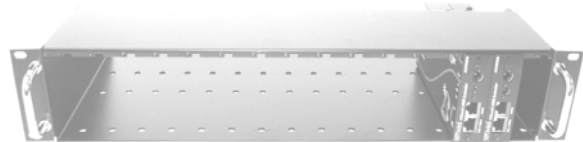


ServSwitch Wizard Extender Series



ACU5111A Standalone Remote Unit



ACU5000A 19" Rackmount Frame (16-Slot, 2 U)

Key Features

- High Video Performance
- Intuitive configuration via Hotkey
- Space-saving layout with perfect 19" mounting option
- Completely flash-upgradable
- Serial and Audio Support
- High DeSkew budget for max. distance of 300m

Product Overview, Explanations

Our ServSwitch Wizard™ Extender family provides keyboard, video, and mouse (KVM) extension capabilities within an easy-to-wire system that can serve one user or be expanded to serve multiple users. Almost all models now support additional RS-232 serial connections. It allows full control of all KVM and serial devices conveniently from a remote location. All models are ideal for multimedia applications, including graphics tablet or touchscreen applications.

Designed to transfer KVM signals up to 1000 feet (300 m) over Category 5 or higher twisted pair cable*, the Wizard Extender is a modular system that consists of a local transmitter unit and a

*Can also be used with Cat5e or Cat6 /7 rated

connect using the twisted-pair cable. Both modular units are sold together as a kit (e.g. ACU5010A-R2) that also includes a CPU-connection cable for easy installation. The receiver module connects to your keyboard, monitor, and mouse, and the transmitter module connects to the computer CPU that you want to control. Or, choose the optional rackmount chassis (ACU5000A), which holds up to 16 transmitter or receiver modules in a 2U-high cage for mounting in a standard 19" cabinet or rack. Any mixture of Wizard Extender modules can be added to the chassis. If you won't be filling all of the slots in the chassis, you can install optional Single or Quad Blank Chassis Panels to cover the empty slots. ServSwitch Wizard Extender Chassis Power Supply Module (PS5000) provides power for up to four remote modules with the power supply reflected via an indicator on the rackmount chassis. With the power supply,

you're given four patch cables that provide the connection between the PS5000's four power outlets and rack-mounted remote modules. We also offer the receiver module as a standalone product (ACU5111A). It's used to receive extension signals from either a ServSwitch Duo™ or a ServSwitch Quadro™. These are advanced KVM switches that contain their own built-in transmitters and are used for *multiuser* CPU management.

But it can also be used together with the Dual Video transmitter unit ACU5013A.

Audio, Serial and other features

The Wizard Extender series consists of various models with individual specification. For a better overview the main features are presented in the table below.

Code	Video Heads	Video Resolution Max.	Single Access	Dual Access	Audio	Serial RS-232	Rackmount 19"	Maximum distance at resolution
ACU5010A-R2	1	1600x1200	X	-	-	1	X	300m @ 1024x768
ACU5110A	1	1600x1200	X	-	-	1	X	300m @ 1280x1024
ACU5112A	1	1600x1200	-	X	X	1	X	300m @ 1280x1024
ACU5114A	1	1600x1200	-	X	-	1	X	300m @ 1280x1024
ACU5013A**	2	1600x1200	X	-	-	-	X	300m @ 1280x1024
ACU5111A	1	1600x1200	X	-	-	1	X	300m @ 1280x1024
ACU5122A	2	1600x1200	-	X	-	2	X	300m @ 1280x1024
ACU5142A	4	1600x1200	-	X	X	4	X	300m @ 1280x1024

**Transmitter only! Requires 2 ACU5111A Receivers for full operation!

Uses easy-to-handle CAT5.

For cabling the ServSwitch Wizard Extender modules, you may already have the cable installed. All you need is four-pair (eight-wire) twisted-pair cabling that's rated to at least CAT5 and is long enough to connect a transmitter to the receiver. The cable should be pinned straight through and paired according to the TIA-568A or, even better, TIA-568B specification. This cable can be up to 300 m long).

Video compensation for clarity.

