

## Professional USB switching matrix for 16 PCs to 8 users with 50m CAT 6 distribution - ideal for Commercial, Education and Residential use



- 24 computers to 8 user selection
- Extends up to 50m Cat 6 STP cable
- Full speed 12 Mbits/s
- 1U 19" rack mounting chassis
- Receiver options available
- Simultaneous multi-user control
- Uses CAT 6/6A STP cable
- RS422 multi-drop control
- Remote powers Cat 6 receiver
- User control panel option

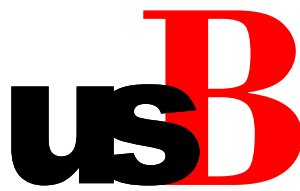
### USB matrix for up to 24 computers selectable to 8 users capable of extending USB signals up to 50m of Cat 6 cable

The **USB-24x8** is a comprehensive USB matrix switch with Cat 6 STP outputs. The unit allows the selection and transmission of USB 2.0 signals from 24 different computers to up to 32 USB peripherals. The peripherals can be a mixture of any compatible devices including Interactive touch screens, Web cams, Mouse, Keyboard and Flash drives, which can be located at distances of up to 50m CAT 6 cable for USB V1.1 and V2.

The **USB-24x8** allows the 24 PCs to be connected on the rear panel via USB type A connectors, whilst each user can be located up to 50m from the matrix using convenient Cat 6 STP cable. A compact receiver connects to the remote Cat 6 STP cable and converts the proprietary protocol back to the respective USB signals. Different Smart-e receiver models are available including units with multiple outputs and various physical constructions.

Power to the receivers is provided by the **USB-24x8** through the same Cat 6 cable as the USB signals, removing the need for bulky unreliable PSUs at the user location. This remote power is also converted to 5V for all the peripherals connected to the receiver unit. Multiple users can be connected simultaneously to the same PC allowing for a variety of applications. Selection of which user is connected to which PC is via robust RS422 serial control which enables multiple matrices to be cascaded together. An small compact control panel **USB-CTL** is also available for each user to individually select which PC they want to control.

The **USB-24x8 matrix** is housed in a compact 2U high, 19" rack mounting chassis powered via a convenient IEC mains inlet requiring a maximum of 100W with all peripherals connected. Other models in the range include the **USB-8x8** and **USB-16x8**, using a 1U and 2U chassis' respectively.



USB V2.0  
12Mbps  
Cat 6

Product: USB-24x8  
USB 2.0 Matrix

**TECHNICAL SPECIFICATION**

**USB**

Connectors	USB type A connector
Connector number	24
Signal type	USB - half duplex
Standards	USB 2.0
Maximum data rate	12 Mbps/s
USB signal levels	0 - 3V3 logic zero or one
Impedance	100R

**Cat cable connectivity**

Number of cables	8 x Cat 6/6A screened twisted pair cables
Connectors	8 x female screened RJ45 connectors per unit
Termination standard	TIA/EIA T568B
Cable requirements	Solid conductor, 24 AWG or better
Cable recommendations	400 MHz bandwidth STP (shielded twisted pair)
Transmission distance	50m shielded twisted pair STP CAT 6 or CAT 6A

