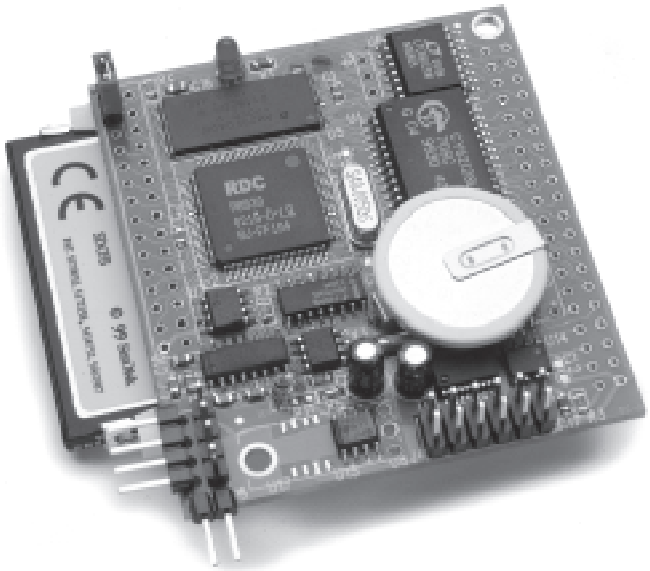
FlashCore-B™ (FB)

RECOMMENDED APPLICATION:
Ultra-low power, mass data storage

NEW!



Above is the component-side of the FlashCore-B with complete embedded controller.

Features:

- 2.1 x 2.35 x 0.7 inches, -40°C to +85°C
- Easy to program in C/C++, 40 MHz 188 CPU
- Power-off mode: 35 μA low-drop voltage
- Power-save mode: 20 mA with 20 MHz
- 512KB ACTF Flash and 128/512KB battery backed SRAM
- 2 PWM outputs, 3 timers and Pulse Width Demodulation
- 20+ I/O lines, 2 RS232, 512 bytes EE, External interrupts
- 8 channels of 16-bit ADC (ADS8344, 20KHz, 0-5V)
- 4 channels of 12-bit DAC (DAC7612, 0-4V)
- Supervisor chip (691), power failure, reset and watchdog
- Ultra-low quiescent current, low-drop voltage regulator

Intro

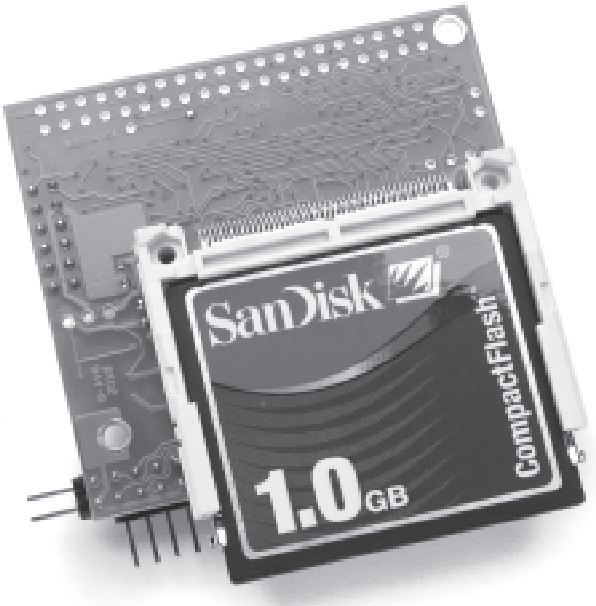
The FlashCore-B (***FB***)™ is a low power embedded controller based on a high performance 40 MHz 188 CPU with 2 UARTs, timers, I/Os, 512KB Flash, 128K/512KB SRAM, EE, a real time clock (DS1337, Maxim), 16-bit ADC, DAC and a 50-pin CompactFlash receptacle. It is a variant of the original FlashCore (FC) with better mechanical mounting for the CompactFlash adapter, and more precise analog inputs. The ***FB*** is ideal for precision data acquisition, industrial process control, and battery-powered solutions for applications requiring mass data exchange.

Special Features

The 16-bit ADC (ADS8344, TI) provides 8 single-ended or 4 differential analog inputs (0-5V) with a precision of 65536 resolution at up to 10 KHz sample rate. The ADC available on the ***FB*** is especially notable for its low noise. Two 12-bit DAC chips (DAC7612, TI) can be installed providing 4 channels 0-4.095V analog voltage outputs capable of sinking or sourcing 5 mA each channel. The ***FB*** allows access to mass storage CompactFlash cards (up to 1GB). Users can easily add mass data storage to their embedded application via RS232, TTL I2C, or parallel interface. Complete C/C++ programmable software package includes compiler, remote debugger, samples, and file system libraries. Files on the CF can be easily accessed from a PC. An ultra-low quiescent current (35 μA), low-drop voltage (85 mV) regulator (TPS76550, TI) can be installed. It allows operating power input as low as 5.1V. It can yield significant improvement in operating life for battery-power. You can also shut down the regulator with a TTL pin, reducing the quiescent current to 1 μA.

Configuration

By default, the **FB** is configured with 40 MHz CPU and a linear regulator. The low power version FB runs 20 MHz and uses the low-drop regulator.



FlashCore-B with 50-pin receptacle and a 1GB CompactFlash Card.

Ordering Information

FB **$99/$79/$34** **Qty 1/100/1000**

Includes: 40 MHz CPU, 128KB SRAM, 512KB Flash, EE, TTL I/Os, 2 RS232, 5V regulator, CF Interface.

NOT including add-on options. OEM option discounts available

Add-on options:

1) SRAM 512KB $40
2) RTC+Battery $20
3) 16-bit ADC $40
4) 12-bit DAC (DAC7612)x2 ..... $40 x 2
5) Low Power, 20 MHz, TPS76550 ..... $20

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