Supporting high-bandwidth monitors at resolutions up to 1600 x 1280, the Wizard Extender system has video-compensation equalizers that maximize the picture quality for your system even though the video signal is being sent across twisted-pair cable. different times at the remote unit. This signal delay is called Skew. Other than digital signals that can easily be buffered or recovered within a certain budget, analog video signals as in KVM extension can not! The result is depending on the resolution and the distance a more or less color drift. This color drift may then reflect in unsharpness caused by color shadows. To compensate this skew the Wizard Extenders series

Video quality can be optimized for any given length of cable using user-adjustable video compensation. If you choose the manual compensation mode the compensation only needs to be adjusted once during setup. The setting remains in the system's EEPROM memory even when the extender is turned off.

Skew compensation

Most Cat 5 or higher rated cables are specifically built to be used in networking. Therefore they are optimized in their construction. The four pairs within the cable are twisted individually and may therefore have some differences in total length. Indifferent pair length causes the signals to arrive at

has built-in Skew compensation in all models with part numbers starting ACU51xx. The compensation budget is 62nsec per color and can be adjusted in increments of 2nsec (1nsec= 0.00000001sec) which is equal to approximately one quarter of a pixel at 1600x1200x60Hz resolution! For all Wizard extenders without built-in DeSkew (ACU5050A, ACU5010A-R2)

An external Wizard Skew Compensator (ACU5100A) may be needed for compensation.

Keep in mind that if you plan to use twisted-pair cabling (particularly the higher-grade type such as CAT5e or CAT6 rated cabling) to connect the local and remote modules, you may need to order an optional ServSwitch Wizard Skew Compensator (ACU5100A).

This device cleans up signal skew. If one or more of the red, green, and blue colors in the video seems separated or offset—for example, if colored shadows trail bright white objects—then you have skew (or color drift). It's caused by the varying lengths of a cable's wire pairs on long runs of CAT5 or higher cable. The Skew Compensator can be installed alongside the other modules within the ACU5000A chassis. Placed between your video source and destination, the compensator deliberately delays one or two of the color signals in the video sent so all signals arrive at their destination at the same time and minimize skew.

What else you'll need.

For the ServSwitch Wizard Extender system, you will also need a standard AT® or PS/2® style keyboard. If you plan to use an AT keyboard with a 5-pin DIN connector, you'll need a keyboard adapter (FA212) to connect the keyboard to the extender. The system supports keyboard modes 1, 2, and 3 and "prompt" and "stream" mouse modes for maximum compatibility. Keyboard data is kept in its native format, ensuring the additional keys on enhanced keyboards are also supported.

You can use the Wizard Extender system with or without a mouse connected. But if you use one, you'll need a PS/2 or serial style two- or three-button Microsoft® or Logitech® compatible mouse or a Microsoft IntelliMouse®

compatible mouse. The extender also supports other "Internet mice" that are compatible with the IntelliMouse, such as those fitted with a wheel or other scrolling controls. As noted earlier, the kit includes a CPU-connection cable, which is a 6.5-foot (2-m) 3-in-1 cable for connecting your CPU to the Wizard Extender transmitter's DB25 connector. If the cable isn't long enough, you can use one or more VGA or PS/2 style cables to replace or extend the transmitter connection up to a maximum distance of 5 m.

For serial mouse protocol support a DB9F to MiniDIN - 6F adapter (FA314) is required.

Configuration and security.

The ServSwitch Wizard Extender ships from the factory in a default state that's suitable for most applications. But it also has a number of configuration options via DIP or hotkey controls.

Continuously read by the extender system, these switches can be changed even while it's powered on. You also get security functions with the Wizard Extender system. In situations where you want to control access to corporate file servers or sensitive information,

you can keep the Wizard Extender's transmitter module and the attached CPU locked away in a secure room or cabinet while

keeping a primary control station attached to the receiver in the open. Password protection helps prevent unauthorized use of the system. "Lock" the receiver so, without the correct password typed in at the primary keyboard,

it's incapable of outputting video to the monitor or accepting input from the keyboard or mouse. Locking the receiver has no effect on the operation of the transmitter.

During CPU switching, the Wizard Extender keeps a log of the keyboard and mouse modes as well as the resolution settings that are requested by each of the connected CPUs. The settings are automatically restored to the primary keyboard and mouse when you switch CPUs or when you return the extender to normal operation after configuring the system or setting a password. You can control many of the Wizard Extender's functions

from the keyboard using hotkey commands. In addition to providing access to the configuration mode, hotkey commands can be used to disable keyboard and mouse input to the attached CPU or switch; to lock the receiver module from any input from its attached keyboard and mouse; to password lock the receiver; and to blank the attached monitor's video. The Wizard Extender uses flash-rewritable program memory, and you can upgrade its firmware code by using a PC program to download new firmware into the transmitter and receiver modules through their keyboard connections.

