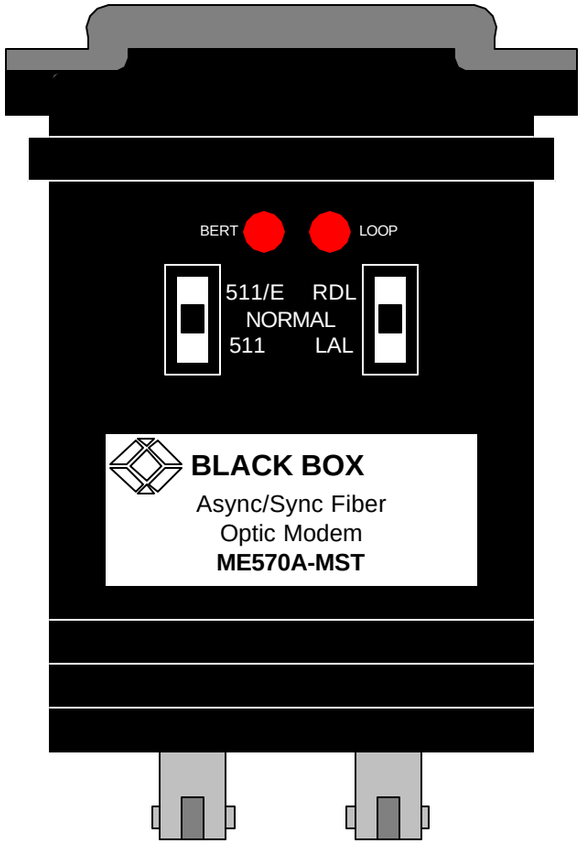

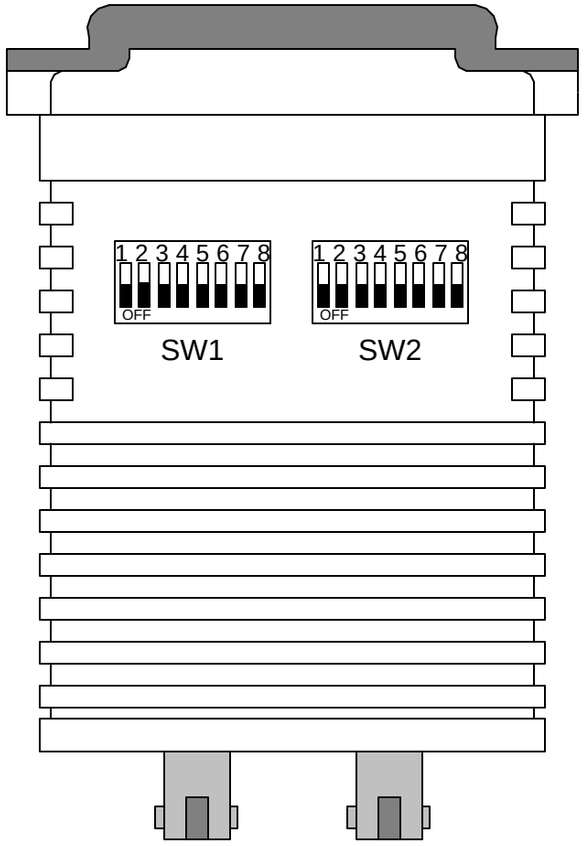

ME570A-MST

SPECIFICATIONS:

Transmission Line: Dual optical cable

Transmission mode: Async or sync, half- of full-duplex

Interfaces: EIA/RS-232, CCITT/V.24

Data Rates: 0-38.4 Kbps

Distance: 2 miles (3.2 km) over continuous fiber

RTS/CTS Delay: Switch-selectable: No delay, 7ms, 53ms

Receiver Sensitivity: -45 dBm

Coupled Power Output: -30 to -36 dBm

Optic Wavelength: 850 nm

Indicators: (2) LEDs: Bert and Loop

Connectors: DB25 male on RS-232 side, ST on fiber side.

Power: No external power required, uses power from RS-232 data and control signals.

DESCRIPTION:

The Async/Sync Fiber Optic Modem is a miniature modem that combines the noise immunity of fiber with the troublrshooting capabilities of V.52 and V.54 diagnostics. The modem operates in asynchronous or synchronous mode, supports data rates to 38.4Kbps, and plugs directly into a workstation's RS-232 port. The modem is also available in a card version called the Async/Sync FO Modem Card.

Like all fiberoptic modems, the Async/Sync Fiber Optic Modem is inherently immune to RFI/EMI noise, ground loops, and transient surges. The carrier may be switch-selected as either "Continuously On" or "Controlled by RTS." Two easy-to-read LED indicators monitor the Error and Test modes. Drawing all necessary power from the RS-232 interface, the modem requires no AC power or batteries to operate.

