LIMITED WARRANTY

Rose Electronics® warrants the QuadraVista QF™ to be in good working order for one year from the date of purchase from Rose Electronics or an authorized dealer. Should this product fail to be in good working order at any time during this one-year warranty period, Rose Electronics will, at its option, repair or replace the Unit as set forth below. Repair parts and replacement units will be either reconditioned or new. All replaced parts become the property of Rose Electronics. This limited warranty does not include service to repair damage to the Unit resulting from accident, disaster, abuse, or unauthorized modification of the Unit, including static discharge and power surges.

Limited Warranty service may be obtained by delivering this unit during the one-year warranty period to Rose Electronics or an authorized repair center providing a proof of purchase date. If this Unit is delivered by mail, you agree to insure the Unit or assume the risk of loss or damage in transit, to prepay shipping charges to the warranty service location, and to use the original shipping container or its equivalent. You must call for a return authorization number first. Under no circumstances will a unit be accepted without a return authorization number. Contact an authorized repair center or Rose Electronics for further information.

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DECLARATIONS OF CONFORMITY

This equipment generates, uses and can radiate radio frequency energy and if not installed and used properly, that is in strict accordance with the manufacturer’s instructions may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A digital device in accordance with the specifications of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Declaration of Conformity

This declaration is valid for the following product:

Equipment: Video, Keyboard, Mouse Switching System
Type: QuadraVista QF

Hereby the equipment is confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (89/336/EEC) and the Council Directive relating to Low Voltage (73/23/EEC). For the evaluation of the mentioned Council Directive for Electromagnetic Compatibility and for Low Voltage, the following standards were consulted:

EN 61000-3-2:2000 (Harmonic current emissions)
EN 61000-6-2:2001 (Immunity)
EN 61000-4-3:2002
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Disclaimer

While every precaution has been taken in the preparation of this manual, the manufacturer assumes no responsibility for errors or omissions. Neither does the manufacturer assume any liability for damages resulting from the use of the information contained herein. The manufacturer reserves the right to change the specifications, functions, circuitry of the product, and manual content at any time without notice. The manufacturer cannot accept liability for damages due to misuse of the product or other circumstances outside the manufacturer’s control. The manufacturer will not be responsible for any loss, damage, or injury arising directly or indirectly from the use of this product. (See limited warranty)

System Introduction

Thank you for choosing Rose Electronics QuadraVista QF. This product is the result of Rose Electronics continuing commitment to provide state-of-the-art switching solutions for today’s demanding workplace. The key advantage of the QuadraVista QF over conventional KVM switches is that it allows you to simultaneously display and manage four computers on a single console. It combines key features of a high-end KVM switch and a digital Quad viewer, scaling and converting video at both input and output.

Selectable Display Modes

Quad Mode
In this mode, the screen is split into four fields of equal size, each displaying the entire screen contents of one source.

FULLSCREEN MODE
In Fullscreen mode, one of the four sources is displayed in full screen size and maximum resolution.

PiP Mode (Picture in Picture)
Using this mode, the full screen display of one of the four video sources is accompanied by one to three small images (thumbnails) of the other video sources, which are displayed in the right hand side of the screen allowing simultaneous monitoring.

WIN MODE
In Win mode, each video source is displayed in its own separate, detached widow. Each of these windows can be freely positioned and their height and width can be adjusted.
Features

- Supports resolutions up to 1920 x 1200 @ 60Hz for both DVI and VGA
- Any combination of VGA and DVI is possible at inputs and outputs
- Analog video is converted to digital at the input, guaranteeing superior digital image quality
- Digital video is converted to analog at the output, if an analog display is detected
- Either USB or PS/2 keyboard and mouse to computers
- Two USB-HID ports for console keyboard and mouse
- Four USB 2.0 ports for printers, memory sticks, and other high speed devices
- On Screen Display (OSD) for configuring and navigating
- Front panel LEDs for status indication
- Firmware updating through serial (RS232) or USB port
- Six operation alternatives:
  - Front panel buttons
  - Configurable keyboard hotkeys
  - Mouse functions (Hotmouse)
  - Configuration software running on an external computer
  - Serial port control using DCP XML protocol
  - Touch screen

Compatibility

Video  DVI-I inputs and output support resolutions up to 1920 x 1200 @ 60 Hz, both analog and digital.

Keyboard  Compatible with all standard USB keyboards. By using a USB hub, multiple keyboards can be connected in share mode, with an inactivity time of 3 seconds.

Mouse  Compatible with all standard USB mice. By using a USB hub, multiple mice can be connected in share mode, with an inactivity time of 3 seconds.

Audio  Audio input from the connected computer. Analog audio output via 3.5mm stereo jack, or digital audio output via S/PDIF digital cinch connector or TOSLINK optical audio connector.

Package contents

- QuadraVista QF unit
- Rack mount kit
- 1 x Power cord
- Manual

If the package contents are not correct, contact Rose Electronics or your reseller, so the problem can be quickly resolved.
System Overview

This section describes the QuadraVista QF unit, its front panel buttons and LEDs, and rear panel connectors. A brief description of the functions of the front panel buttons is also given here.

Front Panel

The QuadraVista QF front panel has eight LED status indicators and eight buttons.

Buttons 1 through 4 switch between channels, and LEDs 1 through 4 indicate the status of the individual channels. Full, Quad, PiP, and Win buttons are used to switch display modes, and the corresponding LEDs indicate the current mode. The Pip and Win buttons are also used to display the OSD menus and make selections.

Status LEDs:
- LEDs 1 to 4: When these LEDs light up green, the corresponding channel (computer port) has been selected and is available for keyboard and mouse access. When a LED flashes green, there is no signal at the video input of the selected channel.

When the LED lights up yellow, there is a signal at the video input, but another channel has been selected.

When the LED is dark, there is no signal at the video input and another channel has been selected.

The LEDs light up blue when Win Mode preset window configuration is being selected.

- LED Full: This LED lights up green when the unit is in Fullscreen mode.
- LED Quad: This LED lights up green when the unit is in Quad mode.
- LED PiP: This LED lights up green when the unit is in PiP mode.
- LED Win: This LED lights up green when the unit is in Win mode.

Note:
While the OSD menu is open, the active computer can still be operated by mouse or touch screen.
**Buttons:**
- **Buttons 1 to 4:** These buttons activate the corresponding CPU channel (computer port).
- **Full** button: Press to switch to Fullscreen mode.
- **Quad** button: Press to switch to Quad mode.
- **PiP** button: Press to switch to picture in picture mode (PiP).
- **Win** button: Press to switch to Win mode.

![Figure 3. Hot Key Channel Selection Window](image)

You can also switch the active channel using the hotkey and arrow keys. The selection window closes once the channel selection timeout period has elapsed. The timeout value for channel selection can be changed in the OSD System menu by selecting Quad mode. Then use the “Time out of Channel Selection” menu item to indicate how long the selector icon should be displayed on the screen.

**Additional Button Functions**

**Setting output resolution to safe output modes**

To set the output resolution to 640 x 480 @ 60 Hz, press and hold buttons 1 and 2 simultaneously for 2 seconds.

![Figure 4. Buttons for Resetting Output Resolution](image)

Using this feature is recommended when you cannot use the OSD, because the on screen display is dark or illegible due to an output resolution setting which is not supported by the monitor. Once the widely supported 640x480@60 Hz output is set, you can then use the OSD to choose resolutions that the monitor in use supports. Alternatively, hold buttons 1 and 2 for 2 seconds at a time to cycle through the following standard video modes: VGA 640x480@60Hz, SVGA 800x600@60 HZ, XGA 1024x768@60 Hz, UXGA 1600x1200@60 Hz.
Hardware Reset
Press and hold buttons 3 and 4 simultaneously for 5 seconds to reset the Unit completely (video, keyboard, and mouse).

Displaying the OSD
Press and hold the Pip and Win buttons simultaneously to cause the OSD menu to be displayed.

Note:
While the OSD menu is displayed, the active computer can still be operated by mouse or touch screen.

Rear Panel
The rear panel of QuadraVista QF features three audio output ports, four computer input ports, the Console (KVM) ports, a USB control port, an RS232 control port, four USB 2.0 device ports, and the a/c power connector and switch.

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</tbody>
</table>

1. IEC Power Connector
2. Audio ports
3. Monitor / DVI-I output
4. Four DVI-I inputs
5. USB control port
6. RS232 / RJ45 control port
7. USB for keyboard, mouse, touch or trackball (console)
8. USB or PS2 keyboard and mouse (computer)
9. Four transparent high-speed USB 2.0 ports

Table 1. Connectors on Rear Panel of the QuadraVista QF Unit
1. Power
   Plug for supplied power cable.

2. Audio Output ports
   Connect external speakers or headphones to the 3.5 mm analog stereo jack or digital cinch connector. The TOSLINK optical audio connector allows digital audio output to an optical receiver.

3. Monitor / DVI-I Output
   Connect analog or digital displays to this port.

4. DVI-I Inputs
   Connect the analog or digital video signal of CPU/Video sources to these four DVI-I ports. For HDMI video sources, use an HDMI to DVI adapter cable. For VGA video sources, use a VGA to DVI-I adapter cable. Cable lengths of up to 65 feet are supported.

5. USB Control Port
   External USB control devices connect to this port to operate QuadraVista remotely. Firmware updates can also be performed through the USB control port.

6. RS/232 Control Port
   External serial control devices can be connected to this port to operate QuadraVista QF remotely. The port can also be used for firmware updates. (See Appendix F).

7. USB ports for Console Keyboard, Mouse, Touch screen, or Trackball
   Console USB keyboard and mouse, touch screen or trackball can be connected to these two ports. Multiple keyboards and mice can be connected through a USB hub. The devices will work in share mode with an inactivity timeout of 3 seconds.

8. USB and PS/2 Ports for Computer keyboard and mouse connections
   Connect each computer’s PS/2 or USB keyboard and mouse here.

9. High Speed USB 2.0 Ports
   Data intensive USB devices such as printers, memory sticks, and fingerprint readers can be connected to any of the four high speed ports.
Installation

Please refer to the safety section first before proceeding with any installation or configuration of the QuadraVista QF. Installation of the QuadraVista QF consists of connecting the computers and KVM console to the unit. The following steps can be used as a guideline for installing your QuadraVista. It is recommended that you locate the QuadraVista as close as possible to the computers being connected.

Plug the power cable into the power plug located on the rear panel of QuadraVista QF with the power switch in the off position. Connect the power cord to a grounded power supply. Connect all cables before powering on the QuadraVista.

KVM Console Connections

Connect your digital monitor’s DVI connector to the console monitor connector using a DVI-D cable. If the digital monitor has an HDMI connector, use an HDMI to DVI-D cable. Connect an analog monitor to the console monitor connector using a VGA to DVI-I cable.

Connect USB mouse and keyboard to the console USB-A connectors. PS/2 keyboard and mouse require a PS/2 to USB adapter.

![Figure 8. Console Keyboard, Mouse, and Monitor Connections](image)

Maximum recommended cable length for high quality video (DVI / VGA) is 65 feet (20 meters). Maximum cable length for USB / PS2 keyboard and mouse is 16 feet (5 meters). For greater distances, QuadraVista QF supports most KVM extenders, video (DVI / VGA) extenders, and USB extenders.
Computer / Video Source Connections

Switch off the computer and disconnect the keyboard, monitor and mouse.

Connect a USB port on the computer to a QuadraVista QF USB input port using a single USB A-B cable. For computers with PS/2 keyboard and mouse, connect both computer ports to a QuadraVista QF PS/2 input port using a PS/2 Y cable. For distances greater than 16 feet (5 meters), use a USB or PS/2 extender.

Connect the computer’s digital video output to the QuadraVista QF’s DVI input using a DVI-D to DVI-D or HDMI to DVI-D cable. For computers with an analog video (VGA) output, use a VGA-DVI-I cable to QuadraVista QF DVI input. For distances greater than 65 feet (20 meters), use a DVI or VGA video extender.

Powering up the System

Ensure that all installation work is complete before applying power to QuadraVista QF. Switch on QuadraVista QF using the power switch on the rear panel. All front panel LEDs light up briefly indicating that QuadraVista QF is ready for operation. QuadraVista QF is now in Quad-Mode (default).

Power-up all the connected computers. QuadraVista QF recognizes all input video sources automatically and displays them on your monitor screen.

To select another display mode, use the relevant keyboard commands or buttons on the front panel.
Connecting Audio

The QuadraVista QF can be connected to external powered speakers or audio devices for audio playback from any of the connected computers or video/audio sources.

Three different output connection options are available (see Figure 11):

1. 3.5mm analog stereo jack
2. Digital cinch connector
3. TOSLINK optical audio jack

After the speakers have been physically connected to the QuadraVista QF

1. Open the OSD and navigate to COMPUTER > AUDIO
2. Enable audio output
3. Select the audio source and adjust the volume.

![Audio Output Connections](image)

**Note:** Powered speakers or headphones can also be connected directly to QuadraVista QF, eliminating the need for an amplifier.
Operating the unit with the On Screen Menu System

The QuadraVista has an easy to use menu system that enables you to customize the unit’s operation. The components that can be customized are the “System”, “Mode”, “Configuration”, “Console”, “Video”, “Computers”, and “USB Devices”. Each section is described in detail on the following pages. The On screen Menu System or OSD (On Screen Display) structure is shown below.

