VGA Baluns and Keyboard/Mouse Baluns
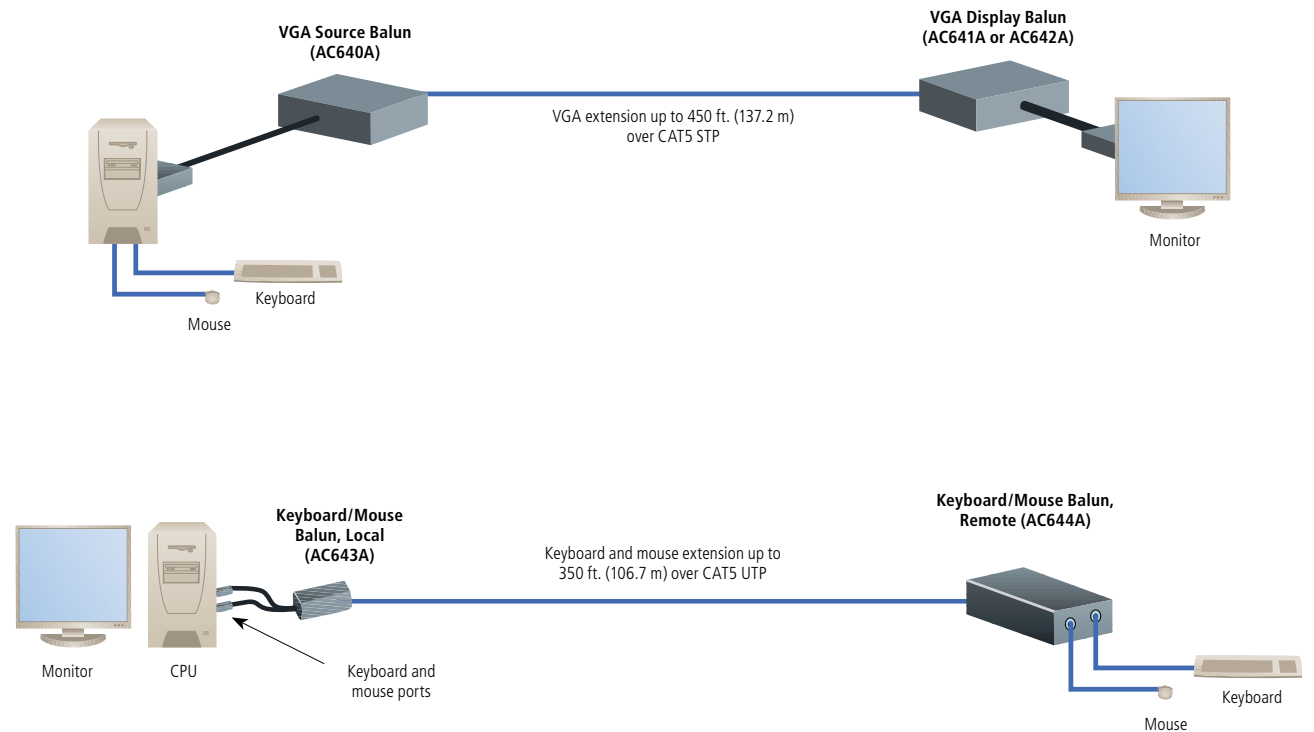
Use ordinary shielded twisted-pair cable to connect a PC video source to a display device up to 450 feet (137.2 m) away.

FEATURES

» Suitable for use in classrooms or meeting rooms.

» Require inexpensive twisted-pair cable instead of standard VGA cable.

» Video baluns extend the distance up to 450 feet (137.2 m) between a CPU, keyboard, and mouse and a display monitor.

» Keyboard/Mouse Baluns connect a keyboard and mouse up to 350 feet (106.7 m) away from a CPU and display monitor.

Two options for video display and control.

