



P3-300 System Controller

The P3-300 System Controller combines the award-winning and intuitive P3 workflow with a brand new high-performance video processing engine. It can control the entire range of Martin LED Video products, ranging from traditional video panels to creative elements such as strips and dots. 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.

Powerful and ergonomic LED Video Controller

Compatible with all Martin LED video products (panels and creative products)

Integration with lighting controls (DMX, Art-NET) and automation systems

GALLERY



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 LED Video products (panels and creative products)
- 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)

TECHNICAL SPECIFICATIONS

Physical

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

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
System latency, SDI/component progressive: 2 frames
System latency, SDI/component interlaced: 3 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 (328.1 ft.) between any 2 devices, extendable with Ethernet switch
Max. number of panels per line: 50, extendable with Ethernet switch

Construction
Housing: Steel and aluminum
Color: Matt 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
DVI/component video in: DVI-I (component via BNC-to-DVI-A adapter cable, not supplied)
DVI/component video thru: DVI-I
SDI video in: 2 x BNC
SDI video thru: 2 x BNC
Genlock in: 1 x BNC
Genlock thru: 1 x BNC
Management network: etherCON socket
EtherDMX / motion network (Art-Net, Kinesys K2/Vector): etherCON socket
DMX in: 5-pin locking XLR
DMX thru: 5-pin locking XLR
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 nominal, 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*: 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, EN 6100-4-6, EN 6100-4-11
US safety: ANSI/UL 60950-1
Canadian safety: CAN/CSA C22.2 No. 60950-1

Included Items

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

Related Items

Martin P3-100™ System Controller: P/N 90721010
Martin P3-200™ System Controller: P/N 90721020
Martin P3-PC™ License on One-Key™ USB stick: P/N 90721030
Martin P3-PC™ License only: P/N 39808028

Ordering Information

Martin P3-300™ System Controller: P/N 90721060

