

Specifications

DSC 401 and DSC 401 A

TRUE 4K specifications

Max. 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max. Bit Depth per Color
4096 x 2160 at 60 Hz	4:4:4	8 bit
3840 x 2160 at 60 Hz		
4096 x 2160 at 30 Hz		10 bit
3840 x 2160 at 30 Hz		
4096 x 2160 at 60 Hz	4:2:0	8 bit
3840 x 2160 at 60 Hz		

Frame rate ¹ 24, 25, 30, 50, or 60 fps
 Chroma sampling ¹ 4:4:4, 4:2:2, or 4:2:0 (4:2:0 supported on input only)
 Color bit depth ¹ 8 or 10 bits per color
 Signal type DVI 1.0, HDMI 1.4 and 2.0, HDCP 1.4 and 2.3
 Max. video data rate ¹ 18 Gbps (6 Gbps per color)

NOTE: ¹ Subject to the maximum data rate limit. Use our calculator at www.extron.com/8KdataRate to determine video parameters supported by this data rate.

Video input

Number/signal type 1 HDMI/DVI
 Connectors 1 female HDMI A
 Horizontal frequency 15 kHz to 270 kHz
 Vertical frequency 24 Hz to 240 Hz
 Resolution range 640x480 to 4096x2160, 480i, 576i, 480p, 576p, 720p, 1080i, 1080p, 2K, and 3840x2160 to 4096x2160, up to 60 Hz
 Input cable equalization Automatic
 Input cable length At 4096x2160@60 Hz, 4:4:4, 8-bit color
 HDMI Ultra — Up to 12 feet (3.6 meters)
 HDMI Pro — 25 feet (7.6 meters)

NOTE: Lower resolutions may support longer transmission distances. Transmission distance varies depending on signal resolution, type of cable, and source device used.

Standards DVI 1.0, HDMI 1.4 and 2.0, HDCP 1.4 and 2.3

Video processing

Digital sampling 8 or 10 bits per color, 600 MHz maximum pixel clock
 Colors 1.07 billion (10 bit, 4:4:4 processing)

Specification • DSC 401 and DSC 401 A (Continued)

Video output

Number/signal type.....	1 HDMI/DVI
Connector.....	1 female HDMI A
Power for active cables	1.1 W max. for the HDMI port
Peripheral device power.....	250 mA on the HDMI output
Vertical frequency.....	23.98 Hz, 24 Hz, 25 Hz, 29.97 Hz, 30 Hz, 50 Hz, 59.94 Hz, 60 Hz
Scaled resolutions.....	640x480 ⁸ , 800x600 ⁸ , 1024x768 ⁸ , 1280x768 ⁸ , 1280x800 ⁸ , 1280x1024 ⁸ , 1360x768 ⁸ , 1366x768 ⁸ , 1440x900 ⁸ , 1400x1050 ⁸ , 1600x900 ⁸ , 1680x1050 ⁸ , 1600x1200 ⁸ , 1920x1200 ⁸ , 2560x1080 ⁸ , 2560x1440 ⁸ , 2048x1200 ⁸ , 2048x1536 ⁸ , 2560x1600 ⁸ , 3840x2160 ^{1,2,3,4,5,6,7,8} , 4096x2160 ^{1,2,3,4,5,6,7,8} , and custom 1-5.
	480p ^{7,8} , 576p ⁶ , 720p ^{1,2,3,4,5,6,7,8} , 1080i ^{6,7,8} , 1080p ^{1,2,3,4,5,6,7,8} , and 2K (2048x1080) ^{1,2,3,4,5,6,7,8}
	¹ = at 23.98 Hz, ² = at 24 Hz, ³ = at 25 Hz, ⁴ = at 29.97 Hz, ⁵ = 30 Hz, ⁶ = at 50 Hz, ⁷ = at 59.94 Hz, ⁸ = at 60 Hz
Output cable length	At 4096x2160 @ 60 Hz, 4:4:4, 8-bit color HDMI Ultra — Up to 12 feet (3.6 meters) HDMI Pro — 25 feet (7.6 meters)

NOTE: Lower resolutions may support longer transmission distances. Transmission distance varies depending on signal resolution, type of cable, and equalization capabilities of the display in the system.

