

**MMC™ with Ethernet and CompactFlash card**

### ADC

A 16-bit parallel ADC (AD7655, 0-5V) supports 4 channels of high-speed (1 MHz conversion rate) analog signal acquisition. The AD7655 allows *simultaneous* sampling on two channels. With a precision external 2.5V reference, the ADC accepts 0-5V analog inputs at 16-bit resolution of 0-65,535.

### Features:

- Measures 3.58 x 2.30 inches
- Up to 8 MB high speed SRAM
- 100 M Ethernet with hardware TCP/IP stack
- 50-pin CompactFlash interface with FAT file system
- 4 channels of 16-bit parallel ADC inputs(AD7655)

**Introduced in 2006**

With dimensions of 3.6 x 2.3 inches, the **MMC™** is a multi-purpose expansion card designed to add up to 8M bytes of high speed SRAM, a CompactFlash card receptacle, a 100 M baseT Ethernet/IP module, and 4 channels of 16-bit high speed ADC inputs.

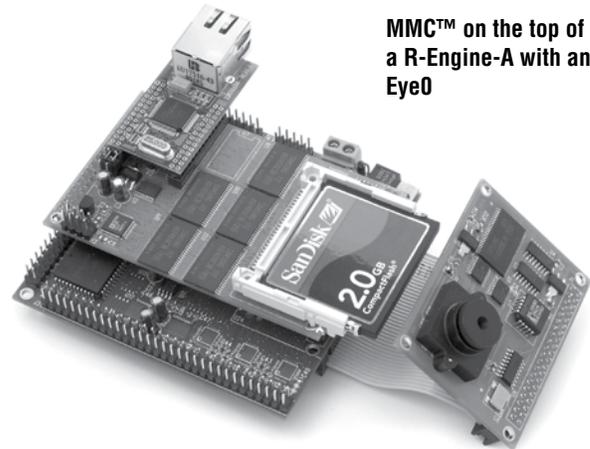
### Memory

Up to eight low power 16-bit SRAM chips can be installed. In the default configuration, 256KW chips are used to provide a total of 4 MB of memory. Optional 512KW chips can be used to make 8MB of memory available. The host controller can access all 8M bytes of SRAM via a 256-byte memory window. This high-speed SRAM memory could be used as a ring buffer for high speed images or ADC data storage, for example.

### Ethernet/IP

Optional WizNet Ethernet module provides 10M/100M base-T network connectivity. This module represents a huge leap forward in performance when compared to other raw MAC-only embedded Ethernet networking solutions commonly in use today. It releases internet connectivity and protocol processing from the host processor, which represents a huge improvement over software-based TCP/IP stacks. The resulting system can easily handle transmissions in the 200KB/s+ range in real world applications, leaving the board free to manage other real-time behavior. Software libraries and demo project demonstrating TCP and UDP clients/hosts, HTTP webservers, and more are provided.

The WizNet module has a hardware LSI TCP/IP stack implementing protocols like TCP/IP, UDP, ICMP and ARP. Four fully configurable independent sockets can be handled simultaneously. It has a 16KB internal transmit and receiving buffer accessed directly through the memory bus.

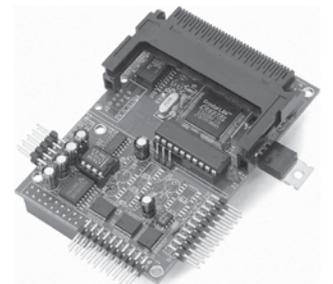


**MMC™ on the top of a R-Engine-A with an Eye0**

The **MMC** supports mass storage CompactFlash cards with Windows compatible FAT filesystem support, allowing user easily transfer large amounts of data to or from a PC.

The **MMC** can be driven by most TERN controllers via J1&J2 expansion headers.

**The original MMB™ is still available to provide the additional 33 12-bit and 6 24-bit ADC inputs.**



### Order Information

**MMC™ or MMB™      \$49      Qty 1**

### Add-on Options for MMC:

- 1) 256KW SRAMs up to 8.....\$6 each
- 2) CompactFlash interface .....\$20
- 3) 100 BaseT hardware TCP/IP Ethernet .....\$30
- 4) 16-bit ADC, 1MHz (AD7655).....\$60

### Add-on Options for MMB

- 3) 24-bit ADC, up to 6.....\$20
- 4) 2.5Vreference & temp. sensor (LT1019).....\$15
- 5) 11 ch. 12-bit ADC (P2543) up to 3.....\$30 each



**1724 Picasso Avenue, Davis, CA 95616 USA**  
**Tel: 530-758-0180 • Fax: 530-758-0181**

CE FC

sales@tern.com

http://www.tern.com