DATASHEET

'C' Programmable Application Development Module with Ethernet
MVI56-ADMNET

The MVI56 Application Development Ethernet Communication Module allows ControlLogix processors to interface easily with Ethernet protocol compatible devices and hosts.

The ADMNET solution is a powerful module designed with both Client and server support. This broad support enables the module to function as a data collection submaster, or to be a powerful slave as a remote off an HMI host. Applications for the module are found in most industries, especially Manufacturing, Oil and Gas, Electrical Power and Food Processing.

The MVI56-ADMNET module is a single-slot, backplane compatible solution for the ControlLogix platform. It supports two fully isolated serial ports and one Ethernet port, allowing the many field devices to be integrated into the ControlLogix platform with custom user-written 'C' code and various APIs supplied for Ethernet, serial and backplane communication.

General Specifications

- Single Slot - 1756 backplane compatible
- The module is recognized as an Input/Output module, allowing for data transfer between processor and module.
- Ladder Logic is used for data transfer between module and processor. Sample ladder file included.
- Configuration data obtained from configuration text file downloaded to module. Sample configuration file included
- Local or remote rack

'C' Programmable over Ethernet

The ADMNET API is one component of the MVI56-ADM API Suite. The ADMNET API provides a simple module-level interface that is portable between members of the MVI56 Family. This is useful when developing an application that implements an Ethernet protocol for a particular device, such as a scale or bar code reader. After an application has been developed, it can be used on any of the MVI56 family modules.

Applications for the ADMNET module may be developed using industry-standard DOS programming tools and the appropriate API components.

Development Environment

- Operating system: General software DOS 6-XL
- Compatible compiler (16-bit DOS target)
  - Digital Mars C++ V8.49 (included)
  - Borland C++ V5.02

SDK Includes

- ADM API LIB (library) File
- ADM API Header File
- Complete API Documentation
- Image file creation utility
- Image file download utility
- DigitalMars 'C' compiler
- General software DOS 6-XL
- Example Code Files

Functional Specifications

The MVI56-ADM API Suite allows software developers access to the top layer of the ControlLogix backplane and serial ports. The MVI56-ADMNET API suite accesses the Ethernet port.

Both APIs can be easily used without having detailed knowledge of the module's hardware design. The MVI56-ADMNET API Suite consists of the Ethernet Port API. The Ethernet Port API provides access to the Ethernet network. Applications for the MVI56-ADMNET module may be developed using industry-standard DOS programming tools and the appropriate API components.

The MVI56-ADMNET module has three serial ports, two of which are isolated for field interfaces, and one Ethernet port.

- CFG: debug/configuration RS-232
- PRT1: Application RS-232, RS-422 or RS-485
- PRT2: Application RS-232, RS-422 or RS-485
- Ethernet Port

PRT1 and PRT2 are jumper configured for direct or multi-drop field communication. The application program can be written to control the two application ports independently, allowing maximum flexibility in the design.

General Protocol Specifications

- Allows software developers to access ControlLogix backplane and Serial/Ethernet ports without needing detailed knowledge of the module's hardware design
- API library functions are specified using the 'C' programming language syntax
- Supports multi-threaded applications
- The following compiler versions are compatible with the MVI56-ADMNET module API:
  - Digital Mars C++ 8.49 (included)
  - Borland C++ V5.02
- Operating System - General software DOS 6-XL
- Flash ROM program space: 896 KB
- RAM program and data space: 640 KB
- Compact Flash socket: Up to 64 MB

ADM API Libraries

Each API provides a library of function calls. This library supports any programming language that is compatible with the Pascal calling convention.

- Initialization - Open and close the API
- Debug Port - Debug port user interface
- Database - Read and write data to database
- Timer - Start and check timers
- Backplane - Transfer data over the backplane
- LED - Set user LED indicators
- Flash - Parse configuration files
- Miscellaneous - Configure the console

Hardware Specifications

Specification	Description
Backplane Current Load	800 mA @ 5 Vdc 3 mA @ 24 Vdc
Operating Temperature	32°F to 140°F (0° C to 60°C)
Storage Temperature	-40°F to 185°F (-40° C to 85°C)
Shock	30 g operational 50 g non-operational Vibration: 5 g from 10 Hz to 150 Hz
Relative Humidity	5% to 95% (with no condensation)
LED Indicators	Module Status Backplane Transfer Status Application Status Serial Activity
Application port (Ethernet)	
Ethernet Port (Ethernet modules)	10/100 Base-T RJ45 Connector Link and activity LED indicators Electrical Isolation 1500 V rms at 50 Hz to 60 Hz for 60 s, applied as specified in section 5.3.2 of IEC 60950: 1991 Ethernet Broadcast Storm Resiliency = less than or equal to 5000 [ARP] frames-per-second and less than or equal to 5 minutes duration
Shipped with Unit	RJ45 to DB-9M cables for each port 6-foot RS-232 configuration cable
Debug/Configuration port (CFG)	
CFG Port (CFG)	RJ45 (DB-9M with supplied cable) No hardware handshaking

Agency Approvals & Certifications

Please visit our website: www.prosoft-technology.com

Additional Products

ProSoft Technology® offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

Compatible products in this product line include:

Generic Ethernet ASCII Interface Module for ControlLogix (MVI56-GEC)

For a complete list of products, visit our website at: www.prosoft-technology.com

Ordering Information

To order this product, please use the following:

'C' Programmable Application Development Module with Ethernet

MVI56-ADMNET

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to: www.prosoft-technology.com and select *Where to Buy* from the menu.