Standards..... CEC, DVI 1.0, HDMI 1.4 and 2.0, HDCP 1.4 and 2.3

Audio

Gain	
Analog in to analog out.....	Unbalanced output: 0 dB Balanced output: +6 dB
LPCM-2Ch in to analog out.....	Unbalanced output: -6 dB Balanced output: 0 dB
Frequency response	20 Hz to 20 kHz, ± 0.5 dB
THD + noise.....	<0.1%, 20 Hz to 20 kHz bandwidth at nominal level
S/N (unweighted)	>90 dB at max balanced output
Stereo channel separation.....	>80 dB at 1 kHz
Supported formats	
Analog de-embedding.....	LPCM up to 2.0/24-bit/96 kHz (DSC 401 A only)
HDMI pass-through.....	LPCM up to 7.1/24-bit/192 kHz, Dolby Atmos, Dolby TrueHD, Dolby legacy formats, DTS-X, DTS-HD Master Audio, DTS 96/24, and DTS legacy formats

Audio input

Number/signal type.....	1 digital stereo, de-embedded from HDMI (LPCM-2CH only) 1 stereo line level unbalanced (DSC 401 A only)
Connectors	
DSC 401	1 female HDMI A
DSC 401 A.....	1 female HDMI A (1) 3.5 mm TRS (Tip – L, Ring – R, Sleeve – Ground)
Impedance.....	>10K ohms unbalanced (DSC 401 A only)
Nominal level.....	Line input: -10 dBV (316 mVrms), adjustable (DSC 401 A only)
Maximum level	+15 dBu, unbalanced (DSC 401 A only)
CMRR.....	65 dB @ 1 KHz (DSC 401 A only)
Input gain adjustment.....	-18 dB to +24 dB, analog input only (DSC 401 A only)

Specification • DSC 401 and DSC 401 A (Continued)

Audio output

Number/signal type	
DSC 401	1 HDMI embedded
DSC 401 A	1 HDMI embedded 1 stereo/mono, balanced or unbalanced
Connectors	
DSC 401	1 female HDMI A
DSC 401 A	1 female HDMI A (1) 3.5 mm, 5 pole captive screw
Impedance.....	50 ohms unbalanced, 100 ohms balanced (DSC 401 A only)
Gain error.....	±0.5 dB channel to channel
Maximum level (Hi-Z).....	>+21 dBu balanced, >+15 dBu, unbalanced (DSC 401 A only)
Volume range.....	-100 dB to 0 dB in 1.0 dB increments

Communication

USB control port	1 female USB-C on front panel
Standard	Ethernet over USB (RNDIS)
Ethernet setting	IP address: 203.0.113.22
Ethernet port	
Connector	1 female RJ-45 on rear panel
Ethernet data rate.....	10/100/1000 base-T, half/full duplex with auto detect
Ethernet protocol.....	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, Telnet, SSH, SFTP, 802.1X
Ethernet defaults	Link speed and duplex: Auto-detected IP address: 192.168.254.254 Subnet mask: 255.255.0.0 Gateway: 0.0.0.0 DHCP: Off
Program control	On-screen display (OSD) via front panel control Extron Simple Instruction Set (SIS™) commands Extron Product Configuration Software (PCS) for Windows® Extron Toolbelt Software
Storage.....	512 MB user memory

General

Power supply	External
	Input: 100-240 VAC, 50-60 Hz
Power input connectors.....	(1) 2 pole captive screw, 12 VDC 1 RJ-45, PoE 48 VDC (DSC 401 A only)
Power consumption	
Full power	
DSC 401	7.4 watts
DSC 401 + power supply ..	8.1 watts
DSC 401 A	8.5 watts
DSC 401 A + power supply	9.3 watts
Power save mode	
DSC 401	4.6 watts
DSC 401 + power supply ..	5.4 watts
DSC 401 A	5.6 watts
DSC 401 A + power supply	6.6 watts
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +104 °F (0 to +40 °C) / 10% to 90%, noncondensing

Specification • DSC 401 and DSC 401 A (Continued)

Cooling	Convection, vents sides and top
Thermal dissipation	
Full power	
DSC 401	24.2 BTU/hr
DSC 401 + power supply ..	26.7 BTU/hr
DSC 401 A	27.8 BTU/hr
DSC 401 A + power supply	30.8 BTU/hr
Power save mode	
DSC 401	15.5 BTU/hr
DSC 401 + power supply ..	18.3 BTU/hr
DSC 401 A	19.1 BTU/hr
DSC 401 A + power supply	22.3 BTU/hr
Mounting	
Rack mount.....	Yes, with optional rack shelf
Enclosure type	Metal
Enclosure dimensions	1.0" H x 4.25" W x 6.0" D (1" high, quarter-rack wide) (25 mm H x 108 mm W x 152 mm D) (Depth excludes connectors.)
Product weight	
DSC 401	1.5 lbs (0.7 kg)
DSC 401 A.....	1.8 lbs (0.8 kg)
Regulatory compliance.....	UL, c-UL, CE, C-tick, FCC Class A, ICES, VCCI
Warranty	3 years parts and labor
Everlast power supply warranty.....	7 years parts and labor

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

NOTE: Specifications are subject to change without notice.

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