4K
Multi-resolution Video Wall and Multi-viewer 18Gbps

Comprehensive, professional video processor for 3x4 video wall controller, quad multi-viewer with free roaming or 4x12 seamless switching matrix

18 Gbps
4K/60Hz
HDR10
4:4:4

HDMI 2.0 Video Processor — Smart-e — 444K-2850 — 444K

Create a multitude of visual effects using this highly flexible multi input video processing unit for Video Walls, PIP/POP and seamless switching

Tech spec

- Resolutions to 4K60Hz
- HDMI 2.0 compliant
- HDCP 2.2 compliant
- IP, RS232, FP & IR control
- Colour depth 8/10/12 bit
- Colour space RGB
- 18Gbps (594MHz Bandwidth)
- Digital and analogue audio output
- YCrCb 4:4:4, 4:2:2, 4:2:0

Features

- 4x12 seamless switcher
- 12 x mixed HDMI outputs
- Video Wall Processor
- Preset saving and recall
- 3x4 Video Wall processor
- Integrated Web Browser
- EDID management
- Image rotation
- 4 layer roaming multi-viewer
- Digital/analog audio output
- Individual HDMI output scaling
- 19" rack mounting chassis

Description

The Smart-e 444K-2850 is a highly integrated professional video processor capable of producing multiple simultaneous features. These include a 4x12 seamless switching matrix a 3x4 video wall processor and the added ability to act as a multi-viewer with free window roaming up to 4 layers.

As a matrix the 444K-2850 can be used as a 4x12 seamless HDMI matrix with fast switching speeds of less than 40ms creating professional broadcast transitions between inputs. Alternatively the unit can unit be configured as a 3x4 video wall using all 12 HDMI outputs with adjustments for bezel positioning and size to form the perfect image appearance. The 444K-2850 also has the ability to display all of the 4 video inputs on a single output display to create a free roaming montage of the 4 images on 4 different layers.

The twelve 4K60Hz HDMI outputs are designed to connect to 12 HDMI compliant monitors, each with discrete output scaling to accommodate displays with different aspect ratios together with individual image rotation.

Multiple control options are provided including: front panel button control, infra-red control via the provided handset or remote-control options of RS232 or TCP/IP for interfacing to an external control system. An internal web browser is also available for configuration and control of all the comprehensive features.

The 444K-2850 has comprehensive EDID management allowing users to assign the EDID values from 1080p to 4K60 to any of the four inputs maximizing the quality of the source material.

A two channel stereo audio output is provided as an analogue or digital (TOSLINK) signal switchable between the 4 HDMI audio embedded input signals.

The 444K-2850 professional video processor is available in a convenient compact 1Ux19" rack mounting chassis with a reliable secure IEC mains (100-240 VAC) supply input.

Data sheet

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DESIGN
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◆
ORIGINATE

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Technical Specification

Video – Digital

Connectors	16 x HDMI (Type A) 4xinput and 12xoutputs
Signal type	HDMI - TMDS
Standards	DVI 1.0, HDMI 2.0. HDCP 2.2/1.4
Maximum data rate	6Gbps per colour
Maximum pixel clock	594MHz
Resolution range - DTV	Max 4096x2160 @30Hz 36 bit colour depth
Resolution range - PC	Max 1920x1200 @60Hz 24 bit colour depth
Frame rate	24, 25, 30, 50 & 60 Hz
Gain	0 dB
Formats	RGB and YCrCb
Colour space	4:4:4, 4:2:2 & 4:2:0
Clock jitter	<0.15T bit
Rise time	<0.3T bit (20-80%)
Fall time	<0.3T bit (20-80%)
Maximum transmission delay	5ns (+/- 1ns)
Signal strength	TMDS +/- 0.4V pk-pk
TMDS signal level	2.9V – 3.3V
Impedance	50R
Maximum DC offset	15mV
Maximum input cable length	15m 24 AWG
Maximum output cable length	15m 24 AWG

Audio – Analogue/Digital

Standards	Embedded within the HDMI signal
Maximum audio channels	2
Maximum sample rate per channel	192 kHz
Sample size	16-24 bits

Power

AC Voltage	100-230 VAC
AC frequency	50/60 Hz
Power consumption	65W (max)
Operating temperature	0-40 degrees C
Storage temperature	-20-60 degrees C
Relative humidity	20-90%
Chassis size	1U 19" rack mounting
Chassis dimensions	430x220x44.5mm
Product weight	5Kg
MTBF	30,000 hours

Control – RS232

Connector	D9 female
Signal type	Full duplex
Signal level	+/- 5V
Baud rate	115200
Data bits	8
Stop bits	1
Parity	None
Pinout	2-TX, 3-RX, 0V-5

Control – Ethernet

Connector	RJ45 female
Protocol	TCP/IP
Control rate	Adaptive 10M/100M full or half duplex

