HELIOS®

LED Processing Platform

Your creativity knows no limits with HELIOS®, the world's most advanced and secure LED Processing Platform. Design on an unlimited pixel canvas with resolutions of 8K and beyond, giving you the power and simplicity to bring your boldest ideas to life.

- 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

192.168.10.99 - HELIOS
HDMI   3840x2160p59.94
        YCbCr 4:2:2 rec2020 limited 12bpc
        HDR ST 2084 (PQ) 0.339-1000
Ext Sync: No sync

SFP Outputs (4K/8K DP/HDMI - 10G)
(1) 10GbE   (3) -   (5) -   (7) -
(2) -   (4) -   (6) -   (8) -
1 EC1.5, 64 Kelvin-2.6

Fail over - Main (Active)
MyStackGroup

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M/N: MVR-R002
S/N: 02011 9103 I -0001

LAN   DisplayPort   HDMI   1   3   1   3   5   7   Sync
                                                Out
                              2   4   2   4   6   8

100-240 VAC, 50/60 Hz, 3.8A | 6.3A SB Fuse

8K Kit Configuration Shown

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HELIOS® | For Studios

- Ultra-low Latency
- Camera Friendly
- Dual HDMI / DP Options
- GhostFrame®
- Precise Color Accuracy

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HELIOS® For Live Events

Fiber Distribution

Flexible Seamless Redundancy

Proactive Analytics for Flawless Performance

Web-based, Multi-User UI

Ultra-fast Seam Correction

UNITED BY MUSIC

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HELIOS® | **For Fixed Installs**
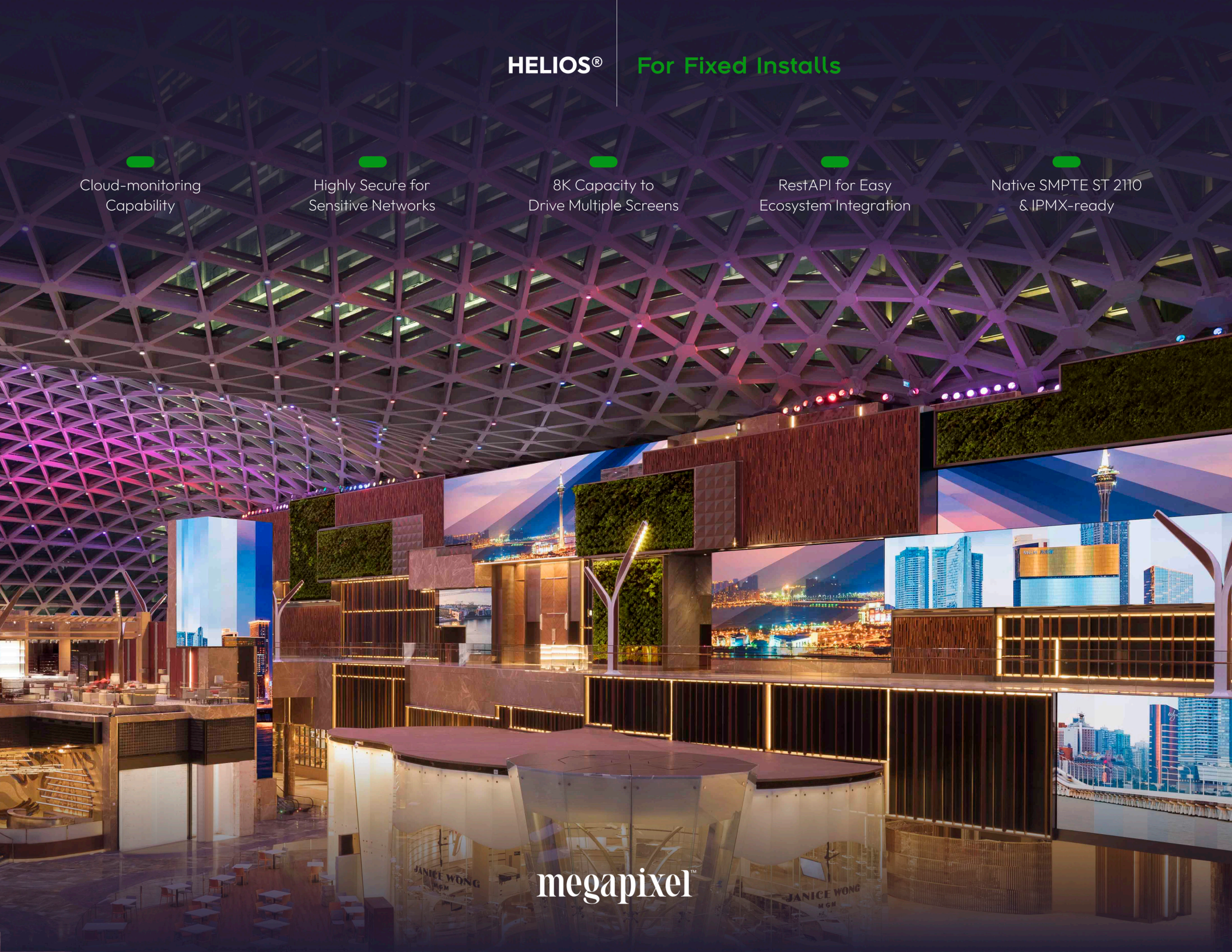
Cloud-monitoring Capability

