

Specifications — IN1404, IN1404XT Scalers

Video input

Number/signal type	2 RGBHV, RGBS, RGsB, RGBcvS, component video 4 S-video, composite video
Connectors	2 x 5 female BNC (inputs 3 and 4, all video formats) 2 female 4-pin mini DIN (inputs 1 and 2, S-video) 2 female BNC (inputs 1 and 2, composite video)
Nominal level	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB 0.3 Vp-p for R-Y and B-Y of component video, and for C of S-video
Minimum/maximum levels	0 V to 1.0 Vp-p with no offset
Impedance	75 ohms
Horizontal frequency	Autoscan 15 kHz to 60 kHz (RGB)
Vertical frequency	Autoscan 50 Hz to 120 Hz
Resolution range	
For input to be scaled	720 x 525 to 1024x768 at 70 Hz
For input to be passed through	720 x 525 to 1600 x 1200

Video processing

Decoder	8 bit digital
Digital sampling	24 bit, 8 bits per color
Colors	16.78 million

Video output

Number/signal type	2 RGBHV, RGBS, RGsB, scaled RGB 1 set of proprietary analog signals
Connectors	5 BNC female 1 female 15-pin HD 1 female RJ-45 (IN1404XT only)
Nominal level	0.7 Vp-p
Minimum/maximum levels	0 V to 0.7 Vp-p
Impedance	75 ohms
Scaled resolution	640x480 ^{2,4,5,6,7,8,9} , 800x600 ^{2,4,5,6,7,8,9} , 852x480 ^{2,4,5,6,7,8,9} , 1024x768 ^{2,4,5,6,7,8} , 1152x864 ^{2,4,5,6} , 1280x720 ^{2,4,5,6,7,8} , 1280x768 ^{1,2,3} , 1280x1024 ^{2,4,5} , 1365x768 ^{2,4,5} , 1365x1024 ² ¹ = at 56 Hz ² = at 60 Hz ³ = at 65 Hz ⁴ = at 72 Hz ⁵ = at 75 Hz ⁶ = at 85 Hz ⁷ = at 96 Hz ⁸ = at 100 Hz ⁹ = 120 Hz
Switching type	Seamless or RGB delayed switching

Sync

Input type	RGBHV, RGBS, RGsB
Output type	RGBHV, RGBS, RGsB
Standards	NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level	0 V to 5.0 Vp-p
Output level	0 V to 5.0 Vp-p
Input impedance	1k ohms
Output impedance	75 ohms
Max input voltage	5.0 Vp-p
Polarity	Positive or negative (selectable)

Audio

Gain	Unbalanced output: 0 dB (unity)
Frequency response	20 Hz to 20 kHz, ±0.05 dB
THD + Noise	0.03% @ 1 kHz at nominal level, 0 dB gain
S/N	>90 dB at maximum output (unweighted)
Crosstalk	<-80 dB @ 1 kHz, fully loaded

Stereo channel separation	>90 dB @ 1 kHz
CMRR	>75 dB @ 20 Hz to 20 kHz

Audio input

Number/signal type	4 stereo, unbalanced
Connectors	4 pairs of female RCA
Impedance	>10k ohms unbalanced, DC coupled
Nominal level	+4 dBu (1.23 Vrms, 1.79 dBV), -10 dBV (316 mVrms, -7.78 dBu)
Maximum level	TBD dBu, (unbalanced) at 1% THD+N

NOTE 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu

Audio output

Number/signal type	1 stereo, unbalanced
Connectors	1 pair of female RCA
Impedance	50 ohms unbalanced, 100 ohms balanced
Gain error	±0.1 dB channel to channel
Maximum level (Hi-Z)	>+21 dBu, unbalanced at 1% THD+N
Maximum level (600 ohm)	>+15 dBm, unbalanced at 1% THD+N

Control/remote — scaler

Serial control port	RS-232, 3-pole captive screw connector
Baud rate and protocol	1200 to 57600 baud, 9600 baud (default), 8 data bits, 1 stop bit, no parity
Serial control pin configurations	1 = TX, 2 = GND, 3 = RX
Program control	Inline Control Software – ICS100

General

Power	90 VAC to 260 VAC, 50/60 Hz, 60 watts, internal, autoswitchable
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
Rack mount	Yes, with included rack mount kit, part number IN9123B or 70-391-01
Enclosure type	Metal
Enclosure dimensions	1.75" H x 17.0" W x 12.2" D (1U high, full rack wide) 4.5 cm H x 43.2 cm W x 31.0 cm D (Depth excludes connectors.)
Product weight	3.5 lbs (1.6 kg)
Shipping weight	7 lbs (4 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Listings	ETL (UL1950)
Compliances	CE
Warranty	3 years parts and labor

NOTE All nominal levels are at ±10%.

NOTE Specifications are subject to change without notice.

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