**Mechanics**

Height	2U (44.5mm)
Depth	300mm
Width	19"
Weight	5Kg

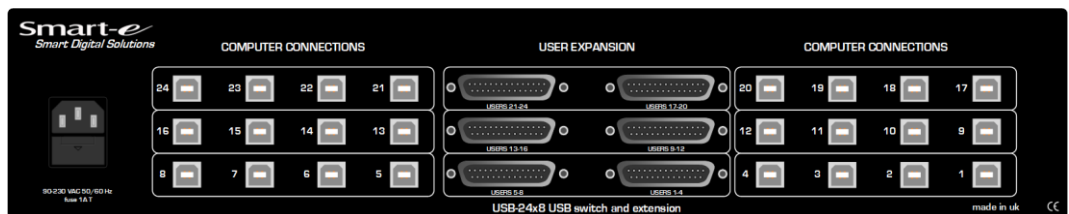
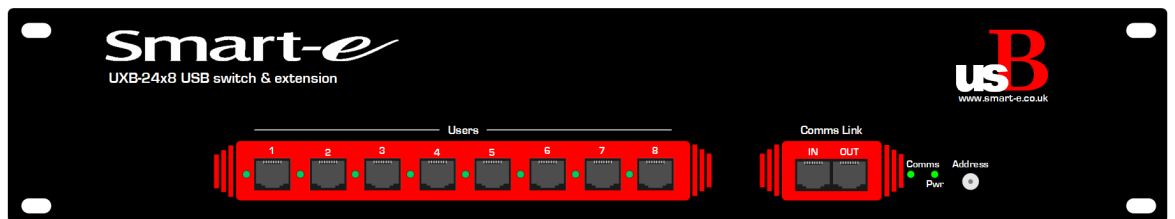
**Power & Environment**

AC Voltage	90-230 VAC
AC frequency	50/60 Hz
AC connector	IEC
Power consumption	100W (max inc. all receivers and peripherals)
Operating temperature	0-40 degrees C
Storage temperature	-20-60 degrees C
Relative humidity	20-90%
MTBF	30,000 hours

**Control - RS422**

Connector	RJ45
Signal type	Full duplex
Baud rate	9600
Data/stop bits/parity	8/1/None

