Smart Digital Solutions **VMX-8x8**

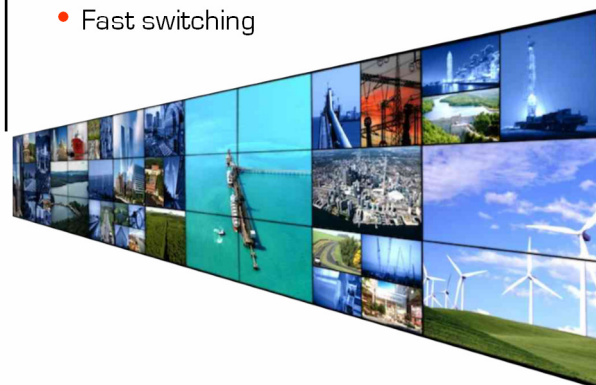## Flexible and comprehensive Video Wall processor for Multi-format Video

www.smart-e.co.uk

The Smart-e VMX-8x8 features

The **VMX-8x8** is a professional Video Wall Processing Matrix, capable of selecting between 8 different devices to 8 displays. Seamless switching together with output video scaling provides a professional image selection on any display configuration.

- **Multiple output Video Wall Processing**
- HDMI, DVI, HDBaseT, Fibre, VGA & SDI
- HDCP & HDMI 1.4 compliant
- Combined Data rate of 12 Gbits/s
- HDTV 1080p 60Hz 36bpp resolutions
- PC resolutions up to 1920x1200@60 Hz

Seamlessly route 8 high resolution video sources to create a Video Wall for up to 8 displays for mixed formats including HDMI, DVI, HDBaseT, Fibre, 3G-SDI & analogue

- **Seamless switching**
- Enhanced EDID management
- Supports Deep Colour (10 ,12 &16 bit)
- Modular construction— 4 port cards

The **VMX-8x8** chassis offers an unprecedented level of switching, distribution and Video Wall Processing functionality for high resolution HDMI, DVI, HDBaseT and 3G-SDI. Legacy products are also catered for with analogue input cards capable of accepting RGBHV, YPrPb, Y/C and PAL/NTSC all of which can be up-scaled to 1080p resolution.

- **Individual output scaling**
- TCP/IP control
- Dual port RS232 control
- **Inline power for receivers (POH)**
- Compact 2U 19" rack mounting
- 3 year warranty
- Sizes ranges from 8x8 to 144x144
- Fast switching

By combining Seamless video switching and processing with modular input and output modules Smart-e sets a new benchmark for complete integrated AV solutions, all of which can be controlled easily via either IP, RS232 and keypad.

Fully HDCP compliant and incorporating enhanced EDID management the matrix is ideal for many multi-channel signal switching and distribution for Commercial, Educational and Residential solutions. Compact 2U 19" rack mounting chassis makes for ease of installation with optional upgrade to SmartiP (extra 1U).

Smart-e

Professional audio & video distribution equipment

Video

|	
Signal Types	HDMI, DVI, VGA, HDBaseT, 3G-SDI
Formats	1080p @60Hz with 10 & 12 bit Deep Colour, 3D, 4K, 2K & DVI. HDCP compliant, PC up to WUXGA,. Analogue RGBHV, YPrPb, Y/C, PAL or NTSC
Content Protection	HDCP V1.3
Connector	HDMI Type A, RJ45, HD15, BNC
Cable Types	CAT 5e, CAT 6/6e, CAT 7, STP, FTP
TV resolutions PC resolutions	480, 576, 720, 1080 p & I, 2K 4K 640x480 through to 1920x1200

Audio & Power

Types	Embedded audio
Digital Formats	Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, DTS®, DTS-ES, DTS 96/24, DTS-HD High Res, DTS-HD Master Audio™
Voltage	110-240 AC 50/60 Hz
Connector	IEC
Fuse rating	1 AT
Power	100W

