

**MICRODATA
STATISTICAL
MULTIPLEXORS.**

**HIGH
PERFORMANCE
NETWORKING
SOLUTIONS.**

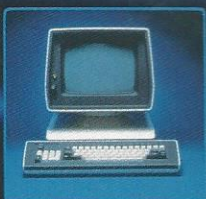
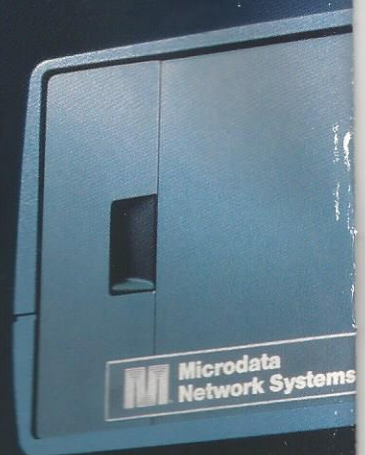


Microdata

SIMPLY POWERFUL



BRINGING VERSATILITY AND STATE-OF-THE-ART QUALITY TO DATA COMMUNICATIONS.



A REMARKABLY DIVERSE PRODUCT LINE.

Microdata proudly introduces a new line of statistical multiplexors for data communications applications. A product line so diverse that it can accommodate a variety of networking needs ranging from small point-to-point networks to complex multinode communications systems. Our versatile microprocessor-based statistical multiplexor products consists of three individual systems that have been designed to the most demanding engineering standards and repeatedly tested to ensure exceptional performance, day after day. What's more, each unit incorporates a remarkably cost-effective design feature that enables the user to upgrade as networking needs change, eliminating the possibility of obsolete equipment. Microdata statistical multiplexors offer the reliability, the performance and the superior system capabilities users have been seeking in data communications equipment.



MICRODATA STATISTICAL MULTIPLEXORS.

Statistical Multiplexing permits high speed trunk to serve more terminals by taking advantage of "dead" time between terminal transmissions and dynamically allocating trunk throughput only to active channels. Offers several times the trunk link capacity of a time division multiplexors on the same line. All models of the statistical multiplexors have the following features:

FEATURES

Full ARQ Error Control, automatic repeat request (ARQ) using extended CRC checking, protects data integrity, improves reliability, and reduces CPU overhead.

Character Transparency means the network never alters the data characters. No software changes are required, expansion costs are lower, and the network is able to handle a broad variety of terminals.

Flexible Trunk Connections are compatible with all common carrier trunk link technologies.

Character Compression allows the compression of repeated characters into shorter trunk link transactions increasing trunk link capacity.

Variable Framing improves response time, reduces network delays, and improves network efficiency by automatically sizing the block length proportional to traffic load.

Dynamic Buffer Allocation allows better use of buffer space with resultant greater capacity, lets the network handle a broad mix of terminals and terminal speeds, and facilitates faster response to network-load requirements.

Multidrop Multiplexing (Model 3125) eliminates the need for intelligent terminals and host overhead while maintaining excellent performance of all network features. Slave units use a single multidrop trunk polled by the master unit, reducing telephone line costs.

Autobaud accommodates dial-up and hard-wired connections where the speed of a terminal is not known until the call is received. This provides automatic terminal speed detection and simplified network access.

Data Flow Control is accomplished through the use of XON/XOFF or CTS. This avoids the loss of data due to extraordinary load demand.

Data Flow Control Conversion allows the host and terminal ends of a virtual circuit to have different flow control mechanisms.

Bi-Directional Flow Control operates in either the receiving or transmitting direction at any network port.

Full Modem Control allows dial-up access at no additional cost.

Line Break Propagation ensures application control at the terminal. A line break received from the terminal is transferred to the host computer.

Firmware troubleshooting requires no operator intervention since the diagnostics are permanently built into each unit.

Operator's Console Port provides remote network diagnostics and dynamic reconfiguration control.

Reconfiguration Option (RCO) means that on-line configurations are not lost in power outages. The unit allows reconfiguration of port parameters without a PROM change (and with or without a console for Model 3125). With the RCO, the controller module has a non-volatile configuration memory. (RCO is a standard feature for Model 3125.)

Configuration Control simplifies network management since network configuration is needed only at a central point when connected to a Microdata Network Processing System.

Modern Packaging in compact low-powered, modular enclosure.

System Indicators facilitate network diagnosis and proves network integrity showing status of trunk and trunk link transactions.

A RANGE OF NETWORKING CAPABILITIES.

Microdata statistical multiplexors are designed as either entry-level networking products for small-to-medium sized data communications networks or as slave units in a full-function network.

The Microdata statistical multiplexors concentrate terminal input/output from several terminals and computer ports, placing it on a single line back to a Microdata computer system, dramatically reducing the telephone line charges associated with supporting several remote users. The statistical multiplexor at the computer end de-multiplexes the data for connection to multiple computer ports.

The statistical multiplexors are microprocessor based. The multiplexors can also drive a trunk link at a rate of 19,200 bytes per second for high capacity intra-network data pathing.

