BLACK BOX®
NETWORK SERVICES

High-Speed Async to Sync Interface Converter

Connect an ordinary PC to a high-speed sync modem.
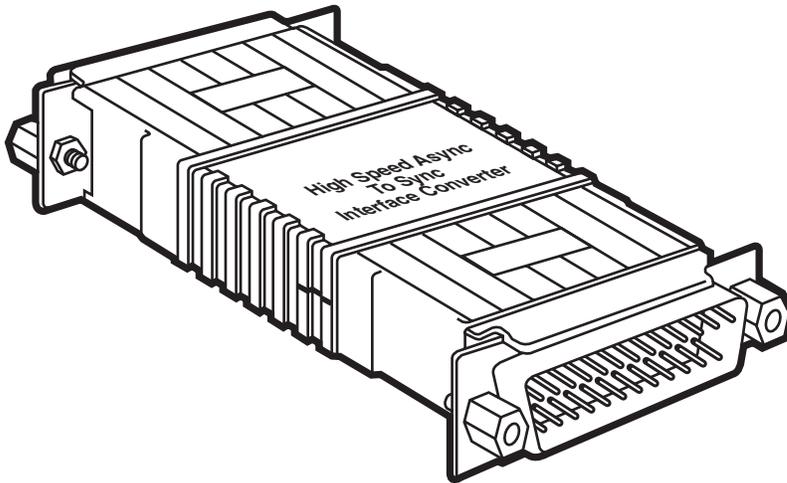
Key Features

▶ *Plugs directly into any ordinary async DTE—PC or terminal.*

▶ *Needs no AC power or batteries—draws power from the data and control signals.*

▶ *Conforms to V.14 and V.22 standards.*

▶ *Supports data rates of 19.2 to 64 Kbps.*

▶ *Lets asynchronous terminals communicate with synchronous modems and multiplexors.*

▶ *Accepts character lengths to 11 bits.*

▶ *Accepts external clocking.*

Your PC can take advantage of a high-speed synchronous link—the same fast, reliable data transfer you use for your high-end applications. Put your PCs or terminals on the WAN, and get WAN speed for your data transfer.

Just plug in one of these Converters at your local end, and another one at the remote end. The Converter plugs directly into a local asynchronous DTE (terminal, PC, etc.), and connects that DTE, via straight-through pinned RS-232 cable, to a synchronous DCE. The Converter is designed to be used in pairs.

Now you're connected—at up to 64 Kbps. You can transfer files in bulk, or run time-sensitive applications that wouldn't be possible with an ordinary async modem link.

The Converter ensures that the asynchronous data rate matches the synchronous data rate by automatically compensating for variations between the two (-2.5% to +1% or +2.3%).

Since it gets its power from the interface, the Converter doesn't need AC power or batteries. It can derive its power from either the sync or async side.

Installation is simple. You just plug the Converter directly into the PC or terminal, then run a standard DB25 cable to the sync modem. That's all there is to it.

And once it's installed, it keeps on working. With a mean time between failures of more than 45 *years*, the Converter might be the most reliable piece of equipment in your system.

Typical Application

Connect async DTEs at opposite ends of a sync link together via a pair of High Speed Async to Sync Interface Converters.

Get WAN data-transfer speeds for your async PCs or terminals with the High-Speed Async to Sync Interface Converter.

High-Speed Async to Sync Interface Converter

Async DTE

Sync DCE

Sync DCE

Async DTE
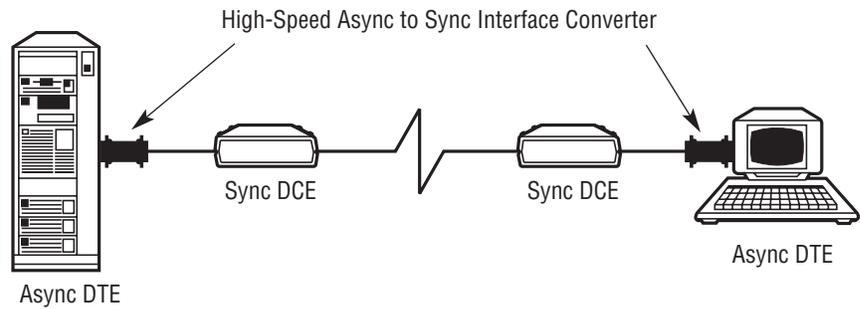
Technically Speaking

The Converter has three DIP switches:

• SW1-1 and SW1-2 set the character length. These two switches operate jointly. The asynchronous character length setting is determined by combining the number of start, stop, data, and parity bits that make up each character generated by the asynchronous DTE.

• SW1-3 matches the signaling rates of the asynchronous and synchronous ports. When SW1-3 is set to OFF, the asynchronous bit rate must match the synchronous clock rate to a tolerance of -2.5% to +1%. When the switch SW1-3 is set to ON, the asynchronous bit rate must match the synchronous clock rate to a tolerance of -2.5% to 2.3%.

Specifications

Speed—19.2 to 64 Kbps

Operation—Half- or full-duplex

Interface—RS-232/V.24

Clocking—Provided by (DCE) modem or multiplexor

Data Transmission—Full- or half-duplex

Buffer—4-bit RTS override empties buffers before dropping RTS, making the Converter good to use in a polling environment

Character Size—Up to 11 bits long

Connectors—Async: (1) DB25F; Sync: (1) DB25M

Power—No external power supply required; derives power from the connected sync or async device

Mean Time Between Failures—395,538 hours (more than 45 years!)

Mean Time to Repair—1 hour

Temperature Tolerance—32 to 140 °F (0 to 60 °C)

Humidity Tolerance—Up to 95%, noncondensing

Altitude—Up to 4570 m (15,000 feet)

Size—8.1H x 5.1W x 1.9D cm (3.2"H x 2"W x 0.75"D)

Weight— 56.7 g (2 oz.)

Additional equipment you may need:

• For connecting your equipment, you'll need RS-232 cable (ECM25C).

• If your interface doesn't provide enough power to run the Converter, use our AC-powered Async to Sync Interface IV (IC556A).

• For speeds lower than 19.2 Kbps, use our Micro Sync to Async Converter (IC942A).

For these and other components...
Call our expert Technical Support Staff for all your LAN needs. They'll help you find the best equipment for your application.

Ordering Information

This information will help you place your order quickly.

PRODUCT NAME	ORDER CODE
High-Speed Async to Sync Interface Converter ....IC558A *(Remember that Converters must be used in pairs.)*	
RS-232C Cable..ECM25C	