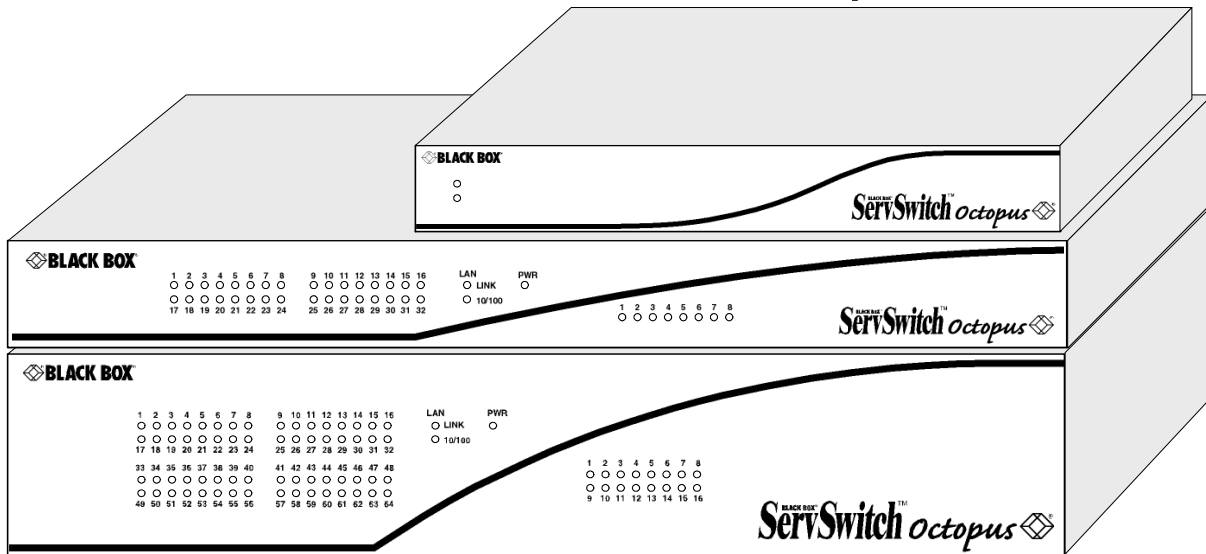




# BLACK BOX®

## NETWORK SERVICES

### ServSwitch Octopus



#### Key Features

- ▶ High Video Performance.
- ▶ Outstanding management features.
- ▶ Space-saving layout.
- ▶ Completely flash-upgradable.
- ▶ Multi-Platform support.
- ▶ Fully Cat 5 based for max. distance of 300m.

The ServSwitch Octopus is a fully Cat 5 based KVM switching solution. It uses Server Access Modules (SAM) that plug into a servers keyboard, video and mouse interfaces where it takes its power from to emulate the necessary keyboard and mouse protocols and to convert the signals to boost them over Cat 5 cable into the main switching unit. The SAMs are available for all major server platforms like Sun, PS/2, USB and RS-232 (VT emulation). This main switch can either be an 8x32 Matrix or a 16x64 (KV1701E or KV1702E) which can be cascaded up to max. 2 tiers (see application drawing below) to support thousands of CPUs from up to 8 or 16 Users simultaneously.

The Remote User Stations (KV1710E or KV1712E) also connect via Cat 5 into the switch. Using their powerful but easy to handle OnScreenDisplay all switching activities and security settings are done. The way the Octopus uses the Cat 5 technology allows max. end-to-end distances of up to 300m/1000ft from the User Station to the SAM. To guarantee optimal video quality over that distance,

the Octopus equalizes attenuation losses over the distance with every single server selection.

For even more ambitious users the User Station KV1712E with its built-in DeSkew capabilities is available. Apart from having a second input port, available to attach another local PC (e.g. private workstation situated under the administrators desk) besides the connection to the switching system, this unit automatically adjusts color signal delays caused by disparate individual pair length of Cat 5, 5e, Cat 6 or Cat 7 certified cables up to 64nsec. This allows S-XGA (1280x1024) signals to be transmitted over the full range of 300m without smearing!

The ServSwitch Octopus system is designed to be more or less plug'n'play ready. As soon as a new server is connected with a SAM to the switching system, the SAMs unique ID appears in the OSD. It now can be renamed. The new name is then stored in the SAMs non-volatile Flash and will appear as such in the OSD further on.

When being powered off or disconnected the server name will disappear from the OSD immediately. As soon as it will be reconnected or powered back on, it is available again –no matter whether the physical setup has changed because of expanding the system by adding another switch or simply relocating the CPU port!

