Model 9328

S.I.TECH

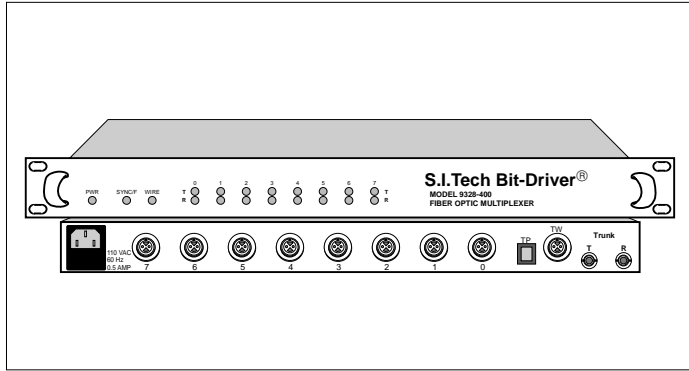## Fiber Optic Multiplexer for IBM Systems 3/X & AS/400

S.I Tech Model 9328 multiplexer Bit-Driver® is designed to work with IBM System 3/X, AS/400, and workstation controller using twinax or twisted pair cable. Model 9328 Bit-Driver is an 8 channel twinax or twisted pair 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(500 feet max twinax), and potential lightning damage outdoors between buildings.

S.I.Tech Model 9328 is a stand alone product allowing easy change from STP or twinax to fiber. Simply disconnect cables and connect to model 9328 input/output port. Model 9328 comes with power supply and status indicators for each port plus trunk sync. Its unique design allows use of fiber optic for trunk connection.

Operation Mode:	Synchronous, half/full duplex, 1 Mbps serial bi-phase data each port
Input/Output Interface:	100 Ohm twinax (TW) or 150 ohm RJ11 or RJ45 (TP) IBM Protocol
Number of Channels:	8
Transmission Line Interface:	2 ST (SMA option) connector fiber optic receptacles
Data Link Speed:	1 Mbps
Transmission Distance*:	2 Km (6600 ft.), (5 Km option)
Transmitter Output Power:	30 microwatts into 50 micron fiber
System Wavelength:	850 nanometers (1300 nm option)
Minimum Sensitivity:	3 μw at less than 10^{-9} bit error rate
Operating Temperature:	0°C to +50°C
Input Power:	110/230 VAC, 50/60 Hz, 20 W detachable power cord, power supply meets UL, CSA, VDE, & IEC requirements
230V Version:	9328V
Metal Enclosure:	17.0" X 1.7" X 7.5" (43.2 X 4.3 X 19.0 cm) (designed for 19" rack, 1 U high)
Weight:	6.5 lbs. (3 Kg)

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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). IBM machines come with a various number of ports per controller. Check IBM equipment manuals for details. The number of ports is not fixed. While seven devices are supported per any given port, the total devices the controller card can support does not equal 7 x number of ports, e.g. System 36 has options such as: First: 6 devices - one controller card. Second: 28 or 36 devices - one controller card. Third: 72 devices - second controller card. System 38 controller supports 32 devices. Total 400 with 10 controller cards. AS/400 controller supports 40 devices. Total 400 with 10 controller cards.
S.I.Tech 9328 can support 32, 36, and 40 as long as only one controller card is connected to 9328 ports.
S.I.Tech Model 9328 is totally transparent and uses IBM Protocol and addressing. If other than twinax cable is used, impedance matching transformers (balun) are needed.

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.

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

TYPICAL APPLICATION