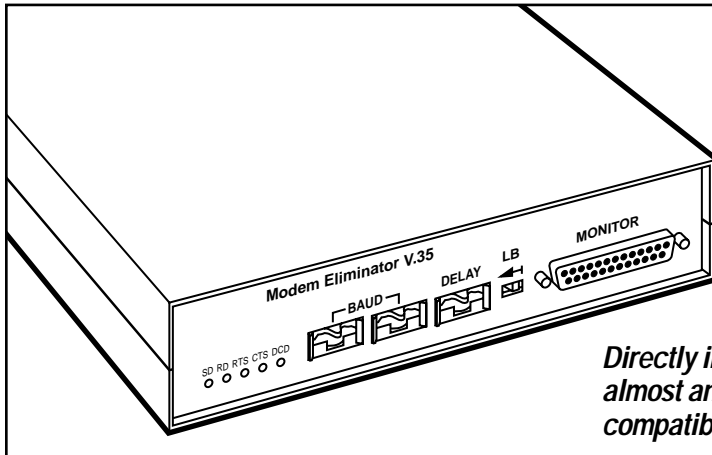




BLACK BOX[®]

NETWORK SERVICES

V.35, RS-530, & RS-232 MODEM ELIMINATORS



Directly interconnect two V.35, RS-530, or RS-232 devices at almost any standard data rate, from 2.4 kbps up to T2-compatible 6.144 Mbps!

Key Features

- ▶ **Support for a wide variety of synchronous data rates—up to 6.144 Mbps—across V.35, RS-530, or RS-232 links.**
- ▶ **Can use its own clock or a clock signal generated by either attached device.**
- ▶ **Also supports communication between async devices.**
- ▶ **Selectable RTS/CTS delay.**
- ▶ **Front-mounted monitor port for easy testing, diagnostics, and troubleshooting.**
- ▶ **Bidirectional loopback slide switch.**

Would you like your computers and other components in your system to use their native interfaces to communicate with each other?

Don't pay a lot of money for high-speed modems or line drivers. And don't sacrifice throughput and convenience by resorting to a low-speed modem link. Run everyday cables from your devices to a V.35, RS-530, or RS-232 Modem Eliminator instead!

These modem eliminators can run at any of an astonishing number of data rates, from 2.4 kbps—perhaps to get data to that old but vital plotter down the hall—all the way up to 6.144 Mbps—perhaps to link your host to a 10-Mbps Ethernet at more than 60% of the network's wire speed. (The full data-rate list is shown in "Technically Speaking" on the next page.)

An eliminator can supply the clock itself, or it can use a clock supplied by either attached device, or—if the attached devices are async—it can

simply dispense with clocking altogether. The Modem Eliminator has two front-panel BAUD thumbwheels for setting the unit to your desired data rate when it's used for sync operation with internal clocking.

You can even set up an artificial RTS-to-CTS delay of up to 90 ms for those devices that need to see one. This is done by turning the unit's front-panel DELAY thumbwheel to the single digit corresponding to your desired delay time.

The Modem Eliminators handle data by way of their two rear-mounted data ports J1 and J2. On the ME110A (regular V.35) model, these ports are standard M/34 female connectors. On the ME111A (V.35-on-DB25), ME113A (RS-232-on-DB25), and ME112A (RS-530) models, they are DB25 female connectors.

All of these models also have a front-mounted DB25 female monitor port, on which the eliminator expresses all the

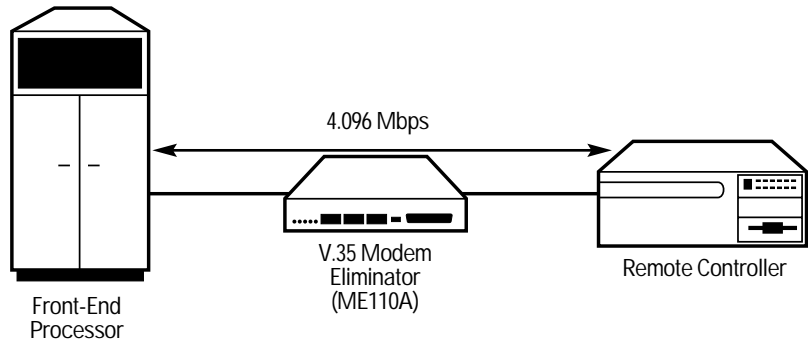
signals present on data port J2 for you to check at any time with a data-line monitor.