Apart from setting up the whole system via the OSD the comfortable management software Octoware is included to administrate the Octopus comfortable from a Windows PC via a network connection. All security settings, user profile definitions can be done that way. But apart from only that each component of the Octopus setup, SAM, Switch or User Station, can be flash-upgraded –if necessary- centrally. All system information can be monitored via Octoware. Additionally an event log of all switching activity can be backed up from the switch at any time.

# Specifications

## KV1701E (Octopus 832)

**Agency Approvals** — EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950, FCC15 Class A, CSA C22.2 No. 69950, UL 60950 third edition, VCCI Class A

**Environmental/Power** —

Power consumption: 75 W  
AC input Power: max. 75 W  
Heat dissipation: 270 kJ  
Humidity: 10-95% non-condensing  
Operating temperature: 0°C - 50°C  
Storage temperature: -20°C - 60°C  
Operating voltage: 100-240VAC  
Power frequency: 50-60 Hz

**Ports** —

Network number: 1 RJ45 ,  
Ethernet 10/100 BASE-T  
Server ports: 32,  
RJ45 Octopus interconnect  
User ports: 8, RJ45 Octopus interconnect  
Terminal port: 1, DB9 M , RS-232 serial

**Dimensions** — 43.2 W x 28.1 D x 1U

**Weight** — 3.7kg

## KV1702E (Octopus 1664)

**Agency Approvals** — EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950, FCC15 Class A, CSA C22.2 No. 69950, UL 60950 third edition, VCCI Class A

**Environmental/Power** —

Power consumption: 150 W  
AC input Power: max. 150 W  
Heat dissipation: 610 kJ  
Humidity: 10-95% non-condensing  
Operating temperature: 0°C - 50°C  
Storage temperature: -20°C - 60°C  
Operating voltage: 100-240VAC  
Power frequency: 50-60 Hz

**Ports** —

Network number: 1 RJ45 ,  
Ethernet 10/100 BASE-T  
Server ports: 64, RJ45  
Octopus interconnect  
User ports: 16, RJ45  
Octopus interconnect  
Terminal port : 1, DB9 M , RS-232 serial

**Dimensions** — 43.2 W x 28.1 D x 2U

**Weight** — 7.27kg

## KV1710E (Octopus User Station)

**Agency Approvals** — EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950, FCC15 Class A, CSA C22.2 No. 69950, UL 60950 third edition, VCCI Class A

**Environmental/Power** —

Power consumption: 25 W  
AC input Power: max. 25 W  
Heat dissipation: 90 kJ  
Humidity: 10-95% non-condensing  
Operating temperature: 0°C - 50°C  
Storage temperature: -20°C - 60°C  
Operating voltage: 100-240VAC  
Power frequency: 50-60 Hz

**Ports** —

Input ports: 1, RJ45  
Octopus interconnect  
Output ports: 1 MiniDIN 6-pin F  
Keyboard  
1 MiniDIN 6-pin F Mouse  
1 MiniDIN 8-pin F Sun Keyboard/Mouse  
1 HD15F VGA Video  
1, DB9 M , RS-232 serial  
(Administration)

**Dimensions** — 27.9 W x 29.2 D x 1U

**Weight** — 2kg

## KV1712E (Octopus User Station)

**Agency Approvals** — EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950, FCC15 Class A, CSA C22.2 No. 69950, UL 60950 third edition, VCCI Class A

**Environmental/Power** —

Power consumption: 25 W  
AC input Power: max. 25 W  
Heat dissipation: 90 kJ  
Humidity: 10-95% non-condensing  
Operating temperature: 0°C - 50°C  
Storage temperature: -20°C - 60°C  
Operating voltage: 100-240VAC  
Power frequency: 50-60 Hz

**Ports** —

Input ports: 2, RJ45  
Octopus interconnect  
Output ports: 1 MiniDIN 6-pin F  
Keyboard  
1 MiniDIN 6-pin F Mouse  
1 MiniDIN 8-pin F Sun Keyboard/Mouse  
1 HD15F VGA Video  
1, DB9 M , RS-232 serial  
(Administration)

**Dimensions** — 27.9 W x 29.2 D x 1U

**Weight** — 2kg

## SAMs (Octopus ServerAccess Modules)

**Agency Approvals** — EN55022 Class A, FCC15 Class A

**Environmental/Power** —

Power consumption: 650mW  
Humidity: 10-95% non-condensing  
Operating temperature: 0°C - 50°C  
Storage temperature: -20°C - 60°C  
Operating voltage: 5VDC

