Data sheet DESIGN INNOVATE



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

Product: 444K-925 HDBaseT TX/RX

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, bidirectional 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

4.5Gbps per colour Maximum data rate

Maximum pixel clock 340MHz

Resolution range - DTV Max 4096x2160 @60Hz 36 bit colour depth Resolution range - PC Max 1920x1200 @60Hz 24 bit colour depth

24, 25, 30, 50 & 60 Hz Frame rate

Gain O_{dB}

RGB and YCrCb **Formats** Colour space 4:4:4. 4:2:2 & 4:2:0

<0.15T bit Clock jitter

Rise time <0.3T bit (20-80%) Fall time <0.3T bit (20-80%) Maximum transmission delay 5ns (+/-1ns)

TMDS +/-0.4V pk-pk Signal strength

2.9V - 3.3VTMDS signal level

50R Impedance Maximum DC offset 15_mV

15m 24 AWG Maximum input cable length 15m 24 AWG Maximum output cable length

Audio - Digital

Standards Embedded within the HDMI signal, SPDIF

Maximum audio channels 8

Maximum sample rate per channel 192 kHz 16-24 bits Sample size

Audio - Analogue

Stereo - unbalanced Standards

Bandwidth 20 - 20 kHz

Connector 3.5mm stereo jack socket

Power

DC Voltage External24V 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 -20-60 degrees C Storage temperature

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









specifications are subject to change without notice

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APPLICATION DRAWING



