

CAT5 Multi VGA System

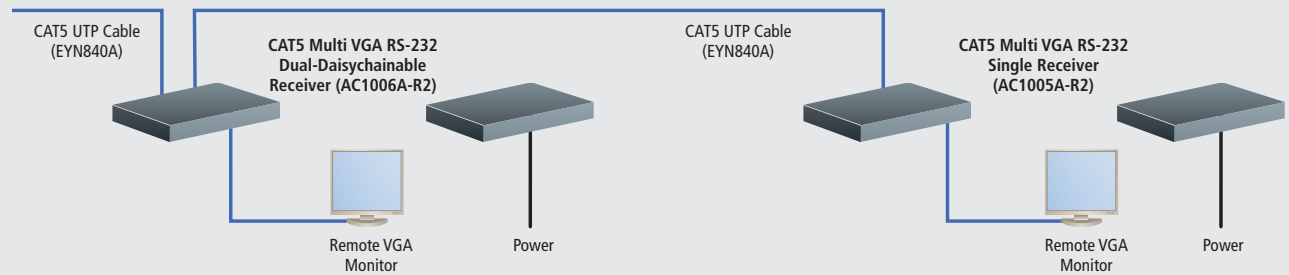


**VGA video plus audio—or VGA video plus data—
over convenient, inexpensive CAT5 cable.**

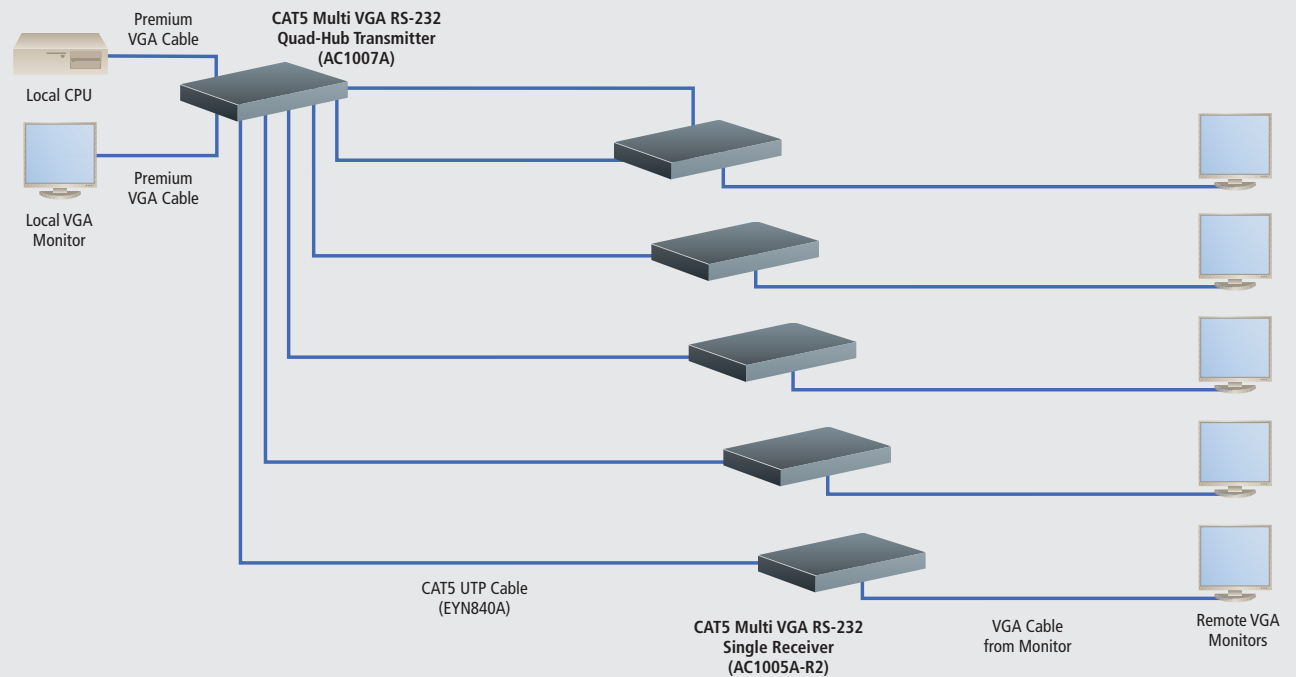
FEATURES

- High-quality VGA transmission over CAT5 cable.
- Units function as video splitters and extenders.
- Send video and audio or video and data up to 450 feet (137.2 m).
- Distances of up to 1000 or 1500 feet (304.8 or 457.2 m) with skew compensation models.
- Mix and match topologies with the same transmitter.
- Ideal for retail, market expos, trade shows, education, and more.