VGA Source Balun
(AC640A)

VGA Display Balun
(AC641A or AC642A)

VGA extension up to 450 ft. (137.2 m)
over CAT5 STP

Monitor

Keyboard

Mouse

Keyboard/Mouse
Balun, Local
(AC643A)

Keyboard/Mouse Balun,
Remote (AC644A)

Keyboard and mouse extension up to
350 ft. (106.7 m) over CAT5 UTP

Monitor   CPU

Keyboard and
mouse ports

Keyboard

Mouse

OVERVIEW

Link a PC's video output to a display device located up to 450 feet (137.2 m) away using CAT5 shielded twisted-pair cable. Or use CAT5 unshielded twisted-pair cable (UTP) to connect a PS/2® keyboard and mouse up to 350 feet (106.7 m) away from your CPU and display monitor.

VGA Baluns and Keyboard/Mouse Baluns are perfect for classrooms, digital signs, and presentations. They use readily available and inexpensive CAT5 cable. And no power supply is required because the baluns and extenders derive ultra-low power from the interface.

In a digital sign application in an auditorium, you can control the video source at the back of the room and the video sign display at the front of the room. In a classroom application, you can control the keyboard and mouse at the back of the room, while your partner controls the video source and display at the front of the room.

The VGA Baluns must be used in pairs. The VGA Source Balun (AC640A) connects to the local source (the CPU), and the VGA Display Balun (AC641A or AC642A) links to the remote display.

The Keyboard/Mouse Baluns must also be used in pairs. The local unit (AC643A) connects to the CPU. The remote unit (AC644A) connects to the keyboard and mouse.

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2 of 3

TECH SPECS

Bandwidth — AC643A–AC644A: DC to 1 MHz
Cable — AC640A–AC642A: Shielded CAT5 twisted-pair (STP) or better;
    AC643A–AC644A: Unshielded CAT5 twisted-pair (UTP) or better
Distance (Maximum) — AC640A–AC642A: Over CAT5 STP:
    VGA: 450 ft. (137.2 m) using 640 x 480 @ 15 MHz;
    SVGA: 350 ft. (106.7 m) using 800 x 600 @ 30 MHz;
    XGA: 250 ft. (76.2 m) using 1024 x 780 @ 60 MHz;
    SXGA: 200 ft. (61 m) using 1280 x 1024 @ 100 MHz;
    AC643A–AC644A: Over CAT5 UTP: 350 ft. (106.7 m)
Enclosure — AC643A–AC644A: ABS fire-retardant plastic
Pinning Configuration — AC643A–AC644A: Reverse polarity sensitive;
    use T568A or T568B straight-pinned wiring;
    Mouse: Ring: Pins 1 and 3; Tip: Pins 2 and 6;
    Keyboard: Ring: Pins 4 and 7; Tip: Pins 5 and 8
Signals — AC643A–AC644A: Mouse data, mouse clock, keyboard data,
    keyboard clock, Vcc, ground
Transmission — AC643A–AC644A: Transparent
Connectors — AC640A, AC642A: (1) shielded RJ-45, (1) HD15 M on 6"
    (15.2-cm) lead;
    AC641A: (1) shielded RJ-45, (1) HD15 F;
    AC643A: PC: (2) 6-pin mini-DIN M on 6" (15.2-cm) leads;
    Cable: (1) RJ-45;
    AC644A: Keyboard/mouse: (2) 6-pin mini-DIN F;
    Cable: (1) RJ-45
Size — AC640A–AC642A: 1"H x 2.4"W x 2.3"D (2.5 x 6.1 x 5.8 cm);
    AC643A: 1.9"W x 1" diameter (4.8 x 2.5 cm) with (2) 6" (15.2-cm)
    PS/2 cable leads;
    AC644A: 1"H x 2.4"W x 2.4"D (2.5 x 6.1 x 6.1 cm)
Weight — Each unit: 0.1 lb. (<0.1 kg)

Item	Code
VGA Source Balun	**AC640A**
VGA Display Baluns	
Female	**AC641A**
Male	**AC642A**
Keyboard/Mouse Baluns	
Local	**AC643A**
Remote	**AC644A**
You might also need…	
VGA Extender	**AC555A**
CAT5 Solid-Conductor Cable (UTP), 100-MHz, 24 AWG,	
4-Pair, T568B, PVC, NEC®, CMR, Straight-Pinned	**EYN737MS**

AC640A

AC643A

AC644A

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- 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.

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3 of 3