

**444<sup>k</sup>****4K@60Hz  
YUV4:4:4,  
18Gbps, HDR****Product: 444K-8x8-L  
HDBaseT Matrix**

## Flexible and comprehensive professional HDMI / HDBaseT matrix 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
- RS232 & IR routing
- POC (remote powering receivers)
- CEC compliant
- 8x Analog Stereo Audio input
- 8x Analog De-embedded Audio
- 8x SPDIF De-embedded Audio
- Front panel control
- EDID management
- 19" rack mounting
- RS232 & IR control
- Ethernet control (Web browser)

### Route and distribute 8 HDMI inputs to 8 remote displays located up to 70m of CAT 6/6A STP cable using HDBaseT Lite technology

The Smart Digital Solutions **444K-8x8-L** is a professional flexible HDBaseT matrix capable of selecting between 8 different HDMI devices to 8 HDMI displays and 8 HDBaseT receivers/displays located up to 70m from the unit. Flexible control options include front panel, infra-red, RS232 and internal web browser control.

The Smart Digital Solutions **444K-8x8-L** offers an unprecedented level of both switching and distribution functionality for high resolution HDMI, DVI or DisplayPort signals. By combining a high bandwidth digital matrix with signal distribution over a single CAT 5e-8 cable all in one unit, Smart-e sets a new benchmark for complete integrated AV solutions, all of which can be controlled easily via either Infra-Red and RS232

Extensive features include: IR pass-through together with unique 'plasma-friendly' eyes provide a reliable and cost effective control of source devices

The inclusion of Smart-e's new command protocol allows full control of the matrix, including EDID settings and muting inputs or outputs via RS232. Compact 2U 19" rack mounting chassis makes for ease of installation.

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**

DESIGN



INNOVATE



ORIGINATE

## TECHNICAL SPECIFICATION

**Video - Digital**

Connectors	16 x HDMI (Type A) input and 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

**Audio - Analogue**

Standards	Stereo - unbalanced
Bandwidth	20 - 20 kHz

**Power**

DC Voltage	External 12V PSU
AC Voltage	100-230 VAC
AC frequency	50/60 Hz
Power consumption	13.5W (max)/ 1.2W (standby)
Operating temperature	0-40 degrees C
Storage temperature	-20-60 degrees C
Relative humidity	20-90%
Chassis size	2U 19" rack mounting
Chassis dimensions	440x394x88mm
Product weight	8Kg
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 - Ethernet**

