



Videum 4000 Xpress Family

Four-Port Audio/Video PCI Express Capture Card
QuickStart Guide

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PRODUCT DESCRIPTION

The Videum 4400 AV Xpress is a 4-channel audio/video PCI Express capture card and the Videum 4400 VO Xpress is a 4-channel video-only PCI Express capture card. Both capture 4 simultaneous video streams from 4 independent video sources.

The Videum 4100 AV Xpress is a 1-channel audio and video PCI Express capture card that enables fast switching between 4 video sources. The Videum 4000 Xpress boards support any PAL or NTSC composite video source like camera, DVD players, and video recorders.

SCOPE OF DELIVERY

- QuickStart Guide
- CD with software driver and documentation
- Audio Adapter cable (Videum 4400 AV Xpress and 4100 AV Xpress only)
- Watchdog Reset cable
- Videum 4000 Xpress family capture card

Audio Adapter Cable

This cable is required to connect the audio sources to the 8pin Mini DIN Jack on the Videum card.



Watchdog Reset Cable

This cable is required for the Watchdog crash-recovery function.

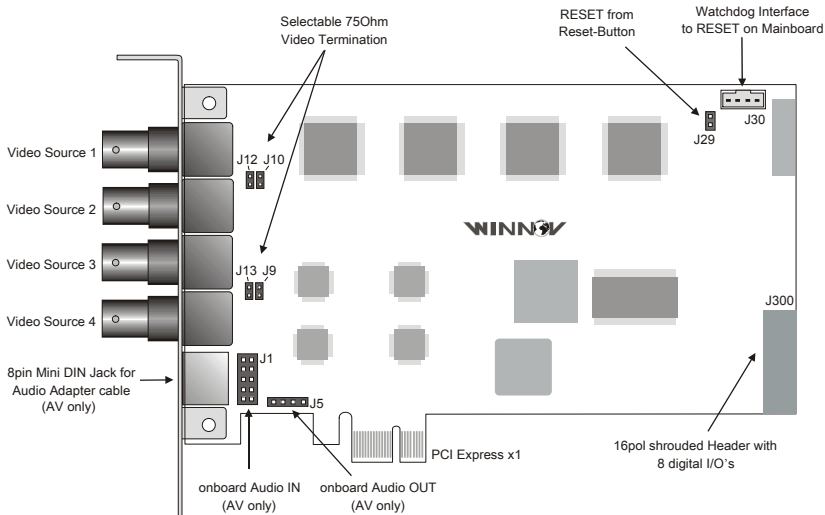


SYSTEM REQUIREMENTS

- CPU: AMD or Intel > 1 GHz
- Slot: x1, x4, x8 or x16 PCI Express, PCI-E 1.1 compliant
- Memory: > 256 MB
- OS: Windows 2000 SP4, XP SP2, Vista & SP1 x86, Server 2003 SP2, Server 2008 x86 (DirectX9 or higher required)

VIDEUM 4400 AV XPRESS BOARD DRAWING

This drawing illustrates the Videum 4400 AV Xpress board. The Videum 4400 VO Xpress does not provide an 8pin Mini DIN Jack for connecting to the audio sources.



SAFETY INSTRUCTIONS

Power off the computer when installing and removing PC cards.

When the computer is turned off by using the power switch, there still might be power supplied to the motherboard. To ensure that your computer is completely shut down, unplug the computer's power cord from its power source.

Static electricity can damage your client adapter. Before removing the adapter from the antistatic packaging, discharge static by touching a metal part of a grounded PC.

GETTING SETUP

To get initially set up, you need to:

- Install the Videum board.
- Connect your source(s).
- Install the software from the Videum CD.

INSTALLING VIDEUM

This section describes how to install the Videum board, connect Winnov's Watchdog, connect Digital I/O, and modify Video Input Termination.

Installing the Videum Board

To install the Videum board, do the following:

1. Turn off your computer and peripheral devices, and then disconnect the power supply.
2. Remove the computer cover and the adapter slot cover from the slot that matches your adaptor.
3. Firmly place the adapter edge connector into the PCI Express slot until it is fully inserted. Secure the bracket to the chassis.
4. Connect the Watchdog reset cable if you require this function.
5. Connect the Digital I/Os if desired – used for trigger input or event signaling output. See the section on Digital I/Os.
6. Modify the Video Input Termination if desired. See the section on Video Input Termination.
7. Replace the computer cover. Plug in the power cord and restart your system.

