

Specifications

JMP 9600 Series

Content/file format

File types	MXF-wrapped JPEG 2000 in DCP (Digital Cinema Package, unencrypted)
Video formats	
JMP 9600 HD models	1280x720p ^{5,6,7,8*} , 1920x1080i ^{2,3} ¹ = at 24 Hz, ² = at 25 Hz, ³ = at 29.97 Hz, ⁴ = at 30 Hz, ⁵ = at 48 Hz, ⁶ = at 50 Hz, ⁷ = at 59.94 Hz, ⁸ = at 60 Hz (*at 4:2:2 only)
JMP 9600 2K models	1280x720p ^{5,6,7,8} 1920x1080i ^{2,3,4} , 1920x1080p ^{1,2,3,4,5,6,7,8} , 2048x1080 ^{1,2,3,4,5,6,7,8} ¹ = at 24 Hz, ² = at 25 Hz, ³ = at 29.97 Hz, ⁴ = at 30 Hz, ⁵ = at 48 Hz, ⁶ = at 50 Hz, ⁷ = at 59.94 Hz, ⁸ = at 60 Hz
Audio formats	16, 20, or 24 bits, 48 kHz broadcast WAV

NOTE: 1080p signals (1920 and 2048) at rates of 48 Hz and above are dual link HD-SDI only.

Video processing

Processing	8, 10, or 12 bits per color channel
Data rates	Playback at up to 250 Mbps (125 Mbps per video channel in 2 channel mode)
Standards	ISO/IEC 15444-1 JPEG 2000, 32x32 codeblock

Video output

Number/signal type	1 dual link HD-SDI in 4:4:4 or 2 single link HD-SDI in 4:2:2 and 2 DVI or RGBHV in 4:2:2
Connectors	2 female BNC 2 female DVI-I
Nominal level	0.7 Vp-p for RGB
Minimum/maximum levels	0.0 V to 1.0 Vp-p for RGB
Impedance	75 ohms for RGB
Resolution	Follows input file format
Standards	Analog RGB, Y Pr Pb output: SMPTE 274M, SMPTE 296M DVI output: SMPTE 274M, SMPTE 296M HD-SDI output: SMPTE 292M (single link), SMPTE 372M (dual link)
Frame rate	Follows the file format.

Player sync

External sync in (genlock)	1 Vp-p, bi-level or tri-level
Genlock connectors	1 female BNC (genlock in, black burst) 2 female 6-pin mini DIN (LOCK proprietary genlock in and out, for connection to other JMP 9600 units)

Time code

Signal level	Input impedance: 600 ohms Input level: >100 mVp-p Output level: 1 Vp-p
Rates	
JMP 9600 HD models	1 SMPTE, EBU, film output on a female RCA connector (tip-sleeve)
JMP 9600 2K models	2 SMPTE, EBU, film (input and output) on a pair of female RCA connectors (tip-sleeve)

Sync— analog video outputs

Output type	For analog output: RGBHV
Output level	2.75 V to 3.3 Vp-p, unterminated for RGBHV
Output impedance	RGBHV: 75 ohms
Output polarity.....	H negative, V negative

Audio processing

Processing	24 bit, 48 kHz sampling
------------------	-------------------------

Digital audio output

Number/signal type	8 AES/EBU (16 channels, unbalanced, uncompressed)
Connectors	8 female BNC
Impedance	75 ohms
Nominal level	0.5 V to 1.5 Vp-p
Attenuation range per channel.....	0 to -144 dB

Control — host ports — JPEG video player

Serial host control ports.....	2 bidirectional RS-232, female 9-pin D connectors: 1 for control, 1 unused
Baud rate and protocol.....	300 to 115200 baud (115200 baud = default); 8 (default) or 7 data bits; 1 (default) or 2 stop bits; no parity (default), or even or odd parity
Serial control pin configuration.....	2 = Tx, 3 = Rx, 5 = GND
Ethernet host port	2 female RJ-45
Ethernet data rate	10/100/1000Base-T, half/full duplex with autodetect
Ethernet protocol	ICMP (ping), IP, TCP, DHCP, HTTP, Telnet, FTP
Ethernet default settings	IP address = 192.168.254.254 Subnet mask = 255.255.0.0 Default gateway = 0.0.0.0 DHCP = off
Storage	
JMP 9600 HD, JMP 9600 2K	
Hard drives.....	(2) 500 GB hard drives, RAID 0
JMP 9600 HD 128, JMP 9600 2K 128	
Solid state drives	(2) 64 GB solid state drives, RAID 0
Program control	MSVPP command set Microsoft® Internet Explorer®, Apple® Safari®, Mozilla® Firefox®, Telnet
Software encoder.....	J2KENC and J2KENC-PRO

Digital I/O control

Number/type	4 digital inputs 4 relay outputs (2) 12 VDC outputs
Connectors	
Digital inputs	(2) 3.5 mm captive screw connectors, 4 pole
Relay outputs.....	(3) 3.5 mm captive screw connectors, 4 pole
Power	(1) 3.5 mm captive screw connector, 4 pole
Pin configurations	
Digital inputs	Pins 1, 3, 5, 7 = positive; pins 2, 4, 6, 8 = negative
Relay outputs.....	Pins 1, 4, 7, 10 = closed; pins 2, 5, 8, 11 = GND; pins 3, 6, 9, 12 = open
Power	Pins 1, 2 = +12 VDC; pins 3, 4 = GND
Digital inputs	
Input voltage range	5 to 24 VDC (with external current limiting resistor)
Input current range.....	5 to 20 mA
Digital output contact rating	1 A, 24 VDC, maximum

General

Power supply*	Internal Input: 100-240 VAC, 50-60 Hz *A redundant power supply is included.
Power consumption	70 watts
Temperature/humidity	Operating: +50 to +104 °F (10 to +40 °C) / 10% to 90%, noncondensing
Cooling	Fan. Air flows in from the front and out through the vents in the two sides, as viewed from front panel.
Thermal dissipation	239 BTU/hr
Mounting	
Rack mount	Yes, with included brackets
Enclosure type	Metal
Enclosure dimensions	3.5" H x 17.0" W x 15.5" D (2U high, full rack wide) 8.9 cm H x 43.2 cm W x 39.4 cm D (Depth excludes connectors and handles. Width excludes rack ears. Width with rack ears is 19.0" [48.3 cm].)
Product weight	23 lbs (10.4 kg)
Shipping weight	28 lbs (13 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety	CE, NRTL
EMI/EMC	CE, FCC Class A
Warranty	3 years parts and labor

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

NOTE: Specifications are subject to change without notice.

8.0-120711-D8-111712