Multidrop multiplexing for up to 32 ports and 16 remote sites
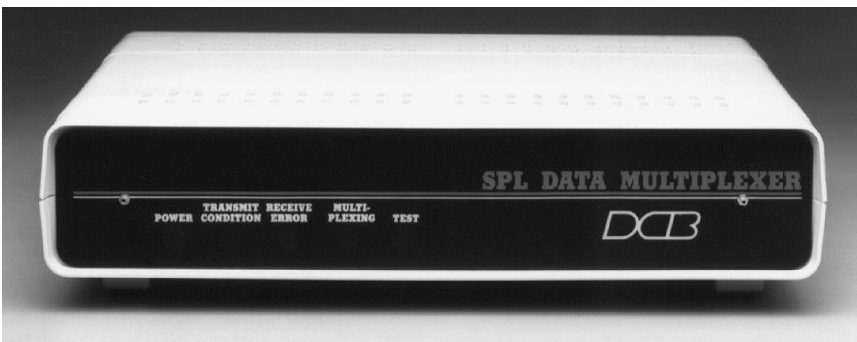
DESCRIPTION

The DCB Multidrop Multiplexer Firmware Cartridge is used in the DCB SRX multiplexer at the host site, and in DCB SPL multiplexers at remote sites. Up to 32 total channels can share a single multidrop line for up to 16 remote sites. The DCB multiplexers with the multidrop firmware cartridge installed can run network speeds up to 64 Kbps. The decreasing costs of 56 Kbps multipoint lines make them a very attractive alternative to multiple point-to-point lines. When using a 56 Kbps multidrop line, the DCB multidrop configuration provides the user with a response time equal to point-to-point links.

The DCB SRX multiplexer is used at the host site. Configuration and diagnostic testing are performed through the Network Management Port. Any asynchronous terminal or PC with a serial communications program can be used to access the Network Management Port. All Network Management Port functions are accessed through the DCB easy menu system. Configuration is as simple as choosing a speed, parity, flow control and remote site/port for each host port activated. The DCB SRX is available with 8, 16, 24 or 32 ports.

The DCB SPL multiplexer is used at the remote sites. Ports are configured for speed, parity and flow control. The DCB SPL is available with 2 to 14 ports in 2 port increments. A remote site can have more than 14 ports through the use of multiple SPL multiplexers with a DCB modem sharing unit. Remote units are set to a unique address to identify each remote site separately.

The DCB multidrop protocol is optimized to make user response as fast as possible. The host automatically measures the remote response times and independently sets each site's response timeout to the minimum possible delay. Remote units can respond to polls as soon as recognizing their address instead of waiting for poll completion.

The DCB multidrop multiplexer firmware allows you to take advantage of the significant cost savings of 56 Kbps multidrop lines for your asynchronous terminal applications. This savings can be yours without sacrificing user response time performance.

FEATURES

- ■ **Line speeds to 64 Kbps**
- ■ **Port speeds 300 to 19,200 bps**
- ■ **Fast polling protocol**
- ■ **8, 16, 24 or 32 host ports**
- ■ **Up to 16 remote sites**
- ■ **2 to 14 ports at remote sites**
- ■ **Multiple units at a remote sites**
- ■ **Easy installation**
- ■ **56 Kbps has response time equal to point-to-point links**
- ■ **Acceptable response time over 9600 bps multidrop**

SPECIFICATIONS

General
Multidrop Asynchronous Statistical Multiplexing
Host: 8, 16, 24 or 32 channels
Drops: 2 to 14 channels each in 2 channel increments
Up to 16 remote drops

Port Specifications
Data Format:
  1 Start bit   1 Stop bit   10 bits total
  8 Data bits including parity if used
Rates: 300, 1200, 2400, 4800, 9600 & 19,200 bps individually selectable per port
Interface: CCITT V.24, RS-232-D
Buffering: 64K dynamically allocated
Flow Control: Set on an individual port basis
  Xon/Xoff   Busy High
  Transparent   Busy Low
  Clear to Send
Connectors:
  Host: RJ-45 (8-wire)
  Drops: DB-25 female

Network Specifications
Rates: Follows modem clock to 64 Kbps synchronous
Interface: CCITT V.24, RS-232-D
Error Correction: Automatic retransmission
Connector:
  Host: RJ-45 (8-wire)
  Drops: DB-25 male
Cables: Host Network to modem/DSU cable supplied

Operating Modes
Normal on-line   Network loopback

Indicators (front panel)
Host: Power, Activity, Line Error, Modem Ready, Option
Drops: Power, Transmit Condition, Receive Error, Multiplexing, Test, Tx/Rx for each port

Controls
Host: Front panel push buttons for Next, ➜, INCR, OK, RESET
Drops: Front panel DIP switches for address, port speed & flow control, push button for Reset

