

# Color Touchscreen<sup>TM</sup>

MODELS | RCM3720 | Reach SLCD Graphics Color Touch Terminal |

*Application Kit*

## Key Features

- RCM3720 RabbitCore<sup>TM</sup>
  - Rabbit 3000 @ 22.1 MHz
  - 512K Flash / 256K SRAM
  - 10Base-T Ethernet, RJ-45 port
  - 33 digital I/O, alternate I/O bus
  - 4 serial ports (IrDA, HDLC, asynch, sync, SPI)
  - 3.3 V (with 5 V-tolerant I/O)
  - Small footprint
- Reach Technology Color Touchscreen
  - Rugged, industrial enclosure
  - Audible beeper for audible touch feedback and alarms
  - 5.7" TFT Hitachi Display
  - Waterproof NEMA 4 compliant steel enclosure.
  - Supports user-created bitmaps with RLE compression (512K of flash memory)
  - Backlight enable and brightness control

## Design Advantages

- Ideal for network-enabling security and access systems, remote automation, data logging, and industrial controls when coupled with RabbitWeb, FAT File System and SSL software modules
- Color touchscreen adds a modern look to an embedded system
- Complete microprocessor, on-board memory, royalty-free TCP/IP stack, and hundreds of sample programs reduce time-to-market by months

## Applications

- Network-Enabling Security
- Access Systems
- Building Automation
- HVAC Systems
- Industrial Controls
- Other Key Applications



## Color Touchscreen Application Kit – Control at your finger tips!

The Reach Technology Color Touchscreen with a RabbitCore creates an application kit that provides embedded systems integrators the ability to add advanced interface functionality to embedded systems. Color touchscreens provide real-time feedback, allowing for better control in industrial-automation applications.

The Color Touchscreen Application Kit provides all the necessary tools to incorporate a color touchscreen into a Rabbit-based embedded system.

### RCM3720 RabbitCore

The Rabbit 3000 microprocessor-based RCM3720 core module is designed for Ethernet/Internet applications, and features 512K Flash / 256K SRAM, 4 serial ports, and an extremely small footprint (2.95" x 1.20" / 75 x 30 mm).

### Controller and TFT Color Touch Screen

The Reach Technology SLCD controller allows an LCD graphic display to be accessed as an intelligent serial device.

Text can be written to the display and graphic images shown by using high-level commands. The touchscreen interface enables buttons to be defined on-screen, and return a serial string when touched. User-defined bitmaps provide a modern-looking interface, and include tabbed document interface pages and many different types of controls, such as radio buttons and check boxes.

### Industrial Enclosure

This steel enclosure holds the SLCD board, industrial 12-24 V DC power supply, and the Hitachi 5.7" panel. The unit supports either RS-232 or RS-485 communications. The enclosure is easily mounted and waterproof.



[www.rabbitsemiconductor.com](http://www.rabbitsemiconductor.com)



Color Touchscreen Application Kit  
Reach Technology Color Touchscreen  
RCM3720 RabbitCore

