 256-byte blocks over 64k-byte address space
- Up to 64k bytes of emulation memory available
- Designate blocks as ROM, RAM, or illegal
- Assign blocks to host system or target system



## **Analysis and Debugging Features**

- Powerful internal logic analyzer for real-time monitoring of processor bus activity
- Single cycling and register displays of processor's internal memory
- Simulated I/O for emulator access to 64000 System resources: disc files, printer, and development station keyboard, display, and RS-232 port
- Symbolic debugging



## Characteristics

---

### ELECTRICAL

**Maximum Clock Speeds:** 4 MHz clock speed with no wait states inserted, in emulation or user memory; 8 MHz max crystal frequency.

### Emulation Pod to Target System

**Interface:** CMOS B loads at +5 V only, plus capacitance of approx 20 pF.

### PHYSICAL

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

### ENVIRONMENTAL

**Temperature:** operating, 0° to +40° C (+32° to +104° F); nonoperating, -40° to +75° C (-40° to +167° F); 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 NSC800 emulator consists of Model 64292S Emulation subsystem and Model 64156S Emulation Memory system; and Model 64302A 48-channel Internal Logic Analyzer is available to display activity on the emulator bus. Emulator software on flexible disc is included with the emulation subsystem. Model 64842AF NSC800/Z80 Assembler/Linker and Model 64812AF NSC800/Z80 Pascal Compiler are highly recommended.

<b>Model 64292S NSC800 Emulation Subsystem</b> _____	\$3800
<b>Model 64156S 32k Emulation Memory System</b> _____	\$3140
<b>Option 011</b> 64k Emulation Memory System _____	add \$810
<b>Option 012</b> 128k Emulation Memory System _____	add \$2430
<b>Model 64302A 48-channel Internal Logic Analyzer</b> _____	\$2530
<b>Model 64842AF NSC800/Z80 Assembler/Linker</b> _____	\$560
<b>Model 64812AF NSC800/Z80 Pascal Compiler</b> _____	\$2020

### COMPONENTS

<b>Model 64291A NSC800 Emulation Control Board</b> _____	\$1400
<b>Model 64292A NSC800 Emulation Pod</b> _____	\$2400
<b>Model 64155A Emulation Memory Control Board</b> _____	\$1520

Prices apply only to domestic U.S. customers.