

44K

4K@60Hz
YUV4:4:4,
18Gbps, HDR10

Flexible cost-effective long range professional HDMI extender using 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
- Looping inputs for transmitter
- Full duplex RS232 pass through
- Bi-directional IR pass through
- 150m @1080p, 120m @4K
- Single CAT 6/6A STP/FTP
- CEC compliant
- Analogue audio out on receiver
- Secure DC connection
- POC (remote powering receivers)
- Slim profile 18mm

Distribute high resolution UHD HDMI video together with IR and RS232 over a single CAT 6 screened twisted pair cable up to 150m

The **444K-925** is a flexible and cost effective HDBaseT pair solution for extending HDMI, bi-directional IR, full duplex RS232 together with POC (remote power over cable). The unit is very compact and comes with the IR accessories. By incorporating an extended HDBaseT technology, 4K UHD HDMI signals can be transmitted up to 120m and 1080p @60Hz video up to 150m using CAT 6/6A STP/FTP.

The **444K-925** is a pair of TX/RX HDBaseT extenders capable of transmitting UHD HDMI signals up to 4K UHD resolutions. Implementing a special extended version of the HDBaseT specification, the extender also provides the pass through of wide band bi-directional InfraRed signals and full duplex RS232 up to 115Kbaud. 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 Cat 6 cable connection to provide all these features.

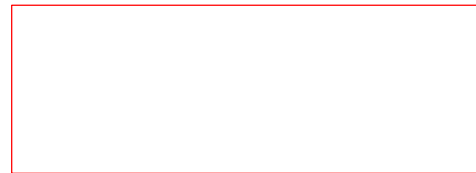
The **444K-TX925** transmitter comes with looping HDMI inputs providing a convenient method of connecting a local monitor or cascading to another transmitter. Whilst the **444K-RX925** receiver has an analogue stereo audio output replicating the de-embedded audio from the HDMI signal.

Both units are very compact having a height of only 18mm helping hide the units in confined spaces. Each box also has integral mounting feet for desktop use and the ability to fix right-angled brackets allowing ease of installation.

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TECHNICAL SPECIFICATION

Video – Digital

Connectors	HDMI (Type A)
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
Connector	3.5mm stereo jack socket

Power

DC Voltage	External 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	9W (max)/ 1.2W (standby)
Operating temperature	0-40 degrees C
Storage temperature	-20-60 degrees C
Relative humidity	20-90%
Dimensions (each unit)	140x65x18mm
Product weight	0.16Kg
MTBF	30,000 hours

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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, 2-0V, 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	120/150m shielded twisted pair CAT 6 or CAT 6A – resolution dependent

PANEL DRAWINGS



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APPLICATION DRAWING

