



# Communications Multiplexor (COMM MUX)

## PRODUCT DESCRIPTION

The Communications Multiplexor (COMM MUX) provides an interface between the standard multiplexor bus and 103/202 type modems over switched or leased facilities. Local terminals requiring RS-232 or current loop connection can also be accommodated. Using state-of-the-art technology, the COMM MUX provides:

- High reliability
- Lower cost per line
- Lower power consumption per line

The COMM MUX affords maximum flexibility by providing program control over those functions most subject to variation and change: baud rate, line control and character format.

## FEATURES

- The two-line COMM MUX provides 20ma current loop and a RS-232C interface. The eight-line COMM MUX provides RS-232 interface only.
- 16 different baud rates from 50 to 19,200 baud in half or full-duplex mode.
- Each line is individually programmable.
- Full or half-duplex on a per-line basis.

- Compatible with 103/202 type modems on a leased line or a switched network or local terminals. Full modem control for each line is included.
- Plugs into any I/O slot with a MUX Bus.
- Software compatible with the PASLA and PALS.
- Address interleaving allows conserving device addresses if all lines are in half-duplex mode.

## OPERATIONAL CHARACTERISTICS

### Two-Line COMM MUX

The two-line COMM MUX provides two asynchronous communications lines with either 20ma current loop or RS-232C interface. Each line interfaces to the MUX bus of any Perkin-Elmer processor and provides half-duplex (HDX) or full-duplex (FDX) operation with 103/202 type asynchronous modems or local terminals. Sixteen baud rates from 50 to 19,200 are available with selected groups of up to four baud rates programmable at any one time. Full modem control for each line is standard.

Data transfers between the terminal or modem and COMM MUX are bit serial at a program-controlled baud rate. Character size (5, 6, 7, or 8 bits), parity (odd, even or none), and stop bits (1 or 2) are also controlled by the program on a per-line basis.

## Eight-Line COMM MUX

The eight-line COMM MUX is the same as the two-line COMM MUX except the eight-line COMM MUX provides eight asynchronous communications lines with RS-232C interface only. All eight lines are individually programmable.

All other features and options available on the two-line COMM MUX are available on the eight-line COMM MUX.

## PRODUCT NUMBERS

- M47-104 Two-Line COMM MUX
- M47-105 Eight-Line COMM MUX
- M10-054 External cable for connection to RS-232C modem, 15.2 meters (50 feet).
- M46-810 External cable for connection of local terminals to the COMM MUX. RS-232C interface, 7.6 meters (25 feet).
- M46-056 External cable for connection of local terminals to the COMM MUX. Current loop interface, 7.6 meters (25 feet).

## REFERENCES

- 29-650 Two-Line and Eight-Line COMM MUX Maintenance Manual.
- 29-654 Two-Line and Eight-Line COMM MUX Programming Manual.

## SPECIFICATIONS

Character Format (Programmable) — 5, 6, 7 or 8 data bits.

Parity (Programmable) — Odd, Even or None

Stop Bits (Programmable) — 1 or 2

Modem Control (Programmable) —  
Data Terminal Ready  
Reverse Channel Transmit  
Request to Send  
Data Terminal Busy

Modem Status —  
Clear to Send  
Carrier  
Ring  
Reverse Channel Receive  
Data Set Ready

Other Status —  
Overflow  
Parity Fail  
Busy  
Framing Error

Transmit Distortion — 3% maximum measured at RS-232C interface

Maximum Tolerable Receive Distortion — 40% (for a single bit) measured at RS-232 Interface.

Power Requirements  
5 volts DC @ 2.0 amperes — 2 Line  
5 volts DC @ 5.0 amperes — 8 Line

Operating Environment  
0 to 50°C  
10-90% relative humidity (no condensation)

Weight  
Two-Line — .75 kg (1.5 pounds)  
Eight-Line — 1.5 kg (3 pounds)

Dimensions  
Two-Line — 177 mm x 381 mm (7 in. x 15 in.)  
Eight-Line — 381 mm x 381 mm (15 in. x 15 in.)

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Manufacturing facilities, and Sales/Service offices throughout the world.

The information contained herein is intended to be a general description and is subject to change with product enhancement.

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