



USB Learning Kit UI-186LK/LP

Windows98/98SE

Feature

■ System Requirements

Host PC

Windows 98, Windows 98 Second Edition is up and running

At least one channel of USB interface

Software

VC++ or another comparable application is required to create host-side software.

Similarly, Win98DDK or a comparable utility is necessary to modify or develop driver. Please be sure to obtain these applications (they are not included in the package).

Specifications

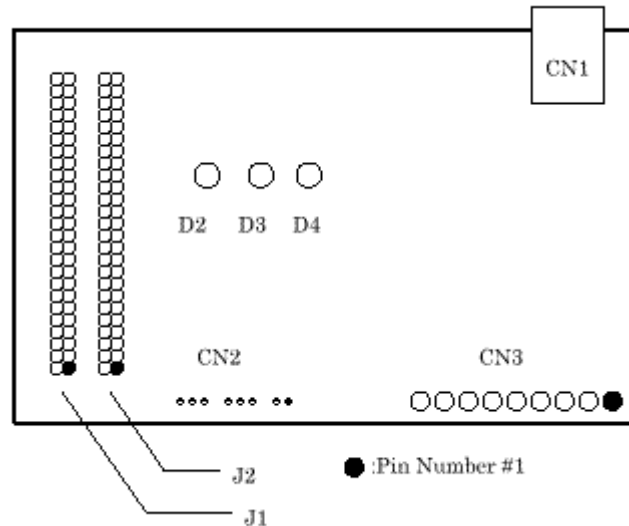
Categories	Specifications
CPU	
Model Number	Am186CU (Vendor: AMD)
CPU Core	80186-equivalent
Operating Clock Speed	24MHz
USB Interface	
Channel #	1
Data Transfer Rate	Full Speed (12Mbps)
Endpoint	
Endpoint #	6 (EP0/IEP/EPA/EPB/EPC/EPD) EPA/EPB are used for downloading purposes
FIFO Size	EP0: ,Wbyte IEP: 16byte EPA/EPB: 16byte EPC/EPD: 64byte
Operating Mode	IEP: Interrupt Out EPA: Bulk OUT EPB: Bulk IN EPC: Bulk OUT

Transceiver DMA Forwarding	EPD: Bulk IN (The firmware uses the "Bulk" setting: the hardware itself supports Interrupt, Bulk as well as Isochronous) Internal Both internal DMA and Smart DMA are available (not used by the firmware)
Main Internal Peripherals	UART/ High-Speed UART Synchronous Serial Interface General-purpose DMA (4 channels) 16bit Timer (3 channels): 2 channels are used by the firmware Programmable I/O Interrupt Controller (Interrupt Source: 36 Max.)
Expansion Connector	Expansion Bus Connector (50pin x 1) Expansion I/O Connector (50pin x 1) PIO Connector (9pin x 2)
Memory ROM RAM	 128KB (64KB is used by the firmware) 128KB (32KB is used by the firmware)
Power Source Source Voltage Current Consumption	Draws power from the USB connector +5V About 200mA
Bundled Software Development Tools UI-186LK Driver UI-186LK Access DLL Sample Program UI-186LK Firmware	* Source codes are supplied for all applications except the development tool Developed by Tama Software Ltd.: C Compiler Macro Assembler Linker Libraries, etc. * The output file format is for the UI-186LK ONLY For Windows 98 For Windows 98 For Host and Target Source Code
Dimensions	67(W) x 113(D)mm
Accessories	UI-186LK target board, USB cable, CD-ROM, User's Manual

▼ Product view

Parts Terminology

The diagram below represents an external view of the UI-186LK.



-J1(Expansion Bus Connectors)

External bus of the CPU, chip select signals, interrupt/ DMA forwarding request signals are linked to these connectors. They are mainly used to connect to memory or various types of peripheral LSI.

-J2(Expansion I/O Connectors)

PIO signals of the CPU and the upper 8bit of data bus are connected. These connectors can be used to connect to peripherals that just require bit-based input/ output.

-CN1(USB Connector)

USB signal connector used to link to the host. The UI-186LK/UI-186LP draws its power through this connector.

-CN2/CN3 (PIO Connectors)

Expansion connectors equipped with both CPU PIO pins and +3.5V/+7 output terminals. Since these are ordinary through holes, you can solder cables here to connect to peripheral devices.

-D2-4(LED Indicators)

- **D2**
Connects to CPU's PIO36. The firmware turns on this LED whenever a USB interrupt occurs.

- **D3**
Connects to CPU's PIO37. The firmware activates this LED when the pullup of USB interface is turned on.
- **D4**
Connects to CPU's PIO38. The firmware does not use this LED, and the user can freely assign a task to the LED.

