

Specifications — IN1403 Scaler

Video input

Number/signal type	1 passive RGBHV, RGBS, RGsB 3 S-video or composite video
Connectors	Inputs 1-3: 1 female BNC, 1 female 4-pin mini DIN Input 4: 1 female 15-pin HD
Nominal level	1 Vp-p for Y of S-video, and for composite video 0.7 Vp-p for RGB 0.3 Vp-p for C of S-video
Minimum/maximum levels	Analog: 0 V to 1.0 Vp-p with no offset
Impedance	75 ohms
Horizontal frequency	NTSC 3.58, NTSC 4.43, PAL, SECAM
Vertical frequency	NTSC 3.58, NTSC 4.43, PAL, SECAM
Resolution range	NTSC 3.58, NTSC 4.43, PAL, SECAM
Return loss	<-30 dB @ 5 MHz
DC offset (max. allowable)	1.5 V

Video processing

Encoder	8 bit digital
Digital sampling	24 bit, 8 bits per color; 13.5 MHz standard
Colors	16.78 million

Video output

Number/signal type	2 identical RGBHV, RGBS, or RGsB
Connectors	1 female 15-pin HD, 5 female BNC
Nominal level	0.7 Vp-p for RGB
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} (HDTV 720p), 1280x768 ^{1,2,3} , 1280x1024 ^{2,4,5} , 1365x768 ^{2,4,5,6} , 1365x1024 ² ¹ = at 56 Hz ² = at 60 Hz ³ = at 65 Hz ⁴ = at 72 Hz ⁵ = 75 Hz ⁶ = 85 Hz ⁷ = 96 Hz ⁸ = at 100 Hz ⁹ = at 120 Hz

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, unterminated
Input impedance	75 ohms
Output impedance	75 ohms
Max input voltage	5.0 Vp-p
Polarity	RGB pass-through: positive or negative (follows input) Scaled RGB: positive or negative (selectable)

Audio

Gain	Unbalanced output: 0 dB
Frequency response	20 Hz to 20 kHz, ±0.05 dB
THD + Noise	0.03% @ 1 kHz at nominal level
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 RCA jacks
Impedance	>10k ohms unbalanced, DC coupled
Nominal level	-10 dBV (316 mVrms)
Maximum level	+4 dBu, (unbalanced) at 1%THD+N
Input gain adjustment	-19.5 dB to +1 dB, adjustable per input

NOTE $0\text{ dBu} = 0.775\text{ Vrms}$, $0\text{ dBV} = 1\text{ Vrms}$, $0\text{ dBV} \approx 2\text{ dBu}$

Audio output

Number/signal type	1 stereo, unbalanced
Connectors	1 pair of RCA jacks
Impedance	50 ohms unbalanced
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, 3.5 mm, 5-pole captive screw connector
Baud rate and protocol	1200 to 38400 baud, 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	100 VAC to 240 VAC, 50/60 Hz, 25 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 mounting brackets, part #IN9123B or #70-391-01
Enclosure type	Metal
Enclosure dimensions	1.75" H x 17" W x 12.2" D (1U high, full rack wide) 4.4 cm H x 43.2 cm W x 31.0 cm D (Depth excludes connectors. Width excludes rack ears.)
Product weight	3.5 lbs (1.6 kg)
Shipping weight	7 lbs (4 kg)
DIM weight	TBD
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 $\pm 10\%$.*

NOTE *Specifications are subject to change without notice.*

(7.51-121604-D2) -112012