Brompton SX40

The 4K Tessera SX40 LED processor combines an industry-leading feature set and easy-to-use software interface with a high capacity processor.

Tessera SX40 offers support for full 4K screens at 60Hz with 12 bits per colour output. It supports a zero-latency up/down scaler that matches the source to the screen as well as all of Tessera's processing features like ChromaTune colour correction, On-Screen Colour Adjustment (OSCA), and more.

It is compatible with all existing Tessera fixture inventory. Used in combination with the Tessera XD data distribution unit, the Tessera SX40 provides a cost-effective and powerful processing system for supporting the biggest and boldest LED projects.

Tessera XD

The Tessera XD 10G data distribution unit works seamlessly with the Tessera SX40 LED processor to deliver a flexible, sophisticated single box solution designed specifically to easily and cost-effectively support the biggest LED projects.
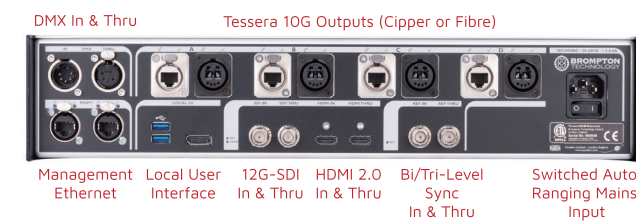
The Tessera SX40 processor and Tessera XD data distribution unit support both copper and single mode optical fibre trunk connections, and the Tessera XD can be used to convert between the two media.

Redundancy

Redundancy delivers ultimate peace of mind for users by introducing an auto-failover mechanism that allows a back-up processor to take over in just a few seconds.

There's no requirement for any aspect of the sources to match – redundancy will ensure a near-seamless show even in the event of a power or cable failure.

DMX In & Thru | Tessera 10G Outputs (Cipper or Fibre)

Management Ethernet | Local User Interface | 12G-SDI In & Thru | HDMI 2.0 In & Thru | Bi/Tri-Level Sync In & Thru | Switched Auto Ranging Mains Input

Specifications

Processors	HD102	eV4	Brompton SX40	HELIOS 8K
Inputs	1 x DVI	4 x 3GSDI	1 x SDI	4 x SDI
	1 x HDMI	1 x HDMI 2.0	1 x HDMI 2.0	1 x HDMI 2.0
		4 x DVI		1 x DP1.4
Support input resolution 8 bit	1920x1080 60Hz	4096x2160 60Hz	4096x2160 60Hz	8192x4320 60Hz
10 bit	–	4096x2160 60Hz	4096x2160 60Hz	8192x4320 60Hz
Output ports	4 Neutrik Gigabit Ethernet	2 EVX10 distributor + 2 EVX10 distributor back-up	40 RJ45 / 4 XD distributor	72 RJ45 / 8 distributor
Fiber	2 x 2.5G single mode	4 x 10G single mode / 40 RJ45 / 4 EVX10 distributor	4 x 10G single mode	8 x 10G single mode
Max output per port	655360px 60Hz, 8bit	655360px 60Hz, 8bit		
Control ports	DMX 512	Artnet port, DMX control supported	2 x 1G Ethernet	1 x 1G Ethernet
	2 x USB2.0 B (female)	3 x USB2.0 B (female)	DMX 512	
	1 x USB2.0 A (female)	2 x USB2.0 A (female)		
	Ethernet (100Mbit)			
Loading capacity	2.3 million pixels	8.3 million pixels	9 million pixels	34 million pixels
Max width/height	4095 / 1600	4096 / 4094	4096 / 4094	8192 / 4320
Splice function	–	Y	–	–
Zoom function	–	Y	Y	Y
Brightness adjustment	Y	Y	Y	Y
Chromaticity adjustment	Y	Y	Y	Y
Color gamut transformation	–			Y
Gray-scale at low brightness		Y	Y	Y
Pip function support	–	Y	–	–
Compatible with	i6 and i9 receiving cards	All types, optical fiber		
GEN lock	Y	Y	Y	Y
GEN lock loop	Y	Y	Y	–
Power in	Neutrik True 1	Neutrik True 1	Neutrik True 1	IEC
Weight	5.1kg	9.64kg	7.5kg	3.9kg
Power consumption		150W	144W	
Height	1U	2U	2U	1U

Notes: The specifications are for reference, actual values may vary.

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Processing Platforms

ROE Visual's Favourite LED Processors

LED PROCESSORS

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HELIOS

The HELIOS LED processing platform is the result of close cooperation between ROE Visual and Megapixel VR. Combining their forces and in-depth knowledge of LED and processing technology the result is a future-ready processing platform that reimagines processing from the ground up to support large-format LED displays for use in demanding pro AV, broadcast and installation applications.

