BLACK BOX
NETWORK SERVICES

AC1056A-2
AC1056A-4
AC1056A-8

Compact Video Splitters

Broadcast a crisp, clear VGA signal from one PC to two, four, or eight VGA monitors.

Use for trade shows, training, even public information systems.

Customer Support Information

Order toll-free in the U.S.: Call 877-877-BBOX (outside U.S. call 724-746-5500) FREE technical support 24 hours a day, 7 days a week: Call 724-746-5500 or fax 724-746-0746 Mailing address: Black Box Corporation, 1000 Park Drive, Lawrence, PA 15055-1018
Web site: www.blackbox.com • E-mail: info@blackbox.com

FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the i nterference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

Normas Oficiales Mexicanas (NOM)Electrical Safety Statement
INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.

2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.

3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.

4. Todas las instrucciones de operación y uso deben ser seguidas.

5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.

6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.

7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.

8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.

9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.

10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.

11. El aparato eléctrico deberá ser connectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.

12. Precaución debe ser tomada de tal manera que la tierra fisica y la polarización del equipo no sea eliminada.

13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.

14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.

15. En caso de existir, una antena externa deberá ser localizada lejos de las lineas de energia.

16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.

17. Cuidado debe ser tomado de tal manera que objectos liquidos no sean derramados sobre la cubierta u orificios de ventilación.

18. Servicio por personal calificado deberá ser provisto cuando:

    A: El cable de poder o el contacto ha sido dañado; u

    B: Objectos han caído o líquido ha sido derramado dentro del aparato; o

    C: El aparato ha sido expuesto a la lluvia; o

    D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o

    E: El aparato ha sido tirado o su cubierta ha sido dañada.

Trademarks Used in this Manual

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Any other trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.

Table of Contents

1. Specifications

Number of VGA Outputs — AC1056A-2: (2);
AC1056A-4: (4);
AC1056A-8: (8)

Signal Bandwidth — AC1056A-2, AC1056A-4: 350 MHz;
AC1056A-8: 300 MHz

Signal Type — VGA, SVGA, Multi-sync

Cable Length — AC1056A-2: (1) 5-ft. (1.5-m) input cable, (1) 10-ft. (3-m) output cable;
AC1056A-4: (1) 5-ft. (1.5-m) input cable, (3) 10-ft. (3-m) output cables;
AC1056A-8: (1) 5-ft. (1.5-m) input cable, (7) 10-ft. (3-m) output cables;

NOTE: Or, you can use up to 210 feet (64 m) maximum cable length of user-supplied output cable.

Connectors — AC1056A-2: Input: (1) HD15 female,
Output: (2) HD15 female;
AC1056A-4: Input: (1) HD15 female,
Output: (4) HD15 female;
AC1056A-8: Input: (1) HD15 female,
Output: (8) HD15 female

Indicators — (2) LEDs: (1) Power, (1) Active

Power — Input: 100–240 VAC, 50/60 Hz autosensing inline power supply;
Output: 5 VDC, 2A

Size — AC1056A-2: 0.9"H x 3.3"W x 2.7"D (2.3 x 8.4 x 6.9 cm);
AC1056A-4: 1.6"H x 3.3"W x 2.7"D (4.1 x 8.4 x 6.9 cm);
AC1056A-8: 1.7"H x 7.8"W x 3"D (10.7 x 19.8 x 7.6 cm)

Weight — AC1056A-2: 0.4 lb. (0.2 kg);
AC1056A-4: 0.6 lb. (0.3 kg);
AC1056A-8: 1.3 lb. (0.6 kg)

2. Overview

2.1 Introduction

The Compact Video Splitter (2-, 4-, or 8-port) broadcasts and boosts one VGA signal source to 2, 4, or 8 VGA monitors. Use it for presentations, exhibits, demonstrations, trade shows, monitor testing, or business meetings.

There's no software or interface card to install. Simply connect the cables, power on the splitter, and you're ready to transmit one VGA image to multiple monitors with excellent quality. A high-bandwidth circuit enables a high-resolution, 350-MHz VGA signal to display on 2 or 4 monitors, or a 300-MHz signal to display on 8 monitors.

The maximum distance between the VGA input source and the output can be up to 210 feet (64 m). (For distances longer than 10 feet [3 m], you must supply the output cables.) The splitter works with VGA, SVGA, and multisync monitors to provide crisp, clear VGA images. Cascade splitters for more VGA outputs. (Call Tech Support for details.) If the VGA input is lost, the splitter automatically saves power.