![Figure 11. OSD Main Menu](image)

<table>
<thead>
<tr>
<th>System</th>
<th>Mode</th>
<th>Configuration</th>
<th>Console</th>
<th>Video</th>
<th>Computers</th>
<th>USB Devices 1-4</th>
<th>Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYSTEM</td>
<td>MODE</td>
<td>CONFIGURATION</td>
<td>CONSOLE</td>
<td>VIDEO</td>
<td>COMPUTER</td>
<td>USB DEVICES</td>
<td>HELP</td>
</tr>
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<td>HDPC</td>
<td>HDCP status</td>
<td>HDCP</td>
<td>HDCP</td>
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<td>HDCP</td>
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<tr>
<td>HOTKEY</td>
<td>HOTKEY</td>
<td>Multiple Hotkey / Double Click Hotkey</td>
<td>HOTKEY</td>
<td>HOTKEY</td>
<td>HOTKEY</td>
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<tr>
<td>HOTMOUSE</td>
<td>HOTMOUSE</td>
<td>Hotmouse Recognition, Hotmouse Timeout</td>
<td>HOTMOUSE</td>
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<td>HOTMOUSE</td>
<td>HOTMOUSE</td>
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<td>QUAD MODE</td>
<td>QUAD MODE</td>
<td>Channel Selection Timeout</td>
<td>QUAD MODE</td>
<td>QUAD MODE</td>
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<td>QUAD MODE</td>
<td>QUAD MODE</td>
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<td>WIN MODE</td>
<td>WIN MODE</td>
<td>Appearance settings for windows</td>
<td>WIN MODE</td>
<td>WIN MODE</td>
<td>WIN MODE</td>
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<td>OSD POSITION</td>
<td>OSD POSITION</td>
<td>Position of OSD window</td>
<td>OSD POSITION</td>
<td>OSD POSITION</td>
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<td>OSD LANGUAGE</td>
<td>OSD LANGUAGE</td>
<td>English / German / Spanish</td>
<td>OSD LANGUAGE</td>
<td>OSD LANGUAGE</td>
<td>OSD LANGUAGE</td>
<td>OSD LANGUAGE</td>
<td>OSD LANGUAGE</td>
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<tr>
<td>SECURITY</td>
<td>SECURITY</td>
<td>Set security level</td>
<td>SECURITY</td>
<td>SECURITY</td>
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<tr>
<td>DISABLE CHANNEL</td>
<td>DISABLE CHANNEL</td>
<td>Deactivate unused channels</td>
<td>DISABLE CHANNEL</td>
<td>DISABLE CHANNEL</td>
<td>DISABLE CHANNEL</td>
<td>DISABLE CHANNEL</td>
<td>DISABLE CHANNEL</td>
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<tr>
<td>CONTROL</td>
<td>CONTROL</td>
<td>Device control via DCP-XML protocol (RS232)</td>
<td>CONTROL</td>
<td>CONTROL</td>
<td>CONTROL</td>
<td>CONTROL</td>
<td>CONTROL</td>
</tr>
<tr>
<td>CURRENT</td>
<td>CURRENT</td>
<td>Set the current channel and mode</td>
<td>CURRENT</td>
<td>CURRENT</td>
<td>CURRENT</td>
<td>CURRENT</td>
<td>CURRENT</td>
</tr>
<tr>
<td>START</td>
<td>START</td>
<td>Set the channel and mode in which the device should boot</td>
<td>START</td>
<td>START</td>
<td>START</td>
<td>START</td>
<td>START</td>
</tr>
<tr>
<td>BACKUP</td>
<td>BACKUP</td>
<td>Save configuration settings</td>
<td>BACKUP</td>
<td>BACKUP</td>
<td>BACKUP</td>
<td>BACKUP</td>
<td>BACKUP</td>
</tr>
<tr>
<td>RECALL</td>
<td>RECALL</td>
<td>Restore last saved configuration</td>
<td>RECALL</td>
<td>RECALL</td>
<td>RECALL</td>
<td>RECALL</td>
<td>RECALL</td>
</tr>
<tr>
<td>FACTORY RESET</td>
<td>FACTORY RESET</td>
<td>Reset to factory default settings</td>
<td>FACTORY RESET</td>
<td>FACTORY RESET</td>
<td>FACTORY RESET</td>
<td>FACTORY RESET</td>
<td>FACTORY RESET</td>
</tr>
<tr>
<td>VIDEO OUTPUT</td>
<td>VIDEO OUTPUT</td>
<td>Video resolution and frequency</td>
<td>VIDEO OUTPUT</td>
<td>VIDEO OUTPUT</td>
<td>VIDEO OUTPUT</td>
<td>VIDEO OUTPUT</td>
<td>VIDEO OUTPUT</td>
</tr>
<tr>
<td>KEYBOARD</td>
<td>KEYBOARD</td>
<td>Keyboard layout</td>
<td>KEYBOARD</td>
<td>KEYBOARD</td>
<td>KEYBOARD</td>
<td>KEYBOARD</td>
<td>KEYBOARD</td>
</tr>
<tr>
<td>TOUCH SCREEN</td>
<td>TOUCH SCREEN</td>
<td>Calibration / Mouse key emulation / Enlarge on touch</td>
<td>TOUCH SCREEN</td>
<td>TOUCH SCREEN</td>
<td>TOUCH SCREEN</td>
<td>TOUCH SCREEN</td>
<td>TOUCH SCREEN</td>
</tr>
<tr>
<td>MOUSE</td>
<td>MOUSE</td>
<td>Enable Cross Channel Switching</td>
<td>MOUSE</td>
<td>MOUSE</td>
<td>MOUSE</td>
<td>MOUSE</td>
<td>MOUSE</td>
</tr>
<tr>
<td>FADE</td>
<td>FADE</td>
<td>Indicate use of smooth transitions</td>
<td>FADE</td>
<td>FADE</td>
<td>FADE</td>
<td>FADE</td>
<td>FADE</td>
</tr>
<tr>
<td>MULTI MONITOR</td>
<td>MULTI MONITOR</td>
<td>Assign mouse/keyboard to video</td>
<td>MULTI MONITOR</td>
<td>MULTI MONITOR</td>
<td>MULTI MONITOR</td>
<td>MULTI MONITOR</td>
<td>MULTI MONITOR</td>
</tr>
<tr>
<td>BACKGROUND</td>
<td>BACKGROUND</td>
<td>Select background type</td>
<td>BACKGROUND</td>
<td>BACKGROUND</td>
<td>BACKGROUND</td>
<td>BACKGROUND</td>
<td>BACKGROUND</td>
</tr>
<tr>
<td>EDID</td>
<td>EDID</td>
<td>Display of EDID monitor data</td>
<td>EDID</td>
<td>EDID</td>
<td>EDID</td>
<td>EDID</td>
<td>EDID</td>
</tr>
</tbody>
</table>
TABLE 2. QuadraVista QF Menu System

<table>
<thead>
<tr>
<th>VIDEO</th>
<th>INPUT STATUS</th>
<th>Display computers’ video input resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DVI / VGA</td>
<td>Choose input signal: DVI/VGA - DVI - VGA</td>
</tr>
<tr>
<td></td>
<td>ROTATION</td>
<td>Rotate the screen display at different degrees</td>
</tr>
<tr>
<td></td>
<td>CROPPING</td>
<td>Crop the display of video sources</td>
</tr>
<tr>
<td></td>
<td>BRIGHTNESS</td>
<td>Set brightness of analog input signal</td>
</tr>
<tr>
<td></td>
<td>CONTRAST</td>
<td>Set contrast of analog input signal</td>
</tr>
<tr>
<td></td>
<td>HORIZ POSITION</td>
<td>Horizontal screen position</td>
</tr>
<tr>
<td></td>
<td>VERT POSITION</td>
<td>Vertical screen position</td>
</tr>
<tr>
<td></td>
<td>SCREEN WIDTH</td>
<td>Set screen width of analog input signal</td>
</tr>
<tr>
<td></td>
<td>PHASE</td>
<td>Adjust phase of analog input signal</td>
</tr>
<tr>
<td></td>
<td>FORMAT</td>
<td>Fit input format to screen</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER</th>
<th>CHANNEL MAPPING</th>
<th>Assign an input port to a channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIO</td>
<td>NAME 1-4</td>
<td>Assign computer names</td>
</tr>
<tr>
<td></td>
<td>KEYBOARD</td>
<td>Display type of keyboard (PC1, PC2, PC3 or USB)</td>
</tr>
<tr>
<td></td>
<td>MOUSE/TOUCHSCREEN</td>
<td>Display type of mouse (PS/2, PS/2 Wheel or USB) / Set USB interface (absolute, relative, touch screen)</td>
</tr>
<tr>
<td></td>
<td>RESET PS/2</td>
<td>Reset PS/2 mouse and keyboard</td>
</tr>
<tr>
<td></td>
<td>EDID / DDC</td>
<td>Program input EDID</td>
</tr>
</tbody>
</table>

| USB DEVICE 1-4 | USB PORT STATUS | Shows USB 2.0 matrix status and allows USB ports to be assigned to a device |

<table>
<thead>
<tr>
<th>HELP</th>
<th>ABOUT</th>
<th>Firmware / hardware version, serial number, etc</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HOTKEY</td>
<td>List of keyboard commands</td>
</tr>
<tr>
<td></td>
<td>CONTACT</td>
<td>Contact information</td>
</tr>
</tbody>
</table>
Accessing the OSD

There are two ways to access the OSD as outlined below:

- simultaneously press the “PiP” and “Win” buttons on front panel for longer than one second;
- use the keyboard command “<Hotkey>” + “O”; or

1. Access the OSD by simultaneously pressing the “PiP” and “Win” buttons on the front panel for longer than one second.

The OSD pops up in the center of the screen (on top of the video image).

2. Press “<Hotkey>” + “O” on the keyboard

The OSD pops up in the center of the screen (on top of the video image).
Navigating the OSD

Use the keyboard or the buttons on the front panel to navigate the OSD.

**Navigation using the keyboard**

Use the ↑ and ↓ arrow keys, or the Tab and Shift+Tab keys to navigate from one field to the next in the OSD. The ← and → arrow keys, or the + and − keys are used to change the value in the current field. Press Enter to select a menu item.

Press Esc to return to the previous menu (next higher menu level) or exit the OSD. Changed settings are saved automatically.

**Navigation using the Front Panel**

![Image of QuadraVista QF front panel]

Figure 12. Navigating the OSD through the Front Panel

Navigation using the buttons on the QuadraVista QF front panel mirrors the use of the keyboard. Buttons 1 and 2 correspond to the ↑ and ↓ arrow keys, and buttons 3 and 4 correspond to the ← and → arrow keys, or the + and − keys. Confirm your entry by pressing the Win/Select button.

Press the PiP/Exit button to return to the previous menu (next higher menu level) or to exit the OSD. Changed settings are saved automatically.

**Note:** Hotkey commands are possible while the OSD is being displayed.
SYSTEM Menu
This section covers the SYSTEM menu of the OSD. The individual menu options are described below.

SYSTEM / HDCP Menu Item
Use the arrow keys to navigate in the SYSTEM menu to the HDCP option and press the Enter key / SELECT button to open the HDCP window.

Figure 13. SYSTEM / HDCP Window

The SYSTEM / HDCP window displays the status of HDCP input and output encoding. HDCP (High-bandwidth Digital Content Protection) is an encoding system used to prevent copying of digital audio and video content.

In the upper part of the window, the HDCP status of the four input signals is displayed. When a checkbox is marked, the video source is transmitting a signal with HDCP encoding.

QuadraVista QF displays this signal only when HDCP encoding is supported by the output device.

The lower portion of the window displays the HDCP status of the output. The first line shows whether the connected monitor supports HDCP.

When checked, the next line indicates whether the QuadraVista output signal is HDCP protected. If the output signal is HDCP encoded, the QuadraVista will not output a VGA/analog signal, or a separate audio signal.

Figure 14. System / HDCP menu item
SYSTEM / HOTKEY Menu Item
Navigate with the arrow keys in the SYSTEM menu to the HOTKEY menu item and press the Enter key / SELECT button to open the HOTKEY window.

Two different hotkey modes are available:

For multiple hotkey commands, one to four keys can be defined which are pressed simultaneously to enter the command mode. Selectable keys are the Left CTRL, Shift, Alt and the WINDOWS keys.

For double click hotkey commands, you can choose one key, which is double clicked to enter the command mode. Selectable keys are: Ctrl, Shift, Alt and Scroll Lock.

To change the hotkey mode or select another hotkey, navigate with the Tab, or ↑ and ↓ arrow keys to the respective field and use the ← and → arrow keys or the + and - keys to change the setting.

Command Mode:
The command mode is indicated by a flashing LED on the console keyboard.

Default setting: Multiple hotkey – Ctrl + Alt

Note:
For a list of hotkeys to operate QuadraVista QF, see Appendix C.
**SYSTEM / HOTMOUSE Menu Item**

Navigate with the arrow keys in the SYSTEM menu to the HOTMOUSE menu item and press the **Enter** key / **SELECT** button to open the HOTMOUSE window.

![SYSTEM / HOTMOUSE Window](image)

Figure 16. SYSTEM / HOTMOUSE Window

Hotmouse is an exclusive function that comes with QuadraVista QF. It works with a standard mouse or trackball, turning the mouse cursor into a numbered arrow for quick and easy navigation.

To activate Hotmouse operation:

- Navigate in the SYSTEM Menu to HOTMOUSE and press the **Enter** key / **SELECT** button to **Enable Hotmouse**.

There are two modes of Hotmouse operation: **Hotmouse Cursor** and **Hotmouse Menu**.

While **Hotmouse Cursor** supports only a limited set of operations, **Hotmouse Menu** allows execution of all switch operations and display mode settings.

While the Hotmouse function is activated, the active computer can still be operated by keyboard.

For a detailed description of Hotmouse, Hotmouse functions, and the Hotmouse Menu please see the QuadraVista QF Hotmouse Feature section found on [page 66](#).
**SYSTEM / QUAD MODE Menu Item**

Use the arrow keys to navigate in the SYSTEM menu to the QUAD MODE menu item and press the **Enter** key / **SELECT** button to open the QUAD MODE window.

Channel selection timeout defines the period (1 to 30 seconds) after which the selector arrow will close automatically. The default setting is 5 seconds.

To open the active channel in Quad mode:
Press **Hotkey ‘Q’**
The yellow border indicates the active channel (mouse and keyboard enabled). Alternatively, press front panel button **Quad**.

To switch the selector from an active channel to another channel:
Press **Hotkey + arrow key**. After the selector timeout has expired, the selector closes.
**SYSTEM / WIN MODE Menu Item**

Navigate with the arrow keys in the SYSTEM menu to the WIN MODE menu item and press the Enter key / SELECT button to open the Win mode window.

![SYSTEM / WIN MODE Window](image)

**Border width:** Set the width of the borders around the windows containing the video signals in Win mode. When the border width is zero, no borders are shown.

**Border colors:**
- Active channel: Press the Enter key / SELECT button to open the SELECT COLOR menu and set the color of the border for the active channel.
- Inactive channels: Press the Enter key / SELECT button to open the SELECT COLOR menu and set the color of the border for the inactive channels.

![Channel Selector](image)

**Channel Selector**

Use Hotkey 1-4 to select a channel or window. Alternatively, the hotmouse function or front panel buttons labeled 1 through 4 can be used to select a channel or window. When a channel has been selected, a colored border will appear around the window of the active channel. The channel selection cursor will also be visible. The Win front panel button can also be used to select a preset.

