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## KVM switches

- **K**eyboard **V**ideo **M**ouse Switches
- Upgradable and interchangeable via the **SERVIS** Cable System
- KVM for PCs and Sun systems (PS/2, Sun I/O+USB\*)
- Single/multi-platform 4/8/16 port multi-interface
- CAT5 Extenders for remote access



\* Sun USB and PC USB systems supported

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THE POSSIBILITIES ARE INFINITE

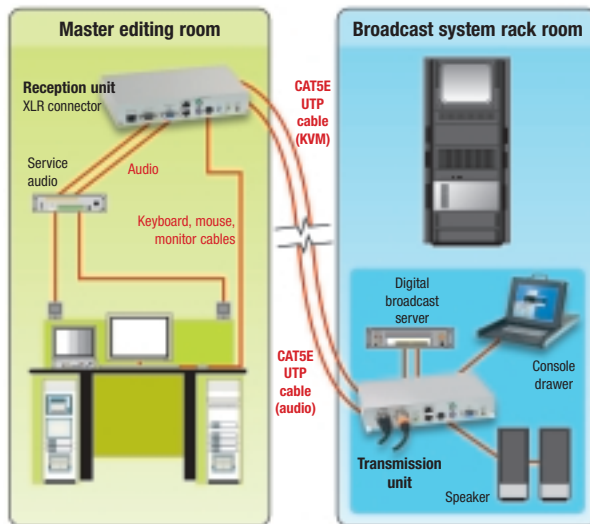
## CAT5 Extenders (with XLR connectors for high quality audio)

- Remote access up to 200m between servers and console
- High quality broadcast audio transmission across CAT5E UTP cables and XLRs (DAX model only)
- CAT5E UTP cable is used for connection between locations
- Supports video resolutions: 1600 x 1200 (at 50m), 1280 x 1024 (at 150m), 1024 x 768 (at 200m)
- RGB colour shift correction circuit
- Dual console operation achieved with local and remote console ports

CAT5 Extenders allow operation with an extended console (i.e. keyboard, mouse, monitor and high quality audio) across a CAT5E UTP cable so that servers that need to be installed in a secure controlled area can still be accessed by a remote user. The distance between servers and remote user can be up to 200m using CAT5E UTP cable.

With the CAT5 Extender DAX, ground-based digital broadcast applications can benefit from high quality audio transmission across CAT5E UTP cable in combination with XLR connectors.

The CAT5 Extenders incorporate an industry-pioneering RGB colour shift correction circuit (patent pending), thereby solving the problem of colour shift caused by the difference in length of each signal line within the cable.



The keyboard/mouse interface supports PS/2 and Sun mini DIN 8 pin, and has a compact case with a height of only 1U, which can be mounted on 19-inch racks. Used in combination with Fujitsu KVM switches (SERVIS) or a console drawer (SERVIS Drawer), multiple servers can be accessed from a remote location. Additional local access console port also allows a user to access servers within the room.

CAT5 Extenders enable not only the effective utilisation of racks, but also an improvement in operability following the elimination of the need to travel to the server room to conduct operations.

### CAT5 Extenders Specifications

Model	CAT5 Extender DA	CAT5 Extender DAX
Console Monitor		D-SUB 15 Pin Female
Console Keyboard		PS/2 mini DIN 6-pin Female
		SUN mini DIN 8-pin Female
Console Mouse		PS/2 mini DIN 6-pin Female
Console Audio	TX/RX: Stereo mini phone jack (Audio Line Out)	TX/RX: Stereo mini phone jack (Audio Line Out) RX: XLR connector male x 2
Distance Between Units (Monitor Resolution)	50m (1600 x 1200), 150m (1280 x 1024), 200m (1024 x 768)	
Extension Between Units	Console Port / RJ45 (8-Line) x 1 Audio Port / RJ45 (8-Line) x 1	
Power Supply	TX: DC 5V / 0.7A (DC max) RX: DC 5V / 0.8A (DC max)	DC 5V / 0.5A (AC Adaptor)
Storage Temperature	-20°C to 60°C	
Operating Temperature	0°C to 40°C (10% to 80% Relative Humidity)	
Weight	0.9 kg	0.8 kg
Dimensions (H x W x D)	TX: 42 x 220 x 120 mm, RX: 42 x 220 x 127 mm	42 x 220 x 120 mm

## KVM FS-1004EX/1004MT/1008MT/1016MT



KVM FS-1004MT (Multi-platform)



KVM FS-1004EX (PS/2)



The Servis cabling system is an effective and efficient cabling system that allows easy integration of the KVM device into many configurations. The cable has a built-in locking system at the KVM side and is available in 1.8, 3.0 and 5.0 m lengths and supports multiple interface systems.



KVM FS-1008MT (Multi-platform) – cable side view



KVM FS-1016MT (Multi-platform) – cable side view

### KVM FS-1004EX / 1004MT / FS-1008MT / FS-1016MT

- Support for future system types with internet downloadable firmware
- Extendable front face for easy rack mounting of the console connections close to the back edge of the rack (KVM FS-1008MT and KVM FS-1016MT only)
- Support for USB, PC PS/2 and SUN systems, both Sun I/O and Sun USB (FS-1004EX: PS/2 only)
- Configurable hot keys
- Switching options can be chosen from OSD (On Screen Display)\*, front panel switches and hot key switching with full support of scrolling mice and indicator lights
- Extended Display Identification Data (EDID) for all ports
- 1.8m, 3m and 5m cables available