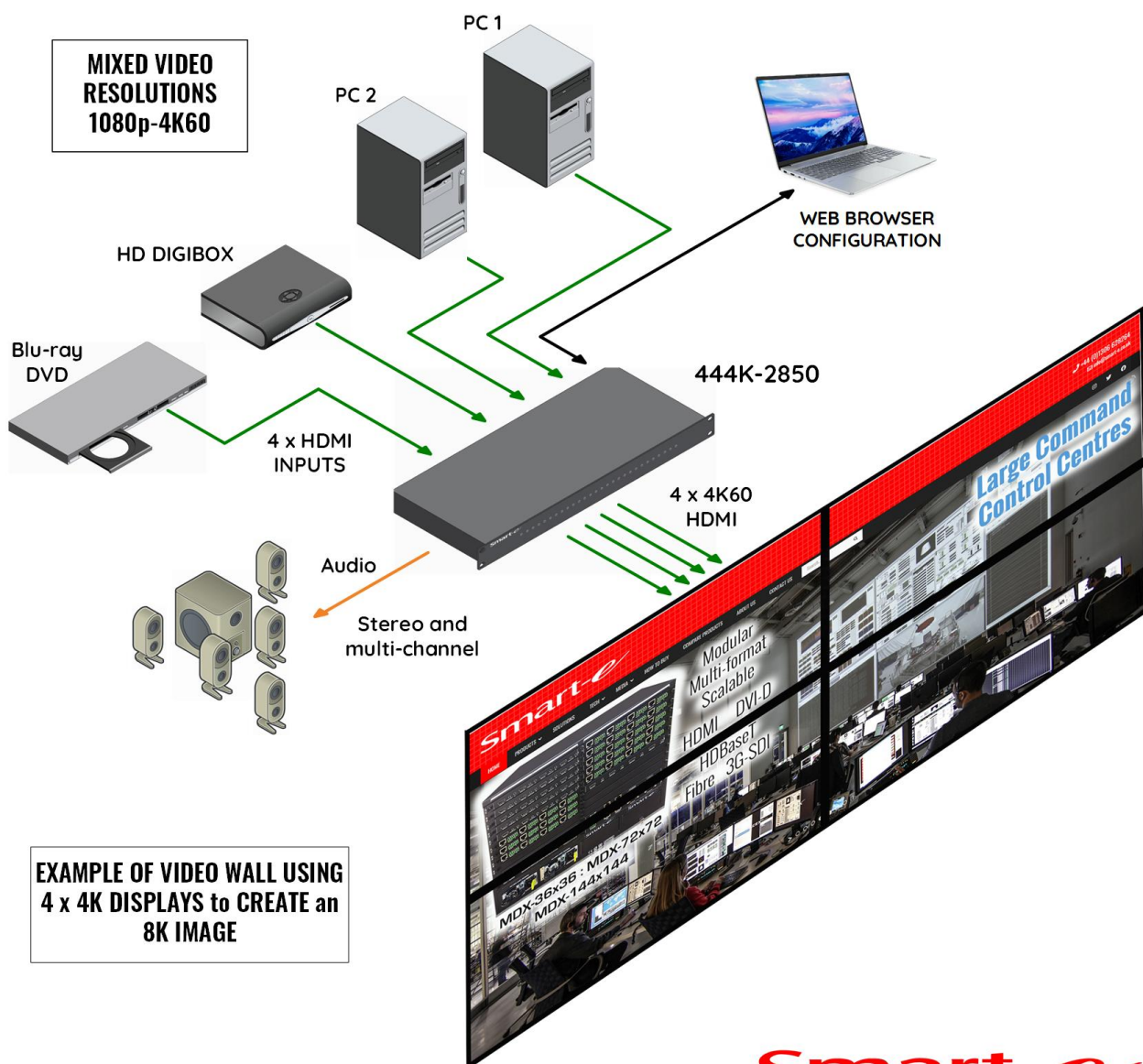**specifications are subject to change without notice**

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Application Drawing – Video Wall

MIXED VIDEO RESOLUTIONS 1080p-4K60

PC 1

PC 2

WEB BROWSER CONFIGURATION

HD DIGIBOX

Blu-ray DVD

444K-2850

4 x HDMI INPUTS

4 x 4K60 HDMI

Audio

Stereo and multi-channel

EXAMPLE OF VIDEO WALL USING 4 x 4K DISPLAYS to CREATE an 8K IMAGE

Large Command Control Centres

Modular Multi-format Scalable
HDMI   DVI-D
HDBaseT
Fibre   3G-SDI

MDX-36x36 : MDX-72x72
MDX-144x144

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Panel Drawings
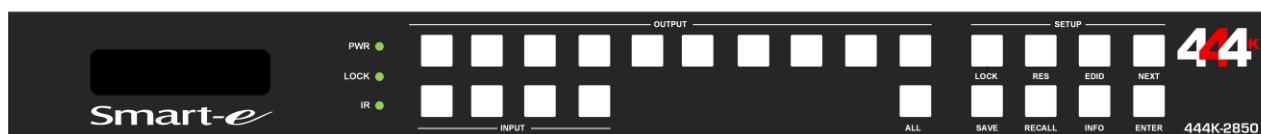
PWR
LOCK
IR