When the selector times out, the selector closes.

![Win Mode Floating Buttons](image)

**Win Mode Floating Buttons**
The following function buttons will appear when the hotmouse cursor is moved to the top right corner of the signal window.
- **O:** Open OSD hotmouse context menu.
- **S:** Swap signal windows. When the button is clicked, the other window is selected.
- **R:** Toggle aspect ratio locking for current window.
**SYSTEM / OSD POSITION Menu Item**

Navigate to the **OSD POSITION** menu item in the **SYSTEM** menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the **OSD Position** window.

![SYSTEM / OSD POSITION Window](image)

Use this function to move and reposition the OSD anywhere on the screen. 

**SYSTEM / OSD LANGUAGE Menu Item**

Navigate to the **OSD LANGUAGE** menu item in the **SYSTEM** menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the **OSD Language** window.

![SYSTEM / OSD LANGUAGE Menu Item](image)

Set **OSD language** to either English (default), Deutsch (German) or Español (Spanish).
**SYSTEM / SECURITY Menu Item**

Navigate to the SECURITY menu item in the SYSTEM menu using the arrow keys, and press the **Enter** key / **SELECT** button to access the Security functions.

The Security feature allows fine-tuning of access to the functional range of the QuadraVista QF. Eight security levels are available for this purpose.

By default, all functions are enabled (Security Level 0). To change the security level, a pre-defined password must first be entered.

**Note:** This six-digit password is enclosed separately with the QuadraVista QF package. It should only be accessible to authorized personnel, like administrators.

![Figure 23. SYSTEM / SECURITY and-SECURITY / ENTER PASSWORD Windows](image)

After entering the password on the keyboard or front panel (password is not displayed in Password field), the SECURITY window opens.

![Figure 24. SYSTEM / SECURITY LEVEL Window](image)

Enter the desired security level (0 to 8) under **Select security level**.

**Note:**
Before changing the security level, please set the configuration you wish to work with to the higher security level, under MODE > START. This configuration will be maintained when QuadraVista QF is reset, in case of power failure, or when power is turned off and on again.
The settings at each security level are given below.

**Security Level 0:**
This is the default setting of QuadraVista QF. All settings are allowed and all functions are enabled.

**Security Level 8:**
Security Level 8 allows access to only one channel (computer) in a predefined display mode (Quad, Fullscreen or PiP mode). No settings can be changed, apart from the SECURITY menu item, where you can change the security level.

*Allowed options:*
SYSTEM ➔ SECURITY

**Security Level 7:**
Security Level 7 allows access to OSD windows that only show display modes and device settings.

*Allowed Options:*
SYSTEM ➔ HDCP
CONSOLE ➔ VIDEO OUTPUT/EDID
VIDEO ➔ INPUT STATUS
COMPUTER ➔ NAME 1-4/ KEYBOARD / MOUSE / EDID/DDC
HELP ➔ HOTKEY / ABOUT / CONTACT

**Security Level 6:**
Security Level 6 gives the same access as Security Level 7, along with the following additional permissions:
- Ability to set active channel using the front panel buttons, Hotkeys or Hotmouse
- Ability to select a channel with the PiP button in Quad mode
- Ability to change the directly selectable PiP channel in PiP mode single direct

*Allowed Options:*
Security Level 7 Permissions
SYSTEM ➔ CONTROL
CONSOLE ➔ FADE

**Security Level 5:**
Security Level 5 gives the same access as Security Level 6, along with the following additional permissions:
- Ability to set the display mode (Quad / Fullscreen / PiP) using front panel buttons, Hotkeys or Hotmouse

*Allowed Options:*
Security Level 6 Permissions
MODE ➔ CURRENT / START ➔ TEST PATTERN
CONSOLE ➔ BACKGROUND
Security Level 4:
Security Level 4 gives the same access as Security Level 5, along with the following additional permissions:

- Modify the display mode settings in Hotmouse Menu
- Changing both channels in Dual mode
- Changing the fixed PiP channel in PiP mode single fixed

Allowed Options:
Security Level 5 Permissions
SYSTEM ➔ OSD POSITION / WIN MODE
MODE ➔ PIP / START
CONFIGURATION ➔ RECALL
COMPUTER ➔ AUDIO
VIDEO ➔ FORMAT

Security Level 3:
Security Level 3 gives the same access as Security Level 4, along with the following additional permissions.

Allowed Options:
Security Level 4 Permissions
SYSTEM ➔ OSD LANGUAGE
VIDEO ➔ BRIGHTNESS / CONTRAST / HORIZ POSITION / VERT POSITION / SCREEN WIDTH / PHASE
USB DEVICE 1-4

Security Level 2:
Security Level 2 gives the same access as Security Level 3, along with the following additional permissions.

Allowed Options:
Security Level 3 Permissions
SYSTEM ➔ HOTKEY / HOTMOUSE / QUAD MODE
CONSOLE ➔ KEYBOARD / TOUCH SCREEN

Security Level 1:
Security Level 1 gives the same access as Security Level 2, along with the following additional permissions:

- Switch video output to VGA (using hotkey 'V' or front panel buttons 1+2)

Allowed Options:
Security Level 2 Permissions
SYSTEM ➔ DISABLE CHANNEL
CONSOLE ➔ MULTIMONITOR / VIDEO OUTPUT
VIDEO ➔ DVI/VGA / ROTATION / CROPPING
COMPUTER ➔ CHANNEL MAPPING / MOUSE / RESET PS/2
**SYSTEM / DISABLE CHANNEL Menu Item**

Navigate to the **DISABLE CHANNEL** menu item in the **SYSTEM** menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the **DISABLE CHANNEL** window.

![SYSTEM / DISABLE CHANNEL Menu](image)

**Figure 25. SYSTEM / DISABLE CHANNEL Window**

If less than four computers or video sources are connected to QuadraVista QF, use the **DISABLE CHANNEL** feature to ensure that for any unused channels:

a) The "No Signal Input X" message is not shown in Quad mode  
b) Blank PiP images are not displayed on screen  
c) Unused channels are not selectable in Fullscreen mode

For example, if three computers (channel 1 to 3) are connected to the QuadraVista QF, use the arrow keys to navigate to the number 3 and confirm by pressing the **Enter** key / **SELECT** button.

**Note:**

For the **DISABLE CHANNEL** feature to work correctly, computers/video sources should be connected to the QuadraVista QF channels 1 to 4 in ascending order.

- All four channels enabled  
- Three channels enabled  
- Two channels enabled

![Examples of Disabled Channels](image)

**Figure 26. Examples of Disabled Channels in Quad Mode**
**SYSTEM / CONTROL Menu Item**

Navigate to the CONTROL menu item in the SYSTEM menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the CONTROL window.

![SYSTEM / CONTROL Menu Item](image)

The device can be controlled via DCP (Device Control Protocol), an XML-based protocol. A detailed description can be found in Appendix E.

There are two DCP modes:
- **DCP control**, which allows external control of the display mode; and
- **DCP synchronize**, which keeps several QuadraVista QF devices in the same display mode.

The default setting is **off**, which prevents any external control.

Use a serial or a USB cable to connect a control unit to the RS-232 port (RJ 45) on the QuadraVista QF’s rear panel. To synchronize several devices, special “Y” cables are required.

Settings for the connection are:
- transfer rate 57600 baud
- 8 data bits
- No parity
- 1 stop bit
- No flow control

The two control modes operate as follows.
DCP Control

This mode allows direct control of a single QuadraVista QF by means of a control device, e.g. a computer. The control device can query and change the mode of the QuadraVista QF.

QuadraVista QF responds to each DCP message sent by the control device with a DCP reply. This reply includes the values of all settings queried or set by means of the last message. If the message sent by the control unit contains errors, the QuadraVista QF will reply by sending an error message.

As seen in the figure below, the QuadraVista QF is controlled with DCP-XML from a computer connected to it through the serial or USB port.

![Figure 28. SYSTEM / CONTROL Window - DCP control](image)

![Figure 29. Making connections for DCP Control](image)
DCP Synchronize
Use this mode to keep several QuadraVista QF units in the same state.

Every change in settings initiated in the first unit through hotkeys, hotmouse, front panel buttons or a controlling device synchronizes the states of all connected devices through DCP messages.

Special Y-cables are needed for synchronization.

![DCP mode setting](image)

**Figure 30, SYSTEM / CONTROL Window - DCP synchronize**

**Important Note:**
Every time a QuadraVista QF that has been set to *synchronize* is restarted, it will send all its settings to the next connected device. This also happens when *DCP mode* is set to *synchronize* in the OSD.

When powering up a chain of units, always start with the unit at the end of the chain. When the unit has completed its startup phase and sent its DCP messages, power up the next unit in the chain. Proceed in this manner, moving up the chain until the first unit in the chain, which will synchronize the settings of all the other units in the chain with its own settings when it starts up.

This is seen in the example setup shown. In this setup, QuadraVista QF units 2 and 3 are synchronized with unit 1.
When synchronizing, Unit 1 sends every change in settings to the RX input of Unit 2 as a DCP message through the Serial Y-cable between them. Unit 2 then adopts the settings, and then in turn sends a DCP message from its TX output to the RX input of Unit 3 through the Y-cable that links them.

The synchronization chain can be of any length. However, the first and last units in the chain must not be connected, thereby creating a loop.
Security Levels for DCP

The security levels described earlier also apply to control via DCP messages. Queries are possible up to security level 7.

The maximum security levels for simple element settings are shown below. These settings may be changed through DCP to the desired security level.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Security Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSOLE CHANNEL</td>
<td>6</td>
</tr>
<tr>
<td>VIDEO CHANNEL</td>
<td>6</td>
</tr>
<tr>
<td>VIDEO LAYOUT</td>
<td>5</td>
</tr>
<tr>
<td>PIP LAYOUT</td>
<td>4</td>
</tr>
<tr>
<td>PIP HEIGHT</td>
<td>4</td>
</tr>
<tr>
<td>PIP OFFSET</td>
<td>4</td>
</tr>
<tr>
<td>PIP ZOOM</td>
<td>4</td>
</tr>
<tr>
<td>PIP CHANNEL</td>
<td>4</td>
</tr>
<tr>
<td>DUAL CHANNELS (L/R)</td>
<td>6</td>
</tr>
<tr>
<td>PIP SCAN TIME</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 3. DCP Security Levels
MODE Menu
This section covers the MODE menu of the OSD. It is used to define the video modes in which the QuadraVista QF should run, either currently or at start up.

**MODE / CURRENT Menu Item**
Select the video mode, which the unit should currently use.

![MODE / CURRENT Window](image)

Choose from Fullscreen, Quad Mode, PiP, Win Mode or Test Pattern.

**MODE / START Menu Item**
Select the video mode the device should use when starting up.

![MODE / START Window](image)

This menu item provides the means to define the video mode when the unit is started up (Fullscreen, Quad Mode, PiP, Win Mode or Test Pattern), the active channel and PiP settings.

When the MODE / START menu item is selected, the current start configuration is displayed. Modify this configuration by changing the Channel, Mode and PiP fields. Press Esc to save the modifications and exit the START menu.

Choose USE CURRENT MODE to adopt the current settings as the Start mode. Use the arrow keys to navigate to the field and press Enter. The factory default Start mode is Quad Mode with Channel 1 active.
**Video Modes**
The PiP, Win and Test Pattern Video Modes are described in detail in this section. A description of the different video modes can be found in the *Selectable Display Modes* section in the *Introduction* to this manual.

**PiP Video Mode**
This section describes the PiP Video Mode.

The PiP size, zoom factor, position and display mode can be set in the *PiP* window.

**PiP display mode**
The *triple* option shows 3 additional screens in PiP mode, while *single* shows only one other screen. When *single* is chosen, use the *PiP channel* option to define which channel is to be displayed in the window.

**PiP size**
This field gives the option to specify the size of the PiP window as a percentage of half the overall screen size. Twelve sizes are available for *single PiP display mode*, and nine sizes are available for the *triple PiP display mode*, as shown below.

Single PiP display mode: 3%, 5%, 7%, 10%, 15%, 20%, 25%, 28%, 33%, 38%, 44%, 50%
Triple PiP display mode: 3%, 5%, 7%, 10%, 15%, 20%, 25%, 28%, 33%

**Note:**
The size of one quad screen is 50% (one quarter of a full screen).

**PiP zoom factor**
Use this option to zoom the center of the PiP images by a factor of two.

**Offset from top**
Use this option to change the position of the PiP images. PiP images can be moved vertically along the screen’s right hand border.

**Note:**
All PiP settings are also accessible from the Hotmouse menu.
**PIP Display Modes**

The *triple* and *single* PiP display modes are described in detail here, with the effect of the display mode options on them.

**Triple PiP Display Mode**

In the *triple* PiP display mode, all four video sources are displayed. The active channel will be displayed as the main image, and the other three channels will be PiP images. The effect of the *Active Channel* setting is displayed below.

---

**triple gap:**
Pip images are displayed with a gap in place of the active channel.

**triple no gap:**
images are displayed without a gap.

**triple tile:**
The size of the main and PiP images are optimized so that the main image and PiP images are shown as large as possible without overlapping.

---

Figure 35. PiP triple Display Mode with Gap for Active Channel

Figure 36. PiP triple Display Mode with No Gap for Active Channel

Figure 37. PiP triple Display Mode with Tiled Active Channel
**Single PiP Display Mode**
In *single* PiP display mode, only one PiP image is displayed inside the Active Channel image. The effect of the *Channel selection* option is described below.

![Figure 38. Single PiP Display Mode](image)

**Single fixed PiP display mode**
In *single fixed* PiP display mode, one channel is selected as a permanent PiP image. Only the active channel can be switched. Use the front panel buttons numbered 1 to 4 to change the active channel.

![Figure 39. Single PiP Display Mode with fixed Channel Selection](image)

**Single direct PiP display mode**
In *single direct* PiP display mode, one channel is selected as permanent active channel. Only the PiP channel can be changed. Use the front panel buttons numbered 1 to 4 to change the PiP channel.

![Figure 40. Single PiP display mode with direct Channel Selection](image)
Single scan PiP display mode
In single scan PiP display mode, one channel is selected as the active channel, with the other three channels being displayed in turn in the PiP channel. The QuadraVista QF will scan PiP channels, switching between them. The period a channel is displayed before it is switched is controlled by the *Scan time* option. This value can be between 1 and 9 seconds.

