CX1X-* DATASHEET

The **C.A. Designs CX1X-*** PC extender systems enable IBM-compatible computers to be operated with the keyboard, mouse and monitor remote from the system unit. Connection between system unit and remote workstation is by twisted-pair cable.

VGA, SVGA or XGA (analogue video, TTL sync) video graphics signals are amplified and cable-matched through buffered video line drivers (designed for minimum co-channel interference and optimum performance).

Video performance is maintained up to resolutions of 1280x1024 for short cable runs and not less than 800x600 (non-interlaced) up to the full rated maximum distance of 300 metres (**CX1X-300**).

Keyboard and mouse signals are bi-directionally multiplexed and the system is data transparent, allowing normal 'booting' and mode selection. AT or PS/2 keyboard types are supported with the 6-pin MDIN plug standard (5 pin DIN plug keyboards require adapters, available from C.A. Designs – part codes **LD7A / LD7C**).

- The **CX1X-100 / CX1X-300** units comprise two modules with a mouse adapter lead (to select serial or PS/2 type).
- The **CX1XC-100 / CX1XC-200** modules plugs directly into a PC via flying leads (the mouse type is selected by plugging the reversible adapter lead into the appropriate PC port socket).

Modules are connected by either:

- Two 4-pair Cat. 5 cables (with RJ45 plugs), **or**
- One 4-pair Cat. 5 cable and a local 12v regulated power supply at the workstation end (available from C.A. Designs – part code **MP1***)

Each module has a switch to select single or dual cable operation - both must be set the same!

Standard PC peripherals (monitor, keyboard and mouse) are plugged directly into the **CX1XK-100** module at the workstation end.
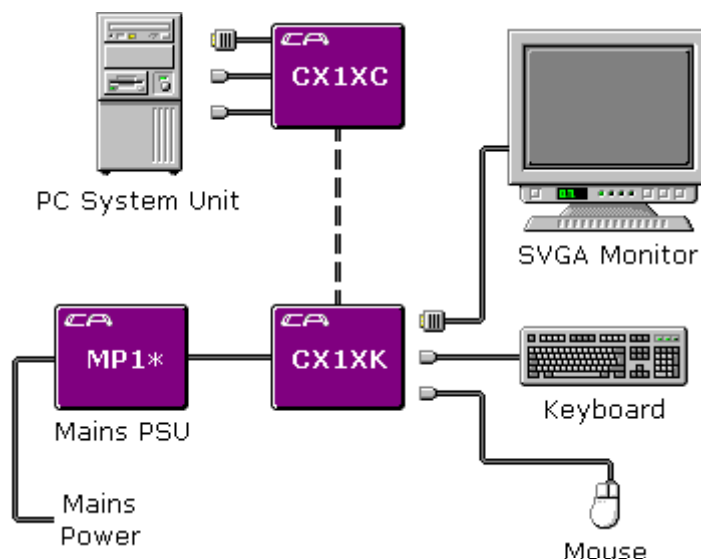
Video output at the remote workstation end may be switched between RGB analogue (with sync on green) and VGA type (with switchable polarity syncs. - some monitors use this parameter to control picture size).

An indicator light at each end shows when the two modules are communicating (useful during installation).
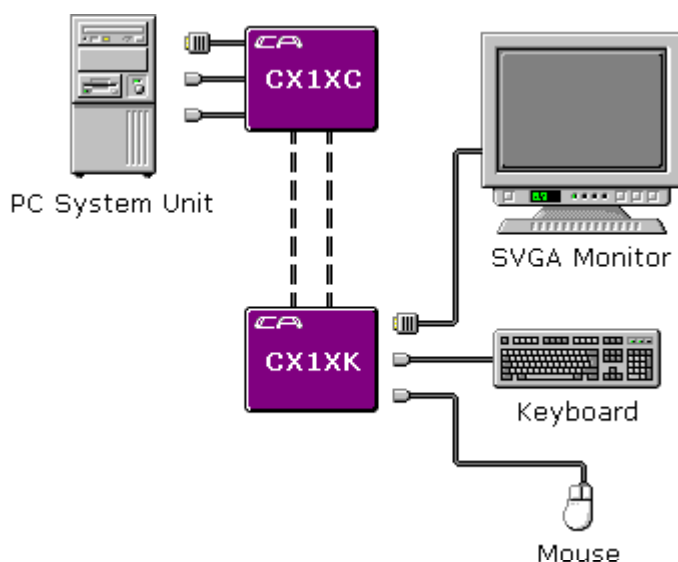
Switched frequency and gain compensation are provided for distances of 0, 50 and 100 metres at each end of the link. These distances are additive and should be set for an optimum picture. Lengths stated are only correct for the specified cable, and may give an inferior result with any other.

Typical Connections

With Mains Power / 1 (One) RJ45 Lead

PC System Unit

CX1XC

SVGA Monitor

MP1*

CX1XK

Mains PSU

Keyboard

Mains Power

Mouse

Without Mains Power / 2 (Two) RJ45 Leads

PC System Unit

CX1XC

SVGA Monitor

CX1XK

Keyboard

Mouse

Specification

CONNECTIONS TO PC:	
VIDEO Connector	• VGA, SVGA or XGA video signal, impedance 75ohms • TTL H & V sync. signals, impedance 1k ohms • 15 pin High Density D plug (flying lead)
KEYBOARD Connector	• Clock & Data Signals: Bi-directional TTL levels • Power: +5v @ 1A max. (fused) • 6 pin mini-DIN plug (flying lead)
MOUSE Connector (via supplied adapter)	**Serial Type:** • RS232 data & enable • 9 pin D socket (flying lead) **PS/2 Type:** • Clock & Data Signals: Bi-directional TTL levels • 6 pin mini-DIN plug (flying lead)

CONNECTIONS AT REMOTE WORKSTATION:	
VIDEO Connector	• VGA, SVGA or XGA video signal, impedance 75ohms • TTL H & V sync. signals, impedance 1k ohms • 15 pin High Density D socket
KEYBOARD Connector	• Clock & Data Signals: Bi-directional TTL levels • Power: +5v @ 0.35A max. • 6 pin mini-DIN socket
MOUSE Connector	**Serial Type:** • RS232 data & enable • 9 pin D plug **PS/2 Type:** • Clock & Data Signals – Bi-directional TTL levels • 6 pin mini-DIN socket
External Power Connector (only required if using one RJ45 lead)	• +12v DC regulated PSU (current depends on keyboard type - 270mA maximum) • 2.5mm centre pin DC co-axial connector (centre pin +ve)

MECHANICAL:	
PC End **(CX1XC-100 / CX1XC-300)**	• Beige plastic box flame retardant to UL 94-HB • 29mm high x 115mm wide x 95mm deep
Desk End **(CX1XK-100)**	• Beige plastic box flame retardant to UL 94-HB • 29mm high x 115mm wide x 95mm deep

CONNECTING LINK:	
Connector Cable (not included)	• EIA568B Category 5 UTP or STP • RJ45 connectors **Either:** • Single 4-pair cable up to 200m long, or • Two 4-pair cables up to 200m long