

# 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) and automation systems



## 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 and Art-Net 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 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 to P3 bridge; or as a full P3 control solution - mixing lighting controls and video content into fixtures.

# P3-300 System Controller

HIGH CAPACITY P3 LED VIDEO CONTROLLER

SPEC SHEET

## 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) 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	Screen-capture or Media Server Integration
DMX Input	1 universe DMX 128 universes Art-Net	1 universe DMX 128 universes Art-Net	1 universe DMX 64 universes Art-Net	128 universes Art-Net
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

# P3-300 System Controller

HIGH CAPACITY P3 LED VIDEO CONTROLLER

SPEC SHEET

## 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 supplied)  
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 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 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  
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, 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 supplied)

### ELECTRICAL

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

# P3-300 System Controller

HIGH CAPACITY P3 LED VIDEO CONTROLLER

SPEC SHEET

## TECHNICAL SPECIFICATIONS

### 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

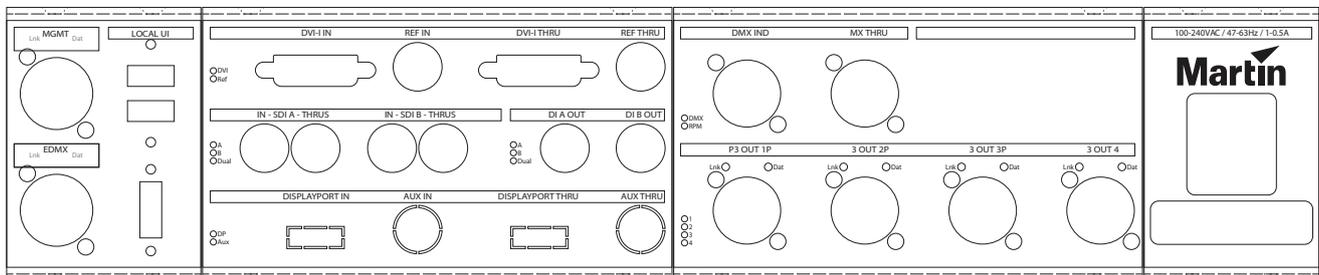
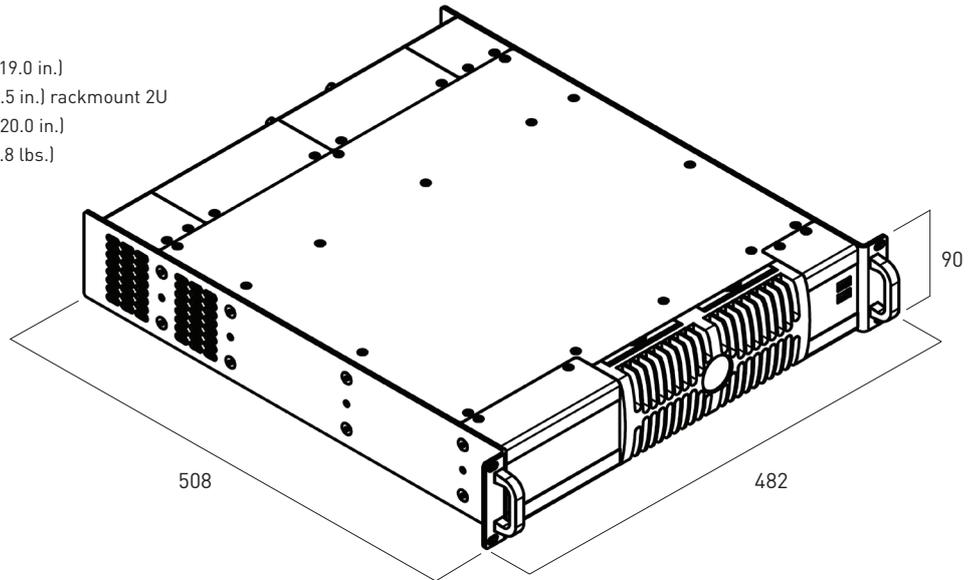
EU safety..... EN 60950-1  
 EU EMC..... EN 55022, EN 55024, EN 61000-3-2,  
 EN 61000-3-3, EN 6100-4-2, EN  
 6100-4-3, EN 6100-4-4, EN 6100-4-5,  
 EN6100-4-6, EN 6100-4-11  
 US safety..... ANSI/UL 60950-1  
 Canadian safety.....CAN/CSA C22.2 No. 60950-1



## 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

©2021 HARMAN Professional. All rights reserved. Martin® is a registered trademark of HARMAN Professional Inc. registered in the United States and/or other countries. Features, specifications, and appearance are subject to change without notice. Rev. 202003

