

# Z8917500ZEM

ICEBOX<sup>™</sup> FAMILY IN-CIRCUIT EMULATOR – 175

# **FEATURES**

Supported Devices:

#### Packages Emulation<sup>1</sup>

68-Pin PLCC 100-Pin PQFP<sup>2</sup> Z89135, Z89165, Z89C65

Z89138, Z89175

- Notes:
  - 1. Programming is not supported.
  - Requires optional, separately purchased emulator pod, EPP-100-QF06W, from Emulation Technology. Refer to the following section for address: "Additional Required Items Not Supplied".
- ICEBOX Emulator Provides Source-Level Debugging for both Z8 and DSP Cores.
- Symbolic Disassembly in the Debug Window

- Selectable Baud Rates 9600 to 57.6 Kbps
- Windows-Based User Interface
- RS-232C Connector
- HP Logic Analysis System Interface Connectors for Z8 and DSP
- Zilog Macro Cross Assembler (ZMASM)
  - Dual Processor Chips (Z8 and DSP) in Same Source File
  - Structured Assembly and Data Code
  - Source-Level Debug Support
  - Built-In Register Equates
  - Linker

#### **GENERAL DESCRIPTION**

Zilog's ICEBOX<sup>™</sup> in-circuit emulators are interactive, Windows-oriented development tools providing a real-time environment for developing and debugging software. Also included is a full-featured macro cross assembler to enhance programmer productivity when used in conjunction with the 175 ICEBOX.

The ICEBOX provides a hardware platform that is a significant improvement compared to software simulators. The ICEBOX is faster in operation, making it more practical than software simulators for code development.

The Z89175 ICEBOX Emulator, which supports the Z89XXX family of voice processing devices listed above, provides essential timing and I/O circuitry to simplify user emulation of the prototype hardware and software product.

The Z89175 ICEBOX Emulator can be connected to a serial port (COM1, COM2, COM3, and COM4) of the host computer, and it uses Graphical User Interface (GUI) software.

# SPECIFICATIONS

# **Operating Conditions**

Operating Temperature:	20°C ±10°C	
Supply Voltage:	+5 VDC ±5%	
Operating Humidity:	10-90% RH (non-condensing)	
Minimum Emulation Speed:	20.480 MHz	
Maximum Emulation Speed:	29.4912 MHz	
(shipped with 20.480 MHz and 24.4912 MHz crystals)		

Maximum Emulation Memory:	32K
Maximum Hardware Breakpoints:	32K
Emulation Processor:	Z8915520FSC

# **Power Requirements**

+4.75 VDC to 5.25 VDC (+5 VDC @ 1.2A typical, 1.5A max.)

#### Dimensions

Width:	6.25 in. (15.8 cm)
Length:	9.5 in. (24.1 cm)
Height:	2.5 in. (6.35 cm)

# **Serial Interface**

RS-232C @ 9600, 19200 (default), 28800, or 57600 Baud Rates

# HOST COMPUTER

#### **Minimum Requirements**

IBM PC (or 100-percent compatible) 386-based machine:

- 33 MHz
- 4 MB RAM
- VGA Video Adapter
- Hard Disk Drive (3.0 MB free space)
- 3.5-inch, High-Density (HD) Floppy Disk Drive
- RS-232C COM Port
- Mouse or Pointing Device
- Microsoft Windows 3.1

The following changes to the Minimum Requirements are recommended for increased performance:

- 486- or Pentium-based machine
- 66 MHz (or faster)
- 8 MB of RAM (or more)
- SVGA Video Adapter
- Color Monitor
- Printer
- Microsoft Windows 95

#### Qty. **Host Software** Item 1 \_ Z8 GUI Diskette Z89175 ICEBOX Emulator Zilog Macro Cross Assembler Diskette Cables/Pods 68-Pin PLCC Pod and Cable 1 **Documentation** 100-Pin PQFP Emulation Pod 1 The Z89175 ICEBOX™ Emulator User's Manual Power Cable Zilog Macro Cross Assembler User's Manual 1 Software License 1 **RS-232C Serial Cable** Agreement

#### Registration Card (2)

#### ADDITIONAL REQUIRED ITEMS NOT SUPPLIED

- A source of power (+4.75 VDC to +5.25 VDC Max [+5.0 VDC typical]) for the emulator. This can be a laboratory power supply with supply current of 1.5A.
- To emulate the Z89175 and Z89176 devices, which are offered in the 100-pin PQFP packages, the emulator pods, which provide the physical connection to the target system, must be purchased from:

**Emulation Technology** 2344 Walsh Ave., Bldg. F

#### **OPTIONAL ITEMS NOT SUPPLIED**

25-pin to 9-pin RS-232C Adapter

Santa Clara, CA 95051-1301 FAX: 408-982-0664 TEL: 408-982-0660

Your Target Design

> Typically, this is a wire-wrapped or printed-circuit prototype that includes a socket for the target device, into which you can plug the emulation cable from the emulator.

and

Limited

Warranty

HP Logic Analyzer Kit (Z89C00000ZHP or ZINVASM0ZHP)

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