HELIOS is compatible with video sources up to 8K resolution and utilizes the latest distribution infrastructure for the best performance and reliability. Megapixel VR's HELIOS LED Processing Platform reimagines processing from the ground up to support large-format LED displays for use in demanding pro AV, broadcast and installation applications. Leverage the newest 8K and HDR formats to drive screens with the greatest visual impact in only 1RU.

eV4 Processor

The eV4 processor is developed by ROE Visual to offer an advantageous solution for 4K processing for its own LED product lines.

The eV4 processor is based on the trustworthy and much used HD102 and HD101 series and combines the best solutions on the market. The eV4 processor features an integrated image processor, processor redundancy, 4K HDR and is used in combination with a fiber box, the Fiber Distributor eVX10, enabling long distance signal transmission.

The eV4 processor enables next generation image display and can handle 4K resolution display on a 60Hz frame rate, thus creating an outstanding image performance. Offering 10-bit per color output, the eV4 processor supports HDR to achieve striking visuals.

Evision HD102

Value optimized solution with all necessary features, HD102 is one of the most economical processors which can provide good quality image, creative mapping setting, and even huge image with several processors at the same time.
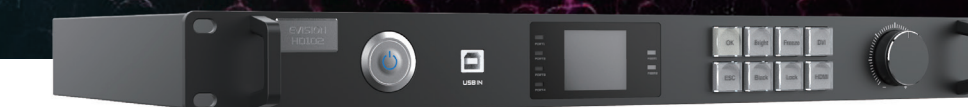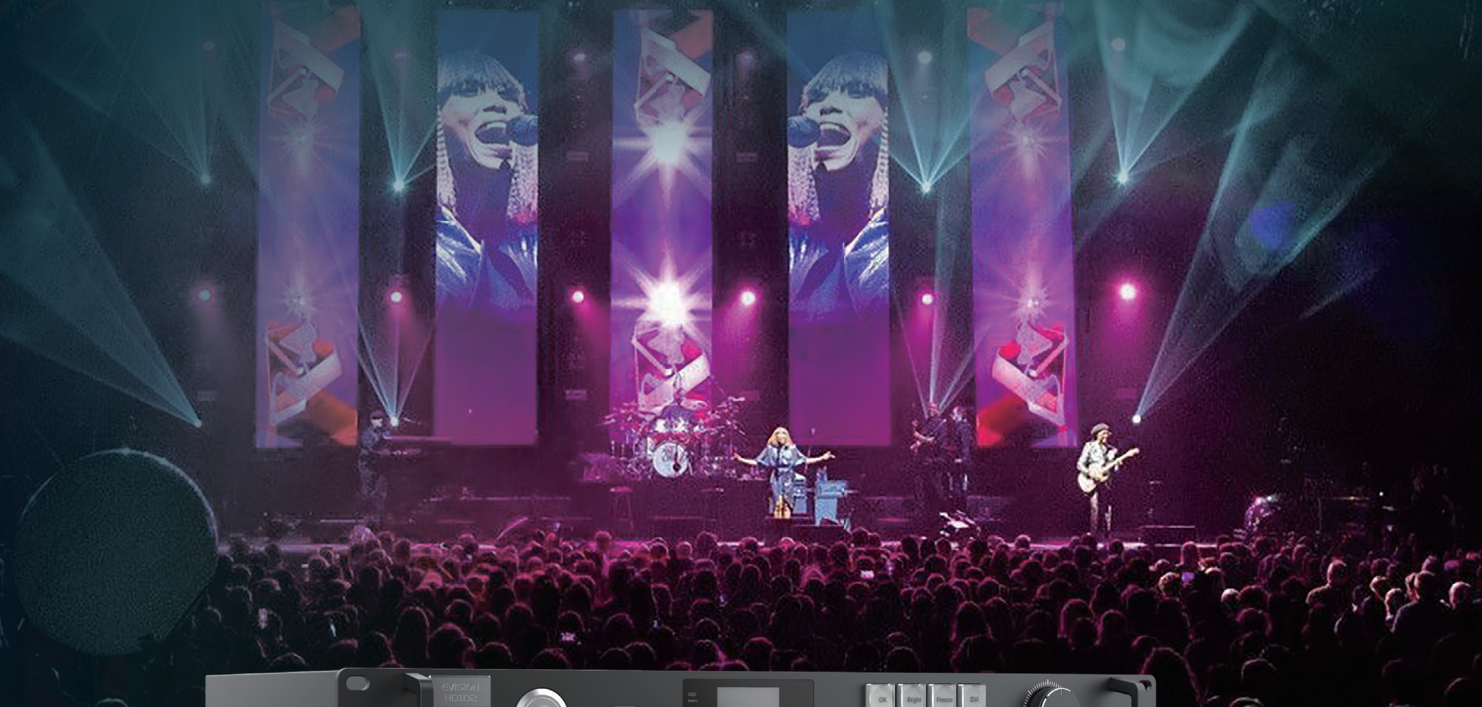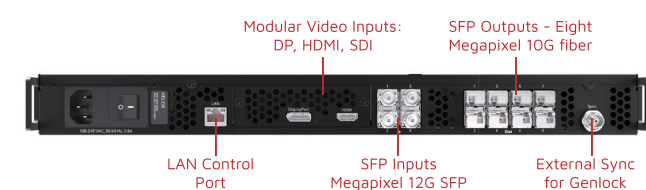

