Z8917500ZEM

ICEBOX™ FAMILY
IN-CIRCUIT EMULATOR – 175

FEATURES

- Supported Devices:

Packages	Emulation[1]
68-Pin PLCC	Z89135, Z89165, Z89C65
100-Pin PQFP[2]	Z89138, Z89175

Notes:

1. Programming is not supported.
2. 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™ 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

KIT CONTENTS

Qty.	Item
1	Z89175 ICEBOX Emulator

Cables/Pods

1	68-Pin PLCC Pod and Cable
1	100-Pin PQFP Emulation Pod
1	Power Cable
1	RS-232C Serial Cable

Host Software

- Z8 GUI Diskette
- Zilog Macro Cross Assembler Diskette

Documentation

- The Z89175 ICEBOX™ Emulator User's Manual
- Zilog Macro Cross Assembler User's Manual
- Software License and Limited Warranty 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
  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.

OPTIONAL ITEMS NOT SUPPLIED

- 25-pin to 9-pin RS-232C Adapter
- HP Logic Analyzer Kit
  (Z89C00000ZHP or ZINVASM0ZHP)

Zilog, Inc. 210 East Hacienda Ave.
Campbell, CA 95008-6600
Telephone (408) 370-8000
FAX 408 370-8056
Internet: http://www.zilog.com