

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 Creative LED fixtures, LED Video panels and P3-enabled MAC moving heads, the workflow remains simple and integrated. The P3-300 is equipped with a DVI input, a component video input and two SDI input ports (up to 3G). The output capacity of 2,000,000 pixels allows even more products to be driven from a single controller.

KEY MESSAGES

ONE VISUAL CANVAS

P3 brings Martin creative LED Video products and P3 enabled MAC moving heads together into 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.

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, or a mix of control methods, you can achieve uniquely creative looks for each application.

OPTIMAL PERFORMANCE

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

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FEATURES

- Drives up to 2.000.000 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)

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 to 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 32 universes Art-Net	1 universe DMX 32 universes Art-Net	1 universe DMX 32 universes Art-Net	4 universes Art-Net
P3 Output	1 network with up to 100.000 pixels worth of fixtures	1 network with up to 500.000 pixels worth of fixtures	4 networks with up to 2.000.000 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 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 sync

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 color (48 bits per pixel)

System latency, DVI 2 frames

Latency between first and last panel.... None

Image rotation

Scaling (global and mixed pixel pitch)

De-interlacing

Gamma curve selection and adjustment

Real-time panel content remapping

Real-time color temperature and color space control

Real-time preview of video input and mapped canvas

DMX 512 / Art-Net real-time controllable parameters:

Up to 32 universes of Art-Net input*

Global intensity

RGB intensity

Color temperature

X-Y video image position

Video image rotation

Freeze

Blackout

Test pattern selection

Preset recall (incl. video input selection and scaling)

Kinesys K2 / Tait Navigator real-time controllable parameters:

X-Y video image position

Video image rotation

*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

Color..... 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 supplied)

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)

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TECHNICAL SPECIFICATIONS

ELECTRICAL

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

THERMAL

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

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, EN
 6100-4-6, 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.)

