

IEEE488/RS232, AND LAN INTERFACE MODULES

The following Control Modules are available:

IEEE488/RS232 CONTROL MODULE is a combined Control Module with all the features of the IEEE488 GPIB Bus and the RS232 Serial Module.

LAN unit transfers 10Base-T LAN data to the RS232 Module.

IEEE488/RS232 COMBINED CONTROLMODULE

IEEE488 GPIB FEATURES

This module has the following device subsets.

SH1 - Source Handshake

L4 - Listen Functions

SR1 - Service Request

AH1 - Acceptor Handshake

T6 - Talker Functions

Talk and Listen addresses are the same and set by a 5 position Dip Switch.

Service request operation is programmable and can be used to indicate switch status or command completion.

In the Listen Mode the Matrix responds to all the Commands after the My Listen Address (MLA) has been received. The command string must be terminated by either a (CR), (LF) or (END) character.

The Talk Mode is used to return the Status of the Matrix. This is effected by either the My Talk Address (MTA) or the Serial Poll Enable (SPE).

The basic command strings consist of one or more ASCII characters separated by either a space or comma and terminated by an end message.

Typical Commands Are:

- | | |
|-------------------|--|
| L - Latch - | A specified Module and Switch in a Matrix. |
| U - Unlatch - | A specified Module and Switch in a Matrix. |
| X - Multiplex - | Latches a specified Switch and Clears all others. |
| C - Clear - | Unlatches every switch in the Matrix. |
| S - Status - | The Status of the selected Switches are returned to the Controller. |
| F - Front Panel - | Allows enabling & disabling of front panel controls. |
| T - Test - | Performs a diagnostic test by sequencing through all the switch points at a predetermined rate. |
| P - Program - | Allows the operator to set up Matrix variables such as size and configuration and stores them in nonvolatile memory. |

MANUAL CONTROL OPTION

A Front Panel Manual Control Option allows the Matrix to be controlled from front panel switches. These controls can be "locked out" by the IEEE488 or RS232 Interface to prevent their use.

A Virtual Manual Control Software enables operators to control the matrix using a Graphical User Interface.

RS232 SERIAL FEATURES

The module can be configured as either a Data Terminal Equipment (DTE) or Data Communications Equipment (DCE) and the Baud Rate is software programmable from 110 to 19,200 Baud, stored in non-volatile memory.

This module has the same command structure as the IEEE488 Talk/Listen and has these additional features:

- E - Echo - Echos all received characters back to the source.
- A - Answerback - Enables the transmission back to the computer of a single character followed by an EOL upon completion of a Command string.
- V - Verbose - Enables the matrix to return text strings in response to Commands, including error statements.
- H - Help - This is a summary of all the Commands and is only accessible in the Verbose mode.
- P - Program - Gives test prompts in setting up the Matrix variables.

MATRIX COMMAND SUMMARY

BASIC COMMANDS

COMMAND	FUNCTION	COMMENTS
L n1,n2	Latch	n1=Module,n2=Switch
U n1,n2	Unlatch	
X n1,n2	Multiplex	
C	Clear Matrix	
S	Matrix Status	
n1,n2	Relay Status	
F n1,n2	Front Panel	n1=0 disable,1enable n2=access
T n1,n2	Diagnostic test	n1=delay, n2=access
P n1,n2, n3	Program setup	n1=Parameter, n2=value, n3=access

RS232 SPECIFIC COMMANDS

COMMAND	FUNCTION	COMMENTS
B n1,n2	Baud Rate	n1=rate, n2=access
A n1,n2	Answerback	n1=0off, 1 on, n2=access
E n1,n2	Echo	n1=0 off, 1 on, n2=access
V n1,n2	Verbose	n1=0 off, 1 on, n2=access
P n1,n2	Program setup	n1=0, n2=access
H	Help	

LAN/RS232 INTERFACE

This unit interfaced between a 10Base-T Local Area Network and the RS232 Control Module giving control of the Switching System from any LAN user at baud rates up to 115.2K. Data Transfer is by TCP/IP and the interface is fully configurable via the RS232 port or from the LAN to a preset IP address.

The input connector is RJ45 and the output connector mates with the RS232 Control Module.

The Commands Structure is that of the RS232 Control Module.