

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



megapixel

8K Kit Configuration Shown

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.

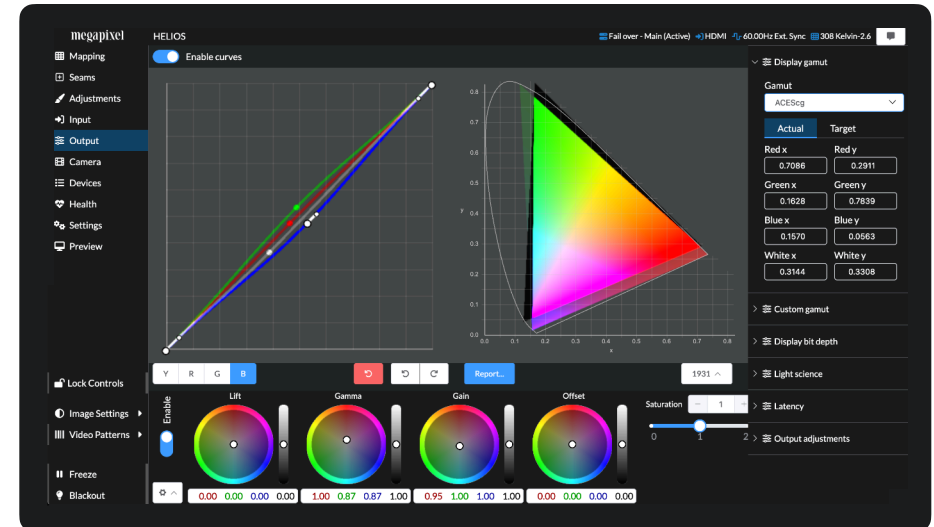


Real-Time Mapping and Multi-User Control

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

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.

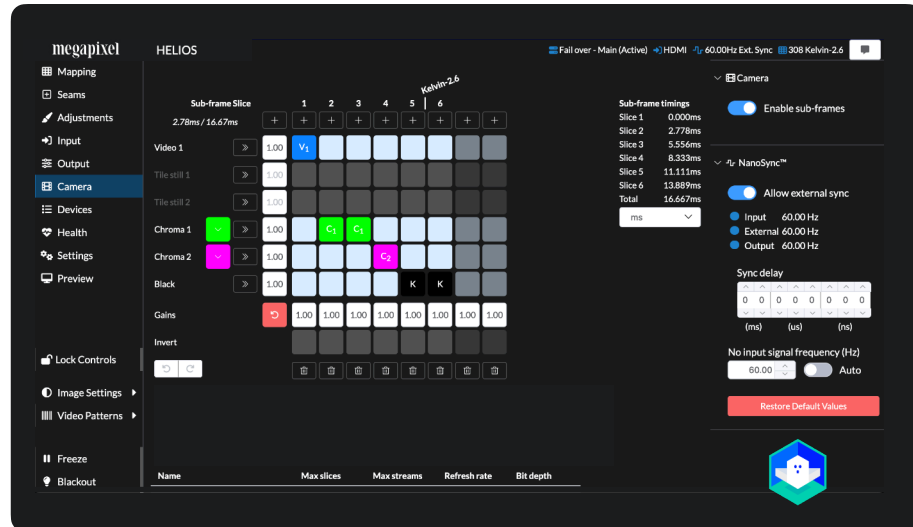


End-to-end color accuracy workflow

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

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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Pre-Configured Kits



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HELIOS 8K Extreme IP Broadcast LED Processing Platform

PART NUMBER & INPUTS	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		
RESOLUTION	Up to 8K (7680 x 4320 or 8192 x 4320) Higher frame rates at reduced resolution. Resolution and frame rates dependent on video standard.		
HDR SUPPORT	PQ and HLG Customizable EOTF parameters and re-mappable mastering levels		
OUTPUTS	8 x 10Gb Fiber SFP+		
GENLOCK	Analog Tri-level Sync		
KIT COMPONENTS	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 QSFP input module not included		



8K Pre-Configured Kits

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



4K Pre-Configured Kits

PART NUMBER & INPUTS	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)
RESOLUTION	Up to 4K (4096 x 2160) Higher frame rates at reduced resolution. Resolution and frame rates dependent on video standard.
HDR SUPPORT	PQ and HLG Customizable EOTF parameters and re-mappable mastering levels
OUTPUTS	2 x 10Gb Fiber SFP+
GENLOCK	Analog Tri-level Sync
KIT COMPONENTS	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



Jr Pre-Configured Kit

PART NUMBER & INPUTS	<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)</p> <p>* Upgradeable to 4K, 8K, or 8K Extreme IP Broadcast</p>
RESOLUTION	<p>Up to 2K (2048 x 1080)</p> <p>Higher frame rates at reduced resolution. Resolution and frame rates dependent on video standard.</p>
HDR SUPPORT	PQ and HLG Customizable EOTF parameters and re-mappable mastering levels
OUTPUTS	8 x 1G Copper SFP
GENLOCK	Analog Tri-level Sync
KIT COMPONENTS	<p>1 x KIT-0005 HELIOS LED Processing Platform w/ Jr License, HDMI & DP Input</p> <p>8 x PCB-0029 1000 Base-T SFP 100m</p>

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Custom Configuration Order Guide



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KIT-0008 Configuration Shown

Custom Kit Order Guide

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