



TESSERA SX40 LED PROCESSOR

Big, Bright, Bold Projects



The Brompton Technology **Tessera SX40 LED processor** combines **Tessera's industry-leading** feature set and **easy-to-use** software interface with our **highest-ever** capacity processor.

Available in a standard 2U rack form with a total output capacity of 9 million pixels, the **SX40** offers support for **full 4K** LED walls at up to 60Hz, 12-bit colour depth. It supports latency-free 4K up/down scaling to match the source to the screen, as well as all of the industry-leading **Tessera** processing features like **On Screen Colour Adjustment (OSCA)** for colour mismatch corrections; **Dark Magic** for dark-area detailing and **ChromaTune** for video colour replacement.

Used in combination with the **Tessera XD Distribution unit**, the **SX40** provides a cost-effective and powerful system for supporting the biggest, brightest and boldest LED projects.

There are several powerful, flexible options for configuring fixtures within the 4K standard canvas such as:

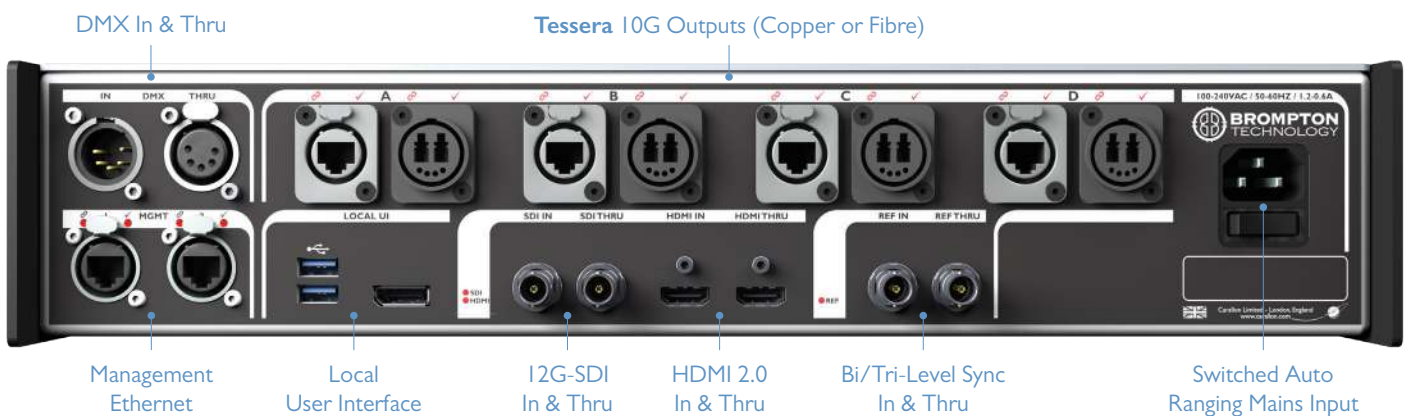
- Quick Association for a fast and easy way to associate large numbers of fixtures to a **Brompton** processor
- Pixel mapping that allows free placement and rotation of fixtures to 0° / 90° / 180° / 270° regardless of cabling order

The **SX40** also supports **Processor Redundancy**. If a problem occurs with the video input or output on a primary processor, it can be configured such that a back-up processor takes over in just a few seconds, and can be used with or without closed loop redundancy.

TESSERA SX40 | FRONT



TESSERA SX40 | REAR



XD DATA DISTRIBUTION UNIT

The **Tessera XD** data distribution unit is a sophisticated single box solution designed to manage the complications of mass cabling that can arise with large LED display systems.

Trunk connections between **SX40** and **XD**, or between **XD** units, use a 10G Ethernet-based backbone to reduce the number of home-run connections required. For maximum cabling convenience, each 10G trunk connection supports up to ten independent 1G connections to fixtures, each having the same pixel capacity as a 1G **Tessera** output, subject to system capacity. For more information see the **XD Data Distribution Data Sheet**.

TESSERA MANAGEMENT SOFTWARE

The **SX40** processor is configured using the intuitive and powerful **Tessera Management Software**. It has an extensive proprietary feature set, including **OSCA**, **Dark Magic** and **Chromatune**. Each input can be fully configured with adjustments to contrast, brightness, gamma, hue, saturation and RGB gain. Inputs can be scaled up or down to suit the LED panel configuration.