2.2 What's Included

Your package should contain the following items. If anything is missing or damaged, contact Black Box at 724-746-5500 or info@blackbox.com.

Your package should include the following items:

- (1) AC1056A-2*, AC1056A-4**, or AC1056A-8*** unit
- (1) power supply (special P/N VMVA314792)
- (1) power cord
- (4) rubber feet
- (1) 5-ft. (1.5-m) input cable (HD15 male to HD15 male, part number EVNPS06-0005-MM)
- (1) user manual

*AC1056A-2 also includes (1) HD15 male to HD15 female 10-ft. (3-m) cable (EVNPS06-0010-MF)

**AC1056A-4 also includes (3) HD15 male to HD15 female 10-ft. (3-m) cables (EVNPS06-0010-MF)

***AC1056A-8 also includes (7) HD15 male to HD15 female 10-ft. (3-m) cables (EVNPS06-0010-MF)

2.3 Hardware Description

2.3.1 AC1056A-2

Figures 2-1 and 2-2 show the front and back panels of the AC1056A-2. Table 2-1 describes its components.

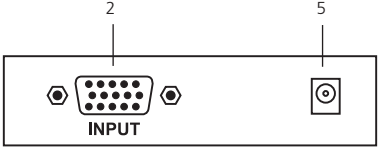


Figure 2-1. AC1056A-2 front panel.

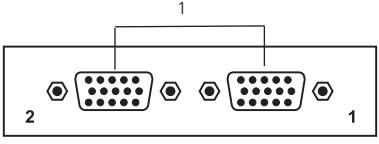


Figure 2-2. AC1056A-2 back panel.

Table 2-1. AC1056A-2 components.

	Component	Description
1	(2) HD15 connectors	Outputs
2	(1) HD15 connector	Input
3	Power LED (not shown, on top of unit)	Lights when the splitter is powered by the 5-VDC power adapter
4	Active LED (not shown, on top of unit)	Lights when there is a VGA signal at the input port
5	5-VDC power connector	Links to a 5-VDC power adapter

2.3.2 AC1056A-4

Figures 2-3 and 2-4 show the front and back panels of the AC1056A-4. Table 2-2 describes its components.

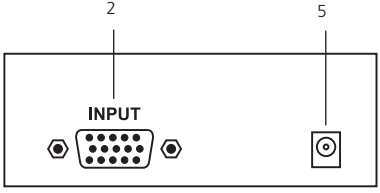


Figure 2-3. AC1056A-4 front panel.

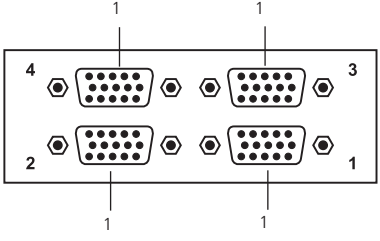


Figure 2-4. AC1056A-4 back panel.

Table 2-2. AC1056A-4 components.

	Component	Description
1	(4) HD15 connectors	Outputs
2	(1) HD15 connector	Input
3	Power LED (not shown, on top of unit)	Lights when the splitter is powered by the 5-VDC power adapter
4	Active LED (not shown, on top of unit)	Lights when there is a VGA signal at the input port
5	5-VDC power connector	Links to a 5-VDC power adapter

2.3.3 AC1056A-8

Figures 2-5 and 2-6 show the front and back panels of the AC1056A-8. Table 2-3 describes its components.

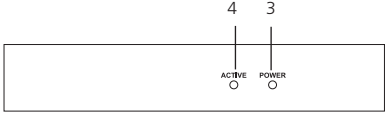


Figure 2-5. AC1056A-8 front panel.

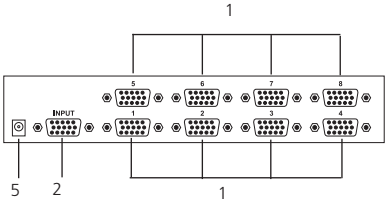


Figure 2-6 AC1056A-8 back panel.

Table 2-3. AC1056A-8 components.

	Component	Description
1	(8) HD15 connectors (on back of unit)	Outputs
2	(1) HD15 connector (on back of unit)	Input
3	Power LED (on front of unit)	Lights when the splitter is powered by the 5-VDC power adapter.
4	Active LED (on front of unit)	Lights when there is a VGA signal at the input port
5	5-VDC power connector (on back of unit)	Links to a 5-VDC power adapter

3. Installation

1. For the 2-port model (AC1056A-2), you'll need two HD15 male-to-male output cables (one of these cables is included). You'll also need one input cable (included).

