IQS4

User Guide

4K Quad Splitter

Engineering the **world's best** visual solutions

DATAPATH
EXCELLENCE BY DESIGN

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FCC COMPLIANCE IQS4

Federal Communications Commission Statement

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

■ This device may not cause harmful interference.

■ This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial, industrial or business environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

■ Re-orient or relocate the receiving antenna.

■ Increase the separation between the equipment and the receiver.

■ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

■ Consult the dealer or an experienced radio/TV technician for help.

⚠ **Warning! Any changes or modifications to this product not expressly approved by the manufacturer could void any assurances of safety or performance and could result in violation of Part 15 of the FCC Rules.**

Reprinted from the Code of Federal Regulations #47, part 15.193.1993. Washington DC: Office of the Federal Register, National Archives and Records Administration, US Government Printing Office.

DECLARATION OF CONFORMITY

Per FCC Part 15.107 and 15.109 Class A

Responsible Party Name:	Datapath Limited
Address:	Bemrose Park, Wayzgoose Drive, Derby
Phone:	+44 (0) 1332 294 441
Hereby declares the product:	IQS4
Product Name:	Quad output splitter
Model Number:	IQS4 (DGC222)
Conforms to the following specifications:	
FCC Part 15.107 and 15.109	Class A Digital Device
Supplementary Information:	

This device has been shown to be in compliance with and was tested in accordance with the measurement procedures specified in the Standards & Specifications listed above and as indicated in the measurement report number: TRA-051311-44-01A.

Representative Persons Name: Tony Jones, Operations Director.

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INTRODUCTION

The IQS4 is Datapath's 4K splitter solution engineered specifically for large, multi-output video wall applications. Paired with Datapath's Image4K graphics cards, the IQS4 delivers a cost-effective solution for powering video walls of up to 96 HD screens.

Specification:

Video output connections	4 x HDMI 1.4 (1920 x 1080@60Hz)
Video input connections	1 x HDMI 2.0 (7680 x 1080@60Hz)
Power requirements	12 Watts
Operating temperature	0°C to 35°C / 32°F to 96°F
Storage temperature	-20°C to 70°C / -4°F to 158°F
Relative humidity	5% to 90% non-condensing
Size	205mm (l) x 161mm (w) x 31mm (h)
Warranty	3 years (Optional 5 years)

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The IQS4 takes one single 4K output from an Image2K/ Image4K and splits it into four HD outputs.

Using IQS4 units reduces the overall number of graphics cards needed in the video wall controller, which streamlines the system, reducing load and optimizing capacity.

■ Works with Datapath Image4K and Image2K graphics cards with no configuration needed.

■ Splitting and placement of 'quadrants' is easy with the graphical setup wizard.

■ Works with the output of an Image4K or Image2K graphics card with support for HDCP 2.2.

■ Splits and routes the input signal to all four outputs with a maximum delay of a single line.

■ Multiple mounting options:

　■ 5U that will support up to 10 IQS4 units with RPSU.

　■ 1U rack mount kit to house two IQS4 units with RPSU.

　■ VESA compliant for mounting a single IQS4 unit behind a screen.

　■ Standalone - Place on any flat surface.

■ Distribute video in 4K and split local to screens to reduce long distance cabling requirements.

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UNPACKING

Your packing box contains the following items:

■ Your IQS4 4K Quad Splitter.

■ Power Supply Unit.

■ 5x HDMI Locks.

■ 4x M4 35mm screws.

Note: *All electronic products are static sensitive and packed in antistatic materials. Please keep the IQS4 in its packaging until you are ready to install.*

It is recommended that you do not discard the packing box until you are completely satisfied with the IQS4 Quad Splitter and it is fully installed and working correctly. We also recommend that you make note of the serial number of the device. This should hasten any query, should you need to contact our Technical Support Department. The serial number is displayed on the bottom of the splitter.

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INSTALLATION

This section deals with the installation of the splitters working in conjunction with the graphics cards to spread the Windows desktop across all the screens.