Network Management Port
Interface: CCITT V.24, RS-232-D
Connector:
  Host: RJ-45 (8-wire)
  Drops: DE-9 female

Network Management Port Commands
Show: Map, Configuration, ID, Status
Configure: Map, Port, ID, Timing
Type
Activity
Flow Control
Test Tools: Test message, Remote test loop, Capture, Copy, Monitor Tx, Monitor Rx Executive Parity Reset
Set Time

Physical/Electrical
Power Requirements: 120 VAC, 30-43 Watts, .25-.36 Amps
Host 8 or 16 channel; Drop 2, 4 or 6 channel $10^{1}/_{4}$" x $9^{3}/_{4}$" x $2^{1}/_{4}$"
Host 24 or 32 channel; Drop 8, 10, 12 or 14 channel: $10^{1}/_{4}$" x $9^{3}/_{4}$" x $4^{1}/_{2}$"
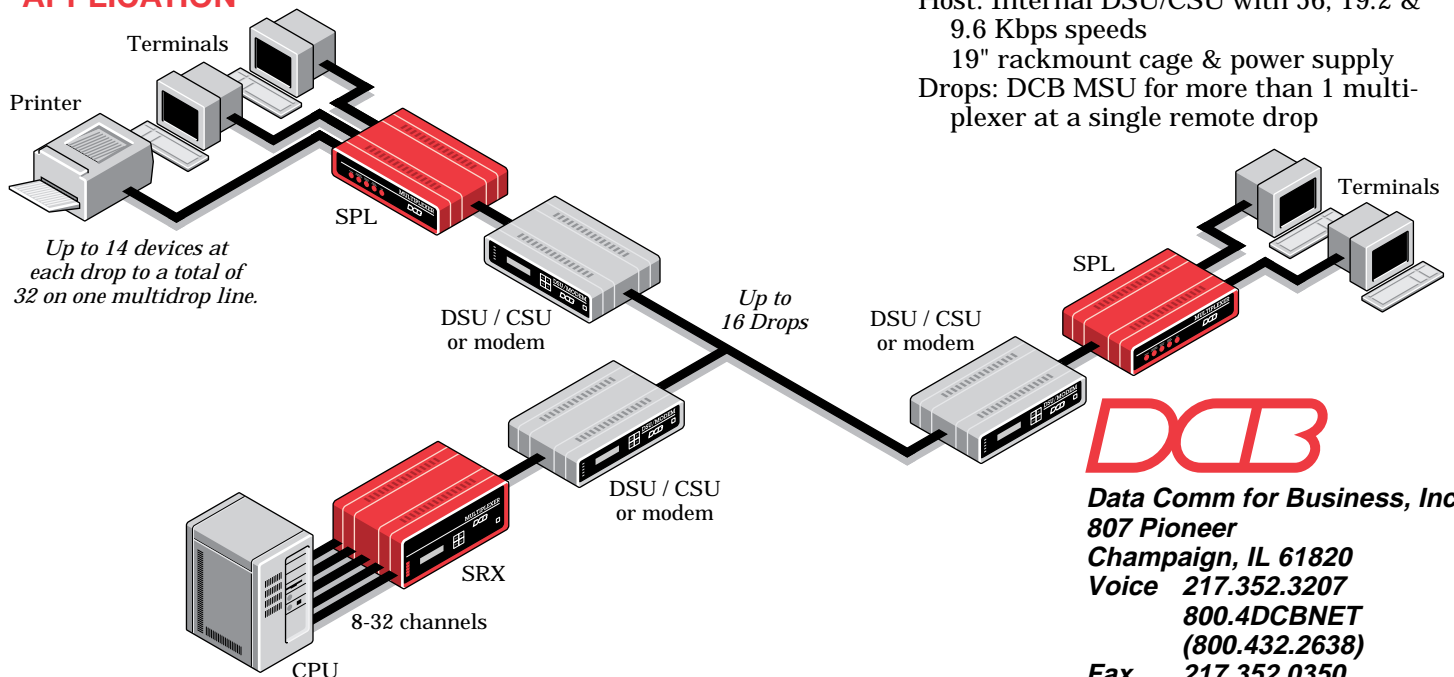
Options
Host: Internal DSU/CSU with 56, 19.2 & 9.6 Kbps speeds
  19" rackmount cage & power supply
Drops: DCB MSU for more than 1 multiplexer at a single remote drop

APPLICATION

Terminals

Printer

SPL

Up to 14 devices at each drop to a total of 32 on one multidrop line.

DSU / CSU or modem

Up to 16 Drops

DSU / CSU or modem

SPL

Terminals

DSU / CSU or modem

SRX

8-32 channels

CPU

DCB

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