

P3-300 System Controller

HIGH CAPACITY P3 LED VIDEO CONTROLLER

SPEC SHEET

HIGHLIGHTS

- Powerful and ergonomic LED Video Controller
- Compatible with all Martin Creative LED products and P3-enabled MAC moving heads
- Integration with lighting controls (DMX, Art-Net, sACN) and automation systems
- Drive connected fixtures with video input, DMX controls or a mix of both



OVERVIEW

The P3-300 System Controller combines the award-winning and intuitive P3 workflow with a brand new high-performance video processing engine. No matter how you mix Martin Creative LED fixtures and P3-enabled MAC moving heads, the workflow remains simple and integrated. The P3-300 is equipped with a DVI input, two SDI inputs (up to 3G), DMX input, Art-Net input and sACN input. The output capacity of 2.080.000 pixels allows even more products to be driven from a single controller

KEY MESSAGES

ONE VISUAL CANVAS

P3 brings creative LED and lighting fixtures together onto one visual canvas; allowing all to be treated as one and to prevent the need for dedicated control solutions for each of the different products.

SIMPLICITY TO ENABLE CREATIVITY

The P3 ecosystem removes the need for manual addressing and external computers for setup, while featuring an ergonomic user interface. Mapping and scaling is automated to give you more time to be creative, even beyond the limitations of full HD.

CREATE LOOKS THE WAY YOU WANT

P3 offers the freedom to use the most suited tool for each vision. Whether using video content, traditional DMX controls, Art-Net / sACN PixelMapping (up to 128 universes), or a mix of control methods, you can achieve uniquely creative looks for each application.

OPTIMAL PERFORMANCE

All P3-enabled products feature advanced colour & brightness calibration & colour-matching between fixture types. The entire system is fully synchronized, ensuring all elements work cohesively without visible latency.

FULL CONTROL AND PREVIEW

P3 System Controllers give you full control over your system from one central location, eliminating the need to address fixtures locally. And, real-time preview shows you how DMX controls and video will be rendered on the fixtures.

FREE PC-BASED SOLUTION

The free P3-PC System Controller solution allows you to get started easily. It can be used as a basic mapping tool; addressing tool; Art-Net / sACN to P3 bridge; or as a full P3 control solution - mixing lighting controls and video content into fixtures.

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FEATURES

- Drives up to 2.080.000 pixels
- Built-in scaler and mapper
- DVI-D input up to 1920x1080
- 2x 3G-SDI input up to 1920x1080
- Analog video input up to 1920x1080
- Dedicated bi-level and tri-level sync input for genlock
- Built-in GUI (Graphical User Interface) including easy setup wizards
- Real time visualization of the video mapping within the GUI (Graphical User interface)
- Most user-friendly LED Video processor on the market
- Compatible with all Martin Creative LED products and P3-enabled MAC moving heads
- Integration with lighting controls (DMX, Art-Net & sACN) and automation systems
- All connected products report status and problems back to the controller for easy monitoring and maintenance
- Showfiles compatible with all products within the P3 System Controller family (including the P3-PC offline editor)
- Connected fixtures can cross-fade or toggle in real-time between video-mapping and DMX (pixel-mapping) control

ORDERING INFORMATION

- Martin P3-300 System Controller..... P/N 90721060

INCLUDED ITEMS

- EU-type power cable with Schuko connector
- US-type power cable
- UK-type power cable

RELATED ITEMS

- Martin P3-050™ System Controller..... P/N 90721090
- Martin P3-150™ System Controller.....P/N 90721015
- Martin P3-PC™ System Controller....Free download from martin.com

P3 SYSTEM CONTROLLER COMPARISON

	P3-050 System Controller	P3-150 System Controller	P3-300 System Controller	P3-PC System Controller
Video Input	1x DVI-D up to 1920x1080	1x DVI-D up to 1920x1080	1x DVI-D up to 1920x1080 2x SDI up to 3G-SDI 1x Genlock	NDI, Screen-capture or Media Server Integration
DMX Input	1 universe DMX 128 universes Art-Net / sACN	1 universe DMX 128 universes Art-Net / sACN	1 universe DMX 64 universes Art-Net / sACN	128 universes Art-Net / sACN
P3 Output	1 network with up to 100.000 pixels worth of fixtures	1 network with up to 520.000 pixels worth of fixtures	4 networks with up to 2.080.000 pixels worth of fixtures	1 network with up to 20.736 pixels worth of fixtures
Form-Factor	1U 19" rackmount	1U 19" rackmount	2U 19" rackmount	Software installed on customer-supplied Windows computer
Remote Management	Yes, internal webpages and syslog	Yes, internal webpages and syslog	Yes, internal webpages and syslog	No

