

444^K 4K@60Hz
YUV4:4:4,
18Gbps, HDR

Comprehensive solution for distributing 444K HDMI, IR & RS232 signals over 100m of Cat 6/6A



- Ultra HD 2K and 4K, 1080p resolutions
- HDCP 2.2 compliant, HDMI V1.4
- Supports 1920x1200 @ 60 Hz
- 1 - 4 HDBaseT splitter
- 100m Cat6 extension—HDBaseT
- 4K@60Hz colour space 4:4:4
- Looping HDMI input
- RS232 pass-through
- Dolby TrueHD, DTS-HD Master Audio
- Total 18 Gbits/s data rate
- Remote powers the receivers (POC)
- Lockable DC connector
- EDID management
- IR passthrough

Transmit a single high resolution 4K UHD HDMI signal together with IR & RS232 over a single 100m CAT6/6A cable to 4 displays

The Smart-e **444K-TX960** is a 1 in and 4 out HDBaseT splitter with RS232 pass-through capable of transmitting 4K UHD signal over 100m of structured cabling (using the appropriate receiver)

The **444K-TX960** is a self contained HDBaseT splitter capable of transmitting HDMI signals up to 4K UHD resolutions over 100m of Cat 6 cable.

A single HDMI input can be connected to the rear of the unit where it gets split internally and then fed to 4 separate HDBaseT outputs. Each receiver (**444K-RX875**) decodes the HDBaseT protocol back to HDMI and RS232. Power is provided from the transmitter through the same Cat cable so there is no need for bulky PSUs at the display end. A secure lockable DC connector on the splitter provides a reliable power connection.

Each HDBaseT connection also allows for RS232 signals to be received back from the receiver enabling remote control of the source device. Fully HDCP 2.2 compliant this **444K-TX960** compact unit is ideal for digital signage use in Education, Entertainment and Retail Market.

The SDS range is from a family of digital extenders & matrices using standard CAT 6-8 STP cable to transmit HD signals over long distances

smart-e



TECHNICAL SPECIFICATION

Video - Digital

Connectors	2 x HDMI (Type A) input/output
Signal type	HDMI - TMDS
Standards	HDMI 2.0. HDCP 2.2/ 1.4
Maximum data rate	4.5Gbps per colour
Maximum pixel clock	340MHz
Resolution range - DTV	Max 4096x2160 @60Hz 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 - Digital

Standards	Embedded within the HDMI signal, SPDIF
Maximum audio channels	8
Maximum sample rate per channel	192 kHz
Sample size	16-24 bits

Power

DC Voltage	External 12-24V PSUs
DC connector	2.1mm jack with screw fitting
AC Voltage (External Supply)	100-230 VAC
AC frequency (External Supply)	50/60 Hz
Power consumption	6W (max)/1.2W (standby)
Operating temperature	0-40 degrees C
Storage temperature	-20-60 degrees C
Relative humidity	20-90%
Dimensions	119x67x20mm
Dimensions with brackets	139x67x20mm
Product weight	0.5Kg
MTBF	30,000 hours

444^k

4K@60hz
YUV4:4:4,
18Gbps, HDR



TECHNICAL SPECIFICATION

Control - RS232

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

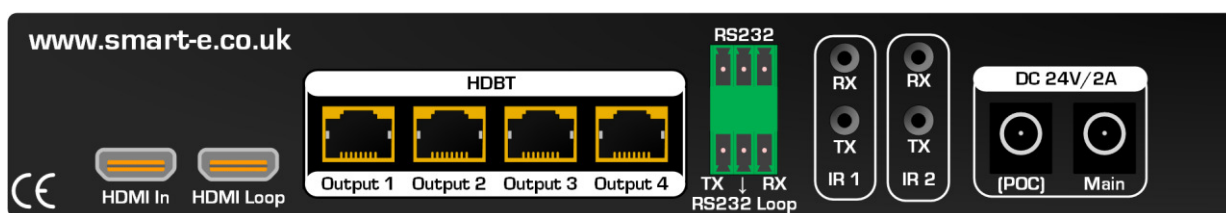
Control - IR

Connector	3.5mm mini-jack socket
Signal type	Full duplex (via 2 connections)
Signal bandwidth	20-60KHz