### KVM FS-100EX/1004MT/1008MT/1016MT Specifications

Model	KVM FS-1004EX	KVM FS-1004MT	KVM FS-1008MT	KVM FS-1016MT
Cascadeable	4 units per KVM, with up to 4 slave KVMs providing support for up to 16 servers		8 units per KVM, with up to 8 slave KVMs providing support for up to 64 servers	16 units per KVM, with up to 16 slave KVMs providing support for up to 256 servers
SERVIS Cable System ports	4 x D-SUB 15-pin female		8 x D-SUB 15-pin female	16 x D-SUB 15-pin female
PC ports	2 x 6-pin mini-DIN mouse/keyboard ports, 1 x Sun I/O port (not KVM FS-1004EX), 1 x D-SUB 15-pin female monitor port			
Monitor resolution	1600 x 1200			
Monitor bandwidth	200 MHz			
Power supply	Auto sensing AC power input providing the internal system with DC +5 V ±5%			
Current consumption	100 mA max with 1 unit, 600 mA max with 16 units			
Operating temperature	0°C to 40°C			
Storage temperature	-20°C to 60°C			
Dimensions (H x W x D)	40 x 195 x 104 mm	45 x 195 x 105 mm	42 x 437 x 200 mm	42 x 437 x 200 mm
Weight	1.05 kg		2.8 kg	2.8 kg
Auto scan cycle	3, 5, 10, 20, 40 and 60 second intervals selectable, 10 seconds is the default			
Hot key	Configurable via keyboard		Selectable by DIP switch setting on the back of the unit	

\* not applicable for model KVM FS-1004EX



Sun keyboard template embossed around perimeter of keyboard



Sun I/O mini DIN 8

**KVM FD-1000AT (1024 x 768)**

**KVM FD-1000ST (Sun I/O interface – 1280 x 1024) 1152 x 900 composite sync.**

**1U Integrated Console Drawers**



- Flat modular construction for 19" rack mounting
- 15" TFT LCD supporting resolutions up to 1280 x 1024
- Sun, Intel Architecture PS/2 and USB support allowing control of Intel Architecture or SUN Blade/Fire series servers (simple cable configuration via the **SERVIS Cable System**)
- Built-in On Screen Display (OSD) allows server naming and selection (when used with the optional KVM products)
- Folds down to only 43mm high for 1U implementations
- Slide rails allow easy installation and configuration
- Short pull design with front opening screen for added protection from accidental damage

As server density increases in today's server racks so the need to reduce the size of any KVM solution whilst increasing the functionality becomes a necessity. The 1U console drawers make this possible by offering an optional integrated 8 or 16 port KVM device together with a high resolution 15" TFT LCD (up to 1280 x 1024 resolution) and keyboard and touchpad for local operation in a thin 19" rack. The consoles are Sun, PS/2 and USB compatible and have a built in user friendly on screen display allowing server naming and selection.



1U console drawer fitted with a 16 port KVM device

**KVM FD-1000AT/ST Specifications**

Model	KVM FD-1000AT	KVM FD-1000ST
<b>Console ports</b>	Supplied as a console drawer with 8 or 16 KVM ports	
<b>Signal format</b>	Analog RGB, separate sync.	Analog RGB, separate sync. (composite sync. Sun)
<b>LCD</b>	15" TFT colour	
Size	15" TFT colour	
Resolution	640 x 480, 800 x 600, 1024 x 768	1152 x 900 (Sun) 66 Hz, 1280 x 1024
Active area / Pixel pitch	304.1 x 228.1 mm / 0.297 x 0.297 mm	304.5 x 228.4 mm / 0.2175 x 0.2175 mm
Compatibility	VESA DPMS and DDC 2B Sun (FD-1000ST only)	
Luminance	250 cd/m <sup>2</sup> typ. (180 cd/m <sup>2</sup> min.)	150 cd/m <sup>2</sup> typ. (120 cd/m <sup>2</sup> min.)
Contrast ratio / Viewing angle	350 typ. (200 min.) / left 75°, right 75°, upper 45°, lower 75°	200 typ. (200 min.) / left 40°, right 40°, upper 15°, lower 30°
Scan frequencies	31.5 kHz to 60 kHz (horizontal), 56 Hz to 75 Hz (vertical)	61.8 kHz to 66 kHz (horizontal), 60 Hz to 63.9 Hz (vertical)
Panel colour	16.7 million display colours	
Language selection	English, German, Italian, French, Spanish (other languages by special order)	
Life (where backlight is continuously lit)	50,000 hrs. typ. (25,000 hrs. min.)	50,000 hrs. typ. (10,000 hrs. min.)
<b>Touch pad</b>	Type / Resolution Capacitive type / 220 ppi (points per inch)	
<b>Keyboard</b>	Life 5 million life cycles	
<b>Dimensions</b>	H x W x D 42 mm x 485 mm x 642 mm (slide rail contracted), 42 mm x 485 mm x 1117 mm (extended)	
Rack Size / Weight	Installed on EIA standard 19", 1U size rack / 12 kg	
<b>AC power supply voltage rating</b>	Auto sensing AC 85 V to 264 V (for LCD), frequency 47 Hz to 63 Hz, 100 V	
Keyboard, Touch pad	0.7 A to 200 V / 0.4 A	0.4 A to 200 V / 0.2 A
LCD	DC +5 V / 0.1 A (supplied by server)	
<b>Environmental</b>	Temp: operating / storage 0°C to 40°C / -20°C to 60°C	
Humidity: operating / storage	10% to 80% without condensation / 10% to 90% without condensation	
<b>Certification</b>	CE / UL / TUV / FCC class B / VCCI class B	
<b>MTBF</b>	25,000 hrs (LCD)	24,762 hrs (LCD)

Specifications are subject to change without notice. For the latest information, contact your local Fujitsu representative.

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