A Dual-Daisychainable Receiver is used when the same signal is distributed to multiple display devices on a single CAT5 cable in a daisychain or loop-through topology.



Use the Quad-Hub Transmitter to send the same video signal to up to four receivers and VGA video monitors. A star topology is shown.



OVERVIEW

Looking for an economical way to transmit VGA video, audio, or RS-232 signals? Consider the CAT5 Multi VGA System. System components are inexpensive, and they use ordinary Category 5 cable—which is likely installed at your site already.

The CAT5 Multi VGA System is versatile and ideal for applications using audio and visual communications. Use the system for touch screens, signs, classrooms, and more. With CAT5 cable so dominant, there are a variety of applications in which you can use this system!

Flexible system configuration.

Other systems limit you to a single topology, and it's usually the one that limits you from getting really creative. But with the system's Quad-Hub Transmitters and Dual-Daisychainable Receivers with Skew Compensation, you can mix and match different topologies!

For example, you can connect individual receivers to Ports 1, 2, and 3 of a Quad-Hub Transmitter, creating a star topology. But you can use Port 4 on the transmitter to connect to a Dual-Daisychainable Receiver with Skew Compensation—which in turn can connect to other Dual-Daisychainable Receivers with Skew Compensation until the last connected unit is a single receiver—to create a daisychain topology.

You'll like the sound of this VGA system!

Sure, video can grab people's attention. But if you want to make sure your point gets made, opt for the audio version of the CAT5 Multi VGA System. With it, you can create virtual signs that enable your audience to hear and see your message. And that will make things memorable.

The audio version broadcasts video plus line-level mono audio from your computer to as many as 100 computer monitors up to 450 feet (137.2 m) away. Just think of the impact you can create broadcasting to as many monitors as needed.

Total message control.

The RS-232 version of the CAT5 Multi VGA System enables you to add serial devices. It's ideal for touch screens used at marketing kiosks or trade shows. Units can be configured for two-way serial communication so it can be used for information gathering and Q&A interaction.

With newer monitors, such as plasma screens, you can display text messages along with your video to multiple monitors. You can also display text with video when you use the RS-232 units with VGA projection systems.

Hi-Def models (AC1045A and AC1046A) support high-definition video and feature Sony/Philips Digital Interface (SPDIF) audio for clear signal transfers.

For distances up to 450 feet (137.2 m), select the AC1047A-R2 and AC1048A-R2 receivers. For greater distances (up to 1000 feet [304.8 m] or 1500 feet [457.2 m]), choose the AC1013A and AC1014A receivers. They work with the AC1000A-R2 (Single) or AC1003A (Quad-Hub) transmitters.

Skew compensation.

Audio (AC1013A, AC1014A) and RS-232 receivers (AC1015A, AC1016A) are available with 32 nanoseconds of skew compensation on each of the color lines. This enables video cable runs of up to 1000 or 1500 feet (304.8 or 457.2 m).

You get full-modem serial control at 19.2 k baud and video to 1000 feet (304.8 m), or simplex serial control at 19.2 k baud and video to 1500 feet (457.2 m).

And superior resolution is possible with the skew compensator models.

Plus our new Twin Video Display Receivers (AC1071A–AC1072A) provide dual audio and video outputs—perfect for applications with paired displays. The AC1072A is daisy-chainable and enables you to address a series of 4 to 24 back-to-back displays. Maximum source-to-display distance over CAT5 UTP is 500 feet (152.4 m) for computer video, 750 feet (228.6 m) for HDTV or Component video, and 1000 feet (304.8 m) for Composite or S-Video.

Multiply your signals.

