



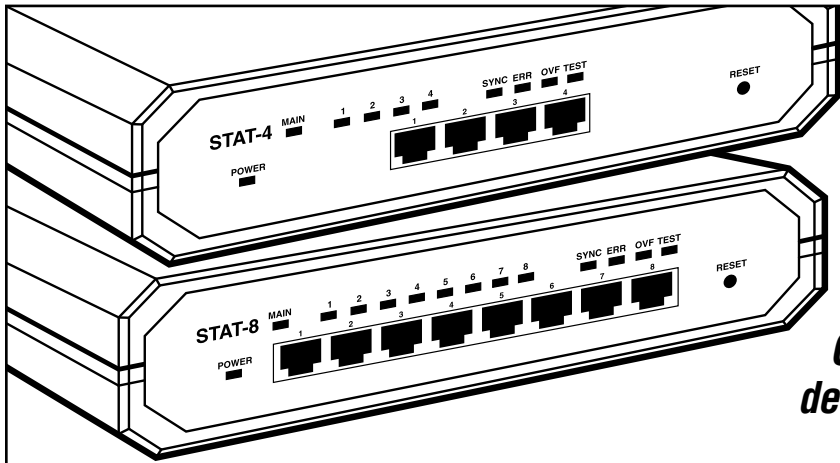
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Black Box Corporation.

BLACK BOX[®]

NETWORK SERVICES

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MODULAR STATISTICAL MULTIPLEXORS (STAT-4 & STAT-8)



Connect four or eight async devices over a single sync link.

Key Features

- ▶ **Multiplex 4 or 8 async subchannels onto one sync channel.**
- ▶ **Send async data at 19.2 kbps over composite sync link.**
- ▶ **Demux data at remote end and distribute data to users at a pre-configured baud rate.**
- ▶ **Easy to configure with standard CRT or an IBM[®] style PC.**
- ▶ **User-selectable hardware and software flow control.**
- ▶ **Local and remote loopback options.**
- ▶ **Settings stored in non-volatile memory.**

These advanced, full-function devices make multiplexing data lines from terminals to a host computer both simple and economical.

Compact and rackmountable, the Stat-4 and Stat-8 Modular Statistical Multiplexors enable you to multiplex asynchronous data subchannels onto a single straight composite synchronous channel at speeds up to 19.2 kbps.

The Modular Statistical Multiplexors do this by statistically multiplexing subchannel data to form a composite data stream that has a rate much smaller than the arithmetical sum of the individual subchannel rates. The composite data then travels via sync modems to the remote Stat-4 or Stat-8, which demultiplexes and distributes the data to the local users at their preconfigured rate.

The Stat-4 has four subchannels, and the Stat-8 has eight subchannels. In addition to the modular, front-panel RJ-45 ports for your subchannel links,

each Modular Statistical Multiplexor has a standard DB25 male port for the composite channel. You will need modular adapters to convert the subchannels' RJ-45 ports to SB25 for most applications. Once adapted, the DB25 connector is configured as a DCE device. Because the interfaces for the subchannels are configured as data communication equipment (DCE) interfaces, you can connect the Modular Statistical Multiplexors via pinned RS-232 port cables directly to data terminal equipment (DTE).

The composite channel, which is configured as a DTE interface, connects to a sync modem, which provides the clock signal that automatically determines the composite channel's data rate.

The Stat-4 and -8 muxes use a dynamic data buffer management technique to allocate available buffer capacity according to subchannel activity. The muxes ensure error-free end-to-end data

transmission by using powerful and efficient error detection and automatic retransmission technology.

All of this is done completely transparent to the user. In fact, in most instances, the Stat-4 and -8 operate unattended. Operator intervention is only required when the mux is set up for the first time or when it's adapted to new operational requirements.

Efficient flow control.

For reliable operation of any statistical multiplexor, you'll likely want some form of flow control for the equipment connected to the subchannels.

The Stat-4 and -8 give you this and more, providing independent hardware and software flow control for each subchannel—both end-to-end flow control (DTE to DTE) and terminal flow control (DCE to DTE). The method of flow control that you use at each of the two ends can differ—that is, you can use hardware control at one

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end and software control at the other end.

And to make the muxes compatible with most applications, you can choose from several software flow-control characters.

Menu-based setup.

Setting up a Stat-4 or -8 Modular Statistical Multiplexor isn't a time-consuming task. Three internal jumpers are set to default parameters that provide you with a common starting point during initial system startup.

To configure the mux for operation in your particular system, simply access the mux's menu-driven, password-protected

configuration program, which runs on a standard CRT terminal or IBM style PC using a terminal emulator program that you connect via any of the mux's subchannel ports.

Through the program's configuration menus, select the subchannel characteristics and other system features you require. Configure local channels, view and change subchannel baud rates, data bits, stop bits, and parity.

Configuration parameters store in non-volatile memory and are immediately available upon power-up.

Easy to monitor and troubleshoot.

The Stat-4 and -8 muxes also feature comprehensive diagnostics

functions, including automatic self-test upon power-on, local and remote subchannel loopbacks, and local and remote composite channel loopbacks.

You can also control the V.54 pins (Pins 18 and 21) of the composite port's RS-232 interface. This is helpful when you want to control the analog and remote digital loopback functions of the modem connected to each mux.

Front-panel LEDs show the condition of each subchannel and the synchronization status of the composite link. Subchannel activity indicators flash according to the traffic load and darken when the corresponding subchannels become idle. These indicators not

only enable you to identify channel and link status, but they help alert you to any system faults.

The Modular Statistical Multiplexors operate in one of three modes: Normal Mode, Parameter Configuration Mode (for setting up the parameters of local and remote muxes), and Diagnostics Mode (which you use to send local and remote loops on each subchannel and the composite channel and to send modem loops).

Both muxes can be used on the desktop or installed in a 19" rack. A special rack adapter kit with rackmount ears is available by special order. The kit includes brackets that attach to the side walls of the unit and enable it to be installed within a rack's rails.

Specifications

Approvals: FCC Part 15, UL*

Buffer Size: 32K

Clocking: Derived from external modem clock

Data Format: Subchannels:
Asynchronous;
Composite: Synchronous

Diagnostics: Local and remote loopback on subchannel and composite lines

Flow Control: Hardware or software X-ON/X-OFF

Multiplexor Type: Statistical multiplexor

Maximum Speed: 19.2 kbps

MTBF: 70,000 hours

Interface: RS-232

Connectors: Subchannels:
(4) or (8) RJ-45;
Composite: (1) DB25 M (DTE)

Indicators: LEDs: Main and Channel Activity; Test; Error; Sync, OVF, and Power

Temperature Tolerance: Operating:
32 to 114°F (0 to 46°C);
Storage: -40 to +176°F
(-40 to +80°C)

Humidity Tolerance: Up to 95%, noncondensing

Power: Internal 100-115 VAC, 47-63 Hz, 4 W

Size: 1.7"H x 8.5"W x 9.5"D
(4.3 x 21.6 x 24.1 cm)

Weight: MX864A: 3.1 lb. (1.4 kg);
MX866A: 3.5 lb. (1.6 kg)

Ordering Information

ITEM CODE

NOTE: Must be used in pairs.

Modular Statistical Multiplexors

Stat-4.....MX864A

Stat-8.....MX866A

NOTE: If you need rackmount ears, call Tech Support.

For your async RS-232 channel connections, you may need...

Modular Adapter Kits

DB25 Male↔RJ-45 (8-Wire).....FA015

DB25 Female↔RJ-45 (8-Wire).....FA016