yellobrik® ODT 1510

Serial and GPI Fiber Transceiver

- Extend serial and GPI connections up to 10km
- Supports serial RS232 or RS422 or RS485
- 2 x GPI connections
- Singlemode fiber 1310nm up to 10km (6.2 miles)
- LC/PC duplex fiber connections
- Switchable RX/TX crossover
- Automatic or manual data direction
- Switchable end of line termination
- 'Plug and Play' - No PC software drivers needed
- Supports all serial protocols (standard or proprietary)
- 300 - 460K Baud (auto sensing and auto adjusting)

The ODT 1510 is a multi-function module which (when used with another ODT 1510 in the remote location) will extend the reach of serial RS232, RS422 or RS485 as well as two GPI (general purpose I/O) up to 10km (6.2 miles) over fiber.

A single RJ45 electrical serial connection can be configured for RS232, RS422 or RS485 serial standards. A separate RJ45 connector is provided for two electrical GPI inputs and outputs. Serial communications and GPI are transmitted and extended over the same fiber link.

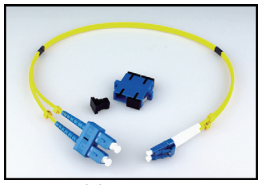
The ODT 1510 is completely agnostic to the serial protocol used, and supports all standard protocols and proprietary protocols at data rates from 300 to 460K Baud *(auto sensing and auto adjusting).*

The integrated dip switch provides precise control over the serial mode of operation with selections for the *serial standard, serial termination, RX/TX crossover and RS422/485 data direction (automatic or manual).* Data activity LEDs are provided for the serial port and the GPI port under the respective RJ45 connectors.

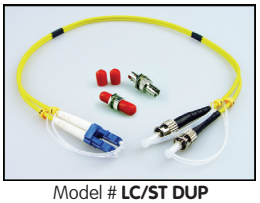
The ODT 1510 also supports mixing and matching of serial standards. For example: the transmitting module can have a RS232 input, and the receiving module can be set for RS422 output.

The ODT 1510 is 100% plug and play, hot pluggable and no special software drivers are required.

Fiber Adapter Options



Model # **LC/SC DUP**
LC/PC to SC/PC Adapter



Model # **LC/ST DUP**
LC/PC to ST/PC Adapter

These adapters enable the use of ST or SC fiber connections on the module. SMF 0.5m (19.6") tail introduces less than 0.25dB attenuation.

Technical Specifications

Serial I/O	EIA/ETA RS232C / RS422 / RS485 (selectable)
	Connector - RJ45
	Baud rate - Auto sense and auto adjust from 300 to 460K
	Serial setting dip switch provided setting for: • Select RS232 / RS422/485 modes • Select serial termination (for end of line) • RX/TX crossover to flip the RX and TX if needed • Set RS422/485 data direction to automatic or manual if needed
	LED status indicators (under RJ 45 connector) Serial TX activity Serial RX activity
	RS422/485 Max number of elecitcal nodes = 25
	ESD protection for up to 26kV
GPI I/O	2 x general purpose inputs + 2 x general purpose outputs
	Connector - RJ45
	GPI Inputs: • External passive closure between pins (short) to trigger • Max input switching frequency 25Hz (50 operations / second) • Input insulation 3.75kV
	GPI outputs: • Internal contact closure (relay) • Max switching frequency 25Hz (50 operations / second) • Max switching power 220VDC / 0.25A or 250VAC / 0.25A • Output insulation 3.75kV
	LED status indicators (under RJ45 connector) GPI Input 1 activity GPI Input 2 activity GPI Output 1 activity GPI Output 2 activity
Fiber I/O	1 x Fiber output (TX) and 1 x Fiber input (RX) Singlemode fiber (SMF) LC/PC connections
	TX wavelength 1310nm, power -3dBm RX input range 1260nm to 1620nm, sensitivity -3dBm to -21dBm
	Max distance 10km (6.2miles)
	RX and TX activity LEDs on side of module next to fiber I/O
Power	+12VDC @ 0.25A power supply (included) Supports external power from 9 to 14VDC Power LED on side of module
Size	105mm x 40mm x 22mm (4.13" x 1.57" x 0.86")
Model #	ODT 1510
Includes	Module, 12V power supply + AC plug adapters, and mounting brackets

Specifications subject to change

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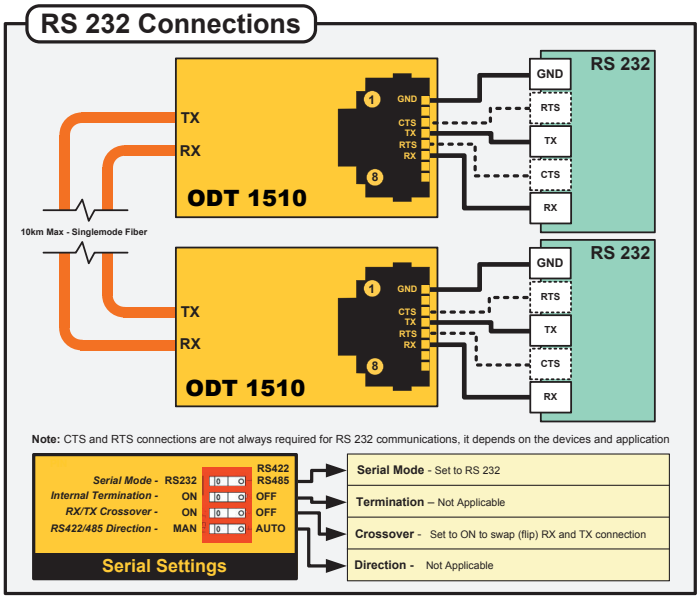
ODT 1510