**Ports** —

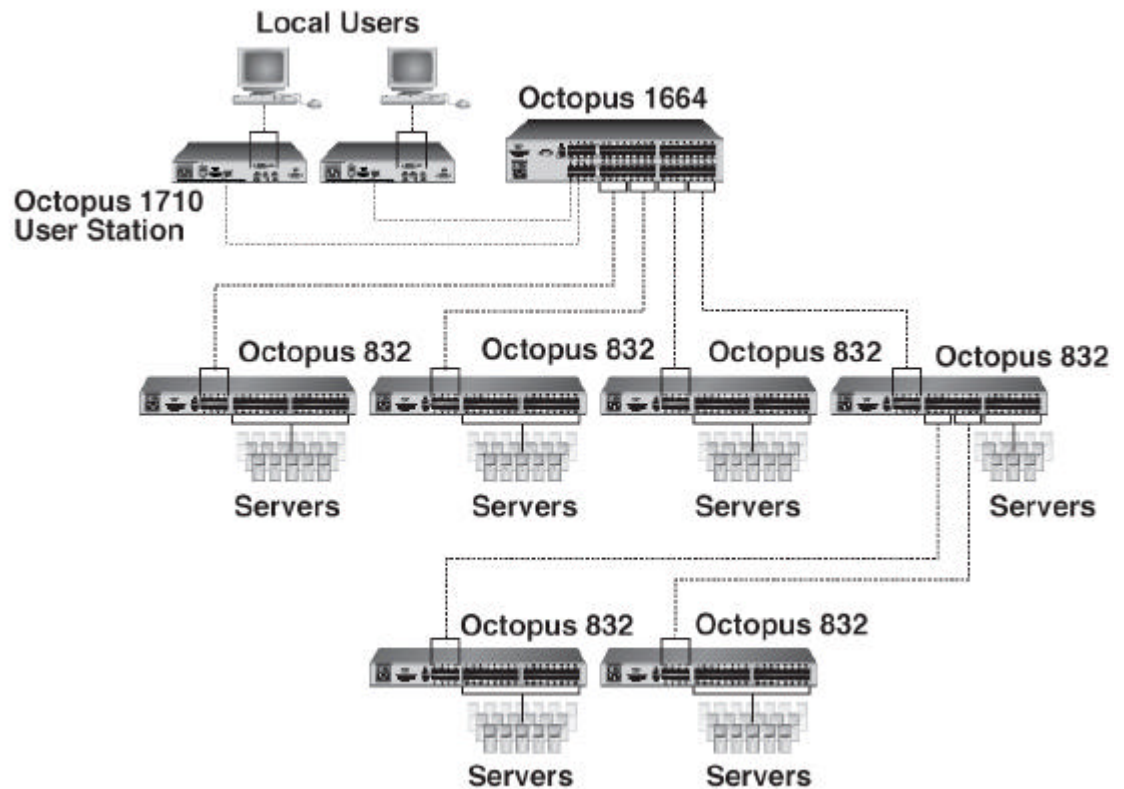
**Output ports** — 1, RJ45  
Octopus interconnect

**Input ports** —

SAM PS/2:  
1 MiniDIN 6-pin M Keyboard; 1 MiniDIN 6-pin M Mouse; 1 HD15M VGA Video  
SAM USB:  
1 USB Type A Keyboard/Mouse; 1 HD15M VGA Video  
SAM Sun HD15 (VSN):  
1 MiniDIN 8-pin F Sun Keyboard/Mous  
1 HD15M VGA Video  
SAM Sun 13W3 (WSN)  
1 MiniDIN 8-pin F Sun Keyboard/Mous  
1 13W3 M Video  
SAM RS-232  
Tbd.

**Dimensions** — 6.1W x 10.2D x 2.11H

**Weight** — 0.13kg



## Ordering information

### ITEM

### CODE

#### Product

ServSwitch Octopus 8 User x 32 CPUs Switch . . . . .	.KV1701E
ServSwitch Octopus 16 User x 64 CPUs Switch . . . . .	.KV1702E
ServSwitch Octopus User Station . . . . .	.KV1710E
ServSwitch Octopus User Station w/ local CPU and DeSkew . . . . .	.KV1712E
ServerAccessModule for PS/2 . . . . .	.KV1720A
ServerAccessModule for USB . . . . .	.KV1721A
ServerAccessModule for Sun HD15 . . . . .	.KV1722A
ServerAccessModule for Sun 13W3 . . . . .	.KV1723A
ServerAccessModule for RS-232/V.24 VT100 Emulation . . . . .	.KV1724A

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