

Specifications

DVS 510 Series

Video input

Number/signal type	2 composite video 2 S-video 4 RGBHV, RGBS, RGsB, RGBcV, component video (interlaced, progressive, or HDTV) 2 DVI/HDMI digital video (single link) (HDCP compliant)
Connectors	2 female BNC (composite video) 2 female 4-pin mini DIN (S-video) 2 female 15-pin HD (RGB/component video) 2 female DVI-I (digital and analog signals are accepted)
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	0 V to 1.0 Vp-p with no offset
Impedance	75 ohms
Horizontal frequency	24 kHz to 100 kHz
Vertical frequency	24 Hz to 120 Hz
Resolution range	640 x 480 to 1920 x 1200*, 480p, 576p, 720p, 1080i, and 1080p, sampled pixel for pixel * Reduced blanking version Higher resolutions are accepted and undersampled.
Return loss	<-25 dB @ 5 MHz
DC offset (max. allowable)	0.5 V
EDID and DDC	Supports emulation of factory preset Extended Display Identification Data (EDID) tables.
HDCP	Compliant with High-bandwidth Digital Content Protection (HDCP)
Standards	DVI 1.0, HDMI, HDCP

Video processing

Decoder	10 bit digital
Analog sampling	30-bit, 10 bits per color; 13.5 MHz standard (video), 165 MHz standard (RGB)
Digital pixel data bit depth	8, 10, or 12 bits per channel; 3 channels for DVI/HDMI
Colors	1 billion

Video output

Number/signal type	2 scaled RGBHV, RGBS, RGsB; Y, R-Y, B-Y 1 scaled DVI/HDMI (HDCP compliant)
Connectors	2 female 15-pin HD 1 female DVI-I (only digital signal active)
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 V to 0.7 Vp-p
Impedance	75 ohms
Vertical frequency	50 Hz, 60 Hz, or 75 Hz, depending on selected output resolution

Scaled resolutions.....	640x480 ^{1,2,3} , 800x600 ^{1,2,3} , 852x480 ^{1,2,3} , 1024x768 ^{1,2,3} , 1024x852 ^{1,2,3} , 1024x1024 ^{1,2,3} , 1280x768 ^{1,2} , 1280x800 ^{1,2} , 1280x1024 ^{1,2,3} , 1360x765 ^{1,2,3} , 1360x768 ^{1,2,3} , 1365x768 ^{1,2,3} , 1366x768 ^{1,2,3} , 1365x1024 ^{1,2,3} , 1400x1050 ^{1,2} , 1440x900 ^{1,2,3} , 1600x1200 ^{1,2} , 1680x1050 ^{1,2} , 1920x1200 ^{1,2} , 2048x1080 ^{1,2,4,5,6,7,8,9} , 480p ^{2,9} , 576p ¹ , 720p ^{1,2,6,7,8,9} , 1080i ^{1,2,9} , 1080p ^{1,2,4,5,6,7,8,9} ¹ = at 50 Hz, ² = at 60 Hz, ³ = at 75 Hz, ⁴ = at 23.98 Hz, ⁵ = at 24 Hz, ⁶ = at 25 Hz, ⁷ = at 29.97 Hz, ⁸ = at 30 Hz, ⁹ = at 59.94 Hz
Return loss.....	-21 dB @ 5 MHz
DC offset.....	±300 mV maximum with input at 0 offset

Sync

Input type.....	RGBHV, RGBS, RGsB, bi-level or tri-level component video
Output type.....	RGBHV, RGBS, RGsB; Y, R-Y, B-Y (bi-level or tri-level)
Input standards.....	NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level.....	2.75 Vp-p 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.....	TTL: 5.0 Vp-p, unterminated 0.6 Vp-p for component video tri-level sync 0.3 Vp-p for component video bi-level sync or RGsB
Input impedance.....	75 ohms for horizontal; 510 ohms for vertical
Output impedance.....	75 ohms
Polarity.....	Positive or negative (selectable)