Dimensions

Height	2U
Width	19" rack mounting
Depth	354mm
Weight	5Kg

Control

IP	TCP/IP
IR signal	30-50Hz
RS232	9600 baud: 8 data.1 S, OP
RS232 connector	Sub-miniature D9 socket
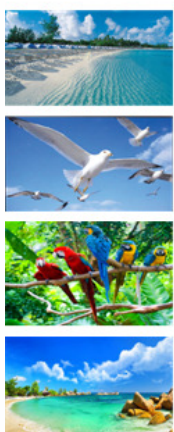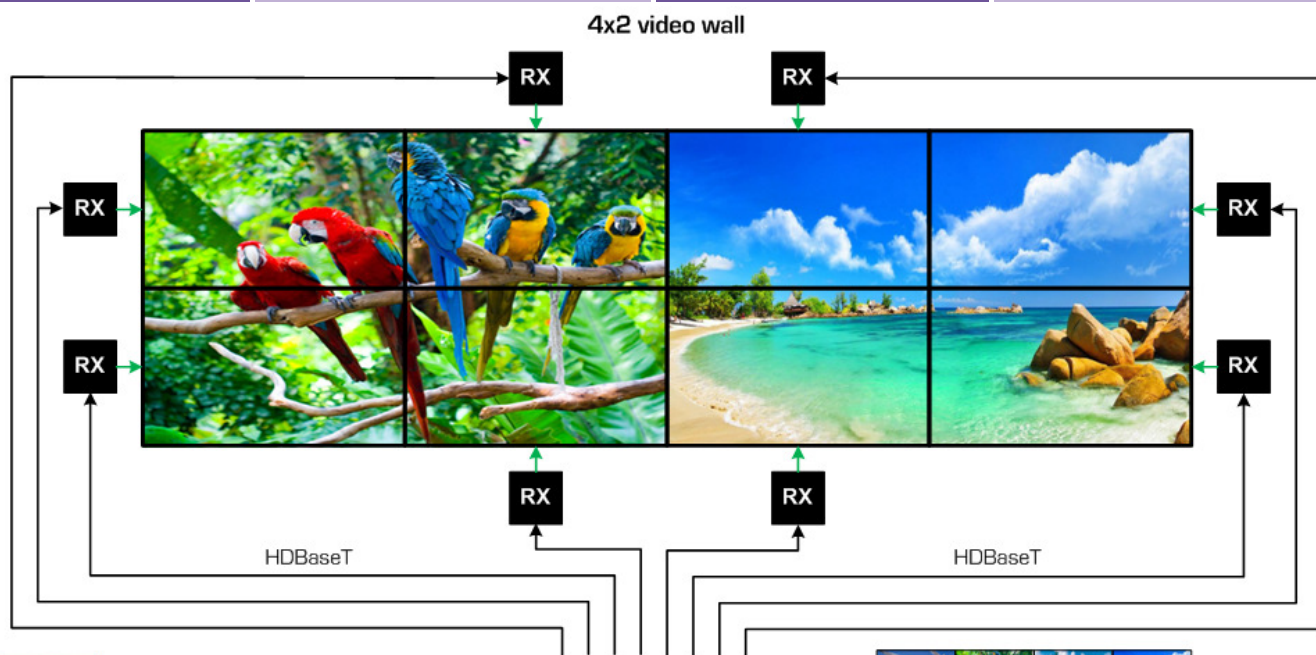
4x2 video wall

8 x HDMI/VGA/HDBaseT inputs

Model No.	Description
VMX-8x8	Modular 8 input by 8 output matrix
VMX-16x16	Modular 16 input by 16 output matrix
VMX-36x36	Modular 36 input by 36 output matrix