Win Video Mode
In Win Video Mode, each channel has its own window. The Win video mode for the Current and Start video mode configurations is described below.

Specify the *Channel*, *Mode*, *Position* and *Size* in the *WIN MODE* window. The arrow keys can be used to modify horizontal and vertical positions and sizes of the windows.

Check the *Aspect ratio* check box to retain the same aspect ratio as the source image.
Test Pattern Video Mode
Test Pattern video mode is used to check monitor quality (pixel errors, contrast, changes etc) or the functionality of the video output of the QuadraVista QF.

When running test patterns, it is recommended that all available test patterns be used for the test procedure.

The available test patterns are displayed below.

Hotkey commands, the OSD and the Full, Quad, PIP and Win front panel buttons can be used to exit the TEST PATTERN mode.
CONFIGURATION Menu
This section covers the CONFIGURATION menu of the OSD. The individual menu options are described below.

CONFIGURATION / BACKUP Menu Item
Navigate to the BACKUP menu item in the CONFIGURATION menu using the arrow keys, and press the Enter key / SELECT button to open the BACKUP window.

Use this menu item to store the current device settings. This includes the start mode set with the MODE / START menu item, and the EDID data from the four inputs.

For details on creating an external backup to a file, see Appendix E.

CONFIGURATION / RECALL Menu Item
Navigate to the RECALL menu item in the CONFIGURATION menu using the arrow keys, and press the Enter key / SELECT button to open the RECALL window.

This menu option is used to reload the configuration that was last saved using the BACKUP menu item.
**CONFIGURATION / FACTORY RESET Menu Item**

Navigate to the FACTORY RESET menu item in the CONFIGURATION menu using the arrow keys, and press the Enter key / SELECT button to open the FACTORY RESET window.

![Figure 47. CONFIGURATION / FACTORY RESET Window](image)

This menu item is used to reset the unit to its factory default settings. All four input EDID tables are also reset to their default values.

As a safety precaution, save the current settings using the BACKUP menu item before using this option. Execution of this option completely resets the QuadraVista QF to factory defaults and reboots it.

**Factory Default Settings**

**SYSTEM**
- **HOTKEY**: Mode = multiple keys, Keys: Ctrl = Checked and Alt = Checked
- **HOTMOUSE**: Enable hotmouse = Checked, Time out of hotmouse = 5 sec
- **QUAD MODE**: Time out of channel selection = 5 sec
- **WIN MODE**: Border Width = 0
- **Border Colors**: Active Channel = 255,255,0
- **Border Colors**: Inactive Channel = 255,136,0

**OSD POSITION**: Centered

**OSD LANGUAGE**: English

**SECURITY**: Security level = 0 (No Security)

**DISABLE CHANNEL**: Number of active channels = 4

**CONTROL**: DCP mode = off

**MODE**
- **CURRENT**: Channel = Computer 1
- **Mode** = quad

**START**
- Channel = Computer 1, Mode = quad

**PiP**
- PiP size = 15%, PiP zoom factor = 1
- PiP display mode = triple, Active channel = gap
- Offset from top = 0%

**Win1**
- Channel = 1, Mode=win1
- Position = Settings depend on the source
- Aspect ratio = Checked
Factory Default Settings (continued)

**CONSOLE**
- **VIDEO OUTPUT** → mode = auto
- **KEYBOARD** → Console keyboard language = English
- **TOUCHSCREEN** → Mouse emulate right click = Checked
- **FADE** → Smooth transitions = off
- **MULTI MONITOR** → Monitor 1 = Channel 1, Monitor 2 = Channel 2
  Monitor 3 = Channel 3, Monitor 4 = Channel 4
- **BACKGROUND** → Color: Red = 0, Green = 0, Blue = 0

**VIDEO**
- **DVI/VGA** → Select input signal = DVI/VGA (all channels)
- **ROTATION** → Rotation of monitor = 0
- **CROPPING** → Cropping input signals = all 0 (no cropping)
- **BRIGHTNESS** → +0 for all channels
- **CONTRAST** → 56% all channels
- **HORIZ POSITION** → AUTO/MAN = auto
- **VERT POSITION** → AUTO/MAN = auto
- **SCREEN WIDTH** → +0 (all channels)
- **PHASE** → +0 (all channels)
- **FORMAT** → Fit to screen = Unchecked for all channels

**COMPUTER**
- **CHANNEL MAPPING** → Position of ports = relative all channels
- **AUDIO** → Enable audio output = Checked, Select audio from = active channel
  Switch channel on audio activity = Unchecked
- **NAME 1 – 4** → “Computer 1” to “Computer 4” respectively
- **KEYBOARD** → USB (all channels)
- **MOUSE** → USB (all channels), Mouse positioning = relative (all channels)
- **RESET PS/2** → Channel 1 selected
- **EDID/DDC** → 1600 x 1200 @ 60Hz and 1920 x 1200 @ 60 Hz, digital (all channels)

**USB DEVICE 1-4:**
- Status of transparent USB 2.0 switch = off (all devices)
- Switching mode = manual switching with warning (all devices)
- **USB Device name** “Device 1” to “Device 4” respectively
CONSOLE Menu
This section covers the CONSOLE menu of the OSD. The individual menu options are described below.

CONSOLE / VIDEO OUTPUT Menu Item
The VIDEO OUTPUT menu item is used to choose an output resolution suitable for the user’s monitor. Navigate to the VIDEO OUTPUT menu item in the CONSOLE menu using the arrow keys, and press the Enter key / SELECT button to open the VIDEO OUTPUT window.

The VIDEO OUTPUT window displays the list current video mode. To change the video mode or to see a list of all available video modes, press the Enter key / SELECT button when the VIDEO OUTPUT window is displayed. This opens the MODE window, which displays a list of available video modes.

Use the arrow keys to select the desired video mode. Press the Enter key / SELECT button to apply the new video format. The selected output mode is displayed for 10 seconds, along with the Mode / Test video screen. The new setting can be accepted within this period by pressing the Enter key / SELECT button; or the unit can be returned to the previous setting by pressing the Esc key / EXIT button.
When the *auto* output mode is selected in the *MODE* window, the QuadraVista QF attempts to choose a resolution by reading the connected monitor’s EDID data. The *EDID* menu item (described below) can be used to determine whether the connected monitor provides this data. If the monitor does not provide an EDID, the QuadraVista QF sets the video mode to VGA (640x480@60Hz) by default and activates Sync on Green. Sync on Green can be deactivated on the QuadraVista QF.

**CONSOLE / KEYBOARD Menu Item**

The *KEYBOARD* menu item allows the user to select the keyboard language. Navigate to the *KEYBOARD* menu item in the *CONSOLE* menu using the arrow keys, and press the *Enter* key / *SELECT* button to open the *KEYBOARD* window.

Select the desired keyboard language from the list. The options are English, Deutsch (German), Español (Spanish), Français (French), Italiano (Italian) or Japanese. Press the *Enter* key / *SELECT* button to make the desired selection.
CONSOLE / TOUCHSCREEN Menu Item

The QuadraVista QF enables the user to use a touch screen to change display modes and to control and switch between four computers. The QuadraVista QF supports many USB touch screens with commonly integrated touch controllers. A list of supported Touch Screens can be found in Appendix G on page 90.

To control the QuadraVista QF from a touch screen, connect the VGA or DVI cable from the QuadraVista QF’s Monitor / DVI-I output to the touch screen input. Connect the touch screen’s USB to the QuadraVista QF’s console USB. See Rear Panel section on page 5 for a description of the QuadraVista-QF ports.

Navigate to the TOUCH SCREEN menu item in the CONSOLE menu using the arrow keys, and press the Enter key / SELECT button to open the TOUCHSCREEN window. Here, the touch screen can be set up to work with the QuadraVista QF.

![CONSOLE / TOUCHSCREEN Window](image)

Calibrate

When a touch screen is connected to QuadraVista QF for the first time, the touch screen should be calibrated manually, if it has not been factory calibrated. Manual calibration is necessary when the coordinates of the area touched on the screen are not sufficiently close to the coordinates on the display.

It is not recommended that factory calibrated touch screens be calibrated manually, as factory calibration is usually more precise. To reset stored data from a manual calibration, use the RESET CALIBRATION menu item.

In the TOUCHSCREEN window, navigate to the CALIBRATE window, and press the Enter key / SELECT button. Four markers will be displayed, one after the other, in the corners of the touch screen. Touch the center of each marker in turn. The best calibration results are obtained by touching the center of the markers as accurately as possible.

Mouse Button Emulation

Mouse button emulation is only performed for computers for which the digitizer touch screen interface is not activated, as described in the COMPUTER / MOUSE/TOUCHSCREEN Menu Item section found on page 57.
The QuadraVista QF provides three modes to interpret user input on the touch screen as mouse clicks.

1. **Mouse**: A mouse button press is generated when the user’s finger touches the touch screen. Subsequently, when the user lifts the finger from the touch screen, a mouse button release is generated. This mode is useful for drag and drop operations. If *Emulate Right Click* is enabled, a right click is generated by a prolonged touch.

2. **Click on touch**: When a user’s finger touches the touch screen, a mouse click is immediately generated at the position of the touch.

3. **Click on release**: When the user’s finger is lifted from the touch screen, a mouse click is generated at the last position of the finger.

The default *Mouse Button Emulation* mode is *Mouse*. With this, the motion of user’s finger on the touch screen mimics using the mouse. *Click on touch* and *Click on release* are suitable for kiosk applications, or environments where touch screens are used instead of keyboards and mice, such as in medical industries for hygienic reasons, in industrial production and automation for operation with gloves, or in vehicles and aircraft where robust components are required.

**Touch in Quad Mode**
Check this box to switch a quadrant from Quad mode to full screen temporarily, when the quadrant is touched. This activates keyboard and mouse for that quadrant, and provides access to that computer in full screen. The other sources are not visible during this time. After a timeout of 5 seconds without any keyboard or mouse activity, QuadraVista-QF automatically switches from full screen to Quad mode. The timeout can be set to values between 1 and 10 seconds.

**Touch a PiP**
Check this box to activate the keyboard and mouse on a computer shown as PiP. When touching a PiP, the keyboard and mouse become active in this PiP. This activated channel remains a small PiP image and does not switch to full image. In this PiP, the computer can be operated with the keyboard and mouse.

The default state of the Touch a PiP field is unchecked. In this case, a PiP is switched to full image as soon as it is touched. The other sources remain visible as PiPs.

**Right Mouse Button**
Touching and holding the finger on the touch screen emulates the right mouse button. This only works in *Mouse* emulation mode, and not in *Click on touch* or *Click on release* modes. By default, the *Emulate right click* field is checked to facilitate this operation. Some touch controller models do not support right mouse click. Using touch screens with such controllers requires unchecking the *Emulate right click* field.

**Hotmouse and Hotmouse Menu**
The *Hotmouse Menu* (described on page 16), can be opened by tapping the screen twice, and leaving the finger on the touch screen after the second tap (tap, tap – hold, like a double click without lifting the finger on the second click). Lift the finger when the *Hotmouse Menu* opens.

By clicking outside the *Hotmouse Menu*, the *Hotmouse Cursor* can be opened to enlarge and reposition PiPs (in PiP mode), resize and move windows (in Win mode), and switch channels.

**Mouse Position**

**Absolute Mouse**
The QuadraVista QF works best with touch screens when using absolute mouse mode on the connected computers. To enable absolute mouse mode, use the *COMPUTER → MOUSE/TOUCHSCREEN* menu in the OSD. This mode works best when a computer is connected through the USB port on most modern operating systems.
**Relative Mouse**
When relative mouse mode is used, the connected computers must be configured to have mouse acceleration switched off and mouse scaling set to 1:1.

**Resetting the mouse position:**
When using relative mouse mode, there may be occurrences when the actual position of the mouse cursor and the position of the finger on the touch screen do not match. This may happen when the screen resolution is changed or the computer changes the mouse position (for example, when the system is configured to place the mouse pointer over the ‘OK’ button of a window). In these cases, to reset the mouse position, switch to a different channel, and back again. Alternatively, tap the touch screen three times, and then leave the finger pressed on the touch screen after the third tap (tap – tap – tap - hold), until the mouse cursor moves to the top left corner of the screen.

**CONSOLE / MOUSE Menu Item**
The *cross channel switching* feature can be enabled here. With this feature, the active mouse can be moved past the borders of the active channel. When this is done, a device mouse cursor is displayed, and an inactive channel can be activated by a left mouse click in its window.

<table>
<thead>
<tr>
<th>Features</th>
<th>Cross Channel Switching</th>
<th>Enabled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Disabled</strong></td>
<td><strong>Enabled</strong></td>
</tr>
<tr>
<td><strong>Standard Features</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mouse always stays inside the active channel window.</td>
<td>When the mouse leaves an active channel window, a yellow device cursor is displayed.</td>
<td></td>
</tr>
<tr>
<td>Changing the active channel using the mouse is only possible with the Hotmouse feature.</td>
<td>When the device cursor is positioned over an inactive channel window, the channel can be activated with a left mouse click.</td>
<td></td>
</tr>
<tr>
<td><strong>Used USB Interfaces</strong></td>
<td>Relative mouse positioning</td>
<td>If available, absolute mouse positioning; otherwise, relative mouse positioning</td>
</tr>
<tr>
<td><strong>Multiple monitors connected to a computer</strong></td>
<td>Every monitor is reachable by mouse</td>
<td>Only the monitor connected to the QuadraVista QF is reachable by mouse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recommended only for hosts that support absolute mouse positioning</td>
</tr>
</tbody>
</table>

Figure 53. CONSOLE / MOUSE Window

Certain features behave differently based on whether *cross channel switching* is enabled. These are summarized in the table below.
**CONSOLE / FADE Menu Item**
The FADE menu item controls the “Fade Through Black” feature of the QuadraVista QF. With this feature, when switching channels or display modes, the previous image fades to black, and the next image is faded in smoothly.

Navigate to the FADE menu item in the CONSOLE menu using the arrow keys, and press the Enter key / SELECT button to open the FADE window.

To enable “Fade Through Black”, select a transition speed under Smooth transitions. The Speed setting controls the speed of the transition, with Speed 1 being the slowest, and Speed 3 the fastest transition.

**CONSOLE / MULTI MONITOR Menu Item**
The MULTI MONITOR menu item is used when computers with multiple video-head outputs are connected to QuadraVista-QF with just one keyboard and mouse being used to operate the computer. Navigate to the MULTI MONITOR menu item in the CONSOLE menu using the arrow keys, and press the Enter key / SELECT button to open the MULTI MONITOR window.

