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

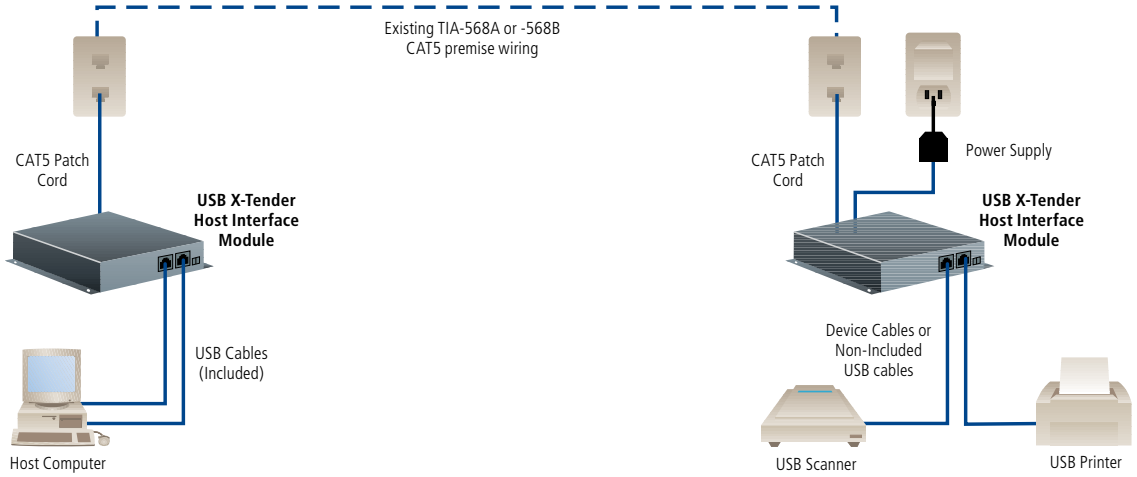
USB X-Tender

Put your computers and USB peripherals where they need to be, and use inexpensive CAT5 cable to connect them to each other.

FEATURES

- Supports up to 1280 x 1024 resolution at 60 Hz.
- 31- to 71-kHz sync frequency range.
- Selectable zoom range from 0.5x to 2.0x with horizontal and vertical positioning.
- State-of-the-art three-line flicker reduction.
- Works with Composite and S-Video outputs in NTSC or PAL.
- RS-232 remote control.

You don't need to run dedicated CAT5 cable for the USB X-Tender—it can be patched into the CAT5 cabling system already installed at your site.



OVERVIEW

Universal Serial Bus (USB) is a fast, versatile interface for which a large number of peripheral devices are available. There's just one problem: USB's distance limit of 15 ft. (4.6 m).

What if you want to keep your USB printer in a public area but secure your host computer in a locked data center? Or what if you want to put your PC in the back office but put your USB security camera up in the ceiling? You could "solve" this problem by daisychaining through a series of USB hubs, but that would be wasteful and expensive. There is a better way.

Our USB X-Tender can take two USB channels and transmit their data across economical Category 5 cable, making it possible for widely separated USB host computers and peripherals to communicate with each other. Peripherals that are full-speed (12-Mbps) USB devices, such as cameras and scanners, can be as far as 150 ft. (45.7 m) away. Low-speed (1.2-Mbps) USB devices such as keyboards, mice, and joysticks can be as much as 1000 ft. (304.8 m) away. (If the host computer has all USB control ports, you can use the USB X-Tender with a video extender to create a long-distance keyboard/video/mouse extension system.)

The X-Tender consists of a Host-Interface Module to which you'll attach the computer and a Device-Interface Module to which you'll attach your peripherals. Each of these modules has two USB ports, designated "channel 1" and "channel 2." If you're only extending a single USB bus, you'll use channel 1 only; if you're extending two buses, use both channels. You can independently configure each channel's speed (for attaching low-speed devices versus full-speed devices) and therefore its maximum distance.