**PANEL DRAWING**



Smart-e

DESIGN

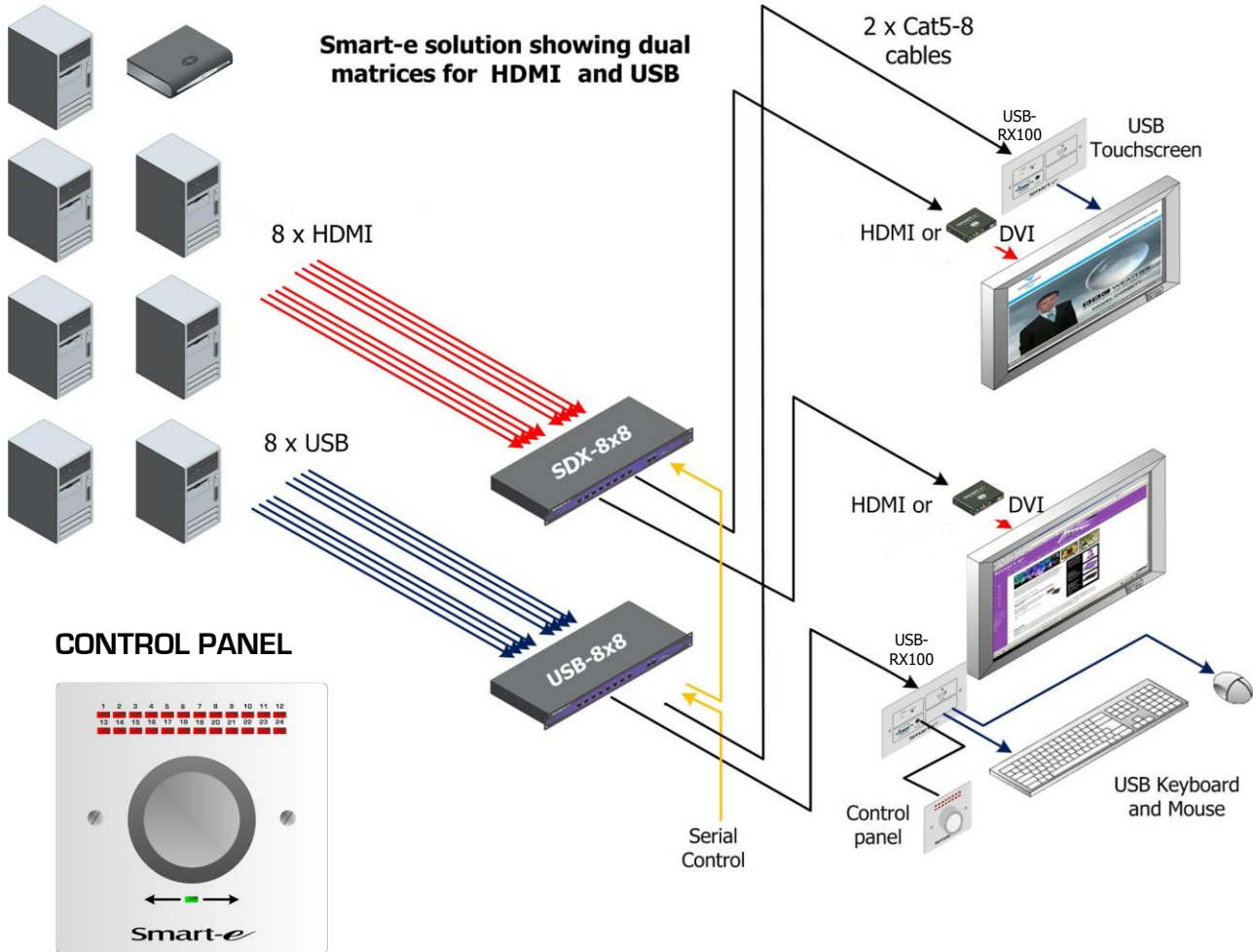


INNOVATE

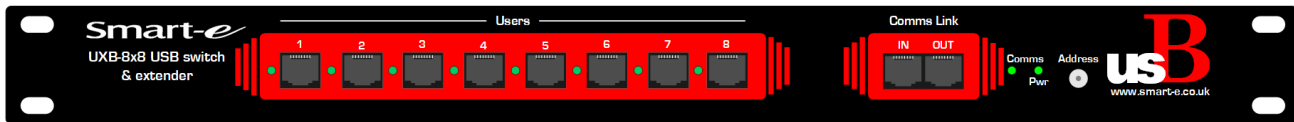


ORIGINATE

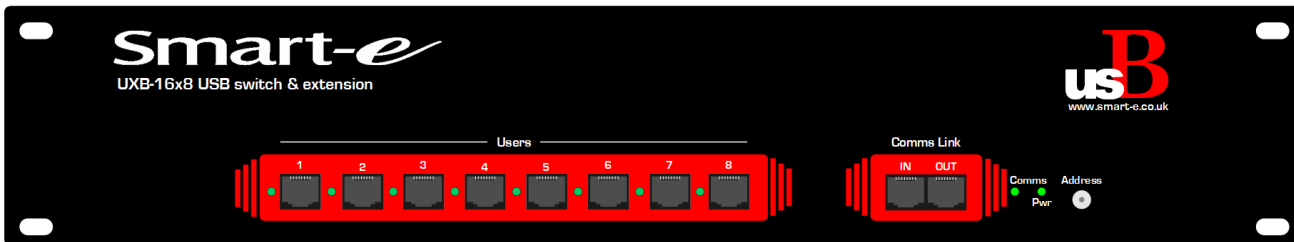
APPLICATION DRAWING



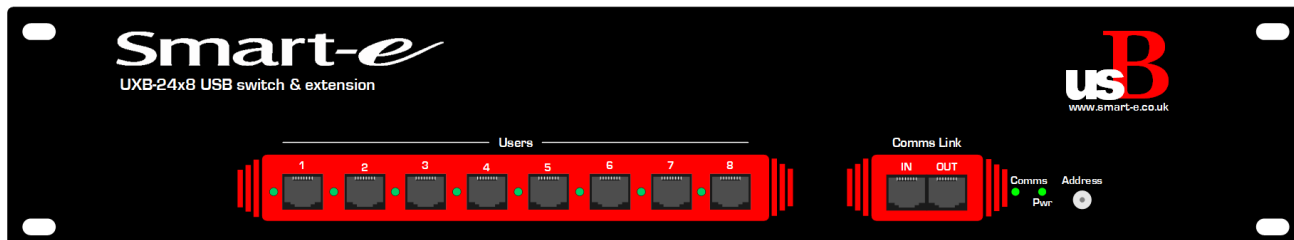
USB-8x8



USB-16x8



USB-24x8



Smart-e

DESIGN

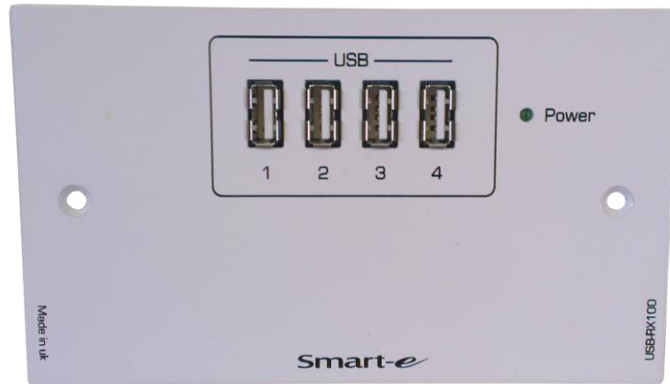


INNOVATE



ORIGINATE

**Comprehensive professional USB receiver wall plate with 4 port hub for 50m CAT 6 distribution in Commercial, Education and Residential use**



- Uses CAT 6/6A STP cable
- Double gang Wall plate receiver
- Full speed 12 Mbits/s
- Extends up to 50m CAT cable
- Cream/Black colours available
- Integral 4-port hub
- 500mA output current per port
- 5V Charging ports
- Wall/floor plate configuration
- POC (remote powering wall plate)

**Compact receiver for range of Smart-e USB matrices capable of extending USB signals up to 50m of Cat 6 cable**

The **USB-RX100** is a flexible and cost effective wall plate USB receiver compatible with USB matrices USB-8x8, USB-16x8 and USB-24x8. The unit is supplied as a convenient UK size double gang transmitter wall/floor plate available in a range of colours.

The **USB-RX100** connects to the matrix via a signal Cat 6 cable and provides the interface between the structured cable and USB peripherals. The receiver presents the interconnection as 4 x USB type A connectors. The receiver contains an integral USB hub which allows for up to 4 devices to be connected and function simultaneously.

Peripherals connected to the **USB-RX100** can take their power through the USB connector via the 5V charging pins. This 5V feed can also be used to charge the same device, with each port providing 500mA of charging current. The receiver is powered through the Cat 6 cable and can accept a range of input voltage levels from 6 to 28V allowing it to cope with losses and voltage drops owing to varying cable lengths and charging currents.