Highly Secure for Sensitive Networks

8K Capacity to Drive Multiple Screens

RestAPI for Easy Ecosystem Integration
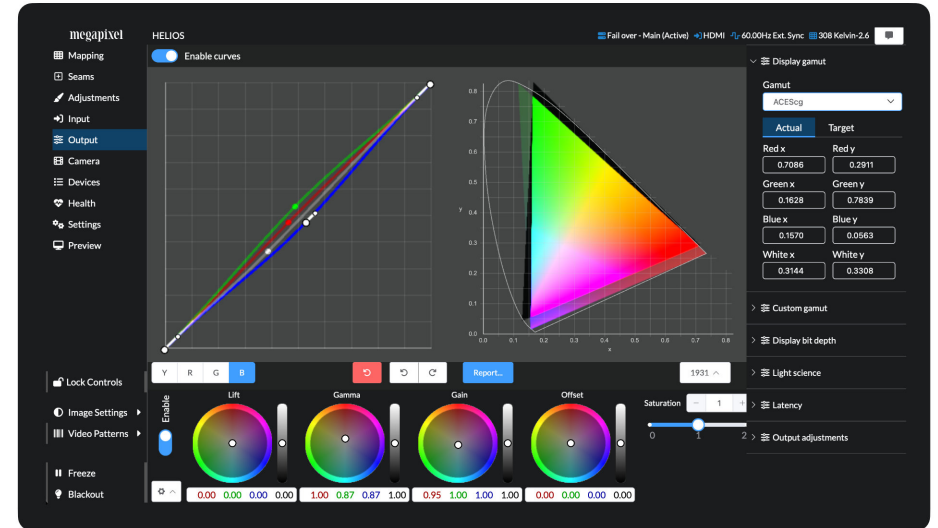
Native SMPTE ST 2110 & IPMX-ready

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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.
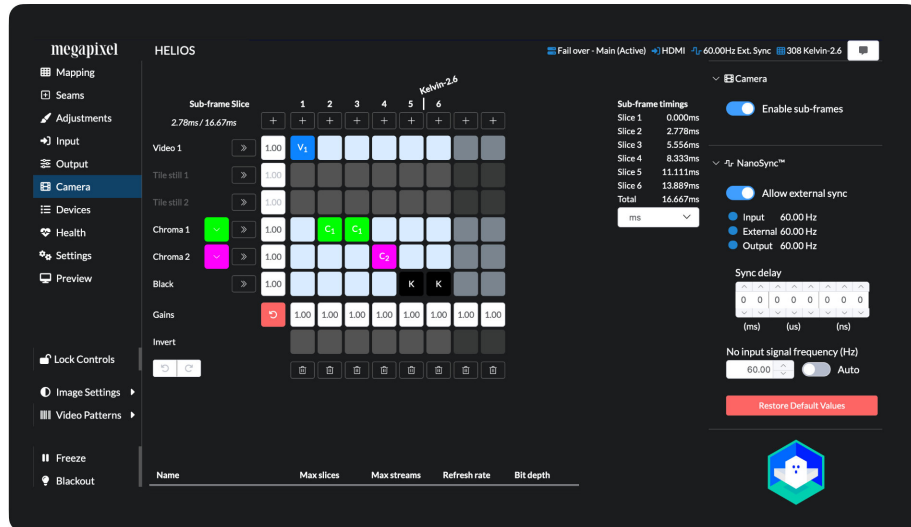

- Real-Time Mapping and Multi-User Control

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

- End-to-end color accuracy workflow

- Dynamic, real-time color gamut adjustment

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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

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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

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

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8K Pre-Configured Kits

PART NUMBER & INPUTS	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)
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-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

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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

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● Jr Pre-Configured Kit

PART NUMBER & INPUTS	KIT-0011 HELIOS Jr LED Processing Platform w/ HDMI & DP ((1 x DisplayPort 1.4, 1 x HDMI 2.0) Optional Input SFP+: 1 x 12G SDI (not included in kit) * Upgradeable to 4K, 8K, or 8K Extreme IP Broadcast
RESOLUTION	Up to 2K (2048 x 1080) 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 1G Copper SFP
GENLOCK	Analog Tri-level Sync
KIT COMPONENTS	1 x KIT-0005 HELIOS LED Processing Platform w/ Jr License, HDMI & DP Input 8 x PCB-0029 1000 Base-T SFP 100m

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Custom Configuration
Order Guide

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KIT-0008 Configuration Shown

Custom Kit Order Guide

SELECT 1 HELIOS CONFIGURATION	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
SELECT SWITCH QTY	MVR-0041 NETGEAR® MSM4214X HELIOS Enabled Switch MVR-0050 RS12 Indoor Ruggedized HELIOS Distribution Switch
SELECT QTY I/O SFP+	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
OPTIONAL ADD ONS	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
PRIOR TO PURCHASE	Contact Megapixel Sales to confirm configuration includes all necessary components.

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