

Extron

Specifications

DTP HDMI 230 4K Tx/Rx

TRUE 4K specification

Max. 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max. Bit Depth per Color
4096 x 2160 at 30 Hz	4:4:4	8 bit
3840 x 2160 at 30 Hz		
4096 x 2160 at 60 Hz	4:2:0	
3840 x 2160 at 60 Hz		

Frame rate¹ 24, 25, 30, 50, or 60 fps
 Chroma sampling¹ 4:4:4, 4:2:2, or 4:2:0
 Color bit depth¹ 8 bits per color
 Signal Type HDMI 1.4, HDCP 2.3
 Max. video data rate 10.2 Gbps (3.4 Gbps per color)

NOTE: ¹Subject to the maximum data rate limit. Use our calculator (www.extron.com/8Kdatarate) to determine video parameters supported by this data rate.

NOTE: This product consists of a transmitter (DTP HDMI 4K 230 Tx) and a receiver (DTP HDMI 4K 230 Rx), sold separately, with twisted pair cables linking the transmitter and receiver.

NOTE: *Appropriate HDMI to DVI-D cables or adapters are required for DVI signal input/output.

Video

Maximum data rate 10.2 Gbps (3.4 Gbps per color)
 Maximum pixel clock 300 MHz
 Resolution range Up to 2560x1600* @ 60 Hz or
 4K (4096x2160) @ 30 Hz, UHD (3840x2160) @ 30 Hz,
 4K/UHD @ 60 Hz with 4:2:0 chroma subsampling
 (* reduced blanking)
 Color bit depth 8, 10, or 12 bits — subject to the maximum data rate limit
 Formats RGB and YCbCr digital video
 Standards DVI 1.0, HDMI 1.4, HDCP 2.3, CEA-861E

Video Input — transmitter

Number/signal type 1 single link HDMI (or DVI-D*)
 Connectors 1 female HDMI type A

Interconnection Between Transmitter and Receiver

Connectors 1 female RJ-45 per unit
 Termination standard TIA/EIA T568B
 Signal transmission distance
 1080p @ 60 Hz Up to 230' (70 m) using shielded twisted pair (STP) cable or XTP DTP 24 STP cable
 2560x1600 @ 60 Hz Up to 130' (40 m) using shielded twisted pair (STP) cable or XTP DTP 24 STP cable
 4K/UHD @ 30Hz and 60 Hz... Up to 130' (40 m) using shielded twisted pair (STP) cable or XTP DTP 24 STP cable
 Cable requirements Solid conductor, 24 AWG or better

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Cable recommendations 400 MHz bandwidth, STP (shielded twisted pair)

NOTE: Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance.

Video Output — receiver

Number/signal type 1 single link HDMI (or DVI-D*)
Connectors 1 female HDMI type A

Audio

Gain Unbalanced output: 0 dB; balanced output +6 dB
Frequency response 20 Hz to 20 kHz, ± 0.5 dB
THD + Noise 0.03% @ 20 Hz to 20 kHz at maximum output
S/N >90 dB, at maximum output (15 dBu), balanced (unweighted)
Stereo channel separation >80 dB @ 1 kHz to 20 kHz

Audio input

Number/signal type 1 PC level stereo, unbalanced

NOTE: Analog audio is not embedded onto the digital video signal. Embedded digital audio is not de-embedded from the digital video signal.

Connectors (1) 3.5 mm stereo jack, 2 channel; tip (L), ring (R), sleeve (ground)
Impedance >10k ohms, DC coupled
Nominal level -10 dBV (316 mVrms)
Maximum level +7 dBV (unbalanced)

NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV \approx 2 dBu

Audio output

Number/signal type 1 stereo (2 channel), balanced/unbalanced
Connectors (1) 3.5 mm captive screw connector, 5 pole
Impedance 50 ohms unbalanced, 100 ohms balanced
Gain error ± 0.1 dB channel to channel
Maximum level (600 ohm) >+11 dBu, balanced

Control/remote — external device (pass-through, unidirectional or bidirectional)

Serial control port input/output
Transmitter RS-232 via (1) 3.5 mm, 5 pole captive screw connector for RS-232 control (± 5 V)
(connector is shared with IR control port)
Receiver 1 set of proprietary signals on a female RJ-45 jack
Serial control port output/input
Transmitter 1 set of proprietary signals on a female RJ-45 jack
Receiver RS-232 via a 3.5 mm, 3 pole captive screw connector
Baud rate and protocol 300 to 115200 baud, 8 or 7 data bits, 1 or 2 stop bits, non-parity (default), even or odd parity
Serial control pin configuration 1 = Tx, 2 = Rx, 3 = Gnd
IR control port (1) 3.5 mm, captive screw connector, 5 pole (connector is shared with RS-232 control port)
TTL level (0 to 5 V) modulated infrared control from 30 kHz up to 60 kHz
IR control pin configuration 3 = Gnd, 4 = IR Tx, 5 = IR Rx

General

Power supply External
Input: 100-240 VAC, 50-60 Hz
Output: 12 VDC, 1.5 A, 18 watts

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Power consumption

Transmitter

Device.....	2.5 watts
Device and power supply .	3.4 watts
Remote power budget	12 watts

Receiver

Device.....	4.2 watts
Device and power supply .	5.8 watts
Remote power budget	12 watts

NOTE: Each transmitter or receiver can be powered either locally by an external power supply or remotely by receiver or transmitter on the other end of the twisted pair cable.

Ambient temperature/humidity..... Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing
Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing

Cooling..... Convection, no vents

Thermal dissipation

Transmitter

Device.....	7.4 BTU/hr
Device and power supply .	10.4 BTU/hr

Receiver

Device.....	13.0 BTU/hr
Device and power supply .	18.7 BTU/hr

Mounting

Rack mount Yes, with optional 1U high rack shelf

Furniture mount Yes, with optional under-desk mounting kit

Enclosure type Metal

Enclosure dimensions

Transmitter 1.0" H x 4.3" W x 3.0" D (quarter rack wide)
(2.5 cm H x 10.9 cm W x 7.6 cm D)
(Depth excludes connectors.)

Receiver 1.0" H x 4.3" W x 6.0" D (quarter rack wide)
(2.5 cm H x 10.9 cm W x 15.2 cm D)
(Depth excludes connectors.)

Product weight

Transmitter 0.5 lbs (0.3 kg)

Receiver 1.0 lb (0.5 kg)

Regulatory compliance CE, c-UL UL, CE**, C-tick, FCC Class A**, ICES, VCCI,
Complies with the appropriate requirements of RoHS, WEEE
UL rated for use in plenum airspaces: meets UL 2043 for heat and smoke release,
excluding the power supply.

NOTE: **CE and FCC testing is conducted with STP (shielded twisted pair) I/O cable.

Product warranty..... 3 years parts and labor

Everlast power supply warranty 7 years parts and labor

NOTE: All nominal levels are at $\pm 10\%$.

NOTE: Specifications are subject to change without notice.

NOTE: Shipping weights and dimensions are available at www.extron.com.

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