Use the CAT5 Multi 1 x 9 Video Distribution Amp (AC1050A) to distribute Composite, Component, and computer video, along with audio and serial signals, to nine displays. Plus you can daisychain it to support thousands of displays. It takes only 1U of rack space.

Use the CAT5 Multi 16 x 16 Matrix Switch (AC1051A) to switch input signals over CAT5 cable to up to 16 possible outputs. Fits in 2U of space.

LEDs tell you connection status. Rackmount brackets are included.

Technically Speaking

In data communications applications, using products that exceed required capacities is usually not a problem. For example, if a 28.8-kbps modem is required, a 33.6-kbps or 56-kbps modem will work just fine.

But sometimes more isn't better. For instance, the CAT5 Multi VGA System is designed to expect CAT5 and only CAT5 cable. You'd probably guess that Category 3 cable wouldn't be effective with these products, and you'd be right. But you may also assume that if Category 5 cable works just fine, Category 5e, Category 6, and other higher-capacity cables would work even better. This isn't the case.

The CAT5 Multi VGA System is designed specifically for the Category 5 specs defined by the TIA/EIA standard. Higher-level cables, such as CAT5e, have different characteristics and specs. Although differences like twist ratios might seem small, they can have a negative impact on the system's components, which are expecting a true Category 5 transmission.

So with our CAT5 Multi VGA System, you can think big with CAT5—just don't think bigger.

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.



TECH SPECS

Audio Bandwidth —

AC1000A-R2, AC1003A: Mono audio, 20 Hz to 30 kHz;
AC1013A–AC1016A: Combined left and right mono audio

Audio Input Impedance — AC1003A: 600 ohms

Audio Input Level (Maximum) — AC1003A: 1.5 volts RMS
(11.48 dBmW @ 1 kHz)

Enclosure — Steel

Resolution and Distance (Maximum) —

AC1000A-R2, AC1003A, AC1004A-R2, AC1007A, AC1071A–AC1072A:
2048 x 1536 @ 70 Hz;

AC1013A, AC1015A: 2048 x 1536 @ 70 Hz at 1000 ft. (304.8 m);
AC1014A: 2048 x 1536 @ 70 Hz at 1000 ft. (304.8 m),
1600 x 1200 @ 70 Hz at 1500 ft. (457.2 m);

AC1045A–AC1046A: 2048 x 1536 @ 70 Hz, SD and HDTV formats
(480i, 480p, 525p, 720p, 1080i, 1080p);

AC1047A-R2–AC1048A-R2, AC1005A-R2–AC1006A-R2: 1600 x 1200
@ 75 Hz at 400 ft. (121.9 m), 1280 x 1024 @ 75 Hz at 450 ft. (137.2 m);

AC1016A: 2048 x 1536 @ 70 Hz at 1000 ft. (304.8 m), 1600 x 1200
@ 60 Hz at 1500 ft. (457.2 m);

AC1050A: 2048 x 1536 or 1600 x 1200;

AC1051A: 2048 x 1536

Video Signals Supported — RGBHV, RGBS, RGsB

Serial Interface — Async, simplex, or full duplex data rates up to 19.2 kbps

Connectors —

Transmitters: AC1000A-R2, AC1045A: (1) 3.5-mm F, (1) RJ-45, (2) HD15 F;
AC1003A, AC1046A: (2) 3.5-mm F, (4) RJ-45, (2) HD15 F;

AC1004A-R2: (1) DB9 F (DCE), (1) RJ-45, (2) HD15 F;

AC1007A: (1) DB9 F (DCE), (4) RJ-45, (2) HD15 F;

Receivers: AC1047A-R2: (1) 3.5-mm F, (1) RJ-45, (1) HD15 F;

AC1013A–AC1014A, AC1048A-R2: (1) 3.5-mm F, (2) RJ-45, (1) HD15 F;

AC1005A-R2: (1) DB9 M (DTE), (1) RJ-45, (1) HD15 F;

AC1006A-R2, AC1015A–AC1016A: (1) DB9 M (DTE), (2) RJ-45,
(1) HD15 F;

