

HELIOS[®]

LED Processing Platform

Say hello to Megapixel's HELIOS[®] LED Processing Platform, engineered to be world's most advanced and user-friendly LED processor. HELIOS is infrastructure that makes epic displays limitless and simple. All in a single 1RU.

Full 8K+
HDR Video Pipeline

Only 1RU
with Redundant Power

Card Slots for HDMI 2.0,
DP1.4, or 100G Fiber

4 x SFP
12G SDI/ST 2110 Inputs

80Gbps
Fiber Output



8K Kit Configuration Shown

megapixel



HELIOS®

For Studios

Ultra-low
Latency

Camera
Friendly

Dual HDMI / DP
Options

GhostFrame®

Precise Color
Accuracy



megapixel™

HELIOS® For Live Events

Fiber
Distribution

Flexible Seamless
Redundancy

Proactive Analytics for
Flawless Performance

Web-based,
Multi-User UI

Ultra-fast Seam
Correction

EUROVISION
SONG CONTEST
ROTTERDAM 2021

megapixel™

HELIOS® For Fixed Installs

Cloud-monitoring
Capability

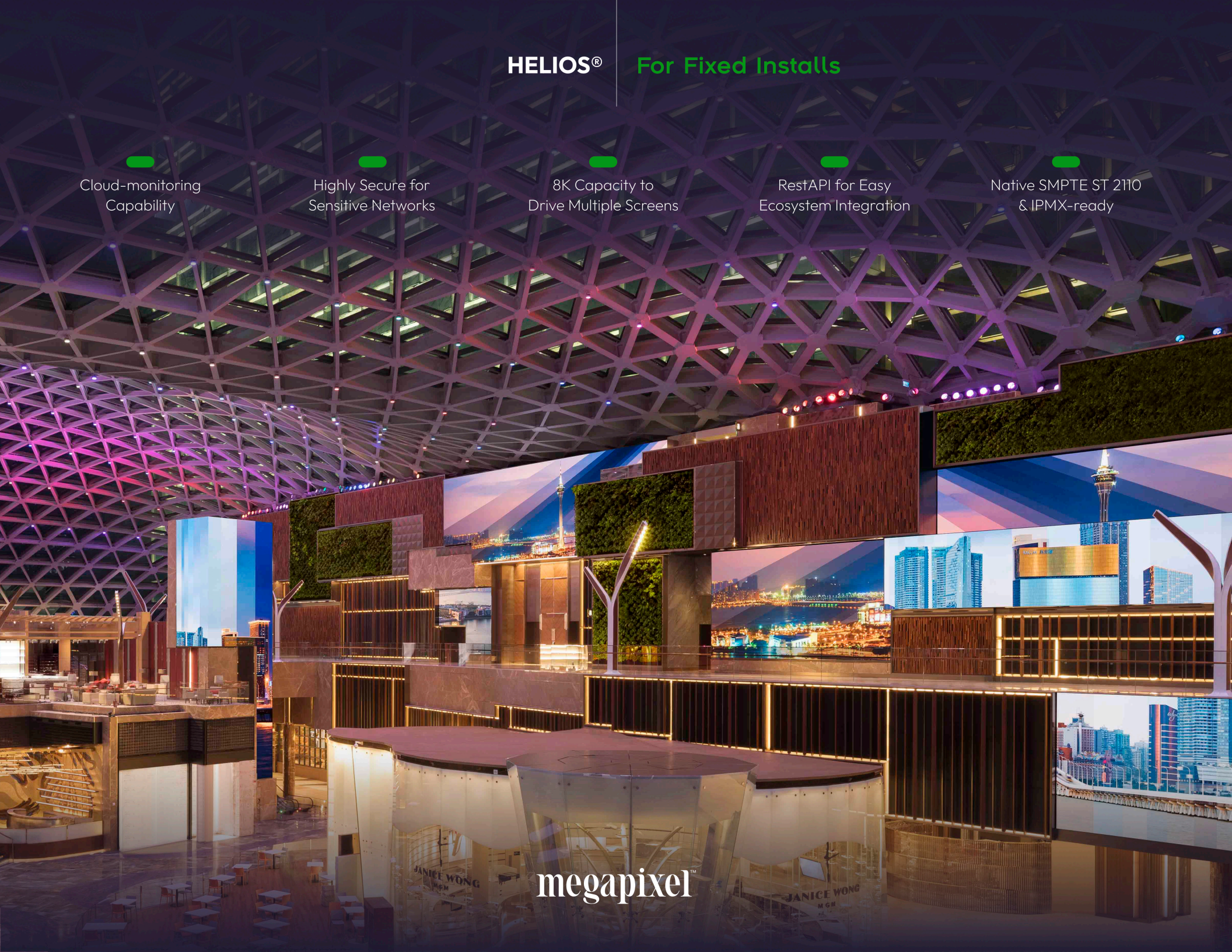
Highly Secure for
Sensitive Networks

8K Capacity to
Drive Multiple Screens

RestAPI for Easy
Ecosystem Integration

Native SMPTE ST 2110
& IPMX-ready

megapixel™

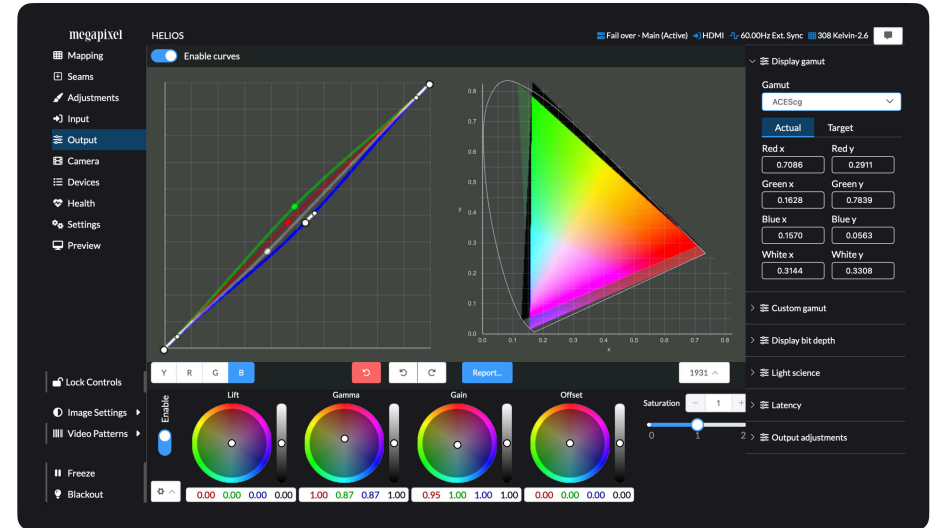


Real-Time Control and Effortless User Experience