Keep in mind that the X-Tender isn't limited to extending distance from a computer to just two peripherals. One or both of the peripherals attached to the X-Tender can be USB hubs, to which several additional devices can be connected. (USB hubs are always full-speed devices.)

The X-Tender comes with a pair of USB cables. These can be used to attach a host computer's USB ports to the Host Interface Module or to attach USB devices that don't have their own cables to the Device-Interface Module. If you need more than two USB cables for your equipment, we carry them in several lengths.

Strictly speaking, the X-Tender's CAT5 cable should be shielded to comply with FCC Class B regulations. But unshielded cable will work in commercial environments where interference is less of a problem, so the X-Tender can often be attached to your existing premise wiring. Normally you'll want to use straight-pinned 4-pair solid-core cable, either TIA-568A or (preferably) -568B. If you'll only be needing channel 1, however, you can use 2-pair cable.

IC169A: local and remote units

TECH SPECS

Compliance — CE; FCC Class B, IC Class/classe B
Standard — USB 1.1
Interfaces — Both modules: Proprietary dual-channel USB composite;
Host-Interface Module: USB Type B;
Device-Interface Module: USB Type A
Data Rate — Up to 12 Mbps on each channel that's set for full speed; up to 1.2 Mbps on each channel set for low speed
Distance (Maximum) — USB cable from either module to attached equipment: 6 ft. (1.8 m) to a computer's USB port; 10 ft. (3 m) to a low-speed device; 16.4 ft. (5 m) to a full-speed device;
Total USB cable and CAT5 cable, end to end (from computer to farthest peripheral): 150 ft. (45.7 m) if a USB hub or other full-speed device is attached to the Device-Interface Module; 1000 ft. (304.8 m) if only low-speed devices are attached to the Device-Interface Module
User Controls — (2) rear-mounted DIP switches on each module for channel speed
Connectors — Both modules: (1) front-mounted RJ-45 F for CAT5 link;
Host-Interface Module: (2) rear-mounted USB Type B F for computer/host connection;
Device-Interface Module: (2) rear-mounted USB Type A F for peripheral/hub connection;
(1) Front-mounted 5.5-mm barrel jack for power
Indicators — None
Temperature Tolerance — Operating: 5 to 95°F (-15 to +35°C);
Storage: -4 to +140°F (-20 to +60°C)
Humidity Tolerance — 20% to 90% noncondensing
Maximum Altitude — 10,000 ft. (3048 m)
Power — Through desktop power supply:
Input — IC169A: 120 VAC, 60 Hz;
IC169AE: 100–240 VAC, 47–63 Hz (autosensing);
Output — IC169A: 6 VDC at up to 1.2 amps;
IC169AE: 7.5 VDC at up to 1.07 amps;
Consumption — 7.2 watts maximum
Size — 1.1"H x 3.9"W x 3.4"D (2.8 x 9.9 x 8.6 cm);
width does not include bottom flanges
Weight — 1 lb. (0.5 kg)

Item	Code
USB X-Tender	
115-VAC	**IC169A**
100–240-VAC	**IC169AE**
You might also need…	
Solid-Core Straight-Pinned 4-Pair Category 5 Twisted-Pair Cable	
Shielded, 1000-ft. (304.8-m), Necessary for Strict FCC Class B Compliance	**EVNSL70A-1000**
Unshielded, 1000-ft. (304.8-m), Acceptable in Non-Residential Environments	
Spool	**EYN840A-1000**
Box	**EYN840A-B**
Standard USB Cable	
3-ft. (0.9-m)	**USB01-0003**
6-ft. (1.8-m)	**USB01-0006**
10-ft. (3.0-m)	**USB01-0010**
15-ft. (4.6-m)	**USB01-0015**
USB 2.0 (4-Port) Hub	**IC147A**

NOTE: For help determining your best options for AC-power backup and protection, contact our FREE Tech Support.

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.