

# I-2541

## RS-232/422/485 to Fiber Optic converter

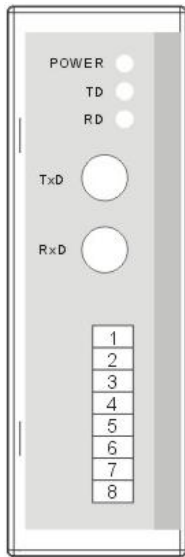
### *Quick Start Guide*

## 1. Introduction

The I-2541 is an RS-232/422/485 to fiber optic converter that ensures data transmission security by using fiber optic transmission technology to provide immunity from EMI/RFI interference. The I-2541 is designed for RS-232/422 point-to-point connections and RS-485 multi-drop applications which require a signal to be transmitted for distances of up to 2Km (6,600 ft), and is a perfect solution in applications where transmission must be protected from electrical exposure, power surges, lightning strikes or chemical corrosion.



## 2. Connectors & Cables



Terminal NO.	Pin name
TxD	Fiber Tx D
RxD	Fiber Rx D
1	Tx+/DATA+
2	Tx-/DATA-
3	Rx+
4	Rx-
5	NC
6	GND
7	TxD
8	RxD

### RS-232/422/485 Converter connection

Serial communication	
RS-232 Signals	TxD, RxD, GND
RS-422 Signals	Tx+, Tx-, Rx+, Rx-
RS-485 Signals	Data+, Data-
Baud Rate	300bps to 115.2kbps

### Fiber Cables

The I-2541 uses a wavelength of 850nm and also supports MM (multimode) fiber cables. A 62.5/125mm MM cable is recommended.

### Interpreting the LED Indicators

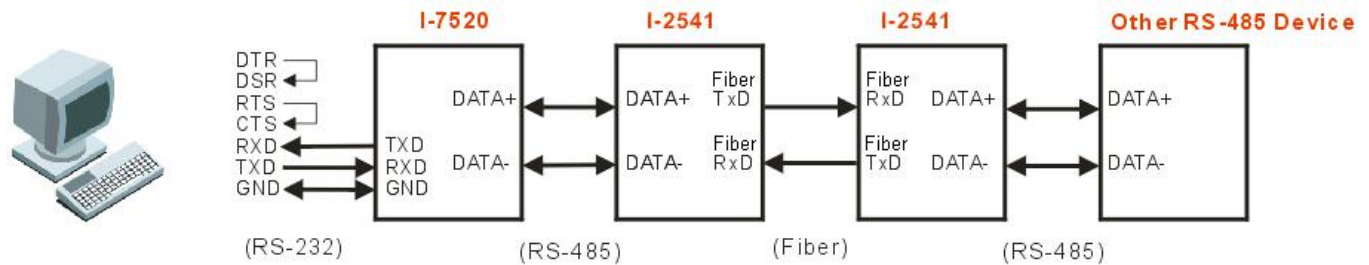
LED	Status	State	Interpretation
POWER	Power status	ON	Converter is on.
		OFF	Converter is off.
TD	Transit Data	ON	Transiting on Fiber port.
		OFF	No link or the link is faulty.
RD	Receive Data	ON	Receiving on Fiber port
		OFF	No link or the link is faulty.

### 3. Making Network Connections

**Important note:** RS-232/485/422 protocols cannot be used simultaneously.

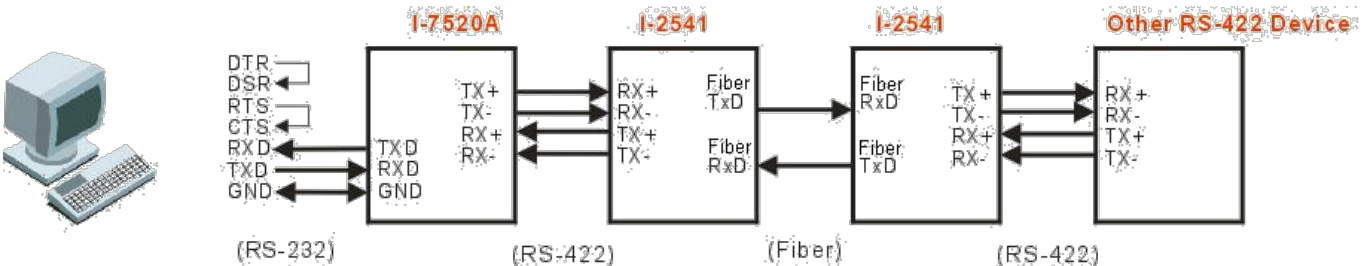
The RS-485 pin assignment of the I-2541

Terminal Number	<b>TxD</b>	<b>RxD</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Pin Name	<b>Fiber TxD</b>	<b>Fiber RxD</b>	<b>DATA+</b>	<b>DATA-</b>	—	—	—	—	—	—



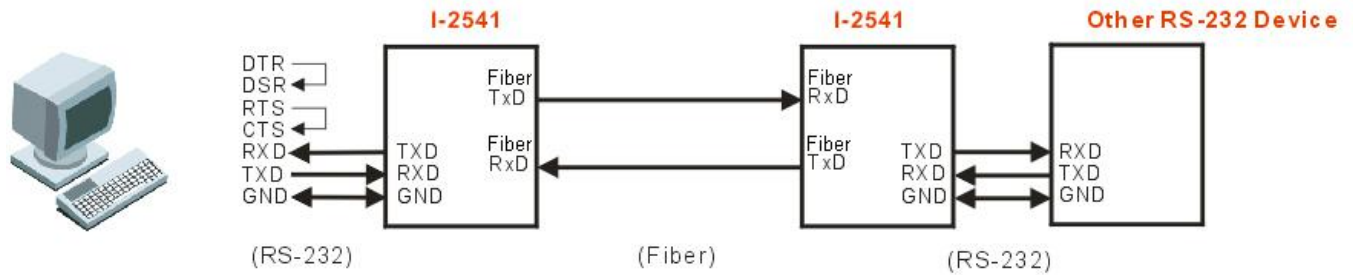
The RS-422 pin assignment of the I-2541

Terminal Number	<b>TxD</b>	<b>RxD</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Pin Name	<b>Fiber TxD</b>	<b>Fiber RxD</b>	<b>Tx+</b>	<b>Tx-</b>	<b>Rx+</b>	<b>Rx-</b>	—	—	—	—



The RS-232 pin assignment of the I-2541

Terminal Number	<b>TxD</b>	<b>RxD</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Pin Name	<b>Fiber TxD</b>	<b>Fiber RxD</b>	—	—	—	—	—	<b>GND</b>	<b>TxD</b>	<b>RxD</b>



All pin assignments for the I-2541

Terminal Number	<b>TxD</b>	<b>RxD</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Pin Name	<b>Fiber TxD</b>	<b>Fiber RxD</b>	<b>Tx+</b> <b>DATA+</b>	<b>Tx-</b> <b>DATA-</b>	<b>Rx+</b>	<b>Rx-</b>	<b>NC</b>	<b>GND</b>	<b>TxD</b>	<b>RxD</b>

**Note:** RS-232/485/422 protocols cannot be used simultaneously.

