

# The new QS Quad Monitors with WFM

## The new QS, what else could you ask for?

The new QS from KROMA, with built-in quad-split and 10 inputs, is now enhanced with waveform and vectorscope tools, high resolution IMD (In-Monitor Display) and VU-meters, on-screen clock and the option to turn 4 video inputs into outputs by menu.

High resolution  
IMD and tally

LTC

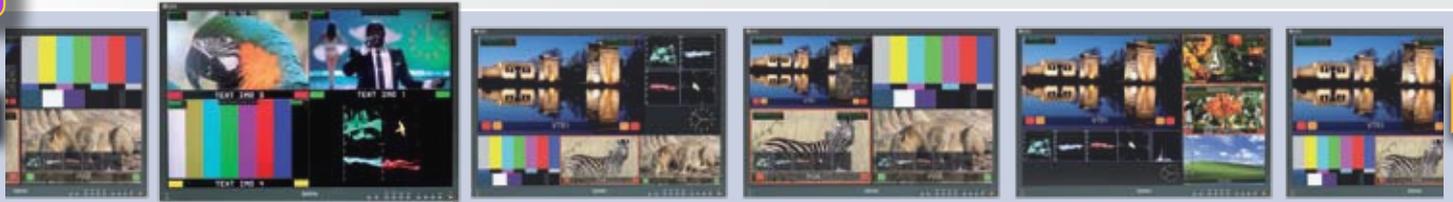
Clock

Waveform,  
for YCbCr  
vectorscope

Improved  
VU meters



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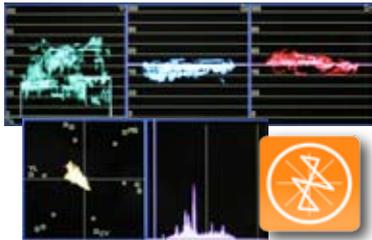


## MAIN FEATURES



2 DVI-I inputs (YPbPr, VGA and DVI video modes) and 8 autodetecting video inputs (composite and SD-SDI signals). These 8 inputs can be easily turned into 4 multistandard inputs + 4 digital outputs on the on-screen menu.

HD is optional for the multiformat inputs and can be included at the time of purchase or activated by license later.



New tools have been included to assist in the signal monitoring, such as independent waveforms for Y, Cb and Cr, vectorscope and histogram, displayed in different colours for a quick identification of each function.

These tools may be overlaid on the signal or displayed on a different quadrant so that no picture is hidden.

In addition to the standard quad-split mode with four identical windows, there are different layouts available with several combinations of sizes and positions, along with the WFM tools.

One main large window can be combined with 3 smaller signals on both sides, on top or bottom. The different layouts, as well as which of the 10 inputs is displayed as main screen, may be easily selected in the on-screen menu.

In any of the layouts, it is possible to switch any of the signals to full screen mode just by pressing the corresponding key in the front panels.



The QS SERIES units can be used to monitor both analogue and digital audio: any of the 4 analogue stereo inputs or the built-in audio de-embedder, can be fed to the on-screen VU-meters (with 4 groups/16 channels per window); or listened through the built-in speaker or headphones.



Each of the video signals can count with a dynamic in-monitor display, under serial protocol, to keep the different video signals correctly identified. A static IMD can also be easily configured for each window.

On-screen tricolour tallies are available (through serial protocol, contact closure and voltage).



Independent alarms for each of the quadrants may be set, with four different event types: out of sync, frozen picture, black picture and audio (presence or absence for each channel). The alarm is displayed on screen with a frame around the picture, with different colours depending on the event type.

## OTHER FEATURES



The QS series monitors displays feature IPS (In-Plane Switching) technology, improving viewing angles and colour reproduction over regular LCD displays.

### Broadcast colorimetry

One major advantage over multiviewing systems when compared to built-in quad-splits is colorimetry control. Unlike most industrial and consumer monitors, commonly used in multiviewing systems, each of the three colour components, Red, Green and Blue, can be adjusted independently to match an exact colorimetry setting.

### LTC and clock

The LTC signalling can be extracted from the SDI signal and showed on screen; the time can be set and a clock displayed on screen.

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## KROMA MONITOR CONTROLLER

KROMA QS monitors can work as a modular multiviewing system just by adding several units together to build a monitoring wall. With 4 signals per unit at once, the system would require as many units as to show the whole range of video signals in the system (i.g., 5 QS monitors would be used for 20 signals). It is possible to mix different sizes together, and even combining QS monitors with 7000/4000 series monitors for PVV and PGW, since the screens and colorimetry settings are the same for both series.

