

Operating Specification

For the

Videoframe VF100 Controller

OVERVIEW

The Videoframe VF100 is a one rack unit controller module designed for small to medium sized dedicated controller applications. It is ideal for automation and telecommunication network control and reporting tasks. The unit has a complement of six RS-485/RS-232 ports capable of communication speeds up to 115,000 baud, and one 10base-T ethernet port. The VF100 incorporates a Motorola 68EN360-25 and has a throughput rating of 4.5 MIPS.

Standard software includes a real time pre-emptive kernel and a full set of drivers for the standard ports. A full set of software options is available including includes a TCP/IP stack and an array of internet aware modules such as web page server and a SNMP agent.

A full customization service is available including custom software applications, custom hardware interfacing, and custom enclosures. The unit is available with single or dual (hot switchable) external power supplies.

HARDWARE FEATURES

Major hardware features are:

1. RS-485/RS-232 Communications Ports
There are six (6) communications ports available on 9 pin female D connectors on the rear panel. These ports can be jumper selectable to RS-232 (PC pinout) or RS-422 (ES-Bus pinout). In ES-Bus mode the ports can be software configured to be in “controller” or “device” mode or they can be completely tri-stated.
2. Console Port
One of the communications ports can be designated the “console port”. This “console port” provides the primary link to the embedded command line based operating system and allows the user to program and configure the VF100. It is a 9600 baud asynchronous UART port and is available on the rear panel via a 9 pin female D connector. This port can be used optionally as an additional control or communication port.

HARDWARE FEATURES continued

3. Ethernet Port
The ethernet port is available on the back panel as a 10base-T connection. The standard software does not support this port but optional software is available that will provide ethernet connectivity. It should be noted that the ethernet port operation is available as an alternative to port I RS-232/RS-422 operation.
4. Flash Memory Subsystem
The flash memory subsystem can store up to 2Mb of application software, configuration, and data files. The operating system software maintains a basic file system for this memory that enables a user to update flash memory files through the console port. The unit normally comes supplied with 512K of flash memory.
5. RAM Memory
The VF100 RAM memory system uses a 72 pin DRAM SIMM which can accept 32 bit non-parity non-EDO SIMMs of up to 16Mb in size. The unit normally comes equipped with 4Mb of RAM.
6. Expansion Connectors
Two 96 pin DIN connectors located on the motherboard are used for adding option boards to the unit. The option boards are used to extend the I/O capabilities of the VF100. Call the factory for details on available options.
7. Failover Port
The failover port is used in special applications requiring redundant controllers for hot switchable on-line back up. A switchover control panel unit is also available for use with this configuration.

SOFTWARE FEATURES

The VF100 is designed to be a flexible platform for special purpose embedded controllers. The operating software is designed to allow system design flexibility, ease of user configurability, console-less operation, long term stability, and reliable operation.

Major software features are:

1. Basic Operating System
The software system is designed around a proprietary pre-emptive real time kernel. Up to 64 tasks are supported. The operating system contains support for most of the 68EN360's built-in functionality.

SOFTWARE FEATURES continued2. Console Port Support

The console port task is a standard feature of the operating system. The interface is simple and DOS or UNIX-like in operation.

A Windows based console application is provided with the unit. This program allows access to the VF100 operating system and provides the capability of updating the operating software and configuration files in the flash memory.

3. Flash Memory Subsystem

The flash memory subsystem is a basic file system that enables a user to store, retrieve and update application programs, data files, and startup configuration files. It should be noted that the basic operating system software is also stored in the flash memory and can be field upgraded if required.

4. Application Software

Application software is available on a full custom basis.

5. Internet Capability

The VF100 operating system is available with optional internet specific features such as support for TCP/IP and other internet protocols. It can also be configured as a mini web server, or SNMP agent where this type of functionality is required in a small add-on unit.

PACKAGING

The VF100 is packaged in an aluminum one rack unit case. The front panel has two LED's to display status for the main and optional second power supplies.

The power supply is a fully certified external unit. A second power supply is available as an option for applications requiring dual supplies. The power supplies can be hot switched. The power connectors are 2.5mm bayonet types with captive nuts for secure connections.

CUSTOMIZATION OPTIONS

The VF100 can be supplied with a range of custom hardware and/or software modifications to provide for special customer system requirements. The back panel can be replaced with a custom design to accommodate additional I/O connectors.

SPECIFICATIONS

The following specifications are subject to change without notice.

Processor:	Motorola 68EN360 25MHz.
Flash ROM:	512K standard, 2Mb optional.
RAM:	4Mb standard, up to 16Mb optional. Configured as one 72 pin, non-parity DRAM SIMM module.
Software:	Basic Operating System with console support task and flash file utility.
Ports:	(6) RS-485/RS-232 @ 110-115K baud, (1) ethernet 802.3 @ 10Mbps.
Option Connector:	(2) Internal 96 pin DIN connectors for custom hardware modules.
Rear Panel Connectors:	(5) 9 pin D (female) for the RS-485/RS-232 ports. (1) 9 pin D (female) for the RS-232 console port. (1) RJ-45 for the ethernet port. (1) 9 pin D (female) for the failover port. (2) 2.5mm jacks for the external power supplies
Front Panel Indicators:	a) Power on for power supply 1. b) Power on for power supply 2.
Power Supplies:	External 12vdc @ 2.5 amps. One supply is standard. A second hot switchable supply is optional.
Dimensions:	19.0" x 10.0" x 1.75".
Weight:	6.0 Lbs.
Power:	15W (with one 12vdc external supply).
Rack Mount:	Included.