A Sierra Monitor Company

FieldServer Driver - Serial
FS-8700-17
Opto 22 Optomux

Driver Code:	OptoMux (by Opto22 Inc.)
Version:	1.00a
Protocol Version:	N/A
Document Rev:	0

Physical Interface:	EIA232 or EA485 (Half-Duplex)
Baud Rates:	Standard Baud Rates up to 300-38400 (Opto22 Device Limitation)
Data Bits:	8
Stop Bits:	1
Parity:	None
Handshaking:	None

- The Optomux driver can serve as an active client.
- The Opto22 unit's serial port settings are configurable. The FieldServer device can be configured to match all Opto22 unit's port settings.
- The Optomux driver offers 3 main operational modes
    - Static – Commands defined in a configuration (CSV) file.
    - Dynamic – Commands can be configured dynamically and by remote devices by setting data array values.
    - Triggered – Commands are triggered by data array values and hence may be initiated by remote devices.

  Any combination of these modes may be used.
- The driver can report the success of each poll / command by writing status values to data arrays. Thus the driver may be monitored by a remote device for the completion of commands etc.
- The driver can expose communication statistics in data arrays.

- The Optomux driver can perform the following commands / queries.

POWER UP CLEAR
RESET
SET TURN-AROUND DELAY
SET WATCHDOG DELAY
SET WATCHDOG DELAY (Analog)
SET PROTOCOL
IDENTIFY Optomux TYPE
SET ENHANCED DIGITAL WATCHDOG
SET ENHANCED ANALOG WATCHDOG
SET TIMER RESOLUTION
SET TEMPERATURE PROBE TYPE
CONFIGURE POSITIONS
CONFIGURE AS INPUTS
CONFIGURE AS OUTPUTS
READ MODULE CONFIGURATION
WRITE OUTPUTS
ACTIVATE OUTPUTS
DEACTIVATE OUTPUTS
READ STATUS
SET LATCH EDGES
SET LATCH OFF TO ON
SET LATCH ON TO OFF
READ LATCHES
READ AND CLEAR LATCHES
CLEAR LATCHES
START/STOP COUNTERS
START COUNTERS
STOP COUNTERS
READ COUNTERS
READ AND CLEAR COUNTERS
CLEAR COUNTERS
SET TIME DELAY
INITIATE SQUARE WAVE
HIGH RESOLUTION SQUARE WAVE
RETRIGGER TIME DELAY
GENERATE N PULSES
START ON PULSE
START OFF PULSE
SET TRIGGER POLARITY
TRIGGER ON POSITIVE
TRIGGER ON NEGATIVE
READ PULSE COMPLETE BITS
READ DURATION COUNTERS
READ AND CLEAR DURATION COUNTERS
CLEAR DURATION COUNTERS
WRITE ANALOG OUTPUTS
READ ANALOG OUTPUTS
UPDATE ANALOG OUTPUTS
READ ANALOG INPUTS
READ AND AVERAGE INPUT
START INPUT AVERAGING
READ AVERAGE COMPLETE BITS
READ INPUT AVERAGE DATA
READ TEMPERATURE INPUTS
READ AVERAGE TEMPERATURE INPUTS
SET INPUT RANGE
READ OUT-OF-RANGE LATCHES
READ AND CLEAR RANGE LATCHES
CLEAR OUT-OF-RANGE LATCHES
READ LOWEST VALUES
CLEAR LOWEST VALUES
READ AND CLEAR LOWEST VALUES
READ PEAK VALUES
CLEAR PEAK VALUES
READ AND CLEAR PEAK
CALCULATE OFFSETS
SET OFFSETS
CALCULATE AND SET OFFSETS
CALCULATE GAIN COEFFICIENTS
SET GAIN COEFFICIENTS
CALCULATE AND SET GAIN
SET OUTPUT WAVEFORM R
IMPROVED OUTPUT WAVEFORMS