System Requirements

An Image2K/Image4K graphics card from Datapath.

Mounting Options

The IQS4 features multiple mounting options:

Each VESA mounted IQS drives four HD screens

Input from a Datapath Image2K or Image4K

Power is required for each IQS4 unit

1

2

Rack mount kits house two IQS4 units in 1U or up to 10 IQS4 units in 5U

Each IQS4 drives four HD screens

3

Power is required for each rack mount kit (dual connections for redundancy)

Input from a Datapath Image2K or Image4K
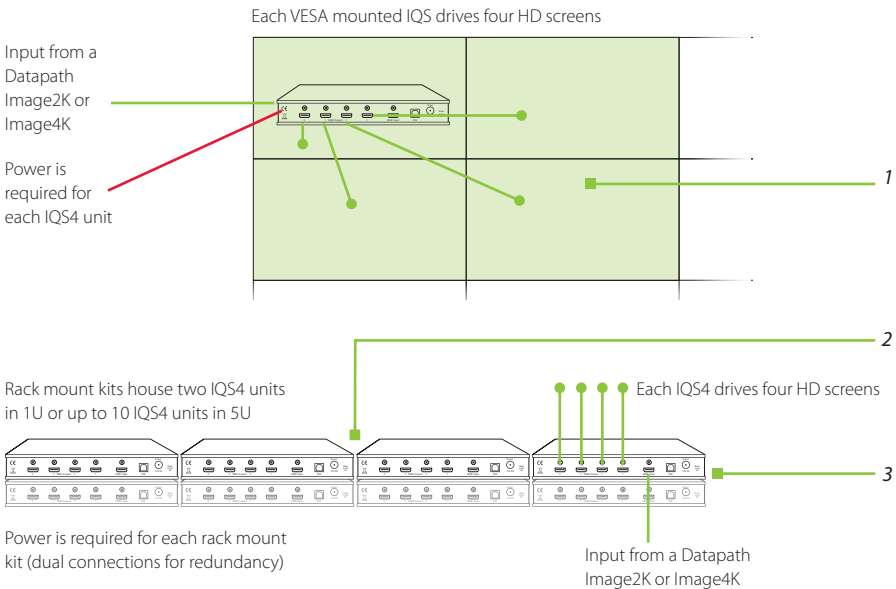
1	**Using VESA mount behind the screens.**	
	Each IQS4 has a VESA mount which enables the unit to be fixed to the rear of a display.	
2	**Using additional rack mount.**	
	An additional kit allows the splitter to be rack mounted in conjunction with the video wall controller and any other equipment.	
3	**Stand alone.**	
	The IQS4 can also be installed standalone on any flat surface.	

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Procedure and Connections

1	Connect the output of the graphics card to the input socket on the rear of the IQS4 using an HDMI cable. Ensure the cable is secured into the IQS4 input connector. If possible, use the supplied cable lock.

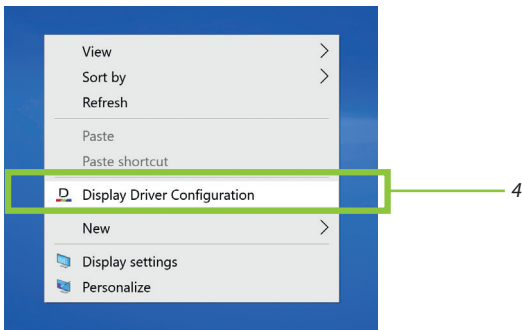*Note: Always use Premium Certified HDMI cables, capable of 4K @60 resolution, see www.HDMI.org*
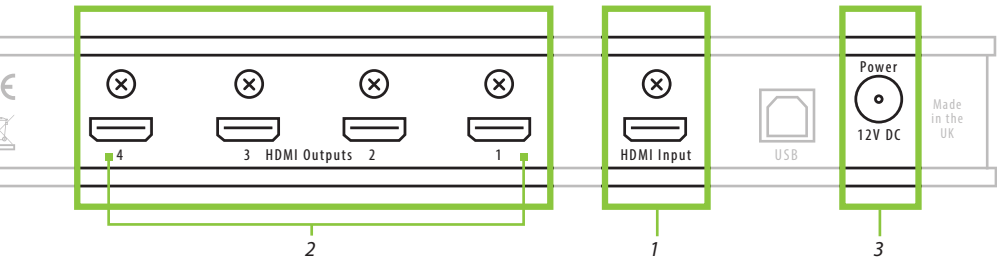
2	Connect the outputs on the IQS4 to the displays. Ensure the cables are secured.
3	Connect power supply and switch on.
4	Right click on the desktop and select the Display Driver Configuration Tool (DDCT) from the menu.

