

# DataMover

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- Low Power Dos Controller
- Flash File System
- 20 MHz 186 Processor
- 512KB Flash / 1 MB RAM
- Easy industry standard connectors
- 32 Pin DIP socket to accept 512K Flash or M-Systems Disk On Chip.
- 5VDC 0.8Watt Nominal
- Rugged Enclosure with DataMover-EP package
- Battery Backed Clock Calendar
- Up to 4 channels 12 bit Analog to Digital inputs
- Up to 4 driver outputs
- Up to 4 opto-isolated inputs
- Up to 12 Digital I/O lines
- 2 High speed serial Ports



89-0156  
DataMover

The *DataMover* has a wide variety of I/O available making it extremely versatile and well suited for a variety of applications.

Ideal for remote locations, the *DataMover* single board computer packs a DOS based computer with high speed serial ports into a compact form factor. The low power R8820LV processor and DOS operating system allow design and debugging in a familiar environment, while industry standard connectors simplify direct connection to peripherals.

A number of optional features can be added to further increase the capabilities of the *DataMover*. The *PowerAux* daughter board can allow for input from 8–40 VDC unregulated in addition to creating a programmable “sleep” state that can cut current consumption to less than 1mA. A GPRS Socket Modem can be easily added to give remote access to the microcontroller and comes in 1900MHz as well as 1800Mhz, allowing use world wide. It can be used in conjunction with the *JK-GPS* daughter board, bringing the power of global positioning at an affordable price.

The **DataMover Development Kit (99-0151)** includes a *DataMover* controller, Programming Cable, 110VAC Adapter, Setup Guide, Schematic, and CD with Borland C/C++ v4.52 Compiler, utilities, sample programs and documentation. (220Vin Development Kit also available.) Also included within the development kits are sample programs and source code for sample applications that can be compiled with the Borland C/C++ package.

