

## Specifications

### DTP T UWP 4K 232 D

#### TRUE 4K specifications

Max. 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max. Bit Depth per Color
4096x2160 at 30 Hz	4:4:4	8 bit
3840x2160 at 30 Hz		

Frame rate <sup>1</sup> .....	24, 25, or 30 fps
Chroma sampling <sup>1</sup> .....	4:4:4, 4:2:2
Color bit depth <sup>1</sup> .....	8 bits per color
Signal type .....	DVI 1.0, HDMI 1.4, HDCP 1.4
Maximum 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 ([www.extron.com/8KdataRate](http://www.extron.com/8KdataRate)) to determine video parameters supported by this data rate.

#### Video

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

Maximum data rate	
HDMI .....	10.2 Gbps (3.4 Gbps per color)
VGA .....	6.75 Gbps (2.25 Gbps per color)
Maximum pixel clock	
HDMI .....	300 MHz
VGA .....	165 MHz
Resolution range .....	Up to 1920x1200 or 1080p @ 60 Hz; 8 bit color depth 2048x1080 (2K) @ 60 Hz 4K (4096x2160) @ 30 Hz or 4K UHD (3840 x 2160) @ 30 Hz; 8-bit color
Formats .....	RGB digital video
Standards .....	DVI 1.0, HDMI, HDCP 1.2, EDID 1.3, CEA-861E

#### Video input – HDMI

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

#### Video input – VGA

Number/signal type .....	1 analog RGBHV
Connectors .....	1 female 15-pin HD (RGB)
Nominal level .....	0.7 Vp-p for RGB
Minimum/maximum levels .....	0.3 V to 1.45 Vp-p
Impedance .....	75 ohms
Horizontal frequency .....	15 kHz to 130 kHz
Vertical frequency .....	30 Hz to 150 Hz
Return loss .....	<-30 dB @ 5 MHz
DC offset (max. allowable) .....	250 mV

# Specifications • DTP T UWP 4K 232 D (Continued)

## Interconnection between transmitter and receiver

Signal type.....	1 DTP 230 output
Connectors.....	1 female RJ-45
Termination standards.....	TIA/EIA T568B
Signal transmission distance	
1080p @ 60 Hz.....	Up to 230' (70 m) using shielded twisted pair (STP) cable or XTP DTP 24 cable
2048x1080p @ 60 Hz.....	Up to 130' (40 m) using STP cable or XTP DTP 24 cable
4K/UHD @ 30 Hz.....	Up to 130' (40 m) using STP cable or XTP DTP 24 cable
Cable requirements.....	Solid conductor, 24 AWG or better
Cable recommendations.....	400 MHz bandwidth STP cable

**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.....	0.03% @ 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	
Analog audio (over DTP).....	2 stereo, unbalanced
Digital audio.....	1 embedded digital audio on DTP
Embedded digital audio source formats.....	2-ch PCM, PCM, Dolby Digital 2/0, Dolby Digital 2/0 Surround, Dolby Digital 5.1, Dolby Digital EX, DTS Digital Surround 5.1, DTS-ES Matrix 6.1, DTS-ES Discrete 6.1
Connectors.....	(2) 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 dBu, unbalanced

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

## Audio output

Number/signal type	
Analog audio (over DTP).....	1 stereo, unbalanced
Digital audio.....	1 embedded digital audio on DTP
Embedded digital audio source formats.....	2-ch PCM, PCM, Dolby Digital 2/0, Dolby Digital 2/0 Surround, Dolby Digital 5.1, Dolby Digital EX, DTS Digital Surround 5.1, DTS-ES Matrix 6.1, DTS-ES Discrete 6.1
Connectors.....	1 female RJ-45 jack

## Communications – transmitter

Serial control port.....	RS-232 via (1) 3.5 mm, 5-pole captive screw connector for RS-232 control ( $\pm 5$ V) and contact closure input switching
Baud rate and protocol.....	9600 baud rate, 8 data bits, 1 stop bit, no parity
Contact closure remote control.....	(1) 3.5 mm, 5-pole captive screw connector (connector is shared with RS-232 control port)
USB control port.....	1 front panel female mini USB type B
USB standards.....	USB 2.0, high speed
Program control.....	Extron Simple Instruction Set (SIS™)

# Specifications • DTP T UWP 4K 232 D (Continued)

## Communications – external device (pass-through)

Serial control pass-through port.....	Bidirectional RS-232
Connector	
DTP output.....	(1) 3.5 mm captive screw connector, 5-pole
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

**NOTE:** Protocol is mirrored between the connected DTP 230 or DTP 330 endpoints and the "Over DTP" ports on the DTP T UWP 4K 232 D. Signals from a control device pass into each "Over DTP" port, are embedded with the DTP signal, and sent to the individual endpoints for control of remote sink or source devices.

## General

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

Power consumption	
Device .....	4.8 watts, 12 VDC
Device and power supply .....	6.3 watts, 100-240 VAC, 50-60 Hz

**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.

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, vented

Thermal dissipation	
Transmitter	
Device .....	15.3 BTU/hr
Device and power supply...	20.1 BTU/hr

Mounting	
Rack mount.....	Yes, with included rack ears

Enclosure type .....	Metal
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Enclosure dimensions	
Faceplate .....	Two 2.60" H x 1.30" W x 0.20" D (66 mm H x 33 mm W x 6 mm D) (Fits the opening in a 2-gang decorator wallplate.)
Device .....	Two 2.70" H x 3.50" W x 1.90" D (69 mm H x 89 mm W x 48 mm D)

**NOTE:** \*Height is 4.2" (10.4 cm) including mounting tabs.

Product weight .....	0.4 lbs (0.2 kg)
Regulatory compliance.....	AS/NZS, c-UL, C-tick, CE**, FCC Class A**, ICES, UL, VCCI Complies with the appropriate requirements of RoHS, WEEE

**NOTE:** \*\*CE and FCC testing is conducted with STP cable.

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 dimensions and weights are available at [www.extron.com](http://www.extron.com).

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