The **USB-RX100** is presented as a slim and shallow wall or floor plate with a single metal face plate. As standard the plate dimensions conform to a UK double gang electrical socket and therefore fits easily available 25mm deep flush and surface pattresses. Alternative plate sizes, construction or colours can be accommodated as requested.

The **USB-RX100** is ideal for HID (Human Interface Devices) but can be used for many other peripherals including memory sticks, web camera and interactive touch screens. Owing to their compact size and low cost the USB solutions are perfect for many applications including command and control centres together with meeting/board/huddle room requirements.

## TECHNICAL SPECIFICATION

### USB

Connectors	USB type A connector
Connector number	4
Signal type	USB - half duplex
Standards	USB 2.0
Maximum data rate	12 Mbits/s
USB signal levels	0 - 3V3 logic zero or one
Impedance	100R

### Cat cable connectivity

Number of cables	1 x Cat 6/6A screened twisted pair cables
Connectors	1 x female screened RJ45 connectors per unit
Termination standard	TIA/EIA T568B
Cable requirements	Solid conductor, 24 AWG or better
Cable recommendations	400 MHz bandwidth STP (shielded twisted pair)
Transmission distance	50m shielded twisted pair STP CAT 6 or CAT 6A

### Mechanics

UK double gang plate	145 x 85 x 20mm
Depth	20mm including connectors
Weight	0.5Kg

### Power & Environment

DC Voltage	6-28V (nominal 24V) through cable
DC connector	2.1mm jack with screw fitting
Power consumption	25W (max charging)/ 1.5W (standby)
Operating temperature	0-40 degrees C
Storage temperature	-20-60 degrees C
Relative humidity	20-90%
MTBF	30,000 hours

## PANEL DRAWING

