



DAC Multiplexer Model 2425

Features:

- Connects up to eight 8-channel chart recorders
- 4 serial copper or fiber-optic input ports
- Cross-link up to 4 stations

Optional:

Expansion card includes 2 additional input ports and allows linking up to 32 units (2048 channels) per station.

General Description

The DAC Multiplexer chassis enables up to six Telemetry Data Processors to send serial DAC and Discrete data messages to up to eight 8-channel chart recorders (a total of 64 channels). With an optional expansion card, you can link up to thirty-two DAC Multiplexer units per station. Up to four independent stations can be cross-linked allowing each station access to any or all other stations' channels, thus enabling the strip charts to be easily re-allocated if a strip chart fails. The serial interface allows the strip charts to be located up over a fiber-optic link to 100 feet from a TDP chassis when using copper links, and up to 4,000 feet with the fiber-optic link. Chassis options provide various combinations of copper and fiber-optic links. A second option card received and regenerates IRIG B time code, slow code, and the front panel PAPER RUN switch, providing these signals on eight separate RJ45 connectors, or one for each strip chart recorder. Serial input messages are generated by the Acroamatics 1602P, 1605P and 505V cards (over copper wire links), and by the 428M mezzanine DAC card. The Model 2425 DAC Multiplexer chassis with an expansion chassis is shown in the block diagram on the next page. The performance specifications appear on the page following.





Functions

- Inputs** The Model 2425 provides four serial inputs, and comes with either fiber optic for operation to 4,000 feet, or copper wire for operation to 100 feet. The expansion option adds two input channels and three transmit channels, which allows configurations up to 32 units deep and up to 4 units wide.
- Calibrator** Allows all D to A outputs to be set to -5V, +5V or to a step calibration with 11 output levels

Analog Output (Output loaded with 10k Ohm and 50pf in parallel)

- Resolution** 13 bits of resolution, 2's complement binary input
- Accuracy** Plus or minus 2 LSB
- Linearity** Plus or minus 1 LSB
- Stability** 10ppm per degree C
- Settling Time** 2.5 microseconds to within plus or minus 1 LSB
- Slew Rate** 3 Volts per microsecond
- Output Current** 1 mA maximum @(+5V)
- Output Voltage** -5V to +5V

Discrete Output

- Outputs** 64 discrete output lines, all TTL Compatible
- Addressing Modes** The discrete outputs may be addressed as four 16-bit registers, eight 8-bit registers, or 64 1-bit registers. When selected as 16-bit registers, strobe and acknowledge signals can be used to synchronize message transfers
- Output Current** 32ma @ 2.4V, and 48ma @ 0.40V

Physical

- Power** 104-125 VAC (standard) 100/120/220/440 available; 47-63 Hz, 3A max
- Dimensions** 3.48" (8.84cm) H x 19.0" (48.26cm) W x 20.19" (51.28cm) D
- Temperature** Operating: 0° to +40° C, Non-operating: -40° to +86° C
- Relative Humidity** Up to 90% non-condensing
- Shock** Operating 6G, Non-operating 50G
- Vibration** Operating 0.5G, 5 to 2000 Hz, Non-operating 1.2G, 5 to 500 Hz

Specifications subject to change without notice.