

# Model 9302



## Twinax to Fiber Optic Multiplexer IBM Systems 3/X & AS/400, & 5251 Controller



S.I. Tech Model 9302 multiplexer Bit-Driver<sup>®</sup> is designed to work with IBM System 3/X, AS/400, and 5251 controller using twinax cable. Model 9302 Bit-Driver is a 2 channel twinax to fiber optic transmitter/receiver full duplex multiplexer product implementing IBM Protocol. Normal operating data rate is 1 Mbps on each port.

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

S.I. Tech Model 9302 is a stand alone product allowing easy change from twinax to fiber: Simply disconnect twinax cables and connect to model 9302 input/output port. Model 9302 comes with power supply and status indicators.

**Operation Mode:** Synchronous, half/full duplex, 1 Mbps serial bi-phase data each port

**Input/Output Interface:** 100 Ohm twinax bulkhead jack, IBM protocol

**Number of Channels:** 2

**Transmission Line Interface:** 2 ST connector fiber optic receptacles (SMA option)

**Data Link Speed:** 2 Mbps

**Transmission Distance:** 2 Km (6600 ft.), (5 Km option)

**Transmitter Output Power:** 30 microwatts into 50 micron fiber

**System Wavelength:** 850 nanometers (1300nm option)

**Receiver Sensitivity:** 3  $\mu$ w at less than 10<sup>-9</sup> bit error rate

**Operating Temperature:** 0 °C to 50 °C

**Input Power:** 110/220 VAC, 50/60 Hz, 20 W detachable power cord, power supply meets UL, CSA, VDE, & IEC requirements

**230V Version:** 9302V

**Metal Enclosure:** 7.5" X 7.0" X 3.0" (17.8 X 14.0 X 7.6 cm) Rack mount option

**Weight:** 4 lbs. (1.8 Kg)

### Operating Distance for Fiber Optic Cable

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

\* High power option available

\*\* Single Mode (1300nm) option (maximum distance depends upon IBM timeout Spec.)

Notes: S.I. Tech multiplexer can support one controller (one card from IBM 3/X and AS/400. Related products: 2836, 9304, 9308, 9328.

If other than twinax cable is used, impedance matching transformers (balun) are needed.

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UL & CSA listed. Meets FCC requirements of Class A, Part 15 Computing Devices Standard.

Specifications subject to change without notice.