When using graphics cards with multiple video outputs, the computer’s keyboard and mouse must be assigned to the corresponding video output (channels 1-4). For example, if a computer with a quad-head graphics card is connected to QuadraVista-QF, and the keyboard and mouse are connected to Channel 1, assign console Channel 1 to all video channels (Monitor 1 - 4).
**CONSOLE / BACKGROUND Menu Item**

The BACKGROUND menu item is used to select either a solid color or an image for the background area of the screen on which windows are displayed. Navigate to the BACKGROUND menu item in the CONSOLE menu using the arrow keys, and press the Enter key / SELECT button to open the BACKGROUND window.

![Figure 56. CONSOLE / BACKGROUND Window](image)

In the BACKGROUND window, select Color to set a solid color for the background or Image to select an image to set an image for the background, and press the Enter key / SELECT button.

When BACKGROUND → Color is selected, the SELECT COLOR window is opened.

![Figure 57. BACKGROUND / SELECT COLOR Window](image)

Enter the desired color in 24-bit color Red, Green and Blue values. The Color field will show a preview of the color corresponding to the entered Red, Green and Blue values.

When BACKGROUND → Image is selected, the background area of the screen will be filled with the image that was previously selected in the ConfDev utility with DEVICE → LOAD BACKGROUND IMAGE. If no image has been pre-loaded, this option will not appear.

**Note:**
The background is shown only in Win mode. Default color for the other modes is black.
**EDID Menu Item**

The *EDID* menu item is used to read and display monitor data (manufacturer, monitor name, serial number etc.) from the monitor’s EDID memory. If the mode is set to *auto* in the *VIDEO OUTPUT→MODE* window, the QuadraVista-QF uses the optimum output resolution offered by the EDID. Navigate to the *EDID* menu item in the CONSOLE menu using the arrow keys, and press the Enter key / SELECT button to open the EID window.

![CONSOLE / EDID and EDID / EDID DETAILS Windows](image)

By navigating to the *Details* button in the **CONSOLE→EDID** window and pressing the Enter key / SELECT button, the **EDID DETAILS** window can be opened where more information from the EDID table is displayed.

**Note:**

EDID information can be copied to all four inputs and then made available to the connected sources. This is described in further detail in the **COMPUTER→EDID/DDC** section.
VIDEO Menu
This section covers the VIDEO menu of the OSD. The individual menu options are described below.

VIDEO / INPUT STATUS Menu Item
The INPUT STATUS menu item is used to display the video resolutions and formats of the video inputs. Navigate to the INPUT STATUS menu item in the VIDEO menu using the arrow keys, and press the Enter key / SELECT button to open the INPUT STATUS window.

![VIDEO / INPUT STATUS Window](image)

Video resolutions and signal types of the four video inputs are shown in the INPUT STATUS window. The resolutions if the four video inputs are automatically recognized. Some analog input resolutions may not be correctly detected. A list of supported input and output video formats can be found in Appendix H.

**Signal Type key:**
- s = Signal
- a = analog
- d = digital
- g = sync on green
- c = composite sync
**VIDEO / DVI/VGA Menu Item**

The DVI-I connectors on the QuadraVista QF can handle both DVI and VGA signals. By using Y-cables, up to eight video sources (four VGA and four DVI) can be connected to the QuadraVista QF. The **DVI/VGA** menu item is used to specify whether the QuadraVista QF will display a DVI or VGA video signal.

Navigate to the **DVI/VGA** menu item in the **VIDEO** menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the **DVI/VGA** window.

![Figure 60. VIDEO / DVI/VGA Window](image)

The **Select Input Signal** field defines whether the DVI or VGA video signal is to be displayed. If the **DVI/VGA** setting is selected, QuadraVista-QF will check for digital input first. If there is no signal at this input, the analog signal input will then be checked.
**VIDEO / ROTATION Menu Item**

The *ROTATION* menu item provides a means to rotate the image on the connected monitor in 90° increments. Navigate to the *ROTATION* menu item in the *VIDEO* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *ROTATION* window.

Select the amount by which to rotate the image in the *Rotation of monitor:* field. All channels will be rotated by the same degree. It may take a few seconds for the rotation to occur.

**Rotation limitation at 90° and 270°:**
A monitor display with more than 2048 lines cannot be used with rotations of 90° and 270° if there are overlapping channels. When the aspect ratio is not locked in Win mode, channels cannot be simultaneously reduced and enlarged in size. There may be further restrictions not known at this point.
**VIDEO / CROPPING Menu Item**

The CROPPING menu item can be used to crop the images on the individual channels. Navigate to the CROPPING menu item in the VIDEO menu using the arrow keys, and press the Enter key / SELECT button to open the CROPPING window.

Enter a value between 0 and 999 for the left, right, top or bottom for each channel to be cropped. Use the arrows to increase or decrease the value either by single digits or in increments of 30. Alternatively, the right and left arrows on the keyboard may be used to adjust these values.

**Notes:**
- The cropping setting is only used for display within Win Mode.
- The smallest possible size of each area is 10% of the input signal.

**VIDEO / BRIGHTNESS and VIDEO / CONTRAST Menu Items (With Analog Input Only)**

The BRIGHTNESS and CONTRAST menu items are used to adjust the brightness and contrast of analog video input signals. Navigate to the BRIGHTNESS or CONTRAST menu item in the VIDEO menu using the arrow keys, and press the Enter key / SELECT button to open the appropriate window.
VIDEO / HORIZ POSITION and VERT VIDEO / POSITION Menu Items (With Analog Input Only)

The HORIZ POSITION and VERT POSITION menu items are used to adjust the horizontal and vertical positions of the images in their channels in case they are positioned incorrectly. Navigate to the HORIZ POSITION or VERT POSITION menu item in the VIDEO menu using the arrow keys, and press the Enter key / SELECT button to open the appropriate window.

![Figure 65. VIDEO / HORIZ POSITION and VIDEO / VERT POSITION Windows](image)

Use the arrow keys to navigate to the Set automatic or manual horizontal / vertical positioning field for the required channel and set MAN for manual. Use the “+” or “-” keys in the value field to adjust the vertical position between –20 and +20, and the horizontal position between –63 and +63.
VIDEO / SCREEN WIDTH Menu Item (With Analog Input Only)

Normally, screen width (number of horizontal pixels) is defined by the VESA standard. If the screen appears blurred, use the SCREEN WIDTH menu item to improve screen quality. Navigate to the SCREEN WIDTH menu item in the VIDEO menu using the arrow keys, and press the Enter key / SELECT button to open the SCREEN WIDTH window.

![Figure 66. VIDEO / SCREEN WIDTH Window](image)

VIDEO / PHASE Menu Item (With Analog Input Only)

Incorrect phase (sampling time of pixel color value) may result in blurring, bad contrast, or poor legibility. The PHASE menu item is used to adjust phase. Navigate to the PHASE menu item in the VIDEO menu using the arrow keys, and press the Enter key / SELECT button to open the PHASE window.

![Figure 67. VIDEO / PHASE Window](image)
VIDEO / Format Menu Item

Navigate to the FORMAT menu item in the VIDEO menu using the arrow keys, and press the Enter key / SELECT button to open the FORMAT window.

![Figure 68. VIDEO / FORMAT Window](image)

When a widescreen monitor, which has an aspect ratio 16:10 is used to view Quad Mode, a video input with a different aspect ratio is normally displayed with black borders to the left and right. If Fit to screen is enabled for the channel, the image is resized to fill the entire quadrant in Quad Mode.

By default, Fit to screen is disabled to display each source in its native aspect ratio in all display modes other than Win Mode (Quad, PiP, Full) of the QuadraVista-QF.

![Figure 69. Example of Fit To Screen in Quad Mode](image)
Note about PiP mode for widescreen monitors:
When a widescreen monitor with aspect ratio of 16:10 is used, and the active channel does not have widescreen aspect ratio (usually 4:3), the active channel is placed on the left edge, with the PiPs being placed to the right of the active channel. If an appropriate PiP size like 20% is used, PiP images are thus placed entirely outside the full screen channel. No screen content is overlapped, and the complete content of all the video sources are visible.

Figure 70. Example of PiP Mode on Wide Screen Monitors
COMPUTER Menu
This section covers the COMPUTER menu of the OSD. The individual menu options are described below.

**COMPUTER / CHANNEL MAPPING Menu Item**
The CHANNEL MAPPING menu item provides a means to change the assignment between physical input ports and logical channels. This can be useful, for instance, if a computer needs to be shown in another position on the quad screen without having to swap the connectors at the inputs.

Navigate to the CHANNEL MAPPING menu item in the COMPUTER menu using the arrow keys, and press the Enter key / SELECT button to open the CHANNEL MAPPING window.

![Figure 71. COMPUTER / CHANNEL MAPPING Window](image)

Use the ▲/▼ and +/- buttons to navigate to the physical port to be connected to the desired channel. Press the Enter key / SELECT button to change the connection.

**COMPUTER / AUDIO Menu Item**
The AUDIO menu item is used to control the audio output from the QuadraVista QF. Navigate to the AUDIO menu item in the COMPUTER menu using the arrow keys, and press the Enter key / SELECT button to open the AUDIO window.

![Figure 72. COMPUTER / AUDIO Window](image)

The Enable Audio Output field is used to control whether audio output is activated on the QuadraVista QF.
When audio output is active, the *Select audio from* selection determines which channel will provide the audio output.

To ensure that the audio is always sourced from the computer currently being operated, select the *active channel* option from the list. Alternatively, to specify a fixed audio source, select one of the channels from the list.

When the *Switch channel on audio activity* field is checked, the QuadraVista QF automatically switches to a channel on which an audio signal is detected.

By navigating to the *Volume* button in the *COMPUTER → AUDIO* window and pressing the **Enter** key / **SELECT** button, the *VOLUME* window can be opened where the audio output level for each channel can be set.

![Figure 73. AUDIO / VOLUME Window](image)

The audio volume can be adjusted in 2 dB increments. Use the + and – keys on the keyboard to change the volume for each channel.

**Note:**
The *AUDIO → VOLUME* window can also be opened with the hotkey combination “<Hotkey>” + “+/−”.
**COMPUTER / NAME 1-4 Menu Item**

The NAME 1-4 menu item is used to assign a name to each of the four windows displayed when the QuadraVista QF is in HOTMOUSE mode. The assigned name will be displayed in the lower right corner of each window or quadrant for a specified time. The default timeout is 5 seconds, with a maximum timeout of 30 seconds.

Navigate to the NAME 1-4 menu item in the COMPUTER menu using the arrow keys, and press the Enter key / SELECT button to open the NAME 1-4 window. Select the computer to which a name is to be assigned or whose name is to be changed, and press the Enter key / SELECT button to open the CHANGE NAME window.

![Diagram of the COMPUTER / NAME 1-4 and NAME 1-4 / CHANGE NAME Windows](image)

Move the cursor in the edit window using the ▲/▼ and +/- buttons. Press the Enter key / SELECT button to choose a character to add to the name, and the Backspace key / FULL button to erase the last character.
**COMPUTER / KEYBOARD Menu Item**

The KEYBOARD menu item is used to view what keyboard type the QuadraVista QF has recognized for each connected computer. The possible keyboard types are USB, PC1, PC2 and PC3.

Navigate to the KEYBOARD menu item in the COMPUTER menu using the arrow keys, and press the Enter key / SELECT button to open the KEYBOARD window.

The KEYBOARD window has a display-only window, and has no user-editable fields.

**COMPUTER / MOUSE/TOUCHSCREEN Menu Item**

The MOUSE/TOUCHSCREEN menu item is used to view what mouse type the QuadraVista QF has recognized for each connected computer. The interfaces over which data can be transmitted to the positioning devices can also be set.

Navigate to the MOUSE/TOUCHSCREEN menu item in the COMPUTER menu using the arrow keys, and press the Enter key / SELECT button to open the COMPUTER / MOUSE window.

The upper half of the COMPUTER / MOUSE window shows the mouse type that has been recognized for each connected computer. The possible mouse types are USB, PS/2 and PS/2 wheel.
The Interfaces USB fields in the lower half of the window specifies the interfaces over which data can be transmitted to the positioning devices. The interface best suited for the connected device is automatically chosen.

For example, this interface should be relative mouse positioning (Rel) for mice. However, if the Cross Channel Switching feature described in CONSOLE / MOUSE Menu Item the section on page 42 is enabled, and the interface absolute mouse positioning (Abs) is enabled, then absolute mouse positioning will be used as an exception.

All interfaces supported by the operating system should be enabled, whereas interfaces not supported by the operating system should not be enabled. The following settings are recommended for various versions of Microsoft Windows™.

<table>
<thead>
<tr>
<th>Windows Version</th>
<th>OSD Setting</th>
<th>Used Interfaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Windows 2000/XP</td>
<td>Rel</td>
<td>Relative Mouse</td>
</tr>
<tr>
<td>Windows 2000/XP to Vista</td>
<td>Rel+Abs</td>
<td>Relative Mouse, Absolute Mouse</td>
</tr>
<tr>
<td></td>
<td>Rel+Touch</td>
<td>Relative Mouse, Digitizer Touch screen</td>
</tr>
<tr>
<td>Windows 7 and newer</td>
<td>Rel+Abs+Touch</td>
<td>Relative Mouse, Absolute Mouse, Digitizer touch screen</td>
</tr>
</tbody>
</table>

Table 4. Recommended USB Interfaces for Versions of Microsoft Windows

Touch screen Support
The enabled interface with the highest priority is used. The following table gives an overview of the features for touch screen interfaces.

<table>
<thead>
<tr>
<th>Features</th>
<th>Interfaces USB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting in OSD</td>
<td>Relative Mouse</td>
</tr>
<tr>
<td>Mouse emulation</td>
<td>Abs</td>
</tr>
<tr>
<td>Priority (1 – highest)</td>
<td>3</td>
</tr>
<tr>
<td>MS Windows™ Support</td>
<td>Windows 98 and newer</td>
</tr>
<tr>
<td>Multi-touch</td>
<td>No</td>
</tr>
<tr>
<td>Required settings in the operating system</td>
<td>1:1 mouse scaling</td>
</tr>
<tr>
<td>Limitations</td>
<td>Internal and displayed position of the mouse may differ, therefore the position of the mouse cursor is always reset when the channel is channel</td>
</tr>
</tbody>
</table>

Table 5. Feature Set for Available USB interfaces
**COMPUTER / RESET PS/2 Menu Item**

Navigate to the **RESET PS/2** menu item in the **COMPUTER** menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the **RESET PS/2** window.