HELIOS' easy-to-use LED processing platform, allows real-time multi-user control, without the need for any installed software. It's modern and extensible API allows for custom ecosystem integration.

Superior Video Performance and Color Control

HELIOS delivers superior video performance with 100% color accuracy, pixel perfect detail, impeccable tone mapping, and never-before-seen grayscale performance made possible by its LightScience™ technology.



Real-Time Mapping and Multi-User Control

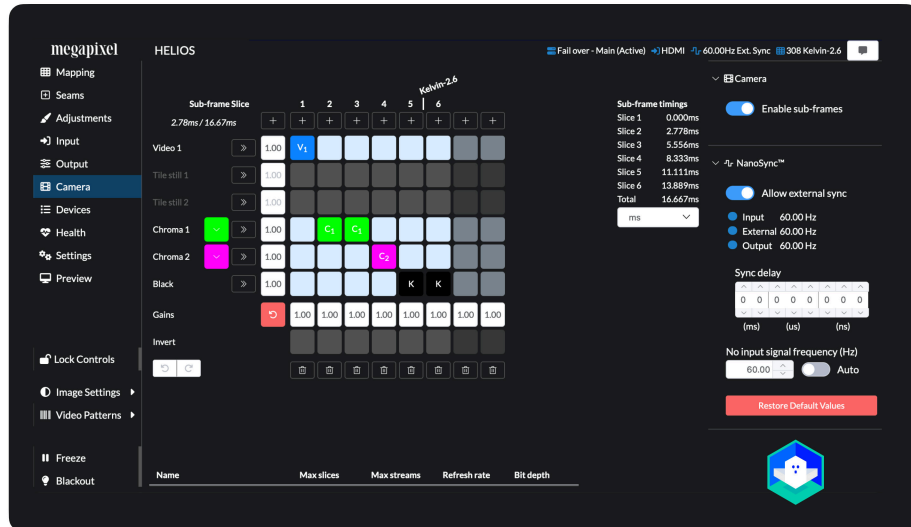
Browser-based platform on Mac, PC, and mobile devices

End-to-end color accuracy workflow

Dynamic, real-time color gamut adjustment

Virtual Production, XR, and Broadcast Ready

HELIOS includes state-of-the-art features specifically designed with virtual production in mind. Camera Mode and GhostFrame® accelerate your workflow with the most advanced in-camera visual effects tools available.



The Industry's First 100Gb and SMPTE ST 2110, IPMX-Ready Processor

HELIOS is first to market with capabilities for both ST 2110 and IPMX-ready with a native 100G QSFP28 input module that gives users the ability to ingest up to 8K60 or 4 x 4K60 streams. Available as a pre-configured kit or an upgrade for existing HELIOS units.