4x2 video wall

4x2 video wall

4x4 video wall

Professional audio & video distribution equipment

Panel drawings

Professional audio & video distribution equipment
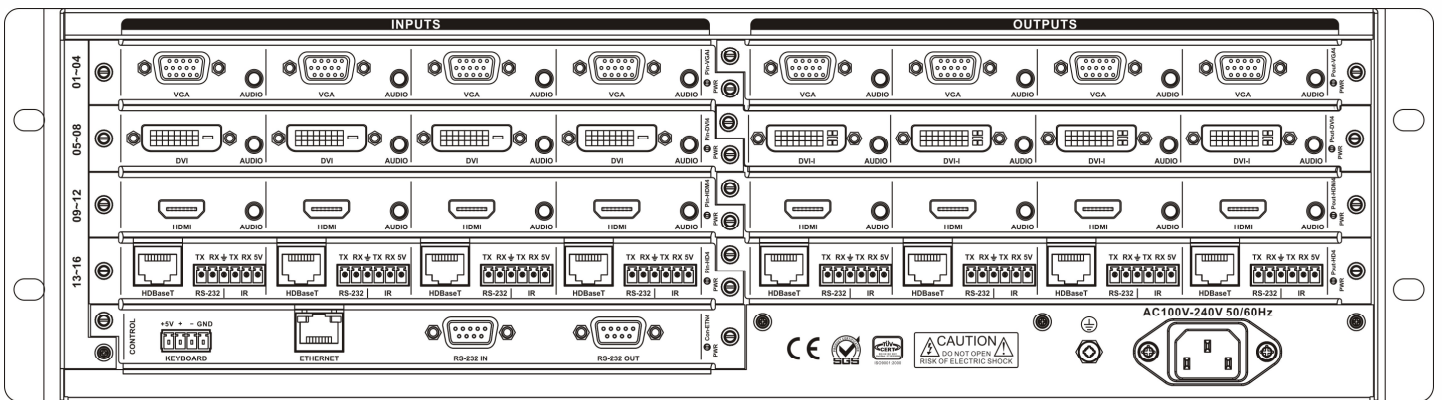
Input cards

VMX-IP4-HDMI

- Provides 4x independent HDMI [Type-A] inputs
- HDMI 1.4, DVI 1.0 & HDCP 1.3 protocol
- Supports EDID editing function
- Maximum input resolution:
- 1920x1200p @ 60Hz 24bit,1080p @ 60Hz 36bit

VMX-RX4-HDBT

- Provides 4x independent HDBaseT inputs
- Compatible with HDBaseT protocol
- Supports EDID editing function
- Maximum input resolution:
- 1920x1200p @ 60Hz 24bit, 1080p @ 60Hz 36bit

VMX-RX4-FB

- Provides 4x independent SC optical fibre inputs
- Multimode 850nm <300m
- Supports EDID editing function
- Maximum input resolution:
- 1920x1200p @ 60Hz 24bit, 1080p @ 60Hz 36bit

VMX-IP4-DVI

- Provides 4x independent DVI inputs
- HDMI 1.4, DVI 1.0 & HDCP 1.3 protocol
- Supports EDID editing function
- Maximum input resolution:
- 1920x1200p @ 60Hz 24bit,1080p @ 60Hz 36bit

VMX-IP4-VGA

- Provides 4x independent Analogue [HD15] inputs VGA/RGBHV, YPbPr, Y/C S-video, Composite-video (using adapter cable)
- Maximum input resolution: 1920x1200p @ 60Hz 24bit, 1080p @ 60Hz 36bit
- Digitises and up-scales input resolution ≤1920x1080p @ 60Hz

Output cards

VMX-OP4-HDMI

- Provides 4x independent HDMI [Type-A] outputs
- HDMI 1.4, DVI 1.0 & HDCP 1.3 protocol
- Maximum output resolution:
- HDPC: 1920x1200p @ 60Hz 24bit
- HDTV: 1920x1080p @ 60Hz 36bit (HD1080p60)

VMX-TX4-HDBT

- Provides 4x independent HDBaseT outputs
- Compatible with HDBaseT protocol
- Maximum output resolution:
- HDPC: 1920x1200p @ 60Hz 24bit
- HDTV: 1920x1080p @ 60Hz 36bit (HD1080p60)