OUTPUT

SETUP

LOCK   RES   EDID   NEXT

ALL   SAVE   RECALL   INFO   ENTER

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INPUT

444k
444K-2850

LAN   RS232-CTL   RS232   OUTPUT LR TOSLINK

Smart-e
444K-2850   444k

INPUT   OUTPUT

100-240 VAC 50/60 Hz

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Application Drawing – Examples

Example 1
Output 1-8 – 4x2 video wall and individual output mix

Output 9-12 – free roaming multi-viewer on a single display

Example 2
Output 1-9 – 3x3 video wall

Output 10-11 – 2x1 video wall   Output 12 - single

4K

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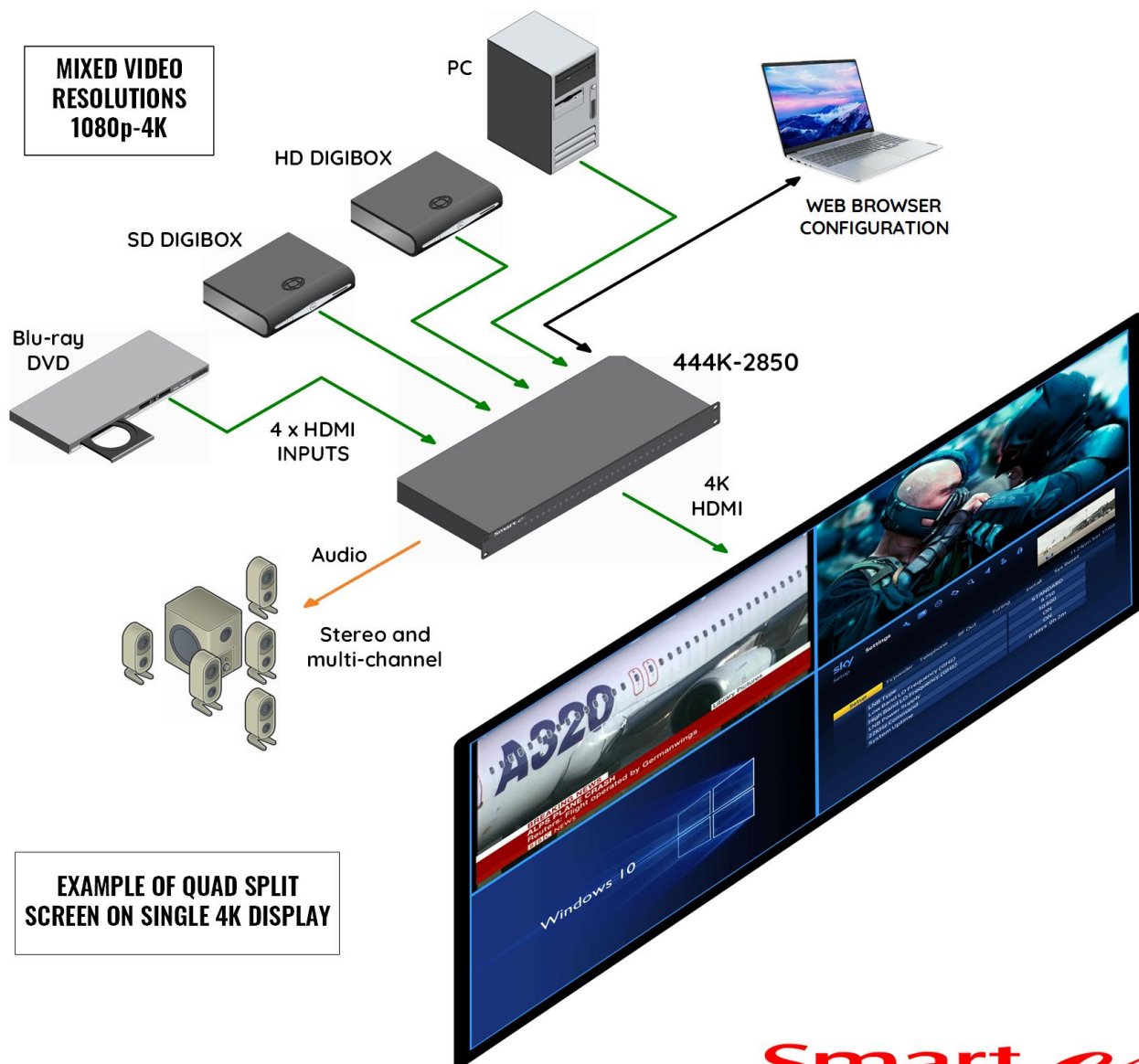
Product: 444K-2850 Video Processor

Application Drawing – Quad Split

MIXED VIDEO RESOLUTIONS 1080p-4K

PC

HD DIGIBOX

WEB BROWSER CONFIGURATION

SD DIGIBOX

Blu-ray DVD

444K-2850

4 x HDMI INPUTS

4K HDMI

Audio

Stereo and multi-channel

EXAMPLE OF QUAD SPLIT SCREEN ON SINGLE 4K DISPLAY

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Panel Pictures

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