WICE-52

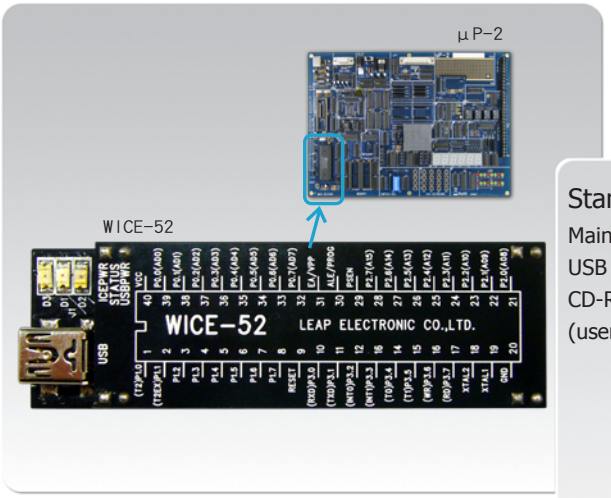
MCS-51 On-Board-Debug

The Best Tool for Emulating/ Debugging/ Learning 8051 Microcontroller

Introduction

8051 is the most popular single chip on the microcontroller series. It is the best option to learn the basic experiment or circuit design for the department of Science and Engineering. When you conduct the MCS-51 experiments or debug its program, the WICE-52 can provide you the best assistance.

The WICE-52 adopts OCD(On-Chip-Debug) technology from company Megawin. It is compatible with Keil's 8051 IDE debug simulation interface and supports "Single Step", "Full Speed", "Pause", and "Reset" functions of on-chip debugging.



Standard Accessories

Main unit.....x1
USB Cable.....x1
CD-ROM
(user's manual included).....x1

Features

- Mini size, only 70mm(L) x 23mm(W) x15mm(H). You can insert it into the 8051 socket of the PCB and connect with the PC via USB cable for starting using.
- Support standard MCS-51 series IC which ROM is under 64K Bytes debug & emulate function.
- For 1T MCU commands can be conducted within 1-3 clock and up to 24MIPS. If you want to emulate 4T or 12T 8051 IC by WICE-52, must notice the difference of clock and the delay setting.
- Power Monitor is embedded. When VDD is under-voltage, it will interrupt or reset.
- Directly using Keil 8051 IDE software interface. The debug function is applied to Keil IDE dScope-Debugger. It is compatible with Keil's µVision2 or µVision3. (Note: Keil 8051 IDE software is not included in the product.)
- Powerful debug function: "Single Step", "full Speed", "Pause", and "Reset" etc.
- Programmable interrupts, user can insert 4 interrupts in one time.
- Keil 8051 IDE, contains register/ _disassembler/ watch/ memory etc.
- Going with the Leap UP-2,MCS-51/AVR/PIC MCU Experimental Board, is best trainer for MCU.

Specifications

Communication	USB
Power	USB
Dimension	70 mm x 23mm x 15mm
Weight	22g

Hardware Specification(same as Megawin MPC82G516)

Function	Description	Specification
Internal RC oscillator	Do not need external oscillator	6MHz (1T)
Quartz clock	Built-in quartz clock selection	12/22MHz(1T)
RAM	Internal + Extended SRAM	256+1K(XRAM)
ROM	Internal / External (byte)	64K/64K
I/O port	2 way I/O pins	32、36 or 40
Interrupts	Peripherals work	14 interrupts
EXINT	External Interrupt	4
Timer/ Counter	16-bit counter	3 sets
WDT	Watchdog timer	Support
UART	Asynchronous serial port	2 sets
SPI	Serial peripheral interface	Yes
ADC	10-bit analog to digital	8 channels
PCA	PWM, catcher included	6 sets
Package	IC package	DIP-40

Support devices

1.The core chip of the WICE-52 is the high performance 1T framework. When using early 4T/ 6T/ 12T 8051 devices, must pay attention to the setting of the clock and delay.

2.Due to the 1T framework, the quartz crystal only needs 24MHz(MAX) can achieve 24MIPS performance. It's much higher other 8051 devices of 4T framework which work at 40MHz, 10MIPS performance. The quartz crystal is embedded in the WICE-52 and common clock is 12MHz/ 22MHz.

NOTE: All specification are subject to change without notice.

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