

Specifications

MGP Pro

Video input

Number/signal type	4 VGA-WUXGA RGBHV, RGBS, RGSB, RsGsBs, RGBcVs, component video (interlaced or progressive), S-video, composite video 4 to 15 (configurable) component video (interlaced), S-video, or composite video 4 HDMI digital video (DI models only) 2 3G/HD-SDI digital video, 2 HDMI digital video (3G-SDI models only) 1 HDMI digital video (Live Background)
Connectors	
Inputs 1-4	4 x 5 female BNC (all models) 4 female HDMI (DI models only) 2 female BNC, 2 female HDMI (3G-SDI models only)
Inputs 5-19	15 female BNC
Live Background	1 female HDMI
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	Analog: 0.0 V to 2.0 Vp-p with no offset
Impedance	75 ohms
Horizontal frequency	15 kHz to 100 kHz
Vertical frequency	24 Hz to 120 Hz
Resolution range	640x480 to 1920x1200*, 480i, 576i, 480p, 576p, 720p, 1080i, 1080p, and 2048x1080 *Only the reduced blanking version of the 1920x1200 resolution is sampled at full bit rate. The 3G/HD-SDI inputs accept only the following resolutions: 720p ^{5,6,7} , 1080i ^{5,6,7} , 1080p ^{1,2,3,4,5,6,7} ¹ = at 24 Hz, ² = at 25 Hz, ³ = at 29.97 Hz, ⁴ = at 30 Hz, ⁵ = at 50 Hz, ⁶ = at 59.94 Hz, ⁷ = at 60 Hz
DC offset (max. allowable)	0.5 V

Video processing — digital inputs

Maximum data rate	6.75 Gbps (2.25 Gbps per color)
Maximum pixel clock	165 MHz
Formats	RGB and YCbCr digital video
Standards	DVI, HDMI, HDCP

NOTE: Live Background input is also HDCP compliant.

Video processing — analog inputs

Decoder	8-bit digital, 13.5 MHz standard
Digital sampling	24 bit, 8 bits per color; 165 MHz standard
Colors	16.78 million

Video output

Number/signal type	1 scaled RGBHV, RGBS, RGsB, HD YUV component video 1 HDMI (HDCP compliant) digital video
Connectors	5 female BNC, 1 female HDMI
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.....	0.0 V to 1.0 Vp-p
Impedance	75 ohms
Vertical frequencies	24 Hz, 50 Hz, 59.95 Hz, 60 Hz, 72 Hz, 96 Hz, 100 Hz, 120 Hz
Scaled resolution	640x480 ^{1,2,3,4,5,6} , 800x600 ^{1,2,3,4,5,6} , 852x480 ^{1,2,3,4,5} , 1024x768 ^{1,2,3,4} , 1024x852 ^{1,2,3,4} , 1024x1024 ^{1,2,3} , 1280x768 ^{1,2} , 1280x800 ^{1,2,3} , 1280x1024 ^{1,2} , 1360x765 ^{1,2} , 1360x768 ^{1,2} , 1365x768 ^{1,2} , 1365x1024 ^{1,2} , 1366x768 ^{1,2} , 1400 x 1050 ^{1,2} , 1440x900 ^{1,2,3} , 1600 x 1200 ^{1,2} , 1680x1050 ^{1,2} , 1920x1200 ^{1,2}
	HDTV: 480p ^{2,8} , 576p ¹ , 720p ^{1,2,8} , 1080i ^{1,2,8} , 1080p ^{1,2,7,8} , and 2048x1080 ^{1,2,7,8} ¹ = at 50 Hz, ² = at 60 Hz, ³ = at 72 Hz, ⁴ = at 96 Hz, ⁵ = at 100 Hz, ⁶ = at 120 Hz, ⁷ = at 24 Hz, ⁸ = 59.94 Hz
Return loss	>30 dB @ 5 MHz
DC offset	±25 mV with input at 0 offset
Switching type	Triple-Action

Sync

Input type	RGBHV, RGBS, RGsB, RsGsBs, RGBcvS, YUV (tri-level or bi-level on Y channel)
Output type	RGBHV, RGBS, RGsB, YUV (tri-level or bi-level on Y channel)
Input standards	NTSC 3.58, NTSC 4.43, PAL, SECAM, SMTPE 292M, SMTPE 424
Input level	2.75 V 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	0.6 Vp-p for component video tri-level sync 0.3 Vp-p for component video bi-level sync or RGsB TTL: 5.0 Vp-p, unterminated for RGBHV, RGBS
Input impedance	510 ohms
Output impedance	75 ohms
Polarity	Positive or negative (selectable)

Control/remote — processor/decoder/scaler

Serial control ports	(1) RS-232 or RS-422, female 9-pin D connector (1) RS-232, 2.5 mm mini stereo jack
Baud rate and protocol.....	300 to 115200 baud (default: 9600), 8 data bits, 1 stop bit, no parity
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+
2.5 mm mini stereo jack.....	Tip = Tx, ring = Rx, sleeve = GND
Ethernet control port.....	1 female RJ-45 connector
Ethernet data rate	10/100Base-T, half/full duplex with autodetect
Ethernet protocol	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, SMTP, Telnet
Program control	Extron Simple Instruction Set (SIS™) Microsoft® Internet Explorer, Telnet Extron control/configuration program for Windows®

General

Power supply.....	Internal Input: 100-240 VAC, 50-60 Hz
Power consumption	
MGP 464 Pro models.....	50.0 watts
MGP 462 Pro models.....	35.5 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 the front panel)
Thermal dissipation	
MGP 464 Pro models.....	148 BTU/hour
MGP 462 Pro models.....	110 BTU/hour
Mounting.....	Rack mountable with included brackets
Enclosure type.....	Metal
Enclosure dimensions (per unit)	3.4" H x 17.5" W x 12.0" D (2U high, full rack wide) (8.6 cm H x 44.5 cm W x 30.5 cm D) (Depth excludes connectors and knobs. Width excludes rack ears.)
Product weight.....	8.6 lbs (3.9 kg)
Shipping weight.....	16 lbs (7 kg)
DIM weight.....	19 lbs (9 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
Environmental.....	Complies with the appropriate requirements of WEEE.
Warranty.....	3 years parts and labor

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

NOTE: Specifications are subject to change without notice.

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