The Microdata family of statistical multiplexors consists of the Model 3110 and 3120 statistical multiplexors and Model 3125 multidrop master statistical multiplexor.

The Model 3110 is the basic point-to-point unit. It can also serve as a slave unit to a Model 3125 Master or Microdata Network Processing System. Model 3120 delivers the same features as the 3110, but makes available up to four times as many ports. Model 3125 has up to 32 ports of its own and can serve as a multidrop master to two or more Model 3110 and 3120 multiplexors acting as polled slave processors.



MODEL 3110

The Model 3110 is expandable, up to eight ports, and is a statistical multiplexor for point-to-point use or for service as a slave unit in a full-function network. If the Model 3110 is positioned at either end of the network, it can serve both the terminal and the host computers. The Model 3110 can connect several terminals to a Microdata computer over a single phone line. By combining over a single or multiple high speed lines, one reduces modem and line costs.

MODEL 3120

The Model 3120 statistical multiplexor delivers the same features as the Model 3110, but supports up to 32 ports.

MODEL 3125

The 3125 master statistical multiplexor controls up to 15 slave stations on one trunk link, with an aggregate of 32 ports available. The Model 3125 allows connection of a local or remote console terminal to provide access to status information, network-fault diagnostics and port-reconfiguration. The reconfiguration feature allows the network operator to change port parameters with or without a console terminal.

If a network has many locations but only a few terminals at each location, a Model 3125 meets the need through multidrop multiplexing, permitting several remote locations to share a single phone line.

With a 3125 in control of the network, savings add up rapidly: lower trunk link costs, fewer modems and other hardware, greatly simplified systems, and greater network diagnostic capability.

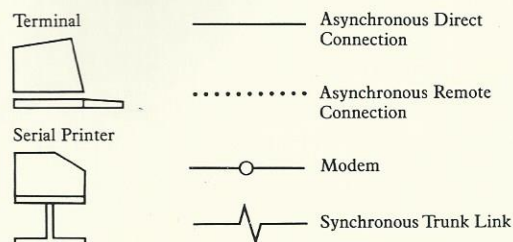
TECHNICAL SPECIFICATIONS

- Number of Ports
(expandable in increments of two):
Model 3110. . . . Up to 8 ports/multipoint slave
Model 3120. . . . Up to 32 ports/multipoint slave
Model 3125. . . . Up to 32 ports/multipoint master.
- Character Formats Supported
SUPPORTS ANY 5, 6, 7, or 8-bit asynchronous character code with or without parity.
- Electrical Interface
EIA RS-232C/CCITT V.24/V.28 or active 20mA current loop selectable on a per-port basis.
- Modem Control
Built-in modem-lead control standard.
- Terminal Autobaud
Will baud detect terminals at 110 to 1200 bps or 300 to 2400 bps for each network port, changeable on-line by RCO.
- Speed
Software-selectable choice of fixed speed 50-9600 bps standard, changeable on-line by RCO.

Trunk Link

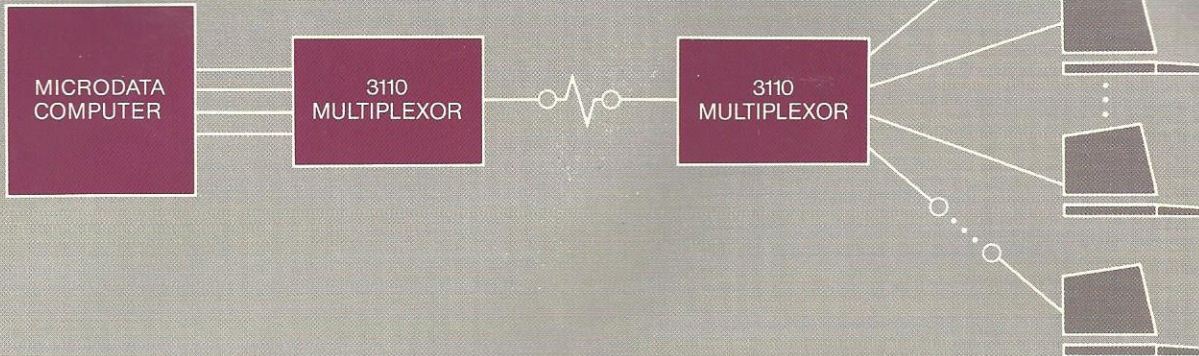
- Electrical Interface
EIA RS-232/CCITT V.24/V.28.
- Speed
Up to 19,000 bps synchronous, external clock.
- Operating Configuration for Model 6110 and 6120
Back-to-back in a point-to-point configuration; or as a slave in a multidrop configuration.
- Operating Configuration for Model 6125
Master statistical multiplexor to other Model 6110/6120 slaves in a multidrop configuration.
- Buffering Capabilities
20,000 characters dynamically allocated
- System Indicators
10 LEDs
- Power Requirements
115/220 VAC 60/50 Hz;
Model 6110: Up to 80 Watts per 8 ports (272 BTUs)
Model 6120/6125: Up to 120 Watts per 16 ports (410 BTUs)
- Environment
Ambient temperature: 40°-90°F (10°-30°C)
Humidity: up to 95% non-condensing
- Enclosure Dimensions
Height 8.25 in. (21 cm)
Width 14.38 in. (36.5 cm)
Depth 12.75 in. (32.3 cm)
Self contained table top cabinet

Network Diagrams



POINT-TO-POINT STATISTICAL MULTIPLEXING NETWORK

In this configuration, two Model 3110 (or 3120) units are connected back-to-back with a trunk link between them providing port-to-port transparent operation. The remote dial-up terminal could use the autobaud feature to allow several different terminal types to utilize the dial-up port.

