



OP7200 eDisplay™

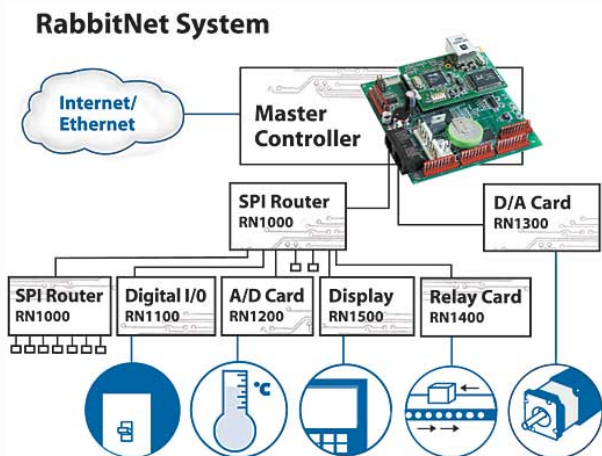
Operator Interfaces
Models OP7200, OP7210

The OP7200 eDisplay is an intelligent operator interface that offers rugged I/O, built-in Ethernet connectivity, and optional A/D and touchscreen capabilities. The compact eDisplay is an ideal data acquisition and display device for OEM products and stand-alone systems such as factory floor controls. The unit's 10Base-T Ethernet facilitates remote diagnostics, control, and communication, including sending and receiving E-mails and alerts.

Features

- RabbitNet Expansion
- 1/4 VGA display (320 × 240 pixels)
- 8 A/D inputs
- 24-27 industrialized digital I/O
- 10Base-T Ethernet with RJ-45
- Meets NEMA 4 water resistance standards
- 4096 × 4096 analog touchscreen (optional)

RabbitNet



RabbitNet expansion ports enable a modular and expandable embedded control system whose configuration of expansion cards can be tailored to a large variety of demanding real-time control, display, and data-acquisition applications. A typical RabbitNet system consists of a master single-board computer and one or more peripheral cards. A high-performance Rabbit 3000® or Rabbit 2000® microprocessor on the master provides fast data processing. The master SBC also provides the DCIN and +5 V power for the peripheral cards.

Two eDisplay models incorporate 24-27 digital I/O plus an I/O expansion port, 4 serial ports, the Rabbit 2000 microprocessor at 22.1 MHz, and 256K of Flash / 128K of SRAM. Versions with 512K Flash/512K SRAM are available. When front-panel mounted, the unit meets NEMA 4 water-resistance standards making it suitable for use in harsh environments.

The eDisplay's digital I/O include up to 19 protected inputs and 8 high-current sourcing or sinking outputs. The OP7200 model features 8 analog input channels configurable as 11-bit single-ended or four 12-bit differential. The OP7210 is a lower-cost version without A/D and touch

screen.

Both models come equipped with a 1/4 VGA display (320 × 240 pixels) with a 9-key keypad and programmable on/off white LED backlight. The OP7200 version also includes a 4096 × 4096 analog touch screen. Both versions provide easy-to-use menu-building software and have a programmable audible alarm for prompt notification and keypad/display feedback.

The RS-232 ports can be configured as a single 5-wire port or as two 3-wire ports while the 8 high-current outputs can be individually configured as sourcing, sinking, or tri-state via software. The analog inputs have 8 software-selectable gain voltage ranges from 0-1 V to 0-20 V. The eDisplay supports English and foreign language fonts, as well as graphic and bitmap images. Furthermore, its C programmability offers design engineers unlimited flexibility. A font converter program is supplied. Different fonts, languages, and sizes can be used simultaneously in combination with graphic images.

Programming the eDisplay

Programs are developed for the OP7200 using Z-World's industry-proven Dynamic C® software development system. An extensive library of drivers and demo programs is provided, along with royalty-free TCP/IP stack with source. Both OP7200 models can be programmed and debugged over Ethernet/Internet using appropriate accessory hardware. Demo programs include pop-up menuing, onscreen keypads, data transmission/reception over TCP/IP and serial, analog volt meter display, and many more.

OP7200 eDisplay Specifications		
Features	OP7200	OP7210
Microprocessor	Rabbit 2000T at 22.1 MHz	
Ethernet Port	10Base-T, RJ-45	
Flash	256K (standard)	
SRAM	128K (standard)	
Backup Battery	Socketed 3 V lithium coin-type, 265 mA h, supports RTC and SRAM, connection for user-supplied external battery	
Keypad/Display	¼ VGA (320 x 240 pixels) with programmable on/off white LED backlight, 9-key tactile feedback keypad	
	4096 x 4096 analog touch screen	No Touch Screen
LEDs	4: Power On, Microprocessor Error, Ethernet Link Alive, Ethernet Activity	
Digital Inputs	19 protected to ±36 V DC	16 protected to ±36 V DC
Digital Outputs	8: individually configurable in software; sink up to 350 mA, source up to 250 mA, or tri-state; 40 V DC max.	
Analog Inputs	Eight 11-bit single ended or four 12-bit differential; 200 kΩ input impedance, 2.5k samples/sec. Eight software-controlled programmable gain/voltage ranges from 0-1 V to 0-20 V.	None
Serial Ports	4 CMOS-compatible • 1 RD-485 (or I/O expansion port) • 2 RS-232 (one 5-wire or two 3-wire) • One 5 V CMOS-compatible (programming)	
Serial Rate	Max. burst rate = CLK/32, Mac. Sustained rate = CLK/64	
Rate-Time Check	Yes	
Timers	Five 8-bit timers (4 cascable from the first) and one 10-bit timer with 2 match registers	
Watchdog/Supervisor	Yes	
Power	9-40 V DC or 24 V AC, 4 W max.	
Operating Temp.	-10° to +65°C	
Humidity	20-70% non-condensing	
I/O Connectors	Screw terminals support max. 14 AWG/1.5 mm ² (standard)	
Product Size	5.67" x 4.41" x 1.70" (144 x 112 x 43 mm)	
Display Area	3.0" x 2.2" (76 x 56 mm)	
Pricing (qty. 1/100) Part Number	\$449 / 359 101-0535	\$399 / 329 101-0536
Tool Kit Part Number	\$200 U.S. 101-0543	\$200 Int'l 101-0544