BLACK BOX®

Agility

IP-Based KVM Extension and Matrix Switching

Agility is an IP-based KVM extension and matrix switching system that enables remote computer access and sharing of pixel-perfect HD DVI video, analog bidirectional stereo audio, USB and serial RS-232. The product family includes a variety of Agility Extender Units that can connect computers and users over an IP network at unlimited extension distances. You can use Agility Transmitter Units (at the source computer) and Receivers (at the user stations) as point-to-point extenders. Or connect the Extender Units to an Ethernet switch and add the Agility iPATH Controller to build out and manage a digital matrix switching solution. Agility enables you to remotely access any computer from any user station attached to the network with consistent HD video quality and virtually no keyboard or mouse latency.

Command and
Control Rooms

Broadcast and
Post-Production

Industrial

Transportation

Public Safety

Ideal for a Wide Range of Industries

Agility's IP-based system architecture and redundant network ports allow it to connect multiple users with multiple source computers, making it the ideal KVM solution for a variety of industries, including control rooms, process monitoring and broadcast.

Benefits of Agility

Point-to-Point Extension or Matrix Switching

Start with point-to-point extension up to 100 meters (328 feet) over CATx or up to 10 kilometers (6.2 miles) over single-mode fiber. When you need to go beyond point-to-point extension, use the iPATH Controller to make a KVM matrix switching system: Combine single-head and dual-head transmitters and receiver units, connect them to a Gigabit IP switch and add the iPATH System Manager to your KVM network to manage all of your connected devices.

Pixel-Perfect HD Video over IP

Extend and switch pixel-perfect, no-loss compressed HD DVI video, USB 2.0, bidirectional analog audio and serial RS-232 signals. Choose between single-link DVI (1920 x 1200), dual-head DVI (2x 1920 x 1200) and dual-link DVI (2560 x 1600) extenders.

Flexible, Redundant Network Connectivity

Dual CATx and SFP link interfaces offer flexibility on link media (CATx or fiber) as well as hot redundancy. For demanding video applications, the extenders can be set up with bandwidth aggregation to support resolutions up to 1080p or RGB 4:4:4 with 60 fps.

Secure Peripheral Access

For applications where security is of high importance, you can disable the use of non-HID devices. This means there is no need to physically block USB ports to prevent access to mass storage devices.

Single Target Sharing and Pooling

Enable multiple users to share a single remote computer in three modes: View-Only Mode shows only the video feed; Share Mode opens a connection to all connected users at the same time; Exclusive Mode allows one user to lock out the other users, preventing them from viewing or sharing the connection.
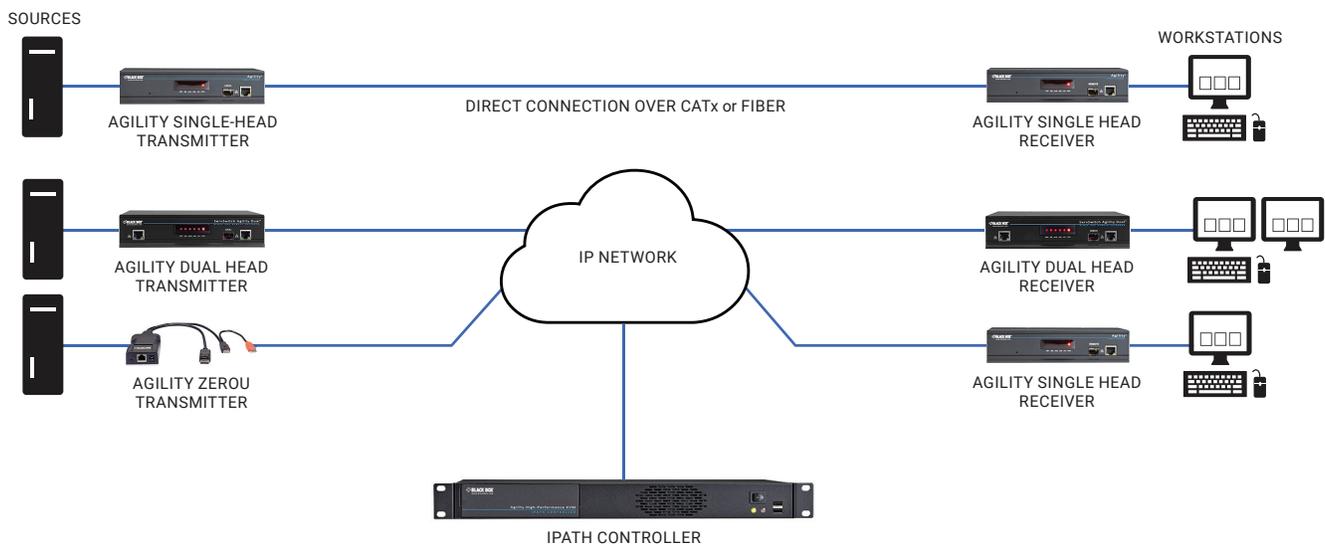
Multicasting

