

# Specifications

## WindoWall® Pro

**NOTE:** WindoWall® processors are available in packages of 2 or 3 modules. The following specifications are given per unit, not per package.

### Video input

Number/signal type .....	4 VGA-WUXGA RGBHV, RGBS, RGSB, RsGsBs, RGBcvS, component video (interlaced or progressive), S-video, composite video 4 HDMI digital video (DI models only) 1 HDMI digital video (Live Background)
Connectors	
Inputs 1-4 .....	(4) x 5 female BNC (all models) 4 female HDMI (DI models only)
Inputs 5-19 .....	15 female BNC (disabled)
Live Background .....	1 female HDMI
Nominal level .....	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB and for R-Y and B-Y of component video 0.3 Vp-p for C of S-video
Minimum/maximum levels .....	Analog: 0.0 V to 2.0 Vp-p with no offset
Impedance .....	75 ohms
Horizontal frequency .....	15 kHz to 100 kHz
Vertical frequency .....	24 Hz to 120 Hz
Resolution range .....	640x480 to 1920x1200*, 480i, 576i, 480p, 576p, 720p, 1080i, 1080p, and 2048x1080 *Only the reduced blanking version of the 1920x1200 resolution is sampled at full bit rate.
DC offset (max. allowable) .....	0.5 V

### Video processing — digital inputs

Maximum data rate .....	6.75 Gbps (2.25 Gbps per color)
Maximum pixel clock .....	165 MHz
Formats .....	RGB and YCbCr digital video
Standards .....	DVI, HDMI, HDCP

**NOTE:** Live Background input is also HDCP compliant.

### Video processing — analog inputs

Decoder .....	8-bit digital, 13.5 MHz standard
Digital sampling .....	24 bit, 8 bits per color, 165 MHz standard
Colors .....	16.78 million

### Video output

Number/signal type .....	1 scaled RGBHV, RGBS, RGSB, HD YUV component video 1 HDMI (HDCP compliant) digital video
Connectors .....	5 female BNC, 1 female HDMI
Nominal level .....	1 Vp-p for Y of component video and for G of RGSB 0.7 Vp-p for RGB and for R-Y and B-Y of component video
Minimum/maximum levels .....	0.0 V to 1.0 Vp-p

Impedance .....	75 ohms
Vertical frequencies .....	24 Hz, 50 Hz, 59.94 Hz, 60 Hz, 72 Hz, 96 Hz, 100 Hz, 120 Hz
Scaled resolution .....	640x480 <sup>1,2,3,4,5,6</sup> , 800x600 <sup>1,2,3,4,5,6</sup> , 852x480 <sup>1,2,3,4,5</sup> , 1024x768 <sup>1,2,3,4</sup> , 1024x852 <sup>1,2,3,4</sup> , 1024x1024 <sup>1,2,3</sup> , 1280x768 <sup>1,2</sup> , 1280x800 <sup>1,2,3</sup> , 1280x1024 <sup>1,2</sup> , 1360x765 <sup>1,2</sup> , 1360x768 <sup>1,2</sup> , 1365x768 <sup>1,2</sup> , 1365x1024 <sup>1,2</sup> , 1366x768 <sup>1,2</sup> , 1400x1050 <sup>1,2</sup> , 1440x900 <sup>1,2,3</sup> , 1600x1200 <sup>1,2</sup> , 1680x1050 <sup>2</sup> , and 1920x1200 <sup>1,2</sup>
	HDTV: 480p <sup>2,8</sup> , 576p <sup>1</sup> , 720p <sup>1,2,8</sup> , 1080i <sup>1,2,8</sup> , 1080p <sup>1,2,7,8</sup> , and 2048x1080 <sup>1,2,7,8</sup>
	<sup>1</sup> = at 50 Hz, <sup>2</sup> = at 60 Hz, <sup>3</sup> = at 72 Hz, <sup>4</sup> = at 96 Hz, <sup>5</sup> = at 100 Hz, <sup>6</sup> = at 120 Hz, <sup>7</sup> = 24 Hz, <sup>8</sup> = 59.94 Hz
Return loss .....	>30 dB @ 5 MHz
DC offset .....	±25 mV with input at 0 offset
Switching type .....	Triple-Action

## Sync

Input type .....	RGBHV, RGBS, RGSB, RsGsBs, RGBcV <sub>S</sub> , YUV (tri-level or bi-level on Y channel)
Output type .....	RGBHV, RGBS, RGSB, YUV (tri-level or bi-level on Y channel)
Input standards .....	NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level .....	2.75 V to 5.0 Vp-p for RGBHV or RGBS 0.6 Vp-p for component video tri-level sync 0.3 Vp-p for component video bi-level sync or RGSB
Output level .....	0.6 Vp-p for component video tri-level sync 0.3 Vp-p for component video bi-level sync or RGSB TTL: 5.0 Vp-p, unterminated for RGBHV, RGBS
Input impedance .....	510 ohms
Output impedance .....	75 ohms
Polarity .....	Positive or negative (selectable)

## Control/remote — processor/decoder/scaler

Serial control ports .....	(1) RS-232 or RS-422, female 9-pin D connector
Baud rate and protocol .....	300 to 115200 baud (default: 9600), 8 data bits, 1 stop bit, no parity
Serial control pin configurations .....	RS-232: 2 = Tx, 3 = Rx, 5 = GND RS-422: 2 = Tx, 3 = Rx, 5 = GND, 7 = Rx+, 8 = Tx+
Ethernet control port .....	1 female RJ-45 connector
Ethernet data rate .....	10/100Base-T, half/full duplex with autodetect
Ethernet protocol .....	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, SMTP, Telnet
Program control .....	Extron Simple Instruction Set (SIS™) Microsoft® Internet Explorer, Telnet Extron WindoWall® Console application software

## General

Power supply .....	Internal Input: 100-240 VAC, 50-60 Hz
Power consumption .....	50.0 watts
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 .....	Fan, right to left (as viewed from the front panel)
Thermal dissipation .....	148 Btu/hr
Mounting .....	Rack mountable with included brackets
Enclosure type .....	Metal
Enclosure dimensions (per unit) .....	3.4" H x 17.5" W x 12.0" D (2U high, full rack wide) (8.6 cm H x 44.5 cm W x 30.5 cm D) (Depth excludes connectors and knobs. Width excludes rack ears.)
Product weight .....	8.6 lbs (3.9 kg)
Shipping weight .....	16 lbs (7 kg)
DIM weight .....	19 lbs (9 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 WEEE.
Warranty.....	3 years parts and labor

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

**NOTE:** Specifications are subject to change without notice.

8.0-031313-D2