![Figure 77. COMPUTER / RESET PS/2 Window](image)

Use the left and right arrow keys or the + and - keys to select the channel (1 to 4) for which PS/2 is to be reset, and confirm by pressing the **Enter** key / **SELECT** button key.

**COMPUTER / EDID/DDC Menu Item**

The **EDID/DDC** menu item is used to provide an overview of the EDIDs of the input channels and that of the display monitor. There is also a provision to edit these EDID tables.

![Figure 78. COMPUTER / EDID Window](image)

The **EDID/DDC** window can be invoked from the **EDID** window where the EDID for the channel can be programmed with two video modes. The video modes can be selected from the **MODE** window, which is invoked from the **EDID/DDC** window.
Two video modes can be selected for each channel, and programmed in the input EDID visible to the computer connected there. It is recommended to program the preferred video modes for the connected signal source.

The QuadraVista QF also uses these entries to distinguish between certain analog input video signals that are difficult to distinguish between automatically: The following groups of analog input signals present this problem for the unit.

- WUXGA: 1920x1200@60Hz, UXGA: 1600x1200@60Hz and UXGA: 1600x1200@60Hz with reduced blanking
- WUXGA: 1920x1200@50Hz, UXGA: 1600x1200@50Hz and UXGA: 1600x1200@50Hz with reduced blanking
- SXGA+: 1400x1050@60Hz and WSXGA: 1680x1050@60Hz
- XGA: 1024x768@60Hz, WXGA: 1280x768@60Hz and WXGA: 1360x768@60Hz

If problems are experienced with automatic input detection of an analog input signal within these groups, it can be overridden by programming the expected video signal into the input EDID.
Use the ▲/▼ buttons to select the channel for which the EDID information is to be edited, and press the Enter key / SELECT button key to open the EDID/DDC window. Select one of the video modes for the channel ▲/▼ buttons, and press the Enter key / SELECT button again to open the MODE window, which displays a list of video modes. To change the video mode, select a new video mode for the channel using the ▲/▼ buttons, and press the Enter key / SELECT button to confirm the selection. This can be repeated for each channel, and both video modes in the channel.

In the EDID/DDC window, use the ▲/▼ buttons to navigate to the Signal field, and press the Enter key / SELECT button to switch between analog and digital. This setting specifies whether the EDID should identify the QuadraVista QF as an analog or digital device. It is usually safe to leave this setting at digital.

The EDID/DDC window has the following options to write to the EDD table.

- **WRITE**: Save the changes in the current input EDID.
- **WRITE TO ALL INPUTS**: Save the changes to all four input EDIDs.
- **SAME AS DISPLAY EDID**: Write the contents of the display EDID to the current input EDID.

Press the Enter key / SELECT button to start the selected write option and wait until successful is displayed in the status line at the bottom. At this point, the EDID data can be written to one or all of the four channels.

**Notes:**

- If the EDID data of the connected video source is used, the unit behaves as if the display is connected directly to the source.
- Please keep in mind that this setting will overwrite the automatic analog input mode detection. If a different video source is connected, the video mode is changed from the PC, it may be necessary to change this setting again to get correct results. For the detection of digital input signals, this setting has no effect.

Alternatively, the display EDID data can be copied individually to a single input, or simultaneously to all inputs.

![Figure 80. Copying Display EDID to Inputs](image)

The content of the input EDID can be reset to default through the CONFIGURATION / FACTORY RESET OSD function.
USB DEVICE 1-4 Menu

The QuadraVista QF supports and switches transparent USB 2.0 devices such as printers, cameras, 3D mice, fingerprint readers, and external memory. A sample application for this feature can be as follows. Connect a memory stick to unit, copy data from a connected computer to the stick and from the stick to another connected computer. This allows data to be copied between computers without being networked.

Navigate to the USB DEVICE 1-4 menu item in the COMPUTER menu using the arrow keys, and press the Enter key / SELECT button to open the USB DEVICE 1-4 window.

The Status of the transparent USB 2.0 switch field displays the status of the connections from the USB ports to the computers. This field has two settings for each USB 2.0 port.

- **off**: The USB 2.0 port is not switched to a computer. A USB device may be connected, but it has not been switched to a computer.
- **Computer (1-4)**: The USB 2.0 port is switched to one of the named computers.

The Change port settings field is used to reassign the USB 2.0 ports between the computers. Use the ▲/▼ buttons to select one of the four USB ports and open its submenu by pressing the Enter key / SELECT button. This will open the USB DEVICE window.
The **USB DEVICE** window can be used to manually switch the USB 2.0 port to one of the four connected computers, change the switching mode or the USB device name. Each of these options is described in detail below.

The **Device # switch to** field is used to switch this USB 2.0 port manually to one of the four connected computers. It is **off** by default. To switch the USB 2.0 port, select one of the four computers and press the **Enter** key / **SELECT** button.

The **Switching mode** field controls how the currently selected USB 2.0 device is switched to one of the connected computers. The default switching mode is **manual switching with warning**. To change the switching mode, use the arrow keys to navigate to the **CHANGE SWITCHING MODE** field and press the **Enter** key / **SELECT** button to open the **SWITCHING MODE** window.

![USB DEVICE Switching Mode](image)

Figure 83. COMPUTER / USB DEVICE 1-4 / USB DEVICE / SWITCHING MODE Window

Three switching modes are available as outlined below.

1. **manual switching with warning**: This mode allows switching the USB port manually as described earlier. However, before the switch is executed, the following warning message is displayed: "**In order to prevent data loss, stop the USB device before switching!**" To continue switching, press the **Enter** key / **SELECT** button. This switching mode is recommended for USB devices with risk of data loss like USB sticks, printers or external memory.

2. **manual switching without warning**: This mode also allows switching the USB port manually. The difference from the previous switching mode is that the switching is executed immediately. This switching mode is recommended for USB devices without risk of data loss.

3. **automatically with active channel**: In this mode, the USB device/port is always switched automatically with the active channel. When the channel/computer is switched, this USB device/port will automatically be switched to the activated channel/computer.

**Note**: When the unit is powered on, all USB devices are disconnected from computers except for the devices which have been set to the **automatically with active channel** switching mode.
The **CHANGE DEVICE NAME** field in the **USB DEVICE** window is used to assign or change a name to the USB device. Navigate to the field and press the **Enter** key / **SELECT** button to open the **CHANGE NAME** window.

![Figure 84. COMPUTER / USB DEVICE 1-4 / USB DEVICE / CHANGE NAME Window](image)

Use the keyboard or move the cursor in the edit window using the ▲/▼ and +/- buttons. Press the **Enter** key / **SELECT** button to choose a character to add to the name, and the **Backspace** key / **FULL** button to erase the last character. On exiting the window, the new name will automatically be saved and displayed in the other windows.

**Note:**
Use **Hotkey** + "u" (default Hotkey is Ctrl + Alt) to quickly access the USB DEVICE 1-4 window. This allows quick access to this window when switching manually.
For example, to directly open the switching window of USB device/port 1 use **Hotkey** + F1.
HELP Menu
The HELP menu of the OSD gives more information about the QuadraVista QF unit.

Navigate to the desired menu item in the HELP menu using the arrow keys, and press the Enter key / SELECT button to open the corresponding window.

HELP / ABOUT Menu Item
The HELP⇒ABOUT and ABOUT⇒DETAILS and windows display the current revision levels hardware and firmware.

HELP / HOTKEY Menu Item
The HELP⇒HOTKEY window provides a guide to hotkey shortcuts.

Figure 85. HELP / ABOUT and ABOUT / DETAILS Windows

Figure 86. HELP / HOTKEY Window
QuadraVista QF Hotmouse Feature

The Hotmouse function is a special feature of the QuadraVista QF wherein a pointing device like a mouse, trackball or touch screen can quickly perform specialized functions, much like hotkeys on a keyboard. No software or additional hardware is required to access this functionality.

Activating the Hotmouse Cursor

The hotmouse cursor is activated by moving the mouse on the console four times in a rapid horizontal shaking motion, or by pressing *Hotkey* + “M” on the keyboard.

![Activating the Hotmouse with the Mouse](image)

When activated, the mouse cursor turns into the “hotmouse cursor” - a numbered arrow - that allows control of all hotmouse functions. The number that accompanies the arrow indicates the channel.

To activate the hotmouse cursor when using a touch screen, tap the screen twice, and then hold the finger down after the second tap (tap – tap - hold, like a double click without lifting the finger on the second click), until the hotmouse menu opens. Now click outside the hotmouse menu to open the hotmouse cursor.

Hotmouse mode can be exited by double clicking the mouse or by pressing *Hotkey* + “M” on the keyboard.

The hotmouse cursor changes depending on its position on the screen. The different aspects of the hotmouse cursor are displayed below.

![Aspects of Hotmouse Cursor](image)

The function of the hotmouse cursor varies based on the display mode.

- In Fullscreen Mode, it can be used to switch to another Fullscreen channel.
- In Quad Mode, it can be used to select another active channel by transferring keyboard and mouse control to it.
- In PiP Mode, it can be used to change the position and size of the PiP images or to change the active channel.
- In Win Mode, it can be used to select the mode for resize, channel select and select options using the hotmouse menu. The hotmouse can also be used to modify the position and size of windows, as well as changing the active channel.
**Hotmouse Cursor in Fullscreen Mode**

When the hotmouse cursor is activated in Fullscreen Mode, PiP images of the other channels are temporarily displayed to allow switching to a different channel. To do so, move the hotmouse cursor over the PiP image of the channel to be activated, and click the left mouse button.

An example of switching from one Fullscreen channel to another using hotmouse is displayed below.

![Channel 2 is active in Fullscreen Mode](image1)
![Channel 3 is selected using hotmouse cursor](image2)
![Channel 3 is active in Fullscreen Mode](image3)

Figure 89. Using the Hotmouse to Change the Active Channel in Fullscreen Mode

**Hotmouse Cursor in Quad Mode**

Once the hotmouse cursor has been activated, the active channel (switching mouse and keyboard) can be changed by clicking in the desired quadrant.

**Note:**

As the hotmouse cursor moves across quadrants, the channel number on the hotmouse cursor changes to reflect the channel the cursor is hovering over.

An example of switching the active channel from channel 1 to channel 3 using hotmouse in Quad Mode is displayed below.

![Channel 1 is active in Quad Mode](image4)
![Channel 3 is selected using hotmouse cursor](image5)
![Channel 3 is active in Quad Mode](image6)

Figure 90. Using the Hotmouse to Change the Active Channel in Quad Mode
**Hotmouse Cursor in PiP Mode**

The hotmouse cursor can perform several functions in PiP Mode. In addition to changing the active channel, it can also be used to modify the vertical position and sizes of the PiP images. Each of these functions is described below.

**Changing the Active Channel**

Once the hotmouse cursor has been activated, the active channel can be changed by clicking in the desired PiP channel.

**Note:**
As the hotmouse cursor moves across PiP images, the channel number on the hotmouse cursor changes to reflect the channel the cursor is hovering over.

An example of switching the active channel from channel 2 to channel 3 using hotmouse in PiP Mode is displayed below.

![Figure 91. Using the Hotmouse to Change the Active Channel in PiP Mode](image)

**Vertical Positioning of PiP images**

To change the vertical position of the PiP images using the hotmouse cursor, move the cursor to the PiP-image area, hold down the left mouse button and drag the PiPs to the desired vertical position.

**Note:**

*When the mouse button is held down over the PiP images, the hotmouse cursor’s appearance changes to a vertical double-headed arrow as shown in*

Figure 88.

An example of using the hotmouse cursor to move the PiP images upward is shown below.

![Figure 92. Using the Hotmouse to Move the PiP Images Upward](image)
Modifying the Size of the PiP images

To change the size of the PiP images using the hotmouse cursor, move the cursor to the left edge of the PiP-image area until the hotmouse cursor changes to a horizontal double-headed arrow as shown in Figure 88. Hold down the left mouse button and drag the hotmouse cursor to the left to increase PiP image size, or to the right to reduce PiP image size.

The examples below show the PiP images being scaled up and scaled down with the hotmouse cursor.

**Figure 93. Scaling Up the PiP Images Using the Hotmouse Cursor**

![Figure 93. Scaling Up the PiP Images Using the Hotmouse Cursor](image)

Hold left mouse button down and drag to the left to increase the size of the PiP images.

**Figure 94. Scaling Down the PiP Images Using the Hotmouse Cursor**

![Figure 94. Scaling Down the PiP Images Using the Hotmouse Cursor](image)

Hold left mouse button down and drag to the right to decrease the size of the PiP images.

**Hotmouse Cursor in Win Mode**

The hotmouse cursor can perform several functions in Win Mode. In addition to changing the active channel, it can also be used to resize and reposition windows. Each of these functions is described below.

**Changing the Active Channel**

Once the hotmouse cursor has been activated, the active channel can be changed by clicking in the window of the desired channel.

An example of switching the active channel from channel 2 to channel 3 using hotmouse in Win Mode is displayed below.

**Figure 95. Using the Hotmouse to Change the Active Channel in Win Mode**

![Figure 95. Using the Hotmouse to Change the Active Channel in Win Mode](image)
Resizing Windows with the Hotmouse Cursor

To change the size of a window using the hotmouse cursor, move the cursor to an edge of the window so that the hotmouse cursor changes to a horizontal or vertical double-headed arrow as shown in Figure 88. Hold down the left mouse button and drag the window edge until it is the desired size.

An example of resizing the window for channel 2 is shown below.

![Figure 96. Resizing Windows Using the Hotmouse Cursor](image)

Moving Windows with the Hotmouse Cursor

To move the currently active channel’s window, press the left mouse button within the window. The hotmouse cursor changes to the four-headed arrow as shown in Figure 88. Move the mouse cursor to move the window and release the left mouse button to drop it at that location.

An example for moving the window for channel 2 is shown below.

![Figure 97. Moving Windows Using the Hotmouse Cursor](image)

When the hotmouse cursor is moved over the top right corner of the signal window, a menu with the following buttons will be displayed.

- **O**: Open the OSD hotmouse context menu
- **S**: Swap signal windows. When this is clicked, the other window is selected.
- **R**: Toggle aspect ratio locking for the current window.
Activating and Operating the Hotmouse Menu

The hotmouse menu gives a means to carry out switching operations and change display mode settings. It varies based on the current display mode (Fullscreen, Quad, PiP, Win).