To increase the possibilities of this modular system, KROMA has developed its Monitor Controller. This PC-based software provides remote access to all the functions in the monitors from a computer, just by using a regular Ethernet network and the network ports in the monitors (both QS and 7000 series). This way, not only basic functions such as brightness or contrast of the screens, but also advanced features such as In-Monitor displays or the Vu-meters, may be conveniently configured from the control desk.

In addition to the standard functions in the monitors, the KROMA Monitor Controller software can set a log of all events and alarms in the system, with details of the monitor and quadrant, as well as date and time of the event. These functions take QS series very close to a dedicated multiviewing system, with additional advantages: being based on broadcast monitors, colorimetry is easily managed and signal delay is as low as possible, just the same as in single monitors system.



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## SPECIFICATIONS

Model #	QS7018	QS7024
Size	18.5"	24" (16:10 native)
Resolution	1366x768 (16:9 native)	1920x1200
Active Area	409.8x230.4mm	518x324mm
Viewing Angle	178° H/V	178° H/V
MTTF	50,000 Hours	50,000 Hours
Brightness	250 cd/m <sup>2</sup>	400cd/m <sup>2</sup>
Contrast	1000:1	1000:1
Response Time	6 ms	6ms
<b>Inputs</b>		
<b>DVI-I</b>		
Connector	2xDVI-I	
YPbPr	1080i (60,59.95, 50), 576@50i, 480@60i	
RGB (VGA)	640x480, 800x600, 1024x768, 1280x1024, 1600x1200	
DVI Graphic Mode	640x480, 800x600, 1024x768, 1280x1024	
DVI Video Mode	1920x1080(50i, 60i, 50p, 60p)	
<b>CVS/SD/HD-SDI</b>		
Connector	8xBNC (autosensing) or 4xBNC (selectable by menu)	
SMPTTE-170M	PAL/NTSC/SECAM	
SMPTTE-259M	576i@50, 480i@60	
SMPTTE-296M	720p(60/59.94/50)	
SMPTTE-274M	1080p(30/29.97/25/24/23.98), 1080iF(24/23.98), 1080i(60/59.94/50)	
SMPTTE-260M	1035i(60/59.94)	
<b>Audio</b>		
	SDI embedded audio	
	4ch. analogue audio (SUB-D26 connector)	
<b>In-Monitor display</b>		
	RJ-45 connector (TSL 3.1 protocol,....)	
<b>Remote control</b>		
	Ethernet	
<b>Tally</b>		
	SUB-D26 connector (contact closure and voltage)	
	RJ-45 connector (serial protocol)	
<b>LTC/VITC/VITC2</b>		
	SDI-embedded (digital)	
<b>Firmware updates</b>		
	USB B-Type	
<b>GPIO</b>		
	RJ-45	
<b>Outputs</b>		
<b>SD/HD-SDI</b>		
Connector	4xBNC (selectable by menu)	
SMPTTE-259M	576i@50, 480i@60	
SMPTTE-296M	720p(60/59.94/50)	
SMPTTE-274M	1080p(30/29.97/25/24/23.98), 1080iF(24/23.98), 1080i(60/59.94/50)	
SMPTTE-260M	1035i(60/59.94)	
<b>Audio</b>		
	Front headphone output (Jack connector)	
	Built-in speaker	
	VU-meters	
<b>Tally</b>		
	On-screen	
<b>In-Monitor display</b>		
	On-screen	
	RJ-45 connector (loop output)	
<b>General</b>		
Dimensions	265 x 446.5 x 93 mm	370 x 552 x 95 mm
Weight	5.7 Kg	6.8 Kg
Power	External PSU 100-240 VAC	Internal PSU 100-240 VAC
Power consumption	57W	75W
<b>Ordering info</b>		
Model #	QS7018	QS7024
Activation codes	QSHD: HD activation for 8 SDI inputs	
<b>Accessories</b>		
	Q56018X80: rack mounting kit	LM6024X80: rack mounting kit
	MS2300X80: articulated desktop adaptor	MS2300X80: articulated desktop adaptor
	MS2304X50: fixed desktop support	MS2304X50: fixed desktop support

Specifications may change without prior notice

## FRONT AND REAR VIEWS