#### RCM3720 RabbitCore Specifications

| Feature               | RCM3720                                                                                                                                                                                                                                                                      |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Microprocessor        | Rabbit 3000 at 22.1 MHz                                                                                                                                                                                                                                                      |
| Ethernet Connectivity | 10Base-T, RJ-45                                                                                                                                                                                                                                                              |
| Flash                 | 512K                                                                                                                                                                                                                                                                         |
| SRAM                  | 256K                                                                                                                                                                                                                                                                         |
| Serial Flash          | 1MB                                                                                                                                                                                                                                                                          |
| Backup Battery        | Connection for user-supplied battery                                                                                                                                                                                                                                         |
| General-Purpose I/O   | 33 digital I/O <ul style="list-style-type: none"> <li>31 configurable I/O</li> <li>2 fixed outputs</li> </ul>                                                                                                                                                                |
| Additional Input      | Reset                                                                                                                                                                                                                                                                        |
| Auxiliary I/O Bus     | Can be configured for 8 data and 5 address lines (shared with parallel I/O lines), plus I/O read/write                                                                                                                                                                       |
| Serial Ports          | Four 3.3 V CMOS-compatible <ul style="list-style-type: none"> <li>4 configurable as asynchronous (with IrDA)</li> <li>3 as clocked serial (SPI) and 1 as HDLC (with IrDA), or 1 SPI and 2 SDLC/HDLC</li> <li>1 asynchronous serial port dedicated for programming</li> </ul> |
| Power                 | Input: 4.75-5.25 V DC, 100 mA @ 22.1 MHz; 78 mA @ 11.06 MHz                                                                                                                                                                                                                  |
| Operating Temp.       | -40°C to +70°C                                                                                                                                                                                                                                                               |
| Humidity              | 5-95%, noncondensing                                                                                                                                                                                                                                                         |
| Connectors            | Single 2 x 20, 0.1" (2.54 mm) header                                                                                                                                                                                                                                         |
| Board Size            | 2.95" x 1.20" x 0.89" (75 x 30 x 23 mm)                                                                                                                                                                                                                                      |

#### Reach Technology Color Touch Screen Specifications

| Feature        | Reach Technology Color Touchscreen                                                                                                                                                                                                                   |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Supply   | 12VDC $\pm 10\%$ , 650mA<br>24VDC $\pm 10\%$ , 350mA                                                                                                                                                                                                 |
| Environmental  | <b>Temperature:</b> -10°C to +70°C Operating -30°C to +80°C Storage, max 48 hours<br><b>Humidity:</b> If ambient < 40°C, RH 85% max; otherwise must be lower than the humidity at 40°C and RH 85%<br><b>Vibration shock:</b> see panel specification |
| Weight         | 2.65 lb / 1.2 kg                                                                                                                                                                                                                                     |
| Enclosure      | Painted steel bezel, yellow chromate inner mount and case<br>Bezel provides NEMA 4 class waterproof capability when properly mounted on a flat plate                                                                                                 |
| Touchscreen    | Four-wire resistive type                                                                                                                                                                                                                             |
| Backlight      | 50,000 hour typical to half initial brightness 280 cd/m <sup>2</sup> typical brightness at mid-range of backlight brightness control                                                                                                                 |
| Interface      | <ul style="list-style-type: none"> <li>Serial RS-232</li> <li>ESD protected transceiver Serial RS-422</li> <li>ESD protected transceiver Serial RS-485, full or half duplex</li> </ul>                                                               |
| Certifications | FCC Part 15, Class A<br>CE Certification                                                                                                                                                                                                             |

#### Color Touchscreen Application Kit Pricing

|                                   |               |       |                |
|-----------------------------------|---------------|-------|----------------|
| Color Touchscreen Application Kit | U.S. 101-1062 | \$999 | Int'l 101-1063 |
|-----------------------------------|---------------|-------|----------------|

#### RCM3720 RabbitCore Pricing

|                      |          |
|----------------------|----------|
| Pricing (qty. 1/100) | \$55/45  |
| Part Number          | 101-0961 |

#### Optional Software Modules Pricing

|                                 |                     |                   |
|---------------------------------|---------------------|-------------------|
| RabbitWeb Software Module       | \$159               | \$149             |
| Part Number                     | Shipped CD 101-0900 | Download 101-0910 |
| FAT File System Software Module | \$159               | \$149             |
| Part Number                     | Shipped CD 101-0979 | Download 101-0984 |
| SSL Software Module             | \$299               | \$289             |
| Part Number                     | Shipped CD 101-0896 | Download 101-0895 |

#### Application Kit includes:

- RCM3720 RabbitCore with Prototyping Board
- Reach Technology SLCD Graphics Touch Terminal with NEMA 4 steel enclosure
- Supplemental CD's
- Dynamic C development system and complete documentation on CD-ROM
- User manuals, sample programs and libraries
- 5 serial and conversion cables
- Two AC adapters (U.S./Canada only)

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