The miniature modem fits into tight installation spaces. On the RS-232 side, the modem comes equipped with a male DB25 connector. On the fiber side, the modem comes with ST connectors.

INSTALLATION:

The Async/Sync Fiber Optic Modem is fairly simple to install and is ruggedly designed for excellent reliability: Just set it and forget it. The following instructions will help you set up and install the modem properly. If you have questions, call for technical support.

The Async/Sync Fiber Optic Modem uses a unique set of 16 external mini DIP switches that allow configuration to an extremely wide range of applications. These 16 DIP switches are grouped in two eight-switch-sets, and are externally accessible from the underside of the modem. Since all configuration DIP switches are externally accessible, there is no need to open the case for configuration.

The configuration switches allow you to select data rates, clocking methods, V.52 and V.54 tests, async or sync mode.

CONFIGURATION:

Configuration of Switch SW1:

The DIP switches on SW1 set data rate, clock source, async/sync mode, and carrier-control method. The default settings are summarized below.

Position	Function	Factory Default
S1-1	Data Rate	ON
S1-2	Data Rate	OFF 9600
S1-3	Data Rate	OFF
S1-4	Data Rate	ON
S1-5	Clock Source	ON Internal
S1-6	Clock Source	ON Internal
S1-7	Async/Sync	ON Async
S1-8	Carrier Control	OFF Constantly ON

S1-1 through S1-4: Data Rate are set in combination to determine the data rate for the Async/Sync Fiber Optic Modem.

S1-1	S1-2	S1-3	S1-4	Setting
ON	ON	ON	ON	1,200 bps
OFF	ON	ON	ON	1,800 bps
ON	OFF	ON	ON	2,400 bps
OFF	OFF	ON	ON	3,600 bps
ON	ON	OFF	ON	4,800 bps
OFF	ON	OFF	ON	7,200 bps
ON	OFF	OFF	ON	9,600 bps
OFF	OFF	OFF	ON	14,400 bps
ON	ON	ON	OFF	19,200 bps
OFF	ON	ON	OFF	28,800 bps
ON	ON	OFF	OFF	38,400 bps

S1-5 and S1-6: Clock Source are set in combination to determine the transmit clock source for the Async/Sync Modem.

S1-5	S1-6	Setting
ON	ON	Internal Transmit Clock
OFF	ON	Receive Recover Clock
ON	OFF	External Transmit Clock

S1-7: Asynchronous/Synchronous Mode determines whether the Modem is in asynchronous or synchronous operating mode.

S1-7	Setting
ON	Asynchronous
OFF	Synchronous

S1-8: Carrier Control Method determines whether the carrier is Constantly ON or Controlled by RTS. This setting allows for operation in switch-carrier, multipoint and hardware-handshaking applications.

S1-8	Setting
ON	Constantly ON
OFF	Switched Carrier

Configuration of SW2:

The DIP switches on S2 set word length, extended signaling rate, RTS/CTS delay, and V.52 and V.54 diagnostic tests.

Position	Function	Factory Default
S2-1	Data Rate	OFF 10 Bits
S2-2	Data Rate	OFF 10 Bits
S2-3	Extended Signaling Rate	OFF -2.5% to 2.3%
S2-4	RTS/CTS Delay	ON 7 msec.
S2-5	RTS/CTS Delay	ON 7 msec.
S2-6	Future Use	
S2-7	Future Use	
S2-8	V.52/V.54 Tests	OFF Enable

S2-1 and S2-2: Word Length are set in combination to determine the word length for Asynchronous data.

S2-1	S2-2	Setting
OFF	ON	8 Bits
ON	ON	9 Bits
OFF	OFF	10 Bits
ON	OFF	11 Bits

S2-3: Extended Signaling Rate determines the range of variability the Async/Sync Fiber Optic Modem looks for in asynchronous data rates (that is, the actual variance from a given frequency level the modem will tolerate).

S2-3	Setting
ON	-2.5% to +1% Basic
OFF	-2.5% to +2.3% Extended

S2-4 and S2-5: RTS/CTS Delay determines the amount of delay between the time the modem sees RTS and when it sends CTS. Options are no delay, 7 ms, 53 ms.

S2-4	S2-5	Setting
ON	ON	7 msec.
OFF	ON	53 msec.
ON	OFF	No Delay
OFF	OFF	No Delay

S2-6 and S2-7 are reserved for future use.

S2-8: V.54 Loopback Test Enable. To reset the V.54 circuit, set switch S2-8 to the "ON" position, then back to the "OFF" position.

S2-8	Setting
OFF	V.54 Enable
ON	V.54 Disable