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OP6800 MiniCom

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Description

The MiniCom is a low-cost, C-programmable operator interface and single-board computer that offers Ethernet connectivity, plenty of industrialized I/O, a graphic LCD, and keypad. The MiniCom's compact 4.5" x 3.6" (112 mm x 91 mm) form factor makes it ideal for use in designs and areas with size constraints. Available in both Ethernet-enabled and non-Ethernet versions, the MiniCom provides comprehensive integrated control, display, and networking capabilities via Internet/Ethernet or serial communications.

Features

- 122 x 32 graphic display/keypad
- 24 industrialized digital I/O
- Optional 10Base-T Ethernet
- Quick-start menu program
- Meets NEMA 4 water resistance
- 4 serial ports

Both the Ethernet-enabled OP6800 and the non-Ethernet OP6810 feature 24 rugged digital I/O, an international-character 122 x 32 pixel LCD, user-relegendable keypad with 7-key / 7-LED interface, 4 serial ports, [Rabbit@2000 processor](#) at 22.1 MHz, and 256K Flash/128K SRAM (standard). The OP6800's Ethernet capabilities facilitate remote diagnostics, communication, and control, including sending and receiving E-mails and alerts. When front-panel mounted, both MiniCom models meet NEMA 4 water-resistance compliance standards, making

them suitable for use in harsh environments.

The MiniCom's I/O and communication signals connect via ribbon cable headers. Input power requirements (10-36 V DC) allow the MiniCom to be used in a wide variety of fixed and mobile applications. Provision is made for external battery backup to maintain real-time clock values and data stored in SRAM.

The MiniCom's digital I/O includes 13 filtered inputs and 11 sinking outputs—7 standard outputs also have indicator LEDs, and 4 heavy-duty outputs offer transient protection to drive inductive loads. The inputs are designed to interface with logic levels or a switch closure to ground. The inputs support a range of 9-36 V DC, and all outputs are rated at 200mA, 40 V DC.

The 122 x 32 pixel graphic display supports English and foreign language fonts, as well as simple graphic and bitmap images. A font converter program is supplied, and different fonts, languages, and sizes can be used simultaneously. The MiniCom also makes an ideal operator interface for other [Rabbit single-board computers](#).

Programming the MiniCom

Programs are developed using Rabbit's industry-proven [Dynamic C®](#) software development system. An extensive library of drivers and sample programs is provided, along with royalty-free TCP/IP stack with source. All MiniCom models can be programmed and debugged over Ethernet/Internet using appropriate accessory hardware.

A quick-start menu system utilizes a scroll-up and down highlight-bar for menu option selection and is designed to easily Add/Delete options to the menu structure. The quick-start menu also provides page-up and page-down control for large menus, as well as sub-menus nesting capability, designed to pop-up to the original calling menu option.

OP6800 MiniCom Specifications

| Features | OP6800 | OP6810 |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------|
| Microprocessor | Rabbit 2000 @ 22.1 MHz | |
| Ethernet Port | 10Base-T, RJ-45 | None |
| Flash | 256K (standard) | 256K |
| SRAM | 128K (standard) | 128K |
| Backup Battery | Connection for user-supplied battery (to support RTC and SRAM) | |
| Keypad/Display | 122 x 32 pixel graphic LCD in two stacked sections (with programmable backlight), user-relegendable keypad with 7-key / 7-LED interface | |
| LEDs | 7 hardware- or software-driven: 1 red, 4 green, 2 yellow | |
| Digital Inputs | 13 total: 8 protected to ± 36 V DC, 5 protected to ± 25 V DC | |
| Digital Outputs | 11 total: sink 200 mA, 40 V DC max., 4 with built-in inductive load-protection diode | |
| Serial Ports | 4 total: two 3-wire or one 5-wire RS-232, 1 RS-485, and one 5 V CMOS-compatible (programming) | |
| Serial Rate | Max. burst rate = CLK/32 Max. sustained rate = burst/2 | |
| Connectors | 2 x 20, 0.1" pitch ribbon-cable header | |

| | | |
|----------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Real-Time Clock | Yes | |
| Timers | Five 8-bit timers (four cascadable from the first) and one 10-bit timer with 2 match registers | |
| Watchdog/Supervisor | Yes | |
| Power | 9-36 V DC, 1.5 W max. | |
| Operating Temp. | 0°C - 50°C | |
| Humidity | 5-95%, non-condensing | |
| Product Size | 4.5" x 3.6" x 1.33" (112 mm x 91 mm x 33 mm) | |
| Part Number | 20-101-0492 | 20-101-0497 |
| Starter Package | U.S 20-101-0492, 101-0500, Int'l 20-101-0492, 101-0501 | U.S. 20-101-0497, 101-0500, Int'l 20-101-0497, 101-0501 |