Please consult P3 System Controller Capacity Info Note for more details

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TECHNICAL SPECIFICATIONS

CONTROL/USER INTERFACE

User interface..... SXGA (1280 x 1024) or better monitor (VGA, DVI, HDMI or DP), USB keyboard, USB mouse
Device status..... Status indicator LEDs

DVI VIDEO INPUT

Supports all resolutions up to 1920x1080
Supports both RGB and YCbCr, progressive scan only

COMPONENT VIDEO INPUT

Via DVI-I breakout cable (not included)
Supports all resolutions up to 1920x1080
Supports progressive and interlaced scan
10-bit color sampling
Supports composite NTSC/PAL/Secam, S-Video (Y/C) and component YPbPr w/Sync-on-G (Y)
Supports tri-level syncy

SDI VIDEO INPUT

2 x SD-SDI 525/60 (NTSC) or 625/50 (PAL) per SMPTE 259M
2 x HD-SDI 720p per SMPTE 296M or 1080i per SMPTE 292M
1 x dual-link HD-SDI per SMPTE 372M
2 x 3G-SDI per SMPTE 424M (compatible with level A and level B sync)

GENLOCK INPUT

Supports bi-level and tri-level sync

VIDEO PROCESSING

Controller pixel processing capacity: 2,080,000 pixels (expandable by adding P3-300s)*
Controller fixture capacity:..... 2000 fixtures (expandable by adding P3-300s)*
Maximum workspace area: 2,073,600 pixels
Maximum active capture area:..... 2,073,600 pixels
System processing depth: 16 bits per colour (48 bits / pixel)
System latency, DVI: 2 frames
System latency, SDI/component progressive: 2 frames
System latency, SDI/component interlaced: .3 frames
Latency between first and last fixture:..... None
Scaling (global and mixed pixel pitch)
De-interlacing
Gamma curve selection and adjustment
Control of brightness, contrast and low light
Real-time content remapping
Real-time colour temperature and colour space control
Real-time preview of video input and mapping canvas

*See also P3 System Controller Capacity Info Note on Support & Downloads page

DMX CONTROLS

One line of DMX input*
Up to 64 universes of Art-Net and/or sACN input*
Control of intensity and colours
Control of colour temperature
Merge video input with DMX controls towards fixtures
Cross-fade or toggle between video and DMX controls
Freeze, blackout or activate testpatterns on video engine
Recall video presets (video settings, fixture positions and more)

*See also P3 System Controller Capacity Info Note on Support & Downloads page

MOTION CONTROLS

One universe or DMX, Art-Net, sACN or Kinesys K2*
Compatible with Kinesys K2, Tait Navigator and others
Control fixture or group position on video canvas
Control fixture or group rotation on video canvas
*See also P3 System Controller Capacity Info Note on Support & Downloads page

P3 SIGNAL PROTOCOL

Signal type..... Gigabit Ethernet
Protocol..... Proprietary Martin P3
Hot pluggable..... Yes, electrically isolated at all connections
Cable type..... Ethernet, shielded, CAT 5e or better
Cable length..... Up to 100 m between any 2 devices, extendable with Ethernet switch
Maximum number of fixtures per line..... 50, extendable with Ethernet switch

CONSTRUCTION

Housing..... Steel and aluminum
Colour..... Matte black
Protection rating..... IP20

INSTALLATION

Mounting..... 19-inch rackmount (2U) or free-standing

CONNECTIONS

Power input..... IEC socket with integrated power switch
P3 data in/out..... 4 x etherCON socket
Genlock in..... 1 x BNC
Genlock thru..... 1 x BNC
SDI video in..... 2 x BNC
SDI video thru..... 2 x BNC
DVI/component video in..... DVI-I (component via BNC-to-DVI-A adapter cable, not included)
DVI/component video thru..... DVI-I
DMX in..... 5-pin locking XLR
DMX thru..... 5-pin locking XLR
Management network..... etherCON socket
EtherDMX / motion network (Art-Net, sACN, Kinesys K2/Vector)..... etherCON socket
Peripherals and USB memory devices... 4 x USB 2.0 ports
User interface monitor..... DisplayPort++ (compatible with adapters to DVI, HDMI and VGA, not included)