Activating and Deactivating the Hotmouse Menu

The hotmouse menu can be opened with a right mouse click once the hotmouse cursor has been activated. To activate the hotmouse cursor when using a touch screen, tap the screen twice, and then hold the finger down after the second tap (tap – tap - hold, like a double click without lifting the finger on the second click), until the hotmouse menu opens.

By clicking outside the hotmouse menu, the hotmouse cursor can be opened to perform the functions described in the previous section. On closing the hotmouse cursor, the hotmouse menu reopens.

Hotmouse Menu Operation

Using the hotmouse menu, the user can carry out switching operations and change display mode settings. The hotmouse menu changes based on the current display mode (Fullscreen, Quad, PiP, Win). The figure below shows the hotmouse menu displayed when the user is in PiP mode.

![Figure 98. Sample HOTMOUSE Menu when in PiP Mode](image)

Click on the ◄ and ► symbols with the left mouse button to increment or decrement the corresponding values in small steps. Click on the ◄◄ and ►► symbols to increment or decrement the value in large steps. Once the values have been set to the desired values, click on CLOSE to close the Hotmouse Menu window and exit the Hotmouse Function. Click on HELP to open the HOTMOUSE / HELP window

![Figure 99. HOTMOUSE / HELP Window](image)
Hotmouse Menu in Display Modes
The hotmouse menu works in the individual display modes as described below.

**Hotmouse Menu in Quad Mode and Fullscreen Mode**
Click the left mouse button on a channel to activate it, or on a display mode to change to that mode.

![Hotmouse Menu in Quad Mode and Fullscreen Mode](image1)

**Hotmouse Menu in PiP Mode**
Click the left mouse button on a channel to activate it, or on a display mode to change to that mode. The PiP hotmouse menu also has options to change the position and size of the PiP images and perform PiP zoom.

Finally, the hotmouse menu can be used to change the PiP mode. There are two available PiP modes: *triple* and *single*. The *triple* PiP mode, as the name indicates, displays the three channels that are not active as PiPs. The *single* PiP mode displays only one PiP channel at a time. These are described in further detail below.

The *triple* PiP mode can be *triple gap*, *triple no gap* or *triple tile*.

In *triple gap* mode, the PiP images are displayed with a gap in place of the active channel.

![Triple Gap PiP Mode](image2)
In *triple no gap* mode, PiP images are displayed with no gap in between.

![Triple No Gap PiP Mode](image)

In *triple tile* mode, the size of the main image and the PiP images are optimized so that the main image and the PiP images are shown as large as possible without overlapping.

![Triple Tile PiP Mode](image)

The *single* PiP mode can be *fixed, direct* or *scan*.
In *single fixed* mode, one selected PiP image is permanently displayed. In *single direct* mode, the numbered front panel buttons are pressed to select the desired PiP channel directly.

In *single scan* mode, the units cycles the single PiP through the channels at a set interval.
Hotmouse Menu in Win Mode

The hotmouse menu in Win Mode is used to save the position and sizes of the channel windows. Four different sets of window sizes and positions can be saved to locations win1, win2, win3 or win4.

Once the channel windows have been positioned and/or resized as desired, enter Win Mode. Activate the hotmouse menu, select the desired location to save to and click on the Save field. The settings are then saved to the specified location.
Maintenance and Repair

This Unit does not contain any internal user-serviceable parts. In the event a Unit needs repair or maintenance, you must first obtain a Return Authorization (RA) number from Rose Electronics or an authorized repair center. This Return Authorization number must appear on the outside of the shipping container.

See Limited Warranty for more information.

When returning a Unit, it should be double-packed in the original container or equivalent, insured and shipped to:

Rose Electronics
Attn: RA__________
10707 Stancliff Road
Houston, Texas 77099 USA

Technical Support

If you are experiencing problems, or need assistance in setting up, configuring or operating your QuadraVista, consult the appropriate sections of this manual. If, however, you require additional information or assistance, please contact the Rose Electronics Technical Support Department at:

Phone: (281) 933-7673
E-Mail: TechSupport@rose.com
Web: www.rose.com

Technical Support hours are from: 8:00 am to 6:00 pm CST (USA), Monday through Friday.

Please report any malfunctions in the operation of this Unit or any discrepancies in this manual to the Rose Electronics Technical Support Department.
Safety

The QuadraVista has been tested for conformance to safety regulations and requirements, and has been certified for international use. Like all electronic equipment, the QuadraVista should be used with care. To protect yourself from possible injury and to minimize the risk of damage to the Unit, read and follow these safety instructions.

- Follow all instructions and warnings marked on this Unit.
- Except where explained in this manual, do not attempt to service this Unit yourself.
- Do not use this Unit near water.
- Assure that the placement of this Unit is on a stable surface.
- Provide proper ventilation and air circulation.
- Keep connection cables clear of obstructions that might cause damage to them.
- Use only power cords, power adapter and connection cables designed for this Unit.
- Keep objects that might damage this Unit and liquids that may spill, clear from this Unit. Liquids and foreign objects might come in contact with voltage points that could create a risk of fire or electrical shock.
- Do not use liquid or aerosol cleaners to clean this Unit. Always unplug this Unit from its electrical outlet before cleaning.

Unplug this Unit refer servicing to a qualified service center if any of the following conditions occur:

- The connection cables are damaged or frayed.
- The Unit has been exposed to any liquids.
- The Unit does not operate normally when all operating instructions have been followed.
- The Unit has been dropped or the case has been damaged.
- The Unit exhibits a distinct change in performance, indicating a need for service.

EMC Regulatory Statements

Documentation reference symbol. If the product is marked with this symbol, refer to the product documentation to get more information about the product.

WARNING  A WARNING in the manual denotes a hazard that can cause injury or death.

CAUTION  A CAUTION in the manual denotes a hazard that can damage equipment.

Do not proceed beyond a WARNING or CAUTION notice until you have understood the hazardous conditions and have taken appropriate steps.

Grounding

These are Safety Class I products and have protective earthing terminals. There must be an un-interruptible safety earth ground from the main power source to the product’s input wiring terminals, power cord, or supplied power cord set. Whenever it is likely that the protection has been impaired, disconnect the power cord until the ground has been restored.

Servicing

There are no user-serviceable parts inside these products. Only service-trained personnel must perform any servicing, maintenance, or repair. The user may adjust only items mentioned in this manual.
## Appendix A. Specifications

<table>
<thead>
<tr>
<th><strong>Dimensions (W x D x H)</strong></th>
<th>17.2 in x 9.2 in x 1.7 in / 43.6 cm x 23.4 cm x 4.4 cm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weight</strong></td>
<td>6.4 lbs / 2.9 kg</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>DVI/VGA: 1920 x 1200 @60 Hz; HDTV: 1080p (non-interlaced)</td>
</tr>
<tr>
<td><strong>Color Depth</strong></td>
<td>30-bit ultra high color (DVI/VGA)</td>
</tr>
<tr>
<td><strong>Serial Control</strong></td>
<td>Through 1 x RJ45(RS232), 1 x USB</td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td>Input: HDMI through 4 x DVI-I ports</td>
</tr>
<tr>
<td></td>
<td>Output: 1 x S/PDIF, 1 x analog stereo jack,</td>
</tr>
<tr>
<td></td>
<td>or through HDMI at 1x DVI-I port (7.1 surround sound supported)</td>
</tr>
<tr>
<td><strong>Input Ports</strong></td>
<td>4 x DVI-I (analog &amp; digital), 4 x PS/2, 4 x USB,</td>
</tr>
<tr>
<td><strong>KVM Ports</strong></td>
<td>1 x DVI-I, 2 x USB for keyboard, mouse, or touch screen</td>
</tr>
<tr>
<td><strong>USB 2.0 Ports</strong></td>
<td>4 x USB for transparent USB 2.0 devices (USB 1.1 compatible)</td>
</tr>
<tr>
<td><strong>Touch screen</strong></td>
<td>Various USB models supported (see Appendix G)</td>
</tr>
<tr>
<td><strong>EDID</strong></td>
<td>Customizable at each input port</td>
</tr>
<tr>
<td>**Supported Keyboard</td>
<td>English, German, Spanish, French, Italian, Japanese</td>
</tr>
<tr>
<td><strong>Layouts</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>Internal. 100-240 VAC , 50/60Hz</td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
<td>Max 25 watts</td>
</tr>
<tr>
<td><strong>Maximum distance</strong></td>
<td>Video (DVI / VGA) up to 20 meters; keyboard / mouse up to 5 meters</td>
</tr>
<tr>
<td><strong>LED Indicators</strong></td>
<td>4 x for Active Channel, 1 x for each Display Mode</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>41°F to 113°F / 5°C to 45°C</td>
</tr>
<tr>
<td><strong>Storage Temperature</strong></td>
<td>14°F to 140°F / -10°C to 60°C</td>
</tr>
<tr>
<td><strong>Relative Humidity</strong></td>
<td>5 to 65% non-condensing</td>
</tr>
<tr>
<td><strong>Approvals</strong></td>
<td>CE, FCC, RoHS</td>
</tr>
</tbody>
</table>

Table 6. QuadraVista QF Specifications
## Appendix B. Parts and Cables

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>QV-4KVMDVI-QF</td>
<td>QuadraVista unit</td>
</tr>
<tr>
<td>CAB-DVIIMM005</td>
<td>DVI-I Cable, Male/Male, 5ft</td>
</tr>
<tr>
<td>CAB-DVIIMF005</td>
<td>DVI-I Cable, Male/Female, 5ft</td>
</tr>
<tr>
<td>CAB-DVIIMM010</td>
<td>DVI-I Cable, Male/Male, 10ft</td>
</tr>
<tr>
<td>CAB-DVIIMF010</td>
<td>DVI-I Cable, Male/Female, 10ft</td>
</tr>
<tr>
<td>CAB-DVIIMVM005</td>
<td>DVI-I Cable, VGA(M) to DVI-I(M), 5ft</td>
</tr>
<tr>
<td>CAB-DVIIMVF005</td>
<td>DVI-I Cable, VGA(F) to DVI-I(M), 5ft</td>
</tr>
<tr>
<td>CAB-DVIIMVM010</td>
<td>DVI-I Cable, VGA(M) to DVI-I(M), 10ft</td>
</tr>
<tr>
<td>CAB-DVIIMVF010</td>
<td>DVI-I Cable, VGA(F) to DVI-I(M), 10ft</td>
</tr>
<tr>
<td>CAB-DVIDMM005</td>
<td>DVI-D Cable, Male/Male, 5ft</td>
</tr>
<tr>
<td>CAB-DVIDMM010</td>
<td>DVI-D Cable, Male/Male, 10ft</td>
</tr>
<tr>
<td>CAB-USBAB005</td>
<td>USB-AB Cable, 5ft</td>
</tr>
<tr>
<td>CAB-USBAB010</td>
<td>USB-AB Cable, 10ft</td>
</tr>
<tr>
<td>CAB-MD6MMnnn</td>
<td>PS/2 to PS/2 (male/male)</td>
</tr>
<tr>
<td>CAB-MD6M2MD6M</td>
<td>PS/2 &quot;Y&quot; cable</td>
</tr>
</tbody>
</table>

*Table 7. QuadraVista QF Part Numbers*
Appendix C. Keyboard Commands

The QuadraVista QF supports two hotkey modes – Multiple Keys and Double Click. These hotkey modes are described further below. The hotkey mode can be selected in the OSD from the SYSTEM / HOTKEY menu item as shown on page 16.

In Multiple Keys mode, the hotkey and the command key are pressed simultaneously. This is the default hotkey mode.

Command = Hotkey and Command Key together

The following keys can be selected as hotkeys for Multiple Keys mode.

- Ctrl
- Shift
- Alt
- Win

The default hotkey is

- HK = Ctrl + Alt

Other examples for Multiple Keys hotkeys are as follows.

- HK = Ctrl + Win + Alt
- HK = Ctrl + Alt
- HK = Alt

In Double Click mode, the hotkey is double-clicked, and then the command key is pressed within two seconds.

Command = HK and Command Key in sequence

The following keys can be selected as hotkeys for Double Click mode.

- Ctrl
- Shift
- Alt
- Scroll

Some examples of Double Click hotkeys are as follows.

- HK = Scroll Scroll
- HK = Ctrl Ctrl

Notes:

1. When the QuadraVista QF is in command mode (hotkeys are activated), the LEDs on the keyboard will flash to indicate this.
2. In Double Click hotkey mode, pressing an invalid key causes the unit to exit command mode.
3. Hotkey = Ctrl when the OSD is open.
Hotkeys for some of the frequently used functions of the QuadraVista QF are given below.

**Selecting display mode**

- **Quad Mode**: `HK + Q`
- **Fullscreen Mode**: `HK + F`
- **PiP Mode**: `HK + P`
- **Win Mode**: `HK + W`

**Selecting active channel**

- **Set Computer 1 as the active channel**: `HK + 1`
- **Set Computer 2 as the active channel**: `HK + 2`
- **Set Computer 3 as the active channel**: `HK + 3`
- **Set Computer 4 as the active channel**: `HK + 4`

In Quad Mode, it is also possible to select a channel adjacent to the currently active channel by using `HK + <Arrow keys>`.

In PiP mode, the active channel is automatically displayed as a full image.

**Opening USB Device Switch Window (Figure 82)**

- **Open USB Device / Port 1 Switch Window**: `HK + F1`
- **Open USB Device / Port 2 Switch Window**: `HK + F2`
- **Open USB Device / Port 3 Switch Window**: `HK + F3`
- **Open USB Device / Port 4 Switch Window**: `HK + F4`
Other Command Hotkeys

HK + O    Open OSD
HK + U    Open USB Device 1-4 Window
HK + V    Safe Output Mode (page 4)
HK + I    Opens the PiP OSD window (display mode switches to PiP mode in the background as long as the window is open)

HK + M    Activate / deactivates hotmouse mode
HK + +/-  Opens the Adjust Volume window

Hotkeys for Win Mode

HK + S    Save current window settings to EEPROM
HK + R    Restore window settings from EEPROM and lose all changes
HK + T    Toggle transparent setting of current Win Mode (Figure 42)
HK + Z    Undo up to 10 previous actions
HK + Y    Redo up to 10 previous actions
HK + W + 1,2,3,4 Select active channel in Win Mode
Appendix D. Serial Cable

Serial remote control of the QuadraVista QF requires a special adapter to connect a CAT5 cable to the serial RJ45 port on the unit.

