

## Measurement Systems

### Overview

TestDrivers are DLLs that allow TestWare to access PC resources. The Comm TestDriver allows access to the PC communications interfaces. Currently, it supports up to two Serial (COM) interfaces.

The Edit TestResource screen allows the Comm TestDriver to be selected and the TestUnit to be specified. Only the COM Port TestUnit is currently supported.

The Edit Signal screen allows the Pins and Functions to be selected. The next page details the available Pins and Functions available for this TestDriver.

The screenshot shows the 'Edit TestResource' dialog box. The 'Fixture' is '1026 PIC Test Fixture'. The 'Position/ID' is '20'. The 'TestDriver Code' is 'Serial1' and the 'TestDriver Name' is 'Serial 1 Interface'. The 'TestUnit' is 'COM Port'. The 'TestResource' list includes '0 SysCtl System Control Module', '1 GP1 GP TestModule', and '20 Serial1 Serial 1 Interface'.

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### Interface

**COM Port** is the only TestUnit supported. It provides access to the PC Serial Interface (COM) ports.

There are two Pins supported for **COM Port: Port 1** and **Port 2** are PC Serial Interface (COM) ports. Each has the same functions.

The table below shows the available Functions and their operation

### COM Port – Port 1 & Port 2 Functions

TestUnit	Pin	Function	Operation See the following Notes for details.
COM Port	Port 1	Port	Single digit that selects the COM port (COM1 etc.)
COM Port	Port 1	Baud	Baud Rate (110 to 115200)
COM Port	Port 1	Bits	Number of Bits including Parity (8 or 9)
COM Port	Port 1	Parity	Parity (0-No Parity, 1-Even Parity, 2-Odd Parity, 3-Always On)
COM Port	Port 1	Flow	Flow Control (0-None, 1-Hardware, 2-Xon/Xoff)
COM Port	Port 1	ReadCtl	Read Control (similar to Duplex Function) (0-Full Duplex, 1-Simplex, 3-Free Flow)
COM Port	Port 1	Output	Output from the PC string data (128 Byte Buffer)
COM Port	Port 1	Input	Input into the PC string data (128 Byte Buffer)
COM Port	Port 2	As Above	As Above

### NOTES

- Port: The Port is a single digit between 1 and 9. It selects the COM Port (COM1 to COM9) to be used for communications. At run time an error message is displayed if the selected COM Port is not available or if it is already in use.
- Baud Rate: The standard rates are 110, 300, 600, 1200, 2400, 4800, 9600, 14400, 19200, 38400, 5600, 57600, and 115200 baud but any rate in the range of 75 to 128000 baud may be selected
- Bits: The code selects the number of bits:  
0 for 8 bits  
1 for 9 bits (the 9th bit must be parity)
- Parity: The code selects the parity mode for sending and receiving data:  
0 for no parity  
1 for Even Parity  
2 for Odd Parity  
3 for always on (two stop bits)
- Flow: The code selects the flow or handshaking control between the serial port and the UUT:  
0 for no flow control  
1 for Hardware control (DTR/RTS & DSR/CTS)  
2 for Xon/Xoff control (DC1/DC3)
- ReadCtl: The code selects read control (buffering control) for the serial port input:  
0 for Duplex operation. Save the input data in a buffer as it becomes available. The Output function clears the input buffer before sending the data.  
1 for Simplex operation. Save the input data in a buffer as it becomes available. The Output function clears the input buffer after sending the data.  
2 for Free Flow operation. The Input command returns the available data and clears the buffer.
- Output: Send the string data out the serial port from the PC to the UUT. Strings of up to 128 bytes may be accommodated. Larger strings will be truncated to 128 bytes.
- Input: Get the string data sent from the UUT to the PC serial port. See ReadCtl above for buffering issues. Up to 128 bytes may be accommodated. Additional bytes will be discarded.

### ORDERING INFORMATION

Description	Comm TestDriver
Part Number:	NA
Price:	NA
Availability:	Included with TestWare version 3.3.0 and later

Automatiq Measurement Systems LLC  
797 Gatehouse Lane  
Columbus OH 43235 • USA  
Voice • 800-346-3938 614-431-2667  
www.AutomatiqSystems.com