imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Smart Card Reader (#32320)

Today, smart cards are used in a wide variety of applications from healthcare to personal finance. They are ever-increasing in popularity due to their convenience and security. Generally, smart cards are about the size of a credit card with an embedded IC for storing data.

The Smart Card Reader from Parallax Inc. provides a low-cost solution for reading and writing data to contact memory-based smart cards and is compatible with both the BASIC Stamp and Propeller microcontrollers. Four mounting holes are provided for installation in your application and a card detect switch allows for easy detection of smart card insertion.

Features

- Low-cost solution for reading and witing data to standard smart cards
- Mounting holes included for use in applications
- Compatible with most memory-based smart cards (not compatible with microprocessor-based smart cards)
- Card detect switch allows detection of smart card insertion
- Dual-row SIP header for breadboard stability
- Easy interface to both the BASIC Stamp and Propeller microcontrollers

Key Specifications

- Power Requirements: 2.7 5.5 VDC
- Communication: Dependent on protocol of smart card used
- Operating temperature: 32 to 158 °F (0 to 70 °C)
- Dimensions: 2.95 x 2.05 in (7.5 x 5.2 cm)

Application Ideas

- Security systems
- Data storage
- Tracking systems
- Identity authentication



How it Works

The pins of the IC embedded in the smart card are accessed through the gold contact pads on the top of the card. The Smart Card Reader makes this connection through eight contacts inside of the reader module (card should be inserted with the gold pads down). Once connected, the pins of the smart card broken out into breadboard friendly 0.1" spacing.

| Pin | Name | Туре | Function |
|-----|------|------|----------------------------------|
| 1 | I/O | I/O | Bidirectional data I/O |
| 2 | CD | 0 | Detects whether card is inserted |
| 3 | CLK | Ι | Synchronous clock input |
| 4 | RST | Ι | Reset |
| 5 | VCC | Р | Supply voltage |
| 6 | GND | G | Ground |

Pin Definitions and Ratings

Pin Type: P = Power, G = Ground, I = Input, O = Output

Connection Diagram



Connection and Testing

Connecting the Smart Card Reader to the microcontroller pins shown above ensures that you can use the BASIC Stamp and Propeller example programs for each smart card offered by Parallax. Links to the latest documentation and example programs for these smart cards can be found on the Smart Card Reader product page. Go to <u>www.parallax.com</u> and search 32320.