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

**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	70m shielded twisted pair CAT 6 or CAT 6A

**REAR PANEL**



specifications are subject to change without notice

DESIGN

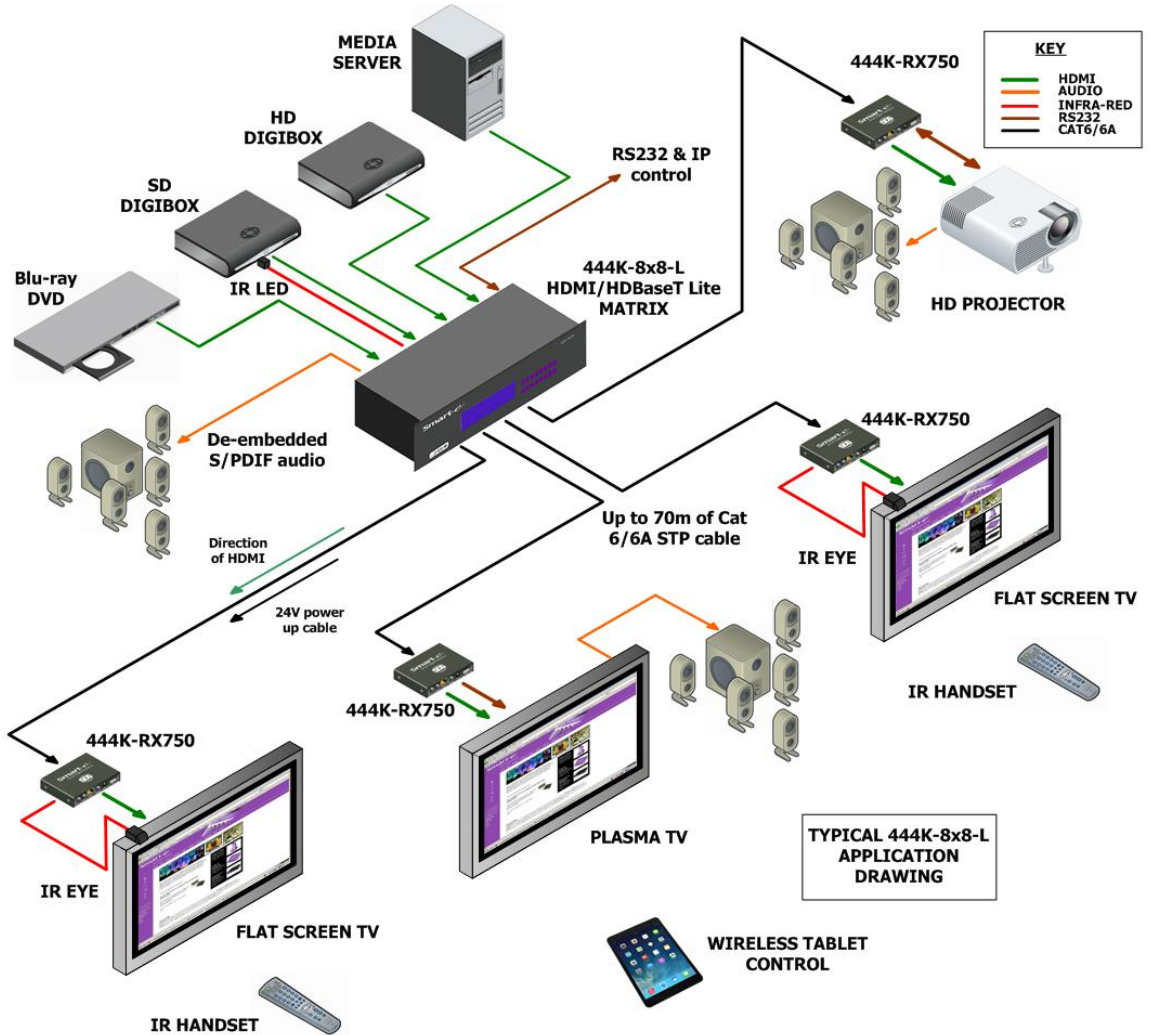


INNOVATE

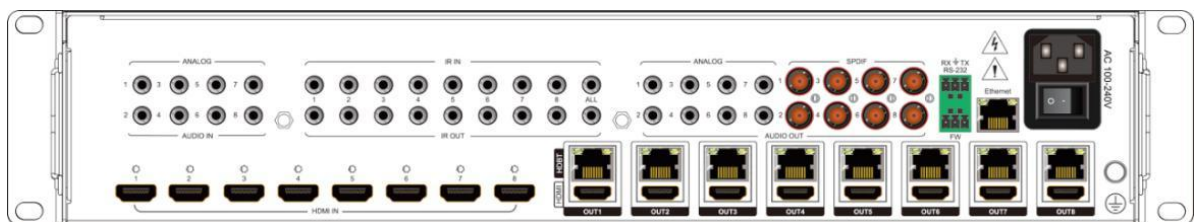
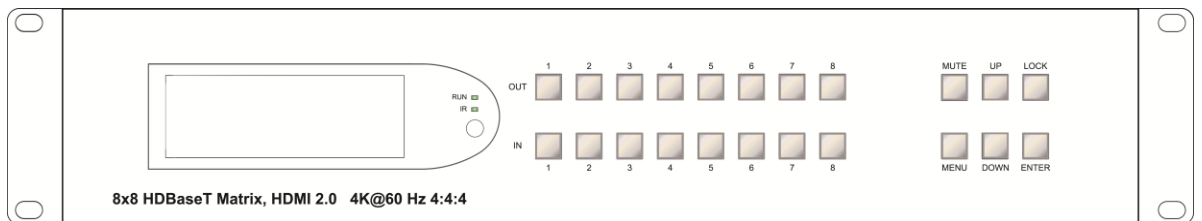


ORIGINATE

### APPLICATION DRAWING



### PANEL DRAWINGS



specifications are subject to change without notice

Smart-e

DESIGN



INNOVATE



ORIGINATE

**444<sup>k</sup>****4K@60Hz  
YUV4:4:4,  
18Gbps, HDR****Product:444K-RX750  
HDBaseT RX**

## 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)
- 70m CAT 6/6A STP cable
- 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 70m

The **444K-RX750** 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 70m away

The **444K-RX750** 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 Cat6 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-RX750** 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**

