



# RabbitNet RN1600 Keypad/Display Interface Card

The RabbitNet™ RN1600 Keypad/Display Interface card is the fifth in a series of peripheral I/O cards designed for use with Z-World single-board computers such as the BL2500 Coyote, BL2600 Wolf, and OP7200 eDisplay that have RabbitNet expansion ports. The Keypad/Display Interface card is DIN-rail mountable. The RN1600 provides a simple interface for connecting a wide variety of displays (up to 4 x 20) and keypads (up to 64 keys). The RN1600 provides an inexpensive solution for simple display applications.

## 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, and the BL2500 and BL2600 masters also provide the DCIN and +5 V power for the peripheral cards.

## Programming RabbitNet Cards

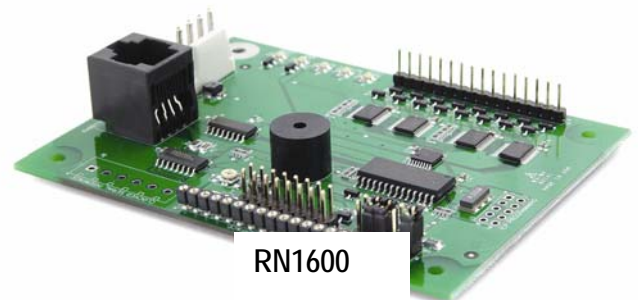
Programs are developed and debugged using Z-World's industry-proven Dynamic C® software, which runs on a Windows PC. The Keypad/Display Interface expansion card is a slave; the master to which RabbitNet peripheral cards are connected is programmed using version 8.01 or later of Z-World's Dynamic C. Dynamic C includes comprehensive debugging support and includes break points, watch expressions, and many other extensive features oriented toward real-time embedded systems programming. An extensive library of drivers and sample programs is provided, including a royalty-free TCP/IP stack for network and Internet communications. Full source code is provided for most library routines. Dynamic C is sold separately.

## RN1600 Development Kit

Comes complete with everything you need to jumpstart your Keypad/Display application.

## RN1600 Hardware Features

- Low-cost solution for keypad/display embedded system designs
- Works with multiple keypad arrays and display sizes
- Development Kit available for prototype sizing
- 100 mm DIN-rail tray mountable
- RabbitNet interface (RS-422): 1 Megabit per second using standard Ethernet cable, up to 10 m (33 ft) away from master



## RN1600 Relay Expansion Card Specifications & Features

FEATURE	RN1600
Keypad/Keyboard Interface	Handles one keypad: <ul style="list-style-type: none"> <li>• 1 – 64 keys</li> <li>• 0.1" spacing on flex cable and Berg series 65801 connector</li> </ul>
Liquid Crystal Display Interface	Handles one display: <ul style="list-style-type: none"> <li>• 1x8 – 4x20 character display module compatible</li> <li>• 2x8 header, and 1x16 socket (both standard)</li> <li>• LED backlight support (software on/off control) and contrast adjustment (not software controlled)</li> </ul>
RabbitNet™ Serial Port	RS-422, 1 Mbps
Power	5.0 V DC +/- 5%, <60 mA (excluding backlight)
Operating Temp.	-40°C to +85°C (excludes customer supplied LED display)
Humidity	5–95%, noncondensing
Connectors	(1) RJ-45 RabbitNet Connector (1) 0.156" 4-position vertical power header (1) 1x16, 0.1" position vertical header for keypad interface (1) 2x8, 0.1" vertical header for LCDM interface (1) 1x16, 0.1" vertical socket for LDCM interface (optional)
Card Size	2.95" x 3.94" x 0.77" (75 mm x 100 mm x 20 mm) (DIN rail mountable)
Pricing (qty. 1/100) Part Number	Contact Distributor in your Country 101-0879
RN1600 Development Kit Part Number	101-0887

### RN1600 Development Kit

Comes complete with RN1600, 0.156" pitch crimps, connector set (assortment of various headers and sockets of compatible design), cable set, display set (one 4 x 20 LCD, one 2 x 20 LCD), keypad set (1 each: 10 x 4, 3 x 4, 2 x 6, membrane keypads)