Transmit video and audio from a single computer over an IP network to several receivers. Multicast content can be sent to as many receivers as you want without additional bandwidth consumption for each receiver.

Out-of-band Remote Access

The Agility model with VNC Server (ACR1012A) enables remote out-of-band access down to the BIOS level over the internet through a VNC port. It is ideal for advanced system control and immediate disaster recovery.

ZeroU Transmitter

Use the USB-powered ZeroU DVI, DisplayPort or VGA Transmitters for KVM switching and extension applications where rack space is an issue.

SOURCES

WORKSTATIONS

AGILITY SINGLE-HEAD TRANSMITTER

DIRECT CONNECTION OVER CATx or FIBER

AGILITY SINGLE HEAD RECEIVER

AGILITY DUAL HEAD TRANSMITTER

IP NETWORK

AGILITY DUAL HEAD RECEIVER

AGILITY ZEROU TRANSMITTER

AGILITY SINGLE HEAD RECEIVER

IPATH CONTROLLER

Agility point-to-point and matrix switching setup that connects multiple source PCs and user workstations.
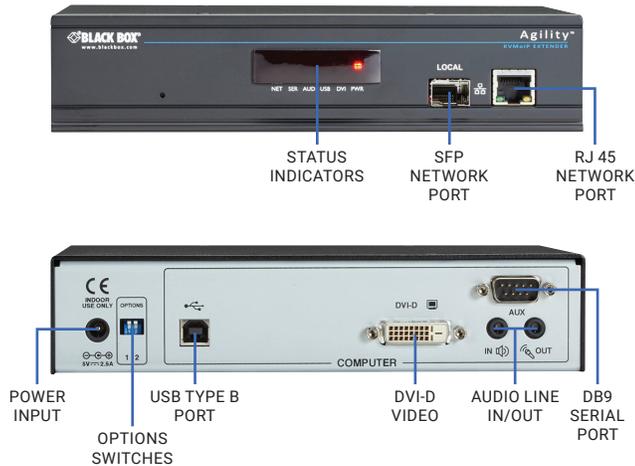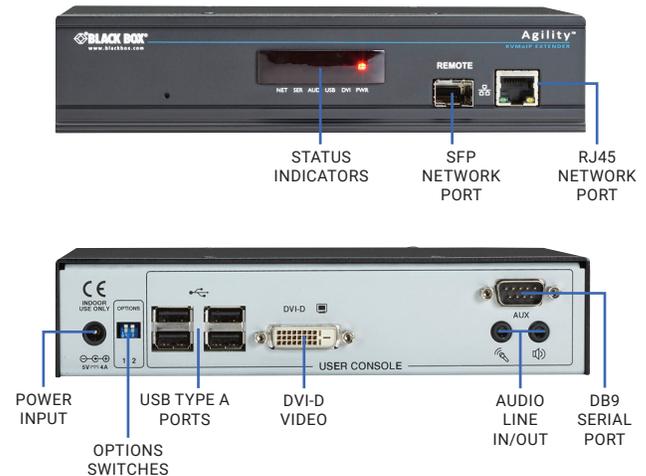
Agility Product Family

Agility Extenders

The Agility IP-based KVM switching and extension system connects users to remote computers and supports pixel-perfect video transmission in real time. Use Agility to transmit DVI HD video, USB and audio signals over your existing LAN. If you need to extend further, simply add a 1-GbE network switch. The flexible topology of the Agility system gives you extension options beyond standard keyboard, monitor and mouse setups. This high-performance KVM system enables KVM switching, target sharing, multicasting and DVI extension with full HD video at 60 fps. To learn more about the Agility solution, visit blackbox.com/agility.