● NanoSync® aligns output to camera capture with nanosecond accuracy

● Ultra Low Latency reduces total system delay to as low as 1 frame

● Massive 100Gb connection

● Natively integrate with future-proof broadcast hardware



8K Kit Configuration Shown

General Specifications

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|--|--|
| AVAILABLE INPUTS | DisplayPort 1.4, HDMI 2.0 12G SDI (up to 4) SMPTE ST 2110 (up to 4x 10Gb or 1 x 100Gb) Stitch together same format inputs as a single input canvas (up to 4 x ST 2110, 4x SDI, 2x DP, or 2x HDMI) |
| RESOLUTIONS | Up to 8K (7680 x 4320 or 8192 x 4320) / 16K x 2K / 32K x 1K |
| FRAME RATES | 23.98, 24, 25, 29.97, 30, 47.96, 48, 50, 59.94, 60, 72, 120*, 144*, 240Hz* *At reduced resolution |
| HDR SUPPORT | PQ and HLG Customizable EOTF parameters and re-mappable mastering levels |
| OUTPUTS | Up to 8 x 10Gb Fiber SFP+ |
| GENLOCK | Analog Tri-level Sync |
| MANAGEMENT / API | Cross-Platform Web Interface with REST API |
| (W x H x D IN MM IN) DIMENSIONS | 1RU 481.5 x 44.2 x 414.5 19 x 1.7 x 16.3 |
| (IN KG LBS) WEIGHT | 5.7 12.6 |
| POWER | 100 - 240V AC, 50Hz/60Hz, 3A Redundant Internal Power Supplies |
| OPERATING CONDITIONS | Indoor 10°C ~ 35°C |

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HELIOS®

LED Processing Platform

Pre-Configured Kits



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HELIOS 8K Extreme IP Broadcast LED Processing Platform

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|--|---|
| <p>PART NUMBER & INPUTS</p> | <p>KIT-0051 1 x 100Gb QSFP SMPTE ST2110 supports 4 x 4K 60p streams or single 8K 60p 4 x 12G-SDI as independent 4K 60p inputs or stitched for 8K 60p</p> |
| <p>RESOLUTION</p> | <p>Up to 8K (7680 x 4320 or 8192 x 4320) Higher frame rates at reduced resolution. Resolution and frame rates dependent on video standard.</p> |
| <p>HDR SUPPORT</p> | <p>PQ and HLG Customizable EOTF parameters and re-mappable mastering levels</p> |
| <p>OUTPUTS</p> | <p>8 x 10Gb Fiber SFP+</p> |
| <p>GENLOCK</p> | <p>Analog Tri-level Sync</p> |
| <p>KIT COMPONENTS</p> | <p>1 x KIT-0050 HELIOS LED Processing Platform w/ 100G SMPTE ST 2110 Input 4 x PCB-0006 12G SDI SFP+ Input (BNC) 8 x MVR-0041 NETGEAR® MSM4214X HELIOS Enabled Switch 8 x PCB-0008 10Gb SFP+ 1270nm TX 1330nm RX 10km 8 x PCB-0028 10Gb SFP+ 1330nm TX 1270nm RX 10km</p> <p>QSFP input module not included</p> |



8K Pre-Configured Kits

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| <p>PART NUMBER & INPUTS</p> | <p>KIT-0055 HELIOS 8K LED Processing Platform w/ HDMI & DP (1 x DisplayPort 1.4, 1 x HDMI 2.0, 4 x 12G SDI) KIT-0056 HELIOS 8K LED Processing Platform w/ Dual DP (2 x DisplayPort 1.4, 4 x 12G SDI) KIT-0057 HELIOS 8K LED Processing Platform w/ Dual HDMI (2 x HDMI 2.0, 4 x 12G SDI)</p> |
| <p>RESOLUTION</p> | <p>Up to 8K (7680 x 4320 or 8192 x 4320) Higher frame rates at reduced resolution. Resolution and frame rates dependent on video standard.</p> |
| <p>HDR SUPPORT</p> | <p>PQ and HLG Customizable EOTF parameters and re-mappable mastering levels</p> |
| <p>OUTPUTS</p> | <p>8 x 10Gb Fiber SFP+</p> |
| <p>GENLOCK</p> | <p>Analog Tri-level Sync</p> |
| <p>KIT COMPONENTS</p> | <p>1 x KIT-0008 HELIOS LED Processing Platform w/ HDMI & DP Input - OR - 1 x KIT-0009 HELIOS LED Processing Platform w/ Dual DP Input - OR - 1 x KIT-0010 HELIOS LED Processing Platform w/ Dual HDMI Input - PLUS - 4 x PCB-0006 12G SDI SFP+ Input (BNC) 8 x MVR-0041 NETGEAR® MSM4214X HELIOS Enabled Switch 8 x PCB-0008 10Gb SFP+ 1270nm TX 1330nm RX 10km 8 x PCB-0028 10Gb SFP+ 1330nm TX 1270nm RX 10km</p> |



