

# Xcion KVM Extender

DVI/USB AND HDMI/USB OVER CATx AND FIBER



- ▶ Compressed video over 1Gb/sec CATx cable
- ▶ Resolution up to 1080p and 1920x1200@60Hz
- ▶ Supports USB-HID devices (keyboard, mouse, touchscreen, and other USB-HID pointing devices)
- ▶ Optional USB 2.0 extension at data rate up to 64 Mb/sec
- ▶ Optional distributed matrix switch feature
- ▶ The DVI unit also supports optional VGA input, local video loop-out, bidirectional audio and RS232 support
- ▶ Built-in 4-port USB hub on receiver unit

## Features and Benefits

- Extends Full HD digital or analog video with visually lossless quality
- Input and output video resolutions up to 1920x1200 @60 Hz
- Transmitter and receiver units linked by a single CATx extension up to 492 feet (150 m)
- DVI/VGA/USB model supports multi-mode fiber up to 1640ft (500m) and single-mode fiber up to 12.4 miles (20km)
- Digital video and transparent USB 1.1 and 2.0 devices (keyboard, mouse and other HID devices) are supported at data rates up to 12Mbps
- Audio over USB is supported
- Firmware upgrade requires no special cable
- DDC menu allows use of remote monitor EDID or any of 5 fixed selections
- OSD menu functions allow option activation, firmware updates, monitor synchronization, video sharing and OSD locking
- Up to 4 units can be mounted in a 1U 19" rack
- Compact and lightweight chassis for easy installation

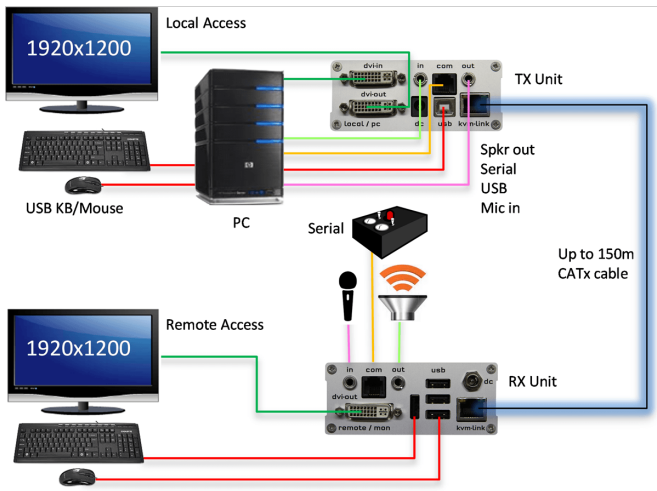
## Product Overview

The Xcion KVM Extender is the ideal device for extending DVI, VGA or HDMI video, USB, audio, and serial. The HDMI product is available as a CATx extender only and the DVI product uses either CATx or fiber cable interconnect. Signals can be extended to 492 feet (150 m) over CATx cable, 1640ft (500m) over multi-mode fiber cable and up to 12.4 miles (20Km) over single-mode fiber cable.

The Receiver unit supports up to 4 directly connected USB 1.1 or 2.0 devices at speeds up to 12Mbps (e.g. keyboards, mice, touch screens, tablets, scanners, or printers). The USB 2.0 memory option adds support for equipment such as mass storage devices, which need data rates up to 64Mbps. The option can be included in the original order or activated later by purchasing an unlock code and entering it in the OSD menu. Other options for the DVI Extender only include bidirectional analog audio, RS232 signal extension, and VGA video input.

The Xcion KVM Extender is packaged in a compact steel chassis, ideal for use in industrial applications and at installation sites requiring a robust and durable product. The TX/RX chassis can be rack mounted in a rack cabinet, with up to four units side by side on a 1U shelf, as well as wall, table, or DIN rail mounted.

## Typical Application



Typical installation showing DVI, USB, audio and serial connectivity over CATx

**Installation** Easy installation and minimal setup allows the extension system to be available for use quickly. Connect the Transmitter to the host computer using the included cables. Connect the Receiver to the output monitor and to a USB keyboard and mouse. Depending on the model, connect the Transmitter and Receiver with a CATx or fiber cable. Apply power to the units. Further configuration can be made using the Xcion Extender OSD.

**Models and options available** Two different models, HDMI/USB and DVI/VGA/USB are available. The options for each model are shown below.

