VGA Matrix Switches

These programmable switches make it easy to route VGA and 1080p HD video to multiple digital screens!
**FEATURES**

» For cross-point switching of PC or HD (VGA or YPbPr) video signals.

» Switch using front-panel buttons, IP, or via RS-232 commands (depending on model).

» Switched video output can also be blanked.

» Outputs PC resolutions up to 1900 x 1200 and HD video up to 1080p. Also works with analog SD video.

» Has two independent serial RS-232 interfaces, a screw terminal and an RJ-45 port. Control the switch remotely through either port.

» Use front panel to view switch routings (ties) from either the input or the output side.

» Intuitive up and down arrow buttons on front-panel keypad enable you to check channel status and configure new input/output ties.

» For easy recall, stores up to eight preset routing patterns. Reconfigure for frequently used switch patterns at the push of a button.

» Can also be programmed to switch automatically between preset patterns at certain times of the day—great for automating video distribution to digital signage.

» For scheduling reliability, features a real-time clock with battery backup.

» Ideal for large digital signage display systems where you want to switch source inputs for screen output on various screens.

» Also great for broadcast, multimedia conference, and classroom applications, as well as command and control centers.

» Works with Black Box® Mini CAT5 Extenders for transmitting VGA signals over CAT5 cable.

» Blinking CHECK light alerts you to any detected system faults. Unit also monitors voltage levels and temperature.

» Compact and reliable, with a 2U-high, 19" rackmountable enclosure.

» RoHS compliant.

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**OVERVIEW**

These compact, high-end matrix switches give you an easy way to set up cross-point switching of video and audio signals in your digital signage or other multimedia distribution application.

The VGA Matrix Switches provide 8 or 16 video outputs, each capable of independently displaying any of 8 or 16 inputs in any combination. Some models also have audio outputs. Additionally, the outputs can be blanked out and/or muted.

Use these 19" rackmountable matrix switches to bring cross-point signal routing to TV broadcasting environments, multimedia conference halls, public facilities, as well as large displays in schools, courtrooms, and command and control centers.

They’re compatible with PC video from 640 x 480 to 1920 x 1600, plus analog SD or HDTV Component video (YPbPr) from 480i to 1080p.

Control the matrix manually using the front-panel buttons or electronically through one or two serial ports. Through these independent RS-232 interfaces (a screw terminal and an RJ-45 port), you can switch the system remotely.

If you also want to switch remotely over an IP connection, order the AC1121A or the AC1123A. Both models support matrix switching via their 10/100 port using Telnet™ or Virtual Serial Port Driver.

All models with VGA output work with our Mini CAT5 Extenders to extend VGA signals to a display hundreds of feet away.

The switches with RJ-45 output, however, have the extender transmitters built in. Simply attach a CATx cable to the RJ-45 port, run the cable to your remote site, then use our standalone (AC602A) or wallplate (AC504A-WP) receiver to convert the signal back to VGA for plugging in a remote display.

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**Buyer’s Guide | Video Matrix Switches**

<table>
<thead>
<tr>
<th></th>
<th># of Ports</th>
<th>VGA Outputs</th>
<th>RJ-45 Outputs</th>
<th>Serial Control</th>
<th>IP</th>
<th>Audio</th>
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<tbody>
<tr>
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<td>8 x 8</td>
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<td>—</td>
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<tr>
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<td>AC1123A</td>
<td>16 x 16</td>
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<td>✓</td>
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<tr>
<td>AC1120A-RJ45</td>
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<td>✓</td>
<td>✓</td>
<td>—</td>
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<tr>
<td>AC1122A-RJ45</td>
<td>16 x 16</td>
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<td>✓</td>
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## TECH SPECS

**Audio Bandwidth** — 10 Hz to >10 MHz (supports passthrough of analog or digital S/PDIF audio sources)

**Audio Levels Supported** — Input: 0 to +4 dBu (0.78 to 1.23 Vrms) line level; Output: -10 dBV

**MTBF** — 900,000 hrs. (estimated)

**Resolutions Supported (Maximum)** — PC: 1900 x 1200 at 60 Hz; HD video: 1080p

**Video Levels Supported** — 0.3 V to 0.7 V (1 V p-p) on RGB; 0 to 5 VDC on sync

**CE Approval** — Yes

**Connectors** — Video input: (8) or (16) HD15 F (VGA); Video output: AC1120A–AC1123A: (8) or (16) HD15 F (VGA); AC1120A-RJ45, AC1122A-RJ45: (8) or (16) RJ-45 with built-in VGA extender transmitters; Audio: AC1121A, AC1123A, AC1120A-RJ45, AC1122A-RJ45 only: Input: (8) or (16) 3.5-mm jacks; Output: (8) or (16) screw terminals; Serial (RS-232) control: (1) 3-screw terminal with detachable mating connector, (1) RJ-45 (auxiliary); IP: AC1121A, AC1123A only: (1) RJ-45 (10BASE-T/100BASE-TX)

**Power** — 100–240 VAC, 50–60 Hz, autosensing

**Size** — 3.5"H (2U) x 19"W x 12.8"D (8.9 x 48.3 x 7.2 cm)

**Weight** — 9.4 lb. (4.3 kg)

### Item

<table>
<thead>
<tr>
<th>Code</th>
<th>VGA Matrix Switches</th>
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<tbody>
<tr>
<td>AC1120A</td>
<td>with VGA Outputs and Serial Control</td>
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<tr>
<td>AC1121A</td>
<td>8 x 8</td>
</tr>
<tr>
<td>AC1122A</td>
<td>16 x 16</td>
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<table>
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<tr>
<th>Code</th>
<th>AC1122A-RJ45</th>
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<table>
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<tr>
<th>Code</th>
<th>AC1123A</th>
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<tr>
<th>Code</th>
<th>AC1120A-RJ45</th>
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To connect a remote screen via the output on an AC1120A–AC1123A switch, order a transmitter and receiver kit...

**Mini CAT5 VGA Extender Kit**

To connect the output on an AC1120A-RJ45 and AC1122A-RJ45 to a remote screen, order...

**Mini CATS VGA Extender Receiver**

...or order the single-gang wallplate version that mounts in a junction box...

**Mini CATS VGA Extender Receiver Wallplate**

If you need cable, order...

**Premium VGA Video Extension Cable, PVC, HD15, Straight Hoods**

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<tr>
<th>Code</th>
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<thead>
<tr>
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<tr>
<td>EVNPS05-0100</td>
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**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.