

# Specifications

## IN1606

### Video input

Number/signal type.....	2 RGB, RGBcvS, component video (YUVi or YUVp/HDTV), S-video, composite video 4 HDMI digital video
Connectors.....	2 female 15-pin HD 4 female HDMI
Equalization.....	Automatic
Input cable length.....	Up to 75' (22.9 m) for all supported input rates
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 1.0 Vp-p with no offset at unity gain
Impedance.....	75 ohms
Horizontal frequency.....	15 kHz to 100 kHz
Vertical frequency.....	24 Hz to 75 Hz
Resolution range.....	640x480 to 1600x1200 and 1920x1200* NTSC, PAL, SECAM, 480i, 480p, 576i, 576p, 720p, 1080i, 1080p, and 2k *reduced blanking
Return loss.....	>30 dB @ 5 MHz
DC offset (max. allowable).....	1.5 V
Standards.....	NTSC 3.58, NTSC 4.43, PAL, SECAM, DVI 1.0, HDMI 1.3, HDCP 1.4

### Video processing

Decoder.....	12 bit digital (3D-adaptive comb filter)
Analog sampling.....	12 bits per color; 13.5 MHz standard (video) 170 MHz standard (RGB)
Digital pixel data bit depth.....	8, 10, or 12 bits per channel; 165 MHz pixel clock (HDMI)
Colors.....	1 billion (10 bit processing)

### Video output

Number/signal type.....	2 HDMI
Connectors.....	2 female HDMI
HDMI peripheral device power.....	200 mA per output
Scaled resolution.....	640x480 <sup>6,8,9</sup> , 800x600 <sup>6,8,9</sup> , 852x480 <sup>6,8,9</sup> , 1024x768 <sup>6,8,9</sup> , 1024x852 <sup>6,8,9</sup> , 1024x1024 <sup>6,8,9</sup> , 1280x768 <sup>6,8,9</sup> , 1280x800 <sup>6,8,9</sup> , 1280x1024 <sup>6,8,9</sup> , 1360x765 <sup>6,8,9</sup> , 1360x768 <sup>6,8,9</sup> , 1365x768 <sup>6,8,9</sup> , 1365x1024 <sup>6,8,9</sup> , 1366x768 <sup>6,8,9</sup> , 1400x1050 <sup>6,8</sup> , 1440x900 <sup>6,8,9</sup> , 1600x900 <sup>6,8</sup> , 1600x1200 <sup>6,8</sup> , 1680x1050 <sup>6,8</sup> , 1920x1200 <sup>6,8</sup> HDTV 480p <sup>7,8</sup> , 576p <sup>6</sup> , 720p <sup>3,4,5,6,7,8</sup> , 1080i <sup>6,7,8</sup> , 1080p <sup>1,2,3,4,5,6,7,8</sup> , 2048x1080 <sup>1,2,3,4,5,6,7,8</sup> <sup>1</sup> = at 23.98 Hz, <sup>2</sup> = at 24 Hz, <sup>3</sup> = at 25 Hz, <sup>4</sup> = at 29.97 Hz, <sup>5</sup> = 30 Hz, <sup>6</sup> = at 50 Hz, <sup>7</sup> = at 59.94 Hz, <sup>8</sup> = at 60 Hz, <sup>9</sup> = at 75 Hz
Standards.....	DVI 1.0, HDMI 1.3, HDCP 1.4

## Specifications • IN1606 (Continued)

### Sync

Input type .....	RGBHV, RGBS, RGsB, RGBcvS, bi-level or tri-level component video
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 with tri-level sync 0.3 Vp-p for component video with bi-level sync or RGsB
Input impedance.....	Horizontal: 510 ohms Vertical: 510 ohms
Max. input voltage.....	5.0 Vp-p