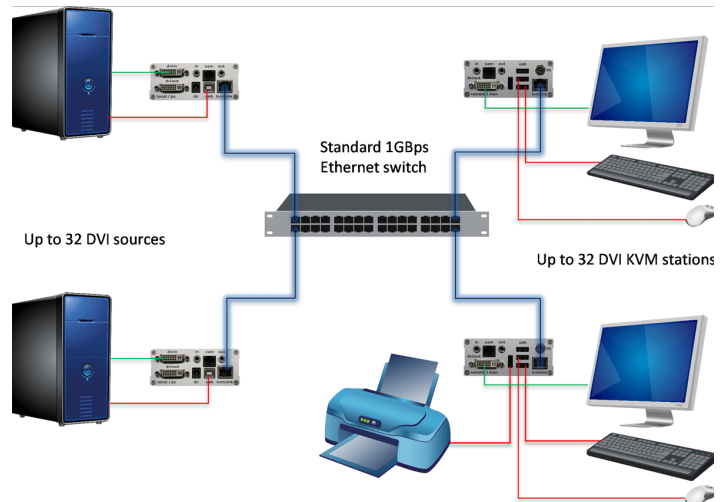
#### HDMI extender options on CATx

- USB2.0 high speed device support
- Distributed matrix switch over 1Gbps network

#### DVI/VGA extender options on CATx and fiber

- VGA input (on a DVI-I connector)
- DVI or VGA local-loop video output
- USB2.0 high speed device support
- Bi-directional analog audio
- RS232 serial communication
- Distributed matrix switch over 1Gbps network

**KVM Switching Option** Multiple Xcion DVI/VGA and HDMI Extenders can be connected to a dedicated gigabit Ethernet network switch to create a distributed matrix switch. Each user can access multiple different computers through the switch, and multiple users can access a single PC/Server using simple keyboard commands. The maximum cabling distance for each interconnect cable is 328ft (100m) for CATx, 1640ft (500m) for multi-mode fiber and 12.4 miles (20Km) for single-mode fiber.



Installation showing the Xcion KVM switching option

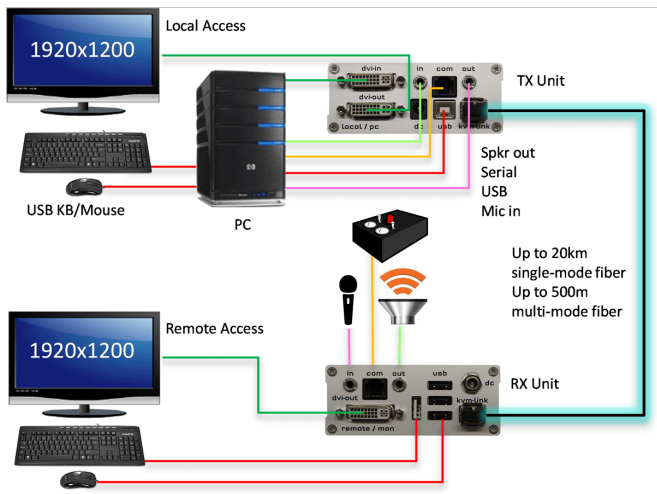
The KVM switching option can be managed through the OSD at individual user stations, or more easily controlled using the Xcion Switching Manager. The Switching Manager software installs on a notebook PC and manages all Xcion KVM extenders connected in a matrix switching system with up to 480 endpoints. The local and remote units can be connected or disconnected with a touch or mouse-click. The extenders are arranged with their status color-coded in order to provide a quick overview.



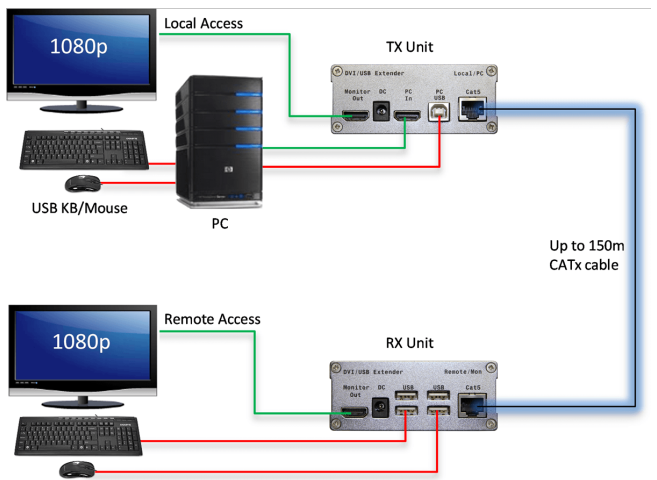
Xcion Switching Manager runs on a Windows PC

**Installing Xcion options** It is preferable to order Xcion options at the same time as the original product order. However, the pre-installed options can be activated at any time by purchasing an unlock code and entering it in the OSD menu.

**Mixed system configuration** It is possible to mix different Xcion DVI, VGA and HDMI transmitters and receivers in the same system. For example, a DVI transmitter unit can be linked through to an HDMI receiver unit. The VGA option is only available on the DVI-I transmitter unit. The receiver unit must always be a digital unit, either DVI-D or HDMI.