Superior Color Performance

A significant advantage for HELIOS, is the dynamic color gamut re-targeting capabilities, which do not require tiles to be recalibrated. Besides that, the processing platform has extremely accurate color representation throughout the entire gamut and brightness range and has accurate end to end color management. Panels can also be run at 10-bit grayscale for projects requiring less distribution infrastructure or at 12-bit for the best image quality.

8K Resolution to Create Screens with High Visual Impact

Helios is compatible with video sources up to 8K resolution and utilizes the latest distribution infrastructure for the best performance and reliability. In addition, the HELIOS processing platform has extremely accurate color representation throughout the entire gamut and brightness range and has accurate end to end color management.

Next Generation Processing

The eV4 processor features an integrated image processor, processor redundancy, 4K HDR and is the first processor to combine 4K with a fiber output. The Fiber Distributor eVX10 enables long-distance signal transmission. Offering 10-bit per color output, the eV4 processor supports the HDR standard to achieve striking visuals.

Flexible Integrated Image Processor

The eV4 processor offers integrated flexible options, like image scaling to match your LED screen size. Furthermore, it offers divers input support, such as: HDMI2.0, DP1.2, and 3G-SDI.
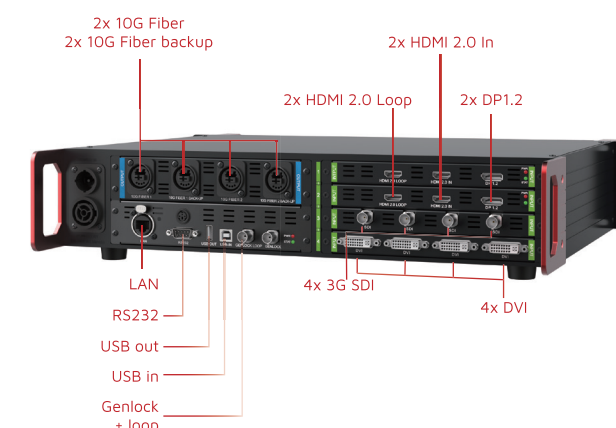
Simple Plug and Play Power

With its proven reliability the HD102 is an easy to use HD processor.

Control by Ethernet

With up to 100m Ethernet cable (much longer than USB cable), HD102 can realize different on-site setting with remote control, even when standing in front of the LED display.

Gen-Lock

Synchronize the image from different processors.

Hot Backup

Ensures signal synchronization from the master and slave Ethernet ports.

DMX Support - 512 Channels on DMX

Supports brightness, contrast, saturation, hue, color temperature adjustment and more.

HELIOS Modularity

The modular HELIOS system is designed and build as a true growth system and is easily expandable as your requirements increase. No additional hardware is needed to scale up in resolution, the HELIOS footprint remains the same for HD, 4K, 5K or 8K applications.

Modular Video Inputs: DP, HDMI, SDI
SFP Outputs - Eight Megapixel 10G fiber
LAN Control Port
SFP Inputs Megapixel 12G SFP
External Sync for Genlock
DVI

eV4 Supports 4K

Following the display evolution in its footsteps, the eV4 processor enables next generation image display. The eV4 processor can handle 4K resolution display on a 60Hz frame rate, thus creating an outstanding image performance.

2x 10G Fiber
2x 10G Fiber backup
2x HDMI 2.0 In
2x HDMI 2.0 Loop
2x DP1.2
LAN
RS232
USB out
USB in
Genlock + loop
4x 3G SDI
4x DVI

USB Out
DMX Out
4x gigabit Ethernet ports
HDMI Loop
DVI Loop
Optional fiber
USB In
DMX In
Genlock
HDMI
DVI