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Front LED

The IQS4 includes three front panel LEDs for device status INFO
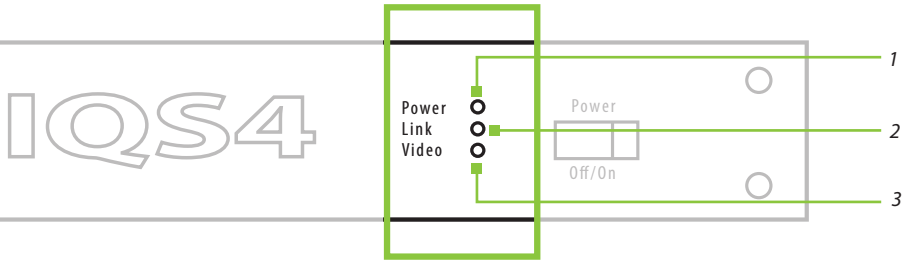
|	
1	POWER – RED for power connected / GREEN for device ON.
2	LINK – ON when an input is detected.
3	VIDEO – ON when video is being output.

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DISPLAY DRIVER CONFIGURATION TOOL (DDCT)

The configuration and setup of the IQS4 is done through the Display Driver Configuration Tool (DDCT), the same tool is used for the design, configuration and creation of the video wall.

To access the DDCT right click on your desktop, select Display Driver Configuration then select the Set Up Wizard.

Note: The complete guide for this tool can be found on the Image2K/Image4K user guide and in the application help file.

A new 'Use Split Outputs' toggle option is available from driver v6.0 when using Image2K/Image4K.
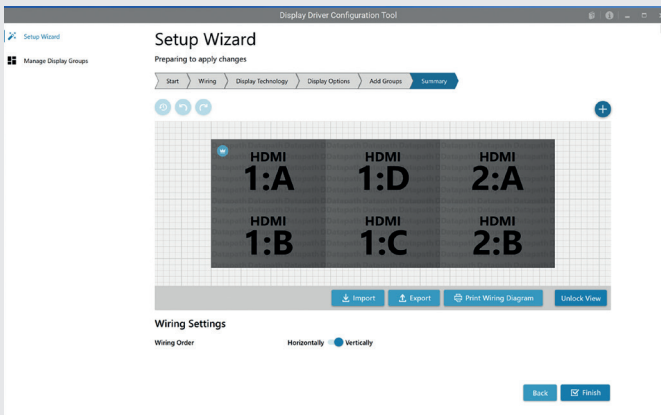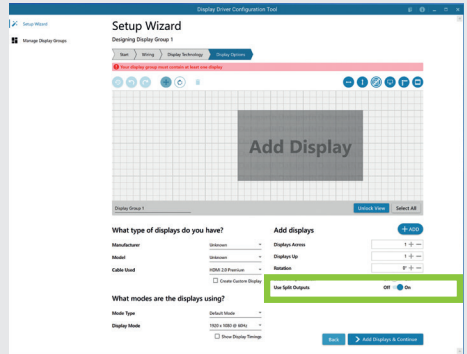
When enabled, each output of the graphics card added to the wall are allocated as four quadrants per output.