Installing Multiple Boards

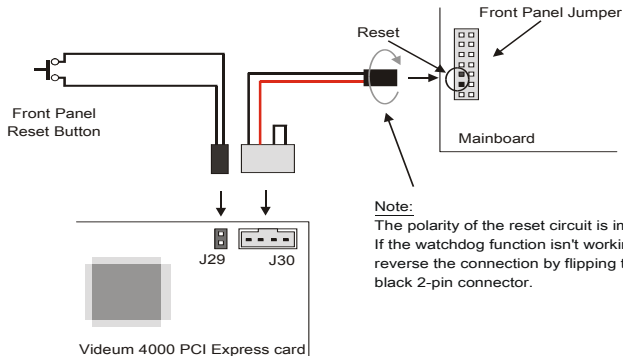
Winnov Videum enables you to install several Videum capture cards into your system. If you have installed multiple boards in one system, Videum software recognizes the number of capture cards that you have. Each board is one PCI Express device and requires only one driver installation.

Connecting the Watchdog Reset Cable

The Watchdog Reset is a crash recovery function that automatically reboots the system in the event of a software lock-up, thus allowing unattended operation.

To establish Watchdog, do the following:

1. Unplug your computer's reset cable where it connects to the motherboard.
2. Connect your computer's reset cable that you disconnected to the pin connector (J29) on your Videum board.
3. Connect the Watchdog's reset cable (red/black) to the reset pins now opened on the motherboard.

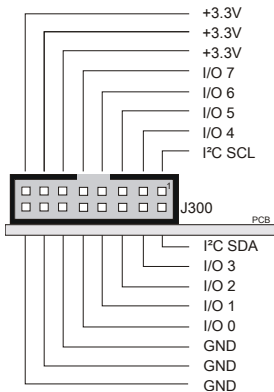


Note:

The polarity of the reset circuit is important. If the watchdog function isn't working, reverse the connection by flipping the black 2-pin connector.

Connecting Digital I/O

Your Videum board provides 8 digital I/O which can be used as trigger input or as event signaling output. Each input and output is used individually as input or output. The Digital I/O interface on the board is controlled through Winnov's ActiveX software and the Videum SDK (Software Development Kit).



When an I/O is configured as an input, the output FET's are off, creating high impedance input with a weak pull-up to +3.3V. If the I/O is configured as an output, then the output FETs are active depending on the state of the Output Port register.

Note: Care should be exercised if an external voltage is applied to an I/O configured as an output because of the low impedance (220 Ohm) path that exists between the pin and either +3.3V or GND.

Modifying Video Input Termination

Each video input (Video Source 1-4) is terminated with 75 Ohm. For proper video reception this termination is required. In some cases, termination is not desired, for example:

- The card is inserted into an existing video link via a T-piece.
- All four inputs are fed from one video source, for example, to provide 4 streams with different resolutions from the same video stream.
- Several Videum cards are cascaded or run in parallel to other video equipment.

In these cases, the video termination requires a video amplifier or repeater. This can be avoided by individually disabling the termination by removing the jumper. One termination must remain per video link and be as close as possible to the end of the whole link.

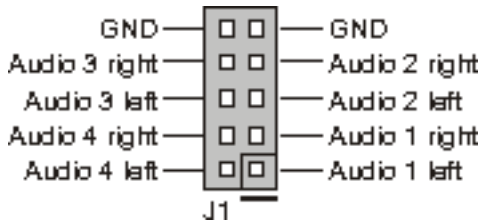
| <i>Video Source</i> | <i>Jumper</i> |
|---------------------|---------------|
| 1 | J10 |
| 2 | J12 |
| 3 | J9 |
| 4 | J13 |

If the jumper is removed, the video termination is disabled. If the jumper is replaced, the video termination is enabled (default).

Connecting On-board Audio Connectors

The Videum board provides on board headers for all 4 audio inputs (which are the same as the 8pin Mini DIN on the bracket) and for the audio output. The audio out amplifier is able to drive a 32 Ohm headphone or speaker.

The on board headers have the following pinout. J1 is the Audio IN Header and J5 is the Audio OUT header.



CONNECTING VIDEO AND AUDIO SOURCES

To connect your video sources, do the following:

- Connect your video source (camera, DVD player, VCR, etc) to any of the four BNC video inputs (Video Source 1 through 4).

To connect your audio sources (Videum 4400 AV Xpress and 4100 AV Xpress), do the following:

- Connect your audio sources via the Audio Adapter Cable (Mini DIN to 4 x Phone jack 3.5mm) to the 8pin Mini DIN Socket.

INSTALLING THE VIDEUM SOFTWARE

The Videum Software CD contains the Drivers required for using the Videum board, applications, and documentation.

Note: If the “Found New Hardware Wizard” popup appears after you start up your system, be sure to cancel out of it.

1. Start your computer and insert the Videum Software CD.
2. From the Videum Software CD menu, select your preferred language and click to run Setup. Alternatively, run the “Setup.exe” application directly from the root directory of the CD.

The installer guides you through the software installation process. It is recommended that you use the defaults.

TECHNICAL SUPPORT AND DRIVER UPDATES

The latest drivers, utilities, and documentation are available at Winnov's support website at www.support.winnov.com.

To obtain help or information associated with your Videum board or Videum applications, use the Videum SDK's help menus, supplied documentation (on the CD), or contact Winnov support via e-mail at support@winnov.com.

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