# OLIMEX

Olimex - ATMega16 - MCU - Evaluation Board

Product Overview:

AVR-IO-M16 is small but powerful board, perfect for small automation projects. The board has four Relays with 10A/250VAC current switching capabilities, four optocoupler digital inputs and RS232 port. One of our demo software shows how easy is to control the inputs and output by PC computer through the RS232 port.
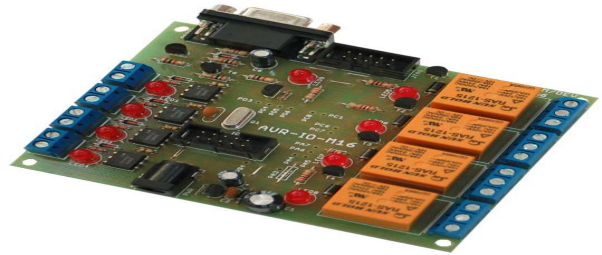
Key Features:

- ATMega16-16AI
- ICSP 5x2 pin connector for in-circuit programming with AVR-PG1, AVR-PG2, AVR-ISP500, AVR-ISP500-TINY, AVR-ISP500-ISO or other compatible to 10 pin ICSP layout
- JTAG 5x2 pin connector for in-circuit programming with AVR-JTAG, AVR-JTAG-USB or other compatible to 10 pin JTAG layout
- status LED
- reset IC ZM33064
- Quartz crystal oscillator circuit 16MHz
- Voltage regulator +5V, 7805 and filtering capacitors
- Power plug-in jack
- RS232 DB9 female connector , RS232 and interface circuit with Tx, Rx signals
- 4 optocoupler isolated inputs with screw terminals
- input status LEDs
- 4 relay outputs with 5A/250VAC contacts with screw terminals
- output status LEDs
- four mounting holes 3.3 mm (0.13")
- FR-4, 1.5 mm (0.062"), green solder mask, white silkscreen component print
- dimensions 80x100 mm (3.9 x 3.15")

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
AVR-IO-M16	Olimex	1701520	25R4411

Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
ATMEGA16-16AU	Atmel	8Bit 16K Flash MCU	9171134	96K6515
4N37	Vishay	Optocoupler Transistor, 5300VRMS	1612456	88K1397
MC78L05ABDG	On Semiconductor	5V, Voltage Regulator	1014073	71J5712
8100	Videk	DB9 Plug	1525738	NA

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
AVR-GSM	Olimex	AVR-GSM - BOARD	ATMega32	1776311	52R3434
AVR-MT128	Olimex	ATMEGA128 BOARD	ATMega128-16AI	1701521	25R4413
ATAVRSB200	Olimex	AVR Smart Battery Ref Design	ATmega16HVA, ATmega8HVA	1673237	33P6477

Document List:

Datasheets:

Part Number	Description	Size
ATmega16	8-bit Microcontroller with 16K Bytes	2.80MB
4N37	Optocoupler, Phototransistor Output, with Base Connection	112KB
MC78L05A	3-Terminal 0.1A Positive Voltage Regulator	188KB

Application Notes:

File Name	Size
AVR040: EMC Design Considerations	105KB
AVR042: AVR Hardware Design Considerations	196KB
AVR103: Using the EEPROM Programming Modes	76KB
AVR105: Power efficient high endurance parameter storage in Flash memory	145KB
AVR130: Setup and use the AVR Timers	179KB

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Hardware & Software:

File Name	Size
AVR-IO-M16-SCH-REV-A.pdf	276KB
avr-io-m16_UART.zip	16KB
avr-io-m16_UART.hex	10KB