Model 2852

S.I.TECH

RS-485 OMNINET to Fiber Optic Modem

S.I.Tech Bit-Driver®
Model 2852   **Synchronous Optical**

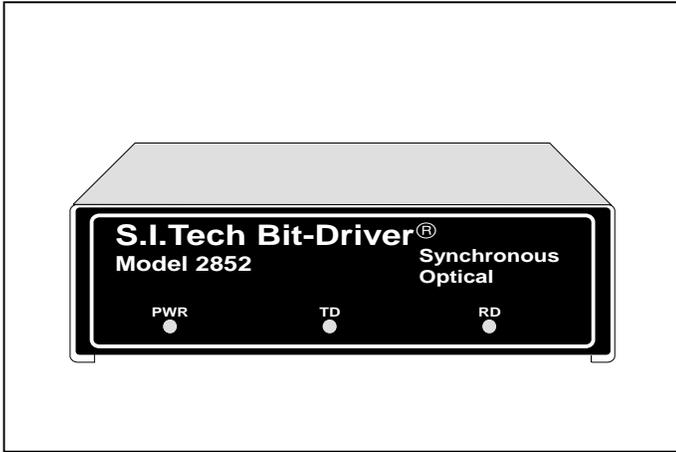PWR   TD   RD

The S.I.Tech 2852 Bit-Driver is designed to work with "Omninet" by Corvus systems using single twisted pair cable. Model 2852 Bit-Driver is a twisted pair to fiber optic transmitter/receiver half duplex product implementing "Omninet" networking scheme. Normal operating data rate is 1 Mbps.

This fiber optic Bit-Driver product eliminates many disadvantages of twisted pair cable, especially EMI/RFI, ground loops (electrical isolation with fiber), high attenuation (high signal loss), limiting distance between nodes of Omininet (2000 feet), and potential lightning damage outdoors between buildings.

S.I.Tech Model 2852 is a stand alone product allowing easy change from twisted pair to fiber: Simply disconnect two wires and connect to model 2852 input/output port. Model 2852 comes with power supply and status indicators.

Operation Mode:	Synchronous, half duplex, 1 Mbps
Input/Output Interface:	RS-485, 2 wire terminal block (+, -, Ground)
Transmission Line Interface:	2 ST connector fiber optic receptacles (SMA option)
Transmission Distance:	6600 ft. (2.0 Km), (5 Km option)
Transmitter Output Power:	30 microwatts into 50 micron fiber
Wavelength:	820 nanometers (1300 nm option)
Receiver Wavelength:	820 nanometers (1300 nm option)
Minimum Sensitivity:	3 microwatts @ 820 nanometers
Bit Error Rate:	10^{-9}
Operating Temperature:	$0\ ^{O}C$ to $50\ ^{O}C$
Input Power:	105 to 130 VAC 60 Hz
Metal Enclosure:	7.5" X 7" X 3" (19 X 17.8 X 7.6 cm)
Weight:	3 lbs. (1.36Kg)
230V Version:	2852V

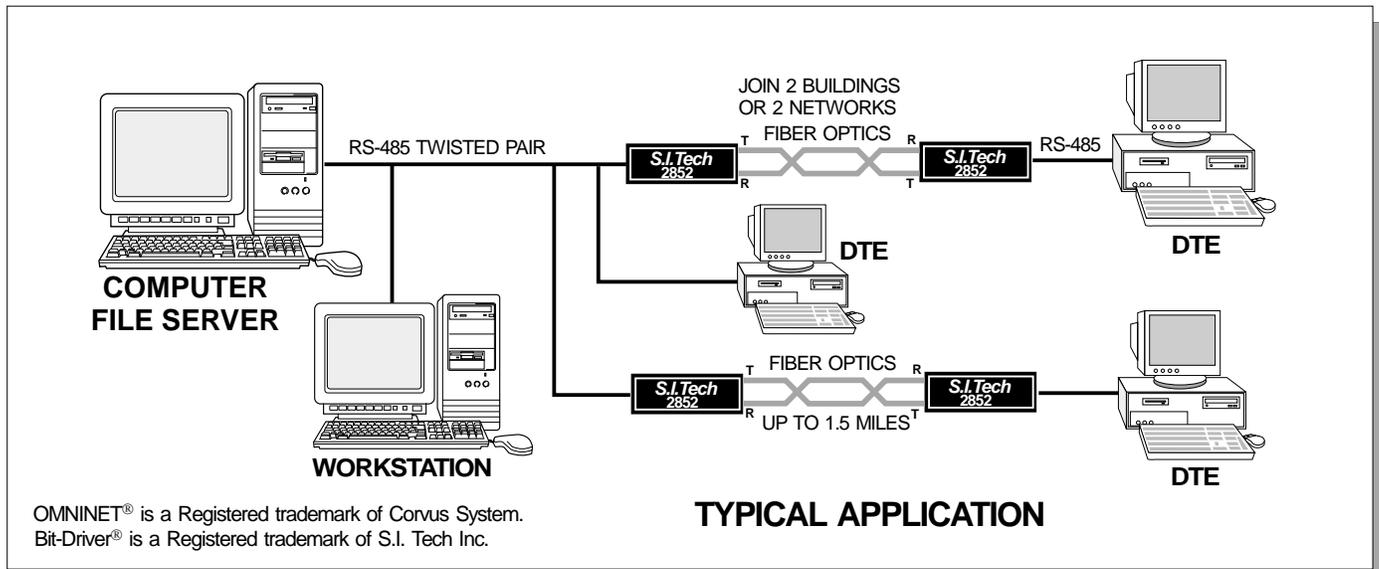### OPERATING DISTANCE FOR FIBER OPTIC CABLE

Fiber Size (Microns)	Attenuation dB/Km	Distance Meters	Distance Feet
50	3.0	2000	6600
62.5	4.0	2000	6600
100	5.0	2000	6600
10 SM*	1.0	7000	23000

*Single mode (1300nm) option (Check Network Timing Restrictions)

Optical unit connection: Connect the optical transmission line to the T and R receptacles. Note which cable channel goes to T or R by noting cable imprint. On the other end, reverse the connection.

Note: Some fiber types in short distance applications may overload the receiver.

Meets FCC requirements of Class A, Part 15 Computing Devices Standard. UL and CSA Listed.
Specifications subject to change without notice.

RS-485 TWISTED PAIR

JOIN 2 BUILDINGS OR 2 NETWORKS
FIBER OPTICS

S.I.Tech 2852   **S.I.Tech 2852**   RS-485

COMPUTER FILE SERVER

WORKSTATION

DTE

DTE

FIBER OPTICS
S.I.Tech 2852   **S.I.Tech 2852**
UP TO 1.5 MILES

DTE

TYPICAL APPLICATION

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