Audio

Gain.....	Unbalanced output: 0 dB; balanced output: +6 dB
Frequency response.....	Fixed and variable: 20 Hz to 20 kHz, ±1.5 dB
THD + Noise.....	Variable: <0.11% at 1 kHz, 20 kHz bandwidth Fixed: <0.025% at 1 kHz, 20 kHz bandwidth
S/N.....	Variable: 90 dB at rated maximum output Fixed: 90 dB at rated maximum output
Crosstalk.....	-80 dB at 1 kHz, fully loaded
Stereo channel separation.....	84 dB at 1 kHz
Bass.....	±12 dB at 100 Hz
Treble.....	±12 dB at 10 kHz

Audio input

Number/signal type.....	10 stereo, balanced or unbalanced
Connectors.....	(10) 3.5 mm 5-pole captive screw connectors (stacked)
Impedance.....	>10k ohms balanced/unbalanced, DC coupled
Nominal level.....	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level.....	+10.4 dBu, (balanced or unbalanced) at 1% THD+N
Input gain adjustment.....	-12 dBu to +12 dBu, adjustable to input

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

Audio output

Number/signal type.....	1 stereo or 2 mono (2 channels total)
Connectors.....	(2) 3.5 mm captive screw connectors, 5-pole
Impedance.....	50 ohms unbalanced, 100 ohms balanced
Gain error.....	±0.25 dB channel to channel
Maximum level (Hi-Z).....	>+21 dBu, balanced at 1% THD+N >+11 dBu, unbalanced at 1% THD+N
Maximum level (600 ohm).....	>+14 dBm, balanced at 1% THD+N >+10 dBm, unbalanced at 1% THD+N

Audio output — amplified — DVS 510 SA only

Number/signal type	1 stereo or 2 mono (2 channels total)
Connectors	(1) 5 mm captive screw, 4-pole
Load impedance.....	2 ohms, minimum
Amplifier type	Class D
Output power	25 watts rms per channel, 2/4/8 ohms, 1 kHz, 1% THD
Frequency response.....	20 Hz to 20 kHz, ± 3 dB
THD + Noise.....	0.15% @ 1 kHz at nominal level (1 watt, 8 ohm load)
S/N.....	74 dB, 20 Hz to 20 kHz, unweighted

Control/remote — decoder/scaler

Serial control port.....	1 rear panel female 9-pin D connector, RS-232/RS-422 1 front panel 2.5 mm stereo mini jack, RS-232
Baud rate and protocol.....	9600, 8 data bits, 1 stop bit, no parity, no flow control
Serial control pin configurations	
9-pin D connector.....	RS-232: 2 = Tx, 3 = Rx, 5 = GND RS-422: 2 = Tx-, 3 = Rx-, 5 = GND, 7 = Rx+, 8 = Tx+
Mini stereo jack	RS-232: Tip = Tx, ring = Rx, sleeve = GND
Ethernet control port.....	1 RJ-45 female
Ethernet data rate	10/100Base-T, half/full duplex with auto-detect
Ethernet protocol	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, SMTP, Telnet
Ethernet default settings	Link speed and duplex level = auto-detected IP address = 192.168.254.254 Subnet mask = 255.255.0.0 Default gateway = 0.0.0.0 DHCP = off
Web server.....	Up to 200 simultaneous sessions 8 MB nonvolatile user memory
IR remote control	IR 904 (optional) 30' maximum, 40 degrees off axis
Program control	Extron control/configuration software for Windows® Extron Simple Instruction Set (SIS™) Microsoft® Internet Explorer® ver. 6 or higher, Telnet

General

Power supply.....	Internal Input: 100-240 VAC, 50-60 Hz
Power consumption	
DVS 510	28 watts
DVS 510 SA.....	71 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 front panel
Thermal dissipation	
DVS 510	90 BTU/hr
DVS 510 SA.....	132 BTU/hr
Mounting	
Rack mount	Yes, with included brackets
Enclosure type.....	Metal
Enclosure dimensions	3.5" H x 17.5" W x 9.4" D (2U high, full rack wide) (8.9 cm H x 44.4 cm W x 23.9 cm D) (Depth excludes connectors and knobs. Width excludes mounting brackets.)
Product weight.....	7.0 lbs (3.2 kg)
Shipping weight.....	10 lbs (5 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

Warranty 3 years parts and labor

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

NOTE: Specifications are subject to change without notice.

8.0-030612-D7-112012