DESIGN

◆  
INNOVATE◆  
ORIGINATE

**TECHNICAL SPECIFICATION**

**Video – Digital**

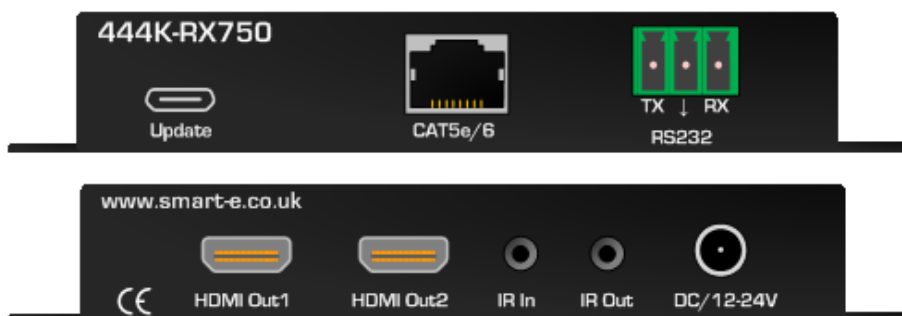
Connectors	2 x HDMI (Type A) outputs
Signal type	HDMI - TMDS
Standards	HDMI 2.0. HDCP 2.2/1.4
Maximum data rate	4.5Gbps per colour
Maximum pixel clock	340MHz
Resolution range - DTV	Max 4096x2160 @60Hz 36 bit colour depth
Resolution range - PC	Max 1920x1200 @60Hz 24 bit colour depth
Frame rate	24, 25, 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



DESIGN

◆  
INNOVATE

◆  
ORIGINATE

**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

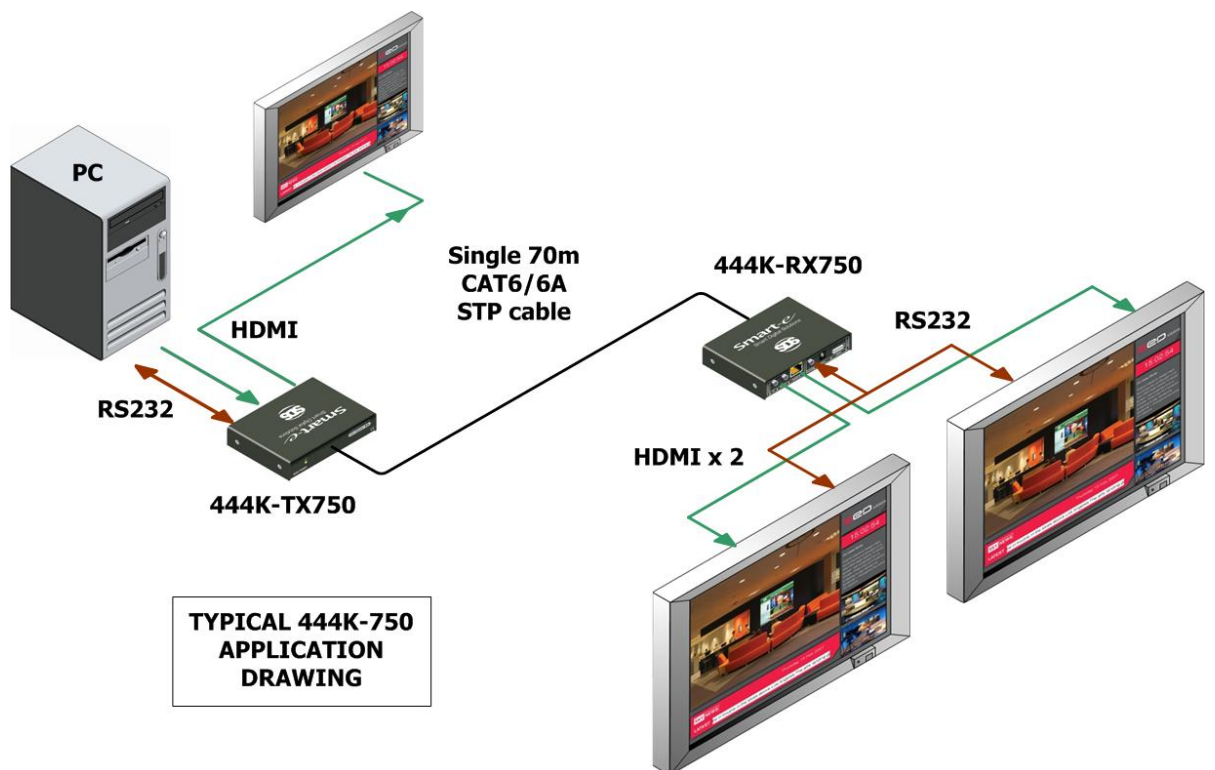
**Control - IR**

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	70m shielded twisted pair STP CAT 6 or CAT 6A

**APPLICATION DRAWING**



**TYPICAL 444K-750  
APPLICATION  
DRAWING**

specifications are subject to change without notice

smart-e

DESIGN

INNOVATE

ORIGINATE