Tessera Management Software gives you the option of using a remote PC (**Windows** or **Mac**) or working locally by plugging a mouse, keyboard and monitor directly into the processor.

RECEIVER CARDS

All the processors in the **Tessera** family communicate via Gigabit Ethernet with LED panels fitted with **Tessera** receiver cards. Off-the-shelf Gigabit Ethernet networking equipment and cabling can be used. **Tessera** receiver cards are designed to fit into the vast majority of panel enclosures using a widely available DDR2 SO-DIMM socket.



TESSERA SX40 LED PROCESSOR

Full Specifications



PHYSICAL (WxHxL)

Unboxed

- 431.8mm (17") x 88.9mm (3.5") x 508.0mm (20")
- Rear width: 482.6mm (19")

Boxed

- 571.5mm (22.5") x 215.9mm (8.5") x 647.7 (25.5")



WEIGHT

- Unboxed: 7.50Kg (16.53lbs)
- Boxed: 10Kg (22lbs)



ELECTRICAL

- Switched autoranging power supply
- 100 - 240V AC
- 50Hz - 60Hz
- 1.2 - 0.6A



HDMI 2.0 INPUT & RE-CLOCKED THRU PORT

- One HDMI 2.0 input
- Full 18Gbps HDMI 2.0 bandwidth, maximum 600MHz pixel clock
- Up to 4096 x 2160 resolution (progressive only)
- 23.98Hz to 60Hz framerate
- 8,10 and 12 bits per channel colour depths
- RGB and YCbCr 4:4:4, 4:2:2 and 4:2:0
- Compatible with DVI-D and DisplayPort sources via adapters



SDI INPUT & RE-CLOCKED THRU PORT

- One 12G SDI input that supports the following:
 - HD-SDI - ST-292
 - 3G-SDI - ST-424, Level A and Level B-DL
 - 6G-SDI - ST-2081
 - 12G-SDI - ST-2082, 2SI format
- Up to 4096 x 2160 resolution (progressive only)
- 23.98Hz to 60Hz framerate
- 10 bits per channel colour depth
- YCbCr 4:2:2



OUTPUTS

- Four 10GBASE-T copper output ports
- Supports nominally 9 million pixels at 36 bits per pixel @ 60Hz
- Supports Neutrik etherCON Cat 6A / etherCON (CAT5e) connectors
- Compatible with standard Cat6A / Cat5e RJ45 connectors
- Requires Cat6A cable (up to 60m) or Cat5e cable (upto 30m)
- Four 10GBASE-LR Tessera XD fibre output ports
- Supports Neutrik opticalCON DUO / DUO ARMORED / DUO X-TREME / DUO LITE connectors
- Compatible with standard LC-Duplex connectors
- Requires 1310nm, 9/125um single-mode fibre (up to 2KM) with PC or UPC connectors
- Each 10G output independently auto-switches between fibre and copper
- Closed loop redundancy support
- Processor redundancy support



GENLOCK

- Bi-level and Tri-level sync
- Sync to source
- Processors genlock from source right through to panel refresh
- Frame rates from 23.98 to 60Hz



LATENCY

- 2 frames end-to-end system latency (all features)



TESSERA MANAGEMENT SOFTWARE

- Local management using monitor, keyboard and mouse connected directly to processor
- Up to 3840x2160 local monitor resolution supported, minimum 1920x1080 recommended



TESSERA REMOTE

- Available free for Windows PC and Mac OS
- Remote management using Windows PC or Mac connected to processor via Ethernet network
- Two Gigabit Ethernet management network ports



REMOTE CONTROL

- Support for eDMX protocols:
 - Art-Net, Streaming ACN
 - DMX-512A on 5-pin XLR in and thru
 - Tessera Control application for multi-processor control via management network ports



I/O

- Two USB 2.0 ports on front
- Two USB 3.0 ports on rear
- One DisplayPort (DP++) monitor output supporting HDMI, DVI and VGA with adapter



FRONT PANEL

- Six status LEDs
- Power LED
- Freeze button
- Blackout button



WARRANTY

- Two years



CERTIFICATIONS

- CE, ETL/cETL