This adapter is connected to the external serial control device (e.g. computer). A standard CAT5 cable is connected to the adapter. The other end of the CAT5 cable is connected to the RJ45 port on the unit.

The adapter (including a standard CAT5 cable (in green)) is included in the QuadraVista QF package.

Serial Cable = QuadraVista QF adapter + standard CAT5 cable.

Figure 107. QuadraVista QF Serial Cable Pinouts
Appendix E. DCP-XML and the Device Configuration Program

DCP-XML provides a means to control the QuadraVista QF remotely through a computer using the RS-232 serial port on the computer.

DCP (Device Control Protocol) is an XML-based protocol. Using DCP, all the important settings of the QuadraVista QF can be queried and changed. A general description of XML can be found at http://www.w3.org/XML/.

The XML scheme for DCP can be found on the enclosed CD, under the name “dcp.xsd”. For a detailed description on how to use DCP-XML with the QuadraVista QF, please see the accompanying “DCP-XML Manual”.

DCP has two modes: control and synchronize. The control mode is used for direct control of the QuadraVista QF unit from a computer. This is accomplished using the ConfDev Device Configuration program, and is described in further detail below. The synchronize mode is used to synchronize multiple linked devices. This has been described in the DCP Synchronize section found on page 26.

Device Configuration Program

The Device Configuration Program ConfDev allows the user to operate the OSD of the QuadraVista QF remotely from an external Windows computer through a serial connection.

Other operations available through the ConfDev program include uploading a background image to the QuadraVista QF unit, and loading and saving configurations. Each of these operations is described further below.

Installing the ConfDev Program

In order to install the ConfDev device configuration software, the following are needed.

- A computer running Microsoft Windows with a free USB or RS 232 COM-port;
- the QuadraVista QF unit;
- the confdevEn.exe program found on the accompanying installation CD; and
- the included “serial cable” (RJ45-DB9 adaptor + RJ45 CAT5 cable) described in Appendix D

Use the serial cable to connect the COM port of the Windows computer to the serial port on the QuadraVista QF. Alternatively, connect a USB A-B cable between a USB Type A port on the computer and the Control USB Type B port on the unit.

Note: The virtual COM port USB driver can be downloaded from the Future Technology Devices International Ltd. website at www.ftdichip.com/Drivers/VCP.htm
Insert the installation CD and launch the confdevEn.exe program. This will open the Device Configuration Program (ConfDev) window.

**ConfDev Settings**

Clicking the *Change Settings* button opens the *Settings* window. This window provides a means to set the font size for the OSD, set log parameters and the properties of the COM port to which the unit is connected.
Remote OSD Operation

Click the *Remote OSD* button to open the On Screen Display (OSD) of the QuadraVista QF remotely on the external Windows computer. This will open the main OSD on the computer.

![OSD Main Screen](image)

Figure 111. OSD Main Screen

Navigate through the OSD using the arrow keys on the keyboard of the remote Windows computer. Press *Enter* key to make a selection, or the *Esc* key to return to the previous menu.

**Uploading a Background Image**

The *ConfDev* program can be used to upload a background image to the QuadraVista QF. This image is displayed behind the windows in Win Mode. To upload an image, use the *DEVICE → LOAD BACKGROUND IMAGE* menu item in *ConfDev*.

**IMPORTANT:** Only 256-color bitmaps are supported for background images. The file used should have a maximum size of 2 MB. The maximum resolution will be that of the connected monitor.

If an image of another format needs to be used, it must first be converted into a bitmap. Free tools like Gimp or Paint.NET are available to do this conversion. MS Paint available in Windows also supports this conversion. Due to the limited color count in the bitmap format, the quality of the image may be reduced.

A compression algorithm is used while downloading the image. If the image cannot be compressed well, the upload can take up to 30 minutes.
A 256-color bitmap is uploaded from the Windows computer to the QuadraVista QF using the ConfDev program.

Figure 112. Uploading a Background Image to the QuadraVista QF
Storing a Configuration
The ConfDev program can be used to store device configurations as a file on the Windows computer. To store a device configuration to PC, use the DEVICE  STORE CONFIGURATION menu item in ConfDev. The Save As window will be displayed and the configuration can be saved to the desired location.

Figure 113. Saving Device Configuration to PC

Loading a Configuration
The ConfDev program can be used to load device configurations from a file on the Windows computer. To load a device configuration from the PC, use the DEVICE  LOAD CONFIGURATION menu item in ConfDev. The Open window will be displayed, and the desired configuration file can be loaded.

Figure 114. Loading Device Configuration to the QuadraVista QF
Appendix F. Firmware Update

The following are needed to perform a firmware update.

- A computer with a free USB or RS 232 COM-port;
- the included “serial cable” (RJ45-DB9 adaptor + RJ45 CAT5 cable) described in Appendix D,
- the QuadraVista QF unit; and
- the firmware executable file with the firmware to be uploaded; and

Set up connections between the computer and unit using the cable in the manner described in Installing the ConfDev Program found on page 84.

Launch the executable firmware file. This will open up the Update window. Select the COM port the unit is connected to, and press the Update button.

LEDs 1-4 on the unit’s front panel will flash blue during the update. Additionally, the Update window shows the progress of the firmware upgrade.

When the firmware has been updated successfully, the QuadraVista QF restarts without changing the configuration.
Appendix G. Supported Touch Screen Controllers

The QuadraVista QF supports **USB Touch Screens** that have one of the following controllers built in.

**Tyco ELO Touch System:**
- IntelliTouch Surface Wave Touch Technology - elo 2701 Controller Series (IntelliTouch, SecureTouch)
- CarrollTouch Infrared Touch Technology

(not supported: Acoustic Pulse Recognition (APR))

**TSharc:**
- TSharc Octopus Controller - widely used, including in touch screens manufactured by 3M, Microtouch, TrollTouch, The Bergquist Company

**XanQ:**
- USB-R5W-HT580-R by XanQ Technology Corporation

**3M MicroTouch:**
- MicroTouch™ EX II (new release delivered after 2009 with HID support)
- MicroTouch™ DST - only restrictions are that the touch screen must first be calibrated at a standalone computer, and that only left mouse clicks are recognized, not right mouse clicks.
  E.g. integrated at display NEC Multeos 32” and 40” LCD with touch option.

**ET&T Technology:**
- ETouch IR™ infra red touch screen, aluminum frame, 26” up to 65”

**eGalaxy eMPIA Technology Inc. (EETI):**
- S5000UEGG; 4/5-Wire Resistive Touch Technology; USB;

**Notes:**
- If a USB touch screen does not feature one of the controllers listed above or does not work with a digitizer touch screen interface, please contact Rose Electronics Tech Support to determine compatibility.
- New multi-touch screen systems are compatible with the newly defined digitizer touch screen interface. Generally, these can be used.
## Appendix H. Supported Video Formats

### VIDEO INPUT (Display Video Formats)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Resolution</th>
<th>Sync Polarity H/V</th>
<th>Refresh Rate</th>
<th>Set In EDID</th>
<th>VESA/CEA Standard</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td></td>
<td>Analog Hz</td>
<td>Digital Hz</td>
<td></td>
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<tr>
<td>CGA</td>
<td>640x350</td>
<td>+/-</td>
<td>85</td>
<td>85</td>
<td>DMT</td>
</tr>
<tr>
<td>CGA</td>
<td>640x400</td>
<td>-/+</td>
<td>85</td>
<td>85</td>
<td>DMT</td>
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<td>720x400</td>
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<td>70</td>
<td>x</td>
</tr>
<tr>
<td>EGA</td>
<td>720x400</td>
<td>+/-</td>
<td>85</td>
<td>85</td>
<td>DMT</td>
</tr>
<tr>
<td>VGA</td>
<td>640x480</td>
<td>-/−</td>
<td>60</td>
<td>22-60</td>
<td>x</td>
</tr>
<tr>
<td>VGA</td>
<td>640x480</td>
<td>-/−</td>
<td>72</td>
<td>72</td>
<td>x</td>
</tr>
<tr>
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<td>-/−</td>
<td>75</td>
<td>75</td>
<td>x</td>
</tr>
<tr>
<td>VGA</td>
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<td>-/−</td>
<td>85</td>
<td>85</td>
<td>x</td>
</tr>
<tr>
<td>SVGA</td>
<td>800x600</td>
<td>+/-</td>
<td>56</td>
<td>22-56</td>
<td>x</td>
</tr>
<tr>
<td>SVGA</td>
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<td>+/-</td>
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<td>60</td>
<td>x</td>
</tr>
<tr>
<td>SVGA</td>
<td>800x600</td>
<td>+/-</td>
<td>72</td>
<td>72</td>
<td>x</td>
</tr>
<tr>
<td>SVGA</td>
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<td>x</td>
</tr>
<tr>
<td>SVGA</td>
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<td>85-180</td>
<td>x</td>
</tr>
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<td>50</td>
<td>22-50</td>
<td>CVT</td>
</tr>
<tr>
<td>XGA</td>
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<td>60</td>
<td>60</td>
<td>x</td>
</tr>
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<td>1024x768</td>
<td>-/−</td>
<td>70</td>
<td>70</td>
<td>x</td>
</tr>
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<td>XGA</td>
<td>1024x768</td>
<td>+/-</td>
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<td>75</td>
<td>x</td>
</tr>
<tr>
<td>XGA/B</td>
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<td>75</td>
<td>x</td>
</tr>
<tr>
<td>SUN</td>
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<td>CVT</td>
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<td>+/-</td>
<td>50</td>
<td>22-50</td>
<td>CEA-861-E</td>
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<td>+/-</td>
<td>60</td>
<td>60</td>
<td>CEA-861-E</td>
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<td>WXGA</td>
<td>1280x768</td>
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<td>60</td>
<td>60</td>
<td>DMT</td>
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<td>UXWG</td>
<td>1280x960</td>
<td>+/-</td>
<td>60</td>
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<td>DMT</td>
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<td>UXWG</td>
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<td>85</td>
<td>DMT</td>
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<td>SXGA</td>
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<td>85</td>
<td>x</td>
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<td>22-60</td>
<td>DMT</td>
</tr>
<tr>
<td>SXGA+</td>
<td>1400x1050</td>
<td>-/−</td>
<td>50</td>
<td>22-50</td>
<td>CVT</td>
</tr>
<tr>
<td>SXGA+</td>
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<td>-/−</td>
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<td>SGI</td>
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<td>UXGA</td>
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</tr>
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<td>UXGA</td>
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<td>+/-</td>
<td>60</td>
<td>60</td>
<td>x</td>
</tr>
</tbody>
</table>
### Table 8. Supported Input Video Formats

**Note:**

*Digital*: All video formats up to 162 MHz pixel clock following DMT, CVT or GTF standard timings are supported. Within this range, ANY digital resolution is supported. Analog input may not be detected correctly. See COMPUTER / EDID/DDC Menu Item section on page 59.

<table>
<thead>
<tr>
<th>Format</th>
<th>Resolution</th>
<th>Horizontal Frequency</th>
<th>Vertical Frequency</th>
<th>Timing Standard</th>
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<td>+/-</td>
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<td>CVT</td>
</tr>
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<td>WSXGA</td>
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<td>-/+</td>
<td>60</td>
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<td>x</td>
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<td>WUXGAr</td>
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<td>50</td>
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<td>+/-</td>
<td>60</td>
<td>DMT</td>
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</table>
**VIDEO OUTPUT (Display Video Formats)**

The table lists all video formats supported by the QuadraVista QF at the output port.

<table>
<thead>
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<th>Mode</th>
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<th>Vertical</th>
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<td>1920</td>
<td>1080</td>
<td>60</td>
</tr>
</tbody>
</table>

Table 9. Supported Output Video Formats

**Note:**
When set to auto (by default), the QuadraVista QF reads the EDID of the monitor connected and automatically supports its resolution as described in the CONSOLE / VIDEO OUTPUT Menu Item section on page 38.
Appendix I. Cascading QuadraVista QF Units

The QuadraVista QF can be cascaded in order to display more than four video sources simultaneously on a single display. In this master-slave-system, any QuadraVista QF can be used as master or slave.

One unit acts as the master unit. The console that has a keyboard, mouse and display or touch screen is connected to the output of the master unit. A slave unit can be connected to each input of the master unit. In this way, each quadrant on the display can be split in four more quadrants.

Thus, in a maximum cascaded configuration, a total of 16 video sources can be displayed simultaneously on a single console.

All display modes:
Display modes (Fullscreen, Quad, PiP, Win) of the master and the slaves and can be set, combined and switched individually. For example, the master unit could be set to Quad mode, while the first slave is set to PiP, the second slave to Fullscreen, the third slave to Quad and the fourth slave to Win mode. Any combination is possible.

Keyboard and mouse operation:
Keyboard and mouse can be activated on any of the connected computers (up to 16) in order to operate on them.

Hotkeys for switching:
Use hotkeys to activate any of the channels quickly, or to switch the display mode of any of units in the master-slave system.

Different levels (master or slave) require different types of hotkeys.

For example, keep the hotkey default setting $\text{HK1} = \text{Ctrl} + \text{Alt}$ for all slave units.

Just change the hotkey setting for the master unit. For example, $\text{HK2} = \text{Ctrl} + \text{Win}$.

See the SYSTEM / HOTKEY Menu Item section on page 15 on instructions on how to change hotkeys.

Examples:
The examples below use a cascaded setup with 1 master, 4 slaves and 16 connected computers.

- The keyboard and mouse of computer 16 can be activated by pressing the following hotkey combination: $\text{HK2} + 4$ to activate channel 4 on the master level, then $\text{HK1} + 4$ to activate channel 4 on the slave unit connected to channel 4 of the master.

- To change the display mode of the slave unit XP connected to port 4 of the master unit, press the following hotkey combination:
  $\text{HK2} + 4$ to activate channel 4 on the master level, then $\text{HK1} + \text{P}$ to switch from default Quad Mode to PiP mode in quadrant 4. The result is a screen split into four equal quadrants. All quadrants are split again in four equal quadrants, except for the quadrant in the lower right corner (channel 4) is showing its four sources in PiP mode.

Note:
Use a programmable keyboard for easy switching of cascaded QuadraVista QF units. A single key can be programmed to a hotkey combination. By pressing a single key, the keyboard and mouse of one of up to 16 connected computers can be activated, or the display mode of the master or any of the four slaves can be changed.