Cat cable connectivity

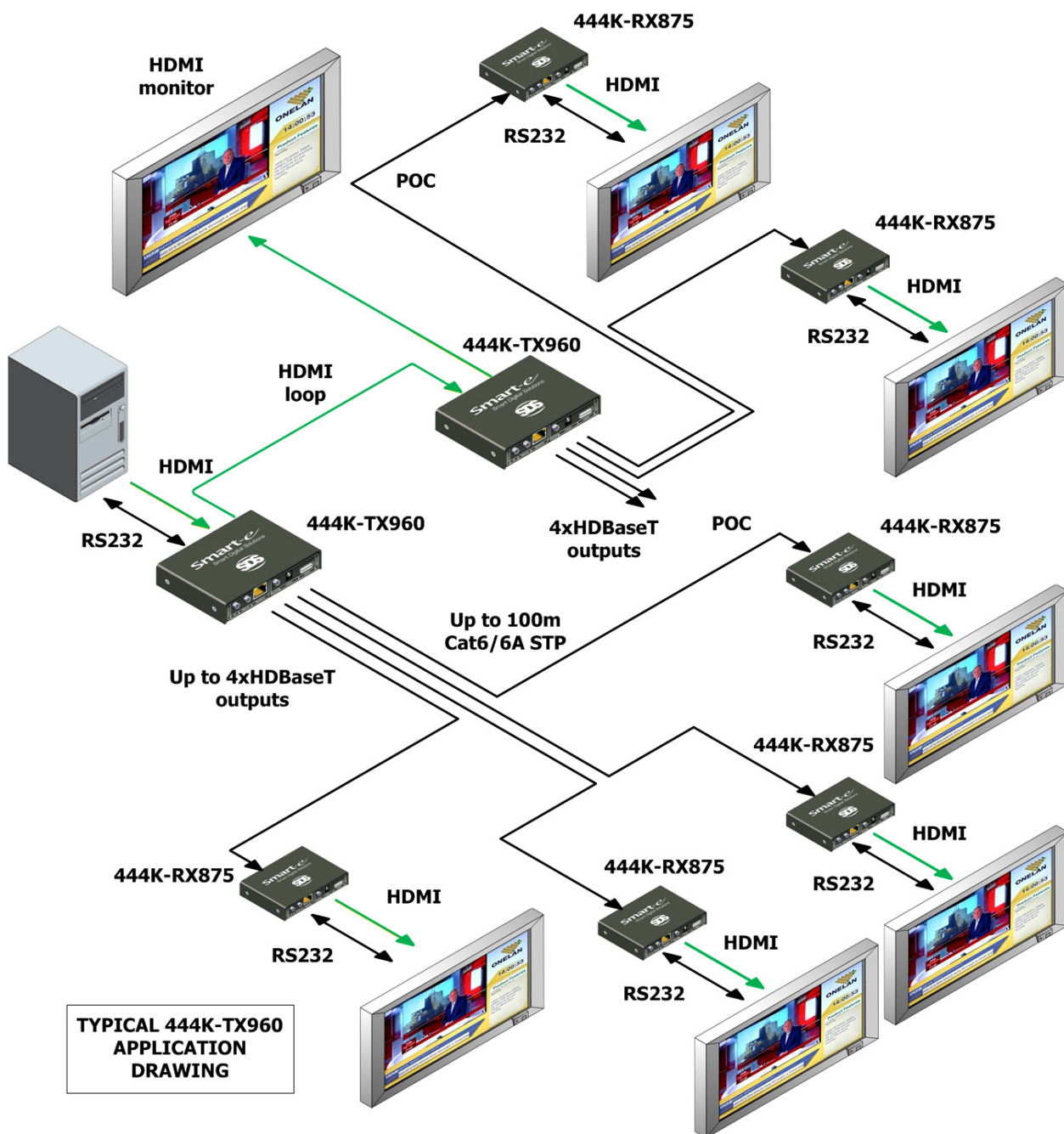
Number of cables	4 x Cat 6/6A screened twisted pair cables
Connectors	4 x female screened RJ45 connectors per unit
Termination standard	TIA/EIA T568B
Cable requirements	Solid conductor, 24 AWG or better
Cable recommendations	400 MHz bandwidth STP (shielded twisted pair)
Transmission distance	70m shielded twisted pair STP CAT 6 or CAT 6A