AC1071A–AC1072A: (2) HD15 F, (2) 3.5-mm jacks, (1) RJ-45;

AC1072A also has an additional RJ-45;

AC1050A: (1) RJ-45 input, (9) RJ-45 outputs;

AC1051A: (16) RJ-45 inputs, (16) RJ-45 outputs

Temperature Tolerance —

Operating: 32 to 104°F (0 to 40°C);

Storage: -4 to +140°F (-20 to +60°C)

Relative Humidity — Up to 80%, noncondensing

Power — 100 to 240 VAC, 50 to 60 Hz, autosensing, external;

AC1050A: 5 V regulated, external;

AC1051A: 90–240 VAC, 50–60 Hz, autosensing, internal

Size — AC1000A-R2, AC1004A-R2–AC1006A-R2: 1.2"H x 4.1"W x

4.3"D (3 x 10.4 x 10.9 cm);

AC1003A, AC1007A, AC1045A–AC1046A, AC1047A-R2–AC1048A-R2:

1.2"H x 5.6"W x 4.5"D (3 x 14.2 x 11.4 cm);

AC1013A–AC1016A: 1.2"H x 5.4"W x 6.1"D (3 x 13.7 x 15.5 cm);

AC1071A–AC1072A: 1"H x 4.2"W x 3.8"D (2.5 x 10.7 x 9.7 cm);

AC1050A: 1.75"H x 8.1"W x 6.5"D (4.5 x 20.6 x 16.5 cm);

AC1051A: 3.5"H x 17.2"W x 6.8"D (8.9 x 43.7 x 17.3 cm);

19"W (48.3 cm) with included mounting brackets

Weight — AC1000A-R2: 0.8 lb. (0.4 kg);

AC1003A, AC1007A: 1.4 lb. (0.6 kg);

AC1004A-R2, AC1005A-R2–AC1006A-R2, AC1013A–AC1016A: 1 lb.

(0.5 kg);

AC1071A–AC1072A: 0.6 lb. (0.3 kg)

Item	Code
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CAT5 Multi VGA System

Audio Version

Transmitters

Single

AC1000A-R2

Quad-Hub

AC1003A

Receivers

Dual-Daisychainable with Skew Compensation

Video/Audio, 1000-ft.

AC1013A

Video/Audio, 1500-ft.

AC1014A

RS-232 Version

Transmitters

Single

AC1004A-R2

Quad-Hub

AC1007A

Receivers

Single, 450-ft.

AC1005A-R2

Dual-Daisychainable, 450-ft.

AC1006A-R2

Dual-Daisychainable with Skew Compensation

Video/Data, 1000-ft.

AC1015A

Video/Data, 1500-ft.

AC1016A

Twin Video Display

AC1071A

Twin Video Display—Daisychainable

AC1072A

CAT5 Multi Component Hi-Def Video and SPDIF Audio

Transmitters

Single

AC1045A

Quad-Hub

AC1046A

Receivers

Single, 450-ft.

AC1047A-R2

Dual-Daisychainable, 450-ft.

AC1048A-R2

CAT5 Multi 1 x 9 Video Distribution Amp

AC1050A

CAT5 Multi 16 x 16 Matrix Switch

AC1051A

To rackmount your CAT5 Multi VGA System, order...

Rackmount Brackets

for Single Transmitters or Both Receiver Types

1 Unit

AC1008

4 Units

AC1009

8 Units

AC1010

for Quad-Hub Transmitters

3 Units

AC1011

6 Units

AC1012

To connect audio units to computer equipment...

3.5-mm Plug to 3.5-mm Plug, 24 AWG Stereo Cable,

10-ft. (3-m)

EJ110-0010

To connect RS-232 units to computer equipment...

DB9 Serial Mouse Extension Cable, 10-ft. (3-m),

Male/Female

BC00230

DB9 Extension Cable (with EMI/RFI Hoods),

10-ft. (3-m), Male/Female

EDN12H-0010-MF

To connect transmitters and receivers up to 450 feet...

Category 5 Unshielded Bulk Cable, 100-MHz,

Solid, 4-Pair, PVC, Beige, 1000-ft. (304.8-m),

Spool

EYN840A-1000