   For the 4-port model (AC1056A-4), you'll need four output cables (three of these cables are included) and one input cable (included).

   For the 8-port model (AC1056A-8), you'll need eight output cables (seven of these cables are included) and one input cable (included).

   Connect multiple monitors to the video splitter's output connectors as shown in Figure 3-1.

NOTE: If you want to use the Compact Video Splitter's Display Data Channel (DDC) feature, you must have a monitor on Port 1. If you have additional monitors on other ports with higher resolutions, they will only support the resolution of the monitor on Port 1.

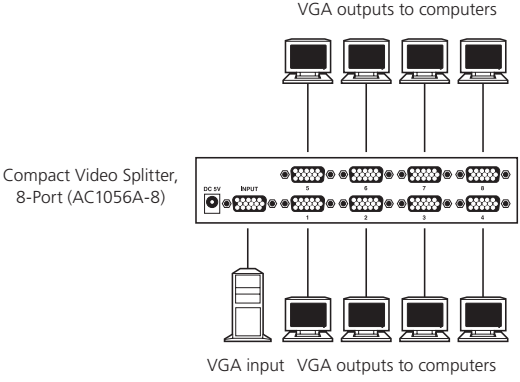


Figure 3-1. Compact Video Splitter, 8-Port (AC1056A-8) connection.

2. You'll also need to connect the Compact Video Splitter's input connector to the VGA source. Use an HD15 male-to-male cable (included) for this connection.
3. Connect the included power supply cord's barrel connector to the barrel connector receptacle on the Compact Video Splitter. Then plug the other end of the power cord into an AC outlet.

4. Operation

Once the Compact Video Splitter is installed, it operates unattended. The splitter has two front-panel LEDs that indicate its status at a glance.

- The Active LED lights when there is a VGA signal at the input port.
- The Power LED lights when the Compact Video Splitter is powered by the 5-VDC power adapter.

Appendix. Troubleshooting

A.1 Contacting Black Box

If you determine that your Compact Video Splitter is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts. Contact Black Box at 724-746-5500 or info@blackbox.com.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

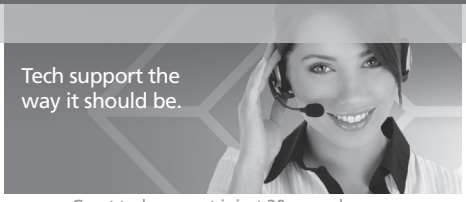
- the nature and duration of the problem.
- when the problem occurs.
- the components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

A.2 Shipping and Packaging

If you need to transport or ship your Compact Video Splitter:

- Package it carefully. We recommend that you use the original container.
- If you are shipping the Compact Video Splitter for repair, make sure you include everything that came in the original package. Before you ship, contact Black Box to get a Return Authorization (RA) number.

Black Box Tech Support: FREE! Live. 24/7.



Great tech support is just 30 seconds away
at 724-746-5500 or blackbox.com.

BLACK BOX®
NETWORK SERVICES

About Black Box

Black Box provides an extensive range of networking and infrastructure products. You'll find everything from cabinets and racks and power and surge protection products to media converters and Ethernet switches all supported by free, live 24/7 Tech support available in 30 seconds or less.

AC1056A-2, version 2

Appendix: Resources

Do you have technical questions about this product or similar technology? Check out the Resources listed below or contact our FREE Technical Support at 724-746-5500 or info@blackbox.com.

White Papers: To dowload a white paper, click on the corresponding link listed below:

Whitepapers

Cabinets and Racks

Retrofitting with passive water cooling at the rack level.
Extending the Life of Your Data Center

Selecting cooling systems for IT equipment cabinets is not always as simple as it might seem.
Six Things to Know When Cooling IT Equipment Cabinets

Cables

What's in the ANSI/TIA 1179 standard.
ANSI/TIA 1179 Healthcare Infrastructure Standard

Buyer beware: If the price seems too good to be true, it is.
Counterfeit cable: The dangers, risks, and how to spot it.