Typical installation showing DVI, USB, audio and serial connectivity over fiber cable



Typical installation showing HDMI and USB connectivity over CATx cable



Xcion DVI Fiber Extender showing front and back panels

## Part numbers

<b>XCK-2DTXUD1D</b>	Xcion, DVI/USB Extender kit, CATx
<b>XCK-2DFMUD1D</b>	Xcion, DVI/USB Extender kit. MM Fiber
<b>XCK-2DFSUD1D</b>	Xcion, DVI/USB Extender kit. SM Fiber
<b>XCK-2DTXUH1H</b>	Xcion, HDMI Extender kit, CATx
<b>RM-4XCK/19-K1</b>	Rackmount, Kit incl. Tray+Front Plate, 1U, 19" (no PSU mounting)
<b>RM-4XCK/19-K2</b>	Rackmount, Kit incl. Tray+Front Plate +1x PSU+1x4-split Cable, 1U, 19"
<b>RM-4XCK/19-K3</b>	Rackmount, Kit incl. Tray+Front Plate +2x PSU+2x2-split Cable, 1U, 19"
<b>RM-2XCK-K1</b>	Rackmount, Dual Mounting Faceplate Bracket
<b>RM-UD/1U-XCK</b>	Rackmount, Mounting Brackets, Under Desk, Include 2 Brackets
<b>RM-UDDR/1U-XCK</b>	Rackmount, DIN-Rail Brackets, Include 2 Brackets & 2 DIN-Rail Snaps
<b>RM-VESA-XCK</b>	Rackmount, VESA Mount Brackets, Kit incl. Bracket

### Options for the DVI/VGA and HDMI product

<b>/T</b>	Add USB 2.0 High Speed Option (64Mbps)
<b>/SM</b>	Add Switch Mode
<b>Options for the DVI/VGA product</b>	
<b>/AS</b>	Add Audio/Serial
<b>/V</b>	Add VGA Input

## Specifications

Description	DVI/VGA Model		HDMI Model	
<b>Dimensions (W x D x H)</b>	3.83 x 4.07 x 1.57 " (97.5 x 103.5 x 40) mm		3.83 x 4.07 x 1.57 " (97.5 x 103.5 x 40) mm	
<b>Weight</b>	10.6oz, 302g		10.6oz, 302g	
<b>Rackmount shelf (W x D x H)</b>	17.3 x 9.8 x 1.75 " (440 x 250 x 44.5) mm		17.3 x 9.8 x 1.75 " (440 x 250 x 44.5) mm	
<b>Video resolution</b>	1920 x 1200 @60Hz		1920 x 1200 @60Hz	
<b>Video format</b>	TX: DVI-I, RX: DVI-D, single-mode		TX: HDMI, RX: HDMI, HD	
<b>Color mode</b>	24 bit		24 bit	
<b>Connectors - standard unit</b>	Transmitter Unit 1 x DVI-I - no HDCP 1 x DVI-I - local port 1 x USB-B - to PC 1 x RJ45 - CATx model 1 x LC duplex type-fiber model 1 x DC power jack	Receiver Unit 1 x DVI-D 4 x USB-A - to USB devices 1 x RJ45 - CATx model 1 x LC duplex type - fiber model 1 x DC power jack	Transmitter Unit 1 x HDMI - no HDCP 1 x HDMI - local port 1 x USB-B - to PC 1 x RJ45 - CATx model 1 x DC power jack	Receiver Unit 1 x HDMI 4 x USB-A - to USB devices 1 x RJ45 - CATx model 1 x DC power jack
<b>Connectors - options</b>	Transmitter Unit 2 x 3.5mm jack plug 1 x RJ12 serial, RS232 up to 57,600 baud	Receiver Unit 2 x 3.5mm jack plug 1 x RJ12 serial, RS232 up to 57,600 baud	Transmitter Unit	Receiver Unit
<b>Analog audio option</b>	Analog, 16 bit, 44kHz, 2 channel			
<b>USB Interface</b>	USB 2.0, 12Mbps - standard unit USB2.0, 64Mbps - option		USB 2.0, 12Mbps - standard unit USB2.0, 64Mbps - option	
<b>Front panel LED</b>	1 x LED; Red = No video or link, Orange = link, no video, Green = Link and Video		1 x LED; Red = No video or link, Orange = link, no video, Green = Link and Video	
<b>Cables - CATx</b>	Solid-Core, CATx5e/6/7. EIA/TIA568-A, 24AWG or greater. Use shielding, or use STP. Max Distance: 492ft (150 m)		Solid-Core, CATx5e/6/7. EIA/TIA568-A, 24AWG or greater. Use shielding, or use STP. Max Distance: 492ft (150 m)	
<b>Cables - Fiber</b>	Duplex Multi-mode, 50/125μ, LC-type, Max Distance : 1640ft (500 m) Single-mode LC, Gigabyte LWL, Max Distance : 12.4 miles (20km)			
<b>EDID support</b>	Internal EDID, user adaptable		Internal EDID, user adaptable	
<b>Power requirement</b>	100-240VAC, 50/60Hz, 12VDC, 1A, 6W		100-240VAC, 50/60Hz, 12VDC, 1A, 6W	
<b>Temperature</b>	Operating: 0 - 45 °C / 32 - 113 °F Storage: -25 - 80 °C / -13 - 176 °F		Operating: 0 - 45 °C / 32 - 113 °F Storage: -25 - 80 °C / -13 - 176 °F	
<b>Humidity</b>	< 90% non-condensing		< 90% non-condensing	
<b>Approvals</b>	FCC Class A, UL, CE, RoHS 2		FCC Class A, UL, CE, RoHS 2	

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datasheet-xcion-kvm-extender-2018-02-14

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