Connection Diagrams

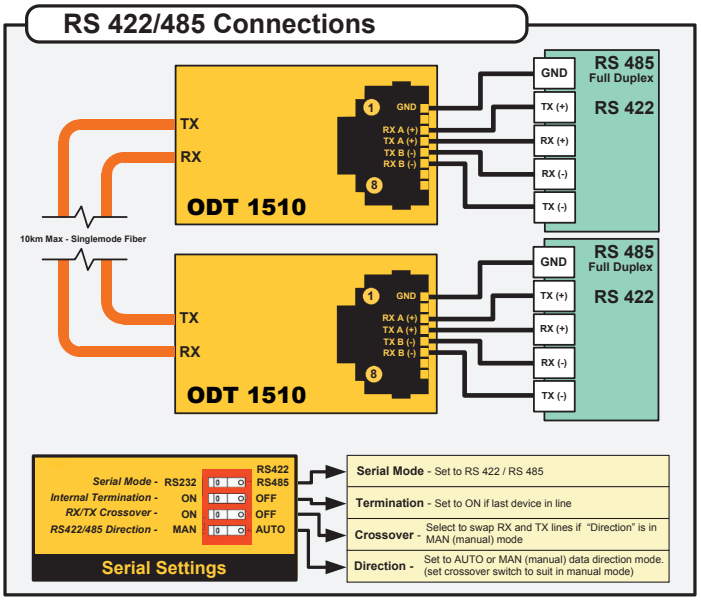
RS 232 Connections



Note: CTS and RTS connections are not always required for RS 232 communications, it depends on the devices and application

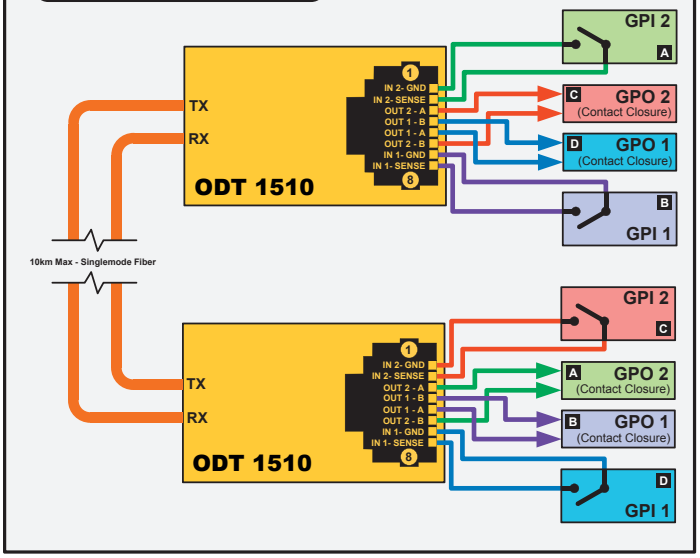
Serial Settings			
Serial Mode -	RS232	RS422 / RS485	**Serial Mode** - Set to RS 232
Internal Termination -	ON	OFF	**Termination** – Not Applicable
RX/TX Crossover -	ON	OFF	**Crossover** - Set to ON to swap (flip) RX and TX connection
RS422/485 Direction -	MAN	AUTO	**Direction** - Not Applicable

RS 422/485 Connections

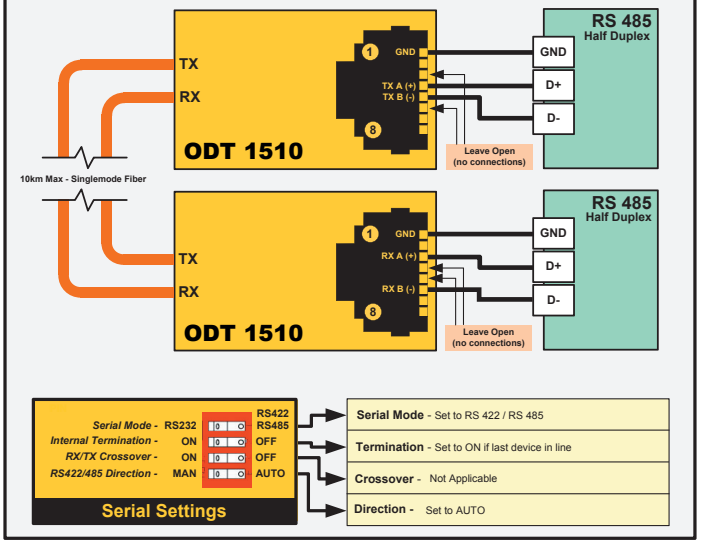


Serial Settings			
Serial Mode -	RS232	RS422 / RS485	**Serial Mode** - Set to RS 422 / RS 485
Internal Termination -	ON	OFF	**Termination** - Set to ON if last device in line
RX/TX Crossover -	ON	OFF	**Crossover** - Select to swap RX and TX lines if "Direction" is in MAN (manual) mode
RS422/485 Direction -	MAN	AUTO	**Direction** - Set to AUTO or MAN (manual) data direction mode. (set crossover switch to suit in manual mode)

GPI Connections



RS 485 Connections – Half Duplex



Serial Settings			
Serial Mode -	RS232	RS422 / RS485	**Serial Mode** - Set to RS 422 / RS 485
Internal Termination -	ON	OFF	**Termination** - Set to ON if last device in line
RX/TX Crossover -	ON	OFF	**Crossover** - Not Applicable
RS422/485 Direction -	MAN	AUTO	**Direction** - Set to AUTO

Power Adapter Options

The module **INCLUDES** an AC power supply. The power adapters below are optional.

P-TAP 1000
Use with a standard battery P-TAP power source.

XLR 1000
Use with a standard 4 pin XLR camera battery power source

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