Using CAT 6A in 10-GBe networks.
CAT 6A F/UTP vs. UTP: What You Need to Know

When is fiber the ideal choice for your network?
Fiber Optic Technology

Key cabling infrastructure standards.
Structured Cabling Organizations and Standards

Carts and Storage

12 Questions to Ask When Choosing a Tablet and Laptop Cart
E-Learning Device Storage

Communications Solutions

10 Tips for Securing a Strong ROI.
Voicemail to Unified Communications

Compliance Solutions

The key to protecting data in motion.
Group Encryption

Digital Signage and Multimedia

Deliver the right message at the right time.
A Beginner's Guide to Digital Signage

7 Questions You to Need to Ask when Choosing a Signage System. Deliver real-time communications, including emergency messaging, to students, faculty, and staff.
Choosing the Right Digital Signage System

Best practices for creating high-value, compelling content that delivers extraordinary results.
Digital Signage Content 101

Why your school or university needs digital signage and how to implement it.
Digital Signage in Education

Digital Signage and Multimedia (Continued)

Deliver real-time communications—including emergency messaging—to students, teachers, and staff.
Digital Signage for K–12

Everything you need to ask when planning and evaluating digital signage.
The Roadmap to Digital Signage Success

Falling victim to these common mistakes can cost you both time and money.
Seven Pitfalls to Avoid When Planning Digital Signage

Industrial

Connect industrial equipment to your network by using USB.
Bridging the Gap: USB Converters

Learn about system configuration, cabling selection, transient protection, software, and device selection.
The Elements of an RS-422 and RS-485 System

When is fiber the ideal choice for your network?
Fiber Optic Technology

Understanding Power Needs for Industrial Control Devices
Industrial Power Solutions

Run wireless even in extreme environments.
Industrial Wireless

Interface and Protocol Converters

Connect industrial equipment to your network by using USB.
Bridging the Gap: USB Converters

Learn about system configuration, cabling selection, transient protection, software, and device selection.
The Elements of an RS-422 and RS-485 System

Go beyond the five-meter USB distance limitation with USB extenders! Read How to extend USB and break the five-meter barrier.
Extending the Benefits of USB

KVM

An overview of extension and switching technologies in high-performance KVM environments.
HD Video and Peripheral Matrix Switching and Extension

Get secure local KVM console access and secure remote IP server access.
Security with the ServSwitch Wizard IP

Use this transparent and reliable switching technology to avoid the limitations of traditional emulations.
USB True Emulation for KVM Switches

Whitepapers

Networking

Eliminate the need to buy and install expensive network equipment by using wireless Ethernet extension.
5 Questions You Need to Ask When Choosing Wireless Ethernet Extenders

Integrate fiber optic cabling to add speed, distance, and cost savings.
Media Converters

Add low-voltage devices and network equipment in industrial environments without running power.
Power over Ethernet in Industrial Applications

Is your network ready?
Tablets in Education

Common network mistakes that cost money, cause downtime, and create frustration.
Top 10 Network Mistakes

Take these ten steps to ensure wireless success: Ten Commandments of Wireless Communications white paper.
Wireless Communications

Run wireless even in extreme environments.
Industrial Wireless

Wireless Networking: wireless standards, architecture, security and more white paper. A basic overview of standards, installation, and security.
Wireless Networking

Network Security

The key to protecting data in motion.
Group Encryption

Physical Security

See why it's just as important as software-based security.
Physical Network Security

Power

Understand the power needs for industrial control devices.
Industrial Power Solutions

Understanding the risks to your network and how to choose the right solution.
Power Protection

Add low-voltage devices and network equipment in industrial environments without running power.
Power over Ethernet in Industrial Applications

Testers and Tools

See how industrial-strength Ethernet has come of age.
Ethernet in Harsh Environments

Learn about the top three growth drivers for fiber networks: greater bandwidth needs, increased storage demands, and the transition to higher network speeds.
Improve the Quality of Fiber Installations with Extended Fiber Certification

Meet the need for implementation speed without sacrificing accuracy.
Proven Techniques and Best Practices for Managing Infrastructure Changes

Move your private networks in premises and campus environments towards high-speed applications.
Testing Today's High-Speed Multimode Fiber Infrastructure

Use easy-to-install, standardized, plug-and-play technology.
Troubleshooting Your Industrial Network

Be sure to complete this step when installing a new local area network segment.
Validate LAN Installations for Optimal Service Delivery

Wireless

Ten Commandments of Wireless Communications white paper. Take these ten steps to ensure wireless success.
Wireless Communications

Run wireless even in extreme environments.
Industrial Wireless

Is your network ready?
Tablets in Education

A basic overview of standards, installation, and security.
Wireless Networking