PANEL DRAWINGS



444^k 4K@60hz
YUV4:4:4,
18Gbps, HDR

APPLICATION DRAWING



Application showing an 8 display configuration + a local monitor using the looping input feature

3 year WARRANTY **Smart-e**

specifications are subject to change without notice

44^k**4K@60Hz
YUV4:4:4,
18Gbps, HDR**

Flexible and comprehensive professional HDMI extender with CAT 6 distribution system for Commercial, Education and Residential use



- HDBaseT technology
- HDMI 2.0 4K@60Hz
- 4:4:4, 18G, HDR10, Dolby Vision
- HDCP 2.2/1.3 compliant
- Dual mirrored outputs
- Full duplex RS232 pass through
- Bi-directional IR pass through
- POC (remote powering receivers)
- 100m CAT 6
- HDMI resolutions 4K, 2K & 1080p
- CEC compliant
- Integral mounting brackets
- Secure DC connection
- Compact housing

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

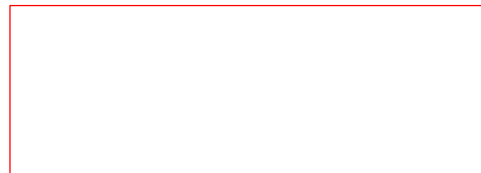
The **444K-RX875** is a flexible and cost effective receiver solution to extending HDMI, bi-directional IR, full duplex RS232 together and POC (remote power over cable). The unit is compact and comes with the IR accessories. By incorporating the full HDBaseT technology 4K UHD HDMI signals can be transmitted up to 100m away

The **444K-RX875** is a HDBaseT receiver capable of transmitting UHD HDMI signals up to 4K UHD resolutions. Implementing the complete **4-Play** of the HDBaseT specification the receiver extender also provides the pass through of wide band bi-directional InfraRed signals and full duplex RS232 up to 115Kbaud. Whilst POC power (12-24V) can be sent by either the TX, Matrix or Splitter through the Cat 6 cable to provide power to the remote end. All that is required is a single Cat6/6A STP cable connection to provide all these features. Dual mirrored HDMI outputs provide a convenient solution to back to back displays commonly found in Digital Signage applications.

The **444K-RX875** can connect to any other product in the **4Kconnect** range as an extender or into or out of a matrix.

The SDS range is from a family of digital extenders & matrices using standard CAT 6-8 STP cable to transmit HD signals over long distances

smart-e



TECHNICAL SPECIFICATION

Video - Digital

Connectors	2 x HDMI (Type A) outputs
Signal type	HDMI - TMDS
Standards	HDMI 2.0. HDCP 2.2/ 1.4
Maximum data rate	4.5Gbps per colour
Maximum pixel clock	340MHz
Resolution range - DTV	Max 4096x2160 @60Hz 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 - Digital

Standards	Embedded within the HDMI signal, SPDIF
Maximum audio channels	8
Maximum sample rate per channel	192 kHz
Sample size	16-24 bits

Power

DC Voltage	External 12-24V PSU
DC connector	2.1mm jack with screw fitting
AC Voltage (External Supply)	100-230 VAC
AC frequency (External Supply)	50/60 Hz
Power consumption	6W [max]/1.2W [standby]
Operating temperature	0-40 degrees C
Storage temperature	-20-60 degrees C
Relative humidity	20-90%
Dimensions	119x67x20mm
Dimensions with brackets	139x67x20mm
Product weight	0.5Kg
MTBF	30,000 hours

TECHNICAL SPECIFICATION

Control - RS232

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

Control - IR

Connector	3.5mm mini-jack socket
Signal type	Full duplex (via 2 connections)
Signal bandwidth	20-60KHz

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	100m shielded twisted pair CAT 6 or CAT 6A

APPLICATION DRAWING