What's included

ACU5010A-R2

- Local transmitter module
- Remote receiver module
- Power adapter for the receiver module
- (1) 2m 3-in-1 cable to connect the transmitter to a computer or KVM switch
- (1) serial cable DB9, 2m
- (2) pan-head screws for attaching the modules to the optional extender chassis (ACU5000A)
- (8) adhesive rubber feet
- Users' manual on CD-ROM

ACU5111A

- Remote receiver module
- Power adapter for the receiver module
- Pan-head screw for attaching the module to the optional extender chassis (ACU5000A)
- (4) adhesive rubber feet
- Users' manual on CD-ROM

ACU5000A

- Empty chassis
- (4) washers and (2) screws
- (2) handles
- Users' manual

PS5000

- Power module
- 5-VDC, 2.5-amp power supply transformer and output cord
- (1) power supply input cord
- (4) 0,5m cables to connect (4) ServSwitch Wizard Extender Local/Remote Receiver modules to the power supply (not 4x ACU5142A)
- Users' manual

ACU5112A/ACU5114A

- Transmitter module for local CPU connections
- Receiver module for remote workstation (KVM) connections
- (1) 5-VDC, 2.5-amp power supply transformer and output cord
- (1) power supply input cord
- (1) 2m 3-in-1 cable (ACU5112A: 5-in-1 cable)
- (1) 2-m serial cable
- (8) adhesive rubber feet
- Users' manual on CD-ROM

ACU5013A

- Dual-Video Transmitter for local CPU connections
- (2) 2-m video cable
- (2) 2-m MiniDin 6-pin cable
- (4) adhesive rubber feet
- Users' manual

ACU5122A/ACU5142A

- Transmitter module for local CPU connections
- Receiver module for remote workstation (KVM) connections
- (1)/(2) 5-VDC, 2.5-amp power supply transformer and output cord
- (1)/(2) power supply input cord
- (1) 2m 5-in-1 cable
- (1/3) 2-m HD 15 VGA cable
- (1) 2-m serial cable
- (8) adhesive rubber feet
- Users' manual on CD-ROM

Technical Specifications

Connectors:

Local modules ACU51xxA:

All: (1) DB25 F

(1) 2.5mm barrel jack (pwr)

(1) DB9 F

(1) RJ 45 F

ACU5114A also has: (2) MD6 F; (1) HD15F

ACU5122A also has (2) MD6 F; (3) HD 15F; (1)

DB9 F; (1) 3.5mm audio jack

ACU5142A also has (2) MD6 F; (7) HD 15F; (3)

DB9 F; (1) 3.5mm audio jack

Remote modules:

All:

(1) HD15 F

(2) MD6 F

(1) DB9 M

(1) 2.5mm barrel jack (pwr)

ACU5112A also has: (2) 3.5mm audio jack

ACU5122A also has: (2) 3.5mm audio jack ; (1)

DB9 M ; (1) HD 15F

ACU5142A also has: (2) 3.5mm audio jack ; (3)

DB9 M ; (3) HD 15F

Size:

ACU511xA: W170xH26xD75 mm;

ACU5114A local: W170xH52xD75 mm

ACU5122A: W170xH78xD75 mm;

ACU5142A: W170xH104xD75 mm

Transmitter module:

ACU5013A: W120xH26xD75 mm

Power:

External 100-240VAC,50-60Hz, 0,4A / 5VDC, 2A

(PS649-R2)

Ordering Information

Wizard Single Access KVMs Extender.....	ACU5010A-R2
Wizard Single Access KVMs Extender w/ DeSkew.....	ACU5110A
Wizard Dual Access KVMs Extender w/ DeSkew.....	ACU5114A
Wizard Single Access KVMAS Extender w/ DeSkew.....	ACU5112A
Wizard Dual Head KVMAS Extender w/ DeSkew.....	ACU5122A
Wizard Quad Head KVMAS Extender w/ DeSkew.....	ACU5142A
Wizard Dual Video KVM Sharer/Extender Transmitter.....	ACU5013A
19"-Rackmount 16-Slot Chassis.....	ACU5000A
Wizard external Skew Compensator Module.....	ACU5100A
Power Supply to feed up to 4 local units (not 4xACU5142A!).....	PS5000
Spare power supply for any single local or remote module.....	PS649-R2

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