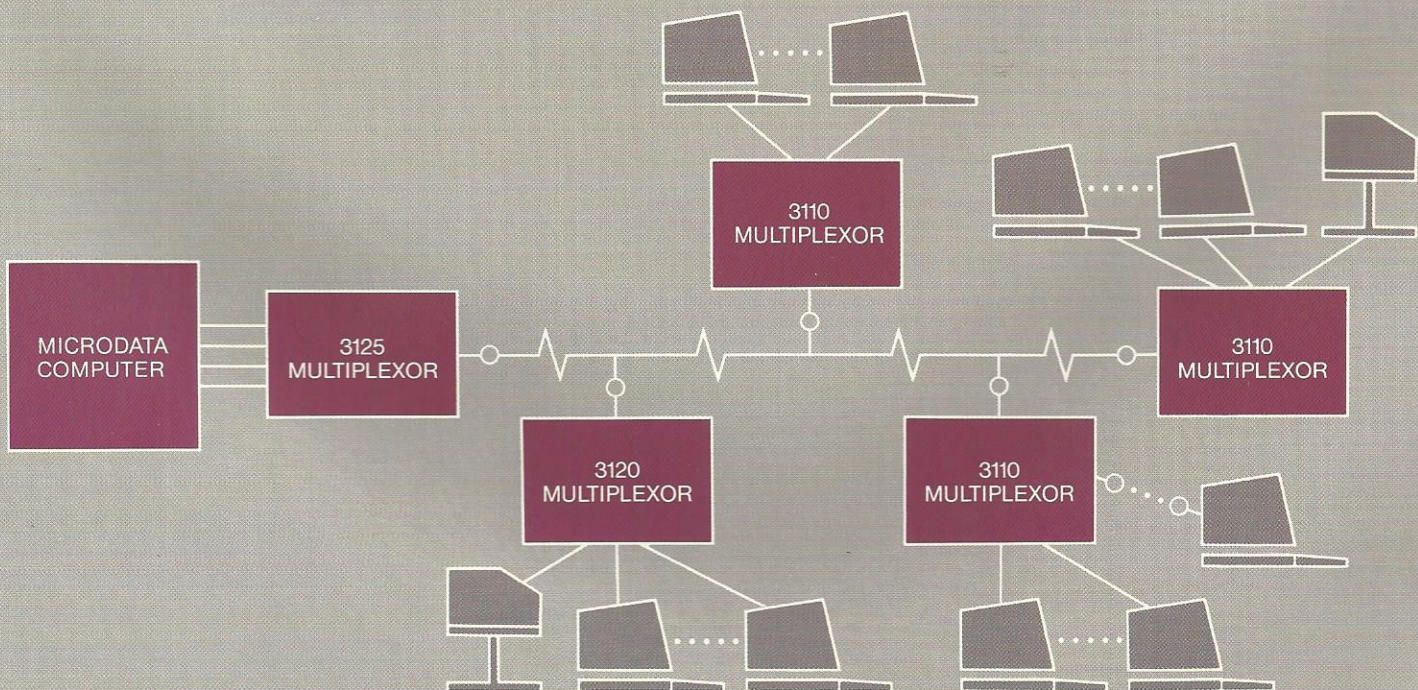


MASTER/SLAVE MULTIDROP NETWORK

In a multidrop configuration, several slave multiplexors share one communication line. Microdata 3110 and 3120 units are easily and quickly converted from one configuration to another. The variation of master/slave configuration permits multiple 3110 and 3120 units to share a single multidrop trunk link. This configuration using multidrop is most effective for low-traffic, low-terminal density and geographically-dispersed networks. Up to 15

slave 3110 and 3120 multiplexors can be placed on one trunk link. Polling is performed by the master 3125 transparent to the host and terminals.

In a full function network, the 3110/3120 units can be used either in a point-to-point mode or in a multidrop environment. The 3110/3120 unit which may have originally served as a point-to-point statistical multiplexor now allows remote terminals to access multiple systems and perform file transfers between any system in the network. The multiplexors in such a configuration are part of a system that is managed by a network processing system(s).



**MICRODATA
STATISTICAL
MULTIPLEXORS.**

**HIGH
PERFORMANCE
NETWORKING
SOLUTIONS.**



Microdata
SIMPLY POWERFUL