### Audio

Gain.....	Unbalanced output: -6 dB; balanced output: 0 dB
Frequency response .....	20 Hz to 20 kHz, $\pm 0.5$ dB
THD + Noise .....	<0.1%, 20 Hz to 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
Bass .....	+12 dB to -24 dB @ 100 Hz
Treble.....	+12 dB to -24 dB @ 8 kHz
Supported formats	
Analog de-embedding.....	LPCM-2Ch
HDMI pass-through .....	LPCM up to 7.1/24-bit/192 kHz, Dolby Atmos, Dolby TrueHD, and Dolby legacy formats; DTS:X, DTS-HD Master Audio, DTS 96/24, and DTS legacy formats

### Audio input

Number/signal type.....	6 stereo Line balanced or unbalanced 2 mono Mic/Line balanced or unbalanced (with available phantom power) 4 stereo, de-embedded from HDMI (PCM only)
Connectors.....	(6) 3.5 mm, 5 pole captive screw connectors for Line (2) 3.5 mm, 3 pole captive screw connector for Mic/Line 4 female HDMI type A
Impedance.....	>10k ohms unbalanced, >20k ohms balanced
Nominal level.....	Line inputs: +4 dBu, -10 dBV, adjustable Mic/line inputs: -60 dBV, +4 dBu, -10 dBV, adjustable
Maximum level .....	+21 dBu at rated THD+N when gain is set to 0 dB
CMRR.....	>80 dB @ 1 kHz
Input gain adjustment.....	Line inputs: -18 dB to +24 dB, 0.1 dB steps, adjustable per input Mic/line inputs: -18 dB to +60 dB, 0.1 dB steps, adjustable per input LPCM-2Ch: -18 dB to +24 dB, 0.1 dB steps, adjustable per input
DC phantom power .....	+48 VDC $\pm 10\%$ (can be switched on or off per Mic/line input)

### Audio output

Number/signal type.....	1 balanced or unbalanced stereo (variable) 1 balanced or unbalanced stereo; can be configured as stereo or two independently mixed mono channels 2 HDMI embedded
Connectors.....	(2) 3.5 mm captive screw connectors, 5 pole 2 female HDMI
Impedance.....	50 ohms unbalanced, 100 ohms balanced
Gain error.....	$\pm 0.5$ dB channel to channel
Maximum level (Hi-Z).....	>+21 dBu, balanced; >+15 dBu, unbalanced
Output volume range .....	0 to -100 dB in 0.1 dB steps

### Control/remote

## Specifications • IN1606 (Continued)

Serial control port.....	1 bidirectional RS-232: 1 rear panel 3.5 mm captive screw connector, 3 pole
Baud rate and protocol.....	9600, 8 data bits, 1 stop bit, no parity (default)
USB control ports .....	1 front panel female mini USB B
USB standards .....	USB 2.0, high speed
Ethernet control port.....	1 female RJ-45 connector
Ethernet data rate.....	10/100Base-T, half/full duplex with autodetect
Ethernet protocol.....	ARP, DHCP, DNS, HTTP (redirect), HTTPS, IEEE 802.1X, ICMP, NTP, SFTP, SMTP, SNMP, SSH, TCP/IP, Telnet, UDP/IP
Program control.....	Extron control/configuration program for Windows® Extron Simple Instruction Set (SIS™) Microsoft® Internet Explorer®, Telnet

### General

Power supply.....	Internal Input: 100-240 VAC, 50-60 Hz
Power consumption	
Full load.....	26 watts
Power save mode .....	<14 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.....	Passive, side and top vents
Thermal dissipation	
Full load.....	68.7 BTU/hr
Power save mode .....	45.4 BTU/hr
Mounting	
Rack mount.....	Yes, with included, pre-installed brackets
Enclosure type.....	Metal
Enclosure dimensions .....	1.72" H x 17.5" W x 9.5" D (1U high, full rack wide) (44 mm H x 444 mm W x 241 mm D) (Depth excludes connectors and knobs. Width excludes rack ears.)
Product weight .....	4.9 lbs (2.2 kg)
Regulatory compliance.....	CE, c-UL, UL, C-tick, FCC Class A, ICES, VCCI, RoHS, WEEE
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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