- Delivers pixel-perfect DVI video (single link up to 1080p, dual link up to 2560 x 1600), USB 1.1/2.0, analog audio and serial.
- Use Agility as a point-to-point KVM Extender, a KVM switching system, a sharing portal and much more.
- Add transmitters and receivers as your network grows. Agility can scale to thousands of end points.
- Switch DVI, USB, audio and RS-232 channels selectively, whether individually or as a group.
- Dual network ports, redundant central management and link aggregation improve system reliability.
- The iPATH Controller offers enterprise user management, including authentication and access privileges.
- OS-agnostic technology allows you to connect any system, including Windows®, Mac OS® or Linux.
- Supports VNC access (ACR1012A-T).
- Supports the following extension distances: up to 100 meters (328 feet) over CATx, up to 500 meters (1,640 feet) over multimode fiber and up to 10 kilometers (6.2 miles) over single-mode fiber.
- Also available as TX/RX kits: ACR1000A-R2 (single head), ACR1020A (dual head), ACR1002A (dual head/dual link).
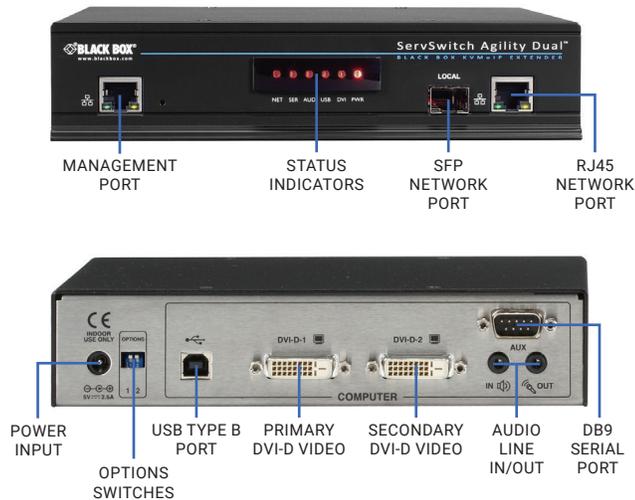
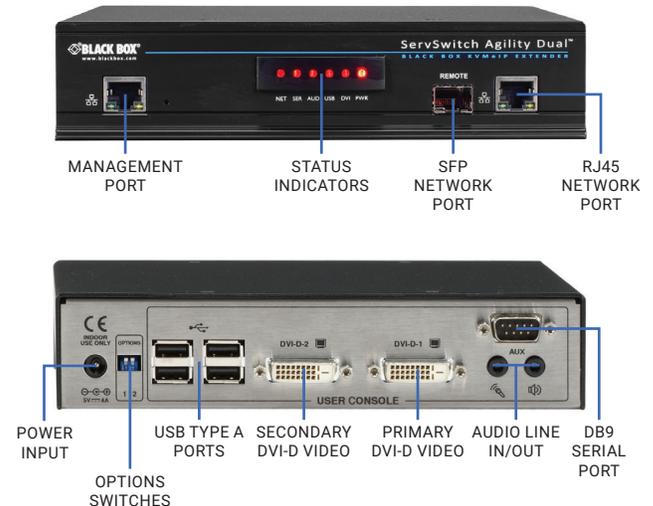### Agility Single Head Transmitter (ACR1000A-T-R2)

STATUS INDICATORS · SFP NETWORK PORT · RJ 45 NETWORK PORT

POWER INPUT · OPTIONS SWITCHES · USB TYPE B PORT · DVI-D VIDEO · AUDIO LINE IN/OUT · DB9 SERIAL PORT · COMPUTER

Agility Single Head Receiver (ACR1000A-R-R2)

STATUS INDICATORS · SFP NETWORK PORT · RJ45 NETWORK PORT

POWER INPUT · OPTIONS SWITCHES · USB TYPE A PORTS · DVI-D VIDEO · AUDIO LINE IN/OUT · DB9 SERIAL PORT · USER CONSOLE

Agility Dual Head/Dual Link Transmitter (ACR1002A-T)

