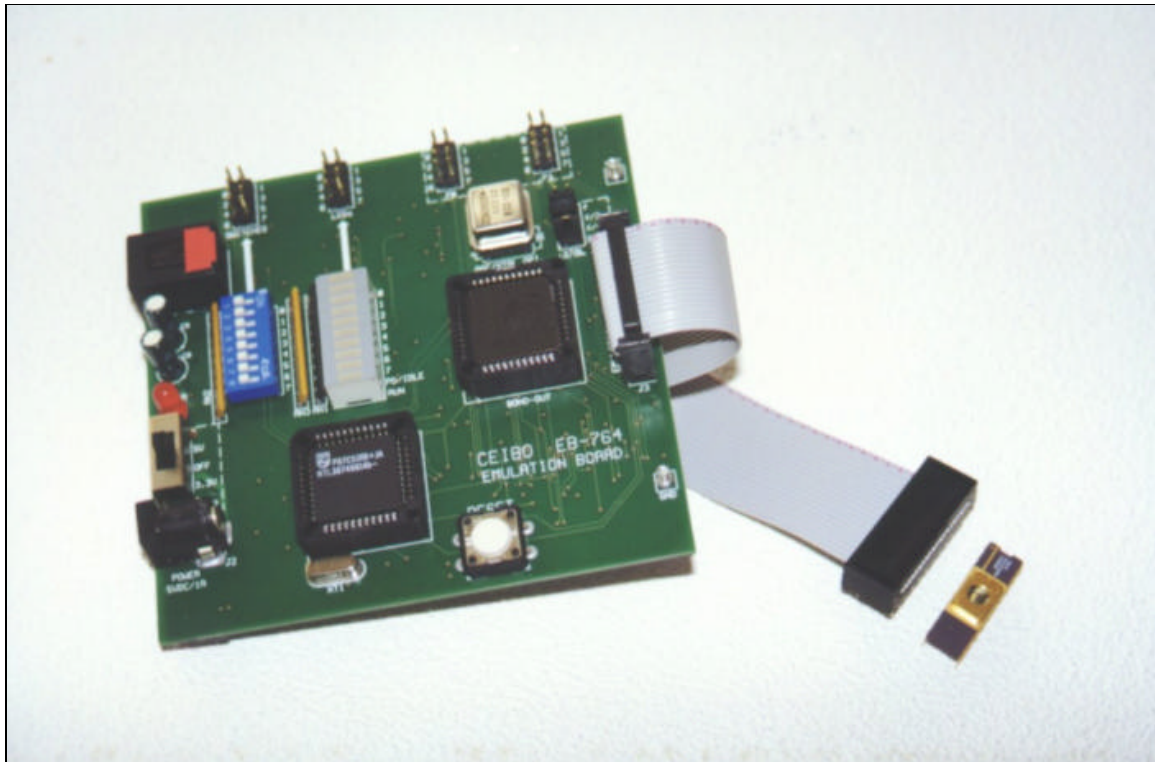# EB-76X Low-Cost Emulator

Development Tool for Philips 8xLPC76x Family of Microcontrollers

FEATURES

- **Emulates Philips Low-Pin Count Microcontrollers**

- **Real-Time and Transparent Emulation up to 20MHz**

- **4K Emulation Memory**

- **Real-Time Trace**

- **Uses Philips Bond-Out Technology**

- **3.3V and 5V Operation**

- **Software for MS-Windows**

- **High-Level Support for Popular C-Compilers**

- **On-Line Assembler and Disassembler**

- **Emulation Header and Signal Testpoints**

- **Power Supply Included**

- **Serially linked to IBM PC at 115 Kbaud**

DESCRIPTION

Ceibo EB-76X is a real-time Low-Cost Emulator dedicated to the Philips 87LPC762/4/7/8/9 and other microcontrollers belonging to Philips Low-Pin Count derivatives. It is serially linked at 115KBaud to a PC or compatible host and can emulate the microcontroller using either the built-in clock oscillator or any other clock source connected to the microcontroller up to its maximum frequency as specified by Philips. EB-76X provides 4KBytes of code memory, thus covering the maximum needs of emulation memory available for this family of devices. Breakpoints allow real-time program execution until an opcode is executed at a specified address. The MS-Windows software includes source level debugger for C, assembler debugger, on- line assembler and disassembler, conditional breakpoints and many other features. The EB-76X Source Level Debugger includes commands which allow the user to get all the information necessary for testing the programs and hardware in real-time. The commands permit setting breakpoints on high-level language lines, adding a watch window with the symbols and variables of interest, modifying variables, displaying floating point values, showing the trace buffer, executing assembly steps and many more useful functions. The system is based on a special Philips bond-out chip for emulation purposes and includes a trace memory.

SPECIFICATIONS

EMULATOR MEMORY
EB-76X provides 4KBytes of code memory. Memory always belongs to the Emulator because these devices are not available in ROMless versions hence; the code is only internal to the chip.

HARDWARE BREAKPOINTS
Breakpoints allow real-time program execution until an opcode is executed at a specified address.

LANGUAGES AND FILE FORMATS
EB-76X accepts files generated by compilers from many vendors (Keil, IAR, Tasking, etc.). Assemblers and high-level languages such as C and PLM are fully supported.

SOURCE-LEVEL DEBUGGER
EB-76X software comes with an MS-Windows debugger. The debugger includes commands which allow the user to get all the information necessary for testing the programs and hardware in real-time. The commands permit setting breakpoints on high-level language lines, adding a watch window with the symbols and variables of interest, modifying variables, displaying floating point values, showing the trace buffer, executing assembly steps and more functions.

TRACE MEMORY
The trace memory is inside the bond-out chip and it records all the instructions since the last branch instruction has been executed. The trace depth is according to this definition.

SUPPORTED MICROCONTROLLERS
The supported microcontrollers are the Philips family of low pin count 51 derivatives: 87LPC762, 87LPC764, 87LPC767, 87LPC768, 87LPC769 and others. As the list of supported devices is continuously evolving, call Ceibo to receive the latest update.

HOST CHARACTERISTICS
IBM PC or compatible systems with 4 MByte of RAM and one RS-232 port.

INPUT POWER
5VDC/1.5A.

MECHANICAL DIMENSIONS
10cm x 10 cm (4″ x 4″).

ITEMS SUPPLIED AS STANDARD
In-circuit Emulator with 4 KByte breakpoints, 4 KByte internal code memory. User software including Source Level Debugger, On-line Assembler and Disassembler. User's Manual and Operating Instructions. RS-232 cable. Emulation header. Power supply. Power Cord not included.

OPTIONS
Adapters for the different microcontrollers and packages.

WARRANTY
Two years limited warranty, parts and labor.

EB-76X - ORDERING INFORMATION

Item	*Description*
EB-76X	Emulator, Emulation Header, Software, Power Supply, Cables.