

## Specifications

### XTP T HD 4K

#### 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 rate<sup>1</sup> ..... 24, 25, 30, 50, or 60 fps  
 Chroma sampling<sup>1</sup> ..... 4:4:4, 4:2:2, or 4:2:0  
 Color bit depth<sup>1</sup> ..... 8 bits per color  
 Signal type ..... DisplayPort 1.1, DVI 1.0, HDMI 2.0, HDCP 2.2  
 Max. video data rate ..... 10.2 Gbps (3.4 Gbps per color)

**NOTE:** <sup>1</sup>Subject to the maximum data rate limit. Use our calculator at [www.extron.com/4Kdata](http://www.extron.com/4Kdata) to determine video parameters supported by this data rate.

**NOTE:** The XTP T HD 4K transmitter can be used with other XTP products, with twisted pair cables connecting the units.

#### Video

Gain ..... Unity  
 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  
 Signal type ..... Single-link HDMI (or DVI-D or DisplayPort)  
 Maximum data rate ..... 10.2 Gbps (3.4 Gbps per color)  
 Maximum pixel clock ..... 300 MHz (600 MHz for 4K rates with 4:2:0 chroma subsampling)  
 Formats ..... RGB and YCbCr digital video  
 Standards ..... DisplayPort 1.1, DVI 1.0, HDMI 2.0; HDCP 2.2

#### Video input and loop-through

Number/signal type ..... 1 single link HDMI (or DVI-D or DisplayPort) input  
 1 single link HDMI (or DVI-D) loop-through  
 Connectors ..... 2 female HDMI type A: 1 input, 1 loop-through

## Specifications • XTP T HD 4K (Continued)

### Shielded twisted pair interconnection

Connectors.....	1 female RJ-45 per unit
Termination standards.....	TIA/EIA T568B
Signal transmission distance.....	330' (100 m) using shielded twisted pair or XTP DTP 24 cable
Cable requirements.....	Solid conductor, 24 AWG or better
Cable recommendations.....	400 MHz bandwidth, STP (shielded twisted pair)

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

### Audio

Gain.....	Unbalanced output: 0 dB; balanced output: +6 dB
Frequency response.....	20 Hz to 20 kHz, $\pm 0.5$ dB
THD + Noise.....	<0.1%, 20 Hz - 20 kHz at nominal level
S/N.....	>90 dB, at maximum balanced output (unweighted)
Crosstalk.....	$\leq -80$ dB @ 1 kHz, fully loaded
Stereo channel separation.....	>80 dB @ 1 kHz
Sampling rates.....	32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 192 kHz
Bit depths.....	16, 20, 24 bit

### Audio input

Number/signal type.....	1 analog stereo, balanced/unbalanced 1 digital audio, de-embedded from HDMI
Connectors.....	(1) 3.5 mm captive screw connector, 5 pole 1 female HDMI type A (shared with video input)
Source formats.....	LPCM up to 7.1/24-bit/192 kHz, Dolby Atmos™, Dolby TrueHD, Dolby Digital Plus™, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0, DTS-HD Master Audio, DTS-HD, DTS-ES Discrete 6.1, DTS-ES Matrix 6.1, DTS Digital Surround 5.1, DTS 2 Channel, analog stereo
Impedance.....	10k ohms, unbalanced, 20k ohms balanced
Nominal level.....	+4 dBu (1.23 mVrms) balanced or -10 dBV (316 mVrms) unbalanced
Maximum level.....	+21 dBu balanced, +15 dBu unbalanced
Input gain adjustment.....	-18 dB to +24 dB, 1 dB steps, adjustable

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

### Communications – transmitter

USB control ports.....	1 front panel female mini USB B
USB standards.....	USB 2.0, low speed
Program control.....	Extron control/configuration program for Windows® Extron Simple Instruction Set (SIS™)

### Communications – external device (pass-through, unidirectional or bidirectional)

Serial control pass-through port....	RS-232 (+5 V) via a (1) 3.5 mm, 5 pole captive screw connector (uses 3 poles) (connector is shared with the IR control port)
Baud rates.....	Up to 115200 baud
Protocol.....	Data bits = 5 - 8 Stop bits = 1 or 2 Parity = odd, even, none Flow control = XON, XOFF, none
Serial control pin configuration.....	1 = Tx, 2 = Rx, 3 = GND
IR control port.....	(1) 3.5 mm, captive screw connector, 5 pole (uses 3 poles) (connector is shared with the RS-232 control port) TTL level (0 to 5 V) modulated infrared control from 30 kHz up to 56 kHz
IR control pin configuration.....	3 = GND, 4 = IR Tx, 5 = IR Rx
Ethernet pass-through port.....	1 female RJ-45 connector
Ethernet data rate.....	10/100Base-T, half/full duplex with autodetect

# Specifications • XTP T HD 4K (Continued)

## General

Power supply .....	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 1.5 A, 18 watts
Power consumption	
Device .....	8.0 watts
Device and power supply .....	9.2 watts

**NOTE:** The XTP transmitter can be powered either locally by an external power supply or remotely using an optional power injector or XTP CrossPoint matrix switcher.

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, vents on sides and top
Thermal dissipation	
Device .....	26.1 BTU/Hr
Device and power supply .....	30.2 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 .....	1.0" H x 8.68" W x 6.0" D (half rack wide) (2.5 cm H x 22.1 cm W x 15.2 cm D) (Depth excludes connectors.)
Product weight .....	1.6 lbs (0.7 kg)
Vibration .....	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety .....	CE, c-UL, UL
EMI/EMC.....	CE, C-tick, FCC Class A, ICES, VCCI
Environmental.....	Complies with the appropriate requirements of RoHS, WEEE.
Warranty .....	3 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](http://www.extron.com).

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