



WS-Remote

Workstation Remote Solution for Twisted Pair cabling

Save space and reduce heat radiation from workstations at the desk.
Remote control in real time of your dedicated workstation over Inhouse Cabling.
Compensation of cable losses guarantees high quality image at the desk for up to 300m distance.



Highlights

- Remote video, audio and data over one twisted pair cable
- Reduce heat and noise radiation at the desk and less desk space required
- All automatic adjustment of Gain, Eq and Skew to compensate for cable losses (Attenuation/Skew)
- Up to 300m distance depending on bandwidth of cabling and video signal
- On Screen Menu for fine adjustment and settings operated by the keyboard at the desk
- Supported resolution of 1600x1200@60Hz or even higher

Advantages

With the WS-Remote you can easily remote your workstations into cabinets at a protected and air-conditioned area like a system room. Save on costs for air-conditioning on the trading floor.

Floor space can be used more effectively because without computers at the desk, a smaller desk footprint is necessary.

The WS-Remote solution supports different platforms, interfaces and is independent from Hardware and Platform vendors.

Features

The WS-Remote III and WS-Remote IV is available as a standard and a light version.

Transmission

The video, audio, keyboard/mouse (PS2 or USB) and serial data signals of a workstation will be transmitted over one twisted pair cable (UTP/STP).

The transmission of the signal is in real time. Each additional transmission of a video signal requires an additional WS-Remote line.

Maximum Distance

WS-Remote III & III Light : up to 300m
 WS-Remote IV & IV Light : up to 180m

The max. distance varies depending on some of the following:

- Bandwidth and skew of the cable
- Resolution/Frequency of the video
- Number of patch joints

Video Signal

The Video Signal on the transmitter side coming from the workstation's graphic card can either be analogue (D-SUB HD15) or digital (DVI-D). Monitor data via I2C bus is also transmitted when it is supported by the workstation.

At the receiver side the video signal output is always analogue (D-SUB HD15). The WS-Remote supports VESA standard resolutions of up to 1600x1200@60Hz. The transparent transmission mode of the WS-Remote Light models supports also some non VESA compatible formats.

Product Lines

The WS-Remote is available in different product lines and module types.

Rack Module

The EURO format card is mounted and powered by a Chassis that is available in different sizes and shapes (19" Chassis with dual PSU, Small Desk Housing)

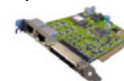
- Single Transmitter/Receiver rack cards



- Single DVI Transmitter card
Input for Digital Video Interface (DVI-D). Output signal on receiver side VGA.
- Dual Video Transmitter card (Video only)
Card module for the transmission of 2 video signals only.

PCI(X) Bus Module

- PCI(X) Dual Transmitter card
Card module for the transmission of PS2, RS232 and 2 video signals. PCI card modules are mounted directly in the PC's PCI or PCIX bus. The card uses only the power from the PCI bus and requires no driver installation.



Standalone

- Standalone Receiver
Single/Dual/Quad Standalone receiver boxes with external power supply.



Cabling system

The use of a CAT5 or higher shielded or unshielded twisted pair cable for the signal transmission between the transmitter and receiver ensures a high picture quality.

The data - PS2 or USB, Serial - and audio signals from the workstation are transmitted together with the video signal over one twisted pair cable.

Additional video signals require a separate cable connection to the desk.

Compensation of losses

During the transmission the strength of the signal decreases according to the length and characteristics of the cable.

The WS-Remote is able to compensate for the most significant cable losses like attenuation and skew delay.

Attenuation losses are the result of the cable impedance (capacitive, inductive and resistance) of the cable.

They are visible on the monitor as a blurred and weak picture.

Depending of the production method the four-paired conductors of the twisted pair cable do not have equal lengths.

The three colours (RGB) of the video signal are separately transmitted using one pair of wiring per colour.

This results in skew delays between the 3 colour signals. These losses appear as misaligned colours on the screen.

Space saving modules

The WS-Remote product family comes with different mounting forms.

They are available as standalones (single, dual, quad) or as EURO format cards for installation in a chassis.

A space saving solution is the WS-Remote PCI card, which is a dual transmitter card for the installation directly in the PC using a PCI or PCIX slot. The card uses only the power from the PCI BUS so the PC's security will not be affected as no software or driver installation is required.

Example of a WS-Remote Solution

The picture below shows a typical example of the WS-Remote solution. The Workstations at the desks have been replaced by a small receiver box with connectors for keyboard, mouse, video and audio.

Systemroom

The Workstations are relocated into the system room while a small compact receiver box is installed at the desk. Keyboard, mouse, video and audio interfaces from the workstations are connected to the transmitter cards. For high reliability the cards are supported by a 19" chassis with dual PSU.

Heat radiation of Computers and electronic Components can be lead away more efficient by the air condition of the system room. You can save costs by reducing the dimension of the air condition in the trading floor.

Desk environment

On each Desk a compact chassis for the receiver equipment is installed. The chassis are in different forms and sizes available. We can also provide client specific chassis with patch panels integrated for the desk cabling. The size of the desk can be reduced where no PCs are installed locally.

