

## Specifications

### DTP2 T 212

#### TRUE 4K specification

Max. 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max. Bit Depth per Color
4096 x 2160 at 60 Hz	4:4:4	8 bit
3840 x 2160 at 60 Hz		
4096 x 2160 at 30 Hz		12 bit
3840 x 2160 at 30 Hz		
4096 x 2160 at 60 Hz	4:2:0	12 bit
3840 x 2160 at 60 Hz		

Frame rate<sup>1</sup> ..... DTP2 output 24, 25, 30, 50, 60, or 120 fps  
 HDMI output 24, 25, 30, 50, 60, 120, 144, or 240 fps

Chroma sampling<sup>1</sup> ..... 4:4:4, 4:2:2, or 4:2:0

Color bit depth<sup>1</sup> ..... 8, 10, or 12 bits per color

Signal type ..... HDMI 2.0b; HDCP 2.3

Max. video data rate ..... 18 Gbps (6 Gbps per color)

**NOTE:** <sup>1</sup>Subject to the maximum data rate limit. Use our calculator at [www.extron.com/8Kdatarate](http://www.extron.com/8Kdatarate) to determine video parameters supported by this data rate.

#### Video

Maximum data rate ..... 18 Gbps (6 Gbps per color)

Maximum pixel clock ..... 600 MHz

Resolution range ..... Up to 2560x1600\* @ 60 Hz or  
 4K (4096x2160) @ 60 Hz,  
 with 4:4:4 chroma subsampling  
 \*reduced blanking

Color but depth ..... 8, 10, 12 bits — subject to the maximum data rate limit

Formats ..... RGB and YCbCr digital video

Standards ..... DVI 1.0; HDMI 1.4, 2.0b; HDCP 1.4, 2.3; CEA-861-F

#### Video input

Number/signal type ..... 2 single link HDMI (or DVI-D\*)

Connectors ..... 2 female HDMI type A

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

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### Video output

Connectors.....	1 local HDMI output, 1 female RJ-45 output
Horizontal frequency .....	24 kHz to 135 kHz for resolutions up to 18 Gbps
Vertical frequency.....	DTP2: 24 Hz to 120 Hz for resolutions up to 18 Gbps HDMI: 24 Hz to 240 Hz for resolutions up to 18 Gbps
Termination standard.....	TIA/EIA T568B
Transmission distance.....	Up to 330' (100 m) using shielded twisted pair (STP) cable or XTP DTP 24 STP 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.....	0.03% @ 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 2 Digital Embedded Audio on HDMI
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**NOTE:** Analog audio can be configured for embedding onto the digital video signal at the Transmitter. Embedded digital audio can be (configured) de-embedded from the digital video signal at the Receiver end.

Connectors.....	(1) 3.5 mm stereo jack, 2 channel; tip (L), ring (R), sleeve (ground) (2) Female HDMI
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

### Communications – switcher

Serial control port.....	1 RS-232, 3.5 mm, 3-pole captive screw connector, rear panel
Pin configuration.....	Pin 1 = Tx, Pin 2 = Rx, Pin 3 = GND
Baud rate and protocol.....	9600 baud, 8 data bits, 1 stop bit, no parity
Pin configuration.....	Pins 1 and 2 of captive screw connector shorted together enable auto-input switching.
USB control port.....	1 female mini USB, type B, front panel
USB standards.....	USB 2.0, high speed
Contact closure/tally output .....	(1) 3.5 captive screw connector, 3-pole (1) 3.5 captive screw connector, 4-pole
Pin configuration.....	Contact Closure - Pin 1 = Input 1 contact, Pin 1 = Input 2 contact, Pin 2 = GND (for both captive screw)
Pin configuration.....	Tally - Pin 3 = Input 1 tally ground, Pin 3 = Input 2 tally ground, Pin 4 = +5V (on Input 2 captive screw)
Program control.....	Extron Simple Instruction Set™ (SIS™)

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## Communications — external device (RS-232/IR over TP)

Quantity/type .....	(1) RS-232 and IR via (1) 3.5 mm 5-pole captive screw connector
Serial control pass-through ports ...	(1) Bidirectional RS-232
Output/DTP Rx .....	(1) RS-232 (1) 3.5 mm 5-pole captive screw connector (shared with IR port)
Baud rate and protocol .....	300 to 115200 baud 8 or 7 data bits 1 or 2 stop bits No parity (default), even or odd parity
Serial control pin configurations.....	Pin 1 = Tx, Pin 2 = Rx, Pin 3 = GND
IR control pass-through ports.....	(1) bidirectional TTL level (0 to 5V) modulated infrared control from 30 KHz to 60 kHz
Output/DTP Rx.....	(1) RS-232 (1) 3.5 mm 5-pole captive screw connector (shared with RS-232 port)
IR control pin configuration .....	Pin 3 = GND, Pin 4 = IR Tx, Pin 5 = IR Rx

## General

Power supply .....	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 2.0 A, 24 Watts
Power consumption	
Device .....	TBD watts, 12 VDC
Device and power supply .....	TBD watts, 12 VDC
Remote power capability.....	Supports one endpoint (DTP2 Rx)

**NOTE:** DTP2 devices can only send power to other DTP2 devices. DO NOT send power to DTP devices or they will be damaged.

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 top and sides
Thermal dissipation	
Device .....	TBD BTU/hr
Device and power supply .....	TBD BTU/hr
Mounting	
Rack mount.....	Yes, with optional rack shelf Back of the rack mountable with optional back-of-the-rack mounting kit
Furniture mount .....	Yes, with optional under-desk mounting kit
Enclosure type .....	Metal
Enclosure dimensions .....	1.00" H x 8.75" W x 6.0" D (1 inch high, half rack wide) (2.54 cm H x 22.2 cm W x 15.2 cm D) (Depth excludes connectors.)
Product weight .....	TBD lb (TBD kg)
Regulatory compliance.....	CE, c-UL, UL, C-Tick, FCC Class A, ICES, RoHs, WEEE, VCCI
Product warranty .....	3 years parts and labor
Everlast power supply warranty.....	7 years parts and labor

**NOTE:** All nominal levels are at ±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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