VMX-TX4-FB

- Provides 4x independent SC optical fibre outputs
- Multimode 850nm <300m
- Maximum output resolution:
- HDPC: 1920x1200p @ 60Hz 24bit
- HDTV: 1920x1080p @ 60Hz 36bit (HD1080p60)
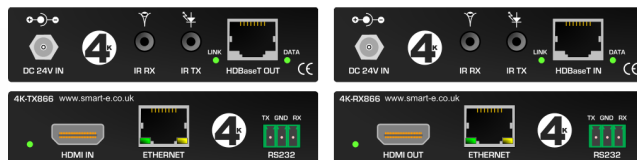
VMX-OP4-DVI

- Provides 4x independent DVI outputs
- HDMI 1.4, DVI 1.0 & HDCP 1.3 protocol
- Maximum output resolution:
- HDPC: 1920x1200p @ 60Hz 24bit
- HDTV: 1920x1080p @ 60Hz 36bit (HD1080p60)

4Konnect 4K-866

Flexible and comprehensive HDMI extender solution using Cat 6-8 cable

4Konnect

PLAY 5

The Smart-e 4K-866 features

- Easy to install, inexpensive CAT 6-8 cable
- Outputs reach up to 100m
- Support HDMI up to 297 MHz TDMS clock
- HDCP/EDID/DDC transparent link
- HDMI resolutions 4K, 2K &1080p
- HDCP 2.2 compatible
- Full duplex RS232 passthrough
- Bi-directional IR pass through
- 100BaseT Ethernet pass through
- 1 x CAT 6-8 STP/FTP cables
- Supplies 24V remote power (POC) to either end
- Uses HDBaseT technology
- Status LEDs
- Compact TX/RX unit—25mm high
- Secure DC connection

The **4K-866** is a flexible and cost effective solution to extending HDMI, bi-directional IR, full duplex RS232 together with 100BaseT Ethernet and POC (remote power over cable). Consisting of a transmitter/receiver pair, both units are compact and come with the IR accessories. By incorporating the full HDBaseT technology 4K UHD HDMI signals can be transmitted up to 100m away.

Distribute high resolution UHD HDMI video together with IR, RS232 and 100BaseT Ethernet over a single CAT 6 screened twisted pair cable up to 100m

The **4K-866** is a HDBaseT transmitter/receiver pair capable of transmitting UHD HDMI signals up to 4K UHD resolutions. Implementing the complete **5-Play** of the HDBaseT specification the extender pairs also provides the pass through of wide band bi-directional InfraRed signals, full duplex RS232 up to 115Kbaud and 100BaseT Ethernet connectivity. Whilst POC power (24V) can be sent by either the TX or RX through the Cat 6 cable to provide power to the remote end. All that is required is a single Cat6 cable connection to provide all these features.

The **4K-RX866 or TX866** can connect to any other product in the **4Konnect** range as an extender or into or out of a matrix.

The 4K range from Smart-e is a family of digital extenders and matrices using standard CAT 6-8 STP/FTP cable to transmit 4K resolution signals over long distances

Professional audio & video distribution equipment

Video

Signal Types	HDMI, DVI, DisplayPort Multimode
Formats	HDMI w/Deep Color 3D, 4K, 2K
Content Protection	HDCP V2.2 transparent
Connector	HDMI Type A Female
Cable Types	CAT 5e, CAT 6/6e, CAT 7, STP, FTP
TV resolutions PC resolutions	480, 576, 720, 1080 p & I, 4K, 2K 640x480 through to 1920x1200

Audio

Types	Embedded audio in HDMI
Digital Formats	Dolby Digital® Plus Dolby® TrueHD DTS-HD High Res DTS-HD Master Audio™, up to 8chPCM
Digital Connector	HDMI

Dimensions

Height	25mm
Width	100mm
Depth	100mm
Weight	0.5Kg

Power

Voltage	24Vdc
Connector	2.5mm DC locking
Max. current	100mA
Power	5Watts RX, 3Watts TX

Control

Ethernet	100BaseT
Ethernet connector	RJ45
DDC/EDID/CEC	Transparent
DDC/EDID connector	HDMI

Control

IR signal	30-125kHz
IR connector	3.5mm jack socket
RS232	Pass through to 115Kbaud
RS232 connector	3 pin screw lock

APPLICATION DRAWING