

## Advanced Graphics Display Technology

The Datapath VQS-01 is a display wall controller which connects to the VGA output of any PC and displays the image across 4 displays. Each display shows 1/4 of the VGA image in a 2 x 2 format.

- 2 x 2 VGA Display Wall Controller.
- The VQS-01 accepts analog or DVI VGA video input.
- Outputs to 4 displays. Each Display shows 1/4 of the VGA image. (2 x 2 format)
- The VQS-01 supports both analog and DVI displays.
- A stand alone unit that requires no software or other hardware to be installed on your machine.
- Multiple units can be used for larger wall configurations.



## Features

### Display Mirroring

The VQS-01 also supports display mirroring. This allows each output to be mirrored horizontally and vertically. This feature is particularly useful for display walls using LCD panels, allowing each panel of a 2 x 2 wall to be mounted in a different orientation. Many LCD panels have larger borders on two of the panel edges, by changing the orientation the minimum gap between displays can be achieved.

### Adjustable Output Refresh Rate

The VQS-01 provides the user with selectable output refresh rates with most modes supporting 50, 56, 60, 70, 72, 75 and 85Hz.

### Display Adjustments

When using an analog VGA source, the VQS-01 provides user adjustment for the following:

- Horizontal Position
- Vertical Position
- Phase
- Clock
- Brightness
- Contrast

These adjustments allow the output display to line up exactly with the incoming analog VGA source. Adjustments to any particular display mode may be saved, the VQS-01 will then recall the settings every time the display mode is detected.

### Gen-Lock

When using multiple VQS-01 controllers for larger wall configurations, it may be desirable to gen-lock the VQS-01 units enabling all displays to be synchronised. The VQS-01 provides a sync output and sync input, to gen-lock, connect the output from one unit to the input of the next.

### Resolution Tables

#### VESA Modes Supported by VQS-01

Input Resolution	Output Resolution
720 x 400 at 85Hz	4 x 360 x 200 Each output line is doubled.
720 X 480 at 60Hz	4 x 360 x 240 Each output line is doubled.
640 x 350 at 85Hz	4 x 320 x 175 Each output line is doubled.
640 x 400 at 85Hz	4 x 320 x 200 Each output line is doubled.
640 x 480 at 60, 72, 75 and 85Hz	4 x 320 x 240 Each output line is doubled.
800 x 600 at 56, 60, 72, 75 and 85Hz	4 x 400 x 300 Each output line is doubled.
1024 x 768 at 60, 70, 75 and 85Hz	4 x 512 x 384 Each output line is doubled.
1152 x 864 at 75Hz	4 x 576 x 432 Line double optional.
1280 x 960 at 60 and 85Hz	4 x 640 x 480 Line double optional.
1280 x 1024 at 60 and 75Hz	4 x 640 x 512 Line double optional.
1600 x 1200 at 60Hz	4 x 800 x 600

#### Datapath Modes Supported by VQS-01 (Requires Datapath Vantage4 with driver V1.03 or iH4 with driver V2.14 or above)

Input Resolution	Output Resolution
2048 x 1536 at 30, 35 and 37Hz	4 x 1024 x 768
1600 x 1200 at 30, 36, 37, 42, 56 and 60Hz	4 x 800 x 600
1280 x 960 at 60 and 85Hz	4 x 640 x 480

**Custom Modes Supported by VQS-01** (Requires customized input mode with specific timing information)

Input Resolution	Output Resolution
720 x 400 at 70Hz	4 x 360 x 200 Each output line is doubled.
2048 x 1536 at 25Hz	4 x 1024 x 768
2304 x 1728 at 31 and 37Hz	4 x 1152 x 864
2560 x 2048 at 23, 25 and 28Hz	4 x 1280 x 1024
1280 x 960 at 50, 72 and 75Hz	4 x 640 x 480
800 X 600 at 50Hz	4 x 400 x 300 Each output line is doubled.
1280 X 700 at 85Hz	4 x 640 x 350 Line double optional.
1280 X 800 at 85Hz	4 x 640 x 400 Line double optional.
1440 X 800 at 85Hz	4 x 720 x 400
1600 X 1200 at 50Hz	4 x 800 x 600
2560 X 1536 at 30Hz	4 x 1280 x 768

**Custom Modes Supported by VQS-01** (May require non-Datapath hardware as well as customized input mode with specific timing information)

Input Resolution	Output Resolution
648 X 481 at 60Hz	4 x 324 x 240 Each output line is doubled.
1280 X 1024 at 50Hz	4 x 640 x 512 Each output line is doubled.
1024 X 768 at 50Hz	4 x 640 x 384 Each output line is doubled.
800 X 600 at 50Hz	4 x 400 x 300 Each output line is doubled.
1600 X 1200 at 50Hz	4 x 800 x 600

## Technical Specification

VQS-01 Physical Dimensions	248 x 175 x 55mm
Operating Temperature Range	0 - 35 DegC
Power Requirements	9 - 15V DC at 2 amps (max). Requires VQS PSU. (External PSU)
Cooling	The unit contains a cooling fan. The input and output vents should not be restricted.
VGA Input	1 x DVI connector. Analog or digital
Display Outputs	4 x DVI connectors Analog or digital
Gen-Lock Input/Output	2 x RCA connectors. TTL voltage levels
Power Connector	5 pin DIN

### VQS-PSU

VQS-PSU Physical Dimensions	132 x 58 x 30mm
Input Power	110 - 240v AC 50-60Hz
Operating Temperature Range	0 - 35 DegC
Output Power	12V DC at 3.75 amps (max)



## Ordering Information

- 2 x 2 wall control unit model No VQS-01. This unit requires an external power supply.
- External power supply model No VQS-PSU.

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