■ Four HD quadrants allocated for each output of the graphics card.

■ Labelled A to D (e.g. 3:B is the second quadrant of output 3 on the graphics card).

*Note: It is not necessary to use all four available quadrants on each output.*

Follow the instructions on the application to complete the process (or check the User Guide included with your graphics cards).

Once added to the wall, split outputs can be arranged and ordered in any way. The do not have to stay grouped together, as the driver ensures the correct content (wall section) is sent to the correct split/quadrant on each output.
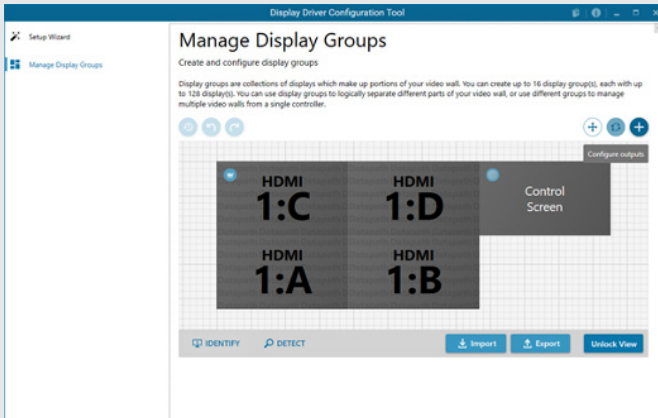
The system allows to mix split outputs (labeled with the output number and A to D behind) and direct outputs (just the output number).
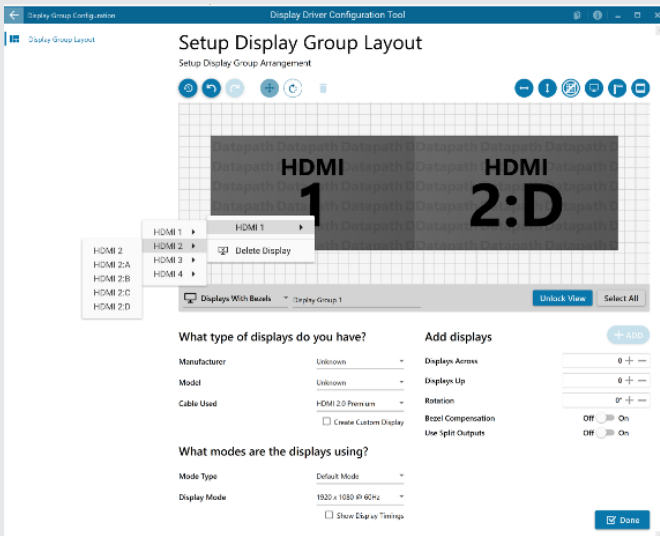
DATAPATH LIMITED

Datapath has a long and very successful history in the computer graphics industry. Datapath has been designing and supplying high performance, high quality graphics display systems to the world's largest and most demanding companies and institutions since 1982. Datapath was one of the founding companies of multi-screen windows acceleration using single and multi-board solutions. Now using the very latest display technology. Datapath offers some of the world's leading multi-screen graphics accelerators for the most demanding applications.

As new technology advances, we at Datapath improve the performance and functionality of both our hardware and software to give our customers more. Following a continuous development program, we pride ourselves on our support and responsive nature towards all our customers and their changing needs. As more sophisticated equipment and techniques become readily available, we are there to exploit the power and potential that this technology presents.

Technical Support

Registered users can access our technical support. Please see our website support page for contact information. Responses should be received within 24 hours (excluding weekends).

Via Email

Send an email to **support@datapath.co.uk** with as much information about your system as possible. To enable a swift response we need to know the following details:

- Specification of the PC - including processor speed.

- Operating System.

- Application Software.

- Datapath Hardware / Software.

- The exact nature of the problem - please be as specific as possible.

Please quote version and revision numbers of hardware and software in use wherever possible.

Copyright Statement

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NOTES

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