

V'NICE-52-24

8051 Series In-Circuit Emulator



INTRODUCTION:

The V'NICE-52-24 offers real emulation of the 8051 series MPU. The emulator occupies no space in interrupt, serial channel, code space, I/ O port, etc. Also, the V'NICE-52-24 system comes standard with 128k emulation memory with no need for expensive memory upgrades in the future. The architecture of the V'NICE - 52-24 user's the microcontroller itself in the special "Hooks" mode for true hardware and software emulation. The V'NICE - 52-24 uses a small, parallel system interface card which is plugged directly into the PC-bus. The emulator unit is then connected to the system interface card via a standard D-25 type cable. The unit is connected to a flat cable which plugs directly into your target board.

FEATURES:

- The complete memory consists of a 64Kbyte code memory and a 64K-byte external data memory: It takes no space in user's memory, I/O, interrupt, register, or stack.
- Code memory and external data memory can be mapped to the emulator or the target in 4K byte blocks.
- A 1-bit external signal input is provided for conditional break. Downloads BIN, HEX, and SYM files to the code memory. In-line assembler and in-line disassembler. The full screen editor can edit and modify the following data:
 - 1.Code memory.
 - 2.External data memory.
 - 3.All internal SFR of the CPU.
 - 4.All RAM and bit data inside the CPU.
- Sets conditions for 10 breakpoint sets and operates efficiently with external signals.
- Performs Real Time Go, Single Step Go and Slow Go. The operational processing of Code, SFR, External Data, On - chip RAM can be clearly observed from the information windows.
- CPU descriptions : applies the "HOOK" technique to directly emulate the following CPUs.
 - mode 0:emulates the external ROM and RAM of 8031, 80C31, 8032, 80C32.
 - mode 1: emulates the internal ROM of the 8051, 80C51, 8052, 80C52
 - mode 2: emulates the internal ROM and external ROM of the 8051, 80C51, 8052,80C52
 - mode 3: same as mode 1 except p0 can external RAM

MENU-DRIVE

The software uses pull-down menu-driven functions. The main screen will show the following four individual information windows.

1. The Special Function Registers (SFR) Window displays contents of commonly used registers.
2. The Code Window displays the user source code in both HEX and assembly mnemonic formats including symbolic information.
3. The Data Memory Window displays on-chip RAM values.
4. The External Data Memory Windows displays the 64K external data RAM values.

FLEXIBLE EDITING

The V'NICE-52-24 full screen editor allows you to directly modify or edit Code Memory, External Data Memory, Special Function Registers, On-chip RAM and Bit Addresses. You can edit in HEX or ASCII format. A line assembler is provided to edit small parts of your program in RAM without having to reassemble, link, and load your entire program over and over again.

DEBUGGER

The V'NICE-52-24 comes with a C and ASM symbolic de-bugger. You can combine BIN or HEX code with SYM for emulation in your code's original format.

SINGLE STEP

The single step feature can be used to step through every instruction. It can also be used to step through every instruction but execute subroutines in real time.

BREAK POINT

The V'NICE-52-24 has extremely efficient 64K hardware breakpoints. It breaks on timing of fetch, read, and write instructions, on an external signal, and on 10 sets of conditional addresses, and on combinations of all of these conditions.

ORDERING INFORMATION:

V'NICE-52-24 includes: Emulator unit, system adapter card (SAC-201B), 25 pin D connector and cable, 40 pin flat cable with DIP IC connector, software, and user's manual.