How about a few more diagnostic tools? Five front-mounted LEDs show you the states of the Send Data/Transmit Data (SD/TD), Receive Data (RD), Request To Send (RTS), Clear To Send (CTS), and Data Carrier Detect (DCD) signals on Data Port J1.

And you can use the eliminator's front-panel loopback slide switch to start and stop "bidirectional loopback": The unit echoes back all data it receives from both devices, to help you pinpoint problem components. The loopback switch is recessed to prevent accidental movement.

The eliminators' rugged steel enclosure is perfect for use in busy testing labs. Place the unit between the DTE devices you want and, if need be, open the unit's cover and reset the internal 8-position DIP switch for your application's required settings.

Who needs slow modems or expensive line drivers? Just run a couple of cables and attach your computers to each other through the Modem Eliminator!



Specifications

Compliance: FCC Part 15 Class A, DOC Class/MDC classe A

Interfaces:

- ME110A: ITU-TSS V.35 (data ports standard, monitor port on DB25);
- ME111A: ITU-TSS V.35 on DB25;
- ME113A: EIA/TIA RS-232;
- ME112A: EIA/TIA RS-530

Protocol: Synchronous or asynchronous on both sides; that is, either both attached devices must be synchronous or both must be asynchronous

Clock Source: Internal or external from either DTE (user-selectable)

Data Format: Sync: 8 data bits; Async: Transparent to data format

Flow Control: Transparent to software flow control (does not support hardware flow control, but emulates RTS/CTS delay)

Operation: Point-to-point

Data Rate: Any of 52 user-selectable data rates (see the Technically Speaking section)

Maximum Distance: From data or monitor port to attached device:
 ME113A: Up to 50 ft. (15.2 m) at up to 20 kbps; with low-capacitance cables, distances may increase;
 All other models: 4000 ft. (1219.2 m) with 24-AWG cable at data rates up to 100 kbps; above 100 kbps, drops proportionally as data rate rises, down to 65 ft. (19.8 m) at 6.144 Mbps

User Controls: (4) front-mounted: (2) thumbwheel switches for data rate; (1) thumbwheel switch for RTS/CTS delay; (1) recessed slide switch for bidirectional loopback;
 (2) internal: (1) 8-position DIP switch for various options; (1) reclock-mode jumper

Indicators: (5) Front-mounted LEDs: SD, RD, CTS, RTS, DCD

Connectors: Data ports:
 ME110A: (2) M/34 F;
 All other units: (2) DB25 F;
 Monitor port (all units): (1) DB25 F

Power: Input: 115 VAC, 50–60 Hz, directly from AC outlet through detachable 6-ft. (1.8-m) power cord, IEC 320 M inlet, and internal power supply;
 Consumption: 5 watts

MTBF: 263,000 hours

Operating Temperature: 0 to 40°C

Storage Temperature: –20 to +70°C

Humidity Tolerance: Up to 95%, noncondensing

Enclosure: Steel

Size: 3.8 x 17.5 x 21.8 cm

Weight: 2.3 kg

Technically Speaking

If you want the Modem Eliminator to use its internal clock, set its front-mounted BAUD thumbwheels to any of these data rates (in kbps):	336	896
2.4	384	945.23
3.59	396.39	1024
4.8	448	1075.2
7.19	512	1117.09
9.6	558.55	1228.8
14.37	565.89	1344
16.8	614.4	1536
19.2	672	2048
28	722.82	3072
28.75	768	4096
38.4	827.08	6144
48		
56		
57.6		

As you can see, the units support almost all standard speeds, either exactly or closely enough to work with the vast majority of DTEs. And if you need a rate that you don't see here, call—we might be able to give you a quote on a custom box.

Ordering Information

ITEM	CODE
V.35 Modem Eliminator (M/34)	ME110A
V.35 Modem Eliminator (DB25)	ME111A
RS-530 Modem Eliminator (DB25)	ME112A
RS-232 Modem Eliminator (DB25)	ME113A

NOTE: 220-VAC, rackmount, and X.21 models are available by special quote. For details, call Tech Support.

For the ME110A, you may need...

V.35 Molded Cable, 34-Conductor,
 1.8-m.....BC04506-MM

For the ME111A or ME113A, you may need...

RS-232 Cable, 25-Conductor, 1.5-m,
 Male/Male.....ECM25C-0005-MM

For the ME112A, you may need...

RS-530 Data Cable, 1.5-m,
 Male/Male.....EVN530-0005-MM

What's Included

- Modem Eliminator
- Power cord
- A users' manual



Black Box offers the best warranty program in the industry—Fido Protection®. For more information, request **FaxBack 22512**.