MANAGEMENT PORT · STATUS INDICATORS · SFP NETWORK PORT · RJ45 NETWORK PORT

POWER INPUT · OPTIONS SWITCHES · USB TYPE B PORT · PRIMARY DVI-D VIDEO · SECONDARY DVI-D VIDEO · AUDIO LINE IN/OUT · DB9 SERIAL PORT · COMPUTER

Agility Dual Head/Dual Link Receiver (ACR1002A-R)

MANAGEMENT PORT · STATUS INDICATORS · SFP NETWORK PORT · RJ45 NETWORK PORT

POWER INPUT · OPTIONS SWITCHES · USB TYPE A PORTS · SECONDARY DVI-D VIDEO · PRIMARY DVI-D VIDEO · AUDIO LINE IN/OUT · DB9 SERIAL PORT · USER CONSOLE

Agility Extenders - Technical Specifications and Interfaces

Product Code	Video Heads	Max Resolution	Dual Link Support	VNC Support	USB Ports	Network Ports	Serial/Analog Audio	Power Connectors
Transmitters								
ACR1000A-T-R2	(1) DVI-D	1920 x 1200	-	-	(1) USB 2.0 Type B	(1) RJ-45, (1) SFP	(1) DB9 RS-232, (2) 3.5-mm audio jack	(1) 5 VDC, 20 W
ACR1020A-T	(2) DVI-D	1920 x 1200	-	-	(1) USB 2.0 Type B	(1) RJ-45, (1) SFP	(1) DB9 RS-232, (2) 3.5-mm audio jack	(1) 5 VDC, 20 W
ACR1002A-T	(2) DVI-D	2560 x 1600	yes	-	(1) USB 2.0 Type B	(1) RJ-45, (1) SFP	(1) DB9 RS-232, (2) 3.5-mm audio jack	(1) 5 VDC, 20 W
ACR1012A-T	(2) DVI-D	2560 x 1600	yes	yes	(1) USB 2.0 Type B	(2) RJ-45, (1) SFP	(1) DB9 RS-232, (2) 3.5-mm audio jack	(1) 5 VDC, 20 W
Receivers								
ACR1000A-R-R2	(1) DVI-D	1920 x 1200	-	-	(4) USB 2.0 Type A	(1) RJ-45, (1) SFP	(1) DB9 RS-232, (2) 3.5-mm audio jack	(1) 5 VDC, 20 W
ACR1020A-R	(2) DVI-D	1920 x 1200	-	-	(4) USB 2.0 Type A	(1) RJ-45, (1) SFP	(1) DB9 RS-232, (2) 3.5-mm audio jack	(1) 5 VDC, 20 W
ACR1002A-R	(2) DVI-D	2560 x 1600	yes	-	(4) USB 2.0 Type A	(1) RJ-45, (1) SFP	(1) DB9 RS-232, (2) 3.5-mm audio jack	(1) 5 VDC, 20 W

Extender Kits	
Product Code	**Description**
ACR1000A-R2	Agility Single-Head KVM Extender Kit; (1) DVI (1920 x 1200); (4) USB 2.0; bidirectional analog audio; RS-232; dual network ports: (1) CATx, (1) SFP
ACR1020A	Agility Dual-Head KVM Extender Kit; (2) DVI (1920 x 1200); (4) USB 2.0; bidirectional analog audio; RS-232; dual network ports: (1) CATx, (1) SFP
ACR1002A	Agility Dual-Head/Dual-Link KVM Extender Kit; (2) DVI (2560 x 1600); (4) USB 2.0; bidirectional analog audio; RS-232; dual network ports: (1) CATx, (1) SFP

Agility ZeroU Transmitters

The small form factor Agility ZeroU Transmitters consume zero rack space, enabling you to add more critical IT equipment to your data center. ZeroU Transmitters integrate seamlessly with Agility Receivers and the iPATH Controller. They are plug-and-play solutions that take seconds to install. These transmitters are USB powered and consume less than three watts of power, saving on energy costs. Options for an external or redundant power supply are also available.