ELECTRICAL

AC power..... 100-240 V, 47-63 Hz
Power supply unit..... Integrated, universal multi-voltage

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THERMAL

Cooling.....Forced air
 Maximum ambient temperature.....50° C (122° F)
 (Ta max.)
 Minimum ambient temperature.....0° C (32° F)
 (Ta min.)
 Total heat dissipation.....685 BTU/hr.
 (calculated, +/- 10%)

APPROVALS

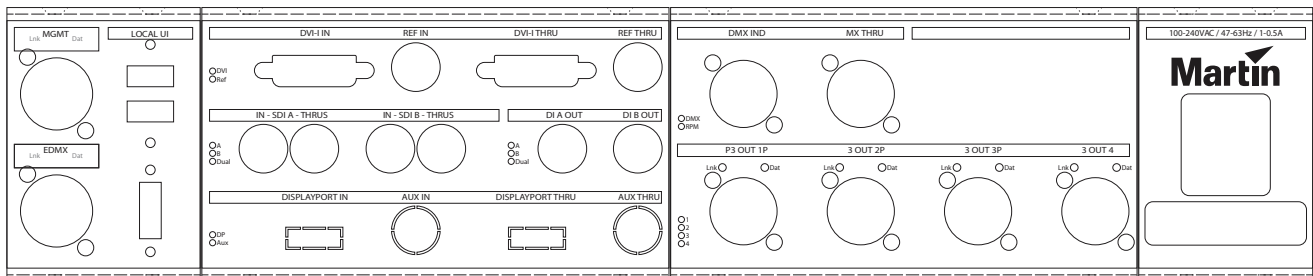
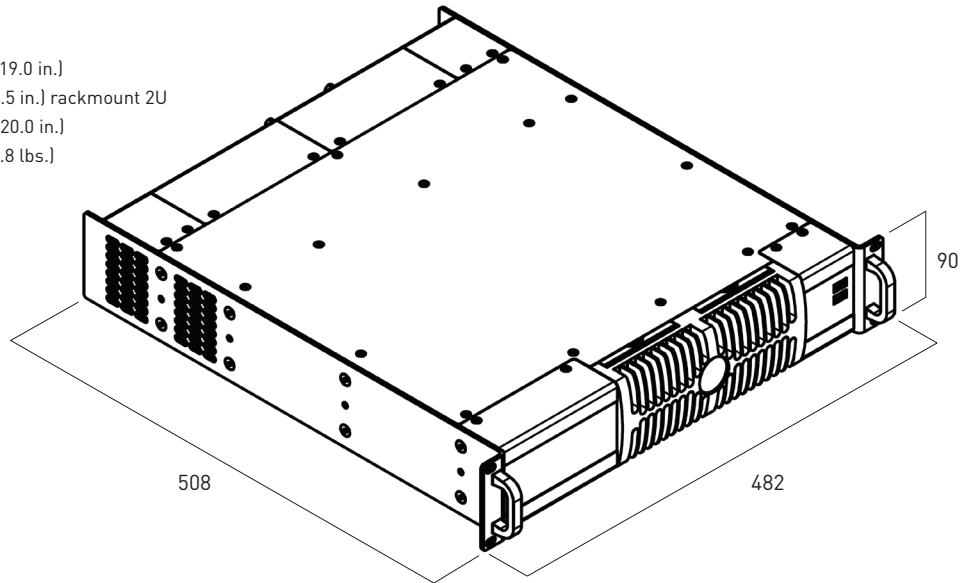
EU safety..... EN 60950-1
 EU EMC..... EN 55022, EN 55024, EN 61000-3-2,
 EN 61000-3-3, EN 6100-4-2, EN
 6100-4-3, EN 6100-4-4, EN 6100-4-5,
 EN6100-4-6, EN 6100-4-11
 US safety..... ANSI/UL 60950-1
 Canadian safety.....CAN/CSA C22.2 No. 60950-1



DIMENSIONS

PHYSICAL

Width..... 482 mm (19.0 in.)
 Height..... 90 mm (3.5 in.) rackmount 2U
 Depth..... 508 mm (20.0 in.)
 Weight..... 9.0 kg (19.8 lbs.)



All dimensions are in mm

HARMAN PROFESSIONAL INC. • 8500 BALBOA BOULEVARD • NORTHRIDGE • CA 91329 • USA • +1 818 893 8411

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