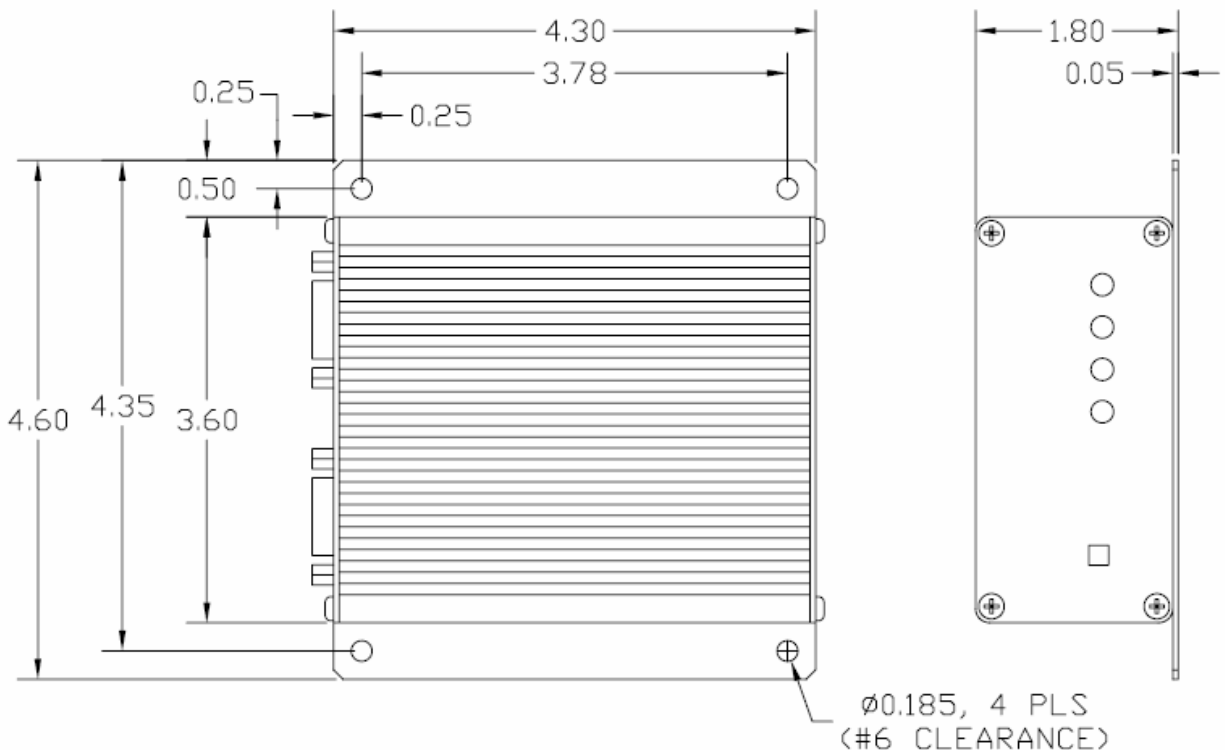
# DataMover

## Specifications

Processor	20Mhz 186 R8820LV	Temperature	-20 to + 85 C
Operating System	XDOS (MS/PC DOS 3.3 compatible)	Weight	315 grams
Memory	1M RAM, 512K Flash	Dimensions without baseplate: 4.3 x 3.6 with baseplate: 4.3 x 4.6	
Serial Port 0	RS-232 with RTS/ CTS flow control or RS485 half duplex		
Serial Port 1	RS-232 with no hand shake lines		
Digital I/O	12 I/O lines, group configurable for: -12 bit A/D input -Driver output -Opto-isolated input		
Supply Voltage	5VDC +/- 5%, 0.8 Watts typical		
Other	Hardware Clock Calendar		
Humidity	5 - 90% non- condensing		

## Optional Features

- Additional M-Systems DiskOnChip, or 512K Flash.
- GPRS Socket Cell Modem
- PowerAux option allowing for 8-40VDC input.
- JK-GPS attachment for easy global positioning system.



# PowerAux

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- **Provides 5VDC, 3 Amps for all DataMover power needs**
- **Allows for 8-40 VDC input**
- **Low voltage detection and reporting**
- **Consumes approximately 180  $\mu$ A**
- **Provides programmable sleep state to reduce DataMover power consumption to less than 1 mA**
- **Fits easily in DataMover-EP enclosure**

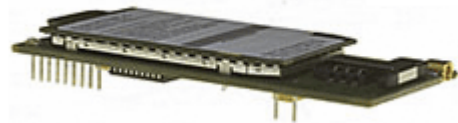
The PowerAux board is the perfect addition for remote applications where power consumption is a concern. The PowerAux provides developers with voltage regulation, power on/off time scheduling and voltage monitoring features for the DataMover.

This accessory can control supply voltage from sources such as solar panels or batteries to the DataMover at up to 3A using its onboard 8-40VDC regulator. To help better control the power usage, the PowerAux can be programmed to put the DataMover into an ultra-low power sleep state for a specified time from 1 second to 18.2 hours.

Low power monitoring has never been easier, as the PowerAux has a programmable low voltage threshold and can flag the low input voltage with an external LED or a signal directly to the DataMover.

## **GPRS Cell Phone Modem**

Remote access and data transfer can be easily added to the DataMover. A GPRS Cell Modem can utilize the local cell phone network for data transfer and control of the device from across the world. With an activated SIM card from a local carrier, the DataMover can connect to the global network easily and wirelessly.



The GPRS modem is available in 1900MHz (for use in North and South America) as well as 1800MHz (for use in Europe, Asia, Africa, and Australia). For complete part number listings on possible combinations, please check the website at [www.jkmicro.com](http://www.jkmicro.com)

## **Global Positioning System (GPS)**

The JK-GPS can be added to your application in order to track its location across the globe. Available in a standalone version or as an attachment to the DataMover, this easy to use device can be up and running quickly. It outputs standard NMEA with TTL or RS232 levels. The simple standard SMB connector allows for a wide range of antennas. The GPS draws about 70mA at 5 volts, keeping overall power consumption low.