• Small KVM transmitters that take 0U of space in the server rack.
• Available with DVI, DisplayPort or VGA video ports.
• Feature USB 2.0 and USB audio.
• Support HD video up to 1920 x 1200.
• Power over USB eliminates the need for extra cables.
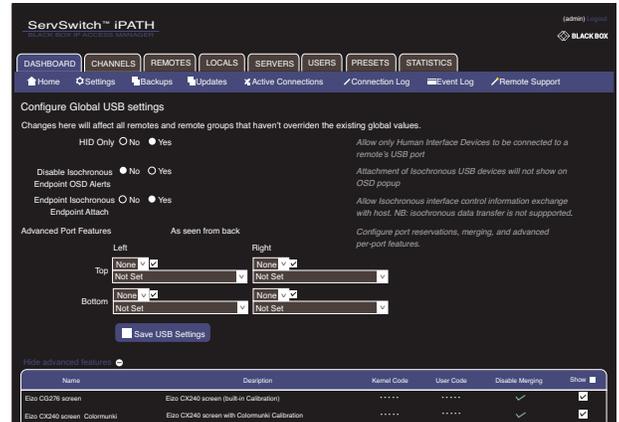

Agility ZeroU DVI Transmitter (ACR500DV-T)

Product Code	Video Heads	Max Resolution	USB Ports	Network Ports
ACR500DV-T	(1) DVI	1920 x 1200	(1) USB 2.0 Type A (1) USB Type A (Power)	(1) RJ-45
ACR500DP-T	(1) DisplayPort	1920 x 1200	(1) USB 2.0 Type A (1) USB Type A (Power)	(1) RJ-45
ACR500VG-T	(1) VGA	1920 X 1200	(1) USB 2.0 Type A (1) USB Type A (Power)	(1) RJ-45

Agility iPATH Controller

The Agility iPATH Controller is a plug-and-play single-box KVM management platform that allows Agility Transmitters and Receivers to scale from a point-to-point extension solution to a digital KVM matrix system. Connect all transmitters, receivers and the iPATH Controller to an IP switch to route any user station to any computer attached to the network, without any compromise to video quality or control latency. iPATH enables you to control transmitters, receivers, users and passwords; restrict and enable access privileges; define new content channels; disable specific USB device classes; and much more. And you can do all of this over a single IP network using standard Ethernet protocol. The controller features a user-friendly on-screen dashboard that gives you an overview of the system. The dashboard is continually refreshed so you always have the most up-to-date system information at hand.
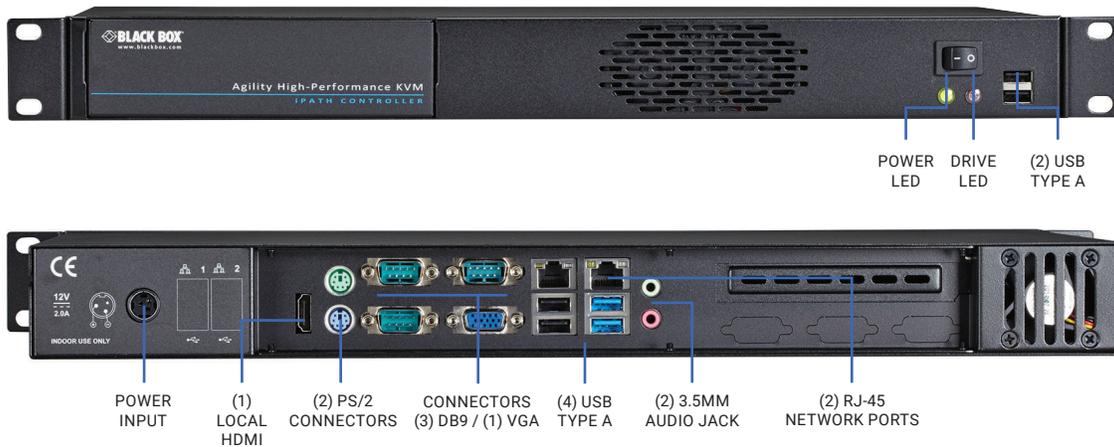
Choose an iPATH Controller version based on the number of required end points in your system. iPATH is available in a variety of models that each support a different number of max end points: 24, 48, 96, 192, 288 or unlimited. The controllers can be updated through optional upgrade licenses whenever the system needs to be expanded. Hub+Spoke Upgrade Bundles are available for orders with two controllers (primary and secondary). These bundles offer a price advantage for the backup controller license.