4K Pre-Configured Kits

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| <p>PART NUMBER & INPUTS</p> | <p>KIT-0058 HELIOS 4K LED Processing Platform w/ HDMI & DP (1 x DisplayPort 1.4, 1 x HDMI 2.0, 1 x 12G SDI) KIT-0059 HELIOS 4K LED Processing Platform w/ Dual DP (2 x DisplayPort 1.4, 1 x 12G SDI) KIT-0060 HELIOS 4K LED Processing Platform w/ Dual HDMI (2 x HDMI 2.0, 1 x 12G SDI)</p> |
| <p>RESOLUTION</p> | <p>Up to 4K (4096 x 2160) Higher frame rates at reduced resolution. Resolution and frame rates dependent on video standard.</p> |
| <p>HDR SUPPORT</p> | <p>PQ and HLG Customizable EOTF parameters and re-mappable mastering levels</p> |
| <p>OUTPUTS</p> | <p>2 x 10Gb Fiber SFP+</p> |
| <p>GENLOCK</p> | <p>Analog Tri-level Sync</p> |
| <p>KIT COMPONENTS</p> | <p>1 x KIT-0008 HELIOS LED Processing Platform w/ HDMI & DP Input - OR - 1 x KIT-0009 HELIOS LED Processing Platform w/ Dual DP Input - OR - 1 x KIT-0010 HELIOS LED Processing Platform w/ Dual HDMI Input - PLUS - 1 x PCB-0006 12G SDI SFP+ Input (BNC) 2 x MVR-0041 NETGEAR® MSM4214X HELIOS Enabled Switch 2 x PCB-0008 10Gb SFP+ 1270nm TX 1330nm RX 10km 2 x PCB-0028 10Gb SFP+ 1330nm TX 1270nm RX 10km</p> |

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Jr Pre-Configured Kit

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| <p>PART NUMBER & INPUTS</p> | <p>KIT-0011 HELIOS Jr LED Processing Platform w/ HDMI & DP ((1 x DisplayPort 1.4, 1 x HDMI 2.0)</p> <p>Optional Input SFP+: 1 x 12G SDI (not included in kit) * Upgradeable to 4K, 8K, or 8K Extreme IP Broadcast</p> |
| <p>RESOLUTION</p> | <p>Up to 2K (2048 x 1080) Higher frame rates at reduced resolution. Resolution and frame rates dependent on video standard.</p> |
| <p>HDR SUPPORT</p> | <p>PQ and HLG Customizable EOTF parameters and re-mappable mastering levels</p> |
| <p>OUTPUTS</p> | <p>8 x 1G Copper SFP</p> |
| <p>GENLOCK</p> | <p>Analog Tri-level Sync</p> |
| <p>KIT COMPONENTS</p> | <p>1 x KIT-0005 HELIOS LED Processing Platform w/ Jr License, HDMI & DP Input 8 x PCB-0029 1000 Base-T SFP 100m</p> |

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HELIOS®

LED Processing Platform

Custom Configuration Order Guide



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KIT-0008 Configuration Shown

Custom Kit Order Guide

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|---|--|
| <p>SELECT 1 HELIOS CONFIGURATION</p> | <p>KIT-0008 1 x HELIOS LED Processing Platform w/ HDMI & DP Input KIT-0009 1 x HELIOS LED Processing Platform w/ Dual DP Input KIT-0010 1 x HELIOS LED Processing Platform w/ Dual HDMI Input KIT-0050 1 x HELIOS LED Processing Platform w/ 100G SMPTE ST 2110 Input</p> |
| <p>SELECT SWITCH QTY</p> | <p>MVR-0041 NETGEAR® MSM4214X HELIOS Enabled Switch MVR-0050 RS12 Indoor Ruggedized HELIOS Distribution Switch</p> |
| <p>SELECT QTY I/O SFP+</p> | <p>PCB-0006 12G SDI SFP+ Input (BNC) PCB-0008 10Gb SFP+ 1270nm TX 1330nm RX 10km PCB-0028 10Gb SFP+ 1330nm TX 1270nm RX 10km 1 x PCB-0008/PCB-0028 pair required per primary switch, spares can be ordered a la carte PCB-0028 can also be used as 10Gb SMPTE ST 2110 Input</p> |
| <p>OPTIONAL ADD ONS</p> | <p>LIC-0026 HDCP License (only available for KIT-0008 & KIT-0010) MVR-0043 TAA Upgrade for MVR-0041 HELIOS Enabled Switch (required per switch) MVR-0051 RS12 Weatherproof Enclosure GhostFrame® Contact Megapixel Sales for license options Megapixel CLOUD Contact Megapixel Sales for license options</p> |
| <p>PRIOR TO PURCHASE</p> | <p>Contact Megapixel Sales to confirm configuration includes all necessary components.</p> |