



# Z86K1500ZEM

## KEYBOARD FAMILY ICEBOX™ IN-CIRCUIT EMULATOR

### FEATURES

- Supported Devices:

Packages	Emulation <sup>1</sup>
40-Pin DIP	Z86C15/K13/K14/K15/K16/K17/K18

#### Notes:

1. Programming is not supported.
- ICEBOX Emulator Provides Source-Level Debugging for the Z8 Core.
  - 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 Connector for easy debugging
- Zilog Macro Cross Assembler (ZMASM)
  - 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 Z86K15 ICEBOX Emulator.

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 Z86K15 ICEBOX Emulator, which supports the Z86K15 family and Z86C15 family of keyboard devices listed above, provides essential timing and I/O circuitry to simplify user emulation of the prototype hardware and software product.

The Z86K15 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.

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## HARDWARE SPECIFICATIONS

### Operating Conditions

Operating Temperature: 20°C  
±10°C

Emulation Speed:

Internal SCLK (minimum) 4 MHz

Internal SCLK (maximum) 6 MHz

Operating Humidity: 10-90%  
RH (non-condensing)

### Power Requirements

+4.75 VDC to +5.25 VDC  
(+5.0 VDC @ 0.5A typical; max. is 0.75A)

### Dimensions

2.5 in. H x 6.25 in. W x 9.5 in D

### Serial Interface

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

### Emulation Memory

Z8 = 32 KB (maximum)

### Hardware Breakpoints

Z8 = 32K (maximum)

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## 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

### Recommended:

The following changes to the Minimum Require-  
ments are recommended for increased perfor-  
mance:

486- or Pentium-Based Machine

66 MHz (or faster)

8 MB of RAM (or more)

SVGA Video Adapter

Color Monitor

Printer

Windows 95

## KIT CONTENTS

Qty.	Item
1	Z86K15 ICEBOX Emulator

### Cables/Pods

1	40-Pin DIP Z86K15 Pod and Cable
1	40-Pin DIP C15 Pod
1	Power Cable
1	RS-232C Serial Cable, DB25 M-F

### Host Software

Z8 GUI Diskette  
Zilog Macro Cross Assembler Diskette

### Documentation

The Z86K15 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 with the Support Package

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 0.75A or more.

### 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 with the This Package

25-Pin to 9-Pin RS-232 adapter

HP Logic Analyzer Kit (Z89C0000ZHP or ZINVASM0ZHP)

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