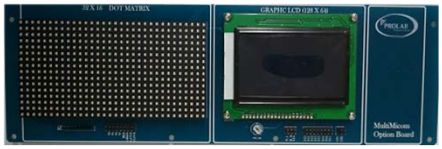
MULTI MICROPROCESSOR (8051/AVR/PIC) TRAINER

MultiMicom+Option



Features

- All necessary components are contained to understand PIC, AVR, and 8051 microprocessors.
- The software MP studio combines source code editing, assembling, compiling and program writing in one powerful environment.
- Connection with high speed USB port of PC for downloading of programs
- Suitable programmer is incorporated for programming of AVR, PIC, and 8051 devices. (Windows XP, Windows 7_32 & 64 Bit)
- Various types of I/O port and interrupt experiments are practiced using Push switch, Toggle switch and LED.
- Experiment displayed in text with LCD (16×2 Lines)
- Stopwatch, Clock and other experiments with 7-Segment (4ea)
- VR, CDS, Thermistor, Hygrometer, and Pyroelectronic sensor
- I2C and SPI experiments using Serial EEPROM
- Stepping Motor control experiment
- DC Motor control experiment with PWM
- RC Motor control experiment
- DA Converter & AD Converter experiment
- Sound experiment using buzzer and speaker
- DS1302 (Trickle Change Timekeeping Chip)
- DS1620 (Digital Thermometer)
- IrDA
- DOT Matrix (32 x 16 Dots)
- Graphic LCD (128 x 64 Dots)

Technical Specification

MultiMicom+Option

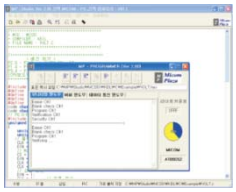
Software	MP-STUDIO
	MP-MICOM PROGRAMMER (Windows XP,Windows7_32 & 64 Bit)
MCU	Choice (4ea)
	▪ 8051 : AT89S51, AT89S8252
	▪ AVR : ATmega8535, ATmega128
	▪ PIC : 16F874A, 16F877A, 18F452
Compiler	89S51 : Keil, IAR
	AVR : IAR, GCC
	PIC : IAR, CCS-C(Option)
Functional Components	▪ DC Motor : DC +12V, Sensor - Photo Interrupt
	▪ STEP Motor : DC12V, 0.35A, 1.8°(Motor Driver : UDN2064)
	▪ RC Servo Motor
	▪ I/O Experiment : Toggle switch × 4, Push switch × 4
	▪ LED : LED × 8, Bi-direction LED (5Φ) × 1
	▪ 7-Segment : 4 EA
	▪ Sensor : VR, CDS, Thermistor, Hygrometer, Pyroelectric Sensor
	▪ Serial EEPROM : 24LC32, 93LC66
	▪ A/D Converter (89S51-MCP3202)
	▪ 2-Channel DA Converter : AD7302 or DAC0808
	▪ RTC : DS1302 (32.7688KHz)
	▪ Digital Thermometer : DS1620
	▪ SOUND : Buzzer : 5V, Speaker : 8Ω
	▪ Melody IC : KS537
	▪ Keypad : 4×4 Switches
	▪ Serial Port : RS- 232C(MAX232)
	▪ Breadboard : Breadboard (115x70), Signal terminal block 32ea
	▪ Power : +5V, +12V, -12V, GND, Extension power terminal block 10ea
	▪ Display : Text LCD(16 × 2 Lines) with back-light, Graphic LCD(128×64 dots) with back-light
	▪ Dot Matrix LED : 32 × 16 (3 COLOR)
	▪ IRDA : Transmitter (Irda LED), Receiver (Islu60)
Accessories	▪ Software CD : 1 ▪ RS-232C Cable : 1 ▪ USB Cable : 1 ▪ Power Cable : 1 ▪ Jumper Cable : 1set ▪ User Manual : 1
Weight	7 Kg

Top Board

CPU: 89S51/52

CPU: ATmega8535/128

CPU : PIC16F874/877
PIC18F452



MP-Studio

Experiment List

- LED Display Experiment
- Traffic Signal Control Experiment
- FND Display Experiment
- Text LCD Display Experiment
- ADC & DAC Experiment
- Sound Experiment
- DC Motor Control Experiment
- Stepper Motor Control Experiment
- RC Servo Motor Control Experiment
- Key Matrix Experiment
- SPI Communication Experiment
- I2C Communication Experiment
- Digital Clock (DS1302) Experiment
- Digital Thermometer (DS1620) Experiment
- UART Communication Experiment
- 32 x 16 Dot Matrix Display Experiment
- Graphic LCD Display Experiment
- IrDA Experiment

Interface Peripheral Device

MPM-SOUND (Recognition)

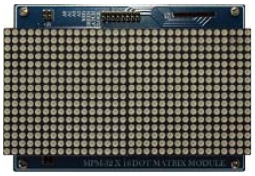
MPM-OPTICAL

MPM-ULTRA SONIC

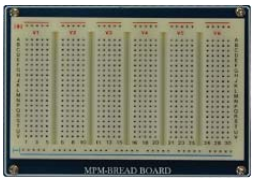
MPM-LCD DISPLAY(16X4)

MPM-LCD DISPLAY(128X64)

Digital Temperature, RTC EEPROM,SPEAKER, IrDA



MPM-DOT (32X16 Tri color)



MPM-BREAD BOARD

MPM-BREAD BOARD_PCB

MPM-Module Case