- Build and manage a scalable, IP-based KVM matrix switching system.
- Manage user access rights, monitor network status and upgrade firmware from your favorite web browser.
- Deploy system-wide firmware upgrades without physically accessing each controller and extender unit.
- The intuitive user interface delivers secure access and communications.
- Supports Active Directory for user authentication and mapping to groups.
- 24/7 system reliability and operation.

iPATH's browser-based user interface

Agility iPATH Controller (ACR1000A-CTL-X)

POWER LED   DRIVE LED   (2) USB TYPE A

POWER INPUT   (1) LOCAL HDMI   (2) PS/2 CONNECTORS   CONNECTORS (3) DB9 / (1) VGA   (4) USB TYPE A   (2) 3.5MM AUDIO JACK   (2) RJ-45 NETWORK PORTS

Agility iPATH

Product Code	Description
ACR1000A-CTL-X*	iPATH Controller supporting 24, 48, 96, 192, 288 or unlimited end points
IPATHLIC-X**	Licenses that add more end points to your Agility KVM matrix switching system (upgrade from 24 end points to 28, 96, 192, 288 or unlimited end points)
IPATHLIC-X**-BCK	Hub+Spoke Bundle Licenses add more end points to your KVM matrix switching system (upgrade from 24 end points to 28, 96, 192, 288 or unlimited end points)

* X = 24, 48, 96, 192, 288, ULT
** X = 48, 96, 192, 288, ULT

Agility Accessories

Agility Mounting Kits

Use the Agility Rackmount Kits to mount one or two Agility Extender Units on or below tables or in racks. The VESA Mount Bracket lets you mount single- or dual-head Agility units behind a monitor. Agility was designed with optimal airflow in mind, so the units will not overheat when placed alongside other components in the rackmounting shelf.

Agility VESA Receiver Mount Bracket (ACR1X-VESA)

Product Code	Description
ACR1X-VESA	Agility VESA Receiver Mount Bracket for single- and dual-head extender units
RMK2004	19" Rackmount Kit (1U) for a single unit
RMK2104	Extender Rackmount Kit for two units

Central Power Supply

For improved power management and fail-safe operation, use the optional central power hub for eight or 16 extender units.

- Central power feed to 5-volt or 12-volt DC devices with up to 20 watts per port.
- Web UI for configuration and monitoring of system power status.
- Highest resilience when equipped with second, hot-swappable 600-k hours power supply.
- Lockable three-pin DC connectors make installation easy.
- Consumes only 1U of rack space.

Central Power Hub, 16 units (ACR1000-CPH16R)

Product Code	Description
ACR1000-CPH16R	Central Power Hub, 16 Port
ACR1000-CPH8R	Central Power Hub, 8 Port
ACR1000-CPH-PS	Central Power Hub Redundant Power Supply
ACR1000-12V5-CBL3M	Central Power Hub Power Converter Cable - 12 VDC to 5 VDC, 3-m

SFP Modules

Agility Extenders provide a high level of flexibility by offering both CATx and SFP (1-Gbps) ports that support connectivity through copper, fiber multimode or fiber single-mode cables. These extenders are also compatible with a variety of Black Box® and third-party SFP modules.

SFP Modules

Product Code	Description	Supported Distance
LFP441	SFP, 1250-Mbps, 850-nm Multimode Fiber, LC	550 m (1800 feet)
LFP442	SFP, 1250-Mbps, 1310-nm Single-Mode Fiber, LC	20 km (12.4 miles)
LFP443	SFP, 1250-Mbps, SGMII Interface, RJ-45	100m (328 feet)

Note: All Black Box SFP Modules feature Extended Diagnostics.

WHY BLACK BOX

Expertise
Black Box® project engineers can assist with system assessment, design, deployment and training.

Breadth
Black Box offers the most comprehensive suite of engineered KVM, AV and infrastructure solutions in the industry.

Support
Reflecting our commitment to complete satisfaction, our dedicated team of highly trained support technicians is available by phone free of charge, every day of the year.

Service Level Agreements
Our service level agreements give customers access to technical support, product training, dedicated application engineers and more.

Experience
Providing leading technology solutions since 1976, Black Box helps more than 175,000 customers in 150 countries build, manage, optimize and secure IT infrastructures.

Warranties
Multi-year warranties with multi-year extensions and replacement options are available.

Center of Excellence
Black Box offers a Center of Excellence, featuring professional services and support agreements that help optimize customers' systems and maximize uptime.