FREE 24-hour Tech Support: 724-746-5500
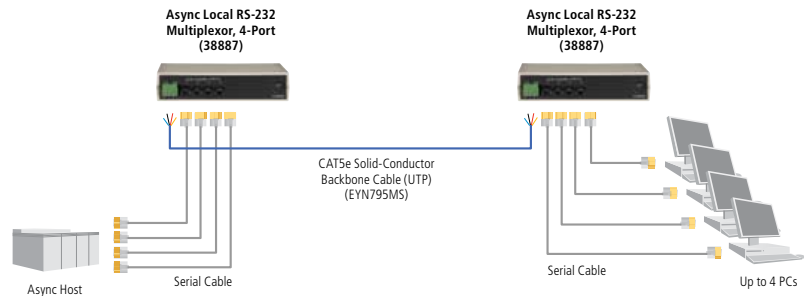**blackbox.com**

Asynchronous Local RS-232 Muxes

Perfect for limited-distance applications, these time-division muxes support up to 4 or 8 channels.

SUB-CHANNEL PORTS
TX   RX   1   2   3   4
+ - + -
POWER

Async Local RS-232 Mux
PWR   RXD   SYNC

BLACK BOX®
724-746-5500

FEATURES

» Multiplexor and line driver in one compact unit.
» Ideal for limited-distance applications.
» Choose from 4- or 8-port models.
» Easy to install, no option switches to set.
» Transparent to speed and protocol.
» Operates at distances up to 3000 ft. (914.4 m) over 24 AWG twisted-pair wire.
» Supports software (X-ON/X-OFF) flow control.

Use the existing 2-pair twisted-pair cable in your building to connect 4 or 8 PCs to an async host up to 3000 feet (914.4 m) away.

Async Local RS-232
Multiplexor, 4-Port
(38887)

Async Local RS-232
Multiplexor, 4-Port
(38887)

CAT5e Solid-Conductor
Backbone Cable (UTP)
(EYN795MS)

Async Host   Serial Cable   Serial Cable   Up to 4 PCs

OVERVIEW

Local data communications are simple with the Black Box Asynchronous Local RS-323 Mux. It comes with an integral four-wire limited-distance line driver. Why buy a mux and a line driver separately when you can get both in one convenient package? The async time-division multiplexors (TDMs) support up to 4 or 8 channels. And the line driver for twisted pair gives you point-to-point communications over short distances (up to 3000 ft. [914.4 m]).

The 4-Port Mux runs at speeds up to 64 kbps and the 8-Port Mux operates at speeds up to 38.4 kbps.

Compared to statistical multiplexors and leased-line modems, the TDM and line-driver combination offers a couple of advantages for limited-distance applications:

• While Statistical Packet Multiplexing (SPM) is very efficient, sharing bandwidth dynamically, it's also much more expensive than TDM. If you have limited distances to carry data, the fixed bandwidth used by TDMs gets you more for your money.

• Leased-line modems are not used between devices in the same building or close to each other. To send data a short distance over private, in-house, four-wire, point-to-point cable systems, you'd typically use a line driver.

Synchronization between Asynchronous Local RS-232 Muxes is maintained continuously with no operator control required. A Sync Error indicator on the front of the unit alerts you if loss of sync occurs.

What's more, the Mux automatically adapts port speeds to the rates of the individual terminals, without requiring a clock source.

Technically Speaking

Time-division multiplexing (TDM).

TDM operates by dividing the available bandwidth into fixed-duration segments. Each segment or channel is assigned to a user and is given its own time slot to access the network. First, information from Channel A is transmitted, then information from Channel B, and so on in a regular sequence, continually cycling back to Channel A. Bandwidth allocation is static: Each channel receives a fixed amount of bandwidth, preset by the network administrator.

TDM is a relatively inexpensive multiplexing technique and is simple to implement, so it has typically been the first multiplexing technique applied to any new high-speed service at first offerings. TDM introduces very little signal delay, so it's well suited to transporting data, voice, and video traffic, provided enough bandwidth is available.

The illustration above shows a mux merging eight data channels onto one two-twisted-pair wire. Each data channel can achieve speeds of up to 19.2 kbps.

TECH SPECS

Maximum Distance — Up to 3000 ft. (914.4 m) on 2-twisted-pair cable (24 AWG)
Multiplexing Technique — Time division
Operation — Full-duplex
Protocol — Async
Speed — 38887: Up to 64 kbps per port; 38889: Up to 38.4 kbps per port
Indicators — LEDs: (1) Power, (1) RXD, (1) Sync
Interface — Channel: RS-232; Composite: 4-wire terminal block
Connectors — Channel: 38887: (4) RJ-45; 38889: (8) RJ-45
Temperature — Operating: 50 to 120° F (10 to 49° C);
   Storage: -40 to +149° F (-40 to +65° C)
Power — 115-VAC, 60-Hz external power supply
Size — 1.7"H x 7"W x 5.3"D (4.3 x 17.8 x 13.5 cm)
Weight — 38887: 2.2 lb. (1 kg);
   38889: 2 lb. (0.9 kg)

38887

Item	Code
Asynchronous Local RS-232 Muxes	
4-Port	**38887**
8-Port	**38889**
You may also need to order modular adapters…	
DB25 Male/RJ-45 for DTE	**523951**
DB25 Male/RJ-45 for DCE	**523953**
DB9 Female/RJ-45 for DTE	**523954**
DB25 Female/RJ-45 for DTE	**523952**
And don't forget to order cable…	
Category 5 Twisted-Pair Cable	**EYN737A**
RJ-45 (8-Wire) Modular Cable	**EL08-MS**

Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

Recognize any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- You don't have a purchase order number and the tech refuses to help you.
- It's 9 p.m. and you need help, but your vendor's tech support line is closed.

According to a survey by *Data Communications* magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application.

Don't waste time and money—call Black Box today.